

Cross-generational and Transactional Sexual Relations in Sub-Saharan Africa:

Prevalence of Behavior and Implications for
Negotiating Safer Sexual Practices

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Executive Summary

This literature review assesses the extent of sexual relations between adolescent girls and older male partners (cross-generational sex) in sub-Saharan Africa; the extent of transactional sex; and the behavioral dynamics of girls and men involved in these sexual relations. The underlying assumption, supported by emerging empirical study, is that sex with older men increases the girls' risk of becoming infected with HIV. Because there seems to be little programmatic attention to reducing HIV risk by focusing on these partnerships, the intention of this review is to inform the efforts of AIDSMark—in particular, Population Services International and the International Center for Research on Women—on how to reduce HIV risk by addressing sexual relationships between adolescent girls and older men. Over 45 quantitative and qualitative studies of cross-generational and transactional sexual relations were reviewed.

The review finds that engaging in sexual relations with older partners is the norm for adolescent girls. Sizeable proportions of girls' partners are more than six or 10 years older, although age differences with most current partners appear to be only a few years older. The data also reveal that select groups of girls, such as those who have become pregnant, have much older partners on average. There is a widespread transactional component to sexual relations for adolescent girls, and in some contexts, large proportions of girls have engaged in this type of relationship. It appears that, as adolescent girls mature, they

engage in sexual relations with ever-older partners, and are more likely to have engaged in transactional sex. In addition, we find that men have large proportions of adolescent girls as non-marital sexual partners. However, due to the narrow definition of transactional sex in the survey questions, and the stigma of reporting exchange behaviors, these figures are likely to be underestimates.

Several studies reveal significant relationships between unsafe sexual behaviors, HIV risk, and cross-generational sex. Three of these studies find that greater age differences between partners indicate a significant increase in adolescent girls' risk of HIV infection. Two additional studies find that unsafe behaviors—including non-use of condoms and non-discussion of HIV with a partner—are significantly linked to greater age differences between sexual partners. One study finds that transactions of greater value also have a significant effect on non-use of condoms.

Although the motivations for adolescent girls to engage in sexual relationships with older men are varied and overlapping, gifts and other financial benefits was the major theme found. The motivations for financial rewards tend to be complex, ranging from economic survival to desire for status and possessions. Extreme household poverty as a motivator of sexual activity is described less often. Most studies point to girls' strategies to increase their life chances through education or work opportunities, or to pursue the enjoyment that



goes along with adolescence and young adulthood. Gifts such as soap, perfume, dresses, meals out, and jewelry have become symbolic of a girl's worth and a man's interest, and girls who do not receive gifts in exchange for sexual relations are humiliated.

Because of the limited negotiating power of adolescent girls with respect to sexuality and reproduction, sexual partnerships between adolescent girls and older men are fundamentally imbalanced, with men having more power. Girls appear to be able to negotiate relationship formation and

continuance; for example, they can choose the types and number of partners they have, and can discontinue a relationship if gift-giving ceases. However, once in a sexual partnership, adolescent girls are less able to control sexual practices. Men appear to control the conditions of sexual intercourse, including condom and contraceptive use and the use of violence. Girls are not likely to insist on condom use for many reasons, including social norms and lack of self-perceived risk of HIV. On the whole, suggesting condom use jeopardizes their goals for the relationship, including the receipt of money and gifts.



1. Introduction

Considerable attention has been focused on adolescent sexual behavior in sub-Saharan Africa and how risky behaviors contribute to poor reproductive and sexual health outcomes—including unwanted pregnancy, abortion, violence, and infection from STDs and HIV/AIDS. A particular theme of growing concern has been the disparity in HIV infection levels between men and women in many parts of Africa, especially in adolescent age groups where many more girls are infected than young males. Age-mixing in sexual relationships between older men and adolescent girls is a likely explanation for these differences, as older men often have higher rates of HIV infection than adolescent boys (Gregson et al. 2002, Glynn et al. 2001, Kelly et al. 2001, Laga et al. 2001, UNAIDS 2000, SAFAIDS 2000, Gorgen et al. 1998, Matasha et al. 1998, UNAIDS 1998a, Konde-Lule et al. 1997, McLean 1995). Relationships with these men, sometimes referred to as “sugar daddies,” reportedly involve an exchange of money or gifts for sexual favors. These age and economic asymmetries—in addition to gender power differences—are believed to limit adolescent girls’ power to negotiate safe sexual behaviors.

The recent surge of interest in relationships between younger women and older men is particularly pronounced in Africa, where large age differences and transactional exchanges are customary between spouses. Conventional wisdom holds that these asymmetries have been extended to non-marital relationships,

a development that has particularly dire consequences for young and inexperienced adolescent girls during the era of AIDS. Despite these common assumptions, a rigorous examination of existing empirical studies has not been undertaken to determine how widespread and risky these relationships are and how disadvantaged girls are within them.

This paper serves to fill this gap by assembling the evidence surrounding female adolescent sexual behaviors in sub-Saharan Africa under circumstances where there are large age differences between partners, or “cross-generational” sexual activity, and where there is also a transactional component to these relationships. We use a conceptual framework focusing on relative power differentials between partners, based on women’s empowerment theories (Kabeer 1999, Malhotra and Mather 1997, Caldwell and Caldwell 1993, Mason 1993). This framework recognizes that sexual activity is not just an individual attribute, but a behavior negotiated between two partners within a wider social, cultural, and economic context. Risk behaviors, which are the proximate determinants of poor reproductive health outcomes, depend not only on the characteristics of the two individuals in the match but also on the power differentials between them. Large differentials can place the weaker partner at great risk, because he or she has relatively less power to control sexual encounters (MacPhail and Campbell 2001, Stavrou and Kaufman 2000).



This paper focuses on age and economic asymmetries as distinct types of power differentials within sexual partnerships in sub-Saharan Africa. Older age and higher economic status are resources held by men in cross-generational relationships that allow them more power in reproductive and sexual decision making. Younger age is an indicator of deference and ignorance on the part of the adolescent female (Ulin 1992).¹ Economic asymmetry is defined as transaction, or a transfer of money or gifts between partners—not the relative difference in incomes or economic status between partners, although older partners are most likely better off than adolescent girls (Kombe-Malekela and Liljestrom 1994). Transaction is associated with greater wealth of the male partner and a need or desire for monetary resources by the female partner. Within this framework, these partnership asymmetries are reinforced by various levels of “outside” factors, such as family and peer pressures, social and economic institutions, and the overall context of gender inequality.

We find two portrayals of adolescent girls and their sexual experiences alluded to in the literature reviewed. First, much of the literature depicts adolescent girls as passive victims of the larger structural and cultural factors that shape their risky sexual behaviors. This viewpoint underscores how girls can be “coerced” into behaviors by outside influences, including economic constraints, peer and parental pressures, and social norms of male dominance and physical control. Owing to cultural taboos on discussion of sexuality and reproductive processes, adolescents are not always fully knowledgeable about the risks or able to assess the potential consequences of their sexual behavior (Silberschmidt and Rasch 2001, Gage 1998). This view also points out that “others” may

benefit from girls’ relationships, but the costs of these dangerous sexual encounters are felt directly by girls. So while parents gain when girls bring home money from their sexual exchanges, or male-dominated society is sustained when girls uphold established gender-specific patterns of behavior, adolescent girls are the ones who become infected with HIV.

The second, and much less often depicted, portrayal is of girls as active social agents who rationally choose their behaviors and negotiate their relationships (Wood et al. 1998, Kombe-Malekela and Liljestrom 1994). This viewpoint emphasizes that adolescent girls have learned that their sexuality is a valued resource, and they exercise agency to extract money and gifts from older men for sexual services. They may also engage multiple partners simultaneously, in order to maximize the benefits of these relationships. Here, self-perceived risk on the part of adolescent girls is discounted in favor of the rewards received from the relationship.

The literature reviewed and presented here suggests that many girls experience something in between these two portrayals—not entirely victims, yet not entirely in control of their sexual relationships. There may be considerable sexual relationship bargaining, yet it occurs within a setting of significant gender power imbalance. In these situations, men are able to dominate intimate relations and insist on sexual and reproductive behaviors that are often unsafe, including the non-use of condoms and sexual coercion.

This review aims to answer two set of questions: First, we ask: What is the prevalence of cross-generational and transactional relationships involving adolescent girls, and what is the effect of these asymmetries on individual

¹ Cross-generational and transactional sexual relations are also reported for male adolescents and older women (Gorgen et al. 1998, Gage 1998, Meekers and Calves 1997a, Meekers and Calves 1997b, Calves and Meekers 1997, Webb 1997, Calves et al. 1996, Benjamin 1995, Barker and Rich 1992) and men who have sex with men (UNAIDS 2000b); however, these topics are not the focus of this examination.



risk behaviors and outcomes? To answer this first set of questions, we review the quantitative evidence on age differences and exchange within sexual partnerships, linking the data to unsafe partnership behaviors and outcomes, particularly HIV infection and non-use of condoms. We also discuss the limitations of the quantitative studies in terms of how data on sexual behavior are collected and analyzed.

Our second set of questions looks deeper into the dynamics of cross-generational and transactional sexual relationships and asks: What are the motivations for adolescent girls and older men to engage in cross-generational relationships, and what negotiating power do adolescent girls possess in relationships where gender, age, and economic asymmetries exist? To answer these questions, we review the qualitative evidence, which also lends insight into the contextual factors affecting gender power imbalances.

Before reviewing the study findings, we provide a brief overview of the socio-cultural and economic environment common to many parts of sub-Saharan Africa, and present our methodology.

Age and economic asymmetries in the sub-Saharan African context

Power imbalances in heterosexual relationships in Africa are the norm, where age, economic, and gender asymmetries have traditionally existed between marital partners. Due to changing social and economic conditions throughout Africa, these imbalances have become even more pronounced in marital and non-marital relationships, a trend that has serious repercussions for the transmission of HIV/AIDS, particularly for adolescent girls.

As noted above, the system of gender stratification in Africa is characterized by greater male access to resources and male dominance in sexual and reproductive behaviors (Ulin 1992). Males, and older males in particular,

hold the power of traditional authority and ownership or control over property. The kinship group is the primary social unit, which historically worked collectively to cultivate family farms on abundant land. A natural shortage of labor encouraged men to marry numerous wives, who supplied labor and produced the next generation of workers. Thus, an economic value was attached to women's capabilities, which men controlled and traded through marriage arrangements (Caldwell et al. 1993). At marriage, bridewealth cattle were exchanged between families to mark the transfer of the rights to a woman's sexuality, progeny, and labor from one lineage of men to another (Goody 1976, Boserup (1989[1970]), Oppong 1992, Stavrou and Kaufman 2000, Haram 1995, Dinan 1983).

Sexual potency is a status marker for men, which follows from the traditional desire for many wives and children. As men mature, they take pride in continuing to attract and marry young wives, resulting in large age differences between marital partners (Gage and Bledsoe 1994, Vos 1994). The prevailing gender ideology, reinforced by the institution of polygyny, holds that men need frequent sexual gratification and multiple partners (Adepoju and Mbugua 1997, NRC 1996, Haram 1995, van de Walle and van de Walle 1995). Sexual encounters are mostly controlled by men with little concern for women's desires, and there is little discussion about sexuality and reproduction between marital partners (MacPhail and Campbell 2001, Gage 1998, Webb 1997, Preston-Whyte 1994, Caldwell et al. 1993). Condom use is viewed as the responsibility and choice of men, and men believe that condoms reduce sexual pleasure (Nyanzi et al. 2000, Fuglesang 1997).

Increasingly since colonial times, African men have migrated to urban centers in search of wage employment, often leaving wives and children in the rural homesteads. This trend,



coupled with more recent economic constraints, has led to declines in traditional polygyny and cohabitation of spouses. Nonetheless, the practice of multiple partnerships for men has continued through informal polygyny or the custom of having one legitimate wife and numerous “outside” wives or girlfriends (Wood et al. 1998, Vos 1994, Ulin 1992, Wa Karanja 1987, Dinan 1983). Men’s sexual networks have broadened to include non-marital partners such as casual girlfriends and prostitutes (Caldwell et al. 1993, 1992, 1991), and these relationships also appear to reflect age disparities found in marriage (Fuglesang 1997). Although men’s extramarital relations are not completely candid, they are commonplace and accepted (Preston-Whyte 1994).

Social norms regarding male power in sexual and reproductive decision making are contrasted with restrictions on female sexuality (Obbo 1995). In particular, women are under more pressure to remain monogamous and are often unable to ask for sex, determine family size, or suggest the use of condoms with husbands. These norms of female behavior were traditionally imparted to young girls by their elders, who cautioned against premarital sex and pregnancy, and instructed girls on how to fulfill the roles of a good wife and mother (Oppong 1992).

The economic situation of all ages of African women has deteriorated throughout the last century. Traditionally, they have been restricted from owning property; they have also been denied access to wage opportunities that are increasingly important in the modern cash economy (Gage 1998, Obbo 1995, Ulin 1992, Pala 1979). The recent worsening economic situation throughout Africa has forced women to become more dependent on men—whether husbands or boyfriends—for economic support (Caldwell et al. 1993). In this new context, women’s personal resources, including their sexuality, have new-found economic

potential. Pre- and extramarital sexual encounters increasingly involve the transfer of material resources, such as money and gifts, from a man to his female partner (Vos 1994, Dinan 1983). This development has been labeled by some as the “commoditization” or “commercialization” of sexual relations, and ranges from commercial sex to more informal transactions between partners (Bohmer and Kirumira 1997, Webb 1997, Haram 1995).

In sum, the age, economic, and gender asymmetries historically prevalent among African marital partners have been applied to less formal, and shorter-term, non-marital relationships negotiated between individuals. This development has been accompanied by the commercialization of sexual relations, where the exchange of cash and gifts between individual partners has replaced traditional bridewealth payments between families. These trends have occurred alongside the rise of sexual risks with the HIV/AIDS epidemic. In light of these broader developments, the conceptual framework suggests that African adolescents, especially girls, are exceptionally vulnerable to engaging in risky sexual behaviors for several important reasons.

First, the economic value of sexuality is particularly pronounced for adolescent girls, who have fewer market opportunities than older women and less access to pocket money from parents than boys (Bohmer and Kirumira 1997, Webb 1997). Second, older men appear to prefer adolescent girls as sexual partners, partly because they are believed to be free of HIV/AIDS infection. Despite this demand for younger partners, population growth and economic conditions have produced a partner squeeze in many African contexts, where older, economically secure men are in shortage and younger women in great supply (Gorgen et al. 1998, Vos 1994). Thus, girls and young women may find it harder to negotiate the terms of sexual relationships with older partners because the availability of substitute female partners is so great.

Third, there has been a decline in familial control over sexual education and the behaviors of adolescents throughout Africa. Traditional methods of sexual education have substantially weakened, including the significance of initiation rituals and the teachings of elders (Gage 1998, Webb 1997). Formal education has replaced the socialization function of these traditional aspects to some degree, but sexuality education is often absent from school curricula. Thus, a void of information on reproduction and relations with the opposite sex has not been filled with “systematic instruction from reliable adults” (Fuglesang 1997:1249), whether parents, teachers, or others. Many observers believe that peers have filled this void, becoming the most important sources of knowledge and influence on sexuality (Gage 1998). The disadvantage to knowledge imparted by peers is that it may be misguided and uninformed (Nyanzi et al. 2000, Fuglesang 1997, Webb 1997, Bohmer and Kirumira 1997, Obbo 1995, Akuffo 1987).

With respect to adolescent behavior, educational opportunities and increased ages at marriage have brought about a distinct period of adolescence outside the purview of familial interference. During this new period of independence, sexual relationships prior to, and not linked to, marriage have become more widespread (Webb 1997). In addition, cultural ideals for adolescent behavior have been replaced by peers’ concerns for status and material goods and the pressure to begin sexual relations and mimic adult norms of sexual behavior (Stavrou and Kaufman 2000, Hughes and McCauley 1998, Caldwell et al. 1993).

The conceptual framework suggests that while wider socio-cultural and economic constraints have rendered girls and young women less powerful in their relations with older men, these females also learn that sexuality and fertility are resources that have value on the

sexual exchange market. They are willing to exchange sexual activities and relationships for the benefits that older, wealthy men can provide, and these exchanges are believed to contribute to poor sexual and reproductive health. And because adolescents are not always fully able to assess the potential consequences of their sexual behavior, adolescent girls may not fully realize the risks they are taking.

Methodology

The methods used to collect information for this paper were twofold: First, a literature search for published studies was conducted through AIDSLINE, POPLINE, and POPINFORM databases, and numerous study authors were contacted to inquire about further work they had completed or citations of other work they could identify. In addition, exploration for unpublished papers and reports was conducted through searches of USAID cooperating agency web pages as well as web pages of other international nongovernmental organizations involved in research activities on adolescents in sub-Saharan Africa. This process yielded a collection of over 45 studies that include information on the prevalence of, or circumstances surrounding, cross-generational sexual relations and transactional exchange between adolescent girls and older men.

Second, numerous researchers with expertise in adolescent health were contacted to inquire about their field and research experiences with cross-generational and transactional sexual relations, and about their perceptions of these relations as a problem requiring programmatic intervention. The purpose was to glean information that was not necessarily written into reports or publications, as well as to gather researchers’ impressions of the quality and scope of research published in these areas. In total, telephone and in-person interviews were undertaken with seven U.S.-based researchers, as well as an email interview with



one Africa-based researcher. Notably, most of the perceptions of those interviewed confirmed the general findings in this paper. The researchers interviewed are heretofore referred to as “experts,” and their comments are woven into the text where relevant.

Age ranges that constitute adolescence vary, and most of the studies reviewed in this paper pertain to adolescents 15-19 years old. Some studies included girls as young as 10 and young women up to 26 years of age. Terminology also varies; in this paper the terms “girls” or “adolescent girls” are used throughout, and the distinction “young women” has been given to those in their early- to mid-20s.

Many of the studies selected specific categories of adolescents in their research projects, particularly those who are in-school/out-of-school or those in primary and secondary school. In addition, several studies explored the lives of adolescents who are “hawkers,” live at truck stops, and have presented for induced abortions at hospitals. It is useful to

keep in mind that many of these studies illuminate the situations of adolescents in specific contexts, and are not meant to represent the experience of all adolescents in a given region or country.

Most of the papers do not clearly disclose the marital status of their adolescent respondents. Several larger studies report on females’ most recent sexual partner, including marital and non-marital partners (Gregson et al. 2001, Glynn et al. 2001, Kelly et al. 2001, Kekovole et al. 1997, Konde-Lule et al. 1997). Most of the other studies, including qualitative ones, do not report on marital status, but it appears that the adolescents of study—often girls receiving education—are unmarried, or they are reporting on premarital behaviors. The findings on transactional sex appear to refer to girls’ non-marital or premarital partnerships as well. With respect to the surveys on male sexual behavior, most analyze men’s non-marital partnerships. Overall, few papers differentiate between the characteristics and behaviors of marital and non-marital partnerships for adolescent girls.



2. Extent of Age and Economic Asymmetries and Linkages to Reproductive Outcomes

This section presents an overview of the quantitative evidence relating to age differences and transaction between sexual partners and their associations with unsafe sexual behaviors and reproductive outcomes, including HIV infection. The findings vary by age ranges of respondents, study populations and sites, and the types of statistics reported. Most of the studies reviewed here pertain to representative samples of youth or analyze data on the youngest age groups from larger surveys. Most of the partnerships surveyed refer to the respondent's relationship with her/his current or most recent sexual partner, although frequently the data are not described well enough to enable us to determine if multiple current partnerships are analyzed. Overall, it is difficult to make detailed comparisons across studies; therefore, we offer very general conclusions in this summary of the existing evidence.

The statistics on the prevalence of cross-generational sex for adolescent girls are presented in Table 1, and for adult men in Table 2. Table 3 includes statistics on the prevalence of transactional sex for adolescent girls. Finally, Table 4 reports significant associations between age and economic asymmetries and risk behaviors and HIV infection. (See Appendix, pages 35-42.)

Prevalence of cross-generational sexual relationships

The review finds that engaging in sexual relations with older partners is the norm for

adolescent girls in Africa. Girls have few partners who are of similar ages, and very few who are younger (Kelly et al. 2001, Konde-Lule et al. 1997, Calves and Meekers 1997). Large age differences between partners are somewhat common, with a sizeable proportion of girls' partners six or more years older. The majority of adolescent girls' partners are only several years older, however. These general findings hold for both girls' partners at sexual initiation and currently, although a possible trend appears in the data: As adolescent girls mature, they engage in sexual relations with ever-older partners.

There is no standard age difference between partners, or a summary statistic that is routinely reported; nonetheless, most indicators on cross-generational sex are usually reported in the aggregate as averages or proportions. The first indicator, the *average age of girls' partners*, offers a single measure of average experience of an age group of girls. With respect to reports of adolescent girls' current or most recent sexual partners, the average age of male partners varies in studies between two and seven years older (Gregson et al. 2002, Gorgen et al. 1998, Kekovole et al. 1997).

The drawbacks to reporting average age differences are twofold: First, the girls surveyed represent the lower bound on sexually active ages. Therefore, it is less likely that they will have many partners younger than themselves, while the age range of potential older partners is quite large. Any average age difference is likely to be positive, simply



because it is not possible for girls to have partners, say, 10 years younger who can then weight the average downward. Second, the average age difference offers no information about the age distribution of older partners. The age distribution of girls' partners is likely long-tailed and skewed to the right, where a few partners are potentially very old. In this case, the ages of these few partners in the extreme tail greatly impacts the average upward.

A more useful measure is the *proportion of girls' partners who are older*, which gives an indication of the prevalence of older partners. Proportions are reported in relative age differences and by exact ages of partners. Overall, we find substantial proportions of girls' partners who are six or more years older. For indicators of relative age differences, two studies report 12 and 25 percent of girls' most recent sexual partners are more than 10 years older, depending on the age group of girls (Gregson et al. 2002, Kelly et al. 2001, Laga et al. 2001).² Other studies report exact ages of partners, which we convert into relative ages for ease of comparison. Two studies reveal that 27 and 40 percent of girls' most recent sexual partners are over 25 years old, which suggests these partners are at least six years older than girls aged 15-19 (Kekovole et al. 1997, Kondo-Lule et al. 1997). Two additional studies report that the median age difference between girls and young women and their most recent sexual partners is approximately six years, which is equivalent to noting that 50 percent of these females have a partner who is more than six years older (Gregson et al. 2002, Kelly et al. 2001).³ With further disaggregation, Gregson et al. (2002) show that the median age difference between partners for HIV+ females (6.3 years) is larger

than the median age difference for HIV- females (5.7 years).

There appears to be a small proportion of partnerships that displays age differences greater than 10 years. A study from rural Uganda reports that 8.5 percent of girls' (aged 15-19) most recent partners are 30+ years old, which translates into an 11-year or greater age difference. In addition, only 2.5 percent of girls' partners are 35-39 years old (the oldest age group of partners reported by girls), which is between a 16- and 24-year age difference (Konde-Lule et al. 1997). A study in Kenya finds 4 percent of girls' (aged 15-19) most recent partners are 30+ years old (Kekovole et al. 1997).

Very large age differences between partners appear among select groups of girls, however. Numerous studies have investigated the circumstances of girls who have become pregnant, and their partners are much older, on average, than in studies of representative samples of adolescents. Two projects conducted in-depth interviews with all girls who presented for induced abortions at urban hospitals in Dar es Salaam, Tanzania. One project reported 73 percent of girls' (aged 15-19) partners (most often the partner with whom they became pregnant) were over 30 years old, and 27.5 percent were over 40 years old—the latter statistic revealing age differences of at least 21 years (Silberschmidt and Rasch 2001, Rasch et al. 2000). In the other study, 31 percent of girls' (aged 14-17) partners (who were responsible for the pregnancy) were over age 45—at least a 28-year age difference (Mpangile et al. 1993).

The data also appear to support the finding that, in many contexts, as girls mature the age

² One study from urban Tanzania (Komba-Malekela and Liljestrom 1994) finds that approximately 33 percent of girls' (aged 14-19) partners are 10 or more years older. However, the sampling in this study is not representative and the results should be treated with caution.

³ As the distribution of partner ages is most likely skewed right, this finding suggests that the average age difference between girls and their partners is greater than six years in these studies.

difference between themselves and their partners increases. This result is arrived at by comparing two types of statistics. First, we compare the ages of *current sexual partners* and *partners at first sexual experience* and find that current partners display greater age differences on average. This is reflected in our cross-study comparisons, where we find averages ranging from two to seven years older for current partners, while the majority of girls' partners are only two to four years older at sexual initiation (Calves and Meekers 1997, Kekovole et al. 1997, Nzyuko et al. 1997). These findings are also supported by a qualitative study from urban Nigeria, which found that girls initiate sex with their peers, and later have relationships with older men (Temin et al. 1999).

These examples appear to support the conclusion that there is an “age effect” where, as girls age, they are involved in relationships with increasingly older men. However, the fact that the *same* girl has ever-older partners as she ages does not necessarily imply that an age effect is present. The widening in the age difference could be due to a “time effect.” If economic conditions are changing over time, for example, then changes in a girl's behavior could be due to these changing conditions rather than due to the fact that she is growing older.

The second method of finding an age effect is to look across *older and younger cohorts* of girls from the same study population at the same point in time, and see if the older girls have larger age differences with their partners. This is confirmed in a study from rural Uganda, where higher proportions of older girls had partners who were over 10 years older: 11.8 percent of girls aged 15-19, 18.6 percent of girls aged 20-24, and 21.4 percent of girls aged 25-29 (Kelly et al. 2001). A study in urban Guinea found that the average age of current partners for girls aged 15-19 is two years older, and for girls aged 20-24 it was approximately

four years older (Gorgen et al. 1998). Thus, some studies find older cohorts of girls have older partners on average, although one study from rural Zimbabwe finds that the age difference between partners is smaller among older cohorts (Gregson et al. 2002).

While the use of cross-sectional comparisons of cohorts avoids the time effect, we must now distinguish between an age effect and a “cohort effect.” For example, in the study from Guinea described above, the younger girls (15-19 years old) could continue to maintain a two-year age difference between themselves and their partners as they grow older. In that case, the partner age difference between the 15-19-year-olds and the 20-24-year-olds that appears in the data merely reflects a cohort effect. To accurately identify an age effect as compared to a cohort or period effect, data on the age differences between partners is required for several cohorts of girls over time.

Finally, this paper also reviews studies on male sexual behavior. Several studies survey men in the age range of 15-50 years old, and gather data on all non-marital partners in the last year. With respect to adolescent girls as partners, there is a large proportion of men's partners who are under 20 years old (Luke 2002, Glynn et al. 2001, Morris et al. 2000, Orubuloye et al. 1992). For example, a study in two African cities finds that for men aged 15-49, 55 and 66 percent of their partners are under 20 years old for Ndola, Zambia, and Kisumu, Kenya, respectively (Glynn et al. 2001). Young men and boys are more likely to have young partners; therefore, by restricting the sample to men aged 25-49, the same study finds that a much smaller proportion—27 percent—of men's partners in both cities are under 20 years old. This is, nevertheless, a large proportion overall. Other studies find that the partners of specific high-risk men, such as travelers and sugar daddies, are even more likely to be adolescent girls, approximat-



ing one-half of all non-marital sexual partners (Luke 2002, Morris et al. 2000).

Prevalence of transactional sexual relationships

Figures on the prevalence of engaging in transactional sex also cover a broad range, depending on the age group of adolescent girls, sample of girls, and phrasing of the questions. In general, the findings point to large majorities of adolescent girls who have been involved in transactional sexual relations.

Most indicators refer to *ever* involvement in transactional sexual relations, and the figures range from very small percentages to large majorities. Five percent of girls (aged 12-17) had *ever* engaged in sexual relations in exchange for money or gifts in Cameroon (Meekers and Calves 1997b), whereas the figure for Malawi is approximately 66 percent of girls aged 10-18 (Weiss et al. 1996). In urban Tanzania, 80 percent of girls (aged 14-19) answered positively to a question on *ever* receiving money from boyfriends (Komba-Malekela and Liljestrom 1994). Several studies report on more recent involvement in transactional sex. Although the timeframe varies by country,⁴ a compilation of DHS figures reports on unmarried girls (aged 15-19) who *recently* received money or gifts in exchange for sex: 13 percent in Zimbabwe, 21 percent in Kenya, 26 percent in Mali, 31 percent in Uganda, and 38 percent in Zambia (PRB 2001). In rural Uganda, 90 percent of the *three most recent* relationships of girls (aged 15-19) involved economic support (Konde-Lule et al. 1997).

There are also statistics on transactional sex

for specific groups of girls and young women. In a study of university women (aged 16 years and older) in Nigeria, 18 percent reported *ever* having exchanged sex for money, gifts, or favors (Weiss et al. 1996). In rural Uganda, 85 percent of secondary school girls (aged 12-20) have *ever* been involved in sexual relations for money or gifts (Nyanzi et al. 2000). A study at a truck stop in Kenya finds that 78 percent of girls (aged 15-19) *usually* have transactional sex, with 96 percent of those who usually engage in relations with truck drivers *usually* having a transaction (Nzyuko et al. 1997).⁵ In urban Mozambique, transaction is related to the class of girls: 63 percent of working-class secondary school girls receive material help from their current partners, whereas only 6 percent of middle-class secondary school girls do (Machel 2001).

It also appears that, as girls mature, they are more likely to have exchanged sex for money or gifts. A study from Yaounde, Cameroon, finds that 30 percent of girls aged 15-20 have *ever* exchanged sex for money or gifts, while 41 percent of young women aged 21-26 have done so (Calves and Meekers 1997). A related study in urban Cameroon finds 5 percent of girls aged 12-17 and 15 percent of girls aged 18-22 answered affirmative to the same survey question. The increased likelihood of girls engaging in transactional sex as they mature could arise for two reasons: First, older girls are simply more likely to receive money or gifts for sexual favors (or are willing to report them) than are younger girls. Second, older girls have been exposed to the potential of ever receiving money or gifts for a longer period of time, and therefore may be more likely to have ever engaged in transactional

⁴ Timeframes for the survey question on transactional sex are “within the past four weeks” (Zimbabwe), “last sexual encounter” (Uganda), and “within the past 12 months” for the remainder of the countries (PRB 2001).

⁵ The female behaviors of interest in this study are defined as “usually having sex with truck drivers” and “usually receiving money or gifts in exchange for sex” (Nzyuko et al. 1997:S23). There is no explanation of how frequent “usual” behaviors are, or how the term “usually” is interpreted by respondents.

⁶ As discussed earlier, there is the caveat that what appears to be an age effect could be, in fact, a cohort effect in these studies. This would be the case if the 15- to 20-year-olds in the above example from Yaounde continued to have a lower level of transactional sex when they reached ages 21-26. Once more, to accurately identify an age effect, information is needed from the same girl as she grows older.



sex.⁶ The evidence appears to validate the concept that “sugar daddy” relationships for exchange are widespread, although the link between older partners and transactional sex has not been firmly established by the quantitative data. The studies reviewed here do not reveal the age of the partner with whom transactional sex was undertaken, although many observers assume that a large share involves older partners who are more likely than adolescent boys to have full-time jobs and access to monetary resources (Nnko and Pool 1997, Webb 1997). Transactional sex is linked specifically to relationships with older men in qualitative studies (Hulton et al. 2000, Rasch et al. 2000, Nnko and Pool 1997, McLean 1995). The literature recounts nicknames for these older partners, which often illustrate the link between experience, wealth, and obesity. In rural Uganda, sugar daddies are called “big bellied,” indicating wealth, or “bald headed,” indicating experience (Nyanzi et al. 2000). In Cameroon, older partners are often called “folded necks” because they are obese, reflecting wealth (Meekers and Calves 1997a). In Cameroon and Swaziland, wealthy partners are also called “sponsors,” as in, “Would you sponsor me to the concert?” (McLean 1995, Meekers and Calves 1997a). In Tanzania, older, prosperous partners are called “*buzi*,” meaning “a goat to milk” (Silberschmidt and Rasch 2001).

The occupations of older partners also indicate that they are often working men who have regular access to income, and therefore may be of higher economic status, on average, than younger men. From the quantitative and qualitative studies gathered here, older male partners are generally working professionals—often businessmen (those more established, such as bankers and petty traders), teachers, drivers, and police (Silberschmidt and Rasch 2001, Hulton et al. 2000, Nyanzi et al. 2000, Matasha et al. 1998, Nzyuko et al. 1997,

Komba-Malekela and Liljestrom 1994, Akuffo 1987).

In sum, a detailed review of the quantitative evidence finds that sexual relations with older partners and sexual relations with a transactional component are the norm for adolescent girls. Sizeable proportions of girls’ partners are more than six or 10 years older, although age differences with most current partners appear to be only a few years older. The data also reveal that select groups of girls, such as those who have become pregnant, have much older partners on average. There is a widespread transactional component to sexual relations for adolescent girls, and in some contexts, large proportions of girls have engaged in this type of relationship. A possible trend appears, whereby as adolescent girls mature, they engage in sexual relations with ever-older partners and are more likely to have engaged in transactional sex. In addition, we find that men have large proportions of adolescent girls as non-marital sexual partners.

Although correlations between partner characteristics and age and economic asymmetries are not undertaken in most of the studies, the review sheds light on possible attributes of people who display a greater likelihood of involvement in cross-generational and transactional sex. Furthermore, we find probable links between greater age asymmetries and pregnancy, abortion, and HIV infection among girls. For example, the girls who become pregnant or present with induced abortions have much older partners, on average, than partners of girls selected randomly without regard to pregnancy experience. The next section reviews the existing statistical evidence of associations between age and economic asymmetries and unsafe sexual behaviors and HIV infection.

Asymmetries and association with unsafe



behaviors and HIV risk

We located numerous studies that offer descriptive statistics on the prevalence of cross-generational and transactional sex; fewer studies, however, test for significant relationships between these asymmetries and poor reproductive outcomes or unsafe behaviors within partnerships. The results of several recent papers that analyze these relationships are reported in Table 4 (*See Appendix, page 41*).

Several studies find that greater age differences between adolescent girls and their recent partners are associated with increased risk of HIV infection. A study in rural Rakai, Uganda (Kelly et al. 2001) analyzes the relationship between HIV prevalence and the age of adolescent girls' primary sexual partner, whether marital or non-marital. In a multivariate analysis, among girls aged 15-19, the adjusted relative risk of HIV infection doubled among those reporting a most recent sexual partner 10 or more years older, compared to those with partners 0-4 years older. Among young women aged 20-24, the adjusted relative risk of HIV infection was 24 percent greater, and among young women aged 25-29, it was 9 percent lower. Additional findings suggest that 12.4 percent of the HIV prevalence in girls aged 15-19, and 5.1 percent in young women aged 20-24, can be attributed to relationships with men 10 or more years older, largely within marital relationships.⁷

A study in rural Zimbabwe (Gregson et al. 2002) also finds a significant positive effect of age difference, with most recent marital or non-marital partner, on HIV infection for all adolescents aged 17-24. In a multivariate analysis, the authors conclude that a one-year increase in age difference between partners is associated with a 4 percent increase in the risk of HIV infection.

Glynn et al. (2001) analyze the effect of age differences between partners, without other statistical controls, in two urban cities in Africa: Kisumu, Kenya, and Ndola, Zambia. For married female adolescents aged 15-19, the authors find a significant positive association between larger age difference with husband and HIV infection. For girls with less than a four-year age difference with their husbands, none are infected with HIV, whereas 38 percent in Kisumu and 34 percent in Ndola are infected if the age difference with their husbands is four years or greater. For unmarried girls, there is no effect of age of oldest partner on HIV infection.

In addition to these analyses of age asymmetry and HIV prevalence, we located two additional studies that show a significant relationship between larger age difference between sexual partners and unsafe behaviors, including non-discussion of HIV and non-use of condoms. Neither study focuses explicitly on adolescent age groups, but the findings nevertheless have implications for HIV risk for adolescent girls. A study from urban Kisumu, Kenya (Luke 2002) analyzes up to five of men's (aged 20-45) non-marital partnerships in the last year. The study finds larger age differences within partnerships are significantly associated with decreased probability of condom use at last sexual intercourse. A one-year age difference between partners decreases the likelihood of condom use by 3 percent. The study also finds a significant association between increased amounts of transaction and the non-use of condoms within partnerships.

A study from South Africa (Jewkes et al., in press) surveys women aged 18-49 and their most established partner in the last year, most likely a husband. The study finds a significant

⁷Kelly et al. (2001) also test for the relationship between age differences and HIV incidence. Interestingly, HIV incidence declined significantly with increasing age differences between partners for women 25-29, which the authors explain may be due to the fact that women in partnerships with large age differences who remain uninfected are less likely to seroconvert due to unknown biological or behavioral reasons.

negative relationship of age difference and discussion of HIV in a multivariate analysis: Those women who report a greater-than-five-year age difference with their partners are 35 percent less likely to discuss HIV, compared to those whose partners are five years older or less. In a bivariate analysis that was not tested for significance, the study also finds that those with a partner who is more than five years older are less likely to suggest a condom, relative to those with a five-year-or-less age difference.

The study results differ in their analyses and findings relating to marital or non-marital partnerships for adolescent girls. Kelly et al. (2001) and Glynn et al. (2001) find increased risk of HIV for married adolescents, and Kelly et al. suggest that marital partnerships are mainly responsible for adolescent female infection. In contrast, Glynn et al. suggest that adolescent girls are infected before marriage, possibly due to the greater female susceptibility to HIV infection. For adolescent wives not infected before marriage, husbands may be likely to transmit the disease to them, as marital relationships are associated with more frequent sexual intercourse and greater exposure to infection as well as decreased likelihood of condom use.

Data issues

In this section, we discuss several challenges to collecting and analyzing data on sexual behavior, as well as the definitional and reporting problems associated with survey questions on cross-generational and transactional sexual relationships.

Current HIV status is determined by an individual's entire history of sexual partnerships. Therefore, studies that aim to link sexual behavior and HIV infection need to collect information on the complete history of an individual's sexual relationships. The

major drawback of many of the studies in this review is that they typically use information about a single, non-representative sexual partner in their analyses. For example, many surveys record information about the *most recent partner* only. If the type of sexual partner with which an individual is involved changes as the individual ages, then the most recent partner is not representative of the individual's behavior with his or her entire set of lifetime partners. This will likely apply to most individuals; as noted above, for example, our review has shown that the age difference between partners is likely to increase as adolescent girls mature. Another problem with using the most recent partner is that it puts greater emphasis on partners with whom an individual most frequently has sexual intercourse (Gregson et al. 2002). If most frequent sex occurs with relatively safe partners, such as a husband or steady boyfriend, then this might understate the level of risky behavior.

Collection of information on all lifetime partners proves very challenging, due to recall error and the stigma of reporting complete sexual histories (Glynn et al. 2001, UNAIDS 2000, Gersovitz et al. 1998, Kekovole et al. 1997). One partial solution to this problem is to gather information on partnerships over a limited timeframe. For example, some studies inquire about all current partners, all partners in the last year, or the three most recent partners. A related problem is that many researchers appear to assume that individuals—especially adolescents—have only one current partner, if any, and therefore they may fail to inquire about multiple partnerships (e.g., Gorgen et al. 1998, Kekovole et al. 1997, Rasch et al. 2000, Silberschmidt and Rasch 2001).⁸

Although the regression results in the studies reviewed establish a relationship between

⁸ The survey methods and questions are often not well described in the papers reviewed, and it is impossible to discern the exact information that was collected on partnerships.



older partners or financial exchanges and negative sexual and reproductive outcomes, none of the studies control for selection into asymmetric relationships. Certain types of girls (who are independently more likely to engage in risky behaviors and experience poor health outcomes) may also be more likely to select older partners or engage in transactional sex. Thus, large age differences or transaction may merely serve as proxies for these other unobserved characteristics. This selection effect could generate a spurious age difference or exchange effect in a regression analysis.⁹ One solution to the selection problem is to use data on multiple partnerships for the same individual—for example, all partnerships in the last year. Then standard fixed effects analysis can be used to purge unobserved characteristics that are common across all partnerships for the same individual. This approach allows us to test for the effects of a true age difference or transaction effect on unsafe sexual behaviors or outcomes.

An additional question brought about by the regression analyses is the nature of the relationship between asymmetry and risk. A linear relationship assumes that for each additional year in age difference between partners, the effect on HIV infection is the same. We could imagine, however, that there is a non-linear effect, whereby there is no effect of an age difference on HIV infection up to a certain threshold, say two to four years. Once the age difference increases beyond that level, there could be a steep rise in the effect. In this case, a linear specification does not completely describe the relationship between the age difference and HIV infection.

The literature reviewed finds no agreement on the nature of the relationship between age difference and risk. The studies in rural

Zimbabwe (Gregson et al. 2002) and urban Kisumu (Luke 2002) test for a linear relationship by using age difference as a continuous variable, while the other studies allow for non-linearity by dividing the age differences into categories. The studies in two African cities (Glynn et al. 2001) and South Africa (Jewkes et al., in press) divide age differences into two categories. These studies find significant differences between the categories, but because only two categories are constructed we are not able to determine the linearity of the underlying relationships. The study from Uganda (Kelly et al. 2001) allows for a non-linear relationship between the age difference and HIV infection by dividing the age differences into three categories: partners who are 0-4, 5-9, and 10+ years older. Females are significantly more likely to be HIV+ with partners 10 or more years older, compared to those with 0-4 years age difference, and there is no difference between the first two categories, which implies a convex relationship. Further investigation into the non-linearity of age differences warrants attention to help isolate the age differences where risk is greatest.

There are measurement and definitional problems associated with collecting information on age and economic asymmetries. Adolescent girls (or their older partners) may not be able to report accurately the ages of their partners or other characteristics. In addition, questions on transactional sex face validity concerns. The survey questions usually inquire about money or gifts exchanged, and sometimes favors or presents. Some items, such as lifts to school or sodas, or paying rent may not be viewed as “gifts,” and therefore will not be reported. In addition, overt “exchanges” involving sexual activities are viewed as prostitution in many settings, and may lead to underreporting of these behaviors by both girls and older men

(Stavrou and Kaufman 2000). Many observers and the experts interviewed agree that the figures on transactional sexual behavior are underestimates of actual behavior.

⁹ Selection into marriage is another effect that the studies do not consider, and marriage may be a marker for unobserved characteristics that are associated with HIV infection.



3. Motivations for Cross-generational and Transactional Sexual Relationships

Thus far, this review has analyzed the quantitative findings to investigate how widespread and unsafe cross-generational and transactional sexual relationships are. The next two sections turn to the qualitative research to explore partnership dynamics in greater detail. We aim to answer the question of why so many adolescent girls enter into these relationships when they are associated with increased risk, and to uncover how powerless girls often are within them. This section describes the range of motivations that girls and older men express for engaging in sexual relations with one another, and the perceived benefits they receive from these partnerships.

Adolescent girls' motivations

Adolescent girls' motivations to engage in relationships with older partners are numerous and often intertwined, including strategies to obtain love and affection, a marriage partner, and monetary gifts. Here, we recount the major motivations described in the literature.

Numerous studies find that girls are motivated to engage in sexual relations with older partners in order to find love and, eventually, a spouse (Weiss et al. 1996, Komba-Malekela and Liljestrom 1994). Older men are marriageable types: They are perceived as more secure economically, more serious about marriage, and more likely to marry or support a girl if she becomes pregnant unintentionally (Nyanzi et al. 2000, Gorgen et al. 1998, Nnko

and Pool 1997, Meekers and Calves 1997b, Haram 1995, Komba-Malekela and Liljestrom 1994). Pregnancy may also be part of a marriage strategy, as girls hope their partners will then marry them (Gregson et al. 2002, Rasch et al. 2000, Calves et al. 1996).¹⁰ In addition, parents often pressure girls to form relationships with older, established partners that may lead to marriage—or at least where the partner can support their daughter if she becomes pregnant unintentionally (Gage 1998). Several studies find that parents warn daughters not to bear a poor boy's child (Gorgen et al. 1998, Gorgen et al. 1993). Parents may also disapprove of girls' relationships with older men, especially if the man is not interested in marriage (McLean 1995).

Financial reasons were the main motivations uncovered for girls to engage in sexual relations, and several general statistics support this claim. Among girls 14 years and older in Swaziland, 20 percent reported being sexually active because of financial reasons (McLean 1995). A study in rural Tanzania found that 52 percent of female primary school students and 10 percent of female secondary school students reported the reason for having sex was for money or presents (Matasha et al. 1998). In addition, in a study in rural Ghana, the majority of both in-school and drop-out girls admitted that the most important reason for having boyfriends was financial, and a further one-third said the reason was for the purchase of clothing and other goods (Akuffo 1987).

¹⁰ Although many older partners are already married (Rasch et al. 2000, Calves et al. 1996), polygyny is still common in many parts of Africa. Therefore, adolescent girls may believe a married partner would marry them as an additional wife.



The reasons behind motivations for financial rewards are complex, and can be divided into three primary categories: (1) to assist with economic survival, (2) to increase longer-term life chances, and (3) to increase status among one's peers.

With respect to economic survival, evidence from several studies indicates that many girls need resources from older men for basic needs or in times of economic crisis (MacPhail and Campbell 2001, Stavrou and Kaufman 2000, Feldman et al. 1997, Calves et al. 1996). For example, young mothers may be particularly vulnerable or, as mentioned, girls need money to help their families survive. Parents may directly pressure their daughters to enter into relationships with older, well-off men because they demand assistance from their children, including the money given to girls by their older partners (Gage 1998, Komba-Malekela and Liljestrom 1994). Parents may actively support their daughters' relations or may "choose to close their eyes because it relieves them of their financial responsibilities" (Silberschmidt and Rasch 2001:1821). Indirectly, parents may not provide girls with financial support, including pocket money or more basic needs, and girls must seek this support elsewhere (Temin et al. 1999, Calves et al. 1996, Preston-Whyte 1994).

Numerous studies point to adolescent girls' motivations to secure life opportunities and enhance long-term goals of higher economic status and security through their involvement with older partners. Much of the evidence describes the situations of female secondary students who need the financial support of older men to stay in school and pay for necessities, such as school fees and supplies (Machel 2001, Nyanzi et al. 2000, Stavrou and Kaufman 2000, Calves 1999, Weiss et al. 1999, Meekers and Calves 1997a, 1997b, Orubuloye et al. 1992, Ulin 1992, Caldwell et al. 1989, Akuffo 1987). Similar financial constraints appear to affect university stu-

dents. Some young women engage in relations with older partners to help pay for tuition, living expenses, university housing, clothes, and food (Stavrou and Kaufman 2000, Calves et al. 1996, Abang 1996). Another segment of the literature studies the lives of educated, white-collar, young, single women who have relationships with much older, very wealthy men to help achieve their goals of financial security and social mobility. Their partners help them meet prestigious people and establish themselves in an occupation or career (Taffa et al. 1999, Gage 1998, Meekers and Calves 1997a, 1997b, Calves et al. 1996, Orubuloye et al. 1992, Dinan 1983).

Regarding the motivation to increase one's status among peers, older partners help achieve this goal in two ways. First, older partners help fulfill the expectation that girls have boyfriends and are sexually active (Stavrou and Kaufman 2000). An informant in a study from South Africa noted, "If you want to belong to that group you end up doing it; otherwise you become isolated and nobody wants that" (Wood et al. 1998:236). Second, older men can provide girls with money and gifts for "nonessentials" or "luxuries," such as nice clothes, soap, make-up, perfume, jewelry, and modern hairstyles, which are things parents are unable or unwilling to pay for (Machel 2001, Silberschmidt and Rasch 2001, Nyanzi et al. 2000, Rasch et al. 2000, Meekers and Calves 1997a, Calves et al. 1996, Gorgen et al. 1993, Akuffo 1987). These items help girls enjoy an upscale lifestyle and look "modern" (Meekers and Calves 1997a, Calves and Meekers 1997, Gage 1998, Haram 1995, Akuffo 1987). Girls' peers even appear to encourage them to find older partners in order to receive nice things (Temin et al. 1999). To the contrary, a study in Dar es Salaam, Tanzania, concluded that it was not socially acceptable to have a "*buzi*," but girls were nonetheless proud to have this financial resource, and flattered by older men's interest (Silberschmidt and Rasch 2001).

The literature suggests that financial rewards are reaped more successfully by older adolescent girls than younger ones. In fact, young and inexperienced girls, in particular, appear to gain very little financially in their relations with older men. In Tanzania, Fuglesang reported that even girls 10-11 were “lured into sexual relations with older men for ‘chips’, Coca-Cola, transport to school, money for videos or just extra little things” (Fuglesang 1997). One expert reported that rural school-girls may receive “something as simple as a few peanuts or a pencil” in exchange for sex with older men.

Although adolescent girls’ motivations for engaging in relationships with older partners are mainly financial, some girls reported that they also enjoy the pleasure of sexual activity with more experienced, older partners (Nyanzi et al. 2000, Nnko and Pool 1997, Komba-Malekela and Liljestrom 1994). Even so, numerous studies find that girls do not love their older partners and have no intention of marrying them, or they know that their partners are not interested in marriage (Silberschmidt and Rasch 2001, Meekers and Calves 1997a, Akuffo 1987, Dinan 1983). Most of the cross-generational relationships described in the literature are of this type, where the benefits are financial and not related to marriage or sexual pleasure. A study in Tanzania concluded: “Material benefits are one of the incentives for the relationship, while sheer love or the expectation of marriage is often of secondary importance or none at all” (Komba-Malekela and Liljestrom 1994:140).

The evidence suggests that, despite compelling reasons to seek out older partners, adolescent girls prefer partners closer in age to fulfill desires for love, affection, and eventual marriage (Silberschmidt and Rasch 2001, Gorgen et al. 1998, Nnko and Pool 1997). For example, several studies reported that girls have older partners for material benefits, and

simultaneously have younger or “main” boyfriends who represent more serious relationships that may lead to marriage (Gregson et al. 2002, Meekers and Calves 1997a). Many wait to find and marry serious boyfriends later (Temin et al. 1999). Although marriage is often not a motivation for girls or their older partners, these relationships can indirectly help young women’s marriage prospects by improving a girl’s image and attractiveness, or helping her gain sexual experience, thus making her a more desirable marriage partner (Meekers and Calves 1997a, Gregson 2002, Gage 1998, Claves et al. 1996, Preston-Whyte 1994).

Much of the evidence points to the conclusion that transactional relations have become the norm in many places in Africa, and girls expect to receive some sort of payment for sex (Silberschmidt and Rasch 2001, Webb 1997). Gifts have become a symbol of the girl’s worth and a man’s interest, and girls feel offended if they do not receive something. A study in Burkina Faso concluded: “Receiving gifts or money in exchange for sexual favors is considered unremarkable. A girl would feel humiliated and disrespected if she received nothing for engaging in sex” (Gorgen et al. 1993:290, Caldwell et al. 1989). Interestingly, none of the adolescents in the studies we reviewed associated these overt examples of exchange with prostitution, which remains a socially unacceptable activity in their eyes (Silberschmidt and Rasch 2001, Rasch et al. 2000, Stavrou and Kaufman 2000, Webb 1997, Komba-Malekela and Liljestrom 1994). In addition, it appears that gifts are not given and accepted on each date or at each sexual encounter; this lack of a one-to-one exchange may also strengthen the view that these actions do not constitute prostitution.

Although the quantitative evidence confirmed that age and economic asymmetries are significantly associated with risk behavior and HIV infection, girls do not appear to be



motivated by self-perceived risk to reduce their engagement in cross-generational relationships. Few studies remark that girls factor in risks to health in the relationship equation (Gorgen et al. 1998), and the experts interviewed agree with this assessment.

Men's motivations

The literature also recounts the motivations of older men to engage in cross-generational sexual partnerships, and suggests that older men's strategies include regular access to sex, enhancement of prestige, domestic help, and maintenance of health. As mentioned, African men feel it is a "natural right" to have multiple partners, and men prefer younger women, often students, as extramarital partners (Abang 1996, Orubuloye et al. 1992, Barker and Rich 1992). Having multiple young partners inflates male self-esteem and demonstrates that men are able to "conquer" women (Silberschmidt and Rasch 2001, Fuglesang 1997, Preston-Whyte 1994, Haram 1995, Dinan 1983). It appears that some men may promise love, marriage, or gifts in hopes of engaging young girls and women sexually. However, if their partners become pregnant unintentionally, many men do not agree to paternity, and subsequently sever all relations or support (Silberschmidt and Rasch 2001, Rasch et al. 2000, Wood et al. 1998, Fuglesang 1997, Webb 1997, Akuffo 1987, Dinan 1983).

Men reap other benefits from younger partners, particularly domestic help if they are not married or cohabitating with their wives. Some adolescent girls reported doing chores for their partners, such as ironing or cooking (Wood et al. 1998), and according to one expert, single men who house university students receive cooking and food from their live-in younger partners.¹¹

There is abundant evidence from qualitative studies that, as men become more aware of the

dangers of AIDS, they increasingly seek out younger partners, often schoolgirls, in the belief that young females are unlikely to be infected with HIV (Laga et al. 2001, Silberschmidt and Rasch 2001, Obanyi and Pyne-Mercier 2000, Nyanzi et al. 2000, Rasch et al. 2000, Stavrou and Kaufman 2000, Sedlock 2000, Bohmer and Kirumira 1997, Abang 1996, Weiss et al. 1996, Benjamin 1995, Caldwell et al. 1993, Orubuloye et al. 1993, Ulin 1992). The idea of partnering with clean, young women appears understandable, as it replicates a traditional belief, in many areas of Africa and elsewhere, that having sexual intercourse with a virgin will rid a man of infection, including STDs or AIDS (Gage 1998). A study in Tanzania uncovered slang terms men had derived for these "clean" girls: "With the AIDS pandemic, the fear of HIV infection leads men to seek out young girls in tender ages for sex. The men refer to the girls as 'spring chickens' and 'luxury cars' because they are regarded as new, 'clean' and 'pure', and therefore free of STD/HIV infection" (Fuglesang 1997:1252).

Not all of these older men are motivated to act out of fear of reproductive risk to themselves or their partners. Unintended pregnancy is an outcome for which they may deny responsibility, and many may not consider HIV infection a risk. Thus, older partners may not initiate or accept condom or contraceptive use and "argue that there is no risk involved in having sexual relations or that pregnancy poses no severe problems" (Gorgen et al. 1993:290, MacPhail and Campbell 2001). In their strategies to attract young partners, however, men appear to understand and accept that transaction has become normative, and they also appear to enforce the bargain that they get something in return (Gorgen et al. 1998).

In sum, there are varied, often overlapping, motivations for adolescent girls to engage in

¹¹ See methodology section on p.9 for use of interviews with experts to supplement information from the literature.

sexual relationships with older men, and these relationships may reap several types of benefits, the most frequent of which is financial gain. The motivations reflect various levels of influence, such as peer and parental pressure and social norms of male dominance, as well as individual needs and desires, including marriage, financial gain, increases in status, and sexual pleasure. Men are also motivated by outside as well as personal pressures to engage in relations with adolescent girls for sexual pleasure, prestige, and the acquisition of partners perceived to be free of HIV infection.

Most of the studies regarding financial benefits describe girls' strategies to increase their life chances through education or work opportunities, or to pursue the enjoyment of adolescence and young adulthood. Extreme poverty is less often mentioned; only a few studies report that the money received is used to "get by" or to support one's family. The girls do not appear to need the financial support of older men as a full source of income; young, educated women are often already employed, and younger adolescents' parents support them for the most part. Perhaps for these reasons, none of the girls or

young women describe their relationships as prostitution.

Although this review finds a wider occurrence of transactional sexual relationships for the purposes of fulfilling desires than for securing basic needs, a few caveats are in order to temper this finding. First, there is little quantitative evidence regarding girls' particular motivations. The few statistics reported here refer to general reasons for engaging in sexual relations (where monetary benefits are listed among others), but they do not specify how girls use this money or these gifts. Second, these impressions are based on evidence from non-random sample studies that are not representative of the particular populations examined or the wider experience of adolescents in general. Third, many of the studies focus on populations of girls who occupy mid- to higher levels of economic status, such as school girls whose families most likely have money for school fees. Therefore, by virtue of the sites the researchers chose, most of the studies involve girls who would not be motivated to engage in cross-generational sexual relations because of poor economic circumstances.



4. Evidence of Adolescent Girls' Negotiating Power in Sexual Relationships

Power differentials between sexual partners can be played out in various aspects of sexual negotiation. This section reviews the qualitative evidence of the dynamics of sexual negotiation, and finds much evidence to support the stance that girls do have active means of resisting complete male control of sexual relationships. We uncover various aspects of sexual relationship bargaining where adolescent girls have power to achieve their preferences, as well as aspects where they have relatively little control.

Girls' power to negotiate

Adolescent girls appear to have a high degree of control over partnership formation and continuance. To a great extent, they are able to choose the numbers and types of partners with whom they are involved.

Although it is common for adolescent girls to have one or more older partners, social norms surrounding sexual exchange ensure that girls must guard their reputations. On the one hand, girls should not engage in too many partnerships, as those who try to maximize the number of relationships in the hopes of collecting more benefits may be labeled as “gold-diggers” or “loose” (Silberschmidt and Rasch 2001, Stavrou and Kaufman 2000). On the other hand, if girls are not interested in money at all, or if they agree to having sex too soon, they may be suspected of being infected with HIV.

Several studies find that girls often deceive boys and men by offering “false promises”

that delay sexual relations. Delaying the onset of the relationship allows girls to increase the chance of receiving money and to maximize the amount; assess the man's character; and get rid of men or boys they do not like (Stavrou and Kaufman 2000, Nnko and Pool 1997, Komba-Malekela and Liljestrom 1994). A study in Uganda among secondary school students gave explicit descriptions of girls' negotiating strategies, and described the practice of “detothing” (like “pulling teeth”), where girls milk as much money as possible out of their partners without giving sexual favors in return (Nyanzi et al. 2000). Because older partners are wealthier and try to flaunt it, it is they who are usually the focus of “detothing.” After receiving their prize, some girls admitted that they hid, disappeared, evaded, or became uninterested and cold “so that they did not have to give the expected ‘goods’ ” in return (Nyanzi et al. 2000:89).

A second aspect of sexual relations over which girls have considerable control is relationship continuance. Many adolescent girls in the studies reviewed describe how they could terminate a sexual relationship or refuse sex, particularly if they did not continue to receive gifts (Silberschmidt and Rasch 2001, Nyanzi et al. 2000, Haram 1995, Dinan 1983). “No money—no sex” was a recurring remark in a study in Dar es Salaam, where all the girls received money or gifts from their partners (Silberschmidt and Rasch 2001:1820; see also Komba-Malekela and Liljestrom 1994). Even in cases where girls are in love with their partners, or do not need the money, the

subjects in these studies still insist on gifts for the relationship to continue. It does not appear that girls wish to cease all relationships; in fact, if they lose one partner, they readily substitute another who offers greater rewards.

The evidence also suggests that adolescent girls have some control over pregnancy, paternity, and abortion decisions. Sometimes pregnancy is a card girls play to continue a relationship and receive further financial support from a partner. Some may have a child with an older partner to “establish economic links with a man in order to enhance their socio-economic status” (Calves et al. 1996:21). Young, unwed mothers may hold a better-off boyfriend responsible for a pregnancy even if he is not the biological father, as he is better able to support the child or pay for an abortion (Calves et al. 1996, Silberschmidt and Rasch 2001, Preston-Whyte 1994).

In sum, the quest of financial rewards is the major incentive for girls to become involved in single, multiple, and ongoing partnerships with older men. This objective is usually paramount to other considerations, such as potential pregnancy or infection with STDs and HIV. Adolescent girls select men based on the characteristics that are important to them, and these other risks do not always pose a high enough cost to forgo a profitable relationship.

Girls' lack of power to negotiate

Although girls appear to have control over establishing and terminating sexual relationships, the evidence suggests that men have a great degree of bargaining power *within* sexual partnerships, particularly once girls have used their power to negotiate the formation of the relationship. It appears that most adolescent girls have little power to discuss or negotiate safe sexual practices, specifically condom use and sexual activities, or to control

the use of violence. It should be noted that non-use of condoms or becoming pregnant may be active strategies for adolescent girls. Condom use also interferes with girls' and women's fertility plans (Obbo1995).

The barriers to decision making in sexual relations for adolescents and women are widely discussed, including gender norms of male dominance and female obedience, female economic dependence on men, as well as a lack of knowledge about the realities of risk, the use of condoms, or contraception (e.g., see Bohmer and Kirumira 1997, Obbo 1995). These “outside” or contextual influences form the backdrop to all partnerships between men and women. Age and economic disparities between adolescent girls and their older partners only serve to heighten the influence of these factors and to weaken girls' negotiating power. In addition, male violence can negate the limited degree of bargaining power that adolescent girls possess. We reserve this final section to highlight how transaction and violence weaken girls' ability to control sexual activities.

The link between transaction and sexual activity in the literature suggests that adolescent girls are obligated to have sex with men who offer gifts, and are less likely to suggest condom use with these partners. An in-depth study of adolescents in urban South Africa finds that the meanings attached to gifts differed by ethnic group. Among White adolescents, gifts are not equated with sex, but they do encourage it (Stavrou and Kaufman 2000). African adolescents note that dates are expensive for poor males, and something is expected in return for this expenditure. The study also concludes that “the ‘worth’ of the gift often determined the type of ‘sex’ that was given.” Kissing or petting are less significant, and “almost all the [ethnic] groups agreed that the larger and costlier the gifts given or expected, such as



gold [jewelry] and ‘overseas trips’, then full penetrative sex was given and accepted” (p. 11). The study also concludes that money and gifts influence African girls, and young girls in particular, not to suggest condoms.

White females strongly argued that they would not be persuaded to forgo the use of condoms if a gift was offered... [African females] felt that if a girl was to accept a gift just before lovemaking or agree to one after, then she was denying herself the right to ask a man to use a condom.... Younger African girls agreed that ... if they were offered a large “bus fare” then they might consent to their male partner not using a condom.... The evidence suggests that gifts are likely to reduce the power of girls to demand condom use (Stavrou and Kaufman 2000:13-14).

Other studies indicate that the value of the gift is not so crucial, and even minor gifts, such as a soda or transport, are enough to induce girls to have sex or disregard condoms (Fuglesang 1997, Komba-Malekela and Liljestrom 1994).

Because adolescent girls’ primary interest in cross-generational relationships is the economic benefit, refusing sex or proposing condom use jeopardizes their goals for the relationship. They fear losing their partners and the associated financial support, as well as status and prospects of marriage (Gregson et al. 2002, Machel 2001, Silberschmidt and Rasch 2001, Rasch et al. 2000). One expert pointed out how adolescent girls balance the costs and benefits of a relationship:

Girls want something out of relationships. Therefore, they don’t push the condom issue much. If you want a “lucrative” relationship, the last thing you want to do is say, “use condoms.” Condoms are associated with infidelity. This sends

the wrong message. You want to keep the guy interested.

Sexual or physical violence appears to be a relatively frequent male response to younger partners who overstep the bounds of their bargaining power. Numerous studies conclude that assertive actions on the part of girls—such as rejecting sexual advances, suggesting condom use, attracting multiple partners, or attempting to discuss sexual matters—can bring about a negative reaction from their male partners, including physical violence and rape (MacPhail and Campbell 2001, Stavrou and Kaufman 2000, Wood et al. 1998). “Many women, and this is especially the case with teenagers, fear ridicule and even violence if they try to initiate intimate discussions, let alone insist on ‘safe sex’ ” (Preston-Whyte 1994:243, Machel 2001).

Is violence associated with gift giving in particular? It appears that violence may not be the direct result of giving money and gifts with no return or a girl’s insistence on condom use; men may be more compelled into violence by the fact that girls “symbolically” agreed to a bargain and then backed out. A study in South Africa concluded that violence may be an expression of control rather than a response to giving a particular gift (Stavrou and Kaufman 2000).

There is evidence that male violence has become socially sanctioned by the community, including adolescent girls. In the study of “detothing” in Uganda, all adolescents—even the girls—think that rape is an acceptable justification in cases of detothing (Nyanzi et al. 2000). In another study from Uganda, a participant reports that when girls are beaten for refusing sex after receiving money or gifts, no one comes to their rescue: “People will just look at you, they will not come to your help. It is like they support the boys for



beating you up because you have eaten the money but failed to pay back through sex” (Bohmer and Kirumira 1997: no page). There is also evidence that violence has become an accepted part of the negotiation process, and some girls perceive it as an expression or symbol of love. “Assault was perceived to be a male strategy for ‘getting you to love him’ ” (Wood et al. 1998:238). An expert notes this pattern as well. “You have to be careful how you interpret [forced sex] too. There is a flip side. Girls say that force is a reflection of how much he cares. They are relieved when it happens. To them, it is the socially accepted way to show he’s interested.”

Evidence also suggests that violence is an active male strategy to forego the rules of negotiating sexual relations altogether. The studies reviewed here offer numerous examples of older partners and peers (and sometimes groups of peers) who forced girls to have sex (MacPhail and Campbell 2001, Hulton et al. 2000, Gage 1998, Bohmer and Kirumira 1997, Komba-Malekela and Liljestrom 1994). Specific examples include teachers, who exchanged passing marks and favorable assignments for sex, or threatened girls with low marks, manual labor, and corporal punishment (Nyanzi et al. 2000, Mpangile et al. 1993).

In sum, the studies reviewed demonstrate that

adolescent girls often have considerable negotiating power over certain aspects of sexual relations with older men, including partnership formation and continuance, adoption of a number of sexual partners, designation of paternity, and seeking abortion. However, girls have less power to decide on safe sexual practices within these partnerships, such as the use of condoms and physical violence. There is also no evidence of girls’ ability to influence their older partners’ engagement in sex with other partners.

The system of gender inequality in sub-Saharan Africa imposes distinct disadvantages on women and girls in their ability to negotiate safe sexual practices. Age and economic asymmetries within partnerships decrease adolescent girls’ negotiating power even further. Inexperience also contributes to their lack of self-perceived risk of HIV infection and, often, pregnancy. Even though girls can choose the sexual partners they want, they “unconsciously” act with little or no concern for avoiding partnerships that are likely to expose them to risk. The exchange of money and gifts affects sexual activities and condom use within partnerships, and the type or value of a gift may strengthen the male partner’s position. The evidence also suggests that male violence is a reaction to girls who have overstretched their power, and may be employed to eliminate girls’ power entirely.

violence also appears to be accepted by community and reinterpreted by girls as a sign of their partners’ love.



5. Conclusion

The starting assumption for this review was that age and economic asymmetries within sexual relationships are widespread in sub-Saharan Africa, and limit the power of the weaker partner to carry out safe sexual practices. The first part of this paper assessed the extent of cross-generational and transactional sexual relations, and investigated how risky these partnerships are for adolescent girls. The review finds that engaging in sexual relations with older partners and exchanging sex for money or gifts appears to be the standard situation for adolescent girls.

We also find statistical evidence of a relationship between unsafe sexual behaviors, increased HIV infection, and age and economic asymmetries. Three studies find that larger age differences between partners significantly increase adolescent girls' risk of HIV infection. Two additional studies find that unsafe behaviors—including non-use of condoms and non-discussion of HIV with a partner—are significantly linked to larger age differences between sexual partners. One study also finds a significant association between receiving large amounts of money or expensive gifts and the non-use of condoms.

This paper employs a conceptual framework that explains why adolescent girls have limited power to negotiate within cross-generational and transactional sexual relationships. The framework emphasizes the two prominent portrayals of adolescent girls in the literature—either as passive victims of larger socio-cultural and economic forces, or as active

agents making reasoned decisions about their behaviors. With respect to individual action, the review finds that adolescent girls have their own set of motivations for entering into sexual relationships that maximize personal benefit, often with money and gifts as the major incentive. Girls knowingly select older men as partners because they can offer the greatest financial rewards. This view also recognizes that pregnancy and non-use of condoms may be part of girls' strategies to attract male partners, or that personal benefits far outweigh the consideration of these reproductive health risks.

The passive view portrays adolescent girls as victims of outside influences that put them in the “owing position,” where they must concede to risky sexual activities determined by older partners. There are various levels of outside influences, including peer pressure, the potential for violence, and an overarching system of gender inequality, that constrain girls' ability to act independently and challenge the terms of sexual relationships. Girls are particularly motivated by external influences to obtain money and gifts from older male partners. In addition, due to circumstances beyond their control, adolescents are not fully knowledgeable of the risks involved in their sexual situations, and therefore do not comprehend the need for safer sexual behaviors, such as contraception and condom use.

Our framework has sought to demonstrate how both representations of adolescent girls may accurately describe aspects of their experi-

ences in negotiating sexual relationships with older men. We find that, although sexual partnerships involving adolescent girls and older men are fundamentally imbalanced, girls have limited power to resist male pressures for sex and unsafe practices. Girls appear to be able to negotiate relationship formation and continuance; for example, they can choose the types and number of partners with whom they become involved and can discontinue a relationship if gift-giving ceases. However, once in a sexual partnership, adolescent girls are unable to control sexual practices, with men maintaining control over the conditions of sexual intercourse, including condom and contraceptive use and the use of violence to ensure their dominant position.

We find that gifts and violence are particularly influential in negating girls' limited negotiating power with older men. Nevertheless, these practices have become established behavior in many African settings. Gifts have become the

symbol for a girl's worth and a man's interest, and in some contexts, violence is also interpreted as sign of a man's affection. In addition, gift-giving and violence appear to be accepted and promoted by many members of the wider community.

Furthermore, the evidence suggests an apparent lack of self-perceived risk for pregnancy and HIV infection on the part of many adolescent girls (and often men). HIV risk does not appear to factor into girls' "relationship equation." They appear to worry about more immediate risks such as pregnancy and loss of monetary support when weighing the costs and benefits of relationships with older men. Overall, the evidence shows that practicing safer sexual behaviors—which may have long-term repercussions for health and well-being—often conflicts with the fulfillment of girls' short-term goals, such as acquiring financial resources and gifts.



6. Recommendations

The evidence presented here indicates that large numbers of adolescent girls are likely to enter sexual relationships with older men, subjecting them to the power their partners can wield over them. Consequently, girls' inability to negotiate favorable conditions in the relationship, including condom use, makes them especially vulnerable to sexually transmitted infection, including HIV, and unwanted pregnancy.

■ **Garner policy support for changing the social norm.** The evidence presented also shows that sexual relationships with older men before marriage is the social norm for adolescent girls in Africa. This is further reflected in similar age differences between marriage partners. Influencing the patterns and behaviors that comprise a social norm may require that cross-generational sex, or the power imbalances that accompany it, be considered within any social campaign addressing HIV/AIDS. Broad policy support and planning will be needed to succeed with such a social campaign. Lessons from countries attempting to garner broad policy support to slow the transmission of HIV/AIDS should be analyzed.

■ **Mount programmatic responses.** Programmatic responses need to be mounted to counter the power imbalances from gender, age, and economic differences between adolescent girls and their older male partners. Initially, a thorough review of programs needs to be conducted to investigate existing re-

sponses to cross-generational and transactional sex. Of interest is to find the most feasible responses—and, ultimately, those that are most effective in reducing the frequency of these relationships, or the power imbalances inherent in them. Also of interest are lessons about responses that are not feasible, or not effective. In order to mount feasible *and* effective programmatic responses, it will be critical to take into account the particular circumstances of cross-generational sex and the broader social context in which it occurs.

■ **Conduct research to investigate the success of the programmatic responses, document the policy process, and fill other important information gaps.** As programmatic responses are mounted, it is important that they be accompanied by intervention research to test their feasibility and, ultimately, their impact on reducing cross-generational and transactional sex, or the inherent power imbalances therein, that facilitate HIV transmission and unwanted pregnancy. Also, any process to garner policy support must be accompanied by policy research to document and analyze the most salient elements of the resulting social change process. Finally, although the evidence presented here is compelling, and the review has identified a richer set of data than was anticipated, many questions require further investigation. For example, more needs to be known about the extent of HIV transmission from male partners who are only somewhat older than their adolescent girlfriends, in order

to design programs accordingly. In addition, more in-depth study is needed to identify how adolescents and older men negotiate their relationships—beyond the sexual aspects of the relationship—and how and why some girls

are able to resist their partners' domination of sexual and reproductive decision making, stereotypical gender norms, and peer and parental influences.



References

- Abang, Mkpe. 1996.**
Promoting HIV/AIDS prevention on Nigerian campuses: Students take the lead. *AIDScriptions* III(3).
- Adepoju, Aderanti, and Wariara Mbugua. 1997.**
The African family: An overview of changing forms. In Aderanti Adepoju, ed. *Family, population and development in Africa*. London: Zed Book Ltd.
- African Medical Research Foundation (AMRF). 1994.**
Female adolescent health and sexuality in Kenyan secondary schools: A survey report. Nairobi: AMREF (abstract).
- Akuffo, Felix Odei. 1987.**
Teenage pregnancies and school drop-outs: The relevance of family life education and vocation training to girls' employment opportunities. In Christine Oppong, ed. *Sex roles, population and development in West Africa*. Portsmouth, NH: Heinemann.
- Barker, Gary Knaul, and Susan Rich. 1992.**
Influences on adolescent sexuality in Nigeria and Kenya: Findings from recent focus-group discussions. *Studies in Family Planning* 23(3):199-210.
- Benjamin, Judy A. 1995.**
Workshop on the status and trends of the HIV/AIDS epidemics in Africa. Final report from the IX International Conference on AIDS and STDs in Africa. December 8-9.
- Bohmer, Lisa, and Edward Kirumira. 1997.**
Access to reproductive health services: Participatory research with adolescents for control of STDs. Summary of Working Paper. Los Angeles: Pacific Institute for Women's Health.
- Boserup, Ester. 1989 [1970].**
Woman's role in economic development. London: Earthscan Publications Ltd.
- Caldwell, John, and Pat Caldwell. 1993.**
Women's position and child mortality and morbidity in less developed countries. In Nora Federici, Karen Oppenheim Mason and Solvi Sogner, eds. *Women's position and demographic change*. Oxford: Clarendon Press.
- Caldwell, John, Pat Caldwell, E. Maxine Ankrah, John K. Anarfi, Dominic K. Agyeman, Kofi Awusabo-Asare, and I.O. Orubuloye. 1993.**
African families and AIDS: Context, reactions and potential interventions. *Health Transition Review* 3(Suppl.):1-16.
- Caldwell, John C., Pat Caldwell, and I.O. Orubuloye. 1992.**
The family and sexual networking in sub-Saharan Africa: Historical regional differences and present-day implications. *Population Studies* 46:385-410.
- Caldwell, John C., Pat Caldwell, and Pat Quiggin. 1989.**
The social context of AIDS in sub-Saharan Africa. *Population and Development Review* 15(2):185-234.
- Caldwell, John C., I.O. Orubuloye, and Pat Caldwell. 1991.**
The destabilization of the traditional Yoruba sexual system. *Population and Development Review* 17(2):229-262.
- Calves, Anne-Emmanuele. 1999.**
Condom use and risk perceptions among male and female adolescents in Cameroon: Qualitative evidence from Edea. Washington, DC: PSI Research Division Working Paper No. 22.
- Calves, Anne-Emmanuele, Gretchen T. Cornwell, and Parfait Eloundou Enyegue. 1996.**
Adolescent sexual activity in sub-Saharan Africa: Do men have the same strategies and motivations as women? Working Paper AD96-04. Population Research Institute, Pennsylvania State University.
- Calves, Anne-Emmanuele and Dominique Meekers. 1997.**
Gender differentials in premarital sex, condom use, and abortion: A case study of Yaounde, Cameroon. Washington, DC: PSI Research Division Working Paper No. 10.
- Dinan, Carmel. 1983.**
Sugar daddies and gold-diggers: The white-collar single women in Accra. In Christine Oppong, ed. *Female and male in West Africa*. London: George Allen & Unwin.
- Erwin, Josephine O'Toole. 1993.**
Reproductive tract infections among women in Ado-Ekiti, Nigeria: Symptoms recognition, perceived causes and treatment choices. *Health Transition Review* 3 (Suppl.):135-149.
- Feldman, Douglas A., Peggy O'Hara, K.S. Baboo, Ndashi W. Chitalu, and Ying Lu. 1997.**
HIV prevention among Zambian adolescents: Developing a value utilization/norm change model. *Social Science and Medicine* 44(4):455-468.
- Fuglesang, Minou. 1997.**
Lessons for life—Past and present modes of sexuality education in Tanzanian society. *Social Science and Medicine* 44(8):1245-1254.
- Gage, Anastasia J. 1998.**
Sexual activity and contraceptive use: The components of the decision making process. *Studies in Family Planning* 29(2):154-166.
- Gage, Anastasia J., and Caroline Bledsoe. 1994.**
The effects of education and social stratification on marriage and the transition to parenthood in Freetown, Sierra Leone. In Caroline Bledsoe and Gilles Pison, eds. *Nuptiality in sub-Saharan Africa*. Oxford: Clarendon Press.
- Gersovitz, Mark, Hanan Jacoby, F. Seri Dedy, and A. Goze Tape. 1998.**
The balance of self-reported heterosexual activity in KAP surveys and the AIDS epidemic in Africa. *Journal of the American Statistical Association* 93(443):875-883.
- Glynn, J.R., M. Carael, B. Auvert, M. Kahindo, J. Chege, R. Musonda, F. Kaono, A. Buve, and the Study Group on the Heterogeneity of HIV Epidemics in African Cities. 2001.**
Why do young women have a much higher prevalence of HIV than young men? A study in Kisumu, Kenya, and Ndola, Zambia. *AIDS* 15(Suppl. 4):S51-S60.
- Goody, Jack. 1976.**
Production and reproduction. Cambridge: Cambridge University Press.
- Gorgen, Regina, Birga Maier, and Hans Jochen Diesfeld. 1993.**
Problems related to schoolgirls' pregnancies in Burkina Faso. *Studies in Family Planning* 24(5):283-294.
- Gorgen, Regina, Mohamed L. Yansane, Michael Marx, and Dominique Millimounou. 1998.**
Sexual behavior and attitudes among unmarried urban youths in Guinea. *International Family Planning Perspectives* 24(2):65-71.
- Gregson, Simon, Constance A. Nyamukapa, Geoffrey P. Garnett, Peter R. Mason, Tom Zhuwau, Michael Carael, Stephen K. Chandiwana, and Roy M. Anderson. 2002.**
Sexual mixing patterns and sex-differentials in teenage exposure to HIV infection in rural Zimbabwe. *The Lancet* 359:1896-1903.

- Haram, Liv. 1995.**
Negotiating sexuality in times of economic want: The young and modern Meru women. In Knut-Inge Klepp, Paul M. Biswalo, and Aud Talle, eds. *Young people at risk: Fighting AIDS in Northern Tanzania*. Oslo: Scandinavian University Press.
- Hughes, Jane, and Ann P. McCauley. 1998.**
Improving the fit: Adolescents' needs and future programs for sexual and reproductive health in developing countries. *Studies in Family Planning* 29(2):233-245.
- Hulton, Louise A., Rachel Cullen, and Symons Wamala Khalokho. 2000.**
Perceptions of the risks of sexual activity and their consequences among Ugandan adolescents. *Studies in Family Planning* 31(1):35-46.
- Irvin, Andrea. 2000.**
Taking steps of courage: Teaching adolescents about sexuality and gender in Nigeria and Cameroon. New York: International Women's Health Coalition.
- Jewkes, Rachel K., Jonathan B. Levin, and Loveday A. Penn-Kekana. In press.**
Gender inequalities, intimate partner violence and HIV preventive practices: Finding of a South African cross-sectional study. *Social Science and Medicine*: In press.
- Kabeer, Naila. 1999.**
Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change* 30:435-464.
- Kekovole, John, Karungari Kiragu, Leonita Muruli, and Phoebe Josiah. 1997.**
Reproductive health communication in Kenya: Results of a national information, communication, and education situation survey. Country Report. Baltimore: Johns Hopkins Center for Communication Programs. March.
- Kelly, Robert J., Ronald H. Gray, Nelson K. Sewankambo, David Serwadda, Fred Wabwire-Mangen, Tom Lutalo, and Maria J. Wawer. 1994.**
Age differences in sexual partners and risk of HIV-1 infection in rural Uganda. Baltimore: Johns Hopkins University School of Hygiene and Public Health. Mimeo.
- Kiragu, Jane. 1996.**
HIV prevention and women's rights: Working for one means working for both. *AIDS Captions* II(3).
- Komba-Malekela, Betty, and Rita Liljestrom. 1994.**
Looking for men. In Zubeida Tumbo-Masabo and Rita Liljestrom, eds. *Chelewa, chelewa. The dilemma of teenage girls*. The Scandinavian Institute of African Studies.
- Konde-Lule, Joseph K., N. Sewankambo, and Martina Morris. 1997.**
Adolescent sexual networking and HIV transmission in rural Uganda. *Health Transition Review* 7 (Suppl.):89-100.
- Laga, Marie, Bernhard Schwartlander, Elisabeth Pisani, Papa Salif Sow, and Michel Carael. 2001.**
To stem HIV in Africa, prevent transmission to young women. *AIDS* 15(7):931-934.
- Luke, Nancy. 2002.**
Confronting the myth of 'sugar daddies': Recent findings linking age differences, economic transaction, and risky behavior in sexual relations in urban Kenya. Paper presented at the Annual Meetings of the Population Association of America, May 9-11, Atlanta.
- Machel, Josina Z. 2001.**
Unsafe sexual behaviour among schoolgirls in Mozambique: A matter of gender and class. *Reproductive Health Matters* 9(17):82-89.
- MacPhail, Catherine, and Catherine Campbell. 2001.**
"I think condoms are good but, aai, I hate those things": Condom use among adolescents and young people in a Southern African township. *Social Science and Medicine* 52:1613-1627.
- Malhotra, Anju, and Mark Mather. 1997.**
Do schooling and work empower women in developing countries? Gender and domestic decisions in Sri Lanka. *Sociological Forum* 12(4):599-630.
- Mason, Karen Oppenheim. 1993.**
The impact of women's position on demographic change during the course of development. In Nora Federici, Karen Oppenheim Mason, and Solvi Sogner, eds. *Women's position and demographic change*. Oxford: Clarendon Press.
- Matasha, E., T. Ntembelea, P. Payaud, W. Saidi, J. Todd, B. Mujaya, and L. Tendo-Wambua. 1998.**
Sexual and reproductive health among primary and secondary school pupils in Mwanza, Tanzania: Need for intervention. *AIDS Care* 10(5):571-582.
- Matasha, E., T. Ntembelea, W. Saidi, J. Todd, and P. Mayaud. 1996.**
Baseline questionnaire survey of sex and reproductive health among primary and secondary school pupils in Mwanza Region, Tanzania: Report for the adolescent sexual and reproductive health project. AMREF (abstract).
- McLean, Polly. 1995.**
Sexual behaviors and attitudes of high school students in the Kingdom of Swaziland. *Journal of Adolescent Research* 10(3):400-420.
- Meekers, Dominique, and Anne-Emmanuele Calves. 1997a.**
"Main" girlfriends, girlfriends, marriage, and money: The social context of HIV risk behavior in sub-Saharan Africa. *Health Transition Review* 7(Suppl.):361-375.
- Meekers, Dominique, and Anne-Emmanuele Calves. 1997b.**
Gender differentials in adolescent sexual activity and reproductive health risks in Cameroon. Washington, DC: PSI Research Division Working Paper No. 4.
- Mensch, Barbara S., and Cynthia B. Lloyd. 1998.**
Gender differences in the schooling experiences of adolescents in low-income countries: The case of Kenya. *Studies in Family Planning* 29(2):167-184.
- Morgan, S. Philip, and Bhanu B. Niraula. 1995.**
Gender inequality and fertility in two Nepali villages. *Population and Development Review* 21(3):541-561.
- Morris, Martina. 1997.**
Sexual networks and HIV. *AIDS* 11(Suppl. A):S209-S216.
- Morris, Martina, Maria J. Wawer, Fred Makumbi, Jane R. Zavisca, and Nelson Sewankambo. 2000.**
Condom acceptance is higher among travelers in Uganda. *AIDS* 14(6):733-741.
- Mpangile, Gottlieb S., M.T. Leshabari, and David J. Kihwele. 1993.**
Factors associated with induced abortion in public hospitals in Dar es Salaam, Tanzania. *Reproductive Health Matters* 2:21-31.
- National Research Council (NRC). 1996.**
Preventing and mitigating AIDS in sub-Saharan Africa. Washington, DC: National Academy Press.
- Nnko, Soori, and Robert Pool. 1997.**
Sexual discourse in the context of AIDS: Dominant themes on adolescent sexuality among primary school pupils in Magu district, Tanzania. *Health Transition Review* 7 (Suppl. 3):85-90.
- Nyanzi, S. R. Pool, and J. Kinsman. 2000.**
The negotiation of sexual relationships among school pupils in south-western Uganda. *AIDS Care* 13(1):83-98.
- Nzyuko, Solomon, Peter Lurie, William McFarland, Wendy Leyden, David Nyamwaya, and Jeffrey S. Mandel. 1997.**
Adolescent sexual behavior along the Trans-African highway in Kenya. *AIDS* 11(Suppl. 1):S21-S26.
- Obanyi, George, and Lee Pyne-Mercier. 2000.**
Impact on HIV: Realizing the HIV prevention-to-care continuum in Kenya. *Impact on HIV* 2(2).
- Obbo, Christine. 1995.**
Gender, age and class: Discourses on HIV transmission and control in Uganda. In Han Ten Brummelhuis and Gilbert Herdt, eds. *Culture and sexual risk*. New York: Gordon and Breach Publishers.
- Opong, Christine. 1992.**
Traditional family systems in rural settings in Africa. In Elza Berquo and Peter Xenos, eds. *Family systems and cultural change*. Oxford: Clarendon Press.
- Orubuloye, I.O., Pat Caldwell, and John C. Caldwell. 1993.**
The role of high-risk occupations in the spread of AIDS: Truck drivers and itinerant market women in Nigeria. *International Family Planning Perspectives* 19(2):43-48.
- Orubuloye, I.O., John C. Caldwell, and Pat Caldwell. 1992.**
Diffusion and focus in sexual networking: Identifying partners and partners' partners.



- Studies in Family Planning* 23(6):343-351.
- Pala, Achola Okeya. 1979.**
Women in the household economy: Managing multiple roles. *Studies in family planning*. 10(11/12):337-343.
- Population Reference Bureau (PRB). 2001.**
Sexual violence against young women. *The World's Youth 2000*. Washington, DC: PRB. www.prb.org.
- Preston-Whyte, Eleanor. 1994.**
Gender and the lost generation: The dynamics of HIV transmission among black South African teenagers in KwaZulu/Natal. *Health Transition Review* 4(Suppl.):241-255.
- Rasch, Vibeke, Margrethe Silberschmidt, Yasinta Mchumvu, and Vumilia Mmary. 2000.**
Adolescent girls with illegally induced abortion in Dar es Salaam: The discrepancy between sexual behavior and lack of access to contraception. *Reproductive Health Matters* 8(15):52-62.
- SAFAIDS. 2000.**
Newsflash.
- Sedlock, Laura. 2000.**
Reaching the youngest adolescents with reproductive health programs. *In Focus*. January.
- Sherman, Judith B., and Mary T. Basset. 1999.**
Adolescents and AIDS prevention: A school-based approach in Zimbabwe. *Applied Psychology* 48(2):109-124.
- Silberschmidt, Margrethe, and Vibeke Rasch. 2001.**
Adolescent girls, illegal abortions and "sugar daddies" in Dar es Salaam: Vulnerable victim and active social agents. *Social Science and Medicine* 52:1815-1826.
- Stavrou, Stavros E., and Carol E. Kaufman. 2000.**
"Bus fare please": The economics of sex, gifts and violence among adolescents in urban South Africa. Paper presented at the Annual Meetings of the Population Association of America, Los Angeles, March 23-25.
- Synergy Project (USAID). 2000.**
Handbook of indicators for HIV/AIDS/STI programs. First edition. Washington, DC: Synergy Project.
- Taffa, Negussie, Knut Inge-Klepp, Berit Austveg, and Johanne Sundby. 1999.**
Adolescent sexual and reproductive health: Review of current facts, programmes and progress since ICPD. Oslo: Norwegian Ministry of Foreign Affairs and Norwegian Board of Health.
- Temin, Miriam J., Friday E. Okonofua, Francesca O. Omorodion, Elisha P. Renne, Paul Coplan, H. Kris Heggengougen, and Joan Kaufman. 1999.**
Perceptions of sexual behavior and knowledge about sexually transmitted diseases among adolescents in Benin City, Nigeria. *International Family Planning Perspectives* 25(4):186-190 & 195.
- Ulin, Priscilla R. 1992.**
African women and AIDS: Negotiating behavioral change. *Social Science and Medicine* 34(1):63-73.
- Ulin, Priscilla R., Michel Cayemittes, and Elisabeth Metellus. 1993.**
Haitian women's role in sexual decision making: The gap between AIDS knowledge and behavior change. Haiti: Institut Haitien de l'Enfance.
- UNAIDS. 2000.**
National AIDS Programmes: A guide to monitoring and evaluation. Geneva: UNAIDS. www.unaids.org.
- UNAIDS. 1999.**
Differences in HIV spread in four sub-Saharan African cities. Geneva: UNAIDS. www.unaids.org.
- UNAIDS. 1998a.**
AIDS in Africa. Geneva: UNAIDS. www.unaids.org.
- UNAIDS. 1998b.**
Reaching regional consensus on improved behavioural and serosurveillance for HIV. Geneva: UNAIDS. www.unaids.org.
- Van de Walle, E., and F. van de Walle. 1995.**
A review of the demographic literature on the status and the condition of women in sub-Saharan Africa. In Paulina Makinwa and An-Magritt Jensen, eds. *Women's position and demographic change in sub-Saharan Africa*. Liege, Belgium: International Union for the Scientific Study of Population.
- Vos, T. 1994.**
Attitudes to sex and sexual behavior in rural Matabeleland, Zimbabwe. *AIDS Care* 6(2):193-203.
- Wa Karanja, Wambui. 1987.**
"Outside wives" and "inside wives" in Nigeria: A study of changing perceptions in marriage. In David Parkin and David Nyamwaya, eds. *Transformations of African marriage*. Manchester, UK: Manchester University Press.
- Webb, Douglas. 1997.**
HIV and AIDS in Africa. London: Pluto Press.
- Weiss, Ellen, Daniel Whelan, and Geeta Rao Gupta. 1996.**
Vulnerability and opportunity: Adolescents and HIV/AIDS in the developing world. Washington, DC: International Center for Research on Women.
- Wood, Katherine, Fidelia Maforah, and Rachel Jewkes. 1998.**
"He forced me to love him": Putting violence on adolescent sexual health agendas. *Social Science and Medicine* 47(2):233-242.



Appendix

Table 1. Statistics on prevalence of cross-generational sex for adolescent females

Country, location	Sample population and method	Citation	Statistic
Guinea (urban)	Unmarried males and females 15-24 Random survey	Gorgen et al. 1998	Characteristics of unmarried females' (15-24) current sexual partner ¹ Average 5.5 years older For females 20-24 • Average 3-5 years older For females 15-19 • Average 2 years older For females 15-16 • 65% are pupil or apprentice For females 20-24 • 20% are pupil or apprentice
Kenya (urban and rural)	Males and females 15-19 Random survey	Kekovole et al. 1997	Characteristics of unmarried females' (15-19) first sexual partner • Average age: 18.2 (3 years older than girl) Characteristics of unmarried females' (15-19) current sexual partner ¹ • Average age: 21 Characteristics of unmarried females' (15-19) most recent sexual partner • 40% 25+ years old • 4% 30+ years old
Zimbabwe (rural Manicaland Province)	Males and females 15-54 Random survey	Gregson et al. 2002	Characteristics of females' (15-24) most recent sexual partner (married and unmarried) • Median age difference 6 years For females 20-24 • Approx. 25% 10+ years older For females 17-19 • Average approx. 7 years older For females 21-24 • Average approx. 4 years older
Uganda (rural Rakai District)	Males and females 15-29 Random survey	Kelly et al. 2001	Characteristics of females' (15-29) most recent sexual partner (married and unmarried) • 98.2% same age or older than female partner For HIV+ females • Median age difference 6.3 years For HIV- females • Median age difference 5.7 years Reported characteristics of females' (15-29) most recent sexual partner • 17.0% 10+ years older • Of females 15-19, 11.8% 10+ years older • Of females 20-24, 18.6% 10+ years older • Of females 25-29, 21.4% 10+ years older
Zimbabwe (rural and urban)	Male and female secondary school students 14-19 Random ² focus groups	Sherman and Basset 1999	Characteristics of female secondary students' (14-19) current sexual partner ^{3,4} • Most 3-4 years older
Tanzania (urban)	Females 14-19 Selected by local leaders; in-depth interviews	Komba-Malekela and Liljestrom 1994	Characteristics of females' (14-19) current sexual partner ^{3,4} • Age range 16-42 years old • Approx. 66% 2+ years older • Approx. 33% 10+ years older • 85% professionals (non-students) including businessman, teacher, driver, policeman, medical assistant

Table 1. Statistics on prevalence of cross-generational sex for adolescent females (continued)

Country, location	Sample population and method	Citation	Statistic
Uganda (rural Rakai District)	Males and females 13-19 Random survey	Konde-Lule et al. 1997	Characteristics of females' (15-19) 3 most recent sexual partners (married and unmarried) <ul style="list-style-type: none"> • 23% same age • 77% older: <ul style="list-style-type: none"> ♦ 50% 20-24 years old ♦ 18% 25-29 years old ♦ 6% 30-34 years old ♦ 2.5% 35-39 years old
Tanzania (urban Dar es Salaam)	All females 15-19 with induced abortions in district hospital In-depth interviews	Rasch et al. 2000	Characteristics of current sexual partner of unmarried females (15-19) with induced abortions ¹ <ul style="list-style-type: none"> • 73% 30+ years old • 98% 20+ years old • 45% married Characteristics of current sexual partner of unmarried females (15-19) with induced abortions ^{1,5} <ul style="list-style-type: none"> • Most were married men twice girl's age • 45% 30-39 years old • 27.5% 40+ years old Characteristics of current sexual partner of females (15-29) with induced abortions in rural area ^{1,5} <ul style="list-style-type: none"> • Age range 22-35+ years old
Tanzania (rural; urban Dar es Salaam)	All females 15-19 with induced abortions in district hospital in urban area and females 15-29 with induced abortions in one rural village In-depth interviews and focus groups	Silberschmidt and Rasch 2001	Characteristics of sexual partner who was responsible for pregnancy of females (14-17) with induced abortions (married and unmarried) <ul style="list-style-type: none"> • 79% older partners • 31% 45+ years old Characteristics of sexual partner who was responsible for pregnancy of female students with induced abortions <ul style="list-style-type: none"> • Approx. 25% 45+ years old • 9% same age
Tanzania (urban Dar es Salaam)	All women with induced abortions in four public hospitals In-depth interviews	Mpangile et al. 1993	Characteristics of primary school females ⁴ <ul style="list-style-type: none"> • 46% have ever had adults as sexual partners (including teachers, relatives, and strangers) Characteristics of secondary school females ⁴ <ul style="list-style-type: none"> • 24% have ever had adults as sexual partners (including teachers, relatives, and strangers)
Tanzania (rural Mwanza Region)	Male and female primary and secondary school students aged 12+ Random survey	Matasha et al. 1998	Characteristics of females (15-20) <ul style="list-style-type: none"> • 28.4% have ever gone out with a married man Characteristics of females (21-26) <ul style="list-style-type: none"> • 50.0% have ever gone out with a married man
Cameroon (urban Yaounde)	Male and female neighborhood and university youth 17-25 Random survey	Calves et al. 1996	Characteristics of females' (15-26) sexual partner at sexual initiation <ul style="list-style-type: none"> • 93.8% older than female • 61.7% 2+ years older • 35.9% 4+ years older
Cameroon (urban Yaounde)	Males and females 15-26 Random survey	Calves and Meekers 1997	Characteristics of female students' first sexual activity ⁴ <ul style="list-style-type: none"> • 3.2% with adult male

Table 1. Statistics on prevalence of cross-generational sex for adolescent females (continued)

Country, location	Sample population and method	Citation	Statistic
Kenya (rural and urban)	Secondary school female students Random survey	AMREF 1994	Characteristics of females' (15-19) sexual partner at sexual initiation ⁴ • Median age 4 years older
Kenya (truck stops)	Males and females 15-19 at 3 truck stops Convenience sample of those in open areas of truck stops	Nzyuko et al. 1997	Characteristics of sexual partner at sexual initiation of females (15-19) who usually have sex with truck drivers • Median age 6 years older
Kenya (urban Kisumu) and Zambia (urban Ndola)	Men and women 15-49 Random survey	Glynn et al. 2001	Characteristics of females' (15-19) • 22.2% in Kisumu and 20.5% in Ndola had at least one sexual partner 25+ years old in the last year Characteristics of females' (20-24) • 75.0% in Kisumu and in Ndola had at least one sexual partner 25+ years old in the last year Characteristics of females' (15-19) non-marital sexual partners • 18% in Kisumu and 19% in Ndola 25+ years old

¹Assume one current partner only.²Not clear from text if sample was drawn randomly.³Not clear from text if current sexual partners include multiple partnerships.⁴Assume females are unmarried.⁵Not clear from text if current sexual partner or partner responsible for pregnancy.

Table 2. Statistics on prevalence of cross-generational sex for adult men

Country, location	Sample population and method	Citation	Statistic
Nigeria (urban Ondo State)	Men 15-50 Random in-depth interviews	Orubuloye et al. 1992	Characteristics of men's (15-50) non-marital female sexual partners in the last year <ul style="list-style-type: none"> • Average age is 7 years younger than average age of men • 10% under 16 years old • Approx. 20% under 18 years old • 33% students or apprentices-38% street traders (most fairly young)
Uganda (rural Rakai District)	Men 15-49 Random survey	Morris et al. 2000	Characteristics of male travelers' (15-49) sexual partners in the last year <ul style="list-style-type: none"> • 44.5% 15-19 years old • 21.9% students Characteristics of male non-travelers' (15-49) sexual partners in the last year <ul style="list-style-type: none"> • 31.0% 15-19 years old
Kenya (urban Kisumu); Zambia (urban Ndola); Benin (urban Cotonou); Cameroon (urban Yaounde)	Men and women 15-49 Random survey	UNAIDS 1999	Characteristics of men's (15-49) non-marital sexual partners in last year ¹ <ul style="list-style-type: none"> • Average 4 years younger in Cotonou • Average 4 years younger in Yaounde • Average 4 years younger in Ndola • Average 3 years younger in Kisumu
Kenya (urban Kisumu)	Male migrants 20-45 Random survey	Luke 2002	Characteristics of men's (20-45) non-marital sexual partners in the last year <ul style="list-style-type: none"> • 11.8% 10+ years younger Characteristics of sugar daddies' (25-45) non-marital sexual partners in the last year <ul style="list-style-type: none"> • 49.5% are adolescent females (< 20 years old) Characteristics of non-sugar daddies' (25-45) non-marital sexual partners in the last year <ul style="list-style-type: none"> • 30.0% are adolescent females (< 20 years old)
Kenya (urban Kisumu) and Zambia (urban Ndola)	Men and women 15-49 Random survey	Glynn et al. 2001	Characteristics of males' (25-49) <ul style="list-style-type: none"> • 33.3% in Kisumu and 33.7% in Ndola had at least one non-marital partner < 20 years old in the last year • 23.3% in Kisumu and 19.6% in Ndola had all non-marital partners < 20 years old in the last year Characteristics of males' (15-49) non-marital sexual partners in the last year <ul style="list-style-type: none"> • 66% in Kisumu and 55% in Ndola < 20 years old Characteristics of males' (25-49) non-marital sexual partners in the last year <ul style="list-style-type: none"> • 27% in Kisumu and in Ndola < 20 years old

¹ Not clear from text, men's ages or timeframe for partners.

Table 3. Statistics on prevalence of transactional sex for adolescent females

Country, location	Sample population and method	Citation	Statistic
Cameroon (urban Edea and Bafia)	Random survey	Meekers and Calves 1997b	Reported ever involvement of females (12-17) in sexual relations for exchange of money/gifts 5% Reported ever involvement of females (18-22) in sexual relations for exchange of money/gifts 15%
Cameroon (urban Yaounde)	Males and females 15-26 Random survey	Calves and Meekers 1997	Reported ever involvement of females in sexual relations for exchange of money/gifts For females (15-20) 30% 33% say money is current motive for multipartnerships (among other reasons) For females (21-26) 41%
Malawi	Random ¹ survey	Reported in Weiss et al. 1996	Reported ever involvement of females (10-18) in sexual relations for exchange of money/gifts ² Approx. 66%
Nigeria	Random survey	Reported in Weiss et al. 1996	Reported ever involvement of university women (16+) in sexual relations for exchange of money/gifts/favors 18%
Tanzania (urban)	Females 14-19 Selected by local leaders; in-depth interviews	Komba-Malekela and Liljestrom 1994	Reported ever receiving money from boyfriends by females (14-19) ² 80%
Uganda (rural)	Random survey	Nyanzi et al. 2000	Reported ever involvement of secondary school females (12-20) in sexual relations for exchange of money/gifts 85% Reported ever involvement of secondary school males (12-20) in sexual relations for exchange of money/gifts 65%
Kenya (truck stops)	Males and females 15-19 at 3 truck stops Convenience sample of those in open areas of truck stops	Nzyuko et al. 1997	Reported usually receiving money/gifts in exchange for sexual relations by females (15-19) 78% Reported usually receiving money/gifts for sexual relations by females (15-19) who usually have sex with truck drivers 96%
Kenya, Mali, Uganda, Zambia, Zimbabwe	Random survey (DHS)	PRB 2001	Reported recently receiving money/gifts in exchange for sexual relations by unmarried females (15-19) 21% Kenya 26% Mali 31% Uganda 38% Zambia 13% Zimbabwe
Uganda (rural Rakai District)	Males and females 13-19 Random survey	Konde-Lule et al. 1997	Relationships (most recent 3) of females (15-19) that involve economic support 90%

Table 3. Statistics on prevalence of transactional sex for adolescent females (continued)

Country, location	Sample population and method	Citation	Statistic
Tanzania (rural Mwanza Region)	Male and female primary and secondary school students aged 12+ Random survey	Matasha et al. 1998	Reason for having sex is presents or money 52% of female primary school students 10% of female secondary school students
Swaziland (rural and urban)	Selected schools and classrooms In-depth interviews	McLean 1995	Reported sexually active because of financial needs by female students (14+) 20% Reported boys (14+) who thought girls want gifts to show affection 36%
Mozambique (urban Maputo)	Working- and middle-class secondary school females 14-20 Random survey	Machel 2001	Received material help from male sexual partners by female secondary students (14-20) 63% in working-class school 6% in middle-class school

¹ Not clear from text if sample was drawn randomly.

² Not clear from text if reference for reported behavior is involvement in exchange ever or only with recent/current partners.

Table 4. Statistics on associations of cross-generational and transactional sex and risk behaviors and HIV

Country, location	Sample population and method	Citation	Dependent variable and significant associations
Uganda (rural Rakai District)	Males and females 15-29 Random survey	Kelly et al. 2001	<p>HIV infection for those married and unmarried females with at least one sexual partner in past 5 years</p> <ul style="list-style-type: none"> • Increased relative risk (2.04 for ages 15-19 and 1.24 for ages 20-24) for those reporting primary male partners 10+ years older compared to those with partners 0-4 years older • Increased population attributable fraction (12.4% for ages 15-19 and 5.1% for ages 20-24) for those reporting sole male partners 10+ years older compared to those with partners 0-4 years older • Significantly higher among married women: Increased population attributable fraction (13.8% for ages 15-19 and 7.5% for ages 20-24) for those reporting husbands 10+ years older compared to those with husbands 0-4 years older <p>Incidence of HIV infection for those married and unmarried females with at least one sexual partner in past 5 years</p> <ul style="list-style-type: none"> • Decreased relative risk (0.18 for ages 25-29) for those reporting most recent male partner 10+ years older compared to those with partners 0-4 years older
Zimbabwe (rural Manicaland Province)	Males and females 15-54 Random survey	Gregson et al. 2002	<p>HIV infection for those married and unmarried individuals sexually active in the last month</p> <ul style="list-style-type: none"> • Increased odds of infection with one-year age difference with most recent sexual partner (up to 2) on HIV infection in bivariate analysis For females 17-24 younger than partner: OR 1.03 For males 17-24 older than partner: OR 1.13 • Increased odds of infection (1.04 for males and females ages 17-24) with one-year age difference with most recent partner on HIV infection in multivariate analysis • Increased odds of infection (1.16 for females ages 17-24) with one-year increase in age of respondent in multivariate analysis
Kenya (urban Kisumu) and Zambia (urban Ndola)		Glynn et al. 2001	<p>HIV infection for those married and unmarried females with marital or non-marital partnerships in last year</p> <ul style="list-style-type: none"> • Positive effect of husband 4+ years older For females 15-19: 0% of those with husbands < 4 years older were HIV+ in Kisumu and Ndola; 38% in Kisumu (p= 0.02) and 34% in Ndola (p= 0.09) with husbands 4+ years older were HIV+ • No effect of age group of oldest non-marital partner on HIV infection for unmarried females 15-49
Kenya (urban Kisumu)	Males migrants 20-45 Random survey	Luke 2002	<p>Condom use at last sexual intercourse for married and unmarried men with non-marital sexual partners in the last year; all partnerships included</p> <ul style="list-style-type: none"> • Decreased odds (0.97 for ages 20-45) for one-year age difference within partnership on condom use at last sexual intercourse within same partnership in bivariate and multivariate • Decreased odds (0.99 for ages 20-45) for one-Kenyan shilling increase in transaction to female partner on condom use at last sexual intercourse within same partnership in multivariate • No effect of age of female partner on condom use at last sexual intercourse within same partnership in multivariate



Table 4. Statistics on associations of cross-generational and transactional sex and risk behaviors and HIV (continued)

Country, location	Sample population and method	Citation	Dependent variable and significant associations
South Africa (rural and urban: Eastern Cape, Mpumalanga, and Northern Provinces)	Females 18-49 Random survey	Jewkes et al. in press	<p>Discussion of HIV with sexual partner for married and unmarried women with sexual partner in the last year; one partnership included¹</p> <ul style="list-style-type: none"> ♦ Negative effect for those reporting greater than 5 years age difference with most established partner compared to those reporting partner 5 or less years older in bivariate For females 18-49: 59.3% did not discuss HIV and 46.7% did discuss HIV if partner > 5 years older (no significance test completed) ♦ Decreased odds (0.65 for ages 18-49) for those reporting greater than 5 years age difference with most established partner compared to those reporting partner 5-or-less years older in multivariate <p>Respondent suggested condom use for married and unmarried women with sexual partner in the last year; one partnership included¹</p> <ul style="list-style-type: none"> ♦ Negative effect for those reporting greater than 5 years age difference with most established partner compared to those reporting partner 5-or-less years older in bivariate For females 18-49: 57.1% did not suggest condom use and 48.5% did suggest condom use if partner > 5 years older (no significance test completed)

¹Assumes or includes only one partner in the last year.

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