

HIV

SURVEILLANCE REPORT

SUPPLEMENTAL REPORT

Volume 22, Number 3

Social Determinants of Health among Adults with Diagnosed HIV Infection in 13 States, the District of Columbia, and Puerto Rico, 2015

This issue of the *HIV Surveillance Supplemental Report* is published by the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, Georgia.

Data are presented for diagnoses of HIV infection reported to CDC through December 2016.

The *HIV Surveillance Supplemental 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. Social determinants of health among adults with diagnosed HIV infection in 13 states, the District of Columbia, and Puerto Rico, 2015. *HIV Surveillance Supplemental Report* 2017;22(No. 3). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published August 2017. Accessed [date].

On the Web: <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.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)

<http://www.cdc.gov/cdc-info/requestform.html>

Acknowledgments

Publication of this report was made possible with the contributions of the state and territorial health departments and the HIV surveillance programs that provided surveillance data to CDC.

This report was prepared by the following staff and contractors of the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC: Zanetta Gant, Andre Dailey, Lakeshia Watson, Xiaohong Hu, Baohua Wu, Hong Zhu, Chenchen Yu, Anna Satcher Johnson, and Michael Friend (editing and desktop publishing).

Contents

Abbreviations	4
Commentary	5
Technical Notes	13
References	17
Tables	
1 Diagnoses of HIV infection among adults, by race/ethnicity and area of residence, 2015—13 states, the District of Columbia, and Puerto Rico	19
2 Diagnoses of HIV infection among adults, by age at diagnosis and area of residence, 2015—13 states, the District of Columbia, and Puerto Rico	20
3 Diagnoses of HIV infection among adults, by race/ethnicity and selected characteristics, 2015—13 states, the District of Columbia, and Puerto Rico	21
4 Diagnoses of HIV infection among adults, by age at diagnosis and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	22
5 Diagnoses of HIV infection among adults, by race/ethnicity, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	24
6 Diagnoses of HIV infection among adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	26
7a Diagnoses of HIV infection among black/African American adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	28
7b Diagnoses of HIV infection among Hispanic/Latino adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	30
7c Diagnoses of HIV infection among white adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	32
8a Diagnoses of HIV infection among black/African American adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	34
8b Diagnoses of HIV infection among Hispanic/Latino adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	36
8c Diagnoses of HIV infection among white adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico	38

Abbreviations

ACS	American Community Survey
AIDS	acquired immunodeficiency syndrome
CDC	Centers for Disease Control and Prevention
DHAP	Division of HIV/AIDS Prevention
HIV	human immunodeficiency virus
NIR	no identified risk factor
SDH	social determinants of health
VA	United States Department of Veterans Affairs

HIV continues to disproportionately affect various populations in the United States. According to the 2015 *HIV Surveillance Report*, numbers and rates of annual diagnoses of HIV infection decreased from 2010 through 2014 in the United States [1]; however, numbers and rates increased in some populations and remained stable in others. Differences in HIV burden, by sex and race/ethnicity (i.e., blacks/African Americans, Hispanics/Latinos, and whites), have long been highlighted through HIV surveillance data in the United States. These differences suggest that factors other than individual attributes related to sex, race/ethnicity, or behavioral risk factors are contributing to the rate disparity, and may be partly explained by a better understanding of the social determinants that affect the health of populations.

The term *social determinants of health* (SDH) refers to the overlapping social structures and economic systems (e.g., social environment, physical environment, health services, and structural and societal factors) that are responsible for most health inequities [2]. Stratifying public health data by key SDH is useful in monitoring health inequities. Addressing the SDH that adversely affect health outcomes may advance efforts in reducing disparities in HIV diagnosis rates between populations. Addressing SDH also helps to quantify health differences between populations or geographic areas and can provide insight for identifying populations or areas that may benefit from HIV testing, prevention, and treatment initiatives.

In the white paper *Establishing a Holistic Framework to Reduce Inequities in HIV, Viral Hepatitis, STDs, and Tuberculosis in the United States* [2], the Centers for Disease Control and Prevention (CDC) outlined its vision for reducing health disparities and promoting health equity, with an emphasis on the need to move beyond individual interventions and toward the incorporation of community-level approaches to preventing the transmission of HIV. CDC has adopted the SDH conceptual framework of the World Health Organization, which relates structural determinants (e.g., socioeconomic status, poverty) to intermediary determinants (e.g., psychosocial, behavioral, and biological factors) that may affect individual health status

[3]. This framework helps in determining priorities and focusing intervention efforts.

Recognizing the gaps in data regarding SDH and HIV, especially for geographic areas smaller than a state or county, CDC's Division of HIV/AIDS Prevention (DHAP) has incorporated geocoding of HIV surveillance data by state and local HIV surveillance programs. The purpose of the activity is to capture, store, analyze, and display geocoded HIV surveillance data along with SDH indicators that may affect HIV transmission. The activity requires that HIV surveillance data are geocoded to the census tract level for addresses of residence at the time of diagnosis and linked at the census tract level to SDH indicator variable data from the U.S. Census Bureau's American Community Survey (ACS). Using census tract-level surveillance data at the state or local level increases the ability to assess the geographic distribution of HIV, the social determinants associated with HIV, and the relationship of HIV to other diseases and health care resources in a defined area.

This surveillance supplemental report presents data on persons aged 18 years and older with HIV infection diagnosed in 2015 and reported to the National HIV Surveillance System through June 2016. Data were limited to persons aged 18 years and older to more accurately represent the population from which the SDH indicator variables were collected by ACS. A diagnosis of HIV infection is defined as a confirmed HIV diagnosis regardless of stage of disease at diagnosis. The numbers, percentages, and rates of diagnoses of HIV infection were based on data reported from state/local areas that geocoded, linked to ACS, and transmitted to CDC SDH information on cases diagnosed during 2015. These areas are Arizona, Colorado, Connecticut, the District of Columbia, Florida, Georgia, Illinois (Chicago only), Iowa, Minnesota, Oklahoma, Pennsylvania, Puerto Rico, Texas, Virginia, and Washington.

REPORT CHANGES

Tables 4–8a/b/c now include data on the percentage of vacant housing units within an area. Living near vacant and boarded-up housing contributes to mortal-

ity risk because of its potential adverse impact on social relationships (breakdown of social networks and capital) and opportunities to engage in healthful behaviors (retreat into unhealthy eating, exercise, and risky sexual behavior habits) [4, 5]. Neighborhood physical conditions deserve further consideration as a potential factor influencing health and well-being.

REPORT FORMAT

This report presents numbers and rates of diagnoses of HIV infection in 2015 among persons aged 18 years and older by 6 SDH indicators and selected characteristics that include sex, age, race/ethnicity, transmission category and area of residence. SDH data by race/ethnicity are presented for blacks/African Americans, Hispanics/Latinos, and whites only (Tables 7a/b/c and 8a/b/c); the numbers of HIV diagnoses among Asians, Native Hawaiians/other Pacific Islanders, and American Indians/Alaska Natives were too small for meaningful analysis.

The SDH data presented in this report are the result of the linkage of geocoded HIV diagnosis data (at the census tract level) to SDH indicator variables from the 2011–2015 ACS and are based on where the person was living at the time of diagnosis.

The following are the measures for the SDH indicators presented in this report:

- **Federal poverty status:** proportion of residents in the census tract who were living below the U.S. poverty level (i.e., below a specified threshold) at any time during the 12 months before the survey response (individuals aged 18 years and older)
- **Education level:** proportion of residents in the census tract with less than a high school diploma (individuals aged 18 years and older)
- **Median household income:** median income for a household within the census tract during the 12 months before the survey response
- **Employment status:** proportion of residents in the census tract in the workforce without a job (individuals aged 16 years and older)
- **Health insurance coverage:** proportion of residents in the census tract without health insurance or health coverage plan (individuals aged 18 years and older)

- **Vacant housing:** the proportion of housing units in the census tract that were vacant at the time of the survey response

These SDH indicators were included in this report because they are generally recognized in the scientific literature as population determinants of health. Although other social determinants may affect health, research on social determinants has emphasized the need to incorporate these specific structural and societal factors into analyses of public health data [6–9]. Readers are encouraged to review Technical Notes for more information on the definitions of the SDH indicator variables used in this report.

Data in this report were limited to persons whose HIV infection had been diagnosed and whose complete residential address information could be geocoded to the census tract level. Cases or census tracts were excluded if

- the address was nonresidential (e.g., military base, corrections facility)
- no census tract was associated with the case
- no SDH information was available for the census tract
- the census tract from the surveillance data could not be matched to a census tract provided by the ACS

The data presented in this HIV surveillance supplemental report are a snapshot of the environment in which people lived at the time of HIV diagnosis. Some SDH indicators may be correlated (e.g., lack of education has been associated with both poverty and low income in the United States [10, 11]), but correlations between SDH indicators were not analyzed for this report. Additional research may guide the development of public health strategies to address the SDH that contribute to the burden of HIV disease in specific populations and may guide the allocation of resources for prevention and treatment services. Caution should be used when interpreting results.

Reported numbers less than 12 and accompanying rates based on these numbers, should be interpreted with caution. Please read all titles and footnotes carefully to ensure a complete understanding of the displayed data.

HIGHLIGHTS OF ANALYSES

The statements in this section, unless otherwise indicated, are based on stable numbers (i.e., based on 12 or

more diagnoses). All rates are per 100,000 population and refer to adults aged 18 years and older. Social determinants of health data are estimates for the period 2011–2015, and HIV surveillance data are based on diagnoses of HIV infection in 2015 among adults.

Diagnoses of HIV Infection, by Area of Residence and Selected Characteristics

HIV infection was diagnosed for 15,931 adults (aged 18 years and older) whose residential address information was sufficient for geocoding to the census tract (Table 1). These diagnoses represent approximately 88% of all diagnoses of HIV infection in 2015 among adults in the 13 states, the District of Columbia, and Puerto Rico. Additionally, diagnoses in these 13 states, the District of Columbia, and Puerto Rico represent approximately 40% of all diagnoses of HIV infection in 2015 among adults in the United States and Puerto Rico.

The overall rate of diagnoses of HIV infection among adults in the 13 states, the District of Columbia, and Puerto Rico was 17.5. The rates of diagnoses of HIV infection were highest in the District of Columbia (59.9), Illinois (40.3, Chicago only), and Florida (28.2) (Table 1). Use caution when comparing the rates of diagnoses presented in Tables 1 and 2 for the District of Columbia and Chicago to the rates presented for states.

Race/ethnicity (Table 1)

- Among American Indians/Alaska Natives, all HIV diagnosis rates were unstable (i.e., based on fewer than 12 diagnoses of HIV infection) except for Arizona (14.3) and Oklahoma (11.0).
- Among Asians, the HIV diagnosis rate was highest in Illinois (16.5, Chicago only), followed by Florida (12.5) and Arizona (8.9).
- Among blacks/African Americans, the HIV diagnosis rate was highest in the District of Columbia (95.1), followed by Florida (78.9) and Illinois (70.5, Chicago only).
- Among Hispanics/Latinos, the HIV diagnosis rate was highest in the District of Columbia (86.0), followed by Florida (40.0) and Illinois (33.2, Chicago only).
- Among Native Hawaiians/other Pacific Islanders, all HIV diagnosis rates were unstable (i.e., based on fewer than 12 diagnoses of HIV infection).

- Among whites, the HIV diagnosis rate was highest in Illinois (22.5, Chicago only), followed by the District of Columbia (16.3) and Florida (11.7).
- Among persons of multiple races, the HIV diagnosis rate was highest in Illinois (64.0, Chicago only), followed by Georgia (30.3) and Texas (22.1).

Age (Table 2)

- The highest HIV diagnosis rate (32.1) was among persons aged 25–34 years, followed by 18–24 (29.5) and 35–44 (20.5).
- By area, the rates of diagnoses of HIV infection in all age groups were highest in the District of Columbia, except for the rate among persons aged 18–24 years, which was highest in Illinois (Chicago only). Persons residing in Illinois (Chicago only) accounted for the second highest rates in all other age groups, with the exception of persons aged 55–64 years.

Diagnoses of HIV Infection, by Race/Ethnicity and Selected Characteristics

Race/ethnicity (Table 3)

Overall, the highest HIV diagnosis rate (60.9) was among blacks/African Americans, which was approximately 9 times the rate for whites (7.0) and nearly 3 times the rate for Hispanics/Latinos (23.6). Among males, the highest HIV diagnosis rate (94.6) was among blacks/African Americans, followed by Native Hawaiians/other Pacific Islanders (55.1) and Hispanics/Latinos (41.3). Among females, the highest HIV diagnosis rate (31.1) was among blacks/African Americans, followed by Hispanics/Latinos (6.1) and American Indians/Alaska Natives (4.6).

Age (Table 3)

- Among males, the highest HIV diagnosis rate (53.5) was among those aged 25–34 years. By race/ethnicity, the highest rates of HIV diagnoses were among males aged 18–24 years for American Indians/Alaska Natives (24.4), blacks/African Americans (167.8), and males of multiple races (32.0). For Asian (24.3), Hispanic/Latino (62.4), and white (23.9) males, the highest HIV diagnosis rate was among those aged 25–34 years. Among Native Hawaiian/other Pacific Islander males, all HIV diagnosis rates by

age groups were unstable (i.e., based on fewer than 12 diagnoses of HIV infection).

- Among females, the highest HIV diagnosis rate (10.3) was among those aged 25–34 years. By race/ethnicity, the highest rates of HIV diagnoses were among females aged 35–44 years for Asians (3.3) and Hispanics/Latinos (8.0). The highest rates of HIV diagnoses for black/African American females (42.0) were among those aged 25–34 years and 35–44 years. The highest rates of HIV diagnoses for white females (3.6) and females of multiple races (5.4) were among those aged 25–34 years. For American Indian/Alaska Native and Native Hawaiian/other Pacific Islander females, all HIV diagnosis rates by age groups were unstable (i.e., based on fewer than 12 diagnoses of HIV infection).

Sex and transmission category (Table 3)

- The HIV diagnosis rate was 28.9 for males and 6.6 for females.
- Among males, the largest number of HIV diagnoses was among those with infection attributed to male-to-male sexual contact for every racial/ethnic group.
- Among females, the largest number of HIV diagnoses was among those with infection attributed to heterosexual contact for every racial/ethnic group.

Diagnoses of HIV Infection, by Selected Characteristics and Selected Social Determinants of Health

Sex (Table 4)

- **Poverty:** The highest HIV diagnosis rates for males (54.8) and females (15.3) were among those who lived in census tracts where 21% or more of the residents lived below the federal poverty level. For both sexes, the rate of HIV diagnoses increased as the percentage of residents living below the federal poverty level increased.
- **Education:** The highest HIV diagnosis rates for males (44.3) and females (13.8) were among those who lived in census tracts where 20% or more of the residents had less than a high school diploma. For both sexes, the rate of HIV diagnoses increased as the percentage of residents with less than a high school diploma increased.

- **Income:** The highest HIV diagnosis rates for males (52.7) and females (14.8) were among those who lived in census tracts where the median household income was less than \$37,000 a year. For both sexes, the rate of HIV diagnoses decreased as the median household income increased.
- **Employment:** The highest HIV diagnosis rates for males (52.9) and females (15.2) were among those who lived in census tracts where 7% or more of the residents were unemployed. For both sexes, the rate of HIV diagnoses increased as the percentage of unemployed persons increased.
- **Insurance:** The highest HIV diagnosis rates for males (52.3) and females (14.4) were among those who lived in census tracts where 23% or more of the residents did not have health insurance or health coverage plan. For both sexes, the rate of HIV diagnoses increased as the percentage of uninsured persons increased.
- **Housing:** The highest HIV diagnosis rates for males (36.9) and females (9.6) were among those who lived in census tracts where 17% or more of the housing units were vacant. For both sexes, the rate of HIV diagnoses increased as the percentage of vacant housing increased.

Age by sex (Table 4)

- **Poverty:** For males and females in all age groups, those who lived in census tracts where 21% or more of the residents lived below the federal poverty level accounted for the highest rates of HIV diagnoses.
- **Education:** For males and females in all age groups, those who lived in census tracts where 20% or more of the residents had less than a high school diploma accounted for the highest rates of HIV diagnoses.
- **Income:** For males and females in all age groups, those who lived in census tracts where the median household income was less than \$37,000 a year accounted for the highest rates of HIV diagnoses.
- **Employment:** For males and females in all age groups, those who lived in census tracts where 7% or more of the residents were unemployed accounted for the highest rates of HIV diagnoses.
- **Insurance:** For males and females in all age groups, those who lived in census tracts where

23% or more of the residents did not have health insurance or health coverage plan accounted for the highest rates of HIV diagnoses.

- **Housing:** For males and females in all age groups (except males and females aged 55–64 years), those who lived in census tracts where 17% or more of the housing units were vacant accounted for the highest rates of HIV diagnoses. For males and females aged 55–64 years, those who lived in census tracts where 10% or more but fewer than 17% of the housing units were vacant accounted for the highest rates of HIV diagnoses.

Race/ethnicity by sex (Table 5)

- **Poverty:** Persons who lived in census tracts where 21% or more of the residents lived below the federal poverty level accounted for the highest HIV diagnosis rates among blacks/African Americans (males, 122.3; females, 40.8), Hispanics/Latinos (males, 44.5; females, 7.9), and whites (males, 23.7; females, 5.5).
- **Education:** Persons who lived in census tracts where 20% or more of the residents had less than a high school diploma accounted for the highest HIV diagnosis rates among blacks/African Americans (males, 100.2; females, 42.7), Hispanic/Latino females (7.0), and whites (males, 17.9; females, 5.0). In contrast, among Hispanic/Latino males, the highest HIV diagnosis rate (52.7) was among those who lived in census tracts where fewer than 6% of the residents had less than a high school diploma.
- **Income:** Persons who lived in census tracts where the median household income was less than \$37,000 a year accounted for the highest HIV diagnosis rates among blacks/African Americans (males, 120.1; females, 40.7), Hispanics/Latinos (males, 44.5; females, 7.9), and whites (males, 20.1; females, 4.8).
- **Employment:** Persons who lived in census tracts where 7% or more of the residents were unemployed accounted for the highest HIV diagnosis rates among blacks/African Americans (males, 118.3; females, 36.6), Hispanics/Latinos (males, 44.5; females, 8.5), and whites (males, 18.1; females, 4.5).
- **Insurance:** Persons who lived in census tracts where 23% or more of the residents did not have

health insurance or health coverage plan accounted for the highest HIV diagnosis rates among blacks/African Americans (males, 122.0; females, 43.4), Hispanics/Latinos (males, 47.8; females, 7.6), and whites (males, 22.5; females, 4.9).

- **Housing:** Persons who lived in census tracts where 17% or more of the housing units were vacant accounted for the highest HIV diagnosis rates among blacks/African Americans (males, 114.6; females, 37.0), Hispanic/Latino males (44.8), and white females (2.9). Among Hispanic/Latino females, those who lived in census tracts where 10% or more of the housing units were vacant accounted for the highest rates of diagnoses of HIV infection (6.8). Among white males, the highest HIV diagnosis rate (16.6) was among those who lived in census tracts where more than 10% but fewer than 17% of the housing units were vacant.

Transmission category by sex (Table 6)

- **Poverty:** Persons who lived in census tracts where 21% or more of the residents lived below the federal poverty level accounted for the largest percentage of HIV diagnoses for both sexes and in all transmission categories.
- **Education:** Persons who lived in census tracts where 20% or more of the residents had less than a high school diploma accounted for the largest percentage of HIV diagnoses for both sexes and in all transmission categories.
- **Income:** Persons who lived in census tracts where the median household income was less than \$37,000 a year accounted for the largest percentage of HIV diagnoses for both sexes and in all transmission categories.
- **Employment:** Persons who lived in census tracts where 7% or more of the residents were unemployed accounted for the largest percentage of HIV diagnoses for both sexes and in all transmission categories.
- **Insurance:** Persons who lived in census tracts where 23% or more of the residents did not have health insurance or health coverage plan accounted for the largest percentage of HIV diagnoses for both sexes and in all transmission categories.

- **Housing:** Persons who lived in census tracts where 10% or more but fewer than 17% of the housing units are vacant accounted for the largest percentage of HIV diagnoses for both sexes and in all transmission categories (except males with infection attributed to injection drug use). Persons who lived in census tracts where 17% or more of the housing units are vacant accounted for the largest percentage of HIV diagnoses among males who inject drugs.

Diagnoses of HIV Infection, by Race/Ethnicity, Selected Characteristics, and Selected Social Determinants of Health

Transmission category (Tables 7a–c)

- **Poverty:** For black/African American males and females, Hispanic/Latino males and females, and white females in all transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where 21% or more of the residents lived below the federal poverty level. Among white males whose HIV infection was attributed to male-to-male sexual contact, male-to-male sexual contact and injection drug use, or heterosexual contact, the largest percentages of HIV diagnoses were among those who lived in census tracts where 12% or more but fewer than 21% of the residents lived below the federal poverty level. Among white males whose HIV infection was attributed to injection drug use, the largest percentage of HIV diagnoses was among those who lived in census tracts where 7% or more but fewer than 12% of the residents lived below the federal poverty level.
- **Education:** For black/African American males and females, Hispanic/Latino males and females, and white females in all transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where 20% or more of the residents had less than a high school diploma. In contrast, among white males whose HIV infection was attributed to male-to-male sexual contact or male-to-male sexual contact and injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where fewer than 6% of the residents had less than a high school diploma. Among white males whose HIV infection was

attributed injection to drug use or heterosexual contact, the largest percentages of HIV diagnoses were among those who lived in census tracts where 11% or more but fewer than 20% of the residents had less than a high school diploma.

- **Income:** For black/African American males and females, Hispanic/Latino males and females and white females in all transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where the median household income was less than \$37,000 a year. In contrast, among white males whose HIV infection was attributed to male-to-male sexual contact or male-to-male sexual contact and injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where the median household income was at least \$68,000 a year. Among white males whose HIV infection was attributed to injection drug use or to heterosexual contact, the largest percentages of HIV diagnoses were among those who lived in census tracts where the median household income was \$37,000–\$49,999 a year.
- **Employment:** For black/African American males and females, Hispanic/Latino males and females, and white females in all transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where 7% or more of the residents were unemployed. Among white males whose HIV infection was attributed to male-to-male sexual contact, injection drug use, or male-to-male sexual contact and injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where 3% or more but fewer than 5% of the residents were unemployed. Among white males whose HIV infection was attributed to heterosexual contact, the largest percentage of HIV diagnoses was among those who lived in census tracts where 5% or more but fewer than 7% of the residents were unemployed.
- **Insurance:** For black/African American males and females, Hispanic/Latino males and females, and white females in all transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where 23% or more of the residents did not have health

insurance or health coverage plan. Among white males in all transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where 14% or more but fewer than 23% of the residents did not have health insurance or health coverage plan.

- **Housing:** For black/African American males whose HIV infection was attributed to male-to-male sexual contact and injection drug use or heterosexual contact and for Hispanic/Latino males whose HIV infection was attributed to injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where 17% or more of the housing units were vacant. Among black/African American males whose HIV infection was attributed to male-to-male sexual contact or injection drug use, black/African American and Hispanic/Latino females in all transmission categories, Hispanic/Latino males whose HIV infection was attributed to male-to-male sexual contact, male-to-male sexual contact and injection drug use, or heterosexual contact, white males in all transmission categories and white females with infection attributed to injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where 10% or more but fewer than 17% of the housing units were vacant. For white females whose HIV infection was attributed to heterosexual contact, the largest percentages of HIV diagnoses was among those who lived in census tracts where 10% or more of the housing units were vacant.

Age (Tables 8a–c)

Results by race/ethnicity and age group for persons aged 65 years and older are not discussed due to most rates being based on small case counts (i.e., based on fewer than 12 diagnoses of HIV infection).

- **Poverty:** For black/African American males and females and white males and females in all age groups, and for Hispanic/Latino males aged 25–54 years, Hispanic/Latino females aged 25–64 years, those who lived in census tracts where 21% or more of the residents lived below the federal poverty level accounted for the highest rates of HIV diagnoses. Among Hispanic/Latino males aged 18–24 years and 55–64 years, the highest rate of HIV diagnoses was among those

who lived in census tracts where 12% or more but fewer than 21% of the residents lived below the federal poverty level. Among Hispanic/Latino females aged 18–24 years, the highest rate of HIV diagnoses was among those who lived in census tracts where 7% or more but fewer than 12% of the residents lived below the federal poverty level.

- **Education:** For black/African American females and white males in all age groups, and for black/African American males aged 18–24 years and aged 35–64 years, Hispanic/Latino females aged 25–54 years, and white females aged 25–64 years, those who lived in census tracts where 20% or more of the residents had less than a high school diploma accounted for the highest rates of HIV diagnoses. Among Hispanic/Latino males aged 18–44 years and aged 55–64 years, those who lived in census tracts where fewer than 6% of the residents had less than a high school diploma accounted for the highest rates of HIV diagnoses. Among black/African American males aged 25–34 years, Hispanic/Latino males aged 45–54 years, and Hispanic/Latino females aged 18–24 years, those who lived in census tracts where 11% or more but fewer than 20% of the residents had less than a high school diploma accounted for the highest rate of HIV diagnoses. Among Hispanic/Latino females aged 55–64 years and white females aged 18–24 years, all education categories except one category had unstable rates (i.e., based on fewer than 12 diagnoses of HIV infection).
- **Income:** For black/African American males and females, Hispanic/Latino males and females, and white males and females in all age groups, those who lived in census tracts where the median household income was less than \$37,000 a year accounted for the highest rates of HIV diagnoses. Among Hispanic/Latino females aged 55–64 years, all median household income categories except one had unstable rates (i.e., based on fewer than 12 diagnoses of HIV infection).
- **Employment:** For black/African American males and females, Hispanic/Latino females, and white males and females in all age groups, and for Hispanic/Latino males aged 25–64 years, those who lived in census tracts where 7% or more of the residents were unemployed

accounted for the highest rates of HIV diagnoses. Among Hispanic/Latino males aged 18–24 years, those who lived in census tracts where 3% or more but fewer than 5% of the residents were unemployed accounted for the highest rates of HIV diagnoses.

- **Insurance:** For black/African American males and females, Hispanic/Latino males, and white males and females in all age groups, and for Hispanic/Latino females aged 25–54 years, those who lived in census tracts where 23% or more of the residents did not have health insurance or health coverage plan accounted for the highest rates of HIV diagnoses. Among Hispanic/Latino females aged 18–24 years, those who lived in census tracts where 14% or more but fewer than 23% of the residents did not have health insurance or health coverage plan accounted for the highest rates of HIV diagnoses. Among Hispanic/Latino females aged 55–64 years, all health insurance categories except one had unstable rates (i.e., based on fewer than 12 diagnoses of HIV infection).
- **Housing:** For white females in all age groups, and for black/African American males aged 18–54 years, black/African American females aged 25–54 years, Hispanic/Latino males aged 35–64 years, Hispanic/Latino females aged 25–44 years, those who lived in census tracts where 17% or more of the housing units were vacant accounted for the highest rates of HIV diagnoses. Among white males in all age groups, and for black/African American males and females aged 55–64 years, Hispanic/Latino males aged 25–34 years, Hispanic/Latino females aged 18–24 years and aged 45–64 years, those who lived in census tracts where 10% or more but fewer than 17% of the housing units were vacant accounted for the highest rates of HIV diagnoses. Among black/African females and Hispanic/Latino males aged 18–24 years, those who lived in census tracts where 6% or more but fewer than 10% of the housing units were vacant accounted for the highest rates of HIV diagnoses.

GEOCODING OF HIV SURVEILLANCE DATA

CDC funds state and local health departments to conduct HIV surveillance, and some jurisdictions geocode to the census tract level the address of residence at the time of diagnosis. This report includes data for persons aged 18 years and older whose HIV infection was diagnosed during 2015 and reported to the National HIV Surveillance System through June 2016 from 13 states (Arizona, Colorado, Connecticut, Georgia, Florida, Illinois [Chicago only], Iowa, Minnesota, Oklahoma, Pennsylvania, Texas, Virginia, and Washington), the District of Columbia, and Puerto Rico.

After a census tract was assigned to each person's residence at the time of HIV diagnosis (2015), data were linked with the ACS estimates for 2011–2015 to assign a value for each of the SDH indicator variables to each person with diagnosed HIV infection. Cases or census tracts were excluded if the address was nonresidential (e.g., military base, corrections facility), no census tract was associated with the case, no SDH information was available for the census tract, or the census tract from the surveillance data could not be matched to a census tract provided by the ACS. Although HIV diagnosis data associated with these exclusions were not included in all SDH subpopulation totals, they were included in the overall subtotals. Therefore, Tables 4–8a/b/c display differing denominators for SDH subpopulation categories.

SOCIAL DETERMINANTS OF HEALTH INDICATOR VARIABLES

SDH indicator variables [12] and definitions [13] were obtained from the American Community Survey (ACS). This report uses the 2010–2015 ACS estimates. The U.S. Census Bureau collected these data during the 5 years and created period estimates based on the information collected. Period estimates are estimates based on information collected over time (60 months for this report) [14]. Period estimates were not calculated as an average of 60 monthly values; the U.S. Census Bureau collected survey information continuously and then aggregated the results over a specific period (5 years) [13]. The data collection was spread evenly across the entire period so as not to over-represent any particular

year within the period. All areas were sampled regardless of population size.

For this report, the SDH indicator variables were categorized by using empirically derived quartiles. The quartile cut-points were determined by using data from all census tracts in the 13 states, the District of Columbia, and Puerto Rico and not just from the data applicable to persons in this report (i.e., persons with an HIV diagnosis). This report presents 6 SDH indicator variables: federal poverty status, education level, median household income, employment status, health insurance coverage, and vacant housing units.

- **Federal poverty status:** proportion of residents in the census tracts who were living below the U.S. poverty level (i.e., below a specified threshold) during the 12 months before the survey response (individuals aged 18 years and older)
- **Education level:** proportion of residents in the census tract with less than a high school diploma (individuals aged 18 years and older)
- **Median household income:** median income for a household within the census tract during the 12 months before the survey response
- **Employment status:** proportion of residents in the census tract in the workforce without a job (individuals aged 16 years and older)
- **Health insurance coverage:** proportion of residents in the census tract without health insurance or health coverage plan (individuals aged 18 years and older)
- **Vacant housing units:** proportion of housing units in the census tract that were vacant at the time of the survey response

These variables were included in this report because SDH research has emphasized the need to incorporate these specific structural and societal factors into analyses of public health data in order to contribute to a better understanding of their effects on health outcomes [6–9]. Although correlations between SDH indicators were not analyzed for this report, some SDH indicators may be correlated. For example, lack of education has been associated with poverty and income in the United States [10, 11]. Therefore, caution should be used when interpreting results.

Poverty

The percentage of the population aged 18 years and older who were living below the poverty level was determined by using the sum of the number of family members and the number of unrelated persons in the household whose incomes, during the 12 months before the survey response, were below the federal poverty level. The U.S. Census Bureau uses a set of dollar-value thresholds (i.e., income cutoffs) that vary by family size and composition to determine who lives below the poverty level. A person's poverty status is determined by comparing the person's total family income during the 12 months before the survey response with the poverty threshold appropriate for that person's family size and composition. If the total income of that person's family is less than the threshold appropriate for that family, then the person, together with every member of his or her family, is considered "below the poverty level." In the Census Bureau's determination of poverty status, the following populations were excluded: (1) institutionalized persons, (2) persons residing in military group quarters, (3) persons in college dormitories, and (4) unrelated persons aged less than 15 years. The U.S. Census Bureau defines *poverty areas* as census tracts with poverty levels of 20% or more [15].

Education

The percentage of persons with less than a high school diploma was defined as the percentage of persons aged 18 years and older who were not enrolled in school and were not high school graduates. These people may be referred to as "high school dropouts." No restriction is placed on when they "dropped out" of school; therefore, they may have dropped out before high school and never attended high school.

Household Income

The median household income was determined by dividing the income distribution into 2 equal parts: one-half of the persons resided in census tracts that fall below the median income and one-half above the median. The median income was based on the distribution of the total number of households, including those with no income. Median income for households was computed on the basis of a standard distribution, rounded to the nearest whole dollar.

Employment

The percentage of unemployed persons was determined by using the Census Bureau's classification of unemployed persons: all civilians aged 16 years old and older are classified as unemployed if they (1) were neither "at work" nor "with a job but not at work" during the reference week (i.e., the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed), (2) were actively looking for work during the 4 weeks before the survey response, or (3) were available to start a job. Also included as unemployed are civilians who did not work at all during the reference week, were waiting to be called back to a job from which they had been laid off, or were available for work except for temporary illness. Employment status excluded persons whose only work was "around the house," who were unpaid volunteers (e.g., for religious or charitable organizations), who were institutionalized, or who were on active duty in the United States Armed Forces.

Because unemployment includes all civilians aged 16 years and older, the denominator population used to calculate these rates in tables 4, 5, and 8a–c also includes persons aged 16 and 17 years. These age categories for employment status are defined by the ACS and could not be altered.

Health Insurance Coverage

The percentage of persons aged 18 years and older without health insurance coverage was determined based on the number of persons without plans or programs that provide comprehensive health coverage (both private health insurance and public coverage). Insured persons include: (1) insurance through a current or former employer (of this person or another family member) or union, (2) insurance purchased directly from an insurance company (by this person or another family member), (3) Medicare, for persons aged 65 years and older, or persons with certain disabilities, (4) Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low income or a disability, (5) TRICARE or other military health care, and (6) VA (including those who have ever used or enrolled for VA health care). Persons who had no reported health coverage, or those whose only health coverage was Indian Health Service, were considered uninsured. Also, plans that provide insurance for specific conditions or situations, such as cancer and long-term care policies, are not considered coverage.

Likewise, other types of insurance, like dental, vision, life, and disability insurance, are not considered health insurance coverage. The population estimates for health insurance coverage excludes active-duty military personnel and the population living in correctional facilities and nursing homes.

Vacant Housing

A housing unit is vacant if no one is living in it at the time of interview. Units occupied at the time of interview entirely by persons who are staying two months or less and who have a more permanent residence elsewhere are considered to be temporarily occupied, and are classified as “vacant.”

New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place. Vacant units are excluded from the housing inventory if they are open to the elements (i.e., the roof, walls, windows, and/or doors no longer protect the interior from the elements). Also excluded are vacant units with a sign that they are condemned or they are to be demolished.

TABULATION AND PRESENTATION OF DATA

Age

All tables in this report reflect data for persons aged 18 years and older (i.e., adults). This report was limited to adults aged 18 years and older with diagnosed HIV infection to more accurately represent the population from which data are collected for ACS SDH indicator variables. For tables that provide data by age group, the specific age-group assignment (e.g., 18–24 years) was based on that person’s age at the time of HIV diagnosis.

Race and Ethnicity

The data presented in this report were collected using the Office of Management and Budget’s revised 1997 standards for ethnic and racial data, which calls for splitting Asian/Pacific Islander into 2 categories (Asian and Native Hawaiian/other Pacific Islander) and collecting 2 categories of ethnicity (Hispanic or Latino and not Hispanic or Latino) [16]. Hispanics and Latinos can be of any race.

Due to confidentiality concerns, the ACS does not provide age- and sex-specific SDH variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the data used for computing the race-specific rates may

include Hispanics/Latinos and should be interpreted with caution. Also, the number of persons reported in each race category may include persons whose ethnicity was not reported.

Geographic Level

Data presented in this report reflect the census tract of the person’s residential address at the time they received an HIV diagnosis. A census tract is a standard area used by the U.S. Census Bureau for the purpose of counting the population. Census tracts are small, relatively permanent statistical subdivisions of a county delineated by local participants as part of the U.S. Census Bureau’s Participant Statistical Areas Program. Census tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment. Each census tract generally contains 1,500 to 8,000 inhabitants (average, 4,000 inhabitants) [17].

Transmission Categories

Transmission category is the term used to summarize a person’s possible HIV risk factors; the summary classification results from selecting, from the presumed hierarchical order of probability, the 1 risk factor most likely to have been responsible for transmission. For surveillance purposes, a diagnosis of HIV infection is counted only once in the hierarchy of transmission categories. Persons with > 1 reported risk factor for HIV infection are classified in the transmission category listed first in the hierarchy. The exception is the category for male-to-male sexual contact *and* injection drug use; this group makes up a separate transmission category.

Persons whose transmission category is classified as male-to-male sexual contact include men who have ever had sexual contact with other men (i.e., homosexual contact) and men who have ever had sexual contact with both men and women (i.e., bisexual contact). Persons whose transmission category is classified as heterosexual contact are persons who have ever had heterosexual contact with a person known to have, or to be at high risk for, HIV infection (e.g., a person who injects drugs).

Cases of HIV infection reported without a risk factor listed in the hierarchy of transmission categories are classified as “no risk factor reported or identified” [18]. Cases classified as no identified risk factor (NIR) include cases that are being followed up by

local health department staff; cases in persons whose risk-factor information is missing because they died, declined to be interviewed, or were lost to follow-up; and cases in persons who were interviewed or for whom other follow-up information was available but for whom no risk factor was identified.

Because a substantial proportion of cases of HIV infection are reported to CDC without an identified risk factor, multiple imputation is used to assign a transmission category [19]. Multiple imputation is a statistical approach in which each missing transmission category is replaced with a set of plausible values that represent the uncertainty about the true, but missing, value [20]. The plausible values are analyzed by using standard procedures, and the results of these analyses are then combined to produce the final results. In this report, multiple imputation has been used to account for missing transmission category information in tables displaying transmission category (Tables 3, 6, and 7a–c).

Rates

Rates per 100,000 population were calculated for the numbers of diagnoses of HIV infection. The population denominators used to compute these rates for the 11 states, the District of Columbia, and Puerto Rico were based on the 5-year estimated total population for those areas [12]. The denominators used for calculating age-, sex-, and race/ethnicity-specific rates were computed by applying the 5-year estimates for age, sex, and race/ethnicity for these areas [12]. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Subpopulation stratifications of race and ethnicity data by age group and sex were not available for all race groups (i.e., only available for whites, non-Hispanic/Latino) from the 2011–2015 estimates from the ACS. Rates for racial groups (except whites) may include Hispanics/Latinos, and there may be overlap in populations for these racial groups and Hispanics/Latinos. Therefore, some rates should be interpreted with caution. However, of the denominator population for blacks/African Americans from the ACS in this report, only 4.7% included Hispanics/Latinos (only 2.8% when Puerto Rico is excluded). Additionally, the denominator population from the ACS is based on the entire population aged 18 years and older; the numerator population is limited to persons whose HIV infection had been diagnosed and reported, with complete residential address, to the National HIV Surveillance System. Because the ACS uses predetermined age cat-

egories and varying criteria for SDH variables, the denominators differ for some SDH variables.

Suggested Readings and References

SUGGESTED READINGS

- An Q, Prejean J, McDavid Harrison K, Fang X. Association between community socioeconomic position and HIV diagnosis rate among adults and adolescents in the United States, 2005 to 2009. *Am J Public Health* 2013;103(1):120–126. doi:10.2105/AJPH.2012.300853.
- CDC. Addressing social determinants of health: accelerating the prevention and control of HIV/AIDS, viral hepatitis, STD and TB. External consultation, December 9–10, 2008. http://www.cdc.gov/socialdeterminants/docs/final_SDHConsultation_ForWeb_061109.pdf. Published April 2009. Accessed August 1, 2017.
- CDC. Social determinants of health among adults with diagnosed HIV infection in 18 areas, 2005–2009. *HIV Surveillance Supplemental Report* 2013;18(No. 4). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published April 2013. Accessed August 1, 2017.
- CDC. Social determinants of health among adults with diagnosed HIV infection in 20 states, the District of Columbia, and Puerto Rico, 2010. *HIV Surveillance Supplemental Report* 2014;19(No. 2). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published July 2014. Accessed August 1, 2017.
- CDC. Social determinants of health among adults with diagnosed HIV infection in 11 states, the District of Columbia, and Puerto Rico, 2013. *HIV Surveillance Supplemental Report* 2015;20(No. 5). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published November 2015. Accessed August 1, 2017.
- CDC. Social determinants of health among adults with diagnosed HIV in 11 states, the District of Columbia and Puerto Rico, 2014. *HIV Surveillance Supplemental Report* 2016;21(No. 6). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published August 2016. Accessed August 1, 2017.
- CDC. Social determinants of health and selected HIV care outcomes among adults with diagnosed HIV infection in 32 states and the District of Columbia, 2014. *HIV Surveillance Supplemental Report* 2016;21(No. 7). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published December 2016. Accessed August 1, 2017.
- Dunkle KL, Wingood GM, Camp CM, DiClemente RJ. Economically motivated relationships and transactional sex among unmarried African American and white women: results from a U.S. national telephone survey. *Public Health Rep* 2010;125(suppl 4):90–100.

- Gant Z, Lomotey M, Hall HI, Hu X, Guo X, Song R. A county-level examination of the relationship between HIV and social determinants of health: 40 states, 2006–2008. *Open AIDS J* 2012;6:1–7. doi:10.2174/1874613601206010001.
- Sharpe TT, McDavid Harrison K, Dean HD. Summary of CDC consultation to address social determinants of health for prevention of disparities in HIV/AIDS, viral hepatitis, sexually transmitted diseases, and tuberculosis: December 9–10, 2008. *Public Health Rep* 2010;125(suppl 4):11–15.
- Song R, Hall HI, McDavid Harrison K, Sharpe TT, Lin LS, Dean HD. Identifying the impact of social determinants of health on disease rates using correlation analysis of area-based summary information. *Public Health Rep* 2011;126(suppl 3):70–80.

REFERENCES

1. CDC. *HIV Surveillance Report 2015*; vol. 27. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published November 2016. Accessed August 1, 2017.
2. CDC. Establishing a holistic framework to reduce inequities in HIV, viral hepatitis, STDs, and tuberculosis in the United States: an NCHHSTP white paper on social determinants of health, 2010. <http://go.usa.gov/AH2z>. Published October 2010. Accessed August 1, 2017.
3. World Health Organization Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health: final report of the Commission on Social Determinants of Health. http://www.who.int/social_determinants/thecommission/finalreport/en/. Published 2008. Accessed August 1, 2017.
4. Cohen DA, Mason K, Bedimo A, Scribner R, Basolo V, Farley TA. Neighborhood physical conditions and health. *Am J of Public Health* 2003;93(3):467–471.
5. De Leon E, Schilling J. Urban blight and public health: addressing the impact of substandard housing, abandoned buildings, and vacant lots. <http://www.urban.org/research/publication/urban-blight-and-public-health>. Published April 2017. Accessed August 1, 2017.
6. Tarlov AR. Public policy frameworks for improving population health. *Ann N Y Acad Sci* 1999;896:281–293.

7. Gupta G, Parkhurst J, Ogden J, Aggleton P, Mahal A. Structural approaches to HIV prevention. *Lancet* 2008;372(9640):764–765. doi:10.1016/S0140-6736(08)60887-9.
8. Adler NE, Newman K. Socioeconomic disparities in health: pathways and policies. *Health Aff* 2002;21(2):60–76.
9. Williams DR, Jackson PB. Social sources of racial disparities in health. *Health Aff* 2005;24(2):325–334.
10. Ladd, HF. Education and poverty: confronting the evidence. *J Pol Anal Manage* 2012;31(2):203–227. doi:10.1002/pam.21615.
11. Egerter S, Braveman P, Sadegh-Nobari T, Grossman-Kahn R, Dekker M. Issue Brief 6: Education and Health. <http://www.commissiononhealth.org>. Published September 2009. Accessed August 1, 2017.
12. U.S. Census Bureau. American Community Survey: 2011–2015 5-year estimates. <http://www.census.gov/programs-surveys/acs/guidance/comparing-acs-data/2015.html>. Published December 8, 2016. Accessed August 1, 2017.
13. U.S. Census Bureau. American Community Survey and Puerto Rico Community Survey: 2015 subject definitions. <http://census.gov/programs-surveys/acs/technical-documentation/code-lists.html>. Published December 2016. Accessed August 1, 2017.
14. U.S. Census Bureau. *A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know*. U.S. Government Printing Office, Washington, DC, 2008. <http://go.usa.gov/x82z6>. Accessed August 1, 2017.
15. U.S. Census Bureau. Poverty: glossary. <http://www.census.gov/topics/income-poverty/poverty/about/glossary.html>. Updated May 2016. Accessed August 1, 2017.
16. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. *Federal Register* 1997;62:58782–58790. <http://go.usa.gov/x56V9>. Accessed August 1, 2017.
17. U.S. Census Bureau. Geographic terms and concepts—census tract. http://www.census.gov/geo/reference/gtc/gtc_ct.html. Revised December 6, 2012. Accessed August 1, 2017.
18. CDC. Current Trends: Heterosexually acquired AIDS—United States, 1993. *MMWR* 1994;43(9):155–160.
19. Harrison KM, Kajese T, Hall HI, Song R. Risk factor redistribution of the national HIV/AIDS surveillance data: an alternative approach. *Public Health Rep* 2008;123(5):618–627. doi:10.1177/003335490812300512.
20. Rubin, DB. *Multiple Imputation for Nonresponse in Surveys*. New York: John Wiley & Sons Inc; 1987.

Table 1. Diagnoses of HIV infection among adults, by race/ethnicity and area of residence, 2015—13 states, the District of Columbia, and Puerto Rico

Area of residence	American Indian/ Alaska Native		Asian		Black/African American		Hispanic/Latino ^a		Native Hawaiian/ Other Pacific Islander		White		Multiple races		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Arizona	29	14.3	14	8.9	120	58.9	224	17.0	4	45.3	222	7.2	7	6.5	620	12.3
Colorado	1	2.7	3	2.5	53	33.5	109	15.0	0	0.0	160	5.4	6	5.9	332	8.2
Connecticut	2	29.9	5	4.3	94	34.3	75	21.0	0	0.0	82	4.0	2	3.8	260	9.3
District of Columbia	0	0.0	4	18.3	236	95.1	43	86.0	1	400.0	34	16.3	3	25.3	321	59.9
Florida	5	11.6	51	12.5	1,825	78.9	1,396	40.0	7	85.4	1,082	11.7	38	14.5	4,404	28.2
Georgia	2	10.2	16	5.8	1,395	62.0	130	22.5	1	30.5	290	6.7	32	30.3	1,866	24.8
Illinois ^b	2	32.8	23	16.5	453	70.5	182	33.2	0	0.0	175	22.5	25	64.0	860	40.3
Iowa	0	0.0	6	12.6	23	35.3	14	14.0	0	0.0	69	3.2	5	19.0	117	4.9
Minnesota	0	0.0	12	7.0	117	59.3	23	14.1	0	0.0	117	3.3	5	7.7	274	6.6
Oklahoma	21	11.0	9	15.5	68	33.4	39	17.5	1	31.5	138	6.7	18	10.5	294	10.1
Pennsylvania	2	11.1	18	5.9	550	53.2	144	27.3	1	29.6	321	4.0	13	9.7	1,049	10.4
Puerto Rico	0	0.0	0	0.0	1	0.4	381	13.9	0	0.0	0	0.0	0	0.0	382	13.7
Texas	3	3.2	76	8.8	1,457	63.4	1,450	21.5	5	31.9	806	8.6	77	22.1	3,874	19.9
Virginia	1	5.5	25	6.5	552	45.9	99	20.6	2	46.3	205	4.9	10	7.3	894	14.0
Washington	3	4.4	30	7.0	79	41.8	69	13.5	4	12.8	193	4.8	6	3.1	384	7.1
Total^c	71	9.3	292	8.4	7,023	60.9	4,378	23.6	26	29.4	3,894	7.0	247	12.3	15,931	17.5

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Rates are per 100,000 population. The American Community Survey does not provide age- and sex-specific social determinants of health variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos and should be interpreted with caution. See Technical Notes for more details

^a Hispanics/Latinos can be of any race.

^b Data from Chicago only.

^c Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 2. Diagnoses of HIV infection among adults, by age at diagnosis and area of residence, 2015—13 states, the District of Columbia, and Puerto Rico

Area of residence	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		≥65 years		Total	
	No.	Rate ^C	No.	Rate ^C	No.	Rate ^C	No.	Rate ^C	No.	Rate ^C	No.	Rate ^C	No.	Rate ^C
Arizona	135	20.4	213	24.0	120	14.4	99	11.8	43	5.5	10	1.0	620	12.3
Colorado	74	14.3	111	14.2	76	10.6	55	7.6	13	2.0	3	0.5	332	8.2
Connecticut	48	13.9	75	17.2	51	11.4	47	8.4	31	6.5	8	1.5	260	9.3
District of Columbia	61	74.2	124	85.2	63	70.0	40	52.1	23	33.6	10	13.6	321	59.9
Florida	806	45.3	1,306	52.9	912	37.6	830	30.2	415	16.4	135	3.7	4,404	28.2
Georgia	448	44.1	670	49.0	335	24.2	265	18.9	113	9.7	35	2.9	1,866	24.8
Illinois ^a	232	79.2	303	57.6	148	38.3	118	35.0	44	15.3	15	5.0	860	40.3
Iowa	33	10.4	24	6.2	26	7.1	20	4.8	13	3.2	1	0.2	117	4.9
Minnesota	58	11.5	84	11.3	61	9.1	40	5.2	24	3.5	7	0.9	274	6.6
Oklahoma	60	15.4	112	21.2	60	12.8	41	8.2	19	4.0	2	0.4	294	10.1
Pennsylvania	231	18.6	313	19.5	202	13.1	188	10.2	90	5.2	25	1.2	1,049	10.4
Puerto Rico	56	15.4	95	20.9	92	20.1	89	18.9	31	7.1	19	3.2	382	13.7
Texas	931	34.3	1,363	35.5	745	20.7	554	16.0	220	7.6	61	2.1	3,874	19.9
Virginia	230	27.9	305	26.4	171	15.6	113	9.5	60	5.9	15	1.4	894	14.0
Washington	54	8.1	144	14.4	91	9.9	63	6.6	27	3.0	5	0.5	384	7.1
Total^b	3,457	29.5	5,242	32.1	3,153	20.5	2,562	15.7	1,166	8.0	351	2.1	15,931	17.5

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Rates are per 100,000 population. The American Community Survey does not provide age- and sex-specific social determinants of health variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos and should be interpreted with caution. See Technical Notes for more details.

^a Data from Chicago only.

^b Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 3. Diagnoses of HIV infection among adults, by race/ethnicity and selected characteristics, 2015—13 states, the District of Columbia, and Puerto Rico

	American Indian/ Alaska Native		Asian		Black/African American		Hispanic/ Latino ^a		Native Hawaiian/ Other Pacific Islander		White		Multiple races		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male																
Age at diagnosis (yr)																
18–24	16	24.4	41	17.3	1,579	167.8	836	51.8	7	79.5	511	16.8	73	32.0	3,063	50.9
25–34	18	23.4	93	24.3	1,827	164.6	1,354	62.4	6	52.8	1,049	23.9	63	26.7	4,410	53.5
35–44	11	16.1	67	18.2	769	76.9	861	44.3	4	43.4	643	15.2	35	19.6	2,390	31.2
45–54	6	8.7	31	11.1	561	55.7	536	34.4	3	45.6	759	15.0	25	17.4	1,921	23.9
55–64	1	1.9	7	3.6	294	38.2	160	15.7	4	79.7	329	6.7	6	5.8	801	11.5
≥65	1	2.5	3	1.8	94	15.9	61	6.6	0	0.0	85	1.5	5	5.9	249	3.3
Transmission category^b																
Male-to-male sexual contact	43	—	203	—	4,042	—	3,221	—	22	—	2,880	—	177	—	10,587	—
Injection drug use	3	—	5	—	146	—	138	—	1	—	122	—	5	—	419	—
Male-to-male sexual contact and injection drug use	4	—	7	—	94	—	128	—	0	—	224	—	11	—	469	—
Heterosexual contact ^c	3	—	27	—	833	—	317	—	0	—	147	—	14	—	1,341	—
Other ^d	0	—	1	—	9	—	4	—	0	—	3	—	1	—	18	—
Subtotal	53	14.2	242	14.8	5,124	94.6	3,808	41.3	24	55.1	3,376	12.4	207	21.3	12,834	28.9
Female																
Age at diagnosis (yr)																
18–24	2	3.2	8	3.5	255	27.7	74	5.0	0	0.0	53	1.8	2	0.9	394	6.9
25–34	5	6.5	13	3.1	499	42.0	149	7.4	0	0.0	153	3.6	13	5.4	832	10.3
35–44	7	9.9	14	3.3	462	42.0	153	8.0	1	10.9	117	2.8	9	4.8	763	9.9
45–54	1	1.4	7	2.2	376	33.7	125	7.9	1	15.1	120	2.3	11	7.0	641	7.8
55–64	3	5.3	4	1.6	231	25.5	54	4.8	0	0.0	68	1.3	5	4.4	365	4.8
≥65	0	0.0	4	1.8	76	8.7	15	1.2	0	0.0	7	0.1	0	0.0	102	1.1
Transmission category^b																
Heterosexual contact ^c	12	—	48	—	1,762	—	523	—	2	—	383	—	36	—	2,765	—
Injection drug use	6	—	2	—	133	—	46	—	0	—	134	—	4	—	325	—
Other ^d	0	—	0	—	4	—	2	—	0	—	1	—	0	—	7	—
Subtotal	18	4.6	50	2.7	1,899	31.1	570	6.1	2	4.5	518	1.8	40	3.9	3,097	6.6
Total^e	71	9.3	292	8.4	7,023	60.9	4,378	23.6	26	29.4	3,894	7.0	247	12.3	15,931	17.5

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Rates are per 100,000 population. Rates are not calculated by transmission category because of the lack of denominator data. The American Community Survey does not provide age- and sex-specific social determinants of health variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos and should be interpreted with caution. See Technical Notes for more details.

^a Hispanics/Latinos can be of any race.

^b Data have been statistically adjusted to account for missing transmission category.

^c Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^d Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

^e Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 4. Diagnoses of HIV infection among adults, by age at diagnosis and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male														
Below federal poverty level (%)														
<7	375	29.1	528	27.1	296	13.1	316	12.5	116	5.3	48	2.1	1,679	13.4
7.00–11.99	475	38.1	816	40.9	450	24.2	363	18.3	175	9.8	35	1.7	2,314	21.3
12.00–20.99	860	54.9	1,292	55.9	727	36.8	523	26.1	220	12.5	75	3.9	3,697	32.1
≥21	1,353	72.2	1,774	90.7	915	58.9	716	47.9	290	23.3	90	7.2	5,138	54.8
Less than high school diploma (%)														
<6	480	30.3	767	40.0	426	22.9	354	17.7	155	8.8	57	3.0	2,239	20.4
6.00–10.99	541	40.2	811	41.2	435	23.0	355	17.1	139	7.5	45	2.2	2,326	20.8
11.00–19.99	931	59.7	1,315	58.4	668	32.2	589	27.0	237	12.2	63	3.0	3,803	31.3
≥20	1,111	72.9	1,517	72.1	861	46.7	623	35.1	270	19.1	84	5.9	4,466	44.3
Median household income (U.S. \$)														
<37,000	1,310	75.3	1,726	91.0	892	57.9	685	44.4	313	23.6	91	6.1	5,017	52.7
37,000–49,999	749	51.1	1,101	53.9	596	34.2	452	25.2	181	11.3	55	2.9	3,134	29.8
50,000–67,999	551	38.7	908	41.4	497	25.0	401	19.0	159	8.3	46	2.2	2,562	21.9
≥68,000	446	34.2	674	32.6	402	17.0	378	14.7	148	7.0	56	2.8	2,104	16.9
Unemployed (%)														
<3	389	29.6	677	35.3	409	21.7	353	17.6	131	7.3	48	2.3	2,007	18.2
3.00–4.99	732	39.1	1,068	40.6	581	22.8	522	19.3	195	8.2	54	2.1	3,152	21.5
5.00–6.99	665	49.9	1,000	54.4	545	32.9	384	22.4	181	12.3	52	3.4	2,827	29.7
≥7	1,277	85.5	1,665	89.7	855	53.9	662	41.4	294	22.0	95	7.3	4,848	52.9
Without health insurance (%)														
<8	301	22.1	455	27.0	283	15.4	258	12.3	110	5.8	47	2.1	1,454	13.1
8.00–13.99	455	33.0	751	38.9	430	23.6	367	18.7	164	9.2	38	1.9	2,205	20.3
14.00–22.99	893	57.4	1,188	53.9	605	31.0	496	24.4	192	10.8	59	3.1	3,433	30.1
≥23	1,414	83.2	2,016	84.0	1,070	52.5	797	41.5	335	22.3	104	7.4	5,736	52.3
Vacant housing (%)														
<6	570	36.2	773	33.8	436	18.4	346	14.0	128	6.3	41	2.2	2,294	18.2
6.00–9.99	671	46.3	1,002	48.2	517	27.6	404	21.0	157	9.6	48	3.0	2,799	26.5
10.00–16.99	1,012	57.7	1,498	64.5	830	41.2	638	30.6	287	15.8	74	3.8	4,339	36.4
≥17	809	67.4	1,136	74.5	605	43.5	531	34.5	229	15.3	86	4.2	3,396	36.9
Subtotal^a	3,063	50.9	4,410	53.5	2,390	31.2	1,921	23.9	801	11.5	249	3.3	12,834	28.9

Table 4. Diagnoses of HIV infection among adults, by age at diagnosis and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Female														
Below federal poverty level (%)														
<7	27	2.3	65	3.3	88	3.8	55	2.1	34	1.5	12	0.4	281	2.1
7.00–11.99	54	4.6	130	6.6	102	5.5	91	4.5	71	3.7	14	0.6	462	4.0
12.00–20.99	104	6.9	242	10.9	217	11.2	155	7.6	90	4.7	23	0.9	831	6.9
≥21	209	11.2	395	20.8	355	22.6	339	22.0	170	12.4	53	3.1	1,521	15.3
Less than high school diploma (%)														
<6	29	1.9	83	4.3	67	3.5	54	2.6	29	1.5	10	0.4	272	2.3
6.00–10.99	50	3.9	130	6.6	100	5.2	83	3.8	77	3.8	14	0.5	454	3.8
11.00–19.99	141	9.3	255	11.4	248	11.7	202	8.8	94	4.4	30	1.1	970	7.4
≥20	174	12.6	364	18.8	348	19.7	302	17.5	165	11.0	48	2.6	1,401	13.8
Median household income (U.S. \$)														
<37,000	199	11.5	401	21.5	358	22.5	335	20.8	186	12.5	55	2.7	1,534	14.8
37,000–49,999	106	7.8	210	10.8	196	11.5	156	8.5	72	4.1	23	0.9	763	6.9
50,000–67,999	62	4.6	137	6.4	130	6.5	81	3.7	71	3.5	6	0.2	487	4.0
≥68,000	26	2.1	84	3.9	78	3.2	68	2.6	36	1.6	18	0.8	310	2.4
Unemployed (%)														
<3	40	3.5	102	5.7	78	4.3	58	2.9	43	2.3	8	0.3	329	2.9
3.00–4.99	77	4.3	147	5.7	155	6.1	111	4.0	66	2.6	17	0.5	573	3.7
5.00–6.99	75	5.8	202	11.1	163	9.7	129	7.3	76	4.8	22	1.1	667	6.6
≥7	202	13.5	381	20.1	367	21.8	343	19.9	180	12.0	55	3.1	1,528	15.2
Without health insurance (%)														
<8	27	2.1	72	4.2	48	2.5	53	2.4	40	2.0	10	0.4	250	2.1
8.00–13.99	53	4.0	91	4.8	95	5.1	86	4.2	50	2.6	18	0.7	393	3.4
14.00–22.99	111	7.4	220	10.2	210	10.7	158	7.5	94	4.8	27	1.1	820	6.8
≥23	203	12.7	449	19.6	409	20.3	343	17.7	181	11.2	47	2.5	1,632	14.4
Vacant housing (%)														
<6	44	3.0	113	4.9	129	5.3	96	3.7	58	2.7	13	0.6	453	3.4
6.00–9.99	99	7.1	176	8.5	178	9.3	122	6.1	74	4.2	23	1.1	672	6.0
10.00–16.99	149	8.8	285	12.5	240	11.8	222	10.3	130	6.6	32	1.3	1,058	8.4
≥17	102	9.1	258	18.0	215	16.0	200	12.9	103	6.3	34	1.4	912	9.6
Subtotal^a	394	6.9	832	10.3	763	9.9	641	7.8	365	4.8	102	1.1	3,097	6.6
Total^b	3,457	29.5	5,242	32.1	3,153	20.5	2,562	15.7	1,166	8.0	351	2.1	15,931	17.5

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Rates are per 100,000 population. The denominator population used to calculate unemployment rates includes persons aged 16 and 17 years, as these age categories are defined by the American Community Survey (ACS) and could not be altered; see Technical Notes for more details. The ACS does not provide age- and sex-specific social determinants of health (SDH) variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos, and should be interpreted with caution. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^b Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 5. Diagnoses of HIV infection among adults, by race/ethnicity, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	Black/African American		Hispanic/Latino ^a		White	
	No.	Rate	No.	Rate	No.	Rate
Male						
Below federal poverty level (%)						
<7	428	56.7	371	31.4	781	8.0
7.00–11.99	743	75.7	602	38.5	863	11.2
12.00–20.99	1,446	90.4	1,096	42.8	1,006	14.8
≥21	2,506	122.3	1,734	44.5	726	23.7
Less than high school diploma (%)						
<6	615	94.2	479	52.7	1,017	11.9
6.00–10.99	846	81.4	502	40.5	858	10.4
11.00–19.99	1,743	96.3	966	41.2	942	12.7
≥20	1,920	100.2	1,861	39.3	559	17.9
Median household income (U.S. \$)						
<37,000	2,487	120.1	1,691	44.5	673	20.1
37,000–49,999	1,228	90.3	923	41.0	860	13.4
50,000–67,999	835	75.2	699	38.7	911	11.1
≥68,000	563	68.6	489	36.9	932	10.0
Unemployed (%)						
<3	479	62.0	584	39.0	852	10.5
3.00–4.99	888	75.8	995	39.2	1,104	10.9
5.00–6.99	996	87.5	918	40.9	783	14.0
≥7	2,761	118.3	1,311	44.5	637	18.1
Without health insurance (%)						
<8	380	65.5	366	26.4	641	7.5
8.00–13.99	704	71.0	516	37.1	873	11.1
14.00–22.99	1,503	86.5	770	39.8	1,002	14.2
≥23	2,536	122.0	2,151	47.8	860	22.5
Vacant housing (%)						
<6	676	67.0	736	34.6	745	8.7
6.00–9.99	979	83.8	892	41.0	804	12.2
10.00–16.99	1,797	102.7	1,251	44.2	1,126	16.6
≥17	1,669	114.6	926	44.8	701	13.0
Subtotal^b	5,124	94.6	3,808	41.3	3,376	12.4

Table 5. Diagnoses of HIV infection among adults, by race/ethnicity, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	Black/African American		Hispanic/Latino ^a		White	
	No.	Rate	No.	Rate	No.	Rate
Female						
Below federal poverty level (%)						
<7	125	16.1	48	3.9	88	0.9
7.00–11.99	264	24.5	79	5.0	98	1.2
12.00–20.99	512	28.4	127	5.0	159	2.2
≥21	998	40.8	315	7.9	172	5.5
Less than high school diploma (%)						
<6	141	19.6	30	3.1	84	0.9
6.00–10.99	250	21.2	63	4.8	118	1.4
11.00–19.99	623	29.1	156	6.4	161	2.1
≥20	885	42.7	321	7.0	155	5.0
Median household income (U.S. \$)						
<37,000	1,019	40.7	313	7.9	170	4.8
37,000–49,999	460	30.4	122	5.6	150	2.2
50,000–67,999	262	21.6	86	4.8	110	1.3
≥68,000	157	18.2	48	3.4	87	0.9
Unemployed (%)						
<3	144	22.3	68	4.8	98	1.2
3.00–4.99	301	24.0	119	4.6	124	1.2
5.00–6.99	395	30.2	125	5.4	131	2.2
≥7	1,059	36.6	258	8.5	165	4.5
Without health insurance (%)						
<8	111	18.9	54	3.6	69	0.8
8.00–13.99	206	19.0	65	4.4	107	1.3
14.00–22.99	529	26.3	115	5.9	148	2.0
≥23	1,053	43.4	335	7.6	193	4.9
Vacant housing (%)						
<6	240	21.6	102	4.7	91	1.0
6.00–9.99	412	30.6	131	5.9	101	1.4
10.00–16.99	652	32.1	197	6.8	167	2.3
≥17	595	37.0	139	6.8	158	2.9
Subtotal^b	1,899	31.1	570	6.1	518	1.8
Total^c	7,023	60.9	4,378	23.6	3,894	7.0

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Rates are per 100,000 population. The denominator population used to calculate unemployment rates includes persons aged 16 and 17 years, as these age categories are defined by the American Community Survey (ACS) and could not be altered; see Technical Notes for more details. The ACS does not provide age- and sex-specific social determinants of health (SDH) variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos, and should be interpreted with caution. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Hispanics/Latinos can be of any race.

^b Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^c Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 6. Diagnoses of HIV infection among adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<7	1,416	13.4	49	11.6	83	17.7	130	9.7
7.00–11.99	1,974	18.7	71	17.1	89	19.1	177	13.2
12.00–20.99	3,100	29.3	109	26.1	139	29.7	344	25.7
≥21	4,093	38.7	189	45.2	157	33.5	690	51.5
Less than high school diploma (%)								
<6	1,960	18.5	51	12.2	91	19.3	134	10.0
6.00–10.99	1,971	18.6	68	16.3	95	20.2	190	14.2
11.00–19.99	3,135	29.6	126	30.1	138	29.4	398	29.7
≥20	3,521	33.3	173	41.4	146	31.1	619	46.2
Median household income (U.S. \$)								
<37,000	3,957	37.4	184	44.1	157	33.6	709	53.0
37,000–49,999	2,606	24.6	104	24.9	129	27.6	292	21.8
50,000–67,999	2,192	20.7	75	18.0	90	19.2	202	15.1
≥68,000	1,820	17.2	55	13.0	92	19.7	134	10.0
Unemployed (%)								
<3	1,720	16.2	59	14.2	101	21.5	124	9.3
3.00–4.99	2,675	25.3	102	24.4	129	27.6	242	18.1
5.00–6.99	2,380	22.5	91	21.7	92	19.6	262	19.5
≥7	3,812	36.0	167	39.8	147	31.4	713	53.2
Without health insurance (%)								
<8	1,204	11.4	56	13.3	68	14.5	124	9.3
8.00–13.99	1,832	17.3	90	21.4	89	19.0	192	14.4
14.00–22.99	2,836	26.8	110	26.3	130	27.7	352	26.3
≥23	4,712	44.5	163	39.0	182	38.8	671	50.1
Vacant housing (%)								
<6	1,938	18.3	64	15.4	112	23.9	177	13.2
6.00–9.99	2,353	22.2	90	21.5	111	23.7	242	18.1
10.00–16.99	3,590	33.9	130	31.1	136	29.0	477	35.6
≥17	2,703	25.5	134	32.0	110	23.4	444	33.1
Subtotal^b	10,587	100	419	100	469	100	1,341	100

Table 6. Diagnoses of HIV infection among adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Female								
Below federal poverty level (%)								
<7	—	—	29	9.1	—	—	251	9.1
7.00–11.99	—	—	50	15.5	—	—	411	14.9
12.00–20.99	—	—	87	27.0	—	—	741	26.8
≥21	—	—	157	48.4	—	—	1,361	49.2
Less than high school diploma (%)								
<6	—	—	34	10.4	—	—	238	8.6
6.00–10.99	—	—	43	13.2	—	—	410	14.8
11.00–19.99	—	—	98	30.3	—	—	869	31.4
≥20	—	—	150	46.1	—	—	1,249	45.2
Median household income (U.S. \$)								
<37,000	—	—	160	49.6	—	—	1,371	49.6
37,000–49,999	—	—	79	24.5	—	—	681	24.6
50,000–67,999	—	—	50	15.5	—	—	436	15.8
≥68,000	—	—	34	10.4	—	—	275	10.0
Unemployed (%)								
<3	—	—	43	13.3	—	—	286	10.3
3.00–4.99	—	—	57	17.4	—	—	515	18.6
5.00–6.99	—	—	78	23.9	—	—	587	21.2
≥7	—	—	147	45.4	—	—	1,378	49.8
Without health insurance (%)								
<8	—	—	27	8.4	—	—	222	8.0
8.00–13.99	—	—	48	14.9	—	—	343	12.4
14.00–22.99	—	—	76	23.6	—	—	742	26.9
≥23	—	—	171	53.0	—	—	1,457	52.7
Vacant housing (%)								
<6	—	—	44	13.6	—	—	408	14.8
6.00–9.99	—	—	70	21.7	—	—	601	21.7
10.00–16.99	—	—	118	36.4	—	—	938	33.9
≥17	—	—	91	28.2	—	—	818	29.6
Subtotal^b	—	—	325	100	—	—	2,765	100
Total^c	10,587	100	744	100	469	100	4,106	100

Note. Data have been statistically adjusted to account for missing transmission category.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^b Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^c Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 7a. Diagnoses of HIV infection among black/African American adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<7	341	8.4	11	7.6	12	12.3	64	7.7
7.00–11.99	613	15.2	20	13.8	11	12.2	98	11.8
12.00–20.99	1,161	28.7	43	29.4	24	25.4	216	25.9
≥21	1,927	47.7	72	49.1	47	50.1	454	54.6
Less than high school diploma (%)								
<6	516	12.8	14	9.6	9	9.7	75	8.9
6.00–10.99	701	17.3	17	11.8	19	19.8	108	13.0
11.00–19.99	1,391	34.4	53	36.5	32	33.6	264	31.7
≥20	1,434	35.5	62	42.2	35	36.9	386	46.4
Median household income (U.S. \$)								
<37,000	1,902	47.1	73	49.8	42	44.8	465	56.1
37,000–49,999	987	24.5	37	25.2	23	24.1	180	21.8
50,000–67,999	679	16.8	25	16.9	19	19.6	112	13.5
≥68,000	467	11.6	12	8.1	11	11.6	72	8.7
Unemployed (%)								
<3	382	9.5	17	11.8	15	15.9	64	7.7
3.00–4.99	731	18.1	25	17.2	16	17.1	115	13.8
5.00–6.99	817	20.2	24	16.6	17	18.1	137	16.4
≥7	2,112	52.3	80	54.5	46	48.9	517	62.1
Without health insurance (%)								
<8	300	7.4	9	6.3	10	11.1	59	7.1
8.00–13.99	579	14.3	23	15.5	12	13.2	89	10.7
14.00–22.99	1,190	29.4	40	27.3	27	29.0	242	29.1
≥23	1,973	48.8	74	50.9	44	46.6	442	53.1
Vacant housing (%)								
<6	543	13.4	17	11.7	20	21.2	95	11.4
6.00–9.99	790	19.6	31	21.1	20	21.4	137	16.5
10.00–16.99	1,426	35.3	50	34.0	25	26.6	292	35.2
≥17	1,281	31.7	49	33.2	29	30.8	308	37.0
Subtotal^b	4,042	100	146	100	94	100	833	100

Table 7a. Diagnoses of HIV infection among black/African American adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Female								
Below federal poverty level (%)								
<7	—	—	7	5.2	—	—	118	6.7
7.00–11.99	—	—	16	12.4	—	—	247	14.0
12.00–20.99	—	—	33	24.7	—	—	477	27.1
≥21	—	—	77	57.8	—	—	920	52.2
Less than high school diploma (%)								
<6	—	—	10	7.8	—	—	130	7.4
6.00–10.99	—	—	13	9.5	—	—	237	13.4
11.00–19.99	—	—	44	32.9	—	—	577	32.8
≥20	—	—	66	49.8	—	—	818	46.4
Median household income (U.S. \$)								
<37,000	—	—	79	59.7	—	—	938	53.3
37,000–49,999	—	—	28	20.7	—	—	430	24.4
50,000–67,999	—	—	15	11.1	—	—	247	14.0
≥68,000	—	—	11	8.5	—	—	146	8.3
Unemployed (%)								
<3	—	—	8	6.0	—	—	136	7.7
3.00–4.99	—	—	19	14.5	—	—	281	16.0
5.00–6.99	—	—	26	19.7	—	—	367	20.8
≥7	—	—	79	59.8	—	—	978	55.5
Without health insurance (%)								
<8	—	—	11	8.1	—	—	100	5.7
8.00–13.99	—	—	14	10.6	—	—	192	10.9
14.00–22.99	—	—	30	22.8	—	—	498	28.3
≥23	—	—	78	58.6	—	—	973	55.2
Vacant housing (%)								
<6	—	—	19	14.2	—	—	221	12.5
6.00–9.99	—	—	28	21.0	—	—	383	21.8
10.00–16.99	—	—	47	35.4	—	—	603	34.2
≥17	—	—	39	29.3	—	—	555	31.5
Subtotal^b	—	—	133	100	—	—	1,762	100
Total^c	4,042	100	279	100	94	100	2,595	100

Note. Data have been statistically adjusted to account for missing transmission category.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^b Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^c Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 7b. Diagnoses of HIV infection among Hispanic/Latino adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<7	325	10.1	11	7.9	12	9.4	23	7.2
7.00–11.99	532	16.5	10	7.3	25	19.3	35	11.0
12.00–20.99	954	29.7	29	20.8	38	29.9	73	23.1
≥21	1,405	43.7	88	63.9	53	41.4	186	58.7
Less than high school diploma (%)								
<6	444	13.8	8	6.0	13	9.8	14	4.5
6.00–10.99	439	13.6	16	11.6	15	11.9	32	10.0
11.00–19.99	818	25.4	33	23.8	36	27.7	79	24.8
≥20	1,520	47.2	81	58.6	65	50.6	193	60.7
Median household income (U.S. \$)								
<37,000	1,361	42.3	83	60.7	53	41.1	192	60.7
37,000–49,999	796	24.8	26	18.6	40	31.3	60	19.0
50,000–67,999	623	19.4	14	9.9	21	16.3	41	12.8
≥68,000	436	13.5	15	10.8	15	11.3	24	7.6
Unemployed (%)								
<3	517	16.1	15	10.7	20	15.4	32	10.0
3.00–4.99	861	26.7	30	21.4	32	24.7	72	22.8
5.00–6.99	786	24.4	29	21.1	31	23.9	71	22.4
≥7	1,057	32.8	64	46.7	46	36.0	142	44.8
Without health insurance (%)								
<8	295	9.2	25	18.4	9	7.0	37	11.7
8.00–13.99	412	12.8	31	22.5	18	13.9	55	17.4
14.00–22.99	654	20.3	29	21.3	32	24.5	54	17.0
≥23	1,856	57.7	52	37.8	70	54.6	171	53.9
Vacant housing (%)								
<6	648	20.1	16	11.8	27	20.8	45	14.1
6.00–9.99	772	24.0	26	19.0	28	22.0	65	20.4
10.00–16.99	1,048	32.6	42	30.3	42	32.4	118	37.1
≥17	749	23.3	53	38.9	32	24.8	90	28.4
Subtotal^b	3,221	100	138	100	128	100	317	100

Table 7b. Diagnoses of HIV infection among Hispanic/Latino adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Female								
Below federal poverty level (%)								
<7	—	—	4	8.4	—	—	43	8.3
7.00–11.99	—	—	5	11.7	—	—	74	14.1
12.00–20.99	—	—	9	19.6	—	—	118	22.6
≥21	—	—	27	60.4	—	—	287	55.0
Less than high school diploma (%)								
<6	—	—	1	1.5	—	—	29	5.6
6.00–10.99	—	—	6	13.2	—	—	56	10.7
11.00–19.99	—	—	15	32.2	—	—	141	27.0
≥20	—	—	24	53.1	—	—	296	56.7
Median household income (U.S. \$)								
<37,000	—	—	28	62.6	—	—	284	54.4
37,000–49,999	—	—	8	17.0	—	—	114	21.9
50,000–67,999	—	—	5	9.9	—	—	82	15.6
≥68,000	—	—	5	10.6	—	—	42	8.1
Unemployed (%)								
<3	—	—	10	21.5	—	—	58	11.1
3.00–4.99	—	—	8	16.7	—	—	110	21.1
5.00–6.99	—	—	11	24.1	—	—	114	21.8
≥7	—	—	17	37.7	—	—	241	46.0
Without health insurance (%)								
<8	—	—	3	6.2	—	—	51	9.8
8.00–13.99	—	—	5	10.8	—	—	59	11.3
14.00–22.99	—	—	9	19.6	—	—	106	20.3
≥23	—	—	29	63.4	—	—	306	58.6
Vacant housing (%)								
<6	—	—	7	15.4	—	—	95	18.2
6.00–9.99	—	—	11	23.8	—	—	120	23.0
10.00–16.99	—	—	17	36.6	—	—	180	34.6
≥17	—	—	11	24.2	—	—	127	24.3
Subtotal^b	—	—	46	100	—	—	523	100
Total^c	3,221	100	183	100	128	100	840	100

Note. Data have been statistically adjusted to account for missing transmission category.

Hispanics/Latinos can be of any race.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^b Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^c Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 7c. Diagnoses of HIV infection among white adults, by transmission category, sex, and selected social determinants of health, 2015–13 states, the District of Columbia, and Puerto Rico

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<7	665	23.1	26	21.6	56	24.9	33	22.6
7.00–11.99	736	25.6	37	30.1	50	22.2	40	26.9
12.00–20.99	857	29.8	35	28.4	71	31.9	42	28.4
≥21	622	21.6	24	19.8	47	20.9	33	22.1
Less than high school diploma (%)								
<6	883	30.7	29	23.4	66	29.4	39	26.4
6.00–10.99	732	25.4	30	24.5	54	24.2	41	27.8
11.00–19.99	795	27.6	35	28.8	65	28.9	46	31.2
≥20	469	16.3	29	23.4	39	17.5	22	14.6
Median household income (U.S. \$)								
<37,000	562	19.5	22	18.4	52	23.1	36	24.5
37,000–49,999	720	25.0	37	30.7	61	27.3	41	27.8
50,000–67,999	789	27.4	35	28.4	48	21.4	39	26.2
≥68,000	809	28.1	28	22.6	63	28.2	32	21.5
Unemployed (%)								
<3	739	25.7	25	20.6	63	28.0	24	16.2
3.00–4.99	943	32.7	46	37.4	71	31.9	43	29.4
5.00–6.99	665	23.1	32	26.3	40	17.9	45	30.3
≥7	532	18.5	19	15.7	50	22.2	36	24.1
Without health insurance (%)								
<8	550	19.1	20	16.2	46	20.7	24	16.4
8.00–13.99	743	25.8	33	26.6	55	24.4	42	28.2
14.00–22.99	857	29.8	36	29.8	65	29.0	43	29.2
≥23	729	25.3	33	27.4	58	25.8	39	26.2
Vacant housing (%)								
<6	629	21.8	30	24.3	61	27.1	25	16.9
6.00–9.99	684	23.8	30	24.4	56	25.0	33	22.6
10.00–16.99	976	33.9	34	28.0	63	28.2	52	35.5
≥17	591	20.5	29	23.4	44	19.7	37	24.9
Subtotal^b	2,880	100	122	100	224	100	147	100

Table 7c. Diagnoses of HIV infection among white adults, by transmission category, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	Male-to-male sexual contact		Injection drug use		Male-to-male sexual contact and injection drug use		Heterosexual contact ^a	
	No.	%	No.	%	No.	%	No.	%
Female								
Below federal poverty level (%)								
<7	—	—	17	13.0	—	—	71	18.5
7.00–11.99	—	—	26	19.8	—	—	71	18.6
12.00–20.99	—	—	42	31.1	—	—	118	30.7
≥21	—	—	48	36.1	—	—	123	32.2
Less than high school diploma (%)								
<6	—	—	21	15.8	—	—	63	16.4
6.00–10.99	—	—	22	16.4	—	—	96	25.0
11.00–19.99	—	—	37	27.8	—	—	123	32.2
≥20	—	—	54	40.0	—	—	101	26.3
Median household income (U.S. \$)								
<37,000	—	—	48	35.9	—	—	122	31.8
37,000–49,999	—	—	42	31.5	—	—	108	28.1
50,000–67,999	—	—	27	20.4	—	—	83	21.6
≥68,000	—	—	16	12.2	—	—	71	18.5
Unemployed (%)								
<3	—	—	24	17.8	—	—	74	19.3
3.00–4.99	—	—	27	20.3	—	—	97	25.2
5.00–6.99	—	—	39	29.0	—	—	92	24.0
≥7	—	—	44	32.9	—	—	120	31.4
Without health insurance (%)								
<8	—	—	13	9.8	—	—	56	14.6
8.00–13.99	—	—	27	20.1	—	—	80	20.9
14.00–22.99	—	—	35	26.3	—	—	113	29.4
≥23	—	—	58	43.8	—	—	134	35.0
Vacant housing (%)								
<6	—	—	18	13.2	—	—	73	19.1
6.00–9.99	—	—	27	20.4	—	—	74	19.2
10.00–16.99	—	—	49	36.7	—	—	118	30.8
≥17	—	—	40	29.7	—	—	118	30.8
Subtotal^b	—	—	134	100	—	—	383	100
Total^c	2,880	100	256	100	224	100	530	100

Note. Data have been statistically adjusted to account for missing transmission category.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

^b Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^c Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 8a. Diagnoses of HIV infection among black/African American adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male												
Below federal poverty level (%)												
<7	127	109.2	144	100.7	63	39.6	56	35.3	26	24.6	12	16.5
7.00–11.99	218	137.8	286	139.2	113	57.7	79	42.0	39	28.9	8	8.1
12.00–20.99	443	164.1	530	154.7	235	78.6	130	44.7	79	35.3	29	16.7
≥21	791	202.8	867	212.2	358	106.0	295	81.1	150	49.6	45	18.3
Less than high school diploma (%)												
<6	185	135.9	229	161.4	99	81.1	55	47.0	34	42.6	13	23.3
6.00–10.99	283	161.9	314	148.6	111	54.1	93	46.4	34	23.6	11	10.7
11.00–19.99	534	175.8	641	176.1	257	76.0	180	53.8	101	38.5	30	14.5
≥20	577	177.0	643	163.7	302	90.2	233	65.8	125	44.3	40	17.7
Median household income (U.S. \$)												
<37,000	772	201.6	860	207.7	363	106.9	287	78.4	162	52.3	43	16.6
37,000–49,999	384	161.3	456	154.5	191	75.6	116	47.4	55	29.7	26	18.0
50,000–67,999	252	135.7	329	141.2	119	53.7	86	41.3	36	23.5	13	12.0
≥68,000	165	137.7	181	119.1	95	54.8	69	38.6	41	35.0	12	15.0
Unemployed (%)												
<3	134	103.0	157	87.9	92	57.9	55	38.9	31	32.3	10	14.7
3.00–4.99	271	137.8	319	134.3	134	59.0	105	47.1	50	30.3	9	7.3
5.00–6.99	310	160.6	384	164.6	153	71.4	89	41.6	46	28.3	14	11.5
≥7	864	205.2	967	209.9	390	97.5	312	72.9	167	48.3	61	21.8
Without health insurance (%)												
<8	104	99.8	121	114.2	79	72.7	39	35.1	27	33.5	10	14.3
8.00–13.99	196	118.9	275	143.4	103	54.9	81	42.7	40	27.9	9	7.9
14.00–22.99	519	172.6	532	150.9	211	66.1	158	49.1	60	24.2	23	11.8
≥23	760	207.5	899	200.0	376	100.0	282	74.4	167	56.6	52	24.5
Vacant housing (%)												
<6	222	131.5	230	114.9	97	47.2	78	39.4	37	25.9	12	12.8
6.00–9.99	299	150.1	369	152.6	146	64.8	99	44.7	49	30.4	17	14.2
10.00–16.99	558	178.2	637	174.9	278	89.2	176	55.5	114	45.9	34	17.3
≥17	499	197.8	590	201.2	248	99.4	207	78.2	94	43.8	31	17.0
Subtotal^a	1,579	167.8	1,827	164.6	769	76.9	561	55.7	294	38.2	94	15.9

Table 8a. Diagnoses of HIV infection among black/African American adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Female												
Below federal poverty level (%)												
<7	13	13.4	30	21.5	39	23.3	25	15.1	12	10.4	6	6.4
7.00–11.99	25	17.6	74	34.6	64	30.1	45	21.6	45	27.9	11	7.8
12.00–20.99	66	25.2	149	41.6	134	41.0	84	25.3	60	22.4	19	7.4
≥21	151	36.1	246	51.8	225	57.3	222	54.2	114	31.4	40	10.4
Less than high school diploma (%)												
<6	17	12.0	52	35.5	34	24.9	19	14.9	11	12.1	8	10.7
6.00–10.99	27	15.8	72	31.2	51	22.2	50	22.0	42	24.7	8	5.4
11.00–19.99	89	28.9	159	38.7	166	43.1	123	31.3	65	19.9	21	6.6
≥20	122	40.4	216	54.1	211	60.7	184	50.0	113	35.3	39	11.7
Median household income (U.S. \$)												
<37,000	143	34.6	254	52.2	230	57.5	221	52.5	127	33.6	44	10.9
37,000–49,999	67	29.9	127	41.4	120	44.2	87	31.4	44	19.7	15	7.1
50,000–67,999	30	18.1	77	32.3	73	30.0	34	14.5	44	24.7	4	2.6
≥68,000	14	13.0	41	26.4	39	21.2	34	18.6	16	12.5	13	12.3
Unemployed (%)												
<3	21	22.6	49	38.7	32	25.7	21	17.5	17	18.1	4	4.6
3.00–4.99	43	23.5	72	29.6	84	35.4	49	20.9	38	20.7	15	8.7
5.00–6.99	41	20.9	115	44.8	103	42.2	75	30.8	48	25.2	13	7.3
≥7	150	33.4	263	46.9	243	49.3	231	44.6	128	29.1	44	10.1
Without health insurance (%)												
<8	11	11.7	35	35.0	24	23.0	20	18.4	14	16.0	7	7.5
8.00–13.99	29	18.4	51	26.1	47	23.7	44	21.5	27	16.5	8	4.9
14.00–22.99	72	24.0	140	36.4	127	35.0	102	27.8	65	21.4	23	7.8
≥23	143	38.7	273	53.8	264	61.0	210	48.2	125	35.4	38	11.7
Vacant housing (%)												
<6	20	12.8	55	25.7	70	30.6	48	21.9	36	22.2	11	8.4
6.00–9.99	70	35.4	111	41.1	108	42.9	58	23.0	49	24.7	16	9.0
10.00–16.99	94	30.0	169	42.1	151	41.9	134	36.9	82	27.5	22	7.5
≥17	71	28.3	164	54.5	133	51.6	136	48.4	64	25.8	27	10.0
Subtotal^a	255	27.7	499	42.0	462	42.0	376	33.7	231	25.5	76	8.7
Total^b	1,834	98.5	2,326	101.2	1,231	58.6	937	44.2	525	31.3	170	11.6

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Rates are per 100,000 population. The denominator population used to calculate unemployment rates includes persons aged 16 and 17 years, as these age categories are defined by the American Community Survey (ACS) and could not be altered; see Technical Notes for more details. The ACS does not provide age- and sex-specific social determinants of health (SDH) variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos, and should be interpreted with caution. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^b Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 8b. Diagnoses of HIV infection among Hispanic/Latino adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male												
Below federal poverty level (%)												
<7	93	48.6	122	45.6	77	27.7	57	25.5	15	11.5	7	7.7
7.00–11.99	119	45.5	229	59.9	145	41.3	79	28.9	24	14.6	6	4.6
12.00–20.99	244	54.2	396	62.6	251	45.3	141	32.8	46	17.3	18	7.8
≥21	380	54.0	607	68.9	386	51.1	257	40.9	75	16.4	29	6.1
Less than high school diploma (%)												
<6	101	55.6	178	83.8	112	57.7	60	38.4	17	18.2	11	15.5
6.00–10.99	112	53.0	179	59.7	124	45.3	63	29.3	16	12.1	8	7.5
11.00–19.99	212	52.9	340	61.7	199	39.4	162	41.0	41	15.9	12	5.1
≥20	411	50.2	657	59.4	426	44.0	251	31.7	86	16.1	30	5.8
Median household income (U.S. \$)												
<37,000	363	53.9	590	70.0	374	51.6	249	40.2	81	17.9	34	7.0
37,000–49,999	210	51.8	336	59.6	211	43.3	119	32.1	37	16.0	10	5.1
50,000–67,999	154	49.0	252	55.7	169	41.8	94	30.5	23	12.4	7	4.9
≥68,000	108	51.9	176	59.0	105	33.0	72	28.3	19	13.1	9	8.8
Unemployed (%)												
<3	128	50.6	204	55.3	133	40.4	86	33.5	24	15.3	9	6.8
3.00–4.99	239	53.8	355	59.3	209	38.3	144	33.5	34	12.2	14	5.9
5.00–6.99	196	50.2	330	62.1	215	45.5	122	31.9	37	15.3	18	8.0
≥7	273	51.9	465	69.3	304	51.2	184	37.7	65	19.2	20	6.1
Without health insurance (%)												
<8	79	35.3	116	44.6	79	30.5	64	26.4	17	9.1	11	5.2
8.00–13.99	104	44.4	171	54.5	125	43.2	79	34.0	27	16.6	10	6.3
14.00–22.99	182	52.7	295	62.3	152	36.4	96	29.7	32	15.8	13	7.7
≥23	471	58.5	772	69.2	503	51.8	295	39.0	84	18.1	26	6.7
Vacant housing (%)												
<6	186	50.7	265	52.5	166	34.1	83	22.1	27	12.2	9	5.2
6.00–9.99	217	55.9	311	58.1	195	41.3	130	35.3	30	13.2	9	4.9
10.00–16.99	250	49.2	468	69.9	286	49.8	178	37.8	52	16.5	17	5.8
≥17	183	53.4	310	68.7	212	52.3	144	42.4	51	20.1	26	9.5
Subtotal^a	836	51.8	1,354	62.4	861	44.3	536	34.4	160	15.7	61	6.6

Table 8b. Diagnoses of HIV infection among Hispanic/Latino adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Female												
Below federal poverty level (%)												
<7	4	2.3	12	4.6	17	5.9	10	4.2	3	2.0	2	1.6
7.00–11.99	14	5.8	17	4.7	20	5.8	19	6.9	7	3.9	2	1.2
12.00–20.99	19	4.7	34	6.0	36	6.8	25	5.9	12	4.1	1	0.3
≥21	37	5.5	86	10.6	79	10.5	71	11.1	32	6.3	10	1.6
Less than high school diploma (%)												
<6	2	1.1	5	2.3	9	4.3	12	7.0	1	0.9	1	1.0
6.00–10.99	8	3.9	22	7.5	14	5.1	7	3.1	9	5.8	3	2.0
11.00–19.99	25	6.6	36	6.9	45	8.9	35	8.5	11	3.8	4	1.2
≥20	39	5.3	86	8.8	85	9.2	71	9.3	33	5.8	7	1.1
Median household income (U.S. \$)												
<37,000	36	5.6	83	10.5	76	10.4	75	11.8	33	6.5	10	1.6
37,000–49,999	19	5.2	32	6.5	34	7.5	24	6.6	11	4.4	2	0.8
50,000–67,999	14	4.9	21	5.0	26	6.6	17	5.5	7	3.5	1	0.5
≥68,000	5	2.6	13	4.4	16	4.8	9	3.3	3	1.9	2	1.5
Unemployed (%)												
<3	11	5.1	18	5.8	19	6.3	13	5.3	7	4.3	0	0.0
3.00–4.99	10	2.5	38	6.8	33	6.1	29	6.6	7	2.3	2	0.6
5.00–6.99	20	5.4	37	7.3	29	6.2	19	4.9	14	5.2	6	2.0
≥7	33	6.6	56	8.8	72	12.0	64	12.6	26	6.9	7	1.6
Without health insurance (%)												
<8	7	3.4	14	5.2	9	3.2	15	5.6	6	2.8	3	1.1
8.00–13.99	6	2.6	12	3.9	17	5.8	18	7.1	6	3.2	6	2.7
14.00–22.99	20	6.1	25	5.7	37	9.0	20	6.2	11	4.9	2	0.9
≥23	41	5.6	98	9.9	89	9.6	72	9.8	31	6.3	4	0.8
Vacant housing (%)												
<6	15	4.4	24	5.0	32	6.6	23	5.9	7	2.8	1	0.4
6.00–9.99	16	4.4	32	6.4	37	7.9	32	8.6	11	4.4	3	1.2
10.00–16.99	29	6.2	53	8.5	46	8.0	42	8.8	22	6.3	5	1.3
≥17	14	4.5	40	10.1	37	9.7	28	8.3	14	5.0	6	1.7
Subtotal^a	74	5.0	149	7.4	153	8.0	125	7.9	54	4.8	15	1.2
Total^b	910	29.3	1,503	36.0	1,014	26.3	661	21.1	214	10.0	76	3.5

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Hispanics/Latinos can be of any race.

Rates are per 100,000 population. The denominator population used to calculate unemployment rates includes persons aged 16 and 17 years, as these age categories are defined by the American Community Survey (ACS) and could not be altered; see Technical Notes for more details. The ACS does not provide age- and sex-specific social determinants of health (SDH) variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos, and should be interpreted with caution. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^b Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.

Table 8c. Diagnoses of HIV infection among white adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male												
Below federal poverty level (%)												
<7	132	15.0	230	16.8	131	8.2	192	9.7	71	3.9	25	1.2
7.00–11.99	114	15.4	261	20.7	169	14.2	190	13.3	109	7.7	20	1.2
12.00–20.99	138	18.5	312	26.3	204	20.1	231	19.4	94	7.9	27	1.9
≥21	127	19.2	246	43.4	139	34.3	146	31.7	55	12.0	13	2.5
Less than high school diploma (%)												
<6	160	14.4	311	22.9	191	14.2	224	14.1	100	6.7	31	1.8
6.00–10.99	118	13.8	275	21.1	170	13.3	188	12.1	85	5.6	22	1.3
11.00–19.99	143	18.9	282	23.5	181	16.2	225	16.6	91	6.8	20	1.2
≥20	90	27.8	181	34.2	101	21.0	122	21.2	53	9.5	12	1.8
Median household income (U.S. \$)												
<37,000	122	20.8	222	39.9	122	28.4	135	26.0	62	11.5	10	1.4
37,000–49,999	123	16.9	270	25.5	166	18.2	197	17.9	86	7.6	18	1.2
50,000–67,999	119	14.4	283	20.9	184	14.7	203	13.6	97	6.5	25	1.4
≥68,000	147	17.2	274	19.4	171	10.6	224	11.5	84	4.8	32	1.9
Unemployed (%)												
<3	110	13.2	275	22.5	162	13.0	204	13.6	73	5.0	28	1.5
3.00–4.99	173	15.9	344	21.6	207	13.0	248	13.0	106	5.8	26	1.2
5.00–6.99	127	19.4	236	25.0	149	17.3	159	15.4	93	9.3	19	1.7
≥7	101	21.6	194	30.7	125	23.8	148	23.7	57	9.4	12	1.8
Without health insurance (%)												
<8	103	11.0	192	16.1	107	8.1	151	9.2	64	4.1	24	1.3
8.00–13.99	128	14.6	269	21.1	181	14.8	187	12.9	93	6.6	15	0.9
14.00–22.99	147	18.6	308	25.3	209	19.3	221	17.3	95	7.6	22	1.5
≥23	133	30.8	280	39.8	146	24.9	200	28.9	77	11.4	24	3.2
Vacant housing (%)												
<6	130	14.4	231	16.6	140	9.5	166	9.6	60	3.9	18	1.2
6.00–9.99	118	15.6	279	24.3	154	14.8	160	13.0	73	6.2	20	1.6
10.00–16.99	163	19.8	338	29.7	225	22.0	263	21.6	118	9.9	19	1.4
≥17	100	18.5	201	28.3	124	18.1	170	19.2	78	7.9	28	1.8
Subtotal^a	511	16.8	1,049	23.9	643	15.2	759	15.0	329	6.7	85	1.5

Table 8c. Diagnoses of HIV infection among white adults, by age at diagnosis, sex, and selected social determinants of health, 2015—13 states, the District of Columbia, and Puerto Rico (cont)

	18–24 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Female												
Below federal poverty level (%)												
<7	8	1.0	20	1.4	25	1.5	16	0.8	17	0.9	2	0.1
7.00–11.99	12	1.7	29	2.3	14	1.2	26	1.8	16	1.1	1	0.0
12.00–20.99	13	1.8	52	4.6	39	4.0	38	3.2	15	1.2	2	0.1
≥21	20	3.0	52	10.3	39	10.5	39	8.8	20	4.3	2	0.3
Less than high school diploma (%)												
<6	7	0.7	22	1.6	18	1.3	21	1.3	15	0.9	1	0.0
6.00–10.99	11	1.4	29	2.2	31	2.4	23	1.5	22	1.4	2	0.1
11.00–19.99	25	3.4	54	4.6	28	2.6	36	2.6	15	1.1	3	0.1
≥20	10	3.4	48	10.1	40	9.2	40	7.4	16	2.9	1	0.1
Median household income (U.S. \$)												
<37,000	17	2.9	57	11.3	41	10.1	33	6.5	21	3.7	1	0.1
37,000–49,999	16	2.3	41	4.1	34	3.9	39	3.5	16	1.3	4	0.2
50,000–67,999	15	1.9	30	2.3	24	2.0	24	1.6	16	1.0	1	0.0
≥68,000	5	0.6	25	1.7	18	1.1	23	1.2	15	0.8	1	0.1
Unemployed (%)												
<3	7	0.9	27	2.3	23	1.9	23	1.5	16	1.0	2	0.1
3.00–4.99	18	1.7	31	2.0	29	1.8	28	1.4	18	0.9	0	0.0
5.00–6.99	13	2.1	47	5.1	26	3.0	30	2.9	13	1.2	2	0.1
≥7	15	3.2	48	8.0	39	7.6	39	6.2	21	3.3	3	0.4
Without health insurance (%)												
<8	6	0.7	19	1.6	11	0.8	15	0.9	18	1.1	0	0.0
8.00–13.99	17	2.0	25	2.0	26	2.2	21	1.4	15	1.0	3	0.1
14.00–22.99	15	2.0	47	4.0	39	3.7	31	2.4	14	1.1	2	0.1
≥23	15	3.7	62	9.6	41	7.5	52	7.7	21	3.0	2	0.2
Vacant housing (%)												
<6	7	0.8	25	1.8	19	1.3	25	1.4	14	0.9	1	0.1
6.00–9.99	11	1.5	27	2.4	24	2.3	26	2.1	11	0.9	2	0.1
10.00–16.99	19	2.4	53	4.8	33	3.3	39	3.2	20	1.6	3	0.2
≥17	16	3.2	48	7.3	41	6.4	29	3.3	23	2.2	1	0.1
Subtotal^a	53	1.8	153	3.6	117	2.8	120	2.3	68	1.3	7	0.1
Total^b	564	9.5	1,202	13.9	760	9.1	879	8.6	397	3.9	92	0.7

Note. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution.

Rates are per 100,000 population. The denominator population used to calculate unemployment rates includes persons aged 16 and 17 years, as these age categories are defined by the American Community Survey (ACS) and could not be altered; see Technical Notes for more details. The ACS does not provide age- and sex-specific social determinants of health (SDH) variables stratified by race and ethnicity for racial groups, except whites (i.e., white, non-Hispanic/Latino). Therefore, the denominators used for computing race-specific rates may include Hispanics/Latinos, and should be interpreted with caution. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

For the definitions of SDH indicator variables used in this report, see http://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf.

^a Because column subtotals were calculated independently of the values for the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define SDH subpopulations.

^b Totals do not represent all adults whose HIV infection was diagnosed during 2015 in these areas. See Technical Notes for exclusion criteria.