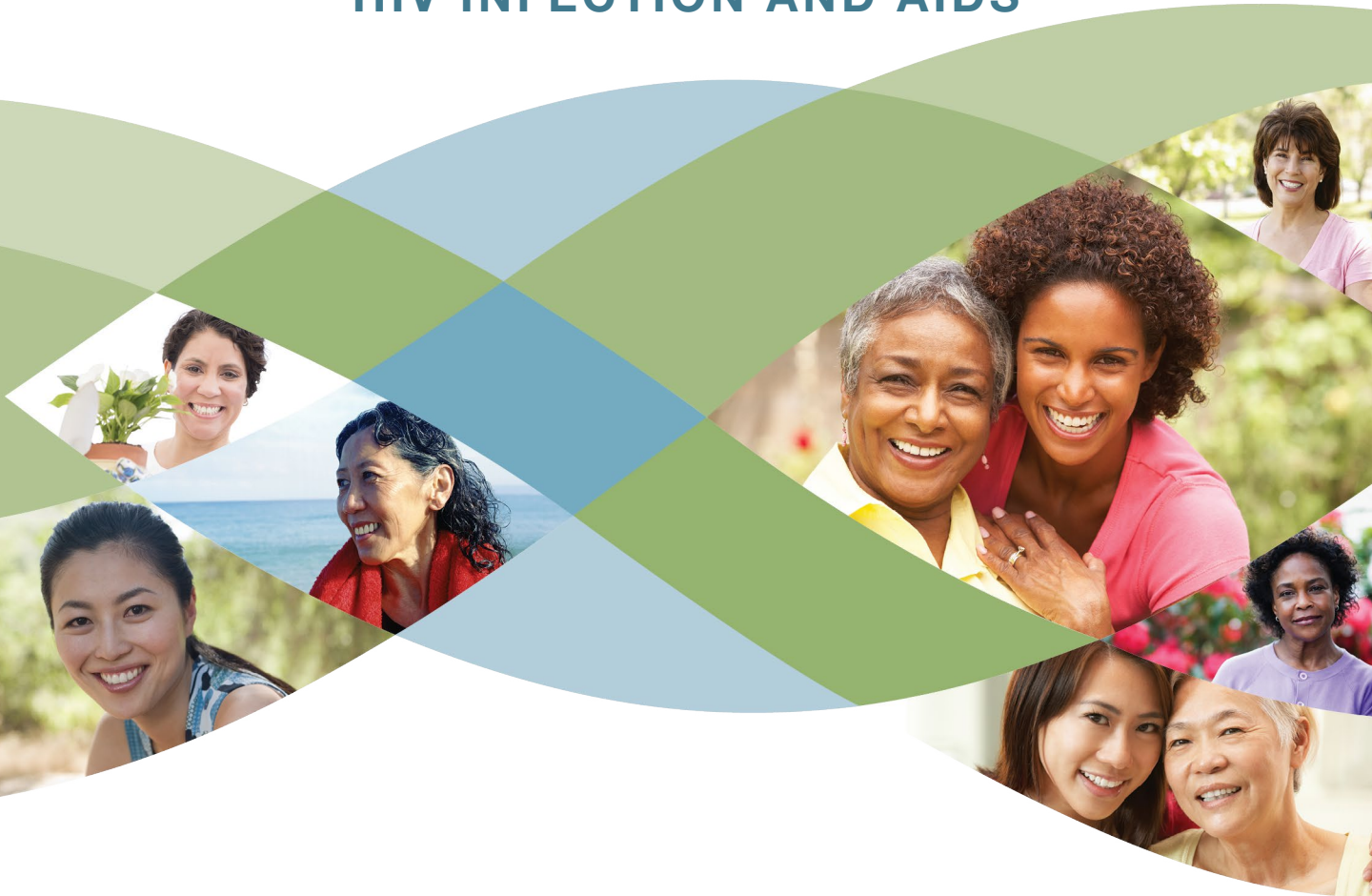


WOMEN
OF COLOR

HEALTH
INFORMATION
COLLECTION

HIV INFECTION AND AIDS



National Institutes of Health
Office of Research on Women's Health

Acknowledgments

Thank you to the National Institutes of Health Office of Research on Women's Health staff who were involved in the development of this publication, including Charles Wells, Ph.D.; Amy Mistretta, M.P.H.; Claudette E. Brooks, M.D.; Anne Rancourt, M.P.S.; Terri Cornelison, M.D., Ph.D.; Maggie M. Brewinski Isaacs, M.D., M.P.H.; and Leah Miller, Ph.D., M.B.A.



HIV INFECTION AND AIDS

Office of Research on Women's Health

National Institutes of Health

WOMEN OF COLOR IN THE U.S. POPULATION

Of the nearly 309 million people living in the United States (according to the U.S. Census conducted April 1, 2010), more than half (approximately 157 million or 50.8 percent) were women (see Table 1). More than 56 million—more than a third (36.1 percent)—were women of color. These 56.7 million women of color were distributed as follows: 44 percent Hispanic, 35 percent non-Hispanic black, nearly 14 percent non-Hispanic Asian, 2.0 percent non-Hispanic American Indian and Alaska Native (AI/AN), and 0.4 percent non-Hispanic Native Hawaiian and Other Pacific Islander (NHPI). An additional 5 percent of women of color identified themselves as belonging to two or more races. In raw numbers, the U.S. population includes nearly 25 million Hispanic women, nearly 20 million non-Hispanic black women, more than 7 million non-Hispanic Asian women, more than 1 million non-Hispanic AI/AN women, and more than 246,000 non-Hispanic NHPI women.¹

LEADING CAUSES OF DEATH IN FEMALES

During 2009, the 10 leading causes of death for females were, in decreasing rank order, as follows: heart disease; cancer; cerebrovascular diseases (primarily stroke); chronic lower respiratory diseases; Alzheimer's disease; unintentional injuries; diabetes mellitus (diabetes); influenza and pneumonia; nephritis, nephritic syndrome, and nephrosis (kidney disease); and blood poisoning (septicemia).² Although death rates from heart disease have been falling for the past 60 years, heart disease accounted for the greatest number of age-adjusted deaths among black females, Hispanic females, and females of all racial groups combined. Cancer caused the greatest number of age-adjusted deaths among AI/AN females, Asian and Pacific Islander females, and white females.² In addition, the top two causes of death—heart disease and cancer—accounted for 48 percent of all deaths among females in the United States (see Figure 1).²

Table 1

Female Population by Race and Hispanic Origin for the United States, April 1, 2010

Race	Race Alone (number)	Percentage of Total Population	Race Alone or in Combination* (number)	Percentage of Total Population*
Female Population	156,964,212	100.0	156,964,212	100.0
American Indian and Alaska Native	1,849,811	1.2	3,083,750	2.0
Asian	7,941,039	5.1	9,208,460	5.9
Black or African American	21,045,595	13.4	22,580,483	14.4
Native Hawaiian and Other Pacific Islander	331,721	0.2	664,743	0.4
White	122,238,141	77.9	125,351,477	79.9
Two or more races	3,557,905	2.3	**	**
Hispanic or Latina Origin and Race	Race Alone (number)	Percentage of Total Population	Race Alone or in Combination* (number)	Percentage of Total Population*
Female Population	156,964,212	100.0	156,964,212	100.0
Hispanic or Latina (of any race)	24,858,794	15.8	24,858,794	15.8
Not Hispanic or Latina	132,105,418	84.2	132,105,418	84.2
American Indian and Alaska Native	1,147,502	0.7	2,072,064	1.3
Asian	7,691,693	4.9	8,766,145	5.6
Black or African American	19,853,611	12.6	21,080,725	13.4
Native Hawaiian and Other Pacific Islander	246,518	0.2	512,076	0.3
White	100,301,335	63.9	102,803,203	65.5
Two or more races	2,864,759	1.8	**	**

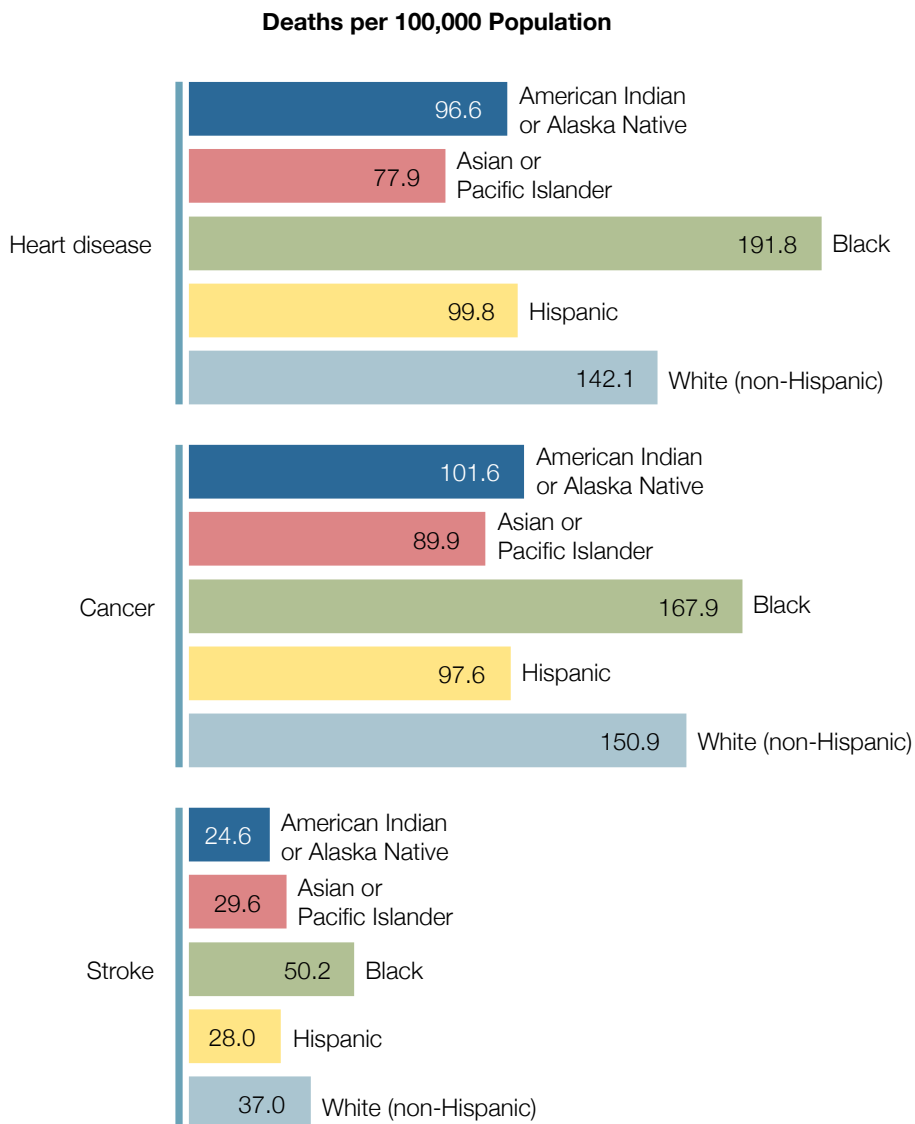
* "In combination" means in combination with one or more other races. The sum of the five race groups adds to more than the total population because individuals may report being of more than one race.

** The population reporting being of two or more races is reflected within each of the designated racial/ethnic categories above.

Source: U.S. Census Bureau, Population Division. (2012, May 16). *National characteristics: Vintage 2011. Table 3: Annual estimates of the resident population by sex, race, and Hispanic origin for the United States: April 1, 2010 to July 1, 2011* (NC-EST2011-03) [Data file]. Retrieved March 28, 2013, from <http://www.census.gov/popest/data/national/asrh/2011/index.html>

Figure 1

Age-Adjusted Death Rates From Major Causes of Death Among Females by Race and Hispanic Origin, 2009



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. (2013, March 14). *Health, United States, 2011: List of trend tables* [Data files]. Available at <http://www.cdc.gov/nchs/hus/contents2011.htm>

Human immunodeficiency virus (HIV) disease¹ was not reported among the top 10 leading causes of death among females of all racial and ethnic groups and all ages during the past decade. However, HIV disease was the 10th-ranked cause of death for black females of all ages during 2001 and 2002.³

As recent as 2008, HIV disease was one of the top 10 causes of death among females of selected ages within the major racial and ethnic groups (see Table 2). It was the sixth-ranked cause of death among females between ages 25 and 44 of all racial and ethnic groups combined and the eighth-ranked killer among all women ages 20 to 24.⁴ For non-Hispanic black females between ages 15 and 54, HIV disease was ranked variously among the top 10 killers. It was the third-ranked cause of death among non-Hispanic black women ages 35 to 44—its highest reported ranking as a cause of death for any subpopulation of females. Only cancer (ranked first) and diseases of the heart (ranked second) killed more non-Hispanic black women ages 35 to 44 than did HIV disease during 2008. Among non-Hispanic black females ages 15 to 19, HIV disease was the ninth-ranked killer, its lowest ranking as a killer of black females between ages 15 and 54.⁴ HIV disease was a top 10 killer of Hispanic, Asian and Pacific Islander, and AI/AN females in various age groups as well.⁴

BACKGROUND

HIV is the cause of both HIV infection and acquired immune deficiency syndrome, or AIDS. Many, but not all, cases of HIV infection develop into AIDS. If HIV infection develops into AIDS, the immune system of the person affected becomes severely damaged and he or she has difficulty fighting other diseases, such as cancer, and opportunistic infections, such as *Pneumocystis pneumonia*.⁵

¹ The term “HIV disease” covers the entire spectrum of conditions from initial infection to full-blown AIDS, also sometimes referred to as “advanced HIV disease.”

Table 2

Ranking of HIV Disease as Cause of Death (Among Top 10 Causes of Death) for Females of Color by Age Group, 2008

HIV Disease as Cause of Death					
Race/Ethnicity	Rank Among Age Group				
	15–19	20–24	25–34	35–44	45–54
American Indian or Alaska Native	*	8th	*	10th	*
Asian or Pacific Islander	*	8th	9th	*	*
Non-Hispanic Black	9th	6th	4th	3rd	5th
Hispanic	*	7th	7th	6th	7th
Non-Hispanic White	*	*	*	*	*
All races	*	8th	6th	6th	*

* HIV disease was not among the top 10 causes of death.

Source: Heron, M. (2012, June 6). Deaths: Leading causes for 2008. *National Vital Statistics Report*, 60(6). Table 1, pp. 17–33. Retrieved December 26, 2013, from http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_06.pdf

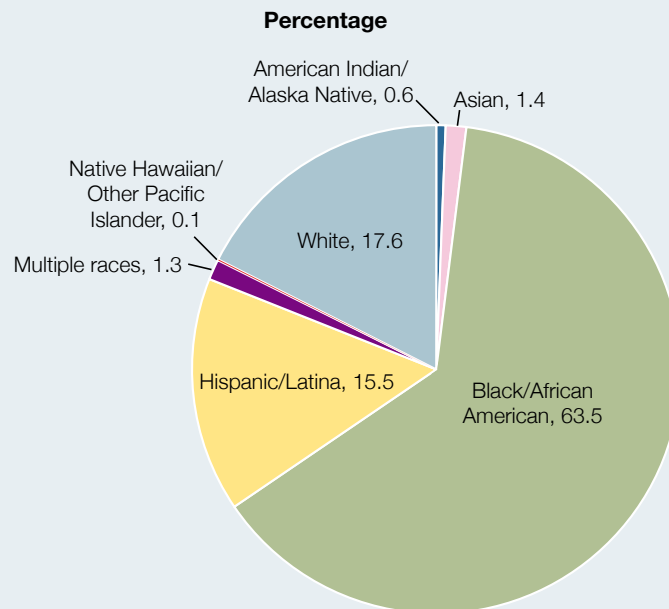
During 2010, females accounted for one of every five diagnoses of HIV infection among adults or adolescents.^{ii,6} The proportion of diagnoses among female adults or adolescents, however, was less in 2010 (21 percent) than in 2009 (24 percent).⁶ (Among female adults and adolescents, diagnoses of AIDS are slightly more common than diagnoses of HIV infection.) Female adults and adolescents accounted for 25 percent of all AIDS diagnoses made during 2010. As with HIV infection, however, the proportion of diagnoses among female adults and adolescents had declined in 2010 from 27 percent in 2007.⁶ Among adults and adolescents, 6.4 of every 100,000 females and 20.0 of every 100,000 males were diagnosed with AIDS during 2010.⁶

ⁱⁱ Data are from the 46 states with confidential name-based reporting of HIV infection. The four states that do not have confidential name-based reporting are Hawaii, Maryland, Massachusetts, and Vermont.

Compared with females of other races/ethnicities, African Americans and Latinas are disproportionately affected at all stages of infection with HIV and by all reported measures: new cases of HIV infection, annual diagnoses of HIV infection, annual diagnoses of AIDS, and prevalence of HIV infection and AIDS.⁷ For new cases of HIV infection, this disproportionality is striking. Although black or African-American and Hispanic or Latina females together constituted only 29 percent of the U.S. female population during 2010, they accounted for an estimated 79 percent of the new cases of HIV infection among females that year (see Figure 2).⁸ The same pattern was evident with diagnoses of AIDS. Approximately 66 percent of all diagnosed cases of AIDS reported among female adults or adolescents during that year were among blacks (see Figure 3).⁶

Figure 2

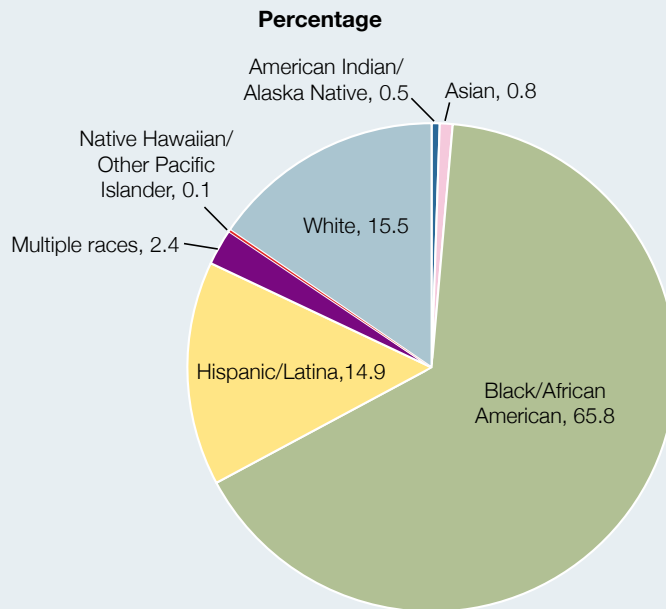
Distribution of HIV Infection Diagnoses Among Female Adults and Adolescents by Race/Ethnicity, 2010



Source: Centers for Disease Control and Prevention. (2012, March). *HIV Surveillance Report, 2010*; vol. 22, Table 3a, p. 25. Retrieved May 2, 2013, from http://www.cdc.gov/hiv/surveillance/resources/reports/2010report/pdf/2010_HIV_Surveillance_Report_vol_22.pdf

Figure 3

Distribution of AIDS Diagnoses Among Female Adults and Adolescents by Race/Ethnicity, 2010



Source: Centers for Disease Control and Prevention. (2012, March). *HIV Surveillance Report, 2010*; vol. 22, Table 3a, pp. 27 and 28. Retrieved May 2, 2013, from http://www.cdc.gov/hiv/surveillance/resources/reports/2010report/pdf/2010_HIV_Surveillance_Report_vol_22.pdf

The two main methods of transmission of HIV infection among female adults and adolescents are heterosexual contact (the major category of exposure) and injection drug use. During 2010, an estimated 86 percent of diagnosed cases of HIV infection (in the 46 states with confidential name-based reporting) and 77 percent of the cases of AIDS among female adults and adolescents in the United States were attributed to heterosexual contact.⁶ Perinatal transmission of HIV infection from mother to infant is the most common way for children to become infected. The virus can be transmitted from mother to infant during pregnancy, labor and delivery, or breastfeeding.⁹

INCIDENCE, PREVALENCE, AND MORTALITY

Incidenceⁱⁱⁱ

New Cases of HIV Infection (Adults and Adolescents)

Males are much more likely than females to report new cases of HIV infection. In addition, the estimated number of new cases among females has decreased during recent years. Black and Hispanic females, however, remain overrepresented among newly diagnosed cases of HIV infection.

- During 2010, the **rate of new HIV infections** among males (30.7 per 100,000) was more than four times that among females (7.3 per 100,000).⁸
- The estimated number of **new cases of HIV infection among females** decreased by 21 percent between 2008 and 2010—from 12,000 to 9,500, respectively.⁸
- Although the estimated number of **new cases of HIV infection among black females** has decreased, black females continue to be disproportionately affected by HIV infection.⁸ Between 2008 and 2010, the number of new HIV infections among black females decreased 21 percent—from 7,700 in 2008 to 6,100 in 2010. During 2010, however, the rate of new HIV infections among black females (38.1 per 100,000) was more than 20 times the rate among white females (1.9 per 100,000).⁸ A majority of black females (88 percent) who were infected in 2010 with HIV reported heterosexual contact, followed by injection drug use (11.5 percent), as the cause of their infection.⁶

ⁱⁱⁱ Incidence is the number of newly diagnosed cases of a disease. It is a measure of disease that allows us to determine a person's probability of being diagnosed with a disease during a given period of time. The incidence rate is the number of new cases of a disease divided by the number of people at risk for the disease.

- Although the estimated number of **new cases of HIV infection among Hispanic females** remained roughly stable between 2008 and 2010, Hispanic females continue to be disproportionately affected by HIV infection. The number of new cases of HIV infection among Hispanic females was 1,600 in 2008 and 1,400 in 2010. The rates were stable in all age and transmission category groups during this period. However, the rate of new HIV infections during 2010 for Hispanic females (8.0 per 100,000) was more than four times the rate for white females (1.9 per 100,000). Most new cases of HIV infection among Hispanic females (86 percent) were attributed to heterosexual contact.⁸
- The estimated number of **new cases of HIV infection among white females** also remained roughly stable between 2008 and 2010—at 2,300 in 2008 and 1,700 in 2010. The number was stable in all age groups and transmission categories. During 2010, the majority of new HIV infections among white females (76 percent) were attributed to heterosexual contact, as was the case with both African-American females and Hispanic females.⁸

Annual Diagnoses of HIV Infection (Adults and Adolescents)

During recent years, the estimated rate of annual diagnoses of HIV infection among females has decreased, while the rate among males has remained stable. African Americans reported the highest estimated rate of annual diagnoses of HIV infection among female adolescents and adults. Among Hispanic females, those born in the United States report the largest estimated number of annual diagnoses of HIV infection. In Hawaii, Native Hawaiian females and Filipina females were the most likely to report HIV infection.

- Between 2007 and 2010, the **estimated rate of annual diagnoses of HIV infection^{iv}** among males was stable—at 31.3 per 100,000 in 2007 and 31.4 per 100,000 in 2010. During the same period, however, the rate among females decreased—from 9.4 per 100,000 to 8.0 per 100,000.⁶

^{iv} Data are from the 46 states with confidential name-based reporting of HIV infection. The four states that do not have confidential name-based reporting are Hawaii, Maryland, Massachusetts, and Vermont.

- Blacks (41.7 cases per 100,000) had the **highest estimated rate of annual diagnoses of HIV infection** among female adults and adolescents in 2010 (based on data from 46 states with confidential name-based reporting of HIV infection). Rates among female adults and adolescents of other races were as follows: Hispanics (9.2 cases per 100,000), AI/ANs (6.4 cases per 100,000), NHPs (4.5 cases per 100,000), Asians (2.5 cases per 100,000), and whites (2.1 cases per 100,000).⁶
- Blacks accounted for 63.5 percent of the 9,868 **estimated annual diagnoses of HIV infection** among female adults and adolescents in 2010 (based on data from 46 states with confidential name-based reporting of HIV infection). Other racial and ethnic groups accounted for the 2010 estimated annual diagnoses of HIV infection among female adults and adolescents as follows: whites (17.6 percent), Hispanics (15.5 percent), Asians (1.4 percent), females of multiple races (1.3 percent), AI/ANs (0.6 percent), and NHPs (0.1 percent).⁶
- Among **Hispanic female adults and adolescents** in 51 areas (46 states and 5 U.S.-dependent areas with confidential name-based HIV-infection reporting) during 2010, those **born in the United States** reported the largest estimated number of annual diagnoses of HIV infection (631), followed by their counterparts born in Puerto Rico (334), Mexico (205), Central America (174), South America (55), and Cuba (20).⁶
- **In Hawaii, cases of HIV infection** are more likely to be reported among Native Hawaiian and Filipina females than among females of other racial and ethnic groups. During the period 2006–2010, females of the following subpopulations accounted for the stated proportions of cumulative cases of HIV infection (not AIDS) within their respective groups: 33 percent of cumulative cases among Native Hawaiians, 33 percent among Filipinas, 26 percent among Other Asians, 25 percent among persons of multiple races, 24 percent among Japanese, 19 percent among African Americans, 13 percent among Other Pacific Islanders, 12 percent among Caucasians,^v and 9 percent among Hispanics.¹⁰

^v A definition of “Caucasian” was not provided in the data source, the *Native Hawaiian Data Book 2011*. Thus, the term could represent individuals who are either white or non-Hispanic white.

Diagnoses of HIV Infection (Younger Than Age 13)

- In 2010, an estimated 217 children younger than age 13 were diagnosed with HIV infection (in the 46 states with long-term, confidential name-based HIV-infection reporting since 2007).⁹ Three-fourths (75 percent) of these children—that is, 162 children—were infected perinatally.⁹
- Although the number of women with HIV giving birth has increased since 2000, the estimated number of perinatal infections each year (in the 50 states and 5 U.S.-dependent areas) continues to decline.⁹
- Among perinatally infected children born between 2007 and 2009, black children had the highest HIV rate, although the rate declined from 15.2 per 100,000 live births to 9.9 per 100,000 live births. Rates for Hispanics (2.1 per 100,000 live births in 2007 and 1.7 per 100,000 live births in 2009) and whites (0.8 per 100,000 live births in 2007 and 0.1 per 100,000 live births in 2009) were roughly stable during this period.⁹

Annual Diagnoses of AIDS (Adults and Adolescents)

In recent years, the estimated rate of annual diagnoses of AIDS among males has remained stable, while the rate among females has decreased. African Americans report the highest estimated rate of annual diagnoses of AIDS among female adolescents and adults. Among Hispanic females, those born in the United States report the largest number of annual diagnoses of AIDS. Within the major racial/ethnic groups in Hawaii, African-American females were the most likely to report AIDS diagnoses.

- Between 2007 and 2010, the **estimated rate of annual AIDS diagnoses** among adult and adolescent females decreased from 7.3 per 100,000 to 6.4 per 100,000. During this same period, the rate among males remained stable—20.6 per 100,000 in 2007 and 20.0 per 100,000 in 2010.⁶
- Blacks (33.7 cases per 100,000) had the highest **estimated rate of annual AIDS diagnoses** among female adults and adolescents in 2010, followed by females who were Hispanic (7.1 cases per 100,000), NHPI (5.4 cases per 100,000), AI/AN (4.6 cases per 100,000), white (1.5 cases per 100,000), and Asian (1.2 cases per 100,000).⁶

- **Blacks** accounted for 65.8 percent of the estimated 8,242 **annual AIDS diagnoses among female adults and adolescents** in 2010. Other racial and ethnic groups were represented in the 2010 diagnoses of HIV infection among female adults and adolescents as follows: whites (15.5 percent), Hispanics (14.9 percent), females of multiple races (2.4 percent), Asians (0.8 percent), AI/ANs (0.5 percent), and NHPs (0.1 percent).⁶
- Among **Hispanic female adults and adolescents** in the United States (and in six U.S.-dependent areas) during 2010, those born in the United States reported the largest estimated number of AIDS diagnoses (555), followed by their counterparts born in Puerto Rico (274), Central America (138), Mexico (120), South America (36), and Cuba (11).⁶
- When comparing females of selected racial and ethnic groups **in Hawaii**, African-American females were the most likely to report AIDS. During the 5-year period of 2006–2010, African-American females accounted for nearly two of every five African Americans (38 percent) with AIDS. Females accounted for the following percentages of AIDS cases among other racial and ethnic groups: 31 percent among Native Hawaiians, 29 percent among Other Pacific Islanders, 23 percent among Other Asians, 15 percent among Hispanics, 12 percent among Japanese, 10 percent among Caucasians, and 9 percent among Filipinas.¹¹

Prevalence^{vi}

At the end of 2009, the estimated **prevalence of HIV infection** was 496.1 diagnosed cases per 100,000 adult and adolescent males, 153.6 diagnosed cases per 100,000 adult and adolescent females, and 21.1 diagnosed cases per 100,000 children (i.e., younger than age 13 at the time of diagnosis).⁶ Among female adults and adolescents of the major racial and ethnic groups at the end of 2009, blacks had the highest estimated

^{vi} Prevalence is the total number of cases of a disease existing in a population. It is a measure of disease that allows us to determine a person's likelihood of having a disease. The prevalence rate is the total number of cases of a disease existing in a population divided by the total population.

prevalence of people living with a diagnosis of HIV infection (764 cases per 100,000), followed by Hispanics (190 cases per 100,000), NHPIs (83 cases per 100,000), AI/ANs (83 cases per 100,000), whites (44 cases per 100,000), and Asians (27 cases per 100,000).⁶ At the end of 2009, among the 188,668 females (in 46 states with confidential name-based reporting) living with a diagnosis of HIV infection (made when they were age 13 or older), 74 percent attributed this diagnosis to heterosexual contact and 26 percent attributed it to injection drug use.⁶

At the end of 2009, the estimated **prevalence of AIDS** was 292.0 diagnosed cases per 100,000 adult and adolescent males, 85.8 diagnosed cases per 100,000 adult and adolescent females, and 7.1 diagnosed cases per 100,000 children (i.e., younger than age 13 at the time of diagnosis).⁶ Among female adults and adolescents of the major racial and ethnic groups at the end of 2009, blacks had the highest estimated prevalence rate for people living with an AIDS diagnosis (424 per 100,000). Prevalence among other groups of female adults and adolescents was as follows: Hispanics (114 cases per 100,000), NHPIs (45 cases per 100,000), AI/ANs (40 cases per 100,000), whites (23 cases per 100,000), and Asians (15 cases per 100,000).⁶ At the end of 2009, among the 110,945 females living with an AIDS diagnosis (made when they were age 13 or older), 68 percent attributed this diagnosis to heterosexual contact and 30 percent attributed it to injection drug use.⁶

Among females **living with an AIDS diagnosis** at the end of 2009, Asians were the most likely to attribute this diagnosis to heterosexual contact (82 percent). Sizable percentages of other women of color also attributed their AIDS diagnoses to heterosexual contact: NHPIs (79 percent), blacks (70 percent), Hispanics (68 percent), AI/ANs (61 percent), and whites (60 percent).⁶ Among females living with an AIDS diagnosis at the end of 2009, whites (38 percent) and AI/ANs (37 percent) were more likely than Hispanics (30 percent), blacks (28 percent), NHPIs (18 percent), and Asians (10 percent) to attribute their infections and subsequent diagnoses with AIDS to injection drug use.⁶

At the end of 2009, an estimated 10,834 people who were **diagnosed with HIV infection when they were younger than age 13** were living in the 46 states according to long-term, confidential name-based HIV-infection reporting. Most of these individuals (9,522, or 88 percent) had been infected perinatally. More than three of every five (63 percent) were African American, more than a fifth (22 percent) were Hispanic, and less than a fifth (13 percent) were white. These numbers include people of all ages who were infected with HIV as children.⁹

Mortality

In 2009, males of all ages had significantly higher **mortality—or death rates—from HIV disease** than did females. Among females, blacks had a significantly higher age-adjusted death rate (8.9 per 100,000) than either Hispanics (1.5 per 100,000) or non-Hispanic whites (0.4 per 100,000).^{vii, 2}

Between 2007 and 2009, the **rate of death** remained stable among adult and adolescent females with a **diagnosis of HIV infection** (in 46 states with confidential name-based reporting)—4.2 per 100,000 in 2007 and 4.4 per 100,000 in 2009. However, the number of deaths among females whose infections were attributed to heterosexual contact increased (from 3,052 in 2007 to 3,412 in 2009), whereas the number of deaths among those whose infections were attributed to injection drug use remained stable (1,979 in 2007 and 1,986 in 2009).⁶

During this same period, the **rate of death** among adult and adolescent females with an **AIDS diagnosis** remained stable (3.6 per 100,000 in 2007 and 3.5 per 100,000 in 2009). However, the number of deaths among females whose infections were attributed to injection drug use decreased (from 1,887 in 2007 to 1,729 in 2009), whereas the number of deaths among females whose infections were attributed to heterosexual contact remained stable (2,650 in 2007 and 2,755 in 2009).⁶

^{vii} Data for AI/AN and for Asian and Pacific Islander females were not reported in the source because the data were not deemed reliable.

Death rates from **HIV disease among females** in 2009 varied by age group, although black females reported higher rates in each age group than did females in other racial/ethnic groups. Females ages 45 to 64 had higher death rates from HIV disease than females ages 25 to 44. Among blacks, the death rates were 18.2 per 100,000 females ages 45 to 64 and 13.2 per 100,000 females ages 25 to 44. Among Hispanics, the death rates were 3.5 per 100,000 females ages 45 to 64 and 1.4 per 100,000 females ages 25 to 44. Among non-Hispanic whites, the death rates were 0.8 per 100,000 females ages 45 to 64 and 0.6 per 100,000 females ages 25 to 44.²

From the beginning of the epidemic through 2009, an estimated 5,626 individuals who were **diagnosed with AIDS when they were younger than age 13** died in the 50 states and Washington, D.C. Of this total, most people (4,986, or 89 percent) were infected perinatally.⁹ After being diagnosed with AIDS, 88 percent of blacks and 90 percent of whites survive for 12 months or more. The gap is greater for **survival rates** of 36 months or more, with 81 percent of blacks and 85 percent of whites surviving this long.¹²

HISTORICAL/ECONOMIC/ CULTURAL/SOCIAL FACTORS

American Indians and Alaska Natives

AI/ANs' response to HIV mirrors their history of mistreatment by the U.S. Government and the associated complexities of providing health care services to these populations.¹³ Both historical trauma and trauma from contemporary interpersonal violence among AI/ANs contribute to their risk of HIV infection. The homophobia and stigma associated with HIV infection and AIDS within some AI/AN communities further compound the difficulty of addressing this health problem.^{14, 15} Long distances between many AI/AN communities and the state and county health agencies and other organizations that can provide funding and other resources for the prevention and treatment of HIV infection and AIDS also limit access to needed care.¹³

To help address the problem of HIV infection and AIDS among AI/ANs, certain organizations, such as the Colorado-based National Native American AIDS Prevention Center (NNAAPC), are active in Native communities.¹⁶ Since AI/AN activists, social workers, and public health professionals founded NNAAPC in 1987, the organization has provided outreach, prevention, and care activities for AI/AN communities. During 2013, state legislators in Arizona and New Mexico began collaborating to stem the recent increase in new cases of HIV infection among members of the Navajo Nation. Women accounted for a third of the new cases diagnosed in recent years.¹⁷

African Americans

The prevalence of conspiracy beliefs and the lack of trust in the ability and will of the government to stop the epidemic are key factors in the rapid transmission of, and in the treatment disparities for, HIV infection and AIDS in the African-American community. Some of this distrust is related to the legacy of slavery and discrimination against blacks in the United States but particularly to the infamous Tuskegee syphilis experiment.¹⁸ Although surveys about conspiracy beliefs are more likely to examine perspectives among African-American men,¹⁹ research with female subjects has revealed similar distrust and greater belief among African-American women (than among women of other racial and ethnic groups) in, for example, the use of AIDS as a form of genocide to kill minority populations.²⁰

Distrust of the government and belief in conspiracy theories about HIV infection are accompanied by a lack of concern among some African Americans about their likelihood of becoming infected. Less than half (40 percent) of African Americans in a 2004 survey were “very concerned” about becoming infected with HIV disease, whereas 24 percent were “not at all concerned” about being infected. This lack of personal concern, however, coexists with the finding that 63 percent of African-American parents are “very concerned” about their children (age 21 and younger) becoming infected with HIV. Additionally, findings also indicated that nearly three of every five African Americans (57 percent) knew someone who had AIDS, had died of AIDS, or had tested positive for HIV infection.²¹

Hispanics

Among Hispanic women, acculturation plays a role in the transmission of HIV infection and AIDS, with both less acculturated women and more acculturated women more susceptible to infection than other people. Among more acculturated Hispanic women (and men), substance use and unprotected heterosexual intercourse are key risk factors for HIV infection and AIDS. This association seems to be strongest among Puerto Ricans.^{22,23}

Less acculturated Latinas, on the other hand, are more likely to be influenced by the mores of traditional Hispanic culture, in which men and women have distinct gender roles and women are not supposed to have advanced knowledge about sex and sexuality (the *marianista* tradition).²⁴ Thus, women may not know the risk factors for HIV infection and AIDS and they may unknowingly engage in risky behaviors. However, even if they know the risk factors for HIV infection and AIDS and they want to engage in safer sexual behaviors, if Latinas discuss condom use with their partners, they could be considered immoral and promiscuous. Their concern about possible embarrassment and stigma of this sort may lead some women to forgo condom use. In addition, the *machismo* tradition among men may contribute to lower levels of self-esteem and feelings of disempowerment among Hispanic females. These feelings, in turn, may discourage Hispanic women from attempting to protect themselves and from seeking care for HIV infection or AIDS.^{22, 24}

SEXUAL NETWORKS

A sexual network is a “set of people who are linked directly or indirectly through sexual contact.” The characteristics and patterns of these networks play a role in the spread of sexually transmitted infections (STIs) and of HIV and AIDS, because most women report heterosexual contact as their source of infection. Several features of these networks contribute to disease transmission: the extent of concurrent partnerships, the absolute

and relative sizes of the core group of people in the network with a large number of sexual contacts, the average level of risk in which the core groups engage, and the extent of sexual interaction between the core group and either the general population or a high-risk population.²⁵

Black and Hispanic women may be more vulnerable than white women are to heterosexual transmission of HIV infection and AIDS via sexual networks that include men who have sex with both men and women. Larger proportions of Hispanic men and non-Hispanic black men than non-Hispanic white men who have sex with men (MSM) report having sex with both men and women—34 percent of black MSMs, 26 percent of Hispanic MSMs, and 13 percent of white MSMs.²⁶

Other factors that may support the rapid transmission of STIs and HIV infection within the sexual networks of African Americans include the low ratio of men to women in these networks and the high incarceration rates of black men.²⁵ The black sex ratio (that is, the ratio of black men to black women) is lower than the white sex ratio, due largely to higher mortality rates among black men. The lower black sex ratio affects the ability of African-American women to negotiate safe sexual behaviors with their African-American male partners. Recognizing that their “shortage” makes them more desired among women, African-American men may be more likely than men of other racial/ethnic groups to engage in risky behaviors, such as sustaining multiple concurrent sexual partnerships—that is, relationships that overlap in time.^{27, 28}

The high rates of incarceration among black men support STI and HIV transmission because incarceration disrupts existing black sexual networks and affects black communities by infiltrating them with individuals who are likely to have engaged in risky sexual behaviors. The high incarceration rate also contributes to high levels of unemployment and poverty among blacks, which are other factors associated with less stable partnerships and more high-risk behavior.²⁷

PREVENTION, TESTING, AND TREATMENT

As with many health conditions, the experience of confronting and treating HIV infection and AIDS differs among many people of color and people who are poor than among other people in the United States. These differences result in part from the socioeconomic and structural barriers faced on an ongoing basis by people of color and poor people.²⁹ Differences in resources and living environments, differences in preexisting health, lack of health insurance coverage, delays in seeking medical care, and differences in treatment received are among the many factors that result in shorter survival periods for blacks than for whites after receiving an AIDS diagnosis.

Prevention

Currently available methods to avoid transmitting HIV infection via sexual activity include limiting the number of a person's sexual partners and using condoms correctly and consistently.³⁰ Although no vaccine exists that will prevent HIV infection, medicines can be taken pre- or post-exposure that may effectively prevent HIV transmission.³⁰

To avoid getting HIV infection from drug use, a person should avoid engaging in illicit drug use. If injecting drugs, such as hormones, steroids, or silicone, a person should not share needles or other equipment. The use of such substances as methamphetamine, cocaine, and alcohol may place a person at risk for HIV infection by lowering his or her inhibitions and increasing the likelihood of engaging in risky behavior.³⁰

Pregnant women should receive HIV testing. If a pregnant woman learns that she is HIV positive, she should receive HIV medicine during her pregnancy and childbirth to avoid perinatal transmission of HIV to her infant. To protect infants born to women with HIV infection from being infected with any HIV that may have passed from mother to infant during childbirth, these infants should receive medicine for 6 weeks after birth and should not be breastfed.³¹

Testing

Nearly three of every five women ages 18 to 64 reported having been **tested for HIV infection at some point**.³² Among non-elderly Hispanic, African American, and white women ages 18 to 64, African-American women (77 percent) were most likely than Latinas (65 percent) or white women (49 percent) to report having ever been tested for HIV infection. However, whether these women actually were tested or whether they were under the impression that an HIV test was a routine part of their examination is unclear. More than one-fifth (22 percent) of women assumed an HIV test was a routine part of a physical exam.³²

Only one in five women (20 percent) overall reported that they had been **tested within the past year**. Black women (43 percent) were much more likely than Latinas (27 percent) or white women (12 percent) to report having been tested within the past year.³² In addition, black women (57 percent) were more likely than white women (44 percent) or Latinas (35 percent) to report that they asked to be tested.³² The majority of women who were tested (79 percent) indicated that the test was part of another health visit.³²

Virologic HIV **testing for infants born to women with HIV infection** is recommended at 14 to 21 days after birth, at age 1 to 2 months, and again at age 4 to 6 months. This testing looks for HIV in the blood. Negative results on two virologic tests—one taken at age 1 month or older and another taken at age 4 months or older—would indicate that the infant is not infected with HIV.³² If results on the two tests are positive, however, the infant is infected with HIV and should take a combination of HIV medicines to live a healthier life.³¹

Treatment

An analysis of data from a network of high-volume HIV clinics found that almost a quarter (23 percent) of women with HIV infection lacked health insurance coverage, and many of these women relied on the publicly funded Ryan White Program to obtain needed care and services. Among the women with HIV infection who were treated

at this network of clinics, half (50 percent) were covered by Medicaid, 13 percent were covered by Medicare, and 12 percent were covered by private health insurance. (Insurance coverage status for 2 percent of the women was reported as other or unknown.³²)

Despite the increased availability since the mid-1990s of highly active antiretroviral therapy (HAART)—a widely used treatment that has proven effective in slowing the advance of HIV infection and AIDS—disparities persist in access to this treatment. Women, African Americans, injection drug users, people younger than age 40, and people who are uninsured are less likely to receive HAART than are men, whites, Hispanics, and older patients. Even when controlling for outpatient use of health care for HIV infection and AIDS, African Americans still receive HAART less often than do whites. In addition, persons with HIV exposure from injection drug use are more likely than persons with another type of exposure to report delays in receiving care of more than 3 months after being diagnosed with the disease.³³

Even women who receive antiretroviral drugs may face difficulties adhering to treatment regimens, a fact that can contribute to reduced survival rates. For example, in addition to caring for themselves and properly managing their illnesses, women who have HIV infection or AIDS often bear the responsibilities of caring for children, caring for partners or other family members, and running a household. A study of HIV-positive mothers of young children found that despite expressing the desire to live long enough to see their children become adults, only half of the mothers reported adherence to their antiretroviral medication schedules.³⁴

REFERENCES

1. U.S. Census Bureau, Population Division. (2012, May 16). *National characteristics: Vintage 2011. Table 3: Annual estimates of the resident population by sex, race, and Hispanic origin for the United States: April 1, 2010, to July 1, 2011* (NC-EST2011-03) [Data file]. Retrieved March 28, 2013, from <http://www.census.gov/popest/data/national/asrh/2011/index.html>

2. Centers for Disease Control and Prevention, National Center for Health Statistics. (2013, March 14). *Health, United States, 2011: List of trend tables* [Data files]. Available from <http://www.cdc.gov/nchs/hus/contents2011.htm>
3. Centers for Disease Control and Prevention. (2013, November 6). *Women's health: Leading causes of death in females* [Data files]. Available from <http://www.cdc.gov/women/lcod/index.htm>
4. Heron, M. (2012, June 6). Deaths: Leading causes for 2008. *National Vital Statistics Reports*, 60(6), 1–94.
5. Centers for Disease Control and Prevention. (2014, May 14). *HIV/AIDS: HIV basics*. Retrieved from <http://www.cdc.gov/hiv/basics/index.html>
6. Centers for Disease Control and Prevention. (2012, March). *HIV Surveillance Report, 2010*; vol. 22. Retrieved from http://www.cdc.gov/hiv/surveillance/resources/reports/2010report/pdf/2010_HIV_Surveillance_Report_vol_22.pdf
7. Centers for Disease Control and Prevention. (2014, March). *HIV among women*. Retrieved from http://www.cdc.gov/hiv/pdf/risk_women.pdf
8. Centers for Disease Control and Prevention. (2012, December). Estimated HIV incidence in the United States, 2007–2010. *HIV Surveillance Supplemental Report*, 17(4). Retrieved from http://www.cdc.gov/hiv/pdf/statistics_hssr_vol_17_no_4.pdf
9. Centers for Disease Control and Prevention. (2014, January 14). *HIV/AIDS: HIV among pregnant women, infants, and children*. Retrieved from <http://www.cdc.gov/hiv/risk/gender/pregnantwomen/facts/index.html>
10. Office of Hawaiian Affairs. (2011). Table 7.35 (updated): Cumulative HIV (not AIDS) infection by race/ethnicity and gender in Hawai'i: 2006–10. *Native Hawaiian data book 2011*. Retrieved from <http://www.ohadatabook.com/T07-35-11u.pdf>

11. Office of Hawaiian Affairs. (2011). Table 7.37 (updated): Five-year (2006–10) AIDS cases by race/ethnicity and gender in Hawai'i. *Native Hawaiian data book 2011*. Retrieved from <http://www.ohadatabook.com/T07-37-11u.pdf>
12. Centers for Disease Control and Prevention. (2013, February). *HIV Surveillance Report 2011*; vol. 23. Retrieved from http://www.cdc.gov/hiv/pdf/statistics_2011_HIV_Surveillance_Report_vol_23.pdf
13. Duran, B., & Walters, K. L. (2004). HIV/AIDS prevention in “Indian country”: Current practice, indigenist etiology models, and postcolonial approaches to change. *AIDS Education and Prevention*, 16(3), 187–201.
14. Vernon, I. S., & Jumper-Thurman, P. (2002). Prevention of HIV/AIDS in Native American communities: Promising interventions. *Public Health Report*, 117(Suppl. 1), S96–S103.
15. Dennis, M. K. (2009). Risk and protective factors for HIV/AIDS in Native Americans: Implications for preventive intervention. *Social Work*, 54(2), 145–154.
16. National Native American AIDS Prevention Center. (2009). *Our history*. Retrieved from www.nnaapc.org/about/history.htm
17. Iralu, J. V. (2013, April). *2012 Navajo area IHS HIV program* [PowerPoint slides]. Retrieved from <http://www.ihs.gov/hiv aids/docs/Keynotelralu.pdf>
18. Heitman, E., & Wells, A. L. (2004). Ethical issues and unethical conduct: Race, racism, and the abuse of human subjects in research. In B. M. Beech and M. Goodman [Eds.], *Race and research: Perspectives on minority participation in health studies*. Washington, DC: American Public Health Association.
19. Bogart, L. M., Wagner, G., Galvan, F. H., & Banks, D. (2010). Conspiracy beliefs about HIV are related to antiretroviral treatment nonadherence among African American men with HIV. *Journal of Acquired Immune Deficiency Syndromes*, 53(5), 648–655.

20. Ross, M. W., Essien, E. J., & Torres, I. (2006). Conspiracy beliefs about the origin of HIV/AIDS in four racial/ethnic groups. *Journal of Acquired Immune Deficiency Syndromes*, 41(3), 342–344.
21. Henry J. Kaiser Family Foundation. (2011, June 1). *HIV/AIDS at 30: A public opinion perspective*. Retrieved from <http://kff.org/hivaids/report/hivaids-at-30-a-public-opinion-perspective>
22. Loue, S. (2006). Preventing HIV: Eliminating disparities among Hispanics in the United States. *Journal of Immigrant Health*, 8(4), 313–318.
23. Centers for Disease Control and Prevention. (2011, November). *HIV among Latinos*. Retrieved from <http://www.cdc.gov/hiv/resources/factsheets/pdf/latino.pdf>
24. Moreno, C. L. (2007). The relationship between culture, gender, structural factors, abuse, trauma, and HIV/AIDS for Latinas. *Qualitative Health Research*, 17(3), 340–352. Retrieved from http://www.academia.edu/1089665/The_relationship_between_culture_gender_structural_factors_abuse_trauma_and_HIV_AIDS_for_Latinas
25. Adimora, A. A., Schoenbach, V. J., & Doherty, I. A. (2006). HIV and African Americans in the southern United States: Sexual networks and social context. *Sexually Transmitted Diseases*, 33(Suppl. 7), S39–S45.
26. Montgomery, J. P., Mokotoff, E. D., Gentry, A. C., & Blair, J. M. (2003). The extent of bisexual behaviour in HIV-infected men and implications for transmission to their female sex partners. *AIDS Care*, 15(6), 829–837.
27. Adimora, A. A., & Schoenbach, V. J. (2005). Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. *Journal of Infectious Disease*, 191(Suppl. 1), S115–S122.

28. National Institutes of Health, Office of the Director, Office of Research on Women's Health. (2006). *Women of color health data book: Adolescents to seniors* (3rd ed.), NIH Publication No. 06-4247. Retrieved from <http://www.csu.edu/cerc/documents/WomenofColorHealthDataBook2006.pdf>
29. Robinson, R., & Moodie-Mills, A. C. (2012, July 27). *HIV/AIDS inequality: Structural barriers to prevention, treatment, and care in communities of color*. Center for American Progress and Berkeley Law, University of California. Retrieved from http://cdn.americanprogress.org/wp-content/uploads/issues/2012/07/pdf/hiv_community_of_color.pdf
30. Centers for Disease Control and Prevention. (2014, June 27). *HIV/AIDS: HIV prevention*. Retrieved from <http://www.cdc.gov/hiv/basics/prevention.html>
31. Centers for Disease Control and Prevention. (2014, April 29). *HIV and women: Preventing mother-to-child transmission of HIV after birth*. Retrieved from <http://aidsinfo.nih.gov/education-materials/fact-sheets/print/24/71/0/0>
32. Kates, J., Hoff, T., Levine, S., Carbaugh, A., Gutierrez, C., & Kaiser Family Foundation. (2013, April). *A report on women and HIV/AIDS in the U.S.* Retrieved from <http://kaiserfamilyfoundation.files.wordpress.com/2013/04/8436.pdf>
33. Gebo, K. A., Fleishman, J. A., Conviser, R., Reilly, E. D., Korthuis, P. T., Moore, R. D., et al. (2005). Racial and gender disparities in receipt of highly active antiretroviral therapy persist in a multistate sample of HIV patients in 2001. *Journal of Acquired Immune Deficiency Syndrome*, 38(1), 96–103.
34. Murphy, D. A., Greenwell, L., & Hoffman, D. (2002). Factors associated with antiretroviral adherence among HIV-infected women with children. *Women and Health*, 36(1), 97–111.



National Institutes of Health
Office of Research on Women's Health

November 2014

NIH Publication No. 14-8017