

WOMEN OF COLOR

HEALTH DATA BOOK



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



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

**WOMEN
OF COLOR**

**HEALTH
DATA BOOK**

Fourth Edition

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Office of the Director
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TOWARD MORE INDIVIDUALIZED MEDICINE: INTRODUCING THE WOMEN OF COLOR HEALTH DATA BOOK, FOURTH EDITION

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Consider the following case study.

Daniela G., a 52-year-old moderately overweight Latina, arrives as a new patient at a family practice in her community. It is her first visit to the doctor since her youngest child was born 18 years earlier, thanks to newly acquired insurance coverage from the Affordable Care Act. Her complaints include difficulty seeing on the right side, mild headaches, and problems with concentration and writing.

What would be your first impression of this patient? Her vision and motor problems could be due to a fall, or they could be early signs of diabetes or hypertension-related stroke, both common in middle-age women with elevated body mass index. But as a woman of color, what features make Daniela unique with regard to health? How do race, ethnicity, and cultural influences affect the health of women of color like her in ways that might escape the attention of routine health care?

As a woman of color, our fictitious patient may not conform to standard medical practice that often fails to consider the unique challenges she faces. Daniela came to the United States from Guatemala as a child to work in the fields and orchards, a job she held until age 17. Since acquiring U.S. citizenship, she received her GED and has been trying to attend community college part time. Her symptoms are making it hard for her to pay attention in class and have also led to minor vehicular accidents in which she suffered no significant injuries. Physical examination reveals that Daniela has normal blood pressure, a gross right-visual field defect, mild papilledema, and intermittent paraphasia. A CT scan identified an intracranial mass, suggesting a tumor. Daniela has a brain tumor — not diabetes, hypertension, or a stroke.

Cancer is the leading cause of death in Hispanic women.¹ And despite having a lower incidence of cancers overall, migrant field workers like her have increased rates of central nervous system neoplasms.² What's more, because Hispanic culture highly values home remedies, individuals may seek the advice of family, friends, and folk healers as the first step in addressing health problems. This can delay the care-seeking process and may be costly in terms of either morbidity or mortality.³ Indeed, Daniela has not had any preventive care for nearly two decades.

By 2043, the United States is predicted to become a majority “minority” nation of Hispanics and other non-whites, including African Americans, American Indians/Alaska Natives, and Asians/Pacific Islanders.⁴ By 2050, women of color will represent 53 percent of the total U.S. female population.⁵ Introduced in October

Reprinted from the October 2014 issue of the *Journal of Women's Health*.

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¹ Centers for Disease Control and Prevention, Office of Women's Health. (2013, October 31). *Leading Causes of Death by Race/Ethnicity, All Females—United States, 2010*. Retrieved from http://www.cdc.gov/Women/lcod/2010/WomenRace_2010.pdf

² Mills, P. K., Dodge, J., & Yang, R. (2009). Cancer in migrant and seasonal hired farm workers. *Journal of Agromedicine* 14:185–191.

³ Owens, B., & Dirksen, S. R. (2004). Review and critique of the literature of complementary and alternative therapy use among Hispanic/Latino women with breast cancer. *Clinical Journal of Oncology Nursing*, 8:151–156.

⁴ U.S. Census Bureau. (2014, September 18). *Newsroom archive: Population*. Retrieved from <https://www.census.gov/newsroom/releases/archives/population/cb12-243.html>

⁵ Ahmad, F. & Iverson, S. (2013). *The State of Women of Color in the United States*. Washington, DC: Center for American Progress.

Race/Ethnicity	Cause of Death (descending order)			
Black	Heart Disease	Cancer	Stroke	Diabetes
White	Heart Disease	Cancer	CLRD*	Stroke
Asian/Pacific Islander	Cancer	Heart Disease	Stroke	Diabetes
Hispanic	Cancer	Heart Disease	Stroke	Diabetes
American Indian/Alaska Native	Cancer	Heart Disease	Unintentional Injury**	Diabetes

* Chronic lower respiratory disease.

** American Indian victims of intimate and family violence are more likely than other races to need medical attention.

2014, the *Women of Color Health Data Book, Fourth Edition*, is the most up-to-date resource informing health care providers and researchers in biomedicine and health policy about the unique health features of women of color. This publication presents data on race/ethnicity and disease with relevant discussions of historical, cultural, and socio-/geo-demographic factors that affect the health status of women of color.

Certainly, women of color are not a singular group, as health is determined by a wide range of factors including biology, genetics, culture, behavior, and access to care. It is important for the health community to understand and recognize different patterns of health disparities and health determinants among stratified populations, such as within women of color. The *Data Book* also provides examples of sex differences within various cultures and people of color. Stratifying for women of color reveals notable patterns that affect health care delivery and research design (see table above).

Recent research among U.S. adults on mortality rates from all causes illustrates the need to disaggregate data simultaneously by both sex/gender and race/ethnicity. For example, the “Hispanic paradox” describes a situation in which Hispanic health outcomes are the same as or better than those of white non-Hispanics, despite lower income and educational attainment and very poor access to health care common to many Latina communities. One report determined that the paradox existed for Hispanic women only, and other research has noted variation related to country of origin and age.⁶ This is indeed a complicated arena.

Socioeconomic and employment conditions of women of color influences access to health insurance and, therefore, health care. Hispanics, along with African Americans, are more likely than non-Hispanic whites to be among the working poor, holding jobs of low status and earning low pay. As a result, Hispanics are more than three times as likely as non-Hispanic whites and nearly twice as likely as blacks to be full-time workers but to also lack health insurance.⁷

Among populations of color, in addition to socioeconomic status, acculturation—the process of psychological and behavioral change that people undergo as a consequence of long-term contact with another culture—plays a significant role in the incidence of health conditions and access to health care. Discrimination, prejudice, and exclusion (based on language, skin color, or other factors), perhaps for the first time, present a person of color with the dilemma of identifying with a newly acquired “minority” status. This perception often can affect health-seeking behavior as well as disparities in health care delivery.

In this modern era of biomedicine – amid the genomic revolution and many paradigm-shifting technologies, we face a massive shift in the racial, ethnic, and cultural makeup of our nation. It is imperative that we recognize and celebrate differences in these realms. It is also essential that we call upon the correct evidence to make health care decisions and to learn more about the rich fabric of modern America. We hope that the *Women of Color Health Data Book, Fourth Edition*, provides the tools to take a bold step in that direction.

⁶Borrell, L. N., & Lancet, E. A. (2012). Race/ethnicity and all-cause mortality in US adults: Revisiting the Hispanic paradox. *American Journal of Public Health, 102*:836–843.

⁷DeNavas-Walt, C., Proctor, B. D., & Smith, J. C. (2012). U.S. Census Bureau, Current Population Reports, P60-243. *Income, Poverty, and Health Insurance Coverage in the United States: 2011*. Washington, DC: Government Printing Office.

HIGHLIGHTS

The acquisition of quality care and the resulting health outcomes for women of color are shaped by various socio-cultural-economic factors. These include the physical and social environments (especially for American Indians or Alaska Natives, Hispanics, and African Americans), linguistic isolation (especially Asian Americans, Latinos, and Native Hawaiians or Other Pacific Islanders), and racism (especially African Americans and Asian Americans).

- Although some women of color (black and American Indian or Alaska Native) have shorter life expectancies than do white non-Hispanic women, Asian women, Hispanic women, and Native Hawaiian and Other Pacific Islander women have life expectancies equal to or greater than that of white non-Hispanic women.
- Despite declining death rates from heart disease over the past 60 years, diseases of the heart remain the number one cause of death among white women, black women, and women of all racial and ethnic groups combined. Heart disease is the second major cause of death, however, among women who are Hispanic, Asian and Pacific Islander, and American Indian or Alaska Native.
- Cancer (or malignant neoplasms) is the leading cause of death for Hispanic, American Indian or Alaska Native, and Asian and Pacific Islander women. It is the second leading cause of death for black women and white women.
- Lung cancer is the top cancer killer among women, while breast cancer ranks second. In the 2006–2010 period, black women had the highest death rate from breast cancer (nearly 31 per 100,000), despite the fact that white women had a somewhat greater incidence of the disease (127 cases per 100,000 white women versus 121 cases per 100,000 black women). In contrast, the incidence of lung cancer was

comparable among black women and white women, although white women had the highest death rate from this disease (40 per 100,000 white women versus 37 per 100,000 black women).

- In addition to heart disease and cancers, other prominent causes of death for women of color are cerebrovascular diseases (primarily strokes), diabetes mellitus, and unintentional injuries.
- The age-adjusted prevalence of diagnosed diabetes mellitus among women is greatest among American Indians or Alaska Natives. In the 2004–2008 period, 16 percent of American Indian or Alaska Native women of all ages reported this disease.
- Black mothers are much more likely to die from pregnancy-related causes (either while pregnant or within a year of pregnancy termination) than are mothers of other racial/ethnic groups. The pregnancy-related mortality rate for black mothers in the 2006–2007 period was 35 deaths per 100,000 live births, compared with 11 deaths per 100,000 live births to white mothers and 16 deaths per 100,000 live births to mothers of all other races.
- The 2008 mortality rate for infants born to black non-Hispanic mothers (nearly 13 deaths per 1,000 live births) is more than double the mortality rate for infants born to mothers who were Hispanic, white non-Hispanic, and Asian and Pacific Islander. The black infant mortality rate also exceeds the rate of 8 deaths per 1,000 live births to American Indian or Alaska Native mothers.
- In 2010, black women accounted for 64 percent of new human immunodeficiency virus (HIV) infections reported among women, despite comprising 13 percent of the female population in the United States at that time.

- In 2009, women ages 45 to 64 years had higher death rates from HIV disease than did women ages 25 to 44 years. Black women had the highest death rates from HIV disease among all women in these two age groups.
- Although the prevalence of overweight and obesity within the U.S. population has increased over the past three decades, their prevalence stabilized in the first decade of the 21st century for women and girls of most racial and ethnic groups. Despite this trend, in the 2007–2010 period, more than half (54 percent) of black non-Hispanic women were obese, compared with 45 percent of Mexican American women and a third (33 percent) of white non-Hispanic women.
- Obesity is related in part to sedentary lifestyles—never engaging in any vigorous, moderate, or light physical activities for at least 10 minutes at a time. More than half of Hispanic and black non-Hispanic women reported that they led sedentary lives, compared with around two of every five women who were Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and white non-Hispanic.
- The proportions of women who smoke vary greatly among the racial/ethnic subgroups. Asian women are the least likely to be current cigarette smokers (5 percent), while American Indian or Alaska Native women are the most likely to be current smokers (24 percent).
- Rates of current smoking among black and white women age 25 years and older differ by educational level. In 2011, compared with their counterparts with bachelor’s degrees, women with lower levels of educational attainment were at least twice as likely to smoke.
- Women of color were disproportionately represented among the estimated 23 million women who were uninsured in 2011. While women of color constituted 37 percent of the U.S. female population, they were nearly three-fifths (56 percent) of uninsured women in the United States in 2011.
- Some women of color do not get mammograms on a regular basis due to a variety of factors (availability of insurance coverage, accessibility of facilities, cultural beliefs, and lack of information). Between 1990 and 2010, however, the percentage of women of all major racial and ethnic groups who reported mammography screening within the past 2 years increased. For example, among American Indian or Alaska Native women, the rate increased from 43 percent in 1990 to 71 percent in 2010. Among Asian women, the rate of mammography screening increased from 46 percent in 1990 to 62 percent in 2010.
- In 2010, nearly three-fourths of women of all major racial and ethnic groups reported having a Pap test within the past 3 years.

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**FACTORS
AFFECTING
THE HEALTH
OF WOMEN
OF COLOR**

Ethnic and Racial Heritage

Of the nearly 309 million people living in the United States (according to the U.S. census conducted on April 1, 2010), more than half (157 million or 50.8 percent) were women. 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 black (non-Hispanic), nearly 14 percent Asian (non-Hispanic), 2.0 percent American Indian and Alaska Native (non-Hispanic), and 0.4 percent Native Hawaiian and Other Pacific Islander (non-Hispanic). An additional 5 percent of women of color identified themselves as belonging to two or more races. In raw numbers, there are nearly 25 million Hispanic women, nearly 20 million black (non-Hispanic) women, more than 7 million Asian (non-Hispanic) women, more than 1 million American Indian and Alaska Native (non-Hispanic) women, and more than 246,000 Native Hawaiian and Other Pacific Islander (non-Hispanic) women.¹

The 2010 population reflects an increase of 27 million over the 281 million people enumerated in the 2000 census. Although women of all races and ethnicities constituted equal proportions of the U.S. population in 2010 (50.8 percent) and in 2000 (50.9 percent), the more than 43 million women of color in 2000 were a smaller share of all women (slightly more than 30 percent) than they were in 2010 (36.1 percent). In 2000, there were more than 18 million black (non-Hispanic) women, more than 17 million Latina women, more than 5.3 million Asian (non-Hispanic) women, more than 1 million American Indian and Alaska Native (non-Hispanic) women, and more than 181,000 Native Hawaiian and Other Pacific Islander (non-Hispanic) women.²

Another difference between the populations in 2000 and 2010 was in the proportions of black (non-Hispanic) women (41 percent in 2000) and Hispanic women (39 percent in 2000) among all

women of color. Between 2000 and 2010, Hispanic women increased to 44 percent of all women of color, while black non-Hispanic women decreased to 35 percent.

According to projections by the U.S. Census Bureau, the U.S. population will become more racially and ethnically diverse by the middle of the 21st century. In 2043, the United States is projected to become a majority-minority nation for the first time. While the white non-Hispanic population will remain the largest single group, no group will make up a majority. The white non-Hispanic population is projected to peak in 2024, at nearly 200 million, and then slowly decrease to 186 million in 2050, when they will account for 46.6 percent of the total population.³

Meanwhile, people of color are expected to total more than 213 million in 2050, when they will account for 53.4 percent of the total population. Between 2010 and 2050, the Hispanic population is projected to more than double to nearly 112 million, accounting for 28 percent of the 2050 population. The black non-Hispanic population is projected to rise to nearly 52 million over the same period, increasing its share of the total population slightly to 13 percent. The Asian non-Hispanic population is projected to more than double to almost 30 million in 2050, with its share of the nation's total population climbing to 7.4 percent. The American Indian and Alaska Native non-Hispanic population would increase to 2.9 million, but its share of the total population would remain at 0.7 percent. The population of Native Hawaiians and Other Pacific Islanders (non-Hispanic) would increase to 871,000 and remain 0.2 percent of the total population. The number of people who identified themselves as being of two or more races and non-Hispanic is expected to triple, and its population of more than 16 million would rise to 4.1 percent of the U.S. total.

Women of color are projected to increase in number from 57 million in 2010 to 107 million in 2050. Their share of the total female population

Table 1

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

Race	Race Alone	Percentage of Total Population	Race Alone or in Combination*	Percentage of Total Population*
Total Population	308,745,538	100.0	308,745,538	100.0
American Indian and Alaska Native	3,739,506	1.2	6,138,482	2.0
Asian	15,159,516	4.9	17,676,507	5.7
Black or African American	40,250,635	13.0	43,213,173	14.0
Native Hawaiian and Other Pacific Islander	674,625	0.2	1,332,494	0.4
White	241,937,061	78.4	248,067,530	80.3
Two or more races	6,984,195	2.3	**	**
Hispanic or Latino and Race	Race Alone	Percentage of Total Population	Race Alone or in Combination*	Percentage of Total Population*
Total Population	308,745,538	100.0	308,745,538	100.0
Hispanic or Latino (of any race)	50,477,594	16.3	50,477,594	16.3
Not Hispanic or Latino	258,267,944	83.7	258,267,944	83.7
American Indian and Alaska Native	2,263,258	0.7	4,041,624	1.3
Asian	14,661,516	4.7	16,795,038	5.4
Black or African American	37,922,522	12.3	40,282,810	13.0
Native Hawaiian and Other Pacific Islander	497,216	0.2	1,020,354	0.3
White	197,318,956	63.9	202,229,636	65.5
Two or more races	5,604,476	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 more than one race.

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

Source: U.S. Department of Commerce, Bureau of the Census, Population Division. (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). Retrieved from <http://www.census.gov/popest/data/national/asrh/2011/index.html>

would increase from 36 percent to 53 percent over the same period of time. Among the 107 million women of color, more than half (51 percent) would be Hispanic, 25 percent black non-Hispanic, 15 percent Asian non-Hispanic, 8 percent women of two or more races non-Hispanic, 1.4 percent American Indian

and Alaska Native non-Hispanic, and 0.4 percent Native Hawaiian and Other Pacific Islander non-Hispanic.⁴

Whenever possible, the population labels and presentation of data in this volume conform to the 1997 revisions to Statistical Policy Directive No. 15,

Table 2

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

Race	Race Alone	Percentage of Total Population	Race Alone or in Combination*	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 Latino and Race	Race Alone	Percentage of Total Population	Race Alone or in Combination*	Percentage of Total Population*
Female Population	156,964,212	100.0	156,964,212	100.0
Hispanic or Latino (of any race)	24,858,794	15.8	24,858,794	15.8
Not Hispanic or Latino	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 more than one race.

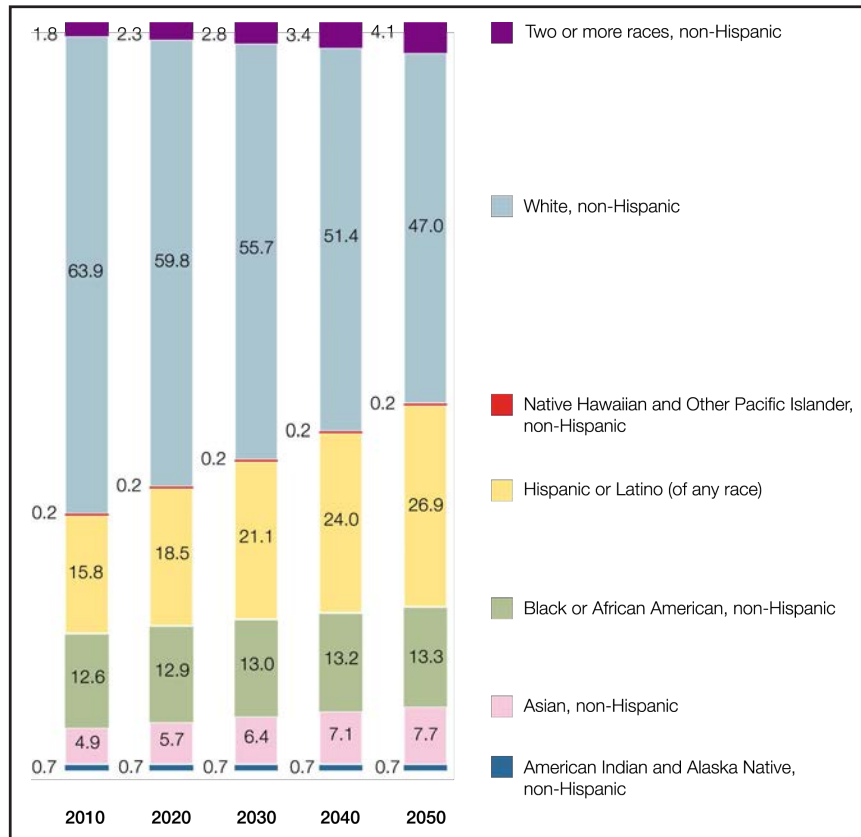
**The population reporting two or more races is reflected within each of the designated racial/ethnic categories above.

Source: U.S. Department of Commerce, Bureau of the Census, Population Division. (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). Retrieved from <http://www.census.gov/popest/data/national/asrh/2011/index.html>

Race and Ethnic Standards for Federal Statistics and Administrative Reporting.⁵ These revisions were issued for comment by the Office of Management and Budget (OMB) in the mid-1990s, and their final version has guided the data collection in both the 2000 and 2010 decennial censuses. The

new race/ethnicity terminology was adopted by other federal agencies as of January 1, 2003. If and when data are not available for some of the population subgroups as defined in the revisions to OMB Directive 15 (e.g., for Asians separate from Pacific Islanders), the most current data are provided for

Figure 1
Current and Projected Distributions of Female Population by Race and Hispanic Origin, 2010–2050



Source: U.S. Department of Commerce, Bureau of the Census, Population Division. (2012). Table 4. Projections of the population by sex, race, and Hispanic origin for the United States: 2015 to 2060 (NP2012-T4). Retrieved from <http://www.census.gov/population/projections/data/national/2012/summarytables.html>

the groups as available (e.g., Asians and Pacific Islanders jointly).⁵

The revised standards include five minimum racial categories: American Indian or Alaska Native, Asian, black or African American, Native Hawaiian or Other Pacific Islander, and white. Ethnicity is to be reported as either “Hispanic or Latino” or “Not Hispanic or Latino.” The category “American Indians or Alaska Natives” includes people who trace their origins to any of the indigenous peoples of North and South America (including Central America) and who maintain a tribal affiliation or community attachment. “Asians” are people having their origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent. This includes people from, for example, Cambodia, China, India, Japan,

Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. “Black or African American” refers to any person having origins in any of the black racial groups of Africa.^{5,6}

The category “Native Hawaiian or Other Pacific Islander” includes people who trace their origins to any of the indigenous peoples of Hawaii, Guam, Samoa, or other Pacific Islands. The term *Native Hawaiian* does not include individuals who are native to the state of Hawaii only by being born there. Pacific Islanders include people with the following origins: Carolinian, Fijian, Kosraean, Melanesian, Micronesian, Northern Mariana Islander, Palauan, Papua New Guinean, Ponapean (Pohnpelan), Polynesian, Solomon Islander, Tahitian, Tarawa Islander, Tokelauan, Tongan, Trukese (Chuukese), and Yapese. “White”

refers to persons having origins in any of the original peoples of Europe, the Middle East, or North Africa. “Hispanic or Latino” refers to a person of Cuban, Mexican, Puerto Rican, South or Central American (nonindigenous), or other Spanish culture or origin, regardless of race.⁵

Population totals for Puerto Ricans residing in the Commonwealth of Puerto Rico are not included in the total U.S. Latino population; their totals are reported separately.⁷

In addition to using the five minimum race/ethnic categories designated by the OMB in 1997, the 2000 and the 2010 censuses also reported data for a sixth category, “some other race.” In fact, population totals from the 1990 census also provided data for the category “some other race.” In 1990, nearly 4 percent (9.8 million people) of the enumerated population was of “some other race,”⁸ and in 2000, 5.5 percent (15.4 million) was “some other race.” By 2010, this share had increased to 6.2 percent and included more than 19.1 million people who designated “some other race” as their only affiliation. When single and multiple racial designations both were tabulated for the 2010 census, however, 21.7 million people (7.0 percent of the population enumerated) selected “some other race.” A majority (95.2 percent) of the 21.7 million people who classified themselves as “some other race alone or in combination with one or more races” were Hispanic. This data book does not include findings for persons in this sixth category.⁹

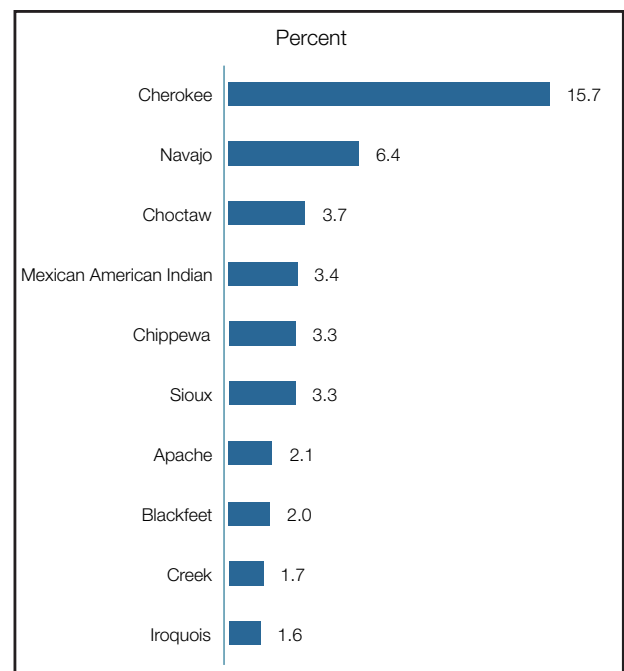
In the Factors section of this data book, information for the population subgroups is presented in rough chronological order of the arrival date of any member of the group in what is now the United States. Thus, the order of presentation is American Indians or Alaska Natives, Native Hawaiians or Other Pacific Islanders, Hispanics or Latinos, blacks or African Americans, and Asian Americans. For groups designated by two terms generally accepted as equivalent, such as “black or African American,” the two terms are used interchangeably in the text.

American Indians and Alaska Natives

The ancestors of the people known today as American Indians/Alaska Natives lived in North America many centuries before Europeans came. Although between 1 million and 12 million Indians were estimated to be in what is now the United States

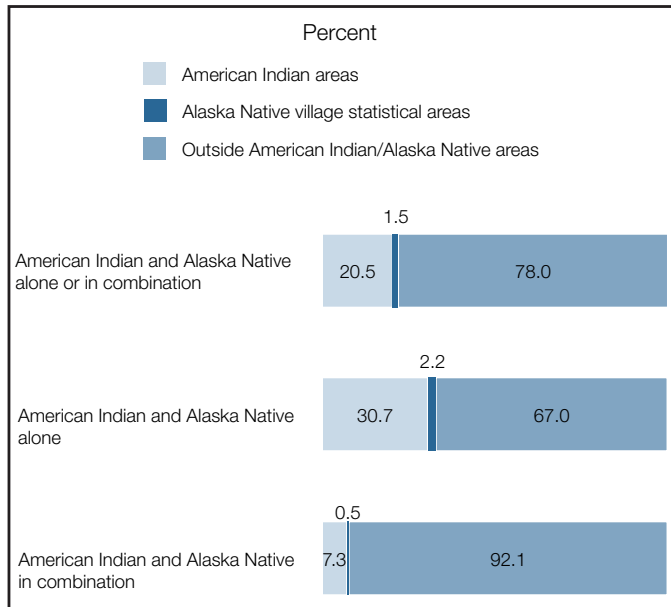
when Columbus arrived in 1492,¹⁰ in 2010, the Census Bureau estimated that more than 3.7 million people classified themselves as American Indian or Alaska Native only, and more than 6.1 million classified themselves as all or part American Indian or Alaska Native. Of the 3.7 million who identified as American Indian or Alaska Native alone (non-Hispanic and Hispanic combined), almost half (1.8 million) were women. The 2010 population figures for American Indians/Alaska Natives reflect a 40 percent increase over the 2000 census figures. The 2000 census reported nearly 2.7 million people who classified themselves as American Indian or Alaska Native only and more than 4.2 million who classified themselves as all or part American Indian or Alaska Native. The 2010 survey indicates a similar share of women to the 2000 census enumeration, which identified 1.3 million American Indian/Alaska Native women, slightly less than half of the 2.7 million people who designated themselves as American Indian/Alaska Native alone.¹

Figure 2
Largest Tribal Groupings of the American Indian and Alaska Native Population, 2010



Source: Norris, R., Vines, P. L., & Hoeffel, E. M. (2012, January). The American Indian and Alaska Native population: 2010. *2010 Census Brief* (C2010BR-10), pp. 17–18. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-10.pdf>

Figure 3
Distribution of American Indian and Alaska Native Population by American Indian/Alaska Native Areas of Residence, 2010



Source: Norris, R., Vines, P. L., & Hoeffel, E. M. (2012, January). The American Indian and Alaska Native population: 2010. *2010 Census Brief* (C2010BR-10), p. 12. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-10.pdf>

American Indians/Alaska Natives constitute 566 federally recognized tribes,¹¹ as well as numerous tribes only recognized by individual states. (State-recognized tribes are not federally recognized, although federally recognized tribes may also be state recognized.¹²) The largest American Indian and Alaska Native tribal groups are the Cherokee (nearly 16 percent of the American Indian and Alaska Native population) and the Navajo (more than 6 percent of the American Indian and Alaska Native population).¹³ Approximately 326 Indian land areas are administered in the United States as federal Indian reservations (e.g., reservations, pueblos, rancherias, missions, villages, communities). These trust lands cover approximately 56.2 million acres.¹⁴

The many American Indian/Alaska Native sub-populations are culturally distinctive, diverse, and complex, and some are growing faster than the general population. American Indians/Alaska Natives speak more than 200 distinct languages, which makes

their dialects more diverse than the entire Indo-European language family.¹⁵ This diversity, coupled with their many small population groups scattered throughout the United States, has made it difficult to provide a uniform, readily accessible health care system for American Indians/Alaska Natives. People who identify as American Indian and Alaska Native alone are more likely to live in American Indian areas or in Alaska Native village statistical areas than are people who identify themselves as American Indian and Alaska Native in combination with other racial and ethnic groups.¹³ A third of American Indians and Alaska Natives alone live in American Indian or Alaska Native areas, while only 8 percent of American Indians and Alaska Natives in combination do so.

More than 7 of every 10 (71 percent) of those identifying as solely or part American Indian/Alaska Native live in urban areas.¹⁶ According to the 2010 census, nearly one in eight individuals in Anchorage, Alaska, is either American Indian or Alaska Native alone or in combination (with other racial or ethnic groups). Nine percent and 8 percent of the populations in Tulsa, Oklahoma, and Norman, Oklahoma, respectively, report the same.¹³

Many urban Indians move back and forth between their homes in urban areas and their home reservations, with which they retain strong ties and visit for powwows and other cultural and social events.¹⁷ Although American Indians/Alaska Natives are culturally diverse to the point that it often becomes meaningless to classify them together for any but the most gross comparisons, their shared experiences include forced removal from their ancestral homelands, brutal colonization, and confinement to reservations.¹⁸

Receiving health services via the federal government, as American Indians/Alaska Natives do because of treaty obligations, influences their ability to access and use health care services. The U.S. government has signed numerous treaties with tribes obligating it to maintain a reasonable level of education and health among American Indians/Alaska Natives.¹⁹ The Indian Health Service (IHS)—since 1955 a part of the U.S. Public Health Service—provides health care through its clinics and hospitals to all American Indians or Alaska Natives who belong to federally recognized tribes and live on or near the reservations in its 12 service areas. These service areas contain 168 service units (analogous to county or city health

Table 3

Ten Places With the Largest Percentages of American Indians and Alaska Natives, 2010

Place	Total Population	American Indian and Alaska Native Alone or in Combination	
	Number	Rank by Percentage of the Total Population in Places	Percentage of the Total Population in Places
Anchorage, AK	291,826	1	12.4
Tulsa, OK	391,906	2	9.2
Norman, OK	110,925	3	8.1
Oklahoma City, OK	579,999	4	6.3
Billings, MT	104,170	5	6.0
Albuquerque, NM	545,852	6	6.0
Green Bay, WI	104,057	7	5.4
Tacoma, WA	198,397	8	4.0
Tempe, AZ	164,719	9	3.9
Tucson, AZ	520,116	10	3.8

Source: Norris, R., Vines, P. L., & Hoeffel, E. M. (2012, January). The American Indian and Alaska Native population: 2010. *2010 Census Brief* (C2010BR-10), p. 12. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-10.pdf>

departments) that operate hospitals and health centers and stations. The service units administered by the IHS operated 28 hospitals and 94 health centers and stations as of January 2013. The remaining service units are operated by American Indian or Alaska Native tribal governments and administer 16 hospitals and 474 health centers, stations, and Alaska village clinics.²⁰ The 2013 IHS service population consists of approximately 2.1 million American Indians and Alaska Natives who belong to the 566 federally recognized tribes.²⁰ (The service population is defined as “the number of Indian registrants, residing within a service delivery area with at least one face-to-face, direct or contract, inpatient stay, ambulatory care visit, or dental visit during the prior 3 fiscal years.”²¹)

Most IHS facilities are located on American Indian reservations, which are most often in rural areas.²² However, 33 Indian-operated urban projects, either health clinics or community services and referrals,²³ provide care for the American Indians/Alaska Natives who live in urban areas and, therefore, have lost eligibility for IHS care near their reserva-

tions as the result of living away from them for 180 days.²⁴ These Indian-operated facilities also serve members of tribes that are not federally recognized (i.e., recognized only by their states).²⁵

Services in urban areas and in nonreservation rural areas often are limited. In 2000, urban Indian health programs served an estimated 150,000 American Indians/Alaska Natives, or 6 percent of the entire American Indian/Alaska Native population.²³ The IHS appropriates only 1 percent of its annual budget to urban health programs,²⁶ despite the fact that approximately 25 percent of all American Indians/Alaska Natives live in areas served by those programs.²⁷ Overall, more than two of every five American Indians and Alaska Natives (41 percent) had private health insurance coverage. An additional 37 percent relied on Medicaid, and 29.2 percent had no health insurance coverage in 2010.²⁸

Long distances between facilities account in part for urban American Indian women having both greater difficulties in obtaining access to prenatal care and less likelihood of getting such care than women of other racial/ethnic groups. American

Indians who live in the Nashville service area (with a 2009 population of 118,253 living in more than 13 states in the Northeast, on the Atlantic seaboard, and on the Gulf Coast) have access to two tribal-run hospitals but no IHS-operated hospital. In addition, they are able to receive health care at 31 tribal-run service units and three IHS-operated service units.²¹ Although the population eligible for care in the Nashville service area is relatively small, the area served runs along the entire East Coast, from Maine to Florida.²⁹

As of the beginning of fiscal year 2006 (i.e., October 1, 2005), the number of service units within each service area ranged from 2 in the Tucson area to 34 in the Nashville service area. Furthermore, both California (with a service population of 177,884) and Portland (188,161) had no IHS- or tribal-run hospitals, while Great Plains (formerly Aberdeen) (114,890) and Phoenix (195,547) each had eight hospitals.^{21,29}

Another barrier to health care access for American Indians/Alaska Natives is the lack of federal funding for the IHS. Although the federal government is obliged by treaty to provide American Indians and Alaska Natives with a reasonable level of health care, the IHS does not guarantee services to its customer population as an entitlement. Instead, it provides services on the basis of federal funding available. After adjusting for inflation and population growth, the amount of funding the IHS received annually steadily decreased from 1993 to 2007.^{30,31}

How has the legacy of American Indians/Alaska Natives in this country influenced the health of the women of these groups? Forced relocation took place beginning with the Indian Removal Act of 1830, which relocated tribes from east of the Mississippi River to west of the Mississippi River. Later displacement took place during the 1950s and 1960s, when, in an attempt to end the United States' legal responsibility for American Indians and to mainstream them, the Bureau of Indian Affairs relocated 160,000 American Indians from rural reservations to urban areas.^{19,32} Instead of mainstreaming, urban living brought continued unemployment and poverty to many American Indians/Alaska Natives. This migration placed American Indians in communities where their youth encountered discrimination and adversity that resulted in their demoralization and engagement in delinquent and health risk behaviors such as early substance abuse.³³

Racism and mistrust of the U.S. government have engendered low self-esteem among many American

Indians/Alaska Natives. Racism and discrimination also have contributed to the poverty in which 29 percent of American Indians/Alaska Natives (alone) lived in 2011. Specifically, nearly 28 percent of American Indian or Alaska Native males and more than 31 percent of American Indian or Alaska Native females reported incomes below the federal poverty level in 2011. Poverty rates among single-parent American Indian/Alaska Native families are even greater than poverty rates for individuals. One-third (32 percent) of all American Indian/Alaska Native families were headed by females, and 44 percent of these households had incomes below the federal poverty level. The poverty rate was 29 percent for male-headed families and 12 percent for married-couple families. More than one-third (37 percent) of all American Indian/Alaska Native children younger than 18 years are estimated to live in poverty.³⁴

This poverty stems from the high unemployment rates among both American Indian/Alaska Native men and women. In 2011, although unemployment for men of all races was nearly 11 percent, among American Indian men, the rate was 19 percent. American Indian women were better off than American Indian men, with an unemployment rate of more than 15 percent. The unemployment rate for women of all races in 2011 was nearly 10 percent.³⁴

Poverty and unemployment have in turn fostered welfare dependency and diets replete with government commodity foods, high in both fat and calories. The malnutrition that was a problem among American Indians/Alaska Natives two generations ago has been replaced by obesity. A sedentary lifestyle and sharp decreases in hunting and gathering are implicated in the high prevalence of obesity and related health problems and mortality among American Indians/Alaska Natives. Seventy-two percent of male and 68 percent of female American Indians/Alaska Natives (single race) are reported to be overweight and, therefore, at risk for diabetes and other illnesses.³⁵ Approximately 16 percent of American Indian/Alaska Native adults have diabetes, a rate twice that of the general U.S. population.³⁶ However, the 16 percent rate is likely an underestimation because it accounts neither for people with undiagnosed diabetes nor for the approximately 40 percent of American Indians/Alaska Natives who do not live on or near reservations, do not receive care from IHS or tribal health facilities, and therefore are not captured in health data systems.³⁷ Age-adjusted death

rates from diabetes mellitus among American Indians/Alaska Natives are nearly twice those for whites.³⁸

Historical suppression of indigenous religions and medical practices, as well as environmental issues, has combined with poverty to create health risks for American Indians/Alaska Natives.³⁹ Traditional gender roles (as hunters, horsemen, providers, and protectors) for many American Indian/Alaska Native males have been lost, as jobs have become scarce and opportunities to fish and hunt the land as their ancestors did are restricted on reservations. Some men internalize their feelings of loss and anger and channel their rage against American Indian/Alaska Native women, who must still fulfill the caretaker role for their families. Narratives from Native American men reveal the strong belief that alcohol use is both symbolic of the colonization experience and a factor in domestic violence and child abuse. American Indian victims of intimate and family violence are more likely than victims of other races to be injured and need medical attention.⁴⁰

Across Indian country, the high occurrence of alcohol and substance abuse, mental health disorders, suicide, violence, and behavior-related chronic diseases is well documented. Each of these serious behavioral health issues has a profound impact on the health of individuals, families, and communities, both on and off reservations. For example, American Indians and Alaska Natives are significantly more likely to report past-year alcohol and substance use disorders than any other race, and their suicide rates are 1.7 times the rate of the general population. Domestic violence rates are also alarming, with 39 percent of American Indian and Alaska Native women experiencing intimate partner violence—the highest rate in the United States.⁴¹

Alcoholism and its multigenerational effects are at the root of many of the health problems experienced by American Indian/Alaska Native women, as evidenced by the magnitudes of their death rates from alcoholism, cirrhosis, and other liver diseases. (See “Other Causes of Death” in the Health Assessment section of the *Women of Color Health Data Book*.) American Indian/Alaska Native women often escape into alcohol or drugs to cope with prior victimization (from incest, rape, and other forms of sexual assault), sometimes experienced in childhood or adolescence. Doing so, however, contributes to their higher mortality rates from alcohol- and drug-related causes than among other groups of women.⁴²

Among American Indian and Alaska Native women, death rates associated with alcoholism are much higher than among women of all races. For the 2002–2004 period, mortality related to alcoholism among American Indian/Alaska Native women ages 25 to 34 years was more than 15 per 100,000 population, more than 25 times the rate of their counterparts of all races (0.6 per 100,000 population) in 2003. American Indian/Alaska Native women ages 45 to 54 years had a mortality rate due to alcoholism of more than 65 per 100,000 in the 2002–2004 period, in contrast to 8 per 100,000 women of all races in 2003.²⁹ Among females in 2009, American Indians or Alaska Natives had the highest death rate from alcohol-induced causes—20 per 100,000 population. Rates for females who are white non-Hispanic (4 per 100,000), black non-Hispanic (3 per 100,000), Hispanic (3 per 100,000), and Asian or Pacific Islander (0.7 per 100,000) are considerably lower.³⁸

American Indian/Alaska Native women who are alcoholics or substance abusers, however, often do not receive hospitalization, detoxification, or counseling for their addictions. One study of American Indians on reservations showed that two-thirds of the women who had substance abuse problems had not received treatment in the past year.⁴³ Many factors serve as barriers to treatment for women, such as a lack of child care, transportation problems, the opposition of their partners, and fear of stigma. In the past, many addiction treatment programs were located outside of American Indian and Alaska Native communities and failed to incorporate healing elements from Native cultures. Although still true today, recently, more treatment programs have been developed close to or in American Indian and Alaska Native communities. These programs are tailored to the needs and cultural beliefs of American Indians and Alaska Natives and often incorporate into the services offered elements of traditional medicine—such as talking circles, sweat lodges, and medicine wheels.⁴⁴ Such programs offer a more holistic form of treatment that focuses on the whole person, rather than just on the disease, as is often true in Western treatment models.

The prevailing life circumstances for many American Indian/Alaska Native women jeopardize their health in yet another way. Poverty, low self-esteem, alcoholism, and substance abuse often interfere with their ability to seek preventive health care. Preventive health care for cancers, in particular, may

be even longer in becoming a reality because, despite the growing prevalence of cancer in American Indian/Alaska Native communities, many American Indians and Alaska Natives still view cancer as a “white man’s disease.”⁴⁵ Cancer is often viewed as punishment and not discussed for fear of stigma and shame. Even when discussion of cancer and cancer prevention is acceptable in a community, cancer prevention can be hindered by other barriers. Cancer education materials requiring high literacy levels are often provided to communities where literacy rates and reading comprehension levels are low. Screening facilities are often located far from communities, and the lack of culturally sensitive providers can discourage American Indians and Alaska Natives from returning for care.⁴⁵ Mistrust of health providers and contemporary prejudice and miscommunication further limit the ability of American Indian/Alaska Native women to receive preventive health care for cancer and other medical conditions.^{46,47}

The response to HIV/acquired immunodeficiency syndrome (AIDS) by American Indians/Alaska Natives reflects their long history of mistreatment by the U.S. government and, consequently, the complexities related to providing services to them.⁴⁸ Although historical trauma and trauma from interpersonal violence among American Indians/Alaska Natives contribute to their risk of acquiring HIV infection, stigma and homophobia associated with HIV infection and AIDS within some American Indian/Alaska Native communities further compound the difficulty of addressing this health problem.^{49,50}

Both geographic and cultural barriers make it difficult for American Indians/Alaska Natives to trust health care officials, health care systems, and researchers. Cultural barriers include prevailing feelings of distrust of the government. This distrust is due to a history of unethical medical research and health-related mistreatment by European colonizers in centuries past (whose use of smallpox-infested blankets killed millions of American Indians) and by the U.S. federal government and its Indian Health Service (which conducted experimental surgeries and performed unapproved sterilizations on American Indians as recently as the 20th century) in more recent times.⁴⁸ Geographic barriers can prevent American Indian/Alaska Native communities from getting funding and other resources to initiate HIV/AIDS prevention and treatment services, due to the distance between many American Indian/Alaska

Native communities and the state and county health agencies and HIV-related organizations that can provide resources.⁴⁸

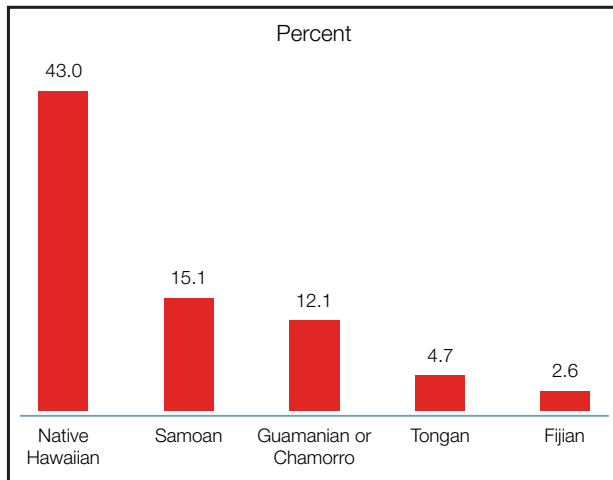
To help address the growing problem of HIV/AIDS among American Indians/Alaska Natives, the National Native American AIDS Prevention Center (NNAAPC) has been active in Native communities since its founding in 1987 by American Indian and Alaska Native activists, social workers, and public health professionals, as have other organizations.⁵¹ In addition to the outreach, prevention, and care activities sponsored by the NNAAPC (based in Colorado), in 2013, state legislators in Arizona and New Mexico began to collaborate 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.⁵²

Native Hawaiians and Other Pacific Islanders

The 2010 census counted nearly 540,000 people in the United States who identified themselves as Native Hawaiians and Other Pacific Islanders (NHPIs) alone. Nearly 266,000 of the 540,000 were women (both Hispanic and non-Hispanic).⁵³ In addition, 685,000 people reported their race as Native Hawaiian and Other Pacific Islander in combination with one or more other races. Together, these two groups totaled 1.2 million people, accounting for 0.4 percent of all people in the United States.⁵⁴ Native Hawaiian was the largest NHPI group, with a total of 527,000 people reporting Native Hawaiian alone or in combination with any other group. The Samoan population (184,000 alone or in combination with any other group) and the Guamanian or Chamorro population (148,000 alone or in combination with any other group) were the second and third largest NHPI groups, respectively.⁵⁴

Between 2000 and 2010, the total U.S. population grew by 9.7 percent, from 281.4 million in 2000 to 308.7 million in 2010. In comparison, the Native Hawaiian and Other Pacific Islander-alone population increased by 35 percent, more than three times faster than the total U.S. population, growing from 399,000 to 540,000 people. The NHPI alone-or-in-combination population experienced more growth than the NHPI-alone population, growing by 40 percent from 874,000 in 2000 to 1.2 million in 2010. In fact, the NHPI alone-or-in-combination population

Figure 4
Native Hawaiian and Other Pacific Islander (Alone or in Any Combination) Population by Selected Subgroups, 2010



Source: Hixson, L., Hepler, B., & Kim, M. O. (2012, May). The Native Hawaiian and Other Pacific Islander population: 2010. *2010 Census Brief (C2010BR-10)*, p. 16. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-12.pdf>

was the second fastest growing racial group in the country, following the Asian alone-or-in-combination population.⁵⁴

NHPIs come from three major land areas—known as Polynesia, Micronesia, and Melanesia—located in the Pacific region.⁵⁵ The majority are from Polynesian islands, the islands in the central and south Pacific that are farthest from Asia. In 2010, 64 percent of NHPIs alone or in any combination were Polynesians. This includes more than 527,000 Native Hawaiians, 184,000 Samoans, 57,000 Tongans, 5,000 Tahitians, 900 Tokelauans, and 9,000 of other groups.⁵⁴ Ninety-three percent of the residents of American Samoa were Native Hawaiians or Other Pacific Islanders, including both Samoans (who are 89 percent of the American Samoan population) and Tongans (who are 3 percent of this population). The rest of the population of American Samoa consists of the 3.6 percent who are Asian, the 0.9 percent who are white, and the 2.7 percent who are of two or more other racial/ethnic groups.⁵⁶

Micronesians are the second largest Pacific Islander group—about one in every six NHPIs—and Guamanians or Chamorro (nearly 148,000 in 2010) are the largest Micronesian subpopulation,⁵⁴ making up more than 12 percent of NHPI alone or in any

Table 4
Native Hawaiian and Other Pacific Islander (Alone or in Any Combination) Population by Detailed Subgroups, 2010

Subgroup	Number*	Percent
Polynesian		
Native Hawaiian	527,077	43.0
Samoan	184,440	15.1
Tongan	57,183	4.7
Tahitian	5,062	0.4
Tokelauan	925	0.1
Other Polynesian	9,153	0.7
Micronesian		
Guamanian or Chamorro	147,798	12.1
Mariana Islander	391	**
Saipanese	1,031	0.1
Palauan	7,450	0.6
Carolinian	521	**
Kosraean	906	0.1
Pohnpeian	2,060	0.2
Chuukese	4,211	0.3
Yapese	1,018	0.1
Marshallese	22,434	1.8
I-Kiribati	401	**
Other Micronesian	29,112	2.4
Melanesian		
Fijian	32,304	2.6
Papua New Guinean	416	**
Solomon Islander	122	**
Ni-Vanuatu	91	**
Other Melanesian	222	**
Other Pacific Islander	240,179	19.6
Total	1,225,195	100.0

*The numbers by detailed Native Hawaiian and Other Pacific Islander (NHPI) group do not add to the total NHPI population because respondents reporting several NHPI groups were counted several times.

**Percent rounds to 0.0.

Source: Hixson, L., Hepler, B., & Kim, M. O. (2012, May). The Native Hawaiian and Other Pacific Islander population: 2010. *2010 Census Brief (C2010BR-10)*, p. 16. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-12.pdf>

Table 5

Ten Counties With the Largest Percentages of Native Hawaiians and Other Pacific Islanders, 2010

County	Total Population	Native Hawaiian and Other Pacific Islander Alone or in Combination	
	Number	Rank	Percentage of the Total County Population
Hawaii County, HI	185,079	1	33.8
Maui County, HI	154,834	2	27.3
Kauai County, HI	67,091	3	25.9
Honolulu County, HI	953,207	4	24.5
Anchorage Municipality, AK	291,826	5	2.8
Washington County, AR	203,065	6	2.2
Pierce County, WA	795,225	7	2.1
San Mateo County, CA	718,451	8	2.1
Salt Lake County, UT	1,029,655	9	2.0
Garfield County, OK	60,580	10	1.9

Source: Hixson, L., Hepler, B., & Kim, M. O. (2012, May). The Native Hawaiian and Other Pacific Islander population: 2010. *2010 Census Brief* (C2010BR-10), p. 1. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-12.pdf>

combination in the 2010 census. Most Guamanians or Chamorro are of mixed ancestry, descended from the indigenous Chamorro of Guam who intermarried with settlers primarily from Spain, Japan, the Philippines, and the United States. The Chamorro are more than one-third (37 percent) of the residents of Guam, with Filipinos more than one-fourth (26 percent); Chinese, Japanese, and Koreans together more than 5 percent; and whites more than 7 percent. Nine percent of the residents of Guam are of two or more races.⁵⁷ The second largest Micronesian sub-population is Marshallese (people from the Republic of the Marshall Islands), who numbered nearly 22,500 in 2010.⁵⁴ Other Micronesian islands include the Carolines, the Marianas, the Republic of Palau, Pohnpei, Chuuk, and the Republic of Kiribati.

Melanesians are only 2.6 percent of Pacific Islander Americans, with the more than 32,000 Fijians (including both natives and descendants of the Asian Indians who came to work the coconut plantations in the late 1800s and early 1900s) the

dominant group.⁵⁴ Other Melanesian populations include residents from Papua New Guinea, New Hebrides (now Vanuatu), New Caledonia, and the Solomon Islands. The United States maintains formal political associations with peoples from Polynesia and Micronesia but not from Melanesia.

In 2010, more than half (52 percent) of the Native Hawaiian and Other Pacific Islander alone-or-in-combination population lived in just two states, Hawaii (356,000) and California (286,000). The next largest NHPI populations in 2010 were in the following states: Washington (70,000), Texas (48,000), Florida (40,000), Utah (37,000), New York (36,000), Nevada (33,000), Oregon (26,000), and Arizona (25,000). More than three-fourths (78 percent) of the entire NHPI population in the United States live in these 10 states.⁵⁴ The more than 135,000 people who designated themselves as Native Hawaiian and Other Pacific Islanders alone and resided in Hawaii were 10 percent of the state's

population. Considering people who selected Native Hawaiian and Other Pacific Islanders in addition to one or more other races increases this population total for the state of Hawaii to nearly 356,000, or 26 percent of its total population.⁵⁸ In Hawaii County, Hawaii, people who identify as Native Hawaiians and Other Pacific Islanders alone and in combination are a third of the total population.⁵⁴

The Native Hawaiians and Other Pacific Islanders who lived in California in 2010 constituted a much smaller share of its population—0.4 percent for NHPI alone and 0.8 percent for NHPI alone or in combination with other races.⁵⁹ In addition, one-third (33 percent) of the Samoan alone-or-in-any-combination population counted in the 2010 census lived in California, and nearly one-fourth (23 percent) of all Tongan Americans lived in Utah, many of them Mormon converts brought to the United States by missionaries.⁵⁴

Health Care Systems

The major challenge faced by the health systems of all the Pacific territories is their need to provide services to a population scattered over many islands and many miles. Although the political relationships between the United States and selected island nations in the Pacific Ocean to the west of Hawaii differ, affiliation with the United States is mirrored in the similarities of the health care systems that have evolved. The location of these territories relative to Hawaii, Asia, and the mainland United States, however, results in these islands that share Pacific territories encountering similar challenges with respect to medical and public health staffing and facilities. In many of the territories, innovative methods have been developed to work around these challenges and meet the health care needs of the residents.^{60,61,62,63}

Guam, the westernmost territory of the United States, is an unincorporated island with limited self-governing authority and a 2010 population of 181,000.^{64,65} The health system in Guam includes two major hospitals, a network of clinics, and medical evacuation operations to Hawaii, the U.S. mainland, and the Philippines. The Naval Regional Medical Center serves active-duty personnel, military dependents, and veterans, while Guam Memorial Hospital, a government-owned facility, serves the rest of the population.⁶⁶

The Republic of Palau (also known as *Belau*)—despite being a small (with a population of about

20,000), relatively isolated island with limited resources and funding—has a well-organized, efficient, innovative, and effective public health system.⁶⁷ Facilities on the island include two private medical clinics and an 80-bed public hospital, the *Belau National Hospital* on *Koror*. (*Koror* is one of the three most populous of the eight permanently inhabited islands that constitute the Republic of Palau.⁶¹) Along with the clinics and a hospital, Palau has four community-owned health centers (known as “super dispensaries” because they provide urgent care and preventive services) and five smaller community clinics located in outer villages and islands. This health system has been supported in part by funding under a Compact of Free Association ratified by Palau and the United States in 1993. Continuation of the compact and of associated health system enhancements depends on the passage of legislation to renew the Compact of Free Association between the United States and the Republic of Palau. Although legislation to achieve this was introduced in the House of Representatives in 2012 and referred to the relevant subcommittee, no further action was taken on it.⁶⁸

American Samoa is an unincorporated territory of the United States whose residents are U.S. nationals and may become naturalized U.S. citizens.⁶⁹ American Samoa has one hospital, the *Lyndon Baines Johnson (LBJ) Tropical Medical Center*, a 128-bed general acute-care hospital. Five primary health centers also are available to serve the population on the island, which numbers more than 55,500 (2010).⁵⁶ The hospital does not provide tertiary health care services, however, so patients must be referred off the island (mostly to Hawaii) for most specialist care, an expense that consumes a large and growing share of American Samoa’s health care budget. In 2012, the government approved a \$3 million loan (from the *Workmen’s Compensation Fund*) to the *American Samoan Medical Center Authority (ASMCA)* to support the off-island referral program as well as the general operations of the ASMCA.⁷⁰

Like American Samoa, the hospitals and other facilities serving the Commonwealth of the Northern Marianas, the Marshall Islands, and the Federated States of Micronesia do not provide tertiary care. Thus, patients needing specialized care must be referred off-island to get it.⁷¹ Islands that use off-island referrals subsidize the care to their patients but also seek ways to reduce their system-wide costs. This cost sometimes combines with equipment, supply, and

drug shortages to reduce the quality of care on the island territories.

Native Hawaiians

Native Hawaiians are individuals whose ancestors were natives of the Hawaiian islands prior to initial contact with Europeans in 1778. Although the 1778 Native population of the seven inhabited Hawaiian islands is estimated as 300,000, one century after European contact (i.e., in 1878), the Native Hawaiian population had declined by more than 80 percent, to 57,985.⁷² During the past 235 years (between 1778 and 2013), Native Hawaiians have faced traumatic social changes, resulting in the loss of their traditions and threatening their survival as a distinct group. Most of this decline was due to venereal diseases (resulting in sterility), miscarriages, and epidemics such as smallpox, measles, whooping cough, and influenza. Poor housing, inferior sanitation, hunger, malnutrition, alcohol, and tobacco use also contributed to the decline.⁷³

As a result, the population of Hawaii today is multiracial and multiethnic, with only an estimated 5,000 full-blooded Native Hawaiian descendants remaining as of the 1990 census (the last census that collected such information).⁷⁴ However, more than 80,000 residents of Hawaii chose Native Hawaiian as their sole racial identification in the 2010 census.⁵⁸ Native Hawaiians are today defined to include both “pure” Hawaiians and part Hawaiians. In 2010, Native and part Hawaiians combined were a fifth of the population on Hawaii (21 percent)⁷⁵ and accounted for more than one-fourth (29 percent) of the newborns on the Hawaiian islands in 2009.⁷⁶

Forty-five percent of Native Hawaiians/Part Hawaiians reside outside of the state of Hawaii, with more than half (51 percent) of these non-Hawaii residents living in the states of California, Oregon, Nevada, and Washington. Most statistics for Native Hawaiians, however, represent the 55 percent of the population residing in Hawaii.⁷⁷

Native Hawaiians have a higher median household income than the general U.S. population. In 2010, the median household income was \$59,755 for Native Hawaiians living in Hawaii and \$58,415 for Native Hawaiians living in the United States overall.⁷⁸ In contrast, median household income for the United States was \$50,046.⁷⁹ The 2010 poverty rate was 12.1 percent for Native Hawaiian families in Hawaii and 11.3 percent for Native Hawaiian families living in the

United States overall.⁸⁰ These rates were comparable to the poverty rate among all families in the United States (11.3 percent) at that time.⁷⁹

Native Hawaiians have poorer health outcomes (such as a lower life expectancy) than other groups in Hawaii.⁸¹ In one survey comparing whites, Filipinos, Japanese, and Native Hawaiians in Hawaii, Native Hawaiians ranked highest in behavioral risk factors, such as being overweight, smoking, and excessive use of alcohol, but not in the risk factor for physical inactivity. In 2010, more than three-quarters (76 percent) of Native Hawaiian adults in Hawaii were overweight or obese,⁸² compared with less than two-thirds (64 percent) of all adults in the United States.⁸³

Obesity is implicated in high rates of diabetes among Native Hawaiians—especially those age 35 years and older—who accounted for 22 percent of all cases reported in the state of Hawaii in 2010.⁸⁴ In addition, 13.9 percent of all Native Hawaiians are known to be diabetic.⁸⁵

Heart disease and cancer are the major causes of death among Native Hawaiians, as among other populations in the United States. Hypertension (also known as high blood pressure), a major risk factor for both coronary heart disease and stroke, is also a problem for Native Hawaiians. Although a smaller percentage of Native Hawaiians living in Hawaii had hypertension (13 percent) than did the general population in Hawaii (17 percent), Native Hawaiians ages 55 to 64 years had a higher prevalence rate (49 percent) than did the general population (35 percent) in Hawaii in 2010.⁸⁴

Breast cancer is the most common cancer among Native Hawaiian females.⁸⁶ In addition, Native Hawaiian females have the highest breast cancer incidence of all women in Hawaii.⁸⁷ Because the perception of cancer in Hawaiian culture is bound up with beliefs about shame, guilt, and retribution, Native Hawaiian patients with breast cancer also often are fatalistic.⁸⁸ Indeed, some patients may feel powerless to control the outcome of the disease and therefore do not fight their disease as vigorously as women of other racial/ethnic groups.⁸⁸ Native Hawaiians also often enter medical treatment at late stages of diseases. They sometimes seek medical treatment only when self-care and traditional practices have not brought sufficient relief.^{88,89} Native Hawaiian culture emphasizes the preservation of harmony (*lokahi*), which sometimes results in the tendency for individuals to minimize the

importance of events such as illnesses that may set them apart or reflect disharmony.⁹⁰ This tendency results in delays in seeking services.

As a result, the experience of cancer for Native Hawaiian women sometimes includes both shame and guilt. Native Hawaiian women without health insurance may hesitate to use free screening services because they wish to avoid the shame of being negatively evaluated or discriminated against on the basis of their need for free services.⁹⁰ Guilt may result from the sense that their illness has caused disharmony and altered the chain of familial responsibilities.⁸⁹

One way to address the cultural barriers related to delivering health care services to Native Hawaiian women would be to incorporate traditional cultural systems such as the roles of *ho'omana* (religion and spirituality) and *haku* (family liaison or primary support systems) with the delivery of health care.^{89,90} Because Native Hawaiian culture is focused on affiliation and close personal bonds to solve or cope with problems, Native Hawaiians are uncomfortable with impersonal bureaucracies and the reliance on expert authority within these systems.⁸⁹ Having multidisciplinary teams of providers, including both Western-trained practitioners and traditional healers, could enable each caregiver to learn from the other and would establish a bridge to enhance the provision of care to Native Hawaiians.⁹¹

Respect for the importance of *'ohana* (family, or interdependence and mutual help and connectedness from the same root of origin) also is critical to developing effective health care delivery systems for Native Hawaiians.^{89,90} Studies of interventions to promote breast and cervical cancer screening among Native Hawaiian women have found that using *kōkua* to deliver education and support through *'ohana* and friendship networks was well received and led to improvements in screening-related behaviors.^{89,90} The federally funded Native Hawaiian Health Care System includes examples (such as the Nā PuUwai Native Hawaiian Health Care System on the island of Molokai) of community-based health care centers culturally sensitive to the needs of Native Hawaiians.⁹¹

Other Pacific Islanders

Samoa, a group of islands in the southern Pacific Ocean about halfway between Hawaii and Australia, is divided into two parts: American Samoa (an unincorporated territory of the United States) and

Samoa (formerly Western Samoa), which has been an independent country since 1962.⁹² On U.S. soil, there were 184,440 Samoans (the second most populous Pacific Islander group after Native Hawaiians), most of whom resided primarily in California (60,876 people), American Samoa (50,675 people), and Hawaii (37,463 people). The population of American Samoa was 55,519.⁵⁶ Mainland residents maintain close ties to families in American Samoa by visiting on ritual occasions, sending monthly remittances, and helping new migrants to the mainland.⁹³

Samoans are among the most obese populations in the South Pacific and in the world. Compared with their less Westernized counterparts in Samoa, American Samoan women report higher risk factors and more related diseases. For example, although two of every three (66 percent) Samoan women ages 25 to 64 years were obese, four of every five American Samoan women in the same age group were obese. In addition, American Samoan women ages 25 to 64 years were nearly twice as likely (42 percent) as Samoan women the same ages (22 percent) to report diabetes mellitus.⁹⁴

Average life expectancy at birth in 2012 for Samoans living in American Samoa was estimated as 74.4 years, following the traditional pattern of being somewhat lower for males (71.5 years) and somewhat higher for females (77.6 years).⁹⁵ The all-causes age-adjusted death rate for American Samoans in 2010 was 932.9 per 100,000, considerably higher than the rate of 747 per 100,000 residents of the 50 states in the United States.⁹⁶ In decreasing order of frequency, the major causes of death among adult Samoans are heart disease, cancer, diabetes, and cerebrovascular disease. Breast cancer is the most common type of cancer newly diagnosed for Samoan women. However, lung cancer is the deadliest cancer for Samoan women.⁹⁷

Access to health care among Samoans living on American Samoa is unique, in part due to the political relationship between the United States and the territory. Because this set of islands, the only U.S. territory south of the equator, located 240 miles southwest of Hawaii (the nearest site for tertiary care for residents of American Samoa), is medically underserved, American Samoa receives funding from the U.S. government for both the Medicaid and Medicare programs.⁹⁸ Although American Samoa is covered by the 2010 Affordable Care Act, in March 2012, Governor Togiola of American Samoa commu-

nicated to the U.S. Department of Health and Human Services his decision to not establish the health insurance exchanges (formally the American Health Benefit Exchange) that are part of the act. Because more than 80 percent of the population of American Samoa is Medicaid eligible and the island does not have a sufficient number of third-party insurance providers, he feels that creating a health insurance exchange on American Samoa would not achieve the intended legislative purpose. Thus, American Samoa will use the Medicaid expansions supported by the federal government under this act, but not the health exchanges, to meet the health care needs of American Samoans.⁹⁹

Access barriers for Samoans living on the U.S. mainland differ somewhat from barriers encountered on American Samoa. Samoans living on the U.S. mainland are more likely to be poor than other Americans. Eighteen percent of all Samoan families living on the U.S. mainland have incomes below the poverty level, compared with 7 percent of all white non-Hispanic families.³⁴

Samoan beliefs about the etiology of disease often constitute a barrier for them when seeking care. Elements of *fa'a Samoa*, the way of life that distinguishes the Samoan community from other Pacific Islanders, influence beliefs and care-seeking behaviors.¹⁰⁰ (American Samoans believe, for example, that the failure to follow the *fa'a Samoa* could lead to cancer and that a return to *fa'a Samoa* could prevent cancer.) Traditional modesty and the reluctance of American Samoans to discuss personal issues, however, inhibit the use of preventive health services for cancer and other conditions.

Cancer is a major public health problem among Pacific Islanders, in part due to thermonuclear weapons testing by the United States in the South Pacific.⁸⁸ This testing has poisoned the soil so that, for example, residents of the Bikini Atoll in the Republic of the Marshall Islands cannot eat food grown there. Residents of Kosrae and Pohnpei States in the Federated States of Micronesia were affected as participants in the cleanup of the South Pacific testing sites, and evidence of radioactive strontium has been found on the shores of Guam.⁸⁸ Cancer is a special problem for residents of the Republic of the Marshall Islands, the site of testing between 1946 and 1958.^{101,102}

On Guam, in 2010, a majority of women age 40 years or older (64.4 percent) and age 50 years or older

(71.4 percent) reported having received mammography screening within the past 2 years. More than two of every three women age 18 years or older (68 percent) on Guam also reported having had a Pap test to screen for cervical cancer. Thus, women in Guam are making use of the available preventive tests for cancers.¹⁰³

Recent estimates suggest that 35,000 non-Hawaiian Pacific Islanders live in Hawaii. More than half of these are Samoans, and most of the others are from the Republic of the Marshall Islands and the Federated States of Micronesia.⁸⁸ Although American Samoa, the Republic of the Marshall Islands, and the Federated States of Micronesia have Breast and Cervical Cancer Control Programs (BCCCPs) funded by the U.S. Centers for Disease Control and Prevention, the capacity and reach of the programs are limited in these territories. Non-Hawaiian Pacific Islanders living in Hawaii often underuse the BCCCP services there, likely due to lack of awareness about the importance of screening, the lack of health insurance coverage—or the lack of resources for copayments if covered—and the lack of transportation to screening locations.⁸⁸ To remedy this lack of access to some extent, Cancer Patient Navigation and peer educator programs have been developed for both Native Hawaiians and Micronesians in Hawaii.

Diabetes is another major public health problem among Pacific Islanders. More than 41 percent of adults ages 25 to 64 years on the Marshall Islands have diabetes, as do 11 percent of Guamanians.^{94,103} Eleven percent of both the males and females on Guam have diabetes, with the white population (4.8 percent) less likely to report the condition than other populations on the island.¹⁰³ As noted previously, in American Samoa, 42 percent of women have diabetes.⁹⁴

In response to the prevalence of diabetes among the U.S. territories in the Pacific Islands, in 1998, the Pacific Diabetes Today Resource Center (PDTRC) was established to help train health care professionals and community leaders in Hawaii, American Samoa, Guam, the Republic of the Marshall Islands, the Commonwealth of the Mariana Islands, Palau, and the Federated States of Micronesia to prevent and control diabetes in their communities.¹⁰⁴ Although the funding from the Centers for Disease Control and Prevention for PDTRC ended in 2004, 9 of the 11 community coalitions developed around diabetes prevention activities continued to provide diabetes-

related programming. These coalitions shared several noteworthy characteristics: community champions, supportive organizational homes for their programs, and access to technical assistance and resources.¹⁰⁵

Hispanics or Latinos

The earliest forebears of the group known today as Hispanic Americans or Latinos were Spanish colonists who came from Mexico in the late 1500s to live in what is now the Southwestern United States. The descendants of these colonists and of other Spanish-speaking populations who arrived after them constitute the largest of the ethnic groups in the United States today, numbering 50.5 million, with an additional 3.7 million Hispanics residing in the Commonwealth of Puerto Rico, according to the 2010 census.¹⁰⁶ In 2000, there were 35.3 million Hispanics living in the United States in addition to 3.8 million Hispanic residents in Puerto Rico.¹⁰⁶ Between 2000 and 2010, the Hispanic population grew by

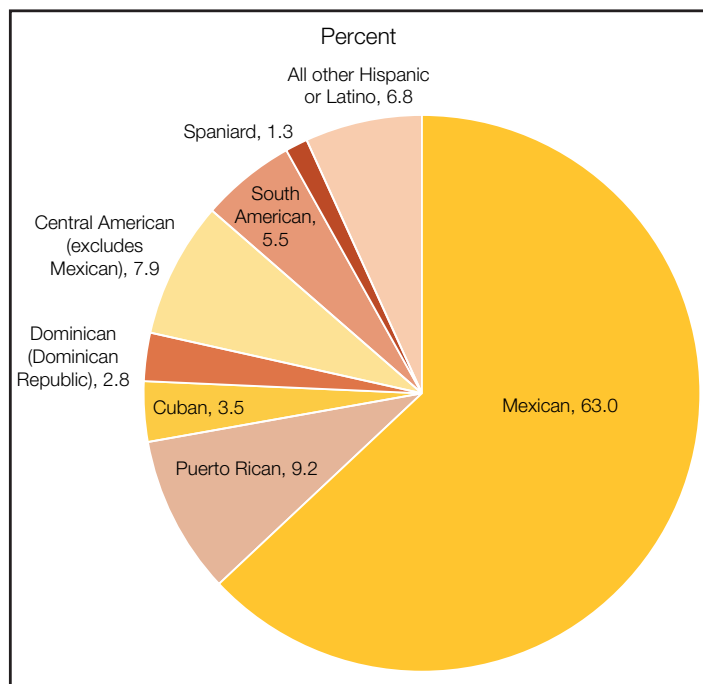
43 percent, more than four times the growth rate of the total population of 10 percent.¹⁰⁶ The proportion of Hispanics in the total population grew from 12.5 percent in 2000 to 16.3 percent in 2010.¹⁰⁶ The Hispanic female population grew from more than 17 million in 2000¹⁰⁷ to nearly 25 million in 2010, almost half of the Latino population in the United States.¹⁰⁸

Today, those who identify themselves as Hispanic or Latino come from a variety of countries in Latin America, the Caribbean, and Europe, with more than a third (35.8 percent) having arrived in the United States between 2000 and 2011.¹⁰⁹ The major Hispanic subgroups identified in the 2010 census are Mexican Americans (63 percent), Puerto Ricans (9.2 percent), and Cuban Americans (3.5 percent). Those who identified themselves as “Other Hispanics” constituted nearly a quarter (24.3 percent) of the more than 50 million Hispanics in the continental United States. This subgroup includes Central Americans (7.9 percent of all Hispanics); South Americans (5.5 percent of all Hispanics); people from the Dominican Republic, known as Dominicans (2.8 percent of all Hispanics); people from Spain, known as Spaniards (1.3 percent of all Hispanics); and an additional 6.8 percent of the Hispanic population who did not specify their country of origin (“All Other Hispanics”).¹⁰⁶

The U.S. population will be considerably more racially and ethnically diverse by 2060, according to projections by the U.S. Census Bureau. This is in large part driven by Hispanic growth and immigration. The Hispanic population is projected to more than double, from 53.3 million in 2012 to 128.8 million in 2060. Consequently, in 50 years, nearly one in three U.S. residents would be Hispanic, up from about one in six today,³ and Hispanics would be the largest group of net international migrants to the United States, increasing to nearly half a million net migrants in 2060.¹¹⁰

Reasons for Latino immigration have varied by subpopulations. In addition to the history of Spaniards and Mexicans in what is now the Southwestern United States, Mexican immigration to the United States results from several factors—the proximity of Mexico to the United States, the long shared border between the two countries, and the economic disparities between the two nations.¹¹¹ Since Puerto Rico is a U.S. commonwealth and its residents are U.S. citizens,

Figure 5
Hispanic- or Latino-Origin Population by Major Subgroups, 2010



Source: Ennis, S. R., Rios-Vargas, M., & Albert, N. G. (2011, May). The Hispanic population: 2010. *2010 Census Brief* (C2010BR-04), p. 3. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>

Table 6
Hispanic- or Latino-Origin Population by
Detailed Subgroups, 2010

Subgroup	Number*	Percent
Mexican	31,798,258	63.0
Puerto Rican	4,623,716	9.2
Cuban	1,785,547	3.5
Other Hispanic or Latino	12,270,073	24.3
Dominican (Dominican Republic)	1,414,703	2.8
Central American (excludes Mexican)	3,998,280	7.9
Costa Rican	126,418	0.3
Guatemalan	1,044,209	2.1
Honduran	633,401	1.3
Nicaraguan	348,202	0.7
Panamanian	165,456	0.3
Salvadoran	1,648,968	3.3
Other Central American	31,626	0.1
South American	2,769,434	5.5
Argentinian	224,952	0.4
Bolivian	99,210	0.2
Chilean	126,810	0.3
Colombian	908,734	1.8
Ecuadorian	564,631	1.1
Paraguayan	20,023	*
Peruvian	531,358	1.1
Uruguayan	56,884	0.1
Venezuelan	215,023	0.4
Other South American	21,809	*
Spaniard	635,253	1.3
All other Hispanic or Latino	3,452,403	6.8
Total	50,477,594	100.0

*Percent rounds to 0.0.

Source: Ennis, S. R., Rios-Vargas, M., & Albert, N. G. (2011, May). The Hispanic population: 2010. *2010 Census Brief* (C2010BR-04), p. 3. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>

many Puerto Ricans move to the U.S. mainland, either temporarily or permanently, to pursue opportunities lacking in their homeland. Although immigration from Cuba to the United States through normal channels has been limited since 1959, when Fidel Castro came to power, since then Cubans have immigrated to the United States in several waves, primarily under special humanitarian provisions of law.¹¹² The earliest waves in the 1960s consisted of better educated and middle-class newcomers, while later waves were less uniformly so. Central and South American Latino immigrants have come to the United States primarily as the result of civil war, poverty, and political oppression. Mexican and Central American immigrants generally have less education than both other foreign-born populations in the United States and the native-born population.¹¹³

In 2011, more than one-third (36.2 percent) of all Hispanics living in the United States were foreign born.¹¹⁴ Foreign-born women have a higher fertility rate than do native women. In the 12 months prior to being surveyed in 2010, about 75 of every 1,000 Latin America-born women ages 15 to 50 years had given birth, compared with about 52 of every 1,000 native women ages 15 to 50 years.¹¹⁵

In 2010, most of the nation's Hispanic population was urban, with 94 percent living in urban areas and 47 percent living in the central cities of metropolitan areas.¹¹⁶ Nearly 38 million Latinos, or 75 percent of Latinos in the United States, reside in eight states (California, Texas, Florida, New York, Illinois, Arizona, New Jersey, and Colorado),¹⁰⁶ with the largest numbers in five cities—New York, Los Angeles, Houston, San Antonio, and Chicago.¹⁰⁶ The 10 cities in which Hispanics constitute the largest percentages of the population are in California, Florida, and Texas. The South (36 percent) and the West (41 percent) combined are home to more than three-fourths of all Hispanics. In addition, Latinos accounted for 29 percent of the population in the West, the only region in which Hispanics exceeded the national level of 16 percent.¹⁰⁶

Many of the Hispanics in the West live in California, where this population has grown rapidly, increasing by 70 percent between 1970 and 2000¹¹⁷ and by 28 percent between 2000 and 2010.¹⁰⁶ In 2010, the 14 million Hispanics in California accounted for 28 percent of the Hispanic population in the United States.¹⁰⁶ In addition, California was home to 36 percent of the U.S. population of Mexican descent

Table 7

Ten Places With the Largest Percentages of Hispanics or Latinos, 2010

Place	Total Population	Hispanic or Latino Population	
	Number	Rank	Percent of the Total Population by Place
East Los Angeles, CA	126,496	1	97.1
Laredo, TX	236,091	2	95.6
Hialeah, FL	224,669	3	94.7
Brownsville, TX	175,023	4	93.2
McAllen, TX	129,877	5	84.6
El Paso, TX	649,121	6	80.7
Santa Ana, CA	324,528	7	78.2
Salinas, CA	150,441	8	75.0
Oxnard, CA	197,899	9	73.5
Downey, CA	111,772	10	70.7

Source: Ennis, S. R., Rios-Vargas, M., & Albert, N. G. (2011, May). The Hispanic population: 2010. *2010 Census Brief* (C2010BR-04), p. 11. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>

and 28 percent of the Central American population in the United States.¹¹⁸ According to a January 2013 projection by the California Department of Finance, the Hispanic population in the state is expected to equal the white non-Hispanic population by mid-2013, and by early 2014, Hispanics would become a plurality of California's population for the first time since California became a state. By 2060, nearly half (48 percent) of all Californians are projected to be Latino.¹¹⁹

The Hispanic population in the United States is diverse by many measures. Latinos can be of any race.¹²⁰ Thus, the population ranges from dark skinned to light skinned and includes all the shades in between; Latinos include people who are admixtures with Indians, blacks, whites, and Asians.¹²¹ Hispanics also include people from Spanish-speaking countries (such as certain parts of El Salvador and various regions of Mexico) but whose primary language is not Spanish.¹²² The Hispanic population includes farmworkers—the laborers in this nation with a lower life expectancy and higher rates of death than the general population from hypertension, injuries, tuberculosis, respiratory diseases, and

reproductive disorders.^{123,124} Although farmworkers have a lower overall cancer incidence than the general population (likely due to lower smoking rates), they have higher rates of leukemia and of brain, cervical, skin, and prostate cancer than does the general population, likely due to exposure to pesticides and overexposure to the sun.^{124,125,126}

Seven of every eight migrant farmworkers (88 percent) self-identify as Hispanics. Farmworkers frequently lack both health insurance and regular health care, two factors that are associated with an increased incidence of chronic illness and disease.^{123,125} Many Hispanic farmworkers live in *colonias*, unincorporated areas within 150 miles of the U.S.-Mexico border, often without basic services such as septic tanks, sewers, and running water.¹²⁷

Although the median age for the Hispanic population is 27 years (compared with a median age of 37 years for the entire U.S. population in 2010),¹²⁸ significant differences in age distribution exist among Latino subpopulations. While nearly two-fifths (38 percent) of Mexicans and more than a third of Puerto Ricans (34 percent) are younger than age 18 years, only a fifth (20 percent) of Cubans are in this age

group. A similar percentage of Cubans (17 percent) is older than 65 years, compared with 5 percent of Mexicans and 8 percent of Puerto Ricans in this age group.¹²⁹ In 2010, the median age was 25 years for Mexicans, 27 years for Puerto Ricans, and 40 years for Cubans.¹³⁰

Among Hispanic subpopulations, Mexican Americans appear to enjoy better health than would be predicted, given their socioeconomic status and the fact that they have low utilization rates for health care services for both physical and mental conditions.¹³¹ For example, in the population age 20 years and older, Mexican American women (28 percent) are less likely than black non-Hispanic women (44 percent)—and equally likely as white non-Hispanic women (28 percent)—to have hypertension.¹³² Research on hypertension by Hispanic subgroup finds considerable variation between men and women. One study found that Mexican, Mexican American, Central American, and South American women all had greater odds of having hypertension than did their male counterparts.¹³³ Furthermore, an examination of hypertension-related mortality data revealed variation in the death rates among Hispanic subgroups, with Puerto Rican adults exhibiting a greater rate of mortality than both Mexican American and Cuban adults.¹³⁴

Recent research among U.S. adults on mortality rates from all causes illustrates the need to disaggregate data for Hispanic subgroups to rigorously examine the so-called Hispanic paradox. The apparent paradox is that, despite lower income and educational attainment and very poor access to health care, Latino health outcomes are often the same as or better than those of white non-Hispanics.¹³⁵ In one piece of research, the Hispanic paradox of lower mortality rates for Hispanic subgroups than for non-Hispanic whites was found to exist for Hispanic women only.¹³⁶ Furthermore, this lower mortality risk was found to vary by nativity status. In particular, the following groups were found to have lower death rates than their white non-Hispanic female counterparts: Mexican American and Central and South American women ages 25 to 44 years, Cuban women ages 45 to 64 years, and Puerto Rican and Mexican American women age 65 years and older. In addition, all of the following Hispanic subgroups of women had lower observed mortality risk than their white non-Hispanic counterparts, when examined by nativity status: U.S.-born Mexican Americans both ages 25 to 44 years and age years 65

and older, island- or foreign-born Cubans and Other Hispanics ages 45 to 64 years, and island- or foreign-born Puerto Ricans age 65 years and older. These findings suggest that the Hispanic paradox may not be a static phenomenon and may instead be evolving as the Hispanic population in the United States increases in size and diversity.¹³⁶

The socioeconomic and employment conditions of Hispanics, as of all populations in the United States, influence their access to health insurance and thereby to health care. In 1993, the Hispanic poverty rate was 30.6 percent, falling to 21.4 percent in 2001 before inching up to 25.3 percent in 2011.¹³⁷ Nearly one-quarter (24.3 percent) of all Hispanic families lived in poverty, as did 20.8 percent of all Latino married-couple families with related children younger than 18 years.¹³⁷ In addition, in 2011, more than one-quarter (27.7 percent) of Hispanic females had incomes below the federal poverty line.¹³⁷

Rates of unemployment and labor force participation account for the poverty levels of Hispanics in part. In March 2013, the seasonally adjusted unemployment rate for the Hispanic population age 16 years and older (both males and females) of 9.2 percent was 37 percent higher than the unemployment rate for the white population of 6.7 percent. The unemployment rate was 8.2 percent for Latino males 20 years and older and 9.3 percent for Latino females 20 years and older. (The only unemployment rates available for Hispanic males and Hispanic females separately are not seasonally adjusted and are available only for people age 20 years and older.) The 65 percent share of the Hispanic population in the labor force reflects both the 81 percent share for Hispanic males (that exceeds the labor force participation rates for both white males—73 percent—and for black males—68 percent) and the 58 percent share for Hispanic females (which equals the 58 percent labor force participation rate for white females but falls short of the 61 percent rate for black females).¹³⁸

As with other measures, for Hispanics, there is variation by subgroup in unemployment and labor force participation rates. In 2011, unemployment rates for Mexicans (11.6 percent) and Cubans (11.2 percent) were near the Latino average of 11.5 percent, while the rate for Puerto Ricans (14.1 percent) was greater than this average. The rate for populations from Central and South America (10.4 percent) was below the Latino average.¹³⁹

Hispanic family households also are more likely than non-Hispanic white family households to be headed by females. Furthermore, these female-headed households are more likely than other types of households to have incomes below the federal poverty level. Although 23 percent of all non-Hispanic white female-headed families had incomes below the poverty level in 2011, the corresponding share of Latino female-headed families was 41 percent.¹⁴⁰

When Hispanic women are employed, they tend to hold jobs of low status and with low pay. Hispanics, along with African Americans, are more likely than non-Hispanic whites to be among the working poor. More than 15 percent of all Hispanics and 16 percent of Hispanic women reported working full-time but earning poverty-level wages, as did nearly 15 percent of all blacks and nearly 18 percent of black females. Only 7 percent of all non-Hispanic whites and nearly 8 percent of non-Hispanic white women reported working for poverty-level wages in 2011.¹⁴¹

Hispanics are more than three times as likely as whites (non-Hispanic) and nearly twice as likely as African Americans to be full-time workers but to lack health insurance (38 percent for Hispanics versus 12 percent for non-Hispanic whites and 21 percent for blacks).¹⁴² Thirty percent of the Hispanic population was not covered by health insurance for the entire year of 2011, with full-time and part-time workers accounting for 57 percent of the uninsured.¹⁴² This share incorporates the 33 percent of Mexican Americans, the 32 percent of Other Hispanics, the 28 percent of Cubans, and the 16 percent of Puerto Ricans who were younger than 65 years and uninsured in 2011.¹³² This lack of insurance is due in part to the fact that Hispanics are more likely than non-Hispanics to be employed in industries and occupations that do not provide health benefits.^{143,144}

Although some Latinos have government-funded health insurance coverage, Medicaid coverage of people with comparably low incomes varies by state of residence, as do eligibility requirements and administrative practices under this health insurance program for the poor. Overall, however, 30 percent of Hispanics younger than 65 years are enrolled in Medicaid. This figure incorporates the 20 percent of Cubans, the 28 percent of Other Hispanics, the 31 percent of Mexican Americans, and the 33 percent of Puerto Ricans who are covered by Medicaid.¹³² For example, Hispanic residents of New York and California are more likely to be enrolled in Medicaid than are

equally poor Hispanics in either Florida or Texas,¹⁴⁵ although these four states are among the eight states in which 75 percent of U.S. Latinos reside.¹⁰⁶ Beyond the likely lack of employer-sponsored health insurance, the working poor face double jeopardy with respect to health care because they cannot afford to pay costly medical bills out of pocket and because they do not qualify for federal programs such as Medicaid. Some of the Hispanic working poor have the added disadvantage of lacking U.S. citizenship and thus being ineligible for federal health assistance programs, even if their incomes are low enough.¹⁴⁶

Along with socioeconomic status, cultural context or acculturation—the process of psychological and behavioral change individuals undergo as a consequence of long-term contact with another culture—plays a major role in the incidence of health conditions and access to health care among Hispanic populations. One aspect of acculturation for the Hispanic American is encountering discrimination, prejudice, and exclusion (based either on language or skin color), perhaps for the first time, and incorporating into her or his identity a newly acquired “minority” status.¹⁴⁷ Racial identification among Latinos is likely to be influenced by personal reactions to differences between the racial hierarchies and construction of race in the United States and in their homelands.¹⁴⁸ It also may be shaped by characteristics of the immigrant population, such as age at entry to the United States, socioeconomic status in the country of origin, and ability to “pass” or be accepted as white in the United States.¹⁴⁸ For Dominicans and Puerto Ricans, some of whom self-identify or are identified by others as black, this identification has been associated with increased experiences of racial discrimination that may in turn affect both social mobility and health status.^{133,149}

Some less acculturated Hispanic immigrants have a significantly lower likelihood of health problems (both physical and mental) and, therefore, less need for outpatient services. One example is the incidence of low-birth-weight infants (which is highly correlated with the infant mortality rate) among less acculturated first-generation Mexican American women. Less acculturated Hispanic women have a lower incidence of low-birth-weight infants than both white non-Hispanic women and more highly acculturated Hispanic women.¹⁵⁰ Comparing infant mortality prevalence among Puerto Ricans on the mainland and in the Commonwealth of Puerto Rico illustrates

this finding. One recent study found that infant mortality is substantially lower among recent migrants to the U.S. mainland than it is among nonmigrant women in Puerto Rico. This finding and other research suggest not only that selective migration of healthier populations may be an operative factor in birth outcomes for Latinas but also that the qualities associated with better birth outcomes of infants born to Puerto Rican migrants to the United States are eroded once the migrant mothers have lived on the U.S. mainland for a substantial period of time.¹⁵¹

More acculturated Hispanics (as reflected by greater use and skill with the English language and greater involvement with the mainstream American culture) would be expected to adopt behaviors and have health outcomes similar to nonimmigrant Americans. Research findings on this hypothesis are mixed. Hispanics with a greater degree of acculturation are more likely to engage in behaviors that can have negative effects on health (such as substance abuse and unhealthy dietary practices). Substance use and unprotected heterosexual intercourse among more acculturated Hispanic men and women are key risk factors for HIV infection and AIDS, an association that seems to be strongest among Puerto Ricans.^{152,153} More acculturated Hispanics are, however, also more likely to make use of health care (such as preventive screenings) and to engage in leisure-time physical activity, two factors that could mitigate the effect of chronic diseases.^{154,155}

Regardless of degree of acculturation, however, Latinos are more likely to have diabetes than the adult white non-Hispanic population in the United States. Among people age 20 years and older, around 7 percent of whites (non-Hispanic) but nearly 12 percent of Latinos had diagnosed diabetes. For this group of adults, the risk of diagnosed diabetes was 66 percent higher among Hispanics/Latinos than among whites (non-Hispanic). The risk of diagnosed diabetes among Cuban Americans and Central and South Americans roughly equaled that among white non-Hispanic adults, although it was 94 percent higher for Puerto Ricans and 87 percent higher for Mexican Americans.¹⁵⁶ The prevalence of diabetes among Mexican American women is twice the rate among white women.¹⁵⁷

Other aspects of culture that can influence health are religion, folk healing, and “familism,” or family mores. Cultural mores that dictate that Hispanics should first try home remedies, seek the advice of

family and friends, or engage folk healers before getting professional health care also can build delays into the care-seeking process that may be costly in terms of either morbidity or mortality.¹⁵⁸ Even while using professional biomedical health care, Hispanics may continue to use traditional medicines or alternative therapies as a complement, often without disclosing their use to their professional health care providers, a pattern that could have unforeseen negative consequences.¹³⁵

Degree of acculturation also influences the spread of HIV infection and AIDS among Hispanics. In traditional Hispanic cultures, men and women have distinct gender roles, and women are not supposed to have advanced knowledge about sex and sexuality (the *marianista* tradition).¹⁵⁹ In the home, females are provided less information and education about sexuality than are males. Language barriers can prevent women from being educated elsewhere. Thus, women may not know the risk factors for HIV/AIDS and may engage in risky behaviors unknowingly. However, even if they know the risk factors for HIV/AIDS and want to engage in safer sexual behaviors, they could be considered immoral and promiscuous if they discuss condom use with their partners. This concern may lead some women to forgo condom use rather than risk embarrassment and stigma. In addition, the *machismo* tradition among men may contribute to lower levels of self-esteem and feelings of disempowerment among Hispanic females and discourage them from attempting to protect themselves and from seeking care for HIV infection or AIDS.^{152,159}

Blacks or African Americans

The black population of the United States consists primarily of U.S.-born African Americans, although sizable numbers of African and African Caribbean immigrants have become part of this group in recent years. The African ancestors of the group known today as African Americans were brought to the shores of what is now the United States as slaves by Europeans beginning in 1619. In 2010, the Census Bureau counted 38.9 million people in the United States who identified themselves as black or African American only (12.6 percent of the total population) and 42.0 million people who identified as black or African American in addition to one or more other racial affiliations (13.6 percent of the total population).¹⁶⁰

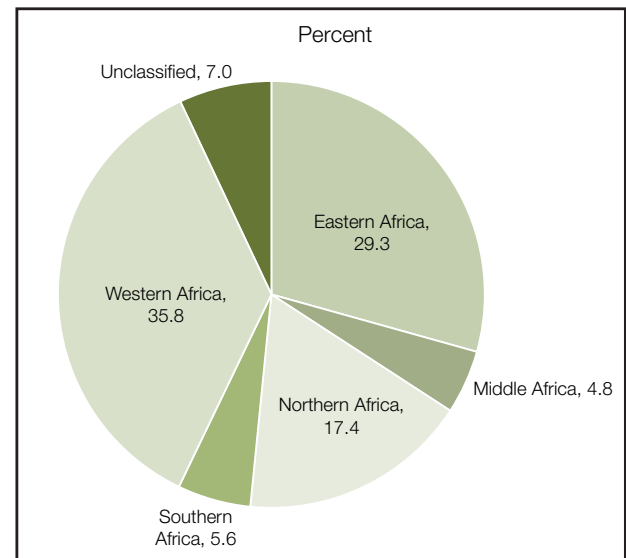
In the 2000 census, nearly 34.7 million people (12.3 percent of the total population) identified themselves as black or African American only, and 36.4 million people (12.9 percent of the total population) marked black or African American as one of several racial affiliations.¹⁶¹ Between 2000 and 2010, the black population increased at a faster rate than did the total U.S. population, which grew by 9.7 percent during this period. In comparison, the black-alone population grew by 12 percent, and the black-alone or black-in-combination population grew by 15 percent. However, both groups of blacks grew at a slower rate than did most other major racial and ethnic groups in the country.¹⁶⁰ More than half of the black-alone population (20.4 million) in 2010 were females.¹⁶²

Many who marked the box for black or African American on the 2010 census form also reported Caribbean, Indian, and/or European ancestry. Among the 3.1 million people who reported black and at least one other race in 2010, the most common combination was African American and white (59 percent). Nearly 9 percent reported black and American Indian/Alaska Native, and 7.5 percent reported black, white, and American Indian/Alaska Native.¹⁶⁰

Heterogeneity within the U.S. black population also results from contemporary immigration from the Caribbean basin and Africa. In 2010, more than 13 percent of all immigrants to the United States were from Africa and the Caribbean combined, with 4 percent coming from Africa and 9.3 percent coming from the Caribbean. A sizable proportion of the immigrants from both areas were of African descent.¹¹⁵ The following factors have provided the impetus for much of the migration of members of the African diaspora to the United States: drought, famine, civil and regional wars, and debt repayment burdens that divert resources from infrastructure development and much-needed social services.

Approximately 8.5 percent of black Americans are foreign born,¹⁶³ mainly French-speaking Haitians and other non-Spanish-speaking people from the Caribbean region. These include residents from Dutch-speaking islands such as Aruba and the Netherlands Antilles and English-speaking people from former British colonies in the Caribbean Sea and from the mainland territories of Belize and Guyana. The 1990 census estimated that there were almost 1 million Americans of English-speaking West Indian or

Figure 6
Region of Birth Among African-Born Immigrants, 2011



Source: U.S. Department of Commerce, Bureau of the Census. (n.d.). American Community Survey 2011. Table B05006. Retrieved from <http://factfinder2.census.gov>

Caribbean ancestry, almost half a million of sub-Saharan African ancestry, and 300,000 of Haitian ancestry. In 2000, there were nearly 1 million foreign-born Africans (881,300) alone in the United States.¹⁶⁴ By 2011, nearly 1.7 million U.S. residents were born in Africa, of whom nearly three of four (74 percent) were black.¹⁶⁵ Foreign-born African immigrants to the United States come primarily from Western Africa (36 percent) but arrive from throughout the continent as well (29 percent from Eastern Africa, 17 percent from Northern Africa, 6 percent from Southern Africa, 5 percent from Middle Africa, plus 7 percent unclassified).¹⁶⁶

Although the numbers of immigrants are small relative to the entire U.S. black population, in some places, immigrants of African descent and their progeny constitute a substantial proportion of the population. Where this is true, marked differences in acculturation exist among black women and contribute to the diversity of their health outcomes. One example is provided by the findings from a study of human papillomavirus (HPV) vaccination intentions among Haitian and African American women served by an urban academic medical center and its affiliated community health center in

Boston.¹⁶⁷ Within the population of black women in the United States, Haitian women are more likely than U.S.-born black women to be diagnosed with advanced-stage invasive cervical cancer, which is caused by HPV. Although a majority of both the Haitian women (75 percent) and the African American women (63 percent) in the study intended to vaccinate their daughters against HPV, only 47 percent of black women and 31 percent of Haitian women did so. More so than the black mothers, the Haitian mothers reported feeling uncomfortable vaccinating against a sexually transmitted virus because they felt their daughters should not be having sex.

Another example of differences in health outcomes associated with acculturation is from a study of the risk of giving birth to a low-weight infant among black native-born and foreign-born mothers in New York City.¹⁶⁸ For U.S.-born black women living in segregated areas—with a high degree of racial isolation—this fact is associated with a higher low-birth-weight risk for their infants. Although the same association was evident for foreign-born black mothers, differ-

ences in the risk of giving birth to a low-weight infant were more strongly associated with individual factors such as country of birth. This finding suggests that living in a segregated area has a protective effect on the health of black foreign-born women as a result of these women living in areas with a high density of people of the same ethnicity.

Black Americans reside in all 50 states and the District of Columbia. They are a largely urban population, with more than 91 percent living in urban areas in 2010.¹¹⁶ Despite their urbanity and their wider distribution among the states than other racial/ethnic groups, 53 percent of all black Americans counted in the 2010 census lived in 13 Southern states—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.¹⁶⁰ Seven of the 10 places with the largest percentages of African Americans are located in the South.¹⁶⁰ More than 20 percent of all census respondents in the South were black, in contrast to 13 percent in the Northeast, 11 percent in the Midwest, and 6 percent in the West.¹⁶⁰ The black population represented

Table 8
Ten Places With the Largest Percentages of Blacks or African Americans, 2010

Place	Total Population	Black or African American Alone or in Combination	
	Number	Rank	Percentage of the Total Population by Place
Detroit, MI	713,777	1	84.3
Jackson, MS	173,514	2	80.1
Miami Gardens, FL	107,167	3	77.9
Birmingham, AL	212,237	4	74.0
Baltimore, MD	620,961	5	65.1
Memphis, TN	646,889	6	64.1
New Orleans, LA	343,829	7	61.2
Flint, MI	102,434	8	59.5
Montgomery, AL	205,764	9	57.4
Savannah, GA	136,286	10	56.7

Source: Rastogi, S., Johnson, T. D., Hoefel, E. M., & Drewery, M. P. (2011, September). The black population: 2010. *2010 Census Brief* (C2010BR-06), p. 15. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-06.pdf>

more than 50 percent of the total population in the District of Columbia and more than 25 percent of the population in six Southern states: 38 percent in Mississippi, 33 percent in Louisiana, 32 percent in Georgia, 31 percent in Maryland, 29 percent in South Carolina, and 27 percent in Alabama.¹⁶⁰ In addition, according to the 2010 census, the largest increases of the black population occurred in the South and the West.¹⁶⁰

Despite their disproportionate representation in Southern states (as evident from the fact that 6 of the 10 states with the largest numbers of African Americans were Southern), several states with large numbers of African Americans were not in the South—California, Illinois, New York, and Ohio. Based on totals for the population that reported black or African American either alone or in combination with another population, 3.3 million African Americans resided in New York state, 2.7 million in California, 2.0 million in Illinois, and 1.5 million in Ohio in 2010.¹⁶⁰

Differences in the health of blacks and whites are many and varied. Blacks have more undetected diseases, higher disease and illness rates (from infectious conditions such as tuberculosis and sexually transmitted diseases), more chronic conditions (such as hypertension and diabetes), and shorter life expectancy than do whites.^{132,169,170,171} Thus, African Americans are sicker during their lifetimes and younger when they die than any other racial/ethnic group in the United States, except for American Indians/Alaska Natives.^{21,132} Morbidity and mortality rates for African Americans from many conditions (cancer, HIV/AIDS, pneumonia, and homicide) exceed those for whites.^{38,132} These findings exist even though black females are generally less likely than white females to report risk behaviors such as smoking cigarettes, consuming alcohol, or using other substances.³⁵

Experts have sought explanations for racial differences in health outcomes, and many contributing factors have been identified.¹⁷² Although the interactive mechanisms have not been clearly specified, links have been demonstrated between race, on one hand, and blood pressure, mental health, and general physical health status, on the other.^{173,174} Many factors have been proposed to explain the health disparities between African Americans and members of other racial/ethnic groups. Under the ecological model of African American health, factors

contributing to health disparities are viewed to fall within six major health determinant or risk factor domains—genetic endowment, predisposing characteristics, social environment (including racism and racial discrimination), physical environment, health-influencing behavior, and health care system characteristics.¹⁷⁵ These factors are discussed throughout the text that follows.

Evidence about a genetic basis for the persistent differences in health and health outcomes among U.S. subpopulations remains suggestive, even in the current era with data available from the human genome sequencing project.^{176,177,178} For example, the murkiness of race as a concept to define black Americans, who range from fair skinned and blue eyed with straight hair to dark skinned with dark eyes and coarse hair, does not allow us to provide purely genetic explanations of the health differences between blacks and whites. The fact that many genetically related populations in Africa and the Caribbean display much lower rates of cardiovascular disease, hypertension, and low-birth-weight infants and higher life expectancies than do African Americans also casts doubt on purely genetic explanations for racial health differences.¹⁷⁹ Instead of looking at population-related genetic differences, others link the racial differences in health to black subpopulations that are exposed to multiple risks—such as intravenous drug users and those living and working in hazardous environments—and to exposure to factors such as stress, discrimination, and racism.

One long-considered hypothesis to explain the prevalence of hypertension among African Americans is “John Henryism.”^{180,181} John Henryism is defined as the strong behavioral predisposition to engage in high-effort coping with demanding psychosocial stressors and could compromise health among those for whom environmental demands exceed personal coping resources, as measured by low socioeconomic status.¹⁸² Several studies have found support for the John Henryism hypothesis among African Americans.^{181,183}

Researchers studying the prevalence of hypertension among blacks have also found that it varies with skin color, vitamin D status, and psychosocial stress.¹⁸⁴ A skin-color gradient has long been observed among African Americans and other African-diaspora populations.¹⁷³ In other words, lighter-pigmented blacks often have a lower prevalence of hypertension than do darker-skinned blacks, and pigment is related

to the degree of admixture with whites, whose overall prevalence of hypertension is lower than that of African Americans. However, researchers have not measured actual genetic differences between lighter- and darker-pigmented blacks—instead, skin color differences were used as a proxy for presumed genetic differences. Research examining the interaction between income and skin color to influence the blood pressure of African Americans has found that there is a protective gradient of income with respect to systolic blood pressure (the numerator of the blood pressure fraction that is ideally below 120 mm Hg) among lighter-pigmented African Americans but not among darker-pigmented African Americans. In other words, as income increases among lighter-skinned African Americans, systolic blood pressure decreases. Among darker-skinned African Americans, as income increases, so does systolic blood pressure.¹⁷³ Another study found that darker-skinned individuals who identified with higher social class status were the most likely to have elevated blood pressures. Individuals with both light skin and high social status and with both dark skin and low social status reported lower blood pressure.¹⁸⁵

Yet another piece of research has identified a significant inverse relationship between median housing value and a self-report of physician-diagnosed hypertension.¹⁸⁶ In other words, these researchers found that hypertension rates were lower among black women who lived in housing with higher median value. This relationship was evident even among black women with higher levels of income and education, and it suggests that health and disease are influenced not only by the characteristics of individuals but also by the conditions under which people live.

Recent research about the smoking-related risk of lung cancer, however, provides support for the role of genetics in the health of African Americans. The risk of lung cancer associated with cigarette smoking is significantly greater for African American women (and men) than for white women (and men).¹⁸⁷ The same is true for mortality from lung cancer.¹⁸⁸ Variation in the metabolism of nicotine by blacks and whites has been hypothesized to underlie differences in smoking behavior (such as the depth and frequency of inhalation) and, thus, in the intake of carcinogens.¹⁸⁸

Earlier research on the presence of cotinine, a metabolite of nicotine, in the bloodstreams of African Americans and white Americans suggests that (after

controlling for the number of cigarettes smoked daily) African Americans retain more cotinine than do whites. Research has also shown that smoking menthol cigarettes is linked to retaining higher levels of cotinine, and African Americans are more likely than are whites to smoke menthol cigarettes.¹⁸⁹ Although this and other findings suggest the existence of a genetic factor among African Americans that may predispose them to certain conditions, environmental factors also play a role in health behaviors and, thus, health outcomes.¹⁷⁹ Research suggests that sociostructural factors (such as perception of racially discriminatory treatment) are also relevant to the onset of unhealthful behaviors such as cigarette smoking.¹⁹⁰

More than a fourth (28 percent) of all Americans who reported their race as black alone lived in poverty in 2011, as did a comparable proportion of black women (29 percent). Almost two in five blacks younger than age 18 years (39 percent) and nearly one in six blacks age 65 years and older (17 percent) reported incomes below the poverty level.¹⁹¹ A majority (72 percent) of the more than 2.3 million black families with incomes below the federal poverty level were maintained by women with no husbands present.¹⁴⁰ Single-parent, female-headed households—45 percent of all black family households in 2011¹⁴⁰—were mired in poverty to a greater degree than was the entire black population. More than two-fifths (42 percent) of all people in black female-headed families, but only 11 percent of all people in married-couple black families, had incomes below the poverty level in 2011.¹⁹² Median income for all black households in 2011 was \$32,229, with median income for married-couple black families at \$64,875. For black female-headed family households, 2011 median income was \$26,488.¹⁹³

More than half of the black workforce (54 percent) is female, with many of these workers earning poverty-level wages. Of the 9.3 million black women who were in the labor force at least 27 weeks during 2011, one-sixth (16 percent) lived in poverty. More than one-fourth (more than 27 percent) of all young black female members of the labor force ages 16 to 24 years had income below the federal poverty level.¹⁹⁴

Inadequate income carries over into other aspects of daily life that impinge on health. These include living in inadequate housing (which may increase exposure to communicable diseases, lead poisoning, and other harmful environmental agents), improper

nutrition, chronic stress from constantly struggling to make ends meet with inadequate resources, dangerous jobs, violence, and reduced access to medical care (which leads to the receipt of little or no preventive medical care).^{195,196} The relegation of African Americans to segregated neighborhoods, often with concentrated poverty in many urban areas, is also associated with limited access to healthy food options.¹⁹⁷ Malnutrition in young black girls may later result in low-birth-weight babies and high infant mortality rates when these girls become mothers.

Low-weight births are related to the intergenerational effects of the growth and development of a mother from her prebirth to childhood, which may in turn influence the intrauterine growth of her child. Studies have shown that the birth weight and early health of a mother can be greater predictors of subsequent low-weight births than is socioeconomic status or early prenatal care.¹⁹⁸ Mothers who themselves had low weight at birth are more likely to give birth to low-weight infants. Even achieving higher socioeconomic status intergenerationally does not completely mitigate that effect, so that a black middle-class mother may be giving birth to an infant whose health is markedly determined by the poverty of not only the mother but also the mother's mother.¹⁹⁹

Although socioeconomic status has been linked to differences in birth outcomes, socioeconomic status does not fully account for the disparity in infant mortality rates between black and white women. Black women of higher socioeconomic status have been found to have higher infant mortality rates than do white women of lower socioeconomic status.²⁰⁰ Mortality rates for infants born to black mothers with 13 or more years of education (in 2005) were nearly three times the rates among infants born to white non-Hispanic mothers with 13 or more years of education.²⁰¹ This excess mortality was due primarily to higher rates of death associated with premature delivery and low birth weights of black babies.²⁰² An additional difference between pregnancy outcomes for black and white women is the fact that as black women age from adolescence to the early 40s, they are more likely to give birth to infants with either low birth weight or very low birth weight. This “weathering” effect is not noted in white women and may be evidence of the physiological response by black women to cumulative stressors such as racism, discrimination, and socioeconomic disadvantage.^{200,203}

Although black women are more likely than white women to delay receiving prenatal care and are less likely to receive prenatal care at all, differences in the use of prenatal care and other differences during pregnancy do not fully account for disparities between black and white women in the incidence of births of infants with low and very low weights.²⁰⁰ Qualitative differences in prenatal care seem to be relevant as well. For example, poor glycemic control in mothers with diabetes has been linked to suboptimal fetal development and may result in greater adult susceptibility to insulin resistance and diabetes for the infant. The failure to receive ancillary services—such as childbirth education classes, mental health or periodontal services, or breastfeeding support—also may lessen the quality of prenatal care received by black women.²⁰⁴ Other factors such as the frequency of short intervals between pregnancies and stresses associated with the relationship with the father also have been associated with the greater incidence of low-weight infants born to black women.²⁰⁴ The presence of a significant other in the delivery room has been associated with a reduced likelihood of the birth of a very low-weight infant to an African American woman.²⁰⁵ However, young age, high numbers of previous pregnancies, and lower education levels are factors that may confound this disparity, for which a complete explanation is yet to be provided.

Hazards in their living environments also detract from the health of black Americans. African American mothers are more likely than white mothers to live in areas with high levels of air pollution (measured by levels of the pollutants ozone, carbon monoxide, nitrogen dioxide, and sulfur dioxide), regardless of educational status, age, region of the country, or marital status.²⁰⁶ Exposure to environmental lead (via air, water, soil/dust, and food) and the prevalence of elevated lead levels in the blood (greater than 10 g/dL) also are much more common among non-Hispanic blacks than non-Hispanic whites (although about equally as common as among Mexican Americans). This holds true for black adults as well as for black children, and higher blood levels of lead were found to be associated with higher blood pressure levels among blacks.^{207,208}

Exposure to hazards in the work and living environments suggests that black Americans might have a greater need than other groups for preventive health care. In fact, black women receive Pap tests and

mammograms at about the same or higher frequencies than do white women and women of other racial/ethnic groups. African American women were more likely than were women of all other racial/ethnic groups to report a recent Pap smear in 2010.¹³² They were more likely than Asian, Hispanic, and white women to report recent mammograms but less likely than American Indian or Alaska Native women to report recent mammograms.¹³² African American women of different ages, however, vary in their likelihood of getting preventive screenings. For example, also in 2010, nearly three-fourths (74 percent) of African American non-Hispanic women ages 50 to 64 years reported having had a mammogram in the past 2 years, compared with only 61 percent of their counterparts age 65 years and older.¹³²

Despite this similar use of preventive screenings, if diagnosed with breast cancer, African American women often face a worse prognosis than do white women.²⁰⁹ Significantly fewer black than white women survive 5 years after diagnosis with breast cancer (77 versus 91 percent, respectively, over the period 2001–2007).¹³² Black patients with breast cancer tend to be diagnosed at a more advanced stage than either Hispanic or white patients with breast cancer.²¹⁰ Longer time to diagnosis of breast cancer, however, does not fully explain differences among racial and ethnic groups in the stage at diagnosis. A greater incidence of more aggressive tumors could result in a later stage at diagnosis and the poorer survival rates that make breast cancer a disease with lower incidence but higher mortality among black than white women. Several factors have been identified as barriers to diagnosis, care, and treatment, including poor access to health care services, lack of education and knowledge about cancer prevention and screening, mistrust of the health care system, fear and fatalism concerning treatment, and dealing with other competing priorities, such as food, shelter, and safety.²⁰⁹

Racial discrimination and racism have remained significant operative factors in the health and health care of blacks over time. As early as 1867, black spokespeople concluded that racism was a major contributor to the poor health of black Americans in two significant ways. First, “structural racism” creates barriers to getting access to adequate care, and, second, dealing with both structural barriers and racial insults may contribute to stress-related health problems such as pregnancy-induced hypertension among black women and long-term elevation of blood

pressure levels.^{211,212} Stress related to racism also may underlie the overeating²¹² and resultant obesity common in black women and may be associated with the greater prevalence of both diabetes and hypertension among black women relative to white women.^{213,214} While 5.4 percent of white females report diabetes, 9 percent of black females do so, for a prevalence among black women that is 1.66 times that among white women.²¹⁵ Similarly, among females age 20 years and older, more than two of five African American females (44 percent) but less than a third of white females (28 percent) report hypertension, a 1.5 times greater prevalence among black females.¹³²

Another response to racism that affects the health of black women is the internalized rage of black men, which often is redirected as anger and violent behavior against black women. One study found that police-reported rates of intimate-partner violence were two to three times higher among black non-Hispanic women than among white non-Hispanic women.²¹⁶ During the 1980–2008 period, whites were 55.0 percent of intimate victims of homicide, and blacks were 42.7 percent of these victims, proportions that differ greatly from the 80 percent and 12 percent of the population accounted for by whites and blacks, respectively, over those years.²¹⁷ Homicide of intimates has constituted a larger proportion of all homicides among females (43 percent among homicides among black females and 44 percent among homicides among white females) than it is among homicides among males (around 5 percent among homicides among both white males and black males) over this same period.

Another statistic that may reflect the internalized rage of African American men directed at African American women is the rate of pregnancy-associated homicides. A pregnancy-associated homicide is a death by homicide that occurred during a pregnancy or in the first year postpartum. Using data from the National Violent Death Reporting System of the Centers for Disease Control and Prevention, for 2003 through 2007, a pregnancy-associated homicide rate of 2.9 deaths per 100,000 live births was calculated.²¹⁸ African American mothers accounted for 44.6 percent of pregnancy-associated homicides but only 17.7 percent of live births, a statistically significant difference. Pregnancy-associated intimate-partner homicides also were more common among African American females than were live births. African American mothers accounted for 37.3 percent of

pregnancy-associated intimate-partner homicides, in contrast to 17.7 percent of live births during the 2003–2007 period, again a statistically significant difference.

Differences between native-born African Americans and immigrants from the African diaspora further suggest the role of exposure to racism as an explanatory factor for health outcomes. Immigrant black couples, compared with native black couples, have a lower incidence of low-birth-weight babies. This is true even after controlling for educational attainment. The rate of low-birth-weight babies born to black immigrant women is lower than the rate among black native women for all educational levels (including fewer than 12 years of education, 12 years of education, 13–15 years of education, and 16 or more years of education). In fact, the rate of low-birth-weight babies born to black immigrant women with fewer than 12 years of education is lower than the rate of low-birth-weight babies born to native-born black women with 16 or more years of education. The incidence of low-birth-weight babies among immigrant blacks is similar to that among white couples.²¹⁹ Many black babies born in metropolitan areas with higher levels of residential segregation have higher rates of infant mortality than their counterparts born in less segregated areas, another suggestive finding that does not fully explain the differential incidence.²²⁰

Maternal mortality also differs significantly between black and white mothers. Black women face a higher risk of pregnancy-related mortality, regardless of age, marital status, or the timing of prenatal care initiation during their pregnancy.²²¹ In 2006–2007, black mothers were more than three times as likely to die from pregnancy complications as white mothers. The mortality rate due to pregnancy complications for black mothers was also more than twice the rate for either white mothers or mothers of other racial groups.²²²

As with breast cancer or heart disease, for example, the experience of confronting HIV infection (the human immunodeficiency virus that causes AIDS) and AIDS is different for most whites than for people of color and the poor in the United States. These differences result in part from the many socioeconomic and structural barriers faced on an ongoing basis by these groups.²²³ In particular, delays in seeking medical care, differences in preexisting health, differences in resources and living environ-

ments, and differences in drugs administered as treatment are among the many factors that result in shorter survival times for blacks after diagnosis with AIDS. Eighty-eight percent of blacks survive for 12 months or more, compared with 90 percent of whites. The difference is greater for survival rates of 36 months or more—81 percent of blacks and 85 percent of whites survive 36 or more months after being diagnosed with AIDS.²²⁴ During the 2005–2007 period, black non-Hispanic females accounted for 75.52 percent of all deaths due to HIV infection among females who were white, black, or Hispanic, in contrast to the 20 percent of deaths accounted for by white non-Hispanic females. This is an increase from the 59 percent of deaths due to HIV infection among black non-Hispanic females and the 33 percent of deaths among white non-Hispanic females during the 1993–1995 period.²²⁵

Women have represented a decreasing share of the cases of AIDS reported in the United States in recent years. During 2010, nearly one-fourth (25 percent) of all diagnosed cases of AIDS were reported among women, a somewhat smaller share than the more than 27 percent of all AIDS cases reported by women in 2007.²²⁶ African American women, however, continued to account for the majority of cases in 2010 among women—5,422 cases compared with 1,275 cases reported among white women.²²⁶ Sixty-six percent of all cases of AIDS reported among women during 2010 were among black women.²²⁶ Consistent with their high incidence of the disease, African American women are more likely than other women to die from HIV disease. In 2008, HIV disease was among the leading causes of death for black women ages 15 to 54 years.²²⁷

A majority of black women (88 percent) who were infected in 2010 with HIV reported that heterosexual contact was the major cause of HIV infection, followed by injection drug use (12 percent). This pattern among causes of transmission is the same for women of all racial and ethnic groups, although white women and American Indian or Alaska Native women frequently reported injection drug use as a cause of HIV infection. In 2010, one-fourth of all cases of HIV infection reported among white and American Indian or Alaska Native women were attributed to injection drug use and 45 percent to heterosexual contact.²²⁸

In light of these facts, it is surprising that less than half (40 percent) of African Americans surveyed in 2004 were very concerned about becoming infected

with HIV. Twenty-four percent were not at all concerned about being infected. This lack of personal concern, however, coexisted with the findings that 63 percent of African American parents were very concerned about their children (age 21 years and younger) becoming infected with HIV. In addition, nearly three of five African Americans (57 percent) knew someone who had AIDS, had died of AIDS, or had tested positive for HIV infection.²²⁹

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 the treatment disparities with respect to HIV/AIDS in the African American community. Some of this distrust is related to the legacy of slavery and discrimination toward blacks in the United States, including the infamous Tuskegee syphilis experiment.²²⁹ Although surveys about conspiracy beliefs are more likely to examine the perspectives among African American men,²³⁰ research with female subjects has revealed similar distrust and greater belief among African American women than among women of other racial/ethnic groups in, for example, the use of AIDS as a form of genocide to kill minority populations.²³¹

A complex set of historical and contemporary factors (including racism, poverty, and segregation) interacts to create the life experiences and exposures of black or African Americans. These exposures are often to pollutants that make them ill and to stresses that do the same. Although the greatest amount of health-related research and data about any population of color exists for African Americans, being the most studied racial/ethnic population has not translated into their being the healthiest, despite the nearly 400 years of Africans (and their descendants) in the United States.

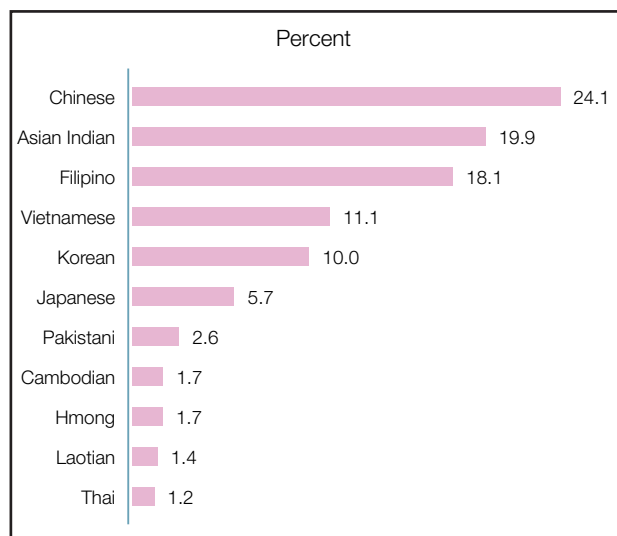
Asian Americans

Although health issues for Asian Americans and Pacific Islander Americans often are analyzed jointly, in this data book, whenever possible, the groups are separated. In accordance with OMB Directive 15, factors related to the health of Pacific Islanders are discussed along with those for Native Hawaiians. (See earlier section “Native Hawaiians or Other Pacific Islanders.”) Asian populations are discussed together here. An effort has been made throughout to disaggregate data about Asians from data about Pacific

Islanders and to present findings for the groups separately. Aggregate statistics for Asians and Pacific Islanders are provided, however, when they are the only or the best data available.

Asian Americans have immigrated to the United States from more than 20 countries, such as China, India, Japan, the Philippines, Korea, Laos, Cambodia, Vietnam, and Thailand. Speaking more than 100 different languages, they and their descendants born in the United States represent more than 60 different ethnicities.²³² In the 2000 census, the largest subpopulations who indicated that they belonged to only one racial group that was Asian were (in descending order) people of Chinese, Filipino, Asian Indian, Korean, Vietnamese, and Japanese ancestry.²³³ Between 2000 and 2010, Asian Indians and Vietnamese grew faster than the other large groups (an increase of 70 percent and 40 percent, respectively) while the Japanese population decreased in size (by 1.2 percent). Thus, in the 2010 census, although the largest Asian subpopulations remained the same, the order based on the population size has changed to Chinese, Asian Indian, Filipino, Vietnamese, Korean, and Japanese.²³⁴

Figure 7
Asian (Alone) Population by Major Subgroups, 2010



Source: Hoeffel, E. M., Rastogi, S., Kim, M. O., & Shahid, H. (2012, March). The Asian population: 2010. *2010 Census Brief* (C2010BR-11), p. 15. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf>

Table 9
Asian (Alone) Population by Detailed Subgroups, 2010

Subgroup	Number*	Percent
Asian Indian	2,918,807	19.9
Bangladeshi	142,080	1.0
Bhutanese	18,814	0.1
Burmese	95,536	0.7
Cambodian	255,497	1.7
Chinese	3,535,382	24.1
Filipino	2,649,973	18.1
Hmong	252,323	1.7
Indonesian	70,096	0.5
Iwo Jiman	2	**
Japanese	841,824	5.7
Korean	1,463,474	10.0
Laotian	209,646	1.4
Malaysian	21,868	0.1
Maldivian	102	**
Mongolian	15,138	0.1
Nepalese	57,209	0.4
Okinawan	5,681	**
Pakistani	382,994	2.6
Singaporean	4,569	**
Sri Lankan	41,456	0.3
Thai	182,872	1.2
Vietnamese	1,632,717	11.1
Other Asian, not specified	238,332	1.6
Total	14,674,252	100.0

*Percent rounds to 0.0.

**The numbers by detailed Asian group do not add to the total Asian population because respondents reporting several Asian groups were counted several times.

Source: Hoeffel, E. M., Rastogi, S., Kim, M. O., & Shahid, H. (2012, March). The Asian population: 2010. *2010 Census Brief* (C2010BR-11), p. 15. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf>

In 1970, when Asians and Pacific Islanders were totaled together, this population (both females and males) was 1.5 million, with Asians the overwhelming majority of the total. The 1990 census counted 7.2 million Asians and Pacific Islanders, with Asians totaling more than 6.9 million (96 percent). While more than 10 million Americans selected an Asian race as their only designation in the 2000 census, an additional 1.6 million people indicated that their race was Asian along with another racial background.¹⁶¹ Asians were more than 3 percent of the total U.S. population and about 15 percent of all people of color who designated a single race category in 2000.¹⁶¹ Asian women were 12.6 percent of all women of color and 52 percent of all Asian Americans.⁹ In 2010, the Census Bureau counted 14.7 million Americans who were Asian alone,²³⁴ including 7.7 million women (more than 52 percent of all Asian Americans).²³⁵

Most Asian (alone) Americans—more than 96 percent—reside in metropolitan centers.¹¹⁶ New York, Los Angeles, San Jose, San Francisco, and San Diego were the five cities with the largest Asian populations in 2010.²³⁴ Sixty-two percent of the population of Honolulu County, Hawaii, was Asian (alone or in combination).²³⁴ The states with the largest shares of Asians in 2010 were California, New York, and Texas. Almost half (48 percent) of all Asians lived in these three states, while large shares of Asians also lived in New Jersey, Hawaii, Illinois, and Washington. Among all the states, Asians constituted the largest proportion of the population of Hawaii—57 percent.²³⁴ However, in 2010, California was home to 43 percent of the Filipinos, more than one-third of the Chinese (36 percent) and Vietnamese (37 percent), almost one-third of the Japanese (33 percent), 30 percent of the Koreans, and nearly one-fifth (19 percent) of the Asian Indians in the United States.²³⁴

When growth of the Asian populations by state is examined between 2000 and 2010 (comparing the Asian population in 2000 with the population of Asians alone in 2010), the five states with the largest increases were Nevada (117 percent), Arizona (92 percent), North Dakota (92 percent), North Carolina (84 percent), and Georgia (82 percent). Only two of these states (Nevada and Arizona) are near the West Coast, while the three other states are not traditionally considered homes for large numbers of Asians. Despite this recent pattern of state increases, 45 percent of the Asian population resides in the Western region of the United States.²³⁴

Table 10

Ten Places With the Largest Percentages of Asian Americans, 2010

Place	Total Population	Asian Alone or in Combination	
	Number	Rank	Percentage of the Total Population by Place
Urban Honolulu CDP, HI*	337,256	1	68.2
Daly City, CA	101,123	2	58.4
Fremont, CA	214,089	3	54.5
Sunnyvale, CA	140,081	4	43.7
Irvine, CA	212,375	5	43.3
Santa Clara, CA	116,468	6	40.8
Garden Grove, CA	170,883	7	38.6
Torrance, CA	145,438	8	38.2
San Francisco, CA	805,235	9	35.8
San Jose, CA	945,942	10	34.5

*Urban Honolulu CDP, HI, is a Census-designated place (CDP). CDPs are the statistical counterparts of incorporated places and are delineated to provide data for settled concentrations of population that are identifiable by name but are not legally incorporated under the laws of the state in which they are located.

Source: Hoeffel, E. M., Rastogi, S., Kim, M. O., & Shahid, H. (2012, March). The Asian population: 2010. *2010 Census Brief* (C2010BR-11), p. 13. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf>

A large share of the growth in the Asian population can be attributed to recent immigration. In 2011, almost two of three Asians (64 percent) in California were foreign born.²³⁶ Asians comprised one-quarter (25 percent) of the United States' foreign-born population in 2011.¹⁶³ These immigrants came mainly from China, India, the Philippines, Vietnam, and Korea.²³⁷ In 2010, among the foreign born, the Asia-born category was second only to the Latin America-born category in the number of naturalized U.S. citizens.¹¹⁵ Also, among the foreign born in the United States, the Asia-born population reported the highest percentage (49 percent) of people with a bachelor's degree or higher.¹¹⁵

Major Subpopulations

The varied histories of the many Asian subpopulations who have immigrated to the United States contribute to the wide, bipolar distributions of their socioeconomic position and health. Most Asian immigrants have come to the United States since

1965, with the passage of the 1965 Immigration Act that discouraged systematic discrimination against Asians and promoted family reunification. In 1965, Asians constituted 7 percent of immigrants, but by 1970, they made up nearly 25 percent of immigrants to the United States.²³⁸

Chinese immigration to this country, however, dates back to the late 1700s, when small numbers of Chinese came on trade and educational missions. Beginning in the mid-1800s, with the decline of the African slave trade and the discovery of gold, Chinese immigration increased rapidly as waves of mostly male Chinese were brought to the United States as cheap, docile laborers to work in the mines and on the railroads in the Western states.²³⁹ This new servant class became the new "Negro" for the white majority.²³⁸ Later labeled as the "yellow peril" or as disease ridden and heathen, the Chinese were barred from entering the United States on the basis of race alone by the Chinese Exclusion Act of 1882.²⁴⁰ In addition, Chinese wives of laborers were barred from

entering the United States in 1884.²⁴¹ The National Origins Act (also known as the Oriental Exclusion Act) of 1924 sharply halted further Chinese immigration until the 1940s, when immigration restrictions began to relax in recognition of China's role as an ally to the United States during World War II. The Immigration Act of 1965 paved the way for increased immigration, and in 1981, the act was amended to allow additional Chinese to immigrate to the United States.²⁴²

Between 1980 and 1990, the Chinese American population doubled, mostly due to immigration. In 1990, more than 1.6 million people of Chinese descent resided in the United States and constituted 23 percent of the Asian American population.²⁴³ By 2000, this number had risen to 2.4 million who identified themselves as Chinese only, comprising nearly a quarter (about 24 percent) of all Asian Americans.²³³ The 2010 census counted 3.5 million Chinese, about 24 percent of the Asian American alone population.²³⁴ Today, 76 percent of all Chinese Americans are foreign born.²⁴⁴ Although Chinese Americans live throughout the United States, the largest concentrations are in California (more than 1,253,000) and in New York state (nearly 577,000).⁵⁹

Filipino and Asian Indian are the next largest Asian American populations in the United States. Filipino is the second largest based on the size of the Asian alone-or-in-any-combination population (3.4 million), followed by Asian Indian (3.2 million). However, for the Asian-alone population where only one detailed Asian group is reported, Asian Indian is the second largest group (2.8 million), followed by Filipino (2.6 million).²³⁴

Some Filipino Americans define themselves by the “braiding of cultures” they represent—Asian, Spanish, American, African, and Pacific Islander.²⁴⁰ Beginning in 1892 with the ceding of the Philippines to the United States following Spain's loss in the Spanish-American War, Filipinos have migrated to both Hawaii and the mainland United States in several waves. Between 1906 and 1934, a wave of Filipinos came to the United States, mainly Hawaii, where they worked on sugar plantations.²⁴² The 1920s was a decade of a dramatic increase in the number of Filipino migrants to the United States, with some 45,000 migrating to the Pacific Coast, mainly as agricultural workers. They filled labor shortages on farms and in canneries on the West Coast that had resulted because of the exclusion of Chinese, Japa-

nese, Koreans, and other Asians by the 1921 and 1924 immigration acts.²⁴⁰ Yet another wave migrated after World War II to work in agriculture in Hawaii and on the mainland United States.²⁴²

The current wave of Filipino immigrants—consisting of fewer single men, more family groups, and more highly educated people—began after 1965 and continues today.²⁴⁵ More than 69 percent of Filipino Americans are foreign born.²⁴⁴ The Filipino population of the United States increased 81 percent between 1980 and 1990, and the population has continued to grow since then. In 1990, Filipino Americans numbered 1.4 million and were 19 percent of all Asian Americans.²⁴³ According to the 2000 census, more than 1.8 million people—18 percent of the Asian American population—were of solely Filipino ancestry.²⁴⁶ Between the 2000 and 2010 censuses, the population of Filipino (alone) Americans increased by 39 percent to total more 2.6 million in the 2010 census, although it remained 18 percent of the Asian (alone) population.²³⁴

By the end of the 20th century, the Asian Indian population had doubled, from more than 800,000 in 1990 (11 percent of all Asian Americans then) to more than 1.6 million in 2000 (more than 16 percent of all Asian Americans at that time).²³³ The 2010 census counted 2.9 million people who identified themselves as Asian Indian only and 3.2 million who identified themselves as Asian Indian only or in combination with at least one other race.²³⁴ In 2010, almost equal shares of Asian Indians lived in the Northeast (30 percent) and South (29 percent), one-quarter (25 percent) lived in the West, and about one in six (16 percent) lived in the Midwest.²³⁴ California had the largest number of Asian Indian residents (nearly 530,000), while New York state was home to the second largest number (nearly 314,000).⁵⁹ Nearly 9 in 10 Asian Indian adults (87 percent) in the United States are foreign born, and nearly two-fifths of these immigrants (38 percent) arrived in the past 10 years.²⁴⁴ Asian Indians are one of the most diverse populations of Asian Americans in terms of educational attainment, socioeconomic status, language, diet, and religion.²⁴⁷

Korean Americans, one of the most homogeneous Asian populations in terms of language, ethnicity, and culture, also are one of the fastest growing populations in the United States.²⁴⁸ Their numbers increased more than tenfold between 1970 (70,000 people) and 1990 (800,000), and by a quarter between 1990 and

2000 (to more than 1 million), to make Korean Americans almost 11 percent of the total U.S. Asian population at the turn of the century.²³³ According to the 2010 census, nearly 1.5 million people identified themselves as Korean only. When those who identified themselves as Korean and at least one other race are counted, more than 1.7 million Korean Americans were enumerated in 2010.²³⁴

Korean Americans migrated to the United States in response to unstable conditions such as drought, famine, and epidemics in their homeland in the late 1800s and early 1900s, which sent them to Hawaii and the U.S. mainland primarily as contract laborers.²⁴⁹ The first group of official Korean immigrants came to Hawaii in 1903 to work as laborers on sugar plantations.²⁵⁰ Within the next few years, more than 7,000 additional Korean immigrants, mostly men, followed them to Hawaii to work on the plantations. The “Gentlemen’s Agreement” allowed some Korean women to immigrate to join their husbands, along with “picture brides” who immigrated to marry men they had met only through the exchange of photographs. The second major wave of migration resulted from U.S.-Korean interaction during the Korean War (e.g., wives of servicemen; orphans adopted by Americans). The third and largest wave of immigration followed the 1965 Immigration Act and continued through the 1980s.²⁵¹

The Korean population of the United States more than doubled between 1980 and 1990, with most of the growth due to immigration; in 1990, more than 80 percent of all Korean Americans were foreign born.²⁴¹ In 2000 and 2010, roughly the same proportions (nearly 78 percent in 2000 and 79 percent in 2010) of all Korean Americans were foreign born.²⁴⁴ Post-1965 Korean immigrants tended to come to the United States as families. Many of the immigrants were well educated but were unable to find employment in the United States, sometimes due to their lack of fluency in English, and opened small businesses instead.²⁵¹

Japanese Americans are the only Asian population with primarily one immigration period (1880–1924) and with little subsequent immigration.²⁴¹ Immigration from Japan to both Hawaii and the mainland United States occurred in large numbers between 1890 and 1908, mostly by Japanese men attracted to the American Gold Rush. After 1908, with the enactment of the Gentlemen’s Agreement, the wives, children, and parents of those male immigrants were

allowed to immigrate to the United States, but further immigration by laborers was halted.²⁵² The Immigration Act, however, barred Japanese and other Asians from entering the United States after 1924 and contributed to the marked distinctions between the first-generation Japanese Americans (Issei) and second (Nisei) and subsequent generations.²⁵² Because first-generation Japanese Americans, many of whom were relocated and interned in prison camps in the United States during World War II, migrated to the United States when Japan had a single language without significant dialects, they have a stronger sense of Japanese nationalism than the immigrants constituting later generations. The Nisei, the first American-born generation of Japanese, on the other hand, became highly acculturated to U.S. society as a reaction to other Americans questioning their loyalty during World War II and thus identify less with Japanese nationalism.²⁵³

In 1990, a total of 847,562 Japanese Americans lived in the United States.²⁴¹ In 2000, the population of Japanese Americans who identified themselves as Asians alone and lived in the United States had increased only slightly to a total of 852,237. In 2010, this population had declined 1.2 percent to 841,824. Their share of all Asian Americans decreased from 8.3 percent in 2000 to 5.7 percent in 2010. However, the Japanese Americans who identified themselves as Asian in combination with one or more other races grew 56 percent from 296,695 in 2000 to 462,462 in 2010.²³⁴ The majority of the Japanese alone-or-in-any-combination population resided in California (33 percent of all Japanese) and Hawaii (24 percent of all Japanese). Nearly 70 percent of all Japanese Americans were born in the United States, making them one of the most acculturated Asian populations, with a stable middle class composed largely of white-collar workers and professionals.²⁴⁴

Southeast Asians began to migrate to the United States primarily after 1975, as the conflicts in that region in Cambodia, Laos, and Vietnam were winding down. The majority of refugees of these conflicts to come to the United States were Vietnamese, about 131,000 of whom left their homeland in 1975 with the fall of Saigon. Beginning in 1978, substantial numbers of Vietnamese refugees known as “boat people” began entering the United States.²⁵⁴

Many Hmong (an indigenous migrant hill tribe native to southern China and Southeast Asia) also migrated to the United States following the end of the

Vietnam War. Hmong soldiers had helped the U.S. Central Intelligence Agency wage a secret war in Laos from 1961 to 1973, and when the Lao coalition government fell and American forces withdrew from Laos, thousands of Hmong were forced to flee for their lives. Many fled to refugee camps in Thailand to avoid the ruling Communists in Laos, who sought to eliminate the Hmong in retaliation for their opposition during the war. The Hmong were then given refugee status in the United States, and many resettled in large enclaves in California, Wisconsin, and Minnesota.²⁵⁵

The earlier waves of refugees during the post-1975 period generally were better educated and wealthier than later arrivals, many of whom—especially Hmong and Laotians—were poor, illiterate, and not at all used to Western culture at the time of their resettlement. The trauma of dislocation and resettlement is related to many of the health problems of these Asian subpopulations, including posttraumatic stress disorder (PTSD).²⁵⁵ Although many of the younger Southeast Asian refugees adequately adapted to their new homeland with the passage of time, older, middle-aged, and elderly refugees sometimes experienced social and emotional turmoil 10 to 15 years after their arrival, when they were no longer likely to be sheltered by younger family members.²⁵⁶

Compared with 32 percent of all foreign-born Asians, nearly 74 percent of foreign-born Cambodians, nearly 66 percent of foreign-born Laotians, and more than 46 percent of foreign-born Hmong entered the United States between 1980 and 1989.²⁴⁶ About 615,000 Vietnamese, 149,000 Laotians, 147,000 Cambodians, and more than 90,000 Hmong resided in the United States in 1990.²⁵⁷ According to the 2000 census, the Vietnamese population alone numbered nearly 1.2 million, in addition to nearly 184,000 Cambodians, nearly 175,000 Hmong, and more than 179,000 Laotians.²³⁴ In 2010, according to that year's census, more than 1.6 million Vietnamese, more than 255,000 Cambodians, more than 252,000 Hmong, and nearly 210,000 Laotians lived in the United States.²³⁴ More Southeast Asians live in Western states than in any other region, led by the 37 percent of Vietnamese living in California.²³⁴

Factors Affecting Health

In 1966, the “model minority” image replaced the negative stereotypes of Chinese and other Asian Americans in the United States. Coming shortly after

the 1965 Watts riots in Los Angeles, this labeling is viewed by some as an attempt to provide proof that the U.S. social system does work for people of color.²³⁸ This “model minority” stereotype, however well intentioned, has direct implications for the health of Asian Americans. It tends to trivialize the health problems of Asians, suggesting that they can take care of these problems on their own, and overlooks the diversity among Asians and the problems faced by some of the newest immigrants.^{258,259}

The health problems of Asian Americans are worsened by a complex set of cultural, linguistic, structural, and financial barriers to care. In 2011, a language other than English was spoken at home by 77 percent of Asian Americans, compared with 21 percent among the total U.S. population.²⁶⁰ Two-thirds (67 percent) of Asian Americans are foreign born,²³⁶ and, in 2010, only 20 percent of all Asian mothers who gave birth in the United States had themselves been born in the United States.²⁶¹ If residing illegally in the United States, Asian Americans may not seek medical care for fear that this would expose their illegal status and result in deportation.

Fifty-nine percent of all Asian women were in the labor force in 2011,²⁶² with 47 percent in management, business, science, and arts occupations. Twenty-one percent of Asian females had service occupations; 7 percent had production, transportation, and material moving occupations; and an additional 0.6 percent had natural resources, construction, and maintenance occupations.²⁶³

In 2011, poverty rates were generally low for Asians. Only 12.3 percent of the Asian-alone population, 8.1 percent of the Asian-alone population in married-couple families, and 20.8 percent of the Asian-alone population in families headed by a female with no husband present reported incomes below the poverty level.¹⁹¹ These averages, however, mask considerable variation among subpopulations. For example, the percentage of the adult population below the poverty level ranged from a low of 6.2 percent among Filipino Americans to a high of 23.6 percent among Hmong in 2010 (compared with about 12.8 percent for the entire U.S. population). A relatively high proportion of Bangladeshi (20.0 percent) and Cambodian (16.8 percent) Americans also reported poverty-level incomes.²⁴⁴

Both household and individual incomes for Asian Americans support the finding of disparate poverty rates among the subpopulations. In 1979, Asian

Americans had an average household income of \$6,900, less than the U.S. average of \$7,400. At that time, only Indonesian, Chinese, and Japanese Americans had average per capita incomes above the U.S. average.²⁵⁷ In 1989, the median family income for Asians and Pacific Islanders was \$35,900 (higher than the \$35,000 median family income for non-Hispanic white Americans), and 37 percent of all Asian and Pacific Islander American households had annual incomes of at least \$50,000. At that same time, more than 5 percent of Asian and Pacific Islander households had incomes of less than \$5,000, and nearly 12 percent had incomes of less than \$10,000.²⁶⁴

In 2002, the median household income for Asian (alone) Americans was \$65,792. It increased to \$71,704 in 2007 and then started falling due to the recession of 2007–2009. By 2011, the estimated median household income for Asians was \$65,129, considerably higher than \$55,412, the median family income for whites (alone, non-Hispanic) that same year. Forty-four percent of Asian households had incomes of at least \$75,000 in 2011.¹⁴²

In 2010, the U.S. labor force included 7.2 million Asian Americans, of whom nearly 60 percent were employed. Almost one in six (16 percent) of those employed was working part-time. Forty-six percent of all employed Asians were women.²⁶⁵ Asian Americans have the lowest unemployment rates among racial and ethnic groups. In 2010, the Asian American unemployment rate averaged 7.5 percent, compared with 8.7 percent for whites, 12.5 percent for Hispanics, and 16.0 percent for blacks.²⁶⁵ The unemployment rates of Asian Americans varied by ethnicity. Japanese had the lowest unemployment rate in 2010 at 4.6 percent, followed by Koreans (6.4 percent), Chinese (6.5 percent), Asian Indians (6.6 percent), Vietnamese (7.6 percent), Filipinos (8.5 percent), and other Asians (10.3 percent).²⁶⁵

Health insurance coverage varies among Asian American women, as do employment and income levels. Eighty-four percent of all Asian women reported having some type of health insurance coverage in 2011.²⁶⁶ Fifteen percent of Asian women reported Medicaid coverage and 11 percent reported Medicare coverage in 2011.²⁶⁶ Nearly two-thirds (66 percent) of Asian women had private health insurance.²⁶⁶

Despite high rates of coverage in general, selected populations lack health insurance, and this lack of health insurance causes some Asian American women to become frequent users of hospital emergency

rooms. Among all U.S. Asian (alone) populations, almost 17 percent were without health insurance in 2011.²⁶⁶ When examining the lack of health insurance coverage by ethnic subgroup, however, the proportions uninsured ranged from a low of 11 percent among third-generation and higher Asian Americans to a high of 31 percent among Koreans during 2004–2006. Koreans were also the least likely to have health insurance coverage through their employers—49 percent, in contrast to 77 percent among Asian Indians who had employer-sponsored coverage. Reliance on Medicaid and other public coverage ranged from 4 percent among Asian Indians to 19 percent among Other Southeast Asians.²⁶⁷ Uninsured Asians are more than four times as likely to lack a usual source of care as are insured Asians. Among uninsured Asians, Other Asians (58 percent) and Chinese Americans (55 percent) are the most likely to have not visited the doctor in the past year, in contrast to Asian Indians (42 percent) and Filipinos (36 percent), whose rates are comparable to those of whites (non-Hispanic) (39 percent).²⁶⁷

Although Asian American women overall exhibit healthful lifestyle behaviors, such as lower smoking prevalence (4 percent), compared with all American women (17 percent), there is variation by subpopulation in both healthful behaviors and the prevalence of illness.^{268,269} For example, in one California study, 8 percent of all Asian women were found to be current smokers, including 6 percent of Chinese women and nearly 11 percent of Filipina women.²⁷⁰ Even though Asian women smoke less than their female counterparts of other races, Asian men of some subgroups (e.g., Korean, Filipino, and Vietnamese) have high smoking prevalence, exposing the females in their homes to noxious levels of secondhand smoke.²⁷¹ A survey of Asians in Pennsylvania and New Jersey found that 38 percent of those surveyed had been exposed to secondhand smoke in their homes during the past week, including 30 percent of Chinese, 42 percent of Korean, 44 percent of Cambodian, and 45 percent of Vietnamese respondents.²⁷²

The risk of hypertension also varies by subpopulation. In the 2009 California Health Interview Survey, 21 percent of Asian females of all subgroups reported having ever been diagnosed with hypertension. Hypertension was more of a problem for Asian women who were Filipina (40 percent) and Japanese (33 percent) than for women who were Chinese (16 percent), Vietnamese (12 percent), South Asian (10

percent), or Korean (9 percent). In the same survey, 26 percent of all Californians reported having ever been diagnosed with hypertension.²⁷³

Other conditions, such as tuberculosis, are more common among Asian populations than among other racial/ethnic groups. The prevalence of tuberculosis among Asian non-Hispanic Americans was more than 26 times that for white non-Hispanic Americans in 2011. This higher prevalence is due primarily to the facts that a larger percentage of Asian Americans than other racial/ethnic groups is foreign born and that foreign-born Americans have much higher tuberculosis rates than native-born Americans—over 11 times as much.¹⁶⁹

The lack of knowledge of risk factors or preventive behaviors for various diseases also is a problem for Asian Americans.^{269,274} For example, knowledge about cervical cancer—its risk factors and screening guidelines—is limited among Asian American women.²⁷⁵ Few are aware that HPV is a primary risk factor, and many instead believe that getting rest, eating right, and avoiding stress can prevent cervical cancer. This lack of knowledge is associated with nonadherence to screening. In one study of Korean American women, those who were familiar with the cervical cancer screening guidelines were found to be three times as likely to have had the Pap test.²⁷⁶

The subsequent failure of Asian women to get regular screenings relates to a lack of knowledge of risk factors and to their knowledge and beliefs about cancer. Cervical cancer disproportionately affects certain Asian women. However, some Cambodian American women believe that they are not at risk for cervical cancer because it is an “American disease.”²⁷⁷ One survey of Vietnamese women in Seattle found that nearly two-fifths (39 percent) did not believe that cervical cancer is curable, even if detected early.²⁷⁸ In addition, fewer than one-fourth (23 percent) of Vietnamese women thought they were more likely to get cervical cancer than white women. To the contrary, based on 2000–2002 data from California, Vietnamese women have one of the highest incidences of invasive cervical cancer of racial/ethnic subgroups in the United States.²⁷⁹

Despite high incidence rates, Asian women often do not get screening with a Pap smear, which can detect cervical cancer at an early treatable stage. In a survey of Vietnamese women in Seattle, only 62 percent believed that regular Pap smear tests could reduce the risk of cervical cancer, and only 61 percent

believed cervical cancer was curable if caught early.²⁷⁸ Combined with concerns about modesty as well as concerns about the pain and discomfort associated with this test, this lack of confidence in the importance of cervical cancer screening no doubt contributes to low testing rates. Only 62 percent of the women in the survey reported having had a Pap test in the past 2 years. Married Vietnamese women are much more likely than single, divorced, or widowed women to have had recent Pap smears. This may be related to the existing stigma in the Vietnamese culture against unmarried women who are sexually active.²⁷⁸

According to 2007 data from the California Health Interview Survey, women of Asian subgroups living in California were somewhat more likely to report Pap testing. Three of four Vietnamese women (76 percent) and Japanese women (75 percent) reported receiving the test within the past 3 years, as did 73 percent of Korean women. Chinese women (65 percent) were the least likely to report having had the procedure.²⁸⁰

Hmong women also have high cervical cancer incidence rates and, once diagnosed, are less likely to accept standard Western medical treatment for cervical cancer.²⁷⁷ For example, the rate among Hmong women in California during the 1996–2000 period was 33.7 per 100,000, a decrease from their rate of 50.5 per 100,000 during the 1992–1995 period. However, the rate of 33.7 per 100,000 was still more than three times the rate among all Asian/Pacific Islander women and more than four times the rate among white non-Hispanic women during that time period. Most striking, though, was the difference in rates of first-course treatment for cervical cancer. Whereas fewer than 6 percent of all Asian/Pacific Islander women and fewer than 5 percent of white non-Hispanic women declined first-course treatment, 51 percent of Hmong women declined treatment. This difference is attributed to lower literacy and education rates, less access to health care, more linguistic and cultural isolation, and differences in beliefs surrounding treatments—namely, a greater focus among the Hmong on traditional healing rituals than on Western medicine.^{281,282}

The reluctance of Cambodian and other Southeast Asian women to access health screening such as the Pap smear often relates to the traumas that resulted in their resettlement in the United States. Although experiences such as torture, starvation, rape, forced labor, and witnessing murder are shared by many

refugees who have come to the United States, among recent waves of immigrants, Cambodians are thought to be the most traumatized by the turmoil in their homeland during the Khmer Rouge regime. “Ghosts of things over and done with” often assume a “seething presence” (of a lost child, a lost village, or a war remembered in detail) that presents itself and must be addressed during a clinical examination.^{259,283}

Ironically, in the case of Pap testing, the technology (applied via the use of a speculum) that is intended to relieve suffering instead very often invokes it.²⁸⁴ Thus, the disparity in rates of cervical cancer between Cambodian (and other Southeast Asian) women and white non-Hispanic women is not only about the prevalence of a preventable disease within this population of women but also about colonial history, education, communist ideology, U.S. retaliation, and then relocation to the United States.²⁸¹

Mammography, another form of screening for early disease detection, also is underused by Asian women.^{285,286} As with the Pap smear and cervical cancer, the failure to get mammograms is of particular concern because of the increase in breast cancer rates among Asian women (especially Chinese, Japanese, and Filipina) over time after their migration to the United States. Breast cancer rates among Asian women in their native countries are between 25 percent and 50 percent of the rates among Asian women in the United States. With immigration, however, breast cancer rates among Asian women increase to mirror the higher overall rates of women in the United States. One study of breast cancer incidence among Japanese women who migrated to Los Angeles, San Francisco, and Hawaii versus the incidence among women who stayed in Japan revealed incidence rates more than double among the migrants (63 per 100,000 in Los Angeles, 68 per 100,000 in San Francisco, and 73 per 100,000 in Hawaii) compared with that among Japanese women living in Japan (between 24 per 100,000 and 31 per 100,000). Another study showed that the third generation of Asian women in the United States has rates of breast cancer similar to or greater than the rates among white women in the United States.²⁸⁷

Prenatal care is yet another form of preventive care that many Asian American women do not receive. This is due to a variety of cultural and socioeconomic factors, including lack of knowledge about its importance. In one study of births to mothers in the racially and ethnically diverse San Joaquin Valley in Califor-

nia, Asian and Pacific Islander mothers, regardless of nativity, were the most likely to report both late initiation of prenatal care (one in four births) and nonadherence to the schedule of prenatal visits (more than half of mothers).²⁸⁸ Other research based on live California births between 2000 and 2004 pointed out, however, the fact that receipt of adequate prenatal care was more often a challenge for Pacific Islander women than for Asian women and for American Samoan mothers in particular.²⁸⁹

Fear of difficulties in communicating—compounded by shame, guilt, anger, depression, and other responses to certain stigmatized conditions such as mental illnesses and substance abuse—often deters Asian Americans from seeking care promptly.²³⁹ For example, many Chinese Americans will seek treatment for the physical symptoms resulting from depression or other mental health disorders but will not directly attribute those symptoms to their mental health origins, a phenomenon known as somatization. However, if properly prompted or asked directly, they will also report psychological factors and symptoms. This pattern of reporting symptoms could be due to a lack of awareness either of mental disorders or of the possibility that symptoms have psychological rather than physical origins. It also could be due to a belief that health care providers are more interested in physical symptoms.²⁹⁰ Some Cambodians perceive mental health problems as the result of evil spirits that must be warded off. Because of their religiosity, Korean Americans are likely to confuse hallucinations with spiritual voices and not seek care. They also are likely to self-medicate for conditions that may not respond to medication.

The traumas of war, leaving one’s homeland, and resettling in another land often result in unique medical conditions, such as the psychosomatic or nonorganic blindness reported among Cambodian women age 40 years and older.^{259,283} Hmong and Cambodians report the highest levels of psychological stress of all Southeast Asian groups in the United States.²⁵⁹ Depression and PTSD are widely prevalent among Cambodians and other Southeast Asians, even after years of living in the United States.²⁸³ Among Asians in California, the Vietnamese experience frequent mental distress and at higher rates than do other Asian groups.²⁹¹ In addition, one study found in a sample of Cambodian refugees a 12-month prevalence of 62 percent with PTSD and of 51 percent with major depression.²⁹²

To compound their stresses and trauma, some poor Southeast Asian immigrants resettle in neighborhoods in the United States where they continue to be exposed to violence. For example, a study of Cambodian refugees who resettled in California found that, after migration, 34 percent had seen a dead body in their neighborhood, 28 percent had been robbed, 17 percent had been seriously threatened with a weapon, and 14 percent had experienced a serious accident in which someone was hurt or died.²⁹² Although psychological problems are often found among such resettled immigrants, depression is also found among Korean Americans, many of whom are recent immigrants but most of whom migrated to the United States without war-related trauma.²⁹³ Depression levels among Korean Americans have been found to decrease among those with higher levels of language-associated acculturation (as measured by speaking English more than Korean) but to also increase among those whose greater assimilation into U.S. culture has resulted in some loss of a connection with traditional Korean culture and identity.²⁹⁴

Even if Asian American patients seek care, both high rates of poverty and a lack of health insurance—or underinsurance—may limit access to needed services.^{246,274} For example, in California, a third of Koreans ages 19 to 64 years are uninsured, as are 17 percent of Vietnamese—both above the overall state uninsured rate of 15 percent.²⁹¹

Language barriers—specifically the lack of English proficiency and a shortage of health care providers who possess the necessary cultural and language skills—also limit the ability of nearly half of the Asian/Pacific Islander population to access the mental health care system.²⁸³ Although Asian American patients prefer trained interpreters, sometimes patients' children or grandchildren are used to translate at medical appointments due to a lack of trained interpreters.²⁷⁴ However, family members may not be familiar enough with medical terminology to adequately translate or may be reluctant to fully translate out of embarrassment or discomfort.²⁹⁵ In addition, some Asian Americans with limited English-speaking skills tend to refrain from asking questions about their health. One study found this to be particularly true for elderly Asian Americans, a group least likely to be proficient in English in general and for Chinese and Vietnamese in particular.^{296,297} Language barriers can clearly compromise the quality of the patient's care.²⁹⁸

In addition, not all English medical/health terminology can be readily translated into the various Southeast Asian languages, nor can many Southeast Asian expressions describing physical and mental conditions be directly translated for U.S. health care providers.²⁸³ For example, there are no words in the Khmer language for medical terms such as “Pap testing,” a fact that creates a barrier to increasing cervical cancer screening rates among Cambodian women.²⁹⁹ Not only do many Hmong (especially those born in Laos) have minimal knowledge of the human body organs and how they work, but most English medical and anatomical terms also have no equivalents in the Hmong language. Translators may need to use several sentences to translate a term that would require one word in English. In addition, Hmong from Laos are not familiar with chronic illnesses that can be “controlled but not cured.” In Laos, “you got sick and you either got better or you died.” Thus, it is difficult for many Hmong to understand diagnoses and treatments.³⁰⁰ Vietnamese women, due to cultural norms and modesty, generally do not distinguish between anatomical parts when discussing their genital area. Whereas “Americans distinguish every part,” Vietnamese “talk generally about the bottom area of a woman,” often referring to the cervix and uterus interchangeably. This can create difficulties for patient-physician communication, especially for a physician who is unaware of such cultural norms.³⁰¹

Differences in cultural patterns, even among highly acculturated Asian Americans, suggest different interpretations of etiology, personal control, and responsibility with respect to health. For example, many Chinese follow the Confucian principle of behavior that discourages individuals from sharing upsetting information with other people. Thus, Chinese Americans may delay sharing health concerns with family or friends for fear of causing pain or discomfort.³⁰² Likewise, they may be reluctant to consult physicians about health problems, believing that the problem is a personal issue best kept to themselves or among close family members.^{283,303} Japanese Americans, on the other hand, see health as a matter of will, with a strong emphasis on the mind-body connection. They are likely to believe that thinking about getting sick can make one sick. Filipino Americans, however, are more likely to emphasize the relationship between body and soul for health maintenance and illness prevention. For them, health is a

moral statement about the correct fulfillment of social (particularly kin) obligations.³⁰²

If Asian Americans get to health care providers and if translators are available, communication still is not guaranteed and appropriate care may not be received. For example, differences between the medical systems in the United States and China constitute a further deterrent to Chinese Americans born in China but in need of health care in the United States.³⁰⁴ In China, physicians generally prescribe and dispense medication, charging only a nominal fee for their services; the major cost for the visit is the medications. Because the idea of a visit to a medical professional for a checkup without getting prescriptions for medications does not live up to the expectations of many Chinese Americans, they are reluctant to make visits for routine or preventive care.^{269,274}

Some Korean Americans (especially the elderly), many of whom have extreme difficulty with English, report using the traditional Korean medicine *hanbang* and other over-the-counter Korean home remedies rather than going to physicians in the United States. They avoid going to physicians because of communication and cultural difficulties. However, Korean Americans are more likely to use traditional medicine as a supplement to Western medicine than to use traditional medicine alone.²⁷⁴

Other cultural characteristics that influence the health of Asian Americans are collectivism, familism, respect for authority, and a desire to preserve harmony within groups. Asian cultures—like Hispanic cultures—often emphasize family decision making.^{283,305} All family members are typically involved in learning all the details of a patient's condition, and decisions regarding care are made (often by the eldest son in the family) with the good of the overall group in mind. In addition, the doctor-patient relationship in Asian cultures differs notably from that in health care settings in the United States. Asian immigrants are likely to be accustomed to a hierarchical doctor-patient relationship in which deference is paid to the physician's decisions and expertise.²⁷⁴ As the doctor-patient relationship in the United States evolves from the more paternalistic, doctor-centered model to a more consumer-driven model, Asian immigrants may find it more difficult than do native-born residents to play an active role in their health care. This fact may compromise health outcomes among Asian Americans.

Although little research has been done on either alcohol or substance abuse among Asian American women, available data suggest that Asians use and abuse alcohol and other substances less frequently than do members of other racial/ethnic groups. In 2011, among people aged 12 years or older, the rate of substance dependence or abuse was lower among Asians (3 percent) than among other racial/ethnic groups. The rates for other racial/ethnic groups were 17 percent for American Indians or Alaska Natives, 11 percent for Native Hawaiians or Other Pacific Islanders, 9 percent for Hispanics, 8 percent for whites, and 7 percent for blacks.³⁰⁶ The pattern has been attributed, in part, to the fact that Asians (especially Chinese, Japanese, and Koreans) are sensitive to ethanol, and drinking alcohol can result in facial flushing, or "flushing syndrome." Although this sensitivity to alcohol is rare among whites, 40 to 50 percent of Japanese possess it.³⁰⁷ Low drinking rates among all Asian American groups seem to be due to high percentages of abstainers.³⁰⁸

Data from 2004 to 2008 for Asian adult populations (age 18 years and older) in the United States found that Koreans were the most likely to report having consumed any alcohol in the past month (52 percent), followed by Japanese (48 percent), Chinese (41 percent), Vietnamese (39 percent), Filipino (38 percent), and Asian Indians (32 percent).³⁰⁹ The data for binge alcohol use show a somewhat different pattern, although Koreans are most likely to report both past-month alcohol use (52 percent) and past-month binge drinking (26 percent). After Koreans, binge drinking is reported by 15 percent of both Filipino and Japanese adults and by 14 percent of Vietnamese. Ten percent of Asian Indian and 8 percent of Chinese adults also reported binge drinking.³⁰⁹ Alcohol use among Asian Americans tends to increase with acculturation, although other factors, such as socioeconomic status and religious affiliation, also play a large role in determining alcohol use.

Although risk factors for and patterns of substance use and abuse have been identified among selected Asian youth populations, prevalence is generally lower than among youth of other racial/ethnic groups. Asian adults ages 18 to 25 years are considerably less likely than the national average for young adults to report past-month alcohol use—49 percent of Asians versus 61 percent for all young adults. They are similarly less likely to report past-month binge alcohol

use (26 percent for Asians versus 42 percent for all young adults) and illicit drug use (9 percent for Asians and 20 percent for all young adults).³⁰⁹ Among all Asian adults (age 18 years and older), past-month illicit drug use is notably less than among Asian young adults. Past-month use of illicit drugs among Asians age 18 years and older was highest for Japanese (6 percent), Koreans (5 percent), and Vietnamese (5 percent). Only 3 percent of Filipino adults and 2 percent of both Chinese and Asian Indian adults reported past-month illicit drug use.³⁰⁹

The vast differences between Asian societies and the United States mean that the most basic economic and socioemotional needs of new immigrants may not be met by existing institutions. Some of this mental illness results from prolonged and intense stress encountered in social situations and in the occupational environment, especially among those of higher socioeconomic status. Recent research on the relationship between objective measures of socioeconomic status and health in comparison to the relationship between subjective measures of socioeconomic status and health suggests some of the mechanisms that may be at work among Asian American populations in the United States.³¹⁰ Education, income, and occupation—characteristics that can be measured concretely—define objective socioeconomic status. Subjective socioeconomic status, on the other hand, is usually defined as one's perception of his or her social standing relative to other members of a group. Several studies have found that high levels of subjective socioeconomic status are associated with more favorable health outcomes on measures such as obesity, chronic diseases, and risky health behaviors.³¹¹ One explanation for the relationship between subjective socioeconomic status and health is that low subjective socioeconomic status may increase stress or the vulnerability to stress. Among Asian immigrants, in particular, very few of the measures of objective socioeconomic status analyzed had consistent positive

associations with health outcomes, while the measures of subjective socioeconomic status were consistently associated with almost all of the self-reported health outcomes. A possible explanation for this finding is that objective measures of education, income, and occupation may not bring the anticipated material and/or psychosocial rewards to an Asian immigrant. Education received at foreign institutions may not yield the return expected in the United States. In addition, well-educated Asian immigrants may experience discrimination and other stressors that prevent them from reaping benefits commensurate with their training and experience.³¹²

Among the major mental health problems for Asian Americans are racism and racial discrimination—which adversely affect their psychoeconomic status and health, as they do for other people of color. From Japanese Americans who lived on the West Coast and were interned during World War II to contemporary Chinese Americans living in Los Angeles, racism, both blatant and subtle, has been and continues to be part of the life of Asian Americans.³¹³ One study of both individual (self-perceived) and institutional (segregation and redlining, for example) racial discrimination found that both were associated with poor health among Chinese Americans living in Los Angeles.³¹⁴ This study found that both individual and institutional measures of discrimination were associated with health status, after controlling for acculturation, sex, age, social support, income, health insurance, employment status, education, neighborhood poverty, and housing value.

As for African Americans, among Asian Americans, John Henryism (a strong behavioral predisposition to engage in high-effort coping with difficult barriers to success) is associated with better health and physical functioning and fewer somatic symptoms among Asian Americans.¹⁸² John Henryism has been found to help achieve these outcomes by reducing perceived stress—both acculturative and racism related.

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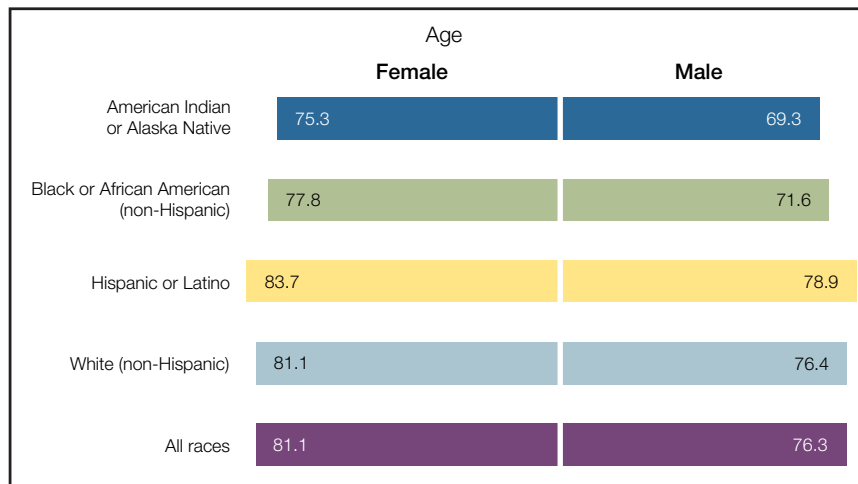
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HEALTH
ASSESSMENT

Life Expectancy

- Life expectancy is a summary mortality measure often used to describe the overall health status of a population. Life expectancy is defined as the average number of years a member of a population of a certain age would be expected to live.¹
- Between 1980 and 2011, life expectancy at birth in the United States increased from 77 to 81 years for women and from 70 to 76 years for men.²
- Racial disparities in life expectancy at birth have persisted over time and remain evident for both males and females in 2011. However, these disparities have narrowed since 1990.^{2,3}
- In 2011, Hispanics had a longer life expectancy at birth (84 years for females and 79 years for males) than both white non-Hispanics (81 years for females and 76 years for males) and black non-Hispanics (78 years for females and 72 years for males).^{2,3}
- One of the most prevalent hypotheses proposed to explain favorable mortality outcomes among people of Hispanic origin is the “healthy migrant” effect. This hypothesis reasons that Hispanics who immigrate are more likely than those who do not immigrate to be in robust good health. Another frequently cited hypothesis to explain these favorable outcomes has been labeled the “salmon bias” effect. It posits that U.S. residents of Hispanic origin may return to their country of origin to die or when ill and therefore are not necessarily included in morbidity or mortality statistics in the United States.⁴
- In the 1999–2001 period (the most recent period for which data are available), the life expectancy at birth for American Indian or Alaska Native (AI/AN) females residing in Indian Health Service (IHS) areas was 75.3 years—more than 4 years less than the 79.5 years of life expectancy at birth for all females in the United States in 2000. AI/AN females in the California IHS area had the longest life expectancy (79.8 years), slightly longer than their counterparts in the general population. Among IHS areas, AI/AN females in the Great Plains (formerly Aberdeen) area had the worst life expectancy (70.6 years)—nearly 9 years less than that of all U.S. females. (Life expectancy calculations are based on rates adjusted for misreporting of AI/AN race on state death certificates.)⁵
- Life expectancy at birth for females living in Hawaii was 83.6 years in 2000 (the most recent year for which data are available). Among all females living in Hawaii, Chinese (88.7 years) and Japanese (88.7 years) had the longest life expectancy at birth, followed by Filipinos (85.9 years), Koreans (83.6 years), Caucasians (81.7 years), Hawaiians and Part Hawaiians (77.1 years), and Samoans (74.6 years). (The definition of “Caucasian” was not provided in the data source *Native Hawaiian Data Book 2011*. Thus, Caucasian women could be either white or white non-Hispanic.)⁶
- A study of life expectancy in California during 1999–2001 found that the socioeconomic status of a neighborhood is correlated with the life expectancy of African American and white females. For example, African American females living in the poorest 20 percent of California neighborhoods had a life expectancy of 72.8 years, while African American females living in the wealthiest 20 percent of California neighborhoods had a life expectancy of 78.7 years. This difference in life expectancy by socioeconomic status was not observed among Hispanic or Asian females.⁷

Figure 8
Life Expectancy at Birth in Years by Sex, Race*, and Hispanic Origin, 2011



*Data for American Indian or Alaska Native categories are for 1999–2001 (the most recent available) and are limited to those living in Indian Health Service service areas.

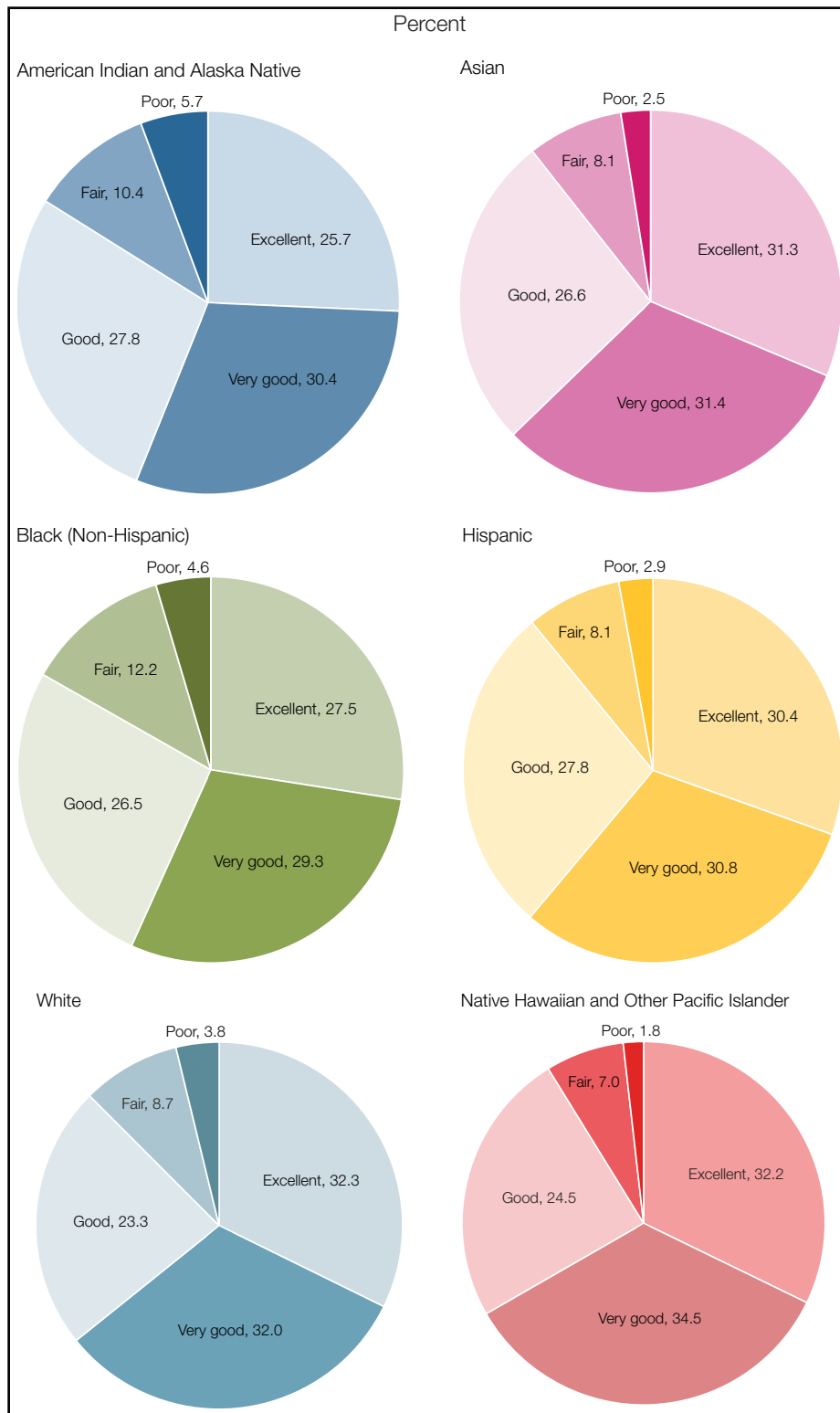
Sources: Hoyert, D. L., & Xu, J. (2012, October 10). Deaths: Preliminary data for 2011. *National Vital Statistics Report*, 61(6), 3–4, 48–50, and Table 6. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf; Indian Health Service. (2008, March). *Regional Differences in Indian Health, 2002–2003 Edition* (p. 81). Retrieved from http://www.ihs.gov/dps/files/RD_entirebook.pdf

- In 2015, according to projections by the U.S. Census Bureau, black females will have the shortest life expectancy at birth (78.7 years) and Hispanic females the longest (83.9 years). Life expectancy at birth in 2015 will be 80.1 years for American Indian and Alaska Native females, 82.2 years for Asian females, 82.2 years for white non-Hispanic females, and 82.5 years for Native Hawaiian and Other Pacific Islander females.⁸
- It is projected that, by 2060, all females can expect to live longer and the racial gaps in life expectancy will narrow. Black females, however, will continue to have the shortest life expectancy (84.9 years) compared with American Indian and Alaska Native females (85.9 years) and Asian females, Native Hawaiian and Other Pacific Islander females, white non-Hispanic females, and Hispanic females, all of whom have a projected life expectancy in 2060 of 87.2 years.⁸

Self-Reported Health Ratings

- Self-assessed health status is a measure of how an individual perceives his or her health by rating it as excellent, very good, good, fair, or poor. Self-assessed health status has been validated as a useful indicator of health for a variety of populations and allows for broad comparisons across different conditions and groups.¹
- In 2012, among women of color, more than half rated their health as excellent or very good. In particular, 67 percent of Hawaiian and Other Pacific Islander women rated their health as excellent or very good, as did 64 percent of white non-Hispanic women, 63 percent of Asian women, 61 percent of Hispanic women, 57 percent of black non-Hispanic women, and 56 percent of American Indian and Alaskan Native women. Conversely, only 9 percent of Hawaiian and Other Pacific Islander women rated their health as fair or

Figure 9
Self-Reported Health Ratings Among Women by Race/Ethnicity, 2012



Source: Bureau of the Census. (2012). *Current Population Survey, March Supplement 2012*. Tables on self-reported health ratings by race and gender. Generated using DataFerrett. Retrieved from <http://dataferrett.census.gov/>

poor compared with 11 percent of Asian women, 11 percent of Hispanic women, 13 percent of white non-Hispanic women, 16 percent of American Indian and Alaska Native women, and 17 percent of black non-Hispanic women.⁹

- In 2012, 63 percent of all women in the United States believed they were in excellent or very good health, slightly lower than in 2003, when 64 percent of all women held this belief. Women were also slightly more likely to report their health as fair or poor in 2012 than in 2003 (13 percent versus 12 percent). In 2003, white non-Hispanic women were the most likely to report excellent or very good health (66 percent), while in 2012, Hawaiian and Other Pacific Islander women were the most likely to report so (67 percent). Black non-Hispanic women were the most likely to report fair or poor health in both 2003 (16 percent) and 2012 (17 percent).⁹
- Men (65 percent) were more likely than women (63 percent) to rate their health as excellent or very good in 2012. Men were also less likely than women to rate their health as fair or poor (11 percent of men versus 13 percent of women). Hawaiian and Other Pacific Islanders had the biggest gender gap in reporting excellent or very good health (72 percent of men versus 67 percent of women). Black non-Hispanics had the biggest gender gap in reporting fair or poor health (14 percent of men versus 17 percent of women).⁹
- Among people who were age 65 years or older in 2012, men (36 percent) also were more likely to rate their health as excellent or very good than were women (34 percent). Men were less likely to rate their health as fair or poor (30 percent) than were women (32 percent). Hawaiian and Other Pacific Islanders had the biggest gender gap in reporting excellent or very good health (45 percent of men versus 12 percent of women) and in reporting fair or poor health (28 percent of men versus 41 percent of men). American Indian and Alaska Native women also had a sizable gender gap in reporting fair or poor health (30 percent of men versus 43 percent of women).⁹

- Among all women living in California, one in four (25 percent) rated their health as excellent in 2009, while around one in five African American non-Hispanic (22 percent), Hispanic (20 percent), and Asian non-Hispanic (20 percent) women in California did so. White non-Hispanic women in the state were the most likely to rate their health as excellent (30 percent), while American Indian or Alaska Native (non-Hispanic) women (18 percent) were the least likely to do so among the major population groups in the state.¹⁰
- The likelihood of reporting excellent health also differed among detailed ethnic groups in California in 2009. Among Latinas, 17 percent of Central Americans, 19 percent of South Americans, and 20 percent of Mexicans reported excellent health. Women of two or more Hispanic groups were the most likely to report excellent health—at 35 percent. (The rate for Puerto Rican women was not reliable).¹¹
- Among Asian women in California in 2009, South Asians (29 percent) and Japanese (27 percent) were the most likely to report excellent health, compared with Filipinos (23 percent), Chinese (18 percent), Koreans (17 percent), and Vietnamese (11 percent).¹²
- One study of adolescent females ages 12 to 17 years in California in 2005 found that Asians (2 percent) and whites (7 percent) were significantly less likely than Latinas (27 percent) to report poor or fair health.¹³

Major Causes of Death

- Ranking causes of death is a popular method used to present mortality statistics.¹⁴ In 2009, the 10 leading causes of death for females were, in rank order, diseases of the heart (heart disease); malignant neoplasms (cancer); cerebrovascular diseases (primarily stroke); chronic lower respiratory diseases (CLRD); Alzheimer disease; unintentional injuries (accident); diabetes mellitus (diabetes); influenza and pneumonia; nephritis, nephrotic syndrome, and nephrosis (kidney disease); and septicemia.²
- The top two causes of death—heart disease and cancer—accounted for 48 percent of all female deaths in the United States in 2009.²

- American Indian or Alaska Native females are less likely to die from the top two leading causes of deaths than are females of other racial/ethnic groups. In 2009, heart disease and cancer accounted for only 37 percent of American Indian or Alaska Native female deaths. In contrast, these two major killers accounted for 43 percent of Hispanic female deaths, 46 percent of white female deaths, 47 percent of black female deaths, and 49 percent of Asian or Pacific Islander female deaths.²
 - The 10 leading causes of death accounted for approximately 75 percent of all female deaths in 2009, a decline from 85 percent of all female deaths in 1980.²
 - In 2009, the 10 leading causes of death accounted for 77 percent of deaths among Asian or Pacific Islander females, 75 percent of deaths among white females, 74 percent of deaths among black females, 72 percent of deaths among Hispanic females, and 72 percent of deaths among American Indian or Alaska Native females.²
 - Injuries are a major problem in Indian country. Although not reported in the top 10 causes of death for all women, unintentional injuries were the third leading cause of death for AI/AN females in 2002–2004.¹⁵ Ten of 100 deaths among AI/AN females were attributable to unintentional injuries. Sixty-two percent of AI/AN female deaths from unintentional injuries were caused by motor vehicle accidents.¹⁵
 - Key risk factors that contribute to the disproportionately higher injury rates among American Indians or Alaska Natives include a greater proportion of young adults than among other racial and ethnic subpopulations, the likelihood of living in rural environments with a lack of traffic safety enforcement, and a greater number of alcohol-related incidents.¹⁵
- Ranking of Causes of Death**
- Although death rates from heart disease have been falling for the past 60 years, it remained the number one cause of death for white females, black females, and females of all racial and ethnic groups combined in 2009. The major cause of death for Hispanic females, Asian or Pacific Islander females, and American Indian or Alaska Native females was cancer.²
 - In 2009, heart disease, cancer, and stroke were the three leading causes of death for all females, black females, Asian or Pacific Islander females, and Hispanic females. The three leading causes of death for white females were heart disease, cancer, and chronic lower respiratory disease (CLRD). For American Indian or Alaska Native females, the top three killers were cancer, heart disease, and accidents.²
 - CLRDs were the fourth leading cause of death for all females in 2009. This cause ranked highest among white females (third), falling to sixth among black females and American Indian or Alaska Native females, seventh among Hispanic females, and eighth among Asian or Pacific Islander females.²
 - Alzheimer disease was the fifth leading cause of death for all females in 2009. It ranked higher among white females (fifth) than among Hispanic females (sixth), Asian or Pacific Islander females (seventh), and black females (eighth). It was not among the 10 leading causes of death for American Indian or Alaska Native females.²
 - American Indian or Alaska Native females are the most likely to die from unintentional injuries or accidents. Although unintentional injuries was the sixth leading cause of death for all females in 2009, it was the third-ranked killer of American Indian or Alaska Native females. As a cause of death, unintentional injuries ranked fifth among Hispanic females, sixth among white females and Asian or Pacific Islander females, and seventh among black females.²
 - Women of color are more likely to die from diabetes mellitus than are white women. Diabetes mellitus (diabetes) was the seventh leading cause of death for all females—and for white females—in 2009. It was the fourth-ranked killer, however, of black females, American Indian or Alaska Native females, Hispanic females, and Asian or Pacific Islander females.²
 - Influenza and pneumonia were the eighth leading cause of death for all females in 2009. This cause ranked higher among Asian or

Pacific Islander females (fifth) than among either white females, American Indian or Alaska Native females, or Hispanic females, for all of whom it was the eighth-ranked cause of death. It was not among the 10 leading causes of death for black females.²

- Nephritis, nephrotic syndrome, and nephrosis (kidney disease) were the ninth leading cause of death for all females in 2009. This cause, however, ranked higher among black females (fifth) than among white females, Asian or Pacific Islander females, American Indian or Alaska Native females, or Hispanic females, for all of whom it was the ninth-ranked killer.²
- Septicemia was the tenth leading cause of death for all females in 2009. It ranked higher among black females (ninth) than among white females (tenth) and American Indian or Alaska Native females (tenth). It was not among the 10 leading causes of death for Asian or Pacific Islander females or Hispanic females.²
- Essential (primary) hypertension and hypertensive renal disease (hypertension) were the tenth leading cause of death for black females and Asian or Pacific Islander females, but this was not among the 10 leading causes for other females.²
- Chronic liver disease and cirrhosis were the fifth leading cause of death for American Indian or Alaska Native females and the tenth leading cause of death for Hispanic females.²

Death Rates by Cause of Death

- Death rates from heart disease varied considerably by age group for female adults in 2009, with older women reporting higher rates. Women age 85 years and older had a death rate of 3,828 per 100,000, followed by women ages 75 to 84 years (979 per 100,000), ages 65 to 74 years (299 per 100,000), ages 55 to 64 years (114 per 100,000), and ages 45 to 54 years (46 per 100,000).²
- Among the age group 85 years and older, white non-Hispanic women were the most likely to die of heart disease (at a rate of 3,956 per 100,000 population), and American Indian or Alaska Native women were the least likely to die of heart disease (at a rate of 1,793 per 100,000 population). Among the age groups of 45 to 54, 55 to 64, 65 to 74, and 75 to 84 years, black women were the most likely to die of heart disease and Asian or Pacific Islander women were the least likely to die of heart disease.²
- Death rates from cancer showed a similar pattern to that for heart disease among female adults in 2009. The rates varied considerably by age group, with older female adults reporting higher death rates. Women age 85 years and older had a death rate of 1,282 per 100,000, followed by women ages 75 to 84 years (966 per 100,000), ages 65 to 74 years (571 per 100,000), ages 55 to 64 years (265 per 100,000), ages 45 to 54 years (111 per 100,000), ages 35 to 44 years (34 per 100,000), and ages 25 to 34 years (9 per 100,000).²
- Among the age group 85 years and older, black women were the most likely to die of cancer (at the rate of 1,383 per 100,000) and American Indian or Alaska Native women were the least likely to die of cancer (at the rate of 658 per 100,000).²
- Among the age groups of 25 to 34, 35 to 44, 45 to 54, 55 to 64, 65 to 74, and 75 to 84 years, Asian or Pacific Islander women were the least likely to die of cancer. Among these age groups—with the exception of ages 75 to 84 years—black women were the most likely to die of cancer. Among the age group of 75 to 84 years, white non-Hispanic women were the most likely to die of cancer.²
- Death rates for stroke also vary considerably by age group, with the same pattern noted for heart disease and cancer. In other words, older female adults reported higher death rates. Women age 85 years and older had a death rate of 982 per 100,000, followed by women ages 75 to 84 years (287 per 100,000), ages 65 to 74 years (74 per 100,000), ages 55 to 64 years (25 per 100,000), and ages 45 to 54 years (12 per 100,000).²
- Among the age groups of 45 to 54, 55 to 64, 65 to 74, 75 to 84, and 85 years and older, black women were the most likely to die of stroke. American Indian or Alaska Native women were the least likely to die of stroke among the age groups of 75 to 84 and 85 years and older.

Hispanic women were the least likely to die of stroke among the age groups of 45 to 54 and 65 to 74 years. White non-Hispanic women were the least likely to die of stroke among the age group of 55 to 64 years.²

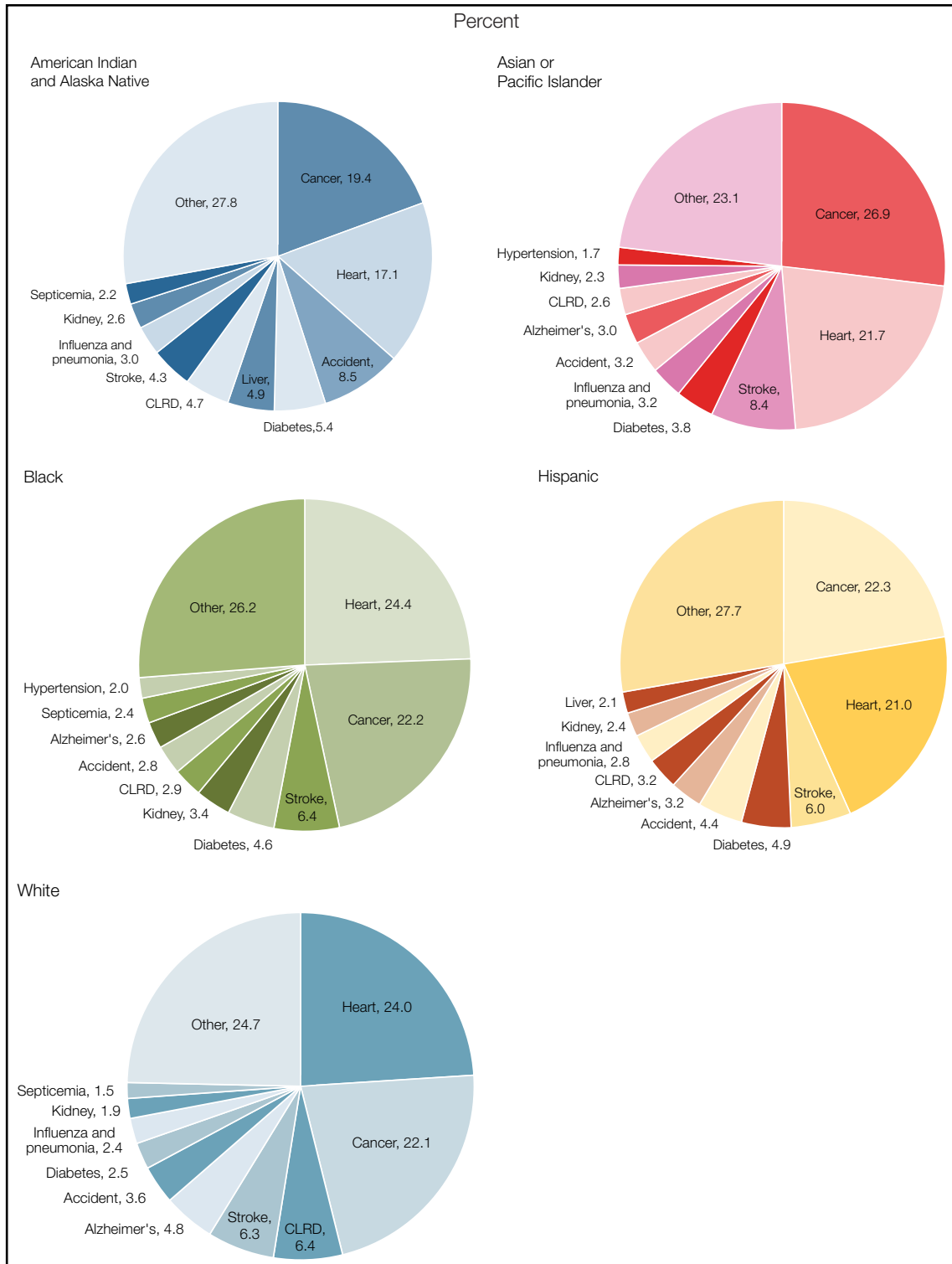
- In all age groups except 85 years and older, AI/AN females (in 2002–2004) reported higher age-specific death rates for unintentional injuries than did white females (in 2003). For example, AI/AN females ages 25 to 34 years had a rate of 79 per 100,000 population, nearly five times the rate among their white counterparts (16 per 100,000). American Indian/Alaska Native females age 85 years and older had a death rate of 225 per 100,000, lower than the rate among their white counterparts (258 per 100,000).¹⁶

Age-Adjusted Death Rates

- Age-adjusted death rates are better indicators than crude death rates for showing changes in the risk of death over time when the age distribution of a population is changing and for comparing the mortality of population subgroups that have different age compositions.³
- Between 1998 and 2008, female age-adjusted death rates declined notably for several conditions: heart disease (by 32 percent), stroke (by 31 percent), and cancer (by 11 percent). Deaths from unintentional injuries (or accidents), however, increased by 15 percent during this period.²
- In 2009, the highest age-adjusted death rates for black females and white non-Hispanic females were from heart disease, cancer, and stroke—also the three leading causes of death for all females. Asian or Pacific Islander females had the lowest age-adjusted death rates for heart disease and cancer, while American Indian or Alaska Native females had the lowest age-adjusted death rate for stroke.²
- The age-adjusted death rate for heart disease in 2009 was 192 per 100,000 for black females, followed by the rates of 142 per 100,000 white non-Hispanic females, 100 per 100,000 Hispanic females, 97 per 100,000 American Indian or Alaska Native females, and 78 per 100,000 Asian or Pacific Islander females.²
- The highest age-adjusted death rate from cancer in 2009 was 168 per 100,000 among black females. This peak rate was followed by 151 deaths per 100,000 white non-Hispanic females, 102 deaths per 100,000 American Indian or Alaska Native females, 98 deaths per 100,000 Hispanic females, and 90 deaths per 100,000 Asian or Pacific Islander females.²
- The highest age-adjusted death rate for stroke in 2009 was 50 per 100,000 among black females. Lower age-adjusted stroke death rates were reported by white non-Hispanic females (37 per 100,000), Asian or Pacific Islander females (30 per 100,000), Hispanic females (28 per 100,000), and American Indian or Alaska Native females (25 per 100,000).²
- The age-adjusted death rate from CLRD in 2009 was 43 per 100,000 white non-Hispanic females, followed by 27 per 100,000 American Indian or Alaska Native females, 22 per 100,000 black females, 15 per 100,000 Hispanic females, and 9 per 100,000 Asian or Pacific Islander females.⁴
- The highest age-adjusted death rate for Alzheimer disease in 2009 was 22 per 100,000 among black females, followed by 21 per 100,000 white non-Hispanic females, 16 per 100,000 Hispanic females, 12 per 100,000 American Indian or Alaska Native females, and 11 per 100,000 Asian or Pacific Islander females.⁴
- The highest age-adjusted death rate from unintentional injuries (accidents) in 2009 was 37 per 100,000 for American Indian or Alaska Native females. This peak rate was followed by rates of 20 per 100,000 black females, 15 per 100,000 Hispanic females, and 11 per 100,000 Asian or Pacific Islander females.⁴
- The age-adjusted death rate from diabetes in 2009 was 37 per 100,000 for black non-Hispanic females, followed by 30 per 100,000 American Indian or Alaska Native females, 23 per 100,000 Hispanic females, 15 per 100,000 white non-Hispanic females, and 14 per 100,000 Asian or Pacific Islander females.⁴
- The age-adjusted death rate from influenza and pneumonia in 2009 was 19 per 100,000

Figure 10

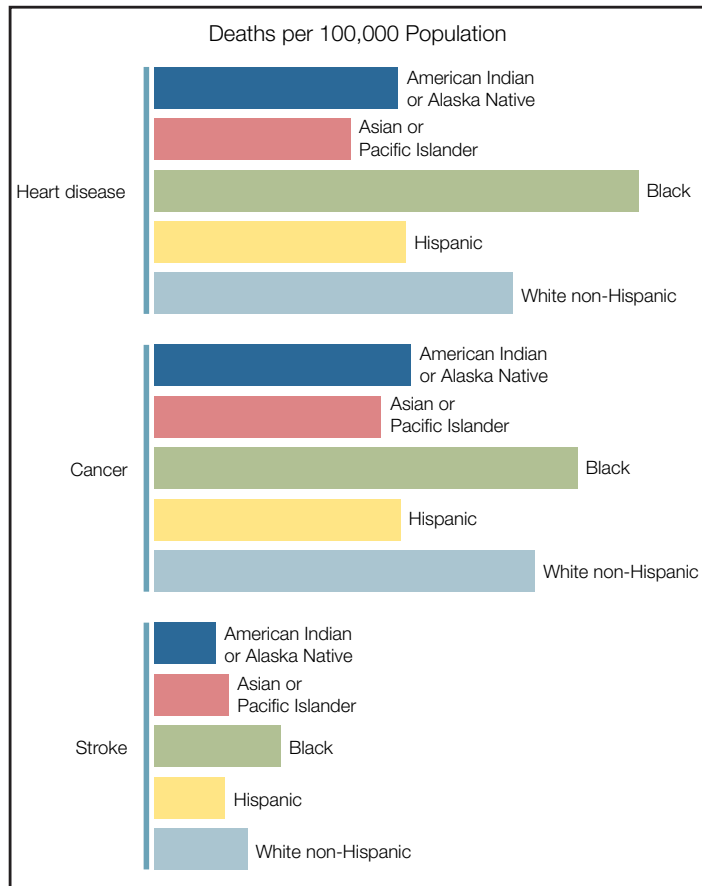
Distribution of the 10 Leading Causes of Death for Females by Race and Ethnicity, 2009



CLRD = chronic lower respiratory disease.

Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health. Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

Figure 11
Age-Adjusted Death Rates From Major Causes of Death Among Females by Race and Hispanic Origin, 2009



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health. Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

white non-Hispanic females, followed by 16 per 100,000 American Indian or Alaska Native females, 16 per 100,000 black females, 13 per 100,000 Hispanic females, and 11 per 100,000 Asian or Pacific Islander females.⁴

- The age-adjusted death rate from nephritis, nephrotic syndrome, and nephrosis (kidney disease) in 2009 was 27 per 100,000 black females, followed by 15 per 100,000 American Indian or Alaska Native females, 11 per 100,000 white non-Hispanic females, 11 per 100,000 Hispanic females, and 8 per 100,000 Asian or Pacific Islander females.⁴

- The age-adjusted death rate from septicemia in 2009 was 19 per 100,000 black females, followed by 12 per 100,000 American Indian or Alaska Native females, 9 per 100,000 white non-Hispanic females, 7 per 100,000 Hispanic females, and 4 per 100,000 Asian or Pacific Islander females.⁴

Other Causes of Death

- Other noteworthy but less common causes of death among women of color include drug-induced and alcohol-induced deaths, motor vehicle accidents, suicide, firearm-related events, assault (homicide), and HIV infection. These causes of death are most frequently reported for American Indian or Alaska Native females and black females.

Drug- and Alcohol-Induced Deaths

- Males had a higher age-adjusted drug-induced death rate than did females in 2009 (15.6 per 100,000 versus 9.6 per 100,000). Among females, American Indians or Alaska Natives had the highest death rate (12.4 per 100,000), followed by whites (non-Hispanic) at 12.0 per 100,000, blacks (6.4 per 100,000), Hispanics (3.9 per 100,000), and Asians or Pacific Islanders, who had the lowest death rate (1.5 per 100,000).⁴
- Males also had a significantly higher age-adjusted alcohol-induced death rate than did females in 2009 (11.4 per 100,000 versus 3.8 per 100,000). Among females, Asians or Pacific Islanders had the lowest death rate (0.7 per 100,000), and American Indians or Alaska Natives had the highest (20.4 per 100,000). Alcohol-induced death rates for Hispanic females (3.0 per 100,000), black females (3.0 per 100,000), and white females (non-Hispanic) (4.1 per 100,000) were between these extremes.⁴

Deaths From Motor Vehicle Accidents

- Males of all ages had higher death rates from motor vehicle-related injuries than did females (2009). Among females, American Indians or

Alaska Natives had the highest age-adjusted death rate (13.8 per 100,000), followed by whites (non-Hispanic) at 7.0 per 100,000, blacks (6.3 per 100,000), Hispanics (5.7 per 100,000), and Asians or Pacific Islanders (4.0 per 100,000).²

- Female death rates from motor vehicle–related injuries vary by age group and by race and Hispanic origin. Females younger than 1 year had the lowest death rate (2.0 per 100,000), and females ages 15 to 24 and age 65 years and older had the highest death rates (10.7 per 100,000 and 11.0 per 100,000, respectively). Within each age group between 15 and 64 years, where data were available for all racial and ethnic groups, American Indians or Alaska Natives had significantly higher death rates and Asians or Pacific Islanders had the lowest death rates.²
- The age-adjusted motor vehicle death rate for AI/AN females residing in IHS service areas decreased 42 percent from 64.1 deaths per 100,000 population in the 1972–1974 period to 37.1 deaths per 100,000 in the 2002–2004 period. The death rates among AI/AN females were more than double the rates among white females over the 30-year period. (The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.¹⁶)

Deaths From Suicide

- Males of all ages had significantly higher death rates from suicide than did females (2009). Among females, American Indians or Alaska Natives had the highest age-adjusted suicide death rate (6.4 per 100,000), followed by whites (non-Hispanic) at 6.0 per 100,000, Asians or Pacific Islanders (3.8 per 100,000), Hispanics (2.0 per 100,000), and blacks (1.9 per 100,000).²
- Female death rates from suicide vary considerably by age group and by race and Hispanic origin. Among females ages 15 to 24 and 25 to 44 years, American Indians or Alaska Natives were the most likely to die of suicide. Among females ages 45 to 64 years, whites (non-Hispanic) were the most likely to die of suicide. Among females ages 65 years and older, Asians

or Pacific Islanders were the most likely to die of suicide. Across all age groups, blacks and Hispanics were the least likely to die of suicide.²

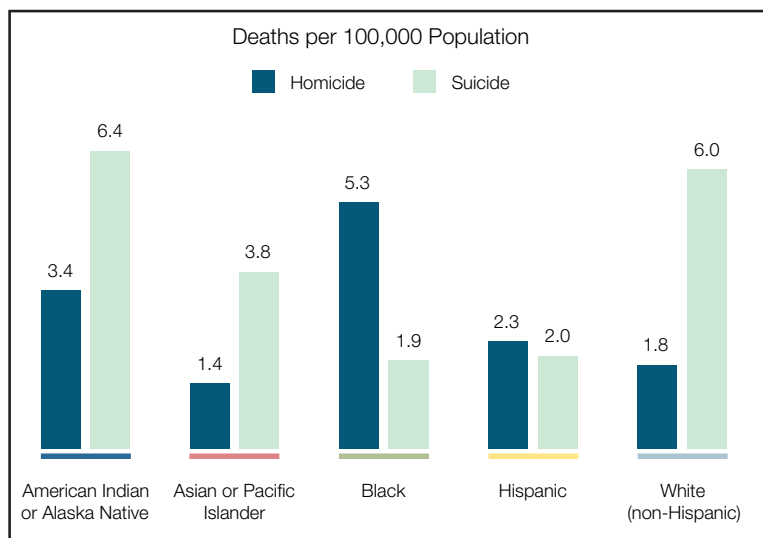
Deaths From Firearm-Related Events

- Males of all ages had higher death rates from firearm-related injuries than did females (2009). Among females ages 15 to 24 and 25 to 44 years, blacks had the highest death rates, while among females ages 45 to 64 years, whites (non-Hispanic) had the highest death rate.²
- The AI/AN females who died from firearm-related injuries in 2002–2004 were mostly between ages 15 and 34 years. The firearm injury death rate was 10.9 per 100,000 AI/AN females ages 15 to 24 years, compared with 2.5 per 100,000 white females in the same age group. The firearm injury death rate was 10.3 per 100,000 AI/AN females aged 25 to 34 years, compared with 3.1 per 100,000 white females in the same age group. (The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.¹⁵)

Deaths From Homicide

- Males of all ages had higher death rates from homicide than did females (2009). Among females, blacks had the highest age-adjusted death rate (5.3 per 100,000), followed by American Indians or Alaska Natives (3.4 per 100,000), Hispanics (2.3 per 100,000), non-Hispanic whites (1.8 per 100,000), and Asians or Pacific Islanders (1.4 per 100,000).²
- Female death rates from homicide vary by age group and by race and Hispanic origin. Females younger than 1 year had the highest death rate (6.4 per 100,000), and females ages 1 to 14 and 65 years and older had the lowest death rates (1.1 per 100,000 and 1.6 per 100,000, respectively).²
- Within each age group, blacks had significantly higher death rates than did Hispanics and whites (non-Hispanic). For example, black girls younger than 1 year of age had a death rate of 15.0 per 100,000, compared with rates for Hispanics and whites (non-Hispanic) of 5.7 per 100,000 and 3.9 per 100,000, respectively.²

Figure 12
Age-Adjusted Death Rates From Homicides and Suicides Among Females by Race and Hispanic Origin, 2009



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Tables 38 and 39 (Web). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

- AI/AN females residing in IHS service areas (2002–2004) had higher homicide death rates than did their white counterparts (2003) for all age groups. For example, AI/AN females ages 15 to 24 years had a rate of 11.7 per 100,000, compared with the 2.5 per 100,000 rate of their white counterparts. (The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.¹⁶)

Deaths From HIV Infection

- Males of all ages had significantly higher death rates from HIV infection than did females (2009). Among females, blacks had a significantly higher age-adjusted death rate (8.9 per 100,000) than did either Hispanics (1.5 per 100,000) or whites (non-Hispanic) (0.4 per 100,000).²
- Female death rates from HIV infection also varied by age group and by race and Hispanic origin. For example, black females ages 45 to 64 years had a higher death rate (18.2 per 100,000) than did black females ages 25 to 44 years (13.2 per 100,000). In addition,

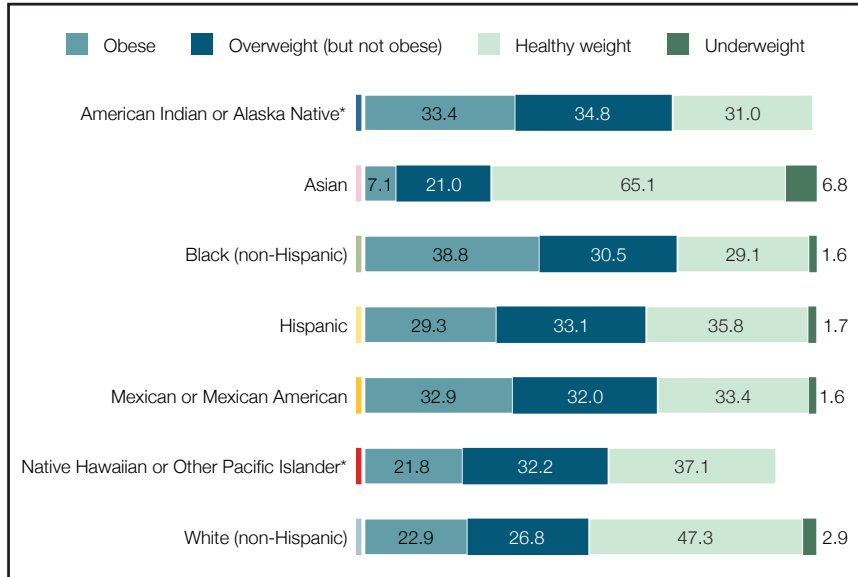
black females also had higher death rates than did Hispanic females and white non-Hispanic females within each of the two age groups.²

Behavior and Lifestyles

Body Weight: Women

- Excess body weight is associated with increased risk of illness and death.² For adults, overweight and obesity are determined by using weight and height to calculate a number called “body mass index” (BMI). An adult who has a BMI between 25 and 29.9 is considered overweight. An adult who has a BMI of 30 or higher is considered obese. An adult who has a BMI less than 18.5 is considered underweight.¹⁷
- Although the prevalence of overweight and obesity within the U.S. population has increased over the past three decades, it stabilized in the first decade of the 21st century for women and girls of most racial and ethnic groups.^{2,18}
- Obesity—a condition that is related in part to sedentary lifestyles and to diet—carries with it an increased risk of heart disease, diabetes, high blood pressure (hypertension), respiratory disorders, arthritis, liver disease, and some cancers. Obesity is a problem for many women of color.¹⁹
- Reported rates of healthy weight, overweight, and obesity vary by data source. Data from the National Health and Nutrition Examination Survey (NHANES)^{2,20,21} are based on objective measurement of health and weight, which are then used to calculate BMI. Data from other surveys—such as the National Health Interview Survey (NHIS),²² the California Health Interview Survey (CHIS),²³ or the Behavioral Risk Factor Surveillance System (BRFSS)²⁴—are based on self-reported weight. To provide information for as many groups of women of color as possible, the bullets in this section reflect data from a variety of sources.

Figure 13
Age-Adjusted Percent Distributions of Body Weight Status for Females 18 Years and Older by Race/Ethnicity, 2005–2007

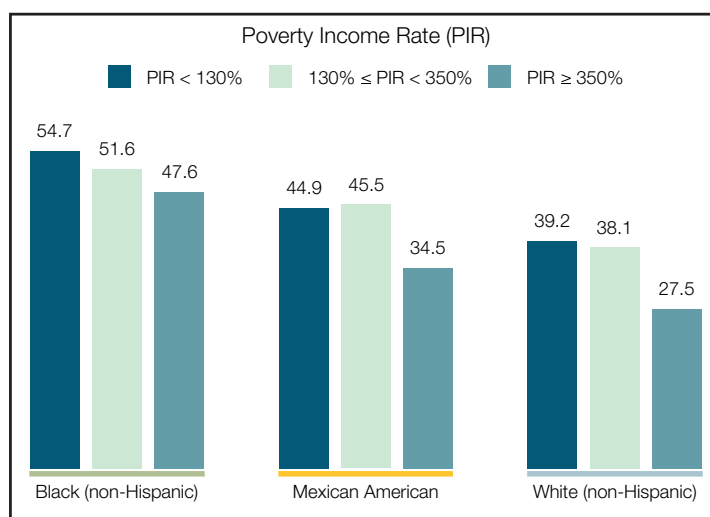


*Underweight estimates were not reliable and, therefore, were not provided in the source document.

Source: Schoenborn, C. A., & Adams, P. F. (2010). Health behaviors of adults: United States, 2005–2007. *Vital Health Statistics, 10(245)*, 245–246. Retrieved from http://www.cdc.gov/nchs/data/series/sr_10/sr10_245.pdf

- In the 2007–2010 period, according to data from NHANES, white non-Hispanic females age 20 years and older were more likely to be at a healthy weight, while their black non-Hispanic counterparts were more likely to be obese. Nearly two in five white (non-Hispanic) women (37 percent) were at a healthy weight compared with about one in five Mexican American (21 percent) and black (non-Hispanic) (18 percent) women. More than half (54 percent) of black (non-Hispanic) women were obese, compared with 45 percent of Mexican American women and a third (33 percent) of white (non-Hispanic) women.²
- More than two-thirds of black non-Hispanic women (69 percent) and American Indian or Alaska Native women (68 percent) self-reported that they were overweight or obese (2005–2007 NHIS). These percentages exceeded the 65 percent of Mexican or Mexican American, 62 percent of Hispanic, 54 percent of Native Hawaiian or Other Pacific Islander, 50 percent of white non-Hispanic, and 28 percent of Asian female adults who were either overweight or obese.²²
- Asian American women (18 and older) were more likely than women in other racial and ethnic groups to self-report that they were at a healthy weight or were underweight (2005–2007 NHIS). In particular, 65 percent of Asian women reported they were a healthy weight, compared with 47 percent of white (non-Hispanic) women, 37 percent of Native Hawaiians or Other Pacific Islander women, 36 percent of Hispanic women, 33 percent of Mexican or Mexican American women, 31 percent of American Indian or Alaska Native women, and 29 percent of black (non-Hispanic) women. Asian American women (6.8 percent) were more than twice as likely as the other groups of women to report being underweight.²²
- In California, Asian non-Hispanic females (22 percent) were less likely to self-report that

Figure 14
Obesity Rates Among Women Age 20 and Older by Poverty Income Ratio (PIR) and by Race/Ethnicity, 2005–2008



Source: Ogden, C. L., Lamb, M. M., Carroll, M. D., & Flegal, K. M. (2010). Obesity and socioeconomic status in adults: United States 1988–1994 and 2005–2008. *NCHS Data Brief, No. 50* (p. 1). Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db50.htm>

they were overweight or obese than were women who were white non-Hispanic (43 percent), Hispanic (53 percent), black non-Hispanic (61 percent), and American Indian or Alaska Native non-Hispanic (65 percent) females (2009 CHIS). These self-reported rates of overweight or obesity differed significantly by ethnicity among Asian females: Vietnamese (10 percent), Chinese (13 percent), Koreans (14 percent), Japanese (25 percent), South Asians (30 percent), and Filipinos (39 percent). Among Hispanic females in California, South Americans (27 percent) were less likely to report that they were overweight or obese than were Mexicans or Mexican Americans (53 percent) and Central Americans (62 percent).²⁵

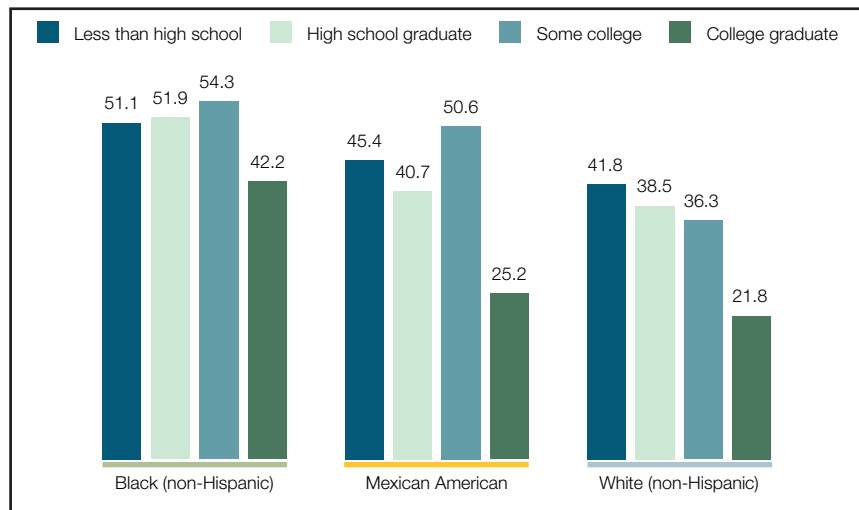
- In Hawaii, Native Hawaiian women (72 percent) were more likely to self-report (BFRSS) that they were overweight or obese than were their Caucasian (48 percent), Filipino (43 percent), and Japanese (32 percent) counterparts (2010).²⁶
- Over the 12-year period from 1999 through 2010, according to data from NHANES, there was no significant increase in rates of obesity

among women overall.¹⁸ However, rates of obesity increased significantly for both black non-Hispanic women and Mexican American women over this period.

- Among women age 20 years and older (2009–2010 NHANES), blacks (non-Hispanic) (59 percent) were significantly more likely to be obese than were both Mexican Americans (45 percent) and whites (non-Hispanic) (32 percent). Similar disparities in—but lower rates of—obesity existed during the 1988–1994 period when comparing black non-Hispanic (38 percent), Mexican American (35 percent), and white non-Hispanic (23 percent) women.¹⁸
- The obesity rate among women has been found to decrease as educational attainment increases. Among women age 20 years and older (2005–2008 NHANES), whites (non-Hispanic), blacks (non-Hispanic), and Mexican Americans without a college degree were significantly more likely to be obese than were their counterparts with a college degree. For example, 25 percent of Mexican American women with a college degree were obese, compared with 51 percent of those with some college, 41 percent of those with only a high school diploma, and 45 percent of those with less than a high school education.²¹
- The obesity rate among women also has been found to decrease as income increases. Among Mexican American women age 20 years and older (2005–2008 NHANES), 45 percent of those with low income (i.e., household income below 130 percent of the poverty level) were obese, compared with 35 percent of those with high income (i.e., household income at or above 350 percent of the poverty level). Among black non-Hispanic women, the spread was from 55 percent of those with low income being obese to 48 percent of those with high income being obese.²¹
- Many groups of women are more likely to become obese as they get older. For example, both Hispanic women overall and Mexican American women in particular (2009–2010 NHANES) who were ages 40 to 59 years and age 60 years and older had significantly higher

Figure 15

Obesity Rates Among Women Age 20 and Older by Education and by Race/Ethnicity, 2005–2008



Source: Ogden, C. L., Lamb, M. M., Carroll, M. D., & Flegal, K. M. (2010). Obesity and socioeconomic status in adults: United States, 1988–1994 and 2005–2008. *NCHS Data Brief, No. 50* (p. 3). Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db50.htm>

obesity rates than did women ages 20 to 39 years. White non-Hispanic women age 60 years and older had a significantly higher rate of obesity than did their middle-aged and young adult counterparts. The obesity rates of black non-Hispanic women did not differ significantly by age, although the obesity rate for those age 60 years and older (55.5 percent) was less than that among the corresponding rates for younger women.¹⁸

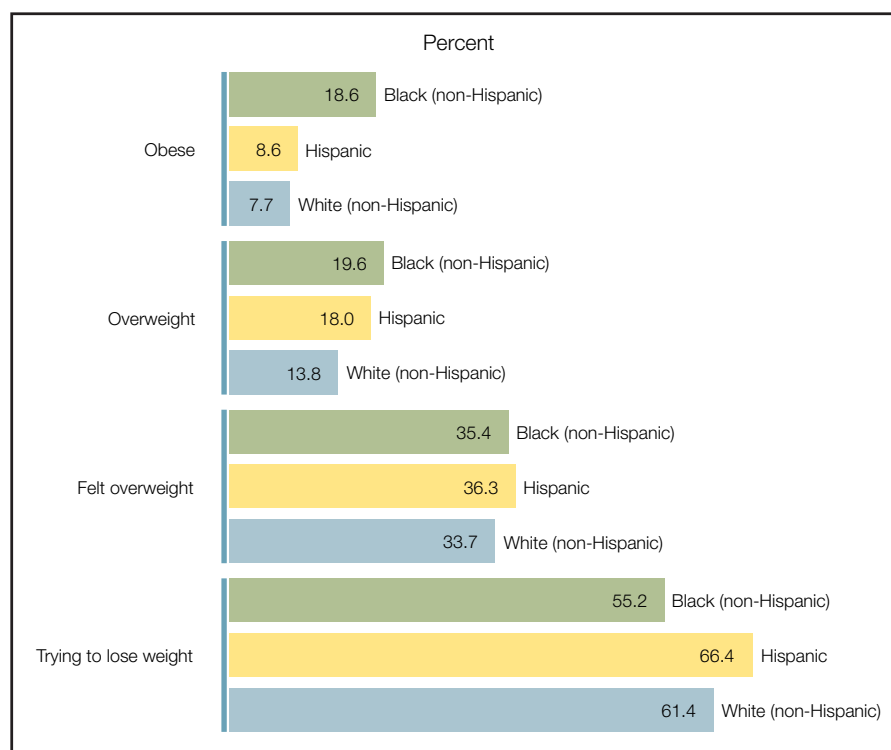
- Among older women, obesity rates differed by race and ethnicity and by age (2007–2010 NHANES). More than half (54 percent) of black non-Hispanic women ages 65 to 74 years were obese, compared with 47 percent of Hispanic and 39 percent of white non-Hispanic women in this age cohort. Among women age 75 years and older, 50 percent of blacks (non-Hispanic) were obese, compared with 30 percent of Hispanics and 28 percent of whites (non-Hispanic). Overall, white non-Hispanic and Hispanic women ages 65 to 74 years were more likely to be obese than were their older counterparts. Black (non-Hispanic) women ages 65 to 74 years, however, were not significantly more likely to be obese than were their older counterparts.²⁷

- Obesity is associated with poor female reproductive health, and prepregnancy obesity has been found to be an independent risk factor for adverse pregnancy and neonatal outcomes. Pregnancy complications associated with obesity include gestational diabetes, gestational hypertension, preeclampsia, and cesarean delivery. In Hawaii during the 2004–2008 period, half of Samoan mothers (50 percent) and nearly one in four Hawaiian mothers (23 percent) reported preconception obesity. Chinese (5 percent), Korean (6 percent), Japanese (9 percent), and Filipina (10 percent) mothers had the lowest rates of preconception obesity.²⁸

Body Weight: Adolescent Females

- The 2011 National Youth Risk Behavior Survey (NYRBS) classified high school students as obese or overweight based on their BMI (kg/m^2), which was calculated from self-reported height and weight. Obese was defined as a BMI of ≥ 95 th percentile for age and sex. Overweight was defined as a BMI of ≥ 85 th percentile and < 95 th percentile for age and sex.²⁹
- The 2011 NYRBS found that the prevalence of obesity was higher among black non-Hispanic

Figure 16
Body Image and Weight Loss Attempts Among Female High School Students by Race and Hispanic Origin, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 38–39. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

- females (18.6 percent) than among both Hispanic females (8.6 percent) and white non-Hispanic females (7.7 percent). The prevalence of overweight also was higher among black non-Hispanic females (19.6 percent) than among both Hispanic females (18.0 percent) and white non-Hispanic females (13.8 percent).²⁹
- The above findings contrast with the body images each group reported having of themselves. For example, Hispanic females (36.3 percent) are more likely than either black non-Hispanic females (35.4 percent) or white non-Hispanic females (33.7 percent) to describe themselves as overweight.²⁹
 - Sixty-one percent of high school females surveyed in the NYRBS reported attempting to lose weight in 2011. Hispanic females (66.4 percent) were more likely than white non-Hispanic females (61.4 percent) and black non-Hispanic females (55.2 percent) to try to lose weight.²⁹
 - Adolescent Hispanic females surveyed in the NYRBS were the most likely to report not eating for 24 or more hours to lose weight or to keep from gaining weight. Nearly one in five Hispanic females (18.8 percent) reported this behavior, compared with 17.5 percent of white non-Hispanic females and 15.1 percent of black non-Hispanic females.²⁹
 - Taking diet pills, powders, or liquids to lose weight or to keep from gaining weight—without a doctor’s advice—also was more common among Hispanic females (7.8 percent) than among white non-Hispanic females (5.8 percent) and black non-Hispanic females (4.1 percent).²⁹
 - Inducing vomiting or taking laxatives to lose weight or to keep from gaining weight also was

more common among Hispanic females (7.2 percent) surveyed in the NYRBS. These behaviors were reported by 6.5 percent of white non-Hispanic females and 2.9 percent of black non-Hispanic females in this survey.²⁹

- Data from the National Health and Nutrition Examination Survey (NHANES) for 2009–2010—based on BMI calculated using measured height and weight—reveal that more than two-fifths of black non-Hispanic (45 percent) and Mexican American (42 percent) females ages 12 to 19 years were overweight or obese. In contrast, only 28 percent of white non-Hispanic females ages 12 to 19 years were overweight or obese.³⁰ (Overweight or obese is defined in NHANES as a BMI at the 85th percentile or greater according to the age- and sex-specific percentiles of the Centers for Disease Control and Prevention BMI-for-age growth charts.)
- Data from the NHANES also show that, between 1988–1994 and 2009–2010, the obesity rates of female adolescents ages 12 to 19 years increased from 16 percent to 25 percent among blacks (non-Hispanic), from 13 percent to 19 percent among Mexican Americans, and from 9 percent to 15 percent among whites (non-Hispanic).³¹
- Among adolescent females ages 12 to 17 years who were surveyed in the 2005 CHIS, both Latinas (28 percent) and Asians (26 percent) were more likely than their white counterparts (21 percent) to report body dissatisfaction. Adolescent Latinas were most likely to be overweight or obese, and this may relate to their reported body dissatisfaction. Body dissatisfaction among Asian adolescent females, however, seems not to be associated with being overweight or obese since Asians (6 percent) are significantly less likely than whites (24 percent) to be either.¹³

Exercise

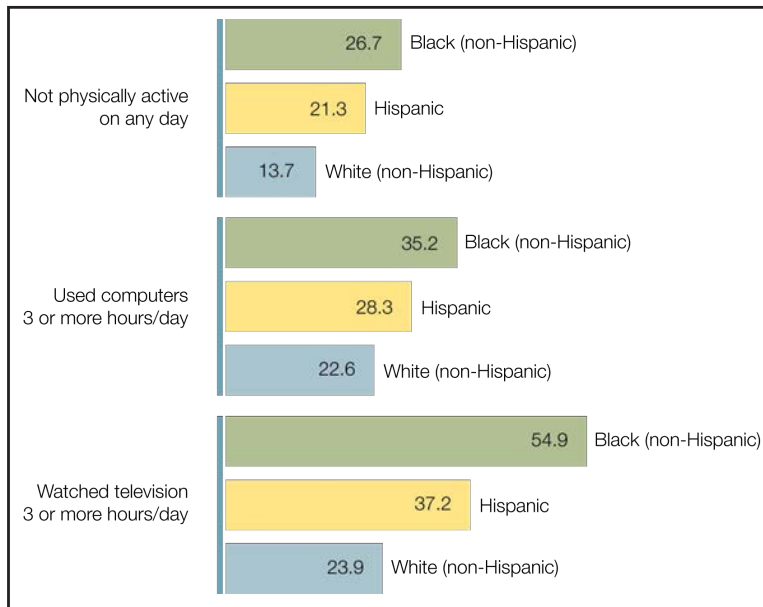
- Physical activity provides multiple benefits to adolescents and adults. One noteworthy benefit is the ability of exercise to help control or reduce risk for type 2 diabetes—a condition that affects many female adolescents and women of color—by helping to control weight and blood sugar levels. Physical activity can also help in managing or lowering risk for other

chronic diseases and conditions, such as high blood pressure and cholesterol, heart disease, osteoporosis, arthritis, and some cancers.³²

Female Adults

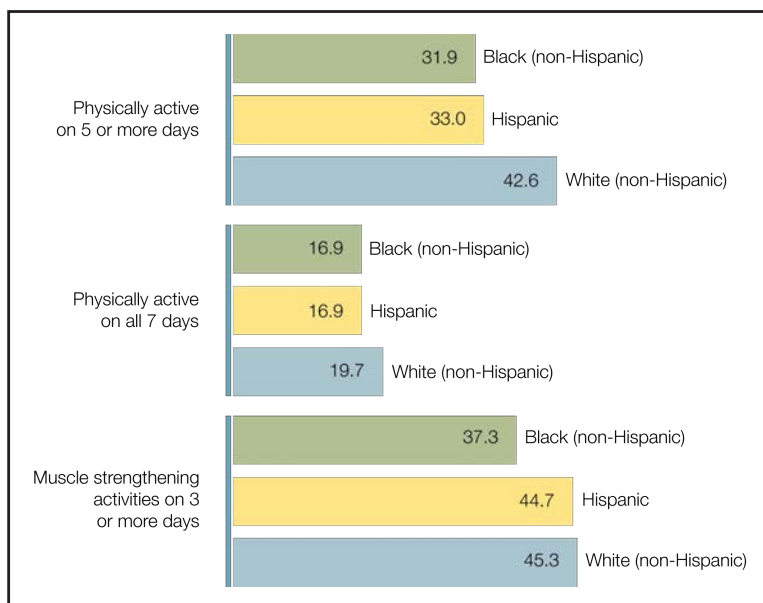
- According to data from the 2005–2007 NHIS, more than two in five women age 18 years and older (41 percent) led sedentary lifestyles—in other words, they never engaged in any vigorous, moderate, or light physical activities for at least 10 minutes at a time. More than half of Hispanic (55 percent) and black non-Hispanic (55 percent) women were sedentary, compared with 43 percent of Asian women, 41 percent of Native Hawaiian or Other Pacific Islander women, 38 percent of American Indian or Alaska Native women, and 36 percent of white non-Hispanic women.²²
- Black non-Hispanic women (15 percent) and Hispanic women (16 percent) were also less likely to engage in light to moderate leisure-time physical activity at least five times per week than were American Indian or Alaska Native women (22 percent) and white non-Hispanic women and Asian women (both at 24 percent). (Data are from the 2005–2007 NHIS. Data for Native Hawaiian or Other Pacific Islander women are not reliable.) Light to moderate leisure-time physical activities are those that cause only light sweating or a light to moderate increase in breathing or heart rate and are done for at least 10 minutes per episode.²²
- White non-Hispanic women (24 percent) were more likely to engage in any leisure-time strengthening activities than were Native Hawaiian or Other Pacific Islander women (22 percent), Asian women (16 percent), American Indian or Alaska Native women (16 percent), black non-Hispanic women (14 percent), and Hispanic women (12 percent). According to the 2005–2007 NHIS, strengthening activities include leisure-time physical activities especially designed to strengthen muscles such as weight lifting or calisthenics.²²
- Among female adults living in California—and surveyed in the 2009 California Health Interview Survey, or CHIS—more than a third

Figure 17
 Percentage of Female High School Students Participating in Limited Physical Activity by Race and Hispanic Origin, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

Figure 18
 Percentage of Female High School Students Who Were Physically Active by Race and Hispanic Origin, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

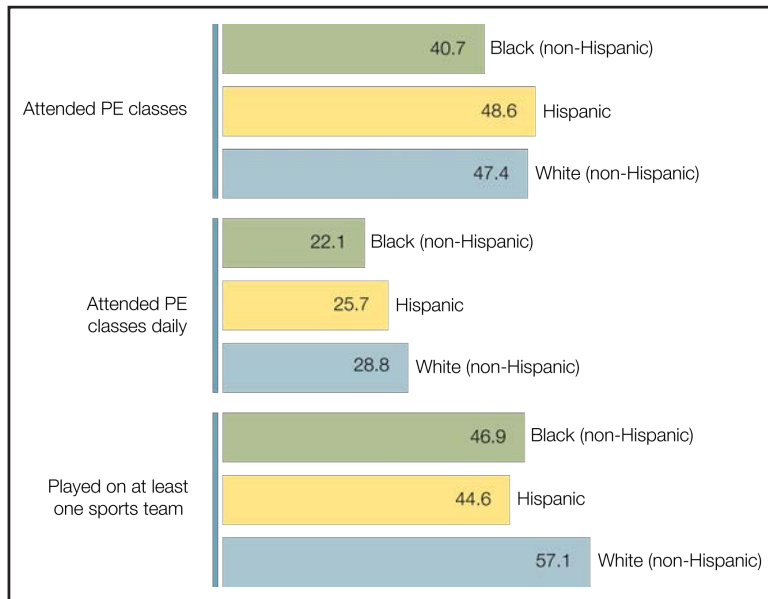
(36 percent) of American Indians or Alaska Natives (non-Hispanic) reported having walked for transportation, fun, and exercise. This proportion of American Indians or Alaska Natives exceeds the comparable figures of 24 percent of both blacks (non-Hispanic) and whites (non-Hispanic), 22 percent among Asians (non-Hispanic), and 20 percent among Hispanics. The percentages who walk for transportation, fun, and exercise did not differ significantly among Asian subgroups or among Hispanic subgroups. (Data for Native Hawaiians/Pacific Islanders are not reliable.³³)

- In Hawaii, Native Hawaiian (58 percent) and Caucasian (59 percent) female adults were more likely than Filipina (46 percent) and Japanese (41 percent) female adults to engage in moderate physical activity for more than 30 minutes per day on 5 or more days per week or in vigorous physical activity for more than 20 minutes per day on 3 or more days per week.³⁴

Female Adolescents

- The 2011 NYRBS found that black non-Hispanic female students in high school were less likely than their white non-Hispanic counterparts to participate in muscle-strengthening activities on 3 or more days, attend physical education classes, and play on at least one sports team.²⁹
- Black non-Hispanic adolescent females (37.3 percent) also were less likely than their Hispanic (44.7 percent) and white non-Hispanic (45.3 percent) counterparts to participate in muscle-strengthening activities on 3 or more days.²⁹
- Black non-Hispanic females in high school were more likely than their

Figure 19
 Percentage of Female High School Students
 Participating in Organized Physical Activities by Race
 and Hispanic Origin, 2011



PE = physical education.

Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

Hispanic and white non-Hispanic counterparts to engage in sedentary activities. For example, more than half (55 percent) of black non-Hispanic females—compared with 37 percent of Hispanic females and 24 percent of white non-Hispanic females—watched television 3 hours or more per day on an average school day.²⁹

- The NYRBS also found a higher prevalence of another sedentary pastime—computer use for non-school-related activity for 3 hours or more per day—among black non-Hispanic females (35 percent) than among either Hispanic females (28 percent) or white non-Hispanic females (23 percent).²⁹

Tobacco Use Among Women

- Tobacco use remains the single largest preventable cause of death and disease in the United States. The health consequences of tobacco use include heart disease, multiple types of cancer, pulmonary disease, adverse reproductive

effects, and the exacerbation of chronic health conditions.³⁵

- Among women age 18 years and older (2005–2007), Asians were the most likely to report they had never smoked cigarettes (90 percent), while white non-Hispanic and AI/AN women were the least likely to report the same (59 percent for white non-Hispanics and 58 percent for AI/AN women). White non-Hispanic and AI/AN women were the most likely to report they were former smokers (21 percent and 18 percent, respectively), with Asian women the least likely to report the same (6 percent).²²
- Among women age 18 years and older (2005–2007), American Indians or Alaska Natives (24 percent) were nearly five times as likely as Asians (5 percent) to be current smokers.²²
- White non-Hispanic (17 percent), black non-Hispanic (13 percent), and American Indian or Alaska Native (13 percent) women age 18 years and older were the most likely to smoke daily (2005–2007). Hispanic (6 percent), Mexican (5 percent), and Asian (4 percent) women reported daily smoking with less frequency.²²
- Among females who smoked daily (2005–2007), whites (non-Hispanic) smoked the greatest number of cigarettes (16), and Native Hawaiians or Other Pacific Islanders smoked the least (6). Although Asian women were the least likely to smoke daily, Asian female daily smokers smoked an average of 12 cigarettes, not significantly different from their American Indian or Alaska Native counterparts (11 cigarettes).²²

Current Smoking

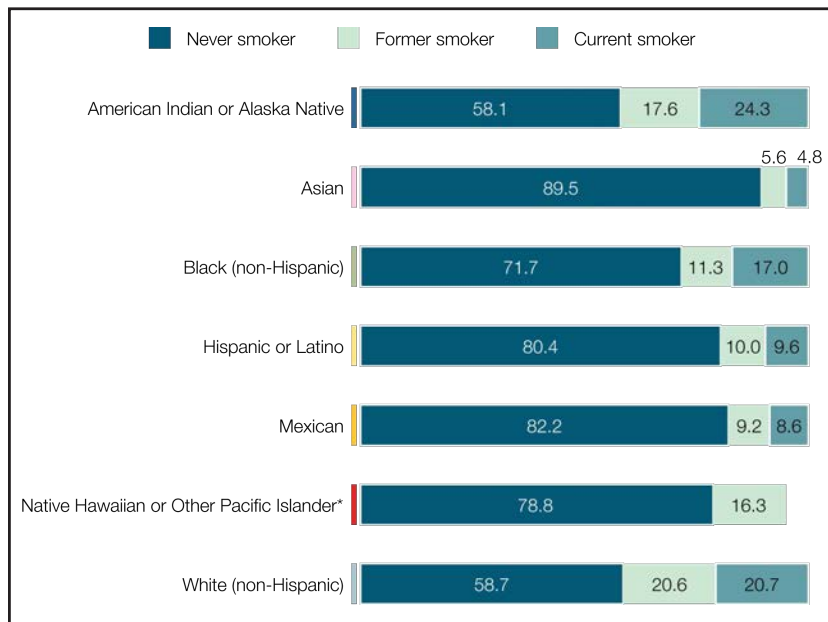
- Among women age 18 years and older (2010), American Indians or Alaska Natives (non-Hispanic) were the most likely to be current cigarette smokers (36 percent). Other groups

of women were less likely to report current smoking—white non-Hispanic (20 percent), black non-Hispanic (17 percent), Hispanic (9 percent), and Asian non-Hispanic (4 percent).³⁵

- Among women age 18 years and older (2009–2011), the age-adjusted current cigarette smoking rate was highest among American Indians or Alaska Natives (24 percent). Lower age-adjusted current cigarette smoking rates are reported by whites (non-Hispanic) (20 percent), blacks (non-Hispanic) (17 percent), Hispanics (9 percent), Mexicans (8 percent), and Asians (6 percent). (Data for Native Hawaiians or Other Pacific Islanders were not reliable and, therefore, were not provided in the data source.)²
- Among women age 18 years and older in Hawaii (2002–2004), Native Hawaiians (28 percent) were the most likely to currently smoke cigarettes, followed by Caucasians (15 percent), Japanese (8 percent), and Filipinas (6 percent).³⁶
- Current cigarette smoking rates differed by age and by race in 2011. Overall, white female adults (18 years and older) were more likely to smoke than were their black counterparts, with 18 percent (age-adjusted) of whites reporting current cigarette smoking, compared with 15 percent (age adjusted) of blacks. However, both white (7 percent) and black (9 percent) women ages 65 and older had significantly lower smoking rates than did younger women of the same race.²
- Among women ages 18 to 44 years, a larger percentage of whites (20 percent) than blacks (15 percent) were current smokers (2011). Among women age 65 years and older, a smaller percentage of whites (7 percent) smoked than did blacks (9 percent). Among women in the age group of 45 to 64 years, the percentages of whites (19 percent) and blacks (18 percent) who currently smoke are comparable.²
- Among female adults of all age groups (2009–2011), Hispanics had significantly lower current cigarette smoking rates than did whites (non-Hispanic) and blacks (non-Hispanic). For example, 8 percent of Hispanic females ages 18 to 24 years were smokers, compared with 13 percent of blacks (non-Hispanic) and 21 percent of whites (non-Hispanic).²
- The rates of current cigarette smoking among women age 25 years and older also differ by education level. In 2011, women with a bachelor's degree or higher were significantly less likely than were women with lower levels of education to be current cigarette smokers. This is true among both white and black women. Eight percent of white women and 7 percent of black women with a bachelor's degree or higher were current smokers, compared with at least 15 percent of women of both racial groups with lower levels of education.²
- Among women age 25 years and older without a high school diploma or GED (2011), blacks (30 percent) were more likely than whites (23 percent) to be current cigarette smokers. However, among females with a high school diploma or GED or with some college but no bachelor's degree, whites were more likely than blacks to smoke. Among females with a bachelor's degree or higher, whites (8 percent) and blacks (7 percent) were equally likely to smoke.²
- Among women age 25 years and older at all levels of educational attainment (2009–2011), Hispanics had significantly lower current cigarette smoking rates than did whites (non-Hispanic) and blacks (non-Hispanic). For example, only 8 percent of Hispanic women without a high school diploma or GED were smokers, compared with 30 percent of blacks (non-Hispanic) and 42 percent of whites (non-Hispanic).²
- Hispanic women with at least some college education (9 percent) had a significantly but not dramatically lower smoking rate than did Hispanic women with a high school diploma or GED (11 percent), as well as Hispanic women without a high school diploma or GED (8 percent), during the 2009–2011 period.²

Figure 20

Age-Adjusted Percent Distributions of Women 18 Years and Older by Smoking Status and by Race/Ethnicity, 2005–2007



*The data source did not provide an estimate of current smokers for women who are Native Hawaiians or Other Pacific Islanders because it was not reliable.

Source: Schoenborn, C. A., & Adams, P. F. (2010). Health behaviors of adults: United States, 2005–2007. *Vital Health Statistics*, 10(245), 24–25. Retrieved from http://www.cdc.gov/nchs/data/series/sr_10/sr10_245.pdf

- Rates of current cigarette smoking among women age 18 years and older also differ by income level. The higher the income, the less likely women are to be current smokers. Women with incomes at least four times the federal poverty threshold were significantly less likely than were women with lower incomes to be current cigarette smokers (2009–2011). This was especially true among white non-Hispanic and black non-Hispanic women. For example, among black non-Hispanic women, only 7 percent of those with incomes at least four times the poverty threshold currently smoked, compared with 13 percent of those with incomes between two and four times the poverty threshold and even greater percentages of those with lower incomes. Nearly one in five (19 percent) black non-Hispanic women with incomes between the federal poverty threshold and double

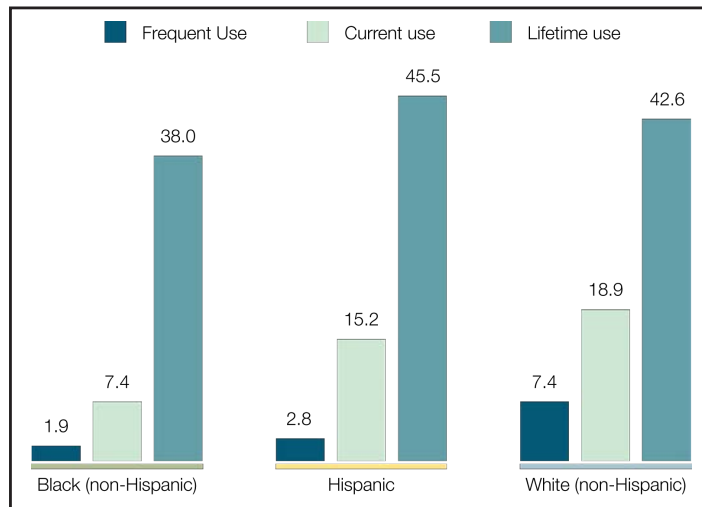
this level, as well as 27 percent of these women with incomes below the poverty level, report currently smoking.²

- During the 2009–2011 period, among women age 18 years and older at all income levels except income at least four times the poverty level, whites (non-Hispanic) had the highest current cigarette smoking rates, followed by blacks (non-Hispanic) and Hispanics. For example, among women with incomes below the poverty level, 38 percent of whites (non-Hispanic) currently smoke, compared with 27 percent of blacks (non-Hispanic) and 11 percent of Hispanics. Among women with incomes at least four times the poverty level, however, whites (non-Hispanic) (12 percent) also had the highest rate of current smoking, but the rates of blacks (non-Hispanic) (7 percent) and Hispanics (6 percent) were comparable to one another.²

Tobacco Use Among Adolescent Females

- Female high school students are less likely to report having ever smoked than are male high school students. The 2011 NYRBS found that 43 percent of female students had ever tried cigarette smoking, compared with 46 percent of male students.²⁹
- The likelihood of tobacco use among female high school students varies by race and ethnicity, with white females most likely to report this behavior. Overall, 21 percent of white non-Hispanic female students in high school reported current cigarette use, current smokeless tobacco use, or current cigar use, compared with 16 percent of their Hispanic and 12 percent of their black non-Hispanic counterparts.²⁹
- Smokeless tobacco use (i.e., chewing tobacco or using snuff or dip) is infrequent among all

Figure 21
Percentage of Female High School Students Who Smoked Cigarettes by Race and Hispanic Origin, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

female high school students, but especially among black non-Hispanics. In 2011, less than 1 percent (0.8 percent) of black non-Hispanic female students reported using smokeless tobacco in the previous month, compared with 2.4 percent of white non-Hispanic and 2.8 percent of Hispanic female students.²⁹

- The purchase and use of cigarettes is illegal for high school students until they reach age 18 years in most states. Despite this fact, among current adolescent female smokers in high school who were younger than 18 years, 1 in 10 (10 percent) of these white non-Hispanic smokers and 1 in 12 (8 percent) of these Hispanic smokers had bought their own cigarettes in a store or gas station.²⁹ (Comparable data for black non-Hispanic female high school students were not available.)
- Hispanic female high school students (46 percent) are more likely to have ever smoked cigarettes than either their white non-Hispanic (43 percent) or black non-Hispanic (38 percent) counterparts.²⁹

- By age 13 years, 9 percent of Hispanic females currently enrolled in high school had smoked a whole cigarette for the first time, compared with 8 percent of their white non-Hispanic and 7 percent of their black non-Hispanic counterparts.²⁹
- The NYRBS also found that black non-Hispanic female students were the least likely to smoke cigarettes either currently or frequently. Reported current cigarette use was higher among white non-Hispanic females (19 percent) than among both Hispanic females (15 percent) and black non-Hispanic females (7 percent). The prevalence of frequent cigarette use also was higher among white non-Hispanic females (7 percent) than among either Hispanic females (3 percent) or black non-Hispanic females (2 percent).²⁹
- The prevalence of having smoked cigarettes on school property was also higher among white non-Hispanic females (5 percent) than among Hispanic females (3 percent) and black non-Hispanic females (2 percent).²⁹
- Among current female smokers in high school, 56 percent of Hispanics and 54 percent of whites (non-Hispanic) had tried to quit smoking cigarettes in the previous year.²⁹

Alcohol Consumption Among Women

- The use of legal substances (such as alcohol) affects millions of people every year and imposes untold health, social, and economic costs on individuals, families, and communities. Alcohol consumption becomes a factor in women's health if it is frequent and heavy enough to impair judgment or if it places women at risk of accidents and abuse by others. In addition, recent studies have indicated that gender differences in the absorption and metabolism of alcohol place women at higher risk than men for the adverse effects of alcohol consumption (e.g., violent victimization, alcohol-induced liver disease, alcoholic hepatitis, death from cirrhosis, and other damage to the liver, heart, and brain).^{37,38}
- Asian women age 18 years and older (61 percent) were the most likely to report they

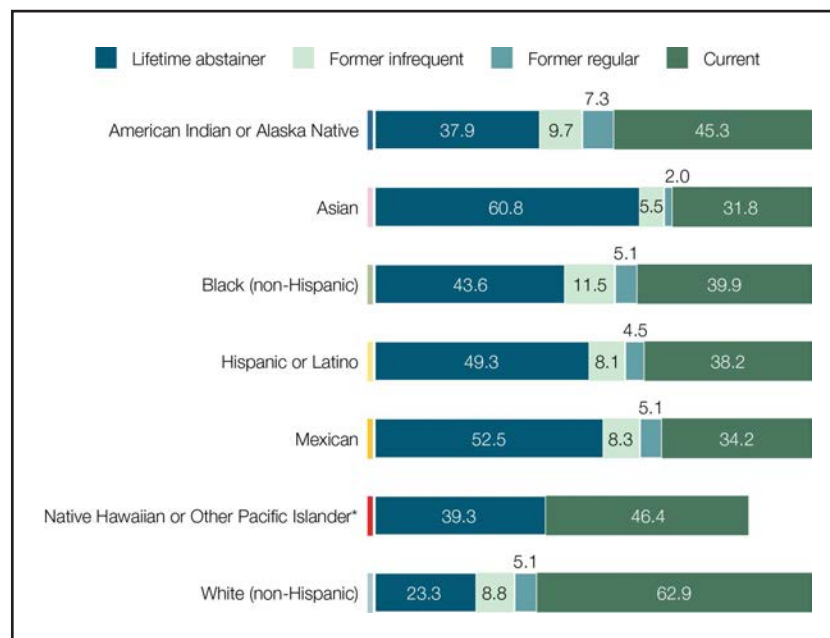
were lifetime abstainers—that is, had consumed fewer than 12 drinks in their entire lifetime (2005–2007). This three-fifths of Asian women exceeds the 53 percent of Mexican, 49 percent of Hispanic, 44 percent of black non-Hispanic, 39 percent of Native Hawaiian or Other Pacific Islander, 38 percent of American Indian or Alaska Native, and 23 percent of white non-Hispanic women who also were lifetime abstainers.²²

- Among women age 18 years and older (2005–2007), whites (non-Hispanic) were the most likely to have consumed 12 drinks or more in their lifetime. Lifetime consumption of 12 drinks or more by 77 percent of white non-Hispanic women exceeded consumption among women age 18 years or older who were American Indian or Alaska Native (62 percent), black non-Hispanic (56 percent), Hispanic (51 percent), Mexican (48 percent), and Asian (39 percent). (Data for Native Hawaiian or Other Pacific Islander women were not reliable and, therefore, were not reported in the source document.²²)
- While the majority of women are not problem drinkers, some drink frequently and/or heavily. Among current female drinkers (2005–2007), American Indians or Alaska Natives (31 percent) were the most likely to have had at least 1 heavy drinking day (five or more drinks) in the past year. Smaller proportions of non-Hispanic whites (24 percent), Mexicans (18 percent), Native Hawaiians or Other Pacific Islanders (18 percent), Hispanics (17 percent), non-Hispanic blacks (14 percent), and Asians (12 percent) also report drinking frequently and/or heavily.²²
- White non-Hispanic women age 18 years and older are the most likely (5.3 percent) to have consumed an average of more than seven drinks per week (heavier drinking). This contrasts with the 2.3 percent of black non-Hispanic, 2.1 percent of Mexican, and 1.9 percent of Hispanic women who were heavier drinkers (2011).²
- Compared with the national averages for female adults (age 18 years and older) in 2004–2008, Asian non-Hispanic female adults

had lower rates of past-month alcohol use (30 percent versus 49 percent) and past-month binge alcohol use (8 percent versus 16 percent). (Binge alcohol use is defined in the National Survey on Drug Use and Health, the source for these data, as drinking five or more drinks on the same occasion—i.e., at the same time or within a couple of hours of each other—on at least 1 day in the past 30 days.³⁸)

- Black non-Hispanic female adults age 18 years and older also reported lower rates of past-month alcohol use (37 percent) and past-month binge alcohol use (14 percent) than the respective national averages of 49 percent and 16 percent for the 2004–2008 period.³⁹
- American Indian or Alaska Native non-Hispanic female adults had a lower rate of past-month alcohol use (39 percent) than the national average of 49 percent among female adults age 18 years and older (2004–2008). American Indian or Alaska Native non-Hispanic female adults exceeded the national average for past-month binge alcohol use (24 percent versus 16 percent), however.⁴⁰
- Compared with the national averages for female adults (age 18 years and older) during the 2004–2008 period, Hispanic female adults had lower rates of both past-month alcohol use (36 percent versus 49 percent) and binge alcohol use (15 percent versus 16 percent).⁴¹
- Among females ages 18 to 64 years who were employed full-time during the 2004–2008 period, about 20 percent engaged in binge alcohol use in the past month. This translates into 9.9 million women bingeing on alcohol.⁴²
- Among females ages 18 to 64 years who worked full-time in the 2004–2008 period, American Indians or Alaska Natives (28 percent) had the highest rate of binge alcohol use, followed by whites (22 percent), Hispanics (18 percent), blacks (16 percent), and Asians (8 percent).⁴²
- According to the 2010 State of Hawaii Behavioral Risk Factor Surveillance System, Native Hawaiian women (20 percent) are far more likely to have engaged in binge drinking in the past 30 days than are Caucasian (13 percent), Japanese (8 percent), and Filipina (4 percent)

Figure 22
Age-Adjusted Percent Distributions of Lifetime Alcohol Drinking Status for Women 18 Years and Over by Race/Ethnicity, 2005–2007



*Estimates for “former infrequent” and “former regular” drinking status were not reliable for Native Hawaiian or Other Pacific Islander women and, therefore, were not reported in the source document.

Source: Schoenborn, C. A., & Adams, P. F. (2010). Health behaviors of adults: United States, 2005–2007. *Vital Health Statistics, 10*(245), 12–13. Retrieved from http://www.cdc.gov/nchs/data/series/sr_10/sr10_245.pdf

women. (In this survey, binge drinking is defined as taking four or more drinks on one occasion.⁴³)

- Data from the 2009 California Health Interview Survey show that white non-Hispanic women age 18 years and older (29 percent) were more likely to consume four or more alcoholic drinks on at least one occasion (binge drinking) in the past year than were women of color: Hispanic women (23 percent), American Indian or Alaska Native non-Hispanic women (19 percent), Asian non-Hispanic women (15 percent), and black non-Hispanic women (14 percent).⁴⁴
- Rates of binge drinking differed significantly by ethnic groups. Among Asian women, Koreans (29 percent) were more likely to engage in binge drinking in the past year than

were Chinese (5 percent). (Data for other Asian subgroups were not statistically stable.) Among Hispanic women, more than half (51 percent) of South Americans reported binge drinking in the past year, compared with 22 percent of Mexicans and 14 percent of Central Americans.⁴⁵

- During the 2004–2005 period, 7.7 percent of people age 12 years or older (an estimated 18.7 million annually) were dependent on or abused alcohol in the past year. Dependence or abuse includes symptoms such as withdrawal, use in dangerous situations, and interference with major obligations at work, school, or home during the past year. Males were twice as likely as females to have met the criteria for alcohol dependence or abuse in the past year.⁴⁶

- Among females age 12 years or older (2004–2005), American Indians or Alaska Natives (14 percent) were the most likely to be dependent on or to abuse alcohol. Females who were Native Hawaiian or Other Pacific Islander (6 percent), white (6 percent), Hispanic (4 percent), black (4 percent), and Asian (2 percent) were less likely to be dependent on or to abuse alcohol.⁴⁶

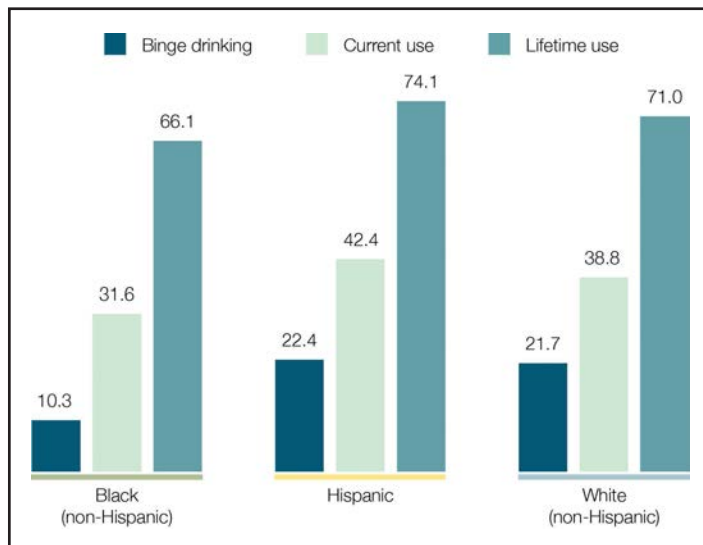
- In 2002–2005, somewhat paradoxically, American Indian and Alaska Native females age 12 years or older were less likely to have used alcohol at least once in the past year (56 percent) than females of other racial groups (62 percent) but more likely than females of other racial groups to have a past-year alcohol use disorder (8 percent versus 5 percent).⁴⁷

Alcohol Consumption Among Adolescent Females

- While alcohol is a legal substance for use by adults (21 years or older), it is an illegal

Figure 23

Percentage of Female High School Students Who Drank Alcohol by Race and Hispanic Origin, 2011



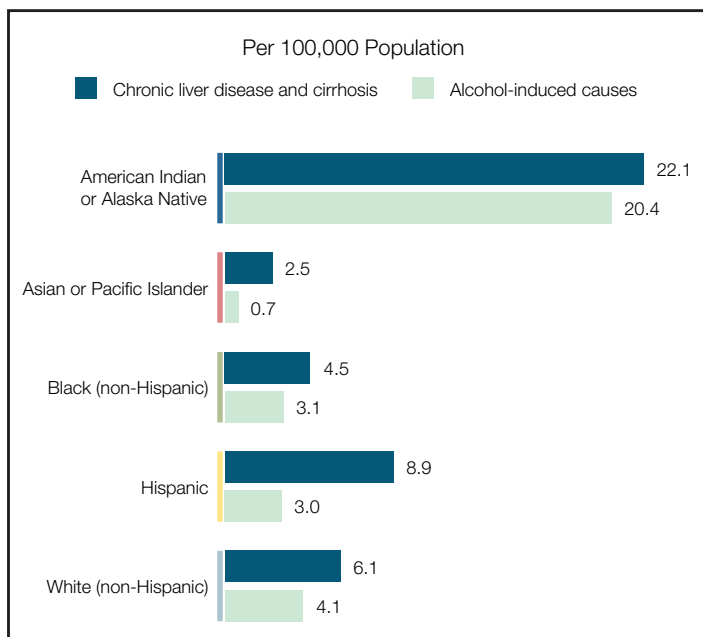
Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

substance for consumption by youth. Nevertheless, the 2011 NYRBS found that large majorities of Hispanic (74 percent), white non-Hispanic (71 percent), and black non-Hispanic (66 percent) female students in high school (Grades 9–12) had consumed alcohol within their lifetimes.²⁹

- Black non-Hispanic female high school students were less likely than their Hispanic and white non-Hispanic counterparts to be current drinkers. According to the NYRBS, the prevalence of current alcohol use was higher among both Hispanic female students (42 percent) and white non-Hispanic female students (39 percent) than among black non-Hispanic female students (32 percent).²⁹
- Among current student drinkers, black non-Hispanic females were the most likely to report having usually obtained the alcohol they drank in the past month by someone giving it to them. This was true for 51 percent of black non-Hispanic female students, compared with 47 percent of Hispanic female students and 44 percent of white non-Hispanic female students.²⁹
- The consumption of alcohol by students on school property—a crime in itself—may lead to other crimes and misbehavior on the part of students. It also may create a school environment that is harmful to students, teachers, and staff.⁴⁸ Among female students in high school, Hispanics were more likely than blacks (non-Hispanic) and whites (non-Hispanic) to drink alcohol on school property—7 percent of Hispanics versus 4 percent of blacks (non-Hispanic) and 4 percent of whites (non-Hispanic).²⁹
- Multiyear data (2002–2010) for the population ages 12 to 20 years from the National Survey on Drug Use and Health reveal similar alcohol consumption patterns as those identified among high school students in the NYRBS. White females (30.9 percent) were the most likely to report current use of alcohol (defined as use of alcohol in the past month). Around a fourth of females ages 12 to 20 years of the following groups also reported current alcohol use: American Indians or Alaska Natives (26.5 percent), Hispanics or Latinos (23.1 percent), and Native Hawaiians or Other Pacific Islanders (22.8 percent). Black females (18.4 percent) and Asian females (15.9 percent) were least likely to report current alcohol use.⁴⁹

- Among females ages 12 to 20 years, whites (19.3 percent) and American Indians or Alaska Natives (17.6 percent) were most likely to report binge drinking. Native Hawaiian and Other Pacific Islander females (14.1 percent) and Hispanic females (13.6 percent) were comparably likely to report binge drinking. As with current alcohol use, black females (7.8 percent) and Asian females (7.7 percent) were least likely to report this behavior.⁴⁹
- Nine percent of white and 8 percent of Hispanic female high school students have driven an automobile while under the influence of alcohol, compared with 4 percent of black female students.²
- Considerably greater percentages of female high school students have ridden in a vehicle whose driver had been drinking alcohol—35 percent of Latinas, 29 percent of black females, and 27 percent of white females.²

Figure 24
Age-Adjusted Death Rates for Alcohol-Induced Causes and Chronic Liver Disease and Cirrhosis Among Females by Race/Ethnicity, 2009



Source: Kochanek, K. D., Xu, J., Murphy, S. L., Minino, A. M., & Kung, H. C. (2011, December 29). Deaths: Final data for 2009. *National Vital Statistics Report*, 60(3), 69–80. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf

Alcohol-Related Deaths

- Alcohol-induced mortality includes deaths from dependent and nondependent use of alcohol and also includes accidental poisoning by alcohol. It excludes unintentional injuries, homicides, and other causes of death indirectly related to alcohol use (such as deaths due to fetal alcohol syndrome). In 2009, a total of 24,518 people died of alcohol-induced causes in the United States.⁴
- Excessive alcohol consumption, a leading preventable cause of death in the United States, has a substantial impact on American Indian and Alaska Native populations. During the 2001–2005 period, on average, each year 1,514 alcohol-attributable deaths—accounting for 12 percent of all deaths in this population—occurred among American Indians and Alaska Natives. Nearly a third (32 percent) of these alcohol-attributable deaths were among females. (The number of alcohol-attributable deaths is generated by multiplying the number of sex- and cause-specific deaths—for example, deaths from liver cancer—by the sex- and cause-specific proportion of deaths attributable to excessive alcohol consumption.⁵⁰)
- The age-adjusted alcohol-related death rate among AI/AN males and females was more than six times the national rate for people of all racial/ethnic groups. Between the periods 1979–1981 and 2002–2004, this death rate among AIs/ANs decreased 44 percent—from 77.5 per 100,000 to 43.7 per 100,000.¹⁶
- Although alcohol-related death rates are higher among AI/AN males than females, alcohol-related deaths are a significant cause of death among AI/AN females as well. In the 2002–2004 period, the alcohol-related death rates for AI/AN females ranged from 3.5 per 100,000 for 15- to 24-year-olds to 65.4 per 100,000 for 45- to 54-year-olds. Alcohol-related death rates among white females were significantly lower—ranging from 0.1 per 100,000 for 15- to 24-year-olds to 8.0 per 100,000 among both 45- to 54-year-olds and 55- to 64-year-olds. (The AI/AN rates have been

adjusted to compensate for misreporting of the AI/AN race on state death certificates.¹⁶⁾

- Among females in 2009, American Indians or Alaska Natives had the highest death rate from alcohol-induced causes—20 per 100,000 population. Rates for females who are white non-Hispanic (4 per 100,000), black non-Hispanic (3 per 100,000), Hispanic (3 per 100,000), and Asian or Pacific Islander (0.7 per 100,000) were considerably lower.⁴
- Chronic liver disease and cirrhosis are two conditions often related to the consumption of excessive amounts of alcohol. Among females in 2009, American Indians or Alaska Natives were the most likely to die of chronic liver disease and cirrhosis—at the rate of 22 per 100,000. Rates for females who are Hispanic (9 per 100,000), white non-Hispanic (6 per 100,000), black non-Hispanic (5 per 100,000), and Asian or Pacific Islander (3 per 100,000) were considerably lower.⁴
- The age-specific death rates for chronic liver disease and cirrhosis were significantly higher for all age groups among AI/AN females (2002–2004) than among white females (2003). For example, 83 per 100,000 AI/AN females ages 55 to 64 years—but only 13.1 per 100,000 of their white counterparts—died from chronic liver disease or cirrhosis.¹⁶

Use of Illicit Substances by Women

- The term *illicit drugs* refers to marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or prescription-type drugs used nonmedically. Illicit drug use generally declines as individuals move through young adulthood into middle adulthood and maturity.⁵¹
- Substance dependence or abuse includes such symptoms as withdrawal, tolerance, use in dangerous situations, trouble with the law, and interference with major obligations at work, school, or home during the past year.⁴⁷
- Women of all racial and ethnic groups use illicit drugs less often than they use alcohol or tobacco. (See sections “Alcohol Consumption Among Women” and “Tobacco Use Among Women” for details.)
- In addition, women are less likely than men to use illicit drugs. In 2011, the rate of current illicit drug use among people age 12 years or older was higher for males (11.1 percent) than for females (6.5 percent). Males were more likely than females to be current users of several different illicit drugs, including marijuana (9.3 percent versus 4.9 percent), prescription drugs used nonmedically (2.6 percent versus 2.2 percent), cocaine (0.7 percent versus 0.4 percent), and hallucinogens (0.5 percent versus 0.3 percent).⁵²
- Although females have lower rates of illicit drug use than do males, a significant number of females use illicit drugs. In 2009, 6.6 percent of females age 12 years or older reported past-month illicit drug use, a modest increase from the 2007 rate (5.8 percent).⁵³
- American Indian or Alaska Native non-Hispanic females age 18 years and older (2004–2008) were more likely than the national average for females to report past-month illicit drug use (9 percent versus 6 percent).⁴⁰
- During the 2004–2008 period, Hispanic female adults (age 18 years and older) were less likely than the national average for females to report past-month illicit drug use (5 percent versus 6 percent). This pattern held within most age groups as well. For example, among females ages 18 to 25 years, only 11 percent of females had used illicit drugs, in contrast to the national average of 16 percent.⁴¹
- Asian non-Hispanic female adults age 18 years and older reported lower rates of past-month illicit drug use than the national average (3 percent versus 6 percent) during the 2004–2008 period. This pattern was also evident within most age groups. In particular, among 18- to 25-year-olds, only 7 percent of Asian non-Hispanic females had used illicit drugs, in contrast to 16 percent of all females in this age group.³⁸
- The 6 percent of black non-Hispanic female adults age 18 years and older who reported illicit drug use during the 2004–2008 period equaled the share among all adult females age 18 years and older reporting the same. Black

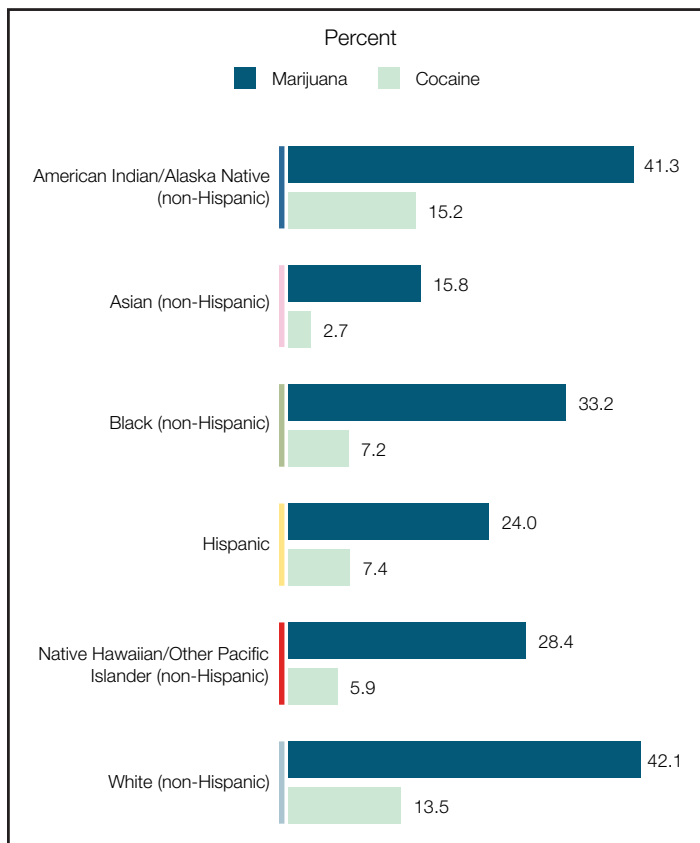
non-Hispanic females ages 18 to 25 years were somewhat less likely (14 percent) than the national average for females that age (16 percent) to report using illicit drugs, however.³⁹

- Among females ages 18 to 64 years who were employed full-time between 2004 and 2008, 6 percent had used illicit drugs during the past month—a total of 3.2 million women.⁴²
- Rates of past-month illicit drug use among females ages 18 to 64 years who were employed full-time during the 2004–2008 period ranged between 7 percent (among white non-Hispanic and American Indian or Alaska Native females) and 3 percent (among Asian non-Hispanic

females). Among their black non-Hispanic and Hispanic counterparts, 5 percent of these women report illicit drug use.⁴²

- Marijuana is the most popular illicit substance used by women. In the 2010–2011 period, more than two-fifths of white non-Hispanic females (42 percent) and Native American or Alaska Native non-Hispanic females (41 percent) had used marijuana (or hashish, a form of marijuana) at least once in their lifetimes. The rates of ever using marijuana were lower among black non-Hispanic females (33 percent), Native Hawaiian or Other Pacific Islander non-Hispanic females (28 percent), Hispanic females (24 percent), and Asian non-Hispanic females (16 percent).⁵⁴

Figure 25
Females by Race/Ethnicity Who Ever Used Marijuana or Cocaine, 2010–2011



Source: National Survey on Drug Use and Health. 2-year R-DAS (2002 to 2003, 2004 to 2005, 2006 to 2007, 2008 to 2009, and 2010 to 2011). Analysis was run on May 15, 2013 (05:02 PM EDT), using SDA 3.5: Tables (Using marijuana at least once in their lifetimes) and on May 16, 2013 (09:55 AM EDT), using SDA 3.5: Tables (Ever using cocaine—all forms). Generated at <http://www.icpsr.umich.edu/icpsrweb/SAMHDA>

- Smoking marijuana in the past 30 days was notably less common than once-(or more)-in-a-lifetime use of marijuana for all women of color in the 2010–2011 period. The rates were as follows: Asian non-Hispanic females (1.5 percent), Native Hawaiian or Other Pacific Islander females (3.6 percent), Hispanic females (4.0 percent), American Indian or Alaska Native non-Hispanic females (4.4 percent), black non-Hispanic females (5.7 percent), and white non-Hispanic females (5.0 percent).⁵⁵

- Among females age 50 years or older (2007–2009), the rates of marijuana use and nonmedical use of prescription-type drugs were similar (1.9 percent and 2.1 percent, respectively). The rate of marijuana use was lower than the rate of nonmedical use of prescription-type drugs, however, among females age 60 years or older (0.5 percent and 1.1 percent, respectively).⁵¹

- In the 2010–2011 period, Native American or Alaska Native non-Hispanic females (15 percent) and white non-Hispanic females (14 percent) were more likely to report ever using cocaine (including all forms of cocaine such as powder, crack, free base, and coca paste) than were black non-Hispanic females (7 percent), Hispanic females (7 percent),

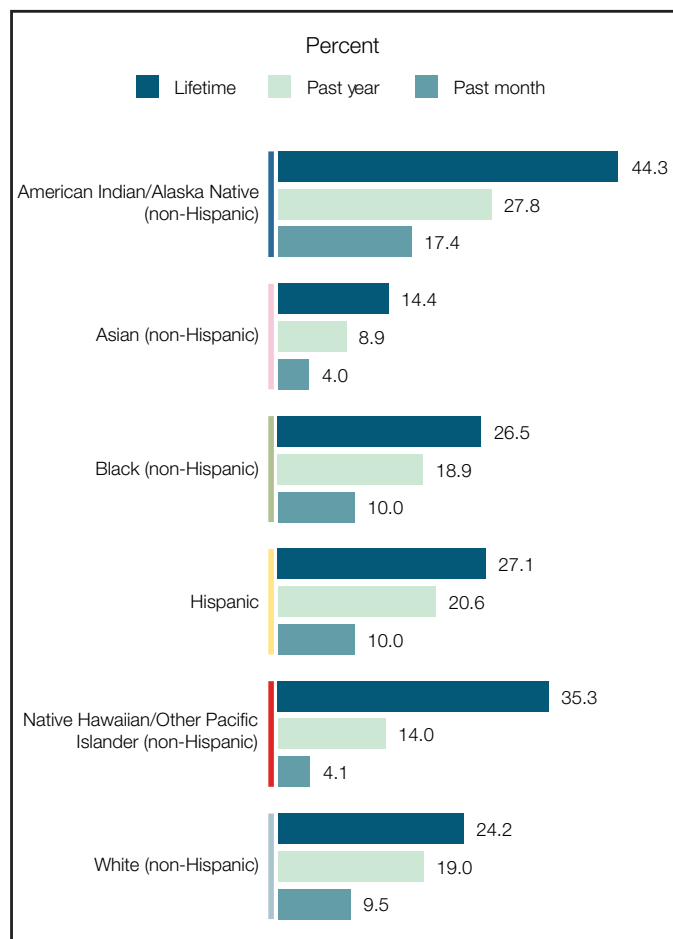
Native Hawaiian or Other Pacific Islander non-Hispanic females (6 percent), and Asian non-Hispanic females (3 percent).⁵⁶

- Among females who had ever tried cocaine, Native Hawaiians or Other Pacific Islanders (non-Hispanic) (46 percent) and blacks (non-Hispanic) (45 percent) were the most likely to report ever using crack (cocaine in rock or chunk form). The rates of crack use among cocaine users of other racial and ethnic groups were 33 percent among Native American or

Alaska Native non-Hispanic females, 21 percent among Hispanic females, 17 percent among white non-Hispanic females, and 14 percent among Asian non-Hispanic females.⁵⁷

- Small proportions of females have ever used heroin: 3.2 percent of Native Hawaiians or Other Pacific Islanders (non-Hispanic), 1.2 percent of whites (non-Hispanic), 1.1 percent of blacks (non-Hispanic), 0.9 percent of Hispanics, 0.9 percent of Native Americans or Alaska Natives (non-Hispanic), and 0.1 percent of Asians (non-Hispanic).⁵⁸

Figure 26
Females Ages 12–17 Who Reported Lifetime, Past Year, and Past Month Use of Any Illicit Drug by Race/Ethnicity, 2010–2011

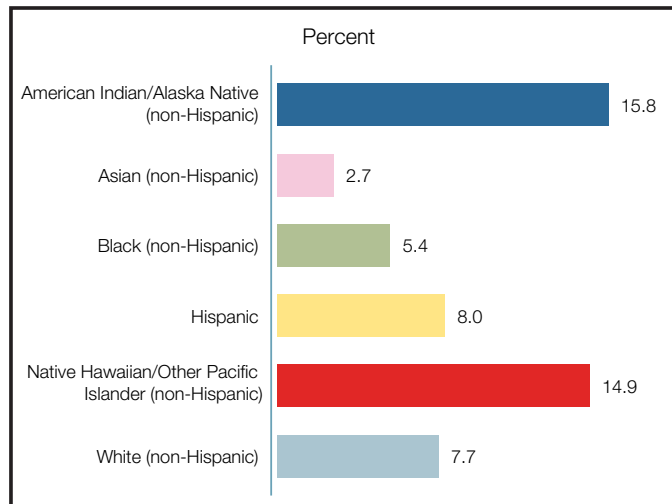


Source: National Survey on Drug Use and Health. 2-year R-DAS (2002 to 2003, 2004 to 2005, 2006 to 2007, 2008 to 2009, and 2010 to 2011). Analysis was run on May 16, 2013 (03:59 PM EDT), using SDA 3.5: Tables (Adolescents of color using illicit drugs). Generated at <http://www.icpsr.umich.edu/icpsrweb/SAMHDA>

Use of Illicit Substances by Adolescent Females

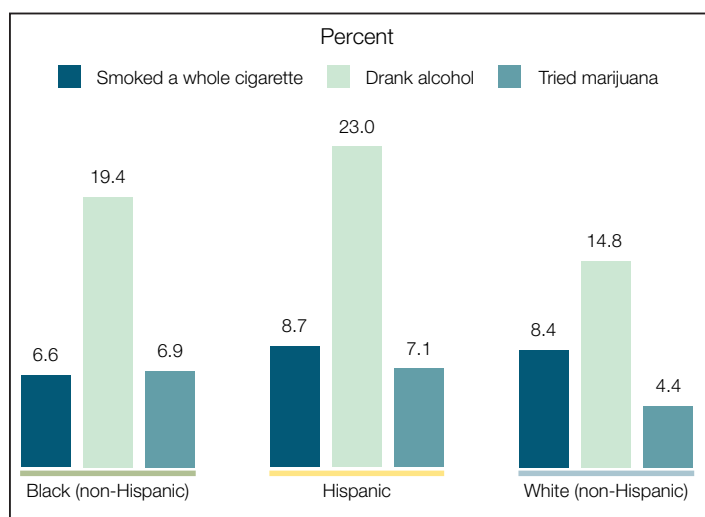
- Drug use among American youth remained high during the 1990s and into the new century.³⁷ Although the proportions of adolescent females ages 12 to 17 years reporting past-month use are less than the proportions reporting past-year or lifetime use, in 2010–2011, sizable shares of adolescent females reported lifetime illicit drug use: 44 percent of American Indians or Alaska Natives (non-Hispanic), 35 percent of Native Hawaiians or Other Pacific Islanders (non-Hispanic), 27 percent of Hispanics, 27 percent of blacks (non-Hispanic), 24 percent of whites (non-Hispanic), and 14 percent of Asians (non-Hispanic).⁵⁹
- Among adolescent females ages 12 to 17 years in 2010–2011, Asian non-Hispanic females (3 percent) and black non-Hispanic females (5 percent) were less likely to report illicit drug abuse or dependence, or alcohol abuse or dependence, than were white non-Hispanic females (8 percent), Hispanic females (8 percent), Native Hawaiian or Other Pacific Islander non-Hispanic females (15 percent), and Native American or Alaska Native non-Hispanic females (16 percent).⁶⁰
- Some adolescent females of color use illicit substances before reaching adolescence. According to the 2011 NYRBS, 7 percent of Hispanic, 7 percent of black non-Hispanic, and 4 percent of white non-Hispanic female students in high school had tried marijuana for the first time before age 13 years.²⁹ Similar

Figure 27
 Females Ages 12–17 Who Reported Illicit Drug Abuse or Dependence, or Alcohol Abuse or Dependence, in the Past Year by Race/Ethnicity, 2010–2011



Source: National Survey on Drug Use and Health. 2-year R-DAS (2002 to 2003, 2004 to 2005, 2006 to 2007, 2008 to 2009, and 2010 to 2011). Analysis was run on May 16, 2013 (04:30 PM EDT), using SDA 3.5: Tables (Adolescents of color and illicit drug abuse or dependence, or alcohol abuse or dependence). Generated at <http://www.icpsr.umich.edu/icpsrweb/SAMHDA>

Figure 28
 Female High School Students Who Initiated Drug-Related Behaviors Before Age 13 by Race and Hispanic Origin, 2011

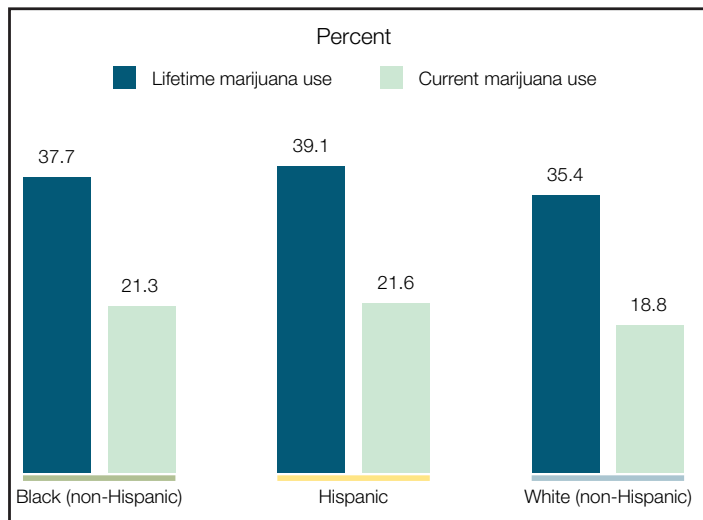


Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

proportions of Hispanic (9 percent), white non-Hispanic (8 percent), and black non-Hispanic (7 percent) female students also reported smoking a whole cigarette before age 13.²⁹ When compared with use of marijuana and smoking a cigarette, however, larger proportions of female students of all three groups reported drinking alcohol before age 13 years: 23 percent of Hispanics, 19 percent of blacks (non-Hispanic), and 15 percent of whites (non-Hispanic).²⁹

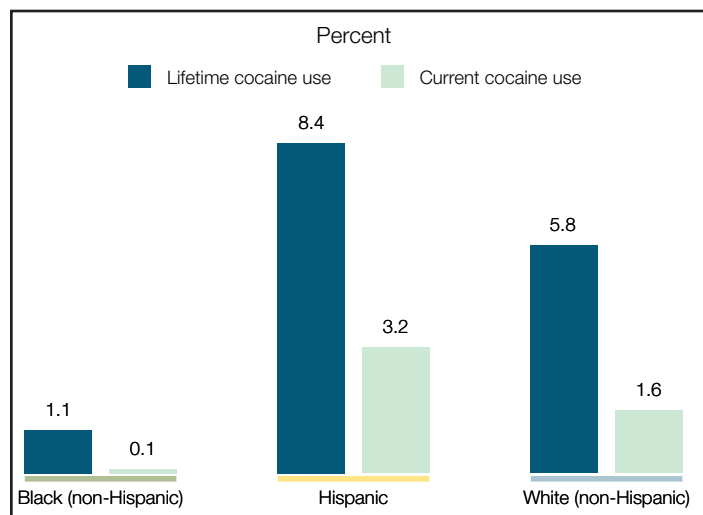
- In the 2011 NYRBS, more than a third of female high school students reported having used marijuana at least once in their lifetimes, and about a fifth were users of marijuana at the time of the survey. Specifically, 39 percent of Hispanic, 38 percent of black non-Hispanic, and 35 percent of white non-Hispanic female students had ever used marijuana in their lifetimes. Around a fifth of female students—22 percent of Hispanic, 21 percent of black non-Hispanic, and 19 percent of white non-Hispanic female students—were current marijuana users.²⁹
- Among female high school students in 2011, Hispanics were the most likely to report having ever used cocaine (8 percent) and to be current cocaine users (3 percent). Nearly 6 percent of white non-Hispanics had used cocaine, and close to 2 percent were current users. Black non-Hispanic female high school students were the least likely to have ever used cocaine (1 percent) and to use it currently (0.1 percent).²⁹
- In 2011, black non-Hispanic females in high school were less likely than their Hispanic and white non-Hispanic peers to have ever used ecstasy, methamphetamines, or hallucinogenic drugs. Black non-Hispanic students were also the least likely to have ever taken prescription drugs without a doctor’s prescription. Hispanic and white non-Hispanic female students were equally likely to have engaged in these behaviors.²⁹

Figure 29
Female High School Students Who Used Marijuana by Race/Ethnicity, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

Figure 30
Female High School Students Who Used Cocaine by Race/Ethnicity, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

- In 2011, Hispanic females in high school were more likely than either their black non-Hispanic or white non-Hispanic counterparts to have ever used inhalants or to have ever taken steroids without a doctor’s prescription.²⁹
- In 2011, only a small proportion of female high school students had ever used heroin—2.6 percent for Hispanics, 1.5 percent for whites non-Hispanic, and 1.1 percent for blacks non-Hispanic.²⁹
- The availability of drugs on school property has a disruptive and corrupting influence on the school environment, students, teachers, and administrators.⁴⁸ Nationwide, more than a quarter (26 percent) of high school students had been offered, sold, or given an illegal drug by someone on school property within a year before the 2011 NYRBS.²⁹
- The prevalence of having been offered, sold, or given an illegal drug on school property was higher among Hispanic females (31 percent) than among both white non-Hispanic females (19 percent) and black non-Hispanic females (17 percent).²⁹ In particular, 6 percent of Hispanic female high school students had used marijuana on school property, compared with 4 percent of their black non-Hispanic and 3 percent of their white non-Hispanic counterparts.²⁹

Drug-Related Morbidity and Mortality

- Drug-induced mortality includes deaths from poisoning and medical conditions caused by dependent and nondependent use of legal or illegal drugs and of medically prescribed and other drugs. Deaths resulting from unintentional injuries, homicides, and other causes indirectly related to drug use—as well as newborn deaths due to the mother’s drug use—are not included in reported rates of drug-induced mortality.⁴
- In 2009, the age-adjusted male death rate from drug-induced causes (15.6 per 100,000) was more than 1.5 times the

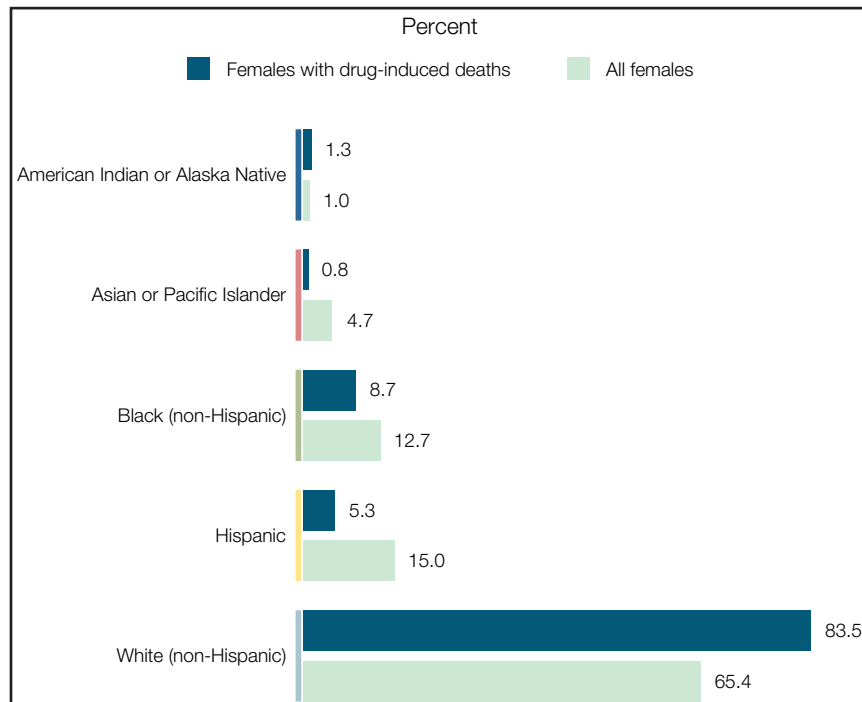
female rate (9.6 per 100,000). Among females, American Indians or Alaska Natives (12.4 per 100,000) and whites (non-Hispanic) (12.0 per 100,000) had the highest death rates, followed by blacks (non-Hispanic) (6.5 per 100,000), Hispanics (3.9 per 100,000), and Asians or Pacific Islanders (1.5 per 100,000).⁴

- Age-specific drug-related death rates were higher among AI/AN females residing in IHS areas (in 2002–2004) than among white females (in 2003) for all age groups except 65 to 74 and 75 to 84 years. For example, the rate for AI/AN females ages 35 to 44 years was 28.0 per 100,000, compared with 15.6 per 100,000 white females. However, the rate for AI/AN females ages 75 to 84 years was 3.6 per 100,000, compared with 4.0 per 100,000 white females. (The AI/AN rates have been adjusted to

compensate for misreporting of AI/AN race on state death certificates.¹⁶)

- Although white non-Hispanic females were 65 percent of the female population in 2009, they accounted for 84 percent of the drug-induced deaths in that year. The remaining 16 percent of drug-induced deaths occurred among black non-Hispanic (9 percent), Hispanic (5 percent), Asian or Pacific Islander (0.8 percent), and American Indian or Alaska Native (1.3 percent) females.⁴
- Drug poisoning deaths may occur in many ways—from accidental or intentional overdoses of a drug, being given the wrong drug, taking the wrong drug in error, taking a drug inadvertently, or from other misuses of drugs. Among females in 2009, American Indians or Alaska Natives (12 per 100,000) and whites (non-

Figure 31
Distribution of Deaths by Race/Ethnicity Among All Females and Females Who Died of Drug-Induced Causes, 2009



Sources: Kochanek, K. D., Xu, J., Murphy, S. L., Minino, A. M., & Kung, H. C. (2011, December 29). Deaths: Final data for 2009. *National Vital Statistics Report*, 60(3), 69–80. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf; U.S. Department of Commerce, Bureau of the Census, Population Division. (2009). Table 3: Annual estimates of the resident population by sex, race, and Hispanic origin for the United States: April 1, 2000 to July 1, 2009 (NC-EST2009-03). Retrieved from http://www.census.gov/popest/data/historical/2000s/vintage_2009/index.html

Hispanic)—both at 12 per 100,000—reported the highest age-adjusted death rates for drug poisoning from all sources. These peak rates were followed by those of black (6 per 100,000), Hispanic (4 per 100,000), and Asian or Pacific Islander (1 per 100,000) females.²

- American Indian or Alaska Native (6 per 100,000) and white (non-Hispanic) (5 per 100,000) females also had the highest age-adjusted death rates from drug poisoning involving opioid analgesics. (Opioid analgesics, also known as narcotic analgesics, are compounds such as codeine, acetaminophen, morphine, and oxycodone that relieve pain without causing the loss of consciousness by acting on the central nervous system.) Lower rates of poisoning are reported by black (2 per 100,000), Hispanic (1 per 100,000), and Asian or Pacific Islander (0.4 per 100,000) females.²
- Age-adjusted death rates from drug poisoning increased among females of all major racial and ethnic groups during the 1999–2009 period. Rates among white non-Hispanic and American Indian or Alaska Native females increased the most—from 4.3 per 100,000 to 11.5 per 100,000 among whites (non-Hispanic) and from

4.6 per 100,000 to 11.5 per 100,000 among American Indians or Alaska Natives.²

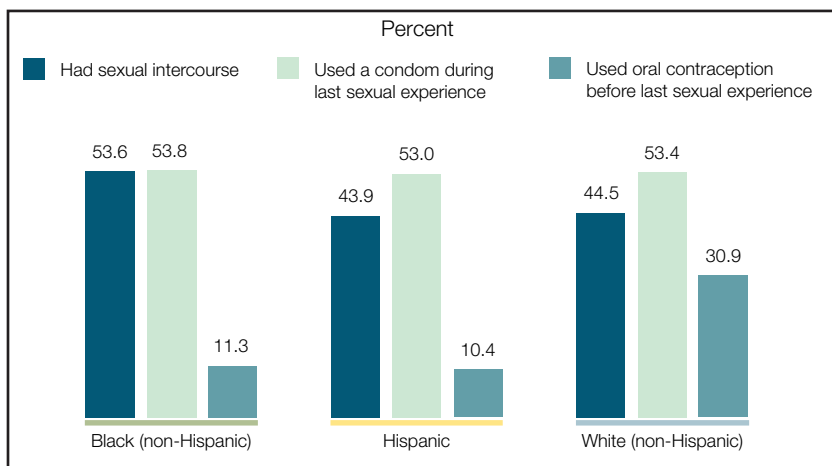
Sexual Behavior: Adolescent Females

- Among female high school students (Grades 9–12) surveyed in the 2011 NYRBS, nearly half (46 percent) had ever had sexual intercourse. Black non-Hispanic female students (54 percent) were more likely than either white non-Hispanic (45 percent) or Hispanic (44 percent) female students to report having ever had sexual intercourse.²⁹
- Nationwide, 7 percent of black non-Hispanic females in high school had had sexual intercourse for the first time before age 13 years, higher than the proportions among their Hispanic (3 percent) and white non-Hispanic (3 percent) counterparts.²⁹
- Black non-Hispanic females in high school (18 percent) were more likely than their white non-Hispanic (13 percent) and Hispanic (9 percent) counterparts to have had sexual intercourse with four or more people during their lifetimes.²⁹
- More than a third of female high school students were sexually active at the time of the survey. The prevalence of being currently

sexually active was higher among black non-Hispanic females (37 percent) and white non-Hispanic females (35 percent) than among Hispanic females (32 percent).²⁹

- Among currently sexually active female high school students, blacks (non-Hispanic) (54 percent), whites (non-Hispanic) (53 percent), and Hispanics (53 percent) were equally likely to report that either they or their partner had used a condom during last sexual intercourse.²⁹ The proportion who used birth control pills (oral contraception) to prevent pregnancy before their last sexual intercourse,

Figure 32
Sexual Behavior of Female High School Students by Race/Ethnicity, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

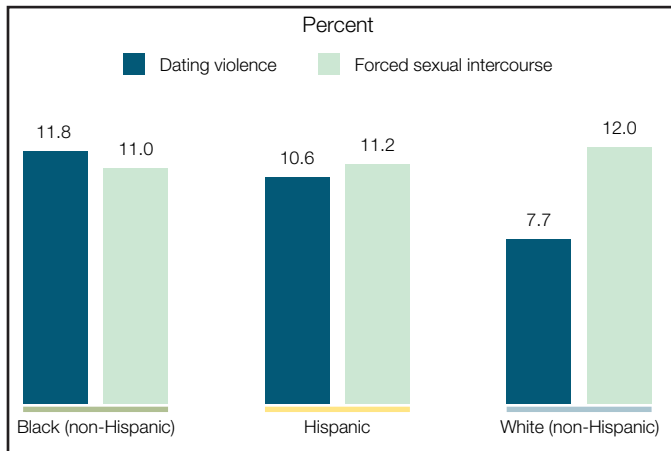
however, was much higher among whites (non-Hispanic) (31 percent) than among blacks (non-Hispanic) (11 percent) and Hispanics (10 percent).²⁹

- Overall, the prevalence of not having used any method to prevent pregnancy was higher among Hispanic (23 percent) and black non-Hispanic (18 percent) females in high school than among their white non-Hispanic (12 percent) counterparts.²⁹
- The prevalence of having drunk alcohol or used drugs before last sexual intercourse was about the same for white non-Hispanic (19 percent), Hispanic (17 percent), and black non-Hispanic (17 percent) female high school students.²⁹
- Although a large majority of female high school students (84 percent) reported that they had been taught in school about AIDS or HIV infection, Hispanics (77 percent) were less likely to report this than either blacks (non-Hispanic) (88 percent) or whites (non-Hispanic) (85 percent).²⁹ Black non-Hispanic female students (24 percent) also were more likely than their Hispanic (14 percent) and white non-Hispanic (13 percent) counterparts to have been tested for HIV infection.²⁹

Physical and Sexual Assault/Abuse

- Physical and sexual abuse comes in many forms. Physical abuse includes (but is not limited to) hitting, slapping, shoving, grabbing, pinching, biting, and hair pulling.⁶¹
- Sexual assault is any type of sexual contact or behavior that occurs without the explicit consent of the recipient. For example, forced sexual intercourse, forcible sodomy, child molestation, incest, fondling, and attempted rape all are forms of sexual assault. Sexual abuse includes, but is certainly not limited to, marital rape, attacks on sexual parts of the body, forcing sex after physical violence has occurred, or treating one in a sexually demeaning manner.⁶¹
- Violence against women frequently takes place within intimate relationships, often in the form of rape, physical violence, and/or stalking. More than two in five black non-Hispanic women and American Indian or Alaska Native women (43.7 percent and 46.0 percent, respectively) have been victims of rape, physical violence, and/or stalking by an intimate partner in their lifetime.⁶²
- Women of other racial and ethnic groups are somewhat less likely to report having been the victim of rape, physical violence, and/or stalking by an intimate partner in their lifetime. Around a third of both Hispanic women (37.1 percent) and white non-Hispanic women (34.6 percent) and about a fifth of Asian or Pacific Islander non-Hispanic women (19.6 percent) also report intimate partner violence.⁶²
- In 2010, more than one in four (26.9 percent) American Indian or Alaska Native women reported rape victimization in their lifetime. Approximately one in five black non-Hispanic women (22.0 percent) and white non-Hispanic women (18.8 percent) also reported having experienced rape, as did one in seven Hispanic women (14.6 percent).⁶²
- Sexual violence other than rape is reported by nearly half of both white non-Hispanic (47.6 percent) women and American Indian or Alaska Native (49.0 percent) women and by two in five black non-Hispanic (41.0 percent) women. Hispanic women (36.1 percent) and Asian or Pacific Islander women (29.5 percent) were the least likely to report sexual violence other than rape.⁶²
- Among female high school students (Grades 9–12) surveyed in 2011, nearly one in eight blacks (non-Hispanic) (12 percent) and Hispanics (11 percent) reported dating violence—that is, having been hit, slapped, or physically hurt on purpose by their boyfriends. These figures are in contrast to the 8 percent of white non-Hispanic female high school students who reported the same.²⁹ However, similar proportions of these three groups of female high school students reported forced sexual intercourse—12 percent of whites (non-Hispanic), 11 percent of Hispanics, and 11 percent of blacks (non-Hispanic).²⁹
- In a study of Mexican American college women ages 18 to 35 years, intimate partner violence was reported by sizable percentages. Nearly one

Figure 33
Female High School Students Reporting Dating Violence and Forced Sexual Intercourse by Race/Ethnicity, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

in eight women (12 percent) who reported a dating partner in the past year also reported being physically or sexually assaulted or stalked. Among those experiencing intimate partner violence, nearly 9 in 10 women reported psychological abuse. Very few of these college students (25 percent) who experienced physical violence, however, believed violence was a problem in their relationship.⁶³

Preventive Health Care Services

Preventive Health Measures

- Preventive health care, including counseling, education, and screening, can help avoid or minimize the effects of many serious health conditions.⁶⁴ In 2010, nearly three in four women (72.3 percent) reported receiving a routine checkup or general physical examination that was not for a specific injury, illness, or condition. Similar preventive behavior was reported by more than three in five men (63.4 percent).⁶⁵
- Women of color often do not avail themselves of preventive health tests such as Pap smears and mammograms, the recommended screening and diagnostic tools for cervical cancer and

breast cancer, respectively. For all women, having health insurance, having a usual source of health care, and having a high school education are associated with higher screening rates. The likelihood of getting these preventive tests, however, declines with age.³⁷

Mammography Screening

- A mammogram is an X-ray image of the breast used to detect irregularities in breast tissue.² Recommendations for age of initiation and frequency of receipt of mammograms vary with an individual's risk factors (such as family history). For women at average risk, the U.S. Preventive Services Task Force recommends mammography screening every 2 years between ages 50 and 74 years, and the American Cancer Society recommends annual screening starting at age 40 years.²
- In 2010, 67 percent (age-adjusted) of all women age 40 years and older reported having a mammogram within the past 2 years. American Indian or Alaska Native women (71 percent) were the most likely to report having mammograms within the past 2 years, followed by white non-Hispanic women (68 percent), black non-Hispanic women (67 percent), Hispanic women (64 percent), and Asian women (62 percent).²
- In 2010, among black non-Hispanic women, those ages 50 to 64 years (74 percent) were more likely to report mammography screening within the past 2 years than either those ages 40 to 49 years (64 percent) or seniors 65 years and older (61 percent). A similar pattern was evident among white non-Hispanic women. Hispanic women ages 50 to 64 years (69 percent) were more likely than those ages 40 to 49 years (60 percent)—but comparably likely as seniors (65 percent)—to report mammography screening.²
- Between 1990 and 2010, the percentage of women of all major racial and ethnic groups who reported mammography screening within the past 2 years increased. For example, among American Indian or Alaska Native

women, the rate increased from 43 percent in 1990 to 71 percent in 2010. Among Asian women, the rate of mammography screening increased from 46 percent in 1990 to 62 percent in 2010.²

- Among women age 40 years and older in Hawaii (2010), Japanese women (80 percent) were more likely to report mammography screening within the past 2 years than were Filipina women (75 percent), Native Hawaiian women (73 percent), and white women (73 percent). Japanese women (62 percent) were also the most likely to report mammography screening within the past 2 years among women age 18 years and older in Hawaii (2010), followed by white women (54 percent). Native Hawaiian (45 percent) and Filipina (44 percent) women were the least likely to report this screening.⁶⁶
- Among women ages 40 years and older in California (2005), African Americans (81 percent) and whites (80 percent) were more likely to have had a mammogram in the past 2 years than Asians (75 percent), Latinas (74 percent), and American Indians or Alaska Natives (72 percent). Among Latinas, Mexicans (75 percent), Central Americans (71 percent), and other Latinas (71 percent) reported comparable rates of mammography screening. Among Asian women, Koreans (58 percent) were the least likely to have had a mammogram in the past 2 years, and Japanese (81 percent) were the most likely. Comparable rates of mammography screening were reported by Filipinas (77 percent) and Chinese women (76 percent). The rates among South Asians (78 percent) and Vietnamese (72 percent) also were comparable.⁶⁷
- Among Hispanic women in California (2007), women ages 40 to 49, 50 to 59, and 60 to 69 years were more likely to report mammography screening within the past 2 years than were women age 70 and older. Hispanic women who reported few physician visits (one to two visits in the past year) and no physician recommendation for mammograms were less likely to report having received a mammogram. In addition, women born in Mexico were less likely to report having been screened for breast cancer with mammography than were Central and South American women.⁶⁸
- Among Asian women in California (2001), several groups were less likely than others to have had a mammogram in the past 2 years. The groups less likely to have had a mammogram include Chinese who were not U.S. citizens (or were citizens without a usual source of health care) and Filipinas with no health insurance. Koreans who had no women's health issues (osteoporosis, using menopausal hormone therapies, or hysterectomy) and who had public or no health insurance also were less likely to be screened, as were South Asians younger than age 50 years who were unemployed or were not U.S. citizens and Vietnamese who had never married.⁶⁹
- A study of Samoan, Tongan, Chamorro, Marshallese, and other Pacific Islander women living in Southern California between 2006 and 2008 found that 30 percent of these women had never had a mammogram, 40 percent had never had a clinical breast examination, and 50 percent did not know how to perform breast self-examination.⁷⁰

Pap Smears

- A Pap smear (formally the Papanicolaou smear or Pap test) is a microscopic examination of cells scraped from the cervix that is used to detect cancerous or precancerous conditions of the cervix or to detect other medical conditions.²
- In 2010, nearly three-fourths (74 percent, age adjusted) of women age 18 years and older reported having had a Pap smear within the past 3 years. Black non-Hispanic women (77 percent) were most likely to report this screening, followed by Hispanic women (74 percent), white non-Hispanic women (73 percent), and American Indian or Alaska Native women (73 percent). Asian women (68 percent) were least likely to report having had a Pap smear within the past 3 years.²
- Women who are seniors (65 years and older) are less likely than younger women to have a recent Pap smear, a pattern evident among

white non-Hispanic, black non-Hispanic, and Hispanic women. For example, 48 percent of black non-Hispanic seniors had a Pap smear within the past 3 years, much lower than their counterparts ages 45 to 64 years (78 percent) and ages 18 to 44 years (84 percent) (2010).²

- During the 2000–2010 period, reported receipt of Pap smears within the past 3 years decreased among white non-Hispanic (82 percent to 73 percent), black non-Hispanic (85 percent to 77 percent), Hispanic (77 percent to 74 percent), and American Indian or Alaska Native (77 percent to 73 percent) women. Among Asian women (66 percent to 68 percent), the rate of receipt of Pap smears was unchanged.²
- Among Asian women age 18 years and older living in Hawaii (2010), large majorities reported having received Pap smear screening. Filipinas were the least likely to have ever had a Pap smear (83 percent) and the least likely to have had a Pap smear within the past 3 years (72 percent). Among their white, Hawaiian, and Japanese counterparts, however, at least 94 percent reported ever having a Pap smear, and at least 79 percent reported having a Pap smear within the past 3 years.⁷¹
- Among women age 18 years and older in California (2005), American Indians or Alaska Natives (62 percent) and Asians (67 percent) were less likely than whites (73 percent) and Latinas (74 percent) to report having had a Pap test in the past 3 years. The rate of Pap testing among African American women was 70 percent.⁶⁷
- Among Latinas in California (2005), Central Americans (77 percent), Mexicans (74 percent), and Latinas from other places of origin within the Hispanic diaspora (70 percent) were comparably likely to have ever had a Pap test.⁶⁷
- Among Asian women in California (2005), Filipinas (71 percent) were more likely than Koreans (57 percent) to report having had a Pap test in the past 3 years. The rates of testing among Vietnamese (64 percent), Chinese (67 percent), Japanese (67 percent), and South Asians (73 percent) were comparable.⁶⁷
- Higher rates of cervical cancer screening among Vietnamese women have been associ-

ated with current/previous marriage, having a usual source of care/doctor, and getting a previous physician's recommendation for the screening. Vietnamese-language media campaigns and lay health worker intervention programs also have been effective at increasing Pap smear use in Vietnamese American communities.⁷²

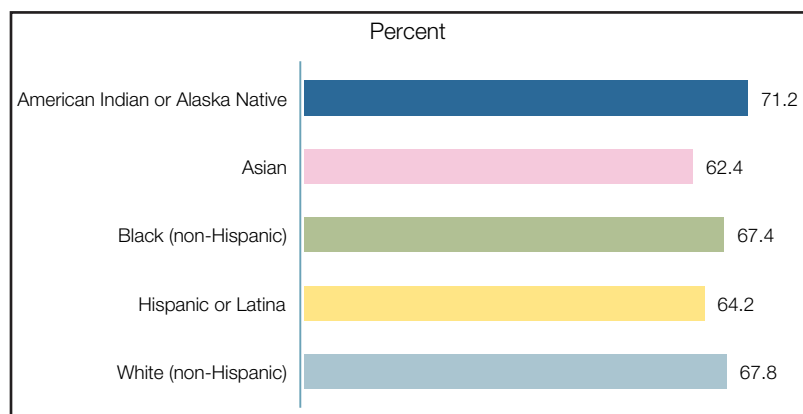
- A survey of Hmong women in Sacramento, California (2006), found that 74 percent of Hmong women had ever had a Pap test and that 61 percent had been tested in the past 3 years. These figures are notably less than the 91 percent and 86 percent, respectively, among California women who reported ever getting a Pap test or getting a Pap test in the past 3 years (2007). Among Hmong women who had never had a Pap test, 38 percent had never heard of a Pap test before, and 36 percent did not know that they needed it and/or had never thought about having one.⁷³

National Breast and Cervical Cancer Early Detection Program (NBCCEDP)

- The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) provides low-income, uninsured, and underserved women access to timely breast and cervical cancer screening and diagnostic services. In 2011, the program used mammography to screen 333,302 women for breast cancer and diagnosed 5,655 cases. The program also used the Pap test to screen 283,312 women for cervical cancer and diagnosed 4,695 cases of cervical cancer and high-grade precancerous lesions.⁷⁴
- Among underserved women who received Pap tests through the NBCCEDP in the 2006–2011 period, nearly half (46 percent) were white, 27 percent were Hispanic, 14 percent were black, 6 percent were Asian or Pacific Islander, 4 percent were American Indian or Alaska Native, and 0.5 percent were multiracial women.⁷⁵
- Among underserved women who received mammograms through the NBCCEDP in the 2006–2011 period, nearly half (47 percent) were white, 24 percent were Hispanic, 18 percent were black, 5 percent were Asian or

Figure 34

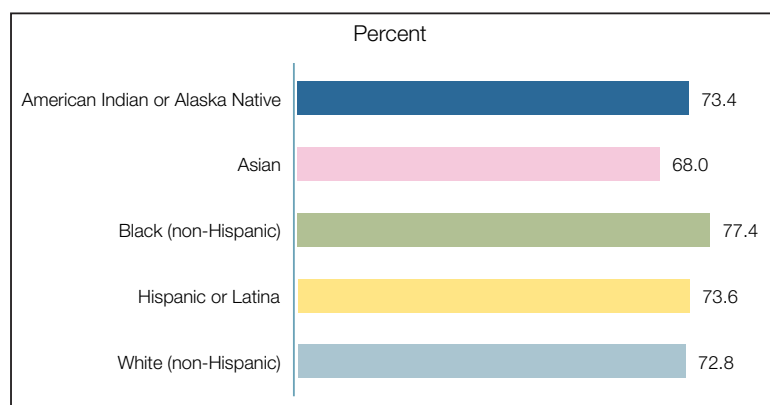
Women Age 40 and Older Who Reported Having a Mammogram in the Past 2 Years by Race/Ethnicity, 2010



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health (p. 295). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

Figure 35

Women Age 18 and Older Who Reported Having a Pap Test in the Past 3 Years by Race/Ethnicity, 2010



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health (pp. 298–302). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

Pacific Islander, 5 percent were American Indian or Alaska Native, and 0.7 percent were multiracial women.⁷⁵

- A study of cancer screening practices based on data from the 2001 and 2003 CHIS found that even though female breast cancer survivors were generally more likely than women without a cancer history to have been screened for some form of cancer, racial and ethnic differences

exist in the type of test received. For example, among breast cancer survivors, Hispanics reported the lowest screening rate for routine mammography (84 percent) but the highest screening rate for the Pap test (95 percent). White (59 percent) and Asian (61 percent) breast cancer survivors, however, reported more endoscopic examinations than did their counterparts. (An endoscopic examination is an examination of the interior of a canal or any large interior organ. One example is a colonoscopy, an endoscopic examination of the colon or large intestines.^{76,77})

Outpatient Health Care Visits

- Outpatient health care visits are visits made to a hospital, clinic, or associated facility for the receipt of medical, dental, or other services by patients who are not lodged in the hospital.²
- Women are more likely than men to report a recent office visit to a doctor or other health care professional (2010). Among adults 18 years and older, men (27 percent) were more likely than women (14 percent) to have not made an office visit to a doctor or other health care professional within the past 12 months.⁷⁸ In addition, men (59 percent) were less likely than

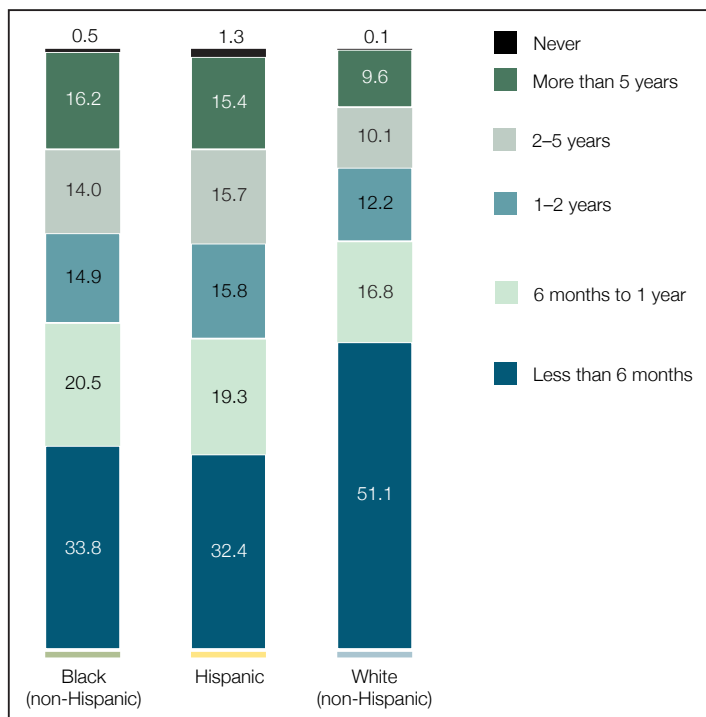
women (73 percent) to have last contacted a doctor or other health care professional within the previous 6 months.⁷⁸

- Among women, Hispanics were less likely than both whites and blacks to report a recent office visit to a doctor or other health care professional (2010). Hispanic females (21 percent) were more likely to have not made an office visit to a doctor or other health care professional within the past 12 months than were

black non-Hispanic females (15 percent) and white non-Hispanic females (12 percent).⁷⁸ Furthermore, Hispanic females (66 percent) were less likely to have last contacted a doctor or other health care professional within the previous 6 months than were black non-Hispanic females (74 percent) and white non-Hispanic females (76 percent).⁷⁸

- At the other extreme, white non-Hispanic females (19 percent) were more likely than both black non-Hispanic females (15 percent) and Hispanic females (14 percent) to have made more than 10 office visits within the past 12 months.⁷⁸
- Women are also more likely than men to report a recent contact with a dentist or other dental

Figure 36
Age-Adjusted Percent Distribution of Length of Time Since Last Contact With Dentist or Other Dental Health Professional Among Females 18 and Older by Race/Ethnicity, 2010



Source: Schiller, J. S., Lucas, J. W., Ward, B. W., & Peregoy, J. A. (2010). Summary health statistics for U.S. adults: National Health Interview Survey, 2010. *Vital Health Statistics, 10(252)*, 130–131. Retrieved from http://www.cdc.gov/nchs/data/series/sr_10/sr10_252.pdf

health professional (2010). Nearly half of women (46 percent)—but only 40 percent of men—had last contacted a dentist or other dental health professional within the previous 6 months.⁷⁸

- Furthermore, among women, white non-Hispanics are more likely than either black non-Hispanics or Hispanics to report a recent contact with a dentist or other dental health professional (2010). White non-Hispanic women (51 percent) were more likely to have last contacted a dentist or other dental health professional within the previous 6 months than were either black non-Hispanic (34 percent) or Hispanic (32 percent) females.⁷⁸
- Among adults in California (2009), Asian non-Hispanic women (87 percent) and Latina women (86 percent) are less likely to have visited a doctor within the past 12 months than are white non-Hispanic women (91 percent). (The shares of black non-Hispanic and American Indian or Alaska Native women who visited a doctor within the past 12 months are 90 percent and 86 percent, respectively, but neither of these percentages is significantly different from the rates reported by any other racial groups.⁷⁹) Among Hispanic women, Central Americans (91 percent) are more likely to report a recent visit to a doctor than are Mexican Americans (85 percent). (Data for other Hispanic groups are not reported because they are not reliable.⁸⁰) Asian women are comparably likely to have visited a doctor within the past 12 months—as reported by 88 percent of Chinese women, 85 percent of Vietnamese women, 84 percent of South Asian women, and 73 percent of Korean women.⁸¹
- During the 2009–2010 period, women age 20 years and older (70 percent) were more likely to have had their cholesterol checked within the past 5 years than were men (66 percent). Among women, 71 percent of whites (non-Hispanic) had been screened, compared with 63 percent of Hispanics and 70 percent of blacks (non-Hispanic).⁸²

Prenatal Care

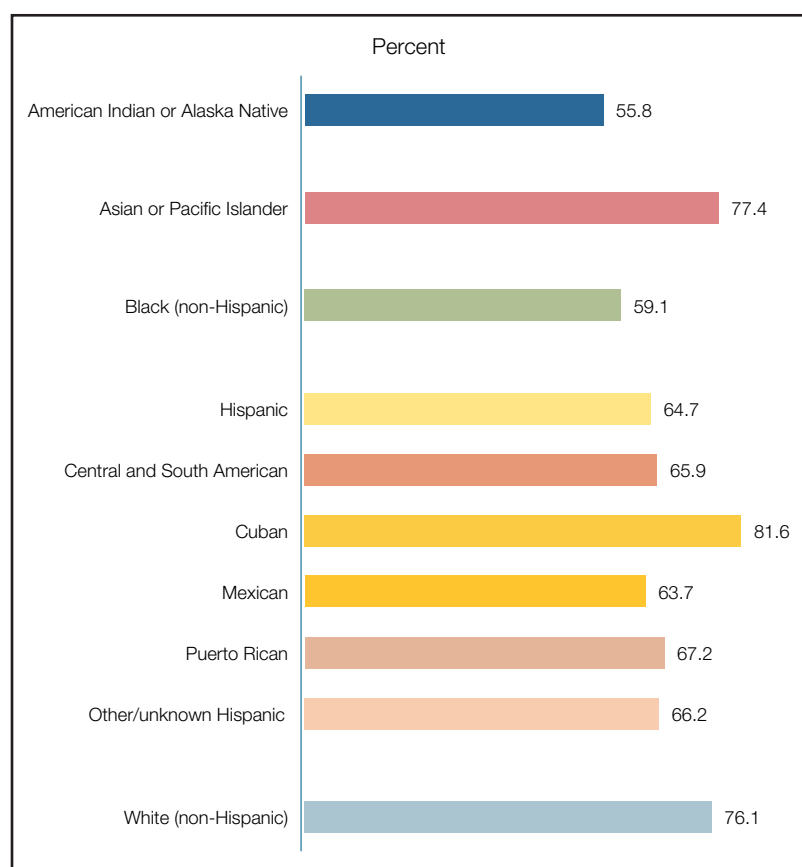
- Early identification of maternal disease and risks for complications of pregnancy or birth are the primary reasons to begin prenatal care in the first trimester (i.e., the first third of a pregnancy, a period of approximately 3 months). This can help ensure that women with complex problems and women with chronic illness or other risks are seen by specialists if required.²⁸
- Asian or Pacific Islander (77 percent) and white non-Hispanic (76 percent) mothers-to-be were more likely to begin prenatal care during the first trimester than their Hispanic (65 percent), black non-Hispanic (59 percent), and American

Indian or Alaska Native (56 percent) counterparts.²

- Although starting prenatal care as early as possible during a pregnancy is believed to foster the most healthful birth outcomes for both mothers and infants, sizable proportions of mothers-to-be of color do not initiate prenatal care during the first trimester. In 2008, more than two in five American Indian or Alaska Native mothers-to-be (44 percent) and black non-Hispanic mothers-to-be (41 percent)—along with 35 percent of Hispanic mothers-to-be—did not start prenatal care in the first trimester.²
- As might be expected, the racial and ethnic groups least likely to initiate prenatal care during the first trimester are also the most

Figure 37

Mothers Who Initiated Prenatal Care During the First Trimester by Race/Ethnicity, 2008



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health (p. 80). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

likely to report getting no prenatal care or starting it during the third trimester. In 2008, 12 percent of American Indian or Alaska Native, 12 percent of black non-Hispanic, and 9 percent of Hispanic mothers-to-be reported getting no prenatal care or starting care in their third trimester. These figures are in contrast to the 5 percent of Asian or Pacific Islander and 5 percent of white non-Hispanic mothers-to-be who reported starting care late or not at all.²

- Among Hispanic mothers-to-be, Cubans (3 percent) were the least likely to get no prenatal care or start care during the third trimester. The majority of Cuban mothers-to-be who initiate prenatal care during the first trimester (82 percent) is also considerably larger than that among other Hispanic mothers-to-be: Puerto Ricans (67 percent), other and unknown Hispanic origin (66 percent), Central and South Americans (66 percent), and Mexicans (64 percent).²
- Among Hispanic mothers-to-be, Cubans (3 percent) also were less

likely to get no prenatal care or to start care during the third trimester than were other Hispanic subgroups: Puerto Ricans (7 percent), other and unknown Hispanics (8 percent), Central and South Americans (9 percent), and Mexicans (10 percent).²

- Among females with a recent live birth who lived in Hawaii in 2009, Native Hawaiians (80 percent), Japanese (83 percent), and Filipinas (84 percent) were equally likely to have received prenatal care beginning in the first trimester. Caucasiansⁱ (90 percent) were more likely than Native Hawaiians to have received prenatal care in the first trimester.²⁴
- Among females with a recent live birth who lived in Hawaii during the 2004–2008 period, Japanese (90 percent), Chinese (88 percent), and white (88 percent) females were more likely to report having initiated first-trimester prenatal care than were Samoan (68 percent) and Native Hawaiian (79 percent) females.²⁸
- For 67 percent of the live births to American Indian or Alaska Native females living in the IHS service areas during the 1999–2001 period, prenatal care was begun in the first trimester. This figure was 16 percentage points lower, however, than the corresponding share of births to females of all races in the U.S. population (83 percent) in 2000. The percentages varied among IHS service areas, ranging from 58 percent for Albuquerque to 79 percent for Nashville.⁵

Substance Use During Pregnancy

Illicit Drug Use

- The use of illicit drugs during pregnancy can have significant impacts on the developing fetus, resulting in birth defects and developmental delays. Women who use drugs often have other conditions and factors that may place their infants and families at increased risk for poor outcomes. In general, illicit drug use is often underreported due to concerns about societal stigma, and this underreporting

is likely to be greater among women when they are pregnant.²⁸

- Pregnant females are less likely than non-pregnant females to use illicit drugs. In the 2010–2011 period, 5 percent of pregnant females ages 15 to 44 years reported that they currently used illicit drugs, less than the 11 percent of their counterparts who were not pregnant.⁵²
- Among pregnant females ages 18 to 44 years in the 2004–2008 period, Hispanics reported lower rates of past-month illicit drug use (2.5 percent) than the national average for pregnant females (4.0 percent).⁴¹
- Reported rates of current illicit drug use during pregnancy differ considerably by age, with older mothers-to-be less likely to report usage than younger ones. About 21 percent of pregnant females ages 15 to 17 years reported currently using illicit drugs in the 2010–2011 period, compared with 8 percent of pregnant females ages 18 to 25 years and 2 percent of pregnant females ages 26 to 44 years.⁵²
- Among mothers in Hawaii interviewed 2 months after childbirth, blacks (7 percent) and Native Hawaiians (4 percent) reported the highest rates of drug use during pregnancy (2004–2008 period). White (3 percent), Korean (2 percent), and Japanese (2 percent) mothers reported intermediate rates, and the remaining racial and ethnic groups in Hawaii reported rates of drug use during pregnancy of less than 2 percent.²⁸

Drinking

- Consumption of any amount of alcohol at any time during pregnancy is considered unsafe for the developing fetus. Binge drinking before pregnancy may overlap with the critical exposure period for birth defects (including those related to alcohol) during the first trimester. Binge drinking may also be related to having an unintended pregnancy, with its consequent impact on the mother, the family, and society.²⁸
- Among pregnant females ages 15 to 44 years in the 2010–2011 period, an estimated 9.4 percent reported current alcohol use, 2.6 percent reported binge drinking, and 0.4 percent

ⁱThe definition of “Caucasian” was not provided in the data source *Native Hawaiian Data Book 2011*. Thus, Caucasian women could be either white or white non-Hispanic.

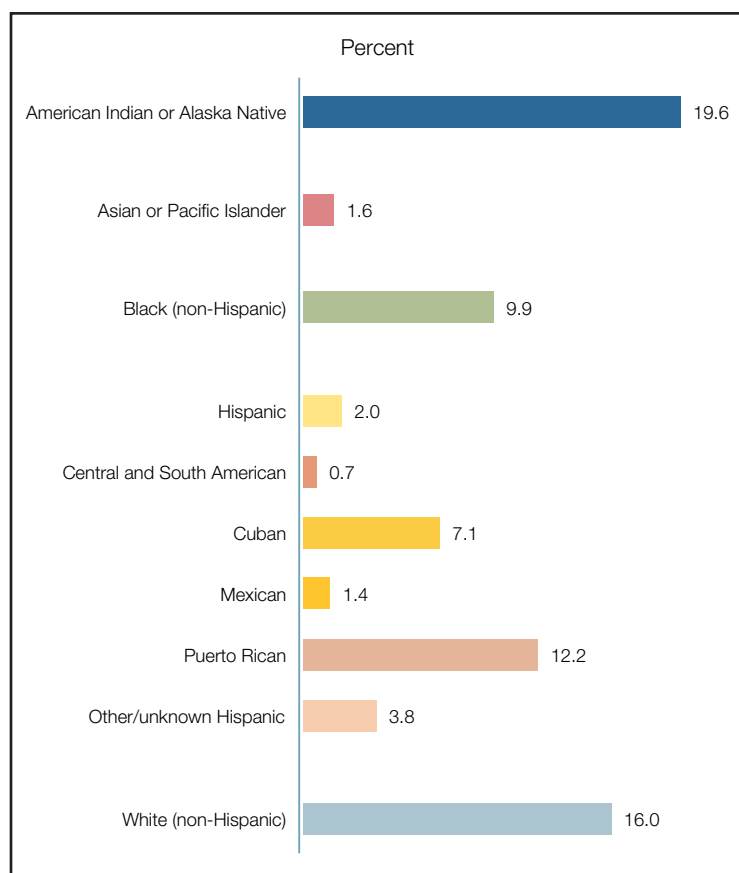
reported heavy drinking. (*Binge drinking* is defined as having five or more drinks on the same occasion on at least 1 day in the 30 days prior to the survey. Heavy drinking is defined as binge drinking on at least 5 days in the past 30 days.) Rates of alcohol consumption among pregnant females were markedly lower, however, than the corresponding rates for nonpregnant females in the same age group (55.1 percent reporting current alcohol use, 24.5 percent binge drinking, and 5.3 percent heavy drinking).⁵²

- Among pregnant females ages 18 to 44 years in the 2004–2008 period, Hispanics reported lower rates of past-month alcohol use than the national average among females of all racial and ethnic groups (6 percent versus 11 percent). The rate of

past-month binge alcohol use among Hispanic pregnant females (2.9 percent) did not differ significantly, however, from the national average for pregnant females (3.6 percent).⁴¹

- During the 1999–2001 period, 2.6 percent of the mothers of AI/AN newborns reported having consumed alcohol during pregnancy (as reported on the state birth certificate)—a rate triple that for mothers in the U.S. general population (0.9 percent) in 2000. The rate in the IHS Alaska service area (6.0 percent) was more than double the 2.6 percent rate for all the IHS areas combined. In the majority of the IHS areas, the rate of alcohol use during pregnancy was higher among mothers younger than age 18 years than among mothers ages 18 to 19 years.⁵

Figure 38
Mothers Who Smoked Cigarettes During Pregnancy
by Race/Ethnicity, 2008



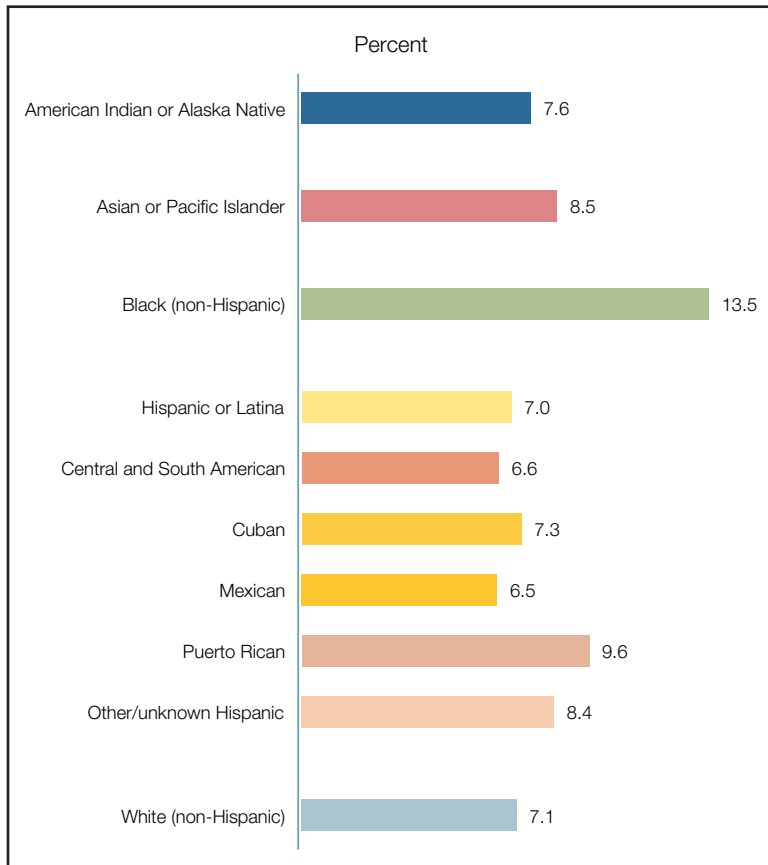
Source: National Center for Health Statistics. (2012). *Health, United States, 2011, with special feature on socioeconomic status and health* (p. 84). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

- Among mothers in Hawaii during the 2004–2008 period, between one in five and one in four Hawaiians (24 percent), whites (24 percent), and Samoans (21 percent) reported binge drinking in the 3 months prior to pregnancy. Koreans (19 percent) and Japanese (16 percent) reported intermediate rates of binge drinking, while blacks (13 percent), Filipinos (12 percent), and Chinese (8 percent) reported low rates of binge drinking in the 3 months prior to pregnancy.²⁸

Smoking

- Women who smoke during pregnancy put both themselves and their unborn babies at risk for serious health problems. The dangers of smoking during pregnancy include premature birth, certain birth defects, and infant death. Even being around cigarette smoke puts a woman and her baby at risk for health problems.⁸³
- During the 2010–2011 period, past-month cigarette smoking was less common among females ages 15 to 44 years who were pregnant (18 percent) than it was among their age peers who were not pregnant (25 percent). This pattern is also evident among females of selected age groups—for example, ages

Figure 39
 Low-Weight Infants as Percentage of All Live Births by
 Race/Ethnicity of Mothers (United States), 2010



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Table 9 (Web). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

18 to 25 years (22 percent versus 30 percent for pregnant and nonpregnant females, respectively) and ages 26 to 44 years (14 percent versus 26 percent for pregnant and nonpregnant females, respectively).⁵²

- American Indian or Alaska Native mothers are more likely to smoke cigarettes during pregnancy than mothers of any other racial or ethnic group. In 2008, one in five American Indian or Alaska Native mothers (20 percent) smoked cigarettes during pregnancy, compared with 16 percent of white non-Hispanic, 10 percent of black non-Hispanic, 2 percent of Hispanic, and 2 percent of Asian or Pacific Islander mothers.² Of all American Indian or Alaska Native infants with low birth weights during the 1999–2001 period, 25 percent were

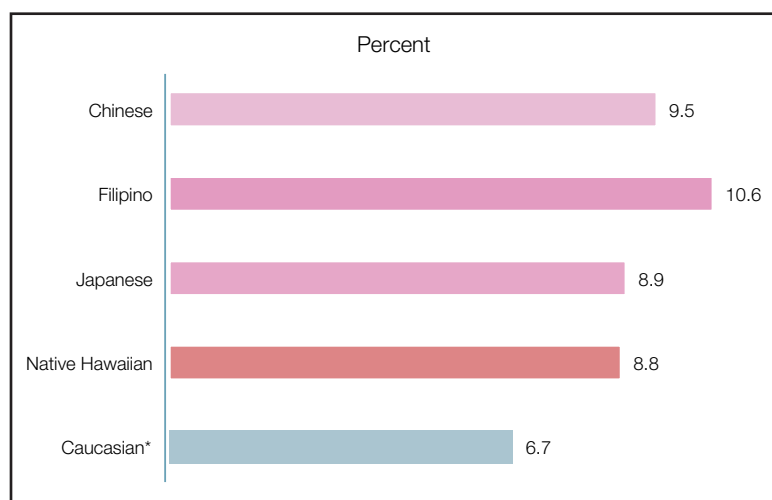
born to women who reported smoking during pregnancy.⁵

- Among Hispanic mothers (2008), Puerto Ricans (12 percent) were the most likely to smoke cigarettes during pregnancy, followed by Cubans (7 percent), mothers of other and unknown Hispanic origin (3.8 percent), Mexicans (1.4 percent), and Central and South Americans (0.7 percent).²
- Between 1998 and 2008, the rates of cigarette smoking during pregnancy did not change significantly among white (non-Hispanic), black (non-Hispanic), and American Indian or Alaska Native mothers. The rate among Asian or Pacific Islander mothers, however, declined from 3.1 percent to 1.6 percent. The rate among Hispanic mothers declined from 4.0 percent to 2.0 percent over this same period.^{2,84}
- The trends in the rate of cigarette smoking during pregnancy between 1998 and 2008 differed significantly among Hispanic subgroups. For some groups, the rate declined over the 10-year period—from 2.8 percent to 1.4 percent among Mexicans, from 1.5 percent to 0.7 percent among

Central and South Americans, and from 8.0 percent to 3.8 percent among other and unknown Hispanics. Rates for other groups increased—from 10.7 percent to 12.2 percent among Puerto Ricans and from 3.7 percent to 7.1 percent among Cubans.^{2,84}

- Among mothers in Hawaii during the 2004–2008 period, Samoans (16 percent) and Native Hawaiians (14 percent) reported the highest rates of smoking during the last 3 months of pregnancy. Japanese (7 percent), white (7 percent), Korean (7 percent), and black (5 percent) mothers reported intermediate rates of smoking during pregnancy, while Filipina (5 percent) and Chinese (2 percent) mothers reported the lowest rates.²⁸

Figure 40
Low-Weight Infants as Percentage of All Live Births by Race/Ethnicity of Mothers (Hawaii), 2009



*The definition of “Caucasian” was not provided in the data source *Native Hawaiian Data Book 2011*. Thus, “Caucasian” could be either white or white non-Hispanic.

Source: Office of Hawaiian Affairs. (2011). *Native Hawaiian Data Book 2011*. Live births by ethnicity of mother and selected characteristics in Hawai‘i: 2009, Table 7.01. Retrieved from http://www.ohadatabook.com/go_chap07.11.html

Birth Outcomes: Weight

- Infants with low birth weight (less than 2,500 grams) and very low birth weight (less than 1,500 grams) are at greater risk of morbidity and mortality than are infants whose birth weight is within a normal range.³⁷
- The incidence of low birth weight and very low birth weight among infants varies considerably by the race and Hispanic origin of their mothers. In 2010, infants born to black non-Hispanic mothers had the highest incidences of both low birth weight (14 percent) and very low birth weight (3 percent).²
- In the 2002–2004 period, 7 percent of all births to American Indian or Alaska Native mothers in IHS service areas were considered low birth weight. The share of low-weight births to these mothers, however, was lower than among the all-races population of the United States (8 percent in 2003).¹⁶
- Among mothers residing in Hawaii in 2009, Caucasiansⁱⁱ (7 percent) were the least likely to have low-birth-weight infants. Native Hawaiian (9 percent), Japanese (9 percent), Chinese (10 percent), and Filipino (11 percent) mothers in Hawaii were more likely to give birth to such infants.⁸⁵
- The incidence of low-birth-weight infants varies among Hispanic subgroups. In 2010, Puerto Rican mothers were the most likely to have low-birth-weight infants (10 percent), followed by mothers of other and unknown Hispanic origin (8 percent), Cuban (7 percent), Central and South American (7 percent), and Mexican (7 percent) mothers.²
- In 2010, black non-Hispanic mothers reported that 3 percent of their infants had very low birth weight (less than 1,500 grams). Less than 2 percent of mothers of all other racial and ethnic groups reported a very low-birth-weight infant.²
- Very low-birth-weight infants—those at the greatest risk of adverse outcomes—were two and one-half times as likely to be born to black (non-Hispanic) mothers (3 percent) as to be born to white (non-Hispanic) and Hispanic mothers (both at 1.2 percent).⁸⁶
- During the 1990–2006 period, low-birth-weight rates rose for each group: up 30 percent for white (non-Hispanic) infants from 5.6 percent to 7.3 percent, 15 percent for Hispanic infants from 6.1 percent to 7.0 percent, and 5 percent for black (non-Hispanic) infants from 13.3 percent to 14.0 percent.⁸⁶ Between 2006 and 2010, the rate declined between 2 percent and 3 percent among white (non-Hispanic) (from 7.3 percent to 7.1 percent) and declined by nearly

ⁱⁱThe definition of “Caucasian” was not provided in the data source *Native Hawaiian Data Book 2011*. Thus, Caucasian women could be either white or white non-Hispanic.

4 percent among black (non-Hispanic) (from 14.0 percent to 13.5 percent) infants. Rates for Hispanic infants were essentially unchanged at 7 percent during that period.⁸⁶

Age of Mother

- Low-birth-weight infants are more likely to have mothers ages 45 to 54 years and younger than 15 years. In 2010, among mothers ages 45 to 54 years, 26 percent of blacks (non-Hispanic) gave birth to low-birth-weight infants, as did 21 percent of whites (non-Hispanic) and 18 percent of Hispanics. Among mothers younger than 15 years, 17 percent of blacks (non-Hispanic) gave birth to low-birth-weight infants, as did 9 percent of Hispanics and 9 percent of whites (non-Hispanic).⁸⁶
- AI/AN mothers younger than 25 years in the 2002–2004 period were less likely than their white counterparts (in 2003) to have low-birth-weight infants. However, AI/AN mothers age 25 years and older were more likely than their white counterparts to have low-birth-weight infants. For example, 8 percent of AI/AN mothers younger than age 15 years had low-birth-weight infants, compared with 10 percent of their white counterparts. A larger share (9 percent) of AI/AN mothers ages 35 to 39 years had low-birth-weight infants, however, than did white mothers in this same age group (8 percent).¹⁶

Education of Mother

- Among white (non-Hispanic), black (non-Hispanic), and American Indian or Alaska Native females who were at least age 20 years and who gave birth in 2008, those with higher educational attainment were less likely to give birth to infants with low birth weight. In contrast, though, the counterpart Hispanic and Asian or Pacific Islander mothers with no high school diploma or GED were the least likely to give birth to infants with low birth weight.⁸⁶
- Among Hispanic subgroups, the patterns also varied. Mothers with no high school diploma or GED who were Puerto Rican or of other and unknown Hispanic origin were more

likely to have low-birth-weight infants than their counterparts with higher educational attainment. Mothers with no high school diploma or GED who were Central or South American, Cuban, or Mexican, however, were less likely to have low-birth-weight infants than their more highly educated counterparts.⁸⁶

Place of Residence

- Low-birth-weight rates also vary by place of residence. In 2010, black non-Hispanic mothers living in Mississippi were the most likely mothers in the United States to give birth to low-birth-weight infants. One in six (17 percent) infants born to these mothers had low birth weight. Low-birth-weight infants who were white non-Hispanic (13 percent) and Hispanic (13 percent), however, were most likely born to mothers in Puerto Rico.⁸⁶
- In the 2006–2008 period, the highest low-birth-weight rate for white non-Hispanic infants was reported in West Virginia (9 percent), while the highest rate for black non-Hispanic infants was reported in Mississippi (16 percent). At that time, the highest low-birth-weight rate for Hispanic infants was reported in Rhode Island (13 percent), and the highest for Asian or Pacific Islander infants was in Wyoming (12 percent).⁸⁶
- The AI/AN population experiences the birth of a greater percentage of infants with high birth weight than does the U.S. population of all races. High birth weight may be a complication of pregnancies among women with diabetes. In the 2002–2004 period, 11 percent of all babies born in IHS areas had a high birth weight (4,000 grams or more), compared with 9 percent of the babies of all races born in the United States in 2003. The percentage of high-birth-weight infants born to AI/AN mothers younger than age 15 years (7 percent) is more than double the rate among infants born to mothers younger than age 15 years of all races in the United States overall (3 percent).¹⁶ In the 1999–2001 period, the high-birth-weight rates among infants

born to AI/AN women varied considerably by IHS area, ranging from 7 percent in Albuquerque to 19 percent in Alaska.¹⁶

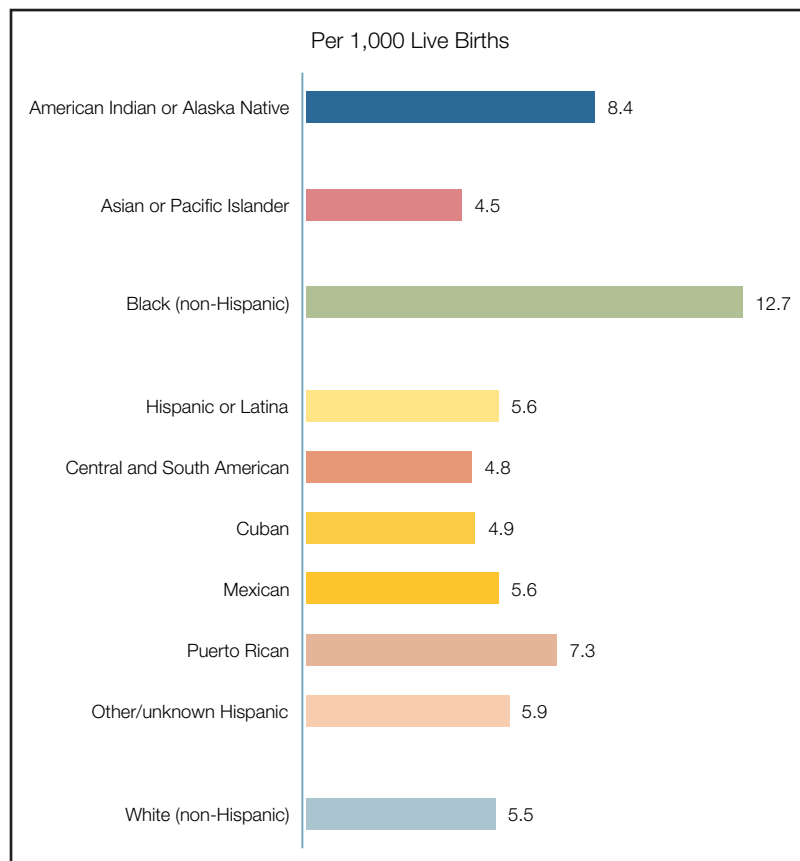
Birth Outcomes: Infant and Maternal Mortality

- Infant mortality is defined as the death of a baby before his or her first birthday. The infant mortality rate is an estimate of the number of infant deaths for every 1,000 live births and is often used as an indicator of the health and well-being of a population. Notable differences in infant mortality exist by race and ethnicity.⁸⁷
- Among mothers of all major racial and ethnic groups in 2008, blacks (non-Hispanic) had the highest infant mortality rate (12.7 deaths per 1,000 live births).² The mortality rate among black non-Hispanic

infants is more than twice that among white non-Hispanic infants (5.5 deaths per 1,000 live births).⁸⁷

- Infants born to American Indian or Alaska Native mothers had the second highest mortality rate (8.4 deaths per 1,000 live births), followed by infants born to mothers who were Hispanic (5.6 deaths per 1,000 live births), white non-Hispanic (5.5 deaths per 1,000 live births), and Asian or Pacific Islander (4.5 deaths per 1,000 live births) (2008).²
- The infant mortality rate for AI/AN women residing in IHS areas dropped from 25.0 deaths per 1,000 live births in the 1972–1974 period to 8.3 deaths per 1,000 live births in 2002–2004, a decrease of 67 percent. The 2002–2004 rate (8.3 deaths per 1,000 live

Figure 41
 Infant Mortality Rates by Race of Mothers, 2008



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Table 15 (Web). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

- births) was 20 percent higher than the U.S. all-races rate (6.9 deaths per 1,000 live births) for 2003, however.¹⁶ The infant mortality rate varied considerably among the IHS areas, ranging from 6.8 deaths per 1,000 live births in Albuquerque to 13.4 deaths per 1,000 live births in Great Plains (formerly Aberdeen). (The AI/AN rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.⁵)
- Among infants born in Hawaii during the 2000–2009 period, Caucasians had the lowest infant mortality rate (3.3 deaths per 1,000 live births), and Native Hawaiians had the highest rate (7.1 deaths per 1,000 live births). Infants born to Filipina mothers (5.8 deaths per 1,000 live births) and Japanese mothers (6.4 deaths per 1,000 live births) had intermediate death rates.⁸⁸
- Among Hispanic subgroups, Puerto Rican mothers had the

highest infant mortality rate (7.3 deaths per 1,000 live births), followed by mothers who were of other and unknown Hispanic (5.9 deaths per 1,000 live births), Mexican (5.6 deaths per 1,000 live births), Cuban (4.9 deaths per 1,000 live births), and Central and South American origin (4.8 deaths per 1,000 live births).²

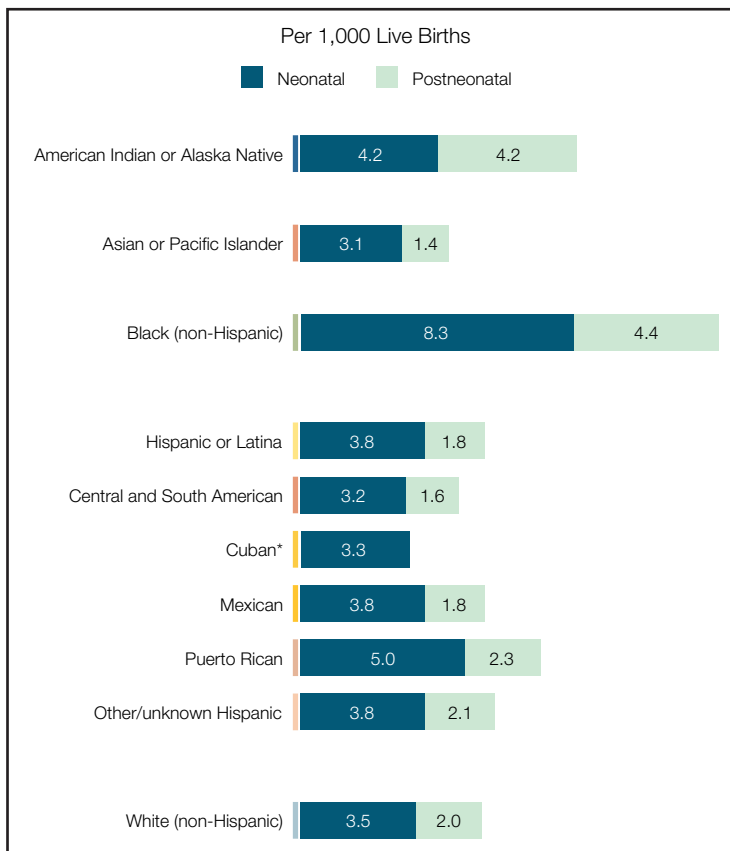
Neonatal and Postneonatal Mortality

- As was true of the overall infant mortality rate, the highest neonatal (occurring within the first 27 days of life) and the highest postneonatal (occurring days 28–365 after birth) mortality rates both were reported among infants born to black non-Hispanic mothers (2008).² Postneo-

natal deaths are often the result of accidents or exposure to environmental hazards.³⁷

- The neonatal mortality rate for infants born to black non-Hispanic mothers was 8.3 deaths per 1,000 live births, and their postneonatal mortality rate was 4.4 deaths per 1,000 live births (2008).² These rates were twice those for white non-Hispanic, Hispanic, and Asian or Pacific Islander infants and were higher than those for American Indian or Alaska Native infants.²
- Among infants born in 2008 to mothers of all racial and ethnic groups (except American Indian or Alaska Native), more deaths per 1,000 live births were neonatal than were postneonatal. (Neonatal deaths occur within the first 27 days of life, while postneonatal deaths occur in days 28–365 after birth.) Neonatal and postneonatal death rates were equal among American Indian or Alaska Native infants.²

Figure 42
Neonatal and Postneonatal Deaths by Race/Ethnicity of Mothers, 2008



*Postneonatal estimate for Cuban mothers is considered unreliable and thus is not shown.

Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Table 15 (Web). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

- The neonatal mortality rate for AI/AN infants in 2002–2004 was 4.5 deaths per 1,000 live births, 2 percent lower than the rate for infants of all races (4.6 deaths per 1,000 live births), and 15 percent higher than the white rate (3.9 deaths per 1,000 live births) for 2003.¹⁶
- American Indian or Alaska Native infants fared much worse in comparisons made during the postneonatal period. The postneonatal mortality rate for AI/AN infants (4.2 deaths per 1,000 live births) was nearly double and more than double, respectively, the rates for infants of all races (2.2 deaths per 1,000 live births) and white infants (1.8 deaths per 1,000 live births).¹⁶ In the 1999–2001 period, the Alaska area had the highest postneonatal mortality rate (6.9 deaths per 1,000 live births) among the IHS areas, followed by Great Plains (formerly Aberdeen) (6.8 deaths per 1,000 live births). (These rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.⁵)

- Alaska's postneonatal mortality rate of 3.4 deaths per 1,000 live births during 2006–2008 was 48 percent higher than the 2007 U.S. rate of 2.3 per 1,000 live births. Among American Indian or Alaska Native infants, the Alaska rate of 8.0 per 1,000 live births was 70 percent higher than the U.S. rate of 4.7 per 1,000 live births.⁸⁹

Pregnancy-Related and Maternal Mortality

- A pregnancy-related death is defined as the death of a woman during pregnancy or within 1 year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.⁹⁰
- The pregnancy-related mortality ratio was 15.1 deaths of pregnant or recently pregnant women per 100,000 live births for the 2006–2007 period in the United States. (Qualifying pregnancy-related deaths must occur within a year after pregnancy termination.) Racial disparities in pregnancy-related mortality are noteworthy. During the 2006–2007 period, pregnancy-related mortality ratios were 34.8 deaths of pregnant or recently pregnant black women per 100,000 live births to these women, 11.0 such deaths per 100,000 live births to white women, and 15.7 such deaths per 100,000 live births to women of all other races.⁹⁰
- The IHS collects data on maternal death, which refers to the death of a woman while pregnant or within 42 days of termination of a pregnancy, irrespective of the duration and the site of the pregnancy. A maternal death is one for which the certifying physician has designated a maternal condition as the underlying cause of death. The main distinction between the maternal mortality rate and the pregnancy-related mortality ratio is the length of time (42 days and 1 year, respectively) by which they are defined.¹⁶
- The maternal mortality rate for American Indian or Alaska Native mothers living in the IHS areas dropped from 28.5 deaths per 100,000 live births in the 1972–1974 period to 11.1 deaths per 100,000 live births in 2002–2004, a decrease of 61 percent. The AI/AN rate of 11.1 deaths per 100,000 live births in 2002–2004 was higher than the U.S. white rate of 8.7 such deaths per 100,000 live births in 2003, however. (These rates have been adjusted to compensate for misreporting of AI/AN race on state health certificates.¹⁶)

Health Insurance Coverage and Services

The Uninsured

- Uninsured individuals are less likely to get recommended care for disease prevention, such as cancer screening, dental care, counseling about diet and exercise, and flu vaccination. They are also less likely to get recommended care for disease management, such as diabetes care management.⁹¹
- There are several ways to measure the lack of health insurance coverage, most of which differ in the length of time for which a person is without coverage. As would be expected, these various measures yield different results for the U.S. population. Measures of health insurance coverage presented here include lacking insurance for at least a month, lacking insurance for an entire year, lacking insurance for a 2-year period, lacking insurance for a 4-year period, and being long-term uninsured.
- One commonly cited measure of health insurance coverage is the number of Americans who were uninsured for the entire previous year. In 2011, a total of 49 million Americans (constituting 16 percent of the U.S. population) were uninsured. (This measure is from the 2011 Current Population Survey or CPS, conducted by the U.S. Census Bureau.⁹²)
- People of color were disproportionately represented among the 49 million people without health insurance in 2011. While people of color constituted more than a third of the U.S. population (37 percent) in 2011, they were more than half (55 percent) of the uninsured population in the United States. In particular, Hispanics accounted for 17 percent of the total U.S. population but 33 percent of the total uninsured population. Blacks made up 13 percent

of the total population and comprised 16 percent of the total uninsured population. Whites (non-Hispanic) made up 63 percent of the total population but only 45 percent of the uninsured population.⁹²

- As might be expected given their overrepresentation among the uninsured population, each of the subpopulations of color is also more likely to be uninsured than are white non-Hispanics. In 2011, 11 percent of all whites (non-Hispanic) reported the lack of health insurance coverage, compared with the 16 percent of Asians and Pacific Islanders, 20 percent of blacks, and 30 percent of Hispanics who reported the same.⁹²
- Among people living in poverty in 2011, Hispanics were also the most likely to have no health insurance coverage (36 percent), followed by Asians (32 percent). Whites (non-Hispanic) (28 percent) and blacks (26 percent) living in poverty were equally likely to be uninsured.⁹³ Thus, regardless of race or ethnicity, people living in poverty were comparably likely to be uninsured.
- People born outside the United States (33 percent) were significantly more likely to be uninsured than people born in the United States (13 percent).⁹⁴ In particular, foreign-born Hispanics (48 percent) were more than twice as likely to be uninsured as native-born Hispanics (20 percent).⁹⁵
- In Hawaii, adults (18 years and older) of different racial and ethnic backgrounds are equally likely to be covered by health insurance—95.2 percent of Japanese, 94.2 percent of Native Hawaiians, 94.2 percent of Caucasians, and 90.9 percent of Filipinos had health care coverage in 2010.²⁴

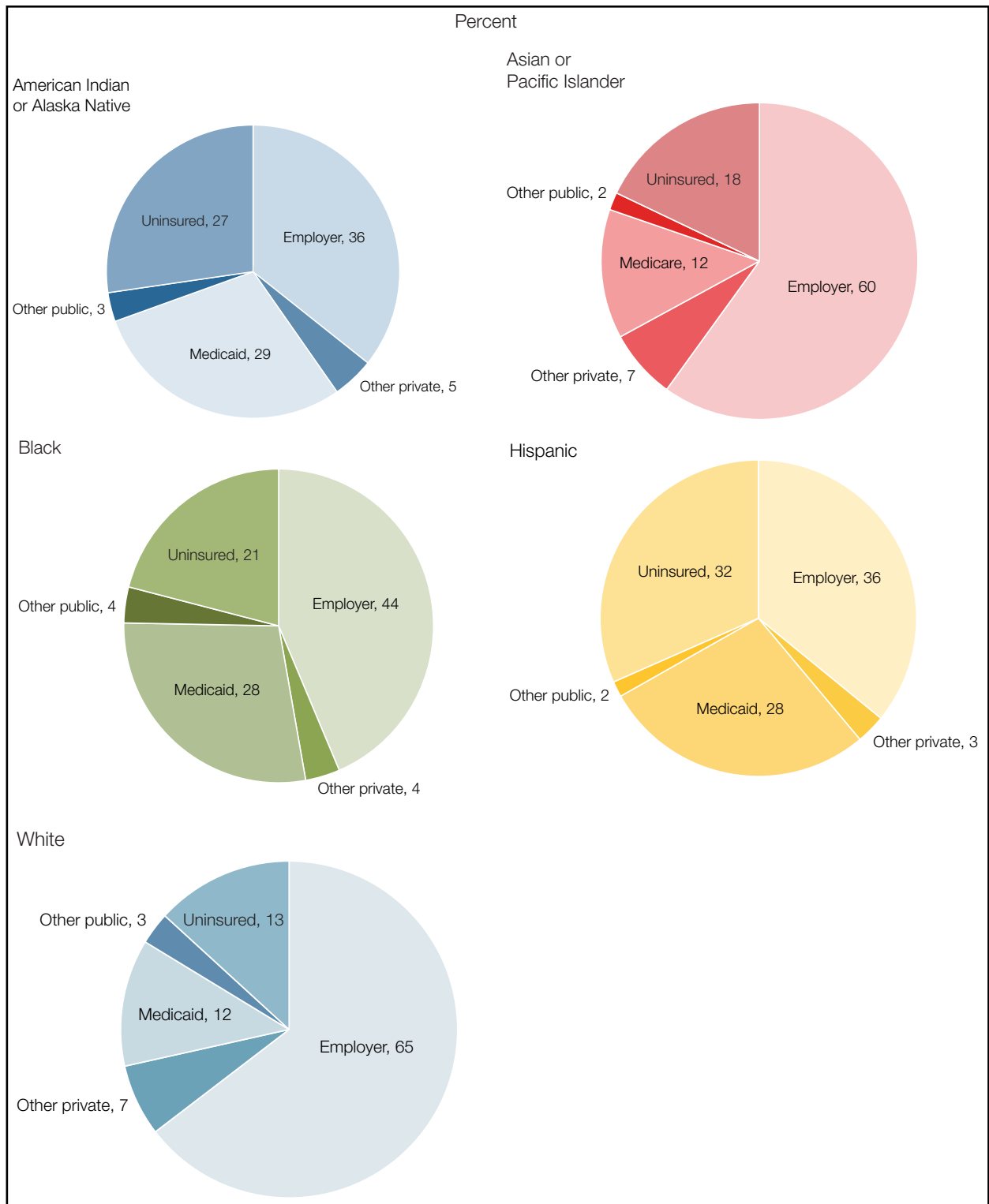
Population Younger Than Age 65 Years

- Among the nonelderly (people younger than age 65 years) during the 2006–2009 period, Hispanics were substantially more likely than people of other major racial and ethnic groups to lack health insurance. More than half (52 percent) of the Hispanic nonelderly were uninsured for at least 1 month, compared with 39 percent of black non-Hispanic, 34 percent of

Asian or Pacific Islander non-Hispanic, and 29 percent of white non-Hispanic nonelderly. Almost a fourth (24 percent) of the Hispanic nonelderly were uninsured for the entire 2-year 2008–2009 period, in contrast to the 13 percent of black non-Hispanic, 11 percent of Asian or Pacific Islander non-Hispanic, and 9 percent of white non-Hispanic nonelderly. In addition, about 19 percent of Hispanic nonelderly were uninsured for the entire 4-year period from 2006 through 2009, compared with much smaller shares of other subpopulations of the nonelderly—8 percent of Asians or Pacific Islanders (non-Hispanic), 7 percent of blacks (non-Hispanic), and 6 percent of whites (non-Hispanic).⁹⁶

- Hispanics are represented disproportionately among nonelderly people who are characterized as long-term uninsured. While Hispanics were 17 percent of the population younger than age 65 years, they constituted 38 percent of the population who are defined as long-term uninsured over the 2006–2009 period. Conversely, while white non-Hispanics represented 63 percent of the population younger than 65 years, they represented only 45 percent of the long-term uninsured in this age group.⁹⁶
- Overall, white non-Hispanic and Asian or South Pacific Islander nonelderly were considerably more likely to have private, employer-sponsored health insurance (and the additional options and greater coverage it often affords) and, thus, less likely to have public insurance than their black non-Hispanic, American Indian or Alaska Native, and Hispanic counterparts in 2011.⁹⁷
- Among the nonelderly (people younger than 65 years) in 2011, Hispanics and American Indians or Alaska Natives were more likely to be uninsured and were less likely to have employer-based health insurance than other major racial and ethnic groups. Whites (non-Hispanic) (13 percent) were the least likely to be uninsured, with larger percentages among Asians or South Pacific Islanders (18 percent), blacks (non-Hispanic) (21 percent), American Indians or Alaska Natives (27 percent), and Hispanics (32 percent) reporting the same.⁹⁷

Figure 43
Health Insurance Coverage for People Younger Than Age 65 by Race/Ethnicity, 2011



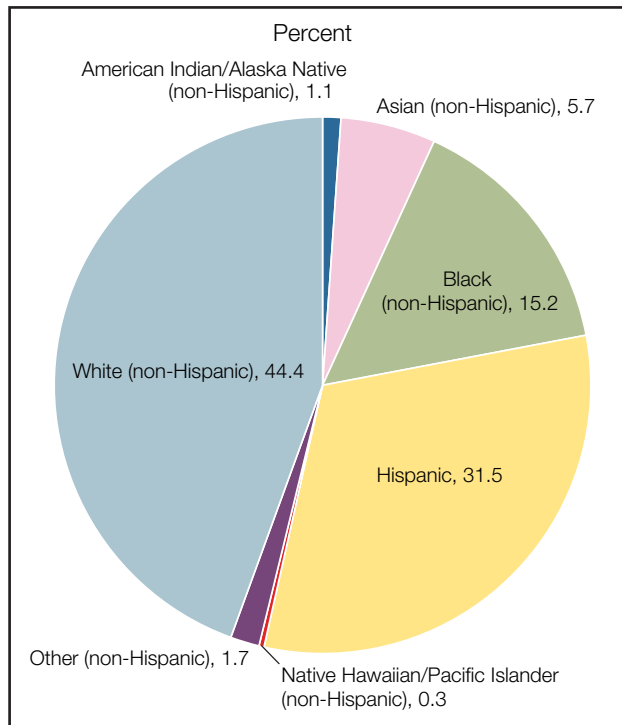
Source: Kaiser Commission on Medicaid and the Uninsured. (2011). *The Uninsured: A Primer—Key Facts About Americans Without Health Insurance* (p. 28). Publication #7451-08. Menlo Park, CA, and Washington, DC: Kaiser Family Foundation. Retrieved from <http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7451-08.pdf>

- Among the nonelderly in 2011, whites (non-Hispanic) (65 percent) and Asians or South Pacific Islanders (60 percent) were more likely to have employment-based insurance than were blacks (non-Hispanic) (44 percent), Hispanics (36 percent), and American Indians or Alaska Natives (36 percent). As would be expected because of the distribution of employment-based insurance within these racial/ethnic groups, whites (non-Hispanic) (12 percent) and Asians or South Pacific Islanders (13 percent) were less likely to be covered by Medicaid (federal government insurance for low-income people, primarily) than were blacks (non-Hispanic) (28 percent), Hispanics (28 percent), and American Indians or Alaska Natives (29 percent).⁹⁷
- Among Hispanic nonelderly in California in 2009, Mexicans (18 percent) and Central Americans (27 percent) were more likely than whites (non-Hispanic) (8 percent) to report having no health insurance all year in the past year. Hispanics who did not speak English well or did not speak English at all (38 percent) were also more than three times as likely as those who were English-only speakers (11 percent) to have been uninsured all year in the past year.⁹¹
- In California in 2009, among nonelderly Asians, Koreans (24 percent) were more than three times as likely as whites (non-Hispanic) (8 percent) to have been uninsured all year in the past year. Asians who did not speak English well or did not speak English at all (24 percent) were almost four times as likely as English-only Asians (7 percent) to have been uninsured all year in the past year. Asians who preferred to speak Korean (50 percent) were seven times as likely and Asians who preferred to speak Vietnamese (18 percent) were more than twice as likely as Asians who preferred to speak English (7 percent) to have been uninsured all year in the past year.⁹¹

Health Insurance Coverage: Women

- Health insurance coverage is a critical factor in making health care accessible to women. Women with insurance coverage are more likely to obtain needed preventive, primary,

Figure 44
Distribution of Females Who Had No Health Insurance Coverage by Race/Ethnicity, 2011



Source: U.S. Department of Commerce, Bureau of the Census. (2012). *Current Population Survey: March Supplement 2012*. Figure with data about insurance status of females by race/ethnicity. Generated using DataFerrett. Retrieved from <http://dataferrett.census.gov>

and specialty care services and have better access to advances in women's health.⁹⁸

- The major types of health insurance coverage are as follows: employer based, privately purchased, and government sponsored. Employer-based insurance and privately purchased health insurance are often discussed together as private insurance. Government-sponsored plans include Medicaid (primarily for low-income people and women with children), Medicare (primarily for people 65 years and older and people who are disabled), military health care (for people in the military, veterans, and their dependents), state plans (for low-income uninsured people), and the IHS (for eligible American Indians at IHS facilities). People without one of these types of health insurance coverage are termed "uninsured."⁹⁹

- Although females of color were estimated to be 37 percent of all females in 2011, they were 56 percent of the 23 million uninsured females that year. In other words, of the 23 million uninsured females that year, 13 million were women of color. In addition, each of the major subpopulations of females of color was overrepresented among the uninsured (relative to their share of the female population). For example, Hispanics accounted for only 16 percent of all females but 32 percent of uninsured females.¹⁰⁰
- Each subgroup of females of color also was more likely than white females to be uninsured. In 2011, 10 percent of white non-Hispanic females had no health insurance coverage, but larger proportions of women of color reported the same—16 percent of Asian non-Hispanic, 16 percent of Hawaiian or Pacific Islander non-Hispanic, 18 percent of black non-Hispanic, 24 percent of American Indian or Alaskan Native non-Hispanic, and 28 percent of Hispanic females.¹⁰¹

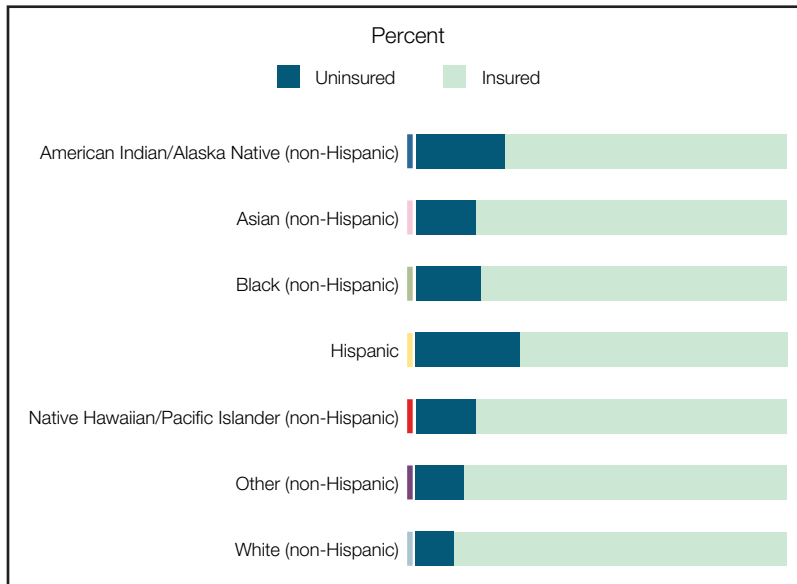
Women Ages 8 to 64 Years

- Among women ages 18 to 64 years in 2011, Hispanics (45 percent) and American Indians or Alaska Natives (non-Hispanic) (47 percent) were the least likely to have private health insurance (including both employment-based and direct-purchase plans). Private health insurance coverage was reported more frequently by nonelderly women of the other major racial and ethnic groups—black non-Hispanic (55 percent), Native Hawaiian or Pacific Islander non-Hispanic (69 percent), Asian non-Hispanic (70 percent), and white non-Hispanic (75 percent).¹⁰¹
- Among women ages 18 to 64 years in 2011, American Indians or Alaska Natives (non-Hispanic) (20 percent) and blacks (non-Hispanic) (21 percent) were the most likely to be covered by Medicaid. Smaller proportions of women who are Hispanic (17 percent), Native Hawaiian or Pacific Islander non-Hispanic (12 percent), Asian non-Hispanic (9 percent), and white non-Hispanic (9 percent) also have Medicaid coverage.¹⁰¹
- Among women ages 18 to 64 years, Hispanics (37 percent) were the most likely to be uninsured (2011), followed by American Indians or Alaska Natives (non-Hispanic) (30 percent), blacks (non-Hispanic) (23 percent), Asians (non-Hispanic) (21 percent), Native Hawaiians or Pacific Islanders (non-Hispanic) (19 percent), and whites (non-Hispanic) (14 percent).¹⁰¹
- Fifty-two percent of Mexican-born women ages 18 to 64 years living in the United States were not covered by health insurance in 2009, compared with a fourth (25 percent) of women who immigrated to the United States from elsewhere in the world. The circumstance was worse for the most recent arrivals to the United States—64 percent of Mexican immigrant women with fewer than 10 years' residence in the United States were uninsured, compared with 48 percent of those who have been living in the United States for more than 10 years.¹⁰²
- Among women between the ages of 18 and 64 years, white non-Hispanic women who were born in the United States were the most likely (72 percent) to report having private medical insurance coverage, which is mainly obtained through employment (2009). Only 32 percent of Mexican-born women were covered by private insurance, while 61 percent of other immigrant women and 53 percent of U.S.-born black women had private health insurance coverage.¹⁰²
- In Hawaii, adult females of color 18 years and older from different racial and ethnic backgrounds were equally likely to report having health insurance coverage—97.6 percent of Native Hawaiians, 97.1 percent of Japanese, 94.0 percent of whites, and 91.1 percent of Filipinos (2010).²⁴

Females of All Ages

- Among females of all major racial and ethnic groups in 2011, Hispanics were the least likely—and whites (non-Hispanic) the most likely—to have private insurance coverage, employment-based coverage, coverage based on their own employment, and direct-purchase insurance coverage.¹⁰⁰
- In 2011, Hispanic females (42 percent) were less likely to have private insurance coverage than

Figure 45
Health Insurance Status of Females by Race/Ethnicity,
2011



Source: U.S. Department of Commerce, Bureau of the Census. (2012). *Current Population Survey: March Supplement 2012*. Figure with data about insurance status of females by race/ethnicity. Generated using DataFerrett. Retrieved from <http://dataferrett.census.gov>

were black (50 percent), Asian (66 percent), and white non-Hispanic (72 percent) females.¹⁰⁰

- Hispanic women (38 percent) were less likely to have employment-based insurance coverage than were black (45 percent), Asian (58 percent), and white non-Hispanic (61 percent) women in 2011. Hispanic women (16 percent) also were less likely to have their own employment-based insurance coverage than were black (26 percent), Asian (23 percent), and white non-Hispanic (28 percent) women in 2011.¹⁰⁰
- White non-Hispanic women (13 percent) were more likely to purchase health insurance directly than were Asian (9 percent), black (5 percent), or Hispanic (4 percent) women in 2011.¹⁰⁰
- Public health insurance coverage—most commonly Medicaid for the poor and Medicare for the elderly and disabled—varied among subgroups of women in 2011. Hispanic (30 percent) and black (29 percent) females were more likely to be covered by Medicaid than were Asian (15 percent) and white non-Hispanic (12 percent) females.¹⁰⁰

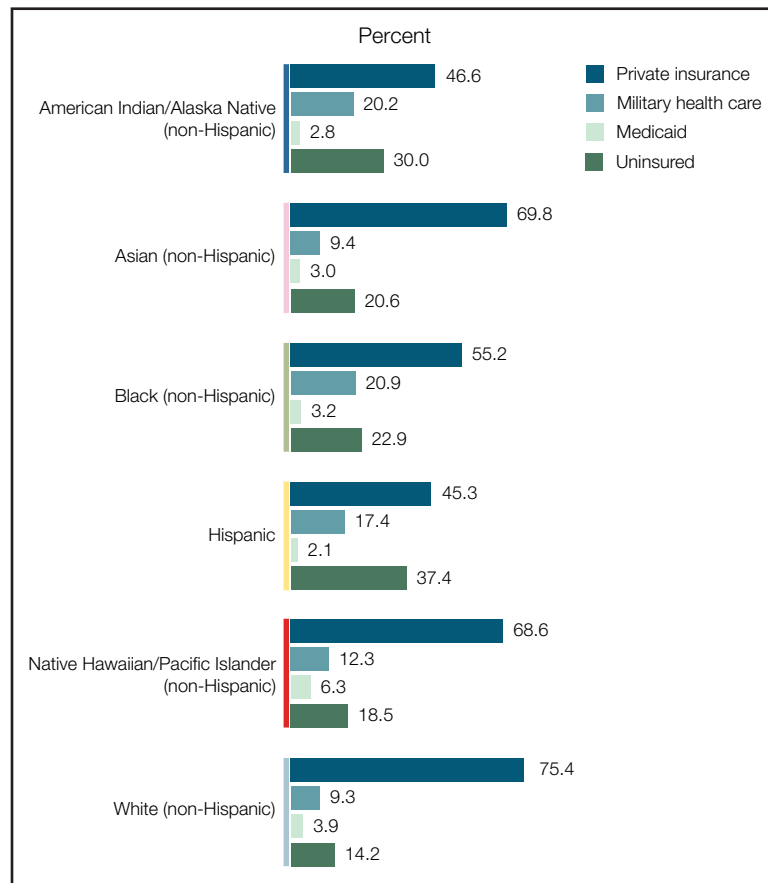
- Among women of all ages, white non-Hispanic females (20 percent) were more likely to be covered by Medicare than were black (14 percent), Asian (11 percent), or Hispanic (8 percent) females. White non-Hispanic females (11 percent) also were more likely to be covered by both Medicare and private insurance than were black (4 percent), Asian (3 percent), or Hispanic (2 percent) females.¹⁰⁰
- Medicare coverage among elderly women (65 years and older) varied slightly by racial and ethnic subgroup in 2011. Although large majorities of elderly women of color were covered by Medicare, Hispanic (87 percent) and Asian non-Hispanic (88 percent) women were less likely to be covered by the program. More than 9 in 10 black non-Hispanic (92 percent), American Indian or Alaska Native non-Hispanic (92 percent), and white non-Hispanic (95 percent) women reported Medicare coverage.¹⁰¹

- Asian females (25 percent) were less likely to be covered by any of the government health insurance plans than were white non-Hispanic (33 percent), Hispanic (36 percent), and black (41 percent) females.¹⁰⁰

Females Living in Poverty

- Among females living in poverty in 2011, Hispanics (35 percent) and Asians (33 percent) were more likely to have no health insurance coverage than were whites (non-Hispanic) (26 percent) and blacks (25 percent). (The federal poverty thresholds in 2011 on which these calculations are based were \$11,484 for an individual and \$23,021 for a family of four.⁹³)
- Twenty-eight percent—7 million out of 26 million—of females living in poverty did not have health insurance coverage in 2011. Among these uninsured and poor females, 38 percent were white non-Hispanic,

Figure 46
Women Ages 18–64 by Health Insurance Coverage and
by Race/Ethnicity, 2011



Source: U.S. Department of Commerce, Bureau of the Census. (2012). *Current Population Survey: March Supplement 2012*. Figure with data about insurance status of females by race/ethnicity. Generated using DataFerrett. Retrieved from <http://dataferrett.census.gov>

35 percent were Hispanic, 21 percent were black, and 5 percent were Asian.⁹³

- Among females living in poverty in 2011, Hispanics and blacks were less likely than Asians and whites (non-Hispanic) to have private insurance coverage, employment-based coverage, and direct-purchase insurance coverage. Asians were the least likely to be covered by government health plans and by Medicaid.¹⁰⁰

Obtaining Health Care Services

- Access to health care includes both access to health insurance coverage and access to medical professionals and facilities that provide

services. Adequate access includes the existence of conveniently located facilities and the availability of child care (to enable mothers to seek medical attention for themselves), transportation, and health care providers capable of giving competent and sensitive care.³⁷

- Access to health care also includes timely use of personal health services to achieve the best health outcomes. Extensive research has shown that people of color and people of low socioeconomic status are disproportionately represented among those who have problems accessing health care.⁹¹
- Attitudes regarding the need for and value of health insurance coverage may affect coverage decisions and access to care. In 2010, 12 percent of adults (age 18 years and older) agreed with the statement, “I’m healthy enough that I really don’t need health insurance.” One in four adults (25 percent) agreed with the statement, “Health insurance is not worth the money it costs.”¹⁰³
- Men were more likely than women to believe that they were healthy and did not need health insurance (16 percent versus 9 percent) and to feel that health insurance was not worth its cost (28 percent versus 23 percent) (2010).¹⁰³
- Among racial and ethnic groups, Hispanics (17 percent) were more likely to believe they were healthy and did not need health insurance coverage than were both whites (non-Hispanic) (11 percent) and blacks (non-Hispanic) (9 percent). Hispanics (28 percent) also were more likely than both whites (non-Hispanic) (25 percent) and blacks (non-Hispanic) (22 percent) to feel that insurance was not worth the cost.¹⁰³

Usual Source of Care

- People with a usual source of care (a provider or facility where one regularly receives care)

experience improved health outcomes.⁹¹ A specific source of ongoing care can include an urgent care/walk-in clinic, doctor's office, clinic, health center facility, hospital outpatient clinic, health maintenance organization/preferred provider organization, military or Veterans Affairs health care facility, or some other similar source of care. (Hospital emergency rooms are excluded.⁹¹) In 2009, whites (non-Hispanic) (88 percent) were more likely to have a usual or specific source of ongoing care than were Hispanics (77 percent), American Indians or Alaska Natives (79 percent), and blacks (85 percent).⁹¹

- Research shows that people without health insurance are more likely to have no usual source of health care and that the likelihood of having no usual source of care varies by race and ethnicity. Among uninsured women ages 18 to 64 years during the 2007–2009 period, nearly half (46 percent) of Mexican-born immigrants reported no usual source of care, as did 42 percent of other immigrants, 38 percent of U.S.-born whites (non-Hispanic), and 36 percent of U.S.-born African Americans. Among insured women, the percentages having no usual source of care were comparable—8.0 percent of Mexican-born immigrants, 7.3 percent of other immigrants, 6.8 percent of U.S.-born whites (non-Hispanic), and 7.3 percent of U.S.-born African Americans.¹⁰²
- Among women ages 18 to 64 years with a regular source of health care during 2007–2009, Mexican immigrants (54 percent) were more likely to use public health centers or clinics compared with other immigrants (24 percent), U.S.-born African Americans (22 percent), and U.S.-born whites (non-Hispanic) (17 percent). The public health centers or clinics are more accessible to Mexican immigrant women, not only because they cost less and are often located in immigrant neighborhoods but also because they are likely to provide culturally and linguistically appropriate services.¹⁰²
- Having a primary care provider (a doctor or nurse from whom one regularly receives care) increases the likelihood that patients will receive appropriate care.⁹¹ In 2008, whites

(non-Hispanic) (79 percent) were more likely to have a usual primary care provider than were Hispanics (65 percent), blacks (72 percent), and Asians (72 percent).⁹¹

- Another 2008 survey found that only two-thirds (67 percent) of Hispanic women had a regular health care provider, considerably less than the proportions among African American (84 percent) and white (86 percent) women.⁹⁸
- In Hawaii, adults (18 years and older) of color were comparably likely to report that they did not have a personal doctor—12.2 percent of Native Hawaiians, 11.0 percent of Filipinos, and 7.5 percent of Japanese (2010). White adults (16.5 percent) were more likely to report not having a personal doctor than were adults of color. Among female adults, Filipino (10.3 percent), Native Hawaiian (5.4 percent), and Japanese (4.6 percent) women were also comparably likely to have no personal doctor (2010). White women (14.2 percent) were also more likely to report the lack of a personal doctor than were women of color.²⁴

Ambulatory Care Visits

- In 2008, about a fourth (26 percent) of American adults (59.7 million individuals) did not make an ambulatory care visit—that is, a visit to a doctor's office, an outpatient clinic, a hospital outpatient department, or a hospital emergency department. Men (35 percent) were more likely than women (18 percent) to have not made an ambulatory care visit.^{104,105} Race and ethnicity played a major role in the rate of ambulatory care visits. Hispanics (44 percent) were the most likely to have not seen a doctor, followed by Asians (non-Hispanic) (36 percent), blacks (non-Hispanic) (35 percent), and whites (non-Hispanic) (20 percent).¹⁰⁴
- Another 2008 survey found that Latino women (or Latinas) ages 18 to 64 years were significantly less likely (80 percent) to have seen a provider in the past year than were white women (87 percent) and African American women (88 percent) in this age group.⁹⁸
- Latinas ages 18 to 64 years (32 percent) were more likely than their African American (26 percent) and white (22 percent) counterparts

to report that they delayed or went without care they thought they needed in the past year because of cost.⁹⁸ Both African American women (24 percent) and Hispanic women (24 percent), however, were more likely than were white women (14 percent) to report spending less to meet other basic needs in order to have enough money to pay their health care expenses.⁹⁸

- Among females in 2008, American Indians or Alaska Natives (24 percent) were the most likely to make a hospital emergency room visit, followed by blacks (non-Hispanics) (17 percent), Hispanics (14 percent), whites (non-Hispanic) (14 percent), and Asians (5 percent).¹⁰⁶
- Pregnancy is an important time to visit the dentist for continuity of regular professional care and to ensure the mother does not have a dental infection that could complicate the pregnancy. In Hawaii during the 2004–2008 period, Japanese (50 percent) and Chinese (49 percent) mothers were more likely to report dental visits during pregnancy than were Filipino (35 percent), Hawaiian (34 percent), and Samoan (27 percent) mothers.²⁸

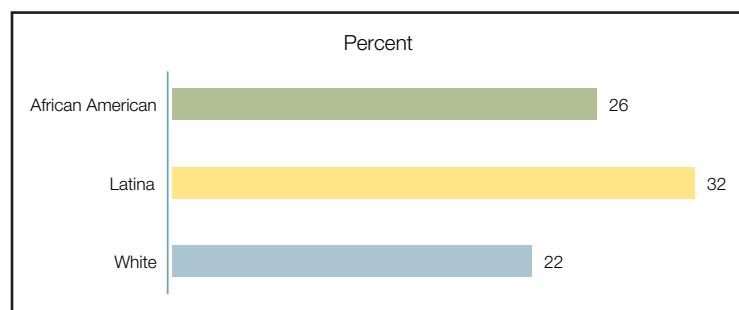
Other Aspects of Access to Care

- Another ingredient of good health is effective doctor-patient communication. Language and literacy problems are often barriers to effective communication. Among female adults in 2008 who made a doctor's office or clinic visit in the past 12 months, whites (non-Hispanic)

(9 percent) were the least likely to report that their health providers sometimes or never listened carefully, explained things clearly, respected what they had to say, or spent enough time with them. Black non-Hispanic female adults (12 percent) were the most likely to report such poor communication, followed by Asian (11 percent) and Hispanic (10 percent) female adults.¹⁰⁶

- A study of 2003 and 2005 California Health Interview Survey found a significant relationship between perceived medical discrimination based on race or ethnicity and cancer screening behaviors. Women who perceived medical discrimination were less likely to be screened for colorectal or breast cancer than were women who did not perceive discrimination.¹⁰⁷
- For the Hmong, who began arriving in the United States in the mid-1970s, language and culture persist as major barriers to accessing proper health care. Traditionally, the Hmong resort to healing practices such as shamanism (a practice that involves a practitioner, known as a shaman, reaching altered states of consciousness to interact with the spirit world and channel its energies into this world) and soul calling as a first step to preventing illness. This tradition is still practiced by many Hmong in the United States and delays the seeking of Western modes of medical services.⁷³
- Receipt of care may also vary by the nature of a health condition. Treatment data for specific pain conditions diagnosed among women—such as chronic fatigue syndrome, endometriosis, fibromyalgia, interstitial cystitis, temporomandibular joint dysfunction (TMJ), and vulvodynia—support this statement. In 2008, a total of 12.1 million women (age 18 years and older) reported any of these pain conditions, but only 8.7 million women reported receiving treatment for them.¹⁰⁸
- In 2008, white non-Hispanic women were more likely to both have pain conditions and receive treatment for them (11.2 percent and 8.4 percent, respectively) than were either black

Figure 47
Women Ages 18–64 Who Delayed or Went Without Care Because of Cost by Race/Ethnicity, 2008



Source: Ranji, U., & Salganicoff, A. (2011, May). *Women's Health Care Chartbook: Key Findings from the Kaiser Women's Health Survey* (p. 30). Report #8164. Retrieved from <http://kaiserfamilyfoundation.files.wordpress.com/2013/01/8164.pdf>

non-Hispanic women (8.3 percent and 5.4 percent, respectively) and Hispanic (8.2 percent and 5.5 percent, respectively) women.¹⁰⁸

- In recent years, there has been growing recognition of the importance of the quality of health care. Overall, in 2008, one in four women (26 percent) expressed concerns about the quality of health care they had received in the past year. Latina (31 percent) and African American (30 percent) women in particular were more likely to express concerns about health care quality than were white women (25 percent).¹⁰⁹

Access to Care: American Indians or Alaska Natives

- In fiscal year (FY) 2006, more than 76,000 admissions were made to hospitals that were part of the IHS, tribal hospitals, and contract general hospitals.¹⁶ Among all discharges of females from these hospitals (45,343 discharges total), nearly a third (29 percent or 12,993 discharges) pertained to obstetric deliveries and complications of pregnancy and puerperium. Smaller percentages of discharges pertained to digestive system diseases (12 percent) and respiratory system diseases (11 percent).¹⁶
- For American Indian or Alaska Native females, supplementary classification conditions were the leading cause (39 percent) of ambulatory medical visits in FY 2006 to IHS, tribal direct, and contract facilities. The supplementary classification is an ambulatory visit that does not directly deal with an injury or disease but rather includes such preventive health services as well-child care visits, vaccinations, physical examination, tests only (lab, x-ray, screening), hospital, medical, or surgical follow-up, and prescription refills.⁵ The second most frequent cause of ambulatory medical visits among females was respiratory system diseases (8 percent).¹⁶
- Patients were seen by a physician for 35 percent of the more than 10 million ambulatory medical visits to IHS and tribal facilities in FY 2006. For 22 percent of these patient visits, the primary provider was a pharmacist.¹⁶
- In California, older AI/ANs (age 60 years and older) are much less likely than whites (non-Hispanic) to access needed health care. In 2009, compared with whites (non-Hispanic), older AI/ANs were significantly less likely to see a doctor, were more likely to delay needed medical care, and had more difficulty understanding their doctor. Moreover, significantly more AI/ANs than whites (non-Hispanic) used community or government clinics or community hospitals as their usual source of care, a finding that can be explained by the use by AI/ANs of IHS facilities located on or near reservations. In fact, about 19 percent of older AI/ANs in California were eligible for care via the IHS, and 23 percent of older AI/ANs reported community or government clinics or community hospitals as their usual source of care.¹¹⁰
- Access to care (if only via the IHS) sometimes becomes problematic for American Indians/Alaska Natives because government health care services for American Indians/Alaska Natives in urban and nonreservation rural areas often are very limited and uncoordinated. For example, American Indians/Alaska Natives living in urban areas can get treatment at IHS direct care facilities but are not eligible for the more specialized services that may be provided elsewhere (i.e., “contract care” services). In contrast, American Indians/Alaska Natives living on or near reservations—who are therefore eligible for the full range of IHS services—have access to both routine care and the more specialized contract care services.^{37,111}
- American Indians/Alaska Natives who have job-based private insurance (36 percent of the nonelderly population in 2011⁹⁷) have a choice that most other Americans do not have—to get free health care through a system in which the choice of providers and services is limited or to obtain private care elsewhere. The options both for private care and for treatment at IHS facilities, however, are limited by the distances that must be traveled to access either. Because waiting times reported for treatment at IHS facilities exceed waiting times reported for services with other providers, American

Indians/Alaska Natives with private insurance often prefer to seek private care.³⁷

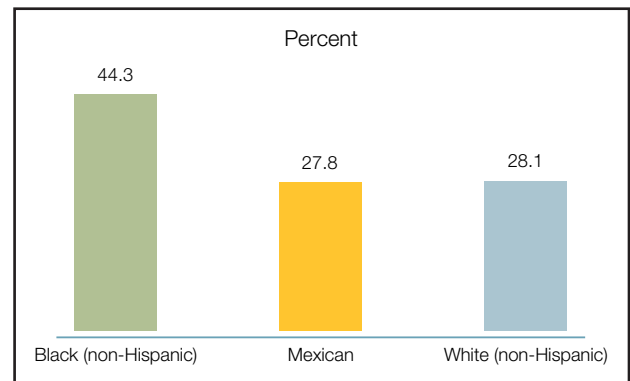
Morbidity and Mortality

Hypertension

- Normal blood pressure is when a person's blood pressure is lower than 120/80 mm Hg (millimeters of mercury) most of the time. People are classified as hypertensive if their average systolic blood pressure is greater than 140 mm mercury, their average diastolic blood pressure is greater than 90 mm mercury, or they report taking medicine for high blood pressure.¹¹²
- Hypertension—also referred to as high blood pressure—is a major risk factor for both coronary heart disease (which is caused by a narrowing of the coronary blood vessels that supply the heart muscle) and cerebrovascular disease (primarily strokes, which are caused when the supply of blood to the brain is hampered). It infringes on the health of black or African American women much more than it does on the health of other women of color.¹¹³
- Prehypertension is a major risk factor for hypertension. Prehypertension is defined by blood pressure greater than 120/80 mm Hg (normal blood pressure) but less than 140/90 mm Hg (hypertension). In blacks, the transition from prehypertension to hypertension is accelerated, a finding that suggests that effective interventions for prehypertension could reduce racial disparities in hypertension.¹¹⁴
- In the 2007–2010 period, about 30 percent of Americans age 20 years and older had hypertension, and less than half had it under control. Among females age 20 years and older, 44 percent of blacks (non-Hispanic) had hypertension, compared with only 28 percent of whites (non-Hispanic) and 28 percent of Mexicans. (All rates are age adjusted.²)
- Uncontrolled hypertension dramatically increases the risk for possibly fatal heart attacks and strokes. The prevalence of uncontrolled high blood pressure among females with hypertension, however, was greater among Mexicans

Figure 48

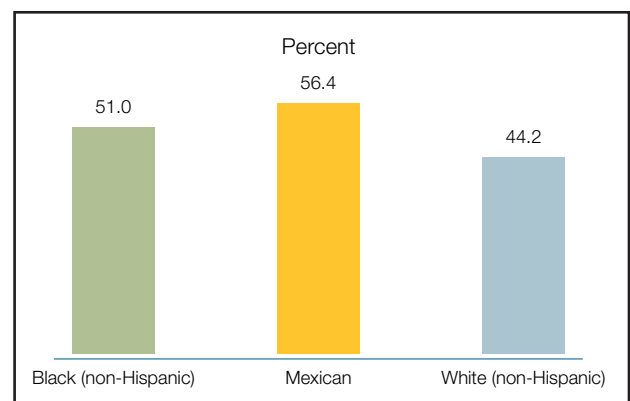
Hypertension Among Women 20 Years and Older by Race/Ethnicity, 2007–2010



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Table 70 (p. 244). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

Figure 49

Uncontrolled High Blood Pressure Among Women 20 Years and Older With Hypertension by Race/Ethnicity, 2007–2010



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Table 70 (p. 244). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

(56 percent) than among blacks (non-Hispanic) (51 percent) and whites (non-Hispanic) (44 percent). (All rates are age-adjusted.²)

- In California, nearly one in five nonelderly women (ages 18–64 years) reported ever having been diagnosed with high blood pressure in 2007. Reported rates of hypertension increased with age. Within subgroups of women ages 45 to 64 years, high blood pressure had been

diagnosed in half or more of American Indian or Alaska Native women (50 percent) and African American women (59 percent) and in approximately one in three Latinas (34 percent), Asian or Pacific Islander women (33 percent), and white women (29 percent).¹¹⁵

- In one study with Korean Americans who were diagnosed with hypertension, women were more likely than men to have controlled blood pressure and to have been on medication for high blood pressure. Lower rates of smoking, drinking, and overweight or obesity also were observed more frequently in women.¹¹⁶

Cardiovascular Disease

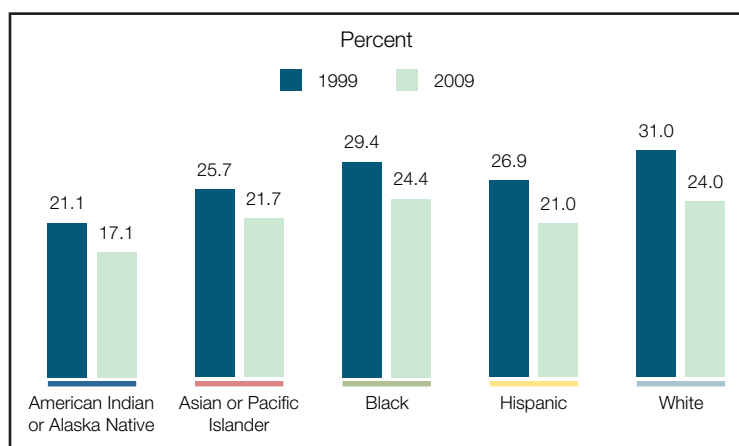
- In 2009, cardiovascular, or heart, disease was the leading cause of death for females.² This is true even though the subpopulations of females of color may have different risk factors among the major ones for this disease (i.e., diabetes, hypertension, high cholesterol, obesity, lack of exercise, and smoking).³⁷
- In 2009, a total of 292,188 females died of heart disease. Among them, 86.1 percent were white, 11.7 percent were black, 0.4 percent were

American Indian or Alaska Native, and 1.8 percent were Asian or Pacific Islander. Hispanics accounted for 4.6 percent of all female deaths due to heart disease.²

- Since 1980, the percentage of all deaths due to heart disease among women of the various racial and ethnic subgroups has declined markedly. In 1980, the highest percentage of deaths due to heart disease was reported by whites (40 percent), followed by blacks (34 percent), Asians or Pacific Islanders (26 percent), and American Indians or Alaska Natives (21 percent). (Data were not available for Hispanics in 1980.) In 1999, white and black females had comparable percentages of deaths due to heart disease, and American Indian or Alaska Native females remained the group least likely to die of heart disease.²
- Despite this downward trend, heart disease still accounted for sizable shares of all deaths among females of each racial and ethnic group in 2009—24 percent for blacks, 24 percent for whites, 22 percent for Asians or Pacific Islanders, 21 percent for Hispanics, and 17 percent for American Indians or Alaska Natives.²
- Death rates from cardiovascular or heart disease have been falling for the past 60 years.² Despite this decline, in 2009, heart disease was the leading cause of death for all females, white females, and black females and the second leading cause of death for Hispanic females, Asian or Pacific Islander females, and American Indian or Alaska Native females.²

- The age-adjusted death rate from heart disease in 2009 was 192 per 100,000 for black females, followed by 142 per 100,000 for white non-Hispanic females, 100 per 100,000 for Hispanic females, 97 per 100,000 among American Indian or Alaska Native females, and 78 per 100,000 among Asian or Pacific Islander females.²
- Death rates for heart disease varied considerably by age group for female adults in 2009, with older females reporting higher death rates. Women age 85 years and older had a death rate

Figure 50
Deaths Due to Heart Disease Among Females by Race/Ethnicity, 1999 and 2009



Sources: National Center for Health Statistics. (2004). *Health, United States, 2004*. Retrieved from <http://www.cdc.gov/nchs/data/hus/04trend.pdf>; National Center for Health Statistics. (2012). *Health, United States, 2011*, with special feature on socioeconomic status and health, Table 26 (Web). Retrieved from <http://www.cdc.gov/nchs/2011/content.htm>

of 3,828 per 100,000, followed by a rate of 979 for women ages 75 to 84 years, a rate of 299 per 100,000 for women ages 65 to 74 years, a rate of 114 per 100,000 for women ages 55 to 64 years, and a rate of 46 per 100,000 for women ages 45 to 54 years.²

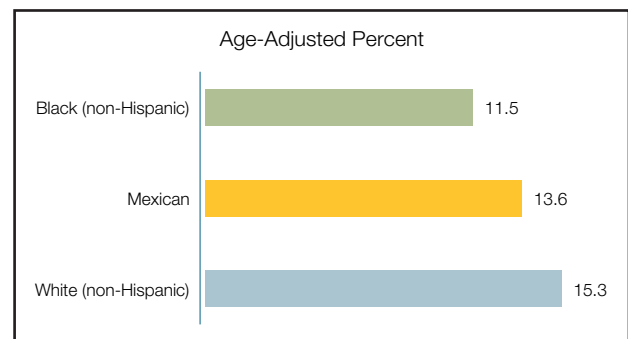
- Among women age 85 years and older in 2009, whites (non-Hispanic) were the most likely to die of heart disease (at a rate of 3,956 per 100,000), and American Indian or Alaska Native women were the least likely to die of heart disease (at a rate of 1,793 per 100,000). Among women ages 45 to 84 years (i.e., in the age groups 45–54, 55–64, 65–74, and 75–84 years), blacks were the most likely to die of heart disease, and Asian or Pacific Islanders were the least likely to die of heart disease.²
- Females ages 35 to 74 years who lived in six IHS service areas— Bemidji, Billings, Great Plains (formerly Aberdeen), Nashville, Phoenix, and Portland—reported higher heart disease death rates (in 1999–2001) than females of all races (in 2000). Among females age 75 years and older, only those living in the Bemidji and Great Plains IHS areas experienced higher heart disease death rates than females of all races in the United States. The lowest rates for both age groups were found among females living in the Albuquerque and Navajo IHS service areas, where the rates were significantly lower than for females of all races.⁵
- High serum cholesterol is a factor in heart disease. The age-adjusted rates of high cholesterol have decreased for women since the 1988–1994 period, when 22 percent of white non-Hispanic females age 20 years and older had high cholesterol, as did 21 percent of their black non-Hispanic and 19 percent of their Mexican counterparts. In the 2007–2010 period, 15 percent of white non-Hispanic females age 20 years and older had high serum cholesterol, compared with 14 percent of their Mexican and 12 percent of their black non-Hispanic counterparts. (High serum cholesterol is defined as a level of cholesterol in the blood that is greater than or equal to 240 mg/dL, regardless of whether the respondent

reported taking cholesterol-lowering medications.²)

Cancers

- Cancer is among the leading causes of death for females. In 2009, it was the leading cause of death for American Indian or Alaska Native, Asian or Pacific Islander, and Hispanic females. It was the second leading cause of death for white and black females.²
- White females are the most likely to be diagnosed with cancer. During the 2006–2010 period, white females had the highest age-adjusted incidence of all forms of cancer combined (424 cases per 100,000), followed by black females (398 cases per 100,000), Hispanic females (323 cases per 100,000), American Indian or Alaska Native females (307 cases per 100,000), and Asian or Pacific Islander females (292 cases per 100,000). (Data are from the Surveillance, Epidemiology, and End Results or SEER program of the National Cancer Institute and reflect information about the top 15 cancer sites.²)
- Black females, however, are the most likely to die of cancer. During the same 2006–2010 period, black females had the highest age-adjusted death rate from all forms of cancer combined (171 deaths per 100,000 population),

Figure 51
Women Age 20 and Older With High Serum Total Cholesterol by Race/Ethnicity, 2007–2010



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Table 71 (p. 247). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

followed by white females (150 deaths per 100,000), American Indian or Alaska Native females (139 deaths per 100,000), Hispanic females (101 deaths per 100,000), and Asian or Pacific Islander females (92 deaths per 100,000).¹¹⁷

Incidence

- Among women during the 2005–2009 period, the highest cancer incidence was generally reported for breast cancer, followed by lung and colorectal cancers. This pattern differed somewhat for Hispanic women and Asian or Pacific Islander women, among whom colorectal cancer was more common than lung cancer. Uterine cancer ranked fourth among women of all racial and ethnic groups except Asians or Pacific Islanders. Thyroid cancer was the fourth most common cancer among Asian or Pacific Islander women.¹¹⁷
- During the 2000–2009 period, the incidence rates of all cancers combined decreased only for white women and for Hispanic women.¹¹⁸
- Between 2000 and 2009, the trend in incidence differed by type of cancer and by racial and ethnic group of women. During this decade, breast cancer incidence rates declined among white women, increased among black and Asian or Pacific Islander women, and were stable among American Indian and Alaska Native and Hispanic women. However, in the latter 5-year period (2005–2009), breast cancer incidence rates were stable among women of all racial and ethnic groups.¹¹⁸
- Lung cancer incidence rates were stable from 2000 to 2009 among women of all racial and ethnic groups but decreased among all women between 2005 and 2009. Colorectal cancer incidence rates decreased among women of every racial and ethnic group between 2000 and 2009, although this decrease was not statistically significant for American Indian and Alaska Native women.¹¹⁸
- Liver cancer incidence rates increased among white, black, and Hispanic women during the 2000–2009 decade. Pancreatic cancer incidence rates increased only among white women. Kidney and thyroid cancer incidence

rates increased among women of every racial and ethnic group. Uterine cancer incidence rates increased among women of all racial and ethnic groups, although increases were not statistically significant among white and American Indian and Alaska Native women.¹¹⁸

- Among most racial and ethnic groups in California, the breast, lung and bronchus, and colon and rectum were among the top three sites for cancers among females in the 2005–2009 period.¹¹⁹
- Cancers at other sites of the body are found with varying frequencies among women of the various racial and ethnic groups in California. During the 2005–2009 period, liver cancer was among the five most common cancers for Kampuchean, Laotian, and Vietnamese females. Stomach cancer was among the five most common cancers for Japanese and Korean females. Ovarian cancer was the fifth most common cancer for South Asian females. Non-Hodgkin lymphoma was the fifth most common cancer for Native Hawaiian females. Kidney cancer was the fifth most common cancer for American Indian females. Pancreatic cancer was the fifth most common cancer for African American females. And melanoma (skin cancer) was the fifth most common cancer for white non-Hispanic females.¹¹⁹
- Among females living in Hawaii during the 2000–2005 period, Native Hawaiians had the highest average annual incidence of all cancers combined (448 cases per 100,000 population), followed by whites (417 per 100,000), Japanese (364 per 100,000), Filipino (341 per 100,000), and Chinese (317 per 100,000).¹²⁰
- Breast cancer was the most frequently diagnosed form of cancer among females of the major racial and ethnic groups in Hawaii during the 2000–2005 period. About a quarter of Native Hawaiian (35 percent), Japanese (35 percent), white (31 percent), Chinese (30 percent), and Filipino (29 percent) female patients with cancer had cancer of the breast. Cancer of the lung and bronchus was the second most frequently diagnosed type of cancer among women in Hawaii—Native Hawaiian (13 percent), white (12 percent), and Filipino (10 percent) females.

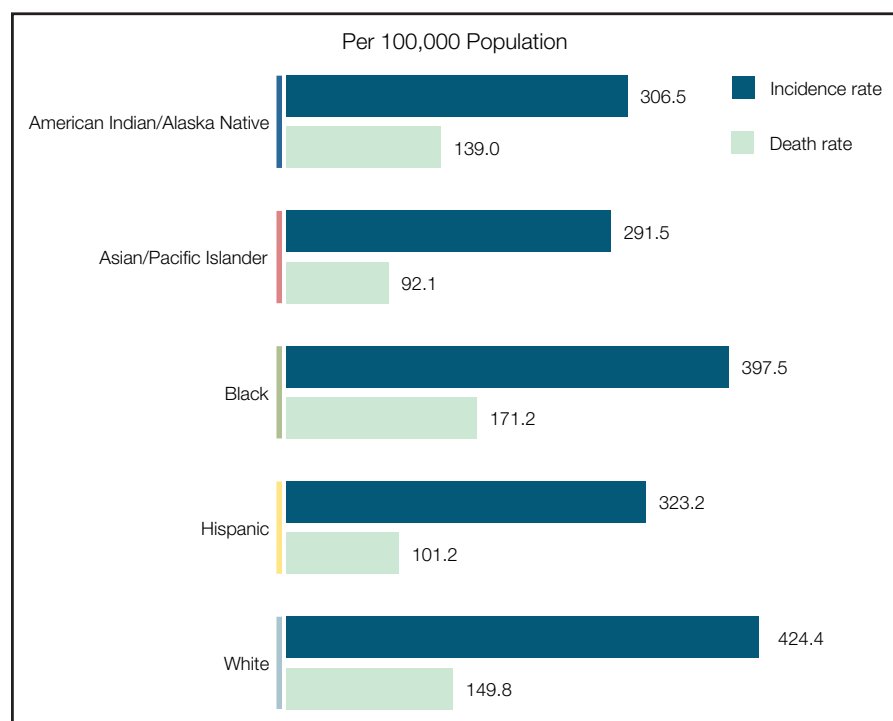
Cancer of the colon and rectum was the second most frequently diagnosed form of cancer among Chinese (13 percent) and Japanese (16 percent) females in Hawaii. The third most frequently diagnosed type of cancer was cancer of the lung and bronchus for Chinese (11 percent) and Japanese (8 percent) females. Cancer of the colon and rectum was third ranked among Filipina females (10 percent), as was melanoma (skin cancer) among white females (10 percent).¹²¹

- The reasons for racial and ethnic differences in cancer risk and incidence are not well understood. It is likely that they result from a complex combination of dietary, lifestyle, environmental, occupational, and genetic factors. Higher mortality rates among some populations are due in part to poverty, which may increase the risk of developing certain cancers and also may limit access to and utilization of preventive measures and screening. Poor health among people in poverty may also limit treatment options and decrease cancer survival rates.¹¹⁹
- The overall 5-year relative survival rate for all cancers during the 2003–2009 period was 66 percent for white females and 56 percent for black females. (The relative survival rate estimates the effect of cancer by measuring the survival of patients with cancer in comparison to the general population. These survival rates are based on data from the follow-up of patients into 2010 for 18 SEER geographic areas.¹¹⁷)

Death Rates

- During the most recent 10-year time period (2000–2009) among women, death rates from lung, breast, and colorectal cancers decreased for most of the major racial and ethnic groups. Death rates did not decline, however, for American Indian and Alaska Native women from these three cancers or for Asian or Pacific Islander women from lung cancer. During this same period, death rates from liver cancer increased among white and Hispanic women but decreased among Asian and Pacific Islander women. Pancreatic cancer death rates increased among white women but were stable among women of other racial and ethnic groups.¹¹⁸
- Black or African American females reported the highest age-adjusted death rate from all forms of cancer in 2009—168 deaths per 100,000 population—followed by the rates among white non-Hispanic females (151 per 100,000), American Indian or Alaska Native females (102 per 100,000), Hispanic females (98 per 100,000), and Asian or Pacific Islander females (90 per 100,000).²
- Death rates from all forms of cancer among female adults in 2009 varied considerably by age group, with higher rates reported among older females. Women age 85 years and older had a death rate of 1,282 per 100,000 population, followed by women ages 75 to 84 years (with 966 deaths per 100,000), women ages 65 to 74 years (with 571 deaths per 100,000), women ages 55 to 64 years (with 265 deaths per 100,000), women ages 45 to 54 years (with 111 deaths per 100,000), women ages 35 to 44 years (with 34 deaths per 100,000), and women ages 25 to 34 years (with 9 deaths per 100,000).²
- Within the age group 85 years and older, black women were the most likely to die of cancer (at a rate of 1,383 deaths per 100,000 population), and American Indian or Alaska Native women were the least likely to die of cancer (at a rate of 658 deaths per 100,000 population) in 2009.²
- Among all the age groups between 25 and 84 years (i.e., age groups 25–34, 35–44, 45–54, 55–64, 65–74, and 75–84 years), Asian or Pacific Islander women were the least likely to die of cancer in 2009. Their death rates range from 7 per 100,000 for 25- to 34-year-olds to 609 per 100,000 for 75- to 84-year-olds.²
- Black women in the age groups between 25 and 74 years were the most likely to die of cancer, with death rates ranging from 11 per 100,000 for ages 25 to 34 years to 652 per 100,000 for ages 65 to 74 years. White non-Hispanic women ages 75 to 84 years, however, were the most likely to die of cancer (1,004 deaths per 100,000 white women versus 979 deaths per 100,000 black women).²
- In the 2006–2010 period, the age-adjusted death rates for cancer of the lung and bronchus and for breast cancer varied by racial and ethnic groups, with the two rates nearly equal

Figure 52
Age-Adjusted Incidence and Death Rates for Cancer Among
Females by Race/Ethnicity, 2006–2010



Source: Howlader, N., Noone, A. M., Krapcho, M., Garshell, J., Neyman, N., Altekruse, S. F., Kosary, C. L., Yu, M., Ruhl, J., Tatalovich, Z., Cho, H., Mariotto, A., Lewis, D. R., Chen, H. S., Feuer, E. J., & Cronin, K. A. (Eds.). (2013, April). *SEER Cancer Statistics Review, 1975–2010*. Bethesda, MD: National Cancer Institute. Data from Custom Reports generated via http://seer.cancer.gov/csr/1975_2010

for some groups and quite different for other groups. The death rates for these two types of cancer are nearly identical for Hispanic females—14 per 100,000 for cancer of the lung and bronchus and 15 per 100,000 for breast cancer. The age-adjusted death rates for these cancers differed notably, however, for white non-Hispanic females (43 per 100,000 for cancer of the lung and bronchus versus 23 per 100,000 for breast cancer) and for American Indian or Alaska Native females (27 per 100,000 for cancer of the lung and bronchus versus 13 per 100,000 for breast cancer).¹¹⁷

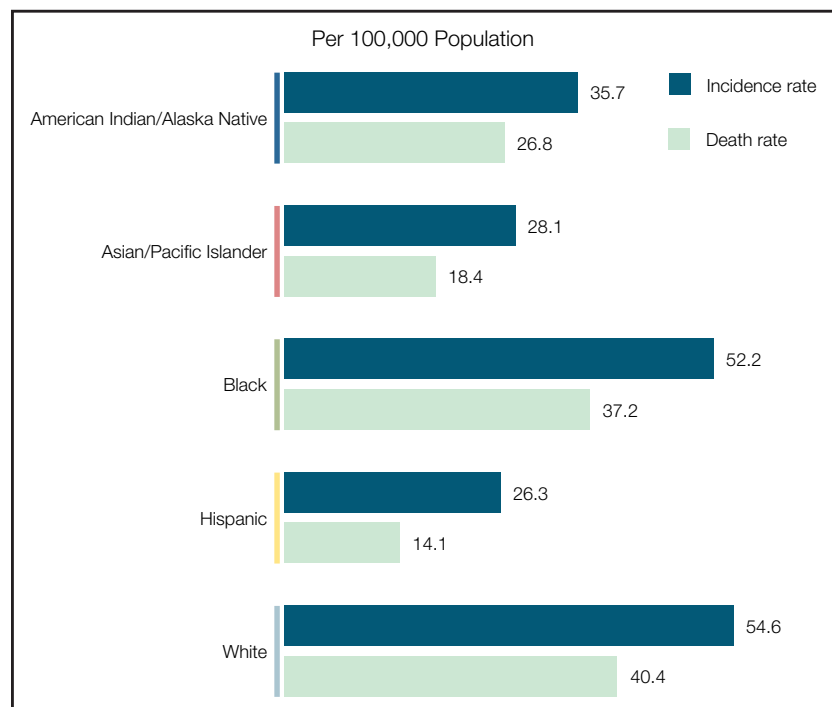
- In 2009, the age-adjusted death rate for cancers of the trachea, bronchus, and lung was highest among white non-Hispanic females (42 per 100,000), followed by black non-Hispanic females (37 per 100,000), American Indian or

Alaska Native females (25 per 100,000), Asian or Pacific Islander females (18 per 100,000), and Hispanic females (13 per 100,000).⁴

- In 2009, the age-adjusted death rate for breast cancer was highest among black non-Hispanic females (31 per 100,000), followed by white non-Hispanic females (22 per 100,000). Death rates were lower for Hispanic females (15 per 100,000), American Indian or Alaska Native females (12 per 100,000), and Asian or Pacific Islander females (11 per 100,000).⁴
- Among females living in Hawaii during the 2000–2005 period, Native Hawaiians had the highest average annual mortality rate from all types of cancer combined (171 deaths per 100,000 population), followed by females who were white (134 deaths per 100,000 population), Japanese (110 deaths per 100,000 popula-

Figure 53

Age-Adjusted Incidence and Death Rates for Cancers of Lung and Bronchus Among Females by Race/Ethnicity, 2006–2010



Source: Howlader, N., Noone, A. M., Krapcho, M., Garshell, J., Neyman, N., Altekruse, S. F., Kosary, C. L., Yu, M., Ruhl, J., Tatalovich, Z., Cho, H., Mariotto, A., Lewis, D. R., Chen, H. S., Feuer, E. J., & Cronin, K. A. (Eds.). (2013, April). *SEER Cancer Statistics Review, 1975–2010*. Bethesda, MD: National Cancer Institute. Data from Custom Reports generated via http://seer.cancer.gov/csr/1975_2010

tion), Chinese (107 deaths per 100,000 population), and Filipino (98 deaths per 100,000 population).¹²⁰

- Lung and bronchus cancer was the leading cause of cancer death for Native Hawaiian, white, Chinese, Filipino, and Japanese females in Hawaii during the 2000–2005 period. Breast cancer was the second leading cause of cancer death for all female groups except Japanese (for whom breast cancer was the third leading cause and colon and rectum was the second leading cause). Colon and rectum cancer was the third leading cause of cancer death for white, Chinese, and Filipina females. The third leading cause of cancer death among Native Hawaiian females was pancreatic cancer.¹²²

- Although cancer of the lung and bronchus was the leading cause of cancer death among females of the major racial and ethnic groups in Hawaii during the 2000–2005 period, deaths from this form of cancer as a percentage of all cancer deaths varied somewhat by racial and ethnic group. Deaths from cancer of the lung and bronchus were 25 percent of cancer deaths among Native Hawaiian females, 24 percent among white females, 22 percent among Chinese females, 19 percent among Filipina females, and 17 percent among Japanese females.¹²²

Cancers of the Lung and Bronchus

- Between 2006 and 2010, Hispanic females (26 per 100,000) and Asian or Pacific Islander females (28 per 100,000) were the groups with the lowest age-adjusted incidence of lung and bronchus cancers. In comparison, white females (55 per 100,000) and black females (52 per 100,000) were the groups with the highest incidence. The incidence among American Indian or Alaska Native females was 36 per 100,000.¹¹⁷

- During the first period, 2006–2010, the age-adjusted incidence of lung and bronchus cancers did not change significantly for any of the five major racial and ethnic groups. However, the age-adjusted death rate for lung and bronchus cancers changed significantly for some groups, with the rates declining significantly for Hispanic, black, white, and Asian or Pacific Islander females over this period.¹¹⁷
- Age-adjusted death rates for the five racial and ethnic groups from lung and bronchus cancers during the 2006–2010 period show a similar pattern to that for the 2001–2010 period.

Hispanic females had the lowest rate (14 per 100,000), with higher rates reported by Asian or Pacific Islander females (18 per 100,000), American Indian or Alaska Native females (27 per 100,000), black females (37 per 100,000), and white females (40 per 100,000).¹¹⁷

- In 2009, the age-adjusted death rate from cancers of the trachea, bronchus, and lung was highest among white non-Hispanic females (42 per 100,000), followed by black non-Hispanic females (37 per 100,000), American Indian or Alaska Native females (25 per 100,000), Asian or Pacific Islander females (18 per 100,000), and Hispanic females (13 per 100,000).⁴
- Although AI/AN women generally have a lower lung cancer death rate than do white women, AI/AN women ages 25 to 34 years and 65 to 74 years who lived in the IHS areas (between 2002 and 2004) had higher death rates from lung cancer than their white U.S. counterparts (2003).¹⁶
- In Hawaii during the 2000–2005 period, Native Hawaiian females had the highest age-adjusted incidence of lung and bronchus cancers (62 per 100,000), followed by white females (48 per 100,000), Filipina females (35 per 100,000), Chinese females (33 per 100,000), and Japanese females (26 per 100,000).¹²³
- The age-adjusted death rates from lung and bronchus cancers showed a similar pattern for the major racial and ethnic groups in Hawaii during the 2000–2005 period. Native Hawaiian females had the highest death rate (43 per 100,000), followed by white females (32 per 100,000), Chinese females (24 per 100,000), Filipina females (19 per 100,000), and Japanese females (17 per 100,000).¹²⁴
- Women who smoke have a risk of dying of lung cancer 12 times greater than that of women who do not smoke. In addition, the risks of dying of both bronchitis and emphysema among women who smoke are 10 times those among nonsmoking women.¹²⁵ During the 2000–2004 period, smoking resulted in nearly 174,000 deaths on average each year among females in the United States. The three leading specific causes of smoking-attributable

death were lung cancer, ischemic heart disease, and chronic obstructive pulmonary disease.¹²⁶

Breast Cancer

Incidence

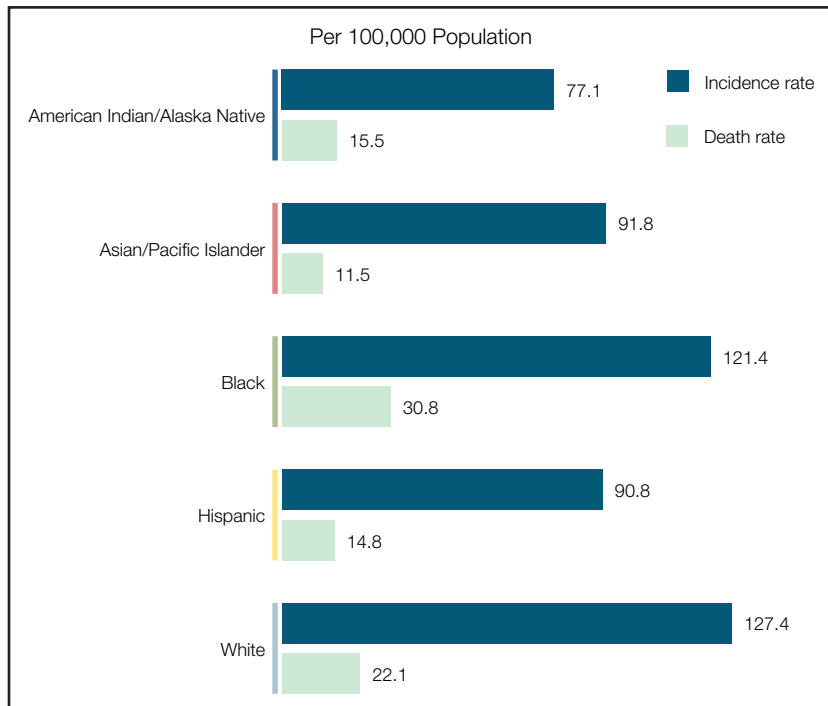
- During the 2001–2010 period, the age-adjusted incidence of breast cancer among white females and Hispanic females declined significantly. Over this same period, however, the incidence of breast cancer did not change significantly among black, Asian or Pacific Islander, and American Indian or Alaska Native females.¹¹⁷
- In the 2006–2010 period, white females had the highest age-adjusted incidence of breast cancer (127 per 100,000), followed closely by black females (121 per 100,000). Asian or Pacific Islander females (92 per 100,000) and Hispanic females (91 per 100,000) had similar rates, and American Indian or Alaska Native females (77 per 100,000) had the lowest incidence.¹¹⁷
- Among females living in Hawaii during the 2000–2005 period, Native Hawaiians had the highest age-adjusted incidence of breast cancer (158 per 100,000), followed by Japanese (140 per 100,000), whites (128 per 100,000), Chinese (99 per 100,000), and Filipinos (97 per 100,000).¹²⁷

Mortality

- Compared with incidence rates, death rates showed a somewhat different pattern during the 2001–2010 period. Breast cancer remained a leading cause of cancer deaths among females, although the age-adjusted death rates for breast cancer declined significantly among white, Hispanic, black, Asian or Pacific Islander, and American Indian or Alaska Native females during this period.¹¹⁷
- The age-adjusted breast cancer death rate for American Indian or Alaska Native females living in IHS service areas was 17.9 per 100,000 population in 1999–2001, a third (33 percent) lower than the rate for women of all races (26.8 per 100,000 population) in 2000. The rates varied greatly among the IHS service areas, however, ranging from 8.3 per 100,000 females

Figure 54

Age-Adjusted Incidence and Death Rates for Breast Cancer Among Females by Race/Ethnicity, 2006–2010



Source: Howlader, N., Noone, A. M., Krapcho, M., Garshell, J., Neyman, N., Altekruse, S. F., Kosary, C. L., Yu, M., Ruhl, J., Tatalovich, Z., Cho, H., Mariotto, A., Lewis, D. R., Chen, H. S., Feuer, E. J., & Cronin, K. A. (Eds.). (2013, April). *SEER Cancer Statistics Review, 1975–2010*. Bethesda, MD: National Cancer Institute. Data from Custom Reports generated via http://seer.cancer.gov/csr/1975_2010

in the California service area to 24.8 per 100,000 females in the Bemidji service area.⁵

- The age-adjusted death rate for breast cancer between 2006 and 2010 was highest among black females (31 per 100,000). Death rates for other groups were notably smaller—white females (22 per 100,000), Hispanic females (15 per 100,000), American Indian or Alaska Native females (13 per 100,000), and Asian or Pacific Islander females (12 per 100,000).¹¹⁷
- In 2009, the age-adjusted death rate for breast cancer remained highest among black non-Hispanic females (31 per 100,000), followed by white non-Hispanic females (22 per 100,000), Hispanic females (15 per 100,000), American Indian or Alaska Native females (12 per 100,000), and Asian or Pacific Islander females (11 per 100,000).⁴

- The overall 5-year relative survival rate from breast cancer over the 2003–2009 period was 90 percent for white females and 79 percent for black females.¹¹⁷ Hispanic women are more likely to be diagnosed with breast cancer at later stages, have larger tumors, and have lower 5-year survival rates than white non-Hispanic women.⁶⁸ (The relative survival rate estimates the effect of cancer by measuring the survival of patients with cancer in comparison to the general population. This survival rate is based on data from the follow-up of patients into 2010 for 18 SEER geographic areas.¹¹⁷)

Cervical Cancer

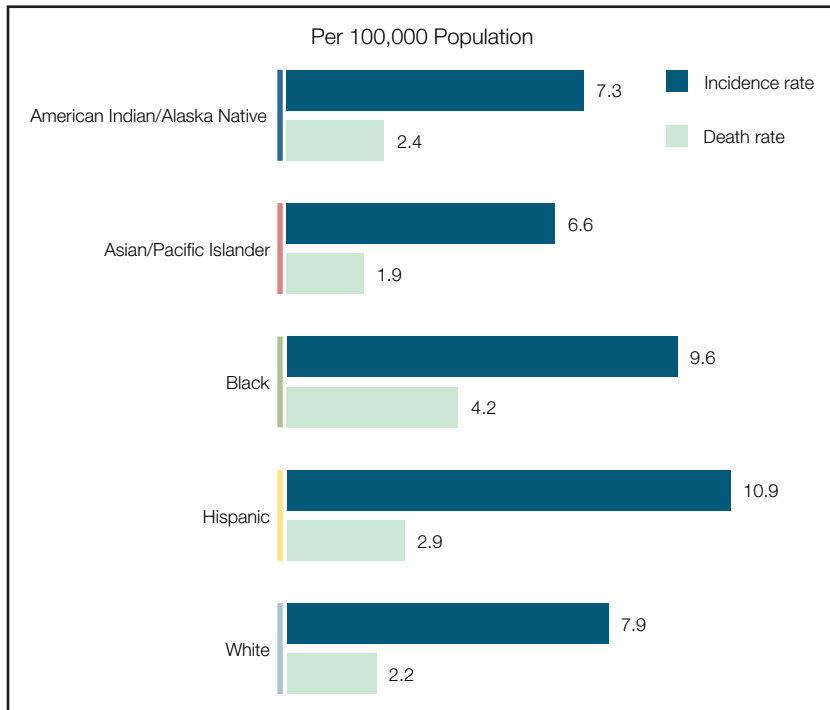
- Although all women are at risk for cervical cancer (or cancer of the cervix uteri), it occurs most often in women older than age 30 years. Each year, approximately 12,000 women in the United States are diagnosed with cervical cancer.¹²⁸

- Nearly all cases of cervical cancer are caused by the genital human papillomavirus, known as HPV.¹²⁹ Two vaccines, Cervarix and Gardasil, protect against cervical cancer in women. These vaccines offer the best protection if all three doses (administered over a 6-month period) are taken and the body develops an immune response before sexual activity is initiated. HPV vaccination is recommended for girls beginning at age 11 or 12 years and for teenagers and young women up to age 26 years.¹³⁰ Vaccination of males (with Gardasil) from ages 11 and 12 years to age 21 years is also recommended.

Incidence

- During the 2001–2010 period, the age-adjusted incidence of cervical cancer declined significantly among Hispanic, black, Asian or Pacific Islander, and white females. The rate did not

Figure 55
Age-Adjusted Incidence and Death Rates From Cervical Cancer Among Females by Race/Ethnicity, 2006–2010



Source: Howlander, N., Noone, A. M., Krapcho, M., Garshell, J., Neyman, N., Altekruse, S. F., Kosary, C. L., Yu, M., Ruhl, J., Tatalovich, Z., Cho, H., Mariotto, A., Lewis, D. R., Chen, H. S., Feuer, E. J., & Cronin, K. A. (Eds.). (2013, April). *SEER Cancer Statistics Review, 1975–2010*. Bethesda, MD: National Cancer Institute. Data from Custom Reports generated via http://seer.cancer.gov/csr/1975_2010

change significantly, however, among American Indian or Alaska Native females.¹¹⁷

- During the 2006–2010 period, Hispanic females had the highest age-adjusted incidence of cervical cancer (11 per 100,000). The incidence of cervical cancer is lower among other groups: black females (10 per 100,000), white females (8 per 100,000), American Indian or Alaska Native females (7 per 100,000), and Asian or Pacific Islander females (7 per 100,000).¹¹⁷
- Among all populations of females in Hawaii in the 2000–2005 period, Filipina females had the highest incidence of cervical cancer (10.4 per 100,000 population), followed closely by Native Hawaiian females (9.6 per 100,000). Incidence among white females was 7.0 per 100,000 population, while Chinese females (3.7 per 100,000) and Japanese females (5.1 per 100,000) had the lowest incidence.¹³¹

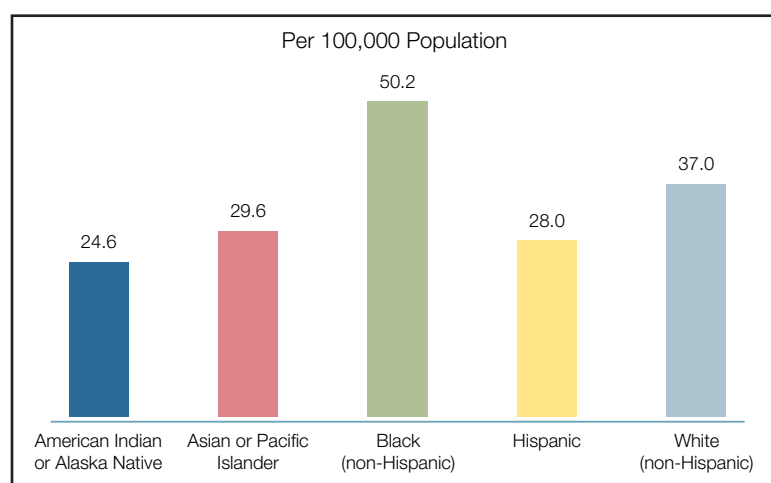
- Cervical cancer among Vietnamese American women has been identified as an important health issue. In California, although cervical cancer incidence among Vietnamese American women had declined steadily during the 1990s, its rate (14.0 per 100,000) during the 2000–2002 period was nearly twice that among white non-Hispanic women (7.3 per 100,000) in the state.⁷²
- During the 1998–2002 period, cervical cancer incidence among Cambodian Americans in California and in the Puget Sound area of Washington state was 15.0 per 100,000 women, compared with the 7.7 per 100,000 incidence among white non-Hispanic women. The age-adjusted incidence of invasive cervical cancer among Hmong women in California was 33.7 per 100,000 during the 1996–2001 period.⁷²
- The overall 5-year relative survival rate from cervical

cancer during the 2003–2009 period was 69 percent for white females and 59 percent for black females.¹¹⁷ (The relative survival rate estimates the effect of cancer by measuring the survival of patients with cancer in comparison to the general population. This survival rate is based on data from follow-up with patients into 2010 for 18 SEER geographic areas.¹¹⁷)

Mortality

- In contrast to the finding for cervical cancer incidence, the death rate from cervical cancer declined significantly among females of all the major groups—American Indian or Alaska Native, Asian or Pacific Islander, black, Hispanic, and white.¹¹⁷
- The age-adjusted death rate for cervical cancer in the 2006–2010 period was highest among black females (4.2 per 100,000), however. Death rates among females of other groups are

Figure 56
Age-Adjusted Death Rates From Cerebrovascular Diseases Among Females by Race/Ethnicity, 2009



Source: National Center for Health Statistics. (2012). Health, United States, 2011, with special feature on socioeconomic status and health, Table 31 (Web). Retrieved from <http://www.cdc.gov/nchs/hus/contents2011.htm>

Hispanic females (3.0 per 100,000), American Indian or Alaska Native females (2.4 per 100,000), white females (2.2 per 100,000), and Asian or Pacific Islander females (2.0 per 100,000).¹¹⁷

- In 2009, the age-adjusted death rate from cervical cancer was highest among black non-Hispanic females (4.3 per 100,000), followed by Hispanic females (2.8 per 100,000), American Indian or Alaska Native females (2.8 per 100,000), white non-Hispanic females (1.9 per 100,000), and Asian or Pacific Islander females (1.7 per 100,000).⁴
- During the 1999–2001 period, the age-adjusted death rate from cervical cancer for American Indian or Alaska Native females living in IHS service areas was 4.4 deaths per 100,000 population. Although the rate during this period reflects a 15 percent decrease from the rate of 5.2 deaths per 100,000 in the 1996–1998 period, the 1999–2001 death rate among American Indian or Alaska Native females was 57 percent greater than the death rate of 2.8 per 100,000 women of all races in 2000. The IHS service areas with the highest cervical cancer death rates (in 1999–2001) were Great Plains (formerly Aberdeen) (11.6 deaths

per 100,000 population) and Bemidji (8.6 deaths per 100,000 population).⁵

- Among all populations of females in Hawaii in 2000–2005, Native Hawaiian females had the highest death rate from cervical cancer (4.5 deaths per 100,000 population). Death rates among females of other racial and ethnic groups were lower but comparable to one another, with Filipina females at 2.1 deaths per 100,000, Chinese females at 1.9 deaths per 100,000, white females at 1.8 deaths per 100,000, and Japanese females at 1.6 deaths per 100,000.¹³¹

Cerebrovascular Diseases

- Cerebrovascular diseases are diseases of the blood vessels, especially the arteries that supply the brain.

Strokes are the best-known example of these diseases, which were the third-leading cause of death among all females in 2009. A total of 76,769 females died of cerebrovascular diseases that year.²

- Cerebrovascular diseases also were the third-leading killer of black, Hispanic, and Asian or Pacific Islander females, although they ranked lower as killers of American Indian or Alaska Native females (seventh) and white females (fourth).²
- Female age-adjusted death rates for cerebrovascular diseases have declined since 1980. Between 1980 and 2009, however, black females consistently had the highest death rates, followed by white females.²
- Among females in 1980, the percentage of all deaths due to cerebrovascular diseases was smallest among American Indians or Alaska Natives (5.8 percent). These diseases accounted for larger percentages of deaths among blacks (10.6 percent), whites (11.0 percent), and Asians or Pacific Islanders (11.9 percent). (Data were not available for Hispanics in 1980.) Since 1980, the percentage of deaths due to cerebrovascular diseases has declined for these groups.²
- In 2009, among white, black, and Hispanic females, the percentages of deaths due to

cerebrovascular diseases were comparable. In addition, American Indian or Alaska Native females remained the least likely group to die of cerebrovascular diseases, and Asian or Pacific Islander females were the most likely to die of cerebrovascular diseases.²

- The age-adjusted death rate from cerebrovascular diseases in 2009 was 50 per 100,000 black females, followed by 37 per 100,000 white non-Hispanic females, 30 per 100,000 Asian or Pacific Islander females, 28 per 100,000 Hispanic females, and 25 per 100,000 American Indian or Alaska Native females.²
- Death rates from cerebrovascular diseases varied considerably by age in 2009, with higher rates reported among older females. Women age 85 years and older had a death rate of 982 per 100,000, followed by a rate of 287 per 100,000 women ages 75 to 84 years, 74 per 100,000 women ages 65 to 74 years, 25 per 100,000 women ages 55 to 64 years, and 12 per 100,000 women ages 45 to 54 years.²
- Among women age 45 years and older (age groups 45–54, 55–64, 65–74, 75–84, and 85 years and older), black women were the most likely to die of cerebrovascular diseases. American Indian or Alaska Native women were the least likely to die of cerebrovascular diseases among the age groups 75 to 84 years and 85 years and older. Hispanic women were the least likely to die of cerebrovascular diseases among the age groups 45 to 54 and 65 to 74 years. White non-Hispanic women were the least likely to die of cerebrovascular diseases among the age group 55 to 64 years.²
- Among women age 75 years and older, American Indian or Alaska Native women and women of all races reported comparable death rates from cerebrovascular disease. Younger American Indian or Alaska Native women, however, were more likely than their age peers among women of all races to die of this disease. Cerebrovascular disease death rates among females ages 35 to 74 years who lived in the Bemidji, Great Plains (formerly Aberdeen), and Portland IHS service areas individually and for IHS service areas overall (38.2 per 100,000 population) were significantly higher (in

1999–2001) than the corresponding death rate of 30.0 per 100,000 for women of all races in the United States (in 2000). (These rates are calculated using death records in which cerebrovascular disease is listed as the underlying cause of death.⁵)

Diabetes Mellitus

- Diabetes mellitus (diabetes), a group of diseases characterized by abnormal glucose metabolism, is a major health problem and cause of mortality among women of color. Diabetes affects the circulatory system and frequently is associated with conditions such as arteriosclerosis (hardening of the arteries) and kidney failure.^{37,132}
- The two main types of diabetes mellitus are type 1 diabetes and type 2 diabetes. Type 1 diabetes occurs when the pancreas stops making insulin, and, as a result, glucose builds up in the blood. Individuals with type 1 diabetes must administer insulin via injections or a “pump” every day to try to regulate their blood glucose as close to normal levels as possible. For most individuals, the onset of type 1 diabetes occurs in childhood or adolescence, but the disease can develop at any age.^{37,133}
- Type 2 diabetes occurs when the body develops a resistance to insulin and no longer uses it properly. Individuals with type 2 diabetes are able to produce insulin, but their bodies are unable to use it to manage glucose levels; in addition, over time, people with type 2 diabetes can have impaired insulin production. Although type 2 diabetes was once most prevalent among adults 40 years or older, its prevalence among children and adolescents is increasing.^{37,133}
- Type 2 diabetes is strongly associated with obesity and aging and occurs at higher rates in certain racial and ethnic minority populations in the United States; it is also the most common form of the disease (90 to 95 percent of diagnosed diabetes). Type 2 diabetes has no cure, but its effects can be managed by weight loss, exercise, diet changes, oral medications, and insulin. The disease can also be prevented

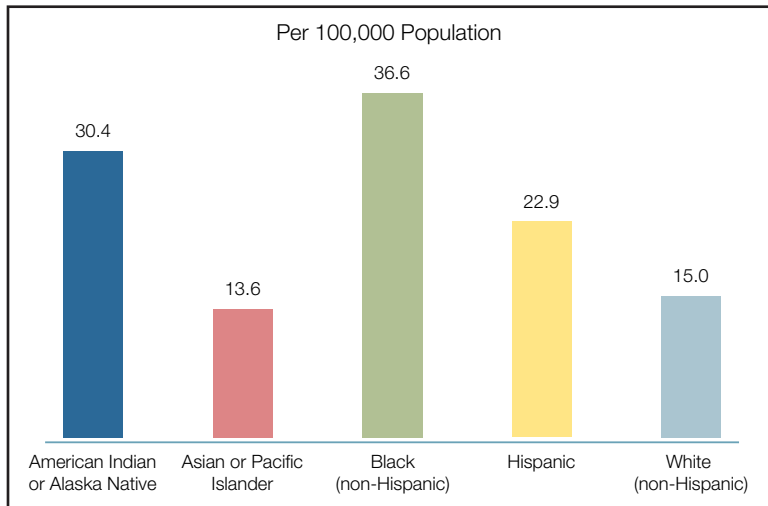
or delayed through diet and exercise in people at risk.¹³²

- Gestational diabetes is a form of abnormal glucose metabolism diagnosed during pregnancy. Gestational diabetes occurs more frequently among African American, Hispanic/Latino American, and American Indian women. Gestational diabetes is also more common among obese women and women with a family history of diabetes. During pregnancy, gestational diabetes requires management (diet, exercise, or medication) to optimize maternal blood glucose levels and lessen the risk of complications for both the mother and infant. Gestational diabetes also greatly increases a woman's risk of developing type 2 diabetes later in life.¹³²
- People with diabetes are at increased risk for a variety of other serious health conditions. Notable among these are heart disease and stroke, hypertension, blindness and eye problems, kidney disease, nervous system disease, and dental disease.¹³²

Incidence and Prevalence

- Age-adjusted prevalence of diagnosed diabetes among females in 2011 was greatest among Hispanics and African Americans—affecting 9.3 percent and 9.0 percent of these populations, respectively. The age-adjusted prevalence of diagnosed diabetes among Asian females was 5.5 percent, only slightly higher than the 5.4 percent among white females at that time. Rates higher than the 9.0 percent among all females of Hispanic origin are reported for Mexican/Mexican American females (10.7 percent) and Puerto Rican females (9.7 percent) in 2011. (Comparable data are not available for American Indian or Alaska Native females and Native Hawaiian or Other Pacific Islander females.¹³⁴)
- Data for American Indian or Alaska Native women from the National Health Interview Survey between 2004 and 2008 indicate that diabetes is more common among this population than among other racial and ethnic groups. The age-adjusted percentage of American Indian or Alaska Native females with diabetes was 16.2 percent during this period.¹³⁵
- In California, 8 percent of women (age 18 years and older) reported having ever been diagnosed with diabetes in 2009. Prevalence rates differed by race and ethnicity. White non-Hispanic women had the lowest rate (6 percent), with higher rates reported by Asian non-Hispanic women (7 percent), Latinas (9 percent), and African American non-Hispanic women (14 percent). Among Asian women, 3 percent of Vietnamese had ever been diagnosed with diabetes, compared with 6 percent of Koreans and 10 percent of Filipinos. The prevalence rates were 9 percent among Mexican women and 13 percent among Central American women. (Data for all other racial and ethnic groups were statistically unstable.¹³⁶)
- Among nonelderly women ages 18 to 64 years during the 2007–2009 period, Mexican-born women who had lived in the United States for 10 or more years (9.1 percent) were more likely to be diagnosed with diabetes than U.S.-born white non-Hispanic women (5.7 percent). Among recently arrived Mexican-born women (in the United States for less than 10 years), however, only 4.1 percent were diagnosed with diabetes. Because diabetes is a serious disease requiring lifelong management, it is worrisome to find that approximately 38 percent of Mexican-born women diagnosed with this disease lack health insurance, more than three times the percentage among U.S.-born white non-Hispanic women (13 percent).¹⁰²
- Mexican immigrant women and immigrant women from other places are more likely to develop diabetes during pregnancy (gestational diabetes) than are U.S.-born mothers. Among mothers of newborns in 2007, 4.5 percent of Mexican-born mothers and 5.1 percent of other immigrant mothers were diagnosed with pregnancy-linked diabetes, compared with 3.2 percent of U.S.-born African American mothers and 3.9 percent of U.S.-born white non-Hispanic mothers.¹⁰²
- Mothers of AI/AN newborns were more likely to have diabetes (49 cases per 1,000 live births during the 1999–2001 period) than their counterparts in the U.S. all-races population (29 cases per 1,000 live births in 2000). The

Figure 57
Age-Adjusted Death Rates From Diabetes Among Females by Race/Ethnicity, 2009



Source: Kochanek, K. D., Xu, J., Murphy, S. L., Minino, A. M., & Kung, H. C. (2011, December 29). Deaths: Final data for 2009. *National Vital Statistics Report*, 60(3), 69–80. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf

rates in the IHS service areas ranged from 32 per 1,000 live births in California to 77 per 1,000 live births in the Navajo nation.⁵

Mortality

- In 2009, black men and women (combined) lost 327 years of potential life per 100,000 population younger than 75 years of age to diabetes. Similarly, American Indians or Alaska Natives lost 295 years of potential life (per 100,000 population younger than 75 years of age). Also, per every 100,000 individuals younger than 75 years of age, Hispanics lost 165 years of potential life, whites (non-Hispanic) lost 140 years of potential life, and Asians or Pacific Islanders lost 77 years of potential life.² (Years of potential life lost is a summary measure of premature mortality or early death. It represents the total number of years not lived by people who die before reaching a given age.¹)
- Women of color are more likely to die of diabetes mellitus than are white women. In both 2009 and 2010, diabetes mellitus (diabetes) was the seventh leading cause of death for all females and for white females. It was the fourth-ranked killer, however, of black females,

American Indian or Alaska Native females, Hispanic females, and Asian or Pacific Islander females.²

- The highest age-adjusted death rate for diabetes in 2009 was 37 per 100,000 among black non-Hispanic females. Diabetes caused fewer deaths among American Indian or Alaska Native females (30 per 100,000), Hispanic females (23 per 100,000), white non-Hispanic females (15 per 100,000), and Asian or Pacific Islander females (14 per 100,000).⁴
- Among adolescent and adult AI/AN females in 2002–2004, the diabetes death rates increased sharply until age 84 years: 0.4 deaths per 100,000 population ages 15 to 24 years, 2.5 deaths per 100,000 population ages 25 to 34 years, 9 deaths per 100,000 population ages 35 to 44 years, 41 deaths per 100,000 population ages 45 to 54 years, 140 deaths per 100,000 population ages 55 to 64 years, 338 deaths per 100,000 population ages 65 to 74 years, and 514 deaths per 100,000 population ages 75 to 84 years. Among the age group 85 years and older, however, the diabetes rate among AI/AN women (416 per 100,000 population) was lower than the rates among their counterparts ages 75 to 84 years (514 per 100,000 population). In contrast, the diabetes death rate among white women continued to increase beyond the 148 deaths per 100,000 population for those ages 75 to 84 years to 286 deaths per 100,000 among those age 85 years and older.¹⁶

- Among females age 35 years and older, those living in the IHS service areas had a higher overall diabetes death rate (in 1999–2001)—276 per 100,000 population—than did females of all races in the United States (in 2000)—134 per 100,000 population. The Tucson IHS service area reported the highest rate (493 per 100,000 population), four times the rate in the Alaska IHS service area (120 per 100,000 population).⁵

Sexually Transmitted Infections Among Women

- The major sexually transmitted infections (STIs) include chlamydia, gonorrhea, syphilis,

HPV infection, and genital herpes. Health clinics/providers report the incidence and prevalence of gonorrhea, syphilis, and chlamydia to the Centers for Disease Control and Prevention (CDC), the federal government agency that monitors health data.³⁷

- Chlamydia is the most frequently reported of the three monitored STIs. For other STIs, including genital herpes and HPV infection, current, accurate data are less often available, due in part to the lack of a comprehensive national monitoring system. In addition, many STIs have no recognizable symptoms, a fact that prevents many individuals from being tested and diagnosed.³⁷
- The much higher incidences of STIs among African American women than white women may be attributable in part to the locations where women seek primary care. Black women are more likely than white women to receive services at public clinics that have more comprehensive public health STI reporting than do offices of private physicians.³⁷

Chlamydia

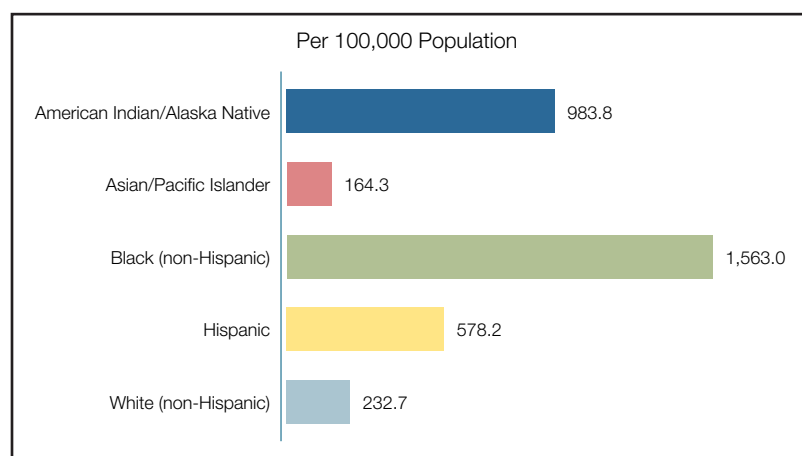
- Chlamydia is the most prevalent sexually transmitted infection in the United States. In women, chlamydia infections can result in pelvic inflammatory disease (PID), a sexually

transmitted infection that attacks women's upper reproductive tract (including the uterus, fallopian tubes, ovaries, and cervix) and can result in ectopic pregnancies, tubal scarring, and infertility. More than 100,000 women become infertile each year due to pelvic inflammatory disease.¹³⁷

- Rates of reported chlamydial infections among women have been increasing annually since the late 1980s, when public programs for screening and treatment of women were first established to avert PID and related complications. In 2011, the overall rate of chlamydial infection among women (649 cases per 100,000 females) was more than two and a half times the rate among men (257 cases per 100,000 males).¹³⁸
- Chlamydia rates among racial and ethnic subpopulations vary. Among females in 2011, blacks (non-Hispanic) had the highest chlamydia rate (1,563 cases per 100,000 population). The rate among black females was nearly 10 times the rate among Asian or Pacific Islander females (164 cases per 100,000), nearly seven times the rate among white non-Hispanic females (233 cases per 100,000), nearly three times the rate among Hispanic females (578 cases per 100,000), and more than one and a half times the rate among American Indian or Alaska Native females (984 cases per 100,000).¹³⁸

- During the 2007–2011 period, chlamydia rates increased for females of all major racial and ethnic groups: by 30 percent among white non-Hispanic females (from 180 cases per 100,000 to 233 cases per 100,000), by 20 percent among American Indian or Alaska Native females (from 819 cases per 100,000 to 984 cases per 100,000), by 14 percent among black non-Hispanic females (from 1,365 cases per 100,000 to 1,563 cases per 100,000), by 12 percent among Asian or Pacific Islander females (from 146 cases per 100,000 to 164 cases per 100,000), and by 10 percent among Hispanic females (from 526 cases per 100,000 to 578 cases per 100,000).¹³⁸

Figure 58
Chlamydia Rates Among Females by Race/Ethnicity, 2011



Source: Centers for Disease Control and Prevention. (2012). *Sexually Transmitted Disease Surveillance 2011* (p. 101). Retrieved from <http://www.cdc.gov/std/stats11/surv2011.pdf>

- Females ages 20 to 24 years reported the highest chlamydia rates in 2011, ranging from a high of 7,680 per 100,000 black non-Hispanic females to a low of 857 per 100,000 Asian or Pacific Islander females. Intermediate rates were reported among American Indian or Alaska Native females (4,688 per 100,000), Hispanic females (2,675 per 100,000), and white non-Hispanic females (1,596 per 100,000).¹³⁸
- Chlamydia rates for 15- to 19-year-olds were also high (2011). These rates ranged from a low of 594 per 100,000 Asian or Pacific Islander females to a peak of 7,507 per 100,000 black non-Hispanic females. American Indian or Alaska Native females (3,624 per 100,000), Hispanic females (2,115 per 100,000), and white non-Hispanic females (1,302 per 100,000) reported intermediate rates of chlamydia.¹³⁸
- The lowest chlamydia rates among females of all racial and ethnic groups are reported among women age 45 years and older and among females from birth through age 14 years.¹³⁸

Gonorrhea

- Gonorrhea is a sexually transmitted bacterial infection. Women with gonorrheal infection may have vaginal discharge and pelvic pain,

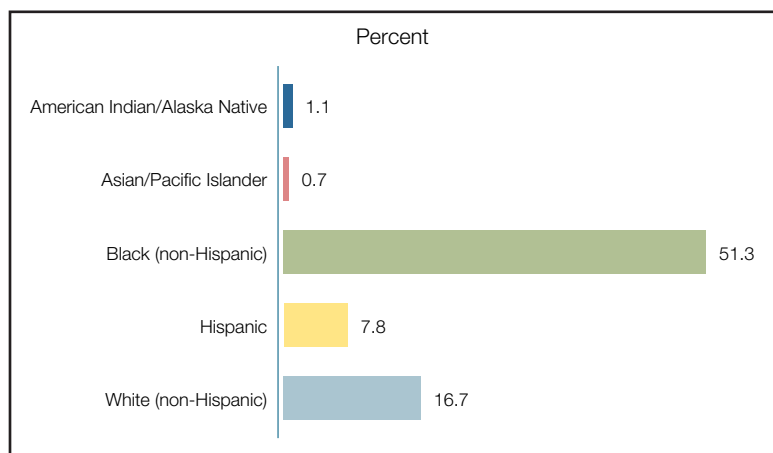
although some women do not experience symptoms. Men with gonorrhea experience burning with urination or penile discharge. In both men and women, if gonorrhea is left untreated, it may spread and cause PID and affect joints and heart valves. Gonorrhea is the second most commonly reported notifiable disease in the United States.¹³⁸

- In 2011, the gonorrhea rate among females was 109 cases per 100,000 population, and the rate among males was 99 cases per 100,000.¹³⁸
- In 2011, more than half (51 percent) of the 171,005 cases of gonorrhea reported among females were reported by black non-Hispanic females. White non-Hispanic females accounted for 17 percent of the cases, Hispanic females for 8 percent, American Indian or Alaska Native females for 1.1 percent, and Asian or Pacific Islander females for 0.7 percent. (Race or ethnicity was unknown—that is, unknown, missing, or with invalid data values—for 22.4 percent of the cases of gonorrhea reported among females in 2011.¹³⁸)
- Gonorrhea rates among racial and ethnic subpopulations vary. Among females in 2011, blacks had the highest rate (425 cases per 100,000 population). The rate among black

females was more than 30 times the rate among females who were Asian or Pacific Islander (13 cases per 100,000), 15 times the rate among white non-Hispanic females (28 cases per 100,000), 8 times the rate among Hispanic females (54 cases per 100,000), and nearly triple the rate among American Indian or Alaska Native females (145 cases per 100,000).¹³⁸

- During the 2007–2011 period, gonorrhea rates increased by a third (33 percent) for American Indian or Alaska Native females (from 110 cases per 100,000 to 145 cases per 100,000). The rates decreased by 15 percent for white non-Hispanic females (from 33 cases per 100,000 to 28 cases per 100,000), by 13 percent for black non-Hispanic

Figure 59
Gonorrhea Cases,* Distribution Among Females by Race/Ethnicity, 2011



*Race/ethnicity is unknown for 22.4 percent of cases.

Source: Centers for Disease Control and Prevention. (2012). *Sexually Transmitted Disease Surveillance 2011* (p. 112). Retrieved from <http://www.cdc.gov/std/stats11/surv2011.pdf>

females (from 486 cases per 100,000 to 425 cases per 100,000), by 11 percent for Asian or Pacific Islander females (from 15 cases per 100,000 to 13 cases per 100,000), and by 4 percent for Hispanic females (from 56 cases per 100,000 to 54 cases per 100,000).¹³⁸

- As with chlamydia, gonorrhea rates among females were highest between the ages of 15 and 24 years, with the highest rates among females ages 20 to 24 years. Among females ages 20 to 24 years, gonorrhea ranged from its peak of 2,050 cases per 100,000 black non-Hispanic females to its lowest rate of 61 cases per 100,000 Asian or Pacific Islander females. Case rates for white non-Hispanic (169 per 100,000), Hispanic (237 per 100,000), and American Indian or Alaska Native (669 per 100,000) females fell in the middle of this range.¹³⁸
- Among blacks (non-Hispanic), Hispanics, and Asians or Pacific Islanders, gonorrhea rates were higher in females than in males for people ages 15 to 24 years but were higher in males than in females for those age 25 years and older. Among whites (non-Hispanic), females had higher rates than males among people ages 15 to 29 years; males had higher rates than females among those age 30 years and older. Among American Indians or Alaska Natives, females had higher rates than males among people ages 15 to 44 years, but males had higher rates than females among those age 45 years and older.¹³⁸
- In 2011, rates of primary and secondary syphilis among females were highest among black non-Hispanic females (5.0 cases per 100,000 population), followed by females who are Hispanic (0.6 cases per 100,000), American Indian or Alaska Native (0.5 cases per 100,000), white non-Hispanic (0.3 cases per 100,000), and Asian or Pacific Islander (0.1 cases per 100,000).¹³⁸
- The rates of primary and secondary syphilis vary by age among the major racial and ethnic groups. Among blacks (non-Hispanic), Hispanics, and Asians or Pacific Islanders in 2011, the rates of primary and secondary syphilis were higher among females ages 20 to 24 years than among females of other age groups. Among whites (non-Hispanic), the rate was highest among females ages 20 to 24 years and 25 to 29 years. Among American Indians or Alaska Natives, the rate was highest among females ages 25 to 29 years.¹³⁸
- Congenital syphilis is a severe, disabling, and often life-threatening infection seen in infants. A pregnant mother who has untreated syphilis can spread the disease through the placenta to the unborn infant, often resulting in permanent birth defects. If syphilis is acquired by a woman during the 4 years before pregnancy, it can lead to infection of the fetus in 80 percent of cases. In addition, untreated early syphilis in pregnant women results in perinatal death in up to 40 percent of cases.¹³⁸

Syphilis

- Syphilis is an ulcerative genital disease that, if left untreated, causes significant complications—one of which can be to facilitate the transmission of HIV infection.¹³⁸
- Infection with the bacterium that causes syphilis is characterized by several stages. The primary stage lasts about 6 weeks and is largely asymptomatic. The secondary and tertiary (or late) stages of syphilis—in which there may be damage to the heart, central nervous system, and liver—are seldom seen in the United States, due to the existence of government-supported STI clinics, public education, and prenatal screening.¹³⁹

Genital Herpes

- Genital herpes is a sexually transmitted disease caused by the herpes simplex viruses type 1 (HSV-1) and type 2 (HSV-2). Genital herpes infection is common in the United States. The CDC estimates that one in five females between the ages of 14 and 49 years has genital HSV-2 infection, in contrast to one in nine of their male counterparts.¹⁴⁰
- Case reporting data for genital herpes simplex virus (HSV) are not available. Data from several CDC surveys indicate that blacks had higher seroprevalence of HSV-2 than did whites for each survey period and age group.¹³⁸

Human Papillomavirus Infection

- Genital human papillomavirus (HPV) infection is the most common STI. Nearly all sexually active men and women get it at some point in their lives. Most HPV infections (90 percent) go away by themselves within 2 years.¹²⁹ Persistent infection with the HPV, however, can lead to development of conditions such as cervical and anal cancer and oropharyngeal cancer (cancer in the back of the throat, including the base of the tongue and tonsils).
- Data collected during 2003–2005 in selected areas showed an HPV prevalence of 35 percent among females ages 14 to 19 years, 29 percent among those ages 20 to 29 years, 13 percent among those ages 30 to 39 years, 11 percent among those ages 40 to 49 years, and 6 percent among those ages 50 to 65 years.¹³⁸

Sexually Transmitted Infections Among Adolescent Females

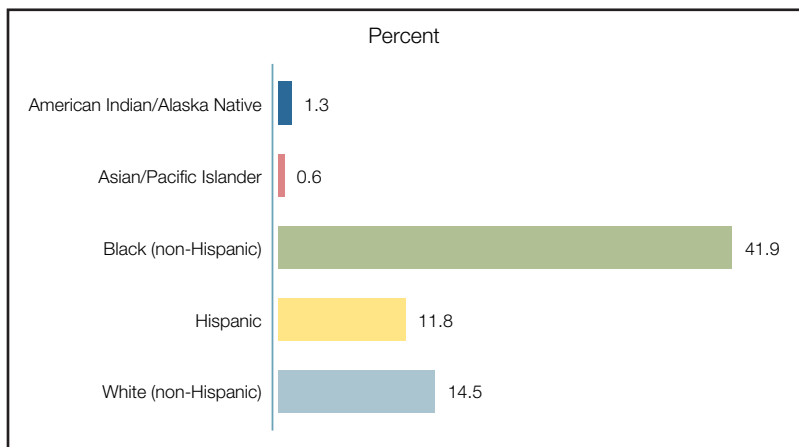
- Half of the nearly 20 million new cases of STIs that occur each year are among 15- to 24-year-olds.¹⁴¹ Adolescents are at higher risk than adults for acquiring STIs because they are more likely to engage in risky behaviors, such

as using alcohol and illicit drugs, not using condoms, and having multiple sexual partners. The major STIs prevalent among adolescents mirror those among adults—chlamydia, gonorrhea, syphilis, HPV infection, and genital herpes. As for adults, among adolescents, chlamydia is the most common STI of the three for which data are available from the CDC (chlamydia, gonorrhea, and syphilis).³⁷

Chlamydia

- Black non-Hispanics reported both the largest number of cases and the highest chlamydia rate among adolescent females in 2011.¹³⁸
- In 2011, a total of 13,588 cases of chlamydia were reported among females ages 10 to 14 years. More than two in five cases (41.9 percent) were reported by blacks (non-Hispanic), with smaller proportions reported by other groups—nearly one in seven cases (14.5 percent) by whites (non-Hispanic), nearly one in eight (11.8 percent) by Hispanics, 1.3 percent by American Indians or Alaska Natives, and 0.6 percent by Asians or Pacific Islanders. Race/ethnicity is unknown for 29.9 percent of cases of chlamydia reported among females ages 10 to 14 years.¹³⁸
- Among females ages 10 to 14 years, blacks (non-Hispanic) had the highest chlamydia rate

Figure 60
Chlamydia Cases, * Distribution Among Females Ages 10–14 by Race/Ethnicity, 2011



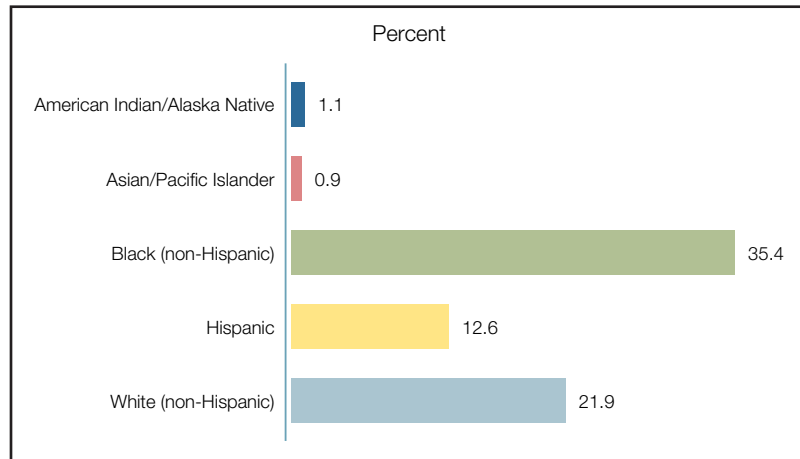
*Race/ethnicity is unknown for 29.9 percent of cases.

Source: Centers for Disease Control and Prevention. (2012). *Sexually Transmitted Disease Surveillance 2011* (pp. 99–100). Retrieved from <http://www.cdc.gov/std/stats11/surv2011.pdf>

(368 cases per 100,000 population). The rate among 10- to 14-year-old blacks was more than twice the rate among American Indians or Alaska Natives (164 cases per 100,000), more than five times the rate among Hispanics (73 cases per 100,000), nearly 11 times the rate among whites (non-Hispanic) (34 cases per 100,000), and more than 20 times the rate among Asians or Pacific Islanders (16 cases per 100,000).¹³⁸

- Of the 366,818 cases of chlamydia reported among females ages 15 to 19 years, more than a third (35.4 percent) were reported among blacks (non-Hispanic). More than one in five cases (21.9 percent) was reported

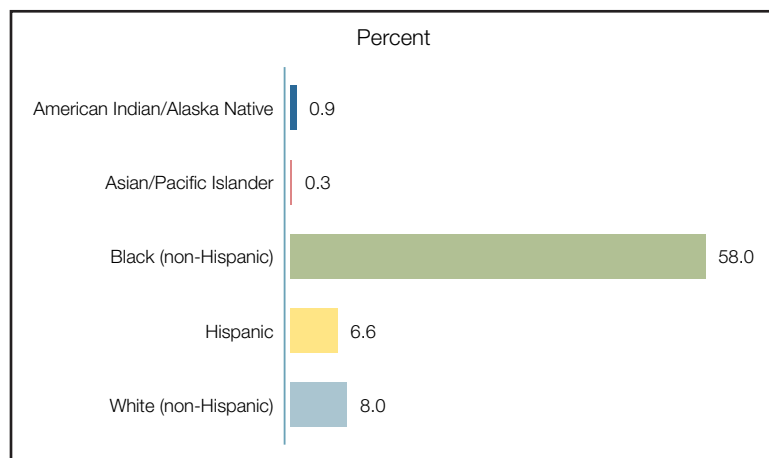
Figure 61
Chlamydia Cases,* Distribution Among Females Ages 15–19 by Race/Ethnicity, 2011



*Race/ethnicity is unknown for 28.1 percent of cases.

Source: Centers for Disease Control and Prevention. (2012). *Sexually Transmitted Disease Surveillance 2011* (pp. 99–100). Retrieved from <http://www.cdc.gov/std/stats11/surv2011.pdf>

Figure 62
Gonorrhea Cases,* Distribution Among Females Ages 10–14 by Race/Ethnicity, 2011



*Race/ethnicity is unknown for 26.3 percent of cases.

Source: Centers for Disease Control and Prevention. (2012). *Sexually Transmitted Disease Surveillance 2011* (pp. 111–112). Retrieved from <http://www.cdc.gov/std/stats11/surv2011.pdf>

among whites (non-Hispanic), one in eight (12.6 percent) among Hispanics, 1.1 percent by American Indians or Alaska Natives, and 0.9 percent among Asians or Pacific Islanders. (Race or ethnicity was unknown—that is, unknown,

missing, or with an invalid data value—for 28.1 percent of the cases of chlamydia reported among females ages 15–19 years in 2011.¹³⁸)

- Among females ages 15 to 19 years, blacks (non-Hispanic) also had the highest chlamydia rate (7,507 cases per 100,000 population). This rate was more than double the rate among American Indians or Alaska Natives (3,624 cases per 100,000), 3.6 times the rate among Hispanics (2,115 cases per 100,000), nearly 6 times the rate among whites (non-Hispanic) (1,302 cases per 100,000), and more than 12 times the rate among Asians or Pacific Islanders (594 cases per 100,000).¹³⁸

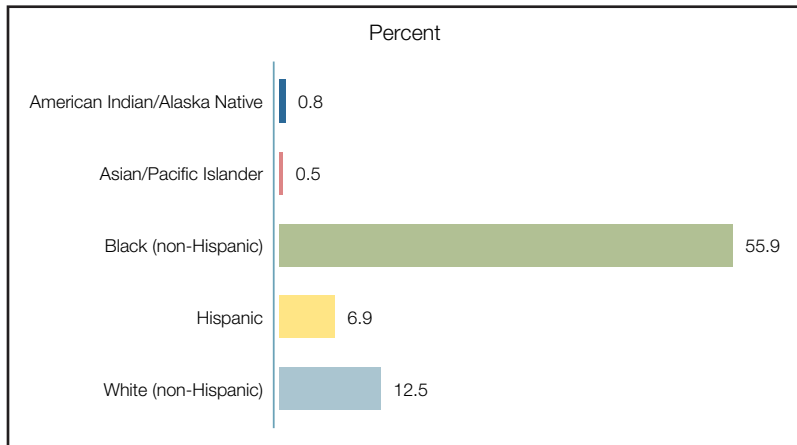
Gonorrhea

- Blacks reported both the largest number of cases and the highest gonorrhea rate among adolescent females in 2011.¹³⁸
- Of the total of 2,648 cases of gonorrhea reported in 2011 among females ages 10 to 14 years, nearly three in five (58 percent) were reported by blacks (non-Hispanic). Smaller proportions were reported by adolescents of other racial and ethnic groups—1 in 12 (8 percent) by whites (non-Hispanic), 1 in 15 (6.6 percent) by Hispanics, 0.9 percent by American Indians or Alaska Natives, and 0.3 percent by Asians or Pacific Islanders. (Race or ethnicity was unknown—that is, unknown, missing, or with an invalid data value—for

26.3 percent of the cases of gonorrhea reported among females ages 10–14 years in 2011.¹³⁸)

- Among females ages 10 to 14 years, blacks (non-Hispanic) also had the highest gonorrhea rate (99.3 cases per 100,000 population). This

Figure 63
Gonorrhea Cases,* Distribution Among Females Ages 15–19 by Race/Ethnicity, 2011



*Race/ethnicity is unknown for 23.4 percent of cases.

Source: Centers for Disease Control and Prevention. (2012). *Sexually Transmitted Disease Surveillance 2011* (pp. 111–112). Retrieved from <http://www.cdc.gov/std/stats11/surv2011.pdf>

rate is 4.5 times the rate among American Indians or Alaska Natives (21.9 cases per 100,000), more than 12 times the rate among Hispanics (7.9 cases per 100,000), nearly 27 times the rate among whites (non-Hispanic) (3.7 cases per 100,000), and more than 70 times the rate among Asians or Pacific Islanders (1.4 cases per 100,000).¹³⁸

- Of the total of 59,747 cases of gonorrhea reported in 2011 among females ages 15 to 19 years, nearly three in five cases (55.9 percent) were reported by blacks (non-Hispanic). Smaller proportions were reported among the 15- to 19-year-olds of other racial and ethnic groups—nearly 1 in 8 (12.5 percent) by whites (non-Hispanic), nearly 1 in 14 (6.9 percent) by Hispanics, 0.8 percent by American Indians or Alaska Natives, and 0.5 percent by Asians or Pacific Islanders. (Race or ethnicity was unknown—that is, unknown, missing, or with an invalid data value—for 23.4 percent of the cases of gonorrhea reported among females ages 15–19 years in 2011).¹³⁸
- Among females ages 15 to 19 years, blacks (non-Hispanic) also had the highest gonorrhea

rate (1,930 cases per 100,000 population), a rate that is 4.5 times the rate among American Indians or Alaska Natives (424 cases per 100,000), more than 10 times the rate among Hispanics (188 cases per 100,000), nearly 16 times the rate among whites (non-Hispanic) (121 cases per 100,000), and more than 33 times the rate among Asians or Pacific Islanders (58 cases per 100,000).¹³⁸

Syphilis

- Females ages 10 to 14 years of all major racial and ethnic groups reported very few cases and very low rates of primary and secondary syphilis (the first two stages of the bacterial infection) in 2011.¹³⁸
- Among females ages 15 to 19 years, blacks (non-Hispanic) reported a significantly larger number of cases (205 cases) and higher rates (11.8 cases per 100,000 population) than did adolescent females of other racial and ethnic groups.¹³⁸

HIV Infection and AIDS

- HIV can cause both HIV infection and acquired immune deficiency syndrome, or 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 some forms of cancer) and opportunistic infections (such as *Pneumocystis pneumonia*).¹⁴²
- In 2010, females accounted for one in five (21 percent) diagnoses of HIV infection among adults and adolescents in the 46 states with confidential name-based reporting. (The four states that do not have confidential name-based reporting are Hawaii, Maryland, Massachusetts, and Vermont.¹⁴³) The proportion of diagnoses among female adults and adolescents in 2010 was less than in 2009, when it was 24 percent.¹⁴³
- An individual can be newly diagnosed with HIV infection and with AIDS simultaneously. In other words, a new diagnosis of HIV infection does not necessarily represent a new infection

(or incidence). Some people newly diagnosed with HIV infection were infected recently, while others were infected at some point in the past.¹⁴³

- Compared with women of other races/ethnicities, black women and Latinas are disproportionately affected at all stages of HIV infection.¹⁴⁴
- Among women, the two main methods of transmission for HIV infection are heterosexual contact and injection drug use. From the beginning of the epidemic through 2010, heterosexual contact was the major category of exposure to HIV and AIDS for all women. 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 females in the United States were attributed to heterosexual contact in 2010.¹⁴³

New HIV Infections

- In 2010, the rate of new HIV infections among males (30.7 per 100,000 population) was more than four times that among females (7.3 per 100,000 population).¹⁴⁵
- The estimated number of new cases of HIV infection among females decreased by 21 percent between 2008 and 2010—from 12,000 to 9,500.¹⁴⁵
- Most new cases of HIV infection among females are reported among black and Hispanic females. In fact, black/African American and Hispanic/Latina females together accounted for an estimated 79 percent of new cases of HIV infection among females in 2010.¹⁴⁵
- The disproportionate representation of black females among individuals reporting new cases of HIV infection is striking. Black or African American females reported 13 percent of all new cases of infection (among males and females combined) and 64 percent of all new infections among females alone in 2010. In comparison, black or African American females constitute only 7 percent of the entire U.S. population and 13 percent of the U.S. female population.^{145,146}
- 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.¹⁴⁵ Comparing 2008 to 2010, the number of new HIV infections among black females decreased 21 percent—from 7,700 in 2008 to 6,100 in 2010. The rate of new HIV infections among black females (38.1 per 100,000 population) was more than 20 times the rate among white females (1.9 per 100,000 population).¹⁴⁵
- Although the estimated number of new cases of HIV infection among Hispanic females remained 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 did not differ significantly between 2008 (at 1,600) and 2010 (at 1,400) and was stable in all age and transmission category groups during this period. The rate of new HIV infections for Hispanic females (8.0 per 100,000 population) was more than four times that for white females (1.9 per 100,000 population). Most new cases of HIV infection among Hispanic females (86 percent) were attributed to heterosexual contact.¹⁴⁵
- The estimated number of new cases of HIV infections among white females also remained stable between 2008 and 2010. The number of new cases of HIV infection among white females remained roughly stable at 2,300 in 2008 and 1,700 in 2010. The number was stable in all age and transmission category groups. In 2010, the majority of new HIV infections among white females (76 percent) was attributed to heterosexual contact.¹⁴⁵
- Although the largest percentage of new cases of HIV infection among females was attributed to heterosexual contact (84 percent), the number of infections attributable to this cause declined during the 2008–2010 period, as did the number of new infections among females overall.¹⁴⁵ Among infected females, the number of new cases of HIV infections attributed to heterosexual contact decreased by 18 percent from 9,800 to 8,000 during this period.

- Among HIV-infected black females, the number of new infections attributed to heterosexual contact also decreased by 18 percent—from 6,500 in 2008 to 5,300 in 2010. In 2010, seven in eight (87 percent) black females newly infected with HIV attributed this infection to heterosexual contact.¹⁴⁵

Annual Diagnoses of HIV Infection

- Between 2007 and 2010, the estimated rate of annual diagnoses of HIV infection (in 46 states with confidential name-based reporting) among females decreased from 9.4 per 100,000 population to 8.0 per 100,000 population. Over the same period, however, the rate among males remained stable at 31.3 per 100,000 population in 2007 and 31.4 per 100,000 population in 2010.¹⁴³
- Blacks accounted for 63.5 percent of the 9,868 estimated annual diagnoses of HIV infection among female adults and adolescents in 2010. Other racial and ethnic groups are represented in 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), American Indians or Alaska Natives (0.6 percent), and Native Hawaiians or Other Pacific Islanders (0.1 percent).¹⁴³
- Blacks (41.7 cases per 100,000 population) had the highest estimated rate of annual diagnoses of HIV infection among female adults and adolescents in 2010. Rates among female adults and adolescents of other races are Hispanics (9.2 cases per 100,000), American Indians or Alaska Natives (6.4 cases per 100,000), Native Hawaiians or Other Pacific Islanders (4.5 cases per 100,000), Asians (2.5 cases per 100,000), and whites (2.1 cases per 100,000).¹⁴³
- Among Hispanic female adults and adolescents in 51 areas (46 states and five U.S.-dependent areas with confidential name-based HIV infection reporting) in 2010, Hispanic females 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).¹⁴³

- In Hawaii, Native Hawaiian and Filipina females are more vulnerable to HIV infection than are other females. During the 2006–2010 period, females accounted for the following proportions of cumulative cases of HIV infection (not AIDS): 33 percent of Native Hawaiians, 33 percent of Filipinos, 26 percent of Other Asians, 25 percent of people of multiple races, 24 percent of Japanese, 19 percent of African Americans, 13 percent of Other Pacific Islanders, 12 percent of Caucasians,ⁱⁱⁱ and 9 percent of Hispanics.¹⁴⁷

Annual Diagnoses of AIDS

- Between 2007 and 2010, the rate of annual AIDS diagnoses among adult and adolescent females decreased from 7.3 per 100,000 population to 6.4 per 100,000 population. Over this same period, the rate among males remained stable at 20.6 per 100,000 population in 2007 and 20.0 per 100,000 population in 2010.¹⁴³
- Among adults and adolescents, females accounted for 25 percent of all AIDS diagnoses made during 2010. The rates among adults and adolescents in 2010 were 6.4 per 100,000 population among females and 20.0 per 100,000 population among males.¹⁴³
- 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 are 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), American Indians or Alaska Natives (0.5 percent), and Native Hawaiians or Other Pacific Islanders (0.1 percent).¹⁴³
- Blacks (33.7 cases per 100,000 population) had the highest estimated rate of annual AIDS diagnoses among female adults and adoles-

ⁱⁱⁱA definition of “Caucasian” was not provided by the data source *Native Hawaiian Data Book 2011*. Thus, the term “Caucasian” could be either white or white non-Hispanic.

cents in 2010, followed by females who were Hispanic (7.1 cases per 100,000), Native Hawaiian or Other Pacific Islander (5.4 cases per 100,000), American Indian or Alaska Native (4.6 cases per 100,000), white (1.5 cases per 100,000), and Asian (1.2 cases per 100,000).¹⁴³

- Among Hispanic female adults and adolescents in the United States and in the six U.S.-dependent areas in 2010, Hispanic females 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).¹⁴³
- In Hawaii, African American females were the most vulnerable to AIDS. During the 5-year 2006–2010 period, African American females accounted for nearly two in 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 Filipinos.¹⁴⁸

Prevalence of HIV Infection and AIDS

- At the end of 2009, the estimated prevalence of diagnosed HIV infection was 496.1 cases per 100,000 adult and adolescent males, 153.6 cases per 100,000 adult and adolescent females, and 21.1 cases per 100,000 children (younger than 13 years at the time of diagnosis).¹⁴³
- Among female adults and adolescents of all major racial and ethnic groups at the end of 2009, blacks had the highest estimated prevalence for people living with a diagnosis of HIV infection (764 per 100,000 population), followed by Hispanics (190 cases per 100,000), Native Hawaiians or Other Pacific Islanders (83 cases per 100,000), American Indians or Alaska Natives (83 cases per 100,000), whites (44 cases per 100,000), and Asians (27 cases per 100,000).¹⁴³
- At the end of 2009, among the 188,668 females (in 46 states) living with a diagnosis of HIV infection (made when they were age 13 years or older), 74 percent of these infections were attributed to heterosexual contact and 26 percent to injection drug use.¹⁴³
- At the end of 2009, the estimated prevalence of diagnosed cases of AIDS was 292.0 cases per 100,000 adult and adolescent males, 85.8 cases per 100,000 adult and adolescent females, and 7.1 cases per 100,000 children (younger than 13 years at the time of diagnosis).¹⁴³
- 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 population). Prevalence among other groups of female adults and adolescents was as follows: Hispanics (114 cases per 100,000), Native Hawaiians or Other Pacific Islanders (45 cases per 100,000), American Indians or Alaska Natives (40 cases per 100,000), whites (23 cases per 100,000), and Asians (15 cases per 100,000).¹⁴³
- At the end of 2009, among the 110,945 females living with an AIDS diagnosis (made when they were 13 years or older), 68 percent of these cases were attributed to heterosexual contact and 30 percent were attributed to injection drug use.¹⁴³
- Among females living with an AIDS diagnosis, Asians were the most likely to have infections attributed to heterosexual contact (82 percent) at the end of 2009. Sizable percentages of other women of color also attributed their AIDS diagnoses to heterosexual contact: Native Hawaiians or Other Pacific Islanders (79 percent), blacks (70 percent), Hispanics (68 percent), American Indians or Alaska Natives (61 percent), and whites (60 percent).¹⁴³
- Among females living with an AIDS diagnosis, whites (38 percent) and American Indians or Alaska Natives (37 percent) were the most likely to attribute their infection with HIV to injection drug use at the end of 2009. Female adults and adolescents of other racial and ethnic groups were less likely to report the

same: Hispanics (30 percent), blacks (28 percent), Native Hawaiians or Other Pacific Islanders (18 percent), and Asians (10 percent).¹⁴³

Deaths From HIV Infection and AIDS

- Between 2007 and 2009, the rate of deaths 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 population in 2007 and 4.4 per 100,000 population in 2009. The number of deaths among females whose infection was attributed to heterosexual contact increased (from 3,052 in 2007 to 3,412 in 2009), while the number of deaths among those whose infection was attributed to injection drug use remained stable (1,979 in 2007 and 1,986 in 2009).¹⁴³
- Between 2007 and 2009, the overall rate of deaths among adult and adolescent females with an AIDS diagnosis remained stable (3.6 per 100,000 population in 2007 and 3.5 per 100,000 population in 2009). The number of deaths among females whose infection was attributed to injection drug use decreased (from 1,887 in 2007 to 1,729 in 2009), while the number of deaths of females whose infection was attributed to heterosexual contact remained stable (2,650 in 2007 and 2,755 in 2009).¹⁴³
- Among females in 2009, blacks had a much higher age-adjusted death rate from HIV disease (8.9 per 100,000) than Hispanics (1.5 per 100,000) and whites (non-Hispanic) (0.4 per 100,000). 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*. (Data for American Indian or Alaska Native and Asian or Pacific Islander females were not reported in the source because they were not deemed reliable.⁴)
- Women ages 45 to 64 years had higher death rates from HIV disease than did women ages 25 to 44 years (2009). Among black women, the death rates were 18.2 per 100,000 for 45- to 64-year-olds and 13.2 per 100,000 for 25- to 44-year-olds. Among Hispanic women,

the death rates were 3.5 per 100,000 for 45- to 64-year-olds and 1.4 per 100,000 for 25- to 44-year-olds. Among white non-Hispanic women, the death rates were 0.8 per 100,000 for 45- to 64-year-olds and 0.6 per 100,000 for 25- to 44-year-olds.²

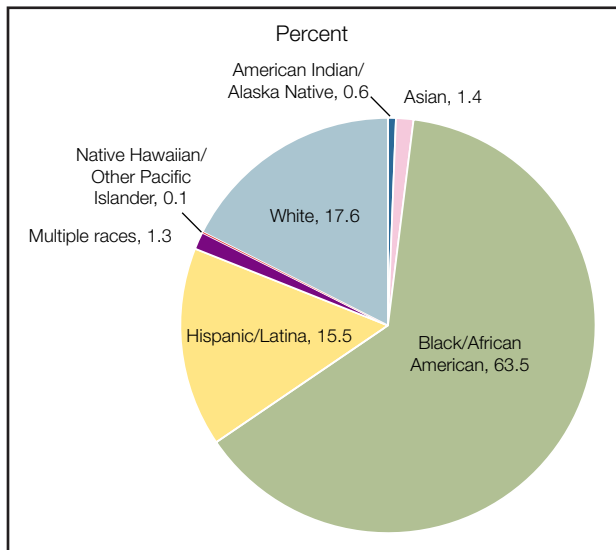
Factors Associated With HIV Infection and AIDS

- Among Hispanic women, acculturation seems to play a role in the transmission of HIV/AIDS, with the less acculturated and the more acculturated more susceptible than others. Substance use and unprotected heterosexual intercourse among more acculturated Hispanic women (and men) is a key risk factor for HIV infection and AIDS, an association that seems to be strongest among Puerto Ricans.^{149,150}
- 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).¹⁵¹ Thus, women may not know the risk factors for HIV/AIDS and may engage in risky behaviors unknowingly. However, even if they know the risk factors for HIV/AIDS and want to engage in safer sexual behaviors, they could be considered immoral and promiscuous if they discuss condom use with their partners. This concern may lead some women to forgo condom use rather than risk embarrassment and stigma. In addition, the machismo tradition among men may contribute to lower levels of self-esteem and feelings of disempowerment among Hispanic females, as well as discourage them from attempting to protect themselves and from seeking care for HIV infection or AIDS.^{149,151}
- Black and Hispanic women may be more vulnerable than white women to heterosexual transmission of HIV/AIDS through sex with men who have sex with both men and women. Compared with white non-Hispanic men, larger proportions of Hispanic and black non-Hispanic men who have sex with men (MSM) report having sex with both men and women—34 percent for black MSMs,

26 percent for Hispanic MSMs, and 13 percent for white MSMs.¹⁵²

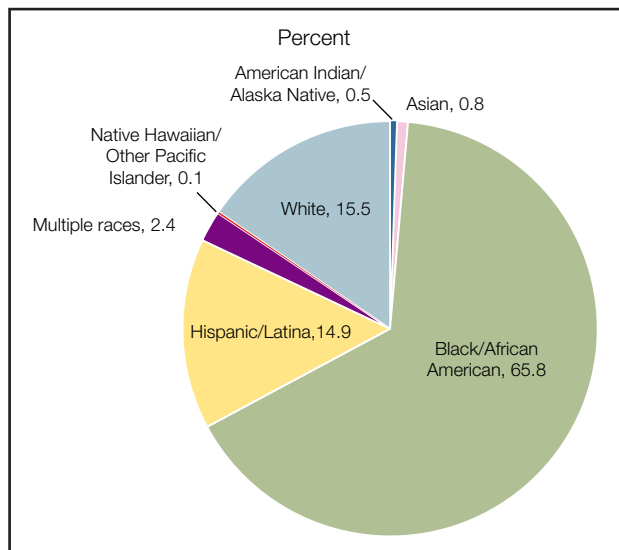
- Sexual network patterns play a role in the spread of STIs and HIV/AIDS among heterosexual women. A sexual network is a “set of people who are linked directly or indirectly through sexual contact.” Several features of sexual networks contribute to disease transmission: the extent of concurrent partnerships, absolute and relative size of the core group of people in the network with a large number of sexual contact, average level of risk in which the core groups engages, and the extent of sexual interaction between the core group and either the general population or a high-risk population.¹⁵³
- Socioeconomic factors that may support the rapid transmission of STIs and HIV infection among African Americans include a low ratio of men to women, economic oppression, racial discrimination, and high incarceration rates of black men.¹⁵³ For example, 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 low black sex ratio affects the ability of African American women to negotiate safe sexual behaviors with their African American male partners. Recognizing that the “shortage” of men makes them a desired commodity may result in African American men engaging in risky behaviors, such as sustaining multiple concurrent sexual partnerships (that is, relationships that overlap in time).^{37,154}
- Higher rates of incarceration among black men also disrupt black social sexual networks and infiltrate them with members likely to have engaged in high-risk sexual behaviors. The high incarceration rate also results in high unemployment and poverty rates among blacks, which also is associated with less stable partnerships and more high-risk behaviors.¹⁵⁴
- Despite increased availability since the mid-1990s of a widely used treatment that has proven effective in slowing the advance of HIV/AIDS, which is known as highly active antiretroviral therapy (HAART), disparities persist in access to this treatment. Women, African Americans, injection drug users, people younger than age 40 years, and people who are uninsured are less likely to receive treatment than men, whites, Hispanics, and older patients. Even when controlling for outpatient utilization and use of HIV/AIDS health care, African Americans still receive HAART less often than whites. In addition, people with HIV exposure from intravenous (IV) drug use are more likely (than people with another type of exposure) to report more than 3 months delay in receiving care after diagnosis with the disease.¹⁵⁵
- Even those women who receive antiretroviral drugs may have difficulties adhering to treatment regimens, which can contribute to reduced survival rates. Women who have HIV infection or AIDS often must bear the responsibilities and stresses of taking care of children, caring for partners or other family members, and housekeeping in addition to caring for themselves and properly managing their illnesses. A study of HIV-positive mothers of young children found that, despite expressing a desire to live long enough to see their children to adulthood, the mothers had only a 50 percent adherence to their antiretroviral medication schedules.¹⁵⁶
- An analysis of data from a network of high-volume HIV clinics found that, among women with HIV, half (50 percent) were covered by Medicaid, 13 percent were covered by Medicare, and 12 percent were covered by private health insurance (2 percent were classified as other/unknown). Almost a quarter (23 percent) of women with HIV had no coverage at all, and many relied on the publicly funded Ryan White Program to obtain needed care and services.¹⁵⁷
- African Americans with HIV infection were disproportionately likely to have Medicaid as their health insurance coverage. In FY 2007, half of all Medicaid enrollees with HIV infection (50 percent) were black, one in four (25 percent) was white, and one in six (17 percent) was Latino. In contrast, most Medicaid enrollees without HIV infection were white (42 percent), one in four was black (26 percent), and one in five was Latino (20 percent). The Medicaid coverage distribution is a reflection of

Figure 64
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 (p. 25). Retrieved from http://www.cdc.gov/hiv/surveillance/resources/reports/2010report/pdf/2010_HIV_Surveillance_Report_vol_22.pdf

Figure 65
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 (p. 27). Retrieved from http://www.cdc.gov/hiv/surveillance/resources/reports/2010report/pdf/2010_HIV_Surveillance_Report_vol_22.pdf

the distribution of the population living with HIV infection in 2007—nearly half of whom were black (46 percent), a much greater than the black share of the U.S. population overall (13 percent). (American Indians, Alaska Natives, Asians, Native Hawaiians and Other Pacific Islanders, and people of other races account for the unreported percentages of the distribution of Medicaid enrollees.¹⁵⁸)

- Although nearly three in five women ages 18 to 64 years (57 percent) reported having been tested for HIV infection at some point, only one in five (20 percent) reported that they had been tested in the past year. Black women were much more likely to report having been tested in the past year (43 percent) than were Latinas (27 percent) and white women (12 percent).¹⁵⁷
- Among nonelderly Latino, African American, and white women ages 18 to 64 years, African American women (77 percent) also were most likely to report having ever been tested for HIV. Sixty-five percent of Latinas reported the same,

as did 49 percent of white women. However, it is unclear whether these women actually were tested or whether they were under the impression that an HIV test was a routine part of their examination. More than one-fifth (22 percent) of women assumed an HIV test was a routine part of a physical examination.¹⁵⁷

- Black women were more likely to report that they asked to be tested (57 percent) than were either white women (44 percent) or Latinas (35 percent). The majority of women who were tested (79 percent) indicated that the test was part of another health visit, such as a routine checkup.¹⁵⁷

Mental Health Among Women

- Mental illness is common in the United States. An estimated 26.2 percent of Americans age 18 years and older—about one in four adults—have a diagnosable mental disorder in a given year. However, diagnoses of mental disorders can be difficult to make, and accurate tracking

of prevalence can be even more challenging. Thus, it becomes hard to accurately gauge how many people are affected by mental illness.^{159,160}

- Mental illnesses and disorders include depressive disorders (such as major depressive disorder and bipolar disorder), anxiety disorders (such as panic disorder, obsessive-compulsive disorder, and various phobias), schizophrenia, eating disorders, and Alzheimer disease. Mental disorders are more prevalent among women than men and affect the sexes differently.^{159,160}
- In Hawaii in 2010, females of different racial and ethnic groups were comparably likely to report that their mental health was bad for more than 14 days out of the past 30 days—10.3 percent of whites, 9.9 percent of Native Hawaiians, 7.1 percent of Japanese, and 5.4 percent of Filipinas.¹⁶¹
- Each year on average in the 2007–2009 period, 10.7 percent of young female adults ages 18 to 26 years—but only 6.7 percent of their male counterparts—received some type of treatment for mental health disorders. During the same period, however, young female adults spent less for the treatment of mental health disorders (an annual average of \$1,697) than did their male counterparts (\$2,493).¹⁶² These counterintuitive findings may reflect gender differences in the following: the nature of the mental illnesses treated, the severity of the symptoms presented, and the stage of the illness at which treatment is sought or provided.
- Unmet need for mental health treatment/counseling among women age 18 years and older varies notably by race and ethnicity. Between 2007 and 2009, American Indian or Alaska Native women were the most likely (9 percent) to report this unmet need, followed by white non-Hispanic women (7.2 percent) and black non-Hispanic women (6.3 percent). Women who were Hispanic (4.9 percent) and Asian (2.7 percent) were least likely to report an unmet need for mental health treatment or counseling.¹⁶²
- Among women, the cost of treatment or the lack of adequate insurance coverage was the most

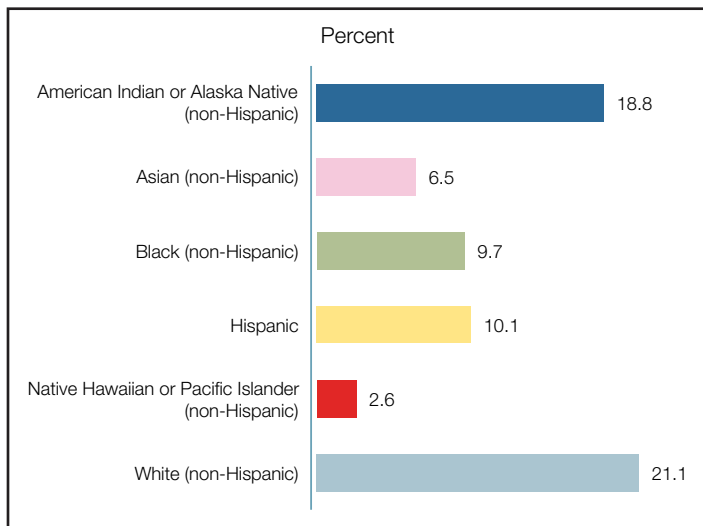
commonly reported reason for not receiving needed services (49.5 percent). However, black non-Hispanic women were significantly less likely than white non-Hispanic women to report a problem with cost or lack of adequate insurance (40.6 versus 51.1 percent).¹⁶³

Depression

- Depression is an illness that causes a persistent feeling of sadness and loss of interest in everyday activities. A high risk of suicide also is associated with depression.¹⁶⁴
- Diagnosis and treatment of depression has grown over the past few years among both women and men. In both 1999 and 2009, however, the number of women seeking treatment for depression was higher than the number of men—7.3 million women versus 2.8 million men in 1999, compared with 12.5 million women versus 5.1 million men in 2009.¹⁶⁴
- In 2009, among adult females with a major depressive episode in the last 12 months, Hispanics (52 percent) and blacks (non-Hispanic) (60 percent) were less likely to receive treatment for depression than were whites (non-Hispanic) (72 percent).¹⁰⁶
- Pregnancy and childbirth can be a very rewarding and exciting time, but it can also be a period of severe emotional stress. Postpartum depression can be disabling for the mother, affecting not only her life but also the lives of her baby and other people around her. It can limit a mother's ability to care for her new infant and result in increased use of health care services and hospitalizations.¹⁶⁵
- One study of women who gave birth at an urban academic women's hospital identified that 14 percent of the mothers screened had postpartum depression. The women identified with postpartum depression were more likely to be younger, African American, publicly insured, single, and less well educated.¹⁶⁶
- Prevalence rates suggest that both African American and Hispanic women experience postpartum depression more frequently than do Caucasian women. One study found that up to 35 percent of the African American female

Figure 66

Women Who Received Mental Health Treatment in the Past Year by Race/Ethnicity, 2010–2011



Source: National Survey on Drug Use and Health. (2013). 2-year R-DAS (2002 to 2003, 2004 to 2005, 2006 to 2007, 2008 to 2009, and 2010 to 2011). Analysis was run on May 17, 2013 (02:34 PM EDT), using SDA 3.5: Tables (Women of color having received any mental health treatment in past year). Generated at <http://www.icpsr.umich.edu/icpsrweb/SAMHDA>

population reported symptoms of postpartum depression. Symptoms of postpartum depression were identified among 38 percent of the Mexican American women in another study.¹⁶⁵

- Among mothers in Hawaii during the 2004–2008 period, Samoans (18 percent), Hawaiians (17 percent), Filipinas (16 percent), and Koreans (16 percent) were the most likely to self-report postpartum depressive symptoms. Lower rates were reported by blacks (14 percent), Chinese (13 percent), Japanese (12 percent), and whites (9 percent).²⁸
- A total of \$22.8 billion was spent on treatment for depression in 2009, an increase over the \$18.0 billion spent in 1999. In both years, higher amounts were spent for the treatment of women with depression than for men with the illness. In 1999, a total of \$14.7 billion was spent to treat depression among women, in contrast to the \$3.3 billion spent on men. Similarly, expenditures in 2009 were \$16.7 billion for women compared with \$6.1 billion for men.¹⁶⁴
- Chronic depression and stress have been suggestively associated with disease progression and

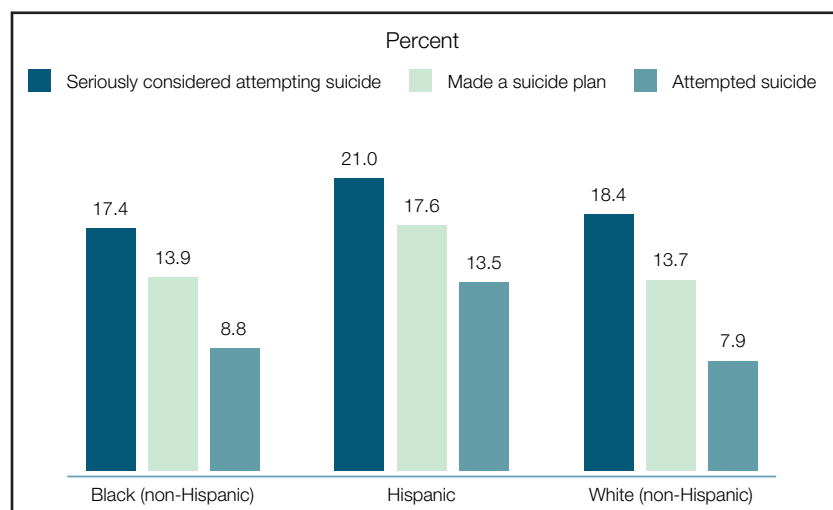
death from HIV infection among women. However, the biological pathway, as well as the true causality (that is, whether depression makes HIV infection worse, or HIV infection causes depression), remains unclear in this psychosomatic situation.³⁷

Serious Psychological Distress

- Serious psychological distress (SPD) is a nonspecific indicator of past-year mental health problems, such as anxiety or mood disorders.¹⁶⁷ During the 2004–2007 period, American Indian or Alaska Native women ages 18 to 64 years were more likely to report having experienced SPD in the past year (26 percent) than their counterparts of other racial and ethnic groups—17 percent of white women, 14 percent of Hispanic women, 14 percent of black women, and 10 percent of Asian and Native Hawaiian or Pacific Islander women.¹⁶⁸
- In California, SPD rates during the past year were found to vary among women of diverse racial and ethnic groups. In 2009, adult women from Asian and Native Hawaiian or Pacific Islander backgrounds had the lowest SPD prevalence rate for the past year (4.1 percent). Latinas (9.3 percent) and African American women (10.5 percent) were more than twice as likely as Asian and Native Hawaiian or Other Pacific Islander women to report past-year serious psychological distress. White women also were more likely than Asian and Native Hawaiian or Pacific Islander women to report past-year SPD (7.0 percent).¹⁶⁹
- In 2009, nearly one-third (32 percent) of women in California reported that they did not get the help they thought they needed for their emotional, alcohol, or drug problem, an indicator that there may be barriers to obtaining needed mental health or alcohol or other drug services. Among the major racial and ethnic groups reporting past-year SPD, African American women (48 percent) and Latinas (45 percent) were more than twice as likely as white women (21 percent)—and one and a half times as likely as Asian and Native Hawaiian or Pacific Islander women (30 percent)—to report an unmet need for such services.¹⁶⁹

Figure 67

Female High School Students Who Seriously Considered Attempting Suicide, Made a Suicide Plan, or Attempted Suicide by Race/Ethnicity, 2011



Source: Centers for Disease Control and Prevention. (2012). Youth risk behavior surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*, 61(4), 35–40. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf>

- During the 2010–2011 period, white non-Hispanic women (21 percent) and American Indian or Alaska Native non-Hispanic women (19 percent) were the most likely to have received any mental health treatment in the past year. They were more likely to have received such treatment than were Hispanic women (10 percent), black non-Hispanic women (10 percent), Asian non-Hispanic women (7 percent), and Native Hawaiian or Other Pacific Islander non-Hispanic women (3 percent).¹⁷⁰

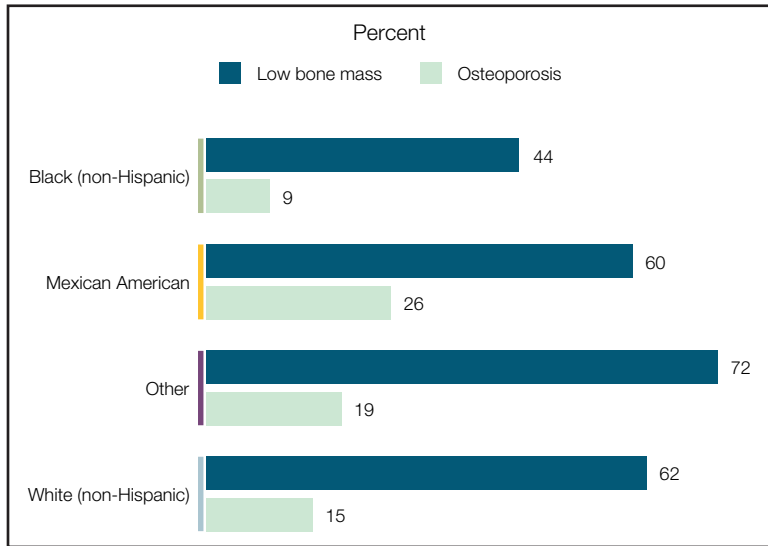
Mental Health Among Adolescent Females

- Overall, female high school students were more likely than their male counterparts to have felt so sad or hopeless almost every day for 2 or more weeks in a row that they stopped engaging in some usual activities (36 percent versus 22 percent). Among female students, Hispanics (41 percent) were more likely than whites (non-Hispanic) (34 percent) and blacks (non-Hispanic) (31 percent) to report having felt sad or hopeless.²⁹
- Among adolescent females ages 12 to 17 years in 2009 who reported a major depressive episode in the past 12 months, blacks (non-Hispanic)

(26 percent) were less likely to receive treatment for depression than were Hispanics (38 percent) or whites (non-Hispanic) (40 percent).¹⁰⁶

- Suicide attempts are one manifestation of impaired mental health. The 2011 NYRBS revealed that among high school students, Hispanic females were more likely than their black non-Hispanic and white non-Hispanic counterparts to have seriously considered attempting suicide, made a plan about how they would attempt suicide, or attempted suicide one or more times during the 12 months before the survey.²⁹
- The prevalence of having seriously considered attempting suicide was higher among Hispanic (21 percent) than among white non-Hispanic (18 percent) and black non-Hispanic (17 percent) female high school students surveyed in the 2011 NYRBS.²⁹
- Nationwide, 18 percent of Hispanic females in high school had made a plan about how they would attempt suicide, compared with 14 percent of both their black non-Hispanic and white non-Hispanic counterparts.²⁹
- Hispanic female students (14 percent) were more likely than both black non-Hispanic (9 percent) and white non-Hispanic (8 percent) female students to have attempted suicide during the 12 months before the 2011 NYRBS.²⁹
- Hispanic female students in high school were also more likely to have made a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse—4 percent of Hispanics versus 2 percent of blacks (non-Hispanic) and 2 percent of whites (non-Hispanic).²⁹
- American Indian or Alaska Native female adolescents residing in the IHS service areas (2002–2004 period) had significantly higher suicide death rates than their white counterparts

Figure 68
Age-Adjusted Prevalence of Osteoporosis or Low Bone Mass at Femur Neck or Lumbar Spine Among Women Age 50 and Older by Race/Ethnicity, 2005–2008



Source: Looker, A. C., Borrud, L. G., Dawson-Hughes, B., Shepherd, J. A., & Wright, N. C. (2012, April). Osteoporosis or low bone mass at the femur neck or lumbar spine in older adults: United States, 2005–2008. *NCHS Data Brief*, 93, 6. Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db93.pdf>

throughout the United States (2003). American Indian or Alaska Native females ages 5 to 14 years had a rate of 1.4 suicide deaths per 100,000 population, compared with the rate of 0.3 per 100,000 among their white counterparts. American Indian/Alaska Native females ages 15 to 24 years had a rate of 16.1 suicide deaths per 100,000 population, compared with the rate of 3.1 per 100,000 among their white counterparts. (The American Indian or Alaska Native death rates have been adjusted to compensate for misreporting of AI/AN race on state death certificates.¹⁶)

Osteoporosis and Arthritis
Osteoporosis

- Osteoporosis is a condition associated with an excessive loss of bone mass and an increased risk of bone fractures. As women age, they lose more bone mass than they produce, especially once they are older than 50 years of age. Women are more susceptible to osteoporosis than are men because they begin with less bone mass and lose it more rapidly than do men.

Women with osteoporosis have a bone mineral density more than 2.5 standard deviations below the normal average (mean) peak bone mass for young adults. *Osteopenia*, or low bone mass, is the term used to describe low bone mass that does not reach the threshold for osteoporosis. It is defined by bone mineral density between 1 and 2.5 standard deviations below the normal average peak bone mass for young adults.¹⁷¹

- In the 2005–2008 period, 9 percent of adults age 50 years and older had osteoporosis at either the femoral neck (a part of the hip joint) or the lumbar spine (lower back), and about half had low bone mass (or osteopenia) at either site.¹⁷² Among older adults, the age-adjusted prevalence of osteoporosis at either site was 16 percent in women, compared with 4 percent in men. The age-adjusted prevalence of low bone mass (or osteopenia) at either site was 61 percent in women, compared with 38 percent in men.¹⁷²
- Among women age 50 years and older, the overall prevalence of osteoporosis was highest in Mexican Americans, followed by whites (non-Hispanic) and blacks (non-Hispanic). In aggregate, the prevalence of osteoporosis for women who self-identified as a different race/ethnicity (e.g., Asian women, Hispanic women of a background other than Mexican American, Native American women, and multiracial women) was similar to that of non-Hispanic white women.¹⁷²
- Among older female adults during the 2005–2008 period, Mexican Americans (26 percent) had a higher age-adjusted prevalence of osteoporosis at either the femoral neck or lumbar spine than did women of other racial and ethnic groups. The prevalence of osteoporosis among Mexican American women was greater than that among women of all other races (19 percent), white non-Hispanic women (15 percent), and black non-Hispanic women

(9 percent). White non-Hispanic (62 percent), Mexican American (60 percent), and black non-Hispanic (44 percent) women all had a lower age-adjusted prevalence of low bone mass (or osteopenia) at either site than did women of other races (72 percent).¹⁷²

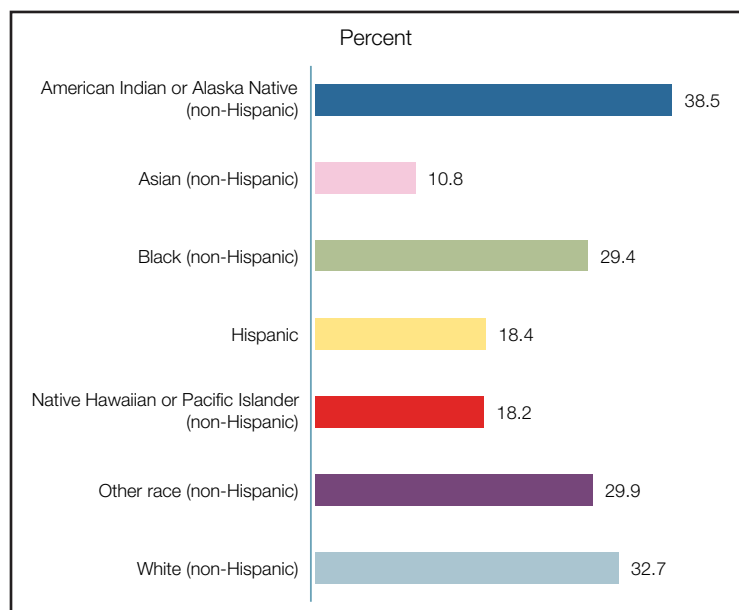
- The prevalence of osteoporosis as measured by bone mineral density at the femoral neck decreased for white women between the National Health and Nutrition Examination Survey (NHANES III) conducted in the 1988–1994 period and the NHANES conducted in the 2005–2006 period. In NHANES III, the prevalence among white women was 18 percent, but it dropped to 10 percent in the 2005–2006 NHANES. Prevalence among Mexican American women declined from about 16 percent to about 10 percent between these two administrations of the NHANES, although this change was not robust enough to be considered statistically significant. Although prevalence among African American women (6

percent) was lower than among women of other racial groups, their rate did not decline between 1988–1994 and 2005–2006.¹⁷³

- Asian American women are believed to be at increased risk for osteoporosis and osteopenia due to low consumption of calcium and the propensity to be slender. Lactose intolerance, or the inability to digest lactase, a type of natural sugar found in milk and other dairy products, contributes to the limited consumption of dairy products and the related inadequate consumption of calcium among some groups of women. Up to 90 percent of Asian American women are lactose intolerant.¹⁷⁴
- Smoking, excessive alcohol intake, inadequate physical activity, low levels of estrogen, and a family history of osteoporosis also are risk factors for these diseases.¹⁷⁵ One study found that women age 35 years and older with a family history of osteoporosis were more likely than those without such a history to report physician-diagnosed osteoporosis and to report preventive behavior, such as taking supplements of calcium or vitamin D (or both), engaging in physical activity, and taking estrogen replacement therapy.¹⁷⁶

Figure 69

Diagnosed Arthritis Among Women Age 18 and Older by Race/Ethnicity, 2009



Source: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. (2013). Analysis was run on January 8, 2013, using the behavioral risk factor surveillance system WEAT: Web Enabled Analysis Tool. Generated at http://apps.nccd.cdc.gov/s_broker/WEATSQL.exe/weat/index.html

- Between 2000 and 2008, the percentage of female Medicare beneficiaries age 65 years and older who reported ever being screened for osteoporosis (with bone mass or bone density measurement) increased from 34 percent to 71 percent. Improvements were observed among all racial and ethnic groups. However, in all years, black non-Hispanic and Hispanic women were less likely to be screened for osteoporosis than white non-Hispanic women.⁹¹

- One study of nearly 198,000 community-dwelling, postmenopausal women from five racial and ethnic groups, all without a known osteoporosis diagnosis or a recent bone mineral density test, found the highest relative risk for bone fracture by age 80 years among white and Hispanic women. Lower relative risks of fracture were found in American Indian or

Alaska Native women, black women, and Asian women in this analysis, which controlled for bone mineral density, body weight, and other health-related and demographic measures.¹⁷⁷

Arthritis

- Arthritis, defined generally as the inflammation of a joint, is a group of more than 100 diseases characterized by pain, swelling, heat, redness, and limitation of movement. Arthritis and other rheumatic conditions—conditions that impair the joints and/or soft tissues and cause chronic pain—are more common among women than men. In 2010, more than one-fourth of women (26 percent) and nearly one-fifth of men (19 percent) age 18 years and older reported doctor-diagnosed arthritis (including osteoarthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia).⁷⁸
- Among female adults of the major racial and ethnic groups in 2009, non-Hispanic Asians (11 percent) were the least likely to have ever received an arthritis diagnosis from a doctor or other health professional. Native Hawaiian or Pacific Islander non-Hispanic women (18 percent), Hispanic women (18 percent), black non-Hispanic women (29 percent), white non-Hispanic women (33 percent), and American Indian or Alaska Native non-Hispanic women (39 percent) were all more likely to have received an arthritis diagnosis.¹⁷⁸
- In 2010, 30 percent of women age 18 years and older reported recently having chronic joint symptoms (e.g., pain, aching, or stiffness in or around a joint, excluding back and neck, for more than 3 months). Hispanic women (25 percent) were less likely to report such symptoms than either white non-Hispanic (31 percent) or black non-Hispanic (32 percent) women.⁷⁸
- In California in 2005, Hispanic (14 percent) and Asian (15 percent) women were less likely to be diagnosed with arthritis, gout, lupus, or fibromyalgia than were African American (26 percent), white (29 percent), and American Indian or Alaska Native (37 percent) women. However, the rates differed significantly among women of various Asian subpopulations: Koreans (10 percent), Chinese (13 percent), Filipinas (16 percent), Vietnamese (17 percent), and Japanese (30 percent).¹⁷⁹

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ACKNOWLEDGMENTS

This data book was prepared by Wilhelmina A. Leigh, Ph.D., senior research associate, and Ying Li, Ph.D., research fellow, of The Joint Center for Political and Economic Studies in Washington, D.C. Sydney N. McKinley, an intern during spring semester 2013, provided valuable research assistance. The authors gratefully acknowledge the institutional support of The Joint Center and the assistance of Clori Jones, Amanda Lodden-Stirling, Muriel Warren, and Melissa Wells.



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

NIH Publication No. 14-4247

October 2014