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# Age and condom use at first sexual intercourse of Brazilian adolescents

# ABSTRACT

**OBJECTIVE:** To analyze age and condom use at first sexual intercourse among Brazilian adolescents at two periods: 1998 and 2005.

**METHODS:** Representative samples of the Brazilian urban population were interviewed during a household survey for two studies, carried out in 1998 and 2005. Interviewees included 670 sexually active young people (aged 16 to 19) who were selected for the study, 312 in 1998 and 358 in 2005. Pearson's chi-square test and Fisher's exact test ( $\alpha$ <5%) were used to analyze the weighted data.

**RESULTS:** In 2005, 61.6% of young interviewees had practiced sex and the average age for first intercourse was 14.9, with no significant difference to young interviewees in 1998. Condom use during first sexual intercourse increased significantly in both stable relationships (48.5% in 1998 vs. 67.7% in 2005) and casual relationships (47.2% in 1998 vs. 62.6% in 2005) across almost all segments. There were differences by gender, skin color and schooling for both age of first sexual intercourse and condom use, as per findings in 1998. Decreases in condom use for young people who were sexually active before the age of 14, across all types of partnerships, were marked in the Southeast region and for people with more schooling.

**CONCLUSIONS:** As in other countries, there was a trend towards the stabilizing of the age of first sexual intercourse for young people aged 15 to 19. The postponement of the first sexual intercourse is more frequent among youth with more years of schooling, a theme that should be discussed in the planning of sexual education and STI prevention initiatives for adolescents. In terms of reductions in vulnerability to HIV, the increase in condom use at first sexual intercourse is both relevant and significant.

DESCRIPTORS: Adolescent. Condoms, utilization. Sexual Behavior. Health Knowledge, Attitudes, Practice. Health Vulnerability. Population Studies in Public Health. Cross-sectional Studies. Brazil.

## INTRODUCTION

Young people have been recognized in the international literature as an important segment of the population in terms of epidemiological risk to sexually transmitted diseases<sup>7,11,a</sup> and defined as a priority in prevention campaigns by the United Nations Organization.<sup>b</sup> Researchers and public sector policy makers are particularly interested in the theme of first sexual intercourse, which often

<sup>&</sup>lt;sup>a</sup> Woog V. Annotated bibliography on HIV/AIDS and youth in Sub-Saharan Africa. New York: The Allan Guttmacher Institute; 2003. (Occasional Report, 10).

<sup>&</sup>lt;sup>b</sup> United Nations.General Assembly. Declaration of commitment on HIV/AIDS. New York;2001. Available from http://data.unaids.org/publications/IRC-pub03/aidsdeclaration\_en.pdf [Accessed on 5/13/2008]

occurs during this phase in a person's life cycle. Interest in the theme is linked to two factors: the association between behaviors in the first sexual relationship and the establishment of behavioral patterns throughout life;<sup>7,21,24,a</sup> and the recognition that sexual initiation at a very young age is a risk factor for adolescent pregnancies and acquiring sexually transmitted diseases, including HIV.<sup>11,22</sup> Most sexual education initiatives aimed at young people, including those in Brazil, focus on activities addressing HIV or pregnancy prevention, particularly for adolescents aged 15 to 19 years-old.<sup>16,22,23</sup>

Studies on the initiation of sexual lives and the use of contraceptives and condoms have shown that adolescents and young people tend not to use them when: they begin their sexual lives very early and define as casual the relationship in which their sexual initiation occurred; in the case of adolescent girls, this is also true when they have partners who are older (by more than seven years) or from a different generation.<sup>15,22</sup> As has been observed in adult populations, there are significant differences in condom use according to the type of relationship with the partners – defined as casual or fixed/steady.<sup>3,9,10,14,18,24</sup> The reasons associated with the use or non-use of condoms tend to be very different in each one of these situations.

In terms of recommendations for public policies that are offered by these studies into first sexual experiences, the international debate is split into two perspectives. One perspective, which represents that of the official position of the United States in 2008 and of some researchers, defines two levels of prevention associated with adolescent sexual activity that is considered risky: primary prevention, dedicated to the delaying of sexual initiation until psycho-social maturity or marriage; and secondary prevention, which proposed safer sexual practices for people who are actually sexually active and do not intend to be abstinent.12 For European governments and researchers, on the other hand, sexual education amongst young people has been rarely opposed as a public policy, with preference placed on beginning such education during childhood and before the beginning of sexual activity, in order to assure better personal development, and has included the promotion of condom use, the use of contraceptive methods and the exercising of rights.15,22,25

In Brazil since the 1990s, the national policy for HIV/ AIDS control has focused on the promotion of condom use and the reduction in the number of sexual partners by way of a non suppressive approach.<sup>16,b</sup> Compared with other age groups, young people have shown to be more regular users of condoms in Brazil.<sup>3,16,18,c,d</sup> This increased condom use is typical of a generation who began their sexual lives under the aegis of AIDS prevention campaigns and they are particularly relevant considering that condom use at the beginning of sexual life is associated with its subsequent use.<sup>21,24</sup>

However, many studies on young people are limited to students at secondary school [which generally begins at the age of 15 in Brazill and few have been nationally representative of the entire youthful population.<sup>3,5,13</sup> Recent studies in which young adolescent Brazilians were involved in household interviews have shown that in addition to the age of first sexual intercourse and condom use at first sexual intercourse, the region of the country in which the person lives, the level of schooling, the sex and skin color also have an impact.4,18,24 It has therefore been a challenge for sexually transmitted infection (STI) and AIDS programs to reach young people who do not have access to or do not use condoms, and who find themselves in inter-subjective situations and contexts in which they are vulnerable to HIV infection, particularly when they no longer attend school.

In Brazil, access to condoms for adolescents who are aged over 14 and in school has increased, just as there has been a rise in the number of schools who implement STI/AIDS prevention activities for this age group, generally by means of talks and the distribution of educational material.<sup>16</sup>Nonetheless, a study carried out in 2004 regarding knowledge, attitudes and practices on HIV/AIDS prevention suggested that in spite of the changes that have been registered over time, the level of knowledge of the younger strata of the Brazilian population (aged 15 to 24) in relation to forms of HIV transmission was slightly less below that of 24 to 39 year olds.

The present article seeks to contribute to the reflection on policy design to reduce the vulnerability of young people to STIs/AIDS and, in particular, on the limits, possibilities and challenges of strategies relating to condom promotion and sexual education focused on the delay of first sexual experience, considering different social and relational contexts experienced by young people. The objective of this study was to analyze age and condom use at first sexual intercourse amongst Brazilian adolescents in two different periods of time: 1998 and 2005.

<sup>&</sup>lt;sup>a</sup> Woog V. Annotated bibliography on HIV/AIDS and youth in Sub-Saharan Africa. New York: The Allan Guttmacher Institute; 2003. (Occasional Report, 10).

<sup>&</sup>lt;sup>b</sup> b Kalichman AO. Vigilância epidemiológica de aids: recuperação histórica de conceitos e práticas [Master's dissertation]. São Paulo: Faculdade de Medicina da Universidade de São Paulo; 1993.

<sup>&</sup>lt;sup>c</sup> Paiva V, Venturi G, França Jr I, Lopes F. Uso de preservativos: pesquisa nacional MS/IBOPE, Brasil 2003. Brasília; 2003.

<sup>&</sup>lt;sup>d</sup> Pascom ARP, coordinator. Pesquisa de conhecimentos, atitudes e práticas na população brasileira 2004. In: Ministério da Saúde. Secretaria de Vigilância Saúde. Programa Nacional de DST e Aids. Pesquisa de conhecimento atitudes e práticas na população brasileira de 15 a 54 anos, 2004. Brasília; 2005. p.16-34. Available from: http://www.aids.gov.br/data/documents/storedDocuments/%7BB8EF5DAF-23AE-4891-AD36-1903553A3174%7D/%7BF17DC2BC-C60E-4C6A-96BC-02371A870406%7D/PCAP\_2004.pdf [Accessed on 5/15/2008]

# METHODS

The analyses refer to findings of the survey "Comportamento Sexual e Percepções da População Brasileira sobre HIV/Aids" (Sexual behavior and perceptions of the Brazilian population regarding HIV/AIDS),<sup>a</sup> carried out in 2005, compared with a similar survey carried out in 1998.<sup>b</sup>

The total study sample was made up of 5,040 men and women aged 16 to 25, interviewed between June and August 2005. More details relating to the research design and sample selection can be found in Bussab (2008).<sup>1</sup>

Both surveys were based on representative samples of the Brazilian urban population drawn from microareas defined by the *Instituto Brasileiro de Geografia e Estatística* (IBGE – Brazilian Institute of Geography and Statistics). Based on the sampling plan that was stratified into multiple stages, in each micro-region, a random selection was made starting with a census area, then specific household then individual aged 16 or over. The interviews were carried out by a supervised team that received training on the themes to be covered.

Some of the questions relating to the initiation of sexual intercourse were analyzed including: "Have you already had sexual relations, or have you already practiced vaginal, anal or oral sex?"; "Approximately how old were you when you first had sexual intercourse?"; "On this first occasion, did you use a condom?".

The variables from the research carried out in 1998 were tabulated so that they corresponded to the variables from the research from 2005 and in such a way could be consistently compared. In the case of the question regarding condom use during first sexual intercourse, the question used in 1998 was similar and was "What type of precaution did you use at first sexual intercourse: condom, calendar method, pill, *coitus interruptus*, injection, other method".

For analysis of the data relating to initiation of sexual life among adolescents, interviewees aged between 16 and 19 were selected; regarding condom use at sexual initiation, respondents who had had sexual intercourse in their lives were selected, with the sample size for young people of this range including: 358 from a total of 583 in 2005 and 312 from a total of 513 in 1998. The variables selected for analysis were as follows: sexual initiation (sexual intercourse through vaginal penetration, anal penetration or oral sex?) categorized as yes or no; approximate age at first sexual intercourse, categorized as up to 13, 14 to 15 and 16 or more; sex, categorized as male or female; race/skin color categorized

as "White" and "Black" ("Black" categorized as those who consider themselves to be Black or mixed); religion categorized as Catholic, traditional Protestant, Pentecostal and none; schooling categorized as up to primary education and secondary education and above; family income categorized as up to 1 minimum wage (MW), from 1 to 3 MWs), from 3 to 5 MWs, from 5 to 10 MWs, and more than 10 MWs; type of relationship with partner at sexual initiation, categorized as steady and casual. Due to low numbers, people who defined themselves as indigenous and oriental/yellow were not considered in the analysis for skin color. In the analysis of religion, those who declared a religion that was different to one of the categories given were also excluded because of a small sample.

The declared age of first sexual relations was included as an independent variable in the analysis of condom use during first intercourse. To this end, condom use at first sexual intercourse was analyzed according to the type of partnership declared with the partner at first sexual relationship, categorized as steady or casual. In 1998, the interviewees were put the question "who was the person with whom you first had sexual intercourse" and, in 2005, "at the time, the person with whom you first had sexual intercourse was (...)". For the two pieces of research, the following answers were categorized as steady "husband/wife, partner", "fiancée" and current or ex "lover", while the following answers were categorized as casual "friend". "person that I knew on a casual basis/ with whom I slept", "acquaintance", "sex worker", "prostitute", "relative (cousin, father-in-law, uncle, brother-in-law, brother)", "mistress/ mistress's son", "maid/ domestic servant/ nanny", "work/school colleague", "neighbor", "teacher", "rapist" and "sexual abuse".

The differences between the data from 1998 and 2005 relating to first sexual intercourse and condom use at sexual initiation were inferentially analyzed for relevance. Pearson's chi-square hypothesis test was used as the standard for accuracy, with a 5% significance level. In the case of a far smaller sample size, with one or more cell had less than five cases, Pearson's test was replaced with Fisher's exact test. For the analysis of the relative differences relating to average age at first sexual intercourse, the T test was used. Version 13.0 of the SPSS statistical analysis software was used.

The research project "Sexual Behavior and Perceptions of HIV/AIDS amongst the Brazilian Population" was approved by the Research Ethics Committee of the Faculdade de Saúde Pública of Universidade de São Paulo.

<sup>&</sup>lt;sup>a</sup> Research conducted by the Centro Brasileiro de Análise e Planejamento [Brazilian Center of Analysis and Planning] (CEBRAP) and the Brazilian Ministry of Health.

<sup>&</sup>lt;sup>b</sup> Berquó E, coordinator. In: Comportamento sexual da população brasileira e percepções do HIV/AIDS. Brasília (DF): Ministério da Saúde, Secretaria de Políticas de Saúde, Coordenação Nacional DST e Aids; 2000. (Série avaliação, 4).

### RESULTS

Table 1 presents the changes between 1998 and 2005 relating to sexual initiation among 16 to 19 year olds, by sociodemographic variables. The proportion of young Brazilian who had had at least one sexual relationship in their lives remained stable between 1998 and 2005, changing from 61.0% to 61.6%.

Only the categories religion and schooling showed significant changes. In 2005, 55.9% of young people with a secondary education or above had had sexual intercourse, compared with 70.2% in 1998. Conversely, among young Pentecostals there was an increase in the proportion of who had begun their sexual lives, from 33.3% in 1998 to 49.4% in 2005.

As shown in Table 2, the average age of sexual initiation among young people also remained stable, at 14.7 in 1998 and 14.9 in 2005, without significant changes (CI 95%) between the two periods.

Table 1. Proportion of young people aged 16 to 19 who had had a sexual intercourse, by sociodemographic characteristics. Brazil, 1998 and 2005.

	Ye							
Sociodemographic	19	98	2005		p*			
characteristic	% Yes	n	% Yes	n	P			
Sex								
Male	68.0	253	67.4	307	0.888			
Female	54.2	260	55.2	277	0.815			
Race/color								
White	58.3	278	63.6	253	0.206			
Black	62.8	180	61.9	299	0.843			
Religion								
Roman Catholic	65.3	320	62.3	345	0.422			
Traditional Protestant	62.5	16	59.3	54	0.816			
Pentecostal	33.3	90	49.4	81	0.033			
None	77.5	80	70.8	72	0.347			
Schooling								
To primary schooling	53.7	285	76.3	169	0.848			
From secondary schooling and upwards	70.2	228	55.9	410	0.000			
Monthly family income (in minimum wages)								
Up to 1	61.9	21	62.3	61	0.975			
Between 1 and 3	60.8	79	64.2	204	0.589			
Between 3 and 5	71.1	76	60.0	125	0.113			
Between 5 and 10	53.6	56	50.0	94	0.672			
More than 10	75.9	79	73.3	45	0.888			
* Pearson's chi-square test								

Condom use at first sexual intercourse among young people aged 16 to 19 increased between 1998 and 2005 (from 47.8% to 65.6%, p<0.000). As Table 3 shows, the change is true for both those who had their first sexual experience in a steady relationship (from 48.5% to 67.7%), and those who did so in a casual relationship (from 47.2% to 62.6%). There was an increase in condom use at first sexual intercourse (p<0.05), except among young Protestants, those with no religion and those with a family income of between 5 and 10 times the minimum wage. There was also a decrease in the number of young people whose first sexual relationship was before the age of 14 (54.4% to 26.6%), particularly among those who had their first experience during a casual relationship (51.9% to 17.6%).

A more detailed analysis of the fall in condom use for all young people who had their first sexual relationship before the age of 14, showed this was particularly acute in the Southeastern region of Brazil (a decrease from 90.7% to 25%, p<0.000) and among young people who had at least a secondary education (from 63.3%

Table 2. Age at first sexual intercourse among 16 to 19 year olds, according to research from 1998 and 2005, Brazil.

	Year of Research						
Sociodemographic	199	8	2005				
characteristic	Mean* (years)	n	Mean* (years)	n			
Sex							
Male	14.4	154	14.7	163			
Female	15.2	98	15.3	140			
Race/color							
White	15.3	112	14.9	148			
Black	14.3	116	14.9	145			
Religion							
Roman Catholic	14.8	172	15.0	185			
Traditional Protestant	14.7	13	14.8	23			
Pentecostal	14.8	28	14.9	29			
None	14.5	35	14.4	48			
Schooling							
To primary schooling	14.5	163	14.5	109			
From secondary schooling and upwards	14.9	89	15.1	192			
Monthly family income (in minimum wages)							
Up to 1	14.2	15	14.8	44			
Between 1 and 3	14	63	14.9	118			
Between 3 and 5	14.9	39	14.6	64			
Between 5 and 10	13.9	30	15.0	36			
More than 10	15	14	15.4	23			

\* Differences not significant to 95%.

Sociodemographic characteristic	Steady partner Casu		Casual	al partner Total		tals	р			
	1998	2005	1998	2005	1998	2005	Significance* of difference Steady	Significance* of difference, Occasional	Significance* of difference Total	
Sex										
Male	50.0	73.8	44.2	65.0	45.0	68.3	0.013	0.001	0.000	
Female	48.0	64.5	58.5	36.4	51.1	62.5	0.01	0.19	0.048	
Race/color										
White	45.2	72.4	56.2	72.7	51.2	72.3	0.000	0.046	0.000	
Black	53.8	64.0	27.9	53.4	39.8	59.5	0.218	0.003	0.001	
Religion										
Roman Catholic	52.2	71.7	47.0	72.4	49.3	71.6	0.002	0.001	0.000	
Traditional Protestant	60.0	69.2	25.0	66.7	40.0	63.3	0.528**	0.667**	0.178**	
Pentecostal	57.9	52.2	50.0	41.2	55.2	47.5	0.711	0.48**	0.529	
None	12.5	57.7	50.0	50.0	40.3	52.9	0.004	1	0.18	
Schooling										
To primary schooling	43.9	59.8	31.4	50.0	36.6	56.6	0.052	0.041	0.001	
From secondary schooling and upwards	53.7	72.7	62.0	69.3	58.5	71.1	0.007	0.299	0.01	
Monthly family income (i	n minimu	ım wage	s)							
Up to 1	12.5	59.1	40.0	53.3	23.1	56.8	0.03**	0.50**	0.037	
Between 1 and 3	45.0	64.5	29.6	45.9	35.4	59.2	0.104	0.186	0.005	
Between 3 and 5	32.1	77.5	7.7	50.0	20.4	64.0	0.000	0.001	0.000	
Between 5 and 10	82.4	76.2	46.2	92.3	66.7	83.3	0.478**	0.003**	0.089	
More than 10	54.5	76.9	57.9	83.3	56.7	78.1	0.101	0.236**	0.041	
Age at first sexual interco	urse (yea	rs)								
Up to 13	62.5	40.0	51.9	17.6	54.4	26.6	0.10	0.000	0.001	
14 to 15	27.1	69.6	51.1	83.3	43.1	75.5	0.000	0.000	0.000	
16 or more	59.7	74.8	29.4	67.7	49.0	73.1	0.042	0.002	0.000	

**Table 3.** Percentage of respondents who used a condom during their first sexual intercourse, among young people aged 16 to 19, by type of relationship with partner at sexual initiation. Brazil, 1998 and 2005.

\* Pearson's chi-square test

\*\* Fisher's exact test

to 22.6%, p=0.001). There was also a decrease, though less sharp, in condom use among Catholics (from 64.8% to 40.0%, p=0.028) and Pentecostals (from 45.0% to zero, F=0,045). In the group who had their first sexual experience in a casual relationship and were under the age of 14 at the time, a context of higher vulnerability to HIV, the decrease in condom use was significant among all schooling levels, among residents of the Southeast, Catholics and Pentecostals, and among young females. Among those who had their first sexual encounter in a steady relationship, the fall in condom use was only significant in the Southeast (from 86.7% to 37.5%, p=0.005).

#### DISCUSSION

The proportion of Brazilians interviewed in 2005 aged 16 to 19 who were sexually active at some stage in their lives was 61.6%, and the average age of sexual initiation was 14.9, with no significant differences for young people of the same age interviewed in the similar study carried out in 1998.

A comparison of results from 1988 with those of 1984 showed that the proportion of young people aged 16 to 19 who had initiated their sexual lives has remained stable, although this was not the case for young people aged 20 to 24.<sup>a</sup> A trend towards the stabilizing of the age of sexual initiation among 15 to 19 year olds has

<sup>a</sup> Berquó E, coordinator. In: Comportamento sexual da população brasileira e percepções do HIV/AIDS. Brasília (DF): Ministério da Saúde, Secretaria de Políticas de Saúde, Coordenação Nacional DST e Aids; 2000. (Série avaliação, 4).

The proportion of young Brazilians in the 2005 study who had initiated their sexual lives is similar to the proportion found among the same age group in Australia between 2001 and 2002 (60% of men and 57.2% of women).<sup>19</sup> The proportion of young Brazilians was slightly less than their Argentine peers aged 15 to 19 who had initiated their sexual lives in this age range (52%),<sup>b</sup> and also less than Swiss young people aged 16 to 20 (52.% and 50.4% for males and females, respectively).<sup>15</sup>

As found in various regions of Brazil,<sup>2,4,24,c</sup> there are still differences between young men and women interviewed in 2005, even when the median is used.<sup>8</sup> Double standards still exist: the proportion of young women who begin their sexual lives before the age of 19 is lower, and the average (or median) age of first sexual intercourse is lower amongst young men. Such differences are usually attributed to gender norms and different expectations and practices for men and women when it comes to sexuality.<sup>8,17</sup> A revision of the international literature shows that the gender differences regarding sexual initiation are more pronounced in countries that are less industrialized.<sup>25</sup>

In 1998, it was found that a higher level of schooling led to young people beginning their sexual lives later,<sup>c</sup> and this was consistent with the finding that the proportion of young people who had initiated their sex lives was lower amongst those with secondary education or above. Other studies<sup>8,15,25</sup> also found differences in the proportion of young people who initiated sex, according to educational status.

Some studies show that religiosity tends to delay sexual initiation.<sup>6</sup> The inter-relationship between religion and sexual behavior has still been explored very little in the scientific literature and more studies on this theme are required in Brazil. From the point of view of vulne-rability to HIV, an important finding is the significant increase in the proportion of Catholics who initiated their sexual lives using a condom, as is the growth in the proportion of young Pentecostals who were sexually active in 2005, (41% in casual relationships), without

any increase in condom use among this group, when compared with data from the 1998 research.

Regional differences regarding the age of first sexual intercourse<sup>4</sup> were found in other studies and should be explored in future research. In the investigation "Adolescent Pregnancies: a multi-centric study of young people, sexuality and reproduction in Brazil" (GRAVAD).<sup>24</sup> that was carried out in 2002 among 18 to 25 year olds in three Brazilian State capitals, for example, the median age was greater in Salvador than in Porto Alegre.

Over the seven years between the two studies, there was a sharp increase in condom use at first sexual intercourse, both in the context of steady relationships (48.5% vs. 67.7%) and during casual sex (47.2% vs. 62.2%). Among interviewees in 2005, 62.5% of young women and 68.3% of young men used a condom at their first sexual intercourse. This result is consistent with the Brazilian and international literature who had shown an increase in condom use among young people in general, and particularly in the context of sexual initiation.<sup>3,19,23,24</sup> The proportion of respondents who reported using a condom are similar to those found in the GRAVAD study in 2002, in which 60% of young women and 63.8% of young men used a condom in their first sexual relation.

This observed increase may partially be a reflection not only of a behavior change among young people, but also of the impact of a difference in the way that this question was formulated, since it was more specific and accurate in 2005.

Other studies of young Brazilians show an association between greater condom use in last sexual intercourse in casual relationships.<sup>2,3,24</sup>

The present study found greater reporting of condom use in the context of steady relationships at sexual initiation, which points to a differential in this cohort which merits further analysis.

The results of the present study confirmed the conclusions found in other studies that showed that condom use is determined not only by individual factors, but also socio-cultural factors.<sup>3, 4,8,17,24</sup> In the 2005 study, there was found to be a greater proportion of condom users at first sexual intercourse among young people with more years of schooling and higher income than those with lower schooling and income.

<sup>&</sup>lt;sup>a</sup> Kirby D. Emerging answers 2007. Research findings on programs to reduce teen pregnancy and sexually transmitted diseases. Washington, D.C., National Campaign to Prevent Teen and Unplanned Pregnancy, 2007 Nov. 199 p. POPLINE Document Number: 322584 http://www.popline.org/docs/322584

<sup>&</sup>lt;sup>b</sup> Programa de Naciones Unidas para El Desarollo. Actitudes, información e conductas em relación com El VIH SIDA em La población general: informe para establecimiento de la línea de base para proyecto actividades de apoyo em la prevención y control del VIH SIDA em Argentina. Buenos Ayres; 2005. p.59.

<sup>&</sup>lt;sup>c</sup> Berquó E, coordinator. In: Comportamento sexual da população brasileira e percepções do HIV/AIDS. Brasília (DF): Ministério da Saúde, Secretaria de Políticas de Saúde, Coordenação Nacional DST e Aids; 2000. (Série avaliação, 4).

Further, the proportion of condom users at first sexual intercourse remained greater among White respondents compared with Black ones, although condom use at first sexual intercourse grew significantly for both groups. Teixeira et al24 showed that being White was associated with condom use among young female interviewees. The GRAVAD study<sup>8,24</sup> found that delayed sexual initiation, to after the age of 17 in young men and after 16 in young women is an important determinant of subsequent condom use for both sexes.<sup>24</sup> The reduction in condom use among young people who had begun their sexual lives earlier (before the age of 14) in all kinds of relationships, particularly in the Southeast region and among respondents with more years of schooling, groups in which higher protection would be assumed, indicates the importance of extending and broadening sexual and preventive education in primary schools, which is the reverse of what is happening in Brazil.<sup>16</sup>

The significant increase in condom use at first sexual intercourse among young people aged 16 to 19 is an important sign of progress for programs dedicated to the controlling of the AIDS epidemic in Brazil, since their central focus has been on promoting condom use. The Brazilian AIDS program, currently one of the largest programs responsible for sexual education initiatives amongst young people in Brazil, has not considered delaying initiation of one's sexual life as relevant to its policies, although it is a practice that is more common among those groups of the Brazilian population with more years of schooling, which includes a proportionately higher number of condom users at first sexual initiation and during the individual's lifetime.4,15,17,18 This study's findings were consistent with those of the Brazilian<sup>24</sup> and international<sup>15,22</sup> literature, that there was a greater frequency of protected first intercourse among young people who began their sexual lives later. The age of sexual initiation should not be ignored in the debated about HIV prevention programs, nor should the alarming increase between 2005 and 1998 in unprotected sexual activity between casual partners among young people who began their sexual lives under the age of 14.

In a recent review of successful experiences of controlling the HIV/AIDS epidemic, Hearst & Chen<sup>7</sup> found that a condom promotion strategy proved to be effective in contexts in which transmission occurred through commercial sex and homosexual relationships. At the same time, the research pointed to important limits in the exclusive promotion of condom use, particularly among young people living in areas of high prevalence and where transmission was predominantly heterosexual, as is the case in African countries. In these situations, proposals relating to delaying first intercourse, abstinence and faithfulness to a single partner have also been effective.<sup>7</sup>

However, systematic literature reviews<sup>20,a</sup> have shown that programs that promote delaying the first sexual experience until marriage and faithfulness alone, an approach that has been adopted by most Christian religious leaders in Brazil, has not been successful. Pre-marital sex also occurs between Christians and the lack of access to information about contraceptives and condoms can potentially increase the vulnerability of young people who have only had access to information about delaying their first sexual experience and faithfulness. These reviews<sup>20,a,b</sup> and the data presented in this study also show that promoting contraceptive and condom use does not increase the frequency of sex nor lead to sexual initiation occurring at an earlier age; and that those programs that promote delaying the first sexual experience and the use of contraceptives do not result in a reduction in condom use.

From a programmatic perspective, those who work with young people should not adopt simple and definitive responses for what is a complex context. The European experience<sup>15,22,25</sup> has show that teaching sexual education on a continuous basis from childhood onwards - recognizing the right to information and access to materials including condoms and contraceptives - makes redundant the theme of delaying sexual initiation, which arises as a consequence of the knowledge that is acquired by the young people. Different experiences in understanding this theme in the United States have had similar effects, such as the combination of clinical, counseling and community programs, to ensure the integrated development of young people and to influence values and local culture, focused clearly on sexuality or not.b

In the context of increased efforts to implement public policies supported by sexual education for children, adolescents and young adults in Brazil, both in schools and particularly in attempts to reach young people who are out of school, challenges that were evident from the mid 1990s remain: how to increase condom use among lower income groups, those with fewer years of schooling, and young Black people?

 <sup>&</sup>lt;sup>a</sup> Kirby D. Emerging answers: research fi ndings on programs to reduce teen pregnancy 2002 (Summary). Washington, DC: National Campaign to Prevent Teen Pregnancy. Available from: https://www.teenpregnancy.org/resources/data/pdf/abstinence\_eval.pdf [Accessed on 5/15/2008].
 <sup>b</sup> Kirby D. Emerging answers 2007. Research fi ndings on programs to reduce teen pregnancy and sexually transmitted diseases. Washington: National Campaign to Prevent Teen and Unplanned Pregnancy; 2007. Available from: http://www.popline.org/docs/322584 [Accessed on 5/15/2008]

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