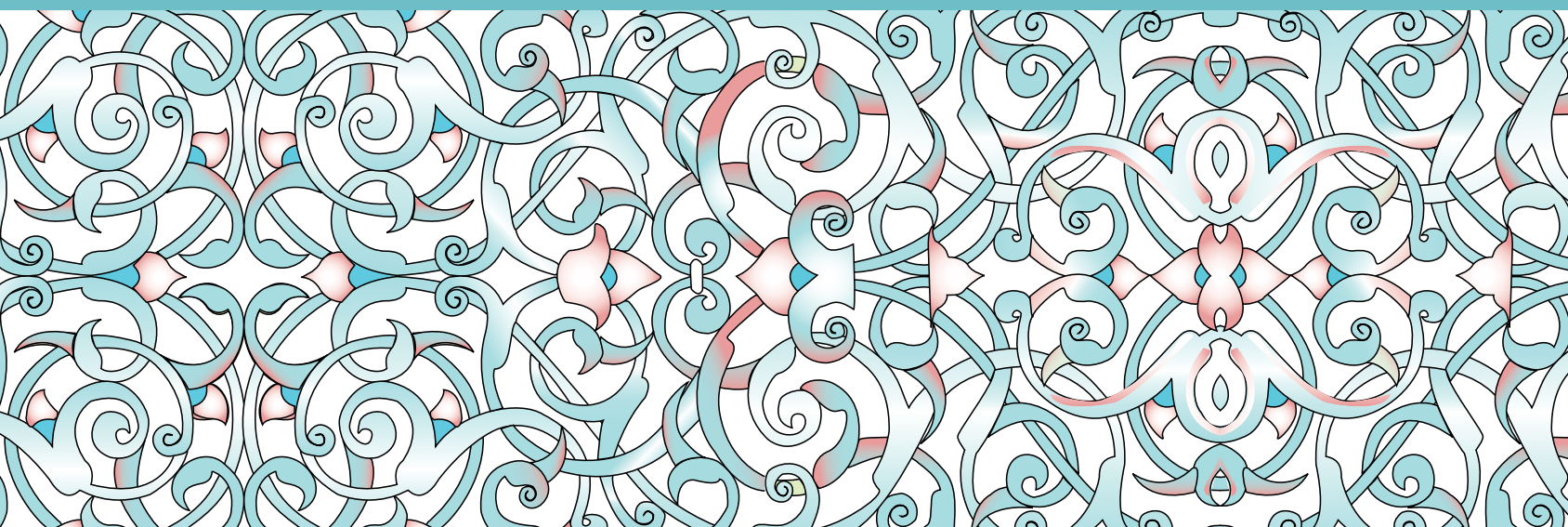


# Egypt



**Demographic and  
Health Survey**

**2008**

# Egypt Demographic and Health Survey 2008

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The 2008 Egypt Demographic and Health Survey (2008 EDHS) was conducted on behalf of the Ministry of Health by El-Zanaty and Associates. The Central Laboratory at the Ministry of Health was responsible for the hepatitis C testing component of the survey. The 2008 EDHS is part of the worldwide MEASURE DHS project which is funded by the United States Agency for International Development (USAID). USAID/Cairo was the main contributor of funding for the survey. Support for the survey was also provided by UNICEF. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID and UNICEF.

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Information about DHS surveys may be obtained from the MEASURE DHS Project, Macro International, 11785 Beltsville Drive, Calverton, MD 20705 USA; Telephone: 301-572-0200, Fax: 301-572-0999, E-mail: reports@macrointernational.com, Internet: <http://www.measuredhs.com>.

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## PREFACE

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Health for all is the main health objective of the Egyptian government. To monitor and evaluate progress toward the achievement of this goal, reliable data are needed. These data come from two primary sources: the health service delivery system (service-based data) and the community (household-based data). The two types of data complement each other in enhancing the information available to monitor progress in the health sector.

Beginning in 1980, a number of household surveys have been carried out in Egypt to obtain data from the community on the current health situation, including a series of Demographic and Health Surveys of which the 2008 EDHS is the most recent. The results of the 2008 EDHS show that several key maternal and child health indicators including antenatal care coverage, medical assistance at delivery, and infant and child mortality have improved. The survey also found that family planning use is rising and fertility is continuing to decline although at a slow pace.

In addition, the 2008 Egypt DHS collected information relating to other health issues that Egypt is facing including knowledge and practices relating to avian influenza and the prevalence of high blood pressure among the adult population. By collecting and testing blood samples for the hepatitis C virus from respondents, the survey also provides the first nation-wide data on the prevalence of infection with the hepatitis C virus among the Egyptian population age 15-59 years.

The findings of the 2008 EDHS together with service-based data are very important for measuring the achievements of the health program to date as well as for planning future interventions to address Egypt's health challenges. Based on the above-mentioned considerations, it is very important that the results of the 2008 EDHS should be widely disseminated at different levels of health management, in the central offices as well as local governments, and to the community at large.

Prof. Dr. Hatem El-Gabaly  
Minister of Health



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The 2008 Egypt Demographic and Health Survey continues the long-standing commitment and efforts in Egypt to obtain data on fertility, contraceptive practice and maternal and child health. The focus on avian influenza, hepatitis C and adult health issues including hypertension reflects the need to obtain data to better address these challenges. Overall, the wealth of demographic and health data that the survey provides will help in charting future directions for the population and health programs.

This important survey could not have been implemented without the active support and dedicated efforts of a large number of institutions and individuals. The support and approval of H.E. Prof. Dr. Hatem El-Gabaly was instrumental in securing the implementation of the EDHS.

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Fatma El-Zanaty  
Technical Director

## SUMMARY OF FINDINGS

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The 2008 Egypt Demographic and Health (2008 EDHS) Survey is the ninth in a series of Demographic and Health Surveys conducted in Egypt. The 2008 EDHS was undertaken to provide estimates for key population indicators including fertility, contraceptive use, infant and child mortality, immunization levels, maternal and child health, and nutrition. To obtain this information, a nationally representative sample of 16,527 ever-married women age 15-49 was interviewed.

The 2008 EDHS also collected information on a number of other health topics from 6,578 women and 5,430 men age 15-59 living in a subsample of one in four of the households surveyed. Among the key topics covered in these interviews were knowledge and awareness of avian influenza, HIV/AIDS and hepatitis C; previous history of hypertension, cardiovascular illness diabetes and liver disease; attitudes and behavior with respect to female circumcision; health care costs; and health insurance coverage.

In addition to the interview results, blood pressure measurements and blood samples for hepatitis C testing were obtained from women and men age 15-59 interviewed in the special health issues component of the survey. Height and weight measures were collected for children under age six and never-married youths and young adults age 10-19 years in all households in the survey. In the subsample of households selected for the health issues survey, these measurements were also obtained for all women and men age 20-59 while in the remaining households in the sample, measurements were recorded only for ever-married women age 20-49.

### FERTILITY BEHAVIOR

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**Levels, Trends and Differentials.** The fertility rate in the 2008 EDHS was 3.0 births per woman, only very slightly lower than the rate

observed in the 2005 EDHS (3.1 births per woman). In rural areas, the fertility rate is 3.2 births, around 20 percent higher than the rate in urban areas (2.7 births). Fertility levels are highest in Upper Egypt (3.4 births) and in the Frontier Governorates (3.3 births) and lowest in the Urban Governorates (2.6 births). Education is strongly associated with lower fertility as is wealth. The fertility rate decreases from a level of 3.4 births among women in the lowest wealth quintile to 2.7 births among women in the highest quintile.

**Age at Marriage.** One of the factors influencing the on-going fertility decline in Egypt has been the steady increase in the age at which women marry. Currently, the median age at first marriage among women age 25-29 is 21.2 years.

One of the most important effects of the increase in the age at first marriage has been a reduction in adolescent fertility. Adolescent childbearing carries higher risks of morbidity and mortality for the mother and child, particularly when the mother is under age 18. At the time of the 2008 EDHS, 10 percent of women age 15-19 had given birth or were pregnant with their first child.

### FAMILY PLANNING USE

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**Family Planning Knowledge and Attitudes.** Widespread awareness of family planning methods has been a crucial element in the successful expansion of family planning use in Egypt. The 2008 EDHS found that all currently married women age 15-49 knew about at least one family planning method, and the average woman was aware of at least 6 methods. Coverage of family planning IEC efforts is widespread. However, only 67 percent of married women had heard or seen a family planning message during the six months prior to the 2008 EDHS, which is substantially lower than the level of exposure to family planning messages reported in 2005 EDHS (91 percent).



Family planning has broad support among Egyptian couples. Most ever-married women age 15-49 (93 percent) consider it appropriate for a couple to begin family planning use after they have their first child. However, very few women who approve of family planning use (2 percent) think that it is appropriate for a newly married couple to use contraception to delay the first pregnancy.

**Levels and Trends.** The Egyptian government's commitment to providing widely accessible family planning services has been a very important factor in the on-going fertility decline. Contraceptive use levels more than doubled in Egypt between 1980 and 2003, from 24 percent to 60 percent. The 2008 EDHS results indicate that the contraceptive use remains stable at 60 percent.

The IUD continues to be by far the most widely used method; 36 percent of married women were relying on the IUD, 12 percent on the pill, and 7 percent on injectables.

**Differentials in Use.** As expected, given the nearly universal disapproval of family planning use before the first birth, less than 1 percent of currently married women who had not yet had a child were using at the time of 2008 EDHS. Use rates increased rapidly with family size; 46 percent of women with one child were using and use rates peaked at 76 percent among women with 3 children.

Use rates exceeded 60 percent in the Urban Governorates, in both urban and rural areas in Lower Egypt, and in urban areas in Upper Egypt. In contrast, 48 percent of currently married women were using in rural Upper Egypt and 52 percent in the Frontier Governorates. Use rates rose from 55 percent of women in the lowest wealth quintile to 65 percent among women in the highest quintile.

**Discontinuation of Use.** A key concern for the family planning program is the rate at which users discontinue use of contraception and their reasons for stopping. Overall, 26 percent of users during the five-year prior to the 2008 EDHS discontinued using a method within 12 months

of starting use. The rate of discontinuation during the first year of use was much higher among pill users (40 percent) and injectable users (37 percent) than among IUD users (12 percent). With regard to the reasons for stopping use, users were more likely to discontinue during the first year of use because they experienced side effects or had health concerns. This pattern is similar to that observed in 2005. Overall, 8 percent of users who discontinued during the first 12 months of use switched to another method within two months of the time they discontinued.

**Provision of Services.** Both government health facilities and private sector providers play an important role in the delivery of family planning services. The 2008 EDHS showed that 60 percent all users of modern methods went to Ministry of Health or other governmental providers for their method. This represents a slight increase from the situation in 2005, when 57 percent of users relied on public sector facilities for their methods. Public sector providers were the principal source for the IUD and injectables at the time of the 2008 EDHS while seven in ten pill users obtained their method from a pharmacy.

The 2008 EDHS results suggest that family planning providers are not always offering women the information necessary to make an informed choice about the method best suited to their contraceptive needs. In particular, around one in three users of modern methods were not provided information about methods other than the one they adopt. Although side effects caused many users to discontinue, providers also were counselling only slightly more than half (56 percent) of the users about potential side effects.

## NEED FOR FAMILY PLANNING

---

**Fertility Preferences.** Many Egyptian women are having more births than they consider ideal. Overall, 5 percent of births in the five years prior to the survey were reported to be mistimed, that is, wanted later, and 9 percent were unwanted. If Egyptian women were to have the number of children they consider ideal, the total fertility rate would fall from 3.0 births to 2.4 births per woman.

**Unmet Need for Family Planning.** Taking into account both their fertility desire at the time of the

survey and their exposure to the risk of pregnancy, 9 percent of currently married women were considered to have an immediate need for family planning. Unmet need is greatest among women in rural Upper Egypt, where 15 percent of women are in need of family planning to achieve their childbearing goals.

## INFANT AND CHILD MORTALITY

---

**Levels and Trends.** At the mortality level prevailing in the five-year period before the 2008 EDHS, one in 36 Egyptian children will die before their fifth birthday, with more than 80 percent of deaths occurring during a child's first birthday. The level of early childhood mortality has fallen substantially since the mid-1960s, when around one in four children died before reaching age five.

**Socioeconomic Differentials.** Mortality is higher in rural than urban areas. The highest level is found in Upper Egypt and the lowest in Lower Egypt. Differentials are especially large across wealth quintiles; children born to women in the lowest wealth quintile are around two and one half times more likely to die by their fifth birthday than children born to mothers in the highest quintile.

**Demographic Differentials.** Mortality risks are especially high for births that occur within too short a period after a prior birth. The under-five mortality rate among children born less than two years after a previous birth was 70 deaths per 1,000 births, more than three times the level among children born four or more years after a previous birth.

During the five years prior to the 2008 EDHS, 18 percent of non-first births occurred within 24 months of a previous birth. Breast-feeding practices, especially the early introduction of supplemental foods, reduce the time a woman is amenorrheic following a birth and, thus, contribute to short birth intervals. Half of Egyptian mothers become exposed to the risk of another pregnancy within four months of giving birth.

## MATERNAL HEALTH

---

**Care during Pregnancy.** The care that a woman receives during pregnancy reduces the risks of illness and death for both the mother and the child. Overall, women saw a medical provider for at least some type of care during pregnancy in the case of 94 percent of all last births that occurred during the five-year period prior to the 2008 EDHS. Women reported that they had antenatal care, i.e., care sought specifically to monitor the pregnancy, in the case of 74 percent of births. They saw a provider for the recommended minimum number of antenatal care visits (four) in the case of 66 percent of births.

Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, an important cause of death among newborns. Around 76 percent of last-born children during the five-year period prior to the 2008 EDHS were fully protected against neonatal tetanus.

**Content of Pregnancy Care.** Women reported that they had been weighed and their blood pressure monitored during pregnancy in the case of more than eight in ten births in which a medical provider was seen for pregnancy care. Urine and blood samples were taken from the mother during antenatal care visits for almost seven in ten births. Mothers were less likely to have been given advice about potential pregnancy complications; they reported being told about the signs of pregnancy complications in about one-third of the births and about where to seek assistance if they experienced problems in the case of 31 percent of the births.

**Delivery Care.** Trained medical personnel assisted at 79 percent of births during the five-year period prior to the 2008 EDHS. Dayas (traditional birth attendants) assisted with most of the remaining deliveries. 72 percent of deliveries took place in a health facility, with delivery care provided somewhat more often at private than governmental facilities. Almost three in ten deliveries were by Caesarean section.

**Postnatal Care.** Care following delivery is very important for both the mother and her child, especially if the birth occurs in the home without medical assistance. In Egypt, mothers reported they were seen for postnatal care following 67 percent of all

deliveries but in only 7 percent of deliveries that were not assisted by a medical provider. Thirty percent of infants born during the five-year period prior to the EDHS were seen for postnatal care. However, a recent campaign to encourage mothers to have a blood sample taken from the child's heel for screening within two weeks following delivery has been effective; 90 percent of last-born children had a blood sample taken from the heel within two weeks following delivery.

**Differentials in Coverage.** A woman's residence and education status are strongly associated with the receipt of maternity care. For example, the percentage of births in which the mother received regular antenatal care was 57 percent among rural births compared to 80 percent among urban births. Coverage of maternity care services is especially low in rural Upper Egypt, where regular antenatal care was received for 49 percent of births and 59 percent of deliveries were medically assisted. Regular antenatal care was received for just over 40 percent of births to women in the lowest wealth quintile compared to nearly 90 percent of births to women in the highest quintile. The proportion of births assisted by a medical provider rose steadily with the wealth quintile from 55 percent in the lowest quintile to 97 percent in the highest quintile.

**Trends in Coverage.** Coverage of maternity care services has improved markedly in Egypt. Coverage of antenatal care services grew from 39 percent in 1995 to 74 percent in 2008. Medically assisted deliveries also increased over the period, from a level of 46 percent in 1995 to 79 percent in 2008. Of some concern is the four-fold increase in Caesarean deliveries, from 7 percent in 1995 to 28 in 2008.

## **CHILD HEALTH**

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**Childhood Vaccination Coverage.** One of the primary means for improving survival during childhood is increasing the proportion of children vaccinated against the major preventable diseases. The 2008 EDHS found that that 92 percent of children 12-23 months were fully immunized against the six major preventable

childhood illnesses (tuberculosis, diphtheria, whooping cough, tetanus, polio and measles). In addition, 96 percent of young children also had the recommended three doses of the hepatitis vaccine.

**Prevalence and Treatment of Childhood Illnesses.** The 2008 EDHS provided data on the prevalence and treatment of two common childhood illnesses, diarrhea and acute respiratory illness. Nine percent of children under five were reported to have had diarrhea in the two weeks preceding the survey. Medical advice was sought in treating somewhat more than half (56 percent) of these cases. Use of ORS packets (28 percent) or a homemade solution of sugar, salt and water (3 percent) to combat the dehydration was common. Altogether 38 percent of children ill with diarrhea were treated with some form of ORT or increased fluids.

A child was considered to have symptoms of an acute respiratory infection if he/she had a cough accompanied by short, rapid breathing that the mother described as related to a chest problem. During the two weeks preceding the survey, 8 percent of children had ARI symptoms. A provider was consulted about the illness in the case of 79 percent of children with these symptoms, and mothers reported that antibiotics were given to 58 percent of the children.

## **NUTRITION INDICATORS FOR CHILDREN AND WOMEN**

---

**Infant Feeding Practices.** Breastfeeding is nearly universal in Egypt, and the average length of time that a child is breastfed is relatively long (17.9 months). However, breastfeeding practices for very young children are not optimal. According to the 2008 EDHS results, 47 percent of infants received prelacteal feeds (i.e., they are given some type of liquid until the mother's breast milk flows freely).

Exclusive breastfeeding (i.e., without any food or liquid) is recommended during the first six months of life because it provides all the necessary nutrients and avoids exposure to disease agents. However, in Egypt, only a minority of babies are exclusively breastfed throughout the first 6 months of life. By age 4-5 months, around seven in ten babies born during the five-year period before the EDHS were receiving some form of supplementa-

tion, with somewhat more than three in ten given complementary foods.

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age six months and increasing the amount of foods and frequency of feeding as the child gets older while maintaining frequent breastfeeding. Feeding practices for only around 40 percent of children age 6-23 months met the minimum standard with respect to all three of these feeding practices.

**Nutritional Status of Children.** Using growth standards generated by WHO from data collected in a Multicentre Growth Reference Study, the 2008 EDHS found that 29 percent of Egyptian children age 0-4 years showed evidence of chronic malnutrition or stunting, and 7 percent are acutely malnourished. A comparison of the results with the 2005 EDHS suggested that children's nutritional status deteriorated during the period between the two surveys. For example, the stunting level increased by 26 percent between the surveys.

**Nutritional Status of Youth and Young Adults.** Five percent of never-married males age 10-19 and six percent of never-married females age 10-19 in Egypt were classified as overweight, i.e., their BMI values at or above the 95th percentile on age and sex-specific BMI growth charts. The BMI values for an additional 15 percent of males and 19 percent of females fell between the 85th and 95th percentiles, indicating that they were at risk of becoming overweight. At the other end of the scale, 5 percent of males and 3 percent of females were considered to be underweight, i.e., their BMI values fall below the 5th percentile on the growth charts.

**Nutritional Status of Women and Men Age 15-59.** One indicator of the nutritional status of adults is the body mass index. Excluding those who were pregnant or less than two months postpartum, the mean BMI of all women age 15-59 was 28.9. The majority of women had a BMI of 25.0 or higher and are considered overweight (28 percent) or obese (40 percent).

Two percent of women had a BMI below 18.5, the level indicating chronic energy deficiency.

The mean BMI among men age 15-59 was 25.8, which was below that observed for nonpregnant women. The majority of men had a BMI of 25.0 or higher and were considered overweight (34 percent) or obese (18 percent). Three percent of men had a BMI below 18.5.

**Vitamin A Supplementation.** Vitamin A is a micronutrient found in very small quantities in some foods. It is considered essential for normal sight, growth, and development. Information collected in the survey on the diet of young children and their mothers indicates that 36 percent of children under age 3 and slightly more than half of their mothers are consuming foods rich in vitamin A on a daily basis.

Egypt has a program of vitamin A supplementation for new mothers and for babies. Mothers reported receiving a vitamin A capsule postpartum in the case of nearly 57 percent of all births in the five-year period before the survey. Around 12 percent of children age 6-59 months had received a vitamin A capsule.

**Iodization of Salt.** Iodine is another important micronutrient. Egypt has adopted a program of fortifying salt with iodine to prevent iodine deficiency. Overall, 79 percent of households were found to be using salt containing some iodine.

## **FEMALE CIRCUMCISION**

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**Level and Trends.** Female circumcision (also referred to as female genital cutting) has been a tradition in Egypt since the Pharonic period. The 2008 EDHS obtained information from all women interviewed in the survey on their circumcision status and from ever-married women on the circumcision status of their daughters age 17 and younger. Overall, 91 percent of all women age 15-49 have been circumcised. However, there is evidence that the practice may be declining. For example, while exceeding 80 percent, female circumcision rates among women under age 25 are lower than rates in the 25-49 age groups, where 94-96 percent of women have been circumcised. The likelihood that a woman is circumcised also declines with the woman's education level and is markedly lower among women in the highest

wealth quintile than in other quintiles (78 percent versus 92 percent or higher).

The data collected on daughter's circumcision status also indicates that the practice will continue to decline over the next 15-20 years, from the current level of around 80 percent among girls approaching their 18<sup>th</sup> birthday to around 45 percent.

**Attitudes and Beliefs.** Attitudes about circumcision also appear to be changing. The proportion of ever-married women age 15-49 women who believe that circumcision should continue has dropped from 82 percent in 1995 to 63 percent at the time of the 2008 EDHS.

## KNOWLEDGE AND PREVALENCE OF HEPATITIS C

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**Awareness of hepatitis C and modes of transmission.** Eighty percent of women and 85 percent of men age 15-59 were aware of hepatitis C. Men were somewhat more knowledgeable than women about modes in which hepatitis C virus can be transmitted. Seventy-nine percent of men knowing about hepatitis C were able to name at least one way in which the virus can be transmitted compared to 70 percent of women.

**Prevalence of hepatitis C infection.** In addition to responding to questions about hepatitis C, women and men age 15-59 years living in the subsample of households selected for the health issues survey were asked to provide blood samples for testing for the hepatitis C virus. Overall, 15 percent of women and men age 15-59 had antibodies to the HCV virus in their blood, indicating that they had been exposed to the virus at some point. Ten percent were found to have an active infection.

Men (12 percent) were more likely to be infected than women (8 percent) and, the levels of infection increased sharply with age among both women and men. In the 55-59 year age group, 30 percent of men and 24 percent of women showed evidence of active infection. HCV infection was higher among rural than urban residents (12 percent compared with 7 percent).

Active infection rates were particularly high among individuals who reported receipt of at least one injection to treat schistosomiasis (20 percent) compared to those who had not received such an injection (9 percent). These results support the assumption that improper infection control procedures during schistosomiasis treatment campaigns played an important role in the spread of hepatitis C infection in Egypt.

## HIGH BLOOD PRESSURE

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Blood pressure measurements were taken at three points during the special health issues interviews with women and men age 15-59. The results of these measurements were combined with information obtained from respondents on whether they were taking medication to lower blood pressure to assess the level of hypertension among the EDHS respondents. Overall, 13 percent of women and 11 percent of men were considered to be hypertensive. Hypertension levels for both women and men increased steadily with age. For example, women age 55-59 were more than three times as likely as women age 35-39 to be hypertensive (46 percent and 13 percent, respectively).

As expected, nutritional status also was strongly related to the rate of hypertension for both women and men. Women classified as obese were around four times as likely (21 percent) as women with BMI within the normal range (5 percent) to be hypertensive, while women classified as overweight were twice as likely (11 percent and 5 percent, respectively). Among men, 18 percent of those who were obese and 13 percent of those who were overweight were hypertensive compared to only 6 percent of men whose BMI fell within the normal range.

## AVIAN INFLUENZA

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**Household ownership of poultry and birds.** The 2008 EDHS found that around one in six households owned or kept poultry. This is about half the level reported in the 1988 Egypt DHS (33 percent). To reduce the potential for transmission of the avian influenza virus from birds to humans, it is recommended that poultry or birds be located away from the household living area; however, around one in

five households were keeping poultry or birds within the family living area.

**Awareness of modes of transmission and prevention of avian influenza.** Virtually all women and men age 15-59 (99 percent) had heard about avian influenza. Seven in 10 respondents who had heard of avian influenza were knowledgeable about the symptoms of the disease to watch for in poultry or birds. With regard to symptoms of avian influenza in humans, around six in ten respondents who had heard of avian influenza were able to name at least one symptom of avian influenza in humans. Most respondents who were aware that humans could contract the avian influenza virus were able to name at least one way in which a person might contract the virus and at least one way in which the risk of infection might be reduced. However, only 8 percent were able to name at least four ways in which the virus might be transmitted to a person and only 21 percent were able to name four ways to limit the chance of infection.

## **OTHER HEALTH ISSUES**

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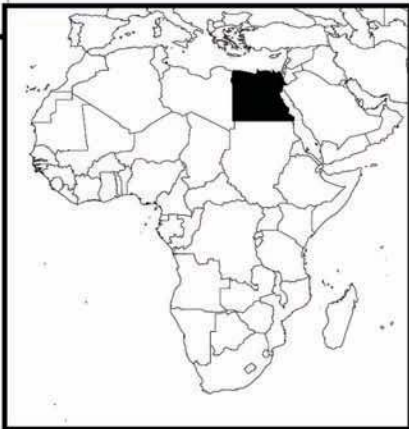
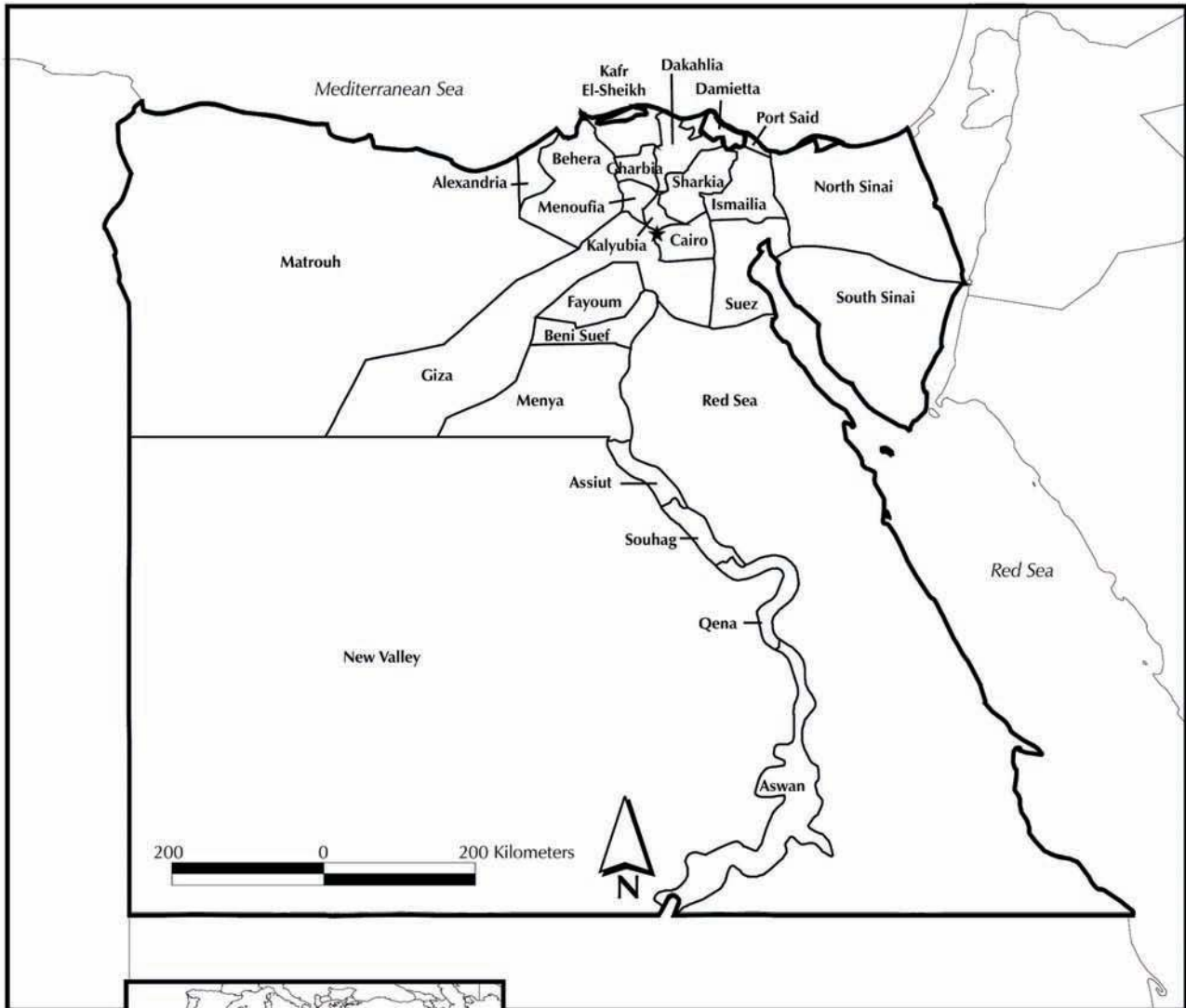
**Awareness of HIV/AIDS.** Seventy-three percent of women and 87 percent of men age 15-59 have heard about HIV/AIDS. Although many women and men had a basic knowledge of AIDS, the proportions aware of ways in which the risk of infection can be reduced were generally low. Overall, only 7 percent of women and 18 percent of men were classified as having comprehensive correct knowledge about AIDS.

**Injection safety.** Failure to follow safe injection practices increases the risk of transmission of blood-borne pathogens. The EDHS collected information from all respondents to assess the coverage of recent IEC efforts designed to increase population awareness about safe injection practices. Twenty-seven percent of women and 19 percent of men age 15-59 reported that they had received information about what people should do to be sure that injections are given safely in the six months prior to the survey.

The EDHS also collected information on the prevalence of injections and on the degree of compliance with injection safety procedures. Sixteen percent of respondents had had at least one injection during the six-month period prior to the survey. Among those who had had an injection, 70 percent had received at least one medical injection, i.e., an injection administered by a doctor, nurse, pharmacist or other health care provider. Eighty-four percent of those respondents who had had a medical injection said that the medical provider had taken the syringe and needle from a new unopened package.

**Smoking.** Less than 1 percent of women age 15-59 themselves currently smoke or use any form of tobacco compared to 44 percent of men in the same age group. Thirty-nine percent of women and 37 percent of men had received information about the adverse health effects of second-hand smoke in the six-month period prior to the 2008 EDHS.

**Health insurance coverage.** Slightly more than one in four respondents age 15-59 years (28 percent) had health insurance. Around six in ten respondents who were insured had coverage from the General Health Insurance Authority, 27 percent had coverage through their own or another family member's employer, 10 percent (primarily among those under age 25) had insurance through a university, and 4 percent through a syndicate.



**Map of Egypt**

## INTRODUCTION

### 1.1 GEOGRAPHY

Egypt is located in the northeast corner of the African continent. It is bordered by Libya to the west, Sudan to the south, the Red Sea to the east, and the Mediterranean Sea to the north.

Egypt has the largest, most densely settled population among the Arab countries. The total area of the country covers approximately one million square kilometres. However, much of the land is desert, and only 6 percent of Egypt's area is inhabited. Recently, the Egyptian government adopted a policy of land reclamation and fostering of new settlements in the desert. Despite these efforts, the majority of Egyptians live either in the Nile Delta located in the north of the country or in the narrow Nile Valley south of Cairo.

At the time the fieldwork for the 2008 Egypt Demographic and Health Survey began (EDHS), Egypt was administratively divided into 26 governorates (see map) and Luxor City.<sup>1</sup> The four Urban Governorates (Cairo, Alexandria, Port Said, and Suez) have no rural population. Each of the other 22 governorates is subdivided into urban and rural areas. Nine of these governorates are located in the Nile Delta (Lower Egypt), eight are located in the Nile Valley (Upper Egypt), and the remaining five Frontier Governorates are located on the eastern and western boundaries of Egypt.

### 1.2 POPULATION SIZE AND STRUCTURE

The latest population census in Egypt was carried out in November 2006. According to the results, Egypt has a de facto population of 72.2 million. This number excludes the roughly 3.9 million Egyptians who are living abroad. By the beginning of 2008, it is estimated that population had increased by around one and half million to reach 74.3 million (CAPMAS 2008).

Table 1.1 presents the trend between 1990 and 2007 in the size of Egypt's population and in the distribution of the population by urban-rural residence. The table shows that the total Egypt's population increased during this period by more than 40 percent. Despite the sizeable population expansion, the percentage of the Egyptian population living in areas classified as urban remained virtually unchanged during the period.

### 1.3 RECENT RATE OF NATURAL INCREASE

The rate of natural increase represents the difference between the level of births and deaths in a population. It indicates how fast a population will grow, taking into

Table 1.1 Population of Egypt, 1990-2007

Total population in Egypt and the percentage living in urban and rural areas, 1990-2007

Years	Total population (millions) <sup>1</sup>	Place of residence	
		Urban	Rural
1990	51,911	43.4	56.6
1991	52,985	43.2	56.8
1992	54,082	43.2	56.8
1993	55,201	43.1	56.9
1994	56,344	43.1	56.9
1995	57,642	42.9	57.1
1996	58,835	42.6	57.4
1997	60,053	42.6	57.4
1998	61,296	42.6	57.4
1999	62,565	42.5	57.5
2000	63,860	42.5	57.5
2001	65,182	43.1	56.9
2002	66,531	42.9	57.1
2003	67,908	42.9	57.1
2004	69,313	42.8	57.2
2005	70,748	42.7	57.3
2006	72,212	42.5	57.5
2007	73,608	43.1	56.9

<sup>1</sup> Figures exclude Egyptians living abroad  
Source: CAPMAS 2008, Table 2.2

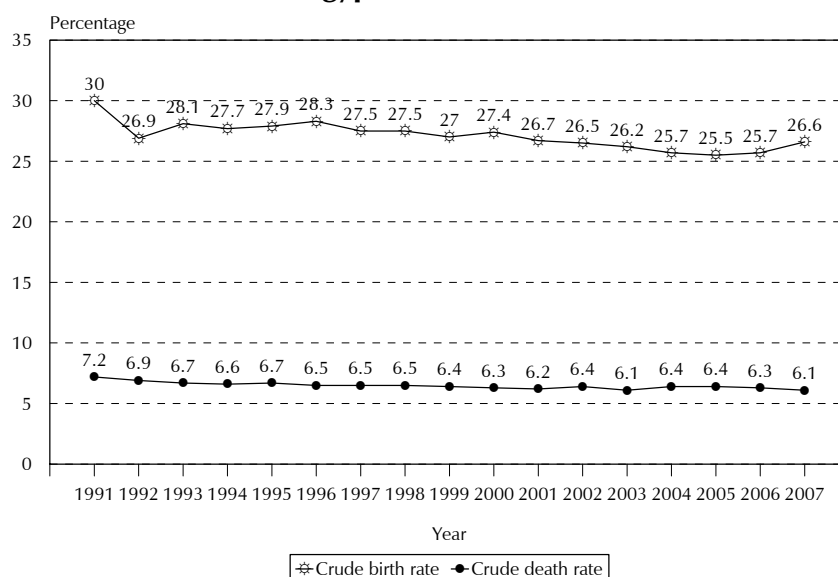
<sup>1</sup>In May 2008, two new governorates were created: 6<sup>th</sup> of October and Helwan. These governorates were created from Cairo and Giza governorates.



account these two natural events. Figure 1.1 shows that the rate of natural increase has been declining in Egypt since 1991.<sup>2</sup>

Most of the decline in the rate of natural increase has been the result of changes in fertility behaviour. The crude birth rate (CBR) dropped from a level of 39 per thousand population in 1986 (not shown) to 28 per thousand by 1994. As Figure 1.1 shows, the decline levelled off in the mid-1990s, with the CBR fluctuating around a level of 27 births per thousand until the end of the decade. At that point, the CBR resumed declining although slowly reaching a level of 25.7 in 2006 and then rising slightly to 26.6 in 2007. The crude death rate (CDR), already at a comparably low level in 1990, also declined further in the period although the pace of decline was slow and erratic with a level of 6.1 in 2007.

**Figure 1.1 Trend in Natural Increase Rates  
Egypt 1991-2007**



Note: Rates are per thousand population.  
Source: CAPMAS 2008

The declines in mortality Egypt has experienced have had a demonstrable effect on increasing the life expectancy at birth of the Egyptian population. Life expectancy at birth represents the average number of years a child born in a specific year may be expected to live during his/her lifetime. As Table 1.2 shows, life expectancy increased by 20.2 years for females and 17.9 years for males between 1960 and 2007.

Year	Male	Female
1960	51.6	53.8
1976	52.7	57.7
1986	60.5	63.5
1991	62.8	66.4
1996	65.1	69.0
1999	66.3	70.5
2001	67.1	71.5
2002	67.5	71.9
2003	67.9	72.3
2004	68.4	72.8
2005	68.8	73.5
2006	69.2	73.6
2007	69.5	74.0

Source: CAPMAS, 2008, Table 3.7

<sup>2</sup> A third factor influencing population growth is migration, which is not taken into account in Figure 1.1.

## **1.4 2008 EGYPT DEMOGRAPHIC AND HEALTH SURVEY**

### **1.4.1 Organization and Objectives**

The Egypt Demographic and Health Survey (2008 EDHS) is the latest in a series of a nationally representative population and health surveys conducted in Egypt.<sup>3</sup> The 2008 EDHS was conducted under the auspices of the Ministry of Health (MOH) and implemented by El-Zanaty & Associates. Technical support for the 2008 EDHS was provided by Macro International through the MEASURE DHS project. MEASURE DHS is sponsored by the U.S. Agency for International Development (USAID) to assist countries worldwide in conducting surveys to obtain information on key population and health indicators.

USAID/Cairo was the main financial contributor to the survey. The United Nations Children's Fund (UNICEF) also supported the survey financially.

The 2008 EDHS was undertaken to provide estimates for key population indicators including fertility, contraceptive use, infant and child mortality, immunization levels, coverage of antenatal and delivery care, maternal and child health, and nutrition. In addition, the survey was designed to provide information on a number of health topics and on the prevalence of hepatitis C and high blood pressure among the population age 15-59 years. The survey results are intended to assist policymakers and planners in assessing the current health and population programs and in designing new strategies for improving reproductive health and health services in Egypt.

### **1.4.2 Timetable**

The 2008 EDHS was executed in four stages. The first stage involved preparatory activities, including designing the sample and updating the frame. At the same time, the survey questionnaires were developed, pretested, and finalized. The preparatory stage was initiated in August 2007, and all of the activities were completed by end of January 2008. The second stage, which took place from February through June 2008, involved training of field staff and interviewing eligible households and individual respondents. The third stage encompassed all of the data processing activities necessary to produce a clean data file, including editing, coding, entering and verifying the data as well as checking it for consistency. This stage started soon after the beginning of the fieldwork and lasted until early August 2008. The focus of the final stage of the survey was analyzing the data and preparing the report. This phase began in October 2008 with the publication of the preliminary report, which presented the main findings from the survey.

The activities involved in each of the stages are described in more detail below. The survey timetable is presented in Table 1.3.

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<sup>3</sup> The 2008 EDHS is the sixth full-scale Demographic and Health Survey to be implemented in Egypt; the earlier surveys were conducted in 1988, 1992, 1995, 2000, and 2005. Three additional interim DHS surveys were carried out in 1997 and 1998 and 2003. Other national-level surveys for which results are shown in this report include the 1980 Egyptian Fertility Survey (EFS), the 1984 Egypt Contraceptive Prevalence Survey (ECPS), and the 1991 Egypt Maternal and Child Health Survey (EMCHS).

Table 1.3 Survey timetable, 2008 Egypt DHS

Activity	Starting date	Duration
Updating the sample frame	August 2007	1 month
Mapping	September 2007	7 weeks
Quick-count operation	October 2007	3 months
Recruitment and training of listing staff	January 2008	1 week
Listing and re-listing	January 2008	5 weeks
Sample selection	February 2008	4 weeks
Questionnaire design	November 2007	2 months
Preparation of training materials	January 2008	6 weeks
Pretest	January 2008	3 weeks
Finalization of questionnaires	January 2008	2 month
Training of data collection staff	February 2008	5 weeks
Printing survey materials	March 2008	2 weeks
Fieldwork	March 2008	10 weeks
Reinterviews	May 2008	1 month
Office editing and coding	March 2008	3 months
Data entry	April 2008	3 months
Computer editing	April 2008	3 months
Preliminary report	September 2008	1 month
Detailed tabulations	October 2008	2 months
Final report preparation	October 2008	6 months

### 1.4.3 Sample Design

The primary objective of the sample design for the 2008 EDHS was to provide estimates of key population and health indicators including fertility and child mortality rates for the country as a whole and for six major administrative regions ( Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt, and the Frontier Governorates). In the Urban Governorates, Lower Egypt, and Upper Egypt, the 2008 EDHS design allowed for governorate-level estimates of most of the key variables, with the exception of the fertility and mortality rates. In the Frontier Governorates, the sample size was not sufficiently large to provide separate estimates for the individual governorates. To meet the survey objectives, the number of households selected in the 2008 EDHS sample from each governorate was not proportional to the size of the population in the governorate. As a result, the 2008 EDHS sample is not self-weighting at the national level, and weights have to be applied to the data to obtain the national-level estimates presented in this report.

A more detailed description of the 2008 EDHS sample design is included in Appendix B. Sampling errors for selected variables are presented in Appendix C.

The sample for the 2008 EDHS was selected in three stages. The first stage included selecting the primary sampling units. The units of selection were shiakhastowns in urban areas and villages in rural areas. A list of these units which was based on the 2006 census was obtained from CAPMAS, and this list was used in selecting the primary sampling units (PSUs). Prior to the selection of the PSUs, the frame

was further reviewed to identify any administrative changes that had occurred after the 2006 Census. The updating process included both office work and field visits for a period of around 2 months. After it was completed, urban and rural units were separately stratified by geographical location in a serpentine order from the northwest corner to the southeast corner within each governorate. During this process, shiakhnas or villages with a population less than 2,500 were grouped with contiguous shiakhnas or villages (usually within the same kism or marquez) to form units with a population of at least 5,000. After the frame was ordered, a total of 610 primary sampling units (275 shiakhnas/towns and 335 villages) were selected.

The second stage of selection involved several steps. First, detailed maps of the PSUs chosen during the first stage were obtained and divided into parts of roughly equal population size (about 5,000). In shiakhnas/towns or villages with a population of 100,000 or more, three parts were selected, two parts were selected from PSU's with population 20,000 or more (and less than 100,000). In the remaining smaller shiakhnas/towns or villages, only one part was selected. Overall, a total of 998 parts were selected from the shiakhnas/towns and villages in the 2008 EDHS sample.

A quick count was then carried out to provide an estimate of the number of households in each part. This information was needed to divide each part into standard segments of about 200 households. A group of 48 experienced field workers participated in the quick count operation. They were organized into 15 teams, each consisting of 1 supervisor, 1 cartographer and 1 counter. A one-week training course conducted prior to the quick count included both classroom sessions and two field practices in a shiakhna/town and a village not covered in the survey. The quick-count operation took place between the end of October 2007 and end of December 2007.

As a quality control measure, the quick count was repeated in 10 percent of the parts. If the difference between the results of the first and second quick count was less than 2 percent, then the first count was accepted. No major discrepancies were found between the two counts in most of the areas for which the count was repeated.

After the quick count, a total of 1,267 segments were chosen from the parts in each shiakhna/ town and village in the 2008 EDHS sample (i.e., two segments were selected from 561 PSUs and three segments from 48 PSUs and one segment from one PSU). A household listing operation was then implemented in each of the selected segments. To conduct this operation, 14 supervisors and 28 listers were organized into 14 teams. Generally, each listing team consisted of a supervisor and two listers. A one-week training course for the listing staff was held at the beginning of January 2008. The training involved classroom lectures and two days of field practice in three urban and rural locations not covered in the survey. The listing operation took place during a six-week period, beginning immediately after the training.

About 10 percent of the segments were relisted. Two criteria were used to select segments for relisting. First, segments were relisted when the number of households in the listing differed markedly from that expected according to the quick count information. Second, a number of segments were randomly selected to be relisted as an additional quality control test. Overall, the discrepancies found in comparisons of the listings were not major.

The third stage involved selecting the household sample. Using the household listing for each segment, a systematic random sample of households was selected for the 2008 EDHS sample. All ever-married women 15-49 who were present in the sampled households on the night before the survey team visited were eligible for the main DHS interview. In addition, in a subsample of one-quarter of the households in each segment, all women and men age 15-59 who were present in the household on the night before the interview were eligible for the health issues interviews and the hepatitis C testing.

#### 1.4.4 Questionnaire Development

Three questionnaires were used in the 2008 EDHS: a household questionnaire, an ever-married woman questionnaire, and a health issues questionnaire. The household and ever-married woman's questionnaires were based on the questionnaires that had been used in earlier EDHS surveys and on model survey instruments developed in the MEASURE DHS program. The majority of the content of the health issues questionnaire was developed especially for the 2008 EDHS although some sections (e.g., the questions on female circumcision and HIV/AIDS knowledge and attitudes) were also based on questionnaires used in earlier EDHS surveys or were drawn from the model instruments from the MEASURE DHS program. The questionnaires were developed in English and translated into Arabic.

The first part of the household questionnaire was used to enumerate all usual members and visitors to the selected households and to collect information on the age, sex, marital status, educational attainment, and relationship to the household head of each household member or visitor. This information provided basic demographic data for Egyptian households. It was also used to identify the women who were eligible for the individual interview (i.e., ever-married women 15-49) as well as individuals eligible for the special health issues interviews and the hepatitis testing subsample. In the second part of the household questionnaire, there were questions relating to the socioeconomic status of the household including questions on housing characteristics (e.g., the number of rooms, the flooring material, the source of water and the type of toilet facilities) and on ownership of a variety of consumer goods. A special module was included in the household questionnaire on ownership of poultry and birds. In addition, height and weight measurements of respondents, youth, and children under age six were taken during the survey and recorded in the household questionnaire. The informed consent for the hepatitis C testing obtained from eligible respondents age 15-59 was also recorded in the household questionnaire.

The woman's questionnaire was administered to all ever-married women age 15-49 who were usual residents or who were present in the household during the night before the interviewer's visit. It obtained information on the following topics:

- Respondent's background
- Reproduction
- Contraceptive knowledge and use
- Fertility preferences and attitudes about family planning
- Pregnancy and breastfeeding
- Immunization and child health
- Husband's background and women's work
- Female circumcision
- Health care access and other health concerns
- Mother and child nutrition.

The woman's questionnaire included a monthly calendar, which was used to record the history of the respondent's marriage status, fertility, contraceptive use including the source where the method was obtained, and the reason for discontinuation for each segment of use status during each month of an approximately five-year period starting from January 2003.

The health issues questionnaire collected information on the following topics:

- Background characteristics of men age 15-59, never-married women age 15-59, and ever-married women age 50-59
- Female circumcision
- Health insurance coverage and health care cost
- Knowledge and attitudes about HIV/AIDS
- Medical procedures and safe injections
- Hepatitis C
- Hypertension, heart disease and diabetes
- Avian influenza
- Smoking

Blood pressure readings were also obtained for respondents at three points during the health issues interview.

#### **1.4.5 Biomarker Data Collection**

As noted earlier, the 2008 EDHS included the collection of three types of biomarkers: (1) anthropometric (height and weight) measurements; (2) venous blood samples for hepatitis C testing; and (3) blood pressure measurements. Specially trained teams of three individuals including at least one physician and one laboratory technician were responsible for obtaining the anthropometric measurements for all eligible respondents and the venous blood samples. The EDHS survey interviewers were trained to collect the blood pressure measurements.

*Anthropometric measurements.* Height and weight measures were collected in all households included in the EDHS survey for children under age six and never-married youth and young adults age 10-19 years. In the subsample of households selected for the health issues survey, the measurements were also obtained for all women and men age 20-59 while in the remaining households in the sample, measurements were recorded only for ever-married women age 20-49. Additional information on the procedures used and the results of the anthropometric measurement is provided in Chapter 14 of this report.

*Hepatitis C testing.* The hepatitis C testing component of the EDHS involved the collection of venous blood samples for testing in the Central Laboratory from all individuals age 15-59 years living in the subsample of households selected for the health issues survey. A full description of the protocol for the hepatitis C testing component of the 2008 EDHS and the results of the testing is included in Chapter 18.

*Blood pressure measurements.* In the 2008 EDHS, blood pressure measurements were taken for all of the women and men age 15-59 with whom the the special health issues interviews were conducted. Chapter 17 includes a detailed description of the equipment and procedures used in obtaining the blood pressure measurements from respondents.

#### **1.4.6 Pretest**

A pretest was conducted during the preparation for the 2008 EDHS. After a two-week training course, the household and individual questionnaires were pretested in January 2008 in a small number of households. Three supervisors, three field editors, and 12 interviewers participated in the first pretest. The pretest was conducted in three governorates: Cairo, Gharbia ( Lower Egypt), and Fayoum (Upper Egypt). A sample of 275 households was selected: 92 households in each governorate. The data collection took

about four days and a total of 268 household and 261 individual interviews were completed during the pretest. Hepatitis C blood testing was also carried during the pretest.

The questionnaires for the 2008 EDHS were finalized after the pretest. Both comments from interviewers and tabulations of the pretest results were reviewed during the process of finalizing the questionnaires.

English versions of the final Arabic language questionnaires are included in Appendix F.

#### **1.4.7 Data Collection Activities**

*Staff recruitment.* To recruit interviewers and field editors, a list was obtained from the Ministry of Social Solidarity (MOSS) of female personnel who were working to fulfill the one-year period of governmental public service that is mandatory for university graduates. All candidates nominated by MOSS for the field staff positions were interviewed, and only those who were qualified were accepted into the training program.

All candidates for the interviewer and field editor positions were recent university graduates. Another basic qualification was a willingness to work in any of the governorates covered in the survey. With a few exceptions, interviewers who had previous experience in surveys were not accepted into the training program. This decision was made to reduce any bias that might result from previous survey experience and to ensure that all trainees had a similar background. However, previous survey experience was a basic qualification for the candidates for the positions of supervisor.

The Hepatitis C testing teams were composed of physicians, laboratory technician, and nurses. Some candidates for the hepatitis C testing teams were assigned by the MOH, and others were recruited from among newly graduated physicians and private laboratories.

*Training materials.* A variety of materials were developed for use in training personnel involved in the fieldwork. A lengthy interviewer's manual, including general guidelines for conducting an interview as well as specific instructions for asking each of the questions in the EDHS questionnaires, was prepared and given to all field staff. In addition, a chart for converting months from the Islamic calendar to the Gregorian calendar was designed for the 60 months before the 2008 EDHS and distributed to all field staff along with a calendar of well-known worldwide or local events. Other training materials, including special manuals describing the duties of the team supervisor and the rules for field editing, were prepared.

Instructions for anthropometric data collection were included in a manual for the staff trained to collect height and weight data. Special manuals covering the procedures to be followed in the hepatitis C blood testing and the blood pressure measurement were also prepared.

*Training for supervisors and interviewers.* A special training program for supervisors was conducted during a one-day period prior to the main fieldwork training. This training focused specifically on the supervisor's duties, but it also covered the 2008 EDHS questionnaires in order to give supervisors a basic understanding of the content of the survey prior to the main training program.

Training for interviewers for the 2008 EDHS data collection began on the 9<sup>th</sup> of February 2008. Fourteen supervisors, 87 interviewers, and 52 Health Personnel for Hepatitis C-testing and the staff responsible for the anthropometric data collection staff (14 doctors, 28 technicians, and 10 nurses ) participated in the training program. The five-week training program, which was held in Cairo, included the following:

- Lectures related to basic interview techniques and to specific survey topics (e.g., fertility and family planning, maternal and child health, and female circumcision)
- Sessions on how to fill out the questionnaire, using visual aids
- Training on blood pressure measurement
- Role playing and mock interviews
- Five days of field practice in areas not covered in the survey
- Four quizzes.

Trainees who failed to show interest in the survey, who did not attend the training program on a regular basis, or who failed the first two quizzes were terminated immediately.

Before the fourth field practice, a list was prepared of the 20 trainees who had performed best during both the classroom and field practices. Following the fourth field practice, 14 of these trainees were chosen to be field editors. A special training session was held for the field editors after their selection. By the end of the training course, 69 of the 87 candidates originally recruited for interviewer training had been selected to work as interviewers or field editors in the EDHS fieldwork.

*Training for staff responsible for the anthropometric measurements and hepatitis C testing.* All health personnel (total 52) attended the training for anthropometric data collection and hepatitis C testing. The training was held in parallel to the main training for around four weeks. The supervisors attended most of the morning sessions to be aware of all procedures of Hepatitis C testing. The training included both classroom lectures and practice measurement and venous blood drawn procedure, and practice in households. At the end of the program, the 42 most-qualified trainees (27 males and 15 females) were selected for the anthropometric data collection and Hepatitis C testing.

#### **1.4.8 Fieldwork**

Fieldwork for the 2008 EDHS began on March 15<sup>th</sup>, 2008 and was completed in late May 2008. The field staff was divided into 14 teams; each team had 1 supervisor, 1 field editor, 4 interviewers (one male), and 3 health staff members assigned to height and weight measurement and Hepatitis C testing (one at least has to be female). During the fieldwork, the 14 field teams worked in separate governorates; the number of governorates assigned to an individual team varied from two to three, according to the sample size in the governorates. The teams were closely supervised throughout the fieldwork by a fieldwork coordinator, two assistant fieldwork coordinators, and other senior staff. Due to the fact that the blood samples had to be drawn and transferred to the central lab in Cairo, thirteen teams were assigned to work first in Upper Egypt governorates in order to complete the data collection before the weather became excessively hot.

As soon as the main data collection was completed in the first group of governorates, a random sample of up to 10 percent of the households was selected for reinterview as a quality control measure. Shorter versions of the 2008 EDHS questionnaires were prepared and used for the reinterviews. The visits to PSUs to conduct reinterviews also afforded an opportunity to make callbacks to complete interviews with households or individuals who were not available at the time of the original visit by the 2008 EDHS interviewers. Household or individual questionnaires in which there were significant errors that could not be corrected in the office were also assigned for callbacks. Special teams were organized to handle callbacks and reinterviews. During this phase of the survey, interviewers were not allowed to work in the governorate in which they had worked in the initial fieldwork. Callbacks and reinterviews began in late May 2008 and took about one month to complete.



### 1.4.9 Data Processing Activities

*Office editing.* Staff from the central office were responsible for collecting questionnaires from the teams as soon as interviewing in a cluster was completed. Office editors reviewed questionnaires for consistency and completeness, and a few questions (e.g., occupation) were coded in the office prior to data entry. To provide feedback for the field teams, the office editors were instructed to report any problems detected while editing the questionnaires, which were reviewed by the senior staff. If serious errors were found in one or more questionnaires from a cluster, the supervisor of the team working in that cluster was notified and advised of the steps to be taken to avoid these problems in the future.

*Machine entry and editing.* Machine entry and editing began while interviewing teams were still in the field. The data from the questionnaires were entered and edited on microcomputers using the Census and Survey Processing System (CSPro), a software package for entering, editing, tabulating, and disseminating data from censuses and surveys. In addition the transmittal forms for Hepatitis C individuals as well as the blood sample sheet including the bar code were entered by one person.

Special computer programs were also set up to facilitate the tracking of the results of the testing of the blood samples collected during the survey at the Central Health Laboratory. The bar codes attached to the samples in the field were used for logging in and identifying the samples throughout the processing, which took place at three separate locations within the Central Laboratory. The bar code also served as the means to link the laboratory test results and the survey data file.

Twelve data entry personnel used twelve microcomputers to process the 2008 EDHS survey data. During the machine entry, 100 percent of each segment was re-entered for verification. The data processing staff completed the entry and editing of data by mid July 2008.

## 1.5 SURVEY COVERAGE

Table 1.4 summarizes the outcome of the fieldwork for the 2008 EDHS by place of residence. The table shows that, during the main fieldwork and callback phases of the survey, out of 19,739 households selected for the 2008 EDHS 19,147 households were found, and 18,968 households were successfully interviewed which represents a response rate of 99.1 percent.

As noted above, for the ever-married woman interviews, an eligible respondent was defined as an ever-married woman age 15-49 who was present in the household on the night before the interview. A total of 16,571 eligible ever-married women were identified in the households in the 2008 EDHS sample. Of these women, 16,527 were successfully interviewed. The ever-married women response rate was 99.7 percent.

A total of 4,953 households were selected for the health issues subsample. Of these, 4,757 were found and 4,662 interviewed. The household response rate in the health issues subsample was only slightly lower than the response rate in the entire EDHS sample (98 percent).

Women and men were eligible for the health issues interview if they were age 15-59 years (regardless of marital status) and were present in the household on the night before the interview. A total of 12,780 individuals (6,702 women and 6,078 men) who met these criteria were identified in the subsample of households selected for the special health issues interviews, of which 12,008 were successfully interviewed. Taking into account both eligible women and men, the response rate for the health issues was 94 percent. As expected, the response rate among women (98 percent) was higher than the rate among men (89 percent), with the principal reason being the fact that men were more likely to be working and, thus, not as easy to contact for interview as women.

Table 1.4 Sample results

Percent distribution of households and individuals by the result of the main DHS survey and the special health issues survey interviews and response rates, according to residence, Egypt 2008

Result	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
<b>Main Survey</b>											
<b>Households (HH)</b>											
Sampled	9,395	10,344	3,627	7,578	2,401	5,177	7,500	2,614	4,886	1,034	19,739
Found	9,002	10,145	3,484	7,352	2,287	5,065	7,340	2,524	4,816	971	19,147
Interviewed	8,852	10,116	3,391	7,303	2,256	5,047	7,310	2,504	4,806	964	18,968
HH response rate	98.3	99.7	97.3	99.3	98.6	99.6	99.6	99.2	99.8	99.3	99.1
<b>Ever-married women age 15-49 (EMW)</b>											
Identified	6,699	9,872	2,421	6,522	1,742	4,780	6,703	1,927	4,776	925	16,571
Interviewed	6,677	9,850	2,419	6,515	1,738	4,777	6,682	1,920	4,762	911	16,527
EMW response rate	99.7	99.8	99.9	99.9	99.8	99.9	99.7	99.6	99.7	98.5	99.7
<b>Health Issues (HI) Subsample</b>											
<b>Households (HI-HH)</b>											
Sampled	2,357	2,596	916	1,897	597	1,300	1,880	655	1,225	260	4,953
Found	2,224	2,533	864	1,812	554	1,258	1,832	625	1,207	249	4,757
Interviewed	2,141	2,521	813	1,787	538	1,249	1,819	615	1,204	243	4,662
HI-HH response rate	96.3	99.5	94.1	98.6	97.1	99.3	99.3	98.4	99.8	97.6	98.0
<b>All women age 15-59 (HI-W)</b>											
Identified	2,827	3,875	1,079	2,486	668	1,818	2,749	829	1,920	388	6,702
Interviewed	2,747	3,831	1,043	2,460	657	1,803	2,705	809	1,896	370	6,578
HI-W response rate	97.2	98.9	96.7	99.0	98.4	99.2	98.4	97.6	98.8	95.4	98.1
<b>All men age 15-59 (HI-M)</b>											
Identified	2,660	3,418	979	2,259	608	1,651	2,433	795	1,638	407	6,078
Interviewed	2,319	3,111	826	2,072	546	1,526	2,186	709	1,477	346	5,430
HI-M response rate	87.2	91.0	84.4	91.7	89.8	92.4	89.8	89.2	90.2	85.0	89.3
<b>Total age 15-59 (HI-T)</b>											
Identified	5,487	7,293	2,058	4,745	1,276	3,469	5,182	1,624	3,558	795	12,780
Interviewed	5,066	6,942	1,869	4,532	1,203	3,329	4,891	1,518	3,373	716	12,008
HI-T response rate	92.3	95.2	90.8	95.5	94.3	96.0	94.4	93.5	94.8	90.1	94.0



## CHARACTERISTICS OF HOUSEHOLDS

The objective of this chapter is to provide a demographic and socioeconomic profile of the 2008 EDHS household sample. Information is presented on the age, sex, and education of the household population, as well as on housing facilities and household possessions. The profile of the households provided in this chapter will help in understanding the results of the 2008 EDHS in the following chapters. In addition, it may provide useful input for social and economic development planning.

### 2.1 CHARACTERISTICS OF THE HOUSEHOLD POPULATION

The questionnaire for the 2008 EDHS included two questions distinguishing between the de jure population (persons who usually live in selected household) and the de facto population (persons who spent the night before the interview in the household). The differences between these populations are small. Therefore, since past surveys and censuses have generally been based on de facto populations, the tabulations of the EDHS household data presented in this chapter are based on the de facto definition, unless otherwise stated.

#### 2.1.1 Age and Sex Composition

Table 2.1 presents the percent distribution of the de facto population by age, according to urban-rural residence and sex. The table describes the demographic context in which behaviors examined later in the report occur.

Table 2.1 Household population by age, sex, and residence

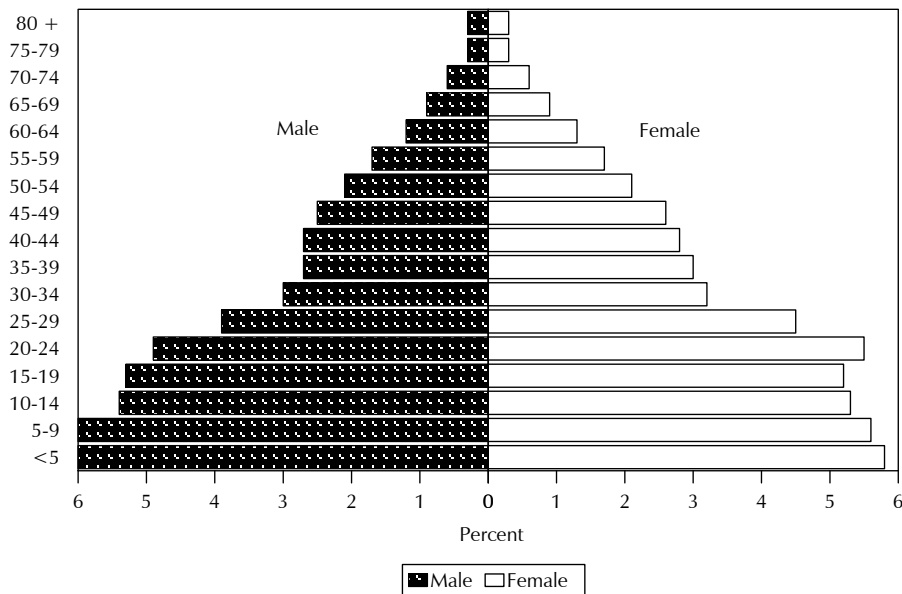
Percent distribution of the de facto household population by five-year age groups, according to sex and urban-rural residence, Egypt 2008

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	10.3	9.9	10.1	13.5	12.5	13.0	12.1	11.4	11.7
5-9	10.9	9.8	10.4	13.0	12.0	12.5	12.1	11.1	11.6
10-14	9.7	9.7	9.7	11.9	10.9	11.4	10.9	10.4	10.7
15-19	10.2	9.7	10.0	11.1	10.8	11.0	10.7	10.3	10.5
20-24	10.4	10.6	10.5	9.5	10.9	10.2	9.9	10.8	10.4
25-29	8.4	9.0	8.7	7.6	9.0	8.3	8.0	9.0	8.5
30-34	6.1	6.7	6.4	6.1	6.2	6.1	6.1	6.4	6.3
35-39	5.7	6.4	6.0	5.3	5.7	5.5	5.5	6.0	5.7
40-44	5.7	6.1	5.9	5.1	5.2	5.2	5.4	5.6	5.5
45-49	5.8	5.5	5.7	4.4	4.7	4.5	5.0	5.0	5.0
50-54	5.0	5.2	5.1	3.5	3.2	3.3	4.2	4.1	4.1
55-59	4.0	3.7	3.9	3.1	3.0	3.1	3.5	3.3	3.4
60-64	3.1	3.1	3.1	2.0	2.1	2.0	2.4	2.5	2.5
65-69	2.1	2.1	2.1	1.6	1.4	1.5	1.8	1.7	1.7
70-74	1.2	1.2	1.2	1.1	1.1	1.1	1.2	1.2	1.2
75-79	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.6
80 +	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6
Don't know/missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	18,618	18,935	37,553	24,245	25,070	49,314	42,863	44,005	86,868

The population spending the night before the interview in the households selected for the survey included 86,868 individuals, of which 49 percent were males and 51 percent females. The age structure of the de facto household population reflects the effects of past demographic trends in Egypt, particularly high fertility. The majority of the household population (55 percent) was less than 25 years old, and 34 percent were less than 15 years old. The proportion under age 15 was greater in the rural population (37 percent) than in the urban population (30 percent). This difference is an outcome of lower fertility over the past several decades in urban areas compared with rural areas.

The population pyramid shown in Figure 2.1 was constructed using the sex and age distribution of the 2008 EDHS household population. The pyramid has a wide base. This pattern is typical of countries that have experienced relatively high fertility in the recent past.

**Figure 2.1 Population Pyramid of Egypt**



EDHS 2008

Table 2.2 presents a comparison of the distribution of the household population by broad age groups for the six EDHS surveys carried out between 1988 and 2008. The dependency ratio, defined as the ratio of the non-productive population (persons under age 15 and age 65 and over) to the population age 15-64, is calculated based on these figures. The ratio was 62 at the time of the 2008 EDHS, a level around 20 points lower than that observed in 1988. This decline in the dependency ratio represents a substantial lessening in the burden placed on persons in the productive ages to support older and younger household members.

Table 2.2 Trends in population distribution by age, 1988-2008

Percent distribution of the de facto population by age and dependency ratio, Egypt 1988-2008

Age group	1988 EDHS	1992 EDHS	1995 EDHS	2000 EDHS	2005 EDHS	2008 EDHS
Less than 15	41.2	41.7	40.0	37.3	34.2	34.0
15-64	55.0	54.6	56.3	59.1	61.7	61.9
65+	3.8	3.7	3.7	3.6	4.1	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median age	na	18.8	19.3	20.3	21.7	22.5
Dependency ratio	81.8	83.2	77.6	69.2	62.1	61.5

na = not available

Source: El-Zanaty and Way, 2006, Table 2.2

## 2.1.2 Household Composition

Table 2.3 presents the distribution of households in the 2008 EDHS sample by sex of the head of the household and by the number of *de jure* household members. These characteristics are important because they are often associated with socioeconomic differences between households. For example, female-headed households frequently are poorer than households headed by males. In addition, the size and composition of the household affects the allocation of financial and other resources among household members, which in turn influences the overall well-being of these individuals. Household size is also associated with crowding in the dwelling, which can lead to unfavorable health conditions.

Table 2.3 Household composition by residence

Percent distribution of households by sex of head of household and by household size, according to residence, Egypt 2008

Characteristic	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
<b>Household headship</b>											
Male	84.9	88.0	84.0	87.4	85.7	88.2	86.9	85.5	87.7	93.0	86.6
Female	15.1	12.0	16.0	12.6	14.3	11.8	13.1	14.5	12.3	7.0	13.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number of usual members</b>											
0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0
1	7.4	3.7	8.7	4.5	6.5	3.7	4.6	6.0	3.8	6.0	5.5
2	13.5	10.2	14.2	11.7	13.4	11.0	10.3	12.5	9.0	12.3	11.8
3	16.4	12.3	17.2	14.7	15.7	14.2	11.9	16.2	9.4	11.1	14.3
4	23.2	18.4	23.7	22.6	25.2	21.5	16.3	20.6	13.6	16.1	20.7
5	21.0	18.9	20.5	21.9	23.0	21.4	17.0	19.9	15.2	17.9	19.9
6	10.3	14.6	8.8	13.0	10.5	14.0	14.3	12.5	15.4	14.7	12.5
7	4.8	8.7	4.4	6.0	4.0	6.9	9.6	6.4	11.5	8.1	6.9
8	1.7	4.7	1.5	2.1	1.1	2.5	6.1	2.7	8.2	3.7	3.3
9+	1.5	8.5	1.0	3.5	0.5	4.8	9.9	3.2	13.9	10.0	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	9,159	9,809	4,182	8,348	2,466	5,881	6,204	2,338	3,865	235	18,968
Mean size	4.1	5.1	3.9	4.5	4.0	4.7	5.3	4.4	5.8	5.1	4.6

Note: Table is based on de jure members, i.e., usual residents.

Most EDHS households were headed by males; the head was female in only 13 percent of the households surveyed. There were differences in the proportions of households headed by females across residential categories. Sixteen percent of households in the Urban Governorates had a female head compared with 12 percent of the households in rural areas of Lower and Upper Egypt. The Frontier Governorates had the lowest proportion of female-headed households (7 percent).

The average EDHS household had 4.6 persons per household. Slightly less than one-third of the households (32 percent) had three or fewer members, while 15 percent of the households had seven or more members. In general, rural households were larger than urban households. For example, only 8 percent of urban households had seven or more members, compared with 22 percent of rural households. Household size varied from an average of 3.9 persons in the Urban Governorates to 5.8 persons in rural Upper Egypt.

## **2.2 EDUCATION OF THE HOUSEHOLD POPULATION**

The educational level of household members is among the most important characteristics of the household because it is associated with many phenomena including reproductive behavior, use of contraception, and the health of children. Primary education in Egypt starts at age 6 and consisted of six years of schooling.<sup>1</sup> A further three-year period, known as the preparatory stage, is considered basic education and is compulsory. The secondary stage, which includes another three years of schooling, is not compulsory.

During the household interviews, questions were included on the highest level of schooling completed for all household members age six and older and on recent school attendance for household members age 6-24 years. The information collected on the educational attainment of all household members is presented in Tables 2.4.1 and 2.4.2.

A comparison of Tables 2.4.1 and 2.4.2 highlights the gap in educational attainment between males and females. Overall, 85 percent of males in the 2008 EDHS households had ever attended school, compared with 72 percent of females. The median number of years of schooling for men was 6.7, which is almost 2 years higher than the median for women (4.9 years).

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<sup>1</sup>Between 1989 and 2004, primary education was five years.

Table 2.4.1 Educational attainment of male household population by age and residence

Percent distribution of the de facto male household population age six and over by highest level of education attended or completed and median number of years of schooling, according to background characteristics, Egypt 2008

Background characteristic	No education	Some primary	Completed primary	Some secondary	Completed secondary	More than secondary	Don't know/missing	Total	Number	Median number of years
<b>Age</b>										
6-9	12.2	87.3	0.0	0.0	0.0	0.0	0.5	100.0	4,057	0.4
10-14	2.4	56.0	1.1	40.5	0.0	0.0	0.0	100.0	4,684	4.6
15-19	3.9	5.1	3.9	59.1	15.7	12.3	0.0	100.0	4,587	8.7
20-24	6.5	5.5	3.7	12.6	41.8	29.7	0.1	100.0	4,256	10.6
25-29	8.0	7.5	6.6	11.4	42.9	23.5	0.2	100.0	3,411	10.4
30-34	8.9	8.5	5.2	15.3	41.5	20.5	0.0	100.0	2,617	11.1
35-39	13.8	11.4	3.6	12.9	41.5	16.7	0.0	100.0	2,351	11.2
40-44	20.2	12.5	5.6	10.1	33.9	17.7	0.0	100.0	2,309	11.1
45-49	23.4	13.8	6.4	9.7	26.7	20.0	0.0	100.0	2,154	8.5
50-54	30.0	14.5	7.6	7.1	23.2	17.6	0.0	100.0	1,781	5.7
55-59	37.2	11.3	7.8	7.6	19.5	16.5	0.0	100.0	1,504	5.2
60-64	39.8	11.1	9.1	5.7	17.6	16.7	0.0	100.0	1,046	4.8
65+	59.7	11.1	6.3	4.4	9.0	9.3	0.3	100.0	1,798	0.0
<b>Residence</b>										
Urban	9.6	21.2	4.2	18.4	24.5	22.0	0.0	100.0	16,290	8.9
Rural	19.1	25.9	4.3	20.1	21.9	8.5	0.2	100.0	20,267	5.4
<b>Place of residence</b>										
Urban Governorates	9.2	21.1	5.1	19.5	23.4	21.7	0.0	100.0	7,241	8.6
Lower Egypt	14.9	23.9	4.6	19.3	23.8	13.4	0.1	100.0	15,814	6.6
Urban	8.9	21.7	3.9	18.1	25.3	22.1	0.0	100.0	4,334	9.2
Rural	17.1	24.7	4.9	19.7	23.3	10.1	0.1	100.0	11,480	5.9
Upper Egypt	18.1	25.3	3.3	19.3	21.8	12.0	0.2	100.0	12,980	5.8
Urban	10.9	20.8	3.1	16.8	25.1	23.2	0.1	100.0	4,357	9.5
Rural	21.7	27.6	3.4	20.5	20.1	6.3	0.2	100.0	8,622	4.8
Frontier Governorates	14.4	21.8	5.2	18.7	29.2	10.5	0.2	100.0	521	7.2
Total	14.9	23.8	4.3	19.3	23.1	14.5	0.1	100.0	36,556	6.7

An examination of the education distributions for successive cohorts indicates that there have been changes over time in the educational attainment of both men and women. For example, the median number of years of schooling is 10.6 for males age 20-24 years, nearly double the median for males in the 50-54 age group (5.7 years). The improvement in educational attainment has been even more striking for women; the median number of years of schooling is 10.5 for females age 20-24 years, around three times the median for females in the age group 40-44 (3.6 years).

As a result of the gains in female education, the gap in the educational attainment between males and females has almost disappeared among younger cohorts. For example, the differential in the median number of years of schooling is 0.1 years between men and women age 20-24.

Urban residents were more likely to have attended school and to have remained in school for a longer period than rural residents. The results in Tables 2.4.1 and 2.4.2 also show that gender differences in educational attainment are less evident in urban than in rural areas. For example, the median number of years of schooling is 5.4 years among rural men, 2.5 years greater than the median among rural women (2.9 years). The difference is much smaller in urban areas, where the median number of years of schooling is 8.9 years for men, compared with 7.6 years for women.

By place of residence, gender differences in the likelihood of attending school are most evident in rural Upper Egypt where 78 percent of men had ever attended school, compared with 57 percent of women. The gender gap is least apparent in urban Lower Egypt where 85 percent of women had some education, compared with 91 percent of men.



Table 2.4.2 Educational attainment of female household population by age and residence

Percent distribution of the de facto female household population age six and over by highest level of education attended or completed and median number of years of schooling, according to background characteristics, Egypt 2008

Background characteristic	No education	Some primary	Completed primary	Some secondary	Completed secondary	More than secondary	Don't know/missing	Total	Number	Median number of years
<b>Age</b>										
6-9	16.4	83.0	0.0	0.0	0.0	0.0	0.5	100.0	3,770	0.4
10-14	4.6	53.2	1.0	41.2	0.0	0.0	0.1	100.0	4,582	4.6
15-19	9.2	2.8	2.7	53.1	18.6	13.6	0.0	100.0	4,554	8.8
20-24	15.4	3.7	2.8	10.4	40.2	27.4	0.1	100.0	4,758	10.5
25-29	20.6	6.8	3.6	9.4	39.5	20.1	0.0	100.0	3,949	10.3
30-34	26.8	7.3	3.8	13.0	33.8	15.1	0.1	100.0	2,822	8.9
35-39	36.2	9.1	2.7	9.6	31.0	11.4	0.0	100.0	2,640	7.3
40-44	42.8	12.5	4.4	6.4	24.5	9.4	0.0	100.0	2,471	3.6
45-49	50.5	12.9	5.8	4.3	17.0	9.4	0.1	100.0	2,220	0.0
50-54	51.5	13.8	6.5	3.7	13.2	11.1	0.1	100.0	1,786	0.0
55-59	62.4	12.4	7.2	3.3	8.6	6.0	0.1	100.0	1,450	0.0
60-64	66.7	10.4	4.8	3.5	7.9	5.7	1.0	100.0	1,108	0.0
65+	80.3	7.6	3.2	1.1	3.6	2.6	1.6	100.0	1,781	0.0
<b>Residence</b>										
Urban	18.2	18.9	3.9	16.7	23.2	19.1	0.1	100.0	16,648	7.6
Rural	36.0	22.2	2.6	16.2	17.5	5.2	0.3	100.0	21,244	2.9
<b>Place of residence</b>										
Urban Governorates	18.5	19.0	4.4	16.8	21.8	19.5	0.1	100.0	7,443	7.3
Lower Egypt	26.5	20.7	2.9	16.2	23.1	10.5	0.1	100.0	16,268	5.3
Urban	15.3	18.7	3.5	16.1	26.5	19.8	0.2	100.0	4,415	8.7
Rural	30.6	21.4	2.6	16.2	21.9	7.1	0.1	100.0	11,853	4.3
Upper Egypt	35.4	21.8	2.7	16.4	15.4	7.8	0.3	100.0	13,690	3.2
Urban	20.0	18.9	3.3	17.1	22.5	18.2	0.1	100.0	4,462	7.2
Rural	42.9	23.3	2.4	16.1	12.0	2.8	0.5	100.0	9,228	1.0
Frontier Governorates	30.2	18.7	5.0	18.8	17.9	9.0	0.4	100.0	492	4.7
<b>Total</b>	<b>28.2</b>	<b>20.7</b>	<b>3.1</b>	<b>16.4</b>	<b>20.0</b>	<b>11.3</b>	<b>0.2</b>	<b>100.0</b>	<b>37,892</b>	<b>4.9</b>

## 2.3 HOUSING CHARACTERISTICS

The 2008 EDHS survey collected information on a range of housing characteristics. These data are presented in Tables 2.5 through 2.8 for households and for the total de jure household population.

### 2.3.1 Drinking Water Access and Treatment

Increasing access to improved drinking water is one of the Millennium Development Goals that Egypt along with other nations worldwide has adopted (United Nations General Assembly 2001). Improved sources are defined as those sources which are likely to provide safe drinking water (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation 2004). Improved sources include water obtained a piped source within the dwelling, a public tap, a tubehole or borehole, or a protected well or spring.<sup>2</sup>

The results in Table 2.5 show that 98 percent of EDHS households had access to drinking water from an improved source. In most cases, the source was a piped connection in the dwelling itself or the plot (92 percent). Almost all households obtained the water from a source on premises (97 percent). The majority of households fetching drinking water from a source outside the dwelling or plot were within 30 minutes of this source. For households in which the water source was not on the premises, women age 15 and older were responsible for fetching the water.

<sup>2</sup> A well or spring which is covered or otherwise 'protected' from contamination from surface water or animals.

Table 2.5 Household drinking water access and treatment by residence

Percent distribution of households by source of drinking water, time to collect water (if not within residence or plot), person fetching the water and interruption of water supply during two week period prior to the survey and percentage of households using various modes for treating drinking water, according to urban-rural residence and place of residence and percent distribution of the de jure population by household drinking water arrangements and percentage of the de jure population living in households using various modes to treat drinking water, Egypt 2008

Drinking water	Urban	Rural	Urban Governates	Lower Egypt		Upper Egypt		Frontier Governates	Total households	Total de jure population		
				Total	Urban	Rural	Total				Urban	Rural
<b>Source of drinking water<sup>1</sup></b>												
Improved source	99.8	96.7	99.9	98.6	99.8	98.1	96.9	100.0	95.1	88.4	98.2	98.0
Piped into residence/plot	98.5	86.7	99.6	92.2	97.4	90.0	88.2	98.2	82.2	81.2	92.4	91.4
Public tap	0.6	4.3	0.3	2.0	0.4	2.7	4.7	1.4	6.7	1.4	2.5	2.6
Tubewell/borehole	0.2	3.3	0.0	2.8	0.7	3.8	1.7	0.1	2.6	0.1	1.8	2.3
Protected well/spring	0.5	2.4	0.0	1.5	1.4	1.5	2.3	0.2	3.6	5.6	1.5	1.7
Unimproved source	0.2	3.2	0.1	1.3	0.1	1.8	3.0	0.0	4.8	11.5	1.7	2.0
Unprotected well/spring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0
Tanker truck/cart	0.2	3.1	0.1	1.3	0.1	1.8	3.0	0.0	4.7	11.3	1.7	1.9
Surface water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Other/missing	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
<b>Time to water source</b>												
On premises	99.5	94.8	99.8	97.5	99.6	96.6	95.0	98.9	92.6	89.2	97.1	96.7
Within 15 minutes	0.1	1.7	0.1	0.8	0.1	1.0	1.8	0.2	2.8	1.0	1.0	1.1
15-29 minutes	0.1	1.4	0.1	0.7	0.1	0.9	1.4	0.3	2.1	0.7	0.8	0.9
30+ minutes	0.2	1.1	0.0	0.8	0.2	1.0	0.8	0.2	1.1	5.4	0.7	0.7
Don't know/missing	0.1	0.9	0.0	0.3	0.0	0.5	1.0	0.2	1.4	3.7	0.5	0.6
<b>Person obtaining water for household</b>												
Adult man	0.2	0.7	0.0	0.4	0.1	0.5	0.5	0.2	0.7	9.1	0.5	0.5
Adult woman	0.3	3.5	0.1	1.8	0.3	2.4	3.5	0.6	5.2	1.1	2.0	2.2
Male child under 15 years old	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Female child under 15 years old	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.0
Water on premises/other/missing	99.5	95.7	99.8	97.8	99.6	97.0	96.0	99.1	94.1	89.7	97.5	97.3
<b>Water supply interrupted</b>												
Not interrupted	74.3	67.8	77.9	71.9	74.1	70.9	65.9	70.5	63.2	45.9	70.9	69.3
Daily/almost daily	7.9	9.1	8.1	8.5	7.8	8.8	7.9	5.5	9.3	34.3	8.5	8.8
Few times per week	10.9	15.0	9.9	12.7	11.3	13.2	15.4	11.8	17.6	15.9	13.0	13.9
Less frequently	6.5	7.7	3.7	6.6	6.4	6.6	10.3	11.9	9.4	3.4	7.1	7.7
Don't know/missing	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.5	0.5	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	9,159	9,809	4,182	8,348	2,466	5,881	6,204	2,338	3,865	235	18,968	87,480
<b>Water treated prior to drinking</b>												
Not treated	93.8	96.3	95.1	94.8	92.8	95.6	95.6	92.9	97.2	92.2	95.1	95.5
Boiled	0.6	0.3	0.5	0.4	0.7	0.3	0.5	0.6	0.4	0.4	0.4	0.4
Bleach/chlorine added	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Strained through cloth/cotton	0.4	0.1	0.5	0.2	0.4	0.1	0.2	0.2	0.1	0.4	0.3	0.2
Water filter used	4.6	1.3	3.5	2.9	5.9	1.7	2.3	5.1	0.7	4.9	2.9	2.5
Solar disinfection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stand and settle/other	0.8	2.2	0.4	1.9	0.7	2.5	1.6	1.4	1.6	2.3	1.5	1.6
Total	9,159	9,809	4,182	8,348	2,466	5,881	6,204	2,338	3,865	235	18,968	87,480

<sup>1</sup> Because the quality of bottled water is not known, households using bottled water are classified according to the source of water used for cooking and washing.

The majority of EDHS households experienced no interruptions in their water supply during the two-week period before the survey. However, 9 percent said the supply had been interrupted on a daily or almost daily basis, 13 percent reported interruptions at least a few times per week while 7 percent experienced less frequent interruptions.

EDHS households generally did not treat the water they drink. Among households reporting that the water was treated (5 percent), the most common practices were to filter the water (3 percent) or to let it stand and settle (2 percent).

Looking at the variation in drinking water indicators by residence, households in the Frontier Governorates were the least likely to obtain water from an improved source (88 percent). Interruptions in the water supply were more common in Frontier Governorates (54 percent) and rural Upper Egypt (37 percent) than in other areas within Egypt.

### 2.3.2 Drinking Water Storage Practices

The 2008 EDHS also obtained information on water storage practices. The results are presented in Table 2.6. Around 17 percent of households reported they stored drinking water. In those households, the EDHS interviewers asked to see the containers in which the water was stored. More than nine in ten households that stored drinking water used covered containers. The households storing water were about evenly divided between those who used containers with wide mouths and those using containers with narrow mouths. Considering the manner in which water was dispensed from the container, about half of the households ladled the water out of the container and the other half employed a tapped container or poured the water directly from the container. Differentials by residence were generally minor. However, households in the Frontier Governorates were more likely to store their drinking water than other households.

Table 2.6 Household drinking water storage practices by residence

Percent distribution of households by storage of drinking water and, among households in which water is stored, percent distribution by presence of covers on the containers in which water is stored, type of container in which water is stored, manner in which water is dispensed from containers, according to urban-rural residence and place of residence and percent distribution of the de jure population by household drinking water storage and percent of de jure population living in households in which water is stored by various storage practices, Egypt 2008

Drinking water	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total households	Total de jure population
				Total	Urban	Rural	Total	Urban	Rural			
<b>Storage of drinking water</b>												
Stored	12.3	20.9	11.8	15.0	9.4	17.3	21.2	13.7	25.7	50.3	16.7	17.9
Not stored	87.7	79.1	88.2	85.0	90.5	82.7	78.8	86.3	74.2	49.7	83.2	82.1
Don't know/missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	9,159	9,809	4,182	8,348	2,466	5,881	6,204	2,338	3,865	235	18,968	87,480
<b>Storage containers covered</b>												
All covered	94.9	93.1	94.5	95.4	96.6	95.1	92.6	96.2	91.4	85.9	93.8	93.5
Some covered	4.4	5.1	5.1	3.5	2.6	3.7	5.4	2.8	6.2	11.7	4.8	5.1
None covered	0.7	1.7	0.3	1.1	0.8	1.1	2.0	1.0	2.3	2.4	1.4	1.4
Not able to observe/missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
<b>Type of storage container</b>												
Wide mouths	36.8	56.8	29.5	46.8	31.6	50.3	60.1	49.9	63.4	48.8	49.7	52.5
Narrow mouths	59.8	39.5	65.9	49.5	66.8	45.5	36.9	47.5	33.5	46.8	46.7	43.8
Both types	3.4	3.7	4.6	3.7	1.6	4.2	2.9	2.6	3.0	4.4	3.6	3.7
Not able to observe/missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
<b>Water dispensed from container</b>												
Ladled	34.9	57.6	30.8	46.2	27.6	50.5	61.0	49.1	64.9	35.6	49.6	52.3
Tap/ poured directly	64.8	42.0	68.5	53.4	72.4	49.0	38.8	50.9	34.9	64.4	50.1	47.3
Other	0.3	0.2	0.7	0.3	0.0	0.4	0.1	0.0	0.1	0.0	0.3	0.3
Not able to observe/missing	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of households storing water	1,128	2,046	494	1,248	233	1,015	1,314	320	994	118	3,174	15,661

### 2.3.3 Sanitation Facilities and Waste Disposal

Ensuring adequate sanitation facilities is another Millennium Development Goal. Table 2.7 shows that most EDHS households had access to a toilet. Forty-nine percent had modern flush toilets, and an identical percentage had traditional flush toilets. Less than 1 percent of households had no toilet facility. Most households (97 percent) reported that the toilet was connected to a public sewer, bayara (vault), or a septic system. Three percent shared the toilet facility with at least one other household.

Table 2.7 Sanitation facilities by residence

Percent distribution of households by type of toilet facility, drainage system, number of households using the toilet facility, type of sanitation facilities, and method of disposal of kitchen waste and trash, according to urban-rural residence and place of residence and percent distribution of de jure population by sanitation facilities, Egypt 2008

Sanitation facility	Urban	Rural	Urban Governates	Lower Egypt			Upper Egypt			Frontier Governates	Total households	Total de jure population
				Total	Urban	Rural	Total	Urban	Rural			
<b>Sanitation facility</b>												
Modern flush toilet	77.1	21.8	83.8	43.9	76.7	30.1	30.6	66.2	9.1	53.4	48.5	42.2
Traditional with tank flush	1.3	2.7	1.0	1.5	0.8	1.8	3.3	2.2	4.0	4.7	2.0	2.3
Traditional with bucket flush	21.4	74.1	15.1	54.2	22.4	67.6	64.1	31.2	84.1	39.7	48.7	54.7
Pit latrine/bucket toilet	0.1	0.6	0.1	0.1	0.1	0.1	0.9	0.1	1.3	1.3	0.4	0.3
Other/missing	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.0	0.1	0.0	0.1	0.1
No facility	0.1	0.7	0.0	0.1	0.0	0.1	1.0	0.3	1.5	0.9	0.4	0.4
<b>Drainage system</b>												
Public sewer	89.8	37.0	96.8	64.6	93.1	52.6	37.2	76.5	13.5	42.8	62.5	56.5
Vault (Bayara)	5.4	28.5	1.5	9.4	0.8	13.0	37.6	14.4	51.7	46.0	17.3	21.4
Septic system	4.3	28.4	1.2	21.9	6.1	28.5	20.7	8.0	28.4	9.0	16.8	18.4
Pipe connected to canal	0.1	4.2	0.3	3.8	0.0	5.3	1.5	0.0	2.4	0.1	2.2	2.4
Pipe connected to groundwater	0.0	0.2	0.0	0.0	0.0	0.0	0.4	0.1	0.5	0.3	0.1	0.1
Emptied (no connection)	0.2	0.9	0.0	0.2	0.0	0.3	1.3	0.5	1.8	0.7	0.5	0.6
Other/don't know	0.1	0.2	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.1	0.2	0.2
No toilet facility	0.1	0.7	0.0	0.1	0.0	0.1	1.0	0.3	1.5	0.9	0.4	0.4
<b>Number of households using toilet</b>												
No facility	0.1	0.7	0.0	0.1	0.0	0.1	1.0	0.3	1.5	0.9	0.4	0.4
One	98.2	94.0	98.2	98.0	98.9	97.6	92.0	97.5	88.6	96.5	96.1	95.2
Two	0.8	2.7	0.9	1.0	0.4	1.3	3.4	1.0	4.9	0.7	1.8	2.2
3+ households	0.7	2.2	0.7	0.7	0.5	0.8	3.1	0.9	4.4	1.0	1.5	1.9
Not sure/missing	0.2	0.4	0.2	0.2	0.2	0.2	0.5	0.3	0.6	0.9	0.3	0.3
<b>Sanitation facilities</b>												
Improved <sup>1</sup>	97.7	88.5	97.7	93.8	98.8	91.7	88.5	96.6	83.6	94.7	92.9	91.9
Not improved	2.3	11.5	2.3	6.2	1.2	8.3	11.5	3.4	16.4	5.3	7.1	8.1
<b>Disposal of kitchen waste and trash</b>												
Collected from home	46.5	28.2	41.0	43.0	55.9	37.7	26.9	48.3	14.0	21.2	37.0	33.5
Collected from container in street	34.4	3.5	48.3	7.5	17.1	3.4	12.5	27.5	3.5	31.7	18.4	16.6
Dumped into street/empty plot	16.4	31.2	9.9	30.0	25.0	32.0	25.2	17.8	29.7	37.5	24.1	25.1
Dumped into canal/drainage	0.8	16.4	0.5	10.2	1.2	13.9	13.1	0.9	20.4	1.4	8.9	10.2
Burned	1.4	15.5	0.1	5.4	0.2	7.5	19.0	5.1	27.4	7.9	8.7	11.2
Fed to animals	0.2	4.6	0.0	3.7	0.5	5.1	2.5	0.3	3.8	0.2	2.5	3.0
Other	0.1	0.6	0.1	0.2	0.1	0.2	0.7	0.1	1.1	0.0	0.3	0.4
Don't know/missing	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	9,159	9,809	4,182	8,348	2,466	5,881	6,204	2,338	3,865	235	18,968	87,480

<sup>1</sup> The household is considered to have improved sanitation facilities if the household has sole use of a modern or traditional flush toilet that empties into a public sewer, Bayara (vault) or septic system.

A household is classified as having an improved toilet if the toilet is used only by members of one household (i.e., it is not shared) and if the facility used by the household separates the waste from human contact (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation 2004). Table 2.7 shows that 93 percent of EDHS households had access to an improved toilet facility, i.e., the households had sole use of a toilet that flushed or pour flushed into a sewer, bayara, or a septic system. The proportion of households using an improved facility was lowest in rural Upper Egypt (84 percent).

Table 2.7 also presents information on waste disposal practices. The majority of households (55 percent) reported that kitchen waste or trash was collected, either at the dwelling or from a container in the street (i.e., a container shared with others). Around one-third of households dumped waste or trash into the street, an empty plot or a canal or drainage ditch, 9 percent burned waste or trash, and 3 percent fed it to animals. Dumping or burning waste or trash was much more common in rural than in urban areas (63 percent and 19 percent, respectively). More than 7 in 10 households in rural Upper Egypt dispose of trash by dumping (50 percent) or burning (27 percent).

### **2.3.4 Other Housing Characteristics**

Table 2.8 shows the distribution of households according to other dwelling characteristics for which information was obtained in the 2008 EDHS. The majority of households (84 percent) lived in apartments in urban areas, whereas the majority of rural households (62 percent) occupied free-standing houses. Eighty-seven percent of rural households owned their dwelling. Ownership was less common in urban areas, particularly in the Urban Governorates, where only slightly more than half of households owned their dwelling.

Virtually all of the households in the EDHS sample had electricity, with only 1 percent of households in the Frontier Governorates and Upper Egypt reporting that they did not have electricity in their households.

With regard to flooring, around nine in ten households (89 percent) in the EDHS sample lived in dwellings with a tile (ceramic, marble or cement) or cement floor. About 10 percent had a dirt (earth/sand) floor in their dwelling. Rural households were more likely than urban households to live in dwellings with a dirt floor (17 percent and 1 percent, respectively). Dirt floors were around five times more common in rural Upper Egypt than in rural Lower Egypt (33 percent and 7 percent, respectively).

Table 2.8 also shows that 11 percent of EDHS households lived in dwellings with one or two rooms, 75 percent had three or four rooms, and 13 percent had five rooms or more. The mean number of rooms per household was 3.6, and there was an average of 1.4 persons per room. Rural households were more crowded than urban households. The mean number of persons per room was 1.3 in urban areas, compared with 1.5 persons in rural areas.

Table 2.8 Dwelling characteristics by residence

Percent distribution of households by type and tenure of dwelling, availability of electricity, type of flooring, and number of rooms and mean number of rooms and persons per room according to urban-rural residence and place of residence and percentage of de jure population by dwelling characteristics, Egypt 2008

Dwelling characteristic	Urban	Rural	Urban Governates	Lower Egypt			Upper Egypt			Frontier Governates	Total households	Total de jure population
				Total	Urban	Rural	Total	Urban	Rural			
<b>Type of dwelling</b>												
Apartment	84.2	36.9	92.0	57.5	82.8	46.8	41.5	73.7	22.0	49.0	59.7	52.4
Free standing house	13.5	61.8	4.6	42.0	16.8	52.6	56.2	24.4	75.4	48.9	38.5	46.2
Other	2.2	1.3	3.5	0.5	0.4	0.5	2.3	1.9	2.5	2.1	1.7	1.3
Missing	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
<b>Tenure</b>												
Owned/owned jointly	57.5	87.4	51.6	80.9	66.0	87.1	76.8	58.9	87.7	69.0	72.9	76.5
Rented	37.3	4.8	44.0	12.0	28.4	5.1	15.7	34.7	4.2	27.4	20.5	17.7
Other	5.2	7.7	4.4	7.0	5.5	7.6	7.4	6.3	8.0	3.5	6.5	5.7
Missing	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
<b>Electricity</b>												
Yes	99.9	99.3	99.9	99.8	99.9	99.8	99.0	99.8	98.5	98.6	99.6	99.6
No	0.1	0.7	0.1	0.2	0.1	0.2	1.0	0.2	1.5	1.4	0.4	0.4
<b>Flooring material</b>												
Ceramic/marble tiles	25.0	6.0	29.1	11.8	20.5	8.1	9.9	22.1	2.6	23.4	15.1	12.9
Cement tiles	66.2	44.9	64.7	59.9	72.5	54.7	42.6	63.0	30.2	52.6	55.2	52.2
Cement	5.8	31.3	4.0	22.4	5.6	29.5	24.5	8.8	33.9	19.3	19.0	22.0
Carpet/vinyl/polished wood	1.5	0.6	1.6	0.9	1.0	0.9	0.9	2.0	0.2	0.9	1.0	0.9
Wood Planks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Earth/sand	1.4	17.1	0.5	4.9	0.4	6.8	22.1	4.2	32.9	3.8	9.6	11.9
Other/missing	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
<b>Number of rooms<sup>1</sup></b>												
1-2	10.8	11.8	13.6	6.3	6.0	6.4	16.7	11.2	20.1	9.2	11.3	9.7
3-4	80.1	70.0	79.1	78.5	83.3	76.5	67.3	78.7	60.4	71.0	74.9	72.1
5+	8.8	17.7	7.2	14.9	10.5	16.7	15.4	9.7	18.9	19.3	13.4	17.8
Missing/DK	0.2	0.5	0.2	0.4	0.2	0.4	0.5	0.4	0.6	0.5	0.4	0.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	9,159	9,809	4,182	8,348	2,466	5,881	6,204	2,338	3,865	235	18,968	87,480
Mean rooms per household	3.4	3.7	3.3	3.7	3.6	3.8	3.5	3.5	3.6	3.8	3.6	3.8
Mean persons per room	1.3	1.5	1.3	1.3	1.2	1.3	1.6	1.4	1.8	1.4	1.4	1.7

<sup>1</sup> Number of rooms does not include kitchen, hallways and bathrooms.

## 2.4 HOUSEHOLD POSSESSIONS

Table 2.9 provides information on household ownership of durable goods and other possessions. Ninety-five percent of EDHS households owned a television (color or black and white), and more than seven in ten households owned a radio. Seventy percent of households were connected to a satellite dish; 47 percent owned the dish and 24 percent were connected to but did not own a dish. Eight percent of households had a video or DVD player. Around two-thirds of households had a telephone, with 41 percent having a mobile phone. Fourteen percent of households owned a computer.

A majority of the households in the EDHS sample owned most basic appliances. More than nine in ten households had washing machine (automatic/other), an electric fan and a refrigerator, and four in ten had a water heater. Relatively small proportions of households possessed the other appliances and electric goods in Table 2.9; less than 5 percent had a sewing machine, a freezer, an air conditioner, or a dishwasher.

Considering household furnishings, almost all EDHs households owned a bed, over 90 percent owned sofa, and 85 percent or more had hanging lamp, a chair and table. Six in ten household owned a *tablia*, and around one-quarter had a *kolla/zeer*. At least one household member owned a watch in around 90 percent of the households.

Table 2.9 Household possessions by residence

Percentage of households possessing various household effects, means of transportation, farm animals/poultry/birds, agricultural land, and bank/savings account according to urban-rural residence and place of residence, and percentage of de jure population by household possessions, Egypt 2008

Household possessions	Urban	Rural	Urban Governates	Lower Egypt		Upper Egypt		Frontier Governates	Total households	Total de jure population		
				Total	Urban	Rural	Total				Urban	Rural
<b>Household effects</b>												
Radio	80.0	67.8	81.7	78.1	81.3	76.8	62.4	76.0	54.1	70.8	73.7	72.6
Television	96.8	92.8	96.7	96.7	97.7	96.3	90.8	96.1	87.5	92.1	94.7	95.4
Black and white television	4.7	11.3	4.3	5.9	3.5	6.9	13.7	6.6	18.0	5.5	8.1	9.0
Color television	93.7	83.1	94.3	91.9	95.5	90.4	79.2	91.1	72.0	87.0	88.2	88.4
Video/DVD	13.2	2.5	16.4	4.8	10.0	2.7	5.6	11.1	2.2	7.8	7.7	6.9
Telephone	76.3	50.9	77.2	58.4	72.8	52.4	60.0	78.9	48.6	66.1	63.2	63.4
Landline telephone	61.6	38.2	62.0	46.2	60.1	40.3	45.8	63.6	35.1	40.3	49.5	49.6
Mobile telephone	54.1	27.8	55.1	31.7	43.8	26.6	42.1	63.0	29.4	50.3	40.5	40.8
Satellite dish	79.4	61.8	78.4	75.2	84.4	71.3	58.1	76.0	47.3	72.7	70.3	70.0
Owns satellite dish	55.4	38.8	50.4	46.0	58.3	40.9	44.6	60.0	35.4	67.0	46.8	46.8
Connected from elsewhere	24.0	23.0	28.0	29.2	26.1	30.5	13.5	16.0	11.9	5.7	23.5	23.3
Computer	23.0	5.0	25.1	10.0	20.0	5.9	11.0	23.3	3.6	9.2	13.7	12.9
Sewing machine	4.9	2.9	5.1	2.7	2.8	2.7	4.4	6.6	3.1	6.8	3.9	4.0
Electric fan	93.3	89.8	93.0	96.1	97.5	95.5	84.7	90.1	81.4	78.1	91.5	91.4
Air conditioner	8.1	0.6	9.7	1.6	4.4	0.4	4.1	9.5	0.8	4.6	4.2	3.6
Refrigerator	96.2	86.4	97.1	95.9	97.9	95.0	81.1	93.4	73.6	87.3	91.2	90.8
Freezer	6.9	0.8	8.3	2.1	5.0	0.9	2.8	6.5	0.5	3.6	3.7	3.3
Water heater	61.1	20.6	62.6	39.0	66.0	27.7	26.7	54.4	10.0	36.3	40.2	36.1
Dishwasher	3.4	0.1	4.8	0.5	1.2	0.2	1.3	3.4	0.1	1.3	1.7	1.3
Washing machine	96.8	90.8	97.0	97.0	98.1	96.5	87.1	95.3	82.1	88.6	93.7	94.1
Automatic washing machine	39.0	5.9	44.9	13.8	30.0	7.0	17.4	38.9	4.3	20.0	21.9	19.0
Other washing machine	67.8	88.1	59.6	89.7	81.1	93.3	75.5	67.7	80.3	78.2	78.3	81.2
Bed	99.2	97.1	99.5	99.3	99.7	99.2	95.6	98.4	94.0	97.3	98.1	98.1
Sofa	94.1	92.1	94.9	93.4	93.8	93.2	91.8	93.5	90.7	82.6	93.1	93.0
Hanging lamp	76.4	92.0	69.4	90.6	86.0	92.5	86.4	78.4	91.2	85.9	84.5	86.1
Table	91.2	86.3	87.6	93.1	96.2	91.9	83.5	92.6	78.0	83.1	88.7	88.7
Tablia	45.7	72.6	41.1	62.2	48.8	67.8	68.6	50.2	79.8	60.0	59.6	64.1
Chair	92.3	78.2	92.5	88.0	95.0	85.1	76.0	89.3	68.0	82.5	85.0	83.6
Kolla/zeer	8.3	40.2	4.2	26.0	8.4	33.4	37.4	15.4	50.7	14.0	24.8	28.9
Watch	95.7	82.6	97.5	92.0	96.6	90.0	78.9	91.4	71.3	90.9	88.9	88.6
<b>Means of transportation</b>												
Animal drawn cart	0.7	6.9	0.5	5.6	0.8	7.7	3.7	0.9	5.4	5.8	3.9	5.2
Bicycle	5.8	13.5	2.4	10.5	7.1	12.0	13.9	10.4	16.0	5.6	9.8	11.9
Motorcycle/scooter	1.9	3.1	0.9	2.7	2.3	2.9	3.2	3.0	3.2	5.5	2.5	2.9
Car/van/truck	12.7	3.0	14.6	5.0	9.0	3.3	6.4	13.0	2.4	12.8	7.7	7.3
<b>Farm animals/poultry/ birds</b>												
	4.6	37.6	1.9	22.2	4.7	29.6	34.2	9.1	49.5	21.5	21.6	27.6
<b>Agricultural land</b>												
	3.0	24.1	2.0	17.4	3.6	23.1	17.3	4.2	25.3	13.4	13.9	17.6
<b>Bank/saving account</b>												
	15.1	3.3	20.3	5.4	10.7	3.2	6.2	10.8	3.5	9.0	9.0	8.2
None of the above	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.0	0.0
Number of households	9,159	9,809	4,182	8,348	2,466	5,881	6,204	2,338	3,865	235	18,968	87,480

Urban households were more likely to have most items than rural households. For example, 79 percent of households in urban areas were connected to a satellite dish compared with 62 percent of households in rural areas. Rates of ownership of various household possessions also differed by place of residence, with higher rates of ownership for most items reported among households in the Urban Governorates, Lower Egypt, and the Frontier Governorates than in Upper Egypt. For most items, households in rural Upper Egypt had the lowest rates of ownership.

Table 2.9 also includes information on household ownership of a means of transportation. Overall, 8 percent of households owned a car, van, or truck, with the highest rate of ownership in the Urban Governorates (15 percent) and the lowest rate in rural Upper Egypt (2 percent). Animal carts were owned more often by rural than urban households (7 percent and 1 percent). Relatively few households had a motorcycle, and rates of ownership of bicycles varied from 2 percent in the Urban Governorates to 16 percent in rural Upper Egypt.

As expected, households in rural areas were significantly more likely than urban households to own a farm or other land. Twenty-four percent of rural households owned a farm or other land, compared with only 3 percent of urban households. There was also considerable variation in the proportion of EDHS households reporting that they owned farm animals, from 50 percent of households in rural Upper Egypt to 2 percent of households in the Urban Governorates.

Table 2.9 also shows that comparatively few EDHS households had at least one member with a bank/savings account (9 percent). Urban households, especially households living in the Urban Governorates, were more than five times as likely as rural households to have an account.

## 2.5 HOUSEHOLD WEALTH

Information on household assets was used to create an index representing the wealth of the households interviewed in the EDHS. The wealth index is a proxy for long-term standard of living of the household (Rutstein and Johnson, 2004). To construct the wealth index, each household asset for which information was collected in the survey was assigned a weight or factor score generated through principal components analysis, and the resulting asset scores were standardized. The EDHS households were then assigned a standardized score for each asset, where the score differed depending on whether or not the household owned that asset. The scores were summed by household. Individuals were ranked according to the total score of the household in which they resided and divided into population quintiles, i.e., five groups with the same number of individuals in each.

The wealth index has been compared against both poverty rates and gross domestic product per capita for India, and against expenditure data from household surveys in Nepal, Pakistan and Indonesia (Filmer and Pritchett, 1998) and Guatemala (Rutstein 1999). The evidence from those studies suggests that the assets index is highly comparable to conventionally measured consumption expenditures.

Table 2.10 shows the distribution of the de jure EDHS household population by wealth quintile and residence. A much larger proportion of the population in urban areas than in rural areas was found in the highest wealth index group (41 percent and 5 percent, respectively). In turn, more of the rural than urban population fell in the lowest wealth index group (31 percent and 5 percent, respectively). Considering place of residence, slightly less than half of the population in the Urban Governorates was in the highest wealth quintile (47 percent) compared with 13 percent of the population in Upper Egypt and 14 percent in Lower Egypt. The population in rural Upper Egypt was especially concentrated at the lower end of the wealth index, with 50 percent falling into the lowest wealth quintile.



Table 2.10 Wealth quintiles by residence

Percent distribution of the de jure household population by wealth quintiles according to urban-rural residence and place of residence, Egypt 2008

Quintile	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
Lowest	4.8	31.3	2.5	12.4	2.0	16.1	37.5	10.7	49.8	22.0	20.0
Second	7.2	29.5	4.6	23.6	6.2	29.9	23.6	11.9	29.0	17.9	20.0
Middle	16.5	22.6	15.3	26.8	18.8	29.7	14.5	15.8	14.0	21.3	20.0
Fourth	30.6	12.1	30.7	23.1	38.5	17.6	11.0	23.0	5.5	20.6	20.0
Highest	40.9	4.5	47.0	14.0	34.5	6.7	13.3	38.5	1.8	18.1	20.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	37,311	50,169	16,379	37,319	9,893	27,426	32,578	10,230	22,348	1,204	87,480

This chapter first provides a profile of the ever-married women who were interviewed in the 2008 Egypt DHS. Information is presented on a number of basic characteristics of these women including age, residence, education, and work status. Then the chapter explores in more depth the women's educational and employment status, their participation in household decision-making, and control over earnings. Finally, the chapter also presents information on the background characteristics of the women and men with whom interviews were conducted in the special health issues component of the survey. The information presented on the two groups of EDHS respondents will help in understanding the findings in the following chapters.

### 3.1 BACKGROUND CHARACTERISTICS OF THE EVER-MARRIED WOMEN SAMPLE

As discussed in Chapter 1, all ever-married women age 15-49 who were usual residents or present in the households selected for the 2008 EDHS sample on the night before the interviewer's visit were eligible for a detailed interview that was designed to obtain information on basic demographic and health indicators. Information on selected background characteristics of the ever-married women interviewed in the EDHS is presented below.

#### 3.1.1 Demographic and Socio-economic Characteristics

Table 3.1 presents the distribution of the ever-married women who were interviewed in the 2008 EDHS by marital status, age, urban-rural residence, place of residence, educational level, work status and wealth quintile.

Among the ever-married women in the sample, 93 percent were currently married, 4 percent widowed, and 3 percent divorced or separated. Looking at the age distribution in Table 3.1, around two-fifths of these women were under age 30, and about three-tenths were age 40 and over. There were fewer women in the 15-19 and 20-24 age groups than in the 25-29 cohort. This somewhat older age pattern is the result of the inclusion of only ever-married women in the sample and the increasing tendency to delay marriage until older ages in Egypt. The changes in marriage patterns are described in more detail in Chapter 8.

The majority of the EDHS respondents (59 percent) were living in rural areas. Considering place of residence, 18 percent of the women were from the Urban Governorates, 46 percent from Lower Egypt, 35 percent from Upper Egypt, and 1 percent from the Frontier Governorates. Fifteen percent of ever-married women were working for cash at the time of the survey.

The educational level of the 2008 EDHS respondents varied considerably. Around one-third of the women never attended school, while 45 percent completed at least the secondary level. The women were fairly evenly distributed across the wealth quintiles, with the smallest percentage found in the lowest wealth quintile (18 percent).

Table 3.1 Background characteristics of ever-married respondents

Percent distribution of ever-married women age 15-49 by background characteristics, Egypt 2008

Background characteristic	Weighted percent	Weighted number	Unweighted number
<b>Marital status</b>			
Married	93.2	15,396	15,406
Widowed	4.1	670	660
Divorced	2.1	353	351
Separated	0.7	107	110
<b>Age</b>			
15-19	3.8	620	636
20-24	15.6	2,584	2,621
25-29	20.4	3,367	3,318
30-34	16.1	2,664	2,703
35-39	15.6	2,586	2,553
40-44	15.0	2,473	2,440
45-49	13.5	2,234	2,256
<b>Urban-rural residence</b>			
Urban	41.2	6,809	6,677
Rural	58.8	9,718	9,850
<b>Place of residence</b>			
Urban Governorates	17.7	2,931	2,419
Lower Egypt	46.1	7,618	6,515
Urban	11.7	1,936	1,738
Rural	34.4	5,682	4,777
Upper Egypt	34.8	5,751	6,682
Urban	10.8	1,792	1,920
Rural	24.0	3,959	4,762
Frontier Governorates	1.4	227	911
<b>Education</b>			
No education	32.1	5,302	5,542
Some primary	8.4	1,394	1,427
Primary complete/some secondary	14.6	2,413	2,382
Secondary complete/higher	44.9	7,418	7,176
<b>Work status</b>			
Working for cash	14.9	2,459	2,456
Not working for cash	85.1	14,068	14,071
<b>Wealth quintile</b>			
Lowest	18.4	3,033	3,415
Second	19.7	3,252	3,368
Middle	20.5	3,394	3,382
Fourth	21.2	3,505	3,211
Highest	20.2	3,343	3,151
Total	100.0	16,527	16,527

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

### 3.1.2 Educational Attainment

The relationship between the educational level of EDHS respondents in the ever-married sample and other background characteristics is explored in Table 3.2. As expected, the level of education decreases with increasing age among respondents age 25 and over. However, the table also shows that respondents age 20-29 had a higher level of education than respondents in the 15-19 age group. This pattern is somewhat unexpected because, as described in Chapter 2, participation in schooling has been steadily rising among Egyptian women. The explanation lies in the fact that women who marry early typically leave school at a younger age than women who marry later. Thus, EDHS respondents in the 15-19 age group include a disproportionate number of less-educated women in comparison with older cohorts.

Table 3.2 Educational attainment by background characteristics

Percent distribution of ever-married women age 15-49 by highest level of schooling attended or completed, and median number of years of schooling, according to background characteristics, Egypt 2008

Background characteristic	Highest level of schooling attended or completed						Total	Number of ever-married women	Median years of schooling
	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary			
<b>Age</b>									
15-19	25.4	4.8	4.8	30.3	32.6	2.2	100.0	620	7.3
20-24	21.2	4.8	3.5	13.2	46.0	11.3	100.0	2,584	10.2
25-29	22.3	6.9	3.7	10.8	40.8	15.4	100.0	3,367	10.2
30-34	26.9	7.5	3.4	13.6	34.8	13.9	100.0	2,664	8.9
35-39	36.1	9.0	2.8	9.7	31.2	11.3	100.0	2,586	7.4
40-44	42.9	12.3	4.3	6.4	24.4	9.7	100.0	2,473	3.6
45-49	50.9	12.2	6.2	4.3	16.8	9.6	100.0	2,234	0.0
<b>Urban-rural residence</b>									
Urban	17.1	7.3	4.9	11.6	38.5	20.6	100.0	6,809	10.6
Rural	42.6	9.2	3.3	10.0	29.4	5.5	100.0	9,718	4.0
<b>Place of residence</b>									
Urban Governorates	17.0	8.0	6.0	13.1	34.9	21.1	100.0	2,931	10.5
Lower Egypt	28.9	8.0	3.7	9.7	38.9	10.8	100.0	7,618	9.9
Urban	13.1	6.2	4.6	10.4	45.1	20.6	100.0	1,936	10.9
Rural	34.2	8.7	3.4	9.5	36.8	7.4	100.0	5,682	7.1
Upper Egypt	44.0	9.3	3.2	10.5	24.7	8.3	100.0	5,751	3.5
Urban	21.0	7.6	3.5	10.5	37.2	20.3	100.0	1,792	10.5
Rural	54.4	10.1	3.1	10.6	19.0	2.8	100.0	3,959	0.0
Frontier Governorates	34.4	5.4	5.7	12.6	30.0	12.0	100.0	227	7.5
<b>Work status</b>									
Working for cash	16.2	4.3	1.8	2.9	39.5	35.2	100.0	2,459	11.8
Not working for cash	34.9	9.1	4.3	12.0	32.0	7.6	100.0	14,068	6.1
<b>Wealth quintile</b>									
Lowest	68.2	10.8	3.1	7.5	10.1	0.3	100.0	3,033	0.0
Second	50.0	10.6	3.2	11.3	22.7	2.1	100.0	3,252	-
Middle	28.2	10.6	5.3	12.7	38.3	4.8	100.0	3,394	7.4
Fourth	14.6	7.6	4.9	13.4	47.3	12.1	100.0	3,505	10.4
Highest	4.1	2.8	3.0	7.9	44.1	38.1	100.0	3,343	11.8
<b>Total women ever-married</b>									
15-49	32.1	8.4	4.0	10.6	33.1	11.7	100.0	16,527	7.6

<sup>1</sup> Completed 5 grades at the primary level

<sup>2</sup> Completed 3 grades at the secondary level

Urban respondents were more highly educated than those from rural areas. Among urban women, 59 percent had completed secondary school or higher, compared with 35 percent of rural women. Educational levels were lowest in rural Upper Egypt, where 54 percent of the women had never attended school. The highest educational levels were found in Urban Lower Egypt and the Urban Governorates, where only 13 percent and 17 percent, respectively, of women had never attended school.

Educational attainment rises with the wealth quintile. More than eight in ten women in the highest wealth quintile had completed secondary school or higher, while around seven in ten women in the lowest quintile had never attended school.

### 3.1.3 Literacy

The 2008 EDHS assessed literacy among respondents who had never been to school or who had attended only the primary level by asking if they could read a newspaper or letter easily, with difficulty, or if they could not read at all.<sup>1</sup> As Table 3.3 shows, around two-thirds of ever-married women in the EDHS sample were considered to be literate. Most of these women who were classified as literate had completed at least the primary level at school and were not asked directly about their ability to read. Only a small minority of women who never attended school or had less than a primary education reported that they could read a newspaper or letter.

The proportion literate was somewhat lower among women age 15-19 than among those in the 20-24 and 25-29 age groups. This pattern is again related to the fact that the EDHS sample included only ever-married women. Women in their teens who are already married are more likely to have never attended school or to have left school early than other women.

The strong association between residence and literacy observed in Table 3.3 is clearly a reflection of residential differences in educational levels. Rural women were more than twice as likely as urban women to be unable to read at all. Illiteracy levels were markedly higher among ever-married women from Upper Egypt, especially those living in rural areas, than among other women.

Table 3.3 also shows that the level of illiteracy decreased with increasing wealth. Five percent of ever-married women in the highest wealth quintile were illiterate compared to 73 percent of women in the lowest quintile.

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<sup>1</sup> This procedure for assessing literacy status in the 2008 EDHS differed from the procedure employed in a number of earlier EDHS surveys including the 2000 and 2005 surveys. In the latter surveys, the literacy status of women who had never been to school or who had attended only the primary level was assessed by asking women to read several simple sentences. Thus, the literacy results presented in Table 3.3, which rely on women's self-reported literacy status, are not directly comparable to the results of earlier EDHS surveys in which there was a direct assessment of women's ability to read.

Table 3.3 Literacy by background characteristics

Percent distribution of ever-married women age 15-49 by level of schooling and self-reported ability to read newspaper or letter and percentage literate, according to background characteristics, Egypt 2008

Background characteristic	Attended preparatory school or higher	No education or attended only primary				Total	Number of ever-married women	Percentage literate <sup>1</sup>
		Self-reported ability to read a newspaper or letter						
		Easily	With difficulty	Not at all	Missing			
<b>Age</b>								
15-19	65.0	1.7	6.5	26.6	0.2	100.0	620	73.2
20-24	70.5	0.8	6.0	22.6	0.1	100.0	2,584	77.3
25-29	67.0	1.4	7.0	24.5	0.1	100.0	3,367	75.4
30-34	62.2	1.3	6.8	29.6	0.1	100.0	2,664	70.3
35-39	52.2	2.1	6.6	39.0	0.0	100.0	2,586	60.9
40-44	40.5	3.1	8.1	48.4	0.0	100.0	2,473	51.6
45-49	30.7	4.1	8.7	56.3	0.1	100.0	2,234	43.6
<b>Urban-rural residence</b>								
Urban	70.7	2.7	7.0	19.5	0.0	100.0	6,809	80.4
Rural	44.9	1.6	7.2	46.2	0.1	100.0	9,718	53.6
<b>Place of residence</b>								
Urban Governorates	69.1	3.4	8.7	18.8	0.0	100.0	2,931	81.2
Lower Egypt	59.4	1.4	6.2	32.9	0.1	100.0	7,618	67.0
Urban	76.2	1.7	5.4	16.8	0.0	100.0	1,936	83.2
Rural	53.7	1.3	6.4	38.4	0.1	100.0	5,682	61.5
Upper Egypt	43.5	2.1	7.5	46.9	0.1	100.0	5,751	53.1
Urban	67.9	2.8	6.0	23.3	0.0	100.0	1,792	76.7
Rural	32.5	1.8	8.1	57.5	0.1	100.0	3,959	42.4
Frontier Governorates	54.6	3.0	9.0	33.3	0.2	100.0	227	66.6
<b>Wealth quintile</b>								
Lowest	17.9	1.5	7.5	73.0	0.1	100.0	3,033	26.9
Second	36.2	1.4	8.4	53.9	0.1	100.0	3,252	46.0
Middle	55.8	2.4	9.2	32.5	0.1	100.0	3,394	67.4
Fourth	72.8	2.7	7.6	16.9	0.1	100.0	3,505	83.0
Highest	90.1	2.2	2.9	4.9	0.0	100.0	3,343	95.1
Total	55.5	2.0	7.1	35.2	0.1	100.0	16,527	64.7

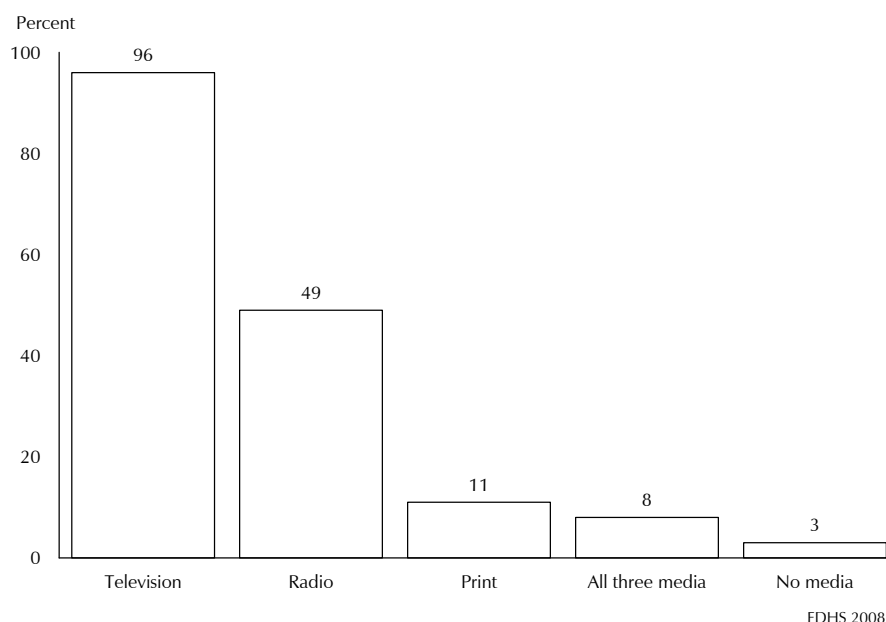
<sup>1</sup>Includes women who attended preparatory school or higher and women who had no education or attended only the primary level but report they can read a newspaper or letter easily or with difficulty

### 3.1.4 Exposure to Mass Media

The 2008 EDHS collected information on the extent to which ever-married women are regularly exposed to both broadcast and print media. These data are important because mass media are extensively used in Egypt to convey family planning and health messages to the population.

Figure 3.1 shows that 96 percent of the ever-married women interviewed in the EDHS watched television at least once a week, about half listened to radio at least once a week, and slightly more than one in ten women read a newspaper or magazine on a weekly basis. Only 8 percent of women reported regular exposure to all three media, and 3 percent had no exposure to print or broadcast media.

**Figure 3.1 Percentage of Ever-Married Women Exposed to Media at Least Once Per Week**



According to the results presented in Table 3.4, ever-married women living in urban areas were somewhat more likely to be exposed to the mass media channels, particularly newspapers or magazines, than rural women. This is may be due to the fact that the literacy rate is much higher among women in urban areas than among those in rural areas. Overall, 14 percent of urban women were exposed to all three media at least once a week, compared with only 3 percent of rural women.

Considering place of residence, the majority of ever-married women in every residential category watched television and listened to the radio at least once a week. The percentage that read a newspaper or magazine at least once a week varied considerably, from 4 percent in rural Upper Egypt to 25 percent in the urban Upper Egypt. The percentage who reported that they had not been exposed to any media ranged from 1 percent of women in the Urban Governorates and urban Lower Egypt to 8 percent of women in rural Upper Egypt.

The percentages reporting exposure to each of the three mass media increased with the woman's education level, with the increase being especially marked for printed media. There was also a strong association between wealth and exposure to mass media. Considering exposure to all three media, around one-quarter of women in the highest wealth quintile watched television, listened to the radio and read a newspaper or magazine at least once per week compared to 1 percent of women in the lowest quintile.

Table 3.4 Exposure to mass media by background characteristics

Percentage of ever-married women age 15-49 who are exposed to specific media weekly, by selected background characteristics, Egypt 2008

Background characteristic	Watches television at least once a week	Listens to the radio at least once a week	Reads a magazine/newspaper at least once a week	All three media at least once a week	No media at least once a week	Number of ever-married women
<b>Age</b>						
15-19	95.6	43.8	2.9	2.0	3.0	620
20-24	96.7	45.8	7.3	5.3	2.6	2,584
25-29	96.4	49.7	11.3	8.0	2.8	3,367
30-34	96.4	50.0	11.0	7.7	2.7	2,664
35-39	96.9	50.1	11.3	7.7	2.6	2,586
40-44	95.5	50.6	12.6	9.6	3.3	2,473
45-49	95.8	49.6	13.0	9.6	3.0	2,234
<b>Urban-rural residence</b>						
Urban	98.1	55.7	19.6	14.1	1.2	6,809
Rural	95.0	44.5	4.5	3.2	4.0	9,718
<b>Place of residence</b>						
Urban Governorates	98.3	61.3	19.7	15.4	0.9	2,931
Lower Egypt	98.4	52.8	7.2	5.3	1.1	7,618
Urban	99.1	55.4	14.6	10.5	0.6	1,936
Rural	98.2	51.9	4.7	3.5	1.2	5,682
Upper Egypt	92.5	38.3	10.6	7.0	6.0	5,751
Urban	97.0	48.1	24.9	16.2	2.2	1,792
Rural	90.6	33.9	4.2	2.8	7.7	3,959
Frontier Governorates	91.1	41.6	14.8	7.7	7.2	227
<b>Education</b>						
No education	92.5	33.4	0.2	0.2	6.2	5,302
Some primary	95.9	45.7	1.5	1.1	2.8	1,394
Primary complete/ some secondary	97.6	53.5	6.7	5.2	1.5	2,413
Secondary complete/higher	98.6	59.6	21.3	15.2	0.9	7,418
<b>Wealth quintile</b>						
Lowest	85.5	27.9	1.1	0.7	12.1	3,033
Second	97.6	41.4	2.3	1.4	1.7	3,252
Middle	98.6	50.4	5.1	3.4	0.6	3,394
Fourth	99.1	59.3	11.0	8.1	0.4	3,505
Highest	99.4	63.8	33.2	24.2	0.3	3,343
Total	96.3	49.1	10.7	7.7	2.8	16,527

### 3.1.5 Employment Status

Ever-married women were asked a number of questions in the 2008 EDHS to identify women who were working at the time of the survey as well as women who were not working at the time of the survey but who had been employed in the 12 months prior to the survey. Women who were working at the time they were interviewed were asked additional questions about the kind of work they were doing and about whether or not they were being paid in cash for their work.

Table 3.5 presents the percent distribution of ever-married women age 15-49 according to current and recent employment. Overall, 16 percent of these women were currently engaged in some economic activity. Most of the women who were not working did not report recent work experience; less than 1 percent of the respondents who were not working at the time of EDHS interview had had a job during the 12-month period before the survey.



Table 3.5 Employment status by background characteristics

Percent distribution of ever-married women age 15-49 by employment status, according to background characteristics, Egypt 2008

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of ever-married women
	Currently employed <sup>1</sup>	Not currently employed				
<b>Age</b>						
15-19	2.7	0.0	97.3	0.0	100.0	620
20-24	5.0	0.2	94.8	0.0	100.0	2,584
25-29	13.3	0.4	86.3	0.0	100.0	3,367
30-34	16.6	0.4	83.0	0.0	100.0	2,664
35-39	20.2	0.2	79.6	0.0	100.0	2,586
40-44	24.0	0.3	75.6	0.0	100.0	2,473
45-49	24.8	0.1	75.1	0.0	100.0	2,234
<b>Marital status</b>						
Currently married	15.7	0.3	84.0	0.0	100.0	15,396
Divorced/separated/widowed	25.5	0.2	74.3	0.0	100.0	1,131
<b>Number of living children</b>						
0	10.5	0.7	88.7	0.0	100.0	1,752
1-2	15.8	0.3	83.9	0.0	100.0	6,377
3-4	20.4	0.2	79.4	0.0	100.0	6,010
5+	12.0	0.2	87.8	0.0	100.0	2,389
<b>Urban-rural residence</b>						
Urban	21.1	0.5	78.5	0.0	100.0	6,809
Rural	13.1	0.1	86.8	0.0	100.0	9,718
<b>Place of residence</b>						
Urban Governorates	19.4	0.5	80.1	0.0	100.0	2,931
Lower Egypt	17.4	0.2	82.4	0.0	100.0	7,618
Urban	22.5	0.4	77.1	0.0	100.0	1,936
Rural	15.6	0.1	84.2	0.0	100.0	5,682
Upper Egypt	13.3	0.3	86.4	0.0	100.0	5,751
Urban	21.9	0.5	77.6	0.0	100.0	1,792
Rural	9.4	0.2	90.4	0.0	100.0	3,959
Frontier Governorates	20.7	0.0	79.3	0.0	100.0	227
<b>Education</b>						
No education	10.5	0.1	89.4	0.0	100.0	5,302
Some primary	10.0	0.1	89.9	0.0	100.0	1,394
Primary complete/ some secondary	5.7	0.2	94.0	0.1	100.0	2,413
Secondary complete/higher	25.2	0.5	74.3	0.0	100.0	7,418
<b>Wealth quintile</b>						
Lowest	11.0	0.1	88.9	0.0	100.0	3,033
Second	10.0	0.2	89.7	0.0	100.0	3,252
Middle	13.9	0.1	86.0	0.0	100.0	3,394
Fourth	17.3	0.5	82.2	0.0	100.0	3,505
Highest	28.9	0.4	70.6	0.0	100.0	3,343
Total	16.4	0.3	83.4	0.0	100.0	16,527

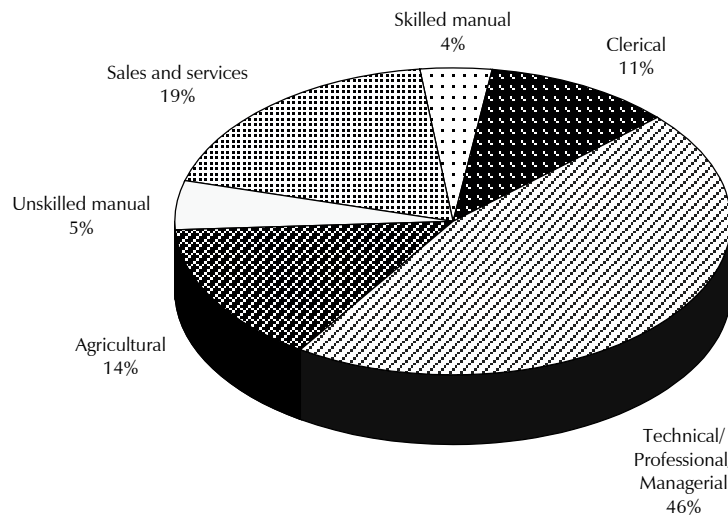
<sup>1</sup> Currently employed is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.5 shows that women in the 45-49 age group were more likely to be currently employed than younger women. The comparatively small proportions of ever-married women under age 30 and especially of ever-married women under age 25 who worked may be related to the greater childcare responsibilities. With regard to the other employment differentials presented in Table 3.5, women living in urban Lower Egypt, women who completed secondary school or higher, and women in the highest wealth quintile were much more likely to be employed at the time of the survey than other women.

In the EDHS 2008, ever-married women who indicated that they were working or had worked within the year before the survey were asked about the kind of work that they did. Their response was recorded exactly as they gave it and was the basis for the coding of occupation that occurred after the survey in the central office.

As Figure 3.2 shows, the majority of women who were currently working were employed in non-agricultural occupations. Slightly less than half of working women (46 percent) were in professional, technical, and managerial positions or in clerical occupations. An additional 19 percent were working in sales and services, and 5 percent work in jobs categorized as unskilled manual labour. Fifteen percent of working women were involved in some type of agricultural activity.

**Figure 3.2 Occupation among Working Women**



EDHS 2008

Table 3.6 looks at the differences in the occupational profile of working women according to selected background characteristics. As expected, the proportions involved in professional, technical and managerial occupations and in clerical positions were much greater among urban women than rural women. These proportions also increased rapidly with both education and wealth. Overall, more than six in ten working women who have attained a secondary or higher education or fall in the highest wealth quintile were employed in professional, technical, managerial or clerical occupations.

Table 3.6 Occupation by background characteristics

Percent distribution of ever-married women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Egypt 2008

Background characteristic	Professional/technical/managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of employed ever-married women
<b>Age</b>									
15-19	*	*	*	*	*	*	*	*	17
20-24	45.1	4.0	18.9	6.5	6.5	19.1	0.0	100.0	135
25-29	49.4	7.8	15.1	6.2	3.8	16.8	0.9	100.0	460
30-34	48.1	10.2	20.8	1.4	4.3	15.1	0.1	100.0	453
35-39	52.1	7.2	16.1	3.1	7.7	13.9	0.0	100.0	526
40-44	40.5	15.1	19.5	5.2	5.6	13.9	0.2	100.0	603
45-49	42.7	17.6	21.8	3.5	2.8	11.0	0.6	100.0	556
<b>Marital status</b>									
Currently married	47.8	11.5	17.7	3.5	4.5	14.7	0.4	100.0	2,459
Divorced/separated/widowed	30.0	10.5	26.9	8.6	10.3	13.3	0.3	100.0	290
<b>Number of living children</b>									
0	51.4	11.2	21.1	3.2	3.1	10.0	0.0	100.0	197
1-2	52.9	11.5	16.2	4.1	3.7	10.7	0.8	100.0	1,026
3-4	45.3	13.1	19.3	3.7	4.8	13.6	0.1	100.0	1,235
5+	20.4	3.9	22.9	5.5	12.4	35.0	0.0	100.0	291
<b>Urban-rural residence</b>									
Urban	56.5	14.6	20.3	3.8	3.7	0.7	0.4	100.0	1,466
Rural	33.9	7.8	16.8	4.2	6.6	30.4	0.3	100.0	1,284
<b>Place of residence</b>									
Urban Governorates	53.0	14.2	22.9	6.2	3.4	0.2	0.2	100.0	584
Lower Egypt	43.6	11.8	15.7	3.6	4.8	20.1	0.4	100.0	1,336
Urban	60.1	18.3	15.1	2.3	3.1	0.6	0.6	100.0	443
Rural	35.4	8.6	16.1	4.2	5.6	29.7	0.3	100.0	894
Upper Egypt	44.2	8.5	20.6	3.2	7.1	16.1	0.4	100.0	783
Urban	57.4	10.8	22.5	2.2	5.2	1.4	0.5	100.0	402
Rural	30.2	6.0	18.5	4.2	9.1	31.7	0.3	100.0	380
Frontier Governorates	55.1	14.2	16.6	3.3	1.3	9.0	0.6	100.0	47
<b>Education</b>									
No education	2.9	0.0	24.3	7.5	16.1	48.8	0.4	100.0	563
Some primary	6.4	0.9	21.2	11.1	16.7	43.7	0.0	100.0	141
Primary complete/ some secondary	9.1	5.1	39.5	15.4	12.0	18.9	0.0	100.0	142
Secondary complete/ higher	64.3	16.0	15.2	1.6	0.5	1.9	0.4	100.0	1,904
<b>Wealth quintile</b>									
Lowest	4.7	0.2	15.1	3.4	15.7	60.2	0.7	100.0	336
Second	19.1	6.0	18.9	7.6	11.2	37.3	0.0	100.0	334
Middle	38.3	10.9	23.9	5.4	7.9	13.3	0.3	100.0	475
Fourth	49.5	18.1	24.0	4.4	1.9	1.5	0.6	100.0	623
Highest	70.6	13.1	13.8	2.1	0.0	0.1	0.3	100.0	982
Total	45.9	11.4	18.6	4.0	5.1	14.5	0.4	100.0	2,750

Note: An asterisk indicates a figure is based on less than 25 cases and has been suppressed.

Table 3.7 shows that, among women who worked, more than 90 percent earned cash for the work they did. Among working women, the majority (70 percent) worked for someone other than a relative, 8 percent worked for a family member while 22 percent were self-employed. The majority of women who worked were employed on a full-year basis (91 percent), 7 percent worked seasonally, and 2 percent worked occasionally.

Table 3.7 Type of employment

Percent distribution of ever-married women employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Egypt 2008

Employment characteristics	Agricultural work	Non-agricultural work	Missing	Total
<b>Type of earnings</b>				
Cash only	24.4	95.5	72.2	85.1
Cash and in-kind	25.9	2.5	10.0	6.0
In-kind only	5.2	0.3	0.0	1.0
Not paid	44.4	1.4	13.0	7.7
Missing	0.0	0.3	4.9	0.2
Total	100.0	100.0	100.0	100.0
<b>Type of employer</b>				
Employed by family member	38.9	3.0	13.0	8.2
Employed by nonfamily member	36.1	75.3	72.2	69.6
Self-employed	25.0	21.5	10.0	22.0
Missing	0.0	0.2	4.9	0.2
Total	100.0	100.0	100.0	100.0
<b>Continuity of employment</b>				
All year	68.8	95.0	95.1	91.1
Seasonal	26.5	3.2	0.0	6.6
Occasional	4.7	1.6	0.0	2.1
Missing	0.0	0.2	4.9	0.2
Total	100.0	100.0	100.0	100.0
Number of employed ever-married women	400	2,340	10	2,750

Women working in agricultural occupations were much less likely than other working women to be paid for the work they do (56 percent and 98 percent, respectively). This can be explained by the fact that most women who work in an agricultural occupation were assisting their husbands or another family member; around two-fifths of ever-married women who were employed in agricultural occupations were working for a family member compared with only 3 percent of working women who were involved in non-agricultural occupations.

Finally, the results in Table 3.7 show that the majority of working women reported that they worked year-round. However, as expected, seasonal work was more common among women working in agricultural occupations than among women employed in non-agricultural occupations (27 percent and 3 percent, respectively).

## 3.2 WOMEN'S PARTICIPATION IN HOUSEHOLD DECISION-MAKING

The 2008 EDHS obtained information from ever-married women on their participation in several areas of household decision-making. These data relate to women's status and empowerment, which have been shown to influence demographic and health outcomes for women and children.

### 3.2.1 Disposal of Earnings

The EDHS included a number of questions to assess the magnitude of women's earnings relative to those of their husbands, women's control over the use of their earnings, and women's participation in decisions on how their husband's earnings were used. This information has implications for the

empowerment of women. Employment and earnings were more likely to empower women if their earnings were perceived as significant relative to those of their husband and if women themselves control their own earnings. Women also were clearly empowered if they have a voice in how their husbands' earnings were spent.

Tables 3.8 and 3.9 present information on the measures related to women's earnings for currently married women who worked and received cash earnings during the 12-month period prior to the survey. With regard to magnitude of women's earnings, Table 3.8 shows that more than half of women earned less than their husbands regardless of the subgroup to which they belong. Only 7 percent of women earned more than their husbands.

Table 3.8 Relative magnitude of woman's earnings by background characteristics						
Percent distribution of currently married women employed in the 12 months preceding the survey and receiving cash earnings by women's earnings relative to husband's earnings, according to background characteristics, Egypt 2008						
Background characteristic	Woman earns less	Woman earns same	Woman earns more/husband no earnings	Don't know/missing	Total	Number of employed, currently married women
<b>Age</b>						
15-19	*	*	*	*	*	9
20-24	60.3	15.9	6.3	17.5	100.0	118
25-29	58.0	21.0	4.7	16.2	100.0	386
30-34	51.9	26.7	6.4	15.0	100.0	384
35-39	50.9	28.9	9.2	11.1	100.0	426
40-44	54.0	25.0	7.8	13.2	100.0	471
45-49	55.7	24.8	6.6	12.9	100.0	430
<b>Number of living children</b>						
0	56.3	21.2	5.7	16.7	100.0	153
1-2	53.2	26.4	5.3	15.1	100.0	867
3-4	55.0	24.9	7.9	12.2	100.0	1,017
5+	54.9	19.0	10.4	15.8	100.0	187
<b>Urban-rural residence</b>						
Urban	54.7	26.0	6.3	13.0	100.0	1,282
Rural	53.9	23.0	7.8	15.3	100.0	942
<b>Place of residence</b>						
Urban Governorates	52.6	24.0	6.5	16.9	100.0	507
Lower Egypt	52.9	26.6	5.4	15.2	100.0	1,062
Urban	56.1	29.1	3.3	11.5	100.0	394
Rural	51.0	25.1	6.6	17.4	100.0	667
Upper Egypt	58.1	22.3	9.9	9.8	100.0	614
Urban	55.8	25.5	9.0	9.7	100.0	346
Rural	60.9	18.1	11.0	9.9	100.0	268
Frontier Governorates	59.2	23.6	10.2	7.0	100.0	42
<b>Education</b>						
No education	46.3	21.6	14.7	17.4	100.0	304
Some primary	46.7	22.1	8.9	22.2	100.0	90
Primary complete/some secondary	52.9	21.8	6.6	18.6	100.0	102
Secondary complete/higher	56.3	25.6	5.5	12.6	100.0	1,728
<b>Wealth quintile</b>						
Lowest	54.1	18.3	13.0	14.6	100.0	177
Second	47.6	23.0	9.8	19.6	100.0	224
Middle	52.6	23.0	8.8	15.5	100.0	379
Fourth	48.6	25.5	8.1	17.8	100.0	540
Highest	60.3	26.7	3.6	9.4	100.0	904
Total	54.4	24.7	6.9	13.9	100.0	2,224

Note: An asterisk indicates a figure is based on less than 25 cases and has been suppressed.

With regard to decisions about how a woman's earnings are used, Table 3.9 shows that most currently married women who had cash earnings either made decisions about how their earnings were used by themselves (20 percent) or jointly with the husband (73 percent). Only a small minority of women reported that these decisions were made mainly by the husband. Women were most likely to say that the husband or someone else mainly made the decisions about how the woman's earnings were used if they had less than a primary education or fell within the lowest wealth quintile; however, even among women in these groups, more than eight in ten women were involved in decisions on how their earnings were spent.

**Table 3.9 Control over woman's earnings**

Percent distribution of currently married women employed in the 12 months preceding the survey and receiving cash earnings by person mainly deciding how the woman's earnings are used, according to background characteristics, Egypt 2008

Background characteristic	Woman	Jointly with husband	Husband	Other/missing	Total	Number of employed, currently married women
<b>Age</b>						
15-19	*	*	*	*	*	9
20-24	21.6	67.3	2.8	8.3	100.0	118
25-29	17.2	73.2	2.0	7.6	100.0	386
30-34	20.0	73.6	1.9	4.6	100.0	384
35-39	17.9	74.9	3.2	4.0	100.0	426
40-44	18.3	76.5	1.6	3.7	100.0	471
45-49	25.7	68.0	1.8	4.5	100.0	430
<b>Number of living children</b>						
0	20.3	72.3	3.0	4.3	100.0	153
1-2	21.1	70.5	2.0	6.4	100.0	867
3-4	18.2	76.2	1.4	4.3	100.0	1,017
5+	23.1	66.9	6.9	3.1	100.0	187
<b>Urban-rural residence</b>						
Urban	20.4	73.4	1.6	4.6	100.0	1,282
Rural	19.2	72.2	3.0	5.5	100.0	942
<b>Place of residence</b>						
Urban Governorates	21.3	71.2	2.1	5.4	100.0	507
Lower Egypt	17.7	74.7	1.5	6.0	100.0	1,062
Urban	18.1	75.6	1.1	5.1	100.0	394
Rural	17.4	74.2	1.8	6.6	100.0	667
Upper Egypt	23.2	70.5	3.2	3.0	100.0	614
Urban	22.7	72.7	1.2	3.4	100.0	346
Rural	23.8	67.6	5.9	2.6	100.0	268
Frontier Governorates	9.6	83.1	4.4	2.9	100.0	42
<b>Education</b>						
No education	18.3	71.1	6.7	3.9	100.0	304
Some primary	20.5	72.4	2.5	4.5	100.0	90
Primary complete/some secondary	16.5	76.3	2.8	4.4	100.0	102
Secondary complete/ higher	20.3	73.1	1.4	5.3	100.0	1,728
<b>Wealth quintile</b>						
Lowest	28.0	61.6	6.9	3.4	100.0	177
Second	15.9	74.0	3.8	6.3	100.0	224
Middle	16.6	75.7	2.8	4.9	100.0	379
Fourth	17.1	75.2	1.9	5.8	100.0	540
Highest	22.3	72.3	0.8	4.6	100.0	904
<b>Total</b>	<b>19.9</b>	<b>72.9</b>	<b>2.2</b>	<b>5.0</b>	<b>100.0</b>	<b>2,224</b>

Note: An asterisk indicates a figure is based on less than 25 cases and has been suppressed.

Table 3.10 focuses on decisions about how the husband's earnings were used. The results indicate that, as was true with regard to the woman's earnings, the majority of women (71 percent) say that these decisions were made jointly by the couple. Twenty-two percent of the women say the husband decides by himself how to spend his earnings. The table shows that women from urban areas, educated women, women working for cash, and women in the highest wealth quintile were more likely to report that decisions about how the husband's earnings were used were made jointly than other women. Women living in rural areas, particularly in Upper Egypt and women from the Frontier Governorates were the most likely to report that the husband made these decisions alone. Even among these groups, however, joint decision-making was the norm.

Background characteristic	Woman	Jointly	Husband	Husband no earnings	Other/missing	Total	Number of currently married women
<b>Age</b>							
15-19	0.6	60.6	25.4	2.9	10.5	100.0	605
20-24	1.9	67.7	22.2	1.3	6.9	100.0	2,527
25-29	2.7	71.1	21.6	0.7	4.0	100.0	3,264
30-34	2.9	73.6	20.9	0.5	2.1	100.0	2,551
35-39	3.3	72.5	21.6	0.4	2.2	100.0	2,406
40-44	3.0	72.1	22.1	1.2	1.7	100.0	2,188
45-49	3.1	70.9	22.7	2.1	1.1	100.0	1,855
<b>Number of living children</b>							
0	1.6	65.7	25.2	1.5	6.0	100.0	1,612
1-2	2.4	72.6	20.0	1.0	4.0	100.0	5,961
3-4	3.0	73.0	20.5	0.7	2.8	100.0	5,627
5+	3.6	64.6	28.3	1.6	1.8	100.0	2,196
<b>Urban-rural residence</b>							
Urban	2.2	75.3	20.4	0.9	1.2	100.0	6,316
Rural	3.0	67.8	23.0	1.2	5.0	100.0	9,080
<b>Place of residence</b>							
Urban Governorates	2.6	70.5	24.9	1.0	1.1	100.0	2,727
Lower Egypt	1.8	79.9	14.7	0.7	3.0	100.0	7,128
Urban	1.4	87.3	9.6	0.7	1.0	100.0	1,801
Rural	1.9	77.4	16.4	0.7	3.6	100.0	5,326
Upper Egypt	4.0	59.8	29.3	1.5	5.4	100.0	5,326
Urban	2.6	71.3	23.7	0.8	1.6	100.0	1,646
Rural	4.7	54.7	31.8	1.8	7.1	100.0	3,680
Frontier Governorates	0.9	52.8	41.6	1.6	3.1	100.0	216
<b>Education</b>							
No education	3.3	59.2	31.4	1.7	4.6	100.0	4,758
Some primary	3.5	67.4	24.4	0.9	3.8	100.0	1,259
Primary complete/some secondary	2.6	67.7	24.5	1.1	4.1	100.0	2,273
Secondary complete/higher	2.2	80.4	14.3	0.6	2.5	100.0	7,106
<b>Work status</b>							
Working for cash	3.1	82.0	11.7	0.2	3.0	100.0	2,182
Not working for cash	2.6	69.0	23.6	1.2	3.6	100.0	13,215
<b>Wealth quintile</b>							
Lowest	3.4	58.5	29.3	1.8	7.0	100.0	2,764
Second	3.1	64.0	26.1	1.1	5.7	100.0	3,014
Middle	2.6	73.5	19.9	1.0	3.0	100.0	3,172
Fourth	2.2	77.9	17.5	0.9	1.5	100.0	3,268
Highest	2.2	78.4	18.1	0.4	0.9	100.0	3,178
Total	2.7	70.9	21.9	1.0	3.5	100.0	15,396

Table 3.11 looks at how a woman's control over decisions about how her and her husband's earnings were spent relative to the magnitude of the woman's earnings relative to that of her husband. As expected, women earning more than the husband have the highest level of autonomy in making decisions about spending. Somewhat surprisingly, women who earned less than the husband had a greater degree of personal autonomy in making decisions about how their own earnings were spent than women earning about the same amount as the husband.

**Table 3.11 Relative magnitude of earnings and control over woman's and husband's earnings**

Percent distribution of currently married women by person who decides how a woman's cash earnings are used, and the percent distribution by who decides how a woman's husband's earnings are used, according to the relation between woman's and husband's earnings in last 12 months, Egypt 2008

Control over earnings	Woman earns less	Woman earns same	Woman earns more/ husband no earnings	Woman does not know what husband earns	Woman has no cash earnings/ not working	Currently married women
<b>Control over woman's earnings</b>						
Woman	21.9	16.0	34.7	11.6	na	19.9
Jointly with husband	75.2	82.0	61.6	53.5	na	72.9
Husband	2.5	1.2	2.2	2.8	na	2.2
Other/missing	0.4	0.8	1.5	32.2	na	5.0
Total	100.0	100.0	100.0	100.0	na	100.0
Number of women	1,210	550	155	310	0	2,224
<b>Control over husband's earnings</b>						
Woman	2.7	3.1	12.8	1.7	2.7	2.7
Jointly with husband	83.2	90.1	70.8	79.0	69.9	71.8
Husband	13.5	6.2	15.8	16.3	23.9	22.2
Other/missing	0.7	0.6	0.6	3.0	3.6	3.2
Total <sup>1</sup>	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,208	550	109	309	13,017	15,192

na = Not applicable  
<sup>1</sup> Excludes cases where the woman or her husband had no earnings and includes cases where the woman does not know whether or not she earns more or less than the husband.

### 3.2.2 Women's Roles in Household Decision-Making

To further assess women's roles in household decision-making, respondents were asked questions in the ever-married women's survey about who in the household (respondent, husband, both, other) had the final say in making decisions relating to: the woman's own health care, large household purchases, daily household purchases, and visits to friends or relatives. Table 3.12 shows that, with respect to all four types of decisions, the majority of currently married women reported that the decisions were either made jointly or by the husband or someone else. Women were most likely to say they alone made decisions in the area of daily household purchases.

**Table 3.12 Women's participation in decision-making**

Percent distribution of currently married women by person who has the final say in making specific decisions, according to type of decision, Egypt 2008

Decision	Woman	Jointly with husband	Husband	Someone else	Other/missing	Total	Number of women
Own health care	25.6	61.2	11.8	1.3	0.2	100.0	15,396
Large household purchases	4.7	49.8	40.0	5.2	0.3	100.0	15,396
Daily household purchases	43.9	34.0	15.5	6.5	0.2	100.0	15,396
Visits to family or relatives	9.4	72.6	16.5	1.3	0.3	100.0	15,396



Table 3.13 presents differentials in the proportions of currently married women who reported that they alone or jointly have the final say with respect to various decisions. The table shows that 6 percent of women said they had no involvement in making any of the four types of decisions. The likelihood of a woman being involved in household decision-making generally increased with the age of the woman and with parity up to four children. Rural women, especially those living in Upper Egypt, and women from the Frontier Governorates were generally less likely than other women to report that they make decisions alone or jointly. Education and wealth were directly related to involvement in making the various household decisions. Women working for cash were also more likely than other women to report having a say in the various decisions.

Table 3.13 Women's participation in decision-making by background characteristics

Percentage of currently married women who say that they alone or jointly have the final say in specific decisions, by background characteristics, Egypt 2008

Background characteristic	Percentage who alone or jointly have final say in:					Number of currently married women
	Own health care	Making large purchases	Making daily purchases	Visits to family or relatives	None of the specified decisions	
<b>Age</b>						
15-19	76.1	42.7	60.3	71.4	11.9	605
20-24	83.5	48.3	69.2	80.0	7.8	2,527
25-29	86.4	54.6	76.4	82.3	6.6	3,264
30-34	88.0	56.5	80.4	83.0	5.3	2,551
35-39	88.6	57.2	82.6	82.0	4.6	2,406
40-44	89.0	56.1	82.9	83.6	4.5	2,188
45-49	88.7	58.9	82.2	83.7	4.8	1,855
<b>Number of living children</b>						
0	81.9	49.5	65.4	78.5	9.4	1,612
1-2	88.0	56.3	77.7	83.5	5.4	5,961
3-4	88.5	56.2	81.5	83.5	4.8	5,627
5+	82.4	49.1	77.7	76.1	7.7	2,196
<b>Urban-rural residence</b>						
Urban	91.9	61.9	83.7	87.6	3.0	6,316
Rural	83.2	49.4	73.7	78.0	8.0	9,080
<b>Place of residence</b>						
Urban Governorates	93.3	61.9	87.4	89.4	1.9	2,727
Lower Egypt	90.5	61.5	81.6	85.8	4.0	7,128
Urban	95.2	71.4	85.9	88.9	1.9	1,801
Rural	88.9	58.2	80.1	84.7	4.8	5,326
Upper Egypt	78.9	42.1	68.6	73.4	10.1	5,326
Urban	87.1	52.7	76.8	84.2	5.0	1,646
Rural	75.3	37.3	65.0	68.6	12.3	3,680
Frontier Governorates	73.6	39.4	59.3	70.0	18.4	216
<b>Education</b>						
No education	79.4	41.9	72.9	72.0	9.8	4,758
Some primary	84.1	56.1	78.8	81.8	6.6	1,259
Primary complete/some secondary	85.6	52.9	77.2	81.9	6.1	2,273
Secondary complete/ higher	92.5	63.3	81.2	88.7	3.2	7,106
<b>Work status</b>						
Working for cash	94.4	69.5	88.7	91.9	1.6	2,182
Not working for cash	85.5	52.1	76.0	80.3	6.7	13,215
<b>Wealth quintile</b>						
Lowest	77.2	38.8	68.6	70.1	11.4	2,764
Second	82.1	45.1	71.9	76.8	8.3	3,014
Middle	87.1	57.0	78.3	81.8	5.8	3,172
Fourth	91.7	64.7	84.0	86.9	3.5	3,268
Highest	94.1	64.4	84.7	92.1	1.7	3,178
Total	86.8	54.6	77.8	81.9	6.0	15,396

### 3.3 WOMEN'S ATTITUDE TOWARD WIFE BEATING

An important measure of women's welfare status is the extent to which they are subject to domestic violence. The 2008 EDHS assessed women's attitudes toward wife beating but did not collect information on women's experience of domestic violence. Respondents in the ever-married women

sample were asked if a husband is justified in hitting or beating his wife if she: goes out without telling him, neglects the children, argues with him, refuses to have sex with him, and burns the food. The results presented in Table 3.14 show that 39 percent of women agreed that wife beating would be justified in at least one of the specified circumstances. The reasons women most often agreed justified wife beating were going out without telling the husband and neglecting children (reported by 32 and 29 percent of women, respectively).

Table 3.14 Attitudes towards wife beating by background characteristics

Background characteristic	Percentage agreeing husband is justified in hitting or beating his wife if she:					Percentage agreeing that husband justified in beating for at least one reason	Percentage agreeing that husband justified in beating for all five reasons	Number of ever-married women
	Goes out without telling him	Neglects the children	Argues with him	Refuses to have sex with him	Burns the food			
<b>Age</b>								
15-19	40.5	38.3	19.5	26.0	11.4	50.4	8.2	620
20-24	33.0	30.7	14.2	20.4	8.1	40.2	6.0	2,584
25-29	28.2	25.8	12.2	17.9	6.1	35.3	4.3	3,367
30-34	28.8	28.0	13.3	20.5	7.4	38.1	5.3	2,664
35-39	29.9	27.9	14.0	21.3	6.9	38.1	5.1	2,586
40-44	34.4	30.9	17.2	23.9	8.9	41.0	7.0	2,473
45-49	34.4	32.4	18.5	26.9	9.9	42.5	7.9	2,234
<b>Marital status</b>								
Currently married	31.8	29.6	14.8	21.8	7.9	39.7	5.9	15,396
Divorced/separated/widowed	28.6	26.2	15.5	20.5	8.1	35.0	5.8	1,131
<b>Number of living children</b>								
0	31.4	28.8	13.9	20.7	8.7	38.5	6.2	1,752
1-2	26.2	24.7	11.1	17.2	5.7	34.1	4.0	6,377
3-4	30.3	28.2	13.6	20.8	7.0	38.1	5.2	6,010
5+	49.1	45.2	28.8	36.4	15.3	57.2	12.5	2,389
<b>Urban-rural residence</b>								
Urban	20.2	17.8	8.0	14.0	3.2	27.7	2.2	6,809
Rural	39.5	37.5	19.6	27.1	11.2	47.5	8.5	9,718
<b>Place of residence</b>								
Urban Governorates	18.0	11.1	5.8	12.4	2.0	24.0	1.3	2,931
Lower Egypt	28.4	27.3	11.0	18.0	4.9	35.7	3.8	7,618
Urban	18.6	21.0	6.6	12.7	2.4	27.5	1.4	1,936
Rural	31.8	29.5	12.5	19.9	5.8	38.4	4.7	5,682
Upper Egypt	42.0	41.3	24.4	30.8	14.8	51.5	10.9	5,751
Urban	24.1	24.2	12.5	16.7	5.8	32.6	4.1	1,792
Rural	50.2	49.0	29.8	37.2	18.8	60.1	14.0	3,959
Frontier Governorates	45.7	33.1	17.5	32.1	9.4	52.6	6.5	227
<b>Education</b>								
No education	51.3	46.6	28.2	37.6	16.0	59.3	12.7	5,302
Some primary	41.6	39.0	20.5	28.7	10.5	50.4	8.0	1,394
Primary complete/some secondary	32.6	29.4	12.0	19.5	5.5	41.3	3.4	2,413
Secondary complete/ higher	15.2	15.2	5.1	9.6	2.4	22.4	1.4	7,418
<b>Number of decisions in which woman has final say</b>								
0	42.0	36.7	23.4	31.1	12.6	47.9	9.9	2,047
1-2	48.1	44.6	26.3	35.8	14.5	56.5	11.4	3,435
3-4	24.4	23.3	9.7	15.5	5.0	32.4	3.4	11,045
<b>Wealth quintile</b>								
Lowest	54.6	51.8	33.2	40.1	20.0	62.9	15.8	3,033
Second	42.0	39.3	20.6	29.2	11.5	50.7	8.7	3,252
Middle	32.4	30.1	13.3	21.6	6.2	40.9	4.6	3,394
Fourth	21.1	19.7	6.7	13.2	2.2	28.9	1.3	3,505
Highest	10.5	8.8	2.6	6.5	1.0	16.3	0.3	3,343
Total	31.5	29.4	14.8	21.7	7.9	39.3	5.9	16,527

Younger women age 15-19, women with 5 or more children, those residing in rural areas, women with no education, and those in the lowest wealth quintile were more likely to agree that a husband is justified in hitting or beating wife for at least one of the specified reasons.

### 3.4 BACKGROUND CHARACTERISTICS OF RESPONDENTS ELIGIBLE FOR HEALTH ISSUES INTERVIEW

As described in the first chapter of the report, the 2008 EDHS included interviews with women and men age 15-59 living in the subsample of one-quarter of the households selected for the special health issues component of the survey. Table 3.15 presents the percent distribution of the respondents interviewed in the special health issues component of the survey by selected background characteristics. The results show that 34 percent of the women and men interviewed in this component of the EDHS were less than 25 years old. Around one-third of the respondents had never married, while 63 percent were currently married. Forty-four percent lived in urban areas and 56 percent in rural areas.

Table 3.15 Selected background characteristics of respondents eligible for health issues interview

Percent distribution of the population age 15-59 by selected background characteristics, Egypt 2008

Background characteristic	Women			Men			Total		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
<b>Age</b>									
15-19	16.9	1,064	1,126	19.0	1,087	1,078	17.9	2,151	2,204
20-24	17.3	1,091	1,189	15.2	869	906	16.3	1,960	2,095
25-29	14.4	906	948	12.7	729	733	13.6	1,635	1,681
30-34	10.9	688	748	11.1	634	618	11.0	1,322	1,366
35-39	10.7	673	708	9.4	535	546	10.1	1,209	1,254
40-44	9.0	568	600	10.2	581	586	9.6	1,148	1,186
45-49	8.7	550	570	8.6	494	473	8.7	1,044	1,043
50-59	11.9	751	762	13.8	788	758	12.8	1,539	1,520
<b>Marital status</b>									
Never married	25.0	1,570	1,686	40.1	2,293	2,323	32.2	3,864	4,009
Married	67.2	4,225	4,460	58.8	3,363	3,321	63.2	7,588	7,781
Widowed	6.1	381	384	0.3	19	20	3.3	400	404
Divorced	1.4	87	94	0.5	30	25	1.0	118	119
Separated	0.4	27	27	0.2	13	9	0.3	39	36
<b>Urban-rural residence</b>									
Urban	43.5	2,736	2,777	44.6	2,552	2,377	44.0	5,288	5,154
Rural	56.5	3,555	3,874	55.4	3,165	3,321	56.0	6,720	7,195
<b>Place of residence</b>									
Urban Governorates	20.3	1,276	1,055	20.5	1,169	837	20.4	2,445	1,892
Lower Egypt	43.4	2,731	2,470	43.4	2,481	2,112	43.4	5,212	4,582
Urban	11.0	689	660	10.9	622	548	10.9	1,311	1,208
Rural	32.5	2,041	1,810	32.5	1,860	1,564	32.5	3,901	3,374
Upper Egypt	34.9	2,195	2,753	34.5	1,973	2,399	34.7	4,168	5,152
Urban	11.3	713	821	12.2	696	752	11.7	1,409	1,573
Rural	23.6	1,482	1,932	22.3	1,277	1,647	23.0	2,759	3,579
Frontier Governorates	1.4	89	373	1.6	93	350	1.5	182	723
<b>Education</b>									
No education	29.8	1,873	2,066	12.5	715	716	21.6	2,588	2,782
Some primary	8.2	517	543	9.9	568	561	9.0	1,084	1,104
Primary complete/ some secondary	21.3	1,342	1,390	27.6	1,577	1,512	24.3	2,919	2,902
Secondary complete/ higher	40.7	2,559	2,652	50.0	2,857	2,909	45.1	5,417	5,561
<b>Wealth quintile</b>									
Lowest	17.4	1,095	1,330	16.6	947	1,101	17.0	2,042	2,431
Second	20.4	1,281	1,434	20.3	1,161	1,238	20.3	2,442	2,672
Middle	19.6	1,236	1,320	20.8	1,190	1,191	20.2	2,425	2,511
Fourth	20.3	1,279	1,202	20.3	1,161	1,033	20.3	2,440	2,235
Highest	22.2	1,399	1,365	22.0	1,260	1,135	22.1	2,659	2,500
Total	100.0	6,290	6,651	100.0	5,718	5,698	100.0	12,008	12,349

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

Twenty percent of women and men interviewed in the health issues component of the EDHS were from the Urban Governorates, 43 percent from Lower Egypt, 35 percent from Upper Egypt, and just 2 percent from the Frontier Governorates. Twenty-two percent of these respondents had never attended school, while 45 percent had a secondary or higher education. Differentials in the distributions of men and women by the background characteristics were minimal except for marital status and education, with women being more likely to be currently married and to have lower education attainment than men.

Table 3.16 presents information on the self-reported literacy status and on the level of media exposure among respondents interviewed in the health issues survey. The results show that around three-quarters of the respondents were literate. As expected, the proportion literate was higher among men than among women (84 percent and 66 percent, respectively).

Table 3.16 Literacy status and recent exposure to mass media of respondents eligible for health issues interview

Percent distribution of the population age 15-59 by literacy status and percentage who are exposed to specific media weekly, Egypt 2008

Literacy and media exposure	Women 15-59	Men 15-59	Total
<b>Literacy status</b>			
Literate <sup>1</sup>	66.2	83.5	74.5
Not literate <sup>2</sup>	33.6	15.9	25.2
Missing	0.1	0.6	0.3
Total	100.0	100.0	100.0
Number	6,290	5,718	12,008
<b>Media exposure<sup>3</sup></b>			
Television	95.6	96.1	95.8
Radio	48.9	53.7	51.2
Magazine/ newspaper	11.3	21.0	15.9
All three media	8.0	14.5	11.1
No media	3.4	2.4	2.9
Number	6,290	5,718	12,008

<sup>1</sup>Refers to respondents who attended preparatory school or higher and respondents with no or primary education who can read a newspaper or letter easily or with difficulty.

<sup>2</sup>Refers to respondents with no or primary education who cannot read a newspaper or letter at all.

<sup>3</sup>At least once per week

Table 3.17 Employment status, occupation, and type of earnings of respondents eligible for health issues interview

Percent distribution of the population age 15-59 by employment status, and percent distribution of employed persons by occupation and type of earnings, Egypt 2008

Employment, occupation and type of earnings	Women 15-59	Men 15-59	Total
<b>Employment status</b>			
Currently employed <sup>1</sup>	16.4	78.4	45.9
Not employed	83.5	21.5	54.0
Missing	0.1	0.1	0.1
Total percent	100.0	100.0	100.0
Number	6,290	5,718	12,008
<b>Occupation</b>			
Professional/ technical/ managerial	44.0	23.0	26.9
Clerical	9.1	4.2	5.1
Sales and services	19.6	18.3	18.6
Skilled manual	7.9	29.5	25.4
Unskilled manual	5.2	4.4	4.6
Agriculture	14.1	19.1	18.2
Missing	0.2	1.5	1.2
<b>Type of earnings</b>			
Cash only	86.8	88.1	87.8
Cash and in-kind	6.0	9.5	8.9
In-kind only	0.8	0.5	0.6
Not paid	6.0	1.5	2.3
Missing	0.3	0.5	0.4
Total percent	100.0	100.0	100.0
Number employed	1,031	4,484	5,515

<sup>1</sup> Currently employed is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Most of the respondents were exposed to media on a regular basis. Over 95 percent of respondents reported watching TV at least once a week, 51 percent listened to the radio, and 16 percent read a magazine or newspaper at least once a week. Just over one-tenth of respondents were exposed to all three media on a weekly basis. Men were more likely to be exposed to mass media than women, especially to print media.

Table 3.17 presents the distribution of the respondents interviewed in the health issues component of the EDHS by employment status, occupation and type of earnings. Seventy-eight percent of men were currently employed compared with only 16 percent of women. The majority of working women were employed in professional/technical/managerial occupations (44 percent), followed by sales and services (20 percent). Men were most likely to be working in skilled manual labor (30 percent) and professional/technical/managerial (23 percent) occupations. More than nine in ten of the women and men who were working were paid at least some cash for the work they did.



## FERTILITY

This chapter examines levels, patterns, and trends in both current and cumulative fertility in Egypt. The chapter also considers information on the length of the interval between births and the age at which the average Egyptian woman bears her first child. The data on birth intervals are important since short intervals are strongly associated with childhood mortality. The age at which childbearing begins can also have a major impact on the health and well-being of both the child and the mother.

Fertility data were collected in EDHS 2008 in several ways. First, each woman was asked a series of questions on the number of her sons and daughters living with her, the number living elsewhere, and the number who may have died. Next, a complete history of all of the woman's births was obtained, including the name, sex, month and year of birth, age, and survival status for each of the births. For living children, a question was asked about whether the child was living in the household or away. For dead children, the age at death was recorded. Finally, information was collected on whether currently married women were pregnant at the time of the survey.

### 4.1 CURRENT FERTILITY LEVELS BY RESIDENCE

The level of current fertility is one of the most important topics in this report because of its direct relevance to population policies and programs. Table 4.1 presents several measures of current fertility including age-specific fertility rates, the total fertility rate, the general fertility rate, and the crude birth rate. These rates are presented for the three-year period preceding the survey, a period covering portions of the calendar years 2005-2008. The three-year period was chosen for calculating these rates (rather than a longer or a shorter period) to provide the most current information, reduce sampling error, and avoid problems of the displacement of births.

Table 4.1 Current fertility by residence

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by urban-rural residence and place of residence, Egypt 2008

Age group	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
15-19	32	64	24	52	25	60	60	41	68	55	50
20-24	132	196	127	180	142	191	179	130	204	160	169
25-29	175	193	166	183	173	188	197	191	201	201	185
30-34	127	117	119	105	114	101	145	154	140	147	122
35-39	61	58	61	49	58	46	71	65	74	73	59
40-44	15	19	23	8	5	10	24	10	32	23	17
45-49	2	2	2	0	0	0	5	4	6	6	2
TFR 15-49	2.7	3.2	2.6	2.9	2.6	3.0	3.4	3.0	3.6	3.3	3.0
TFR 15-44	2.7	3.2	2.6	2.9	2.6	3.0	3.4	3.0	3.6	3.3	3.0
GFR	93	117	87	104	88	110	118	100	127	116	106
CBR	23.3	29.1	22.3	26.7	22.5	28.1	28.7	25.2	30.5	27.8	26.6

Note: Age-specific rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation.

TFR: Total fertility rate for ages 15-49, expressed per woman

GFR: General fertility rate (births divided by the number of women age 15-44), expressed per 1,000 women

CBR: Crude birth rate expressed per 1,000 population

The age-specific fertility rates shown in Table 4.1 are useful in understanding the age pattern of fertility. Numerators of age-specific fertility rates are calculated by identifying live births that occurred in the period 1-36 months prior to the survey (determined from the date of interview and date of birth of the child), and classifying them by the age (in five-year age groups) of the mother at the time of the child's birth. The denominators of these rates are the number of woman-years lived in each of the specified five-year age groups in the period 1-36 months prior to the survey. Although information on fertility was obtained only for ever-married women, data from the household interviews on the age structure of the population of never-married women was used to calculate the all-women rates. This procedure assumes that women who have never been married have had no children.

The total fertility rate (TFR) is a useful measure for examining the overall level of fertility. It is interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed rates. The TFR is calculated by summing the age-specific fertility rates. The TFR is presented in Table 4.1 for women age 15-44 and women 15-49 to facilitate comparisons with other surveys in which the age range of interviewed women may differ from that in the 2008 EDHS.

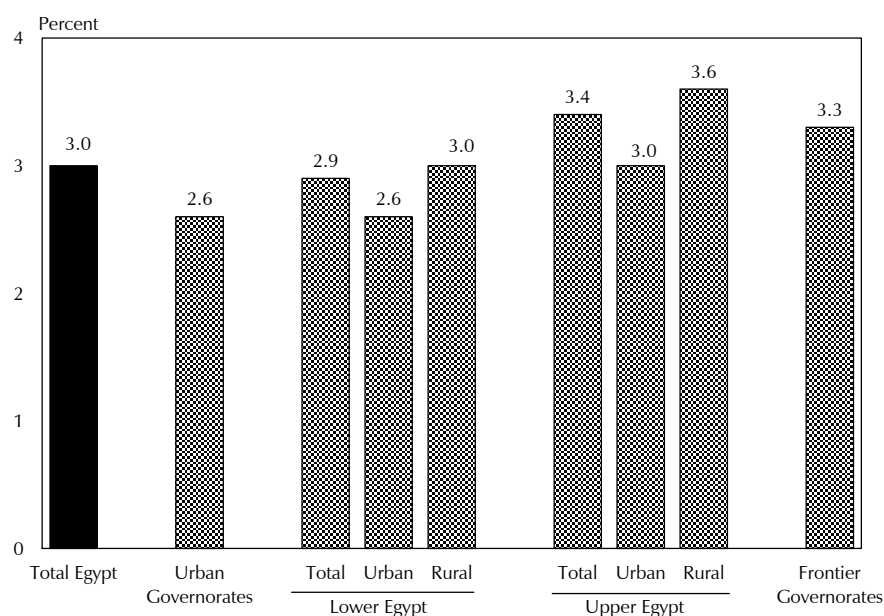
The TFR in Table 4.1 shows that, if fertility rates were to remain constant at the level prevailing during the three-year period before the 2008 EDHS (approximately March 2005 to February 2008), an Egyptian woman would bear 3 children between her 15<sup>th</sup> and 50<sup>th</sup> birthdays. The rural TFR is 3.2 births per woman, around 20 percent higher than the rate in urban areas (2.7 births). Considering the variation by place of residence, women in rural Lower Egypt are bearing children at the same rate as women in urban Upper Egypt (3 births per woman each). The highest TFR is observed for rural Upper Egypt (3.6 births per woman), followed by the rate for the Frontier Governorates (3.3 births per woman). The lowest TFR is 2.6 births per woman in the Urban Governorates and urban Lower Egypt; one child lower than the rate in rural Upper Egypt.

Egyptian women tend to have children early in the reproductive period. At the current age-specific fertility rates shown in Table 4.1, an Egyptian woman will give birth to 1.1 children—more than one-third of her lifetime births—by age 25 and 2.0 children—two-thirds of her lifetime births—by age 30. The age pattern of fertility is similar in urban and rural areas. Fertility peaks in the age group 25-29 at 193 births per thousand among rural women and at 175 births per thousand among urban women. Looking at the variation in age-specific fertility by place of residence, rates are generally higher in rural Upper Egypt than in the other areas except in the 30-34 age group, where the highest rates are observed in the urban Upper Egypt.

Finally, Table 4.1 presents estimates of the crude birth rate and general fertility rate for the three-year period before the 2008 EDHS. The general fertility rate (GFR) represents the annual number of births in a population per 1,000 women age 15-44. The crude birth rate (CBR) is the annual number of births in a population per 1,000 persons. Both measures are based on the birth history data for the three-year period before the survey and the age-sex distribution of the household population.

For the period 2005-2008, the crude birth rate was 27 births per thousand populations, and the general fertility rate was 106 births per thousand women. As was the case with the TFR, there are substantial differences by residence in the CBR and the GFR. The lowest rates are found in the Urban Governorates, where the CBR was 22 births per thousand populations and the GFR was 87 births per thousand women. In contrast, in rural Upper Egypt where the rates are highest, the CBR was 31 births per thousand populations, and the GFR was 127 births per thousand women.

**Figure 4.1 Total Fertility Rates by Place of Residence**



EDHS 2008

#### 4.2 FERTILITY DIFFERENTIALS BY BACKGROUND CHARACTERISTICS

Table 4.2 highlights differences in the TFR and two additional fertility measures—the percentage currently pregnant and the mean number of children ever born to women age 40-49—by residence, education and wealth. Like the TFR, the percentage pregnant provides a measure of current fertility, although it is subject to some degree of error as women may not recognize or report all first trimester pregnancies. The mean number of children ever born (CEB) among women 40-49 serves as a measure of cumulative fertility, taking into account the past fertility behaviour of women who are nearing the end of the reproductive period. If fertility is stable over time in a population, the TFR and the mean CEB for women 40-49 will be similar. If fertility levels are falling, the TFR will be lower than the mean CEB among older women.

The differentials in the fertility measures in Table 4.2 further document the strong influence of residence on fertility in Egypt. The mean CEB among older women varies from 3.3 births in the Urban Governorates and urban Lower Egypt to 5.5 births in rural Upper Egypt.

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Egypt 2008

Background characteristic	Total fertility rate	Percentage currently pregnant <sup>1</sup>	Mean number of children ever born to women age 40-49
<b>Urban-rural residence</b>			
Urban	2.7	5.7	3.5
Rural	3.2	7.3	4.7
<b>Place of residence</b>			
Urban Governorates	2.6	6.1	3.3
Lower Egypt	2.9	6.4	3.9
Urban	2.6	5.0	3.3
Rural	3.0	6.9	4.2
Upper Egypt	3.4	6.9	4.9
Urban	3.0	5.1	3.9
Rural	3.6	7.8	5.5
Frontier Governorates	3.3	8.4	4.7
<b>Education</b>			
No education	3.4	5.8	4.8
Some primary	3.2	5.3	4.6
Primary complete/ some secondary	3.0	4.9	3.9
Secondary complete/higher	3.0	7.8	3.1
<b>Wealth quintile</b>			
Lowest	3.4	5.7	5.2
Second	3.1	6.9	4.9
Middle	3.0	7.2	4.2
Fourth	2.9	7.1	3.6
Highest	2.7	5.7	3.1
Total	3.0	6.5	4.2

<sup>1</sup>Women age 15-49 years



The results in Table 4.2 show the strong influence woman’s education has on fertility behaviour. The TFR decreases with increasing educational level, from 3.4 births among women with no education to 3 births among women who had completed primary or higher education. The differentials in completed fertility across educational groups are especially striking. The mean number of children ever born is 4.8 among women age 40-49 with no education, compared with 3.1 among women who have completed secondary school.

The fertility measures in Table 4.2 also vary markedly by wealth quintile. The TFR decreases from a level of 3.4 births among women in the lowest wealth quintile to 2.7 births among women in the highest wealth quintile. Similarly, the mean number of children ever born among women 40-49 is 5.2 in the lowest wealth quintile compared with 3.1 births among women in the highest wealth quintile.

A comparison of TFR and the mean CEB among women age 40-49 provides an indication of the magnitude and direction of fertility change over the past several decades in Egypt. Overall, the comparison shows that fertility has declined substantially; women age 40-49 had an average of 4.2 births over their lifetime, 1.2 births more than the current TFR. Considering the patterns for subgroups, the largest difference between current and cumulative fertility is observed in rural Upper Egypt, where the TFR is around 2 births lower than the mean number of children ever born to women 40-49. Interestingly, the TFR for women with a secondary or higher education is nearly the same as the mean CEB. This pattern suggests that fertility has remained stable among highly educated women for several decades.

Finally, Table 4.2 shows that 7 percent of the 2008 EDHS respondents were pregnant at the time of the survey. Looking at residential differentials, women in the Frontier Governorates have the highest percentage currently pregnant (8 percent), while the percentage is lowest in urban Lower Egypt and urban Upper Egypt (5 percent, each). Surprisingly, the percentage of women who were pregnant is higher for women with a secondary or higher education than for other women. This is due at least in part to the fact that, on average, highly-educated women married at older ages than women in the other education categories and, thus, they were more likely to be in the family-building stage at the time of the survey than other women.

### 4.3 FERTILITY TRENDS

#### 4.3.1 Retrospective Data

Table 4.3 uses information from the retrospective birth histories obtained from EDHS respondents to examine trends in age-specific fertility rates for successive five-year periods before the survey. To calculate these rates, births were classified according to the period of time in which the birth occurred and the mother’s age at the time of birth. Because women 50 years and over were not interviewed in the 2008 EDHS, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years and more prior to the survey, because women in that age group would have been 50 years or older at the time of the survey.

Table 4.3 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Egypt 2008

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	50	60	66	80
20-24	168	199	211	229
25-29	181	210	218	238
30-34	117	140	151	[177]
35-39	58	75	[97]	-
40-44	16	[30]	-	-
45-49	[3]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

The results in Table 4.3 confirm that fertility has fallen substantially among all age groups, with the most rapid relative decline occurring in the 15-19 age group. Overall, the cumulative fertility rate for

women age 15-29 decreased from 2.7 births per woman during the period 15-19 years before the survey to 2 births per woman in the five-year period preceding the survey.

### 4.3.2 Comparison with Previous Surveys

Table 4.4 shows the TFR estimates from a series of surveys conducted in Egypt during the period 1979 through 2008. The surveys vary in the timeframes for which the TFR estimates are available. For example, the rates from the EFS, ECPS and the EMCHS are based on births in a one-year period before the survey, while the rates for the EDHS surveys are based on births in the three-year period before the interview date. In general, three-year rates are subject to less sampling variability than one-year rates. The size of the sample covered in a specific survey is another factor related to sampling variability. In general, rates from surveys with comparatively large samples are subject to less sampling variability than rates from surveys with smaller samples. Thus, the rates for the 1997, 1998, and 2003 Interim DHS surveys have somewhat greater margins of error than full-scale DHS surveys (i.e., the surveys conducted in 1988, 1992, 1995, 2000, 2005, and 2008). Sampling errors for the TFRs derived from the 2008 EDHS are presented in Appendix C.

Age	1988		1991	1992	1995	1997	1998	2000	2003		2005	2008
	EFS	ECPS	EDHS	EMCHS	EDHS	EDHS	Interim	EDHS	EDHS	EDHS	EDHS	EDHS
	1979-1980 <sup>1</sup>	1983-1984 <sup>1</sup>	1986-1988 <sup>2</sup>	1990-1991 <sup>1</sup>	1990-1992 <sup>2</sup>	1993-1995 <sup>2</sup>	1995-1997 <sup>2</sup>	1996-1998 <sup>2</sup>	1997-2000 <sup>2</sup>	2000-2003 <sup>2</sup>	2002-2005 <sup>2</sup>	2005-2008 <sup>2</sup>
15-19	78	73	72	73	63	61	52	64	51	47	48	50
20-24	256	205	220	207	208	200	186	192	196	185	175	169
25-29	280	265	243	235	222	210	189	194	208	190	194	185
30-34	239	223	182	158	155	140	135	135	147	128	125	122
35-39	139	151	118	97	89	81	65	73	75	62	63	59
40-44	53	42	41	41	43	27	18	22	24	19	19	17
45-49	12	13	6	14	6	7	5	1	4	6	2	2
TFR	5.3	4.9	4.4	4.1	3.9	3.6	3.3	3.4	3.5	3.2	3.1	3.0

Note: Rates for the age group 45-49 may be slightly biased due to truncation.  
<sup>1</sup> Rates are for the 12-month period preceding the survey.  
<sup>2</sup> Rates are for the 36-month period preceding the survey.  
Source: El-Zanaty and Way, 2006, Table 4.4

The results in Table 4.4 show that fertility has declined almost continuously in Egypt over the past two decades, from 5.3 births per woman at the time of the 1980 EFS to 3 births per woman at the time of the 2008 EDHS. The decline in fertility was especially rapid during the period between the mid-1980s and the mid-1990s. In contrast, during the period between the 2005 and 2008 EDHS surveys, the TFR dropped by only 0.1 births.

The results in Table 4.4 indicate that all age groups have shared in the decline in fertility rates. However, the decline has been more rapid among older women than among younger women. Age-specific fertility rates among women age 30 and over fell by around 50 percent or more between the 1980 EFS and the 2008 EDHS. In contrast, fertility rates among women under age 30 declined by around one-third during this period. As a result of the differences in the pace of fertility change across various age groups, childbearing has become somewhat more concentrated among women under age 30. Currently, a woman will have an average of 2 births by her 30<sup>th</sup> birthday, roughly two-thirds of her lifetime births. This pattern is typical of countries like Egypt in which fertility levels are declining.

The trend in fertility by residence is presented in Table 4.5 for the period between the 1988 EDHS and the 2008 EDHS.<sup>1</sup> Urban fertility declined between the 1988 and 1992 surveys, from 3.5 to 2.9 births. The decline levelled off early in the 1990s, with the urban TFR fluctuating around three births throughout the rest of the 1990s, before falling to a level of 2.6 births in 2003. Urban fertility has remained essentially stable since 2003. In rural areas, fertility levels has declined continuously over the past two decades, from 5.4 births per woman at the time of the 1988 EDHS to 3.2 births per woman at the time of the 2008 EDHS.

**Table 4.5 Trends in fertility by residence**

Total fertility rates by urban-rural residence and place of residence, Egypt 1986-2008

Residence	1988	1991	1992	1995	1997	1998	2003			
	EDHS	EMCHS	EDHS	EDHS	Interim EDHS	Interim EDHS	2000 EDHS	Interim EDHS	2005 EDHS	2008 EDHS
	1986-1988 <sup>2</sup>	1990-1991 <sup>1</sup>	1990-1992 <sup>2</sup>	1993-1995 <sup>2</sup>	1995-1997 <sup>2</sup>	1996-1998 <sup>2</sup>	1997-2000 <sup>2</sup>	2000-2003 <sup>2</sup>	2002-2005 <sup>2</sup>	2005-2008 <sup>2</sup>
Urban-rural residence										
Urban	3.5	3.3	2.9	3.0	2.7	2.8	3.1	2.6	2.7	2.7
Rural	5.4	5.6	4.9	4.2	3.7	3.9	3.9	3.6	3.4	3.2
Place of residence										
Urban Governorates	3.0	2.9	2.7	2.8	2.5	2.7	2.9	2.3	2.5	2.6
Lower Egypt	4.5	na	3.7	3.2	3.0	3.1	3.2	3.1	2.9	2.9
Urban	3.8	3.5	2.8	2.7	2.6	2.4	3.1	2.8	2.7	2.6
Rural	4.7	4.9	4.1	3.5	3.2	3.2	3.3	3.2	3.0	3.0
Upper Egypt	5.4	na	5.2	4.7	4.2	4.3	4.2	3.8	3.7	3.4
Urban	4.2	3.9	3.6	3.8	3.3	3.3	3.4	2.9	3.1	3.0
Rural	6.2	6.7	6.0	5.2	4.6	4.5	4.7	4.2	3.9	3.6
Frontier Governorates	na	na	na	4.0	na	na	3.8	na	3.3	3.3
TFR	4.4	4.1	3.9	3.6	3.3	3.4	3.5	3.2	3.1	3.0

Note: Rates for the age group 45-49 may be slightly biased due to truncation.  
<sup>1</sup> Rates are for the 12-month period preceding the survey.  
<sup>2</sup> Rates are for the 36-month period preceding the survey.  
na = Not available  
Source: El-Zanaty and Way, 2006, Table 4.5

Considering the place of residence, declines in fertility were observed in all areas between the 1988 and 2008 surveys. Women in rural Upper Egypt experienced the greatest absolute change in fertility levels, with the TFR dropping from 6.2 births at the time of the 1988 survey to 3.6 births per woman at the 2008 EDHS. The TFR in rural Lower Egypt, which was 4.7 births at the time of the 1988 survey (the level reached in 2000 in rural Upper Egypt), dropped to 3 births at the time of the 2008 EDHS. Overall, fertility also declined in the Urban Governorates and in urban areas within Lower Egypt and Upper Egypt over the past several decades; however, the decline in urban areas has been slower and more erratic than the change observed in rural Egypt.

#### 4.4 CHILDREN EVER BORN AND LIVING

Table 4.6 presents the distributions of all women and currently married women by the total number of children ever born. These distributions reflect the accumulation of births among EDHS respondents over the past 30 years and, therefore, their relevance to the current situation is limited.

<sup>1</sup> Residential differentials in the TFR are not available for the 1980 EFS and the 1984 ECPS surveys.

However, the information is useful in looking at how average family size varies across age groups and for looking at the level of primary infertility.

Since only ever-married women were interviewed in the 2008 EDHS, information on the reproductive histories of never-married women is not available. However, virtually all births in Egypt occur within marriage; thus, in calculating these fertility measures for all women, never-married women were assumed to have had no births. The marked differences between the results for currently married women and for all women at the younger ages are due to the comparatively large numbers of never-married women in those age groups who, as noted, are assumed to have had no births.

Table 4.6 shows that the average Egyptian woman has given birth to 2 children. Out of that number, 1.9 children are still alive, indicating that around 5 percent of the children ever born to EDHS respondents have died.

Reflecting the natural family-building process, the number of children that women have born increases directly with age from an average of less than one child among women age 20-24 to an average of 4.4 births among women 45-49. As expected, the likelihood that at least one of a woman's children will have died also increases with the woman's age. Out of the average of 4.4 children born to women 45-49, an average of 0.4 children or 9 percent are no longer alive.

Table 4.6 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, and mean number of children ever born and mean number of living children, according to age group, Egypt 2008

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children	
	0	1	2	3	4	5	6	7	8	9	10+					
ALL WOMEN																
15-19	94.0	5.1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	4,618	0.07	0.07
20-24	59.2	22.3	14.4	3.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	4,806	0.64	0.62
25-29	25.0	17.5	30.3	18.4	6.6	1.7	0.3	0.1	0.1	0.0	0.0	0.0	100.0	4,090	1.71	1.66
30-34	11.7	8.2	23.5	29.3	15.0	7.2	3.6	1.1	0.3	0.0	0.0	0.0	100.0	2,862	2.71	2.60
35-39	7.1	5.1	15.1	28.7	21.3	11.9	5.8	2.8	1.3	0.3	0.5	0.0	100.0	2,683	3.39	3.22
40-44	6.4	3.1	12.1	24.2	20.9	13.8	7.9	5.7	3.1	1.5	1.4	0.0	100.0	2,527	3.92	3.66
45-49	5.8	3.2	10.3	19.3	17.7	12.7	12.2	8.1	5.4	2.4	2.8	0.0	100.0	2,277	4.42	3.99
Total	37.8	10.7	15.0	15.0	9.3	5.2	3.1	1.8	1.0	0.4	0.5	0.0	100.0	23,863	1.98	1.86
CURRENTLY MARRIED WOMEN																
15-19	55.1	38.3	5.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	605	0.52	0.50
20-24	23.8	41.2	27.2	6.5	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,527	1.20	1.16
25-29	8.4	20.8	37.4	22.6	8.1	2.1	0.4	0.1	0.1	0.0	0.0	0.0	100.0	3,264	2.10	2.04
30-34	4.7	7.9	25.4	32.1	16.4	8.0	4.0	1.2	0.4	0.0	0.0	0.0	100.0	2,551	2.96	2.84
35-39	3.3	4.2	15.3	30.3	22.5	12.9	6.3	3.1	1.4	0.4	0.5	0.0	100.0	2,406	3.58	3.41
40-44	4.0	2.4	11.3	25.2	22.0	14.2	8.5	6.1	3.2	1.6	1.5	0.0	100.0	2,188	4.10	3.83
45-49	3.5	2.4	10.1	19.6	18.5	13.4	12.4	8.5	5.6	2.7	3.1	0.0	100.0	1,855	4.60	4.16
Total	10.1	15.3	22.0	21.9	13.5	7.4	4.4	2.6	1.4	0.6	0.7	0.0	100.0	15,396	2.85	2.69

## 4.5 BIRTH INTERVALS

### 4.5.1 Intervals between Births

A child's health status is closely related to the length of preceding birth interval. Research has shown that children born too soon after a previous birth (i.e., within 24 months) are at greater risk of illness and death than those born after a longer interval. In addition, short birth intervals may have consequences for other children in the family. The occurrence of closely spaced births gives the mother insufficient time to restore her health, which may limit her ability to take care of her children. The duration of breastfeeding for the older child may also be shortened if the mother becomes pregnant.

Table 4.7 shows the percent distribution of second order and higher (non-first) births in the five years preceding the survey by length of the previous birth interval. Birth intervals during the period were relatively long, with more than eighty percent of non-first births occurring at least two years after the previous birth. More than half of births took place at least three years after a prior birth. The median interval was 37.5 months, which is about two months longer than the median interval at the 2005 EDHS (35.4 months). Although the majority of non-first births were appropriately spaced, 18 percent were born too soon after a prior birth, i.e., within 24 months of a previous birth.

Table 4.7 shows that younger women have shorter birth intervals than older women. The median interval varied from 20 months among the small number of births to women age 15-19 to 64.6 months among births to women age 40-49. The median birth interval was only around three months longer when the prior birth was a boy than the child was a girl. It was 12 months longer in cases where the prior birth was alive than when that child has died (37.9 months and 25.7 months, respectively).

The median birth interval in urban areas was 39.9 months, compared with 36.3 months in rural areas. Birth intervals were longer in urban Lower Egypt and Urban Governorates (43.5 and 39.8 months, respectively) than in urban Upper Egypt (37.8 months). In rural areas, the median birth interval was longer in Lower Egypt (38.7 months) than in Upper Egypt (34.1 months).

No clear association was observed between the woman's educational level and the average birth interval. However, intervals were substantially longer for births to women who are working for cash than for births to other women (40.8 months and 37.1 months, respectively). The median birth interval among women in the highest quintile wealth was around 6 months longer than that observed among women in the lowest quintile.

Table 4.7 Birth intervals by background characteristics

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, according to background characteristics, Egypt 2008

Background characteristic	Months since preceding birth					Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48+			
<b>Sex of preceding birth</b>								
Male	6.8	9.6	27.0	21.3	35.3	100.0	3,560	39.2
Female	8.8	11.3	29.7	21.0	29.2	100.0	3,487	36.1
<b>Survival of preceding birth</b>								
Living	6.9	10.3	28.5	21.6	32.7	100.0	6,791	37.9
Dead	32.0	12.2	25.5	8.4	21.8	100.0	256	25.7
<b>Birth order</b>								
2-3	9.0	11.4	31.3	22.4	25.9	100.0	4,847	35.3
4-5	5.2	8.0	21.1	18.1	47.6	100.0	1,608	46.7
6+	4.8	8.6	24.4	19.6	42.6	100.0	593	43.5
<b>Age</b>								
15-19	38.7	26.9	32.5	1.9	0.0	100.0	44	19.5
20-29	10.4	13.3	35.5	23.4	17.5	100.0	3,564	32.7
30-39	5.1	7.5	22.3	20.2	44.8	100.0	2,933	45.0
40-49	2.9	5.2	12.9	12.7	66.3	100.0	506	64.6
<b>Urban-rural residence</b>								
Urban	7.6	10.2	24.3	20.1	37.8	100.0	2,529	39.9
Rural	7.9	10.5	30.6	21.8	29.2	100.0	4,518	36.3
<b>Place of residence</b>								
Urban Governorates	7.9	9.2	26.0	18.0	38.8	100.0	1,060	39.8
Lower Egypt	6.4	9.6	26.1	23.4	34.5	100.0	2,901	39.6
Urban	5.6	9.8	21.1	23.8	39.7	100.0	641	43.5
Rural	6.7	9.5	27.5	23.3	32.9	100.0	2,260	38.7
Upper Egypt	9.0	11.7	31.4	20.1	27.7	100.0	2,980	34.9
Urban	8.8	12.1	24.4	19.9	34.8	100.0	763	37.8
Rural	9.1	11.6	33.8	20.2	25.3	100.0	2,217	34.1
Frontier Governorates	9.7	8.7	27.5	19.3	34.7	100.0	106	37.9
<b>Education</b>								
No education	8.1	10.9	29.6	18.3	33.1	100.0	2,099	36.6
Some primary	6.7	8.6	28.6	20.7	35.5	100.0	560	38.6
Primary complete/some secondary	7.9	8.2	24.9	23.0	35.9	100.0	1,116	40.1
Secondary complete/higher	7.8	11.2	28.7	22.4	30.0	100.0	3,271	36.9
<b>Work status</b>								
Working for cash	7.1	6.6	27.6	21.7	37.0	100.0	831	40.8
Not working for cash	7.9	10.9	28.5	21.1	31.6	100.0	6,216	37.1
<b>Wealth quintile</b>								
Lowest	9.0	12.4	32.6	19.3	26.7	100.0	1,615	34.1
Second	8.9	10.0	30.4	20.4	30.3	100.0	1,412	36.3
Middle	6.6	10.0	27.1	24.0	32.2	100.0	1,489	38.8
Fourth	6.8	9.0	26.7	21.2	36.2	100.0	1,352	39.5
Highest	7.5	10.3	23.5	20.8	37.8	100.0	1,180	40.2
Total	7.8	10.4	28.4	21.2	32.3	100.0	7,047	37.5

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

## 4.5.2 Attitudes about the Ideal Birth Interval

Ever-married women were asked in the 2008 EDHS about the ideal length of time that a woman should ideally wait between births. The responses for this question are presented in Table 4.8. Overall, 46 percent of the women felt births ideally should be spaced two years apart and 35 percent favoured a three-year interval between births. Only 16 percent of the women believed births should be spaced at least four years apart. Women in urban areas, particularly in the Urban Governorates, were somewhat less likely than rural women to think births should be spaced less than three years apart.

Table 4.8 Ideal birth interval by residence

Percent distribution of ever-married women 15-49 by the length of time that a woman should wait between births, Egypt 2008

Ideal interval between births	Urban Governorates		Lower Egypt			Upper Egypt			Frontier Governorates		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total		
1 year	1.9	4.0	1.5	2.8	2.1	3.1	4.3	2.2	5.2	3.3	3.1
2 years	41.6	48.7	40.0	45.8	41.5	47.2	48.4	43.4	50.7	52.8	45.8
3 years	36.5	33.9	35.5	36.8	37.8	36.4	32.5	37.2	30.3	30.8	35.0
4 years	12.4	9.8	11.6	11.5	14.7	10.4	9.7	11.5	8.9	7.7	10.8
5 or more years	7.2	3.2	11.2	2.6	3.1	2.3	4.6	5.5	4.2	4.7	4.8
Don't know	0.2	0.4	0.1	0.3	0.4	0.3	0.5	0.2	0.6	0.6	0.3
Missing	0.1	0.1	0.1	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	6,809	9,718	2,931	7,618	1,936	5,682	5,751	1,792	3,959	227	16,527

## 4.6 AGE AT FIRST BIRTH

The age at which childbearing begins has important demographic consequences for society as a whole as well as for the health and welfare of mother and child. In many countries, postponement of first births has contributed greatly to overall fertility decline. Table 4.9 presents the distribution of women by age at first birth, according to their current age. For women under age 25, the median age at first birth is not shown because less than 50 percent of women in those ages had given birth at the time of the survey.

The results in Table 4.9 indicate that the age at which the average Egyptian women have their first birth has increased over time. Women in younger cohorts are much less likely than older women to have given birth to their first child while they were in their teens. For example, among women age 45-49, 31 percent had become a mother before age 20, while only 25 percent of women age 25-29 had given birth to their first child before age 20. Overall, Table 4.9 shows that the median age at first birth ranged from a low of 22.2 years among women age 45-49 to 22.9 years among women age 25-29. These cohort changes parallel increases in the median age at first marriage that took place during the same period (see Chapter 8).

Table 4.9 Age at first birth

Percentage of all women who gave birth by exact ages, and median age at first birth, by current age, Egypt 2008

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	0.1	na	na	na	na	94.0	4,618	a
20-24	0.6	6.5	21.5	na	na	59.2	4,806	a
25-29	1.1	9.6	25.1	43.5	64.3	25.0	4,090	22.9
30-34	1.6	12.2	27.0	45.2	67.2	11.7	2,862	22.6
35-39	2.0	14.2	29.2	46.3	69.4	7.1	2,683	22.4
40-44	1.9	14.9	30.0	48.7	70.5	6.4	2,527	22.2
45-49	3.2	15.5	30.7	48.1	69.3	5.8	2,277	22.2

na = Not applicable  
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 4.10 presents trends in the median age at first birth across age cohorts for key subgroups. The measures are presented for women age 25-49 years to ensure that half of the women have already had a birth. Overall, the median age at first birth is 22.5 years for women 25-49. However, there are wide differences in the age at which women first gave birth among the various subgroups. Urban women started childbearing two and half years later than their rural counterparts. On average, women in rural Upper Egypt had their first birth more than one year earlier than women in rural Lower Egypt and about four years earlier than women in the Urban Governorates. Women who had a secondary or higher education had their first birth on average four years later than women with no education. There is a 4 year difference in the median age at first birth between women in the lowest and highest wealth quintiles.

#### 4.7 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage fertility is a major health concern because teenage mothers and their children are at high risk of illness and death. Childbearing during the teenage years also frequently has adverse

Table 4.10 Median age at first birth by background characteristics

Median age at first birth among women age 25-49 years, by current age and background characteristics, Egypt 2008

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
<b>Urban-rural residence</b>						
Urban	24.5	24.1	23.6	23.5	23.9	23.9
Rural	21.7	21.6	21.4	21.0	21.0	21.4
<b>Place of residence</b>						
Urban Governorates	25.0	24.4	23.7	23.9	24.7	24.3
Lower Egypt	22.5	22.7	22.5	22.0	22.0	22.3
Urban	24.0	24.0	23.5	23.2	23.7	23.7
Rural	22.0	22.1	22.1	21.5	21.3	21.8
Upper Egypt	22.2	21.5	21.4	21.0	21.3	21.6
Urban	24.3	23.5	24.1	23.0	22.9	23.6
Rural	21.3	20.7	20.1	20.0	20.5	20.6
Frontier Governorates	23.4	22.9	21.9	22.6	22.3	22.7
<b>Education</b>						
No education	20.5	20.6	20.3	20.5	20.6	20.5
Some primary	20.8	20.7	20.6	21.1	21.0	20.9
Primary complete/ some secondary	20.8	20.8	20.9	21.4	22.1	21.0
Secondary complete/ higher	24.1	24.4	24.4	24.5	25.8	24.5
<b>Wealth quintile</b>						
Lowest	21.0	20.6	20.6	20.7	21.0	20.8
Second	21.9	21.3	20.6	20.6	20.3	21.0
Middle	22.3	22.3	21.8	21.6	21.3	21.9
Fourth	23.3	23.3	23.4	22.9	22.9	23.2
Highest	a	24.9	24.7	24.5	25.1	24.8
Total	22.9	22.6	22.4	22.2	22.2	22.5

a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group



social consequences, particularly on female educational attainment since women who become mothers in their teens are more likely to curtail education.

Table 4.11 shows the percentage of women age 15-19 who were mothers or who were pregnant with their first child at the time of the 2008 EDHS. The overall level of teenage childbearing was 10 percent, almost the same as that recorded in the 2005 EDHS (9 percent).

The proportion of women who had begun childbearing rises rapidly throughout the teenage years, from less than one percent among 15-year-olds to 7 percent among 17-year-olds, 13 percent among 18-year-olds, and 24 percent among 19-year-olds. There were significant residential differences in the level of teenage childbearing. In rural areas, the level of teenage fertility (12 percent) was almost twice the level in urban areas (7 percent). Upper Egypt had the highest level of teenage childbearing, especially in the rural areas (14 percent), while the level was lowest in Urban Governorates and urban Lower Egypt (5 percent, each).

The level of teenage fertility was strongly associated with a woman's educational level. The proportion of women age 15-19 who were pregnant or who had already had a birth was highest among women with no education (26 percent). Teenagers in the three lowest wealth quintiles were more than twice as likely as women in the highest wealth quintile to have begun bearing children.

Background characteristic	Percentage who are:		Percentage who have begun childbearing	Number of women
	Mothers	Pregnant with first child		
<b>Age</b>				
15	0.1	0.6	0.8	853
16	1.1	1.1	2.2	924
17	3.6	3.8	7.4	931
18	8.4	4.1	12.5	936
19	15.6	8.3	23.9	973
<b>Urban-rural residence</b>				
Urban	4.4	2.2	6.5	1,635
Rural	7.4	4.9	12.3	2,754
<b>Place of residence</b>				
Urban Governorates	3.2	2.1	5.4	791
Lower Egypt	5.8	3.4	9.2	1,980
Urban	3.8	1.0	4.8	504
Rural	6.5	4.2	10.7	1,477
Upper Egypt	7.4	4.7	12.1	1,782
Urban	4.8	2.4	7.2	530
Rural	8.5	5.6	14.1	1,252
Frontier Governorates	3.5	4.0	7.5	67
<b>Education</b>				
No education	16.6	9.5	26.2	428
Some primary	10.7	3.2	13.9	131
Primary complete/some secondary	4.1	1.8	5.8	2,592
Secondary complete/higher	5.8	5.4	11.2	1,460
<b>Wealth quintile</b>				
Lowest	8.1	3.6	11.7	975
Second	7.3	4.6	11.9	1,006
Middle	6.2	3.9	10.1	900
Fourth	4.7	4.4	9.1	876
Highest	2.9	1.9	4.8	865
Total	6.0	3.7	9.6	4,618

# KNOWLEDGE, ATTITUDES, AND EVER USE OF FAMILY PLANNING

# 5

This chapter first presents 2008 EDHS results relating to knowledge of family planning methods and the channels through which Egyptian women receive information about family planning methods. The chapter next considers data from the survey on women’s awareness of the timing of the fertile period and of the circumstances under which breastfeeding may play in delaying pregnancy. The chapter then looks at information on the level of ever use of family planning and the timing of the first adoption of family planning methods.

## 5.1 KNOWLEDGE OF FAMILY PLANNING METHODS

Awareness of family planning methods is crucial in decisions on whether to use a contraceptive method and which method to use. One of the main objectives of the 2008 EDHS was to determine the level of knowledge of contraceptive methods. To assess contraceptive knowledge, respondents were first asked an open-ended question about the contraceptive methods about which they had heard. All methods named in response to this question were recorded as recognized.

If a respondent failed to mention any of the methods listed in the questionnaire, the interviewer would describe the method and ask whether the respondent had heard about it. Methods recognized by the respondent after the description was read were also recorded as known.

Information on knowledge of specific methods was collected in the 2008 EDHS for nine modern methods (pill, IUD, injectable, implant, vaginal methods (diaphragm and contraceptive foam or jelly), condom, female sterilization, male sterilization, and emergency contraception) and three traditional methods (periodic abstinence, withdrawal, and prolonged breastfeeding). In addition, provision was made in the questionnaire to record other methods that respondents mentioned spontaneously.

No questions were asked to elicit information on depth of knowledge of these methods (e.g., on the respondent’s understanding of how to use a specific method). Therefore, in the analysis that follows, knowledge of a family planning method is defined simply as having heard of a method.

The results in Table 5.1 show that knowledge of family planning methods is universal among currently married women in Egypt. Almost all currently married women age 15-49 interviewed in the EDHS knew about the pill, IUD, and injectable, and 94 percent knew about implant. Fifty-eight percent knew about female sterilization, and nearly 50 percent knew about the condom. Other methods were less widely recognized. Only 13 percent knew about vaginal methods, 9 percent knew about male sterilization, and emergency contraception was recognized by around 6 percent. Prolonged breastfeeding was the most

Table 5.1 Family planning knowledge

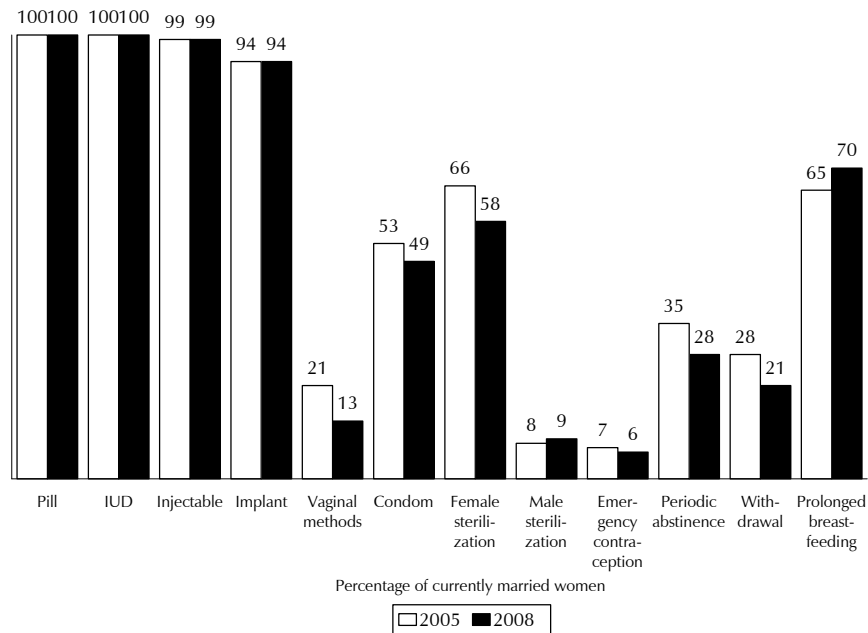
Percentage of currently married women 15-49 knowing about specific family planning methods by method and the mean number of family planning methods known, Egypt 2008

Method	Knows method
<b>Any method</b>	100.0
<b>Any modern method</b>	100.0
Pill	99.7
IUD	99.8
Injectables	99.4
Implant	93.7
Diaphragm /foam/jelly	12.6
Condom	48.7
Female sterilization	57.6
Male sterilization	8.5
Emergency contraception	5.6
<b>Any traditional method</b>	75.9
Periodic abstinence	28.1
Withdrawal	21.4
Prolonged breastfeeding	70.1
Folk method	0.5
Mean number of methods known	6.5
Number of women	15,396

commonly recognized traditional method (70 percent). The mean number of methods known by women was 6.5.

Figure 5.1 compares the levels of knowledge of specific methods found in the 2008 EDHS with levels observed in the 2005 EDHS survey. Almost all women in both surveys knew about the pill, IUD and injectable, and 94 percent knew about the implant. In the case of all of the other methods except prolonged breastfeeding, however, knowledge levels decreased over the period. The declines were greatest in the case of vaginal methods (from 21 percent to 13 percent) and female sterilization (from 66 percent to 58 percent).

**Figure 5.1 Trends in Family Planning Knowledge, Egypt 2005-2008**



## 5.2 EXPOSURE TO FAMILY PLANNING MESSAGES

The 2008 EDHS obtained information on the types of media through which women received family planning information. The 2008 EDHS collected these data by asking respondents whether they had heard a family planning message through broadcast media (television or radio) and through printed materials, community meetings and religious leaders during the 6 months prior to the interview ( i.e., the period from around October 2007 up to March 2008). The information on the media channels on which women are currently relying may be useful in guiding future information and education efforts in Egypt's family planning program.

As expected, Table 5.2 confirms that television is the primary source of family planning information. Around 60 percent of currently married women age 15-49 interviewed in the EDHS had seen a recent family planning message on television, compared with 19 percent who had listened to a message on the radio. Twenty-six percent of EDHS respondents had seen a family planning poster, billboard, or signboard. Other communication channels reached far fewer women. Only 7 percent had read about family planning in a newspaper or magazine, while community meetings and religious leaders were named by 2 percent and 1 percent of women, respectively, as a source from which they had received information about family planning. One third of women were not exposed to any family planning messages during the 6 months prior to the survey.

Table 5.2 Exposure to family planning messages by background characteristics

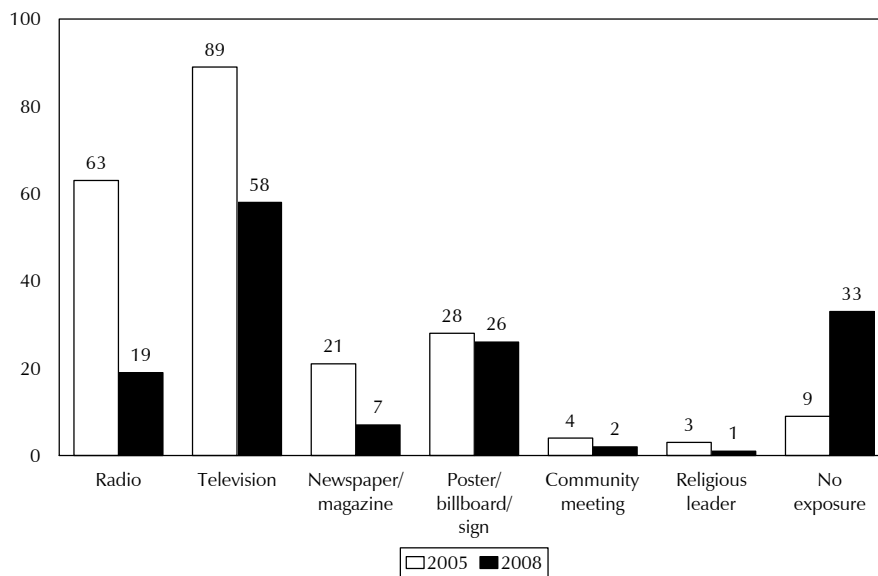
Percentage of currently married women by whether they heard or saw a family planning message on various media in the 6 months prior to the interview according to background characteristics, Egypt 2008

Background characteristic	Radio	Television	News-paper/ magazine	Poster/ billboard/ sign	Com- munity meeting	Religious leader	No exposure to family planning messages	Number of women
<b>Age</b>								
15-19	18.0	56.9	3.3	29.3	1.2	0.9	31.8	605
20-24	18.0	61.3	5.2	30.3	1.5	0.9	29.2	2,527
25-29	19.8	60.7	7.0	31.1	1.9	1.2	29.5	3,264
30-34	21.5	59.7	8.2	29.8	2.0	1.1	30.8	2,551
35-39	19.5	57.9	6.9	23.4	2.2	1.1	33.5	2,406
40-44	19.6	56.1	7.4	20.2	1.8	1.1	37.2	2,188
45-49	17.1	49.5	6.7	17.5	1.7	1.6	43.7	1,855
<b>Urban-rural residence</b>								
Urban	22.8	56.3	10.5	29.3	1.6	1.4	32.3	6,316
Rural	16.9	59.3	4.2	24.2	1.9	1.0	33.8	9,080
<b>Place of residence</b>								
Urban Governorates	26.8	51.6	8.6	24.2	1.5	1.8	36.2	2,727
Lower Egypt	17.8	64.3	6.2	24.9	1.5	0.2	31.6	7,128
Urban	19.3	64.7	11.5	30.5	1.7	0.4	29.9	1,801
Rural	17.3	64.2	4.5	23.0	1.5	0.1	32.2	5,326
Upper Egypt	17.4	53.2	6.5	29.3	2.4	2.1	33.5	5,326
Urban	20.5	54.8	12.4	36.3	1.8	1.8	28.1	1,646
Rural	16.1	52.5	3.9	26.2	2.7	2.3	35.9	3,680
Frontier Governorates	19.8	52.6	8.4	25.9	1.8	0.5	40.4	216
<b>Education</b>								
No education	14.0	50.2	0.5	15.8	1.2	0.8	42.6	4,758
Some primary	15.3	52.6	1.5	24.6	1.2	1.3	36.9	1,259
Primary complete/some secondary	21.4	57.4	3.1	26.3	1.1	1.0	32.5	2,273
Secondary complete/ higher	22.9	64.5	13.1	33.6	2.6	1.4	26.5	7,106
<b>Work status</b>								
Working for cash	23.4	61.3	17.4	33.1	5.1	2.0	29.6	2,182
Not working for cash	18.6	57.5	5.0	25.2	1.3	1.0	33.8	13,215
<b>Wealth quintile</b>								
Lowest	12.5	49.1	1.2	19.8	1.5	1.3	41.8	2,764
Second	16.7	58.8	2.5	21.5	1.8	1.0	35.0	3,014
Middle	20.3	63.5	4.6	25.9	1.7	0.9	29.5	3,172
Fourth	19.5	59.2	7.2	31.4	1.6	0.8	31.2	3,268
Highest	26.6	58.6	17.5	31.5	2.4	1.9	29.7	3,178
Total	19.3	58.1	6.8	26.3	1.8	1.2	33.2	15,396

The proportions of currently-married women who had heard a family planning message on either television or radio varied by residence, with women in the Urban Governorates being the least likely to have been reached by television and women in Upper Egypt being the least likely to have been reached by radio. As expected, exposure to family planning information through print media increased with educational level. Differences in the proportions who had heard about family planning at a community meeting or from a religious leader were not very pronounced across the subgroups for which results are shown in Table 5.2.

Comparing the level of exposure found in 2008 with the level observed in 2005, Figure 5.2 shows a clear decline in exposure to family planning messages, regardless of the source. One reason may be the fact that most of households now have a satellite dish and, therefore, women are less likely to watch the public television channels through which family planning messages are broadcast. It is also possible that fewer family planning messages are being aired, particularly on television, as the media reduce the overall time allotted for free public service messages.

**Figure 5.2 Trends in Exposure to Family Planning Messages Egypt 2005-2008**



Percentage of currently married women who heard or saw a family planning method on various media

### 5.3 KNOWLEDGE OF FERTILE PERIOD

An elementary understanding of reproductive physiology, particularly knowledge of when in the ovulatory cycle a woman is most likely to become pregnant, may be useful in ensuring success in the use of coitus-related methods such as the condom, vaginal methods and withdrawal. Such knowledge is especially critical for the practice of periodic abstinence.

To investigate women’s knowledge about their fertile period, 2008 EDHS respondents were asked whether there are certain days a woman is more likely to become pregnant if she has sexual intercourse. Those who responded affirmatively to that question were asked whether this time is just before the period begins, during the period, right after the period ends, or halfway between two periods.

Table 5.3 shows that understanding of the ovulatory cycle is limited among Egyptian women. Around one-fifth of the ever-married women age 15-49 interviewed in the EDHS knew that a woman has a greater probability of becoming pregnant if she has sexual intercourse halfway between two periods. More than four in ten respondents either were unable to say when a woman is most at risk of pregnancy or believed that a woman's risk is the same throughout the ovulatory cycle.

#### 5.4 KNOWLEDGE OF BREASTFEEDING AS A FAMILY PLANNING METHOD

Prolonged breastfeeding is the most widely known traditional family planning method among Egyptian women; as shown in Table 5.4, around 7 in 10 currently married respondents in the EDHS believed that a mother is protected from pregnancy during the time she is breastfeeding. Although the belief that women who prolong breastfeeding are protected from pregnancy is widespread, it is not clear that Egyptian women fully understand the conditions under which breastfeeding may be effective as a family planning method. Research on which the lactational amenorrhea method is based indicates that a breastfeeding mother has a high degree of protection from pregnancy if three conditions are met: (1) the child is less than 6 months old; (2) the mother is still amenorrheic, i.e., her menstrual period has not returned; and (3) the baby is exclusively or nearly exclusively breastfed and fed frequently both during the day and at night.

Table 5.3 Knowledge of fertile period

Percent distribution of ever-married women 15-49 by knowledge of the fertile period during the ovulatory cycle, Egypt 2008

Perceived fertile period	Percent
Just before her period begins	1.4
During her period	0.3
Right after her period has ended	32.9
Halfway between two periods	20.7
Other	0.2
No specific time	20.7
Don't know	23.6
Missing	0.3
Total	100.0
Number of women	16,527

Table 5.4 Belief breastfeeding reduces chances of pregnancy

Percent distribution of currently married women 15-49 who know about prolonged breastfeeding or who do not know about prolonged breastfeeding but believe breastfeeding can be a family planning method, Egypt 2008

Belief breastfeeding reduces chances of pregnancy	Percent
Knows prolonged breastfeeding	70.1
Does not know prolonged breastfeeding	29.9
Believes breastfeeding can help woman avoid pregnancy	2.2
Does not believe breastfeeding can help woman avoid pregnancy	27.6
Missing	0.0
Total	100.0
Number of currently married women	15,396

To explore women's awareness of these conditions, the 2008 EDHS included questions about the number of months a woman is protected from pregnancy if she breastfeeds, whether a breastfeeding mother is protected from pregnancy if her menstrual period returns, and whether the mother is still protected if the child is given other liquids or solids besides breast milk or if the baby sleeps through the night without feeding and feeds only a few times during the day. The questions were directed toward women who reported during the administration of the contraceptive knowledge and use table that they had heard of prolonged breastfeeding and an additional 2 percent of women who did not know about prolonged breastfeeding but indicated in response to a separate screening question that they believed breastfeeding can help a woman to avoid pregnancy (Table 5.4).

Table 5.5 shows that few women were aware of the comparatively short period after birth during which breastfeeding may afford a woman protection from pregnancy. Only 4 percent of the women reported correctly that a woman is only protected from a pregnancy during the first 6 months that she breastfeeds her child. More than one-third of women thought that a breastfeeding mother is protected from pregnancy until her period is back, and more than quarter believed that a mother is protected until the child is weaned.

Women were more knowledgeable about some of the situations in which breastfeeding does not protect a mother from pregnancy. More than nine in ten currently married women knew a breastfeeding mother is not protected from pregnancy after her menstrual period returns. Seven in ten women agreed

that a breastfeeding mother was not protected from pregnancy if the child was given other liquids or solids and two-thirds of women agreed that a breastfeeding mother was not protected from pregnancy if she was breastfeeding the child only a few times during the day and not at all at night.

Table 5.5 shows that knowledge of the conditions under which a breastfeeding mother may be protected from pregnancy varied by background characteristics, although the differentials were not substantial in most cases. In general, women age 15-19 were least likely and women in the Frontier Governorates were most likely to recognize the conditions under which a breastfeeding mother would not be protected from pregnancy.

Table 5.5 Beliefs concerning breastfeeding and a woman's protection from pregnancy

Percent distribution of currently married women knowing about prolonged breastfeeding or agreeing that breastfeeding can help a woman avoid pregnancy by the number of months a woman is protected from pregnancy if she breastfeeds and percentage who believe that a breastfeeding mother is not protected from pregnancy if her menstrual period returns, if the child is given other liquids or solids besides breast milk, or if the baby sleeps through the night without feeding and feeds only a few times during the day, by background characteristics, Egypt 2008

Background characteristic	Number of months mother protected from pregnancy if breastfeeding							Percentage saying mother is not protected from pregnancy if:			Number of women
	0-5	6-11	12 or more	Until period back	Until she stops/child weaned	Other/don't know/missing	Total percent	Menstrual period returns	Child given other liquids/solids	Child not breast-fed at night and fed only a few times during day	
<b>Age</b>											
15-19	4.0	7.0	19.2	30.6	23.8	15.5	100.0	85.5	55.3	51.9	334
20-24	3.8	5.7	19.5	35.6	25.2	10.2	100.0	92.2	67.6	62.5	1,684
25-29	4.3	6.8	18.3	37.7	26.7	6.2	100.0	94.5	72.2	67.8	2,372
30-34	3.9	6.6	18.8	36.2	28.5	6.1	100.0	95.6	72.8	68.6	1,882
35-39	3.4	6.5	20.4	36.3	27.8	5.6	100.0	95.4	71.7	69.4	1,787
40-44	3.1	4.2	22.2	36.3	28.0	6.1	100.0	94.7	72.5	68.9	1,660
45-49	3.1	4.2	21.1	39.0	28.1	4.4	100.0	95.2	67.6	64.2	1,423
<b>Urban-rural residence</b>											
Urban	3.4	6.4	17.3	43.4	23.7	5.9	100.0	95.4	74.1	70.2	4,854
Rural	3.9	5.4	21.9	31.4	30.0	7.4	100.0	93.5	67.6	63.8	6,287
<b>Place of residence</b>											
Urban Governorates	3.3	5.7	13.7	55.0	18.4	3.9	100.0	96.3	74.1	68.0	2,265
Lower Egypt	4.7	5.6	16.6	30.8	34.1	8.1	100.0	95.5	69.7	66.0	4,737
Urban	3.6	5.3	15.0	34.5	33.4	8.2	100.0	95.6	72.5	70.6	1,228
Rural	5.1	5.8	17.2	29.5	34.4	8.0	100.0	95.4	68.7	64.3	3,509
Upper Egypt	2.6	6.0	27.3	32.9	24.2	7.0	100.0	91.8	68.7	66.0	3,973
Urban	3.5	8.3	25.5	31.5	23.5	7.7	100.0	93.5	74.7	72.8	1,252
Rural	2.3	4.9	28.1	33.5	24.5	6.7	100.0	91.0	65.9	62.9	2,721
Frontier Governorates	3.4	8.6	21.4	41.7	22.8	2.0	100.0	96.8	84.8	79.3	166
<b>Education</b>											
No education	3.6	4.0	22.7	32.7	32.0	5.0	100.0	94.1	64.5	59.4	3,326
Some primary	4.2	5.8	22.9	35.2	25.0	6.9	100.0	94.6	65.1	61.5	925
Primary complete/some secondary	3.2	6.3	21.4	37.9	25.8	5.4	100.0	94.3	72.2	67.2	1,660
Secondary complete/higher	3.8	6.8	17.1	39.0	25.0	8.2	100.0	94.5	74.7	71.9	5,231
<b>Work status</b>											
Working for cash	3.2	7.5	19.0	39.9	23.5	6.8	100.0	95.0	74.1	73.9	1,740
Not working for cash	3.8	5.5	20.0	36.0	27.9	6.7	100.0	94.2	69.8	65.2	9,401
<b>Wealth quintile</b>											
Lowest	3.2	3.8	27.7	30.5	28.2	6.7	100.0	92.1	63.6	58.8	1,930
Second	3.9	5.2	22.5	30.4	31.4	6.5	100.0	93.8	66.1	61.4	2,036
Middle	3.4	6.4	20.4	34.3	29.0	6.5	100.0	95.1	68.7	65.2	2,245
Fourth	4.6	6.3	14.5	41.5	27.0	6.1	100.0	95.6	75.3	71.8	2,455
Highest	3.1	7.0	16.5	43.9	21.6	7.8	100.0	94.7	76.2	73.2	2,475
Total	3.7	5.8	19.9	36.6	27.2	6.7	100.0	94.3	70.5	66.6	11,141

## 5.5 EVER USE OF FAMILY PLANNING

The 2008 EDHS collected data on the level of ever use of family planning methods. These data were obtained by asking respondents separately about whether they had ever used each of the family planning methods that they knew. The following sections explore the level of ever use of family planning methods among Egyptian women.

### 5.5.1 Levels of Ever Use

Table 5.6 shows the percentages of ever-married women and currently married women who had ever used family planning according to a woman's age and the method used. Overall, the results indicate that 82 percent of married women had used a family planning method at some time. Across age groups, the highest level of ever use of any family planning method among currently-married women was observed in the 35-39 age group (92 percent), while the lowest level is found among women age 15-19 (31 percent).

Virtually all of the women who had ever used a method had experience with modern methods. The most commonly used modern method was the IUD, followed by the pill and then injectable. Around 14 percent of women had ever used a traditional method. The most widely used traditional method was prolonged breastfeeding (12 percent), followed by periodic abstinence (1 percent).

Table 5.6 Ever use of family planning methods by age

Percentage of ever-married women and currently married women who have ever used a family planning method, by specific method and age, Egypt 2008

Age	Any method	Any modern method	Modern method									Any traditional method	Traditional method				Never used any	Number of women	
			Pill	IUD	Injectables	Implant	Dia-phragm/foam/jelly	Con-dom	Fe-male sterilization	Male sterilization	Emergency contraception		Periodic abstinence	With-drawal	Pro-longed breast-feeding	Folk meth-od			
<b>EVER-MARRIED WOMEN</b>																			
15-19	30.5	27.1	9.4	18.5	2.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.2	5.3	0.0	69.5	620
20-24	63.7	59.9	25.8	39.4	10.7	0.5	0.0	0.4	0.0	0.0	0.1	7.8	0.3	0.2	7.3	0.0	36.3	2,584	
25-29	81.7	78.2	33.5	57.4	19.4	1.7	0.1	1.9	0.1	0.0	0.1	12.2	0.7	0.6	11.2	0.0	18.3	3,367	
30-34	87.6	85.8	39.6	66.7	26.2	2.8	0.3	3.1	0.5	0.0	0.1	14.5	1.3	1.2	12.5	0.1	12.4	2,664	
35-39	89.3	87.8	41.9	69.3	27.2	2.5	0.3	3.2	1.3	0.0	0.1	14.9	1.4	1.0	13.3	0.1	10.7	2,586	
40-44	88.2	86.3	42.1	68.6	25.9	2.2	0.5	3.4	2.3	0.0	0.1	16.0	2.2	1.7	13.3	0.1	11.8	2,473	
45-49	85.2	83.0	42.3	65.6	22.0	1.6	0.7	3.4	2.5	0.0	0.2	19.2	1.9	1.4	17.3	0.0	14.8	2,234	
Total	80.6	78.0	36.2	59.3	21.1	1.8	0.3	2.4	1.0	0.0	0.1	13.6	1.2	1.0	12.1	0.1	19.4	16,527	
<b>CURRENTLY MARRIED WOMEN</b>																			
15-19	30.8	27.4	9.6	18.6	2.9	0.3	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.2	5.4	0.0	69.2	605	
20-24	64.6	60.8	26.3	40.0	10.8	0.5	0.0	0.4	0.0	0.0	0.1	7.9	0.3	0.2	7.4	0.0	35.4	2,527	
25-29	82.6	79.1	33.9	58.2	19.6	1.8	0.1	1.9	0.1	0.0	0.1	12.3	0.8	0.6	11.3	0.0	17.4	3,264	
30-34	88.9	87.1	40.5	67.8	26.6	2.8	0.3	3.1	0.6	0.0	0.1	14.7	1.4	1.3	12.6	0.1	11.1	2,551	
35-39	91.5	90.3	43.3	71.3	28.3	2.7	0.3	3.3	1.4	0.0	0.1	15.0	1.5	1.1	13.3	0.1	8.5	2,406	
40-44	90.9	89.1	43.8	71.0	27.3	2.3	0.6	3.8	2.4	0.0	0.2	16.8	2.5	1.9	13.8	0.1	9.1	2,188	
45-49	88.1	86.4	43.9	68.9	23.8	1.9	0.9	3.8	2.7	0.0	0.3	20.0	2.2	1.6	17.9	0.0	11.9	1,855	
Total	81.9	79.4	36.9	60.4	21.6	1.9	0.3	2.5	1.0	0.0	0.1	13.7	1.3	1.0	12.1	0.1	18.1	15,396	



## 5.5.2 Trends in Ever Use

Table 5.7 presents trends in the level of ever use of family planning among ever-married women during the period 1980-2008. The level of ever-use of any method increased from 40 percent in 1980 to 81 percent in 2008, an average of 1.5 percentage points per year (Figure 5.3)

With regard to the trends in use of specific methods, the most significant change has been the rise in IUD use. The level of ever use of the IUD was about 60 percent at the time of the 2008 EDHS, four times the level reported in 1984 (15 percent). In the case of the pill, the level of ever use peaked at 46 percent in 1988, before dropping steadily thereafter to a level of 36 percent in 2008. Ever use of the injectable was rare before the mid 1990s when use of this method began to steadily increase, reaching a level of 21 percent in 2005.

Table 5.7 Trends in ever use of family planning method

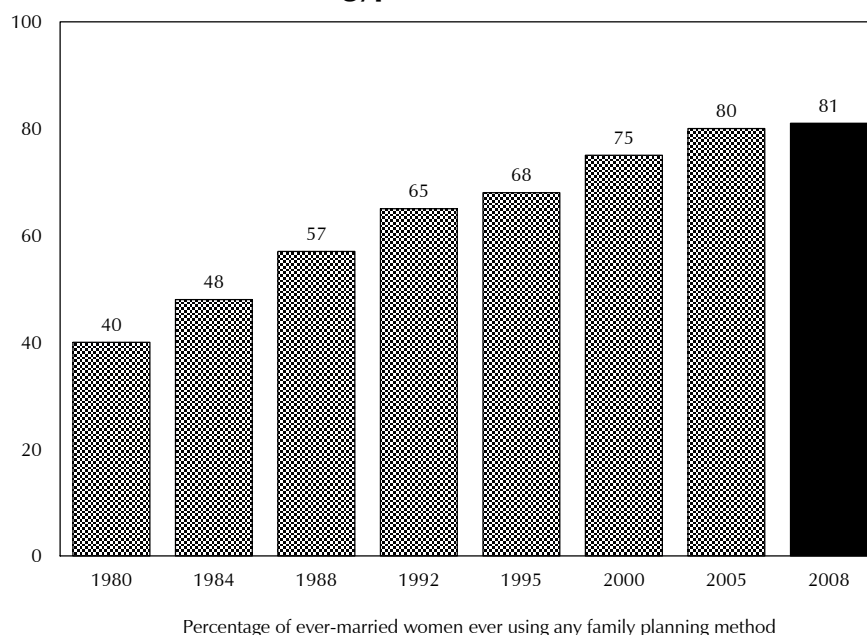
Percentage of ever-married women ever using any family planning method, Egypt 1980-2008

Method	1980 EFS	1984 ECPS	1988 EDHS	1991 EMCHS	1992 EDHS	1995 EDHS	2000 EDHS	2005 EDHS	2008 EDHS
<b>Any method</b>	39.8	48.2	57.4	63.2	64.6	68.4	75.1	79.6	80.6
<b>Any modern method</b>	38.9	46.7	55.9	59.8	62.9	66.7	73.4	77.7	78.0
Pill	35.8	41.0	46.0	44.7	44.0	44.2	39.8	38.9	36.2
IUD	8.7	14.8	24.6	32.3	39.7	46.1	55.9	60.7	59.3
Injectables	0.5	1.1	2.3	na	2.9	6.2	14.1	20.7	21.1
Implants	na	na	na	na	na	na	0.3	1.4	1.8
Vaginal methods	1.2	3.9	5.3	na	3.6	2.2	1.5	0.5	0.3
Condom	5.0	3.4	8.6	na	7.5	7.7	3.7	3.8	2.4
Female sterilization	0.7	1.4	1.5	na	1.1	1.1	1.4	1.2	1.0
Male sterilization	0.1	0.0	0.0	na	0.0	0.0	0.0	0.0	0.0
Emergency contraception	na	na	na	na	na	na	na	0.1	0.1
<b>Any traditional method</b>	na	5.3	11.4	na	9.5	10.8	8.3	12.9	13.6
Periodic abstinence	2.7	1.4	3.7	na	3.4	3.3	1.5	2.0	1.2
Withdrawal	2.3	1.0	2.4	na	2.6	2.5	0.8	1.5	1.0
Prolonged breastfeeding	na	3.1	6.5	na	4.9	6.6	6.3	10.5	12.1
Other methods	na	0.5	0.8	na	0.4	0.4	0.3	0.1	0.1
Number of women	8,788	10,013	8,911	9,073	9,864	14,779	15,573	19,474	16,527

na = Information on the method was not collected or was not reported.

Source: El-Zanaty and Way, 2006, Table 5.6

**Figure 5.3 Trends in Ever Use of Family Planning  
Egypt 1980-2008**



### 5.5.3 Differentials in Ever Use

Table 5.8 presents differences in the overall proportions of ever-married women who have ever used family planning and in the number of methods with which ever users had experience. More than half (52 percent) of the ever users had experience with only one method, while 31 percent had used two methods, and 17 percent had tried three or more methods.

Older women were not only more likely to have ever used family planning but also, if they have used it, to have experience with a greater number of methods than younger women. For example, only about 5 percent of women age 15-24 had used three or more methods, compared with more than 20 percent of women age 35-39.

Background characteristic	Percentage ever used any method	Number of ever married women	Number of methods ever used				Mean number of methods ever used	Number ever using family planning methods
			1	2	3+	Total		
<b>Age</b>								
15-19	30.5	620	80.7	18.4	0.8	100.0	1.2	189
20-24	63.7	2,584	72.0	23.6	4.4	100.0	1.3	1,645
25-29	81.7	3,367	59.6	28.1	12.3	100.0	1.6	2,751
30-34	87.6	2,664	48.4	33.3	18.3	100.0	1.8	2,335
35-39	89.3	2,586	45.2	34.8	20.0	100.0	1.8	2,310
40-44	88.2	2,473	44.8	32.9	22.3	100.0	1.8	2,180
45-49	85.2	2,234	42.5	36.1	21.5	100.0	1.9	1,904
<b>Urban-rural residence</b>								
Urban	83.2	6,809	53.0	31.0	16.0	100.0	1.7	5,662
Rural	78.7	9,718	51.5	31.7	16.8	100.0	1.7	7,653
<b>Place of residence</b>								
Urban Governorates	83.4	2,931	53.2	30.7	16.1	100.0	1.7	2,444
Lower Egypt	83.4	7,618	54.1	31.9	14.1	100.0	1.6	6,354
Urban	85.0	1,936	54.4	32.3	13.3	100.0	1.6	1,645
Rural	82.9	5,682	54.0	31.7	14.3	100.0	1.6	4,709
Upper Egypt	75.7	5,751	48.8	31.0	20.2	100.0	1.8	4,351
Urban	81.6	1,792	51.3	29.7	18.9	100.0	1.8	1,461
Rural	73.0	3,959	47.5	31.7	20.8	100.0	1.8	2,890
Frontier Governorates	72.6	227	46.6	34.8	18.6	100.0	1.8	165
<b>Education</b>								
No education	80.0	5,302	47.7	33.3	18.9	100.0	1.8	4,242
Some primary	85.1	1,394	41.8	35.6	22.6	100.0	1.9	1,185
Primary complete/ some secondary	79.9	2,413	48.0	33.1	18.8	100.0	1.8	1,927
Secondary complete/higher	80.3	7,418	58.6	28.7	12.8	100.0	1.6	5,959
<b>Work status</b>								
Working for cash	86.1	2,459	50.9	30.7	18.3	100.0	1.7	2,119
Not working for cash	79.6	14,068	52.3	31.5	16.1	100.0	1.7	11,196
<b>Wealth quintile</b>								
Lowest	76.2	3,033	48.1	32.5	19.4	100.0	1.8	2,312
Second	78.1	3,252	50.3	32.4	17.2	100.0	1.7	2,540
Middle	82.5	3,394	50.8	32.7	16.5	100.0	1.7	2,799
Fourth	82.3	3,505	54.4	29.8	15.8	100.0	1.7	2,886
Highest	83.1	3,343	55.9	30.0	14.1	100.0	1.6	2,777
Total	80.6	16,527	52.1	31.4	16.5	100.0	1.7	13,314

Looking at the other subgroups for which information is presented in Table 5.8, women from urban areas, women with some primary education, women who are working for cash, and women in the highest wealth quintile were more likely than other women to have ever used a family planning method. Women from rural Upper Egypt and Frontier Governorates had the least experience with family planning (73 percent, each), while women from urban Lower Egypt had the most experience with family planning (85 percent). There is comparatively little variation by residence among ever users in the number of methods that ever users have tried.

## 5.6 FIRST USE OF FAMILY PLANNING

Women who reported that they had used family planning methods at some time were asked about the number of children they had when they first used family planning. These data are useful in identifying the stage in the family-building process when women begin using family planning as well as their motivation for adopting family planning.

Table 5.9 presents the percent distribution of ever-married women by the number of living children at the time of the first use of family planning. Almost none of the women started using family planning immediately after marriage while they were still childless. Overall, around six in ten women began use of family planning after they had had their first child (58 percent), 12 percent started after they had had two children, and 11 percent had three or more children before using family planning.

Looking at the age patterns, there has been a shift in the timing of the adoption of the first contraceptive method, with younger women initiating use of family planning methods at lower parities than older women. For example, 68 percent of women age 25-29 started family planning use after their first child compared with 48 percent of women 45-49.

Age	Never used	Number of living children at time of first use of contraception						Total	Number of women
		0	1	2	3	4+	Missing		
15-19	69.5	0.1	28.4	1.9	0.1	0.0	0.0	100.0	620
20-24	36.3	0.3	55.8	6.8	0.7	0.1	0.0	100.0	2,584
25-29	18.3	0.4	67.9	10.1	2.3	1.0	0.0	100.0	3,367
30-34	12.4	0.1	65.9	13.0	4.4	4.1	0.1	100.0	2,664
35-39	10.7	0.1	59.9	15.2	6.6	7.3	0.1	100.0	2,586
40-44	11.8	0.2	50.0	15.8	8.8	13.2	0.0	100.0	2,473
45-49	14.8	0.1	47.7	14.3	8.8	14.2	0.1	100.0	2,234
Total	19.4	0.2	57.5	12.0	4.8	5.9	0.0	100.0	16,527

## 5.7 ATTITUDE ABOUT TIMING OF ADOPTION OF CONTRACEPTION

The 2008 EDHS included questions about the appropriateness of a couple's use of family planning before the first pregnancy and after the first birth. Most ever-married women age 15-49 (93 percent) considered it appropriate for a couple to begin using family planning after the first birth. In contrast, only 2 percent regarded use before the first pregnancy as appropriate.

Although few women in any subgroup considered it appropriate to adopt family planning before the first birth, the results in Table 5.10 indicate there is some variability across subgroups in the attitude toward family planning use after the first birth. The groups with the highest proportions considering use after the first birth as appropriate include women from the Urban Governorates (98 percent) and women in the highest wealth quintile (97 percent). The groups with the lowest proportions considering use after the first birth as appropriate are women from rural Upper Egypt and women with no education (84 percent, and 88 percent respectively).

Table 5.10 Timing of use of family planning among newly married couples by background characteristics

Percentage of ever-married women by attitude about appropriateness of a couple's using family planning before the first pregnancy and after the first birth, according to background characteristics, Egypt 2008

Background characteristic	Family planning use appropriate:		Number of women
	Before first pregnancy	After first birth	
<b>Age</b>			
15-19	1.7	90.7	620
20-24	1.3	94.2	2,584
25-29	1.8	93.8	3,367
30-34	1.3	94.8	2,664
35-39	1.3	93.3	2,586
40-44	1.6	90.9	2,473
45-49	1.4	89.9	2,234
<b>Urban-rural residence</b>			
Urban	1.6	95.6	6,809
Rural	1.4	91.0	9,718
<b>Place of residence</b>			
Urban Governorates	1.1	98.2	2,931
Lower Egypt	1.0	95.7	7,618
Urban	0.9	96.0	1,936
Rural	1.0	95.6	5,682
Upper Egypt	2.3	86.5	5,751
Urban	3.1	91.3	1,792
Rural	1.9	84.4	3,959
Frontier Governorates	1.8	89.0	227
<b>Education</b>			
No education	1.5	87.9	5,302
Some primary	1.1	91.6	1,394
Primary complete/some secondary	1.5	93.9	2,413
Secondary complete/higher	1.5	96.3	7,418
<b>Work status</b>			
Working for cash	1.5	95.0	2,459
Not working for cash	1.5	92.5	14,068
<b>Wealth quintile</b>			
Lowest	2.0	86.6	3,033
Second	1.5	91.2	3,252
Middle	1.1	93.4	3,394
Fourth	1.1	95.7	3,505
Highest	1.7	96.6	3,343
Total 2008 EDHS	1.5	92.9	16,527
Total 2005 EDHS	2.4	93.3	19,474
Total 2003 EDHS	4.9	90.1	8,958
Total 2000 EDHS	4.7	84.7	15,024



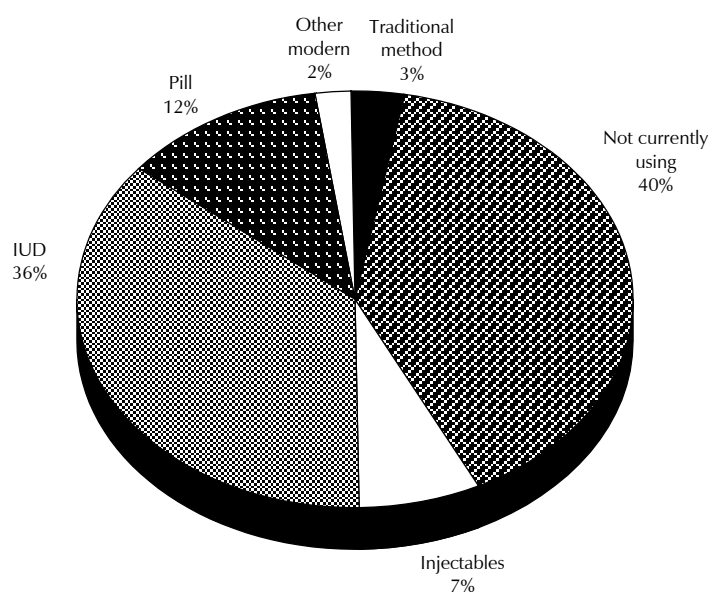
## CURRENT USE OF FAMILY PLANNING

The data on the current use of family planning collected in the 2008 EDHS is among the most important information obtained in the survey since it provides insight into one of the principal determinants of fertility and also serves as a key measure for assessing the success of the national family planning program.

### 6.1 CURRENT USE OF FAMILY PLANNING

Overall, the EDHS results indicate that 60 percent of currently married women in Egypt are using contraception (Figure 6.1). The IUD, pill, and injectables are the most widely used methods: 36 percent of currently married women interviewed in the EDHS were currently using the IUD, 12 percent were relying on the pill, and 7 percent were employing injectables. Relatively small proportions of women were using other modern methods; e.g., 1 percent was using the condom. Three percent of women reported use of traditional methods.

*Figure 6.1 Current Use by Method*



EDHS 2008

### 6.2 DIFFERENTIALS IN CURRENT USE OF FAMILY PLANNING

#### 6.2.1 Differentials by Residence

The 2008 EDHS found that there were marked differences in the level of current use of family planning methods by residence (Table 6.1). Urban women were more likely to be using than rural women (64 percent and 58 percent, respectively). Use rates were higher in the Urban Governorates (65 percent)

and Lower Egypt (64 percent) than in Upper Egypt (53 percent) and the Frontier Governorates (52 percent).

Within Upper Egypt, the use rate among urban women (62 percent) was markedly higher than the rate among rural women (48 percent). The urban-rural differential was much narrower within Lower Egypt; 66 percent of married women living in urban areas in Lower Egypt were using a family planning method compared with 64 percent of rural women.

The IUD was the most frequently used method in every residential category, followed by the pill and injectables. The extent to which the IUD dominated the method mix, however, varied across residential subgroups. For example, women in the Urban Governorates and in rural Lower Egypt were around four times as likely to be using the IUD as the pill. In all other residential areas except rural Upper Egypt, there were two to three times as many IUD users as pill users. The pill was the second most widely used method in all areas except rural Upper Egypt, where the proportion of women using injectables is the same as the proportion relying on the pill.

Table 6.1 Current use of family planning methods by residence

Percent distribution of currently married women 15-49, by family planning method currently used, according to urban-rural residence and place of residence, Egypt 2008

Method	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
<b>Any method</b>	64.3	57.5	65.2	64.3	65.5	63.9	52.7	62.4	48.4	52.3	60.3
<b>Any modern method</b>	61.6	54.8	62.6	62.4	63.8	62.0	48.9	58.4	44.7	48.6	57.6
Pill	12.9	11.2	11.5	11.7	14.0	11.0	12.2	14.1	11.4	13.3	11.9
IUD	41.2	32.6	43.4	41.6	43.3	41.1	25.3	36.3	20.4	26.6	36.1
Injectables	4.8	9.2	4.7	6.9	4.4	7.7	9.5	5.5	11.4	5.5	7.4
Implant	0.4	0.5	0.5	0.3	0.0	0.4	0.6	0.7	0.6	1.1	0.5
Diaphragm /foam/jelly	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Condom	1.4	0.3	1.8	0.4	0.9	0.3	0.5	1.2	0.2	1.1	0.7
Female sterilization	0.8	1.2	0.7	1.4	1.1	1.5	0.7	0.7	0.7	1.0	1.0
<b>Any traditional method</b>	2.7	2.7	2.6	1.9	1.7	2.0	3.7	4.0	3.7	3.7	2.7
Periodic abstinence	0.9	0.1	0.9	0.4	0.9	0.2	0.3	0.9	0.0	0.2	0.4
Withdrawal	0.3	0.2	0.4	0.2	0.1	0.2	0.2	0.4	0.1	0.1	0.2
Prolonged breastfeeding	1.5	2.3	1.1	1.3	0.7	1.5	3.3	2.7	3.5	3.3	2.0
Other	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Not currently using	35.7	42.5	34.8	35.7	34.5	36.1	47.3	37.6	51.6	47.7	39.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	6,316	9,080	2,727	7,128	1,801	5,326	5,326	1,646	3,680	216	15,396

## 6.2.2 Differentials by Selected Background Characteristics

Table 6.2 presents differentials in the levels of current use among the currently married women age 15-49 interviewed in the EDHS by background characteristics other than residence. Current use rose rapidly with age, from a level of 23 percent among currently married women 15-19 to a peak of 74 percent among women 35-39. The IUD was the most popular method among women in all age groups, with the highest levels of IUD use found among women age 35-39 (46 percent).

Table 6.2 Current use of family planning methods by selected demographic and social characteristics

Percent distribution of currently married women 15-49 by family planning method currently used according to selected demographic and social characteristics, Egypt 2008

Background characteristic	Any method	Any modern method	Modern method							Any traditional method	Traditional method				Not currently using	Total	Number of women
			Pill	IUD	Injectable	Im-plant	Dia-phragm/foam/jelly	Con-dom	Female sterilization		Periodic abstinence	With-drawal	Pro-longed breast-feeding	Other			
<b>Age</b>																	
15-19	23.4	19.8	4.9	14.1	0.7	0.0	0.0	0.0	0.0	3.7	0.0	0.2	3.5	0.0	76.6	100.0	605
20-24	44.6	40.9	11.1	24.5	4.7	0.2	0.0	0.3	0.0	3.8	0.2	0.0	3.6	0.0	55.4	100.0	2,527
25-29	59.8	56.3	13.3	34.7	7.6	0.4	0.0	0.3	0.1	3.5	0.3	0.1	3.1	0.0	40.2	100.0	3,264
30-34	67.6	64.8	13.9	39.7	9.1	0.7	0.0	0.9	0.6	2.7	0.3	0.3	2.1	0.0	32.4	100.0	2,551
35-39	74.3	72.4	13.4	46.4	9.9	0.5	0.0	0.9	1.4	1.9	0.5	0.3	1.1	0.1	25.7	100.0	2,406
40-44	72.5	70.7	12.7	44.6	9.1	0.7	0.0	1.1	2.4	1.9	0.8	0.5	0.5	0.1	27.5	100.0	2,188
45-49	51.9	50.5	7.2	33.3	5.3	0.4	0.1	1.5	2.7	1.4	1.0	0.3	0.0	0.0	48.1	100.0	1,855
<b>Number of living children</b>																	
0	0.4	0.4	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.6	100.0	1,612
1	46.0	42.2	12.1	27.5	1.8	0.2	0.0	0.5	0.1	3.8	0.5	0.1	3.3	0.0	54.0	100.0	2,393
2	68.1	64.8	14.7	42.5	6.2	0.4	0.0	0.8	0.3	3.2	0.7	0.4	2.1	0.0	31.9	100.0	3,568
3	76.4	73.6	12.5	49.9	8.8	0.4	0.0	1.0	0.9	2.8	0.6	0.3	1.9	0.0	23.6	100.0	3,508
4+	71.0	68.6	13.4	37.7	13.2	0.8	0.0	0.8	2.7	2.5	0.2	0.3	1.9	0.1	29.0	100.0	4,316
<b>Education</b>																	
No education	57.7	55.5	10.2	30.8	11.9	0.5	0.0	0.4	1.6	2.2	0.1	0.1	2.0	0.0	42.3	100.0	4,758
Some primary	62.4	59.6	11.3	35.0	9.9	0.4	0.0	0.7	2.3	2.8	0.1	0.0	2.6	0.0	37.6	100.0	1,259
Primary comp./some sec.	59.5	56.4	13.0	33.8	7.7	0.6	0.0	0.6	0.8	3.1	0.3	0.3	2.5	0.1	40.5	100.0	2,273
Sec. comp./higher	61.9	59.0	12.8	40.5	3.8	0.4	0.0	1.0	0.5	2.9	0.8	0.3	1.7	0.0	38.1	100.0	7,106
<b>Work status</b>																	
Working for cash	68.0	64.7	11.8	43.7	5.5	0.3	0.0	1.9	1.5	3.3	1.6	0.6	1.1	0.1	32.0	100.0	2,182
Not working for cash	59.0	56.4	11.9	34.8	7.7	0.5	0.0	0.5	0.9	2.6	0.3	0.2	2.1	0.0	41.0	100.0	13,215
<b>Wealth quintile</b>																	
Lowest	55.4	51.9	9.9	25.9	14.1	0.6	0.0	0.3	1.0	3.6	0.0	0.0	3.5	0.0	44.6	100.0	2,764
Second	57.1	54.8	11.1	31.6	10.0	0.5	0.0	0.4	1.2	2.3	0.0	0.1	2.2	0.0	42.9	100.0	3,014
Middle	61.2	58.8	13.3	35.7	7.6	0.5	0.0	0.4	1.2	2.4	0.2	0.1	2.0	0.0	38.8	100.0	3,172
Fourth	61.4	59.3	12.1	41.2	4.1	0.4	0.0	0.7	0.9	2.1	0.5	0.4	1.2	0.1	38.6	100.0	3,268
Highest	65.4	62.3	12.8	44.5	2.2	0.3	0.1	1.7	0.8	3.1	1.4	0.5	1.2	0.0	34.6	100.0	3,178
<b>Total</b>	60.3	57.6	11.9	36.1	7.4	0.5	0.0	0.7	1.0	2.7	0.4	0.2	2.0	0.0	39.7	100.0	15,396

Note: If more than one method is used, only the most effective method is considered in this tabulation.

The EDHS results indicate that few Egyptian women use contraception before having the first birth; less than 1 percent of childless women were using a method at the time of the survey. Among women with more than one child, contraceptive use increased sharply with the number of living children, peaking at 76 percent among women with 3 children.

Considering education status, the main differential was between women who never attended school and those who had at least some schooling. Among the latter group, there were only minor variations in use rates by the level of schooling. Injectable use declined directly with a woman's educational level.



Women employed in a job for which they were paid in cash were more likely to be currently using family planning methods than women not working for cash (68 percent and 59 percent, respectively). This was largely due to a higher rate of IUD use among women working for cash than among other women.

As expected, contraceptive use increased with the wealth quintile. Current use was 10 percentage points higher among women in the highest wealth quintile than among women in the lowest quintile (65 percent and 55 percent, respectively). There was strong direct relationship between wealth and the level of IUD use. Among women in the highest quintile, the level of IUD use was 45 percent compared with 26 percent among women in the lowest quintile. Pill use did not vary much by wealth quintile, peaking at 13 percent among women in the middle quintile. On the other hand, injectable use decreased with the wealth quintile, from 14 percent among women in the lowest quintile to 2 percent among women in the highest quintile.

### 6.2.3 Differentials by Governorate

Current use levels are presented in Table 6.3 for the four Urban Governorates and the 18 governorates in Lower Egypt and Upper Egypt. Data are not shown separately for the Frontier Governorates because the samples from the individual governorates in this region were not sufficiently large to allow separate estimation of the use rates.

Table 6.3 Current use of family planning by governorate						
Percentage of currently married women 15-49 currently using any method, any modern method, the pill, the IUD or injectables by governorate, Egypt 2008						
Governorate	Any method	Any modern method	Pill	IUD	Injectables	Number of women
<b>Urban Governorates</b>	65.2	62.6	11.5	43.4	4.7	2,727
Cairo	66.8	64.4	12.2	44.6	4.7	1,588
Alexandria	63.7	61.0	9.8	43.3	4.6	891
Port Said	54.7	51.8	11.4	32.8	4.6	130
Suez	65.8	63.6	16.0	39.9	5.8	118
<b>Lower Egypt</b>	64.3	62.4	11.7	41.6	6.9	7,128
Damietta	64.2	63.5	14.4	40.2	6.6	231
Dakahlia	64.4	61.9	9.1	43.7	6.0	1,054
Sharkia	65.7	63.4	15.4	37.8	7.6	1,206
Kalyubia	59.9	58.3	10.6	40.7	5.4	1,007
Kafr El-Sheikh	62.1	60.0	9.6	36.8	10.7	658
Gharbia	67.1	65.1	10.8	47.2	5.5	892
Menoufia	66.3	66.1	13.6	44.2	6.4	801
Behera	66.1	64.1	11.2	43.9	7.4	1,068
Ismailia	56.5	51.7	12.7	29.5	7.9	212
<b>Upper Egypt</b>	52.7	48.9	12.2	25.3	9.5	5,326
Giza	62.4	59.0	11.4	39.5	5.8	1,287
Beni Suef	56.9	50.6	9.1	27.7	10.7	485
Fayoum	55.7	52.6	8.2	28.4	14.9	475
Menya	54.1	50.6	11.7	19.4	17.3	864
Assuit	47.4	43.2	11.1	21.2	9.6	678
Souhag	36.3	32.8	10.4	16.3	5.1	683
Luxor	54.5	50.9	23.0	20.7	5.7	72
Qena	48.0	44.2	20.0	15.7	6.8	567
Aswan	53.4	51.4	20.5	20.5	8.9	214
Total <sup>1</sup>	60.3	57.6	11.9	36.1	7.4	15,396

Note: If more than one method is used, only the most effective method is shown in this tabulation.

<sup>1</sup> Total includes women from the Frontier Governorates

There is considerable variability in the levels of current use in the governorates for which results are presented in Table 6.3. At the time of the 2008 EDHS, use rates were 60 percent or higher in all of the Urban Governorates except for Port Said and in all of the governorates in Lower Egypt except for Ismailia. Within the Urban Governorates, Cairo had the highest use rate (67 percent) and Port Said (55 percent) the lowest rate. Within Lower Egypt, use rates varied from 57 percent in Ismailia to 67 percent in Gharbia. In Upper Egypt, only Giza governorate, of which a large part is included in the Cairo Metropolitan area, had a use rate over 60 percent. Among the other governorates in Upper Egypt, use rates ranged from 36 percent in Souhag to 57 percent in Beni Suef.

Table 6.3 also shows the rates of current use of the pill, the IUD, and injectables for each governorate at the time of the 2008 EDHS. The IUD was the most popular method among users in all governorates except Luxor, Qena, and Aswan. In Luxor and Qena, women were more likely to be using the pill than the IUD, while in Aswan, the pill and the IUD were equally popular among women. The highest level of IUD use was observed in Gharbia (47 percent) and the lowest level is in Qena and Souhag (16 percent each). Luxor had the highest level of pill use (23 percent), while the lowest level was found in Fayoum (8 percent). Use of injectables was highest in Menya (17 percent) and Fayoum (15 percent).

### 6.3 TRENDS IN CURRENT USE OF FAMILY PLANNING

#### 6.3.1 Trends by Method

The results from the 2008 EDHS and earlier surveys can be used to examine the changes that have taken place in the level and pattern of contraceptive use in Egypt since 1980 (Table 6.4 and Figure 6.2). Contraceptive use in Egypt doubled during the 11-year period between 1980 and 1991, from 24 percent to 48 percent. The use rate continued to rise over the next 12 years although at slower pace, reaching a level of 60 percent in 2003, where it has remained virtually unchanged.

Method	1980 EFS	1984 ECPS	1988 EDHS	1991 EMCHS	1992 EDHS	1995 EDHS	1997 EIDHS	1998 EIDHS	2000 EDHS	2003 EIDHS	2005 EDHS	2008 EDHS
<b>Any method</b>	24.2	30.3	37.8	47.6	47.1	47.9	54.5	51.8	56.1	60.0	59.2	60.3
<b>Any modern method</b>	22.8	28.7	35.4	44.3	44.8	45.5	51.8	49.5	53.9	56.6	56.5	57.6
Pill	16.6	16.5	15.3	15.9	12.9	10.4	10.2	8.7	9.5	9.3	9.9	11.9
IUD	4.1	8.4	15.7	24.2	27.9	30.0	34.6	34.3	35.5	36.7	36.5	36.1
Injectables	na	0.3	0.1	na	0.5	2.4	3.9	3.9	6.1	7.9	7.0	7.4
Implants	na	na	na	na	0.0	0.0	0.1	0.0	0.2	0.9	0.8	0.5
Diaphragm/foam/jelly	0.3	0.7	0.4	na	0.4	0.1	0.2	0.1	0.2	0.1	0.0	0.0
Condom	1.1	1.3	2.4	na	2.0	1.4	1.5	1.1	1.0	0.9	1.0	0.7
Female sterilization	0.7	1.5	1.5	na	1.1	1.1	1.4	1.3	1.4	0.9	1.3	1.0
<b>Any traditional method</b>	1.4	1.6	2.4	3.3	2.3	2.4	2.7	2.3	2.2	3.4	2.7	2.7
Periodic abstinence	0.5	0.6	0.6	na	0.7	0.8	0.6	0.8	0.6	0.8	0.7	0.4
Withdrawal	0.4	0.3	0.5	na	0.7	0.5	0.4	0.3	0.2	0.4	0.3	0.2
Prolonged breastfeeding	na	0.6	1.1	na	0.9	1.0	1.5	1.1	1.2	2.1	1.6	2.0
Other	0.3	0.1	0.2	na	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
<b>Not using</b>	75.8	69.7	62.2	62.2	52.9	52.1	45.5	48.2	43.9	40.0	40.8	39.7
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	8,012	9,158	8,221	8,406	9,153	13,710	5,157	5,971	14,382	8,445	18,187	15,396

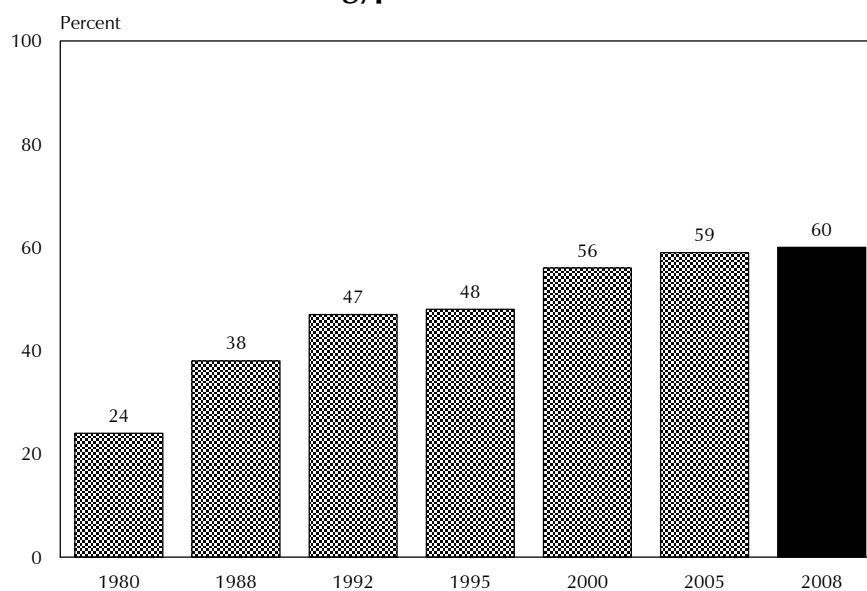
na = Information on the method was not collected or was not reported.  
Source: El-Zanaty and Way, 2006, Table 6.4

Table 6.4 also documents the changes that have occurred in the use of specific methods over the past several decades. The IUD use rate rose from 4 percent in 1980 to 36 percent in 2000, where it has remained essentially stable. There was a significant increase in the use of the injectable after the method became available in the early 1990s, with the rate rising from less than 1 percent in 1992 to nearly 8

percent in 2003. During the five-year period between 2003 and the 2008 EDHS, however, the use rate did not increase further.

In contrast to the IUD and the injectable, pill use declined from a rate of 17 percent in 1980 to 9 percent in 1998, where it remained essentially stable until 2005. Between 2005 and 2008, pill use increased modestly to 12 percent.

**Figure 6.2 Trends in Current Use  
Egypt 1980-2008**



Note: Data are for currently married women currently using any family planning method.

Trends over time in the method mix among users, that is, the distribution of users according to the method used are presented in Table 6.5. The dramatic shift from pill to IUD use that occurred during the past two decades is clear in the table. In 1980, almost 70 percent of current users relied on the pill, more than four times the percentage of users who relied on the IUD. By 2008, 60 percent of current users relied on the IUD compared to 20 percent who employed the pill. The relatively rapid expansion of the use of injectables is also evident. Twelve percent of current users relied on injectables in 2008, compared with 5 percent in 1995 and only 1 percent in 1992.

Method	1980 EFS	1984 ECPS	1988 EDHS	1992 EDHS	1995 EDHS	2000 EDHS	2005 EDHS	2008 EDHS
Pill	68.6	54.4	40.5	27.4	21.7	16.9	16.7	19.7
IUD	15.9	27.7	41.6	59.2	62.6	63.4	61.5	59.8
Injectables	0.0	1.0	0.3	1.1	5.0	10.9	11.9	12.3
Condom	4.5	4.3	6.3	4.2	2.9	1.7	1.7	1.2
Female sterilization	2.9	5.0	4.0	2.3	2.3	2.5	2.2	1.8
Other modern methods	1.3	2.3	1.0	0.9	0.5	0.7	1.5	0.8
Traditional methods	5.8	5.3	6.3	4.9	5.0	3.9	4.6	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,939	2,775	3,108	4,311	6,567	8,063	10,779	9,290

Source: El- Zanaty and Way, 2006, Table 6.5

### 6.3.2 Trends by Urban-Rural Residence and Place of Residence

Table 6.6 shows trends in the rate of current use of family planning methods between 1984 and 2008 by residence. Overall, both the absolute and relative increase in current use between 1984 and 2008 was much greater among rural women than urban women. In both urban and rural areas, contraceptive use increased at a faster rate in the 1980s than in the 1990s. In urban areas, change was most rapid between 1984 and 1992, when the current use rate rose by 12 percentage points, from 45 percent in 1984 to 57 percent in 1992. The urban use rate continued to rise after 1992, and six in ten married women in urban areas were currently using family planning in 2000. In rural areas, the decade of the eighties was also a period of substantial growth in contraceptive use; the rural use rate doubled between 1984 and 1992 (from 19 percent to 38 percent). The upward trend in the rural use rate continued during the remainder of the 1990s, reaching a level of 52 percent in 2000. During the 2000-2008 period, use rates continued to rise steadily among rural women although at a much slower rate than earlier. Among urban women, on the other hand, the trend in the use rate during the 2000-2008 was more erratic although the rate in 2008 (64 percent) was three percentage points higher than the rate in 2000.

Looking at the overall changes by place of residence, Table 6.6 shows that the greatest absolute increase in use rates between 1984 and 2008 occurred in rural Upper Egypt (40 percentage points), followed by rural Lower Egypt (36 percentage points). Within urban areas, the absolute gain in current use over the period was greatest in urban Upper Egypt (26 percentage points). The increases in contraceptive use during the period were more modest but still substantial in the Urban Governorates and in urban Lower Egypt (16 and 18 percentage points, respectively).

Residence	1984 ECPS	1988 EDHS	1992 EDHS	1995 EDHS	1997 EIDHS	1998 EIDHS	2000 EDHS	2003 EIDHS	2005 EDHS	2008 EDHS
<b>Urban-rural residence</b>										
Urban	45.1	51.8	57.0	56.4	63.1	59.3	61.2	65.5	62.6	64.3
Rural	19.2	24.5	38.4	40.5	47.1	45.6	52.0	55.9	56.8	57.5
<b>Place of residence</b>										
Urban Governorates	49.6	56.0	59.1	58.1	67.0	62.1	62.7	68.5	63.9	65.2
Lower Egypt	34.1	41.2	53.5	55.4	61.6	59.2	62.4	65.2	65.9	64.3
Urban	47.6	54.5	60.5	59.1	65.9	62.2	64.9	66.3	64.1	65.5
Rural	28.5	35.6	50.5	53.8	59.9	58.1	61.4	64.8	66.5	63.9
Upper Egypt	17.3	22.1	31.4	32.1	37.4	36.5	45.1	49.4	49.9	52.7
Urban	36.8	41.5	48.1	49.9	52.1	50.8	55.4	59.8	60.0	62.4
Rural	7.9	11.5	24.3	24.0	30.3	29.9	40.2	44.7	45.2	48.4
Frontier Governorates	na	na	na	44.0	na	na	43.0	na	49.3	52.3
Total	30.3	37.8	47.1	47.9	54.5	51.8	56.1	60.0	59.2	60.3

na = Information on the method was not collected or was not reported  
Source: El-Zanaty and Way, 2006, Table 6.6

Table 6.6 also shows that the timing of major changes in the levels of contraceptive use varied by residence. Much of the expansion in contraceptive use in Urban Governorates and urban Lower Egypt took place in the first 10 years of the period, while in urban Upper Egypt, the absolute increase was more pronounced after 1995. In rural Lower Egypt, contraceptive use more than doubled between 1984 and 1997 and then slowed considerably. On the other hand, in rural Upper Egypt, there were striking increases throughout the period; the level of use tripled from 8 percent to 24 percent between 1984 and 1995 and then doubled again to reach 48 percent in 2008.

### 6.3.3 Trends by Governorate

Table 6.7 presents the trend in current use rates at the governorate level between 1988 and 2008. Some caution should be used in interpreting changes in use levels for individual governorates, especially if the changes are minor. The comparatively small sample sizes on which the governorate-level estimates are based increases the sampling variability and, thus, reduces the likelihood that small changes are significant.

All governorates experienced increases in use levels over the roughly 20-year period between the 1988 and 2008 EDHS surveys. In absolute terms, the governorates in Upper Egypt, where use levels were lowest in 1988 (i.e., rates of 20 percent or less), had the largest increases during the period. Within Upper Egypt, the greatest absolute increase took place in Beni Suef, where use more than tripled, from 15 percent in 1988 to 57 percent in 2008. Giza Governorate, where use levels were moderately high in 1988 (46 percent), had the lowest absolute gain in use during the entire period (17 percentage points). Souhag, where the prevalence level is currently the lowest among all Upper Egypt governorates (36 percent), also experienced a comparatively modest growth in use levels between 1988 and 2008 (20 percentage points).

Table 6.7 Trends in current use of family planning methods by governorate						
Percentage of currently married women 15-49 who are currently using any family planning method by governorate, Egypt 1988-2008						
Governorate	1988 EDHS	1992 EDHS	1995 EDHS	2000 EDHS	2005 EDHS	2008 EDHS
<b>Urban Governorates</b>	56.0	59.1	58.1	62.7	63.9	65.2
Cairo	58.9	58.1	56.9	62.3	63.8	66.8
Alexandria	51.6	62.1	59.8	64.7	64.5	63.7
Port Said	48.2	60.5	59.7	57.7	61.6	54.7
Suez	50.3	57.3	62.4	58.0	64.0	65.8
<b>Lower Egypt</b>	41.2	53.5	55.4	62.4	65.9	64.3
Damietta	54.1	53.4	57.4	58.8	63.9	64.2
Dakhalia	41.3	52.8	54.9	62.8	64.4	64.4
Sharkia	35.2	49.2	53.1	61.4	61.2	65.7
Kalyubia	42.3	57.9	55.6	64.0	69.4	59.9
Kafr-El-Sheikh	41.7	47.2	54.4	64.2	65.8	62.1
Charbia	50.1	55.9	55.9	65.7	69.7	67.1
Menoufia	43.9	55.7	54.3	61.3	64.2	66.3
Behera	32.5	54.7	58.7	59.8	68.7	66.1
Ismailia	41.0	50.2	58.5	58.9	59.6	56.5
<b>Upper Egypt</b>	22.1	31.4	32.1	45.1	49.9	52.7
Giza	45.7	49.9	50.9	60.5	62.1	62.4
Beni Suef	15.3	29.2	30.4	53.0	56.0	56.9
Fayoum	20.2	33.3	34.0	50.4	55.9	55.7
Menya	16.6	21.9	24.3	46.7	51.4	54.1
Assuit	12.7	28.2	22.1	32.9	37.9	47.4
Souhag	16.2	19.8	21.7	27.5	32.7	36.3
Luxor	na	na	na	na	na	54.5
Qena	12.2	24.7	26.3	34.6	47.2	48.0
Aswan	18.6	31.9	36.0	44.9	49.0	53.4
Total	37.8	47.1	47.9	56.1	59.2	60.3

na = Information not available  
Source: El-Zanaty and Way, 2006, Table 6.8

Looking at the pattern of change within Lower Egypt governorates, Behera, where the use rate was lowest in 1988 (33 percent), experienced the greatest absolute growth in use levels between the 1988 and 2008 surveys (34 percentage points). Damietta, which had the highest level of use in 1988 (54 percent), registered the lowest absolute change in use levels (10 percentage points).

Considering the Urban Governorates, Suez had a somewhat larger overall increase in its use rate (16 percentage points) between 1988 and 2008 than was observed in Alexandria (12 percentage points each). The overall increase in use levels in Suez and Alexandria was much greater than that experienced in Cairo and Port Said over the 20-year period (8 and 7 percentage points, respectively).

Looking at the trends in current use by governorate between the 2005 and 2008 EDHS surveys, use levels increased in 12 governorates, remained at the same level in Dakhalia, and declined in the remaining governorates. In Lower Egypt, the largest gain in use during this period (around 4 percentage points) was observed in Sharkia. In Upper Egypt, the absolute change in use rates was largest in Assuit (10 percentage points). Port Said and Kalyubia experienced the largest declines in use (7 percentage points and 10 percentage points, respectively).

## **6.4 SOURCES FOR MODERN FAMILY PLANNING METHODS**

### **6.4.1 Sources by Method**

In the 2008 EDHS detailed information was collected on sources from which family planning methods were obtained. To obtain these data, current users of modern methods were asked for the name and location of the source where they had gotten their method at the beginning of the current segment of use. A code identifying the type of source was then recorded in the questionnaire and in the calendar in the month at the beginning of the period of use. Users relying on supply methods like the pill and the injectable were also asked about the source where they had most recently obtained the method.

Table 6.8 shows the distribution of current users by source. Overall, current family planning users were more likely to obtain their method from a governmental source than from a private sector source (60 percent and 40 percent, respectively). However, the source for family planning method varied markedly by method. The majority of current users of the IUD (67 percent) had the method inserted at a public sector source. In general, those users relying on a government source for the IUD got the device inserted at a static facility; however, 3 percent obtained the method from mobile clinics. Thirty-two percent of IUD users went to private physicians, hospitals, or clinics for the method, while 2 percent obtained the method at clinics operated by private voluntary organizations, including those of the Egyptian Family Planning Association and the Clinical Services Improvement Project.

The public sector was the main source for injectables, with about nine in ten users obtaining the method from a governmental source. As was the case with the IUD, most injectable users obtained their method at a static facility, especially rural health units (47 percent). Three percent got injectables from a mobile clinic.

Regarding the sources for other methods, pill users mainly got their method from a pharmacy (70 percent), as did couples using the condom (74 percent). Sterilizations were more frequently performed at private hospitals/clinics or doctors than at governmental facilities.

Table 6.8 Source for modern family planning methods

Percent distribution of current users of modern family planning methods by most recent source, according to specific method, Egypt 2008

Source	Pill	IUD	Injectables	Male condom	Female sterilization	Total <sup>1</sup>
<b>Public sector</b>	24.5	66.6	89.0	19.2	26.2	59.6
Urban hospital (general/district)	1.5	6.3	5.4	0.2	15.4	5.6
Urban health unit	3.6	15.2	15.0	9.7	0.0	12.4
Health office	0.9	4.0	2.4	2.9	0.0	3.0
Rural hospital (complementary)	2.1	5.4	9.2	0.3	0.2	5.0
Rural health unit	12.3	18.9	46.5	1.6	0.0	20.4
MCH center	2.7	11.9	7.1	3.8	0.0	9.0
Mobile unit	0.9	3.2	2.8	0.7	0.0	2.6
University/teaching hospital	0.2	1.0	0.5	0.0	8.9	0.9
Health Insurance Organization	0.1	0.6	0.1	0.0	0.8	0.4
Curative Care Organization	0.0	0.0	0.0	0.0	0.0	0.0
Other governmental	0.1	0.1	0.0	0.0	0.8	0.1
<b>Private sector</b>	75.4	33.4	10.5	79.5	73.8	40.3
Nongovernmental/private voluntary organization (NGO/PVO)	0.3	1.8	0.2	0.0	0.5	1.3
Egypt Family Planning Association	0.1	0.3	0.0	0.0	0.0	0.2
Clinical Services Improvement Project	0.1	1.1	0.1	0.0	0.0	0.7
Other NGO	0.1	0.4	0.1	0.0	0.5	0.3
Private medical	75.1	31.6	10.3	79.5	73.3	39.1
Private hospital/clinic	0.3	2.7	0.9	1.3	14.4	2.2
Private doctor	4.8	27.3	3.3	4.0	58.2	19.7
Nurse	0.0	0.0	0.5	0.0	0.0	0.1
Pharmacy	69.6	0.0	5.3	74.3	0.0	16.0
Mosque health unit	0.3	1.4	0.3	0.0	0.7	1.0
Church health unit	0.0	0.1	0.1	0.0	0.0	0.1
<b>Other non-medical</b>	0.1	0.0	0.4	0.0	0.0	0.1
Friend/relative	0.1	0.0	0.4	0.0	0.0	0.1
Don't know/no one	0.0	0.0	0.0	1.3	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	1,831	5,557	1,140	112	165	8,877

<sup>1</sup> Includes users of the implant and vaginal method users for whom the source distribution is not shown separately

## 6.4.2 Sources by Method and Residence

Residential variations in the type of source are presented in Table 6.9 for all modern methods and for the pill and the IUD. In general, rural women were more likely to go to a public sector source to obtain their method than urban women (67 percent and 51 percent, respectively). The proportion of users obtaining their method from a public health facility ranged from 46 percent of users in urban Lower Egypt to 68 percent of users in rural Upper Egypt.

In all areas, the pharmacy was the principal source for pill users, with only a minority getting their method from public sector facilities. However, the size of this minority varied by residence; only 13 percent of pill users in urban Lower Egypt get their method from a public sector facility compared with 32 percent in the Frontier Governorates.

The majority of IUD users rely on public sector sources for the method. Reliance on public sector sources for the IUD is most frequent in rural areas; around three-quarters of IUD users in rural Upper Egypt and rural Lower Egypt obtained the method from a public health facility.

Table 6.9 Sources of family planning methods by residence

Percent distribution of current users of modern family planning methods by method and most recent source, according to residence, Egypt 2008

Method and source	Urban	Rural	Urban Governates	Lower Egypt			Upper Egypt			Frontier Governates	Total <sup>1</sup>
				Total	Urban	Rural	Total	Urban	Rural		
PILL											
Public sector	17.9	29.9	18.7	24.8	13.2	29.7	26.6	21.2	29.7	(32.1)	24.5
Private sector	81.9	70.1	81.3	75.2	86.8	70.3	73.1	78.1	70.3	(67.9)	75.4
NGO/PVOs	0.2	0.5	0.0	0.7	0.6	0.8	0.0	0.0	0.0	(0.0)	0.3
Private hospital/clinic/doctor/nurse	6.3	4.2	7.9	5.2	7.0	4.5	3.7	3.5	3.8	(4.4)	5.1
Mosque/church clinic	0.5	0.2	0.1	0.2	0.7	0.0	0.5	0.7	0.4	(0.0)	0.3
Pharmacy	75.0	65.3	73.3	69.0	78.6	65.0	68.9	73.9	66.2	(63.5)	69.6
Other/don't know/missing	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.0	(0.0)	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	817	1,014	314	837	251	586	651	232	420	29	1,831
IUD											
Public sector	58.8	73.4	63.2	67.9	55.8	72.2	66.8	53.6	77.4	61.0	66.6
Private sector	41.2	26.6	36.8	32.1	44.2	27.8	33.2	46.4	22.6	39.0	33.4
NGO/PVOs	1.9	1.8	0.7	2.1	3.3	1.7	2.2	2.5	2.0	0.0	1.8
Private hospital/clinic/doctor/nurse	36.3	24.5	32.1	29.4	39.1	25.9	29.4	41.3	19.9	37.9	30.0
Mosque/church clinic	3.0	0.3	4.0	0.6	1.8	0.2	1.6	2.6	0.7	1.1	1.6
Pharmacy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other/don't know/missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	2,601	2,956	1,183	2,968	781	2,188	1,349	598	751	58	5,557
ALL MODERN METHODS											
Public sector	50.7	66.5	55.3	60.8	46.4	65.8	60.3	47.4	67.9	56.1	59.6
Private sector	49.1	33.5	44.6	39.2	53.5	34.2	39.5	52.3	31.9	43.9	40.3
NGO/PVOs	1.3	1.2	0.5	1.6	2.3	1.4	1.2	1.7	0.9	0.0	1.3
Private hospital/clinic/doctor/nurse	27.3	17.8	25.0	22.9	30.3	20.3	18.4	28.3	12.6	23.9	22.0
Mosque/church clinic	2.2	0.3	2.9	0.5	1.3	0.2	1.0	1.9	0.5	0.6	1.1
Pharmacy	18.3	14.2	16.2	14.1	19.5	12.3	18.9	20.5	18.0	19.4	16.0
Other/don't know/missing	0.1	0.1	0.1	0.0	0.1	0.0	0.2	0.3	0.2	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	3,893	4,984	1,709	4,452	1,150	3,303	2,610	964	1,646	105	8,877

Note: Figures in parentheses are based on 25-49 unweighted cases.

NGO = Nongovernmental organization

PVO = Private voluntary organization

<sup>1</sup> Includes users of the implant and vaginal methods for whom the source distribution is not shown separately.

### 6.4.3 Trends in Sources of Modern Methods

Trends in the source of family planning methods during the period between the 1995 EDHS and the 2008 EDHS are presented in Table 6.10 for IUD users and for users of all modern methods. Overall, the data show that the percentage of users who obtained the modern method at a public sector provider increased from 36 percent in 1995 to 60 percent in 2008. Much of that increase is due to increased reliance on the public sector for IUD. Table 6.10 indicates that the percentage of IUD users relying on the public sector for services rose from 45 percent in 1995 to 67 percent in 2008.



Considering the variation by residence, the trend toward an increased reliance on public sector providers for modern methods was observed among users in all areas. However, the absolute increase was much greater for rural users than urban users. The greatest increase was for rural users from Upper Egypt (33 percentage points).

Table 6.10 Trends in reliance on public sector source for contraceptive method by residence

Percentage of current users of the IUD and of all modern methods obtaining the method at a public sector source by urban-rural residence and place of residence, Egypt 1995-2008

Residence	IUD				Modern methods			
	1995 EDHS	2000 EDHS	2005 EDHS	2008 EDHS	1995 EDHS	2000 EDHS	2005 EDHS	2008 EDHS
<b>Urban-rural residence</b>								
Urban	42.8	48.7	54.8	58.8	34.0	42.0	48.0	50.7
Rural	46.7	59.4	67.7	73.4	37.7	54.8	63.2	66.5
<b>Place of residence</b>								
Urban Governorates	46.5	48.8	60.5	63.2	39.7	43.5	54.2	55.3
Lower Egypt	44.4	54.9	62.8	67.9	35.2	50.2	57.2	60.8
Urban	37.4	47.5	48.8	55.8	27.5	40.9	41.5	46.4
Rural	47.3	58.0	67.5	72.2	38.6	54.1	62.6	65.8
Upper Egypt	42.1	57.3	60.9	66.8	32.3	50.0	56.8	60.3
Urban	39.9	50.1	51.8	53.6	29.6	40.8	44.9	47.4
Rural	44.5	63.5	68.1	77.4	34.8	56.3	64.3	67.9
Frontier Governorates	31.3	44.9	61.4	61.0	25.2	41.0	59.6	56.1
Total	44.5	54.0	61.8	66.6	35.7	48.6	56.6	59.6

Source: El-Zanaty and Way, 2006, Table 6.11

## 6.5 PILL BRANDS

A number of questions were included in the 2008 EDHS relating to the brand of pills women were using and that they had heard about. Information about the brands pill users had adopted was collected by asking pill users to show the packet of pills. If the packet was available, interviewers recorded the name of the brand. If a user was unable to show the EDHS interviewer the packet, she was asked to name the brand she was using. Table 6.11 shows that about one-fifth of pill users were not able to show a packet or identify the brand they were using.

Combined pills or pills containing both estrogen and progestin may interfere with the production of milk among breastfeeding mothers and also may affect breast milk composition (Blackburn et al. 2000). Breastfeeding mothers are advised to take progestin-only pills in order to avoid these adverse effects. In order to look at the extent to which breastfeeding mothers are following

Table 6.11 Brand of pill

Percent distribution of current pill users by the brand of pill used and breastfeeding status, Egypt 2008

Pill brand	Currently breastfeeding users	Non- breastfeeding users	Total
<b>Suitable for breastfeeding users</b>			
Microlut	44.2	4.8	16.6
Exluton	18.9	2.4	7.3
Levo-nor	5.5	0.8	2.2
Levo-nor	19.8	1.6	7.1
<b>Other brands</b>			
Norminest	37.4	76.2	64.5
Nordette	0.5	0.1	0.2
Microvlar	0.9	3.9	3.0
Anovlar	0.0	0.1	0.1
Trivolar	0.0	0.1	0.1
Marvelon	0.2	0.1	0.1
Microcept	1.8	2.5	2.3
Microgynon	24.3	51.4	43.3
Stero	0.6	0.2	0.3
Triocept	0.0	0.1	0.1
Cynera	3.3	7.8	6.5
Trinordiol	3.5	7.3	6.2
Cilest	0.0	0.0	0.0
Microvior30	1.9	2.4	2.3
Microvior30	0.3	0.0	0.1
Don't know/missing	18.4	19.1	18.9
Total	100.0	100.0	100.0
Number of pill users	549	1,283	1,831

this recommendation, Table 6.11 identifies pill brands according to their hormonal composition and classifies pill users according to their breastfeeding status. Among the breastfeeding mothers for whom information on pill brands was obtained, 44 percent were using progestin-pills.

An additional question was included in the 2008 EDHS to ascertain the extent to which women in Egypt are aware of the availability of pill brands that are suitable for use by breastfeeding mothers. Overall, Table 6.12 shows that around three in five ever-married women reported they had heard about a contraceptive pill which was suitable for breastfeeding women. However, most of these women were not able to identify a brand of pills that is appropriate for use by breastfeeding mothers.

Table 6.12 Knowledge of pill brand suitable for breastfeeding women	
Percent distribution of ever-married women by level of knowledge of pill brand suitable for breastfeeding women, Egypt 2008	
Pill brand	Total
Knows about pill suitable for breastfeeding women	64.9
Names correct brand	2.7
Names incorrect brand	0.1
Cannot name brand	62.2
Doesn't know about pill suitable for breastfeeding women	34.9
Missing	0.2
Total	100.0
Number of women	16,527

## 6.6 COST OF METHODS

In the 2008 EDHS, users of the pill, the IUD and injectables were asked about the actual amounts they had paid for their method.

### 6.6.1 Pill Users

According to the results in Table 6.13, virtually all pill users are paying more than 50 piastres for a cycle of pills, and 45 percent pay more than one pound (100 piastres). The median cost of a cycle is just over one pound (101 piastres), which is the same as the median cost reported at the time of the 2005 EDHS. The mean cost is over four pounds (440 piastres).

### 6.6.2 Injectable Users

Table 6.14 presents information on the cost of injectables at the time of the 2008 EDHS. Sixty-one percent of injectable users paid two pounds or less. The median cost was 1.8 pounds, which is slightly higher than the median cost reported for injectables at the time of 2005 EDHS (1.7 pounds). The slight increase in the median cost between 2005 and 2008 could be due to the fact that in 2008 only 3 percent of injectables users the method for free compared with 8 percent in 2005.

<u>Table 6.13 Cost of method for pill users</u>	
Percent distribution of current users of the pill by cost of a cycle of pills (in piastres) and the median and mean amounts paid for the pill, Egypt 2008	
	Total
Free	0.6
1-50 piastres	0.2
51-75 piastres	40.1
76-100 piastres	11.9
101-200 piastres	7.1
201-300 piastres	12.9
301-999 piastres	2.8
1000-1300 piastres	10.4
More than 1300 piastres	11.9
Don't know/missing	1.9
Total	100.0
Number of pill users	1,831
<b>2008 EDHS</b>	
Median	100.7
Mean	439.7
<b>2005 EDHS</b>	
Median	101.0
Mean	426.8

<u>Table 6.14 Cost of method for injectable users</u>	
Percent distribution of current users of injectables by the cost of the method (in pounds), Egypt 2008	
	Total
Free	3.3
< 1 pounds	0.0
1-1.9 pounds	61.0
2-2.9 pounds	15.3
3-4.9 pounds	5.5
5-6.9 pounds	6.3
7-8.9 pounds	2.5
9-9.9 pounds	0.8
10+ pounds	5.0
Don't know/missing	0.2
Total	100.0
Number of injectable users	1,140
<b>2008 EDHS</b>	
Median	1.8
Mean	2.6
<b>2005 EDHS</b>	
Median	1.7
Mean	3.7

### 6.6.3 IUD Users

Table 6.15 presents the actual amount that IUD users paid for services. The table shows that, while relatively few IUD users (5 percent) got the method for free, 30 percent of users paid less than 3 pounds for IUD. At the other extreme, 26 percent of IUD users paid more than 20 pounds to obtain the method.

The amount that a user paid to obtain an IUD varied with the type of provider. The lowest median cost was observed among those users who obtained the method from a public sector source (3.0 pounds). The median cost at a NGO/PVO clinic was 10.5 pounds, almost three and a half times the cost that an average user paid at a public sector facility, but roughly one-third the amount users who have the IUD inserted by a private doctor or at a private hospital or clinic paid (35.4 pounds).

A comparison of the median cost for an IUD at the time of the 2008 EDHS with the median cost paid by all IUD users at the time of the 2005 EDHS (4.7 pounds) indicates that the cost of an IUD decreased modestly for the average user during the period between the two surveys. Looking at the trend in costs by the provider, the median cost of an IUD at public health facilities and mosque/church clinics in 2008 was the same or virtually the same as the median amount that users paid in 2005 for an IUD from these sources while the median amount paid by users obtaining the method from NGO/PVO clinics decreased between 2005 and 2008. In contrast, the median amount paid by users who obtained the method from a private doctor or clinic increased by 5 pounds during the period between the survey. The increasing cost of the IUD at private sector facilities may be one factor explaining the rise in the proportion of users obtaining the IUD at governmental facilities since the 2005 survey.

Table 6.15 Cost of method for IUD users

Percent distribution of current users of IUD by cost of the method (in pounds), according to the type of provider, and the median and mean amounts paid for the IUD, Egypt 2008

	Public health facility	Private doctor/ clinic	NGO/ PVO clinic	Mosque/ church clinic	Total
Free	5.5	2.5	4.4	1.7	4.5
< 3 pounds	44.6	1.1	13.0	6.2	30.3
3-4.9 pounds	22.3	0.6	9.7	5.1	15.3
5-9.9 pounds	18.4	2.2	18.7	10.9	13.4
10-14.9 pounds	3.2	5.0	12.0	20.5	4.1
15-19.9 pounds	1.8	4.9	15.7	6.3	3.0
20-29.9 pounds	1.2	19.6	3.9	22.4	7.1
30-49.9 pounds	0.7	24.1	9.3	12.7	8.1
50 pounds or more	0.4	34.7	12.9	10.3	11.1
Don't know/missing	1.9	5.5	0.5	4.0	3.0
Total	100.0	100.0	100.0	100.0	100.0
Number of IUD users	3,699	1,670	101	88	5,557
<b>2008 EDHS</b>					
Median	3.0	35.4	10.5	15.8	4.2
Mean	4.0	44.8	17.7	20.5	16.5
<b>2005 EDHS</b>					
Median	2.9	30.4	15.2	15.8	4.7
Mean	4.1	39.7	19.0	17.9	14.1

NGO = Nongovernmental organization

PVO = Private voluntary organization

## 6.7 PARTICIPATION IN FAMILY PLANNING DECISIONS

Women who were using a family planning method at the time of the 2008 EDHS were asked questions about who was mainly responsible for the decision to use family planning. Table 6.16 shows that virtually all women participated in the decision to use a family planning method. The majority of users made the decision to use jointly with their husband (86 percent) while 10 percent said that they themselves are mainly responsible for use of family planning. Only 2 percent of current users indicated that the husband is mainly responsible for the decision to use a method. Differentials by background characteristics are generally not significant. However, women age 15-19 years, rural women, those from rural Upper Egypt, uneducated women and women with some primary education, and women in the lowest wealth quintiles were somewhat more likely than other women to be the main person responsible for the decision to use family planning.

**Table 6.16 Family planning decision-making**  
Percent distribution of current users by person mainly responsible for decision to use family planning, according to background characteristics, Egypt 2008

Background characteristics	Person mainly responsible for decision to use contraception				Total	Number of women
	Mainly respondent	Joint decision	Mainly husband	Other/missing		
<b>Age</b>						
15-19	15.4	79.4	3.3	1.8	100.0	142
20-24	9.4	86.9	2.2	1.5	100.0	1,128
25-29	9.4	87.7	1.9	1.1	100.0	1,952
30-34	10.0	84.9	2.7	2.4	100.0	1,723
35-39	10.5	85.1	2.3	2.0	100.0	1,788
40-44	10.0	84.9	2.3	2.9	100.0	1,587
45-49	11.0	83.6	1.4	4.0	100.0	962
<b>Number of living children</b>						
0	*	*	*	*	100.0	7
1	10.0	85.6	2.7	1.7	100.0	1,101
2	9.2	86.4	2.2	2.2	100.0	2,429
3	8.3	87.5	1.9	2.3	100.0	2,680
4+	12.4	83.1	2.3	2.2	100.0	3,066
<b>Place of residence</b>						
Urban Governorates	9.7	84.5	1.9	3.9	100.0	1,777
Lower Egypt	9.1	87.4	1.9	1.7	100.0	4,586
Urban	6.9	89.3	1.6	2.2	100.0	1,180
Rural	9.8	86.8	2.0	1.5	100.0	3,405
Upper Egypt	12.0	83.3	2.9	1.8	100.0	2,806
Urban	7.4	87.1	2.8	2.7	100.0	1,026
Rural	14.6	81.1	3.0	1.3	100.0	1,780
Frontier Governorates	10.1	83.7	2.8	3.3	100.0	113
<b>Urban-rural residence</b>						
Urban	8.3	86.5	2.1	3.1	100.0	4,059
Rural	11.4	84.8	2.3	1.4	100.0	5,223
<b>Education</b>						
No education	12.6	83.3	2.6	1.4	100.0	2,745
Some primary	13.1	82.4	3.2	1.3	100.0	785
Primary complete/some secondary	11.2	83.8	2.6	2.3	100.0	1,353
Secondary complete/higher	7.6	88.0	1.7	2.7	100.0	4,399
<b>Work status</b>						
Working for cash	7.9	85.7	1.8	4.6	100.0	1,484
Not working for cash	10.5	85.5	2.3	1.7	100.0	7,799
<b>Wealth quintile</b>						
Lowest	13.1	82.8	2.8	1.3	100.0	1,533
Second	12.2	83.5	2.7	1.6	100.0	1,723
Middle	9.9	86.5	2.2	1.4	100.0	1,941
Fourth	8.2	87.7	1.8	2.3	100.0	2,006
Highest	8.1	86.3	1.8	3.9	100.0	2,079
Total	10.1	85.5	2.2	2.2	100.0	9,282

Note: An asterisk indicates that a figures is based on less than 25 unweighted cases and has been suppressed.

## 6.8 INFORMED CHOICE

Ensuring that potential users have the information they need to make informed choices is a vital component of family planning programs. Users should be informed of the range of methods that are available so they can make decisions about the contraceptive method that is most appropriate for their situations. Family planning providers should also inform potential users of the side effects that they may experience when using specific methods and what they should do if they encounter any of the effects. This information both assists the user in coping with side effects and decreases unnecessary discontinuation of temporary methods.

The 2008 EDHS included a number of questions designed to assess whether women who were currently using family planning at the time of the survey had received sufficient information to make informed choices. Current users were asked whether they had been told about other methods, told about side effects, or given advice about what to do about side effects by the provider from whom they obtained their method. If they were not told about other methods or about side effects during that consultation, they were asked if they had ever received information from a provider about these topics. Caution must be exercised in interpreting the responses to these questions since they are subjective. In addition, they also suffer from an unknown degree of recall error, i.e., many users had gone to the provider months or even years before the EDHS interview and may not have remembered accurately everything that took place during the encounter. Nevertheless, the results of these questions provide at least some insight into the nature of the counselling that family planning users are receiving from their providers.

Table 6.17 presents information on the informed choice indicators for current users who adopted the method in January 2003 or later. In general, the information exchange between many current users and their provider is fairly limited. Two-thirds of users reported that the provider discussed methods other than the one the user received. Fifty-six percent of users were told about side effects and 46 percent were told what to do if they experienced side effects. In cases where the users received information needed to make an informed choice, they generally reported that they received the information from the provider whom they consulted at the beginning of the current segment of use.

Table 6.17 also shows that the proportion of users receiving the information needed to make an informed choice did not vary markedly with the type of clinical providers. The largest differentials were observed in the percentages receiving information about method side effects. However, users obtaining the method from a pharmacy were much less likely than other users to have received information, especially about side effects, necessary to make an informed choice.

Table 6.17 Informed choice

Percentage of current users who began the current segment of use since January 2003 who reported they were advised about various aspects of the method they obtained according to type of source and method, Egypt 2008

Information provided	Public sector	Private clinical <sup>1</sup>	Pharmacy	Total <sup>2</sup>
PILL				
Told about other methods	71.5	76.5	46.3	64.3
At start of current segment	64.9	70.4	33.3	55.6
Ever but not during current segment	6.5	6.1	13.0	8.7
Told about side effects	47.6	64.3	33.3	47.6
At start of current segment	44.4	61.0	27.8	43.5
Ever but not during current segment	3.2	3.3	5.5	4.1
Told what to do about side effects	38.7	54.0	21.7	37.3
Number of users	502	401	496	1,413
IUD				
Told about other methods	66.9	74.7	na	69.5
At start of current segment	61.0	69.5	na	63.8
Ever but not during current segment	6.0	5.2	na	5.8
Told about side effects	56.0	67.2	na	59.8
At start of current segment	52.4	63.5	na	56.1
Ever but not during current segment	3.6	3.7	na	3.6
Told what to do about side effects	47.2	59.3	na	51.2
Number of users	2,256	1,090	na	3,389
INJECTABLES				
Told about other methods	64.0	63.4	(40.6)	63.0
At start of current segment	56.6	57.0	(31.1)	55.6
Ever but not during current segment	7.4	6.4	(9.4)	7.4
Told about side effects	54.9	46.7	(40.8)	53.8
At start of current segment	51.7	39.6	(33.0)	50.2
Ever but not during current segment	3.2	7.1	(7.8)	3.6
Told what to do about side effects	43.1	41.4	(27.6)	42.5
Number of users	735	61	32	831
ALL MODERN METHODS <sup>3</sup>				
Told about other methods	66.8	74.7	45.9	67.0
At start of current segment	60.4	69.1	33.2	60.2
Ever but not during current segment	6.5	5.6	12.8	6.8
Told about side effects	54.6	66.2	32.8	55.8
At start of current segment	51.2	62.6	27.4	52.1
Ever but not during current segment	3.4	3.6	5.4	3.7
Told what to do about side effects	45.2	57.1	21.6	46.3
Number of users	3,576	1,631	580	5,851

Note: Table excludes users who obtained method from friends/relatives. Figures in parentheses are based on 25-49 unweighted cases.

na = Not applicable

NGO = Nongovernmental organization

PVO = Private voluntary organization

<sup>1</sup> Includes private hospital/clinic, private doctor/nurse, mosque/church clinic

<sup>2</sup> Includes users reporting they obtained method from NGO/PVO source who are not shown separately in table

<sup>3</sup> Includes only current users who began segment of use since January 2003

One of the primary objectives of the 2008 EDHS is to provide information on reasons for nonuse and on the intention to use family planning in the future. Such information is of particular interest to policymakers and program managers as they seek to address the contraceptive needs of nonusers who are concerned about spacing or limiting their fertility. Thus, this chapter focuses on women who are not using family planning. It presents information on: levels of family planning discontinuation, reasons for discontinuation, reasons for nonuse, intention to use in the future, timing of future use, and the methods preferred among women who are not currently using a family planning method.

## 7.1 DISCONTINUATION RATES

A key concern for the family planning program in Egypt is the rate at which users discontinue use of contraception and the reasons for such discontinuations. Although users may discontinue because they want another child, they often stop for other reasons including contraceptive failure, dissatisfaction with the method, and health concerns, leaving them exposed to the risk of an unintended pregnancy. The 2008 EDHS obtained information that can be used to look both at the extent of discontinuation among users and at the reasons users have for stopping use.

The data used to analyze discontinuation were collected by asking respondents for information on all episodes of contraceptive use between January 2003 and the date of the interview. For each interval of use, the woman was asked the contraceptive method used and the date of use (year and month) and, if applicable, the date she stopped using and the reason for discontinuation. If a woman reported that she was using a method in January 2003, she was also asked for the date when that segment of use began.

Using the 2008 EDHS calendar data, life-table techniques were used to calculate the discontinuation rates presented in Table 7.1. The rates shown in the table are based on episodes of use that began during the period 3 to 59 months prior to the 2008 EDHS. They are one-year discontinuation rates; i.e., they represent the proportion of users discontinuing within the first 12 months after beginning to use the method. In calculating the rates, the month of interview and the two preceding months were dropped to avoid any bias that might be introduced by unrecognized pregnancy. The rates are cumulative, i.e., they are obtained by dividing the number of discontinuations at each duration of use (in single months) by the number of months of exposure at that duration. The single-month rates were then cumulated to produce a one-year rate. The rates are presented separately for the following five methods: pills, injectables, IUDs, condoms, and prolonged breastfeeding.

To ensure a sufficient number of segments of use to allow calculation of the rates, the reasons for discontinuation are grouped into four specific categories: method failure, desire for pregnancy, side effects/health concerns, and other reasons including husband's disapproval, need for a more effective method, marital dissolution, etc. In deriving these rates, the reasons for discontinuation are treated as competing risks; thus, the rates are additive across the reasons for discontinuation.

Overall, Table 7.1 shows that women stopped using a method within 12 months of starting use in the case of one-quarter of all episodes of contraceptive use during the five-year period prior to the EDHS. Side effects or health concerns were the motivating factors for 9 percent of the discontinuations. Eight percent were due to the user's desire to become pregnant (4 percent) or to other fertility-related reasons including marital dissolution, infrequent sex, and the onset of menopause (4 percent). Three percent of



discontinuations were due to method failure (i.e., the user became pregnant while using the method) and 2 percent were a result of the user's desire for a more effective method. Other method-related reasons including lack of access, cost, and inconvenience were responsible for 2 percent of discontinuations.

Regarding individual methods, the highest discontinuation rates were observed for the pill and prolonged breastfeeding (40 percent each), followed by the injectable (37 percent). The IUD had the lowest discontinuation rate; users discontinued within 12 months of adopting in the case of only 12 percent of all of the episodes of use during the five-year period prior to the survey.

Table 7.1 also provides information on the reasons women gave for discontinuing use. Although the reasons for discontinuation varied somewhat by method, side effects or health concerns were the most frequent reasons for discontinuation among users of injectables (21 percent), the pill (12 percent), and the IUD (6 percent). Method failure was most often cause of discontinuation among condom users (8 percent) and least often mentioned as a reason for discontinuation of the IUD and injectables (about 1 percent). Pill and injectable users are more likely than users of other methods to discontinue use because they wanted to become pregnant or for other fertility-related reasons including infrequent sex. Wanting an effective method was a more frequent motivation for discontinuation among users of the condom (7 percent) and prolonged breastfeeding (5 percent) than users of other methods.

Finally, Table 7.1 shows the proportion of episodes of use in which the user switched to another method after they discontinued. The results indicate that users were most likely to adopt a new method after discontinuing the condom and prolonged breastfeeding and least likely to switch to another method if they were using the IUD.

Table 7.1 Contraceptive discontinuation rates

Among women who started an episode of contraceptive use in the five year-period before the survey, percentage of episodes discontinued within 12 months after beginning use, by reason for discontinuation and percentage who switched to another method, Egypt 2008

Method	Reason for discontinuation								Switched to another method <sup>4</sup>
	Method failure	Desire to become pregnant	Other fertility related reasons <sup>2</sup>	Side effects/ health reasons	Wanted more effective method	Other method related reasons <sup>3</sup>	Other reasons	Any reason	
Pill	6.2	7.2	8.5	12.4	3.1	1.0	1.7	40.0	10.3
IUD	0.9	3.2	0.9	6.0	0.0	0.3	0.4	11.8	3.3
Injectables	0.9	5.2	5.7	21.1	0.9	0.4	2.5	36.8	11.9
Male condom	8.2	2.8	1.3	0.0	6.8	2.6	10.2	31.9	18.0
Prolonged breastfeeding	6.2	1.0	0.4	0.3	4.7	20.4	7.4	40.3	19.5
All methods <sup>1</sup>	2.9	4.4	3.6	9.4	1.5	2.2	1.8	25.9	8.1
Number of episodes of use	281	410	368	941	156	211	175	2,542	810

Note: Figures are based on lifetable calculations using information on episodes of use that began 3-59 months prior to the survey.

<sup>1</sup> Includes methods for which rates are not shown separately in table

<sup>2</sup> Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation

<sup>3</sup> Includes lack of access/too far, costs too much, and inconvenient to use

<sup>4</sup> Used a different method in the month following discontinuation or said they wanted a more effective method and started another method within two months of discontinuation

## 7.2 REASONS FOR DISCONTINUATION OF CONTRACEPTIVE USE

Table 7.2 looks in greater detail at the reasons the 2008 EDHS respondents gave for discontinuing use. The table shows the percent distribution of all discontinuations in the five-year period prior to the survey by the main reason for discontinuing according to the specific method.

More than one-third of all discontinuations during the five-year period before the 2008 EDHS occurred because the user wanted to have a child. Wanting another child was most often cited reason for discontinuations among IUD users (49 percent) and pill users (33 percent).

Reason	Pill	IUD	Injection	Condom	Prolonged breast-feeding	All methods <sup>1</sup>
Became pregnant while using	14.8	5.0	3.1	30.2	15.4	8.6
Wanted to become pregnant	32.7	48.6	24.6	17.6	6.4	36.0
Husband disapproved	0.5	0.2	0.4	15.5	0.2	0.5
Side effects	23.3	30.4	48.2	0.0	0.9	28.5
Health concerns	2.6	1.6	4.1	0.4	0.2	2.1
Access/availability	0.2	0.0	0.3	0.0	0.0	0.1
Wanted a more effective method	5.0	0.3	1.4	13.6	7.8	2.7
Inconvenient to use	1.5	0.9	0.8	4.6	51.0	5.4
Infrequent sex/husband away	13.2	3.1	8.5	9.7	0.3	6.6
Cost too much	0.1	0.0	0.0	0.0	0.0	0.0
Fatalistic	0.1	0.0	0.2	0.0	0.0	0.1
Difficult to get pregnant/menopausal	1.3	2.2	1.5	1.6	0.0	1.6
Marital dissolution/separation	1.6	3.3	1.8	0.0	0.3	2.3
Doctor's opinion	0.1	1.2	0.0	0.0	0.2	0.7
IUD fell out	1.3	1.2	2.5	2.2	10.5	2.3
Other	1.8	2.1	2.6	4.6	6.8	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	2,525	4,251	1,503	80	788	9,358

<sup>1</sup>Includes methods for which the distributions are not shown separately in the table.

Side effects and health concerns accounted for around three in ten of all discontinuations. They were cited as the reason for more than half of all discontinuations of the injectable (52 percent) during the five-year period before the survey, and they were the second most common cause of discontinuation among IUD and pill users (32 percent and 26 percent, respectively).

Nine percent of all discontinuations were the result of method failure; i.e., the woman became pregnant while using a method. Method failure was most often mentioned as the reason for discontinuation of the condom (30 percent) and also was frequently a factor in discontinuation of the pill and prolonged breastfeeding (15 percent each).

Dissatisfaction with the method was a major factor in discontinuations for some methods. In the case of prolonged breastfeeding, for example, 51 percent of discontinuations were because the woman found the method inconvenient to use. Concern about method effectiveness was a factor in more than one in ten (14 percent) discontinuations of the condom.

Table 7.2 also shows that program-related factors such as cost or access were almost never cited as reasons for discontinuation. Except for the condom, the husband’s disapproval was also rarely cited as a main factor affecting the decision to discontinue use. Sixteen percent of discontinuations of the condom were due to the husband’s unwillingness to use the method. Factors that reduced or eliminated the risk of pregnancy (e.g., infrequent sex/husband away, difficulty in getting pregnant/menopause, and marital dissolution) accounted for more than 11 percent of discontinuations.

### 7.3 INTENTION TO USE CONTRACEPTION IN THE FUTURE

To obtain information about potential demand for family planning services, all currently married women who were not using contraception at the time of the survey were asked about their intention to adopt family planning methods in the future. Table 7.3 shows the percent distribution of nonusers by their intention to use in the future, according to number of living children.

Intention	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
Intends to use	60.4	79.7	72.2	64.1	41.0	63.7
Unsure	12.7	6.1	6.2	4.4	4.2	6.5
Does not intend to use	26.9	13.9	21.2	31.1	53.5	29.2
Missing	0.0	0.4	0.4	0.4	1.2	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	986	1,487	1,280	972	1,389	6,114

<sup>1</sup>Includes current pregnancy

Among all currently married nonusers, 64 percent intended to use family planning at some time in the future, 29 percent did not plan to use in the future, and the remaining nonusers were unsure about their intentions. The intention to use varies with the number of living children the nonuser has. Overall, the proportion saying they planned to use in the future decreased from a high of 80 percent among women with one child to 41 percent of women with four or more children. Among childless women, six in ten intended to use in the future.

### 7.4 REASONS FOR NONUSE

Table 7.4 presents the distribution of currently married non-users who did not intend to use in the future by the main reason they gave for not using. The reasons for nonuse are of interest to the family planning program since they help to identify areas for potential interventions to support the adoption of contraception by nonusers. Around three-quarters of nonusers had various fertility-related reasons for not planning to adopt contraception. These reasons included a perceived lack of need for contraception because the woman was subfecund or infecund (37 percent), menopausal or had had a hysterectomy (13 percent), or was not sexually active or had sex infrequently (10 percent). In addition, 14 percent of the nonusers wanted more children.

Method-related reasons were cited by a significant proportion of nonusers; 10 percent had health concerns and 7 percent mentioned fear of side effects. Opposition to use—either the woman’s own attitude or that of her husband—was a factor for 6 percent of the nonusers.

Table 7.4 classifies women into two age groups (under age 30 and age 30 and over) in order to consider how the reasons for nonuse were related to a woman's age. Nonusers under age 30 were more likely than nonusers age 30 or over to mention the desire to have as many children as possible (44 percent and 9 percent, respectively). As might be expected, lack of need for contraception because of menopause or hysterectomy was a reason given almost exclusively by older nonusers. Opposition to use was cited more often by younger than older nonusers (11 percent and 5 percent, respectively). Older women mentioned health concerns as a reason for nonuse around twice as often as younger women (10 percent and 5 percent, respectively).

Reason	15-29	30-49	Total
<b>Fertility-related reasons</b>	69.8	74.4	73.8
Not having sex	0.5	2.9	2.6
Infrequent sex/no sex	5.1	7.6	7.3
Menopausal/had hysterectomy	0.0	15.4	13.3
Subfecund/infecund	20.3	39.4	36.9
Wants as many children as possible	43.9	9.2	13.8
<b>Opposition to use</b>	11.2	5.3	6.0
Respondent opposed	2.5	2.1	2.1
Husband/partner opposed	6.4	1.8	2.4
Religious prohibition	2.3	1.4	1.5
<b>Lack of knowledge</b>	1.0	0.0	0.2
Knows no method	0.4	0.0	0.1
Knows no source	0.6	0.0	0.1
<b>Method-related reasons</b>	15.9	18.2	17.9
Health concerns	4.8	10.4	9.7
Fear of side effects	9.2	6.8	7.1
Costs too much	0.0	0.1	0.1
Inconvenient to use	1.2	0.3	0.4
Interfere with body's normal processes	0.7	0.6	0.6
Other	0.3	0.9	0.8
Don't know	0.8	0.1	0.2
Missing	1.0	1.1	1.1
Total	100.0	100.0	100.0
Number of women	236	1,552	1,788

## 7.5 PREFERRED METHOD

Nonusers who planned to use family planning in the future were asked about the method they would prefer to use. Table 7.5 shows that 33 percent of all nonusers who planned to use preferred the IUD. The remaining nonusers who expressed a preference were more likely to prefer the pill (19 percent) than injectables (7 percent). More than one-third of the nonusers intending to use a method in the future were unsure which method they prefer (23 percent) or said they would rely on the doctor's advice (13 percent).

## 7.6 CONTACT OF NONUSERS WITH OUTREACH WORKERS/HEALTH CARE PROVIDERS

The 2008 EDHS collected information on whether nonusers had any recent contact with community workers or health care providers. Such contacts provide an opportunity to counsel the nonuser about the need for family planning. To obtain this information, nonusers were

Method	Total
Pill	19.1
IUD	33.4
Injectables	7.1
Condom	0.1
Female sterilization	0.3
Male sterilization	0.0
Implants (Norplant)	1.0
Periodic abstinence	0.1
Withdrawal	0.0
Prolonged breastfeeding	0.6
Other	1.6
As doctor recommends	13.3
Unsure	23.3
Total	100.0
Number of women	3,898

asked whether they had been visited at home at anytime during the 6 months preceding the survey by an outreach worker (e.g., a raiyda refia) or anyone else who had talked with them about family planning. They were also asked about any visits they had made to governmental health facilities or private doctors or clinics during the six months preceding the survey and, if they had visited any of these providers, whether anyone had spoken to them about family planning during their visit(s).

Table 7.6 presents the data on both the proportion of currently married nonusers who had any contact with an outreach worker or health facility and the proportion who discussed family planning with an outreach worker or other health care provider during the 6 months prior to the EDHS interview. Relatively few women had been reached through community outreach efforts, with only 4 percent of nonusers reporting that they had been visited at home by a fieldworker. The proportion reporting outreach visits was similar to the level at the time of the 2005 EDHS and 2000 EDHS (4 percent). The highest level of contacts was observed in rural Upper Egypt, where 8 percent of nonusers reported being contacted at home in the 2008 EDHS, a level slightly above that reported in 2005 (6 percent).

Table 7.6 Discussion of family planning in contacts with fieldworkers or health providers by background characteristics

Percentage of currently married nonusers of family planning who were visited at home by a family planning worker, who visited a health facility, and who discussed family planning at a health facility, during the 6 months preceding the survey, according to selected background characteristics, Egypt 2008

Background characteristic	Visited at home by family planning worker	Visited public health facility (PHF)	Visited PHF, discussed family planning	Visited private health facility (PrHF)	Visited PrHF, discussed family planning	Had some contact with family planning worker or health facility	Discussed family planning with family planning worker or staff at health facility	Number of women
<b>Age</b>								
15-19	4.3	40.2	10.1	46.6	8.0	62.0	18.3	463
20-24	5.1	42.0	12.5	46.5	10.3	64.1	20.3	1,400
25-29	5.4	40.7	9.7	43.2	8.6	63.7	18.3	1,312
30-34	6.0	34.4	10.7	40.1	7.8	55.2	18.2	828
35-39	3.4	28.0	8.2	30.8	7.6	45.7	15.0	618
40-44	2.4	17.5	4.0	20.6	3.7	32.9	8.4	601
45-49	2.7	14.1	3.4	18.3	1.7	26.8	6.9	892
<b>Urban-rural residence</b>								
Urban	1.4	32.9	8.4	42.0	8.1	55.1	13.8	2,257
Rural	6.2	32.6	9.1	33.6	6.8	50.6	16.9	3,857
<b>Place of residence</b>								
Urban Governorates	1.5	37.4	7.7	46.4	7.9	61.3	13.6	950
Lower Egypt	4.0	31.8	9.2	36.2	8.1	49.6	15.9	2,542
Urban	0.7	28.0	9.2	37.6	8.2	48.1	14.4	621
Rural	5.1	33.0	9.2	35.8	8.1	50.0	16.3	1,921
Upper Egypt	6.1	31.8	9.0	33.8	6.2	51.8	16.6	2,519
Urban	1.8	30.6	8.7	40.8	8.4	53.3	13.3	619
Rural	7.5	32.2	9.1	31.5	5.5	51.3	17.7	1,900
Frontier Governorates	2.5	32.9	8.8	29.7	4.9	47.3	12.8	103
<b>Education</b>								
No education	4.6	26.9	6.9	24.3	3.8	41.0	12.5	2,013
Some primary	4.5	32.5	4.4	28.1	3.0	49.2	9.4	474
Primary complete/some secondary	4.6	35.8	10.3	39.2	6.7	56.2	17.0	920
Secondary complete/higher	4.2	36.0	10.6	46.5	10.7	59.9	18.9	2,707
<b>Work status</b>								
Working for cash	4.4	29.7	7.4	36.1	9.4	49.6	16.8	698
Not working for cash	4.5	33.1	9.1	36.8	7.0	52.6	15.6	5,416
<b>Wealth quintile</b>								
Lowest	6.0	30.5	7.2	25.7	4.7	46.0	14.6	1,232
Second	5.2	32.9	9.7	31.8	5.7	49.1	15.6	1,292
Middle	5.8	38.1	11.6	37.5	7.6	54.9	18.7	1,231
Fourth	3.0	34.1	9.2	41.0	8.3	56.1	15.2	1,261
Highest	1.9	27.1	6.3	49.0	10.3	55.7	14.7	1,099
Total	4.4	32.7	8.9	36.7	7.3	52.3	15.8	6,114

Table 7.6 also looks at the extent to which nonusers had an opportunity to discuss family planning during the visits they made to health facilities. Around one-third of nonusers made at least one visit to a government health facility during the six-month period before the survey, and a slightly higher proportion (37 percent) went to a private doctor or private health facility at least once. Looking at whether family planning was discussed during those contacts, women who visited private sector health facilities were somewhat less likely than those visiting public facilities to report that family planning was discussed during a visit (7 percent and 9 percent, respectively).

Taking into account both contacts with fieldworkers and contacts with health facilities, 16 percent of nonusers reported a contact in which family planning was discussed during the six months prior to the survey. This proportion is higher than the level reported in 2005 EDHS (11 percent).

Although the results in Table 7.6 suggest that there are many “missed” opportunities for informing and motivating nonusers about family planning, some caution must be exercised in drawing such conclusions. Not all visits to health providers present appropriate opportunities for offering family planning information or services, and not all nonusers are interested in/or in need of family planning when they visit a facility. Nevertheless, the results in Table 7.6 suggest that there is potential for taking more advantage of other visits that women make to facilities to offer family planning information.



This chapter considers a number of factors other than contraception that influence fertility including marriage, postpartum amenorrhea and abstinence and menopause. Marriage is among the most important of these proximate determinants since it is a primary indicator of women’s exposure to the risk of pregnancy. Early age at first marriage in a population is usually associated with a longer period of exposure to the risk of pregnancy and thus higher fertility levels. The early initiation of childbearing associated with early marriage may also adversely affect women’s and children’s health. Postpartum amenorrhea and postpartum abstinence, which determine the length of time a woman is unsusceptible to pregnancy after childbirth, affect the length of birth intervals and thus fertility levels. Menopause is important since it marks the end of a woman’s period of exposure to the risk of pregnancy.

In the 2008 EDHS, questions about the proximate determinants of fertility were included in the questionnaire which was administered only to ever-married women. However, a number of the tables, which examine the proximate determinants in this chapter, are based on all women, i.e., on ever-married women and never-married women. In constructing these tables, the denominators have been expanded to represent all women by multiplying the number of ever-married women by an inflation factor equal to the ratio of all women to ever-married women reported in the household questionnaire. The inflation factors are calculated by single years of age, either for the population as a whole or, in cases where the results are presented by background characteristics, separately for each category of the characteristic in question.

**8.1 MARITAL STATUS**

Table 8.1 shows the distribution of all women age 15-49 by current marital status. Overall, 65 percent of women are currently married, 3 percent are widowed, 2 percent are divorced or separated (not living together), and 31 percent have never married. The proportion never married decreases rapidly with age, from 87 percent among women age 15-19 to 46 percent among women age 20-24 to only 2 percent among women 40 years and older. The virtual universality of marriage among women is further evidenced from the fact that among women age 30 and over, 93 percent or more are or have been married.

Table 8.1 Current marital status							
Percent distribution of women by current marital status, according to age, Egypt 2008							
Age	Marital status					Total	Number of women
	Never married	Married	Divorced	Separated	Widowed		
15-19	86.6	13.1	0.2	0.1	0.1	100.0	4,618
20-24	46.2	52.6	0.7	0.3	0.1	100.0	4,806
25-29	17.7	79.8	1.4	0.5	0.6	100.0	4,090
30-34	6.9	89.1	2.0	0.6	1.4	100.0	2,862
35-39	3.6	89.7	2.4	0.4	3.8	100.0	2,683
40-44	2.1	86.6	2.7	1.0	7.5	100.0	2,527
45-49	1.9	81.5	2.7	0.6	13.3	100.0	2,277
Total	30.7	64.5	1.5	0.5	2.8	100.0	23,863



Most disruption of marital unions appears to be due to the death of the husband. As expected, the proportion widowed increases steadily with age, from less than 1 percent among women under age 30 to 13 percent among women age 45-49. The proportion divorced and separated does not exceed 4 percent of women in any age group.

## 8.2 CONSANGUINITY

Marriages between relatives (consanguineous marriages) are common in Egypt. According to the 2008 EDHS data presented in Table 8.2, around three in ten ever-married women reported that their current or, in the case of widowed or divorced women, their most recent husband was a relative. Most of consanguineous marriages involved first or second cousins. In such marriages, the husband was somewhat more likely to be a relative from the father's side than the mother's side (14 percent and 8 percent, respectively).

Table 8.2 Consanguinity by background characteristics

Percent distribution of ever-married women by relationship to their (last) husband, according to background characteristics, Egypt 2008

Background characteristic	First cousin		Second cousin		Other blood relative	Relative by marriage/ not related	Missing	Total	Number of women
	Father's side	Mother's side	Father's side	Mother's side					
<b>Age</b>									
15-19	13.3	6.0	7.6	2.5	7.5	63.0	0.1	100.0	620
20-24	10.1	6.8	6.1	2.5	7.9	66.7	0.1	100.0	2,584
25-29	8.5	6.0	4.3	2.3	7.3	71.7	0.0	100.0	3,367
30-34	9.6	5.3	4.7	2.4	7.2	70.8	0.1	100.0	2,664
35-39	9.3	5.0	4.2	2.5	7.2	71.9	0.0	100.0	2,586
40-44	10.5	6.3	3.6	2.8	6.9	69.8	0.1	100.0	2,473
45-49	10.8	5.4	4.3	2.2	5.5	72.0	0.0	100.0	2,234
<b>Urban-rural residence</b>									
Urban	7.5	4.9	2.9	2.4	5.5	76.8	0.0	100.0	6,809
Rural	11.5	6.4	5.8	2.5	8.1	65.6	0.0	100.0	9,718
<b>Place of residence</b>									
Urban Governorates	7.4	5.1	2.5	2.3	5.9	76.6	0.1	100.0	2,931
Lower Egypt	8.0	5.0	3.3	1.9	5.2	76.6	0.0	100.0	7,618
Urban	6.0	3.7	2.3	2.3	3.7	82.2	0.0	100.0	1,936
Rural	8.6	5.5	3.7	1.7	5.8	74.7	0.0	100.0	5,682
Upper Egypt	13.3	7.2	7.4	3.3	10.0	58.7	0.0	100.0	5,751
Urban	8.8	5.9	4.1	2.5	6.9	71.8	0.0	100.0	1,792
Rural	15.4	7.8	8.9	3.6	11.5	52.8	0.1	100.0	3,959
Frontier Governorates	13.6	5.1	6.3	2.5	6.7	65.8	0.0	100.0	227
<b>Education</b>									
No education	12.6	6.8	5.1	2.8	8.0	64.6	0.0	100.0	5,302
Some primary	11.0	7.1	6.7	3.1	9.3	62.7	0.0	100.0	1,394
Primary complete/some secondary	11.3	5.9	6.1	2.6	7.6	66.5	0.1	100.0	2,413
Secondary complete/higher	7.1	4.8	3.4	2.0	5.8	76.8	0.1	100.0	7,418
<b>Work status</b>									
Working for cash	6.2	4.0	3.0	2.0	5.4	79.3	0.1	100.0	2,459
Not working for cash	10.4	6.1	4.9	2.5	7.3	68.6	0.0	100.0	14,068
<b>Wealth quintile</b>									
Lowest	14.6	6.8	6.8	3.3	9.1	59.4	0.0	100.0	3,033
Second	11.3	7.5	6.2	2.3	8.0	64.6	0.1	100.0	3,252
Middle	10.6	6.1	4.9	2.9	6.8	68.7	0.0	100.0	3,394
Fourth	7.8	4.8	3.7	2.1	6.6	75.0	0.0	100.0	3,505
Highest	5.4	4.0	1.9	1.7	5.0	81.9	0.1	100.0	3,343
<b>Total</b>	9.8	5.8	4.6	2.4	7.1	70.2	0.0	100.0	16,527

As expected, consanguineous marriages were more common among rural than urban women; one-third of the marriages in rural areas involved relatives compared to less than one-quarter of the marriages in urban areas. Considering place of residence, the highest rate of consanguineous marriages was found in rural Upper Egypt, where nearly half of marriages were between relatives. The rate of consanguineous marriage was lowest in urban Lower Egypt (18 percent) and the Urban Governorates (23 percent). A woman's chance of marrying a relative decreased from 35 percent among women who had never attended school to 23 percent among women with a secondary education or higher. The likelihood of consanguineous marriage was greater among women who were not working for cash than among women who were working for cash (31 percent and 21 percent, respectively). It decreased by wealth quintile, from a level of 41 percent among women in the lowest wealth quintile to 18 percent of women in the highest quintile.

### 8.3 AGE AT FIRST MARRIAGE

The duration of exposure to the risk of pregnancy in a society is closely associated with the age at which women first marry. Thus, trends in age at first marriage can help explain changes in fertility levels in Egypt.

Table 8.3 shows both the percentage of women who had ever married by selected exact ages and the median age at first marriage, according to current age. The results document a substantial increase in the age at first marriage among younger cohorts. Accompanying the overall trend to later marriage is a marked decline in the proportion of women marrying at very young ages. The percentage of women married by exact age 15 dropped from 12 percent among women age 45-49 to 2 percent among women age 20-24. The percentage of women married by exact age 18 fell from 39 percent among women 45-49 to 17 percent among women 20-24.

Current age	Percentage first married by exact age:					Percentage never married	Number	Median age at first marriage
	15	18	20	22	25			
15-19	1.1	na	na	na	na	86.6	4,618	a
20-24	2.2	16.6	33.7	na	na	46.2	4,806	a
25-29	3.9	20.6	39.3	56.1	73.8	17.7	4,090	21.2
30-34	6.4	24.5	41.9	58.0	78.0	6.9	2,862	20.9
35-39	8.2	28.6	46.1	63.6	79.5	3.6	2,683	20.4
40-44	9.5	32.8	49.9	66.3	82.3	2.1	2,527	20.0
45-49	11.8	38.7	52.5	67.2	81.9	1.9	2,277	19.6
Women age 25-49	7.4	27.8	45.0	61.4	78.5	7.7	14,439	20.6

na = Not applicable  
<sup>a</sup> Omitted because less than 50 percent of women married for the first time by the beginning of the age group

Differentials in the median age at first marriage by selected background characteristics are presented in Table 8.4. The table shows early marriage is much more common in rural than in urban areas. The median age at first marriage among urban women age 25-49 was 22.2 years, around three years higher than the median age at first marriage among rural women (19.4 years).

There are marked differentials in the age of first marriage among women 25-49 by place of residence. On average, Table 8.4 shows that women married about two years earlier on average in rural

Upper Egypt (18.3 years) than in rural Lower Egypt (20.0 years). In turn, the median age at first marriage in the Urban Governorates (22.6 years) was higher than in either urban Lower Egypt (22.0 years) or urban Upper Egypt (21.7 years). An examination of the trend across age cohorts suggests that there have been substantial increases over time in the median age at marriage within all areas, with the changes in rural Upper Egypt being especially marked.

Table 8.4 also shows large differences in age at first marriage by educational level. The median age at first marriage among women with a secondary education or higher was 22.9 years, more than three years higher than the median age among women who have completed the primary but not the secondary level (19.3 years) and about five years higher than among women who never attended school (18.0 years). The magnitude of the educational differential in the age at marriage does not vary greatly across age cohorts, which suggests that much of the upward trend in the age at marriage over the past several decades in Egypt has been due to increases in educational attainment among women.

The median age at first marriage also rises with the wealth quintile. The median age at first marriage among women in the lowest wealth quintile is 18.3 years, which is almost five years lower than women in the highest quintile (23.2 years).

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
<b>Urban-rural residence</b>						
Urban	22.9	22.4	21.9	21.6	21.6	22.2
Rural	20.1	19.9	19.3	18.6	17.9	19.4
<b>Place of residence</b>						
Urban Governorates	23.5	22.8	22.1	22.0	22.3	22.6
Lower Egypt	20.9	21.1	20.5	20.0	19.6	20.5
Urban	22.6	22.5	21.7	21.5	21.6	22.0
Rural	20.4	20.7	20.1	19.5	18.8	20.0
Upper Egypt	20.5	19.6	19.2	18.6	18.2	19.4
Urban	22.6	21.8	21.9	20.9	20.4	21.7
Rural	19.5	18.6	17.8	17.2	17.1	18.3
Frontier Governorates	21.4	20.6	20.1	19.4	20.0	20.6
<b>Education</b>						
No education	18.7	18.4	18.1	17.7	17.4	18.0
Some primary	19.1	18.7	18.2	18.6	18.5	18.6
Primary complete/some secondary	19.3	19.2	19.2	19.6	19.8	19.3
Secondary complete/higher	22.7	22.9	22.7	22.9	24.0	22.9
<b>Wealth quintile</b>						
Lowest	19.2	18.4	18.2	18.2	17.3	18.3
Second	20.1	19.5	18.6	18.2	17.7	18.9
Middle	20.7	20.8	19.8	19.6	18.7	20.1
Fourth	21.8	21.6	21.7	20.8	20.7	21.4
Highest	23.5	23.4	23.1	22.7	23.2	23.2
Total	21.2	20.9	20.4	20.0	19.6	20.6

Note: Medians are not shown for women 15-19 and 20-24 because less than 50 percent have married by age 15 and age 20, respectively, for most subgroups shown in the table.

## 8.4 POSTPARTUM AMENORRHEA, ABSTINENCE, AND INSUSCEPTIBILITY

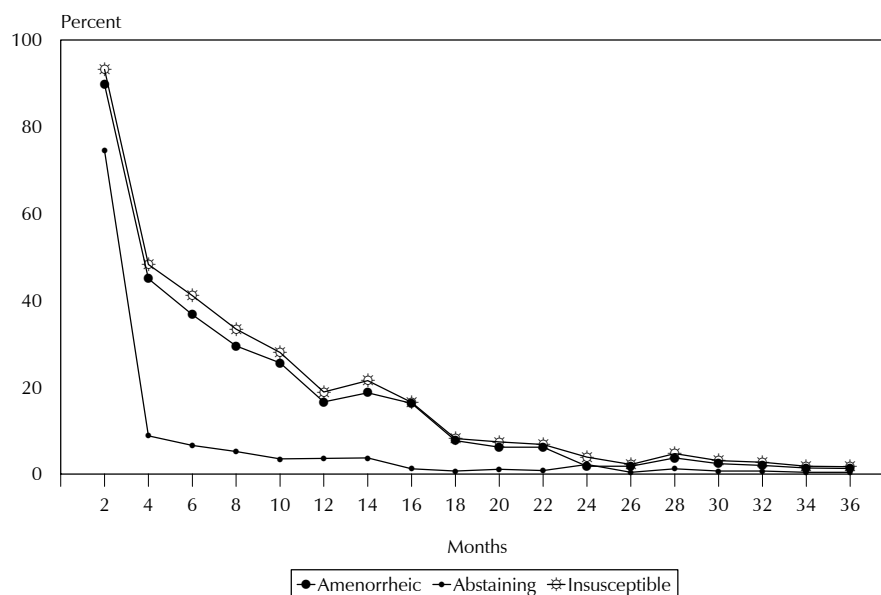
Among women who are not using contraception, exposure to the risk of pregnancy in the period after a birth is influenced primarily by two factors: breastfeeding and sexual abstinence. Breastfeeding prolongs postpartum protection from conception through its effect on the length of the period of amenorrhea (the period prior to the return of menses) after a birth. More frequent breastfeeding for longer durations as well as delays in the age at which supplementary foods are introduced are associated with longer periods of postpartum amenorrhea. Delaying the resumption of sexual relations after a birth also prolongs the period of postpartum protection. For the purposes of the following discussion, women are considered insusceptible to pregnancy if they are not at risk of conception, either because they are amenorrheic or abstaining after a birth.

The percentage of births during the three years preceding the survey for which mothers are postpartum amenorrheic, postpartum abstaining, and postpartum insusceptible is shown in Table 8.5, according to the number of months since the birth. These distributions are based on current status information, i.e., on the proportion of births occurring  $x$  months before the survey for which mothers were still amenorrheic, abstaining, or insusceptible at the time of the survey. Thus, the results presented in the table are based on cross-sectional data, representing the experience of mothers of all births at a single point in time rather than showing the experience of a cohort of mothers over time. The data are grouped in two-month intervals to minimize the fluctuations in the estimates. The median- and mean-duration estimates shown at the bottom of Table 8.5 are calculated from the current status distributions presented in the table. The prevalence/incidence mean which also is shown in Table 8.5 is obtained by dividing the number of mothers who are amenorrheic, abstaining, or insusceptible by the average number of births per month over the 36-month period.

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrheic	Abstaining	Insusceptible	
< 2	89.7	74.5	93.2	303
2-3	45.0	8.8	48.3	413
4-5	36.7	6.6	41.1	397
6-7	29.5	5.2	33.4	483
8-9	25.6	3.5	28.0	421
10-11	16.6	3.6	18.9	378
12-13	18.7	3.7	21.5	354
14-15	16.3	1.2	16.5	357
16-17	7.7	0.7	8.2	374
18-19	6.2	1.1	7.4	354
20-21	6.2	0.8	6.8	400
22-23	1.8	2.2	3.9	336
24-25	1.8	0.4	2.2	336
26-27	3.7	1.2	4.7	376
28-29	2.4	0.7	3.1	332
30-31	2.0	0.7	2.7	315
32-33	1.4	0.4	1.8	352
34-35	1.3	0.4	1.7	307
Total	17.7	5.9	19.5	6,588
Median	3.0	1.6	3.4	-
Mean	6.6	2.7	7.2	-
Prevalence/incidence mean	6.4	2.1	7.0	-

Overall, the period of amenorrhea after birth is not long for the average of Egyptian woman. As Figure 8.1 shows, the percentage of babies whose mothers are amenorrheic declines from around 90 percent in the two months immediately after a birth to 45 percent during the period two to three months after birth. By the period 4 to 5 months after a birth, mothers of 37 percent of births are still amenorrheic, and by 12 to 13 months after a birth, mothers have not resumed menstruation in the case of only 19 percent of births. The median duration of postpartum amenorrhea is 3.0 months, and the mean duration is 6.6 months. The relatively short average duration of postpartum amenorrhea is related to breastfeeding patterns, especially the early introduction of supplemental foods (see Chapter 13).

**Figure 8.1 Percentage of Births Whose Mothers are Amenorrheic, Abstaining, or Insusceptible**



EDHS 2008

As in other Islamic countries, many couples in Egypt observe the traditional practice of abstaining from sexual relations for a period of 40 days after a birth. Reflecting this tradition, the percentage of births for which the mother is still abstaining decreases rapidly, from 75 percent in the 2-month period immediately after a birth to only 9 percent at 2 to 3 months after a birth.

The combined effects of postpartum amenorrhea and postpartum abstinence are reflected in the period of postpartum insusceptibility after a birth. Overall, about half (48 percent) of all Egyptian women are susceptible to the risk of pregnancy by 4 months after a birth. The mean duration of the period of postpartum insusceptibility is 7.2 months, and the median duration is 3.4 months

The median durations of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility are presented in Table 8.6, according to selected background characteristics. In general, the periods of insusceptibility to the risk of conception are longer for older women, rural women, women in Upper Egypt, women with no or some primary education, women not working for cash and women in the lowest wealth quintile than for women in other groups. Differentials in the durations of insusceptibility are owed primarily to differences in the length of the periods of postpartum amenorrhea, since the average duration of postpartum abstinence does not vary greatly among the population subgroups.

**Table 8.6 Median duration of postpartum amenorrhea, abstinence, and insusceptibility by background characteristics**

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Egypt 2008

Background characteristic	Amenorrhea	Abstinence	Insusceptibility	Number of births
<b>Age</b>				
15-29	2.9	1.6	3.3	4,532
30-49	3.3	1.7	3.6	2,056
<b>Urban-rural residence</b>				
Urban	2.5	1.8	3.0	2,483
Rural	3.2	1.5	3.6	4,105
<b>Place of residence</b>				
Urban Governorates	2.3	1.8	2.5	1,062
Lower Egypt	2.8	1.6	3.1	2,866
Urban	2.5	1.8	2.7	641
Rural	2.9	1.5	3.2	2,225
Upper Egypt	3.6	1.6	4.3	2,563
Urban	3.3	1.8	4.3	719
Rural	3.7	1.6	4.3	1,844
Frontier Governorates	3.3	1.1	3.9	96
<b>Education</b>				
No education	3.6	1.5	4.1	1,614
Some primary	4.0	1.9	4.3	418
Primary complete/some secondary	2.8	1.8	3.5	1,009
Secondary complete/higher	2.7	1.6	3.0	3,547
<b>Work status</b>				
Working for cash	2.7	1.3	2.9	680
Not working for cash	3.0	1.7	3.5	5,908
<b>Wealth quintile</b>				
Lowest	4.0	1.5	4.9	1,306
Second	3.2	1.5	3.8	1,320
Middle	2.6	1.5	3.0	1,372
Fourth	2.5	1.9	2.9	1,356
Highest	2.9	1.7	3.1	1,234
Total	3.0	1.6	3.4	6,588

Note: Medians are based on current status.

## 8.5 TERMINATION OF EXPOSURE TO PREGNANCY

Another factor influencing the risk of pregnancy among women is menopause among older women. Table 8.7 presents data on the proportion menopausal among women age 30 and over who were currently married, non-pregnant and non-amenorrheic at the time of the survey. For the purposes of the table, a woman was considered to be menopausal if she met one of the two following conditions: 1) she declared herself menopausal at the time of the interview, or 2) she had not had a period for six months or more before the survey and was neither pregnant nor amenorrheic.

Based on this definition, Table 8.7 shows that few respondents under age 40 are menopausal. However, the proportion menopausal rises rapidly with age among older women, from 6 percent of women age 40-41 to 40 percent of women in the oldest age group (48-49 years).

**Table 8.7 Menopause**

Percentage of women age 30-49 who are menopausal, by age, Egypt 2008

Age	Percentage menopausal <sup>1</sup>	Number of women
30-34	2.5	2,664
35-39	3.9	2,586
40-41	5.8	1,050
42-43	7.7	1,029
44-45	13.9	968
46-47	24.1	792
48-49	39.8	868
Total	9.8	9,957

<sup>1</sup> Includes women who are not pregnant, who are not postpartum amenorrheic, and whose last menstrual period occurred six or more months preceding the survey and women who declared themselves to be menopausal



## FERTILITY PREFERENCES

Insight into the fertility desires in a population is important, both for estimating the potential unmet need for family planning and for predicting future fertility. This chapter presents data from the 2008 EDHS on the fertility intentions, need for family planning services, and desired family size among Egyptian women. It also considers the potential effect on fertility if unwanted pregnancies were prevented.

### 9.1 DESIRE FOR MORE CHILDREN

The 2008 EDHS obtained information on fertility preference by asking non-sterilized currently married women the question: “Would you like to have (a/another) child or would you prefer not to have any (more) children?” For pregnant women, the question was prefaced by the wording, “After the child you are expecting. . . .” Women who wanted more children were then asked how long they would like to wait before the birth of their next child. Sterilized women were considered to want no more children for the purposes of the fertility preference tabulations presented in this chapter.

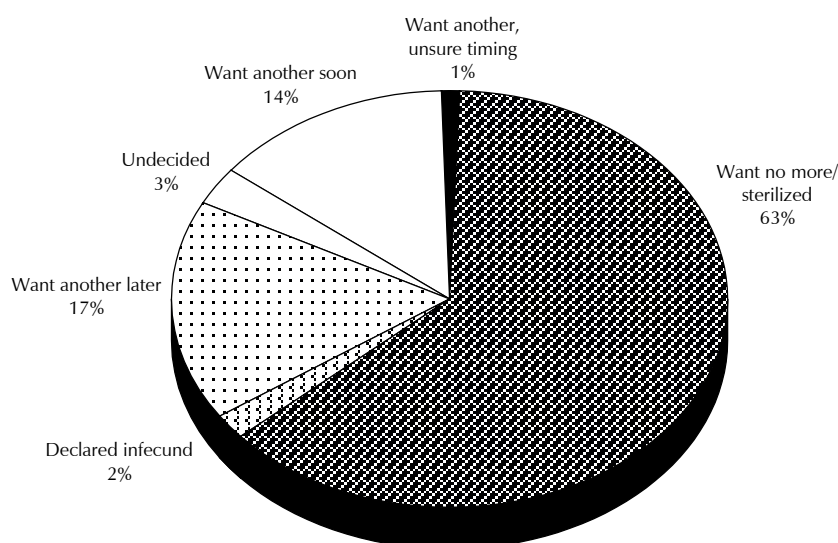
Table 9.1 and Figure 9.1 show the reproductive intentions of currently married women interviewed in the 2008 EDHS. The majority of married women did not want any more children (62 percent) or were sterilized (1 percent). Almost all of the remaining women (32 percent) wanted another child. Among those wanting another child, the majority—17 percent of all currently married women—either wanted to wait two years or more to have the next birth or were unsure of when they wanted another child. Less than half of the women who wanted another child—14 percent of all currently married women—wanted a child soon (within two years).

Desire for children	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
Have another soon <sup>2</sup>	93.3	26.1	10.7	3.1	1.6	0.9	0.8	14.1
Have another later <sup>3</sup>	0.2	62.8	22.0	4.5	1.7	1.3	0.2	17.3
Have another, undecided when	0.0	1.3	0.8	0.4	0.3	0.4	0.1	0.6
Undecided	0.4	2.0	6.1	2.3	1.5	0.5	1.3	2.7
Want no more	0.4	6.4	59.1	87.1	90.2	90.4	87.3	61.9
Sterilized	0.0	0.0	0.2	0.8	1.8	3.0	3.7	1.0
Declared infecund	5.7	1.2	1.0	1.8	2.9	3.4	6.6	2.4
Missing	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	992	2,589	3,708	3,652	2,206	1,142	1,106	15,396



The desire for a child was strongly related to the number of living children the woman already had. There was very little interest in spacing the first birth. More than nine in ten women who had not yet begun childbearing at the time of the survey wanted a birth soon. More than nine in ten women who had one child also expressed a desire to have another; however, the majority (63 percent) of these women wanted to wait two years or more to have the next birth. Among women with more than one child, the desire to cease childbearing increased rapidly with the number of children, from 59 percent among women with two children to 90 percent among women with four or five children.

**Figure 9.1 Desire for More Children among Currently Married Women**



EDHS 2008

Table 9.2 shows the distribution of currently married women by the desire for children, according to age. As expected, older women were much more likely to want no more children than younger women. The proportion of women who wanted no more children or who were sterilized was only 5 percent in the youngest age group, increased to 23 percent among those age 20-24, and peaked at 90 percent among women age 40-44.

Desire for children	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Wants another soon <sup>1</sup>	36.2	25.1	17.8	12.8	9.3	5.6	3.2	14.1
Wants another later <sup>2</sup>	56.0	47.6	25.0	9.4	2.0	0.8	0.0	17.3
Wants another, unsure timing	0.3	0.9	1.1	0.7	0.3	0.1	0.1	0.6
Undecided	2.1	3.9	5.4	2.8	1.8	0.6	0.2	2.7
Wants no more	5.2	22.5	50.5	73.2	84.3	87.2	79.8	61.9
Sterilized	0.0	0.0	0.1	0.6	1.4	2.4	2.7	1.0
Declared infecund	0.0	0.0	0.1	0.5	0.8	3.3	13.9	2.4
Missing	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	605	2,527	3,264	2,551	2,406	2,188	1,855	15,396

Note: Women who have been sterilized are considered to want no more children.  
<sup>1</sup> Wants next birth within 2 years  
<sup>2</sup> Wants to delay next birth for 2 or more years

The desire to space children was concentrated among younger women. Fifty-six percent of women age 15-19 and 48 percent of the women age 20-24 wanted to delay having a child for at least two years, compared with 9 percent of those age 30-34.

Table 9.3 shows the variation in the percentage of currently married women who wanted no more children or who were sterilized with the number of living children (including any current pregnancy) for various subgroups. The results indicate that urban women expressed a desire to limit family size at lower parities than rural women. For example, 66 percent of urban women with two children wanted to stop childbearing, compared with 53 percent of rural women with two children. The urban-rural differential in the desire for children narrowed among women with four or more children.

Background characteristic	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
<b>Urban-rural residence</b>								
Urban	0.6	8.9	66.1	90.3	92.1	94.8	91.1	64.5
Rural	0.3	4.6	53.3	86.0	91.9	92.7	90.9	61.8
<b>Place of residence</b>								
Urban Governorates	1.5	11.1	72.5	91.8	94.1	97.6	87.2	66.5
Lower Egypt	0.1	5.8	62.5	91.6	94.1	94.3	88.0	64.3
Urban	0.0	9.3	64.6	90.8	93.3	97.0	84.9	65.4
Rural	0.2	4.7	61.7	91.9	94.4	93.7	88.4	63.9
Upper Egypt	0.3	4.5	43.6	79.2	88.6	91.8	92.8	59.5
Urban	0.0	5.2	55.6	87.9	88.9	90.8	96.5	61.0
Rural	0.5	4.2	36.5	73.8	88.5	92.1	92.2	58.9
Frontier Governorates	0.0	4.4	50.2	77.4	83.3	89.1	88.2	55.2
<b>Education</b>								
No education	0.5	14.2	55.2	86.6	90.9	93.2	90.2	72.0
Some primary	0.8	8.4	64.7	83.1	95.9	92.9	95.0	75.1
Primary complete/some secondary	1.3	5.8	56.1	85.9	91.5	92.9	93.6	60.5
Secondary complete/higher	0.0	4.3	60.9	90.1	92.3	94.8	87.2	55.5
<b>Work status</b>								
Working for cash	0.6	10.7	71.4	91.2	93.6	97.3	93.0	72.9
Not working for cash	0.4	6.0	57.0	87.2	91.7	93.0	90.8	61.3
<b>Wealth quintile</b>								
Lowest	0.3	8.3	48.0	80.8	90.3	93.3	93.3	65.5
Second	0.2	5.8	50.4	85.0	93.1	93.3	88.9	61.8
Middle	1.4	5.4	59.1	89.0	92.0	93.0	89.0	63.6
Fourth	0.0	6.8	62.1	90.2	91.7	92.1	93.5	61.6
Highest	0.2	6.4	68.6	91.0	93.1	97.2	85.5	62.3
Total	0.4	6.4	59.4	87.9	92.0	93.4	91.0	62.9

Note: Women who have been sterilized are considered to want no more children.  
<sup>1</sup> Includes current pregnancy

Looking at the differentials by place of residence, married women living in the Frontier Governorates and rural Upper Egypt were generally the least likely to want to limit childbearing. For example, 92 percent of married women with three children in the Urban Governorates and in both urban and total areas in Lower Egypt wanted no more children (or were sterilized). In contrast, 74 percent of married women with three children in rural Upper Egypt and 77 percent in the Frontier Governorates wanted to limit childbearing.

Table 9.3 also shows that overall the proportion wanting no more children generally declined as the woman's educational level increased. To some extent, this pattern reflects the interrelationships between a woman's age, education level and her fertility preferences; educational levels are higher among younger women than older women and younger women are more likely to want another child than older women. Interestingly, the relationship between the woman's educational status and the desire for children was not uniformly positive within parity groups.

Women who were working for cash were consistently slightly more likely to want to limit childbearing than other women, regardless of the number of children the woman has. On the other hand, the desire to limit childbearing was not consistently related to wealth.

## 9.2 NEED FOR FAMILY PLANNING

One of the major concerns of family planning programs is to define the size of the potential demand for contraception and to identify women who are the most in need of contraceptive services. Table 9.4 presents estimates of unmet need and of met need for family planning services, and of the total demand for family planning in Egypt as a whole and for various subgroups.

Women with an *unmet need for family planning* (shown in columns 1-3 of Table 9.4) include the following:

- (1) Currently married women who are in need of family planning for *spacing* purposes. This group includes (a) pregnant women whose pregnancy is mistimed (i.e., wanted later); (b) amenorrheic women whose last birth was mistimed; and (c) nonusers who are neither pregnant nor amenorrheic and who either want to delay the next birth two or more years, are unsure whether they want another child, or want another child but are unsure when to have the birth.
- (2) Currently married women who are in need of family planning for *limiting* purposes. This group includes: (a) pregnant women whose pregnancy is unwanted; (b) amenorrheic women whose last child was unwanted; and (c) nonusers who are neither pregnant nor amenorrheic and who want no more children.

Menopausal and infecund women are excluded from the unmet need category as are pregnant or amenorrheic women who became pregnant while using a contraceptive method. These women are considered to be in need of better contraception.

Women with a *met need for family planning* (shown in columns 4-6 of Table 9.4) include women who are currently using contraception. The *total demand for family planning* (shown in columns 10-12 of Table 9.4) represents the sum of unmet need and met need. The total demand also includes pregnant and amenorrheic women who became pregnant while using a family planning method. The percentage of the total demand that is satisfied is shown in the column 13 in Table 9.4.

According to Table 9.4, the total unmet need in Egypt at the time of the 2008 EDHS was 9 percent; about a third of this need represented a desire to space the next birth, and the remainder represented an interest in limiting births. The total met need for family planning (i.e., the proportion of women currently using contraception) was 60 percent. Most users were limiters, with only about one in five users reporting a desire to delay the next birth for two or more years.

Table 9.4 Need for family planning by background characteristics

Percentage of currently married women with unmet need for family planning, met need for family planning, need for better contraception, and the total demand for family planning, by background characteristics, Egypt 2008

Background characteristic	Unmet need for family planning <sup>1</sup>			Met need for family planning (currently using) <sup>2</sup>			Need for better contraception (contraceptive failure) <sup>3</sup>			Total demand for family planning <sup>4</sup>			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
<b>Age</b>														
15-19	6.9	1.0	7.9	21.3	2.1	23.4	0.5	0.0	0.5	28.7	3.1	31.9	75.2	605
20-24	6.9	2.1	9.0	31.7	12.9	44.6	0.8	0.1	0.9	39.4	15.1	54.5	83.5	2,527
25-29	5.3	4.6	9.8	22.9	36.9	59.8	1.0	0.4	1.3	29.2	41.8	71.0	86.1	3,264
30-34	3.2	7.0	10.2	9.9	57.6	67.6	0.7	0.6	1.3	13.8	65.2	79.0	87.1	2,551
35-39	1.5	7.9	9.4	3.4	70.9	74.3	0.3	0.4	0.7	5.2	79.2	84.4	88.8	2,406
40-44	0.6	8.3	8.9	0.7	71.9	72.5	0.1	0.2	0.3	1.4	80.4	81.7	89.1	2,188
45-49	0.1	7.1	7.2	0.1	51.7	51.9	0.0	0.0	0.0	0.2	58.9	59.1	87.8	1,855
<b>Urban-rural residence</b>														
Urban	2.5	4.2	6.7	13.8	50.4	64.3	0.6	0.2	0.8	16.9	54.9	71.8	90.7	6,316
Rural	4.0	6.9	10.9	12.7	44.8	57.5	0.5	0.3	0.8	17.3	52.0	69.2	84.3	9,080
<b>Place of residence</b>														
Urban Governorates	2.5	3.5	5.9	13.3	51.9	65.2	0.6	0.2	0.8	16.3	55.6	71.9	91.7	2,727
Lower Egypt	2.5	4.9	7.4	13.7	50.6	64.3	0.5	0.3	0.8	16.7	55.8	72.5	89.8	7,128
Urban	2.0	4.5	6.4	13.3	52.2	65.5	0.6	0.1	0.6	15.8	56.7	72.6	91.1	1,801
Rural	2.7	5.0	7.7	13.9	50.1	63.9	0.4	0.4	0.8	17.0	55.5	72.5	89.3	5,326
Upper Egypt	5.0	8.2	13.1	12.4	40.3	52.7	0.6	0.3	0.9	18.0	48.8	66.7	80.3	5,326
Urban	2.9	5.1	8.0	15.3	47.1	62.4	0.6	0.4	1.0	18.8	52.5	71.3	88.8	1,646
Rural	5.9	9.5	15.4	11.1	37.2	48.4	0.6	0.3	0.9	17.6	47.1	64.6	76.1	3,680
Frontier Governorates	4.2	5.8	10.0	13.8	38.5	52.3	0.5	0.1	0.6	18.4	44.5	62.9	84.1	216
<b>Education</b>														
No education	3.0	7.9	10.8	7.2	50.4	57.7	0.4	0.3	0.7	10.6	58.6	69.2	84.3	4,758
Some primary	2.2	7.6	9.8	8.0	54.3	62.4	0.3	0.4	0.7	10.5	62.3	72.8	86.6	1,259
Primary complete/some secondary	3.4	6.1	9.4	13.8	45.8	59.5	0.6	0.3	0.9	17.8	52.1	69.9	86.5	2,273
Secondary complete/higher	3.9	3.9	7.8	17.9	44.0	61.9	0.6	0.3	0.9	22.4	48.2	70.6	88.9	7,106
<b>Work status</b>														
Working for cash	2.0	5.3	7.3	9.6	58.4	68.0	0.8	0.2	0.9	12.4	63.8	76.2	90.4	2,182
Not working for cash	3.6	5.9	9.5	13.8	45.2	59.0	0.5	0.3	0.8	17.9	51.4	69.3	86.3	13,215
<b>Wealth quintile</b>														
Lowest	4.2	8.5	12.8	10.8	44.6	55.4	0.5	0.3	0.8	15.6	53.5	69.1	81.5	2,764
Second	3.8	6.6	10.4	11.9	45.2	57.1	0.4	0.3	0.7	16.1	52.1	68.2	84.8	3,014
Middle	3.8	5.4	9.3	13.4	47.8	61.2	0.5	0.4	0.9	17.6	53.7	71.3	87.0	3,172
Fourth	3.1	4.8	7.8	14.1	47.3	61.4	0.8	0.3	1.1	18.0	52.4	70.3	88.8	3,268
Highest	2.2	4.0	6.1	15.3	50.1	65.4	0.5	0.1	0.6	17.9	54.2	72.1	91.5	3,178
Total	3.4	5.8	9.2	13.2	47.1	60.3	0.5	0.3	0.8	17.1	53.2	70.3	87.0	15,396

<sup>1</sup> Unmet need for spacing includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the unmet need category are pregnant and amenorrheic women who became pregnant while using a method (these women are in need of a better method of contraception). Also excluded are menopausal or infecund women.

<sup>2</sup> Using for spacing is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

<sup>3</sup> Contraceptive failure includes pregnant or amenorrheic women who became pregnant while using a contraceptive method. These women are considered in need for better contraception.

<sup>4</sup> Total demand includes pregnant or amenorrheic women who became pregnant while using a method (contraceptive failure) in addition to the unmet and met need for family planning.

Overall, the total demand for family planning comprised 70 percent of the married women interviewed in the EDHS. Eighty-seven percent of that demand was satisfied. Looking at variations in the proportion of the total demand for family planning that was satisfied, the most striking finding in Table 9.4 is the fact that 80 percent or more of the demand for services was satisfied in almost all subgroups. The level of satisfied demand was highest among women living in Urban Governorates (92 percent) and lowest among women living in rural Upper Egypt (76 percent).

Table 9.5 considers the reasons women who wanted to delay or avoid another method gave in response to the question of why they were not using contraception. Almost two-thirds of these women gave fertility-related reasons in response to this question; 31 percent mentioned that they were not exposed to pregnancy because they were menopausal or had had a hysterectomy, had difficulty becoming pregnant or were still amenorrheic following their last birth. More than one in four (28 percent) said they were not having sexual intercourse or had sex infrequently. Health concerns and side effects were cited by 12 and 13 percent of women, respectively.

### 9.3 IDEAL NUMBER OF CHILDREN

The discussion of fertility preferences earlier in this chapter focused on the respondent's wishes for the future. A woman's preferences obviously are influenced by the number of children she already has. The 2008 EDHS attempted to obtain a measure of fertility preferences that was less dependent on the woman's current family size by asking about the respondent's ideal number of children. The question about ideal family size required a woman to perform the difficult task of considering the number of children she would choose to have in her whole life regardless of the number (if any) that she had already borne. Seven percent of women gave a nonnumeric response to the question about ideal family size, reflecting the difficulty that these respondents had with the abstract nature of the question.

Table 9.6 shows the distribution of ever-married women by their ideal number of children, according to number of living children. In considering the results in Table 9.6, it is important to remember that for several reasons, the ideal number of children tends to be fairly closely associated with the actual number of children a woman has. First, women who want a large family tend to have more children than other women. Second, women may rationalize their ideal family size so that as the actual number of children increases, their preferred family size also increases. Furthermore, women with a larger family—being on average older than women with small families—may prefer a larger ideal family size because of attitudes that they acquired 20 to 30 years ago.

Table 9.5 Reason for not using contraception

Percentage of currently married women who are not using a contraceptive method and who want to delay or avoid having a birth by the reasons they are not using a method, according to the fertility intention, Egypt 2008

Reason	Wants later	Does not want	Total
<b>Fertility-related</b>			
Not having sex	2.5	3.8	3.5
Infrequent sex/no sex	26.9	23.6	24.3
Menopausal/had hysterectomy	0.4	13.7	10.8
Subfecund/infecund	4.8	9.9	8.8
Postpartum/amenorrheic	24.0	8.1	11.5
Breastfeeding	11.6	2.4	4.4
<b>Opposition to use</b>			
Respondent opposed	2.8	2.9	2.9
Husband/partner opposed	6.4	2.8	3.6
Others opposed	0.8	0.1	0.2
Religious prohibition	0.2	1.1	0.9
<b>Lack of knowledge</b>			
Knows no method	0.2	0.0	0.1
Knows no source	0.1	0.1	0.1
<b>Method-related</b>			
Health concerns	3.7	14.6	12.3
Fear of side effects	11.2	13.8	13.2
Lack of access/too far	0.3	0.0	0.1
Costs too much	0.2	0.7	0.6
Inconvenient to use	0.7	0.8	0.8
Interferes with body's normal processes	0.9	1.9	1.7
<b>Other</b>			
Fatalistic	3.1	6.3	5.6
Waiting for period to return	2.2	1.1	1.4
Other	3.3	2.3	2.5
Don't know	0.5	0.3	0.3
Number of women	498	1,811	2,310

Overall, Table 9.6 shows that ever-married women who expressed a numeric preference wanted an average of 2.9 children. Thirty-nine percent of ever-married women who expressed a numeric preference wanted a two-child family, while 27 percent considered a three-child family ideal. Relatively few wanted five or more children. As expected, higher parity women showed a preference for more children; the mean ideal number of children ranged from 2.4 children among women with one child to 4.3 children among women with six or more children.

Table 9.6. Ideal number of children								
Percent distribution of ever-married women by ideal number of children, and mean ideal number of children for ever-married women and for currently married women, according to number of living children, Egypt 2008								
Ideal number of children	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
0	0.4	0.2	0.1	0.2	0.2	0.4	0.4	0.2
1	11.8	3.1	1.5	1.1	1.3	0.6	0.5	2.2
2	51.9	59.7	56.3	30.4	21.2	18.0	9.8	39.2
3	16.2	24.7	26.0	42.2	20.0	20.8	15.0	26.9
4	8.7	7.2	10.5	15.6	39.8	28.2	24.8	17.6
5	3.4	1.1	1.5	3.2	4.9	13.0	13.1	4.1
6+	1.7	0.8	0.9	1.5	2.9	6.3	14.9	2.8
Non-numeric responses	5.9	3.2	3.2	5.8	9.5	12.6	21.5	6.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,130	2,793	3,922	3,878	2,363	1,234	1,207	16,527
<b>Mean ideal number children for:</b>								
Ever-married women	2.4	2.4	2.6	3.0	3.4	3.7	4.3	2.9
Number of women	1,063	2,705	3,797	3,652	2,137	1,079	947	15,380
Currently married women	2.5	2.5	2.6	2.9	3.4	3.7	4.3	2.9
Number of women	936	2,510	3,604	3,446	2,004	996	872	14,368

Note: The mean excludes women giving non-numeric answers.  
<sup>1</sup>Includes current pregnancy

The results in Table 9.6 also clearly show that many women in Egypt have had more children than they would now prefer. For example, 43 percent of EDHS respondents with four children said that they would have preferred to have three or fewer children. More than two-thirds of the women with five children considered a smaller family ideal.

Table 9.7 presents the mean ideal number of children for ever-married women by age and background characteristics. On average, women who lived in the Urban Governorates, in Lower Egypt (either in urban or rural areas), and in urban Upper Egypt, women who had completed at least a primary education, women working for cash and women in the middle through highest wealth quintiles wanted fewer than three children. The mean ideal family size was highest in the Frontier Governorates (3.4 children) and in rural Upper Egypt (3.3 children). Across all subgroups, younger women generally desired fewer children than older women.

Table 9.7 Mean ideal number of children by background characteristics

Mean ideal number of children for ever-married women, by age and background characteristics, Egypt 2008

Background characteristic	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
<b>Urban-rural residence</b>								
Urban	2.6	2.5	2.5	2.7	2.9	3.0	3.1	2.8
Rural	2.7	2.7	2.8	3.0	3.2	3.4	3.7	3.0
<b>Place of residence</b>								
Urban Governorates	2.3	2.4	2.4	2.5	2.8	2.8	3.0	2.7
Lower Egypt	2.5	2.5	2.6	2.8	2.9	3.1	3.3	2.8
Urban	2.8	2.5	2.6	2.7	2.8	3.0	3.0	2.8
Rural	2.5	2.5	2.6	2.9	3.0	3.2	3.5	2.9
Upper Egypt	2.8	2.8	3.0	3.1	3.4	3.6	3.8	3.2
Urban	2.7	2.7	2.6	2.9	3.0	3.2	3.3	2.9
Rural	2.8	2.9	3.1	3.2	3.6	3.9	4.1	3.3
Frontier Governorates	2.9	2.9	3.2	3.3	3.6	3.7	3.7	3.4
<b>Education</b>								
No education	2.8	2.8	2.9	3.1	3.3	3.5	3.8	3.3
Some primary	2.5	2.6	2.8	3.0	3.1	3.3	3.6	3.1
Primary complete/some secondary	2.7	2.6	2.8	2.9	3.0	3.1	3.1	2.9
Secondary complete/higher	2.6	2.6	2.6	2.7	2.9	2.9	2.8	2.7
<b>Work status</b>								
Working for cash	3.0	2.6	2.6	2.6	3.0	2.9	2.9	2.8
Not working for cash	2.6	2.6	2.7	2.9	3.1	3.3	3.6	3.0
<b>Wealth quintile</b>								
Lowest	2.7	2.8	3.0	3.2	3.4	3.7	3.9	3.3
Second	2.8	2.7	2.8	3.0	3.3	3.6	3.8	3.1
Middle	2.7	2.6	2.7	2.9	3.0	3.0	3.6	2.9
Fourth	2.5	2.5	2.6	2.7	3.0	3.1	3.1	2.8
Highest	2.5	2.5	2.5	2.6	2.8	2.8	2.9	2.7
Total	2.7	2.6	2.7	2.9	3.1	3.2	3.4	2.9

The results in Table 9.8 show that 63 percent of currently married women believed that they and their husband agree about the number of children they want. Among the remaining women, the majority (23 percent) believed that their husband would like to have more children than they themselves wanted. Women whose ideal family size was between two and four children were more likely to say that their husband shared the same family size goal than women who wanted smaller or larger families.

Table 9.8 Husband's fertility preference by wife's ideal number of children

Percent distribution of currently married women by husband's fertility preference, according to the woman's ideal number of children, Egypt 2008

Husband's fertility preference	Wife's ideal number of children							Non-numeric responses	Total
	0	1	2	3	4	5	6+		
Wants same	*	59.3	67.9	68.1	61.7	52.9	46.6	25.0	62.6
Wants more	*	31.1	23.6	21.8	23.2	26.9	26.9	12.2	22.7
Wants fewer	*	2.8	2.6	3.9	5.4	8.8	15.8	2.3	4.0
Sterilized	*	0.2	0.7	0.8	1.6	1.3	2.2	1.6	1.0
Don't know/missing	*	6.7	5.3	5.4	8.1	10.0	8.5	58.8	9.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	21	324	6,035	4,217	2,726	623	422	1,028	15,396

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

## 9.4 UNPLANNED AND UNWANTED FERTILITY

Several indicators of the level of unwanted fertility can be derived from the 2008 EDHS data. First, responses to a question about the planning status of prior births, i.e., whether a birth was planned (wanted then), unplanned (wanted later), or not wanted at all, provide some indication of the extent of unwanted childbearing. In interpreting these data, however, it is important to remember that women may rationalize mistimed or unwanted pregnancies, declaring them as wanted after the children are born.

Table 9.9 shows the percent distribution of births in the five years preceding the 2008 EDHS by planning status of the birth. Overall, 14 percent of births in the five-year period were not wanted at the time of conception, with 5 percent wanted but at a later time and 9 percent not wanted at all. The proportion of births that were not wanted at the time of conception increased directly with birth order. Somewhat more than one-third of all fourth and higher order births were unplanned, compared with only about one-tenth of second order births. The planning status of births was also affected by the age of the mother. In general, the older the mother, the larger the percentage of children that were unwanted at conception; for example, slightly less than half of the births to women age 40-45 were unwanted.

Table 9.9 Fertility planning status						
Percent distribution of births in the five years preceding the survey (including current pregnancies), by fertility planning status, according to birth order and mother's age at birth, Egypt 2008						
Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
<b>Birth order</b>						
1	98.2	1.2	0.1	0.5	100.0	4,073
2	89.8	8.9	0.9	0.4	100.0	3,306
3	83.4	6.5	9.3	0.8	100.0	2,316
4+	61.8	4.9	32.7	0.6	100.0	2,450
<b>Age at birth</b>						
<20	95.7	3.2	0.6	0.4	100.0	1,398
20-24	91.9	5.8	1.8	0.5	100.0	4,268
25-29	86.6	6.0	7.0	0.5	100.0	3,574
30-34	77.0	4.7	17.7	0.6	100.0	1,826
35-39	63.9	2.3	33.1	0.7	100.0	848
40-44	51.0	1.2	46.7	1.1	100.0	217
45-49	*	*	*	*	100.0	14
Total	85.7	5.1	8.7	0.5	100.0	12,145

Note: An asterisk indicates a figure is based on fewer than 25 cases and has been suppressed.

A second approach to measuring unwanted fertility is to calculate what the fertility rate would be if all unwanted births were avoided. This *wanted fertility rate* is calculated in the same manner as the total fertility rate, but unwanted births are excluded from the numerator. For this purpose, unwanted births are defined as those that exceed the number considered ideal by the respondent. Women who did not report a numeric ideal family size are assumed to have wanted all their births. To the extent that women are unwilling to report an ideal family size that is lower than their actual family size, the wanted fertility rate may be overestimated.



Table 9.10 presents total wanted fertility rates and total fertility rates for the three-year period before the survey for various subgroups. Overall, the wanted fertility rate was 2.4 births per women. Thus, if unwanted births could be eliminated, the total fertility rate in Egypt would decline by around 20 percent. The gap between the wanted and actual fertility rates was greatest among rural women (especially those living in Upper Egypt), women in the Frontier Governorates, women who never attended school or had less than a primary education, and women in the lowest wealth quintile.

Table 9.10 Wanted fertility rates by background characteristics		
Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Egypt 2008		
Background characteristic	Total wanted fertility rate	Total fertility rate
<b>Urban-rural residence</b>		
Urban	2.2	2.7
Rural	2.5	3.2
<b>Place of residence</b>		
Urban Governorates	2.2	2.6
Lower Egypt	2.4	2.9
Urban	2.1	2.6
Rural	2.5	3.0
Upper Egypt	2.5	3.4
Urban	2.3	3.0
Rural	2.6	3.6
Frontier Governorates	2.6	3.3
<b>Education</b>		
No education	2.6	3.4
Some primary	2.4	3.2
Primary complete/some secondary	2.3	3.0
Secondary complete/higher	2.5	3.0
<b>Wealth quintile</b>		
Lowest	2.5	3.4
Second	2.3	3.1
Middle	2.4	3.0
Fourth	2.4	2.9
Highest	2.3	2.7
Total	2.4	3.0

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2.

This chapter presents information on the levels and trends in mortality among children under five years of age in Egypt and looks at the variation in mortality levels according to demographic and socioeconomic characteristics that have been shown to influence infant and childhood mortality (e.g., residence, young maternal age at birth, and short birth intervals). The mortality levels from the 2008 EDHS are central to the assessment of the current demographic situation in Egypt. Mortality levels are also one of the main indicators of the standard of living or development of a population. Thus, identifying segments of the child population that are at greater risk of dying contributes to efforts to improve child survival and lower the exposure of young children to risk.

## 10.1 ASSESSMENT OF DATA QUALITY

The 2008 EDHS mortality estimates are calculated from information that was collected in the birth history section of the woman's questionnaire. The birth history section includes a set of initial questions about the number of sons and daughters living with the mother, the number who live elsewhere, and the number who have died. These questions are followed by a retrospective birth history in which a listing of all of the respondent's births is obtained, starting with the first birth. For each birth, information is collected on the sex, month and year of birth, survivorship status, and current age, or age at death, of each of the respondent's live births. This information is used to directly estimate the mortality rates.

In this chapter, the following rates are used to assess and measure infant and child mortality:

- Neonatal mortality:** the probability of dying within the first month of life;
- Postneonatal mortality:** the difference between infant and neonatal mortality;
- Infant mortality:** the probability of dying during the first year of life;
- Child mortality:** the probability of dying between the first and fifth birthday;
- Under-five mortality:** the probability of dying before the fifth birthday.

The reliability of mortality estimates derived from birth history data is affected by a number of factors. These factors include the completeness with which deaths of children are reported, and the extent to which birth dates and ages at death are accurately reported. Omissions of either births or deaths are a more serious problem since they affect the level of the mortality estimates. Errors in reporting of birth dates may cause a distortion of trends over time, while errors in reporting of age at death can distort the age pattern of mortality.

Omissions can be detected by examining the proportion of neonatal deaths that occur during the first week of life and the proportion of infant deaths that take place during the first month of life. Thus, if there is substantial underreporting of deaths, the results would be an abnormally low ratio of deaths under seven days to all neonatal deaths. Since underreporting of deaths is likely to be more common for births that occurred a long time before the survey, it is important to explore whether these ratios change markedly over time.

Inspection of the ratio of deaths in the first six days of life to all neonatal deaths (shown in Appendix Table D.4) shows that the proportion of neonatal deaths that took place in the first week of life ranges from 70 percent for deaths during the period 0-4 years before the survey to 59 percent for deaths during the period 15-19 years before the survey. There is some variation over time in the proportion of neonatal to all infant deaths (shown in Appendix Table D.5), which ranges from 69 percent in the period

0-4 years before the survey to 54 percent during the period 10-19 years before the survey. These ratios are within acceptable limits for the levels of mortality observed during these time periods.

Errors in the reporting of birth dates also affect the accuracy of period mortality estimates. An examination of the distribution of dead children according to their birth date indicates that there is an excess of deaths in calendar year 2002 (shown in Appendix Table D.6). The transference occurred in the case of both living and dead children. A similar pattern is evident in the data from Demographic and Health Surveys in other countries as well as Egypt; it is thought to result, at least partially, from interviewer transference of births out of the period for which health data were collected (January 2003 through the date of the survey) in order to reduce the workload. The effect of the transference is a slight underestimate of mortality in the period 0-4 years prior to the survey and an overestimate of mortality in the period 5-9 years prior to the survey. Results from a simulation study conducted with a number of DHS countries suggests the error introduced in the mortality estimates is typically less than 5 percent (Macro International Inc., 1993).

Another problem common to the collection of birth history data is heaping of age at death, especially at age 12 months. Errors in the reporting of the age at death will bias estimates of the age pattern of mortality if the errors result in transference of deaths between the age segments for which the rates are calculated. For example, an overestimate of child mortality relative to infant mortality may result if children who died during the first year of life are reported to have died at age one year (12 months) or older. In an effort to avoid this problem, EDHS interviewers were instructed to record the age at death in months for deaths under age two years. In addition, they were asked to probe whenever the mother reported an age at death of “1 year” or “12 months.” Despite these procedures, the data on age at death from the 2008 EDHS exhibits considerable heaping at age 12 months (shown in Appendix Table D.5). However, the heaping is much less evident for deaths occurring in the period 0-4 years before the survey than for deaths taking place further in the past. As a result, the effect of heaping on the 2008 EDHS mortality estimates is not large.

## **10.2 LEVELS AND TRENDS IN EARLY CHILDHOOD MORTALITY**

Table 10.1 presents neonatal, postneonatal, infant, child, and under-five mortality rates for a fifteen-year period preceding the 2008 EDHS. These results describe the current level of mortality in Egypt and allow an assessment of recent trends in mortality among young children.

### **10.2.1 Levels of Mortality**

Under-five mortality for the period 0-4 years before the survey was 28 deaths per 1,000 births. At this level, about one in thirty-six Egyptian children will die before the fifth birthday. The infant mortality rate was 25 deaths per 1,000 births, and the neonatal mortality rate was 16 deaths per 1,000 births. This indicates that around 87 percent of early childhood deaths in Egypt are taking place before a child’s first birthday, with more than half (58 percent) occurring during the first month of life.

### **10.2.2 Trends in Mortality Based on Retrospective Data**

Mortality estimates derived from the retrospective birth history data collected in the 2008 EDHS are used in Table 10.1 to examine the trends in early childhood mortality in Egypt over the past 15 years. Although subject to some degree of recall bias, the results suggest that early childhood mortality levels have declined steadily over the past 15 years. Infant mortality decreased by around 40 percent, from a level of 41 deaths per 1,000 births during the period 10-14 years before the survey (circa 1994-1998) to a level of 25 deaths per 1,000 in the five-year period preceding the EDHS (circa 2004-2008). Under-five mortality declined from 54 deaths per 1,000 births during the period 10-14 years before the survey to 28 deaths in the five-year period before the survey.

Table 10.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Egypt 2008

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN) <sup>1</sup>	Infant mortality ( <sub>1</sub> q <sub>0</sub> )	Child mortality ( <sub>4</sub> q <sub>1</sub> )	Under-five mortality ( <sub>5</sub> q <sub>0</sub> )
0-4	16.3	8.2	24.5	3.9	28.3
5-9	18.6	14.1	32.7	6.0	38.5
10-14	21.4	19.2	40.6	14.0	54.0

<sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

### 10.2.3 Trends in Mortality Based on Data from Multiple Surveys

Another approach to looking at trends in mortality levels involves the comparison of estimates from surveys conducted at different points in time. Table 10.2 and Figure 10.1 present the trend in early childhood mortality rates for successive five-year periods before the five rounds of the Egypt DHS surveys and the 1980 Egypt Fertility Survey. Together, the estimates span the 40-year period between the 1980 EFS and the 2008 EDHS.

Table 10.2 Trends in early childhood mortality

Trends in neonatal, infant, and under-five mortality from various selected surveys, Egypt 1965-2008

Preference period	Approximate midpoint	Survey	Neonatal mortality	Infant mortality	Under-five mortality
<b>2004-2008</b>	<b>2006</b>	<b>2008 EDHS</b>	<b>16</b>	<b>25</b>	<b>28</b>
2001-2005	2003	EDHS-05	20	33	41
<b>1999-2003</b>	<b>2001</b>	<b>2008 EDHS</b>	<b>19</b>	<b>33</b>	<b>39</b>
1996-2000	1998	EDHS-05	26	48	59
1996-2000	1998	EDHS-00	24	44	54
1994-1998	1996	<b>2008 EDHS</b>	21	41	54
1991-1995	1993	EDHS-05	32	60	81
1991-1995	1993	EDHS-00	34	66	84
1991-1995	1993	EDHS-95	30	63	81
1988-1992	1990	EDHS-92	33	62	85
1986-1990	1988	EDHS-00	37	74	103
1986-1990	1988	EDHS-95	44	82	110
1984-1988	1986	EDHS-88	39	73	102
1983-1987	1985	EDHS-92	51	97	130
1981-1985	1983	EDHS-95	45	97	139
1979-1983	1981	EDHS-88	58	120	167
1978-1982	1980	EDHS-92	48	108	157
1975-1979	1977	EFS-80	59	132	191
1974-1978	1976	EDHS-88	53	124	203
1970-1974	1972	EFS-80	67	146	238
1965-1969	1967	EFS-80	63	141	243

Source: EFS-80: Abdel-Azeem et al., 1993, Table 10.4

EDHS-88: Sayed et al., 1989, Table 8.3 and 8.4

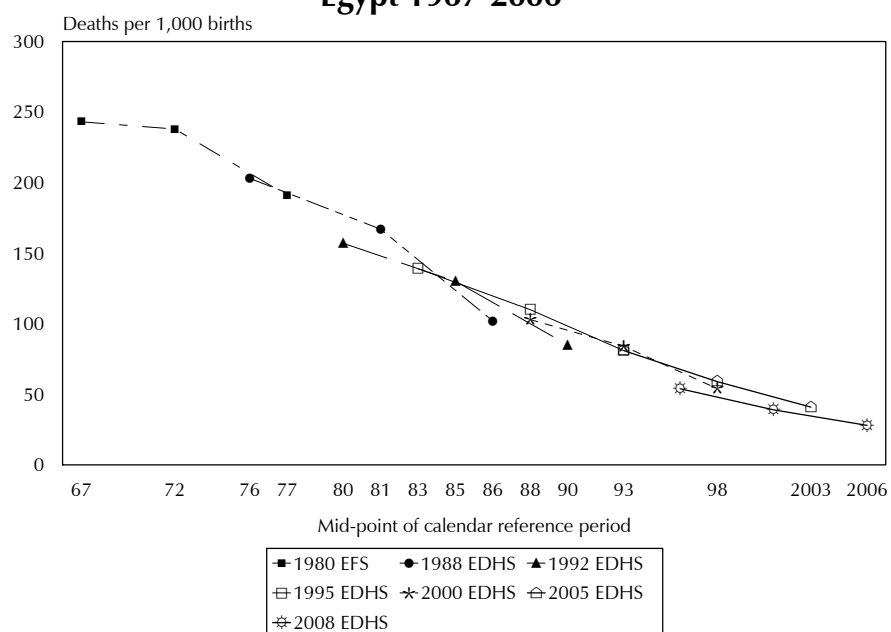
EDHS-92: El-Zanaty et al., 1993, Table 10.1

EDHS-95: El-Zanaty et al., 1995, Table 9.1

EDHS-00: El-Zanaty and Way., 2001, Table 10.1

EDHS-05: El-Zanaty and Way., 2006, Table 10.1

**Figure 10.1 Trends in Under-five Mortality  
Egypt 1967-2006**



EDHS 2008

In examining the estimates, it is important to remember that the reporting of mortality events is generally better for the five-year period immediately before a survey since mothers are more likely to forget or fail to mention deaths further back in time. Thus, the estimate for the five-year period immediately prior to each of the surveys shown in Table 10.2 is likely to be the most accurate. Sampling error also must be taken into account in interpreting the trends in the table. Sampling errors are typically fairly large for mortality rates. For these reasons, the differences or fluctuations between mortality estimates for roughly the same time periods from different surveys in Table 10.2 should be interpreted with caution, particularly where they are small.

The estimates presented in Table 10.2 confirm that early childhood mortality has fallen significantly in Egypt during the past three decades. An Egyptian child was almost six times as likely to die before the fifth birthday in the mid-1960s as in the early 2000s (Figure 10.1). The trends in Table 10.2 also document the changing age pattern of deaths among young children. As the overall rates decreased, mortality is increasingly concentrated in the earliest months of life. In the mid-1960s, around 40 percent of deaths occurred after the child's first birthday; by the time of the 2008 EDHS, only 14 percent of all deaths under age five took place after the first 12 months of life.

### 10.3 DIFFERENTIALS IN MORTALITY

Selected demographic and socio-economic differentials in early childhood mortality are presented in Tables 10.3 and 10.4, respectively. For most variables, the mortality estimates are calculated for a ten-year period before the survey so that the rates are based on a sufficient number of cases in each category to ensure statistical significance. However, because the information on birth-size was collected only for births occurring between January 2003 and the date of the survey interview, the mortality rates for this variable relate to only the five-year period before the EDHS.

#### 10.3.1 Socioeconomic Differentials

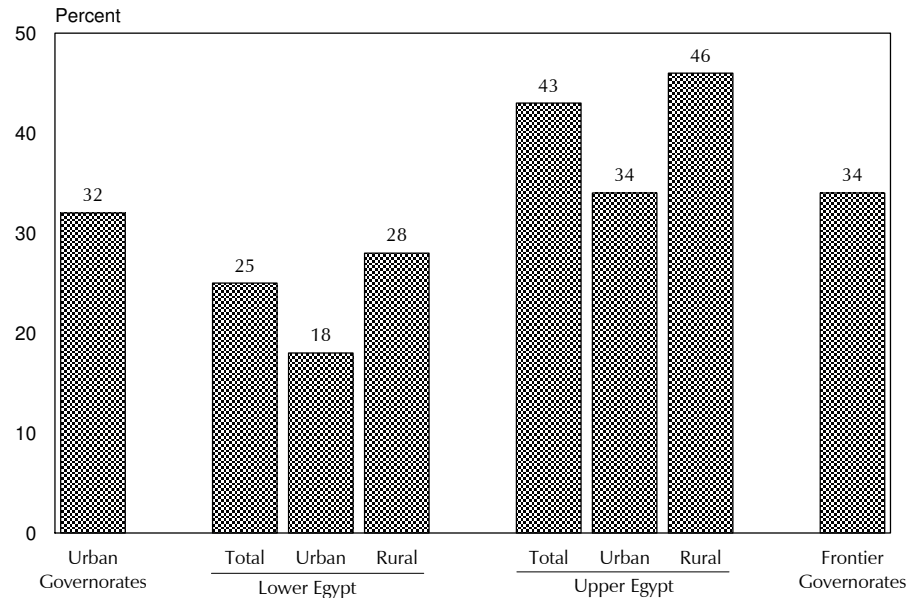
Table 10.3 shows that urban-rural differences in early childhood mortality favor urban children, i.e., urban children have a lower probability of dying at any stage of early childhood than rural children.

For example, under-five mortality in urban areas is 29 per 1,000 births, 19 percent lower than under-five mortality in rural areas (36 per 1,000). Considering place of residence, the lowest mortality rates are found in urban Lower Egypt while the highest rates are found in rural Upper Egypt (see Figure 10.2). Under-five mortality in rural Upper Egypt is 46 deaths per 1,000 births, around 65 percent higher than under-five mortality in rural Lower Egypt (28 deaths per 1,000 births). Although mortality in rural Upper Egypt is higher at all ages than mortality in rural Lower Egypt, the large differential in postneonatal mortality is particularly noteworthy. The postneonatal mortality rate in rural Upper Egypt is 19 deaths per 1,000 births, more than double the rate in rural Lower Egypt (8 deaths per 1,000 births). The child mortality rate in rural Upper Egypt (7 deaths per 1,000) is almost twice as high as the rate in rural Lower Egypt (4 deaths per 1,000).

Socioeconomic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) <sup>1</sup>	Infant mortality ( <sub>1</sub> q <sub>0</sub> )	Child mortality ( <sub>4</sub> q <sub>1</sub> )	Under-five mortality ( <sub>5</sub> q <sub>0</sub> )
<b>Urban-rural residence</b>					
Urban	17.6	7.9	25.4	3.4	28.7
Rural	17.4	13.1	30.5	5.9	36.2
<b>Place of residence</b>					
Urban Governorates	20.8	8.9	29.7	2.5	32.2
Lower Egypt	14.1	7.3	21.3	4.1	25.3
Urban	11.2	3.7	14.9	3.1	18.0
Rural	15.0	8.4	23.4	4.4	27.6
Upper Egypt	19.9	16.4	36.3	6.6	42.7
Urban	19.6	10.4	30.0	4.5	34.4
Rural	20.0	18.6	38.6	7.4	45.7
Frontier Governorates	15.9	8.2	24.1	9.6	33.5
<b>Education</b>					
No education	20.5	17.1	37.6	6.7	44.0
Some primary	17.0	12.2	29.3	6.8	35.8
Primary complete/some secondary	17.9	11.4	29.3	6.1	35.2
Secondary complete/higher	15.4	6.8	22.2	2.6	24.7
<b>Wealth quintile</b>					
Lowest	20.9	21.2	42.1	7.2	49.0
Second	18.0	12.6	30.5	5.7	36.1
Middle	18.8	7.4	26.2	6.1	32.2
Fourth	16.1	8.5	24.6	2.6	27.2
Highest	12.5	4.3	16.8	2.1	18.9
Total	17.5	11.1	28.6	4.9	33.4

<sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

**Figure 10.2 Under-Five Mortality by Place of Residence**



EDHS 2008

Mortality levels among urban children are also higher in Upper Egypt than in Lower Egypt, primarily because of higher infant mortality. The infant mortality rate is 30 deaths per 1,000 births in the Urban Governorates and urban Upper Egypt compared with 15 deaths per 1,000 in urban Lower Egypt. Mortality levels among children age 1-4 years range from a low of 3 deaths per 1,000 in the Urban Governorates and urban Lower Egypt to 5 deaths per 1,000 in urban Upper Egypt.

Overall, mortality is generally inversely related to mother's education, with children born to women who never attended school being almost twice as likely to die by the fifth birthday as children born to mothers with a secondary or higher education (44 deaths per 1,000 births versus 25 deaths per 1,000 births, respectively). Births to mothers in the highest wealth quintile are two and a half times as likely to survive to the fifth birthday as children born to mothers in the lowest quintile.

### 10.3.2 Demographic Differentials

Table 10.4 shows the relationship between early childhood mortality and selected demographic variables including the sex of the child, mother's age at birth, birth order, length of the previous birth intervals, and mother's perception concerning the size of the child at birth. As expected, neonatal mortality is higher among boys than girls (23 deaths per 1,000 and 12 deaths per 1,000, respectively). Sex differentials in postneonatal and child mortality rates are quite small. Under-five mortality is higher among boys (38 deaths per 1,000 births) than among girls (28 deaths per 1,000 births).

The effect of young maternal age at birth on mortality is evident in Table 10.4. Children born to mothers who were under age 20 at the time of the birth or over age 40 are significantly more likely to die at all ages than children born to other mothers. Mortality levels are generally lowest for births to mothers age 20-29. Considering birth order, seventh order and higher births have the highest mortality. For example, the infant mortality rate observed among births of order seven or higher is 46 deaths compared with 41 deaths per 1,000 or lower among other births.

Table 10.4 Early childhood mortality rates by demographic characteristics					
Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Egypt 2008					
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) <sup>1</sup>	Infant mortality ( <sub>1</sub> q <sub>0</sub> )	Child mortality ( <sub>4</sub> q <sub>1</sub> )	Under-five mortality ( <sub>5</sub> q <sub>0</sub> )
<b>Child's sex</b>					
Male	22.9	10.6	33.5	5.1	38.4
Female	11.7	11.7	23.4	4.7	28.0
<b>Mother's age at birth</b>					
<20	21.3	16.5	37.9	4.3	42.0
20-29	15.6	10.1	25.6	5.0	30.5
30-39	18.8	10.7	29.5	4.7	34.0
40-49	40.1	16.3	56.4	13.6	69.2
<b>Birth order</b>					
1	17.6	9.9	27.5	3.3	30.7
2-3	13.7	8.7	22.4	4.9	27.2
4-6	24.5	16.4	40.9	5.5	46.2
7+	24.4	21.3	45.7	13.1	58.2
<b>Previous birth interval</b>					
<2 years	32.9	26.5	59.4	10.9	69.6
2 years	13.1	9.1	22.1	4.2	26.2
3 years	9.2	9.4	18.6	5.8	24.3
4+ years	15.2	4.5	19.7	2.8	22.5
<b>Birth size<sup>2</sup></b>					
Small/very small	39.4	14.4	53.8	-	-
Average or larger	12.5	7.2	19.7	-	-

<sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

<sup>2</sup> Rates for the five-year period before the survey

The length of the previous birth interval is also associated with mortality levels. Overall, the under-five mortality rate among children born less than two years after a previous birth is 70 deaths per 1,000 births, more than three times the level among children born four or more years after a previous birth. Coupled with the finding in Chapter 4 that about 18 percent of all non-first births occur within 24 months of the previous birth, these results indicate the importance of continuing efforts to promote the use of family planning for birth spacing.

Research has shown that a child's size at birth is an important predictor of the risk of dying during early infancy. For all births in the five-year period before the 2008 EDHS, mothers were asked if the child was small or very small, average or large. Table 10.4 shows that the children who were considered by their mothers to be small or very small at birth were at greater risk of dying than children who were described as average or larger. For example, infant mortality for children who were considered by their mothers to be small or very small is 54 deaths per 1,000 compared with 20 deaths per 1,000 for children regarded as average or larger.

## 10.4 PERINATAL MORTALITY

Perinatal deaths include deaths to live births within the first seven days of life (early neonatal deaths) and pregnancy losses occurring after seven months of gestation (stillbirths). In the 2008 EDHS, information on stillbirths was obtained for the five years preceding the survey and recorded in the calendar. The distinction between a stillbirth and an early neonatal death is often a fine one, depending on



observing and then recalling sometimes-faint signs of life following delivery. The causes of stillbirths and early neonatal deaths are closely linked, and just examining one or the other can understate the true level of mortality around delivery.

Table 10.5 presents the number of still births and early neonatal deaths and the perinatal mortality rate for the five-year period prior to the 2008 EDHS by selected background characteristics. Overall, the perinatal mortality rate is 19 per 1,000 pregnancies, which shows a decline that the level observed in 2005 (23 per 1,000 pregnancies).

Table 10.5 Perinatal mortality by background characteristics				
Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Egypt 2008				
Background characteristic	Number of stillbirths <sup>1</sup>	Number of early neonatal deaths <sup>2</sup>	Perinatal mortality rate <sup>3</sup>	Number of pregnancies of 7+ months duration
<b>Mother's age at birth</b>				
<20	9	11	16.5	1,245
20-29	42	72	16.7	6,841
30-39	26	29	23.2	2,381
40-49	10	5	69.6	211
<b>Previous pregnancy interval in months</b>				
First pregnancy	25	40	19.6	3,301
<15	7	24	39.7	794
15-26	9	21	17.7	1,672
27-38	11	7	9.7	1,865
39+	35	26	20.0	3,046
<b>Urban-rural residence</b>				
Urban	33	56	22.4	3,957
Rural	54	62	17.3	6,721
<b>Place of residence</b>				
Urban Governorates	12	30	24.9	1,690
Lower Egypt	38	32	15.0	4,625
Urban	12	4	15.1	1,022
Rural	26	28	15.0	3,602
Upper Egypt	36	54	21.2	4,209
Urban	8	21	25.1	1,149
Rural	28	33	19.8	3,060
Frontier Governorates	2	2	25.9	153
<b>Education</b>				
No education	24	28	18.7	2,759
Some primary	8	8	22.2	729
Primary complete/some secondary	9	22	19.3	1,633
Secondary complete/higher	46	60	19.0	5,556
<b>Wealth quintile</b>				
Lowest	24	24	22.4	2,169
Second	18	29	21.7	2,143
Middle	17	25	18.7	2,269
Fourth	17	23	18.6	2,130
Highest	12	16	14.0	1,967
Total	87	118	19.2	10,677
<sup>1</sup> Stillbirths are fetal deaths in pregnancies lasting seven or more months.				
<sup>2</sup> Early neonatal deaths are deaths at age 0-6 days among live-born children.				
<sup>3</sup> The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more month's duration.				

## 10.5 HIGH-RISK FERTILITY BEHAVIOR

Research has indicated that there is a strong relationship between maternal fertility patterns and children's survival risks. Typically, the risk of early childhood death increases among children born to mothers who are too young or too old, children born after too short birth intervals, and children of high birth order. For the purpose of this analysis, a mother is classified as “too young” if she is less than 18 years of age, and “too old” if she is over 34 years at the time of the birth. A “short birth interval” is defined by the birth occurring less than 24 months after a previous birth; and a child is of “high birth order,” if the mother had previously given birth to three or more children (i.e., the child is of birth order four or higher).

Table 10.6 shows the percent distributions of births in the five-year period of currently married women according to these elevated risk factors. The table also examines the relative risk of dying for children by comparing the proportion dead in each specified high-risk category with the proportion dead among children not in any high-risk category. First births, although often at increased risk, are included in the not in any high-risk category in this analysis because they are not considered an avoidable risk.

Thirty-five percent of births in the five-year period before the survey were in at least one of the specified high-risk categories, and 9 percent were associated with two or more high-risk factors. A short birth interval and high birth order were the most common high-risk factors.

As the second column of Table 10.6 shows, the risk of dying for a child who falls into any of the high-risk categories is 2.17 times that for a child not in any high-risk category. Considering the risk categories separately, children are at highest risk of dying if the mother is 18 years and younger at the time of the birth or if the child is born within two years of a previous birth. Generally, risk ratios were higher for children in multiple high-risk categories than for children in any single high-risk category.

The final column in Table 10.6 examines the potential for high-risk births among currently married women. A woman's current age, time elapsed since the last birth, and parity are used to determine the risk categories in which any birth she conceived at the time of the survey would fall. For example, if a respondent who is age 40, has had four births and had her last birth 12 months ago were to become pregnant, she would fall in the multiple high-risk category of being too old, too high parity (four or more births), and giving birth too soon (less than 24 months) after a previous birth.

Overall, the majority of currently married women (72 percent) have the potential of giving birth to a child at elevated risk of mortality. About one in three women has the potential for having a birth in a single high-risk category (mainly high birth order), while about 41 percent have the potential for having a birth in a multiple high-risk category (mainly older maternal age and high birth order).

**Table 10.6 High-risk fertility behavior**

Among children born in the five years preceding the survey, percent distribution by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Egypt 2008

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women <sup>1</sup>
	Percentage of births	Risk ratio	
<b>Not in any high risk category<sup>2</sup></b>	35.0	1.00	20.3 <sup>a</sup>
<b>Unavoidable risk category</b>			
First-order births between ages 18 and 34 years	30.0	1.32	8.1
<b>Single high-risk category</b>			
Mother's age <18	2.5	2.93	0.5
Mother's age >34	2.4	0.97	8.3
Birth interval <24 months	9.0	2.34	10.9
Birth order >3	12.1	1.49	11.5
Subtotal	25.9	1.88	31.1
<b>Multiple high-risk category</b>			
Age <18 and birth interval <24 months <sup>2</sup>	0.2	0.00	0.1
Age >34 and birth interval <24 months	0.1	7.54	0.3
Age >34 and birth order >3	6.0	2.68	32.8
Age >34 and birth interval <24 months and birth order >3	0.6	0.00	1.9
Birth interval <24 months and birth order >3	2.1	4.93	5.3
Subtotal	9.1	3.03	40.5
In any avoidable high-risk category	35.0	2.17	71.6
Total	100.0	na	100.0
Number of births	10,590	na	15,396

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.

na = Not applicable

<sup>1</sup> Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.

<sup>2</sup> Includes the category age <18 and birth order >3

<sup>a</sup> Includes sterilized women

Using data from the 2008 EDHS, this chapter looks first at the extent to which women are obtaining medical care during pregnancy and at the time of delivery and the care that women and newborns received in the postpartum period. The chapter then presents trends across time in the key maternal care indicators using the results from the 2008 EDHS and earlier surveys. The chapter also considers the advice that women are receiving about breastfeeding and family planning during pregnancy and women's exposure to media messages intended to promote safe pregnancy practices. Finally, the chapter assesses women's knowledge of and recent experience with sexually transmitted infections.

## 11.1 PREGNANCY CARE

The 2008 EDHS collected a range of information on the type of care that Egyptian women received during pregnancy, including information on antenatal care and tetanus toxoid vaccinations. The survey also obtained information on whether women had sought medical care during pregnancy for reasons not directly related to the pregnancy. Finally, women were also asked a number of questions about the nature of the care they received.

### 11.1.1 Antenatal Care Coverage

Early and regular checkups by trained medical providers are very important in monitoring women's health status during pregnancy. Table 11.1 presents data on the coverage of antenatal care services for births during the five-year period before the 2008 EDHS. A birth is considered to have received regular care if the mother said that she had made at least four antenatal care visits, i.e., a visit to a trained medical provider for care for the pregnancy.

The results in Table 11.1 indicate that Egyptian women received antenatal care from a medical provider for 74 percent of the births that took place during the five-year period before the survey. Most women saw a doctor for care, with less than 1 percent reporting that they had received care only from a trained nurse or midwife. Antenatal care was obtained more than twice as often from a private sector provider as from a public sector provider (55 percent and 19 percent, respectively).

Table 11.1 Antenatal care

Percent distribution of births during the five-year period before the survey by type of provider for antenatal care, the type of facility where antenatal (ANC) care was sought, the number of antenatal care visits, and the percent distribution of last births in the five-year period prior to the survey by the stage of pregnancy at the time of the first and last visits, Egypt 2008

	Total
<b>ANC provider</b>	
Doctor	73.3
Trained nurse/midwife	0.3
Birth attendant	0.0
Missing	0.0
No care	26.4
<b>Source for ANC</b>	
Public sector	19.1
Urban hospital	1.2
Urban health unit	5.0
Health office	0.7
Rural hospital	1.6
Rural health unit	7.4
MCH center	2.3
Other government	1.0
Private sector	54.5
Nongovernmental	0.3
Private medical	54.1
Other nonmedical	0.1
Don't know/missing	0.0
No care	26.4
<b>Number of ANC visits</b>	
None	26.4
1	0.5
2	2.7
3	3.6
4+	66.0
Don't know/missing	0.8
Total	100.0
Number of births	10,590
Median number of ANC visits	7.9
<b>Number of months pregnant at time of first ANC visit</b>	
No antenatal care	25.8
<4	61.1
4-5	10.1
6-7	2.4
8+	0.5
Don't know/missing	0.1
<b>Months pregnant at last ANC visit</b>	
No antenatal care	25.8
< 6 months	1.2
6-7 months	3.0
8+ months	69.9
Don't know/missing	0.0
Total	100.0
Number of last births	7,896

Women received regular antenatal care (i.e., they made four or more visits to a provider) for nearly two-thirds of births during the five years before the survey. Considering only those births for which care was received, the median number of antenatal visits was 7.9.

Table 11.1 shows that most Egyptian mothers who received antenatal care began seeing a provider within the first six months of pregnancy. Mothers saw a provider for care for the first time before the sixth month of pregnancy for 96 percent of births for which antenatal care was reported (i.e., for 71 percent of all births). To detect problems that might affect the delivery, women should also see a provider during the last stages of pregnancy. Table 11.1 shows that, among women who received antenatal care, the majority (i.e., for 70 percent of all births) saw a provider in the eighth month of pregnancy or later.

### 11.1.2 Tetanus Toxoid Vaccinations

Tetanus toxoid injections are given to women during pregnancy to prevent deaths from neonatal tetanus. Neonatal tetanus can result when sterile procedures are not followed in cutting the umbilical cord after delivery. To assess the tetanus toxoid coverage, information was collected for all births during the five-year period prior to the 2008 EDHS on the number of doses of tetanus toxoid vaccine the mother received during pregnancy and on the source(s) for the vaccinations. Table 11.2 shows that women received one dose of tetanus toxoid vaccine in the case of 40 percent of births during the five-year period before the 2008 EDHS, and two or more doses in the case of 41 percent of births. Mothers reported obtaining the injection from a public sector provider for 77 percent of all births, i.e., for more than nine in ten births in which a tetanus toxoid vaccination was received.

Table 11.2 also shows that a substantial minority (20 percent) of women had received at least one tetanus toxoid injection for the last birth although they had not gone to a provider for antenatal care. According to MOH guidelines, these women should have been encouraged by the provider from which they received the tetanus toxoid injection to go for antenatal care; however, the majority—15 percent of women—indicated that they were not advised to obtain antenatal care.

Finally, questions were included in the 2008 EDHS on a woman's lifetime receipt of tetanus toxoid injections in order to ascertain if her last birth was fully protected from neonatal tetanus. An infant is considered to be fully protected if any of the following criteria are met: (1) the mother had two tetanus toxoid injections during the pregnancy; (2) the mother had a tetanus toxoid injection during the pregnancy plus an additional injection in the 10 years prior to the pregnancy; or (3) the mother did not have a tetanus toxoid injection during pregnancy but had at least five injections prior to the pregnancy. According to the EDHS results presented in Table 11.3, slightly more than three-quarters of last-born children during the five-year period before the survey were fully protected against neonatal tetanus.

<u>Table 11.2 Tetanus toxoid coverage during pregnancy</u>	
Percent distribution of births during the five-year period before the survey by the number of tetanus toxoid (TT) injections and source for injections and percent distribution of last births in the five-year period by whether mothers receiving a TT injection but no antenatal care (ANC) were advised during a TT visit to go for antenatal care, Egypt 2008	
	Total
<b>Number of doses</b>	
None	18.8
One injection	39.5
Two or more injections	41.3
Don't know/missing	0.3
<b>Source for TT injection</b>	
Public sector	76.8
Urban hospital	2.2
Urban health unit	16.2
Health office	3.1
Rural hospital	7.9
Rural health unit	38.9
MCH center	7.9
Other government	0.6
Private sector	3.9
Nongovernmental	0.3
Private medical	3.6
Other nonmedical	0.0
Don't know/missing	0.5
No injection	18.8
Total	100.0
Number of births	10,590
<b>Advised to get antenatal care</b>	
Had antenatal care	74.2
Had TT	60.1
No TT	14.1
Had TT but no ANC	19.6
Advised to seek ANC at TT visit	4.0
Not advised about ANC at TT visit	15.0
Missing/don't know about ANC at TT visit	0.7
No ANC and no TT	6.1
Missing	0.1
Total	100.0
Number of last births	7,896

**Table 11.3 Last birth protected against neonatal tetanus**

Percent distribution of last births during the five-year period before the survey by protection against neonatal tetanus, Egypt 2008

	Total
<b>Protected</b>	76.4
Two doses during pregnancy	37.7
One dose during pregnancy and one dose in 10-years before pregnancy	37.5
None but 5 or more lifetime doses	1.2
<b>Unprotected</b>	22.2
One dose during pregnancy but no other dose in 10 years before pregnancy	3.4
None and less than five lifetime doses	18.7
Don't know/missing	1.5
Total	100.0
Number of last births	7,896

### 11.1.3 Any Medical Care During Pregnancy

The 2008 EDHS collected information about other medical consultations women may have had in addition to visits they made to a provider for pregnancy-related care for the last birth. Table 11.4 shows that only a small minority of women (7 percent) reported seeing a medical provider for care unrelated to their pregnancy. Most of these women had also seen a provider for antenatal care and/or a tetanus toxoid injection.

The information on antenatal visits, tetanus toxoid immunizations, and medical consultations unrelated to the woman's pregnancy is combined in Table 11.4 in order to assess the extent of the contacts women have with medical providers during pregnancy. The table shows that a large majority of women saw a medical provider for some type of care when they were pregnant with their last born child; only 6 percent neither had an antenatal care visit, received a tetanus toxoid injection nor saw a provider for other medical care.

**Table 11.4 Medical care other antenatal care or tetanus toxoid injection during pregnancy**

Percent distribution of last births during the five-year period before the survey by mother's report of seeing doctor or other health worker at any time during the pregnancy for care other than antenatal care (ANC) checkup or tetanus toxoid (TT) injection, according to mother's ANC and TT status, Egypt 2008

	ANC only	ANC and TT injection	TT injection only	Neither ANC nor TT injection	Total
Other medical care during pregnancy					
Had other care	0.9	3.2	1.9	0.5	6.5
No other care	13.2	56.9	17.7	5.6	93.5
Total	14.1	60.1	19.6	6.1	100.0

### 11.1.4 Differentials in Pregnancy Care Indicators

Table 11.5 presents the differentials in pregnancy care indicators by selected background characteristics. Three of the indicators are presented for all births during the five-year period prior to the survey: the percentage for receiving any antenatal care, the percentage receiving regular antenatal care, and the percentage whose mother was given at least one tetanus toxoid injection. The table also presents

differentials for three indicators for which information was collected only for the last birth: the percentage having a medical consultation unrelated to the pregnancy, the percentage consulting a medical provider for any reason (i.e., for ANC, for a TT injection, and/or for care unrelated to the pregnancy), and the percentage considered to be fully protected against neonatal tetanus.

In general, mothers age 35 and over were slightly less likely to report receiving care than younger mothers. Although not uniform, the child's birth order was negatively related to most of the pregnancy care indicators except medical care unrelated to pregnancy which increased with increasing birth order. Birth order differentials were especially large in the case of regular antenatal care, with mothers of first-order births being nearly twice as likely as mothers of sixth-order or higher births to have regular care.

Table 11.5 Care during pregnancy by background characteristics

Percentage of all births in the five-year period before the survey whose mother received any antenatal care (ANC) from a trained medical provider, regular antenatal care from a trained medical provider, and one or more tetanus toxoid (TT) injections, and percentage of last births during the five-year period before the survey whose mothers received other medical care unrelated to the pregnancy, whose mothers received any medical care during pregnancy and who were protected against neonatal tetanus, by selected background characteristics, Egypt 2008

Background characteristics	Any ANC	Regular ANC <sup>1</sup>	One or more TT injection(s)	Number of births during five-year period before survey	Medical care unrelated to the pregnancy	Any medical care	Protected against neonatal tetanus	Number of last births
<b>Age at birth</b>								
<20	72.9	64.4	89.8	1,235	7.3	96.1	83.9	727
20-34	74.3	66.8	81.3	8,392	6.2	95.1	77.9	6,294
35-49	68.4	60.3	64.9	963	7.5	87.2	59.3	874
<b>Birth order</b>								
1	82.8	76.5	87.1	3,468	5.8	98.2	78.9	2,097
2-3	73.2	65.0	81.5	4,922	6.0	95.8	79.2	3,924
4-5	63.0	55.7	72.1	1,608	8.4	89.4	69.4	1,380
6+	52.0	39.8	62.2	593	7.8	80.3	62.7	495
<b>Urban-rural residence</b>								
Urban	85.0	80.5	71.4	3,924	7.1	95.4	66.2	3,012
Rural	66.9	57.4	86.4	6,666	6.1	93.7	82.6	4,883
<b>Place of residence</b>								
Urban Governorates	89.2	85.1	68.0	1,679	8.7	96.0	62.8	1,294
Lower Egypt	75.0	67.7	84.8	4,587	3.3	95.2	81.3	3,500
Urban	82.8	79.9	73.2	1,011	3.6	94.3	69.3	794
Rural	72.8	64.2	88.0	3,576	3.2	95.4	84.8	2,706
Upper Egypt	65.9	56.4	82.0	4,173	9.2	92.9	76.7	2,990
Urban	81.8	75.4	74.4	1,141	8.0	96.0	68.1	854
Rural	59.9	49.2	84.8	3,032	9.7	91.7	80.2	2,136
Frontier Governorates	71.0	64.7	73.5	151	5.6	88.1	68.7	111
<b>Education</b>								
No education	54.6	45.0	81.5	2,735	6.9	89.4	77.6	1,997
Some primary	68.2	58.3	81.2	721	8.7	91.1	76.9	528
Primary complete/some secondary	74.1	64.6	81.4	1,624	7.0	94.8	78.0	1,239
Secondary complete/higher	83.6	77.7	80.3	5,510	5.8	97.1	75.2	4,132
<b>Work status</b>								
Working for cash	83.4	77.6	75.8	1,168	7.7	95.5	68.4	903
Not working for cash	72.4	64.5	81.5	9,422	6.3	94.2	77.4	6,993
<b>Wealth quintile</b>								
Lowest	53.5	41.4	83.1	2,145	8.1	89.6	79.0	1,525
Second	64.4	55.8	88.0	2,125	6.3	93.2	84.4	1,557
Middle	73.7	64.2	85.4	2,251	5.7	95.1	82.2	1,659
Fourth	85.7	80.8	81.5	2,113	5.4	96.3	77.4	1,626
Highest	92.4	89.8	64.6	1,956	7.0	97.4	58.1	1,528
Total	73.6	66.0	80.8	10,590	6.5	94.4	76.4	7,896

<sup>1</sup> A woman is considered to have had regular antenatal care if she had four or more visits during the pregnancy.

Urban mothers see medical providers for antenatal care during pregnancy more often than rural mothers. For example, mothers received regular antenatal care for 81 percent of urban births compared to 57 percent of rural births. On the other hand, rural mothers are more likely than urban mothers to receive tetanus toxoid injections during pregnancy. Births in rural Upper Egypt rank lowest on all of the pregnancy care indicators, except the measures of tetanus toxoid coverage.

There is a generally positive association between the women's education and wealth status and the various pregnancy care indicators. The relationships are particularly marked in the case of regular antenatal care. Among women who have a secondary or higher education, 78 percent have received regular antenatal care compared to 45 percent of women who have never attended school. Mothers in the highest wealth quintile are more than twice as likely as mothers in the lowest wealth quintile to have received regular care.

## 11.2 CONTENT OF PREGNANCY CARE

In the 2008 EDHS, women who reported that they received antenatal care, tetanus toxoid injections, or other medical care unrelated to the pregnancy were asked whether they were weighed, had their blood pressure measured, and urine and blood samples taken during any of the visits they made to a medical provider during their pregnancy. These women were also asked whether they had been told about the signs of pregnancy complications, and, if they were told, whether they received any information about where to go if they experienced any complications. Finally, women were also asked whether they were given or had bought iron tablets or syrup. Iron supplementation during pregnancy is recommended to prevent iron deficiency anemia, which is a common problem among pregnant women.

Some caution must be exercised in considering the information in Table 11.6 since it depends on the mother's understanding of the questions, e.g., her understanding of what blood pressure measurement involves. It also depends on the mother's recall of events during visits to the provider that may have taken place a number of years before the 2008 EDHS interview. Nonetheless, the results are useful in providing insight into the content of the care Egyptian women receive during pregnancy.

Table 11.6 shows that, for more than eight in ten last births for which mothers saw a medical provider during pregnancy, the women reported that they had been weighed or their blood pressure had been monitored during the visit to the provider. Mothers reported that urine and blood samples were taken in the case of around seven in ten births and 44 percent received or bought iron tablets or syrup. Mothers were advised about the complications that they might experience in 34 percent of the births and were told to seek assistance if they had problems in 31 percent of the births.

The quality of the medical care that a woman received was better for mothers who saw a medical provider for antenatal care than for other mothers. Mothers who saw a provider for regular antenatal were the most likely to report that routine screening procedures were performed; for example, more than nine in ten mothers who had regular antenatal care were weighed and had their blood pressure monitored and around eight in ten had urine or blood samples taken. The proportions who reported receiving or being given iron supplement and who were advised about pregnancy complications were also higher for mothers who saw a provider for regular antenatal care than for other mothers.



Table 11.6 Content of pregnancy care

Percentage of last births in the five-year period before the survey whose mothers received any medical care during the pregnancy, by content of the care and selected background characteristics, Egypt 2008

Background characteristics	Weighed	Blood pressure measured	Urine sample	Blood sample taken	Received/ bought iron tablets/ syrup	Told about signs of complications	Told where to go if had any complications	Number of last births
<b>Medical care during pregnancy</b>								
Had ANC	92.2	93.2	76.8	78.7	49.5	39.8	36.8	5,860
4 or more visits	92.8	94.3	77.8	79.4	50.1	41.5	38.5	5,252
1-3 visits	86.4	84.3	68.5	73.0	43.7	25.4	22.5	608
No ANC	70.3	63.5	39.6	40.7	22.3	13.3	11.2	1,589
TT or other care	71.3	64.1	40.0	41.3	22.2	13.5	11.5	1,550
No medical care/don't know/missing	(30.3)	(37.1)	(25.3)	(20.8)	(24.4)	(6.2)	(2.2)	39
<b>Type of ANC provider</b>								
Public sector	96.3	94.9	84.8	85.3	52.9	38.3	34.4	1,498
Private sector	90.9	92.8	74.3	76.7	48.7	40.3	37.7	4,487
Both	94.4	96.6	82.1	86.5	63.6	42.2	38.7	124
No care/missing	70.3	63.5	39.7	40.8	22.3	13.4	11.3	1,589
<b>Age at birth</b>								
<20	90.1	88.2	72.4	76.2	40.5	34.4	31.4	699
20-34	87.6	87.1	68.8	70.2	43.9	34.0	31.2	5,989
35-49	84.3	84.5	66.6	68.9	44.2	35.1	32.7	762
<b>Birth order</b>								
1	92.6	92.3	78.1	80.6	49.3	39.5	36.7	2,060
2-3	87.2	86.5	66.8	67.9	42.7	33.9	31.2	3,759
4-5	83.9	83.1	64.5	66.3	40.2	30.1	26.9	1,234
6+	75.1	74.1	54.5	58.5	33.8	21.4	18.8	397
<b>Urban-rural residence</b>								
Urban	91.5	91.2	77.7	77.7	52.5	45.8	43.3	2,874
Rural	85.0	84.2	63.4	66.2	38.1	26.8	23.9	4,575
<b>Place of residence</b>								
Urban Governorates	94.3	92.4	84.8	85.4	62.9	52.8	50.3	1,242
Lower Egypt	87.9	88.9	64.0	65.0	35.4	25.7	23.7	3,331
Urban	90.3	92.2	67.1	66.3	35.7	29.6	27.7	748
Rural	87.2	88.0	63.1	64.6	35.3	24.6	22.6	2,582
Upper Egypt	84.0	82.1	67.5	70.8	45.0	35.7	31.8	2,779
Urban	88.6	88.9	76.9	77.1	52.6	50.3	47.3	820
Rural	82.0	79.2	63.6	68.1	41.8	29.6	25.3	1,959
Frontier Governorates	88.5	84.6	73.1	71.1	42.3	39.8	39.3	98
<b>Education</b>								
No education	81.5	78.7	60.9	64.3	35.6	26.1	23.1	1,784
Some primary	84.7	84.4	65.1	68.7	37.6	27.8	24.9	481
Primary comp./some secondary	87.9	87.1	67.7	69.5	43.1	31.4	28.6	1,175
Secondary complete/higher	90.4	90.8	73.2	74.0	48.1	39.3	36.6	4,010
<b>Work status</b>								
Working for cash	89.3	89.5	73.1	75.5	49.5	41.0	38.8	863
Not working for cash	87.3	86.5	68.3	70.0	42.9	33.2	30.4	6,587
<b>Wealth quintile</b>								
Lowest	81.7	76.7	60.3	64.2	35.3	23.2	20.2	1,366
Second	83.6	83.1	63.6	66.4	37.2	26.4	23.7	1,451
Middle	86.2	86.4	66.4	69.2	38.1	28.9	25.9	1,578
Fourth	92.3	92.7	74.6	73.9	46.8	38.5	35.3	1,566
Highest	93.1	94.4	78.6	78.8	60.1	52.6	50.7	1,489
Total	87.5	86.9	68.9	70.6	43.7	34.1	31.4	7,450

Note: Figures in parentheses are based on 25-49 unweighted cases.

The content of the care women received varies according to the other demographic and socioeconomic characteristics shown in Table 11.6. For example, there is a negative association between the proportions reporting routine antenatal care procedures and the child's birth order. In general, the procedures were more likely to have been performed for urban than for rural births, with particularly low levels found for births in rural Upper Egypt. The likelihood that the routine antenatal care procedures shown in Table 11.6 were carried out increases with both education and wealth. The procedures are also more common among births to women who worked for cash than for births to other women.

### **11.3 DELIVERY CARE**

Hygienic conditions and proper medical assistance at the time of delivery can reduce the risk of complications and infection for both the mother and the child. For all births in the five-year period before the survey, the 2008 EDHS collected information on where the birth occurred and on whether the mother was assisted at delivery by trained medical personnel. For births occurring in health facilities, a question was also asked about the time that the mother spent in the facility following the delivery. For mothers who did not give birth in a health facility, information was obtained on the reasons these women did not deliver in a facility. All mothers were also asked about whether or not the birth was by caesarean section and several questions about the child's weight at birth.

#### **11.3.1 Place of Delivery**

Slightly more than seven in ten births in the five-year period before the survey occurred in a health facility (Table 11.7). The majority of women delivering in a facility (55 percent) spent less than 24 hours in the facility after giving birth, and 40 percent reported they spent less than 6 hours at the facility after the birth.

Table 11.7 shows that, as expected, births to women who had antenatal care were much more likely to take place in a health facility than other births. Moreover, among births in which the mother had received antenatal care, deliveries were less likely to occur in a health facility if the mother had three or fewer antenatal visits prior to the birth than if she had had more regular care (62 percent and 82 percent, respectively). Table 11.7 also shows that the likelihood of the delivery outside a facility was greatest for births of order six or higher, rural births, especially births in rural Upper Egypt, and births to women with no education. Women in the lowest wealth quintile were most likely to have had a home delivery; fewer than half of the births to women in the quintile took place in a health facility.

Regarding the type of health facility, the majority of facility deliveries (45 percent of all births) occurred in private health facilities. Births to mothers in the highest wealth quintile were most likely to have been delivered in a private facility (70 percent).

Table 11.7 Place of delivery and time spent in health facility following delivery by background characteristics

Percent distribution of births in the five-year period before the survey by place where the mother gave birth and, among births delivered in health facilities, the percent distribution by time mothers spent in the facility after the delivery, according to selected background characteristics, Egypt 2008

Background characteristics	Health facility			At own/ other home	Other/ missing	Total	Number of births	Less than one day			3 or more days	Don't know/ missing	Total	Number of births delivered in health facility
	Any	Public	Private					0-5 hours	6-23 hours	1-2 days				
<b>Antenatal care during pregnancy</b>														
Had ANC	80.2	27.6	52.6	19.8	0.0	100.0	7,813	38.2	15.2	35.3	10.8	0.4	100.0	6,265
1-3 visits	61.9	25.9	36.1	37.9	0.2	100.0	852	50.4	13.2	27.3	8.6	0.5	100.0	528
4 or more visits	82.4	27.9	54.6	17.6	0.0	100.0	6,960	37.1	15.4	36.1	11.0	0.3	100.0	5,737
No ANC/don't know/ missing	47.9	24.9	23.0	52.0	0.1	100.0	2,777	47.9	14.3	27.5	9.9	0.4	100.0	1,331
<b>Age at birth</b>														
<20	69.8	26.1	43.7	30.2	0.0	100.0	1,235	43.9	15.2	29.6	10.7	0.6	100.0	863
20-34	71.8	26.7	45.2	28.1	0.0	100.0	8,392	40.1	15.0	34.4	10.1	0.4	100.0	6,027
35-49	73.4	30.1	43.3	26.4	0.2	100.0	963	33.3	16.0	35.3	15.3	0.1	100.0	707
<b>Birth order</b>														
1	81.5	28.9	52.5	18.5	0.0	100.0	3,468	36.3	15.8	37.2	10.0	0.6	100.0	2,825
2-3	71.2	26.7	44.5	28.8	0.0	100.0	4,922	40.8	14.6	33.5	10.9	0.2	100.0	3,505
4-5	59.1	24.8	34.3	40.8	0.1	100.0	1,608	45.2	14.4	29.2	11.1	0.1	100.0	951
6+	53.3	22.4	30.9	46.6	0.1	100.0	593	47.4	15.8	24.1	12.3	0.4	100.0	316
<b>Urban-rural residence</b>														
Urban	85.5	33.5	52.0	14.5	0.0	100.0	3,924	34.7	16.3	38.3	10.5	0.2	100.0	3,356
Rural	63.6	23.0	40.6	36.3	0.1	100.0	6,666	44.1	14.1	30.5	10.8	0.5	100.0	4,241
<b>Place of residence</b>														
Urban Governorates	89.4	40.0	49.4	10.6	0.0	100.0	1,679	31.5	18.8	40.4	9.0	0.2	100.0	1,501
Lower Egypt	78.1	23.1	55.1	21.8	0.1	100.0	4,587	40.1	13.5	35.0	10.8	0.5	100.0	3,584
Urban	87.5	24.6	62.8	12.5	0.0	100.0	1,011	32.6	13.8	40.9	12.5	0.1	100.0	884
Rural	75.5	22.6	52.9	24.4	0.1	100.0	3,576	42.6	13.4	33.1	10.3	0.6	100.0	2,700
Upper Egypt	57.5	25.3	32.2	42.4	0.0	100.0	4,173	44.3	15.2	28.7	11.5	0.3	100.0	2,401
Urban	78.5	30.9	47.6	21.5	0.0	100.0	1,141	40.5	14.8	33.1	11.2	0.4	100.0	896
Rural	49.7	23.2	26.4	50.3	0.0	100.0	3,032	46.6	15.4	26.1	11.7	0.3	100.0	1,506
Frontier Governorates	72.9	43.3	29.6	27.1	0.0	100.0	151	51.9	12.9	26.4	8.1	0.8	100.0	110
<b>Education</b>														
No education	51.5	24.0	27.5	48.4	0.1	100.0	2,735	43.7	15.7	27.5	12.6	0.5	100.0	1,409
Some primary	62.8	35.7	27.0	37.2	0.0	100.0	721	39.2	20.5	29.0	10.5	0.8	100.0	452
Primary complete/ some secondary	72.3	32.8	39.5	27.7	0.0	100.0	1,624	43.6	16.3	29.0	10.7	0.4	100.0	1,174
Secondary complete/ higher	82.8	25.5	57.3	17.2	0.0	100.0	5,510	37.9	14.0	37.7	10.0	0.3	100.0	4,561
<b>Work status</b>														
Working for cash	83.9	29.4	54.4	16.0	0.1	100.0	1,168	30.1	13.2	40.4	16.3	0.1	100.0	979
Not working for cash	70.2	26.6	43.6	29.7	0.0	100.0	9,422	41.4	15.4	33.0	9.8	0.4	100.0	6,617
<b>Wealth quintile</b>														
Lowest	45.4	22.4	23.0	54.6	0.0	100.0	2,145	44.9	18.0	23.4	13.2	0.4	100.0	973
Second	61.7	27.0	34.7	38.2	0.1	100.0	2,125	45.2	12.8	29.2	12.1	0.8	100.0	1,311
Middle	74.0	29.7	44.4	25.9	0.1	100.0	2,251	43.0	14.7	31.9	10.0	0.4	100.0	1,667
Fourth	85.0	30.9	54.1	15.0	0.0	100.0	2,113	39.2	14.4	36.4	9.9	0.2	100.0	1,795
Highest	94.6	24.4	70.2	5.4	0.0	100.0	1,956	31.6	16.2	42.4	9.6	0.2	100.0	1,850
Total	71.7	26.9	44.8	28.2	0.0	100.0	10,590	39.9	15.1	34.0	10.7	0.4	100.0	7,597

Women who did not deliver the last birth in a health facility were asked about the reason(s) for not going to a facility for the delivery. Table 11.8 shows that the majority (63 percent) reported that they had not considered it ‘necessary’ to deliver in a facility. An additional 11 percent gave as a reason that facility deliveries were not the custom, 23 percent cited the cost of a facility delivery, and 7 percent mentioned poor quality of services at facilities.

Reason	Number of births
Costs too much	23.4
Facility not open	2.5
Too far/no transport	2.1
Poor quality service	6.5
No female provider	0.5
Husband/family did not allow	1.5
Not necessary	62.9
Not customary	11.3
Sudden delivery	6.1
Other	1.3
Total	2,182

### 11.3.2 Assistance at Delivery

Table 11.9 presents information on the person assisting with the delivery for all births during the five years before the survey. If the mother was assisted at delivery by more than one individual, only the most qualified is shown in the table. Doctors (74 percent) or trained nurses or midwives (5 percent) assisted at delivery of the majority of births in the five-year period before the survey. Most of the remaining births were assisted by dayas (traditional birth attendants). Twenty-six percent of births which took place outside of a health facility were assisted by trained medical personnel.

Antenatal care, particularly regular antenatal care, is strongly associated with the likelihood that births will be medically assisted. Considering other characteristics, medically-assisted deliveries were most common for urban births, particularly those in the Urban Governorates and in urban Lower Egypt, births to highly educated mothers, and births to mothers in the highest wealth quintile. Dayas were most likely to assist at delivery when the birth was of order six or higher, the mother lived in rural Upper Egypt, the mother never attended school or the mother was in the lowest wealth quintile.

Table 11.9 Assistance during delivery by background characteristics

Percent distribution of live births in the five years preceding the survey by type of assistance during delivery, according to selected background characteristics, Egypt 2008

Background characteristics	Assisted by medical provider						Total	Number of births
	Any	Doctor	Trained nurse/midwife	Daya	Relative/other	No one		
<b>Antenatal care during pregnancy</b>								
Had ANC	86.3	82.0	4.3	12.5	0.7	0.4	100.0	7,813
1-3 visits	72.5	64.8	7.7	25.2	1.3	1.0	100.0	852
4 or more visits	88.0	84.1	3.9	11.0	0.7	0.4	100.0	6,960
No ANC/don't know/missing	57.9	53.0	4.9	39.9	1.2	1.0	100.0	2,777
<b>Place of delivery</b>								
Health facility	99.6	99.3	0.3	0.1	0.2	0.1	100.0	7,597
Not in health facility	26.2	11.2	15.1	69.5	2.6	1.7	100.0	2,994
<b>Age at birth</b>								
<20	76.2	72.2	4.0	22.6	0.6	0.6	100.0	1,235
20-34	79.1	74.5	4.6	19.6	0.8	0.5	100.0	8,392
35-49	80.0	76.1	3.9	17.0	1.5	1.5	100.0	963
<b>Birth order</b>								
1	87.1	83.6	3.4	12.2	0.5	0.2	100.0	3,468
2-3	78.4	73.6	4.8	20.2	0.8	0.5	100.0	4,922
4-5	68.9	63.0	5.9	28.5	1.5	1.2	100.0	1,608
6+	61.3	57.5	3.8	35.1	1.7	1.8	100.0	593
<b>Urban-rural residence</b>								
Urban	90.2	86.8	3.3	9.1	0.4	0.4	100.0	3,924
Rural	72.2	67.1	5.1	25.9	1.2	0.7	100.0	6,666
<b>Place of residence</b>								
Urban Governorates	92.3	90.3	2.0	7.2	0.2	0.3	100.0	1,679
Lower Egypt	85.3	80.9	4.4	13.9	0.5	0.4	100.0	4,587
Urban	92.0	89.9	2.1	7.1	0.4	0.5	100.0	1,011
Rural	83.4	78.4	5.0	15.7	0.5	0.4	100.0	3,576
Upper Egypt	66.4	60.8	5.6	31.3	1.4	0.8	100.0	4,173
Urban	85.6	79.3	6.3	13.5	0.4	0.5	100.0	1,141
Rural	59.2	53.8	5.3	38.0	1.8	1.0	100.0	3,032
Frontier Governorates	79.1	75.0	4.1	14.0	4.0	2.9	100.0	151
<b>Education</b>								
No education	59.7	55.0	4.7	37.7	1.5	1.0	100.0	2,735
Some primary	73.1	67.0	6.2	24.2	1.7	1.0	100.0	721
Primary complete/ some secondary	79.3	74.4	4.9	19.1	0.8	0.8	100.0	1,624
Secondary complete/higher	89.0	85.0	4.0	10.3	0.5	0.2	100.0	5,510
<b>Work status</b>								
Working for cash	89.8	85.5	4.3	9.1	0.7	0.4	100.0	1,168
Not working for cash	77.5	73.0	4.5	21.0	0.9	0.6	100.0	9,422
<b>Wealth index</b>								
Lowest	55.2	49.2	5.9	41.4	2.1	1.4	100.0	2,145
Second	70.1	65.0	5.1	28.1	1.1	0.6	100.0	2,125
Middle	82.8	77.2	5.7	16.5	0.3	0.4	100.0	2,251
Fourth	90.7	86.8	3.9	8.3	0.6	0.3	100.0	2,113
Highest	96.9	95.6	1.3	2.7	0.1	0.2	100.0	1,956
Total	78.9	74.4	4.5	19.7	0.9	0.6	100.0	10,590

### 11.3.3 Caesarean Deliveries

The 2008 EDHS obtained information on the frequency of caesarean sections. This information can be compared with findings from earlier rounds of the DHS survey in Egypt to assess trends over time in Caesarean deliveries.

Table 11.10 shows that more than one-quarter of deliveries in the five-year period before the 2008 EDHS survey were by caesarean section. Women delivering in a private health facility were slightly more likely than women delivering in a government facility to have a Caesarean delivery. The likelihood of a Caesarean delivery increased with the age of the mother and decreased with the child's birth order. Thirty-seven percent of urban births were Caesarean deliveries compared to 22 percent of rural births. Considering place of residence, urban Lower Egypt had the highest proportion of Caesarean deliveries (43 percent) followed by the Urban Governorates (39 percent). The likelihood of a Caesarean delivery increased with both the mother's educational status and was greater among women working for cash than among other women. The rate of Caesarean deliveries peaked at 45 percent among women in the highest wealth quintile compared to 14 percent among women in the lowest quintile.

### 11.3.4 Birth Weight

Mothers were able to provide a birth weight for only 42 percent of babies. Among those births, Table 11.11 shows that 11 percent were classified as low birth weight; i.e., they weighed less than 2.5 kilograms at birth. Table 11.11 also includes information on the mother's assessment of the baby's size at birth. It is important to remember that this assessment is based on the mother's own perception of what is a small, average, or large baby and not on a uniform definition. Only 3 percent of mothers considered their babies as very small while an additional 10 percent reported that their babies were smaller than average. Looking at the variation by background characteristics, there are only relatively minor differences in both the proportion of babies weighing less than 2.5 kilograms and the proportion of births regarded as small or as smaller than average.

Table 11.10 Caesarean deliveries by background characteristics

Percentage of births in the five-year period before the survey that were delivered by caesarean section, according to selected background characteristics, Egypt 2008

Background characteristics	Caesarean delivery
<b>Place of delivery</b>	
Public health facility	33.2
Private health facility	41.7
At home/don't know/missing	na
<b>Age at birth</b>	
<20	23.0
20-34	27.8
35-49	32.0
<b>Birth order</b>	
1	33.4
2-3	27.8
4-5	19.6
6+	14.0
<b>Urban-rural residence</b>	
Urban	37.1
Rural	22.0
<b>Place of residence</b>	
Urban Governorates	38.5
Lower Egypt	30.9
Urban	43.2
Rural	27.4
Upper Egypt	19.9
Urban	30.9
Rural	15.8
Frontier Governorates	20.0
<b>Education</b>	
No education	17.8
Some primary	18.4
Primary complete/some secondary	24.9
Secondary complete/higher	34.5
<b>Work status</b>	
Working for cash	42.3
Not working for cash	25.8
<b>Wealth index</b>	
Lowest	13.6
Second	19.2
Middle	26.2
Fourth	35.8
Highest	44.9
Total	27.6

na = Not applicable

Table 11.11 Child's size at birth by background characteristics

Among births in the five years preceding the survey, percentage with a reported birth weight, the percent distribution of births with a reported birth weight by the birth weight and, among births in the five years preceding the survey, the percent distribution by the mother's estimate of the baby's size at birth, according to background characteristics, Egypt 2008

Background characteristics	Percentage of births with reported birth weight	Birth weight among births with reported weight			Number of births	Child's size among all live births					Number of births
		Less than 2.5 kg	2.5 kg/ more	Total percent		Very small	Smaller than average	Average or larger	Don't know/ missing	Total percent	
<b>Age at birth</b>											
<20	37.6	11.6	88.4	100.0	465	4.4	10.6	84.8	0.2	100.0	1,235
20-34	41.9	11.2	88.8	100.0	3,519	3.0	9.5	87.0	0.5	100.0	8,392
35-49	45.0	9.6	90.4	100.0	433	4.3	8.9	86.5	0.3	100.0	963
<b>Birth order</b>											
1	46.6	11.1	88.9	100.0	1,616	3.7	10.4	85.3	0.7	100.0	3,468
2-3	41.5	10.7	89.3	100.0	2,044	2.7	9.2	87.8	0.3	100.0	4,922
4-5	35.3	12.1	87.9	100.0	567	3.7	8.4	87.6	0.3	100.0	1,608
6+	32.0	12.9	87.1	100.0	189	4.8	11.0	83.7	0.4	100.0	593
<b>Urban-rural residence</b>											
Urban	56.2	12.0	88.0	100.0	2,207	3.3	10.7	85.7	0.3	100.0	3,924
Rural	33.1	10.2	89.8	100.0	2,210	3.3	8.9	87.3	0.5	100.0	6,666
<b>Place of residence</b>											
Urban Governorates	68.4	12.4	87.6	100.0	1,148	3.1	10.3	86.4	0.3	100.0	1,679
Lower Egypt	36.7	9.1	90.9	100.0	1,684	2.6	7.1	89.8	0.5	100.0	4,587
Urban	44.3	7.9	92.1	100.0	448	2.9	7.8	89.1	0.3	100.0	1,011
Rural	34.6	9.5	90.5	100.0	1,236	2.6	6.9	90.0	0.6	100.0	3,576
Upper Egypt	36.3	12.5	87.5	100.0	1,516	4.1	12.1	83.5	0.3	100.0	4,173
Urban	49.1	14.9	85.1	100.0	560	3.8	13.9	82.0	0.2	100.0	1,141
Rural	31.5	11.1	88.9	100.0	955	4.2	11.4	84.1	0.4	100.0	3,032
Frontier Governorates	45.5	7.7	92.3	100.0	69	4.0	9.0	85.9	1.1	100.0	151
<b>Education</b>											
No education	27.9	10.2	89.8	100.0	763	3.5	9.4	86.4	0.8	100.0	2,735
Some primary	30.7	15.3	84.7	100.0	222	4.9	12.0	82.9	0.3	100.0	721
Primary complete/ some secondary	38.8	11.3	88.7	100.0	630	3.8	11.1	85.0	0.0	100.0	1,624
Secondary complete/ higher	50.8	11.0	89.0	100.0	2,801	2.8	8.9	87.9	0.4	100.0	5,510
<b>Work status</b>											
Working for cash	53.1	11.5	88.5	100.0	621	2.9	9.9	86.9	0.3	100.0	1,168
Not working for cash	40.3	11.0	89.0	100.0	3,796	3.3	9.5	86.7	0.4	100.0	9,422
<b>Wealth index</b>											
Lowest	26.4	10.7	89.3	100.0	566	3.8	11.1	84.4	0.7	100.0	2,145
Second	28.7	13.8	86.2	100.0	609	3.1	9.3	87.2	0.4	100.0	2,125
Middle	38.7	13.2	86.8	100.0	871	3.7	9.1	86.9	0.3	100.0	2,251
Fourth	50.2	11.2	88.8	100.0	1,060	3.4	8.5	87.6	0.5	100.0	2,113
Highest	67.0	8.5	91.5	100.0	1,311	2.3	9.9	87.6	0.2	100.0	1,956
Total	41.7	11.1	88.9	100.0	4,417	3.3	9.6	86.7	0.4	100.0	10,590

## 11.4 TRENDS IN ANTENATAL AND DELIVERY CARE INDICATORS

Table 11.12 and Figure 11.1 present trends in antenatal and delivery care indicators by residence for the 20-year period between the 1988 and 2008 EDHS surveys. The table documents upward trends in all of the indicators, with the trend in tetanus toxoid coverage being particularly notable. Overall, there was a more than sevenfold increase in the percentage of births for which the mother received at least one tetanus toxoid injection, from 11 percent at the time of the 1988 EDHS to the current level of 81 percent.

Table 11.12 Trends in maternal health indicators by residence

Percentage of births in the five years preceding the survey whose mothers had antenatal care from a doctor or trained nurse/midwife, four or more antenatal care visits, at least one tetanus toxoid injection, were assisted at delivery by a medical provider, and were delivered by caesarean section by urban-rural residence and place of residence, Egypt 1988-2008

Maternal health indicator	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
<b>Any antenatal care</b>											
1988	na	na	na	na	na	na	na	na	na	na	na
1992	na	na	na	na	na	na	na	na	na	na	na
1995	58.3	27.2	59.2	41.9	65.2	34.5	28.6	51.2	20.8	41.4	39.1
2000	70.4	41.9	74.1	53.5	71.2	47.2	44.3	65.1	36.9	44.6	52.9
2005	82.2	62.1	84.0	78.0	88.4	74.7	57.5	75.8	50.6	68.1	69.6
2008	85.0	66.9	89.2	75.0	82.8	72.8	65.9	81.8	59.9	71.0	73.6
<b>Regular antenatal care<sup>1</sup></b>											
1988	na	na	na	na	na	na	na	na	na	na	na
1992	na	na	na	na	na	na	na	na	na	na	na
1995	50.0	14.9	55.1	27.9	52.0	20.2	17.9	40.6	10.1	na	28.3
2000	53.9	25.9	56.0	38.9	56.2	32.8	27.2	49.8	19.2	28.5	36.7
2005	74.8	49.2	78.9	66.7	80.8	62.2	45.0	65.8	37.3	59.1	58.5
2008	80.5	57.4	85.1	67.7	79.9	64.2	56.4	75.4	49.2	64.7	66.0
<b>Tetanus toxoid injection</b>											
1988	12.6	10.6	8.8	13.1	14.8	12.5	11.1	17.3	8.6	na	11.4
1992	56.9	57.5	52.0	64.0	67.8	62.7	53.3	55.3	52.8	na	57.8
1995	66.7	71.2	64.2	75.6	70.2	77.4	66.3	67.6	65.9	59.8	69.5
2000	70.1	73.9	62.4	79.1	75.3	80.4	70.0	75.4	68.1	64.2	72.4
2005	70.3	83.2	65.2	81.9	73.4	84.5	79.9	73.4	82.3	69.6	78.5
2008	71.4	86.4	68.0	84.8	73.2	88.0	82.0	74.4	84.8	73.5	80.8
<b>Medically assisted delivery</b>											
1988	57.0	19.1	64.9	31.1	54.4	23.3	23.9	46.9	14.4	na	34.6
1992	62.5	27.5	68.3	39.7	62.9	32.5	29.7	51.8	23.0	na	40.7
1995	67.9	32.8	69.2	51.4	75.1	43.9	32.2	59.6	22.9	59.3	46.3
2000	81.4	48.0	83.7	65.1	84.7	58.1	47.8	74.7	38.2	60.4	60.9
2005	88.7	65.8	90.7	81.6	92.9	78.0	62.6	83.8	54.8	71.8	74.2
2008	90.2	72.2	92.3	85.3	92.0	83.4	66.4	85.6	59.2	79.1	78.9
<b>Caesarean deliveries</b>											
1988	na	na	na	na	na	na	na	na	na	na	na
1992	na	na	na	na	na	na	na	na	na	na	na
1995	10.7	4.2	12.3	7.3	11.3	6.1	3.8	7.9	2.4	3.4	6.6
2000	16.7	6.3	19.3	11.2	17.7	8.9	6.1	12.6	3.8	5.3	10.3
2005	29.2	14.6	33.8	24.5	34.9	21.2	11.8	20.4	8.6	14.3	19.9
2008	37.1	22.0	38.5	30.9	43.2	27.4	19.9	30.9	15.8	20.0	27.6

na = Not available

<sup>1</sup> A woman is considered to have had regular antenatal care if she had 4 or more visits during the pregnancy.

Source: El-Zanaty and Way, 2006, Table 11.12

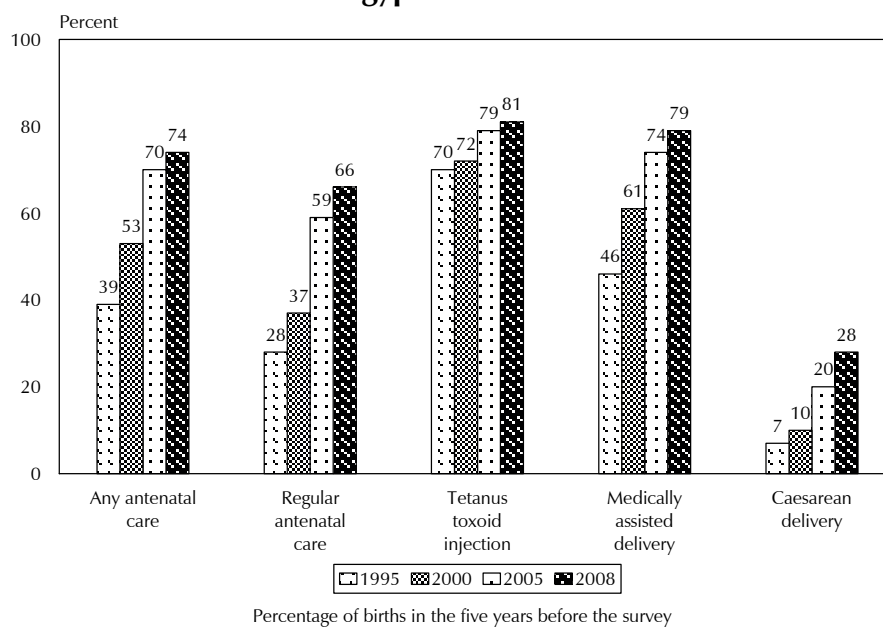
During the period between the 1988 and 2008 surveys, there were also substantial gains in antenatal care coverage and in the proportion of medically assisted deliveries. Regarding the latter indicator, Table 11.12 shows that only slightly more than one-third of births were medically assisted at the time of the 1988 survey. By the time of the 2008 survey, this proportion had climbed to just under 80 percent.

All residential categories shared in the improvements in maternal health indicators. Rural areas, however, continue to lag behind urban areas in both antenatal care coverage and in medically assisted deliveries.



As the proportion of medically-assisted deliveries increased, Table 11.12 also shows that there has been a substantial rise in the proportions of births reported by the mother to have been delivered by Caesarean section.<sup>1</sup> Caesarean deliveries were more than four times as common in 2008 as in 1995. Although increases in the proportions of Caesarean deliveries were observed in all residential categories between 1995 and 2008, Caesarean deliveries continued to be much more common in urban than in rural areas.

**Figure 11.1 Trends in Maternal Health Indicators  
Egypt 1995-2008**



## 11.5 POSTNATAL CARE

Care after delivery is very important for both the mother and her child. Proper care after delivery is especially important for births occurring in the home. The Ministry of Health recommends several visits for postnatal care. The first visit should occur within two days of delivery, and the last at 40 days. In addition there should be at least two other visits, one at seven days after delivery and another at 15 days.

### 11.5.1 Postnatal Checkup for the Mother

Both women delivering in health facilities and those delivering outside of facilities were asked questions about the receipt of postnatal care. Women giving birth in a health facility were asked if a provider checked on their health after they delivered before they were discharged and, if not, whether they had seen someone for a postnatal checkup after they were discharged from the facility. It is possible that women delivering in a facility may not have remembered or recognized that a postnatal checkup was conducted during their stay in the facility. However, it is felt that most women could accurately report on whether they were seen by a provider for a checkup before discharge and that this approach to collecting

<sup>1</sup>The same question was used in all of the EDHS surveys to collect information on the prevalence of Caesarean deliveries. However, it is possible that as the proportion of all births occurring in health facilities increased over the period covered by the surveys, a somewhat greater number of women may have misunderstood the reference to Caesarean birth.

the information is preferable to an assumption that all women delivering in a health facility had a postnatal checkup.<sup>2</sup>

Table 11.13 presents the percent distribution of all births during the five-year period before the survey by whether or not the mother received postnatal care and, if so, the type of provider. The table also shows the source of postnatal care and timing of the first postnatal checkup. Overall, women reported they had a postnatal checkup in the case of 66 percent of all births during the five-year period before the survey. Postpartum care is largely confined to births assisted by a medical provider; postnatal checkups were reported by mothers of 82 percent of the births assisted at delivery by a health provider (largely a doctor) during the five-year period prior to the survey. Mothers rarely reported receiving postnatal care when the birth was assisted by a daya or other person (8 percent).

Table 11.13 also shows that most mothers who had a postnatal checkup saw a medical provider for the care. Among last births during the five-year period prior to the survey, postnatal checkups took place more often in private facilities than in facilities operated by the government. With regard to the timing of postnatal checkups, mothers saw a provider for the checkup within two days of the delivery for almost all last births for which any postnatal care was reported.

**Table 11.13 Postnatal care for mother**

Percent distribution of births during the five-year period before the survey by type of provider and percentage distribution of last births by source of the first medical postnatal checkup for mother and timing of first postnatal care checkup, according to the type of assistance at delivery, Egypt 2008

Postnatal care	Medically assisted births	Births assisted by daya/ other/ no one	All births
<b>Provider of postnatal care</b>			
Doctor	81.2	6.7	65.5
Trained nurse/midwife	0.7	0.3	0.6
Daya	0.0	0.5	0.1
Don't know/missing	0.0	0.3	0.1
No postnatal care	18.0	92.2	33.7
Total	100.0	100.0	100.0
Number of births	8,352	2,238	10,590
<b>Source for first postnatal checkup</b>			
Health facility	82.2	6.1	66.9
Public sector	30.2	2.9	24.7
Private sector	52.0	3.3	42.2
At own/other home	0.2	1.0	0.4
Don't know/missing	0.0	0.5	0.1
No postnatal care	17.5	92.3	32.6
Total	100.0	100.0	100.0
Number of last births	6,304	1,592	7,896
<b>Timing of first postnatal checkup</b>			
Within 2 days of delivery	80.5	1.5	64.6
Less than 4 hours	65.3	0.8	52.3
4-23 hours	11.8	0.2	9.5
24-48 hours	3.3	0.5	2.8
3-7 days after delivery	0.8	2.2	1.1
8-27 days after delivery	0.2	0.5	0.3
28-41 days after delivery	0.3	2.1	0.7
42 days or more after delivery	0.2	0.9	0.3
Don't know/missing	0.5	0.4	0.5
No care	17.5	92.3	32.6
Total	100.0	100.0	100.0
Number of last births	6,304	1,592	7,896

Table 11.14 presents differentials in postnatal care indicators for the last birth during the five-year period before the survey. The table shows that the likelihood of receiving postnatal care did not vary markedly with age, but declined with the child's birth order. Postnatal care was more common for urban than rural mothers, with mothers living in rural Upper Egypt were least likely to report receiving postnatal care. The percentages of mothers who had postnatal care increased with both education level and the wealth quintile.

<sup>2</sup> The latter assumption was made in the 2000 EDHS and 2003 EIDHS surveys and, thus, the results of the current survey are not comparable to the findings published in the reports for those surveys.

Table 11.14 Postnatal care for mother by background characteristics

Percentage of last births during the five-year period before the survey whose mother had any postnatal care and whose mother had a postnatal checkup within two days of the delivery, according to the type of assistance at delivery, and selected background characteristics, Egypt 2008

Background characteristics	Medically assisted births		Number of last births assisted by health providers	Births assisted by daya/other/no one		Number of last births assisted by daya/other/no one	All births		Number of last births
	Had any postnatal care <sup>1</sup>	Had postnatal checkup within 2 days after delivery		Had any postnatal care <sup>1</sup>	Had postnatal checkup within 2 days after delivery		Had any postnatal care <sup>1</sup>	Had postnatal checkup within 2 days after delivery	
<b>Age at birth</b>									
<20	81.6	79.3	577	7.0	0.8	150	66.2	63.1	727
20-34	82.2	80.2	5,024	7.1	1.5	1,270	67.0	64.3	6,294
35-49	84.9	83.3	703	6.4	2.2	171	69.6	67.4	874
<b>Birth order</b>									
1	86.1	83.7	1,870	5.7	1.1	227	77.4	74.7	2,097
2-3	82.5	80.6	3,157	7.7	1.2	767	67.9	65.1	3,924
4-5	77.7	76.6	971	6.4	2.1	408	56.6	54.5	1,380
6+	74.6	72.3	305	7.3	1.8	190	48.8	45.3	495
<b>Urban-rural residence</b>									
Urban	88.9	87.0	2,731	8.8	2.2	281	81.4	79.1	3,012
Rural	77.5	75.5	3,573	6.6	1.4	1,310	58.5	55.6	4,883
<b>Place of residence</b>									
Urban Governorates	91.3	89.6	1,197	9.7	0.0	97	85.2	83.0	1,294
Lower Egypt	82.5	81.1	2,981	7.5	2.2	519	71.4	69.4	3,500
Urban	88.6	87.4	728	11.2	5.6	66	82.2	80.7	794
Rural	80.5	79.1	2,253	6.9	1.6	454	68.2	66.1	2,706
Upper Egypt	77.1	74.1	2,036	6.5	1.3	955	54.6	50.9	2,990
Urban	85.9	82.9	744	6.8	1.8	111	75.7	72.4	854
Rural	72.1	69.0	1,292	6.5	1.2	844	46.2	42.2	2,136
Frontier Governorates	81.8	80.5	90	6.9	2.4	21	67.6	65.7	111
<b>Education</b>									
No education	73.7	72.1	1,225	5.6	1.1	772	47.4	44.7	1,997
Some primary	76.0	73.2	389	9.7	2.3	138	58.6	54.6	528
Primary complete/ some secondary	82.8	80.3	993	7.8	1.8	247	67.8	64.7	1,239
Secondary complete/ higher	85.9	84.1	3,697	8.3	1.8	435	77.7	75.4	4,132
<b>Work status</b>									
Working for cash	85.9	83.9	814	10.9	3.6	89	78.6	76.0	903
Not working for cash	81.9	80.0	5,490	6.8	1.4	1,503	65.8	63.1	6,993
<b>Wealth quintile</b>									
Lowest	70.4	67.7	865	5.9	1.1	660	42.5	38.9	1,525
Second	77.5	75.5	1,096	7.2	1.5	461	56.7	53.6	1,557
Middle	79.2	77.4	1,388	6.1	1.1	271	67.2	64.9	1,659
Fourth	85.5	83.8	1,475	11.0	2.9	151	78.6	76.3	1,626
Highest	93.1	91.2	1,480	(13.8)	(5.2)	48	90.6	88.5	1,528
Total	82.4	80.5	6,304	7.0	1.5	1,592	67.2	64.6	7,896

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Includes postnatal checkup occurring at any time following the child's birth including checkups taking place 42 or more days after the birth.

### 11.5.2 Postnatal Checkup for the Baby

Women giving birth during the five-year period before the survey were asked whether or not the child had had a postnatal checkup for each birth they had during the period. In addition, information was collected for the last birth the woman had during the five-year period on the source where the postnatal checkup occurred and the timing of the first checkup following delivery. A question was also included for all last-born children about whether or not a blood sample had been taken from the child's heel. The MOH has established a program to promote the collection of blood samples in the two-week period following a child's birth to screen for genetic problems.

Table 11.15 presents the percent distribution of all births during the five-year period before the survey by whether or not the child received postnatal care and, if so, the type of provider. The table also shows the source of postnatal care and timing of the first postnatal checkup. Overall, women reported that their infant had had postnatal checkup in the case of 30 percent of all births during the five-year period before the survey. Postnatal checkups were reported by mothers of 32 percent of the births assisted at delivery by a health provider (largely a doctor) during the five-year period prior to the survey compared to 19 percent of births assisted by a *daya* or other person. Table 11.15 also shows that mothers reported that a blood sample was taken from the child's heel within two weeks of delivery in the case of 89 percent of last-born children during the five-year period before the survey.

Table 11.15 shows that almost all infants who had a postnatal checkup were seen by a doctor. Infants were more than twice as likely to have been taken to a private provider for the postnatal checkup as to a public health facility (22 percent and 8 percent, respectively). Since many of the children who die in infancy die in the early neonatal period, it is important for the postnatal checkup to take place soon after delivery in order to screen for conditions that may threaten an infant's survival. The results in Table 11.15 indicate that about one-fifth of newborns are seen for the first checkup within a week following delivery but that only 8 percent of all last births were seen for the first checkup within two days of their birth.

Table 11.16 shows that postnatal checkups were somewhat more prevalent among urban infants than rural infants. Looking at place of residence, the likelihood that an infant would have a checkup was lowest in the Frontier Governorates (22 percent), and it increased with both the mother's education and the wealth quintile. However, even among infants born to mothers with a secondary or higher education and among infants in the highest wealth quintile, less than half were seen for a checkup.

Differences in this proportion of babies from whom a heel sample was taken were generally minor across the subgroups shown in Table 11.16. The largest differential observed was for the child's birth order, with 79 percent of sixth-order birth or higher having a heel sample taken compared to 92 percent of first order births.

Table 11.15 Postnatal care for child

Percent distribution of births during the five-year period before the survey by provider for first postnatal checkup for child and percent distribution of last birth during the five-year period before the survey by the source for first medical postnatal care checkup, timing of first checkup, and mother's report as to whether sample of blood was taken from baby's heel during the first 2 weeks following delivery, according to the type of assistance at delivery, Egypt 2008

Postnatal care for child	Medically assisted births	Births assisted by <i>daya</i> /other/no one	All births
<b>Provider of postnatal care</b>			
Doctor	32.3	18.7	29.4
Trained nurse/midwife	0.1	0.1	0.1
<i>Daya</i>	0.0	0.3	0.1
Don't know/missing	1.4	2.1	1.6
No postnatal care	66.2	78.6	68.8
Total	100.0	100.0	100.0
Number of births	8,352	2,238	10,590
<b>Source for first postnatal checkup</b>			
Health facility	32.7	18.9	30.0
Public sector	8.1	6.7	7.8
Private sector	24.7	12.2	22.2
At own/other home	0.4	0.0	0.3
Don't know/missing	0.0	0.0	0.0
No postnatal care	66.8	81.0	69.7
<b>Timing of first postnatal checkup</b>			
Within 2 days of delivery	9.1	2.8	7.8
Less than 4 hours	4.3	0.4	3.5
4-23 hours	0.9	0.4	0.8
24-48 hours	3.9	2.0	3.5
3-7 days after delivery	13.6	8.3	12.5
8-27 days after delivery	4.0	2.9	3.8
28-41 days after delivery	5.7	4.6	5.5
42 days or more after delivery	0.8	0.3	0.7
No care	66.8	81.0	69.7
<b>Blood sample from child's foot</b>			
Sample taken within:	90.1	90.1	90.1
0-7 days	87.2	86.5	87.1
8-14 days	1.5	2.1	1.7
More than 14 days	0.5	1.1	0.7
Don't know time/missing	0.8	0.4	0.7
Sample not taken	8.9	8.8	8.9
Don't know/missing	1.0	1.1	1.0
Total	100.0	100.0	100.0
Number of last births	6,304	1,592	7,896

Table 11.16 Postnatal care for child by background characteristics

Percentage of last births in the five-year period before the survey for which the child received any postnatal care, percentage receiving a postnatal checkup within two days of the delivery and percentage of babies from whom a blood sample was taken from the heel by type of delivery assistance, according to selected background characteristics, Egypt 2008

Background characteristics	Medically assisted delivery				Births assisted by daya/other/no one				Number of last births assisted by daya/ other/ no one	All births			Number of last births
	Had any post- natal care <sup>1</sup>	Had post- natal check- up within 2 days after delivery	Had heel sample taken within 2 weeks of delivery	Number of last births assisted by health providers	Had any post- natal care <sup>1</sup>	Had post- natal check-up within 2 days after delivery	Had heel sample taken within 2 weeks of delivery	Had any post- natal care <sup>1</sup>		Had post- natal checkup within 2 days after delivery	Had heel sample taken within 2 weeks of delivery		
<b>Age at birth</b>													
<20	37.3	9.9	90.2	577	19.2	2.4	92.5	150	33.6	8.3	90.7	727	
20-34	32.6	8.8	89.0	5,024	19.5	2.9	89.8	1,270	30.0	7.6	89.2	6,294	
35-49	33.6	10.4	85.7	703	14.5	2.9	77.2	171	29.9	8.9	84.0	874	
<b>Birth order</b>													
1	36.8	10.0	91.7	1,870	21.4	3.1	91.9	227	35.2	9.3	91.7	2,097	
2-3	31.1	8.5	89.2	3,157	18.9	2.9	92.3	767	28.7	7.4	89.8	3,924	
4-5	35.0	9.5	84.7	971	18.6	2.8	85.6	408	30.2	7.5	84.9	1,380	
6+	26.9	7.5	80.0	305	17.0	2.5	76.6	190	23.1	5.6	78.7	495	
<b>Urban-rural residence</b>													
Urban	38.0	11.9	88.5	2,731	18.3	4.3	86.0	281	36.2	11.2	88.3	3,012	
Rural	29.5	6.9	89.0	3,573	19.1	2.5	89.2	1,310	26.7	5.7	89.0	4,883	
<b>Place of residence</b>													
Urban Governorates	40.5	10.1	91.6	1,197	20.7	4.8	80.1	97	39.0	9.7	90.8	1,294	
Lower Egypt	26.9	6.2	91.8	2,981	11.0	1.4	94.6	519	24.5	5.5	92.3	3,500	
Urban	30.0	8.5	89.5	728	6.7	1.8	92.1	66	28.1	7.9	89.8	794	
Rural	25.8	5.4	92.6	2,253	11.6	1.4	95.0	454	23.4	4.7	93.0	2,706	
Upper Egypt	38.6	12.8	82.6	2,036	23.3	3.4	86.3	955	33.7	9.8	83.8	2,990	
Urban	43.3	18.5	82.5	744	23.5	5.2	87.3	111	40.7	16.8	83.1	854	
Rural	36.0	9.6	82.7	1,292	23.2	3.1	86.2	844	30.9	7.0	84.1	2,136	
Frontier Governorates	22.2	6.0	89.1	90	12.4	4.0	86.3	21	20.3	5.6	88.6	111	
<b>Education</b>													
No education	28.8	6.0	88.1	1,225	17.2	2.6	84.9	772	24.3	4.7	86.9	1,997	
Some primary	30.1	9.4	85.9	389	22.4	2.9	93.2	138	28.1	7.7	87.8	528	
Primary complete/ some secondary	33.5	7.4	85.3	993	20.7	3.4	89.1	247	31.0	6.6	86.1	1,239	
Secondary complete/ higher	34.9	10.5	90.2	3,697	19.9	2.9	93.6	435	33.3	9.7	90.6	4,132	
<b>Work status</b>													
Working for cash	35.5	10.9	87.3	814	14.0	0.9	86.4	89	33.4	10.0	87.2	903	
Not working for cash	32.8	8.8	89.0	5,490	19.3	3.0	88.8	1,503	29.9	7.5	88.9	6,993	
<b>Wealth quintile</b>													
Lowest	31.4	6.7	85.8	865	20.0	2.6	87.3	660	26.5	5.0	86.4	1,525	
Second	30.0	7.1	88.1	1,096	18.1	3.1	89.3	461	26.5	5.9	88.5	1,557	
Middle	29.5	6.1	89.5	1,388	19.7	2.5	89.0	271	27.9	5.5	89.4	1,659	
Fourth	33.9	9.4	89.6	1,475	11.8	2.3	92.6	151	31.9	8.7	89.9	1,626	
Highest	39.3	14.4	89.5	1,480	(31.3)	(7.2)	(86.8)	48	39.0	14.2	89.4	1,528	
Total	33.2	9.1	88.8	6,304	19.0	2.8	88.7	1,592	30.3	7.8	88.7	7,896	

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Includes postnatal checkup occurring at any time following the child's birth including checkups taking place 42 or more days after the birth

## 11.6 FAMILY PLANNING AND BREASTFEEDING ADVICE

The 2008 EDHS collected information from women who delivered their last birth within the five-year period before the EDHS on whether or not they had received any advice about family planning and breastfeeding during the time they were pregnant, at the time they delivered or during the two months following delivery. Table 11.17 shows that 30 percent of mothers said that they were given advice about family planning and 23 percent about breastfeeding. With regard to the source of the advice, health providers were the most frequently mentioned source for both family planning and breastfeeding advice.

Table 11.17 Exposure to family planning and breastfeeding information	
Percentage of last births in the five-year period before the survey whose mothers received information about family planning and breastfeeding from various sources, Egypt 2008	
Source of information	Percent
<b>Family planning</b>	
Health provider	26.6
Social worker	0.5
Daya	0.2
Religious leader	0.0
Neighbors/friends	0.5
Household member	1.4
Other relative	3.0
Other	0.0
Any source	30.3
<b>Breastfeeding</b>	
Health provider	14.2
Social worker	0.3
Daya	0.2
Religious leader	0.0
Neighbors/friends	0.6
Household member	2.9
Other relative	6.8
Other	0.3
Any source	23.2
Total	7,896

## 11.7 EXPOSURE TO SAFE PREGNANCY MESSAGES

Media messages designed to make women more aware of the danger signs during pregnancy are part of an information, education and communication campaign to promote safe pregnancy in Egypt. The 2008 EDHS included questions to assess the coverage of these messages and to identify the media through which women had heard or seen the messages most recently. Table 11.18 shows that 21 percent of the ever-married women who were asked these questions had heard about the danger signs to watch for during pregnancy. Women age 15-19 (35 percent) were the most likely and women age 45-49 (13 percent) were least likely to have heard or seen a message.

With regard to the most recent information source, 56 percent had last received the information through television while 33 percent cited medical providers as the most recent source of information. Five percent or less of women mentioned other information sources (e.g., radio or print media). The largest proportions mentioning medical providers were found among women under age 25, especially women 15-19, and women from the Urban Governorates.

Table 11.18 Coverage of safe pregnancy messages by background characteristics

Percentage of ever-married women 15-49 reporting they had received information about danger signs women must be aware of to have a safe pregnancy during the six months prior to the survey and, among women receiving information, the percent distribution by the last source from which they received information, according to background characteristics, Egypt 2008

Background characteristics	Percentage receiving information about danger signs	Number of women	Source for information about pregnancy danger signs						Total percent	Number of women knowing danger signs
			TV	Radio	Print media <sup>1</sup>	Service provider	Husband/ other relative	Friends/ neighbors/ other		
<b>Antenatal care</b>										
Had birth	22.6	7,896	55.2	1.1	2.5	35.8	3.7	1.8	100.0	1,786
Antenatal care	25.0	5,860	56.1	1.0	2.7	35.6	3.0	1.6	100.0	1,467
No antenatal care	15.7	2,035	50.8	1.2	1.8	36.6	7.0	2.5	100.0	319
No birth	18.8	8,631	55.9	0.9	4.7	30.0	5.7	2.7	100.0	1,624
<b>Age 5-year groups</b>										
15-19	34.6	620	39.5	0.8	0.2	50.1	7.1	2.3	100.0	215
20-24	28.5	2,584	43.4	0.4	1.7	46.7	6.0	1.8	100.0	736
25-29	24.5	3,367	55.5	1.0	2.9	36.7	2.9	1.1	100.0	824
30-34	21.0	2,664	61.5	0.8	4.1	28.3	3.0	2.3	100.0	560
35-39	16.4	2,586	59.6	2.4	5.9	25.7	3.2	3.2	100.0	425
40-44	14.4	2,473	66.0	0.9	5.7	17.4	6.2	3.9	100.0	356
45-49	13.1	2,234	67.8	1.1	6.0	14.3	7.8	3.1	100.0	293
<b>Urban-rural residence</b>										
Urban	20.4	6,809	53.1	1.1	6.3	34.4	4.0	1.1	100.0	1,387
Rural	20.8	9,718	57.2	0.9	1.7	32.1	5.1	3.0	100.0	2,023
<b>Place of residence</b>										
Urban Governorates	17.0	2,931	38.3	1.3	10.2	47.9	2.2	0.1	100.0	498
Lower Egypt	20.7	7,618	61.9	1.0	1.8	28.5	5.0	1.9	100.0	1,580
Urban	22.7	1,936	63.3	1.1	3.3	26.8	4.6	0.9	100.0	439
Rural	20.1	5,682	61.3	0.9	1.3	29.1	5.1	2.3	100.0	1,142
Upper Egypt	22.3	5,751	54.9	0.9	2.6	32.9	5.2	3.5	100.0	1,281
Urban	23.0	1,792	60.3	0.8	4.2	26.5	5.5	2.6	100.0	412
Rural	22.0	3,959	52.4	0.9	1.8	35.9	5.1	3.9	100.0	869
Frontier Governorates	22.2	227	42.8	0.7	17.9	32.4	4.7	1.5	100.0	50
<b>Education</b>										
No education	14.7	5,302	57.6	1.1	0.8	31.1	5.6	3.8	100.0	781
Some primary	13.2	1,394	52.4	1.4	0.7	32.5	9.1	3.9	100.0	184
Primary complete/ some secondary	20.8	2,413	52.1	1.0	2.3	37.6	5.1	1.8	100.0	503
Secondary complete/ higher	26.2	7,418	55.9	0.9	5.3	32.7	3.7	1.5	100.0	1,942
<b>Work status</b>										
Working for cash	23.3	2,459	52.9	1.2	10.2	29.6	2.8	3.2	100.0	572
Not working for cash	20.2	14,068	56.1	1.0	2.2	33.7	5.0	2.0	100.0	2,838
<b>Wealth quintile</b>										
Lowest	15.0	3,033	58.3	1.1	1.0	29.9	5.3	4.6	100.0	456
Second	20.1	3,252	57.2	0.9	1.1	32.4	5.6	2.8	100.0	652
Middle	20.7	3,394	57.9	1.3	2.7	31.8	4.3	2.0	100.0	704
Fourth	20.8	3,505	54.6	1.2	2.7	34.8	4.7	2.0	100.0	730
Highest	25.9	3,343	51.7	0.7	8.2	34.7	3.8	1.0	100.0	867
Total	20.6	16,527	55.5	1.0	3.6	33.0	4.6	2.2	100.0	3,410

<sup>1</sup> Includes newspaper, magazine, pamphlet, brochure, or poster

## 11.8 SEXUALLY TRANSMITTED INFECTIONS

In the 2008 EDHS, several questions were asked during the ever-married women's interviews to assess awareness and recent experience with sexually transmitted infections (STI). First women were asked if they had heard about any infections that could be transmitted by sexual contact. They were also asked if they had had an STI in the past 12 months. In addition, they were asked if, in the past year, they had experienced a genital sore or ulcer and if they had had any genital discharge. Women who had had an infection or experienced symptoms were asked additional questions relating to any treatment that they may have sought for the infection or symptoms. In interpreting the results of these questions, it must be cautioned that the reporting of an abnormal discharge or genital sore or ulcer does not definitively identify STI in women. However, the results provide some insight into the extent to which women are aware of and are seeking medical assistance for abnormal reproductive tract symptoms.

The results in Table 11.19 indicate that around six in ten currently married women had heard about sexually transmitted infections.<sup>3</sup> Knowledge of other STIs varied considerably by background characteristic. For example, urban women were more likely than rural women to know about STIs (69 percent and 52 percent, respectively) and women in the highest wealth quintile were more than twice as likely as those in the lowest quintile to be aware of STIs.

According to the results in Table 11.19, only two percent of women reported having had an infection which they had gotten through sexual contact during the 12 months prior to the survey. However, 11 percent of women had had a bad-smelling abnormal genital discharge and 10 percent a genital sore or ulcer. The proportion of women reporting recent experience with STIs or STI symptoms decreased with age and was higher in Upper Egypt than in other areas.

Sixty-four percent of women experiencing an STI or STI symptoms sought medical treatment. Women who sought treatment were more than twice as likely to consult a private medical provider as a public health facility. Women from urban Upper Egypt were most likely to have sought treatment and women age 45-49 years the least likely (73 percent and 51 percent, respectively).

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<sup>3</sup>The results in Table 11.19 are not comparable to levels of STI awareness reported in earlier DHS surveys because of differences in the question wording.



Table 11.19 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms by background characteristics

Among currently married women, percentage who have heard of infections other than AIDS that can be transmitted through sexual contact and percentage with self-reported STI and/or symptoms of an STI in the past 12 months, and, among women with self-reported STI or STI symptoms, the percentage seeking treatment by the type of provider, according to selected background characteristics, Egypt 2008

Background characteristics	Percentage of currently married women who have heard of infections that can be transmitted through sexual contact	Percentage of currently married women with self-reported STI/STI symptoms in past 12 months				Number of currently married women	Percentage with self-reported STI/STI symptoms who sought treatment from			Number of women with STI/STI symptoms
		STI	Abnormal genital discharge	Genital sore or ulcer	STI, genital discharge, sore, or ulcer		Any medical provider	Any public medical provider	Any private/non-governmental medical provider	
<b>Current age</b>										
15-19	45.8	1.5	11.7	11.2	19.1	605	70.4	10.0	60.3	116
20-24	58.6	1.4	12.2	11.1	18.0	2,527	69.7	16.6	53.3	454
25-29	63.0	1.8	12.6	10.4	18.4	3,264	64.4	15.9	49.1	600
30-34	62.2	1.6	12.6	9.9	17.5	2,551	66.2	22.4	44.1	446
35-39	59.9	1.8	11.7	10.1	16.5	2,406	61.9	19.5	43.6	398
40-44	55.1	1.4	8.7	7.8	13.5	2,188	58.0	17.7	40.8	295
45-49	53.1	0.7	7.2	7.2	11.1	1,855	50.7	18.2	32.9	205
<b>Urban-rural residence</b>										
Urban	68.6	2.2	12.7	10.0	17.3	6,316	64.8	17.8	47.5	1,091
Rural	51.7	1.1	10.1	9.5	15.7	9,080	62.8	17.9	45.4	1,423
<b>Place of residence</b>										
Urban Governorates	70.9	2.5	14.2	9.9	18.0	2,727	60.0	19.7	40.8	490
Lower Egypt	62.6	1.1	7.7	5.7	10.9	7,128	64.2	15.7	48.9	775
Urban	73.3	1.5	8.4	5.6	11.3	1,801	62.1	10.9	51.2	204
Rural	59.0	0.9	7.4	5.7	10.7	5,326	64.9	17.5	48.1	571
Upper Egypt	47.5	1.5	14.1	14.7	22.5	5,326	64.7	18.0	47.3	1,199
Urban	60.6	2.1	14.6	14.7	22.2	1,646	72.7	18.1	55.3	366
Rural	41.6	1.2	13.9	14.7	22.7	3,680	61.2	17.9	43.8	834
Frontier Governorates	51.0	4.9	15.7	12.9	22.3	216	67.7	31.3	36.5	48
<b>Education</b>										
No education	34.9	1.0	9.6	9.7	15.6	4,758	55.7	21.2	34.9	740
Some primary	48.1	1.1	11.4	10.2	17.7	1,259	54.1	16.9	37.9	223
Primary complete/ some secondary	55.0	2.3	13.3	10.6	18.3	2,273	66.0	20.7	46.5	417
Secondary complete/ higher	77.6	1.7	11.5	9.3	16.0	7,106	70.0	14.8	55.3	1,133
<b>Work status</b>										
Working for cash	76.2	1.7	10.0	8.9	14.8	2,182	66.8	15.4	51.4	322
Not working for cash	55.8	1.5	11.4	9.8	16.6	13,215	63.2	18.2	45.6	2,191
<b>Wealth quintile</b>										
Lowest	34.8	0.8	11.8	12.7	19.3	2,764	56.4	19.9	37.6	535
Second	47.4	1.4	10.5	10.4	16.8	3,014	61.1	19.6	41.7	508
Middle	59.8	1.6	10.2	8.5	14.8	3,172	65.4	19.6	45.8	469
Fourth	67.8	1.2	10.8	8.4	14.8	3,268	64.4	17.8	47.5	484
Highest	79.6	2.6	12.6	9.0	16.3	3,178	71.5	12.6	59.3	519
Total	58.7	1.5	11.2	9.7	16.3	15,396	63.7	17.9	46.3	2,513

## 11.9 WOMEN'S ACCESS TO HEALTH CARE

Another important topic explored in the 2008 EDHS was the type of barriers women may face in accessing health care for themselves. To obtain this information, EDHS respondents were asked whether each of the following factors would be a big problem for them in obtaining medical advice or treatment if they were sick: getting permission to go, getting money for treatment, the distance to the health facility, having to take transportation, concern about going alone to the facility, lack of a female health care provider, lack of any health care provider, and concern about the availability of drugs.

Table 11.20 shows that eight in ten women identified at least one of these obstacles to getting health care as potentially a major problem in accessing health care for themselves. Women most frequently cited the lack of a health care provider (63 percent) and lack of drugs (64 percent) as potentially big problems followed by difficulties in getting the money to pay for treatment (44 percent), concern that no female health care provider would be available (40 percent), and not wanting to go alone (26 percent). Twenty percent or less of women mentioned as potential barriers the need to arrange for transport, the distance to the provider, or the need to get permission from the husband or someone else before they could go for care.

Urban women were somewhat less likely than rural women to report at least one potential obstacle. Women from urban Lower Egypt were the least likely and women from rural Upper Egypt the most likely to mention at least one potential obstacle. As expected, highly educated women and women who work for cash were less likely than other women to perceive any big problems in accessing health care. The percentage of women who identified at least one potential problem in accessing health care also decreased with increasing wealth.

There also are differences in the types of obstacles that women regard as big problems across the population subgroups for which results are presented in Table 11.20. For example, women in the Frontier Governorates were much more likely than women from other areas to mention lack of a female provider, not wanting to go alone, having to take transport, distance to health facility, and getting permission to go for treatment as potential barriers to accessing care. As expected, the percentage saying that getting the money to pay for care would be a big problem declined with the wealth quintile, from 70 percent of women in the lowest wealth quintile to 16 percent of women in the highest quintile. More than half of women living in rural areas cited getting money as a barrier compared to around a third of urban women.

Table 11.20 Problems in accessing health care

Percentage of ever-married women who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, Egypt 2008

Background characteristics	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern no female provider available	Concern no provider available	Concern no drugs available	At least one problem accessing health care	Number of women
<b>Current age</b>										
15-19	10.1	46.2	20.5	23.2	36.8	50.2	66.4	68.5	88.4	620
20-24	7.6	44.8	17.5	19.3	29.6	43.9	64.3	64.9	82.0	2,584
25-29	7.7	42.5	16.0	18.3	25.8	40.9	61.5	62.1	79.0	3,367
30-34	7.3	42.8	17.1	19.4	25.9	40.8	62.9	64.3	79.7	2,664
35-39	6.4	43.7	17.7	21.0	24.0	38.8	61.7	63.4	78.9	2,586
40-44	6.9	46.4	16.5	18.2	23.9	38.8	64.3	65.1	80.4	2,473
45-49	6.7	46.1	17.6	20.2	25.3	36.1	63.7	65.6	79.4	2,234
<b>Number of living children</b>										
0	8.0	38.2	16.5	19.7	32.0	42.2	61.5	61.9	79.8	1,752
1-2	7.0	40.7	15.6	17.5	25.5	39.0	62.3	62.8	78.4	6,377
3-4	6.3	44.4	17.2	19.6	24.3	39.8	62.5	63.9	79.7	6,010
5+	9.7	58.1	21.5	24.4	28.6	44.7	67.9	70.6	86.6	2,389
<b>Urban-rural residence</b>										
Urban	5.7	34.5	12.4	13.2	23.3	34.4	57.1	59.8	74.4	6,809
Rural	8.3	51.2	20.4	23.8	28.2	44.6	67.3	67.4	84.2	9,718
<b>Place of residence</b>										
Urban Governorates	6.7	37.0	13.7	13.8	25.0	30.0	56.8	59.2	72.9	2,931
Lower Egypt	5.8	41.6	16.5	20.5	23.8	36.2	65.8	61.8	77.5	7,618
Urban	4.0	28.5	10.1	11.3	20.9	29.4	59.6	57.9	71.4	1,936
Rural	6.5	46.1	18.6	23.7	24.7	38.5	67.9	63.2	79.6	5,682
Upper Egypt	8.8	51.7	19.0	20.2	29.1	50.4	62.8	69.8	87.2	5,751
Urban	4.6	36.8	11.3	12.6	21.0	44.7	54.5	61.8	79.1	1,792
Rural	10.7	58.4	22.5	23.7	32.8	53.0	66.6	73.5	90.8	3,959
Frontier Governorates	21.9	40.4	37.3	36.8	48.1	63.9	62.1	70.4	86.6	227
<b>Education</b>										
No education	10.6	63.3	24.3	27.7	30.7	48.5	69.6	72.2	88.4	5,302
Some primary	9.8	56.4	22.2	25.3	28.6	40.8	68.0	70.6	87.4	1,394
Primary complete/some secondary	7.9	46.0	17.8	20.0	29.6	42.6	64.7	66.3	83.1	2,413
Secondary complete/higher	4.1	27.9	10.8	12.3	21.4	33.9	57.0	56.7	72.0	7,418
<b>Work status</b>										
Working for cash	3.9	30.6	12.3	13.1	16.8	29.5	55.7	57.1	70.0	2,459
Not working for cash	7.8	46.7	18.0	20.6	27.8	42.3	64.4	65.5	82.0	14,068
<b>Wealth quintile</b>										
Lowest	12.6	70.4	29.2	31.0	32.9	51.0	71.5	76.9	92.0	3,033
Second	8.3	55.9	21.6	25.2	28.2	45.3	69.2	68.5	85.7	3,252
Middle	6.9	46.8	17.5	21.0	26.6	40.2	66.8	66.7	83.1	3,394
Fourth	5.1	35.5	11.9	13.9	24.3	37.3	61.9	62.8	79.0	3,505
Highest	4.0	16.1	7.1	7.8	19.7	29.5	47.1	47.7	62.4	3,343
Total	7.2	44.3	17.1	19.5	26.2	40.4	63.1	64.3	80.2	16,527

Many deaths in early childhood can be prevented by immunizing children against preventable diseases and by ensuring that children receive prompt and appropriate treatment when they become ill. This chapter presents information from the 2008 EDHS on the level of immunization among young children. The chapter also considers information from the EDHS on the prevalence and treatment of a number of common childhood illnesses including diarrhea, acute respiratory infections, and fever.

## 12.1 IMMUNIZATION OF CHILDREN

World Health Organization guidelines for childhood immunizations call for all children to receive a BCG vaccination against tuberculosis; three doses of the DPT vaccine to prevent diphtheria, pertussis, and tetanus; three doses of polio vaccine; and a measles vaccination during the first year of life. In addition to these standard immunizations, Egypt's childhood immunization program recommends that children receive three doses of the hepatitis vaccine.

### 12.1.1 Collection of Data

In Egypt, routine immunizations are recorded on a child's birth record (certificate) or on a special child health card. In collecting data on immunization coverage in the 2008 EDHS, mothers were asked to show the interviewer the birth record and/or health card for each child born since January 2003. When the mother was able to show the birth record and/or health card, the dates of vaccinations were copied from the document(s) to the questionnaire. If neither a birth record nor a health card was available (or a vaccination was not recorded), mothers were asked a series of questions to determine whether the child had ever received specific vaccines and, if so, the number of doses.

In addition to the program of routine immunizations, Egypt has recently conducted a number of special national immunization days (NID) in the effort to eradicate polio. Therefore, the EDHS asked several questions on whether the child had participated in any of the NID campaigns and, if so, during how many of the campaigns the child had received a polio immunization.

### 12.1.2 Routine Immunization against Common Childhood Illnesses

Table 12.1 shows information on vaccination coverage according to the source of the information, i.e., the child's birth record and/or health card or the mother's report. The table is restricted to children 12-23 months of age in order to focus on recent coverage levels.

The first three columns of the table provide information on the proportions of children who were immunized at any age up to the time of the survey. The fourth column presents the proportion of children who were vaccinated by age 12 months, the age at which children should have received all of the recommended vaccinations. For children with vaccination records, the percentage of children immunized by age 12 months was calculated based on the child's birth date and the dates on which specific vaccines were given as reported on the vaccination record. For children whose information was based on mother's recall, the proportion of vaccinations given during the first year of life was assumed to be the same as that for children with a written vaccination record.

Table 12.1 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Egypt 2008

Vaccination	Vaccinated at any time before survey			Vaccinated by 12 months of age <sup>3</sup>	Valid dates
	Vaccination card	Mother's report	Either source		
BCG	67.7	31.2	99.0	98.6	89.1
DPT 1	68.5	31.3	99.8	99.8	90.6
DPT 2	68.4	31.3	99.7	99.6	87.3
DPT 3+	68.0	29.7	97.6	97.3	80.6
DPT activated	34.5	7.7	42.1	1.7	33.4
Polio 0 <sup>1</sup>	59.3	27.5	86.7	86.7	33.6
Polio 1	68.5	31.3	99.8	99.8	97.9
Polio 2	68.4	30.9	99.3	99.3	95.1
Polio 3	68.1	26.4	94.5	94.2	88.8
Polio 4	61.0	18.7	79.7	78.1	69.3
Polio activated	35.3	8.0	43.2	3.2	37.3
Hepatitis 1	68.3	31.0	99.3	99.3	79.5
Hepatitis 2	68.0	30.9	98.9	98.7	75.0
Hepatitis 3	67.4	28.7	96.1	95.7	68.1
Measles	67.2	31.1	98.3	96.6	82.6
MMR	30.2	15.4	45.6	2.4	18.5
Fully immunized <sup>2</sup>	66.2	25.5	91.7	89.8	64.2
Fully immunized and 3 doses of hepatitis vaccine	65.7	24.8	90.4	88.6	53.9
No vaccinations	0.0	0.2	0.2	0.4	0.3
Number of children	1,479	681	2,160	2,160	1,479

<sup>1</sup> Polio 0 is the polio vaccination given at birth.  
<sup>2</sup> A child is considered to be fully immunized if the child has received BCG, a measles or MMR vaccination, three DPT vaccinations, and three polio vaccinations  
<sup>3</sup> For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccinations.

Table 12.1 shows that birth records and/or health cards were available in the case of 1,479 out of 2,160 of the children age 12-23 months (68 percent). For the remaining children, the information on vaccinations was based on the mother's report.

The results in Table 12.1 indicate that the childhood immunization program in Egypt has wide coverage. Among children 12-23 months, less than 1 percent had never been immunized against any of the vaccine preventable diseases. Coverage levels for BCG were virtually universal, and 98 percent of children 12-23 months had received a measles vaccination. The proportions receiving three doses of the DPT and polio vaccines were 98 percent and 95 percent, respectively. Overall, 92 percent of children were considered immunized against all of these preventable diseases, i.e., they had received a BCG and measles vaccination and three doses of the DPT and polio vaccines.

Hepatitis vaccinations were introduced into Egypt's childhood immunization program in the mid-1990s. Table 12.1 shows that coverage levels were high for the hepatitis vaccine, with 96 percent of children reported as having received the third dose of this vaccine. Overall, 90 percent of children 12-23 months were fully immunized against hepatitis as well as the other six preventable illnesses.

Finally, the percentages in the third column of Table 12.1 can be compared with those in the fourth column to assess the proportion of vaccinated children who, as recommended, had received the vaccinations before the child's first birthday. Overall, 90 percent of the children 12-23 months had received all of the required vaccinations (excluding hepatitis) by their first birthday.

### **12.1.3 Trends and Differentials in Vaccination Coverage**

As Table 12.2 shows, the levels of vaccination coverage increased substantially during the period between the 1992 and 2008 EDHS surveys. Overall, the proportion fully immunized at the time of the 2008 survey, i.e., the proportion who had received BCG and measles vaccinations and three doses of DPT and polio, was 25 percentage points higher than the level recorded at the time of the 1992 EDHS (67 percent).

Table 12.2 also presents differentials in vaccination coverage among children 12-23 months according to selected background characteristics. Given the widespread coverage of the immunization program in Egypt, the differences are small. Girls were slightly more likely than boys to be fully immunized. By residence, the percentages fully immunized varied from 86 percent in the Frontier Governorates to 94 percent in the Urban Governorates and Lower Egypt.

Table 12.2 Vaccinations by background characteristics

Among children 12-23 months, the percentage who had vaccination records seen and who received each vaccine (according to the vaccination cards or the mother's report), by selected background characteristics, Egypt 2008, and trends in percentages receiving various vaccines, Egypt 1992-2008

Sex	Record seen	DPT			Polio				Hepatitis			Measles	MMR	Fully immunized	Fully immunized plus hepatitis	None of children					
		BCG	1	2	3	ADPT	0	1	2	3	AP						1	2	3		
																				0	1
Male	69.6	99.2	99.8	99.6	97.0	41.2	87.0	99.8	99.1	93.4	80.1	41.3	99.3	99.0	96.1	98.0	44.6	90.0	0.2	1,106	
Female	67.3	98.7	99.8	99.7	98.3	43.1	86.4	99.8	99.5	95.6	79.3	45.2	99.3	98.8	96.1	98.7	46.6	90.9	0.2	1,054	
<b>Birth order</b>																					
1	68.2	99.1	99.9	99.8	98.5	46.4	89.8	99.9	99.5	93.7	80.8	47.3	99.7	99.5	96.5	99.6	49.8	92.5	0.1	716	
2-3	67.8	98.9	99.8	99.5	96.8	38.7	85.2	99.8	99.2	94.9	79.4	40.4	99.2	98.6	95.8	97.7	42.6	91.4	0.2	1,035	
4-5	71.2	99.2	99.9	99.9	98.7	42.6	86.0	99.9	99.2	95.1	77.3	43.0	99.1	98.9	96.8	97.5	44.0	92.0	0.1	291	
6+	69.5	98.0	100.0	100.0	96.9	45.5	83.8	100.0	99.3	94.0	82.3	44.2	98.5	98.3	95.5	98.1	49.6	88.6	0.0	118	
<b>Urban-rural</b>																					
Urban	68.4	99.5	99.8	99.5	98.5	44.6	88.3	99.8	99.5	95.3	80.9	45.6	99.8	99.4	97.3	98.3	46.0	93.7	0.2	830	
Rural	68.5	98.6	99.8	99.7	97.1	40.6	85.7	99.8	99.2	94.0	79.0	41.8	99.0	98.6	95.4	98.3	45.3	90.5	0.2	1,330	
<b>Place of residence</b>																					
Urban Governorates	65.2	99.6	99.6	99.6	98.7	49.7	90.0	99.6	99.5	96.5	86.9	46.1	99.6	99.6	97.3	97.9	48.3	94.3	0.4	371	
Lower Egypt	66.5	98.9	100.0	99.9	98.2	40.9	87.4	100.0	99.2	95.8	79.8	46.6	99.7	99.3	98.0	99.2	46.9	93.7	0.0	937	
Urban	69.9	99.4	100.0	99.4	98.8	45.4	89.4	100.0	99.4	96.6	79.8	54.5	100.0	99.4	98.2	99.4	50.0	95.9	0.0	215	
Rural	65.4	98.8	100.0	100.0	98.1	39.6	86.9	100.0	99.1	95.5	79.8	44.2	99.6	99.3	97.9	99.1	46.0	93.1	0.0	722	
Upper Egypt	72.6	98.8	99.8	99.6	96.6	40.2	84.6	99.8	99.4	92.4	76.9	38.5	98.7	98.4	93.9	97.6	43.0	88.4	0.2	818	
Urban	72.8	99.6	100.0	99.6	98.2	36.4	85.2	100.0	99.6	92.6	73.2	37.3	100.0	99.6	97.0	98.3	39.2	90.9	0.0	222	
Rural	72.5	98.5	99.7	99.6	96.0	41.7	84.3	99.7	99.3	92.3	78.3	38.9	98.3	98.0	92.8	97.4	44.4	87.5	0.3	595	
Frontier Governorates	62.1	98.2	98.2	96.1	93.3	36.8	81.7	98.8	97.9	88.7	66.6	35.7	98.2	91.6	85.5	96.7	39.5	86.2	1.2	34	
<b>Education</b>																					
No education	66.0	99.5	99.7	99.6	97.0	40.9	84.8	99.8	98.9	94.6	77.1	38.9	99.3	98.9	94.9	97.7	45.9	91.4	0.2	536	
Some primary	71.9	97.5	98.4	98.1	93.9	34.9	86.7	98.4	96.9	90.3	75.1	31.8	95.9	95.5	91.9	95.3	38.9	86.9	1.6	141	
Primary comp./some sec.	69.1	98.0	100.0	99.9	96.4	43.8	85.0	100.0	99.9	93.8	80.8	46.5	99.1	98.4	94.0	99.3	44.5	90.4	0.0	325	
Secondary comp./higher	69.1	99.2	100.0	99.8	98.7	43.1	88.1	100.0	99.6	95.1	81.2	45.8	99.8	99.5	97.8	98.7	46.5	92.8	0.0	1,158	
<b>Work status</b>																					
Working for cash	65.6	98.9	100.0	100.0	97.2	41.8	92.0	100.0	98.9	95.6	83.7	45.3	100.0	99.8	95.2	99.6	47.2	93.7	0.0	194	
Not working for cash	68.8	99.0	99.8	99.6	97.7	42.2	86.2	99.8	99.3	94.4	79.3	43.0	99.2	98.8	96.2	98.2	45.4	91.5	0.2	1,966	
<b>Wealth quintile</b>																					
Lowest	68.4	97.8	99.7	99.4	96.6	40.0	83.2	99.7	99.4	93.9	78.1	36.9	98.4	97.8	93.5	97.5	40.8	89.4	0.3	446	
Second	64.9	99.1	100.0	99.8	96.2	35.7	85.1	100.0	98.7	93.4	73.2	36.4	99.0	98.5	93.9	98.0	47.4	89.5	0.0	412	
Middle	71.1	99.1	99.5	99.5	97.8	42.1	85.1	99.5	99.2	95.4	83.4	45.5	99.2	99.1	98.1	98.0	44.2	92.8	0.5	428	
Fourth	68.7	99.8	100.0	99.7	98.6	43.5	87.4	100.0	99.6	93.7	78.7	46.2	100.0	99.3	97.4	99.0	46.3	92.5	0.0	454	
Highest	69.2	99.1	100.0	100.0	98.9	49.2	92.9	100.0	99.7	96.1	85.1	51.2	100.0	99.9	97.7	99.2	49.5	94.4	0.0	419	
Total EDHS 2008	68.5	99.0	99.8	99.7	97.6	42.1	86.7	99.8	99.3	94.5	79.7	43.2	99.3	98.9	96.1	98.3	45.6	90.4	0.2	2,160	
Total EDHS 2005	73.3	98.0	99.1	97.5	93.5	32.3	27.7	99.6	98.8	96.6	67.0	35.3	91.2	86.4	79.8	96.6	22.6	88.7	0.2	2,680	
Total EDHS 2000	72.5	99.3	99.2	97.1	94.0	na	na	99.6	97.7	94.9	na	na	98.7	96.3	93.0	96.9	na	92.2	0.2	2,170	
Total EDHS 1995	50.1	94.7	96.2	92.8	83.0	na	na	97.0	93.9	84.2	na	na	75.4	71.0	56.9	89.2	na	79.1	na	2,085	
Total EDHS 1992	55.2	89.5	92.8	87.8	76.4	na	na	94.5	90.1	78.9	na	na	81.5	na	na	na	na	67.4	na	3.8	1,594

Note: A child is considered to be fully immunized if the child has received BCG, a measles or MMR vaccination, three DPT vaccinations, and three polio vaccinations. na = not available  
Polio 0 is the polio vaccination given at birth; ADPT - Activated DPT; AP - Activated Polio; and MMR - Measles, mumps, and rubella

### 12.1.4 Participation in National Immunization Days

During the two-year period before the 2008 EDHS, a series of national immunization day campaigns were held in an effort to ensure that all young children in Egypt are fully immunized against polio. The survey collected information on children's participation in the NID campaigns. Table 12.3 shows that the NID campaigns have achieved wide coverage; nine in ten children under age five were reported to have received an immunization during one of the NIDs. Children in the Urban Governorates were most likely to have participated in a NIDs campaign while children from rural Upper Egypt were least likely to have participated (93 percent and 88 percent, respectively).

Number of NIDs days	Urban Governorates		Lower Egypt			Upper Egypt			Frontier Governorates		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total		
None	7.6	9.8	5.9	7.9	7.7	8.0	11.4	10.0	12.0	9.3	9.0
1-4	60.8	57.7	59.4	57.4	58.0	57.2	59.9	64.4	58.3	67.0	58.8
5-9	28.2	29.5	29.6	31.9	32.1	31.9	25.9	23.5	26.7	21.7	29.0
10 +	2.9	2.5	4.2	2.5	2.1	2.6	2.2	1.9	2.4	1.2	2.6
Don't know/missing	0.5	0.5	0.8	0.3	0.1	0.4	0.5	0.2	0.7	0.7	0.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of children	3,820	6,508	1,622	4,507	1,000	3,508	4,050	1,107	2,943	148	10,327

If NIDs participation is taken into account, it is estimated that 97 percent of all children age 12-23 months were fully immunized against polio, i.e., they received at least three doses of polio vaccine.

## 12.2 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI), particularly pneumonia, is a common cause of death among infants and young children. Early diagnosis and treatment with antibiotics can prevent a large proportion of the deaths due to pneumonia.

### 12.2.1 Prevalence of ARI

Information on the prevalence of ARI was collected in the 2008 EDHS by asking mothers of children under five years of age three questions. The first question identified children who had been ill with a cough in the two weeks before the survey. Thirteen percent of children under age five had had a cough during the two-week period before the survey (Table 12.4). For the children who had had a cough, a second question was asked to determine if the child had breathed faster than usual with short rapid breaths or had had difficulty breathing. If the mother indicated that the child had experienced fast or difficult breathing, they were asked whether it was the result of a problem in the chest or a blocked or runny nose. Mothers reported that 9 percent of the children with a cough experi-

Cough and cough symptoms	Percent
<b>Cough</b>	13.4
<i>Cough with short, rapid, or difficult breathing</i>	9.3
Blocked/runny nose only	1.4
Chest-related only	3.2
Both blocked/runny nose and chest-related	4.6
Don't know/missing	0.1
<i>Cough without short, rapid, or difficult breathing</i>	4.1
<b>No cough</b>	86.6
Total percent	100.0
Number of children	10,327

Note: Symptoms of ARI (cough accompanied by short, rapid breathing that is chest-related) is considered proxy for pneumonia.



enced fast or difficult breathing. Table 12.4 shows that mothers attributed the breathing problems in most of these children—8 percent of all children under age five—to a problem in the chest.

In considering the ARI findings, several points should be noted. First, the prevalence of ARI varies seasonally, and the EDHS results represent the situation at the time of the interview (circa March-May 2008) and not the situation at other times of the year in Egypt. The data also are subject to reporting error although the short reference period (two weeks) reduces the likelihood of such error. The symptoms for which information is collected in the EDHS—cough with fast or difficult breathing involving a chest problem—are signs of pneumonia but are less appropriate for assessing the presence of other ARI-related conditions (coughs and colds, wheezing, ear infection, and streptococcal sore throat). Thus, the EDHS results do not provide information on the prevalence and treatment of the full range of ARI problems children experience. Finally, the 2008 EDHS findings are not strictly comparable to earlier DHS surveys since those surveys did not ask if the mother considered the child’s cough and rapid or difficult breathing to be chest-related.

### 12.2.2 Consultation, Treatment, and Feeding Practices

Women whose children had chest-related ARI symptoms were asked whether they had sought advice or treatment for the illness. Table 12.5 indicates that, according to the mother’s report, advice or treatment was sought from a health provider for 79 percent of the children who were ill. Most of the families sought advice from only one provider when a child was ill with ARI symptoms. Private health care providers were the first source consulted in 64 percent of the cases. For slightly more than 60 percent of the children ill with ARI symptoms, the first consultation took place the day they became ill.

Table 12.6 considers the actions taken to treat the illness. Ninety percent of children with chest-related ARI symptoms were given some type of medicine. Antipyretics and cough medicine were the most frequently given medicines. Fifty-eight percent of the children received an antibiotic, with most receiving the drug orally.

Questions were also asked about feeding practices during the illness. It is recommended that children receive increased liquids when they are ill and that food not be reduced. The results in Table 12.6 indicate the actions taken when the child had ARI symptoms were often counter to this advice. Children ill with chest-related ARI symptoms were most often given either less fluids than normal (56 percent) or nothing to drink (11 percent). There also was a clear tendency for children to receive less food than normal; only 17 percent the children ill with ARI symptoms were given the same or more food than normal.

Table 12.5 Consultation about ARI episode

Among children with ARI symptoms, percent distribution by number of sources from which advice or treatment was sought during illness, and among ill children for whom a source was consulted, the first source consulted during the illness and the timing of the first consultation, Egypt 2008

Consultation	Percent
<b>Number of sources consulted</b>	
None	20.9
1	76.9
2 or more	2.2
Total percent	100.0
Number of ill children	805
<b>Source consulted first about illness</b>	
Public sector	28.7
Urban Hospital	10.0
Urban health unit	5.2
Health office	0.5
Rural hospital	1.5
Rural health unit	7.1
MCH center	1.5
Other government	2.9
Private sector	63.6
Nongovernmental	0.7
Private medical	62.9
Private hospital/clinic	3.0
Private doctor	58.7
Other private medical	1.1
Pharmacy	7.7
Other nonmedical	0.0
<b>Timing of first consultation</b>	
First day child ill	62.4
2-3 days after child ill	32.7
4-5 days after child ill	2.6
6 or more days after child ill	2.2
Don't know/missing	0.1
Total percent	100.0
Number of children having consultation(s)	637

Table 12.6 Treatment and feeding practices for children ill with ARI symptoms

Among children under five ill with ARI symptoms, percentage given various drugs to treat the illness and percent distribution by feeding practices during illness, Egypt 2008

Treatment practices	Percent
<b>Drugs given</b>	
Given any drug(s)	89.6
Any antibiotic	57.9
Pill/syrup	43.0
Had antibiotic at home	4.0
Got antibiotic elsewhere	39.0
Injection	22.6
Antipyretic	52.9
Cough medicine	62.8
Other/unknown drug	11.1
No drug given	10.4
Number of ill children	805
<b>Amount of liquids offered</b>	
Same as usual	24.0
More	8.6
Somewhat less	33.9
Much less	22.5
Nothing to drink	11.0
Missing	0.0
<b>Amount of food offered</b>	
Same as usual	15.7
More	1.4
Somewhat less	33.1
Much less	21.5
Stopped food	12.5
Never gave food	15.6
Missing	0.2
Total percent	100.0
Number of ill children	805

Note: Percentages given various drugs will not add to the total percentage given any drug(s) because more than one response regarding the drugs given was possible.

### 12.2.3 Differentials in ARI Prevalence and Responses to the Illness

Table 12.7 presents differences in the prevalence of chest-related ARI symptoms and in consultation and treatment practices by background characteristics. The proportion of children ill with chest-related ARI symptoms does not vary greatly with the background characteristics shown in the table. It peaks at 12 percent among children age 6-11 months and children living in urban areas in Upper Egypt. Children in Lower Egypt and children older than 24 months were the least likely to have symptoms (5 percent and 6 percent, respectively).

Table 12.7 shows that, regardless of the background characteristic, the majority of families take some action when a child is ill with chest-related ARI symptoms. Mothers report that there was no consultation or treatment given in the case of only 8 percent of children ill with chest-related ARI symptoms. Families were least likely to have taken any action if a child was 48-59 months.

With regard to feeding practices during ARI episodes, younger children, especially those under 6 months of age, were less likely to have been offered increased liquids or given increased or the same amount of food than older children. Rural children ill with ARI symptoms were somewhat less likely than urban children to be offered increased fluids. On the other hand, rural children were nearly twice as likely as urban children to have been offered the same or an increased amount of food during ARI episodes.

Table 12.7 Prevalence and treatment of ARI symptoms by background characteristics

Percentage of children under five ill with ARI symptoms in the two weeks before the survey and, among ill children, percentage receiving medical care, given antibiotic, receiving no treatment/consultation, offered increased fluids and offered increased or same amount of food, by selected background characteristics, Egypt 2008

Background characteristic	Percentage ill with ARI symptoms	Number of children	Among children with ARI symptoms, percentage:							Number of children ill with ARI symptoms
			Health provider consulted <sup>1</sup>			Given antibiotic	No consultation/treatment	Offered increased fluids	Offered increased/same amount of food	
			Any <sup>2</sup>	Public	Private <sup>2</sup>					
<b>Child's age</b>										
<6	8.6	1,110	84.7	20.5	64.2	63.0	10.0	0.0	7.3	95
6-11	12.1	1,284	75.4	20.1	55.3	57.4	7.4	5.4	9.0	155
12-23	9.9	2,160	73.6	24.8	48.8	59.7	4.4	12.3	18.7	215
24-35	6.4	2,002	68.9	23.7	45.1	53.6	9.4	7.2	21.5	129
36-47	5.6	1,928	68.1	23.3	44.8	61.8	5.0	11.6	19.4	108
48-59	5.5	1,843	67.8	22.6	45.2	51.3	13.9	12.2	27.2	102
<b>Sex</b>										
Male	8.3	5,236	77.1	23.6	53.5	60.0	6.2	6.6	14.6	433
Female	7.3	5,091	68.3	21.7	46.6	55.4	9.5	10.9	20.0	372
<b>Urban-rural residence</b>										
Urban	9.1	3,820	78.1	25.2	52.9	63.1	5.1	10.6	11.8	347
Rural	7.0	6,508	69.2	20.8	48.4	53.9	9.7	7.1	21.1	458
<b>Place of residence</b>										
Urban Governorates	9.4	1,622	83.9	24.8	59.1	63.7	4.9	10.5	10.2	152
Lower Egypt	4.8	4,507	73.4	19.9	53.6	62.7	6.1	6.8	17.7	218
Urban	5.4	1,000	74.0	22.6	51.4	56.6	1.0	6.9	6.6	54
Rural	4.7	3,508	73.2	19.0	54.3	64.7	7.8	6.8	21.3	164
Upper Egypt	10.5	4,050	68.7	22.9	45.8	53.1	9.8	8.7	19.4	424
Urban	12.1	1,107	73.1	26.0	47.1	65.2	7.2	11.7	15.9	134
Rural	9.9	2,943	66.6	21.5	45.2	47.5	10.9	7.2	21.1	290
Frontier Governorates	7.2	148	(84.2)	(45.1)	(39.1)	(67.6)	(0.0)	(13.7)	(11.0)	11
<b>Education</b>										
No education	8.5	2,669	70.8	26.8	44.0	50.4	12.5	7.2	18.1	227
Some primary	9.6	696	70.8	33.3	37.5	50.0	5.2	10.5	21.7	67
Primary complete/ some secondary	7.7	1,577	74.6	22.7	51.9	57.1	7.5	4.3	20.9	121
Secondary complete/ higher	7.2	5,385	74.3	18.6	55.7	63.8	5.4	10.4	14.5	390
<b>Work status</b>										
Working for cash	8.5	1,133	76.1	21.7	54.4	62.7	9.7	3.3	21.1	96
Not working for cash	7.7	9,194	72.6	22.9	49.8	57.2	7.5	9.3	16.6	709
<b>Wealth quintile</b>										
Lowest	9.8	2,080	69.6	27.4	42.2	52.4	12.3	4.7	22.4	204
Second	6.8	2,060	70.8	23.8	47.0	51.4	10.0	10.4	21.3	140
Middle	6.9	2,198	66.4	23.3	43.1	63.9	6.1	11.8	13.5	152
Fourth	8.0	2,065	78.5	24.8	53.7	62.8	3.3	5.3	15.4	164
Highest	7.5	1,924	80.9	12.1	68.8	60.0	5.8	12.7	11.3	144
Total	7.8	10,327	73.0	22.7	50.3	57.9	7.7	8.6	17.1	805

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Refers to first source consulted

<sup>2</sup> Excludes pharmacy

## 12.3 DIARRHEA

Dehydration caused by severe diarrhea is a major cause of death among young children. A simple and effective response to dehydration is a prompt increase in the child's fluid intake through some form of oral rehydration therapy (ORT). ORT may include the use of a solution prepared from commercially produced packets of oral rehydration salts (ORS) or a homemade mixture usually prepared from sugar, salt, and water. Increasing the amount of any other liquids given to a child during a diarrheal episode is another means of preventing dehydration.

In the 2008 EDHS, mothers were asked whether any of their children under five years of age had had diarrhea during the two-week period preceding the survey. If the child had had diarrhea, the mother was asked about what actions were taken to treat the diarrhea and about feeding practices during the diarrheal episode.

### 12.3.1 Prevalence of Diarrhea

Table 12.8 shows the percentages of children under age five who had any diarrhea and who had diarrhea with blood in the feces, at some time during the two-week period before the survey. Blood in the stools is a symptom of dysentery. In considering the information in Table 12.8, it is important to note that the prevalence figures may involve some reporting error since they are based on the mothers' subjective assessment of the child's illness. Since there are seasonal variations in the pattern of diarrheal illnesses, it also should be remembered that the percentages in Table 12.8 represent the prevalence of diarrhea at the time of the 2008 EDHS (circa March-May 2008) and not the situation at other times of the year in Egypt.

Among children under age five, 9 percent were reported by their mothers to have been ill with diarrhea during the two-week period before the EDHS interview. Less than 1 percent had diarrhea with bloody stools. Children under age 24 months, particularly those age 6-11 months, were more likely to have suffered from diarrhea than older children. Looking at the residential

Table 12.8 Prevalence of diarrhea by background characteristics

Background characteristic	All diarrhea	Diarrhea with blood	Number of children
<b>Age in months</b>			
<6	12.6	0.6	1,110
6-11	18.6	1.1	1,284
12-23	11.3	0.6	2,160
24-35	6.5	0.2	2,002
36-47	3.3	0.2	1,928
48-59	3.1	0.0	1,843
<b>Sex</b>			
Male	8.9	0.4	5,236
Female	8.0	0.4	5,091
<b>Source of drinking water</b>			
Improved <sup>1</sup>	8.4	0.4	9,535
Not improved	6.8	0.1	244
Not de jure resident/missing	9.8	0.9	548
<b>Toilet facility</b>			
Improved <sup>2</sup>	8.3	0.4	8,823
Not improved	9.1	0.5	957
Not de jure resident/missing	9.8	0.9	548
<b>Urban-rural residence</b>			
Urban	9.2	0.5	3,820
Rural	8.0	0.4	6,508
<b>Place of residence</b>			
Urban Governorates	9.5	0.5	1,622
Lower Egypt	5.8	0.4	4,507
Urban	5.3	0.3	1,000
Rural	6.0	0.4	3,508
Upper Egypt	11.1	0.4	4,050
Urban	12.6	0.7	1,107
Rural	10.5	0.3	2,943
Frontier Governorates	6.1	0.1	148
<b>Education</b>			
No education	7.5	0.4	2,669
Some primary	13.1	0.8	696
Primary complete/some secondary	9.3	0.4	1,577
Secondary complete/higher	8.1	0.3	5,385
<b>Work status</b>			
Working for cash	6.8	0.2	1,133
Not working for cash	8.7	0.4	9,194
<b>Wealth quintile</b>			
Lowest	9.8	0.3	2,080
Second	8.6	0.5	2,060
Middle	8.7	0.6	2,198
Fourth	7.8	0.4	2,065
Highest	7.3	0.3	1,924
Total	8.5	0.4	10,327

<sup>1</sup>Improved sources are defined as those sources which are likely to provide safe drinking water and include water obtained from a piped source within the dwelling, a public tap, a borehole, or a protected well or spring.

<sup>2</sup>The household is considered to have improved sanitation facilities if the household has sole use of a modern or traditional flush toilet that empties into a public sewer, Bayara (vault) or septic system.

differentials, diarrheal episodes were more common among children living in Upper Egypt and the Urban Governorates than in Lower Egypt and the Frontier Governorates. Diarrheal prevalence decreased somewhat with the wealth quintile. Surprisingly, diarrheal prevalence was slightly lower among the small number of children living in households where the drinking water source is unimproved than among children living in households with an improved drinking water source. The relationship between diarrheal prevalence and toilet facilities conforms to the expectation that children living in households where the toilet facility is unimproved would have a higher rate of diarrheal illness than children living in households with an improved toilet facility; however the differential is not large.

### 12.3.2 Consultation, Treatment and Feeding Practices

Information is available from the 2008 EDHS on the actions that were taken when a child had diarrhea during the two-week period before the survey. Table 12.9 shows that advice or treatment was sought at a health facility in 63 percent of all recent diarrheal episodes. Among those seeking medical advice, almost all consulted only one provider. Private health care providers were consulted nearly twice as often as providers at public sector facilities. Around six in ten of the consultations were reported to have occurred on the first day the child was ill, and parents waited 4 or more days to seek advice in a small minority of cases (6 percent).

Table 12.10 presents information on the drugs or other treatments employed when a child was ill with diarrhea. Nearly one-quarter of children were not given anything to treat the diarrhea. Virtually all ever-married women age 15-49 (96 percent) were aware of the availability of packets of oral rehydration salts that can be used to prevent dehydration (not shown in table). However, only 28 percent of children suffering from diarrhea were given a solution prepared using a packet of oral rehydration salts. In 3 percent of the cases, the child was given a solution of sugar and salt (i.e., a recommended home fluid (RHF)).

Antibiotics and anti-diarrheal medications are generally not recommended to treat diarrhea in young children. However, Table 12.10 shows that antibiotics were given to one-third of the children with diarrhea, 15 percent received antimotility drugs, and 34 percent were given other drugs, e.g., antipyretics to treat the fever accompanying the diarrhea.

The results in Table 12.10 also show that feeding practices during diarrheal episodes are not optimal. Fluids were increased for only 11 percent of the children ill with diarrhea. In 31 percent of the cases, the mother said that the child was either given nothing to drink (12 percent) or much less fluid than normal (19 percent), while 29 percent of the children received somewhat less than the normal amount of liquids.

Table 12.9 Consultation about diarrheal episode

Among children with diarrhea, percent distribution by number of sources from which advice or treatment was sought during illness and, among ill children for whom a source was consulted, the first source consulted during the illness and the timing of the first consultation, Egypt 2008

Consultation	All diarrheal
<b>Number of sources consulted</b>	
None	37.3
1	59.9
2 or more	2.7
Total percent	100.0
Number of ill children	874
<b>Source consulted first about illness</b>	
Public sector	29.1
Urban Hospital	8.4
Urban health unit	3.1
Health office	0.6
Rural hospital	1.9
Rural health unit	9.5
MCH center	1.8
Other government	3.8
Private sector	59.5
Nongovernmental	0.4
Private medical	59.1
Private hospital/clinic	3.9
Private doctor	53.2
Other private medical	1.9
Pharmacy	11.3
Other nonmedical	0.1
<b>Timing of first consultation</b>	
First day child ill	62.6
2-3 days after child ill	30.8
4-5 days after child ill	4.3
6 or more days after child ill	1.9
Don't know/missing	0.4
Total percent	100.0
Number of children having consultation(s)	547

Table 12.10 Treatment and feeding practices during diarrhea	
Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey by ORS packet and drugs or other remedies used to treat diarrhea and by amount of liquids and food offered compared to normal practice, Egypt 2008	
Treatment and feeding practices	Percent
<b>Drugs/other treatment</b>	
Any drug/ other treatment	76.7
ORT	28.4
ORS packet	28.4
Homemade SS solution	2.9
Antibiotic pill/syrup/injection	33.1
Antimotility	14.8
IV	0.4
Zinc	0.3
Other/unknown pill/syrup/injection	33.8
Home remedy	2.3
No drug/other treatment given/ missing	23.3
Number of ill children	100.0
<b>Amount of liquids offered</b>	
Same as usual	29.1
More	11.0
Somewhat less	28.8
Much less	18.6
None	12.3
Don't know/missing	0.1
<b>Amount of food offered</b>	
Same as usual	18.6
More	1.2
Somewhat less	28.4
Much less	18.1
None	10.3
Never gave food	23.3
Total percent	100.0
Number of ill children	874
Note: Percentages given various drugs will not add to the total percentage given drug(s) because more than one response regarding the drugs given was possible.	

It is important that children who have diarrhea receive adequate nutrients; thus, it is recommended that a child with diarrhea should be offered more food than normal or at least continue to be fed the same amounts as usual. Table 12.10 shows that only one-fifth of children suffering from diarrhea were fed normally (19 percent) or given an increased amount of food (1 percent). Many children with diarrhea were fed much less than normal (18 percent) or given nothing to eat (10 percent).

### 12.3.3 Differentials in Feeding and Treatment Practices

Table 12.11 presents information on how feeding practices during diarrheal episodes vary by background characteristics. The results show that, regardless of the subgroup, only a small minority of children—averaging 6 percent—were fed optimally when they were ill with diarrhea, i.e., the child was offered increased fluids and continued feeding. As noted earlier, use of ORT is important because it increases fluid intake during diarrhea. Table 12.11 shows that, overall, around one in five children with diarrhea received both continued feeding and some form of increased fluid intake (ORT and/or increased fluids).

Table 12.11 Feeding practices during diarrhea

Percent distribution of children under age five who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhea, by background characteristics, Egypt 2008

Background characteristic	Amount of liquids offered						Amount of food offered						Total	Percentage given increased fluids and continued feeding <sup>1,2</sup>	Percentage who continued feeding and were given ORT and/or increased fluids <sup>3</sup>	Number of children with diarrhea	
	Same as usual	More	Somewhat less	Much less	None	Don't know/missing	Total	Same as usual	More	Somewhat less	Much less	None					Never gave food
<b>Age in months</b>																	
<6	32.0	2.5	21.6	11.7	32.2	0.0	100.0	4.5	0.0	3.2	5.0	3.2	84.1	100.0	0.2	3.4	140
6-11	27.6	11.5	28.7	18.8	13.1	0.3	100.0	10.9	1.4	26.1	16.9	17.7	26.9	100.0	3.4	15.5	239
12-23	25.3	12.8	33.3	21.6	7.0	0.0	100.0	24.8	0.6	36.6	19.5	10.4	8.0	100.0	8.2	26.8	244
24-35	33.9	16.7	19.7	22.2	7.5	0.0	100.0	25.8	3.1	31.4	27.5	11.2	1.0	100.0	10.0	24.1	129
36-47	33.0	12.0	37.4	14.0	3.5	0.0	100.0	36.2	1.2	35.9	22.1	3.5	1.2	100.0	6.6	15.7	64
48-59	29.8	8.5	38.7	19.5	3.6	0.0	100.0	23.1	1.7	50.0	23.2	2.1	0.0	100.0	7.1	29.6	57
<b>Sex</b>																	
Male	28.0	12.4	28.0	17.3	14.1	0.2	100.0	19.7	0.9	28.8	18.2	9.2	23.3	100.0	7.3	21.8	467
Female	30.5	9.5	29.7	20.1	10.3	0.0	100.0	17.4	1.6	28.0	18.0	11.6	23.4	100.0	3.9	15.7	407
<b>Type of diarrhea</b>																	
Non-bloody	30.0	10.9	28.8	17.9	12.4	0.0	100.0	18.9	1.2	28.3	17.7	10.3	23.7	100.0	5.7	19.2	831
Bloody	(11.5)	(14.4)	(28.6)	(32.4)	(11.2)	(1.8)	100.0	(13.6)	(1.7)	(32.1)	(24.5)	(10.8)	(17.2)	100.0	(5.8)	(13.5)	43
<b>Any other illness</b>																	
Had other illness	24.5	10.2	28.3	22.1	14.7	0.2	100.0	13.5	0.7	26.0	20.2	15.2	24.3	100.0	4.2	14.9	401
Fever only	22.0	11.8	28.1	20.4	17.6	0.0	100.0	15.1	1.0	27.0	19.1	13.9	23.9	100.0	5.8	14.4	178
ARI only	(39.7)	(4.9)	(28.5)	(11.7)	(12.1)	(3.0)	100.0	(7.6)	(4.7)	(21.5)	(8.4)	(9.5)	(48.2)	100.0	(4.9)	(20.0)	26
Fever and ARI	24.8	9.6	28.3	24.9	12.4	0.0	100.0	12.9	0.0	25.7	22.7	17.1	21.5	100.0	2.7	14.7	198
No other illness	33.0	11.7	29.2	15.7	10.3	0.0	100.0	22.9	1.6	30.5	16.3	6.2	22.5	100.0	7.0	22.3	472
<b>Urban-rural residence</b>																	
Urban	25.2	13.7	25.7	22.9	12.2	0.2	100.0	11.5	0.5	30.1	23.3	10.2	24.4	100.0	7.0	16.9	351
Rural	31.7	9.3	30.8	15.8	12.4	0.0	100.0	23.4	1.7	27.3	14.5	10.4	22.6	100.0	4.8	20.3	523
<b>Place of residence</b>																	
Urban																	
Governorates	28.4	17.4	20.6	26.8	6.7	0.0	100.0	9.1	0.0	31.1	24.2	10.4	25.2	100.0	7.8	19.0	154
Lower Egypt	26.4	7.5	28.8	21.3	16.0	0.0	100.0	22.8	0.9	26.6	19.6	13.1	16.9	100.0	2.5	15.0	262
Urban	19.1	8.1	21.6	30.2	21.0	0.0	100.0	18.5	0.0	21.7	28.8	13.5	17.5	100.0	2.3	5.8	53
Rural	28.3	7.4	30.6	19.1	14.7	0.0	100.0	23.9	1.2	27.9	17.3	13.0	16.8	100.0	2.6	17.4	210
Upper Egypt	30.9	10.9	31.7	14.2	12.1	0.2	100.0	19.4	1.7	28.7	15.0	8.7	26.5	100.0	6.7	21.0	449
Urban	24.0	11.7	33.3	15.4	15.0	0.6	100.0	11.4	1.1	32.6	20.3	8.7	25.9	100.0	8.0	18.1	139
Rural	34.0	10.5	31.0	13.6	10.9	0.0	100.0	23.1	2.0	26.9	12.6	8.7	26.7	100.0	6.1	22.3	310
Frontier Governorates																	
	(30.0)	(13.0)	(23.6)	(25.1)	(8.3)	(0.0)	100.0	(17.2)	(4.6)	(23.6)	(21.1)	(9.2)	(24.2)	100.0	(10.7)	(29.3)	9
<b>Mother's education</b>																	
No education	34.0	8.3	33.3	14.5	9.5	0.4	100.0	24.8	2.4	28.7	12.4	7.9	23.8	100.0	5.0	22.4	200
Some primary	24.8	14.1	28.8	17.7	14.7	0.0	100.0	11.3	0.9	35.3	18.6	17.5	16.3	100.0	5.8	17.0	91
Primary complete/ some secondary	25.6	12.6	24.9	25.0	11.8	0.0	100.0	17.8	0.6	24.8	23.4	6.4	26.9	100.0	5.9	20.2	146
Secondary complete/ higher	29.0	11.1	28.0	18.6	13.3	0.0	100.0	17.6	0.9	28.1	18.7	11.3	23.4	100.0	5.9	17.3	437
<b>Wealth quintile</b>																	
Lowest	29.7	8.4	34.7	14.7	12.5	0.0	100.0	23.9	1.6	26.0	12.4	10.5	25.6	100.0	5.5	20.6	204
Second	33.2	14.4	27.0	15.0	10.4	0.0	100.0	21.0	2.8	27.4	15.4	10.6	22.8	100.0	5.8	24.0	178
Middle	26.3	10.2	30.8	17.8	14.5	0.4	100.0	16.2	0.4	32.2	18.9	7.0	25.2	100.0	5.7	22.3	191
Fourth	25.1	9.7	20.9	29.9	14.4	0.0	100.0	15.1	0.5	27.5	26.1	9.9	20.9	100.0	5.3	11.9	161
Highest	31.6	13.3	28.9	17.3	8.9	0.0	100.0	15.1	0.5	29.2	19.4	14.6	21.1	100.0	6.4	13.7	140
Total	29.1	11.0	28.8	18.6	12.3	0.1	100.0	18.6	1.2	28.4	18.1	10.3	23.3	100.0	5.7	18.9	874

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Equivalent to the UNICEF/WHO indicator "Home management of diarrhea." MICS Indicator 34

<sup>2</sup> Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhea episode

<sup>3</sup> Equivalent to UNICEF MICS Indicator 35.

Although the pattern was not uniform, children age 12 months and older were more likely than younger children to have received continued feeding and some form of increased fluids. Optimal feeding practices or a combination of continued feeding and ORT usage and/or increased fluids was somewhat more common among boys than girls, among urban children than children living in rural areas, and among children from the Frontier Governorates than children from other areas. The variation in these practices by education level and the wealth quintile are not uniform; however, children in the three lowest wealth quintiles were markedly more likely than children in the two highest quintiles to have received continued feeding and ORT and/or increased fluids.

Table 12.12 provides additional detail on the variation in the approaches used in treating diarrhea across subgroups. The majority of children in all of the subgroups received some form of care or treatment for the diarrhea. In general, the differences across subgroups in specific treatment approaches are greater with respect to the proportions adopting various feeding practices than in the proportions seeking medical care or using antibiotics or other medications. With regard to the proportions seeking medical care, the highest rates were observed for children living in rural Lower Egypt and in urban Upper Egypt and among children in the highest wealth quintile. Use of antibiotics for treating diarrheal episodes was most often reported in rural Lower Egypt and urban Upper Egypt.



Table 12.12 Consultation with provider and treatment of diarrhea by background characteristics

Among children ill with diarrhea in the two weeks preceding the survey, percentage receiving medical care, oral rehydration therapy (ORT), other treatment and no treatment, according to background characteristics, Egypt 2008

Background characteristic	Health provider consulted <sup>1</sup>			Oral rehydration therapy ORT			Increased fluids	Given ORT/ increased fluids	Increased/ same amount of food	Antibiotic injection/ pill/syrup	Other injection/ pill/syrup/ zinc/IV/ antimotility	Home remedy/ other	No care/ treatment	Number of ill children
	Any <sup>2</sup>	Public	Private <sup>2</sup>	ORS packets	Home salt/ sugar solution (HSS)	Either ORS or HSS								
<b>Age in months</b>														
<6	60.0	16.9	43.1	24.4	1.7	24.4	2.5	26.4	4.5	32.0	32.1	15.7	19.7	140
6-11	65.1	18.0	47.0	30.7	2.5	32.2	11.5	40.3	12.3	35.7	32.9	22.8	19.4	239
12-23	56.0	19.2	36.8	34.1	3.3	36.3	12.8	44.8	25.5	35.5	34.3	22.2	16.2	244
24-35	43.6	14.9	28.8	22.7	3.1	25.8	16.7	39.3	28.9	26.6	25.4	18.9	24.6	129
36-47	40.9	24.0	16.9	19.0	4.1	23.1	12.0	29.0	37.4	27.1	25.2	18.5	25.0	64
48-59	45.3	18.9	26.4	27.3	4.1	30.5	8.5	37.8	24.7	35.3	32.8	15.5	19.2	57
<b>Sex</b>														
Male	57.2	20.4	36.8	30.5	3.0	32.2	12.4	40.6	20.6	34.0	28.8	20.0	20.9	467
Female	53.5	15.7	37.8	26.0	2.8	28.2	9.5	35.4	19.0	32.0	34.5	20.3	18.4	407
<b>Urban-rural residence</b>														
Urban	57.3	18.4	38.9	27.6	3.6	30.0	13.7	38.7	11.9	31.3	31.9	24.2	18.7	351
Rural	54.3	18.1	36.2	28.9	2.4	30.6	9.3	37.9	25.1	34.3	31.1	17.4	20.3	523
<b>Place of residence</b>														
Urban Governorates	53.7	18.9	34.8	31.5	4.8	35.1	17.4	47.2	9.1	25.5	27.9	26.1	21.9	154
Lower Egypt	59.7	16.9	42.8	22.2	1.4	23.1	7.5	29.5	23.7	36.1	32.8	26.1	15.9	262
Urban	54.7	11.2	43.4	9.2	0.0	9.2	8.1	16.2	18.5	26.8	31.0	33.5	17.9	53
Rural	61.0	18.4	42.6	25.5	1.8	26.6	7.4	32.8	25.0	38.4	33.2	24.3	15.4	210
Upper Egypt	53.9	18.5	35.4	30.9	3.1	32.9	10.9	40.0	21.2	34.1	31.9	14.6	21.0	449
Urban	62.6	20.1	42.5	29.7	3.5	31.6	11.7	37.0	12.5	39.4	36.8	18.8	15.8	139
Rural	49.9	17.8	32.2	31.5	2.9	33.5	10.5	41.4	25.1	31.7	29.8	12.8	23.4	310
Frontier Governorates	(44.0)	(28.7)	(15.3)	(31.1)	(2.3)	(33.4)	(13.0)	(46.4)	(21.8)	(23.2)	(29.2)	(17.2)	(28.6)	9
<b>Education</b>														
No education	54.2	20.3	34.0	34.0	1.6	34.6	8.3	39.9	27.2	33.5	28.4	10.3	21.1	200
Some primary	53.6	21.2	32.4	21.5	3.8	25.3	14.1	36.5	12.2	33.0	34.9	22.7	18.3	91
Primary complete/ some secondary	52.5	18.6	33.9	29.7	5.9	33.1	12.6	42.9	18.4	29.8	27.6	19.3	24.0	146
Secondary complete/higher	57.5	16.5	41.0	26.9	2.2	28.6	11.1	36.2	18.5	34.0	33.4	24.3	17.9	437
<b>Work status</b>														
Working for cash	52.8	21.3	31.5	23.8	3.6	27.4	8.3	32.3	20.0	29.8	34.3	35.2	19.9	77
Not working for cash	55.8	17.9	37.9	28.9	2.8	30.7	11.3	38.8	19.8	33.4	31.2	18.6	19.7	796
<b>Wealth quintile</b>														
Lowest	50.6	20.9	29.7	34.0	3.2	35.8	8.4	41.1	25.5	31.3	25.7	12.8	22.3	204
Second	56.5	16.6	40.0	32.7	2.4	34.3	14.4	45.1	23.9	31.4	25.1	20.5	18.7	178
Middle	59.8	23.0	36.8	26.7	3.9	29.7	10.2	37.9	16.7	35.8	34.3	23.4	15.8	191
Fourth	50.4	14.7	35.8	23.5	1.1	24.6	9.7	30.3	15.5	35.2	36.6	21.1	21.9	161
Highest	61.3	13.8	47.4	22.8	3.8	25.1	13.3	34.7	15.6	31.6	38.1	24.6	20.1	140
Total	55.5	18.2	37.3	28.4	2.9	30.4	11.0	38.2	19.8	33.1	31.5	20.1	19.7	874

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Refers to first source consulted

<sup>2</sup> Excludes pharmacy

## 12.4 DISPOSAL OF CHILDREN'S STOOLS

If feces are left uncontained, disease may be spread by direct contact or through animal contact. Children's feces are often a cause of fecal contamination in the household environment since they are frequently not disposed of properly. To obtain information on this issue, mothers who had at least one child born in January 2003 or later were asked about what was done to dispose of the stools the last time their youngest child had passed stools. Almost all mothers reported that the child either used a toilet or

latrine when defecating (42 percent) or the child's stools were thrown into the toilet or latrine (43 percent). Mothers reporting other means of stool disposal generally said the stools were thrown in the garbage (12 percent).

Overall, Table 12.13 shows that stools were disposed of safely in the case of 85 percent of all children. The proportion reporting safe stool disposal practices generally increased with the age of the child. Somewhat surprisingly, the proportion was lower in urban areas than in rural areas and in the Urban Governorates than in other areas. The proportion reporting safe stool disposal practices also generally decreased with the wealth quintile. These patterns may be related to the greater use of disposable diapers among the urban and wealthier households.

**Table 12.13 Disposal of children's stools**  
Percent distribution of youngest children under age five living with the mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Egypt 2008

Background characteristic	Manner of disposal of child's stools								Total	Percentage of children whose stools are disposed of safely	Number of children
	Child used toilet/latrine	Put/rinsed into toilet/latrine	Buried	Put/rinsed into drain/ditch	Thrown into garbage	Left in the open	Other	Don't know/missing			
<b>Age in months</b>											
<6	1.2	56.6	0.2	2.5	39.1	0.0	0.5	0.0	100.0	58.0	529
6-11	3.4	66.7	0.0	2.1	27.2	0.2	0.4	0.0	100.0	70.1	748
12-23	19.6	60.8	0.1	2.6	15.4	1.2	0.0	0.3	100.0	80.5	1,355
24-35	54.6	36.2	0.2	1.5	6.6	0.8	0.0	0.1	100.0	91.0	1,562
36-47	58.6	31.9	0.3	1.0	6.8	1.2	0.0	0.2	100.0	90.8	1,799
48-59	59.6	30.9	0.2	1.5	6.9	0.7	0.2	0.2	100.0	90.6	1,800
<b>Toilet facility</b>											
Improved <sup>1</sup>	42.7	42.0	0.1	1.5	12.7	0.6	0.1	0.2	100.0	84.8	6,680
Not improved	41.2	46.3	1.0	3.1	5.1	2.9	0.4	0.0	100.0	88.5	696
Not de jure resident/missing	32.9	44.6	0.2	2.1	19.6	0.4	0.0	0.2	100.0	77.7	417
<b>Urban-rural residence</b>											
Urban	43.2	33.4	0.0	1.7	21.3	0.2	0.1	0.1	100.0	76.6	2,973
Rural	41.3	48.2	0.3	1.7	7.0	1.2	0.2	0.2	100.0	89.8	4,820
<b>Place of residence</b>											
Urban Governorates	42.6	26.1	0.0	2.2	28.8	0.1	0.0	0.1	100.0	68.7	1,271
Lower Egypt	43.4	45.7	0.0	1.2	9.3	0.2	0.1	0.1	100.0	89.2	3,459
Urban	45.7	40.2	0.0	1.5	12.7	0.0	0.0	0.0	100.0	85.8	788
Rural	42.8	47.4	0.0	1.0	8.4	0.2	0.2	0.1	100.0	90.1	2,670
Upper Egypt	40.4	45.9	0.4	2.1	8.9	1.8	0.2	0.3	100.0	86.7	2,954
Urban	42.4	37.5	0.0	1.2	18.0	0.4	0.3	0.1	100.0	79.9	845
Rural	39.5	49.3	0.6	2.5	5.2	2.4	0.1	0.4	100.0	89.4	2,109
Frontier Governorates	36.6	42.3	2.1	1.6	14.8	2.1	0.0	0.5	100.0	81.0	110
<b>Education</b>											
No education	43.1	45.5	0.4	2.2	5.9	2.5	0.1	0.3	100.0	89.0	1,967
Some primary	44.2	44.6	0.3	2.1	7.5	1.2	0.0	0.2	100.0	89.1	521
Primary complete/some secondary	42.1	43.3	0.2	1.8	11.5	0.6	0.3	0.1	100.0	85.7	1,222
Secondary complete/higher	41.2	40.6	0.0	1.4	16.5	0.0	0.1	0.1	100.0	81.9	4,083
<b>Work status</b>											
Working for cash	49.1	34.7	0.0	1.0	14.6	0.5	0.0	0.2	100.0	83.7	891
Not working for cash	41.1	43.6	0.2	1.8	12.1	0.9	0.1	0.2	100.0	84.9	6,902
<b>Wealth quintile</b>											
Lowest	38.7	50.6	0.7	2.2	3.8	3.4	0.2	0.3	100.0	90.1	1,508
Second	40.8	49.9	0.3	1.6	6.6	0.6	0.2	0.1	100.0	91.0	1,531
Middle	42.8	46.6	0.0	1.1	8.8	0.2	0.2	0.2	100.0	89.4	1,635
Fourth	42.4	39.0	0.0	2.2	16.3	0.0	0.0	0.1	100.0	81.4	1,602
Highest	45.4	26.5	0.0	1.4	26.6	0.0	0.0	0.2	100.0	71.8	1,516
Total	42.0	42.6	0.2	1.7	12.4	0.8	0.1	0.2	100.0	84.8	7,793

<sup>1</sup> The household is considered to have improved sanitation facilities if the household has sole use of a modern or traditional flush toilet that empties into a public sewer, Bayara (vault) or septic system.



Adequate nutrition is critical to child development. This chapter assesses a number of aspects of feeding practices that are important in ensuring adequate nutrition for infants and young children including early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding for up to two years of age and beyond, timely introduction of complementary feeding at six months of age, frequency of feeding solid/semi-solid foods, and diet diversity. The chapter also discusses the diversity of food groups consumed by mothers who gave birth in the last three years, providing important information on maternal eating patterns (for example, vitamin A-rich foods). Finally, the chapter considers consumption of vitamin A-rich and iron-rich foods, micronutrient supplementation for iron and vitamin A, and micronutrient fortification (iodized or iodated household cooking salt) for both women and children.

## 13.1 BREASTFEEDING AND SUPPLEMENTATION

The pattern of infant feeding has an important influence on the health of children. Feeding practices are the principal determinant of a young child's nutritional status, and poor nutritional status has been shown to increase the risk of illness and death among children. Breastfeeding practices also have an effect on the mother's fertility. Frequent breastfeeding for long durations is associated with longer periods of postpartum amenorrhea and thus longer birth intervals and lower fertility.

### 13.1.1 Initiation of Breastfeeding

Early initiation of breastfeeding is important for both the mother and the child. Early suckling stimulates the release of hormones which help in the production of milk. It also stimulates the contraction of the uterus after childbirth. Colostrum, which is the liquid produced from the breast in the first few days after delivery, provides natural immunity to the infant. Prelacteal feeding, the practice of giving other liquids to a child during the period immediately after birth before the mother's milk is flowing freely, is discouraged. It limits the frequency of suckling by the infant and exposes the baby to the risk of infection.

The results in Table 13.1 show that almost all Egyptian children are breastfed for some period of time. Differentials in the proportion of children ever breastfed are small, with 94 percent or more of children in every subgroup reported as ever breastfed.

Among Egyptian children who were ever breastfed, Table 13.1 also shows that the majority began breastfeeding soon after birth; 88 percent of the children were put to the breast within the first day after delivery, and 56 percent within the first hour. Although breastfeeding is initiated early for the majority of children, prelacteal feeding is common; 47 percent of all children born in the five years prior to the survey received prelacteal feeds during the first three days after birth. Children who received prelacteal feeds were most often given sugar or glucose water or tea and other infusions; relatively small proportions were given milk other than breast milk or infant formula (Figure 13.1).

Both medical assistance at delivery and delivery at a health facility are associated with lower proportions of children for whom breastfeeding was initiated within the first day of birth and with somewhat higher proportions of prelacteal feeding although the differentials are not large.

Table 13.1 Initial breastfeeding by background characteristics

Percentage of children born in the five year period before the survey who were ever breastfed, and for the last children born in the five years preceding the survey ever breastfed, percentage who started breastfeeding within one hour and within one day of birth and percentage who received a prelacteal feed, by selected background characteristics, Egypt 2008

Background characteristic	Percentage ever breastfed	Number of children	Percentage who started breastfeeding within:		Percentage who received a prelacteal feed <sup>2</sup>	Number of last-born children ever breastfed
			1 hour of birth	1 day of birth <sup>1</sup>		
<b>Assistance at delivery</b>						
Medically trained provider <sup>3</sup>	95.4	8,352	51.4	86.5	48.0	6,081
Daya	97.2	2,085	74.4	92.2	41.0	1,452
Other/none	99.6	132	64.7	87.3	44.1	95
<b>Place of delivery</b>						
Public health facility	93.8	2,851	51.5	85.5	47.1	2,015
Private health facility/NGO	96.0	4,746	48.0	86.1	50.3	3,489
Home/other	97.2	2,991	73.1	92.1	40.0	2,126
<b>Sex</b>						
Male	95.7	5,388	55.2	86.9	47.3	3,964
Female	95.9	5,202	56.7	88.4	45.9	3,668
<b>Urban-rural residence</b>						
Urban	95.2	3,924	51.3	88.9	46.2	2,900
Rural	96.1	6,666	58.7	86.8	46.8	4,732
<b>Place of residence</b>						
Urban Governorates	95.2	1,679	46.1	89.8	46.3	1,244
Lower Egypt	96.1	4,587	57.3	87.6	45.0	3,397
Urban	96.2	1,011	53.3	87.1	47.8	771
Rural	96.1	3,576	58.5	87.7	44.1	2,627
Upper Egypt	95.6	4,173	58.4	86.7	49.0	2,885
Urban	94.1	1,141	57.3	89.2	45.2	818
Rural	96.1	3,032	58.9	85.6	50.5	2,066
Frontier Governorates	95.7	151	56.2	90.2	35.9	107
<b>Mother's education</b>						
No education	96.1	2,735	60.2	85.7	48.7	1,931
Some primary	96.5	721	58.8	87.6	45.5	519
Primary complete/some secondary	94.9	1,624	57.0	87.4	45.0	1,193
Secondary complete/ higher	95.7	5,510	53.1	88.6	46.2	3,990
<b>Work status</b>						
Working for cash	94.2	1,168	50.9	87.2	43.9	854
Not working for cash	96.0	9,422	56.5	87.7	46.9	6,778
<b>Wealth quintile</b>						
Lowest	95.9	2,145	60.1	86.0	47.9	1,478
Second	96.2	2,125	59.0	85.7	48.6	1,516
Middle	95.1	2,251	56.9	87.6	45.7	1,599
Fourth	95.9	2,113	56.1	89.7	44.5	1,564
Highest	95.7	1,956	47.3	89.1	46.4	1,476
Total	95.8	10,590	55.9	87.6	46.6	7,632

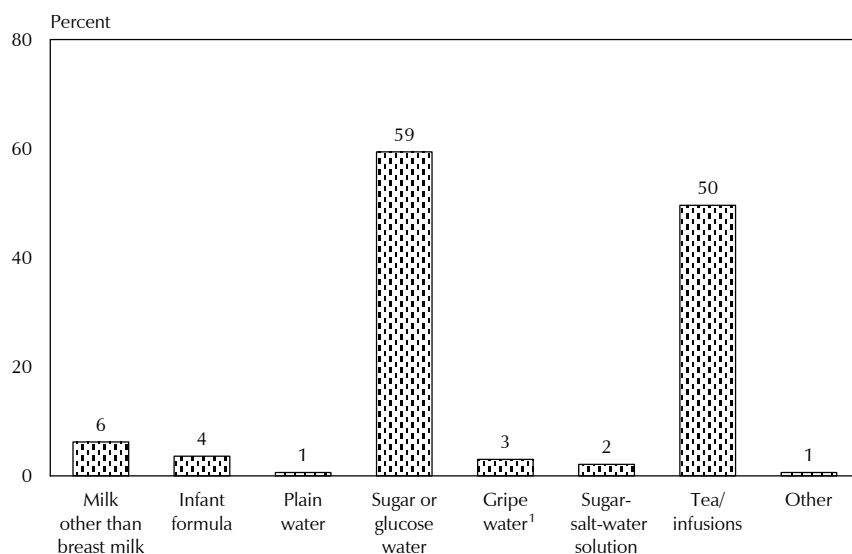
Note: Total includes 5 children for whom information on assistance at delivery was missing and 3 children for whom information on place of delivery was missing.

<sup>1</sup> Includes children who started breastfeeding within one hour of birth

<sup>2</sup> Children given something other than breast milk during the first three days of life before the mother started to breastfeed regularly

<sup>3</sup> Includes doctor or nurse/midwife

**Figure 13.1 Among Last Children Born in the Five Years Preceding the Survey Who Ever Received Prelacteal Feeds, Percentage Receiving Various Types of Liquids**



<sup>1</sup> Commercial preparation for soothing colicky babies

EDHS 2008

### 13.1.2 Introduction of Complementary Feeding

The Ministry of Health has adopted the UNICEF recommendation that during the first six months of life, children should be exclusively breastfed; that is, they should be given only breast milk and not receive other complementary liquids (including plain water) or solids. Early complementary feeding is discouraged for a number of reasons. The early introduction of other liquids or foods increases the exposure of an infant to pathogens that may cause diarrheal disease. Malnutrition is another risk. The complementary foods given to a child may not provide all of the calories that the infant needs, particularly if they are watered down. Since the production of breast milk is influenced by the intensity and frequency of suckling, early complementary feeding may reduce breast milk output, again increasing the risk of malnutrition.

Information was obtained in the EDHS on the current breastfeeding status of surviving children under age three who were living with the mother and on what other (if any) liquids or solids had been given to the child during the 24-hour period prior to the survey. These data are used to derive the information on the age patterns of breastfeeding and supplementation presented in Table 13.2 and Figure 13.2. The results indicate that breastfeeding continues for the majority of Egyptian children well beyond the first year of life. At age 12-17 months, around 80 percent of children are still being breastfed, and 35 percent of children 18-23 months continue to be breastfed.

Exclusive breastfeeding is common but not universal in very early infancy in Egypt. Table 13.2 shows that, among infants under two months of age, 79 percent were reported to have received only breast milk. However, the proportion exclusively breastfed drops off rapidly among older infants. By age 4-5 months, around seven in ten babies are receiving some form of supplementation, with somewhat more than three in ten given complementary foods.

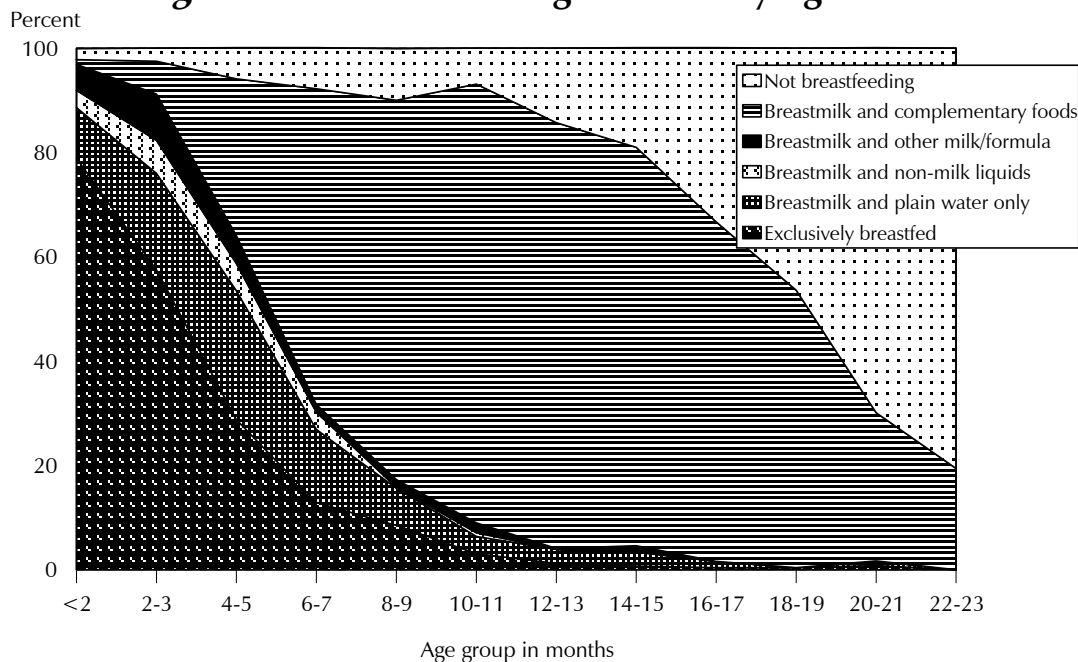
Table 13.2 Breastfeeding status by age

Percent distribution of youngest children under age three living with the mother by breastfeeding status and the percentage currently breastfeeding and percentage of all children under three years using a bottle with a nipple, according to age in months, Egypt 2008

Months since birth	Not breast-feeding	Exclusively breastfed	Breastfeeding and consuming					Total percent	Currently breast-feeding	Number of youngest children under age 3	Percentage using a bottle with a nipple	Number of all children under age 3
			Plain water only	Non-milk liquids/juice	Other milk	Complementary foods						
<2	2.1	78.9	9.7	3.3	5.0	0.9	100.0	97.9	299	10.1	309	
2-3	2.5	57.5	18.5	6.3	8.9	6.3	100.0	97.5	404	20.7	408	
4-5	6.0	28.8	24.7	5.2	5.4	30.0	100.0	94.0	387	15.8	393	
6-8	8.7	12.3	11.8	2.2	1.6	63.5	100.0	91.3	703	16.7	716	
9-11	7.8	3.9	4.6	0.6	1.7	81.4	100.0	92.2	555	14.1	568	
12-17	22.4	0.7	2.2	0.1	0.4	74.3	100.0	77.6	1,048	10.0	1,080	
18-23	65.5	0.4	0.3	0.0	0.0	33.7	100.0	34.5	969	4.9	1,080	
24-35	95.9	0.1	0.0	0.0	0.0	3.9	100.0	4.1	1,515	1.7	2,002	
0-3	2.3	66.6	14.8	5.1	7.2	4.0	100.0	97.7	703	16.1	717	
0-5	3.6	53.2	18.3	5.1	6.6	13.2	100.0	96.4	1,090	16.0	1,110	
6-9	8.8	10.9	10.8	1.9	1.5	66.2	100.0	91.2	891	16.7	907	
10-11	6.9	3.1	3.3	0.7	1.9	84.1	100.0	93.1	368	12.7	377	
12-23	43.1	0.6	1.3	0.0	0.2	54.8	100.0	56.9	2,017	7.5	2,160	
Total	41.9	11.9	5.7	1.3	1.6	37.5	100.0	58.1	5,880	8.7	6,556	

Note: Breastfeeding status refers to a 24-hour period (yesterday and last night). Children classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and water-based liquids and who do not receive complementary foods are classified in the water-based liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

Figure 13.2 Infant Feeding Practices by Age



EDHS 2008

In addition to information on the prevalence of exclusive breastfeeding, the results in Table 13.2 allow an assessment of whether or not complementary feeding is being introduced on a timely basis for older babies. WHO and UNICEF recommend that all children begin to receive complementary food by age six months since, at that age, the mother's breast milk no longer provides adequate nutrition for the child. Table 13.2 shows that the majority of Egyptian children age 6 months and older are receiving other foods or milk in addition to breast milk. At 6-8 months, however, about one in three babies were not being given solid or semi-solid food in addition to breast milk and, at age 9-11 months, 19 percent of children were not yet eating solid or semi-solid food.

Table 13.2 also provides information on the differentials in the percentage of children under age three who are being bottle-fed. Overall, a bottle with a nipple was used in feeding only 9 percent of the children less than three years of age during the 24 hours before the survey.

### **13.1.3 Median Durations and Frequency of Breastfeeding and Prevalence of Bottle-feeding**

Table 13.3 presents differentials in the median duration of breastfeeding among births in the three-year period before the survey, the frequency of breastfeeding among children under six months of age, and the prevalence of bottle-feeding among children under age three.

The median duration of breastfeeding is 17.9 months. On average, children are exclusively breastfed or predominantly breastfed for less than the recommended six months; the median duration for which children are exclusively breastfed is 2.6 months and the median duration of predominant breastfeeding, i.e., when children receive only nonmilk liquids in addition to breast milk, is 4.8 months.

The median amount of time that a child is breastfed is slightly shorter among children whose mothers were attended at delivery by a doctor or other health professionals and among children delivered in a health facility. Males are breastfed slightly longer on average than females. Residence is related to breastfeeding durations. The median breastfeeding duration is one month longer for rural children than urban children, and it ranges from a low of 15.7 months in the Urban Governorates to 19.3 months in rural Upper Egypt. Children born to mothers who never attended school are breastfed two months longer on average than children born to mothers who completed secondary school or higher. The median duration of breastfeeding among children in the highest wealth quintile is almost 3 months shorter than the duration for children in the lowest quintile.

Differentials in the median durations of exclusive breastfeeding and predominant breastfeeding are shown in Table 13.3. The patterns are generally similar to the variations observed in the median durations of any breastfeeding.

The frequency of breastfeeding during a 24-hour period before the survey also is examined in Table 13.3. It is important for an infant to be breastfed frequently as this improves milk production. In addition, the duration of postpartum amenorrhea for a mother is related to the frequency of breastfeeding.

Among last-born children under age six months, 98 percent were breastfed at least six times during the 24-hour period before the survey. Mothers reported a mean number of 7.3 daytime feeds and 5.7 nighttime feeds. The largest differentials in the measures of breastfeeding frequency are by place of residence, with the highest mean feeding frequencies observed in the Frontier Governorates.

Table 13.3 also provides information on the differentials in the percentage of children under age three who are being bottle-fed. Bottle-feeding is most common in the Urban Governorates (15 percent) and in the highest wealth quintile (13 percent).



Table 13.3 Median duration and frequency of breastfeeding and prevalence of bottlefeeding by background characteristics

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of last born children under six months of age living with the mother who were breastfed six or more times in the 24 hours preceding the interview, and the mean number of feeds (day/night) among last-born breastfed children under age 6 months, and percentage bottlefed among all children under age three, by background characteristics, Egypt 2008

Background characteristic	Median breastfeeding duration (months) among all children born in the past three years <sup>1</sup>				Breastfeeding frequency among children under six months of age <sup>2</sup>				Bottle-feeding among all children under age 3	
	Any breast-feeding	Exclusive breast-feeding	Predomi- nant breast-feeding <sup>3</sup>	Number of children	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children	Percentage under three who are bottlefed	Number of children
<b>Assistance at delivery</b>										
Medically trained provider	17.6	2.6	4.7	5,426	98.0	7.3	5.7	849	9.6	5,304
Daya	19.7	2.6	5.9	1,205	97.6	7.6	6.1	184	4.8	1,169
Other/none	16.2	3.7	5.3	77	92.6	*	*	14	6.6	75
<b>Place of delivery</b>										
Public health facility	17.2	2.2	4.4	1,828	98.1	7.0	5.7	278	10.1	1,771
Private health facility/NGO	17.7	2.8	4.7	3,124	98.0	7.4	5.7	485	9.9	3,069
Home/other	19.2	2.9	5.8	1,762	97.5	7.5	5.7	285	5.2	1,714
<b>Sex</b>										
Male	18.3	2.6	4.8	3,407	98.0	7.4	5.7	540	8.2	3,318
Female	17.6	2.6	4.9	3,309	97.7	7.3	5.8	508	9.2	3,237
<b>Urban-rural residence</b>										
Urban	17.3	2.1	4.3	2,535	97.4	7.3	5.9	380	11.7	2,475
Rural	18.3	3.0	5.2	4,181	98.2	7.3	5.6	668	6.9	4,081
<b>Place of residence</b>										
Urban Governorates	15.7	2.0	4.2	1,081	98.1	7.6	5.7	168	15.1	1,049
Lower Egypt	17.8	3.3	5.1	2,926	98.8	7.4	5.7	441	6.1	2,882
Urban	17.8	2.7	5.2	658	97.7	7.7	6.2	85	6.6	653
Rural	17.9	3.4	5.1	2,268	99.0	7.3	5.6	356	5.9	2,229
Upper Egypt	19.0	2.4	4.9	2,611	96.8	7.1	5.7	423	9.1	2,530
Urban	18.5	2.0	4.0	734	95.9	6.5	5.9	119	11.3	713
Rural	19.3	2.6	5.3	1,877	97.1	7.3	5.6	305	8.2	1,817
Frontier Governorates	18.2	2.2	3.7	98	100.0	7.6	6.8	15	9.7	95
<b>Mother's education</b>										
No education	19.5	2.9	5.9	1,644	97.0	7.3	5.5	256	5.8	1,605
Some primary	17.8	2.7	4.7	423	94.5	7.3	5.7	57	9.6	406
Primary complete/ some secondary	18.0	2.5	4.5	1,023	98.3	7.7	6.1	168	8.3	996
Secondary complete/higher	17.5	2.5	4.6	3,626	98.5	7.2	5.7	567	10.1	3,549
<b>Work status</b>										
Working for cash	17.7	1.6	3.4	691	96.1	6.6	5.3	90	13.4	672
Not working for cash	18.0	2.7	5.0	6,026	98.0	7.4	5.8	958	8.2	5,884
<b>Wealth quintile</b>										
Lowest	19.8	3.1	5.5	1,325	97.5	7.1	5.6	208	6.1	1,283
Second	19.0	3.0	5.2	1,350	96.8	7.5	5.5	217	6.6	1,312
Middle	17.6	2.6	5.3	1,400	98.7	7.3	5.8	240	7.4	1,369
Fourth	16.9	2.4	4.6	1,377	98.3	7.3	6.0	206	10.8	1,343
Highest	17.1	2.2	3.7	1,264	98.0	7.3	5.8	177	12.8	1,249
Total	17.9	2.6	4.8	6,716	97.9	7.3	5.7	1,048	8.7	6,556
Mean for all children	17.7	4.1	6.0	na	na	na	na	na	na	na

Note: Median durations are based on current status. Includes children living and deceased at the time of the survey. Totals include 8 children for whom information on assistance at delivery is missing and 3 children for whom information on place of delivery is missing. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

na = Not applicable

<sup>1</sup> It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfed.

<sup>2</sup> Excludes children who do not have a valid answer on the number of times breastfed

<sup>3</sup> Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

## 13.2 DIETARY DIVERSITY AMONG CHILDREN AND WOMEN

In the 2008 EDHS, women who had at least one child under the age of three living with them were asked questions about the types of foods and liquids they and their youngest child had consumed during a 24-hour period prior to the survey. Mothers were also asked about the number of times the child had eaten solid or semi-solid food during the period.

The results of these questions are subject to a number of limitations. First, the results do not apply to the full universe of young children and women. Approximately 10 percent of all children under age three are excluded from consideration because they were not the youngest child under age three or because they were not living with the mother. Women who have one child under age three living with them constitute only a little more than one-third of all EDHS respondents and about a quarter of all women in the reproductive ages 15-49. The dietary data for both women and children also are subject to recall errors. In addition, the mother may not be able to report fully on the child's intake of food and liquids if the child was fed by other individuals during the period. Despite these problems, the information collected in the 2008 EDHS on the types of foods and liquids mothers and young children are consuming is useful in assessing the dietary diversity for these key subpopulations.

### 13.2.1 Foods and Liquids Consumed by Infants and Young Children

Appropriate nutrition includes feeding children a variety of foods to ensure that nutrient requirements are met. Vitamin-A rich fruits and vegetables should be consumed daily. Although eating a range of fruits and vegetables, especially those rich in vitamin A is important, studies have shown that plant-based complementary foods by themselves are insufficient to meet the needs for certain micronutrients (WHO/UNICEF 1998). Therefore, it has been advised that meat, poultry, fish or eggs should be eaten daily, or as often as possible. Fat also is important in the diets of infants and young children because it provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin A) and enhances dietary energy density and palatability. Tea and coffee contain compounds that inhibit iron absorption and are not recommended for children. Sugary drinks and excessive juice consumption should be avoided because other than energy, they contribute little to the diet and as a result decrease the child's appetite for more nutritious foods (PAHO/WHO 2003).

Table 13.4 is based on information from women about the foods and liquids consumed during the 24-hour period prior to the survey by their youngest child. As expected, the proportions of children who consumed foods or liquids included in the various groups shown in the table rises with the age of the child. Children who are still breastfed also are less likely to consume the various types of foods than children who are not being breastfed. For example, 93 percent of not breastfeeding children age 6-23 months consumed foods made from grains in the 24-hour period prior to the survey compared with 73 percent of breastfeeding children in the age group. Of particular concern is the fact that the majority of children age 6-23 months, whether breastfeeding or not, did not consume any vitamin-A rich food during the 24-hour period before the survey. Substantial minorities of children in the age group also did not consume meat, poultry or fish or food made with oil, fat or butter.

Table 13.4 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under three years of age living with the mother who consumed foods from specific food groups in the past 24 hours (the day and night preceding the interview), by breastfeeding status and age, Egypt 2008

Age in months	Infant formula	Other milk <sup>1</sup>	Other liquids <sup>2,3</sup>	Food made from grains <sup>4</sup>	Fruits and vegetables rich in vitamin A <sup>5</sup>	Other fruits/vegetables	Food made from roots/tubers	Food made from legumes and nuts	Meat/fish/shellfish/poultry/eggs	Cheese/yogurt/other milk products	Food made with oil/fat/butter	Sugary foods	Any solid or semi-solid food	Number of children
<b>BREASTFEEDING CHILDREN</b>														
<2	3.1	2.9	5.2	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.9	293
2-3	4.5	9.2	11.6	1.7	0.3	0.3	0.7	0.1	0.4	3.5	0.7	0.7	5.6	394
4-5	4.0	13.5	20.5	13.9	2.1	2.7	10.0	3.7	7.5	21.9	6.1	5.4	30.8	364
6-8	3.6	31.9	38.3	46.7	14.7	16.4	40.7	12.0	31.4	47.0	31.5	24.1	68.3	642
9-11	5.3	40.8	57.8	71.1	25.2	31.5	49.6	26.9	62.8	62.3	57.6	43.0	87.6	512
12-17	2.1	49.7	60.5	86.4	36.0	39.5	60.7	42.3	73.0	71.2	72.8	51.1	95.5	813
18-23	3.0	50.9	68.2	91.8	37.2	37.6	66.9	44.3	76.6	71.7	72.6	50.2	97.9	334
24-35	0.6	58.9	72.3	87.4	33.9	40.2	65.8	58.0	68.5	66.0	75.5	52.2	94.8	62
6-23	3.4	42.9	54.8	72.7	27.8	31.0	53.5	30.8	59.7	62.5	57.9	41.6	86.5	2,301
Total	3.5	32.8	42.2	52.4	19.6	22.0	38.4	22.2	42.3	46.1	41.1	29.7	64.0	3,414
<b>NON-BREASTFEEDING CHILDREN</b>														
<6	(26.9)	(57.7)	(25.1)	(12.8)	(0.0)	(2.5)	(8.5)	(5.0)	(4.1)	(19.3)	(5.0)	(8.2)	(24.8)	39
6-8	38.6	70.6	50.9	64.2	22.7	27.6	44.7	10.8	40.0	59.6	46.1	36.8	80.9	61
9-11	20.0	69.0	63.8	72.2	28.5	29.4	55.0	28.0	54.7	60.5	61.6	46.4	91.3	43
12-17	8.9	67.2	75.5	93.9	37.9	40.4	66.4	47.0	79.6	72.6	78.8	52.4	99.1	234
18-23	2.2	62.8	71.3	97.1	44.2	47.5	65.9	53.8	85.2	74.4	85.5	59.5	99.4	635
24-35	3.1	60.1	75.7	96.6	46.6	50.1	70.4	58.7	85.7	73.7	85.1	58.7	99.5	1,453
6-23	6.9	64.7	70.7	93.2	40.6	43.7	64.2	48.3	79.6	72.4	80.4	55.8	97.8	974
Total	5.0	61.9	72.9	93.9	43.5	46.8	66.9	53.7	82.0	72.3	81.9	56.7	97.6	2,466

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and the past night). Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Other milk includes fresh, tinned, and powdered milk from cows or other animals.

<sup>2</sup> Does not include plain water

<sup>3</sup> Includes sugary drinks

<sup>4</sup> Includes fortified baby food and porridge or gruel

<sup>5</sup> Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mangoes, cantaloupe, dark green leafy vegetables, and other locally grown fruits and vegetables that are rich in vitamin A

### 13.2.2 Appropriate Infant and Young Child Feeding

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age six months and increasing the amount of foods and frequency of feeding as the child gets older while maintaining frequent breastfeeding. Guidelines have been established with respect to appropriate infant and young child feeding (IYCF) practices for children age 6-23 months (PAHO/WHO 2003 and WHO 2005).

Table 13.5 presents a summary of indicators of appropriate feeding practices that describes the quality of infant and young child (age 6-23 months) feeding practices (IYCF) in Egypt. The indicators take into account the percentages of children for whom feeding practices met minimum standards with respect to both food diversity (i.e., the number of food groups consumed) and feeding frequency (i.e., the number of times the child was fed) as well the consumption of breast milk or breast milk substitutes. Breastfed children are considered as being fed appropriately if they consume at least three food groups<sup>1</sup> and receive food or liquids other than breast milk at least twice per day in the case of infants 6-8 months and at least three times in the case of children 9-23 months. Non-breastfed children are considered to be fed appropriately if they consumed four food groups including milk products and are fed at least four times per day.

According to the results presented in Table 13.5, 97 percent of youngest children age 6-23 months living with the mother received breast milk or breast milk substitutes during the 24-hour period prior to the survey, 69 percent had an adequately diverse diet, i.e., they had been fed foods from the appropriate number of food groups depending on their age and breastfeeding status, and half had been fed the minimum standard number of times appropriate for their age. Feeding practices for about 41 percent of children age 6-23 months met the minimum standard with respect to all three of these feeding practices (Figure 13.3).

As Figure 13.3 shows, breastfed children were more likely than non-breastfed children to meet all three IYCF criteria. The results in Table 13.5 indicate that breastfed children were somewhat more likely to be fed the minimum number of times and somewhat less likely to receive foods from the minimum number of groups compared to non-breastfed children. As the child's age increased, feeding practices were generally more likely to comply with minimum standards. Variations in feeding practices with the other characteristics shown in Table 13.5 are generally minor.

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<sup>1</sup> Food groups used in the assessment of appropriate feeding practices included: milk other than breast milk, cheese or yogurt; foods made from grains, roots, and tubers; vitamin A-rich fruits and vegetables; other fruits and vegetables; eggs; meat, poultry, fish, and shellfish (and organ meats); legumes and nuts; and foods made with oil, fat, butter

Table 13.5 Infant and young child feeding (IYCF) practices in Egypt

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based upon number of food groups received and number of times they were fed meals during the past 24 hours (the day and night preceding the survey), by breastfeeding status and background characteristics, Egypt 2008

Background characteristic	Among breastfed youngest children 6-23 months living with mother, percentage fed				Among all youngest children 6-23 months living with mother, percentage breastfed and receiving other foods according to minimum practices for breastfed children									
	3+ food groups <sup>1</sup>	Mini- mum number of times or more <sup>2</sup>	Both 3+ food groups and mini- mum times or more	Number of breastfed children 6-23 months	Among non-breastfed youngest children 6-23 months living with mother, percentage fed				Number of non- breastfed children age 6-23 months	Breast- milk/ milk products <sup>3</sup>	3+ or 4+ food groups <sup>5</sup>	Mini- mum number of times <sup>6</sup>	With 3 IYCF practices	Number of children 6-23 months
					Milk or milk products <sup>3</sup>	4+ food groups	4+ times	With 3 IYCF practices <sup>4</sup>						
<b>Age in months</b>														
6-8	30.7	54.7	29.1	642	87.8	37.8	15.9	13.1	61	98.9	31.3	51.3	27.7	703
9-11	60.0	45.6	38.9	512	90.4	74.2	17.9	14.7	43	99.3	61.1	43.4	37.1	555
12-17	79.0	62.7	57.2	813	90.6	84.3	30.0	27.8	234	97.9	80.2	55.4	50.6	1,048
18-23	79.7	71.0	62.9	334	88.7	90.8	34.4	33.8	635	92.6	87.0	47.0	43.8	969
<b>Sex</b>														
Male	60.9	58.5	46.8	1,200	90.7	84.1	31.1	29.6	473	97.4	67.4	50.8	42.0	1,673
Female	62.0	57.2	45.3	1,101	87.8	86.1	31.8	30.8	500	96.2	69.6	49.2	40.8	1,602
<b>Urban-rural residence</b>														
Urban	61.7	62.1	48.9	816	91.0	84.4	36.3	34.8	445	96.8	69.7	53.0	43.9	1,262
Rural	61.3	55.6	44.6	1,485	87.7	85.8	27.4	26.4	528	96.8	67.7	48.2	39.8	2,014
<b>Place of residence</b>														
Urban														
Governorates	58.3	66.6	50.7	306	92.5	86.5	47.2	45.7	235	96.7	70.5	58.1	48.5	542
Lower Egypt	64.7	56.7	46.5	1,042	88.0	85.0	21.5	20.3	416	96.6	70.5	46.7	39.0	1,458
Urban	66.0	58.6	48.4	223	84.1	82.0	13.9	12.8	102	95.0	71.0	44.6	37.3	325
Rural	64.4	56.2	46.0	819	89.2	86.0	24.0	22.7	314	97.0	70.4	47.3	39.5	1,133
Upper Egypt	58.5	56.0	43.8	919	88.1	84.3	32.1	31.0	308	97.0	65.0	50.0	40.6	1,227
Urban	61.7	59.9	47.2	263	94.3	82.0	32.3	30.6	98	98.4	67.2	52.4	42.7	361
Rural	57.2	54.4	42.4	656	85.2	85.4	31.9	31.3	210	96.4	64.0	49.0	39.7	866
Frontier														
Governorates	68.0	65.4	55.1	34	93.9	85.9	49.7	46.8	14	98.2	73.2	60.8	52.7	48
<b>Mother's education</b>														
No education	55.4	54.5	42.3	573	82.3	83.0	30.6	29.4	175	95.9	61.9	48.9	39.3	748
Some primary	66.1	49.5	43.5	153	91.6	77.6	29.9	27.1	61	97.6	69.4	43.9	38.8	213
Primary complete/ some secondary	64.4	57.5	48.0	365	84.3	81.4	31.1	27.9	157	95.3	69.5	49.5	42.0	522
Secondary comp./ higher	62.8	60.6	47.6	1,210	92.3	87.6	32.0	31.4	582	97.5	70.8	51.3	42.4	1,792
<b>Work status</b>														
Working for cash	61.6	56.5	42.6	219	93.5	81.8	36.8	35.1	102	97.9	68.0	50.2	40.2	322
Not working for cash	61.4	58.0	46.5	2,082	88.7	85.5	30.8	29.6	871	96.7	68.5	50.0	41.5	2,953
<b>Wealth quintile</b>														
Lowest	58.6	56.1	44.4	496	87.2	83.4	32.0	30.9	127	97.4	63.7	51.2	41.6	624
Second	60.8	55.6	44.1	492	84.7	85.7	27.7	26.5	148	96.5	66.5	49.2	40.0	639
Middle	64.8	53.9	44.5	453	90.0	81.2	29.0	27.2	209	96.9	70.0	46.1	39.1	662
Fourth	56.8	59.4	43.9	449	86.6	85.2	33.0	31.6	254	95.2	67.1	49.8	39.4	703
Highest	66.8	65.4	54.8	411	95.1	89.2	34.1	33.3	236	98.2	75.0	54.0	47.0	647
Total	61.4	57.9	46.1	2,301	89.2	85.2	31.5	30.2	974	96.8	68.5	50.0	41.4	3,275

<sup>1</sup> Food groups: a) infant formula, milk other than breast milk, cheese or yogurt or other milk products; b) foods made from grains, roots, and tubers, including porridge and, fortified baby food from grains; c) vitamin A-rich fruits and vegetables (and red palm oil); d) other fruits and vegetables; e) eggs; f) meat, poultry, fish, and shellfish (and organ meats); g) legumes and nuts; h) foods made with oil, fat, butter.

<sup>2</sup> At least twice a day for breastfed infants age 6-8 months and at least three times a day for breastfed children age 9-23 months

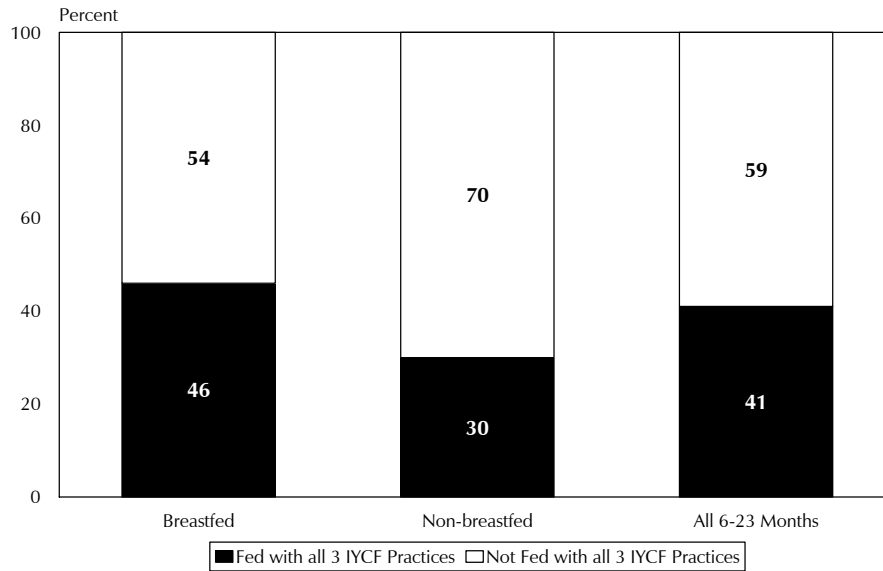
<sup>3</sup> Includes commercial infant formula, fresh, tinned and powdered animal milk, and cheese, yogurt and other milk products

<sup>4</sup> Non-breastfed children age 6-23 months are considered to be fed with three IYCF practices if they receive other milk or milk products are fed at least the minimum number of times per day with at least the minimum number of food groups.

<sup>5</sup> 3+ food groups for breastfed children and 4+ food groups for non-breastfed children

<sup>6</sup> Fed solid or semisolid food at least twice a day for infants age 6-8 months, 3+ times a day for other breastfed children, and 4+ times a day for non-breastfed children

**Figure 13.3 Infant and Young Child Feeding (IYCF) Practices**



EDHS 2008

### 13.2.3 Foods and Liquids Consumed by Women

Adequate maternal nutrition is important for the health and reproductive outcomes of women and child survival and development. Table 13.6 presents the data obtained from mothers of young children on the foods and liquids they consumed during a 24-hour period before the survey. The information on maternal eating patterns serves as a useful if imperfect proxy for assessing the quality of maternal diet.

The results in Table 13.6 show that nine in ten mothers consumed foods made from grains during the 24-hour period prior to the survey and more than eight in ten ate meat, fish including shellfish, poultry or eggs and foods made with oil, fat or butter during the 24-hour period prior to the survey. The consumption of meat, fish, poultry and eggs is important since these foods are important sources of protein and iron. Less encouraging is the finding that around one-third of mothers of young children did not consume milk or milk products (important sources of calcium) and 53 percent did not have any vitamin A-rich fruits and vegetables during the 24-hour period prior to the survey interview.

Considering the differentials in Table 13.6, there are only modest variations in the proportions of women consuming a number of the food groups including grains, roots or tubers, legumes and nuts, oil, fat or butter, and tea or coffee. These items are staples in the Egyptian diet. More marked variations are observed, particularly by wealth quintile, in the percentages consuming other food groups including milk and milk products, fruits and vegetables, particularly those rich in vitamin A, and meat, fish or shellfish, poultry, and eggs. Consumption of sugary foods varies markedly with the wealth quintile, with women in the highest quintile being more than twice as likely as women in lowest quintile to consume both sugary foods.

Table 13.6 Foods and liquids consumed by mothers in the day or night preceding the interview by background characteristics

Percentage of mothers whose youngest child is under three years of age and living with them, who consumed specific types of food groups in the day or night preceding the interview by background characteristics, Egypt 2008

Background characteristic	Milk	Coffee/tea	Other liquids	Cheese/yogurt/other milk products	Sugary foods	Food made from grains	Fruits and vegetables rich in vitamin A <sup>1</sup>	Other fruits/vegetables	Food made from roots/tubers	Food made from legumes and nuts	Meat/fish/shellfish/poultry/eggs	Food made with oil/fat/butter	Number of mothers
<b>Age</b>													
15-19	54.7	77.1	41.5	64.9	12.4	87.5	53.8	47.1	66.4	58.6	85.9	81.4	266
20-24	51.6	78.2	40.0	66.2	13.8	90.0	52.8	47.9	64.3	57.0	85.7	82.4	1,699
25-29	54.2	80.9	42.2	68.0	19.1	90.5	53.9	51.7	64.5	62.1	87.3	85.5	2,027
30-34	53.0	81.3	45.4	66.7	15.7	89.3	52.9	46.3	66.0	61.7	86.8	83.4	1,136
35-39	53.0	82.1	44.9	69.3	17.1	90.0	48.9	49.1	66.2	62.0	86.6	86.5	543
40-44	49.9	78.0	35.5	69.8	16.5	93.2	48.0	47.4	66.5	60.5	80.5	81.1	187
45-49	(26.2)	(83.3)	(30.9)	(55.1)	(9.3)	(91.4)	(53.2)	(43.3)	(65.2)	(67.6)	(76.0)	(69.5)	23
<b>Urban-rural residence</b>													
Urban	56.3	80.0	47.7	69.4	20.8	89.9	52.9	50.1	62.7	62.1	88.3	85.3	2,224
Rural	50.8	80.1	38.7	65.9	13.6	90.1	52.7	48.2	66.5	59.3	85.1	83.0	3,657
<b>Place of residence</b>													
Urban Governorates	60.7	78.4	54.7	71.4	20.1	90.0	49.7	49.9	62.3	61.8	87.5	83.5	943
Lower Egypt	55.5	78.2	39.8	69.0	16.3	91.3	54.0	57.0	69.2	59.7	89.2	85.8	2,610
Urban	56.2	77.5	42.8	68.3	20.3	90.2	54.8	57.8	65.0	62.6	91.7	87.0	586
Rural	55.3	78.4	39.0	69.1	15.1	91.6	53.8	56.8	70.4	58.9	88.4	85.5	2,024
Upper Egypt	46.0	82.7	39.6	63.4	14.8	88.6	52.6	38.9	61.2	60.2	82.3	81.8	2,244
Urban	49.4	84.6	42.2	67.8	22.2	89.9	55.8	42.6	60.9	61.5	86.2	86.2	641
Rural	44.7	82.0	38.5	61.7	11.8	88.1	51.3	37.4	61.4	59.6	80.8	80.0	1,603
Frontier Governorates	67.8	84.0	41.5	67.6	16.4	88.0	51.9	54.3	67.3	67.3	91.1	85.4	83
<b>Education</b>													
No education	46.0	82.2	35.8	63.4	12.1	89.6	46.7	39.9	63.5	58.4	81.7	80.3	1,423
Some primary	47.9	82.1	36.9	67.9	13.6	93.4	49.0	43.0	68.2	64.8	78.7	81.5	359
Primary complete/ some secondary	53.3	77.6	40.9	64.4	15.2	88.7	50.0	50.2	66.1	62.8	84.3	84.3	919
Secondary complete/ higher	56.4	79.6	45.9	69.7	18.8	90.2	56.7	53.3	65.0	60.0	89.9	85.7	3,180
<b>Work status</b>													
Working for cash	55.8	80.6	44.9	70.8	20.3	90.9	55.3	55.8	65.3	62.7	89.3	87.5	618
Not working for cash	52.5	80.0	41.8	66.8	15.8	89.9	52.5	48.1	65.0	60.1	86.0	83.5	5,262
<b>Wealth quintile</b>													
Lowest	43.9	82.8	35.7	65.8	9.9	88.1	46.3	35.7	62.3	56.6	77.3	76.9	1,135
Second	51.1	82.9	35.4	63.0	12.4	91.5	50.3	44.1	68.5	61.0	83.7	85.2	1,166
Middle	50.2	77.8	41.6	66.8	16.3	92.1	51.4	51.1	66.6	62.2	87.1	83.3	1,230
Fourth	54.9	77.2	46.2	65.2	17.1	89.2	58.1	55.2	63.8	62.8	89.7	86.1	1,228
Highest	64.5	79.9	51.9	75.8	26.0	89.1	57.4	57.9	63.8	58.7	93.6	87.8	1,120
Total	52.9	80.1	42.1	67.2	16.3	90.0	52.8	48.9	65.0	60.3	86.3	83.9	5,880

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mangoes, cantaloupe, dark green leafy vegetables, and other locally grown fruits and vegetables that are rich in vitamin A

### 13.3 MICRONUTRIENT SUPPLEMENTATION

Micronutrient deficiencies are a major contributor to childhood morbidity and mortality. Micronutrient deficiencies result from inadequate intake of micronutrient-rich foods and inadequate utilization of available micronutrients because of infections, parasitic infestations, or other factors in the diet such as phytates and tannins. Measures of micronutrient fortification (iodized household cooking salt) and micronutrient supplementation (vitamin A for children and women and iron for women) were obtained in the 2008 EDHS survey.

### 13.3.1 Use of Iodized Salt

Iodine is an important micronutrient. Dietary deficiency of iodine constitutes a major global public health concern. A lack of sufficient iodine is known to cause goiter, cretinism (a neurological defect), spontaneous abortion, premature birth, infertility, stillbirth, and increased child mortality. Iodine deficiency disorder (IDD) is the single most common cause of preventable mental retardation and brain damage in the world. Egypt has adopted a program of fortifying salt with iodine to prevent iodine deficiency.

In the 2008 EDHS, a rapid test was used to measure iodine content of the salt used for cooking in the household. The test kit consisted of ampoules of a stabilized starch solution and a weak acid-based solution. A drop of the starch solution was squeezed onto a salt sample obtained in the household, causing the salt to change color. The EDHS interviewer conducting the test matched the color of the salt to a color chart included with the test kit to determine the level of iodization.

Table 13.7 shows the percentage of households using iodized salt. Overall, 79 percent of households were using adequately iodized salt, i.e., the iodine content of the salt 15 ppm or more (parts per million). Two percent of the households cooked with salt which the test indicated lacked iodine and 19 percent with salt where the iodine level was below 15 ppm.

Background characteristic	Among all households, percentage		Number of households	Among households with tested salt, the percent distribution by iodine content of salt			Total	Number of households
	With salt tested	With no salt		None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)		
<b>Urban-rural residence</b>								
Urban	98.9	0.9	9,159	0.6	13.4	86.0	100.0	9,058
Rural	98.0	1.7	9,809	3.7	24.5	71.9	100.0	9,609
<b>Place of residence</b>								
Urban Governorates	99.3	0.5	4,182	0.4	13.6	86.0	100.0	4,153
Lower Egypt	99.1	0.8	8,348	1.4	17.7	80.9	100.0	8,272
Urban	98.8	1.1	2,466	0.4	11.3	88.3	100.0	2,435
Rural	99.2	0.7	5,881	1.8	20.4	77.8	100.0	5,837
Upper Egypt	96.9	2.5	6,204	4.4	24.8	70.7	100.0	6,010
Urban	98.3	1.2	2,338	1.1	15.1	83.8	100.0	2,299
Rural	96.0	3.3	3,865	6.5	30.9	62.6	100.0	3,710
Frontier Governorates	99.1	0.7	235	3.1	20.1	76.8	100.0	232
<b>Wealth quintile</b>								
Lowest	96.0	3.3	3,205	7.3	35.9	56.8	100.0	3,076
Second	98.5	1.4	3,262	3.1	26.0	70.9	100.0	3,212
Middle	98.7	1.1	3,849	1.3	20.0	78.7	100.0	3,798
Fourth	99.1	0.8	4,231	0.6	11.9	87.5	100.0	4,192
Highest	99.3	0.6	4,420	0.2	8.4	91.4	100.0	4,389
Total	98.4	1.3	18,968	2.2	19.1	78.7	100.0	18,668

Urban households were much more likely than rural households to be using salt considered to be adequately iodized (86 percent and 72 percent, respectively). By place of residence, the proportion of households using adequately iodized salt ranged from 63 percent in rural Upper Egypt to 88 percent in urban Lower Egypt. The percentage of households using adequately iodized salt also increased directly



with household wealth, from 57 percent among households in the lowest wealth quintile to 91 percent of households in the highest quintile.

### 13.3.2 Micronutrient Intake among Young Children

Data from the 2008 EDHS can be used to assess the extent to which young children are likely to be consuming adequate amounts of several important micronutrients including vitamin A, iron, and iodine. Vitamin A is considered essential for normal sight, growth, and development. Vitamin A protects the body against some infectious illnesses such as measles and diarrheal disease. Severe vitamin A deficiency (VAD) is associated with total loss of vision or with other vision impairments including night blindness. Iron deficiency is one of the most prevalent nutrient deficiencies in the world affecting an estimated two billion people. It slows cognitive development and is associated with increased morbidity and mortality. Finally, as discussed above, adequate levels of iodine are important to prevent mental retardation and to reduce child mortality.

Ensuring that children have an adequate diet is one means of preventing iron and vitamin A deficiency. Foods rich in iron include meat (and organ meat), fish, poultry, and eggs. Vitamin A is found naturally in breast milk, other milks, liver, eggs, fish, butter, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. Since vitamin A is a fat-soluble vitamin, consumption of oils or fats is necessary for its absorption into the body. Foods rich in iron include meat (and organ meat), fish, poultry, and eggs. Vitamin A supplementation programs are another important tool in addressing VAD. Egypt has a program of vitamin A supplementation for young children. Beginning at age nine months (typically at the time the child receives the measles vaccination), young children are given one vitamin A capsule (100,000 international units). Two additional capsules (200,000 units) are given to children at age 18 months with the activated polio dose.

Table 13.8 presents several indicators that are useful for assessing the likelihood that young children are receiving an adequate intake of vitamin A, iron, and iodine. They include the percentage of youngest children less than three years of age living with their mother who consumed fruits and vegetables rich in vitamin A, the percentage of children 6-59 months who received vitamin A supplementation in the six-month period prior to the survey, and the percentage of children under age five who live in households that use adequately iodized salt.

The results suggest that only slightly more than one-third of children age 6-35 months are consuming foods rich in vitamin A on a daily basis. This figure is lower than the proportion of children age 6-35 months found to be consuming vitamin A-rich foods at the time of the 2005 EDHS (45 percent). Table 13.8 also found that 72 percent of children age 6-35 months were consuming iron-rich foods, around twice the proportion consuming vitamin-A rich foods. Consumption of both iron- and vitamin A-rich foods rises with the age of the child and is greater among not breastfeeding than breastfeeding children, reflecting the increasing diversity of children's diets as they are weaned. Urban-rural residence is not strongly related to children's consumption of foods rich in these two micronutrients but consumption levels do vary somewhat by place of residence; children in urban Upper Egypt have the highest level of consumption of vitamin A-rich foods, while children in urban Lower Egypt have the highest level of consumption of iron-rich foods. The likelihood that a child will consume iron- and vitamin A-rich foods rises with the education status of the mother and, particularly with the wealth quintile, indicating that economic factors play a role in shaping children's diets.

Table 13.8 Micronutrient intake among children by background characteristics

Among youngest children age 6-35 months living with the mother the percentage who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey; among all children age 6-59 months, the percentage who were given vitamin A supplements in the six months preceding the survey; and among children age 6-59 months living in households with salt tested, the percentage living in households using adequately iodized salt, by background characteristics, Egypt 2008

Background characteristic	Among youngest children 6-35 months of age living with mother, percentage who consumed:		Number of children age 6-35 months	Among children age 6-59 months, percentage given vitamin A supplement in past 6 months	Number of children	Percentage of children age 6-59 months living in households with adequately iodized salt <sup>3</sup>	
	Foods rich in vitamin A in past 24 hours <sup>1</sup>	Foods rich in iron in past 24 hours <sup>2</sup>				Number of children	Number of children
<b>Child's age</b>							
6-8 months	15.4	32.2	703	5.0	716	76.1	702
9-11 months	25.5	62.2	555	44.2	568	78.1	561
12-17 months	36.4	74.4	1,048	24.4	1,080	76.7	1,062
18-23 months	41.8	82.2	969	49.1	1,080	79.7	1,067
24-35 months	46.0	85.0	1,515	2.5	2,002	76.1	1,970
36-47 months	na	na	na	0.5	1,928	75.8	1,907
48-59 months	na	na	na	0.2	1,843	77.3	1,820
<b>Sex</b>							
Male	36.6	71.6	2,445	12.4	4,665	76.9	4,601
Female	35.8	71.9	2,345	12.4	4,552	76.8	4,487
<b>Breastfeeding status</b>							
Breastfeeding	28.0	59.9	2,363	26.5	2,422	76.5	2,383
Not breastfeeding	44.3	83.2	2,421	7.4	6,747	77.1	6,659
Missing	5.9	100.0	6	8.6	48	73.8	46
<b>Urban-rural residence</b>							
Urban	37.6	73.2	1,822	14.0	3,408	85.0	3,377
Rural	35.3	70.8	2,968	11.5	5,809	72.1	5,711
<b>Place of residence</b>							
Urban Governorates	33.9	72.6	766	15.9	1,441	85.9	1,432
Lower Egypt	36.6	74.4	2,150	12.4	4,039	81.2	4,026
Urban	39.2	76.5	496	13.7	905	89.2	898
Rural	35.8	73.7	1,654	12.0	3,134	78.9	3,128
Upper Egypt	36.7	68.1	1,807	11.0	3,605	68.4	3,499
Urban	42.0	70.9	516	11.4	979	80.6	965
Rural	34.6	67.0	1,291	10.9	2,626	63.8	2,534
Frontier Governorates	34.3	74.9	67	13.1	132	71.1	131
<b>Mother's education</b>							
No education	30.3	66.2	1,160	10.5	2,404	66.3	2,337
Some primary	32.5	64.2	295	11.7	631	67.1	617
Primary complete/ some secondary	35.2	69.8	744	12.5	1,400	79.2	1,391
Secondary complete/higher	39.5	75.6	2,591	13.5	4,782	82.7	4,742
<b>Work status</b>							
Working for cash	39.9	73.6	525	11.3	1,038	80.2	1,032
Not working for cash	35.7	71.5	4,265	12.6	8,179	76.5	8,056
<b>Wealth quintile</b>							
Lowest	30.6	63.7	920	10.6	1,862	56.2	1,805
Second	35.2	70.0	941	11.2	1,832	71.8	1,818
Middle	36.5	71.9	978	12.6	1,940	79.4	1,908
Fourth	38.0	73.8	1,016	12.7	1,851	87.7	1,837
Highest	40.4	79.0	935	15.2	1,732	89.7	1,719
Total	36.2	71.7	4,790	12.4	9,217	76.9	9,088

Note: Information on vitamin A supplements is based on health card and mother's recall.

na = Not applicable

<sup>1</sup> Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, green leafy vegetables, mango, cantaloupe, and other locally grown fruits and vegetables that are rich in vitamin A

<sup>2</sup> Includes meat, (including organ meat), fish, poultry, and eggs

<sup>3</sup> Salt containing 15 ppm of iodine or more. Excludes children in households in which salt was not tested

The proportions receiving a vitamin A supplement presented in Table 13.8 are derived from information recorded on children's vaccination records or from the mothers' recall when records were not available (see Chapter 12 for a discussion of vaccination record coverage). Overall, a comparatively small proportion of children age 6-59 months received a vitamin A capsule during the six-month period prior to the DHS. The likelihood of supplementation is, however, strongly related with the child's age. Approximately three in ten children age 9-24 months had received a capsule in the six-month period before the survey. The higher rates among children in the 9-24 month age group clearly reflect the impact of Egypt's vitamin A supplementation program, which as noted above targets children in that age range.

Finally, Table 13.8 shows that 77 percent of children age 6-59 months lives in households in which salt was tested and found to be adequately iodized. As noted above, availability of iodized salt is higher in urban than rural households and increases with both the mother's education status and household wealth.

### 13.3.3 Micronutrient Intake among Mothers

Adequate micronutrient intake by women has important benefits for both the women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects mother and infant against anemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anemia (WHO, 2002). Anemia also results in an increased risk of premature delivery and low birth weight. Finally, as noted above, iodine deficiency is related to a number of adverse pregnancy outcomes.

Table 13.9 includes a number of measures that are useful in assessing the extent to which women are receiving adequate intake of vitamin A, iron during pregnancy, and iodine. The first indicators focused on the percentages of women with children under age three who reported that they consumed foods rich in vitamin A and iron during the 24-hour period prior to the DHS. The results indicate that more than eight in ten mothers of young children consumed iron-rich foods (i.e., meat, poultry, fish and eggs) in the 24 hours preceding the survey, and 53 percent consumed vitamin A-rich fruits and vegetables. As was the case with children, consumption of iron- and vitamin A-rich foods is influenced by the place of residence, the woman's education status, and household wealth. Consumption of iron-rich foods also is related to these factors. Overall, the highest rates of consumption of both iron- and vitamin A-rich foods are observed among mothers in the highest wealth quintile, and the lowest rate among women in the lowest wealth quintile.

Table 13.9 also looks at the extent to which women receive vitamin A supplements following delivery. Just over half of women who gave birth during the five-year period before the 2008 EDHS reported that they had received a capsule in the two-month period following the delivery of their last-born child. Women living in urban Upper Egypt were the least likely to report receiving a supplement.

With regard to iron supplementation during pregnancy, just over one-third of women who gave birth during the five-year period before the 2008 EDHS reported that they had taken iron tablets or syrup during the pregnancy preceding their last live birth. This represents a decline from the level reported in the 2005 EDHS (49 percent). Among women reporting that they took supplements, the majority said that they took the supplements for less than 60 days. Urban residents, particularly those living in the Urban Governorates, women with a secondary or higher education and women in the highest wealth quintile were considerably more likely to have taken iron tablets or syrup during pregnancy than other women.

Nearly eight in ten who gave birth during the five-year period prior to the survey live in households in which the salt used in cooking was tested and found to be adequately iodized.

Table 13.9 Micronutrient intake among mothers by background characteristics

Among ever-married women 15-49 with a child under the age of 3 living with them, the percentage who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; among ever-married women 15-49 with a child born in the 5-year period preceding the survey, the percentage who received a vitamin A dose in the first two months after the birth of the last child and the percentage who took iron tablets or syrup for specific numbers of days during the pregnancy preceding the last birth; among ever-married women age 15-49 with a child born in the 5-year period preceding the survey and living in households where salt was tested, the percentage who live in households using adequately iodized salt, by background characteristics, Egypt 2008

Background characteristic	Among women with child under age 3 living in household, percentage who consumed:		Number of women with child under age 3 living in household	Among women with birth in the five-year period before the survey					Number of women with birth in five-year period before the survey	Percentage of women with birth in five-year period before the survey living in households with adequately iodized salt <sup>4</sup>	Number of women with birth in 5-year period before the survey living in households where salt was tested	
	Vitamin A-rich foods <sup>1</sup>	Iron-rich foods <sup>2</sup>		Percentage who received vitamin A postpartum <sup>3</sup>	Number of days iron tablets/syrup taken during pregnancy							
				None	<60	60-89	90+	Don't know/missing				
<b>Age</b>												
15-19	53.8	85.9	266	46.7	56.4	22.0	2.8	10.4	8.3	275	71.3	271
20-24	52.8	85.7	1,699	57.7	55.1	23.3	3.8	13.3	4.5	1,925	75.4	1,897
25-29	53.9	87.3	2,027	59.8	54.6	22.0	3.6	14.4	5.4	2,663	78.1	2,627
30-34	52.9	86.8	1,136	54.8	58.3	19.4	3.1	13.9	5.2	1,652	79.3	1,637
35-39	48.9	86.6	543	59.3	60.6	17.7	3.6	14.3	3.8	923	77.0	907
40-44	48.0	80.5	187	46.2	60.9	16.0	4.1	11.9	7.1	387	75.3	383
45-49	(53.2)	(76.0)	23	46.4	55.2	14.9	7.1	19.9	2.9	72	78.0	70
<b>Urban-rural residence</b>												
Urban	52.9	88.3	2,224	56.9	48.2	18.5	4.8	22.8	5.7	3,012	85.1	2,988
Rural	52.7	85.1	3,657	56.9	61.7	22.4	2.8	8.3	4.8	4,883	72.3	4,805
<b>Place of residence</b>												
Urban Governorates	49.7	87.5	943	62.4	38.2	18.1	6.1	34.4	3.2	1,294	85.4	1,288
Lower Egypt	54.0	89.2	2,610	62.0	63.6	21.0	2.0	8.3	5.0	3,500	81.3	3,486
Urban	54.8	91.7	586	61.8	63.9	20.4	2.3	8.8	4.6	794	89.3	787
Rural	53.8	88.4	2,024	62.1	63.5	21.2	1.9	8.2	5.2	2,706	78.9	2,699
Upper Egypt	52.6	82.3	2,244	48.9	56.1	22.1	4.2	11.3	6.2	2,990	68.9	2,909
Urban	55.8	86.2	641	44.6	47.8	17.3	5.2	18.7	10.9	854	81.3	843
Rural	51.3	80.8	1,603	50.7	59.4	24.1	3.8	8.4	4.3	2,136	63.8	2,066
Frontier Governorates	51.9	91.1	83	47.5	61.6	17.6	4.8	13.7	2.3	111	72.7	111
<b>Education</b>												
No education	46.7	81.7	1,423	49.8	65.1	21.5	2.0	6.7	4.8	1,997	66.4	1,945
Some primary	49.0	78.7	359	55.7	63.0	18.1	3.0	11.5	4.4	528	66.8	518
Primary complete / some secondary	50.0	84.3	919	57.9	57.8	21.3	3.8	12.6	4.5	1,239	79.2	1,232
Secondary complete/higher	56.7	89.9	3,180	60.2	51.3	20.9	4.3	17.9	5.6	4,132	83.0	4,099
<b>Work status</b>												
Working for cash	55.3	89.3	618	59.1	50.7	20.5	5.1	17.8	5.9	903	81.1	895
Not working for cash	52.5	86.0	5,262	56.6	57.3	21.0	3.4	13.3	5.0	6,993	76.7	6,898
<b>Wealth quintile</b>												
Lowest	46.3	77.3	1,135	48.2	66.0	22.8	2.4	5.5	3.2	1,525	56.3	1,480
Second	50.3	83.7	1,166	56.2	61.6	21.9	3.2	7.3	5.9	1,557	70.8	1,544
Middle	51.4	87.1	1,230	58.2	61.6	21.3	2.7	8.8	5.6	1,659	80.3	1,636
Fourth	58.1	89.7	1,228	62.1	53.3	19.9	3.4	18.9	4.4	1,626	87.4	1,613
Highest	57.4	93.6	1,120	59.6	39.9	18.6	6.3	28.7	6.5	1,528	89.8	1,520
<b>Total</b>	<b>52.8</b>	<b>86.3</b>	<b>5,880</b>	<b>56.9</b>	<b>56.6</b>	<b>20.9</b>	<b>3.6</b>	<b>13.8</b>	<b>5.1</b>	<b>7,896</b>	<b>77.2</b>	<b>7,793</b>

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mango, cantaloupe, and other locally grown fruits and vegetables that are rich in vitamin A

<sup>2</sup> Includes meat, (including organ meat), fish, poultry, and eggs

<sup>3</sup> In the first two months after delivery

<sup>4</sup> Salt containing 15 ppm or iodine or more. Excludes women in households in which salt was not tested



## NUTRITIONAL STATUS

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This chapter uses anthropometric data obtained in the 2008 EDHS to assess the nutritional status of young children, youth and adults in Egypt. Specially trained teams were responsible for taking the height and weight measurements<sup>1</sup> during the survey. The measurements were collected for children under age six and youth and young adults age 10-19 years in all of the households included in the EDHS sample. In addition, in the subsample of households selected for the health issues survey, measurements were obtained for all women and men in the 20-59 age group while, in the remaining households in the sample, measurements were recorded for ever-married women age 20-49.

### 14.1 NUTRITIONAL STATUS OF CHILDREN

Nutritional status is a primary determinant of a child's health and well-being. The anthropometric data collected in the 2008 EDHS permit an assessment of the nutritional status of children under age five in Egypt.

#### 14.1.1 Measurement of Nutritional Status among Young Children

The anthropometric measurements obtained in the EDHS for young children as well as information on the children's ages were used to construct the following three standard indices of physical growth: (1) height-for-age; (2) weight-for-height; and (3) weight-for-age. For the tables presented in this report, the anthropometric indices derived from 2008 EDHS are compared against new growth standards generated by WHO from data collected in a Multicentre Growth Reference Study (WHO 2006b). It should be noted that, because this is the first EDHS to use the WHO Multicentre Growth Reference Population, the results cannot be compared to earlier DHS surveys.<sup>2</sup>

Each of the indices measures somewhat different aspects of nutritional status. The height-for-age index provides an indicator of linear growth. Children whose height-for-age measures are below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age, or *stunted*. Children who are below minus three standard deviations (-3 SD) from the reference population are considered *severely stunted*. Stunting of a child's growth may be the result of a failure to receive adequate nutrition over a long period of time or of the effects of recurrent or chronic illness.

The weight-for-height index measures body mass in relation to body length. Children whose weight-for-height measures are below minus two standard deviations (-2 SD) from the median of the reference population are too thin for their height, or *wasted*, while those whose measures are below minus three standard deviations (-3 SD) from the reference population median are *severely wasted*. Wasting

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<sup>1</sup> The measuring boards used for the collection of the height data are specially produced by Shorr Productions for use in survey settings. Children younger than 24 months were measured lying on a measuring board, while standing height was measured for older children, adolescents and adult women and men. Weight data were obtained using lightweight, bathroom-type scales with a digital screen designed and manufactured under the authority of the United Nations Children's Fund (UNICEF).

<sup>2</sup> Comparisons were also made to indices for an international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by WHO and the U.S. Centers for Disease Control. These results are presented in Appendix E. The NCHS/WHO/CDC population had served as the reference population for assessing children's nutritional status in all previous DHS surveys in Egypt.

represents the failure to receive adequate nutrition during the period immediately before the survey. It may be the result of recent episodes of illness or acute food shortages.

Weight-for-age is a composite index of height-for-age and weight-for-height. Children whose weight-for-age measures are below minus two standard deviations (-2 SD) from the median of the reference population are *underweight* for their age, while those whose measures are below minus three standard deviations (-3 SD) from the reference population median are *severely underweight*. A child can be underweight for his age, because he is stunted, he is wasted, or he is both stunted and wasted.

#### **14.1.2 Results of Data Collection**

Measurements of height and weight were obtained for all children under age 6 living in the households selected for the EDHS sample. The results include children who were not biological offspring of the women interviewed in the survey. Although data was collected for all children under age six, for purposes of comparability with prior EDHS surveys, the analysis is limited to children under age five. Height and weight measurements were obtained for 99 percent of the 10,361 children in that age range present in EDHS households at the time of the survey. Of these children, 10 percent were considered to have implausibly high or low values for the height or weight measures or lacked data on the child's age in months (not shown in table). The following analysis focuses on the 9,103 children for whom complete and plausible anthropometric and age data were collected.

#### **14.1.3 Levels of Child Malnutrition**

An examination of the height-for-age data from the 2008 EDHS indicates that there is considerable chronic malnutrition among Egyptian children. Overall, the 2008 EDHS found that 29 percent of children under age five were stunted, and 14 percent were severely stunted. As Figure 14.1 shows, stunting was apparent even among children under six months of age. Stunting levels increased rapidly with age, from only 17 percent among children less than six months of age to 41 percent among children 18-23 months, before falling to 24 percent among children age four and older. Levels of stunting were slightly higher for male children than for female children. Stunting did not vary systematically with birth order or with the length of the birth interval. Stunting levels were higher among children who were considered by the mother to be very small or smaller than average at birth than among children who were average or larger.

Table 14.1 Nutritional status of children by children's characteristics

Percentage of children under five who are classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics of the child, Egypt 2008

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	
<b>Child's age</b>										
Under 6 months	7.4	16.8	(0.3)	5.9	11.9	0.5	1.3	6.3	0.1	867
6-8	11.0	21.9	(0.5)	2.4	6.5	0.6	0.6	5.2	0.0	804
9-11	10.6	22.0	(0.4)	1.8	5.8	0.6	2.9	5.5	0.2	324
12-17	14.2	28.1	(0.9)	1.3	5.2	0.7	0.6	4.4	0.1	947
18-23	22.9	40.8	(1.4)	3.6	8.2	0.6	2.3	7.5	(0.2)	960
24-35	16.8	34.9	(1.3)	3.2	7.3	0.6	0.9	6.5	(0.2)	1,755
36-47	14.9	31.8	(1.2)	3.3	6.8	0.6	1.5	6.0	(0.3)	1,748
48-59	10.5	24.3	(1.1)	3.0	6.4	0.6	1.2	5.9	(0.3)	1,697
<b>Sex</b>										
Male	15.7	30.7	(1.1)	3.2	8.0	0.5	1.5	7.1	(0.3)	4,540
Female	12.3	27.1	(0.9)	3.1	6.4	0.7	1.0	4.9	(0.1)	4,564
<b>Birth order</b>										
1	13.8	27.7	(0.9)	3.4	7.2	0.6	1.3	5.6	(0.1)	2,935
2-3	14.3	29.3	(1.1)	3.1	7.3	0.6	1.1	6.0	(0.2)	4,217
4-5	13.8	30.2	(1.1)	2.8	8.1	0.5	1.6	6.8	(0.2)	1,343
6+	12.5	28.7	(1.1)	3.2	5.7	0.5	1.2	5.5	(0.3)	510
<b>Birth interval in months</b>										
First birth <sup>2</sup>	13.9	27.8	(0.9)	3.4	7.2	0.6	1.4	5.7	(0.1)	2,991
Under 24 months	17.3	34.1	(1.3)	2.9	7.2	0.6	1.8	7.7	(0.3)	1,071
24-47	13.5	28.5	(1.0)	3.1	7.2	0.6	1.1	5.8	(0.2)	3,002
48+	12.9	28.4	(1.0)	3.1	7.5	0.6	1.0	5.8	(0.1)	1,942
<b>Size at birth<sup>3</sup></b>										
Very small	15.2	35.6	(1.1)	4.1	10.0	0.3	2.3	8.0	(0.4)	282
Small	13.4	31.0	(1.2)	2.8	7.2	0.5	1.1	7.5	(0.3)	851
Average or larger	14.0	28.4	(1.0)	3.2	7.2	0.6	1.2	5.8	(0.1)	7,833
Missing	11.8	27.6	(1.1)	0.0	0.0	0.9	0.0	0.0	0.0	21
<b>Mother's interview status</b>										
Interviewed	14.0	28.9	(1.0)	3.2	7.3	0.6	1.3	6.0	(0.2)	9,005
Not interviewed	16.8	30.7	(1.1)	2.9	3.2	0.7	2.4	7.1	(0.2)	98
In the household	10.3	23.8	(0.8)	2.8	3.6	0.8	0.0	1.3	0.1	41
Not in the household <sup>4</sup>	21.3	35.6	(1.4)	3.0	3.0	0.7	4.1	11.2	(0.4)	58
Total	14.0	28.9	(1.0)	3.2	7.2	0.6	1.3	6.0	(0.2)	9,103

Note: Table based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards reference population adopted in 2006. Thus, the indices in this table are not comparable to those based on the previously used NCHS/CDC/WHO standards. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown according to background characteristics. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. The total includes children whose mothers were not interviewed in the survey. Information on the background characteristics shown in the table is not available for these children. The total also includes 6 children for whom information on the child's size at birth was not available.

<sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

<sup>2</sup> First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

<sup>3</sup> Excludes children whose mothers were not interviewed or for whom size at birth information is not available.

<sup>4</sup> Includes children whose mothers are deceased.



**Figure 14.1 Nutritional Status of Children by Age**



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition and *underweight* reflects chronic and acute malnutrition or a combination of both.

EDHS 2008

Table 14.2 shows that there were marked socioeconomic differentials in stunting. Children in rural areas were somewhat more likely to be stunted than urban children (30 percent and 27 percent, respectively). The percentage stunted varied markedly by place of residence, ranging from 22 percent in the Urban Governorates to 39 percent in urban Lower Egypt. Neither the mothers' educational level nor the wealth quintile were systematically related to levels of stunting.

The weight-for-height index provides a measure of wasting, or acute malnutrition. As described above, the weight-for-height index reflects the effects on a child's nutritional status of recent food shortages or recent episodes of diarrheal or other illness that contribute to malnutrition. Overall, the 2008 EDHS results indicated that 7 percent of children under age five were wasted. Looking at the variation with the children's characteristics presented in Table 14.1, the highest levels of wasting were observed for children under age 6 months (12 percent) and children who were reported by the mother to have been very small at birth (10 percent). Considering the socioeconomic differentials in Table 14.2, children in the Urban Governorates (10 percent) were most likely to be wasted.

Reflecting the effects of both chronic and short-term malnutrition, 6 percent of children under age five were underweight for their age. Considering results in Table 14.1, children whose mothers were alive but not resident in the household (11 percent), children age 18-23 months (8 percent), and children who were considered by the mother to have been very small or small at birth (8 percent), were most likely to be underweight. Considering socioeconomic characteristics, Table 14.2 shows that low weight-for-age was slightly more common among children from Upper Egypt (7 percent) than children from other areas. Among children of whose mothers never attended school (8 percent) than among those whose mothers have at least some education, and among children living in the lowest wealth quintile (8 percent) compared to children from wealthier households.

Table 14.2 Nutritional status of children by mother's characteristics

Percentage of children under five who are classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by selected background characteristics, Egypt 2008

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	
<b>Mother's age<sup>2</sup></b>										
15-19	11.9	25.9	(0.7)	5.4	7.0	0.5	2.0	7.3	(0.1)	271
20-24	14.7	29.6	(1.0)	2.9	6.7	0.6	1.1	5.7	(0.1)	2,275
25-29	13.4	28.0	(1.0)	3.3	7.9	0.6	1.2	5.9	(0.2)	3,232
30-34	14.1	29.7	(1.1)	3.1	7.5	0.6	1.6	6.6	(0.2)	1,843
35-49	14.2	29.1	(1.0)	2.9	6.4	0.6	1.1	5.5	(0.2)	1,424
Missing	21.3	35.6	(1.4)	3.0	3.0	0.7	4.1	11.2	(0.4)	58
<b>Urban-rural residence</b>										
Urban	13.6	27.1	(0.9)	3.3	8.2	0.6	1.4	6.0	(0.1)	3,294
Rural	14.2	29.9	(1.1)	3.1	6.7	0.6	1.2	6.0	(0.2)	5,809
<b>Place of residence</b>										
Urban Governorates	12.0	22.3	(0.6)	4.1	9.8	0.6	1.4	5.9	0.0	1,372
Lower Egypt	18.8	34.2	(1.2)	3.2	6.8	0.8	1.3	5.5	(0.1)	3,959
Urban	21.2	39.3	(1.4)	2.8	6.3	1.0	1.5	5.2	(0.1)	878
Rural	18.2	32.7	(1.1)	3.4	6.9	0.8	1.2	5.6	(0.1)	3,081
Upper Egypt	9.5	25.7	(1.0)	2.8	6.8	0.4	1.2	6.7	(0.3)	3,664
Urban	8.8	22.7	(0.8)	2.8	8.0	0.4	1.4	7.1	(0.2)	983
Rural	9.7	26.9	(1.0)	2.7	6.3	0.4	1.1	6.5	(0.3)	2,681
Frontier Governorates	15.0	28.2	(0.9)	3.3	6.4	0.7	0.7	4.2	(0.0)	109
<b>Mother's education<sup>2</sup></b>										
No education	12.8	30.1	(1.0)	3.7	8.1	0.4	1.4	7.6	(0.3)	2,370
Some primary	12.9	28.4	(1.0)	2.6	6.2	0.6	1.2	5.5	(0.2)	623
Primary complete/ some secondary	15.6	30.1	(1.1)	3.3	7.0	0.6	1.3	5.7	(0.2)	1,354
Secondary complete/ higher	14.2	28.0	(1.0)	2.9	7.1	0.7	1.1	5.3	(0.1)	4,700
Missing	21.3	35.6	(1.4)	3.0	3.0	0.7	4.1	11.2	(0.4)	58
<b>Work status<sup>3</sup></b>										
Working for cash	15.4	29.4	(1.1)	2.2	5.6	0.8	1.2	5.8	(0.1)	994
Not working for cash	13.8	28.8	(1.0)	3.3	7.5	0.6	1.3	6.0	(0.2)	8,011
Missing	16.8	30.7	(1.1)	2.9	3.2	0.7	2.4	7.1	(0.2)	98
<b>Wealth quintile</b>										
Lowest	12.6	29.5	(1.0)	3.8	7.1	0.4	1.3	7.5	(0.3)	1,883
Second	14.7	30.5	(1.1)	2.7	7.9	0.5	1.5	6.0	(0.3)	1,835
Middle	12.4	27.3	(1.0)	3.9	8.0	0.6	1.4	5.9	(0.1)	1,928
Fourth	15.8	30.3	(1.1)	2.5	5.6	0.8	0.8	5.1	(0.0)	1,797
Highest	14.7	26.9	(0.9)	2.8	7.6	0.7	1.3	5.4	(0.0)	1,660
Total	14.0	28.9	(1.0)	3.2	7.2	0.6	1.3	6.0	(0.2)	9,103

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards reference population adopted in 2006. Thus, the indices in this table are not comparable to those based on the previously used NCHS/CDC/WHO standards. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown according to background characteristics. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

<sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

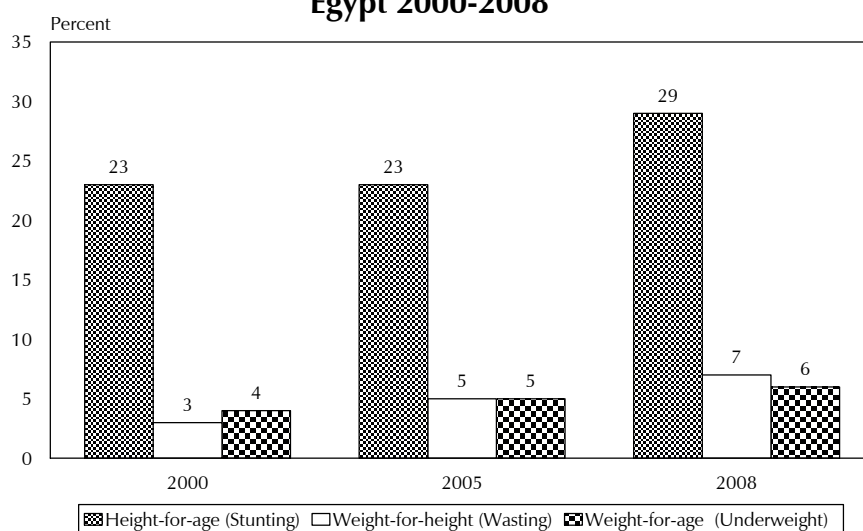
<sup>2</sup> For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers were not listed in the household schedule.

<sup>3</sup> Excludes children whose mothers were not interviewed.

#### 14.1.4 Trends in Child Nutrition

Figure 14.2 presents recent trends in the nutritional status of children in Egypt using anthropometric data from EDHS surveys undertaken between 2000 and 2008 and the WHO Child Growth Standards.<sup>3</sup> The survey results suggest that the nutritional status of young children in Egypt remained relatively stable during the period between the 2000 and 2005 surveys. Looking at the height-for-age measures, for example, the prevalence of stunting in young children was 23 percent in both 2000 and 2005. In 2008, however, the prevalence of stunting increased to 29 percent. The proportions of children who were found to be wasted and underweight were also higher in 2008 than in either of the two earlier EDHS surveys.

**Figure 14.2 Trend in Nutritional Status of Young Children (WHO Child Growth Standards) Egypt 2000-2008**



Note: Data are for children under age five for whom the nutrition status measure fell below -2 SD from the WHO Child Growth Standards reference population median.

The reasons for the increase in malnutrition among young children levels require further investigation, including an examination of the quality of the anthropometric data collected in the surveys and of the reporting of children's ages. However, one factor which may in part be responsible for the increase was the abrupt disruption in the supplies of poultry and eggs that followed the culling of millions of chickens and other poultry in response to the avian influenza outbreak Egypt experienced in 2006 (see Chapter 16). Geerlings and others (2007) found that the culling had a significant and sustained impact on household consumption of poultry and eggs, especially young children, and also put considerable strain on household financial resources since poultry sales accounted for nearly half of the incomes of many Egyptian households prior to 2006 (Geerlings et al., 2007).

#### 14.2 NUTRITIONAL STATUS OF NEVER-MARRIED YOUTH AND YOUNG ADULTS

Height and weight measures also were collected for never-married youth and young adults age 10-19 in the 2008 EDHS.

<sup>3</sup> A table is included in Appendix E showing trends in the nutritional status of children between 2000 and 2008 based upon comparisons with the NCHS/WHO/CDC reference population.

### 14.2.1 Measurement of Nutritional Status among Youth and Young Adults

The assessment of the nutritional status of adolescents using height and weight measures is complicated by the fact that adolescents undergo significant changes in their body stature and mass as they go through puberty and that body proportions may deviate more across populations for adolescents than for young children making it difficult to establish a reference population (Woodruff and Duffield 2000). Approaches to assessing adolescent nutritional status are, thus, less standardized than those for assessing the status of young children. However, WHO has recommended the use of body-mass index (BMI) for age to assess the nutritional status of adolescents (WHO 1995). This is the approach adopted in this report using the 2000 CDC Growth Charts (CDC 2000).

The body-mass index (BMI) is calculated by dividing weight in kilograms by height in meters squared ( $\text{kg}/\text{m}^2$ ). The same methods are used in calculating BMI for children, adolescents, and adults, but the results for children and adolescents are interpreted differently. For adults, the use of BMI to define nutritional status does not depend on age or gender. For children and adolescents age 2-20, however, assessments of nutritional status using CDC BMI growth charts are age- and gender-specific. These growth charts are used to rank individuals according to the percent of the reference population that the individual's BMI equals or exceeds, i.e., according to the percentile in which the individual falls. For example, on the male BMI-for-age growth charts, the BMI for a 10-year-old boy ranked in the 75th percentile, is the same or more than the BMI of 75 percent of the reference population of 10-year-old boys. The following established percentile cutoff points are used to identify underweight and overweight adolescents using the CDC Growth charts:

<b>Underweight</b>	BMI-for-age < 5th percentile
<b>Normal</b>	BMI-for-age 5th percentile to < 85th percentile
<b>At risk of overweight</b>	BMI-for-age 85th percentile to < 95th percentile
<b>Overweight</b>	BMI-for-age $\geq$ 95th percentile

### 14.2.2 Results of Data Collection

Height and weight measurements needed to determine nutritional status were obtained for 98 percent of the 9,230 never-married males age 10-19 and 99 percent of the 8,505 never-married females age 10-19 eligible for the collection of the anthropometric data.

### 14.2.3 Levels of Malnutrition among Never-married Youth and Young Adults

Tables 14.3.1 and 14.3.2 show the BMI-for-age percentile rankings for never-married female and male youth and young adults, respectively, according to selected background characteristics. The results indicate that 5 percent of never-married males age 10-19 and 6 percent of never-married females age 10-19 in Egypt may be classified overweight, i.e., their BMI values were at or above the 95th percentile on the age and sex-specific BMI growth charts. The BMI values for an additional 15 percent of males and 19 percent of females fall between the 85<sup>th</sup> and 95<sup>th</sup> percentiles, indicating that they were classified as at risk of becoming overweight. At the other end of the scale, five percent of males and three percent of females were considered to be underweight, i.e., their BMI values fell below the 5<sup>th</sup> percentile on the growth charts.

Table 14.3.1 Nutritional status of never-married female youth and young adults by background characteristics

Percentage with specific BMI levels among never-married females age 10-19, by background characteristics, Egypt 2008

Background characteristic	Underweight (< 5th percentile)	Normal (5th to <85th percentile)	At risk of overweight (85th to <95th percentile)	Overweight (≥95th percentile)	Total percent	Number of females
<b>Age of adolescent</b>						
10-11	5.2	74.1	15.4	5.3	100.0	1,817
12-13	4.0	71.5	17.8	6.6	100.0	1,792
14-15	1.6	70.1	21.8	6.5	100.0	1,701
16-17	0.9	70.9	21.5	6.7	100.0	1,635
18-19	1.0	73.8	20.9	4.3	100.0	1,438
<b>Mother's age</b>						
< 30	2.9	78.9	15.2	3.0	100.0	202
30-34	5.2	72.1	16.7	6.0	100.0	1,038
35-49	2.4	71.6	19.9	6.1	100.0	5,744
50+	1.8	71.7	20.6	5.9	100.0	700
Mother not in household/no information available	1.6	74.4	18.6	5.5	100.0	699
<b>Urban-rural residence</b>						
Urban	2.6	67.8	21.3	8.3	100.0	3,477
Rural	2.7	75.1	18.0	4.2	100.0	4,906
<b>Place of residence</b>						
Urban Governorates	2.8	64.3	24.3	8.5	100.0	1,440
Lower Egypt	1.0	70.9	23.3	4.8	100.0	3,544
Urban	0.6	69.6	23.3	6.4	100.0	972
Rural	1.2	71.3	23.3	4.2	100.0	2,571
Upper Egypt	4.3	76.4	13.3	6.1	100.0	3,278
Urban	4.2	70.1	15.5	10.2	100.0	984
Rural	4.3	79.1	12.3	4.3	100.0	2,295
Frontier Governorates	4.1	81.6	10.8	3.5	100.0	122
<b>Mother's education</b>						
No education	2.9	73.3	18.4	5.4	100.0	3,473
Some primary	2.7	76.6	15.3	5.3	100.0	924
Primary complete/ some secondary	1.9	70.7	20.2	7.2	100.0	1,003
Secondary complete/higher	2.9	68.3	22.4	6.5	100.0	2,282
Mother not in household /no information possible	1.6	74.3	18.6	5.5	100.0	701
<b>Mother's work status</b>						
Working for cash	3.1	68.8	21.4	6.7	100.0	1,276
Not working for cash	2.8	72.5	18.9	5.8	100.0	5,671
Mother not in household /no information possible	1.7	73.2	19.5	5.6	100.0	1,436
<b>Wealth quintile</b>						
Lowest	3.8	79.3	13.5	3.4	100.0	1,889
Second	2.7	73.3	18.1	5.9	100.0	1,741
Middle	2.0	70.3	22.4	5.2	100.0	1,605
Fourth	1.6	69.9	21.4	7.1	100.0	1,589
Highest	2.9	65.9	22.7	8.5	100.0	1,559
Total	2.7	72.1	19.4	5.9	100.0	8,383

Note: Table is based on never-married females age 10-19 who stayed in the household the night before the interview.

Table 14.3.2 Nutritional status of never-married male youth and young adults by background characteristics						
Percentage with specific BMI levels among never-married males age 10-19 by background characteristics, Egypt 2008						
Background characteristic	Underweight (< 5th percentile)	Normal (5th to <85th percentile)	At risk of overweight (85th to <95th percentile)	Overweight (≥95th percentile)	Total percent	Number of youths/young adults
<b>Age of adolescent</b>						
10-11	6.9	71.6	14.4	7.1	100.0	1,838
12-13	6.0	72.2	16.3	5.4	100.0	1,885
14-15	5.6	72.5	18.4	3.5	100.0	1,734
16-17	3.7	78.5	13.9	4.0	100.0	1,813
18-19	3.2	82.8	10.6	3.4	100.0	1,730
<b>Mother's age</b>						
< 30	6.4	73.6	12.4	7.6	100.0	212
30-34	6.0	73.7	15.9	4.5	100.0	1,085
35-49	5.0	75.3	14.8	4.9	100.0	6,216
50+	4.6	75.0	15.3	5.1	100.0	672
Mother not in household /no information possible	4.7	79.6	13.1	2.6	100.0	814
<b>Urban-rural residence</b>						
Urban	5.5	72.2	15.7	6.6	100.0	3,587
Rural	4.9	77.6	14.1	3.5	100.0	5,413
<b>Place of residence</b>						
Urban Governorates	5.8	70.2	16.4	7.7	100.0	1,530
Lower Egypt	2.1	75.1	18.4	4.4	100.0	3,766
Urban	2.1	74.1	18.1	5.7	100.0	971
Rural	2.2	75.4	18.5	3.9	100.0	2,795
Upper Egypt	7.9	77.9	10.3	3.9	100.0	3,580
Urban	8.4	72.9	12.7	6.1	100.0	1,004
Rural	7.7	79.9	9.4	3.0	100.0	2,577
Frontier Governorates	6.2	80.9	10.3	2.5	100.0	124
<b>Mother's education</b>						
No education	5.3	77.5	13.6	3.6	100.0	3,890
Some primary	4.3	75.5	15.3	5.0	100.0	986
Primary complete/ some secondary	4.7	74.6	14.5	6.1	100.0	962
Secondary complete/higher	5.4	70.8	17.1	6.6	100.0	2,347
Mother not in household /no information possible	4.8	79.6	13.0	2.6	100.0	815
<b>Mother's work status</b>						
Working for cash	5.6	71.2	16.9	6.2	100.0	1,295
Not working for cash	5.1	75.9	14.5	4.6	100.0	6,189
Mother not in household /no information possible	4.7	77.3	14.0	3.9	100.0	1,516
<b>Wealth quintile</b>						
Lowest	7.1	78.6	11.8	2.4	100.0	2,131
Second	4.7	79.0	13.1	3.2	100.0	1,975
Middle	4.4	74.4	16.3	4.9	100.0	1,749
Fourth	3.9	73.1	16.5	6.5	100.0	1,580
Highest	4.8	70.1	17.2	7.9	100.0	1,564
Total	5.1	75.4	14.7	4.7	100.0	9,000

Note: Table is based on never-married males age 10-19 who stayed in the household the night before the interview.

Some variation in the BMI levels is observed across the population subgroups for which results are presented in Tables 14.3.1 and 14.3.2. For example, the proportions of both males and females classified in the overweight and at risk of overweight categories were higher among urban than rural residents. These proportions also increased with mother's education status and with the wealth quintile. For example, 31 percent of never-married females in the highest wealth quintile were overweight or at risk of being overweight compared to 17 percent of never-married females in the lowest wealth quintile.

### 14.3 NUTRITIONAL STATUS OF WOMEN AND MEN

The height and weight data collected for women and men 15-59 in the subsample for the health-issues survey can be used to assess their nutritional status. As with adolescents, the BMI index is used for assessing the nutritional status of women and men. However, the cutoffs defining the status do not vary with age. The BMI cutoff for assessing chronic energy deficiency is 18.5. At the other end of the BMI scale, women are considered overweight if their BMI ranges between 25.0 and 29.9 and obese if their BMI exceeds 30.0.

Table 14.4 shows the distribution of women 15-59 as well as the distribution of all ever-married women age 15-49 interviewed in the main survey according to height, weight, and body mass (BMI) along with the means for these indicators. The latter data are presented to allow comparisons with the results in earlier EDHS surveys in which anthropometric measures were obtained only for ever-married women age 15-49. The weight and BMI measures presented in Table 14.4 exclude pregnant women and women who gave birth in the 2 months preceding the survey

Height is an outcome of nutrition during childhood and adolescence. It is useful in predicting the risk of difficult delivery, since small stature is frequently associated with small pelvis size. The risk of low birth weight babies is also higher for short women. The cutoff point, i.e., the height below which a woman is considered to be at nutritional risk, is defined as 145 centimeters. The mean height of mothers measured in the 2008 EDHS was 158.4 centimeters. Two percent of women were shorter than 145 centimeters and, thus, classified as at nutritional risk. The mean weight was 72.5 kilograms.

As Table 14.4 shows, excluding those who are pregnant or less than two months postpartum, the mean BMI of all women age 15-59 was 28.9. The majority of women had a BMI of 25.0 or higher and were considered overweight (28 percent) or obese (40 percent). Less than 2 percent of women had a BMI below 18.5, the level indicating chronic energy deficiency.

Differentials in the women's height and body mass index measures are shown in Table 14.5. There was little variation in women's mean height. The proportions classified as obese increased directly with age, from a level of 10 percent among women age 15-19 to 65 percent or more among women in the 45-59 age groups. Urban women were more likely to be obese than rural women, and the percentage classified as obese ranged from 25 percent in rural Upper Egypt to 49 percent in the urban Lower Egypt. Women in the highest wealth quintile were almost twice as likely as women in the lowest quintile to be obese.

Table 14.4 Anthropometric indicators of nutritional status of adult women

Percent distribution of de facto women age 15-59 interviewed in the health issues survey and de facto ever-married women interviewed in the main survey by selected anthropometric indicators, Egypt 2008

Anthropometric indicators	All women age 15-59	Ever-married women age 15-49
<b>Height in centimeters</b>		
130.0-134.9	0.1	0.0
135.0-139.9	0.2	0.1
140.0-144.9	1.2	0.7
145.0-149.9	5.9	4.3
150.0-154.9	20.5	15.2
155.0-159.9	33.3	32.8
160.0-164.9	24.7	28.6
165.0-169.9	11.0	14.8
170.0-174.9	2.6	3.0
175.0-179.9	0.3	0.4
≥180.0	0.2	0.0
Total percent	100.0	100.0
Number of women	6,129	16,404
Mean	158.4	159.6
<b>Weight in kilograms</b>		
35.0-39.9	0.3	0.1
40.0-49.9	7.3	2.9
50.0-59.9	18.3	12.8
60.0-69.9	22.4	24.3
≥70.0	51.7	59.9
Total percent	100.0	100.0
Number of women	5,684	14,559
Mean	72.5	74.4
<b>BMI<sup>1</sup></b>		
Thin		
12.0-15.9	0.1	0.0
16.0-16.9	0.3	0.1
17.0-18.4	1.1	0.4
Normal		
18.5-20.4	5.1	2.2
20.5-22.9	13.7	9.6
23.0-24.9	11.8	9.7
Overweight		
25.0-26.9	12.4	15.9
27.0-28.9	11.0	15.6
29.0-29.9	4.9	6.9
Obese		
≥30.0	39.6	39.6
Total percent	100.0	100.0
Number of women	5,678	14,547
Mean	28.9	29.2

<sup>1</sup>Excludes pregnant women and women with a birth in the preceding 2 months

Table 14.5 Nutritional status of defacto adult women age 15-59 by background characteristics

Mean height and percentage under 145 centimeters (cm) among de facto adult women 15-59 and mean body mass index (BMI), and percentage with specific BMI levels among de facto adult women age 15-59 who were not pregnant and had not given birth within two months of the interview, by background characteristics, and mean height and percentage under 145 centimeters (cm) and mean body mass index (BMI) for ever-married women age 15-49 and percentage with specific BMI levels among ever-married women age 15-49 who were not pregnant and had not given birth within 2 months of the interview, Egypt 2008

Background characteristic	Height		Number of adult women <sup>1</sup>	Mean Body Mass Index (BMI)	Body Mass Index								Number of adult women <sup>1</sup>
	Mean height in cm	Percent-age below 145 cm			18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	16.0-16.9 (moder-at ely thin)	<16 (severely thin)	≥25.0 (total over-weight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)	
<b>Age</b>													
15-19	157.5	2.5	1,035	24.2	59.8	4.3	2.8	1.1	0.4	35.9	26.1	9.8	982
20-24	158.9	1.8	1,059	25.8	50.1	2.3	2.1	0.2	0.0	47.4	30.6	16.8	902
25-29	159.4	0.8	886	27.9	32.6	0.8	0.5	0.2	0.1	66.6	34.0	32.6	757
30-34	159.1	1.1	678	29.7	23.8	1.0	0.8	0.1	0.1	75.2	31.6	43.6	604
35-39	159.1	0.5	661	31.1	17.1	0.5	0.4	0.1	0.0	82.2	28.6	53.6	639
40-44	158.1	1.3	553	31.9	14.0	0.7	0.6	0.0	0.1	85.1	25.2	59.8	544
45-49	157.8	1.3	530	32.6	7.5	0.7	0.4	0.3	0.0	91.5	26.4	65.2	530
50-54	156.6	2.5	385	33.3	11.2	0.6	0.4	0.3	0.0	87.6	22.6	64.9	385
55-59	157.4	0.8	342	32.6	10.6	0.0	0.0	0.0	0.0	89.4	23.8	65.7	342
<b>Urban-rural residence</b>													
Urban	158.9	1.1	2,625	29.9	25.8	1.0	0.7	0.2	0.2	72.9	28.1	44.8	2,463
Rural	158.0	1.7	3,504	28.2	34.1	1.9	1.5	0.4	0.0	63.9	28.4	35.5	3,223
<b>Place of residence</b>													
Urban Governorates	159.0	0.8	1,207	30.1	22.4	1.3	0.7	0.3	0.3	76.1	29.5	46.6	1,133
Lower Egypt	159.4	0.8	2,673	29.8	26.0	1.1	0.9	0.3	0.0	72.7	28.2	44.5	2,487
Urban	160.1	0.6	670	30.8	23.8	0.7	0.7	0.0	0.0	75.2	25.9	49.3	627
Rural	159.2	0.9	2,003	29.4	26.7	1.3	0.9	0.4	0.0	71.9	28.9	42.9	1,860
Upper Egypt	156.8	2.6	2,164	27.4	40.4	2.1	1.7	0.3	0.1	57.4	27.8	29.6	1,987
Urban	157.6	2.1	693	29.0	32.5	0.9	0.5	0.3	0.2	66.3	27.9	38.4	652
Rural	156.4	2.8	1,471	26.6	44.2	2.7	2.2	0.4	0.1	53.1	27.8	25.3	1,335
Frontier Governorates	158.9	1.0	85	27.0	42.1	3.4	2.1	1.3	0.0	54.4	26.2	28.2	78
<b>Education</b>													
No education	157.3	1.8	1,845	29.7	25.6	1.3	1.1	0.2	0.0	73.0	26.8	46.2	1,734
Some primary	157.8	2.0	505	31.3	18.4	1.2	0.8	0.2	0.3	80.1	26.6	53.5	481
Primary complete/ some secondary	157.9	1.8	1,302	27.6	37.8	2.7	1.7	0.9	0.1	59.4	28.9	30.5	1,234
Secondary complete/ higher	159.5	0.9	2,477	28.5	32.9	1.2	0.9	0.2	0.1	65.7	29.5	36.2	2,236
<b>Wealth quintile</b>													
Lowest	156.7	2.5	1,083	26.5	43.2	3.4	2.8	0.5	0.1	53.5	28.8	24.7	1,008
Second	157.5	1.8	1,262	28.1	35.8	1.4	0.9	0.4	0.2	62.8	26.9	35.9	1,182
Middle	158.2	1.3	1,213	29.6	27.4	1.3	0.9	0.4	0.0	71.1	29.1	42.0	1,101
Fourth	159.1	1.1	1,248	30.6	22.6	0.9	0.7	0.0	0.2	75.9	27.3	48.6	1,155
Highest	160.1	0.7	1,323	29.7	25.3	1.0	0.6	0.3	0.1	73.7	29.4	44.3	1,240
Total all women age 15-59	158.4	1.5	6,129	28.9	30.5	1.6	1.1	0.3	0.1	67.8	28.3	39.5	5,685
Total ever-married women age 15-49	159.6	0.9	16,404	29.2	21.5	0.5	0.4	0.1	0.0	78.0	38.4	39.6	14,547

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m<sup>2</sup>).

<sup>1</sup> Excludes pregnant women and women with a birth in the preceding 2 months.



Table 14.6 presents information on the nutritional status of men. The mean height for men age 15-59 was 169.3 centimeters, about 10 centimeters taller than women in the same age group, and the mean weight for men was 74.3 kilograms, about 2 kilograms more than women. The mean BMI among men was 25.8, which was below that observed for nonpregnant women. The majority of men had a BMI of 25.0 or higher and were considered overweight (34 percent) or obese (18 percent). Three percent of men had a BMI below 18.5.

<u>Table 14.6 Anthropometric indicators of nutritional status of defacto men 15-59</u>	
Percent distribution of de facto men 15-59 interviewed in the health issues survey by selected anthropometric indicators, Egypt 2008	
Anthropometric indicators	Total
<b>Height in centimeters</b>	
135.0-139.9	0.1
140.0-144.9	0.2
145.0-149.9	0.5
150.0-154.9	1.8
155.0-159.9	6.0
160.0-164.9	15.9
165.0-169.9	27.9
170.0-174.9	28.0
175.0-179.9	13.6
≥180.0	5.8
Total percent	100.0
Number of men	5,571
Mean	169.3
<b>Weight in kilograms</b>	
35.0-39.9	0.4
40.0-49.9	2.6
50.0-59.9	13.3
60.0-69.9	26.5
≥70.0	57.3
Total percent	100.0
Number of men	5,568
Mean	74.3
<b>BMI</b>	
Thin	
12.0-15.9	0.4
16.0-16.9	0.4
17.0-18.4	2.4
Normal	
18.5-20.4	7.6
20.5-22.9	19.9
23.0-24.9	16.8
Overweight	
25.0-26.9	17.2
27.0-28.9	12.3
29.0-29.9	4.8
≥30.0	18.2
Total percent	100.0
Number of men	5,573
Mean	25.8

Differentials in the men's height and body mass index measures are shown in Table 14.7. The patterns were generally similar to those observed for women. The proportion classified as obese increased from 6 percent among men age 15-19 to 33 percent of men age 55-59. Urban men were much more likely than rural men to be obese (22 percent and 15 percent, respectively). Around one-quarter of men in the two highest wealth quintiles were obese compared to 9 percent of men in the lowest quintile.

Table 14.7 Nutritional status of defacto adult men age 15-59 by background characteristics

Mean height among de facto adult men 15-59 in centimeters (cm) and mean body mass index (BMI), and percentage with specific BMI levels among men by background characteristics, Egypt 2008

Background characteristic	Height Mean height in cm	Number of men	Mean Body Mass Index (BMI)	Body Mass Index								Number of men
				18.5- 24.9 (total normal)	<18.5 (total thin)	17.0- 18.4 (mildly thin)	16.0- 16.9 (moder- ately thin)	<16 (severely thin)	≥25.0 (total over- weight or obese)	25.0- 29.9 (over- weight)	≥30.0 (obese)	
<b>Age</b>												
15-19	166.5	1,060	22.7	68.3	10.1	7.4	1.4	1.3	21.6	16.0	5.6	1,061
20-24	170.3	845	24.2	59.7	3.4	1.9	1.0	0.5	36.9	28.7	8.2	845
25-29	170.5	715	26.2	44.5	1.3	1.2	0.1	0.0	54.3	35.6	18.7	715
30-34	170.3	620	26.9	34.9	0.5	0.3	0.0	0.1	64.7	41.4	23.3	620
35-39	171.0	516	26.8	34.7	0.8	0.7	0.1	0.0	64.5	46.7	17.8	516
40-44	170.1	572	27.2	32.1	1.6	1.6	0.0	0.0	66.3	39.0	27.3	572
45-49	169.0	481	28.1	27.3	1.2	1.2	0.0	0.0	71.4	41.9	29.5	481
50-54	168.8	401	27.6	30.4	1.7	1.5	0.0	0.2	67.9	43.4	24.5	401
55-59	168.0	361	28.2	24.8	1.5	1.5	0.0	0.0	73.7	40.5	33.2	361
<b>Urban-rural residence</b>												
Urban	169.8	2,477	26.4	38.8	3.7	2.9	0.5	0.3	57.5	35.6	21.9	2,478
Rural	168.9	3,094	25.4	48.7	2.8	2.0	0.4	0.4	48.4	33.2	15.3	3,094
<b>Place of residence</b>												
Urban Governorates	169.6	1,125	26.3	39.5	3.1	2.6	0.3	0.2	57.4	36.8	20.6	1,125
Lower Egypt	169.8	2,420	26.4	42.4	1.5	1.2	0.1	0.2	56.1	35.5	20.6	2,420
Urban	170.7	605	27.3	36.5	1.3	1.3	0.0	0.0	62.1	33.1	29.1	605
Rural	169.5	1,816	26.0	44.3	1.6	1.1	0.2	0.3	54.1	36.3	17.8	1,816
Upper Egypt	168.4	1,934	25.0	49.2	5.2	3.8	0.8	0.7	45.6	31.6	14.0	1,935
Urban	169.3	684	25.7	38.8	6.5	4.7	1.1	0.7	54.7	36.5	18.2	685
Rural	167.9	1,250	24.6	54.8	4.6	3.3	0.6	0.6	40.6	29.0	11.7	1,251
Frontier Governorates	169.4	91	24.8	52.7	6.5	4.8	1.6	0.0	40.9	26.5	14.3	91
<b>Education</b>												
No education	167.5	696	25.9	45.3	2.4	1.9	0.0	0.4	52.4	34.3	18.1	696
Some primary	168.5	550	26.1	43.9	2.8	2.0	0.4	0.4	53.3	33.4	19.8	550
Primary complete/some secondary	167.8	1,535	24.5	53.3	6.7	5.0	0.8	0.9	40.0	27.0	13.0	1,536
Secondary complete/ higher	170.7	2,790	26.5	39.2	1.6	1.2	0.4	0.0	59.2	38.4	20.8	2,790
<b>Wealth quintile</b>												
Lowest	167.3	925	24.3	58.0	4.8	3.4	0.8	0.7	37.2	28.6	8.6	925
Second	168.6	1,139	24.9	53.2	4.0	2.8	0.4	0.9	42.7	30.4	12.4	1,139
Middle	168.8	1,169	26.0	42.8	2.4	1.9	0.5	0.0	54.8	35.6	19.2	1,170
Fourth	170.4	1,123	26.6	36.8	3.6	3.2	0.2	0.2	59.7	34.9	24.8	1,123
Highest	171.0	1,215	27.0	34.0	1.7	1.2	0.4	0.1	64.3	40.4	23.9	1,216
Total	169.3	5,571	25.8	44.3	3.2	2.4	0.4	0.4	52.5	34.3	18.2	5,573

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m<sup>2</sup>).



## FEMALE CIRCUMCISION

Although the government has banned the practice, female circumcision (also referred to as female genital cutting) has been a tradition in Egypt since the Pharonic period, and adherence to the custom remains widespread. The 2008 EDHS obtained information from all survey respondents on their circumcision status. The survey also asked all ever-married women about the circumcision status of their daughters age 17 and younger. In the case of circumcised women and daughters, additional questions were included on the age at which the circumcision took place and the person who performed the circumcision. The survey also investigated women's and men's attitudes toward the practice.

### 15.1 PREVALENCE OF FEMALE CIRCUMCISION AMONG WOMEN AGE 15-49

Because questions on female circumcision were asked of both ever-married women in the entire sample and never-married women in the health issues survey, the 2008 EDHS provides the first estimate ever obtained in a DHS survey of the prevalence of female circumcision among all Egyptian women age 15-49. Prior EDHS estimates of the prevalence of circumcision in this age group were based only on information from ever-married women.

Table 15.1 confirms that the prevalence of female circumcision is widespread in Egypt; 91 percent of all women age 15-49 have been circumcised. However, the results also suggest that adherence to the practice may be declining in some population groups. For example, while exceeding 80 percent, female circumcision rates among women under age 25 are lower than rates in the 25-49 age groups, where 94-96 percent of women have been circumcised. The rate also is lower among never-married than ever-married women (81 percent and 95 percent, respectively). It is possible that some of the younger, never-married women will be circumcised before they marry. However, as seen below, few Egyptian women are circumcised after age 15.

Table 15.1 shows that urban women are less likely to be circumcised than rural women (85 percent and 96 percent, respectively). The practice is much less common in the Frontier Governorates (66 percent) than in other areas in Egypt. The likelihood that a woman is circumcised also declines with the woman's education level and is markedly lower among women in the highest wealth quintile than in other quintiles (78 percent versus 92 percent or higher).

Table 15.1 Prevalence of female circumcision among all women 15-49 by background characteristics

Percentage of all women 15-49 who have been circumcised according to selected background characteristics, Egypt 2008

Background characteristic	Percentage who have been circumcised	Number of women age 15-49
<b>Age</b>		
15-19	80.7	1,064
20-24	87.4	1,091
25-29	94.3	906
30-34	95.2	688
35-39	96.4	673
40-44	96.2	568
45-49	96.0	550
<b>Marital status</b>		
Ever-married	95.2	3,983
Never married	80.5	1,556
<b>Urban-rural residence</b>		
Urban	85.1	2,352
Rural	95.5	3,188
<b>Place of residence</b>		
Urban Governorates	85.9	1,073
Lower Egypt	92.9	2,415
Urban	84.1	603
Rural	95.8	1,812
Upper Egypt	92.6	1,970
Urban	86.2	623
Rural	95.6	1,347
Frontier Governorates	66.3	82
<b>Education</b>		
No education	97.6	1,461
Some primary	96.4	394
Primary complete/some secondary	88.8	1,248
Secondary complete/higher	87.4	2,436
<b>Work status</b>		
Working for cash	88.4	866
Not working for cash	91.5	4,674
<b>Wealth quintile</b>		
Lowest	95.4	1,001
Second	96.1	1,123
Middle	95.2	1,099
Fourth	91.8	1,105
Highest	78.3	1,212
Total	91.1	5,540

## 15.2 WOMEN'S CIRCUMCISION EXPERIENCE

Women who were circumcised were asked how old they were when they were circumcised and about the type of person who performed the circumcision. Table 15.2 presents the distribution of the circumcised women age 15-49 according to the age at circumcision. More than half were between seven and ten years of age at the time of circumcision, and virtually all of the women were circumcised before age 15. This reflects the fact that, in Egypt, traditionally girls are circumcised slightly before or at puberty (El-Gibaly et al. 2002).

Table 15.2 Age at circumcision among all women age 15-49 by residence

Percent distribution of all women age 15-49 who are circumcised by age at circumcision, according to urban-rural residence and place of residence, Egypt 2008

Age at circumcision	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
< 3	0.6	1.1	0.2	0.2	0.0	0.2	2.1	1.7	2.2	0.0	0.9
3-4	1.3	1.5	0.8	0.3	0.6	0.3	3.1	3.0	3.2	2.5	1.4
5-6	5.0	6.8	4.8	3.2	2.7	3.3	10.2	7.4	11.4	6.5	6.1
7-8	15.8	13.0	17.5	11.7	13.1	11.3	15.3	15.3	15.3	18.2	14.1
9-10	45.6	42.3	44.8	47.2	49.7	46.5	38.4	42.3	36.8	49.8	43.6
11-12	23.0	22.5	25.0	24.1	21.6	24.8	20.0	21.6	19.3	16.5	22.7
13-14	3.0	4.4	2.5	4.2	3.9	4.2	4.1	3.0	4.6	4.8	3.9
15-17	1.0	1.7	0.9	1.6	1.9	1.6	1.5	0.4	2.0	1.0	1.4
18-19	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.3	0.1	0.0	0.1
20 or more	0.1	0.1	0.0	0.1	0.0	0.1	0.3	0.4	0.2	0.0	0.1
Don't know/missing	4.5	6.5	3.5	7.4	6.6	7.7	4.9	4.5	5.1	0.8	5.7
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,000	3,044	922	2,244	507	1,737	1,825	537	1,288	54	5,044
Median age	10.2	10.3	10.3	10.4	10.3	10.5	10.1	10.2	10.0	10.0	10.3

Regarding the person performing the circumcision, Table 15.3 shows that the majority of circumcised women (63 percent) report that dayas were responsible for the procedure. Trained medical personnel (primarily doctors) performed most of the remaining circumcisions (32 percent).

Table 15.3 Person performing circumcisions among all women by residence

Percent distribution of all women age 15-49 years who are circumcised by persons performing the circumcision, according to urban-rural residence and place of residence, Egypt 2008

Person performing circumcision	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
Doctor	27.5	22.1	23.1	24.1	30.7	22.1	25.0	31.6	22.3	24.9	24.2
Nurse/other health worker	10.6	5.8	10.3	7.9	11.9	6.7	6.1	9.7	4.6	7.4	7.7
Daya	57.3	66.3	62.0	61.5	51.0	64.6	64.5	55.4	68.3	65.7	62.7
Barber	1.4	2.6	0.8	2.7	2.7	2.8	2.0	1.3	2.3	0.4	2.1
Chagaria	1.1	1.8	1.4	2.4	1.4	2.6	0.6	0.1	0.8	0.8	1.5
Other	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Don't know	2.1	1.3	2.2	1.4	2.3	1.2	1.6	1.7	1.6	0.9	1.6
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,000	3,044	922	2,244	507	1,737	1,825	537	1,288	54	5,044

### 15.3 PREVALENCE OF FEMALE CIRCUMCISION AMONG YOUNG GIRLS

In addition to asking about a woman's own circumcision status, the 2008 EDHS asked ever-married women age 15-49 for a complete circumcision history for daughters under age 18 at the time of the survey, i.e., women with surviving daughters were asked about the circumcision status of each of their daughters age 0-17 years. Women who reported that their daughter(s) was (were) not circumcised were asked about intentions to have their daughter(s) circumcised in the future. The inclusion of a complete circumcision history provides the basis for a direct estimate of the prevalence of circumcision among young girls. The estimate is not based on the entire population of girls 0-17 years since information is not available for girls whose mothers were not interviewed in the survey, either because they were age 50 and older or had died. However, the estimate is based on a large proportion of the female population in the age group. Overall, EDHS respondents reported on the circumcision status of 16,475 daughters age 0-17 years; this represented 96 percent of the 17,107 girls in the age range who were living in EDHS households (data not shown).

Using the circumcision history data, Table 15.4 presents information on the prevalence of circumcision among girls under age 18 in Egypt. The results indicate that 24 percent of girls age 0-17 years have been circumcised. This is slightly lower than the rate reported in the 2005 EDHS (28 percent). Girls age 9-10 are more than twice as likely as girls age 7-8 to have been circumcised (7 percent and 18 percent, respectively). The prevalence of circumcision increases rapidly among older daughters to a peak of 74 percent among girls age 15-17.

Table 15.4 also includes estimates of the total expected prevalence of circumcision at age 18 for each cohort of daughters and for the total population of daughters under age 18. These estimates were obtained by summing the percentage of daughters already circumcised and the percentage of daughters who were not

yet circumcised but whose mothers expressed an intention to circumcise their daughter(s). The cohort differences in these estimates indicate that, over the next fifteen years in Egypt, there will be a steady decline in the proportions of young adult women who are circumcised, from a level of 77 percent among girls currently age 15-17 to a level around 45 percent when girls who are currently under age three reach their eighteenth birthday.

Table 15.5 presents the daughters' circumcision indicators by selected demographic and socio-economic background characteristics and the daughter's age. Overall, the results show that residence is strongly associated with the likelihood a daughter will be circumcised by her 18<sup>th</sup> birthday. Forty-three percent of daughters age 0-17 years in urban areas have or will be circumcised by age 18 according to the mother's report compared with 66 percent in rural areas. Looking at the variations by place of residence, the expected prevalence of female circumcision is lowest in the Urban Governorates (37 percent) and urban Lower Egypt (41 percent) and highest in rural Upper Egypt (74 percent).

The proportion of girls who are currently circumcised or are expected to be circumcised in the future decreases with the mother's educational attainment and with wealth status. Notably, 31 percent of girls in the highest wealth quintile are expected to be circumcised by the time they reach age 18 compared with 73 percent of girls in the lowest wealth quintile.

Table 15.4 Current and expected prevalence of female circumcision among young girls

Percentage of girls age 0-17 years who are reported by their mother to be currently circumcised, percentage who are not yet circumcised but whose mothers intend that the girl will be circumcised in the future, and percentage expected to be circumcised taking into account the current circumcision status and mother's intention, Egypt 2008

Daughter's current age	Percentage circumcised	Percentage whose mothers intend the daughter to be circumcised in the future	Percentage expected to be circumcised	Number of daughters
< 3 years	0.4	44.2	44.6	3,237
3-4 years	1.9	45.8	47.7	1,854
5-6 years	3.6	47.1	50.7	2,111
7-8 years	7.4	45.1	52.6	1,849
9-10 years	17.8	38.2	56.0	1,868
11-12 years	41.8	23.3	65.1	1,779
13-14 years	63.7	8.0	71.7	1,615
15-17 years	74.4	2.3	76.7	2,162
Total	24.1	32.9	57.0	16,475

Table 15.5 Current and expected prevalence of female circumcision among girls by background characteristics

Percentage of girls 0-17 years who are currently circumcised, percentage who are not yet circumcised but whose mothers intend that the girl will be circumcised in the future, and percentage expected to be circumcised taking into account the current circumcision status and mother's intention by the girl's current age, according to selected background characteristics, Egypt 2008

Background characteristic	<9 years			9-12 years			13-17 years			Total	
	Percentage circumcised	Percentage to be circumcised in the future	Percentage expected to be circumcised	Percentage circumcised	Percentage to be circumcised in the future	Percentage expected to be circumcised	Percentage circumcised	Percentage to be circumcised in the future	Percentage expected to be circumcised	Percentage whose mothers intend the daughter to be circumcised in the future	Number of daughters
<b>Mother's age</b>											
15-19	0.6	55.1	55.7	na	na	na	na	na	na	55.1	140
20-24	0.7	48.0	48.7	na	na	na	na	na	na	48.0	1,439
25-29	2.0	44.3	46.3	21.4	45.5	66.9	52.5	21.3	73.9	44.3	3,344
30-34	4.1	42.6	46.6	29.1	30.0	59.1	73.0	6.2	79.3	35.1	3,605
35-39	3.7	48.8	52.4	28.8	31.3	60.1	71.6	5.4	77.0	29.5	3,735
40-44	4.9	45.8	50.7	30.1	27.6	57.6	68.8	4.6	73.4	21.1	2,768
45-49	7.8	42.5	50.3	38.6	25.8	64.4	67.8	2.9	70.7	14.8	1,445
<b>Urban-rural</b>											
Urban	2.3	33.9	36.2	22.0	22.8	44.8	52.9	4.3	57.2	24.3	6,328
Rural	3.3	52.2	55.5	34.4	36.2	70.6	81.1	5.1	86.2	38.2	10,147
<b>Place of residence</b>											
Urban Governorates	1.5	30.1	31.7	16.1	20.7	36.8	44.3	3.3	47.6	21.9	2,576
Lower Egypt	0.5	43.0	43.4	23.9	34.9	58.8	72.3	5.0	77.3	32.5	7,140
Urban	0.4	32.1	32.5	17.2	24.7	41.9	53.9	5.1	59.0	23.5	1,778
Rural	0.5	46.2	46.7	26.4	38.6	65.0	79.2	5.0	84.2	23.5	5,362
Upper Egypt	6.1	54.5	60.6	40.9	31.1	72.1	78.0	5.1	83.1	38.1	6,508
Urban	5.1	41.2	46.3	34.7	24.3	59.0	63.4	5.1	68.5	28.9	1,809
Rural	6.5	59.5	66.1	43.3	33.8	77.1	83.9	5.1	89.0	32.1	4,699
Frontier Governorates	1.8	34.1	35.9	25.2	19.5	44.7	56.0	2.4	58.4	23.1	251
<b>Education</b>											
No education	4.6	59.0	63.7	35.5	38.4	73.9	78.5	5.5	84.0	37.9	5,812
Some primary	3.4	56.4	59.8	38.2	31.5	69.7	81.5	4.3	85.8	35.1	1,543
Primary comp./some secondary	3.2	48.2	51.4	31.7	29.4	61.1	72.0	3.8	75.7	35.2	2,464
Secondary complete/higher	1.6	34.2	35.8	19.3	23.1	42.4	50.3	4.2	54.6	27.1	6,656
<b>Work status</b>											
Working for cash	1.5	35.0	36.6	21.8	28.7	50.4	53.0	4.8	57.8	24.8	2,425
Not working for cash	3.1	46.9	49.9	31.1	31.4	62.5	73.6	4.7	78.4	34.3	14,050
<b>Wealth quintile</b>											
Lowest	4.8	60.1	64.9	35.8	38.2	74.1	83.6	6.2	89.8	42.2	3,720
Second	3.9	57.1	61.0	38.9	34.1	73.0	81.4	4.4	85.8	39.5	3,244
Middle	2.6	46.8	49.3	32.4	33.7	66.2	75.0	4.5	79.6	34.7	3,355
Fourth	1.7	36.8	38.5	19.7	30.4	50.2	61.2	5.8	67.0	28.6	3,202
Highest	1.2	23.1	24.3	17.8	14.3	32.1	42.6	2.4	45.0	16.4	2,954
Total	2.9	45.4	48.3	29.5	30.9	60.5	69.8	4.7	74.6	32.9	16,475

na = Not applicable

## 15.4 CIRCUMCISION EXPERIENCE OF YOUNG GIRLS

As part of the circumcision history, EDHS respondents were asked about the age at circumcision and the person who performed the procedure for each of the daughters reported as circumcised. Table 15.6 presents the distribution of the circumcised daughters age 0-17 years by the age at circumcision. More than half of the girls were between seven and ten years of age at the time of circumcision, and virtually all of the girls were circumcised before age 13. The median age at the time of the circumcision for daughters was 10 years, with girls tending to be circumcised at a somewhat younger age in Upper Egypt and a somewhat older age in Lower Egypt than this average.

**Table 15.6 Age at circumcision among girls by residence**

Percent distribution of girls age 0-17 years reported by their mother to have been circumcised by age at circumcision, according to urban-rural residence and place of residence, Egypt 2008

Age at circumcision	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
< 3	4.3	4.7	2.2	0.2	0.0	0.2	8.7	9.2	8.6	1.2	4.6
3-4	2.2	3.6	0.2	0.5	0.0	0.6	5.9	5.3	6.0	2.9	3.2
5-6	8.0	10.0	6.1	1.7	2.1	1.5	16.4	13.8	17.2	6.5	9.4
7-8	17.0	14.0	16.3	11.9	12.5	11.8	16.8	20.2	15.7	22.4	14.9
9-10	42.1	38.7	45.0	51.3	57.1	49.8	29.4	28.9	29.6	41.3	39.8
11-12	22.9	21.7	25.7	27.3	24.7	27.9	17.1	19.9	16.3	22.9	22.1
13-14	2.5	4.7	3.4	5.1	2.2	5.8	3.4	2.0	3.8	1.7	4.1
15-17	0.4	0.4	0.1	0.7	1.3	0.5	0.3	0.2	0.4	0.0	0.4
Don't know/missing	0.5	2.1	0.9	1.4	0.0	1.7	2.0	0.6	2.4	1.1	1.6
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,191	2,785	377	1,581	319	1,262	1,966	459	1,507	51	3,976
Median age	10.1	10.1	10.2	10.5	10.4	10.6	9.1	9.1	9.1	9.9	10.1

Regarding the person performing the daughter's circumcision, Table 15.7 shows that trained medical personnel performed almost three-quarters of the circumcisions. Dayas (traditional birth attendants) performed the majority of the remaining circumcisions. Dayas performed more circumcisions in rural Upper Egypt than in other areas; however, even in rural Upper Egypt, the majority of circumcisions were performed by medical personnel.

**Table 15.7 Person performing circumcisions among girls by residence**

Percent distribution of girls age 0-17 years reported by their mother to have been circumcised by persons performing the circumcision, according to urban-rural residence and place of residence, Egypt 2008

Person performing circumcision	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates	Total
				Total	Urban	Rural	Total	Urban	Rural		
Doctor	76.8	69.3	70.0	79.8	86.7	78.0	65.3	74.8	62.4	71.3	71.6
Nurse/other health worker	6.3	5.6	6.5	5.8	5.6	5.9	5.7	6.8	5.4	4.0	5.8
Daya	16.0	22.7	22.8	11.7	7.0	13.0	27.4	17.1	30.5	23.6	20.7
Barber	0.3	1.3	0.0	1.3	0.8	1.5	1.0	0.2	1.2	0.4	1.0
Ghagaria	0.0	0.3	0.0	0.5	0.0	0.6	0.1	0.0	0.1	0.0	0.2
Don't know	0.7	0.7	0.7	0.9	0.0	1.1	0.5	1.1	0.4	0.6	0.7
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,191	2,785	377	1,581	319	1,262	1,966	459	1,507	51	3,976



## 15.5 SUPPORT FOR FEMALE CIRCUMCISION AMONG WOMEN AND MEN

The 2008 EDHS obtained information from both women and men on several indicators of support for female circumcision including the belief that practice of circumcision is required by religious precepts and the belief that practice of female circumcision should be continued. In addition, women were asked if they thought men supported continuation of the practice while men were asked about what they perceived to be women's attitudes.

Table 15.8.1 shows that just under half of all women age 15-49 believe that female circumcision is a religious requirement and just over half feel that the practice of circumcision should continue. The table also shows that 41 percent of women think that men support the continuation of the practice of circumcision.

Table 15.8.1 Attitude about continuation of female circumcision by background characteristics: All women age 15-49

Percentage of all women age 15-49 who believe circumcision is required by religious precepts and percent distributions of all women age 15-49 by own attitude and perception about men's attitude toward the continuation of the practice of female circumcision, according to selected background characteristics, Egypt 2008

Background characteristic	Percentage saying circumcision is required by religious precepts	Woman's attitude about practice				Woman's perception about men's attitudes				Number of women age 15-49
		Continue	Be stopped	Not sure	Total percent	Continue	Be stopped	Not sure	Total percent	
<b>Age</b>										
15-19	34.7	34.1	46.4	19.5	100.0	22.7	19.0	58.3	100.0	1,064
20-24	42.6	47.0	41.5	11.5	100.0	34.4	21.1	44.5	100.0	1,091
25-29	51.0	57.0	33.9	9.1	100.0	45.7	21.8	32.5	100.0	906
30-34	55.1	60.4	29.9	9.7	100.0	47.4	22.4	30.2	100.0	688
35-39	56.0	65.4	26.0	8.6	100.0	51.4	20.5	28.0	100.0	673
40-44	61.4	69.3	21.7	9.0	100.0	53.1	16.2	30.7	100.0	568
45-49	58.2	63.8	28.1	8.1	100.0	52.4	22.7	25.0	100.0	550
<b>Marital status</b>										
Ever-married	54.9	62.5	28.3	9.2	100.0	49.4	20.8	29.8	100.0	3,983
Never married	34.3	32.3	50.3	17.4	100.0	20.9	20.0	59.1	100.0	1,556
<b>Urban-rural residence</b>										
Urban	41.0	42.7	47.7	9.5	100.0	32.7	30.7	36.7	100.0	2,352
Rural	55.0	62.3	24.8	12.9	100.0	47.8	13.1	39.1	100.0	3,188
<b>Place of residence</b>										
Urban Governorates	36.1	37.2	54.3	8.5	100.0	29.4	35.6	35.0	100.0	1,073
Lower Egypt	51.6	57.7	30.2	12.1	100.0	45.6	16.6	37.8	100.0	2,415
Urban	43.5	46.7	43.3	10.0	100.0	37.5	27.9	34.6	100.0	603
Rural	54.4	61.4	25.8	12.8	100.0	48.3	12.9	38.9	100.0	1,812
Upper Egypt	53.5	59.2	28.3	12.5	100.0	43.1	16.4	40.5	100.0	1,970
Urban	47.5	48.8	40.4	10.7	100.0	33.6	24.4	42.0	100.0	623
Rural	56.2	63.9	22.7	13.3	100.0	47.5	12.7	39.8	100.0	1,347
Frontier Governorates	38.9	40.0	52.1	7.9	100.0	33.5	40.3	26.1	100.0	82
<b>Education</b>										
No education	61.6	71.8	15.1	13.1	100.0	54.6	9.4	36.0	100.0	1,461
Some primary	55.7	66.8	21.0	12.2	100.0	51.4	11.8	36.9	100.0	394
Primary complete/ some secondary	44.9	49.3	36.7	14.1	100.0	37.0	18.0	45.0	100.0	1,248
Secondary complete/ higher	42.7	43.7	47.2	9.1	100.0	34.1	30.0	35.9	100.0	2,436
<b>Work status</b>										
Working for cash	43.9	46.5	45.6	7.9	100.0	37.3	30.4	32.3	100.0	866
Not working for cash	50.1	55.4	32.5	12.1	100.0	42.1	18.8	39.1	100.0	4,674
<b>Wealth quintile</b>										
Lowest	56.3	66.3	19.7	14.0	100.0	47.8	10.4	41.8	100.0	1,001
Second	56.1	62.9	25.0	12.0	100.0	47.2	13.8	39.0	100.0	1,123
Middle	51.7	57.8	28.1	14.1	100.0	46.1	15.0	38.9	100.0	1,099
Fourth	46.1	50.4	39.8	9.8	100.0	39.6	22.5	38.0	100.0	1,105
Highest	37.0	35.4	56.5	8.1	100.0	28.0	38.6	33.4	100.0	1,212
Total	49.1	54.0	34.5	11.5	100.0	41.4	20.6	38.0	100.0	5,540

As Table 15.8.2 shows, men's attitudes about the practice of female circumcision are generally similar to those of women. Around half of men age 15-49 say that circumcision is required by religion and 57 percent believe the practice should continue. Around 45 percent of men think that women want female circumcision to continue.

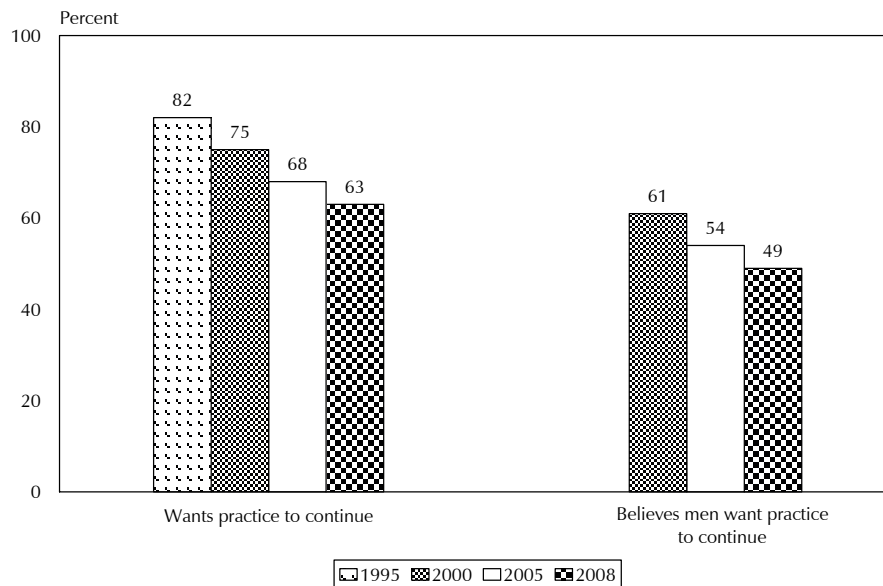
Table 15.8.2 Attitude about continuation of female circumcision by background characteristics: All men age 15-49

Percentage of all men age 15-49 who believe circumcision is required by religious precepts and percent distributions of all men age 15-49 by own attitude and perception about women's attitude toward the continuation of the practice of female circumcision, according to selected background characteristics, Egypt 2008

Background characteristic	Percentage saying circumcision is required by religious precepts	Man's attitude about practice				Man's perception about women's attitudes				Number of men age 15-49
		Continue	Be stopped	Not sure	Total percent	Continue	stopped	Not sure	Total percent	
<b>Age</b>										
15-19	33.3	36.1	26.5	37.4	100.0	26.9	20.3	52.7	100.0	1,087
20-24	46.8	50.9	31.0	18.1	100.0	40.7	26.4	32.9	100.0	869
25-29	56.8	63.7	27.3	9.0	100.0	50.2	25.6	24.1	100.0	729
30-34	57.5	62.9	28.2	8.9	100.0	52.2	26.4	21.3	100.0	634
35-39	60.8	66.0	24.4	9.7	100.0	53.7	21.3	25.0	100.0	535
40-44	61.7	68.7	22.2	9.1	100.0	55.2	23.1	21.7	100.0	581
45-49	62.7	69.5	23.7	6.8	100.0	58.0	23.5	18.5	100.0	494
<b>Marital status</b>										
Ever-married	60.0	67.0	24.2	8.8	100.0	54.5	23.9	21.6	100.0	2,640
Never married	41.8	44.8	29.4	25.9	100.0	35.0	23.6	41.5	100.0	2,290
<b>Urban-rural residence</b>										
Urban	48.7	51.4	34.6	13.9	100.0	42.2	31.7	26.1	100.0	2,170
Rural	53.8	60.8	20.3	18.9	100.0	48.0	17.4	34.6	100.0	2,760
<b>Place of residence</b>										
Urban Governorates	43.4	43.5	42.5	14.0	100.0	38.1	41.2	20.7	100.0	990
Lower Egypt	53.0	60.4	21.5	18.1	100.0	45.1	18.6	36.3	100.0	2,150
Urban	54.7	61.2	24.8	14.1	100.0	46.6	21.0	32.4	100.0	533
Rural	52.5	60.1	20.5	19.4	100.0	44.7	17.7	37.6	100.0	1,616
Upper Egypt	54.8	60.2	23.3	16.4	100.0	50.7	19.4	29.8	100.0	1,706
Urban	52.4	56.3	30.2	13.4	100.0	45.9	25.2	28.9	100.0	588
Rural	56.1	62.3	19.7	18.0	100.0	53.3	16.4	30.3	100.0	1,118
Frontier Governorates	42.3	45.6	36.6	17.8	100.0	31.1	36.3	32.5	100.0	84
<b>Education</b>										
No education	58.0	66.4	16.5	17.2	100.0	50.7	16.7	32.6	100.0	467
Some primary	54.4	66.9	17.6	15.5	100.0	52.3	19.3	28.4	100.0	458
Primary complete/ some secondary	45.9	50.4	23.6	26.0	100.0	39.2	19.4	41.4	100.0	1,414
Secondary complete/ higher	53.0	56.5	31.7	11.8	100.0	46.6	28.2	25.2	100.0	2,590
<b>Work status</b>										
Working for cash	56.5	62.4	25.7	11.9	100.0	50.7	24.0	25.3	100.0	3,685
Not working for cash	36.8	39.7	29.3	31.0	100.0	29.7	22.9	47.4	100.0	1,245
<b>Wealth quintile</b>										
Lowest	52.5	59.3	18.5	22.2	100.0	47.7	17.7	34.6	100.0	838
Second	51.4	59.5	20.4	20.1	100.0	44.5	15.9	39.5	100.0	1,010
Middle	54.2	59.3	22.6	18.1	100.0	49.0	18.3	32.7	100.0	1,036
Fourth	54.3	59.9	27.7	12.5	100.0	48.6	27.0	24.4	100.0	997
Highest	45.6	46.3	42.0	11.7	100.0	37.9	38.3	23.8	100.0	1,049
<b>Total</b>	51.5	56.7	26.6	16.7	100.0	45.4	23.7	30.9	100.0	4,930

Although support for circumcision is still widespread among women, Figure 15.1 shows that there has been considerable change since the mid-1990s in women's attitudes about circumcision. The proportion of ever-married women age 15-49 who believe that circumcision should continue has dropped from 82 percent in 1995 to 63 percent at the time of the 2008 EDHS. Women were also much less likely to believe that men want the practice to continue in 2008 (49 percent) than in 2000 (61 percent).

**Figure 15.1 Trends in Attitudes toward Female Circumcision among Ever-married Women Age 15-49, Egypt 1995-2008**



Marked differences in the measures of the level of support for female circumcision are evident across population subgroups among women (Tables 15.8.1). Women under age 25 were less likely than older women to see circumcision as a religious requirement, want the practice to continue or believe that men want female circumcision to continue. Similarly never-married women were much less likely than ever-married women to believe circumcision is mandated by religion, support continuation of the practice themselves, or feel that men continue to support the practice. Support for the practice was more widespread among rural than urban women. Women in the Frontier Governorates were least supportive of the practice followed closely by women in the Urban Governorates. The proportion of women who felt that circumcision is mandated by religion decreased with both increased education and the wealth quintile while these characteristics were negatively related to the likelihood that a woman supports the continuation of the practice of circumcision or believes that men want the practice to be continued.

Differentials in men’s attitudes toward the practice of circumcision presented in Table 15.8.2 are generally similar to those found among women. However, men not working for cash were much less likely than men working for cash to support female circumcision, which is the opposite of the pattern for women. These differences can be attributed to differences in the composition of the groups of women and men not working for cash. Among men, the group included a large proportion of younger, better educated individuals, while, among women, the group included a larger proportion of older, less educated individuals.

## 15.6 REASONS FOR SUPPORT OF FEMALE CIRCUMCISION

To gain a better understanding of the reasons for support for the practice of circumcision, the 2008 EDHS included several statements about female circumcision with which women and men were asked to agree or disagree. Two of the statements addressed factors that are often cited as primary rationales for the practice: “A husband will prefer his wife to be circumcised” and “Circumcision prevents adultery.” The other statements were related to health concerns associated with the practice: “Childbirth is more difficult for a woman who has been circumcised” and “Circumcision can cause serious consequences that can lead to a girl’s death.”

Tables 15.9.1 and 15.9.2 present differentials in the proportions of women and men in the 15-49 age group agreeing with the various statements. Men were more likely than women to think that a husband would prefer the wife to be circumcised (60 percent and 45 percent, respectively) and to agree that circumcision prevents adultery (39 percent and 34 percent, respectively). The results also show that, while nearly half of women agreed that circumcision can cause severe complications which may lead to a girl's death, less than one-third of men recognized these potentially adverse consequences of circumcision. Few women (6 percent) and men (3 percent) believed that childbirth is more difficult for circumcised women than for other women.

Background characteristic	Husbands prefer	Prevents adultery	Can lead to girl's death	Makes childbirth difficult	Number of women age 15-49
<b>Age</b>					
15-19	20.2	16.1	56.8	4.2	1,064
20-24	37.6	26.9	52.9	5.7	1,091
25-29	50.7	38.3	50.0	6.2	906
30-34	53.4	42.1	46.1	6.2	688
35-39	57.4	42.9	41.0	7.1	673
40-44	57.3	44.8	38.4	6.8	568
45-49	58.3	44.2	41.0	5.2	550
<b>Marital status</b>					
Ever-married	55.4	41.3	43.6	6.7	3,983
Never married	17.8	15.6	59.9	3.4	1,556
<b>Urban-rural residence</b>					
Urban	35.6	28.3	57.5	5.8	2,352
Rural	51.6	38.3	41.3	5.8	3,188
<b>Place of residence</b>					
Urban Governorates	31.3	26.0	62.7	5.1	1,073
Lower Egypt	49.8	37.5	43.8	5.2	2,415
Urban	42.4	32.6	46.6	4.9	603
Rural	52.3	39.1	42.9	5.3	1,812
Upper Egypt	46.7	34.6	45.0	6.8	1,970
Urban	37.0	28.4	59.0	7.8	623
Rural	51.2	37.5	38.6	6.4	1,347
Frontier Governorates	30.5	26.8	64.4	5.9	82
<b>Education</b>					
No education	60.7	44.8	32.8	6.4	1,461
Some primary	58.0	47.9	40.5	3.7	394
Primary complete/some secondary	37.7	28.0	51.7	5.5	1,248
Secondary complete/higher	36.9	28.5	56.9	5.9	2,436
<b>Work status</b>					
Working for cash	40.1	32.8	53.0	6.2	866
Not working for cash	45.7	34.3	47.3	5.7	4,674
<b>Wealth quintile</b>					
Lowest	52.0	39.4	36.9	4.6	1,001
Second	52.5	39.1	39.3	5.5	1,123
Middle	48.9	37.2	45.1	5.8	1,099
Fourth	42.5	33.9	53.5	5.4	1,105
Highest	30.2	22.4	63.8	7.3	1,212
Total	44.8	34.1	48.2	5.8	5,540

The differentials shown in Table 15.9.1 and 15.9.2 indicate that women and men who were living in urban areas and those who were highly educated or in the highest wealth quintile were less likely than other women and men to believe that a husband would prefer his wife to be circumcised or to believe that circumcision prevents adultery. These same groups were more likely than other groups to believe that circumcision may have adverse or even fatal health consequences for a girl.

Table 15.9.2 Beliefs about female circumcision by background characteristics: All men age 15-49					
Percentage of all men age 15-49 who agree with various statements about female circumcision, according to selected background characteristics, Egypt 2008					
Background characteristic	Husbands prefer	Prevents adultery	Can lead to girl's death	Makes childbirth difficult	Number of men age 15-49
<b>Age</b>					
15-19	39.3	25.3	29.8	2.0	1,087
20-24	56.1	36.5	36.0	3.1	869
25-29	67.7	43.4	31.4	3.9	729
30-34	64.9	42.6	36.5	3.4	634
35-39	70.1	41.2	26.5	3.8	535
40-44	72.6	44.5	30.9	2.6	581
45-49	72.2	49.7	31.6	3.6	494
<b>Marital status</b>					
Ever-married	70.3	44.2	31.2	3.2	2,640
Never married	48.8	32.1	32.9	2.9	2,290
<b>Urban-rural residence</b>					
Urban	55.0	37.2	36.1	2.5	2,170
Rural	64.5	39.7	28.7	3.5	2,760
<b>Place of residence</b>					
Urban Governorates	49.8	36.6	38.3	2.4	990
Lower Egypt	63.3	34.2	29.5	2.9	2,150
Urban	63.3	32.7	31.1	2.3	533
Rural	63.3	34.7	29.0	3.1	1,616
Upper Egypt	63.6	45.6	31.3	3.8	1,706
Urban	57.5	43.2	37.3	2.9	588
Rural	66.8	46.9	28.2	4.2	1,118
Frontier Governorates	42.2	32.7	32.0	0.6	84
<b>Education</b>					
No education	69.4	41.1	22.3	2.2	467
Some primary	72.6	49.5	24.7	2.9	458
Primary complete/some secondary	52.2	32.4	29.7	2.7	1,414
Secondary complete/higher	61.0	39.6	36.2	3.4	2,590
<b>Work status</b>					
Working for cash	66.3	42.4	32.0	3.2	3,685
Not working for cash	42.8	27.2	31.9	2.5	1,245
<b>Wealth quintile</b>					
Lowest	66.1	45.2	25.2	3.7	838
Second	62.5	35.1	25.8	3.0	1,010
Middle	62.0	41.9	28.9	3.5	1,036
Fourth	62.1	38.7	34.6	2.2	997
Highest	50.3	33.3	43.7	3.0	1,049
Total	60.3	38.6	32.0	3.1	4,930

## 15.7 EXPOSURE TO INFORMATION ABOUT CIRCUMCISION

Table 15.10.1 and 15.10.2 summarizes findings from the 2008 EDHS concerning women's and men's exposure to information about female circumcision and the channels through which they received information about circumcision during the six-month period prior to the survey. Around seven in ten women and about half of men in the 15-49 age group had received information about female circumcision during the six months prior to the survey. Typically, urban residents, those who were highly educated, and women in the highest wealth quintile were more likely than other women and men to have received information about circumcision during the period.

Background characteristic	Percentage receiving information recently about female circumcision	Number of women	Source from which women last saw/heard about female circumcision							Number of women receiving information about female circumcision recently
			TV	Other media <sup>1</sup>	Any medical provider contact	Home visit by medical provider	Facility visit to medical provider	Husband/ other relatives/ friends/ neighbors	Community meeting/ mosque/ church/ other	
<b>Age</b>										
15-19	68.6	1,064	96.2	14.5	1.9	0.8	1.1	17.6	1.8	730
20-24	68.2	1,091	96.5	14.5	2.6	1.0	1.6	19.2	1.4	744
25-29	76.4	906	96.8	14.5	3.1	0.7	2.4	24.3	0.8	692
30-34	76.0	688	95.5	12.5	4.3	1.1	3.2	26.7	2.1	523
35-39	74.5	673	94.8	12.5	4.0	1.3	2.7	27.1	1.7	502
40-44	72.2	568	96.3	13.9	3.7	0.2	3.5	23.1	1.2	410
45-49	72.6	550	98.3	14.1	4.7	1.0	3.7	20.8	1.1	399
<b>Marital status</b>										
Ever-married	73.1	3,983	96.2	13.1	3.7	0.9	2.8	24.5	1.3	2,910
Never married	70.0	1,556	96.7	16.0	2.3	0.9	1.3	16.7	1.8	1,089
<b>Urban-rural residence</b>										
Urban	76.1	2,352	97.0	10.6	1.9	0.2	1.7	20.2	1.4	1,790
Rural	69.3	3,188	95.8	16.5	4.4	1.4	3.0	24.1	1.5	2,209
<b>Place of residence</b>										
Urban Governorates	80.1	1,073	98.3	7.2	1.3	0.1	1.2	21.2	1.0	860
Lower Egypt	76.3	2,415	97.9	20.2	3.1	0.5	2.5	18.3	0.6	1,842
Urban	76.0	603	96.8	19.6	1.5	0.0	1.5	16.8	1.3	458
Rural	76.4	1,812	98.3	20.4	3.6	0.7	2.9	18.8	0.3	1,385
Upper Egypt	63.3	1,970	92.7	9.6	5.1	2.0	3.1	29.4	3.1	1,246
Urban	70.4	623	94.9	8.4	3.5	0.7	2.8	22.2	2.3	438
Rural	60.0	1,347	91.6	10.3	5.9	2.7	3.2	33.3	3.5	808
Frontier Governorates	62.7	82	92.9	3.2	0.9	0.0	0.9	14.4	0.4	51
<b>Education</b>										
No education	63.6	1,461	93.6	12.0	4.1	1.4	2.7	23.1	1.5	930
Some primary	74.1	394	95.3	8.8	2.2	0.8	1.4	24.9	1.1	292
Primary complete/ some secondary	72.2	1,248	96.9	12.6	1.8	0.4	1.5	21.3	1.5	901
Secondary complete/ higher	77.0	2,436	97.5	16.2	3.7	0.9	2.9	22.1	1.4	1,877
<b>Work status</b>										
Working for cash	75.9	866	95.8	15.9	6.7	1.0	5.7	24.6	2.7	657
Not working for cash	71.5	4,674	96.4	13.5	2.6	0.9	1.8	21.9	1.2	3,343
<b>Wealth quintile</b>										
Lowest	58.3	1,001	90.0	13.2	5.5	1.8	3.7	28.9	1.8	584
Second	70.2	1,123	97.2	14.2	2.9	1.2	1.7	24.4	1.2	788
Middle	74.0	1,099	97.1	15.8	4.0	1.3	2.7	22.1	1.3	813
Fourth	76.7	1,105	98.2	12.1	2.2	0.2	2.0	18.9	1.2	848
Highest	79.8	1,212	97.0	14.0	2.6	0.3	2.3	19.9	1.6	967
<b>Total</b>	<b>72.2</b>	<b>5,540</b>	<b>96.3</b>	<b>13.9</b>	<b>3.3</b>	<b>0.9</b>	<b>2.4</b>	<b>22.3</b>	<b>1.4</b>	<b>4,000</b>

Regarding sources of information about circumcision, television was the primary source of information. Among women, 96 percent received information about female circumcision on television, 22 percent had gotten information from their husbands, other relatives or friends and neighbors and 14 percent cited other mass media as a source of information about circumcision. Television was also the main source for information for men (97 percent), followed by other mass media (22 percent) and wives, other relatives, or friends and neighbors (16 percent).

Table 15.10.2 Exposure to information regarding female circumcision by background characteristics: All men age 15-49

Percentage of all men age 15-49 discussing female circumcision with relatives, friends or neighbors and receiving information about female circumcision during the year prior to the survey, and among men receiving information during the year prior to the survey, percentage naming various sources of information, according to background characteristics, Egypt 2008

Background characteristic	Percentage receiving information recently about female circumcision	Number of women	Source from which men last saw/heard about female circumcision							Number of men receiving information about female circumcision recently
			TV	Other media <sup>1</sup>	Any medical provider contact	Home visit by medical provider	Facility visit to medical provider	Wife/ other relatives/ friends/ neighbors	Community meeting/ mosque/ church/ other	
<b>Age</b>										
15-19	39.0	1,087	96.0	22.7	0.8	0.1	0.7	10.9	2.1	424
20-24	52.6	869	97.4	20.7	1.4	0.5	0.9	13.4	2.2	457
25-29	54.3	729	96.4	20.9	1.9	0.0	1.9	12.6	2.4	396
30-34	59.6	634	97.3	23.5	1.4	0.3	1.1	18.4	3.2	378
35-39	55.1	535	97.6	19.5	3.4	0.9	2.5	17.4	1.9	295
40-44	56.0	581	94.8	20.6	4.3	0.9	3.4	23.6	2.3	325
45-49	55.9	494	97.7	23.7	1.7	0.3	1.4	16.8	2.9	277
<b>Marital status</b>										
Ever-married	55.8	2,640	96.7	21.7	2.6	0.5	2.1	18.7	2.3	1,473
Never married	47.1	2,290	96.8	21.7	1.2	0.3	1.0	11.7	2.5	1,077
<b>Urban-rural residence</b>										
Urban	48.8	2,170	97.2	19.8	1.7	0.2	1.5	14.4	2.1	1,059
Rural	54.0	2,760	96.4	23.0	2.2	0.5	1.7	16.6	2.6	1,491
<b>Place of residence</b>										
Urban Governorates	46.6	990	98.0	10.0	1.1	0.0	1.1	13.3	0.9	461
Lower Egypt	60.9	2,150	97.3	28.7	1.7	0.5	1.3	15.5	2.1	1,309
Urban	58.7	533	97.7	34.5	2.4	0.4	2.1	17.3	3.3	313
Rural	61.6	1,616	97.2	26.9	1.5	0.5	1.0	14.9	1.7	996
Upper Egypt	43.9	1,706	94.9	17.1	2.9	0.5	2.4	17.6	3.9	749
Urban	45.1	588	95.1	20.2	1.6	0.4	1.3	13.0	2.7	265
Rural	43.3	1,118	94.7	15.4	3.6	0.6	3.0	20.2	4.6	484
Frontier Governorates	37.5	84	97.1	8.9	5.5	0.0	5.5	16.0	1.0	31
<b>Education</b>										
No education	46.2	467	96.0	14.3	1.3	0.0	1.3	14.4	0.0	215
Some primary	45.6	458	96.0	17.5	0.6	0.6	0.0	14.6	1.7	209
Primary complete/ some secondary	43.1	1,414	96.1	20.9	0.8	0.3	0.5	12.0	2.2	609
Secondary complete/ higher	58.6	2,590	97.2	23.6	2.8	0.5	2.3	17.5	2.9	1,517
<b>Work status</b>										
Working for cash	54.1	3,685	97.0	21.6	2.2	0.4	1.8	16.5	2.4	1,994
Not working for cash	44.8	1,245	95.8	22.0	1.2	0.3	1.0	13.1	2.6	557
<b>Wealth quintile</b>										
Lowest	44.3	838	95.9	16.1	2.4	0.1	2.2	18.1	3.3	372
Second	51.8	1,010	95.9	18.7	1.3	0.4	1.0	15.7	2.2	523
Middle	52.5	1,036	96.8	23.3	2.8	0.9	1.9	16.4	1.9	544
Fourth	50.6	997	96.7	23.8	1.9	0.2	1.7	16.2	2.4	505
Highest	57.9	1,049	97.8	24.4	1.7	0.3	1.5	13.3	2.6	607
<b>Total</b>	<b>51.7</b>	<b>4,930</b>	<b>96.7</b>	<b>21.7</b>	<b>2.0</b>	<b>0.4</b>	<b>1.6</b>	<b>15.7</b>	<b>2.4</b>	<b>2,551</b>

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

Avian influenza (AI) emerged as a significant health concern in Egypt with the first case reported in 2006 (WHO 2006a). The Egyptian government took a number of immediate steps to address the potential threat and instituted a public education campaign to increase awareness among both poultry producers and consumers of avian influenza regarding practices that would reduce transmission (El-Zanaty and Associates 2007).

To provide input into various AI programs, the 2008 EDHS obtained information during the household interview on extent of household ownership of poultry and other birds and on the ways in which poultry and birds are handled within households. A special avian influenza module was included as part of the special health issues interviews conducted in the 2008 EDHS. The module obtained information on the overall level of awareness of avian influenza, the channels of communication through which the Egyptian population is receiving information about avian influenza, knowledge about risks and symptoms of the disease in poultry or birds and in humans, the extent of understanding of modes of transmission and prevention, and attitudes toward avian influenza.

### 16.1 HOUSEHOLD OWNERSHIP OF POULTRY AND OTHER BIRDS

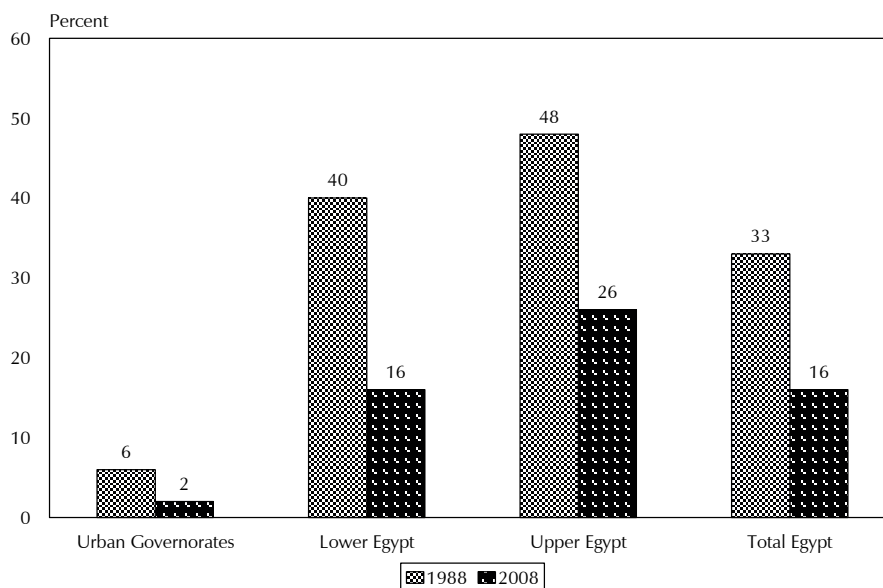
The 2008 EDHS found that around one in six households (16 percent) owned or kept poultry and/or other birds (Table 16.1). Figure 16.1 shows that the level of household ownership of poultry in 2008 was less than half the level reported two decades earlier in the 1988 Egypt DHS (33 percent). In part, the sharp decline in household ownership of poultry may be due to the extensive culling of poultry that took place in 2006; it is estimated that more than 25 million birds were culled at that time (International Federation of Red Cross and Red Crescent Societies 2008).

Table 16.1 Household possession of poultry/birds						
Percent distribution of households by possession/ownership of poultry/birds according to background characteristics, Egypt 2008						
Background characteristic	Owns poultry/birds only	Owns poultry/birds and keeps for others for breeding	Does not own, but keeps for others	Does not own/keep	Total	Number of households
<b>Urban-rural residence</b>						
Urban	3.8	0.1	0.1	96.0	100.0	9,159
Rural	26.1	1.0	0.4	72.5	100.0	9,809
<b>Place of residence</b>						
Urban Governorates	1.5	0.0	0.1	98.4	100.0	4,182
Lower Egypt	15.0	0.6	0.2	84.1	100.0	8,348
Urban	4.0	0.1	0.1	95.8	100.0	2,466
Rural	19.6	0.8	0.3	79.3	100.0	5,881
Upper Egypt	25.0	0.9	0.3	73.7	100.0	6,204
Urban	7.5	0.1	0.0	92.4	100.0	2,338
Rural	35.7	1.4	0.5	62.4	100.0	3,865
Frontier Governorates	15.8	1.1	0.1	83.0	100.0	235
<b>Wealth quintile</b>						
Lowest	30.7	1.1	0.2	68.0	100.0	3,205
Second	26.9	0.9	0.2	72.0	100.0	3,262
Middle	17.4	0.6	0.4	81.6	100.0	3,849
Fourth	6.5	0.3	0.2	93.0	100.0	4,231
Highest	2.4	0.2	0.1	97.4	100.0	4,420
Total households	15.3	0.6	0.2	83.8	100.0	18,968



Table 16.1 shows that household ownership of poultry and birds was more common among rural than urban households (27 percent and 4 percent, respectively). Around one-quarter of households in Upper Egypt owned poultry and birds compared to around one-sixth of households in Lower Egypt and the Frontier Governorates and less than two percent in the Urban Governorates. Households in the lowest wealth quintile are more than ten times more likely to own poultry or birds than households in the highest wealth quintile (32 percent and 3 percent, respectively).

**Figure 16.1** Trend in Percentage of Households Owning Poultry by Place of Residence, 1988-2008



The 2008 EDHS also obtained information on the types of poultry or birds that households owned. Nine in ten households who owned any poultry or birds owned chickens while around half that proportion (46 percent) owned ducks (Table 16.2). Twenty-seven percent of households owned geese, and 24 percent owned pigeons. Around two percent of households reported owning other types of poultry or birds (e.g., turkeys or song birds). Households in Lower Egypt were more likely than households in other areas to report owning ducks while households in Upper Egypt and the Frontier Governorates had the highest levels of ownership of pigeons.

The mean number of poultry or birds owned per household was 15.2. The mean number of poultry or birds owned by households was somewhat higher in Lower Egypt than in other areas, and it was somewhat lower among households in the lowest wealth quintile than among other households.

**Table 16.2 Type of poultry/birds owned**  
Among households owning poultry or birds, percentage owning various types of poultry or birds, and the mean number of poultry/birds owned per household, according to background characteristics, Egypt 2008

Background characteristic	Percentage of households owning any:					Mean number of poultry/birds owned per household	Total households
	Chickens	Geese	Ducks	Pigeons	Other poultry/birds <sup>1</sup>		
<b>Urban-rural residence</b>							
Urban	84.1	16.8	31.6	18.3	6.3	12.5	358
Rural	90.9	28.7	48.4	25.2	1.9	15.5	2,661
<b>Place of residence</b>							
Urban Governorates	79.7	14.6	37.3	6.9	4.8	8.9	66
Lower Egypt	89.3	27.3	61.5	11.8	2.8	17.4	1,303
Urban	85.2	17.8	39.8	7.0	12.1	13.5	102
Rural	89.6	28.1	63.3	12.2	2.0	17.8	1,201
Upper Egypt	91.0	28.0	34.7	35.2	1.9	13.6	1,609
Urban	84.4	17.1	25.3	29.1	3.3	13.1	178
Rural	91.9	29.4	35.8	35.9	1.7	13.7	1,431
Frontier Governorates	95.9	21.5	40.9	32.0	5.7	14.9	40
<b>Wealth quintile</b>							
Lowest	89.5	26.9	39.9	27.8	1.1	12.4	1,019
Second	91.9	29.6	49.0	25.3	2.2	16.5	908
Middle	89.9	28.7	52.1	22.6	2.6	17.1	693
Fourth	91.4	22.3	48.3	17.2	2.0	15.8	287
Highest	78.2	17.0	43.9	16.4	15.4	16.9	111
Total households	90.1	27.3	46.4	24.4	2.4	15.2	3,018

<sup>1</sup> Includes quail, turkey, ornamental/song birds, or other poultry/birds

## 16.2 LOCATIONS WHERE POULTRY KEPT

For households owning or keeping poultry or other birds, the 2008 EDHS included a number of questions on the location(s) where the poultry or other birds were kept and interviewers also observed, whenever possible, the cages or enclosures in which the poultry or other birds were kept. Table 16.3 shows that households most often reported that poultry or birds were kept in locations away from family living area, with the most common of these locations the rooftop of their dwelling (45 percent). Thirteen percent of households also mentioned keeping birds at a location separate from but near the dwelling and 5 percent kept poultry or birds in a location away from their dwelling. Around one in five households kept poultry or birds within the family living area, and one-third kept poultry or birds within the dwelling but away from the family living area.

Ducks have been shown to carry the avian influenza virus for longer periods without visible symptoms than other birds (WHO 2004); consequently it is recommended that households owning ducks as well as other poultry or birds keep the ducks in locations separate from the locations in which they keep their other birds. Around 40 percent of the EDHS households who owned any poultry or birds, reported that they owned both ducks and other birds (data not shown). Among these households, 31 percent kept the ducks in the same location as other poultry or birds they owned (Table 16.3).

Households who kept poultry or birds in or near their dwellings were asked if they kept the poultry or birds in cages or other enclosures. Those households who said they kept poultry or birds in cages or enclosures were also asked about when they put the poultry or birds in the enclosures. Finally households were asked if they had caged or enclosed their poultry or birds prior to the avian influenza outbreak in 2006.

Table 16.3 Locations where poultry/birds kept

Among households owning and/or keeping poultry or birds, percentage reporting they keep poultry or birds in various locations and, among households owning and/or keeping both ducks and other poultry/birds, percentage reporting they kept ducks in same location as other poultry/birds, according to background characteristics, Egypt 2008

Background characteristic	Percentage of households who keep poultry/birds					Number of households owning or keeping poultry/birds	Percentage of households keeping ducks and other poultry/birds in same location	Number of households owning or keeping both ducks and other poultry/birds
	Within family area	In dwelling but away from family living area	On the rooftop	Outside near dwelling	Elsewhere			
<b>Urban-rural residence</b>								
Urban	19.2	33.2	53.9	9.7	3.5	364	21.9	103
Rural	21.1	34.2	44.2	13.7	5.0	2,696	32.7	1,202
<b>Place of residence</b>								
Urban Governorates	21.0	25.9	60.9	11.3	0.0	69	26.6	20
Lower Egypt	13.1	33.1	45.4	16.8	6.2	1,322	41.4	728
Urban	12.9	24.5	61.5	10.1	4.5	104	30.6	38
Rural	13.2	33.8	44.0	17.4	6.4	1,218	42.3	691
Upper Egypt	27.4	35.1	45.6	9.8	3.8	1,630	23.8	541
Urban	22.7	40.7	49.4	7.0	4.1	179	15.5	42
Rural	28.0	34.4	45.1	10.1	3.7	1,451	24.8	499
Frontier Governorates	8.3	43.2	7.9	39.9	9.4	40	19.9	15
<b>Wealth quintile</b>								
Lowest	33.2	37.1	33.1	13.1	2.6	1,026	27.4	370
Second	19.4	33.3	47.6	13.8	4.7	914	33.6	417
Middle	11.3	34.0	51.6	14.3	6.0	707	33.0	333
Fourth	9.5	29.5	61.7	12.2	7.6	296	37.6	140
Highest	11.0	26.8	56.7	6.2	10.5	116	24.0	46
Total households	20.9	34.1	45.4	13.2	4.8	3,061	31.4	1,305

Table 16.4 shows that around three in four households kept their poultry or birds in cages or enclosures at least part of the time each day, and nearly half said that the poultry or birds were kept in the cages or enclosures all of the time. Households were more likely to have kept poultry or birds in cages or enclosures at the time of the 2008 EDHS than prior to the avian influenza outbreak in 2006; only 41 percent of the households reported they kept poultry or birds in cages or enclosures prior to 2006. Looking at the variation by background characteristics, households in Lower Egypt were somewhat more likely than households in other areas to keep poultry or birds in cages or enclosures all of the time. The proportion of households keeping poultry or birds in cages or enclosures increased with the wealth quintile.

Table 16.4 Use of cages or enclosures for poultry/birds

Among households keeping poultry or birds in or near dwelling, percent distribution by time household reported poultry or birds currently are kept in cages or other enclosures and percentage reporting they kept poultry or birds in cages or enclosures at least part of the time prior to the avian influenza outbreak in 2006, according to background characteristics, Egypt 2008

Background characteristic	Time poultry/birds kept in cages or enclosures						Total percent	Percentage kept poultry/birds in cages or enclosures prior to the avian influenza outbreak in 2006	Number of households owning or keeping poultry and birds in or near dwelling
	All of the time	Only at night	At night and other times <sup>1</sup>	Only at other times <sup>1</sup>	Never kept in cages/enclosures	Don't know/missing			
<b>Urban-rural residence</b>									
Urban	52.9	14.8	1.3	6.4	23.3	1.2	100.0	43.3	354
Rural	46.1	20.1	1.0	4.8	27.4	0.6	100.0	41.1	2,585
<b>Place of residence</b>									
Urban Governorates	44.7	14.1	0.5	6.8	34.0	0.0	100.0	48.4	68
Lower Egypt	55.4	18.8	1.0	4.1	20.4	0.3	100.0	48.9	1,249
Urban	71.4	9.0	3.7	4.2	11.9	0.0	100.0	56.6	101
Rural	54.0	19.7	0.7	4.1	21.2	0.3	100.0	48.2	1,148
Upper Egypt	40.3	20.3	1.1	5.5	31.7	1.0	100.0	35.2	1,586
Urban	46.4	18.3	0.4	7.0	25.5	2.4	100.0	34.9	174
Rural	39.6	20.6	1.1	5.4	32.5	0.8	100.0	35.2	1,412
Frontier Governorates	45.0	17.0	0.6	9.2	27.1	1.1	100.0	43.3	37
<b>Wealth quintile</b>									
Lowest	37.9	20.5	1.0	4.8	35.4	0.4	100.0	34.7	1,005
Second	46.5	21.9	0.6	5.1	25.0	0.9	100.0	42.7	880
Middle	52.0	17.9	1.4	4.8	23.2	0.7	100.0	43.2	669
Fourth	61.6	14.9	0.4	4.0	18.3	0.9	100.0	52.7	278
Highest	64.8	12.8	3.0	10.3	8.6	0.5	100.0	54.1	106
Total households	46.9	19.5	1.0	5.0	26.9	0.7	100.0	41.4	2,938

<sup>1</sup> Includes during the day, when fed, if it is cold, and/or other times

### 16.3 AWARENESS OF AVIAN INFLUENZA

All women and men age 15-59 interviewed in the special health issues component of the 2008 EDHS were asked if they had heard of avian influenza. If they had heard about avian influenza, they were also asked questions about the sources from which they had received information recently about the epidemic and about the symptoms of avian influenza in poultry or birds and humans.

Table 16.5 shows that virtually all women and men interviewed in the special health issues component of the survey (99 percent) had heard about avian influenza. The results in the table also show that more than eight in ten of the respondents had heard or seen information about avian influenza during the six months prior to the interview (approximately October 2007 through March 2008). Television was by far the most frequently cited source of information among respondents who reported receiving information about avian influenza during the six-month period prior to the survey; 95 percent said they had gotten information on avian influenza through television, 28 percent cited relatives, friends or neighbors as a source of information, and 24 percent mentioned they had obtained information through radio or print media. Around one in nine respondents had received information during a contact with a health care provider.

Table 16.5 also shows that the proportion of respondents who received recent information about the avian influenza epidemic and the proportions of respondents who cited various sources of information about the disease generally did not vary markedly by background characteristics, although there were a few notable differentials. For example, women were more likely than men to report that they had heard or seen information about avian influenza during the six months prior to the survey (89 percent and 75 percent, respectively). Although television and other media were primary sources of information for both rural and urban respondents, respondents from rural areas were much more likely than urban respondents to have received information about avian influenza from relatives or friends and neighbors and from health providers.

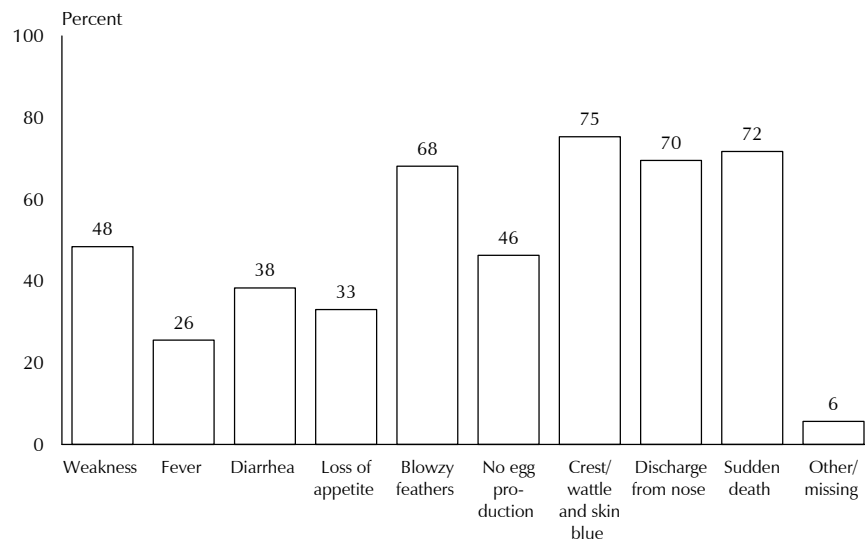
Background characteristic	Percentage knowing about avian influenza	Number of women and men age 15-59	Percentage of women and men knowing about AI receiving information about AI during the six months prior to the survey	Number of women and men age 15-59 knowing about avian influenza	Percentage who heard or saw information about AI during the six months prior to the survey							Number of women and men receiving information about AI during the six months prior to the survey
					TV	Other media <sup>1</sup>	Medical provider			Spouse/ other relatives/ friends/ neighbors	Community meeting/ mosque/ church/ other	
							Any	Home Visit	Facility visit			
<b>Current age</b>												
15-19	98.5	2,151	79.5	2,119	95.5	24.3	9.3	6.6	2.6	25.7	1.2	1,684
20-29	99.3	3,595	82.9	3,571	96.0	24.1	12.4	8.7	3.7	27.7	0.4	2,959
30-39	99.1	2,531	86.2	2,509	94.3	23.3	13.1	9.2	3.9	28.3	0.2	2,164
40-49	99.0	2,192	83.3	2,170	95.8	23.2	11.9	8.1	3.8	28.9	0.5	1,808
50-59	98.4	1,539	78.5	1,514	94.2	22.2	11.2	7.8	3.4	28.0	0.4	1,189
<b>Sex</b>												
Women	99.1	6,290	89.0	6,235	95.8	20.1	12.4	9.4	3.0	25.7	0.4	5,547
Men	98.8	5,718	75.4	5,649	94.7	28.1	10.9	6.7	4.3	30.5	0.7	4,257
<b>Urban-rural residence</b>												
Urban	98.7	5,288	81.1	5,217	97.0	24.5	4.5	1.9	2.6	22.1	0.5	4,232
Rural	99.2	6,720	83.6	6,666	94.0	22.8	17.3	13.1	4.2	32.1	0.6	5,571
<b>Place of residence</b>												
Urban Governorates	97.8	2,445	79.1	2,392	98.2	18.9	2.0	0.7	1.3	18.9	0.2	1,893
Lower Egypt	99.5	5,212	84.8	5,185	96.1	28.6	12.2	9.0	3.2	25.3	0.4	4,397
Urban	99.3	1,311	84.3	1,301	97.1	35.7	5.6	1.6	4.0	20.8	0.5	1,097
Rural	99.6	3,901	85.0	3,884	95.8	26.2	14.4	11.4	3.0	26.7	0.4	3,300
Upper Egypt	99.0	4,168	81.7	4,127	92.7	19.9	16.8	11.7	5.1	36.3	0.9	3,372
Urban	99.6	1,409	81.8	1,403	95.1	23.6	7.4	4.0	3.5	28.8	1.0	1,148
Rural	98.7	2,759	81.7	2,724	91.5	18.0	21.6	15.7	6.0	40.2	0.8	2,224
Frontier Governorates	98.4	182	78.9	179	90.2	16.8	8.5	4.4	4.1	20.8	0.0	141
<b>Education</b>												
No education	98.0	2,588	82.0	2,537	93.3	12.6	15.4	13.0	2.4	30.3	0.4	2,081
Some primary	98.2	1,084	80.7	1,065	94.2	15.9	11.3	7.6	3.7	32.2	0.7	859
Primary complete/ some secondary	98.9	2,919	79.4	2,886	95.5	22.5	10.5	7.8	2.8	27.5	0.9	2,291
Secondary complete/ higher	99.6	5,417	84.7	5,396	96.3	30.6	10.8	6.4	4.4	25.9	0.4	4,572
<b>Type of occupation</b>												
Agricultural	98.6	1,004	78.8	989	93.7	16.7	17.4	13.8	3.5	37.6	0.5	780
Non-agricultural	99.2	4,461	78.6	4,424	95.0	30.0	10.7	5.6	5.2	28.1	0.6	3,477
Not employed/missing	98.9	6,543	85.7	6,470	95.7	20.5	11.6	9.1	2.5	26.2	0.5	5,547
<b>Wealth quintile</b>												
Lowest	98.2	2,042	79.6	2,005	91.1	15.3	19.5	14.8	4.7	35.3	0.9	1,597
Second	99.1	2,442	83.1	2,419	94.7	19.8	15.9	11.7	4.2	32.6	0.5	2,011
Middle	98.9	2,425	83.4	2,398	95.0	24.2	13.8	10.3	3.6	27.7	0.4	2,000
Fourth	99.2	2,440	82.2	2,421	97.3	24.6	6.4	3.9	2.5	24.4	0.4	1,989
Highest	99.3	2,659	83.6	2,642	97.2	31.4	5.3	2.4	3.0	20.9	0.5	2,207
Total	99.0	12,008	82.5	11,883	95.3	23.6	11.8	8.2	3.5	27.8	0.5	9,803

## 16.4 AWARENESS OF AVIAN INFLUENZA SYMPTOMS IN POULTRY/BIRDS

Table 16.6 presents information on the percentages of EDHS respondents knowing about avian influenza who reported they were aware of symptoms of avian influenza in poultry and birds and of the actions individuals should take if birds become ill with any of the symptoms of avian influenza or die suddenly. The results in Table 16.6 indicate that around seven in 10 respondents who had heard of avian influenza were knowledgeable about the symptoms of the disease to watch for in poultry or birds. Figure 16.2 shows that the symptoms in poultry or birds which these respondents most frequently cited included a blue crest/wattle and skin (75 percent), sudden death (72 percent), discharge from the nose (70 percent) and blowzy feathers (68 percent). Although knowledge of the symptoms of avian influenza in poultry or birds was fairly widespread among EDHS respondents, Table 16.6 shows that less than half were aware that ducks may have the avian influenza virus and not show any symptoms.

Table 16.6 Knowledge of avian influenza symptoms in poultry or birds by background characteristics				
Among women and men age 15-59 knowing about avian influenza, percentage knowing of at least one symptom of the avian influenza virus, percentage knowing ducks may have avian influenza without looking ill, and percentage saying they know what action(s) to take if birds are sick or die, by background characteristics, Egypt 2008				
Background characteristic	Percentage reporting they know about the symptoms of AI in poultry/birds	Percentage knowing ducks may have AI without looking ill	Percentage reporting they know what to do if birds become ill with AI symptoms/die suddenly	Number of women and men knowing about avian influenza
<b>Current age</b>				
15-19	59.5	39.7	72.3	2,119
20-29	68.8	48.2	81.5	3,571
30-39	74.2	51.8	83.2	2,509
40-49	73.6	51.7	83.2	2,170
50-59	69.0	46.9	77.7	1,514
<b>Sex</b>				
Women	76.0	48.9	82.9	6,235
Men	61.6	46.8	76.9	5,649
<b>Urban-rural residence</b>				
Urban	65.9	51.8	76.6	5,217
Rural	71.8	44.9	82.7	6,666
<b>Place of residence</b>				
Urban Governorates	58.3	53.0	67.1	2,392
Lower Egypt	73.7	45.3	84.5	5,185
Urban	76.6	49.8	87.3	1,301
Rural	72.8	43.8	83.6	3,884
Upper Egypt	70.0	48.2	82.2	4,127
Urban	69.1	51.8	83.0	1,403
Rural	70.5	46.3	81.8	2,724
Frontier Governorates	64.0	50.1	72.8	179
<b>Education</b>				
No education	67.9	41.5	78.6	2,537
Some primary	63.8	44.1	74.9	1,065
Primary complete/some secondary	64.3	45.2	76.4	2,886
Secondary complete/higher	73.5	53.2	83.7	5,396
<b>Type of occupation</b>				
Agricultural	63.5	38.2	76.4	989
Non-agricultural	66.5	52.5	79.7	4,424
Not employed/missing	71.9	46.3	80.8	6,470
<b>Wealth quintile</b>				
Lowest	66.3	41.4	78.2	2,005
Second	69.7	41.7	80.9	2,419
Middle	68.7	46.0	79.0	2,398
Fourth	69.4	52.5	80.6	2,421
Highest	71.2	56.0	81.0	2,642
Total	69.2	47.9	80.0	11,883

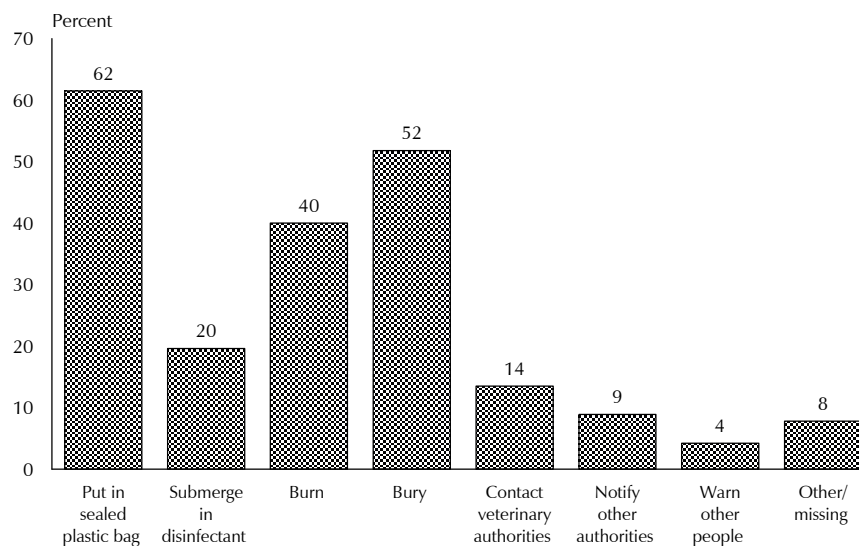
**Figure 16.2 Awareness of Symptoms of Avian Influenza in Poultry or Birds**



EDHS 2008

The EDHS also collected information on what actions respondents believed should be taken when birds became ill with any of the symptoms of avian influenza or died suddenly. Overall, Table 16.6 indicates that eight in ten respondents who had heard about avian influenza knew about the action(s) they should take if birds became ill or died. As Figure 16.3 shows, the actions most commonly cited by respondents were to put the bird in a sealed plastic bag (62 percent) or to bury the bird (52 percent).

**Figure 16.3 Awareness of Actions to Take When Birds Are Ill or Die Suddenly**



EDHS 2008

Finally, although the patterns are not totally consistent, the results in Table 16.6 suggest that respondents age 15-19, men, urban respondents, respondents from the Urban Governorates and the Frontier Governorates, and, surprisingly, respondents in agricultural occupations, to be the least knowledgeable about avian influenza symptoms in poultry or birds.

## 16.5 AWARENESS OF AVIAN INFLUENZA RISKS AND SYMPTOMS AMONG HUMANS

EDHS respondents who had heard about avian influenza were asked a number of questions to gauge the level of awareness of the potential for humans to be infected with the disease and the symptoms of avian influenza in humans. Table 16.7 shows that respondents were generally fairly knowledgeable about avian influenza risks for humans. Ninety-five percent of respondents who had heard of avian influenza knew that humans could be infected with the virus and 86 percent were aware that the disease could be fatal in humans. With regard to symptoms of avian influenza in humans, around six in ten

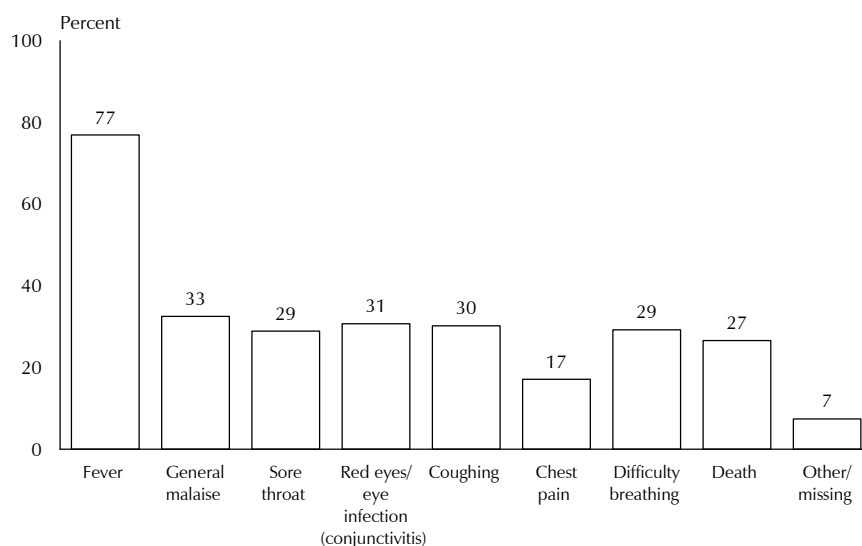
Table 16.7 Awareness of risks and symptoms of avian influenza infection in humans by background characteristics				
Among women and men age 15-59 knowing about avian influenza, percentage who are aware humans may be infected with the avian influenza virus, percentage knowing humans may die from avian influenza, and percentage knowing at least one symptom of avian influenza in humans, by background characteristics, Egypt 2008				
Background characteristic	Percentage knowing that humans can be infected with the avian influenza virus	Percentage knowing humans can die from avian influenza	Percentage knowing at least one symptom of avian influenza in humans	Number of women and men knowing about avian influenza
<b>Current age</b>				
15-19	94.5	84.7	53.5	2,119
20-29	95.8	87.0	63.0	3,571
30-39	95.6	86.6	64.9	2,509
40-49	95.2	85.6	63.2	2,170
50-59	94.5	87.8	60.1	1,514
<b>Sex</b>				
Women	94.9	84.6	65.7	6,235
Men	95.6	88.2	56.6	5,649
<b>Urban-rural residence</b>				
Urban	96.5	89.6	65.1	5,217
Rural	94.2	83.8	58.4	6,666
<b>Place of residence</b>				
Urban Governorates	96.4	92.3	64.7	2,392
Lower Egypt	96.3	84.5	61.6	5,185
Urban	97.7	85.9	67.1	1,301
Rural	95.8	84.0	59.7	3,884
Upper Egypt	93.4	85.3	58.7	4,127
Urban	95.9	89.1	63.0	1,403
Rural	92.0	83.3	56.6	2,724
Frontier Governorates	92.3	84.3	69.5	179
<b>Education</b>				
No education	91.1	81.4	50.8	2,537
Some primary	95.1	87.2	47.7	1,065
Primary complete/some secondary	94.9	84.8	57.4	2,886
Secondary complete/higher	97.4	89.3	71.1	5,396
<b>Type of occupation</b>				
Agricultural	93.2	81.7	48.2	989
Non-agricultural	96.0	89.5	63.4	4,424
Not employed/missing	95.0	84.9	62.0	6,470
<b>Wealth quintile</b>				
Lowest	91.9	81.6	50.3	2,005
Second	93.6	82.9	53.8	2,419
Middle	95.6	85.2	58.1	2,398
Fourth	96.6	89.4	66.9	2,421
Highest	97.6	91.3	74.5	2,642
Total	95.2	86.3	61.3	11,883



respondents who had heard of avian influenza were able to name at least one symptom of avian influenza in humans. As Figure 16.4 shows, the most commonly cited symptom in humans was fever (77 percent). About three in ten respondents named various other symptoms including malaise (33 percent), red eyes or conjunctivitis (31 percent), coughing (30 percent), difficulty breathing (29 percent), or sore throat (29 percent).

An examination of the differentials in the indicators presented in Tables 16.7 indicates that, regardless of the subgroup, more than nine in ten respondents who were aware of avian influenza knew that humans may contract the disease and more than eight in ten respondents were aware that the disease can be fatal for humans. EDHS respondents varied somewhat more with respect to the level of awareness of the symptoms of avian influenza in humans. For example, the percentage of respondents able to name at least one symptom of the disease in humans varied from 50 percent in the lowest wealth quintile to 75 percent in the highest quintile.

**Figure 16.4 Awareness of Avian Influenza Symptoms in Humans**



EDHS 2008

## 16.6 AWARENESS OF MODES OF TRANSMISSION AND PREVENTION

EDHS respondents who knew that humans can be infected with the avian influenza virus were asked to name at least four ways in which a person might contract the virus and four ways in which the likelihood of transmission of the virus to humans might be reduced. Table 16.8 details the specific modes of transmission and prevention EDHS respondents mentioned. Contact with sick poultry or birds was the most frequently cited mode of transmission (78 percent), followed by contact with feces from sick birds or poultry (34 percent). Washing hands after contact with poultry or birds was mentioned most often as a means to reduce the likelihood of transmission of the avian influenza virus to humans, followed by wearing a face mask and wearing gloves or plastic bags over the hands during contact with poultry or birds (38 percent each).

**Table 16.8 Knowledge of modes of transmission and prevention for avian influenza**

Among women and men age 15-59 aware that humans may be infected with the avian influenza virus, percentage naming various ways in which the avian influenza virus may be transmitted to humans and ways in which the transmission of the virus to humans may be prevented, Egypt 2008

Modes of AI transmission and prevention	Total
<b>Modes of transmission</b>	
Contact with sick poultry/birds	78.2
Contact with feces from sick poultry/birds	34.3
Contact with poultry/birds	23.3
Eating undercooked eggs/poultry	23.7
Contact with contaminated water	9.0
Contact with person who has avian influenza	14.5
Other/missing	2.7
<b>Modes of prevention</b>	
Washing hands after contact with poultry/birds	51.2
Change and wash clothes after contact with poultry/birds	31.9
Wear face mask during contact with poultry/birds	38.1
Wear gloves/plastic bags during contact with poultry/birds	37.9
Do not let children handle poultry/birds	12.6
Do not let children handle poultry/bird's eggs	4.0
Do not let children handle feces/feathers from poultry/birds	4.4
Do not eat undercooked poultry/birds	20.7
Do not eat undercooked eggs	11.3
Do not eat birds that fall dead	1.4
Do not breed birds	8.9
Other/missing	0.5
Number of women and men aware that humans may be infected with the avian influenza virus	11,317

Note: Respondents may have named more than one AI symptom so percentages do not add to 100.

As Table 16.9 shows, overall, most of the respondents who were aware that humans could contract the avian influenza virus were able to name at least one way in which a person might contract the virus and at least one way in which the risk of contracting the virus might be reduced. However, only 8 percent of respondents who were aware that humans may contract avian influenza were able to name at least four ways in which the virus might be transmitted to a person and only 21 percent were able to name at least four ways to limit the chance that a person might contract the virus.

**Table 16.9 Awareness of modes of transmission and prevention for avian influenza infection in humans by background characteristics**

Among women and men age 15-59 knowing that humans can get avian influenza, percentage knowing at least one way and percentage knowing at least four ways in which a person can contract avian influenza and percentage knowing at least one way and percentage knowing at least four ways in which the likelihood of the spread of avian influenza can be reduced by background characteristics, Egypt 2008

Background characteristic	Percentage knowing at least one way a person can contract avian influenza	Percentage knowing four or more ways a person can contract avian influenza	Percentage knowing at least one way in which the likelihood of avian influenza can be reduced	Percentage knowing four or more ways in which the likelihood of avian influenza can be reduced	Number of women and men knowing avian influenza
<b>Current age</b>					
15-19	85.2	7.7	85.4	19.0	2,003
20-29	89.8	7.6	89.5	21.9	3,419
30-39	92.0	8.7	90.3	22.7	2,398
40-49	90.8	8.7	89.4	21.8	2,066
50-59	87.3	7.2	86.6	17.2	1,430
<b>Sex</b>					
Women	90.4	11.3	93.5	26.8	5,918
Men	88.2	4.4	83.1	14.6	5,399
<b>Urban-rural residence</b>					
Urban	90.8	10.2	90.0	21.4	5,035
Rural	88.2	6.2	87.4	20.6	6,282
<b>Place of residence</b>					
Urban Governorates	89.5	12.1	87.3	22.4	2,306
Lower Egypt	90.1	5.9	87.3	20.0	4,993
Urban	91.7	8.1	90.2	21.1	1,271
Rural	89.6	5.2	86.3	19.6	3,722
Upper Egypt	88.7	7.6	91.0	21.0	3,853
Urban	93.2	7.8	94.7	19.1	1,346
Rural	86.2	7.5	89.0	21.9	2,507
Frontier Governorates	78.0	22.8	87.2	30.3	165
<b>Education</b>					
No education	84.9	8.1	86.1	20.8	2,311
Some primary	85.3	5.9	83.6	14.2	1,013
Primary complete/some secondary	86.5	8.2	86.3	18.7	2,739
Secondary complete/higher	93.5	8.3	91.8	23.5	5,255
<b>Type of occupation</b>					
Agricultural	86.5	3.5	78.2	13.8	922
Non-agricultural	90.5	6.2	87.4	18.1	4,246
Not employed/missing	89.0	10.0	90.9	24.0	6,149
<b>Wealth quintile</b>					
Lowest	84.7	6.6	85.0	20.6	1,842
Second	87.0	6.1	86.0	19.8	2,265
Middle	88.9	6.9	86.0	20.2	2,293
Fourth	91.2	8.7	91.8	20.3	2,339
Highest	93.3	11.1	92.7	23.5	2,579
<b>Total</b>	<b>89.3</b>	<b>8.0</b>	<b>88.6</b>	<b>21.0</b>	<b>11,317</b>

## 16.7 ATTITUDES TOWARDS AVIAN INFLUENZA RISKS

The 2008 EDHS included several questions designed to assess respondents' attitudes with regard to the threat that avian influenza poses. Table 16.10 shows that the majority of the respondents recognized that avian influenza was extremely dangerous (81 percent) for any person who might be infected with the virus. While recognizing the seriousness of avian influenza infection, the majority of respondents also believed that it was not very likely (25 percent) or not likely at all (43 percent) that a member of their household would be infected with the virus. More than 60 percent were extremely or somewhat confident that the spread of avian influenza could be prevented and more than 80 percent were confident of their ability to protect themselves and other members of their families from infection.

Table 16.10 Attitudes about avian influenza

Among women and men age 15-59 knowing about avian influenza, percent distribution by the attitudes about the dangers of avian influenza, likelihood of a family member getting infected, confidence that the spread of avian influenza can be prevented, and confidence in the ability to protect self and family from becoming infected Egypt 2008

Attitudes about avian influenza	Total
<b>Avian influenza infection dangerous for person infected</b>	
Extremely dangerous	81.2
Somewhat dangerous	11.9
Not very dangerous	2.9
Not dangerous at all	0.7
Don't know/missing	3.3
<b>Likelihood of household member being infected</b>	
Extremely likely	3.0
Somewhat likely	20.0
Not very likely	25.2
Not likely at all	43.2
Don't know/missing	8.6
<b>Level of confidence that spread of avian influenza can be prevented</b>	
Extremely confident	26.4
Somewhat confident	37.5
Not very confident	16.0
Not confident at all	6.6
Don't know/missing	13.5
<b>Level of confidence in ability to protect self and family from infection</b>	
Extremely confident	45.5
Somewhat confident	35.0
Not very confident	7.6
Not confident at all	2.5
Don't know/missing	9.5
Total percent	100.0
Number of women and men knowing about avian influenza	11,883



The special health issues interviews conducted with women and men age 15-59 in the 2008 EDHS included a series of questions designed to obtain information on a number of adult health issues including the use of tobacco, history of diabetes, cardiovascular disease, and stroke. In addition, respondents were asked about past diagnosis and treatment of hypertension and blood pressure measurements were taken during the interviews to provide additional information on the prevalence of hypertension among the adult population in Egypt. Respondents were also asked questions to assess potential exposure to bloodborne pathogens through medical procedures including surgery, blood transfusion and injections. Finally, information was obtained on the level of awareness of safe injection practices.

### 17.1 USE OF TOBACCO

Smoking and the use of other tobacco products has been linked to a wide range of detrimental health outcomes including cancer, cardiovascular disease and respiratory illness (WHO 2008). The risks affect not only smokers themselves but other individuals who are exposed to second-hand tobacco smoke or “environmental” tobacco smoke (ETS); the latter has been shown to contribute to a number of adverse health effects including increased risk of respiratory and cardiovascular illnesses (WHO 2007).

The 2008 EDHS collected information on use of tobacco by respondents and by other household members. To assess awareness of the problems of second-hand smoking, questions were also included on whether respondents had received information about the effects of second-hand smoke within a six-month period prior to the EDHS and, if so, what were the sources from which they had received the information.

Table 17.1 presents the prevalence of use of tobacco products among the women and men age 15-59 interviewed in the special health issues component of the survey. There is a very strong relationship between the use of tobacco products and a respondent’s gender. More than 40 percent of men reported using other tobacco products compared to less than one percent of women. The table shows that the majority of both male and female tobacco users smoked cigarettes. Among men, 35 percent reported smoking cigarettes only while 9 percent said they used other forms of tobacco, in some cases in addition to cigarettes. Among male cigarette smokers, the average (mean) number of cigarettes smoked per day was 19.

Although women themselves rarely used tobacco products, many were potentially exposed to harmful effects of smoking. Table 17.1 shows that more than four in ten respondents reported that at least one other household member smoked or used another form of tobacco. Significantly, although very few women smoked, about more than half lived in households in which at least one household member smoked.

Table 17.1 Use of tobacco			
Percent distribution of women and men age 15-59 by own use of tobacco products and use of tobacco products by other household members and, among those who smoke cigarettes, mean number of cigarettes smoked during the 24-hour period before the survey interview, Egypt 2008			
Use of tobacco products	Women	Men	Total
<b>Own use of tobacco products</b>			
Use tobacco products	0.7	43.9	21.3
Cigarettes only	0.4	34.7	16.8
Other tobacco products only	0.2	5.6	2.7
Both cigarettes and other tobacco products	0.1	3.6	1.8
Does not use tobacco products	99.1	56.0	78.6
Don't know/missing	0.2	0.1	0.1
Total percent	100.0	100.0	100.0
Number	6,290	5,718	12,008
Mean number of cigarettes smoked in 24-hour period	(14.0)	18.9	18.9
Number of cigarette smokers	22	2,174	2,196
<b>Use of tobacco products by other household members</b>			
Use tobacco products	54.1	31.6	43.4
Cigarettes only	44.6	26.0	35.7
Other tobacco products only	6.0	3.1	4.6
Both cigarettes and other tobacco products	3.5	2.6	3.0
Does not use tobacco products	45.5	67.8	56.1
Don't know/missing	0.4	0.6	0.5
Total percent	100.0	100.0	100.0
Number	6,290	5,718	12,008
Note: Figures in parentheses are based on 25-49 unweighted cases.			

Tables 17.2.1 and 17.2.2 show that women and men were somewhat less likely than other respondents to live in a household in which at least one household member smoked or used other form of tobacco if they were urban residents, lived in the Frontier Governorates, had a secondary or higher education, or were in the highest wealth quintile.

Tables 17.2.1 and 17.2.2 also show that 39 percent of women and 37 percent of men had received information about the adverse health effects of second smoke in the six-month period prior to the 2008 EDHS. As was the case with other health-related information, television was the primary source of information about second-hand smoke among almost all of women (93 percent) and nine in ten men (87 percent) who had seen or heard about the subject recently.

Table 17.2.1 Prevalence of smoking and exposure to information about health effects of second-hand smoke by background characteristics: Women

Percentage of women age 15-49 who currently smoke or use any form of tobacco, percentage living in household where at least one member smokes or uses some other form of tobacco, percentage receiving information about health effects of second-hand smoke during the six-months prior to the survey, and among women receiving information about second-hand smoke, percentage receiving information from various sources, according to background characteristics, and percentage of women 50-59 and of all women 15-59 smoking or using other forms of tobacco and exposed to information about effects of second-hand smoke, Egypt 2008

Background characteristic	Percentage currently smoking/using other form of tobacco		Percentage receiving information recently about health effects of second-hand smoke	Number of women	Percentage who saw/heard about health effects of second-hand smoke from:							Number of women receiving information about second-hand smoke recently
	Woman herself	Other household member			TV	Other media <sup>1</sup>	Health worker			Spouse/ other relatives/ friends/ neighbors	Community meeting/ other/ missing	
							Any contact	Home visit	Facility visit			
<b>Age</b>												
15-19	0.3	56.2	39.4	1,064	91.3	24.5	1.8	0.1	1.7	13.4	8.0	419
20-29	0.6	54.2	40.7	1,997	93.8	22.2	3.3	0.4	3.2	11.1	4.7	812
30-39	0.7	51.6	40.0	1,362	95.3	19.4	3.0	0.6	2.4	11.8	5.0	545
40-49	1.1	57.6	41.2	1,117	91.5	17.3	3.2	0.8	2.9	12.2	4.3	460
<b>Marital status</b>												
Ever-married	0.8	54.8	39.4	3,983	94.6	18.7	3.2	0.6	3.0	11.3	4.4	1,571
Never-married	0.4	54.2	42.7	1,556	90.1	26.3	2.1	0.2	1.9	13.4	7.6	665
<b>Urban-rural residence</b>												
Urban	0.6	51.6	44.8	2,352	92.2	21.2	2.3	0.3	2.2	10.7	5.5	1,054
Rural	0.8	56.9	37.1	3,188	94.2	20.7	3.4	0.7	3.1	13.0	5.2	1,182
<b>Place of residence</b>												
Urban Governorates	0.8	56.0	44.2	1,073	90.2	23.3	2.1	0.4	2.0	11.5	7.8	475
Lower Egypt	0.6	52.2	38.9	2,415	93.4	27.6	4.0	0.7	3.7	11.9	3.9	939
Urban	0.1	46.1	41.2	603	91.1	29.7	3.6	0.0	3.6	12.2	5.3	248
Rural	0.7	54.3	38.1	1,812	94.3	26.8	4.1	0.9	3.7	11.8	3.3	691
Upper Egypt	0.7	56.9	40.5	1,970	94.8	12.1	2.2	0.3	1.9	12.5	5.7	797
Urban	0.4	49.3	50.2	623	95.9	11.4	1.8	0.3	1.5	8.8	2.3	313
Rural	0.9	60.4	35.9	1,347	94.1	12.5	2.5	0.4	2.2	14.8	7.8	484
Frontier Governorates	2.1	51.7	31.3	82	92.9	12.1	1.2	0.0	1.2	4.4	2.2	26
<b>Education</b>												
No education	1.1	61.5	31.3	1,461	92.4	16.3	2.9	1.2	2.3	12.1	4.1	457
Some primary	0.4	67.9	36.8	394	92.8	14.3	2.0	0.0	2.0	14.2	7.5	145
Primary complete/ some secondary	0.5	58.5	39.6	1,248	92.6	22.8	1.8	0.6	1.5	13.5	6.7	494
Secondary complete/ higher	0.6	46.4	46.8	2,436	93.9	22.9	3.5	0.2	3.4	10.9	4.9	1,140
<b>Work status</b>												
Working for cash	0.7	44.6	46.3	866	91.4	25.2	6.2	0.6	5.9	13.3	6.3	401
Not working for cash	0.7	56.5	39.3	4,674	93.6	20.0	2.2	0.5	1.9	11.6	5.1	1,835
<b>Wealth quintile</b>												
Lowest	1.0	58.0	31.2	1,001	92.8	15.4	1.6	0.6	1.1	13.8	5.1	312
Second	1.1	60.6	38.1	1,123	95.1	18.7	3.8	1.2	3.2	14.2	3.9	428
Middle	0.5	59.1	38.5	1,099	94.0	21.2	2.7	0.3	2.7	13.8	5.2	423
Fourth	0.3	56.6	43.4	1,105	93.2	18.1	2.0	0.3	2.0	10.4	6.7	480
Highest	0.5	40.5	48.9	1,212	91.7	27.7	3.8	0.2	3.5	9.2	5.4	593
Total women age 15-49	0.7	54.6	40.4	5,540	93.2	21.0	2.9	0.5	2.6	11.9	5.3	2,236
Women age 50-59	1.1	49.9	30.4	751	91.8	18.0	1.9	0.8	1.2	11.5	5.5	228
Total women age 15-59	0.7	54.1	39.2	6,290	93.1	20.7	2.8	0.5	2.5	11.9	5.3	2,465

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster



Table 17.2.2 Prevalence of smoking and exposure to information about health effects of second-hand smoke by background characteristics: Men

Percentage of men age 15-49 who currently smoke or use any form of tobacco, percentage living in household where at least one member smokes or uses some other form of tobacco, percentage receiving information about health effects of second-hand smoke during the six-months prior to the survey, and among men receiving information about second-hand smoke, percentage receiving information from various sources, according to background characteristics, and percentage of men 50-59 and of all men 15-59 smoking or using other forms of tobacco and exposed to information about effects of second-hand smoke, Egypt 2008

Background characteristic	Percentage currently smoking/using other form of tobacco		Percentage receiving information recently about health effects of second-hand smoke	Number of men	Percentage who saw/heard about health effects of second-hand smoke from:							Number of men receiving information about second-hand smoke recently
	Man himself	Other household member			TV	Other media <sup>1</sup>	Health worker			Spouse/ other relatives/ friends/ neighbors	Community meeting/ other/ missing	
							Any contact	Home visit	Facility visit			
<b>Age</b>												
15-19	18.9	50.9	31.3	1,087	88.1	25.5	1.6	0.4	1.1	28.0	7.9	340
20-29	43.2	41.9	38.4	1,598	86.4	22.9	2.0	0.2	1.8	27.9	9.8	613
30-39	51.8	16.1	39.4	1,169	88.3	24.0	4.7	0.7	4.2	26.1	8.4	461
40-49	55.4	16.8	38.3	1,075	86.9	22.5	7.7	0.8	7.2	25.2	12.0	412
<b>Marital status</b>												
Ever-married	53.8	16.8	38.4	2,640	87.2	22.6	5.5	0.6	5.1	26.4	10.4	1,014
Never-married	29.6	50.1	35.5	2,290	87.4	24.8	1.9	0.4	1.6	27.5	8.6	813
<b>Urban-rural residence</b>												
Urban	42.9	28.5	32.9	2,170	87.6	22.0	3.1	0.3	2.9	25.3	10.1	714
Rural	42.3	35.3	40.3	2,760	87.1	24.6	4.4	0.7	3.9	27.9	9.3	1,112
<b>Place of residence</b>												
Urban Governorates	45.2	29.6	32.8	990	88.9	15.1	2.0	0.1	1.9	15.6	10.5	325
Lower Egypt	43.0	32.0	44.0	2,150	88.6	25.4	3.9	0.3	3.6	26.2	6.9	946
Urban	41.6	21.6	37.8	533	89.5	24.5	4.0	0.0	4.0	36.8	9.9	202
Rural	43.5	35.4	46.0	1,616	88.3	25.7	3.9	0.4	3.5	23.3	6.1	744
Upper Egypt	40.6	34.4	31.7	1,706	84.2	25.7	5.1	1.1	4.5	35.3	13.9	541
Urban	40.5	33.0	30.2	588	83.5	31.8	4.3	0.8	3.8	30.8	9.6	178
Rural	40.7	35.1	32.5	1,118	84.5	22.7	5.4	1.2	4.8	37.5	16.0	363
Frontier Governorates	38.1	28.9	18.1	84	86.0	14.7	0.0	0.0	0.0	10.1	7.9	15
<b>Education</b>												
No education	58.3	33.6	35.5	467	88.3	13.4	3.3	0.3	3.3	22.4	8.5	166
Some primary	62.0	31.8	31.5	458	91.2	18.2	2.0	0.3	1.7	27.6	8.9	145
Primary complete/ some secondary	38.5	40.8	32.1	1,414	86.0	26.1	3.0	1.0	2.1	27.5	8.6	453
Secondary complete/ higher	38.5	27.5	41.0	2,590	87.2	24.8	4.6	0.4	4.4	27.2	10.3	1,063
<b>Work status</b>												
Working for cash	50.7	27.4	37.9	3,685	86.9	23.1	4.3	0.5	4.0	27.0	10.8	1,395
Not working for cash	18.3	46.9	34.6	1,245	88.6	25.0	2.4	0.4	2.0	26.4	5.7	431
<b>Wealth quintile</b>												
Lowest	43.2	38.8	31.3	838	86.7	17.1	3.3	0.9	2.7	32.7	9.8	262
Second	45.6	42.3	40.9	1,010	89.5	25.5	2.7	0.2	2.6	24.1	8.7	413
Middle	44.9	34.1	35.4	1,036	87.1	22.7	6.4	1.4	5.3	29.8	7.7	367
Fourth	44.1	28.1	33.1	997	85.1	24.9	3.1	0.1	2.9	27.0	10.0	330
Highest	35.3	19.6	43.4	1,049	87.4	25.3	3.9	0.1	3.8	23.6	11.6	455
Total men age 15-49	42.6	32.3	37.1	4,930	87.3	23.6	3.9	0.5	3.5	26.9	9.6	1,826
Men age 50-59	52.5	27.5	32.7	788	85.6	22.8	5.4	0.6	5.0	21.7	8.7	258
Total men age 15-59	43.9	31.6	36.5	5,718	87.1	23.5	4.1	0.5	3.7	26.2	9.5	2,084

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

## 17.2 HISTORY OF DIABETES AND CARDIOVASCULAR DISEASE

Diabetes and cardiovascular diseases are major causes of adult morbidity and mortality in Egypt. Diabetes, a condition characterized by the presence of high levels of glucose (sugar) in the blood caused by problems in the production and/or use of insulin, affects an estimated 7 percent of the Egyptian population age 20-79 years (Ministry of Health and Population, nd). Cardiovascular diseases also are widespread in Egypt; according to the World Health Organization, Egypt lost 21 years of productive life per 1,000 population as a result of premature mortality or disability due to heart disease and 8 years of productive life per 1,000 population due to stroke (WHO, 2004).

To obtain some information on the history of diabetes and cardiovascular illnesses among EDHS respondents, eligible women and men were asked if they had ever been diagnosed as having diabetes, a heart attack, or a stroke. Table 17.3 shows that 4 percent of women and 2 percent of men reported that they had diabetes, with almost all indicating that they were being treated with insulin or pills for the diabetes at the time of the survey. Around 1 percent of both women and men indicated they had been told by a medical provider that they had had a heart attack at some point prior to the survey, and a similar percentage reported having been told by a medical provider that they had had a stroke.

Table 17.3 History of diabetes, heart attack and stroke			
Percent distribution of women and men age 15-59 by history of diabetes, heart disease and stroke, Egypt 2008			
History of diabetes, heart attack and stroke	Women	Men	Total
<b>History of diabetes</b>			
Told had diabetes by medical practitioner <sup>1</sup>	3.6	2.3	3.1
Receiving treatment <sup>2</sup>	3.4	2.2	2.9
Not receiving treatment	0.2	0.1	0.2
Missing	0.0	0.0	0.0
Never told had diabetes	95.8	97.4	96.6
Don't know/missing	0.5	0.2	0.3
<b>History of heart attack</b>			
Told had heart attack by medical practitioner	0.8	1.0	0.9
Never told	99.2	98.9	99.1
Don't know/missing	0.0	0.1	0.0
<b>History of stroke</b>			
Told had stroke by medical practitioner	0.8	1.0	0.9
Never told	99.2	98.9	99.1
Don't know/missing	0.0	0.1	0.0
Total percent	100.0	100.0	100.0
Number	6,290	5,718	12,008
<sup>1</sup> Other than during pregnancy			
<sup>2</sup> Insulin/pills			

To gauge the extent to which they were aware they suffered from hypertension, EDHS respondents were asked if they had ever been told by a health provider that they had high blood pressure and, if so, the actions that they had taken to lower their blood pressure. Table 17.4 shows that 2 percent of respondents were told by a health care provider on at least one occasion that their blood pressure was high, and 7 percent were told they had high blood pressure on two or more occasions. Women were more

than twice as likely as men to have been told by a health provider on one or more occasions that their blood pressure was high (13 percent and 6 percent, respectively).

Sixty-five percent of the EDHS respondents who were told that their pressure was high reported taking some action to lower their blood pressure. More than half (55 percent) took medication and more than three in ten (31 percent) cut down on salt consumption. Furthermore, 15 percent of respondents with a high blood pressure made efforts to control or lose weight, 7 percent said they exercised, and 4 percent stopped smoking. The proportions taking prescribed medications were similar among women and men. Women were somewhat more likely than men to take actions to control their weight and to reduce salt in the diet, while men were more likely than women to stop smoking and to exercise.

Table 17.4 History of hypertension and actions taken to lower blood pressure			
Percent distribution of women and men age 15-59 by history of hypertension (high blood pressure) and, among those told they had high blood pressure, percentage taking various actions to treat the illness, Egypt 2008			
History of hypertension and actions taken to treat hypertension	Women	Men	Total
<b>History of hypertension</b>			
Told blood pressure was high	12.5	5.6	9.2
On one occasion	3.2	1.2	2.2
On two or more occasions	9.1	4.4	6.9
Unsure about number of times/missing	0.2	0.0	0.1
Never told	87.3	94.2	90.6
Don't know/missing	0.2	0.2	0.2
Total percent	100.0	100.0	100.0
Number	6,290	5,718	12,008
<b>Actions taken to lower blood pressure</b>			
Percentage taking some action to lower blood pressure	64.2	65.1	64.5
Taking prescribed medication	55.4	55.4	55.4
Controlling weight/losing weight	16.1	11.7	14.8
Cutting down on salt in diet	33.9	25.3	31.4
Exercising	5.1	11.3	6.9
Stopped smoking	0.9	10.8	3.8
Number with history of high blood pressure	782	324	1,106

### 17.3 HIGH BLOOD PRESSURE

High blood pressure (hypertension) is associated with a range of serious medical conditions including heart and kidney disease and stroke. In the 2008 EDHS, blood pressure measurements were taken on women and men age 15-59 during the administration of the special health issues questionnaires. These measurements were intended to provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EDHS interviews and were not intended to provide a medical diagnosis of hypertension.<sup>1</sup> However, the 2008 EDHS results are useful in providing insight into the size and characteristics of the population at risk for hypertension.

<sup>1</sup> Guidelines of the Egypt Hypertension Society recommend that the medical diagnosis of hypertension be based blood pressure readings on at least three or more separate occasions (Egypt Hypertension Society 2004).

Blood pressure readings were taken by EDHS interviewers using fully automatic digital blood pressure monitors with upper arm automatic inflation (Life Source Digital Blood Pressure Monitors Models UA-767V and Model UA-789 for individuals with large arms). Interviewers were trained to use the monitors according to manufacturer’s instructions. Three blood pressure readings (systolic and diastolic pressure) were taken during the survey interview, at approximately 10 minute intervals. Prior to taking the blood pressure first reading, the interviewers measured the respondent’s arm circumference in order to determine the appropriate cuff size and monitor to use. Respondents were also asked for information about recent intake of food and caffeinated beverages as those factors can influence blood pressure readings. Virtually all eligible EDHS respondents participated in the blood pressure measurement. Measurements were not available due to refusal or technical problems during measurements for less than 1 percent of women and men (Table 17.5). Respondents were given information on their blood pressure measures at the end of the interview and referred to a health provider for additional screening where appropriate.

Blood pressure is defined in terms of the force exerted by blood inside arteries. This force varies with each beat of the heart. Blood pressure is highest at the point the heart contracts and forces blood into the arterial system, and it is lowest when the heart muscle relaxes and allows blood to flow into the heart. The point at which pressure is highest is termed the systolic pressure and the point where the pressure is lowest is termed the diastolic pressure. The blood pressure measurements taken during the EDHS survey provided information on both systolic and diastolic blood pressure.

Table 17.5 Availability of final blood pressure measurement	
Percent distribution of de facto population age 15-59 interviewed on health issues by availability of final blood pressure measurement according to sex, Egypt 2008	
Availability of blood pressure measurement	Total
WOMEN	
Measurement available	99.4
Measurement not available	0.6
Refused	0.4
Technical problems during collection	0.1
Missing	0.0
Total percent	100.0
Number	6,290
MEN	
Measurement available	99.9
Measurement not available	0.1
Refused	0.1
Technical problems during collection	0.0
Missing	0.0
Total percent	100.0
Number	5,718
TOTAL	
Measurement available	99.6
Measurement not available	0.4
Refused	0.3
Technical problems during collection	0.1
Missing	0.0
Total percent	100.0
Number	12,008

The average of the second and third blood pressure measurements was used to the blood pressure of EDHS respondents into the following categories:<sup>2</sup>

Categories	Systolic pressure	Diastolic pressure
Optimal	<120	<80
Normal	120-129	80-84
High normal	130-139	85-89
Mildly elevated (stage 1)	140-159	90-99
Moderately elevated (stage 2)	160-179	100-109
Severely elevated (stage 3)	180 or >	110 or >

When a respondent's systolic and diastolic pressures fell into different categories, the higher category was used. Respondents whose average systolic and diastolic measurements were greater than or equal to 140/90 were considered to be hypertensive. In addition, respondents were also considered to be hypertensive if they had a normal or optimal blood pressure reading but were taking medication to lower their blood pressure.

Tables 17.6.1 and 17.6.2 present the prevalence of hypertension among EDHS respondents at the time of the survey according to selected socioeconomic characteristics. Overall, 13 percent of women and 11 percent of men were considered to be hypertensive. Hypertension levels for both women and men increased steadily with age. For example, women age 55-59 were more than three times as likely as women age 35-39 to be hypertensive (46 percent and 13 percent, respectively). Among both women and men, urban residents were slightly more likely to be hypertensive than rural residents. Among women, those living in urban Upper Egypt (17 percent) had the highest hypertension rate while, among men, the rate was highest among those living in the Frontier Governorates (13 percent). Among women, the rate of hypertension was markedly lower among women who had completed at least primary school compared with those with less or no education. Among men, the hypertension rate also was lower among those who had completed at least primary school than among those with less education, but the differential was not as marked as for women. There was some tendency for the prevalence of hypertension to increase with the wealth quintile among both women and men, but the variations were not large or uniform.

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<sup>2</sup> Categories reflect classifications used by WHO (1999a) and the Egypt Hypertension Society (2004).

Table 17.6.1 Levels of hypertension by socioeconomic characteristics: Women

Prevalence of hypertension among women age 15-59 and percent distribution of women by blood pressure status, according to socioeconomic characteristics, Egypt 2008

Socioeconomic characteristics	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/ <80 mmHg	Normal 120-129/ 80-84 mmHg	High normal 130-139/ 85-89 mmHg	Mildly elevated (stage 1) 140-159/ 90-99 mmHg	Moderately elevated (stage 2) 160-179/ 100-109 mmHg	Severely elevated (stage3) 180+/ 110+ mmHg	Normal BP and taking medication			
<b>Age</b>											
15-19	3.8	52.0	36.0	7.8	2.9	0.3	0.0	0.5	0.5	100.0	1,064
20-24	4.7	46.7	39.2	8.6	3.0	0.2	0.1	1.4	0.8	100.0	1,091
25-29	5.0	46.2	38.8	9.2	3.1	0.2	0.0	1.6	0.8	100.0	906
30-34	7.7	41.7	38.1	12.5	4.1	0.8	0.0	2.7	0.0	100.0	688
35-39	13.3	40.3	34.6	11.5	7.5	1.4	0.0	4.4	0.2	100.0	673
40-44	16.8	29.0	38.4	15.1	8.4	2.4	0.3	5.7	0.7	100.0	568
45-49	22.1	25.4	32.1	19.5	10.1	3.4	0.4	8.2	0.9	100.0	550
50-54	37.1	21.4	26.2	14.2	16.7	2.7	1.5	16.3	1.1	100.0	403
55-59	45.6	16.6	20.9	16.7	20.6	5.5	2.1	17.4	0.2	100.0	348
<b>Marital status</b>											
Ever married	15.6	36.6	34.7	12.7	7.6	1.7	0.4	5.9	0.5	100.0	4,720
Never married	4.4	48.5	37.7	8.5	3.7	0.2	0.0	0.5	0.9	100.0	1,570
<b>Urban-rural residence</b>											
Urban	14.5	38.1	35.9	10.7	7.1	1.4	0.3	5.8	0.7	100.0	2,736
Rural	11.4	40.7	35.1	12.4	6.2	1.3	0.3	3.6	0.5	100.0	3,555
<b>Place of residence</b>											
Urban Governorates	14.1	36.9	38.0	10.5	6.5	1.7	0.3	5.7	0.5	100.0	1,276
Lower Egypt	10.9	36.6	40.1	12.3	5.2	1.1	0.2	4.3	0.2	100.0	2,731
Urban	13.8	33.9	40.0	11.5	7.0	1.0	0.3	5.6	0.6	100.0	689
Rural	9.9	37.5	40.1	12.5	4.6	1.2	0.2	3.9	0.1	100.0	2,041
Upper Egypt	14.5	44.9	28.1	11.4	8.4	1.5	0.3	4.3	1.1	100.0	2,195
Urban	16.5	44.3	28.2	9.7	8.4	1.3	0.5	6.3	1.3	100.0	713
Rural	13.6	45.2	28.0	12.2	8.4	1.5	0.3	3.4	1.0	100.0	1,482
Frontier Governorates	8.5	36.5	40.2	14.5	5.2	1.0	0.5	1.8	0.2	100.0	89
<b>Education</b>											
No education	18.1	33.8	33.0	14.8	9.6	2.1	0.4	6.0	0.4	100.0	1,873
Some primary	21.3	36.4	30.3	11.4	9.3	3.2	0.6	8.2	0.6	100.0	517
Primary complete/ some secondary	9.3	44.0	36.2	10.0	4.9	0.6	0.3	3.6	0.6	100.0	1,342
Secondary complete/ higher	9.0	42.1	37.9	10.3	4.7	0.8	0.1	3.3	0.7	100.0	2,559
<b>Wealth quintile</b>											
Lowest	11.0	44.1	31.7	12.5	7.1	1.4	0.1	2.4	0.6	100.0	1,095
Second	11.7	39.1	35.8	13.2	5.7	1.8	0.6	3.6	0.1	100.0	1,281
Middle	13.7	39.8	34.7	11.1	7.8	0.9	0.2	4.8	0.7	100.0	1,236
Fourth	13.3	37.3	37.1	11.8	6.4	1.2	0.2	5.4	0.4	100.0	1,279
Highest	13.7	38.2	37.2	9.9	6.0	1.3	0.2	6.1	1.0	100.0	1,399
Total	12.8	39.6	35.5	11.6	6.6	1.3	0.3	4.6	0.6	100.0	6,290

Note: The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EDHS interviews and do not represent a medical diagnosis of hypertension.

<sup>1</sup> Blood pressure  $\geq 140/90$  mmHg or currently taking antihypertensive medication

Table 17.6.2 Levels of hypertension by socioeconomic characteristics: Men

Prevalence of hypertension among men age 15-59 and percent distribution of men by blood pressure status, according to socioeconomic characteristics, Egypt 2008

Socioeconomic characteristics	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/ <80 mmHg	Normal 120-129/ 80-84 mmHg	High normal 130-139/ 85-89 mmHg	Mildly elevated (stage 1) 140-159/ 90-99 mmHg	Moderately elevated (stage 2) 160-179/ 100-109 mmHg	Severely elevated (stage 3) 180+/ 110+ mmHg	Normal BP and taking medication			
<b>Age</b>											
15-19	4.9	35.5	50.0	9.6	4.2	0.4	0.1	0.2	0.0	100.0	1,087
20-24	4.2	23.3	52.4	20.1	3.9	0.1	0.0	0.2	0.0	100.0	869
25-29	6.1	22.3	51.7	19.8	5.3	0.2	0.0	0.6	0.1	100.0	729
30-34	6.4	19.7	49.9	23.8	4.8	1.1	0.0	0.6	0.2	100.0	634
35-39	8.3	18.0	50.3	23.4	6.5	0.4	0.5	0.8	0.0	100.0	535
40-44	12.2	14.9	42.9	29.9	8.1	1.2	0.6	2.3	0.0	100.0	581
45-49	18.4	13.7	38.4	29.5	11.8	1.8	1.0	3.8	0.0	100.0	494
50-54	27.2	16.2	31.9	23.4	15.8	4.3	2.0	5.1	1.5	100.0	413
55-59	28.4	13.9	31.9	25.8	14.3	4.1	1.1	8.9	0.0	100.0	375
<b>Marital status</b>											
Ever married	14.3	17.7	42.2	25.5	9.1	1.7	0.7	2.8	0.2	100.0	3,425
Never married	4.8	27.9	52.6	14.7	4.2	0.2	0.0	0.3	0.0	100.0	2,293
<b>Urban-rural residence</b>											
Urban	11.2	20.6	49.8	18.1	6.8	1.3	0.6	2.5	0.3	100.0	2,552
Rural	9.9	22.7	43.6	23.7	7.4	1.0	0.3	1.2	0.0	100.0	3,165
<b>Place of residence</b>											
Urban Governorates	10.9	22.1	52.0	14.8	6.8	0.9	0.2	3.1	0.2	100.0	1,169
Lower Egypt	9.2	21.0	44.3	25.4	6.6	0.8	0.3	1.5	0.1	100.0	2,481
Urban	10.5	19.7	47.1	22.5	6.7	1.5	0.7	1.7	0.2	100.0	622
Rural	8.8	21.4	43.4	26.3	6.6	0.6	0.2	1.4	0.0	100.0	1,860
Upper Egypt	11.7	22.8	45.4	19.9	7.9	1.6	0.7	1.5	0.2	100.0	1,973
Urban	11.9	19.5	48.3	19.6	6.5	2.0	1.1	2.3	0.6	100.0	696
Rural	11.6	24.6	43.7	20.1	8.6	1.4	0.5	1.1	0.0	100.0	1,277
Frontier Governorates	12.7	17.8	52.2	17.3	10.2	1.5	0.3	0.8	0.0	100.0	93
<b>Education</b>											
No education	13.9	16.8	42.2	27.1	8.8	1.5	0.2	3.3	0.0	100.0	715
Some primary	15.3	18.2	43.1	23.4	9.7	3.1	0.5	2.0	0.0	100.0	568
Primary complete/ some secondary	7.2	28.9	46.3	17.6	5.0	0.9	0.2	1.0	0.0	100.0	1,577
Secondary complete/higher	10.5	19.9	48.1	21.2	7.4	0.8	0.6	1.8	0.3	100.0	2,857
<b>Wealth quintile</b>											
Lowest	9.4	22.8	47.2	20.5	7.0	1.1	0.2	1.1	0.0	100.0	947
Second	10.1	23.8	42.1	23.9	7.5	0.9	0.4	1.3	0.0	100.0	1,161
Middle	10.3	20.8	47.3	21.6	7.8	1.1	0.2	1.2	0.0	100.0	1,190
Fourth	9.9	20.2	48.3	21.6	6.6	1.4	0.2	1.8	0.0	100.0	1,161
Highest	12.4	21.5	47.1	18.4	6.8	1.2	1.1	3.3	0.6	100.0	1,260
Total	10.5	21.8	46.4	21.2	7.1	1.1	0.4	1.8	0.1	100.0	5,718

Note: The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EDHS interviews and do not represent a medical diagnosis of hypertension.

<sup>1</sup> Blood pressure  $\geq 140/90$  mmHg or currently taking antihypertensive medication

Tables 17.7.1 and 17.7.2 present the prevalence of hypertension among EDHS respondents at the time of the survey according to selected health status measures. As expected, a prior history of hypertension was related strongly to the rate of hypertension found in the survey as was a history of diabetes or of heart attack or stroke. The small number of women who used tobacco were much more likely than women who did not use tobacco to be hypertensive (22 percent and 13 percent, respectively). Among men, the hypertension rate was only slightly higher among those who used tobacco than among those who did not (11 percent and 10 percent, respectively).

Table 17.7.1 Levels of hypertension by health status measures: Women

Prevalence of hypertension among women age 15-59 and percent distribution of women by blood pressure status, according to health status measures, Egypt 2008

Health status measures	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/ <80 mmHg	Normal 120-129/ 80-84 mmHg	High normal 130-139/ 85-89 mmHg	Mildly elevated (stage 1) 140-159/ 90-99 mmHg	Moderately elevated (stage 2) 160-179/ 100-109 mmHg	Severely elevated (stage3) 180+/ 110+ mmHg	Normal BP and taking medication			
<b>Use of tobacco products</b>											
Use tobacco products	(22.1)	(41.9)	(29.8)	(6.2)	(9.7)	(3.3)	(0.5)	(8.6)	0.0	100.0	45
Does not use tobacco products	12.7	39.5	35.5	11.7	6.5	1.3	0.3	4.5	0.6	100.0	6,236
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	10
<b>History of hypertension</b>											
Told had high blood pressure by medical practitioner											
Once	65.1	13.1	12.4	9.2	22.3	4.5	1.6	36.7	0.3	100.0	782
On two or more occasions	26.8	27.5	28.8	16.9	13.6	1.6	1.1	10.5	0.0	100.0	199
Don't know/missing	78.5	8.0	6.5	6.7	25.3	5.4	1.7	46.0	0.3	100.0	573
Never told	*	*	*	*	*	*	*	*	*	100.0	10
Don't know/missing	5.3	43.3	38.8	11.9	4.3	0.9	0.1	0.0	0.6	100.0	5,495
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	13
<b>History of diabetes</b>											
Told had diabetes by medical practitioner											
Never told had diabetes	55.0	15.5	15.5	14.0	24.7	3.8	2.2	24.3	0.0	100.0	231
Don't know/missing	11.1	40.5	36.2	11.6	5.8	1.3	0.2	3.8	0.6	100.0	6,029
Don't know/missing	(28.4)	(28.5)	(39.9)	(3.1)	(14.7)	(0.0)	(0.0)	(13.7)	0.0	100.0	30
<b>History of heart attack/stroke</b>											
Told had heart attack/stroke by medical practitioner											
Never told	42.2	18.8	27.5	11.5	12.0	2.4	0.0	27.8	0.0	100.0	68
Don't know/missing	12.4	39.8	35.5	11.6	6.5	1.3	0.3	4.3	0.6	100.0	6,221
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	2
<b>Nutritional status</b>											
Thin	2.1	47.7	36.6	12.0	1.7	0.0	0.0	0.4	1.6	100.0	88
Normal	5.3	51.0	35.2	7.5	3.3	0.3	0.1	1.6	0.9	100.0	1,735
Overweight	10.7	40.2	36.8	12.1	5.5	1.5	0.2	3.5	0.1	100.0	1,609
Obese	21.4	27.8	35.0	15.3	10.9	2.2	0.6	7.7	0.6	100.0	2,246
Not eligible (pregnant or recent birth)	5.4	55.3	29.2	9.3	2.5	0.5	0.0	2.3	0.9	100.0	446
Out of range/missing	19.3	26.4	46.8	7.2	6.1	1.8	0.0	11.4	0.3	100.0	167
Total	12.8	39.6	35.5	11.6	6.6	1.3	0.3	4.6	0.6	100.0	6,290

Note: The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EDHS interviews and do not represent a medical diagnosis of hypertension. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Blood pressure  $\geq$ 140/90 mmHg or currently taking antihypertensive medication



Table 17.7.2 Levels of hypertension by health status measures: Men

Prevalence of hypertension among men age 15-59 and percent distribution of men by blood pressure status, according to health status measures, Egypt 2008

Health status measures	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/<80 mmHg	Normal 120-129/80-84 mmHg	High normal 130-139/85-89 mmHg	Mildly elevated (stage 1) 140-159/90-99 mmHg	Moderately elevated (stage 2) 160-179/100-109 mmHg	Severely elevated (stage3) 180+ /110+ mmHg	Normal BP and taking medication			
<b>Use of tobacco products</b>											
Use tobacco products	11.4	18.8	44.6	25.1	8.2	0.9	0.5	1.8	0.1	100.0	2,511
Does not use tobacco products	9.8	24.0	47.8	18.2	6.3	1.3	0.4	1.8	0.2	100.0	3,201
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	5
<b>History of hypertension</b>											
Told had high blood pressure by medical practitioner											
Once	72.2	5.5	8.3	13.3	29.8	6.1	4.6	31.7	0.7	100.0	324
On two or more occasions	39.3	11.3	21.8	27.6	20.7	1.6	1.2	15.8	0.0	100.0	70
Don't know/missing	81.5	3.9	4.2	9.4	32.5	7.4	5.6	36.0	0.9	100.0	252
Never told	*	*	*	*	*	*	*	*	*	100.0	2
Don't know/missing	6.8	22.8	48.7	21.6	5.8	0.8	0.2	0.0	0.1	100.0	5,383
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	10
<b>History of diabetes</b>											
Told had diabetes by medical practitioner											
Never told had diabetes	46.3	10.4	21.5	21.8	18.3	7.9	0.4	19.8	0.0	100.0	137
Don't know/missing	9.6	22.1	47.0	21.1	6.9	1.0	0.4	1.4	0.1	100.0	5,570
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	11
<b>History of heart attack/stroke</b>											
Told had heart attack/stroke by medical practitioner											
Never told	57.9	11.6	23.4	6.6	28.4	5.6	0.7	23.3	0.5	100.0	77
Don't know/missing	9.9	21.9	46.7	21.4	6.8	1.1	0.4	1.5	0.1	100.0	5,637
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	4
<b>Nutritional status</b>											
Thin	4.1	38.5	46.1	11.3	2.9	1.2	0.0	0.0	0.0	100.0	179
Normal	6.0	27.4	49.1	17.4	4.7	0.4	0.2	0.7	0.0	100.0	2,470
Overweight	12.7	16.9	45.5	24.4	7.9	1.0	0.7	3.0	0.4	100.0	1,909
Obese	17.6	15.1	42.4	25.0	12.3	2.6	0.5	2.1	0.0	100.0	1,014
Out of range/missing	15.4	17.3	39.6	27.7	6.6	3.9	0.1	4.7	0.0	100.0	145
Total	10.5	21.8	46.4	21.2	7.1	1.1	0.4	1.8	0.1	100.0	5,718

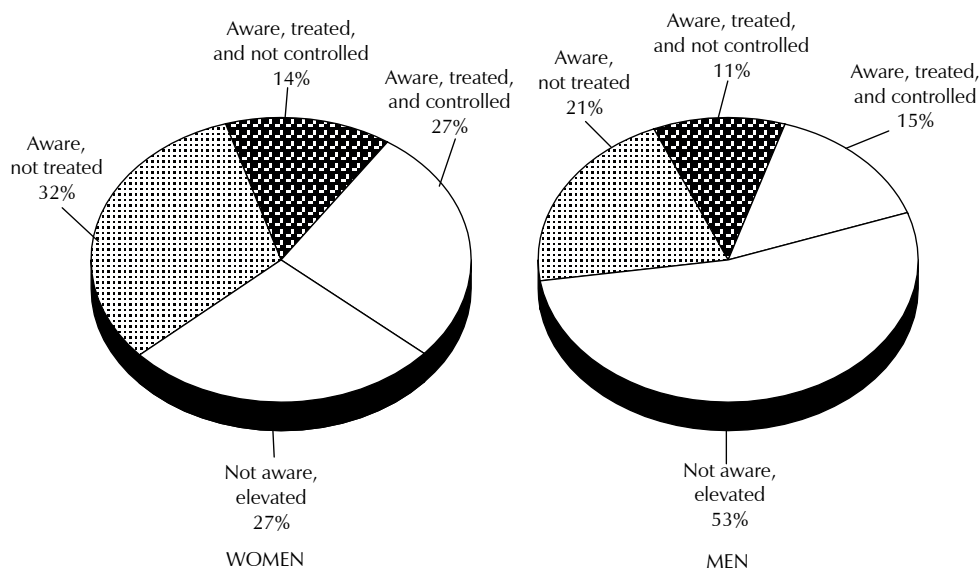
Note: The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EDHS interviews and do not represent a medical diagnosis of hypertension. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> Blood pressure  $\geq$ 140/90 mmHg or currently taking antihypertensive medication

As expected, nutritional status also was strongly related to the rate of hypertension for both women and men. Women classified as obese were around four times as likely (21 percent) as women with BMI within the normal range (5 percent) to be hypertensive, while women classified as overweight were twice as likely (11 percent and 5 percent, respectively). Among men, 18 percent of those who were obese and 13 percent of those who were overweight were hypertensive compared to only 6 percent of men whose BMI fell within the normal range.

Figure 17.1 shows the level of awareness and treatment status among EDHS respondents who were hypertensive. Twenty-seven percent of hypertensive women and 15 percent of hypertensive men were being treated for hypertension and have brought their blood pressure under control. Another group of respondents, including 14 percent of hypertensive women and 11 percent of hypertensive men, were being treated but still had elevated blood pressure at the time of the survey. Of even greater concern were the substantial proportions of women and men who were aware they had high blood pressure but were not being treated (32 percent of women and 21 percent of men) or who were unaware of their condition (27 percent of women and 53 percent of men).

**Figure 17.1 Awareness of Hypertension and Treatment Status among Hypertensive Women and Men Age 15-59**



EDHS 2008

#### 17.4 LIFETIME HISTORY OF MEDICAL PROCEDURES AND INJECTIONS

EDHS respondents interviewed in the special health issues component of the survey were asked questions about whether or not they had ever had surgery, a blood transfusion, or dental treatment during their lifetime. They were also asked several questions about whether they received any injections, whether they ever had an injection to treat schistosomiasis (a disease caused by parasitic worms), and whether they ever had an injection in which the needle and syringe were reused. The questions were designed to provide a basic assessment of lifetime exposure to procedures that offer the potential for exposure to the risk of bloodborne pathogens. In particular, participation in injection-based schistosomiasis treatment campaigns has been identified as a risk factor for hepatitis C based on strong evidence to suggest that

failure to adequately sterilize the syringes and needles in the large-scale campaigns undertaken to treat schistosomiasis between the 1950s and 1980s contributed to widespread transmission of the hepatitis C virus in Egypt (Strickland 2006 and Rao et al. 2002).

Table 17.8 shows that 42 percent of all respondents age 15-59 reported they had a surgery at some point in their lives, 4 percent had had at least one blood transfusion, and 61 percent had some type of dental treatment. With regard to injections, a large majority of respondents had had injections—8 percent of respondents for the treatment of schistosomiasis and 93 percent for some other purpose. Around four in ten respondents reported that the syringe and needle used for at least one of the injections they had received during their lifetime was reused, i.e., another individual later received an injection using the same syringe and needle.

Background characteristics	Percentage having ever had:						Number
	Surgery	Blood transfusion	Dental treatment	Injection to treat schistosomiasis	Any other injection	Any injection in which needle and syringe reused	
<b>Sex</b>							
Women	48.6	4.3	58.3	4.9	94.0	45.3	6,290
Men	34.4	3.8	63.6	11.9	92.0	32.5	5,718
<b>Age</b>							
15-19	23.8	1.6	42.6	5.3	87.1	22.0	2,151
20-24	33.8	2.7	50.5	4.3	91.8	31.5	1,960
25-29	44.1	3.5	60.3	5.1	93.7	41.3	1,635
30-34	44.4	3.9	63.6	7.5	96.6	42.5	1,322
35-39	50.6	4.3	69.6	9.5	94.6	48.5	1,209
40-44	48.4	5.9	71.3	12.3	94.8	44.8	1,148
45-49	50.9	6.1	72.0	11.8	95.1	46.9	1,044
50-54	53.3	6.7	74.8	15.4	94.7	50.0	815
55-59	56.0	7.2	75.2	14.8	96.4	53.3	723
<b>Urban-rural residence</b>							
Urban	45.3	4.9	65.8	3.9	91.9	42.9	5,288
Rural	39.1	3.4	56.8	11.7	94.0	36.3	6,720
<b>Place of residence</b>							
Urban Governorates	46.6	5.1	68.3	2.5	91.3	44.3	2,445
Lower Egypt	44.7	3.4	63.1	9.1	95.2	41.4	5,212
Urban	48.2	4.6	67.6	4.3	94.0	45.3	1,311
Rural	43.6	3.0	61.6	10.6	95.7	40.1	3,901
Upper Egypt	35.6	4.3	53.7	10.9	91.7	33.8	4,168
Urban	40.9	5.0	60.8	6.1	91.4	39.0	1,409
Rural	33.0	4.0	50.1	13.4	91.8	31.1	2,759
Frontier Governorates	36.1	3.4	53.6	3.0	86.7	33.8	182
<b>Education</b>							
No education	45.1	4.5	58.8	10.5	94.0	40.4	2,588
Some primary	45.1	4.6	63.2	13.0	93.4	42.6	1,084
Primary complete/some secondary	37.4	4.4	54.2	7.9	89.7	35.1	2,919
Secondary complete/higher	42.0	3.6	64.8	6.5	94.4	40.2	5,417
<b>Work status</b>							
Working for cash	41.0	4.3	68.0	11.7	93.8	38.8	5,333
Not working for cash	42.5	3.8	55.0	5.5	92.5	39.6	6,675
<b>Wealth quintile</b>							
Lowest	31.3	3.6	48.7	13.2	93.2	29.3	2,042
Second	39.2	3.7	56.6	11.0	92.7	36.1	2,442
Middle	43.6	3.8	60.1	9.9	94.2	40.6	2,425
Fourth	46.6	4.5	63.9	4.9	93.1	43.6	2,440
Highest	46.3	4.7	71.6	3.6	92.2	44.4	2,659
Total	41.8	4.1	60.8	8.3	93.1	39.2	12,008

Women were markedly more likely to have had surgery than men (49 percent and 34 percent, respectively), while the rates of blood transfusion were similar among women and men. On the other hand, men were slightly more likely than women to report having dental treatment at some point in their lifetime (64 percent and 58 percent, respectively). Men were more than twice as likely as women to have been treated for schistosomiasis with an injection, and women were more likely than men to report having had an injection in which the syringe and the needle were reused.

As expected, the likelihood that a respondent had had any of the medical procedures or an injection during their lifetime increased with age. Urban residents were more likely to have had surgery, blood transfusions and dental treatment than rural residents. On the other hand, rural residents were three times as likely to report having ever received an injection to treat schistosomiasis and slightly more likely to report having ever received an injection for some other purpose as urban residents. Reuse of syringes and needles was more often reported by urban than rural residents (43 percent and 36 percent, respectively). Residents of rural Upper Egypt and the Frontier Governorates were less likely than residents of other areas to have had surgery or dental treatment. The proportion reporting they had an injection to treat schistosomiasis was highest in rural Upper Egypt and lowest in the Urban Governorates and the Frontier Governorates. Reuse of syringes and needles was reported most often by residents of urban Lower Egypt (45 percent) and least often by residents of rural Upper Egypt (31 percent).

The proportion of respondents who had had an injection to treat schistosomiasis decreased with the education and wealth quintile. The proportions of respondents who had had other medical procedures and injections or who reported reuse of syringes and needles generally increased with wealth quintile but did not vary in a uniform fashion with education.

## 17.5 RECENT HISTORY OF INJECTIONS

EDHS respondents were also asked questions about the number of injections that they had had in the six months prior to the survey, how many of those injections were administered by a health care provider, and where they had received the last medical injection. The results presented in Table 17.9 indicate that 16 percent of respondents had had at least one injection during the six-month period prior to the survey. Among those who had had an

**Table 17.9 Prevalence of injections during the six-month period prior to the survey**

Percent distribution of women and men age 15-59 by the number of injections and the number of medical injections, and the average number of injections and medical injections received during the past six months, and, among women and men who received any medical injection, the percentage reporting the provider used a new, unopened package for the last injection, Egypt 2008

Injection safety	Women	Men	Total
<b>Number of injections</b>			
No injections	72.8	82.8	77.6
1	3.8	2.4	3.2
2	4.4	1.1	2.9
3-4	4.5	2.6	3.6
5-9	4.5	1.7	3.2
10-19	2.3	1.1	1.7
20-29	0.7	0.3	0.5
30-59	0.4	0.2	0.3
60-94	0.2	0.1	0.2
95+	1.0	0.4	0.7
Missing	5.4	7.2	6.2
Total percent	100.0	100.0	100.0
Number	6,290	5,718	12,008
Mean number received <sup>1</sup>	10.2	9.6	10.0
<b>Number of medical injections<sup>2</sup></b>			
No injections	72.8	82.8	77.6
No medical injections	6.9	2.5	4.8
1	3.3	2.3	2.8
2	3.8	1.0	2.5
3-4	2.9	1.9	2.4
5-9	2.4	1.1	1.7
10-19	1.4	0.8	1.1
20-29	0.3	0.2	0.2
30-59	0.2	0.1	0.2
60-94	0.1	0.1	0.1
95+	0.5	0.1	0.3
Missing	5.4	7.2	6.2
Total percent	100.0	100.0	100.0
Number	6,290	5,718	12,008
Mean number received <sup>3</sup>	7.8	6.4	7.4
<b>New, unopened package used for last medical injection</b>			
Yes	83.2	85.7	84.0
No	15.3	12.8	14.5
Don't know	0.3	0.3	0.3
Missing	1.2	1.2	1.2
Total percent	100.0	100.0	100.0
Number receiving medical injection	935	430	1,364

<sup>1</sup> Mean number among women and men receiving any injection(s) during the six-month period.

<sup>2</sup> Includes injections given by a doctor, nurse, pharmacist, dentist or other health worker

<sup>3</sup> Mean number among women and men receiving any medical injection(s) during the six-month period

injection, 70 percent had received at least one medical injection, i.e., an injection administered by a doctor, nurse, pharmacist or other health care provider. Eighty-four percent of those respondents who had had a medical injection said that the last time they had a medical injection the provider had taken the syringe and needle from a new unopened package.

Table 17.10 presents the variation in the percentages receiving any injection and any medical injection in the six months prior to the survey by background characteristics. Although not uniform, the results show that the likelihood of receiving an injection was higher among women than men. It also was higher in Upper Egypt than in other areas.

Table 17.10 Injection prevalence by background characteristics

Percentage of women and men age 15-59 who received at least one injection and at least one injection from a health care provider in the past six months according to background characteristics, and injection prevalence among women and men age 50-59 and age 15-59, Egypt 2008

Background characteristics	Women			Men			Total		
	Percentage who received an injection in the past 6 months	Percentage who received an injection from a health care provider in the past 6 months	Number	Percentage who received an injection in the past 6 months	Percentage who received an injection from a health care provider in the past 6 months	Number	Percentage who received an injection in the past 6 months	Percentage who received an injection from a health care provider in the past 6 months	Number
<b>Age</b>									
15-19	12.3	9.5	1,064	5.3	4.1	1,087	8.7	6.8	2,151
20-24	19.5	14.8	1,091	7.4	6.2	869	14.1	11.0	1,960
25-29	23.0	17.7	906	10.2	7.9	729	17.3	13.3	1,635
30-34	23.7	16.1	688	12.7	10.5	634	18.4	13.4	1,322
35-39	26.5	18.3	673	12.3	9.6	535	20.2	14.5	1,209
40-44	26.6	17.4	568	10.3	7.1	581	18.4	12.2	1,148
45-49	25.9	15.3	550	11.1	6.9	494	18.9	11.3	1,044
50-54	23.5	12.9	403	15.0	11.5	413	19.2	12.2	815
55-59	25.5	12.3	348	14.8	9.0	375	19.9	10.6	723
<b>Marital status</b>									
Ever-married	26.0	18.3	3,983	11.5	8.7	2,640	20.2	14.5	6,623
Never-married	9.6	7.1	1,556	6.7	5.2	2,290	7.9	5.9	3,846
<b>Urban-rural residence</b>									
Urban	21.6	14.6	2,352	8.8	7.1	2,170	15.4	11.0	4,521
Rural	21.3	15.6	3,188	9.6	7.1	2,760	15.9	11.6	5,948
<b>Place of residence</b>									
Urban Governorates	20.0	14.4	1,073	7.1	5.7	990	13.8	10.2	2,063
Lower Egypt	18.1	12.7	2,415	7.1	5.1	2,150	12.9	9.1	4,565
Urban	19.5	12.6	603	5.8	5.2	533	13.1	9.1	1,136
Rural	17.6	12.7	1,812	7.5	5.0	1,616	12.9	9.1	3,429
Upper Egypt	26.4	18.6	1,970	13.3	10.5	1,706	20.3	14.9	3,676
Urban	26.5	17.0	623	14.5	11.5	588	20.7	14.3	1,211
Rural	26.3	19.4	1,347	12.8	10.0	1,118	20.2	15.1	2,466
Frontier Governorates	19.5	15.1	82	6.2	4.7	84	12.8	9.8	165
<b>Education</b>									
No education	23.8	16.7	1,461	10.5	7.7	467	20.6	14.5	1,928
Some primary	26.3	18.5	394	12.2	9.8	458	18.7	13.9	853
Primary complete/ some secondary	17.6	12.5	1,248	6.2	4.6	1,414	11.6	8.3	2,662
Secondary complete/ higher	21.2	15.1	2,436	10.2	7.8	2,590	15.5	11.3	5,027
<b>Wealth quintile</b>									
Lowest	20.4	14.8	1,001	9.8	7.3	838	15.6	11.4	1,839
Second	20.6	15.4	1,123	9.9	6.9	1,010	15.5	11.4	2,132
Middle	23.7	17.1	1,099	9.2	7.2	1,036	16.6	12.3	2,135
Fourth	21.0	14.5	1,105	8.2	7.2	997	14.9	11.0	2,102
Highest	21.4	14.1	1,212	9.3	6.8	1,049	15.8	10.7	2,260
Total age 15-49	21.4	15.2	5,540	9.3	7.1	4,930	15.7	11.4	10,469
Age 50-59	24.4	12.6	751	14.9	10.3	788	19.5	11.4	1,539
Total age 15-59	21.8	14.9	6,290	10.0	7.5	5,718	16.2	11.4	12,008

## 17.6 AWARENESS OF SAFE INJECTION PRACTICES

The 2008 EDHS collected information from respondents in the special health issues interviews to assess the coverage of recent IEC efforts designed to increase population awareness about safe injection practices. Table 17.11.1 and 17.11.2 present these results. Twenty-seven percent of women and 19 percent of men age 15-59 reported that they had received information about what people should do to be sure that injections are given safely in the six months prior to the survey. Among women, the proportion reporting they had heard a message was highest among those from urban Upper Egypt (36 percent), while among men it was highest in rural Lower Egypt (25 percent). Television was by far the principal source of information for both women and men who had heard about injection safety issues (89 percent each).

Table 17.11.1 Exposure to information regarding injection safety by background characteristics: Women

Percentage of women age 15-59 receiving information about injection safety during the six-month period prior to the survey, and percentage receiving any information who named various sources of information, according to background characteristics, and percentage age 50-59 and of all women age 15-59 exposed to information about injection safety, Egypt 2008

Background characteristics	Percentage receiving information recently about injection safety	Number of women	Percentage who saw/heard about injection safety from:							Number of women receiving information about injection safety
			TV	Other media <sup>1</sup>	Any contact with health worker	Home visit	Facility visit	Spouse/other relatives/friends/neighbors	Community meeting/other	
<b>Age</b>										
15-19	28.0	1,064	92.4	16.6	7.9	1.4	6.5	7.3	1.1	298
20-24	26.6	1,091	89.7	14.9	11.0	3.2	8.5	4.8	1.2	290
25-29	28.5	906	90.4	20.4	12.5	1.4	11.5	3.8	1.1	258
30-34	27.9	688	89.8	15.2	14.8	3.5	11.5	4.4	4.0	192
35-39	27.1	673	88.4	19.0	10.4	1.5	9.5	9.4	0.2	183
40-44	28.2	568	87.9	9.6	13.7	4.0	11.0	11.4	0.7	160
45-49	21.2	550	88.9	10.9	14.5	1.5	13.8	10.6	4.7	117
50-54	22.8	403	82.4	18.8	22.0	3.0	19.8	11.7	3.1	92
55-59	23.9	348	83.4	17.5	11.3	4.2	7.3	10.8	0.0	83
<b>Marital status</b>										
Ever-married	26.5	3,983	89.6	15.2	12.3	2.4	10.6	6.8	1.7	1,057
Never-married	28.3	1,556	90.8	17.4	10.0	2.2	7.8	6.7	1.4	441
<b>Urban-rural residence</b>										
Urban	29.2	2,352	88.7	14.6	11.8	1.7	10.3	6.3	2.0	686
Rural	25.5	3,188	91.0	16.9	11.5	2.8	9.4	7.2	1.3	812
<b>Place of residence</b>										
Urban Governorates	28.5	1,073	88.8	13.8	11.5	1.1	10.4	6.4	2.5	306
Lower Egypt	25.6	2,415	91.3	22.6	9.6	2.2	8.2	4.5	0.4	618
Urban	23.2	603	88.0	26.7	11.6	1.5	10.1	3.9	1.0	140
Rural	26.4	1,812	92.3	21.4	9.0	2.4	7.6	4.7	0.2	478
Upper Egypt	28.1	1,970	89.0	9.5	14.0	3.2	11.4	9.6	2.5	554
Urban	36.1	623	88.7	8.1	12.5	2.7	10.6	7.9	2.0	225
Rural	24.4	1,347	89.2	10.6	15.0	3.5	12.0	10.8	2.8	329
Frontier Governorates	24.3	82	90.8	12.3	8.0	0.0	8.0	3.2	1.4	20
<b>Education</b>										
No education	21.9	1,461	88.2	14.2	13.6	3.7	11.4	8.0	1.0	321
Some primary	22.6	394	93.9	10.4	13.0	1.7	11.2	4.2	0.0	89
Primary complete/ some secondary	27.8	1,248	91.7	16.6	7.5	1.5	6.4	8.3	1.7	346
Secondary complete/ higher	30.4	2,436	89.4	16.9	12.5	2.2	10.5	5.9	2.0	741
<b>Wealth quintile</b>										
Lowest	21.4	1,001	87.1	10.1	14.2	4.6	10.2	9.6	1.8	214
Second	28.3	1,123	94.4	17.0	10.2	2.4	7.9	5.9	1.2	317
Middle	26.3	1,099	89.0	17.1	11.6	2.0	10.7	6.3	0.9	289
Fourth	26.5	1,105	90.3	14.4	8.8	0.7	8.8	6.2	1.4	293
Highest	31.7	1,212	88.3	18.3	13.4	2.4	11.3	6.8	2.5	384
Total women age 15-49	27.0	5,540	89.9	15.8	11.6	2.3	9.8	6.8	1.6	1,498
Women age 50-59	23.3	751	82.9	18.2	16.9	3.6	13.8	11.3	1.6	175
Total women age 15-59	26.6	6,290	89.2	16.1	12.2	2.4	10.2	7.2	1.6	1,673

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

Table 17.11.2 Exposure to information regarding injection safety by background characteristics: Men

Percentage of men age 15-59 receiving information about injection safety during the six-month period prior to the survey, and percentage receiving any information who named various sources of information, according to background characteristics, and percentage age 50-59 and of all men age 15-59 exposed to information about injection safety, Egypt 2008

Background characteristics	Percentage receiving information recently about injection safety	Number of men	Percentage who saw/heard about injection safety from:							Number of men receiving information about injection safety
			TV	Other media <sup>1</sup>	Any contact with health worker	Home visit	Facility visit	Spouse/other relatives/friends/neighbors	Community meeting/other	
<b>Age</b>										
15-19	17.4	1,087	89.8	26.6	6.5	0.3	6.2	9.9	1.2	190
20-24	20.2	869	90.6	23.6	9.7	1.1	8.9	5.7	0.0	176
25-29	22.3	729	90.8	16.8	7.3	1.2	6.2	6.7	0.3	163
30-34	20.3	634	89.2	26.2	7.8	0.8	7.0	8.7	0.0	129
35-39	21.2	535	90.6	21.0	18.7	3.9	15.6	4.4	0.0	114
40-44	20.7	581	87.5	13.5	14.2	0.8	14.2	12.9	1.7	120
45-49	15.5	494	89.3	18.3	6.1	3.3	4.4	8.4	2.3	77
50-54	16.3	413	80.3	21.8	23.8	6.0	18.8	9.5	5.4	67
55-59	18.1	375	83.9	21.1	15.8	3.7	12.0	9.7	0.0	68
<b>Marital status</b>										
Ever-married	19.6	2,640	88.3	19.2	11.9	2.0	10.5	8.6	0.8	519
Never-married	19.6	2,290	91.5	24.0	7.3	0.7	6.7	7.4	0.5	448
<b>Urban-rural residence</b>										
Urban	18.6	2,170	88.4	20.3	9.6	1.4	8.5	6.4	0.6	405
Rural	20.4	2,760	90.8	22.2	9.9	1.4	8.9	9.2	0.8	562
<b>Place of residence</b>										
Urban Governorates	21.1	990	89.0	16.0	8.9	1.5	7.4	4.8	0.2	209
Lower Egypt	22.7	2,150	93.0	25.7	5.4	0.4	5.3	6.2	0.7	487
Urban	15.8	533	88.3	31.7	6.2	0.0	6.2	6.2	1.8	84
Rural	24.9	1,616	93.9	24.4	5.2	0.4	5.1	6.2	0.4	403
Upper Egypt	15.2	1,706	84.4	18.5	18.5	3.1	16.4	14.2	1.1	260
Urban	17.6	588	86.9	21.1	13.8	2.1	12.7	9.9	0.5	104
Rural	14.0	1,118	82.7	16.8	21.7	3.9	18.8	17.1	1.6	156
Frontier Governorates	12.7	84	92.5	2.5	11.7	2.9	8.8	6.6	0.0	11
<b>Education</b>										
No education	20.0	467	91.9	11.3	7.4	0.5	7.4	5.1	0.0	93
Some primary	17.4	458	96.8	19.6	5.2	0.0	5.2	4.7	1.9	80
Primary complete/some secondary	17.3	1,414	91.5	23.3	7.7	0.7	7.5	7.9	0.3	245
Secondary complete/higher	21.2	2,590	87.7	22.5	11.7	2.0	10.0	9.1	0.8	549
<b>Wealth quintile</b>										
Lowest	17.2	838	91.3	13.0	8.5	0.5	8.0	8.0	0.7	144
Second	23.1	1,010	93.7	21.4	8.3	0.5	7.7	9.3	1.0	233
Middle	19.7	1,036	91.9	17.7	8.0	2.7	6.4	7.9	0.4	204
Fourth	14.3	997	86.5	22.9	12.2	3.0	10.3	6.8	0.6	142
Highest	23.2	1,049	85.3	28.6	12.0	0.7	11.3	7.8	0.6	243
Total men age 15-49	19.6	4,930	89.8	21.4	9.7	1.4	8.7	8.1	0.7	967
Men age 50-59	17.1	788	82.1	21.5	19.7	4.9	15.4	9.6	2.7	135
Total men age 15-59	19.3	5,718	88.9	21.4	11.0	1.8	9.6	8.2	0.9	1,102

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

Infection with the hepatitis C virus (HCV) is a major public health problem in Egypt. The high level of HCV infection has been attributed in part to the use of inadequately sterilized needles during mass campaigns undertaken to treat schistosomiasis (Rao et al., 2002 and Nafeh et al., 2000). The 2008 EDHS collected information on the extent to which the women and men age 15-59 interviewed in the special health issues component of the survey knew about hepatitis C and, among those who had heard about hepatitis C, their understanding of the modes of transmission and prevention of the virus, and the sources from which they had recently received information about hepatitis C. The women and men eligible for the special health issues interviews were also asked to provide venous blood samples for laboratory testing for the hepatitis C virus. This chapter presents results from both the survey interviews and the HCV tests.

### 18.1 HEPATITIS C KNOWLEDGE

Table 18.1.1 and 18.1.2 show both the level of awareness of hepatitis C among EDHS respondents age 15-59 and the sources from which respondents have recently received information about the illness. The results indicate that 80 percent of women and 85 percent of men were aware of hepatitis C. Among women who had heard about hepatitis C, 67 percent had received information about the illness within the six-month period before the survey. This proportion was somewhat lower among men (61 percent). Television was the main channel through which both women and men received information about hepatitis C (91 percent and 88 percent, respectively) followed by personal contacts with the respondent's spouse, other relatives, friends, or neighbors (26 percent and 33 percent, respectively) and other media (14 percent and 18 percent, respectively).

Tables 18.2.1 and 18.2.2 present information on the avenues of transmission of the hepatitis C virus recognized by women and men who had heard about hepatitis C. The percentages naming various transmission routes may add to more than 100 percent because respondents were asked to name all of the ways in which hepatitis C may be spread from one person to another.

The results presented in Table 18.2.1 show that 70 percent of the women who knew about hepatitis C were able to name at least one way the illness can be transmitted. Of the women able to name an avenue of transmission for hepatitis C, 85 percent said that it could be contracted through a blood transfusion, 69 percent mentioned unclean needles, and 40 percent cited other contact with the blood of an infected person. Other avenues of transmission mentioned by women included having sexual relations with an infected person (18 percent) and having other casual physical contact including shaking hands or sharing food (22 percent).

Men were somewhat more knowledgeable than women about modes in which hepatitis C virus can be transmitted. Seventy-nine percent of men knowing about hepatitis C were able to name at least one way in which the virus can be transmitted. Similar to the pattern observed for women, the three modes of transmission mentioned most often by men were blood transfusions (81 percent), use of unclean needles (71 percent), and other contact with the blood of an infected person (54 percent). Around one in six men also mentioned having sexual relations with an infected person or having other physical contacts as ways in which hepatitis C may be transmitted.



Table 18.1.1 Knowledge of hepatitis C by background characteristics: Women

Percentage of women age 15-49 knowing about hepatitis C; among women knowing about hepatitis C, percentage receiving information about hepatitis C during the six months prior to the survey, and percentage of women receiving any information naming various sources of information, according to background characteristics, and percentage of women 50-59 and of women 15-59 knowing about hepatitis C and receiving information about hepatitis C from various sources Egypt 2008

Background characteristic	Percentage knowing about hepatitis C	Number of women	Percentage receiving information recently about hepatitis C	Number of women knowing about hepatitis C	Percentage who saw/heard about hepatitis C from:							Number of women receiving information about hepatitis C recently
					TV	Other media <sup>1</sup>	Any contact with medical provider	Home visit	Facility visit	Spouse/ other relatives/ friends/ neighbors	Community meeting/ other	
<b>Age</b>												
15-19	74.0	1,064	67.4	787	90.2	13.0	1.5	0.1	1.5	23.6	2.0	531
20-24	82.0	1,091	63.5	895	91.6	16.2	4.9	0.7	4.6	22.0	1.3	568
25-29	84.9	906	67.7	769	91.6	16.4	6.0	0.6	5.4	25.5	0.6	521
30-34	83.7	688	66.7	576	94.7	11.9	5.3	0.5	5.1	25.1	2.1	384
35-39	80.1	673	67.9	540	91.1	13.6	5.0	0.4	4.6	21.6	1.3	367
40-44	78.0	568	69.7	443	88.6	14.1	4.9	0.8	4.1	34.0	1.7	309
45-49	79.5	550	70.8	437	89.3	13.8	6.7	0.7	6.7	29.5	1.0	309
<b>Marital status</b>												
Ever married	80.5	3,983	67.0	3,209	91.4	13.2	5.2	0.5	4.9	26.1	1.0	2,149
Never married	79.6	1,556	67.8	1,238	90.5	17.3	3.4	0.6	3.1	23.1	2.4	840
<b>Urban-rural residence</b>												
Urban	86.6	2,352	67.9	2,037	93.4	15.3	4.7	0.7	4.4	20.4	1.8	1,382
Rural	75.6	3,188	66.6	2,410	89.2	13.5	4.8	0.4	4.4	29.4	1.0	1,606
<b>Place of residence</b>												
Urban Governorates	86.8	1,073	72.2	931	95.5	13.7	3.9	0.4	3.7	18.0	2.1	672
Lower Egypt	86.7	2,415	70.6	2,093	91.6	17.9	5.0	0.6	4.6	26.6	1.1	1,478
Urban	92.8	603	68.7	559	94.5	24.2	5.5	0.8	5.2	21.7	2.4	384
Rural	84.6	1,812	71.3	1,534	90.6	15.6	4.8	0.5	4.4	28.3	0.7	1,094
Upper Egypt	69.4	1,970	58.9	1,368	86.8	8.9	5.0	0.5	4.6	29.4	1.3	806
Urban	81.9	623	59.4	510	87.5	8.5	5.6	1.1	4.8	25.2	0.6	303
Rural	63.7	1,347	58.6	858	86.4	9.2	4.7	0.1	4.5	31.9	1.8	502
Frontier Governorates	67.4	82	60.2	55	89.9	3.4	4.6	0.0	4.6	13.1	0.0	33
<b>Education</b>												
No education	64.7	1,461	65.8	945	87.9	9.4	3.0	0.0	3.0	30.6	0.6	622
Some primary	72.3	394	66.8	285	87.7	9.1	3.0	0.0	3.0	27.3	0.0	191
Primary complete/ some secondary	78.5	1,248	65.2	979	92.2	11.3	2.8	0.1	2.8	22.5	1.3	638
Secondary complete/ higher	91.8	2,436	68.8	2,237	92.4	18.3	6.5	1.0	5.8	23.9	2.0	1,538
<b>Work status</b>												
Working for cash	90.2	866	70.9	781	92.1	20.4	10.9	1.9	9.9	26.4	3.2	553
Not working for cash	78.4	4,674	66.4	3,666	90.9	13.0	3.3	0.2	3.2	25.0	1.0	2,436
<b>Wealth quintile</b>												
Lowest	60.4	1,001	59.4	605	87.0	9.6	2.0	0.0	2.0	30.1	1.3	359
Second	74.7	1,123	67.1	839	89.7	12.1	4.3	0.6	3.7	29.8	1.2	563
Middle	80.2	1,099	69.0	881	90.7	14.8	4.8	0.4	4.4	26.0	0.4	608
Fourth	88.9	1,105	66.8	983	92.5	12.7	4.6	0.8	4.2	24.0	1.9	656
Highest	94.0	1,212	70.5	1,139	93.2	19.1	6.3	0.6	6.2	20.3	2.0	803
Total 15-49	80.3	5,540	67.2	4,447	91.1	14.3	4.7	0.5	4.4	25.2	1.4	2,989
Age 50-59	77.1	571	68.9	579	90.3	12.9	5.1	0.8	4.4	27.4	1.1	399
Total 15-59	79.9	6,290	67.4	5,026	91.0	14.2	4.8	0.6	4.4	25.5	1.4	3,388

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

Table 18.1.2 Knowledge of hepatitis C by background characteristics: Men

Percentage of men age 15-49 knowing about hepatitis C; among men knowing about hepatitis C, percentage receiving information about hepatitis C during the six months prior to the survey, and percentage of men receiving any information naming various sources of information, according to background characteristics, and percentage of men 50-59 and of men 15-59 knowing about hepatitis C and receiving information about hepatitis C from various sources, Egypt 2008

Background characteristic	Percentage knowing about hepatitis C	Number of men	Percentage receiving information recently about hepatitis C	Number of men knowing about hepatitis C	Percentage who saw/heard about hepatitis C from:							Number of men receiving information about hepatitis C recently
					TV	Other media <sup>1</sup>	Any contact with medical provider	Home visit	Facility visit	Spouse/ other relatives/ friends/ neighbors	Com- munity meeting/ other	
<b>Age</b>												
15-19	74.6	1,087	57.5	812	89.3	18.8	2.3	0.8	1.6	29.5	5.1	467
20-24	86.1	869	59.5	748	92.0	17.8	3.7	0.8	2.9	29.2	1.1	445
25-29	89.9	729	60.8	655	88.3	13.7	7.1	0.2	7.0	35.1	0.9	398
30-34	89.2	634	64.6	565	87.4	18.3	4.9	0.0	4.9	31.3	0.8	365
35-39	88.9	535	59.1	476	89.4	17.8	10.0	0.6	9.4	38.4	0.9	281
40-44	90.5	581	63.9	526	86.3	15.8	7.3	1.3	6.2	34.5	2.1	336
45-49	88.4	494	60.6	437	90.0	20.2	7.9	0.8	7.1	36.3	1.7	265
<b>Marital status</b>												
Ever married	88.6	2,640	61.8	2,338	87.9	17.2	7.2	0.6	6.6	36.0	1.4	1,445
Never married	82.1	2,290	59.2	1,881	90.6	17.6	3.9	0.7	3.3	28.9	2.7	1,113
<b>Urban-rural residence</b>												
Urban	87.4	2,170	57.8	1,896	90.3	18.7	5.0	0.6	4.4	25.7	2.1	1,097
Rural	84.1	2,760	62.9	2,322	88.1	16.4	6.3	0.7	5.8	38.3	1.8	1,460
<b>Place of residence</b>												
Urban Governorates	84.9	990	55.2	840	92.2	14.1	2.4	0.5	1.9	13.7	1.8	464
Lower Egypt	91.1	2,150	66.4	1,958	91.1	18.0	5.4	0.4	5.0	38.3	1.9	1,301
Urban	96.5	533	62.4	515	91.3	21.1	6.3	0.2	6.2	38.0	2.7	321
Rural	89.3	1,616	67.9	1,443	91.0	17.0	5.0	0.4	4.7	38.4	1.6	980
Upper Egypt	79.4	1,706	56.1	1,354	83.7	18.4	8.5	1.3	7.4	35.5	2.1	760
Urban	84.0	588	58.9	494	86.3	23.2	7.9	1.3	6.6	30.8	1.8	291
Rural	77.0	1,118	54.6	861	82.1	15.5	8.9	1.2	7.9	38.4	2.3	470
Frontier Governorates	78.6	84	48.6	66	86.1	16.7	5.3	0.0	5.3	29.6	1.8	32
<b>Education</b>												
No education	68.9	467	62.9	321	88.7	8.7	5.0	0.2	5.0	38.7	0.0	202
Some primary	77.6	458	57.2	356	84.6	11.4	5.7	0.3	5.5	40.6	1.4	204
Primary complete/ some secondary	79.3	1,414	56.0	1,121	86.9	13.6	4.4	0.7	3.7	32.2	3.1	627
Secondary complete/ higher	93.4	2,590	63.0	2,420	90.6	20.9	6.4	0.7	5.8	31.4	1.8	1,524
<b>Work status</b>												
Working for cash	86.9	3,685	61.1	3,201	88.6	16.6	6.3	0.6	5.8	34.5	1.3	1,955
Not working for cash	81.7	1,245	59.2	1,017	90.4	20.0	4.1	0.8	3.3	27.6	4.0	603
<b>Wealth quintile</b>												
Lowest	73.7	838	61.2	618	85.8	12.0	6.8	0.2	6.6	32.2	1.9	378
Second	82.6	1,010	61.7	834	88.6	13.3	4.8	0.2	4.8	39.7	1.2	515
Middle	85.4	1,036	58.1	885	89.3	18.1	7.6	0.9	6.8	35.5	1.7	514
Fourth	89.3	997	58.2	891	90.1	18.3	3.6	0.9	2.7	32.2	1.9	518
Highest	94.4	1,049	63.8	990	90.2	22.6	6.2	0.9	5.4	26.2	2.7	631
Total 15-49	85.6	4,930	60.6	4,218	89.0	17.4	5.8	0.6	5.2	32.9	1.9	2,557
Age 50-59	84.4	788	60.5	665	84.5	20.7	8.8	0.8	8.1	35.6	1.3	403
Total 15-59	85.4	5,718	60.6	4,884	88.4	17.8	6.2	0.7	5.6	33.3	1.9	2,960

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

Table 18.2.1 Knowledge of the ways a person can contract hepatitis C by background characteristics: Women

Percentage of women age 15-49 knowing about hepatitis C who can name at least one way in which an individual can contract hepatitis C and percentage of women knowing about a way hepatitis C can be contracted who named various routes of transmission, according to selected background characteristics, and percentage of women age 50-59 and of women age 15-59 knowing about the ways a person can contract hepatitis C, Egypt 2008

Background characteristic	Percentage of women knowing about hepatitis C who can name at least one way the illness can be contracted	Number of women knowing about hepatitis C	Percentage naming various routes of transmission								Number of women who know one way hepatitis C can be contracted
			Hetero-sexual relations	Homo-sexual relations	Blood transfusions	Unclean needle	Other contact with blood of infected person	Mother-to-child transmission	Other casual physical contact with infected person	Mosquito / other insect bites/ other	
<b>Age</b>											
15-19	68.5	787	15.1	1.3	83.2	68.9	39.5	8.6	23.3	2.5	540
20-24	72.7	895	16.5	2.7	85.4	67.6	40.8	10.9	20.5	2.9	650
25-29	72.9	769	18.3	2.1	85.3	72.4	41.2	11.8	20.7	3.5	561
30-34	70.6	576	18.7	4.3	86.4	68.9	41.9	7.9	17.5	2.9	407
35-39	72.1	540	21.9	2.7	86.7	74.3	47.1	8.1	24.5	5.0	389
40-44	68.2	443	19.6	1.7	85.5	67.9	37.4	12.2	24.1	3.7	302
45-49	69.7	437	15.3	3.2	82.7	65.8	35.9	6.7	24.4	4.9	305
<b>Marital status</b>											
Ever married	69.7	3,209	18.3	2.9	85.5	69.8	40.6	9.5	20.9	3.6	2,236
Never married	74.1	1,238	16.3	1.7	84.1	68.9	41.3	10.1	24.2	3.1	917
<b>Urban-rural residence</b>											
Urban	78.3	2,037	23.3	2.7	86.2	73.1	41.2	10.3	22.4	3.6	1,595
Rural	64.7	2,410	12.0	2.4	83.9	65.9	40.4	9.0	21.3	3.3	1,559
<b>Place of residence</b>											
Urban Governorates	79.3	931	33.9	2.3	85.5	77.0	40.8	13.1	21.4	4.8	738
Lower Egypt	72.0	2,093	12.0	3.1	85.9	70.0	43.3	7.0	17.2	1.6	1,507
Urban	81.0	559	14.9	4.2	87.8	75.9	45.9	7.3	15.9	1.1	453
Rural	68.7	1,534	10.8	2.6	85.1	67.5	42.2	6.9	17.7	1.9	1,054
Upper Egypt	63.6	1,368	14.0	1.8	83.3	62.2	36.4	10.8	30.1	5.6	869
Urban	73.8	510	13.6	1.8	85.9	62.0	36.1	7.8	31.7	4.5	377
Rural	57.4	858	14.3	1.9	81.2	62.4	36.6	13.1	28.9	6.4	493
Frontier Governorates	71.4	55	14.4	0.5	82.6	71.8	41.8	20.3	25.3	3.3	39
<b>Education</b>											
No education	54.2	945	13.8	1.1	79.6	60.3	35.4	11.4	22.9	6.1	512
Some primary	54.9	285	12.6	1.7	82.3	62.5	32.2	7.8	21.4	4.7	157
Primary complete/ some secondary	68.6	979	14.9	2.5	81.5	69.2	38.6	8.3	23.2	3.5	671
Secondary complete/higher	81.1	2,237	20.3	3.0	88.2	72.8	43.8	9.8	21.1	2.6	1,814
<b>Work status</b>											
Working for cash	81.2	781	21.9	4.1	86.8	73.9	44.7	11.6	24.4	4.1	634
Not working for cash	68.7	3,666	16.7	2.1	84.6	68.4	39.8	9.2	21.2	3.3	2,520
<b>Wealth quintile</b>											
Lowest	56.8	605	10.8	1.1	82.0	63.1	35.5	11.6	26.8	7.5	344
Second	62.9	839	10.4	1.3	82.2	62.1	37.0	10.6	21.1	2.1	528
Middle	65.2	881	14.7	1.9	84.7	68.4	40.5	9.3	20.1	3.4	575
Fourth	75.6	983	20.3	3.0	86.9	75.3	39.9	9.6	20.6	3.3	743
Highest	84.6	1,139	24.0	3.8	86.5	72.1	45.6	8.8	22.5	3.0	964
Total 15-59	70.9	4,447	17.7	2.5	85.1	69.5	40.8	9.7	21.9	3.5	3,154
Age 50-59	64.3	579	19.9	3.8	85.6	61.1	36.2	7.4	19.0	3.4	371
Total 15-59	70.2	5,026	18.0	2.7	85.1	68.6	40.3	9.4	21.6	3.5	3,526

Table 18.2.2 Knowledge of the ways a person can contract hepatitis C by background characteristics: Men

Percentage of men age 15-49 knowing about hepatitis C who can name at least one way in which an individual can contract hepatitis C and percentage of men knowing about a way hepatitis C can be contracted who named various routes of transmission, according to selected background characteristics, and percentage of men age 50-59 and of men age 15-59 knowing about the ways a person can contract hepatitis C, Egypt 2008

Background characteristic	Percentage of men knowing about hepatitis C who can name at least one way the illness can be contracted	Number of men knowing about hepatitis C	Percentage naming various routes of transmission								Number of men who know one way hepatitis C can be contracted
			Hetero-sexual relations	Homo-sexual relations	Blood transfusions	Unclean needle	Other contact with blood of infected person	Mother-to-child transmission	Other casual physical contact with infected person	Mosquito/other insect bites/other	
<b>Age</b>											
15-19	74.5	812	15.3	1.5	74.8	68.1	54.8	8.3	19.6	1.0	604
20-24	76.4	748	16.8	2.8	79.7	72.1	53.5	6.3	14.8	1.4	571
25-29	80.2	655	16.3	1.4	83.8	73.3	53.5	6.5	16.3	2.7	525
30-34	79.8	565	17.8	3.2	84.8	71.6	47.3	6.8	13.4	0.8	451
35-39	83.8	476	17.8	4.8	82.7	66.7	55.2	10.0	15.1	1.7	399
40-44	81.6	526	15.8	2.3	81.2	71.0	55.8	8.3	16.4	4.4	429
45-49	77.6	437	16.3	2.0	82.2	72.8	56.5	5.5	15.4	1.6	339
<b>Marital status</b>											
Ever married	79.7	2,338	16.1	2.7	83.0	70.5	53.9	7.2	15.5	2.3	1,864
Never married	77.4	1,881	17.0	2.2	78.4	71.1	53.4	7.6	16.7	1.4	1,455
<b>Urban-rural residence</b>											
Urban	84.7	1,896	21.3	3.4	81.5	74.7	54.0	8.8	15.2	1.7	1,607
Rural	73.7	2,322	12.1	1.6	80.5	67.1	53.4	6.0	16.8	2.1	1,712
<b>Place of residence</b>											
Urban Governorates	84.3	840	29.4	4.4	80.7	75.0	47.2	8.8	13.5	2.1	708
Lower Egypt	79.3	1,958	12.7	1.7	81.2	70.2	56.8	8.4	14.8	1.8	1,552
Urban	86.5	515	13.5	1.9	81.5	78.3	60.8	11.2	12.6	1.5	445
Rural	76.7	1,443	12.4	1.6	81.1	67.0	55.2	7.2	15.7	1.9	1,107
Upper Egypt	73.7	1,354	13.2	2.3	81.3	68.4	52.9	4.5	19.0	1.8	999
Urban	82.9	494	15.8	3.1	83.6	70.0	57.4	5.7	19.8	0.9	409
Rural	68.5	861	11.3	1.8	79.7	67.3	49.9	3.6	18.5	2.4	590
Frontier Governorates	90.6	66	17.7	3.3	72.2	76.0	62.7	13.4	26.9	4.6	60
<b>Education</b>											
No education	66.4	321	14.3	0.4	75.9	61.9	44.6	8.1	17.2	3.3	214
Some primary	65.9	356	16.1	2.2	75.2	61.0	44.1	6.7	16.3	2.4	234
Primary complete/ some secondary	73.6	1,121	15.4	2.9	74.0	66.4	51.1	7.9	16.9	2.0	825
Secondary complete/ higher	84.5	2,420	17.2	2.6	85.0	74.6	56.8	7.2	15.5	1.6	2,046
<b>Work status</b>											
Working for cash	78.6	3,201	17.0	2.6	81.9	70.1	52.7	7.3	15.6	1.9	2,516
Not working for cash	79.0	1,017	15.0	2.1	78.2	72.8	56.7	7.6	17.5	1.8	804
<b>Wealth quintile</b>											
Lowest	64.3	618	9.2	1.4	78.9	70.3	49.1	4.3	17.4	2.3	397
Second	73.7	834	12.7	1.9	79.2	63.1	51.7	5.5	15.8	2.2	615
Middle	76.8	885	16.5	2.1	78.4	71.3	51.7	5.3	14.3	2.0	680
Fourth	85.1	891	19.7	2.0	81.4	71.8	53.3	11.1	14.6	2.3	758
Highest	87.8	990	19.8	4.1	84.8	75.1	59.1	8.5	18.2	1.0	869
Total 15-59	78.7	4,218	16.5	2.5	81.0	70.8	53.7	7.4	16.0	1.9	3,319
Age 50-59	78.4	665	20.4	3.7	77.4	70.9	53.8	7.2	22.1	2.6	522
Total 15-59	78.6	4,884	17.0	2.6	80.5	70.8	53.7	7.4	16.8	2.0	3,841

The results in Tables 18.1.1, 18.1.2, 18.2.1 and 18.2.2 indicate that, among both women and men, the level of awareness of hepatitis C and knowledge about ways in which hepatitis C can be transmitted were more widespread in urban than in rural areas. The percentages knowing about at least one way hepatitis C can be contracted also increased with education and wealth.

## 18.2 SELF-REPORTED PREVALENCE OF HEPATITIS C AND LIVER DISEASE

In addition to collecting information on the level of knowledge of hepatitis C, respondents were asked in the special health issues component of the 2008 EDHS if they themselves had ever been tested and diagnosed with hepatitis C, if they had symptoms of or been diagnosed with liver disease, and if any other household members had ever had liver disease. The results presented in Table 18.3 indicate that relatively few respondents had ever been tested for the hepatitis C virus (2 percent of women and 6 percent of men). One percent of women and 2 percent of men reported having had a positive hepatitis C test result, with around half of those who tested positive saying that they received treatment.

The results in Table 18.3 also show that only very small proportions of respondents had ever had jaundice (2 percent of women and 1 percent of men) or dark urine (4 percent for both women and men), which are symptoms of liver disease. The proportion of women and men who reported they had ever been diagnosed as having liver disease also was small (1 percent each) and most of those respondents said they were currently suffering from the disease. With respect to other household members, 4 percent of women and 3 percent of men reported that other household members had liver disease.

Table 18.3 Self-reported prevalence of hepatitis infection, symptoms of liver disease, and liver disease

Percent distribution of population age 15-59 by whether or not they were ever tested for the hepatitis C virus, they had a positive hepatitis C test, they had a positive test and were treated for hepatitis C, they had ever had jaundice or dark urine, they were ever told they had liver disease, or they reported another household member had had liver disease, by sex, Egypt 2008

	Women	Men	Total
<b>Ever tested for hepatitis C virus</b>			
Yes	2.0	5.9	3.8
No	77.9	79.6	78.7
Never heard about hepatitis C	20.1	14.6	17.5
Missing	0.0	0.0	0.0
<b>Ever had positive hepatitis C test according to doctor or health professional</b>			
Tested, yes	0.8	2.0	1.4
Tested, no	1.2	3.9	2.5
Not tested	77.9	79.6	78.7
Never heard about hepatitis C	20.1	14.6	17.5
Missing	0.0	0.0	0.0
<b>Treated for hepatitis C after test</b>			
Positive test and treated	0.4	1.0	0.7
Negative test/not tested	79.1	83.5	81.2
Never heard about hepatitis C	20.1	14.6	17.5
Missing	0.4	0.9	0.7
<b>Ever had jaundice</b>			
Yes	2.0	1.4	1.7
No	96.4	97.7	97.0
Don't know	1.6	0.8	1.2
Missing	0.0	0.0	0.0
<b>Ever had dark urine</b>			
Yes	3.9	4.2	4.1
No	94.0	94.8	94.4
Don't know	2.1	1.0	1.6
Missing	0.0	0.0	0.0
<b>Respondent ever had any liver disease</b>			
Yes	0.9	1.0	1.0
No	99.0	99.0	99.0
Missing	0.0	0.0	0.0
<b>Currently have liver disease</b>			
Yes	0.7	0.8	0.7
No	0.2	0.2	0.2
Never had liver disease	99.1	99.0	99.0
<b>Other household members had liver disease</b>			
Yes	3.7	2.5	3.1
No	96.3	97.5	96.9
Missing	0.0	0.0	0.0
Total percent	100.0	100.0	100.0
Number age 15-59	6,290	5,718	12,008

### 18.3 HEPATITIS C TESTING IN THE 2008 EDHS

In addition to responding to questions about hepatitis C, women and men age 15-59 years living in the subsample of households selected for the health issues survey were asked to provide blood samples for hepatitis C testing. A specially trained team of three individuals including at least one physician and one laboratory technician were responsible for obtaining the venous blood samples from the eligible respondents. The following describes the hepatitis C testing protocol in more detail and presents information on the coverage of the testing among eligible women and men.

#### 18.3.1 Hepatitis C Testing Protocol

The hepatitis C testing component of the EDHS involved the collection of venous blood samples for later testing in the Central Laboratory of the Ministry of Health. A blood specimen was collected only after informed consent to the hepatitis C testing was obtained from each respondent and, in the case of an unmarried minor age 15-17, from a parent or other guardian. Additionally, any individual providing a blood sample was asked to consent to anonymous storage of their serum sample for unspecified testing that might be undertaken after the survey was completed. Respondents were told during the consent process that, if they tested positive for the HCV virus, they would be given a referral to for additional screening and counseling at a special Liver Treatment Center. They also were advised during the consent process that, because the hepatitis C testing would be conducted at the Central Laboratory in Cairo, the result of the testing would not be returned to them for around three months. Permission also was requested from each respondent to leave the hepatitis C test result in a sealed envelope with another household member if the respondent was not at home at the time the call back visits were made to return the test results. At the time of the survey, all respondents, whether or not they consented to the testing, were given an informational brochure about the hepatitis C virus. The protocol for the hepatitis C testing was approved by the Scientific and Research Ethics Committee of the Ministry of Health and the Institutional Review Board at Macro International.

If an EDHS respondent consented to the testing, the laboratory technician drew approximately 7 ml of venous blood in an EDTA vacutainer tube. The blood tube was labeled with a preprinted bar-coded identification number; labels with the same bar code ID were also pasted on the Household Questionnaire and on the form used by EDHS biomarker staff to track the collection of specimens from eligible respondents. Before starting work in a given area, each EDHS biomarker team established a temporary field laboratory. The tubes of blood collected during the fieldwork each day were stored in cool boxes prior to their transfer to the temporary field laboratory. In the field laboratory, the EDHS biomarker staff centrifuged the blood and transferred the serum to three microvials, labeled with the same bar code identification as the original vacutainer tube. The microvials containing the serum were stored in liquid nitrogen tanks. Samples were collected twice weekly or oftener and transferred in coolers on dry ice to the Central Health Laboratory in Cairo.

The hepatitis C testing protocol at the Central Laboratory included an initial round of testing to detect the presence of antibodies to the hepatitis C virus. The presence of antibodies indicated that the individual had been exposed to the hepatitis C virus at some point. A third generation Enzyme Immunoassay (ELISA), Adlatis EIAgen HCV Ab test was used for the determination of antibodies to Hepatitis C Virus (anti-HCV). A more specific assay, Chemiluminescent Microplate Immunoassay (CIA) was used to test for antibodies to HCV for all positive samples and approximately 5 percent of the negative samples from the first ELISA screening test. Any discordant samples after the initial screening were retested with ELISA and CIA. Samples that were found to be positive on both ELISA and CIA tests, or that remained discordant after retesting, were further tested to identify individuals with active (current) hepatitis infection. Quantitative Real Time PCR was used at the Central Laboratory for the detection of HCV RNA, which is indicative of active (current) infection.

As a quality control measure, the ELISA screening was repeated at the Theodor Bilharz Institute (TBRI) for five percent of all samples. In addition, all samples that were found to be negative and 5 percent of the samples that were found to be positive during the PCR testing at the Central Laboratory were retested at TBRI using the Abbott m2000 system. Primarily due to the greater sensitivity of the equipment at TBRI, some of the samples that were negative on the PCR test at the Central Laboratory were found to be positive at TBRI. Some additional retesting was carried out on a subsample of the samples for which the results at the Central Laboratory and TBRI were discordant. Based on the results of this further retesting, it was decided to accept the TBRI result for all of the discordant samples.

### 18.3.2 Coverage of the HCV Testing

Tables 18.4 and 18.5 provide information on the coverage of the HCV testing among women and men. Among the de facto population of women and men age 15-59 who were eligible for the testing, 88 percent provided a venous sample that was subsequently tested in the Central Laboratory. Six percent refused to provide a sample, and 5 percent were not home at the time of the EDHS survey or any of the subsequent call back visits.<sup>1</sup> Specimens from the remaining respondents (1 percent) either could not be collected or tested for various reasons (e.g., inadequate volume of blood, etc.).

Women were more likely to have provided a sample for testing than men (91 percent and 84 percent, respectively). Virtually all of the difference between the coverage rates for women and men was due to the higher proportion of men absent from the household at the time of the EDHS survey.

Looking at the variation in coverage rates by age, Table 18.4 shows that respondents age 20-24 were least likely and those age 55-59 were most likely to agree to the testing (85 percent and 91 percent, respectively). The results in Table 18.5, which presents the HCV coverage by background characteristics, indicate that coverage was higher in rural areas (92 percent) than in urban areas (81 percent). By place of residence, the proportion with a sample tested was highest in rural Lower Egypt (93 percent) followed closely by rural Upper Egypt (92 percent) and lowest in the Urban Governorates (77 percent) and the Frontier Governorates (79 percent). The proportion of the eligible population from which a sample was obtained and tested decreased from 92 percent among respondents who had never attended school to 85 percent among respondents who had completed the secondary level or higher. Coverage also decreased with the wealth quintile, from 91 percent in the lowest quintile to 78 percent in the highest quintile.

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<sup>1</sup> Typically, at least three call-back visits were made.

Table 18.4 Coverage of hepatitis C testing among the de facto population age 15-59 years by age

Percent distribution of de facto population age 15-59 years eligible for hepatitis C testing by testing status, according to age (unweighted), Egypt 2008

Age	Testing status				Total percent	Number
	Sample tested <sup>1</sup>	Refused to provide blood	Absent at time of blood collection	Other/missing <sup>2</sup>		
WOMEN						
15-19	91.0	5.5	2.5	1.0	100.0	1,140
20-24	88.9	6.7	3.5	0.9	100.0	1,223
25-29	91.0	6.7	1.6	0.7	100.0	951
30-34	92.2	6.3	0.5	0.9	100.0	748
35-39	92.3	6.7	0.6	0.4	100.0	703
40-44	90.6	7.7	1.2	0.5	100.0	607
45-49	90.7	6.6	1.4	1.3	100.0	560
50-54	87.6	9.2	1.7	1.5	100.0	412
55-59	90.8	7.3	1.4	0.6	100.0	358
Total	90.6	6.7	1.8	0.9	100.0	6,702
MEN						
15-19	85.4	5.8	7.8	1.0	100.0	1,161
20-24	80.2	6.1	13.3	0.4	100.0	955
25-29	82.7	4.2	12.6	0.5	100.0	791
30-34	83.9	5.8	9.4	0.9	100.0	669
35-39	83.8	5.4	10.2	0.5	100.0	588
40-44	87.0	5.0	7.2	0.8	100.0	600
45-49	83.6	8.4	7.4	0.6	100.0	513
50-54	84.1	6.5	7.8	1.6	100.0	434
55-59	90.5	4.6	4.9	0.0	100.0	367
Total	84.1	5.7	9.4	0.7	100.0	6,078
TOTAL						
15-19	88.1	5.6	5.2	1.0	100.0	2,301
20-24	85.1	6.4	7.8	0.7	100.0	2,178
25-29	87.2	5.6	6.6	0.6	100.0	1,742
30-34	88.3	6.1	4.7	0.9	100.0	1,417
35-39	88.5	6.1	5.0	0.5	100.0	1,291
40-44	88.8	6.4	4.1	0.7	100.0	1,207
45-49	87.3	7.5	4.3	0.9	100.0	1,073
50-54	85.8	7.8	4.8	1.5	100.0	846
55-59	90.6	5.9	3.2	0.3	100.0	725
Total	87.5	6.2	5.4	0.8	100.0	12,780

<sup>1</sup> Includes all serum samples undergoing testing at the laboratory and for which there is a final result for both the antibody and PCR RNA testing, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through testing, but the final result was inconclusive.

<sup>2</sup> Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc. and 5) persons for whom a final result of the testing is missing



Table 18.5 Coverage of hepatitis C testing among the de facto population age 15-59 years by selected background characteristics

Percent distribution of de facto population age 15-59 years eligible for hepatitis C testing by testing status, according to selected background characteristics (unweighted), Egypt 2008

Background characteristic	Testing status				Total percent	Number
	Sample tested <sup>1</sup>	Refused to provide blood	Absent at time of blood collection	Other/missing <sup>2</sup>		
<b>WOMEN</b>						
<b>Urban-rural residence</b>						
Urban	84.7	11.1	3.0	1.2	100.0	2,827
Rural	94.9	3.5	1.0	0.6	100.0	3,875
<b>Place of residence</b>						
Urban Governorates	82.2	12.2	3.9	1.7	100.0	1,079
Lower Egypt	93.4	5.0	1.0	0.7	100.0	2,486
Urban	88.8	8.4	1.6	1.2	100.0	668
Rural	95.0	3.7	0.7	0.5	100.0	1,818
Upper Egypt	92.5	5.4	1.3	0.8	100.0	2,749
Urban	86.4	11.0	1.8	0.8	100.0	829
Rural	95.2	3.0	1.1	0.7	100.0	1,920
Frontier Governorates	82.7	11.9	5.2	0.3	100.0	388
<b>Education</b>						
No education	93.7	4.1	1.2	1.0	100.0	2,062
Some primary	94.3	3.7	0.9	1.1	100.0	563
Primary complete/some secondary	91.1	6.5	1.6	0.7	100.0	1,399
Secondary complete/higher	87.1	9.5	2.6	0.7	100.0	2,675
Missing	*	*	*	*	100.0	3
<b>Wealth quintile</b>						
Lowest	95.0	3.3	0.9	0.8	100.0	1,323
Second	93.8	3.5	1.9	0.8	100.0	1,441
Middle	93.4	4.9	1.1	0.7	100.0	1,326
Fourth	90.4	6.8	2.1	0.7	100.0	1,213
Highest	80.7	15.0	3.1	1.1	100.0	1,399
Total	90.6	6.7	1.8	0.9	100.0	6,702
<b>MEN</b>						
<b>Urban-rural residence</b>						
Urban	77.7	10.0	11.4	0.9	100.0	2,660
Rural	89.1	2.3	8.0	0.6	100.0	3,418
<b>Place of residence</b>						
Urban Governorates	71.6	13.5	13.8	1.1	100.0	979
Lower Egypt	88.7	3.1	7.8	0.4	100.0	2,259
Urban	84.5	5.8	9.2	0.5	100.0	608
Rural	90.2	2.1	7.3	0.4	100.0	1,651
Upper Egypt	86.4	4.2	8.5	0.9	100.0	2,433
Urban	80.9	8.6	9.4	1.1	100.0	795
Rural	89.0	2.1	8.1	0.9	100.0	1,638
Frontier Governorates	75.7	10.8	13.5	0.0	100.0	407
<b>Education</b>						
No education	86.2	3.8	8.7	1.4	100.0	852
Some primary	86.0	3.9	9.3	0.7	100.0	557
Primary complete/some secondary	84.9	5.2	9.2	0.7	100.0	1,604
Secondary complete/higher	82.8	6.8	9.8	0.6	100.0	3,063
Missing	*	*	*	*	100.0	2
<b>Wealth quintile</b>						
Lowest	86.4	2.8	9.7	1.1	100.0	1,155
Second	87.5	2.2	9.8	0.5	100.0	1,293
Middle	89.3	3.8	6.5	0.4	100.0	1,236
Fourth	82.1	6.7	10.4	0.8	100.0	1,125
Highest	75.3	13.0	10.9	0.9	100.0	1,269
Total	84.1	5.7	9.4	0.7	100.0	6,078

Continued...

Table 18.5—Continued

Background characteristic	Testing status				Total percent	Number
	Sample tested <sup>1</sup>	Refused to provide blood	Absent at time of blood collection	Other/missing <sup>2</sup>		
TOTAL						
<b>Urban-rural residence</b>						
Urban	81.3	10.6	7.0	1.0	100.0	5,487
Rural	92.2	3.0	4.3	0.6	100.0	7,293
<b>Place of residence</b>						
Urban Governorates	77.2	12.8	8.6	1.4	100.0	2,058
Lower Egypt	91.1	4.1	4.2	0.6	100.0	4,745
Urban	86.8	7.1	5.3	0.9	100.0	1,276
Rural	92.7	2.9	3.9	0.5	100.0	3,469
Upper Egypt	89.6	4.8	4.7	0.8	100.0	5,182
Urban	83.7	9.8	5.5	1.0	100.0	1,624
Rural	92.3	2.6	4.3	0.8	100.0	3,558
Frontier Governorates	79.1	11.3	9.4	0.1	100.0	795
<b>Education</b>						
No education	91.5	4.0	3.4	1.1	100.0	2,914
Some primary	90.2	3.8	5.1	0.9	100.0	1,120
Primary complete/Some secondary	87.8	5.8	5.7	0.7	100.0	3,003
Secondary complete/Higher	84.8	8.1	6.4	0.6	100.0	5,738
Missing	*	*	*	*	100.0	5
<b>Wealth quintile</b>						
Lowest	91.0	3.0	5.0	1.0	100.0	2,478
Second	90.8	2.9	5.6	0.7	100.0	2,734
Middle	91.4	4.4	3.7	0.5	100.0	2,562
Fourth	86.4	6.7	6.1	0.8	100.0	2,338
Highest	78.1	14.1	6.8	1.0	100.0	2,668
Total	87.5	6.2	5.4	0.8	100.0	12,780

Note: An asterisk indicates that a figure is based on fewer than unweighted 25 cases and has been suppressed.

<sup>1</sup> Includes all serum samples undergoing testing at the laboratory and for which there is a final result for both the antibody and PCR RNA testing, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through testing, but the final result was inconclusive.

<sup>2</sup> Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc. and 5) persons for whom a final result of the testing is missing

### 18.3.3 Return of the Results of the HCV Testing

After the testing of the blood samples was completed, a special field exercise was undertaken to return the test results to all respondents who had provided blood samples. Results were returned to all but 12 respondents. At the time that results were returned, respondents who were found to be positive on either the antibody and/or the RNA tests were referred to special national Liver Centers or other health facilities for further screening and counseling.

## 18.4 PREVALENCE OF HEPATITIS C

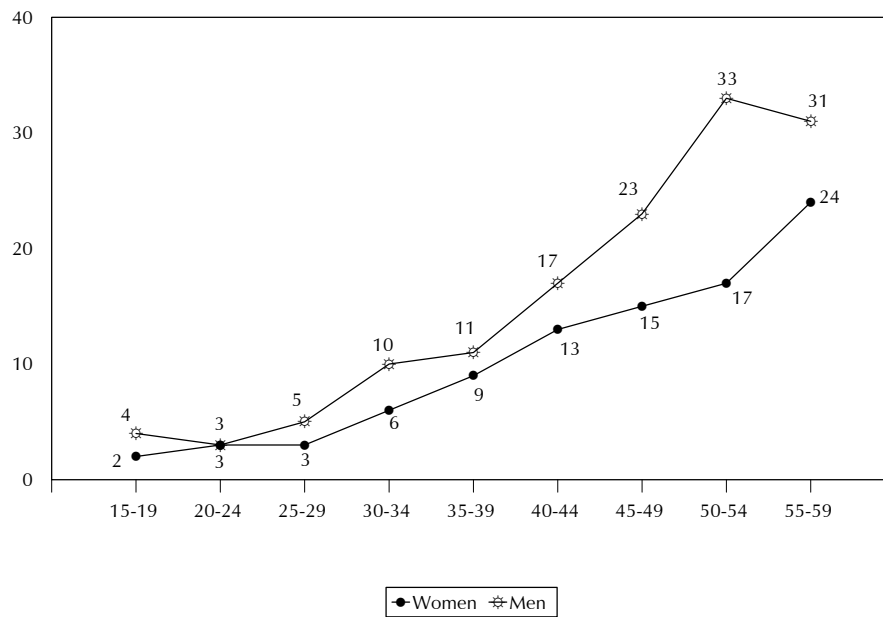
Tables 18.6, 18.7, and 18.8 present the results of the testing of the blood samples collected from EDHS respondents for antibodies for the hepatitis C virus (HCV-antibody test). The tables also show the results of the PCR testing undertaken to detect the presence of HCV RNA in the sample. As discussed above, the HCV antibody test does not provide information on whether the infection is current (active) or chronic but simply indicates the proportion who had been exposed to the HCV virus at some point prior to the EDHS survey. The HCV-RNA test identifies those respondents with an active HCV infection. However, the HCV-RNA test is subject to some error since it cannot detect the virus in individuals who

have been recently infected (i.e., within 1-2 weeks of the survey interview) or individuals for whom the viral load has fallen below the detection limits for the test.

Table 18.6 shows that, overall, 15 percent of the EDHS respondents age 15-59 had antibodies to the HCV virus in their blood, indicating that they had been exposed to the virus at some point. Ten percent were found to have an active infection. Men were more likely to be infected than women and, the levels of infection increased sharply with age among both women and men (Figure 18.1). The much higher levels of infection among the older cohorts may be partially explained by their exposure to the schistosomiasis treatment programs during the 1960s-1980s which, as noted above, are believed to have been a major transmission route.

Table 18.6 Outcome of testing for hepatitis C virus (HCV) among the population age 15-59 years by age			
Percentage of de facto population age 15-59 years provided venous blood samples for HCV testing for whom results were positive on the antibody and the RNA tests by age and sex, Egypt 2008			
Age	Percentage HCV antibody positive	Percentage positive on HCV RNA test	Number tested
WOMEN			
15-19	2.7	1.9	996
20-24	5.4	2.9	1,009
25-29	4.6	3.0	844
30-34	10.2	6.4	637
35-39	13.2	9.3	634
40-44	21.3	12.8	520
45-49	23.6	15.4	506
50-54	26.9	16.9	355
55-59	35.1	24.1	327
Total	12.2	7.8	5,828
MEN			
15-19	5.6	3.7	1,000
20-24	4.3	3.2	795
25-29	8.0	4.9	691
30-34	13.4	10.3	594
35-39	14.4	10.7	499
40-44	24.6	17.0	541
45-49	34.4	23.0	442
50-54	49.0	33.2	379
55-59	43.5	30.5	357
Total	17.4	12.1	5,298
TOTAL			
15-19	4.1	2.8	1,995
20-24	4.9	3.0	1,804
25-29	6.1	3.9	1,535
30-34	11.8	8.3	1,232
35-39	13.8	9.9	1,133
40-44	23.0	15.0	1,061
45-49	28.6	18.9	948
50-54	38.3	25.3	734
55-59	39.4	27.4	684
Total	14.7	9.8	11,126
Note: The HCV-antibody test identifies respondents exposed to the HCV virus at some point in time prior to the EDHS survey. The HCV-RNA test identifies those respondents with an active HCV infection.			

**Figure 18.1 Percentage of Women and Men Positive on the RNA Test for the Hepatitis C Virus by Age**



EDHS 2008

Table 18.7 provides additional information on the variation in the prevalence of HCV infection with socioeconomic characteristics. The table shows that HCV infection was higher among rural than urban residents (12 percent compared with 7 percent). Considering the variation by place of residence, the prevalence of HCV infection was highest in rural Lower and rural Upper Egypt (12 percent and 11 percent, respectively), while it was lowest in the Frontier Governorates and the Urban Governorates (3 percent and 6 percent, respectively). Individuals with no or less than primary education (17 and 13 percent, respectively) were markedly more likely to be infected with the HCV virus than the more educated population (7-8 percent). The likelihood of HCV infection also decreased with the wealth quintile from 12 percent among respondents in the lowest wealth quintile to 7 percent among respondents in the highest wealth quintile.

Table 18.7 Outcome of testing for hepatitis C virus (HCV) among the population age 15-59 years by socioeconomic characteristics

Percentage of de facto population age 15-59 years provided venous blood samples for HCV testing for whom results were positive on the antibody and the RNA tests by socioeconomic characteristics according to sex, Egypt 2008

Socioeconomic characteristic	Percentage HCV antibody positive	Percentage positive on HCV RNA test	Number tested
WOMEN			
<b>Urban-rural residence</b>			
Urban	8.0	5.5	2,476
Rural	15.2	9.6	3,353
<b>Place of residence</b>			
Urban Governorates	7.6	5.1	1,182
Lower Egypt	15.0	8.9	2,530
Urban	10.0	6.7	611
Rural	16.5	9.7	1,919
Upper Egypt	11.7	8.3	2,034
Urban	7.3	5.4	631
Rural	13.7	9.6	1,403
Frontier Governorates	2.5	1.8	82
<b>Education</b>			
No education	21.7	14.5	1,782
Some primary	16.1	10.1	498
Primary complete/some secondary	7.1	4.3	1,264
Secondary complete/higher	6.7	4.1	2,284
<b>Work status</b>			
Working for cash	13.7	9.1	870
Not working for cash	11.9	7.6	4,959
<b>Wealth quintile</b>			
Lowest	15.8	10.1	1,043
Second	15.7	10.5	1,209
Middle	13.8	8.6	1,171
Fourth	9.5	6.1	1,220
Highest	6.6	4.3	1,185
Total	12.2	7.8	5,828
MEN			
<b>Urban-rural residence</b>			
Urban	12.7	9.0	2,323
Rural	21.1	14.4	2,974
<b>Place of residence</b>			
Urban Governorates	11.5	7.4	1,084
Lower Egypt	20.3	14.3	2,299
Urban	13.7	11.1	560
Rural	22.4	15.3	1,739
Upper Egypt	17.9	12.4	1,828
Urban	14.6	10.3	619
Rural	19.6	13.5	1,209
Frontier Governorates	5.0	4.7	87
<b>Education</b>			
No education	30.0	21.6	676
Some primary	24.3	15.2	532
Primary complete/some secondary	15.3	10.6	1,480
Secondary complete/higher	13.9	9.7	2,610
<b>Work status</b>			
Working for cash	19.9	13.8	4,070
Not working for cash	9.0	6.2	1,228
<b>Wealth quintile</b>			
Lowest	21.9	15.1	892
Second	18.7	12.4	1,098
Middle	19.0	13.2	1,143
Fourth	13.9	10.2	1,085
Highest	14.2	9.9	1,079
Total	17.4	12.1	5,298

Continued...

Table 18.7—Continued

Socioeconomic characteristic	Percentage HCV antibody positive	Percentage positive on HCV RNA test	Number tested
TOTAL			
<b>Urban-rural residence</b>			
Urban	10.3	7.2	4,799
Rural	18.0	11.9	6,327
<b>Place of residence</b>			
Urban Governorates	9.5	6.2	2,266
Lower Egypt	17.5	11.5	4,829
Urban	11.8	8.8	1,171
Rural	19.3	12.3	3,658
Upper Egypt	14.7	10.2	3,862
Urban	10.9	7.8	1,250
Rural	16.4	11.4	2,612
Frontier Governorates	3.8	3.3	169
<b>Education</b>			
No education	24.0	16.5	2,458
Some primary	20.4	12.7	1,030
Primary complete/some secondary	11.5	7.7	2,744
Secondary complete/higher	10.5	7.1	4,893
<b>Work status</b>			
Working for cash	18.8	13.0	4,939
Not working for cash	11.3	7.3	6,187
<b>Wealth quintile</b>			
Lowest	18.6	12.4	1,935
Second	17.1	11.4	2,308
Middle	16.4	10.9	2,314
Fourth	11.6	8.0	2,305
Highest	10.2	6.9	2,264
Total	14.7	9.8	11,126

Note: The HCV-antibody test identifies respondents exposed to the HCV virus at some point in time prior to the EDHS survey. The HCV-RNA test identifies those respondents with an active HCV infection.

Table 18.8 looks at the variation in the prevalence of HCV infection according to respondent's lifetime exposure to various medical procedures that can increase the risk of exposure to bloodborne pathogens. The table shows the HCV infection rate were higher among individuals who reported that they had had surgery a blood transfusion, dental treatment or injections. Figure 18.2 shows that active infection rates were particularly high among individuals who reported receipt of at least one injection to treat schistosomiasis compared to those who had not received such an injection. Some caution must be used in interpreting these results since other factors that are associated with increased risk are not controlled for in looking at the relationship between the HCV infection and the various procedures. However, the results tend to support the assumption that improper infection control procedures during schistosomiasis treatment campaigns played an important role in the spread of hepatitis C infection in Egypt.

Table 18.8 Outcome of testing for hepatitis C virus (HCV) among the population age 15-59 years by lifetime history of medical procedures and injections

Percentage of de facto population age 15-59 years provided venous blood samples for HCV testing for whom results were positive on the antibody and the RNA tests by lifetime history of medical procedures and injections, according to sex, Egypt 2008

History of medical procedures and injections	Percentage HCV antibody positive	Percentage positive on HCV RNA test	Number tested
WOMEN			
<b>Surgery</b>			
Yes	13.6	9.2	2,878
No	10.8	6.4	2,942
Don't know/missing	*	*	9
<b>Blood transfusion</b>			
Yes	22.2	14.1	244
No	11.7	7.5	5,562
Don't know/missing	(11.4)	(11.4)	22
<b>Dental treatment</b>			
Yes	13.2	8.6	3,392
No	10.7	6.7	2,427
Don't know/missing	*	*	10
<b>Injection to treat schistosomiasis</b>			
Yes	25.3	16.7	300
No	11.2	7.2	5,428
Don't know/missing	23.9	15.4	100
<b>Injection for any purpose other than treatment of schistosomiasis</b>			
Yes	12.2	7.9	5,493
No	11.3	6.4	328
Don't know/missing	*	*	7
<b>Injection in which needle and syringe reused</b>			
Yes	15.3	7.3	217
No	12.2	8.1	5,122
Never had injection	10.6	5.5	298
Don't know/missing	10.3	6.3	191
Total	12.2	7.8	5,828

Continued...

Table 18.8—Continued

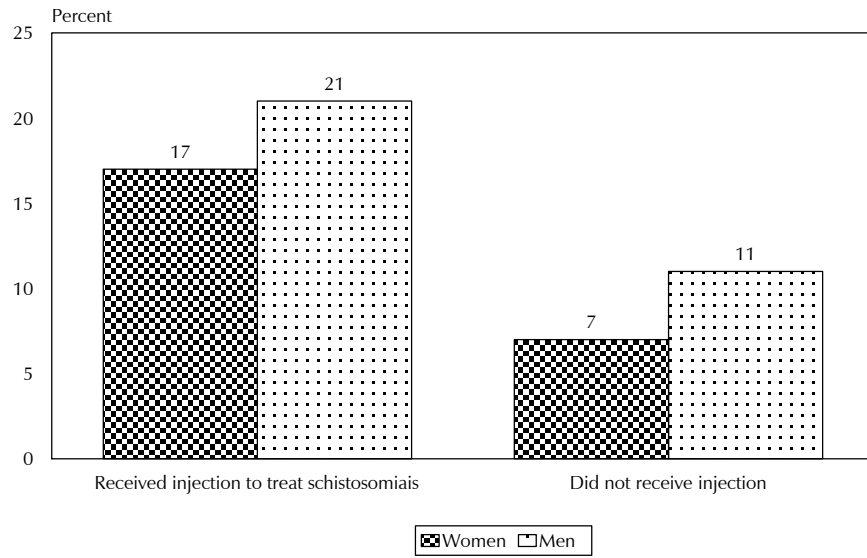
Percentage of de facto population age 15-59 years provided venous blood samples for HCV testing for whom results were positive on the antibody and the RNA tests by lifetime history of medical procedures and injections, according to sex, Egypt 2008

History of medical procedures and injections	Percentage HCV antibody positive	Percentage positive on HCV RNA test	Number tested
MEN			
<b>Surgery</b>			
Yes	22.1	15.5	1,845
No	14.9	10.2	3,450
Don't know/missing	*	*	3
<b>Blood transfusion</b>			
Yes	26.7	18.2	214
No	17.0	11.8	5,076
Don't know/missing	*	*	8
<b>Dental treatment</b>			
Yes	20.1	14.0	3,331
No	12.9	8.8	1,965
Don't know/missing	*	*	2
<b>Injection to treat schistosomiasis</b>			
Yes	31.5	21.1	646
No	15.6	10.9	4,555
Don't know/missing	10.2	5.2	97
<b>Injection for any purpose other than treatment of schistosomiasis</b>			
Yes	17.9	12.4	4,880
No	11.9	7.8	416
Don't know/missing	*	*	2
<b>Injection in which needle and syringe reused</b>			
Yes	31.8	26.7	101
No	17.7	12.3	4,680
Never had injection	10.4	6.9	372
Don't know/missing	17.2	7.6	144
Total	17.4	12.1	5,298
TOTAL			
<b>Surgery</b>			
Yes	16.9	11.7	4,723
No	13.0	8.5	6,392
Don't know/missing	*	*	11
<b>Blood transfusion</b>			
Yes	24.3	16.0	458
No	14.3	9.6	10,639
Don't know/missing	(11.2)	(11.2)	29
<b>Dental treatment</b>			
Yes	16.6	11.3	6,723
No	11.7	7.6	4,392
Don't know/missing	*	*	11
<b>Injection to treat schistosomiasis</b>			
Yes	29.6	19.7	946
No	13.2	8.9	9,983
Don't know/missing	17.2	10.4	197
<b>Injection for any purpose other than treatment of schistosomiasis</b>			
Yes	14.9	10.0	10,373
No	11.6	7.2	744
Don't know/missing	*	*	9
<b>Injection in which needle and syringe reused</b>			
Yes	20.6	13.5	318
No	14.8	10.1	9,802
Never had injection	10.5	6.3	671
Don't know/missing	13.3	6.9	335
Total	14.7	9.8	11,126

Note: The HCV-antibody test identifies respondents exposed to the HCV virus at some point in time prior to the EDHS survey. The HCV-RNA test identifies those respondents with an active HCV infection. An asterisk indicates figure based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.



**Figure 18.2 Percentage of Women and Men Age 15-59 Positive on HVC-RNA Test by Receipt of Injection to Treat Schistosomiasis**



EDHS 2008

Acquired immunodeficiency syndrome (AIDS) is one of the most serious public health and development challenges facing the world today. The disease is caused by the human immunodeficiency virus (HIV). Although the HIV infection rate is low in Egypt, there is a need to educate Egyptians about AIDS. To assist in these efforts, the 2008 EDHS collected information to assess the prevalence of knowledge of modes of HIV transmission and prevention and attitudes towards persons living with AIDS.

### 19.1 KNOWLEDGE OF HIV/AIDS

To obtain information on the extent of HIV/AIDS knowledge, women and men interviewed in the special health issues component of the 2008 EDHS were asked a general question about whether they had heard of the illness. Those who knew about HIV/AIDS were asked additional questions about modes of prevention including whether it is possible to reduce the chance of getting the AIDS virus by having just one faithful sexual partner, using a condom at every sexual encounter, and abstaining from sex. To get at possible misconceptions, respondents also were asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can get AIDS from mosquito bites or sharing food with a person who has AIDS. The responses to these questions are used to assess the extent to which EDHS respondents had comprehensive knowledge of HIV/AIDS. Comprehensive knowledge of HIV/AIDS is defined as: 1) knowing that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods, 2) being aware that a healthy-looking person can have HIV, and 3) rejecting the two common local misconceptions—that HIV/AIDS can be transmitted through mosquito bites and by sharing food.

The results in Tables 19.1.1 and 19.1.2 show that 73 percent of women and 87 percent of men age 15-59 have heard about HIV/AIDS. Although many women and men had a basic knowledge of AIDS, the proportions aware of ways in which the risk of infection can be reduced were generally low. Both women and men were most likely to see limiting sex to one uninfected partner as a means of reducing the risk of transmission (58 percent and 73 percent, respectively). More than half of women and 40 percent of men were unaware that a healthy-looking person can have AIDS. Men were somewhat more likely than women to reject two common misconceptions about how the AIDS virus can be transmitted, i.e., through mosquito bites (62 percent and 48 percent, respectively) or sharing food with an infected person (62 percent and 48 percent, respectively). Overall, only 7 percent of women and 18 percent of men were classified as having comprehensive correct knowledge about AIDS.

Tables 19.1.1 and 19.1.2 present differentials in the levels of the various AIDS knowledge indicators by background characteristics. There generally is greater variability in women's than men's awareness across the subgroups for which results are presented in the table. For example, AIDS awareness was markedly lower among rural than urban women (68 percent and 85 percent, respectively) while rural men were almost as likely as urban men to have heard about AIDS (88 percent and 90 percent, respectively). Looking at the variation by place of residence, AIDS awareness was lowest among both women and men in rural Upper Egypt than in other regions. The level of AIDS awareness rose with education and the wealth quintile among both women and men.

Table 19.1.1 Knowledge of AIDS by background characteristics: Women

Percentage of women age 15-49 who have heard of AIDS, percentage who responded to prompted questions by saying that people can reduce the risk of getting the AIDS virus by using condom, by having sex with just one uninfected, faithful partner, and by abstaining from sex, percentage who responded to prompted question by saying that a healthy-looking person can have the AIDS virus, percentage who know the AIDS virus cannot be transmitted by mosquito bites or sharing food with an infected person, and percentage with comprehensive knowledge about AIDS by background characteristics, and among women age 50-59 and all women age 15-59, percentage with knowledge of AIDS, Egypt 2008

Background characteristic	Percentage who have heard of AIDS	Percentage who say people can reduce the risk of getting the AIDS virus by:				Percentage who know a healthy-looking person can have AIDS	Percentage who know the AIDS virus cannot be transmitted by:		Percentage who reject two common misconceptions and know that a healthy-looking person can have the AIDS virus	Percentage with comprehensive knowledge about AIDS <sup>1</sup>	Number of women
		Using a condom every time they have sex	Limiting sex to one uninfected partner	Abstaining from sexual intercourse	Using a condom and having one uninfected faithful partner		Mosquito bites	Sharing food with an infected person			
<b>Age</b>											
15-19	73.6	8.9	50.1	15.0	8.5	40.7	44.1	41.7	21.1	3.1	1,064
20-24	79.3	17.2	62.9	15.9	15.3	46.1	52.2	53.3	27.1	6.4	1,091
25-29	81.5	23.9	67.7	18.1	21.9	53.8	57.4	56.5	32.1	10.1	906
30-34	79.2	21.3	63.7	18.6	19.5	47.7	55.7	56.6	30.2	9.7	688
35-39	73.7	20.0	61.3	18.3	18.6	48.6	49.5	49.1	29.4	9.4	673
40-44	68.4	17.7	53.9	14.3	14.9	47.4	41.8	43.6	26.8	7.2	568
45-49	65.3	17.3	54.0	11.8	17.0	37.0	42.2	44.1	22.3	7.8	550
<b>Marital status</b>											
Ever married	74.6	19.6	60.3	15.9	17.7	46.0	49.3	49.3	26.8	7.9	3,983
Never married	77.3	12.7	56.7	16.6	12.1	46.1	50.3	50.2	27.3	5.9	1,556
<b>Urban-rural residence</b>											
Urban	85.3	23.4	70.4	18.0	21.9	56.6	61.4	65.5	38.2	12.0	2,352
Rural	68.0	13.4	51.1	14.8	11.8	38.2	40.8	37.9	18.7	4.0	3,188
<b>Place of residence</b>											
Urban Governorates	86.9	24.8	73.5	18.3	23.5	60.8	59.9	67.4	41.9	13.2	1,073
Lower Egypt	78.7	18.5	62.0	17.1	17.0	42.8	54.1	50.8	25.2	7.1	2,415
Urban	87.2	24.4	71.5	18.2	23.1	49.9	68.6	68.8	34.9	13.0	603
Rural	75.9	16.5	58.8	16.8	15.0	40.5	49.3	44.8	22.0	5.2	1,812
Upper Egypt	65.1	12.6	48.3	13.8	11.0	42.1	38.5	38.4	21.0	4.5	1,970
Urban	81.3	20.1	64.4	17.3	18.3	56.9	57.8	59.6	35.9	9.3	623
Rural	57.6	9.1	40.9	12.2	7.6	35.2	29.6	28.7	14.1	2.3	1,347
Frontier Governorates	72.3	19.2	59.5	13.5	15.3	42.4	44.2	48.6	24.8	6.3	82
<b>Education</b>											
No education	48.6	8.2	34.3	7.7	6.8	25.9	24.4	21.1	10.2	2.3	1,461
Some primary	63.9	9.1	46.0	13.1	7.7	33.4	30.0	33.0	14.4	3.0	394
Primary complete/ some secondary	77.2	13.7	55.9	15.5	12.5	44.1	48.0	45.8	24.0	5.0	1,248
Secondary complete/ higher	92.3	26.7	78.2	22.0	24.9	61.2	68.6	71.3	40.5	12.3	2,436
<b>Work status</b>											
Working for cash	84.9	26.8	70.6	20.5	25.4	58.5	63.8	67.7	41.0	13.7	866
Not working for cash	73.6	15.9	57.2	15.3	14.4	43.7	46.9	46.2	24.3	6.2	4,674
<b>Wealth quintile</b>											
Lowest	49.7	7.3	32.6	10.7	6.1	26.4	25.0	22.5	10.2	1.8	1,001
Second	65.4	11.4	48.5	12.4	10.2	33.2	37.4	33.5	16.1	4.5	1,123
Middle	74.8	17.2	58.7	19.3	15.0	44.2	47.0	43.8	22.8	5.7	1,099
Fourth	89.5	22.1	72.2	18.9	20.3	56.7	62.4	63.4	33.2	8.1	1,105
Highest	93.4	28.2	80.1	18.8	27.0	66.0	71.7	79.5	48.8	15.6	1,212
Total women age 15-49	75.4	17.6	59.3	16.1	16.1	46.0	49.6	49.6	26.9	7.4	5,540
Women age 50-59	58.2	13.1	44.3	12.7	11.5	35.8	33.8	34.4	18.6	5.2	751
Total women age 15-59	73.3	17.1	57.5	15.7	15.6	44.8	47.7	47.8	25.9	7.1	6,290

<sup>1</sup> Comprehensive knowledge means knowing that use of condom and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions.

Table 19.1.2 Knowledge of AIDS by background characteristics: Men

Percentage of men age 15-49 who have heard of AIDS, percentage who responded to prompted questions by saying that people can reduce the risk of getting the AIDS virus by using condom, by having sex with just one uninfected, faithful partner, and by abstaining from sex, percentage who responded to prompted question by saying that a healthy-looking person can have the AIDS virus, percentage who know the AIDS virus cannot be transmitted by mosquito bites or sharing food with an infected person, and percentage with comprehensive knowledge about AIDS by background characteristics, and among men age 50-59 and all men age 15-59, percentage with knowledge of AIDS, Egypt 2008

Background characteristic	Percentage who have heard of AIDS	Percentage who say people can reduce the risk of getting the AIDS virus by:				Percentage who know a healthy-looking person can have AIDS	Percentage who know the AIDS virus cannot be transmitted by:		Percentage who reject two common misconceptions and know that a healthy-looking person can have the AIDS virus	Percentage with comprehensive knowledge about AIDS <sup>1</sup>	Number of men
		Using a condom every time they have sex	Limiting sex to one uninfected partner	Abstaining from sexual intercourse	Using a condom and having one uninfected faithful partner		Mosquito bites	Sharing food with an infected person			
<b>Age</b>											
15-19	82.7	27.8	62.5	19.7	25.2	54.9	56.4	53.1	32.6	16.0	1,087
20-24	92.8	40.9	79.5	27.3	36.1	66.8	68.0	67.8	44.6	21.2	869
25-29	92.7	37.4	79.4	25.5	34.1	67.8	68.3	68.9	45.5	21.0	729
30-34	91.1	38.3	77.8	25.9	33.3	66.6	68.3	70.0	43.6	19.1	634
35-39	90.3	41.2	74.9	21.1	35.0	60.1	64.6	67.3	38.7	18.7	535
40-44	88.0	39.1	74.6	22.9	35.0	63.0	64.7	61.9	40.8	19.7	581
45-49	83.6	38.3	70.6	22.1	33.1	56.1	59.5	60.8	37.2	18.1	494
<b>Marital status</b>											
Ever married	88.4	38.7	74.8	23.5	34.1	61.6	64.4	64.5	40.3	19.4	2,640
Never married	88.8	34.4	72.1	23.4	30.7	62.5	63.4	62.5	39.9	18.5	2,290
<b>Urban-rural residence</b>											
Urban	89.8	38.4	75.3	23.2	34.1	71.3	68.6	69.2	48.3	22.3	2,170
Rural	87.6	35.4	72.2	23.7	31.3	54.8	60.2	59.1	33.7	16.4	2,760
<b>Place of residence</b>											
Urban Governorates	87.0	33.6	74.4	17.8	30.0	72.1	65.1	66.6	47.5	18.8	990
Lower Egypt	91.6	44.9	75.6	28.3	40.1	59.4	67.3	65.9	39.7	24.4	2,150
Urban	93.7	53.4	77.5	29.8	47.9	72.7	75.7	73.8	52.5	35.2	533
Rural	90.9	42.1	74.9	27.9	37.6	55.0	64.5	63.3	35.5	20.8	1,616
Upper Egypt	85.8	28.1	70.5	21.2	24.2	59.2	58.8	58.7	36.0	12.1	1,706
Urban	90.8	32.3	74.5	27.4	27.9	68.7	67.5	69.1	45.4	15.8	588
Rural	83.2	25.9	68.4	17.9	22.3	54.2	54.3	53.2	31.0	10.1	1,118
Frontier Governorates	85.6	39.2	73.8	11.5	35.4	68.6	67.1	66.7	47.6	23.2	84
<b>Education</b>											
No education	70.7	19.2	55.0	14.9	15.4	37.7	37.5	33.2	15.4	7.0	467
Some primary	75.6	29.2	59.9	22.0	23.4	45.4	40.2	42.7	19.1	6.1	458
Primary complete/ some secondary	83.9	31.8	65.2	21.0	28.0	56.1	56.7	52.7	31.1	14.5	1,414
Secondary complete/ higher	96.6	43.9	83.9	26.6	39.7	72.6	76.8	78.7	53.2	25.9	2,590
<b>Work status</b>											
Working for cash	89.0	38.3	75.1	24.2	33.7	63.3	63.8	64.1	40.5	19.3	3,685
Not working for cash	87.3	32.1	68.8	21.4	28.9	58.4	64.2	62.2	39.1	18.1	1,245
<b>Wealth quintile</b>											
Lowest	77.1	25.5	60.1	17.5	21.5	46.1	44.7	41.8	22.3	9.2	838
Second	86.2	35.7	70.7	24.0	30.7	53.8	57.3	54.7	31.1	16.1	1,010
Middle	88.2	35.8	73.2	24.7	31.7	55.2	64.0	63.9	35.3	15.8	1,036
Fourth	93.2	41.9	77.2	24.3	36.9	72.8	69.1	72.0	48.0	24.1	997
Highest	96.0	42.6	83.9	25.8	39.6	79.2	80.6	81.2	60.3	27.8	1,049
Total men age 15-49	88.6	36.7	73.5	23.5	32.5	62.0	63.9	63.6	40.1	19.0	4,930
Men age 50-59	79.8	30.9	66.0	19.2	28.4	54.7	50.3	51.1	30.6	12.6	788
Total men age 15-59	87.4	35.9	72.5	22.9	31.9	61.0	62.0	61.9	38.8	18.1	5,718

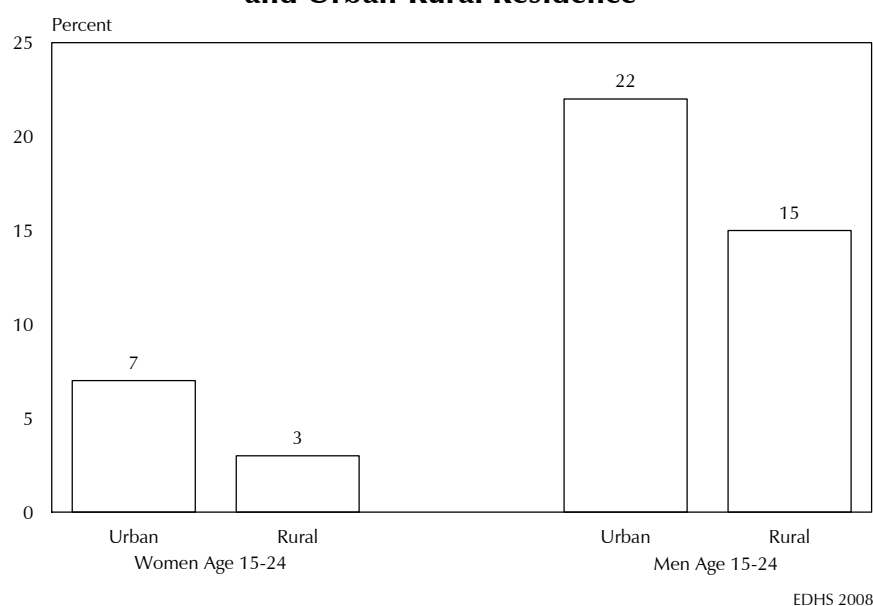
<sup>1</sup> Comprehensive knowledge means knowing that use of condom and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions.

Finally, one of the Millennium Development Goals is to combat HIV/AIDS, malaria and other diseases and one of the principal indicators for tracking progress to that goal is the extent to which youth and young adults age 15-24 in countries have comprehensive correct knowledge of AIDS (United Nations Development Group 2003). Table 19.2 shows that only around one in 20 young women and around one in five young men had such knowledge. The proportions of female and male youth and young adults with comprehensive correct AIDS knowledge was higher in urban than in rural areas (Figure 19.1). These proportions also rose with education and the wealth quintile. The highest level of AIDS knowledge was observed among male youth and young adults living in urban Lower Egypt (33 percent).

Background characteristic	Percentage of women with comprehensive knowledge about AIDS <sup>1</sup>	Number of women	Percentage of men with comprehensive knowledge about AIDS <sup>1</sup>	Number of men
<b>Age</b>				
15-19	3.1	1,064	16.0	1,087
20-24	6.4	1,091	21.2	869
<b>Marital status</b>				
Ever married	4.2	806	17.0	106
Never married	5.1	1,349	18.3	1,850
<b>Urban-rural residence</b>				
Urban	7.2	856	22.0	853
Rural	3.2	1,299	15.4	1,103
<b>Place of residence</b>				
Urban Governorates	8.2	386	22.4	404
Lower Egypt	5.1	916	22.5	795
Urban	8.5	192	32.7	178
Rural	4.3	724	19.6	617
Upper Egypt	2.8	824	11.2	724
Urban	4.7	260	13.3	248
Rural	1.9	565	10.1	476
Frontier Governorates	6.3	29	20.4	33
<b>Education</b>				
No education	1.4	285	11.2	87
Some primary	2.7	87	4.6	82
Primary complete/ some secondary	3.5	763	14.1	856
Secondary complete/higher	6.9	1,020	24.0	931
<b>Work status</b>				
Working for cash	7.2	187	18.4	848
Not working for cash	4.6	1,967	18.2	1,108
<b>Wealth quintile</b>				
Lowest	1.8	413	9.0	345
Second	3.1	481	15.7	444
Middle	5.0	419	14.4	416
Fourth	5.4	416	24.1	357
Highest	8.8	425	28.2	393
Total age 15-24	4.8	2,154	18.3	1,956

<sup>1</sup> Comprehensive knowledge means knowing that consistent use of condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 19.1.1 and 19.1.2.

**Figure 19.1 Percentage of Youth and Young Adults with Comprehensive AIDS Knowledge by Sex and Urban-Rural Residence**



## 19.2 KNOWLEDGE OF MOTHER-TO-CHILD TRANSMISSION

To assess the extent to which women and men were aware of the ways in which AIDS can be transmitted from a mother to her child, EDHS respondents were asked if the virus that causes AIDS can be transmitted during pregnancy, at delivery, or when breastfeeding. As Tables 19.3.1 and 19.3.2 show, 57 percent of women age 15-59 and 71 percent of men in the same age group knew the virus can be transmitted from mother to child during pregnancy, and half of women and 54 percent of the men were aware the virus can be transmitted during delivery. Both women and men were less likely to know that the HIV virus can be transmitted by breastfeeding (33 percent and 35 percent, respectively) than during pregnancy or at delivery.

Differentials in the level of awareness of the modes of mother-to-child transmission are also shown in Tables 19.3.1 and 19.3.2. Knowledge of pregnancy, delivery and breastfeeding as potential modes of transmission for the HIV virus was higher among urban women and men than among their rural counterparts. Considering the differences by place of residence, awareness of these paths of transmission was lowest among women and men in rural Upper Egypt. Although the pattern is not totally uniform, the level of awareness of pregnancy, delivery and breastfeeding as modes of mother-to-child transmission also increased with educational attainment and the wealth quintile among both women and men.

Table 19.3.1 Knowledge of prevention of mother-to-child transmission (PMTCT) of HIV by background characteristics: Women

Percentage of all women age 15-49 who know that HIV can be transmitted from mother to child during pregnancy, delivery or by breastfeeding, by background characteristics, and among women age 50-59 and all women age 15-59, percentage with knowledge of PMTCT, Egypt 2008

Background characteristic	HIV can be transmitted from a mother to her baby during:			Number of women
	Pregnancy	Delivery	Breastfeeding	
<b>Age</b>				
15-19	51.4	41.7	29.9	1,064
20-24	62.9	51.5	35.4	1,091
25-29	66.7	57.2	37.9	906
30-34	63.6	54.3	34.5	688
35-39	61.2	51.0	36.5	673
40-44	50.2	45.4	29.8	568
45-49	48.7	45.7	30.1	550
<b>Marital status</b>				
Ever married	59.0	50.4	34.4	3,983
Never married	57.1	47.6	31.9	1,556
<b>Urban-rural residence</b>				
Urban	67.3	59.6	37.1	2,352
Rural	52.0	42.3	31.1	3,188
<b>Place of residence</b>				
Urban Governorates	66.2	63.7	43.7	1,073
Lower Egypt	61.0	48.6	32.9	2,415
Urban	70.7	56.0	33.1	603
Rural	57.8	46.2	32.8	1,812
Upper Egypt	51.4	43.3	29.1	1,970
Urban	66.7	56.8	29.6	623
Rural	44.3	37.0	28.8	1,347
Frontier Governorates	53.1	48.1	37.2	82
<b>Education</b>				
No education	34.2	29.9	24.7	1,461
Some primary	48.4	42.8	32.2	394
Primary complete/some secondary	56.4	47.6	34.2	1,248
Secondary complete/higher	75.8	63.6	39.0	2,436
<b>Work status</b>				
Working for cash	70.4	60.7	35.8	866
Not working for cash	56.3	47.6	33.3	4,674
<b>Wealth quintile</b>				
Lowest	37.5	30.9	25.6	1,001
Second	48.7	38.6	30.3	1,123
Middle	56.7	47.6	35.3	1,099
Fourth	69.8	60.7	39.3	1,105
Highest	76.2	67.0	37.0	1,212
Total women age 15-49	58.5	49.6	33.7	5,540
Women age 50-59	44.9	40.0	29.8	751
Total women age 15-59	56.9	48.5	33.2	6,290

Table 19.3.2 Knowledge of prevention of mother-to-child transmission (PMTCT) of HIV by background characteristics: Men

Percentage of all men age 15-49 who know that HIV can be transmitted from mother to child during pregnancy, delivery or by breastfeeding, by background characteristics, and among men age 50-59 and all men age 15-59, percentage with knowledge of PMTCT, Egypt 2008

Background characteristic	HIV can be transmitted from a mother to her baby during:			Number of men
	Pregnancy	Delivery	Breastfeeding	
<b>Age</b>				
15-19	58.8	43.0	29.6	1,087
20-24	75.3	57.8	38.2	869
25-29	79.4	61.7	35.3	729
30-34	75.5	57.4	36.3	634
35-39	77.0	58.1	37.9	535
40-44	71.8	56.1	33.8	581
45-49	68.6	54.3	37.5	494
<b>Marital status</b>				
Ever married	73.9	57.0	35.7	2,640
Never married	68.5	51.6	34.2	2,290
<b>Urban-rural residence</b>				
Urban	75.1	60.8	37.1	2,170
Rural	68.5	49.6	33.4	2,760
<b>Place of residence</b>				
Urban Governorates	73.8	64.5	44.5	990
Lower Egypt	74.5	52.8	33.5	2,150
Urban	79.6	57.1	30.7	533
Rural	72.8	51.3	34.4	1,616
Upper Egypt	66.2	51.0	31.6	1,706
Urban	73.3	58.5	30.8	588
Rural	62.4	47.0	32.0	1,118
Frontier Governorates	70.2	53.7	32.4	84
<b>Education</b>				
No education	52.5	37.0	29.9	467
Some primary	58.2	44.9	36.1	458
Primary complete/some secondary	61.9	46.8	33.5	1,414
Secondary complete/higher	82.3	63.6	36.6	2,590
<b>Work status</b>				
Working for cash	73.5	56.9	36.4	3,685
Not working for cash	65.3	47.6	31.0	1,245
<b>Wealth quintile</b>				
Lowest	55.8	41.6	31.2	838
Second	65.7	47.0	32.6	1,010
Middle	71.2	53.4	35.6	1,036
Fourth	78.2	59.4	37.1	997
Highest	83.1	68.4	37.9	1,049
Total men age 15-49	71.4	54.5	35.0	4,930
Men age 50-59	67.4	51.1	35.8	788
Total men age 15-59	70.8	54.0	35.1	5,718

### 19.3 ACCEPTING ATTITUDES TOWARDS PEOPLE LIVING WITH AIDS

In the 2008 EDHS, women and men age 15-59 who had heard of AIDS were asked questions to assess the extent of stigma associated with HIV/AIDS. The results shown in Tables 19.4.1 and 19.4.2 indicate that relatively few women and men were willing to care for a relative with AIDS at home (23 percent and 20 percent, respectively), buy fresh vegetables from a shopkeeper with AIDS (14 percent and 19 percent, respectively), or allow a female teacher with AIDS to keep teaching (13 percent and 9 percent, respectively). Only 38 percent of women and 34 percent of men said that they would be open about having an HIV-positive family member. Accepting attitudes were expressed on all four indicators by only 1 percent of women and men, indicating that some degree of stigma is almost universally associated with HIV/AIDS within Egyptian society.



Table 19.4.1 Accepting attitudes toward those living with HIV by background characteristics: Women

Among women who have heard of HIV/AIDS, percentage expressing accepting attitudes toward people with HIV, by background characteristics, and among women age 50-59 and all women age 15-59, percentage with accepting attitudes towards those living with AIDS, Egypt 2008

Background characteristic	Percentage of women who:				Percentage expressing acceptance attitudes on all four indicators	Number of women who have heard of HIV/AIDS
	Are willing to care for a family member with HIV at home	Would buy fresh vegetables from shopkeeper who has HIV	Believe HIV-positive female teacher should be allowed to keep teaching	Would not want HIV+ status of a family member to remain a secret		
<b>Age</b>						
15-19	25.4	14.9	12.2	34.6	0.5	782
20-24	23.7	12.1	12.2	36.4	0.9	865
25-29	21.1	15.1	13.5	39.5	1.6	739
30-34	24.6	14.9	12.9	40.6	1.0	545
35-39	21.3	14.2	12.8	36.7	1.0	496
40-44	22.4	15.6	12.0	40.2	1.8	388
45-49	22.4	13.7	13.4	41.4	0.6	359
<b>Marital status</b>						
Ever married	22.1	13.4	11.9	39.0	1.1	2,971
Never married	25.9	16.3	14.5	35.4	0.9	1,203
<b>Urban-rural residence</b>						
Urban	19.7	15.9	13.7	45.7	1.2	2,006
Rural	26.4	12.7	11.7	30.9	0.9	2,168
<b>Place of residence</b>						
Urban Governorates	17.7	17.7	14.1	54.2	0.6	932
Lower Egypt	23.1	14.0	11.9	33.3	1.1	1,900
Urban	19.8	15.0	14.6	40.3	1.6	525
Rural	24.3	13.6	10.9	30.5	1.0	1,375
Upper Egypt	28.0	12.3	13.1	32.2	1.1	1,283
Urban	24.1	14.0	12.9	34.5	1.8	506
Rural	30.6	11.2	13.2	30.7	0.7	776
Frontier Governorates	8.3	10.5	7.0	58.7	0.5	59
<b>Education</b>						
No education	27.1	9.4	7.2	34.5	0.1	710
Some primary	25.3	10.7	10.7	35.0	1.4	252
Primary complete/ some secondary	22.9	12.5	11.3	37.5	0.5	963
Secondary complete/ higher	21.8	16.9	15.2	39.6	1.5	2,249
<b>Work status</b>						
Working for cash	24.0	21.0	16.8	41.4	2.5	735
Not working for cash	23.0	12.8	11.8	37.2	0.7	3,439
<b>Wealth quintile</b>						
Lowest	30.8	12.9	10.2	27.1	0.7	497
Second	28.7	12.6	9.7	27.3	0.7	734
Middle	25.7	13.1	12.8	36.8	1.2	822
Fourth	18.3	12.8	11.8	45.0	0.6	989
Highest	18.7	18.0	16.4	44.4	1.6	1,132
Total women age 15-49	23.2	14.2	12.7	38.0	1.0	4,174
Women age 50-59	22.3	11.9	10.3	42.7	0.6	437
Total women age 15-59	23.1	14.0	12.5	38.4	1.0	4,611

Table 19.4.2 Accepting attitudes toward those living with HIV by background characteristics: Men

Among men who have heard of HIV/AIDS, percentage expressing accepting attitudes toward people with HIV, by background characteristics, and among men age 50-59 and all men age 15-59, percentage with accepting attitudes towards those living with AIDS, Egypt 2008

Background characteristic	Percentage of men who:				Percentage expressing acceptance attitudes on all four indicators	Number of men who have heard of HIV/AIDS
	Are willing to care for a family member with HIV at home	Would buy fresh vegetables from shopkeeper who has HIV	Believe HIV-positive female teacher should be allowed to keep teaching	Would not want HIV+ status of a family member to remain a secret		
<b>Age</b>						
15-19	20.0	18.4	7.9	32.6	0.6	899
20-24	20.2	18.4	8.0	38.2	0.5	807
25-29	20.8	21.3	11.0	32.2	1.0	675
30-34	20.5	19.6	10.9	39.0	2.2	578
35-39	19.3	19.0	8.9	30.7	0.9	483
40-44	20.8	18.3	7.6	32.7	0.8	511
45-49	16.7	20.7	9.9	34.5	1.3	413
<b>Marital status</b>						
Ever married	19.1	18.5	8.9	34.2	1.2	2,334
Never married	20.9	20.1	9.2	34.6	0.7	2,033
<b>Urban-rural residence</b>						
Urban	19.8	21.7	12.0	38.9	1.4	1,948
Rural	20.0	17.3	6.7	30.7	0.6	2,418
<b>Place of residence</b>						
Urban Governorates	21.2	25.7	18.0	45.5	1.8	861
Lower Egypt	13.6	17.3	6.5	23.8	0.7	1,969
Urban	14.1	16.7	5.9	17.9	1.1	500
Rural	13.4	17.5	6.8	25.8	0.5	1,469
Upper Egypt	27.9	18.3	7.1	41.7	0.8	1,465
Urban	23.5	20.4	8.4	47.8	1.1	534
Rural	30.3	17.1	6.3	38.1	0.7	930
Frontier Governorates	16.8	16.9	10.9	43.5	2.4	72
<b>Education</b>						
No education	19.0	13.2	2.6	30.9	0.3	330
Some primary	17.3	11.7	4.9	29.8	0.4	347
Primary complete/ some secondary	19.5	17.3	7.0	32.3	1.0	1,186
Secondary complete//higher	20.6	22.1	11.4	36.5	1.1	2,503
<b>Work status</b>						
Working for cash	19.7	19.3	9.0	34.6	1.1	3,280
Not working for cash	20.6	19.2	9.1	33.8	0.7	1,086
<b>Wealth quintile</b>						
Lowest	25.8	15.3	5.4	33.2	0.4	646
Second	21.4	17.2	5.8	31.8	0.7	871
Middle	19.9	18.0	8.2	29.3	0.8	913
Fourth	14.2	18.0	8.8	36.6	1.1	929
Highest	20.2	25.9	15.2	40.0	1.6	1,007
Total men age 15-49	19.9	19.3	9.0	34.4	1.0	4,366
Men age 50-59	20.5	16.7	8.5	32.9	1.1	629
Total men age 15-59	20.0	19.0	9.0	34.2	1.0	4,995

## 19.4 KNOWLEDGE OF A SOURCE FOR HIV TESTING

Another important aspect of AIDS awareness which was assessed in the 2008 EDHS was the level of knowledge of a place where HIV testing is available. Table 19.5 shows that 12 percent of women and 20 percent of men age 15-59 knew where to go for an HIV test. Among women age 15-49, knowledge of a source where HIV testing is available was highest among women working for cash (22 percent) and women in the highest wealth quintile (21 percent). Among men, knowledge was highest among those living in urban Lower Egypt (31 percent) and those in the highest wealth quintile (28 percent).

Background characteristic	Percentage of women knowing place where HIV testing is available	Number of women	Percentage of men knowing place where HIV testing is available	Number of men
<b>Age</b>				
15-19	8.8	1,064	11.7	1,087
20-24	13.8	1,091	18.7	869
25-29	15.8	906	23.1	729
30-34	12.7	688	21.5	634
35-39	12.2	673	24.1	535
40-44	12.6	568	22.5	581
45-49	12.1	550	21.7	494
<b>Marital status</b>				
Ever married	12.6	3,983	22.6	2,640
Never married	12.3	1,556	15.9	2,290
<b>Urban-rural residence</b>				
Urban	13.7	2,352	19.4	2,170
Rural	11.6	3,188	19.6	2,760
<b>Place of residence</b>				
Urban Governorates	13.7	1,073	16.3	990
Lower Egypt	15.2	2,415	24.6	2,150
Urban	18.4	603	31.4	533
Rural	14.1	1,812	22.4	1,616
Upper Egypt	9.0	1,970	15.2	1,706
Urban	10.0	623	13.8	588
Rural	8.5	1,347	15.9	1,118
Frontier Governorates	3.5	82	14.1	84
<b>Education</b>				
No education	5.1	1,461	14.2	467
Some primary	5.9	394	7.7	458
Primary complete/some secondary	9.8	1,248	13.1	1,414
Secondary complete/higher	19.4	2,436	26.0	2,590
<b>Work status</b>				
Working for cash	21.6	866	20.6	3,685
Not working for cash	10.9	4,674	16.3	1,245
<b>Wealth quintile</b>				
Lowest	7.6	1,001	12.1	838
Second	9.8	1,123	18.9	1,010
Middle	10.8	1,099	18.4	1,036
Fourth	12.1	1,105	18.7	997
Highest	21.1	1,212	27.8	1,049
Total age 15-49	12.5	5,540	19.5	4,930
Total age 15-59	12.2	6,290	19.7	5,718

## 19.5 SOURCES OF INFORMATION ABOUT AIDS

Men and women age 15-59 reporting that they had heard about AIDS were asked about whether they had received any information about AIDS during the six months prior to the EDHS. Tables 19.6.1 and 19.6.2 show that 31 percent of women and 24 percent of men had received information about AIDS during the period. When asked about the source(s) from which they had obtained information during the period, virtually all of the women and men cited television broadcasts. The differentials shown for women and men age 15-49 in the tables indicate that recent exposure to information about AIDS was greatest among urban residents, especially those living in the Urban Governorates.

Table 19.6.1 Sources of information about AIDS by background characteristics: Women

Percentage of all women age 15-49 knowing about AIDS who heard, saw or received any information about AIDS in the six months prior to the survey and percentage of women receiving information about AIDS within the last six months, naming various sources of information, according to background characteristics, and among women age 50-59 and all women age 15-59, percentage receiving information about AIDS recently, Egypt 2008

Background characteristic	Percentage of women knowing about AIDS saying they had received information about AIDS recently	Number of women knowing about AIDS	Percentage of women who saw/heard/received information about AIDS from:							Number of women receiving information about AIDS recently
			TV	Other media <sup>1</sup>	Any contact with health worker	Home visit	Facility visit	Spouse/other relatives/friends/neighbors	Community meeting/other	
<b>Age</b>										
15-19	33.5	782	92.1	15.2	3.0	1.0	2.0	6.0	3.9	262
20-24	27.5	865	93.7	13.4	3.9	0.5	3.9	9.4	1.3	238
25-29	31.6	739	94.9	15.2	5.6	0.0	5.6	5.8	1.3	233
30-34	31.2	545	95.8	13.9	4.4	1.5	2.9	7.0	1.9	170
35-39	31.5	496	96.1	9.2	2.1	0.0	2.1	5.9	0.3	156
40-44	32.5	388	93.3	11.9	3.3	0.0	3.3	11.9	1.5	126
45-49	28.6	359	91.1	21.7	8.3	0.9	8.3	8.8	4.4	103
<b>Marital status</b>										
Ever married	29.3	2,971	94.5	12.6	4.1	0.5	3.8	7.8	1.5	871
Never married	34.7	1,203	92.6	17.4	4.2	0.7	3.8	6.8	3.3	418
<b>Urban-rural residence</b>										
Urban	38.6	2,006	94.7	15.6	4.1	0.2	4.0	6.9	2.1	774
Rural	23.7	2,168	92.8	12.0	4.3	1.1	3.4	8.5	2.0	514
<b>Place of residence</b>										
Urban Governorates	47.8	932	96.8	14.0	4.3	0.1	4.2	7.5	1.7	446
Lower Egypt	21.7	1,900	90.1	15.8	5.5	0.4	5.4	5.8	2.3	413
Urban	25.1	525	87.8	22.8	6.0	0.0	6.0	6.9	3.1	132
Rural	20.4	1,375	91.2	12.5	5.3	0.6	5.1	5.3	1.9	281
Upper Egypt	31.9	1,283	94.6	12.9	2.7	1.3	1.7	9.5	2.4	410
Urban	35.7	506	94.3	14.9	2.3	0.5	2.3	5.5	2.7	181
Rural	29.5	776	94.8	11.3	3.0	1.8	1.2	12.6	2.1	229
Frontier Governorates	34.2	59	95.9	10.3	3.1	0.0	3.1	2.4	0.0	20
<b>Education</b>										
No education	22.3	710	96.0	5.4	1.8	0.5	1.3	8.7	0.0	158
Some primary	29.8	252	95.8	5.2	0.4	0.0	0.4	6.2	0.6	75
Primary complete/some secondary	30.3	963	93.8	14.6	1.0	0.5	0.4	6.2	2.8	291
Secondary complete/higher	34.0	2,249	93.4	16.7	6.2	0.6	5.9	7.9	2.4	764
<b>Work status</b>										
Working for cash	38.7	735	91.6	21.2	11.1	1.0	10.8	10.4	3.4	285
Not working for cash	29.2	3,439	94.6	12.2	2.2	0.4	1.8	6.7	1.7	1,004
<b>Wealth quintile</b>										
Lowest	28.9	497	96.2	10.3	2.6	2.5	0.1	9.1	1.6	144
Second	22.5	734	94.6	8.6	3.6	0.4	3.2	6.1	1.6	165
Middle	23.8	822	90.5	14.9	4.0	0.8	3.8	9.4	1.4	195
Fourth	35.4	989	96.1	12.1	3.0	0.0	3.0	6.0	2.8	350
Highest	38.4	1,132	92.7	18.9	5.9	0.3	5.8	7.8	2.1	434
Total women age 15-49	30.9	4,174	93.9	14.2	4.2	0.5	3.8	7.5	2.1	1,289
Women age 50-59	28.8	437	94.4	17.1	5.3	0.0	5.3	4.5	1.4	126
Total women age 15-59	30.7	4,611	94.0	14.4	4.3	0.5	3.9	7.2	2.0	1,415

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure, or poster

Table 19.6.2 Sources of information about AIDS by background characteristics: Men

Percentage of all men age 15-49 knowing about AIDS who heard, saw or received any information about AIDS in the six months prior to the survey and percentage of men receiving information about AIDS within the last six months, naming various sources of information, according to background characteristics, and among men age 50-59 and all men age 15-59, percentage receiving information about AIDS recently, Egypt 2008

Background characteristic	Percentage of men knowing about AIDS saying they had received information about AIDS recently	Number of men knowing about AIDS	Percentage of men who saw/heard/received information about AIDS from:							Number of men receiving information about AIDS recently
			TV	Other media <sup>1</sup>	Any contact with health worker	Home visit	Facility visit	Spouse/other relatives/friends/neighbors	Community meeting/other	
<b>Age</b>										
15-19	21.1	899	91.1	14.9	2.1	0.0	2.1	12.2	3.3	189
20-24	24.1	807	91.8	16.9	1.6	0.4	1.1	10.1	2.0	195
25-29	24.0	675	96.1	14.2	3.6	0.4	3.2	10.7	0.8	162
30-34	29.2	578	89.4	15.7	2.3	0.0	2.3	10.1	1.0	169
35-39	26.2	483	97.2	10.1	4.2	0.0	4.2	6.1	0.9	127
40-44	26.1	511	91.0	18.5	4.4	0.9	3.5	8.5	1.7	133
45-49	20.4	413	90.1	15.5	8.4	0.4	8.1	5.4	2.7	84
<b>Marital status</b>										
Ever married	25.0	2,334	92.5	14.3	3.8	0.3	3.5	7.8	1.1	583
Never married	23.4	2,033	92.2	16.3	2.7	0.3	2.4	11.6	2.6	477
<b>Urban-rural residence</b>										
Urban	28.6	1,948	92.3	15.5	2.4	0.2	2.2	8.5	1.9	558
Rural	20.7	2,418	92.4	14.9	4.3	0.4	4.0	10.7	1.7	502
<b>Place of residence</b>										
Urban Governorates	38.4	861	95.4	12.9	1.7	0.1	1.6	4.1	0.7	330
Lower Egypt	19.9	1,969	92.7	11.5	2.1	0.0	2.1	5.3	1.9	392
Urban	18.9	500	87.5	16.4	3.7	0.0	3.7	8.7	3.4	95
Rural	20.2	1,469	94.3	9.9	1.6	0.0	1.6	4.2	1.4	297
Upper Egypt	22.0	1,465	89.2	22.5	6.3	0.7	5.6	19.8	2.6	323
Urban	23.0	534	88.6	22.2	3.2	0.4	2.8	18.9	3.4	123
Rural	21.5	930	89.6	22.6	8.3	0.9	7.3	20.4	2.0	200
Frontier Governorates	19.9	72	84.9	7.9	4.3	2.1	2.2	17.3	4.1	14
<b>Education</b>										
No education	21.6	330	95.7	1.8	1.8	0.0	1.8	7.4	0.0	71
Some primary	18.6	347	95.0	5.8	0.0	0.0	0.0	8.7	0.0	65
Primary complete/some secondary	20.3	1,186	93.7	10.1	1.4	0.1	1.3	9.8	2.3	241
Secondary complete/higher	27.2	2,503	91.3	19.3	4.4	0.4	4.0	9.7	1.9	682
<b>Work status</b>										
Working for cash	24.8	3,280	92.7	14.3	3.6	0.4	3.2	9.4	1.2	812
Not working for cash	22.7	1,086	91.2	18.2	2.4	0.0	2.4	9.8	3.8	247
<b>Wealth quintile</b>										
Lowest	20.8	646	91.0	14.0	2.2	0.0	2.2	15.5	0.6	135
Second	20.5	871	94.8	11.0	2.2	0.0	2.2	11.4	1.6	179
Middle	22.5	913	91.0	13.6	4.2	0.2	4.0	9.0	1.6	206
Fourth	23.8	929	93.1	8.2	4.4	0.9	3.5	9.8	1.5	221
Highest	31.7	1,007	91.9	24.0	3.0	0.2	2.8	6.1	2.7	319
Total men age 15-49	24.3	4,366	92.4	15.2	3.3	0.3	3.0	9.5	1.8	1,059
Men age 50-59	22.1	629	91.9	14.7	3.7	0.7	3.0	10.9	4.4	139
Total men age 15-59	24.0	4,995	92.3	15.2	3.3	0.3	3.0	9.7	2.1	1,198

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure, or poster

The 2008 EDHS collected information from women and men age 15-59 eligible for interview in the special health issues component of the survey on expenses they may have incurred for outpatient visits to health care providers and for hospital stays. These respondents also were asked questions about health insurance coverage. Finally, during the ever-married women's interviews, information was obtained on the costs of maternal health care services from women who had had a birth during the five years before the survey.

This chapter presents the data on health care expenses and health insurance coverage obtained in the 2008 EDHS. The results do not offer a comprehensive picture of the costs Egyptian households are incurring for health care services or the extent to which those costs are covered by health insurance. However, they provide some insights into the amounts that families are spending for health care both for regular outpatient care and for several types of specialized services like hospital stays and maternity care services. The results also provide some insight into the extent to which adults in Egypt are covered by health insurance.

## **20.1 EXPENSES ASSOCIATED WITH HEALTH PROVIDER VISITS**

The 2008 EDHS included questions to determine if women and men age 15-59 eligible for interview in the special health issues component of the survey had visited a health provider in the four-week period before the survey and if so, what type of provider they had visited the last time and the costs they had incurred for the visit and for any drugs or laboratory tests they had in conjunction with the visit.

Table 20.1 shows that 8 percent of respondents age 15-59 had gone to a health care provider during the four-week period prior to the survey. The proportion of respondents who had visited a health care provider generally increased with age. Women were more than twice as likely as men to report that they had visited a health provider (11 percent and 5 percent, respectively). There was no difference between urban and rural residents in the proportions who had seen a provider. Looking at the place of residence, respondents from Upper Egypt were more likely to have gone to a provider than respondents from other regions. The proportion of respondents visiting a provider generally decreased with education but did not vary in a uniform fashion with the wealth quintile.

The majority (63 percent) of respondents seeking health care during the four weeks prior to the survey saw a private medical provider for the last visit, while about one-third (34 percent) went to a government facility. Respondents from the Frontier Governorates (39 percent) were least likely to report having seen a private provider, while respondents in rural Lower Egypt (68 percent) were the most likely. Among the other sub-groups, respondents in the highest wealth quintile (70 percent) were most likely to have visited a private provider.

Respondents who had seen a health provider during the four-week period before the survey were asked about the amount they had paid to the provider for the consultation and any additional costs incurred to obtain drugs or for laboratory tests. As Table 20.2 shows, nine in ten respondents had incurred at least some expense for the consultation on their last visit, and 12 percent paid 60 pounds or more for the consultation. The median amount paid for the consultation was 15.6 pounds.

Table 20.1 Visit to health provider recently

Percentage of the population age 15-59 who visited health care provider in the four-week period before the survey, and, among those visiting a health provider, the percent distribution by the type of provider last visited, Egypt 2008

Background characteristic	Percentage visiting health provider	Number of respondents	Among respondents visiting a provider, percent distribution by type of provider last consulted					Total percent	Number visiting health provider
			Government facility	NGO provider	Private medical provider	Other	Don't know/missing		
<b>Age</b>									
15-19	4.6	2,151	35.0	0.0	65.0	0.0	0.0	100.0	100
20-24	6.7	1,960	32.9	1.5	61.1	4.5	0.0	100.0	131
25-29	8.1	1,635	32.2	2.2	64.4	0.2	0.9	100.0	132
30-34	7.5	1,322	40.5	0.0	59.2	0.3	0.0	100.0	100
35-39	10.1	1,209	28.4	0.5	69.3	1.7	0.0	100.0	122
40-44	8.7	1,148	29.6	0.5	67.4	1.3	1.2	100.0	100
45-49	10.2	1,044	28.1	0.4	67.3	4.2	0.0	100.0	107
50-59	11.9	1,539	42.0	1.3	52.3	4.4	0.0	100.0	183
<b>Sex</b>									
Women	11.3	6,290	31.9	1.1	64.1	2.6	0.3	100.0	712
Men	4.6	5,718	40.1	0.4	58.0	1.5	0.0	100.0	262
<b>Urban-rural residence</b>									
Urban	8.1	5,288	35.7	1.1	59.2	3.9	0.0	100.0	427
Rural	8.1	6,720	32.8	0.8	65.0	1.0	0.4	100.0	547
<b>Place of residence</b>									
Urban Governorates	7.8	2,445	38.9	0.8	54.6	5.8	0.0	100.0	191
Lower Egypt	5.8	5,212	31.4	1.3	65.8	0.8	0.8	100.0	303
Urban	4.8	1,311	41.9	1.9	56.3	0.0	0.0	100.0	63
Rural	6.2	3,901	28.6	1.1	68.2	1.0	1.0	100.0	241
Upper Egypt	11.2	4,168	33.3	0.7	64.2	1.9	0.0	100.0	467
Urban	11.7	1,409	29.2	1.0	66.4	3.5	0.0	100.0	165
Rural	11.0	2,759	35.5	0.5	62.9	1.0	0.0	100.0	302
Frontier Governorates	6.7	182	58.1	3.4	38.5	0.0	0.0	100.0	12
<b>Education</b>									
No education	10.6	2,588	34.5	0.2	61.9	3.0	0.4	100.0	275
Some primary	9.5	1,084	38.0	2.7	56.3	3.1	0.0	100.0	104
Primary complete/some secondary	7.0	2,919	40.8	0.2	56.5	2.4	0.0	100.0	203
Secondary complete/higher	7.2	5,417	29.3	1.3	67.5	1.6	0.3	100.0	392
<b>Wealth quintile</b>									
Lowest	8.6	2,042	38.8	0.4	58.2	2.6	0.0	100.0	175
Second	8.0	2,442	36.0	0.7	60.7	2.1	0.6	100.0	196
Middle	8.5	2,425	38.1	0.5	57.3	3.5	0.6	100.0	206
Fourth	7.4	2,440	30.8	1.7	66.0	1.5	0.0	100.0	180
Highest	8.1	2,659	27.5	1.2	69.5	1.8	0.0	100.0	217
Total	8.1	12,008	34.1	0.9	62.5	2.3	0.2	100.0	974

NGO = Nongovernmental

Table 20.2 also presents information on additional costs respondents incurred for drugs or laboratory tests. The results show that among respondents who saw a health care provider during the four-week period prior to the survey, 77 percent said they had also bought drugs. Overall, the median amount paid for drugs by all respondents (including those who paid nothing) was 30.4 pounds, roughly twice the average amount paid for the consultation with the provider.

Table 20.2 Expenses for last health care consultation

Percent distribution of respondents reporting a consultation with a health provider during the four weeks before the survey by the amount paid at the time of the last consultation for all services received from the provider and for any additional drugs or laboratory tests obtained from other sources, Egypt, 2008

Amount paid	Consultation	Drugs	Laboratory fees
Paid nothing	10.4	22.5	79.8
< 5 pounds	15.4	0.8	0.3
5-9 pounds	9.0	3.5	2.2
10-14 pounds	10.7	4.0	2.0
15-19 pounds	13.4	4.4	1.6
20-24 pounds	11.7	6.7	1.4
25-29 pounds	6.7	5.7	1.4
30-34 pounds	4.0	6.7	1.3
35-39 pounds	1.3	6.4	0.6
40-49 pounds	1.3	7.7	1.5
50-59 pounds	3.8	7.9	1.5
60 pounds or more	12.3	23.5	6.3
Don't know/missing	0.1	0.1	0.0
Total percent	100.0	100.0	100.0
Number having health care consultation	974	974	974
Median amount paid	15.6	30.4	a

<sup>a</sup> Omitted because less than 50 percent paid fees.

Respondents were much less likely to have incurred costs for laboratory tests than for drugs. Only one in five respondents had expenses for laboratory tests. The majority of those respondents who incurred costs for lab tests paid more than 25 pounds for the tests.

Table 20.3 considers how the total expenses including consultation fees and the costs for drugs and laboratory tests (if any) varied with the type of health care provider. The median amount paid for care was considerably lower among respondents who consulted a government health care provider than among respondents who obtained care from non-governmental providers (20.0 and 71.5 pounds, respectively).



**Table 20.3 Total expenses incurred for last health care consultation by type of provider consulted**

Percent distribution of respondents reporting a consultation with a health provider during the four weeks before the survey by the amount paid at the time of the last consultation for all services received from the provider and for any additional drugs or laboratory tests obtained from other sources, according to type of provider, Egypt 2008

Total expenses incurred	Government	Private/ NGO/other	All
Free/paid nothing	9.3	3.4	5.4
< 5 pounds	22.3	0.6	8.0
5-9 pounds	6.2	1.9	3.3
10-14 pounds	6.9	1.5	3.4
15-19 pounds	5.3	2.1	3.2
20-24 pounds	7.1	3.6	4.8
25-29 pounds	6.0	1.6	3.1
30-34 pounds	4.6	4.4	4.4
35-39 pounds	2.1	5.0	4.0
40-49 pounds	4.5	9.3	7.6
50-59 pounds	2.9	7.4	5.8
60 pounds or more	22.8	58.9	46.7
Don't know/missing	0.0	0.4	0.2
Total percent	100.0	100.0	100.0
Number having health care consultation	332	640	974
Median amount paid	20.0	71.5	52.7

NGO = Nongovernmental organization

## 20.2 EXPENSES ASSOCIATED WITH HOSPITAL STAYS

Respondents eligible for the health issues component of the survey were asked if they had been hospitalized for at least one night at any point during the 12 months prior to the survey and, if so, how much they had paid for the stay the last time that they were hospitalized. Three percent of respondents had been hospitalized during the year before the survey. There are no major variations in the proportion of respondents that were hospitalized by various background characteristics. The majority (69 percent) of respondents stayed in a government facility (Table 20.4).

Table 20.4 Hospital stays in past 12 months

Percent of the population age 15-59 who were admitted to a hospital for at least one night during the 12-month period before the survey and, among those hospitalized, percent distribution by the type of hospital where they were admitted the last time, according to background characteristics, Egypt 2008

Background characteristic	Percentage hospitalized for at least one night in past 12 months	Number of respondents	Among respondents hospitalized, percent distribution by type of hospital where admitted the last time				Total percent	Number hospitalized in past 12 months
			Government facility	Private provider	Other	Don't know/missing		
<b>Age</b>								
15-29	2.4	5,746	63.5	35.6	0.0	0.9	100.0	137
30-44	2.5	3,680	68.1	31.2	0.7	0.0	100.0	91
45-59	3.5	2,583	79.9	17.8	2.3	0.0	100.0	89
<b>Sex</b>								
Women	3.3	6,290	64.4	33.7	1.3	0.6	100.0	209
Men	1.9	5,718	79.1	20.9	0.0	0.0	100.0	108
<b>Urban-rural residence</b>								
Urban	3.0	5,288	66.7	32.0	1.3	0.0	100.0	159
Rural	2.3	6,720	72.1	26.8	0.4	0.8	100.0	158
<b>Place of residence</b>								
Urban Governorates	3.2	2,445	71.0	26.4	2.6	0.0	100.0	78
Lower Egypt	2.1	5,212	65.2	33.6	0.0	1.2	100.0	107
Urban	2.1	1,311	(61.1)	(38.9)	(0.0)	(0.0)	100.0	27
Rural	2.0	3,901	66.6	31.8	0.0	1.6	100.0	80
Upper Egypt	3.1	4,168	71.8	27.7	0.5	0.0	100.0	127
Urban	3.6	1,409	62.8	37.2	0.0	0.0	100.0	51
Rural	2.8	2,759	77.9	21.3	0.8	0.0	100.0	76
Frontier Governorates	2.3	182	*	*	*	*	100.0	4
<b>Education</b>								
No education	3.3	2,588	85.2	14.8	0.0	0.0	100.0	86
Some primary	3.1	1,084	(79.3)	(12.7)	(8.0)	(0.0)	100.0	34
Primary complete/some secondary	2.4	2,919	68.5	31.5	0.0	0.0	100.0	70
Secondary complete/higher	2.4	5,417	56.7	42.4	0.0	1.0	100.0	128
<b>Wealth quintile</b>								
Lowest	2.1	2,042	91.4	8.6	0.0	0.0	100.0	43
Second	2.8	2,442	77.0	19.6	3.4	0.0	100.0	69
Middle	2.8	2,425	67.8	30.4	0.0	1.8	100.0	67
Fourth	2.6	2,440	61.5	38.0	0.5	0.0	100.0	63
Highest	2.8	2,659	57.6	42.4	0.0	0.0	100.0	74
Total	2.6	12,008	69.4	29.4	0.8	0.4	100.0	317

Note: An asterisk indicates figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

Table 20.5 shows that 35 percent of respondents who had been hospitalized did not pay anything for the last hospital stay. The median cost of the last hospitalization was 95.1 pounds.

### 20.3 EXPENSES ASSOCIATED WITH MATERNAL HEALTH SERVICES

The 2008 EDHS collected information from women who had had at least one birth during the 5-year period before the survey on the expenses that women incurred for antenatal, delivery and postnatal care services for their last birth. Women were asked not only about the fees paid to providers for these services but also about any expenses they may have had for drugs or laboratory services.

Table 20.6 shows that most women who received antenatal care prior to the last birth incurred some expenses for the services; only 8 percent of the women said that they had paid nothing for the antenatal services. The median amount paid for antenatal care services for the last birth, including provider fees and costs of drugs and laboratory tests, was 140.2 pounds. On average, women who obtained services from government providers paid considerably less than women who received antenatal care services from private providers (9.9 pounds and 180.5 pounds, respectively).

Total expenses incurred	All
Free/paid nothing	34.7
<100 pounds	7.1
100-499 pounds	13.1
500-999 pounds	10.5
1000-1999 pounds	9.7
2000-10,000 pounds	8.2
Don't know/missing	16.8
Total percent	100.0
Number hospitalized	317
Median amount paid	95.1

Expenses for antenatal services	Government only	Private/ NGO/other	Both	All
Free	30.2	1.0	4.6	7.9
< 20 pounds	30.1	0.7	4.1	7.7
20-49 pounds	18.6	6.0	5.6	9.0
50-74 pounds	7.0	6.6	8.3	6.7
75-99 pounds	3.6	7.0	7.3	6.2
100-124 pounds	1.4	8.6	9.0	6.9
125-149 pounds	0.8	8.1	5.3	6.3
150-199 pounds	1.4	15.4	9.8	12.0
200-299 pounds	1.1	19.1	16.1	14.8
300 pounds or more	3.1	24.0	23.0	19.1
Don't know/missing	2.6	3.4	6.8	3.3
Total percent	100.0	100.0	100.0	100.0
Number	1,374	4,362	124	5,861
Median amount paid	9.9	180.5	150.9	140.2

The 2008 EDHS also obtained information on the costs of delivery care. The results presented in Table 20.7 indicate that women almost always incurred some expenses for delivery care, with only 4 percent reporting that they had not paid anything for the delivery care they received. The median amount women paid for delivery care was 181 pounds. Delivery care expenses were substantially lower for women who delivered in a governmental facility than women delivering in a private or nongovernmental facility or at home (100.1 and 250.7 pounds, respectively).

**Table 20.7 Total expenses incurred relating to delivery services**

Percent distribution of respondents having a birth in the five years prior to the survey by total expenses incurred for delivery, drugs and for laboratory services, and median amount paid, according to place where delivery occurred, Egypt 2008

Expenses for delivery care	Government	Private/ NGO/ home/other	All
Free	9.1	2.4	4.3
< 50 pounds	12.5	9.3	10.2
50-74 pounds	14.6	11.3	12.2
75-99 pounds	6.1	2.3	3.4
100-124 pounds	10.5	5.3	6.7
125-149 pounds	3.0	1.3	1.8
150-199 pounds	7.5	5.1	5.8
200-299 pounds	8.0	8.9	8.7
300-399 pounds	4.6	7.4	6.6
400-499 pounds	2.0	4.3	3.7
500 pounds or more	8.7	30.1	24.3
Don't know/missing	13.4	12.0	12.4
Total percent	100.0	100.0	100.0
Number	2,112	5,683	7,796
Median amount paid	100.1	250.7	181.0

Women who had a separate postnatal care visit following delivery were much less likely to pay for that care than for antenatal services or delivery care. Table 20.8 shows that around one-third of women incurred no costs for the first postnatal care visit they had. The median amount women paid for a postnatal visit was 10.6 pounds. Similar to antenatal and delivery care, women receiving postnatal care from a private provider paid considerably more for the care than women who obtained care from a private provider (17 pounds and 2.9 pounds, respectively).

**Table 20.8 Total expenses incurred relating to postnatal care services**

Percent distribution of respondents receiving postnatal care services after last birth by total expenses incurred for postnatal services, including consultation(s), drugs and laboratory services, and median amount paid, according to place where service occurred, Egypt 2008

Expenses for postnatal care	Government	Private/ NGO/ home/other	All
Free	24.7	37.6	34.7
< 5 pounds	35.4	0.6	8.3
5-9 pounds	7.1	1.5	2.7
10-14 pounds	1.5	4.4	3.8
15-19 pounds	2.7	4.0	3.7
20-24 pounds	3.9	9.6	8.3
25-29 pounds	2.9	4.3	4.0
30-34 pounds	3.3	5.6	5.1
35-39 pounds	2.2	3.1	2.9
40-49 pounds	0.4	3.7	2.9
50-59 pounds	3.9	5.8	5.5
60 pounds or more	5.5	14.9	12.8
Don't know/missing	6.5	4.9	5.5
Total percent	100.0	100.0	100.0
Number	303	1,067	1,378
Median amount paid	2.9	17.0	10.6

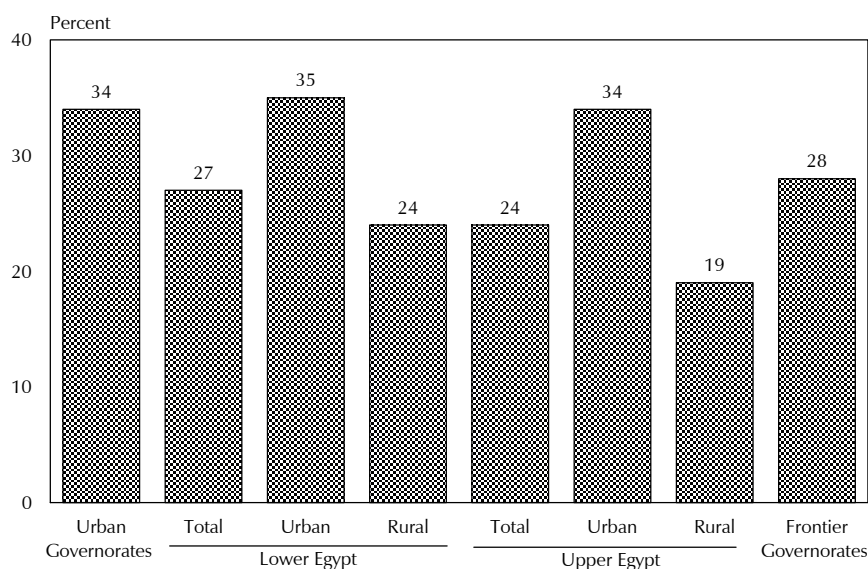
## 20.4 HEALTH INSURANCE COVERAGE

The special health issues interviews conducted in the 2008 EDHS included questions to assess insurance coverage among respondents age 15-59. As Table 20.9 shows that slightly more than one in four respondents (28 percent) indicated that they had health insurance. Around six in ten respondents who were insured had coverage from the General Health Insurance Authority, 27 percent had coverage through their own or another family member's employer, 10 percent (primarily among those under age 25) had insurance through a university, and 4 percent through a syndicate.

Background characteristic	Percentage covered by any health insurance	Number of respondents	Among respondents having health insurance, percentage reporting they were insured by:							Number with health insurance
			Own employer	Another family member's employer	General Insurance Agency	Syndicate	University	Other	Missing	
<b>Age</b>										
15-19	49.8	2,151	0.8	2.2	80.0	0.4	16.7	0.8	0.6	1,070
20-24	16.0	1,960	20.8	4.4	27.2	5.3	44.9	1.1	0.6	314
25-29	13.5	1,635	45.2	2.9	42.0	7.3	4.3	0.9	0.9	221
30-34	20.8	1,322	42.9	3.4	48.2	8.3	0.0	0.5	0.0	275
35-39	23.8	1,209	39.7	3.0	53.8	4.9	0.0	0.4	0.1	288
40-44	30.6	1,148	31.6	4.7	63.4	2.1	0.0	0.9	0.2	351
45-49	33.2	1,044	33.8	2.9	61.5	2.3	0.6	0.0	0.9	346
50-59	29.0	1,539	31.9	6.5	60.1	5.8	0.6	0.7	0.2	446
<b>Sex</b>										
Women	18.0	6,290	17.8	8.8	58.9	4.5	12.9	1.4	0.4	1,132
Men	38.1	5,718	26.4	0.8	62.4	3.0	8.6	0.3	0.5	2,179
<b>Urban-rural residence</b>										
Urban	34.4	5,288	26.2	5.2	54.8	4.9	12.1	0.7	0.3	1,819
Rural	22.2	6,720	20.1	1.5	68.9	1.8	7.6	0.6	0.6	1,492
<b>Place of residence</b>										
Urban Governorates	34.3	2,445	25.9	8.1	51.0	5.0	14.1	0.4	0.3	838
Lower Egypt	27.0	5,212	22.8	2.1	63.3	3.7	8.8	0.7	0.3	1,405
Urban	35.2	1,311	24.9	2.9	58.1	6.0	9.9	0.7	0.0	461
Rural	24.2	3,901	21.7	1.7	65.8	2.6	8.3	0.7	0.4	944
Upper Egypt	24.4	4,168	22.8	1.9	65.7	2.0	8.9	1.0	0.9	1,017
Urban	34.1	1,409	28.6	2.7	56.4	3.8	11.7	1.4	0.6	481
Rural	19.4	2,759	17.6	1.2	74.0	0.3	6.4	0.5	1.1	536
Frontier Governorates	27.9	182	15.7	1.3	80.1	2.5	2.7	0.0	1.2	51
<b>Education</b>										
No education	4.3	2,588	26.2	12.5	56.9	0.0	0.0	2.1	3.1	111
Some primary	11.6	1,084	39.7	8.3	50.0	0.9	1.6	0.0	0.3	125
Primary complete/ some secondary	36.7	2,919	9.3	2.3	85.5	0.6	2.0	1.1	0.4	1,072
Secondary complete/higher	37.0	5,417	29.9	3.4	49.1	5.4	15.5	0.4	0.4	2,003
<b>Wealth quintile</b>										
Lowest	13.9	2,042	10.5	1.5	78.7	0.0	7.9	0.7	1.0	284
Second	19.1	2,442	16.7	1.0	75.8	0.3	6.0	0.4	0.9	467
Middle	24.2	2,425	18.4	0.9	66.8	1.3	11.7	0.9	0.9	586
Fourth	29.5	2,440	27.7	3.4	58.1	2.2	10.3	0.4	0.0	721
Highest	47.2	2,659	28.9	6.3	50.9	7.2	11.2	0.9	0.2	1,254
Total	27.6	12,008	23.5	3.5	61.2	3.5	10.1	0.7	0.5	3,311

Health insurance coverage was much more common for 15-19 year olds (50 percent) than for respondents in other age groups. Men were more than twice as likely as women to be insured (38 percent and 18 percent, respectively). Around one-third of urban residents had insurance compared to slightly more than one-fifth of rural residents. Residents in rural Upper Egypt were less likely to have health insurance than residents in other areas (Figure 20.1). Respondents who had at least a primary education (37 percent) were much more likely than respondents who had never been to school (4 percent) or who had not completed a primary education (12 percent) to have health insurance. The proportion of respondents with health insurance increased with the wealth quintile, from 14 percent in the lowest quintile to 47 percent in the highest quintile.

**Figure 20.1 Percentage of Women and Men Age 15-59 Covered by Health Insurance, According to Place of Residence**



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The sample for the 2008 Demographic and Health Survey was designed to obtain population and health data for two groups. The primary population surveyed was the universe of all ever-married women aged 15-49 in Egypt. In addition, the survey also targeted women and men age 15-59 who were interviewed on a range of special health topics and were also asked to participate in hepatitis C testing and blood pressure measurement. Because of the costs and complexity of the hepatitis C testing, the special health issues component of the survey was conducted only in a subsample of one quarter of the households selected for the 2008 EDHS.

The sample design for the 2008 EDHS took into account the need to provide information on various population and health indicators of interest for the country as a whole and for six major subdivisions (Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt and the Frontier Governorates).<sup>1</sup> In addition, the sample was designed to provide for sufficient numbers of households in governorates other than the Frontier Governorates and Luxor to allow for governorate-level estimates of many of the variables for which data was obtained during the ever-married women's interviews. However, the governorate-level samples were too small to allow for separate estimates of some variables derived from the ever-married women data including fertility and mortality rates and child immunization rates. In addition, the subsample of households selected for the special health issues component of the EDHS was too small to allow for governorate-level estimates.

To achieve the above objectives, a three stage probability sample was designed. The following is a detailed description of the 2008 EDHS sample design. A description of the field activities involved in the implementation of the sample design is included in Chapter 1 of this report.

## **B.1 SAMPLE FRAME**

The sample frame for the 2008 EDHS was based upon the 2006 Egypt Population Census. The census provided information for the basic administrative units into which Egypt is divided.<sup>2</sup> In addition, for the 2006 census, subdivisions called enumeration areas (EAs) were created based on the number of dwelling units. However, these EAs were not defined in terms of easily identifiable boundaries, and sketch maps of these areas were not available. For these reasons, EAs were not considered suitable to use as primary sampling units (PSUs) for the three previous EDHS surveys or the current survey. Consequently, shiakhnas and villages were used as the basic sampling units, and additional sampling stages were introduced to obtain the final sampling units from which the household sample was drawn. Administrative changes which took place after 2006 census but prior to September 2007 were taken into consideration in the preparation of the sample frame for the 2008 EDHS survey.<sup>3</sup>

<sup>1</sup> The Frontier Governorates were not included in 1988 and 1992 DHS surveys nor in the 1997, 1998 and 2003 interim surveys. However, they were part of the 1995, 2000 and 2005 EDHS samples. The inclusion of the Frontier Governorates in the 2008 EDHS will not affect comparisons of the 2008 results with the results of earlier surveys in which these governorates were not part of the samples since only around 1 percent of the Egyptian population resides in the Frontier Governorates.

<sup>2</sup> Administratively, Egypt is divided into 26 governorates. In turn, each governorate is divided into kisms and marqezes. Each kism is subdivided into shiakhnas (urban areas), and each marquez into villages (rural areas) and a major town (urban area called medina). These divisions allow the country as a whole to be easily separated into rural and urban areas; the urban area includes all shiakhnas and medinas, and the rural area includes all villages.

<sup>3</sup> Luxor, which was originally a part of Qena governorate but was given a new status as a special administrative unit prior to the 2008 EDHS, was included as a separate unit in the sample frame. Because Luxor has a very small population in comparison to other governorates in Upper Egypt, it continues is combined with Qena governorate for analysis purposes. In May 2008, two new governorates: 6<sup>th</sup> of October and Helwan, were created from Cairo and Giza governorates, respectively. These two governorates were not accounted for separately in the 2008 EDHS sample frame because they had not yet been created at the time fieldwork for the 2008 EDHS survey was conducted.

## **B.2 MINIMUM SAMPLE SIZE PER DOMAIN**

A primary objective in determining the sample size for the 2008 EDHS survey was to ensure a sufficient number of cases in each domain to allow for estimates of adequate precision. For a given number of cases in a particular domain, the relative precision of estimates will vary depending on the characteristic being estimated. If the proportion is small, the relative precision of the estimate will be low compared with a estimate of a larger proportion. In addition, if the proportion to be estimated varies greatly between PSUs, the relative precision will be low compared with a situation where there is little variation between PSUs.

The sampling design considerations also took into account the fact that EDHS samples are typically stratified, clustered and selected in several stages. Sampling errors in such designs have two components: one corresponding to variation BETWEEN PSUs and the other to variation WITHIN PSUs; however, the major component is usually the variation BETWEEN PSUs. The between PSUs variation is usually greater for urban areas than for the rural areas, but the within PSUs variation may be lower. The total number of PSUs is an important factor in controlling the total sampling variation, since the variation BETWEEN PSUs depends on this number. However, it should be noted that an increase in the number of selected PSUs reduces the sampling error, but not proportionally; for example, by doubling the number of units, the sampling error is reduced to about 70 percent of the original value (i.e., a reduction of only 30 percent).

Taking into account these considerations as well as a concern to avoid oversampling which can result in unnecessarily high costs and increased problems in controlling the quality of the interviewing process, DHS sampling policy is to recommend approximately 1,000 cases per domain. This number of cases allows for a reasonably precise estimate of the total fertility rate for the domain. Therefore, given an optimal sample take of about 25-30 HHs per PSU, it is recommended that there should be a minimum of 40 PSUs per major domain in order to ensure an adequate number of cases for analysis. This guideline was observed for all of the major domains of interest in the 2008 EDHS.

## **B.3 SAMPLE ALLOCATION**

Based on the above considerations of the minimum number of cases required for each domain, the target number of households for the 2008 EDHS was set at about 19,500. Information on sampling errors for five key variables from the 2005 EDHS was used to help determine the most efficient allocation of the target number of interviews by domain. In order to provide an adequate population for the calculation of infant and child mortality rates, the minimum allocation per major domain was 1,000 households. The target number of households was distributed by governorate as shown in Table B.1.

## **B.4 STRATIFICATION**

Prior to the selection of the primary sampling units for the 2008 EDHS, the lists of shiakhnas, medinas (urban areas) and villages (rural areas) which comprised the sample frame were grouped by governorate within four major domains (Urban Governorates, Upper Egypt, Lower Egypt, and Frontier Governorates). The combination of these criteria (governorate and urban-rural residence) provided for a direct stratification. In order to provide for implicit stratification by geographic location in each governorate, the lists of shiakhnas, medinas, and villages also were arranged in serpentine order geographically, beginning from the northwest corner of the governorate; this stratification was done independently for urban and rural areas.

Governorate	Target number of households	Urban		Rural		Total	
		Segments	PSUs	Segments	PSUs	Segments	PSUs
<b>Urban Governorates</b>							
Cairo	1,600	100	50	–	–	100	50
Alexandria	1,000	62	31	–	–	62	31
Port Said	500	32	16	–	–	32	16
Suez	500	32	16	–	–	32	16
Subtotal	3600	226	113	–	–	226	113
<b>Lower Egypt</b>							
Damietta	550	14	7	20	10	34	17
Dakahlia	1,000	18	9	44	22	62	31
Sharkia	1,000	14	7	48	24	62	31
Kalubia	1,000	28	14	34	17	62	31
Kafr El Shiek	650	10	5	30	15	40	20
Gharbeya	1,000	18	9	44	22	62	31
Menoufia	800	10	5	40	20	50	25
Behira	1,000	12	6	50	25	62	31
Ismailia	500	14	7	18	9	32	16
Subtotal	7,500	138	69	328	164	466	233
<b>Upper Egypt</b>							
Giza	1,000	36	18	26	13	62	31
Beni Suef	800	12	6	38	19	50	25
Fayoum	800	12	6	38	19	50	25
Minya	1,000	12	6	50	25	62	31
Assiut	1,000	16	8	46	23	62	31
Sougah	1,000	14	7	48	24	62	31
Qena	800	10	5	40	20	50	25
Aswan	550	14	7	20	10	34	17
Luxor	500	16	8	16	8	32	16
Subtotal	7,450	142	71	322	161	464	232
<b>Frontier Governorates</b>							
Red Sea	230	14	7	0	0	14	7
New Valley	150	4	2	6	3	10	5
Matrouh	260	12	6	4	2	16	8
North Sinai	270	10	5	6	3	16	8
South Sinai	120	4	2	4	2	8	4
Subtotal	1,030	44	22	20	10	64	32
Total	19,580	550	275	670	335	1,220	610

## B.5 SAMPLE SELECTION

During the first stage selection, a total of 610 primary sampling units (275 shiakhastowns and 335 villages) were chosen for the 2008 EDHS sample.

The second stage of selection in the 2008 EDHS involved several steps. First, for each of the primary sampling units (PSU), maps were obtained and divided into a number of parts of roughly equal size (assuming approximately 5,000 persons per part). In very large shiakhastowns or villages (approximately 100,000 and more population), three parts were selected from each PSU. In shiakhastowns or villages with 20,000-99,999 population, two parts were selected. In the remaining smaller shiakhastowns and villages, one part was selected. A quick count was carried out in the selected parts in each PSU to provide the information needed to divide the parts into a number of segments of roughly equal size. After the quick count, a total of 1,287 segments were chosen from the parts in each shiakhastown and village in the 2008 EDHS sample (i.e., three segments from 48 PSUs, two segments were selected from 561 PSUs, and one segment from one PSU).

A household listing was obtained for each segment. Using the household lists, a systematic sample of households was chosen for the 2008 EDHS.

## B.6 SAMPLE IMPLEMENTATION

Table B.2.1 presents results of the sample implementation for the entire household sample selected for the 2008 EDHS and for the ever-married women age 15-49 in those households. Table B.2.2 presents similar information for the subsample of households selected for the special health issues component of the survey and for the women and men age 15-59 who were eligible for the special health issues interviews in those households.

Table B.2.1 Sample implementation for ever-married women component of the 2008 EDHS

Percent distribution of households and ever-married women age 15-49 by results of the household and individual interviews, and household, eligible ever-married women and overall response rates, according to urban-rural residence and region, Egypt 2008

Result	Residence											
	Urban	Rural	Urban Govern- norates	Lower Egypt			Upper Egypt			Frontier Govern- norates	Total	
				Total	Urban	Rural	Total	Urban	Rural			
<b>Selected households</b>												
Completed (C)	94.2	97.8	93.5	96.4	94.0	97.5	97.5	95.8	98.4	93.2	96.1	
Household present but no competent respondent at home (HP)	0.9	0.1	1.3	0.4	0.7	0.2	0.3	0.6	0.1	0.5	0.5	
Postponed (P)	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Refused (R)	0.6	0.1	0.9	0.3	0.6	0.1	0.1	0.2	0.1	0.2	0.3	
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	
Household absent (HA)	1.5	0.6	1.6	1.1	1.8	0.8	0.7	1.1	0.5	1.3	1.0	
Dwelling vacant/address not a dwelling (DV)	2.2	1.1	2.1	1.6	2.3	1.3	1.2	1.9	0.8	3.5	1.7	
Dwelling destroyed (DD)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other (O)	0.5	0.1	0.2	0.2	0.6	0.1	0.2	0.5	0.1	1.4	0.3	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of sampled households	9,395	10,344	3,627	7,578	2,401	5,177	7,500	2,614	4,886	1,034	19,739	
<b>Household response rate (HRR)<sup>1</sup></b>	98.3	99.7	97.3	99.3	98.6	99.6	99.6	99.2	99.8	99.3	99.1	
<b>Ever-married women age 15-49 (EW)</b>												
Completed (EWC)	99.7	99.8	99.9	99.9	99.8	99.9	99.7	99.6	99.7	98.5	99.7	
Not at home (EWNH)	0.2	0.2	0.0	0.1	0.2	0.0	0.3	0.3	0.3	1.2	0.2	
Refused (EWR)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Partly completed (EWPC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	
Incapacitated (EWI)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	
Other (EWO)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of women	6,699	9,872	2,421	6,522	1,742	4,780	6,703	1,927	4,776	925	16,571	
<b>Ever-married women response rate (EWRR)<sup>2</sup></b>	99.7	99.8	99.9	99.9	99.8	99.9	99.7	99.6	99.7	98.5	99.7	
<b>Overall response rate (ORR)<sup>3</sup></b>	98.0	99.5	97.3	99.2	98.4	99.6	99.3	98.8	99.5	97.8	98.8	

<sup>1</sup> Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

<sup>2</sup> Using the number of eligible respondents falling into specific response categories, the eligible respondent response rate (ERR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

<sup>3</sup> The overall response rate (ORR) is calculated as

$$ORR = HRR * EWR/100$$

Table B.2.2 Sample implementation for health issues component of the 2008 EDHS

Percent distribution of households and women and men age 15-59 by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and region, Egypt 2008

Result	Residence										
	Urban	Rural	Urban Governates	Lower Egypt		Upper Egypt		Frontier Governates	Total		
				Total	Urban	Rural	Total			Urban	Rural
<b>Selected households</b>											
Completed (C)	90.8	97.1	88.8	94.2	90.1	96.1	96.8	93.9	98.3	93.5	94.1
Household present but no competent respondent at home (HP)	1.6	0.3	2.1	0.7	1.2	0.5	0.5	1.2	0.1	1.5	0.9
Postponed (P)	0.6	0.0	1.4	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Refused (R)	1.4	0.2	2.1	0.6	1.5	0.2	0.2	0.3	0.2	0.8	0.7
Household absent (HA)	2.6	1.0	2.8	2.1	3.4	1.5	1.1	2.1	0.6	0.8	1.8
Dwelling vacant/address not a dwelling (DV)	2.3	1.2	2.4	2.0	3.0	1.5	1.2	2.0	0.8	1.5	1.7
Dwelling destroyed (DD)	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1
Other (O)	0.7	0.1	0.3	0.4	0.8	0.2	0.2	0.5	0.0	1.9	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,357	2,596	916	1,897	597	1,300	1,880	655	1,225	260	4,953
<b>Household response rate (HRR)<sup>1</sup></b>	96.3	99.5	94.1	98.6	97.1	99.3	99.3	98.4	99.8	97.6	98.0
<b>All women (AW) age 15-59</b>											
Completed (AWC)	97.2	98.9	96.7	99.0	98.4	99.2	98.4	97.6	98.8	95.4	98.1
Not at home (AWN <sub>H</sub> )	1.9	0.7	1.9	0.4	0.7	0.3	1.2	1.9	0.9	4.4	1.2
Postponed (AWP)	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Refused (AWR)	0.2	0.1	0.2	0.2	0.6	0.1	0.1	0.1	0.1	0.0	0.1
Incapacitated (AWI)	0.4	0.3	0.6	0.4	0.3	0.4	0.2	0.2	0.2	0.3	0.3
Other (AWO)	0.1	0.1	0.4	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2,827	3,875	1,079	2,486	668	1,818	2,749	829	1,920	388	6,702
<b>All women response rate (AWRR)<sup>2</sup></b>	97.2	98.9	96.7	99.0	98.4	99.2	98.4	97.6	98.7	95.4	98.1
<b>Overall response rate (OWRR)<sup>3</sup></b>	93.5	98.4	91.0	97.6	95.5	98.5	97.7	96.0	98.5	93.1	96.2
<b>All men age 15-59</b>											
Completed (AMC)	87.2	91.0	84.4	91.7	89.8	92.4	89.8	89.2	90.2	85.0	89.3
Not at home (AMN <sub>H</sub> )	11.1	7.4	13.1	6.9	8.6	6.4	8.5	9.8	7.9	13.8	9.0
Postponed (AMP)	0.4	0.1	0.7	0.0	0.2	0.0	0.2	0.3	0.2	0.5	0.2
Refused (AMR)	0.7	0.5	0.8	0.7	1.0	0.6	0.5	0.6	0.4	0.0	0.6
Partly completed (AMPC)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Incapacitated (AMI)	0.4	0.6	0.8	0.2	0.2	0.2	0.7	0.1	1.0	0.2	0.5
Other (AMO)	0.2	0.3	0.1	0.4	0.3	0.4	0.2	0.0	0.2	0.5	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	2,660	3,418	979	2,259	608	1,651	2,433	795	1,638	407	6,078
<b>All men response rate (AMRR)<sup>2</sup></b>	87.2	91.0	84.4	91.7	89.8	92.4	89.8	89.2	90.2	85.0	89.3
<b>Overall response rate (OMRR)<sup>3</sup></b>	83.9	90.6	79.4	90.5	87.2	91.8	89.2	87.8	89.9	83.0	87.6

<sup>1</sup> Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

<sup>2</sup> Using the number of eligible respondents falling into specific response categories, the eligible respondent response rates AW(M)RR for women and men are calculated as:

$$\frac{100 * AW(M)C}{AW(M)C + AW(M)NH + AW(M)P + AW(M)R + AW(M)PC + AW(M)I + AW(M)O}$$

<sup>3</sup> The overall response rate (ORR) is calculated as

$$OW(M)RR = HRR * AW(M)RR/100$$



The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as the failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2008 Egypt DHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2008 EDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

If the sample of EDHS respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2008 EDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae, specifically the Taylor linearization method of variance estimation, to calculate sampling errors for means or proportions from the survey. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

Sampling errors for the 2008 EDHS were calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the residential categories: Urban Governorates, total Lower Egypt, urban Lower Egypt, rural Lower Egypt, total Upper Egypt, urban Upper Egypt, rural Upper Egypt, and Frontier Governorates. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table C.1.

Tables C.2 to C.12 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ( $\pm 2SE$ ), for each variable. In these tables, sampling errors are presented in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design. In addition to the standard error, the design effect (DEFT) is estimated for each estimate; DEFT is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard errors for most variables are small at the level of the country as a whole, except for estimates involving very small proportions. For estimates for subpopulations, however,



there is more variability in the size of the relative standard error for the variables. For example, for the variable *currently using any contraceptive method*, the relative standard errors as a percent of the estimated mean for the whole country, for urban areas, and for rural areas are 0.5 percent, 0.7 percent, and 0.6 percent, respectively. The 95 percent confidence interval for the variable is calculated by adding and subtracting twice the standard error (0.5) to the value for the indicator. Thus, for Egypt as a whole, the lower boundary for the 95 percent confidence interval for the variable *currently using any contraceptive method* is found by adding and subtracting 1.0 to the value of .603 observed in the survey, i.e., the confidence interval is between 0.593 and 0.612.

Table C.1 List of selected variables for sampling errors, Egypt 2008

Variable	Estimate	Base population
EVER-MARRIED WOMAN SURVEY		
Urban	Proportion	Ever-married women 15-49
Literate	Proportion	Ever-married women 15-49
No education	Proportion	Ever-married women 15-49
Completed secondary/higher	Proportion	Ever-married women 15-49
Currently married	Proportion	Ever-married women 15-49
Children ever born to women 15-49	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women 40-49	Mean	All women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any contraceptive method	Proportion	Currently married women 15-49
Currently using any modern method	Proportion	Currently married women 15-49
Currently using pills	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Using public sector source	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay birth least two years	Proportion	Currently married women 15-49
Ideal family size	Mean	Ever-married women 15-49
Protected against neonatal tetanus	Proportion	Last birth in 5-year period before survey
Mothers received medical assistance at delivery	Proportion	Births in last 5 years
Child had diarrhea in last two weeks	Proportion	Children 0-59 months
Treated with oral rehydration salts (ORS)	Proportion	Children under 5 with diarrhea in last 2 weeks
Taken to a health provider	Proportion	Children under 5 with diarrhea in last 2 weeks
Had immunization record	Proportion	Children 12-23 months
Received BCG	Proportion	Children 12-23 months
Received DPT (3 doses)	Proportion	Children 12-23 months
Received polio (3 doses)	Proportion	Children 12-23 months
Received measles	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Height-for-age (below -2SD)	Proportion	Children 0-59 months
Weight-for-height (below -2SD)	Proportion	Children 0-59 months
Weight-for-age (below -2SD)	Proportion	Children 0-59 months
Total fertility rate (0-3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate	Rate	Number of births
Postneonatal mortality rate	Rate	Number of births
Infant mortality rate	Rate	Number of births
Child mortality rate	Rate	Number of births
Under-five mortality rate	Rate	Number of births
HEALTH ISSUES SURVEY		
<u>Women</u>		
Circumcised	Proportion	All women 15-49
Hypertensive	Proportion	All women 15-59
Overweight or obese	Proportion	All women 15-59
Positive on hepatitis C RNA test	Proportion	All women 15-59
<u>Men</u>		
Hypertensive	Proportion	All men 15-59
Overweight or obese	Proportion	All men 15-59
Positive on hepatitis C RNA test	Proportion	All men 15-59

Table C.2 Sampling errors for National sample, Egypt 2008

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
EVER-MARRIED WOMAN SURVEY								
Urban	0.412	0.007	16527	16527	1.733	0.016	0.399	0.425
Literate	0.647	0.006	16527	16527	1.548	0.009	0.635	0.658
No education	0.321	0.006	16527	16527	1.562	0.018	0.309	0.332
Completed secondary/higher	0.449	0.007	16527	16527	1.745	0.015	0.435	0.462
Currently married	0.932	0.002	16527	16527	1.153	0.002	0.927	0.936
Children ever born to women 15-49	1.980	0.034	24025	23863	1.281	0.017	1.911	2.048
Children surviving	1.864	0.032	24025	23863	1.284	0.017	1.800	1.929
Children ever born to women age 40-49	4.157	0.039	4793	4804	1.246	0.009	4.078	4.235
Ever used contraceptive method	0.819	0.004	15406	15396	1.153	0.004	0.812	0.826
Currently using any contraceptive method	0.603	0.005	15406	15396	1.195	0.008	0.593	0.612
Currently using any modern method	0.576	0.005	15406	15396	1.221	0.008	0.566	0.586
Currently using pill	0.119	0.003	15406	15396	1.153	0.025	0.113	0.125
Currently using IUD	0.361	0.005	15406	15396	1.298	0.014	0.351	0.371
Currently using condom	0.007	0.001	15406	15396	1.224	0.115	0.006	0.009
Current using injectables	0.074	0.003	15406	15396	1.245	0.035	0.069	0.079
Currently using female sterilization	0.010	0.001	15406	15396	1.134	0.090	0.008	0.012
Currently using periodic abstinence	0.004	0.001	15406	15396	1.175	0.141	0.003	0.006
Using public sector source	0.596	0.007	8524	8877	1.325	0.012	0.582	0.610
Want no more children	0.629	0.005	15406	15396	1.170	0.007	0.620	0.638
Want to delay birth at least 2 years	0.173	0.003	15406	15396	1.102	0.019	0.166	0.180
Ideal family size	2.931	0.012	15382	15380	1.199	0.004	2.906	2.955
Last birth protected against neonatal tetanus	0.764	0.006	8036	7896	1.332	0.008	0.751	0.776
Mothers received medical assistance at delivery	0.789	0.007	10872	10590	1.427	0.009	0.775	0.802
Child had diarrhea in two weeks before survey	0.085	0.003	10595	10327	1.149	0.039	0.078	0.091
Treated with oral rehydration salts (ORS)	0.284	0.017	979	874	1.057	0.059	0.251	0.318
Taken to a health provider	0.555	0.019	979	874	1.065	0.034	0.518	0.592
Had immunization record	0.685	0.012	2205	2160	1.146	0.017	0.662	0.708
Received BCG	0.990	0.002	2205	2160	1.081	0.002	0.985	0.995
Received DPT (3 doses)	0.976	0.004	2205	2160	1.050	0.004	0.969	0.983
Received polio (3 doses)	0.945	0.006	2205	2160	1.116	0.006	0.934	0.956
Received measles	0.983	0.003	2205	2160	1.057	0.003	0.977	0.989
Fully immunized	0.917	0.007	2205	2160	1.106	0.007	0.903	0.931
Height-for-age (below -2SD)	0.271	0.011	3418	3294	1.272	0.039	0.250	0.293
Weight-for-height (below -2SD)	0.082	0.006	3418	3294	1.211	0.075	0.070	0.095
Weight-for-age (below -2SD)	0.060	0.005	3418	3294	1.188	0.086	0.050	0.071
Total fertility rate (0-3 years)	3.022	0.042	na	67760	1.264	0.014	2.938	3.105
Neonatal mortality rate (5 years)	16.280	1.612	10910	10633	1.152	0.099	13.056	19.505
Postneonatal mortality rate (5 years)	8.223	0.940	10916	10639	1.055	0.114	6.343	10.103
Infant mortality rate (5 years)	24.503	1.920	10919	10641	1.139	0.078	20.663	28.343
Child mortality rate (5 years)	3.876	0.609	10931	10650	0.996	0.157	2.657	5.094
Under-five mortality rate (5 years)	28.284	1.994	10943	10660	1.116	0.071	24.295	32.273
HEALTH ISSUES SURVEY								
<u>Women</u>								
Circumcised all women age 15-49	0.911	0.005	5824	5540	1.403	0.006	0.900	0.921
Hypertensive all women age 15-59	0.128	0.005	6578	6290	1.163	0.037	0.118	0.137
Overweight or obese all women age 15-59	0.679	0.007	5948	5678	1.112	0.010	0.665	0.692
Positive on hepatitis C RNA test all women age 15-59	0.078	0.004	6052	5828	1.120	0.049	0.071	0.086
<u>Men</u>								
Hypertensive all men age 15-59	0.105	0.005	5430	5718	1.234	0.049	0.095	0.115
Overweight or obese all men age 15-59	0.575	0.014	2263	2478	1.314	0.024	0.548	0.602
Positive on hepatitis C RNA test all men age 15-59	0.121	0.005	5074	5298	1.151	0.044	0.110	0.131

na = Not applicable

Table C.3 Sampling errors for Urban sample, Egypt 2008

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits		
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE	
EVER-MARRIED WOMAN SURVEY									
Urban	1.000	0.000	6677	6809	na	0.000	1.000	1.000	
Literate	0.804	0.008	6677	6809	1.655	0.010	0.788	0.821	
No education	0.171	0.008	6677	6809	1.642	0.044	0.156	0.186	
Completed secondary/higher	0.591	0.012	6677	6809	1.977	0.020	0.567	0.615	
Currently married	0.928	0.004	6677	6809	1.216	0.004	0.920	0.935	
Children ever born to women 15-49	1.740	0.045	10585	10196	0.954	0.026	1.650	1.830	
Children surviving	1.659	0.043	10585	10196	0.953	0.026	1.574	1.744	
Children ever born to women age 40-49	3.499	0.055	2179	2257	1.403	0.016	3.389	3.609	
Ever used contraceptive method	0.843	0.005	6208	6316	1.157	0.006	0.832	0.853	
Currently using any contraceptive method	0.643	0.007	6208	6316	1.169	0.011	0.628	0.657	
Currently using any modern method	0.616	0.007	6208	6316	1.177	0.012	0.601	0.630	
Currently using pill	0.129	0.005	6208	6316	1.146	0.038	0.120	0.139	
Currently using IUD	0.412	0.007	6208	6316	1.199	0.018	0.397	0.427	
Currently using condom	0.014	0.002	6208	6316	1.232	0.132	0.010	0.017	
Current using injectables	0.048	0.004	6208	6316	1.299	0.073	0.041	0.055	
Currently using female sterilization	0.008	0.001	6208	6316	1.169	0.167	0.005	0.010	
Currently using periodic abstinence	0.009	0.001	6208	6316	1.190	0.159	0.006	0.012	
Using public sector source	0.507	0.011	3668	3893	1.379	0.022	0.484	0.530	
Want no more children	0.645	0.008	6208	6316	1.277	0.012	0.629	0.660	
Want to delay birth at least 2 years	0.158	0.005	6208	6316	1.165	0.034	0.147	0.169	
Ideal family size	2.770	0.018	6419	6552	1.212	0.007	2.734	2.806	
Mothers received tetanus injection for last birth	0.662	0.013	3020	3012	1.451	0.019	0.637	0.688	
Mothers received medical assistance at delivery	0.902	0.009	3973	3924	1.518	0.009	0.884	0.919	
Child had diarrhea in two weeks before survey	0.092	0.006	3875	3820	1.238	0.067	0.080	0.104	
Treated with oral rehydration salts (ORS)	0.276	0.028	380	351	1.119	0.101	0.220	0.332	
Taken to a health provider	0.573	0.029	380	351	1.063	0.051	0.515	0.632	
Had immunization record	0.684	0.020	828	830	1.216	0.029	0.644	0.724	
Received BCG	0.995	0.003	828	830	1.100	0.003	0.990	1.001	
Received DPT (3 doses)	0.985	0.005	828	830	1.139	0.005	0.976	0.995	
Received polio (3 doses)	0.953	0.008	828	830	1.041	0.008	0.938	0.969	
Received measles	0.983	0.005	828	830	1.107	0.005	0.974	0.993	
Fully immunized	0.937	0.009	828	830	1.072	0.010	0.918	0.955	
Height-for-age (below -2SD)	0.271	0.011	3418	3294	1.272	0.039	0.250	0.293	
Weight-for-height (below -2SD)	0.082	0.006	3418	3294	1.211	0.075	0.070	0.095	
Weight-for-age (below -2SD)	0.060	0.005	3418	3294	1.188	0.086	0.050	0.071	
Total fertility rate (0-3 years)	2.719	0.057	na	29656	1.225	0.021	2.604	2.833	
Neonatal mortality rate (10 years)	17.572	2.416	8011	7964	1.403	0.137	12.741	22.403	
Postneonatal mortality rate (10 years)	7.858	1.243	8015	7967	1.109	0.158	5.372	10.345	
Infant mortality rate (10 years)	25.430	2.695	8015	7967	1.317	0.106	20.040	30.820	
Child mortality rate (10 years)	3.374	0.670	8025	7973	1.004	0.199	2.034	4.713	
Under-five mortality rate (10 years)	28.718	2.777	8029	7976	1.306	0.097	23.163	34.273	
HEALTH ISSUES SURVEY									
<u>Women</u>									
Circumcised all women age 15-49	0.851	0.010	2377	2352	1.432	0.012	0.830	0.872	
Hypertensive all women age 15-59	0.145	0.008	2747	2736	1.174	0.054	0.130	0.161	
Overweight or obese all women age 15-59	0.730	0.010	2476	2457	1.173	0.014	0.710	0.751	
Positive on hepatitis C RNA test all women age 15-59	0.055	0.006	2386	2476	1.221	0.104	0.043	0.066	
<u>Men</u>									
Hypertensive all men age 15-59	0.112	0.009	2319	2552	1.319	0.077	0.094	0.129	
Overweight or obese all men age 15-59	0.575	0.014	2263	2478	1.314	0.024	0.548	0.602	
Positive on hepatitis C RNA test all men age 15-59	0.090	0.008	2062	2323	1.213	0.085	0.075	0.105	

na = Not applicable

Table C.4 Sampling errors for Rural sample, Egypt 2008

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
<b>EVER-MARRIED WOMAN SURVEY</b>								
Urban	0.000	0.000	9850	9718	na	na	0.000	0.000
Literate	0.536	0.008	9850	9718	1.493	0.014	0.521	0.551
No education	0.426	0.008	9850	9718	1.535	0.018	0.411	0.441
Completed secondary/higher	0.349	0.008	9850	9718	1.593	0.022	0.334	0.365
Currently married	0.934	0.003	9850	9718	1.100	0.003	0.929	0.940
Children ever born to women 15-49	2.195	0.044	13605	13440	1.287	0.020	2.107	2.282
Children surviving	2.052	0.041	13605	13440	1.291	0.020	1.971	2.133
Children ever born to women age 40-49	4.731	0.051	2618	2551	1.141	0.011	4.628	4.834
Ever used contraceptive method	0.802	0.005	9198	9080	1.146	0.006	0.793	0.812
Currently using any contraceptive method	0.575	0.006	9198	9080	1.205	0.011	0.563	0.588
Currently using any modern method	0.548	0.006	9198	9080	1.245	0.012	0.536	0.561
Currently using pill	0.112	0.004	9198	9080	1.158	0.034	0.104	0.119
Currently using IUD	0.326	0.007	9198	9080	1.373	0.021	0.312	0.339
Currently using condom	0.003	0.001	9198	9080	1.079	0.216	0.002	0.004
Current using injectables	0.092	0.004	9198	9080	1.223	0.040	0.085	0.099
Currently using female sterilization	0.012	0.001	9198	9080	1.119	0.107	0.009	0.014
Currently using periodic abstinence	0.001	0.000	9198	9080	1.069	0.299	0.001	0.002
Using public sector source	0.665	0.009	4856	4984	1.277	0.013	0.647	0.682
Want no more children	0.618	0.006	9198	9080	1.091	0.009	0.607	0.629
Want to delay birth at least 2 years	0.183	0.004	9198	9080	1.059	0.023	0.175	0.192
Ideal family size	3.050	0.016	8963	8828	1.169	0.005	3.018	3.082
Last birth protected against neonatal tetanus	0.826	0.006	5016	4883	1.177	0.008	0.814	0.839
Mothers received medical assistance at delivery	0.722	0.009	6899	6666	1.426	0.013	0.704	0.741
Child had diarrhea in two weeks before survey	0.080	0.004	6720	6508	1.082	0.048	0.073	0.088
Treated with oral rehydration salts (ORS)	0.289	0.021	599	523	1.015	0.072	0.248	0.331
Taken to a health provider	0.543	0.024	599	523	1.065	0.045	0.494	0.591
Had immunization record	0.685	0.014	1377	1330	1.099	0.021	0.657	0.714
Received BCG	0.986	0.004	1377	1330	1.083	0.004	0.979	0.994
Received DPT (3 doses)	0.971	0.005	1377	1330	1.028	0.005	0.961	0.981
Received polio (3 doses)	0.940	0.008	1377	1330	1.152	0.008	0.925	0.956
Received measles	0.983	0.004	1377	1330	1.028	0.004	0.976	0.991
Fully immunized	0.905	0.009	1377	1330	1.125	0.010	0.886	0.924
Height-for-age (below -2SD)	0.299	0.008	6158	5809	1.239	0.027	0.283	0.315
Weight-for-height (below -2SD)	0.067	0.004	6158	5809	1.267	0.066	0.058	0.075
Weight-for-age (below -2SD)	0.060	0.004	6158	5809	1.145	0.062	0.053	0.067
Total fertility rate (0-3 years)	3.243	0.058	na	37981	1.230	0.018	3.127	3.360
Neonatal mortality rate (10 years)	17.377	1.351	13663	13199	1.070	0.078	14.676	20.079
Postneonatal mortality rate (10 years)	13.128	1.031	13668	13203	1.002	0.079	11.065	15.190
Infant mortality rate (10 years)	30.505	1.743	13671	13205	1.055	0.057	27.019	33.991
Child mortality rate (10 years)	5.862	0.749	13676	13210	1.049	0.128	4.364	7.359
Under-five mortality rate (10 years)	36.188	1.917	13687	13218	1.074	0.053	32.353	40.022
<b>HEALTH ISSUES SURVEY</b>								
<b>Women</b>								
Circumcised all women age 15-49	0.955	0.005	3447	3188	1.315	0.005	0.945	0.964
Hypertensive all women age 15-59	0.114	0.006	3831	3555	1.141	0.051	0.102	0.126
Overweight or obese all women age 15-59	0.640	0.009	3472	3220	1.063	0.014	0.622	0.657
Positive on hepatitis C RNA test all women age 15-59	0.096	0.005	3666	3353	1.084	0.055	0.085	0.106
<b>Men</b>								
Hypertensive all men age 15-59	0.099	0.006	3111	3165	1.137	0.061	0.087	0.112
Overweight or obese all men age 15-59	0.484	0.011	3043	3094	1.203	0.023	0.462	0.506
Positive on hepatitis C RNA test all men age 15-59	0.144	0.007	3012	2974	1.127	0.050	0.130	0.159

na = Not applicable

Table C.5 Sampling errors for Urban Governorates sample, Egypt 2008

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
EVER-MARRIED WOMAN SURVEY								
Urban	1.000	0.000	2419	2931	na	0.000	1.000	1.000
Literate	0.812	0.013	2419	2931	1.587	0.016	0.787	0.837
No education	0.170	0.012	2419	2931	1.534	0.069	0.146	0.193
Completed secondary/higher	0.560	0.019	2419	2931	1.929	0.035	0.521	0.599
Currently married	0.930	0.006	2419	2931	1.198	0.007	0.918	0.943
Children ever born to women 15-49	1.607	0.095	3978	4589	1.060	0.059	1.417	1.796
Children surviving	1.533	0.090	3978	4589	1.063	0.059	1.353	1.714
Children ever born to women age 40-49	3.335	0.082	840	1007	1.351	0.025	3.171	3.500
Ever used contraceptive method	0.847	0.009	2256	2727	1.137	0.010	0.830	0.864
Currently using any contraceptive method	0.652	0.011	2256	2727	1.130	0.017	0.629	0.674
Currently using any modern method	0.626	0.012	2256	2727	1.173	0.019	0.602	0.650
Currently using pill	0.115	0.008	2256	2727	1.166	0.068	0.100	0.131
Currently using IUD	0.434	0.012	2256	2727	1.154	0.028	0.410	0.458
Currently using condom	0.018	0.003	2256	2727	1.221	0.188	0.011	0.025
Current using injectables	0.047	0.006	2256	2727	1.269	0.120	0.036	0.058
Currently using female sterilization	0.007	0.002	2256	2727	1.109	0.287	0.003	0.010
Currently using periodic abstinence	0.009	0.002	2256	2727	1.179	0.258	0.004	0.014
Using public sector source	0.553	0.018	1383	1709	1.337	0.032	0.518	0.589
Want no more children	0.665	0.013	2256	2727	1.261	0.019	0.639	0.690
Want to delay birth at least 2 years	0.150	0.009	2256	2727	1.180	0.059	0.133	0.168
Ideal family size	2.653	0.028	2377	2892	1.166	0.010	2.598	2.709
Last birth protected against neonatal tetanus	0.628	0.021	1075	1294	1.451	0.034	0.585	0.671
Mothers received medical assistance at delivery	0.923	0.012	1409	1679	1.483	0.013	0.899	0.947
Child had diarrhea in two weeks before survey	0.095	0.010	1368	1622	1.207	0.110	0.074	0.115
Treated with oral rehydration salts (ORS)	0.315	0.048	130	154	1.156	0.152	0.219	0.410
Taken to a health provider	0.537	0.049	130	154	1.092	0.091	0.439	0.635
Had immunization record	0.652	0.032	295	371	1.156	0.049	0.589	0.716
Received BCG	0.996	0.004	295	371	1.095	0.004	0.988	1.004
Received DPT (3 doses)	0.987	0.008	295	371	1.170	0.008	0.971	1.002
Received polio (3 doses)	0.965	0.010	295	371	0.944	0.010	0.945	0.985
Received measles	0.979	0.009	295	371	1.143	0.010	0.960	0.998
Fully immunized	0.943	0.014	295	371	1.038	0.015	0.915	0.970
Height-for-age (below -2SD)	0.223	0.017	1217	1372	1.264	0.074	0.190	0.256
Weight-for-height (below -2SD)	0.098	0.010	1217	1372	1.123	0.107	0.077	0.119
Weight-for-age (below -2SD)	0.059	0.009	1217	1372	1.145	0.145	0.042	0.076
Total fertility rate (0-3 years)	2.608	0.094	na	14042	1.164	0.036	2.421	2.796
Neonatal mortality rate (10 years)	20.828	4.104	2770	3328	1.452	0.197	12.619	29.036
Postneonatal mortality rate (10 years)	8.913	2.194	2771	3329	1.159	0.246	4.524	13.302
Infant mortality rate (10 years)	29.741	4.468	2771	3329	1.316	0.150	20.805	38.676
Child mortality rate (10 years)	2.523	1.100	2771	3330	1.100	0.436	0.323	4.723
Under-five mortality rate (10 years)	32.189	4.599	2772	3330	1.309	0.143	22.992	41.386
HEALTH ISSUES SURVEY								
<u>Women</u>								
Circumcised all women age 15-49	0.859	0.016	879	1073	1.354	0.019	0.827	0.891
Hypertensive all women age 15-59	0.141	0.012	1043	1276	1.132	0.086	0.117	0.166
Overweight or obese all women age 15-59	0.762	0.017	936	1132	1.198	0.022	0.729	0.796
Positive on hepatitis C RNA test all women age 15-59	0.051	0.009	881	1182	1.198	0.175	0.033	0.068
<u>Men</u>								
Hypertensive all men age 15-59	0.109	0.014	826	1169	1.298	0.129	0.081	0.137
Overweight or obese all men age 15-59	0.574	0.022	800	1125	1.248	0.038	0.530	0.618
Positive on hepatitis C RNA test all men age 15-59	0.074	0.012	697	1084	1.166	0.157	0.050	0.097

na = Not applicable

Table C.6 Sampling errors for Lower Egypt sample, Egypt 2008

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
EVER-MARRIED WOMAN SURVEY								
Urban	0.254	0.008	6515	7618	1.575	0.033	0.237	0.271
Literate	0.670	0.008	6515	7618	1.409	0.012	0.654	0.687
No education	0.289	0.008	6515	7618	1.450	0.028	0.272	0.305
Completed secondary/higher	0.497	0.009	6515	7618	1.504	0.019	0.479	0.516
Currently married	0.936	0.003	6515	7618	1.085	0.004	0.929	0.942
Children ever born to women 15-49	1.932	0.043	9020	10584	1.061	0.022	1.845	2.019
Children surviving	1.845	0.041	9020	10584	1.056	0.022	1.763	1.927
Children ever born to women age 40-49	3.944	0.048	1870	2158	1.114	0.012	3.848	4.040
Ever used contraceptive method	0.843	0.005	6096	7128	1.025	0.006	0.834	0.853
Currently using any contraceptive method	0.643	0.007	6096	7128	1.123	0.011	0.630	0.657
Currently using any modern method	0.624	0.007	6096	7128	1.140	0.011	0.610	0.638
Currently using pill	0.117	0.005	6096	7128	1.097	0.039	0.108	0.126
Currently using IUD	0.416	0.008	6096	7128	1.227	0.019	0.401	0.432
Currently using condom	0.004	0.001	6096	7128	1.032	0.198	0.003	0.006
Current using injectables	0.069	0.004	6096	7128	1.198	0.056	0.061	0.077
Currently using female sterilization	0.014	0.002	6096	7128	1.103	0.119	0.011	0.017
Currently using periodic abstinence	0.004	0.001	6096	7128	1.027	0.210	0.002	0.006
Using public sector source	0.608	0.010	3787	4452	1.255	0.016	0.588	0.628
Want no more children	0.643	0.006	6096	7128	1.038	0.010	0.630	0.656
Want to delay birth at least 2 years	0.173	0.005	6096	7128	1.037	0.029	0.163	0.183
Ideal family size	2.841	0.014	6065	7076	1.033	0.005	2.813	2.869
Last birth protected against neonatal tetanus	0.813	0.008	2994	3500	1.166	0.010	0.797	0.830
Mothers received medical assistance at delivery	0.853	0.009	3917	4587	1.333	0.010	0.835	0.870
Child had diarrhea in two weeks before survey	0.058	0.004	3849	4507	1.025	0.070	0.050	0.066
Treated with oral rehydration salts (ORS)	0.222	0.027	246	262	0.950	0.121	0.168	0.276
Taken to a health provider	0.597	0.034	246	262	1.007	0.058	0.529	0.666
Had immunization record	0.665	0.019	801	937	1.094	0.028	0.627	0.702
Received BCG	0.989	0.004	801	937	1.022	0.004	0.981	0.998
Received DPT (3 doses)	0.982	0.005	801	937	1.033	0.005	0.972	0.993
Received polio (3 doses)	0.958	0.008	801	937	1.079	0.009	0.941	0.974
Received measles	0.992	0.003	801	937	1.018	0.003	0.985	0.998
Fully immunized	0.937	0.010	801	937	1.079	0.010	0.918	0.957
Height-for-age (below -2SD)	0.342	0.011	3467	3959	1.233	0.032	0.320	0.364
Weight-for-height (below -2SD)	0.068	0.006	3467	3959	1.239	0.084	0.057	0.079
Weight-for-age (below -2SD)	0.055	0.005	3467	3959	1.185	0.089	0.045	0.065
Total fertility rate (0-3 years)	2.889	0.055	na	30787	1.066	0.019	2.779	2.999
Neonatal mortality rate (10 years)	14.073	1.619	7810	9185	1.085	0.115	10.836	17.311
Postneonatal mortality rate (10 years)	7.274	1.064	7810	9185	1.002	0.146	5.146	9.403
Infant mortality rate (10 years)	21.348	2.012	7811	9186	1.088	0.094	17.325	25.371
Child mortality rate (10 years)	4.050	0.799	7816	9191	1.074	0.197	2.452	5.648
Under-five mortality rate (10 years)	25.311	2.189	7818	9194	1.099	0.086	20.934	29.688
HEALTH ISSUES SURVEY								
<u>Women</u>								
Circumcised all women age 15-49	0.929	0.006	2173	2415	1.152	0.007	0.916	0.942
Hypertensive all women age 15-59	0.109	0.007	2460	2731	1.053	0.061	0.095	0.122
Overweight or obese all women age 15-59	0.728	0.009	2238	2482	0.982	0.013	0.710	0.747
Positive on hepatitis C RNA test all women age 15-59	0.089	0.006	2314	2530	1.018	0.068	0.077	0.102
<u>Men</u>								
Hypertensive all men age 15-59	0.092	0.007	2072	2481	1.054	0.073	0.079	0.106
Overweight or obese all men age 15-59	0.561	0.013	2020	2420	1.167	0.023	0.535	0.587
Positive on hepatitis C RNA test all men age 15-59	0.143	0.008	1995	2299	1.035	0.057	0.127	0.159

na = Not applicable

Table C.7 Sampling errors for Lower Egypt, Urban sample, Egypt 2008

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
EVER-MARRIED WOMAN SURVEY								
Urban	1.000	0.000	1738	1936	na	0.000	1.000	1.000
Literate	0.832	0.011	1738	1936	1.253	0.013	0.810	0.855
No education	0.131	0.011	1738	1936	1.301	0.080	0.110	0.152
Completed secondary/higher	0.658	0.018	1738	1936	1.586	0.027	0.622	0.694
Currently married	0.930	0.007	1738	1936	1.144	0.008	0.916	0.944
Children ever born to women 15-49	1.721	0.084	2615	2847	1.018	0.049	1.554	1.889
Children surviving	1.668	0.082	2615	2847	1.027	0.049	1.504	1.831
Children ever born to women age 40-49	3.347	0.067	580	635	1.088	0.020	3.213	3.481
Ever used contraceptive method	0.851	0.009	1618	1801	1.046	0.011	0.833	0.870
Currently using any contraceptive method	0.655	0.012	1618	1801	1.057	0.019	0.630	0.680
Currently using any modern method	0.638	0.013	1618	1801	1.057	0.020	0.613	0.663
Currently using pill	0.140	0.008	1618	1801	0.970	0.060	0.123	0.156
Currently using IUD	0.433	0.012	1618	1801	1.006	0.029	0.409	0.458
Currently using condom	0.009	0.002	1618	1801	1.011	0.264	0.004	0.014
Current using injectables	0.044	0.006	1618	1801	1.119	0.130	0.033	0.056
Currently using female sterilization	0.011	0.003	1618	1801	1.225	0.292	0.004	0.017
Currently using periodic abstinence	0.009	0.003	1618	1801	1.065	0.274	0.004	0.014
Using public sector source	0.464	0.020	1016	1150	1.284	0.043	0.423	0.504
Want no more children	0.654	0.013	1618	1801	1.069	0.019	0.629	0.680
Want to delay birth at least 2 years	0.152	0.010	1618	1801	1.089	0.064	0.133	0.172
Ideal family size	2.777	0.025	1638	1817	0.946	0.009	2.728	2.826
Last birth protected against neonatal tetanus	0.693	0.023	712	794	1.354	0.034	0.646	0.740
Mothers received medical assistance at delivery	0.920	0.011	903	1011	1.092	0.012	0.898	0.942
Child had diarrhea in two weeks before survey	0.053	0.007	894	1000	0.960	0.137	0.038	0.067
Treated with oral rehydration salts (ORS)	0.092	0.037	56	53	0.887	0.406	0.017	0.167
Taken to a health provider	0.547	0.068	56	53	0.924	0.124	0.411	0.682
Had immunization record	0.699	0.040	191	215	1.200	0.057	0.619	0.779
Received BCG	0.994	0.007	191	215	1.130	0.007	0.980	1.007
Received DPT (3 doses)	0.988	0.008	191	215	1.076	0.008	0.971	1.005
Received polio (3 doses)	0.966	0.013	191	215	1.011	0.014	0.939	0.992
Received measles	0.994	0.006	191	215	1.075	0.006	0.982	1.006
Fully immunized	0.959	0.015	191	215	1.037	0.015	0.929	0.989
Height-for-age (below -2SD)	0.393	0.023	808	878	1.237	0.059	0.347	0.439
Weight-for-height (below -2SD)	0.063	0.012	808	878	1.300	0.190	0.039	0.087
Weight-for-age (below -2SD)	0.052	0.010	808	878	1.271	0.199	0.031	0.073
Total fertility rate (0-3 years)	2.583	0.088	na	8497	1.055	0.034	2.408	2.759
Neonatal mortality rate (10 years)	11.214	3.351	1929	2179	1.263	0.299	4.512	17.916
Postneonatal mortality rate (10 years)	3.660	1.692	1930	2180	1.076	0.462	0.275	7.045
Infant mortality rate (10 years)	14.874	4.053	1930	2180	1.327	0.272	6.769	22.980
Child mortality rate (10 years)	3.126	1.155	1932	2181	0.935	0.369	0.816	5.436
Under-five mortality rate (10 years)	17.954	4.067	1933	2183	1.245	0.227	9.820	26.088
HEALTH ISSUES SURVEY								
<u>Women</u>								
Circumcised all women age 15-49	0.841	0.019	572	603	1.229	0.022	0.804	0.879
Hypertensive all women age 15-59	0.138	0.015	657	689	1.097	0.107	0.109	0.168
Overweight or obese all women age 15-59	0.755	0.017	597	625	0.968	0.023	0.721	0.789
Positive on hepatitis C RNA test all women age 15-59	0.067	0.011	593	611	1.059	0.162	0.045	0.089
<u>Men</u>								
Hypertensive all men age 15-59	0.105	0.013	546	622	1.013	0.127	0.078	0.132
Overweight or obese all men age 15-59	0.621	0.021	531	605	0.998	0.034	0.579	0.663
Positive on hepatitis C RNA test all men age 15-59	0.111	0.014	513	560	1.016	0.127	0.083	0.140

na = Not applicable

Table C.8 Sampling errors for Lower Egypt, Rural sample, Egypt 2008

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
EVER-MARRIED WOMAN SURVEY								
Urban	0.000	0.000	4777	5682	na	na	0.000	0.000
Literate	0.615	0.010	4777	5682	1.414	0.016	0.595	0.635
No education	0.342	0.010	4777	5682	1.461	0.029	0.322	0.363
Completed secondary/higher	0.442	0.011	4777	5682	1.479	0.024	0.421	0.464
Currently married	0.937	0.004	4777	5682	1.061	0.004	0.930	0.945
Children ever born to women 15-49	2.010	0.049	6475	7735	1.049	0.024	1.912	2.108
Children surviving	1.911	0.046	6475	7735	1.042	0.024	1.819	2.002
Children ever born to women age 40-49	4.200	0.060	1288	1520	1.099	0.014	4.081	4.320
Ever used contraceptive method	0.841	0.006	4478	5326	1.017	0.007	0.830	0.852
Currently using any contraceptive method	0.639	0.008	4478	5326	1.143	0.013	0.623	0.656
Currently using any modern method	0.620	0.008	4478	5326	1.164	0.014	0.603	0.636
Currently using pill	0.110	0.005	4478	5326	1.141	0.049	0.099	0.121
Currently using IUD	0.411	0.009	4478	5326	1.290	0.023	0.392	0.430
Currently using condom	0.003	0.001	4478	5326	1.076	0.296	0.001	0.005
Current using injectables	0.077	0.005	4478	5326	1.203	0.062	0.068	0.087
Currently using female sterilization	0.015	0.002	4478	5326	1.070	0.130	0.011	0.019
Currently using periodic abstinence	0.002	0.001	4478	5326	0.998	0.325	0.001	0.003
Using public sector source	0.658	0.011	2771	3303	1.263	0.017	0.636	0.681
Want no more children	0.639	0.007	4478	5326	1.027	0.012	0.625	0.654
Want to delay birth at least 2 years	0.180	0.006	4478	5326	1.018	0.032	0.168	0.192
Ideal family size	2.863	0.017	4427	5259	1.057	0.006	2.829	2.897
Last birth protected against neonatal tetanus	0.848	0.008	2282	2706	1.074	0.010	0.832	0.865
Mothers received medical assistance at delivery	0.834	0.011	3014	3576	1.348	0.013	0.813	0.855
Child had diarrhea in two weeks before survey	0.060	0.005	2955	3508	1.037	0.080	0.050	0.069
Treated with oral rehydration salts (ORS)	0.255	0.032	190	210	0.947	0.125	0.191	0.318
Taken to a health provider	0.610	0.040	190	210	1.025	0.065	0.531	0.689
Had immunization record	0.654	0.021	610	722	1.059	0.032	0.613	0.696
Received BCG	0.988	0.005	610	722	1.003	0.005	0.978	0.998
Received DPT (3 doses)	0.981	0.006	610	722	1.022	0.006	0.968	0.993
Received polio (3 doses)	0.955	0.010	610	722	1.089	0.010	0.936	0.975
Received measles	0.991	0.004	610	722	1.002	0.004	0.983	0.999
Fully immunized	0.931	0.012	610	722	1.083	0.013	0.907	0.955
Height-for-age (below -2SD)	0.327	0.012	2659	3081	1.228	0.038	0.302	0.352
Weight-for-height (below -2SD)	0.069	0.006	2659	3081	1.219	0.093	0.056	0.082
Weight-for-age (below -2SD)	0.056	0.006	2659	3081	1.158	0.099	0.045	0.067
Total fertility rate (0-3 years)	2.982	0.068	na	21970	1.067	0.023	2.846	3.117
Neonatal mortality rate (10 years)	14.964	1.851	5881	7006	1.041	0.124	11.261	18.666
Postneonatal mortality rate (10 years)	8.419	1.281	5880	7005	0.977	0.152	5.856	10.981
Infant mortality rate (10 years)	23.382	2.301	5881	7006	1.028	0.098	18.779	27.985
Child mortality rate (10 years)	4.352	0.991	5884	7010	1.096	0.228	2.371	6.334
Under-five mortality rate (10 years)	27.633	2.556	5885	7011	1.055	0.092	22.522	32.744
HEALTH ISSUES SURVEY								
<u>Women</u>								
Circumcised all women age 15-49	0.958	0.005	1601	1812	1.082	0.006	0.947	0.969
Hypertensive all women age 15-59	0.099	0.007	1803	2041	1.026	0.073	0.084	0.113
Overweight or obese all women age 15-59	0.720	0.011	1641	1857	0.987	0.015	0.698	0.742
Positive on hepatitis C RNA test all women age 15-59	0.097	0.007	1721	1919	1.011	0.075	0.082	0.111
<u>Men</u>								
Hypertensive all men age 15-59	0.088	0.008	1526	1860	1.069	0.088	0.073	0.104
Overweight or obese all men age 15-59	0.541	0.016	1489	1816	1.209	0.029	0.510	0.572
Positive on hepatitis C RNA test all men age 15-59	0.153	0.010	1482	1739	1.042	0.064	0.133	0.172

na = Not applicable



Table C.9 Sampling errors for Upper Egypt sample, Egypt 2008

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
<b>EVER-MARRIED WOMAN SURVEY</b>								
Urban	0.312	0.011	6682	5751	1.871	0.034	0.290	0.333
Literate	0.531	0.010	6682	5751	1.703	0.020	0.510	0.552
No education	0.440	0.010	6682	5751	1.708	0.024	0.419	0.460
Completed secondary/higher	0.329	0.011	6682	5751	1.963	0.034	0.307	0.352
Currently married	0.926	0.004	6682	5751	1.138	0.004	0.919	0.933
Children ever born to women 15-49	2.239	0.064	9665	8373	1.430	0.028	2.111	2.366
Children surviving	2.065	0.058	9665	8373	1.436	0.028	1.948	2.182
Children ever born to women age 40-49	4.932	0.080	1851	1584	1.353	0.016	4.772	5.092
Ever used contraceptive method	0.775	0.007	6187	5326	1.252	0.009	0.762	0.788
Currently using any contraceptive method	0.527	0.008	6187	5326	1.244	0.015	0.511	0.543
Currently using any modern method	0.489	0.008	6187	5326	1.273	0.017	0.473	0.506
Currently using pill	0.122	0.005	6187	5326	1.139	0.039	0.113	0.132
Currently using IUD	0.253	0.008	6187	5326	1.381	0.030	0.238	0.268
Currently using condom	0.005	0.001	6187	5326	1.123	0.198	0.003	0.007
Current using injectables	0.095	0.005	6187	5326	1.259	0.049	0.086	0.105
Currently using female sterilization	0.007	0.001	6187	5326	1.038	0.157	0.005	0.009
Currently using periodic abstinence	0.003	0.001	6187	5326	1.174	0.272	0.001	0.005
Using public sector source	0.603	0.012	2954	2610	1.332	0.020	0.579	0.627
Want no more children	0.595	0.008	6187	5326	1.212	0.013	0.580	0.611
Want to delay birth at least 2 years	0.183	0.005	6187	5326	1.074	0.029	0.173	0.194
Ideal family size	3.190	0.026	6047	5190	1.346	0.008	3.138	3.241
Last birth protected against neonatal tetanus	0.767	0.010	3509	2990	1.334	0.012	0.748	0.787
Mothers received medical assistance at delivery	0.664	0.013	4913	4173	1.538	0.019	0.639	0.689
Child had diarrhea in two weeks before survey	0.111	0.006	4760	4050	1.189	0.052	0.099	0.122
Treated with oral rehydration salts (ORS)	0.309	0.023	564	449	1.087	0.075	0.263	0.356
Taken to a health provider	0.539	0.025	564	449	1.093	0.047	0.488	0.589
Had immunization record	0.726	0.016	968	818	1.112	0.022	0.693	0.758
Received BCG	0.988	0.004	968	818	1.142	0.004	0.980	0.996
Received DPT (3 doses)	0.966	0.006	968	818	1.070	0.006	0.954	0.979
Received polio (3 doses)	0.925	0.011	968	818	1.215	0.011	0.904	0.946
Received measles	0.976	0.005	968	818	1.058	0.006	0.965	0.987
Fully immunized	0.884	0.012	968	818	1.157	0.014	0.860	0.909
Height-for-age (below -2SD)	0.257	0.008	4410	3664	1.192	0.033	0.240	0.274
Weight-for-height (below -2SD)	0.068	0.005	4410	3664	1.265	0.076	0.057	0.078
Weight-for-age (below -2SD)	0.067	0.004	4410	3664	1.088	0.064	0.058	0.075
Total fertility rate (0-3 years)	3.406	0.075	na	23573	1.350	0.022	3.257	3.555
Neonatal mortality rate (10 years)	19.884	1.986	9810	8339	1.188	0.100	15.912	23.856
Postneonatal mortality rate (10 years)	16.375	1.331	9817	8346	0.985	0.081	13.712	19.038
Infant mortality rate (10 years)	36.259	2.380	9819	8347	1.102	0.066	31.499	41.019
Child mortality rate (10 years)	6.638	0.914	9825	8350	1.033	0.138	4.811	8.466
Under-five mortality rate (10 years)	42.657	2.562	9836	8359	1.119	0.060	37.532	47.782
<b>HEALTH ISSUES SURVEY</b>								
<b>Women</b>								
Circumcised all women age 15-49	0.926	0.009	2432	1970	1.675	0.010	0.908	0.944
Hypertensive all women age 15-59	0.145	0.008	2705	2195	1.221	0.057	0.129	0.162
Overweight or obese all women age 15-59	0.575	0.011	2450	1985	1.145	0.020	0.552	0.597
Positive on hepatitis C RNA test all women age 15-59	0.083	0.006	2537	2034	1.159	0.076	0.070	0.096
<b>Men</b>								
Hypertensive all men age 15-59	0.117	0.009	2186	1973	1.287	0.076	0.099	0.135
Overweight or obese all men age 15-59	0.456	0.014	2148	1935	1.257	0.030	0.429	0.483
Positive on hepatitis C RNA test all men age 15-59	0.124	0.009	2077	1828	1.240	0.072	0.106	0.142

na = Not applicable

Table C.10 Sampling errors for Upper Egypt, Urban sample, Egypt 2008

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
EVER-MARRIED WOMAN SURVEY								
Urban	1.000	0.000	1920	1792	na	0.000	1.000	1.000
Literate	0.767	0.019	1920	1792	1.944	0.024	0.730	0.805
No education	0.210	0.018	1920	1792	1.932	0.085	0.174	0.246
Completed secondary/higher	0.574	0.025	1920	1792	2.196	0.043	0.525	0.624
Currently married	0.919	0.007	1920	1792	1.179	0.008	0.904	0.933
Children ever born to women 15-49	1.812	0.108	3048	2780	1.084	0.060	1.596	2.029
Children surviving	1.698	0.100	3048	2780	1.074	0.059	1.498	1.898
Children ever born to women age 40-49	3.905	0.141	595	572	1.595	0.036	3.623	4.187
Ever used contraceptive method	0.834	0.010	1765	1646	1.179	0.013	0.813	0.855
Currently using any contraceptive method	0.624	0.014	1765	1646	1.214	0.022	0.596	0.652
Currently using any modern method	0.584	0.014	1765	1646	1.160	0.023	0.557	0.611
Currently using pill	0.141	0.010	1765	1646	1.176	0.069	0.121	0.160
Currently using IUD	0.363	0.015	1765	1646	1.312	0.041	0.333	0.393
Currently using condom	0.012	0.003	1765	1646	1.116	0.239	0.006	0.018
Current using injectables	0.055	0.007	1765	1646	1.380	0.137	0.040	0.070
Currently using female sterilization	0.007	0.002	1765	1646	0.996	0.291	0.003	0.010
Currently using periodic abstinence	0.009	0.003	1765	1646	1.160	0.292	0.004	0.014
Using public sector source	0.474	0.023	997	964	1.446	0.048	0.428	0.520
Want no more children	0.610	0.016	1765	1646	1.357	0.026	0.578	0.641
Want to delay birth at least 2 years	0.172	0.010	1765	1646	1.080	0.056	0.153	0.192
Ideal family size	2.922	0.044	1819	1697	1.385	0.015	2.834	3.010
Last birth protected against neonatal tetanus	0.681	0.021	945	854	1.369	0.031	0.639	0.723
Mothers received medical assistance at delivery	0.856	0.021	1273	1141	1.679	0.024	0.815	0.897
Child had diarrhea in two weeks before survey	0.126	0.013	1234	1107	1.287	0.102	0.100	0.151
Treated with oral rehydration salts (ORS)	0.297	0.042	171	139	1.053	0.142	0.212	0.382
Taken to a health provider	0.626	0.041	171	139	0.986	0.065	0.544	0.708
Had immunization record	0.728	0.034	254	222	1.183	0.047	0.660	0.797
Received BCG	0.996	0.004	254	222	0.916	0.004	0.989	1.004
Received DPT (3 doses)	0.982	0.009	254	222	1.098	0.010	0.963	1.001
Received polio (3 doses)	0.926	0.019	254	222	1.127	0.021	0.887	0.964
Received measles	0.983	0.008	254	222	0.900	0.008	0.967	0.998
Fully immunized	0.909	0.020	254	222	1.086	0.022	0.868	0.949
Height-for-age (below -2SD)	0.227	0.017	1119	983	1.220	0.074	0.193	0.260
Weight-for-height (below -2SD)	0.080	0.010	1119	983	1.177	0.127	0.060	0.101
Weight-for-age (below -2SD)	0.071	0.009	1119	983	1.076	0.123	0.053	0.088
Total fertility rate (0-3 years)	2.971	0.115	NA	8028	1.280	0.039	2.742	3.201
Neonatal mortality rate (10 years)	19.591	5.067	2493	2257	1.334	0.259	9.456	29.725
Postneonatal mortality rate (10 years)	10.418	2.424	2495	2259	0.982	0.233	5.570	15.265
Infant mortality rate (10 years)	30.009	5.487	2495	2259	1.222	0.183	19.034	40.983
Child mortality rate (10 years)	4.511	1.291	2499	2261	0.947	0.286	1.929	7.094
Under-five mortality rate (10 years)	34.385	5.739	2501	2263	1.244	0.167	22.907	45.862
HEALTH ISSUES SURVEY								
<b>Women</b>								
Circumcised all women age 15-49	0.862	0.022	707	623	1.671	0.025	0.818	0.905
Hypertensive all women age 15-59	0.165	0.015	809	713	1.162	0.092	0.135	0.195
Overweight or obese all women age 15-59	0.665	0.021	735	650	1.179	0.031	0.624	0.706
Positive on hepatitis C RNA test all women age 15-59	0.054	0.011	714	631	1.246	0.195	0.033	0.075
<b>Men</b>								
Hypertensive all men age 15-59	0.119	0.017	709	696	1.409	0.144	0.085	0.154
Overweight or obese all men age 15-59	0.547	0.028	699	685	1.485	0.051	0.491	0.603
Positive on hepatitis C RNA test all men age 15-59	0.103	0.016	642	619	1.316	0.153	0.072	0.135

na = Not applicable

Table C.11 Sampling errors for Upper Egypt, Rural sample, Egypt 2008

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
EVER-MARRIED WOMAN SURVEY								
Urban	0.000	0.000	4762	3959	na	na	0.000	0.000
Literate	0.424	0.011	4762	3959	1.586	0.027	0.401	0.447
No education	0.544	0.012	4762	3959	1.615	0.021	0.520	0.567
Completed secondary/higher	0.219	0.010	4762	3959	1.738	0.048	0.198	0.240
Currently married	0.930	0.004	4762	3959	1.109	0.004	0.921	0.938
Children ever born to women 15-49	2.454	0.076	6625	5585	1.429	0.031	2.302	2.606
Children surviving	2.250	0.070	6625	5585	1.439	0.031	2.111	2.389
Children ever born to women age 40-49	5.519	0.087	1255	1011	1.213	0.016	5.344	5.694
Ever used contraceptive method	0.749	0.008	4422	3680	1.282	0.011	0.732	0.766
Currently using any contraceptive method	0.484	0.009	4422	3680	1.243	0.019	0.465	0.502
Currently using any modern method	0.447	0.010	4422	3680	1.309	0.022	0.428	0.467
Currently using pill	0.114	0.005	4422	3680	1.112	0.047	0.103	0.125
Currently using IUD	0.204	0.009	4422	3680	1.410	0.042	0.187	0.221
Currently using condom	0.002	0.001	4422	3680	0.945	0.315	0.001	0.003
Current using injectables	0.114	0.006	4422	3680	1.232	0.052	0.102	0.125
Currently using female sterilization	0.007	0.001	4422	3680	1.056	0.186	0.005	0.010
Currently using periodic abstinence	0.000	0.000	4422	3680	0.937	0.709	0.000	0.001
Using public sector source	0.679	0.013	1957	1646	1.213	0.019	0.654	0.705
Want no more children	0.589	0.008	4422	3680	1.134	0.014	0.572	0.606
Want to delay birth at least 2 years	0.188	0.006	4422	3680	1.069	0.033	0.176	0.201
Ideal family size	3.320	0.030	4228	3492	1.287	0.009	3.259	3.381
Last birth protected against neonatal tetanus	0.802	0.010	2564	2136	1.271	0.012	0.782	0.822
Mothers received medical assistance at delivery	0.592	0.015	3640	3032	1.546	0.026	0.561	0.622
Child had diarrhea in two weeks before survey	0.105	0.006	3526	2943	1.132	0.059	0.093	0.118
Treated with oral rehydration salts (ORS)	0.315	0.028	393	310	1.099	0.088	0.260	0.370
Taken to a health provider	0.499	0.031	393	310	1.119	0.062	0.438	0.561
Had immunization record	0.725	0.018	714	595	1.083	0.025	0.688	0.761
Received BCG	0.985	0.005	714	595	1.177	0.005	0.974	0.996
Received DPT (3 doses)	0.960	0.008	714	595	1.081	0.008	0.945	0.976
Received polio (3 doses)	0.924	0.013	714	595	1.251	0.014	0.899	0.949
Received measles	0.974	0.007	714	595	1.103	0.007	0.960	0.988
Fully immunized	0.875	0.015	714	595	1.188	0.017	0.845	0.905
Height-for-age (below -2SD)	0.269	0.010	3291	2681	1.187	0.036	0.249	0.288
Weight-for-height (below -2SD)	0.063	0.006	3291	2681	1.304	0.094	0.051	0.075
Weight-for-age (below -2SD)	0.065	0.005	3291	2681	1.101	0.075	0.055	0.075
Total fertility rate (0-3 years)	3.626	0.095	na	15341	1.320	0.026	3.436	3.816
Neonatal mortality rate (10 years)	19.993	2.006	7317	6083	1.104	0.100	15.980	24.005
Postneonatal mortality rate (10 years)	18.567	1.542	7322	6087	0.972	0.083	15.484	21.651
Infant mortality rate (10 years)	38.560	2.557	7324	6088	1.045	0.066	33.446	43.674
Child mortality rate (10 years)	7.415	1.150	7326	6089	1.055	0.155	5.115	9.714
Under-five mortality rate (10 years)	45.689	2.783	7335	6096	1.060	0.061	40.124	51.255
HEALTH ISSUES SURVEY								
<u>Women</u>								
Circumcised all women age 15-49	0.956	0.008	1725	1347	1.635	0.008	0.940	0.972
Hypertensive all women age 15-59	0.136	0.010	1896	1482	1.248	0.072	0.116	0.155
Overweight or obese all women age 15-59	0.531	0.014	1715	1335	1.123	0.026	0.504	0.558
Positive on hepatitis C RNA test all women age 15-59	0.096	0.008	1823	1403	1.134	0.081	0.081	0.112
<u>Men</u>								
Hypertensive all men age 15-59	0.116	0.010	1477	1277	1.197	0.086	0.096	0.136
Overweight or obese all men age 15-59	0.406	0.014	1449	1251	1.119	0.036	0.377	0.435
Positive on hepatitis C RNA test all men age 15-59	0.135	0.011	1435	1209	1.203	0.081	0.113	0.156

na = Not applicable

Table C.12 Sampling errors for Frontier Governorates sample, Egypt 2008

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
<b>EVER-MARRIED WOMAN SURVEY</b>								
Urban	0.659	0.021	911	227	1.318	0.031	0.618	0.701
Literate	0.666	0.021	911	227	1.365	0.032	0.623	0.708
No education	0.344	0.023	911	227	1.479	0.068	0.297	0.391
Completed secondary/higher	0.420	0.030	911	227	1.845	0.072	0.359	0.480
Currently married	0.953	0.007	911	227	1.025	0.008	0.938	0.967
Children ever born to women 15-49	2.113	0.143	1309	319	0.919	0.067	1.828	2.398
Children surviving	2.004	0.134	1309	319	0.913	0.067	1.736	2.272
Children ever born to women age 40-49	4.654	0.208	237	60	1.282	0.045	4.238	5.071
Ever used contraceptive method	0.736	0.014	867	216	0.910	0.019	0.708	0.763
Currently using any contraceptive method	0.523	0.018	867	216	1.043	0.034	0.488	0.558
Currently using any modern method	0.486	0.018	867	216	1.068	0.037	0.450	0.523
Currently using pill	0.133	0.012	867	216	1.039	0.090	0.109	0.156
Currently using IUD	0.266	0.023	867	216	1.533	0.086	0.220	0.312
Currently using condom	0.011	0.005	867	216	1.450	0.466	0.001	0.021
Current using injectables	0.055	0.008	867	216	1.073	0.152	0.038	0.071
Currently using female sterilization	0.010	0.003	867	216	1.015	0.345	0.003	0.017
Currently using periodic abstinence	0.002	0.002	867	216	1.144	0.987	0.000	0.005
Using public sector source	0.561	0.033	400	105	1.335	0.059	0.495	0.627
Want no more children	0.552	0.017	867	216	1.023	0.031	0.518	0.587
Want to delay birth at least 2 years	0.205	0.014	867	216	1.017	0.068	0.177	0.233
Ideal family size	3.350	0.072	893	222	1.265	0.021	3.207	3.493
Last birth protected against neonatal tetanus	0.687	0.031	458	111	1.434	0.046	0.624	0.750
Mothers received medical assistance at delivery	0.791	0.024	633	151	1.206	0.031	0.742	0.840
Child had diarrhea in two weeks before survey	0.061	0.012	618	148	1.214	0.198	0.037	0.085
Treated with oral rehydration salts (ORS)	0.311	0.083	39	9	1.063	0.266	0.146	0.476
Taken to a health provider	0.440	0.104	39	9	1.241	0.237	0.231	0.648
Had immunization record	0.621	0.047	141	34	1.077	0.075	0.528	0.714
Received BCG	0.982	0.010	141	34	0.865	0.010	0.962	1.001
Received DPT (3 doses)	0.933	0.025	141	34	1.028	0.027	0.883	0.984
Received polio (3 doses)	0.887	0.029	141	34	0.966	0.032	0.830	0.944
Received measles	0.967	0.013	141	34	0.859	0.014	0.941	0.993
Fully immunized	0.862	0.033	141	34	1.036	0.038	0.797	0.928
Height-for-age (below -2SD)	0.282	0.024	482	109	1.066	0.086	0.234	0.331
Weight-for-height (below -2SD)	0.064	0.015	482	109	1.195	0.231	0.034	0.093
Weight-for-age (below -2SD)	0.042	0.011	482	109	1.109	0.258	0.020	0.063
Total fertility rate (0-3 years)	3.327	0.176	na	909	1.062	0.053	2.974	3.680
Neonatal mortality rate (10 years)	15.908	4.568	1284	311	1.183	0.287	6.771	25.045
Postneonatal mortality rate (10 years)	8.163	3.279	1285	311	1.209	0.402	1.605	14.721
Infant mortality rate (10 years)	24.071	5.714	1285	311	1.199	0.237	12.642	35.499
Child mortality rate (10 years)	9.629	2.946	1289	312	0.890	0.306	3.737	15.520
Under-five mortality rate (10 years)	33.468	7.443	1290	312	1.340	0.222	18.582	48.353
<b>HEALTH ISSUES SURVEY</b>								
<b>Women</b>								
Circumcised all women age 15-49	0.663	0.032	340	82	1.262	0.049	0.598	0.728
Hypertensive all women age 15-59	0.085	0.018	370	89	1.275	0.218	0.048	0.122
Overweight or obese all women age 15-59	0.544	0.023	324	78	0.844	0.043	0.497	0.591
Positive on hepatitis C RNA test all women age 15-59	0.018	0.008	320	82	1.104	0.458	0.002	0.034
<b>Men</b>								
Hypertensive all men age 15-59	0.127	0.020	346	93	1.121	0.158	0.087	0.168
Overweight or obese all men age 15-59	0.409	0.028	338	91	1.044	0.068	0.353	0.465
Positive on hepatitis C RNA test all men age 15-59	0.047	0.011	305	87	0.916	0.237	0.025	0.069

na = Not applicable



Table D.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Egypt 2008

Age	Women		Men	
	Number	Percent	Number	Percent
0	1,182	2.7	1,236	2.9
1	1,023	2.3	1,048	2.4
2	991	2.3	984	2.3
3	935	2.1	986	2.3
4	877	2.0	932	2.2
5	1,105	2.5	1,122	2.6
6	980	2.2	1,052	2.5
7	897	2.0	990	2.3
8	899	2.0	988	2.3
9	994	2.3	1,028	2.4
10	904	2.1	903	2.1
11	944	2.1	980	2.3
12	955	2.2	974	2.3
13	866	2.0	928	2.2
14	913	2.1	897	2.1
15	835	1.9	897	2.1
16	898	2.0	952	2.2
17	908	2.1	922	2.2
18	954	2.2	952	2.2
19	959	2.2	864	2.0
20	1,117	2.5	942	2.2
21	937	2.1	832	1.9
22	978	2.2	837	2.0
23	888	2.0	845	2.0
24	837	1.9	800	1.9
25	961	2.2	787	1.8
26	739	1.7	675	1.6
27	791	1.8	691	1.6
28	804	1.8	670	1.6
29	654	1.5	587	1.4
30	817	1.9	704	1.6
31	451	1.0	464	1.1
32	599	1.4	575	1.3
33	469	1.1	435	1.0
34	487	1.1	440	1.0
35	674	1.5	629	1.5
36	457	1.0	426	1.0
37	502	1.1	427	1.0
38	535	1.2	483	1.1
39	473	1.1	386	0.9
40	668	1.5	596	1.4
41	408	0.9	375	0.9
42	516	1.2	516	1.2
43	515	1.2	417	1.0
44	365	0.8	406	0.9
45	596	1.4	612	1.4
46	357	0.8	363	0.8
47	436	1.0	423	1.0
48	429	1.0	406	0.9
49	403	0.9	350	0.8
50	326	0.7	464	1.1
51	332	0.8	274	0.6
52	456	1.0	387	0.9
53	381	0.9	319	0.7
54	292	0.7	338	0.8
55	552	1.3	457	1.1
56	239	0.5	267	0.6
57	208	0.5	275	0.6
58	252	0.6	272	0.6
59	198	0.5	232	0.5
60	495	1.1	346	0.8
61	156	0.4	186	0.4
62	217	0.5	206	0.5
63	143	0.3	174	0.4
64	97	0.2	134	0.3
65	443	1.0	345	0.8
66	71	0.2	94	0.2
67	87	0.2	136	0.3
68	83	0.2	119	0.3
69	57	0.1	85	0.2
70+	1,039	2.4	1,020	2.4
Don't know/missing	2	0.0	1	0.0
Total	44,005	100.0	42,863	100.0

Table D.2 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, all ever-married women age 15-49, and ever-married women age 15-49 interviewed in the 2008 EDHS, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Egypt 2008

Age group	Household population of women age 15-49	Ever-married women age 15-49	Ever-married women age 15-49 interviewed		Percentage of eligible women interviewed
			Number	Percent	
15-19	4,554	616	615	3.8	99.8
20-24	4,758	2,567	2,565	15.8	99.8
25-29	3,949	3,271	3,266	20.2	99.8
30-34	2,822	2,626	2,623	16.2	99.9
35-39	2,640	2,547	2,542	15.7	99.8
40-44	2,471	2,414	2,408	14.9	99.8
45-49	2,220	2,180	2,172	13.4	99.6
50-54	1,786	1,751	na	na	na
15-49	23,412	16,220	16,186	100.0	99.8

Note: The de facto population includes all residents and nonresidents who slept in the household on the night before the interview.  
na = Not applicable.

Table D.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Egypt 2008

Subject	Reference group	Percentage with information missing	Number of cases
<b>Birth date</b>	Births in past 15 years		
Month only		1.9	30,353
Month and year		0.3	30,353
<b>Age at death</b>	Deaths to births in past 15 years	0.0	1,141
<b>Age/date at first union<sup>1</sup></b>	Ever-married women age 15-49	<0.1	16,527
<b>Respondent's education</b>	Ever-married women age 15-49	<0.1	16,527
<b>Diarrhea in last 2 weeks</b>	Living children age 0-59 months whose mothers interviewed	0.2	10,327
<b>Anthropometry<sup>2</sup></b>	All living children age 0-59 months in household		
Height missing		0.7	10,160
Weight missing		0.6	10,160
Height or weight missing		0.7	10,160

<sup>1</sup> Both year and age missing

<sup>2</sup> Child not measured

Table D.4 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Egypt 2008

Age at death (days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	31	30	46	34	141
1	33	35	32	32	132
2	12	13	19	14	59
3	18	17	14	16	66
4	8	9	7	10	34
5	7	13	10	6	36
6	7	5	4	8	25
7	15	38	35	41	128
8	5	2	1	3	10
9	0	5	0	2	7
10	3	8	5	5	22
11	3	2	0	0	5
12	3	0	4	5	11
13	2	0	0	0	2
14	0	2	0	2	5
15	11	8	8	12	38
16	1	1	0	2	3
17	1	3	0	4	9
18	0	1	1	0	2
19	1	0	0	0	1
20	1	2	2	5	10
21	0	1	1	0	2
22	2	1	0	0	2
23	1	2	2	2	6
24	0	0	0	0	0
25	0	2	2	1	5
26	1	0	0	0	1
27	4	0	1	0	5
28	0	0	1	1	2
29	0	1	0	0	1
Total 0-30	169	201	194	204	768
Percent early neonatal <sup>1</sup>	70	60	68	59	64

<sup>1</sup> (0-6 days)/(0-30 days) \* 100



Table D.5 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey (weighted), Egypt 2008

Age at death (months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 <sup>a</sup>	169	201	194	204	768
1	7	24	26	25	82
2	16	19	26	22	84
3	9	13	17	10	49
4	9	18	20	19	67
5	9	11	6	14	41
6	5	17	24	29	75
7	8	14	15	15	51
8	1	8	14	10	33
9	6	14	13	23	55
10	3	2	2	4	11
11	3	3	2	4	12
12	4	9	20	25	58
13	1	0	3	1	6
14	0	0	6	5	11
15	0	1	2	2	6
16	0	0	1	0	1
18	4	10	13	24	51
20	0	0	0	0	1
21	0	0	0	0	0
22	1	0	0	0	1
23	0	0	0	2	2
1 year	0	3	3	5	10
Total 0-11	245	343	360	380	1,328
Percent neonatal <sup>1</sup>	69	59	54	54	58

<sup>a</sup> Includes deaths under one month reported in days

<sup>1</sup> Under one month/under one year

Table D.6 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Egypt 2008

Calendar year	Number of births			Percentage with complete birth date <sup>1</sup>			Sex ratio at birth <sup>2</sup>			Calendar year ratio <sup>3</sup>		
	L	D	T	L	D	T	L	D	T	L	D	T
2008	738	15	753	100.0	100.0	100.0	99.3	220.6	100.8	-	-	-
2007	2,379	52	2,431	100.0	100.0	100.0	108.2	100.2	108.0	-	-	-
2006	2,163	54	2,216	100.0	100.0	100.0	99.6	135.0	100.4	101.4	100.7	101.4
2005	1,885	54	1,939	100.0	100.0	100.0	97.5	119.5	98.0	91.3	97.6	91.5
2004	1,965	58	2,023	100.0	100.0	100.0	105.9	142.6	106.8	107.3	114.7	107.5
2003	1,779	46	1,825	100.0	100.0	100.0	105.1	216.2	107.0	80.2	62.6	79.7
2002	2,469	90	2,559	99.6	79.5	98.9	96.0	120.4	96.8	129.5	141.3	129.9
2001	2,036	81	2,116	98.4	78.7	97.6	124.5	166.6	125.8	91.3	94.9	91.4
2000	1,992	81	2,073	98.8	64.2	97.5	106.3	149.4	107.7	103.5	100.7	103.3
1999	1,815	79	1,895	97.5	55.5	95.8	104.4	139.7	105.7	91.0	96.6	91.2
2004-2008	9,130	232	9,363	100.0	100.0	100.0	102.7	127.9	103.2	na	na	na
1999-2003	10,091	377	10,468	98.9	73.5	98.0	106.5	149.4	107.8	na	na	na
1994-1998	9,029	453	9,483	97.6	62.6	95.9	103.6	120.3	104.4	na	na	na
1989-1993	7,491	574	8,065	97.1	55.1	94.1	105.9	125.8	107.2	na	na	na
<1989	8,750	1,111	9,861	90.5	50.7	86.1	106.3	118.4	107.6	na	na	na
All	44,491	2,748	47,239	96.9	60.9	94.8	105.0	124.9	106.0	na	na	na

na = Not applicable

<sup>1</sup> Both year and month of birth given

<sup>2</sup>  $(B_m/B_f) \times 100$ , where  $B_m$  and  $B_f$  are the numbers of male and female births, respectively

<sup>3</sup>  $[2B_x / (B_{x-1} + B_{x+1})] \times 100$ , where  $B_x$  is the number of births in calendar year  $x$



# NUTRITIONAL STATUS OF CHILDREN: 2008

## EDHS DATA ACCORDING TO THE

### NCHS/CDC/WHO INTERNATIONAL

### REFERENCE POPULATION

## Appendix *E*

Table E.1 Nutritional status of children by children's characteristics according to the NCHS/CDC/WHO International Reference Population

Percentage of children under five who are classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics of the child, Egypt 2008

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	
<b>Child's age</b>										
Under 6 months	1.5	10.3	(0.0)	1.8	6.8	0.7	0.0	0.8	0.6	865
6-8	5.5	16.5	(0.4)	0.7	6.7	0.5	0.7	3.7	0.0	792
9-11	4.7	17.2	(0.4)	1.0	8.0	0.3	3.2	8.7	(0.2)	318
12-17	10.4	25.8	(0.9)	1.2	6.2	0.4	1.4	8.1	(0.3)	939
18-23	17.5	37.1	(1.3)	2.4	8.6	0.3	2.4	11.5	(0.5)	928
24-35	14.3	28.3	(1.0)	1.7	6.4	0.3	1.4	9.3	(0.4)	1,813
36-47	12.9	27.8	(1.0)	1.6	6.2	0.4	1.5	8.1	(0.4)	1,758
48-59	9.2	22.9	(1.0)	1.6	5.2	0.4	0.9	7.2	(0.3)	1,697
<b>Sex</b>										
Male	12.2	26.7	(0.9)	1.9	7.3	0.3	1.4	8.4	(0.4)	4,625
Female	9.1	22.7	(0.8)	1.3	5.6	0.5	1.2	6.6	(0.1)	4,486
<b>Birth order</b>										
1	10.8	24.3	(0.8)	1.4	6.9	0.4	1.5	6.8	(0.2)	2,925
2-3	10.5	24.9	(0.9)	1.6	6.4	0.4	1.0	7.7	(0.2)	4,223
4-5	10.8	25.1	(0.9)	1.6	6.7	0.3	1.8	8.0	(0.3)	1,355
6+	10.5	24.0	(1.0)	1.8	4.9	0.3	1.1	7.9	(0.4)	509
<b>Birth interval in months</b>										
First birth <sup>2</sup>	10.9	24.5	(0.8)	1.4	6.9	0.4	1.5	6.9	(0.2)	2,982
Under 24 months	12.3	29.0	(1.1)	1.4	6.1	0.3	1.3	10.4	(0.4)	1,064
24-47	10.7	24.1	(0.9)	1.7	5.9	0.4	1.3	7.3	(0.3)	3,017
48+	9.4	23.6	(0.8)	1.6	7.0	0.4	1.0	6.9	(0.2)	1,948
<b>Size at birth<sup>3</sup></b>										
Very small	9.3	30.6	(0.9)	2.2	7.6	0.2	1.8	12.0	(0.5)	279
Small	10.3	25.5	(1.0)	0.9	6.8	0.3	1.2	8.6	(0.4)	850
Average or larger	10.7	24.4	(0.8)	1.6	6.4	0.4	1.3	7.2	(0.2)	7,844
Missing	16.7	31.6	(1.2)	0.0	0.0	0.8	0.0	0.0	(0.1)	23
<b>Mother's interview status</b>										
Interviewed	10.7	24.7	(0.9)	1.6	6.5	0.4	1.3	7.4	(0.3)	9,012
Not interviewed	13.8	29.0	(1.0)	1.7	3.7	0.5	2.4	9.9	(0.2)	99
In the household	9.9	22.2	(0.6)	0.0	4.7	0.6	0.0	4.1	0.0	41
Not in the household <sup>4</sup>	16.5	33.8	(1.2)	2.9	2.9	0.4	4.1	14.0	(0.4)	58
Total	10.7	24.7	(0.9)	1.6	6.5	0.4	1.3	7.5	(0.3)	9,111

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median on the NCHS/CDC/WHO International Reference Population, which was used for assessing children's nutritional status prior to 2006. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown according to children whose mothers were not interviewed in the survey. Information on the background characteristics shown in the table is not available for these children. The total also includes 6 children for whom information on the child's size at birth was not available.

<sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

<sup>2</sup> First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

<sup>3</sup> Excludes children whose mothers were not interviewed or for whom size at birth information is not available.

<sup>4</sup> Includes children whose mothers are deceased.

Table E.2 Nutritional status of children by mother's characteristics according to the NCHS/CDC/WHO International Reference Population

Percentage of children under five who are classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by selected background characteristics, Egypt 2008

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Mean Z-score (SD)	
<b>Mother's age<sup>2</sup></b>										
15-19	6.3	21.3	(0.5)	2.1	8.7	0.3	2.2	7.1	(0.1)	267
20-24	11.5	25.1	(0.9)	1.1	6.0	0.4	1.3	7.5	(0.2)	2,272
25-29	9.8	23.8	(0.8)	1.8	7.1	0.4	1.0	7.1	(0.2)	3,220
30-34	11.3	25.8	(0.9)	1.8	6.5	0.4	1.5	7.7	(0.3)	1,862
35-49	11.2	25.1	(0.9)	1.4	5.5	0.4	1.2	7.7	(0.3)	1,431
Missing	16.5	33.8	(1.2)	2.9	2.9	0.4	4.1	14.0	(0.4)	58
<b>Urban-rural residence</b>										
Urban	10.2	23.1	(0.7)	1.6	7.1	0.5	1.3	6.9	(0.1)	3,312
Rural	11.0	25.7	(0.9)	1.6	6.1	0.4	1.3	7.8	(0.3)	5,799
<b>Place of residence</b>										
Urban Governorates	8.9	19.8	(0.5)	1.9	7.6	0.5	1.2	6.6	(0.0)	1,377
Lower Egypt	14.9	29.9	(1.0)	1.5	6.0	0.6	1.2	6.5	(0.2)	3,947
Urban	15.9	33.5	(1.2)	1.1	5.7	0.7	1.2	5.4	(0.2)	875
Rural	14.6	28.9	(1.0)	1.6	6.1	0.5	1.2	6.9	(0.2)	3,072
Upper Egypt	6.9	21.0	(0.8)	1.6	6.6	0.2	1.4	8.8	(0.4)	3,676
Urban	6.7	17.9	(0.7)	1.6	7.7	0.2	1.6	8.8	(0.3)	997
Rural	6.9	22.1	(0.9)	1.6	6.2	0.2	1.3	8.9	(0.4)	2,680
Frontier Governorates	11.5	25.9	(0.8)	1.3	4.7	0.5	1.0	5.9	(0.1)	110
<b>Mother's education<sup>2</sup></b>										
No education	10.1	25.2	(0.9)	2.0	7.1	0.2	1.5	9.7	(0.4)	2,374
Some primary	9.5	23.0	(0.9)	1.0	6.3	0.4	0.9	6.8	(0.3)	619
Primary complete/some secondary	12.1	25.7	(0.9)	1.4	6.1	0.4	1.5	7.1	(0.3)	1,358
Secondary complete/higher	10.7	24.3	(0.8)	1.5	6.3	0.5	1.1	6.5	(0.2)	4,701
Missing	16.5	33.8	(1.2)	2.9	2.9	0.4	4.1	14.0	(0.4)	58
<b>Work status<sup>3</sup></b>										
Working for cash	11.5	25.6	(0.9)	1.3	4.7	0.5	1.6	6.7	(0.2)	999
Not working for cash	10.6	24.6	(0.9)	1.6	6.7	0.4	1.2	7.5	(0.3)	8,012
Missing	13.8	29.0	(1.0)	1.7	3.7	0.5	2.4	9.9	(0.2)	99
<b>Wealth quintile</b>										
Lowest	9.1	24.4	(0.9)	2.2	6.4	0.2	1.3	9.1	(0.4)	1,880
Second	11.4	25.5	(0.9)	1.2	7.5	0.3	1.7	8.4	(0.4)	1,831
Middle	9.3	23.6	(0.8)	2.2	6.9	0.4	1.6	6.9	(0.2)	1,924
Fourth	13.1	26.1	(1.0)	0.7	5.1	0.7	0.7	5.9	(0.1)	1,817
Highest	10.8	24.0	(0.7)	1.5	6.5	0.5	1.1	7.0	(0.1)	1,658
Total	10.7	24.7	(0.9)	1.6	6.5	0.4	1.3	7.5	(0.3)	9,111

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD AND -2 SD) are shown according to background characteristics. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

<sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

<sup>2</sup> For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers were not listed in the household schedule.

<sup>3</sup> Excludes children whose mothers were not interviewed.

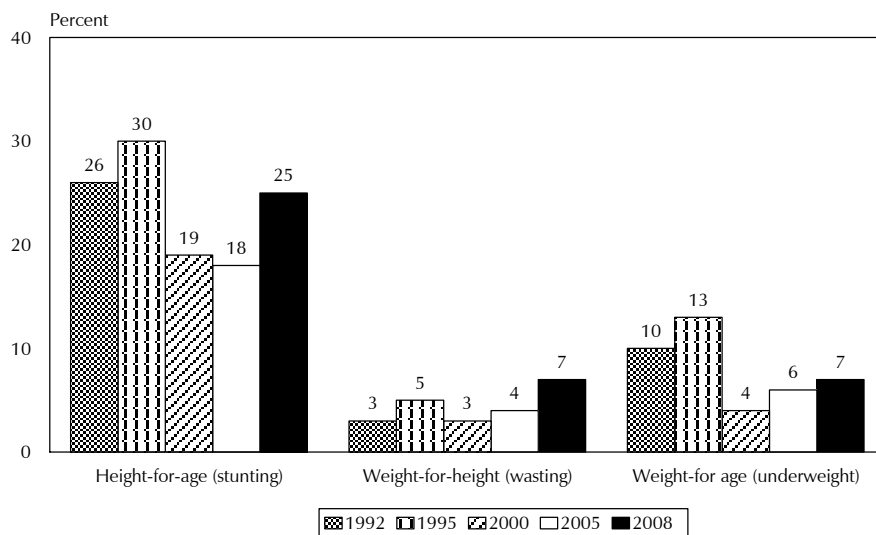
**Table E.3 Trends in nutritional status of children according to the NCHS/CDC/WHO International Reference Population**

Percentage of children under five classified as malnourished according to selected indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, Egypt 1992-2005

Index of nutritional status	1992	1995	1997	1998	2000	2003	2005	2008
	EDHS	EDHS	Interim EDHS	Interim EDHS	EDHS	EIDHS	EDHS	EDHS
Height-for-age	26.0	29.8	24.9	20.6	18.7	15.6	17.6	24.7
Weight-for-height	3.4	4.6	6.1	5.1	2.5	4.0	3.9	6.5
Weight-for-age	9.9	12.5	11.7	10.7	4.0	8.6	6.1	7.4

Note: Figures are based on children of respondents under age five. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Source: El-Zanaty and Associates and Macro International Inc., 2005, Table 14.3

**Figure E.1 Trend in Nutritional Status of Young Children Egypt 1992-2008 (NCHS/CDC/WHO Reference Population)**



Note: Data are for children under age five of mothers interviewed in the survey for whom the nutrition status measure fell below -2 SD from NCHS/CDC/WHO reference group median.









**EGYPT DEMOGRAPHIC AND HEALTH SURVEY  
2008**

**HOUSEHOLD QUESTIONNAIRE**

**DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL  
AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY**



HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION	
GOVERNORATE _____ PSU/SEGMENT NO. _____	GOVERNORATE <input type="text"/> <input type="text"/>
KISM/MARKAZ _____ BUILDING NO. _____	PSU/SEGMENT NO. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
SHIAKHA/VILLAGE _____ HOUSING UNIT NO. _____	HOUSEHOLD NO. URBAN/RURAL <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
HOUSEHOLD NUMBER _____	LOCALITY SUBSAMPLE <input type="text"/> <input type="text"/>
URBAN ..... 1 RURAL ..... 2	
LARGE CITY ..... 1 SMALL CITY ... 2 TOWN ..... 3 VILLAGE ..... 4	
HEPATITIS C TESTING SUBSAMPLE: YES ..... 1 NO ..... 2	
NAME OF HOUSEHOLD HEAD _____	
ADDRESS IN DETAIL _____	
TELEPHONE: CELLULAR _____ LANDLINE _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR <input type="text"/> <input type="text"/> 0 <input type="text"/> <input type="text"/> 0 8
TEAM	_____	_____	_____	TEAM .....
INTERVIEWER	_____	_____	_____	INT. NUMBER ...
SUPERVISOR	_____	_____	_____	SUP. NUMBER .
RESULT	_____	_____	_____	RESULT .....
NEXT VISIT: DATE	_____	_____	_____	TOTAL NUMBER OF VISITS <input type="text"/>
TIME	_____	_____	_____	
<b>RESULT CODES:</b> 1 COMPLETED 2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT 3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME 4 POSTPONED 5 REFUSED 6 DWELLING VACANT OR ADDRESS NOT A DWELLING 7 DWELLING DESTROYED 8 DWELLING NOT FOUND 9 OTHER _____ (SPECIFY)			TOTAL PERSONS IN HOUSEHOLD <input type="text"/> <input type="text"/> TOTAL ELIGIBLE WOMEN <input type="text"/> <input type="text"/> TOTAL ELIGIBLE RESPONDENTS HEPATITIS C TESTING SUBSAMPLE <input type="text"/> <input type="text"/> LINE NO. RESPONDENT TO HOUSEHOLD QUESTIONNAIRE <input type="text"/> <input type="text"/>	
ADDRESSED CHECKED BY: _____			YES	NO
REINTERVIEW: .....			1	2
	FIELD EDITOR	OFFICE EDITOR	CODER	KEYER
NAME	_____	_____	_____	_____
DATE	/ / 2008	/ / 2008	/ / 2008	/ / 2008
SIGNATURE	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>

### Introduction and Consent

Hello. My name is \_\_\_\_\_ and we are working with the Ministry of Health and Population. We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey. The survey usually takes between 10 to 15 minutes to complete.

As part of the survey we would first like to ask some questions about your household. All of the answers you give will be confidential. Participation in the survey is completely voluntary. If we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope you will participate in the survey since your views are important.

At this time, do you want to ask me anything about the survey?  
May I begin the interview now?

Signature of interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

RESPONDENT AGREES TO BE INTERVIEWED ... 1    RESPONDENT DOES NOT AGREE TO BE INTERVIEWED ... 2 → END

**HOUSEHOLD SCHEDULE**

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP	RESIDENCE		SEX	AGE	MARITAL STATUS		
			007	008					
001	002	006	007	008	009	010	011		
	Please give me the names of the persons who usually live in your household and guests of the household who slept here last night, <u>starting with the head of the household.</u>  AFTER LISTING NAMES, ASK QUESTIONS 003-005 TO BE SURE THAT THE LISTING IS COMPLETE. THEN GO ON TO QUESTION 006.	What is the relationship of (NAME) to the head of the household?  (SEE CODES BELOW)	Does (NAME) usually live here?	Did (NAME) sleep here last night?	Is (NAME) male or female?	How old was (NAME)? at his/her last birthday? RECORD IN COMPLETED YEARS	What is (NAME'S) current marital status?		
				YES NO	YES NO	M F	IN YEARS		
01			HEAD	<input type="text" value="0"/> <input type="text" value="1"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
02				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
03				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
04				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
05				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
06				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
07				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
08				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
09				<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>
10		<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value="1"/> <input type="text" value="2"/>	<input type="text" value=""/> <input type="text" value=""/>	<input type="text" value=""/>		

Just to make sure that I have a complete household listing

003 Are there any other persons such as small children or infants that we have not listed?

YES  → ADD TO 002 NO

004 In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here?

YES  → ADD TO 002 NO

005 Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed?

YES  → ADD TO 002 NO

**CODES FOR Q006**

**RELATIONSHIP TO HEAD OF HOUSEHOLD:**

- 01 = HEAD
- 02 = WIFE/HUSBAND
- 03 = SON/DAUGHTER
- 04 = SON-IN-LAW/ DAUGHTER-IN-LAW
- 05 = GRANDCHILD
- 06 = PARENT
- 07 = PARENT-IN-LAW
- 08 = BROTHER/SISTER
- 09 = BROTHER-IN-LAW/ SISTER-IN-LAW
- 10 = OTHER RELATIVE
- 11 = ADOPTED/FOSTER CHILD
- 12 = STEPCHILD
- 13 = NOT RELATED
- 98 = DONT KNOW

LINE NO.	ELIGIBLE FOR WOMAN QUESTIONNAIRE (EVER-MARRIED AGE 15-49)	ELIGIBLE FOR HEALTH ISSUES INTERVIEW AND HEPATITIS C TESTING (ALL PERSONS AGE 15-59)	ELIGIBLE FOR HEIGHT AND WEIGHT MEASURES			
			CHILDREN AGE 0-5	PERSONS AGE 10-19	EVER-MARRIED WOMEN AGE 20-49	PERSONS AGE 20-59
	012	013	014	015	016	017
	FOR ALL HOUSEHOLDS: CIRCLE LINE NUMBER OF EVER-MARRIED WOMEN AGE 15-49.	FOR HOUSEHOLDS IN HEPATITIS C SUBSAMPLE: CIRCLE LINE NUMBER OF ALL PERSONS AGE 15-59.	FOR ALL HOUSEHOLDS: CIRCLE LINE NUMBER OF CHILDREN AGE 0-5.	FOR ALL HOUSEHOLDS: CIRCLE LINE NUMBER OF PERSONS AGE 10-19.	FOR HOUSEHOLDS NOT IN HEPATITIS C TESTING SUBSAMPLE: CIRCLE LINE NUMBER OF EVER-MARRIED WOMEN AGE 20-49.	FOR HOUSEHOLDS IN HEPATITIS C TESTING SUBSAMPLE: CIRCLE LINE NUMBER OF ALL PERSONS AGE 20-59.
01	01	01	01	01	01	01
02	02	02	02	02	02	02
03	03	03	03	03	03	03
04	04	04	04	04	04	04
05	05	05	05	05	05	05
06	06	06	06	06	06	06
07	07	07	07	07	07	07
08	08	08	08	08	08	08
09	09	09	09	09	09	09
10	10	10	10	10	10	10

**ELIGIBLE FOR WOMAN INTERVIEW**

029 CHECK 012 AND ENTER THE TOTAL NUMBER OF ELIGIBLE EVER-MARRIED WOMEN AGE 15-49

**ELIGIBLE FOR HEPATITIS C SUBSAMPLE**

030 CHECK 013 AND ENTER THE TOTAL NUMBER OF ELIGIBLE PERSONS AGE 15-59 YEARS

**ELIGIBLE FOR ANTHROPOMETRY**

031 CHECK 014 AND ENTER THE TOTAL NUMBER OF CHILDREN AGE 0-5 YEARS

032 CHECK 015 AND ENTER THE TOTAL NUMBER OF PERSONS AGE 10-19 YEARS

033 CHECK 016 AND ENTER THE TOTAL NUMBER OF EVER-MARRIED WOMEN AGE 20-49 YEARS

034 CHECK 017 AND ENTER THE TOTAL NUMBER OF ADULTS AGE 20-49 YEARS

035 TICK IF AN ADDITIONAL HOUSEHOLD QUESTIONNAIRE USED

LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS			
	IF AGE 0-17 YEARS			
	018	019	020	021
	Is (NAME)'s natural mother alive?  QUESTION REFERS TO CHILD'S BIOLOGICAL MOTHER.	Does (NAME)'s natural mother live in this household?  IF YES: What is her name?  RECORD MOTHER'S LINE NUMBER.  IF NO: RECORD 00.	Is (NAME)'s natural father alive?  QUESTION REFERS TO CHILD'S BIOLOGICAL FATHER.	Does (NAME)'s natural father live in this household?  IF YES: What is his name?  RECORD FATHER'S LINE NUMBER.  IF NO: RECORD 00.
	YES NO DK		YES NO DK	
01	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
02	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
03	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
04	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
05	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
06	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
07	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
08	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
09	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>
10	1 2 8 ↓ GO TO 020	<input type="text"/>	1 2 8 ↓ GO TO 022	<input type="text"/>



LINE NO.	EDUCATION									
	IF AGE 6 YEARS OR OLDER		IF AGE 6-24 YEARS						IF AGE 3-5 YEARS	
	022	023	024	025	026	027	028			
	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? What is the highest grade (NAME) completed at that level?  (SEE CODES BELOW)	Did (NAME) attend school at any time during the this school year, that is, the 2007/2008 school year?	During this school year, that is, the 2007/2008 school year, that is, what level and grade [is/was] (NAME) attending?  (SEE CODES BELOW)	Did (NAME) attend school at any time during the previous school year, that is, in the 2006-2007 school year?	During that school year, that is, the 2006/2007 school year, what level and grade did (NAME) attend?  (SEE CODES BELOW)	Has (NAME) ever attended kindergarten, private nursery or other program to prepare (him/her) for primary school?  (SEE CODES BELOW)			
	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE				
01	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
02	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
03	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
04	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
05	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
06	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
07	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
08	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
09	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			
10	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 026	<input type="checkbox"/> <input type="checkbox"/>	1 2 ↓ GO TO 029	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>			

CODES FOR COLUMNS 023, 025, AND 027

**EDUCATION LEVEL:**

- 0 = NURSERY SCHOOL
- 1 = PRIMARY
- 2 = PREPARATORY
- 3 = SECONDARY
- 4 = UPPER INTERMEDIATE
- 5 = UNIVERSITY
- 6 = MORE THAN UNIVERSITY

**EDUCATION GRADE:**

- 0 = LESS THAN 1 YEAR COMPLETED (FOR Q. 023 ONLY. THIS CODE IS NOT ALLOWED FOR Qs. 025 AND 027.)
- 8 = DON'T KNOW

CODES FOR COLUMN 028

- 1 = KINDERGARTEN AT PUBLIC SCHOOL
- 2 = KINDERGARTEN AT PRIVATE SCHOOL
- 3 = PRIVATE NURSERY
- 4 = OTHER
- 5 = DIDN'T ATTEND PRESCHOOL PROGRAM
- 8 = DON'T KNOW

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What type of dwelling does your household live in?	APARTMENT ..... 1 FREE STANDING HOUSE ..... 2 OTHER ..... 6 (SPECIFY)	
102	Is your dwelling owned or rented by your household?  IF OWNED: Is it owned solely by your household or jointly with someone else?	OWNED ..... 1 OWNED JOINTLY ..... 2 RENTED ..... 3 OTHER ..... 6 (SPECIFY)	
103	What is the main source of drinking water for members of your household?	<b>PIPED WATER</b> PIPED INTO DWELLING ..... 11 PIPED TO YARD/PLOT ..... 12 PUBLIC TAP/STANDPIPE ..... 13 <b>TUBE WELL</b> ..... 21 <b>DUG WELL</b> PROTECTED WELL ..... 31 UNPROTECTED WELL ..... 32 <b>WATER FROM SPRING</b> PROTECTED SPRING ..... 41 UNPROTECTED SPRING ..... 42 <b>TANKER TRUCK</b> ..... 61 <b>CART WITH SMALL TANK</b> ..... 71 <b>SURFACE WATER (RIVER/DAM/            LAKE/POND/STREAM/CANAL/            IRRIGATION CHANNEL)</b> ..... 81 <b>BOTTLED WATER</b> ..... 91  <b>OTHER</b> ..... 96 (SPECIFY)	→ 108 → 105 → 108
104	What is the main source of water used by your household for other purposes such as cooking and handwashing?	<b>PIPED WATER</b> PIPED INTO DWELLING ..... 11 PIPED TO YARD/PLOT ..... 12 PUBLIC TAP/STANDPIPE ..... 13 <b>TUBE WELL</b> ..... 21 <b>DUG WELL</b> PROTECTED WELL ..... 31 UNPROTECTED WELL ..... 32 <b>WATER FROM SPRING</b> PROTECTED SPRING ..... 41 UNPROTECTED SPRING ..... 42 <b>TANKER TRUCK</b> ..... 61 <b>CART WITH SMALL TANK</b> ..... 71 <b>SURFACE WATER (RIVER/DAM/            LAKE/POND/STREAM/CANAL/            IRRIGATION CHANNEL)</b> ..... 81  <b>OTHER</b> ..... 96 (SPECIFY)	→ 108
105	Where is (SOURCE IN 103 OR 104) located?	IN OWN DWELLING ..... 1 IN OWN YARD/PLOT ..... 2 ELSEWHERE ..... 3	→ 108
106	How long does it take to go there, get water, and come back?	MINUTES ..... <input type="text"/> <input type="text"/> <input type="text"/>  ON/NEXT TO PREMISES ..... 996 DON'T KNOW ..... 998	→ 108





NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
124	<p>MAIN MATERIAL OF THE FLOOR.</p> <p>RECORD OBSERVATION.</p>	<p>NATURAL FLOOR</p> <p>EARTH/SAND ..... 11</p> <p>RUDIMENTARY FLOOR</p> <p>WOOD PLANKS ..... 21</p> <p>FINISHED FLOOR</p> <p>PARQUET OR POLISHED</p> <p>WOOD ..... 31</p> <p>CERAMIC/MARBLE TILES ..... 32</p> <p>CEMENT TILES ..... 33</p> <p>CEMENT ..... 34</p> <p>WALL-TO-WALL CARPET ..... 35</p> <p>VINYL ..... 36</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p>	
125	<p>Does any member of this household own:</p> <p>A watch?</p> <p>A bicycle?</p> <p>A motorcycle or motor scooter?</p> <p>An animal-drawn cart?</p> <p>A car or truck?</p>	<p>YES NO</p> <p>WATCH ..... 1 2</p> <p>BICYCLE ..... 1 2</p> <p>MOTORCYCLE/SCOOTER ... 1 2</p> <p>ANIMAL-DRAWN CART ..... 1 2</p> <p>CAR/TRUCK ..... 1 2</p>	
126	<p>Does any member of your household have an account in a bank or any saving institution?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	
127	<p>Does any member of this household own any land that can be used for agriculture?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 129
128	<p>How many feddans or kirates of agricultural land do members of this household own?</p> <p>IF MORE THAN 95 FEDDAN, ENTER '9995'.</p>	<p>FEDDAN KIRATE</p> <p>LAND AREA <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/></p> <p>DON'T KNOW ..... 9998</p>	
129	<p>Does your household own any livestock, herds, or farm animals?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 131
130	<p>How many of the following does your household own?</p> <p>Cattle(buffalo, calf)?</p> <p>Milk cows or bulls?</p> <p>Horses, donkeys, or mules?</p> <p>Goats?</p> <p>Sheep?</p> <p>IF NONE, ENTER '00'.</p> <p>IF MORE THAN 95, ENTER '95'.</p> <p>IF UNKNOWN, ENTER '98'.</p>	<p>CATTLE ..... <input type="text"/> <input type="text"/></p> <p>COWS/BULLS ..... <input type="text"/> <input type="text"/></p> <p>HORSES/DONKEYS/MULES . <input type="text"/> <input type="text"/></p> <p>GOATS ..... <input type="text"/> <input type="text"/></p> <p>SHEEP ..... <input type="text"/> <input type="text"/></p>	
131	<p>INTERVIEWER: RECORD IF YOU OBSERVE POULTRY/BIRDS:</p> <p>INSIDE DWELLING UNIT?</p> <p>OUTSIDE/NEAR DWELLING UNIT?</p>	<p>YES NO</p> <p>INSIDE DWELLING ..... 1 2</p> <p>OUTSIDE NEAR DWELLING... 1 2</p>	
132	<p>Does your household own any poultry or birds?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 134

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																		
133	<p>How many of the following does your household have?</p> <p>Chickens?</p> <p>Geese?</p> <p>Ducks?</p> <p>Pigeons?</p> <p>Quail?</p> <p>Turkey?</p> <p>Ornamental/song birds?</p> <p>Any other birds?</p> <p>IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'.</p>	<p>CHICKENS .....</p> <p>GEESE .....</p> <p>DUCKS .....</p> <p>PIGEONS .....</p> <p>QUAIL .....</p> <p>TURKEY .....</p> <p>ORNAMENTAL/SONG BIRDS</p> <p>OTHER .....</p> <table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>																			
134	<p>Is your household currently keeping any poultry or birds that belong to another household, e.g., to breed?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>																			
135	<p>CHECK 132 AND 134:</p> <p>OWNS AND/OR KEEPS POULTRY/BIRDS FOR ANOTHER HOUSEHOLD <input type="checkbox"/></p> <p>NEITHER OWNS NOR KEEPS POULTRY/BIRDS FOR ANOTHER <input type="checkbox"/> → 147</p>																				
136	<p>Now I would like to ask some questions about the poultry or birds that your household owns (and/or that belong to another household).</p> <p>Does your household keep any of the poultry or birds:</p> <p>Within the family living area?</p> <p>In the dwelling but away from the family living area?</p> <p>On the rooftop?</p> <p>Outside but near dwelling?</p> <p>Elsewhere?</p>	<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>FAMILY LIVING AREA .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>IN DWELLING AWAY FROM LIVING AREA .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>ROOFTOP .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>OUTSIDE NEAR DWELLING...</td> <td>1</td> <td>2</td> </tr> <tr> <td>ELSEWHERE .....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	FAMILY LIVING AREA .....	1	2	IN DWELLING AWAY FROM LIVING AREA .....	1	2	ROOFTOP .....	1	2	OUTSIDE NEAR DWELLING...	1	2	ELSEWHERE .....	1	2	
	YES	NO																			
FAMILY LIVING AREA .....	1	2																			
IN DWELLING AWAY FROM LIVING AREA .....	1	2																			
ROOFTOP .....	1	2																			
OUTSIDE NEAR DWELLING...	1	2																			
ELSEWHERE .....	1	2																			
137	<p>CHECK 134</p> <p>DOES NOT HAVE POULTRY/BIRDS BELONGING TO ANOTHER HOUSEHOLD <input type="checkbox"/></p> <p>HAS POULTRY/BIRDS BELONGING TO ANOTHER HOUSEHOLD <input type="checkbox"/> → 139</p>																				
138	<p>CHECK 133:</p> <p>HAS BOTH DUCKS AND OTHER POULTRY/BIRDS <input type="checkbox"/></p> <p>DOES NOT OWN DUCKS <input type="checkbox"/> → 140</p> <p>OWNS DUCKS ONLY <input type="checkbox"/> → 140</p>																				
139	<p>is your household keeping any ducks (even if they do not belong to your household) in the same location as other poultry or birds?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>																			
140	<p>CHECK 136:</p> <p>KEEPS POULTRY/BIRDS IN/NEAR DWELLING <input type="checkbox"/></p> <p>NO POULTRY/BIRDS KEPT IN/NEAR DWELLING <input type="checkbox"/> → 147</p>																				



**2 WEIGHT AND HEIGHT MEASUREMENT FOR CHILDREN AND ADOLESCENTS**

HEIGHT AND WEIGHT MEASURES SHOULD BE OBTAINED FOR CHILDREN AGE 0-5 YEARS AND YOUTH/ADOLESCENTS AGE 10-19 YEARS IN **ALL** OF THE SURVEY HOUSEHOLDS. CHECK COLUMN 014 AND RECORD THE NAME(S), LINE NUMBER(S) AND AGE(S) OF ALL CHILDREN AGE 0-5 YEARS IN THE FIRST BLOCK BELOW. THEN CHECK COLUMN 015 AND RECORD THE NAME(S), LINE NUMBER(S) AND AGE(S) OF ALL YOUTH AND ADOLESCENTS AGE 10-19 IN THE SECOND BLOCK BELOW..

CHILDREN AGE 0-5				WEIGHT AND HEIGHT MEASUREMENT OF CHILDREN AGE 0-5			
LINE NO. FROM 014	NAME FROM 002	AGE FROM 010	What is (NAME'S) date of birth? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY. IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH, AND YEAR.	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)
			DAY MONTH YEAR			LYING STAND.	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	0 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1 2	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	0 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1 2	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	0 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1 2	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	0 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1 2	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	0 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1 2	<input type="checkbox"/>

YOUTH AND ADOLESCENTS AGE 10-19				WEIGHT AND HEIGHT MEASUREMENT OF PERSONS AGE 10-19			
LINE NO. FROM 015	NAME FROM 002	AGE FROM 010	What is (NAME'S) date of birth? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY. IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH, AND YEAR.	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)
		YEARS	DAY MONTH YEAR				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		<input type="checkbox"/>
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**WEIGHT AND HEIGHT MEASUREMENT FOR EVER-MARRIED WOMEN AGE 20-49 OR ADULTS AGE 20-59**

IN ALL HOUSEHOLDS NOT IN THE HEPATITIS C TESTING SUBSAMPLE, HEIGHT AND WEIGHT MEASURES SHOULD BE OBTAINED FOR ALL EVER-MARRIED WOMEN AGE 20-49. IN HOUSEHOLDS IN THE HEPATITIS C TESTING SUBSAMPLE, HEIGHT AND WEIGHT MEASURES SHOULD BE OBTAINED FOR ALL ADULTS AGE 20-59 YEARS

CHECK IN THE IDENTIFICATION SECTION ON THE COVER PAGE IF THE HOUSEHOLD IS INCLUDED IN THE HEPATITIS C TESTING SUBSAMPLE:

NOT IN THE HEPATITIS C TESTING SUBSAMPLE   
 ↓  
 CHECK COLUMN 016 AND RECORD NAMES OF EVER-MARRIED WOMEN AGE 20-49

IN THE HEPATITIS C TESTING SUBSAMPLE   
 ↓  
 CHECK COLUMN 017 AND RECORD NAMES OF ALL ADULTS AGE 20-59

EVER-MARRIED WOMEN/ADULTS AGE 20-59				WEIGHT AND HEIGHT MEASUREMENT OF WOMEN/ADULTS			
LINE NO.	NAME	AGE	What is (NAME'S) date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT
FROM 016 OR 017	FROM 002	FROM 010					1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(201)	(202)	(203)	(204)	(205)	(206)		(208)
		YEARS					
<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="text"/>

CHECK IN THE IDENTIFICATION SECTION ON THE COVER PAGE IF THE HOUSEHOLD IS INCLUDED IN THE HEPATITIS C TESTING SUBSAMPLE:

IN THE HEPATITIS C TESTING SUBSAMPLE   
 ↓  
 GO TO 301

NOT IN THE HEPATITIS C TESTING SUBSAMPLE   
 ↓  
 GO TO 401

TICK IF AN ADDITIONAL HOUSEHOLD QUESTIONNAIRE USED

Name of Measurer \_\_\_\_\_

Name of Assistant \_\_\_\_\_

**3 BLOOD TESTING DECISIONS**

301 **IDENTIFICATION OF ELIGIBLE RESPONDENTS AGE 15-59 YEARS**  
 CHECK COLUMN 013 AND RECORD IN Q.309-313 THE LINE NUMBER(S), NAME(S), AND AGE(S) OF ALL PERSONS AGE 15-59 YEARS IN THE SAME ORDER IN WHICH THE INDIVIDUALS ARE LISTED IN THE HOUSEHOLD SCHEDULE.  
 IF AN ELIGIBLE RESPONDENT IS ABSENT DURING ALL OF THE VISITS YOU MAKE TO THE HOUSEHOLD FOR THE HEPATITIS C TESTING, RECORD CODE 2 ('NOT PRESENT') IN Q. 314, 315 AND 320.

302 **ADMINISTRATION OF INFORMED CONSENT FOR HEPATITIS C TESTING TO PARENT/GUARDIANS.**  
 FOR RESPONDENTS AGE 15-17, CHECK Q. 011 AND RECORD IN Q.312 IF THE RESPONDENT IS NEVER-MARRIED OR ELSE. FOR ALL NEVER-MARRIED ADOLESCENTS AGE 15-17, RECORD IN Q.313 THE LINE NUMBER OF THE PARENT OR OTHER ADULT RESPONSIBLE FOR THE ADOLESCENT AT THE TIME OF THE SURVEY VISIT. REQUEST INFORMED CONSENT FROM PARENT/GUARDIAN BEFORE ASKING RESPONDENT FOR CONSENT.

<p><b>RESPONDENT NEVER-MARRIED AGE 15-17 LIVING WITH PARENT/GUARDIAN</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> <p align="center"><b>ASK PARENT/GUARDIAN Q 303 AND RECORD RESULT IN Q.314</b></p> <hr/> <table style="width:100%;"> <tr> <td style="width:33%; text-align: center;"> <p><b>PARENT/GUARDIAN AGREES</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> </td> <td style="width:33%; text-align: center;"> <p><b>PARENT/GUARDIAN REFUSES</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> <p align="center"><b>RECORD REFUSED IN Q.314 AND Q.320 AND SIGN YOUR NAME BELOW Q. Q314. THEN GO ON TO NEXT RESPONDENT. IF NO MORE RESPONDENTS, GO TO Q.321</b></p> </td> <td style="width:33%; text-align: center;"> <p><b>PARENT/GUARDIAN ABSENT</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> <p align="center"><b>RECORD ABSENT IN Q.314 AND Q.320 AND SIGN YOUR NAME BELOW Q. Q314. THEN GO ON TO NEXT RESPONDENT. IF NO MORE RESPONDENTS, GO TO Q.321</b></p> </td> </tr> </table>	<p><b>PARENT/GUARDIAN AGREES</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p>	<p><b>PARENT/GUARDIAN REFUSES</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> <p align="center"><b>RECORD REFUSED IN Q.314 AND Q.320 AND SIGN YOUR NAME BELOW Q. Q314. THEN GO ON TO NEXT RESPONDENT. IF NO MORE RESPONDENTS, GO TO Q.321</b></p>	<p><b>PARENT/GUARDIAN ABSENT</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> <p align="center"><b>RECORD ABSENT IN Q.314 AND Q.320 AND SIGN YOUR NAME BELOW Q. Q314. THEN GO ON TO NEXT RESPONDENT. IF NO MORE RESPONDENTS, GO TO Q.321</b></p>	<p><b>ALL OTHER RESPONDENTS</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p>
<p><b>PARENT/GUARDIAN AGREES</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p>	<p><b>PARENT/GUARDIAN REFUSES</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> <p align="center"><b>RECORD REFUSED IN Q.314 AND Q.320 AND SIGN YOUR NAME BELOW Q. Q314. THEN GO ON TO NEXT RESPONDENT. IF NO MORE RESPONDENTS, GO TO Q.321</b></p>	<p><b>PARENT/GUARDIAN ABSENT</b></p> <p align="center"><input type="checkbox"/></p> <p align="center">↓</p> <p align="center"><b>RECORD ABSENT IN Q.314 AND Q.320 AND SIGN YOUR NAME BELOW Q. Q314. THEN GO ON TO NEXT RESPONDENT. IF NO MORE RESPONDENTS, GO TO Q.321</b></p>		

303 **REQUEST CONSENT FOR HEPATITIS C TESTING FROM RESPONDENT.**

Good morning/afternoon. My name is \_\_\_\_\_ and I am from the Ministry of Health and Population and part of the survey team.

As you know, we are conducting a national survey about health issues, including hepatitis C. Hepatitis C is a result of an infection with the hepatitis C virus. It may cause liver damage and other serious health problems.

As part of the survey, we are asking people to give a small amount of blood to test later in the laboratory in order to know how many people have the hepatitis C virus. This information is very important to help the Ministry of Health and Population to plan for programs to treat this disease.

The results will be kept confidential.

If you agree to take part, I will ask you to let us take about teaspoonful of blood, from a vein in your arm.

The risk to you from this testing is small. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

You may get some bruising where the blood is taken from your arm. If you have any bleeding, swelling or other problem later, you should tell our study staff or your health worker.

**LABORATORY TECHNICIAN: CHECK Q.311 AND 312. IF THE RESPONDENT IS AGE 15-17 YEARS AND NEVER MARRIED, ADVISE THE RESPONDENT THAT THEIR PARENT OR GUARDIAN WILL ALSO BE GIVEN THE RESPONDENT'S TEST RESULT AT THE TIME OF THE CALL BACK VISIT.**

The blood will be sent to the Central Laboratory of the Ministry of Health and Population in Cairo for the hepatitis C test. We will return to give you [and your parent/guardian] the results of the testing in about two months. If the test shows that you have the hepatitis C virus, we will give you a referral to a special Liver Disease Treatment Center or other health facility for counseling and advice about treatment.

Do you have any questions so far?  
**LABORATORY TECHNICIAN: ENCOURAGE THE RESPONDENT TO ASK ANY QUESTIONS.**

If you have any questions at any time, please ask me.

You can also speak to the head of this survey team. I can also give you information on how to contact the directors of this survey in Cairo.

**LABORATORY TECHNICIAN: IF CONTACT NUMBERS ARE REQUESTED, OFFER TO PROVIDE THE RESPONDENT WITH A CELL PHONE TO USE TO MAKE THE CALL AND/OR GIVE THE FOLLOWING TELEPHONE NUMBERS:**

<p><b>Ministry of Health and Population</b>                  Dr. Nasr El-Sayed                  Assistant Minister for Health and Population for Primary Health Care and Preventative and Family Planning Affairs                  101 Kasr El Ainy Street                  Cairo                  Egypt                  Telephone: 20-2-2794-8555; Fax: 20-2-2792-4156</p>	<p><b>El-Zanaty and Associates:</b>                  Dr. Fatma El-Zanaty                  Survey Director                  12 Gamal Salem Street, 3rd Floor                  Dokki, Giza                  Egypt                  Telephone: 20-2-3762-2310; Fax: 20-2-3336-4120</p>
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**LABORATORY TECHNICIAN: IF THE RESPONDENT IS A NEVER-MARRIED MINOR OR IS NOT HIGHLY EDUCATED, TAKE EXTRA TIME REVIEWING THE HEPATITIS C TESTING IN ORDER TO BE SURE THE RESPONDENT UNDERSTANDS THE PROCESS BEFORE ASKING FOR CONSENT.**

You can say yes or not to giving blood. However, we will be grateful if you can allow us to take a small blood sample. Would you allow me to take a sample of your blood from your arm for the hepatitis C testing?

304	<p><b><u>RECORDING RESPONDENT'S DECISION CONCERNING HEPATITIS C TEST</u></b>  <b>RECORD THE RESPONDENT'S DECISION IN Q.315</b></p> <p style="text-align: center;">RESPONDENT AGREES</p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p style="text-align: center;">RESPONDENT REFUSES</p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p style="text-align: center;">RECORD REFUSED IN Q.315 AND AND Q.320. THEN GO ON TO NEXT RESPONDENT. IF NO MORE RESPONDENTS, GO TO Q.321</p>
305	<p><b><u>REQUEST FOR CONSENT TO STORE AND USE BLOOD SAMPLE FOR FUTURE TESTS</u></b>  <b>BEFORE DRAWING BLOOD SAMPLE, ASK ALL RESPONDENTS WHO CONSENT TO THE HEPATITIS C TEST FOR PERMISSION TO STORE REMAINING BLOOD FOR FUTURE TESTS. RECORD RESPONSE IN Q.316</b></p> <p>We ask you to allow the Ministry of Health and Population to store part of the blood sample at the Central Laboratory in Cairo to be used for testing or research in the future. We are not certain exactly what tests will be done but they will involve testing for infections or chemicals that may be associated with health or illness.</p> <p>We will not be keeping your name on the blood sample after we give back the result of the hepatitis C test. Therefore, we will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help improve health situation for Egyptians.</p> <p>You may join in this study without having your blood sample stored for future studies.</p> <p>If you have any questions at any time, we want you to tell us. Again you can speak to the head of this survey team or I can give you information about how to contact the survey directors in Cairo.</p> <p><b>LABORATORY TECHNICIAN: CHECK Q.303 AND PROVIDE CONTACT NUMBERS FOR MINISTRY OF HEALTH AND/OR EL-ZANATY AND ASSOCIATES IF REQUESTED.</b></p> <p>Will you allow us to keep the blood sample stored for later testing or research?</p>
306	<p><b><u>PLACEMENT AND CHECKING OF BAR CODE LABEL FOR EACH RESPONDENT WHO CONSENTS TO TESTING</u></b></p> <p><b>RECORD THE HOUSEHOLD NUMBER AND LINE NUMBER OF THE RESPONDENT ON THE SPECIMEN TRACKING FORM. BEGIN WITH A NEW SET OF BAR CODE LABELS.</b></p> <p>(a) PLACE A BAR CODE LABEL ON THE QUESTIONNAIRE IN Q.317 FOR THE RESPONDENT.  (b) PLACE A SECOND LABEL WITH THE SAME BAR CODE ON THE TUBE WHICH YOU WILL USE IN TAKING THE SAMPLE.  (c) PLACE A THIRD LABEL WITH THE SAME BAR CODE ON THE SPECIMEN TRACKING FORM NEXT TO THE RESPONDENT'S</p> <p><b>CHECK THAT YOU HAVE USED A NEW SET OF LABELS. ALSO CHECK THAT THE BAR CODE ASSIGNED TO THE RESPONDENT IN THE QUESTIONNAIRE MATCHES THE CODE YOU HAVE PLACED ON THE TUBE YOU WILL USE TO DRAW THE RESPONDENT'S BLOOD AND ON THE SPOECIMEN TRACKING FORM.</b></p> <p><b>SIGN IN Q. 318 TO INDICATE THAT YOU HAVE CHECKED AND THE BAR CODES MATCH.</b></p>
307	<p><b><u>COLLECTION OF VENOUS BLOOD SAMPLE</u></b>  <b>DRAW THE VENOUS BLOOD SAMPLE.</b></p> <p style="text-align: center;">BLOOD SAMPLE OBTAINED</p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p style="text-align: center;">RECORD CODE 1 ('COLLECTED') IN Q. 320. THEN CONTINUE WITH Q.308.</p> <p style="text-align: center;">BLOOD SAMPLE NOT OBTAINED BECAUSE RESPONDENT REFUSED</p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p style="text-align: center;">RECORD CODE 2 ('REFUSED') IN Q.320 AND CHANGE RESPONSE IN Q.315 TO REFUSED</p> <p style="text-align: center;">BLOOD SAMPLE NOT OBTAINED DUE TO TECHNICAL PROBLEMS</p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p style="text-align: center;">RECORD CODE 6 ('OTHER') IN Q.320.</p> <p style="text-align: center;">↓</p> <p style="text-align: center;">CROSS OUT THE REMAINING BAR CODE LABELS THAT WERE ASSIGNED TO THE RESPONDENT ON THE BAR CODE SHEET. THANK THE RESPONDENT AND GO ON TO THE NEXT ELIGIBLE RESPONDENT. IF THERE ARE NO ADDITIONAL RESPONDENTS, PROCEED TO Q.321.</p>
308	<p><b><u>CHECK OF BAR CODE LABEL ASSIGNMENT BY ASSISTANT</u></b></p> <p><b>AFTER THE TECHNICIAN HAS DRAWN THE BLOOD SAMPLE, THE ASSISTANT SHOULD VERIFY THE RESPONDENT'S NAME. THEN CHECK THAT THE BAR CODE ON TUBE MATCHES THE BAR CODE IN Q. 317 IN THE QUESTIONNAIRE FOR THAT RESPONDENT. ALSO CHECK THAT THE RESPONDENT'S LINE NUMBER WAS CORRECTLY RECORDED ON THE SPECIMEN TRACKING FORM. THEN CHECK THAT THE BAR CODE NEXT TO RESPONDENT'S LINE NUMBER MATCHES THE NUMBER ON THE TUBE AND IN Q. 317. SIGN IN Q. 319 TO INDICATE YOU CHECKED AND THE BAR CODES MATCH.</b></p>

RECORD OF BLOOD TESTING DECISIONS

LINE NO. FROM	NAME FROM	AGE FROM	MARITAL STATUS FROM	LINE NO. OF PARENT OR OTHER RESPONSIBLE ADULT FROM	IF NEVER-MARRIED AND <18 YRS. READ CONSENT TO PARENT/ OTHER RESP. ADULT AND RECORD RESPONSE	IF 18-59 YEARS OR < 18 YEARS AND PARENT/OTHER RESP. ADULT AGREED, READ CONSENT STATEMENT AND RECORD RESPONSES FOR TEST AND BLOOD STORAGE		BAR CODE LABEL	TECHNICIAN: CHECK BAR CODES ON QUESTIONNAIRE, TUBE AND FIELD FORM MATCH	ASSISTANT: CHECK BAR CODES ON QUESTIONNAIRE, TUBE AND FIELD FORM MATCH	SAMPLE COLLECTED?
						TEST	STORAGE				
(309)	(310)	(311)	(312)	(313)	(314)	(315)	(316)	(317)	(318)	(319)	(320)
<input type="checkbox"/>		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315	<input type="checkbox"/>	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	<input type="checkbox"/>
<input type="checkbox"/>		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315	<input type="checkbox"/>	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	<input type="checkbox"/>
<input type="checkbox"/>		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315	<input type="checkbox"/>	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	<input type="checkbox"/>
<input type="checkbox"/>		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315	<input type="checkbox"/>	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	<input type="checkbox"/>
<input type="checkbox"/>		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315	<input type="checkbox"/>	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	<input type="checkbox"/>
<input type="checkbox"/>		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315	<input type="checkbox"/>	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	<input type="checkbox"/>

TICK IF AN ADDITIONAL HOUSEHOLD QUESTIONNAIRE USED

310 NAME OF TECHNICIAN \_\_\_\_\_

NAME OF ASSISTANT \_\_\_\_\_

RECORD OF BLOOD TESTING DECISIONS

LINE NO. FROM	NAME FROM: 002	AGE FROM 010	MARITAL STATUS FROM 011	LINE NO. OF PARENT OR OTHER RESPONSIBLE ADULT FROM	IF NEVER-MARRIED AND <18 YRS. READ CONSENT TO PARENT/ OTHER RESP. ADULT AND RECORD RESPONSE	IF 18-59 YEARS OR < 18 YEARS AND PARENT/OTHER RESP. ADULT AGREED, READ CONSENT STATEMENT AND RECORD RESPONSES FOR TEST AND BLOOD STORAGE		BAR CODE LABEL (317)	TECHNICIAN: CHECK BAR CODES ON QUESTION- NAIRE, TUBE AND FIELD FORM MATCH (318)	ASSISTANT: CHECK BAR CODES ON QUESTION- NAIRE, TUBE AND FIELD FORM MATCH (319)	SAMPLE COLLECTED? 1 COLLECTED 2 REFUSED 3 ABSENT 6 OTHER (SPECIFY) (320)
						TEST (315)	STORAGE (316)				
(309)	(310)	(311)	(312)	001	(314)	(315)	(316)	(317)	(318)	(319)	(320)
		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315		AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	
		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315		AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	
		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315		AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	
		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315		AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	
		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315		AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	
		15-17...1 18-59...2 GO TO 315	NEVER MARRIED..1 ELSE...2 GO TO 315		AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320 SIGN	AGREE...1 REFUSE...2 ABSENT/OTHER...3 GO TO 320	AGREE...1 REFUSE...2		SIGNATURE	SIGNATURE	

TICK IF AN ADDITIONAL HOUSEHOLD QUESTIONNAIRE USED

310 NAME OF TECHNICIAN \_\_\_\_\_

NAME OF ASSISTANT \_\_\_\_\_

321	<b>IDENTIFICATION OF RESPONDENTS FROM WHOM BLOOD SPECIMENS COLLECTED</b> CHECK Q.309, 310, AND 320. RECORD THE NAME AND LINE NUMBER OF EACH RESPONDENT FROM WHOM A BLOOD SAMPLE WAS OBTAINED IN Q.326-327.			
322	<b>IDENTIFICATION OF RESPONDENTS WHO ARE NOT USUAL HOUSEHOLD RESIDENTS.</b> CHECK COLUMN 010 IN THE HOUSEHOLD SCHEDULE AND RECORD IN Q.328 IF THE RESPONDENT IS A USUAL RESIDENT OF THE HOUSEHOLD.			
323	<b>REQUEST FOR CONTACT INFORMATION FROM RESPONDENTS WHO ARE NOT USUAL RESIDENTS</b> We would like to contact you in two to three months to return the result of the hepatitis C testing. Can you give me the address and telephone number for the place where you expect to be living at that time? <b>RECORD CONTACT INFORMATION Q329. IF THE RESPONDENT SAYS THAT THEY WILL STILL BE LIVING IN THIS HOUSEHOLD, WRITE 'EXPECTS TO BE LIVING IN EDHS HOUSEHOLD'.</b>			
324	<b>REQUEST CONSENT TO LEAVE HEPATITIS C TEST RESULT WITH ANOTHER HOUSEHOLD MEMBER DURING CALLBACK VISIT</b> <b>ASK EACH RESPONDENT FROM WHOM A SPECIMEN WAS COLLECTED</b> As I told you, we will come back in about 3 months to give you the result of your test. If you are not at home at that time, may we leave your result in a sealed envelope with another household member? <b>RECORD RESPONSE IN Q.330.</b>			
325	<b>COMPLETE AND GIVE THE RESPONDENT THE CALL BACK IDENTIFICATION FORM. ASK THE RESPONDENT TO KEEP THE FORM AND PRESENT IT TO THE EDHS STAFF MEMBER WHO WILL RETURN THE RESPONDENT'S TEST RESULT. EXPLAIN THAT THE FORM WILL HELP THE CALL BACK TEAM TO CORRECTLY IDENTIFY THE RESPONDENT.</b> <b>THANK THE RESPONDENT FOR PARTICIPATING IN THE HEPATITIS C TESTING AND GO ON TO THE NEXT ELIGIBLE REPENDENT. IF THERE ARE NO ADDITIONAL RESPONDENTS, GO TO Q.404.</b>			
	LINE NO. FROM  309	NAME FROM:  310	USUAL RESIDENT FROM  007	CONSENT TO LEAVE RESULTS WITH ANOTHER HOUSEHOLD MEMBER
	(326)	(327)	(328)	(329)
	<input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS AGREE ..... 1
	<input type="checkbox"/>	_____	NO ..... 2	TELEPHONE: REFUSE .... 2
	<input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS AGREE ..... 1
	<input type="checkbox"/>	_____	NO ..... 2	TELEPHONE: REFUSE .... 2
	<input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS AGREE ..... 1
	<input type="checkbox"/>	_____	NO ..... 2	TELEPHONE: REFUSE .... 2
	<input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS AGREE ..... 1
	<input type="checkbox"/>	_____	NO ..... 2	TELEPHONE: REFUSE .... 2
	<input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS AGREE . . . 1
	<input type="checkbox"/>	_____	NO ..... 2	TELEPHONE: REFUSE . . 2

LINE NO. FROM	NAME FROM:	USUAL RESIDENT FROM		CONSENT TO LEAVE RESULTS WITH ANOTHER HOUSEHOLD MEMBER
309	310	007		
(326)	(327)	(328)	(329)	(330)
<input type="checkbox"/> <input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS	AGREE..... 1
		NO..... 2	TELEPHONE:	REFUSE..... 2
<input type="checkbox"/> <input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS	AGREE..... 1
		NO..... 2	TELEPHONE:	REFUSE..... 2
<input type="checkbox"/> <input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS	AGREE..... 1
		NO..... 2	TELEPHONE:	REFUSE..... 2
<input type="checkbox"/> <input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS	AGREE..... 1
		NO..... 2	TELEPHONE:	REFUSE..... 2
<input type="checkbox"/> <input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS	AGREE..... 1
		NO..... 2	TELEPHONE:	REFUSE..... 2
<input type="checkbox"/> <input type="checkbox"/>	_____	YES..... 1 GO TO 330 ←	ADDRESS	AGREE..... 1
		NO..... 2	TELEPHONE:	REFUSE..... 2

INTERVIEWER OBSERVATIONS  
TO BE FILLED IN AFTER COMPLETING INTERVIEW

401 COMMENTS ABOUT RESPONDENT:

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402 COMMENTS ON SPECIFIC QUESTIONS:

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403 ANY OTHER COMMENTS:

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404 TECHNICIAN'S OBSERVATION

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405 SUPERVISOR'S OBSERVATIONS

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NAME OF SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

406 EDITOR'S OBSERVATIONS

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NAME OF EDITOR: \_\_\_\_\_ DATE: \_\_\_\_\_





# EGYPT DEMOGRAPHIC AND HEALTH SURVEY 2008

## EVER-MARRIED WOMAN QUESTIONNAIRE

DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL  
AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY.



WOMAN QUESTIONNAIRE

IDENTIFICATION	
GOVERNORATE _____ PSU/SEGMENT NO. _____	GOVERNORATE <input type="text"/> <input type="text"/>
KISM/MARKAZ _____ BUILDING NO. _____	PSU/SEGMENT NO. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
SHIAKHA/VILLAGE _____ HOUSING UNIT NO _____	HOUSEHOLD NO. URBAN/RURAL <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
HOUSEHOLD NUMBER _____	LOCALITY <input type="text"/>
URBAN ..... 1 RURAL ..... 2	LINE NUMBER <input type="text"/> <input type="text"/>
LARGE CITY ..... 1 SMALL CITY ... 2 TOWN ..... 3 VILLAGE ..... 4	
NAME OF HOUSEHOLD HEAD _____	
ADDRESS IN DETAIL _____	
NAME OF WOMAN _____	
LINE NUMBER OF WOMAN _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR <input type="text"/> <input type="text"/> 0 <input type="text"/> <input type="text"/> 0 8
TEAM	_____	_____	_____	TEAM .....
INTERVIEWER	_____	_____	_____	INT. NUMBER ...
SUPERVISOR	_____	_____	_____	SUP. NUMBER ..
RESULT	_____	_____	_____	RESULT .....
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS <input type="text"/>
TIME	_____	_____		
<b>RESULT CODES:</b> 1 COMPLETED      4 REFUSED 2 NOT AT HOME      5 PARTLY COMPLETED      7 OTHER _____ 3 POSTPONED      6 INCAPACITATED      (SPECIFY)				

	FIELD EDITOR	OFFICE EDITOR	CODER	KEYER
NAME	_____	_____	_____	_____
DATE	/ / 2008	/ / 2008	/ / 2008	/ / 2008
SIGNATURE	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>

SECTION 1. RESPONDENT'S BACKGROUND

**INFORMED CONSENT**

Hello. My name is \_\_\_\_\_ and I am working with the Ministry of Health and Population. We are conducting a national survey about the health of women and children. We would very much appreciate your participation in this survey. I would like to ask you about your health (and the health of your children). This information will help the government to plan health services. The survey usually takes between 20 and 45 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?  
May I begin the interview now?

Signature of interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

RESPONDENT AGREES TO BE INTERVIEWED ..... 1      RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . 2 → 1101

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR ..... <input type="text"/> <input type="text"/> MINUTES ..... <input type="text"/> <input type="text"/>	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS ..... <input type="text"/> <input type="text"/> ALWAYS ..... 95 VISITOR/TEMPORARY STAYING . 96	→ 104
103	Just before you moved here, did you live in Cairo, Giza, Alexandria, in another city or town, or in a village?  _____ (NAME OF LOCALITY AND GOVERNORATE)	CAIRO/GIZA ..... 1 ALEXANDRIA ..... 2 OTHER CITY/TOWN ..... 3 VILLAGE ..... 4 OUTSIDE EGYPT ..... 5 (SPECIFY)  OFFICE: GOVERNORATE CODE <input type="text"/> <input type="text"/>	
104	In what month and year were you born?	MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH ..... 98  YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR ..... 9998	
105	How old were you at your last birthday?  COMPARE AND CORRECT 104 AND/OR 105 IF INCONSISTENT.	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	What is your current marital status?	MARRIED ..... 1 WIDOWED ..... 2 DIVORCED ..... 3 SEPARATED ..... 4	
107	Now I would like to ask you some questions about your marriage(s). How many times have you been married?	NUMBER OF TIMES MARRIED ..... <input type="text"/>	
108	CHECK 107:  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> MARRIED ONLY ONCE <input type="checkbox"/> ↓  In what month and year did you enter into a marriage contract with your husband? </div> <div style="text-align: center;"> MARRIED MORE THAN ONCE <input type="checkbox"/> ↓  Now I would like to ask about your first husband. In what month and year did you enter into a marriage contract with your first husband? </div> </div>	MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH ..... 98 YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR ..... 9998	→ 110
109	How old were you when you entered into a marriage contract with your (first) husband?	AGE IN COMPLETED YEARS . <input type="text"/> <input type="text"/>	
110	CHECK 107:  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> MARRIED ONLY ONCE <input type="checkbox"/> ↓  In what month and year did you start living together with your husband? </div> <div style="text-align: center;"> MARRIED MORE THAN ONCE <input type="checkbox"/> ↓  Now I would like to ask about your first husband. In what month and year did you start living together with your first husband? </div> </div>	MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH ..... 98 YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR ..... 9998	→ 112
111	How old were you when you started living together with your (first) husband?	AGE IN COMPLETED YEARS . <input type="text"/> <input type="text"/>	
112	<b>DETERMINE ALL OF THE MONTHS SINCE JANUARY 2003 THAT THE RESPONDENT WAS MARRIED. ENTER 'X' IN COLUMN 1 OF CALENDAR FOR EACH MONTH MARRIED AND ENTER 'O' FOR EACH MONTH NOT MARRIED, SINCE JANUARY 2003.</b>  <b>FOR WOMEN WHO ARE NOT CURRENTLY MARRIED OR WHO HAVE MARRIED MORE THAN ONCE: PROBE FOR DATE WHEN CURRENT UNION STARTED AND, IF APPROPRIATE, FOR STARTING AND TERMINATION DATES OF ANY PREVIOUS UNIONS SINCE JANUARY 2003.</b>		
113	Have you ever attended school?	YES ..... 1 NO ..... 2	→ 117
114	What is the highest level of school you attended?	PRIMARY ..... 1 PREPARATORY ..... 2 SECONDARY ..... 3 UPPER INTERMEDIATE ..... 4 UNIVERSITY ..... 5 MORE THAN UNIVERSITY ..... 6	
115	What is the highest grade you successfully completed at that level?	GRADE ..... <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	CHECK 114:  PRIMARY <input type="checkbox"/>	PREPARATORY OR HIGHER <input type="checkbox"/>	118
117	Can you read a newspaper or a letter easily, with difficulty or not at all?	EASILY ..... 1 WITH DIFFICULTY ..... 2 NOT AT ALL ..... 3	119
118	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL ..... 4	
119	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL ..... 4	
120	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL ..... 4	
121	What is your religion?	MUSLEM ..... 1 CHRISTIAN ..... 2 OTHER ..... 6 (SPECIFY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES ..... 1 NO ..... 2	→ 206								
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES ..... 1 NO ..... 2	→ 204								
203	How many sons live with you?  And how many daughters live with you?  IF NONE, RECORD '00'.	SONS AT HOME ..... <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS AT HOME ..... <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES ..... 1 NO ..... 2	→ 206								
205	How many sons are alive but do not live with you?  And how many daughters are alive but do not live with you?  IF NONE, RECORD '00'.	SONS ELSEWHERE ..... <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS ELSEWHERE ..... <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
206	Have you ever given birth to a boy or girl who was born alive but later died?  IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES ..... 1 NO ..... 2	→ 208								
207	How many boys have died?  And how many girls have died?  IF NONE, RECORD '00'.	BOYS DEAD ..... <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> GIRLS DEAD ..... <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL ..... <table border="1"><tr><td> </td><td> </td></tr></table>									
209	CHECK 208:  Just to make sure that I have this right: you have had in TOTAL ____ births during your life. Is that correct?  YES <input type="checkbox"/> NO <input type="checkbox"/> → PROBE AND CORRECT 201-209 AS NECESSARY.										
210	CHECK 208:  ONE OR MORE BIRTHS <input type="checkbox"/> NO BIRTHS <input type="checkbox"/> →		226								



211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES AND MARK WITH A BRACKET. (IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE).									
212	213	214	215	216	217	218	219	220	221
What name was given to your (first/next) baby?	Is (NAME) single or twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born?  PROBE: What is his/her birthday?  In what season was (NAME) born?	Is (NAME) still alive?	IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	IF ALIVE: Is (NAME) living with you?	IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	IF DEAD: How old was (NAME) when he/she died?  IF '1 YR', PROBE: How many months old was (NAME) when he/she died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	Were there any other live births between (WHEN YOU FIRST MARRIED/ NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01  (NAME)	SING .. 1  MULT .. 2	BOY .. 1  GIRL .. 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES .... 1  NO ..... 2 ↓ (GO TO 220)	AGE IN YEARS [ ][ ]	YES ... 1  NO .... 2	HH LINE NO. [ ][ ] ↓ (GO TO 221)	DAYS ... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS .. 3 [ ][ ]	YES .... 1 ADD BIRTH ←  NO ..... 2 NEXT BIRTH ←
02  (NAME)	SING .. 1  MULT .. 2	BOY .. 1  GIRL .. 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES .... 1  NO ..... 2 ↓ (GO TO 220)	AGE IN YEARS [ ][ ]	YES ... 1  NO .... 2	HH LINE NO. [ ][ ] ↓ (GO TO 221)	DAYS ... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS .. 3 [ ][ ]	YES .... 1 ADD BIRTH ←  NO ..... 2 NEXT BIRTH ←
03  (NAME)	SING .. 1  MULT .. 2	BOY .. 1  GIRL .. 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES .... 1  NO ..... 2 ↓ (GO TO 220)	AGE IN YEARS [ ][ ]	YES ... 1  NO .... 2	HH LINE NO. [ ][ ] ↓ (GO TO 221)	DAYS ... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS .. 3 [ ][ ]	YES .... 1 ADD BIRTH ←  NO ..... 2 NEXT BIRTH ←
04  (NAME)	SING .. 1  MULT .. 2	BOY .. 1  GIRL .. 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES .... 1  NO ..... 2 ↓ (GO TO 220)	AGE IN YEARS [ ][ ]	YES ... 1  NO .... 2	HH LINE NO. [ ][ ] ↓ (GO TO 221)	DAYS ... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS .. 3 [ ][ ]	YES .... 1 ADD BIRTH ←  NO ..... 2 NEXT BIRTH ←
05  (NAME)	SING .. 1  MULT .. 2	BOY .. 1  GIRL .. 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES .... 1  NO ..... 2 ↓ (GO TO 220)	AGE IN YEARS [ ][ ]	YES ... 1  NO .... 2	HH LINE NO. [ ][ ] ↓ (GO TO 221)	DAYS ... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS .. 3 [ ][ ]	YES .... 1 ADD BIRTH ←  NO ..... 2 NEXT BIRTH ←
06  (NAME)	SING .. 1  MULT .. 2	BOY .. 1  GIRL .. 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES .... 1  NO ..... 2 ↓ (GO TO 220)	AGE IN YEARS [ ][ ]	YES ... 1  NO .... 2	HH LINE NO. [ ][ ] ↓ (GO TO 221)	DAYS ... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS .. 3 [ ][ ]	YES .... 1 ADD BIRTH ←  NO ..... 2 NEXT BIRTH ←
07  (NAME)	SING .. 1  MULT .. 2	BOY .. 1  GIRL .. 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES .... 1  NO ..... 2 ↓ (GO TO 220)	AGE IN YEARS [ ][ ]	YES ... 1  NO .... 2	HH LINE NO. [ ][ ] ↓ (GO TO 221)	DAYS ... 1 [ ][ ] MONTHS . 2 [ ][ ] YEARS .. 3 [ ][ ]	YES .... 1 ADD BIRTH ←  NO ..... 2 NEXT BIRTH ←

212	213	214	215	216	217	218	219	220	221
What name was given to your (first/next) baby?	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born?  PROBE: What is his/her birthday?  In what season was (NAME) born?	Is (NAME) still alive?	IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	IF ALIVE: Is (NAME) living with you?	IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	IF DEAD: How old was (NAME) when he/she died?  IF '1 YR', PROBE: How many months old was (NAME) when he/she died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	Were there any other live births between (WHEN YOU FIRST MARRIED/ NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08  (NAME)	SING . . 1  MULT . . 2	BOY . . 1  GIRL . . 2	MONTH [ ] [ ] YEAR [ ] [ ] [ ] [ ]	YES . . . . 1  NO . . . . 2 ↓ (GO TO 220)	AGE IN YEARS [ ] [ ]	YES . . . 1  NO . . . . 2	HH LINE NO. [ ] [ ] ↓ (GO TO 221)	DAYS . . . 1 [ ] [ ] MONTHS . 2 [ ] [ ] YEARS . . 3 [ ] [ ]	YES . . . . 1 ADD BIRTH ←  NO . . . . 2 NEXT BIRTH ←
09  (NAME)	SING . . 1  MULT . . 2	BOY . . 1  GIRL . . 2	MONTH [ ] [ ] YEAR [ ] [ ] [ ] [ ]	YES . . . . 1  NO . . . . 2 ↓ (GO TO 220)	AGE IN YEARS [ ] [ ]	YES . . . 1  NO . . . . 2	HH LINE NO. [ ] [ ] ↓ (GO TO 221)	DAYS . . . 1 [ ] [ ] MONTHS . 2 [ ] [ ] YEARS . . 3 [ ] [ ]	YES . . . . 1 ADD BIRTH ←  NO . . . . 2 NEXT BIRTH ←
10  (NAME)	SING . . 1  MULT . . 2	BOY . . 1  GIRL . . 2	MONTH [ ] [ ] YEAR [ ] [ ] [ ] [ ]	YES . . . . 1  NO . . . . 2 ↓ (GO TO 220)	AGE IN YEARS [ ] [ ]	YES . . . 1  NO . . . . 2	HH LINE NO. [ ] [ ] ↓ (GO TO 221)	DAYS . . . 1 [ ] [ ] MONTHS . 2 [ ] [ ] YEARS . . 3 [ ] [ ]	YES . . . . 1 ADD BIRTH ←  NO . . . . 2 NEXT BIRTH ←
11  (NAME)	SING . . 1  MULT . . 2	BOY . . 1  GIRL . . 2	MONTH [ ] [ ] YEAR [ ] [ ] [ ] [ ]	YES . . . . 1  NO . . . . 2 ↓ (GO TO 220)	AGE IN YEARS [ ] [ ]	YES . . . 1  NO . . . . 2	HH LINE NO. [ ] [ ] ↓ (GO TO 221)	DAYS . . . 1 [ ] [ ] MONTHS . 2 [ ] [ ] YEARS . . 3 [ ] [ ]	YES . . . . 1 ADD BIRTH ←  NO . . . . 2 NEXT BIRTH ←
12  (NAME)	SING . . 1  MULT . . 2	BOY . . 1  GIRL . . 2	MONTH [ ] [ ] YEAR [ ] [ ] [ ] [ ]	YES . . . . 1  NO . . . . 2 ↓ (GO TO 220)	AGE IN YEARS [ ] [ ]	YES . . . 1  NO . . . . 2	HH LINE NO. [ ] [ ] ↓ (GO TO 221)	DAYS . . . 1 [ ] [ ] MONTHS . 2 [ ] [ ] YEARS . . 3 [ ] [ ]	YES . . . . 1 ADD BIRTH ←  NO . . . . 2 GO TO 222 ←
222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.					YES . . . . . 1	NO . . . . . 2	→ ADD TO TABLE	
223	<p>COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:</p> <p>NUMBERS ARE SAME <input type="checkbox"/> NUMBERS ARE DIFFERENT <input type="checkbox"/> → (PROBE AND RECONCILE)</p> <p>CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED.</p> <p>FOR EACH BIRTH SINCE JANUARY 2003: MONTH AND YEAR OF BIRTH RECORDED.</p> <p>FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED.</p> <p>FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED.</p> <p>FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: <b>PROBE</b> TO DETERMINE EXACT NUMBER OF MONTHS.</p>								
224	CHECK 215 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 2003 OR LATER. IF NONE, RECORD '0' AND GO TO 225a.								

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	<p>FOR EACH BIRTH SINCE JANUARY 2003, ENTER 'B' IN THE MONTH OF BIRTH IN COLUMN 2 OF THE CALENDAR. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY.</p> <p>NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.</p> <p>WRITE THE NAME OF THE CHILD TO THE RIGHT OF THE 'B' CODE.</p>		
225a	<p>ENTER THE MONTH AND YEAR OF THE MOST RECENT BIRTH PRIOR TO JANUARY 2003 IN THE BOXES AT THE BOTTOM OF THE CALENDAR.</p>		
226	<p>Are you pregnant now?</p>	<p>YES ..... 1  NO ..... 2  UNSURE ..... 8</p>	<p>→ 230</p>
227	<p>How many months pregnant are you?</p> <p>RECORD NUMBER OF COMPLETED MONTHS.</p>	<p>MONTHS ..... <input type="text"/> <input type="text"/></p>	
228	<p>ENTER 'P's IN COLUMN 2 OF CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF MONTHS OF THE CURRENT PREGNANCY COMPLETED .</p>		
229	<p>At the time you became pregnant did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u>, or did you <u>not want</u> to have any (more) children at all?</p>	<p>THEN ..... 1  LATER ..... 2  NOT AT ALL ..... 3</p>	
230	<p>Unfortunately many women have pregnancies that do not end in a live birth. Sometimes a baby is still born, that is, the baby is born who does not breath or show any life. Other times women have a miscarriage or abortion early during a pregnancy. It is very important in our study to know about such pregnancies so health programs can be developed for women.</p> <p><b>USING THE INFORMATION IN THE CALENDAR, PROBE TO DETERMINE IF THE WOMAN HAD ANY STILL BIRTHS, MISCARRIAGES, OR ABORTIONS BACK TO JANUARY 2003.</b></p> <p><b>IF THE WOMAN REPORTS A PREGNANCY THAT DID NOT END IN A LIVE BIRTH, ASK ABOUT THE MONTH AND YEAR IN WHICH THE PREGNANCY ENDED. RECORD THE APPROPRIATE CODE FOR THE PREGNANCY OUTCOME ON THAT DATE IN COLUMN 2 IN THE CALENDAR ("S" FOR STILL BIRTH, "M" FOR MISCARRIAGE AND "A" FOR ABORTION). THEN ASK ABOUT THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD "P" IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF THE PREGNANCY.</b></p> <p><b>NOTE: SINCE THE OUTCOME OF THE PREGNANCY IS RECORDED IN THE MONTH THAT PREGNANCY ENDED, THE NUMBER OF P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.</b></p> <p><b>ILLUSTRATIVE QUESTIONS</b></p> <p><b>TO IDENTIFY NON-LIVE BIRTH PREGNANCIES, ASK:</b></p> <ul style="list-style-type: none"> <li>• <b>INTERVAL BETWEEN CURRENT PREGNANCY AND PRIOR BIRTH (LAST BIRTH)</b>  Did you have any pregnancy that ended in a still birth after the birth of (NAME OF LAST BIRTH) and before your current pregnancy? Or any pregnancy that ended in a miscarriage or abortion?</li> <li>• <b>INTERVAL BETWEEN LAST AND PRIOR BIRTH</b>  Did you have any pregnancy that ended in a still birth between (NAME OF LAST BIRTH) and (NAME OF PRIOR BIRTH)? Or any pregnancy that ended in a miscarriage or abortion?</li> <li>• <b>INTERVAL BETWEEN NEXT-TO-LAST BIRTH AND PRIOR BIRTH</b>  Did you have any pregnancy that ended in a still birth between (NAME OF NEXT-TO-LAST BIRTH) and (NAME OF PRIOR BIRTH)? Or any pregnancy that ended in a miscarriage or abortion?</li> <li>• <b>WOMEN WITH NO LIVE BIRTHS BUT WITH CURRENT PREGNANCY</b>  Before your current pregnancy, did you ever have any other pregnancy that ended in a still birth? Or any other pregnancy that ended in a miscarriage or abortion?</li> <li>• <b>WOMEN WITH NO LIVE BIRTHS AND NOT CURRENTLY PREGNANT</b>  Have you ever had a still birth? If YES: When did the last still birth occur?  Have you ever had a miscarriage or abortion? If YES: When did the last miscarriage or abortion occur?</li> </ul> <p><b>FOR EACH PREGNANCY TERMINATION, ASK</b>  How many months pregnant were you when the pregnancy ended?</p>		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																
231	Did you have any (other) pregnancies before January 2003 that did not result in a live birth (pregnancy that ended in a still birth, miscarriage or abortion)?	YES ..... 1 NO ..... 2																	
232	<b>RECORD IN THE BOXES AT THE BOTTOM OF THE CALENDAR THE OUTCOME AND MONTH AND YEAR THAT THE PREGNANCY TERMINATED FOR THE LAST PREGNANCY THAT ENDED IN A STILL BIRTH, MISCARRIAGE, OR ABORTION PRIOR TO JANUARY 2003. IF NONE RECODE '0' IN OUTCOME.</b>																		
233	When did your last menstrual period start?  _____ (DATE, IF GIVEN)	DAYS AGO ..... 1 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> WEEKS AGO ..... 2 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> MONTHS AGO ..... 3 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> YEARS AGO ..... 4 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> IN MENOPAUSE/ HAS HAD HYSTERECTOMY ... 994  BEFORE LAST BIRTH ..... 995  NEVER MENSTRUATED ..... 996																	
234	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 301																
235	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS ..... 1 DURING HER PERIOD ..... 2 RIGHT AFTER HER PERIOD HAS ENDED ..... 3 HALFWAY BETWEEN TWO PERIODS ..... 4  OTHER _____ 6 (SPECIFY) DON'T KNOW ..... 8																	

SECTION 3. CONTRACEPTION

301	<p>Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.</p> <p>CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 302, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 302, ASK 303.</p>		
	METHOD	302 Which ways or methods have you heard about? FOR METHODS NOT MENTIONED, ASK: Have you ever heard of (METHOD)?	303 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES ..... 1 NO ..... 2 ↘	Have you ever had an operation to avoid having any more children? YES ..... 1 NO ..... 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES ..... 1 NO ..... 2 ↘	Have you ever had a husband who had an operation to avoid having any more children? YES ..... 1 NO ..... 2
03	PILL Women can take a pill every day.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
06	IMPLANTS Women can have small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for several years.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
07	CONDOM Men can use a rubber covering during sexual intercourse.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
08	DIAPHRAGM, FOAM, JELLY A woman can place a sponge, suppository, diaphragm, jelly or cream inside her vagina before intercourse.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
09	RHYTHM METHOD A couple can avoid having sexual intercourse on the days of the month the woman is most to get pregnant.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
10	WITHDRAWAL Men can be careful and pull out before ejaculation.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
11	PROLONGED BREASTFEEDING	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
12	EMERGENCY CONTRACEPTION Women can prevent pregnancy after having sexual intercourse within five days by taking one or two doses of pills.	YES ..... 1 NO ..... 2 ↘	YES ..... 1 NO ..... 2
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES ..... 1  _____ (SPECIFY)  _____ (SPECIFY) NO ..... 2	YES ..... 1 NO ..... 2  YES ..... 1 NO ..... 2
304	<p>CHECK 303:</p> <p>NOT A SINGLE "YES" (NEVER USED) <input type="checkbox"/> ↘</p> <p>AT LEAST ONE "YES" (EVER USED) <input type="checkbox"/> →</p>		308

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
305	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES ..... 1 NO ..... 2	→ 307
306	ENTER '0' IN COLUMN 2 OF CALENDAR IN EACH BLANK MONTH. _____		→ 341
307	What have you used or done?  CORRECT 302 AND 303 IF NECESSARY.	_____ (SPECIFY)	
308	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant.  How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN . . . . <input type="text"/> <input type="text"/>	
309	CHECK 303 (01 - FEMALE STERILIZATION):  WOMAN NOT STERILIZED <input type="checkbox"/> WOMAN STERILIZED <input type="checkbox"/>	_____ → 313A	
310	CHECK 106: MARITAL STATUS  CURRENTLY MARRIED <input type="checkbox"/> WIDOWED/ DIVORCED/ SEPARATED <input type="checkbox"/>	_____ → 340	
311	CHECK 226: CURRENTLY PREGNANT  NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>	_____ → 340	
312	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES ..... 1 NO ..... 2	→ 340
313	Which method are you using?  CIRCLE ALL MENTIONED.	FEMALE STERILIZATION ..... C MALE STERILIZATION ..... D PILL ..... E IUD ..... F INJECTABLES ..... G IMPLANTS ..... H CONDOM ..... I DIAPHRAGM/FOAM/JELLY ..... K RHYTHM METHOD ..... N WITHDRAWAL ..... R PROLONGED BREASTFEEDING ... T OTHER _____ X (SPECIFY)	→ 315A
313A	CIRCLE 'C' FOR FEMALE STERILIZATION.		
314	CHECK 313/313A:  FEMALE STERILIZATION CODE "C" CIRCLED <input type="checkbox"/> MALE STERILIZATION CODE "D" CIRCLED <input type="checkbox"/>  Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation?  Before the sterilization operation, was your husband told that he would not be able to have any (more) children because of the operation?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
315	In what month and year was the sterilization performed?		
315A	IF MORE THAN ONE METHOD RECORDED IN 313, ASK FOR METHOD HIGHEST ON LIST: In what month and year did you start using (CURRENT METHOD) continuously?  <b>PROBE:</b> For how long have you been using (CURRENT METHOD) now without stopping?	MONTH ..... <input type="text"/> <input type="text"/> YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
316	CHECK 315/315A, 215, AND THE CALENDAR: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 315/315A. <b>GO BACK TO 315/315A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).</b>	YES <input type="checkbox"/> NO <input type="checkbox"/>	
317	CHECK 315/315A: YEAR IS 2003 OR LATER <input type="checkbox"/> <b>ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN COLUMN 2 OF THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING.</b>	YEAR IS 2002 OR EARLIER <input type="checkbox"/> <b>ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN COLUMN 2 OF THE CALENDAR AND EACH MONTH BACK TO JANUARY 2003.</b>	
318	CHECK 313/313A: CIRCLE METHOD CODE. IF MORE THAN ONE METHOD CODE CIRCLED IN 313/313A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION ..... C MALE STERILIZATION ..... D PILL ..... E → 321 IUD ..... F → 321 INJECTABLES ..... G → 321 IMPLANTS ..... H CONDOM ..... I DIAPHRAGM/FOAM/JELLY/CREAM ..... K RHYTHM METHOD ..... N WITHDRAWAL ..... R PROLONGED BREASTFEEDING .. T OTHER METHOD ..... X (SPECIFY)	
319	CHECK 313/313A IF MORE THAN ONE METHOD RECORDED IN 313/313A, CHECK AND ASK ABOUT METHOD HIGHEST ON THE LIST.  F/M STERIL. <input type="checkbox"/> → Where did the sterilization take place?  IUD <input type="checkbox"/> → Where did you have the IUD inserted?  IMPLANT <input type="checkbox"/> → Where did you have the implant inserted?  RHYTHM/ WITHDRAWL/ PRLNG. BR./ OTHER <input type="checkbox"/> → Did you obtain advice about how to use (METHOD) at the time you began this current segment of use? If yes: from where did you get the advice?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. <b>PROBE</b> TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  _____ (NAME AND ADDRESS OF PLACE)  FOR OFFICE USE:  SOURCE CODE <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<b>MINISTRY OF HEALTH AND POPULATION</b> URBAN HOSP'L (GENERAL/DISTRICT) 1 URBAN HEALTH UNIT ..... 2 HEALTH OFFICE ..... 3 RURAL HOSP'L (COMPLEMENTARY) .. 4 RURAL HEALTH UNIT ..... 5 MCH CENTER ..... 6 MOBILE UNIT ..... 7 <b>OTHER GOVERNMENTAL</b> UNIVERSITY HOSPITAL ..... 8 TEACHING HOSPITAL ..... 9 HEALTH INSURANCE ORG. .... A CURATIVE CARE ORGANIZATION... B OTHER GOVERNMENTAL ..... C <b>NON-GOVERNMENTAL ORGANIZATION</b> EGYPT FAMILY PLANNING ASSOC. . . D CSI PROJECT ..... E OTHER NON-GOVERNMENTAL . . . F <b>PRIVATE MEDICAL</b> PRIVATE HOSPITAL/ CLINIC ..... G PRIVATE DOCTOR ..... H PHARMACY ..... I <b>OTHER PRIVATE</b> MOSQUE HEALTH UNIT ..... J CHURCH HEALTH UNIT ..... K <b>OTHER NON-MEDICAL</b> OTHER VENDOR (SHOP, KIOSK, ETC.,) ..... L FRIEND/RELATIVE ..... M OTHER ..... X (SPECIFY) <b>NO ONE</b> ..... Y	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
320	CHECK 315/315A YEAR IS 2003 OR LATER <input type="checkbox"/> ↓ <b>ENTER SOURCE CODE FROM 319 IN COLUMN 3 OF CALENDAR IN THE MONTH AND YEAR IN WHICH THE CURRENT SEGMENT OF USE BEGAN AND WRITE SOURCE NAME TO THE RIGHT OF THE CODE. THEN GO TO 326.</b>	YEAR IS 2002 OR EARLIER <input type="checkbox"/> ↓ <b>GO TO 326.</b>	
321	CHECK 313/313A IF MORE THAN ONE METHOD RECORDED IN 313/313A, CHECK AND ASK ABOUT METHOD HIGHEST ON THE LIST.  PILL <input type="checkbox"/> → Where did you obtain the packet of pills you are using now (you used most recently)?  INJECTION <input type="checkbox"/> → Where did you go for your last injection?  M CONDOM/ DIAPHRAGM/ FOAM/ JELLY/ CREAM <input type="checkbox"/> → From where did you obtain your most recent supply of (METHOD)?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. <b>PROBE</b> TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  _____ (NAME AND ADDRESS OF PLACE)  FOR OFFICE USE:  SOURCE CODE <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<b>MINISTRY OF HEALTH AND POPULATION</b> URBAN HOSP'L (GENERAL/DISTRICT) 1 URBAN HEALTH UNIT . . . . . 2 HEALTH OFFICE . . . . . 3 RURAL HOSP'L (COMPLEMENTARY . . . 4 RURAL HEALTH UNIT . . . . . 5 MCH CENTER . . . . . 6 MOBILE UNIT . . . . . 7 <b>OTHER GOVERNMENTAL</b> UNIVERSITY HOSPITAL . . . . . 8 TEACHING HOSPITAL . . . . . 9 HEALTH INSURANCE ORC. . . . . A CURATIVE CARE ORGANIZATION . . . B OTHER GOVERNMENTAL . . . . . C <b>NON-GOVERNMENTAL ORGANIZATION</b> EGYPT FAMILY PLANNING ASSOC. . . D CSI PROJECT . . . . . E OTHER NON-GOVERNMENTAL . . . F <b>PRIVATE MEDICAL</b> PRIVATE HOSPITAL/ CLINIC . . . . . G PRIVATE DOCTOR . . . . . H PHARMACY . . . . . I <b>OTHER PRIVATE</b> MOSQUE HEALTH UNIT . . . . . J CHURCH HEALTH UNIT . . . . . K <b>OTHER NON-MEDICAL</b> OTHER VENDOR (SHOP, KIOSK, ETC.,) . . . . . L FRIEND/RELATIVE . . . . . M OTHER _____ X (SPECIFY) <b>DON'T KNOW</b> . . . . . Z	
322	At the time you began this current period of use of (METHOD), did you obtain or consult about (METHOD) at (SOURCE IN 321) or did you go somewhere else?	YES, SAME PLACE . . . . . 1 NO, SOMEWHERE ELSE . . . . . 2	→ 324
323	CHECK 315/315A YEAR IS 2003 OR LATER <input type="checkbox"/> ↓ <b>ENTER SOURCE CODE FROM 321 IN COLUMN 3 OF CALENDAR IN THE MONTH AND YEAR IN WHICH THE CURRENT SEGMENT OF USE BEGAN AND WRITE SOURCE NAME TO THE RIGHT OF THE CODE. THEN GO TO 326.</b>	YEAR IS 2002 OR EARLIER <input type="checkbox"/> ↓ <b>GO TO 326.</b>	



NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
324	<p>Where did you first obtain/get advice about (METHOD) during your current period of use?</p> <p>IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. <b>PROBE</b> TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME AND ADDRESS OF PLACE)</p> <p>FOR OFFICE USE:</p> <p>SOURCE CODE <table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table></p>									<p><b>MINISTRY OF HEALTH AND POPULATION</b></p> <p>URBAN HOSP'L (GENERAL/DISTRICT) 1</p> <p>URBAN HEALTH UNIT ..... 2</p> <p>HEALTH OFFICE ..... 3</p> <p>RURAL HOSP'L (COMPLEMENTARY) . . . 4</p> <p>RURAL HEALTH UNIT ..... 5</p> <p>MCH CENTER ..... 6</p> <p>MOBILE UNIT ..... 7</p> <p><b>OTHER GOVERNMENTAL</b></p> <p>UNIVERSITY HOSPITAL ..... 8</p> <p>TEACHING HOSPITAL ..... 9</p> <p>HEALTH INSURANCE ORG ..... A</p> <p>CURATIVE CARE ORGANIZATION... B</p> <p>OTHER GOVERNMENTAL ..... C</p> <p><b>NON-GOVERNMENTAL ORGANIZATION</b></p> <p>EGYPT FAMILY PLANNING ASSOC. . . D</p> <p>CSI PROJECT ..... E</p> <p>OTHER NON-GOVERNMENTAL . . . F</p> <p><b>PRIVATE MEDICAL</b></p> <p>PRIVATE HOSPITAL/ CLINIC ..... G</p> <p>PRIVATE DOCTOR ..... H</p> <p>PHARMACY ..... I</p> <p><b>OTHER PRIVATE</b></p> <p>MOSQUE HEALTH UNIT ..... J</p> <p>CHURCH HEALTH UNIT ..... K</p> <p><b>OTHER NON-MEDICAL</b></p> <p>OTHER VENDOR (SHOP, KIOSK, ETC.,) ..... L</p> <p>FRIEND/RELATIVE ..... M</p> <p>OTHER ..... X</p> <p>(SPECIFY)</p> <p><b>DON'T KNOW</b> ..... Z</p>	
325	<p>CHECK 315/315A</p> <p>YEAR IS 2003 OR LATER <input type="checkbox"/></p> <p>YEAR IS 2002 OR EARLIER <input type="checkbox"/></p> <p>↓</p> <p><b>ENTER SOURCE CODE FROM 324 IN COLUMN 3 OF CALENDAR IN THE MONTH AND YEAR IN WHICH THE CURRENT SEGMENT OF USE BEGAN AND WRITE SOURCE NAME TO THE RIGHT OF THE CODE. THEN CONTINUE WITH 326.</b></p> <p>↓</p>										
326	When you got (METHOD) at (SOURCE IN 319/321 or 324) were you told about side effects or problems you might have with this method?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>NO SOURCE/RELATIVE/FRIEND ... 3</p>	→ 328								
327	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 329								
328	Were you told what to do if you experienced side effects or problems?	<p>YES ..... 1</p> <p>NO ..... 2</p>									
329	When you got (METHOD) at (SOURCE IN 319/321 or 324), were you told about other methods of family planning?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>NO SOURCE/RELATIVE/FRIEND ... 3</p>	→ 331								
330	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	<p>YES ..... 1</p> <p>NO ..... 2</p>									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
331	<p>CHECK 313/313A:</p> <p>USING FEMALE/ MALE STERILIZATION <input type="checkbox"/></p> <p>USING OTHER METHOD <input type="checkbox"/></p> <p>How much did you (your husband) pay in total for the sterilization, including any consultation you may have had?</p> <p>The last time you obtained (CURRENT METHOD) how much did you pay in total, including the cost of the (CURRENT METHOD) and any consultation you may have had?</p>	<p>COST ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>FREE ..... 9995</p> <p>NO SOURCE/RELATIVE/FRIEND 9997</p> <p>DON'T KNOW ..... 9998</p>	→ 333
332	<p>CHECK 313/313A:</p> <p>USING FEMALE/ MALE STERILIZATION <input type="checkbox"/></p> <p>USING OTHER METHOD <input type="checkbox"/></p> <p>Did you have any problem in affording the cost of the sterilization?</p> <p>The last time you obtained it, did you have any problem in affording the cost of the (CURRENT METHOD)?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	
333	<p>CHECK 313/313A:</p> <p>CIRCLE METHOD CODE. IF MORE THAN ONE METHOD CODE CIRCLED IN 313/313A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.</p>	<p>FEMALE STERILIZATION ..... C</p> <p>MALE STERILIZATION ..... D</p> <p>PILL ..... E</p> <p>IUD ..... F</p> <p>INJECTABLES ..... G</p> <p>IMPLANTS ..... H</p> <p>CONDOM ..... I</p> <p>DIAPHRAGM/FOAM/JELLY/CREAM K</p> <p>RHYTHM METHOD ..... N</p> <p>WITHDRAWAL ..... R</p> <p>PROLONGED BREASTFEEDING . . . T</p> <p>OTHER METHOD ..... X</p> <p>(SPECIFY)</p>	<p>→ 340</p> <p>→ 340</p> <p>→ 340</p> <p>→ 340</p>
334	<p>Did you obtain a supply of your current method during the past month?</p> <p>IF YES: Did you obtain it within the past two weeks?</p>	<p>1-2 WEEKS AGO ..... 1</p> <p>3-4 WEEKS AGO ..... 2</p> <p>MORE THAN ONE MONTH AGO . . . 3</p> <p>DON'T KNOW ..... 4</p>	
335	<p>CHECK 313/313A AND RECORD THE METHOD CURRENTLY USED:</p> <p>USING PILL <input type="checkbox"/></p> <p>USING OTHER METHOD <input type="checkbox"/></p>		→ 340
336	<p>May I see the package of pills you are using?</p> <p>RECORD NAME OF BRAND.</p>	<p>PACKAGE SEEN ..... 1</p> <p>BRAND NAME _____ <input type="text"/> <input type="text"/></p> <p>(SPECIFY)</p> <p>PACKAGE NOT SEEN ..... 2</p>	→ 338
337	<p>Do you know the brand name of the pills you are using?</p> <p>RECORD NAME OF BRAND.</p>	<p>BRAND NAME _____ <input type="text"/> <input type="text"/></p> <p>(SPECIFY)</p> <p>DON'T KNOW ..... 98</p>	
338	<p>How many pill cycles did you get the last time?</p>	<p>NUMBER OF CYCLES ..... <input type="text"/> <input type="text"/></p> <p>DON'T KNOW ..... 98</p>	
339	<p>How much does one cycle of pills cost?</p>	<p>COST ..... <input type="text"/> <input type="text"/> POUNDS <input type="text"/> <input type="text"/> PT</p> <p>FREE ..... 9995</p> <p>DON'T KNOW ..... 9998</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
340	<p>I would like to ask some questions about all of the (other) periods in the last few years during which you or your husband used a method to delay or avoid getting pregnant.</p> <p><b><u>COLUMN 2 - SEGMENTS OF CONTRACEPTIVE USE SINCE JANUARY 2003</u></b></p> <p><b>PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH THE MOST RECENT PERIOD OF USE AND GOING BACK TO JANUARY 2003. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS</b></p> <p><b>RECORD PERIODS OF USE AND NONUSE IN COLUMN 2 OF THE CALENDAR. FOR EACH MONTH IN WHICH A METHOD WAS USED, ENTER THE CODE FOR THE METHOD; ENTER "0" IN THOSE MONTHS WHEN NO METHOD WAS USED.</b></p> <p><b>ILLUSTRATIVE QUESTIONS FOR COLUMN 2</b></p> <ul style="list-style-type: none"> <li>- When was the last time you used a method? Which method was that?</li> <li>- When did you start using that method? How long after the birth of (NAME)?</li> <li>- How long did you use the method then?</li> </ul> <p><b><u>COLUMN 3 - SOURCE OF CONTRACEPTIVE METHOD SINCE JANUARY 2003</u></b></p> <p><b>ASK FOR SOURCE OF METHOD FOR EACH SEGMENT OF USE IN THE CALENDAR PRIOR TO THE CURRENT SEGMENT OF USE. RECORD THE CODE FOR THE SOURCE IN COLUMN 3 IN THE MONTH AND YEAR IN WHICH THE SEGMENT OF USE BEGAN.</b></p> <p><b>FOR THE PILL, CONDOM, INJECTION, AND DIAPHRAGM/FOAM/JELLY/CREAM, THE SOURCE SHOULD BE THE PLACE FROM WHICH THE METHOD WAS OBTAINED AT THE TIME THE SEGMENT OF USE BEGAN</b></p> <p><b>PROBE FOR THE EXACT ADDRESS OF EACH SOURCE. WRITE THE NAME TO THE RIGHT OF COLUMN 3 OF THE CALENDAR IN MONTH IN WHICH THE SEGMENT OF USE BEGAN.</b></p> <p><b>THE NUMBER OF CODES ENTERED IN COLUMN 3 MUST BE THE SAME AS THE NUMBER OF SEGMENTS OF CONTRACEPTIVE USE IN COLUMN 2.</b></p> <p><b>ILLUSTRATIVE QUESTIONS FOR COLUMN 3</b></p> <p><b>FOR MODERN METHODS (CODES C-K)</b></p> <ul style="list-style-type: none"> <li>- Where did you obtain (METHOD) when you began using it that time?</li> </ul> <p><b>FOR TRADITIONAL METHODS (CODES N-X);</b></p> <ul style="list-style-type: none"> <li>- Did you seek advice about how to use (METHOD) when you began using it that time?</li> <li>- From where did you get the advice?</li> </ul> <p><b>IF PHARMACY/OTHER NONMEDICAL SOURCE(S) (CODES I, L, M, X):</b></p> <ul style="list-style-type: none"> <li>- Did you consult a doctor or a clinic when you began using (METHOD) that time?</li> </ul> <p><b>IF YES: Where did you consult?</b></p> <p><b>IF NO: RECORD CODE FOR PHARMACY OR OTHER SOURCE</b></p> <p><b><u>COLUMN 4 - REASON FOR DISCONTINUATION</u></b></p> <p><b>FOR EACH PERIOD OF USE, ASK WHY SHE STOPPED USING THE METHOD AND RECORD THE REASON FOR DISCONTINUATION IN COLUMN 4 OF THE CALENDAR IN THE MONTH IN WHICH THE SEGMENT OF USE WAS TERMINATED.</b></p> <p><b>IF A PREGNANCY FOLLOWED, ASK IF SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR WHETHER SHE DELIBERATELY STOPPED USING THE METHOD TO GET PREGNANT.</b></p> <p><b>THE NUMBER OF CODES ENTERED IN COLUMN 4 MUST BE THE SAME AS THE NUMBER OF COMPLETE SEGMENTS OF CONTRACEPTIVE USE IN COLUMN 2.</b></p> <p><b>ILLUSTRATIVE QUESTIONS FOR COLUMN 4</b></p> <ul style="list-style-type: none"> <li>- Why did you stop using the (method)?</li> <li>- Did you become pregnant while using (method), or did you stop to get pregnant, or stop for some other reason?</li> </ul> <p><b>IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK:</b></p> <ul style="list-style-type: none"> <li>- How many months did it take you to get pregnant after you stopped using (method)?</li> </ul> <p><b>ENTER "0" IN EACH SUCH MONTH IN COLUMN 2.</b></p> <p><b>AFTER COMPLETING COLUMNS 2, 3 AND 4 AS APPROPRIATE, GO TO 341</b></p>		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
341	CHECK 302: METHOD 11  PROLONGED BREASTFEEDING NOT MENTIONED <input type="checkbox"/> ↓ PROLONGED BREASTFEEDING MENTIONED <input type="checkbox"/> →		343
342	Do you believe that breastfeeding can be a family planning method, that is, that breastfeeding can help a woman avoid becoming pregnant?	YES ..... 1 NO ..... 2	→ 347
343	Now I would like to ask some questions about the use of breastfeeding as a family planning method.  For how many months after a baby is born is a woman protected from pregnancy if she breastfeeds?	NUMBER OF MONTHS ..... <input type="text"/> <input type="text"/> UNTIL PERIOD RETURN ..... 93 UNTIL SHE STOPS/CHILD WEANED ..... 94 OTHER ..... 96 (SPECIFY) DON'T KNOW ..... 98	
344	If a breastfeeding mother's menstrual period returns, is she protected from pregnancy?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
345	If the child is given other liquids or solids, is a breastfeeding mother protected from pregnancy?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
346	If her baby sleeps through the night without feeding or feeds only a few times during the day, is a breastfeeding mother protected from pregnancy?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
347	CHECK 304:  NEVER USED METHOD <input type="checkbox"/> ↓ EVER USED METHOD <input type="checkbox"/> →		→ 401
348	Do you know of a place where you can obtain a method of family planning?	YES ..... 1 NO ..... 2	→ 401
349	Where is that?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. <b>PROBE</b> TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  _____ (NAME AND ADDRESS OF PLACE)	<b>MINISTRY OF HEALTH AND POPULATION</b> URBAN HOSP'L (GENERAL/DISTRICT) ..... 1 URBAN HEALTH UNIT ..... 2 HEALTH OFFICE ..... 3 RURAL HOSP'L (COMPLEMENTARY) ... 4 RURAL HEALTH UNIT ..... 5 MCH CENTER ..... 6 MOBILE UNIT ..... 7 <b>OTHER GOVERNMENTAL</b> UNIVERSITY HOSPITAL ..... 8 TEACHING HOSPITAL ..... 9 HEALTH INSURANCE ORG ..... A CURATIVE CARE ORGANIZATION... B OTHER GOVERNMENTAL ..... C <b>NON-GOVERNMENTAL ORGANIZATION</b> EGYPT FAMILY PLANNING ASSOC. ... D CSI PROJECT ..... E OTHER NON-GOVERNMENTAL . . . F <b>PRIVATE MEDICAL</b> PRIVATE HOSPITAL/ CLINIC ..... G PRIVATE DOCTOR ..... H PHARMACY ..... I <b>OTHER PRIVATE</b> MOSQUE HEALTH UNIT ..... J CHURCH HEALTH UNIT ..... K <b>OTHER NON-MEDICAL</b> OTHER VENDOR (SHOP, KIOSK, ETC.,) ..... L FRIEND/RELATIVE ..... M OTHER ..... X (SPECIFY) <b>DON'T KNOW</b> ..... Z	

SECTION 4. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	<p>CHECK 106: MARITAL STATUS</p> <p>CURRENTLY MARRIED <input type="checkbox"/></p> <p>WIDOWED/DIVORCED/SEPARATED <input type="checkbox"/></p>		413
402	<p>CHECK 313/313A: USING STERILIZATION</p> <p>NEITHER STERILIZED <input type="checkbox"/></p> <p>HE OR SHE STERILIZED <input type="checkbox"/></p>		413
403	<p>CHECK 226: CURRENTLY PREGNANT</p> <p>NOT PREGNANT OR UNSURE <input type="checkbox"/></p> <p>PREGNANT <input type="checkbox"/></p> <p>Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?</p> <p>Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?</p>	<p>HAVE (A/ANOTHER) CHILD ..... 1</p> <p>NO MORE/NONE ..... 2</p> <p>SAYS SHE CAN'T GET PREGNANT . 3</p> <p>UNDECIDED AND PREGNANT . 4</p> <p>UNDECIDED AND NOT PREGNANT/ UNSURE IF PREGNANT ..... 5</p>	<p>405</p> <p>413</p> <p>410</p> <p>409</p>
404	<p>CHECK 226: CURRENTLY PREGNANT</p> <p>NOT PREGNANT OR UNSURE <input type="checkbox"/></p> <p>PREGNANT <input type="checkbox"/></p> <p>How long would you like to wait from now before the birth of (a/another) child?</p> <p>After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?</p>	<p>MONTHS ..... 1</p> <p>YEARS ..... 2</p> <p>SOON/NOW ..... 994</p> <p>SAYS SHE CAN'T GET PREGNANT 995</p> <p>OTHER ..... 996 (SPECIFY)</p> <p>DON'T KNOW ..... 998</p>	<p>409</p> <p>413</p> <p>409</p>
405	<p>CHECK 226: CURRENTLY PREGNANT</p> <p>NOT PREGNANT OR UNSURE <input type="checkbox"/></p> <p>PREGNANT <input type="checkbox"/></p>		410
406	<p>CHECK 312: USING A CONTRACEPTIVE METHOD?</p> <p>NOT ASKED <input type="checkbox"/></p> <p>NOT CURRENTLY USING <input type="checkbox"/></p> <p>CURRENTLY USING <input type="checkbox"/></p>		413
407	<p>CHECK 404: PREFERRED TIME BEFORE NEXT BIRTH</p> <p>NOT ASKED <input type="checkbox"/></p> <p>24 OR MORE MONTHS OR 02 OR MORE YEARS <input type="checkbox"/></p> <p>00-23 MONTHS OR 00-01 YEAR <input type="checkbox"/></p>		410

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
408	<p>CHECK 403: DESIRE FOR A(NOTHER) CHILD</p> <p>WANTS TO HAVE A/ANOTHER CHILD <input type="checkbox"/>      WANTS NO MORE/NONE <input type="checkbox"/></p> <p>You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy.      You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy.</p> <p>Can you tell me why you are not using a method?      Can you tell me why you are not using a method?</p> <p>Any other reason?      Any other reason?</p> <p>_____</p> <p>_____</p> <p>RECORD ALL REASONS MENTIONED.</p>	<p><b>FERTILITY-RELATED REASONS</b></p> <p>NOT HAVING SEX ..... A</p> <p>INFREQUENT SEX ..... B</p> <p>MENOPAUSAL/HYSTERECTOMY . C</p> <p>SUBFECUND/INFECUND ..... D</p> <p>POSTPARTUM AMENORRHEIC ... E</p> <p>BREASTFEEDING ..... F</p> <p>FATALISTIC ..... G</p> <p><b>OPPOSITION TO USE</b></p> <p>RESPONDENT OPPOSED ..... H</p> <p>HUSBAND OPPOSED ..... I</p> <p>OTHERS OPPOSED ..... J</p> <p>RELIGIOUS PROHIBITION ..... K</p> <p><b>LACK OF KNOWLEDGE</b></p> <p>KNOWS NO METHOD ..... L</p> <p>KNOWS NO SOURCE ..... M</p> <p><b>METHOD-RELATED REASONS</b></p> <p>HEALTH CONCERNS ..... N</p> <p>FEAR OF SIDE EFFECTS ..... O</p> <p>LACK OF ACCESS/TOO FAR ..... P</p> <p>COSTS TOO MUCH ..... Q</p> <p>INCONVENIENT TO USE ..... R</p> <p>INTERFERES WITH BODY'S NORMAL PROCESSES ..... S</p> <p><b>OTHER</b> ..... X</p> <p>(SPECIFY)</p> <p><b>DON'T KNOW</b> ..... Z</p>	<p>→ 410</p>
409	<p>CHECK 312: USING A CONTRACEPTIVE METHOD?</p> <p>NOT ASKED <input type="checkbox"/>      NO, NOT CURRENTLY USING <input type="checkbox"/>      YES, CURRENTLY USING <input type="checkbox"/></p>		<p>→ 413</p>
410	<p>Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	<p>→ 412</p>
411	<p>Which contraceptive method would you prefer to use?</p> <p>RECORD ONE METHOD ONLY</p>	<p>FEMALE STERILIZATION ..... C</p> <p>MALE STERILIZATION ..... D</p> <p>PILL ..... E</p> <p>IUD ..... F</p> <p>INJECTABLES ..... G</p> <p>IMPLANTS ..... H</p> <p>CONDOM ..... I</p> <p>DIAPHRAGM/FOAM/JELLY ..... K</p> <p>RHYTHM METHOD ..... N</p> <p>WITHDRAWAL ..... R</p> <p>PROLONGED BREASTFEEDING .. T</p> <p>OTHER METHOD ..... X</p> <p>(SPECIFY)</p> <p>DON'T KNOW ..... Z</p>	<p>→ 413</p>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
412	What is the main reason that you think you will not use a contraceptive method at any time in the future?	<b>FERTILITY-RELATED REASONS</b> NOT HAVING SEX ..... 21 INFREQUENT SEX ..... 22 MENOPAUSAL/HYSTERECTOMY ..... 23 SUBFECUND/INFECUND ..... 24 WANTS AS MANY CHILDREN AS POSSIBLE ..... 25 <b>OPPOSITION TO USE</b> RESPONDENT OPPOSED ..... 31 HUSBAND OPPOSED ..... 32 OTHERS OPPOSED ..... 33 RELIGIOUS PROHIBITION ..... 34 <b>LACK OF KNOWLEDGE</b> KNOWS NO METHOD ..... 41 KNOWS NO SOURCE ..... 42 <b>METHOD-RELATED REASONS</b> HEALTH CONCERNS ..... 51 FEAR OF SIDE EFFECTS ..... 52 LACK OF ACCESS/TOO FAR ... 53 COSTS TOO MUCH ..... 54 INCONVENIENT TO USE ..... 55 INTERFERES WITH BODY'S NORMAL PROCESSES ..... 56 <b>OTHER</b> ..... 96 (SPECIFY) <b>DON'T KNOW</b> ..... 98	
413	CHECK 216: HAS LIVING CHILDREN <input type="checkbox"/> NO LIVING CHILDREN <input type="checkbox"/> If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE ..... 00 NUMBER ..... <input type="text"/> <input type="text"/> OTHER ..... 96 (SPECIFY)	→ 415  → 415
414	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS    GIRLS    EITHER NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> OTHER ..... 96 (SPECIFY)	
415	Would you consider it appropriate for a couple to use family planning after the first birth?	YES ..... 1 NO ..... 2	
416	Would you consider it appropriate for a newly married couple to use family planning before the first pregnancy?	YES ..... 1 NO ..... 2	
416a	In your opinion, what is the ideal length of time that a woman should wait between births? RECORD RESPONSE EXACTLY AS GIVEN.	MONTHS ..... 1 <input type="text"/> <input type="text"/> YEARS ..... 2 <input type="text"/> <input type="text"/> DON'T KNOW ..... 998	
417	Have you ever heard (know) of "premarital examination" that is a consultation with a doctor or other health staff as part of the preparation for marriage?	YES ..... 1 NO ..... 2	→ 419
418	Did you have a premarital examination before you got married? IF NO: Did you have an consultation within two months after you married?	HAD EXAM BEFORE MARRIAGE ... 1 HAD EXAM WITHIN TWO MONTHS AFTER MARRIAGE ..... 2 DID NOT HAVE EXAMINATION ..... 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
419	Did a health worker, a raída rífa or anyone else visit you to talk about family planning during the past 6 months?  IF YES: Who visited you?	VISITED BY: HEALTH WORKER ..... A RAIDA RIFIA ..... B OTHER _____ X (SPECIFY) NOT VISITED ..... Y	
420	Have you visited governmental health facility for any reason during the past 6 months?	YES ..... 1 NO ..... 2	→ 422
421	Did any staff member at the health facility speak to you about family planning methods during any of your visits?	YES ..... 1 NO ..... 2	
422	Have you visited a private doctor or clinic for any reason during the past 6 months?	YES ..... 1 NO ..... 2	→ 424
423	Did the doctor or any other staff member there speak to you about family planning methods during any of your visits?	YES ..... 1 NO ..... 2	
424	During the past 6 months have you heard about family planning: On the radio? On the television? In a newspaper or magazine? On a poster, billboard, or sign? At a community meeting? From a religious leader?	YES NO RADIO ..... 1 2 TELEVISION ..... 1 2 NEWSPAPER/MAGAZINE ... 1 2 POSTER/BILLBOARD/SIGN ... 1 2 COMMUNITY MEETING ..... 1 2 RELIGIOUS LEADER ..... 1 2	
425	Is there a special brand of pill that is appropriate for a woman to use while breastfeeding?  IF YES: What brand is that?	YES AND NAMED ..... 1 BRAND NAME _____ <input type="text"/> <input type="text"/> (SPECIFY) YES BUT DO NOT KNOW BRAND .. 2 DON'T KNOW ..... 8	
426	CHECK 106: MARITAL STATUS  CURRENTLY <input type="checkbox"/> WIDOWED/ MARRIED ↓ DIVORCED/ SEPARATED		→ 501
427	CHECK 313/313A:  METHOD CODES <input type="checkbox"/> METHOD CODES D, I, OR R D, I, OR R CIRCLED NOT CIRCLED NO CODE CIRCLED		→ 429 → 430
428	Would you say that using contraception is mainly your decision, mainly your husband's decision, or did you both decide together?	MAINLY RESPONDENT ..... 1 MAINLY HUSBAND ..... 2 JOINT DECISION ..... 3 OTHER _____ 6 (SPECIFY)	
429	CHECK 313/313A:  NEITHER <input type="checkbox"/> HE OR SHE STERILIZED ↓ STERILIZED		→ 501
430	Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER ..... 1 MORE CHILDREN ..... 2 FEWER CHILDREN ..... 3 DON'T KNOW ..... 8	



SECTION 5. PREGNANCY AND POSTNATAL CARE AND BREASTFEEDING

501	CHECK 224: ONE OR MORE BIRTHS IN 2003 OR LATER <input type="checkbox"/> NO BIRTHS IN 2003 OR LATER <input type="checkbox"/> → 663			
502	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2003 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).  Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)			
503	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER ... <input type="text"/> <input type="text"/>	NEXT-TO-LAST BIRTH LINE NUMBER ... <input type="text"/> <input type="text"/>	SECOND-FROM-LAST BIRTH LINE NUMBER ... <input type="text"/> <input type="text"/>
504	FROM 212 AND 216	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>
505	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN ..... 1 (SKIP TO 507) ← LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 507) ←	THEN ..... 1 (SKIP TO 507) ← LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 507) ←	THEN ..... 1 (SKIP TO 507) ← LATER ..... 2 NOT AT ALL ..... 3 (SKIP TO 507) ←
506	How much longer would you have liked to wait? RECORD RESPONSE EXACTLY AS GIVEN.	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> DON'T KNOW .... 998	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998
507	Did you see anyone for antenatal care for this pregnancy?  IF YES: Whom did you see? Anyone else?  PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR ..... A NURSE/MIDWIFE ... B OTHER PERSON DAYA ..... C OTHER _____ X (SPECIFY) NO ONE ..... Y (SKIP TO 518) ←	HEALTH PROFESSIONAL DOCTOR ..... A NURSE/MIDWIFE B OTHER PERSON DAYA ..... C OTHER _____ X (SPECIFY) NO ONE ..... Y (SKIP TO 518) ←	HEALTH PROFESSIONAL DOCTOR ..... A NURSE/MIDWIFE B OTHER PERSON DAYA ..... C OTHER _____ X (SPECIFY) NO ONE ..... Y (SKIP TO 518) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
508	<p>Where did you receive antenatal care for this pregnancy?</p> <p>CIRCLE ALL MENTIONED.</p> <p>IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>(1) _____ (NAME OF PLACE(S))</p> <p>(2) _____ (NAME OF PLACE(S))</p> <p>(3) _____ (NAME OF PLACE(S))</p>	<p><b>HOME</b> YOUR HOME ..... A OTHER HOME ..... B</p> <p><b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTRCT) . C URBAN H'LTH UNIT . D HEALTH OFFICE . . . E RURAL HOSPITAL (COMPL'TARY) . F RURAL HEALTH UNIT ..... G MCH CENTER ..... H OTHER GOV'T . . . . . I (SPECIFY) _____</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ..... K OTHER NGO . . . . . L (SPECIFY) _____</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/CLINIC ..... M PVT. DOCTOR . . . N OTHER PVT. . . . . P MED. _____ (SPECIFY) _____</p> <p><b>OTHER NON-MEDICAL</b> _____ X (SPECIFY) _____</p>	<p><b>HOME</b> YOUR HOME ... A OTHER HOME ... B</p> <p><b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTRCT) C URBAN H'LTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HEALTH UNIT ..... G MCH CENTER ... H OTHER GOV'T . . . . . I (SPECIFY) _____</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO . . . . . L (SPECIFY) _____</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/CLINIC ..... M PVT. DOCTOR . . N OTHER PVT. . . . . P MED. _____ (SPECIFY) _____</p> <p><b>OTHER NON-MEDICAL</b> _____ X (SPECIFY) _____</p>	<p><b>HOME</b> YOUR HOME ... A OTHER HOME ... B</p> <p><b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTRCT) C URBAN H'LTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HEALTH UNIT ..... G MCH CENTER ... H OTHER GOV'T . . . . . I (SPECIFY) _____</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO . . . . . L (SPECIFY) _____</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/CLINIC ..... M PVT. DOCTOR . . N OTHER PVT. . . . . P MED. _____ (SPECIFY) _____</p> <p><b>OTHER NON-MEDICAL</b> _____ X (SPECIFY) _____</p>
509	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	NUMBER OF TIMES . <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	NUMBER OF TIMES . <input type="text"/> <input type="text"/> DON'T KNOW ..... 98
510	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98		
511	How many months pregnant were you when you last received antenatal care for this pregnancy?	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98		
512	Were you charged a single fee for all of the antenatal visits you made before (NAME'S) birth or did you pay separately for each visit?	PAID SINGLE FEE FOR ALL VISITS . 1 PAID SEPARATE FEE FOR EACH VISIT . 2 (513A) ← BOTH ..... 3 FREE ..... 4 (514) ←		
513  513A	How much did you pay in total for all of your antenatal care visits during this pregnancy including all the consultations with the provider and any drugs or laboratory tests you had at (FACILITY)?  How much did you pay for your <u>last</u> antenatal care visit including the consultation with the provider and any drugs or laboratory tests you had at (FACILITY)?	POUNDS COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW .... 9998		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____				
514	Did you pay additional costs for drugs at a separate pharmacy/clinic/drug shop (at any time during the pregnancy/ as a result of your last antenatal visit)?	YES ..... 1 NO ..... 2 (SKIP TO 516) ← DONT KNOW ..... 8						
515	How much in total did you pay for the additional drugs?	COST <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td></tr></table> POUNDS DONT KNOW .... 9998						
516	Did you pay additional costs for laboratory tests you got at a separate laboratory facility (at any time during the pregnancy/ as a result of your last antenatal visit)?	YES ..... 1 NO ..... 2 (SKIP TO 518) ← DONT KNOW ..... 8						
517	How much in total did you pay for the additional lab tests?	COST <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td></tr></table> POUNDS DONT KNOW .... 9998						
518	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES ..... 1 NO ..... 2 (SKIP TO 524) ← DONT KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 539) ← DONT KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 539) ← DONT KNOW ..... 8				
519	During this pregnancy, how many times did you get this tetanus injection?	TIMES ..... <input type="text"/> DONT KNOW ..... 8	TIMES ..... <input type="text"/> DONT KNOW .... 8	TIMES ..... <input type="text"/> DONT KNOW .... 8				
520	Where did you receive the tetanus injection(s)?  CIRCLE ALL MENTIONED.  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND  CIRCLE THE APPROPRIATE CODE.  (1) _____  (NAME OF PLACE(S))  (2) _____  (NAME OF PLACE(S))  (3) _____  (NAME OF PLACE(S))	<b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTRCT) . C URBAN H'LTH UNIT . D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) . F RURAL HEALITH UNIT ..... G OTHER GOV'T ..... I (SPECIFY) <b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ..... K OTHER NGO ..... L (SPECIFY) <b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N OTHER PVT. MED. .... P (SPECIFY) <b>OTHER NON-MEDICAL</b> ..... X (SPECIFY)	<b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTRCT) C URBAN H'LTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HEALITH UNIT ..... G OTHER GOV'T ..... I (SPECIFY) <b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO ..... L (SPECIFY) <b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N OTHER PVT. MED. .... P (SPECIFY) <b>OTHER NON-MEDICAL</b> ..... X (SPECIFY)	<b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTRCT) C URBAN H'LTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HEALITH UNIT ..... G OTHER GOV'T ..... I (SPECIFY) <b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO ..... L (SPECIFY) <b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N OTHER PVT. MED. .... P (SPECIFY) <b>OTHER NON-MEDICAL</b> ..... X (SPECIFY)				



NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
529	<p>Where did you get that care?</p> <p>CIRCLE ALL MENTIONED.</p> <p>IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>_____</p> <p>(NAME OF PLACE(S))</p>	<p><b>HOME</b></p> <p>YOUR HOME . . . . . A</p> <p>OTHER HOME . . . . . B</p> <p><b>GOVERNMENT</b></p> <p>URBAN HOSPITAL (GNRL/DSTRCT) . . . . . C</p> <p>URBAN HLTH UNIT . . . . . D</p> <p>HEALTH OFFICE . . . . . E</p> <p>RURAL HOSPITAL (COMPL'TARY) . . . . . F</p> <p>RURAL HLTH UNIT . . . . . G</p> <p>MCH CENTER . . . . . H</p> <p>OTHER GOV'T . . . . . I</p> <p>_____ (SPECIFY)</p> <p><b>NONGOVERNMENTAL</b></p> <p>EGYPTIAN FP ASSOC . . . . . J</p> <p>CSI PROJECT . . . . . K</p> <p>OTHER NGO . . . . . L</p> <p>_____ (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b></p> <p>PVT. HOSPITAL/ CLINIC . . . . . M</p> <p>PVT. DOCTOR . . . . . N</p> <p>OTHER PVT. MED. _____ P</p> <p>_____ (SPECIFY)</p> <p><b>OTHER NON-MEDICAL</b></p> <p>_____ X</p> <p>_____ (SPECIFY)</p>		
530	CHECK 507, 518, 528:	<p>OTHER CARE ONLY <input type="checkbox"/></p> <p>ANC/TT <input type="checkbox"/></p> <p>NO CARE <input type="checkbox"/></p> <p>(SKIP TO 534) (SKIP TO 537)</p>		
531	At any time did you seek this care because you thought there was a problem with the pregnancy?	<p>YES . . . . . 1</p> <p>NO . . . . . 2</p> <p>(SKIP TO 534) ←</p>		
532	How many times did you receive care during this pregnancy?	<p>NUMBER OF TIMES . <input type="text"/> <input type="text"/></p> <p>DON'T KNOW . . . . . 98</p>		
533	How many months pregnant were you when you last received care?	<p>MONTHS . . . <input type="text"/> <input type="text"/></p> <p>DON'T KNOW . . . . . 98</p>		
534	<p>As part of the care you got during this pregnancy, were any of the following done at least once?</p> <p>Were you weighed?</p> <p>Was your blood pressure measured?</p> <p>Did you give a urine sample?</p> <p>Did you give a blood sample?</p>	<p>YES NO</p> <p>WEIGHT . . . 1 2</p> <p>BP . . . . . 1 2</p> <p>URINE . . . . 1 2</p> <p>BLOOD . . . . 1 2</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
535	During (any of) your care visit(s), were you told about the signs of pregnancy complications?	YES ..... 1 NO ..... 2 (SKIP TO 537) ← DON'T KNOW ..... 8		
536	Were you told where to go if you had any of these complications?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8		
537	During this pregnancy, were you given or did you buy any iron tablets or iron syrup?  SHOW TABLETS/SYRUP.	YES ..... 1 NO ..... 2 (SKIP TO 539) ← DON'T KNOW ..... 8		
538	During the whole pregnancy, for how many days did you take the tablets or syrup?  IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER OF DAYS <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW .... 998		
539	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE ..... 1 LARGER THAN AVERAGE ..... 2 AVERAGE ..... 3 SMALLER THAN AVERAGE ..... 4 VERY SMALL ..... 5 DON'T KNOW ..... 8	VERY LARGE ..... 1 LARGER THAN AVERAGE ..... 2 AVERAGE ..... 3 SMALLER THAN AVERAGE ..... 4 VERY SMALL ..... 5 DON'T KNOW ..... 8	VERY LARGE ..... 1 LARGER THAN AVERAGE ..... 2 AVERAGE ..... 3 SMALLER THAN AVERAGE ..... 4 VERY SMALL ..... 5 DON'T KNOW ..... 8
540	Was (NAME) weighed at birth?	YES ..... 1 NO ..... 2 (SKIP TO 542) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 542) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 542) ← DON'T KNOW ..... 8
541	How much did (NAME) weigh?  RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>  KG FROM RECALL 2 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . 99998	KG FROM CARD 1 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>  KG FROM RECALL 2 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . 99998	KG FROM CARD 1 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>  KG FROM RECALL 2 <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . 99998
542	Who assisted with the delivery of (NAME)?  Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	<b>HEALTH PROFESSIONAL</b> DOCTOR ..... A NURSE/MIDWIFE B <b>OTHER PERSON</b> DAYA ..... C OTHER ..... X (SPECIFY) <b>NO ONE</b> ..... Y	<b>HEALTH PROFESSIONAL</b> DOCTOR ..... A NURSE/MIDWIFE B <b>OTHER PERSON</b> DAYA ..... C OTHER ..... X (SPECIFY) <b>NO ONE</b> ..... Y	<b>HEALTH PROFESSIONAL</b> DOCTOR ..... A NURSE/MIDWIFE B <b>OTHER PERSON</b> DAYA ..... C OTHER ..... X (SPECIFY) <b>NO ONE</b> ..... Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____																																				
543	<p>Where did you give birth to (NAME)?</p> <p>IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>(1) _____ (NAME OF PLACE(S))</p> <p>(2) _____ (NAME OF PLACE(S))</p> <p>(3) _____ (NAME OF PLACE(S))</p>	<p><b>HOME</b> YOUR HOME . . . . 11 (SKIP TO 546a) ←</p> <p>OTHER HOME . . . . 12</p> <p><b>GOVERNMENT</b> URBAN HOSPITAL (GNRAL/DSTRCT) 21 URBAN HLTH UNIT 22 HEALTH OFFICE . 23 RURAL HOSPITAL (COMPL'TARY) 24 RURAL HLTH UNIT 25 MCH CENTER . . . 26 OTHER GOV'T _____ 27 (SPECIFY)</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC . . . . . 31 CSI PROJECT . . . . 32 OTHER NGO _____ 36 (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/CLINIC . . . . . 41 PVT. DOCTOR . . . 42 OTHER PVT. MED. _____ 46 (SPECIFY)</p> <p><b>PRIVATE NON-MEDICAL</b> _____ 96 (SPECIFY) (SKIP TO 546a) ←</p>	<p><b>HOME</b> YOUR HOME . . . 11 (SKIP TO 556) ←</p> <p>OTHER HOME . . . 12</p> <p><b>GOVERNMENT</b> URBAN HOSPITAL 21 (GNRAL/DSTRCT) URBAN HLTH UNIT 22 HEALTH OFFICE . 23 RURAL HOSPITAL 24 (COMPL'TARY) RURAL HLTH UNIT 25 MCH CENTER . . . 26 OTHER GOV'T _____ 27 (SPECIFY)</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC . . . . . 31 CSI PROJECT . . . . 32 OTHER NGO _____ 36 (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/CLINIC . . . . . 41 PVT. DOCTOR . . . 42 OTHER PVT. MED. _____ 46 (SPECIFY)</p> <p><b>PRIVATE NON-MEDICAL</b> _____ 96 (SPECIFY) (SKIP TO 556) ←</p>	<p><b>HOME</b> YOUR HOME . . . 11 (SKIP TO 556) ←</p> <p>OTHER HOME . . . 12</p> <p><b>GOVERNMENT</b> URBAN HOSPITAL 21 (GNRAL/DSTRCT) URBAN HLTH UNIT 22 HEALTH OFFICE . 23 RURAL HOSPITAL 24 (COMPL'TARY) RURAL HLTH UNIT 25 MCH CENTER . . . 26 OTHER GOV'T _____ 27 (SPECIFY)</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC . . . . . 31 CSI PROJECT . . . . 32 OTHER NGO _____ 36 (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/CLINIC . . . . . 41 PVT. DOCTOR . . . 42 OTHER PVT. MED. _____ 46 (SPECIFY)</p> <p><b>PRIVATE NON-MEDICAL</b> _____ 96 (SPECIFY) (SKIP TO 556) ←</p>																																				
544	<p>How long after (NAME) was delivered did you stay there?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.</p>	<p>HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DON'T KNOW . . . . 998</p>													<p>HOURS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS . . 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>WEEKS . 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DON'T KNOW . . . 998</p>													<p>HOURS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS . . 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>WEEKS . 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DON'T KNOW . . . 998</p>												
545	<p>Was (NAME) delivered by caesarean section?</p>	<p>YES . . . . . 1 NO . . . . . 2</p>	<p>YES . . . . . 1 NO . . . . . 2</p>	<p>YES . . . . . 1 NO . . . . . 2</p>																																				
546	<p>How much did you pay for care for (NAME'S) delivery? Please include any payments to the health care providers, room and board and any drugs or laboratory tests in [FACILITY NAME].</p>	<p style="text-align: center;"><b>COST IN POUNDS</b></p> <table border="1" style="margin: auto; width: 100px; height: 20px;"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </table> <p>IN KIND . . . . . 9994 FREE . . . . . 9995 DON'T KNOW . . . . 9998</p>																																						
546a	<p>How much did you pay for care for (NAME'S) delivery?</p>																																							
547	<p>Did you incur additional costs for drugs at a separate pharmacy/ clinic/drug shop for the delivery?</p>	<p>YES . . . . . 1 NO . . . . . 2 (SKIP TO 549) ← DON'T KNOW . . . . 8</p>																																						

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
548	How much in total did you for the additional drugs?	POUNDS COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . . . . 9998		
549	Did you incur additional costs for laboratory tests conducted at a separate laboratory facility?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 551) ← DON'T KNOW . . . . . 8		
550	How much in total did you pay for the additional lab tests?	POUNDS COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW . . . . 9998		
551	CHECK 543:	GOVERNMENT/ OTHER PRIVATE MEDICAL <input type="checkbox"/> <input type="checkbox"/> (SKIP TO 555)		
552	Before you were discharged after (NAME) was born, did a health professional check on your health?  IF YES: Who checked on your health at that time?  PROBE FOR MOST QUALIFIED PERSON.	<b>HEALTH PROFESSIONAL</b> DOCTOR . . . . . 1 NURSE/MIDWIFE . . . 2 OTHER . . . . . 6 (SPECIFY) <b>NO ONE</b> . . . . . 7 (SKIP TO 554) ←	<b>HEALTH PROFESSIONAL</b> DOCTOR . . . . . 1 NURSE/MIDWIFE 2 OTHER . . . . . 6 (SPECIFY) <b>NO ONE</b> . . . . . 7	<b>HEALTH PROFESSIONAL</b> DOCTOR . . . . . 1 NURSE/MIDWIFE 2 OTHER . . . . . 6 (SPECIFY) <b>NO ONE</b> . . . . . 7
553	How many hours, days or weeks after delivery did the first check take place?  IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . 1 <input type="text"/> <input type="text"/> DAYS . . 2 <input type="text"/> <input type="text"/> WEEKS . . 3 <input type="text"/> <input type="text"/> DON'T KNOW . . . . 998		
554	At any time in the two months after you were discharged, did a health professional or a traditional birth attendant check on your health?  IF YES: Who checked on your health that time?  RECORD ALL MENTIONED.	<b>HEALTH PROFESSIONAL</b> DOCTOR . . . . . A NURSE/MIDWIFE . B <b>OTHER PERSON</b> DAYA . . . . . C OTHER . . . . . X (SPECIFY) (SKIP TO 557) ← <b>NO ONE</b> . . . . . Y (SKIP TO 568) ←	<b>HEALTH PROFESSIONAL</b> DOCTOR . . . . . A NURSE/MIDWIFE B <b>OTHER PERSON</b> DAYA . . . . . C OTHER . . . . . X (SPECIFY) <b>NO ONE</b> . . . . . Y (SKIP TO 557) ←	<b>HEALTH PROFESSIONAL</b> DOCTOR . . . . . A NURSE/MIDWIFE B <b>OTHER PERSON</b> DAYA . . . . . C OTHER . . . . . X (SPECIFY) <b>NO ONE</b> . . . . . Y (SKIP TO 557) ←



NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____						
555	<p>Why didn't you deliver in a health facility?</p> <p>PROBE: Any other reason?</p> <p>RECORD ALL MENTIONED.</p>	<p>COST TOO MUCH . . . A  FACILITY NOT OPEN . . B  TOO FAR/ NO  TRANSPORTATION . . C  DON'T TRUST  FACILITY/POOR  QUALITY SERVICE . . D  NO FEMALE PROVID-  ER AT FACILITY . . . E  HUSBAND/FAMILY  DID NOT ALLOW . . . F  NOT NECESSARY . . . G  NOT CUSTOMARY . . . H  OTHER _____ X  (SPECIFY)</p>								
556	<p>At any time in the two months after (NAME) was born, did a health professional or a traditional birth attendant check on your health?</p> <p>IF YES: Who checked on your health?</p> <p>RECORD ALL MENTIONED.</p>	<p><b>HEALTH PROFESSIONAL</b>  DOCTOR . . . . . A  NURSE/MIDWIFE . . . B  <b>OTHER PERSON</b>  DAYA . . . . . C  OTHER _____ X  (SPECIFY)  <b>NO ONE</b> . . . . . Y  (SKIP TO 568) ←</p>	<p><b>HEALTH PROFESSIONAL</b>  DOCTOR . . . . . A  NURSE/MIDWIFE . . B  <b>OTHER PERSON</b>  DAYA . . . . . C  OTHER _____ X  (SPECIFY)  <b>NO ONE</b> . . . . . Y</p>	<p><b>HEALTH PROFESSIONAL</b>  DOCTOR . . . . . A  NURSE/MIDWIFE . . B  <b>OTHER PERSON</b>  DAYA . . . . . C  OTHER _____ X  (SPECIFY)  <b>NO ONE</b> . . . . . Y</p>						
557	<p>How many hours, days or weeks after delivery did the first check take place?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS.  IF LESS THAN ONE WEEK, RECORD DAYS.</p>	<p>HOURS . 1 <table border="1"><tr><td></td><td></td></tr></table>  DAYS . . 2 <table border="1"><tr><td></td><td></td></tr></table>  WEEKS . . 3 <table border="1"><tr><td></td><td></td></tr></table>  DON'T KNOW . . . . 998</p>								
558	<p>Where did this first check take place?</p> <p>IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____ 27  (NAME OF PLACE) (SPECIFY)</p>	<p><b>HOME</b>  YOUR HOME . . . . 11  OTHER HOME . . . . 12  <b>GOVERNMENT</b>  URBAN HOSPITAL  (GNRL/DSTRCT) . . 21  URBAN HLTH UNIT 22  HEALTH OFFICE . . 23  RURAL HOSPITAL  (COMPL'TARY) . . 24  RURAL HLTH UNIT. 25  MCH CENTER . . . . 26  OTHER GOV'T  _____ 27  (SPECIFY)  <b>NONGOVERNMENTAL</b>  EGYPTIAN FP  ASSOC . . . . . 31  CSI PROJECT . . . . 32  OTHER NGO  _____ 36  (SPECIFY)  <b>PRIVATE MEDICAL</b>  PVT. HOSPITAL/  CLINIC . . . . . 41  PVT. DOCTOR . . . 42  OTHER PVT.  MED. _____ 46  (SPECIFY)  <b>OTHER NON-MEDICAL</b>  _____ 96  (SPECIFY)</p>								

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____			
559	How much did you pay the provider for care for the first postnatal visit?						
560	Did you incur additional costs for drugs at a separate pharmacy/ clinic/drug shop for this postnatal visit?				POUNDS COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> FREE ..... 9995 DON'T KNOW .... 9998		
561	How much in total did you for the additional drugs?				POUNDS COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW .... 9998		
562	Did you incur additional costs for laboratory tests conducted at a separate laboratory facility for this postnatal visit?				YES ..... 1 NO ..... 2 (SKIP TO 562) ← DON'T KNOW ..... 8		
563	How much in total did you pay for the additional lab tests?				POUNDS COST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW .... 9998		
564	CHECK 558:				IN OWN HOME      NOT IN OWN HOME <input type="checkbox"/> <input type="checkbox"/> ↓                                      ↓ (SKIP TO 566)		
565	CHECK 556:				DAYA/ OTHER      DOCTOR/ NURSE- MIDWIFE <input type="checkbox"/> <input type="checkbox"/> ↓                                      ↓ (SKIP TO 568)		
566	At any time during the two months after (NAME)'s delivery, did a doctor or nurse/midwife ever visit your home to check on your health?	YES ..... 1 NO ..... 2 (SKIP TO 568) ← DON'T KNOW ..... 8					
567	How many times after delivery did a health professional visit your home to check on your health?	NUMBER OF TIMES . <input type="text"/> <input type="text"/> DON'T KNOW ..... 98					

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____						
568	During the two weeks after birth, was a blood sample taken from (NAME'S) heel?	YES ..... 1 NO ..... 2 (SKIP TO 570) ← DON'T KNOW ..... 8								
569	How many days after birth was the blood sample taken from (NAME'S) heel?	NUMBER OF DAYS . <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DON'T KNOW ..... 98								
570	In the two months after (NAME) was born, did a health professional or traditional birth attendant check on his/her health?  IF YES: Who checked on (NAME'S) health at that time?  RECORD ALL MENTIONED	<b>HEALTH PROFESSIONAL</b> DOCTOR ..... A NURSE/MIDWIFE .... B <b>OTHER PERSON</b> DAYA ..... C OTHER _____ X (SPECIFY) <b>NO ONE</b> ..... Y (SKIP TO 573) ← <b>DON'T KNOW</b> ..... Z	<b>HEALTH PROFESSIONAL</b> DOCTOR ..... A NURSE/MIDWIFE . . B <b>OTHER PERSON</b> DAYA ..... C OTHER ..... X (SPECIFY) <b>NO ONE</b> ..... Y <b>DON'T KNOW</b> . . . Z	<b>HEALTH PROFESSIONAL</b> DOCTOR ..... A NURSE/MIDWIFE . . B <b>OTHER PERSON</b> DAYA ..... C OTHER ..... X (SPECIFY) <b>NO ONE</b> ..... Y <b>DON'T KNOW</b> . . . Z						
571	How many hours, days or weeks after the birth of (NAME) did the first check take place?  IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DAYS . . 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> WEEKS . . 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DON'T KNOW . . . . 998								
572	Where did this first check of (NAME) take place?  IF SOURCE IS HOSPITAL, HEALTH UNIT OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  _____ (NAME OF PLACE)	<b>HOME</b> YOUR HOME . . . . 11 OTHER HOME . . . . 12 <b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTRCT) . . 21 URBAN HLTH UNIT 22 HEALTH OFFICE . 23 RURAL HOSPITAL (COMPL'TARY) . 24 RURAL HLTH UNIT 25 MCH CENTER . . . . 26 OTHER GOV'T _____ 27 (SPECIFY) <b>NONGOVERNMENT</b> EGYPTIAN FP ASSOC . . . . . 31 CSI PROJECT . . . . 32 OTHER NGO _____ 36 (SPECIFY) <b>PRIVATE MEDICAL</b> PVT. HOSPITAL/CLINIC . . . . . 41 PVT. DOCTOR . 42 OTHER PVT. MED. _____ 46 (SPECIFY) <b>OTHER NON-MEDICAL</b> _____ 96 (SPECIFY)								

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
573	When you were pregnant with (NAME), when you delivered, or in the two months after the delivery, did anyone give you advice about family planning?  IF YES: Who gave you the advice? RECORD ALL MENTIONED.	HEALTH PROVIDER . . . A SOCIAL WORKER . . . B DAYA . . . . . C RELIGIOUS LEADER . . D NEIGHBORS/ FRIENDS . . . . . E HOUSEHOLD MEMBER . . . . . F OTHER RELATIVES . . . G OTHER _____ X (SPECIFY) NO ONE . . . . . Y		
574	When you were pregnant with (NAME), when you delivered, or in the two months after the delivery, did anyone give you advice about breastfeeding?  IF YES: Who gave you the advice? RECORD ALL MENTIONED.	HEALTH PROVIDER . . . A SOCIAL WORKER . . . B DAYA . . . . . C RELIGIOUS LEADER . . D NEIGHBORS/ FRIENDS . . . . . E HOUSEHOLD MEMBER . . . . . F OTHER RELATIVES . . . G OTHER _____ X (SPECIFY) NO ONE . . . . . Y		
575	In the first two months after delivery, did you receive a vitamin A dose like (this/any of these)?  SHOW (TYPES OF) CAPSULES.	YES . . . . . 1 NO . . . . . 2	YES . . . . . 1 NO . . . . . 2	YES . . . . . 1 NO . . . . . 2
576	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 578) ← NO . . . . . 2 (SKIP TO 579) ←		
577	Did your period return between the birth of (NAME) and your next pregnancy?			
578	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS . . . <input type="text"/> <input type="text"/> DON'T KNOW . . . . . 98	MONTHS . . . <input type="text"/> <input type="text"/> DON'T KNOW . . . . . 98	MONTHS . . . <input type="text"/> <input type="text"/> DON'T KNOW . . . . . 98
579	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG- <input type="checkbox"/> PREGNANT NANT OR <input type="checkbox"/> UNSURE (SKIP TO 581) ←		
580	Have you resumed sexual relations since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 582) ←		
581	For how many months after the birth of (NAME) did you <u>not</u> have sexual relations?  IF LESS THAN 2 MONTHS, RECORD DAYS. OTHERWISE, RECORD BY COMPLETED MONTHS.	DAYS . . 1 <input type="text"/> <input type="text"/> MONTHS . 2 <input type="text"/> <input type="text"/> DON'T KNOW . . . . . 998	DAYS . . 1 <input type="text"/> <input type="text"/> MONTHS . 2 <input type="text"/> <input type="text"/> DON'T KNOW . . . . . 998	DAYS . . 1 <input type="text"/> <input type="text"/> MONTHS . 2 <input type="text"/> <input type="text"/> DON'T KNOW . . . . . 998
582	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 586) ←	YES . . . . . 1 NO . . . . . 2	YES . . . . . 1 NO . . . . . 2

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____									
583	How long after birth did you first put (NAME) to the breast?  IF LESS THAN 1 HOUR, RECORD '000'. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . 000  HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>											
584	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 586) ←											
585	What was (NAME) given to drink?  Anything else?  RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) . . A PLAIN WATER . . . . B SUGAR OR GLUCOSE WATER . . . . C GRUPE WATER . . . . D SUGAR-SALT-WATER SOLUTION . . . . E FRUIT JUICE . . . . F INFANT FORMULA . . G TEA/OTHER LIQUIDS H HONEY . . . . . I OTHER _____ X (SPECIFY)											
586	CHECK 504: IS CHILD LIVING?	LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601)	LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601)	LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO BACK TO 505 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 601)									
587	CHECK 582: EVER BREASTFED?	EVER BREASTFED <input type="checkbox"/> NEVER BREAST-FED <input type="checkbox"/> ↓ (GO TO 592)	EVER BREASTFED <input type="checkbox"/> NEVER BREAST-FED <input type="checkbox"/> ↓ (GO TO 592)	EVER BREASTFED <input type="checkbox"/> NEVER BREAST-FED <input type="checkbox"/> ↓ (GO TO 592)									
588	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 590) ← NO . . . . . 2	YES . . . . . 1 (SKIP TO 592) ← NO . . . . . 2	YES . . . . . 1 (SKIP TO 592) ← NO . . . . . 2									
589	For how many months did you breastfeed (NAME)?	MONTHS . . . <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> (SKIP TO 592) ← DONT' KNOW . . . . 98			MONTHS . . . <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DONT' KNOW . . . 98			MONTHS . . . <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DONT' KNOW . . . 98					

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
590	<p>How many times did you breastfeed (NAME) last night between sunset and sunrise?</p> <p>IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.</p>	<p>NUMBER OF NIGHTTIME FEEDINGS . <input type="text"/> <input type="text"/></p>		
591	<p>How many times did you breastfeed (NAME) yesterday during the daylight hours?</p> <p>IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.</p>	<p>NUMBER OF DAYLIGHT FEEDINGS . <input type="text"/> <input type="text"/></p>		
592	<p>Did (NAME) drink anything from a bottle with a nipple yesterday or last night?</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>
		<p>GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601.</p>	<p>GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601.</p>	<p>GO BACK TO 505 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE OR, IF NO MORE BIRTHS, GO TO 601.</p>

SECTION 6. CHILD IMMUNIZATION AND HEALTH

601	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2003 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).			
602	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER .....	NEXT-TO-LAST BIRTH LINE NUMBER .....	SECOND-FROM-LAST BIRTH LINE NUMBER .....
603	FROM 212 AND 216	NAME _____  LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO TO 603 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 663)	NAME _____  LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO TO 603 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 660)	NAME _____  LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (GO TO 603 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE GO TO 660)
604	Has (NAME) ever received a vitamin A dose like (this)?  SHOW CAPSULES	YES ..... 1 NO ..... 2 (SKIP TO 606) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 606) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 606) ← DON'T KNOW ..... 8
605	Since how many months did (NAME) take the last dose?	MONTHS ..... DK MONTH ..... 98	MONTHS ..... DK MONTH ..... 98	MONTHS ..... DK MONTH ..... 98
606	Do you have a birth certificate for (NAME)? IF YES: May I see it please? RECORD IF CERTIFICATE INCLUDES VACCINATION RECORD OR NOT.	YES, SEEN AND VACCINATION DATES RECORDED ..... 1 (SKIP TO 608) ← YES, SEEN BUT NO VACCINATION DATES RECORDED ..... 2 YES, BUT NOT SEEN ..... 3 (SKIP TO 610) ← NO CERTIFICATE ..... 4	YES, SEEN AND VACCINATION DATES RECORDED ..... 1 (SKIP TO 608) ← YES, SEEN BUT NO VACCINATION DATES RECORDED ..... 2 YES, BUT NOT SEEN ..... 3 (SKIP TO 610) ← NO CERTIFICATE ..... 4	YES, SEEN AND VACCINATION DATES RECORDED ..... 1 (SKIP TO 608) ← YES, SEEN BUT NO VACCINATION DATES RECORDED ..... 2 YES, BUT NOT SEEN ..... 3 (SKIP TO 610) ← NO CERTIFICATE ..... 4
607	Did you ever have a birth certificate for (NAME)? IF YES: Did the certificate include a vaccination record?	YES, HAD CERTIFICATE WITH RECORD ..... 1 YES, CERTIFICATE WITH NO RECORD ..... 2 NO CERTIFICATE ..... 3 (SKIP TO 610) ←	YES, HAD CERTIFICATE WITH RECORD ..... 1 YES, CERTIFICATE WITH NO RECORD ..... 2 NO CERTIFICATE ..... 3 (SKIP TO 610) ←	YES, HAD CERTIFICATE WITH RECORD ..... 1 YES, CERTIFICATE WITH NO RECORD ..... 2 NO CERTIFICATE ..... 3 (SKIP TO 610) ←

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608	<p>(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD. DO NOT INCLUDE VACCINATIONS RECEIVED DURING NIDS DAYS.</p> <p>(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN (OTHER THAN DURING A NIDS DAY), BUT NO DATE IS RECORDED.</p>	<table border="1"> <thead> <tr> <th></th> <th colspan="3">LAST BIRTH</th> <th colspan="3">NEXT-TO-LAST BIRTH</th> <th colspan="3">SECOND-FROM-LAST BIRTH</th> </tr> <tr> <th></th> <th>DAY</th> <th>MONTH</th> <th>YEAR</th> <th>DAY</th> <th>MONTH</th> <th>YEAR</th> <th>DAY</th> <th>MONTH</th> <th>YEAR</th> </tr> </thead> <tbody> <tr><td>BCG</td><td></td><td></td><td></td><td>BCG</td><td></td><td></td><td></td><td>BCG</td><td></td><td></td><td></td></tr> <tr><td>POLIO 1</td><td></td><td></td><td></td><td>P1</td><td></td><td></td><td></td><td>P1</td><td></td><td></td><td></td></tr> <tr><td>POLIO 2</td><td></td><td></td><td></td><td>P2</td><td></td><td></td><td></td><td>P2</td><td></td><td></td><td></td></tr> <tr><td>POLIO 3</td><td></td><td></td><td></td><td>P3</td><td></td><td></td><td></td><td>P3</td><td></td><td></td><td></td></tr> <tr><td>ACTIVATED DOSE</td><td></td><td></td><td></td><td>AP</td><td></td><td></td><td></td><td>AP</td><td></td><td></td><td></td></tr> <tr><td>DPT 1</td><td></td><td></td><td></td><td>D1</td><td></td><td></td><td></td><td>D1</td><td></td><td></td><td></td></tr> <tr><td>DPT 2</td><td></td><td></td><td></td><td>D2</td><td></td><td></td><td></td><td>D2</td><td></td><td></td><td></td></tr> <tr><td>DPT 3</td><td></td><td></td><td></td><td>D3</td><td></td><td></td><td></td><td>D3</td><td></td><td></td><td></td></tr> <tr><td>ACTIVATED DOSE</td><td></td><td></td><td></td><td>AD</td><td></td><td></td><td></td><td>AD</td><td></td><td></td><td></td></tr> <tr><td>MEASLES</td><td></td><td></td><td></td><td>MEA</td><td></td><td></td><td></td><td>MEA</td><td></td><td></td><td></td></tr> <tr><td>HEPATITIS 1</td><td></td><td></td><td></td><td>H1</td><td></td><td></td><td></td><td>H1</td><td></td><td></td><td></td></tr> <tr><td>HEPATITIS 2</td><td></td><td></td><td></td><td>H2</td><td></td><td></td><td></td><td>H2</td><td></td><td></td><td></td></tr> <tr><td>HEPATITIS 3</td><td></td><td></td><td></td><td>H3</td><td></td><td></td><td></td><td>H3</td><td></td><td></td><td></td></tr> <tr><td>VITAMIN A DOSE 1</td><td></td><td></td><td></td><td>VA-1</td><td></td><td></td><td></td><td>VA-1</td><td></td><td></td><td></td></tr> <tr><td>POLIO 0 (POLIO GIVEN AT BIRTH)</td><td></td><td></td><td></td><td>P0</td><td></td><td></td><td></td><td>P0</td><td></td><td></td><td></td></tr> <tr><td>POLIO 4</td><td></td><td></td><td></td><td>P4</td><td></td><td></td><td></td><td>P4</td><td></td><td></td><td></td></tr> <tr><td>MMR</td><td></td><td></td><td></td><td>MMR</td><td></td><td></td><td></td><td>MMR</td><td></td><td></td><td></td></tr> <tr><td>VITAMIN A DOSE 2</td><td></td><td></td><td></td><td>VA2</td><td></td><td></td><td></td><td>VA2</td><td></td><td></td><td></td></tr> <tr><td>OTHER (SPECIFY)</td><td></td><td></td><td></td><td>OTH</td><td></td><td></td><td></td><td>OTH</td><td></td><td></td><td></td></tr> </tbody> </table>										LAST BIRTH			NEXT-TO-LAST BIRTH			SECOND-FROM-LAST BIRTH				DAY	MONTH	YEAR	DAY	MONTH	YEAR	DAY	MONTH	YEAR	BCG				BCG				BCG				POLIO 1				P1				P1				POLIO 2				P2				P2				POLIO 3				P3				P3				ACTIVATED DOSE				AP				AP				DPT 1				D1				D1				DPT 2				D2				D2				DPT 3				D3				D3				ACTIVATED DOSE				AD				AD				MEASLES				MEA				MEA				HEPATITIS 1				H1				H1				HEPATITIS 2				H2				H2				HEPATITIS 3				H3				H3				VITAMIN A DOSE 1				VA-1				VA-1				POLIO 0 (POLIO GIVEN AT BIRTH)				P0				P0				POLIO 4				P4				P4				MMR				MMR				MMR				VITAMIN A DOSE 2				VA2				VA2				OTHER (SPECIFY)				OTH				OTH			
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610	Do you have a health card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN ..... 1 (SKIP TO 612) YES, NOT SEEN ..... 2 (SKIP TO 614) NO ..... 3	YES, SEEN ..... 1 (SKIP TO 612) YES, NOT SEEN ..... 2 (SKIP TO 614) NO ..... 3	YES, SEEN ..... 1 (SKIP TO 612) YES, NOT SEEN ..... 2 (SKIP TO 614) NO ..... 3																																																																																																																																																																																																																																																														
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NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
614	CHECK 608 AND 612	NO RECORD DATES/ CODES _____ '44' _____ OR '66' _____ ↓ (SKIP TO 626) ←	NO RECORD DATES/ CODES _____ '44' _____ OR '66' _____ ↓ (SKIP TO 626) ←	NO RECORD DATES/ CODES _____ '44' _____ OR '66' _____ ↓ (SKIP TO 626) ←
615	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES ..... 1 NO ..... 2 (SKIP TO 628) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 628) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 628) ← DON'T KNOW ..... 8
616	Please tell me if (NAME) received any of the following vaccinations: A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
617	Polio vaccine, that is, drops in the mouth?	YES ..... 1 NO ..... 2 (SKIP TO 620) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 620) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 620) ← DON'T KNOW ..... 8
618	Excluding any doses gotten during national immunization days, how many times was a polio immunization received?	NUMBER OF TIMES ..... <input type="text"/>	NUMBER OF TIMES ..... <input type="text"/>	NUMBER OF TIMES ..... <input type="text"/>
619	Was the first polio vaccine received in the first two weeks after birth or later?	FIRST 2 WEEKS ... 1 AFTER FIRST 2 WEEKS ..... 2	FIRST 2 WEEKS ... 1 AFTER FIRST 2 WEEKS ..... 2	FIRST 2 WEEKS ... 1 AFTER FIRST 2 WEEKS ..... 2
620	A DPT vaccination, that is, an injection given in the thigh or buttocks, sometimes given at the same time as polio drops?	YES ..... 1 NO ..... 2 (SKIP TO 622) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 622) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 622) ← DON'T KNOW ..... 8
621	How many times was a DPT vaccination received?	NUMBER OF TIMES ..... <input type="text"/>	NUMBER OF TIMES ..... <input type="text"/>	NUMBER OF TIMES ..... <input type="text"/>
622	An injection to prevent measles at nine months?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
623	An injection against hepatitis?	YES ..... 1 NO ..... 2 (SKIP TO 625) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 625) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 625) ← DON'T KNOW ..... 8
624	How many times was a hepatitis vaccination received?	NUMBER OF TIMES ..... <input type="text"/>	NUMBER OF TIMES ..... <input type="text"/>	NUMBER OF TIMES ..... <input type="text"/>
625	An MMR injection, that is an injection against measles, mumps, and rubella given at 18 months?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
626	During the past two years, did (NAME) receive any polio vaccinations as part of the national immunization day campaigns?	YES ..... 1 NO ..... 2 CHILD HAD NO VACCINATIONS ... 3- DON'T KNOW ..... 8- (SKIP TO 627A) ←	YES ..... 1 NO ..... 2 CHILD HAD NO VACCINATIONS ... 3- DON'T KNOW ..... 8- (SKIP TO 628) ←	YES ..... 1 NO ..... 2 CHILD HAD NO VACCINATIONS ... 3- DON'T KNOW ..... 8- (SKIP TO 628) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
627	How many times did (NAME) receive a polio vaccination at national immunization days in the past two years? IF NON-NUMERIC ANSWER, PROBE TO GET ESTIMATE.	NUMBER OF TIMES ... <input type="text"/> <input type="text"/>	NUMBER OF TIMES ... <input type="text"/> <input type="text"/>	NUMBER OF TIMES ... <input type="text"/> <input type="text"/>
627A	At any time when you took (NAME) for immunizations, did anyone talk to you about family planning?	YES ..... 1 NO ..... 2 NO VACCINATIONS/ MOTHER DID NOT TAKE CHILD 3 (SKIP TO 628) ← DK/UNSURE ..... 8		
627B	At any time when you took (NAME) for immunizations, did anyone talk to you about any other health services, for example, nutrition or antenatal care?	YES ..... 1 NO ..... 2 DK/UNSURE ..... 8		
628	Has (NAME) had diarrhea in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 643) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 643) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 643) ← DON'T KNOW ..... 8
629	Was there any blood in the stools?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
630	Now I would like to know how much (NAME) was given to drink during the diarrhea. Was he/she given less than usual to drink, about the same amount, or more than usual to drink?  IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW ..... 8
631	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat?  IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW ..... 8
632	Did you seek advice or treatment for the diarrhea from any source?	YES ..... 1 NO ..... 2 (SKIP TO 637) ←	YES ..... 1 NO ..... 2 (SKIP TO 637) ←	YES ..... 1 NO ..... 2 (SKIP TO 637) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
633	<p>Where did you seek advice or treatment?</p> <p>IF SOURCE IS A HOSPITAL, HEALTH UNIT OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>Anywhere else? RECORD ALL PLACES MENTIONED.</p> <p>(1) _____ _____ (NAME OF PLACE(S))</p> <p>(2) _____ _____ (NAME OF PLACE(S))</p> <p>(3) _____ _____ (NAME OF PLACE(S))</p>	<p><b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTCT) C URB HLTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HLTH UNIT G MCH CENTER ... H OTHER GOV'T _____ I (SPECIFY)</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO _____ L (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N PHARMACY ..... O OTHER PVT. MED. _____ P (SPECIFY)</p> <p><b>OTHER NON-MEDICAL</b> _____ X (SPECIFY)</p>	<p><b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTCT) C URB HLTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HLTH UNIT G MCH CENTER ... H OTHER GOV'T _____ I (SPECIFY)</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO _____ L (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N PHARMACY ..... O OTHER PVT. MED. _____ P (SPECIFY)</p> <p><b>OTHER NON-MEDICAL</b> _____ X (SPECIFY)</p>	<p><b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTCT) C URB HLTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HLTH UNIT G MCH CENTER ... H OTHER GOV'T _____ I (SPECIFY)</p> <p><b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO _____ L (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N PHARMACY ..... O OTHER PVT. MED. _____ P (SPECIFY)</p> <p><b>OTHER NON-MEDICAL</b> _____ X (SPECIFY)</p>
634	CHECK 633:	<p>TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED</p> <p>(SKIP TO 636) ←</p>	<p>TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED</p> <p>(SKIP TO 636) ←</p>	<p>TWO OR ONLY MORE ONE CODES CODE CIRCLED CIRCLED</p> <p>(SKIP TO 636) ←</p>
635	<p>Where did you first seek advice or treatment?</p> <p>USE LETTER CODE FROM 633.</p>	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>
636	<p>How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.</p>	DAYS ..... <input type="text"/>	DAYS ..... <input type="text"/>	DAYS ..... <input type="text"/>
637	Does (NAME) still have diarrhea?	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>
638	<p>Was he/she given a fluid made from a special packet called <i>mahloul moalget el gafaf</i>?</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 DON'T KNOW ..... 8</p>
639	Was anything (else) given to treat the diarrhea?	<p>YES ..... 1 NO ..... 2 (SKIP TO 643) ← DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 (SKIP TO 643) ← DON'T KNOW ..... 8</p>	<p>YES ..... 1 NO ..... 2 (SKIP TO 643) ← DON'T KNOW ..... 8</p>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
640	<p>What (else) was given to treat the diarrhea?</p> <p>Anything else?</p> <p>RECORD ALL TREATMENTS GIVEN.</p>	<p><b>PILL OR SYRUP</b></p> <p>ANTIBIOTIC ..... A</p> <p>ANTIMOTILITY... B</p> <p>ZINC ..... C</p> <p>OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) ..... D</p> <p>UNKNOWN PILL OR SYRUP ... E</p> <p><b>INJECTION</b></p> <p>ANTIBIOTIC ..... F</p> <p>NON-ANTIBIOTIC. G</p> <p>UNKNOWN INJECTION ... H</p> <p>(IV) INTRAVENOUS . I</p> <p><b>HOME REMEDY</b></p> <p>HERBAL MEDICINE ..... J</p> <p>HOMEMADE SS SOLUTION ..... K</p> <p>OTHER _____ X (SPECIFY)</p>	<p><b>PILL OR SYRUP</b></p> <p>ANTIBIOTIC ..... A</p> <p>ANTIMOTILITY... B</p> <p>ZINC ..... C</p> <p>OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) ..... D</p> <p>UNKNOWN PILL OR SYRUP ... E</p> <p><b>INJECTION</b></p> <p>ANTIBIOTIC ..... F</p> <p>NON-ANTIBIOTIC. G</p> <p>UNKNOWN INJECTION ... H</p> <p>(IV) INTRAVENOUS . I</p> <p><b>HOME REMEDY</b></p> <p>HERBAL MEDICINE ..... J</p> <p>HOMEMADE SS SOLUTION ..... K</p> <p>OTHER _____ X (SPECIFY)</p>	<p><b>PILL OR SYRUP</b></p> <p>ANTIBIOTIC ..... A</p> <p>ANTIMOTILITY... B</p> <p>ZINC ..... C</p> <p>OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) ..... D</p> <p>UNKNOWN PILL OR SYRUP ... E</p> <p><b>INJECTION</b></p> <p>ANTIBIOTIC ..... F</p> <p>NON-ANTIBIOTIC. G</p> <p>UNKNOWN INJECTION ... H</p> <p>(IV) INTRAVENOUS . I</p> <p><b>HOME REMEDY</b></p> <p>HERBAL MEDICINE ..... J</p> <p>HOMEMADE SS SOLUTION ..... K</p> <p>OTHER _____ X (SPECIFY)</p>
641	CHECK 640:  GIVEN ZINC?	<p>CODE "C" CODE "C"</p> <p>CIRCLED NOT</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>(SKIP TO 643) ←</p>	<p>CODE "C" CODE "C"</p> <p>CIRCLED NOT</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>(SKIP TO 643) ←</p>	<p>CODE "C" CODE "C"</p> <p>CIRCLED NOT</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>(SKIP TO 643) ←</p>
642	How many times was (NAME) given zinc?	TIMES ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	TIMES ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	TIMES ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98
643	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
644	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 647) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 647) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 647) ← DON'T KNOW ..... 8
645	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES ..... 1 NO ..... 2 (SKIP TO 648) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 648) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 648) ← DON'T KNOW ..... 8
646	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY ... 1 NOSE ONLY .... 2 BOTH ..... 3 OTHER _____ 6 (SPECIFY) DON'T KNOW ..... 8 (SKIP TO 648) ←	CHEST ONLY ... 1 NOSE ONLY .... 2 BOTH ..... 3 OTHER _____ 6 (SPECIFY) DON'T KNOW ..... 8 (SKIP TO 648) ←	CHEST ONLY ... 1 NOSE ONLY .... 2 BOTH ..... 3 OTHER _____ 6 (SPECIFY) DON'T KNOW ..... 8 (SKIP TO 648) ←
647	CHECK 643:  HAD FEVER?	YES NO OR DK <input type="checkbox"/> <input type="checkbox"/>	YES NO OR DK <input type="checkbox"/> <input type="checkbox"/>	YES NO OR DK <input type="checkbox"/> <input type="checkbox"/>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
648	Now I would like to know how much (NAME) was given to drink during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 NOTHING TO DRINK 5 DON'T KNOW ..... 8
649	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW ..... 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE ..... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW ..... 8
650	Did you seek advice or treatment for the illness from any source?	YES ..... 1 NO ..... 2 (SKIP TO 655) ←	YES ..... 1 NO ..... 2 (SKIP TO 655) ←	YES ..... 1 NO ..... 2 (SKIP TO 655) ←
651	Where did you seek advice or treatment?  IF SOURCE IS A HOSPITAL, HEALTH UNIV OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  Anywhere else? RECORD ALL PLACES MENTIONED.  (1) _____  (NAME OF PLACE(S))  (2) _____  (NAME OF PLACE(S))  (3) _____  (NAME OF PLACE(S))	<b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTCT) C URB HLTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HLTH UNIT G MCH CENTER ... H OTHER GOV'T I _____ (SPECIFY) <b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO L _____ (SPECIFY) <b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N PHARMACY ..... O OTHER PVT. P MED. _____ (SPECIFY) <b>OTHER NON-MEDICAL</b> _____ (SPECIFY) X	<b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTCT) C URB HLTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HLTH UNIT G MCH CENTER ... H OTHER GOV'T I _____ (SPECIFY) <b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO L _____ (SPECIFY) <b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N PHARMACY ..... O OTHER PVT. P MED. _____ (SPECIFY) <b>OTHER NON-MEDICAL</b> _____ (SPECIFY) X	<b>GOVERNMENT</b> URBAN HOSPITAL (GNRL/DSTCT) C URB HLTH UNIT D HEALTH OFFICE . E RURAL HOSPITAL (COMPL'TARY) F RURAL HLTH UNIT G MCH CENTER ... H OTHER GOV'T I _____ (SPECIFY) <b>NONGOVERNMENTAL</b> EGYPTIAN FP ASSOC ..... J CSI PROJECT ... K OTHER NGO L _____ (SPECIFY) <b>PRIVATE MEDICAL</b> PVT. HOSPITAL/ CLINIC ..... M PVT. DOCTOR . N PHARMACY ..... O OTHER PVT. P MED. _____ (SPECIFY) <b>OTHER NON-MEDICAL</b> _____ (SPECIFY) X
652	CHECK 651:	TWO OR ONLY <input type="checkbox"/> MORE ONE <input type="checkbox"/> CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 654) ←	TWO OR ONLY <input type="checkbox"/> MORE ONE <input type="checkbox"/> CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 654) ←	TWO OR ONLY <input type="checkbox"/> MORE ONE <input type="checkbox"/> CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 654) ←
653	Where did you first seek advice or treatment? USE LETTER CODE FROM 651.	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
654	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS ..... <input type="text"/> <input type="text"/>	DAYS ..... <input type="text"/> <input type="text"/>	DAYS ..... <input type="text"/> <input type="text"/>
655	Is (NAME) still sick with a (fever/cough)?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
656	At any time during the illness, did (NAME) take any drugs for the illness?	YES ..... 1 NO ..... 2 (SKIP TO 659) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 659) ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 (SKIP TO 659) ← DON'T KNOW ..... 8
657	What drugs did (NAME) take?  Any other drugs?  RECORD ALL MENTIONED.	<b>ANTIBIOTIC</b> PILL/SYRUP ... A INJECTION ..... B <b>ANTI PYRETIC</b> ASPIRIN ..... C ACETA- MINOPHEN ... D IBUPROFEN ... E OTHER ANTI PYRETIC _____ F (SPECIFY) COUGH DRUG . G <b>OTHER</b> _____ X (SPECIFY) DON'T KNOW ..... Z (SKIP TO 659) ←	<b>ANTIBIOTIC</b> PILL/SYRUP ... A INJECTION ..... B <b>ANTI PYRETIC</b> ASPIRIN ..... C ACETA- MINOPHEN ... D IBUPROFEN ... E OTHER ANTI PYRETIC _____ F (SPECIFY) COUGH DRUG . G <b>OTHER</b> _____ X (SPECIFY) DON'T KNOW ..... Z (SKIP TO 659) ←	<b>ANTIBIOTIC</b> PILL/SYRUP ... A INJECTION ..... B <b>ANTI PYRETIC</b> ASPIRIN ..... C ACETA- MINOPHEN ... D IBUPROFEN ... E OTHER ANTI PYRETIC _____ F (SPECIFY) COUGH DRUG . G <b>OTHER</b> _____ X (SPECIFY) DON'T KNOW ..... Z (SKIP TO 659) ←
658	Did you already have the antibiotic at home when (NAME) became ill?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
659		GO BACK TO 603 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 660.	GO BACK TO 603 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 660.	GO BACK TO 603 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 660.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
660	CHECK 215 AND 218, ALL ROWS:  NUMBER OF CHILDREN BORN IN 2003 OR LATER LIVING WITH THE RESPONDENT  ONE OR MORE <input type="checkbox"/> NONE <input type="checkbox"/>		663
661	The last time (NAME OF YOUNGEST CHILD) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE ... 01 PUT/RINSED INTO TOILET OR LATRINE ..... 02 PUT/RINSED INTO DRAIN OR DITCH ..... 03 THROWN INTO GARBAGE ..... 04 BURIED ..... 05 LEFT IN THE OPEN ..... 06  OTHER _____ 96 (SPECIFY) DON'T KNOW ..... 98	
662	CHECK 638 ALL COLUMNS:  NO CHILD <input type="checkbox"/> RECEIVED FLUID                      ↓ FROM ORS PACKET	ANY CHILD <input type="checkbox"/> RECEIVED FLUID                      ↓ FROM ORS PACKET	664
663	Have you ever heard of a special product called <i>mahloul moalget el gafaf</i> you can get for the treatment of diarrhea?	YES ..... 1 NO ..... 2	
664	In the last 6 months, have you heard/seen or received any information about the warning or danger signs women should be aware of in order to have a safe pregnancy?	YES ..... 1 NO ..... 2	701
665	What was the last source you got information from?	TELEVISION ..... 01 RADIO ..... 02 NEWSPAPER/MAGAZINE ..... 03 PAMPHLET/BROCHURE ..... 04 POSTER ..... 05 MEDICAL PROVIDER ..... 06 HUSBAND ..... 07 OTHER RELATIVE ..... 08 FRIENDS/NEIGHBORS ..... 09 OTHER _____ 96 (SPECIFY)	



SECTION 7. MOTHER AND CHILD NUTRITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																																																																																																																		
701	<p>CHECK 215 AND 218:</p> <p>HAS AT LEAST ONE CHILD BORN IN 2005 OR LATER AND LIVING WITH HER <input type="checkbox"/></p> <p>DOES NOT HAVE ANY CHILDREN BORN IN 2005 OR LATER AND LIVING WITH HER <input type="checkbox"/></p> <p>RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 702)</p> <p>_____</p> <p>(NAME)</p>		801																																																																																																																																																		
702	<p>As part of this study, we are also looking at the nutrition of mothers and children. To help us understand these issues, I will first ask you about what (NAME FROM 1201) may have drunk or eaten yesterday during the day or at night. Then I will also ask you about what you may have eaten or drunk yesterday.</p>																																																																																																																																																				
703	<p>First I would like to ask you about <u>liquids/foods</u> (NAME FROM 701) had yesterday during the day or at night</p> <p>Did (NAME FROM 701) had:</p> <p>a. Plain water?</p> <p>b. Infant formula, that is, a special commercially produced breastmilk substitutes such as Similac, Bebelack and Biomeal?</p> <p>c. Any commercially fortified baby cereal (like Cerelac, or Riri or Gerber)?</p> <p>d. Other porridge or gruel made from wheat, rice or other grains?</p>	<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>a PLAIN WATER</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>b INFANT FORMULA</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>c COMMERCIAL BABY CEREALS</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>d OTHER PORRIDGE GRUEL</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		YES	NO	DK	a PLAIN WATER	1	2	8	b INFANT FORMULA	1	2	8	c COMMERCIAL BABY CEREALS	1	2	8	d OTHER PORRIDGE GRUEL	1	2	8																																																																																																																															
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d OTHER PORRIDGE GRUEL	1	2	8																																																																																																																																																		
704	<p>Now I would like to ask you about (other) liquids or foods that (NAME FROM 701) or you may have had yesterday during the day or at night. I am interested in whether your child or you had the item even if it was combined with other foods.</p> <p>Did (Name/you) drink (eat):</p> <p>a. Milk such as tinned, powdered, or fresh animal milk?</p> <p>b. Tea or coffee?</p> <p>c. Any other liquids?</p> <p>d. Bread, rice, noodles, macaroni, or other food made from grains?</p> <p>e. Any pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?</p> <p>f. Any potatoes, white potatoes or any other food made from roots or tubers?</p> <p>g. Any dark green leafy vegetables like spinach?</p> <p>h. Any legumes like fava beans, chickpeas, lentils, or peanuts?</p> <p>i. Ripe mangos, papayas, or (OTHER VITAMIN-A RICH FRUITS)?</p> <p>j. Any other vegetables or fruits?</p> <p>k. Any liver, kidney, heart or other organ meats?</p> <p>l. Any meat such as beef, lamb, goat, rabbit, chicken or duck?</p> <p>m. Any eggs?</p> <p>n. Any fresh or dried or smoked or canned fish or shellfish?</p> <p>o. Any legumes like fava beans, chickpeas, lentils, peas, peanuts or other nuts?</p> <p>p. Any cheese or yogurt or other milk products?</p> <p>q. Any oils, fats or butter or foods made with any of these?</p> <p>r. Any sugary foods such as chocolates, sweets, pastries, cakes, or biscuits?</p> <p>s. Any other solid or semi-solid food?</p>	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">CHILD</th> <th colspan="3">MOTHER</th> </tr> <tr> <th>YES</th> <th>NO</th> <th>DK</th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>b</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>c</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>d</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>e</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>f</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>g</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>h</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>i</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>j</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>k</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>l</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>m</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>n</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>o</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>p</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>q</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>r</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>s</td> <td>1</td> <td>2</td> <td>8</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		CHILD			MOTHER			YES	NO	DK	YES	NO	DK	a	1	2	8	1	2	8	b	1	2	8	1	2	8	c	1	2	8	1	2	8	d	1	2	8	1	2	8	e	1	2	8	1	2	8	f	1	2	8	1	2	8	g	1	2	8	1	2	8	h	1	2	8	1	2	8	i	1	2	8	1	2	8	j	1	2	8	1	2	8	k	1	2	8	1	2	8	l	1	2	8	1	2	8	m	1	2	8	1	2	8	n	1	2	8	1	2	8	o	1	2	8	1	2	8	p	1	2	8	1	2	8	q	1	2	8	1	2	8	r	1	2	8	1	2	8	s	1	2	8				
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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
705	CHECK 704 (CHILD):  AT LEAST ONE "YES" <input type="checkbox"/>	NOT A SINGLE "YES" <input type="checkbox"/>	801
706	How many times did (NAME) eat solid, semisolid, or soft foods other than liquids yesterday during the day or at night?  IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ..... <input type="checkbox"/>  DON'T KNOW ..... 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	<p>CHECK 106: MARITAL STATUS</p> <p>CURRENTLY MARRIED <input type="checkbox"/>      WIDOWED/DIVORCED/SEPARATED <input type="checkbox"/></p>	<p>_____ → 804</p>	804
802	<p><b>RECORD LINE NUMBER OF HUSBAND FROM HOUSEHOLD SCHEDULE. IF HUSBAND IS NOT PRESENT IN THE HOUSEHOLD, RECORD '00'.</b></p>	<p>HUSBAND'S LINE NUMBER ... <input type="text"/> <input type="text"/></p>	
803	<p>How old was your husband on his last birthday?</p>	<p>AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/></p>	
804	<p>In what month and year was your (last) husband born?</p> <p>COMPARE AND CORRECT 803 AND/OR 804 IF INCONSISTENT.</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>DON'T KNOW MONTH ..... 98</p> <p>YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>DON'T KNOW YEAR ..... 9998</p>	
805	<p>Before you got married, was your (last) husband related to you in anyway through blood or marriage?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 807
806	<p>What type of relationship was it?</p>	<p>FIRST COUSIN FATHER'S SIDE ... 1</p> <p>FIRST COUSIN MOTHER'S SIDE ... 2</p> <p>SECOND COUSIN FATHER'S SIDE... 3</p> <p>SECOND COUSIN MOTHER'S SIDE.. 4</p> <p>OTHER RELATIVE FATHER'S SIDE... 5</p> <p>OTHER RELATIVE MOTHER'S SIDE... 6</p> <p>RELATIVE BY MARRIAGE. .... 7</p>	
807	<p>Did your (last) husband ever attend school?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 810
808	<p>What is the highest level of school he attended?</p>	<p>PRIMARY ..... 1</p> <p>PREPARATORY ..... 2</p> <p>SECONDARY ..... 3</p> <p>UPPER INTERMEDIATE ..... 4</p> <p>UNIVERSITY ..... 5</p> <p>MORE THAN UNIVERSITY ..... 6</p>	
809	<p>What was the highest grade he completed at that level?</p>	<p>GRADE ..... <input type="text"/></p> <p>DON'T KNOW ..... 8</p>	
810	<p>CHECK 801:</p> <p>CURRENTLY MARRIED <input type="checkbox"/>      WIDOWED/DIVORCED/SEPARATED <input type="checkbox"/></p> <p>What is your husband's occupation?      What was your (last) husband's occupation?</p> <p>That is, what kind of work does he mainly do?      That is, what kind of work did he mainly do?</p>	<p>_____ <input type="text"/> <input type="text"/></p> <p>_____</p> <p>_____</p> <p>(RECORD ANSWER IN DETAIL)</p>	
811	<p>Aside from your own housework, have you done any work in the last seven days even if it was only for a short period of time?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 815
812	<p>As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work even if it was only for a short period of time?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 815

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES ..... 1 NO ..... 2	→ 815
814	Have you done any work in the last 12 months even if it was only for a short period of time?	YES ..... 1 NO ..... 2	→ 822
815	What is your occupation, that is, what kind of work do you mainly do?	_____ _____ _____  (RECORD ANSWER IN DETAIL)	
816	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER ..... 1 FOR SOMEONE ELSE ..... 2 SELF-EMPLOYED ..... 3	
818	Do you usually work at home or away from home?	HOME ..... 1 AWAY ..... 2	
818	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR ..... 1 SEASONALLY/PART OF THE YEAR . . . 2 ONCE IN A WHILE ..... 3	
819	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY ..... 1 CASH AND KIND ..... 2 IN KIND ONLY ..... 3 NOT PAID ..... 4	
820	CHECK 815:  WORKS IN AGRICULTURE <input type="checkbox"/> DOES NOT WORK IN AGRICULTURE <input type="checkbox"/>		→ 822
821	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND ..... 1 FAMILY LAND ..... 2 RENTED LAND ..... 3 SOMEONE ELSE'S LAND ..... 4	
822	CHECK 106: MARITAL STATUS  CURRENTLY MARRIED <input type="checkbox"/> WIDOWED/DIVORCED/SEPARATED <input type="checkbox"/>		→ 828
823	CHECK 819:  CODE 1 OR 2 CIRCLED <input type="checkbox"/> OTHER <input type="checkbox"/>		→ 826
824	Who decides how the money you earn will be used: mainly you, mainly your husband, or you and your husband jointly?	RESPONDENT ..... 1 HUSBAND ..... 2 RESPONDENT AND HUSBAND JOINTLY ..... 3 OTHER _____ 6 (SPECIFY)	
825	Would you say that the money that you bring into the household is more than what your husband brings in, less than what he brings in, or about the same?	MORE THAN HIM ..... 1 LESS THAN HIM ..... 2 ABOUT THE SAME ..... 3 HUSBAND DOESN'T BRING IN ANY MONEY ..... 4 DON'T KNOW/NOT APPLICABLE ... 8	→ 827

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
826	Who decides how your husband's earnings will be used: mainly you, mainly your husband, or you and your husband jointly?	RESPONDENT ..... 1 HUSBAND ..... 2 RESPONDENT AND HUSBAND JOINTLY ..... 3 HUSBAND DOESN'T BRING IN ANY MONEY ..... 4 OTHER ..... 6 (SPECIFY)	
827	Who usually makes the following decisions: mainly you, mainly your husband, you and your husband jointly, or someone else?  About health care for yourself? About making major household purchases? About making purchases for daily household needs? About visits to your family or relatives?	RESPONDENT = 1 HUSBAND = 2 RESPONDENT & HUSBAND JOINTLY = 3 SOMEONE ELSE = 4 OTHER = 6  1      2      3      4      6 1      2      3      4      6 1      2      3      4      6 1      2      3      4      6	
828	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES/ PRES/ NOT LISTEN. NOT PRES LISTEN.  CHILDREN < 10 ..... 1    2    3 HUSBAND ..... 1    2    3 OTHER MALES ..... 1    2    3 OTHER FEMALES ... 1    2    3	
829	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:  If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	YES    NO    DK  GOES OUT ..... 1    2    8 NEGL. CHILDREN ... 1    2    8 ARGUES ..... 1    2    8 REFUSES SEX ..... 1    2    8 BURNS FOOD ..... 1    2    8	
830	Now I would like to ask you some questions about medical care for yourself.  Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?  Getting permission to go. Getting money needed for treatment. The distance to the health facility. Having to take transportation. Not wanting to go alone. Concern that there may not be a female health provider. Concern that there may not be any health provider. Concern that there may be no drugs available.	BIG NOT A BIG PROB- PROB- LEM LEM  PERMISSION TO GO .. 1    2 GETTING MONEY ... 1    2 DISTANCE ..... 1    2 TAKING TRANSPORT .. 1    2 GO ALONE ..... 1    2 NO FEMALE PROV. ... 1    2 NO PROVIDER ..... 1    2 NO DRUGS ..... 1    2	

SECTION 9: FEMALE CIRCUMCISION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP		
	INTERVIEWER:CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. DO NOT READ THE FOLLOWING QUESTIONS IF THERE IS NO PRIVACY				
901	Now I would like to talk about the practice of female circumcision. Have you yourself been circumcised?	YES ..... 1 NO ..... 2	→ 904		
902	How old were you when you were circumcised?	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/> DON'T KNOW ..... 98			
903	Who performed the circumcision?	DOCTOR ..... 1 NURSE/OTHER HLTH PROVIDER ..... 2 DAYA ..... 3 BARBER ..... 4 GHAGARIA ..... 5 OTHER ..... 6 (SPECIFY) DON'T KNOW ..... 8			
904	CHECK 214, 216 AND 217  AT LEAST ONE DAUGHTER AGE 0-19 YEARS <input type="checkbox"/> NO DAUGHTERS 0-19 YEARS <input type="checkbox"/>		→ 915		
905	CHECK QUESTIONS 214 AND 217 AND IDENTIFY ALL OF THE WOMAN'S DAUGHTERS AGES 0-19 YEARS. ENTER THE NAME, AND LINE NUMBER FOR EACH DAUGHTER IN 906 BELOW BEGINNING WITH THE YOUNGEST DAUGHTER. USE AN ADDITIONAL QUESTIONNAIRE IF MORE THAN FOUR DAUGHTERS. Now I would like to ask you some questions about your daughters.				
906	CHECK 212: RECORD NAME(S) AND LINE NUMBER(S) FOR DAUGHTERS	<input type="text"/> <input type="text"/> LINE NO.  _____ (NAME)	<input type="text"/> <input type="text"/> LINE NO.  _____ (NAME)	<input type="text"/> <input type="text"/> LINE NO.  _____ (NAME)	<input type="text"/> <input type="text"/> LINE NO.  _____ (NAME)
907	CHECK 217:	AGE 15-19 0-14 YRS YRS <input type="text"/> (GO TO <input type="text"/> 909) ←	AGE 15-19 0-14 YRS YRS <input type="text"/> (GO TO <input type="text"/> 909) ←	AGE 15-19 0-14 YRS YRS <input type="text"/> (GO TO <input type="text"/> 909) ←	AGE 15-19 0-14 YRS YRS <input type="text"/> (GO TO <input type="text"/> 909) ←
908	What is (NAME'S) marital status?	EVER MARRIED. 1  NEVER MARRIED/ SIGNED CONTRACT 2	EVER MARRIED. 1  NEVER MARRIED/ SIGNED CONTRACT 2	EVER MARRIED. 1  NEVER MARRIED/ SIGNED CONTRACT 2	EVER MARRIED. 1  NEVER MARRIED/ SIGNED CONTRACT 2
909	Is (NAME) circumcised?	YES ..... 1 NO ..... 2 DK ..... 8 (GO TO NEXT DAUGHTER OR TO 912)	YES ..... 1 NO ..... 2 DK ..... 8 (GO TO NEXT DAUGHTER OR TO 912)	YES ..... 1 NO ..... 2 DK ..... 8 (GO TO NEXT DAUGHTER OR TO 912)	YES ..... 1 NO ..... 2 DK ..... 8 (GO TO 906 IN NEW QUESTIONNAIRE OR IF NO MORE DAUGHTERS, GO TO 912)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
NO.	QUESTIONS AND FILTERS	(NAME)	(NAME)	(NAME)	(NAME)	
910	Who performed the circumcision to (NAME)?	DOCTOR .. 1 NURSE/ OTHER HLTH PRV. 2 DAYA .... 3 BARBER . 4 GHAGARIA 5 OTHER 6  (SPECIFY) DK ..... 8	DOCTOR .. 1 NURSE/ OTHER HLTH PRV. 2 DAYA .... 3 BARBER . 4 GHAGARIA 5 OTHER 6  (SPECIFY) DK ..... 8	DOCTOR .. 1 NURSE/ OTHER HLTH PRV. 2 DAYA .... 3 BARBER . 4 GHAGARIA 5 OTHER 6  (SPECIFY) DK ..... 8	DOCTOR .. 1 NURSE/ OTHER HLTH PRV. 2 DAYA .... 3 BARBER . 4 GHAGARIA 5 OTHER 6  (SPECIFY) DK ..... 8	
911	How old was (NAME) when she was circumcised?	AGE <input type="text"/> <input type="text"/> DK ..... 98	AGE <input type="text"/> <input type="text"/> DK ..... 98	AGE <input type="text"/> <input type="text"/> DK ..... 98	AGE <input type="text"/> <input type="text"/> DK ..... 98	
		(GO TO NEXT DAUGHTER OR IF NO MORE DAUGHTERS, GO TO 912)	(GO TO NEXT DAUGHTER OR IF NO MORE DAUGHTERS, GO TO 912)	(GO TO NEXT DAUGHTER OR IF NO MORE DAUGHTERS, GO TO 912)	(GO TO 906 IN NEW QUESTIONNAIRE OR IF NO MORE DAUGHTERS, GO TO 912)	
912	CHECK 909 AND RECORD THE NUMBER OF DAUGHTERS AGE 0-19 YEARS WHO HAVE NOT BEEN CIRCUMCISED.	NUMBER ..... <input type="text"/> <input type="text"/>				
913	CHECK 912:  AT LEAST ONE DAUGHTER NOT CIRCUMCISED <input type="checkbox"/> ALL DAUGHTERS CIRCUMCISED <input type="checkbox"/>	→ 915				
914	You have (NUMBER IN 912 ) daughter(s) who (has/have) not been circumcised. Do you intend that (she/they) will be circumcised in the future?	YES ..... 1 NO ..... 2 HAVE NOT DECIDED/UNSURE ... 8				
915	During the past year have you discussed female circumcision with your relatives, friends, or neighbors?	YES ..... 1 NO ..... 2				
916	During the past year have you heard, seen or received any information about female circumcision?	YES ..... 1 NO ..... 2 UNSURE ..... 8				→ 918
917	Where did you hear or see that information?  Anywhere else?  RECORD ALL MENTIONED	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F HOME VISIT BY HEALTH WORKER .. G FACILITY-BASED HEALTH WORKER .. H HUSBAND ..... I OTHER RELATIVE/FRIENDS ..... J OTHER ..... X  (SPECIFY)				
918	Do you believe that the practice of female circumcision is required by religious precepts?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8				

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
919	Do you think that the practice of female circumcision should be continued or should it be stopped?	CONTINUED ..... 1 STOPPED ..... 2 DON'T KNOW ..... 8	
920	Do you think that men want this practice to continue or to stop?	CONTINUED ..... 1 STOPPED ..... 2 DON'T KNOW ..... 8	
921	<p>I will read you some statements about circumcision. Please tell me if you agree or disagree.</p> <p>A husband will prefer his wife to be circumcised.</p> <p>Circumcision prevents adultery.</p> <p>Childbirth is more difficult for a woman who has been circumcised.</p> <p>Circumcision can cause severe consequences that can lead to a girl's death.</p>	<p style="text-align: right;">DIS- AGREE    AGREE    DK</p> <p>HUSBAND PREFER. . 1        2        8</p> <p>PREVENTS ADULTERY ..... 1        2        8</p> <p>CHILDBIRTH DIFFICULT ..... 1        2        8</p> <p>MAY LEAD TO GIRL'S DEATH ... 1        2        8</p>	



SECTION 10. SEXUALLY TRANSMITTED INFECTIONS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	<p><b>INTERVIEWER: CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. DO NOT READ THE FOLLOWING QUESTIONS IF THERE IS NO PRIVACY NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT OTHER HEALTH SERVICES YOU MAY HAVE RECEIVED.</b></p>		
1001	<p>CHECK 106: MARITAL STATUS</p> <p>CURRENTLY MARRIED <input type="checkbox"/>      WIDOWED/DIVORCED/SEPARATED <input type="checkbox"/></p>		→ 1009
1002	<p>Have you heard about infections that can be transmitted through sexual contact?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 1004
1003	<p>Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	
1004	<p>Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	
1005	<p>Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	
1006	<p>CHECK 1003, 1004, AND 1005:</p> <p>HAS HAD AN INFECTION (ANY 'YES') <input type="checkbox"/>      HAS NOT HAD AN INFECTION OR DOES NOT KNOW <input type="checkbox"/></p>		→ 1009
1007	<p>The last time you had (PROBLEM FROM 1003/1004/1005), did you seek any kind of advice or treatment?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 1009
1008	<p>Where did you go?</p> <p>Any other place?</p> <p>RECORD ALL SOURCES MENTIONED.</p>	<p><b>MINISTRY OF HEALTH AND POPULATION</b></p> <p>URBAN HOSPITAL (GNRL/DSTRCT) A</p> <p>URBAN HEALTH UNIT ..... B</p> <p>HEALTH OFFICE ..... C</p> <p>RURAL HOSPITAL (COMPI'TARY) . D</p> <p>RURAL HEALTH UNIT ..... E</p> <p>MCH CENTER ..... F</p> <p>MOBILE UNIT ..... G</p> <p><b>OTHER GOVERNMENTAL</b></p> <p>UNIVERSITY HOSPITAL ..... H</p> <p>TEACHING HOSPITAL ..... I</p> <p>HEALTH INSURANCE ORG. .... J</p> <p>CURATIVE CARE ORGANIZATION . K</p> <p>OTHER GOVERNMENTAL ..... L</p> <p><b>NON-GOVERNMENTAL</b></p> <p>EGYPT FAMILY PLANNING ASSOC. M</p> <p>CSI PROJECT ..... N</p> <p>OTHER NON-GOVERNMENTAL ... O</p> <p><b>PRIVATE MEDICAL</b></p> <p>PRIVATE HOSPITAL/ CLINIC ..... P</p> <p>PRIVATE DOCTOR ..... Q</p> <p>PHARMACY ..... R</p> <p>MOSQUE HEALTH UNIT ..... S</p> <p>CHURCH HEALTH UNIT ..... T</p> <p><b>OTHER NON-MEDICAL</b></p> <p>OTHER VENDOR (SHOP, KIOSK, ETC.,) ..... U</p> <p>FRIEND/RELATIVE ..... V</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	

1009	RECORD THE TIME.	HOUR ..... MINUTES .....	<table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>				
1010	<p>THANK THE RESPONDENT AND ADVISE THAT THE RESPONDENT OR OTHER MEMBERS OF THE HOUSEHOLD MAY BE ASKED TO PARTICIPATE AGAIN IN INTERVIEWS OR OTHER SURVEY ACTIVITIES IN THE FUTURE.</p> <p>Thank you for taking the time to answer these questions.          We may return to interview you or other members of your household again or to ask you to participate in other survey activities in the future. We hope that you will agree at that time.</p>						

OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

1101 INTERVIEWER'S OBSERVATIONS

COMMENTS ABOUT RESPONDENT:

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COMMENTS ON SPECIFIC QUESTIONS:

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ANY OTHER COMMENTS:

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1102 SUPERVISOR'S OBSERVATIONS

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NAME OF SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

1103 EDITOR'S OBSERVATIONS

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NAME OF EDITOR: \_\_\_\_\_ DATE: \_\_\_\_\_

INSTRUCTIONS:  
 ONLY ONE CODE SHOULD APPEAR IN ANY BOX.  
 FOR COLUMNS 1, 2 ALL MONTHS SHOULD BE FILLED.

			CHILD'S NAME		SOURCE ADDRESS						
			1	2	3	4					
			12	DEC	01			01	DEC		
			11	NOV	02			02	NOV		
			10	OCT	03			03	OCT		
COL. 1: <u>MARRIAGE/UNION</u>			09	SEP	04			04	SEP		
X	IN UNION (MARRIED OR LIVING TOGETH)	2	08	AUG	05			05	AUG 2		
0	NOT IN UNION	0	07	JUL	06			06	JUL 0		
COL. 2: <u>BIRTHS, PREGNANCIES, CONTRACEPTIVE U:</u>			06	JUN	07			07	JUN 0		
B	BIRTHS	8	05	MAY	08			08	MAY 8		
P	PREGNANCIES		04	APR	09			09	APR		
M	MISCARRIAGE		03	MAR	10			10	MAR		
A	ABORTION		02	FEB	11			11	FEB		
S	STILL BIRTH		01	JAN	12			12	JAN		
			12	DEC	13			13	DEC		
			11	NOV	14			14	NOV		
			10	OCT	15			15	OCT		
			09	SEP	16			16	SEP		
			2	08	AUG	17		17	AUG 2		
			0	07	JUL	18		18	JUL 0		
			0	06	JUN	19		19	JUN 0		
			7	05	MAY	20		20	MAY 7		
			04	APR	21			21	APR		
			03	MAR	22			22	MAR		
			02	FEB	23			23	FEB		
			01	JAN	24			24	JAN		
			12	DEC	25			25	DEC		
			11	NOV	26			26	NOV		
			10	OCT	27			27	OCT		
COL. 3: <u>SOURCE OF CONTRACEPTION</u>			09	SEP	28			28	SEP		
<b>MINISTRY OF HEALTH</b>			2	08	AUG	29		29	AUG 2		
1	URBAN HOSPITAL		0	07	JUL	30		30	JUL 0		
2	URBAN HEALTH UNIT		0	06	JUN	31		31	JUN 0		
3	HEALTH OFFICE		6	05	MAY	32		32	MAY 6		
4	RURAL HOSPITAL		04	APR	33			33	APR		
5	RURAL HEALTH UNIT		03	MAR	34			34	MAR		
6	MCH CENTER		02	FEB	35			35	FEB		
7	MOBILE UNIT		01	JAN	36			36	JAN		
<b>OTHER GOVERNMENTAL</b>			12	DEC	37			37	DEC		
8	UNIVERSITY HOSPITAL		11	NOV	38			38	NOV		
9	TEACHING HOSPITAL		10	OCT	39			39	OCT		
A	HEALTH INSURANCE ORGANIZATION		09	SEP	40			40	SEP		
B	CURATIVE CARE ORGANIZATION		2	08	AUG	41		41	AUG 2		
C	OTHER GOVERNMENTAL		0	07	JUL	42		42	JUL 0		
<b>NON-GOVERNMENTAL</b>			0	06	JUN	43		43	JUN 0		
D	EGYPT FAMILY PLANNING ASSOC.	2	5	05	MAY	44		44	MAY 5		
E	CSI PROJECT	0	04	APR	45			45	APR		
F	OTHER NON-GOVERNMENTAL	0	03	MAR	46			46	MAR		
<b>PRIVATE MEDICAL</b>			02	FEB	47			47	FEB		
G	PRIVATE HOSPITAL/ CLINIC		01	JAN	48			48	JAN		
H	PRIVATE DOCTOR										
I	PHARMACY										
<b>OTHER PRIVATE</b>											
J	MOSQUE HEALTH UNIT										
K	CHURCH HEALTH UNIT										
<b>OTHER NON-MEDICAL</b>											
L	OTHER VENDOR (SHOP, KIOSK, ETC.)										
M	FRIENDS / RELATIVES										
X	OTHER (SPECIFY)	2									
Y	<b>NO ONE</b>	0									
Z	DON'T KNOW	4									
COL. 4: <u>DISCONTINUATION OF CONTRACEPTIVE USE</u>											
0	INFREQUENT SEX/HUSBAND AWAY										
1	BECAME PREGNANT WHILE USING										
2	WANTED TO BECOME PREGNANT										
3	HUSBAND DISAPPROVED										
4	WANTED MORE EFFECTIVE METHOD										
5	HEALTH CONCERNS										
6	SIDE EFFECTS										
7	LACK OF ACCESS/TOO FAR										
8	COSTS TOO MUCH	2									
9	INCONVENIENT TO USE	0									
F	FATALISTIC	0									
A	DIFFICULT TO GET PREGNANT/MENOPA	3									
D	MARITA										
X	OTHER (SPECIFY)										
Z	DON'T KNOW										

OUTCOME AND DATE OF LAST PREGNANCY  
 TERMINATION PRIOR TO JANUARY 2003  
 IF NONE, RECORD '0' IN OUTCOME

OUTCOME				
MONTH				
YEAR				

BIRTH DATE OF LAST CHILD BORN  
 PRIOR TO JANUARY 2003

MONTH				
YEAR				



# EGYPT DEMOGRAPHIC AND HEALTH SURVEY 2008

## HEALTH ISSUES QUESTIONNAIRE

DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL  
AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY.



HEALTH ISSUES QUESTIONNAIRE

IDENTIFICATION	
GOVERNORATE _____ PSU/SEGMENT NO. _____	GOVERNORATE <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
KISM/MARKAZ _____ BUILDING NO. _____	PSU/SEGMENT NO. <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
SHIAKHA/VILLAGE _____ HOUSING UNIT NO _____	HOUSEHOLD NO. URBAN/RURAL <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
HOUSEHOLD NUMBER INSIDE PSU: _____	LOCALITY <input style="width: 20px; height: 20px;" type="text"/>
URBAN ..... 1 RURAL ..... 2	LINE NUMBER <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
LARGE CITY ..... 1 SMALL CITY ... 2 TOWN ..... 3 VILLAGE ..... 4	
NAME OF HOUSEHOLD HEAD _____	
ADDRESS IN DETAIL _____	
NAME OF RESPONDENT _____	
RESPONDENT LINE NUMBER _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> 0 <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> 0 8
TEAM	_____	_____	_____	TEAM .....
INTERVIEWER	_____	_____	_____	INT. NUMBER ...
SUPERVISOR	_____	_____	_____	SUP. NUMBER ..
RESULT	_____	_____	_____	RESULT .....
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS <input style="width: 20px; height: 20px;" type="text"/>
TIME	_____	_____		
RESULT CODES: 1 COMPLETED      4 REFUSED 2 NOT AT HOME      5 PARTLY COMPLETED      7 OTHER _____ 3 POSTPONED      6 INCAPACITATED      (SPECIFY)				

	FIELD EDITOR	OFFICE EDITOR	CODER	KEYER
NAME	_____	_____	_____	_____
DATE	/ / 2008	/ / 2008	/ / 2008	/ / 2008
SIGNATURE	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>



**SECTION 1. RESPONDENT'S BACKGROUND**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO								
101	RESPONDENT'S GENDER  FEMALE <input type="checkbox"/>	MALE <input type="checkbox"/>	104								
102	CHECK Q012 IN HOUSEHOLD QUESTIONNAIRE  WOMAN ELIGIBLE FOR INDIVIDUAL INTERVIEW <input type="checkbox"/>	WOMAN NOT ELIGIBLE FOR INDIVIDUAL INTERVIEW <input type="checkbox"/>	104								
103	CHECK IF WOMAN QUESTIONNAIRE COMPLETED  COMPLETED <input type="checkbox"/>	NOT COMPLETED <input type="checkbox"/>  COMPLETE WOMAN'S QUESTIONNAIRE BEFORE STARTING HEALTH INTERVIEW									
104	<p><b>INFORMED CONSENT</b></p> <p>Hello. My name is _____ and I am working with the Ministry of Health and Population. We are conducting a national survey about health in Egypt. We would very much appreciate your participation in this survey. I would like to ask you (some additional) questions about your health. This information will help the government to plan health services. The interview usually takes between 15 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.</p> <p>Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.</p> <p>At this time, do you want to ask me anything about the survey? May I begin the interview now?</p> <p>Signature of interviewer: _____ Date: _____</p> <p>RESPONDENT AGREES TO BE INTERVIEWED . 1      RESPONDENT DOES NOT AGREE TO BE INTERVIEWED      2 → 1101</p>										
105	RECORD THE TIME.	HOUR ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> MINUTES ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>									
106	<p>During the interview I would like to measure your blood pressure. This will be done three times during the interview. This is a harmless procedure. It is used to find out if a person has high blood pressure. If it is not treated, high blood pressure may eventually cause serious damage to the heart.</p> <p>The results of this blood pressure measurement will be given to you after the interview together with an explanation of the meaning of your blood pressure numbers. If your blood pressure is high, we will suggest that you consult a health facility or doctor since we cannot provide any further testing or treatment during the survey.</p> <p>Do you have any questions about the blood pressure measurement so far? If you have any questions about the procedure at any time, please ask me.</p> <p>You can say yes or not to having the blood pressure measurement now. You can also decide at anytime not to participate in the blood pressure measures.</p> <p>Would you allow me to proceed to take your blood pressure measurement at this time?</p> <p>Signature of interviewer: _____ Date: _____</p> <p>RESPONDENT AGREES ..... 1      RESPONDENT DOES NOT AGREE ..... 2 → 108D</p>										

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO												
107	<p>Before taking your blood pressure , I would ask a few questions about things that may affect these measurements. Have you done any of the following within the past 30 minutes:</p> <p>Eaten anything?</p> <p>Had coffee, tea, cola or other drink that has caffeine?</p> <p>Smoked any tobacco product?</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">YES</th> <th style="width: 10%; text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>EATEN .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>HAD CAFFEINATED DRINK .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>SMOKED .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	EATEN .....	1	2	HAD CAFFEINATED DRINK .....	1	2	SMOKED .....	1	2	
	YES	NO													
EATEN .....	1	2													
HAD CAFFEINATED DRINK .....	1	2													
SMOKED .....	1	2													
108A	<p>May I begin the process of measuring your blood pressure?</p> <p>BEFORE TAKING THE FIRST BLOOD PRESSURE READING, MEASURE THE CIRCUMFERENCE OF THE RESPONDENT'S ARM MIDWAY BETWEEN THE ELBOW AND THE SHOULDER. RECORD THE MEASUREMENT IN CENTIMETERS.</p>	<p>ARM CIRCUMFERENCE (IN CENTIMETERS) ..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/></p>													
108B	<p>USE THE ARM CIRCUMFERENCE MEASUREMENT TO SELECT THE APPROPRIATE BLOOD PRESSURE MONITOR MODEL AND CUFF SIZE. CIRCLE THE CODE FOR THE MODEL AND CUFF SIZE.</p>	<p><b>MODEL 767</b>  SMALL: 16 CM – 23 CM ..... 1  MEDIUM: 24 CM – 35 CM ..... 2  LARGE: 36 CM – 41 CM ..... 3  <b>MODEL 789</b>  EXTRA LARGE: 42 CM – 60 CM .. 4</p>													
108C	<p>TAKE THE FIRST BLOOD PRESSURE READING. RECORD THE SYSTOLIC AND DIASTOLIC PRESSURE. THEN PROCEED TO Q109.  IF YOU ARE UNABLE TO MEASURE THE RESPONDENT'S BLOOD PRESSURE, RECORD THE REASON IN Q108D.</p>	<p><b>BLOOD PRESSURE MEASURED</b></p> <p>SYSTOLIC ..... 1 <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/></p> <p>DIASTOLIC ..... 2 <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/></p>													
108D	<p>RECORD REASON BLOOD PRESSURE NOT MEASURED.</p>	<p><b>REASON BLOOD PRESSURE NOT MEASURED</b></p> <p>REFUSED ..... 9994  TECHNICAL PROBLEMS..... 9995  OTHER _____ 9996  (SPECIFY)</p>													
109	<p>CHECK Q012 IN HOUSEHOLD QUESTIONNAIRE</p> <p>MAN/WOMAN NOT ELIGIBLE FOR EVER-MARRIED WOMAN INTERVIEW <input style="width: 20px; height: 20px; border: 1px solid black;" type="checkbox"/></p>	<p>WOMAN ELIGIBLE FOR EVER-MARRIED WOMAN INTERVIEW <input style="width: 20px; height: 20px; border: 1px solid black;" type="checkbox"/> → 301</p>													
110	<p>In what month and year were you born?</p>	<p>MONTH ..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/></p> <p>DON'T KNOW MONTH ..... 98</p> <p>YEAR ..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/></p> <p>DON'T KNOW YEAR ..... 9998</p>													
111	<p>How old were you at your last birthday?</p> <p>COMPARE AND CORRECT 110 AND/OR 111 IF INCONSISTENT.</p>	<p>AGE IN COMPLETED YEARS <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/></p>													
112	<p>What is your current marital status?</p>	<p>MARRIED ..... 1  WIDOWED ..... 2  DIVORCED ..... 3  SEPARATED ..... 4  SIGNED CONTRACT ..... 5  NEVER MARRIED ..... 6</p>													

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
113	Have you ever attended school?	YES ..... 1 NO ..... 2	→ 117
114	What is the highest level of school you attended?	PRIMARY ..... 1 PREPARATORY ..... 2 SECONDARY ..... 3 UPPER INTERMEDIATE ..... 4 UNIVERSITY ..... 5 MORE THAN UNIVERSITY ..... 6	
115	What is the highest grade you successfully completed at that level?	GRADE ..... <input type="text"/>	
116	CHECK 114:  PRIMARY <input type="checkbox"/> ↓  PREPARATORY OR HIGHER <input type="checkbox"/>		→ 118
117	Can you read a newspaper or a letter easily, with difficulty or not at all?	EASILY ..... 1 WITH DIFFICULTY ..... 2 NOT AT ALL ..... 3	→ 119
118	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL ..... 4	
119	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL ..... 4	
120	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY ..... 1 AT LEAST ONCE A WEEK ..... 2 LESS THAN ONCE A WEEK ..... 3 NOT AT ALL ..... 4	
121	Have you done any work in the last seven days even if it was only for a short period of time?	YES ..... 1 NO ..... 2	→ 123
122	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES ..... 1 NO ..... 2	→ 125
123	What is your occupation, that is, what kind of work do you mainly do?	_____ _____ _____  (RECORD ANSWER IN DETAIL)	<input type="text"/> <input type="text"/>
124	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY ..... 1 CASH AND KIND ..... 2 IN KIND ONLY ..... 3 NOT PAID ..... 4	
125	What is your religion?	MUSLEM ..... 1 CHRISTIAN ..... 2 OTHER ..... 6  (SPECIFY)	

SECTION 2 FEMALE CIRCUMCISION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO		
201	RESPONDENT'S GENDER: FEMALE <input type="checkbox"/>	MALE <input type="checkbox"/> →	206		
202	INTERVIEWER:CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. DO NOT READ THE FOLLOWING QUESTIONS IF THERE IS NO PRIVACY				
203	Now I would like to talk about the practice of female circumcision. Have you yourself been circumcised?	YES ..... 1 NO ..... 2 →	206		
204	How old were you when you were circumcised?	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/> DON'T KNOW ..... 98			
205	Who performed the circumcision?	DOCTOR ..... 1 NURSE/OTHER HLTH PROVIDER .. 2 DAYA ..... 3 BARBER ..... 4 GHAGARIA ..... 5 OTHER ..... 6 (SPECIFY) DON'T KNOW ..... 8			
206	Now I would like to ask some (other) questions about female circumcision. During the past year have you discussed female circumcision with your relatives, friends, or neighbors?	YES ..... 1 NO ..... 2			
207	During the past year have you heard, seen or received any information about female circumcision?	YES ..... 1 NO ..... 2 UNSURE ..... 8	→ 209		
208	Where did you hear or see that information?  PROBE: Anywhere else?  RECORD ALL MENTIONED	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZIN ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F HOME VISIT BY HEALTH WORKER .. G FACILITY-BASED HEALTH WORKER .. H HUSBAND/WIFE ..... I OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... J OTHER ..... X (SPECIFY)			
209	Do you believe that female circumcision is required by religious precepts?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8			
210	Do you think that the practice of female circumcision should be continued or should it be stopped?	CONTINUED ..... 1 STOPPED ..... 2 DON'T KNOW ..... 8			
211	<table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">                             MALE <input type="checkbox"/>                              ↓                              Do you think that women want this practice to be continued or to be stopped?                         </td> <td style="width:50%; text-align:center;">                             FEMALE <input type="checkbox"/>                              ↓                              Do you think that men want this practice to be continued or to be stopped?                         </td> </tr> </table>	MALE <input type="checkbox"/> ↓ Do you think that women want this practice to be continued or to be stopped?	FEMALE <input type="checkbox"/> ↓ Do you think that men want this practice to be continued or to be stopped?	CONTINUED ..... 1 STOPPED ..... 2 DON'T KNOW ..... 8	
MALE <input type="checkbox"/> ↓ Do you think that women want this practice to be continued or to be stopped?	FEMALE <input type="checkbox"/> ↓ Do you think that men want this practice to be continued or to be stopped?				

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																				
212	<p>I will read you some statements about female circumcision. Please tell me if you agree or disagree.</p> <p>A husband will prefer his wife to be circumcised.</p> <p>Circumcision prevents adultery.</p> <p>Childbirth is more difficult for a woman who has been circumcised.</p> <p>Circumcision can cause severe consequences that can lead to a girl's death.</p>	<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;">AGREE</th> <th style="text-align: center;">DIS- AGREE</th> <th style="text-align: center;">DON'T KNOW</th> </tr> </thead> <tbody> <tr> <td>HUSBAND PREFER. .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>PREVENTS ADULTERY . . . . .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>CHILDBIRTH IS MORE DIFFICULT . . . . .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>MAY LEAD TO GIRL'S DEATH . . .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>		AGREE	DIS- AGREE	DON'T KNOW	HUSBAND PREFER. .	1	2	8	PREVENTS ADULTERY . . . . .	1	2	8	CHILDBIRTH IS MORE DIFFICULT . . . . .	1	2	8	MAY LEAD TO GIRL'S DEATH . . .	1	2	8	
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MAY LEAD TO GIRL'S DEATH . . .	1	2	8																				

SECTION 3. HEALTH INSURANCE AND HEALTH CARE COSTS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
301	Have you been ill at any time during the last four weeks?	YES ..... 1 NO ..... 2	
302	Do you have health insurance?	YES ..... 1 NO ..... 2	→ 310
303	What type of health insurance do you have? Any other insurance? RECORD ALL MENTIONED.	HEALTH INSURANCE THROUGH EMPLOYER ..... A HEALTH INSURANCE THROUGH EMPLOYER OF ANOTHER FAMILY MEMBER ..... B HEALTH INSURANCE THROUGH THE GENERAL AGENCY OF HEALTH INSURANCE ..... C HEALTH INSURANCE THROUGH ANY OF THE SYNDICATES ..... D HEALTH INSURANCE THROUGH ANY UNIVERSITY ..... E OTHER ..... X (SPECIFY)	
304	CHECK 303: MORE THAN ONE TYPE OF INSURANCE <input type="checkbox"/>	ONLY ONE TYPE OF INSURANCE <input type="checkbox"/>	→ 306
305	Among the insurance plans you mentioned, which one do you consider to be your primary insurance? PROBE: Which of the insurances you mentioned do you use most often?	HEALTH INSURANCE THROUGH EMPLOYER ..... 1 HEALTH INSURANCE THROUGH EMPLOYER OF ANOTHER FAMILY MEMBER ..... 2 HEALTH INSURANCE THROUGH THE GENERAL AGENCY OF HEALTH INSURANCE ..... 3 HEALTH INSURANCE THROUGH ANY OF THE SYNDICATES ..... 4 HEALTH INSURANCE THROUGH ANY UNIVERSITY ..... 5 OTHER ..... 6 (SPECIFY)	
306	Do you pay for this insurance on a monthly or yearly basis?	MONTHLY ..... 1 YEARLY ..... 2 OTHER INTERVAL ..... 3 (SPECIFY) FREE/DOES NOT PAY ..... 4 DON'T KNOW ..... 8	→ 309
307	In total, how much is spent monthly (ANNUALLY/OTHER INTERVAL SPECIFIED IN Q306) for this insurance?	COST IN POUNDS ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW ..... 9998	
308	Does the amount you pay for insurance cover only the costs for insuring yourself or does it also cover the costs of insuring other persons?	COVERS ONLY RESPONDENT ... 1 COVERS RESPONDENT AND OTHER PERSONS ..... 2 DON'T KNOW ..... 8	→ 310
309	In total, including yourself how many persons are covered by this insurance?	NUMBER OF PERSONS ... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
310	<p>In the past 4 weeks, have you visited a health provider for a medical consultation, either because you were ill or for preventative care?</p> <p>IF YES: How many times did you visit any health provider for a medical consultation in the past four weeks?</p>	<p>NUMBER OF VISITS ..... <input type="text"/> <input type="text"/></p> <p>NO VISITS ..... 00</p> <p>DON'T KNOW ..... 98</p>	<p>→ 317</p>
311	<p>Where did your last medical consultation with a health provider take place?</p> <p>IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. <b>PROBE</b> TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME AND ADDRESS OF PLACE)</p>	<p><b>MINISTRY OF HEALTH AND POPULATION</b></p> <p>URBAN HOSP'L (GENERAL/DISTRICT) 1</p> <p>URBAN HEALTH UNIT ..... 2</p> <p>HEALTH OFFICE ..... 3</p> <p>RURAL HOSP'L (COMPLEMENTARY ... 4</p> <p>RURAL HEALTH UNIT ..... 5</p> <p>MCH CENTER ..... 6</p> <p>MOBILE UNIT ..... 7</p> <p><b>OTHER GOVERNMENTAL</b></p> <p>UNIVERSITY HOSPITAL ..... 8</p> <p>TEACHING HOSPITAL ..... 9</p> <p>HEALTH INSURANCE ORC ..... A</p> <p>CURATIVE CARE ORGANIZATION... B</p> <p>OTHER GOVERNMENTAL ..... C</p> <p><b>NON-GOVERNMENTAL ORGANIZATION</b></p> <p>EGYPT FAMILY PLANNING ASSOC. ... D</p> <p>CSI PROJECT ..... E</p> <p>OTHER NON-GOVERNMENTAL . F</p> <p><b>PRIVATE MEDICAL</b></p> <p>PRIVATE HOSPITAL/ CLINIC ..... G</p> <p>PRIVATE DOCTOR ..... H</p> <p>PHARMACY..... I</p> <p><b>OTHER PRIVATE</b></p> <p>MOSQUE HEALTH UNIT ..... J</p> <p>CHURCH HEALTH UNIT ..... K</p> <p><b>OTHER NON-MEDICAL</b></p> <p>OTHER VENDOR (SHOP, KIOSK, ETC.,) ..... L</p> <p>FRIEND/RELATIVE ..... M</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p> <p><b>DON'T KNOW</b> ..... Z</p>	
312	<p>How much did you pay in total for your last consultation at (FACILITY IN Q311) including, for example, drugs, x-rays, or laboratory services?</p>	<p>COST IN POUNDS ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>FREE ..... 9995</p> <p>DON'T KNOW ..... 9998</p>	
313	<p>Did you incur additional expense for drugs at a separate pharmacy/clinic/drug shop (outside the facility) as a result of this medical consultation?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	<p>→ 315</p>
314	<p>How much in total did you pay for the additional drugs?</p>	<p>COST IN POUNDS ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>DON'T KNOW ..... 9998</p>	
315	<p>Did you incur additional expense for lab tests conducted at a laboratory other than one at the provider you visited?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	<p>→ 317</p>
316	<p>How much in total did you pay for the additional lab tests?</p>	<p>COST IN POUNDS ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>DON'T KNOW ..... 9998</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
317	In the past 12 months, were you ever admitted to a hospital or health facility for at least one night?	YES ..... 1 NO ..... 2	→ 401
318	In total, how many nights did you stay in a hospital or health facility in the past 12 months?	NUMBER OF NIGHTS ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	
319	Did you spend any of these nights in the hospital or health facility during the last four weeks?	YES ..... 1 NO ..... 2	→ 321
320	In total, how many nights did you stay in a hospital or health facility in the past four weeks?	NUMBER OF NIGHTS ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	
321	<p>Now I would like to ask a few questions about the last time you stayed in a hospital or health facility during the past 12 months.</p> <p>The last time you were admitted to a hospital/health facility for at least one night, where were you admitted? IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. <b>PROBE</b> TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME AND ADDRESS OF PLACE)</p>	<p><b>MINISTRY OF HEALTH AND POPULATION</b></p> <p>URBAN HOSP'L (GENERAL/DISTRICT) 1 URBAN HEALTH UNIT ..... 2 HEALTH OFFICE ..... 3 RURAL HOSP'L (COMPLEMENTARY) . . 4 RURAL HEALTH UNIT ..... 5 MCH CENTER ..... 6</p> <p><b>OTHER GOVERNMENTAL</b></p> <p>UNIVERSITY HOSPITAL ..... 8 TEACHING HOSPITAL ..... 9 HEALTH INSURANCE ORG ..... A CURATIVE CARE ORGANIZATION . . . B OTHER GOVERNMENTAL ..... C</p> <p><b>PRIVATE MEDICAL</b></p> <p>PRIVATE HOSPITAL/ CLINIC ..... G</p> <p><b>OTHER PRIVATE</b></p> <p>MOSQUE HEALTH UNIT ..... J CHURCH HEALTH UNIT ..... K OTHER _____ X (SPECIFY)</p> <p><b>DON'T KNOW</b> ..... Z</p>	
322	In total, how many nights did you stay in (FACILITY IN 321) facility the last time?	NUMBER OF NIGHTS ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	
323	How much did you pay for your last stay at (FACILITY IN 321) including all charges for consultations, room and board, drugs, and supplies?	<p>COST IN POUNDS . <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <p>FREE ..... 99995</p> <p>DON'T KNOW ..... 99998</p>	



SECTION 4. KNOWLEDGE OF HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																
	INTERVIEWER:CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. DO NOT READ THE FOLLOWING QUESTIONS IF THERE IS NO PRIVACY																		
401	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES ..... 1 NO ..... 2	→ 501																
402	Can people reduce their chances of getting the AIDS virus by having just one sex partner who is not infected and who has no other partners?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																	
403	Can people get the AIDS virus from mosquito bites?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																	
404	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																	
405	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																	
406	Can people reduce their chance of getting the AIDS virus by abstaining from sexual intercourse?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																	
407	Can the HIV virus be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>DK</td> </tr> <tr> <td>PREGNANCY .....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>DELIVERY .....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BREASTFEEDING ...</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	PREGNANCY .....	1	2	8	DELIVERY .....	1	2	8	BREASTFEEDING ...	1	2	8	
	YES	NO	DK																
PREGNANCY .....	1	2	8																
DELIVERY .....	1	2	8																
BREASTFEEDING ...	1	2	8																
408	Is there anything else a person can do to avoid or reduce the chances of getting the AIDS virus?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 410																
409	What can a person do?  PROBE: Anything else?  RECORD ALL WAYS MENTIONED.	ABSTAINING FROM SEXUAL INTERCOURSE ..... A USE CONDOMS ..... B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER ... C LIMIT NUMBER OF SEXUAL PARTNERS ..... D AVOID SEX WITH PROSTITUTES ... E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS ..... F AVOID SEX WITH HOMOSEXUALS . G AVOID SEX WITH PERSONS WHO INJECT DRUGS ..... H AVOID BLOOD TRANSFUSIONS. .... I AVOID INJECTIONS ..... J AVOID SHARING RAZORS/BLADES . K AVOID KISSING ..... L AVOID MOSQUITO BITES ..... M SEEK PROTECTION FROM TRADITIONAL PRACTITIONER ... N  OTHER _____ X (SPECIFY) DON'T KNOW ..... Z																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
410	Is it possible for a healthy-looking person to have the AIDS virus?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
411	Do you know of a place where people can go to get tested for the virus that causes AIDS?	YES ..... 1 NO ..... 2	→ 413
412	Where is that?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND ADDRESS OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  PROBE: Any other place?  RECORD ALL SOURCES MENTIONED.  _____  _____ (NAME AND ADDRESS OF PLACE)	<b>GOVERNMENT</b> GOVERNMENT HOSPITAL ..... A GOVT. HEALTH UNIT ..... B VCT CENTER ..... C FAMILY PLANNING CLINIC ..... D MOBILE CLINIC ..... E OTHER GOVT. _____ F (SPECIFY) <b>NON GOVERNMENTAL</b> _____ G (SPECIFY) <b>PRIVATE MEDICAL</b> PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ..... H PHARMACY ..... I OTHER PRIVATE MEDICAL _____ J (SPECIFY) <b>OTHER NON-MEDICAL</b> _____ X (SPECIFY)	
413	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
414	If a member of your family became sick with the virus, that causes AIDS would you want it to remain a secret or not?	YES, REMAIN A SECRET ..... 1 NO ..... 2 DK/NOT SURE/DEPENDS ..... 8	
415	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES ..... 1 NO ..... 2 DK/NOT SURE/DEPENDS ..... 8	
416	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED ..... 1 SHOULD NOT BE ALLOWED ..... 2 DK/NOT SURE/DEPENDS ..... 8	
417	In the last 6 months have you heard, seen, or received any information about HIV/AIDS?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 501
418	Where did you hear or see that information?  PROBE: Anywhere else?  RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F HOME VISIT BY HEALTH WORKER G FACILITY-BASED HEALTH WORKER H HUSBAND ..... I OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... J OTHER _____ X (SPECIFY)	

SECTION 5. HEALTH CARE PROCEDURES AND SAFE INJECTIONS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	<p>Now I would like to ask about some health care procedures which you may have had. At any time in your life, have you ever had:</p> <p>Surgery?</p> <p>A blood transfusion?</p> <p>Dental treatment of any type (e.g., extraction, treatment for gum disease, filling)?</p>	<p style="text-align: right;">YES NO DK</p> <p>SURGERY ..... 1 2 8</p> <p>BLOOD TRANSFUSION ... 1 2 8</p> <p>DENTAL TREATMENT..... 1 2 8</p>	
502	<p>At anytime in your life, have you received an injection:</p> <p>To treat for schistosomiasis (bilharziasis)?</p> <p>For any other purpose?</p>	<p style="text-align: right;">YES NO DK</p> <p>SCHISTOSOMIASIS ..... 1 2 8</p> <p>OTHER PURPOSE ..... 1 2 8</p>	
503	<p>CHECK 502:</p> <p>EVER HAD INJECTION <input type="checkbox"/> NEVER HAD INJECTION <input type="checkbox"/></p>		509
504	<p>On any of the occasions in which you received an injection, was the same needle and syringe used to give an injection to someone else?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	
505	<p>Now I would like to ask you some questions about any injections you have had in the last six months. Have you had an injection for any reason in the last six months (including family planning or tetanus injections)?</p> <p>IF YES: How many injections have you had?</p> <p>IF NUMBER OF INJECTIONS IS GREATER THAN 95, OR DAILY FOR 3 MONTHS OR MORE, RECORD '95'.</p> <p>IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.</p>	<p>NUMBER OF INJECTIONS ... <input type="text"/> <input type="text"/></p> <p>NONE ..... 00</p>	509
506	<p>Among these injections, how many were administered by a doctor, a nurse, a pharmacist or a dentist, or any other health worker?</p> <p>IF NUMBER OF INJECTIONS IS GREATER THAN 95, OR DAILY FOR 3 MONTHS OR MORE, RECORD '95'.</p> <p>IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.</p>	<p>NUMBER OF INJECTIONS ... <input type="text"/> <input type="text"/></p> <p>NONE ..... 00</p>	509
507	<p>The last time you had an injection given to you by a health worker, where did you get the injection?</p> <p>IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC. WRITE THE NAME AND THE ADDRESS OF THE PLACE.</p> <p><b>PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</b></p> <p>_____</p> <p style="text-align: center;">(NAME AND ADDRESS OF PLACE)</p>	<p><b>HOME</b></p> <p>YOUR HOME ..... 1</p> <p>OTHER HOME ..... 2</p> <p><b>MINISTRY OF HEALTH AND POPULATION</b></p> <p>URBAN HOSP'L (GEN'L/DISTRICT) 3</p> <p>URBAN HEALTH UNIT ..... 4</p> <p>HEALTH OFFICE ..... 5</p> <p>RURAL HOSPITAL (COMPL'TARY) 6</p> <p>RURAL HEALTH UNIT ..... 7</p> <p>MCH CENTER ..... 8</p> <p>MOBILE UNIT ..... 9</p> <p><b>OTHER GOVERNMENTAL</b></p> <p>UNIVERSITY HOSPITAL ..... A</p> <p>TEACHING HOSPITAL ..... B</p> <p>HEALTH INSURANCE ORG. .... C</p> <p>CURATIVE CARE ORGANIZATION . D</p> <p>OTHER GOVERNMENTAL ..... E</p> <p><b>NON-GOVERNMENTAL ORGANIZATIONS</b></p> <p>EGYPTIAN FP ASSOC ..... F</p> <p>CSI PROJIECT ..... G</p> <p>OTHER NON-GOVERNMENTAL ... H</p> <p><b>PRIVATE MEDICAL</b></p> <p>PRIVATE HOSPITAL/ CLINIC ..... I</p> <p>PRIVATE DOCTOR ..... J</p> <p>DENTIST ..... K</p> <p>PHARMACY ..... L</p> <p>MOSQUE HEALTH UNIT ..... M</p> <p>CHURCH HEALTH UNIT ..... N</p> <p><b>OTHER NON-/MEDICAL</b></p> <p>_____ X</p> <p style="text-align: center;">(SPECIFY)</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
508	The last time you had an injection from a health worker did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8									
509	In the last 6 months have you heard, seen, or received any information about what people should do to be sure that injections are given safely?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	<input type="checkbox"/> → 511								
510	Where did you hear or see that information?  PROBE: Anywhere else?  RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZIN ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F HOME VISIT BY HEALTH WORKER ..... G FACILITY-BASED HEALTH WORKER ..... H HUSBAND/WIFE ..... I OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... J OTHER _____ X (SPECIFY)									
511	RECORD THE TIME.	HOUR ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> MINUTES ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>									
512	CHECK 106: AGREED TO MEASUREMENT <input type="checkbox"/> DID NOT AGREE TO MEASUREMENT <input type="checkbox"/>		<input type="checkbox"/> → 601								
513	May I measure your blood pressure at this time?  INTERVIEWER SIGNATURE _____ DATE _____  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">             RESPONDENT AGREES  <input type="checkbox"/>              ↓              RECORD OUTCOME OF BLOOD PRESSURE MEASUREMENT.           </div> <div style="text-align: center;">             RESPONDENT DOES NOT AGREES  <input type="checkbox"/>              ↓              RECORD 9994.           </div> </div>	<div style="border: 1px solid black; padding: 5px;"> <b>BLOOD PRESSURE MEASURED</b>               SYSTOLIC ..... 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>               DIASTOLIC ..... 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>REASON BLOOD PRESSURE NOT MEASURED</b>               REFUSED ..... 9994              TECHNICAL PROBLEMS ..... 9995              OTHER _____ 9996              (SPECIFY)           </div>									

SECTION 6. HEPATITIS C

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Now I would like to talk about something else. Have you ever heard the illness hepatitis C?	YES ..... 1 NO ..... 2	→ 610
602	In the last 6 months have you heard, seen, or received any information about hepatitis C?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 604
603	Where did you hear or see that information?  PROBE: Any other source?  RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F HOME VISIT BY HEALTH WORKER ..... G FACILITY-BASED HEALTH WORKER ..... H HUSBAND/WIFE ..... I OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... J OTHER ..... X (SPECIFY)	
604	How is hepatitis C spread from one person to another?  Please mention at least four ways that you know.  RECORD ALL MENTIONED.	HETEROSEXUAL SEX ..... A HOMOSEXUAL SEX ..... B <b>CONTACT WITH INFECTED PERSON'S BLOOD THROUGH:</b> TRANSFUSION ..... C UNCLEAN NEEDLES ..... D OTHER (E.G., RAZORS) ..... E CASUAL PHYSICAL CONTACT(S) (E.G., SHAKING HANDS, SHARING FOOD OR DRINK, ETC.) ..... F MOTHER-TO-CHILD TRANSMISSION ..... G MOSQUITO/OTHER INSECT BITE ... H OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
605	Were you ever told by a doctor or other health professional that you had a positive hepatitis C test?	YES ..... 1 NO ..... 2	→ 607
606	Have you ever been tested to see if you had the hepatitis C virus?	YES ..... 1 NO ..... 2	→ 610
607	How old were you when you were first told that you had a positive hepatitis C test?	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
608	Were you ever given or did you ever take anything to treat the hepatitis C?	YES ..... 1 NO ..... 2	→ 610
609	What treatment were you given?  RECORD ALL MENTIONED.	INTERFERON ..... A RIBAVIRIN ..... B LEGALON (SILYMARIN) ..... C (OTHER) HERBAL MEDICINE ..... D OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
610	Have you ever had either of the following:  Jaundice, that is, a yellowing of the skin or eyes?  Change in urine color, that is, dark urine?	YES NO DK JAUNDICE ..... 1 2 8 DARK URINE ..... 1 2 8	
610A	CHECK 610:  YES RECORDED IN Q610 FOR JAUNDICE AND/OR DARK URINE <input type="checkbox"/>  NO OR DON'T KNOW RECORDED FOR BOTH JAUNDICE AND DARK URINE <input type="checkbox"/>		→ 612



**SECTION 7. BLOOD PRESSURE, HEART DISEASE AND DIABETES**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																								
701	Have you ever been told by a doctor or other health professional that you had hypertension or high blood pressure?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	<input type="checkbox"/> → 704																								
702	Were you told on two or more different occasions by a doctor or other health professional that you had hypertension or high blood pressure?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																									
703	To lower your hypertension or high blood pressure, are you now: a. Taking prescribed medicine? b. Controlling your weight or losing weight? c. Cutting down on salt in your diet? d. Exercising? e. Stopping smoking?	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>N/A</td> </tr> <tr> <td>TAKE MEDICINE</td> <td>..... 1</td> <td>2</td> <td>3</td> </tr> <tr> <td>CONTROL WEIGHT</td> <td>..... 1</td> <td>2</td> <td>3</td> </tr> <tr> <td>CUT DOWN SALT</td> <td>..... 1</td> <td>2</td> <td>3</td> </tr> <tr> <td>EXERCISE</td> <td>..... 1</td> <td>2</td> <td>3</td> </tr> <tr> <td>STOP SMOKING</td> <td>..... 1</td> <td>2</td> <td>3</td> </tr> </table>		YES	NO	N/A	TAKE MEDICINE	..... 1	2	3	CONTROL WEIGHT	..... 1	2	3	CUT DOWN SALT	..... 1	2	3	EXERCISE	..... 1	2	3	STOP SMOKING	..... 1	2	3	
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STOP SMOKING	..... 1	2	3																								
704	Have you ever heard of an illness called diabetes or high sugar?	YES ..... 1 NO ..... 2	→ 709																								
705	(Other than during pregnancy), has a doctor or other health professional ever told you that you had diabetes?	YES ..... 1 NO ..... 2 DON'T KNOW/NOT SURE ..... 8	<input type="checkbox"/> → 709																								
706	How old were you when you were <u>first</u> told by a doctor or health professional that you had diabetes?	AGE IN COMPLETED YRS <input type="text"/> <input type="text"/>																									
707	Are you taking insulin at this time?	YES ..... 1 NO ..... 2	→ 709																								
708	Are you taking pills to lower your blood sugar?	YES ..... 1 NO ..... 2																									
709	Have you ever been told by a doctor or other health professional that you had had a heart attack or myocardial infarction?	YES ..... 1 NO ..... 2																									
710	Have you ever been told by a doctor or other health professional that you had had a stroke?	YES ..... 1 NO ..... 2																									

SECTION 8. AVIAN INFLUENZA

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. Have you ever heard the illness avian influenza?	YES ..... 1 NO ..... 2	→ 901
802	In the last 6 months have you heard, seen, or received any information about avian influenza?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 804
803	Where did you hear or see that information?  Anywhere else?  RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F HOME VISIT BY HEALTH WORKER ..... G FACILITY-BASED HEALTH WORKER ..... H HUSBAND/WIFE ..... I OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... J OTHER ..... X (SPECIFY)	
804	Do you know the symptoms of avian flu virus among poultry/birds?	YES ..... 1 NO ..... 2	→ 806
805	What are these symptoms?  RECORD ALL MENTIONED.	WEAKNESS ..... A FEVER ..... B DIARRHEA ..... C LOSS OF APPETITE ..... D BLOWZY IN THE FEATHERS ..... E NO EGG PRODUCTION ..... F CREST/WATTLE AND SKIN BLUE ..... G DISCHARGE FROM NOSE ..... H SUDDEN DEATH ..... I OTHER ..... X (SPECIFY)	
806	Do you know that ducks may have avian influenza but not look ill?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
807	Do you know what to do when birds have these signs of disease or die suddenly?	YES ..... 1 NO ..... 2	→ 809
808	There are several ways to deal with birds that appear to be sick or have died. Can you tell me about any ways that you know about?  RECORD ALL MENTIONED.	PUT IN SEALED PLASTIC BAG ..... A SUBMERGE IN DISINFECTANT ..... B BURN ..... C BURY ..... D CONTACT VETERINARY AUTHORITIES ..... E NOTIFY OTHER AUTHORITIES ..... F WARN OTHER PEOPLE ..... G OTHER ..... X (SPECIFY)	
809	Do you think that it is possible for humans to get avian influenza?	YES ..... 1 NO ..... 2	→ 811



NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
810	<p>Can you tell me about four or more ways that a person can get avian influenza?</p> <p>RECORD ALL MENTIONED.</p>	<p>CONTACT WITH SICK POULTRY/ BIRDS ..... A</p> <p>CONTACT WITH FECES FROM SICK POULTRY/BIRDS ..... B</p> <p>CONTACT WITH POULTRY/BIRDS THAT DIED FROM AVIAN FLU ... C</p> <p>EATING UNDERCOOKED EGGS EATING UNDERCOOKED POULTRY/BIRDS ..... D</p> <p>CONTACT WITH CONTAMINATED WATER ..... E</p> <p>CONTACT WITH PERSON WHO HAS AVIAN INFLUENZA ..... F</p> <p>OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW/NOT SURE Z</p>	
811	<p>There are several ways to reduce the likelihood of the spread of avian influenza. Can you tell me about four or more ways you know?</p> <p>RECORD ALL MENTIONED.</p>	<p>WASH HANDS AFTER CONTACT WITH POULTRY/BIRDS ..... A</p> <p>CHANGE AND WASH CLOTHES AFTER CONTACT WITH POULTRY B</p> <p>WEAR FACE MASK WHEN IN CONTACT WITH POULTRY C</p> <p>WEAR GLOVES/PLASTIC BAGS WHEN HANDLING POULTRY D</p> <p>DO NOT LET CHILDREN HANDLE POULTRY/BIRDS ..... E</p> <p>DO NOT LET CHILDREN HANDLE POULTRY/BIRDS' EGGS ..... F</p> <p>DO NOT LET CHILDREN TOUCH/ PLAY WITH FECES/FEATHERS FROM POULTRY/BIRDS . G</p> <p>DO NOT EAT UNDERCOOKED POULTRY/BIRDS ..... H</p> <p>DO NOT EAT UNDERCOOKED EGGS ..... I</p> <p>DO NOT EAT BIRDS THAT FALL DEAD ..... J</p> <p>OTHER _____ X (SPECIFY)</p>	
812	<p>Do you know the symptoms of avian flu virus among humans?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	→ 816
813	<p>What are these symptoms?</p> <p>RECORD ALL MENTIONED.</p>	<p>FEVER ..... A</p> <p>GENERAL MAILAISE ..... B</p> <p>SORE THROAT ..... C</p> <p>RED EYES/EYE INFECTION (CONJUNCTIVITIS) ..... D</p> <p>COUGHING ..... E</p> <p>CHEST PAIN ..... F</p> <p>DIFFICULTY BREATHING ..... G</p> <p>DEATH ..... H</p> <p>OTHER _____ X (SPECIFY)</p>	
814	<p>How soon would you seek medical care if a child had any of these symptoms?</p>	<p>NUMBER OF DAYS ..... <input type="text"/> <input type="text"/></p> <p>IMMEDIATELY ..... 95</p> <p>DON'T KNOW/NOT SURE ..... 98</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
815	How soon would you seek medical care if an adult had any of these symptoms?	NUMBER OF DAYS ..... <input type="text"/> <input type="text"/> IMMEDIATELY ..... 95 DON'T KNOW/NOT SURE ..... 98	
816	Do you think it is possible for humans to die from avian influenza?	YES ..... 1 NO ..... 2	
817	Have you been involved in any of the following types of activities in the last month: a. Breeding or handling poultry/birds? b. Slaughtering poultry/other types of birds?	YES NO BREEDING ..... 1 2 SALUGHTERING ..... 1 2	
818	How do you know that poultry is fully cooked? PROBE: What else? RECORD ALL MENTIONED.	JUICE RUNS CLEAR ..... A NO VISIBLE PINK MEAT ..... B INTERNAL TEMPERATURE 85° ..... C OTHER ..... X (SPECIFY)	
819	How do you know that eggs are fully cooked? RECORD ALL MENTIONED.	COOK UNTIL YOLK NO LONGER RUNNY ..... A OTHER ..... X (SPECIFY)	
From what you have seen or heard about avian influenza, I would like you to give your opinions about the following			
820	For a person who becomes infected, would it be extremely dangerous, somewhat dangerous, not very dangerous or not dangerous at all?	EXTREMELY DANGEROUS ..... 1 SOMEWHAT DANGEROUS ..... 2 NOT VERY DANGEROUS ..... 3 NOT DANGEROUS AT ALL ..... 4 DON'T KNOW ..... 8	
821	Is it very likely, somewhat likely or not very likely or not likely at all that you or a member of your family might become infected with avian influenza?	EXTREMELY DANGEROUS ..... 1 SOMEWHAT DANGEROUS ..... 2 NOT VERY DANGEROUS ..... 3 NOT DANGEROUS AT ALL ..... 4 DON'T KNOW ..... 8	
822	Are you extremely confident, somewhat confident, not very confident or not at all confident that the spread of avain influenza can be prevented?	EXTREMELY CONFIDENT ..... 1 SOMEWHAT CONFIDENT ..... 2 NOT VERY CONFIDENT ..... 3 NOT CONFIDENT AT ALL ..... 4 DON'T KNOW ..... 8	
823	Are you extremely confident, somewhat confident, not very confident or not at all confident that you can protect yourself and your family from becoming infected?	EXTREMELY CONFIDENT ..... 1 SOMEWHAT CONFIDENT ..... 2 NOT VERY CONFIDENT ..... 3 NOT CONFIDENT AT ALL ..... 4 DON'T KNOW ..... 8	

SECTION 9. SMOKING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Do you currently smoke cigarettes?	YES ..... 1 NO ..... 2	→ 903
902	In the last 24 hours, how many cigarettes did you smoke? IF DIDN'T SMOKE DURING THE LAST 24 HOURS RECORD '00'	CIGARETTES ..... <input type="text"/> <input type="text"/>	
903	Do you currently smoke or use any other type of tobacco?	YES ..... 1 NO ..... 2	→ 905
904	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE ..... A CHEWING TOBACCO ..... B SNUFF ..... C ROLLED CIGARETTES ..... D WATER PIPE ..... E OTHER ..... X (SPECIFY)	
905	Does anyone else in your household currently smoke cigarettes or use any other type of tobacco?	YES, CIGARETTES ..... 1 YES, OTHER TOBACCO ..... 2 YES, BOTH ..... 3 NO ..... 4	
906	In the last 6 months have you heard, seen, or received any information about the health effects of second-hand smoke (that is, exposure to direct smoke from smokers)?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 908
907	Where did you hear or see that information? Anywhere else? RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F HOME VISIT BY HEALTH WORKER ..... G FACILITY-BASED HEALTH WORKER ..... H HUSBAND/WIFE ..... I OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... J OTHER ..... X (SPECIFY)	
908	RECORD THE TIME.	HOUR ..... <input type="text"/> <input type="text"/> MINUTES ..... <input type="text"/> <input type="text"/>	
909	CHECK 106 AND 512: AGREED TO BOTH MEASUREMENTS <input type="checkbox"/>	OTHER <input type="checkbox"/>	→ 1008
910	May I measure your blood pressure at this time?  INTERVIEWER SIGNATURE _____ DATE _____  RESPONDENT AGREES <input type="checkbox"/> ↓ RECORD OUTCOME OF BLOOD PRESSURE MEASUREMENT.  RESPONDENT DOES NOT AGREE <input type="checkbox"/> ↓ RECORD 9994.	BLOOD PRESSURE SYSTOLIC ..... 1 <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC ..... 2 <input type="text"/> <input type="text"/> <input type="text"/>  <b>REASON BLOOD PRESSURE NOT MEASURED</b> REFUSED ..... 9994 TECHNICAL PROBLEMS ..... 9995 OTHER ..... 9996 (SPECIFY)	

SECTION 10. AVERAGING BLOOD PRESSURE MEASURES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	CHECK Q512 AND Q908.  SYSTOLIC <u>AND</u> <input type="checkbox"/> DIASTOLIC BLOOD PRESSURE RECORDED IN BOTH Q513 AND Q910	SYSTOLIC <u>AND</u> DIASTOLIC BLOOD PRESSURE MEASURES NOT RECORDED IN BOTH Q513 AND Q910 <input type="checkbox"/>	→ 1007
1002	RECORD AND CALCULATE THE AVERAGE OF THE SYSTOLIC AND DIASTOLIC BLOOD PRESSURE FROM Q513 AND Q910.		
1003	BLOOD PRESSURE MEASUREMENTS FROM Q513	SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	
1004	BLOOD PRESSURE MEASUREMENTS FROM Q910	SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	
1005	RECORD THE SUM OF THE SYSTOLIC AND DIASTOLIC MEASURES.	SUM SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> SUM DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	
1006	CALCULATE THE AVERAGE SYSTOLIC AND DIASTOLIC PRESSURES BY THE SUM IN Q1005 BY 2.	AVERAGE SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> AVERAGE DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	→ 1011
1007	CHECK Q910:  SYSTOLIC <u>AND</u> <input type="checkbox"/> DIASTOLIC BLOOD PRESSURE NOT RECORDED IN Q910	BOTH SYSTOLIC <u>AND</u> DIASTOLIC BLOOD PRESSURE RECORDED IN Q910 <input type="checkbox"/>	→ 1010
1008	CHECK Q513:  SYSTOLIC <u>AND</u> <input type="checkbox"/> DIASTOLIC BLOOD PRESSURE NOT RECORDED IN Q513	BOTH SYSTOLIC <u>AND</u> DIASTOLIC BLOOD PRESSURE RECORDED IN Q513 <input type="checkbox"/>	→ 1010
1009	CHECK Q108C:  SYSTOLIC <u>AND</u> <input type="checkbox"/> DIASTOLIC BLOOD PRESSURE RECORDED IN Q108C	BOTH SYSTOLIC <u>AND</u> DIASTOLIC BLOOD PRESSURE <u>NOT</u> RECORDED IN Q108C <input type="checkbox"/>	→ 1013
1010	RECORD THE SYSTOLIC AND DIASTOLIC PRESURE.	SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																							
1011	<p>USE THE TABLE BELOW TO DETERMINE THE CORRECT CODE TO RECORD ON THE BLOOD PRESSURE REPORT AND REFERRAL FORM.</p> <p>CIRCLE THE <b>ROW</b> IN WHICH THE VALUE FOR THE <b>SYSTOLIC</b> BLOOD PRESSURE FROM Q1006 OR Q1010 IS FOUND.</p> <p>THEN CIRCLE THE <b>COLUMN</b> IN WHICH THE VALUE FOR THE <b>DIASTOLIC</b> BLOOD FROM Q1006 OR Q1010 IS FOUND.</p> <p>THE VALUE WHERE THE ROW AND COLUMN YOU HAVE CIRCLED INTERSECT IN THE TABLE WILL BE USED IN COMPLETING Q1012.</p> <table border="1"> <thead> <tr> <th rowspan="2">AVERAGE SYSTOLIC PRESSURE</th> <th colspan="6">AVERAGE DIASTOLIC PRESSURE</th> </tr> <tr> <th>&lt;84</th> <th>85-89</th> <th>90-99</th> <th>100-109</th> <th>110-119</th> <th>≥ 120</th> </tr> </thead> <tbody> <tr> <td>&lt;130</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>130-139</td> <td>2</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>140-159</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>160-179</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>180-209</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>6</td> </tr> <tr> <td>≥ 210</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> </tr> </tbody> </table>	AVERAGE SYSTOLIC PRESSURE	AVERAGE DIASTOLIC PRESSURE						<84	85-89	90-99	100-109	110-119	≥ 120	<130	1	2	3	4	5	6	130-139	2	2	3	4	5	6	140-159	3	3	3	4	5	6	160-179	4	4	4	4	5	6	180-209	5	5	5	5	5	6	≥ 210	6	6	6	6	6	6		
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≥ 210	6	6	6	6	6	6																																																				
1012	<p>RECORD THE NUMBER YOU CIRCLED IN Q1011 IN THE CHART BELOW. THEN USE THE INSTRUCTIONS TO THE RIGHT OF THAT NUMBER TO COMPLETE A BLOOD PRESSURE REPORT AND REFERRAL FORM FOR THE RESPONDENT. GIVE THE FORM TO THE RESPONDENT AND ANSWER ANY QUESTIONS HE/SHE MAY HAVE.</p> <table border="1"> <thead> <tr> <th></th> <th>RESPONDENT'S BLOOD PRESSURE CATEGORY</th> <th>CONSULT HEALTH PROVIDER TO CHECK BLOOD PRESSURE <u>WITHIN</u>:</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NORMAL</td> <td><b>24 MONTHS</b></td> </tr> <tr> <td>2</td> <td>AT THE HIGH END OF THE NORMAL RANGE</td> <td><b>12 MONTHS</b></td> </tr> <tr> <td>3</td> <td>ABOVE NORMAL RANGE</td> <td><b>2 MONTHS</b></td> </tr> <tr> <td>4</td> <td>MODERATELY HIGH</td> <td><b>1 MONTH</b></td> </tr> <tr> <td>5</td> <td>VERY HIGH</td> <td><b>7 DAYS</b></td> </tr> <tr> <td>6</td> <td>EXTREMELY HIGH</td> <td><b>TODAY</b></td> </tr> </tbody> </table>		RESPONDENT'S BLOOD PRESSURE CATEGORY	CONSULT HEALTH PROVIDER TO CHECK BLOOD PRESSURE <u>WITHIN</u> :	1	NORMAL	<b>24 MONTHS</b>	2	AT THE HIGH END OF THE NORMAL RANGE	<b>12 MONTHS</b>	3	ABOVE NORMAL RANGE	<b>2 MONTHS</b>	4	MODERATELY HIGH	<b>1 MONTH</b>	5	VERY HIGH	<b>7 DAYS</b>	6	EXTREMELY HIGH	<b>TODAY</b>																																				
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1013	<p>CHECK THAT THE HOUSEHOLD HAS RECEIVED A BROCHURE ON BLOOD PRESSURE.</p> <p>THANK THE RESPONDENT AND ADVISE THAT THE RESPONDENT OR OTHER MEMBERS OF THE HOUSEHOLD MAY BE ASKED TO PARTICIPATE AGAIN IN INTERVIEWS OR OTHER SURVEY ACTIVITIES IN THE FUTURE.</p> <p>Thank you for taking the time to answer these questions. We may return to interview you or other members of your household again or to ask you to participate in other survey activities in the future. We hope that you will agree at that time.</p>																																																									

OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

1101 INTERVIEWER'S OBSERVATIONS

COMMENTS ABOUT RESPONDENT:

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COMMENTS ON SPECIFIC QUESTIONS:

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ANY OTHER COMMENTS:

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1102 SUPERVISOR'S OBSERVATIONS

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NAME OF SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

1103 EDITOR'S OBSERVATIONS

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NAME OF EDITOR: \_\_\_\_\_ DATE: \_\_\_\_\_

