Partnership and Sexual Histories of Adolescent Males in Brazil: Myths and Realities

Fátima Juárez
Centro de Estudios Demográficos y Urbanos
El Colegio de México
Mexico
fjuarez2@prodigy.net.mx

Teresa Castro Martín
Dpto. Demografía
Consejo Superior de Investigaciones Científicas
Spain
tcastro@ieg.csic.es

March 2004

ABSTRACT

The formation of close relationships and the development of sexual intimacy are important components in the emotional and social maturation process of adolescence. This paper analyzes adolescent sexual and contraceptive practices within the broader context of partnership dynamics, i.e. how frequently, with whom, for how long and under what conditions of commitment, exclusivity and sexual involvement, do adolescents establish partnerships. The data used were collected in a specially designed survey carried out in May 2000 among 1,438 adolescent males aged 13-19 in several *favelas* of Recife, Brazil. The survey collected detailed partnership, sexual and contraceptive histories in the form of month-by-month calendars for the two years prior to the interview. Our results show that some features of adolescent partnership dynamics, such as short duration patterns, high prevalence of casual relationships, brief courtship before sexual involvement and limited contraceptive protection, enhance adolescents' vulnerability to health risks. However, other features, such as sporadic dating, high prevalence of nonsexual partnerships, and hence relatively infrequent and intermittent sexual intercourse, limit their actual exposure to health risks, particularly in early and middle adolescence. We also find considerable continuity in contraceptive protection across successive partnerships.

Paper prepared for presentation at the 2004 Annual Meeting of the Population Association of America, April 1–3, 2004, Boston, Massachusetts.

PARTNERSHIP AND SEXUAL HISTORIES OF ADOLESCENT MALES IN BRAZIL: MYTHS AND REALITIES

In Brazil, as in many developing (Blanc and Way, 1998; Singh et al., 2000) and developed countries (Darroch, Singh and Frost, 2001; Bozon, 2003), the majority of youth become sexually active in their teen years (Gupta, 2000), and widespread acceptance of premarital sex has become the social norm (Beria, 1998). Data on adolescent sexual behaviour has been traditionally scarce, but in the past two decades, the global threat posed by the HIV/AIDS epidemic has moved the issue of sexual health to the forefront of the research and policy agenda (Kiragu, 2001). The crucial importance of addressing the special sexual and reproductive health needs of the adolescent population has been emphasized in many international fora (United Nations, 1995; UNICEF/UNAIDS/WHO, 2002; UNFPA, 2003). Furthermore, since condoms remain the sole method available to prevent HIV infection, adolescent male patterns of sexual and contraceptive behaviour have become the focus of increasing attention (AGI, 2003).

According to the last 2000 census, adolescents aged 10-19 comprise more than one-fifth of Brazil's population. In sharp contrast to the continued decline in total fertility observed throughout Brazil over the past decades, fertility rates for adolescents have been rising (Gupta and Leite, 1999). Brazil also accounts for more than half of AIDS cases reported in the Latin American region (PAHO, 2002). Although the national incidence rate of AIDS has recently stabilized (Ministério da Saúde, 2002; UNAIDS/WHO, 2002) and there has been a significant reduction of AIDS-related mortality due to universal access to retroviral therapy since 1996 (Marins et al. 2003), infection rates among youth continue rising. During the past decade, both governmental and non-governmental organizations have launched ambitious campaigns to promote responsible sexual behaviour, with special emphasis on condom promotion and distribution. An important part of HIV prevention efforts have focused on adolescents, not only because their particular vulnerability to sexual health risks but also because they are more amenable to behavioural change than adults (PAHO, 2000; Schutt-Aine and Maddaleno, 2003). Public health efforts have been fairly successful and there has been a remarkable change in awareness and attitudes among adolescents. However, further efforts are still needed to translate HIV awareness –which is practically universal– into behavioural change. Because of their tendency to focus on immediate rather than on long-term consequences of their behaviour and their difficulties to personalize risk, a significant proportion of adolescents still consider unprotected sexual intercourse as dangerous in general, but not for them in particular.

Adolescence is a period of growth, experimentation and identity search, during which individuals start establishing interpersonal bonds beyond the family, including romantic and sexual

relationships (Furman, Brown and Feiring, 1999). During this stage of physical, emotional and social maturation, adolescents are particularly vulnerable and in many cases ill-equipped to make responsible choices that would not compromise their long-term sexual and reproductive health. Sexual experimentation, sporadic relationships, casual encounters, simultaneous relationships and frequent partner change are commonly assumed to be natural features of adolescent partnership dynamics. However, little research has been conducted to assess how prevalent are these patterns.

Because the study of adolescent sexual behaviour has been largely motivated by health concerns, most research efforts have focused on measuring the determinants of early sexual initiation and of condom use, particularly at first and last sexual episode. However, in order to understand the rationale behind adolescent behaviour, it is important to insert adolescents' first and last sexual experiences within the broader context of partnership dynamics. Adolescent sexual and contraceptive behaviour are influenced by type of relationship, subjective perception of risk and previous partnership and sexual history. Our analysis expands on prior research in several ways: by focusing on all partnerships (both sexual and nonsexual), in order to assess the prevalence of sexual intimacy in adolescents' close relationships; by examining partnership and sexual trajectories during a two year period, in order to estimate actual durations of exposure to health risks; and by linking early, recent and current experiences, in order to assess whether there is certain continuity of sexual and contraceptive patterns across successive partnerships.

Although our analysis is largely exploratory, three distinct but related research questions guided our work. First, we were interested in understanding how sexual initiation fits within the broader dating process. Second, we wanted to explore whether sexual initiation provides a realistic marker of the onset of exposure to risk and whether adolescent vulnerability to health risks is actually linked to their partnership behaviour (i.e. to the frequency, type, duration and exclusivity patterns of their intimate relationships). And third, we wanted to assess the conditioning effect of both prior partnership experience and current relationship context on adolescent decisions.

DATA AND METHODOLOGY

This study is part of a larger project aimed at promoting condom use among low-income adolescent males in Recife (Brazil) and assessing the impact of a specially designed intervention.[1] The data

[1] The project, funded by DFID, was led by the London School of Hygiene and Tropical Medicine, in collaboration with two Brazilian counterparts, Fundação Joaquim Nabuco and BEMFAM. The intervention, named *Proteger,* was a peer-led outreach programme designed to encourage adolescent males to adopt and maintain safe sexual behavior and had a duration of 15 months. Under a youth-to-youth scheme, adolescent

presented here were collected in a baseline survey[2] carried out in May 2000 among 1,438 adolescent males aged 13-19 in several *favelas* (extensive urban slum areas) of Recife. Qualitative data –focus groups and in-depth interviews– were also collected and used in the design and refinement of the survey instrument, paying special attention to employing adolescents' own terminology when inquiring about partnership and sexual issues.

The issues covered by the survey questionnaire include family and socio-demographic background, views on sexual matters, HIV risk awareness and beliefs, and attitudes relevant to condom use. In addition to information on the timing and context of first date and sexual initiation, the survey collected detailed partnership, sexual and contraceptive histories, in the form of month-by-month calendars, for the two years prior to the interview date. Each respondent was asked to identify up to 4 partners (*parceiras*). Partnerships could, but did not necessarily, involve sexual intimacy. For all reported partnerships, start and ending dates, degree of commitment to the relationship (casual versus steady) and age of the partner were recorded. If the partnership involved sexual intimacy, additional questions on the circumstances surrounding the onset of the relationship and contraceptive protection were asked.

The study is subject to several limitations. First, since the survey data were entirely collected in low-income slums, results cannot be generalized to the overall Brazilian adolescent population. The focus on disadvantaged neighborhoods is however justified by the strong link between early sexual initiation, risk of HIV infection and poverty in Brazil (Bastos and Szwarcwald, 2000). A second limitation is that partnership, sexual and contraceptive retrospective histories place heavy demands on the memories of respondents and may be subject to recall error. In particular, respondents may have forgotten or failed to report brief casual relationships. Also, data on sensitive issues, such as unprotected sexual activity or concurrent partnerships, may not be adequately reported. In this regard, it is important to point out that interviews were conducted by well-trained young male interviewers who had been involved in the qualitative fieldwork and spent time building rapport with respondents before conducting the interviews.

Analytic methods

The first part of the paper is mainly descriptive. We examine the process of dating and sexual initiation using life table techniques because a substantial proportion of the respondents, particularly younger adolescents, had not experienced sexual debut by the interview date. We then

---

educators were recruited from the community and trained to convey information on sexual and reproductive health issues and to promote and distribute condoms among their peers.

[2] A follow-up survey has been recently conducted to measure the impact of the intervention, but data are not yet available.

explore the characteristics, duration patterns and dynamics of adolescent recent partnerships. Combining partnership, sexual and contraceptive calendar data for a two-year span, we also estimate adolescents' actual exposure to unprotected sex. Given that adolescent behaviour differs largely by developmental stage, we present separate indicators by age.

In the second part of the paper, our goal is to examine the relative effect of prior experiences and current relationship context on adolescent behaviour. Our analytical strategy is to explore the decision-making process in a sequential fashion, examining three types of outcomes: First, we examine, for the full sample of adolescents, whether the respondent reports any partnership in the past two years (n=1,438). Second, we examine whether the respondent engaged in sexual intercourse within the last partnership reported (n=1,096). Lastly, we examine whether the respondent used a condom in his last sexual relationship (n=678).

Logistic regression analysis is used for multivariate modelling. All models control for respondents' socio-demographic background, although we will focus primarily on the effects of past partnership experiences and current relationship context. Since for sexually active adolescents, more detailed information was collected, models of contraceptive protection include a larger number of covariates. The results are expressed as odds ratios, which are the exponential value of the coefficient and are to be interpreted relative to the omitted category.

Sample Characteristics

The socio-demographic characteristics of the overall sample are summarized in Table 1. The percentage distributions of the working samples used later in the analyses of sexual involvement and condom use are included in the tables that present the multivariate results.[3] According to Table 1, the large majority of respondents (87%) are still attending school. The length of compulsory education in Brazil is 8 years –from age 7 to age 14– and corresponds to the primary school cycle. Given that respondents' ages are between 13 and 19, all of them should have attended school at least 7 years. However, only 37% of all surveyed adolescents report 7 or more years of schooling, and nearly one-third have attended school less than 5 years. Enrollment discontinuation, grade repetition and dropping-out rates are generally high in Brazil (UNESCO, 2002), and presumably more so in disadvantaged communities. Nearly two-thirds of adolescents report having received sexual education at school or outside school and, according to their answers to several questions related to AIDS transmission and prevention (not shown here), they are reasonably well informed about AIDS.

[3] Although the overall sample is evenly distributed among ages 13 to 19, the age composition of subsequent analytical samples is relatively older. Whereas the mean age of the overall sample is 15.9, when we restrict the sample to those adolescents with some recent partnership experience, the mean age is 16.3, and for those with some recent sexual experience, the mean age is 16.9.

The State of Bahia is characterized by a strong ethnic mixture. Accordingly, more than half of adolescent boys report themselves of "mixed race". Catholicism appears as the predominant religion, although 15% of respondents report other religion –mainly Evangelical– and nearly one-third declares to have no religion. The prevailing family structure reflects a high level of parental union instability. About half of the boys do not live with their two parents, mainly as a consequence of marital or consensual union disruption, although a non trivial proportion (14%) declares that one or both of their parents are dead. A relative wealth index was computed on the basis of respondent's household assets and grouped into three categories, with the low and high categories roughly corresponding to the lowest and highest 75th percentile. Although all the boys come from impoverished neighborhoods, this index is aimed to capture some relative socioeconomic differentials.

RESULTS

Dating, sexual initiation and contraceptive protection: age-graded and sequential transitions

Although sexual initiation is typically measured as a unique transition at one point in time, it can also be viewed as part of a cumulative process, in which dating, going steady, intimating and engaging in sexual intercourse are successive stages along a developmental trajectory (Thornton, 1990). Implied in this life course developmental framework is the general notion that earlier experiences influence subsequent behaviour. In particular, earlier dating initiation is expected to lead to earlier sexual initiation, not only because a dating relationship provides a potential partner for sex –in our sample, only 13% of adolescents report the same age at first date and first sex–, but because dating experience provides useful social skills for interacting with members of the opposite sex, expands social networks and encourages a gradual progression to increasing levels of emotional and sexual intimacy. A number of studies have confirmed that most adolescents progress from dating to sexual activity (Longmore, Manning and Giordano, 2001) and that early dating is linked to early sexual debut (Cooksey, Mott and Neubauer, 2002).

In order to examine whether our data are consistent with this developmental framework, Figure 1 presents several indicators related to dating and sexual experience for successive ages. The proportion of adolescents who report ever dating, ever heavy petting, ever having sex and ever having used contraception are represented along the age axis. The pattern observed suggests the existence of age-graded transitions, presumably in consonance with social and cultural norms. Whereas approximately two-thirds of adolescents aged 13 report having ever dated, dating experience is universal among 19-year-olds. Similarly, experience with sexual intimacy expands

considerably with age. The proportion of sexually experienced adolescents rises from 13% at age 13, to 63% at age 16 and to 92% at age 19. In consonance with the developmental framework, the data suggest a relatively ordered sequence from dating to physical intimacy without sexual intercourse, then to sexual intercourse and lastly to contraceptive use. At every age, the proportion of adolescents with dating experience exceeds the proportion with sexual experience, and the number of sexually experienced adolescents exceeds the number of adolescents who have ever used contraception. Because of the cumulative nature of these aggregate measures, differentials are much larger in early adolescence than in late adolescence.

Additional insights can be gained by comparing life table estimates of the timing of transition to first date and first sex, which include information on adolescents who have not yet completed those transitions. Figure 2 confirms that dating is a precursor to sexual intimacy and that there is a significant time lag between the transition to first date and to first sexual intercourse. Specifically, the median age at first date is 13.4 whereas the median age at first sex is 15.6[4]. Only a minority of adolescents (4%) report having had their sexual debut before their first date. If we exclude those cases and those who have not yet dating experience (12% of the sample), the median interval between first date and first sexual intercourse is 2.8 years. This duration does not vary significantly across socio-demographic groups, but does vary according to age of dating initiation: those adolescents who start dating late proceed faster to sexual initiation. For instance, for those adolescents whose first date was before age 11, the median interval from first date to first sex is 5.2 years, whereas for those who started dating at age 15 or later the median interval is 1.6 years. Despite this marked catching-up effect, later onset of dating favours later sexual debut: the median age at first sexual intercourse is 14.6 for those who started dating before age 13 compared to 15.8 for those who started dating afterwards.

Unfortunately, we have no data on age at first contraceptive use, which would allow us to examine to what extent adolescent first experience with contraception lags behind sexual debut. Approximately one-third of adolescents (32%) report having used contraception in their first sexual encounter and the vast majority of them (98%) relied on condoms (Juarez and Le Grand, 2003). Although clearly inadequate, this level of protection represents a significant improvement on what was recorded in the recent past. According to the *Pesquisa sobre Saúde Reprodutiva e Sexualidade do Jovem*, conducted also in Recife in 1990, only 9% of men aged 15-24 used condoms in their first sexual relationship and an additional 10% used other methods, mainly the pill and withdrawal (BEMFAM/CDC, 1992). It is evident, however, that the predominant pattern among adolescents is to initiate contraceptive use after having gained some sexual experience.

[4] This estimate is very close to the national estimate for 1996, based on data from the *Pesquisa Nacional sobre Demografia e Saúde*, which is 15.3 (BEMFAM/Macro International, 1997).

With regard to the relationship context in which sexual initiation takes place, the data in Table 2 suggest that the most common pattern is sexual initiation within a non-romantic relationship: 61% of adolescents reported that their first sexual partner was a friend (*amiga*) and only 27% described their first partner as girlfriend (*namorada*). For more than half of the respondents, age differences with their first sexual partner were below 3 years, although sexual initiation with an older partner was not uncommon (16%). Most adolescents had known their partner for some time before starting the relationship (49% for more than a year), but once the relationship started, the progression to sexual intimacy was relatively fast: 16% the same day, and 21% in about a week. With regard to protective behaviour, more than two-thirds (68%) of adolescents reported not having used contraception at their first sexual encounter, and the main reasons given were that "intercourse was unexpected" and that "they did not worry about it".

The context of sexual initiation is partly shaped by its timing. The older the adolescent, the more likely that sexual initiation takes places within a romantic relationship and that contraception is used. Whereas only 20% of adolescents who became sexually active before age 14 reported condom use at first intercourse, the proportion increased to 45% among those who postponed sexual initiation beyond age 16. The reasons for unprotected sex also vary with age: although unplanned intercourse remains the main reason across all ages, the proportion of adolescents who report no knowledge of any contraceptive method declined from 13% among those whose sexual initiation was below age 14 to zero among those whose sexual initiation was above age 16.

In sum, the portrait of sexual initiation of adolescents in Recife does not differ much from the patterns documented in other societies (AGI, 1998). Adolescents start dating at an early age and half of them become sexually active before reaching their 16th birthday. The transition from first date to first sex is not immediate, but lasts on average 2-3 years, suggesting that young adolescents have several close partners before they proceed to more intimate relationships. Just as the onset of sexual activity lags behind the onset of dating, the initiation of contraceptive protection lags behind the initiation of sexual activity. But whereas the time lag between first date and first sex can be beneficial for adolescents, providing a stage for relationship skill building, the interval between first sex and first contraception exposes adolescents to unnecessary risks. Further educational efforts hence should be addressed to make these two transitions simultaneous.

A variety of partnership styles and partnership paths

After describing adolescents' early experiences, this section will focus on recent partnership, sexual and contraceptive behaviour, specifically during the two years prior to the interview.

Compared to adult partnerships, adolescent relationships are expected to be more tentative, unstable, uncommitted and short-lived. Since potential health risks and contraceptive decision-making are linked to relationship context, it is important learn more about adolescent partnership dynamics, i.e. how frequently, with whom, for how long and under what conditions of commitment, exclusivity and sexual involvement do adolescents establish partnerships.

Table 3 summarizes the characteristics of *all partnerships* reported in the past two years. The data reveals that non-sexual[5] and sexual partnerships, as well as steady and casual relationships, are all common during adolescence. Of the 2417 partnerships reported by 1096 adolescents, only about half involved sexual activity. A slightly higher proportion of non-sexual partnerships (52%) than sexual partnerships (43%) were described as steady. Similarly, a higher proportion of non-sexual partners (63%) than sexual partners (48%) were referred to as girlfriends (*namoradas*), suggesting that the link between romantic attachment and sexual activity is not always clearcut. The meaning of steady (*firme*) and casual (*ocasional*) relationships may be ambiguous and was subjectively interpreted by respondents. The corresponding duration patterns, however, are consistent with expectations: the average length of a steady relationship was 4.7 months compared to 1.6 months for a casual relationship. The distribution of casual partnerships was highly skewed towards very short durations –half of all casual partnerships lasted less than one month–, and steady/casual duration differentials were larger in sexual partnerships (1.7 vs. 6.3 months) than in nonsexual partnerships (1.3 vs. 3.4 months). Generally speaking, though, these differentials cannot be considered large, because even those partnerships that adolescent label as steady are indeed short-lived. We can conclude, hence, that transitory relationships are the norm during adolescence. With increasing age, the likelihood of entering a sexual partnership rises significantly, but the likelihood of entering a steady relationship remains relatively unchanged.

In addition to short-lived partnerships, an aspect that does not favour mutual knowledge and fluid communication among partners conducive to contraceptive use, the transition from the onset of the relationship to sexual activity tends to be quite rapid: in 41% of reported sexual partnerships, sexual intercourse took place the same day or the same week the relationship started. The courtship period before sexual intimacy is longer with steady partners than with casual partners, but even within steady relationships it lasts less than one month for 68% of adolescents. These data suggest that most adolescents have a superficial knowledge of their partner when they engage in sexual activity and hence are ill-equipped to make an adequate assessment of HIV risk.

[5] The term nonsexual partnership is used throughout this paper to refer to partnerships within which respondents report no sexual intercourse, although partners may have some intimacy of sexual nature.

Table 4 summarizes adolescent partnership trajectories in the past two years, searching for certain continuity of behaviour across partnerships, i.e. whether a type of partnership is consistently preferred by some adolescents and whether they move from one partnership to another following a predictable pattern.

With regard to the *total number of partnerships*, the data in Table 4 cast some doubt on the commonly held belief that adolescent males have many partners. About half of the adolescents surveyed reported no relationship or only one relationship during the previous two years, and only 15% reported four or more partners. According to expectations, the number of partners raises significantly with increasing age, but even among older adolescents (those aged 18-19), a large proportion (57%) report fewer than three relationships in this two year period. If we restrict the analysis to those partnerships which entailed sexual intimacy, the notion of frequent partner change is even more dubious. About 9 in 10 adolescents report at most two sexual partners in the previous two years. And even among 18-19 year olds, only 22% report 4 or more partnerships.

Although there are multiple possible trajectories adolescents may follow, we have summarized them into 4 paths: no partnership, only nonsexual partnerships, only sexual partnerships, both nonsexual and sexual partnerships. We observe certain degree of continuity regarding sexual involvement across successive partnerships: about 29% of adolescents reported only nonsexual partnerships and 26% reported only sexual partnerships,[6] but an important proportion (21%) moved from one type of relationship to the other. This proportion increases significantly with age. Since we have previously seen that it is common for adolescents to have several nonsexual partners before engaging in sexual activity, the typical transition is expected to be from a nonsexual partnership to a sexual partnership. This sequence would be in consonance with the widespread assumption that, once the transition to sexual activity is made, adolescents continue to be sexually active with all subsequent partners. Our data suggest that, in fact, this is the dominant pattern, but not the only one. Among those adolescents who had at least one sexual partnership, nearly one third (31%) experienced a transition from a sexual partnership to a nonsexual partnership. This unanticipated path suggests that the decision to get sexually involved within a partnership is not only conditioned by prior sexual experience, but also by the context of each specific relationship and possibly by partner's decisions.

A similar classification of recent partnership trajectories with regard to the degree of commitment to the relationship was also performed. For the overall sample, about 22% of adolescents reported only casual relationships, 27% reported only steady relationships, and 27% experienced both types

[6] This consistency is partly artificial, because a considerable proportion of adolescents had only one relationship during the 2 year period under study.

of relationships in their recent biographies. As expected, diversity in the context of partnership experiences increases with age: 41% of 18-19 year-olds report both casual and steady partners.

Contraceptive protection practices show a higher degree of consistency across partnerships than patterns of sexual intimacy and commitment. In the overall sample, 26% of adolescents reported only protected sexual partnerships and 14% reported only unprotected sexual partnerships, whereas only 7% reported having experienced both types of situations. The likelihood of reporting consistent contraceptive protection across partnerships increases significantly with age: 45% of 18-19 year olds reported having used contraception in all their recent sexual partnerships, although a sizable proportion (19%) acknowledges regular non use. Among those adolescents who experienced both protected and unprotected sexual relationships, the predominant sequence was from an unprotected to a protected sexual partnership. Only 9% report a transition in the opposite direction: from a protected to an unprotected relationship.

We explored also whether concurrent partnerships were common during adolescence. A thorough examination of month-by-month partnership calendars revealed that less than 10% of all adolescents experienced simultaneous or overlapping relationships during the previous two years, although this proportion increased to 16% among 18-19 year olds. If we restrict the analysis to sexual partnerships, the level of concurrency is even lower: only 4% of all adolescents have had two or more simultaneous sexual partners, although again this proportion increases with age (9% among 18-19 year olds). Therefore, although a large proportion of adolescent partnerships are of a casual nature, and low emotional attachment and weak commitment are not conducive to fidelity, since they are typically short-lived, the dominant resulting pattern is one of serial monogamy.

In sum, our exploratory analysis suggests large diversity in adolescent relationship experiences. As corresponds to a period of experimentation, partnerships vary in nature, intensity, commitment and degree of sexual involvement. A large proportion of adolescents have experienced both sexual and non-sexual partnerships, and have engaged in sexual activity in both casual and steady contexts. Some features of adolescent partnership dynamics, such as the high prevalence of casual relationships, the short duration of most partnerships –including those considered steady–, and the rapid transition from the onset of the relationship to sexual intimacy, enhance adolescents' vulnerability to health risks, because they discourage partners mutual knowledge and communication. The examination of adolescent recent trajectories, however, casts some doubts on the widespread image of adolescents as "risk-takers" (Juarez and Castro Martín, 1997). For instance, nonsexual partnerships are highly prevalent during adolescence, even among adolescents with prior sexual experience, and concurrent sexual partnerships are rather exceptional. Hence, although the common assumption that age at first intercourse marks the onset of exposure to sexual health risks is convenient for measurement purposes, the fact that exposure

is largely discontinuous and intermittent should not be overlooked. We have also found a high degree of continuity in contraceptive behaviour across partnerships. Once adolescents have used contraception, it is unlikely that their subsequent sexual partnerships are unprotected. We will later test this pattern in a multivariate framework.

Potential vs. actual exposure to risk

The preceding section has cast some doubts on some commonly held notions of adolescent partnership and sexual behaviour. We found no strong evidence to support that adolescent males have a large number of sexual partners, that they often engage in simultaneous relationships or that, once they make the transition to first sexual intercourse, all their subsequent partnerships involve sexual activity. Although our analysis is limited to a two-year window of observation, we found no evidence either of a pattern of frequent partner change. Partnerships tend to be short-lived, but the transition from one relationship to the next one is not rapid: e.g. the median duration from first partnership termination to second partnership initiation is 8.6 months. Instead, the portrait of adolescent partnership dynamics reveals sporadic dating, long periods of sexual inactivity – because of lack of partner or involvement in a nonsexual partnership– and serial monogamy.

In order to illustrate what these partnership patterns imply in terms of actual exposure to risk, we have combined partnership, sexual and contraceptive calendar data to assess respondents' risk status during the past two years. The 25 months in the calendar were classified into four states: outside partnership, within partnership but with no sexual activity, within a sexual partnership protected by contraception[7] and within a sexual partnership unprotected by contraception. The proportion of time spent within each risk status is represented in Figure 3. We can observe that, on average, adolescents spent a very large fraction of the two-year period under examination – specifically 18.7 months– outside a partnership. Within the remaining segment spent within a partnership, only 2.8 months were spent within a sexual partnership. About half of the exposure within a sexual partnership was protected by contraceptive use. The remaining segment, 1.1 months (5% of the period examined), would correspond to a strict definition of exposure to sexual health risks. The duration of actual exposure to unprotected sex is quite short among younger adolescents (0.4 months for 13-14 year olds) and increases among older adolescents (2.4 months for 18-19 year olds). Although even short exposures to unprotected sex are a cause of concern because they can have serious and long-term consequences for sexual health, our data suggests that adolescent actual exposure to risk is lower than generally assumed. Risk appraisal and trend monitoring would benefit from using more realistic measures of actual risk exposure.

[7] We assume continuous protection between the dates of contraceptive onset and end reported, although it is possible that contraception was not used in all sexual encounters with that particular partner.

In a world radically changed by HIV/AIDS, the risk framework dominates the discourse of adolescence in demographic research (Corrêa and Parker, 2004). Although the focus on sexual risks has been extremely useful to promote prevention efforts, some authors have argued that approaching adolescent sexual behaviour simply in terms of health risks might prove too narrow for truly understanding this important aspect of adolescent development (Pareja, Gomes and Gonçalves, 2000; Fortenberrym, 2003). Other authors remind us that, in many disadvantaged contexts, poverty, lack of educational and economic opportunities, unequal gender norms or inadequate access to health care, usually jeopardize adolescent health and well-being to a greater extent than sexual behaviour (Mensh, Clark and Anh, 2003). Our results do not challenge the usefulness of the risk approach, but warn us against presenting adolescents as individuals permanently exposed to risk.

The conditioning effect of past experience and current relationship context

Our exploratory analysis of adolescent recent biographies revealed that, although there is considerable heterogeneity in partnership styles and partnership trajectories, adolescents show certain behavioural consistency across partnerships. This pattern is congruent with a life course perspective, which stresses the role of early experiences in shaping subsequent behaviour. In this section we will test the linkages between past and current partnership, sexual and contraceptive behaviour in a multivariate framework. Besides prior experience, we will focus as well on current relationship context, to assess its relative influence on adolescent decisions regarding sexual intimacy and contraceptive behaviour.

We proceed in a stepwise fashion. We first examine whether the timing of dating initiation has an effect on adolescents' recent partnership experience. Second, for adolescents who reported at least one partnership in the preceding two years, we estimate the effect of earlier partnership experience and current type of relationship on sexual behaviour with their last (or current) partner. Third, for adolescents who reported at least one sexual partnership, we examine the effect of prior sexual and contraceptive experience as well as current relationship context on whether they protected themselves and their last partner by means of contraception.

The influence of the timing of dating initiation on *recent partnership experience* is addressed empirically in Table 5. A large proportion of the adolescents interviewed (76%) reported at least one partnership in the past two years, but there are significant differentials. As expected, age has the strongest effect on the odds of reporting one or more partnerships: 18-19 year olds are nearly 8 times more likely to have recently entered a partnership than 13-14 year olds. After controlling for current age, age at first date also has a strong impact on recent partnership behaviour: those

adolescents who started dating before age 13 are nearly three times more likely to have experienced at least one partnership in the past two years than adolescents who started dating at a later age. Differentials among socio-demographic groups are more modest, but the likelihood of having experienced a close relationship is significantly higher for adolescents with more years of schooling, those who have left school, Catholic, non-white adolescents, and those economically better-off.

We have previously noted that adolescent partnerships do not necessarily involve sexual intimacy. In fact, among those adolescents who reported at least one partnership in the past two years, less than half (45%) reported that their last partnership involved sexual intimacy. Because of the age-graded nature of the transition to sexual activity, age appears in the multivariate model of Table 6 as the strongest predictor of *sexual involvement in last partnership*. Congruent with previous research that has documented a significant association between dating and sexual activity, the results show that early dating initiation increases the likelihood of recent sexual intimacy: adolescents who started dating before age 13 are 33% more likely to have engaged in sexual activity within their last partnership than adolescents whose first date was at a later age. More recent experiences have even a stronger influence on current behaviour. Adolescents who report at least one prior sexual partnership during the past two years are 4 times more likely to have been sexually involved with their last (or current) partner than adolescents who report only nonsexual partnerships in the past.

Although past experiences largely shape current behaviour, the nature, meaning and significance of a particular relationship are also expected to influence adolescents' decision to get sexually involved or not. According to the data in Table 6, the likelihood of sexual activity does not differ significantly for casual and steady relationships,[8] but adolescents are more likely to be sexually active with friends than with girlfriends. This result apparently contradicts the expected link between love and sex, but it is congruent with the fact that whereas romantic partnerships can be of a sexual or nonsexual nature, most non-romantic partnerships are based on sexual bonds.

The decision to get sexually intimate naturally depends on two persons and hence both partners' characteristics should ideally be considered when analyzing the determinants of sexual behaviour (Cleveland, 2003). Unfortunately, the survey did not collect information on partners' characteristics, with the exception of age. The odds ratios in Table 6 confirm the relevance of this variable.

[8] Bivariate results show that adolescents in steady relationships are less likely to be sexually active than adolescents in casual relationships, but once type of partner (girlfriend vs. friend) is controlled for, differentials loose their statistical significance. Although the two variables are highly correlated, there is not full correspondence between level of commitment and symbolic representation of the partner: 24% of respondents in casual relationships referred to their partner as girlfriend.

Adolescents whose dating partners are 3 or more years younger than themselves are less likely to become sexually involved than adolescents with a partner of similar age. Conversely, dating older partners (3 or more years older) increases the likelihood of sexual involvement more than three-fold.

With regard to the rest of the socio-demographic background variables, most of them, such as education, race/ethnicity, family structure and relative wealth, show no statistically significant –or only marginally significant– effect on current sexual behaviour, once age and recent partnership experience are included in the model. Only religious denomination shows a significant effect: Catholic adolescents and those who declare no religion are more likely to report sexual activity in their last partnership than adolescents of other denominations (mainly Evangelists).

Table 7 presents a model that focuses on the *likelihood of condom use* at last sexual partnership. The proportion of adolescents who protected themselves and their last sexual partners with condoms was 60% of all adolescents who had at least one sexual partnership in the past two years.[9] Since adolescent sexual behaviour is profoundly shaped by gender roles (Gage, 1998) and males are usually in an advantageous position regarding condom use decisions, it is important to understand the factors that shape this decision. In contrast with the results of previous models, age is not a significant predictor of condom use within last sexual partnership. However, early sexual and contraceptive experiences have a strong influence on current contraceptive behaviour. Although early sexual initiation (before age 13) becomes only marginally significant once the rest of the covariates are controlled for, contraceptive use at first sex stands out as the strongest predictor of current condom use. Adolescents who used condoms at their sexual debut were nearly 8 times more likely to use condoms in their last sexual partnership than adolescents who did not use any protection. Recent contraceptive experience also has a strong influence on current protective practices. Those adolescents who used contraception in their recent past were 6.5 times more likely to use condoms in their last sexual partnership than adolescents with no recent contraceptive experience. Confirming our descriptive observations, these results suggest that there is a significant level of continuity in contraceptive behaviour across partnerships and over time.

The observed link between prior and current contraceptive practices suggests that once adolescents have become aware of the risk of unprotected sex and have gained some experience in condom use, they are likely to maintain a pattern of protective behaviour even if they move to a new partnership. Nevertheless, contraceptive use must be negotiated with each new sexual partner and, hence, contraceptive decisions must also be examined within the specific context of each

[9] Only a small proportion of adolescents (4.7%) reported using a contraceptive method different than condoms, mainly the pill.

relationship. Theories of risk prevention had traditionally focused on individual risk (or protective) factors, and had largely disregarded the intimate context in which sexual activity takes places, but recent studies have highlighted the linkages between relationship characteristics and contraceptive patterns at sexual initiation (Manning, Longmore and Giordano, 2000; Manlove, Ryan and Franzetta, 2003), and in later partnerships (Ku, Sonestein and Pleck, 1994; Ford, Sohn and Lepkowski, 2001), although findings are often contradictory. Recent research has also documented that the level of emotional involvement and the duration of the relationship often shape adolescents' assessment of risk and consequently the decision to have (un)protected sex (Gebhardt, Kuyper and Greunsvenm 2003).

According to Table 7, the likelihood of condom use is 41% lower among adolescent boys in a steady relationship than their counterparts in a casual relationship. In a previous study, we found that the lower odds of condom use among adolescents in steady relationships did not result from their higher rejection of contraception, but from their higher likelihood to substitute condoms by other contraceptive methods, mainly the pill (Juarez and Castro Martín, forthcoming). One of the reasons for divergent condom use patterns by type of relationship lies on different degrees of perceived risk (Longfield, Klein and Berman, 2002). The data confirm that the proportion of adolescents who assess their risk as "moderate" or "great" is higher among those in casual partnerships (34%) than in steady partnerships (27%). Moreover, qualitative data from focus groups revealed that, not only perceived risks tend to be lower in the context of a steady partnership, but also that strong emotional ties and feelings of trust can act as an important barrier to condom use, partly because for many adolescents condoms are symbolically associated with promiscuity, infidelity and disease.

Familiarity with the partner before the onset of the relationship also appears to discourage protective behaviour. Those adolescents who were acquainted with their partner before initiating a close relationship, and those who were introduced to their partners by a family member were less likely to use condoms. Age heterogamy between partners, however, does not seem to have a significant effect on condom use patterns.

With regard to the remaining socio-demographic background variables, only having completed 7 or more years of schooling has a significant positive effect on the level of condom protection. Having received sexual education, being black, or being a member of a relatively better-off household also increase the odds of condom use, but these variables are only marginally significant.

In sum, although there are diverse relationship styles and multiple partnership trajectories, the three models presented, which examine different but related outcomes, provide some indication of behavioural continuity. Congruent with a life course perspective, prior experiences are found to

shape later behaviour. With regard to early transitions, we have documented that age at first date, age at first sex and contraceptive use at first intercourse are significantly associated with later partnership, sexual and contraceptive behaviour. With regard to more recent experiences, our results suggest certain behavioural continuity across partnerships. Adolescents who had a sexual partnership in the recent past are more likely to be sexually involved with their current partner, and adolescents who had prior contraceptive experience are more likely to protect themselves and their current partner. Besides past experience, the current relationship context has also been shown to shape adolescents' decisions on sexual involvement and (un)protected sex.

SUMMARY AND DISCUSSION

The formation of close relationships and the development of sexual intimacy are important components in the emotional and social maturation process of adolescence. This paper has analyzed adolescent sexual and contraceptive practices within the broader context of partnership trajectories, in order to explore the validity of some commonly-held notions of adolescent patterns of behaviour related to sexual health risks.

We first examined early transitions, and confirmed that sexual initiation is part of a broader process, where dating, physical intimacy and sexual intercourse are usually age-graded and sequential transitions. All these transitions are temporally interrelated, i.e. early dating initiation is associated with early sexual initiation, suggesting that even though sexual activity is the relevant focus for sexual health, the stages that precede sexual initiation should not be ignored. Documented trends towards earlier sexual initiation in some countries (United Nations, 2002), for example, might be linked to trends in earlier dating initiation. The adoption to contraceptive protection is another key marker along this developmental process. For most adolescents, the transition to contraceptive use is experienced after some sexual experience has been gained, and once the transition is made it is likely to persist across partnerships. In order to minimize sexual health risks, further efforts should be directed to make the onset of sexual activity and contraceptive protection simultaneous.

Then we examined and summarized salient features of adolescents' partnership dynamics. As anticipated, most adolescents have some dating experience, but the data showed that dating episodes are generally sporadic and brief, and that for a large proportion of adolescents, they do not involve sexual intercourse. We found that casual and steady relationships, romantic and non-romantic relationships are all prevalent during adolescence. Nevertheless, we found no evidence for some stereotypical features of adolescent behaviour, such as "promiscuity", simultaneous relationships and frequent partner change. In fact, adolescents spent most of the time outside a

partnership, and half of the partnerships reported did not involve sexual intimacy. Even older adolescents (18-19 year olds), most of which are already sexually experienced, spent 77% of the past two years outside a sexual partnership. Other studies, although not focused on adolescents, were also unable to find much evidence for the popular image of a sensual, sexually open Brazil and have warned against over-generalizations regarding Brazilian male sexuality (Ford, Meloni and Villela, 2003).

Our estimation of actual exposure to risk, based on month-by-month partnership, sexual and contraceptive calendars, suggests that sexual health risks are often overestimated when all sexually experienced adolescents are considered exposed to risk or when age at first sex is taken as the marker of the onset of risk exposure. Because adolescents have relatively few partnerships, many of which are of a nonsexual nature, and because most partnerships do not last long –even dating relationships that adolescents describe as "steady" are actually short-lived–, adolescent sexual activity is highly discontinuous. In order to evaluate and monitor adolescent risks, it would be useful to differentiate between potential exposure to risk (since sexual initiation) and actual exposure to risk (based on true duration of unprotected sex episodes).

Lastly, we examined to what extent early experiences, recent experiences and current relationship context shape adolescent behaviour. Early transitions, such as age at first date, age at first sex, and contraceptive behaviour at first sex were found to have relevant implications for later relationships in the life course. We also found that, despite the multiplicity of individual trajectories, certain continuity can be observed in adolescent sexual and contraceptive behaviour across recent partnerships. Of particular relevance is the finding that those adolescents who had some contraceptive experience in the past were more likely to protect themselves and their partner in their last sexual partnership. Reproductive health programmes, hence, should reinforce this pattern of sustained contraceptive protection regardless of partner change.

Although earlier partnership patterns have a considerable effect in how adolescents handle their subsequent relationships, decisions regarding sexual intimacy and contraceptive protection are also conditioned by the context of each particular relationship. Our analysis showed that adolescents were less likely to use condoms in the context of a steady partnership than in the context of a casual partnership partly because, in adolescent words, they "feel secure" and "trust that their partner is clean". Public health campaigns might need to romanticize condom use as a sign of love and trust to counteract the perceived association between condoms and promiscuity or infidelity.

In brief, many features of adolescent partnership dynamics, such as short duration patterns, high prevalence of casual relationships, brief courtship before sexual involvement, limited contraceptive protection and inadequate assessment of HIV risks, enhance adolescents' vulnerability to health

risks. However, other features, such as sporadic dating, high prevalence of nonsexual partnerships, and hence relatively infrequent and intermittent sexual intercourse, limit their actual exposure to health risks, particularly in early and middle adolescence. It is important for prevention programmes to have an accurate portrait of adolescent partnership dynamics, an adequate understanding of the actual and symbolic space sexuality –and health– occupy in adolescent lives, and a realistic estimation of actual exposure to risk, so they can tailor their interventions and messages to adolescents' realities and own perceptions.

REFERENCES

Alan Guttmacher Institute (AGI) (1998). *Into a New World: Young Women's Sexual and Reproductive Lives*. New York: The Alan Guttmacher Institute.

Alan Guttmacher Institute (AGI) (2003). *In Their Own Right: Addressing the Sexual and Reproductive Health Needs of Men Worldwide*. New York: The Alan Guttmacher Institute.

Bastos, F.I. and C.L. Szwarcwald (2000). AIDS e pauperização: principais conceitos e evidências empíricas. *Cadernos de. Saúde Pública*, vol.16, suppl.1, p.65-76.

BEMFAM and CDC (1992). *Pesquisa sobre Saúde Reprodutiva e Sexualidade do Jovem, Rio de Janeiro, Curitiba e Recife 1989/90*. Rio de Janeiro: Sociedade Civil Bem-Estar Familiar no Brasil and U.S. Centers for Disease Control and Prevention.

BEMFAM and Macro International (1997). *Brasil: Pesquisa Nacional Sobre Demografia e Saúde, Brasil 1996*. Calverton, Maryland: Sociedade Civil Bem-Estar Familiar no Brasil and Macro International Demographic and Health Surveys Programme.

Beria, J. (1998). *Ficar, Transar… A Sexualidade do Adolescente em Tempos de AIDS*. Porto Alegre: Tomo Editorial.

Blanc, A.K. and A.A. Way (1998). Sexual behaviour, contraceptive knowledge and use. *Studies in Family Planning* 29 (2): 106-116.

Bozon M. (2003). At what age do women and men have their first sexual intercourse? World comparisons and recent trends. *Population and Societies* (391): 1-4.

Cleveland, H.H. (2003). The influence of female and male risk of the occurrence of sexual intercourse within adolescent relationships. *Journal of Research on Adolescence* 13 (1): 81-112.

Cooksey, E.C., F.L. Mott and S.A. Neubauer (2002). Friendships and early relationships: links to sexual initiation among American adolescents born to young mothers. *Perspectives on Sexual and Reproductive Health* 34 (3): 118-126.

Corrêa, S. and E. Parker (2004). Sexuality, human rights and demographic thinking: connections and disjunctions in a changing world. *Sexuality Research & Social Policy* 1 (1): 1-24.

Darroch, J.E, S. Singh and JJ Frost (2001). Differences in teenage pregnancy rates among five developed countries: the roles of sexual activity and contraceptive use. *Perspectives on Sexual and Reproductive Health* 33 (6): 244-250.

Ford, K., W. Sohn and J. Lepkowski (2001). Characteristics of adolescents' sexual partners and their association with use of condoms and other contraceptive methods. *Family Planning Perspectives* 33 (3): 100-105, 132.

Ford, N.J., E. Meloni Vieira and W. Vieira Villela (2003). Beyond stereotypes of Brazilian male sexuality: qualitative and quantitative finding from São Paulo, Brazil. *Culture, Health & Sexuality* 5 (1): 53-69.

Fortenberry, J.D. (2003). Adolescent sex and the rhetoric of risk. In D. Romer (Ed.), *Reducing Adolescent Risk: Toward an Integrated Approach*. Thousand Oaks, Calif: Sage Publications, pp. 293-300.

Furman W., B. Brown and C. Feiring (Eds.) (1999). *The Development of Romantic Relationships in Adolescence*. New York: Cambridge University Press.

Gage, A.J. (1998). Sexual activity and contraceptive use: the components of the decision making process. *Studies in Family Planning* 29 (2): 154-66.

Gebhardt, WA, L. Kuyper and G. Greunsven (2003). Need for intimacy in relationships and motives for sex as determinants of adolescent condom use. *Journal of Adolescent Health* 33: 154-164.

Gupta, N. (2000). Sexual initiation and contraceptive use among adolescent women in Northeast Brazil. *Studies in Family Planning* 31 (3): 228-38.

Gupta, N. and I.D. Leite (1999). Adolescent fertility behavior: trends and determinants in northeastern Brazil. *International Family Planning Perspectives* 25 (3): 125-30.

Juarez, F. and T. Le Grand (2003). Safe sex at first sex? A study of adolescent boys in the urban slums of Recife. Paper presented at the 2003 Annual Meeting of the Population Association of America, Minneapolis, 1-3 May 2003.

Juarez, F. and T. Castro Martín (1997). Reproductive Health in Latin America: Are All Adolescents Risk Takers? Paper presented at the 1997 Annual Meeting of the Population Association of America, Washington D.C.

Juarez, F. and T. Castro Martín (forthcoming). Safe sex versus safe love? Relationship context and condom use among adolescent boys in the favelas of Recife, Brazil. Mimeo.

Kiragu, K. (2001). *Youth and HIV/AIDS: Can We Avoid Catastrophe?* Population Reports, Series L, No. 12. Baltimore, The Johns Hopkins University Bloomberg School of Public Health, Population Information Program.

Ku, L, F.L. Sonenstein and J.H. Pleck (1994). The dynamics of young men's condom use during and across relationships. *Family Planning Perspectives* 26 (6): 246-251.

Longfield, K., M. Klein and J. Berman (2002). Criteria for trust and how trust affects sexual decision-making among youth. *Population Services International Research Division Working Paper* 51. Washington, D.C.

Longmore, M.A., W.D. Manning and P.C. Giordano (2001). Preadolescent parenting strategies and teens' dating and sexual initiation: a longitudinal analysis. *Journal of Marriage and the Family* 63 (2): 322-335.

Manlove, J, S. Ryan and K. Franzetta (2003). Patterns of contraceptive use within teenagers' firsts sexual relationships. *Perspectives on Sexual and Reproductive Health* 35 (6): 246-255.

Manning, W.D., M.A. Longmore and P.C. Giordano (2000). The relationship context of contraceptive use at first intercourse. *Family Planning Perspectives* 32 (3): 104-10.

Marins J.R. *et al.* (2003). Dramatic improvement in survival among adult Brazilian AIDS patients. *AIDS* 17 (11): 1675-82.

Mensh, B.S., W.H. Clark, and D. Nguyen Ahn (2003). Adolescents in Vietnam: Looking beyond reproductive health. *Studies in Family Planning* 34 (4): 249-262.

Ministério da Saúde, Coordenação Nacional de DST/AIDS (2002). *Boletím Epidemiológico AIDS*. Ano XV nº 2. October 2001 – March 2002. Brasilia. http://www.aids.gov.br/final/biblioteca/bol_marco_2002/index.htm

Pan American Health Organization (PAHO) (2002). *AIDS Surveillance in the Americas*. Biannual Report 2002. Washington, DC. http://www.paho.org/English/HCP/HCA/AIDSsurvJun02.pdf

Pan American Health Organization (PAHO) (2000). *Why Should We Invest in Adolescents?* Washington D.C., OP 127.

Pareja Behague, D., C. Gomes Víctora and H. Gonçalves (2000). Sexual intimacy among young teenagers in Pelotas, Brazil: Achieving maturity in a complex world. Pan American Health Organization (PAHO), Research in Public Health Technical Papers no. 25.

Schutt-Aine, J. and M. Maddaleno (2003). *Sexual Health and Development of Adolescents and Youth in the Americas: Program and Policy Implications*. Washington, DC: Pan American Health Organization.

Singh, S., S. Wulf, R. Samara and Y.P. Cuca (2000). Gender differences in the timing of first intercourse: data from 14 countries. *International Family Planning Perspectives* 26 (1): 21-28.

Thornton, A. (1990). The courtship process and adolescent sexuality. *Journal of Family Issues* 11 (3): 239-273.

UNAIDS/WHO (2002). *Epidemiological Fact Sheet on HIV/AIDS and Sexually Transmitted Infections Brazil. 2002 Update.* http://www.unaids.org/hivaidsinfo/statistics/fact_sheets/pdfs/Brazil_en.pdf

UNESCO (2002). *Education for All: Is the World on Track? EFA Global Monitoring Report 2002*. Paris: UNESCO.

UNFPA (2003). *State of the World Population 2003: Investing in Adolescents Health and Rights.* http://www.unfpa.org/swp/2003/pdf/english/swp2003_eng.pdf

UNICEF/UNAIDS/WHO (2002). *Young People and HIV/AIDS: Opportunity in Crisis.* http://www.unicef.org/publications/pub_youngpeople_hivaids_en.pdf

United Nations (1995). *Report on the International Conference on Population and Development, Cairo, 5-13 September 1994*. Sales No. E.95.XIII.18.

United Nations (2002). Entry into Reproductive Life. In United Nations, *World Population Monitoring 2002: Reproductive Rights and Reproductive Health.* Unedited version ESA/P/WP.171

TABLE 1. Sample distribution of adolescent males

	N	%
TOTAL	1438	100.0
Current age		
13-15	621	43.2
16-17	442	30.7
18-19	375	26.1
Years of schooling		
0-4	443	30.8
5-6	463	32.2
7+	532	37.0
Not enrolled in school	183	12.7
Had sexual education	935	65.0
Race/ethnic		
white	401	27.9
black	241	16.8
mixed/other	796	55.4
Religion		
Catholic	774	53.8
Evangelic / other	218	15.2
none	446	31.0
Family structure		
two-parent	721	50.1
not two parent	717	49.9
Relative wealth index		
low	412	28.7
medium	757	52.6
high	269	18.7
Ever dated	1268	88.2
Had 1+ partnership in past 2 years	1096	76.2
Had 1+ sexual partnership in past 2 years	678	47.1

FIGURE 1. Partnership and sexual experience by age

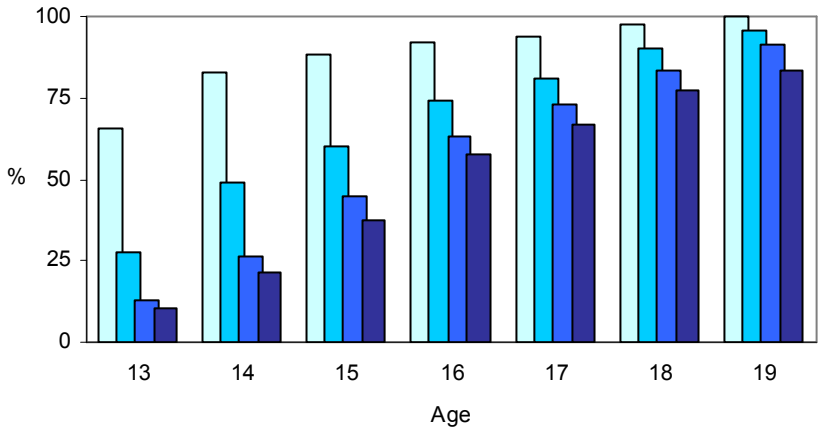

FIGURE 2. Life table estimates of the cumulative proportion of adolescents experiencing first date and first intercourse by age

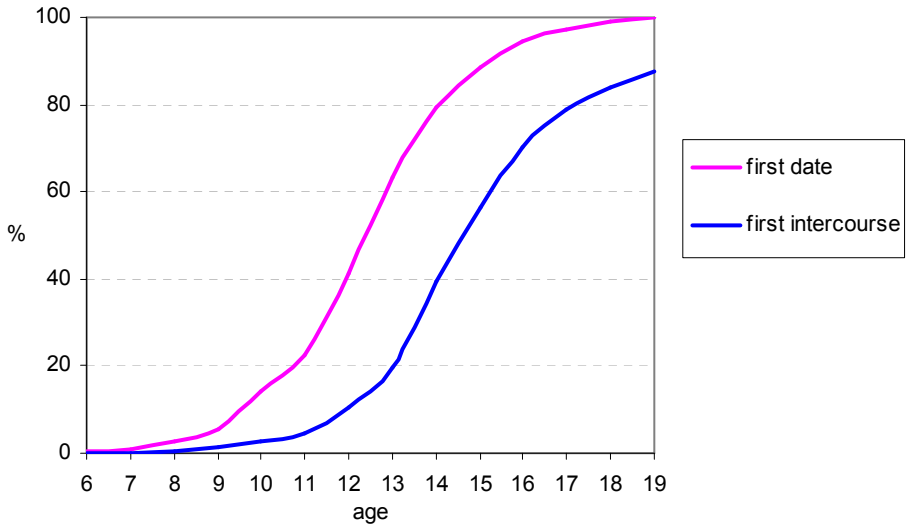

TABLE 2. The context of first sexual experience, by age at first intercourse

	All	Age at first intercourse		
		<14	14-15	16+
	%	%	%	%
Type of partner				
girlfriend	27.3	23.0	27.9	34.0
friend	60.6	64.1	59.5	56.7
acquaintance	6.9	7.8	7.5	3.5
prostitute	3.3	2.6	3.2	4.3
other	2.0	2.5	1.9	1.4
Age difference with partner				
partner 3+ years younger	27.1	31.5	25.7	24.1
< 3 year difference	56.4	54.8	55.8	58.9
partner 3+ years older	16.5	13.7	18.5	17.0
Knew partner prior to relationship				
1 month or less	19.3	15.2	22.5	17.9
2-5 months	18.7	17.4	17.3	25.0
6-12 months	13.0	8.7	15.2	15.7
1+ year	49.0	58.8	45.0	41.4
Time from relationship onset to sexual intercourse				
same day	15.7	14.7	15.3	18.4
about 1 week	20.9	20.9	23.8	14.2
about 1 month	27.6	29.8	26.0	26.2
2-5 months	24.7	23.3	24.4	28.4
6+ months	11.1	11.2	10.4	12.7
Use of contraceptive protection				
condom	31.5	20.0	34.3	44.7
other method	0.5	0.4	1.1	0.0
none	68.0	79.6	64.6	55.3
Main reason for not using contraception				
intercourse not expected	35.4	30.8	38.8	38.5
did not worry about	26.9	29.9	25.8	23.1
method not available	13.7	10.3	15.4	15.4
did not know any method	6.9	12.6	4.2	0.0
other	17.1	16.4	15.8	23.0
N	*796*	*270*	*373*	*141*

TABLE 3. Distribution and average length of all partnerships reported in prior 2 years

	Average length (months)	All %	Non-sexual %	Sexual %
Sexual character of the relationship				
non-sexual	2.4	50.9		
sexual	3.7	49.1		
Commitment to relationship				
casual	1.6	52.5	48.5	56.7
steady	4.7	47.5	51.5	43.3
Type of partner				
girlfriend	3.9	55.5	62.8	48.0
friend	1.8	37.3	33.7	41.1
other	3.1	7.2	3.5	10.9
N		*2417*	*1231*	*1186*

TABLE 4. Description of adolescent partnership trajectories during the past two years

		Age		
	All	**13-15**	**16-17**	**18-19**
	%	**%**	**%**	**%**
Number of partnerships				
0	23.8	37.7	17.6	8.0
1	27.1	34.1	26.5	16.3
2	21.8	12.7	24.9	33.1
3	11.9	6.0	12.7	20.8
4+	15.4	9.5	18.3	21.9
paths according to sexual involvement				
no rel in past 2 years	23.8	37.7	17.6	8.0
only nonsexual rel	29.1	40.6	25.6	14.4
only sexual rel	26.4	11.9	30.1	45.9
both nonsexual & sexual rel	20.7	9.8	26.7	31.7
paths according to degree of commitment				
no rel in past 2 years	23.8	37.7	17.6	8.0
only casual rel	22.4	20.8	25.8	21.1
only steady rel	26.7	24.6	26.9	29.9
both casual & steady rel	26.8	16.3	29.4	41.1
paths according to contraceptive protection				
no sexual rel in past 2 years	52.9	78.3	43.0	22.4
only unprotected rel	14.1	8.4	17.9	19.2
only protected rel	25.9	10.6	31.4	44.5
both unprotected & protected rel	7.2	2.7	7.7	13.9
partnership concurrency				
any concurrent rel in past 2 years	9.7	5.6	10.2	16.0
any concurrent sexual rel	4.0	1.0	4.5	8.5
N	*1438*	*621*	*442*	*375*

FIGURE 3: Adolescent risk status during the past 25 months

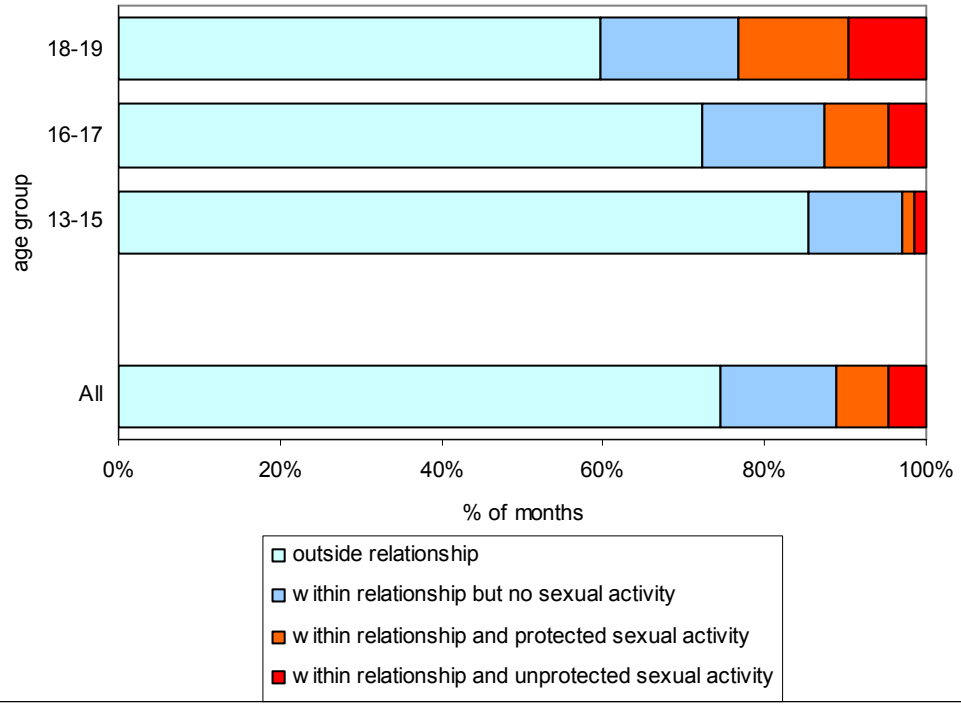

TABLE 5. Odds ratios from logistic regression analysis of whether adolescent had any partnership in past 2 years

	Bivariate models $e^{ß}$	Multivariate model $e^{ß}$
1st date before age 13	2.01 ***	2.84 ***
Age		
(13-15)	1.00	1.00
16-17	2.82 ***	3.27 ***
18-19	6.95 ***	7.81 ***
Years of schooling		
(0-4 years)	1.00	1.00
5-6 years	1.76 ***	1.55 **
7+	2.68 ***	1.48 **
Not enrolled in school	1.69 **	1.55 *
Had sexual education	1.64 ***	1.17
Race/ethnicity		
(white)	1.00	1.00
black	1.48 **	1.57 **
mixed/other	1.21	1.37 **
Religion		
Catholic	1.54 **	1.99 ***
(Evangelists/other)	1.00	1.00
none	0.93	1.19
Family structure		
(two-parent)	1.00	1.00
not two parent	0.95	1.08
Relative wealth index		
(low)	1.00	1.00
medium	1.40 **	1.28
high	2.09 ***	1.75 **
N		*1438*
-2 log likelihood		*1341.874*
df		*14*

*p<.10, **p<.05, ***p<.01

Omitted categories are in parentheses.

TABLE 6. Odds ratios from logistic regression analysis of whether last partnership involved sexual activity

	%	Bivariate models $e^{ß}$	Multivariate model $e^{ß}$
Prior experience			
First date before age 13	*44.3*	0.92	1.33 **
Recent partnership experience (in past 2 years)			
no recent partnership	*35.6*	2.03 ***	2.99 ***
(only nonsexual partnership/s)	*21.3*	1.00	1.00
any recent sexual partnership/s	*43.2*	5.44 ***	4.02 ***
Current relationship context			
Commitment to relationship			
(casual)	*47.0*	1.00	1.00
steady	*52.9*	0.62 ***	1.20
Type of partner			
girlfriend	*60.3*	0.47 ***	0.44 ***
(friend)	*32.0*	1.00	1.00
other	*7.7*	2.17 ***	1.61
Age diff with partner			
partner 3+years younger	*14.1*	0.94	0.52 ***
(< 3 years diff)	*77.7*	1.00	1.00
partner 3+ years older	*8.1*	4.06 ***	3.15 ***
Socio-demographic background			
Age			
(13-15)	*35.3*	1.00	1.00
16-17	*33.2*	2.56 ***	2.40 ***
18-19	*31.5*	6.06 ***	6.45 ***
Years of schooling			
(0-4)	*26.6*	1.00	1.00
5-6 years	*32.7*	1.03	1.06
7+	*40.7*	1.82 ***	1.39 *
Not enrolled in school	*14.0*	1.89 ***	1.20
Had sexual education	*67.8*	1.40 **	0.96
Race/ethnicity			
(white)	*26.7*	1.00	1.00
black	*17.6*	1.13	1.03
mixed/other	*55.7*	1.35 **	1.38 *
Religion			
Catholic	*56.7*	1.62 **	2.01 ***
(Evangelist/other)	*14.4*	1.00	1.00
none	*28.9*	2.33 ***	2.86 ***
Family structure			
(two-parent)	*50.5*	1.00	1.00
not two parent	*49.5*	1.22 *	1.14
Relative wealth index			
(low)	*26.5*	1.00	1.00
medium	*53.1*	1.00	0.97
high	*20.4*	0.89	0.92
N	*1096*		
-2 log likelihood			*1200.743*
df			*21*

*p<.10, **p<.05, ***p<.01

Omitted categories are in parentheses.

TABLE 7. Odds ratios from logistic regression analysis of condom use within last sexual partnership

	%	Bivariate models $e^{ß}$	Multivariate model $e^{ß}$
Prior experience			
Age at first sex <13	*16.7*	1.65 **	1.56 *
Contraceptive use at first sex	*32.3*	8.21 ***	7.87 ***
Recent contraceptive experience (in past 2 years)			
no recent sexual partnership	*49.7*	3.08 ***	2.28 ***
(no recent contraceptive protection)	*17.7*	1.00	1.00
any recent contraceptive protection	*32.6*	8.09 ***	6.48 ***
Current relationship context			
Commitment to relationship			
(casual)	*52.5*	1.00	1.00
steady	*47.5*	0.90	0.59 **
Type of partner			
(girlfriend)	*50.6*	1.00	1.00
friend	*38.5*	0.93	0.79
other	*10.9*	0.49 ***	0.32 ***
Age diff with partner			
partner 3+years younger	*13.0*	0.65 *	0.79
(< 3 years difference)	*75.8*	1.00	1.00
partner 3+ years older	*11.2*	0.76	0.73
Partner introduced by family	*9.0*	0.58 **	0.48 **
Knew partner before relationship	*85.1*	0.65 *	0.61 *
Sociodemographic background			
Age			
(13-15)	*19.9*	1.00	1.00
16-17	*37.2*	1.06	1.09
18-19	*42.9*	1.15	4.05
Years of schooling			
(0-4)	*22.3*	1.00	1.00
5-6	*30.1*	0.55 **	1.39
7+	*47.6*	2.27 ***	1.79 **
Not enrolled in school	*17.1*	0.70 *	0.99
Had sexual education	*73.3*	1.37 *	0.89
Race/ethnicity			
(white)	*24.8*	1.00	1.00
black	*17.8*	1.40	1.75 *
mixed/other	*57.4*	0.88	1.07
Religion			
Catholic	*56.0*	1.40	1.50
(Evangelist/other)	*11.5*	1.00	1.00
none	*32.4*	1.01	1.21
Not two-parent family	*51.9*	0.95	1.21
Relative wealth index			
(low)	*25.7*	1.00	1.00
medium	*54.9*	1.17	0.92
high	*19.5*	2.27 ***	1.83 *
N	*678*		
-2 log likelihood			*695.852*
df			*24*

*p<.10, **p<.05, ***p<.01

Omitted categories are in parentheses.