Published in final edited form as:

Sex Transm Dis. 2015 January ; 42(1): 20–26. doi:10.1097/OLQ.0000000000000231.

Trends and Patterns of Sexual Behaviors Among Adolescents and Adults Aged 14 to 59 Years, United States

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Abstract

Background: Evaluation of sexual behaviors is essential to better understand the epidemiology of sexually transmitted infections and their sequelae.

Methods: The National Health and Nutrition Examination Surveys (NHANES) is an ongoing probability sample survey of the US population. Using NHANES sexual behavior data from 1999 to 2012, we performed the following: (1) trend analyses among adults aged 25 to 59 years by 10-year birth cohorts and (2) descriptive analyses among participants aged 14 to 24 years. Sex was defined as vaginal, anal, or oral sex.

Results: Among adults aged 25 to 59 years, median age at sexual initiation decreased between the 1940–1949 and 1980–1989 cohorts from 17.9 to 16.2 among females ($P_{\text{trend}} < 0.001$) and from 17.1 to 16.1 among males ($P_{\text{trend}} < 0.001$). Median lifetime partners increased between the 1940–1949 and 1970–1979 cohorts, from 2.6 to 5.3 among females ($P_{\text{trend}} < 0.001$) and from 6.7 to 8.8 among males ($P_{\text{trend}} < 0.001$). The percentage of females reporting ever having a same-sex partner increased from 5.2% to 9.3% between the 1940–1949 and 1970–1979 cohorts ($P_{\text{trend}} < 0.001$). Among participants aged 14 to 24 years, the percentage having had sex increased with age, from 12.5% among females and 13.1% among males at age 14 years to more than 75% at age 19 years for both sexes. Among sexually experienced 14- to 19-year-olds, 45.2% of females and 55.0% of males had at least 3 lifetime partners; 39.4% of females and 48.6% of males had at least 2 partners in the past year. The proportion of females aged 20 to 24 years who reported ever having a same-sex partner was 14.9%. The proportion of participants aged 14–19 or 20–24 years reporting ever having sex did not differ by survey year from 1999 to 2012 for either males or females.

Conclusions: Sexual behaviors changed with successive birth cohorts, with more pronounced changes among females. A substantial proportion of adolescents are sexually active and have

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multiple partners. These data reinforce existing recommendations for sexual health education and sexually transmitted infection prevention targeting adolescents before sexual debut.

Evaluation of sexual behavior patterns can be valuable to better understand the epidemiology of sexually transmitted infections (STIs) and their sequelae and to inform public health actions to improve sexual health. Although sexual behaviors throughout the life course^{1,2} and by generation³ have been examined, there are no previous studies examining sexual behaviors by birth cohort among both females and males in the United States. Analyzing differences in sexual behaviors by birth cohort could provide background for evaluating the cumulative risk of lifelong STIs, such as herpes simplex virus and hepatitis B virus, and sequelae of other STIs, such as cervical cancer and other human papillomavirus (HPV)–associated cancers among adults.⁴ Furthermore, examining patterns in population-level sexual behavior data may elucidate macrolevel changes in sexual norms in the United States, in particular in terms of understanding sexual behaviors among adolescents and young adults.

Sexually transmitted infections affect people of all ages, but they cause a particularly high disease burden among people in their teens and early 20s. Despite a long history of STI control efforts in the United States,⁵ the latest surveillance report from the Centers for Disease Control and Prevention found that approximately 50% of incident STIs and the highest age-specific prevalence of many STIs occur among adolescents and young adults aged 14 to 24 years.⁶ Racial/Ethnic minority adolescents and young adults, especially non-Hispanic blacks, have disproportionally high rates of STIs compared with non-Hispanic whites.^{7–9} Thus, continued research on the patterns of sexual practices of this population is important for targeting interventions and examining the usefulness of STI prevention efforts. Previous studies of adolescent and young adult sexual behavior data from US national surveys have shown that although teenage sexual activity decreased in the late 1980s and early 1990s, it has plateaued since the early 2000s.^{10–12} With the most recently available data from the National Health and Nutrition Examination Surveys (NHANES), we can examine both historical and recent changes in sexual behavior among adults and adolescents.

We aimed to examine the sexual behaviors data collected in NHANES from 1999 to 2012 using 2 separate approaches. First, we examined changes in sexual behavior patterns among adults aged 25 to 59 years by 10-year birth cohorts. Because those aged 14 to 24 years are at high risk for STIs, we also sought to describe sexual behavior in this age group. However, because those younger than 25 years have not had as much time as those older to accumulate lifetime partners and many have not had sex, we did not include them in the cohort analysis. We performed a separate descriptive analysis of sexual behavior among those aged 14 to 24 years.

MATERIALS AND METHODS

Data Source

NHANES is a continuous cross-sectional survey administered by the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention. A nationally representative sample of noninstitutionalized civilians is selected using a multistage

probability sampling design. Although data collection is ongoing, data are released in 2-year cycles. In some cycles, some subgroups are oversampled to allow for adequate sample size for subgroup analyses. NHANES include interviews conducted in participants' homes and physical examinations in mobile examination centers. Modules on sensitive topics, such as sexual behavior, are administered using audio computer-assisted interviews in the mobile examination center. The NCHS Ethics Review Board approved data collection for NHANES (<http://www.cdc.gov/nchs/nhanes/irba98.htm>), and informed consent was obtained from all participants.

We analyzed 14 years of demographic and sexual behavior data, from 1999 to 2012. The average response rate to NHANES during this period was 75.9%. Our analyses were restricted to those aged 14 to 59 years at the time of the survey. Participants were considered to have had sex if they reported ever having had vaginal, oral, or anal sex and at least 1 sex partner in their lifetime. Participants who reported never having sex were not asked further questions on sexual history. Lifetime partners included both opposite-sex and same-sex partners. Age of sexual initiation was bottom-coded at 9 years old. Participants' birth year was obtained by subtracting age at the time of the survey from the second year of the 2-year survey cycle. Race/Ethnicity was self-reported and categorized by NCHS as non-Hispanic white, non-Hispanic black, Mexican American, other Hispanic, and other race, including multiracial. In our analysis, we combined other Hispanic and other race.

Statistical Analysis

Birth Cohort Trends Among Participants Aged 25 to 59 Years—We examined trends in sexual behaviors by 10-year birth cohorts among adults aged 25 to 59 years at the time of the survey who were born in 1940 to 1989 and had ever had sex ($n = 16,763$). Trends in median age at sexual initiation were examined among all adults who satisfied the above criteria. However, trends in median number of lifetime partners and proportion ever having a same-sex partner were examined only among those aged >30 years and born in 1940 to 1979, as participants aged 25 to 30 years or born in 1980 to 1989 would not have adequate time to accumulate partners. We examined trends in median age at sexual initiation and median number of lifetime partners across birth cohorts by race/ethnicity using χ^2 tests. We used Wald χ^2 tests to examine proportions of participants who reported ever having a same-sex partner by birth cohort and race/ethnicity. We did not perform birth cohort trend analysis by race/ethnicity on the variable ever having a same-sex partner due to insufficient sample size.

Sexual Behavior Among Participants Aged 14 to 24 Years—Among participants aged 14 to 24 years ($n = 13,468$), we determined the proportions reporting ever having sex and, among those who had had sex, the proportion having at least 3 lifetime partners, at least 2 partners in the past year, and ever having a same-sex partner. We used Wald χ^2 tests to determine differences by race/ethnicity, survey years (1999–2004, 2005–2008, and 2009–2012), and age groups (14–19 and 20–24 years). Questions on partners in the past year and same-sex partners were not asked of 14- to 17-year-olds in 1999–2004; therefore, estimates and statistical tests for those 2 variables were based on data from 2005 to 2012.

For both analyses, data for females and males were analyzed separately. We did not conduct trend or descriptive analyses separately for those in the “other race/ethnicity” category due to small sample size and heterogeneity of participants in this group. Survey design variables and sample weights, which accounted for the unequal probability of selection and unit nonresponse, were included in all analyses. We considered estimates with a relative standard error of greater than 30% to be unreliable. A *P* value less than 0.05 was considered significant for all tests. Data management and analyses were performed using SAS 9.3 (SAS Institute, Cary, NC) and SUDAAN 11.0 (RTI International, Research Triangle Park, NC).

RESULTS

Birth Cohort Trends Among Participants Aged 25 to 59 Years

Overall, age at sexual initiation declined with successive birth cohorts for both males and females (both $P_{\text{trend}} < 0.001$; Fig. 1 and Supplementary Table, <http://links.lww.com/OLQ/A93>). Median age at sexual initiation was 17.9 years (interquartile range [IQR], 15.9–20.2) for females born in 1940 to 1949 and decreased to 16.2 years (IQR, 14.6–18.1) among those born in 1980 to 1989 ($P_{\text{trend}} < 0.001$). Among females, age at sexual initiation declined among all 3 racial/ethnic groups ($P_{\text{trend}} < 0.01$), with the largest decline seen among non-Hispanic whites. Among males, overall median age at sexual initiation was 17.1 years (IQR, 15.2–19.1) for those born in 1940 to 1949 and 16.1 years (IQR, 14.5–17.9) for those born in 1980 to 1989 ($P_{\text{trend}} < 0.001$). However, when stratified by race/ethnicity, the decline was only observed among non-Hispanic whites ($P_{\text{trend}} < 0.001$).

For both females and males aged 31 to 59 years, the median number of lifetime partners increased across birth cohorts (Fig. 2), with a more pronounced increase among females (Fig. 1). Between 1940–1949 and 1970–1979 cohorts, there was a 2-fold increase in the median number of lifetime partners among females from 2.6 (IQR, 1.0–6.3) to 5.3 (IQR, 2.2–9.9; $P_{\text{trend}} < 0.001$). There was a positive trend among all race/ethnicity subgroups of females ($P_{\text{trend}} < 0.01$), but the increase was greatest among non-Hispanic white females. Median number of lifetime partners among males increased from 6.7 (IQR, 2.3–19.0) among those born in 1940 to 1949 to 8.8 (IQR, 3.7–19.6) among those born in 1970 to 1979 ($P_{\text{trend}} < 0.001$). The increase was observed only among non-Hispanic white males ($P_{\text{trend}} < 0.001$).

The percentage of females aged 31 to 59 years reporting ever having a same-sex partner increased with successive cohorts, from 5.2% among those born in 1940 to 1949 to 9.3% among those born in 1970 to 1979 ($P_{\text{trend}} < 0.001$; Table 1). Non-Hispanic black females were most likely to report ever having same-sex partners compared with non-Hispanic white and Mexican American females ($P < 0.001$). There was no statistical difference by birth cohort or race/ethnicity in the report of ever having a same-sex partner among males aged 31 to 59 years.

Sexual Behaviors Among Participants Aged 14 to 24 Years

The proportion of adolescents and young adults who had ever had vaginal, oral, or anal sex increased with age (Fig. 3). Among those aged 14 years, 12.5% (95% confidence interval [CI], 9.6–16.3) of females and 13.1% (95% CI, 10.0–16.9) of males reported ever having

sex; notably, the proportion among 14-year-old non-Hispanic black males was 36.3% (95% CI, 29.7–43.5). When analyzed by age group, there were differences by race/ethnicity among females in both 14–19 and 20–24 age groups ($P = 0.007$ and $P = 0.004$, respectively), and among males in the 14–19 age group ($P < 0.001$; Table 2). The proportion reporting ever having sex did not differ by survey year for either males or females, regardless of race/ethnicity (data not shown) or age group.

Among sexually experienced participants, those aged 20 to 24 years were more likely to report having at least 3 lifetime partners than those aged 14 to 19 years ($P < 0.001$ for both sexes), but a large proportion of those aged 14 to 19 years (45.2% of females and 55.0% of males) had at least 3 lifetime partners (Table 2). Among females aged 20 to 24 years, non-Hispanic blacks were more likely to have at least 3 lifetime partners compared with other racial/ethnic groups. Non-Hispanic black males in both age groups were more likely to have at least 3 lifetime partners compared with other racial/ethnic groups ($P < 0.01$). Higher proportions of females reported having at least 3 lifetime partners in 2009 to 2012 compared with earlier survey years ($P < 0.05$), but proportions were not different by survey years among males.

Among those aged 14 to 19 years, 39.4% of females and 48.6% of males had at least 2 partners in the past year. A higher proportion of females aged 14 to 19 years reported having at least 2 partners in the past year than those aged 20 to 24 years ($P < 0.001$), but there was no difference by age for males. Non-Hispanic white females aged 14 to 19 years and non-Hispanic black females aged 20 to 24 years were most likely to report having at least 2 partners in the past year ($P < 0.05$) compared with other race/ethnicities in their respective age groups. In both age groups, non-Hispanic black males were more likely to report at least 2 partners in last year compared with non-Hispanic white and Mexican American males ($P < 0.001$). By survey year, there were no differences in the proportion reporting at least 2 partners in the past year for either females or males.

Although females aged 20 to 24 years were more likely to report ever having a same-sex partner compared with those aged 14 to 19 years ($P < 0.001$), approximately the same proportion (3%) of males reported ever having a same-sex partner in the 2 age groups. Among females, we found no difference by race/ethnicity and no difference by survey year among those aged 20 to 24 years. However, within the 14–19 age group, more females reported having same-sex partners in 2009 to 2012 than in 2005 to 2008 ($P = 0.041$). Estimates of the proportion ever having a same-sex partner were unstable for males.

DISCUSSION

In our analyses of the 1999–2012 NHANES sexual behavior data, we found that sexual behaviors among adults aged 25 to 59 years in the United States differed by birth cohort. In successive 10-year birth cohorts, starting with those born in 1940 to 1949, there were more pronounced changes among females and non-Hispanic white males. Despite having less time to accumulate partners, both males and females born in later cohorts reported having more lifetime partners. Within each birth cohort, males reported more sex partners than females, but the gap between sexes narrowed over time. Similarly, the sex gap in age at sexual

initiation decreased with each successive birth cohort. The proportion of females who reported ever having a same-sex partner increased with each birth cohort, but the proportion remained stable among males. We also found that sexual behaviors trends varied by race/ethnicity. Although females in all 3 racial/ethnic groups had increasing lifetime sex partners and declining age at sexual initiation, the trends were sharpest among non-Hispanic whites. Among males, only non-Hispanic whites had increasing numbers of partners and declining age at sexual initiation.

Our data may inform interpretation of trends in STIs and health outcomes associated with STIs. For example, some evidence suggests that the decline in HPV seroprevalence among females older than 40 years may be primarily associated with sexual behavior-related changes in HPV risk across birth cohorts, rather than waning of detectable antibody.^{13,14} The sexual behavior trends shown in our analysis parallel previous findings that risk of HPV infection is greater among those who became sexually active after the sexual revolution and that incidence of HPV-related oropharyngeal cancers increases in successive birth cohorts.^{15,16} Our data may also contribute information for modeling STI incidence over time and its effects on such outcomes as HIV risk and pelvic inflammatory diseases. In addition, our findings suggest that it may be important for models to include recent national-level data when estimating STI incidence and prevalence.

The sexual behavior trends shown in our analyses are similar to those found in other high-income countries such as the United Kingdom, France, and Sweden. In these countries, the number of lifetime sex partners reported also increased while age at sexual initiation decreased among participants born in later birth cohorts.^{17–19} Notably, the changes were also greater among females than males.^{17,18} Similarities in sexual behavior trends between the United States and European countries make it possible to compare the results of other sexual health research.

We found that reported same-sex behavior increased with successive birth cohorts among females, but not males, and that females overall were more likely to report ever having a same-sex partner. This pattern is also found in a British study as well as other national surveys conducted in the United States.^{1,17} It is possible that the sex difference in the reporting of same-sex behavior is due to a greater degree of social acceptance of women's same-sex experiences, or increases in acceptance of women's sexuality overall. It is important to note that sexual behavior is not necessarily the same as sexual identity; previous reports have shown that most females and males who reported ever having a same-sex partner self-identify as heterosexual or straight.^{20,21} Prevalence of risky sexual behavior and STIs has been found to vary by sexual identity among those who reported ever having same-sex experience.^{20,21}

Historical trends of sexual behaviors provide a context for examining sexual behavior among adolescents and young adults. Trends documented in our analyses may indicate an increasingly accepting attitude toward sexual activity. Because these trends may influence sexual norms and characteristics of sexual networks among adolescents and young adults,^{22–24} it may be useful to examine sexual behaviors and incident STIs among adolescents and

young adults with the perspective of macrolevel trends in sexual behaviors among those aged 25 to 59 years.

Our analyses of sexual behaviors among adolescents and young adults aged 14 to 24 years show that a substantial minority of 14-year-olds had had sex. Among those who had had sex, teenagers were more likely to have multiple partners in the past year than 20-to 24-year-olds, and many had at least 3 lifetime partners. Significantly more females reported having at least 3 lifetime partners or ever having same-sex partners in 2009 to 2012 compared with earlier years. There were significant racial/ethnic differences in the reporting of ever having sex, lifetime partners, and past year partners, but not in the reporting of ever having a same-sex partner.

Studies using different sources of adolescent sexual behavior data found that the proportion of sexually experienced adolescents has declined since the late 1980s and leveled off in the mid to early 2000s.^{10,25–27} Our analysis showed that the proportion of sexually experienced adolescents continued to plateau through 2012. However, there were some differences between the surveys regarding the number of lifetime partners among adolescents. The Youth Risk Behavior Survey showed a decline in the proportion having at least 4 lifetime partners among both sexes from 1991 to 2009,^{10,27} whereas the National Survey of Family Growth showed no changes in the number of lifetime partners in the 20 years between 1988 and 2006–2010 in either sex.²⁵ We found no change from 1999 to 2008 for either sex, but observed an increase among females in 2009 to 2012.

Consistent across different US national surveys of adolescent sexual behavior is that almost half of teenagers are sexually experienced and a substantial proportion have at least 3 lifetime partners or multiple partners in the past year. Among adolescents, young age of sexual initiation increases their likelihood of acquiring an STI, becoming pregnant, and having sex under influence of alcohol or other substances.^{28,29} Our data highlight the importance of sexual health education, including STI prevention information and HPV vaccine, before sexual initiation. In addition, sexual health education is important for young adults in their 20s, as many in this age group are acquiring new partners and at risk for STIs.

The NHANES sexual behavior data have several limitations. Wording of questions varied slightly across survey cycles. Some participants may not correctly recall the number of partners they had or the age when they first had sex. Participants may underreport or overreport certain behaviors due to social desirability biases, although these are ameliorated somewhat by audio computer-assisted interview. NHANES collect data on fewer sexual behaviors compared with other national surveys; thus, we were unable to explore more complex behaviors. Despite combining 7 cycles of NHANES data, sample sizes for certain behaviors were still too small. For example, we could not examine trends of same-sex behaviors by race/ethnicity. We calculated median age at first sex for the trend analysis using data from those who had had sex at the time of the survey; therefore, our estimates could potentially be lower than the true median age at first sex, particularly among the youngest birth cohort. Participants of NHANES are noninstitutionalized civilians, and findings from our analyses are not applicable to populations not included in the sampling frame.

Previous research on sexual behaviors among adults has evaluated temporal changes or compared the differences in behaviors by age.¹ By using a birth cohort analysis, we are able to examine lifetime behaviors since the mid-1900s, allowing us to examine sexual behaviors in the United States over a longer period. In addition, we examined sexual behaviors among adolescents and young adults, a population at high risk for STIs. The differences in sexual behaviors by race/ethnicity parallel the disparities in risk for STIs in the United States⁶ and highlight the need for STI prevention policies and programs that reduce these disparities. Data on sexual behaviors will provide important information for monitoring trends in STIs and associated health outcomes.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

The authors declare no conflict of interests. This research was supported in part by an appointment to the Research Participation Program at the Centers for Disease Control and Prevention administered by the Oak Ridge Institute for Science and Education through an interagency agreement between US Department of Energy and Centers for Disease Control and Prevention. However, Oak Ridge Institute for Science and Education had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; and preparation, review, or approval of the manuscript.

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Figure 1. Median age at sexual initiation among adults aged 25 to 59 years, by 10-year birth cohort and race/ethnicity. A, Females. B, Males. Sex was defined as vaginal, oral, or anal sex. Bars represent IQRs. * $P_{\text{trend}} < 0.05$.

Figure 2.

Median number of lifetime partners among adults aged 31 to 59 years, by 10-year birth cohort and race/ethnicity. A, Females. B, Males. Bars represent IQRs. * $P_{\text{trend}} < 0.05$. †Upper quartiles for each cohort (not shown) are as follows: 1940–49 = 41.3, 1950–59 = 30.4, 1960–69 = 29.2, and 1970–79 = 31.8.

Figure 3.

Proportion of adolescents and young adults aged 14 to 24 years who reported ever having vaginal, oral, or anal sex, by age and race/ethnicity, NHANES 1999–2012. A, Females. B, Males.

TABLE 1.

Percentage of Adults Aged 31 to 59 Years Reporting Ever Having a Same Sex Partner, by Birth Cohort and Race/Ethnicity, NHANES 1999–2012

	Female		Male	
	% (95% CI)	<i>P</i>	% (95% CI)	<i>P</i>
Birth cohorts		<0.001 [*]		0.445 [*]
1940–1949	5.2 (3.3–8.1)		3.8 (2.5–5.6)	
1950–1959	5.2 (4.1–6.6)		6.2 (4.9–7.9)	
1960–1969	7.5 (6.2–9.1)		6.1 (5.0–7.5)	
1970–1979	9.3 (7.6–11.3)		5.8 (4.4–7.8)	
Race/Ethnicity		<0.001 [†]		0.306 [†]
Non-Hispanic white	7.2 (6.1–8.4)		6.1 (5.1–7.2)	
Non-Hispanic black	7.9 (6.6–9.4)		4.6 (3.6–5.9)	
Mexican American	3.1 (2.2–4.3)		5.8 (4.6–7.5)	

^{*} *P* value for trend.

[†] *P* value for χ^2 .

TABLE 2.
Sexual Behaviors Among Adolescents and Young Adults Aged 14 to 24 Years, NHANES 1999–2012

	Female (n = 6783)			Male (n = 6685)		
	14–19 y, % (95% CI)	20–24 y, % (95% CI)	P	14–19 y, % (95% CI)	20–24 y, % (95% CI)	P
Ever had sex	49.2 (47.0–51.4)	88.7 (86.1–91.0)	<0.001	45.3 (43.2–47.4)	87.4 (84.8–89.7)	<0.001
Race/Ethnicity						
Non-Hispanic white	48.2 (45.0–51.4)	87.8 (83.6–91.0)	P = 0.004	41.3 (38.5–44.0)	87.6 (84.0–90.5)	P = 0.204
Non-Hispanic black	55.6 (52.2–58.9)	94.5 (91.5–96.5)		61.8 (58.0–65.5)	89.8 (86.1–92.5)	
Mexican American	47.6 (43.5–51.7)	88.7 (84.8–91.8)		49.0 (45.3–52.7)	89.0 (84.9–92.0)	
Survey year	P = 0.706	P = 0.481		P = 0.372	P = 0.671	
1999–2004	50.1 (47.4–52.7)	86.9 (81.7–90.8)		44.0 (40.5–47.5)	88.7 (83.8–92.3)	
2005–2008	49.4 (45.3–53.6)	89.7 (85.3–92.9)		44.8 (42.1–47.5)	86.9 (82.2–90.4)	
2009–2012	47.6 (42.6–52.7)	90.4 (85.9–93.6)		47.7 (43.5–51.9)	86.1 (81.4–89.8)	
3 lifetime partners [†]	45.2 (42.4–48.0)	71.4 (68.7–73.9)	<0.001	55.0 (52.2–57.8)	73.3 (69.9–76.5)	<0.001
Race/Ethnicity						
Non-Hispanic white	47.2 (43.2–51.3)	73.2 (69.3–76.7)	P < 0.001	50.5 (45.5–55.5)	70.6 (66.0–74.9)	P < 0.001
Non-Hispanic black	47.0 (42.5–51.5)	82.9 (77.7–87.2)		70.2 (66.7–73.5)	88.0 (83.1–91.6)	
Mexican American	36.8 (32.6–41.3)	48.7 (42.2–55.3)		53.9 (47.9–59.7)	69.6 (63.0–75.4)	
Survey year	P = 0.041	P = 0.005		P = 0.768	P = 0.372	
1999–2004	42.0 (37.6–46.6)	68.2 (64.4–71.8)		53.8 (50.3–57.3)	73.6 (68.7–78.0)	
2005–2008	44.0 (40.1–48.0)	69.3 (63.4–74.6)		55.8 (50.3–61.2)	76.4 (69.2–82.4)	
2009–2012	51.3 (45.6–56.9)	77.7 (73.2–81.7)		55.8 (49.5–62.0)	70.0 (63.4–75.8)	
2 past year partners ^{†*}	39.4 (35.5–43.4)	34.4 (30.2–38.8)	<0.001	48.6 (44.5–52.7)	43.7 (39.1–48.4)	0.122
Race/Ethnicity						
Non-Hispanic white	41.4 (35.5–47.5)	34.5 (28.7–40.8)	P < 0.001	43.9 (36.7–51.4)	41.4 (35.1–48.0)	P < 0.001
Non-Hispanic black	38.8 (33.1–44.8)	43.0 (35.7–50.6)		63.2 (57.7–68.3)	59.0 (50.9–66.6)	
Mexican American	29.9 (23.4–37.3)	20.6 (13.6–29.9)		47.2 (39.1–55.5)	37.7 (30.3–45.6)	
Survey year	P = 0.085	P = 0.299		P = 0.503	P = 0.615	
2005–2008	36.0 (30.8–41.6)	32.0 (25.7–39.1)		50.0 (43.3–56.7)	44.9 (38.4–51.5)	
2009–2012	42.9 (37.3–48.6)	36.6 (31.5–42.0)		47.2 (42.5–52.0)	42.5 (35.9–49.3)	
Same sex partners ^{†*}	10.1 (7.6–13.3)	14.9 (12.5–17.6)	<0.001	3.5 (2.2–5.5)	3.2 (2.1–5.1)	0.868

Race/Ethnicity	Female (n = 6783)			Male (n = 6685)		
	14–19 y, % (95% CI)	P	20–24 y, % (95% CI)	14–19 y, % (95% CI)	P	20–24 y, % (95% CI)
	P = 0.703		P = 0.094	N/A		N/A
Non-Hispanic white	9.8 (6.3–14.9)		14.6 (11.2–18.7)	3.4 (1.6–7.2) [‡]		2.8 (1.3–6.0) [‡]
Non-Hispanic black	10.9 (6.9–16.8)		17.7 (12.0–25.3)	3.7 (2.1–6.2)		4.3 (2.0–9.0) [‡]
Mexican American	8.4 (5.3–13.1)		9.1 (5.7–14.2)	5.0 (2.9–8.6)		2.8 (1.1–7.0) [‡]
Survey year	P = 0.041		P = 0.847	N/A		N/A
2005–2008	7.2 (5.1–10.2)		14.7 (11.5–18.5)	3.1 (1.6–5.8) [‡]		3.2 (1.6–6.6) [‡]
2009–2012	13.2 (9.0–19.0)		15.2 (11.8–19.3)	4.0 (2.1–7.5) [‡]		3.3 (1.8–5.8)

* Data from 2005 to 2012.

[‡] Among those who reported ever having sex.

[‡] Relative standard error >30%.

N/A indicates not applicable.