
National Health Statistics Reports

Number 171 ■ May 25, 2022

Sexual Orientation Differences in Access to Care and Health Status, Behaviors, and Beliefs: Findings from the National Health and Nutrition Examination Survey, National Survey of Family Growth, and National Health Interview Survey

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Abstract

Objective—This report demonstrates use of three National Center for Health Statistics (NCHS) data systems to study differences in health by sexual orientation. Sexual orientation differences in a broad selection of health indicators were examined using the National Health and Nutrition Examination Survey (NHANES), National Survey of Family Growth (NSFG), and National Health Interview Survey (NHIS).

Background—NHANES, NSFG, and NHIS have included measures of sexual orientation since 1999, 2002, and 2013, respectively. These data systems support comprehensive examinations of sexual orientation differences in health status, access to care, sexual and reproductive health, anthropometric measures, health beliefs and behaviors, and other indicators.

Methods—Data from multiple years of NHANES (2005–2018), NSFG (2011–2019), and NHIS (2013–2018) were pooled into three separate files. Analyses were stratified by sex. After adjusting for age and survey year and cycle, measures of access to care and health status, behaviors, and beliefs among lesbian, gay, and bisexual (LGB) adults were compared with heterosexual adults.

Results—Across the three data systems, LGB adults differed from heterosexual adults on several health indicators. For example, bisexual men and women, gay men, and lesbian women reported smoking and heavy drinking (NHIS) and using marijuana and illicit stimulants (NSFG) more often than heterosexual people. Compared with heterosexual women, lesbian and bisexual women reported diagnoses of arthritis, asthma, cancer, diabetes, heart disease, and hypertension more often (NHIS), and bisexual women reported having ever been diagnosed with endometriosis, ovulation or menstrual problems, and pelvic inflammatory disease, more often (NSFG). Anthropometric measures from NHANES (weight and waist circumference) also differed by sexual orientation for men and women.

Conclusions—NHANES, NHIS, and NSFG enable research on topics relevant to the health of LGB people, which may inform efforts to advance health equity by targeting disparities by sexual orientation.

Keywords: bisexual • gay • heterosexual • lesbian

Introduction

Lesbian, gay, and bisexual (LGB) people have historically been underrepresented in national health surveillance systems, which has limited efforts to identify disparities in population health status and access to care by sexual orientation (1). To address this limitation, a 2011 Institute of Medicine report called for expanding data collection on LGB and transgender people in all federally funded research (2). However, the National Center for Health Statistics (NCHS) has included measures of sexual orientation in three nationally representative data systems for a number of years. The National Health and Nutrition Examination Survey (NHANES) added questions about same-sex behavior (that is, the genders of sex partners) in 1999 and questions about sexual identity (that is, gay or lesbian, bisexual or heterosexual) in 2001. Since 2002, the National Survey of Family Growth (NSFG) has included measures of all three dimensions of sexual orientation—sexual identity, behavior, and attraction (that is, degree of attraction to males and females). Finally, the National Health Interview Survey (NHIS) added a sexual identity measure to its annual core questionnaire in 2013.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



The availability of a sexual identity question in NHANES, NSFG, and NHIS supports comparative analyses that apply the strengths of each data system to the study of access to care and health status, behaviors, and beliefs among LGB people.

Despite the availability of a common sexual identity measure in NHANES, NSFG, and NHIS, previous publications on sexual identity differences in health and access to care using NCHS data have typically been data system-focused around certain topics. For example, analyses of the 2009–2014 NHANES showed that, compared with their heterosexual counterparts, lesbian and bisexual women had higher adjusted odds of reporting arthritis and asthma, and lesbian women and gay men had higher adjusted odds of reported chronic bronchitis (3). An analysis of 2011–2015 NSFG data among males aged 15–44 found sexual identity differences in receipt of clinical sexual risk assessments, with a higher percentage of gay and bisexual males reporting that a medical care provider had asked them about their sexual experience in the past year than heterosexual males (4). Using a broad measure of access to health services, an analysis of the 2013 NHIS also found sexual identity differences in not receiving services because of costs, including prescription medications, mental health care, dental care, eyeglasses, specialist care, or follow-up care among both men and women (5).

NHANES, NSFG, and NHIS have complementary strengths that, when brought together in a single analysis, can provide a more comprehensive profile of population health than when any of the three data systems are used alone. Specifically, the physical examination component of NHANES enhances questionnaire and interview data with medical, anthropometric, and physiological measurements collected by highly trained medical personnel. NSFG is unique in the depth of information that is collected from the U.S. population aged 15–49 on reproductive and sexual health and relationships. As the principal source of information on the health of the civilian noninstitutionalized U.S. population aged 18 and over, NHIS collects data on a broad range of health

topics, including health insurance, chronic conditions, health care access and use, health-related behaviors, and functioning and disability. Regarding the adult LGB population, an additional strength of all three of these data systems is that the sexual identity survey questions were rigorously evaluated in methodologic studies by NCHS (6–8). The objectives of this report are twofold: 1) to estimate and test differences in measures of access to care, health status, and health-related behaviors and beliefs by sexual identity among men and women in the United States; and 2) to demonstrate potential uses of NCHS data for sexual orientation-related research.

Methods

Data systems

NHANES

NHANES is a cross-sectional, nationally representative survey that provides information on the health and nutritional status of the civilian noninstitutionalized population of the United States. In addition to self-reported survey data, anthropometric data in NHANES are collected during physical health examinations at mobile examination centers. (For more information on NHANES, see <https://www.cdc.gov/nchs/nhanes/index.htm>.) NHANES data are released biannually, and analyses in this report used seven cycles of NHANES data from 2005 through 2018 and included 11,189 male and 11,566 female NHANES physical examination participants aged 18–59 (the age range of participants who receive survey questions about sexual orientation). Hispanic people are oversampled in NHANES, but those of backgrounds other than Mexican American are not sampled in sufficient numbers for calculating estimates of other Hispanic subgroups (as a result, the categories for Hispanic ethnicity in the NHANES public use file are “Mexican American” and “other Hispanic.”) For the 2005–2018 period, total unweighted response rates for the examined sample ranged from 48.8% (2017–2018) to 77.4% (2005–2006) (9). This report describes sexual identity differences

in anthropometric variables on body weight (pounds), height (inches), waist circumference (inches), and body mass index (BMI).

NSFG

NSFG is a cross-sectional, nationally representative household survey of the civilian noninstitutionalized population aged 15–49. The age range for NSFG participants was 15–44 for the 2011–2015 period and 15–49 for the 2015–2019 period. (For more information on NSFG, see <https://www.cdc.gov/nchs/nsfg/index.htm>.) The 2011–2019 NSFG data used in this study were collected through in-person household interviews. Audio computer-assisted self-interview software is used to collect information on sexual identity, attraction, and sexual behavior with different-sex and same-sex partners. Analyses used four 2-year releases of NSFG data from 2011 through 2019 and included 16,594 male and 20,219 female respondents aged 18–49 with information on sexual identity (people under age 18 were excluded from this analysis). For the 2011–2019 period, total final weighted response rates by sex ranged from 65.3% (2015–2017) to 72.8% (2011–2013) (10). This report describes sexual identity differences in variables on sexual experience, receipt of sexual risk assessments, use of sexual and reproductive health services (for example, HIV testing and family planning clinic services), gender role attitudes (among men), and use of substances (marijuana and stimulants).

NHIS

NHIS is a cross-sectional, nationally representative survey of the civilian noninstitutionalized population aged 18 and over. (For more information on NHIS, see <https://www.cdc.gov/nchs/nhis/index.htm>.) Households are sampled for in-person interviews by the U.S. Census Bureau. Before NHIS was redesigned for 2019, sampling began by identifying families within households and conducting a brief interview with a family respondent. From each family, one adult aged 18 or over was randomly selected for a detailed Sample Adult interview. Analyses used 6 years of NHIS data from 2013 through 2018

(that is, before the 2019 redesign) and included 82,452 male Sample Adult respondents and 100,568 female Sample Adult respondents aged 18 and over with information on sexual orientation. For the 2013–2018 period, Sample Adult response rates ranged from 53.0% in 2017 to 61.2% in 2013 (11). This report describes sexual identity differences in variables on access to care (usual source of care, insurance coverage, and inability to afford services), health status (serious psychological distress, functional limitations, and diagnoses), and health behaviors (current smoking and heavy drinking).

Pooled data files

LGB adults (aged 18 and over) are a relatively small portion of the U.S. population, together estimated at about 5.2% in 2020 (12). Although the sample sizes for a single survey year or cycle in the three NCHS data systems can support reliable estimates by sexual orientation for many variables, multiple years of data were pooled within each data system to increase sample size to mitigate potential problems with the stability of estimates, which is a particular concern when studying less prevalent outcomes among minority subgroups.

NHANES

Data from the Demographic questionnaire, Sexual Behavior (Adult) questionnaire, and Physical Examination files were merged for each of the seven survey cycles. The merged data files from each cycle were then pooled into one file. Sampling weights were created by dividing the 2-year Medical Examination Component weights from each survey cycle file by the total number of files used (seven). Results from the pooled file can be interpreted as estimates for the midpoint or average of the 2005–2018 period (June 2011).

NSFG

Data from NSFG on men and women are provided by NCHS in separate 2-year data releases. Separate pooled data files for men and women were created from four 2-year data releases. The minimum age of NSFG participants is 15. For consistency with the other two data

sources on adults, NSFG participants under age 18 were excluded from this analysis. Analyses were weighted using the sampling weights provided by NCHS for the combined 2011–2019 files.

Results can be interpreted as estimates for the midpoint or average of the 2011–2019 period (June 2015).

NHIS

Data from the Sample Adult files for 2013–2018 were pooled into one analytic file. Sampling weights were created by dividing the weights from the annual files by the total number of files used (six). Because the 2013–2018 files fall into different sample design periods, the primary sampling unit and stratification variables were also adjusted in the pooled file (13). Results can be interpreted as estimates for the midpoint or average of the 2013–2018 period (June 2015).

Sexual identity measures

The files for all three data systems used in the current analysis have an identity-based measure of sexual orientation (that is, bisexual, gay or lesbian, or heterosexual). For that reason, an identity-based measure was used to categorize people by sexual orientation in these analyses.

The sexual identity question in both NHIS and NHANES is, “Which of the following best represents how you think of yourself?” Response categories were “gay” (for women, “lesbian or gay”), “straight, that is, not gay” (for women, “straight, that is, not lesbian or gay”), “bisexual,” “something else,” “I don’t know the answer,” and refused (14). The analysis of the NHIS sample excluded 2.1% of participants whose sexual identity was not ascertained, 1.0% who responded “something else” or “I don’t know the answer,” and 0.6% who refused. The analysis of the NHANES sample excluded 2.2% of participants who responded “something else” or “I don’t know the answer,” and 0.2% who refused. A further 20.6% of NHANES participants with missing responses on the sexual identity question (that is, not ascertained) were excluded. A binary indicator variable (equal to one if sexual identity was missing and zero if otherwise) was associated with each of the anthropometric

dependent variables and with age among both men and women. For this reason, NHANES’ analytic weights were adjusted for nonresponse on the sexual identity question.

The NSFG variable on sexual identity was based on two different questions and sets of response categories over the 2011–2019 period. For 2011–2015, the question was “Do you think of yourself as...” and the response options were “heterosexual or straight,” “homosexual or gay” (for women, “homosexual, gay, or lesbian”), “bisexual,” “not ascertained,” “refused,” and “don’t know” (15). For 2016–2019, a randomly selected one-half of the sample was asked the same question that was used in 2011–2015, and the other half was asked, “Which of the following best represents how you think of yourself?” and the response options were “gay” (for women, “lesbian or gay”), “straight, that is, not gay” (for women, “straight, that is, not lesbian or gay”), “bisexual,” “something else,” “not ascertained,” “refused,” and “don’t know” (that is, the same question used in NHANES and NHIS). The first three options of the two different response sets were used to create a variable that categorized respondents as having a bisexual, gay or lesbian, or heterosexual identity. The analysis excluded 0.3% of men and 0.3% of women whose sexual identity was not ascertained, 0.9% of men and 1.3% of women who responded “something else” or “don’t know,” and 0.7% of men and 0.8% of women who refused.

Analysis

All analyses were weighted and adjusted for the complex survey design of each of the three data systems using Stata software (16). Separate sets of analyses were conducted for men and women. For NSFG and NHIS, adjusted percentages for bisexual, gay or lesbian, and heterosexual adults were calculated. Proportions were adjusted for age and survey year using multivariate logistic regression and the postestimation margins command. Tests of differences between the heterosexual (reference) group and the bisexual group and the gay or lesbian group were performed in the models, and postestimation *F* tests were then used

to test differences between the bisexual group and the gay or lesbian group. Korn-Graubard confidence intervals were calculated, and all proportions met NCHS standards for reliability (17). For NHANES, adjusted means and standard errors for anthropometric measures were calculated for bisexual, gay or lesbian, and heterosexual groups. Adjusting for age and survey cycle, linear regression was used to test differences between the heterosexual (reference) group and the bisexual group and the gay or lesbian group, and postestimation Wald tests were then used to test differences between the bisexual group and the gay or lesbian group. Sexual orientation differences in BMI and waist circumference were also expressed as ratios by dividing the adjusted means in these anthropometric measures for the bisexual, gay, and lesbian groups (by sex) by those for the corresponding heterosexual comparison groups using the nonlinear combination of estimators (nlcom) command in Stata. To adjust for nonresponse on the NHANES sexual identity question, the NHANES sample weights were multiplied by a new weight component representing the inverse of the probability of responding to the sexual identity question, which was calculated from a multivariate logistic regression model including age, sex, language of interview, survey year, and number of people in household as predictors. All results described below are statistically significant at 0.05 unless otherwise noted.

Results

Table 1 shows the distribution of sexual identity, race and Hispanic origin, and age groups of the populations represented by the three data systems, stratified by sex. The 2005–2018 NHANES estimated that 2.6% of adults aged 18–59 were gay men, 1.3% were bisexual men, 1.4% were lesbian women, and 4.5% were bisexual women. The 2011–2019 NSFG estimated that 2.2% of adults aged 18–49 were gay men, 2.1% were bisexual men, 2.0% were lesbian women, and 7.0% were bisexual women. Finally, the 2013–2018 NHIS estimated that 1.8% of adults aged 18 and over were gay men, 0.6% were bisexual men, 1.4% were lesbian women, and 1.3% were bisexual women.

Descriptions of results are organized by data system. Within each data system, results are organized by topic, and, within each topic, by sex.

NHANES

Anthropometric measures

Gay men had lower mean body weight (190.2 pounds) and lower mean BMI (27.5) than heterosexual men (198.9 pounds and 28.8, respectively) (Table 2); mean BMI was 4% lower in gay men (27.5) than heterosexual men (28.8) (mean ratio = 0.96; 95% confidence interval [CI] 0.92–0.99) (Figure 1). Gay men had lower waist circumference than heterosexual men, although the difference was not statistically significant. Bisexual men were similar to heterosexual men on these outcomes.

Heterosexual women (169.7 pounds) had lower mean body weight than both lesbian (181.9 pounds) and bisexual (177.5 pounds) women. Heterosexual women (29.0) also had lower BMI than lesbian (30.8) and bisexual (30.3) women (Table 2). Mean BMI was 6% higher in lesbian than heterosexual women (mean ratio = 1.06; 95% CI 1.01–1.11) (Figure 1) and 4% higher in bisexual

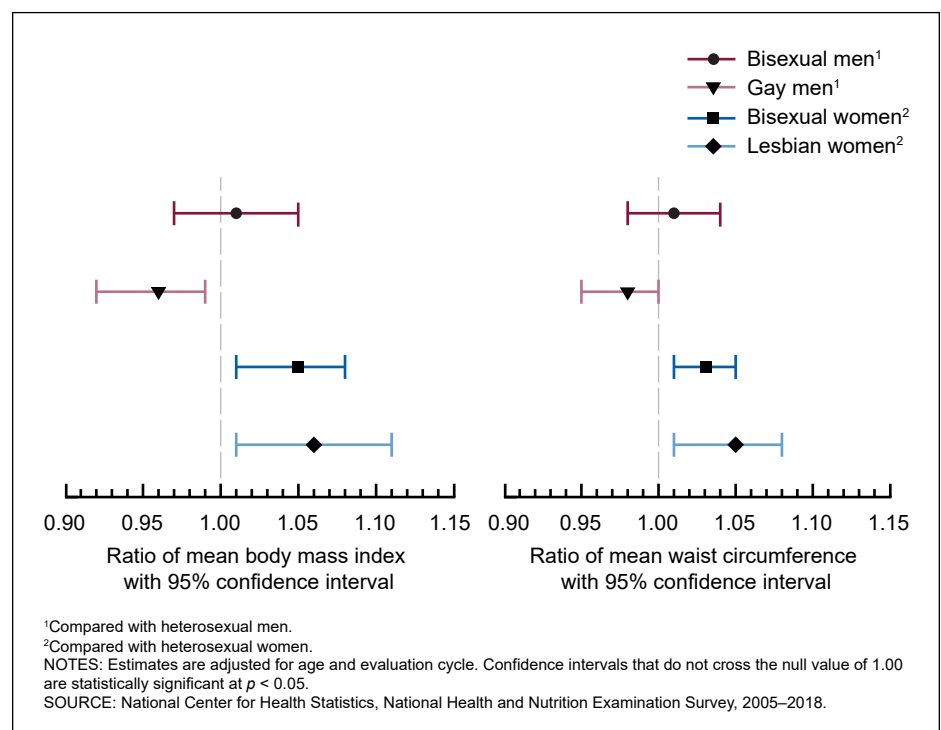
than heterosexual women (mean ratio = 1.04; 95% CI 1.01–1.08) (Figure 1). Heterosexual women (37.5 inches) had lower mean waist circumference than both lesbian (39.3 inches) and bisexual (38.5 inches) women (Table 2). Mean waist circumference was 5% higher in lesbian than heterosexual women (mean ratio = 1.05; 95% CI 1.01–1.08) (Figure 1) and 3% higher in bisexual than heterosexual women (mean ratio = 1.03; 95% CI 1.01–1.05) (Figure 1).

NSFG

Sexual experience

Gay men (51.1%) reported lifetime sexual experience with females less frequently than bisexual men (87.3%), and both gay and bisexual men reported sexual experience with females less frequently than heterosexual men (94.4%). Conversely, heterosexual men (2.7%) reported lifetime sexual experience with males less frequently than bisexual men (69.5%), and both heterosexual and bisexual men reported sexual experience with males less frequently than gay men (94.4%). Both gay (37.3%) and bisexual (47.0%) men were less likely to report having one sexual partner in the previous

Figure 1. Mean body mass index and waist circumference among adults aged 18–59, by sexual identity and sex: United States, 2005–2018



12 months than heterosexual men (73.3%) (Table 3). Heterosexual men (9.2%) were less likely to report having two partners in the previous 12 months than both gay (17.4%) and bisexual (16.5%) men. Heterosexual men (10.7%) were less likely to report having three or more partners in the previous 12 months than bisexual men (25.9%), and both heterosexual and bisexual men were less likely to report having three or more partners than gay men (36.5%) (Table 3).

Lifetime sexual experience with females was reported less frequently by heterosexual women (12.3%) than bisexual women (77.7%), and lesbian women (91.0%) reported lifetime sexual experience with females more frequently than heterosexual and bisexual women. Lesbian women (74.5%) were less likely than heterosexual women (94.9%) to report lifetime sexual experience with males, and both heterosexual and lesbian women were less likely to report sexual experience with males than bisexual women (96.6%). Lesbian women (3.6%) reported having no sexual partners in the previous 12 months less frequently than heterosexual women (6.9%). Bisexual women (55.8%) reported having one sexual partner in the previous 12 months less frequently than lesbian women (71.8%), and both lesbian and bisexual women were less likely than heterosexual women (77.5%) to report having one sexual partner. Heterosexual women (8.9%) were less likely than both lesbian (12.7%) and bisexual (14.5%) women to report having two partners in the previous 12 months. Heterosexual women (6.7%) were less likely than lesbian women (11.3%) to report having three or more partners in the previous 12 months, and both heterosexual and lesbian women were less likely than bisexual women (21.1%) to report having three or more partners (Table 4).

Sexual risk assessment

Heterosexual men were less likely to receive all four components of sexual risk assessment compared with gay and bisexual men (Figure 2). Further, bisexual men were less likely to receive three of the four sexual risk assessment components. Specifically, heterosexual men (12.7%) were less likely than both

bisexual (23.9%) and gay (32.7%) men to report that a healthcare provider asked them in the previous 12 months about their number of sexual partners. Heterosexual (13.9%) and bisexual (21.6%) men were less likely than gay men (36.2%) to report that a healthcare provider asked them in the previous 12 months about their sexual orientation or the sex of their sexual partners, use of condoms (15.3%, 25.6%, and 39.1%, respectively), and the types of sex they had (7.9%, 17.3%, and 31.5%) (Figure 2). Although the percentages of gay men and bisexual men who were asked by a provider about their number of sexual partners were 32.7% and 23.9%, respectively, this difference was not statistically significant.

Lesbian women were less likely to receive three of the four components of sexual risk assessment compared with heterosexual and bisexual women. Specifically, lesbian women (20.7%) were less likely to report that a healthcare provider asked them about their number of sexual partners in the previous 12 months than heterosexual (30.1%) and bisexual (33.1%) women. Lesbian women (16.3%) were less likely than heterosexual (33.3%) and bisexual (37.5%) women to report that a healthcare provider asked them about their use of condoms and the types of

sex they had (10.8%, 16.4%, and 22.0%, respectively) in the previous 12 months. By contrast, heterosexual women (22.6%) were less likely than bisexual (27.6%) and lesbian (30.3%) women to report that a healthcare provider asked them about their sexual orientation or the sex of their sexual partners in the previous 12 months (Figure 3).

Use of sexual and reproductive health services

Heterosexual men were less likely than gay and bisexual men to receive all four types of sexual health services studied, and bisexual men were less likely than gay men to receive three of the four types of services (Table 3). Specifically, heterosexual men (15.5%) reported having ever used family planning clinic services less frequently compared with both gay (23.1%) and bisexual (23.4%) men. Heterosexual (48.4%) and bisexual (58.7%) men were less likely than gay men (79.8%) to report having ever received an HIV test, sexually transmitted disease (STD) testing in the previous 12 months (14.9%, 27.2%, and 47.9%, respectively), and STD treatment (2.1%, 6.0%, and 14.4%) in the previous 12 months.

Figure 2. Receipt of sexual risk assessment questions from a healthcare provider in the last 12 months among men aged 18–49, by sexual identity: United States, 2011–2019

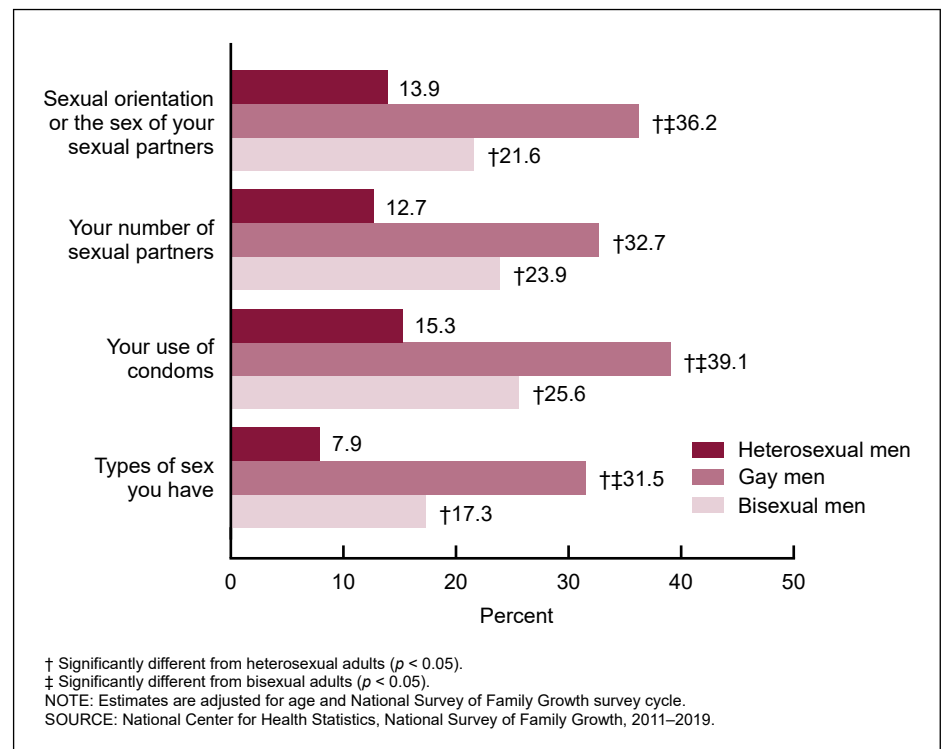
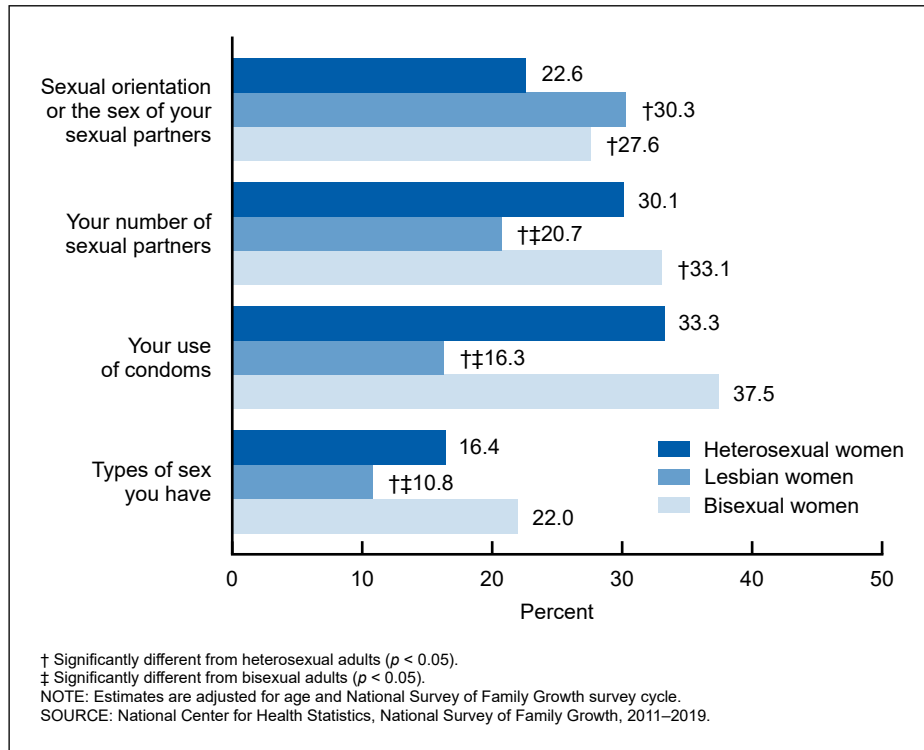


Figure 3. Receipt of sexual risk assessment questions from a healthcare provider in the last 12 months among women aged 18–49, by sexual identity: United States, 2011–2019



Heterosexual and lesbian women were less likely than bisexual women to have used several testing and treatment services for sexual and reproductive health. Specifically, lesbian (60.1%) and heterosexual (65.1%) women were less likely than bisexual women (75.5%) to report having ever tested for HIV and having ever tested for human papillomavirus (HPV) (38.4%, 49.6%, and 55.1%, respectively). Lesbian (28.9%) and heterosexual (31.8%) women reported receiving STD testing in the previous 12 months less frequently compared with bisexual women (43.6%). Lesbian women (7.9%) were less likely than both heterosexual (14.2%) and bisexual (15.2%) women to have ever received tubal sterilization and to have ever used birth control pills (45.7%, 76.4%, and 77.1%, respectively). Lesbian women (40.1%) were also less likely than both bisexual (55.6%) and heterosexual (58.2%) women to have received Papanicolaou testing and STD testing (28.9%, 31.8%, and 43.6%, respectively) in the previous 12 months (Table 4).

Use of substances

Use of marijuana in the previous 12 months was less prevalent among heterosexual men (27.1%) than among

both bisexual (35.8%) and gay (40.6%) men. Heterosexual men (5.7%) also reported illicit stimulant use in the previous 12 months less frequently than both gay (10.5%) and bisexual (10.7%) men.

Use of marijuana in the previous 12 months was less prevalent among heterosexual women (17.2%) than among both lesbian (34.7%) and bisexual (39.9%) women. Heterosexual women (2.2%) were less likely than lesbian women (3.7%) to report illicit stimulant use in the previous 12 months, and both heterosexual and lesbian women were less likely to report illicit stimulant use than bisexual women (8.3%) (Table 4).

Gender role attitudes in men aged 18–49

For two of the four statements reflecting more traditional attitudes on gender roles, gay men reported lower levels of agreement than bisexual men, who, in turn, reported lower levels of agreement than heterosexual men. For example, gay men (13.4%) agreed with the statement, “Men only need to see a doctor when they are hurt or sick” less frequently than bisexual men (22.0%), and both gay and bisexual men agreed with the statement less frequently than

heterosexual men (28.7%). Heterosexual men (57.0%) agreed with the statement, “Sexual relations between two adults of the same sex are all right” less frequently than bisexual men (86.5%), and both heterosexual and bisexual men agreed with this statement less frequently than gay men (97.3%). Rates of agreement on the other two gender role statements were similarly low for gay and bisexual men. Specifically, both gay (10.9%) and bisexual (11.5%) men agreed with the statement, “When a man is feeling pain, he should not let it show” less frequently than heterosexual men (21.3%), as well as the statement, “Men have greater sexual needs than women” (27.3% among both gay and bisexual men, compared with 39.5% among heterosexual men).

Sexual and reproductive health conditions in women aged 18–49

Heterosexual women (5.8%) were less likely than bisexual women (9.8%) to report having ever been diagnosed with endometriosis, or ovulation or menstrual problems (16.8% and 22.8%, respectively). Lesbian women had similar percentages of having ever been diagnosed with endometriosis (9.1%) or ovulation or menstrual problems (20.7%) compared with bisexual women, but this group had less statistical power to detect significant differences. Both heterosexual (3.2%) and lesbian (2.7%) women reported having ever been diagnosed with pelvic inflammatory disease less frequently than bisexual women (6.9%).

NHIS

Access to care

Heterosexual men (13.7%) reported being unable to afford any of the six types of services studied less frequently than bisexual (17.9%) and gay (18.8%) men. Specifically, heterosexual men were less likely than both gay and bisexual men to report an inability to afford mental health counseling (1.4%, 3.9%, and 5.4%, respectively) (Figure 4) and eyeglasses (4.6%, 7.6%, and 8.3%) in the previous 12 months. Heterosexual men (5.1%) were also less likely than gay men (6.8%) to report an inability to afford prescription medications, dental care (9.5% and 13.2%, respectively),

and specialist care (3.4% and 4.6%) (Table 5). Compared with heterosexual men, bisexual men were more likely to report being unable to afford prescription medications (7.2%), dental care (12.3%), and specialist care (4.0%), but the differences were not statistically significant. Both bisexual (82.0%) and heterosexual (82.2%) men were less likely than gay men (87.6%) to have a usual place for medical care, or private health insurance (60.9%, 65.8%, and 70.2%, respectively). Heterosexual men (11.3%) were less likely to have Medicare coverage than bisexual (13.2%) and gay (15.2%) men. Gay men (9.6%) were less likely than heterosexual men (12.6%) to report a lack of health insurance. Although not statistically significant, the percentage of bisexual men (10.6%) with no health insurance was higher than that of gay men but lower than heterosexual men.

Heterosexual women (18.7%) reported being unable to afford any of

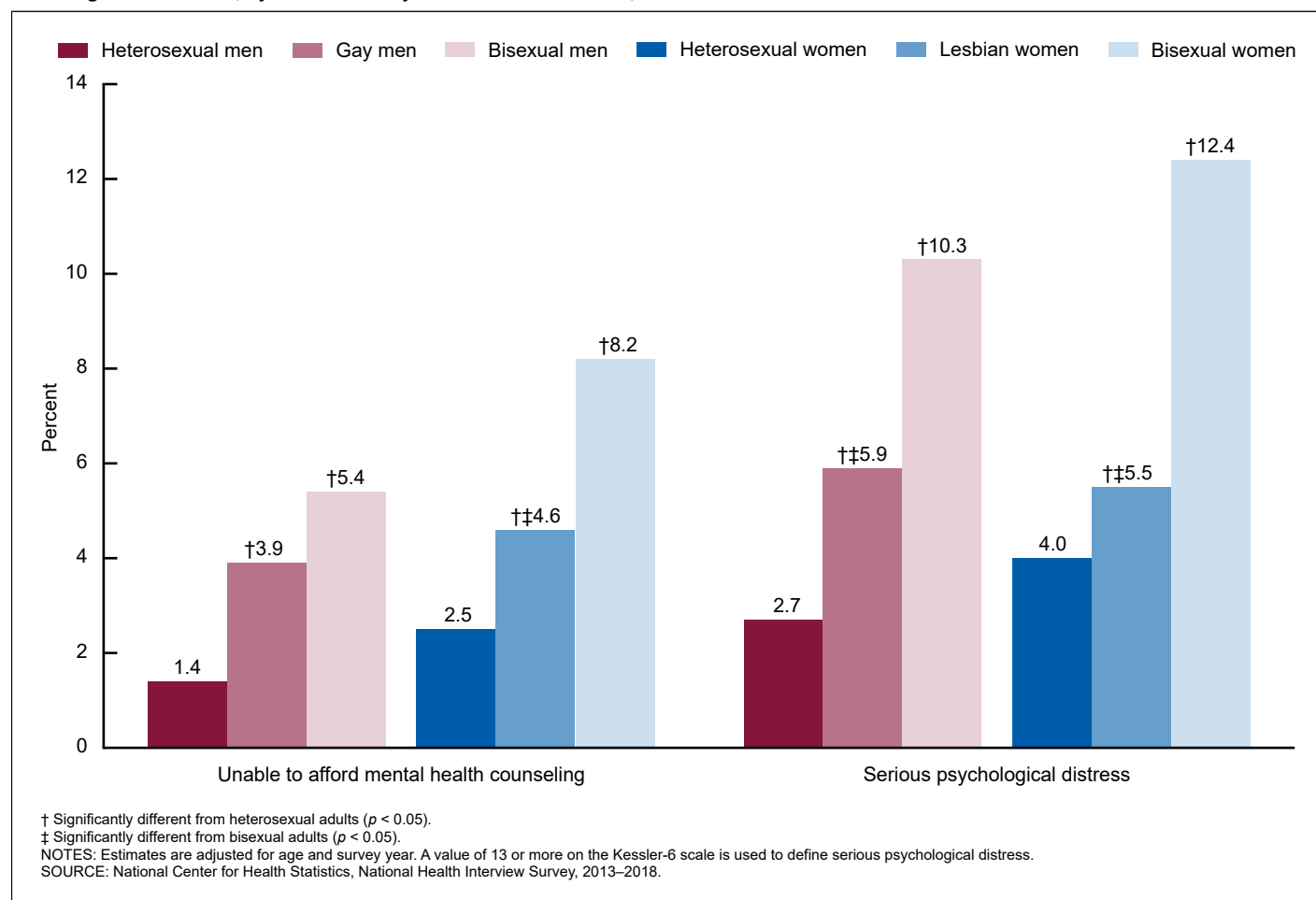
the six types of services studied less frequently than lesbian (24.7%) and bisexual (29.3%) women. Specifically, heterosexual women (7.7%) were less likely than lesbian (10.8%) and bisexual (13.1%) women to report an inability to afford eyeglasses, specialist care (5.0%, 7.5%, and 10.0%, respectively), and follow-up care (4.2%, 5.9%, and 7.2%) (Table 6). Heterosexual (7.8%) and lesbian (10.0%) women were less likely than bisexual women (13.1%) to report an inability to afford prescription medications, dental care (12.6%, 16.3%, and 20.1%, respectively), and mental health counseling (2.5%, 4.6%, and 8.2%) (Figure 4). Bisexual women (55.7%) reported having private health insurance less frequently than heterosexual (64.2%) and lesbian (64.7%) women. Bisexual women (12.4%) also reported having Medicaid more frequently than heterosexual women (10.4%). Both bisexual (87.2%) and lesbian (86.7%) women reported having a usual place

for medical care less frequently than heterosexual women (90.2%).

Health status

Heterosexual men (50.4%) were less likely than gay (53.4%) and bisexual (57.5%) men to report having ever been diagnosed with any of the six conditions studied. Specifically, heterosexual men were less likely than gay men to report lifetime diagnoses of cancer (8.1% and 12.1%, respectively) or hypertension (31.8% and 35.1%), and they were less likely than bisexual men to report lifetime diagnoses of heart disease (5.7% and 9.1%) (Table 5). Compared with gay men, bisexual men also had lower reported lifetime diagnoses of cancer (7.9%) and hypertension (33.5%), although the results were not statistically significant. Heterosexual men (11.1%) were less likely to report ever receiving a diagnosis of asthma than gay (13.3%) and bisexual (15.4%) men. In addition, both

Figure 4. Inability to afford mental health counseling in the past 12 months and serious psychological distress in the past 30 days among adults aged 18 and over, by sexual identity and sex: United States, 2013–2018



heterosexual and gay men were less likely than bisexual men to report any functional limitation (30.8%, 34.0%, and 40.3%, respectively) or serious psychological distress (2.7%, 5.9%, and 10.3%); the higher prevalence of these two conditions in gay men than heterosexual men was statistically significant (Figure 4).

Heterosexual women (52.9%) were less likely than lesbian (60.3%) and bisexual (67.6%) women to report having ever been diagnosed with any of the six conditions studied, and the difference between lesbian and bisexual women was also significant. Specifically, heterosexual women were less likely than lesbian and bisexual women to report lifetime diagnoses of arthritis (26.4%, 35.7%, and 36.8%, respectively) or asthma (14.4%, 21.2%, and 23.6%) (Table 6). Heterosexual and lesbian women were also less likely than bisexual women to report ever receiving diagnoses of cancer (9.7%, 11.3%, and 14.9%, respectively), diabetes (9.0%, 11.2%, and 12.9%), and hypertension (29.9%, 29.4%, and 37.0%). Heterosexual and lesbian women were less likely than bisexual women to have any functional limitation (40.0%, 48.5%, and 59.7%, respectively) or serious psychological distress (4.0%, 5.5%, and 12.4%), and the differences between lesbian and bisexual women were also significant (Figure 4).

Smoking and heavy alcohol use

Heterosexual men (17.4%) were less likely to report current smoking than gay men (21.2%) and less likely to report current heavy drinking than bisexual men (5.3% and 10.2%, respectively) (Table 5).

Current smoking was less prevalent among heterosexual women (13.3%) than among lesbian (20.7%) and bisexual (21.4%) women. Heterosexual women (4.9%) were also less likely to report current heavy drinking than lesbian (10.0%) and bisexual (10.7%) women (Table 6).

Discussion

The 2020 National Academies of Sciences, Engineering, and Medicine report, *Understanding the Well-being of LGBTQI+ Populations*, acknowledged the contributions of population-based studies to the evidence base on LGB

health (18). This is the first report to present national health statistics by sexual identity from NHANES, NHIS, and NSFG together, demonstrating the breadth of topics that NCHS data can address in generating evidence on the health of LGB people. Although the analytic samples from the three data systems varied in terms of maximum age, the general pattern of differences between sexual identity groups for several types of variables was consistent across data systems. For example, LGB people reported smoking or drinking heavily (in NHIS) and using marijuana and illicit stimulant drugs (in NSFG) more frequently than heterosexual people. At least three of the five reported conditions with a higher lifetime prevalence in lesbian and bisexual women in NHIS (diabetes, heart disease, and hypertension) are associated with overweight or obesity, which is consistent with findings from the NHANES physical examinations showing higher average body weight, waist circumference, and BMI in lesbian and bisexual women than heterosexual women.

Stratifying the analyses by sex revealed contrasting differences for men and women in the association of sexual identity with several measures of health and access to care. For example, mean body weight was lower in gay men than heterosexual men, but higher in lesbian and bisexual women than heterosexual women. Gay men were more likely than heterosexual men, but lesbian women were less likely than heterosexual women, to have received treatment for an STD in the previous 12 months. Whereas gay men reported having a usual place of medical care more often than heterosexual men, both lesbian and bisexual women reported having this type of health care access less often than heterosexual women. These findings suggest that the association of sexual identity with some indicators of health and access to care is different for men and women, which may have implications for the development of health programs and policies to reduce sexual orientation disparities and promote health equity.

The increased sample size that resulted from pooling data for multiple survey years allowed the analysis to

detect differences for several health indicators between the relatively small bisexual and gay or lesbian groups. Bisexual people were different from their gay or lesbian and heterosexual counterparts on several health indicators. For example, bisexual men and women reported serious psychological distress and any functional limitation more frequently than both gay or lesbian and heterosexual people. Among women, the prevalence of illicit stimulant use and an inability to afford mental health counseling in the previous 12 months was higher among those who were bisexual than lesbian or heterosexual. These findings demonstrate the importance of separating these groups to examine potential differences in various measures of health and health care use and may inform efforts to tailor accessible and affirmative services for these population subgroups (19,20).

Limitations in both survey measurement and analysis should be mentioned. One measurement limitation is the “something else” response category for the sexual orientation identity question in the three data systems. People choosing this response may be people who would identify as queer, pansexual, asexual, or another nonheterosexual identity if those response options were available; people of any sexual orientation who prefer to avoid personal disclosure without refusing to respond to the question may also have chosen the “something else” option. Another measurement limitation is the lack of any variable on gender identity in NCHS data systems that would allow for the identification of transgender people. In addition, because this report focuses on adults, sexual orientation differences in health among people under age 18 are not examined. Although the extent of missing data on sexual identity in NHANES (20.6%) is a concern, particularly because missingness was associated with the anthropometric outcome measures as well as age for both men and women, a nonresponse adjustment specifically for sexual identity was incorporated into the sample weights. Regarding analytic limitations, pooling the data from multiple years masks any time trend that may exist for a given variable, which is why the estimates were adjusted for

the data system survey year or cycle. Even after pooling multiple years of data, group sample sizes still resulted in limited power to detect significant differences in statistical tests, as well as wide confidence intervals. Substantial differences in BMI were seen among racial and ethnic subgroups (21). In a sensitivity analysis, race and Hispanic origin was added as a control variable to the anthropometric measure analyses, and the results did not change appreciably.

Conclusion

NHANES, NHIS, and NSFG enable research on a wide range of topics relevant to the health of LGB people. Combined, the results of this research can inform the development of health programs and policies to target and reduce disparities by sexual orientation and promote health equity. These resources can serve various initiatives within the U.S. Department of Health and Human Services to monitor progress toward the goal of improving the health, safety, and well-being of LGB people.

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Table 1. Percent distribution of selected demographic characteristics of adults in the United States, by sex: National Health and Nutrition Examination Survey, National Survey of Family Growth, and National Health Interview Survey

| Characteristic | NHANES 2005–2018 (aged 18–59) | NSFG 2011–2019 (aged 18–49) | NHIS 2013–2018 (aged 18 and over) |
|--|----------------------------------|--------------------------------|--------------------------------------|
| Men | | | |
| Percent (95% confidence interval) | | | |
| Sexual identity: | | | |
| Gay | 2.6 (2.0–3.3) | 2.2 (1.9–2.6) | 1.8 (1.7–2.0) |
| Bisexual | 1.3 (1.0–1.6) | 2.1 (1.8–2.4) | 0.6 (0.5–0.7) |
| Heterosexual | 96.1 (95.4–96.8) | 95.7 (95.2–96.1) | 97.6 (97.4–97.7) |
| Race and ethnicity: | | | |
| Hispanic (any race) ¹ | 18.2 (16.2–20.4) | 20.0 (18.0–22.1) | 16.2 (15.4–17.0) |
| Non-Hispanic Black | 11.4 (10.1–12.8) | 12.9 (11.6–14.3) | 10.9 (10.5–11.4) |
| Non-Hispanic White | 62.3 (59.6–65.0) | 60.5 (58.2–62.7) | 65.1 (64.2–66.0) |
| Non-Hispanic other ² | 8.1 (7.3–9.0) | 6.7 (5.7–7.9) | 7.8 (7.4–8.2) |
| Age group (years)³: | | | |
| 18–29 | 30.7 (29.5–31.9) | 45.9 (44.3–47.5) | 21.9 (21.4–22.5) |
| 30–39 | 22.3 (21.4–23.1) | 36.6 (35.3–38.0) | 17.3 (17.0–17.7) |
| 40–49 | 23.9 (22.9–24.9) | 17.5 (16.4–18.6) | 17.0 (16.7–17.4) |
| 50–59 | 23.2 (22.2–24.2) | --- | 17.6 (17.3–18.0) |
| 60 and over | --- | --- | 26.1 (25.6–26.6) |
| Women | | | |
| Sexual identity: | | | |
| Lesbian | 1.4 (1.1–1.8) | 2.0 (1.7–2.4) | 1.4 (1.3–1.6) |
| Bisexual | 4.5 (4.0–5.0) | 7.0 (6.5–7.6) | 1.3 (1.2–1.4) |
| Heterosexual | 94.1 (93.5–94.7) | 90.9 (90.3–91.6) | 97.2 (97.1–97.4) |
| Race and ethnicity: | | | |
| Hispanic (any race) ¹ | 17.1 (15.2–19.1) | 19.2 (17.3–21.3) | 15.2 (14.5–15.9) |
| Non-Hispanic Black | 13.2 (11.6–14.9) | 15.0 (13.6–16.6) | 12.4 (11.8–12.9) |
| Non-Hispanic White | 61.2 (58.3–64.0) | 59.1 (56.8–61.3) ³ | 64.2 (63.3–65.1) |
| Non-Hispanic other ² | 8.6 (7.7–9.5) | 6.7 (5.5–8.1) | 8.2 (7.9–8.6) |
| Age group (years)³: | | | |
| 18–29 | 29.6 (28.4–30.9) | 44.9 (43.8–46.1) | 20.3 (19.8–20.7) |
| 30–39 | 22.3 (21.3–23.3) | 37.1 (36.1–38.1) | 16.8 (16.5–17.1) |
| 40–49 | 24.5 (23.5–25.5) | 18.0 (17.1–18.9) | 16.4 (16.1–16.8) |
| 50–59 | 23.6 (22.6–24.7) | --- | 17.5 (17.2–17.9) |
| 60 and over | --- | --- | 28.9 (28.4–29.4) |

--- Data not available.

¹In the NHANES public use file, 61.7% of adults in the "Hispanic (any race)" group were categorized as Mexican American and 38.3% as "other Hispanic." For this report, Mexican American and "other Hispanic" were combined into "Hispanic (any race)" for consistency in comparing the three data systems.

²In the original NHIS file, 71.1% of adults in the "non-Hispanic other" group were categorized as Asian or Pacific Islander. For this report, the "non-Hispanic other" and Asian or Pacific Islander groups were combined for consistency in comparing the three data systems.

³Maximum age for NSFG participants was 44 years for 2011–2015 and 49 years for 2015–2019. In addition, the original NSFG file included people aged 15–17 years. The analytic sample for this report excluded people aged 15–17 to focus on adults aged 18 and over in all three data systems.

NOTES: NHANES is National Health and Nutrition Examination Survey. NSFG is National Survey of Family Growth. NHIS is National Health Interview Survey.

SOURCES: National Center for Health Statistics, National Health and Nutrition Examination Survey, 2005–2018; and National Survey of Family Growth, 2011–2019; and National Health Interview Survey, 2013–2018.

Table 2. Age- and examination cycle-adjusted mean body weight, height, waist circumference, and body mass index among adults aged 18–59, by sexual identity and sex: United States, 2005–2018

| Characteristic | Gay or lesbian | Bisexual | Heterosexual |
|--|--------------------------------|----------------------|---------------------|
| Men | | | |
| | Mean (95% confidence interval) | | |
| Weight (pounds) | †190.2 (183.3–197.2) | 199.7 (191.1–208.3) | 198.9 (196.3–199.5) |
| Ratio of means (reference: heterosexual) | †0.96 (0.93–0.99) | 1.01 (0.96–1.05) | 1.00 |
| Height (inches) | 69.6 (69.2–70.1) | 69.4 (68.9–70.0) | 69.5 (69.4–69.6) |
| Ratio of means (reference: heterosexual) | 1.00 (1.00–1.01) | 1.00 (0.99–1.01) | 1.00 |
| Waist circumference (inches) | 38.4 (37.5–39.4) | 39.9 (38.7–41.1) | 39.3 (39.1–39.6) |
| Ratio of means (reference: heterosexual) | 0.98 (0.95–1.00) | 1.01 (0.98–1.04) | 1.00 |
| Body mass index | †27.5 (26.5–28.5) | 29.1 (27.9–30.3) | 28.8 (28.5–29.0) |
| Ratio of means (reference: heterosexual) | †0.96 (0.92–0.99) | 1.01 (0.97–1.05) | 1.00 |
| Women | | | |
| Weight (pounds) | †181.9 (174.0–189.9) | †177.5 (171.7–183.4) | 169.7 (168.3–171.2) |
| Ratio of means (reference: heterosexual) | †1.07 (1.03–1.12) | †1.05 (1.01–1.08) | 1.00 |
| Height (inches) | 64.4 (64.0–64.9) | 64.1 (63.8–64.3) | 64.1 (64.0–64.2) |
| Ratio of means (reference: heterosexual) | 1.01 (1.00–1.01) | 1.00 (1.00–1.00) | 1.00 |
| Waist circumference (inches) | †39.3 (38.0–40.5) | †38.5 (37.7–39.4) | 37.5 (37.3–37.7) |
| Ratio of means (reference: heterosexual) | †1.05 (1.01–1.08) | †1.03 (1.01–1.05) | 1.00 |
| Body mass index | †30.8 (29.5–32.2) | †30.3 (29.4–31.3) | 29.0 (28.8–29.3) |
| Ratio of means (reference: heterosexual) | †1.06 (1.01–1.11) | †1.05 (1.01–1.08) | 1.00 |

† Significantly different from heterosexual ($p < 0.05$).

NOTE: Estimates are adjusted for age and National Health and Nutrition Examination Survey examination cycle.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, 2005–2018.

Table 3. Age- and survey cycle-adjusted percentages of sexual behavior and risk assessment and sexual and reproductive health service use, substance use, and gender role attitudes among men aged 18–49, by sexual identity: United States, 2011–2019

| Characteristic | Gay | Bisexual | Heterosexual |
|---|--------------------|-------------------|------------------|
| Sexual behavior | | | |
| Percent (95% confidence interval) | | | |
| Lifetime experience: | | | |
| Sex with female, ever | †‡51.1 (43.1–60.1) | †87.3 (83.4–91.4) | 94.4 (93.8–94.9) |
| Sex with male, ever | †‡94.4 (91.9–97.0) | †69.5 (63.1–76.4) | 2.7 (2.4–3.2) |
| Total number of sexual partners, past 12 months ¹ : | | | |
| None | 7.9 (5.2–11.5) | 9.0 (5.2–14.6) | 6.8 (6.2–7.5) |
| One | †37.3 (31.4–44.1) | †47.0 (38.9–55.2) | 73.3 (72.3–74.4) |
| Two | †17.4 (12.3–23.9) | †16.5 (11.0–23.8) | 9.2 (8.5–9.8) |
| Three or more | †‡36.5 (30.5–43.2) | †25.9 (20.9–31.6) | 10.7 (10.0–11.4) |
| Sexual risk assessment | | | |
| In the last 12 months, has a doctor or other medical care provider asked you about: | | | |
| Any of the following four topics | †‡47.7 (42.1–53.7) | †37.3 (30.8–44.7) | 21.9 (20.9–23.0) |
| Your sexual orientation or the sex of your sexual partners | †‡36.2 (30.9–42.2) | †21.6 (16.7–27.5) | 13.9 (13.1–14.8) |
| Your number of sexual partners | †32.7 (26.9–39.4) | †23.9 (18.3–30.5) | 12.7 (11.9–13.6) |
| Your use of condoms | †‡39.1 (33.8–45.1) | †25.6 (20.3–31.9) | 15.3 (14.4–16.3) |
| The types of sex you have, whether vaginal, oral, or anal | †‡31.5 (26.1–37.7) | †17.3 (12.3–23.6) | 7.9 (7.2–8.6) |
| Use of sexual health services | | | |
| Lifetime use: | | | |
| Ever used family planning clinic services | †23.1 (17.6–29.7) | †23.4 (17.0–31.4) | 15.5 (14.5–16.5) |
| Ever had HIV test outside of blood donation | †‡79.8 (74.7–85.0) | †58.7 (52.5–65.5) | 48.4 (46.9–50.0) |
| Past 12 months: | | | |
| Tested for sexually transmitted disease | †‡47.9 (41.6–54.9) | †27.2 (21.0–34.6) | 14.9 (14.0–15.8) |
| Treated for sexually transmitted disease | †‡14.4 (10.2–19.6) | †6.0 (3.5–9.6) | 2.1 (1.8–2.4) |
| Substance use, past 12 months | | | |
| Marijuana, any | †40.6 (33.9–48.2) | †35.8 (29.7–42.8) | 27.1 (25.9–28.5) |
| Illicit stimulants, any ² | †10.5 (6.8–15.5) | †10.7 (7.2–15.3) | 5.7 (5.1–6.3) |
| Gender role attitudes | | | |
| Respondent agreed or strongly agreed with statement: | | | |
| When a man is feeling pain he should not let it show | †10.9 (6.2–17.8) | †11.5 (7.5–16.9) | 21.3 (20.2–22.5) |
| Men only need to see a doctor when they are hurt or sick | †‡13.4 (8.8–19.6) | †22.0 (16.9–28.2) | 28.7 (27.3–30.1) |
| Men have greater sexual needs than women | †27.3 (21.7–33.9) | †27.3 (21.7–33.8) | 39.5 (38.1–40.9) |
| Sexual relations between two adults of the same sex are all right | †‡97.3 (95.4–99.2) | †86.5 (81.3–92.0) | 57.0 (55.2–58.9) |

† Significantly different from heterosexual ($p < 0.05$).‡ Significantly different from bisexual ($p < 0.05$).¹This variable is derived from the sum of different-sex sexual partners in the past year (oppyearnum) and same-sex sexual partners in the past year (sameyearnum).²This variable is derived from three variables on the use of cocaine, crack cocaine, and methamphetamine.

NOTES: The maximum age for National Survey of Family Growth (NSFG) participants was 44 years for 2011–2015 and 49 years for 2016–2019. Estimates are adjusted for age and NSFG cycle.

SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2011–2019.

Table 4. Age- and survey cycle-adjusted percentages of sexual behavior and risk assessment and sexual and reproductive health service use, and substance use among women aged 18–49, by sexual identity: United States, 2011–2019

| Characteristic | Lesbian | Bisexual | Heterosexual |
|---|--------------------|-------------------|------------------|
| Sexual behavior | | | |
| Percent (95% confidence interval) | | | |
| Lifetime experience: | | | |
| Sex with male, ever | †‡74.5 (67.7–81.9) | †96.6 (95.7–97.6) | 94.9 (94.4–95.4) |
| Sex with female, ever | †‡91.0 (86.9–95.2) | †77.7 (74.7–80.7) | 12.3 (11.5–13.2) |
| Total number of sexual partners, past 12 months ¹ : | | | |
| None | †3.6 (1.7–6.5) | 5.9 (4.3–8.0) | 6.9 (6.3–7.5) |
| One | †‡71.8 (65.8–78.1) | †55.8 (52.1–59.7) | 77.5 (76.4–78.6) |
| Two | †12.7 (9.1–17.2) | †14.5 (12.1–17.1) | 8.9 (8.2–9.5) |
| Three or more | †‡11.3 (7.5–16.4) | †21.1 (18.2–24.4) | 6.7 (6.2–7.4) |
| Sexual risk assessment | | | |
| In the last 12 months, has a doctor or other medical care provider asked you about ² : | | | |
| Any of the following four topics | ‡41.5 (34.1–50.1) | †51.4 (47.1–56.0) | 44.0 (42.4–45.7) |
| Your sexual orientation or the sex of your sexual partners | †30.3 (23.3–38.9) | †27.6 (24.4–31.2) | 22.6 (21.4–24.0) |
| Your number of sexual partners | †‡20.7 (15.7–26.8) | †33.1 (29.3–37.4) | 30.1 (28.7–31.5) |
| Your use of condoms | †‡16.3 (11.8–21.9) | 37.5 (33.1–42.3) | 33.3 (31.7–35.0) |
| The types of sex you have, whether vaginal, oral, or anal | †‡10.8 (7.9–14.5) | 22.0 (18.7–25.9) | 16.4 (15.4–17.5) |
| Use of sexual and reproductive health services | | | |
| Lifetime: | | | |
| Ever had HIV test outside of blood donation | ‡60.1 (53.7–68.8) | †75.5 (72.5–78.5) | 65.1 (63.6–66.7) |
| Tested for HPV, ever | †‡38.4 (31.9–45.9) | †55.1 (51.5–59.0) | 49.6 (48.2–51.2) |
| Ever had tubal sterilization | †‡7.9 (4.4–13.0) | 15.2 (12.5–18.3) | 14.2 (13.2–15.2) |
| Ever used birth control pills | †‡45.7 (39.1–53.2) | 77.1 (74.3–80.0) | 76.4 (75.3–77.5) |
| Past 12 months: | | | |
| Tested for sexually transmitted disease ³ | ‡28.9 (22.7–36.2) | †43.6 (39.7–47.7) | 31.8 (30.6–33.1) |
| Treated for sexually transmitted disease | ‡2.7 (1.3–5.0) | 6.5 (4.9–8.5) | 4.2 (3.8–4.7) |
| Papanicolaou test | †‡40.1 (32.8–48.5) | 55.6 (51.8–59.5) | 58.2 (57.0–59.5) |
| Sexual and reproductive health: | | | |
| Ever diagnosed with endometriosis | 9.1 (5.0–15.1) | †9.8 (7.3–12.9) | 5.8 (5.2–6.5) |
| Ever diagnosed with ovulation or menstrual problems | 20.7 (15.2–27.6) | †22.8 (20.0–25.9) | 16.8 (15.8–17.9) |
| Ever diagnosed with uterine fibroids | 7.0 (3.9–11.6) | 6.5 (4.7–8.8) | 6.4 (5.8–7.1) |
| Ever treated for pelvic inflammatory disease | ‡2.7 (1.3–4.9) | †6.9 (5.1–9.2) | 3.2 (2.8–3.6) |
| Substance use, past 12 months | | | |
| Marijuana, any | †34.7 (29.0–41.3) | †39.9 (36.1–43.9) | 17.2 (16.2–18.3) |
| Illicit stimulants, any ⁴ | †‡3.7 (1.9–6.4) | †8.3 (6.5–10.4) | 2.2 (1.9–2.6) |

† Significantly different from heterosexual ($p < 0.05$).‡ Significantly different from bisexual ($p < 0.05$).¹This variable is derived from the sum of different-sex sexual partners in the past year (oppyearnum) and same-sex sexual partners in the past year (sameyearnum).²These variables were unavailable in 2011 and 2012 but were available for 2013–2019.³This variable is derived from "other STD test from the past year" (stdothr12) and "chlamydia test from the past year" (chlamst).⁴This variable is derived from three variables on the use of cocaine, crack cocaine, and methamphetamine.

NOTES: The maximum age for National Survey of Family Growth (NSFG) participants was 44 years for 2011–2015 and 49 years for 2016–2019. Estimates are adjusted for age and NSFG survey cycle.

SOURCE: National Center for Health Statistics, National Survey of Family Growth, 2011–2019.

Table 5. Age- and survey year-adjusted percentages of access to care, health status, and health behavior among men aged 18 and over, by sexual identity: United States, 2013–2018

| Characteristic | Gay | Bisexual | Heterosexual |
|---|--------------------|-------------------|------------------|
| Access to care | | | |
| Percent (95% confidence interval) | | | |
| Unable to afford in the past 12 months: | | | |
| Any of the following six service types | †18.8 (16.5–21.2) | †17.9 (13.7–23.1) | 13.7 (13.3–14.0) |
| Prescription medications | †6.8 (5.4–8.4) | 7.2 (4.0–11.9) | 5.1 (4.9–5.4) |
| Mental health counseling | †3.9 (2.9–5.1) | †5.4 (2.8–9.4) | 1.4 (1.3–1.5) |
| Dental care | †13.2 (11.2–15.4) | 12.3 (8.5–17.2) | 9.5 (9.2–9.8) |
| Eyeglasses | †7.6 (6.1–9.3) | †8.3 (5.0–13.1) | 4.6 (4.4–4.8) |
| Specialist care | †4.6 (3.4–6.2) | 4.0 (2.2–6.8) | 3.4 (3.2–3.6) |
| Follow-up care | 3.5 (2.4–4.9) | 2.4 (1.2–4.3) | 2.7 (2.6–2.9) |
| Has a usual place to go for medical care | ††87.6 (85.6–89.5) | 82.0 (78.0–86.4) | 82.2 (81.7–82.6) |
| Insurance coverage: | | | |
| Private | ††70.2 (67.5–73.0) | 60.9 (55.2–67.0) | 65.8 (65.2–66.4) |
| Medicare | †13.2 (11.4–15.2) | †15.2 (11.5–19.6) | 11.3 (11.0–11.5) |
| Medicaid | 5.8 (4.3–7.7) | 7.8 (5.3–11.1) | 6.6 (6.3–6.9) |
| Other | 3.2 (2.3–4.4) | 4.5 (2.0–8.7) | 3.7 (3.5–3.9) |
| None | †9.6 (8.0–11.4) | 10.6 (7.5–14.5) | 12.6 (12.2–13.0) |
| Health status | | | |
| Any of the following six diagnoses | †53.4 (50.8–56.1) | †57.5 (52.3–63.1) | 50.4 (49.9–50.8) |
| Diagnosed arthritis, ever | 19.3 (17.2–21.7) | 23.1 (18.5–28.6) | 19.6 (19.2–20.0) |
| Diagnosed asthma, ever | †13.3 (11.3–15.5) | †15.4 (11.6–20.2) | 11.1 (10.8–11.5) |
| Diagnosed cancer, ever | †12.1 (10.1–14.4) | 7.9 (4.5–12.8) | 8.1 (7.9–8.4) |
| Diagnosed diabetes, ever | 8.6 (7.0–10.4) | 10.9 (7.4–15.5) | 10.0 (9.7–10.2) |
| Diagnosed heart disease, ever | 6.3 (4.8–8.2) | †9.1 (6.0–13.2) | 5.7 (5.5–5.9) |
| Diagnosed hypertension, ever | †35.1 (32.4–37.9) | 33.5 (28.5–39.1) | 31.8 (31.4–32.2) |
| Serious psychological distress ¹ | ††5.9 (4.5–7.6) | †10.3 (6.3–15.9) | 2.7 (2.6–2.9) |
| Any functional limitation ² | ††34.0 (31.4–36.7) | †40.3 (34.8–46.4) | 30.8 (30.3–31.3) |
| Health behavior | | | |
| Current cigarette smoking ³ | †21.2 (18.7–24.1) | 19.9 (15.8–24.8) | 17.4 (17.0–17.8) |
| Current heavier drinking ⁴ | 5.1 (3.9–6.5) | †10.2 (6.6–15.2) | 5.3 (5.1–5.5) |

† Significantly different from heterosexual ($p < 0.05$).‡ Significantly different from bisexual ($p < 0.05$).¹A value of 13 or more on the Kessler-6 scale is used to define serious psychological distress in the past 30 days.²A recode (fla1ar) based on responses to 12 questions about functional limitations.³Categorized as current "every day" or "some day" smoker on the "smkstat2" (recode) variable.⁴Categorized as "current heavier" on the "alcstat" (alcohol drinking status: recode) variable, compared with all other categories.

NOTE: Estimates are adjusted for age and National Health Interview Survey year.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2013–2018.

Table 6. Age- and survey year-adjusted percentages of access to care, health status, and health behavior among women aged 18 and over, by sexual identity: United States, 2013–2018

| Characteristic | Lesbian | Bisexual | Heterosexual |
|---|--------------------|-------------------|------------------|
| Access to care | | | |
| Percent (95% confidence interval) | | | |
| Unable to afford in the past 12 months: | | | |
| Any of the following six service types | †‡24.7 (21.7–28.1) | †29.3 (26.3–32.6) | 18.7 (18.3–19.1) |
| Prescription medications | †‡10.0 (8.2–12.2) | †13.1 (11.0–15.5) | 7.8 (7.5–8.0) |
| Mental health counseling | †‡4.6 (3.5–6.0) | †8.2 (6.5–10.2) | 2.5 (2.3–2.6) |
| Dental care | †‡16.3 (13.8–19.0) | †20.1 (17.5–23.0) | 12.6 (12.2–12.9) |
| Eyeglasses | †10.8 (8.5–13.5) | †13.1 (10.8–15.8) | 7.7 (7.5–8.0) |
| Specialist care | †7.5 (5.3–10.1) | †10.0 (7.9–12.6) | 5.0 (4.8–5.2) |
| Follow-up care | †5.9 (4.4–7.8) | †7.2 (5.5–9.3) | 4.2 (4.0–4.4) |
| Has a usual place to go for medical care | †86.7 (84.5–89.0) | †87.2 (85.0–89.3) | 90.2 (89.9–90.5) |
| Insurance coverage: | | | |
| Private | †64.7 (61.0–68.4) | †55.7 (52.1–59.5) | 64.2 (63.6–64.8) |
| Medicare | 14.2 (11.8–16.9) | 14.1 (11.3–17.3) | 12.7 (12.4–12.9) |
| Medicaid | 9.9 (7.7–12.4) | †12.4 (10.6–14.5) | 10.4 (10.0–10.7) |
| Other | 2.9 (2.0–4.0) | 2.6 (1.7–3.7) | 3.3 (3.1–3.5) |
| None | 10.3 (8.5–12.4) | 10.0 (8.1–12.2) | 9.6 (9.2–9.9) |
| Health status | | | |
| Any of the following six diagnoses | †‡60.3 (57.3–63.4) | †67.6 (64.8–70.5) | 52.9 (52.4–53.3) |
| Diagnosed arthritis, ever | †35.7 (32.7–38.8) | †36.8 (33.1–40.9) | 26.4 (26.0–26.8) |
| Diagnosed asthma, ever | †21.2 (18.6–24.1) | †23.6 (20.5–27.0) | 14.4 (14.1–14.8) |
| Diagnosed cancer, ever | †11.3 (9.4–13.4) | †14.9 (12.0–18.2) | 9.7 (9.5–10.0) |
| Diagnosed diabetes, ever | †11.2 (9.0–13.7) | †12.9 (9.7–16.9) | 9.0 (8.8–9.2) |
| Diagnosed heart disease, ever | 3.4 (2.3–4.9) | 4.4 (2.6–6.9) | 3.3 (3.2–3.4) |
| Diagnosed hypertension, ever | †29.4 (26.6–32.4) | †37.0 (33.6–40.7) | 29.9 (29.5–30.2) |
| Serious psychological distress ¹ | †‡5.5 (4.2–7.0) | †12.4 (10.2–15.1) | 4.0 (3.8–4.2) |
| Any functional limitation ² | †‡48.5 (45.3–51.8) | †59.7 (56.4–63.2) | 40.0 (39.5–40.5) |
| Health behavior | | | |
| Current cigarette smoking ³ | †20.7 (17.9–23.8) | †21.4 (18.5–24.5) | 13.3 (13.0–13.7) |
| Current heavier drinking ⁴ | †10.0 (8.1–12.1) | †10.7 (8.7–12.9) | 4.9 (4.7–5.1) |

† Significantly different from heterosexual ($p < 0.05$).‡ Significantly different from bisexual ($p < 0.05$).¹A value of 13 or more on the Kessler-6 scale is used to define serious psychological distress in the past 30 days.²A recode (fla1ar) based on responses to 12 questions about functional limitations.³Categorized as current "every day" or "some day" smoker on the "smkstat2" (recode) variable.⁴Categorized as "current heavier" on the "alcstat" (alcohol drinking status: recode) variable, compared with all other categories.

NOTE: Estimates are adjusted for age and National Health Interview Survey year.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2013–2018.

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National Health Statistics Reports ■ Number 171 ■ May 25, 2022

Suggested citation:

Heslin KC, Alfier JM. Sexual orientation differences in access to care and health status, behaviors, and beliefs: Findings from the National Health and Nutrition Examination Survey, National Survey of Family Growth, and National Health Interview Survey. National Health Statistics Reports; no 171. Hyattsville, MD: National Center for Health Statistics. 2022. DOI: <https://dx.doi.org/10.15620/cdc:115982>.

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