

# The Food, Fuel, and Financial Crises Affect the Urban and Rural Poor Disproportionately: A Review of the Evidence<sup>1,2</sup>

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## Abstract

The vulnerability of the urban poor to the recent food and fuel price crisis has been widely acknowledged. The unfolding global financial crisis, which brings higher unemployment and underemployment, is likely to further intensify this vulnerability. This paper reviews the evidence concerning the disproportionate vulnerability of the urban compared with the rural poor to these types of shocks. It reviews some of the unique characteristics of urban life that could make the urban poor particularly susceptible to price and financial shocks and summarizes the evidence regarding the disproportionate vulnerability of the urban poor. The focus is on impacts on poverty, food insecurity, and malnutrition. The review shows that although the urban poor are clearly one of the population groups most affected by the current (and previous) crises, the rural poor, landless, and net buyers are in no better position to confront the crisis without significant suffering. The poorest of the poor are the ones who will be most affected, irrespective of the continent, country, or urban or rural area where they live. The magnitude and severity of their suffering depends on their ability to adapt and on the specific nature, extent, and duration of the coping strategies they adopt. A better understanding of how these coping strategies are used and staggered is critical to help design triggers for action that can prevent households from moving to more desperate measures. Using these early coping strategies as early warning indicators could help prevent dramatic losses in welfare. *J. Nutr.* 140: 170S–176S, 2010.

## Introduction

When the global financial crisis started to unfold in late 2008, governments, development agencies, and donors were in the midst of crafting an appropriate response to the severe food and fuel price crisis that hit the world in 2007–2008. Although the

food/fuel price and financial crises stem from different causes, their potentially devastating impacts on poverty, food insecurity, and malnutrition are similar and likely to exacerbate each other. The 2 crises are closely intertwined and their effects will be cumulative and will most likely affect the same segments of the population: the poor, the landless, the net food buyers (who spend more on food than they produce), and the vulnerable female-headed households (1–3). These characteristics closely match those of the urban poor, who are generally net food buyers, rely on income for their food security, spend a large proportion of their total budget on food, and have little access to agriculture or land to fall back on for increasing their food access in times of economic hardship. The vulnerability of the urban poor has indeed been recognized in many speeches, declarations, and global plans of action aimed at addressing the recent food price crisis (4,5). The unfolding global financial crisis, which brings higher unemployment and underemployment, will further intensify this vulnerability.

This paper reviews the evidence concerning the disproportionate vulnerability of the urban compared with the rural poor to the types of shocks (price and financial) that have hit the world in the past 2 y. First, we review some of the unique characteristics of the urban poor that make them particularly

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susceptible to the negative effects of these types of shocks and then we summarize the evidence from the recent food price crisis and from previous economic crises regarding the vulnerability of the urban poor and the coping strategies they adopt. The focus is on how the urban poor may be disproportionately affected by the food price and financial crises as measured by a deepening of poverty, food insecurity, and maternal and child undernutrition. Understanding these vulnerabilities is critical for crafting and targeting an appropriate policy response.

### The sources of vulnerability among the urban poor

In previous publications, we described a series of “urban facts of life” or the characteristics that define urban livelihoods and the ways in which the urban poor achieve household and individual food, nutrition, and health security (6–8). Here, we briefly summarize a subset of these, namely the characteristics that are most likely to be affected by the current food and financial crises and to result in greater vulnerability among the urban poor. These include: 1) a greater reliance on cash income (and hence employment and labor markets) for food and nonfood purchases; 2) a limited access to urban agriculture or to land in rural areas; 3) the greater labor force participation of women outside the home, with potential consequences for child care; 4) the greater availability of services but larger inequalities in access; and 5) the changes in lifestyle and consumption patterns associated with the nutrition transition.

We use a conceptual framework adapted from the UNICEF framework of the determinants of malnutrition (Fig. 1). As is true in both urban and rural areas, child nutrition is ensured by adequate food, health, and care. Where urban households face a different set of constraints compared with rural households is in how they acquire access to food and how their livelihoods and the availability of, and their access to, public services affect their child caring, feeding, and health-seeking capability.

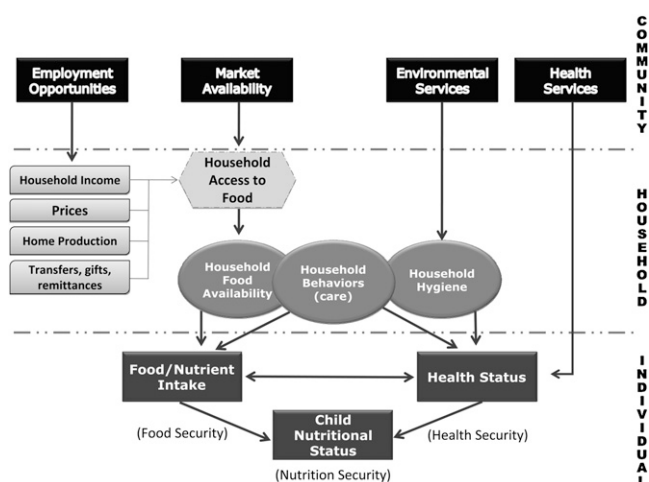
**Greater reliance on cash income.** Urban dwellers are dependent on cash income for food purchases as well as for all their other basic needs, such as fuel, water, sanitation, housing, transport, and other services. Unlike their rural counterparts, they usually cannot fall back on agriculture production for food and/or income in the short term and they often have no access to land at all. Globally, FAO estimates that 97% of urban residents are net food buyers compared with 75% of rural dwellers (net buyers are defined as households for whom the value of the food

they produce is less than the value of the food they consume) (4). Although many rural residents are net food buyers, the proportion of food they purchase is generally much lower than for urban residents. For instance, in metropolitan areas as diverse as Maputo (Mozambique), Lima (Peru), Katmandu (Nepal), and Lilongwe (Malawi), city dwellers buy >90% of their food, whereas the percentages for rural residents vary between 29% in Mozambique and 58% in Peru (7). In a recent analysis, Ahmed et al. (2) also showed that in 12 of the 14 countries analyzed, urban households living on <\$1/d spent more than one-half of their budgets on food, with food budget shares ranging from 48% in Guatemala to 74% in Tajikistan.

This heavy reliance on the cash economy makes urban dwellers particularly vulnerable to price and income changes. Employment is thus particularly important for urban households to achieve food security. When hit with the recent food price crisis, for instance, one of the potential coping mechanisms for poor households is to put more family members on the job market such as previously unemployed women, or children who would otherwise be going to school (4). With the financial crisis, this coping strategy is likely to be jeopardized by the rapid decline in formal employment opportunities. Informal sector jobs, which in many urban centers represent the largest employment opportunities for the poor and unskilled (e.g. representing 60–75% of urban employment in Guatemala, El Salvador, and Honduras) (9) are also likely to become even more insecure and unreliable in times of crises. Women, who often dominate the informal sector, could be one of the main victims.

**Limited access to urban agriculture or to land in rural areas.** Agriculture, forestry, fishing, and small animal raising can be important sources of income and food for urban dwellers, especially outside large metropolitan areas (10). Urban agriculture is practiced by as much as 40% of the population in African cities and up to 50% in Latin America (11,12). Even where widely practiced, urban agriculture is rarely the primary source of food and poor urban households usually rely on production from their plots for only a few months each year (13). Still, urban agriculture can be an important coping strategy for some households, especially when food prices increase. And, depending on the products, they can also be an important source of high-quality, micronutrient-rich foods for the family if consumed rather than sold (e.g. fruit, vegetables, eggs, or dairy). City residents may also maintain their links with rural areas and seek seasonal jobs in the countryside. In many countries, households that have moved to the cities for the long term may still keep close ties to their former rural homes as a hedge against bad economic times or political instability (14,15).

**Greater labor force participation of women and implications for child care.** There is a general perception that women living in urban areas are more likely to engage in income-generating activities outside the home than rural women. Our previous analysis of Demographic and Health Surveys showed that the main difference between urban and rural areas was not the rate of women’s employment (which was roughly 50% in both areas) but rather the fact that urban mothers were much less likely to take their child to their place of work than rural women (6). This is likely due to the types of work women engage in: agriculture in rural areas and factory, market, or street work in urban areas, which may be either unsafe or unsuitable for bringing the child along. Given these circumstances, the net impact of urban women’s engagement in paid work on child well-



**FIGURE 1** Conceptual framework of the determinants of food, nutrition, and health security in urban areas.

being will depend on the quality of the substitute child care they are able to secure. Little information is available on the type and quality of childcare used by working women and this issue thus remains poorly understood. Evidence suggests, however, that women's employment and child care decisions are highly influenced by the age of their youngest child (16) and that mothers adapt their working patterns to the needs of their young children.

Evidence regarding the impact of maternal work on child care and feeding practices is inconclusive. Rates of breast-feeding initiation (>90%) and of exclusive breast-feeding are similar between urban and rural areas, but breast-feeding duration is 4–6 mo shorter in urban areas (7). Globally, there is also little evidence that maternal employment has a negative impact on complementary feeding, preventive and curative health-seeking behaviors, and psychosocial care or on child health and nutrition (17–19). In fact, our recent analysis of 36 Demographic and Health Survey data sets showed that complementary feeding practices (timing and frequency of feeding complementary foods) and health-seeking behaviors were substantially better in urban compared with rural areas (20).

Overall, the evidence suggests that mothers are generally efficient at combining their income-generating activities and their child care responsibilities and at buffering the potentially negative impacts of their employment patterns on their children's well-being. Clearly, the question is, at what cost for themselves and for their household's food and livelihood security? This question remains largely unanswered and depends on women's access to the resources that support their participation in the labor force. With less access to extended family networks, urban women may have more limited options in that regard.

**Greater availability of services but larger inequalities in access.** Public sector health, water, sanitation, and garbage disposal services are usually more readily available in urban than in rural areas (21) and the use of health services for both curative and preventive services is generally higher in urban areas (22). This is reflected in higher immunization rates and consistently better nutritional status among urban compared with rural children (20,22). These simple urban/rural comparisons, however, mask the enormous differentials found within areas and especially between socioeconomic groups within urban areas. Pockets of under-covered populations exist in poor shanty towns and these are also the populations who experience the greatest health risks. Children from the poorest socioeconomic quintile in urban areas, for instance, have stunting rates as high as those found among poor rural children (23).

**Changes in lifestyle and consumption patterns associated with the nutrition transition.** Globalization, rapid urbanization, and economic development have been accompanied by a nutrition transition characterized by major shifts in food consumption and physical activity patterns (24). With rising incomes, urban populations are moving away from staple cereal-based diets to diets containing excessive amounts of energy, saturated fats, refined sugars, and salt (25). Combined with a sedentary lifestyle, urban dwellers are at increased risk of obesity and associated chronic diseases, including coronary heart diseases, diabetes, and some types of cancer.

The corresponding changes in dietary patterns affect not only long-term health but also the ways in which price changes impact urban poor people. For example, urban residents tend to consume greater amounts of rice and wheat (consumed mainly as bread) compared with sorghum, millet, maize, and root crops as in rural areas. Rice and wheat, along with maize, tend to be

internationally traded food items, whereas roots and tubers such as cassava are usually not traded. This means that poor urban people are more vulnerable than poor rural residents to variations in the international market. With increased female employment and related time constraints, urban dwellers also increase their consumption of street foods or processed, ready-to-eat foods. Street foods typically become more popular when food and cooking fuel prices rise, because their price usually goes up more slowly as a result of economies of scale of production and they can be purchased in small amounts. Street foods are often prepared in precarious sanitary conditions and can result in food-borne diseases. They also often contain unhealthy levels of energy, saturated fats, salt, and refined sugars (26,27), which further increases the risks of obesity and chronic diseases among urban populations.

### **What is the evidence regarding the differential impact of the recent food price and previous economic crises on the urban poor?**

Given the recent onset of the 2007–2008 food price crisis, little empirical evidence exists at this point on its impact on poverty, food security, and nutrition. Much of the information available comes from simulation exercises or from analyses of previous crises. In this section, we summarize the available evidence of the impact of the recent food price crisis and of previous economic crises on poverty, food insecurity, and maternal and child nutrition in urban areas. Impacts of the crisis on child mortality, malnutrition, and vitamin A deficiency are discussed in other papers in this supplement.

**Impacts on poverty.** The poverty impacts of the 2007–2008 food price crisis have been estimated mostly using cross-country simulations (28–31) and country assessments using existing data (32–34). The results of a simulation conducted for 11 countries investigate the effects of a 10% increase in the price of food staples on welfare changes by urban and rural residence and expenditure quintile (4,29). The most consistent result is that the poorest households and those with the fewest means to cope are the hardest hit, irrespective of the country, region, or area (urban/rural) where they live. Female-headed households also suffer a larger proportional decline in welfare than male-headed households, probably because they are often poorer to start with and they tend to spend proportionally more on food. Other simulation exercises corroborate the key findings of greatest vulnerability among the poorest households (28,30,31). Overall, the simulations highlight the following households as the most vulnerable: poorest, urban, nonfarm, larger, less educated, and less well served by infrastructure, and, within the rural sector, households with limited access to land and modern agriculture inputs (35).

Individual country analyses for Uganda, Mozambique, and Pakistan also came to similar conclusions. In Uganda (32), the urban poor are thought to suffer more from the high food price crisis, but the authors pointed to the high percentage of rural poor who are also net buyers in this country (60.5%), as in many parts of Africa. They noted that rural net buyers may have a certain advantage in the mid-term compared with urban net buyers, because they may be able to make some adjustments in their level of production and change the balance of their purchasing compared with producing food. In the short term, however, both urban and rural net buyers are likely to be equally affected. In Mozambique (33), urban households were more vulnerable to food price increases, whereas rural net seller households were likely to benefit, particularly those in the

middle of the income distribution. The study estimated that urban poverty rose by 8 percentage point as a result of higher fuel and food prices and the authors noted that in Mozambique, high fuel prices are likely to have a greater impact on poverty than food price increases. In Pakistan (34), the food price crisis resulted in much greater increases in poverty in urban (44.6%) than in rural (32.5%) areas.

#### *Impacts on food security and food consumption patterns.*

Previous experience shows that when food price or income shocks occur, poor households adopt a series of food and nonfood coping strategies to protect their basic needs; in this context, maintaining their energy consumption level is one of their most fundamental concerns. The extent to which food security, in terms of quantity (energy) and quality (micronutrient), will be affected thus depends on the nature, frequency, and intensity of the coping strategies households adopt. As is the case for poverty effects, the poorer the households at the onset, the less margin they have for making adjustments and adopting successful coping strategies and, therefore, the most likely they are to suffer. With rapid food price increases, the poor will have no choice but to increase their spending on food, thereby reducing their purchasing power for other basic needs. To minimize the impacts on their overall welfare, they will adopt a series of food- and nonfood-based coping strategies. Examples of food-based coping strategies include the following:

- Switch to cheaper, often less preferred or lower quality staples to protect energy intake.
- Buy less food, skip meals, or reduce overall food intake. This strategy results in declines in household food security and related reductions in energy, protein, and micronutrient availability and intakes and increases the risks of undernutrition and micronutrient deficiencies, especially among the most vulnerable household members (women and young children).
- Decrease intake of nonstaple foods. Nonstaple foods, which include animal source foods such as meat, eggs, and dairy, are the greatest sources of bioavailable micronutrients. These foods are more expensive and, along with fruit and vegetables, they are usually the first foods to be dropped, or to be consumed in smaller amounts, when food prices go up. The consequence is poorer diet quality and increased risk of micronutrient deficiencies among all family members and more specifically among those with higher requirements such as women of reproductive age and infants and young children.
- Eat out or increase consumption of street foods. When both food and fuel prices increase as they did during the 2007–2008 crisis, households often turn to street foods, which can be a cheap source of energy and a time saver. Street foods are also a time saver for families where women have taken up employment outside the home as a result of economic hardship.
- Use different ingredients and cooking methods. These strategies usually involve using less animal source foods or vegetables and substituting with nonnutritious spices and artificial flavor (e.g. bouillon cubes, etc.) to preserve flavor. Consumption of cakes made from salt, oil, and mud in Haiti are an extreme example. Again, these substitutions result in decreased dietary diversity and quality.
- Modify intra-household allocation of resources. Previous crises have shown that mothers often act as a buffer for their children by eating less and keeping the high-quality foods for

their husband and children (36). These coping strategies can have particularly detrimental effects on women's own nutritional status and that of their newborn child if they limit their food intake (and/or decrease the quality of their diet) during pregnancy.

Clearly, these coping strategies, although necessary and useful for the poor to weather the crisis, are all likely to result in significant losses in household food security, both from quantity (energy) and quality (micronutrients) points of view. Depending on how families reallocate resources internally, mothers and sometimes children may suffer short-term nutritional and health effects. For newborn infants and young children, these nutrition and health effects may result in long-term, irreversible development and cognitive damage, which, in turn, are likely to reduce their educational attainment and future economic productivity (37).

Nonfood coping strategies include increasing agriculture production (for households who have access to land); increasing income through child labor or increased women's work, a strategy that may be jeopardized by the current financial crisis and the resulting dramatic drop in employment opportunities; and reducing spending on nonfood needs such as education, child care, health care, shelter, water and sanitation, and other basic needs. The danger of many of these strategies, especially those that involve reducing investments in children's health, nutrition, and education, is that they can have potentially devastating long-term impacts on a country's economic development and human capital formation. At the household level, these strategies will perpetuate the inter-generational transmission of poverty.

As was the case for poverty estimates, the evidence regarding the impact of the recent food price crisis on household-level energy consumption and coping strategies comes from cross-country simulations and information from previous crises.

A cross-country simulation analysis of 4 Latin American countries (38) shows no clear divide between urban and rural areas in terms of energy reduction from the food price crisis. In Guatemala and, to a lesser extent Ecuador, urban households had greater reductions than rural households in energy due to the food price crisis, whereas Nicaragua and Honduras showed no difference and greater decreases in rural households, respectively. Also consistent with the poverty results, impacts on food security show that poorer households are systematically hit the hardest. In the 4 Latin American countries, the poorest income quintiles experienced reductions in household energy availability between 1256 and 1675 kJ/adult equivalent. Given that households from the 2 lowest income quintiles in these countries were already below the 10,572 kJ/adult equivalent (AEQ) adequacy threshold before the crisis, these drops in energy availability can have considerable impacts on hunger and malnutrition. Interestingly, the simulations also show relatively large increases in energy consumption among the highest income quintiles in urban areas of 3 of the countries: Honduras (+3559 kJ/AEQ), Nicaragua (+3450 kJ/AEQ), and Guatemala (+1997 kJ/AEQ). This is probably the result of substitutions toward cheaper, more energy-dense foods such as street foods or fast foods. Given that households from the highest income quintile were already well above the 10,572 kJ/AEQ threshold before the crisis (i.e. between 11,241 kJ in Ecuador and 14,980 kJ in Nicaragua), these changes are likely to further increase their risks of obesity and related chronic diseases as they make adjustment to their diets to cope with the high food prices. These results suggest that there are really no winners from the food price crisis in these Latin American countries in terms of food

security. The poor cannot maintain their energy levels, which are often low to start with, and also lose in terms of diet quality. The wealthier households, on the other hand, end up consuming excess energy to compensate for the loss in diet quality. The result is likely to be an increase in the proportion of the population suffering from the double burden of malnutrition, i.e. the coexistence of micronutrient malnutrition and obesity and other diet-related chronic diseases risks (39).

Other evidence from the 2007–2008 crisis comes from field observations (40) and from rapid appraisals conducted by the World Food Programme. Results confirm that both urban and rural households have quickly adopted several of the food-based coping strategies described above, such as purchasing cheaper, less preferred, and a smaller variety of food and consuming smaller portions and skipping meals, despite spending increasingly large proportions of their income on food. In Nepal, the extreme poor spend 73% of their total income on food compared with 49% among wealthier households (41). With the crisis, households report adopting a series of food-based coping strategies such as borrowing money (80%), relying on less expensive food (80%), spending savings on food (60%), and reducing portions or number of meals (40%). Less frequently used strategies include collecting wild foods, skipping whole days without eating, and collecting and selling forest products. Households also report adopting a series of nonfood coping strategies such as migrating, selling assets, taking children out of school, begging, and selling land.

Evidence from previous crises such as the financial crisis in Indonesia in 1997–1998 and the devaluation of the African Financial Community Franc in 1994 tell a similar story: the extreme poor, especially the net food consumers who are highly concentrated in urban areas, suffered disproportionately (42). Consumers in 4 urban centers of West Africa, e.g., maintained a constant consumption and spent a greater proportion of their budget on staple foods (43) and decreased their consumption of micronutrient-rich foods such as meat, dairy products, eggs, fruit, and vegetables. As noted by the authors, the result was an alarming de-diversification of diets, especially among the poorest. Several cost-saving strategies were reported in Brazzaville (Republic of Congo) and Dakar (Senegal) in meal preparation, frequency, and composition. The cultural practice of sharing food with relatives and guests also declined (44). Increased use of informal restaurants was seen as an important mechanism to regain some diversity in the diet. This often manifested itself in “individualization” of consumption patterns, meaning that this approach was used by some members of the household, such as household heads, rather than the household as a whole (43). In Indonesia, per capita energy availability during the 1997–1998 crisis declined from 8323 kJ to 7704 kJ, with greater declines among poorer (9.6% decline) than wealthier (4.2% decline) households. Again, the share of energy from cereals (mainly rice) remained constant, whereas the share from fish, meat, eggs, dairy, and fruit declined (45). Urban poor and rural landless women were disproportionately affected by the crisis compared with richer women and rural women with access to rice fields (46).

**Impacts on maternal and child health and nutrition.** Experience from previous crises shows that the food-based coping strategies that poor households adopt to weather financial and food price shocks do lead to increases in maternal and child malnutrition and especially micronutrient malnutrition as households tend to sacrifice dietary quality over quantity (42,47–49). The degree to which children are affected depends

largely on the capacity and willingness of households to buffer the shocks and maintain a child-favorable allocation of resources for food, health, and care. Households in desperate conditions may not be able to do so and may have to disinvest in their children and reduce expenditures on health care, child care, and special foods to address children’s needs or even adopt extreme measures such as sending some of their children to other relatives or giving them away for adoption.

Evidence from urban areas of West Africa following the African Financial Community Franc devaluation point to the adoption of some of these child disinvestment behaviors among the poor. Although breast-feeding patterns and the timing of introduction of complementary foods were generally unaffected by the crisis, the quality of complementary foods given to children declined. Poor families decreased their use of specially formulated complementary foods (such as imported fortified flours) and switched to less nutritious local gruels containing lower micronutrient and energy density (50,51). The authors reported that mothers tried to introduce their children to the family diet as early as possible in an effort to save both time and money. There was also a reduction in utilization of routine preventive health care, such as growth monitoring and immunization, which the authors attributed to a decreased capacity or willingness of mothers to take their children to health centers. These changes in feeding practices and use of health services can quickly precipitate malnutrition in young children who are excessively vulnerable to protein/energy and micronutrient malnutrition and to infectious diseases. In fact, there was evidence of deterioration in maternal and child nutritional status during this period; height-for-age and weight-for-age in children dropped by about 0.20 Z-scores, BMI in mothers decreased by  $>1 \text{ kg/m}^2$ , and birth weight decreased by  $\sim 71 \text{ g}$  (49). Clearly, these urban households were forced to use coping strategies that did not provide full protection for the most vulnerable members of their family.

By contrast, evidence from Indonesia shows that mothers effectively buffered the effects of the crisis on their children by eating less, but at the expense of their own nutritional status. While children maintained their average weight-for-age during the crisis, maternal wasting increased from 14 to 17% (49). Declines in diet quality following the crisis in rural Java were also accompanied by significant rises in maternal and child anemia (49).

We are unaware of any empirical results quantifying the impact of the current crisis on maternal and child nutritional status or on the differential impacts on the nutrition of urban populations.

## Conclusion

Identifying the population groups that are most vulnerable to the deleterious effects of shocks such as the recent food/fuel price and financial crises is critical for the design, implementation, and effective targeting of successful program and policy responses. This is the justification for the key question addressed in this article, i.e. whether there is evidence that the urban poor are hit the hardest. Understanding the coping strategies vulnerable households adopt is also critical for crafting both short- and long-term responses that support, rather than undermine, these strategies and protect the poor in times of crisis.

Our review shows that while the urban poor are clearly one of the population groups most affected by the current (and previous) crises, the rural poor, landless, and net buyers are in no better position to confront the crisis without considerable suffering. The message could not be clearer that the poorest of the poor, who were already left behind before the crisis (1,2), are the ones who will be most affected, irrespective of the

continent, country, or urban or rural area where they live. Another clear message from this review is that the magnitude and severity of the suffering experienced by poor households depends on their ability to adapt and on the specific nature, extent, and duration of the coping strategies they adopt. These coping strategies, especially those related to changes in intra-household allocation of resources, are also critical in determining which household members will be most affected. Households that have exhausted their options and are pushed to disinvest in their children and cut expenditures on food, health, child care, and education will likely suffer both the short-term consequences of early child undernutrition (e.g. poor health and increased mortality) and its long-term effects on the intergenerational transmission of poverty through illiteracy and diminished economic productivity (37).

Evidence from both the current crisis and previous financial crises confirms that the types of food-based coping strategies poor households adopt are consistent across countries as well as between urban and rural areas and follow a progressive pattern from minor food substitutions and modifications in diet quality to more extreme measures such as going for entire days without eating (47). Much less is known, however, about nonfood-based strategies that can also have dramatic consequences on children's nutrition, health, and well-being such as increasing income through child labor and women's work; reducing spending on education, child care, health care, and other basic needs; selling assets; or sending children to other relatives or giving them up for adoption. It is possible that some of these desperate measures may be more prevalent in urban areas where the options to improve food security are more limited due to less access to agriculture and land and where informal sector employment opportunities for women and children may seem greater, albeit possibly risky. With the current financial crisis, however, lack of employment, both formal and informal, is likely to become a major constraint for the urban poor.

This review highlights the dearth of information, even from previous price and financial crises, and the lack of preparedness of the research community to answer the critical questions asked by program implementers and policy makers regarding who and where are the most vulnerable populations and what the global policy response should be (5). Understanding the impacts of the crisis on poverty and nutrition is particularly complex, because many of the effects are likely to be considerably lagged, especially among households that have some margin to maneuver for a period of time before they show clear signs of deterioration. Stunting and some micronutrient deficiencies also take time to reveal themselves and may become detectable only after the damage is done and is possibly irreversible. A better understanding of how coping strategies are used and staggered is therefore critical to help design triggers for action that will help prevent households from resorting to more desperate measures. This could be done through the implementation of effective nutrition, health, and food security surveillance systems. Identifying these coping strategies and using them as early warning indicators, rather than waiting until measurable impacts on poverty, food insecurity, and malnutrition are observed, could help prevent dramatic losses in welfare.

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Other articles in this supplement include (52–67).

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