

HIV | SURVEILLANCE REPORT

SPECIAL REPORT

**Individual-level Social Determinants of
Health and Quality of Life Among
Persons With Diagnosed HIV Infection
Medical Monitoring Project, United States,
2022 Data Cycle (June 2022–May 2023)**



Centers for Disease
Control and Prevention
National Center for HIV,
Viral Hepatitis, STD, and
TB Prevention

This HIV Surveillance Special Report is published by the Behavioral and Clinical Surveillance Branch of the Division of HIV Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, Georgia.

The HIV Surveillance Special Report is not copyrighted and may be used and copied without permission. Citation of the source is, however, appreciated.

Suggested citation

Centers for Disease Control and Prevention. *Individual-level Social Determinants of Health and Quality of Life Among Persons With Diagnosed HIV Infection—Medical Monitoring Project, United States, 2022 Data Cycle (June 2022–May 2023)*. HIV Surveillance Special Report 38. <https://stacks.cdc.gov/view/cdc/168909>. Published November 2024. Accessed [date].

On the Web: <https://www.cdc.gov/hiv-data/mmp/index.html>

Confidential information, referrals, and educational material on HIV infection

CDC-INFO

1-800-232-4636 (in English, en Español)

1-888-232-6348 (TTY)

<https://wwwn.cdc.gov/dcs/ContactUs/Form>

This report was prepared by the following staff and contractors of the Division of HIV Prevention, CDC: Linda Beer, Sharoda Dasgupta, Stacy M. Crim, Xin Yuan, Tim McManus, Yunfeng Tie, Kristal Stevenson, Mohua Basu, Rodel Desamu-Thorpe, Catherine Espinosa, Jennifer L. Fagan, Kamal Hughes, Ruth E. Luna-Gierke, Irma Kocer, Taylor Robbins, Sandra Stockwell, Jennifer Taussig, Nabeeha Virani, John Weiser, Jason A. Craw, and Michael Friend (editing).

Acknowledgments

This report was prepared by members of the Clinical Outcomes Team within the Division of HIV Prevention.

This report would not be possible without the contributions of Medical Monitoring Project (MMP) respondents, community and provider advisory boards, interviewers, and abstractors; the Data Coordinating Center for HIV Supplemental Surveillance at ICF International; and members of the Clinical Outcomes Team, Division of HIV Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, CDC, Atlanta, Georgia.

MMP project areas—https://www.cdc.gov/hiv-data/mmp/index.html#cdc_survey_profile_surveys_used-project-areas

Commentary	5
Figures	
1 National HIV/AIDS Strategy indicators among adults with diagnosed HIV—Medical Monitoring Project, United States, 2022	6
2 Household poverty level of adults with diagnosed HIV—Medical Monitoring Project, United States, 2015–2022	7
3 Health insurance or coverage among adults with diagnosed HIV—Medical Monitoring Project, United States, 2015–2022	8
4 Disability among adults with diagnosed HIV—Medical Monitoring Project, United States, 2015–2022	9
5 HIV health care discrimination, limited English proficiency, experiences with physical violence by an intimate partner or forced sex, and incarceration among adults with diagnosed HIV—Medical Monitoring Project, United States, 2022	10
6 Good or better self-rated health among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022	11
7 Unmet needs for services from a mental health professional among adults with diagnosed HIV with a need for services, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022	12
8 Unstable housing or homelessness among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022	13
9 Unemployment among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022	14
10 Hunger or food insecurity among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022	15
11 Median HIV stigma scores among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022	16
12 Good or better self-rated health among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022	17
13 Unmet needs for services from a mental health professional among adults with diagnosed HIV who needed services, by NHAS priority population—Medical Monitoring Project, United States, 2022	18
14 Unstable housing or homelessness among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022	18
15 Unemployment among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022	19
16 Hunger or food insecurity among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022	19
17 Median HIV stigma scores among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022	20
18 Good or better self-rated health among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022	21
19 Unmet needs for services from a mental health professional among adults with diagnosed HIV who needed services, by jurisdiction—Medical Monitoring Project, United States, 2022	22
20 Unstable housing or homelessness among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022	23
21 Unemployment among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022	24
22 Hunger or food insecurity among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022	25
23 Median HIV stigma score among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022	26

24	Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by self-rated health—Medical Monitoring Project, United States, 2022	27
25	Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons experienced unmet needs for mental health services among those who needed them—Medical Monitoring Project, United States, 2022	28
26	Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons experienced unstable housing or homelessness—Medical Monitoring Project, United States, 2022	29
27	Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons were unemployed—Medical Monitoring Project, United States, 2022	30
28	Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons experienced hunger or food insecurity—Medical Monitoring Project, United States, 2022	31
29	Median HIV stigma scores among adults with diagnosed HIV, by selected HIV outcomes—Medical Monitoring Project, United States, 2022	32
30	Experiences with HIV-related stigma among adults with diagnosed HIV, by domain—Medical Monitoring Project, United States, 2022	33

Tables

1	Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2015–2022	35
2a	Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by age—Medical Monitoring Project, United States, 2022	39
2b	Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by age—Medical Monitoring Project, United States, 2022	41
3a	Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by current gender identity—Medical Monitoring Project, United States, 2022	43
3b	Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by current gender identity—Medical Monitoring Project, United States, 2022	45
4a	Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by sexual orientation—Medical Monitoring Project, United States, 2022	47
4b	Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by sexual orientation—Medical Monitoring Project, United States, 2022	49
5a	Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by racial/ethnic identity—Medical Monitoring Project, United States, 2022	51
5b	Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by racial/ethnic identity—Medical Monitoring Project, United States, 2022	53
6	Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by National HIV/AIDS Strategy priority populations—Medical Monitoring Project, United States, 2022	55
7	National HIV/AIDS Strategy indicators among adults with diagnosed HIV, by other individual-level social determinants of health—Medical Monitoring Project, United States, 2022	57
8	National HIV/AIDS Strategy indicators among adults with diagnosed HIV, by project area—Medical Monitoring Project, United States, 2022	59
9	Key clinical outcomes among adults with diagnosed HIV, by individual-level social determinants of health and quality of life—Medical Monitoring Project, United States, 2022	60
10	Median HIV stigma scores by key clinical outcomes among adults with diagnosed HIV—Medical Monitoring Project, 2022	62
11	Experiences with HIV-related stigma among adults with diagnosed HIV, by domain—Medical Monitoring Project, United States, 2022	63

Technical Notes and Appendix	64
-------------------------------------	-----------

Commentary

Social determinants of health (SDOH) are the “conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of-life risks and outcomes” [1]. Addressing social determinants of health among people with HIV (PWH) is a national priority highlighted in the White House’s National HIV/AIDS Strategy (NHAS), as it is essential for reducing disparities in health outcomes and achieving health equity among people with HIV [2, 3], particularly among priority groups, including: gay, bisexual, and other men who have sex with men (MSM) (in particular, Black, Latino, and American Indian/Alaska Native men); Black women; transgender women; youths aged 13–24 years; and people who inject drugs. Further, NHAS added several indicators in 2022 based on community input to monitor quality of life (QoL) among PWH that are related to SDOH, including aspects of physical health (i.e., self-reported health status), mental or emotional health (i.e., unmet needs for mental health services), and structural or subsistence factors (i.e., unemployment, hunger/food insecurity, and unstable housing or homelessness) [4].

The Centers for Disease Control and Prevention (CDC) Medical Monitoring Project (MMP) is the only source of nationally representative data on individual-level SDOH and QoL among adults with diagnosed HIV in the United States, including among priority populations highlighted in NHAS. Estimates are also representative for each of MMP’s reporting project areas, including: 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 state. Data from MMP are critical for achieving the goals of NHAS [4] and the Ending the HIV Epidemic in the U.S. (EHE) initiative [5], 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. Continuing to monitor SDOH and QoL among PWH is an essential step towards meeting national goals to end the HIV epidemic and ensuring good health and well-being among PWH in the United States.

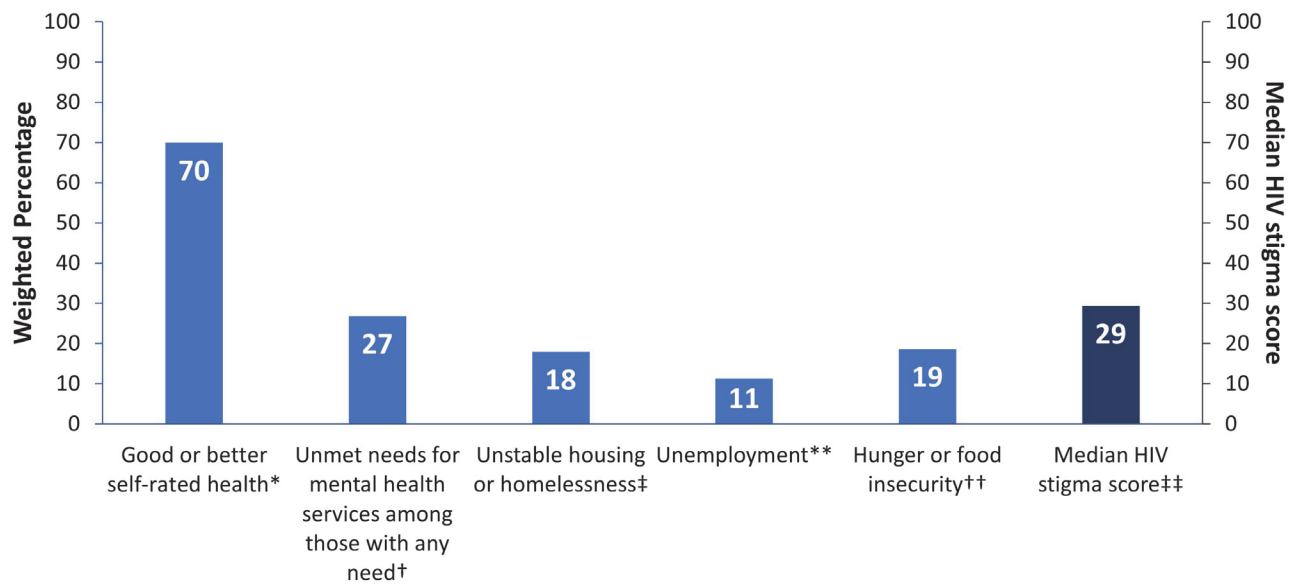
This report presents unweighted frequencies and weighted prevalence estimates with 95% confidence intervals (CIs) for all characteristics represented by categorical variables. Continuous variables are represented using median values and 95% CIs. The period referenced for estimates is the 12 months before the respondents’ interviews unless otherwise noted. Statistical software (SAS, version 9.4) was used for analysis of weighted data. 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. In both the tables and the narrative, 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 $\geq 130\%$, and estimates of 0% or 100% are marked with an asterisk (*) and should be interpreted with caution. Estimates are rounded to the nearest whole number in the commentary and figures, and to the nearest tenth in the tables; comparisons between groups in the commentary are based on estimates presented in the tables. Estimates from the 2020–2022 cycles presented in this report may have been affected by the COVID-19 pandemic. Estimates for persons identifying as American Indian/Alaska Native or Native Hawaiian/other Pacific Islander were suppressed for all measures due to small numbers. Many estimates for Asian persons were also unreliable and were suppressed. Additional information on MMP is available at <https://www.cdc.gov/hiv-data/mmp/index.html>.

HIGHLIGHTS OF ANALYSES

Individual-level SDOH and QOL

MMP reports information on QoL indicators and HIV stigma to monitor progress towards meeting national HIV prevention and treatment goals highlighted in NHAS. During 2022, 70% of persons with HIV had good or better self-rated health (2025 NHAS goal: 95%), and 27% had an unmet need for services from a mental health professional among those with any need (2025 NHAS goal: 12%) (Figure 1; Table 1). Overall, 18% experienced unstable housing or homelessness during the past 12 months (2025 NHAS goal: 11%), 11% were unemployed (2025 NHAS goal: 7%), and 19% experienced hunger or food insecurity during the past 12 months (2025 NHAS goal: 11%). During 2022, the median HIV stigma score based on a scale that ranged from 0 (no stigma) to 100 (high stigma) was 29 among PWH (2025 NHAS goal: 16).

Figure 1. National HIV/AIDS Strategy indicators among adults with diagnosed HIV—Medical Monitoring Project, United States, 2022

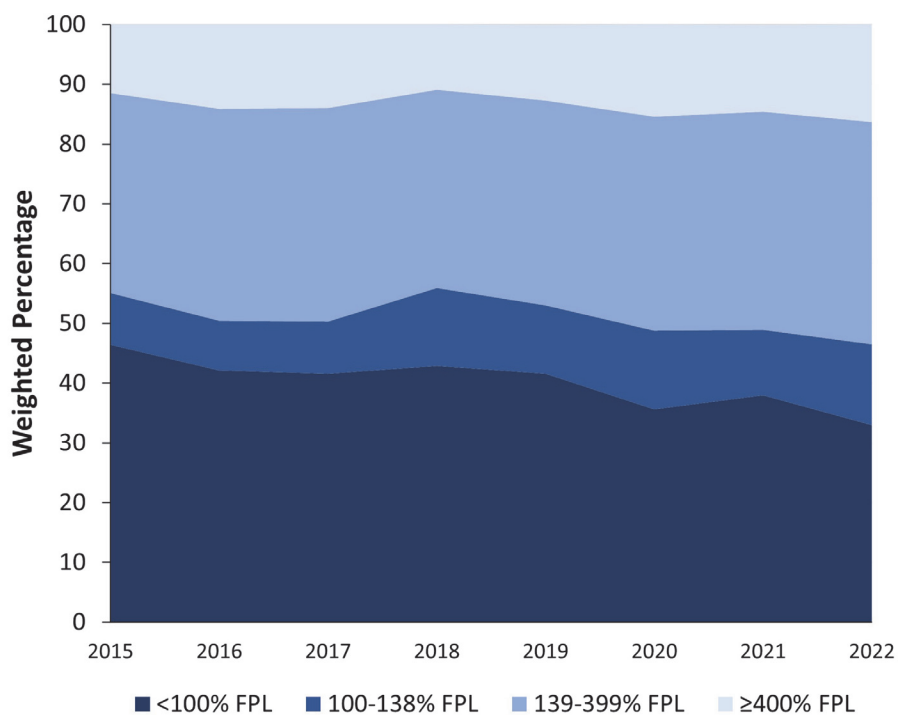


- * “Good or better self-rated health” defined as rating one’s health as good, very good, or excellent (as opposed to poor or fair) at the time of interview.
- † “Unmet need for mental health services from a mental health professional” defined as needing, but not receiving, services from a mental health professional among those who indicated needing mental health services (i.e., receiving or needing but not receiving) during the past 12 months.
- ‡ “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) 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.
- ** Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.
- †† “Hunger/food insecurity” defined as going without food due to lack of money during the past 12 months.
- ‡‡ “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 persons living with HIV, measured among persons aged ≥18 years with diagnosed HIV infection living in the United States and Puerto Rico.

MMP also collects information on other individual-level SDOH related to economic stability, education, health-related factors, and social and community context. During 2022, 84% of PWH were living in a household with an income <400% of the federal poverty level (FPL); 33% were living in a household with an income <100% of the FPL, 14% in a household with an income between 100%–138% of the FPL, and 37% in

a household with an income between 139%–399% (Figure 2; Table 1). The percentage of PWH living in a household with an income <100% of the FPL was lowest in 2022 (33%) and highest in 2015 (46%).

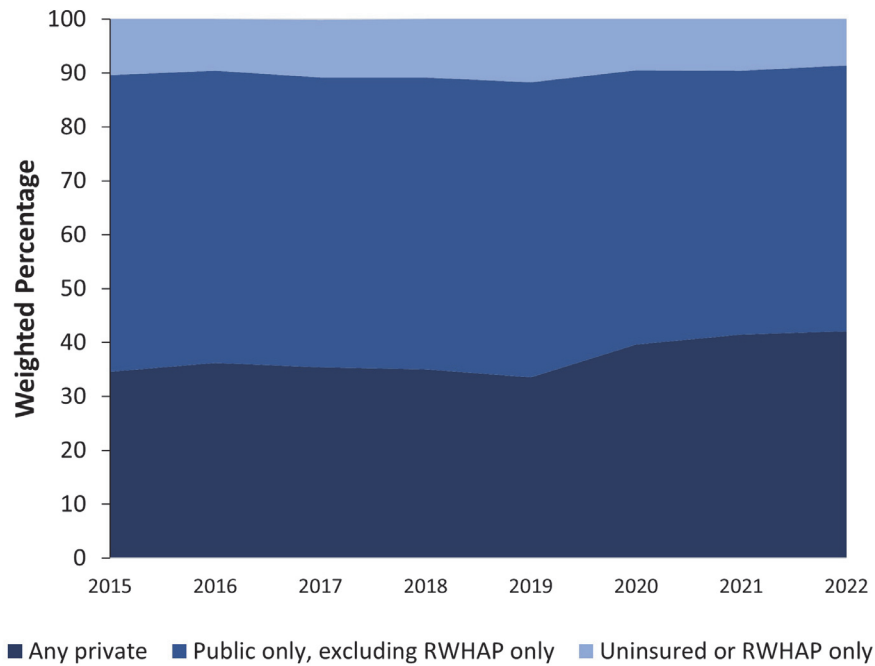
Figure 2. Household poverty level of adults with diagnosed HIV—Medical Monitoring Project, United States, 2015–2022



Note. Poverty guidelines as defined by HHS. Respondents were asked about their household income from all sources during the calendar year prior to the interview date. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

During the past 12 months, 42% had any private insurance coverage, 49% had public insurance or coverage only (excluding those who had Ryan White HIV/AIDS Program [RWHAP] assistance only), and 9% were uninsured or received RWHAP assistance only (Figure 3; Table 1). The percentage of PWH who had any private insurance was lowest during 2019 (34%) and highest during 2022 (42%). In addition, 47% received any RWHAP assistance during the past 12 months (Table 1).

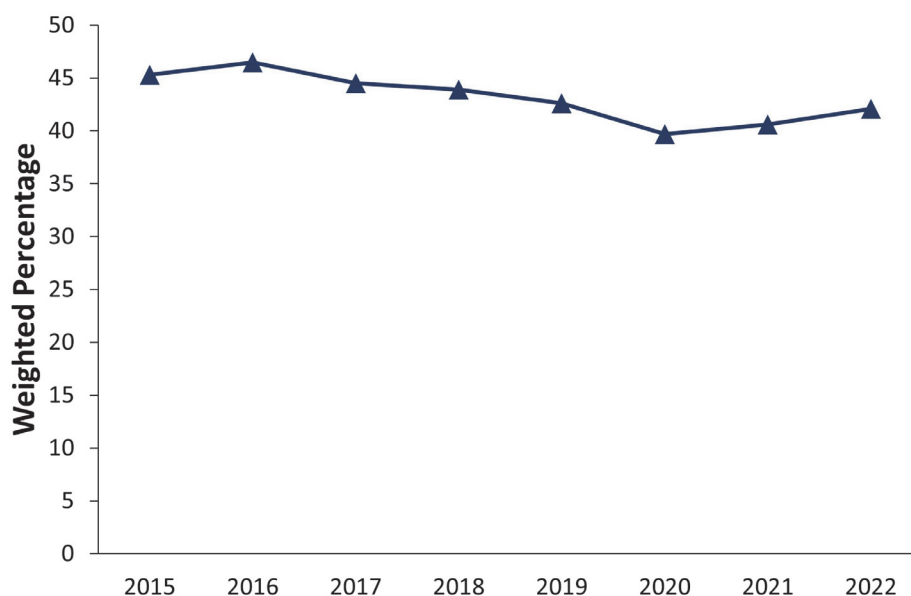
Figure 3. Health insurance or coverage among adults with diagnosed HIV—Medical Monitoring Project, United States, 2015–2022



Abbreviation: RWHAP, Ryan White HIV/AIDS Program.

During 2022, 42% of PWH reported a physical, mental, or emotional disability; the percentage of PWH with one or more disabilities was lowest during 2020 (40%) and highest during 2016 (47%).

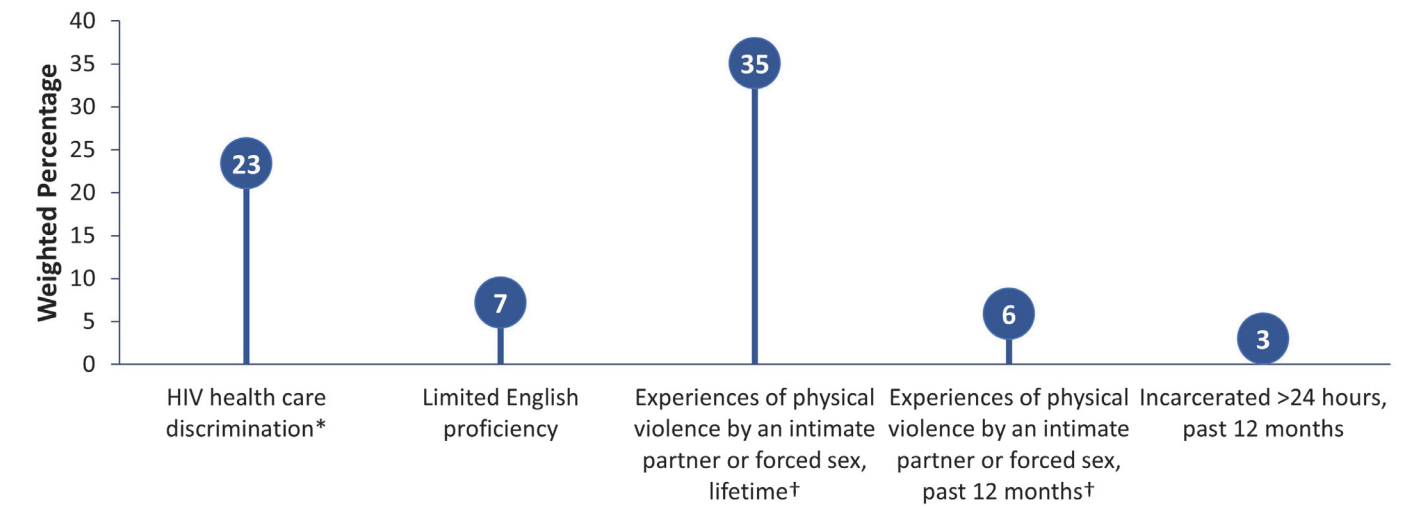
Figure 4. Disability among adults with diagnosed HIV—Medical Monitoring Project, United States, 2015–2022



Note. Disabilities are self-reported and include physical, mental, and emotional disabilities.

During 2022, 23% of PWH experienced any HIV health care discrimination during the past 12 months, and 7% reported speaking English “less than well” (Figure 5; Table 1). Overall, 35% had experiences of physical violence by an intimate partner or forced sex during their lifetime, and 6% had these experiences during the past 12 months. Three percent of PWH reported being incarcerated during the past 12 months.

Figure 5. HIV health care discrimination, limited English proficiency, experiences with physical violence by an intimate partner or forced sex, and incarceration among adults with diagnosed HIV—Medical Monitoring Project, United States, 2022



* HIV health care discrimination among those who received HIV care during the past 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced this never, rarely, some of the time, most of the time, or all of the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

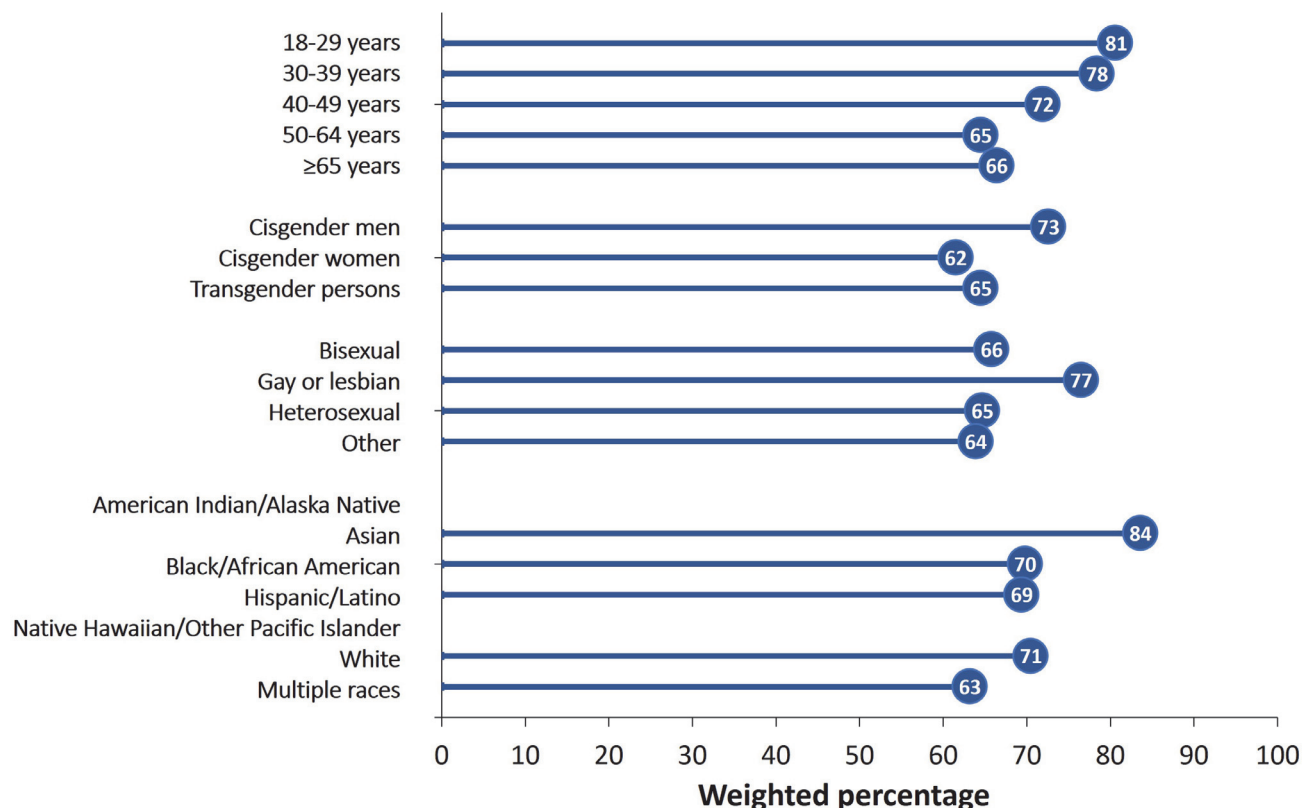
† Physical violence by an intimate partner was defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex was defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

NHAS Indicators and Other Individual-level SDOH by Demographic Characteristics

Estimates of all NHAS indicators and other individual-level SDOH are reported by demographic characteristics. Absolute and relative disparities (using prevalence differences and prevalence ratios, respectively) were used to quantify differences in indicators and other SDOH by demographic characteristics, which are reported in Tables 2–5.

Good or better self-rated health varied by age, current gender identity, sexual orientation, and race/ethnicity (Tables 2–5, Figure 6). When stratified by age, good or better self-rated health was highest among persons aged 18–29 years (81%) and lowest among persons aged 50–64 years (65%). When stratified by current gender identity, good or better self-rated health was highest among cisgender men (73%) and lowest among cisgender women (62%). When stratified by sexual orientation, good or better self-rated health was highest among persons who identified as gay or lesbian (77%) and lowest among persons who identified as another sexual orientation (i.e., not bisexual, gay or lesbian, or heterosexual; 64%). When stratified by race/ethnicity, good or better self-rated health was highest among persons who identified as Asian (84%) and lowest among persons who identified as multiple races (63%).

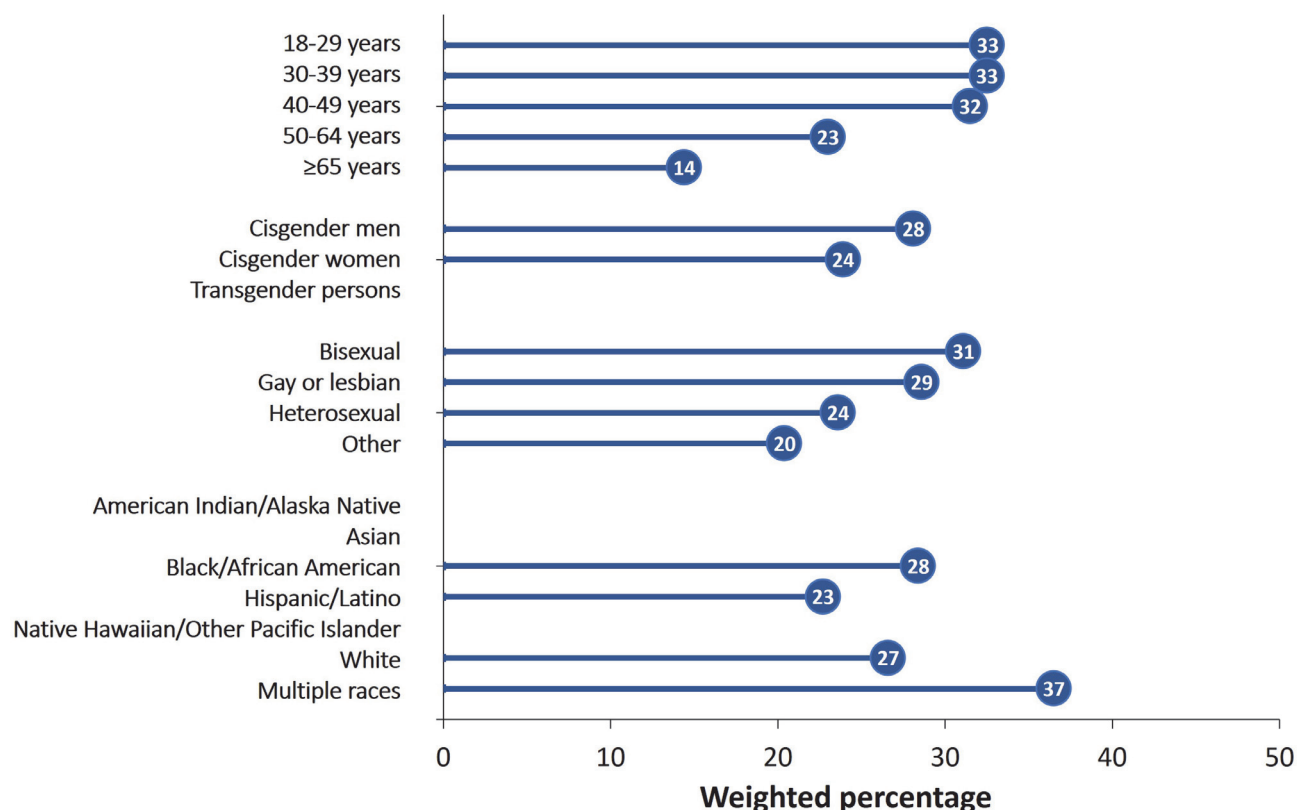
Figure 6. Good or better self-rated health among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022



Note. “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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 . Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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. Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

Unmet needs for services from a mental health professional among those who needed them varied by age, current gender identity, sexual orientation, and race/ethnicity (Tables 2–5, Figure 7). When stratified by age, unmet needs for mental health services among those who needed them were highest among persons aged 18–29 years and 30–39 years (both 33%) and lowest among persons aged ≥ 65 years (14%). When stratified by current gender identity, unmet needs for mental health services among those who needed them were highest among cisgender men (28%) and lowest among cisgender women (24%). When stratified by sexual orientation, unmet needs for mental health services among those who needed them were highest among persons who identified as bisexual (31%) and lowest among persons who identified as another sexual orientation (i.e., not bisexual, gay or lesbian, or heterosexual; 20%). When stratified by race/ethnicity, unmet needs for mental health services among those who needed them were highest among persons who identified as multiple races (37%) and lowest among persons who identified as Hispanic/Latino (23%).

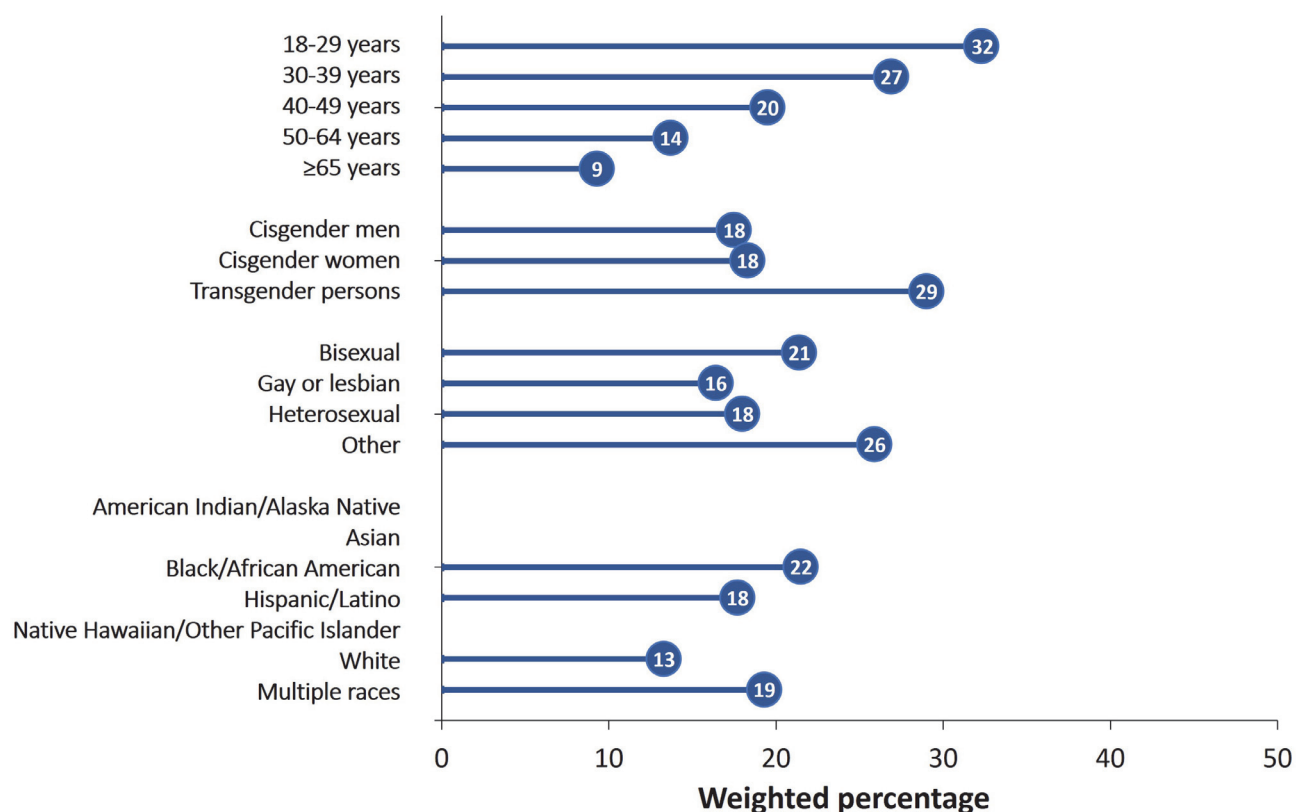
Figure 7. Unmet needs for services from a mental health professional among adults with diagnosed HIV with a need for services, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022



Note. “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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 . Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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. Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

Unstable housing or homelessness varied by age, current gender identity, sexual orientation, and race/ethnicity (Tables 2–5, Figure 8). When stratified by age, unstable housing or homelessness was highest among persons aged 18–29 years (32%) and lowest among persons aged ≥ 65 years (9%). When stratified by current gender identity, unstable housing or homelessness was highest among transgender persons (29%) and lowest among cisgender men (18%). When stratified by sexual orientation, unstable housing or homelessness was highest among persons who identified as another sexual orientation (i.e., not bisexual, gay or lesbian, or heterosexual; 26%) and lowest among persons who identified as gay or lesbian (16%). When stratified by race/ethnicity, unstable housing or homelessness was highest among persons who identified as Black/African American (22%) and lowest among persons who identified as White (13%).

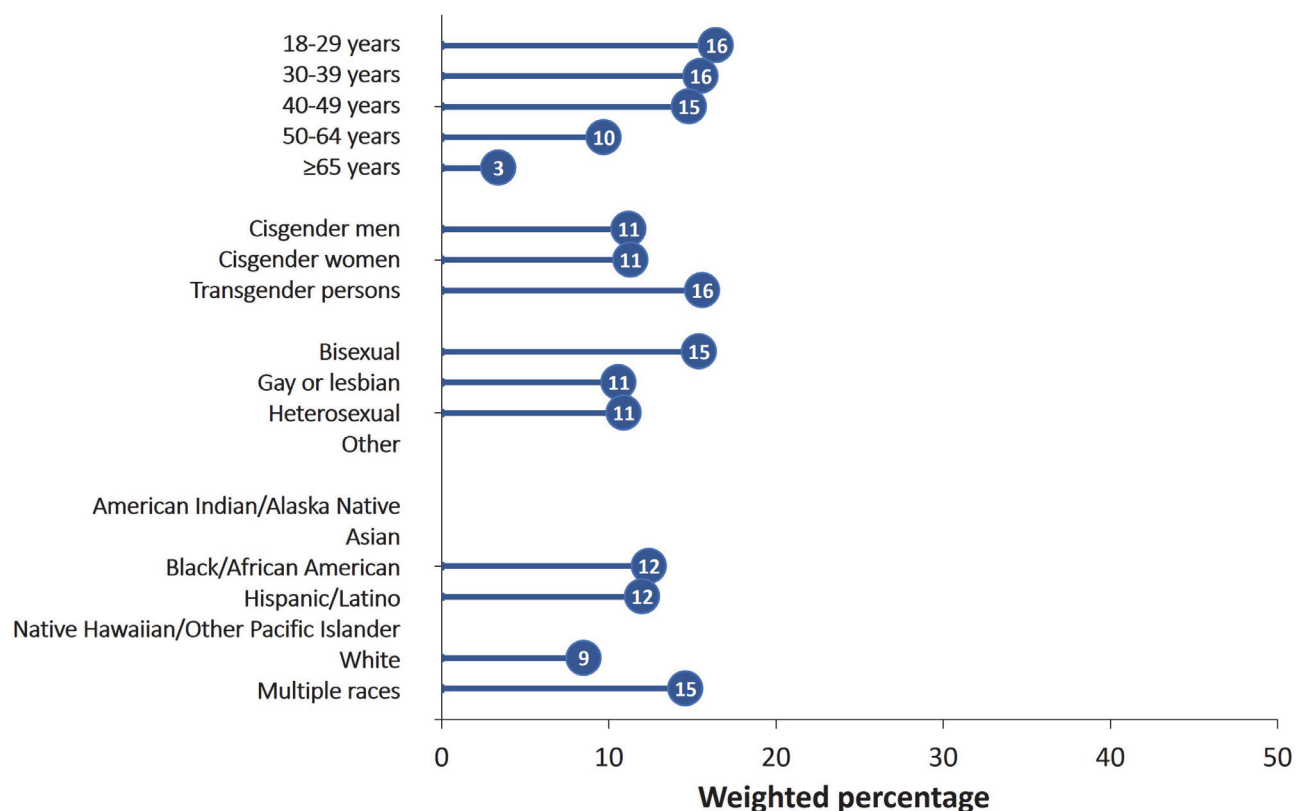
Figure 8. Unstable housing or homelessness among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022



Note. “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) 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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 . Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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. Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

Unemployment varied by age, current gender identity, sexual orientation, and race/ethnicity (Tables 2–5, Figure 9). When stratified by age, unemployment was highest among persons aged 18–29 years (16%) and lowest among persons aged ≥ 65 years (3%). When stratified by current gender identity, unemployment was highest among transgender persons (16%) and lowest among cisgender men (11%). When stratified by sexual orientation, unemployment was highest among persons who identified as bisexual (15%) and lowest among persons who identified as gay or lesbian (11%). When stratified by race/ethnicity, unemployment was highest among persons who identified as multiple races (15%) and lowest among persons who identified as White (9%).

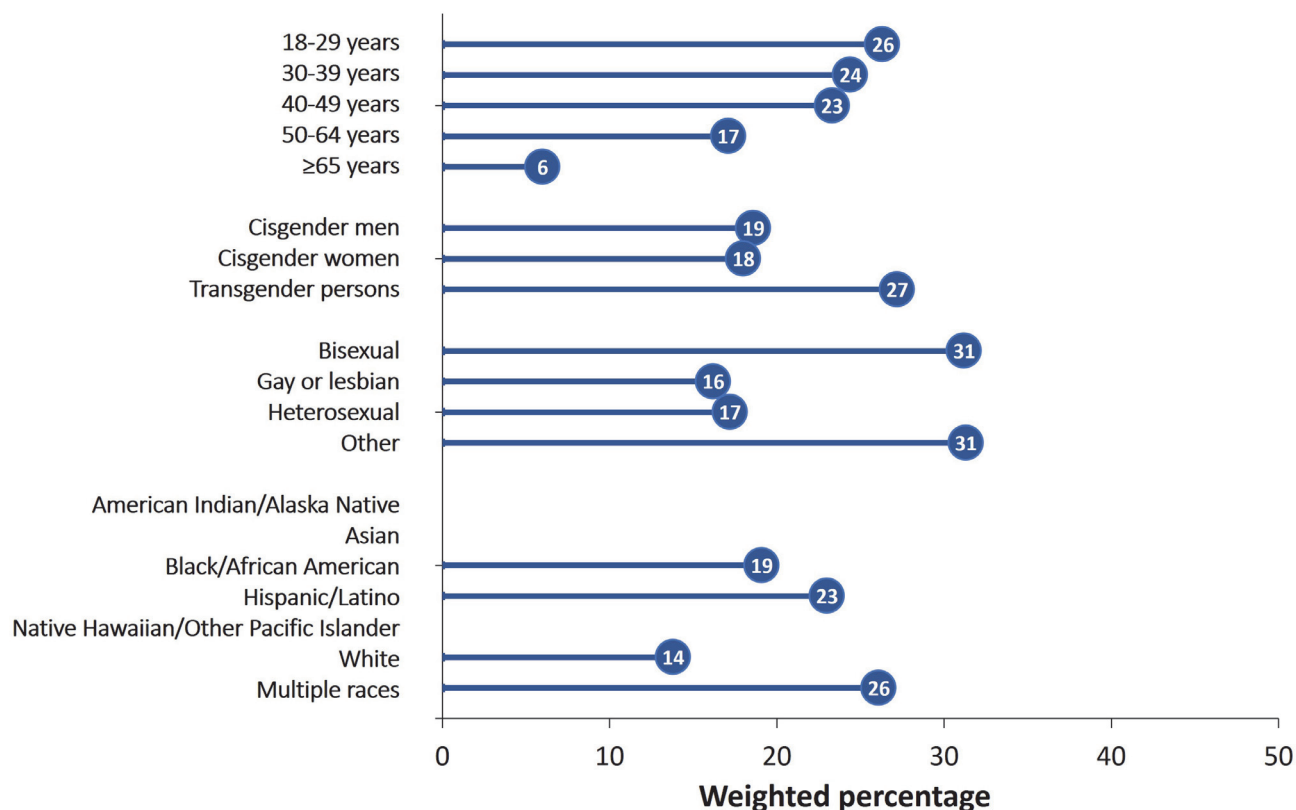
Figure 9. Unemployment among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022



Note. Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 . Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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. Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

Hunger or food insecurity varied by age, current gender identity, sexual orientation, and race/ethnicity (Tables 2–5, Figure 10). When stratified by age, hunger or food insecurity was highest among persons aged 18–29 years (26%) and lowest among persons aged ≥ 65 years (6%). When stratified by current gender identity, hunger or food insecurity was highest among transgender persons (27%) and lowest among cisgender women (18%). When stratified by sexual orientation, hunger or food insecurity was highest among persons identifying as another sexual orientation (i.e., not bisexual, gay or lesbian, or heterosexual; 31%) and lowest among persons who identified as gay or lesbian (16%). When stratified by race/ethnicity, hunger or food insecurity was highest among persons who identified as multiple races (26%) and lowest among persons who identified as White (14%).

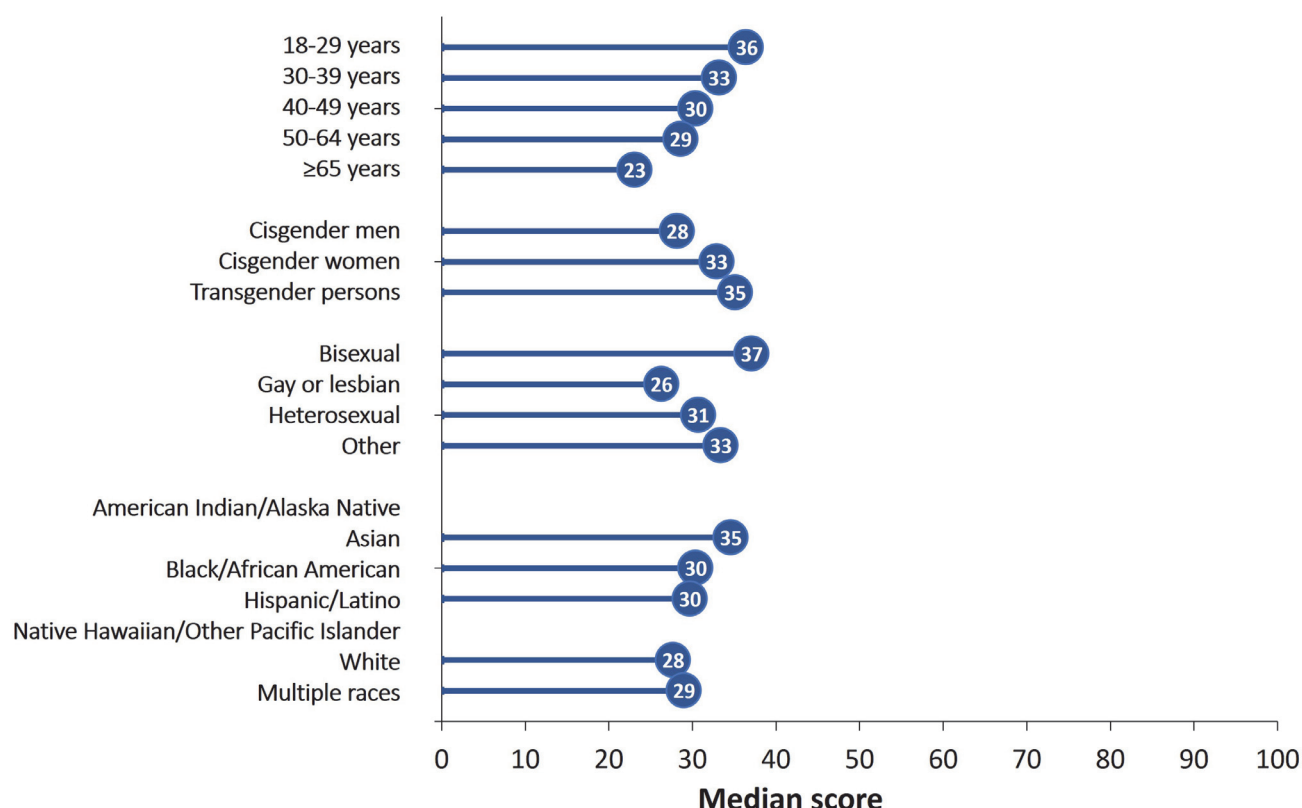
Figure 10. Hunger or food insecurity among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022



Note. “Hunger/food insecurity” defined as going without food due to lack of money during the past 12 months. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 . Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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. Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

Median HIV stigma scores varied by age, current gender identity, sexual orientation, and race/ethnicity (Tables 2–5, Figure 11). When stratified by age, the median HIV stigma score was highest among persons aged 18–29 years (36) and lowest among persons aged ≥ 65 years (23). When stratified by current gender identity, the median HIV stigma score was highest among transgender persons (35) and lowest among cisgender men (28). When stratified by sexual orientation, the median HIV stigma score was highest among persons who identified as bisexual (37) and lowest among persons who identified as gay or lesbian (26). When stratified by race/ethnicity, the median HIV stigma score was highest among persons who identified as Asian (35) and lowest among persons who identified as White (28).

Figure 11. Median HIV stigma scores among adults with diagnosed HIV, by age, gender, sexual orientation, and race/ethnicity—Medical Monitoring Project, United States, 2022



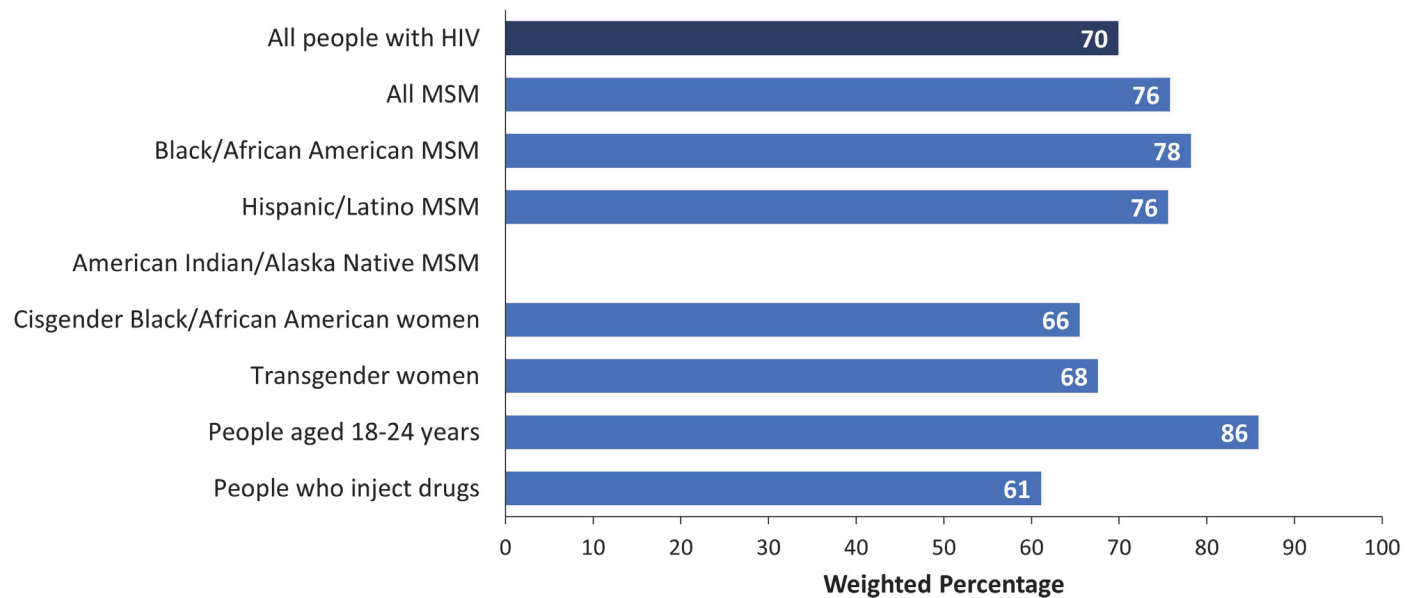
Note. “Median HIV stigma score” defined as the weighted median score on a 10-item scale ranging from 0 (no stigma) to 100 (high stigma) that measures 4 dimensions of HIV stigma: personalized stigma during the past 12 months, current disclosure concerns, current negative self-image, and current perceived public attitudes about persons living with HIV, measured among persons aged ≥ 18 years with diagnosed HIV infection living in the United States and Puerto Rico. Estimates were suppressed if they were based on a denominator sample size < 30 . Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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. Hispanics or Latinos can be of any race. Persons are classified in only 1 race/ethnicity category.

Stratifications of other SDOH by age, current gender identity, sexual orientation, and race/ethnicity are reported in Tables 2–5.

NHAS Indicators and Other SDOH by NHAS Priority Populations

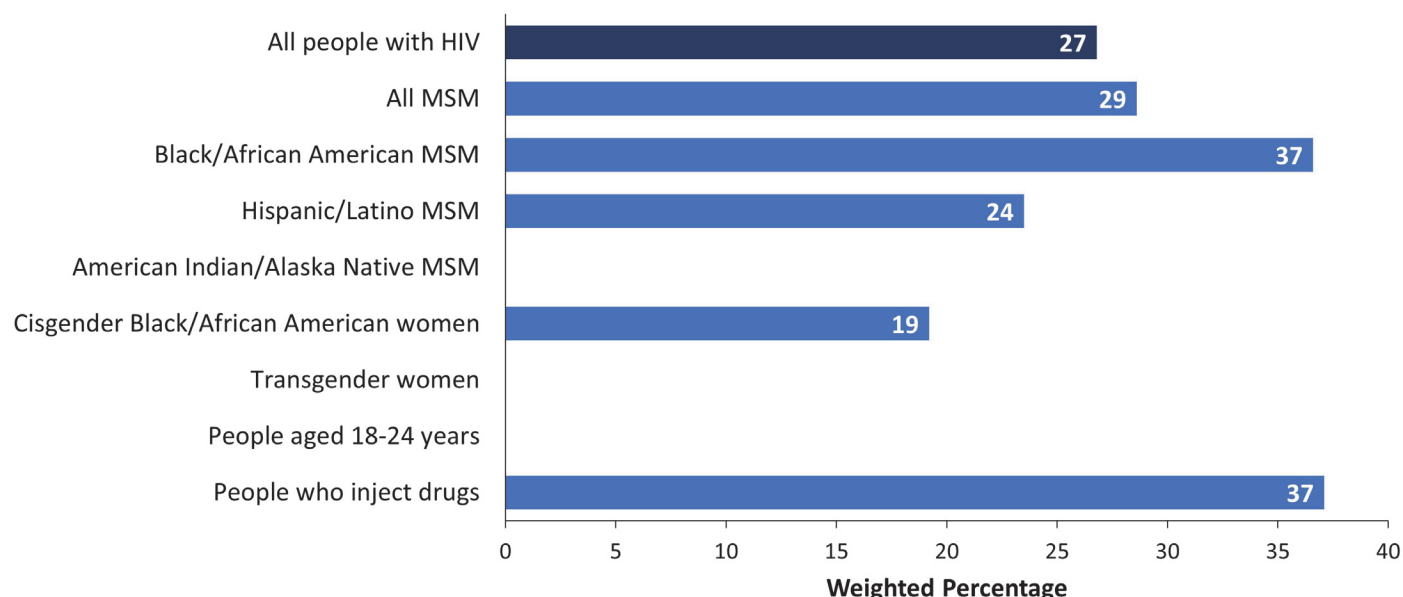
Table 6 shows that patterns in NHAS indicators and SDOH differed for each NHAS priority population during the 2022 MMP cycle (Table 6, Figures 12–17). For instance, good or better self-rated health was highest among persons aged 18–24 years (86%) and lowest among persons who inject drugs (61%). Unmet needs for services from a mental health professional among persons who needed services were highest among persons who inject drugs (37%) and lowest among cisgender Black or African American women (19%). Unstable housing or homelessness was highest among persons who inject drugs (51%) and lowest among MSM (17%). Unemployment was highest among persons who inject drugs (26%) and lowest among MSM (11%). Hunger or food insecurity was highest among persons who inject drugs (44%) and lowest among cisgender Black or African American women (14%). Median HIV stigma score was highest among persons aged 18–24 years (37) and lowest among Black or African American MSM (27).

Figure 12. Good or better self-rated health among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022



Abbreviations: NHAS, National HIV/AIDS Strategy; MSM, cisgender men who have sex with cisgender men.
Note. “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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

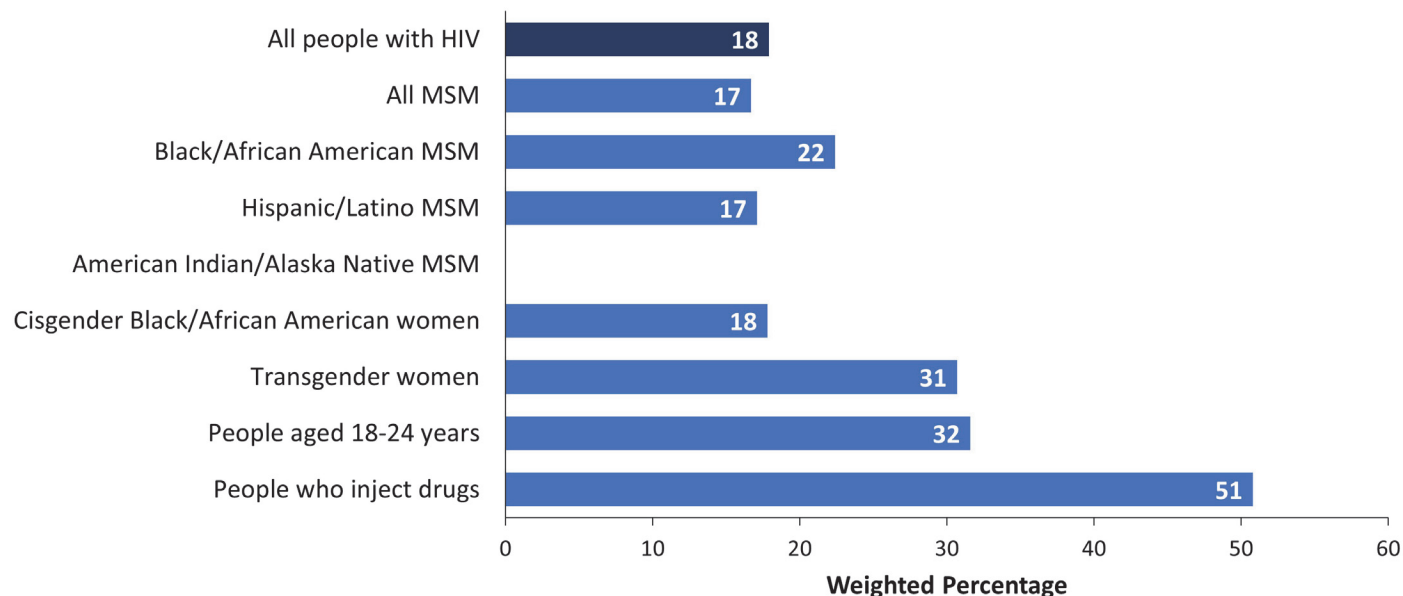
Figure 13. Unmet needs for services from a mental health professional among adults with diagnosed HIV who needed services, by NHAS priority population—Medical Monitoring Project, United States, 2022



Abbreviations: NHAS, National HIV/AIDS Strategy; MSM, cisgender men who have sex with cisgender men.

Note. “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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

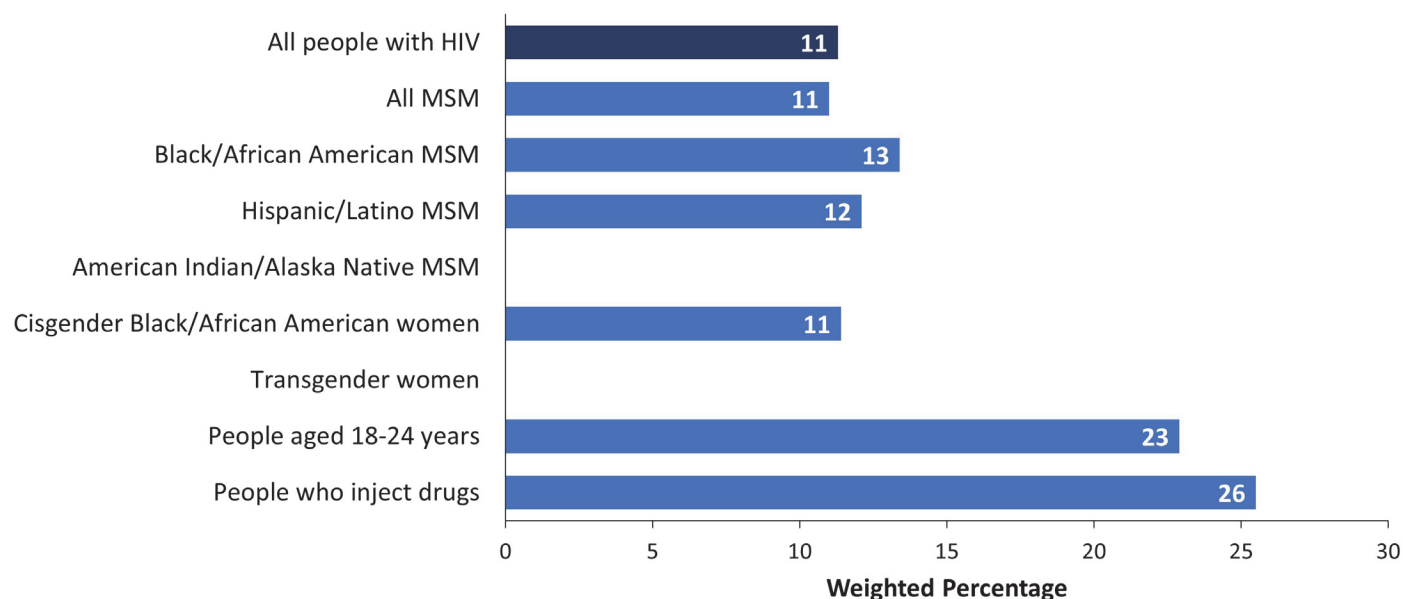
Figure 14. Unstable housing or homelessness among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022



Abbreviations: NHAS, National HIV/AIDS Strategy; MSM, cisgender men who have sex with cisgender men.

Note. “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) 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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

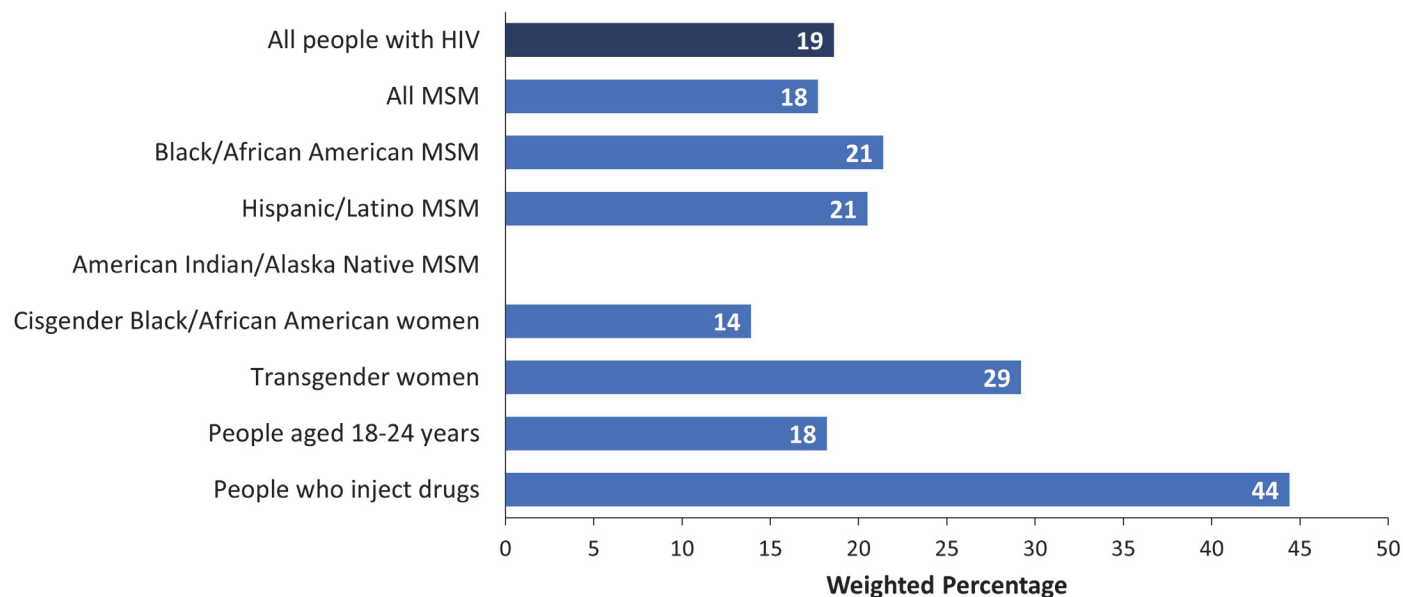
Figure 15. Unemployment among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022



Abbreviations: NHAS, National HIV/AIDS Strategy; MSM, cisgender men who have sex with cisgender men.

Note. Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

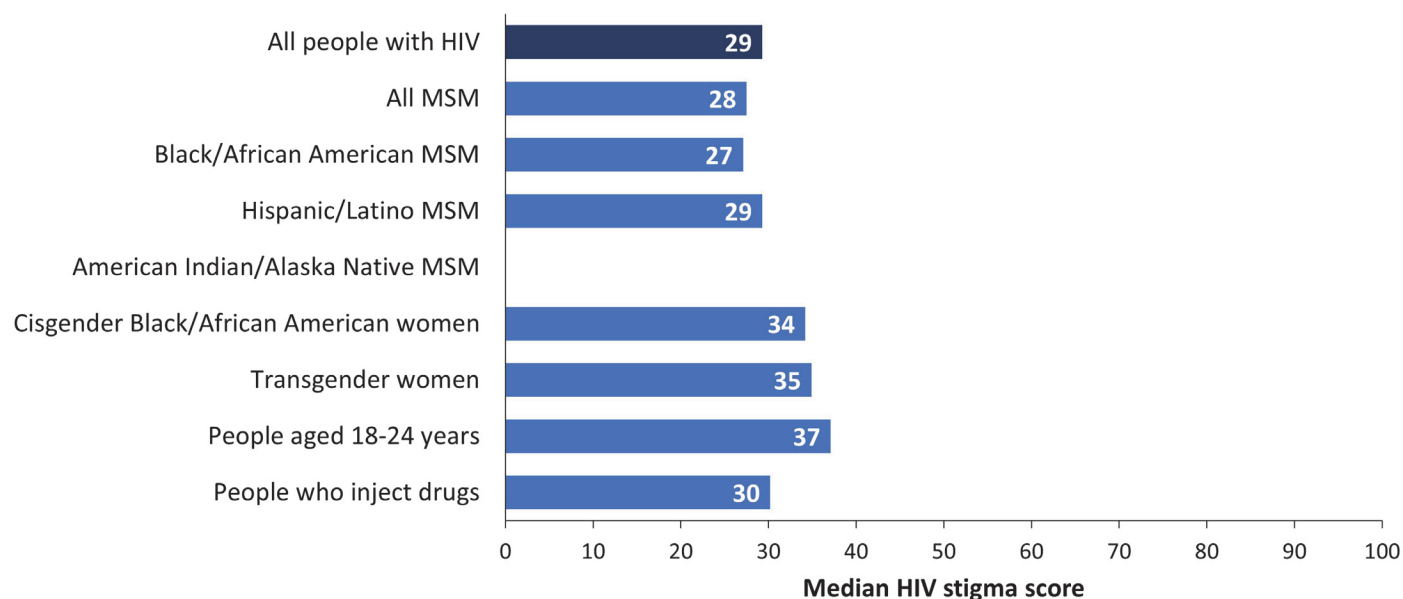
Figure 16. Hunger or food insecurity among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022



Abbreviations: NHAS, National HIV/AIDS Strategy; MSM, cisgender men who have sex with cisgender men.

Note. “Hunger/food insecurity” defined as going without food due to lack of money during the past 12 months. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

Figure 17. Median HIV stigma scores among adults with diagnosed HIV, by NHAS priority population—Medical Monitoring Project, United States, 2022



Abbreviations: NHAS, National HIV/AIDS Strategy; 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 persons living with HIV, measured among persons aged ≥ 18 years with diagnosed HIV infection living in the United States and Puerto Rico. Estimates were suppressed if they were based on a denominator sample size < 30 .

Estimates for other SDOH for each NHAS priority population are presented in Table 6.

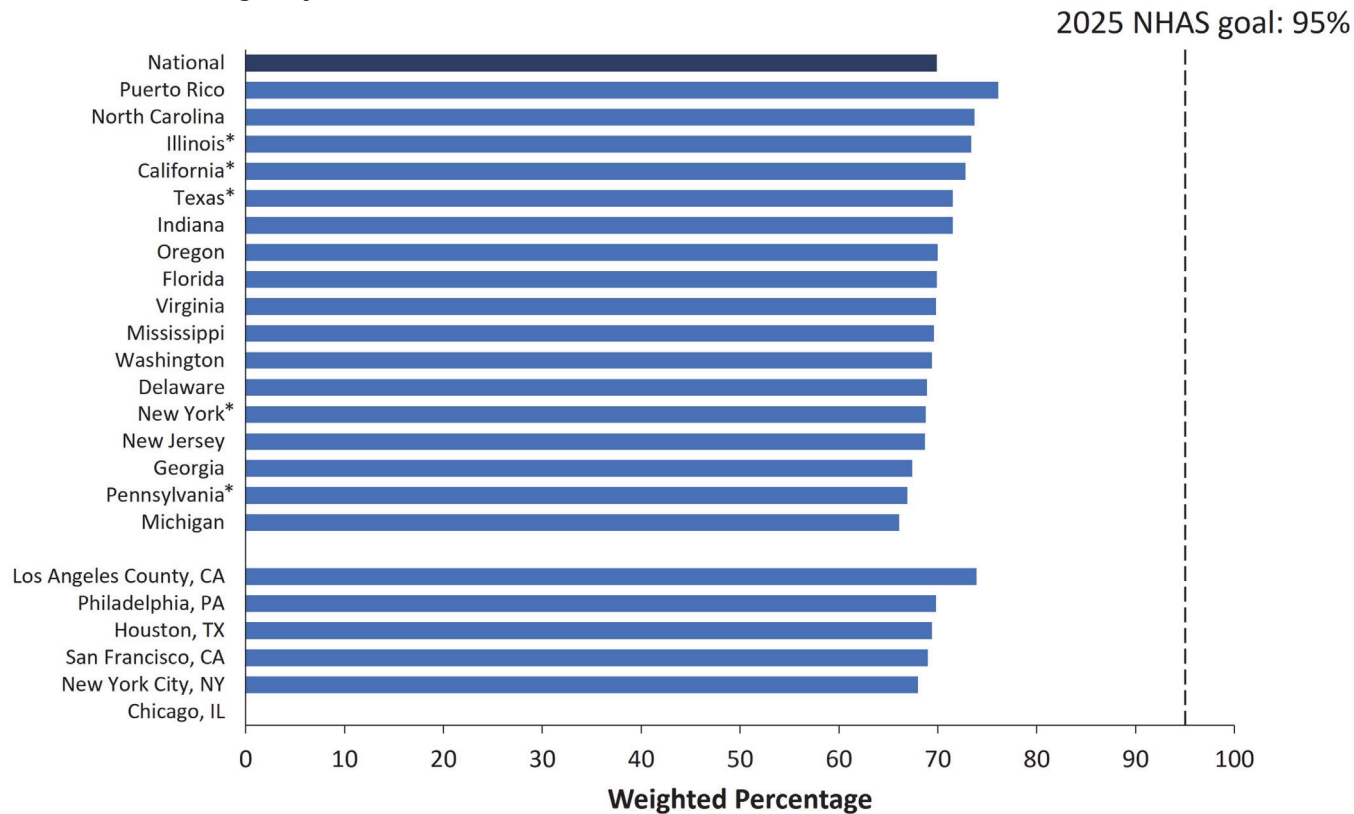
NHAS Indicators by Individual SDOH

During the 2022 MMP cycle, NHAS indicators related to QoL and HIV stigma varied by other SDOH related to economic stability, education, health-related factors, neighborhood and built environment, and social and community context (Table 7).

NHAS Indicators by MMP Jurisdictions

NHAS indicators related to QoL and HIV stigma varied by jurisdiction. During the 2022 MMP cycle, the percentage of persons with good or better self-rated health ranged from 66% in Michigan to 76% in Puerto Rico (Table 8; Figure 18). The percentage of persons with unmet needs for services from a mental health professional during the past 12 months among those who needed them ranged from 16% in Los Angeles County to 37%* in Mississippi (Table 8; Figure 19). The percentage of persons who experienced unstable housing or homelessness during the past 12 months ranged from 8% in Puerto Rico to 25% in Florida (Table 8; Figure 20). Unemployment ranged from 8% in Oregon to 19% in New York City (Table 8; Figure 21). Hunger or food insecurity ranged from 12% in Puerto Rico to 24% in Texas (Table 8; Figure 22). Median HIV stigma scores ranged from 24 in San Francisco to 34 in Michigan (Table 8; Figure 23).

Figure 18. Good or better self-rated health among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022

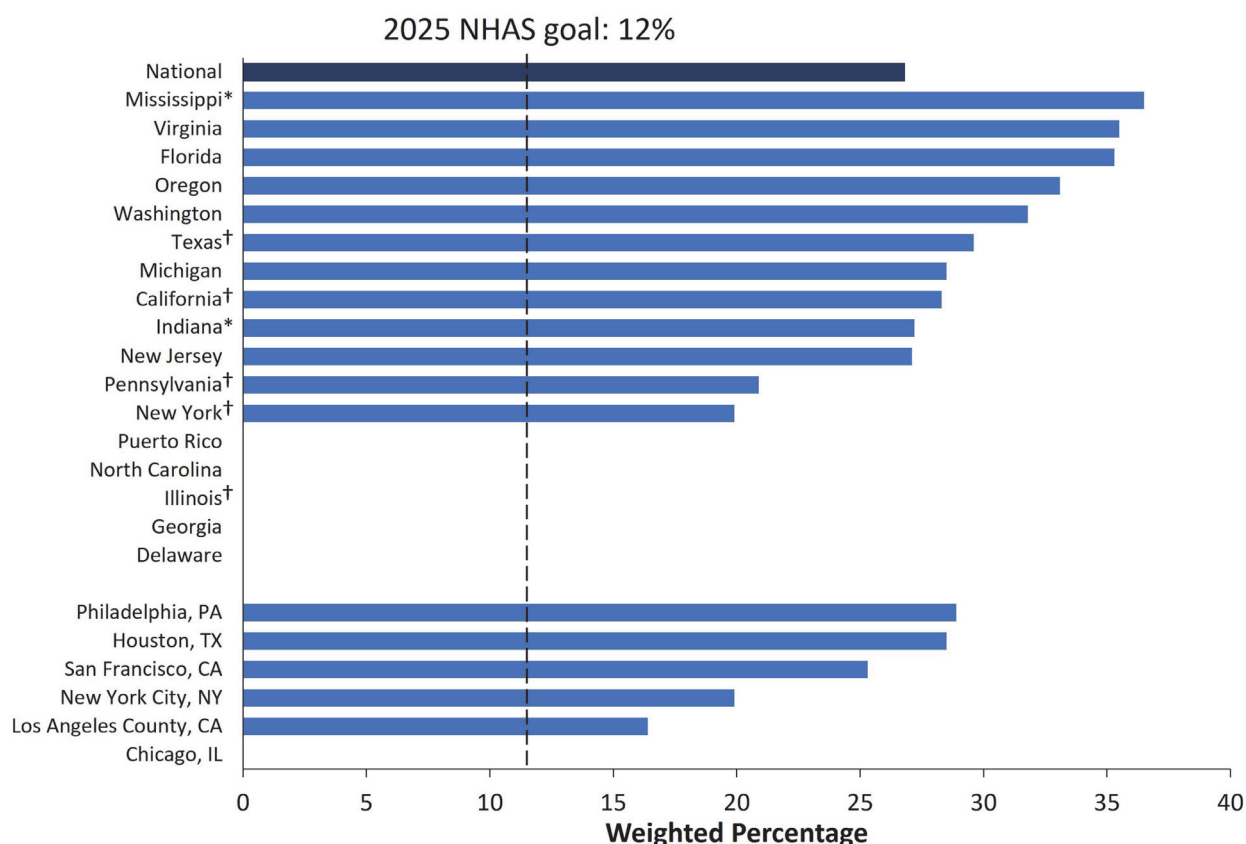


Abbreviations: NHAS, National HIV/AIDS Strategy; MMP, Medical Monitoring Project.

Note. “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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

* Includes separately funded jurisdictions within each state.

Figure 19. Unmet needs for services from a mental health professional among adults with diagnosed HIV who needed services, by jurisdiction—Medical Monitoring Project, United States, 2022

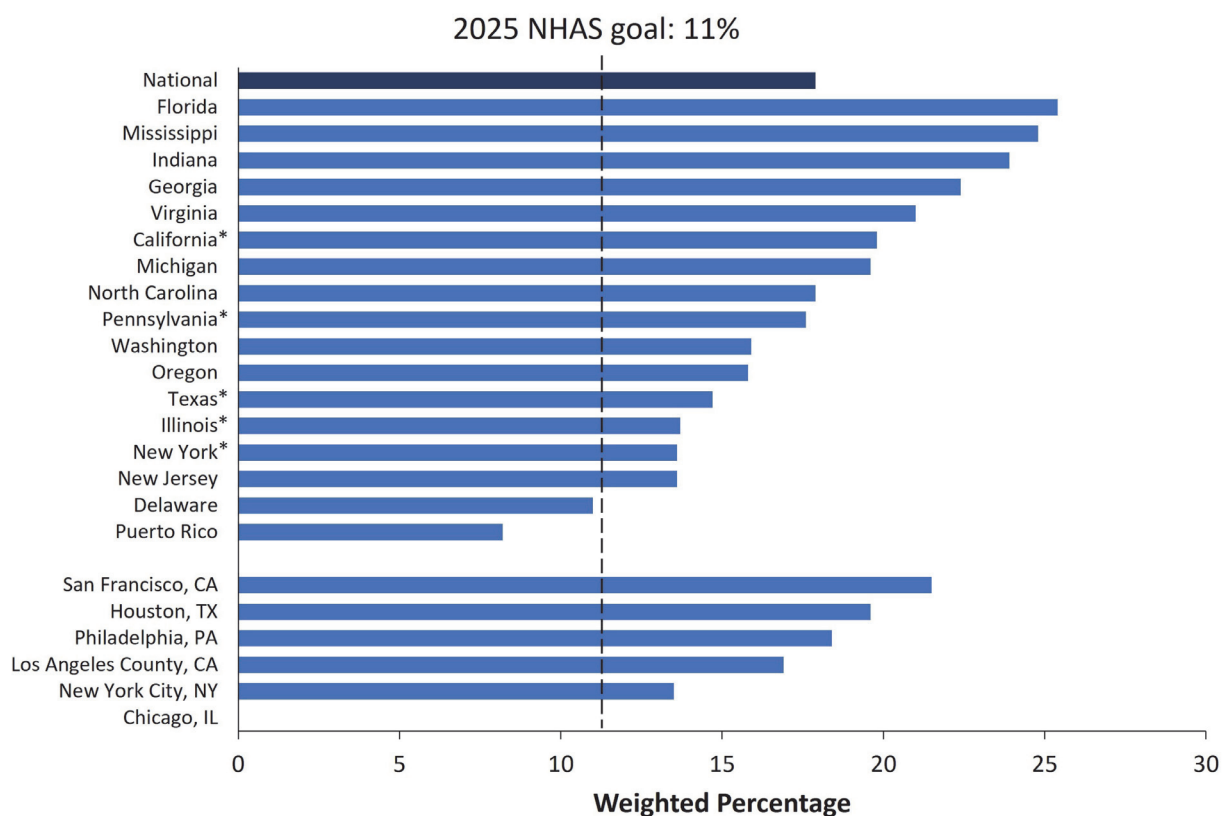


Abbreviations: NHAS, National HIV/AIDS Strategy; MMP, Medical Monitoring Project.

Note. “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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were 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.

† Includes separately funded jurisdictions within each state.

Figure 20. Unstable housing or homelessness among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022

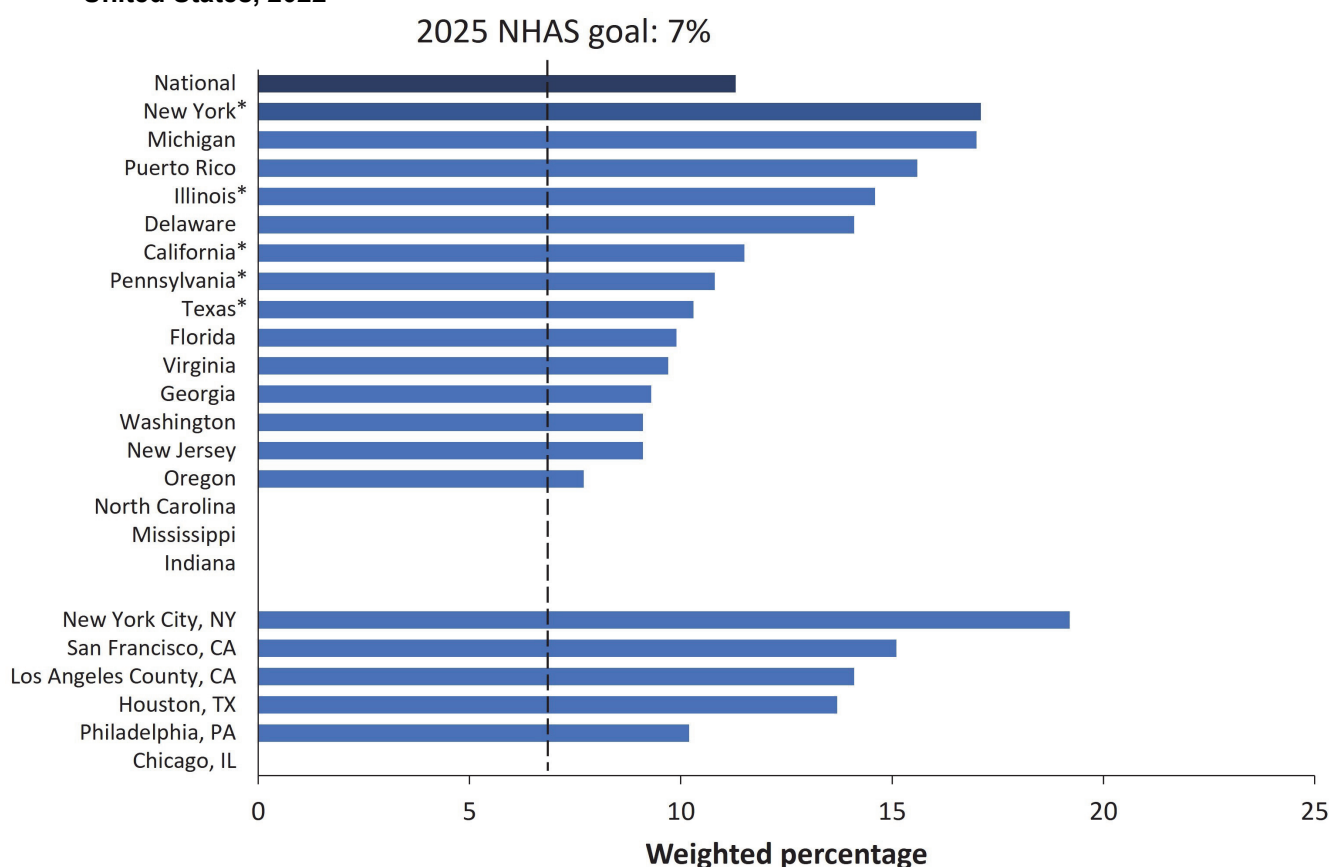


Abbreviations: NHAS, National HIV/AIDS Strategy; MMP, Medical Monitoring Project.

Note. “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) 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. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

* Includes separately funded jurisdictions within each state.

Figure 21. Unemployment among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022

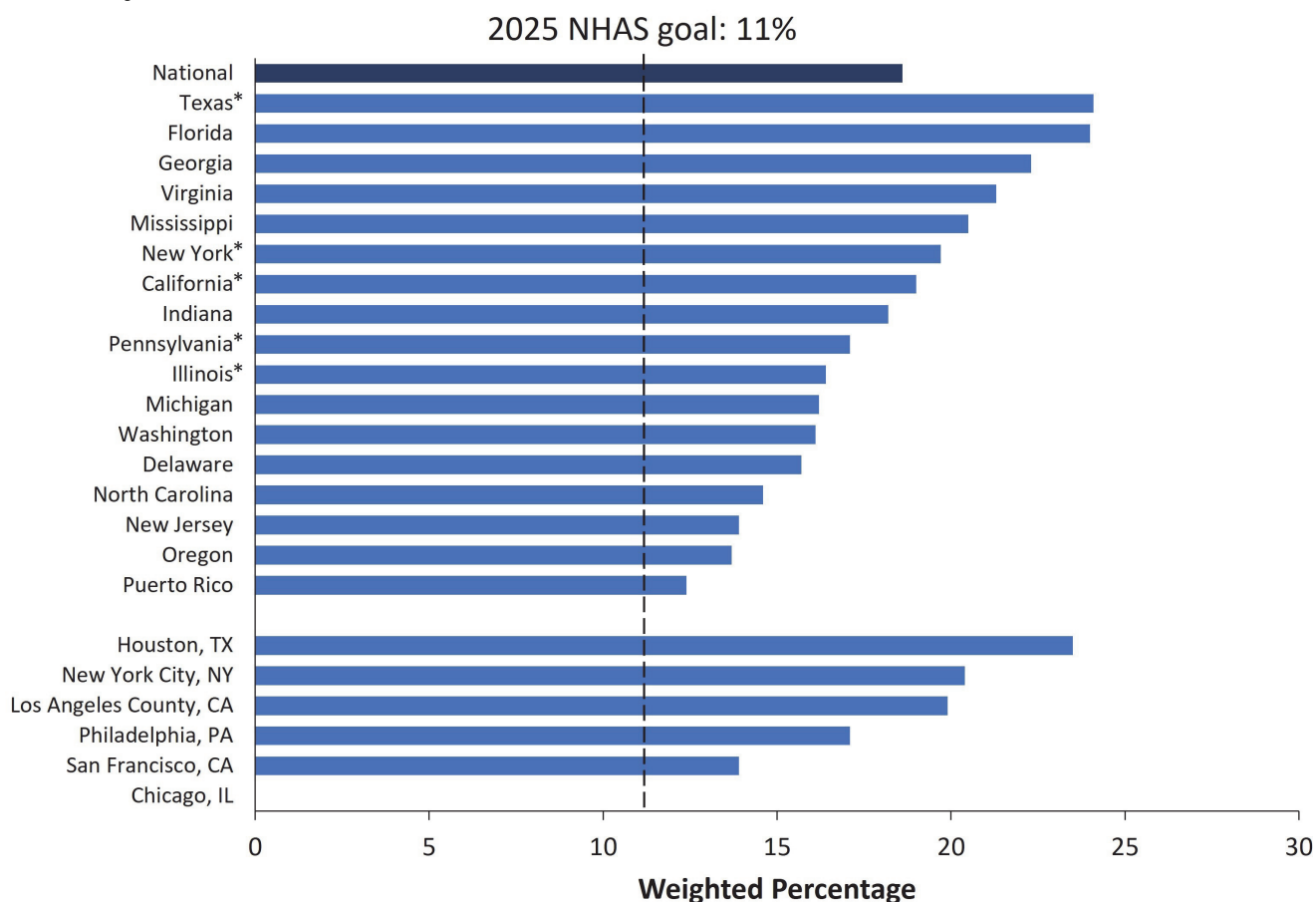


Abbreviations: NHAS, National HIV/AIDS Strategy; MMP, Medical Monitoring Project.

Note. Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

* Includes separately funded jurisdictions within each state.

Figure 22. Hunger or food insecurity among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022

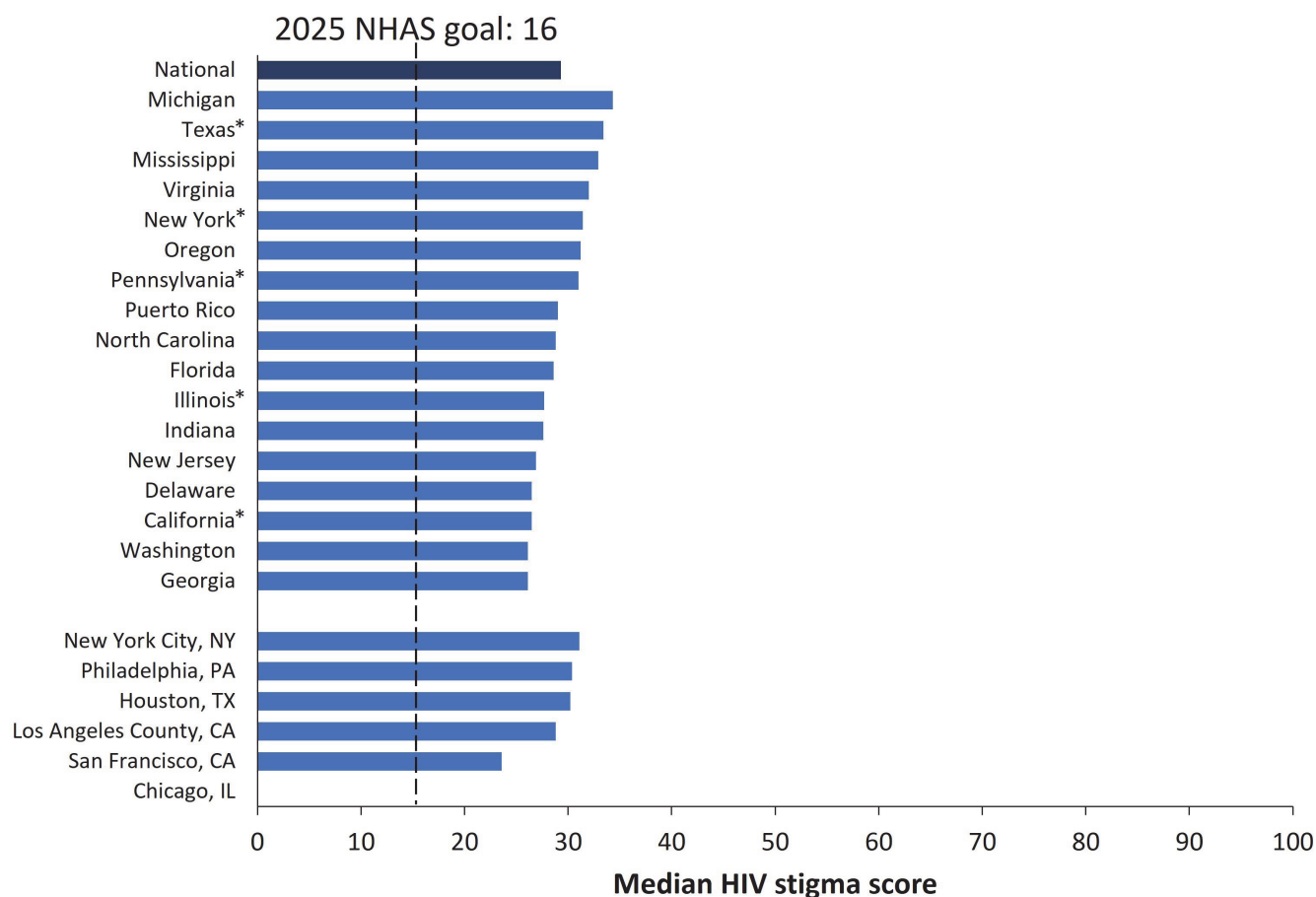


Abbreviations: NHAS, National HIV/AIDS Strategy; MMP, Medical Monitoring Project.

Note. “Hunger/food insecurity” defined as going without food due to lack of money during the past 12 months. Estimates were suppressed if they had a coefficient of variation ≥ 0.30 or were based on a denominator sample size < 30 .

* Includes separately funded jurisdictions within each state.

Figure 23. Median HIV stigma score among adults with diagnosed HIV, by jurisdiction—Medical Monitoring Project, United States, 2022



Abbreviations: NHAS, National HIV/AIDS Strategy; MMP, Medical Monitoring Project.

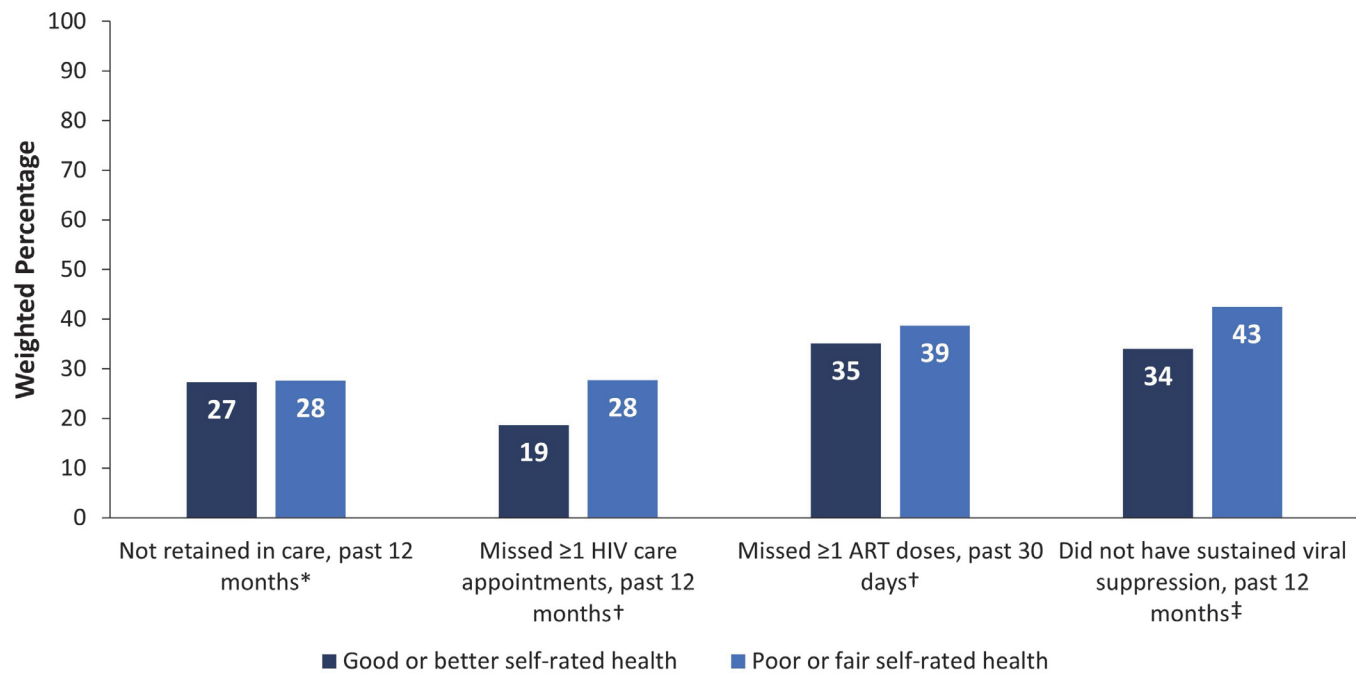
Note. “Median HIV stigma score” defined as the weighted median score on a 10-item scale ranging from 0 (no stigma) to 100 (high stigma) that measures 4 dimensions of HIV stigma: personalized stigma during the past 12 months, current disclosure concerns, current negative self-image, and current perceived public attitudes about persons living with HIV, measured among persons aged ≥ 18 years with diagnosed HIV infection living in the United States and Puerto Rico. Estimates were suppressed if they were based on a denominator sample size < 30 .

* Includes separately funded jurisdictions within each state.

Prevalence of Adverse HIV Outcomes by NHAS QoL Indicators

The prevalence of not being retained in care was similar among those who had good or better self-rated health (27%) and those who had poor or fair self-rated health (28%) (Table 9; Figure 24). The prevalence of certain adverse HIV outcomes was lower among persons with good or better self-rated health than those with poor or fair self-rated health, including missing ≥ 1 HIV care appointments during the past 12 months (19% vs. 28%) and not having sustained viral suppression during the past 12 months (34% vs. 43%).

Figure 24. Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by self-rated health—Medical Monitoring Project, United States, 2022



Note. Self-rated health evaluated at the time of interview.

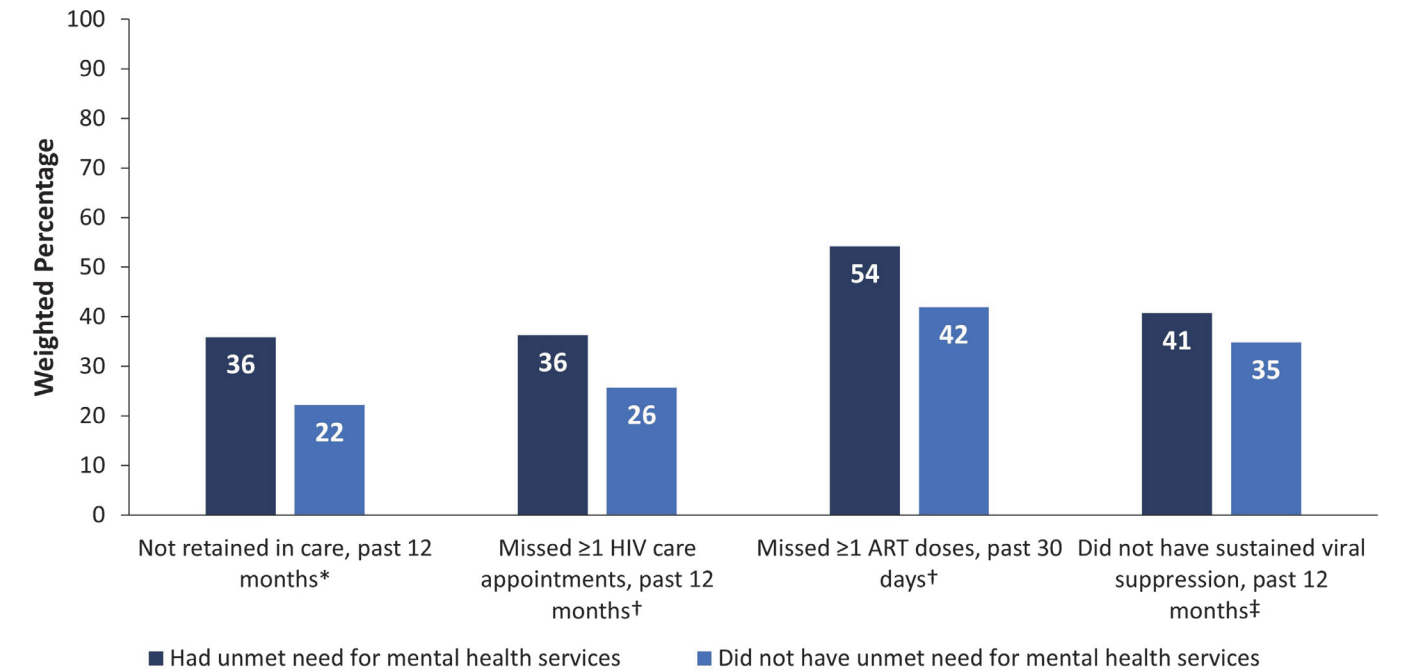
* Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart during the past 12 months.

† Based on self-report.

‡ Defined as having ≥ 1 viral load measurements documented detectable or ≥ 200 copies/mL during the past 12 months.

The prevalence of certain adverse HIV outcomes was higher among persons with unmet needs for services from a mental health professional among those who needed it than those who did not, including not being retained in care during the past 12 months (36% vs. 22%), missing ≥ 1 HIV care appointments during the past 12 months (36% vs. 26%), and missing ≥ 1 ART doses during the past 30 days (54% vs. 42%) (Table 9; Figure 25).

Figure 25. Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons experienced unmet needs for mental health services among those who needed them—Medical Monitoring Project, United States, 2022



Note. “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.

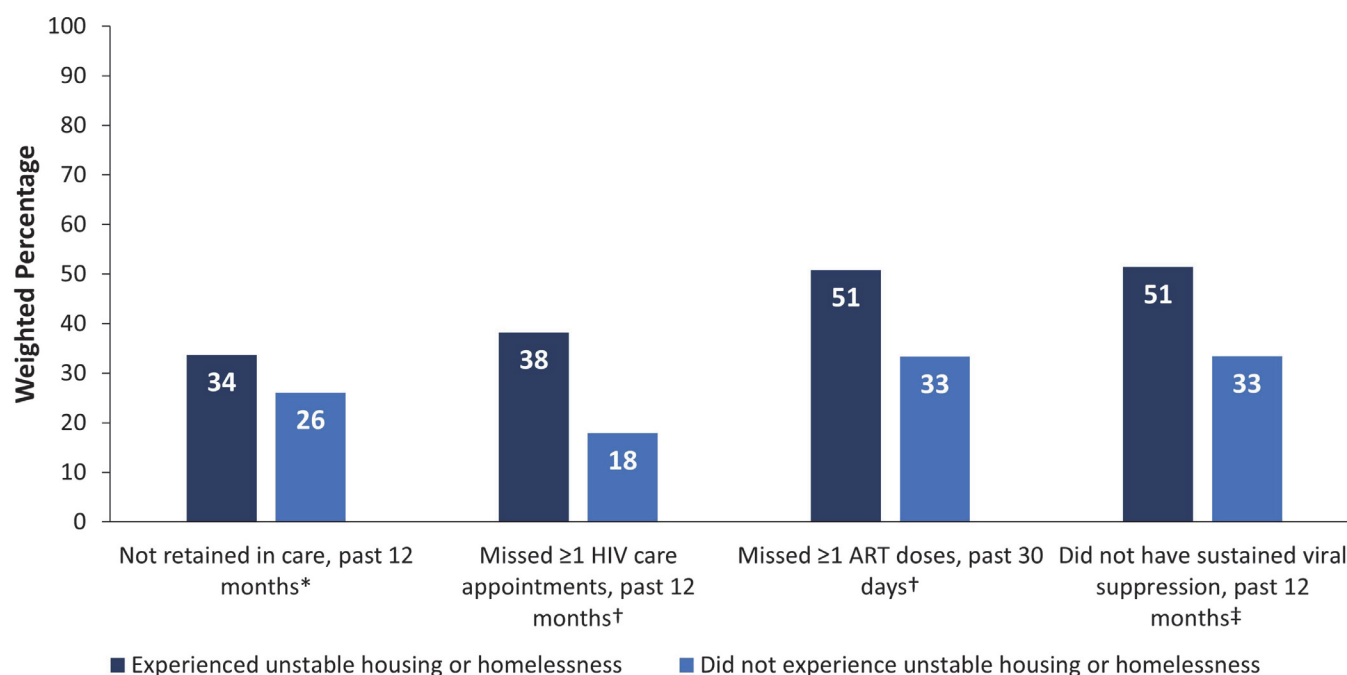
* Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart during the past 12 months.

† Based on self-report.

‡ Defined as having ≥ 1 viral load measurements documented detectable or ≥ 200 copies/mL during the past 12 months.

The prevalence of certain adverse HIV outcomes was higher among persons who experienced unstable housing or homelessness during the past 12 months than those who did not, including not being retained in HIV care during the past 12 months (34% vs. 26%), missing ≥ 1 HIV care appointments during the past 12 months (38% vs. 18%), missing ≥ 1 ART doses during the past 30 days (51% vs. 33%), and not having sustained viral suppression during the past 12 months (51% vs. 33%) (Table 9; Figure 26).

Figure 26. Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons experienced unstable housing or homelessness—Medical Monitoring Project, United States, 2022



Note. “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) 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.

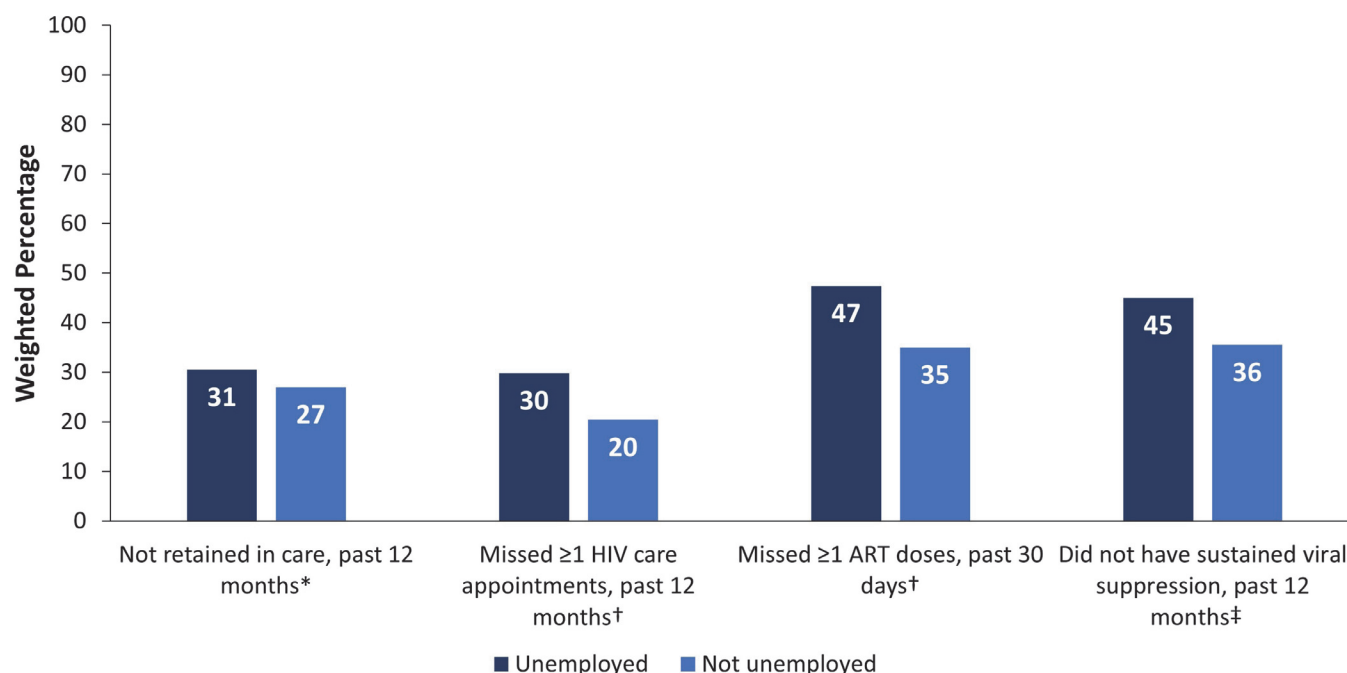
* Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart during the past 12 months.

† Based on self-report.

‡ Defined as having ≥ 1 viral load measurements documented detectable or ≥ 200 copies/mL during the past 12 months.

The prevalence of certain adverse HIV outcomes was also higher among persons who were unemployed than those who were not, including missing ≥ 1 HIV care appointments during the past 12 months (30% vs. 20%), missing ≥ 1 ART doses during the past 30 days (47% vs. 35%), and not having sustained viral suppression during the past 12 months (45% vs. 36%) (Table 9; Figure 27).

Figure 27. Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons were unemployed—Medical Monitoring Project, United States, 2022



Note. Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

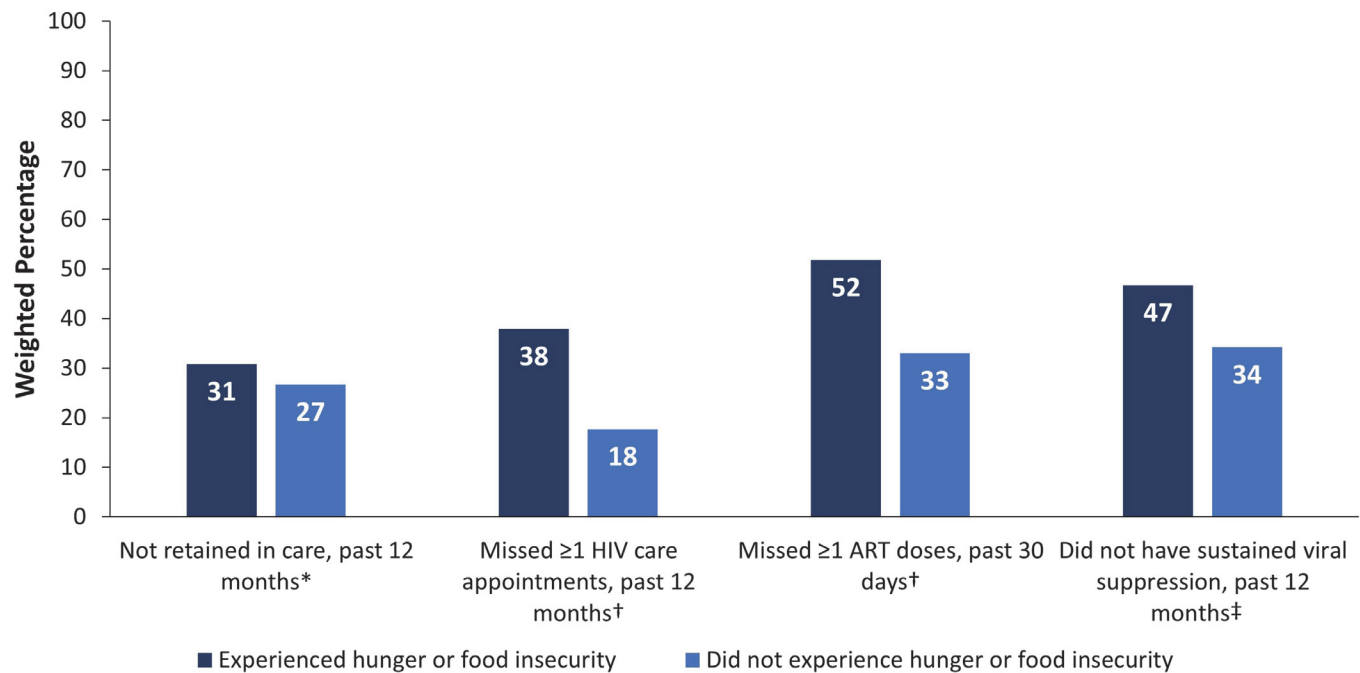
* Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart during the past 12 months.

† Based on self-report.

‡ Defined as having ≥ 1 viral load measurements documented detectable or ≥ 200 copies/mL during the past 12 months.

The prevalence of certain adverse HIV outcomes was higher among persons who experienced hunger or food insecurity during the past 12 months than those who did not, including missing ≥ 1 HIV care appointments during the past 12 months (38% vs. 18%), missing ≥ 1 ART doses during the past 30 days (52% vs. 33%), and not having sustained viral suppression during the past 12 months (47% vs. 34%) (Table 9; Figure 28).

Figure 28. Prevalence of adverse clinical outcomes among adults with diagnosed HIV, by whether or not persons experienced hunger or food insecurity—Medical Monitoring Project, United States, 2022

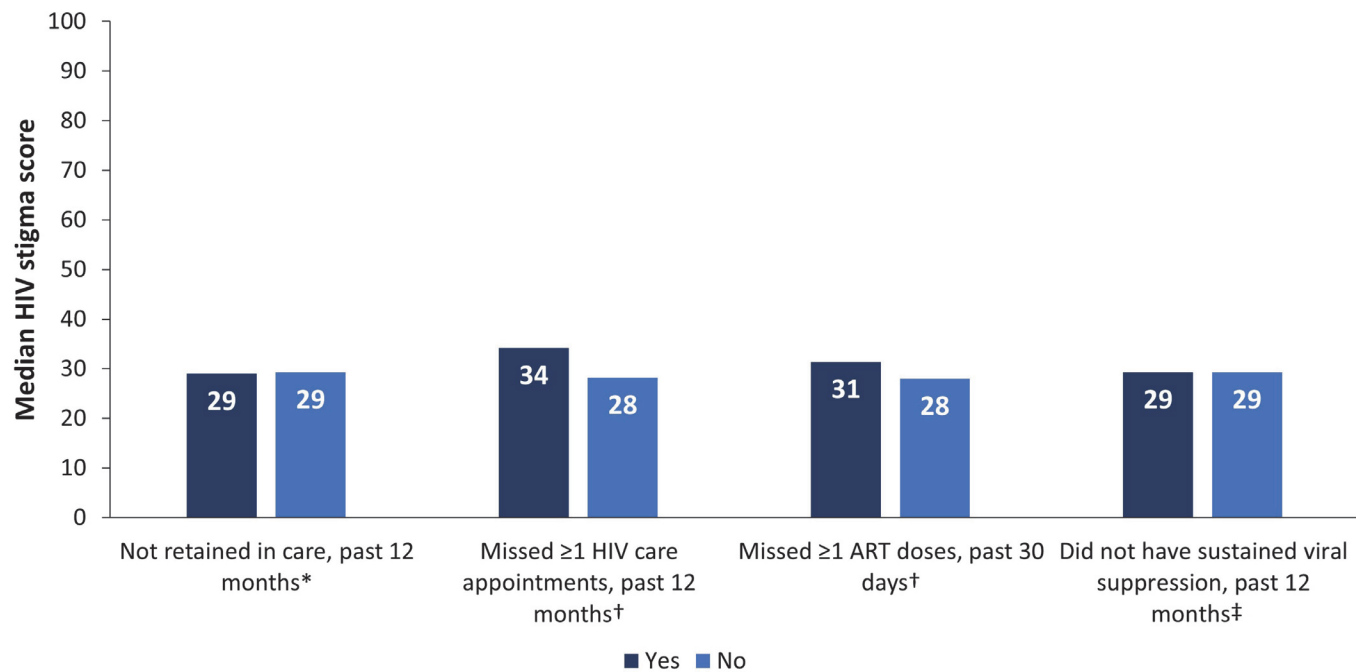


Note. “Hunger/food insecurity” defined as going without food due to lack of money during the past 12 months.
* Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart during the past 12 months.
† Based on self-report.
‡ Defined as having ≥ 1 viral load measurements documented detectable or ≥ 200 copies/mL during the past 12 months.

HIV Stigma by HIV Outcomes

Median HIV stigma scores were higher among those who missed ≥ 1 HIV care appointments during the past 12 months versus those who did not (34 vs. 28) or missed ≥ 1 ART doses during the past 30 days versus those who did not (31 vs. 28; Figure 29). Median scores were similar by retention in care (not retained in care: 29, retained in care: 29) and viral suppression status (did not have sustained viral suppression: 29, had sustained viral suppression: 29) (Table 10; Figure 29).

Figure 29. Median HIV stigma scores among adults with diagnosed HIV, by selected HIV outcomes—Medical Monitoring Project, United States, 2022



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 persons living with HIV, measured among persons aged ≥ 18 years with diagnosed HIV infection living in the United States and Puerto Rico.

* Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart during the past 12 months.

† Based on self-report.

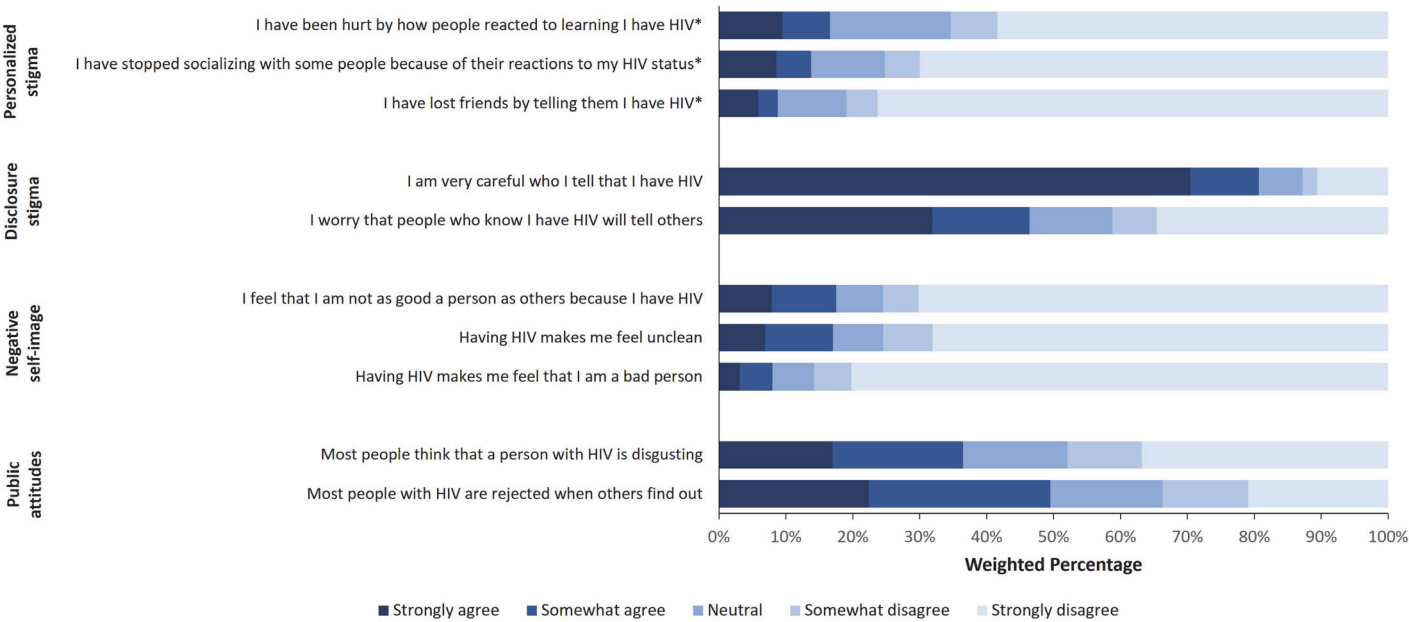
‡ Defined as having ≥ 1 viral load measurements documented detectable or ≥ 200 copies/mL during the past 12 months.

HIV Stigma Scale Responses by Stigma Domain

During 2022, the most highly endorsed “strongly agree” responses to the HIV stigma scale questions were within the disclosure domain (Table 11; Figure 30). Specifically, 70% of PWH strongly agreed with the statement “I am very careful who I tell that I have HIV,” and 32% strongly agreed with the statement “I worry that people who know I have HIV will tell others.”

During 2022, the most highly endorsed “strongly disagree” responses were within negative self-image and personalized stigma domains. Specifically, 80% of PWH strongly disagreed with the statement “Having HIV makes me feel that I am a bad person,” and 76% strongly disagreed with the statement “During the past 12 months, I have lost friends by telling them I have HIV.”

Figure 30. Experiences with HIV-related stigma among adults with diagnosed HIV, by domain—Medical Monitoring Project, United States, 2022



* During the past 12 months.

References

1. U.S. Department of Health and Human Services. Social Determinants of Health. <https://odphp.health.gov/healthypeople/priority-areas/social-determinants-health>. Accessed October 4, 2024.
2. White House Office of National AIDS Policy (ONAP). National HIV/AIDS Strategy (2022–2025). <https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025/>. Updated December 2023. Accessed October 4, 2024.
3. CDC. What is health equity? <https://www.cdc.gov/health-equity/what-is/index.html>. Updated April 2024. Accessed October 4, 2024.
4. The White House. National HIV/AIDS Strategy Federal Implementation Plan for the United States: 2022–2025. https://files.hiv.gov/s3fs-public/2022-09/NHAS_Federal_Implementation_Plan.pdf. Published August 2022. Accessed October 4, 2024.
5. Office of Infectious Disease and HIV/AIDS Policy, U.S. Department of Health and Human Services. EHE overview. <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview/>. Updated December 2023. Accessed October 4, 2024.

Table 1. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2015–2022

	2015			2016			2017			2018		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Total	3,654			4,038			4,222			4,050		
National HIV/AIDS Strategy indicators related to social determinants of health												
Quality of life												
Physical health												
Self-reported health status ^a												
Good, very good, excellent	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	2,825	71.5	(69.4–73.6)
Poor, fair	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	1,196	28.5	(26.4–30.6)
Mental or emotional health												
Unmet needs for services from a mental health professional among those who needed services, past 12 months ^b												
Yes	347	24.0	(20.9–27.1)	350	23.8	(20.7–26.9)	372	24.2	(21.0–27.5)	317	19.8	(17.1–22.5)
No	1,206	76.0	(72.9–79.1)	1,274	76.2	(73.1–79.3)	1,311	75.8	(72.5–79.0)	1,346	80.2	(77.5–82.9)
Structural or subsistence factors												
Unstable housing or homelessness, past 12 months ^c												
Yes	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	870	21.0	(19.5–22.6)
No	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	3,157	79.0	(77.4–80.5)
Unemployment ^d												
Yes	574	16.8	(15.2–18.5)	640	15.7	(14.2–17.3)	634	14.9	(13.5–16.4)	550	13.9	(12.6–15.1)
No	3,061	83.2	(81.5–84.8)	3,386	84.3	(82.7–85.8)	3,566	85.1	(83.6–86.5)	3,483	86.1	(84.9–87.4)
Hunger or food insecurity, past 12 months ^e												
Yes	771	21.5	(19.6–23.3)	865	21.2	(19.6–22.9)	866	21.1	(19.2–22.9)	802	19.5	(18.2–20.8)
No	2,862	78.5	(76.7–80.4)	3,164	78.8	(77.1–80.4)	3,340	78.9	(77.1–80.8)	3,234	80.5	(79.2–81.8)
HIV stigma, past 12 months (n, median score, 95% CI) ^f	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	3,824	31.2	(30.3–32.1)
Other factors important for health, including those that affect quality of life												
Economic stability												
Household income with respect to poverty guidelines ^g												
<100% FPL	1,608	46.4	(42.4–50.4)	1,633	42.1	(37.7–46.5)	1,661	41.6	(37.0–46.3)	1,651	42.9	(40.1–45.6)
100%–138% FPL	294	8.7	(7.5–9.9)	314	8.3	(7.5–9.1)	329	8.7	(7.8–9.6)	455	13.0	(11.7–14.3)
139%–399% FPL	1,109	33.4	(30.5–36.3)	1,291	35.5	(33.1–37.9)	1,383	35.7	(32.1–39.3)	1,186	33.2	(31.1–35.3)
≥400% FPL	416	11.5	(9.6–13.5)	508	14.1	(11.2–16.9)	554	14.0	(11.4–16.5)	414	10.9	(8.8–13.0)
Education												
Educational attainment												
Less than high school diploma	721	19.9	(17.4–22.3)	724	17.2	(14.8–19.6)	691	16.6	(15.1–18.1)	715	16.9	(14.9–18.9)
High school diploma or equivalent	916	24.2	(22.3–26.0)	1,029	25.6	(23.7–27.4)	1,116	27.3	(25.2–29.5)	1,088	27.1	(25.2–29.0)
Greater than high school	1,995	55.9	(52.7–59.2)	2,273	57.2	(53.9–60.6)	2,396	56.1	(53.3–58.8)	2,237	56.1	(53.0–59.2)
Health-related factors												
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months ^h												
Any private	1,224	34.6	(31.4–37.7)	1,406	36.2	(33.3–39.1)	1,483	35.4	(32.0–38.9)	1,383	35.0	(31.8–38.3)
Public only, excluding RWHAP only	2,061	55.0	(50.4–59.6)	2,247	54.2	(51.1–57.2)	2,315	53.8	(50.3–57.4)	2,248	54.2	(49.7–58.8)
Uninsured or RWHAP only	309	10.4	(6.8–14.1)	335	9.6	(7.2–12.1)	381	10.7	(7.5–14.0)	373	10.8	(7.6–13.9)
Received RWHAP assistance, past 12 months												
Yes	1,693	45.1	(42.8–47.4)	1,900	44.4	(42.1–46.7)	1,988	45.9	(42.9–49.0)	1,925	45.7	(44.1–47.2)
No	1,854	54.9	(52.6–57.2)	2,051	55.6	(53.3–57.9)	2,116	54.1	(51.0–57.1)	2,007	54.3	(52.8–55.9)
Confidence in completing health forms												
Somewhat, a little bit, not at all	802	23.0	(21.0–25.0)	907	22.6	(20.8–24.5)	957	23.0	(21.4–24.7)	1,113	27.2	(25.5–28.9)
Extremely, quite a bit	2,826	77.0	(75.0–79.0)	3,104	77.4	(75.5–79.2)	3,237	77.0	(75.3–78.6)	2,916	72.8	(71.1–74.5)

Table 1. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2015–2022 (cont)

	2015			2016			2017			2018		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Health-related factors (cont)												
Has a disability ⁱ												
Yes	1,633	45.3	(42.4–48.3)	1,879	46.5	(43.8–49.2)	1,886	44.5	(42.7–46.4)	1,815	43.9	(41.5–46.3)
No	1,994	54.7	(51.7–57.6)	2,146	53.5	(50.8–56.2)	2,316	55.5	(53.6–57.3)	2,222	56.1	(53.7–58.5)
Any unmet HIV ancillary service need, past 12 months ^j												
Yes	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	1,880	47.3	(44.7–50.0)
No	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	2,143	52.7	(50.0–55.3)
Neighborhood and built environment												
Any met or unmet need for transportation assistance, past 12 months ^k												
Yes	1,222	32.1	(29.9–34.3)	1,301	30.4	(28.4–32.3)	1,352	31.4	(29.4–33.4)	1,408	32.9	(31.0–34.9)
No	2,406	67.9	(65.7–70.1)	2,705	69.6	(67.7–71.6)	2,838	68.6	(66.6–70.6)	2,604	67.1	(65.1–69.0)
Social and community context												
HIV health care discrimination among persons who received care, past 12 months ^l												
Yes	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	967	24.6	(21.9–27.2)
No	N/A	N/A	N//A	N/A	N/A	N/A	N/A	N/A	N/A	2,883	75.4	(72.8–78.1)
English proficiency												
Speaks English less than well	—	—	—	—	—	—	283	5.9	(2.6–9.2)	—	—	—
Speaks English well	3,379	93.0	(88.2–97.8)	3,775	93.6	(88.8–98.4)	3,924	94.1	(90.8–97.4)	3,770	93.3	(89.3–97.4)
Experiences of physical violence by an intimate partner or forced sex, lifetime ^m												
Yes	1,217	33.2	(30.5–36.0)	1,330	33.0	(30.5–35.6)	1,347	32.0	(29.3–34.7)	1,337	34.0	(30.6–37.4)
No	2,390	66.8	(64.0–69.5)	2,654	67.0	(64.4–69.5)	2,810	68.0	(65.3–70.7)	2,637	66.0	(62.6–69.4)
Experiences of physical violence by an intimate partner or forced sex, past 12 months ^m												
Yes	192	5.7	(4.8–6.6)	200	4.9	(4.2–5.5)	185	4.8	(4.1–5.5)	187	4.7	(3.8–5.6)
No	3,407	94.3	(93.4–95.2)	3,767	95.1	(94.5–95.8)	3,961	95.2	(94.5–95.9)	3,775	95.3	(94.4–96.2)
Incarcerated >24 hours, past 12 months												
Yes	188	5.1	(3.9–6.2)	198	5.2	(4.3–6.2)	213	5.4	(4.5–6.4)	181	4.7	(3.7–5.8)
No	3,447	94.9	(93.8–96.1)	3,829	94.8	(93.8–95.7)	3,993	94.6	(93.6–95.5)	3,853	95.3	(94.2–96.3)
	2019			2020			2021			2022		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Total	4,100			3,710			3,995			3,818		
National HIV/AIDS Strategy indicators related to social determinants of health												
Quality of life												
Physical health												
Self-reported health status ^a												
Good, very good, excellent	2,848	70.6	(68.7–72.5)	2,621	71.5	(70.0–73.1)	2,697	68.8	(67.4–70.3)	2,562	69.9	(68.5–71.2)
Poor, fair	1,233	29.4	(27.5–31.3)	1,071	28.5	(26.9–30.0)	1,275	31.2	(29.7–32.6)	1,123	30.1	(28.8–31.5)
Mental or emotional health												
Unmet needs for services from a mental health professional among those who needed services, past 12 months ^b												
Yes	336	20.8	(17.4–24.3)	275	21.0	(18.2–23.8)	389	27.7	(22.9–32.5)	354	26.8	(23.0–30.6)
No	1,352	79.2	(75.7–82.6)	1,124	79.0	(76.2–81.8)	1,120	72.3	(67.5–77.1)	1,123	73.2	(69.4–77.0)
Structural or subsistence factors												
Unstable housing or homelessness, past 12 months ^c												
Yes	791	19.8	(18.0–21.6)	630	17.2	(15.2–19.2)	651	17.0	(15.3–18.6)	613	17.9	(16.5–19.3)
No	3,298	80.2	(78.4–82.0)	3,061	82.8	(80.8–84.8)	3,330	83.0	(81.4–84.7)	3,073	82.1	(80.7–83.5)

Table 1. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2015–2022 (cont)

	2019			2020			2021			2022		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Structural or subsistence factors (cont)												
Unemployment^d												
Yes	556	13.7	(12.2–15.3)	644	18.1	(16.5–19.7)	558	14.7	(13.4–16.0)	427	11.3	(9.4–13.2)
No	3,522	86.3	(84.7–87.8)	3,039	81.9	(80.3–83.5)	3,417	85.3	(84.0–86.6)	3,250	88.7	(86.8–90.6)
Hunger or food insecurity, past 12 months^e												
Yes	781	19.9	(18.0–21.8)	592	16.4	(15.2–17.6)	607	15.7	(14.2–17.3)	651	18.6	(17.3–19.9)
No	3,302	80.1	(78.2–82.0)	3,101	83.6	(82.4–84.8)	3,369	84.3	(82.7–85.8)	3,038	81.4	(80.1–82.7)
<i>HIV stigma, past 12 months (n, median score, 95% CI)^f</i>	3,904	30.7	(29.2–32.1)	3,518	28.4	(27.7–29.2)	3,712	28.8	(27.6–30.1)	3,319	29.3	(27.9–30.7)
Other factors important for health, including those that affect quality of life												
<i>Economic stability</i>												
Household income with respect to poverty guidelines^g												
<100% FPL	1,593	41.6	(38.4–44.9)	1,189	35.6	(31.9–39.2)	1,373	38.0	(33.3–42.8)	1,106	33.0	(29.5–36.5)
100%–138% FPL	422	11.4	(10.3–12.5)	443	13.2	(11.9–14.6)	383	10.9	(9.2–12.7)	449	13.5	(12.1–14.9)
139%–399% FPL	1,235	34.3	(32.0–36.7)	1,218	35.8	(33.5–38.0)	1,279	36.5	(33.9–39.1)	1,200	37.2	(35.3–39.0)
≥400% FPL	488	12.6	(11.1–14.2)	526	15.4	(13.4–17.4)	543	14.5	(12.0–17.0)	572	16.3	(14.0–18.6)
<i>Education</i>												
Educational attainment												
Less than high school diploma	688	16.3	(15.0–17.6)	550	14.6	(12.9–16.3)	583	14.9	(12.4–17.4)	500	13.5	(11.9–15.1)
High school diploma or equivalent	1,103	26.7	(25.0–28.5)	899	25.0	(22.8–27.3)	1,039	25.9	(24.1–27.7)	987	26.9	(25.1–28.8)
Greater than high school	2,296	57.0	(54.7–59.2)	2,240	60.4	(57.7–63.1)	2,354	59.2	(56.0–62.5)	2,209	59.5	(56.9–62.2)
<i>Health-related factors</i>												
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months^h												
Any private	1,388	33.5	(30.7–36.2)	1,445	39.6	(37.2–42.0)	1,609	41.5	(38.7–44.3)	1,539	42.1	(39.2–45.1)
Public only, excluding RWHAP only	2,259	54.8	(50.8–58.8)	1,912	50.9	(47.5–54.3)	1,990	48.9	(44.3–53.6)	1,813	49.3	(45.1–53.4)
Uninsured or RWHAP only	396	11.7	(8.9–14.5)	295	9.5	(7.7–11.3)	314	9.6	(6.5–12.7)	264	8.6	(6.7–10.5)
Received RWHAP assistance, past 12 months												
Yes	1,950	46.1	(43.4–48.8)	1,796	47.2	(44.6–49.8)	1,897	47.1	(44.2–50.0)	1,738	46.8	(42.9–50.8)
No	2,030	53.9	(51.2–56.6)	1,791	52.8	(50.2–55.4)	1,926	52.9	(50.0–55.8)	1,803	53.2	(49.2–57.1)
Confidence in completing health forms												
Somewhat, a little bit, not at all	1,078	26.5	(24.9–28.2)	998	27.1	(24.9–29.3)	952	24.1	(22.2–25.9)	905	24.9	(23.3–26.4)
Extremely, quite a bit	2,999	73.5	(71.8–75.1)	2,689	72.9	(70.7–75.1)	3,017	75.9	(74.1–77.8)	2,782	75.1	(73.6–76.7)
Has a disabilityⁱ												
Yes	1,797	42.6	(40.7–44.4)	1,507	39.7	(36.8–42.6)	1,674	40.6	(38.4–42.9)	1,547	42.1	(40.2–44.1)
No	2,288	57.4	(55.6–59.3)	2,178	60.3	(57.4–63.2)	2,303	59.4	(57.1–61.6)	2,141	57.9	(55.9–59.8)
Any unmet HIV ancillary service need, past 12 months^j												
Yes	1,757	45.0	(41.0–49.1)	1,467	41.4	(39.6–43.2)	1,815	47.5	(44.9–50.1)	1,748	49.0	(45.6–52.5)
No	2,316	55.0	(50.9–59.0)	2,208	58.6	(56.8–60.4)	2,138	52.5	(49.9–55.1)	1,918	51.0	(47.5–54.4)
<i>Neighborhood and built environment</i>												
Any met or unmet need for transportation assistance, past 12 months^k												
Yes	1,335	32.1	(30.2–34.1)	999	26.1	(24.5–27.7)	1,108	27.1	(25.6–28.6)	1,082	29.5	(27.8–31.3)
No	2,730	67.9	(65.9–69.8)	2,675	73.9	(72.3–75.5)	2,838	72.9	(71.4–74.4)	2,548	70.5	(68.7–72.2)
<i>Social and community context</i>												
HIV health care discrimination among persons who received care, past 12 months^l												
Yes	843	21.7	(18.9–24.4)	724	20.4	(17.3–23.4)	815	21.8	(19.3–24.4)	781	23.4	(20.8–26.0)
No	3,061	78.3	(75.6–81.1)	2,734	79.6	(76.6–82.7)	2,858	78.2	(75.6–80.7)	2,647	76.6	(74.0–79.2)

Table 1. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by cycle year—Medical Monitoring Project, United States, 2015–2022 (cont)

	2019			2020			2021			2022		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Social and community context (cont)												
English proficiency												
Speaks English less than well	292	7.1	(2.9–11.3)	284	7.1	(3.4–10.7)	327	7.4	(3.9–10.9)	298	7.2	(4.0–10.5)
Speaks English well	3,794	92.9	(88.7–97.1)	3,411	92.9	(89.3–96.6)	3,657	92.6	(89.1–96.1)	3,398	92.8	(89.5–96.0)
Experiences of physical violence by an intimate partner or forced sex, lifetime^m												
Yes	1,291	31.4	(29.1–33.8)	1,138	31.9	(28.2–35.5)	1,292	34.5	(32.2–36.8)	1,228	35.1	(32.7–37.5)
No	2,736	68.6	(66.2–70.9)	2,492	68.1	(64.5–71.8)	2,586	65.5	(63.2–67.8)	2,368	64.9	(62.5–67.3)
Experiences of physical violence by an intimate partner or forced sex, past 12 months^m												
Yes	208	5.1	(4.4–5.9)	161	4.8	(4.0–5.6)	182	5.7	(4.6–6.7)	182	5.9	(5.0–6.9)
No	3,806	94.9	(94.1–95.6)	3,456	95.2	(94.4–96.0)	3,673	94.3	(93.3–95.4)	3,383	94.1	(93.1–95.0)
Incarcerated >24 hours, past 12 months												
Yes	148	3.9	(3.0–4.8)	107	3.5	(2.4–4.6)	93	2.8	(2.2–3.5)	100	3.0	(2.3–3.6)
No	3,938	96.1	(95.2–97.0)	3,588	96.5	(95.4–97.6)	3,886	97.2	(96.5–97.8)	3,597	97.0	(96.4–97.7)

Abbreviations: n, number; col, column; CI, confidence interval; N/A, not applicable; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.

^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 “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) 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.

^d Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^f “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 persons 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].

^g Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^h Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city-, county-, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

ⁱ Self-reported, and includes physical, mental, and emotional disabilities.

^j Represents those who needed, but did not receive, ≥1 HIV ancillary services, among all persons.

^k Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^l HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^m Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 2a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by age—Medical Monitoring Project, United States, 2022

	18–29 years			30–39 years			40–49 years			50–64 years			≥65 years		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Total (row %)	256	7.2	(5.9–8.5)	675	18.4	(17.3–19.6)	651	19.1	(17.7–20.4)	1,625	40.5	(38.7–42.2)	611	14.8	(13.7–15.9)
National HIV/AIDS Strategy indicators related to social determinants of health															
Quality of life															
Physical health															
Self-reported health status^a															
Good, very good, excellent	192	80.6	(76.1–85.1)	513	78.4	(74.3–82.5)	443	71.9	(68.6–75.1)	1,022	64.5	(62.0–66.9)	392	66.4	(62.2–70.5)
Poor, fair	46	19.4	(14.9–23.9)	142	21.6	(17.5–25.7)	178	28.1	(24.9–31.4)	560	35.5	(33.1–38.0)	197	33.6	(29.5–37.8)
Mental or emotional health															
Unmet needs for services from a mental health professional among those who needed services, past 12 months^b															
Yes	30	32.5	(24.1–40.8)	98	32.5	(27.5–37.5)	74	31.5	(23.7–39.2)	127	23.0	(17.9–28.1)	25	14.4	(7.4–21.4)
No	73	67.5	(59.2–75.9)	220	67.5	(62.5–72.5)	186	68.5	(60.8–76.3)	510	77.0	(71.9–82.1)	134	85.6	(78.6–92.6)
Structural or subsistence factors															
Unstable housing or homelessness, past 12 months^c															
Yes	80	32.3	(26.7–38.0)	156	26.9	(22.6–31.2)	119	19.5	(16.0–23.0)	206	13.7	(11.6–15.7)	52	9.3	(6.8–11.8)
No	161	67.7	(62.0–73.3)	499	73.1	(68.8–77.4)	501	80.5	(77.0–84.0)	1,375	86.3	(84.3–88.4)	537	90.7	(88.2–93.2)
Unemployment^d															
Yes	40	16.4	(11.5–21.4)	103	15.5	(11.6–19.4)	97	14.8	(11.2–18.4)	162	9.7	(7.8–11.6)	25	3.4	(1.5–5.3)
No	196	83.6	(78.6–88.5)	549	84.5	(80.6–88.4)	524	85.2	(81.6–88.8)	1,419	90.3	(88.4–92.2)	562	96.6	(94.7–98.5)
Hunger or food insecurity, past 12 months^e															
Yes	63	26.3	(19.5–33.1)	160	24.4	(21.5–27.3)	140	23.3	(19.4–27.2)	255	17.1	(15.1–19.0)	33	6.0	(3.8–8.2)
No	176	73.7	(66.9–80.5)	495	75.6	(72.7–78.5)	484	76.7	(72.8–80.6)	1,328	82.9	(81.0–84.9)	555	94.0	(91.8–96.2)
HIV stigma, past 12 months (n, median score, 95% CI)^f	227	36.4	(32.8–40.0)	601	33.2	(30.8–35.6)	554	30.4	(27.2–33.6)	1,420	28.6	(27.0–30.2)	517	23.1	(20.7–25.4)
Other factors important for health, including those that affect quality of life															
Economic stability															
Household income with respect to poverty guidelines^g															
<100% FPL	56	31.2	(23.7–38.6)	177	29.8	(24.6–35.0)	166	30.0	(24.3–35.8)	538	36.8	(32.4–41.1)	169	31.0	(25.5–36.5)
100%–138% FPL	21	10.4	(6.0–14.9)	66	12.7	(9.6–15.9)	79	14.3	(11.5–17.0)	204	13.8	(11.5–16.2)	79	14.0	(11.2–16.8)
139%–399% FPL	104	50.3	(43.6–57.0)	224	41.0	(35.9–46.1)	215	39.6	(35.7–43.5)	451	32.0	(28.5–35.4)	206	37.9	(32.7–43.1)
≥400% FPL	17	8.1	(4.5–11.7)	101	16.4	(11.4–21.4)	103	16.1	(11.4–20.7)	257	17.4	(15.0–19.9)	94	17.1	(13.7–20.5)
Education															
Educational attainment															
Less than high school diploma	18	8.2	(3.9–12.4)	63	9.6	(7.0–12.3)	89	14.1	(10.6–17.5)	247	15.1	(13.0–17.2)	83	15.9	(11.0–20.8)
High school diploma or equivalent	97	40.3	(33.5–47.0)	181	29.7	(25.0–34.5)	166	26.8	(21.5–32.2)	415	25.5	(23.4–27.6)	128	21.1	(17.9–24.4)
Greater than high school	126	51.5	(45.3–57.7)	412	60.7	(55.6–65.7)	371	59.1	(53.0–65.3)	921	59.4	(56.7–62.1)	379	63.0	(57.7–68.2)
Health-related factors															
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months^h															
Any private	102	42.9	(37.1–48.6)	301	46.4	(40.0–52.8)	275	42.6	(38.2–47.1)	641	42.0	(38.4–45.6)	220	36.1	(31.6–40.6)
Public only, excluding RWHAP only	98	42.3	(34.3–50.3)	268	40.9	(32.8–49.1)	279	45.7	(39.5–51.9)	823	51.3	(47.4–55.1)	345	62.4	(57.8–67.0)
Uninsured or RWHAP only	31	14.9	(9.3–20.4)	71	12.6	(9.3–16.0)	65	11.7	(6.7–16.7)	88	6.8	(5.2–8.3)	-	-	-
Received RWHAP assistance, past 12 months															
Yes	107	45.1	(35.4–54.7)	324	47.8	(43.3–52.2)	308	50.4	(45.0–55.9)	748	46.5	(41.7–51.4)	251	42.4	(36.5–48.4)
No	116	54.9	(45.3–64.6)	305	52.2	(47.8–56.7)	294	49.6	(44.1–55.0)	777	53.5	(48.6–58.3)	311	57.6	(51.6–63.5)
Confidence in completing health forms															
Somewhat, a little bit, not at all	53	23.4	(16.6–30.3)	128	19.9	(15.6–24.1)	152	24.5	(20.3–28.7)	414	25.9	(23.7–28.2)	158	29.3	(24.2–34.3)
Extremely, quite a bit	185	76.6	(69.7–83.4)	527	80.1	(75.9–84.4)	472	75.5	(71.3–79.7)	1,168	74.1	(71.8–76.3)	430	70.7	(65.7–75.8)
Has a disabilityⁱ															
Yes	70	28.5	(22.6–34.3)	203	31.1	(26.7–35.4)	237	40.9	(35.5–46.2)	743	47.9	(45.3–50.4)	294	48.4	(44.1–52.7)
No	171	71.5	(65.7–77.4)	453	68.9	(64.6–73.3)	385	59.1	(53.8–64.5)	837	52.1	(49.6–54.7)	295	51.6	(47.3–55.9)
Any unmet HIV ancillary service need, past 12 months^j															
Yes	150	63.1	(56.7–69.5)	377	60.0	(55.1–64.8)	304	49.2	(43.8–54.5)	723	47.1	(43.4–50.9)	194	33.8	(28.8–38.8)
No	85	36.9	(30.5–43.3)	274	40.0	(35.2–44.9)	313	50.8	(45.5–56.2)	854	52.9	(49.1–56.6)	392	66.2	(61.2–71.2)

Table 2a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by age—Medical Monitoring Project, United States, 2022 (cont)

	18–29 years			30–39 years			40–49 years			50–64 years			≥65 years		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Neighborhood and built environment															
Any met or unmet need for transportation assistance, past 12 months^k															
Yes	57	24.8	(18.4–31.3)	169	26.7	(23.6–29.9)	161	27.8	(23.6–32.0)	507	32.1	(29.5–34.7)	188	30.4	(26.6–34.2)
No	176	75.2	(68.7–81.6)	472	73.3	(70.1–76.4)	451	72.2	(68.0–76.4)	1,053	67.9	(65.3–70.5)	396	69.6	(65.8–73.4)
Social and community context															
HIV health care discrimination among persons who received care, past 12 months^l															
Yes	53	26.4	(17.6–35.3)	163	28.2	(24.5–31.9)	150	26.3	(21.0–31.7)	325	22.4	(19.2–25.6)	90	15.5	(11.5–19.6)
No	167	73.6	(64.7–82.4)	424	71.8	(68.1–75.5)	428	73.7	(68.3–79.0)	1,165	77.6	(74.4–80.8)	463	84.5	(80.4–88.5)
English proficiency															
Speaks English less than well	—	—	—	45	6.3	(3.9–8.7)	55	8.6	(5.6–11.6)	—	—	—	—	—	—
Speaks English well	234	98.1	(96.5–99.8)	611	93.7	(91.3–96.1)	570	91.4	(88.4–94.4)	1,441	91.9	(87.1–96.7)	542	93.1	(88.6–97.6)
Experiences of physical violence by an intimate partner or forced sex, lifetime^m															
Yes	94	41.3	(35.6–47.1)	256	40.3	(36.3–44.2)	243	42.6	(38.4–46.9)	503	32.4	(28.7–36.2)	132	23.2	(18.6–27.8)
No	139	58.7	(52.9–64.4)	385	59.7	(55.8–63.7)	361	57.4	(53.1–61.6)	1,042	67.6	(63.8–71.3)	441	76.8	(72.2–81.4)
Experiences of physical violence by an intimate partner or forced sex, past 12 months^m															
Yes	26	11.8	(8.0–15.7)	71	11.5	(8.9–14.1)	31	7.1	(4.5–9.6)	50	3.8	(2.3–5.3)	—	—	—
No	202	88.2	(84.3–92.0)	565	88.5	(85.9–91.1)	565	92.9	(90.4–95.5)	1,485	96.2	(94.7–97.7)	566	99.4	(98.9–100)
Incarcerated >24 hours, past 12 months															
Yes	14	6.5	(3.3–9.6)	26	4.1	(2.7–5.6)	22	2.8	(1.6–4.1)	31	2.6	(1.6–3.6)	—	—	—
No	227	93.5	(90.4–96.7)	630	95.9	(94.4–97.3)	603	97.2	(95.9–98.4)	1,553	97.4	(96.4–98.4)	584	98.8	(98.0–99.7)

Abbreviations: n, number; col, column; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. Excluded are estimates with a coefficient of variation ≥ 0.30 and those based on a denominator sample size < 30 .

^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 “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) 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.

^d Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^f “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 persons 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].

^g Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^h Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

ⁱ Self-reported, and includes physical, mental, and emotional disabilities.

^j Represents those who needed, but did not receive, ≥ 1 HIV ancillary services, among all persons.

^k Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^l HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^m Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 2b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by age—Medical Monitoring Project, United States, 2022

	18–29 years vs. ≥65 years				30–39 years vs. ≥65 years				40–49 years vs. ≥65 years				50–59 years vs. ≥65 years			
	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI
National HIV/AIDS Strategy indicators related to social determinants of health																
Quality of life																
Physical health																
Self-reported health status ^a																
Good, very good, excellent	1.21	(1.12–1.32)	14.24	(8.36–20.12)	1.18	(1.07–1.30)	12.03	(5.21–18.85)	1.08	(1.00–1.18)	5.52	(-0.25–11.29)	0.97	(0.91–1.04)	-1.89	(-6.41–2.62)
Poor, fair	0.58	(0.45–0.74)	-14.24	(-20.12–-8.36)	0.64	(0.49–0.83)	-12.03	(-18.85–-5.21)	0.84	(0.69–1.01)	-5.52	(-11.29–0.25)	1.06	(0.93–1.21)	1.89	(-2.62–6.41)
Mental or emotional health																
Unmet needs for services from a mental health professional among those who needed services, past 12 months ^b																
Yes	2.25	(1.34–3.79)	18.04	(7.85–28.24)	2.25	(1.35–3.75)	18.08	(9.51–26.66)	2.18	(1.40–3.41)	17.05	(9.05–25.04)	1.60	(1.03–2.47)	8.59	(1.96–15.22)
No	0.79	(0.69–0.91)	-18.04	(-28.24–-7.85)	0.79	(0.71–0.88)	-18.08	(-26.66–-9.51)	0.80	(0.72–0.89)	-17.05	(-25.04–-9.05)	0.90	(0.83–0.97)	-8.59	(-15.22–-1.96)
Structural or subsistence factors																
Unstable housing or homelessness, past 12 months ^c																
Yes	3.49	(2.52–4.83)	23.07	(16.80–29.35)	2.90	(2.16–3.90)	17.65	(12.94–22.36)	2.10	(1.53–2.89)	10.22	(5.98–14.45)	1.48	(1.09–2.00)	4.42	(1.23–7.61)
No	0.75	(0.68–0.82)	-23.07	(-29.35–-16.80)	0.81	(0.76–0.86)	-17.65	(-22.36–-12.94)	0.89	(0.84–0.93)	-10.22	(-14.45–-5.98)	0.95	(0.92–0.99)	-4.42	(-7.61–-1.23)
Unemployment ^d																
Yes	4.84	(2.78–8.43)	13.02	(8.27–17.76)	4.56	(2.70–7.71)	12.09	(8.47–15.70)	4.37	(2.33–8.18)	11.42	(7.26–15.57)	2.87	(1.58–5.21)	6.33	(3.63–9.02)
No	0.87	(0.82–0.92)	-13.02	(-17.76–-8.27)	0.87	(0.84–0.91)	-12.09	(-15.70–-8.47)	0.88	(0.84–0.92)	-11.42	(-15.57–-7.26)	0.93	(0.91–0.96)	-6.33	(-9.02–-3.63)
Hunger or food insecurity, past 12 months ^e																
Yes	4.40	(2.95–6.57)	20.34	(13.63–27.04)	4.08	(2.78–6.00)	18.42	(14.79–22.05)	3.90	(2.62–5.80)	17.30	(12.89–21.72)	2.86	(1.95–4.18)	11.08	(8.18–13.99)
No	0.78	(0.72–0.86)	-20.34	(-27.04–-13.63)	0.80	(0.77–0.84)	-18.42	(-22.05–-14.79)	0.82	(0.77–0.86)	-17.30	(-21.72–-12.89)	0.88	(0.85–0.91)	-11.08	(-13.99–-8.18)
HIV stigma, past 12 months (n, median score, 95% CI) ^f																
Other factors important for health, including those that affect quality of life																
Economic stability																
Household income with respect to poverty guidelines ^g																
<100% FPL	1.01	(0.80–1.27)	0.16	(-7.13–7.45)	0.96	(0.75–1.23)	-1.16	(-8.69–6.37)	0.97	(0.80–1.18)	-0.96	(-6.98–5.06)	1.19	(1.02–1.38)	5.77	(1.04–10.51)
100%–138% FPL	0.75	(0.47–1.18)	-3.55	(-8.65–1.55)	0.91	(0.65–1.27)	-1.26	(-5.66–3.13)	1.02	(0.78–1.34)	0.27	(-3.56–4.10)	0.99	(0.78–1.25)	-0.16	(-3.38–3.07)
139%–399% FPL	1.33	(1.13–1.56)	12.42	(5.25–19.58)	1.08	(0.89–1.32)	3.09	(-4.73–10.91)	1.05	(0.88–1.24)	1.72	(-4.87–8.30)	0.84	(0.72–0.98)	-5.94	(-11.40–-0.49)
≥400% FPL	0.47	(0.29–0.77)	-9.03	(-13.96–-4.09)	0.96	(0.68–1.36)	-0.66	(-6.38–5.05)	0.94	(0.69–1.29)	-1.03	(-6.17–4.11)	1.02	(0.82–1.27)	0.33	(-3.45–4.10)
Education																
Educational attainment																
Less than high school diploma	0.51	(0.28–0.95)	-7.71	(-14.31–-1.11)	0.61	(0.38–0.96)	-6.28	(-12.43–-0.12)	0.88	(0.62–1.26)	-1.84	(-7.23–3.55)	0.95	(0.70–1.29)	-0.80	(-5.59–3.99)
High school diploma or equivalent	1.91	(1.49–2.44)	19.14	(11.14–27.14)	1.41	(1.13–1.74)	8.57	(2.98–14.16)	1.27	(0.97–1.65)	5.68	(-0.85–12.21)	1.21	(1.02–1.42)	4.39	(0.75–8.03)
Greater than high school	0.82	(0.71–0.95)	-11.43	(-19.70–-3.17)	0.96	(0.86–1.08)	-2.30	(-9.38–4.79)	0.94	(0.85–1.04)	-3.84	(-10.00–2.32)	0.94	(0.87–1.03)	-3.59	(-8.96–1.77)
Health-related factors																
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months ^h																
Any private	1.19	(0.99–1.42)	6.78	(-0.29–13.85)	1.29	(1.06–1.56)	10.35	(2.26–18.44)	1.18	(1.01–1.39)	6.55	(0.29–12.81)	1.16	(1.01–1.34)	5.90	(0.59–11.20)
Public only, excluding RWHAP only	0.68	(0.55–0.83)	-20.11	(-29.50–-10.72)	0.66	(0.53–0.82)	-21.45	(-31.24–-11.66)	0.73	(0.62–0.86)	-16.69	(-24.98–-8.41)	0.82	(0.74–0.91)	-11.14	(-16.93–-5.34)
Uninsured or RWHAP only	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Received RWHAP assistance, past 12 months																
Yes	1.06	(0.84–1.34)	2.61	(-7.71–12.92)	1.13	(0.98–1.29)	5.32	(-0.64–11.27)	1.19	(1.02–1.39)	7.99	(0.87–15.10)	1.10	(0.95–1.26)	4.09	(-2.13–10.31)
No	0.95	(0.79–1.15)	-2.61	(-12.92–7.71)	0.91	(0.82–1.01)	-5.32	(-11.27–0.64)	0.86	(0.75–0.98)	-7.99	(-15.10–-0.87)	0.93	(0.83–1.04)	-4.09	(-10.31–2.13)
Confidence in completing health forms																
Somewhat, a little bit, not at all	0.80	(0.56–1.15)	-5.85	(-14.89–3.19)	0.68	(0.49–0.94)	-9.41	(-17.23–-1.59)	0.84	(0.67–1.04)	-4.75	(-10.69–1.18)	0.89	(0.73–1.08)	-3.32	(-8.92–2.28)
Extremely, quite a bit	1.08	(0.96–1.22)	5.85	(-3.19–14.89)	1.13	(1.02–1.26)	9.41	(1.59–17.23)	1.07	(0.98–1.16)	4.75	(-1.18–10.69)	1.05	(0.97–1.13)	3.32	(-2.28–8.92)
Has a disability ⁱ																
Yes	0.59	(0.47–0.73)	-19.90	(-26.92–-12.89)	0.64	(0.54–0.76)	-17.32	(-23.75–-10.89)	0.85	(0.72–0.99)	-7.48	(-14.44–-0.52)	0.99	(0.90–1.09)	-0.51	(-5.10–4.09)
No	1.39	(1.24–1.55)	19.90	(12.89–26.92)	1.34	(1.20–1.49)	17.32	(10.89–23.75)	1.14	(1.01–1.30)	7.48	(0.52–14.44)	1.01	(0.92–1.10)	0.51	(-4.09–5.10)
Any unmet HIV ancillary service need, past 12 months ^j																
Yes	1.87	(1.57–2.21)	29.28	(21.59–36.96)	1.77	(1.52–2.08)	26.15	(19.76–32.54)	1.46	(1.25–1.70)	15.38	(9.31–21.45)	1.39	(1.22–1.59)	13.34	(8.72–17.97)
No	0.56	(0.47–0.67)	-29.28	(-36.96–-21.59)	0.60	(0.53–0.69)	-26.15	(-32.54–-19.76)	0.77	(0.69–0.86)	-15.38	(-21.45–-9.31)	0.80	(0.74–0.86)	-13.34	(-17.97–-8.72)

Table 2b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by age—Medical Monitoring Project, United States, 2022 (cont)

	18–29 years vs. ≥65 years				30–39 years vs. ≥65 years				40–49 years vs. ≥65 years				50–59 years vs. ≥65 years			
	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI
Neighborhood and built environment																
Any met or unmet need for transportation assistance, past 12 months^k																
Yes	0.82	(0.61–1.09)	-5.57	(-12.97–1.83)	0.88	(0.74–1.05)	-3.66	(-8.68–1.37)	0.91	(0.76–1.10)	-2.61	(-7.85–2.63)	1.06	(0.93–1.20)	1.69	(-2.38–5.77)
No	1.08	(0.98–1.19)	5.57	(-1.83–12.97)	1.05	(0.98–1.13)	3.66	(-1.37–8.68)	1.04	(0.96–1.12)	2.61	(-2.63–7.85)	0.98	(0.92–1.03)	-1.69	(-5.77–2.38)
Social and community context																
HIV health care discrimination among persons who received care, past 12 months^l																
Yes	1.70	(1.13–2.55)	10.91	(1.48–20.33)	1.82	(1.41–2.33)	12.67	(8.16–17.18)	1.70	(1.29–2.23)	10.81	(5.27–16.34)	1.44	(1.15–1.81)	6.87	(3.14–10.59)
No	0.87	(0.77–0.99)	-10.91	(-20.33–-1.48)	0.85	(0.80–0.90)	-12.67	(-17.18–-8.16)	0.87	(0.81–0.94)	-10.81	(-16.34–-5.27)	0.92	(0.88–0.96)	-6.87	(-10.59–-3.14)
English proficiency																
Speaks English less than well	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Speaks English well	1.05	(1.01–1.10)	5.01	(0.96–9.06)	1.01	(0.97–1.05)	0.58	(-3.19–4.35)	0.98	(0.94–1.02)	-1.72	(-5.62–2.19)	0.99	(0.96–1.01)	-1.21	(-3.77–1.36)
Experiences of physical violence by an intimate partner or forced sex, lifetime^m																
Yes	1.78	(1.38–2.30)	18.17	(10.41–25.94)	1.74	(1.39–2.17)	17.10	(11.03–23.17)	1.84	(1.52–2.23)	19.47	(14.28–24.65)	1.40	(1.17–1.67)	9.25	(4.81–13.70)
No	0.76	(0.68–0.86)	-18.17	(-25.94–-10.41)	0.78	(0.71–0.85)	-17.10	(-23.17–-11.03)	0.75	(0.69–0.81)	-19.47	(-24.65–-14.28)	0.88	(0.83–0.93)	-9.25	(-13.70–-4.81)
Experiences of physical violence by an intimate partner or forced sex, past 12 months^m																
Yes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No	0.89	(0.85–0.93)	-11.25	(-15.05–-7.45)	0.89	(0.86–0.92)	-10.96	(-13.53–-8.39)	0.93	(0.91–0.96)	-6.51	(-9.20–-3.81)	0.97	(0.95–0.98)	-3.26	(-4.89–-1.63)
Incarcerated >24 hours, past 12 months																
Yes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No	0.95	(0.91–0.98)	-5.31	(-8.52–-2.10)	0.97	(0.95–0.99)	-2.98	(-4.63–-1.32)	0.98	(0.97–1.00)	-1.68	(-3.20–-0.15)	0.99	(0.97–1.00)	-1.43	(-2.81–-0.04)

Abbreviations: PR, prevalence ratio; PD, prevalence difference; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. persons aged ≥65 years were the referent group for each disparity assessment. Excluded are prevalence ratios and prevalence differences that are based on estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.

^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 "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) 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.

^d Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^f "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 persons 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].

^g Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^h Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

ⁱ Self-reported, and includes physical, mental, and emotional disabilities.

^j Represents those who needed, but did not receive, ≥1 HIV ancillary services, among all persons.

^k Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^l HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^m Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

**Table 3a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by current gender identity—
Medical Monitoring Project, United States, 2022**

	Cisgender men ^a			Cisgender women ^a			Transgender persons ^a		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Total (row %)	2,861	75.0	(72.8–77.2)	875	23.0	(20.7–25.3)	80	2.0	(1.5–2.5)
National HIV/AIDS Strategy indicators related to social determinants of health									
Quality of life									
Physical health									
Self-reported health status^b									
Good, very good, excellent	1,984	72.6	(70.9–74.2)	524	61.5	(58.1–65.0)	53	64.5	(53.4–75.5)
Poor, fair	770	27.4	(25.8–29.1)	325	38.5	(35.0–41.9)	27	35.5	(24.5–46.6)
Mental or emotional health									
Unmet needs for services from a mental health professional among those who needed services, past 12 months^c									
Yes	276	28.1	(23.5–32.7)	69	23.9	(18.5–29.4)	—	—	—
No	796	71.9	(67.3–76.5)	288	76.1	(70.6–81.5)	38	81.2	(69.3–93.2)
Structural or subsistence factors									
Unstable housing or homelessness, past 12 months^d									
Yes	456	17.5	(15.9–19.1)	137	18.3	(15.4–21.2)	19	29.0	(17.9–40.2)
No	2,301	82.5	(80.9–84.1)	711	81.7	(78.8–84.6)	60	71.0	(59.8–82.1)
Unemployment^e									
Yes	321	11.2	(9.3–13.0)	92	11.3	(8.0–14.7)	14	15.6	(6.6–24.6)
No	2,427	88.8	(87.0–90.7)	756	88.7	(85.3–92.0)	65	84.4	(75.4–93.4)
Hunger or food insecurity, past 12 months^f									
Yes	474	18.6	(17.1–20.0)	157	18.0	(15.1–21.0)	20	27.2	(17.5–36.9)
No	2,283	81.4	(80.0–82.9)	693	82.0	(79.0–84.9)	60	72.8	(63.1–82.5)
HIV stigma, past 12 months (n, median score, 95% CI)^g	2,490	28.2	(26.8–29.6)	751	32.9	(30.6–35.2)	76	35.1	(27.1–43.1)
Other factors important for health, including those that affect quality of life									
Economic stability									
Household income with respect to poverty guidelines^h									
<100% FPL	680	27.0	(24.4–29.7)	389	51.9	(45.7–58.0)	35	45.4*	(28.1–62.7)
100%–138% FPL	329	12.8	(11.3–14.3)	109	15.6	(12.4–18.8)	—	—	—
139%–399% FPL	966	39.8	(37.8–41.8)	210	28.5	(24.0–33.1)	24	34.1	(19.7–48.4)
≥400% FPL	533	20.4	(17.7–23.0)	36	4.0	(1.8–6.2)	—	—	—
Education									
Educational attainment									
Less than high school diploma	276	10.6	(9.0–12.3)	206	22.1	(19.2–24.9)	17	23.3	(11.5–35.0)
High school diploma or equivalent	685	25.2	(22.7–27.8)	275	32.2	(27.3–37.1)	27	30.6	(21.1–40.1)
Greater than high school	1,802	64.1	(60.9–67.4)	370	45.8	(41.9–49.7)	36	46.1	(34.0–58.3)
Health-related factors									
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 monthsⁱ									
Any private	1,246	45.2	(42.5–47.9)	273	33.6	(28.7–38.4)	20	26.1	(15.4–36.8)
Public only, excluding RWHAP only	1,255	45.6	(41.7–49.5)	505	59.8	(53.9–65.6)	51	66.5	(54.8–78.2)
Uninsured or RWHAP only	205	9.2	(7.2–11.2)	54	6.7	(3.9–9.4)	—	—	—
Received RWHAP assistance, past 12 months									
Yes	1,293	47.2	(43.2–51.1)	406	45.4	(39.7–51.0)	38	48.8*	(32.8–64.8)
No	1,351	52.8	(48.9–56.8)	413	54.6	(49.0–60.3)	38	51.2*	(35.2–67.2)
Confidence in completing health forms									
Somewhat, a little bit, not at all	640	24.2	(22.3–26.1)	241	26.8	(23.4–30.1)	23	28.6	(19.0–38.2)
Extremely, quite a bit	2,115	75.8	(73.9–77.7)	609	73.2	(69.9–76.6)	57	71.4	(61.8–81.0)
Has a disability^j									
Yes	1,047	38.3	(36.0–40.6)	458	53.7	(50.2–57.3)	41	51.6	(39.2–64.0)
No	1,711	61.7	(59.4–64.0)	390	46.3	(42.7–49.8)	39	48.4	(36.0–60.8)
Any unmet HIV ancillary service need, past 12 months^k									
Yes	1,278	48.2	(44.6–51.8)	421	50.9	(46.1–55.6)	48	59.5	(47.8–71.1)
No	1,463	51.8	(48.2–55.4)	422	49.1	(44.4–53.9)	32	40.5	(28.9–52.2)

**Table 3a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by current gender identity—
Medical Monitoring Project, United States, 2022 (cont)**

	Cisgender men ^a			Cisgender women ^a			Transgender persons ^a		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Neighborhood and built environment									
Any met or unmet need for transportation assistance, past 12 months^l									
Yes	703	25.8	(23.9–27.7)	338	39.8	(36.0–43.6)	40	50.5	(37.8–63.2)
No	2,010	74.2	(72.3–76.1)	499	60.2	(56.4–64.0)	38	49.5	(36.8–62.2)
Social and community context									
HIV health care discrimination among persons who received care, past 12 months^m									
Yes	605	24.2	(21.2–27.1)	159	20.9	(17.0–24.9)	17	22.9	(12.0–33.8)
No	1,961	75.8	(72.9–78.8)	623	79.1	(75.1–83.0)	61	77.1	(66.2–88.0)
English proficiency									
Speaks English less than well	187	6.9	(3.9–9.8)	103	8.5	(3.7–13.2)	—	—	—
Speaks English well	2,576	93.1	(90.2–96.1)	748	91.5	(86.8–96.3)	73	92.6	(85.5–99.7)
Experiences of physical violence by an intimate partner or forced sex, lifetimeⁿ									
Yes	830	31.4	(28.7–34.2)	358	45.5	(41.6–49.4)	39	52.6	(40.2–65.0)
No	1,866	68.6	(65.8–71.3)	460	54.5	(50.6–58.4)	41	47.4	(35.0–59.8)
Experiences of physical violence by an intimate partner or forced sex, past 12 monthsⁿ									
Yes	134	5.8	(4.6–7.0)	39	5.6	(3.8–7.5)	—	—	—
No	2,548	94.2	(93.0–95.4)	763	94.4	(92.5–96.2)	70	85.2	(74.8–95.6)
Incarcerated >24 hours, past 12 months									
Yes	85	3.3	(2.6–4.0)	12	1.8	(0.8–2.7)	—	—	—
No	2,679	96.7	(96.0–97.4)	839	98.2	(97.3–99.2)	77	95.9	(91.2–100)

Abbreviations: n, number; col, column; CI, confidence interval; FPL, federal poverty level; RWHP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. 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 Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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 “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.

^c “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.

^d “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) 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.

^e Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^g “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 persons 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].

^h Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

ⁱ Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHP, or other city, county, or state-funded insurance. Uninsured or RWHP only category includes those who did not report having any insurance, or received RWHP assistance only, without coverage through any other insurance categories.

^j Self-reported, and includes physical, mental, and emotional disabilities.

^k Represents those who needed, but did not receive, ≥ 1 HIV ancillary services, among all persons.

^l Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^m HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of the time were considered to have experienced discrimination in an HIV health care setting.

ⁿ Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 3b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by current gender identity—Medical Monitoring Project, United States, 2022

	Cisgender women vs. cisgender men ^a				Transgender persons vs. cisgender men ^a			
	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI
National HIV/AIDS Strategy indicators related to social determinants of health								
<i>Quality of life</i>								
Physical health								
Self-reported health status^b								
Good, very good, excellent	0.85	(0.80–0.90)	-11.06	(-15.10– -7.01)	0.89	(0.75–1.06)	-8.12	(-19.45– 3.21)
Poor, fair	1.40	(1.25–1.57)	11.06	(7.01– 15.10)	1.30	(0.94–1.79)	8.12	(-3.21– 19.45)
Mental or emotional health								
Unmet needs for services from a mental health professional among those who needed services, past 12 months^c								
Yes	0.85	(0.64–1.12)	-4.21	(-11.23– 2.82)	—	—	—	—
No	1.06	(0.96–1.16)	4.21	(-2.82– 11.23)	1.13	(0.99–1.30)	9.36	(-1.70– 20.42)
Structural or subsistence factors								
Unstable housing or homelessness, past 12 months^d								
Yes	1.05	(0.87–1.26)	0.82	(-2.57– 4.20)	1.66	(1.15–2.40)	11.54	(0.78– 22.31)
No	0.99	(0.95–1.03)	-0.82	(-4.20– 2.57)	0.86	(0.74–1.00)	-11.54	(-22.31– -0.78)
Unemployment^e								
Yes	1.01	(0.78–1.32)	0.15	(-2.86– 3.16)	1.39	(0.79–2.47)	4.39	(-4.43– 13.22)
No	1.00	(0.96–1.03)	-0.15	(-3.16– 2.86)	0.95	(0.86–1.06)	-4.39	(-13.22– 4.43)
Hunger or food insecurity, past 12 months^f								
Yes	0.97	(0.81–1.16)	-0.52	(-3.74– 2.69)	1.47	(1.01–2.12)	8.65	(-1.23– 18.53)
No	1.01	(0.97–1.05)	0.52	(-2.69– 3.74)	0.89	(0.78–1.02)	-8.65	(-18.53– 1.23)
HIV stigma, past 12 months								
(n, median score, 95% CI)^g								
Other factors important for health, including those that affect quality of life								
<i>Economic stability</i>								
Household income with respect to poverty guidelines^h								
<100% FPL	1.92	(1.73–2.12)	24.81	(19.68– 29.93)	1.68*	(1.20–2.34)	18.33*	(2.46– 34.20)
100%–138% FPL	1.22	(0.98–1.53)	2.84	(-0.53– 6.21)	—	—	—	—
139%–399% FPL	0.72	(0.61–0.85)	-11.26	(-16.34– -6.18)	0.86	(0.56–1.30)	-5.74	(-20.09– 8.60)
≥400% FPL	0.20	(0.11–0.33)	-16.39	(-19.46– -13.32)	—	—	—	—
Education								
Educational attainment								
Less than high school diploma	2.08	(1.70–2.53)	11.44	(8.17– 14.70)	2.19	(1.35–3.57)	12.67	(1.26– 24.08)
High school diploma or equivalent	1.27	(1.03–1.58)	6.90	(0.51– 13.30)	1.21	(0.86–1.71)	5.35	(-4.88– 15.58)
Greater than high school	0.71	(0.64–0.80)	-18.34	(-23.98– -12.70)	0.72	(0.56–0.93)	-18.02	(-29.82– -6.22)
Health-related factors								
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 monthsⁱ								
Any private	0.74	(0.66–0.84)	-11.63	(-15.53– -7.73)	0.58	(0.39–0.86)	-19.10	(-29.39– -8.81)
Public only, excluding RWHAP only	1.31	(1.22–1.41)	14.17	(10.09– 18.25)	1.46	(1.23–1.73)	20.94	(9.78– 32.11)
Uninsured or RWHAP only	0.72	(0.52–1.02)	-2.54	(-4.82– -0.26)	—	—	—	—
Received RWHAP assistance, past 12 months								
Yes	0.96	(0.86–1.08)	-1.80	(-7.08– 3.48)	1.03*	(0.77–1.39)	1.62*	(-12.88– 16.12)
No	1.03	(0.94–1.14)	1.80	(-3.48– 7.08)	0.97*	(0.73–1.29)	-1.62*	(-16.12– 12.88)
Confidence in completing health forms								
Somewhat, a little bit, not at all	1.11	(0.95–1.29)	2.59	(-1.43– 6.60)	1.18	(0.84–1.66)	4.45	(-5.17– 14.06)
Extremely, quite a bit	0.97	(0.91–1.02)	-2.59	(-6.60– 1.43)	0.94	(0.82–1.08)	-4.45	(-14.06– 5.17)
Has a disability^j								
Yes	1.40	(1.29–1.52)	15.40	(11.57– 19.23)	1.35	(1.05–1.72)	13.29	(0.76– 25.82)
No	0.75	(0.69–0.81)	-15.40	(-19.23– -11.57)	0.78	(0.61–1.01)	-13.29	(-25.82– -0.76)
Any unmet HIV ancillary service need, past 12 months^k								
Yes	1.05	(0.96–1.16)	2.64	(-2.03– 7.31)	1.23	(1.03–1.48)	11.25	(0.31– 22.19)
No	0.95	(0.86–1.04)	-2.64	(-7.31– 2.03)	0.78	(0.60–1.03)	-11.25	(-22.19– -0.31)

Table 3b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by current gender identity—Medical Monitoring Project, United States, 2022 (cont)

	Cisgender women vs. cisgender men ^a				Transgender persons vs. cisgender men ^a			
	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI
Neighborhood and built environment								
Any met or unmet need for transportation assistance, past 12 months^l								
Yes	1.54	(1.38–1.73)	14.00	(9.98– 18.01)	1.96	(1.51–2.54)	24.69	(11.86– 37.52)
No	0.81	(0.76–0.87)	-14.00	(-18.01– -9.98)	0.67	(0.52–0.86)	-24.69	(-37.52– -11.86)
Social and community context								
HIV health care discrimination among persons who received care, past 12 months^m								
Yes	0.87	(0.70–1.07)	-3.22	(-7.75– 1.31)	0.95	(0.60–1.50)	-1.23	(-11.74– 9.28)
No	1.04	(0.98–1.10)	3.22	(-1.31– 7.75)	1.02	(0.89–1.16)	1.23	(-9.28– 11.74)
English proficiency								
Speaks English less than well	1.23	(0.91–1.66)	1.59	(-1.12– 4.30)	—	—	—	—
Speaks English well	0.98	(0.95–1.01)	-1.59	(-4.30– 1.12)	0.99	(0.94–1.05)	-0.54	(-5.87– 4.79)
Experiences of physical violence by an intimate partner or forced sex, lifetimeⁿ								
Yes	1.45	(1.31–1.60)	14.07	(10.02– 18.12)	1.67	(1.34–2.09)	21.17	(9.36– 32.99)
No	0.79	(0.74–0.85)	-14.07	(-18.12– -10.02)	0.69	(0.54–0.89)	-21.17	(-32.99– -9.36)
Experiences of physical violence by an intimate partner or forced sex, past 12 monthsⁿ								
Yes	0.97	(0.64–1.47)	-0.18	(-2.54– 2.19)	—	—	—	—
No	1.00	(0.98–1.03)	0.18	(-2.19– 2.54)	0.90	(0.80–1.02)	-9.00	(-19.39– 1.39)
Incarcerated >24 hours, past 12 months								
Yes	0.54	(0.31–0.94)	-1.53	(-2.66– -0.39)	—	—	—	—
No	1.02	(1.00–1.03)	1.53	(0.39– 2.66)	0.99	(0.95–1.04)	-0.74	(-5.38– 3.89)

Abbreviations: PR, prevalence ratio; PD, prevalence difference; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Cisgender males were the referent group for each disparity assessment. Excluded are prevalence ratios and prevalence differences that are based on estimates with a coefficient of variation ≥ 0.30 and those based on a denominator sample size < 30 . Prevalence ratios and prevalence differences that are based on one or more 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 Persons were classified as cisgender if sex at birth and gender reported by the person were the same. 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 “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.

^c “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.

^d “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) 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.

^e Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^g “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 persons 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].

^h Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

ⁱ Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

^j Self-reported, and includes physical, mental, and emotional disabilities.

^k Represents those who needed, but did not receive, ≥ 1 HIV ancillary services, among all persons.

^l Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^m HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

ⁿ Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

**Table 4a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by sexual orientation—
Medical Monitoring Project, United States, 2022**

	Bisexual			Gay or lesbian			Heterosexual			Other		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Total (row %)	322	9.6	(8.5–10.8)	1,647	43.7	(40.0–47.4)	1,575	43.7	(40.3–47.1)	108	3.0	(2.3–3.7)
National HIV/AIDS Strategy indicators related to social determinants of health												
Quality of life												
Physical health												
Self-reported health status^a												
Good, very good, excellent	207	65.8	(59.2–72.4)	1,258	76.5	(74.0–79.0)	1,006	64.7	(62.4–67.0)	66	63.9	(56.3–71.5)
Poor, fair	114	34.2	(27.6–40.8)	387	23.5	(21.0–26.0)	562	35.3	(33.0–37.6)	40	36.1	(28.5–43.7)
Mental or emotional health												
Unmet needs for services from a mental health professional among those who needed services, past 12 months^b												
Yes	37	31.1	(21.5–40.7)	185	28.6	(23.6–33.6)	115	23.6	(19.1–28.1)	11	20.4	(11.4–29.4)
No	103	68.9	(59.3–78.5)	508	71.4	(66.4–76.4)	456	76.4	(71.9–80.9)	44	79.6	(70.6–88.6)
Structural or subsistence factors												
Unstable housing or homelessness, past 12 months^c												
Yes	73	21.4	(17.0–25.9)	243	16.4	(14.3–18.5)	263	18.0	(15.9–20.0)	24	25.9	(16.8–34.9)
No	248	78.6	(74.1–83.0)	1,400	83.6	(81.5–85.7)	1,306	82.0	(80.0–84.1)	83	74.1	(65.1–83.2)
Unemployment^d												
Yes	48	15.4	(10.4–20.4)	174	10.6	(8.2–13.1)	187	10.9	(8.8–13.0)	—	—	—
No	271	84.6	(79.6–89.6)	1,466	89.4	(86.9–91.8)	1,378	89.1	(87.0–91.2)	100	92.5	(85.4–99.5)
Hunger or food insecurity, past 12 months^e												
Yes	95	31.2	(26.1–36.4)	238	16.2	(14.1–18.3)	273	17.2	(15.4–18.9)	32	31.3	(23.5–39.0)
No	227	68.8	(63.6–73.9)	1,408	83.8	(81.7–85.9)	1,296	82.8	(81.1–84.6)	75	68.7	(61.0–76.5)
HIV stigma, past 12 months (n, median score, 95% CI)^f	291	37.1	(32.8–41.4)	1,529	26.3	(24.9–27.7)	1,380	30.7	(29.0–32.4)	82	33.4	(27.9–38.8)
Other factors important for health, including those that affect quality of life												
Economic stability												
Household income with respect to poverty guidelines^g												
<100% FPL	90	34.4	(27.6–41.1)	294	18.3	(15.1–21.6)	672	47.2	(42.3–52.1)	39	42.7	(32.6–52.8)
100%–138% FPL	56	18.9	(14.4–23.5)	167	10.7	(9.1–12.2)	210	15.4	(12.6–18.2)	8	8.2	(4.1–12.3)
139%–399% FPL	112	37.2	(30.4–44.0)	618	43.3	(40.5–46.1)	415	30.5	(26.5–34.5)	43	39.4	(29.3–49.6)
≥400% FPL	30	9.5	(5.5–13.4)	441	27.7	(24.0–31.4)	92	6.8	(5.1–8.6)	—	—	—
Education												
Educational attainment												
Less than high school diploma	35	10.7	(7.6–13.8)	86	5.7	(4.2–7.2)	350	21.6	(19.1–24.0)	—	—	—
High school diploma or equivalent	90	28.4	(23.7–33.0)	314	19.8	(17.4–22.3)	546	34.0	(31.6–36.5)	21	19.1	(11.2–27.0)
Greater than high school	197	60.9	(55.1–66.8)	1,246	74.5	(71.5–77.4)	677	44.4	(41.1–47.7)	73	68.1	(56.9–79.3)
Health-related factors												
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months^h												
Any private	125	39.1	(32.0–46.2)	854	51.5	(48.2–54.7)	496	33.1	(28.8–37.4)	51	47.3	(32.7–61.9)
Public only, excluding RWHAP only	165	51.1	(42.6–59.6)	651	39.7	(35.8–43.5)	920	58.5	(53.0–64.1)	52	47.9	(33.2–62.5)
Uninsured or RWHAP only	—	—	—	118	8.9	(6.9–10.9)	116	8.4	(6.1–10.6)	—	—	—
Received RWHAP assistance, past 12 months												
Yes	166	52.1	(44.4–59.9)	764	46.3	(41.8–50.8)	738	46.2	(41.1–51.4)	47	43.9	(35.7–52.1)
No	141	47.9	(40.1–55.6)	836	53.7	(49.2–58.2)	751	53.8	(48.6–58.9)	56	56.1	(47.9–64.3)
Confidence in completing health forms												
Somewhat, a little bit, not at all	77	24.0	(19.5–28.6)	289	17.8	(15.6–20.0)	491	31.5	(28.9–34.1)	29	27.8	(17.6–37.9)
Extremely, quite a bit	244	76.0	(71.4–80.5)	1,357	82.2	(80.0–84.4)	1,078	68.5	(65.9–71.1)	77	72.2	(62.1–82.4)
Has a disabilityⁱ												
Yes	152	45.7	(39.2–52.2)	548	33.9	(31.1–36.6)	758	48.3	(45.4–51.1)	63	58.4	(47.4–69.4)
No	169	54.3	(47.8–60.8)	1,096	66.1	(63.4–68.9)	811	51.7	(48.9–54.6)	45	41.6	(30.6–52.6)
Any unmet HIV ancillary service need, past 12 months^j												
Yes	184	59.3	(53.6–65.0)	710	45.2	(41.4–49.0)	763	49.6	(45.8–53.5)	63	60.0	(48.6–71.4)
No	137	40.7	(35.0–46.4)	928	54.8	(51.0–58.6)	794	50.4	(46.5–54.2)	43	40.0	(28.6–51.4)

**Table 4a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by sexual orientation—
Medical Monitoring Project, United States, 2022 (cont)**

	Bisexual			Gay or lesbian			Heterosexual			Other		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Neighborhood and built environment												
Any met or unmet need for transportation assistance, past 12 months^k												
Yes	121	39.8	(31.1–48.6)	332	20.4	(18.0–22.8)	570	35.8	(33.0–38.6)	38	35.2	(26.2–44.3)
No	195	60.2	(51.4–68.9)	1,291	79.6	(77.2–82.0)	974	64.2	(61.4–67.0)	66	64.8	(55.7–73.8)
Social and community context												
HIV health care discrimination among persons who received care, past 12 months^l												
Yes	89	29.3	(23.4–35.1)	382	25.5	(22.6–28.4)	270	19.3	(16.2–22.3)	30	33.0	(23.6–42.4)
No	210	70.7	(64.9–76.6)	1,173	74.5	(71.6–77.4)	1,170	80.7	(77.7–83.8)	64	67.0	(57.6–76.4)
English proficiency												
Speaks English less than well	—	—	—	76	4.8	(2.3–7.4)	191	9.8	(4.7–15.0)	—	—	—
Speaks English well	308	95.0	(91.6–98.3)	1,571	95.2	(92.6–97.7)	1,383	90.2	(85.0–95.3)	99	93.0	(86.3–99.7)
Experiences of physical violence by an intimate partner or forced sex, lifetime^m												
Yes	117	38.5	(32.7–44.3)	599	38.6	(35.7–41.6)	459	30.5	(27.9–33.1)	45	43.1	(28.7–57.6)
No	199	61.5	(55.7–67.3)	1,019	61.4	(58.4–64.3)	1,057	69.5	(66.9–72.1)	59	56.9	(42.4–71.3)
Experiences of physical violence by an intimate partner or forced sex, past 12 months^m												
Yes	25	10.1	(4.2–16.0)	91	6.8	(5.5–8.2)	55	3.8	(2.8–4.9)	10	11.3	(5.6–17.1)
No	287	89.9	(84.0–95.8)	1,515	93.2	(91.8–94.5)	1,448	96.2	(95.1–97.2)	92	88.7	(82.9–94.4)
Incarcerated >24 hours, past 12 months												
Yes	18	5.1	(2.3–7.9)	29	2.1	(1.3–3.0)	47	3.2	(2.1–4.3)	—	—	—
No	304	94.9	(92.1–97.7)	1,618	97.9	(97.0–98.7)	1,526	96.8	(95.7–97.9)	103	95.1	(90.9–99.2)

Abbreviations: n, number; col, column; CI, confidence interval; FPL, federal poverty level; RWHP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. Excluded are estimates with a coefficient of variation ≥ 0.30 and those based on a denominator sample size < 30 .

^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 "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) 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.

^d Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^f "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 persons 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].

^g Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^h Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHP, or other city, county, or state-funded insurance. Uninsured or RWHP only category includes those who did not report having any insurance, or received RWHP assistance only, without coverage through any other insurance categories.

ⁱ Self-reported, and includes physical, mental, and emotional disabilities.

^j Represents those who needed, but did not receive, ≥ 1 HIV ancillary services, among all persons.

^k Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^l HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^m Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 4b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by sexual orientation—Medical Monitoring Project, United States, 2022

	Bisexual vs. gay or lesbian persons				Heterosexual vs. gay or lesbian persons				Persons who identify as other sexual orientation vs. gay or lesbian persons			
	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI
National HIV/AIDS Strategy indicators related to social determinants of health												
Quality of life												
Physical health												
Self-reported health status ^a												
Good, very good, excellent	0.86	(0.78–0.95)	-10.72	(-17.52– -3.93)	0.85	(0.80–0.89)	-11.81	(-15.59– -8.02)	0.84	(0.74–0.95)	-12.56	(-20.56– -4.55)
Poor, fair	1.46	(1.18–1.80)	10.72	(3.93– 17.52)	1.50	(1.31–1.72)	11.81	(8.02– 15.59)	1.53	(1.21–1.94)	12.56	(4.55– 20.56)
Mental or emotional health												
Unmet needs for services from a mental health professional among those who needed services, past 12 months ^b												
Yes	1.09	(0.80–1.49)	2.52	(-7.06– 12.10)	0.83	(0.66–1.04)	-4.96	(-10.94– 1.02)	0.71	(0.45–1.12)	-8.19	(-17.97– 1.58)
No	0.96	(0.84–1.11)	-2.52	(-12.10– 7.06)	1.07	(0.99–1.16)	4.96	(-1.02– 10.94)	1.11	(0.98–1.26)	8.19	(-1.58– 17.97)
Structural or subsistence factors												
Unstable housing or homelessness, past 12 months ^c												
Yes	1.31	(1.05–1.62)	5.03	(0.57– 9.49)	1.10	(0.93–1.29)	1.56	(-1.27– 4.39)	1.58	(1.08–2.31)	9.47	(0.05– 18.89)
No	0.94	(0.89–0.99)	-5.03	(-9.49– -0.57)	0.98	(0.95–1.02)	-1.56	(-4.39– 1.27)	0.89	(0.78–1.01)	-9.47	(-18.89– -0.05)
Unemployment ^d												
Yes	1.45	(1.06–1.98)	4.75	(0.16– 9.35)	1.03	(0.80–1.32)	0.29	(-2.40– 2.98)	—	—	—	—
No	0.95	(0.90–1.00)	-4.75	(-9.35– -0.16)	1.00	(0.97–1.03)	-0.29	(-2.98– 2.40)	1.03	(0.95–1.13)	3.09	(-4.68– 10.86)
Hunger or food insecurity, past 12 months ^e												
Yes	1.93	(1.53–2.42)	15.04	(9.12– 20.96)	1.06	(0.90–1.25)	0.97	(-1.73– 3.68)	1.93	(1.45–2.57)	15.07	(6.92– 23.21)
No	0.82	(0.75–0.89)	-15.04	(-20.96– -9.12)	0.99	(0.96–1.02)	-0.97	(-3.68– 1.73)	0.82	(0.73–0.92)	-15.07	(-23.21– -6.92)
HIV stigma, past 12 months (n, median score, 95% CI) ^f												
Other factors important for health, including those that affect quality of life												
Economic stability												
Household income with respect to poverty guidelines ^g												
<100% FPL	1.87	(1.46–2.40)	16.04	(8.88– 23.20)	2.57	(2.18–3.04)	28.86	(24.16– 33.56)	2.33	(1.77–3.05)	24.33	(14.22– 34.45)
100%–138% FPL	1.77	(1.36–2.31)	8.24	(3.62– 12.87)	1.44	(1.14–1.83)	4.72	(1.44– 7.99)	0.76	(0.45–1.29)	-2.52	(-6.91– 1.88)
139%–399% FPL	0.86	(0.70–1.06)	-6.06	(-14.03– 1.91)	0.71	(0.60–0.84)	-12.74	(-18.52– -6.97)	0.91	(0.71–1.16)	-3.88	(-13.45– 5.70)
≥400% FPL	0.34	(0.22–0.52)	-18.22	(-23.33– -13.11)	0.25	(0.19–0.32)	-20.84	(-24.36– -17.31)	—	—	—	—
Education												
Educational attainment												
Less than high school diploma	1.87	(1.35–2.59)	4.97	(1.93– 8.00)	3.77	(2.85–4.99)	15.85	(13.02– 18.68)	—	—	—	—
High school diploma or equivalent	1.43	(1.20–1.71)	8.54	(3.85– 13.22)	1.72	(1.48–1.99)	14.18	(10.55– 17.81)	0.96	(0.61–1.51)	-0.72	(-9.36– 7.93)
Greater than high school	0.82	(0.75–0.89)	-13.50	(-18.91– -8.10)	0.60	(0.55–0.65)	-30.03	(-34.74– -25.33)	0.91	(0.76–1.10)	-6.38	(-18.81– 6.04)
Health-related factors												
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months ^h												
Any private	0.76	(0.62–0.93)	-12.36	(-20.82– -3.89)	0.64	(0.58–0.71)	-18.35	(-21.90– -14.80)	0.92	(0.67–1.25)	-4.19	(-18.78– 10.40)
Public only, excluding RWHAP only	1.29	(1.10–1.52)	11.49	(3.41– 19.57)	1.48	(1.36–1.60)	18.89	(14.60– 23.18)	1.21	(0.90–1.62)	8.25	(-5.78– 22.28)
Uninsured or RWHAP only	—	—	—	—	0.94	(0.71–1.23)	-0.54	(-2.88– 1.80)	—	—	—	—
Received RWHAP assistance, past 12 months												
Yes	1.13	(0.98–1.29)	5.83	(-1.10– 12.76)	1.00	(0.88–1.13)	-0.06	(-5.89– 5.76)	0.95	(0.77–1.17)	-2.42	(-11.69– 6.85)
No	0.89	(0.77–1.03)	-5.83	(-12.76– 1.10)	1.00	(0.90–1.12)	0.06	(-5.76– 5.89)	1.05	(0.88–1.24)	2.42	(-6.85– 11.69)
Confidence in completing health forms												
Somewhat, a little bit, not at all	1.35	(1.09–1.67)	6.21	(1.37– 11.06)	1.77	(1.54–2.03)	13.71	(10.52– 16.90)	1.56	(1.04–2.34)	9.94	(-0.80– 20.69)
Extremely, quite a bit	0.92	(0.87–0.98)	-6.21	(-11.06– -1.37)	0.83	(0.80–0.87)	-13.71	(-16.90– -10.52)	0.88	(0.76–1.02)	-9.94	(-20.69– 0.80)
Has a disability ⁱ												
Yes	1.35	(1.15–1.59)	11.83	(4.83– 18.84)	1.43	(1.29–1.57)	14.40	(10.56– 18.24)	1.72	(1.39–2.15)	24.54	(12.70– 36.38)
No	0.82	(0.72–0.93)	-11.83	(-18.84– -4.83)	0.78	(0.73–0.84)	-14.40	(-18.24– -10.56)	0.63	(0.48–0.83)	-24.54	(-36.38– -12.70)
Any unmet HIV ancillary service need, past 12 months ^j												
Yes	1.31	(1.17–1.48)	14.13	(7.82– 20.44)	1.10	(1.02–1.18)	4.42	(1.07– 7.77)	1.33	(1.12–1.58)	14.81	(4.38– 25.24)
No	0.74	(0.64–0.86)	-14.13	(-20.44– -7.82)	0.92	(0.86–0.98)	-4.42	(-7.77– -1.07)	0.73	(0.56–0.95)	-14.81	(-25.24– -4.38)

Table 4b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by sexual orientation—Medical Monitoring Project, United States, 2022 (cont)

	Bisexual vs. gay or lesbian persons				Heterosexual vs. gay or lesbian persons				Persons who identify as other sexual orientation vs. gay or lesbian persons			
	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI	PR	95% CI	PD	95% CI
Neighborhood and built environment												
Any met or unmet need for transportation assistance, past 12 months^k												
Yes	1.95	(1.61–2.37)	19.43	(11.49– 27.36)	1.76	(1.52–2.02)	15.41	(11.69– 19.12)	1.73	(1.28–2.33)	14.82	(5.13– 24.52)
No	0.76	(0.66–0.86)	-19.43	(-27.36– -11.49)	0.81	(0.76–0.85)	-15.41	(-19.12– -11.69)	0.81	(0.70–0.94)	-14.82	(-24.52– -5.13)
Social and community context												
HIV health care discrimination among persons who received care, past 12 months^l												
Yes	1.15	(0.96–1.37)	3.78	(-1.33– 8.89)	0.76	(0.65–0.88)	-6.23	(-9.56– -2.90)	1.30	(0.96–1.75)	7.56	(-2.12– 17.25)
No	0.95	(0.88–1.02)	-3.78	(-8.89– 1.33)	1.08	(1.04–1.13)	6.23	(2.90– 9.56)	0.90	(0.78–1.04)	-7.56	(-17.25– 2.12)
English proficiency												
Speaks English less than well	—	—	—	—	2.05	(1.52–2.75)	5.03	(1.74– 8.33)	—	—	—	—
Speaks English well	1.00	(0.96–1.04)	-0.21	(-4.11– 3.68)	0.95	(0.91–0.98)	-5.03	(-8.33– -1.74)	0.98	(0.91–1.05)	-2.18	(-8.63– 4.27)
Experiences of physical violence by an intimate partner or forced sex, lifetime^m												
Yes	1.00	(0.85–1.17)	-0.11	(-6.23– 6.00)	0.79	(0.72–0.87)	-8.14	(-11.37– -4.91)	1.12	(0.82–1.53)	4.52	(-9.09– 18.13)
No	1.00	(0.91–1.11)	0.11	(-6.00– 6.23)	1.13	(1.08–1.19)	8.14	(4.91– 11.37)	0.93	(0.73–1.18)	-4.52	(-18.13– 9.09)
Experiences of physical violence by an intimate partner or forced sex, past 12 months^m												
Yes	1.49	(0.83–2.67)	3.31	(-2.53– 9.16)	0.56	(0.41–0.77)	-2.98	(-4.60– -1.37)	1.66	(0.95–2.92)	4.51	(-1.53– 10.55)
No	0.96	(0.90–1.03)	-3.31	(-9.16– 2.53)	1.03	(1.01–1.05)	2.98	(1.37– 4.60)	0.95	(0.89–1.02)	-4.51	(-10.55– 1.53)
Incarcerated >24 hours, past 12 months												
Yes	2.38	(1.21–4.66)	2.95	(0.02– 5.89)	1.50	(0.88–2.56)	1.07	(-0.34– 2.47)	—	—	—	—
No	0.97	(0.94–1.00)	-2.95	(-5.89– -0.02)	0.99	(0.97–1.00)	-1.07	(-2.47– 0.34)	0.97	(0.93–1.02)	-2.79	(-7.37– 1.79)

Abbreviations: PR, prevalence ratio; PD, prevalence difference; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Gay or lesbian persons were the referent group for each disparity assessment. Excluded are prevalence ratios and prevalence differences that are based on estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.

^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 "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) 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.

^d Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^f "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 persons 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].

^g Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^h Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

ⁱ Self-reported, and includes physical, mental, and emotional disabilities.

^j Represents those who needed, but did not receive, ≥1 HIV ancillary services, among all persons.

^k Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^l HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^m Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 5a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by racial/ethnic identity—Medical Monitoring Project, United States, 2022

	American Indian/ Alaska Native			Asian			Black/African American			Hispanic/Latino ^a			Native Hawaiian/ other Pacific Islander			White			Multiple races		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Total (row %)	—	—	—	57	1.3	(0.9–1.8)	1,497	40.8	(32.5–49.2)	937	23.6	(16.2–31.0)	—	—	—	1,117	28.5	(24.2–32.9)	194	5.1	(4.0–6.3)
National HIV/AIDS Strategy indicators related to social determinants of health																					
Quality of life																					
Physical health																					
Self-reported health status ^b																					
Good, very good, excellent	—	—	—	43	83.6	(74.7–92.4)	999	69.8	(67.1–72.4)	634	69.4	(66.0–72.7)	—	—	—	759	70.5	(67.0–74.0)	115	63.2	(55.1–71.2)
Poor, fair	—	—	—	13	16.4	(7.6–25.3)	425	30.2	(27.6–32.9)	281	30.6	(27.3–34.0)	—	—	—	325	29.5	(26.0–33.0)	75	36.8	(28.8–44.9)
Mental or emotional health																					
Unmet needs for services from a mental health professional among those who needed services, past 12 months ^c																					
Yes	—	—	—	—	—	—	130	28.4	(23.7–33.2)	82	22.7	(13.9–31.5)	—	—	—	105	26.6	(21.2–31.9)	28	36.5	(25.5–47.4)
No	—	—	—	—	—	—	365	71.6	(66.8–76.3)	334	77.3	(68.5–86.1)	—	—	—	342	73.4	(68.1–78.8)	60	63.5	(52.6–74.5)
Structural or subsistence factors																					
Unstable housing or homelessness, past 12 months ^d																					
Yes	—	—	—	—	—	—	290	21.5	(19.0–24.0)	143	17.7	(14.1–21.4)	—	—	—	137	13.3	(11.6–15.1)	36	19.3	(12.9–25.6)
No	—	—	—	52	96.9	(92.3–100)	1,138	78.5	(76.0–81.0)	770	82.3	(78.6–85.9)	—	—	—	947	86.7	(84.9–88.4)	154	80.7	(74.4–87.1)
Unemployment ^e																					
Yes	—	—	—	—	—	—	192	12.4	(9.6–15.1)	116	12.0	(9.2–14.8)	—	—	—	86	8.5	(5.8–11.3)	24	14.6	(8.6–20.6)
No	—	—	—	48	91.9	(84.4–99.3)	1,229	87.6	(84.9–90.4)	798	88.0	(85.2–90.8)	—	—	—	996	91.5	(88.7–94.2)	165	85.4	(79.4–91.4)
Hunger or food insecurity, past 12 months ^f																					
Yes	—	—	—	—	—	—	266	19.1	(16.4–21.8)	192	23.0	(18.3–27.8)	—	—	—	133	13.8	(10.6–17.0)	53	26.1	(19.2–33.0)
No	—	—	—	52	94.6	(88.0–100)	1,161	80.9	(78.2–83.6)	723	77.0	(72.2–81.7)	—	—	—	952	86.2	(83.0–89.4)	137	73.9	(67.0–80.8)
HIV stigma, past 12 months (n, median score, 95% CI) ^g																					
—	—	—	—	45	34.6	(25.9–43.2)	1,281	30.4	(28.3–32.6)	807	29.7	(27.8–31.6)	—	—	—	1,001	27.7	(25.2–30.1)	170	29.0	(24.1–33.9)
Other factors important for health, including those that affect quality of life																					
Economic stability																					
Household income with respect to poverty guidelines ^h																					
<100% FPL	—	—	—	—	—	—	485	39.8	(36.7–42.8)	339	38.9	(30.7–47.0)	—	—	—	193	18.5	(15.4–21.7)	77	43.4	(32.8–53.9)
100%–138% FPL	—	—	—	—	—	—	169	12.9	(11.0–14.7)	116	15.0	(11.7–18.3)	—	—	—	134	13.6	(10.9–16.3)	24	12.4	(7.5–17.3)
139%–399% FPL	—	—	—	18	33.2	(19.6–46.9)	453	36.5	(32.8–40.3)	261	34.3	(30.8–37.7)	—	—	—	410	41.7	(38.7–44.8)	54	29.4	(22.5–36.4)
≥400% FPL	—	—	—	22	51.6*	(35.7–67.4)	142	10.8	(9.3–12.3)	92	11.8	(6.8–16.9)	—	—	—	291	26.1	(22.7–29.5)	24	14.8	(7.0–22.6)
Education																					
Educational attainment																					
Less than high school diploma	—	—	—	—	—	—	205	14.2	(11.8–16.7)	211	22.9	(19.1–26.8)	—	—	—	54	5.5	(3.7–7.2)	25	12.0	(5.4–18.7)
High school diploma or equivalent	—	—	—	—	—	—	485	33.1	(30.8–35.5)	230	25.7	(22.1–29.3)	—	—	—	208	19.5	(16.7–22.3)	54	29.0	(21.8–36.1)
Greater than high school	—	—	—	49	86.3	(77.0–95.7)	742	52.7	(49.2–56.2)	475	51.4	(45.7–57.1)	—	—	—	823	75.0	(72.2–77.8)	112	59.0	(52.0–66.0)
Health-related factors																					
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months ⁱ																					
Any private	—	—	—	33	63.6*	(46.4–80.7)	580	40.6	(37.9–43.3)	297	33.9	(28.7–39.0)	—	—	—	549	50.3	(46.5–54.1)	74	39.7	(31.1–48.3)
Public only, excluding RWHAP only	—	—	—	19	29.9*	(14.2–45.7)	702	50.0	(45.6–54.4)	495	52.4	(43.5–61.3)	—	—	—	484	45.5	(41.2–49.7)	105	57.2	(48.1–66.3)
Uninsured or RWHAP only	—	—	—	—	—	—	112	9.4	(6.7–12.1)	106	13.7	(8.4–19.0)	—	—	—	36	4.3	(2.4–6.1)	—	—	—
Received RWHAP assistance, past 12 months																					
Yes	—	—	—	20	35.7*	(20.2–51.2)	665	44.7	(40.5–48.9)	501	56.0	(47.5–64.5)	—	—	—	469	44.3	(38.4–50.3)	77	40.8	(31.0–50.6)
No	—	—	—	35	64.3*	(48.8–79.8)	713	55.3	(51.1–59.5)	358	44.0	(35.5–52.5)	—	—	—	585	55.7	(49.7–61.6)	103	59.2	(49.4–69.0)
Confidence in completing health forms																					
Somewhat, a little bit, not at all	—	—	—	11	19.4	(8.2–30.6)	347	25.2	(22.7–27.7)	320	35.5	(31.7–39.2)	—	—	—	173	16.1	(14.2–18.1)	49	23.2	(16.3–30.1)
Extremely, quite a bit	—	—	—	45	80.6	(69.4–91.8)	1,080	74.8	(72.3–77.3)	595	64.5	(60.8–68.3)	—	—	—	911	83.9	(81.9–85.8)	140	76.8	(69.9–83.7)
Has a disability ^j																					
Yes	—	—	—	—	—	—	572	40.9	(37.8–43.9)	406	43.9	(40.5–47.4)	—	—	—	447	42.1	(39.0–45.2)	103	50.5	(43.2–57.9)
No	—	—	—	47	88.1	(79.5–96.7)	857	59.1	(56.1–62.2)	510	56.1	(52.6–59.5)	—	—	—	634	57.9	(54.8–61.0)	87	49.5	(42.1–56.8)
Any unmet HIV ancillary service need, past 12 months ^k																					
Yes	—	—	—	22	34.4	(22.2–46.6)	787	55.7	(51.3–60.2)	419	48.2	(40.2–56.1)	—	—	—	409	39.4	(35.0–43.9)	103	57.9	(49.9–66.0)
No	—	—	—	33	65.6	(53.4–77.8)	631	44.3	(39.8–48.7)	490	51.8	(43.9–59.8)	—	—	—	672	60.6	(56.1–65.0)	84	42.1	(34.0–50.1)

Table 5a. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by racial/ethnic identity—Medical Monitoring Project, United States, 2022 (cont)

	American Indian/ Alaska Native			Asian			Black/African American			Hispanic/Latino ^a			Native Hawaiian/ other Pacific Islander			White			Multiple races		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Neighborhood and built environment																					
Any met or unmet need for transportation assistance, past 12 months^l																					
Yes	—	—	—	—	—	—	506	35.4	(32.0–38.9)	260	28.7	(25.3–32.2)	—	—	—	227	21.2	(17.4–25.1)	73	38.3	(31.1–45.5)
No	—	—	—	44	85.4	(75.6–95.3)	899	64.6	(61.1–68.0)	638	71.3	(67.8–74.7)	—	—	—	844	78.8	(74.9–82.6)	113	61.7	(54.5–68.9)
Social and community context																					
HIV health care discrimination among persons who received care, past 12 months^m																					
Yes	—	—	—	—	—	—	252	20.5	(17.3–23.7)	180	21.7	(18.6–24.7)	—	—	—	275	27.8	(24.0–31.6)	58	31.5	(23.4–39.6)
No	—	—	—	42	84.6	(74.2–94.9)	1,065	79.5	(76.3–82.7)	679	78.3	(75.3–81.4)	—	—	—	740	72.2	(68.4–76.0)	113	68.5	(60.4–76.6)
English proficiency																					
Speaks English less than well	—	—	—	—	—	—	27	2.0	(1.1–2.9)	259	26.1	(19.2–32.9)	—	—	—	—	—	—	—	—	—
Speaks English well	—	—	—	50	88.1	(79.2–96.9)	1,403	98.0	(97.1–98.9)	659	73.9	(67.1–80.8)	—	—	—	1,081	99.8	(99.6–100)	190	99.5	(98.5–100)
Experiences of physical violence by an intimate partner or forced sex, lifetimeⁿ																					
Yes	—	—	—	21	37.8*	(22.8–52.8)	422	30.9	(28.4–33.4)	271	31.2	(26.1–36.2)	—	—	—	422	42.0	(38.4–45.5)	83	46.4	(37.5–55.2)
No	—	—	—	33	62.2*	(47.2–77.2)	960	69.1	(66.6–71.6)	625	68.8	(63.8–73.9)	—	—	—	641	58.0	(54.5–61.6)	102	53.6	(44.8–62.5)
Experiences of physical violence by an intimate partner or forced sex, past 12 monthsⁿ																					
Yes	—	—	—	—	—	—	61	5.1	(4.0–6.2)	49	6.4	(3.7–9.2)	—	—	—	49	6.2	(4.3–8.1)	—	—	—
No	—	—	—	50	95.3	(89.7–100)	1,309	94.9	(93.8–96.0)	841	93.6	(90.8–96.3)	—	—	—	1,004	93.8	(91.9–95.7)	167	91.4	(86.4–96.5)
Incarcerated >24 hours, past 12 months																					
Yes	—	—	—	0	0.0*	—	41	3.2	(1.8–4.7)	20	2.6	(1.5–3.8)	—	—	—	29	2.8	(1.9–3.8)	—	—	—
No	—	—	—	56	100*	(100–100)	1,391	96.8	(95.3–98.2)	897	97.4	(96.2–98.5)	—	—	—	1,056	97.2	(96.2–98.1)	181	95.6	(92.1–99.2)

Abbreviations: n, number; col, column; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. 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 Hispanic or Latino persons can be of any race. Persons are classified in only 1 race/ethnicity category.

^b “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.

^c “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.

^d “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) 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.

^e Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^g “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 persons 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].

^h Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

ⁱ Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

^j Self-reported, and includes physical, mental, and emotional disabilities.

^k Represents those who needed, but did not receive, ≥1 HIV ancillary services, among all persons.

^l Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^m HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

ⁿ Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 5b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by racial/ethnic identity—Medical Monitoring Project, United States, 2022

	Black/African American persons vs. White persons				Hispanic/Latino ^a persons vs. White persons				Multiracial persons vs. White persons			
	PR	col %	PD	95% CI	PR	col %	PD	95% CI	PR	col %	PD	95% CI
National HIV/AIDS Strategy indicators related to social determinants of health												
<i>Quality of life</i>												
Physical health												
Self-reported health status^b												
Good, very good, excellent	0.99	(0.92–1.07)	-0.75	(-6.02– 4.52)	0.98	(0.91–1.06)	-1.15	(-6.22– 3.92)	0.90	(0.78–1.03)	-7.38	(-16.55– 1.80)
Poor, fair	1.03	(0.86–1.22)	0.75	(-4.52– 6.02)	1.04	(0.88–1.23)	1.15	(-3.92– 6.22)	1.25	(0.96–1.62)	7.38	(-1.80– 16.55)
Mental or emotional health												
Unmet needs for services from a mental health professional among those who needed services, past 12 months^c												
Yes	1.07	(0.84–1.36)	1.89	(-4.61– 8.39)	0.85	(0.53–1.39)	-3.87	(-15.38– 7.64)	1.37	(0.98–1.93)	9.90	(-1.66– 21.45)
No	0.97	(0.89–1.07)	-1.89	(-8.39– 4.61)	1.05	(0.90–1.22)	3.87	(-7.64– 15.38)	0.87	(0.72–1.03)	-9.90	(-21.45– 1.66)
Structural or subsistence factors												
Unstable housing or homelessness, past 12 months^d												
Yes	1.61	(1.36–1.92)	8.18	(5.15– 11.22)	1.33	(1.05–1.69)	4.42	(0.44– 8.40)	1.45	(1.02–2.05)	5.95	(-0.56– 12.46)
No	0.91	(0.87–0.94)	-8.18	(-11.22– -5.15)	0.95	(0.90–1.00)	-4.42	(-8.40– -0.44)	0.93	(0.86–1.01)	-5.95	(-12.46– 0.56)
Unemployment^e												
Yes	1.45	(1.03–2.04)	3.85	(0.47– 7.24)	1.41	(0.95–2.08)	3.48	(-0.36– 7.32)	1.71	(1.13–2.58)	6.06	(0.53– 11.59)
No	0.96	(0.92–0.99)	-3.85	(-7.24– -0.47)	0.96	(0.92–1.00)	-3.48	(-7.32– 0.36)	0.93	(0.88–1.00)	-6.06	(-11.59– -0.53)
Hunger or food insecurity, past 12 months^f												
Yes	1.38	(1.01–1.88)	5.27	(0.44– 10.09)	1.67	(1.23–2.27)	9.22	(3.53– 14.90)	1.89	(1.37–2.61)	12.28	(5.12– 19.43)
No	0.94	(0.89–0.99)	-5.27	(-10.09– -0.44)	0.89	(0.83–0.96)	-9.22	(-14.90– -3.53)	0.86	(0.78–0.94)	-12.28	(-19.43– -5.12)
<i>HIV stigma, past 12 months (n, median score, 95% CI)^g</i>												
Other factors important for health, including those that affect quality of life												
<i>Economic stability</i>												
Household income with respect to poverty guidelines^h												
<100% FPL	2.15	(1.77–2.60)	21.25	(16.69– 25.80)	2.10	(1.62–2.71)	20.33	(11.93– 28.73)	2.34	(1.87–2.93)	24.82	(15.31– 34.33)
100%–138% FPL	0.95	(0.75–1.20)	-0.72	(-3.84– 2.41)	1.11	(0.83–1.48)	1.43	(-2.76– 5.62)	0.92	(0.55–1.53)	-1.15	(-7.68– 5.38)
139%–399% FPL	0.88	(0.76–1.01)	-5.20	(-10.59– 0.19)	0.82	(0.73–0.93)	-7.47	(-11.91– -3.03)	0.70	(0.55–0.91)	-12.33	(-20.23– -4.43)
≥400% FPL	0.41	(0.34–0.50)	-15.33	(-19.00– -11.65)	0.45	(0.29–0.70)	-14.29	(-20.11– -8.47)	0.57	(0.34–0.93)	-11.34	(-18.68– -4.00)
<i>Education</i>												
Educational attainment												
Less than high school diploma	2.61	(1.72–3.95)	8.76	(5.23– 12.28)	4.21	(3.01–5.87)	17.48	(13.53– 21.44)	2.21	(1.22–3.99)	6.58	(-0.03– 13.19)
High school diploma or equivalent	1.70	(1.42–2.02)	13.58	(9.47– 17.68)	1.32	(1.09–1.59)	6.18	(1.84– 10.51)	1.48	(1.06–2.08)	9.44	(0.61– 18.27)
Greater than high school	0.70	(0.64–0.77)	-22.33	(-27.48– -17.19)	0.68	(0.61–0.77)	-23.66	(-29.75– -17.57)	0.79	(0.70–0.89)	-16.02	(-23.34– -8.71)
<i>Health-related factors</i>												
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 monthsⁱ												
Any private	0.81	(0.74–0.89)	-9.67	(-13.94– -5.39)	0.67	(0.57–0.79)	-16.42	(-22.46– -10.37)	0.79	(0.64–0.97)	-10.59	(-18.95– -2.22)
Public only, excluding RWHAP only	1.10	(1.00–1.21)	4.56	(0.03– 9.09)	1.15	(0.97–1.37)	6.97	(-1.80– 15.75)	1.26	(1.09–1.45)	11.74	(3.78– 19.70)
Uninsured or RWHAP only	2.20	(1.51–3.21)	5.11	(2.73– 7.48)	3.22	(1.83–5.66)	9.44	(3.92– 14.97)	—	—	—	—
Received RWHAP assistance, past 12 months												
Yes	1.01	(0.86–1.18)	0.37	(-6.45– 7.19)	1.26	(1.04–1.54)	11.64	(1.60– 21.69)	0.92	(0.73–1.16)	-3.53	(-13.18– 6.13)
No	0.99	(0.88–1.12)	-0.37	(-7.19– 6.45)	0.79	(0.64–0.98)	-11.64	(-21.69– -1.60)	1.06	(0.90–1.25)	3.53	(-6.13– 13.18)
Confidence in completing health forms												
Somewhat, a little bit, not at all	1.56	(1.34–1.82)	9.05	(5.96– 12.14)	2.20	(1.88–2.58)	19.36	(15.19– 23.52)	1.44	(1.04–2.00)	7.10	(-0.23– 14.44)
Extremely, quite a bit	0.89	(0.86–0.93)	-9.05	(-12.14– -5.96)	0.77	(0.72–0.82)	-19.36	(-23.52– -15.19)	0.92	(0.83–1.01)	-7.10	(-14.44– 0.23)
Has a disability^j												
Yes	0.97	(0.88–1.08)	-1.21	(-5.48– 3.05)	1.04	(0.94–1.16)	1.83	(-2.58– 6.25)	1.20	(1.02–1.41)	8.40	(0.61– 16.20)
No	1.02	(0.95–1.10)	1.21	(-3.05– 5.48)	0.97	(0.90–1.05)	-1.83	(-6.25– 2.58)	0.85	(0.73–1.00)	-8.40	(-16.20– -0.61)
Any unmet HIV ancillary service need, past 12 months^k												
Yes	1.41	(1.29–1.55)	16.30	(12.32– 20.27)	1.22	(1.00–1.50)	8.75	(-0.58– 18.09)	1.47	(1.24–1.74)	18.49	(9.76– 27.21)
No	0.73	(0.67–0.79)	-16.30	(-20.27– -12.32)	0.86	(0.72–1.02)	-8.75	(-18.09– 0.58)	0.69	(0.57–0.85)	-18.49	(-27.21– -9.76)

Table 5b. Relative and absolute differences in individual-level social determinants of health and quality of life among adults with diagnosed HIV, by racial/ethnic identity—Medical Monitoring Project, United States, 2022 (cont)

	Black/African American persons vs. White persons				Hispanic/Latino ^a persons vs. White persons				Multiracial persons vs. White persons			
	PR	col %	PD	95% CI	PR	col %	PD	95% CI	PR	col %	PD	95% CI
Neighborhood and built environment												
Any met or unmet need for transportation assistance, past 12 months^l												
Yes	1.67	(1.41–1.97)	14.19	(10.25– 18.12)	1.35	(1.07–1.71)	7.48	(1.84– 13.11)	1.81	(1.38–2.36)	17.10	(8.76– 25.43)
No	0.82	(0.78–0.87)	-14.19	(-18.12– -10.25)	0.91	(0.84–0.98)	-7.48	(-13.11– -1.84)	0.78	(0.69–0.89)	-17.10	(-25.43– -8.76)
Social and community context												
HIV health care discrimination among persons who received care, past 12 months^m												
Yes	0.74	(0.61–0.89)	-7.27	(-11.78– -2.76)	0.78	(0.66–0.92)	-6.11	(-10.09– -2.12)	1.13	(0.85–1.51)	3.73	(-5.09– 12.54)
No	1.10	(1.04–1.17)	7.27	(2.76– 11.78)	1.08	(1.03–1.14)	6.11	(2.12– 10.09)	0.95	(0.83–1.08)	-3.73	(-12.54– 5.09)
English proficiency												
Speaks English less than well	—	—	—	—	—	—	—	—	—	—	—	—
Speaks English well	0.98	(0.97–0.99)	-1.76	(-2.68– -0.85)	0.74	(0.68–0.81)	-25.85	(-32.68– -19.02)	1.00	(0.99–1.01)	-0.33	(-1.39– 0.73)
Experiences of physical violence by an intimate partner or forced sex, lifetimeⁿ												
Yes	0.74	(0.66–0.81)	-11.10	(-14.92– -7.29)	0.74	(0.63–0.88)	-10.80	(-16.46– -5.14)	1.10	(0.89–1.37)	4.39	(-5.28– 14.07)
No	1.19	(1.12–1.27)	11.10	(7.29– 14.92)	1.19	(1.09–1.29)	10.80	(5.14– 16.46)	0.92	(0.77–1.10)	-4.39	(-14.07– 5.28)
Experiences of physical violence by an intimate partner or forced sex, past 12 monthsⁿ												
Yes	0.82	(0.58–1.16)	-1.10	(-3.10– 0.90)	1.04	(0.62–1.75)	0.25	(-3.08– 3.57)	—	—	—	—
No	1.01	(0.99–1.03)	1.10	(-0.90– 3.10)	1.00	(0.96–1.03)	-0.25	(-3.57– 3.08)	0.97	(0.92–1.04)	-2.36	(-7.92– 3.21)
Incarcerated >24 hours, past 12 months												
Yes	1.14	(0.62–2.09)	0.40	(-1.47– 2.27)	0.93	(0.52–1.67)	-0.20	(-1.78– 1.38)	—	—	—	—
No	1.00	(0.98–1.02)	-0.40	(-2.27– 1.47)	1.00	(0.99–1.02)	0.20	(-1.38– 1.78)	0.98	(0.95–1.02)	-1.53	(-5.36– 2.29)

Abbreviations: PR, prevalence ratio; PD, prevalence difference; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. White persons were the referent group for each disparity assessment. Due to sample size issues with other racial/ethnic groups, disparities could only be assessed for Black/African American persons and Hispanic/Latino persons, versus White persons. Excluded are prevalence ratios and prevalence differences that are based on estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.

^a Hispanic or Latino persons can be of any race. Persons are classified in only 1 race/ethnicity category.

^b “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.

^c “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.

^d “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) 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.

^e Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^g “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 persons 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].

^h Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

ⁱ Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

^j Self-reported, and includes physical, mental, and emotional disabilities.

^k Represents those who needed, but did not receive, ≥1 HIV ancillary services, among all persons.

^l Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^m HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

ⁿ Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 6. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by National HIV/AIDS Strategy priority populations—Medical Monitoring Project, United States, 2022

	Black/African American									Black/African American									Persons aged			Persons who		
	All MSM ^a			American MSM ^b			Hispanic/Latino MSM ^c			AI/AN MSM ^d			cisgender women ^e			Transgender women ^f			18–24 years ^g			inject drugs ^h		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Total (row %)	1,950	51.4	(48.0–54.7)	543	15.0	(12.1–17.9)	475	12.8	(8.8–16.9)	—	—	—	477	13.3	(10.5–16.1)	68	1.7	(1.2–2.2)	59	1.8	(1.2–2.4)	120	3.0	(2.0–4.1)
National HIV/AIDS Strategy indicators related to social determinants of health																								
Quality of life																								
Physical health																								
Self-reported health status ⁱ																								
Good, very good, excellent	1,467	75.8	(73.4–78.1)	428	78.2	(73.7–82.7)	357	75.6	(71.8–79.4)	—	—	—	298	65.5	(61.6–69.4)	47	67.6	(55.9–79.3)	46	85.9	(77.2–94.6)	69	61.1	(51.5–70.7)
Poor, fair	479	24.2	(21.9–26.6)	113	21.8	(17.3–26.3)	117	24.4	(20.6–28.2)	—	—	—	161	34.5	(30.6–38.4)	21	32.4	(20.7–44.1)	—	—	—	51	38.9	(29.3–48.5)
Mental or emotional health																								
Unmet needs for services from a mental health professional among those who needed services, past 12 months ^j																								
Yes	220	28.6	(24.0–33.3)	69	36.6	(26.2–47.0)	51	23.5	(15.3–31.7)	—	—	—	30	19.2	(13.2–25.3)	—	—	—	—	—	—	24	37.1	(23.6–50.6)
No	611	71.4	(66.7–76.0)	139	63.4	(53.0–73.8)	170	76.5	(68.3–84.7)	—	—	—	137	80.8	(74.7–86.8)	32	82.7	(70.4–95.0)	—	—	—	59	62.9	(49.4–76.4)
Structural or subsistence factors																								
Unstable housing or homelessness, past 12 months ^k																								
Yes	306	16.7	(14.8–18.6)	118	22.4	(18.0–26.8)	73	17.1	(12.9–21.2)	—	—	—	75	17.8	(13.5–22.2)	17	30.7	(18.4–43.0)	18	31.6	(19.3–43.8)	58	50.8	(40.5–61.2)
No	1,638	83.3	(81.4–85.2)	424	77.6	(73.2–82.0)	399	82.9	(78.8–87.1)	—	—	—	384	82.2	(77.8–86.5)	50	69.3	(57.0–81.6)	38	68.4	(56.2–80.7)	62	49.2	(38.8–59.5)
Unemployment ^l																								
Yes	215	11.0	(8.6–13.4)	76	13.4	(9.5–17.3)	59	12.1	(8.2–16.0)	—	—	—	56	11.4	(8.1–14.7)	—	—	—	14	22.9	(11.6–34.1)	28	25.5	(15.7–35.2)
No	1,724	89.0	(86.6–91.4)	463	86.6	(82.7–90.5)	413	87.9	(84.0–91.8)	—	—	—	403	88.6	(85.3–91.9)	55	84.6	(75.5–93.8)	41	77.1	(65.9–88.4)	92	74.5	(64.8–84.3)
Hunger or food insecurity, past 12 months ^m																								
Yes	316	17.7	(15.8–19.6)	114	21.4	(15.6–27.2)	88	20.5	(15.5–25.6)	—	—	—	69	13.9	(10.4–17.3)	18	29.2	(16.8–41.5)	12	18.2	(8.2–28.1)	51	44.4	(33.0–55.8)
No	1,632	82.3	(80.4–84.2)	428	78.6	(72.8–84.4)	386	79.5	(74.4–84.5)	—	—	—	391	86.1	(82.7–89.6)	50	70.8	(58.5–83.2)	44	81.8	(71.9–91.8)	69	55.6	(44.2–67.0)
HIV stigma, past 12 months																								
(n, median score, 95% CI) ⁿ	1,793	27.5	(26.0–28.9)	505	27.1	(25.1–29.2)	426	29.3	(27.0–31.6)	—	—	—	403	34.2	(31.1–37.3)	65	34.9	(28.1–41.7)	52	37.1	(30.3–44.0)	108	30.2	(21.7–38.7)
Other factors important for health, including those that affect quality of life																								
Economic stability																								
Household income with respect to poverty guidelines ^o																								
<100% FPL	354	19.4	(16.8–22.0)	107	21.2	(16.9–25.4)	114	25.8	(19.8–31.9)	—	—	—	202	53.4	(46.5–60.3)	28	44.6*	(26.6–62.6)	14	43.2*	(21.6–64.7)	52	44.1	(34.2–54.1)
100%–138% FPL	212	11.6	(10.1–13.0)	52	9.9	(7.6–12.2)	57	12.5	(9.2–15.8)	—	—	—	55	14.5	(10.4–18.7)	—	—	—	—	—	—	—	—	—
139%–399% FPL	743	43.3	(40.7–45.8)	221	47.6	(43.1–52.0)	177	43.4	(38.2–48.5)	—	—	—	117	28.8	(23.8–33.9)	21	34.6*	(19.6–49.7)	23	45.7*	(24.7–66.7)	31	31.1	(20.3–41.9)
≥400% FPL	479	25.8	(22.5–29.1)	98	21.4	(17.2–25.6)	76	18.3	(11.1–25.5)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Education																								
Educational attainment																								
Less than high school diploma	100	5.6	(4.3–6.9)	30	5.1	(3.1–7.1)	42	9.7	(6.3–13.1)	—	—	—	91	18.8	(15.2–22.3)	14	23.8	(11.1–36.5)	—	—	—	—	—	—
High school diploma or equivalent	393	21.0	(18.7–23.3)	156	27.7	(24.4–30.9)	100	23.4	(16.7–30.1)	—	—	—	160	34.9	(27.6–42.1)	22	28.5	(17.6–39.5)	21	42.4*	(25.6–59.2)	29	26.5	(15.7–37.3)
Greater than high school	1,456	73.4	(70.7–76.1)	357	67.3	(63.8–70.7)	332	66.9	(58.4–75.4)	—	—	—	209	46.3	(39.9–52.8)	32	47.7	(35.6–59.8)	29	46.4*	(28.0–64.8)	80	63.8	(54.3–73.3)
Health-related factors																								
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months ^p																								
Any private	995	51.4	(48.4–54.3)	278	53.3	(47.3–59.4)	198	41.6	(36.1–47.0)	—	—	—	166	36.5	(31.2–41.7)	19	28.1	(16.6–39.5)	29	50.3	(37.8–62.9)	39	34.2	(23.0–45.5)
Public only, excluding RWHAP only	779	39.8	(35.7–43.8)	203	37.0	(30.5–43.5)	205	42.6	(34.7–50.6)	—	—	—	255	56.7	(50.5–63.0)	41	63.5	(51.0–76.0)	21	40.4	(27.1–53.7)	78	63.5	(51.5–75.5)
Uninsured or RWHAP only	142	8.9	(6.9–10.9)	48	9.7	(6.7–12.6)	64	15.8	(8.8–22.8)	—	—	—	28	6.8	(3.4–10.2)	—	—	—	—	—	—	—	—	—
Received RWHAP assistance, past 12 months																								
Yes	916	47.4	(43.3–51.5)	265	47.9	(43.5–52.4)	258	54.8	(45.1–64.5)	—	—	—	216	44.0	(37.0–50.9)	31	47.4*	(31.9–63.0)	25	42.2*	(25.5–58.8)	61	49.5	(36.6–62.4)
No	971	52.6	(48.5–56.7)	259	52.1	(47.6–56.5)	198	45.2	(35.5–54.9)	—	—	—	232	56.0	(49.1–63.0)	33	52.6*	(37.0–68.1)	29	57.8*	(41.2–74.5)	55	50.5	(37.6–63.4)
Confidence in completing health forms																								
Somewhat, a little bit, not at all	355	18.8	(16.9–20.7)	100	18.0	(14.7–21.4)	121	26.6	(21.3–32.0)	—	—	—	119	27.0	(21.9–32.0)	22	32.8	(21.7–43.8)	15	33.1	(19.0–47.2)	30	19.9	(9.4–30.4)
Extremely, quite a bit	1,593	81.2	(79.3–83.1)	443	82.0	(78.6–85.3)	353	73.4	(68.0–78.7)	—	—	—	341	73.0	(68.0–78.1)	46	67.2	(56.2–78.3)	40	66.9	(52.8–81.0)	90	80.1	(69.6–90.6)
Has a disability ^q																								
Yes	673	34.9	(32.4–37.4)	159	30.3	(25.1–35.6)	171	36.8	(31.6–42.0)	—	—	—	231	49.3	(45.0–53.7)	34	51.5	(38.3–64.8)	18	28.1	(16.1–40.1)	74	65.6	(53.7–77.4)
No	1,273	65.1	(62.6–67.6)	384	69.7	(64.4–74.9)	304	63.2	(58.0–68.4)	—	—	—	228	50.7	(46.3–55.0)	34	48.5	(35.2–61.7)	38	71.9	(59.9–83.9)	45	34.4	(22.6–46.3)
Any unmet HIV ancillary service need, past 12 months ^r																								
Yes	879	46.7	(43.0–50.4)	310	57.9	(50.6–65.2)	200	43.0	(37.1–48.8)	—	—	—	239	50.4	(43.5–57.4)	42	60.6	(48.6–72.6)	32	49.9*	(33.9–65.9)	89	75.0	(67.0–83.0)
No	1,060	53.3	(49.6–57.0)	230	42.1	(34.8–49.4)	271	57.0	(51.2–62.9)	—	—	—	218	49.6	(42.6–56.5)	26	39.4	(27.4–51.4)	24	50.1*	(34.1–66.1)	30	25.0	(17.0–33.0)

Table 6. Individual-level social determinants of health and quality of life among adults with diagnosed HIV, by National HIV/AIDS Strategy priority populations—Medical Monitoring Project, United States, 2022 (cont)

	All MSM ^a			Black/African American MSM ^b			Hispanic/Latino MSM ^c			AI/AN MSM ^d			Black/African American cisgender women ^e			Transgender women ^f			Persons aged 18–24 years ^g			Persons who inject drugs ^h		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Neighborhood and built environment																								
Any met or unmet need for transportation assistance, past 12 months^s																								
Yes	424	22.0	(19.3–24.8)	159	30.0	(23.0–37.0)	86	18.7	(15.1–22.3)	—	—	—	181	37.6	(33.3–42.0)	32	48.4	(35.7–61.0)	14	26.2	(11.8–40.6)	60	48.0	(35.6–60.5)
No	1,495	78.0	(75.2–80.7)	374	70.0	(63.0–77.0)	377	81.3	(77.7–84.9)	—	—	—	273	62.4	(58.0–66.7)	34	51.6	(39.0–64.3)	41	73.8	(59.4–88.2)	58	52.0	(39.5–64.4)
Social and community context																								
HIV health care discrimination among persons who received care, past 12 months^t																								
Yes	466	26.1	(22.8–29.4)	113	23.6	(18.5–28.7)	103	23.6	(19.6–27.7)	—	—	—	72	19.3	(14.3–24.2)	15	22.6	(11.1–34.1)	13	30.4	(17.9–42.9)	47	37.3	(22.8–51.7)
No	1,362	73.9	(70.6–77.2)	390	76.4	(71.3–81.5)	342	76.4	(72.3–80.4)	—	—	—	354	80.7	(75.8–85.7)	51	77.4	(65.9–88.9)	37	69.6	(57.1–82.1)	57	62.7	(48.3–77.2)
English proficiency																								
Speaks English less than well	84	4.6	(2.4–6.9)	—	—	—	79	17.7	(12.3–23.0)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Speaks English well	1,865	95.4	(93.1–97.6)	541	99.8	(99.5–100)	396	82.3	(77.0–87.7)	—	—	—	446	97.3	(95.1–99.5)	62	92.4	(85.4–99.3)	55	98.3	(95.1–100)	119	99.4	(98.3–100)
Experiences of physical violence by an intimate partner or forced sex, lifetime^u																								
Yes	695	37.2	(34.4–40.0)	186	35.2	(30.6–39.7)	137	32.0	(25.4–38.5)	—	—	—	160	35.9	(31.6–40.2)	36	57.5	(43.9–71.1)	24	46.8	(33.5–60.0)	69	57.8	(48.1–67.6)
No	1,219	62.8	(60.0–65.6)	348	64.8	(60.3–69.4)	324	68.0	(61.5–74.6)	—	—	—	278	64.1	(59.8–68.4)	32	42.5	(28.9–56.1)	30	53.2	(40.0–66.5)	49	42.2	(32.4–51.9)
Experiences of physical violence by an intimate partner or forced sex, past 12 months^u																								
Yes	116	7.1	(5.6–8.5)	34	6.7	(4.2–9.2)	31	7.7	(3.5–11.9)	—	—	—	—	—	—	—	—	—	—	—	22	20.8	(11.5–30.1)	
No	1,786	92.9	(91.5–94.4)	496	93.3	(90.8–95.8)	429	92.3	(88.1–96.5)	—	—	—	416	96.4	(94.0–98.8)	58	82.8	(70.8–94.7)	46	87.3	(79.2–95.3)	94	79.2	(69.9–88.5)
Incarcerated >24 hours, past 12 months																								
Yes	49	2.8	(2.1–3.5)	16	3.6	(1.5–5.8)	14	3.5	(1.5–5.4)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
No	1,901	97.2	(96.5–97.9)	527	96.4	(94.2–98.5)	461	96.5	(94.6–98.5)	—	—	—	459	99.3	(98.2–100)	66	97.0	(92.7–100)	54	96.8	(92.7–100)	111	92.4	(87.8–96.9)

Abbreviations: MSM, men who have sex with men; AI/AN, American Indian/Alaska Native; n, number; col, column; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; HHS, Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. 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 Includes cisgender men with diagnosed HIV who reported having sex with ≥ 1 cisgender men in the past 12 months (among persons who had sex during the past 12 months) and cisgender men with diagnosed HIV who reported identifying as gay or bisexual (among those who did not have sex during the past 12 months).

^b Includes MSM with diagnosed HIV who identified as non-Hispanic/Latino Black/African American race/ethnicity.

^c Includes MSM who identified as Hispanic/Latino race/ethnicity. Hispanic or Latino MSM can be of any race.

^d Includes MSM who identified as American Indian/Alaska Native race/ethnicity.

^e Includes cisgender women with diagnosed HIV who identified as non-Hispanic Black/African American race/ethnicity.

^f Persons with diagnosed HIV were classified as transgender women if the person reported that their sex assigned at birth was male but identified as female or transgender.

^g Priority population for youths includes persons with diagnosed HIV aged 13–24 years; however, data from MMP are only available and presented for persons aged 18–24 years.

^h Includes persons with diagnosed HIV who reported injecting drugs during the past 12 months.

ⁱ “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.

^j “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.

^k “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) 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.

^l Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

ⁿ “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 persons 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].

^o Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^p Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

^q Self-reported, and includes physical, mental, and emotional disabilities.

^r Represents those who needed, but did not receive, ≥ 1 HIV ancillary services, among all persons.

^s Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^t HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on seven forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^u Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 7. National HIV/AIDS Strategy indicators among adults with diagnosed HIV, by other individual-level social determinants of health—Medical Monitoring Project, United States, 2022

	Good or better self-rated health ^a			Unmet needs for services from a mental health professional among those who needed services ^b			Unstable housing or homelessness ^c			Unemployment ^d			Hunger/food insecurity ^e			Median HIV stigma score ^f		
	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	Median score	95% CI
Total (row %)	2,562	69.9	(68.5–71.2)	354	26.8	(23.0–30.6)	613	17.9	(16.5–19.3)	427	11.3	(9.4–13.2)	651	18.6	(17.3–19.9)	3,319	29.3	(27.9–30.7)
<i>Economic stability</i>																		
Household income with respect to poverty guidelines^g																		
<100% FPL	594	53.7	(50.1–57.3)	111	24.9	(19.8–30.0)	269	26.7	(22.8–30.7)	216	18.1	(14.9–21.4)	314	30.7	(26.6–34.8)	981	34.5	(32.5–36.6)
100%–138% FPL	287	65.2	(59.9–70.6)	46	30.2	(22.7–37.6)	84	19.4	(15.7–23.2)	36	8.5	(5.9–11.0)	98	22.5	(18.5–26.6)	416	31.2	(28.4–34.1)
139%–399% FPL	918	77.6	(75.0–80.2)	112	26.9	(20.1–33.6)	166	14.8	(12.7–17.0)	88	7.7	(5.8–9.5)	156	13.2	(10.3–16.1)	1,095	26.2	(24.7–27.6)
≥400% FPL	514	89.6	(86.6–92.7)	46	26.6	(18.6–34.6)	24	4.4	(2.8–5.9)	—	—	—	13	2.0	(1.0–3.1)	540	25.6	(22.9–28.2)
<i>Education</i>																		
Educational attainment																		
Less than high school diploma	252	51.5	(47.6–55.5)	35	18.7	(12.3–25.1)	126	27.3	(22.5–32.0)	72	13.0	(8.5–17.4)	128	28.3	(23.1–33.4)	437	33.4	(30.4–36.4)
High school diploma or equivalent	647	67.2	(63.7–70.6)	81	27.0	(21.0–32.9)	193	20.8	(17.8–23.9)	133	14.0	(10.4–17.7)	184	19.6	(17.2–22.0)	873	30.2	(28.3–32.2)
Greater than high school	1,662	75.3	(73.5–77.1)	238	28.5	(24.1–33.0)	292	14.3	(12.8–15.9)	222	9.7	(7.8–11.6)	337	15.9	(14.4–17.4)	2,009	28.1	(26.7–29.5)
<i>Health-related factors</i>																		
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months^h																		
Any private	1,252	81.7	(79.0–84.4)	143	29.3	(24.8–33.9)	179	12.7	(10.6–14.7)	104	7.1	(5.1–9.0)	174	12.1	(10.0–14.3)	1,404	28.3	(26.8–29.7)
Public only, excluding RWHAP only	1,062	59.0	(56.2–61.8)	176	24.2	(19.0–29.5)	345	20.2	(17.8–22.6)	269	14.4	(12.3–16.5)	380	21.7	(19.7–23.6)	1,621	29.3	(27.4–31.2)
Uninsured or RWHAP only	202	76.7	(71.6–81.8)	29	32.9	(20.5–45.4)	67	28.2	(21.7–34.7)	43	13.1	(9.4–16.9)	74	30.5	(25.1–36.0)	234	33.8	(29.8–37.8)
Received RWHAP assistance, past 12 months																		
Yes	1,185	68.7	(66.4–71.0)	155	23.9	(18.1–29.6)	318	20.0	(17.7–22.3)	207	11.4	(9.6–13.3)	351	21.5	(19.8–23.3)	1,552	29.5	(28.2–30.9)
No	1,276	71.0	(68.6–73.4)	186	30.0	(25.4–34.7)	257	15.5	(13.6–17.3)	195	10.7	(8.3–13.2)	263	15.8	(13.9–17.7)	1,639	28.7	(26.8–30.7)
Confidence in completing health forms																		
Somewhat, a little bit, not at all	470	53.0	(49.5–56.5)	99	25.3	(19.6–31.0)	210	23.0	(20.1–25.9)	118	11.3	(8.2–14.3)	227	25.0	(22.0–28.0)	779	36.9	(34.1–39.6)
Extremely, quite a bit	2,091	75.4	(74.0–76.9)	255	27.4	(23.3–31.4)	399	16.2	(14.3–18.0)	306	11.2	(9.4–13.0)	422	16.5	(14.9–18.0)	2,538	27.6	(26.3–29.0)
Has a disabilityⁱ																		
Yes	766	50.2	(47.5–53.0)	183	25.7	(21.1–30.3)	361	24.2	(22.1–26.3)	199	12.0	(9.6–14.4)	422	27.7	(25.5–29.9)	1,359	33.7	(31.5–35.9)
No	1,793	84.2	(82.2–86.2)	171	28.2	(23.0–33.4)	252	13.4	(11.5–15.4)	227	10.7	(8.7–12.7)	228	12.0	(10.5–13.6)	1,955	26.6	(25.4–27.8)
Any unmet HIV ancillary service need, past 12 months^j																		
Yes	1,070	62.1	(59.4–64.8)	N/A	N/A	N/A	441	26.7	(24.3–29.0)	272	15.3	(12.9–17.7)	497	29.6	(27.6–31.6)	1,579	34.1	(32.4–35.8)
No	1,473	77.2	(75.3–79.2)	N/A	N/A	N/A	165	9.5	(8.2–10.9)	152	7.4	(5.3–9.5)	148	7.9	(6.8–9.1)	1,736	25.5	(23.7–27.4)
<i>Neighborhood and built environment</i>																		
Any met or unmet need for transportation assistance, past 12 months^k																		
Yes	557	51.3	(47.7–54.9)	142	26.8	(21.8–31.8)	301	28.7	(26.3–31.1)	179	17.3	(14.4–20.2)	354	34.7	(31.7–37.7)	972	34.8	(32.5–37.0)
No	1,966	77.6	(75.8–79.4)	210	26.8	(22.6–30.9)	293	13.1	(11.5–14.7)	241	8.8	(6.9–10.7)	281	11.7	(10.2–13.2)	2,337	27.7	(26.5–29.0)

Table 7. National HIV/AIDS Strategy indicators among adults with diagnosed HIV, by other individual-level social determinants of health—Medical Monitoring Project, United States, 2022

	Good or better self-rated health ^a			Unmet needs for services from a mental health professional among those who needed services ^b			Unstable housing or homelessness ^c			Unemployment ^d			Hunger/food insecurity ^e			Median HIV stigma score ^f		
	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	score	95% CI
Social and community context																		
HIV health care discrimination among persons who received care, past 12 months^l																		
Yes	475	62.3	(58.4–66.1)	119	29.9	(24.9–35.0)	171	21.9	(19.0–24.8)	86	10.3	(7.7–12.9)	222	27.5	(24.4–30.7)	724	38.7	(36.0–41.4)
No	1,926	73.1	(71.5–74.7)	195	21.6	(17.5–25.7)	374	15.3	(13.2–17.3)	297	10.8	(8.8–12.7)	359	14.4	(13.0–15.8)	2,417	27.1	(25.9–28.2)
English proficiency																		
Speaks English less than well	176	59.8	(54.2–65.3)	—	—	—	38	13.8	(8.9–18.7)	35	9.2	(5.1–13.2)	64	25.4	(16.2–34.7)	256	34.2	(30.2–38.2)
Speaks English well	2,386	70.7	(69.1–72.2)	340	27.6	(24.4–30.8)	574	18.2	(16.8–19.6)	392	11.4	(9.6–13.3)	587	18.1	(16.6–19.6)	3,063	29.0	(27.5–30.5)
Experiences of physical violence by an intimate partner or forced sex, lifetime^m																		
Yes	799	66.0	(63.3–68.7)	179	29.9	(24.9–35.0)	279	23.1	(20.4–25.7)	165	13.5	(10.4–16.5)	321	26.8	(24.0–29.6)	1,132	34.0	(32.2–35.9)
No	1,708	72.3	(70.4–74.2)	172	24.0	(19.0–29.0)	307	14.6	(13.0–16.3)	249	10.0	(8.2–11.8)	308	14.0	(12.5–15.5)	2,142	27.2	(25.4–29.0)
Experiences of physical violence by an intimate partner or forced sex, past 12 months^m																		
Yes	111	61.1	(53.1–69.0)	36	33.2	(23.6–42.8)	76	43.6	(36.2–51.1)	38	20.4	(13.4–27.3)	93	53.6	(44.5–62.6)	167	46.7	(39.4–54.0)
No	2,378	70.7	(69.1–72.3)	311	26.0	(21.8–30.3)	504	16.0	(14.6–17.4)	370	10.6	(8.7–12.5)	525	16.1	(14.6–17.6)	3,083	28.5	(27.0–30.0)
Incarcerated > 24 hours, past 12 months																		
Yes	60	59.7	(49.8–69.7)	11	22.9	(9.6–36.3)	53	59.4	(49.5–69.3)	29	26.9	(17.7–36.0)	44	45.3	(35.8–54.9)	93	39.1	(31.0–47.2)
No	2,502	70.2	(68.8–71.6)	343	27.0	(23.0–30.9)	560	16.7	(15.3–18.0)	398	10.8	(9.0–12.7)	606	17.8	(16.4–19.1)	3,225	29.1	(27.7–30.6)

Abbreviations: n, number; CI, confidence interval; FPL, federal poverty level; RWHP, Ryan White HIV/AIDS Program; HHS, U.S. Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. Excluded are estimates with a coefficient of variation ≥0.30 and those based on a denominator sample size <30.

^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 “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) 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.

^d Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^f “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 persons 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].

^g Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^h Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance includes Medicaid, Medicare, VA, RWHP, or other city, county, or state-funded insurance. Uninsured or RWHP only category includes those who did not report having any insurance, or received RWHP assistance only, without coverage through any other insurance categories.

ⁱ Self-reported, and includes physical, mental, and emotional disabilities.

^j Represents those who needed, but did not receive, ≥1 HIV ancillary services, among all persons.

^k Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^l HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on 7 forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^m Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 8. National HIV/AIDS Strategy indicators among adults with diagnosed HIV, by project area—Medical Monitoring Project, United States, 2022

Jurisdiction ^g	Good or better self-rated health ^a			Unmet needs for services from a mental health professional among those who needed services ^b			Unstable housing or homelessness ^c			Unemployment ^d			Hunger/food insecurity ^e			Median HIV stigma score ^f		
	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	score	95% CI
California	414	72.8	(68.4–77.2)	60	28.3	(20.8–35.7)	102	19.8	(15.6–24.0)	62	11.5	(8.2–14.7)	97	19.0	(15.0–23.0)	489	26.5	(24.3–28.7)
Chicago, IL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Delaware	135	68.9	(61.6–76.2)	—	—	—	26	11.0	(6.7–15.4)	32	14.1	(9.2–19.0)	28	15.7	(8.2–23.2)	192	26.5	(22.6–30.3)
Florida	158	69.9	(63.4–76.4)	26	35.3	(23.4–47.2)	57	25.4	(19.2–31.7)	25	9.9	(5.7–14.1)	50	24.0	(17.8–30.2)	199	28.6	(25.1–32.2)
Georgia	107	67.4	(59.9–75.0)	—	—	—	33	22.4	(15.3–29.5)	16	9.3	(4.7–14.0)	32	22.3	(15.3–29.4)	152	26.1	(23.7–28.4)
Houston, TX	125	69.4	(61.5–77.3)	19	28.5	(16.5–40.5)	29	19.6	(12.2–26.9)	24	13.7	(8.0–19.4)	38	23.5	(16.1–31.0)	156	30.2	(25.2–35.1)
Illinois	67	73.4	(64.1–82.7)	—	—	—	12	13.7	(5.7–21.7)	15	14.6	(7.3–21.8)	12	16.4	(6.9–25.9)	84	27.7	(24.4–31.0)
Indiana	66	71.5	(62.3–80.8)	9	27.2*	(11.6–42.8)	21	23.9	(14.3–33.4)	—	—	—	16	18.2	(9.4–27.0)	82	27.6	(19.8–35.5)
Los Angeles County, CA	135	73.9	(67.5–80.4)	11	16.4	(7.5–25.4)	30	16.9	(11.3–22.5)	26	14.1	(8.9–19.2)	37	19.9	(14.0–25.7)	161	28.8	(26.2–31.5)
Michigan	122	66.1	(59.0–73.2)	23	28.5	(18.3–38.8)	39	19.6	(13.6–25.5)	33	17.0	(11.3–22.7)	33	16.2	(10.6–21.7)	176	34.3	(28.9–39.6)
Mississippi	68	69.6	(60.5–78.7)	11	36.5*	(19.0–54.0)	25	24.8	(16.2–33.5)	—	—	—	21	20.5	(12.5–28.5)	81	32.9	(30.1–35.7)
New Jersey	156	68.7	(61.5–75.9)	26	27.1	(17.0–37.1)	29	13.6	(7.9–19.4)	22	9.1	(4.9–13.2)	34	13.9	(8.8–18.9)	208	26.9	(23.6–30.2)
New York	260	68.8	(63.8–73.8)	33	19.9	(13.4–26.3)	51	13.6	(9.8–17.3)	64	17.1	(13.1–21.1)	78	19.7	(15.5–23.9)	337	31.4	(28.1–34.7)
New York City, NY	194	68.0	(62.0–73.9)	24	19.9	(12.3–27.6)	39	13.5	(9.2–17.9)	55	19.2	(14.3–24.2)	62	20.4	(15.5–25.4)	249	31.1	(27.6–34.7)
North Carolina	126	73.7	(67.1–80.3)	—	—	—	29	17.9	(11.8–24.0)	—	—	—	27	14.6	(9.3–19.9)	169	28.8	(24.0–33.6)
Oregon	132	70.0	(63.2–76.8)	28	33.1	(22.7–43.4)	26	15.8	(8.0–23.6)	15	7.7	(3.7–11.7)	28	13.7	(8.7–18.6)	186	31.2	(27.5–34.9)
Pennsylvania	150	66.9	(59.7–74.2)	22	20.9	(11.8–30.0)	40	17.6	(11.8–23.4)	26	10.8	(6.5–15.2)	38	17.1	(11.3–22.8)	187	31.0	(25.7–36.3)
Philadelphia, PA	101	69.8	(61.8–77.9)	15	28.9	(15.9–41.9)	27	18.4	(11.8–25.1)	16	10.2	(5.3–15.2)	25	17.1	(10.6–23.6)	124	30.4	(24.0–36.8)
Puerto Rico	145	76.1	(69.7–82.4)	—	—	—	18	8.2	(4.3–12.1)	28	15.6	(9.7–21.6)	25	12.4	(7.5–17.4)	183	29.0	(25.9–32.0)
San Francisco, CA	105	69.0	(61.2–76.9)	20	25.3	(15.1–35.6)	29	21.5	(13.4–29.7)	19	15.1	(7.4–22.7)	21	13.9	(8.1–19.7)	143	23.6	(18.6–28.5)
Texas	241	71.5	(66.1–77.0)	40	29.6	(20.9–38.2)	50	14.7	(10.5–19.0)	38	10.3	(6.8–13.9)	75	24.1	(18.9–29.4)	310	33.4	(30.7–36.0)
Virginia	100	69.8	(62.3–77.3)	18	35.5	(22.1–48.8)	28	21.0	(13.9–28.1)	13	9.7	(4.6–14.8)	30	21.3	(14.4–28.2)	136	32.0	(27.2–36.8)
Washington	115	69.4	(62.3–76.5)	20	31.8	(20.2–43.5)	27	15.9	(10.3–21.5)	15	9.1	(4.6–13.5)	27	16.1	(10.4–21.7)	148	26.1	(21.5–30.6)
National	2,562	69.9	(68.5–71.2)	354	26.8	(23.0–30.6)	613	17.9	(16.5–19.3)	427	11.3	(9.4–13.2)	651	18.6	(17.3–19.9)	3,319	29.3	(27.9–30.7)

Abbreviations: n, number; CI, confidence interval.

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages. 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 “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) 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.

^d Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^f “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 persons 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].

^g States include separately funded jurisdictions within those states.

Table 9. Key clinical outcomes among adults with diagnosed HIV, by individual-level social determinants of health and quality of life—Medical Monitoring Project, United States, 2022

	Not retained in HIV care, past 12 months ^a			Missed ≥1 appointments, past 12 months			Missed ≥1 ART doses, past 30 days ^b			Virally unsuppressed at last test, past 12 months ^c			Did not have sustained viral suppression, past 12 months ^d			Had ≥1 unmet needs for HIV ancillary services, past 12 months ^e			Had ≥1 emergency room visits, past 12 months			Had ≥1 hospitalizations, past 12 months		
	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI	n	row %	95% CI
Total (row %)	782	27.5	(25.5–29.5)	750	21.5	(19.7–23.2)	1,269	36.3	(34.1–38.4)	1,007	32.8	(29.9–35.7)	1,170	36.6	(33.6–39.6)	1,748	49.0	(45.6–52.5)	1,423	39.0	(37.0–41.0)	617	15.9	(14.5–17.3)
National HIV/AIDS Strategy indicators related to social determinants of health																								
Quality of life																								
Physical health																								
Self-reported health status ^f																								
Good, very good, excellent	521	27.3	(24.8–29.9)	443	18.7	(16.8–20.7)	855	35.1	(32.7–37.6)	614	30.6	(27.0–34.2)	714	34.0	(30.3–37.8)	1,070	43.6	(39.6–47.7)	839	33.7	(31.7–35.8)	302	11.1	(9.8–12.4)
Poor, fair	231	27.6	(23.9–31.3)	305	27.7	(24.3–31.1)	410	38.7	(35.3–42.1)	361	38.0	(33.1–42.9)	417	42.5	(38.1–46.8)	674	61.6	(57.9–65.2)	580	51.0	(47.6–54.5)	313	27.0	(24.2–29.8)
Mental or emotional health																								
Unmet needs for services from a mental health professional among those who needed services, past 12 months ^g																								
Yes	89	35.9	(30.0–41.9)	118	36.3	(30.1–42.6)	172	54.2	(48.8–59.6)	101	37.4	(30.9–43.9)	117	40.7	(33.9–47.4)	N/A	N/A	N/A	161	44.8	(38.7–50.9)	53	13.3	(9.0–17.6)
No	200	22.2	(18.7–25.6)	279	25.7	(22.9–28.4)	450	41.9	(38.1–45.6)	303	30.9	(27.0–34.8)	354	34.8	(30.8–38.8)	N/A	N/A	N/A	509	47.7	(43.7–51.8)	232	21.0	(18.5–23.5)
Structural or subsistence factors																								
Unstable housing or homelessness, past 12 months ^h																								
Yes	156	33.7	(29.8–37.6)	221	38.2	(33.6–42.7)	270	50.8	(45.0–56.6)	242	46.3	(41.6–51.0)	281	51.4	(47.4–55.5)	441	72.9	(67.7–78.1)	342	56.7	(52.1–61.3)	173	25.2	(21.2–29.2)
No	595	26.1	(23.8–28.4)	527	17.9	(15.9–20.0)	996	33.3	(31.1–35.6)	735	29.9	(26.9–32.9)	852	33.4	(30.2–36.7)	1,299	43.7	(40.5–46.9)	1,078	35.1	(33.0–37.2)	443	13.9	(12.5–15.2)
Unemployment ⁱ																								
Yes	91	30.5	(24.7–36.3)	126	29.8	(25.2–34.4)	185	47.4	(41.2–53.6)	131	39.4	(33.2–45.6)	165	45.0	(38.8–51.2)	272	66.6	(59.3–73.8)	187	43.9	(38.5–49.2)	78	16.0	(11.9–20.0)
No	657	27.0	(24.8–29.1)	620	20.4	(18.6–22.2)	1,080	35.0	(32.8–37.1)	841	32.0	(29.1–34.9)	961	35.5	(32.5–38.4)	1,468	46.8	(43.6–50.1)	1,231	38.4	(36.3–40.4)	536	15.9	(14.5–17.2)
Hunger or food insecurity, past 12 months ^j																								
Yes	145	30.8	(26.5–35.0)	246	37.9	(32.6–43.1)	310	51.8	(47.6–56.0)	220	40.3	(36.4–44.3)	268	46.7	(42.8–50.7)	497	78.2	(74.2–82.3)	351	51.7	(47.7–55.8)	165	22.8	(19.2–26.4)
No	608	26.7	(24.4–28.9)	502	17.7	(15.9–19.5)	958	33.0	(30.7–35.3)	756	31.1	(27.8–34.4)	864	34.2	(30.8–37.7)	1,251	42.4	(39.1–45.7)	1,071	36.1	(33.9–38.2)	451	14.3	(12.9–15.7)
Other factors important for health, including those that affect quality of life																								
Economic stability																								
Household income with respect to poverty guidelines ^k																								
<100% FPL	225	27.4	(22.6–32.1)	297	27.9	(24.8–30.9)	393	38.9	(34.8–42.9)	325	35.5	(30.8–40.3)	386	40.7	(36.2–45.2)	601	57.2	(51.5–62.9)	507	46.0	(42.3–49.7)	247	20.2	(17.7–22.7)
100%–138% FPL	80	24.2	(18.9–29.5)	80	18.5	(13.6–23.5)	163	38.4	(32.2–44.5)	113	32.0	(24.1–39.9)	136	36.5	(28.8–44.3)	248	56.4	(51.1–61.7)	184	41.2	(35.6–46.8)	84	19.0	(14.5–23.4)
139%–399% FPL	241	27.1	(24.0–30.1)	244	21.3	(18.5–24.1)	426	37.7	(34.7–40.7)	310	32.1	(28.3–35.8)	351	34.9	(30.8–39.1)	551	47.2	(41.3–53.0)	430	36.3	(33.3–39.4)	160	13.3	(11.1–15.6)
≥400% FPL	133	30.7	(26.1–35.3)	53	9.6	(6.4–12.7)	176	28.8	(25.0–32.6)	131	29.0	(23.9–34.1)	140	30.3	(25.4–35.2)	143	25.0	(20.6–29.4)	156	28.2	(23.9–32.6)	53	9.6	(7.0–12.2)
Education																								
Educational attainment																								
Less than high school diploma	88	24.9	(19.9–29.9)	138	29.1	(24.7–33.6)	145	32.6	(28.4–36.8)	151	36.4	(31.3–41.5)	178	42.0	(37.2–46.7)	263	56.6	(50.9–62.4)	225	47.9	(42.4–53.3)	120	25.2	(20.8–29.7)
High school diploma or equivalent	198	25.7	(22.4–28.9)	220	22.9	(18.9–26.9)	323	34.9	(29.9–39.9)	270	31.9	(27.9–35.9)	325	37.4	(33.0–41.7)	501	53.2	(49.2–57.3)	406	40.6	(37.5–43.7)	187	16.3	(13.4–19.3)
Greater than high school	466	28.8	(26.6–31.0)	390	19.0	(17.2–20.8)	800	37.6	(35.0–40.2)	558	32.4	(29.0–35.9)	633	35.1	(31.5–38.7)	981	45.4	(41.7–49.0)	792	36.3	(33.8–38.9)	309	13.6	(12.2–15.1)
Health-related factors																								
Health insurance or coverage (including Ryan White HIV/AIDS Program [RWHAP] assistance), past 12 months ^l																								
Any private	331	28.3	(26.0–30.6)	250	17.5	(15.7–19.4)	532	35.7	(32.8–38.6)	383	30.7	(27.9–33.5)	436	33.8	(31.0–36.7)	626	41.7	(38.0–45.3)	531	34.9	(31.9–37.9)	209	13.3	(11.5–15.0)
Public only, excluding RWHAP only	359	27.4	(24.0–30.9)	418	24.1	(21.7–26.5)	628	37.0	(34.0–40.0)	496	34.3	(30.3–38.4)	579	38.2	(34.1–42.3)	920	52.7	(47.9–57.4)	771	43.3	(40.3–46.3)	364	19.3	(17.1–21.4)
Uninsured or RWHAP only	50	23.4	(16.8–30.1)	57	23.1	(16.5–29.7)	84	34.6	(28.2–41.0)	74	34.6	(26.8–42.4)	89	39.7	(32.4–47.1)	155	61.0	(54.4–67.6)	87	34.4	(27.9–40.8)	31	10.1	(6.0–14.2)
Received RWHAP assistance, past 12 months																								
Yes	285	21.2	(18.0–24.4)	397	24.0	(21.5–26.5)	624	38.0	(34.5–41.5)	405	28.0	(25.5–30.6)	479	32.1	(29.1–35.0)	841	50.3	(45.5–55.0)	676	38.6	(35.3–41.9)	307	16.6	(14.1–19.1)
No	436	32.7	(30.1–35.4)	320	19.0	(17.0–21.1)	591	34.6	(31.8–37.3)	527	36.8	(32.9–40.8)	597	40.1	(36.3–43.9)	827	47.4	(44.2–50.6)	687	39.3	(36.2–42.5)	285	15.4	(13.5–17.3)
Confidence in completing health forms																								
Somewhat, a little bit, not at all	174	24.7	(20.6–28.7)	240	28.4	(24.5–32.3)	327	37.8	(32.6–42.9)	257	33.1	(29.8–36.4)	299	37.2	(33.6–40.8)	502	55.5	(50.8–60.2)	400	44.3	(39.5–49.1)	205	23.0	(18.6–27.5)
Extremely, quite a bit	579	28.4	(25.9–30.8)	510	19.2	(17.0–21.4)	942	35.8	(33.9–37.7)	717	32.7	(29.0–36.3)	831	36.3	(32.9–39.7)	1,246	47.0	(43.4–50.5)	1,022	37.2	(35.1–39.2)	411	13.5	(12.2–14.8)
Has a disability ^m																								
Yes	325	27.6	(24.7–30.4)	411	27.8	(25.4–30.3)	587	40.2	(37.0–43.4)	465	35.9	(32.4–39.5)	533	39.7	(36.0–43.4)	889	58.7	(55.5–61.9)	755	48.1	(45.2–50.9)	380	22.7	(20.7–24.8)
No	428	27.4	(24.9–30.0)	339	16.9	(14.5–19.4)	681	33.5	(31.4–35.7)	513	30.7	(27.5–34.0)	601	34.4	(31.2–37.7)	858	42.1	(37.6–46.6)	665	32.4	(29.6–35.2)	234	10.9	(8.9–12.8)
Any unmet HIV ancillary service need, past 12 months ⁿ																								
Yes	384	29.3	(26.7–31.9)	491	29.3	(25.5–33.2)	730	45.1	(41.9–48.2)	499	34.8	(31.9–37.7)	588	39.3	(36.4–42.2)	N/A	N/A	N/A	801	46.0	(43.1–48.8)	345	18.1	(16.0–20.2)
No	359	25.3	(22.2–28.3)	255	14.1	(12.6–15.7)	532	28.3	(25.7–30.8)	469	30.9	(26.9–34.9)	535	33.9	(29.8–37.9)	N/A	N/A	N/A	608	32.0	(29.3–34.7)	267	13.7	(12.1–15.4)

Table 9. Key clinical outcomes among adults with diagnosed HIV, by individual-level social determinants of health and quality of life—Medical Monitoring Project, United States, 2022 (cont)

	Not retained in HIV care, past 12 months ^a				Missed ≥1 appointments, past 12 months				Missed ≥1 ART doses, past 30 days ^b				Virally unsuppressed at last test, past 12 months ^c				Did not have sustained viral suppression, past 12 months ^d				Had ≥1 unmet needs for HIV ancillary services, past 12 months ^e				Had ≥1 emergency room visits, past 12 months				Had ≥1 hospitalizations, past 12 months			
	n	row %	95% CI		n	row %	95% CI		n	row %	95% CI		n	row %	95% CI		n	row %	95% CI		n	row %	95% CI		n	row %	95% CI		n	row %	95% CI	
Neighborhood and built environment																																
Any met or unmet need for transportation assistance, past 12 months^o																																
Yes	219	27.0	(23.9–30.1)		332	33.3	(29.7–36.9)		434	43.3	(39.3–47.3)		318	35.7	(32.0–39.5)		385	41.3	(37.8–44.9)		739	70.8	(67.3–74.2)		570	52.4	(49.0–55.8)		294	25.1	(22.1–28.1)	
No	519	27.5	(24.9–30.0)		405	16.5	(14.5–18.5)		821	33.4	(30.9–35.9)		633	31.2	(27.6–34.8)		718	34.1	(30.5–37.7)		1,003	40.6	(37.1–44.1)		828	33.4	(31.2–35.5)		313	12.1	(10.6–13.6)	
Social and community context																																
HIV health care discrimination among persons who received care, past 12 months^p																																
Yes	139	23.8	(20.1–27.5)		224	29.1	(25.5–32.7)		348	45.4	(42.4–48.5)		200	30.9	(25.6–36.2)		239	35.2	(29.5–40.8)		490	62.5	(58.6–66.3)		368	46.7	(41.9–51.5)		159	19.2	(16.3–22.1)	
No	454	21.4	(19.4–23.5)		447	17.5	(15.1–19.9)		836	32.3	(30.0–34.5)		628	27.8	(24.9–30.6)		741	31.8	(28.9–34.7)		1,116	43.3	(39.8–46.8)		951	36.6	(34.5–38.7)		413	15.1	(13.3–17.0)	
English proficiency																																
Speaks English less than well	37	18.2	(9.4–27.0)		64	21.9	(16.8–26.9)		80	27.0	(22.2–31.9)		66	25.7	(17.7–33.8)		77	30.8	(20.4–41.2)		119	43.4	(31.8–55.0)		95	28.0	(21.3–34.7)		41	11.8	(6.8–16.8)	
Speaks English well	718	28.3	(26.6–30.0)		685	21.4	(19.6–23.3)		1,188	37.0	(34.5–39.4)		915	33.5	(30.3–36.6)		1,061	37.2	(33.9–40.5)		1,629	49.5	(46.2–52.8)		1,327	39.8	(37.7–41.9)		575	16.2	(14.7–17.7)	
Experiences of physical violence by an intimate partner or forced sex, lifetime^q																																
Yes	277	30.7	(27.0–34.4)		314	26.8	(23.6–30.0)		533	44.9	(42.0–47.7)		364	37.1	(32.4–41.8)		424	41.2	(36.3–46.1)		730	59.7	(55.0–64.4)		557	45.3	(41.8–48.8)		226	17.1	(14.8–19.4)	
No	458	25.7	(22.7–28.7)		416	18.6	(16.4–20.7)		715	31.7	(29.4–34.1)		583	30.3	(26.7–33.9)		676	33.9	(30.5–37.3)		986	43.7	(39.9–47.6)		830	35.5	(33.0–38.0)		370	15.1	(13.6–16.6)	
Experiences of physical violence by an intimate partner or forced sex, past 12 months^q																																
Yes	49	39.0	(29.8–48.2)		80	44.1	(36.5–51.7)		104	60.6	(54.4–66.8)		69	47.2	(37.7–56.7)		79	51.0	(41.8–60.3)		135	75.9	(66.8–85.1)		106	57.8	(48.0–67.6)		42	20.4	(15.1–25.7)	
No	681	26.7	(24.6–28.9)		639	20.0	(18.1–21.8)		1,128	34.6	(32.4–36.8)		869	31.7	(28.9–34.5)		1,008	35.3	(32.4–38.3)		1,563	47.5	(44.3–50.8)		1,268	37.7	(35.8–39.6)		547	15.5	(14.0–16.9)	
Incarcerated >24 hours, past 12 months																																
Yes	30	36.9	(27.4–46.5)		39	37.7	(28.1–47.3)		38	45.8	(33.7–57.9)		41	46.6	(35.7–57.6)		46	51.3	(40.4–62.2)		64	70.2	(58.6–81.8)		54	57.2	(46.6–67.8)		28	25.3	(17.1–33.6)	
No	725	27.2	(25.2–29.3)		711	21.0	(19.2–22.8)		1,231	36.0	(33.8–38.3)		940	32.5	(29.6–35.3)		1,092	36.3	(33.3–39.2)		1,684	48.4	(45.1–51.7)		1,369	38.4	(36.4–40.4)		589	15.6	(14.2–17.0)	

Abbreviations: n, number; CI, confidence interval; FPL, federal poverty level; RWHAP, Ryan White HIV/AIDS Program; CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage [footnotes only]; ART, antiretroviral therapy [footnotes only]; PCP, *Pneumocystis pneumonia* [footnotes only]; MAC, *Mycobacterium avium* complex [footnotes only]; ADAP, AIDS Drug Assistance Program [footnotes only]; SNAP, Supplemental Nutrition Assistance Program [footnotes only]; WIC, Special Supplemental Nutrition Program for Women, Infants, and Children [footnotes only]; HHS, Department of Health and Human Services [footnotes only]; VA, Veterans Administration [footnotes only].

Note. Unweighted numbers and weighted percentages are presented. CIs incorporate weighted percentages.

^a Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart in the past 12 months. Outpatient 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.

^b Based on self-report.

^c Defined as having most recent viral load documented in medical record as detectable or ≥200 copies/mL.

^d Defined as having ≥1 viral load measurements documented as detectable or ≥200 copies/mL.

^e Defined as needing, but not receiving, ≥1 HIV ancillary services related to HIV support (i.e., HIV case management, medicine through ADAP, adherence support, patient navigation, HIV peer group support), non-HIV medical services (i.e., dental care, mental health services, drug or alcohol counseling or treatment, domestic violence services), or subsistence services (i.e., SNAP or WIC, meal or food services, transportation assistance, shelter or housing services). Calculated among all persons.

^f “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.

^g “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.

^h “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) 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 Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV.

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

^k Poverty guidelines defined by HHS. For persons interviewed in a particular calendar year, the HHS poverty guidelines from the previous year were used. For instance, the 2020 guidelines were used for persons interviewed in 2021. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>.

^l Persons could select more than 1 response for health insurance or coverage. Mutually exclusive categories are presented based on responses. Private coverage 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. Public insurance included Medicaid, Medicare, VA, RWHAP, or other city, county, or state-funded insurance. Uninsured or RWHAP only category includes those who did not report having any insurance, or received RWHAP assistance only, without coverage through any other insurance categories.

^m Self-reported, and includes physical, mental, and emotional disabilities.

ⁿ Represents those who needed, but did not receive, ≥1 HIV ancillary services, among all persons.

^o Represents those who needed transportation assistance, regardless of whether that assistance was received, among all persons.

^p HIV health care discrimination among those who received HIV care during the previous 12 months was assessed based on seven forms of discrimination, including: being treated with less courtesy than other persons, being treated with less respect than other persons, receiving poorer service than others, having a doctor or nurse act as if he or she believed they were not smart, having a doctor or nurse act as if he or she were afraid of them, having a doctor or nurse act as if he or she were better than them, and having a doctor or nurse not listen to what they were saying. Respondents were asked if they experienced these forms of discrimination never, rarely, some of the time, most of the time, or all the time. Respondents who reported experiencing at least one form of health care discrimination rarely, some of the time, most of the time, or all of time were considered to have experienced discrimination in an HIV health care setting.

^q Physical violence by an intimate partner defined as ever being slapped, punched, shoved, kicked, choked, or otherwise physically hurt by a romantic or sexual partner. Forced sex defined as ever being threatened with harm or physically forced to have unwanted vaginal, anal, or oral sex.

Table 10. Median HIV stigma scores by key clinical outcomes among adults with diagnosed HIV—Medical Monitoring Project, 2022

	n	Median score	95% CI
Not retained in care, past 12 months^a			
Yes	682	29.0	(26.3–31.8)
No	2,534	29.3	(28.1–30.6)
Missed ≥1 HIV care appointments, past 12 months^b			
Yes	668	34.2	(29.9–38.4)
No	2,635	28.2	(26.7–29.7)
Missed ≥1 ART doses, past 30 days^b			
Yes	1,160	31.4	(29.8–33.1)
No	2,054	28.0	(26.5–29.4)
Virally unsuppressed at last test, past 12 months^c			
Yes	865	29.2	(26.3–32.1)
No	2,454	29.4	(28.3–30.5)
Did not have sustained viral suppression, past 12 months^d			
Yes	1,005	29.3	(26.6–32.0)
No	2,314	29.3	(28.2–30.4)
Had ≥1 unmet needs for HIV ancillary services, past 12 months^e			
Yes	1,579	34.1	(32.4–35.8)
No	1,736	25.5	(23.7–27.4)
Had ≥1 emergency room visits, past 12 months			
Yes	1,296	31.8	(28.6–34.9)
No	2,012	28.2	(26.8–29.5)
Had ≥1 hospitalizations, past 12 months			
Yes	553	29.5	(26.7–32.3)
No	2,758	29.3	(27.8–30.7)

Abbreviation: n, number; CI, confidence interval; ART, antiretroviral therapy; CD4, CD4+ T-lymphocyte count (cells/mm³ or cells/μL) or percentage [footnotes only]; PCP, *Pneumocystis pneumonia* [footnotes only]; MAC, *Mycobacterium avium* complex [footnotes only]; ADAP, AIDS Drug Assistance Program [footnotes only]; SNAP, Supplemental Nutrition Assistance Program [footnotes only]; WIC, Special Supplemental Nutrition Program for Women, Infants, and Children [footnotes only].

Note. Unweighted numbers and weighted median scores are presented. CIs incorporate weighted medians.

HIV stigma scores were based on a 10-item scale 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.

^a Defined as not having 2 or more elements of outpatient HIV care at least 90 days apart in each 12-month period. Outpatient 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.

^b Based on self-report.

^c Defined as having most recent viral load documented in medical record as detectable or ≥200 copies/mL.

^d Defined as having ≥1 viral load measurements documented as detectable or ≥200 copies/mL.

^e Defined as needing, but not receiving, ≥1 HIV ancillary services related to HIV support (i.e., HIV case management, medicine through ADAP, adherence support, patient navigation, HIV peer group support), non-HIV medical services (i.e., dental care, mental health services, drug or alcohol counseling or treatment, domestic violence services), or subsistence services (i.e., SNAP or WIC, meal or food services, transportation assistance, shelter or housing services). Calculated among all persons.

Table 11. Experiences with HIV-related stigma among adults with diagnosed HIV, by domain—Medical Monitoring Project, United States, 2022

	Strongly disagree			Somewhat disagree			Neutral			Somewhat agree			Strongly agree		
	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI	n	col %	95% CI
Personalized stigma															
During the past 12 months, I have been hurt by how people reacted to learning I have HIV	2,107	58.4	(55.0–61.8)	225	7.0	(6.1–7.9)	617	18.0	(15.7–20.3)	257	7.1	(5.9–8.3)	335	9.5	(8.6–10.5)
During the past 12 months, I have stopped socializing with some people because of their reactions to my HIV status	2,516	70.0	(67.8–72.3)	167	5.2	(4.4–6.1)	382	11.0	(9.5–12.5)	180	5.2	(4.2–6.1)	302	8.6	(7.6–9.5)
During the past 12 months, I have lost friends by telling them I have HIV	2,757	76.4	(74.0–78.7)	145	4.6	(3.5–5.6)	349	10.3	(9.0–11.7)	97	2.9	(2.3–3.5)	202	5.9	(5.0–6.7)
Disclosure stigma															
I am very careful who I tell that I have HIV	387	10.6	(9.2–12.1)	97	2.2	(1.6–2.9)	232	6.5	(5.6–7.4)	374	10.2	(8.8–11.7)	2,529	70.4	(67.8–73.0)
I worry that people who know I have HIV will tell others	1,239	34.6	(32.0–37.3)	238	6.6	(5.7–7.5)	436	12.4	(11.0–13.7)	526	14.5	(13.3–15.8)	1,161	31.9	(29.2–34.5)
Negative self-image															
I feel that I am not as good a person as others because I have HIV	2,574	70.1	(68.3–72.0)	193	5.3	(4.5–6.0)	243	7.0	(6.0–8.1)	331	9.6	(8.4–10.8)	273	7.9	(7.1–8.7)
Having HIV makes me feel unclean	2,495	68.0	(65.6–70.4)	254	7.4	(6.4–8.4)	240	7.5	(6.6–8.5)	366	10.1	(8.5–11.8)	251	6.9	(5.5–8.2)
Having HIV makes me feel that I am a bad person	2,941	80.1	(78.0–82.2)	185	5.6	(4.3–7.0)	205	6.2	(5.3–7.2)	176	4.9	(4.0–5.9)	110	3.1	(2.5–3.6)
Public attitudes															
Most people think that a person with HIV is disgusting	1,348	36.8	(33.9–39.8)	381	11.1	(9.5–12.6)	537	15.6	(14.1–17.1)	672	19.5	(17.5–21.5)	586	17.0	(14.4–19.6)
Most people with HIV are rejected when others find out	784	20.9	(19.0–22.7)	459	12.8	(10.8–14.9)	583	16.8	(14.6–19.1)	913	27.1	(25.4–28.8)	794	22.4	(20.0–24.7)

Abbreviations: n, number; col, column; CI, confidence interval.

Note. All numbers are unweighted and all percentages are weighted percentages; CIs incorporate weighted percentages.

Technical Notes & Appendix

TECHNICAL NOTES

Population of Inference

For the 2022 Medical Monitoring Project (MMP) data collection cycle (data collected June 1, 2022–May 31, 2023), 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 2022 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 by mail, by telephone, or in person. To be eligible to be included in MMP's 2022 data cycle, the person had to be, as of December 31, 2021: 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 an interview via telephone, in-person, or video format. English and Spanish versions of the questionnaire were used in the 2022 cycle. Persons speaking a language other than English or Spanish were offered an interview in their native language if an interpreter was available.

Persons who agreed to participate were offered an interview over the telephone or in person or video in a private location (e.g., at home or in a clinic). The interview (approximately 40 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, substance use, and use of HIV/STD prevention services. Respondents were given a token of appreciation of no more than \$50 in cash or the equivalent for participation; type of token differed by project area according to local considerations.

After the interview, MMP staff abstracted clinical data from the medical records of respondents at the health care facility identified by the respondents 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. 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, 2021. 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, 2021). 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 each of 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 2022 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 2022 cycle, December 31, 2021). 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 30 persons.

Adjustments for nonresponse

A nonresponse adjustment factor was applied to the multiplicity-adjusted base weight based on an analysis of nonresponse. In 2022, 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, male-to-male sexual contact (MMSC) 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 2022, the significant predictors of nonresponse were: disease progression measured by the most recent viral load test reported to NHSS, time since HIV diagnosis, and the person's frequency of receipt of HIV care, as indicated by NHSS

records. 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 5 or fewer respondents with 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 2022 MMP 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. Respondents were treated as having come from a simple random sample with replacement, although the various adjustment factors induced unequal weights.

Definitions

NHAS indicators

- **Good or better self-rated health:** Self-rated health is assessed using a single question that captures the respondent's self-perceived general health at the time of interview using 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). This measure is also used in several other national initiatives and surveys examining self-rated health among the general U.S. population (e.g., Healthy People 2030, National Health and Nutrition Examination Survey [NHANES], Behavioral Risk Factor Surveillance System [BRFSS]) [4, 5, 6]. The 2025 NHAS target for good or better self-rated health is 95%.

- **Unmet needs for mental health services from a mental health professional among persons who needed services:** This measure was assessed through 2 questions. First, respondents 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 persons 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 2025 NHAS target for unmet needs for mental health services from a mental health professional among persons who needed services is approximately 12%.
- **Hunger/food insecurity:** Persons who reported being hungry and not eating because there was not enough money for food in the past 12 months were considered to be food insecure. The 2025 NHAS target for hunger/food insecurity is approximately 11%.
- **Unemployment:** Unemployed persons included those who reported being unemployed at the time of interview, excluding persons who are unable to work, calculated among all adults with HIV. The 2025 NHAS target for unemployment is approximately 7%.
- **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 2025 NHAS target for unstable housing or homelessness is approximately 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 persons 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 [7]. The 2025 NHAS target for the median HIV stigma score is approximately 16.

Demographic characteristics and additional social determinants of health

- **Gender:** Categories were cisgender men, cisgender women, and transgender. Respondents were classified as cisgender if sex at birth and gender reported by the person were the same. Respondents were classified as transgender if reported sex at birth and current gender as reported by the respondent were not the same or if the respondent answered “transgender” to the interview question regarding self-identified gender.
- **Race/ethnicity:** Respondents were asked about whether they considered themselves as being of Hispanic, Latino/a, or Spanish origin. They were also asked about racial groups they identified as; respondents could check all categories that applied to them. These data were used to create the following analytic racial/ethnic categories: American Indian/Alaska Native, Asian, Black/African American, Hispanic/Latino, Native Hawaiian/other Pacific Islander, White, and multiple races. Hispanic/Latino persons could be of any race.

NHAS priority populations

- **Gay, bisexual, or other men who had sex with men (MSM):** Included cisgender men with diagnosed HIV who reported having sex with ≥ 1 cisgender men in the past 12 months (among persons who had sex during the past 12 months) and cisgender men with diagnosed HIV who reported identifying as gay or bisexual (among those who did not have sex during the past 12 months).
- **Black/African American MSM:** Included MSM with diagnosed HIV who identified as non-Hispanic/Latino Black/African American race/ethnicity.

- **Hispanic/Latino MSM:** Included MSM with diagnosed HIV who identified as Hispanic/Latino race/ethnicity. Hispanic or Latino MSM could be of any race.
- **American Indian/Alaska Native MSM:** Included MSM with diagnosed HIV who identified as American Indian/Alaska Native race/ethnicity.
- **Black/African American cisgender women:** Included cisgender women with diagnosed HIV who identified as non-Hispanic Black/African American race/ethnicity.
- **Transgender women:** Persons with diagnosed HIV were classified as transgender women if the person reported that their sex assigned at birth was male but identified as female or transgender.
- **Persons aged 18–24 years:** Priority population for youths includes persons with diagnosed HIV aged 13–24 years; however, data from MMP are only available and presented for persons aged 18–24 years.
- **Persons who inject drugs:** Included persons with diagnosed HIV who reported injecting drugs for nonmedical purposes during the past 12 months.

Other factors related to social determinants of health

- **Federal poverty guidelines:** Respondents were asked about their combined monthly or yearly household income (in U.S.\$) from all sources during the calendar year prior to the interview date. 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 2021 guidelines were used for respondents interviewed in 2022, and the 2022 guidelines were used for persons interviewed in 2023 [8]. 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. Respondents were asked to specify their income range, and household income was assumed to be the midpoint of the income range.
- **Health insurance or coverage (including receipt of Ryan White HIV/AIDS Program [RWHAP] assistance):** Respondents were asked whether they had health insurance or coverage during the 12 months before interview—including assistance through the RWHAP, a federally-funded comprehensive care program that provides HIV primary care, medications, and essential support services for low-income persons with HIV [9]. Respondents could select more than 1 response for health insurance or coverage. Responses to these questions were combined and categorized as having any private health insurance; having public insurance only; and being uninsured or being covered through RWHAP only. 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. Public insurance included Medicaid, Medicare, TRICARE/CHAMPUS, Veterans Administration insurance, and other public health insurance plans. Those who only received RWHAP assistance were considered to not have health insurance.
- **Disability:** Defined as having a physical, mental, and/or emotional disability. Respondents were considered to have a disability if they reported being deaf or having serious difficulty hearing; being blind or having serious difficulty seeing, even when wearing glasses; having serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition; having serious difficulty walking or climbing stairs; having difficulty dressing or bathing; or having difficulty completing errands alone such as visiting a doctor’s office or shopping because of a physical, mental, or emotional condition.

Clinical outcomes

- **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, 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.

- **Retention in HIV care:** Persons were considered to be retained in care if they had 2 or more elements of outpatient HIV care at least 90 days apart in each 12-month period reviewed.
- **ART dose adherence:** Respondents were asked about how many days they missed at least 1 dose of their HIV medicines during the 30 days before interview as part of a 3-item ART adherence scale developed by Wilson and colleagues [10]. Respondents were considered ART dose adherent if they reported not missing any doses of their HIV medicines during the 30 days before interview.
- **Viral suppression:** Viral loads were abstracted from medical records from the facility where respondents most frequently received HIV care. Lack of viral suppression was assessed based on two measures. Lack of viral suppression at last test was defined as having the viral load measurement at last test documented as detectable or ≥ 200 copies/mL. Lack of sustained viral suppression was defined as having any viral load measurement during the past 12 months documented as detectable or ≥ 200 copies/mL. Those with no viral load tests were considered to be unsuppressed.
- **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 [11]. Ancillary services 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 included: HIV case management; medicine through the AIDS Drug Assistance Program (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); dental care; mental health services; drug or alcohol counseling or treatment; and domestic violence services; 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. Needs for SSI, SSDI, interpreter services, and lawyer/legal services were dropped after the 2017 cycle and could not be incorporated in estimates for unmet needs for ≥ 1 ancillary services from 2018 cycle onwards. For this reason, estimates for unmet needs for ≥ 1 ancillary services were not reported from 2015–2017.

REFERENCES

1. Frankel MR, McNaghten A, Shapiro MF, et al. A probability sample for monitoring the HIV-infected population in care in the U.S. and in selected states. *Open AIDS J* 2012;6(Suppl 1):67–76. <http://dx.doi.org/10.2174/1874613601206010067>
2. Beer L, Johnson CH, Fagan JL, et al. A national behavioral and clinical surveillance system of adults with diagnosed HIV (the Medical Monitoring Project): Protocol for an annual cross-sectional interview and medical record abstraction survey. *JMIR Res Protoc* 2019;8(11):e15453. <http://dx.doi.org/10.2196/15453>
3. The American Association for Public Opinion Research. Standard Definitions: Final dispositions of case codes and outcome rates for surveys. 10th ed. <https://aapor.org/wp-content/uploads/2023/05/Standards-Definitions-10th-edition.pdf>. Revised 2016. Accessed October 4, 2024.
4. Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. Healthy People 2030. <https://health.gov/healthypeople/objectives-and-data/browse-objectives>. Updated January 15, 2021. Accessed October 4, 2024.
5. CDC. National Center for Health Statistics: National Health and Nutrition Examination Survey. <https://www.cdc.gov/nchs/nhanes/index.htm>. Updated July 28, 2022. Accessed October 4, 2024.
6. CDC. Behavioral Risk Factor Surveillance System. <https://www.cdc.gov/brfss/index.html>. Updated January 2024. Accessed October 4, 2024.

7. 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. doi:10.1016/j.jadohealth.2006.08.001
8. U.S. Department of Health and Human Services. Prior HHS poverty guidelines and Federal Register references. <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references>. Updated January 2024. Accessed October 4, 2024.
9. Health Resources and Services Administration. HRSA Ryan White HIV/AIDS Program: Program parts and initiatives. <https://ryanwhite.hrsa.gov/about/parts-and-initiatives>. Updated December 2023. Accessed October 4, 2024.
10. Wilson IB, Lee Y, Michaud J, Fowler FJ Jr, Rogers WH. Validation of a new three-item self-report measure for medication adherence. *AIDS Behav* 2016;20(11):2700–2708. <http://dx.doi.org/10.1007/s10461-016-1406-x>.
11. Dasgupta S, Tie Y, Beer L, et al. Unmet needs for ancillary care services are associated with HIV clinical outcomes among adults with diagnosed HIV. *AIDS Care* 2021;34(5):606–614. <http://dx.doi.org/10.1080/09540121.2021.1946001>.