HIV Surveillance Report | Supplemental Report

Social Determinants of Health among Adults with Diagnosed HIV Infection in 20 States, the District of Columbia, and Puerto Rico, 2010

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of HIV/AIDS Prevention

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Data are presented for diagnoses of HIV infection reported to CDC through December 2011.

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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

IDU—injection drug use

NIR—no identified risk

OMB—Office of Management and Budget

SDH—social determinants of health

Commentary

HIV continues to disproportionately affect various populations in the United States. According to the 2011 *HIV Surveillance Report*, estimated numbers and rates of annual diagnoses of HIV infection remained stable from 2008 through 2011 in the United States [1]; however, numbers and rates increased in some populations and decreased 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 2010, the White House released the National HIV/AIDS Strategy, and one of its 3 overarching goals is to "reduce HIV-related disparities and health inequities" [3]. In the white paper *Establishing a Holistic Framework to Reduce Inequities in HIV, Viral Hepatitis, STDs, and Tuberculosis in the United States*, 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 [2]. 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 [4]. 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, the Division of HIV/AIDS Prevention (DHAP), CDC, developed the HIV Geocoding Supplemental Surveillance Project for state and local HIV surveillance programs. The purpose of the project was to enable funded areas to capture, store, analyze, and display geocoded HIV surveillance data along with SDH indicators that may affect HIV transmission. The project required that geocoded HIV surveillance data be 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 supplemental surveillance report presents data on persons aged 18 years and older with HIV infection diagnosed in 2010 and reported to the National HIV Surveillance System through December 2011. Data were limited to this population 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 from state/local areas funded for the 2011 HIV Geocoding Supplemental Surveillance Project. These areas are California (including Los Angeles County and San Francisco), Colorado, the District of Columbia, Georgia, Illinois (Chicago only), Iowa, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Nevada, North Carolina, Oklahoma, Pennsylvania (including Philadelphia), Puerto Rico, South Carolina, Tennessee, Texas (including Houston), Virginia, Washington, and Wisconsin.

REPORT FORMAT

This report presents data tables on diagnoses of HIV infection, organized into 4 main sections:

1. By area of residence and selected characteristics (Tables 1–2)

2. By race/ethnicity and selected characteristics (Table 3)

3. By SDH and selected characteristics (Tables 4–6)

4. By SDH, race/ethnicity, and selected characteristics (Tables 7a–8c)

Section 1 presents numbers and rates of diagnoses of HIV infection among persons aged 18 years and older by area of residence and selected characteristics. Section 2 presents data on race/ethnicity and selected characteristics. Section 3 presents data on SDH indicators, including the percentage of residents living below the federal poverty level, the percentage of residents with less than a high school diploma, the median household income, and the percentage of residents unemployed. Section 4 presents further stratification of SDH data by race/ethnicity, but for blacks/African Americans, Hispanics/Latinos, and whites only; 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 2006–2010 ACS and are based on where the person was living at the time of diagnosis. The following are the measures for the aforementioned SDH indicators:

- **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) within the last 12 months of the survey response for individuals aged 18 years and older

- **Education level**: proportion of residents in the census tract with less than a high school diploma for individuals aged 18 years and older

- **Median household income**: median income for a household within the census tract within the last 12 months

- **Employment status**: proportion of residents in the census tract in the workforce without a job for individuals aged 16 years and older

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 [5–8]. Readers are encouraged to review the 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 [9, 10]), 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 rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable. Readers are encouraged to read all titles and footnotes carefully to ensure a complete understanding of the displayed data.

HIGHLIGHTS OF ANALYSES

Social determinants of health data are estimates from the period 2006–2010, and HIV surveillance data are

from diagnoses in 2010 for adults. All rates are per 100,000 population, and only stable rates (i.e., numerator population ≥12) are discussed in the highlights.

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

HIV infection was diagnosed for 20,560 adults (aged 18 years and older) whose residential address information was sufficient for geocoding to the census tract (Table 1). These diagnoses represent approximately 82% of all diagnoses in 2010 among adults in the 20 states, the District of Columbia, and Puerto Rico.

The overall rate of diagnoses of HIV infection was 15.9. The rate of diagnoses of HIV infection was highest in the District of Columbia (125.9), followed by Maryland (30.6), and Louisiana (25.5) (Table 1). The District of Columbia is a city; use caution when comparing the rate of diagnoses of HIV infection in DC with the rates presented for states in Tables 1 and 2.

Race/ethnicity (Table 1)

- Among American Indians/Alaska Natives, the only stable rate of diagnoses of HIV infection (i.e., rate based on ≥12 diagnoses of HIV infection) was in California (9.0).

- Among Asians, the rate of diagnoses of HIV infection was highest in Nevada (14.2), followed by Texas (8.1) and Georgia (6.7).

- Among blacks/African Americans, the rate of diagnoses of HIV infection was highest in the District of Columbia (200.2), followed by Maryland (86.1) and Texas (79.5).

- Among Hispanics/Latinos, the rate of diagnoses of HIV infection was highest in the District of Columbia (98.5), followed by Pennsylvania (51.2) and Nevada (23.8).

- Among Native Hawaiians/other Pacific Islanders, the only stable rate of diagnoses of HIV infection (i.e., rate based on ≥12 diagnoses of HIV infection) was in California (20.9).

- Among whites, the rate of diagnoses of HIV infection was highest in the District of Columbia (46.6), followed by Illinois (15.9, Chicago only) and California (12.4).

- Among persons of multiple races, the rate of diagnoses of HIV infection was highest in Maryland (54.6), followed by Illinois (52.9, Chicago only) and the District of Columbia (38.2).

Age (Table 2)

- The highest rate of diagnoses of HIV infection was among persons aged 25–34 years (25.0), followed by 18–24 (24.7) and 35–44 (19.9). By area, the rates of diagnoses of HIV infection in all age groups were highest in the District of Columbia, followed by Maryland.

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

Race/ethnicity (Table 3)

- Overall, the highest rate of diagnoses of HIV infection was among blacks/African Americans (58.0), which was approximately 9 times the rate for whites (6.7) and 3 times the rate for Hispanics/Latinos (19.6). Among males, the highest rate of diagnoses of HIV infection was among blacks/African Americans (87.9), followed by Hispanics/Latinos (33.1) and Native Hawaiians/other Pacific Islanders (29.8). Among females, the highest rate of diagnoses of HIV infection was among blacks/African Americans (32.2), followed by Hispanics/Latinos (5.8) and persons of multiple races (4.9).

Age (Table 3)

- Among males, the highest rate of diagnoses of HIV infection was among those aged 18–24 years (41.1). By race/ethnicity, the highest rates of diagnoses of HIV infection were among males aged 25–34 years for American Indians/Alaska Natives (15.7), Hispanics/Latinos (45.3), whites (20.1), and persons of multiple races (27.0). For Asian males, the highest rate of diagnoses of HIV infection was among those aged 35–44 years (15.9), and for black/African American males, the highest rate of diagnoses of HIV infection was among those aged 18–24 years (163.0). Among Native Hawaiian/other Pacific Islander males, all rates of diagnoses of HIV infection by age groups were unstable (i.e., based on less than 12 diagnoses of HIV infection).

- Among females, the highest rate of diagnoses of HIV infection was among those aged 25–34 years (10.4). By race/ethnicity, the highest rates of

diagnoses of HIV infection were among females aged 25–34 years for Asians (3.0), blacks/African Americans (45.7), whites, (2.9), and persons of multiple races (6.8). For Hispanic/Latino females, the highest rate of diagnoses of HIV infection was among those aged 45–54 years (7.6). For American Indian/Alaska Native and Native Hawaiian/other Pacific Islander females, all rates of diagnoses of HIV infection by age groups were unstable (i.e., based on less than 12 diagnoses of HIV infection).

Sex and transmission category (Table 3)

- The rates of diagnoses of HIV infection were 25.6 for males and 6.6 for females.
- Among males, the largest number of HIV diagnoses was attributed to male-to-male sexual contact for every racial/ethnic group.
- Among females, the largest number of HIV diagnoses was attributed to heterosexual contact for every racial/ethnic group.

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

Sex (Table 4)

- **Poverty**: The highest rates of diagnoses of HIV infection for males (46.4) and females (14.9) were among those who lived in census tracts where 19% or more of the residents lived below the federal poverty level. For both sexes, the rate of diagnoses of HIV infection increased as the percentage of residents living below the federal poverty level increased.
- **Education**: The highest rates of diagnoses of HIV infection for males (37.6) and females (13.1) were among those who lived in census tracts where 24% or more of the residents had less than a high school diploma. For females, the rate of diagnoses of HIV infection increased as the percentage of residents with less than a high school diploma increased.
- **Income**: The highest rates of diagnoses of HIV infection for males (44.7) and females (14.9) were among those who lived in census tracts where the median household income was less than $36,000 a year. For both sexes, the rate of

diagnoses of HIV infection decreased as the median household income increased.

- **Employment**: The highest rates of diagnoses of HIV infection for males (41.4) and females (12.9) were among those who lived in census tracts where 7% or more of the residents were unemployed. For both sexes, the rate of diagnoses of HIV infection increased as the percentage of unemployed persons increased.

Age by sex (Table 4)

- **Poverty**: For males and females in all age groups, those who lived in census tracts where 19% or more of the residents lived below the federal poverty level accounted for the highest rates of diagnoses of HIV infection.
- **Education**: For males and females in all age groups, those who lived in census tracts where 24% or more of the residents had less than a high school diploma accounted for the highest rates of diagnoses of HIV infection.
- **Income**: For males and females in all age groups, those who lived in census tracts where the median household income was less than $36,000 a year accounted for the highest rates of diagnoses of HIV infection.
- **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 diagnoses of HIV infection.

Race/ethnicity by sex (Table 5)

- **Poverty**: Persons who lived in census tracts where 19% or more of the residents lived below the federal poverty level accounted for the highest rates of diagnoses of HIV infection among blacks/African Americans (males, 109.2; females, 40.0), Hispanics/Latinos (males, 35.4; females, 8.4), and whites (males, 20.4; females, 3.9).
- **Education**: Persons who lived in census tracts where 24% or more of the residents had less than a high school diploma accounted for the highest rates of diagnoses of HIV infection among blacks/African Americans (males, 91.5; females, 40.6), Hispanic/Latino females (7.1), and whites (males, 16.4; females, 4.1). In contrast, among Hispanic/Latino males, the highest rate of diagnoses of

HIV infection was among those who lived in census tracts where less than 7% 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 $36,000 a year accounted for the highest rates of diagnoses of HIV infection among blacks/African Americans (males, 105.8; females, 39.1), Hispanics/Latinos (males, 36.8; females, 8.7), and whites (males, 16.1; females, 3.6).

- **Employment**: Persons who lived in census tracts where 7% or more of the residents were unemployed accounted for the highest rates of diagnoses of HIV infection among blacks/African Americans (males, 103.7; females, 36.2), Hispanic/Latino females (7.0), and whites (males, 16.8; females, 2.9). Among Hispanic/Latino males, however, those who lived in census tracts where 5.00%–6.99% of the residents were unemployed accounted for the highest rates of diagnoses of HIV infection (34.0).

Transmission category by sex (Table 6)

- **Poverty**: Persons who lived in census tracts where 19% 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 relevant transmission categories.

- **Education**: Persons who lived in census tracts where 24% 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 relevant transmission categories.

- **Income**: Persons who lived in census tracts where the median household income was less than $36,000 a year accounted for the largest percentage of HIV diagnoses for both sexes and in all relevant 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 relevant transmission categories.

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

Transmission category (Tables 7a–c)

- **Poverty**: For black/African American males and females and Hispanic/Latino males and females in all relevant transmission categories, and white females whose HIV infection was attributed to injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where 19% 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 and white females whose HIV infection was attributed to heterosexual contact, the largest percentages of HIV diagnoses were among those who lived in census tracts where 11.00%–18.99% of the residents lived below the federal poverty level. Among white males whose HIV infection was attributed to injection drug use, 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 6.00%–10.99% of the residents lived below the federal poverty level.

- **Education**: For black/African American males and females and Hispanic/Latino males and females in all relevant transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where 24% or more of the residents had less than a high school diploma. Among white males whose HIV infection was attributed to male-to-male sexual contact or to male-to-male sexual contact *and* injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where less than 7% of the residents had less than a high school diploma. Among white males and females 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 14.00%–23.99% of the residents had less than a high school diploma.

- **Income**: For black/African American males and females and Hispanic/Latino males and females in all relevant transmission categories, and white

females whose HIV infection was attributed to injection drug use, the largest percentages of HIV diagnoses were among those who lived in census tracts where the median household income was less than $36,000 a year. In comparison, among white males whose HIV infection was attributed to male-to-male sexual contact *and* injection drug use, the largest percentage of HIV diagnoses was among those who lived in census tracts where the median household income was at least $68,000 a year. Among white males, for all other transmission categories (i.e., male-to-male sexual contact, injection drug use, and heterosexual contact), the largest percentages of HIV diagnoses were among those who lived in census tracts where the median household income was $49,000–$67,999 a year. Among white females whose HIV infection was attributed to heterosexual contact, the largest percentage of HIV diagnoses were among those who lived in census tracts where the median household income was $36,000–$48,999 a year.

- **Employment**: For black/African American males and females and Hispanic/Latino males and females in all relevant 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. Whereas, for white males and females in all relevant transmission categories, the largest percentages of HIV diagnoses were among those who lived in census tracts where 3.00%–4.99% of the population were unemployed.

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.

- **Poverty**: For black/African American males and females and white males aged 18–64 years, and for Hispanic females in all age groups, and for Hispanic males and white females aged >24 years, those who lived in census tracts where 19% or more of the residents lived below the federal poverty level accounted for the highest rates of diagnoses of HIV infection. The highest rates of diagnoses of HIV infection for both Hispanic/Latino males and white females aged 18–24 years were among those who lived in census tracts where 6.00%–10.99% and 11.00%–18.99% of

the residents lived below the federal poverty level, respectively.

- **Education**: For black/African American, Hispanic/Latino, and white females in all age groups, and for white males aged <55 years, those who lived in census tracts where 24% or more of the residents had less than a high school diploma accounted for the highest rates of diagnoses of HIV infection. For black/African American males, the highest rates varied by age group and education. In contrast, for Hispanic/Latino males aged <55 years and white males aged 55–64 years, those who lived in census tracts where less than 7% of the residents had less than a high school diploma accounted for the highest rates of diagnoses of HIV infection.

- **Income**: For black/African American males and females and white females in all age groups, and for both Hispanic/Latino and white males aged 25–64 years, and for Hispanic/Latino females aged <55 years, those who lived in census tracts where the median household income was less than $36,000 a year accounted for the highest rates of diagnoses of HIV infection. In contrast, the highest rates of diagnoses of HIV infection for both Hispanic/Latino and white males aged 18–24 years were among those who lived in census tracts where the median household income was $49,000–$67,999 and at least $68,000 a year, respectively.

- **Employment**: For black/African American males and females and Hispanic/Latino females aged 18–64 years, and for white females in all age groups, and for white males aged <55 years, those who lived in census tracts where 7% or more of the residents were unemployed accounted for the highest rates of diagnoses of HIV infection. For Hispanic/Latino males, the highest rates varied by age group and employment.

Technical Notes

GEOCODING OF HIV SURVEILLANCE DATA

In 2011, CDC funded state/local jurisdictions to geocode to the census tract level the address of residence at the time of diagnosis for adults and adolescents whose HIV infection was diagnosed during 2010. This report includes data from 20 states (California, Colorado, Georgia, Illinois [Chicago only], Iowa, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Nevada, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Washington, and Wisconsin), the District of Columbia, and Puerto Rico. These jurisdictions were able to provide complete, geocoded data. Data include cases among persons aged 18 years and older whose HIV infection was diagnosed during 2010 and reported to the National HIV Surveillance System through December 2011.

After a census tract had been assigned to each person's residence at the time of HIV diagnosis (2010), data were linked with the ACS estimates for 2006–2010 in order to assign an SDH indicator variable 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 4–8c display differing denominators for SDH subpopulation categories.

SOCIAL DETERMINANTS OF HEALTH INDICATOR VARIABLES

SDH indicator variables [11] and definitions [12] were obtained from the ACS. This report uses data from the 2006–2010 ACS estimates. The ACS collected these data over the course of the 5 years and created period estimates based on the information collected over the 5-year period. Period estimates are estimates based on information collected over a length of time (60 months for this report) [13]. Period estimates were not calculated as an average of 60 monthly values. The ACS collected survey information continuously and then aggregated the results over a specific period (5 years). The data collection was spread evenly across the entire period represented 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 20 states, the District of Columbia, and Puerto Rico. This report presents 4 SDH indicator variables: federal poverty status, education level, median household income, and employment status.

- **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) within the last 12 months of the survey response for individuals aged 18 years and older
- **Education level**: proportion of residents in the census tract with less than a high school diploma for individuals aged 18 years and older
- **Median household income**: median income for a household within the census tract within the last 12 months
- **Employment status**: proportion of residents in the census tract in the workforce without a job for individuals aged 16 years and older

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 [5–8]. Some SDH indicators may be correlated (e.g., lack of education has been associated with both poverty and low income in the United States [9, 10]), but correlations between SDH indicators were not analyzed for this report. 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 past 12 months, 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 in the past 12 months 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 U.S. 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 [14].

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." There is no restriction 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 U.S. 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 past 4 weeks, 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. Employed 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–8c includes persons aged 16 years and persons aged 17 years. These age categories for employment status are defined by the ACS and could not be altered.

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 in order to more accurately represent the population from which the ACS collected data on SDH indicator variables. For tables that provide data by age group, the specific age-group (for example, 18–24 years) assignment was based on the person's age at the time of diagnosis of HIV infection.

Race and Ethnicity

In the *Federal Register* for October 30, 1997 [15], the Office of Management and Budget (OMB) announced the Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. Implementation by January 1, 2003, was mandated. At a minimum, data on the following race categories should be collected:

- American Indian or Alaska Native
- Asian
- black or African American
- Native Hawaiian or other Pacific Islander
- white

Additionally, systems must be able to retain information when multiple race categories are reported. In addition to data on race, data on 2 categories of ethnicity should be collected:

- Hispanic or Latino
- not Hispanic or Latino

This report also presents data for persons for whom multiple race categories are reported. 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, not Hispanic/Latino). Therefore, the denominators used for computing 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 the tables of this report reflect the census tract of the residential address at the time of 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 homogenous 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) [16].

Transmission Categories

Transmission category is the term for the classification of cases that summarizes 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. Per-

sons with more than 1 reported risk factor for HIV infection are classified in the transmission category listed first in the hierarchy. The exception is men who had sexual contact with other men *and* injected drugs; 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., an injection drug user).

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" [17]. Cases classified as no identified risk factor (NIR) include cases that are being followed up by local health department officials; 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 [18]. 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 [19]. The plausible values are analyzed by using standard procedures, and the results from these analyses are then combined to produce the final results. In this report, multiple imputation has been used in tables displaying transmission category.

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 20 states, the District of Columbia, and Puerto Rico were based on the 5-year estimated total population for those areas [11]. 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 [11].

Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable. 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, not-Hispanics/Latinos) from the 2006–2010 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 Hispanic/Latino groups. Therefore, some rates should be interpreted with caution. However, of the denominator population for blacks/African Americans from the ACS within our report, only 3% included Hispanics/Latinos. 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 categories 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 June 26, 2014.

CDC Estimated HIV incidence in the United States, 2007–2010. *HIV Surveillance Supplemental Report* 2012;17(No. 4). http://www.cdc.gov/hiv/library/reports/surveillance/ index.html. Published December 2012. Accessed June 26, 2014.

CDC. National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention: strategic plan, 2010–2015. http://stacks.cdc.gov/view/cdc/5498/. Published February 2010. Accessed June 26, 2014.

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/surveillance/index.html. Published April 2013. Accessed June 26, 2014.

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 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.

Strategic plan: Division of HIV/AIDS Prevention, 2011–2015. http://www.cdc.gov/hiv/pdf/policies_DHAP-strategic-plan.pdf. Published August 2011. Accessed June 26, 2014.

REFERENCES

1. CDC. *HIV Surveillance Report, 2011*; vol. 23. http://www.cdc.gov/hiv/library/reports/surveillance/ 2011/surveillance_Report_vol_23.html. Published February 2013. Accessed June 26, 2014.

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://www.cdc.gov/ socialdeterminants/docs/SDH-White-Paper-2010.pdf. Published October 2010. Accessed June 26, 2014.

3. The White House Office of National AIDS Policy. National HIV/AIDS strategy for the United States. http://www.whitehouse.gov/administration/eop/onap/ nhas. Published July 2010. Accessed June 26, 2014.

4. 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 June 26, 2014.

5. Tarlov AR. Public policy frameworks for improving population health. *Ann N Y Acad Sci* 1999;896:281–293.

6. Gupta G, Parkhurst J, Ogden J, Aggleton P, Mahal A. Structural approaches to HIV prevention. *Lancet* 2008;372(9640):764–775. doi:10.1016/S0140-6736(08)60887-9.

7. Adler NE, Newman K. Socioeconomic disparities in health: pathways and policies. *Health Aff* 2002;21(2):60–76. doi: 10.1377/hlthaff.21.2.60.

8. Williams DR, Jackson PB. Social sources of racial disparities in health. *Health Aff* 2005;24(2):325–334. doi: 10.1377/hlthaff.24.2.325.

9. Ladd HF. Education and poverty: confronting the evidence. *J Pol Anal Manage* 2012;31(2):203–227. doi:10.1002/pam.21615.

10. Egerter S, Braveman P, Sadegh-Nobari T, Grossman-Kahn R, Dekker M. Issue Brief 6: Education Matters for

Health. http://www.commissiononhealth.org. Princeton, NJ: Robert Wood Johnson Foundation; September 2009. Accessed June 26, 2014.

11. U.S. Census Bureau. American Community Survey: 2006–2010 5-year estimates. http://www.census.gov/acs/www/data_documentation/2010_release/. Published December 8, 2011 Accessed June 26, 2014.

12. U.S. Census Bureau. American Community Survey, Puerto Rico Community Survey: 2010 subject definitions. http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2010_ACSSubjectDefinitions.pdf. Accessed June 26, 2014.

13. 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://www.census.gov/acs/www/Downloads/handbooks/ACSGeneralHandbook.pdf. Accessed June 26, 2014.

14. U.S. Census Bureau. Poverty: definitions. http://www.census.gov/hhes/www/poverty/methods/definitions.html. Updated February 14, 2013. Accessed June 26, 2014.

15. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. *Federal Register* 1997;62:58781–58790. http://www.whitehouse.gov/omb/fedreg_1997standards. Accessed June 26, 2014.

16. U.S. Census Bureau. 2010 geographic terms and concepts: census tract. http://www.census.gov/geo/reference/gtc/gtc_ct.html. Revised December 6, 2012. Accessed June 26, 2014.

17. CDC. Current Trends: Heterosexually acquired AIDS—United States, 1993. *MMWR* 1994;43(9):155–160.

18. McDavid Harrison K, 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.

19. 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, 2010—20 states, the District of Columbia, and Puerto Rico

| | Race/ethnicity | | | | | | | | | | | | | | | |
| 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
California	19	9.0	226	6.0	853	51.4	1,689	19.2	22	20.9	1,537	12.4	65	8.9	4,411	16.2
Colorado	4	11.4	7	6.9	36	26.3	61	9.7	0	0.0	151	5.5	4	5.2	263	7.1
District of Columbia	0	0.0	3	16.3	477	200.2	39	98.5	1	330.0	83	46.6	3	38.2	606	125.9
Georgia	1	5.5	15	6.7	1,358	67.2	101	20.3	1	29.6	296	7.1	9	12.8	1,781	25.4
Illinois[b]	0	0.0	6	4.9	303	45.3	82	16.1	1	143.9	122	15.9	13	52.9	527	25.3
Iowa	0	0.0	3	7.9	24	44.5	7	8.7	0	0.0	53	2.5	2	9.5	89	3.9
Louisiana	1	5.1	3	5.8	630	64.0	26	21.1	1	85.4	180	8.5	7	23.1	848	25.5
Maryland	4	32.4	6	2.5	1,049	86.1	66	22.5	0	0.0	166	6.6	36	54.6	1,327	30.6
Michigan	1	2.6	1	0.6	434	43.8	39	15.2	0	0.0	228	3.8	9	9.0	712	9.5
Minnesota	7	18.8	5	3.6	81	48.8	20	14.3	0	0.0	130	3.8	9	19.8	252	6.4
Mississippi	0	0.0	0	0.0	238	31.6	5	10.7	0	0.0	42	3.1	9	61.2	294	13.5
Nevada	1	4.8	21	14.2	97	65.6	101	23.8	2	17.6	128	10.7	5	10.7	355	18.0
North Carolina	1	1.3	2	1.4	516	35.9	57	12.7	1	27.1	155	3.2	10	12.1	742	10.6
Oklahoma	8	4.6	3	6.3	46	24.3	14	7.7	0	0.0	81	4.0	7	4.6	159	5.8
Pennsylvania	2	14.4	12	4.7	675	70.2	213	51.2	1	43.7	382	4.7	26	28.5	1,311	13.4
Puerto Rico	0	0.0	1	10.8	0	0.0	446	16.0	0	0.0	1	3.8	0	0.0	448	15.9
South Carolina	0	0.0	4	9.6	500	54.6	26	19.0	0	0.0	126	5.5	6	19.3	662	19.2
Tennessee	0	0.0	2	3.1	378	51.7	32	19.4	1	48.8	157	4.2	2	4.3	572	12.0
Texas	6	6.8	55	8.1	1,615	79.5	1,300	22.5	1	7.4	956	10.7	49	19.2	3,982	22.6
Virginia	1	5.3	4	1.3	433	38.4	47	12.1	0	0.0	150	3.7	16	18.5	651	10.8
Washington	6	9.0	20	5.6	45	27.2	68	16.3	1	4.0	232	6.0	8	5.8	380	7.6
Wisconsin	0	0.0	4	4.9	94	41.0	21	11.3	0	0.0	62	1.7	7	17.5	188	4.4
Total[c]	62	6.8	403	5.7	9,882	58.0	4,460	19.6	33	17.3	5,418	6.7	302	12.7	20,560	15.9

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

Rates are per 100,000 population.

[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 2010 in these areas. See Technical Notes for exclusion criteria.

Table 2. Diagnoses of HIV infection among adults, by age and area of residence, 2010—20 states, the District of Columbia, and Puerto Rico

| Area of residence | Age at diagnosis (yr) | | | | | | | | | | | | | |
| | 18–24 | | 25–34 | | 35–44 | | 45–54 | | 55–64 | | ≥65 | | Total | |
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
California	754	19.8	1,323	25.3	1,126	21.3	839	16.3	288	7.6	81	2.0	4,411	16.2
Colorado	40	8.3	91	13.0	58	8.2	50	6.8	20	3.6	4	0.8	263	7.1
District of Columbia	102	124.6	178	156.4	136	166.7	124	165.4	52	84.0	14	20.9	606	125.9
Georgia	416	43.6	512	38.8	377	26.6	334	24.9	119	11.9	23	2.4	1,781	25.4
Illinois[a]	113	37.7	171	33.8	127	32.9	85	24.4	30	11.6	1	0.4	527	25.3
Iowa	16	5.2	24	6.5	21	5.5	22	5.0	6	1.7	0	0.0	89	3.9
Louisiana	211	45.0	244	41.2	171	29.4	155	24.0	58	11.6	9	1.7	848	25.5
Maryland	240	44.1	318	43.0	330	39.6	304	34.4	114	17.4	21	3.1	1,327	30.6
Michigan	179	18.5	205	17.3	145	10.7	129	8.5	43	3.6	11	0.8	712	9.5
Minnesota	58	11.4	73	10.5	53	7.4	55	6.9	12	2.1	1	0.2	252	6.4
Mississippi	80	26.0	75	19.8	63	16.4	51	12.3	22	6.7	3	0.8	294	13.5
Nevada	77	31.8	106	27.9	88	22.8	51	13.9	27	9.0	6	2.0	355	18.0
North Carolina	166	18.2	176	14.4	154	11.5	163	12.3	68	6.4	15	1.3	742	10.6
Oklahoma	40	10.5	51	10.5	32	6.8	27	5.2	9	2.2	0	0.0	159	5.8
Pennsylvania	264	21.4	352	23.7	308	18.2	268	13.9	94	6.2	25	1.3	1,311	13.4
Puerto Rico	52	13.5	125	24.8	109	22.0	109	22.6	38	8.8	15	2.9	448	15.9
South Carolina	193	41.9	154	26.6	143	23.4	111	17.2	45	8.2	16	2.7	662	19.2
Tennessee	143	24.2	145	17.7	133	15.2	103	11.3	40	5.4	8	1.0	572	12.0
Texas	906	35.9	1,188	34.0	938	27.3	672	20.2	215	8.9	63	2.6	3,982	22.6
Virginia	165	20.8	178	16.9	153	13.4	101	8.5	42	4.7	12	1.3	651	10.8
Washington	48	7.5	111	12.4	119	12.9	68	6.9	27	3.5	7	0.9	380	7.6
Wisconsin	50	9.0	53	7.6	43	5.6	29	3.3	11	1.7	2	0.3	188	4.4
Total[b]	4,313	24.7	5,853	25.0	4,827	19.9	3,850	15.5	1,380	7.3	337	1.6	20,560	15.9

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

Rates are per 100,000 population.

[a] Data from Chicago only.

[b] Totals do not represent all adults whose HIV infection was diagnosed during 2010 in these areas. See Technical Notes for exclusion criteria.

Table 3. Diagnoses of HIV infection among adults, by race/ethnicity and selected characteristics, 2010—20 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	11	14.6	46	9.6	2,205	163.0	732	32.8	9	47.0	618	13.3	57	21.1	3,678	41.1
25–34	14	15.7	106	14.3	1,805	116.8	1,378	45.3	11	47.9	1,249	20.1	73	27.0	4,636	39.4
35–44	9	9.8	114	15.9	1,311	82.2	969	38.1	3	14.6	1,250	17.8	57	26.0	3,713	30.7
45–54	9	10.0	48	8.2	1,082	68.5	530	29.4	5	31.3	1,167	14.4	35	18.4	2,876	23.5
55–64	1	1.6	17	4.2	454	44.2	148	14.2	0	0.0	361	5.5	12	10.6	993	10.8
≥65	1	2.4	4	1.1	83	10.4	51	6.0	0	0.0	107	1.6	8	9.2	254	2.9
Transmission category																
Male-to-male sexual contact	34	—	287	—	5,057	—	3,100	—	25	—	4,102	—	198	—	12,803	—
Injection drug use	0	—	7	—	466	—	212	—	2	—	156	—	6	—	851	—
Male-to-male sexual contact and injection drug use	5	—	14	—	201	—	136	—	1	—	273	—	20	—	650	—
Heterosexual contact[b]	5	—	26	—	1,210	—	356	—	0	—	214	—	18	—	1,829	—
Other[c]	0	—	0	—	6	—	3	—	0	—	6	—	1	—	16	—
Subtotal	45	10.0	335	10.2	6,940	87.9	3,808	33.1	28	29.8	4,752	12.1	242	21.0	16,150	25.6
Female																
Age at diagnosis																
18–24	3	4.2	6	1.3	443	32.4	83	4.2	0	0.0	92	2.1	8	3.0	635	7.5
25–34	5	5.6	25	3.0	791	45.7	200	7.2	1	4.5	176	2.9	19	6.8	1,217	10.4
35–44	6	6.4	19	2.4	738	41.1	167	6.9	1	4.9	169	2.4	14	6.2	1,114	9.2
45–54	3	3.1	11	1.6	660	37.1	137	7.6	3	17.1	150	1.8	10	4.9	974	7.7
55–64	0	0.0	6	1.2	263	21.4	50	4.4	0	0.0	64	0.9	4	3.1	387	3.9
≥65	0	0.0	1	0.2	47	3.8	15	1.3	0	0.0	15	0.2	5	4.3	83	0.7
Transmission category																
Heterosexual contact[b]	13	—	60	—	2,607	—	581	—	5	—	507	—	46	—	3,819	—
Injection drug use	4	—	7	—	331	—	70	—	0	—	156	—	14	—	582	—
Other[c]	0	—	1	—	4	—	1	—	0	—	3	—	0	—	9	—
Subtotal	17	3.6	68	1.8	2,942	32.2	652	5.8	5	5.2	666	1.6	60	4.9	4,410	6.6
Total[d]	62	6.8	403	5.7	9,882	58.0	4,460	19.6	33	17.3	5,418	6.7	302	12.7	20,560	15.9

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

Rates are per 100,000 population. Rates are not calculated by transmission category because of the lack of denominator data.

[a] Hispanics/Latinos can be of any race.

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

[c] Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

[d] Totals do not represent all adults whose HIV infection was diagnosed during 2010 in these areas. See Technical Notes for exclusion criteria.

Table 4. Diagnoses of HIV infection among adults, by age and selected social determinants of health, 2010—20 states, the District of Columbia, and Puerto Rico

	18–24		25–34		35–44		45–54		55–64		≥65		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male														
Below federal poverty level (%)														
<6	418	23.0	597	22.0	514	14.5	443	11.7	173	6.2	43	1.7	2,188	12.7
6.00–10.99	684	33.3	986	31.9	831	25.8	602	18.2	186	7.4	62	2.5	3,351	20.0
11.00–18.99	994	44.9	1,252	40.0	1,089	37.3	758	26.2	245	11.2	66	3.0	4,404	28.3
≥19	1,578	56.5	1,800	64.7	1,277	54.3	1,073	48.3	389	23.9	83	5.2	6,200	46.4
Less than high school diploma (%)														
<7	557	24.4	852	32.9	725	25.0	566	18.7	185	8.0	61	2.9	2,946	19.4
7.00–13.99	745	33.6	983	31.6	785	23.7	613	17.5	174	6.5	50	1.9	3,350	19.2
14.00–23.99	1,080	51.5	1,207	41.3	942	31.7	732	24.0	305	13.1	63	2.7	4,329	27.5
≥24	1,296	54.9	1,594	50.6	1,261	43.6	965	36.3	329	17.7	80	4.5	5,525	37.6
Median household income (U.S. $)														
<36,000	1,519	60.0	1,669	64.4	1,177	52.1	990	44.8	373	22.3	88	5.1	5,816	44.7
36,000–48,999	916	39.4	1,172	38.1	955	33.3	669	23.0	208	9.3	53	2.3	3,973	25.2
49,000–67,999	762	34.5	1,087	32.9	915	27.4	664	19.7	210	8.2	58	2.3	3,696	21.4
≥68,000	476	26.4	707	25.9	662	18.6	551	14.8	202	7.5	55	2.4	2,653	15.8
Unemployed (%)														
<3	420	23.2	640	26.2	584	21.8	436	15.5	154	7.1	48	2.2	2,282	16.2
3.00–4.99	897	33.9	1,204	33.0	923	23.6	755	18.7	259	8.4	64	2.2	4,102	20.2
5.00–6.99	877	41.0	1,176	41.8	893	31.8	703	25.2	218	10.5	57	2.9	3,924	26.9
≥7	1,484	62.8	1,616	56.3	1,313	49.0	982	37.6	362	19.4	85	4.9	5,842	41.4
Subtotal[a]	3,678	41.1	4,636	39.4	3,713	30.7	2,876	23.5	993	10.8	254	2.9	16,150	25.6
Female														
Below federal poverty level (%)														
<6	58	3.5	118	4.2	131	3.5	99	2.5	42	1.4	11	0.3	459	2.5
6.00–10.99	103	5.3	190	6.2	176	5.4	156	4.6	59	2.2	11	0.3	695	3.9
11.00–18.99	158	7.4	312	10.2	277	9.6	248	8.4	109	4.6	16	0.5	1,120	6.8
≥19	316	11.4	597	22.0	530	22.6	471	20.4	177	9.8	45	1.9	2,136	14.9
Less than high school diploma (%)														
<7	44	2.0	112	4.2	105	3.5	97	3.1	39	1.6	9	0.3	406	2.5
7.00–13.99	102	4.7	214	6.7	201	5.9	160	4.4	65	2.3	11	0.3	753	4.0
14.00–23.99	197	9.7	349	11.9	329	11.0	298	9.4	111	4.4	26	0.8	1,310	7.8
≥24	292	13.9	542	18.7	479	17.5	419	15.9	172	8.6	37	1.5	1,941	13.1
Median household income (U.S. $)														
<36,000	326	12.9	566	22.0	514	22.4	473	20.3	185	9.8	44	1.7	2,108	14.9
36,000–48,999	157	7.2	328	11.1	282	9.9	220	7.4	95	3.9	16	0.5	1,098	6.6
49,000–67,999	108	5.1	204	6.2	194	5.8	164	4.7	61	2.2	10	0.3	741	4.1
≥68,000	44	2.7	119	4.2	124	3.3	116	3.0	46	1.6	13	0.5	462	2.6
Unemployed (%)														
<3	66	4.3	135	5.9	131	5.1	106	3.8	45	2.0	14	0.5	497	3.5
3.00–4.99	139	5.5	261	7.2	225	5.7	216	5.2	72	2.2	16	0.4	929	4.3
5.00–6.99	140	6.7	277	9.9	266	9.4	214	7.4	84	3.8	17	0.6	998	6.4
≥7	290	12.4	544	18.4	492	17.6	438	15.8	186	8.9	36	1.5	1,986	12.9
Subtotal[a]	635	7.5	1,217	10.4	1,114	9.2	974	7.7	387	3.9	83	0.7	4,410	6.6
Total[b]	4,313	24.7	5,853	25.0	4,827	19.9	3,850	15.5	1,380	7.3	337	1.6	20,560	15.9

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

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 ACS and could not be altered. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

Definitions for the social determinants of health indicator variables used in this report can be found at http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2010_ACSSubjectDefinitions.pdf.

[a] Because column subtotals were calculated independently of the values of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[b] Totals do not represent all adults whose HIV infection was diagnosed during 2010 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, 2010—20 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 (%)						
<6	605	52.3	385	25.5	1,077	8.2
6.00–10.99	1,175	78.7	706	31.8	1,305	11.1
11.00–18.99	1,810	85.3	1,072	35.0	1,349	14.4
≥19	3,345	109.2	1,645	35.4	1,021	20.4
Less than high school diploma (%)						
<7	763	80.6	437	44.7	1,575	13.3
7.00–13.99	1,398	81.4	529	32.4	1,280	9.9
14.00–23.99	2,212	91.0	832	33.7	1,122	11.4
≥24	2,567	91.5	2,010	31.3	775	16.4
Median household income (U.S. $)						
<36,000	3,282	105.8	1,528	36.8	842	16.1
36,000–48,999	1,784	88.6	920	31.5	1,143	11.4
49,000–67,999	1,214	76.9	876	33.6	1,416	11.9
≥68,000	651	58.3	484	27.6	1,350	11.2
Unemployed (%)						
<3	728	62.1	480	30.0	990	9.6
3.00–4.99	1,367	77.0	1,002	33.9	1,541	10.9
5.00–6.99	1,540	87.3	997	34.0	1,200	13.6
≥7	3,305	103.7	1,329	33.1	1,021	16.8
Subtotal[b]	6,940	87.9	3,808	33.1	4,752	12.1
Female						
Below federal poverty level (%)						
<6	278	22.2	44	2.8	111	0.8
6.00–10.99	425	25.3	90	4.1	152	1.2
11.00–18.99	747	30.2	133	4.6	197	2.0
≥19	1,492	40.0	385	8.4	206	3.9
Less than high school diploma (%)						
<7	251	23.5	28	2.6	104	0.8
7.00–13.99	515	25.0	63	3.8	142	1.0
14.00–23.99	915	31.4	130	5.4	221	2.1
≥24	1,261	40.6	431	7.1	199	4.1
Median household income (U.S. $)						
<36,000	1,499	39.1	361	8.7	199	3.6
36,000–48,999	712	30.7	157	5.7	188	1.8
49,000–67,999	464	25.9	82	3.2	160	1.3
≥68,000	266	22.2	52	2.9	119	0.9
Unemployed (%)						
<3	292	29.1	76	5.3	107	1.0
3.00–4.99	552	27.7	134	4.5	201	1.4
5.00–6.99	630	30.0	166	5.7	170	1.8
≥7	1,468	36.2	276	7.0	188	2.9
Subtotal[b]	2,942	32.2	652	5.8	666	1.6
Total[c]	**9,882**	**58.0**	**4,460**	**19.6**	**5,418**	**6.7**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

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 ACS and could not be altered. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

Definitions for the social determinants of health indicator variables used in this report can be found at http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2010_ACSSubjectDefinitions.pdf.

[a] Hispanics/Latinos can be of any race.

[b] Because column subtotals were calculated independently of the values of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[c] Totals do not represent all adults whose HIV infection was diagnosed during 2010 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, 2010—20 states, the District of Columbia, and Puerto Rico

	Transmission category							
	Male-to-male sexual contact		IDU		Male-to-male sexual contact and IDU		Heterosexual contact[a]	
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<6	1,828	14.3	85	10.0	87	13.4	185	10.1
6.00–10.99	2,765	21.6	142	16.7	147	22.7	293	16.0
11.00–18.99	3,554	27.8	210	24.7	172	26.5	465	25.4
≥19	4,652	36.3	414	48.7	243	37.4	886	48.4
Less than high school diploma (%)								
<7	2,553	19.9	79	9.3	133	20.5	178	9.8
7.00–13.99	2,733	21.3	145	17.0	145	22.3	324	17.7
14.00–23.99	3,334	26.0	268	31.6	171	26.3	552	30.2
≥24	4,184	32.7	358	42.1	201	30.9	775	42.4
Median household income (U.S. $)								
<36,000	4,284	33.5	398	46.9	236	36.5	892	48.8
36,000–48,999	3,221	25.2	196	23.1	134	20.7	419	22.9
49,000–67,999	3,060	23.9	163	19.1	156	24.0	314	17.1
≥68,000	2,231	17.4	93	10.9	122	18.8	205	11.2
Unemployed (%)								
<3	1,842	14.4	110	13.0	103	15.9	223	12.2
3.00–4.99	3,335	26.1	190	22.3	184	28.3	388	21.2
5.00–6.99	3,182	24.9	168	19.8	145	22.4	424	23.2
≥7	4,444	34.7	382	44.9	217	33.4	794	43.4
Subtotal[b]	12,803	100	851	100	650	100	1,829	100
Female								
Below federal poverty level (%)								
<6	—	—	64	11.0	—	—	394	10.3
6.00–10.99	—	—	81	14.0	—	—	613	16.0
11.00–18.99	—	—	146	25.1	—	—	972	25.4
≥19	—	—	290	49.9	—	—	1,840	48.2
Less than high school diploma (%)								
<7	—	—	52	9.0	—	—	353	9.2
7.00–13.99	—	—	98	16.7	—	—	655	17.1
14.00–23.99	—	—	175	30.1	—	—	1,133	29.7
≥24	—	—	257	44.2	—	—	1,678	44.0
Median household income (U.S. $)								
<36,000	—	—	289	49.7	—	—	1,814	47.5
36,000–48,999	—	—	130	22.4	—	—	965	25.3
49,000–67,999	—	—	97	16.6	—	—	644	16.9
≥68,000	—	—	66	11.3	—	—	396	10.4
Unemployed (%)								
<3	—	—	71	12.2	—	—	424	11.1
3.00–4.99	—	—	126	21.7	—	—	801	21.0
5.00–6.99	—	—	133	22.8	—	—	864	22.6
≥7	—	—	252	43.3	—	—	1,731	45.3
Subtotal[b]	—	—	582	100	—	—	3,819	100
Total[c]	12,803	100	1,433	100	650	100	5,648	100

Abbreviation: IDU, injection drug use.

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data by transmission category have been statistically adjusted to account for missing transmission category.

Row entries indicate categories based on census tracts.

Definitions for the social determinants of health indicator variables used in this report can be found at http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2010_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 of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[c] Totals do not represent all adults whose HIV infection was diagnosed during 2010 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, 2010—20 states, the District of Columbia, and Puerto Rico

| | Transmission category | | | | | | | |
| | Male-to-male sexual contact | | IDU | | Male-to-male sexual contact and IDU | | Heterosexual contact[a] | |
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<6	450	8.9	35	7.5	16	8.1	103	8.5
6.00–10.99	890	17.6	72	15.4	33	16.4	179	14.8
11.00–18.99	1,328	26.3	120	25.8	51	25.5	310	25.6
≥19	2,385	47.2	239	51.3	100	50.0	618	51.1
Less than high school diploma (%)								
<7	601	11.9	37	7.9	20	9.8	104	8.6
7.00–13.99	1,065	21.1	76	16.3	41	20.6	215	17.7
14.00–23.99	1,590	31.4	161	34.6	68	33.7	392	32.4
≥24	1,800	35.6	192	41.2	72	35.9	500	41.3
Median household income (U.S. $)								
<36,000	2,326	46.1	232	50.0	99	49.2	622	51.4
36,000–48,999	1,329	26.3	119	25.6	47	23.5	289	23.9
49,000–67,999	919	18.2	73	15.7	37	18.6	184	15.2
≥68,000	477	9.4	40	8.7	17	8.7	116	9.5
Unemployed (%)								
<3	520	10.3	49	10.6	23	11.6	134	11.1
3.00–4.99	1,024	20.3	88	18.9	40	20.0	213	17.6
5.00–6.99	1,136	22.5	92	19.6	37	18.2	274	22.7
≥7	2,376	47.0	237	50.8	101	50.2	589	48.6
Subtotal[b]	5,057	100	466	100	201	100	1,210	100
Female								
Below federal poverty level (%)								
<6	—	—	26	7.7	—	—	252	9.7
6.00–10.99	—	—	40	12.0	—	—	385	14.8
11.00–18.99	—	—	82	24.7	—	—	665	25.5
≥19	—	—	184	55.5	—	—	1,305	50.1
Less than high school diploma (%)								
<7	—	—	23	6.9	—	—	228	8.7
7.00–13.99	—	—	52	15.7	—	—	463	17.7
14.00–23.99	—	—	104	31.4	—	—	810	31.1
≥24	—	—	152	46.0	—	—	1,106	42.4
Median household income (U.S. $)								
<36,000	—	—	184	55.8	—	—	1,312	50.3
36,000–48,999	—	—	72	21.8	—	—	639	24.5
49,000–67,999	—	—	48	14.4	—	—	416	16.0
≥68,000	—	—	27	8.0	—	—	239	9.2
Unemployed (%)								
<3	—	—	38	11.5	—	—	254	9.7
3.00–4.99	—	—	55	16.5	—	—	497	19.1
5.00–6.99	—	—	67	20.1	—	—	562	21.6
≥7	—	—	172	51.9	—	—	1,294	49.6
Subtotal[b]	—	—	331	100	—	—	2,607	100
Total[c]	**5,057**	**100**	**797**	**100**	**201**	**100**	**3,818**	**100**

Abbreviation: IDU, injection drug use.

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data by transmission category have been statistically adjusted to account for missing transmission category.

Row entries indicate categories based on census tracts.

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[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 of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[c] Totals do not represent all adults whose HIV infection was diagnosed during 2010 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, 2010—20 states, the District of Columbia, and Puerto Rico

	Transmission category							
	Male-to-male sexual contact		IDU		Male-to-male sexual contact and IDU		Heterosexual contact[a]	
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<6	343	11.1	12	5.7	10	7.3	20	5.5
6.00–10.99	614	19.8	25	11.9	23	16.9	43	12.0
11.00–18.99	887	28.6	44	20.5	46	33.5	94	26.4
≥19	1,255	40.5	132	61.9	58	42.3	200	56.1
Less than high school diploma (%)								
<7	389	12.5	11	5.1	15	10.8	22	6.3
7.00–13.99	451	14.5	20	9.6	19	14.0	38	10.7
14.00–23.99	665	21.5	54	25.5	34	24.9	78	21.9
≥24	1,595	51.5	127	59.8	69	50.3	217	61.0
Median household income (U.S. $)								
<36,000	1,146	37.0	126	59.3	56	40.7	199	55.9
36,000–48,999	788	25.4	36	16.7	31	22.8	65	18.2
49,000–67,999	741	23.9	35	16.3	32	23.7	67	18.8
≥68,000	425	13.7	16	7.7	18	12.8	25	7.1
Unemployed (%)								
<3	390	12.6	28	13.0	21	15.4	41	11.6
3.00–4.99	824	26.6	46	21.7	39	28.6	92	25.9
5.00–6.99	845	27.2	39	18.5	32	23.2	81	22.7
≥7	1,042	33.6	99	46.8	45	32.8	142	39.8
Subtotal[b]	3,100	100	212	100	136	100	356	100
Female								
Below federal poverty level (%)								
<6	—	—	6	9.2	—	—	38	6.5
6.00–10.99	—	—	7	10.0	—	—	83	14.3
11.00–18.99	—	—	17	23.8	—	—	116	20.0
≥19	—	—	40	57.0	—	—	344	59.3
Less than high school diploma (%)								
<7	—	—	3	4.7	—	—	25	4.2
7.00–13.99	—	—	7	10.6	—	—	56	9.6
14.00–23.99	—	—	12	16.5	—	—	118	20.3
≥24	—	—	48	68.1	—	—	383	65.8
Median household income (U.S. $)								
<36,000	—	—	40	58.0	—	—	320	55.1
36,000–48,999	—	—	15	20.9	—	—	142	24.4
49,000–67,999	—	—	8	11.0	—	—	74	12.8
≥68,000	—	—	7	10.0	—	—	45	7.7
Unemployed (%)								
<3	—	—	7	9.5	—	—	69	11.9
3.00–4.99	—	—	14	19.9	—	—	120	20.6
5.00–6.99	—	—	19	27.7	—	—	147	25.2
≥7	—	—	30	42.9	—	—	246	42.3
Subtotal[b]	—	—	70	100	—	—	581	100
Total[c]	3,100	100	282	100	136	100	937	100

Abbreviation: IDU, injection drug use.

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data by transmission category 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.

Definitions for the social determinants of health indicator variables used in this report can be found at http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2010_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 of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[c] Totals do not represent all adults whose HIV infection was diagnosed during 2010 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, 2010—20 states, the District of Columbia, and Puerto Rico

	Transmission category							
	Male-to-male sexual contact		IDU		Male-to-male sexual contact and IDU		Heterosexual contact[a]	
	No.	%	No.	%	No.	%	No.	%
Male								
Below federal poverty level (%)								
<6	930	22.7	33	21.0	57	20.7	57	26.4
6.00–10.99	1,118	27.3	44	28.2	80	29.4	60	28.0
11.00–18.99	1,192	29.1	42	27.0	63	23.2	50	23.2
≥19	861	21.0	37	23.9	73	26.7	48	22.3
Less than high school diploma (%)								
<7	1,414	34.5	27	17.3	89	32.4	44	20.4
7.00–13.99	1,092	26.6	46	29.6	76	27.8	63	29.5
14.00–23.99	947	23.1	49	31.4	60	21.9	64	30.0
≥24	648	15.8	34	21.6	49	17.8	43	20.1
Median household income (U.S. $)								
<36,000	687	16.8	34	21.9	67	24.5	53	24.7
36,000–48,999	999	24.4	40	25.6	51	18.8	50	23.4
49,000–67,999	1,231	30.0	51	32.3	77	28.2	56	26.2
≥68,000	1,184	28.9	32	20.1	78	28.5	55	25.7
Unemployed (%)								
<3	864	21.1	32	20.4	53	19.5	40	18.4
3.00–4.99	1,321	32.2	52	33.0	96	35.0	71	33.1
5.00–6.99	1,047	25.5	33	21.0	66	24.1	53	24.6
≥7	870	21.2	40	25.7	58	21.4	51	23.8
Subtotal[b]	4,102	100	156	100	273	100	214	100
Female								
Below federal poverty level (%)								
<6	—	—	26	16.8	—	—	85	16.7
6.00–10.99	—	—	31	19.7	—	—	121	23.8
11.00–18.99	—	—	42	26.7	—	—	154	30.4
≥19	—	—	58	36.9	—	—	147	29.1
Less than high school diploma (%)								
<7	—	—	24	15.3	—	—	80	15.7
7.00–13.99	—	—	32	20.7	—	—	110	21.6
14.00–23.99	—	—	51	32.7	—	—	169	33.3
≥24	—	—	49	31.3	—	—	149	29.3
Median household income (U.S. $)								
<36,000	—	—	52	33.5	—	—	146	28.7
36,000–48,999	—	—	39	24.9	—	—	148	29.1
49,000–67,999	—	—	37	23.4	—	—	123	24.3
≥68,000	—	—	29	18.2	—	—	90	17.8
Unemployed (%)								
<3	—	—	22	14.1	—	—	84	16.6
3.00–4.99	—	—	53	34.1	—	—	147	28.9
5.00–6.99	—	—	38	24.2	—	—	132	26.0
≥7	—	—	43	27.5	—	—	144	28.4
Subtotal[b]	—	—	156	100	—	—	507	100
Total[c]	**4,102**	**100**	**313**	**100**	**273**	**100**	**721**	**100**

Abbreviation: IDU, injection drug use.

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data by transmission category have been statistically adjusted to account for missing transmission category.

Row entries indicate categories based on census tracts.

Definitions for the social determinants of health indicator variables used in this report can be found at http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2010_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 of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[c] Totals do not represent all adults whose HIV infection was diagnosed during 2010 in these areas. See Technical Notes for exclusion criteria.

Table 8a. Diagnoses of HIV infection among black/African American adults, by age, sex, and selected social determinants of health, 2010—20 states, the District of Columbia, and Puerto Rico

	| 18–24		25–34		35–44		45–54		55–64		≥65	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male												
Below federal poverty level (%)												
<6	172	104.9	179	84.0	111	39.8	100	39.1	39	26.3	4	4.2
6.00–10.99	340	143.5	338	109.6	248	76.2	171	57.4	62	32.8	16	11.8
11.00–18.99	601	170.5	439	101.3	367	86.7	264	63.2	115	41.4	24	11.0
≥19	1,089	185.6	848	148.0	584	106.1	547	91.6	238	58.1	39	11.2
Less than high school diploma (%)												
<7	239	129.1	228	121.3	156	74.5	100	54.1	34	31.0	6	8.6
7.00–13.99	437	151.5	411	119.2	260	70.2	202	58.5	75	34.5	13	8.6
14.00–23.99	747	187.4	549	117.9	391	80.6	328	67.2	167	50.4	30	11.5
≥24	782	162.7	617	112.8	504	95.1	452	80.6	178	48.1	34	10.8
Median household income (U.S. $)												
<36,000	1,101	189.5	811	140.6	561	101.5	529	87.8	234	55.5	46	12.6
36,000–48,999	557	158.5	474	112.6	354	89.2	268	68.4	112	43.9	19	9.6
49,000–67,999	370	149.1	339	103.8	262	74.3	165	52.3	64	32.5	14	10.1
≥68,000	173	112.8	180	92.1	132	49.0	118	46.6	44	29.4	4	4.2
Unemployed (%)												
<3	206	102.0	202	78.2	157	60.5	109	47.5	44	33.5	10	10.9
3.00–4.99	453	158.8	379	107.6	247	66.2	192	53.1	85	37.0	11	6.4
5.00–6.99	482	160.6	413	121.7	303	84.4	232	65.8	89	38.1	21	11.7
≥7	1,064	188.1	811	136.2	604	100.2	549	86.4	236	54.5	41	11.6
Subtotal[a]	2,205	163.0	1,805	116.8	1,311	82.2	1,082	68.5	454	44.2	83	10.4
Female												
Below federal poverty level (%)												
<6	40	27.7	70	31.0	79	25.6	59	21.5	23	13.5	7	5.4
6.00–10.99	62	27.9	114	33.9	107	29.0	100	29.9	37	16.7	5	2.5
11.00–18.99	103	29.1	207	43.3	183	38.1	176	36.5	72	21.3	6	1.8
≥19	238	37.0	400	58.1	369	57.8	325	47.1	131	26.2	29	5.1
Less than high school diploma (%)												
<7	26	13.7	70	32.6	68	29.4	62	30.2	21	16.6	4	4.0
7.00–13.99	73	24.1	148	35.9	130	28.9	108	26.8	47	17.7	9	4.0
14.00–23.99	141	33.5	236	43.3	230	40.9	216	38.0	78	19.3	14	3.4
≥24	203	44.9	337	60.4	310	56.0	274	45.3	117	27.0	20	4.0
Median household income (U.S. $)												
<36,000	248	38.6	391	55.7	367	56.6	327	46.0	139	26.6	27	4.5
36,000–48,999	99	28.9	213	47.0	176	38.5	158	35.3	59	19.0	7	2.3
49,000–67,999	68	28.5	122	33.4	118	29.8	113	31.4	38	16.4	5	2.5
≥68,000	28	20.3	65	31.3	77	26.2	61	23.2	27	16.3	8	6.1
Unemployed (%)												
<3	37	26.0	80	42.1	73	35.0	69	34.3	27	20.6	6	4.6
3.00–4.99	86	31.0	152	39.7	127	30.8	133	33.8	45	16.9	9	3.5
5.00–6.99	93	29.5	167	42.0	173	41.5	129	31.4	56	20.0	12	4.3
≥7	227	35.9	392	51.7	365	48.0	329	42.4	135	24.5	20	3.5
Subtotal[a]	443	32.4	791	45.7	738	41.1	660	37.1	263	21.4	47	3.8
Total[b]	**2,648**	**97.4**	**2,596**	**79.3**	**2,049**	**60.4**	**1,742**	**51.8**	**717**	**31.8**	**130**	**6.4**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

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 ACS and could not be altered. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

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[a] Because column subtotals were calculated independently of the values of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[b] Totals do not represent all adults whose HIV infection was diagnosed during 2010 in these areas. See Technical Notes for exclusion criteria.

Table 8b. Diagnoses of HIV infection among Hispanic/Latino adults, by age, sex, and selected social determinants of health, 2010—20 states, the District of Columbia, and Puerto Rico

	18–24		25–34		35–44		45–54		55–64		≥65	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male												
Below federal poverty level (%)												
<6	74	28.1	135	36.5	109	29.6	52	19.3	13	9.2	2	2.0
6.00–10.99	151	36.2	261	43.3	188	36.2	76	21.3	21	11.1	9	6.6
11.00–18.99	212	34.7	402	46.8	281	40.5	136	29.1	31	12.4	10	5.4
≥19	295	31.9	580	48.8	391	41.3	266	37.8	83	18.1	30	7.0
Less than high school diploma (%)												
<7	77	37.1	170	70.1	119	54.4	51	31.7	13	15.1	7	11.3
7.00–13.99	106	34.8	188	43.0	141	37.3	75	28.7	12	8.3	7	6.7
14.00–23.99	164	34.7	313	46.6	209	37.5	104	27.1	34	15.8	8	4.6
≥24	385	30.9	707	41.9	500	36.0	300	30.1	89	15.0	29	5.7
Median household income (U.S. $)												
<36,000	264	32.5	555	52.9	359	43.1	240	38.0	78	18.4	32	7.9
36,000–48,999	191	31.7	345	41.7	244	37.4	110	25.2	26	11.1	4	2.4
49,000–67,999	180	36.4	307	42.9	232	38.0	118	28.5	28	12.8	11	7.0
≥68,000	97	31.5	171	40.1	134	31.1	62	19.8	16	9.9	4	3.5
Unemployed (%)												
<3	89	28.7	173	40.5	136	38.0	57	22.6	17	12.0	8	7.1
3.00–4.99	198	35.6	352	45.2	258	38.9	139	29.2	41	15.3	14	6.4
5.00–6.99	199	35.3	378	48.3	237	36.0	141	30.9	32	12.2	10	4.8
≥7	246	30.7	475	45.2	338	39.2	193	31.2	58	15.7	19	6.2
Subtotal[a]	732	32.8	1,378	45.3	969	38.1	530	29.4	148	14.2	51	6.0
Female												
Below federal poverty level (%)												
<6	3	1.3	12	3.3	14	3.7	9	3.2	5	3.2	1	0.7
6.00–10.99	12	3.2	30	5.4	24	4.9	16	4.5	6	2.9	2	1.1
11.00–18.99	21	4.0	42	5.5	32	5.1	24	5.3	11	4.0	3	1.2
≥19	47	5.7	116	10.7	97	10.6	88	12.2	28	5.5	9	1.6
Less than high school diploma (%)												
<7	1	0.5	9	3.6	5	2.1	7	3.9	5	4.8	1	1.1
7.00–13.99	10	3.4	18	4.3	19	5.0	12	4.4	4	2.5	0	0.0
14.00–23.99	16	3.8	43	7.0	33	6.3	27	7.0	9	3.7	2	0.8
≥24	56	5.3	130	8.8	110	8.6	91	9.4	32	5.0	12	1.8
Median household income (U.S. $)												
<36,000	47	6.4	100	10.5	91	11.3	89	13.7	24	5.1	10	1.9
36,000–48,999	23	4.5	52	7.1	42	7.0	22	5.2	15	5.9	3	1.3
49,000–67,999	11	2.5	35	5.3	17	3.0	11	2.7	7	3.0	1	0.5
≥68,000	2	0.7	13	3.1	17	3.8	15	4.6	4	2.2	1	0.6
Unemployed (%)												
<3	9	3.8	22	6.4	23	7.3	12	5.0	7	4.6	3	2.0
3.00–4.99	18	3.6	41	5.7	36	5.6	29	6.0	8	2.7	2	0.7
5.00–6.99	21	4.1	53	7.3	41	6.5	39	8.5	10	3.5	2	0.7
≥7	35	4.9	84	8.6	67	8.1	57	9.1	25	6.2	8	2.0
Subtotal[a]	83	4.2	200	7.2	167	6.9	137	7.6	50	4.4	15	1.3
Total[b]	815	19.4	1,578	27.2	1,136	22.9	667	18.5	198	9.1	66	3.3

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

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 ACS and could not be altered. See Technical Notes for more details.

Row entries indicate categories based on census tracts.

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[a] Because column subtotals were calculated independently of the values of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[b] Totals do not represent all adults whose HIV infection was diagnosed during 2010 in these areas. See Technical Notes for exclusion criteria.

Table 8c. Diagnoses of HIV infection among white adults, by age, sex, and selected social determinants of health, 2010—20 states, the District of Columbia, and Puerto Rico

	Age at diagnosis (yr)											
	18–24		25–34		35–44		45–54		55–64		≥65	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male												
Below federal poverty level (%)												
<6	151	12.4	246	13.4	267	10.5	269	9.0	112	4.8	32	1.5
6.00–10.99	157	12.8	346	18.2	341	16.1	329	13.5	99	4.9	33	1.6
11.00–18.99	151	13.8	346	21.5	393	24.4	333	18.1	95	6.1	31	1.8
≥19	159	14.6	311	36.1	249	33.4	236	28.3	55	7.9	11	1.4
Less than high school diploma (%)												
<7	210	12.8	407	22.3	403	18.8	383	15.7	130	6.6	42	2.3
7.00–13.99	172	12.0	336	16.3	347	15.0	311	11.6	86	4.0	28	1.2
14.00–23.99	140	13.0	297	19.0	289	16.6	279	13.9	94	5.7	23	1.3
≥24	96	18.8	209	27.5	211	25.4	194	20.2	51	6.5	14	1.6
Median household income (U.S. $)												
<36,000	128	12.9	250	29.5	205	26.1	202	22.4	49	6.3	8	0.9
36,000–48,999	144	11.8	304	18.5	330	19.8	271	13.9	67	4.1	27	1.4
49,000–67,999	173	13.5	382	19.2	363	16.9	357	14.6	112	5.6	29	1.4
≥68,000	173	15.5	313	18.2	351	14.6	337	12.1	133	6.2	43	2.3
Unemployed (%)												
<3	112	9.7	243	15.8	271	14.7	250	11.6	86	4.9	28	1.5
3.00–4.99	208	13.2	403	18.4	372	14.6	397	13.5	125	5.2	36	1.5
5.00–6.99	154	14.1	328	22.7	297	18.9	306	17.1	91	6.3	24	1.6
≥7	144	17.2	275	26.7	310	29.5	214	17.7	59	6.1	19	1.9
Subtotal[a]	618	13.3	1,249	20.1	1,250	17.8	1,167	14.4	361	5.5	107	1.6
Female												
Below federal poverty level (%)												
<6	13	1.2	30	1.6	31	1.2	25	0.8	10	0.4	2	0.1
6.00–10.99	26	2.2	37	2.0	36	1.7	34	1.4	15	0.7	4	0.1
11.00–18.99	27	2.5	49	3.1	52	3.3	42	2.3	23	1.4	4	0.2
≥19	26	2.3	60	7.6	50	7.3	49	6.1	16	2.2	5	0.4
Less than high school diploma (%)												
<7	13	0.8	26	1.4	28	1.3	24	1.0	11	0.5	2	0.1
7.00–13.99	17	1.2	35	1.7	43	1.9	34	1.2	11	0.5	2	0.1
14.00–23.99	33	3.2	58	3.8	51	3.0	48	2.4	23	1.3	8	0.3
≥24	29	6.1	57	8.0	47	6.2	44	4.9	19	2.4	3	0.3
Median household income (U.S. $)												
<36,000	27	2.7	58	7.3	43	5.8	48	5.4	19	2.3	4	0.3
36,000–48,999	28	2.4	45	2.8	54	3.3	35	1.8	20	1.1	6	0.2
49,000–67,999	26	2.1	41	2.1	45	2.1	32	1.3	13	0.6	3	0.1
≥68,000	11	1.1	32	1.8	27	1.1	35	1.2	12	0.5	2	0.1
Unemployed (%)												
<3	15	1.4	27	1.8	31	1.7	20	0.9	10	0.5	4	0.2
3.00–4.99	31	2.0	50	2.3	52	2.1	48	1.6	16	0.6	4	0.1
5.00–6.99	23	2.1	49	3.5	42	2.7	37	2.1	16	1.1	3	0.2
≥7	23	2.7	50	4.9	44	4.3	45	3.7	22	2.2	4	0.3
Subtotal[a]	92	2.1	176	2.9	169	2.4	150	1.8	64	0.9	15	0.2
Total[b]	**710**	**7.8**	**1,425**	**11.6**	**1,419**	**10.2**	**1,317**	**8.1**	**425**	**3.2**	**122**	**0.8**

Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Reported numbers less than 12, and rates based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable.

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 ACS and could not be altered. See Technical Notes for more details.

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[a] Because column subtotals were calculated independently of the values of the subpopulations, the values in each column may not sum to the column subtotals. See Technical Notes for criteria used to define social determinants of health subpopulations.

[b] Totals do not represent all adults whose HIV infection was diagnosed during 2010 in these areas. See Technical Notes for exclusion criteria.