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Main Reasons for Never Testing for HIV Among Women and Men Aged 15–44 in the United States, 2011–2015

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Abstract

Objectives—This report presents the percentage of men and women aged 15–44 in the United States who have never been tested for HIV outside of blood or blood product donation based on 2011–2015 data from the National Survey of Family Growth (NSFG). Additionally, this report describes the main reasons reported for having never been tested for HIV. Data are shown by selected demographic characteristics and HIV risk-related behaviors.

Methods—NSFG data used in this report were collected through in-person interviews conducted between September 2011 and September 2015 with nationally representative samples of 9,321 men and 11,300 women aged 15–44 in the household population of the United States. The overall response rate for the 2011–2015 NSFG was 71.0%: 72.3% for females and 69.6% for males.

Results—Overall, 38.8% of women and 53.8% of men aged 15–44 had never been tested for HIV outside of donating blood or blood products. Non-Hispanic black women and men had the lowest percentages of those who had never been tested for HIV (20.8% and 32.2%, respectively) compared with the other Hispanic-origin and race groups shown. Never testing for HIV also varied by marital or cohabiting status, education, and sexual orientation. A lower percentage of women and men aged 15–44 who reported any HIV risk-related sexual or drug behaviors in the past year had never been tested for HIV (26.4% and 33.7%) compared with those who did not report these behaviors (39.1% and 55.8%). The most common reason reported by women and men for having never been tested for HIV was that they were "unlikely to have been exposed to HIV" (72.0% and 71.1%), followed by they had "never been offered an HIV test" (21.0% and 21.1%).

Keywords: HIV testing • human immunodeficiency virus • National Survey of Family Growth

Introduction

In 2013, more than 1.2 million persons in the United States were living with HIV, and 13% of those infected (one in eight) did not know they had the virus (1). Persons who have HIV but are undiagnosed are estimated to account for one-third of HIV transmissions (2). Guidelines for HIV testing from the Centers for Disease Control and Prevention (CDC) recommend that clinicians screen all adolescents and adults aged 13-64 for HIV infection as part of their routine medical care (3). Multiple public health organizations, including the U.S. Preventive Services Task Force, also recommend that all adolescents and adults should be screened for HIV infection (4). More frequent HIV testing is recommended for persons who engage in behaviors known to increase the risk of HIV infection, including injection drug use, exchange of sex for money or drugs, same-sex sexual contact between men, and multiple sexual partners (3,4). There is considerable evidence of the public health benefits of early detection of HIV, including timely access to appropriate clinical care, optimized health outcomes and a reduction in the sex- and drugrelated risk behaviors that are associated



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with HIV transmission (5–7). Routine HIV testing is an important component of the National HIV/AIDS Strategy (8). Despite public health efforts to expand opportunities for HIV testing, in 2015, more than 50% of adults aged 18–64 in the United States had never been tested for HIV outside of the mandatory testing done for blood or blood product donation (9,10).

The National Survey of Family Growth (NSFG) provides nationally representative data on the HIV testing experience of persons aged 15–44 in the general household population of the United States (11,12). This report highlights the demographic and behavioral characteristics of women and men who have never been tested for HIV. Additionally, this report describes data on a new question added in 2011 on the main reason for never being tested for HIV.

Methods

Data source

This report is based on NSFG data from 2011–2013 and 2013–2015 combined, resulting in a data file of 4 years of interviews from September 2011 to September 2015. These two data sets together contain a total of 20,621 interviews: 11,300 with women and 9,321 with men, all aged 15–44. The overall response rate for 2011–2015 was 71.0%: 72.3% for females and 69.6% for males.

NSFG was first conducted by the National Center for Health Statistics in 1973. It was at first conducted periodically. Since 2006, NSFG has been conducted continuously, with file releases for the 2006–2010, 2011–2013, and 2013-2015 surveys. This survey is based on nationally representative, multistage area probability samples and administered through face-to-face interviews conducted by trained female interviewers in the selected persons' homes. Further information on sample design, fieldwork planning, interview content, and variance estimation for the current surveys was published previously (13).

HIV testing measures

Since 1985, HIV screening has been conducted routinely in the United States for all donated blood and blood products. Due to this practice, NSFG respondents were first asked if they had ever donated blood or blood products, and the answer to this question was used to tailor the wording of the rest of the HIV testing questions. Specifically, respondents were asked if they had ever been tested for HIV outside of donating blood or blood products. If they were ever tested for HIV outside of this context, they answered several follow-up questions about their most recent test. Since 2011, if they responded "no" to "ever been tested for HIV" (i.e., never tested), or were only tested within the context of blood donation, respondents were asked their main reason for never being tested. Because the follow-up question about reasons for not being tested was asked of respondents who were never tested in any context and those who were tested only as part of blood donation (i.e., nonvoluntary screening), these two groups were grouped together for this report as "never testing for HIV." This approach to asking about HIV testing is consistent with national preventive health goals to increase the proportion of individuals who have a routine and voluntary HIV test to learn their HIV status within the health care setting (3,8). This "never tested" group corresponds to an unweighted sample size of 4,164 females and 4,939 males. The HIV-related testing variables and their response categories are described further in the Technical Notes.

Selected demographic variables

The data presented in this report are shown stratified by several key background and demographic characteristics, all based on the time of interview. Age is shown in 10-year groups. Educational attainment is shown only for respondents aged 22–44 because large percentages of those aged 18–21 are still attending school. The measure of marital or cohabiting status used in this report includes only those relationships with opposite-sex spouses or partners, in keeping with the recoded variables that have been defined across all NSFG surveys to date. The definitions of Hispanic origin and race used take into account the reporting of more than one race, in accordance with the 1997 guidelines from the Office of Management and Budget (14).

Sexual orientation and HIV risk-related behaviors

Data on sexual orientation and selected HIV risk-related behaviors in NSFG are collected within the selfadministered portion of the interview, or audio computer-assisted self-interview (ACASI), where the respondent reads or listens to the questions and enters his or her own responses without assistance from the interviewer or disclosing responses to her. In ACASI, all respondents aged 15-44, regardless of reported sexual behavior, are asked a question about their sexual orientation, categorized as (a) heterosexual or straight, (b) homosexual or gay (or lesbian), or (c) bisexual. Further, this report includes measures of HIV riskrelated sexual and drug behaviors in the past year, as defined in a previous report (15).

Statistical analysis

All estimates in this report are based on sampling weights that were designed to produce unbiased estimates representative of women and men aged 15-44 in the United States in 2011-2015. Statistics for this report were produced using statistical package SAS software version 9.4. The SURVEYFREQ procedure was used to estimate the sampling errors of the statistics in order to take into account the use of weighted data and the complex sampling design of the survey. Each table in this report includes standard errors as measures of the precision of the point estimates and percentages. Given the differences between men and women in both the use of sexual and reproductive health care services, which may include HIV testing (16), and the prevalence of HIV risk-related behaviors (17), this report presents results on HIV testing for men and women separately. Subgroup

differences within sex, as well as patterns of subgroup differences between men and women, are discussed. Overall associations between independent variables and never testing for HIV were evaluated using survey-adjusted Wald chi-square tests. A probability (p) level of less than 0.05 was considered statistically significant. Standard two-tailed t tests were used to test statistical significance among subgroups. Terms such as "greater than" and "less than" indicate a statistically significant difference. Terms such as "similar" or "no difference" indicate that the statistics being compared were not significantly different.

Results

Never tested for HIV by demographic characteristics (Table 1)

- For adults aged 15–44, the percentage who had never been tested for HIV was significantly lower for women (38.8%) than for men (53.8%). This sex difference was also seen for those aged 18–44 (33.9% of women and 49.5% of men).
- Having never been tested for HIV was more common among women and men aged 15–24 (63.9% and 73.7%, respectively) compared with women and men aged 25–34 (26.9% and 45.7%), and those aged 35–44 (26.4% and 41.5%).
- For both women and men aged 15–44, the percentage of those who had never been tested for HIV was higher among never-married, non-cohabiting persons compared with those in other marital status groups. For example, approximately one-half (55.5%) of never-married women had never been tested for HIV compared with 31.6% of those who were currently married and 26.3% of those who were currently cohabiting.
- For all Hispanic-origin and race groups shown, non-Hispanic white women (42.6%) were more likely to have never been tested for HIV compared with Hispanic (36.0%) and non-Hispanic black (20.8%) women. In contrast, a lower percentage

of non-Hispanic black men had never been tested for HIV (32.2%) compared with percentages for Hispanic (56.4%) and non-Hispanic white (57.1%) men.

- Women aged 22–44 with higher • levels of education were more likely to have never been tested for HIV compared with those with lower levels of education. For example, 36.5% of those with a bachelor's degree or higher had never been tested for HIV compared with 23.6% of women with less than a high school education or General Educational Development high school equivalency diploma (GED). The opposite pattern by education was seen for men aged 22-44: Those with less than a high school diploma or GED were more likely to have never been tested for HIV compared with those with higher levels of education.
- A lower percentage of women aged 15–44 identifying as bisexual had never been tested for HIV (33.7%) compared with women identifying as heterosexual or straight (38.9%) and women identifying as homosexual, gay, or lesbian (46.4%). This pattern differed for men aged 15–44: Those identifying as homosexual or gay (28.7%) were less likely to have never been tested compared with men identifying as heterosexual or straight (54.3%) or men identifying as bisexual (47.8%).

Never tested for HIV by HIV risk-related behaviors (Table 2)

- Women and men who reported any HIV risk-related sexual or drug behaviors were less likely to have never been tested for HIV (26.4% and 33.7%, respectively) compared with those who did not report these behaviors (39.1% and 55.8%).
- Lower percentages of women and men who reported any HIV riskrelated sexual behaviors were never tested for HIV (27.8% and 33.9%, respectively) compared with those who did not report these behaviors (39.0% and 55.5%).

- Men who had a male sexual partner in the past year were less likely to have never been tested for HIV (28.9%) compared with those who did not have a male sexual partner in the past year (54.4%).
- There were no significant differences in the percentages of those never being tested for HIV among women who had five or more opposite-sex sexual partners in the past year compared with those who had fewer than five opposite-sex sexual partners in the past year. However, men with five or more oppositesex sexual partners in the past year were less likely to have never been tested for HIV (38.0%) compared with those who had fewer than five opposite-sex sexual partners in the past year (54.4%).
- Women and men who reported any other HIV risk-related sexual behaviors (not including male-tomale sex and five or more oppositesex sexual partners) were less likely to have never been tested for HIV (23.8% and 29.1%, respectively) compared with those who did not report these behaviors (39.3% and 54.4%).
- Twelve percent of women who reported any HIV risk-related drug behaviors had never been tested for HIV compared with 38.9% of those who did not report these behaviors. Nearly one-third of men who reported any HIV risk-related drug behaviors had never been tested for HIV (29.1%) compared with more than one-half of those who did not report these behaviors (54.3%).

Main reasons for never testing for HIV (Table 3)

Tables 3 and 4 present data on the main reasons for having never been tested for HIV among women and men aged 15–44 who had never been tested for HIV.

• The most common reason for having never been tested for HIV among women and men was that they were "unlikely to have been exposed to HIV" (72.0% and 71.1%, respectively).

- The second most common reason reported for having never been tested for HIV among women and men was that they were "never offered an HIV test" (21.0% and 21.1%, respectively).
- Lower percentages (0.1%–3.1%) of women and men reported other reasons as their main reason for having never been tested for HIV.

Main reasons for never testing by characteristics (Table 4)

Table 4 focuses on the two most commonly reported main reasons for having never been tested for HIV— "unlikely you have been exposed to HIV" and "never offered an HIV test"—by selected demographic characteristics. The other reasons for having never been tested for HIV (shown individually in Table 3) were combined into a category labeled "all other reasons." Due to the heterogeneity and small sample sizes of this group, these results are not discussed separately but are shown for illustrative purposes.

"Unlikely to have been exposed to HIV"

- For women who had never been tested for HIV, there were no differences by age group in the percentages who reported "unlikely to have been exposed to HIV" as the main reason for having never been tested for HIV. In contrast, a higher percentage of men aged 25–34 and 35–44 chose this as their main reason for having never been tested for HIV (both 74.0%) compared with men aged 15–24 (68.1%).
- For women and men, the percentages who reported unlikely exposure as their main reason for having never been tested for HIV were highest among those who were currently married (77.4% and 77.8%, respectively) compared with other marital status groups.
- Significantly higher percentages of non-Hispanic white women and men reported unlikely exposure as their

main reason for having never been tested for HIV (77.8% and 78.9%, respectively) compared with all other Hispanic-origin and race groups shown.

- The percentage of women and men aged 22–44 who reported unlikely exposure as their main reason for having never been tested was higher among those with higher education levels. For example, the percentages who reported this as their main reason were 81.8% for women and 84.6% for men with a bachelor's degree or higher and 44.9% for women and 59.9% for men with less than a high school diploma or GED.
- For both women and men, there were no differences by sexual orientation in the percentages who reported unlikely exposure as their main reason for having never been tested for HIV.

"Never offered an HIV test"

- There were no significant differences by age for women who reported that they were "never offered an HIV test" as their main reason for having never been tested for HIV. In contrast, a higher percentage of men aged 15–24 (25.2%) reported this reason compared with men aged 25–34 (18.5%) and 35–44 (16.2%).
- One-third of cohabiting women • reported never being offered an HIV test as their main reason for having never been tested for HIV (32.6%), which was higher than currently married women and never-married women (19.2% and 19.6%, respectively). Among men, a lower percentage of those who were currently married reported this as their main reason for having never been tested for HIV (15.3%)compared with those currently cohabiting (23.0%) and those who were never married (24.1%).
- Higher percentages of Hispanic women and men reported that they were never offered an HIV test as their main reason for having never been tested for HIV compared with all other Hispanic-origin and race groups shown.

- For women and men aged 22–44, the percentages who reported that they were never offered an HIV test as their main reason for having never been tested for HIV were higher among those with less than a high school diploma or GED (46.3% and 29.8%, respectively) compared with those with a bachelor's degree or higher (14.5% and 12.4%).
- For both women and men, there were no significant differences by sexual orientation in the percentages of those who reported that they were never offered an HIV test as their main reason for having never been tested for HIV.

Main reasons for never testing for HIV by HIV risk-related behaviors

The Figure shows the main reasons for having never been tested for HIV among women and men aged 15–44 who were never tested for HIV and reported any HIV risk-related sexual or drug behaviors in the past year.

- Among women, 58.8% reported the main reason for having never been tested for HIV was that they were "unlikely to be exposed to HIV," 26.0% reported that they were "never offered an HIV test," and 15.1% reported "all other reasons."
- Among men, 62.7% reported the main reason for having never been tested for HIV was that they were "unlikely to be exposed to HIV," 27.8% reported that they were "never offered an HIV test," and 9.5% reported "all other reasons."
- The main reasons reported for having never been tested for HIV were similar between women and men who reported any HIV risk-related sexual or drug behaviors in the past year.

Discussion

This report presents the percentages of those aged 15–44 in the United States who have never been tested for HIV outside of routine screening as part of blood donation and includes new information on their main reasons

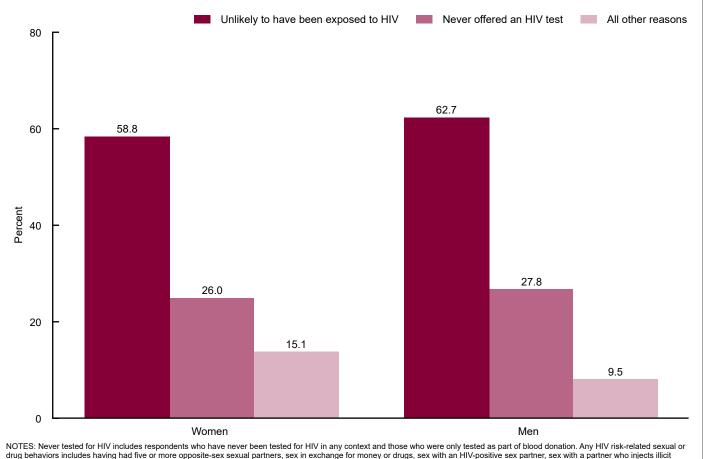
for having never been tested for HIV. Overall, 38.7% of women and 53.8% of men aged 15-44 in 2011-2015 had never been tested for HIV. Young persons aged 15–24 were more likely than those aged 25-44 to have never been tested for HIV. The greater prevalence of having never been tested for HIV among adolescents and young adults may inform programs aimed at reducing HIV infections in these populations. Although condoms are commonly used among adolescents (18), data suggest that there have been declines in condom use among this group (19). Adolescents and young adults may face age-related barriers to obtaining HIV testing services, including determining when and where to seek testing, limited knowledge about HIV, and concerns about confidentiality (20-22). In addition to age, demographic variation in the percentages of persons having never been tested for HIV was seen by marital

or cohabiting status, race and ethnicity, education, and sexual orientation.

This report also shows behavioral variation in HIV testing. The percentage of women and men aged 15-44 who reported having never been tested for HIV was lower among those who had any HIV risk-related sexual or drug behaviors in the past year compared with those who did not report these behaviors. This finding is similar to the patterns seen for recent HIV testing (i.e., in the past year) shown in a previous NSFG report (12). HIV testing as a routine part of medical care may increase the number of persons with HIV risk-related behaviors who are aware of their HIV status. However, about one in four women (and one in three men) aged 15-44 who reported HIV risk-related behaviors had never been tested for HIV. Some studies have suggested that HIV testing and HIV status awareness may play a role in

reducing risk behaviors that may lead to HIV transmission, particularly among individuals engaging in behaviors that may increase HIV risk (7).

Starting in 2011, NSFG respondents who had never been tested for HIV were asked for their main reason for never being tested. The most common reason reported among women and men aged 15-44 was that they were "unlikely to have been exposed to HIV" (72.0% and 71.1%, respectively), and the second most common reason was that they were "never offered an HIV test" (21.0% and 21.1%). Persons who said that the main reason for having never been tested for HIV was that they were unlikely to have been exposed to HIV were most often younger (men only), currently married, non-Hispanic white, and had a bachelor's degree or higher (limited to those aged 22–44). Among those who reported any HIV risk-related sexual or drug behaviors



drug behaviors includes having had five or more opposite-sex sexual partners, sex in exchange for money or drugs, sex with an HIV-positive sex partner, sex with a partner who injects illicit drugs, women with male partners who had sex with other males, men who had sex with a male partner, illicit drug injection, crack cocaine use, and crystal methamphetamine use. Percent distribution between women and men is not significantly different (*p* > 0.05). SOURCE: NCHS, National Survey of Family Growth, 2011–2015.

Figure. Main reasons for never testing for HIV among women and men aged 15–44 who reported any HIV risk-related sexual or drug behaviors in the past year: United States, 2011–2015

in the past year, unlikely exposure to HIV was the most common reason for having never been tested for HIV. Awareness of one's HIV status is a key factor in improving individual health outcomes and reducing behaviors that may lead to new HIV infections (8).

Findings from this report should be viewed in light of several limitations. The cross-sectional design of NSFG does not allow for the timing of HIV risk-related behaviors and HIV testing to be determined. Second, as a householdbased sample survey of persons aged 15-44, the NSFG sampling frame excludes those who are currently homeless, currently incarcerated or otherwise institutionalized, and those living on military bases in the United States. These groups may have different patterns of HIV testing behavior than those in households. Third, for this analysis, those who were tested for HIV only as part of blood donation and those who had never tested for HIV in any context were combined as "never tested for HIV"; these two groups may have different demographic and behavioral characteristics that were not examined in this report. A previous report on HIV testing using older NSFG data describes these differences in more detail (12). Last, the bivariate associations presented in this report may be explained by other factors not controlled for in the tables or included in the report.

NSFG data on HIV testing are an important component of HIV behavioral surveillance among the general U.S. household population. In combination with community-based surveys and surveys of high-risk populations, nationally representative, populationbased surveys like NSFG can provide information to help evaluate and guide national HIV prevention strategies.

References

 CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas—2014. HIV Surveillance Supplemental Report 21(4). 2016. Available from: https://www.cdc. gov/hiv/pdf/library/reports/surveillance/ cdc-hiv-surveillance-supplemental-reportvol-21-4.pdf.

- 2. Skarbinski J, Rosenberg E, Paz-Bailey G, Hall HI, Rose CE, Viall AH, et al. Human immunodeficiency virus transmission at each step of the care continuum in the United States. JAMA Intern Med 175(4):588–96. 2015.
- CDC. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. MMWR 55(RR14):1–17. 2016. Available from: https://www.cdc.gov/mmwr/ preview/mmwrhtml/rr5514a1.htm.
- U.S. Preventive Services Task Force. Human immunodeficiency virus (HIV) infection: Screening. Summary of recommendations and evidence. 2013. Available from: https://www. uspreventiveservicestaskforce.org/Page/ Document/UpdateSummaryFinal/humanimmunodeficiency-virus-hiv-infectionscreening.
- Frieden TR, Das-Douglas M, Kellerman SE, Henning KJ. Applying public health principles to the HIV epidemic. N Engl J Med 353(22):2397–402. 2005.
- Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, et al. Prevention of HIV-1 infection with early antiretroviral therapy. N Engl J Med 365(6):493–505. 2011.
- Marks G, Crepaz N, Senterfitt JW, Janssen RS. Meta-analysis of high-risk sexual behavior in persons aware and unaware they are infected with HIV in the United States: Implications for HIV prevention programs. J Acquir Immune Defic Syndr 39(4):446–53. 2005.
- National HIV/AIDS Strategy for the United States: Updated to 2020. 2015. Available from: https://files.hiv.gov/s3fspublic/nhas-update.pdf.
- CDC. Vital signs: HIV testing and diagnosis among adults—United States, 2001–2009. MMWR Morb Mortal Wkly Rep 59(47):1550–5. 2010.
- National Center for Health Statistics. Summary health statistics: National Health Interview Survey, 2015, table A–20c. Available from: https://ftp.cdc. gov/pub/Health_Statistics/NCHS/NHIS/ SHS/2015 SHS Table A-20.pdf.
- Copen CE, Chandra A, Febo-Vazquez I. HIV testing in the past year among the U.S. household population aged 15–44: 2011–2013. NCHS Data Brief, no 202. Hyattsville, MD: National Center for Health Statistics. 2015.
- Chandra A, Billioux VG, Copen CE, Balaji A, DiNenno E. HIV testing in the U.S. household population aged 15–44: Data from the National Survey of Family

Growth, 2006–2010. National Health Statistics Reports; no 58. Hyattsville, MD: National Center for Health Statistics. 2012.

- National Center for Health Statistics. 2013–2015 National Survey of Family Growth (NSFG): Summary of design and data collection methods. Available from: https://www.cdc.gov/nchs/data/nsfg/ NSFG_2013-2015_Summary_Design_ Data Collection.pdf.
- Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. Fed Regist 62(210):58782–90. 1997.
- 15. Chandra A, Billioux VG, Copen CE, Sionean C. HIV risk-related behaviors in the United States household population aged 15–44 years: Data from the National Survey of Family Growth, 2002 and 2006–2010. National Health Statistics Reports; no 46. Hyattsville, MD: National Center for Health Statistics. 2012.
- Kalmuss D, Tatum C. Patterns of men's use of sexual and reproductive health services. Perspect Sex Reprod Health 39(2):74–81. 2007.
- 17. CDC. HIV/AIDS, risk by gender. 2017. Available from: https://www.cdc.gov/hiv/ group/gender/.
- Abma JC, Martinez GM. Sexual activity and contraceptive use among teenagers in the United States, 2011–2015. National Health Statistics Reports; no 104. Hyattsville, MD: National Center for Health Statistics. 2017.
- CDC. Trends in the prevalence of sexual behaviors and HIV testing—National YRBS: 1991–2015. Available from: https://www.cdc.gov/healthyyouth/data/ yrbs/pdf/trends/2015_us_sexual_trend_ yrbs.pdf.
- Marcell AV, Morgan AR, Sanders R, Lundari N, Pilgrim NA, Jennings JM, et al. The socioecology of sexual and reproductive health care use among young urban minority males. J Adolesc Health 60(4):402–10. 2017.
- Committee on Pediatric AIDS, Emmanuel PJ, Martinez J. Committee on Pediatric AIDS. Adolescents and HIV infection: The pediatrician's role in promoting routine testing. Pediatrics 128(5):1023–9. 2011.
- 22. Copen CE, Dittus PJ, Leichliter JS. Confidentiality concerns and sexual and reproductive health care among adolescents and young adults aged 15–25. NCHS Data Brief, no 266. Hyattsville, MD: National Center for Health Statistics. 2016.

Table 1. Percentage of women and men aged 15–44 who never tested for HIV, by selected demographic characteristics: United States, 2011-2015

	We	omen		Men			
Characteristic	Number (thousands)	Percent (standard er		Percent (standard error)			
All persons aged 15–44 ¹	61,263	38.8 (0.9			(0.98)		
All persons aged 18–44 ¹	55,741	33.9 (0.9	99) 54,765	49.5	(1.03)		
Age group							
15–24	19,937	63.9 (1.4	45) 20,596	73.7	(1.15)		
25–34	21,091	26.9 (1.2	26) 20,762	45.7	(1.33)		
35–44	20,236	26.4 (1.2	26) 19,517	41.5	(1.63)		
Marital or cohabiting status							
Currently married	23,342	31.6 (1.3	35) 22,041	46.6	(1.52)		
Currently cohabiting	9,035	26.3 (1.6	65) 8,078	45.0	(2.13)		
Formerly married, not cohabiting	5,099	16.1 (1.6	3,107	36.8	(2.69)		
Never married, not cohabiting.	23,787	55.5 (1.4	44) 27,648	64.0	(1.14)		
Hispanic or Latino origin and race							
Hispanic	12,303	36.0 (1.5	59) 12,908	56.4	(1.71)		
White, single race	34,087	42.6 (1.1	18) 34,304	57.1	(1.29)		
Black, single race	8,407	20.8 (1.4	41) 7,286	32.2	(2.03)		
Education ²							
No high school diploma or GED	4,786	23.6 (2.2	23) 13,673	70.2	(1.42)		
High school diploma or GED	11,422	22.8 (1.5	51) 16,751	50.0	(1.48)		
Some college, no bachelor's degree	14,601	26.3 (1.5	58) 16,944	50.8	(1.81)		
Bachelor's degree or higher	16,813	36.5 (1.4	43) 13,506	45.7	(1.72)		
Sexual orientation							
Heterosexual or straight	55,966	38.9 (0.9	99) 57,894	54.3	(1.01)		
Homosexual, gay or lesbian	982	46.4 (5.0	01) 1,053		(4.44)		
Bisexual	3,694	33.7 (2.2	27) 1,172	47.8	(4.18)		

¹Total includes persons of other or multiple-race groups and persons who reported "don't know" or "refused" on sexual orientation; these groups are not shown separately. ²Limited to persons aged 22–44 at time of interview. GED is General Educational Development high school equivalency diploma.

NOTES: All characteristics were measured at time of interview. Never tested for HIV includes respondents who had never tested for HIV in any context and those who only tested as part of blood donation. Chi-square test statistics for each variable by never testing for HIV were statistically significant ($\rho < 0.05$).

SOURCE: NCHS, National Survey of Family Growth, 2011-2015.

Table 2. Percentage of women and men aged 15-44 who never tested for HIV, by specified HIV risk-related behaviors in the past year: United States, 2011-2015

Behavior	We	omen		Men			
	Number (thousands)	Percent (standard error)		Number (thousands)	Percent (standard error)		
Total	61,263	38.8	(0.94)	60,875	53.8	(0.98)	
HIV risk-related behavior in the past year							
Any HIV risk-related sexual or drug behavior ¹							
Yes	2,841	26.4	(2.27)	5,487	33.7	(2.23)	
No	57,527	39.1	(0.97)	54,074	55.8	(1.03)	
Any HIV risk-related sexual behavior ²			. ,			. ,	
Yes	2,526	27.8	(2.58)	4,846	33.9	(2.31)	
No	57,857	39.0	(0.97)	54,769	55.5	(1.04)	
Male-to-male sex							
Yes				1,593	28.9	(3.26)	
No				58,604	54.4	(0.99)	
Five or more opposite-sex sexual partners							
Yes	1,047	33.4	(4.09)	2,432	38.0	(3.38)	
No	59,525	38.5	(0.96)	57,456	54.4	(1.01)	
Any other HIV risk-related sexual behavior ³							
Yes	1,684	23.8	(3.33)	1,237	29.1	(4.21)	
No	59,238	39.3	(0.96)	59,300	54.4	(0.99)	
Any HIV risk-related drug behavior ^₄							
Yes	442	12.0	(3.21)	1,122	29.1	(4.41)	
No	60,585	38.9	(0.95)	59,340	54.3	(0.98)	

. Category not applicable.

Includes male-to-male sex, five or more opposite-sex sexual partners, having had sex in exchange for money or drugs, having had sex with an HIV-positive sex partner, having had sex with a partner who injects illicit drugs, women with male partners who had sex with other males, illicit drug injection, crack cocaine use, and crystal methamphetamine use.

²Includes male-to-male sex, five or more opposite-sex sexual partners, having had sex in exchange for money or drugs, having had sex with an HIV-positive sex partner, having had sex with a partner who injects illicit drugs, and women with male partners who had sex with other males. ³Includes having had sex in exchange for money or drugs, having had sex with an HIV-positive sex partner, having had sex with a partner who injects illicit drugs, and women with male partners who

had sex with other males. Includes illicit drug injection, crack cocaine use, and crystal methamphetamine use.

NOTES: Never tested for HIV includes respondents who had never tested for HIV in any context and those who only tested as part of blood donation. Chi-square test statistics for each HIV risk-related variable by never testing for HIV were statistically significant (p < 0.05), except for five or more opposite-sex sexual partners (women only).

SOURCE: NCHS, National Survey of Family Growth, 2011-2015.

Table 3. Percent distribution of the main reasons for never testing for HIV, among women and men aged 15–44 who never tested for HIV: United States, 2011–2015

	Wo	omen	Men			
Reasons for never testing for HIV	Number (thousands)	Percent (standard error)	Number (thousands)	Percent (standard error)		
Total who never tested for HIV	23,375	100.0 –	32,150	100.0 –		
You have never been offered an HIV test	4,915	21.0 (1.12)	6,778	21.1 (0.97)		
You are worried about what other people would think if you got tested for HIV	96	0.4 (0.16)	115	0.4 (0.14)		
It's unlikely you have been exposed to HIV	16,822	72.0 (1.33)	22,873	71.1 (1.22)		
You were afraid to find out if you were HIV positive (that you had HIV)	174	0.7 (0.15)	227	0.7 (0.15)		
You don't like needles	524	2.2 (0.34)	940	2.9 (0.41)		
Never had sexual intercourse	246	1.1 (0.27)	113	0.4 (0.12)		
No health insurance coverage or couldn't afford an HIV test	21	0.1 (0.05)	45	0.1 (0.06)		
Respondent reported spouse or partner tested negative	-	-	76	0.2 (0.07)		
Some other reason	577	2.5 (0.33)	982	3.1 (0.36)		

- Quantity zero.

NOTES: Percentages may not add to 100 due to rounding. Never tested for HIV includes respondents who had never tested for HIV in any context and those who only tested as part of blood donation. SOURCE: NCHS, National Survey of Family Growth, 2011–2015.

Table 4. Percent distribution by main reason for never testing for HIV among women and men aged 15–44 who never tested for HIV, according to selected demographic characteristics: United States, 2011–2015

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	Women					Men					
Characteristic	Number (thousands)	Total	Unlikely you have been exposed to HIV	Never offered an HIV test	All other reasons ¹	Number (thousands)	Total	Unlikely you have been exposed to HIV	Never offered an HIV test	All other reasons ¹	
			Percent (standard error) Percent (st				ent (standard er	ror)			
All persons aged 15–44 ²	23,375	100.0	72.0 (1.33)	21.0 (1.12)	7.0 (0.60)	32,150	100.0	71.1 (1.22)	21.1 (0.97)	7.8 (0.60)	
Age group											
15–24	12,585	100.0	71.0 (1.73)	20.9 (1.36)	8.1 (0.91)	15,015	100.0	68.1 (1.65)	25.2 (1.44)	6.6 (0.67)	
25–34	5,582	100.0	74.1 (2.19)	20.7 (1.98)	5.3 (0.92)	9,245	100.0	73.8 (1.86)	18.5 (1.59)	7.7 (1.00)	
35–44	5,207	100.0	72.1 (2.50)	21.7 (2.30)	6.2 (1.12)	7,890	100.0	73.7 (2.05)	16.2 (1.66)	10.0 (1.45)	
Marital or cohabiting status											
Currently married	7,210	100.0	77.4 (1.85)	19.2 (1.78)	3.3 (0.60)	10,116	100.0	77.8 (1.69)	15.3 (1.25)	6.9 (1.00)	
Currently cohabiting	2,339	100.0	56.1 (4.10)	32.6 (3.73)	11.3 (2.45)	3,482	100.0	66.2 (2.78)	23.0 (2.78)	10.8 (2.09)	
Formerly married, not cohabiting	798	100.0	65.6 (4.97)	26.6 (5.01)	7.8 (2.05)	1,135	100.0	65.0 (3.87)	19.4 (3.02)	15.6 (3.24)	
Never married, not cohabiting.	13,018	100.0	72.1 (1.67)	19.6 (1.35)	8.2 (0.87)	17,415	100.0	68.7 (1.44)	24.1 (1.25)	7.2 (0.63)	
Hispanic or Latino origin and race											
HispanicNon-Hispanic	4,381	100.0	58.7 (2.51)	31.5 (2.05)	9.7 (1.25)	7,126	100.0	59.1 (2.48)	31.2 (2.12)	9.7 (1.18)	
White, single race	14,240	100.0	77.8 (1.39)	16.9 (1.26)	5.2 (0.72)	19,194	100.0	78.9 (1.38)	15.4 (1.07)	5.7 (0.67)	
Black, single race	1,731	100.0	65.9 (3.08)	19.4 (2.57)	14.7 (2.20)	2,335	100.0	56.2 (3.17)	27.5 (3.13)	16.3 (2.41)	
Education ³											
No high school diploma or GED	1,120	100.0	44.9 (5.52)	46.3 (5.35)	8.8 (2.39)	2,922	100.0	59.9 (3.58)	29.8 (3.28)	10.3 (1.76)	
High school diploma or GED	2,517	100.0	64.6 (3.70)	28.4 (3.41)	7.0 (1.16)	5,404	100.0	65.8 (2.37)	20.2 (1.63)	14.1 (1.84)	
Some college, no bachelor's degree	3,785	100.0	74.4 (2.44)	17.7 (2.01)	7.9 (1.33)	6,249	100.0	74.1 (2.05)	17.0 (1.70)	8.9 (1.59)	
Bachelor's degree or higher	6,033	100.0	81.8 (1.96)	14.5 (1.77)	3.6 (0.88)	5,967	100.0	84.6 (1.68)	12.4 (1.49)	3.0 (0.73)	
Sexual orientation											
Heterosexual or straight	21,375	100.0	72.5 (1.37)	20.7 (1.14)	6.8 (0.64)	30,920	100.0	71.2 (1.24)	21.2 (1.00)	7.6 (0.62)	
Homosexual, gay or lesbian	456	100.0	67.8 (6.24)	18.8 (5.57)	13.4 (5.07)	302	100.0	79.8 (6.84)	11.9 (6.09)	8.3 (3.64)	
Bisexual	1,229	100.0	67.2 (4.25)	23.8 (3.84)	9.1 (1.79)	558	100.0	62.3 (6.50)	22.0 (5.22)	15.7 (4.87)	

Includes: "You are worried about what other people would think if you got tested for HIV," "You were afraid to find out if you were HIV positive," "You don't like needles," "Respondent reported spouse or partner tested negative,"

"Never had sexual intercourse," "No health insurance coverage, or respondent couldn't afford an HIV test," and "Some other reason."

²Total includes persons of other or multiple-race groups and persons who reported "don't know" or "refused" on sexual orientation; these groups are not shown separately. ³Limited to persons aged 22–44 at time of interview. GED is General Educational Development high school equivalency diploma.

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NOTES: Percentages may not add to 100 due to rounding. Never tested for HIV includes respondents who had never tested for HIV in any context and those who only tested as part of blood donation. Chi-square test statistics for each variable by never testing for HIV were statistically significant (p < 0.05), except for age (women only) and sexual orientation.

SOURCE: NCHS, National Survey of Family Growth, 2011-2015.

Technical Notes

Definition of terms

HIV risk-related behaviors in the past year-This is a summary measure that includes HIV risk-related sexual or drug behaviors among women and men in the past year, including those who had five or more opposite-sex sexual partners; had sex in exchange for money or drugs; had a sex partner who injects illicit drugs; had an HIV-positive sex partner; for males, those who had any male sexual partners; and for females, those who had sex with male partners who had sex with other males. HIV risk-related drug behaviors include illicit drug injection and crack cocaine or crystal methamphetamine use in the past year. Further details on these measures can be found in a previous report (15).

HIV testing—The recode EVHIVTST classifies respondents as ever having had an HIV test and in what context (i.e., as part of blood donation or outside of blood donation). The four categories for this recode variable were:

- 0 = No HIV test reported
- *l* = Yes, only as part of blood donation
- 2 = Yes, only outside of blood donation
- 3 = Yes, in both contexts

For this report, categories 0 and 1 were combined as "never tested for HIV" and reflect the universe of respondents who were asked for their main reason for never being tested. *Main reason for never testing for HIV*—If the respondent had never tested for HIV in any context or was only tested for HIV as part of blood donation, he or she was asked NOHIVTST (HE-2b female/IF-2b male NOHIVTST), which reads:

"Which one of these reasons shown on Card 88 would you say is the MAIN reason why you have not been tested for HIV?"

- You have never been offered an HIV test*
- You are worried about what other people would think if you got tested for HIV*
- It's unlikely you have been exposed to HIV*
- You were afraid to find out if you were HIV positive (that you had HIV)*
- You don't like needles*
- Some other reason*
- Respondent reported spouse or partner tested negative
- Never had sexual intercourse
- No health insurance coverage or respondent couldn't afford an HIV test

The six response categories marked with an asterisk (*) were offered explicitly to the survey respondent, and the other categories were coded based on verbatim responses to the "other-specify" follow-up question. Table 4 shows data for the two most common reasons: "never offered an HIV test" and "unlikely you have been exposed to HIV." All other reasons were combined into the category "all other reasons."

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