HIV SURVEILLANCE REPORT
SPECIAL REPORT

Behavioral and Clinical Characteristics of Persons with Diagnosed HIV Infection—Medical Monitoring Project, United States 2021 Cycle (June 2021–May 2022): Commentary

The *National HIV/AIDS Strategy* and the *Ending the HIV Epidemic in the U.S.* initiative aim to reduce new HIV transmissions in the United States by 90% by 2030 and prioritize reducing HIV-related disparities and health inequities and improving the health and well-being of people with HIV. The CDC Medical Monitoring Project (MMP) reports representative data on barriers to care and viral suppression, including social determinants of health and indicators of quality of life among adults with diagnosed HIV.

MMP is a cross-sectional, locally and nationally representative sample survey that assesses the behavioral and clinical characteristics of adults with diagnosed HIV. Learn more about the project.

Suggested Citation

Centers for Disease Control and Prevention. *Behavioral and Clinical Characteristics of Persons with Diagnosed HIV Infection—Medical Monitoring Project, United States, 2021 Cycle (June 2021–May 2022)*. HIV Surveillance Special Report 32. https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published August 2023. Accessed [date].

MMP provides annual, locally and nationally representative behavioral and clinical characteristics among adults with diagnosed HIV. Learn more about the project.

Erratum statement: Due to a rounding error in a previous version of this report, the 2025 target value for the NHAS unemployment indicator was incorrectly characterized as 8%. The 2025 NHAS goal for unemployment is a 50% reduction from the 2017 baseline (14.9%) in the percentage of persons with diagnosed HIV who report being out of work, which means the 2025 target value should be 7.45%. Therefore, the rounded value should have been characterized as “approximately 7%.” This error can be found on pages 17/20 and 18/20 (i.e., pages 19-20 of the PDF file) of the “Commentary” section of the report, pages 15/17 and 16/17 (i.e., pages 37-38 of the PDF file) of the “Figures” section of the report, and page 8/9 (i.e., page 79 of the PDF file) of the “Technical Notes & Appendix” section of the report.

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Last Reviewed: October 25, 2023

Español | Other Languages

Commentary

At year-end 2020, an estimated 1,072,051 persons in the United States and 6 dependent areas were living with diagnosed HIV infection, and in 2020, the number of new HIV diagnoses was 30,692 [1]. Although the National HIV Surveillance System (NHSS) collects information about persons with diagnosed HIV infection [1], other surveillance systems provide more detailed information about care seeking, health care use, use of ancillary services, and key behaviors among people at risk for, and with, diagnosed HIV [2, 3]. In 2005, in response to an Institute of Medicine (IOM) report outlining the need for representative data on persons with HIV [4], the Centers for Disease Control and Prevention (CDC) implemented the Medical Monitoring Project (MMP), which from 2009 to 2014 collected data from a 3-stage probability sample of adults receiving HIV medical care [5]. In 2015, in response to recommendations stemming from an IOM review of national HIV data systems [6], MMP sampling and weighting methods were revised to include all adults with diagnosed HIV infection, regardless of HIV care status. MMP is a cross-sectional, nationally representative, complex sample survey that assesses the behavioral and clinical characteristics of adults with diagnosed HIV infection in the United States. These behaviors and clinical outcomes affect the health and well-being of people with HIV (PWH) and the risk of HIV transmission. Data from MMP are critical for achieving the goals of the National HIV/AIDS Strategy [7] and the Ending the HIV Epidemic in the U.S. (EHE) initiative [8], which seek to reduce new HIV infections in the United States by 90% by 2030 and prioritize reducing HIV-related disparities and health inequities and improving PWH's health and well-being.

The 2021 MMP data were collected from a 2-stage probability sample. During the first stage, 16 U.S. states and Puerto Rico were selected from all U.S. states, the District of Columbia, and Puerto Rico. A total of 23 project areas from 16 states, including 6 separately funded jurisdictions within these states, and Puerto Rico were funded to conduct data collection for the 2021 cycle (Table 1). In the second stage, simple random samples of persons aged ≥ 18 years with diagnosed HIV infection who were reported to NHSS as of December 31, 2020 were selected from each participating jurisdiction [9].

This report presents unweighted frequencies and weighted prevalence estimates with 95% confidence intervals (CIs) for all characteristics represented by categorical variables. Continuous variables are represented by using median values and 95% CIs. The estimates describe the characteristics of adults with diagnosed HIV infection who are living in the United States, hereafter referred to as *persons with diagnosed HIV* or *persons*. The period referenced for estimates is the 12 months before the participants' interviews and medical record abstractions unless otherwise noted. Statistical software (SAS, version 9.4) was used for analysis of weighted data [10]. For categorical variables, data are not reported for estimates derived from a denominator size < 30 or for estimates with a coefficient of variation ≥ 0.30. For continuous variables, estimates based on a denominator sample size <30 were suppressed. Estimates with an absolute confidence interval width ≥ 30, estimates with an absolute confidence interval width between 5 and 30 and a relative confidence interval width ≥ 130%, and estimates of 0% or 100% are marked with an asterisk and should be interpreted with caution. No statistical tests were performed. Estimates presented in this report may have been affected by the COVID-19 pandemic. Additional information on MMP is available at https://www.cdc.gov/hiv/statistics/systems/mmp/.

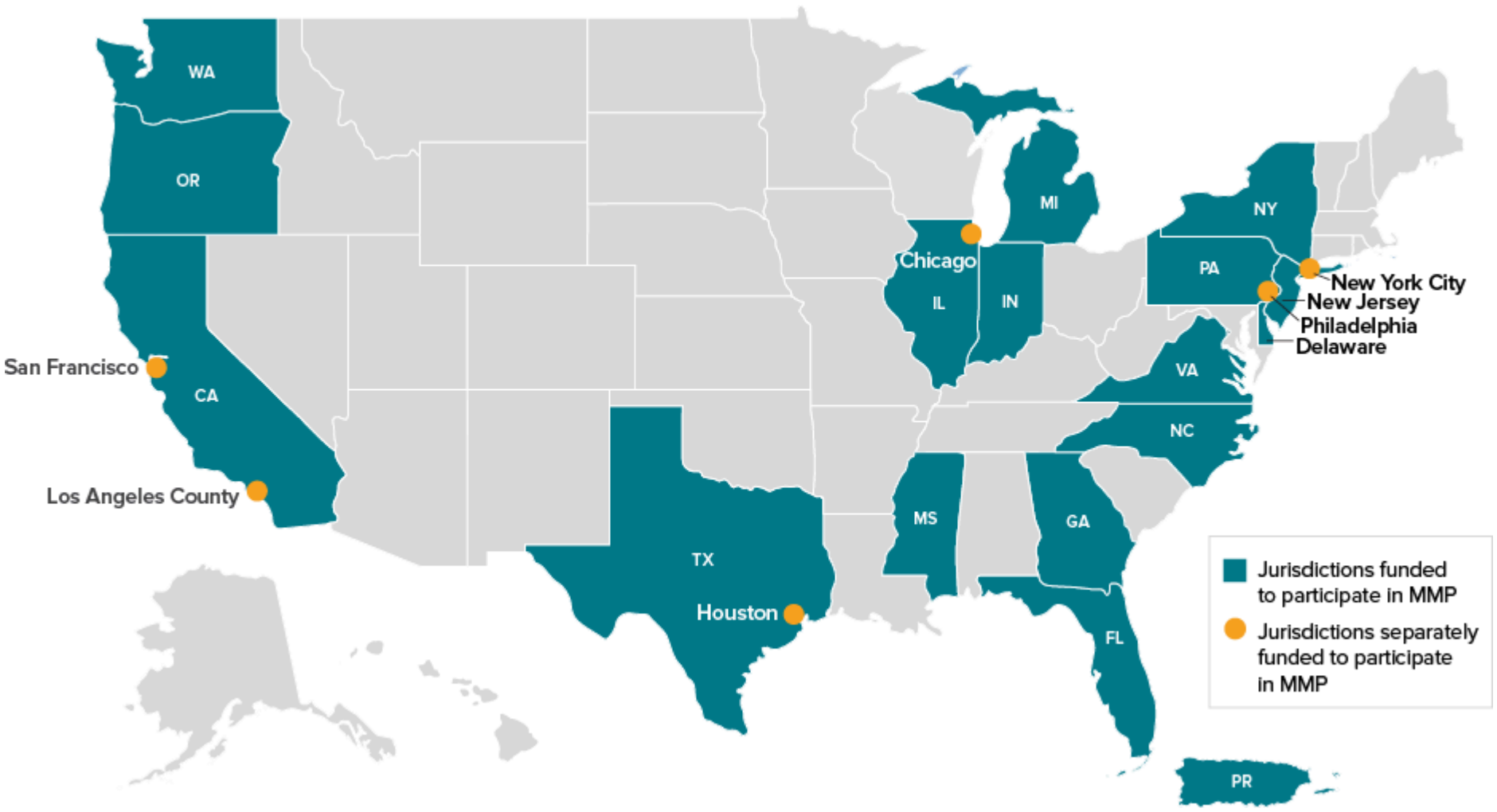
Highlights of Analyses

Response Rates

All 16 states, including 6 separately funded jurisdictions within those states, and the 1 territory sampled for MMP participated (Figure 1). In total, 9,700 persons were sampled from NHSS and 3,995 participated (Table 1). Adjusted for eligibility, the response rate was 44% (shown in footnotes of Table 1).

**Note*. Estimates for all figures may not match the tables exactly due to rounding issues.

Figure 1. Participating Medical Monitoring Project Sites, Including 16 States and 6 Separately Funded Jurisdictions—United States, 2021



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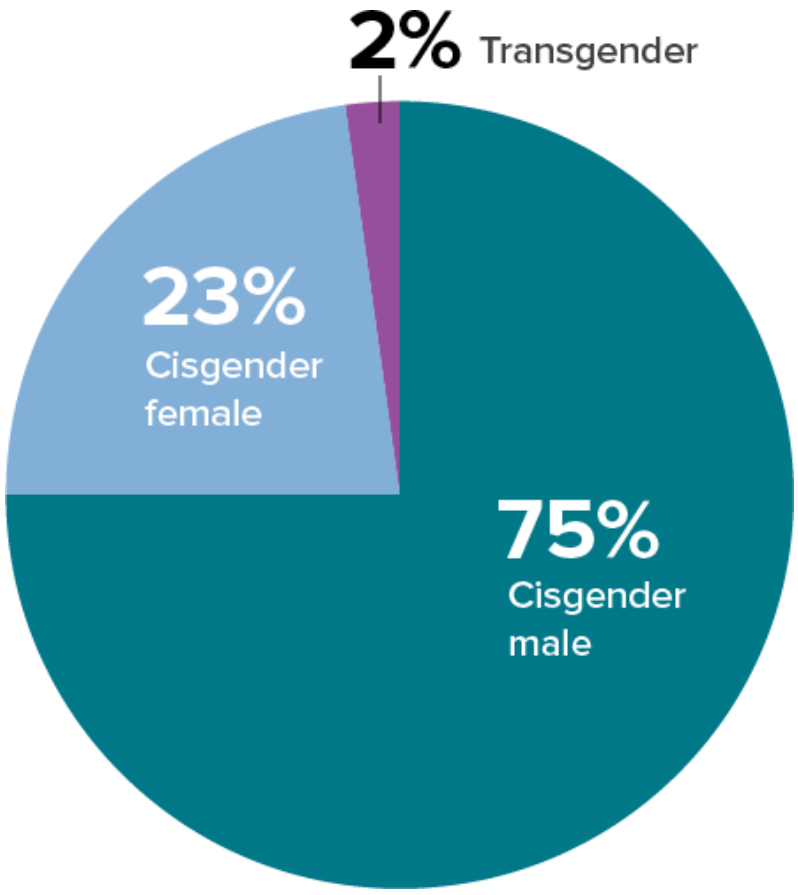
Demographic Characteristics and Social Determinants of Health

An estimated 75% of persons were cisgender male, 23% were cisgender female, and 2% were transgender (Figure 2; Table 2). Nearly three-quarters (74%) were aged at least 40 years. An estimated 43% identified as lesbian or gay; 43% as heterosexual or straight; 10% as bisexual; and 4% as another sexual orientation. An estimated 41% identified as Black or African American, 24% identified as Hispanic or Latino, 28% identified as White, 5% identified as multiracial, 1% identified as Asian, and <1% identified as American Indian or Alaska Native persons.

Figure 2a. Distribution of Gender Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Note. Transgender persons defined as those who self-identified as transgender or who reported a gender identity different from sex assigned at birth.

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Figure 2b. Distribution of Age Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021

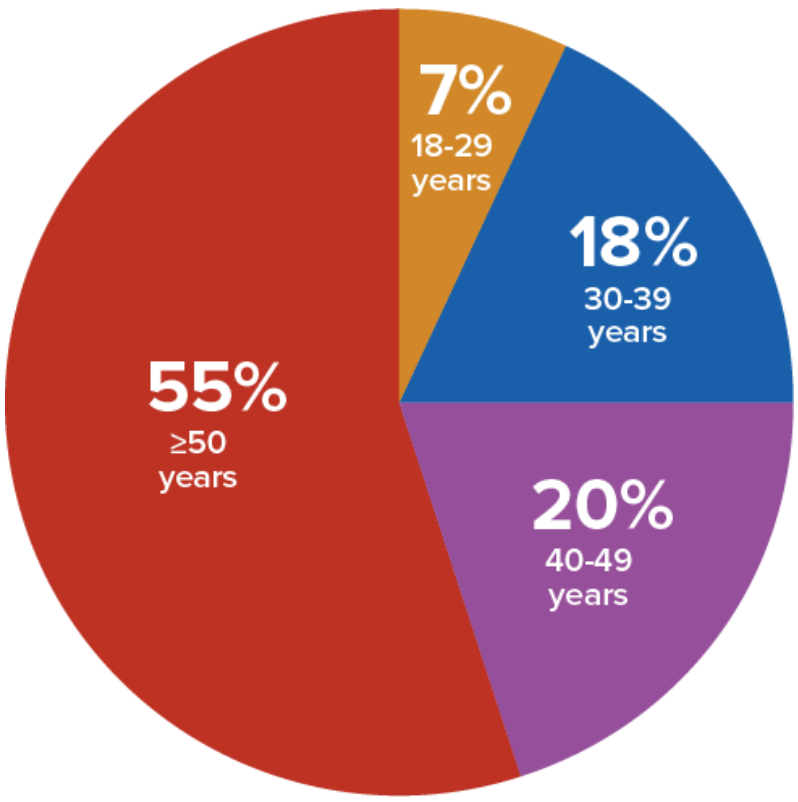

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Figure 2c. Distribution of Sexual Orientation Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021

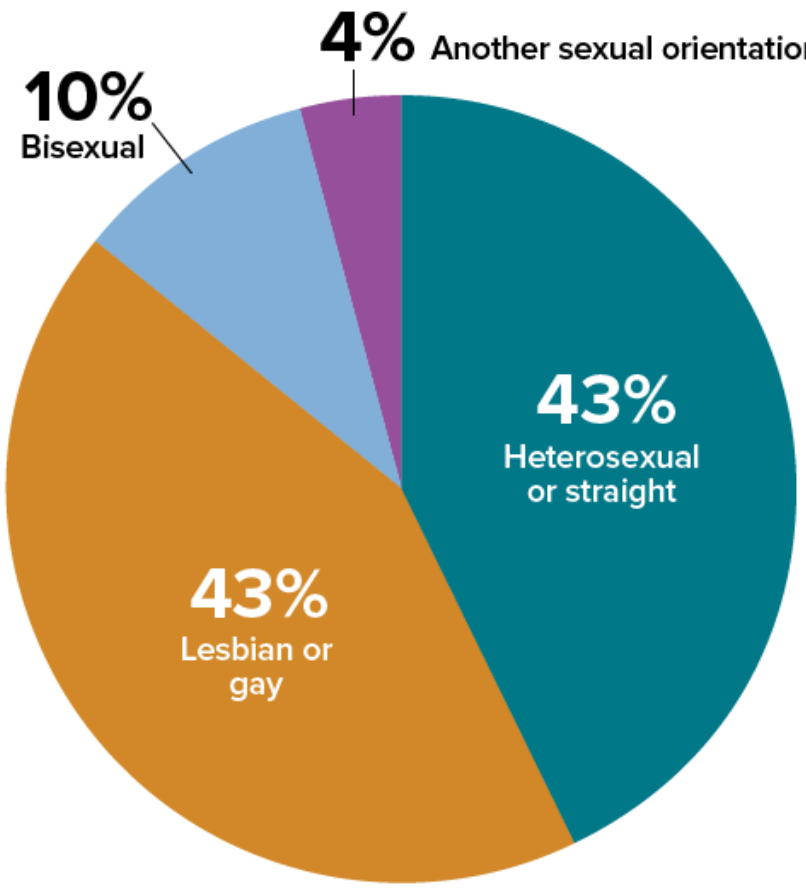

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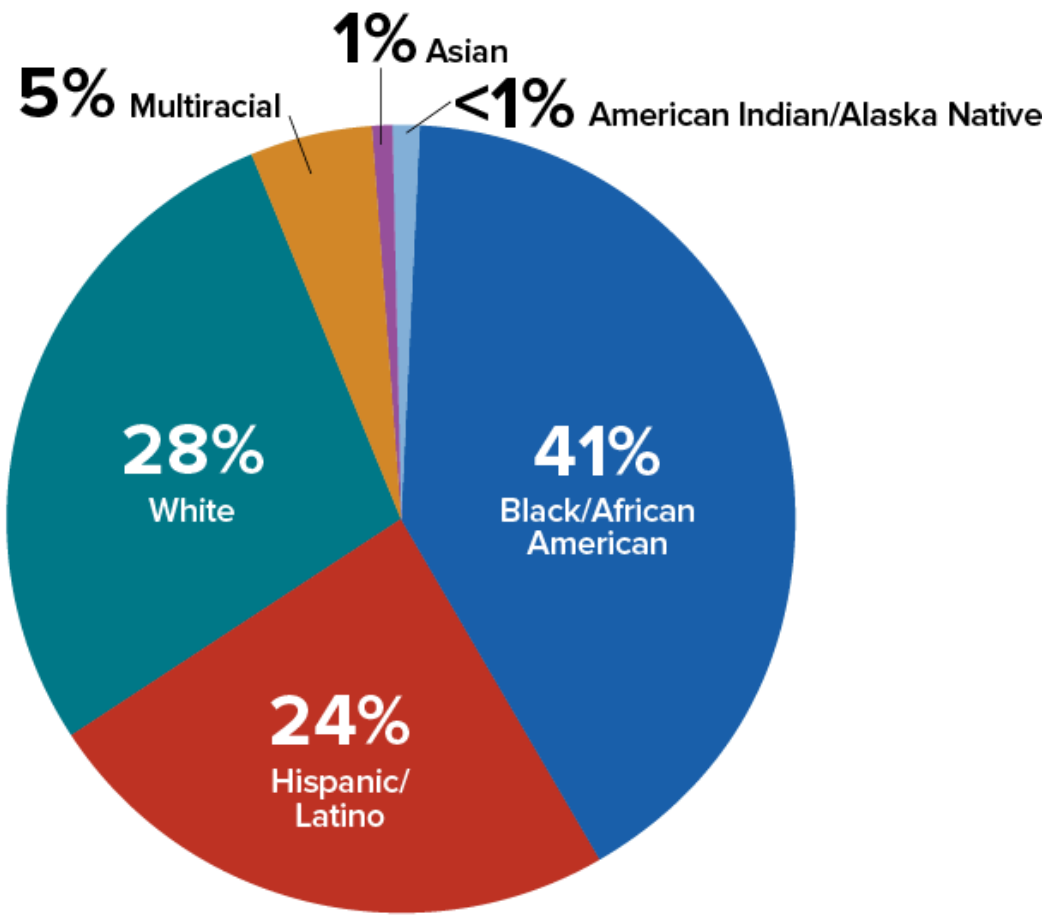
Figure 2d. Distribution of Race/Ethnicity Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Note. Data for Native Hawaiian and other Pacific Islander persons are not included because the estimate is unstable and therefore suppressed. Hispanic/Latino persons could identify as any race and are grouped separately.

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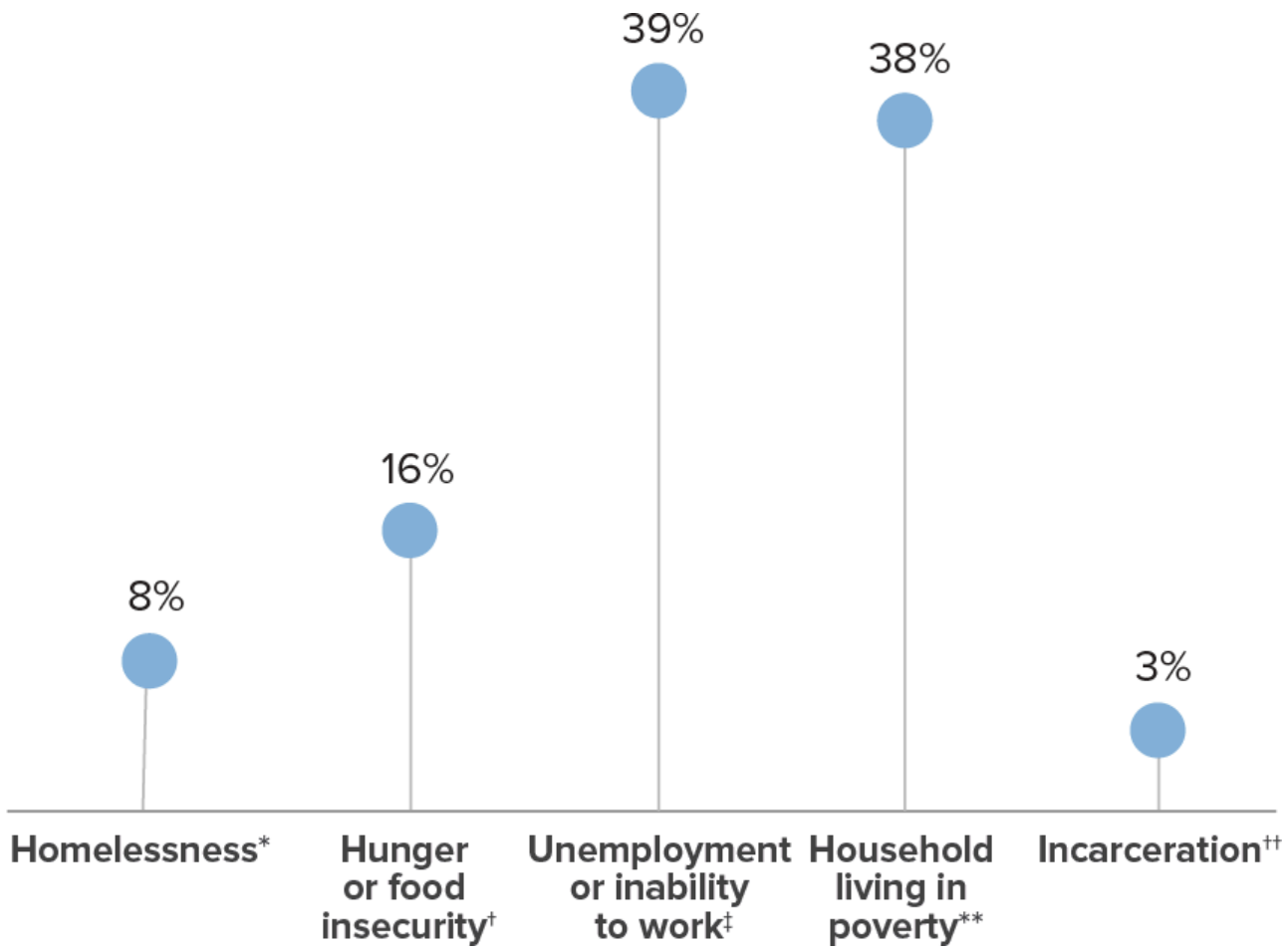
The estimated prevalence of unstable housing or homelessness among all persons with diagnosed HIV was 17%; 15% experienced unstable housing, and 8% experienced homelessness at any time during the past 12 months (Table 2). Approximately 16% experienced hunger or food insecurity, 39% were unemployed or unable to work, and 38% had household incomes below the federal poverty threshold. An estimated 16% received Supplemental Security Income (SSI), and 19% received Social Security Disability Insurance (SSDI). An estimated 41% had a high school education or less. An estimated 99% had health insurance or coverage for care or medications (including antiretroviral therapy [ART] medications): 47% had coverage through the Ryan White HIV/AIDS Program (RWHAP), 43% had Medicaid, 42% had private health insurance, and 29% had Medicare (Figure 3). An estimated 9% were uninsured, including those who received RWHAP assistance only. Overall, 69% perceived their general health as good, very good, or excellent. An estimated 41% had a disability. An estimated 17% were born outside the United States and its territories.

Figure 3a. Prevalence of Socioeconomic Factors and Incarceration Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



* Homelessness is defined as living on the street, in a shelter, in a single-room-occupancy hotel, or in a car at any time during the past 12 months.

† Hunger or food insecurity is defined as going without food due to lack of money during the past 12 months.

‡ Unemployment or inability to work includes those who were unemployed or unable to work at the time of the interview; employed included employed for wages, self-employed, or homemaker.

** Household poverty level is based on HHS poverty guidelines. The 2020 guidelines were used for persons interviewed in 2021 and the 2021 guidelines were used for persons interviewed in 2022. More information regarding HHS poverty guidelines can be found at: https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty .

†† Incarcerated >24 hours at any point during the past 12 months.

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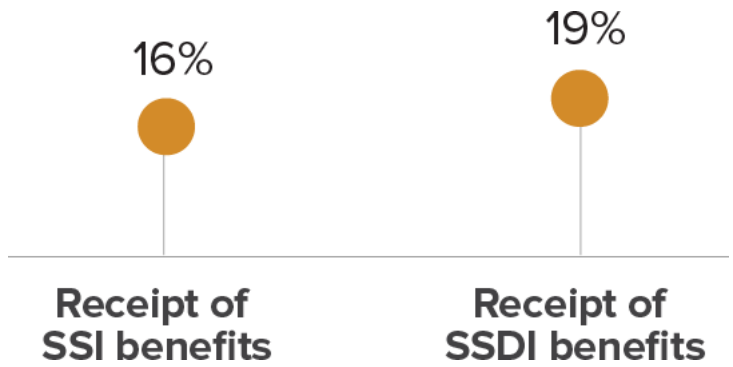
Figure 3b. Prevalence of SSI and SSDI Benefits Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Abbreviations. SSI=Supplemental Security Income; SSDI=Social Security Disability Insurance.

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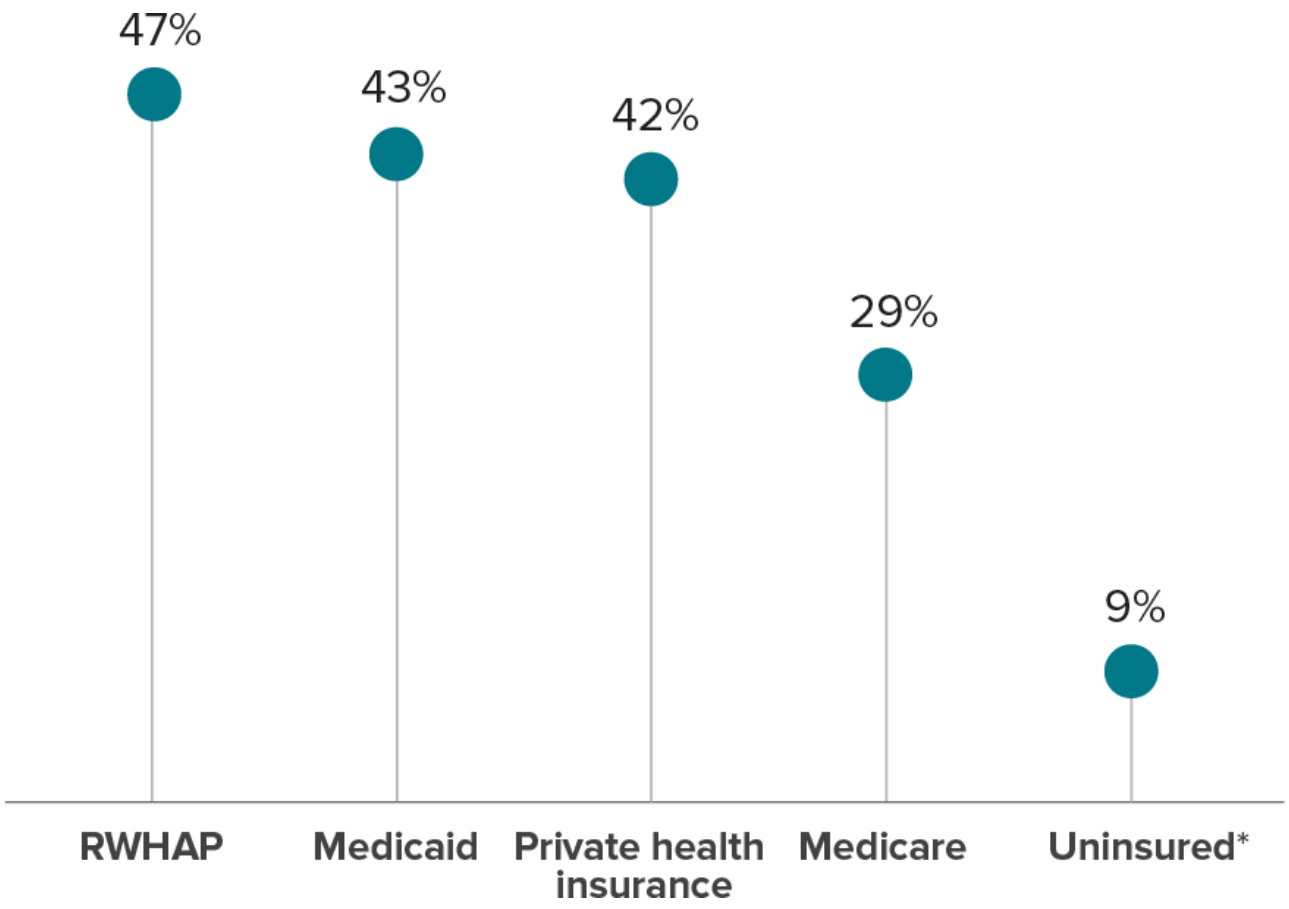
Figure 3c. Prevalence of Health Insurance of Coverage for Care or Medications Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Abbreviations. RWHAP=Ryan White HIV/AIDS Program.

Note. Health care insurance/coverage types not mutually exclusive; people could report >1 type of coverage.

* Includes people who only have health care through the Ryan White HIV/AIDS Program.

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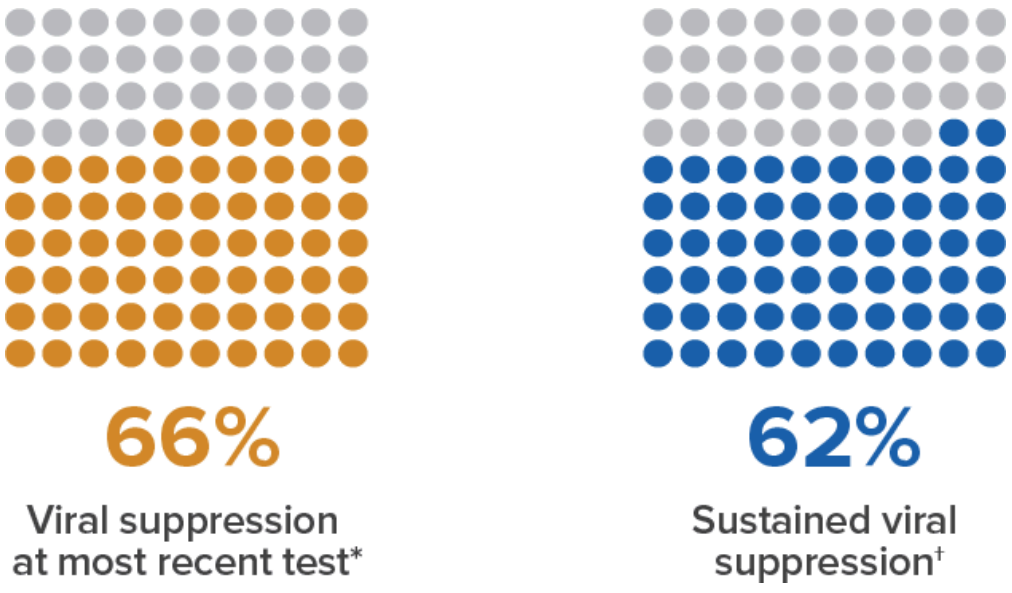
Clinical Characteristics

Overall, 69% received an HIV diagnosis at least 10 years earlier (Table 3). According to the CDC stage of disease classification for HIV infection [11], an estimated 53% of persons ever had stage 3 (AIDS) disease. An estimated 7% of persons had a geometric mean CD4 T-lymphocyte (CD4) count of 0–199 cells/μL. The estimated average geometric mean CD4 count among all persons was 659.5 cells/μL, and the median geometric mean CD4 count was 627.1 cells/μL (range, 0–2,572) (data not shown in table).

An estimated 66% of persons had a viral load that was undetectable or < 200 copies/mL at the most recent measurement, while 62% had viral loads that were undetectable or < 200 copies/mL at all measurements during the past 12 months (sustained viral suppression) (Figure 4; Table 3).

Figure 4. Percentage of Adults with Diagnosed HIV Who Were Virally Suppressed During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



* Viral load <200 copies/mL or undetectable based on most recent test in the past 12 months.

† Sustained viral suppression defined as having all viral load tests in the past 12 months <200 copies/mL or undetectable.

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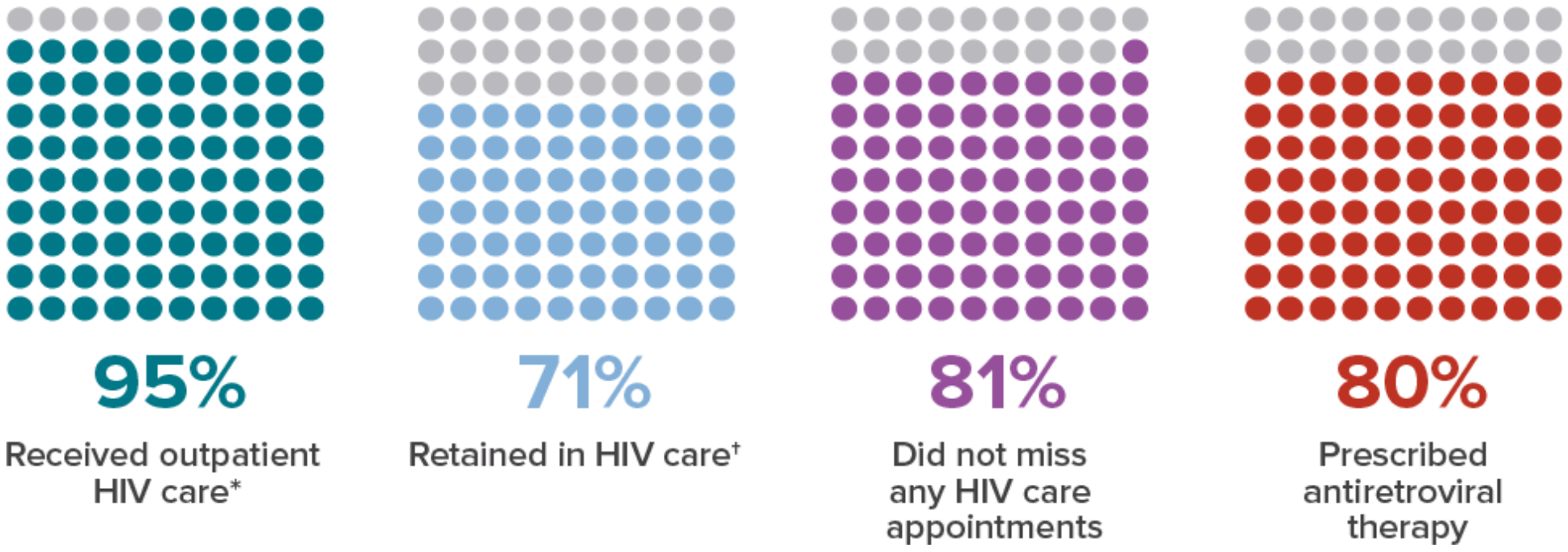
Use of Health Care Services and Antiretroviral Treatment (ART)

Overall, 95% had received outpatient HIV care during the past 12 months (Figure 5; Table 4). An estimated 71% were retained in care during the past 12 months, and 51% were retained in care during the past 24 months. An estimated 80% of persons had an ART prescription documented in the medical record during the 12 months before interview. Of persons who met the clinical criteria for *Pneumocystis* pneumonia (PCP) prophylaxis, 29% had a prescription for PCP prophylaxis documented in the medical record.

Figure 5. Receipt of HIV Care and Antiretroviral Therapy Prescription During the 12 Months Before Interview Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



* Outpatient HIV care was defined as any documentation of the following: encounter with an HIV care provider, viral load test results, CD4 test result, HIV resistance test or tropism assay, ART prescription, PCP prophylaxis, or MAC prophylaxis.

† Had ≥2 elements of outpatient HIV care at least 90 days apart during the 12 months prior to interview.

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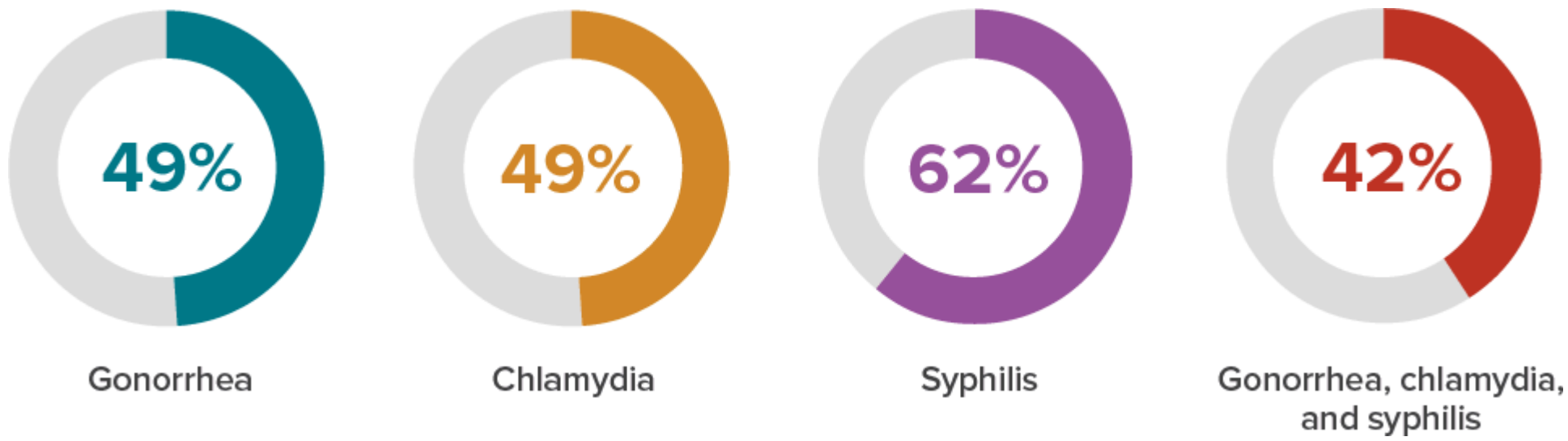
Among persons sexually active, an estimated 49% were tested for gonorrhea, 49% for chlamydia, 62% for syphilis, and 42% for all 3 sexually transmitted infections (STIs) (Figure 6; Table 5).

Figure 6. Percentage of Sexually Active Adults with Diagnosed HIV Who Tested for Gonorrhea, Chlamydia, or Syphilis During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



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An estimated 37% of persons were seen in an emergency department at least once during the past 12 months, and 4% were seen at least 5 times (Figure 7; Table 6). An estimated 17% of persons were admitted to a hospital for an illness at least once during the past 12 months.

Figure 7. Percentage of Adults with Diagnosed HIV Who Had At Least One Visit to the Emergency Room Or At Least One Hospital Admission During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

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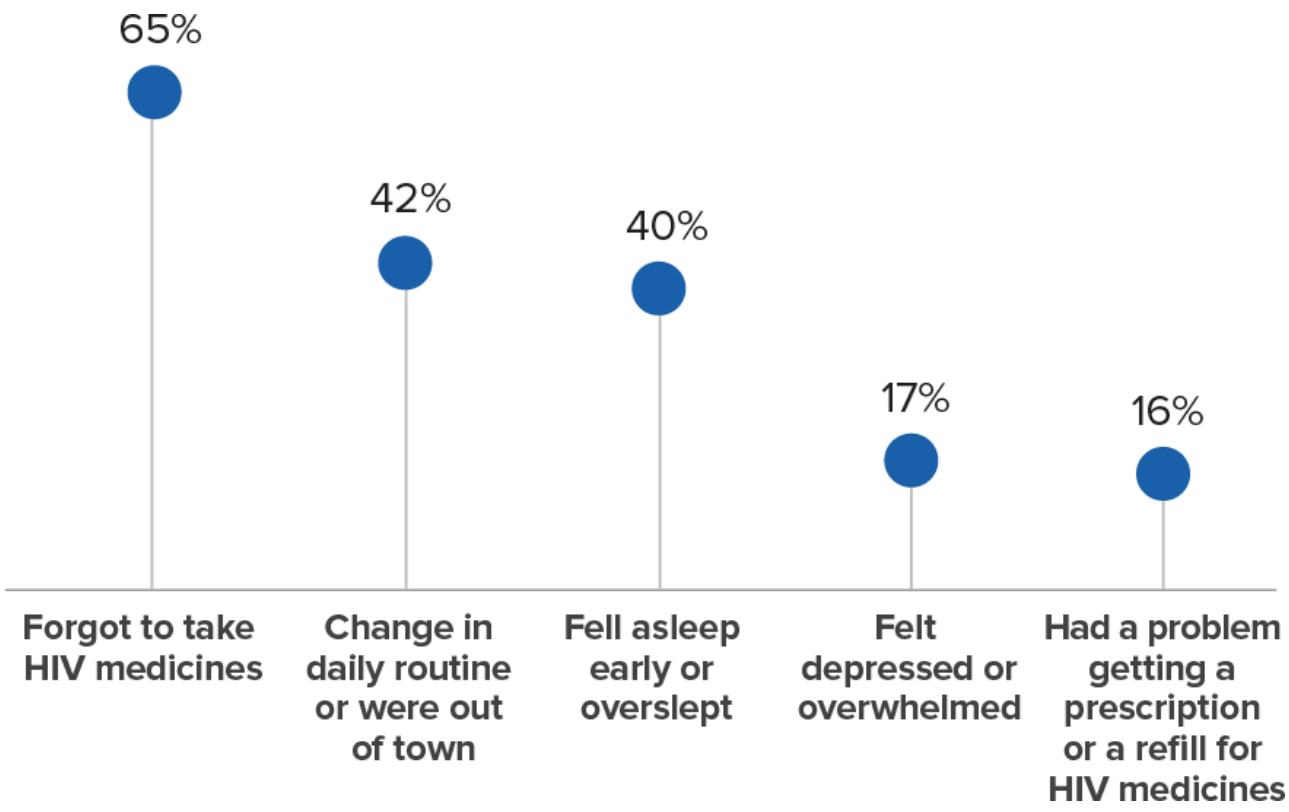
An estimated 98% of persons had ever taken ART, and 95% of persons were currently taking ART based on self-report (Table 7). Among persons with a history of ART use but who were not currently taking ART, 41% were not taking ART due to money or insurance problems, 26% were not taking ART because the person thought ART would make them feel sick or harm them, and 21% were not taking ART because they did not believe they needed ART.

Among persons taking ART, 80% had never been troubled by ART side effects during the past 30 days; 12% had rarely been troubled (Table 8). Among persons taking ART, 63% took all of their ART doses in the past 30 days. Among persons who had ever missed a dose, the most common reasons given for not taking one's most recently missed ART dose were forgetting (65%), a change in one's daily routine or being out of town (42%), or falling asleep early or oversleeping (40%) (Figure 8; Table 8).

Figure 8. Reasons for Missing Last Antiretroviral Therapy Dose Among Adults with Diagnosed HIV Who Have Ever Missed a Dose*—Medical Monitoring Project, United States, 2021



* Participant may report more than one reason for last missed dose.

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Clinical Characteristics by Selected Populations

The estimated prevalence of ART prescription documented in a medical record was 80% among cisgender males and 81% among cisgender females (Table 9a). Approximately 79% of bisexual persons and 81% of lesbian or gay persons were prescribed ART, compared with 80% of heterosexual or straight persons. An estimated 79% of Black or African American persons were prescribed ART, compared with 81% of Hispanic or Latino persons and 83% of White persons. The estimated prevalence of ART prescription was 73% among persons aged 18–29 years and 83% among those aged ≥ 50 years. ART prescription was highest during the 2015 cycle at 85% and dropped to 80% during the 2021 cycle (Table 9b).

ART dose adherence in the past 30 days was 63% among cisgender males and 64% among cisgender females. An estimated 56% of bisexual persons and 63% of lesbian or gay persons were ART dose adherent, compared with 66% of heterosexual or straight persons. Approximately 60% of Black or African American persons and 62% of Hispanic or Latino persons were ART adherent, compared with 69% of White persons. An estimated 44% of persons aged 18–29 years were ART adherent, compared with 69% of persons aged ≥ 50 years. ART dose adherence was highest during the 2021 cycle at 63% and was lowest during the 2016 cycle (59%).

The estimated prevalence of sustained viral suppression was 62% among cisgender males and 63% among cisgender females. Approximately 60% of bisexual persons and 63% of lesbian or gay persons, compared with 62% of heterosexual or straight persons, had sustained viral suppression. An estimated 59% of Black or African American persons had sustained viral suppression, compared with 66% of Hispanic or Latino persons and 65% of White persons. The estimated prevalence of sustained viral suppression was 50% among persons aged 18–29 years and 66% among those aged ≥ 50 years. The percentage of persons with sustained viral suppression remained stable between 2015 and 2021.

Mental Health and Substance Use

The estimated prevalence of symptoms indicative of major or other depression during the 2 weeks before interview based on the Patient Health Questionnaire (PHQ-8) algorithm [12] was 15%, including 9% with major depression (Figure 9; Table 10). Based on the total PHQ-8 symptom score (see the appendix), an estimated 13% of persons had symptoms of moderate or severe depression. The estimated prevalence of mild, moderate, or severe symptoms of generalized anxiety disorder during the 2 weeks before interview based on the Generalized Anxiety Disorder Scale (GAD-7) [13] was 21%, including 8% with severe anxiety.

Figure 9a. Percentage of Adults with Diagnosed HIV Who Experienced Symptoms of Major or Other Depression* During the Two Weeks Before Interview—Medical Monitoring Project, United States, 2021

* Responses to the items on the PHQ-8 were used to define “major depression” and “other depression” according to criteria from the DSM-IV. “Major depression” was defined as having at least 5 symptoms of depression; “other depression” was defined as having 2–4 symptoms of depression. The PHQ-8 classification “other depression” comprises the DSM-IV categories of dysthymia and depressive disorder, not otherwise specified, which includes minor or subthreshold depression.

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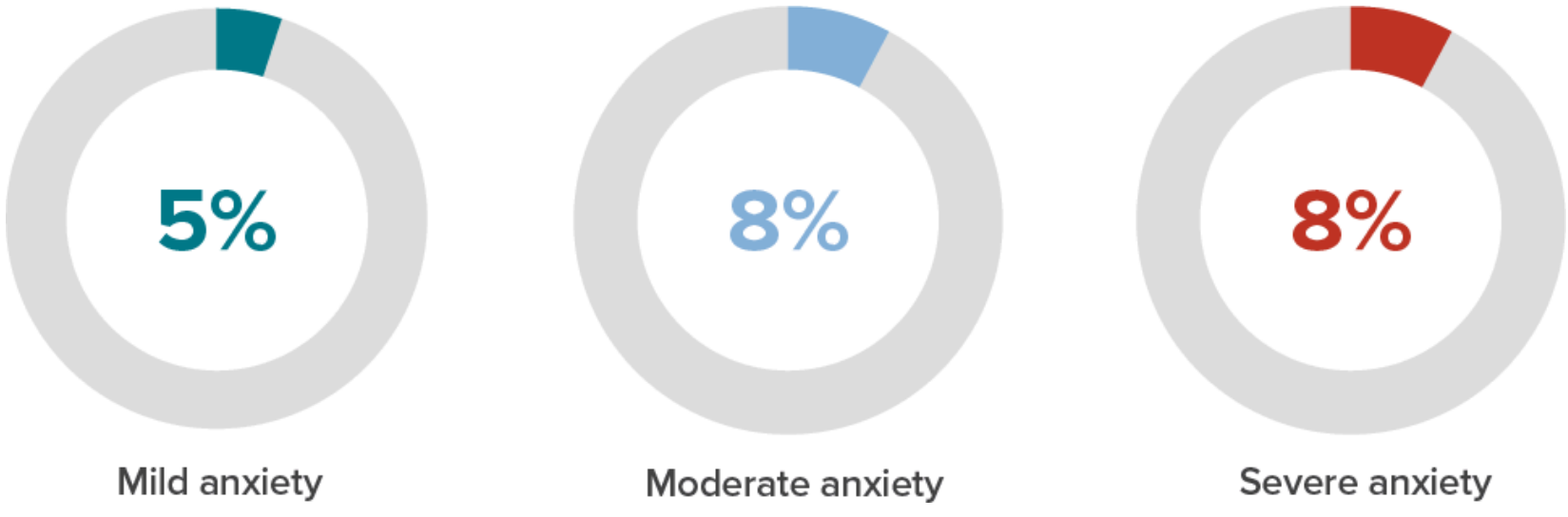
Figure 9b. Percentage of Adults with Diagnosed HIV Who Experienced Symptoms of Generalized Anxiety Disorder* During the Two Weeks Before Interview—Medical Monitoring Project, United States, 2021



* Responses to the GAD-7 were used to define "mild anxiety," "moderate anxiety," and "severe anxiety," according to criteria from the DSM-IV. "Severe anxiety" was defined as having a score of ≥15; "moderate anxiety" was defined as having a score of 10–14; and "mild anxiety" was defined as having a score of 5–9.

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The estimated prevalence of current smoking was 29%: 23% of persons smoked daily, 3% weekly, 1% monthly, and 2% less than monthly (Figure 10; Table 11). Overall, 16% of people used electronic cigarettes or other vaping devices in the past 30 days before interview. The estimated prevalence of alcohol use in the past 12 months was 65%: 8% of persons drank alcohol daily, 21% weekly, 11% monthly, and 25% less than monthly (Figure 10; Table 12). An estimated 16% of persons engaged in binge drinking during the past 30 days.

Figure 10a. Percentage of Adults with Diagnosed HIV Who Smoked Cigarettes During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

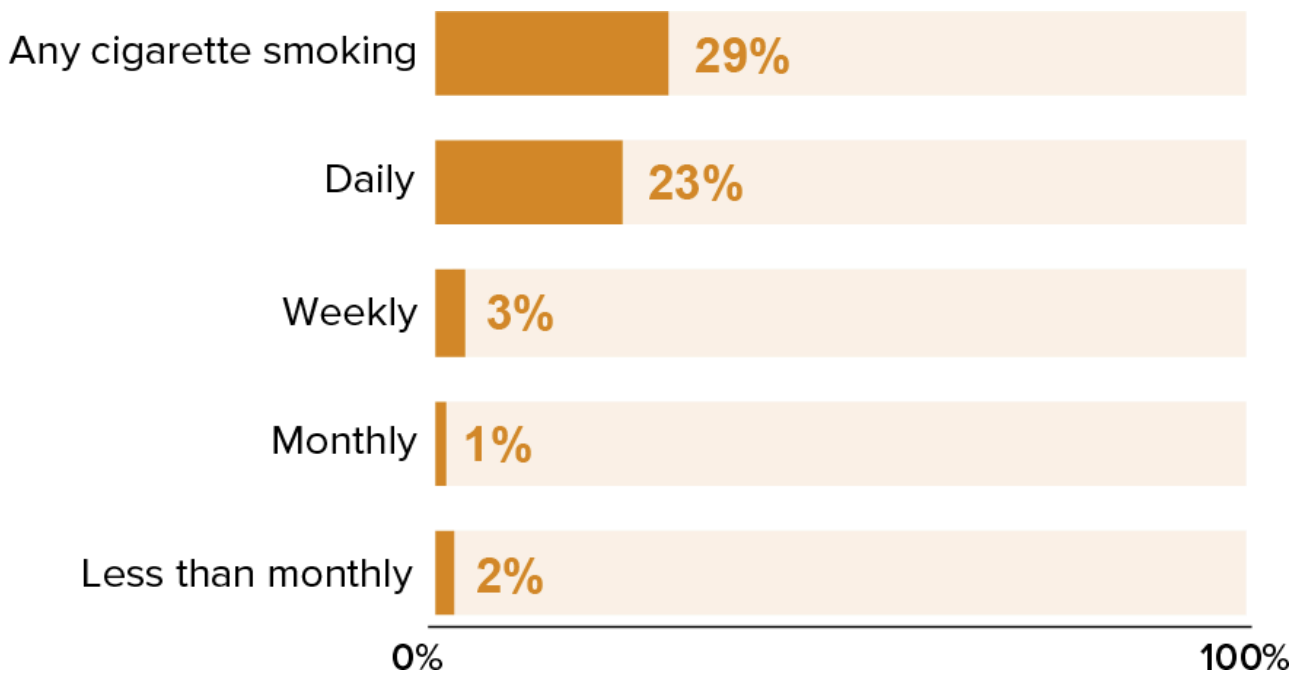

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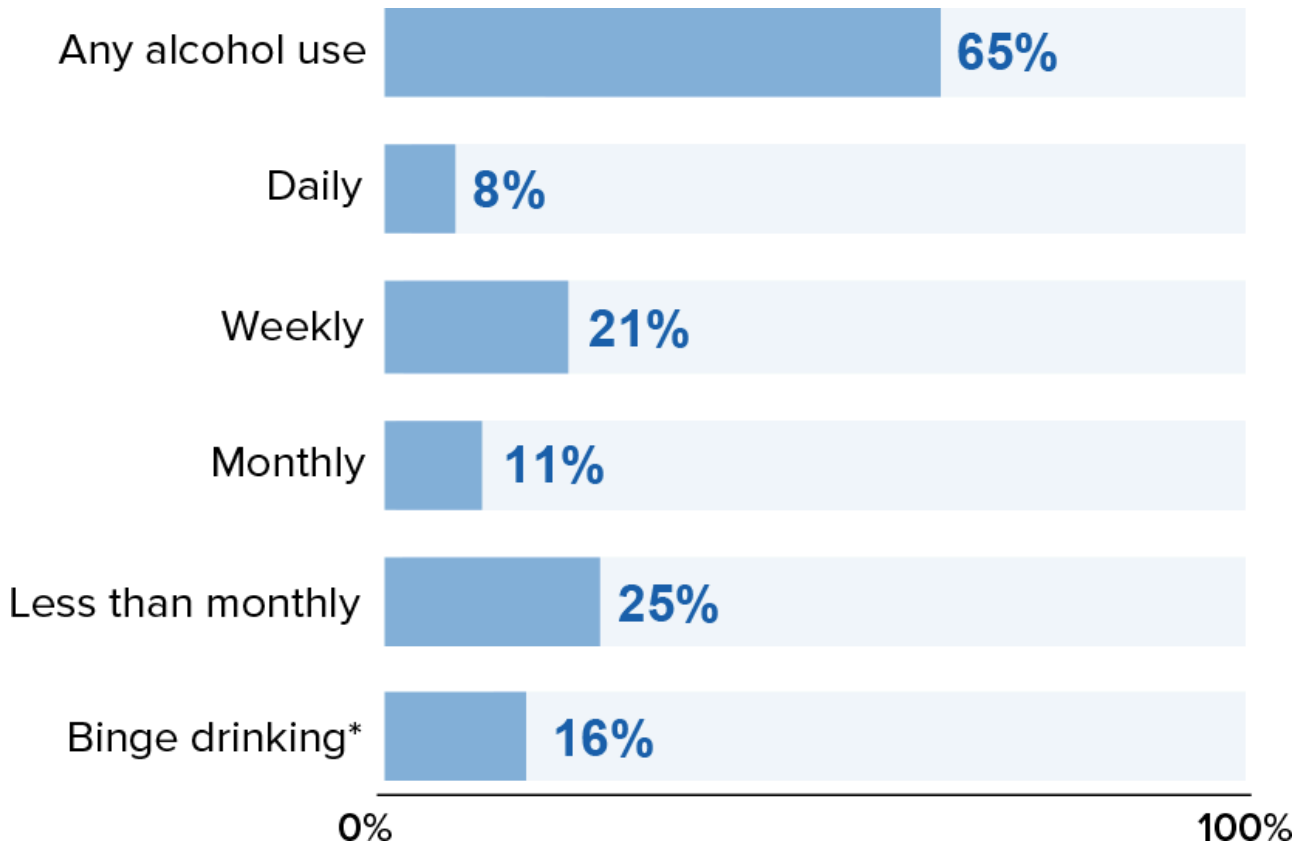
Figure 10b. Percentage of Adults with Diagnosed HIV Who Drank Alcohol During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



* Persons who drank ≥ 5 alcoholic beverages in a single sitting (≥ 4 for women) during the 30 days before interview.

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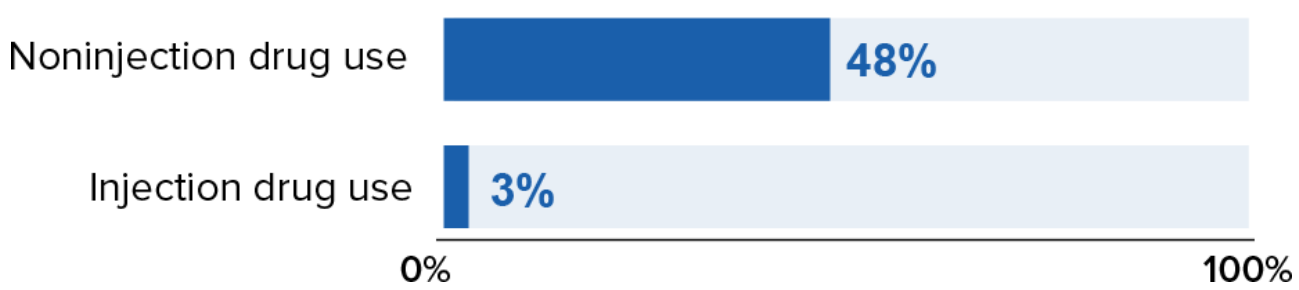
Figure 10c. Percentage of Adults with Diagnosed HIV Who Used Drugs for Nonmedical Purposes During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



* Includes all drugs that were not injected (i.e., administered by any route other than injection), including legal drugs that were not used for medical purposes, and vaping marijuana.

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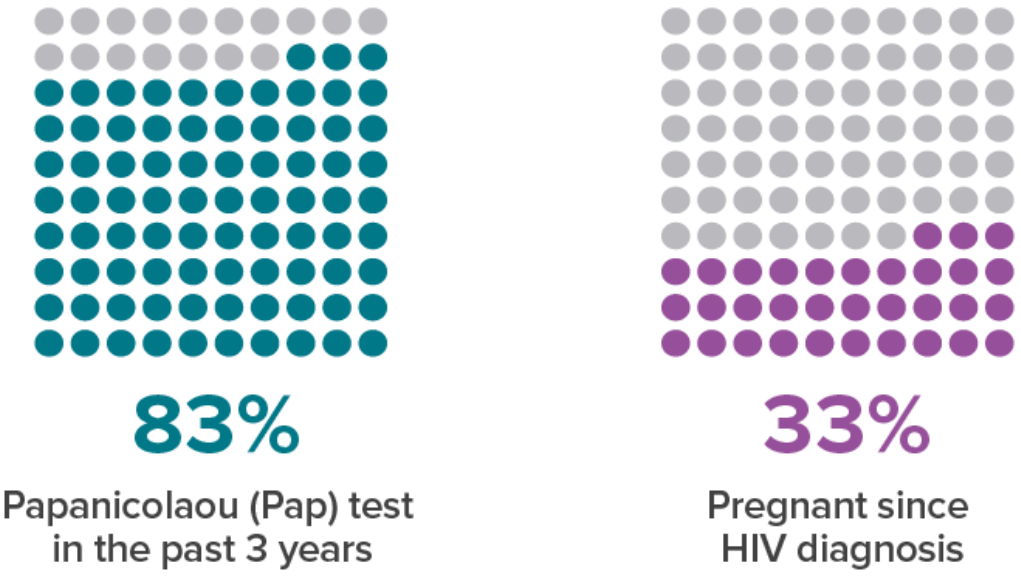
Overall, 48% of persons used noninjection or injection drugs for nonmedical purposes in the past 12 months (Figure 10). An estimated 48% of persons used noninjection drugs for nonmedical purposes, including vaping marijuana (Table 13). In total, an estimated 39% used marijuana, 14% used poppers (amyl nitrite), 7% used methamphetamines, 6% used cocaine, 5% used club drugs, 4% used crack, 3% used prescription opioids, 2% used prescription tranquilizers, and 1% used heroin or opium. An estimated 3% of persons used injection drugs for nonmedical purposes (Table 14). In total, an estimated 2% injected methamphetamines, 1% injected heroin, and 1% injected cocaine.

Characteristics Related to Gynecologic and Reproductive Health

Among cisgender women, 83% reported receiving a Papanicolaou (Pap) test in the past 3 years (Figure 11; Table 15). An estimated 33% of females reported being pregnant at least once since receiving an HIV diagnosis.

Figure 11. Percentage of Cisgender Female Adults with Diagnosed HIV Who Had a Papanicolaou Test During the Three Years Before Interview Or Became Pregnant Since Receiving an HIV Diagnosis—Medical Monitoring Project, United States, 2021



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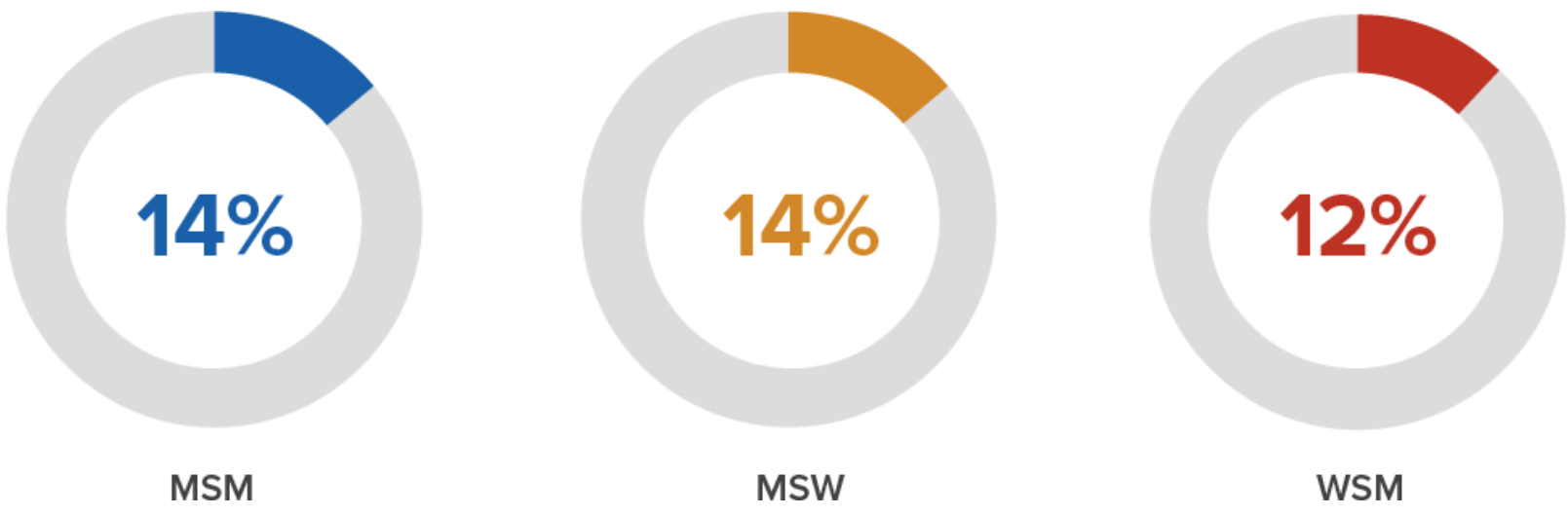
Sexual Behavior

An estimated 61% of cisgender men engaged in vaginal or anal sex; approximately 18% engaged in vaginal sex, 43% had anal sex with cisgender men, and 3% had anal sex with cisgender women (Table 16). Among cisgender women, an estimated 48% engaged in vaginal or anal sex. Approximately 48% had vaginal sex and 5% had anal sex with cisgender men. Among transgender persons, 72% had vaginal or anal sex, and 69% had vaginal or anal sex with cisgender men (Table 17).

Among sexually active cisgender men who had sex with cisgender men (MSM), an estimated 14% engaged in sex without using an HIV prevention strategy, compared with 14% of cisgender men who had sex only with cisgender women (MSW) and 12% of cisgender women who had sex with cisgender men (WSM) (Figure 12; Table 18).

Persons who were sexually active used a variety of HIV prevention strategies. For instance, an estimated 63% of sexually active MSM engaged in sex while having sustained viral suppression, 51% had condom-protected sex, 25% had condomless sex with a partner on preexposure prophylaxis (PrEP), and 53% had sex with a person with HIV (Figure 13; Table 18). Among sexually active MSW, 61% engaged in sex while having sustained viral suppression, 57% had condom-protected sex, and 23% had sex with a person with HIV. Among sexually active WSM, 64% engaged in sex while having sustained viral suppression, 52% had condom-protected sex, and 21% had sex with a person with HIV.

Figure 12. Percentage of Sexually Active Adults with Diagnosed HIV Who Engaged in Sex Without Using an HIV Prevention Strategy* During the 12 Months Before Interview, by Sexual Behavior/Orientation—Medical Monitoring Project, United States, 2021



Abbreviations. MSM=cisgender men who have sex with cisgender men; MSW=cisgender men who have sex only with cisgender women; WSM=cisgender women who have sex with cisgender men.

* Vaginal or anal sex with at least 1 HIV-negative or unknown status partner while not having sustained viral suppression (all viral load measurements in the past 12 months undetectable or <200 copies/mL), when a condom was not used, and the partner was not known to be taking preexposure prophylaxis (PrEP).

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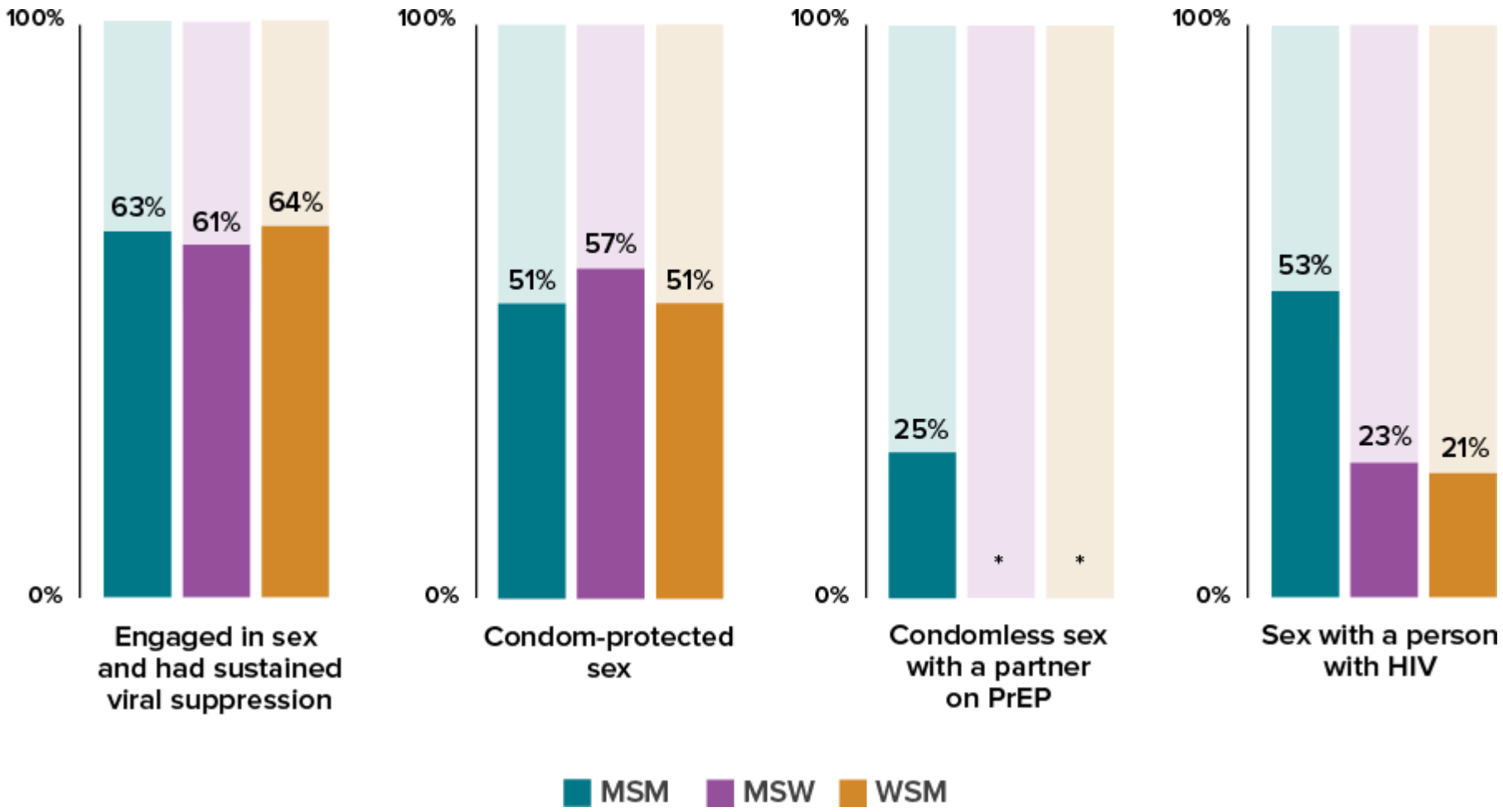
Figure 13. Prevention Strategies Used During the 12 Months Before Interview Among Sexually Active Persons with Diagnosed HIV, Including Cisgender Men Who Have Sex with Cisgender Men, Cisgender Men Who Have Sex with Only Cisgender Women, and Cisgender Women Who Have Sex with Cisgender Men—Medical Monitoring Project, United States, 2021



Abbreviations. MSM=cisgender men who have sex with cisgender men; MSW=cisgender men who have sex only with cisgender women; WSM=cisgender women who have sex with cisgender men.

* Estimate is unreliable and therefore suppressed due to having a coefficient of variation ≥0.30 or a denominator sample size <30.

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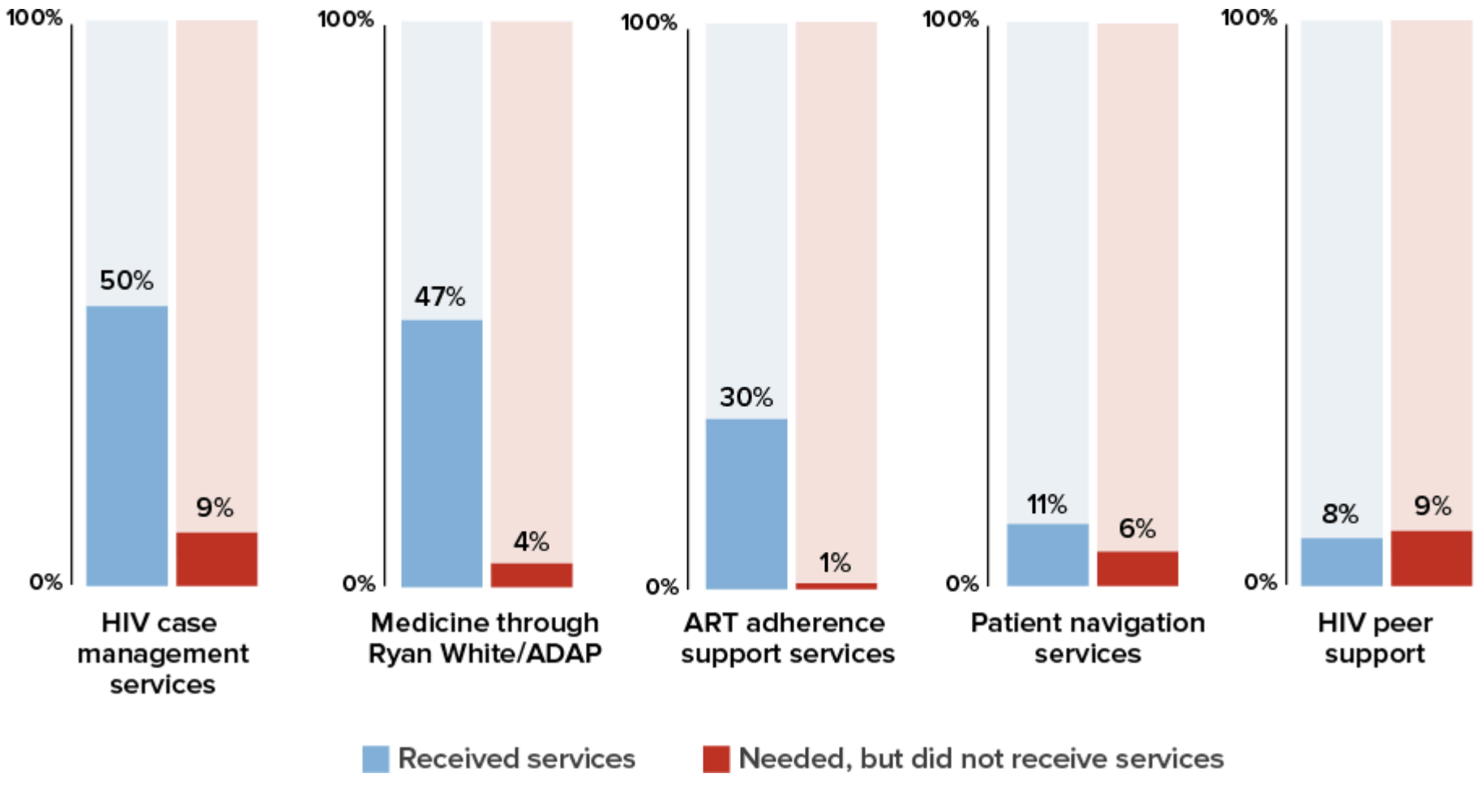
Met and Unmet Need for Ancillary Services

Overall, 93% of people with diagnosed HIV received at least one ancillary service; 71% received at least one HIV support service, 65% received at least one non-HIV medical service, and 50% received at least one subsistence service. Overall, 48% had an unmet need for at least one ancillary service; 19% had an unmet need for at least one HIV support service, 31% had an unmet need for at least one non-HIV medical service, and 23% had an unmet need for at least one subsistence service (not shown in tables or figures).

Among all HIV support services, the most commonly reported service received in the 12 months before interview was HIV case management (50%) (Table 19). Among all persons, estimated unmet need for HIV case management services was 9%; among persons with a need for HIV case management, 15% had an unmet need (Figure 14; Table 19). Of all non-HIV medical care services, the most commonly reported service received was dental care (53%). Among all persons, 25% reported an unmet need for dental care; of all persons with a need for dental care, 32% had an unmet need. Among all subsistence services, the most commonly reported service received was obtained through the Supplemental Nutrition Assistance Program (SNAP) or Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) (38%). Among all persons, 10% had an unmet need for SNAP or WIC services; among persons with a need for SNAP/WIC services, 21% had an unmet need.

Figure 14a. Percentage of Adults with Diagnosed HIV Who Received, or Who Needed But Did Not Receive, Ancillary Services Related to HIV Support During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



Abbreviations. ADAP=AIDS Drug Assistance Program; ART=Antiretroviral Therapy.

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Figure 14b. Percentage of Adults with Diagnosed HIV Who Received, or Who Needed But Did Not Receive, Ancillary Services Related to Non-HIV Medical Services During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

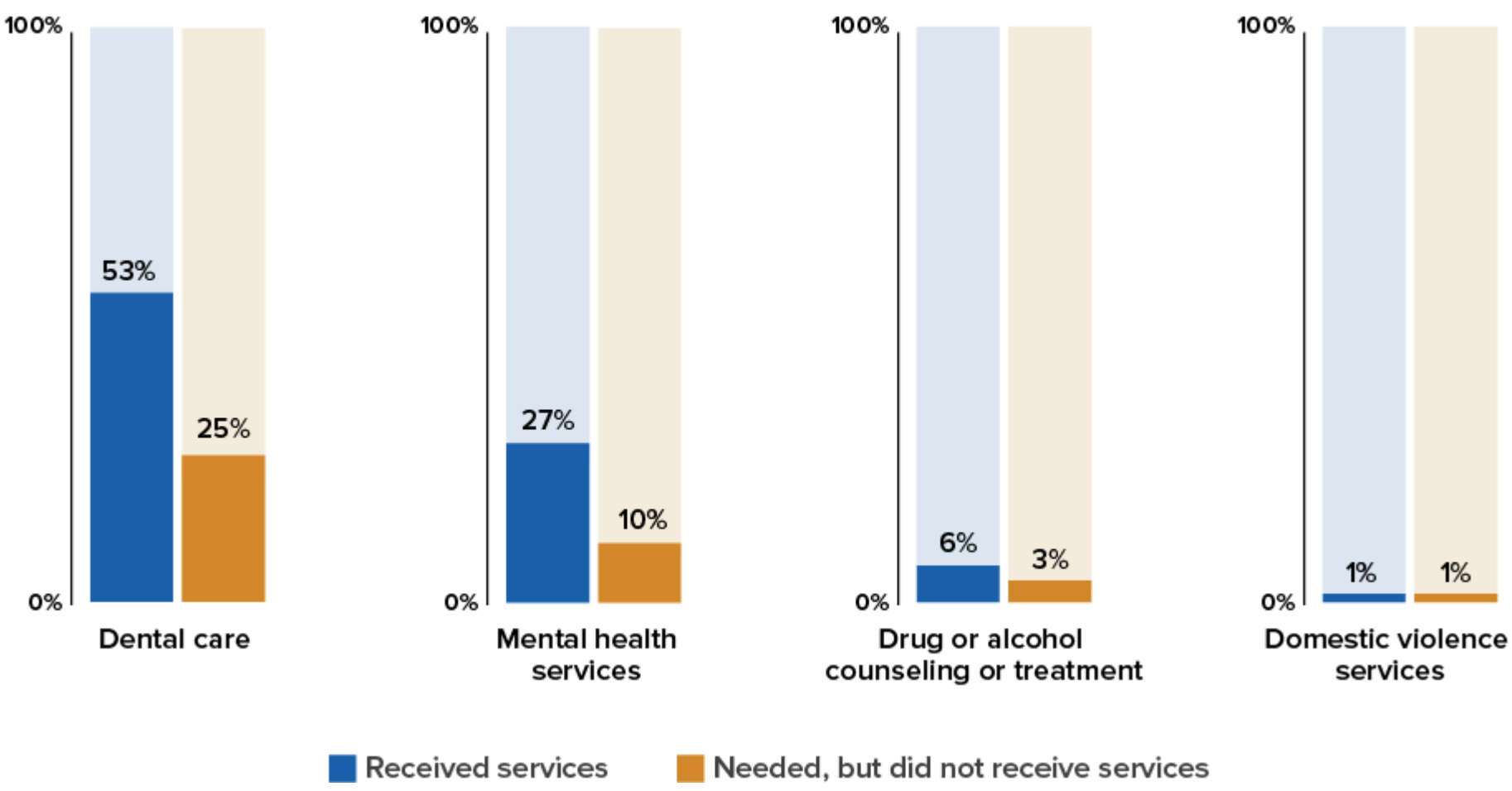

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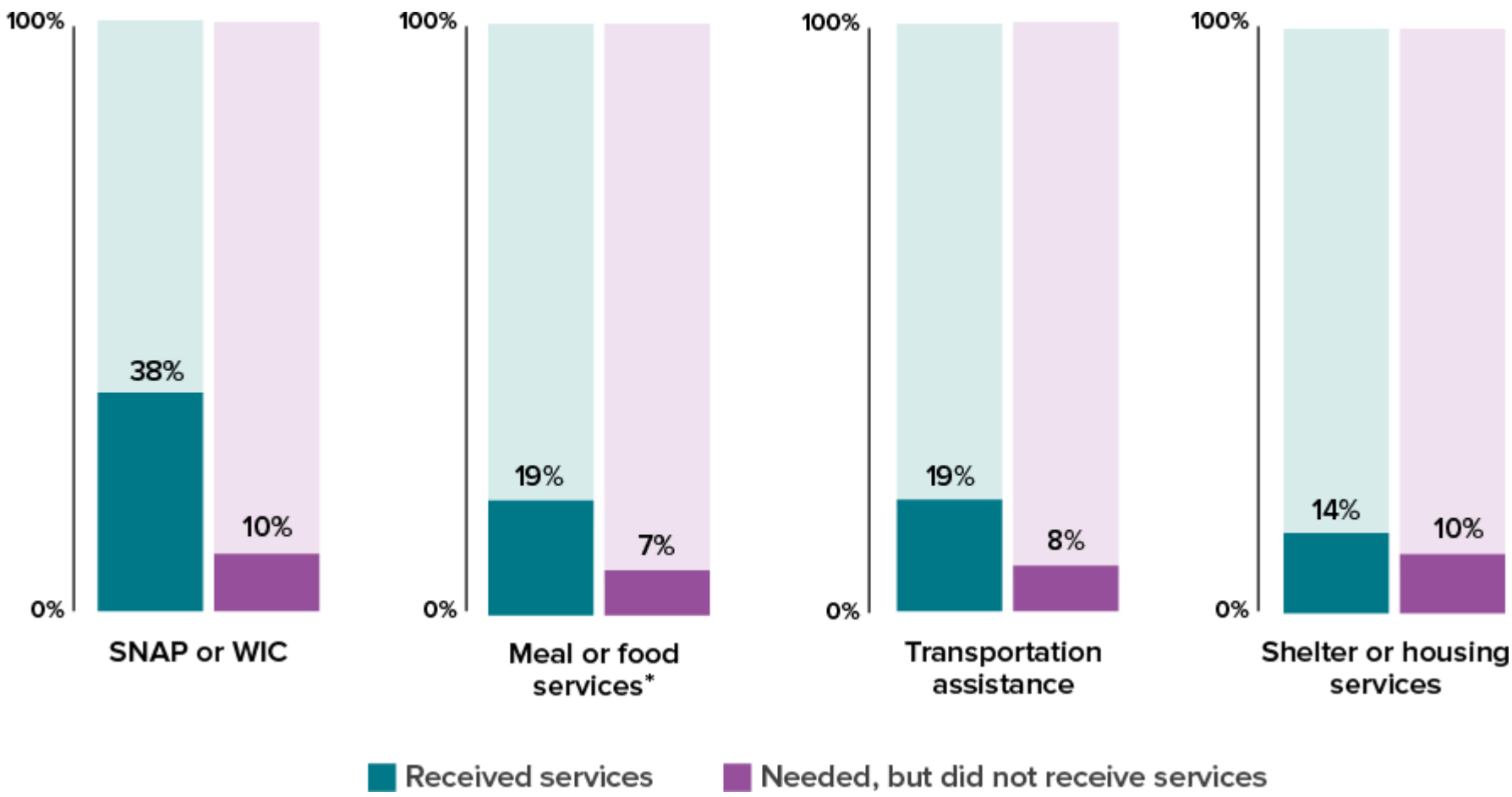
Figure 14c. Percentage of Adults with Diagnosed HIV Who Received, or Who Needed But Did Not Receive, Ancillary Services Related to Subsistence Services During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



Abbreviations. SNAP=Supplemental Nutrition Assistance Program; WIC=Special Supplemental Nutrition Program for Women, Infants, and Children.

* Includes services such as soup kitchens, food pantries, church dinners, or food delivery services.

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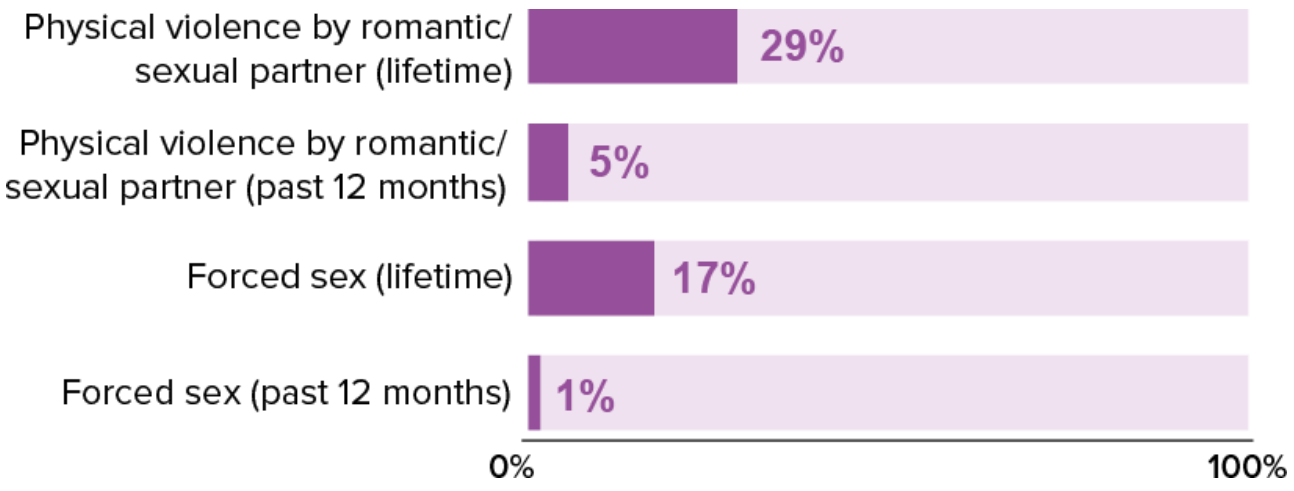
Physical Violence and Forced Sex

An estimated 29% of persons had ever been physically hurt by a romantic or sexual partner, including 5% who experienced this in the past 12 months (Figure 15; Table 20). An estimated 17% of persons had ever been threatened with harm or physically forced to have unwanted sex, including 1% who experienced this in the past 12 months.

Figure 15. Percentage of Adults with Diagnosed HIV Who Experienced Physical Violence by an Intimate Partner or Forced Sex During Their Lifetime or the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



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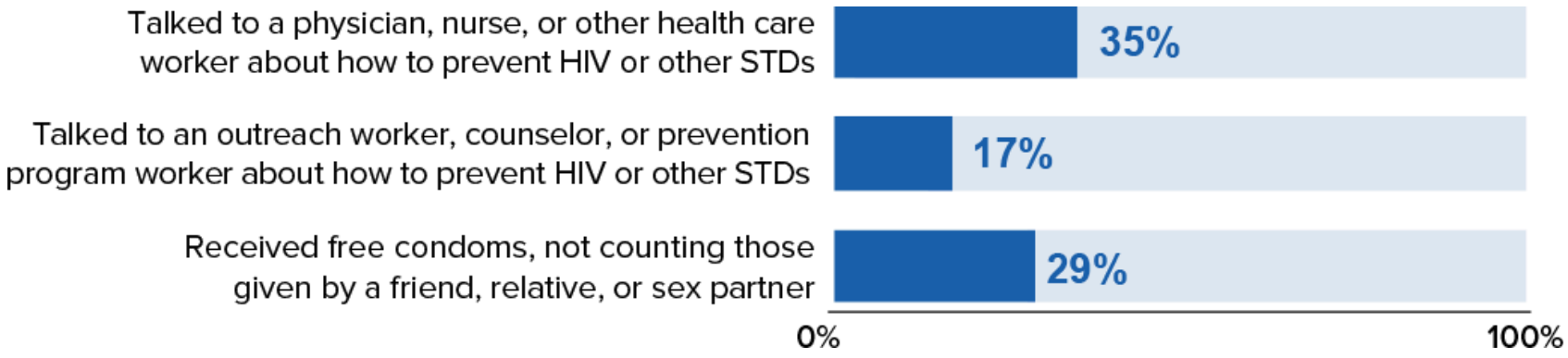
Prevention Activities

An estimated 35% talked with a physician, nurse, or other health care worker about how to prevent HIV or other STDs; 17% talked to an outreach worker, counselor, or prevention program worker about how to prevent HIV or other STDs (Figure 16; Table 21). An estimated 29% of persons received free condoms, excluding those given by a friend, relative, or sex partner.

Figure 16. Receipt of HIV or Sexually Transmitted Disease Prevention Services During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



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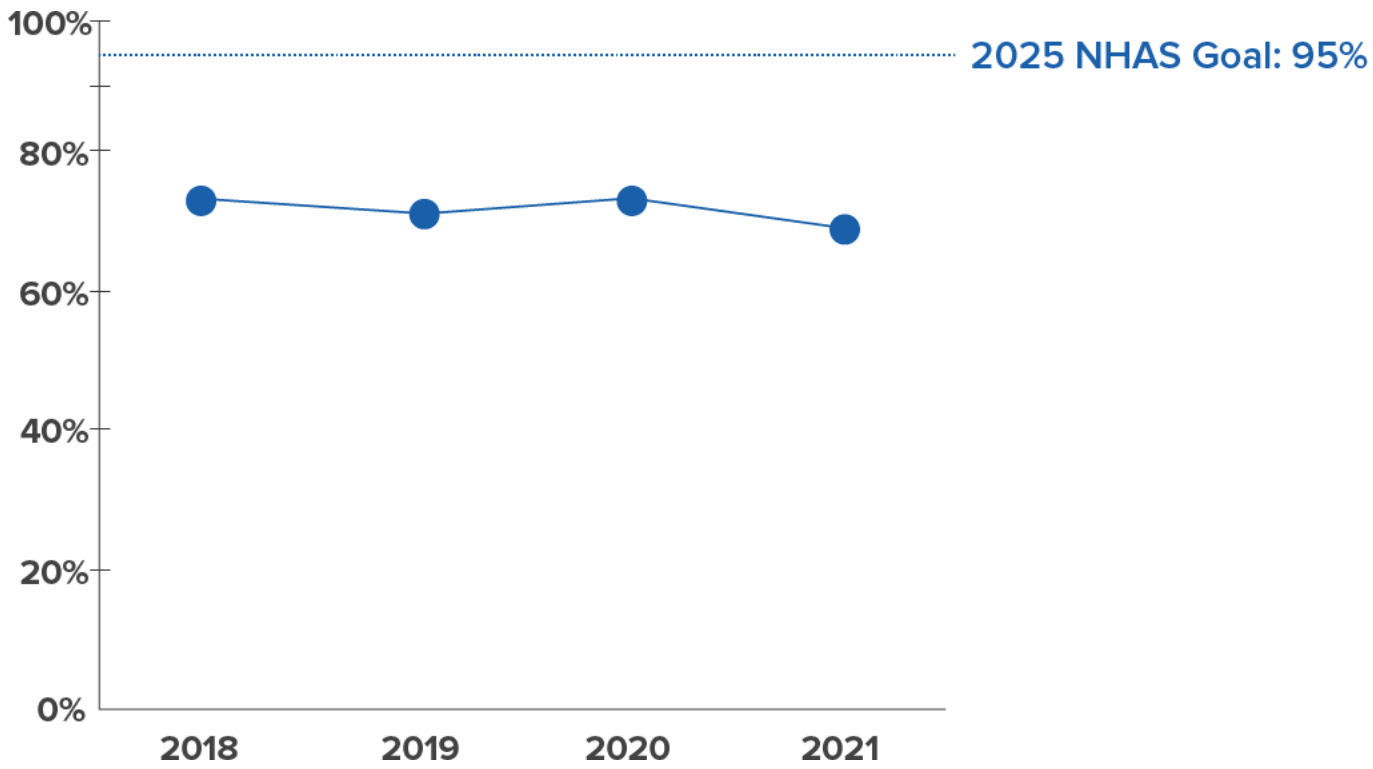
National Indicators

Several National HIV/AIDS Strategy (NHAS) indicators are monitored by using MMP data, including 5 quality of life indicators. These include 1 measure of physical health (i.e., self-rated health), 1 measure of mental and emotional health (i.e., unmet needs for mental health services among those who needed services), and 3 structural or subsistence factors (i.e., unstable housing or homelessness, unemployment, and hunger or food insecurity) [7].

During the 2021 cycle, 69% of people reported having good or better self-rated health; the NHAS 2025 target is 95% (Figure 17; Table 22a) [7]. The prevalence of good or better self-rated health was lowest during the 2021 cycle (69%) and highest during the 2018 and 2020 cycles (72%; Table 22b). During the 2021 cycle, 28% of people who had a need for mental health services during the past 12 months did not have their need met; the NHAS 2025 target is 12% (Figure 18; Table 22a) [7]. Unmet need for mental health services was lowest during the 2018 cycle at 20% and highest during the 2021 cycle at 28% (Table 22b). The prevalence of good or better self-rated health and unmet need for mental health services are reported by selected demographic characteristics and NHAS priority populations in Table 22a.

Figure 17. National HIV/AIDS Strategy Indicator: Good or Better Self-Rated Health* Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2018–2021



* “Good or better self-rated health” defined as rating one’s health as good, very good, or excellent (as opposed to poor or fair) at the time of interview.

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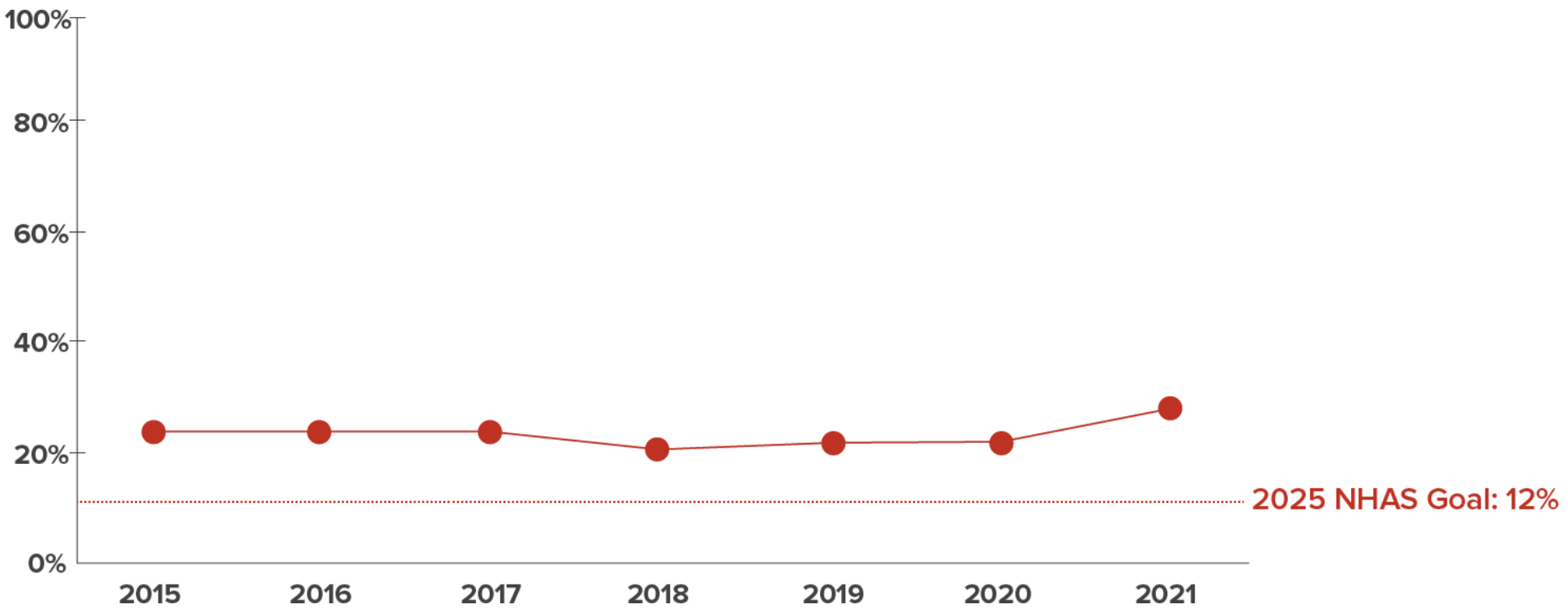
Figure 18. National HIV/AIDS Strategy Indicator: Unmet Needs for Mental Health Services* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2015–2021



* "Unmet need for mental health services from a mental health professional" defined as needing, but not receiving, services from a mental health professional among those who indicated needing mental health services (i.e., receiving or needing but not receiving) during the past 12 months.

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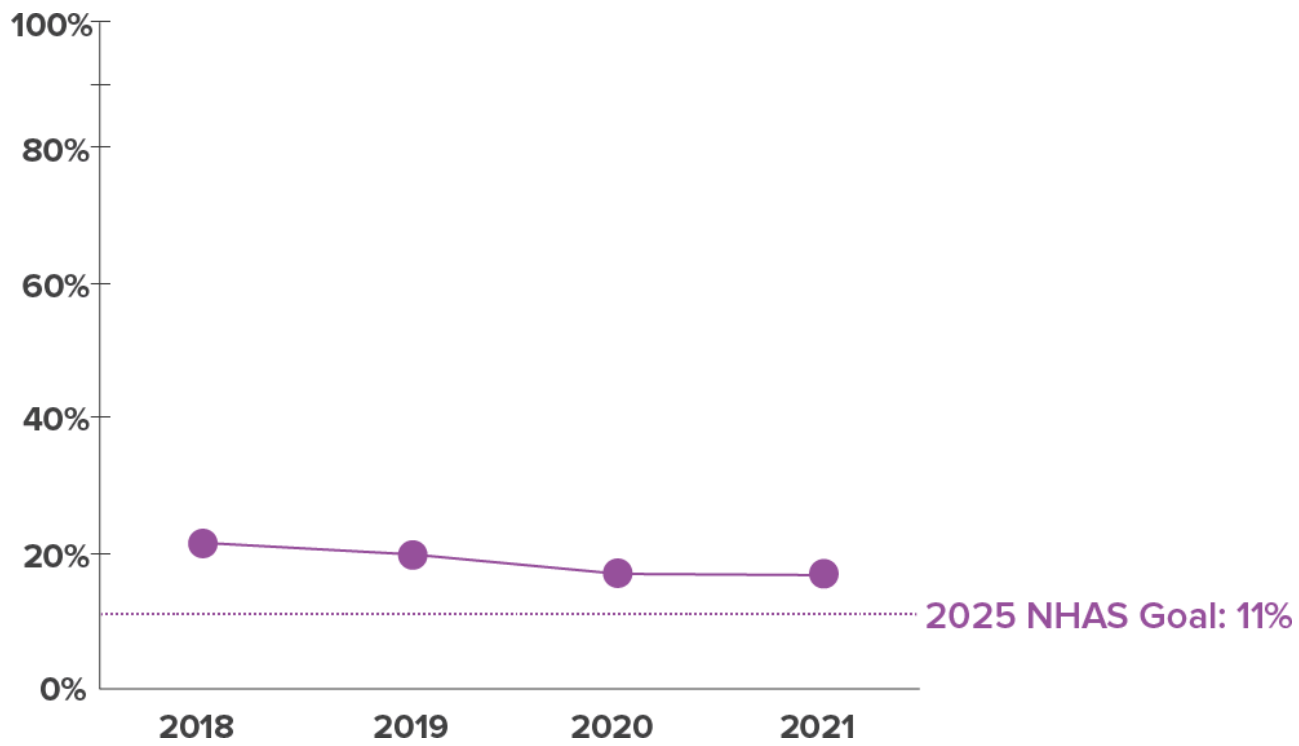
In the 2021 cycle, 17% experienced unstable housing or homelessness during the past 12 months; the NHAS 2025 target is 11% (Figure 19; Table 23a) [7]. During the 2018–2021 cycles, unstable housing or homelessness decreased from 21% to 17% (Table 23b). In the 2021 cycle, 15% reported being unemployed at the time of interview; the 2025 NHAS target is 8% (Figure 20; Table 23a) [7]. During the 2015–2021 cycles, unemployment was lowest during the 2019 cycle (14%) and highest during the 2020 cycle (18%; Table 23b). In the 2021 cycle, 16% of people experienced hunger or food insecurity during the past 12 months; the 2025 NHAS target is 11% (Figure 21; Table 23a) [7]. The prevalence of hunger or food insecurity was lowest during the 2021 cycle (16%) and highest during the 2015 cycle (22%; Table 23b). The prevalence of unstable housing or homelessness, unemployment, and hunger or food insecurity are reported by selected demographic characteristics and NHAS priority populations in Table 23a.

Figure 19. National HIV/AIDS Strategy Indicator: Unstable Housing or Homelessness* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2018–2021



* "Unstable housing or homelessness" defined as experiencing unstable housing (i.e., moving in with others due to financial issues, moving 2 or more times, or being evicted at any time) or homelessness (living on the street, in a shelter, in a single-room–occupancy hotel, or in a car at any time) during the past 12 months.

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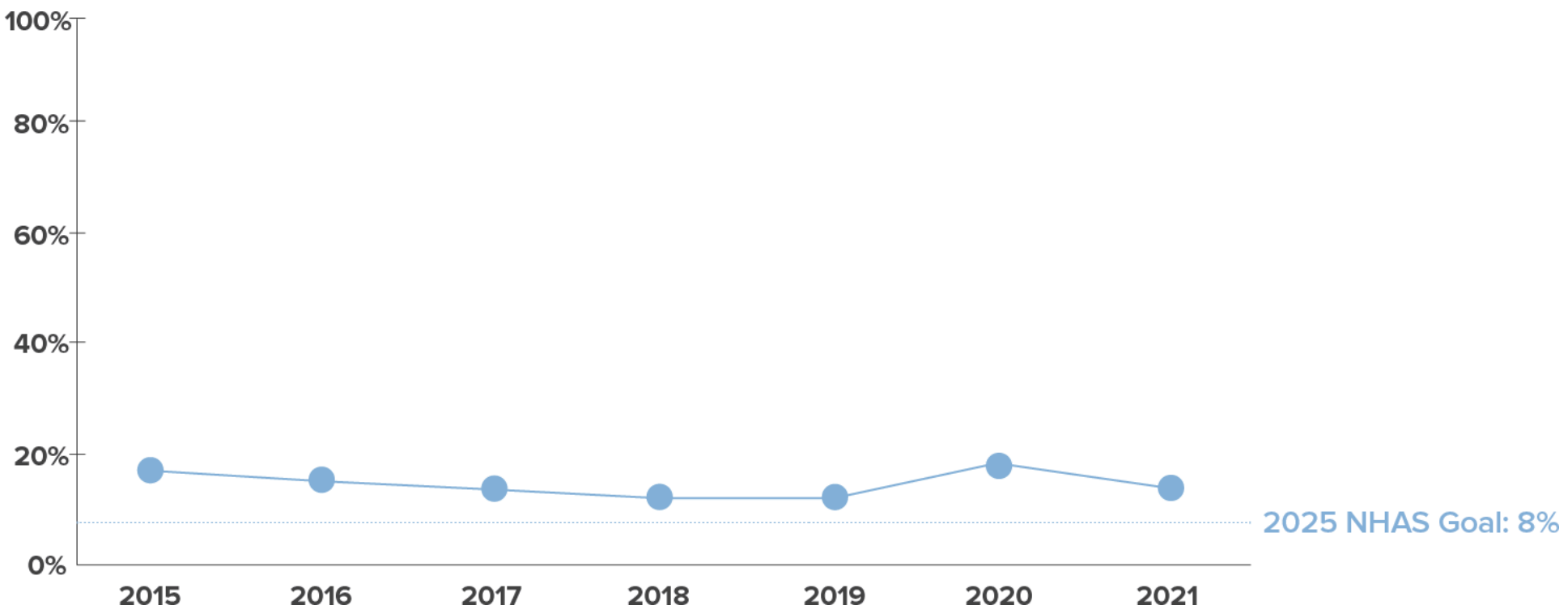
Figure 20. National HIV/AIDS Strategy Indicator: Unemployment* Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2015–2021



* Unemployed persons included those who reported being unemployed at the time of the interview.

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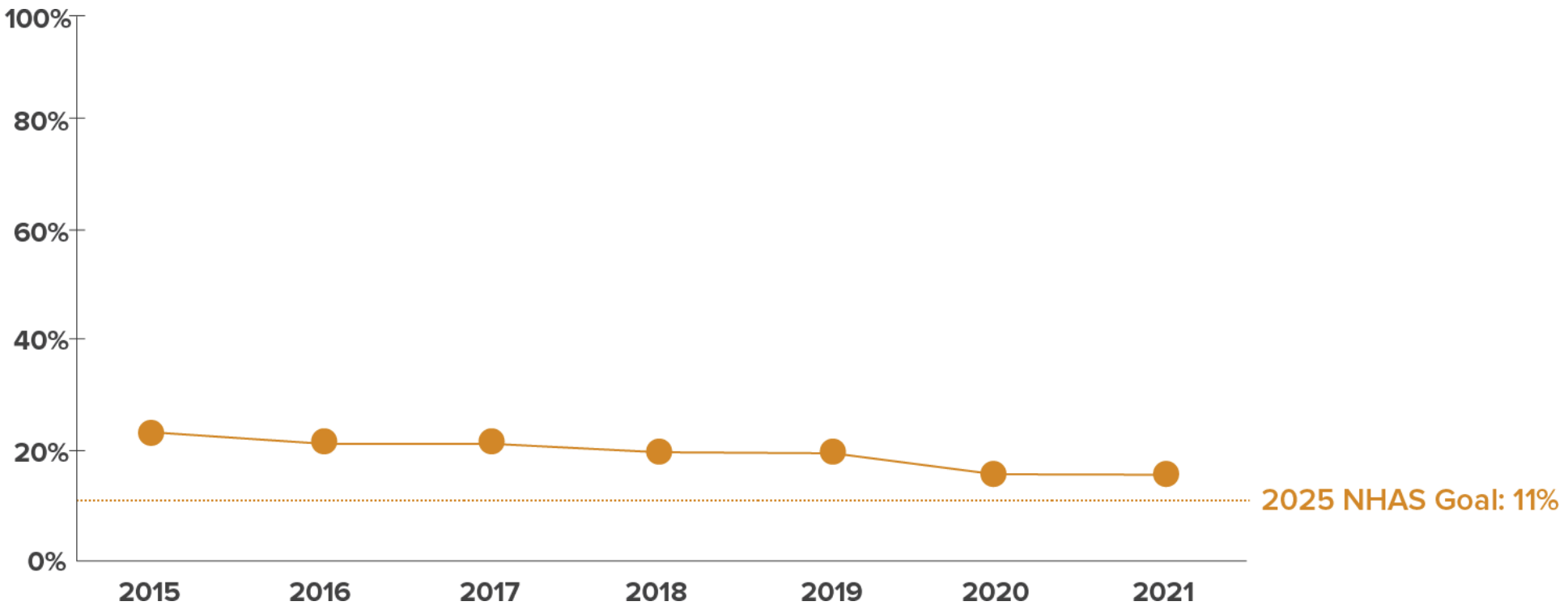
Figure 21. National HIV/AIDS Strategy Indicator: Hunger/Food Insecurity* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2015–2021



* “Hunger/food insecurity” defined as going without food due to lack of money during the past 12 months.

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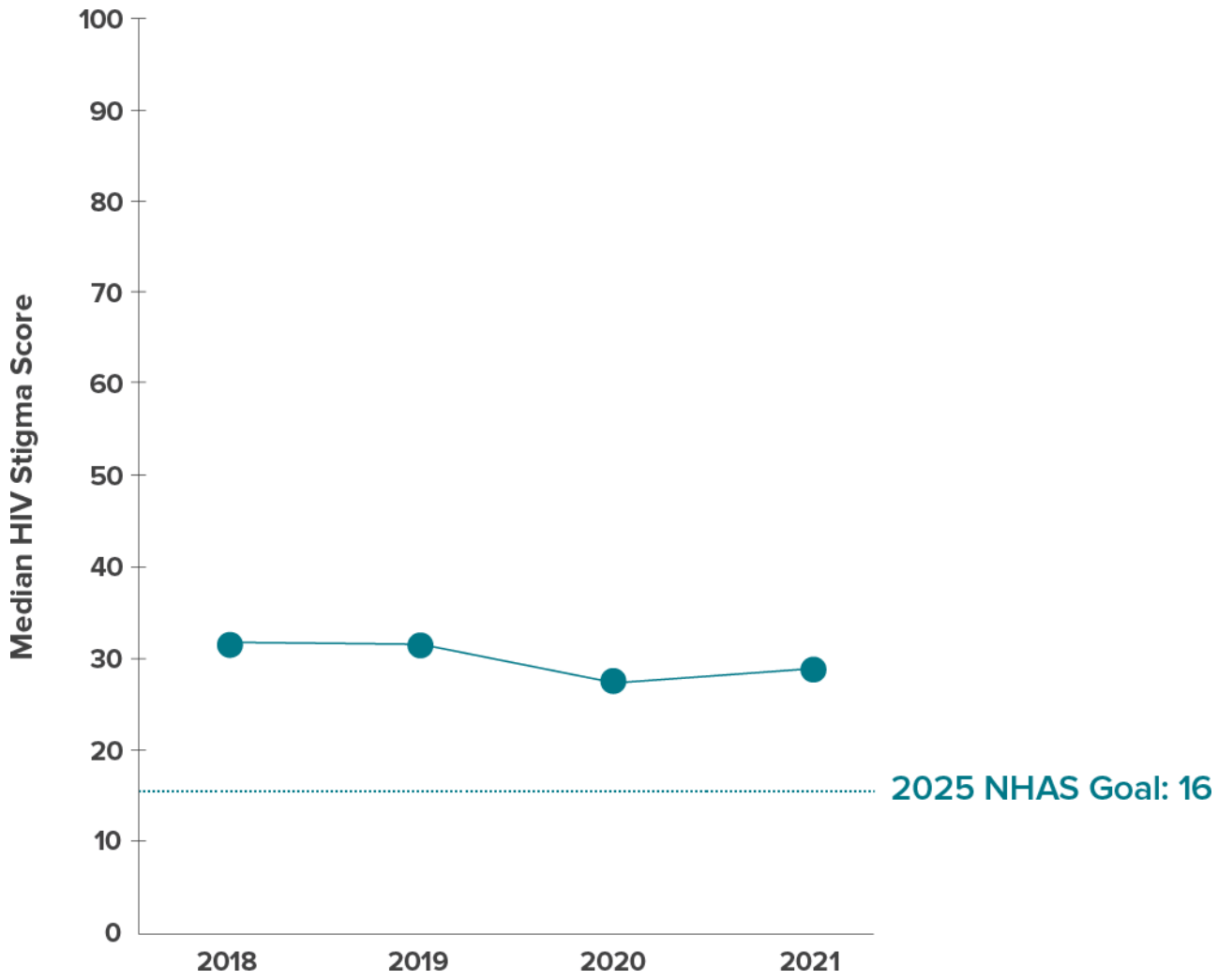
During the 2021 cycle, the median HIV stigma score was 28.8; the 2025 NHAS target is 16 (Figure 22; Table 24b) [7]. Median HIV stigma scores are reported by selected demographic characteristics and NHAS priority populations in Table 24a. Median HIV stigma score was highest during the 2018 cycle (31.2) and lowest during the 2020 cycle (28.4; Table 24b).

Figure 22. National HIV/AIDS Strategy Indicator: Median HIV Stigma Scores* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2018–2021



*"Median HIV stigma score" defined as the weighted median score on a 10-item scale ranging from 0 (no stigma) to 100 (high stigma) that measures 4 dimensions of HIV stigma: personalized stigma during the past 12 months, current disclosure concerns, current negative self-image, and current perceived public attitudes about people living with HIV, measured among persons aged ≥18 years with diagnosed HIV infection living in the United States and Puerto Rico.

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Behavioral and Clinical Characteristics of Persons with Diagnosed HIV Infection—Medical Monitoring Project, United States 2021 Cycle (June 2021–May 2022): Figures

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Figure 1. Participating Medical Monitoring Project Sites, Including 16 States and 6 Separately Funded Jurisdictions—United States, 2021

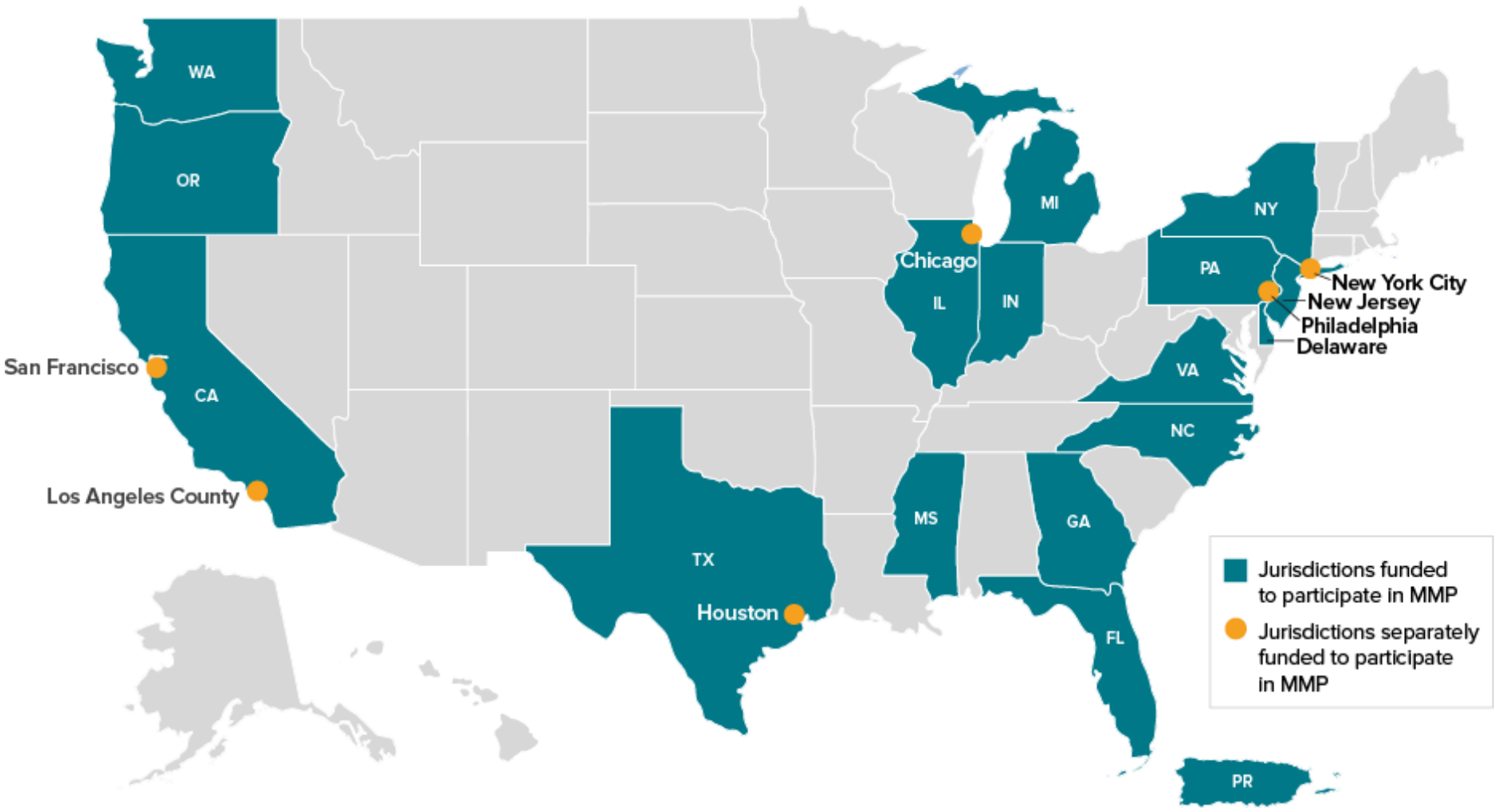

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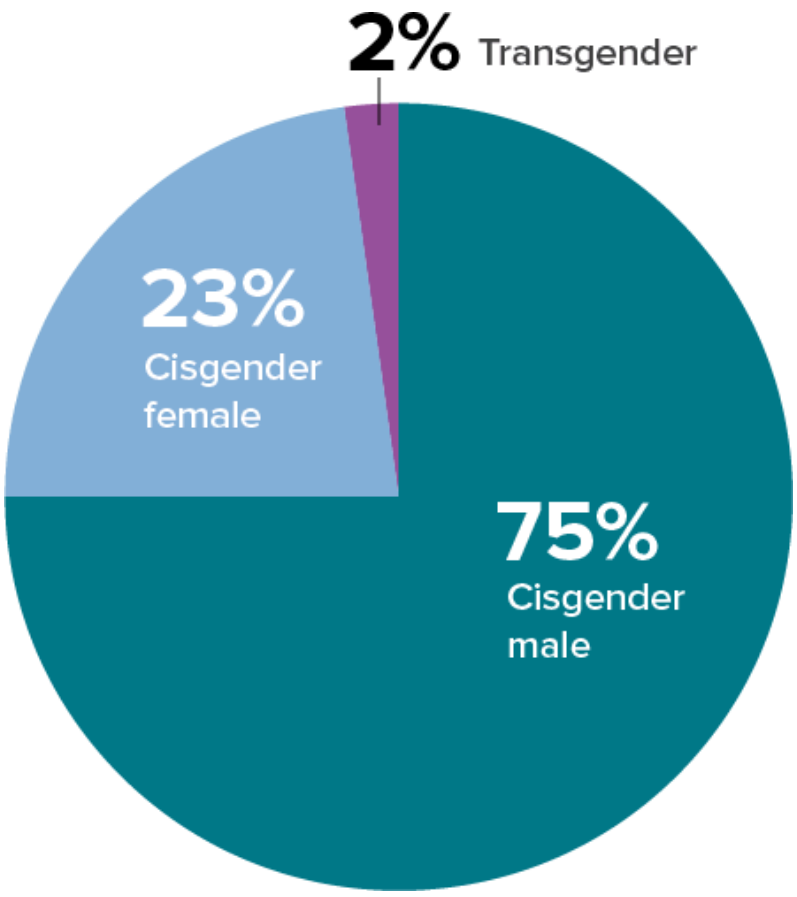
Figure 2a. Distribution of Gender Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Note. Transgender persons defined as those who self-identified as transgender or who reported a gender identity different from sex assigned at birth.

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Figure 2b. Distribution of Age Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021

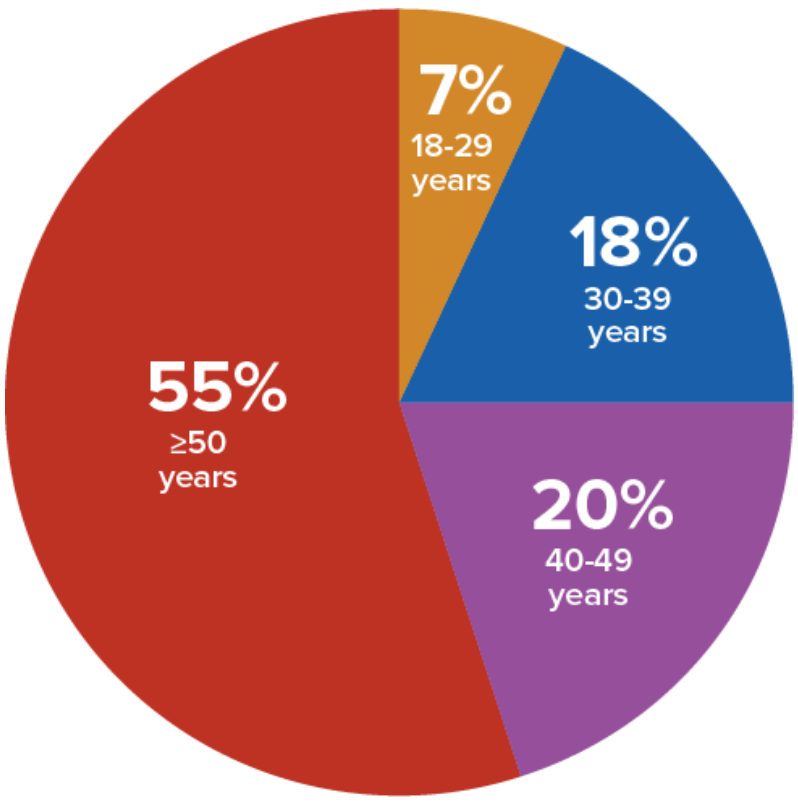

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Figure 2c. Distribution of Sexual Orientation Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021

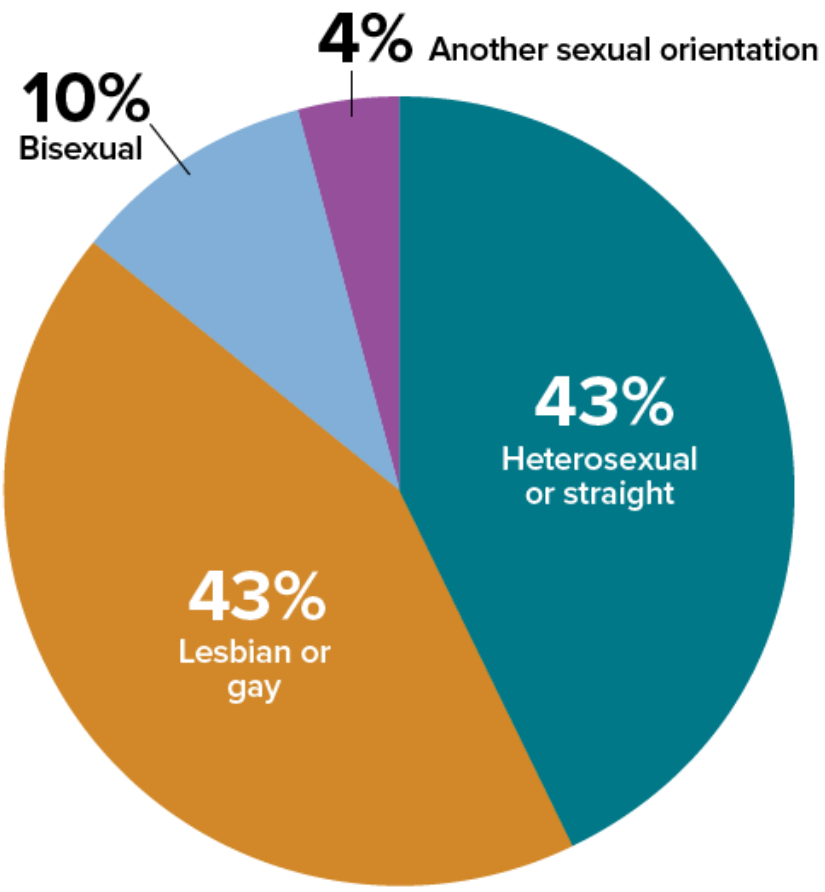

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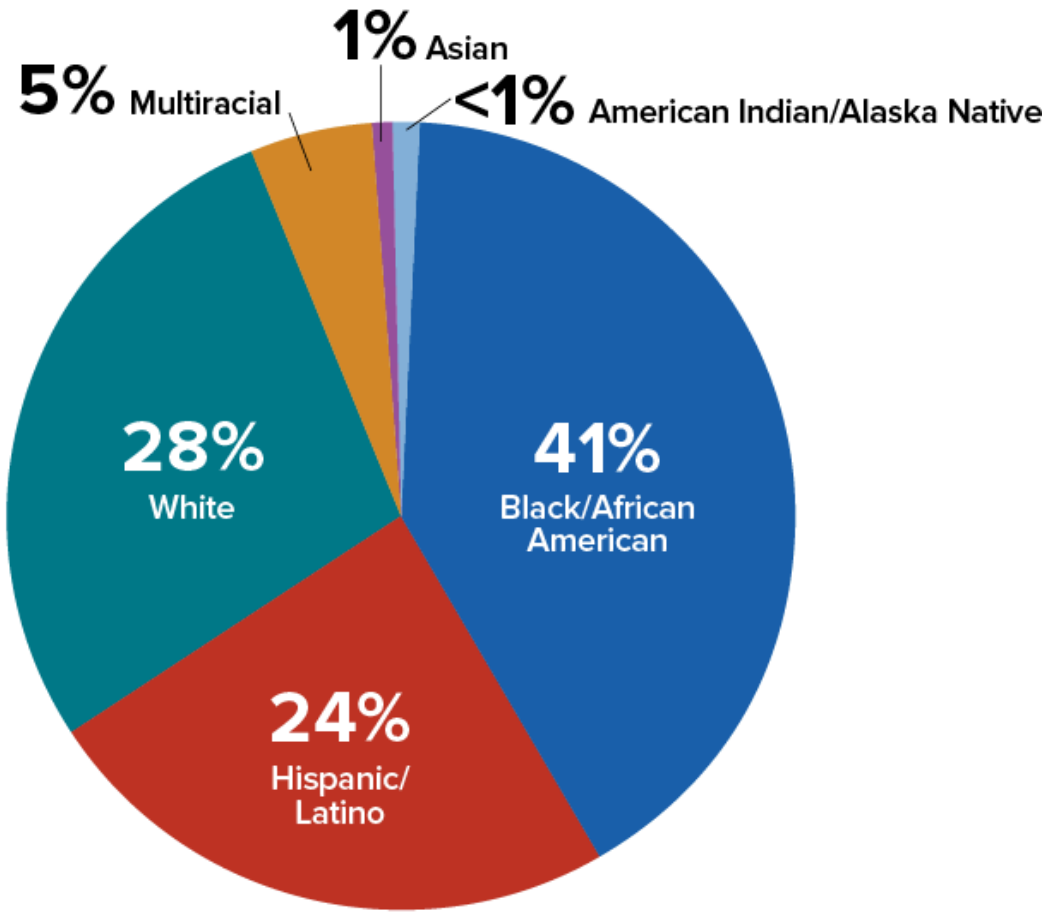
Figure 2d. Distribution of Race/Ethnicity Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Note. Data for Native Hawaiian and other Pacific Islander persons are not included because the estimate is unstable and therefore suppressed. Hispanic/Latino persons could identify as any race and are grouped separately.

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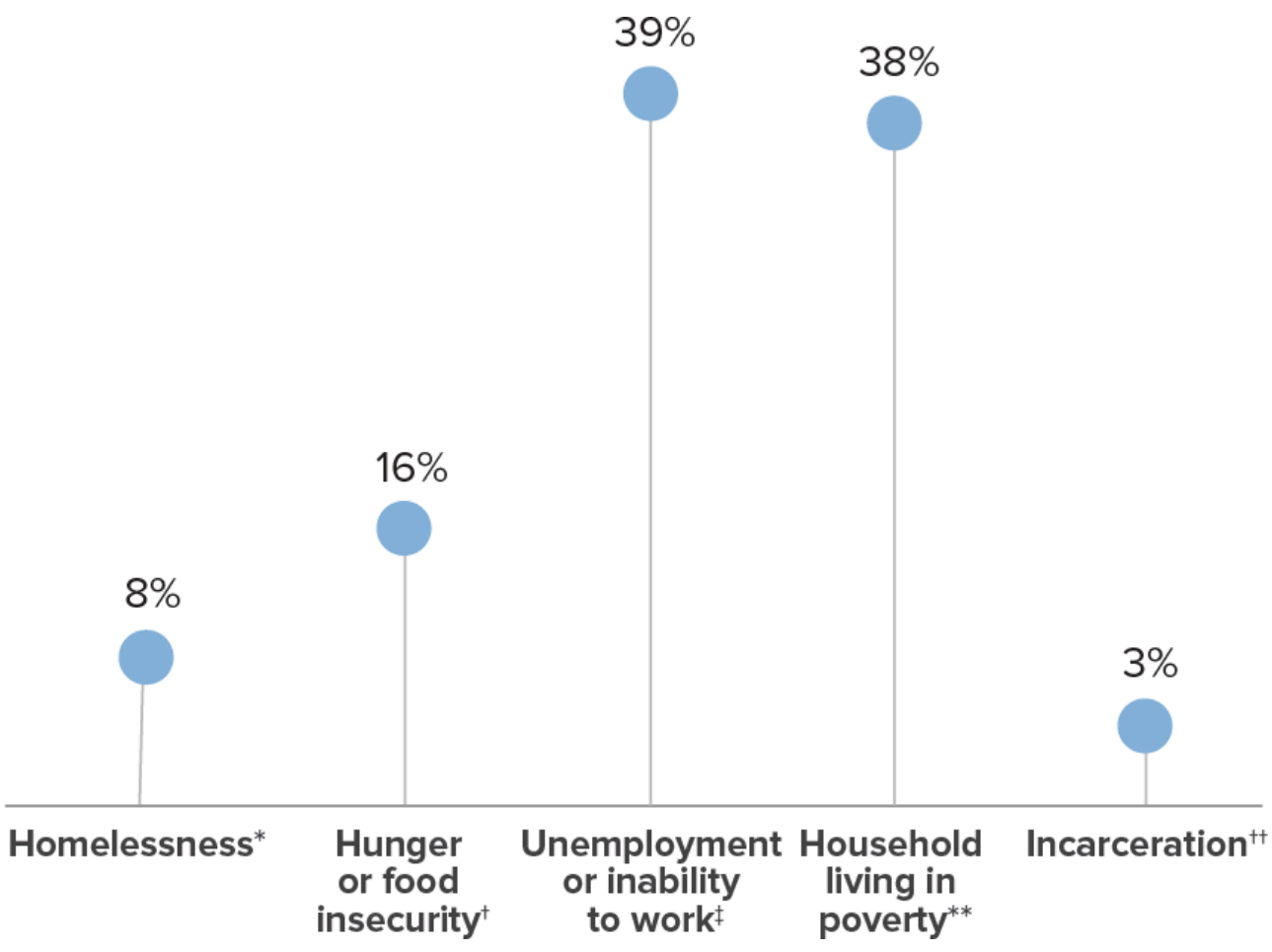
Figure 3a. Prevalence of Socioeconomic Factors and Incarceration Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



* Homelessness is defined as living on the street, in a shelter, in a single-room-occupancy hotel, or in a car at any time during the past 12 months.

† Hunger or food insecurity is defined as going without food due to lack of money during the past 12 months.

‡ Unemployment or inability to work includes those who were unemployed or unable to work at the time of the interview; employed included employed for wages, self-employed, or homemaker.

** Household poverty level is based on HHS poverty guidelines. The 2020 guidelines were used for persons interviewed in 2021 and the 2021

guidelines were used for persons interviewed in 2022. More information regarding HHS poverty guidelines can be found at: https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty .

†† Incarcerated >24 hours at any point during the past 12 months.

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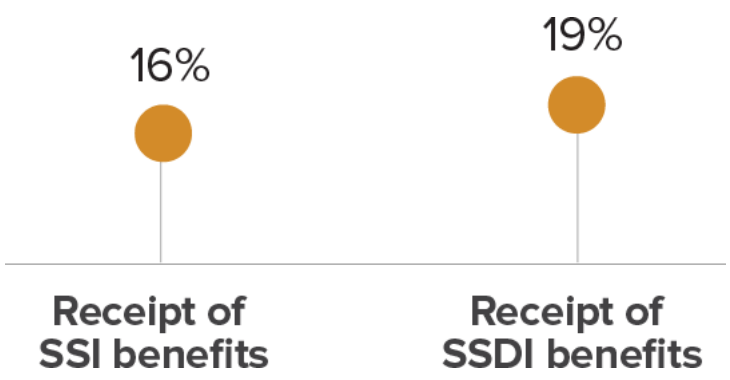
Figure 3b. Prevalence of SSI and SSDI Benefits Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Abbreviations. SSI=Supplemental Security Income; SSDI=Social Security Disability Insurance.

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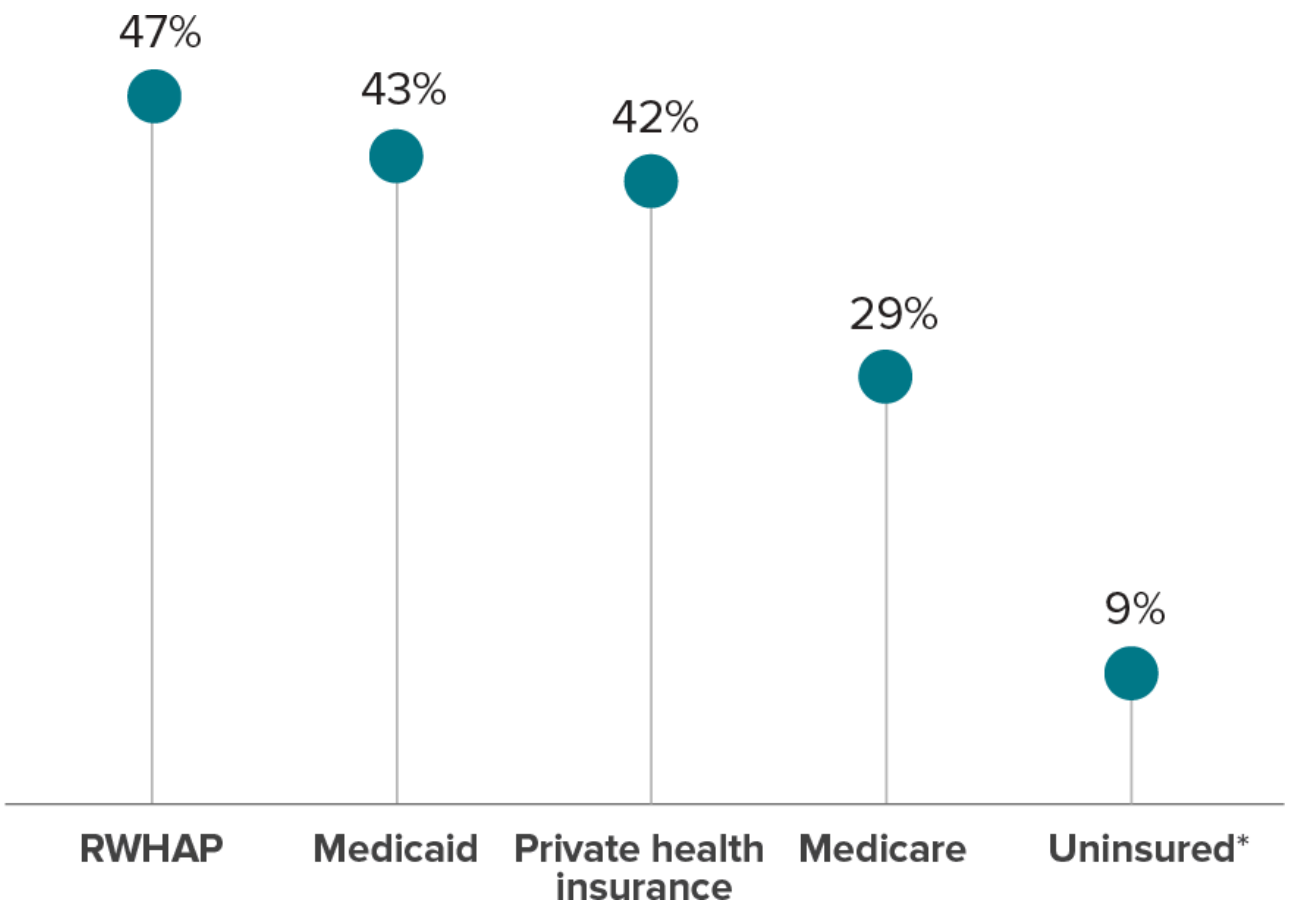
Figure 3c. Prevalence of Health Insurance of Coverage for Care or Medications Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



Abbreviations. RWHAP=Ryan White HIV/AIDS Program.

Note. Health care insurance/coverage types not mutually exclusive; people could report >1 type of coverage.

* Includes people who only have health care through the Ryan White HIV/AIDS Program.

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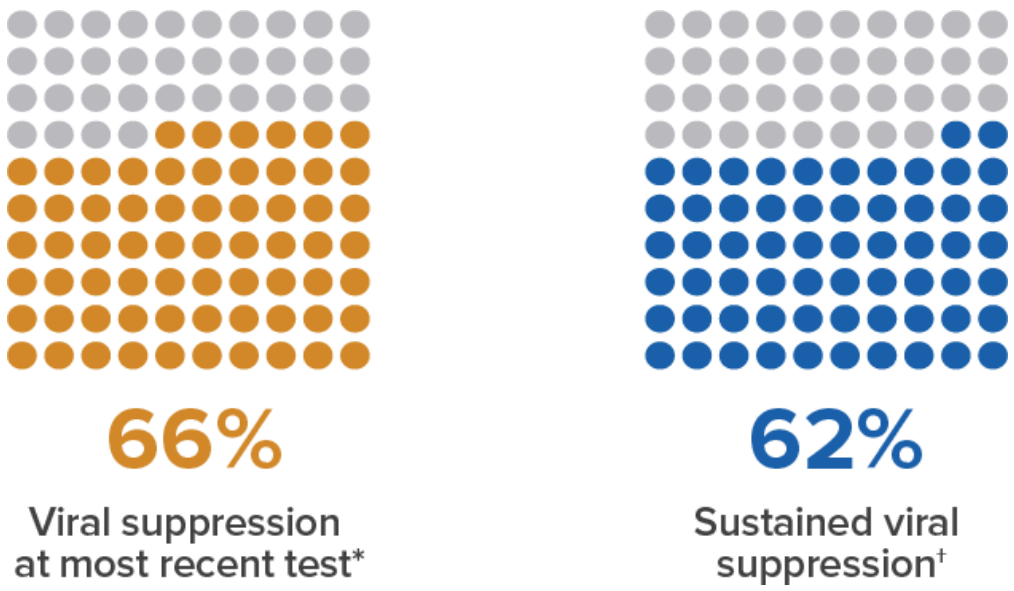
Figure 4. Percentage of Adults with Diagnosed HIV Who Were Virally Suppressed During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



* Viral load <200 copies/mL or undetectable based on most recent test in the past 12 months.

† Sustained viral suppression defined as having all viral load tests in the past 12 months <200 copies/mL or undetectable.

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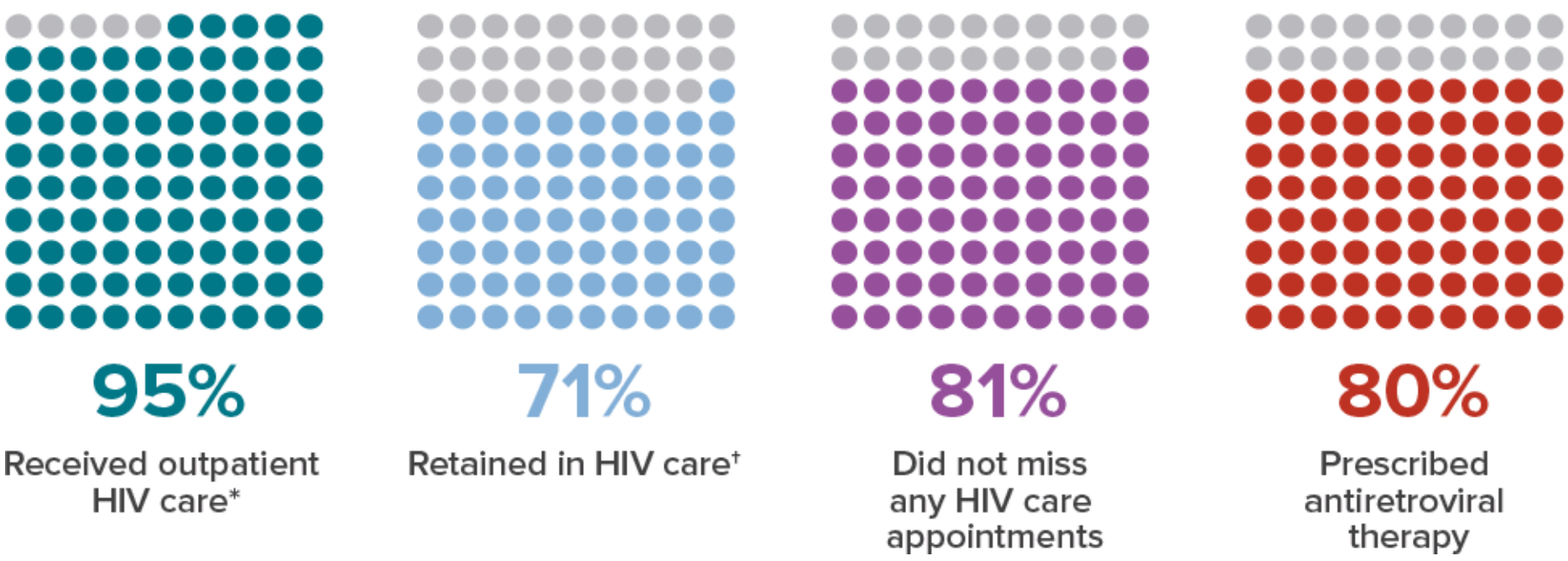
Figure 5. Receipt of HIV Care and Antiretroviral Therapy Prescription During the 12 Months Before Interview Among Adults with Diagnosed HIV—Medical Monitoring Project, United States, 2021



* Outpatient HIV care was defined as any documentation of the following: encounter with an HIV care provider, viral load test results, CD4 test result, HIV resistance test or tropism assay, ART prescription, PCP prophylaxis, or MAC prophylaxis.

† Had ≥2 elements of outpatient HIV care at least 90 days apart during the 12 months prior to interview.

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Figure 6. Percentage of Sexually Active Adults with Diagnosed HIV Who Tested for Gonorrhea, Chlamydia, or Syphilis During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

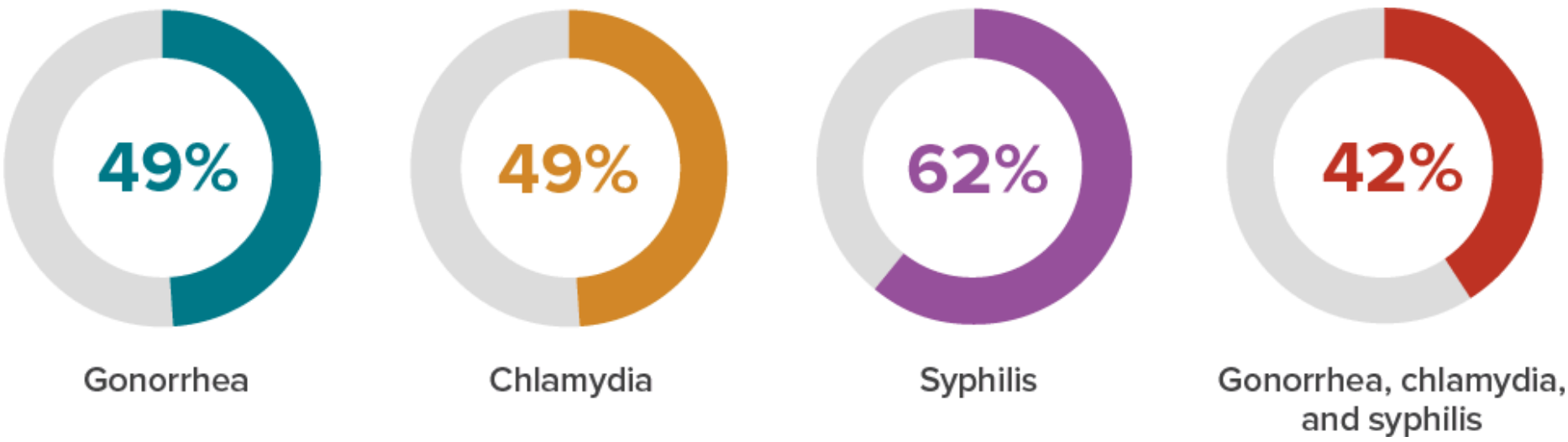

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Figure 7. Percentage of Adults with Diagnosed HIV Who Had At Least One Visit to the Emergency Room Or At Least One Hospital Admission During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

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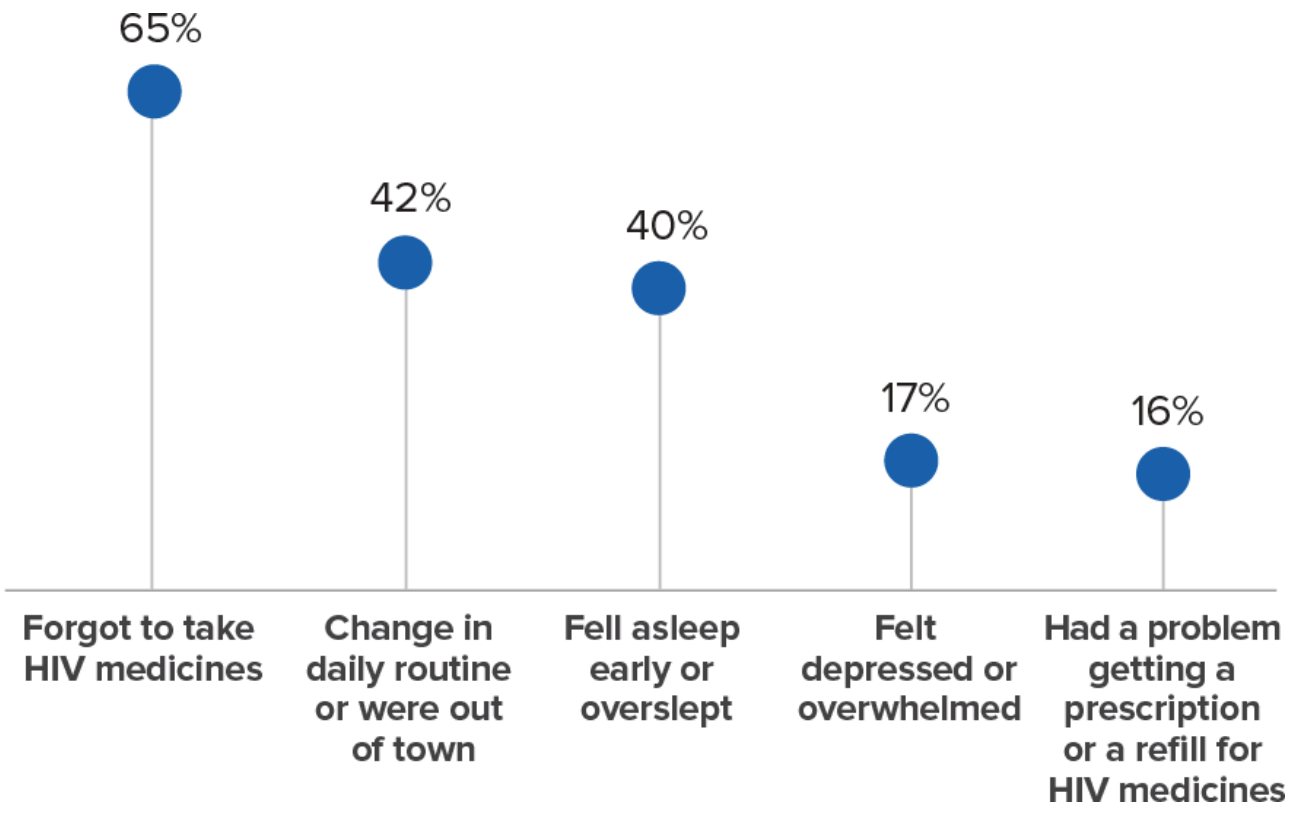
Figure 8. Reasons for Missing Last Antiretroviral Therapy Dose Among Adults with Diagnosed HIV Who Have Ever Missed a Dose*—Medical Monitoring Project, United States, 2021



* Participant may report more than one reason for last missed dose.

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Figure 9a. Percentage of Adults with Diagnosed HIV Who Experienced Symptoms of Major or Other Depression* During the Two Weeks Before Interview—Medical Monitoring Project, United States, 2021

* Responses to the items on the PHQ-8 were used to define “major depression” and “other depression” according to criteria from the DSM-IV. “Major depression” was defined as having at least 5 symptoms of depression; “other depression” was defined as having 2–4 symptoms of depression. The PHQ-8 classification “other depression” comprises the DSM-IV categories of dysthymia and depressive disorder, not otherwise specified, which includes minor or subthreshold depression.

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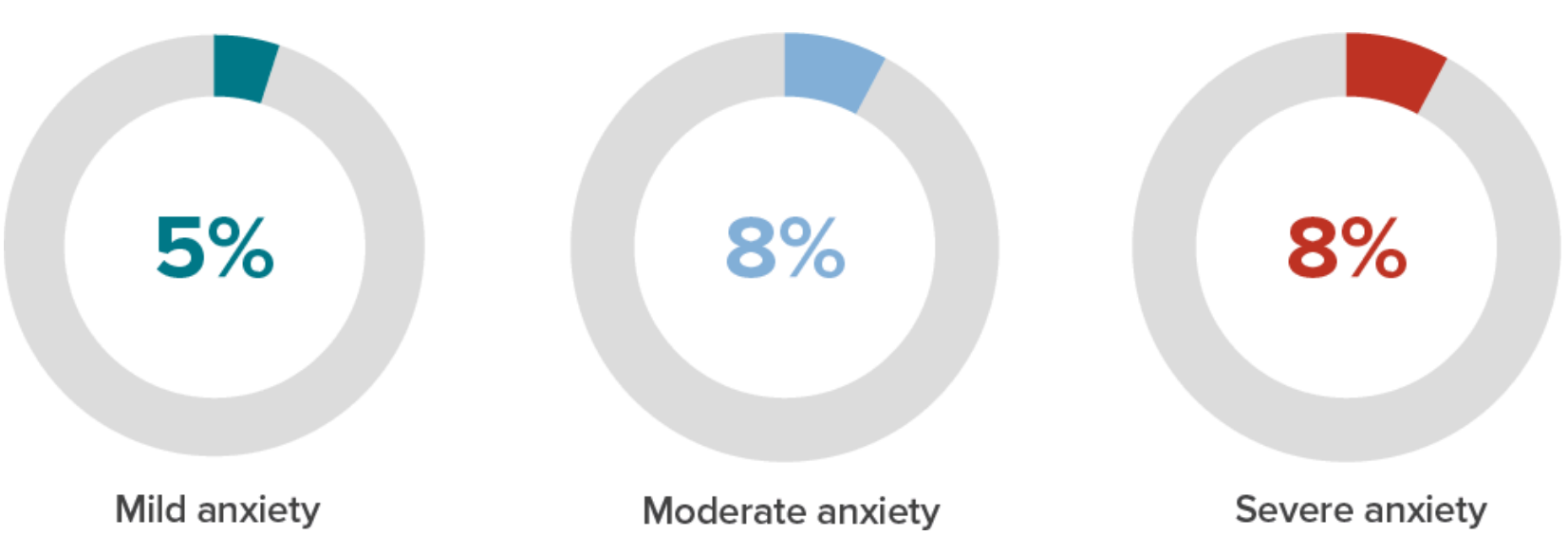
Figure 9b. Percentage of Adults with Diagnosed HIV Who Experienced Symptoms of Generalized Anxiety Disorder* During the Two Weeks Before Interview—Medical Monitoring Project, United States, 2021



* Responses to the GAD-7 were used to define “mild anxiety,” “moderate anxiety,” and “severe anxiety,” according to criteria from the DSM-IV. “Severe anxiety” was defined as having a score of ≥15; “moderate anxiety” was defined as having a score of 10–14; and “mild anxiety” was defined as having a score of 5–9.

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Figure 10a. Percentage of Adults with Diagnosed HIV Who Smoked Cigarettes During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

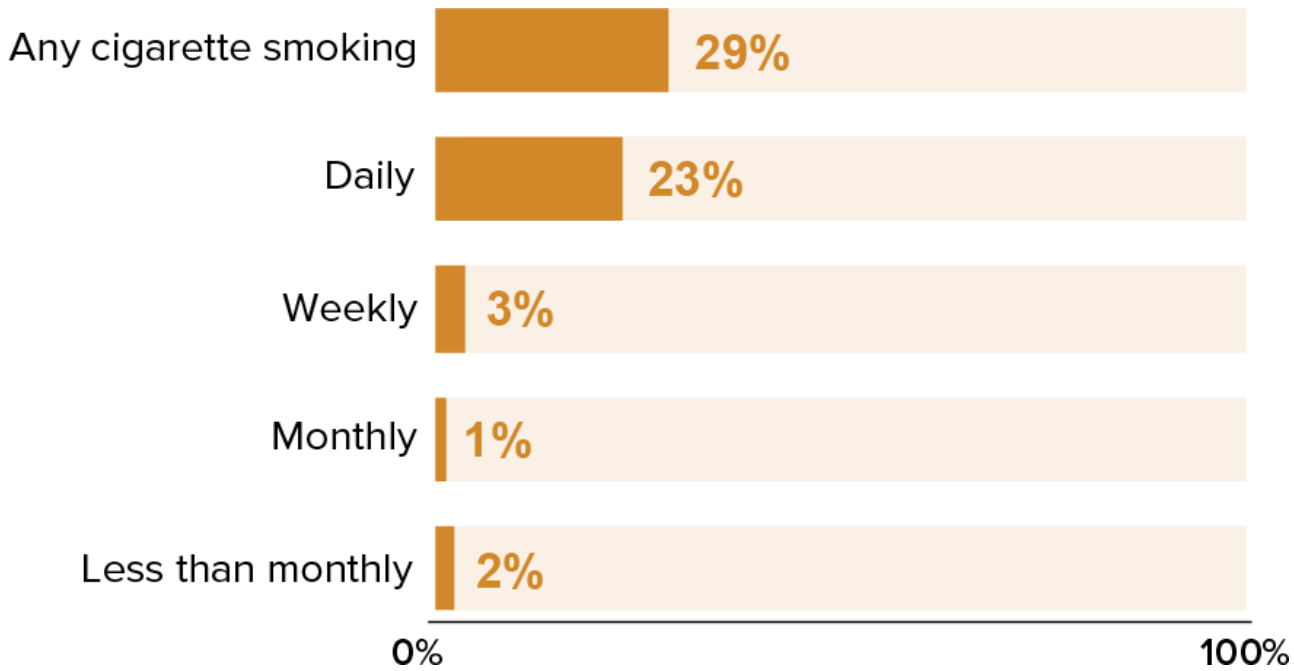

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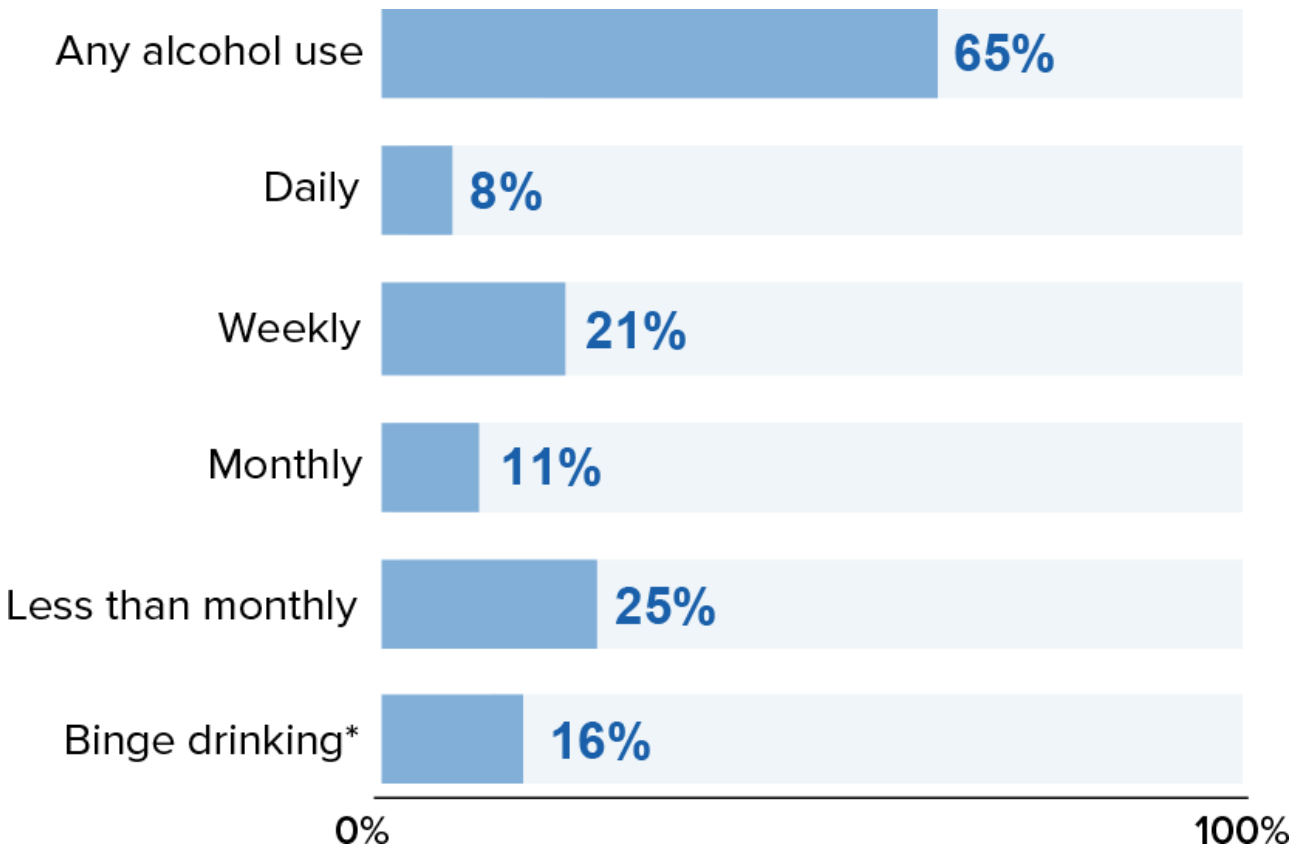
Figure 10b. Percentage of Adults with Diagnosed HIV Who Drank Alcohol During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



* Persons who drank ≥ 5 alcoholic beverages in a single sitting (≥ 4 for women) during the 30 days before interview.

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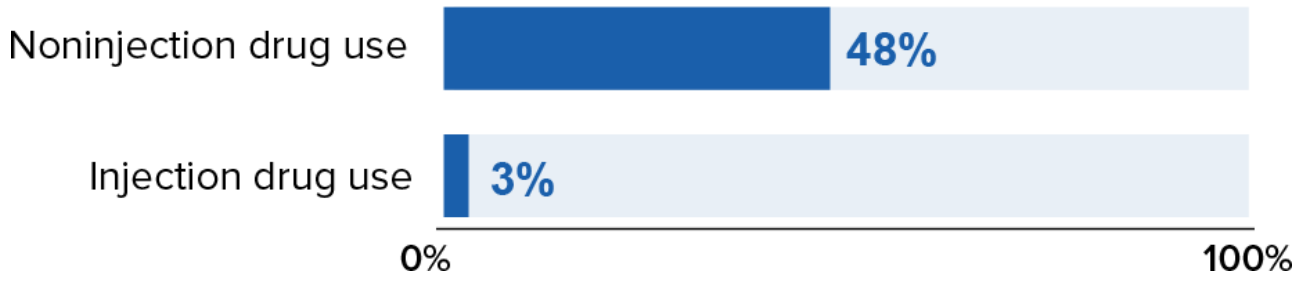
Figure 10c. Percentage of Adults with Diagnosed HIV Who Used Drugs for Nonmedical Purposes During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



* Includes all drugs that were not injected (i.e., administered by any route other than injection), including legal drugs that were not used for medical purposes, and vaping marijuana.

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Figure 11. Percentage of Cisgender Female Adults with Diagnosed HIV Who Had a Papanicolaou Test During the Three Years Before Interview Or Became Pregnant Since Receiving an HIV Diagnosis—Medical Monitoring Project, United States, 2021

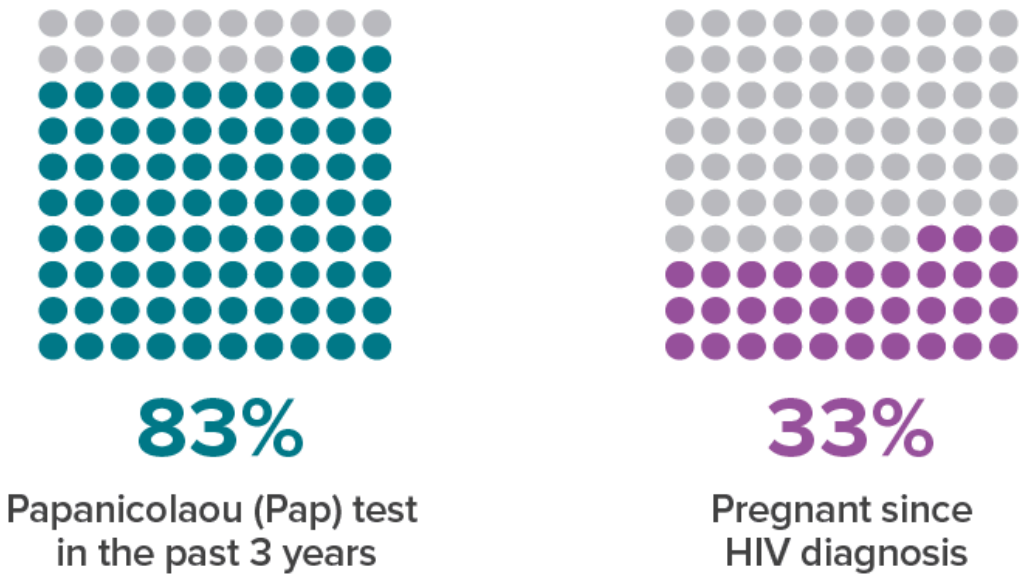

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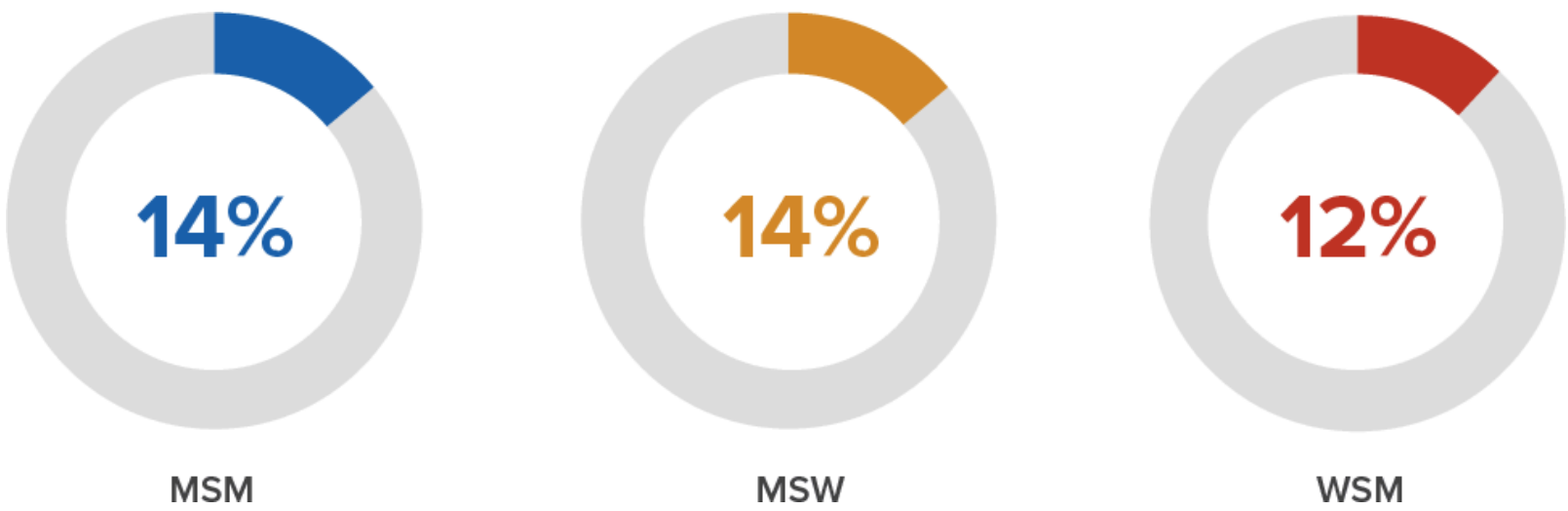
Figure 12. Percentage of Sexually Active Adults with Diagnosed HIV Who Engaged in Sex Without Using an HIV Prevention Strategy* During the 12 Months Before Interview, by Sexual Behavior/Orientation—Medical Monitoring Project, United States, 2021



Abbreviations. MSM=cisgender men who have sex with cisgender men; MSW=cisgender men who have sex only with cisgender women; WSM=cisgender women who have sex with cisgender men.

* Vaginal or anal sex with at least 1 HIV-negative or unknown status partner while not having sustained viral suppression (all viral load

measurements in the past 12 months undetectable or <200 copies/mL), when a condom was not used, and the partner was not known to be taking preexposure prophylaxis (PrEP).

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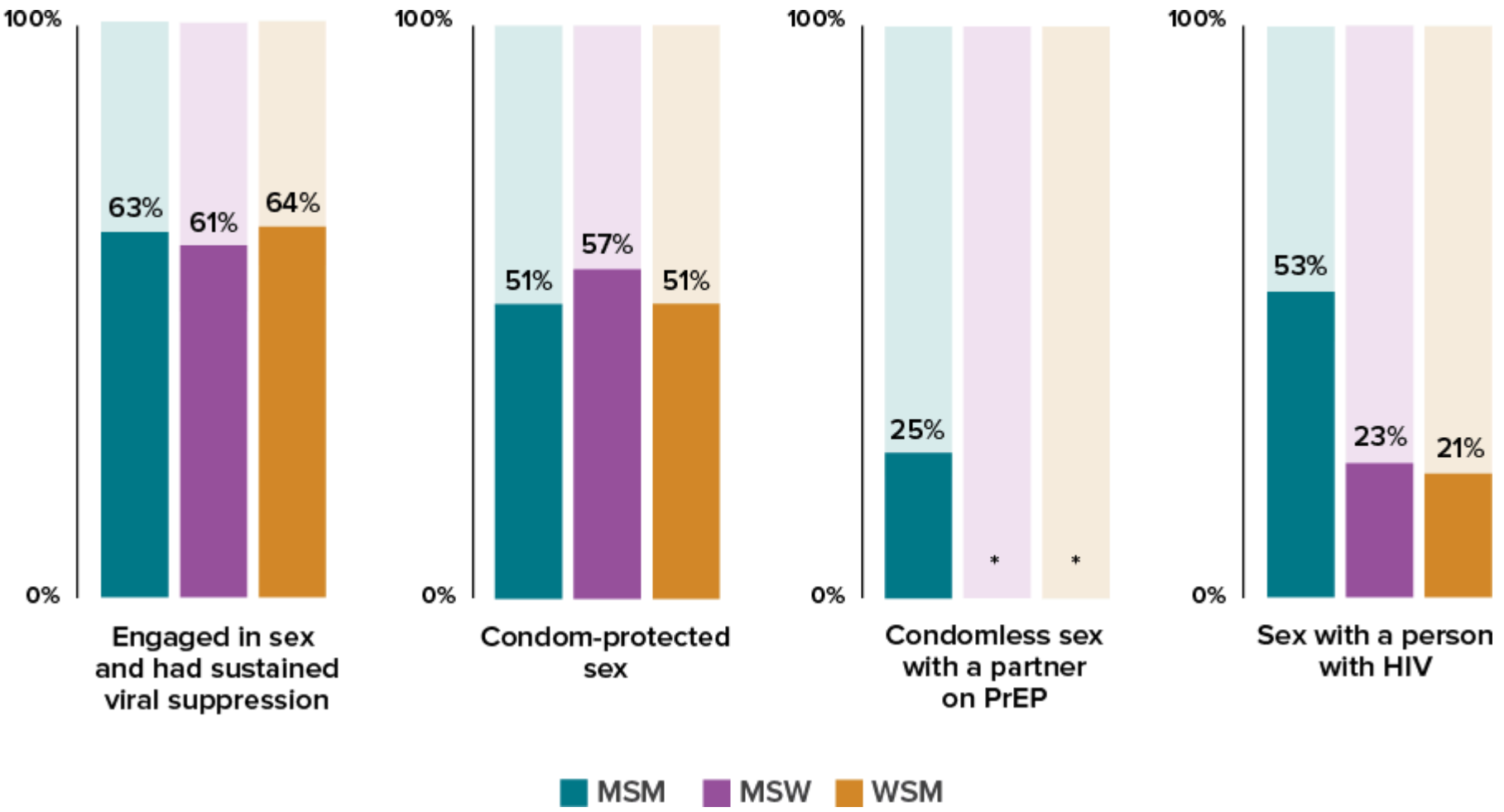
Figure 13. Prevention Strategies Used During the 12 Months Before Interview Among Sexually Active Persons with Diagnosed HIV, Including Cisgender Men Who Have Sex with Cisgender Men, Cisgender Men Who Have Sex with Only Cisgender Women, and Cisgender Women Who Have Sex with Cisgender Men—Medical Monitoring Project, United States, 2021



Abbreviations. MSM=cisgender men who have sex with cisgender men; MSW=cisgender men who have sex only with cisgender women; WSM=cisgender women who have sex with cisgender men.

* Estimate is unreliable and therefore suppressed due to having a coefficient of variation ≥0.30 or a denominator sample size <30.

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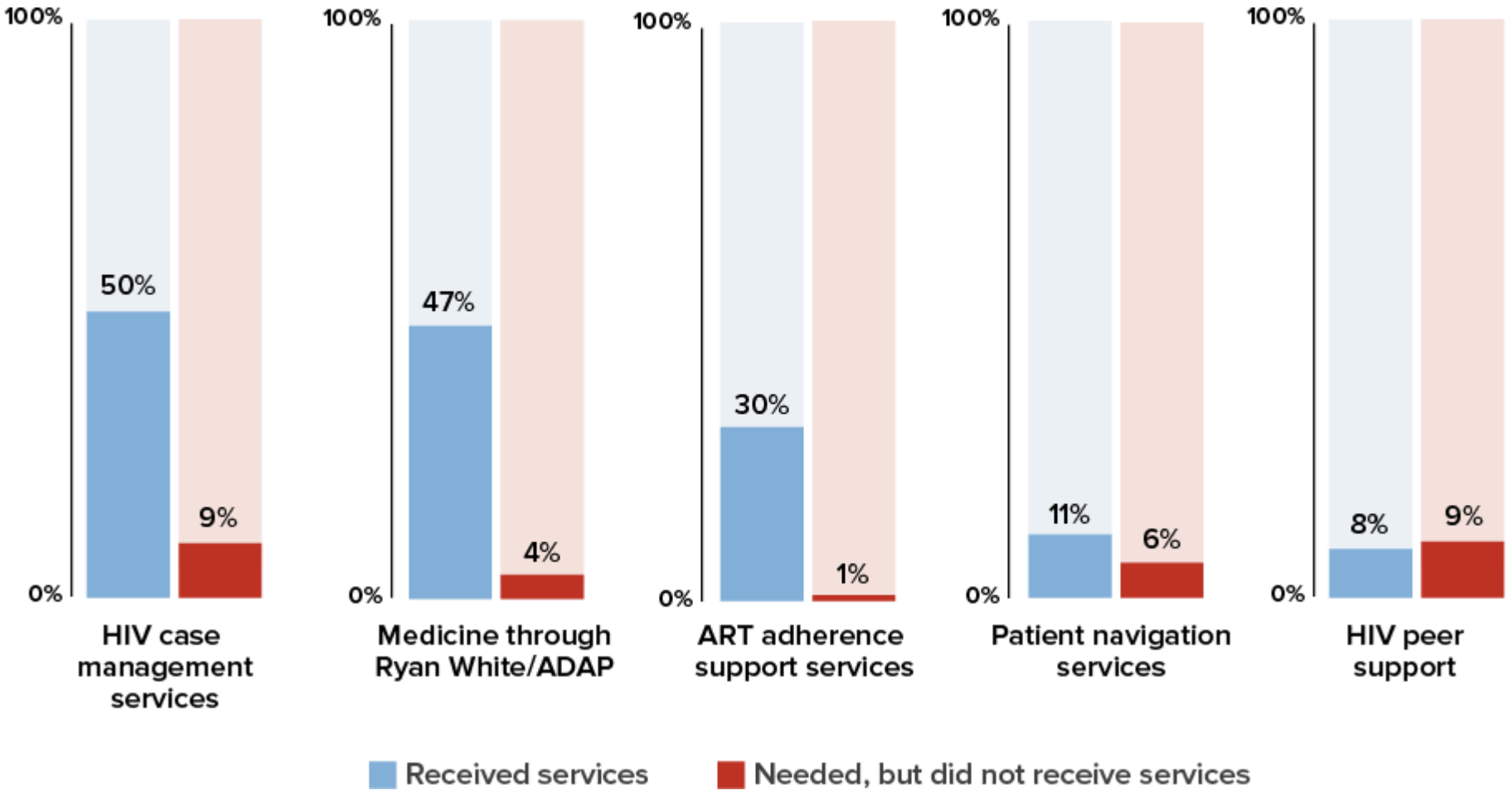
Figure 14a. Percentage of Adults with Diagnosed HIV Who Received, or Who Needed But Did Not Receive, Ancillary Services Related to HIV Support During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



Abbreviations. ADAP=AIDS Drug Assistance Program; ART=Antiretroviral Therapy.

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Figure 14b. Percentage of Adults with Diagnosed HIV Who Received, or Who Needed But Did Not Receive, Ancillary Services Related to Non-HIV Medical Services During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

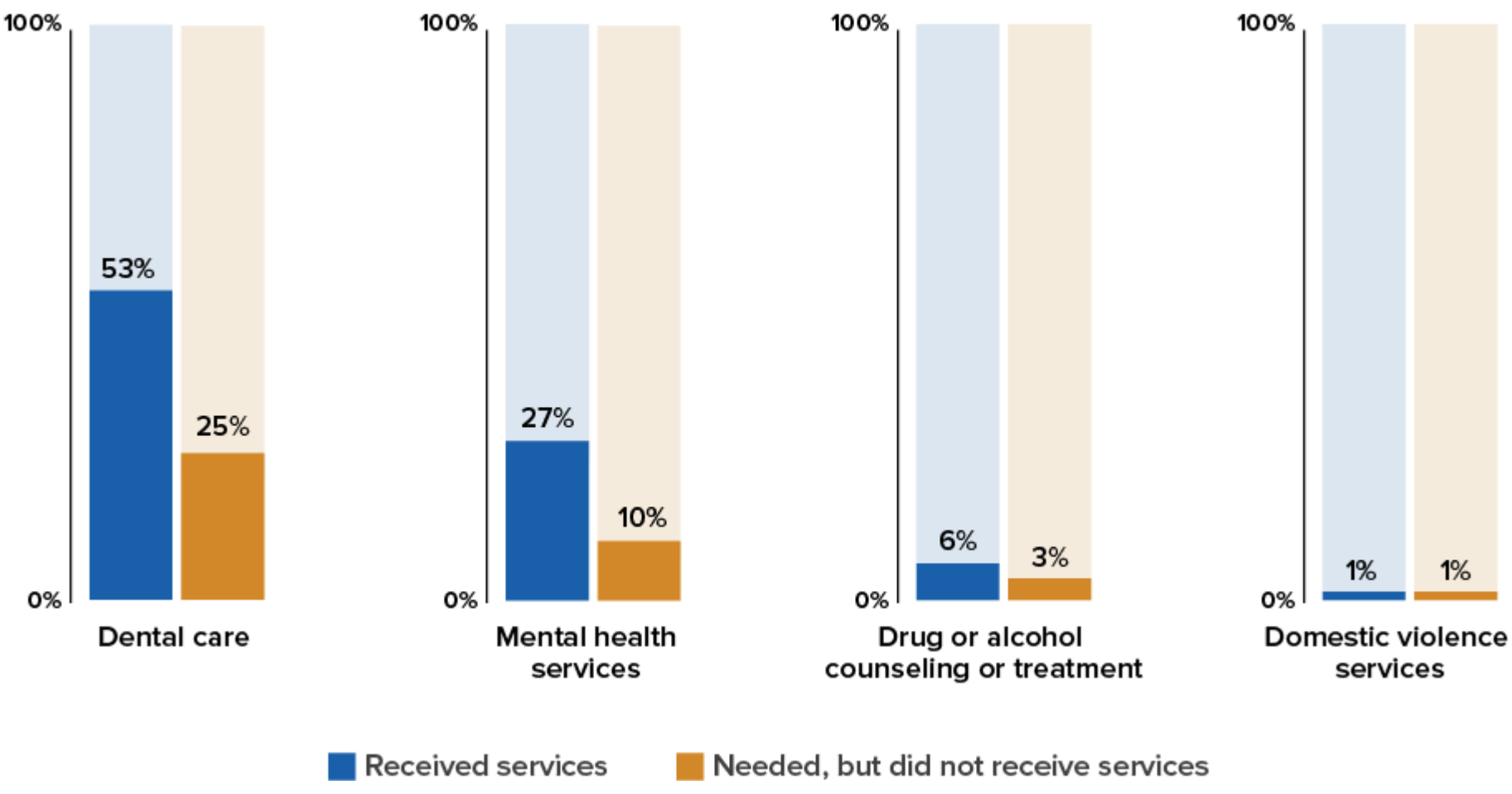

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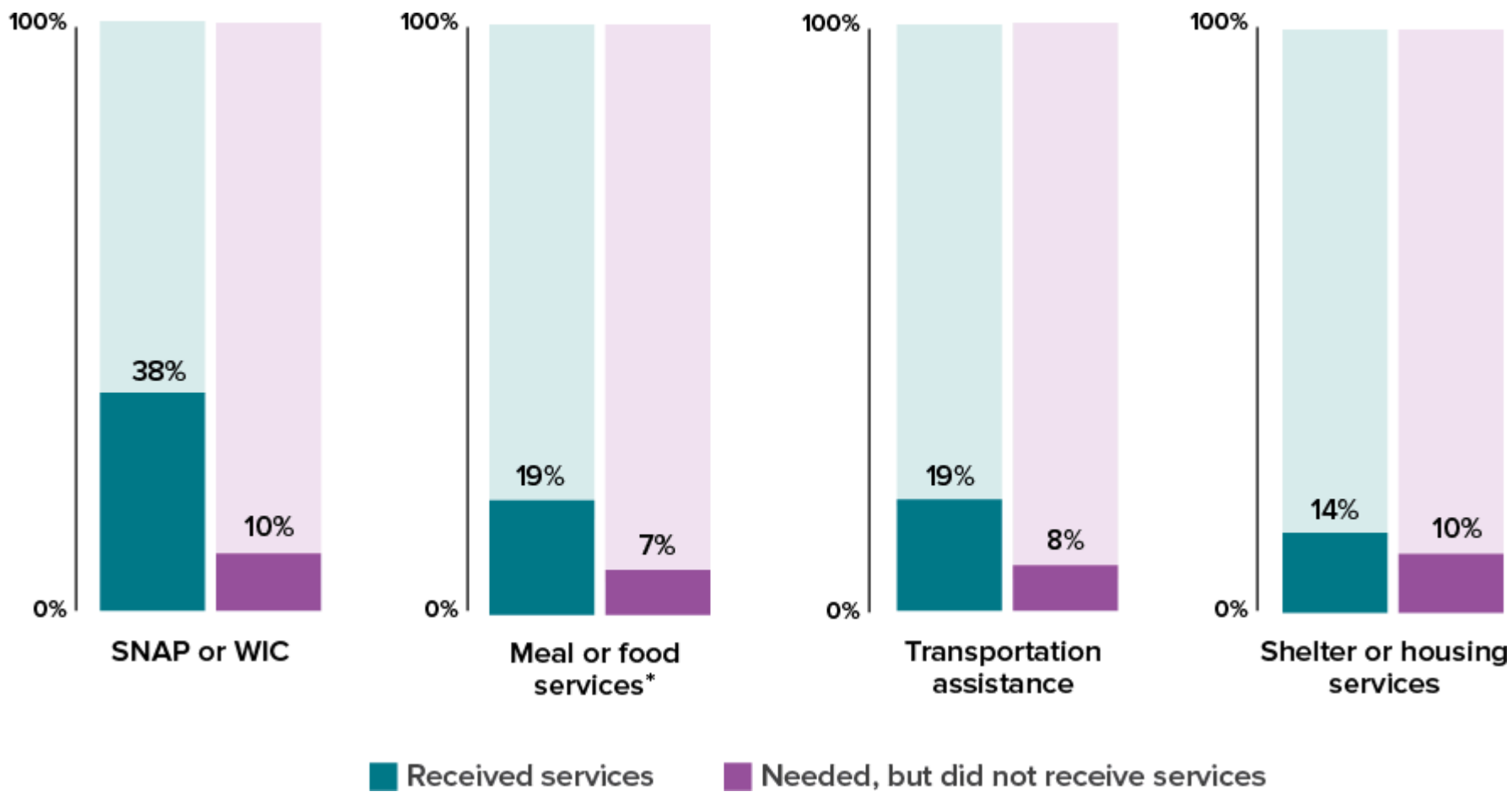
Figure 14c. Percentage of Adults with Diagnosed HIV Who Received, or Who Needed But Did Not Receive, Ancillary Services Related to Subsistence Services During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021



Abbreviations. SNAP=Supplemental Nutrition Assistance Program; WIC=Special Supplemental Nutrition Program for Women, Infants, and Children.

* Includes services such as soup kitchens, food pantries, church dinners, or food delivery services.

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Figure 15. Percentage of Adults with Diagnosed HIV Who Experienced Physical Violence by an Intimate Partner or Forced Sex During Their Lifetime or the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

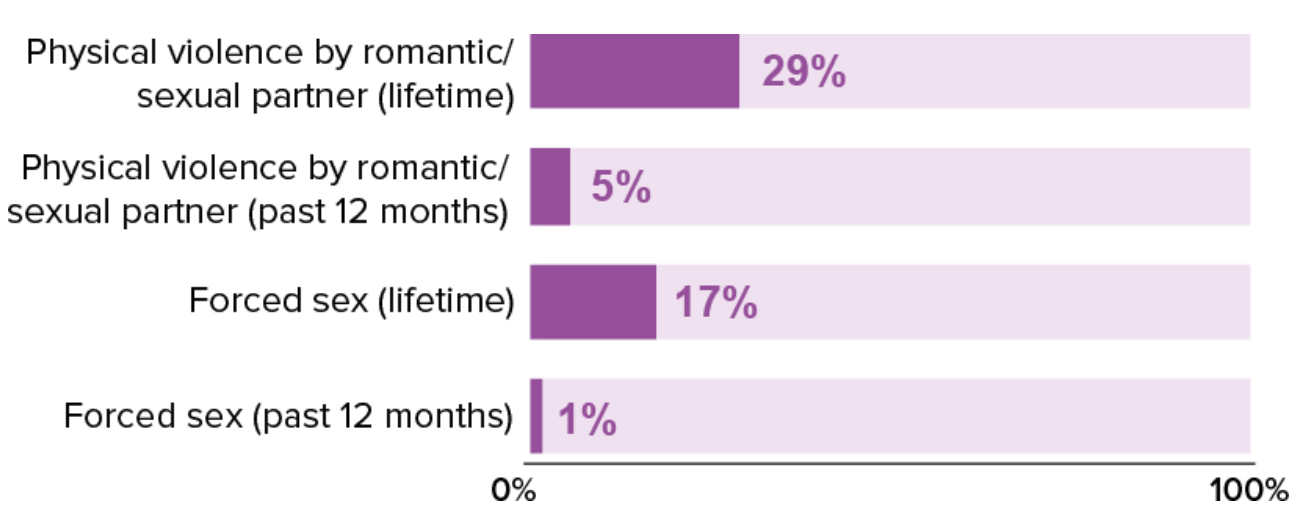

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Figure 16. Receipt of HIV or Sexually Transmitted Disease Prevention Services During the 12 Months Before Interview—Medical Monitoring Project, United States, 2021

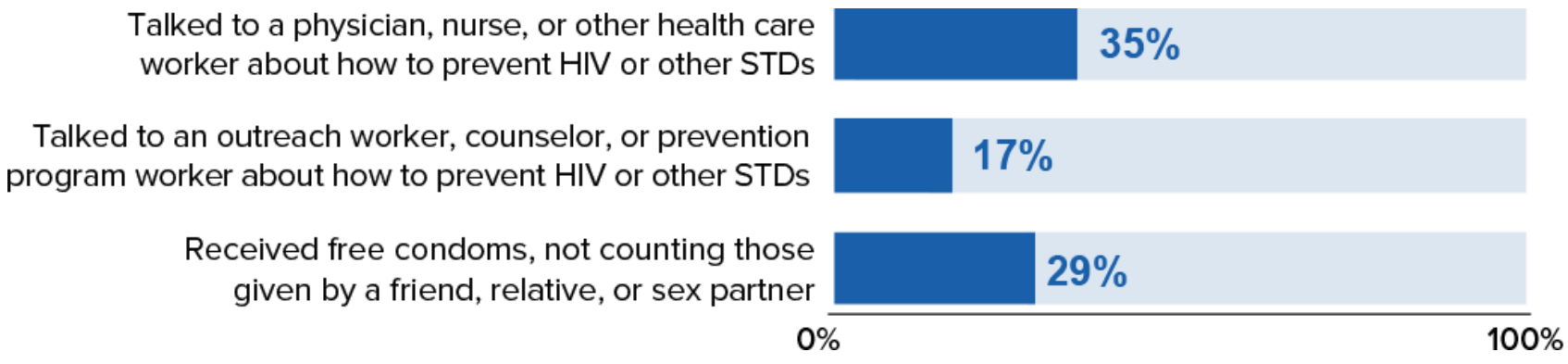

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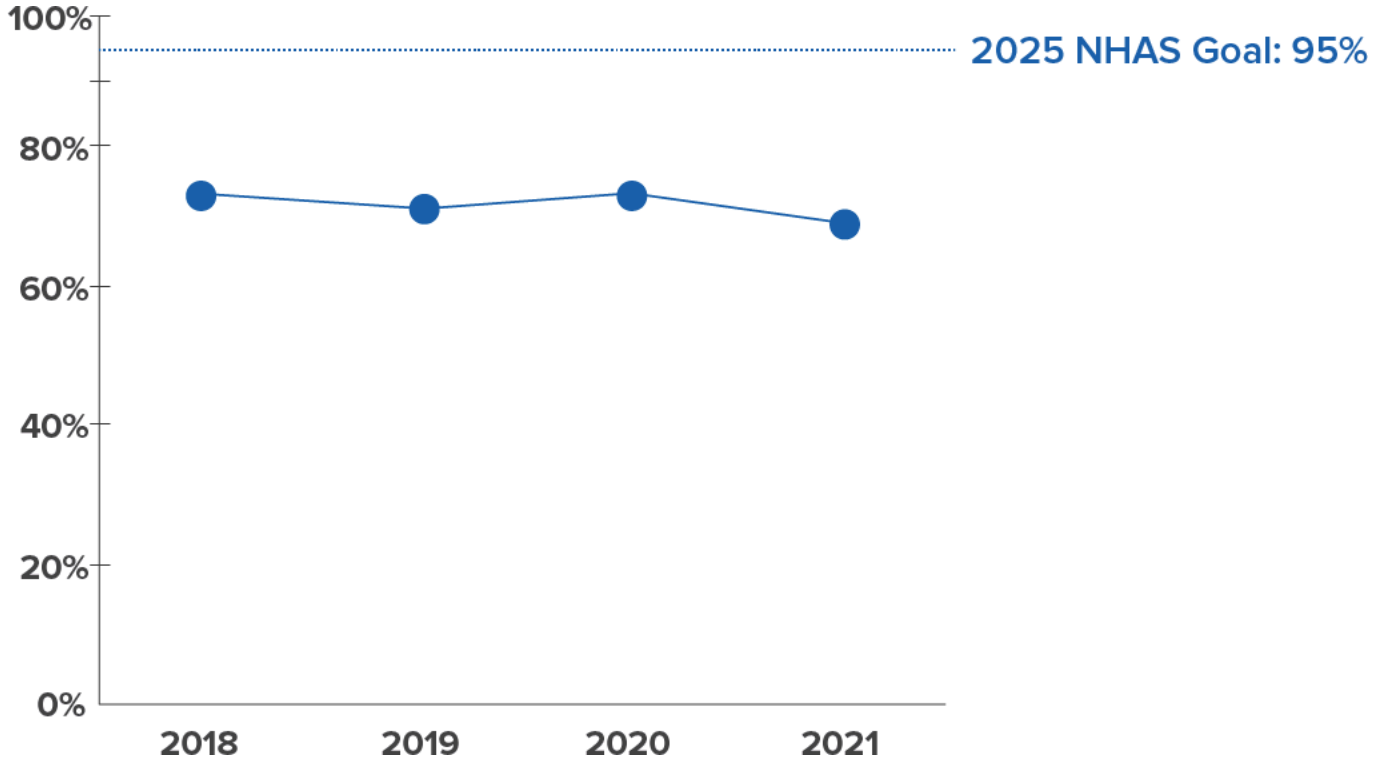
Figure 17. National HIV/AIDS Strategy Indicator: Good or Better Self-Rated Health* Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2018–2021



* “Good or better self-rated health” defined as rating one’s health as good, very good, or excellent (as opposed to poor or fair) at the time of interview.

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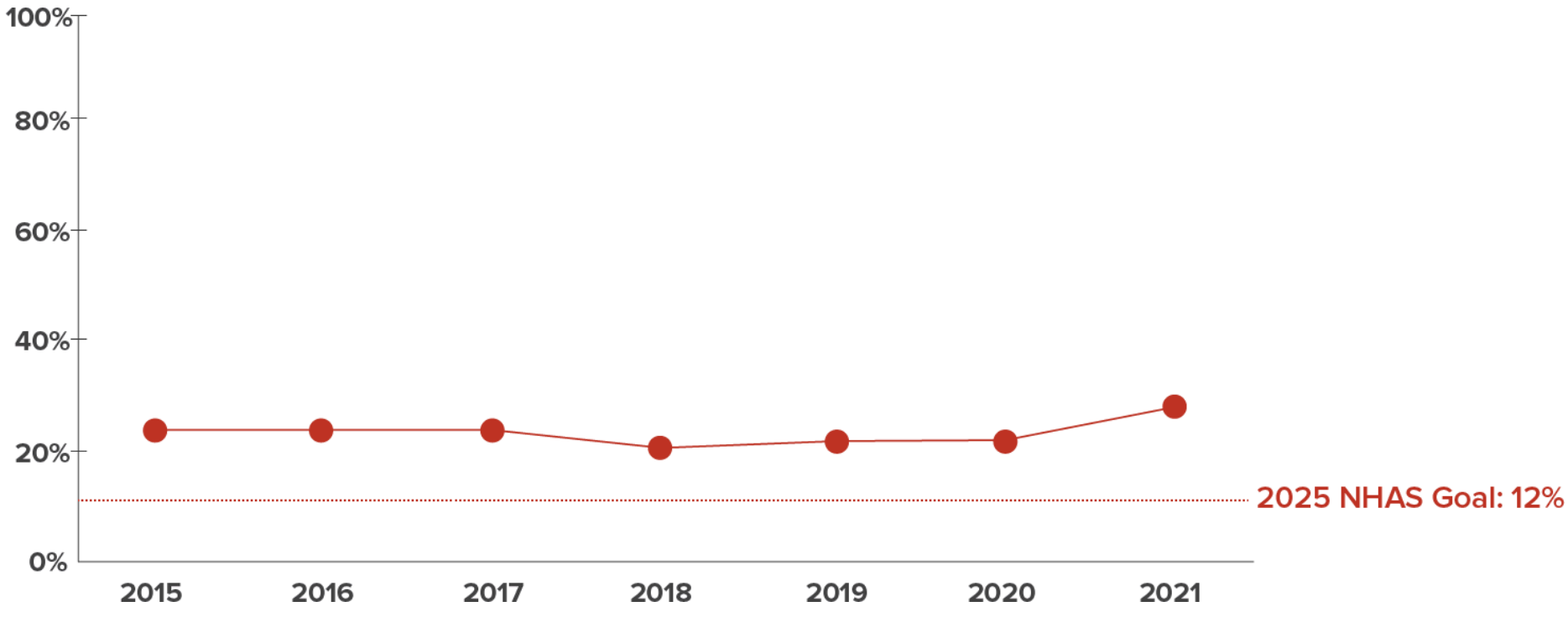
Figure 18. National HIV/AIDS Strategy Indicator: Unmet Needs for Mental Health Services* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2015–2021



* “Unmet need for mental health services from a mental health professional” defined as needing, but not receiving, services from a mental health professional among those who indicated needing mental health services (i.e., receiving or needing but not receiving) during the past 12 months.

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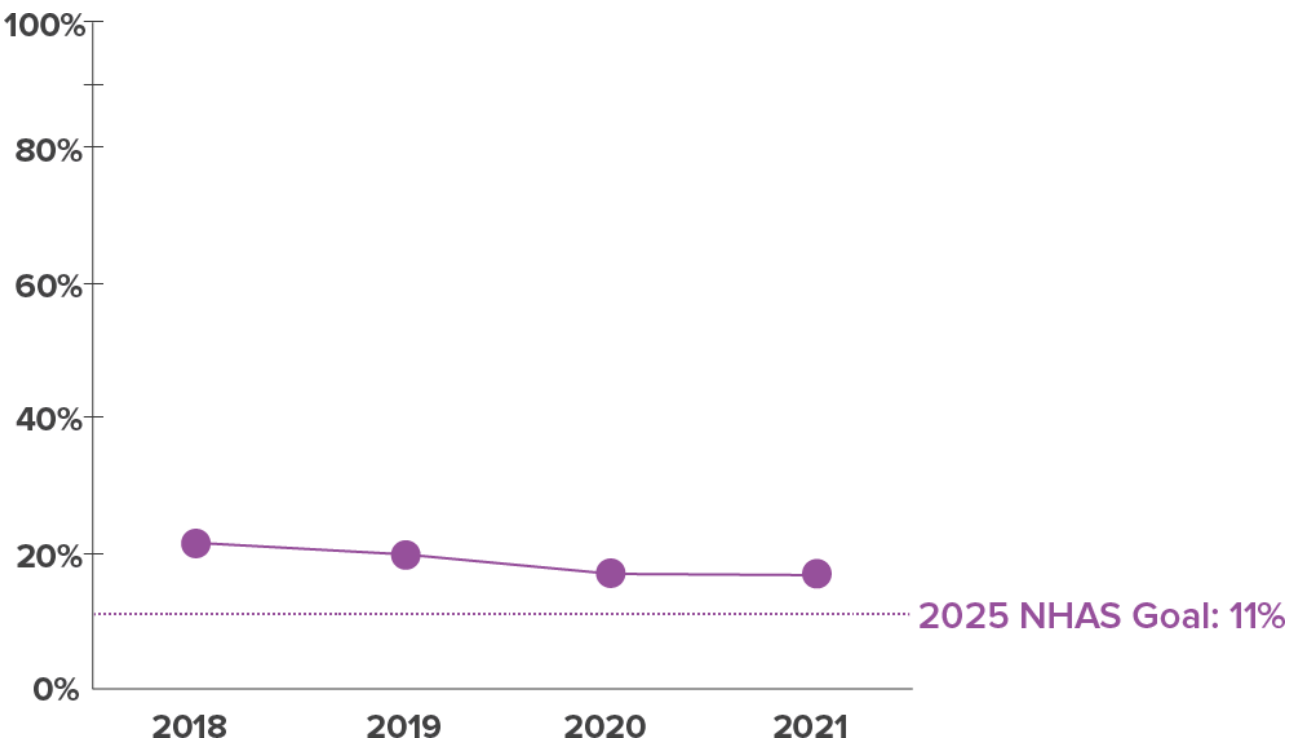
Figure 19. National HIV/AIDS Strategy Indicator: Unstable Housing or Homelessness* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2018–2021



* “Unstable housing or homelessness” defined as experiencing unstable housing (i.e., moving in with others due to financial issues, moving 2 or more times, or being evicted at any time) or homelessness (living on the street, in a shelter, in a single-room–occupancy hotel, or in a car at any time) during the past 12 months.

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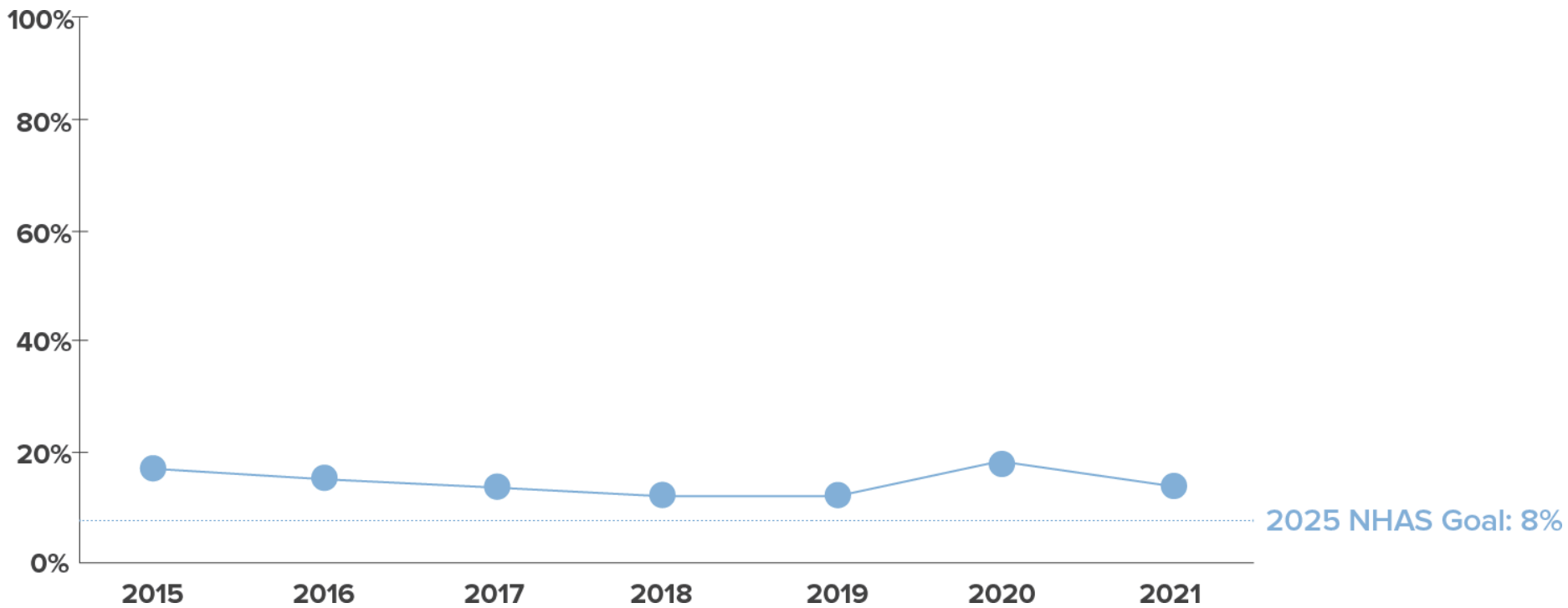
Figure 20. National HIV/AIDS Strategy Indicator: Unemployment* Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2015–2021



* Unemployed persons included those who reported being unemployed at the time of the interview.

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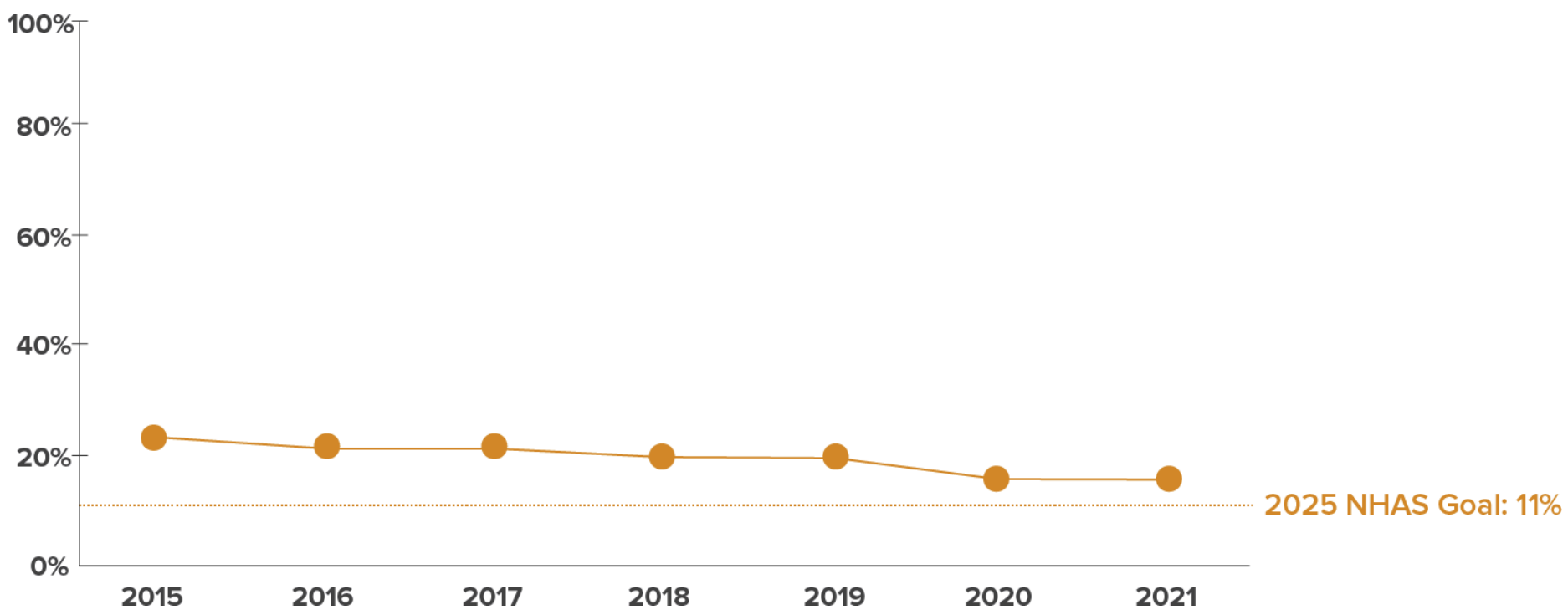
Figure 21. National HIV/AIDS Strategy Indicator: Hunger/Food Insecurity* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2015–2021



* “Hunger/food insecurity” defined as going without food due to lack of money during the past 12 months.

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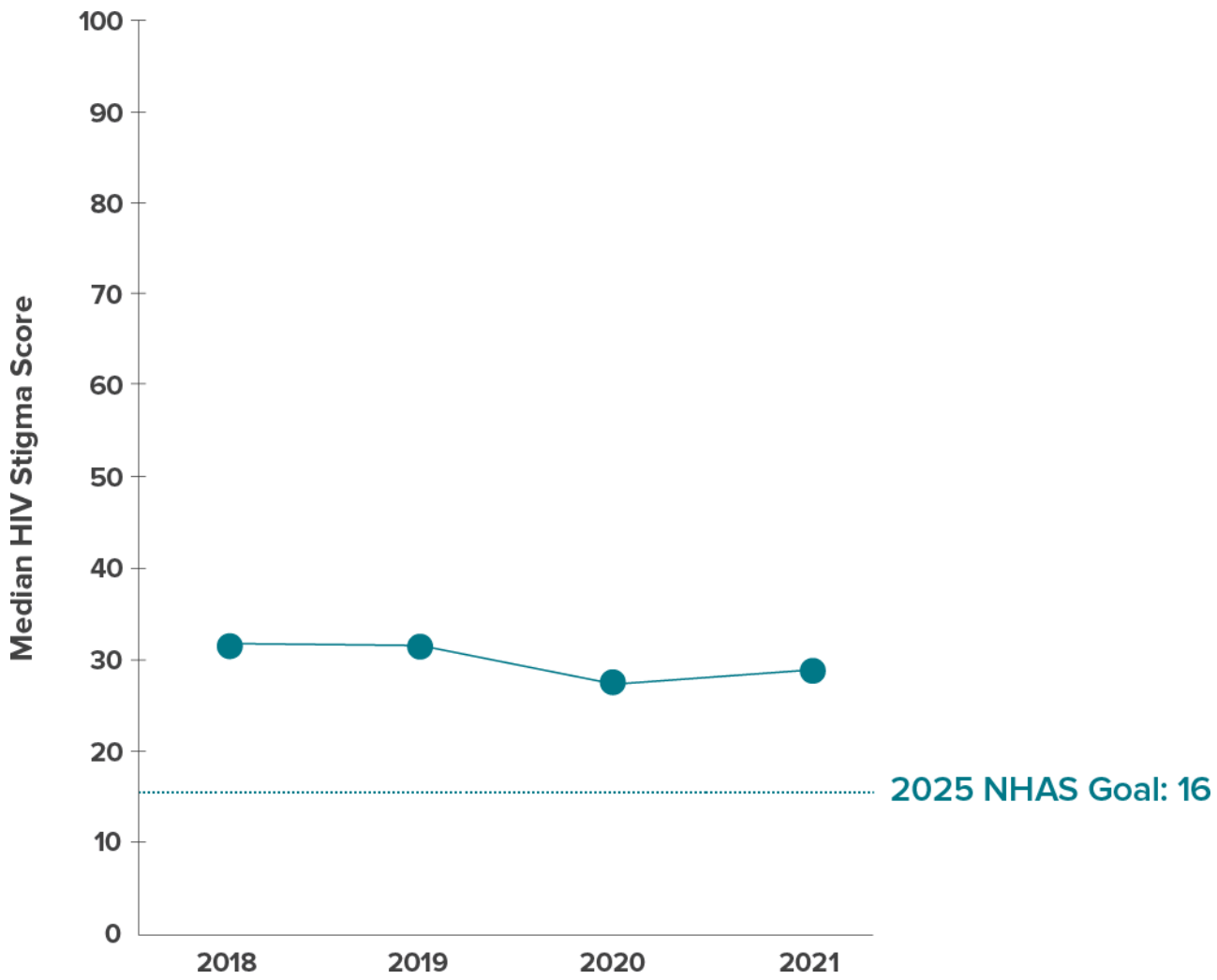
Figure 22. National HIV/AIDS Strategy Indicator: Median HIV Stigma Scores* During the 12 Months Before Interview Among Adults with Diagnosed HIV, By Cycle Year—Medical Monitoring Project, United States, 2018–2021



*"Median HIV stigma score" defined as the weighted median score on a 10-item scale ranging from 0 (no stigma) to 100 (high stigma) that measures 4 dimensions of HIV stigma: personalized stigma during the past 12 months, current disclosure concerns, current negative self-image, and current perceived public attitudes about people living with HIV, measured among persons aged ≥18 years with diagnosed HIV infection living in the United States and Puerto Rico.

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Behavioral and Clinical Characteristics of Persons with Diagnosed HIV Infection—Medical Monitoring Project, United States 2021 Cycle (June 2021–May 2022): Tables

Report Contents

Table 1. Distribution of participants across project areas—Medical Monitoring Project, United States, 2021

Project area	No. sampled	No. participating	% participating[a]	% of total
California (excluding Los Angeles County and San Francisco)	500	241	48.2	6.0
Chicago, IL	400	200	50.0	5.0
Delaware	400	195	48.8	4.9
Florida	800	244	30.5	6.1
Georgia	500	191	38.2	4.8
Houston, TX	400	171	42.8	4.3
Illinois (excluding Chicago)	200	91	45.5	2.3
Indiana	400	134	33.5	3.4
Los Angeles County, CA	400	181	45.3	4.5
Michigan	400	196	49.0	4.9
Mississippi	400	170	42.5	4.3

Project area	No. sampled	No. participating	% participating[a]	% of total
New Jersey	500	228	45.6	5.7
New York (excluding New York City)	200	89	44.5	2.2
New York City, NY	800	256	32.0	6.4
North Carolina	400	177	44.3	4.4
Oregon	400	185	46.3	4.6
Pennsylvania (excluding Philadelphia)	200	74	37.0	1.9
Philadelphia, PA	400	141	35.3	3.5
Puerto Rico	400	188	47.0	4.7
San Francisco, CA	400	157	39.3	3.9
Texas (excluding Houston)	400	180	45.0	4.5
Virginia	400	137	34.3	3.4
Washington	400	169	42.3	4.2
Total	9,700	3,995	41.2[b]	100

Note. Percentages might not sum to 100 because of rounding.
[a] Calculated by dividing number of participating respondents by the total number of persons sampled.
[b] The national response rate, which is calculated by dividing the total number of eligible respondents by the sum of total eligible respondents and noneligible respondents, is 43.59%.

Table 2. Selected characteristics, including demographic characteristics, social determinants of health, and quality of life, among persons with diagnosed HIV infection—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Demographic characteristics			
Age at time of interview (years)			
18–24	59	1.7	1.2–2.3
25–29	202	5.7	4.5–6.8
30–34	336	9.9	8.7–11.1
35–39	305	8.3	7.3–9.4
40–44	365	9.5	8.3–10.6
45–49	391	10.3	8.9–11.7
50–54	531	12.9	11.5–14.4
55–59	679	16.6	14.8–18.3
60–64	568	13.0	12.0–14.0
≥65	559	12.1	10.9–13.3
Race/ethnicity			
American Indian/Alaska Native	17	0.4	0.2–0.6
Asian	42	1.4	0.8–1.9
Black/African American	1,592	41.1	32.0–50.2
Hispanic/Latino[d]	992	24.2	16.8–31.6
Native Hawaiian/other Pacific Islander	—	—	—

	No.[a]	%[b]	95% CI[c]
White	1,165	28.0	22.4–33.5
Multiple races	179	4.7	3.7–5.8
Gender			
Cisgender male	2,918	74.8	71.6–78.0
Cisgender female	983	22.9	19.8–26.0
Transgender[e]	91	2.3	1.9–2.7
Sexual orientation			
Lesbian or gay	1,691	43.3	38.6–47.9
Heterosexual or straight	1,733	42.7	38.9–46.5
Bisexual	382	10.4	8.9–11.9
Other	126	3.6	3.0–4.1
Social determinants of health			
Economic stability			
Measures of housing instability			
Unstable housing at any time, past 12 months[f]			
Yes	563	14.8	13.1–16.6
No	3,418	85.2	83.4–86.9
Homeless at any time, past 12 months[g]			
Yes	302	7.7	6.8–8.6
No	3,683	92.3	91.4–93.2
Unstable housing or homelessness, past 12 months[h]			
Yes	651	17.0	15.3–18.6
No	3,330	83.0	81.4–84.7
Hunger/food insecurity[i]			
Yes	607	15.7	14.2–17.3
No	3,369	84.3	82.7–85.8
Employment status[j]			
Employed	1,897	48.6	46.3–50.9
Unemployed or unable to work	1,544	39.0	36.0–42.0
Student	39	1.2	0.6–1.8
Retired	495	11.2	9.4–12.9
Combined yearly household income (US$)k			
0–19,999	1,708	47.4	43.2–51.7
20,000–39,999	811	22.9	20.8–24.9
40,000–74,999	587	17.0	14.8–19.2
≥75,000	472	12.7	10.5–14.9
Household income with respect to poverty guidelines[l]			
<100% FPL	1,373	38.0	33.3–42.8
100–138% FPL	383	10.9	9.2–12.7

	No.[a]	%[b]	95% CI[c]
139–399% FPL	1,279	36.5	33.9–39.1
≥400% FPL	543	14.5	12.0–17.0
Received Supplemental Security Income (SSI), past 12 months			
Yes	669	16.0	14.2–17.9
No	3,251	84.0	82.1–85.8
Received Social Security Disability Insurance (SSDI), past 12 months			
Yes	778	19.1	17.4–20.7
No	3,142	80.9	79.3–82.6
Education			
Educational attainment			
Less than high school	583	14.9	12.4–17.4
High school diploma or GED	1,039	25.9	24.1–27.7
More than high school	2,354	59.2	56.0–62.5
Health-related factors			
Confidence in completing health forms			
Extremely	2,195	55.6	53.2–58.0
Quite a bit	822	20.3	18.2–22.5
Somewhat	502	12.8	11.6–14.1
A little bit	253	6.3	5.3–7.3
Not at all	197	4.9	4.1–5.8
Health insurance or coverage for care or medications (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months[m]			
Yes	3,912	98.8	98.3–99.4
No	32	1.2	0.6–1.7
Type of health insurance or coverage for care or medications, past 12 months[m]			
RWHAP assistance			
Yes	1,897	47.1	44.2–50.0
No	1,926	52.9	50.0–55.8
Medicaid			
Yes	1,705	43.4	39.9–46.9
No	2,164	56.6	53.1–60.1
Private health insurance[n]			
Yes	1,609	42.3	39.8–44.8
No	2,227	57.7	55.2–60.2
Medicare			
Yes	1,198	29.2	27.5–30.9
No	2,619	70.8	69.1–72.5
Other public insurance[o]			
Yes	—	—	—

	No.[a]	%[b]	95% CI[c]
No	—	—	—
Tricare/CHAMPUS or Veterans Administration			
Yes	121	3.8	2.8–4.9
No	3,685	96.2	95.1–97.2
Insurance type unknown[p]			
Yes	60	1.7	1.2–2.1
No	3,750	98.3	97.9–98.8
Uninsured[q]			
Yes	314	9.5	6.4–12.6
No	3,630	90.5	87.4–93.6
Self-rated health			
Poor	229	5.5	4.7–6.4
Fair	1,046	25.6	24.3–27.0
Good	1,332	33.9	32.3–35.5
Very good	872	22.1	20.4–23.8
Excellent	493	12.8	11.5–14.1
Any disability[r]			
Yes	1,674	40.6	38.4–42.9
No	2,303	59.4	57.1–61.6
Social and community context			
Country or territory of birth			
US state or territory	3,334	83.5	81.1–85.9
Outside the US and its territories	643	16.5	14.1–18.9
Incarcerated >24 hours, past 12 months			
Yes	93	2.8	2.2–3.5
No	3,886	97.2	96.5–97.8
Total	**3,995**	**100**	

Abbreviations: CI, confidence interval; GED, general educational development; FPL, federal poverty level; CHAMPUS, Civilian Health and Medical Program of the Uniformed Services; US$, US dollar; HHS, Department of Health and Human Services [footnotes only].

Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.

Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.

[a] Numbers are unweighted.

[b] Percentages are weighted percentages.

[c] CIs incorporate weighted percentages.

[d] Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

[e] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.

[f] Defined as moving in with others due to financial issues, moving 2 or more times, or being evicted at any time during the past 12 months.

[g] Defined as living on the street, in a shelter, in a single-room–occupancy hotel, or in a car at any time during the past 12 months.

[h] Defined as experiencing unstable housing (i.e., moving in with others due to financial issues, moving 2 or more times, or being evicted) or homelessness (living on the street, in a shelter, in a single-room–occupancy hotel, or in a car) at any time during the past 12 months.

[i] "Hunger/food insecurity" defined as going without food due to lack of money during the past 12 months.

[j] Employed included employed for wages, self-employed, or homemaker.

[k] Income from all sources, before taxes, in the last calendar year.

[l] Poverty guidelines as defined by HHS; the 2020 guidelines were used for persons interviewed in 2021 and the 2021 guidelines were used for persons interviewed in 2022. More information regarding HHS poverty guidelines can be found at https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty .

[m] Persons could select more than 1 response for health insurance or coverage for care or medications (including antiretroviral medications).
[n] Defined as receiving health insurance through a person's employer or a family member's employer or purchased through the Health Insurance Marketplace or directly from a health insurance company.
[o] Other public insurance included city, county, state, or other publicly funded insurance, not including Medicaid.
[p] Unknown insurance type means that the person had health insurance or coverage for care or medications (including antiretroviral medications), but the type of insurance or coverage could not be determined.
[q] Includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.
[r] Includes physical, mental, and emotional disabilities.

Table 3. Time since HIV diagnosis, stage of disease, CD4 counts, and viral suppression during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Time since HIV diagnosis (years)[d]			
<5	482	13.2	11.6–14.8
5–9	662	17.6	16.2–19.0
≥10	2,846	69.2	67.4–71.0
HIV infection stage 3 (AIDS)[e]			
Yes	2,188	53.1	51.1–55.0
No	1,806	46.9	45.0–48.9
Geometric mean CD4 count (cells/µL)			
0–199	203	7.0	5.9–8.2
200–349	291	9.6	8.1–11.0
350–499	496	16.8	15.2–18.4
≥500	2,004	66.5	63.9–69.2
Lowest CD4 count (cells/µL), past 12 months			
0–49	70	2.5	1.3–3.6
50–199	178	6.2	5.2–7.1
200–349	357	11.6	10.2–13.1
350–499	562	18.9	17.1–20.6
≥500	1,829	60.9	58.0–63.7
Viral suppression			
Most recent viral load documented undetectable or <200 copies/mL	2,870	66.2	63.7–68.7
Most recent viral load documented detectable, ≥200 copies/mL, or missing/unknown	1,125	33.8	31.3–36.3
Sustained viral suppression			
All viral load measurements documented undetectable or <200 copies/mL	2,705	62.4	60.2–64.6
Any viral load ≥200 copies/mL or missing/unknown	1,290	37.6	35.4–39.8
Total	**3,995**	**100**	

Abbreviations: CD4, CD4 T-lymphocyte count (cells/µL); CI, confidence interval; CDC, Centers for Disease Control and Prevention [footnotes only].
Source of disease stage information: CDC. Revised surveillance case definition for HIV infection–United States, 2014. MMWR 2014;63(RR-03):1–10. https://www.cdc.gov/mmwr/indrr_2014.html. Accessed July 21, 2023.
Note. CD4 counts and viral load measurements are from medical record abstraction. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.

[d] Determined based on date of HIV diagnosis from the National HIV Surveillance System.
[e] HIV infection, stage 3 (AIDS): documentation of an AIDS-defining condition or either a CD4 count of <200 cells/μL or a CD4 percentage of total lymphocytes of <14. Documentation of an AIDS-defining condition supersedes a CD4 count or percentage that would not, by itself, be the basis for a stage 3 (AIDS) classification.

Table 4. Receipt of HIV care, ART prescription, PCP prophylaxis, and influenza vaccination among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Ever received outpatient HIV care[d]			
Yes	—	—	—
No	—	—	—
Received outpatient HIV care, past 12 months[d]			
Yes	3,887	94.9	93.3–96.5
No	106	5.1	3.5–6.7
Received outpatient HIV care, past 24 months[d]			
Yes	3,946	97.9	97.1–98.7
No	38	2.1	1.3–2.9
Retained in care, past 12 months[e]			
Yes	2,964	71.2	68.1–74.3
No	880	28.8	25.7–31.9
Retained in care, past 24 months[e]			
Yes	2,095	51.1	47.3–54.8
No	1,742	48.9	45.2–52.7
Missed ≥1 HIV care visits, past 12 months			
Yes	756	19.4	17.7–21.0
No	3,198	80.6	79.0–82.3
Prescribed ART, past 12 months[f]			
Yes	3,361	80.4	78.1–82.7
No	634	19.6	17.3–21.9
Prescribed PCP prophylaxis, past 12 months[g]			
Yes	66	28.5	21.4–35.6
No	157	71.5	64.4–78.6
Received influenza vaccination, past 12 months			
Yes	2,833	69.5	67.1–71.9
No	1,115	30.5	28.1–32.9
Total	**3,995**	**100**	

Abbreviations: CI, confidence interval; ART, antiretroviral therapy; PCP, *Pneumocystis* pneumonia; MAC, *Mycobacterium avium* complex [footnotes only]; CD4, CD4 T-lymphocyte count (cells/μL) [footnotes only].
Note. CD4 counts, viral load measurements, and prophylaxes are from medical record abstraction. Influenza vaccination was obtained through interview. Measurement period is the 12 months before interview unless otherwise noted.
Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.

[c] CIs incorporate weighted percentages.
[d] Outpatient HIV care was defined as any documentation of the following: encounter with an HIV care provider, viral load test result, CD4 test result, HIV resistance test or tropism assay, ART prescription, PCP prophylaxis, or MAC prophylaxis.
[e] Two elements of outpatient HIV care at least 90 days apart in each 12-month period.
[f] ART prescription documented in medical record; persons with no medical record abstraction were considered to have no documentation of ART prescription.
[g] Among persons with CD4 cell counts <200 cells/mm^3.

Table 5. Sexually transmitted infection testing during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	Total population			Sexually active[a] persons only		
	No.[b]	col %[c]	95% CI[d]	No.[b]	col %[c]	95% CI[d]
Gonorrhea[e]						
Yes, received test	1,570	41.1	37.3–44.9	1,020	48.6	45.0–52.2
No test documented	2,121	58.9	55.1–62.7	973	51.4	47.8–55.0
Chlamydia[f]						
Yes, received test	1,581	41.3	37.3–45.3	1,025	48.8	44.7–52.8
No test documented	2,110	58.7	54.7–62.7	968	51.2	47.2–55.3
Syphilis[g]						
Yes, received test	2,162	56.6	54.2–59.0	1,279	61.6	58.6–64.7
No test documented	1,529	43.4	41.0–45.8	714	38.4	35.3–41.4
Gonorrhea, chlamydia, and syphilis						
Yes, received all 3 tests	1,354	35.5	32.4–38.7	886	42.4	38.8–46.0
Fewer than 3 tests documented	2,337	64.5	61.3–67.6	1,107	57.6	54.0–61.2
Total	**3,995**	**100**		**2,161**	**100**	

Abbreviations: CI, confidence interval; DFA, direct fluorescent antibody [footnotes only]; EIA, enzyme immunoassay [footnotes only]; ELISA, enzyme-linked immunoassay [footnotes only]; FTA-ABS, fluorescent treponemal antibody absorbed [footnotes only]; MHA-TP, microhemagglutination assay for antibody to *Treponema pallidum* [footnotes only]; NAAT, nucleic acid amplification test [footnotes only]; RPR, rapid plasma reagin [footnotes only]; TP-PA, *T. pallidum* particle agglutination [footnotes only]; TPHA, *T. pallidum* hemagglutination assay [footnotes only]; VDRL, Venereal Disease Research Laboratory [footnotes only].
Note. Information on laboratory testing for sexually transmitted infections was based on medical record abstraction.
Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Sexual activity was reported in the interview component of the Medical Monitoring Project and was defined as anal or vaginal intercourse during the 12 months prior to interview.
[b] Numbers are unweighted.
[c] Percentages are weighted percentages.
[d] CIs incorporate weighted percentages.
[e] Testing for *Neisseria gonorrhoeae* was defined as documentation of a result from culture, DFA, gram stain, EIA or ELISA, NAAT, or nucleic acid probe performed on a specimen from any anatomical site for screening or diagnostic purposes.
[f] *Chlamydia trachomatis* testing was defined as a result from DFA, EIA or ELISA, NAAT, or nucleic acid probe performed on a specimen from any anatomical site for screening or diagnostic purposes.
[g] Syphilis testing was defined as a result from nontreponemal syphilis tests (RPR or VDRL), treponemal syphilis tests (TPHA, TP-PA, MHA-TP, or FTA-ABS tests), or dark-field microscopy performed for screening or diagnostic purposes.

Table 6. Emergency department visits and hospital admissions during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Number of visits to emergency department			
0	2,501	63.5	61.4–65.5

	No.[a]	%[b]	95% CI[c]
1	693	17.1	16.0–18.2
2–4	610	15.1	13.6–16.6
≥5	169	4.4	3.2–5.6
Number of hospital admissions			
0	3,283	83.3	81.9–84.8
1	377	9.3	8.3–10.2
2–4	254	6.1	5.1–7.1
≥5	53	1.3	0.8–1.9
Total	**3,995**	**100**	

Abbreviation: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.

Table 7. Antiretroviral therapy (ART) use and reasons for not taking ART among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Ever taken ART			
Yes	3,926	98.4	97.9–99.0
No	40	1.6	1.0–2.1
Currently taking ART			
Yes	3,837	94.9	93.8–95.9
No	127	5.1	4.1–6.2
Reasons for never taking ART[d]			
Health care provider said person should not start taking ART			
Yes	10	37.5*	15.9–59.0
No	11	62.5*	41.0–84.1
Person thinks ART would make them feel sick or harm them			
Yes	7	36.4*	15.6–57.3
No	20	63.6*	42.7–84.4
Person did not believe they needed ART			
Yes	—	—	—
No	—	—	—
Health care provider never discussed taking ART with person			
Yes	—	—	—
No	—	—	—
Money or insurance problems			
Yes	—	—	—

	No.[a]	%[b]	95% CI[c]
No	—	—	—
Reasons for not currently taking ART, among those persons with a history of ART use[d]			
Money or insurance problems			
Yes	33	41.1	29.2–53.0
No	53	58.9	47.0–70.8
Person thinks ART would make them feel sick or harm them			
Yes	18	25.5	12.6–38.4
No	69	74.5	61.6–87.4
Person did not believe they needed ART			
Yes	16	21.4	10.4–32.3
No	68	78.6	67.7–89.6
Health care provider never discussed restarting ART with person			
Yes	—	—	—
No	—	—	—
Health care provider said person should not take ART			
Yes	—	—	—
No	—	—	—
Total	**3,995**	**100**	

Abbreviation: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
Estimates with an absolute CI width >30, estimates with an absolute CI width between 5 and 30 and a relative CI width >130%, and estimates of 0% or 100% are marked with an asterisk (*) and should be interpreted with caution.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Persons could select more than 1 response for reasons not taking ART.

Table 8. Antiretroviral therapy (ART) adherence and reasons for missing ART doses among persons with diagnosed HIV taking ART—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
ART adherence in the past 30 days			
How many days did you miss at least 1 dose of any of your HIV medicines?			
0	2,415	63.1	61.6–64.6
1–2	935	24.1	22.6–25.5
3–5	311	8.1	7.0–9.2
6–10	106	3.2	2.5–3.8
≥11	55	1.6	1.2–2.0
How well did you do at taking your HIV medicines in the way you were supposed to?			
Very poor	56	1.7	1.2–2.3
Poor	33	0.8	0.6–1.1

	No.[a]	%[b]	95% CI[c]
Fair	164	4.5	3.7–5.3
Good	378	10.0	8.0–12.0
Very good	937	25.0	23.3–26.8
Excellent	2,264	58.0	55.9–60.0
How often did you take your HIV medicines in the way you were supposed to?			
Never	23	0.6	0.3–1.0
Rarely	34	1.1	0.7–1.6
Sometimes	73	2.2	1.6–2.8
Usually	144	3.7	3.0–4.3
Almost always	814	21.1	19.9–22.4
Always	2,742	71.3	69.8–72.8
How often were you troubled by ART side effects?			
Never	3,074	80.0	78.4–81.5
Rarely	433	11.8	10.8–12.9
About half of the time	154	4.3	3.6–5.0
Most of the time	77	2.0	1.3–2.6
Always	76	1.9	1.4–2.4
Reasons for last missed ART dose among persons who ever missed a dose[d]			
Forgot to take HIV medicines			
Yes	927	65.4	62.7–68.1
No	479	34.6	31.9–37.3
Change in daily routine or were out of town			
Yes	576	41.6	38.4–44.8
No	830	58.4	55.2–61.6
Fell asleep early or overslept			
Yes	557	40.3	36.0–44.7
No	849	59.7	55.3–64.0
Felt depressed or overwhelmed			
Yes	241	16.9	14.5–19.3
No	1,164	83.1	80.7–85.5
Had a problem getting a prescription or a refill for HIV medicines			
Yes	223	16.4	14.3–18.4
No	1,183	83.6	81.6–85.7
Did not feel like taking HIV medicines			
Yes	165	12.1	9.8–14.3
No	1,238	87.9	85.7–90.2
Was drinking or using drugs			
Yes	153	10.7	8.6–12.9
No	1,252	89.3	87.1–91.4

	No.[a]	%[b]	95% CI[c]
Had side effects from your HIV medicines			
Yes	86	6.7	5.2–8.2
No	1,318	93.3	91.8–94.8
In the hospital or too sick to take HIV medicines			
Yes	100	6.5	4.3–8.7
No	1,306	93.5	91.3–95.7
Had a problem paying for HIV medicines			
Yes	50	3.6	2.6–4.7
No	1,357	96.4	95.3–97.4
Total	**3,837**	**100**	

Abbreviation: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Persons could report more than 1 reason for missed last dose.

Table 9a. Antiretroviral therapy (ART) prescription, ART dose adherence, sustained viral suppression, and geometric mean CD4 count among persons with diagnosed HIV, by selected demographic characteristics—Medical Monitoring Project, United States, 2021

	Prescription of ART[a]			ART dose adherence[b]		
	No.[e]	Row %[f]	95% CI[g]	No.[e]	Row %[f]	95% CI[g]
Gender						
Cisgender male	2,454	80.3	77.5–83.0	1,773	63.1	61.4–64.8
Cisgender female	831	80.9	77.4–84.3	595	64.1	60.6–67.6
Transgender[h]	74	79.3	71.2–87.5	46	52.0	38.5–65.4
Sexual orientation						
Lesbian or gay	1,442	81.2	78.7–83.8	1,035	62.7	60.2–65.3
Heterosexual or straight	1,451	80.2	77.3–83.1	1,085	66.4	63.7–69.2
Bisexual	318	79.1	74.2–84.0	205	56.2	50.7–61.8
Other	102	76.1	64.5–87.7	61	48.2	40.1–56.2
Race/ethnicity						
American Indian/Alaska Native	—	—	—	—	—	—
Asian	36	85.7	72.8–98.6	31	79.1*	61.1–97.1
Black/African American	1,313	78.5	74.8–82.2	903	59.6	56.4–62.8
Hispanic/Latino[i]	842	80.8	77.5–84.2	589	62.3	58.7–66.0
Native Hawaiian/other Pacific Islander	—	—	—	—	—	—
White	996	82.6	79.5–85.8	776	69.0	66.4–71.5
Multiple races	150	76.7	66.3–87.2	102	57.4	49.3–65.5
Age at time of interview (years)						

	Prescription of ART[a]			ART dose adherence[b]		
	No.[e]	Row %[f]	95% CI[g]	No.[e]	Row %[f]	95% CI[g]
18–29	207	72.8	66.2–79.4	108	44.3	38.0–50.7
30–39	529	77.4	73.2–81.7	317	53.5	49.1–57.8
40–49	630	80.0	76.7–83.3	428	60.5	56.5–64.6
>50	1,995	82.5	80.2–84.8	1,562	69.3	67.3–71.4
Total	**3,361**	**80.4**	**78.1–82.7**	**2,415**	**63.1**	**61.6–64.6**

	Sustained viral suppression[c]			Geometric mean CD4 count ≥200[d]		
	No.[e]	Row %[f]	95% CI[g]	No.[e]	Row %[f]	95% CI[g]
Gender						
Cisgender male	1,976	62.3	59.9–64.7	2,035	93.0	91.7–94.3
Cisgender female	671	63.3	58.6–67.9	692	93.1	91.4–94.9
Transgender[h]	57	56.8	42.9–70.7	63	90.9	83.1–98.6
Sexual orientation						
Lesbian or gay	1,175	63.3	60.1–66.4	1,202	94.5	93.0–96.0
Heterosexual or straight	1,164	62.1	58.3–65.9	1,203	91.4	90.0–92.8
Bisexual	246	59.9	54.6–65.1	264	93.7	90.5–96.9
Other	86	65.4	54.2–76.6	84	92.8	85.8–99.7
Race/ethnicity						
American Indian/Alaska Native	—	—	—	—	—	—
Asian	32	67.1*	48.3–85.9	29	94.0	86.7–100.0
Black/African American	1,006	59.1	55.3–62.9	1,102	92.3	90.8–93.8
Hispanic/Latino[i]	704	65.5	60.5–70.6	703	92.7	90.2–95.2
Native Hawaiian/other Pacific Islander	—	—	—	—	—	—
White	825	64.7	60.2–69.2	820	95.0	93.7–96.3
Multiple races	121	58.8	46.5–71.1	119	89.1	82.6–95.5
Age at time of interview (years)						
18–29	143	49.6	43.3–56.0	179	94.6	91.7–97.6
30–39	402	56.5	52.0–60.9	441	93.7	91.1–96.3
40–49	493	62.6	58.0–67.2	529	93.0	90.8–95.2
>50	1,667	66.0	63.1–68.8	1,642	92.5	91.2–93.8
Total	**2,705**	**62.4**	**60.2–64.6**	**2,791**	**93.0**	**91.8–94.1**

Abbreviations: ART, antiretroviral therapy; CD4, CD4 T-lymphocyte count (cells/μL); CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
Estimates with an absolute CI width ≥30, estimates with an absolute CI width between 5 and 30 and a relative CI width >130%, and estimates of 0% or 100% are marked with an asterisk (*) and should be interpreted with caution.
[a] Prescription of ART was based on documentation in the medical record in the 12 months before interview.
[b] During the 30 days before interview, 100% adherence to ART doses.
[c] Defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview.
[d] Geometric mean CD4 count was abstracted from medical records and based on the 12 months before interview.
[e] Numbers are unweighted.
[f] Percentages are weighted percentages.

[g] CIs incorporate weighted percentages.
[h] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.
[i] Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

Table 9b. Antiretroviral therapy (ART) prescription, ART dose adherence, sustained viral suppression, and geometric mean CD4 count among persons with diagnosed HIV, by cycle year —Medical Monitoring Project, United States, 2015–2021

	Prescription of ART[a]			ART dose adherence[b]		
	No.[e]	Row %[f]	95% CI[g]	No.[e]	Row %[f]	95% CI[g]
Cycle year						
2015	3,244	85.3	83.6–87.0	2,018	59.5	57.1–61.9
2016	3,575	84.0	80.7–87.3	2,239	58.5	56.3–60.7
2017	3,741	84.2	82.3–86.1	2,396	60.8	59.1–62.5
2018	3,490	81.2	79.3–83.2	2,279	59.3	57.0–61.6
2019	3,542	82.6	80.9–84.3	2,385	61.1	58.5–63.8
2020	3,104	78.7	76.2–81.3	2,247	62.1	60.0–64.1
2021	3,361	80.4	78.1–82.7	2,415	63.1	61.6–64.6
Total	**24,057**	**82.3**	**81.4–83.1**	**15,979**	**60.7**	**59.9–61.5**

	Sustained viral suppression[c]			Geometric mean CD4 count >200[d]		
	No.e	Row %[f]	95% CI[g]	No.[e]	Row %[f]	95% CI[g]
Cycle year						
2015	2,415	62.5	59.6–65.4	2,891	91.0	89.0–93.0
2016	2,812	65.5	62.9–68.1	3,165	91.8	90.7–92.9
2017	2,862	63.2	59.9–66.5	3,264	92.2	91.1–93.3
2018	2,702	62.2	59.5–64.9	3,032	93.0	91.9–94.1
2019	2,707	61.0	56.4–65.5	3,005	91.7	90.8–92.7
2020	2,403	58.5	54.3–62.7	2,534	92.8	91.7–93.9
2021	2,705	62.4	60.2–64.6	2,791	93.0	91.8–94.1
Total	**18,606**	**62.1**	**60.9–63.4**	**20,682**	**92.2**	**91.7–92.7**

Abbreviations: ART, antiretroviral therapy; CD4, CD4 T-lymphocyte count (cells/μL); CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Prescription of ART was based on documentation in the medical record in the 12 months before interview.
[b] During the 30 days before interview, 100% adherence to ART doses.
[c] Defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview.
[d] Geometric mean CD4 count was abstracted from medical records and based on the 12 months before interview.
[e] Numbers are unweighted.
[f] Percentages are weighted percentages.
[g] CIs incorporate weighted percentages.

Table 10. Symptoms of depression and generalized anxiety disorder during the 2 weeks before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Symptoms of depression, based on DSM-IV criteria[d]			
No depression	3,315	84.7	83.2–86.1
Major depression	343	8.6	7.5–9.8
Other depression	270	6.7	5.8–7.6
Symptoms of moderate or severe depression (PHQ-8 score ≥10)			
Yes	500	12.5	11.0–13.9
No	3,428	87.5	86.1–89.0
Symptoms of generalized anxiety disorder[e]			
No anxiety	3,133	79.4	77.5–81.3
Mild anxiety	208	5.3	4.3–6.3
Moderate anxiety	294	7.5	6.6–8.4
Severe anxiety	303	7.9	6.8–8.9
Total	**3,995**	**100**	

Abbreviations: CI, confidence interval; DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; GAD-7, Generalized Anxiety Disorder 7-item Scale [footnotes only]; PHQ-8, Patient Health Questionnaire.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Responses to the items on PHQ-8 were used to define "major depression" and "other depression" according to criteria from the DSM-IV. To meet the criteria for major depression, a participant must have experienced 5 or more symptoms at least "more than half the days," and one of the symptoms must be anhedonia or feelings of hopelessness. For other depression, a participant must have experienced 2 to 4 symptoms at least "more than half the days," and one of the symptoms must be anhedonia or feelings of hopelessness.
[e] Responses to the GAD–7 were used to define "mild anxiety," "moderate anxiety," and "severe anxiety" according to criteria from the DSM-IV. "Severe anxiety" was defined as having a score of ≥15; "moderate anxiety" was defined as having a score of 10–14; and "mild anxiety" was defined as having a score of 5–9.

Table 11. Tobacco and electronic cigarette or other vaping device use among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Smoked ≥100 cigarettes (lifetime)			
Yes	2,072	51.7	49.4–54.0
No	1,878	48.3	46.0–50.6
Cigarette smoking status			
Current smoker	1,128	29.2	26.6–31.8
Former smoker	941	22.5	20.7–24.3
Never smoked	1,878	48.3	46.0–50.6
Frequency of current cigarette smoking			
Daily	911	23.4	21.1–25.7
Weekly	98	2.8	2.0–3.5
Monthly	36	0.9	0.7–1.2
Less than monthly	83	2.1	1.7–2.5

	No.[a]	%[b]	95% CI[c]
Never	2,819	70.8	68.2–73.4
Smoked ≥50 cigars, cigarillos, or little filtered cigars (lifetime)			
Yes	600	15.6	14.0–17.2
No	3,348	84.4	82.8–86.0
Cigars, cigarillos, or little filtered cigars smoking status			
Current smoker	283	7.7	6.7–8.8
Former smoker	317	7.9	7.0–8.9
Never smoked	3,348	84.4	82.8–86.0
Frequency of current cigars, cigarillos, or little filtered cigars smoking			
Daily	104	2.6	1.8–3.5
Some days	76	2.1	1.4–2.7
Rarely	103	3.0	2.4–3.6
Never	3,665	92.3	91.2–93.3
Electronic cigarette or other vaping device smoking status[d]			
Used in the past 30 days	584	15.6	13.7–17.4
Used, but not in the past 30 days	543	14.4	12.3–16.5
Never used	2,820	70.1	66.8–73.4
Total	**3,995**	**100**	

Abbreviation: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Includes nicotine, tobacco, marijuana, flavoring, or any other substances.

Table 12. Alcohol use during the 12 months before interview among persons with diagnosed HIV —Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Any alcohol use[d]			
Yes	2,532	64.8	62.0–67.6
No	1,422	35.2	32.4–38.0
Frequency of alcohol use			
Daily	308	7.8	6.9–8.8
Weekly	821	20.7	18.9–22.5
Monthly	431	11.1	10.0–12.3
Less than monthly	972	25.2	23.6–26.8
Never	1,422	35.2	32.4–38.0
Binge drinking, past 30 days[e]			
Yes	632	16.1	14.4–17.8
No	3,301	83.9	82.2–85.6

	No.[a]	%[b]	95% CI[c]
Total	3,995	100	

Abbreviation: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Persons who drank ≥1 alcoholic beverage during the 12 months before interview. Alcoholic beverage was defined as a 12-ounce beer, 5-ounce glass of wine, or 1.5-ounce shot of liquor.
[e] Persons who drank ≥5 alcoholic beverages in a single sitting (≥4 for women) during the 30 days before interview.

Table 13. Noninjection drug use during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Use of any noninjection drugs[d]			
Yes	1,858	47.7	44.0–51.3
No	2,085	52.3	48.7–56.0
Noninjection drugs used[d]			
Marijuana[e]			
Yes	1,515	38.5	35.2–41.7
No	2,427	61.5	58.3–64.8
Amyl nitrite (poppers)			
Yes	526	13.5	10.7–16.3
No	3,416	86.5	83.7–89.3
Methamphetamine (e.g., crystal meth, tina, crank, ice)			
Yes	259	6.9	5.4–8.4
No	3,681	93.1	91.6–94.6
Cocaine that is smoked or snorted			
Yes	248	6.4	5.3–7.4
No	3,694	93.6	92.6–94.7
Club drugs (e.g., Ecstasy or X, ketamine or Special K, GHB or Liquid Ecstasy)			
Yes	176	4.7	3.7–5.6
No	3,765	95.3	94.4–96.3
Crack			
Yes	137	3.6	2.8–4.4
No	3,805	96.4	95.6–97.2
Prescription opioids (e.g., oxycodone, hydrocodone, Vicodin, Percocet)[f]			
Yes	120	3.0	2.4–3.6
No	3,822	97.0	96.4–97.6
Prescription tranquilizers (e.g., Valium, Ativan, Xanax, downers, nerve pills)[f]			
Yes	87	2.1	1.5–2.7
No	3,855	97.9	97.3–98.5

	No.[a]	%[b]	95% CI[c]
Heroin or opium that is smoked or snorted			
Yes	57	1.3	0.9–1.7
No	3,886	98.7	98.3–99.1
Total	**3,995**	**100**	

Disclaimer: The use of trade names is for identification only and does not imply endorsement by the Department of Health and Human Services or the Centers for Disease Control and Prevention.
Abbreviations: CI, confidence interval; GHB, gamma hydroxybutyrate.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Persons could report taking >1 noninjection drug.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Includes all drugs that were not injected (i.e., administered by any route other than injection), including legal drugs that were not used for medical purposes and vaping marijuana.
[e] Includes vaping marijuana.
[f] Not prescribed or prescribed but taken more than directed.

Table 14. Injection drug use during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Use of any injection drugs			
Yes	107	2.8	2.1–3.4
No	3,839	97.2	96.6–97.9
Injection drugs used			
Methamphetamine (e.g., crystal meth, tina, crank, ice)			
Yes	86	2.3	1.7–3.0
No	3,859	97.7	97.0–98.3
Heroin			
Yes	23	0.6	0.3–0.8
No	3,923	99.4	99.2–99.7
Cocaine			
Yes	15	0.5	0.2–0.7
No	3,931	99.5	99.3–99.8
Heroin and cocaine (speedball)			
Yes	—	—	—
No	—	—	—
Prescription opioids (e.g., OxyContin, oxycodone, hydrocodone)			
Yes	—	—	—
No	—	—	—
Total	**3,995**	**100**	

Disclaimer: The use of trade names is for identification only and does not imply endorsement by the Department of Health and Human Services or the Centers for Disease Control and Prevention.
Abbreviation: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of

rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
Persons could report taking >1 injection drug.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.

Table 15. Receipt of Papanicolaou testing and pregnancy since HIV diagnosis among cisgender women with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Papanicolaou (Pap) test, past 3 years[d]			
Yes	798	83.0	79.6–86.4
No	160	17.0	13.6–20.4
Pregnant since HIV diagnosis			
Yes	301	33.1	30.5–35.7
No	660	66.9	64.3–69.5
Total	**983**	**100**	

Abbreviation: CI, confidence interval.
Note. Measures are self-reported. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Or since HIV diagnosis for women with a diagnosis within the past 3 years.

Table 16. Sexual behavior during the 12 months before interview among cisgender men and cisgender women with diagnosed HIV—Medical Monitoring Project, United States, 2021

	Cisgender Men			Cisgender Women		
Behavior	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]
Engaged in vaginal or anal sex						
Yes	1,673	61.0	58.9–63.2	429	48.0	44.5–51.6
No	1,127	39.0	36.8–41.1	522	52.0	48.4–55.5
Engaged in vaginal sex						
Yes	496	18.3	15.5–21.0	428	47.9	44.4–51.3
No	2,310	81.7	79.0–84.5	523	52.1	48.7–55.6
Engaged in anal sex with cisgender men						
Yes	1,210	42.6	40.5–44.7	47	5.4	4.0–6.9
No	1,685	57.4	55.3–59.5	903	94.6	93.1–96.0
Engaged in anal sex with cisgender women						
Yes	74	2.7	2.0–3.4	—	—	—
No	2,833	97.3	96.6–98.0	—	—	—
Number of vaginal or anal sex partners among sexually active persons:						
MSM[d]						

	Cisgender Men			Cisgender Women		
Behavior	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]
Mean	7			—		
Median	2			—		
Range	1–359			—		
MSW[e]						
Mean	1			—		
Median	1			—		
Range	1–30			—		
WSM[f]						
Mean	—			1		
Median	—			1		
Range	—			1–20		
Total	2,918	100		983	100	

Abbreviations: CI, confidence interval; N/A, not applicable; MSM, cisgender men who had sex with cisgender men; MSW, cisgender men who had sex only with cisgender women; WSM, cisgender women who had sex with cisgender men.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Cisgender men who had anal sex with cisgender men in the 12 months before interview.
[e] Cisgender men who had vaginal or anal sex only with cisgender women in the 12 months before interview.
[f] Cisgender women who had vaginal or anal sex with cisgender men in the 12 months before interview.

Table 17. Sexual behavior during the 12 months before interview among transgender persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	Transgender[a]			Transgender women[b]			Transgender men[c]		
Behavior	No.[d]	col %[e]	95% CI[f]	No.[d]	col %[e]	95% CI[f]	No.[d]	col %[e]	95% CI[f]
Engaged in vaginal or anal sex									
Yes	58	71.6	63.2–80.0	54	74.4	66.3–82.4	—	—	—
No	28	28.4	20.0–36.8	24	25.6	17.6–33.7	—	—	—
Engaged in vaginal or anal sex with cisgender men									
Yes	55	68.5	59.0–77.9	54	74.4	66.3–82.4	—	—	—
No	31	31.5	22.1–41.0	24	25.6	17.6–33.7	—	—	—
Engaged in vaginal or anal sex with cisgender women									
Yes	—	—	—	—	—	—	—	—	—
No	—	—	—	—	—	—	—	—	—
Engaged in vaginal or anal sex with transgender partners									
Yes	—	—	—	—	—	—	—	—	—
No	—	—	—	—	—	—	—	—	—
Reported any sex without using an HIV prevention strategy[g]									

	Transgender[a]			Transgender women[b]			Transgender men[c]		
Behavior	No.[d]	col %[e]	95% CI[f]	No.[d]	col %[e]	95% CI[f]	No.[d]	col %[e]	95% CI[f]
Yes	—	—	—	—	—	—	—	—	—
No	—	—	—	—	—	—	—	—	—
Number of vaginal or anal sex partners[h]									
Mean	6			6			—	—	—
Median	2			2			—	—	—
Range	1–50			1–50			—	—	—
Total	**91**	**100**		**82**	**100**		**9**	**100**	

Abbreviations: CI, confidence interval; PrEP, preexposure prophylaxis [footnotes only].
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
[a] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.
[b] Persons were classified as transgender women if sex at birth and gender reported by the person were different, or if the person reported that their sex assigned at birth was male, but identified as female or transgender.
[c] Persons were classified as transgender men if sex at birth and gender reported by the person were different, or if the person reported that their sex assigned at birth was female, but identified as male or transgender.
[d] Numbers are unweighted.
[e] Percentages are weighted percentages.
[f] CIs incorporate weighted percentages.
[g] Vaginal or anal sex with at least 1 partner with an HIV-negative or unknown status while not having sustained viral suppression (defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview), a condom was not used, and the partner was not on PrEP. PrEP use was only measured among the 5 most recent sex partners.
[h] Among persons who had vaginal or anal sex in the 12 months before interview.

Table 18. Sexual behavior during the 12 months before interview among cisgender men who had sex with cisgender men (MSM), cisgender men who had sex only with cisgender women (MSW), and cisgender women who had sex with cisgender men (WSM), with diagnosed HIV—Medical Monitoring Project, United States, 2021

	MSM			MSW			WSM		
Behavior	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]
Engaged in any sex without using an HIV prevention strategy, among all persons[d]									
Yes	139	8.5	6.8–10.3	53	7.8	5.3–10.3	44	6.0	3.9–8.1
No	1,850	91.5	89.7–93.2	747	92.2	89.7–94.7	892	94.0	91.9–96.1
Engaged in any sex without using an HIV prevention strategy, among sexually active persons[d]									
Yes	139	13.6	10.9–16.3	53	13.7	9.4–17.9	44	12.4	8.3–16.4
No	1,079	86.4	83.7–89.1	393	86.3	82.1–90.6	384	87.6	83.6–91.7
Percentages of sexually active persons who used an HIV prevention strategy with at least 1 partner									
Sex while having sustained viral suppression[e]									
Yes	843	63.0	59.3–66.8	297	61.0	56.0–66.1	295	63.7	57.2–70.2
No	378	37.0	33.2–40.7	150	39.0	33.9–44.0	134	36.3	29.8–42.8
Condom-protected sex[f]									
Yes	607	50.9	46.1–55.7	262	56.6	50.6–62.7	223	51.5	46.2–56.8
No	603	49.1	44.3–53.9	183	43.4	37.3–49.4	204	48.5	43.2–53.8

	MSM			MSW			WSM		
Behavior	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]
Condomless sex with a partner on PrEP[g]									
Yes	307	25.2	22.2–28.2	—	—	—	—	—	—
No	910	74.8	71.8–77.8	—	—	—	—	—	—
Sex with a partner with HIV[h]									
Yes	640	53.1	50.2–56.0	94	22.7	17.8–27.6	90	20.8	14.2–27.5
No	581	46.9	44.0–49.8	353	77.3	72.4–82.2	339	79.2	72.5–85.8
Total	**2,022**	**100**		**811**	**100**		**946**	**100**	

Abbreviations: CI, confidence interval; MSM, cisgender men who had sex with cisgender men; MSW, cisgender men who had sex only with cisgender women; WSM, cisgender women who had sex with cisgender men; PrEP, preexposure prophylaxis.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Persons who reported no anal, vaginal, or oral sex in the 12 months before interview were categorized according to self-reported sexual orientation. This table does not include information on cisgender women who had sex with cisgender women only, cisgender women who had sex with transgender persons only, or cisgender men who had sex with transgender persons only.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Vaginal or anal sex with at least 1 partner with an HIV-negative or unknown status while not having sustained viral suppression (defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview), a condom was not used, and the partner was not on PrEP. PrEP use was only measured among the 5 most recent sex partners.
[e] Defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview.
[f] Condoms were consistently used with at least 1 vaginal or anal sex partner.
[g] At least 1 condomless-sex partner without HIV was on PrEP. PrEP use was only measured among the 5 most recent partners and was reported by the partner with HIV.
[h] Sex with at least 1 partner with HIV.

Table 19. Met and unmet needs for HIV ancillary services during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	Among all persons with diagnosed HIV						Among persons with diagnosed HIV who had a need for the service		
	Received services			Needed but did not receive services			Needed but did not receive services		
	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]
HIV support services									
HIV case management services									
Yes	2,059	50.1	46.1–54.2	289	8.9	7.3–10.4	289	15.1	12.0–18.1
No	1,855	49.9	45.8–53.9	3,625	91.1	89.6–92.7	2,059	84.9	81.9–88.0
Medicine through ADAP									
Yes	1,897	47.5	44.5–50.4	137	4.5	3.6–5.3	137	8.6	6.9–10.2
No	1,901	52.5	49.6–55.5	3,661	95.5	94.7–96.4	1,897	91.4	89.8–93.1
Professional help remembering to take HIV medicines on time or correctly (adherence support services)									

	Among all persons with diagnosed HIV						Among persons with diagnosed HIV who had a need for the service		
	Received services			Needed but did not receive services			Needed but did not receive services		
	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]
Yes	1,213	29.9	25.8–33.9	31	0.8	0.5–1.0	31	2.5	1.5–3.5
No	2,716	70.1	66.1–74.2	3,898	99.2	99.0–99.5	1,213	97.5	96.5–98.5
Patient navigation services									
Yes	505	11.2	9.4–13.1	198	5.7	4.8–6.6	198	33.6	27.4–39.9
No	3,418	88.8	86.9–90.6	3,725	94.3	93.4–95.2	505	66.4	60.1–72.6
HIV peer group support									
Yes	375	7.9	7.0–8.8	306	8.8	7.5–10.1	306	52.7	47.5–58.0
No	3,554	92.1	91.2–93.0	3,623	91.2	89.9–92.5	375	47.3	42.0–52.5
Non-HIV medical services									
Dental care									
Yes	2,163	53.3	51.4–55.2	926	24.5	22.4–26.7	926	31.5	29.4–33.7
No	1,775	46.7	44.8–48.6	3,012	75.5	73.3–77.6	2,163	68.5	66.3–70.6
Mental health services									
Yes	1,120	26.6	22.9–30.3	389	10.2	8.7–11.7	389	27.7	22.9–32.5
No	2,812	73.4	69.7–77.1	3,543	89.8	88.3–91.3	1,120	72.3	67.5–77.1
Drug or alcohol counseling or treatment									
Yes	245	5.8	4.8–6.8	94	2.6	2.0–3.1	94	30.6	23.9–37.2
No	3,695	94.2	93.2–95.2	3,846	97.4	96.9–98.0	245	69.4	62.8–76.1
Domestic violence services									
Yes	51	1.4	1.0–1.9	42	1.0	0.7–1.4	42	42.0	29.3–54.6
No	3,892	98.6	98.1–99.0	3,901	99.0	98.6–99.3	51	58.0	45.4–70.7
Subsistence services									
SNAP or WIC									
Yes	1,531	37.9	35.4–40.5	370	10.1	8.7–11.5	370	21.1	18.2–23.9
No	2,409	62.1	59.5–64.6	3,570	89.9	88.5–91.3	1,531	78.9	76.1–81.8
Meal or food services[d]									

	Among all persons with diagnosed HIV						Among persons with diagnosed HIV who had a need for the service		
	Received services			Needed but did not receive services			Needed but did not receive services		
	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]	No.[a]	col %[b]	95% CI[c]
Yes	773	19.0	17.0–21.1	275	7.4	6.4–8.4	275	27.9	24.3–31.5
No	3,169	81.0	78.9–83.0	3,667	92.6	91.6–93.6	773	72.1	68.5–75.7
Transportation assistance									
Yes	790	18.7	17.5–20.0	318	8.3	7.4–9.3	318	30.8	27.8–33.9
No	3,156	81.3	80.0–82.5	3,628	91.7	90.7–92.6	790	69.2	66.1–72.2
Shelter or housing services									
Yes	605	13.9	12.6–15.2	369	9.9	8.3–11.5	369	41.6	37.2–46.1
No	3,338	86.1	84.8–87.4	3,574	90.1	88.5–91.7	605	58.4	53.9–62.8
Total	**3,995**	**100**		**3,995**	**100**		**3,995**	**100**	

Abbreviations: CI, confidence interval; ADAP, AIDS Drug Assistance Program; SNAP, Supplemental Nutrition Assistance Program; WIC, Special Supplemental Nutrition Program for Women, Infants, and Children.
Note. Persons could report receiving or needing more than 1 service. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Includes services such as soup kitchens, food pantries, food banks, church dinners, or food delivery services.

Table 20. Prevalence of physical violence by an intimate partner and forced sex among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Was ever slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner			
Yes	1,062	28.6	26.7–30.5
No	2,827	71.4	69.5–73.3
Was slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner, past 12 months			
Yes	161	4.9	3.8–6.0
No	3,725	95.1	94.0–96.2
Was ever threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex			
Yes	644	16.7	14.8–18.7
No	3,226	83.3	81.3–85.2
Was threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex, past 12 months			
Yes	44	1.4	0.8–1.9

	No.[a]	%[b]	95% CI[c]
No	3,825	98.6	98.1–99.2
Total	**3,995**	**100**	

Abbreviation: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.

Table 21. Prevention services received during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	%[b]	95% CI[c]
Talked to a physician, nurse, or other health care worker about how to prevent HIV or other STDs			
Yes	1,345	34.7	32.0–37.4
No	2,592	65.3	62.6–68.0
Talked to an outreach worker, counselor, or prevention program worker about how to prevent HIV or other STDs			
Yes	672	16.6	13.6–19.6
No	3,259	83.4	80.4–86.4
Received free condoms, not counting those given by a friend, relative, or sex partner			
Yes	1,118	28.6	25.7–31.5
No	2,828	71.4	68.5–74.3
Total	**3,995**	**100**	

Abbreviation: CI, confidence interval.
Note. Persons could report receiving more than 1 prevention service.
Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.

Table 22a. National HIV/AIDS Strategy indicators: Self-rated health and unmet needs for mental health services during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	Good or better self-rated health[a]			Unmet needs for mental health services among persons who needed mental health services[b]		
	No.[c]	Row %[d]	95% CI[e]	No.[c]	Row %[d]	95% CI[e]
Gender						
Cisgender male	2,070	71.5	70.1–73.0	287	28.5	23.9–33.1
Cisgender female	569	60.7	55.6–65.7	91	24.9	16.6–33.3
Transgender[f]	57	62.0	52.3–71.8	10	30.3*	13.4–47.1
Sexual orientation						

	Good or better self-rated health[a]			Unmet needs for mental health services among persons who needed mental health services[b]		
	No.[c]	Row %[d]	95% CI[e]	No.[c]	Row %[d]	95% CI[e]
Lesbian or gay	1,286	76.4	74.5–78.2	180	27.8	23.2–32.5
Heterosexual or straight	1,044	61.7	58.7–64.7	142	25.8	18.8–32.8
Bisexual	260	71.0	65.7–76.2	45	31.9	20.7–43.2
Other	76	59.0	49.8–68.2	—	—	—
Race/ethnicity						
American Indian/Alaska Native	—	—	—	—	—	—
Asian	37	86.9	74.1–99.6	—	—	—
Black/African American	1,041	66.6	64.3–68.9	149	32.2	26.3–38.1
Hispanic/Latino[g]	653	68.1	64.4–71.7	86	20.9	12.5–29.3
Native Hawaiian/other Pacific Islander	—	—	—	—	—	—
White	846	72.7	69.9–75.5	121	27.8	22.8–32.7
Multiple races	107	65.5	58.2–72.8	23	26.2	17.4–35.0
Age at time of interview (years)						
18–29	215	80.8	75.7–85.9	42	38.2	25.6–50.7
30–39	482	76.3	72.2–80.4	91	31.8	25.8–37.8
40–49	532	73.1	69.4–76.8	71	27.3	19.8–34.7
≥50	1,468	63.2	61.1–65.2	185	24.4	18.6–30.1
National HIV/AIDS Strategy priority populations[h]						
All MSM[i]	1,525	76.0	74.2–77.8	226	29.2	24.7–33.7
Black/African American MSM[i]	419	77.4	74.0–80.7	67	34.8	28.5–41.2
Hispanic/Latino MSM[g,i]	372	73.4	69.0–77.8	54	23.9	15.2–32.5
American Indian/Alaska Native MSM[i]	—	—	—	—	—	—
Persons aged 18-24 years[j]	50	87.5	82.0–93.0	—	—	—
Persons who inject drugs[k]	61	57.7	46.5–68.8	20	28.9	14.9–42.9

	Good or better self-rated health[a]			Unmet needs for mental health services among persons who needed mental health services[b]		
	No.[c]	Row %[d]	95% CI[e]	No.[c]	Row %[d]	95% CI[e]
Black/African American cisgender women	311	59.4	53.4–65.4	45	28.6	17.0–40.3
Transgender women[l]	52	62.8	52.1–73.5	10	32.9*	14.9–51.0
Total	**2,697**	**68.8**	**67.4–70.3**	**389**	**27.7**	**22.9–32.5**

Abbreviations: CI, confidence interval; MSM, cisgender men who had sex with cisgender men.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
Estimates with an absolute CI width ≥30, estimates with an absolute CI width between 5 and 30 and a relative CI width >130%, and estimates of 0% or 100% are marked with an asterisk (*) and should be interpreted with caution.
[a] "Good or better self-rated health" defined as rating one's health as good, very good, or excellent (as opposed to poor or fair) at the time of interview.
[b] "Unmet need for mental health services from a mental health professional" defined as needing, but not receiving, services from a mental health professional among those who indicated needing mental health services (i.e., receiving or needing but not receiving) during the past 12 months.
[c] Numbers are unweighted.
[d] Percentages are weighted percentages.
[e] CIs incorporate weighted percentages.
[f] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.
[g] Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.
[h] The National HIV/AIDS Strategy defines priority populations as populations that are disproportionately affected by HIV, and recommends that public health resources be delivered to priority populations for the greatest public health impact. For more information: https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025/
[i] Cisgender men who had anal sex with cisgender men in the 12 months before interview.
[j] Priority population for youths includes persons aged 13-24 years; however, data from MMP are only available and presented for persons aged 18-24 years.
[k] Defined as people who injected drugs in the past 12 months.
[l] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.

Table 22b. National HIV/AIDS Strategy indicators: Self-rated health and unmet needs for mental health services during the 12 months before interview among persons with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2015-2021

	Good or better self-rated health[a]			Unmet needs for mental health services among persons who needed mental health services[b]		
	No.[c]	Row %[d]	95% CI[e]	No.[c]	Row %[d]	95% CI[e]
Cycle year						
2015	Data not collected			347	24.0	20.9–27.1
2016	Data not collected			350	23.8	20.7–26.9
2017	Data not collected			372	24.2	21.0–27.5
2018	2,825	71.5	69.4–73.6	317	19.8	17.1–22.5
2019	2,848	70.6	68.7–72.5	336	20.8	17.4–24.3
2020	2,621	71.5	70.0–73.1	275	21.0	18.2–23.8
2021	**2,697**	**68.8**	**67.4–70.3**	**389**	**27.7**	**22.9–32.5**

Abbreviations: CI, confidence interval.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
[a] "Good or better self-rated health" defined as rating one's health as good, very good, or excellent (as opposed to poor or fair) at the time of interview.
[b] "Unmet need for mental health services from a mental health professional" defined as needing, but not receiving, services from a mental health

professional among those who indicated needing mental health services (i.e., receiving or needing but not receiving) during the past 12 months.
[c] Numbers are unweighted.
[d] Percentages are weighted percentages.
[e] CIs incorporate weighted percentages.

Table 23a. National HIV/AIDS Strategy indicators: Unstable housing or homelessness, unemployment, and hunger/food insecurity during the 12 months before interview among persons with diagnosed HIV, overall and by demographic characteristics—Medical Monitoring Project, United States, 2021

	Unstable housing or homelessness[a]			Unemployment[b]			Hunger/Food insecurity[c]		
	No.[d]	Row %[e]	95% CI[f]	No.[d]	Row %[e]	95% CI[f]	No.[d]	Row %[e]	95% CI[f]
Gender									
Cisgender male	471	16.6	14.7–18.4	420	14.7	13.3–16.2	423	14.9	13.1–16.7
Cisgender female	158	17.2	14.5–19.8	118	13.4	10.9–15.9	156	16.2	13.6–18.8
Transgender[g]	21	27.1	17.1–37.1	20	24.7	15.3–34.2	28	36.8*	20.0–53.5
Sexual orientation									
Lesbian or gay	231	14.5	12.3–16.6	247	15.2	12.9–17.5	219	13.9	12.0–15.9
Heterosexual or straight	287	17.0	15.2–18.8	228	13.8	11.6–16.0	276	16.4	14.5–18.2
Bisexual	88	23.7	18.0–29.5	55	14.3	10.6–17.9	67	15.8	12.1–19.6
Other	38	30.1	20.3–39.9	25	22.2	14.3–30.1	32	24.9	14.6–35.3
Race/ethnicity									
American Indian/Alaska Native	—	—	—	—	—	—	—	—	—
Asian	—	—	—	—	—	—	—	—	—
Black/African American	297	19.7	17.4–22.0	240	16.2	13.8–18.5	239	15.3	13.5–17.1
Hispanic/Latino[h]	172	16.1	13.3–18.8	141	14.7	11.3–18.2	191	19.3	16.4–22.2
Native Hawaiian/other Pacific Islander	—	—	—	—	—	—	—	—	—
White	121	12.1	9.5–14.8	135	11.7	9.6–13.8	116	11.7	9.6–13.7
Multiple races	49	28.2	18.8–37.6	36	19.3	14.1–24.6	52	26.7	19.0–34.5
Age at time of interview (years)									
18–29	82	31.5	25.7–37.4	65	23.2	17.0–29.3	62	24.3	18.2–30.4
30–39	155	24.7	19.4–30.0	139	22.3	18.9–25.8	145	21.1	16.9–25.4

	Unstable housing or homelessness[a]			Unemployment[b]			Hunger/Food insecurity[c]		
	No.[d]	Row %[e]	95% CI[f]	No.[d]	Row %[e]	95% CI[f]	No.[d]	Row %[e]	95% CI[f]
40–49	148	18.6	14.9–22.4	131	17.9	14.7–21.1	128	15.8	12.7–18.8
≥50	266	11.8	10.2–13.5	223	9.8	8.4–11.2	272	12.7	10.9–14.5
National HIV/AIDS Strategy priority populations[i]									
All MSM[j]	302	15.9	13.5–18.2	292	15.0	12.8–17.1	274	13.9	12.1–15.7
Black/African American MSM[j]	104	19.4	14.1–24.7	96	18.1	14.1–22.0	89	15.4	12.3–18.5
Hispanic/Latino MSM[h,j]	101	18.1	14.1–22.1	82	15.6	11.8–19.4	93	16.5	13.2–19.9
American Indian/Alaska Native MSM[j]	—	—	—	—	—	—	—	—	—
Persons aged 18-24 years[k]	17	26.1	14.5–37.7	—	—	—	19	30.5	18.0–43.1
Persons who inject drugs[l]	44	45.7	34.8–56.6	40	38.8	25.9–51.6	39	36.9	27.2–46.5
Black/African American cisgender women	90	18.7	14.7–22.7	59	13.5	9.9–17.0	72	14.4	11.0–17.8
Transgender women[m]	19	28.4	18.2–38.7	19	24.5	15.6–33.3	28	40.3*	23.8–56.8
Total	**651**	**17.0**	**15.3–18.6**	**558**	**14.7**	**13.4–16.0**	**607**	**15.7**	**14.2–17.3**

Abbreviations: CI, confidence interval; MSM, cisgender men who have sex with cisgender men.
Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.
Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.
Estimates with an absolute CI width ≥30, estimates with an absolute CI width between 5 and 30 and a relative CI width >130%, and estimates of 0% or 100% are marked with an asterisk (*) and should be interpreted with caution.
[a] "Unstable housing or homelessness" defined as experiencing unstable housing (i.e., moving in with others due to financial issues, moving 2 or more times, or being evicted at any time) or homelessness (living on the street, in a shelter, in a single-room–occupancy hotel, or in a car at any time) during the past 12 months.
[b] Unemployed persons included those who reported being unemployed at the time of the interview, excluding persons who were unable to work.
[c] "Hunger/food insecurity" defined as going without food due to lack of money during the past 12 months.
[d] Numbers are unweighted.
[e] Percentages are weighted percentages.
[f] CIs incorporate weighted percentages.
[g] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.
[h] Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.
[i] The National HIV/AIDS Strategy defines priority populations as populations that are disproportionately affected by HIV, and recommends that public health resources be delivered to priority populations for the greatest public health impact. For more information: https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025/
[j] Cisgender men who had anal sex with cisgender men in the 12 months before interview.
[k] Priority population for youths includes persons aged 13-24 years; however, data from MMP are only available and presented for persons aged 18-24 years.
[l] Defined as people who injected drugs in the past 12 months.
[m] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.

Table 23b. National HIV/AIDS Strategy indicators: Unstable housing or homelessness, unemployment, and hunger/food insecurity during the 12 months before interview among persons with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2015-2021

	Unstable housing or homelessness[a]			Unemployment[b]			Hunger/Food insecurity[c]		
	No.[d]	Row %[e]	95% CI[f]	No.[d]	Row %[e]	95% CI[f]	No.[d]	Row %[e]	95% CI[f]
Cycle year									
2015	Data not collected			574	16.8	15.2–18.5	771	21.5	19.6–23.3
2016	Data not collected			640	15.7	14.2–17.3	865	21.2	19.6–22.9
2017	Data not collected			634	14.9	13.5–16.4	866	21.1	19.2–22.9
2018	870	21.0	19.5–22.6	550	13.9	12.6–15.1	802	19.5	18.2–20.8
2019	791	19.8	18.0–21.6	556	13.7	12.2–15.3	781	19.9	18.0–21.8
2020	630	17.2	15.2–19.2	644	18.1	16.5–19.7	592	16.4	15.2–17.6
2021	651	17.0	15.3–18.6	558	14.7	13.4–16.0	607	15.7	14.2–17.3

Abbreviations: CI, confidence interval.

Note. Numbers might not add to total because of "don't know" and skipped (missing) responses. Percentages might not sum to 100 because of rounding.

[a] "Unstable housing or homelessness" defined as experiencing unstable housing (i.e., moving in with others due to financial issues, moving 2 or more times, or being evicted at any time) or homelessness (living on the street, in a shelter, in a single-room–occupancy hotel, or in a car at any time) during the past 12 months.

[b] Unemployed persons included those who reported being unemployed at the time of the interview, excluding those unable to work.

[c] "Hunger/food insecurity" defined as going without food due to lack of money during the past 12 months.

[d] Numbers are unweighted.

[e] Percentages are weighted percentages.

[f] CIs incorporate weighted percentages.

Table 24a. National HIV/AIDS Strategy indicators: Median HIV stigma scores during the 12 months before interview among persons with diagnosed HIV—Medical Monitoring Project, United States, 2021

	No.[a]	Median[b]	95% CI[c]
Gender			
Cisgender male	2,726	27.9	26.4–29.4
Cisgender female	899	33.5	30.4–36.5
Transgender[d]	85	34.2	28.6–39.9
Sexual orientation			
Lesbian or gay	1,614	26.9	25.3–28.5
Heterosexual or straight	1,588	30.2	28.1–32.2
Bisexual	353	29.9	27.0–32.8
Other	120	32.6	25.1–40.1
Race/ethnicity			
American Indian/Alaska Native	—	—	—
Asian	35	33.1	25.1–41.2

	No.[a]	Median[b]	95% CI[c]
Black/African American	1,476	27.8	25.9–29.8
Hispanic/Latino[e]	916	31.5	29.8–33.3
Native Hawaiian/other Pacific Islander	—	—	—
White	1,096	27.1	24.6–29.6
Multiple races	166	33.6	31.1–36.2
Age at time of interview (years)			
18–29	251	32.5	29.1–36.0
30–39	601	31.9	29.0–34.8
40–49	702	31.2	28.4–33.9
≥50	2,158	27.0	25.2–28.8
National HIV/AIDS Strategy priority populations[f]			
All MSM[g]	1,922	27.2	25.5–28.9
Black/African American MSM[g]	529	25.4	23.5–27.3
Hispanic/Latino MSM[e,g]	489	29.1	27.0–31.2
American Indian/Alaska Native MSM[g]	—	—	—
Persons aged 18-24 years[h]	54	42.1	33.4–50.9
Persons who inject drugs[i]	105	35.0	26.8–43.3
Black/African American cisgender women	494	30.7	25.3–36.1
Transgender women[j]	76	34.2	28.3–40.0
Total	**3,712**	**28.8**	**27.6–30.1**

Abbreviations: CI, confidence interval; MSM, cisgender men who have sex with cisgender men.
Note. "Median HIV stigma score" defined as the weighted median score on a 10-item scale ranging from 0 (no stigma) to 100 (high stigma) that measures 4 dimensions of HIV stigma: personalized stigma during the past 12 months, current disclosure concerns, current negative self-image, and current perceived public attitudes about people living with HIV, measured among persons aged ≥18 years with diagnosed HIV infection living in the United States and Puerto Rico. The HIV stigma scale used for this indicator is available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2001277/ [Wright K, Naar-King S, Lam P, Templin T, Frey M. Stigma scale revised: reliability and validity of a brief measure of stigma for HIV+ youth. *J Adolesc Health* 2007;40(1):96–98].
Numbers might not add to total because of "don't know" and skipped (missing) responses.
Excluded are estimates with a denominator sample size <30.
[a] Numbers are unweighted.
[b] Percentages are weighted percentages.
[c] CIs incorporate weighted percentages.
[d] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.
[e] Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.
[f] The National HIV/AIDS Strategy defines priority populations as populations that are disproportionately affected by HIV, and recommends that public health resources be delivered to priority populations for the greatest public health impact. For more information: https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025/
[g] Cisgender men who had anal sex with cisgender men in the 12 months before interview.
[h] Priority population for youths includes persons aged 13-24 years; however, data from MMP are only available and presented for persons aged 18-24 years.
[i] Defined as people who injected drugs in the past 12 months.
[j] Persons were classified as transgender if sex at birth and gender reported by the person were different, or if the person chose "transgender" in response to the question about self-identified gender.

Table 24b. National HIV/AIDS Strategy indicators: Median HIV stigma scores during the 12 months before interview among persons with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2018-2021

	No.[a]	Median[b]	95% CI[c]
Cycle year			
2018	3,824	31.2	30.3–32.1
2019	3,904	30.7	29.2–32.1
2020	3,518	28.4	27.7–29.2
2021	3,712	28.8	27.6–30.1

Abbreviations: CI, confidence interval.

Note. "Median HIV stigma score" defined as the weighted median score on a 10-item scale ranging from 0 (no stigma) to 100 (high stigma) that measures 4 dimensions of HIV stigma: personalized stigma during the past 12 months, current disclosure concerns, current negative self-image, and current perceived public attitudes about people living with HIV, measured among persons aged ≥18 years with diagnosed HIV infection living in the United States and Puerto Rico. The HIV stigma scale used for this indicator is available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2001277/ [Wright K, Naar-King S, Lam P, Templin T, Frey M. Stigma scale revised: reliability and validity of a brief measure of stigma for HIV+ youth. *J Adolesc Health* 2007;40(1):96–98]. HIV stigma estimates are not available prior to 2018 cycle year.

Numbers might not add to total because of "don't know" and skipped (missing) responses.

[a] Numbers are unweighted.

[b] Medians are weighted medians.

[c] CIs incorporate weights.

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Behavioral and Clinical Characteristics of Persons with Diagnosed HIV Infection—Medical Monitoring Project, United States 2021 Cycle (June 2021–May 2022): Technical Notes and Appendix

Report Contents

Technical Notes

Population of Inference

For the 2021 Medical Monitoring Project (MMP) data collection cycle (data collected June 1, 2021–May 31, 2022), the population of inference was adults with diagnosed HIV (aged ≥ 18 years) living in the United States.

A total of 23 areas were funded to conduct data collection for the 2021 cycle: California (including the separately funded jurisdictions of Los Angeles County and San Francisco), Delaware, Florida, Georgia, Illinois (including the separately funded jurisdiction of Chicago), Indiana, Michigan, Mississippi, New Jersey, New York (including the separately funded jurisdiction of New York City), North Carolina, Oregon, Pennsylvania (including the separately funded jurisdiction of Philadelphia), Puerto Rico, Texas (including the separately funded jurisdiction of Houston), Virginia, and Washington.

Data Collection

Persons with diagnosed HIV were sampled for MMP by using data from the National HIV Surveillance System (NHSS). Sampled persons were recruited to participate by mail, by telephone, or in person. To be eligible for MMP, the person had to be, as of December 31, 2020: living with diagnosed HIV infection, aged ≥ 18 years, and residing in an MMP project area. The participant eligibility criteria were the same in all participating project areas.

A trained interviewer conducted either a telephone interview or an in-person interview. English and Spanish versions of the questionnaire were used in the 2021 cycle. Persons who agreed to participate were interviewed over the telephone or in a private location (e.g., at home or in a clinic). The interview (approximately 45 minutes) included questions about demographic characteristics, social determinants of health, health care use, met and unmet needs for ancillary services, sexual behavior, symptoms of depression and anxiety, gynecologic and reproductive history (females only), substance use, and use of HIV/STD prevention services. Participants were given a token of appreciation of no more than $50 in cash or the equivalent for participation; tokens differed by project area according to local considerations.

After the interview, MMP staff abstracted clinical data from the medical records of participants at the health care facility identified by the participant as their most frequent source of HIV care. Abstracted information included diagnoses of AIDS-defining conditions, prescription of antiretroviral therapy (ART) medications, laboratory results, and health care use in the 24 months before the interview.

For further technical details, please see the appendix.

Appendix

Methods

The Medical Monitoring Project (MMP) uses a stratified, 2-stage sampling design. States were sampled first, with probability proportional to size (PPS). All 50 states, the District of Columbia, and Puerto Rico (defined as primary sampling units [PSUs]) were eligible for selection.

From these 52 PSUs, 20 were selected by using PPS sampling based on AIDS prevalence at the end of 2002. According to the PPS sampling method, states with a higher AIDS prevalence had a higher probability of selection, and those with a lower AIDS prevalence had a lower probability of selection [1, 2]. Six municipal jurisdictions receive separate funding for HIV surveillance (Chicago, Illinois; Houston, Texas; Los Angeles County, California; New York City, New York; Philadelphia, Pennsylvania; and San Francisco, California); these areas were included with the state for first-stage sampling and constituted a city-state unit. If a state included a city with independent HIV surveillance authority (e.g., Texas, which includes Houston), selection of the state included selection of the city (i.e., city-state units were selected together).

In 2004, 19 states (including the 6 separately funded areas within those states) and Puerto Rico were selected from the 52 PSUs, resulting in 26 MMP project areas. Because of funding constraints for the 2009 data collection cycle, 3 project areas (Maryland, Massachusetts, and South Carolina) were randomly selected to discontinue participation in MMP, and the total number of MMP areas was reduced to 23.

Analyses carried out in 2014 and subsequently in 2021 found that the original measure of size with which states were originally sampled (i.e., AIDS prevalence in 2002) was still a reasonable proxy for the distribution of HIV prevalence in 2010 (the most recent year for which prevalence estimates were available at the time). The selected sample of states was still sufficiently representative of the population of persons with diagnosed HIV; consequently, selecting a new sample for the 2015 and subsequent data collection cycles was unwarranted. In addition, the change in the sampling frame and the availability of national totals from the National HIV Surveillance System (NHSS) presented new options for calibrating weights, further lessening the need for any adjustments to the sample of states.

At the second stage, persons with a reported diagnosis in NHSS were sampled after the selection of the states. The sampling frame was the national case surveillance data set containing records submitted to the Centers for Disease Control and Prevention (CDC) as of December 31, 2020. Using NHSS data, the initial national frame dataset was created for persons who were alive, had diagnosed HIV infection, were aged 18 years or older, and were living in the United States, the District of Columbia, or Puerto Rico on the sampling date (i.e., December 31, 2020). Each case was assigned to a surveillance jurisdiction based on the most recently reported residence in NHSS. These addresses primarily came from case report forms and HIV-related laboratory reports. From this initial national frame, CDC staff drew simple random samples for the 23 project areas; project area staff then linked their samples to local case surveillance systems and extracted contact information for use in locating sampled persons, whom they then attempted to recruit.

Eligibility and Response Classifications

Persons were eligible for participation if, as of the sampling date, they had received a diagnosis of HIV, were aged ≥ 18 years, were alive, and were a resident of an MMP project area. Sampled persons were presumed to be eligible based on their information in NHSS unless data from another source contradicted this status. Persons were classified into 4 categories: (1) eligible respondents, (2) contacted nonrespondents, (3) nonrespondents who were not contacted, and (4) ineligible persons. These categories were used in calculating final response rates and contact rates following standard formulas [3].

Weighting

Overview

For the 2021 MMP cycle, sets of weights were produced nationally, for the city-state combinations, and for each project area. This report presents national weighted data and, thus, represents all adults with diagnosed HIV infection living in the United States. Nationally, data were weighted based on known probabilities of selection at the state or jurisdiction level and person level and then adjusted for multiplicity and nonresponse. After adjusting for nonresponse, the weights were poststratified to population totals from the NHSS frame. Extreme weights, if present, were trimmed, and the weights were adjusted to the same population totals.

For the weighting process, an updated sampling frame was obtained from NHSS data approximately a year and a half after sampling, during which time additional information reported to NHSS may have become available for sampled persons and additional diagnoses may have been reported. This updated sampling frame added records that would have been eligible if their information had been reported to NHSS on the date the initial sample was drawn; primarily, these were diagnoses that occurred during the year prior to the MMP sampling date (for the 2021 cycle, December 31, 2020). Additionally, some persons were found to have had multiple records at the time of sampling that were later identified as duplicate records. In some cases, updated information indicated that a person originally judged eligible and included on the original frame was ineligible. The updated sampling frame data also provided descriptive information for all sampled persons regardless of response and were the source of data used for nonresponse analysis and weighting.

Adjustments for unequal selection probabilities

The first step in the computation of weights was the calculation of base weights that reflect the sampling design probabilities. The base weight for each sampled person incorporates both the probability of selecting a project area and the probability of selecting a person within a project area. A person who was sampled from one jurisdiction but lived in another area at the time of sampling retained the original base weight. Prior to weighting, such cross-jurisdictional records were grouped with their project area of residence at the time of sampling. This moving of records did not affect the national weights but did affect the project area weight totals, increasing some while decreasing others.

Adjustments for multiplicity

A multiplicity factor was applied to the person weight for persons with records found to be present more than once after the original frame was compared to the updated sampling frame. This factor, which accounts for some persons' multiple opportunities for being sampled, was capped at 2.0 and was applicable for only 29 persons.

Adjustments for nonresponse

A nonresponse adjustment factor was applied to the multiplicity-adjusted base weight based on an analysis of nonresponse. In 2021, updated sampling frame data provided descriptive information about all sampled persons, which was used to assess how these characteristics were associated with nonresponse. The potential predictors of nonresponse were: race/ethnicity, men who have sex with men (MSM) HIV transmission category, HIV/AIDS disease stage, disease progression measured by most recent viral load test reported to NHSS, time since HIV diagnosis, age of most recent contact information, the person's frequency of receipt of HIV care (as indicated by NHSS records), movement to a different MMP jurisdiction since the time of sampling, non-U.S. birthplace, sex at birth, and age at sampling date. The nonresponse analysis followed a 2-step process. First, a bivariate analysis was conducted to determine which characteristics were potential predictors of nonresponse; then, a multivariate analysis using the significant characteristics from the bivariate analysis was conducted to identify independent predictors of nonresponse. Three significant predictors from this multivariate analysis were used to create weighting classes for the national data. In 2021, the significant predictors of nonresponse were: the person's frequency of receipt of HIV care (as indicated by NHSS records), sex at birth, and age of latest contact information. Within weighting classes, the adjustment factor for nonresponse was the ratio of the sum of the multiplicity-adjusted base weights for eligible sampled cases to the sum of these weights for eligible respondents. The multiplicity adjusted weight within each nonresponse weighting class was then multiplied by the nonresponse adjustment factor to produce the nonresponse adjusted weights.

Poststratification and trimming

Poststratification methods ensure that weighted totals sum to known population totals and, therefore, minimize the potential for biases due to nonresponse and noncoverage. However, poststratification can also add additional variance to the weights. Thus, trimming procedures are used to control weight variability and reduce its impact on survey variances. MMP used an iterative approach that combines poststratification and trimming so that trimmed weights retain their variance-reducing features after poststratification and ensures that poststratified weights add up to known population totals.

The nonresponse adjusted weights were first poststratified to population totals from the updated sampling frame. The poststratification cells were defined by crossing sex at birth, race/ethnicity, and age group. Nationally, there were 32 poststratification cells. Poststratification adjustments were performed within each poststratification cell so that the weighted sum was preserved in each cell. To reduce additional variance added to poststratified weights, cells were collapsed and the need for weight trimming was evaluated. Poststratified cells were collapsed when cells had 2 or fewer respondents or had an extreme adjustment factor (≥ 1.75). The need for trimming was then assessed. If the design effect due to weighting (measured as $1 + CV^2$, where CV is the coefficient of variation of the weights) had exceeded 1.75, we would have capped the weights at the median weight plus 4 times the interquartile range of the weights; where trimming occurred, the weights were redistributed and poststratified again to the population totals. However, no trimming was needed for the national weights.

Design variables

Nationally, design variables indicating strata and cluster membership for each participating person accounting for the sample design were created. Many project areas were sampled with certainty because of higher AIDS prevalence, and each of these was defined as its own stratum. Elsewhere, strata were created by grouping 2 to 3 project areas (PSUs in the stratified PPS design) that had similar selection probabilities. Among the 23 project areas, 14 were sampled with certainty. The 14 certainty project areas each represent a stratum, and each person within the stratum is a cluster. The remaining 9 noncertainty project areas were grouped to create strata, and each noncertainty project area was a cluster within the stratum. Multiple project areas within certainty states were effectively substrata, and each project area remained its own stratum. For local estimates, variance estimation was conditional on the initial sampling of states as PSUs, meaning that this stage of sampling was ignored. Participants were treated as having come from a simple random sample with replacement, although the various adjustment factors induced unequal weights.

Definitions

Demographic Characteristics and Social Determinants of Health

- **Gender:** Categories were cisgender male, cisgender female, and transgender. Participants were classified as transgender if reported sex at birth and current gender as reported by the participant were not the same or if the participant answered “transgender” to the interview question regarding self-identified gender. People whose sex assigned at birth was male, but who identified as female or transgender, were classified as transgender women. People whose sex assigned at birth was female, but who identified as male or transgender, were classified as transgender men.
- **Health insurance or coverage for care or medications (including receipt of Ryan White HIV/AIDS Program [RWHAP] assistance):** Participants were asked whether they had health insurance or coverage for care or medications (including antiretroviral [ART] medications) during the 12 months before interview—including assistance through the RWHAP. Responses to these questions were combined and categorized as private health insurance, Medicaid, Medicare, RWHAP, Tricare/CHAMPUS or Veterans Administration coverage, insurance classified as other public health insurance, and unknown insurance. Private insurance included receipt of health insurance through a person’s employer or family member’s employer, or health insurance purchased through the Health Insurance Marketplace or directly from a health insurance company. Participants could select more than 1 response for health insurance or coverage for care or medications. Those who only received RWHAP assistance were considered to not have health insurance.
- **Federal poverty guidelines:** Participants were asked about their combined monthly or yearly household income (in U.S.$) from all sources during the 12 months before interview. The number of persons meeting the current federal poverty threshold was determined by using the U.S. Department of Health and Human Services poverty guidelines that corresponded to the calendar year for which income was asked. These guidelines are issued yearly for the 48 contiguous states and Washington, D.C., and are an indicator used for determining eligibility for many federal and state programs. The 2020 guidelines [4] were used for participants interviewed in 2021, and the 2021 guidelines [5] were used for persons interviewed in 2022. Because the poverty guidelines are not defined for the territory of Puerto Rico, the guidelines for the contiguous states and Washington, D.C. were used for this jurisdiction. Participants were asked to specify the range of their income, and household income was assumed to be the midpoint of the income range.

Clinical Characteristics

- **CDC stage of disease classification for HIV infection:** Defined according to CDC's 2014 revised surveillance case definition for HIV infection [6]. Information from NHSS was used to determine the most advanced HIV disease stage ever reached by participants.

Use of Health Care Services

- **Outpatient HIV medical care:** Defined as documentation of any of the following at the most frequent source of HIV care: encounter with an HIV care provider (could be self-reported), viral load test result, CD4 test result, HIV resistance test or tropism assay, ART prescription, *pneumocystis* pneumonia (PCP) prophylaxis, or *Mycobacterium avium* complex (MAC) prophylaxis. All were measured through documentation in the person's medical record; an encounter with an HIV care provider was also measured based on interview self-report. Persons were considered to be retained in care if they had 2 elements of outpatient HIV care at least 90 days apart in each 12-month period reviewed.
- **ART prescription:** Defined as a prescription in the medical record, during the 12 months before interview, of any of the following medications: abacavir, amprenavir, atazanavir, bictegravir, cabotegravir, cobicistat, darunavir, delavirdine, didanosine, dolutegravir, doravirine, efavirenz, elvitegravir, emtricitabine, enfuvirtide, etravirine, fosamprenavir, fostemsavir, ibalizumab, indinavir, lamivudine, lopinavir/ritonavir, maraviroc, nelfinavir, nevirapine, raltegravir, rilpivirine, ritonavir, saquinavir, stavudine, tenofovir alafenamide, tenofovir disoproxil fumarate, tipranavir, or zidovudine. Persons with no medical record abstraction were considered to have no documentation of ART prescription.
- **PCP prophylaxis:** Defined as documentation in the medical record that prophylaxis for PCP was prescribed among persons with a CD4 count of < 200 cells/μL in the 12 months before interview [7]. Persons prescribed regimens typically given as PCP prophylaxis (trimethoprim-sulfamethoxazole, dapsone with or without pyrimethamine and leucovorin, aerosolized pentamidine, and atovaquone) were not presumptively categorized as having received PCP prophylaxis unless it was specifically stated in the medical record that prescription of these medications was for PCP prophylaxis or no length of time was specified for the course of treatment.
- **Influenza vaccination:** Participants were asked whether they had received seasonal influenza vaccine during the 12 months before interview.
- ***Neisseria gonorrhoeae* testing:** Defined as documentation in the medical record, during the 12 months before interview, of a result from culture, Gram stain, enzyme immunoassay (EIA), nucleic acid amplification test (NAAT), or nucleic acid probe performed on a specimen from any anatomical site for screening or diagnostic purposes.
- ***Chlamydia trachomatis* testing:** Defined as documentation in the medical record, during the 12 months before interview, of a result from culture, direct fluorescent antibody (DFA), EIA or enzyme-linked immunoassay (ELISA), NAAT, or nucleic acid probe performed on a specimen from any anatomical site for screening or diagnostic purposes.
- **Syphilis testing:** Defined as documentation in the medical record, during the 12 months before interview, of a result from nontreponemal serologic tests (rapid plasma reagin [RPR], Venereal Disease Research Laboratory [VDRL]), treponemal serologic tests (*Treponema pallidum* hemagglutination assay [TPHA], *pallidum* particle agglutination [TP-PA], microhemagglutination assay for antibodies to *T. pallidum* [MHA-TP], chemiluminescence immunoassay [CIA], fluorescent treponemal antibody absorption [FTA-ABS] tests), polymerase chain reactions (PCR), or dark-field microscopy performed for screening or diagnostic purposes.

Self-reported ART Medication Use and Adherence

- **ART adherence:** Participants were asked about their adherence to ART in the 30 days before interview using questions from a 3-item scale developed by Wilson and colleagues [8]. Participants were asked about how many days they missed at least 1 dose of their HIV medicines, how often they took their HIV medicines in the way they were supposed to, and how good a job they did at taking their HIV medicines in the way they were supposed to during the 30 days before interview.

Mental Health and Substance Use

  - **Symptoms of depression:** Participants were asked questions from the Patient Health Questionnaire (PHQ-8), an 8-item scale used to measure frequency of depressed mood in the preceding 2 weeks [9]. The PHQ-8 has the following question: "Over the last 2 weeks, how often have you been bothered by any of the following problems?" The respondent is then asked about the following problems: (1) little interest or pleasure in doing things (anhedonia); (2) feeling down, depressed, or hopeless; (3) trouble falling/staying asleep, or sleeping too much; (4) feeling tired or having little energy; (5) poor appetite or overeating; (6) feeling bad about yourself or that you are a failure or have let

yourself or your family down; (7) trouble concentrating on things, such as reading the newspaper or watching television; and (8) moving or speaking so slowly that other people could have noticed, or being fidgety or restless or moving around a lot more than usual. Response categories were “not at all,” “several days,” “more than half the days,” and “nearly every day” with points (0–3) assigned to each response category, respectively. The PHQ-8 responses were scored by using 2 methods. Method 1: an algorithm involving criteria from the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV-TR) [10], for diagnosing major depression was used to classify adults with diagnosed HIV as having major depression, other depression, or no depression. To meet the criteria for major depression, a participant must have experienced 5 or more symptoms at least “more than half the days,” and 1 of the symptoms must be anhedonia or feelings of hopelessness. For other depression, a participant must have experienced 2 to 4 symptoms at least “more than half the days,” and 1 of the symptoms must be anhedonia or feelings of hopelessness. The PHQ-8 classification “other depression” comprises the DSM-IV categories of dysthymia and depressive disorder, not otherwise specified, which includes minor or subthreshold depression. Method 2: scores for each response category were summed to produce a total score between 0 and 24 points. Current depression of moderate or severe intensity was defined as a total score of ≥10.

- Symptoms of generalized anxiety disorder: Participants were asked questions from the Generalized Anxiety Disorder Scale (GAD-7), a 7-item scale used to screen for and measure the severity of generalized anxiety disorder [11]. The GAD-7 has the following question: “Over the last 2 weeks, how often have you been bothered by any of the following problems?” The respondent was then asked about the following problems: (1) feeling nervous, anxious, or on edge; (2) not being able to stop or control worrying; (3) worrying too much about different things; (4) trouble relaxing; (5) being so restless that it is hard to sit still; (6) becoming easily annoyed or irritable; and (7) feeling afraid as if something awful might happen. Responses were scored according to criteria from the DSM-IV-TR [10]. Response categories were “not at all,” “several days,” “more than half the days,” and “nearly every day,” with points (0–3) assigned to each response category, respectively. Scores for each response category were summed to produce a total score between 0 and 21 points. “Severe anxiety” was defined as having a score of ≥ 15; “moderate anxiety” was defined as having a score of 10–14; and “mild anxiety” was defined as having a score of 5–9.
- Alcohol use: Participants were asked about alcohol use during the 30 days and the 12 months before interview. A drink was defined as 12 ounces of beer, a 5-ounce glass of wine, or a 1.5-ounce shot of liquor.
- Binge drinking: Defined as ≥ 5 drinks in a single sitting (≥ 4 drinks for women) in the past 30 days [12].
- Electronic cigarette or other vaping device smoking status: History of use of electronic cigarettes or other vaping devices in one’s lifetime or during the past 30 days was based on history of vaping e-cigarettes or other vaping devices to vape nicotine, tobacco, marijuana (e.g., marijuana concentrates, marijuana waxes, THC or hash oils), flavoring or other substances.
- Noninjection drug use: Defined as use of any noninjection drugs for nonmedical purposes during the 12 months before interview, including marijuana (including through vaping), amyl nitrate (poppers), methamphetamine (e.g., crystal meth, tina, crank, ice), cocaine that is smoked or snorted, club drugs (e.g., Ecstasy or X, ketamine or Special K, gamma hydroxybutyrate or Liquid Ecstasy), crack, prescription opioids (e.g., oxycodone, hydrocodone, Vicodin, Percocet), prescription tranquilizers (e.g., Valium, Ativan, Xanax, downers, nerve pills), or heroin or opium. The use of trade names is for identification only and does not imply endorsement by the Department of Health and Human Services or the Centers for Disease Control and Prevention. Prevalence of noninjection drug use differed between 2020 and 2021 because of: 1) exclusion of information on amphetamines (e.g., speed, bennies, uppers) in 2021, and 2) inclusion of marijuana use through electronic cigarettes or other vaping devices in 2021. The estimate of marijuana use differed between 2020 and 2021 because of inclusion of marijuana use through electronic cigarettes or other vaping devices in 2021.

- Injection drug use: Defined as use of any injection drug use during the 12 months before interview, including methamphetamine (e.g., crystal meth, tina, crank, ice), heroin, cocaine, heroin *and* cocaine (speedball), or prescription opioids (e.g., OxyContin, oxycodone, hydrocodone). Information on amphetamines (e.g., speed, bennies, uppers) was excluded in 2021.

Sexual Behavior and Use of Prevention Services

- Sexual behavior/orientation: Sexual behavior/orientation was categorized into three groups: MSM, MSW, and WSM. MSM represented cisgender men who had sex with cisgender men; MSW represented cisgender men who had sex only with cisgender women; WSM represented cisgender women who had sex with cisgender men. Women who had sex with only women were not included in sexual behavior tables. Whenever possible, categories were coded based on sexual behavior data based on the 12 months before interview. For those who reported not having sex during the 12 months before interview, people were categorized based on sexual orientation.

- **Prevention strategies:** Reported behaviors that decrease the likelihood of HIV transmission to a sexual partner, including:
    - Sex while having sustained viral suppression: Vaginal or anal sex and the person's HIV viral loads were documented in the medical record as undetectable or < 200 copies/mL at every measure in the past 12 months before interview.
    - Condom-protected sex: Condoms were consistently used with at least 1 vaginal or anal sex partner.
    - Condomless sex with a partner on preexposure prophylaxis (PrEP): At least 1 condomless-sex partner with an HIV-negative status was on PrEP. PrEP use was only measured among the 5 most recent partners and was reported by the partner with HIV.
    - Sex with a partner with HIV: Vaginal or anal sex with at least 1 partner with HIV.
    - Sex without using an HIV prevention strategy: Vaginal or anal sex with at least 1 partner with an HIV-negative or unknown status while not having sustained viral suppression, when a condom was not used, and the partner was not known to be taking PrEP.

Met and Unmet Needs for Ancillary Services

Ancillary services were defined as services that support retention in routine HIV medical care and viral suppression, such as HIV case management, dental care, and mental health services [13]. Ancillary services could include services that support HIV medical care more directly, or those that support a person's general health through other types of services. Ancillary services were grouped into three categories: HIV support services, non-HIV medical services, and subsistence services. HIV support services included: HIV case management, medicine through ADAP, adherence support services, HIV peer group support, and patient navigation services (patient navigation services could have been for HIV medical care or other types of care). Non-HIV medical services included: dental care, mental health services, drug or alcohol counseling or treatment, and domestic violence services. Subsistence services included: Supplemental Nutrition Assistance Program (SNAP) or Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), transportation assistance, meal or food services, and shelter or housing services.

- **Met need:** Defined as an ancillary service received during the 12 months before interview.
- **Unmet need:** Defined as an ancillary service that the participant reported as needed, but not received, during the 12 months before interview.

National Indicators

Several National HIV/AIDS Strategy (NHAS) indicators are monitored through MMP data, including five quality of life indicators. These include measures of physical health (i.e., self-rated health), mental and emotional health (i.e., unmet needs for mental health services among those who needed services), and structural factors (i.e., unstable housing or homelessness, unemployment, and hunger or food insecurity). All NHAS indicators are reported among all adults with diagnosed HIV, by selected demographic characteristics, and for NHAS priority populations, including all MSM, Black/African American MSM, Hispanic/Latino MSM, American Indian/Alaska Native MSM, persons aged 18–24 years, persons who inject drugs, Black/African American cisgender women, and transgender women [14].

- **Self-rated health**: Self-rated health is assessed by using a single question that captures the respondent's general health at the time of interview and a Likert-type scale with the following responses: poor, fair, good, very good, or excellent. Self-rated health was dichotomized as good or better health (i.e., good, very good, or excellent) versus less than good health (i.e., poor, fair). The NHAS 2025 goal for self-rated health among PWH is 95%.
- **Unmet needs for mental health services from a mental health professional among persons with diagnosed HIV who reported an unmet or met need for services from a mental health professional:** This measure was assessed through two questions. First, participants were asked if they saw or talked to a mental health professional (e.g., psychologist, psychiatrist, psychiatric nurse, or clinical social worker) about their health during the past 12 months. Next, they were asked if they needed to see or talk to a mental health professional about their health. The denominator represents people who needed mental health services (i.e., those with a met or unmet need), and was defined as those who received services (met need) and those who needed, but did not receive, services (unmet need). The numerator represents those who needed, but did not receive, services (unmet need). The NHAS 2025 goal for unmet needs for mental health services among those who needed services is 12% among PWH.
- **Unstable housing or homelessness**: Persons were considered to have experienced unstable housing if they reported moving in with others due to financial issues, moving 2 or more times, or being evicted at any time during the past 12 months. Persons were considered to have experienced homelessness if they reported living on the street, in a shelter, in a single-room–occupancy hotel, or in a car during the past 12 months. Persons were considered to have experienced

unstable housing or homelessness if they reported any form of unstable housing or homelessness during the past 12 months. The NHAS 2025 goal for unstable housing or homelessness among PWH is 11%.

- Unemployment: Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work. The NHAS 2025 goal for unemployment among PWH is 8%.
- Hunger/food insecurity: Persons who reported being hungry and not eating because they did not have enough money for food during the past 12 months were considered to be food insecure. The NHAS 2025 goal for hunger/food insecurity among PWH is 11%.

HIV stigma: Defined as the weighted median score on a 10-item scale ranging from 0 (no stigma) to 100 (high stigma) that measures 4 dimensions of HIV stigma: personalized stigma during the past 12 months, current disclosure concerns, current negative self-image, and current perceived public attitudes about people living with HIV, measured among persons aged ≥18 years with diagnosed HIV infection living in the United States and Puerto Rico. The HIV stigma scale used for this indicator is discussed in Wright, et al [15]. The NHAS 2025 goal for the median HIV stigma score among PWH is 16.

Ethics Statement

In accordance with guidelines for defining public health research [16], CDC has determined MMP is public health surveillance used for disease control, program, or policy purposes. Local institutional review board approval was obtained from participating areas when required. Informed consent was obtained from all interviewed participants.

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