HEALTH STATUS

Analysis of women's health status enables health professionals and policymakers to determine the impact of past and current health interventions and the need for new programs. Studying trends in health status can help to identify new issues as they emerge.

In this section, health status indicators related to morbidity, mortality, health behaviors, and maternal health are presented. New topics include health-related quality of life, secondhand tobacco smoke exposure, Alzheimer's disease and dementia, preconception health, unintended pregnancy, postpartum depressive symptoms, and maternity leave. In addition, special pages are devoted to summarizing the health of lesbian and bisexual women, as well as the indigenous populations of American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander women. The data throughout this section are displayed by various characteristics including sex, age, race and ethnicity, education, and income.

PHYSICAL ACTIVITY

Regular physical activity is critical for people of all ages to achieve and maintain a healthy body weight, prevent chronic disease, and promote psychological well-being. In older adults, physical activity also helps to prevent falls and improve cognitive functioning.[1] The 2008 Physical Activity Guidelines for Americans state that for substantial health benefits, adults should engage in at least 2½ hours per week of moderate intensity (e.g. brisk walking or gardening) or 1¼ hours per week of vigorous-intensity aerobic physical activity (e.g. jogging or kick-boxing), or an equivalent combination of both, plus muscle-strengthening activities on at least 2 days per week. Additional health benefits are gained by engaging in physical activity beyond this amount.[1]

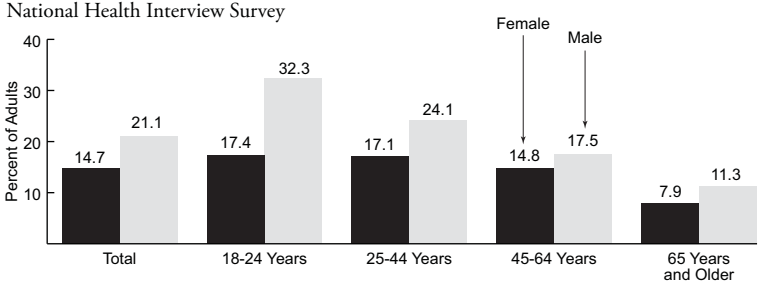
In 2007–2009, 14.7 percent of women met the recommendations for adequate physical activity, compared to 21.1 percent of men. In every age group, women were less likely than men to meet the recommendations for adequate physical activity. For both men and women, the percentage reporting adequate physical activity generally decreased as age increased.

Adequate physical activity also varied by poverty status and race and ethnicity. Overall, women with household incomes of 200 percent or more of poverty were more than twice as likely to report adequate physical activity than those with incomes below 200 percent of poverty (18.8 versus 8.6 percent, respectively; data not shown). This income difference was observed within each racial and ethnic group.

Overall, non-Hispanic White, non-Hispanic women of multiple races, and non-Hispanic American Indian/Alaska Native women reported the highest levels of adequate physical activity (16.9, 16.0, and 14.9 percent, respectively). Fewer non-Hispanic Black, Hispanic, and non-Hispanic Asian women reported engaging in adequate physical activity (9.4, 9.5, and 10.3 percent, respectively). These racial and ethnic differences occurred within both income groups.

Adults Aged 18 and Older Engaging in Adequate* Physical Activity by Age and Sex, 2007–2009

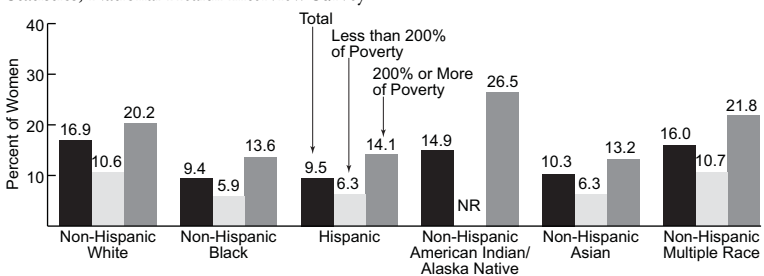
Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



**Adequate physical activity is defined as 2.5 hours per week of moderate-intensity activity or 1.25 hours per week of vigorous-intensity activity, or an equivalent combination of both, plus muscle-strengthening activities on 2 or more days per week.*

Women Aged 18 and Older Engaging in Adequate* Physical Activity, by Race/Ethnicity and Poverty Status,† 2007–2009**

Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*NR = Estimate does not meet the standards of reliability or precision. *Adequate physical activity is defined as 2.5 hours per week of moderate-intensity activity or 1.25 hours per week of vigorous-intensity activity, or an equivalent combination of both, plus muscle-strengthening activities on 2 or more days per week. **The sample of Native Hawaiian/Pacific Islanders was too small to produce reliable results. †Poverty level, defined by the U.S. Census Bureau, was $21,954 for a family of four in 2009.*

NUTRITION

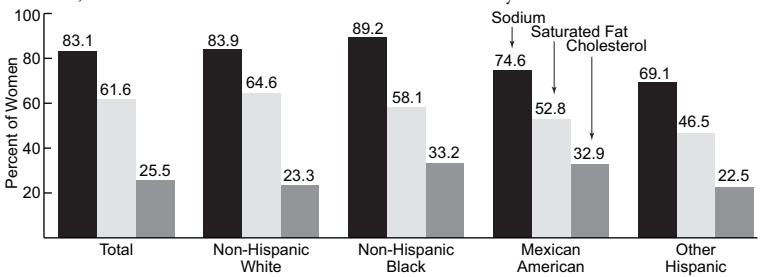
The *2010 Dietary Guidelines for Americans* recommends eating a variety of nutrient-dense foods while not exceeding caloric needs. For most people, this means eating a daily assortment of fruits and vegetables, whole grains, lean meats, seafood and beans, and reduced fat milk products while limiting added sugar, sodium, saturated and *trans* fats, and cholesterol.[2] Balancing a healthy diet with physical activity can help to prevent obesity and numerous chronic conditions, including heart disease, diabetes, and cancer, which are leading causes of death in the U.S.

High salt intake can contribute to high blood pressure—a major risk factor for cardiovascular and kidney disease. The *2010 Dietary Guidelines* recommends restriction of daily sodium intake to less than 2300 mg/day or further reduction to less than 1500 mg/day for persons who are aged 51 and older, Black, or have hypertension, diabetes, or chronic kidney disease. In 2005–2008, 83.1 percent of women exceeded the recommended maximum sodium intake—particularly non-Hispanic White and non-Hispanic Black women (89.2 and 83.9 percent, respectively), as well as those with higher household incomes (200 percent or more of poverty).

Fats that come from sources of polyunsaturated or monounsaturated fatty acids, such as fish, nuts, and vegetable oils, are an important part of a healthy diet. However, high intake of saturated fats and cholesterol, found mainly in animal-based foods, may increase the risk of cardiovascular disease. Most Americans should consume fewer than 10 percent of calories from saturated fats and less than 300 mg/day of cholesterol. *Trans* fat intake should also be kept to a minimum. In 2005–2008, 61.6 percent of women exceeded the recommended maximum daily intake of saturated fat—particularly non-Hispanic White and non-Hispanic Black women (64.6 and 58.1 percent, respectively). About 25 percent of women exceeded the recommended daily limit of cholesterol intake—particularly non-Hispanic Black and Mexican American women (33.2 and 32.9 percent, respectively). Differences in saturated fat and cholesterol intake by poverty status were not significant.

Women Exceeding the Recommended Daily Intake of Sodium, Saturated Fat, and Cholesterol,* by Race/Ethnicity, 2005–2008**

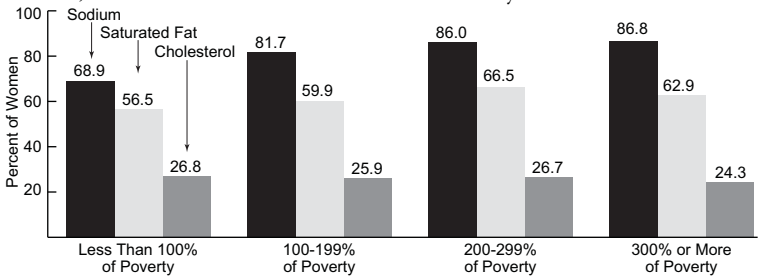
Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Maximum recommended daily intake of sodium is less than 2300 mg/day or less than 1500 mg/day for persons who are aged 51 and older, Black, or have hypertension, diabetes, or chronic kidney disease (definition used here does not include lower threshold for chronic kidney disease due to lack of condition assessment); recommended intake of saturated fat is 10 percent of daily caloric intake or less; recommended daily intake of cholesterol is less than 300 mg/day. **The samples of American Indian/Alaska Native, Asian, and Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.

Women Exceeding the Recommended Daily Intake of Sodium, Saturated Fat, and Cholesterol,* by Poverty Status, 2005–2008**

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Maximum recommended daily intake of sodium is less than 2300 mg/day or less than 1500 mg/day for persons who are aged 51 and older, Black, or have hypertension, diabetes, or chronic kidney disease (definition used here does not include lower threshold for chronic kidney disease due to lack of condition assessment); recommended intake of saturated fat is 10 percent of daily caloric intake or less; recommended daily intake of cholesterol is less than 300 mg/day. **Poverty level, defined by the U.S. Census Bureau, was $22,025 for a family of four in 2008.

ALCOHOL USE

Alcohol is a central nervous system depressant that, in small amounts, can have a relaxing effect. According to the *2010 Dietary Guidelines for Americans*, when alcohol is consumed it should be in moderation and limited to no more than one drink per day for women and two drinks per day for men.[2] While moderate alcohol consumption may have some health benefits primarily related to reducing risk of cardiovascular disease,[3] excessive drinking can lead to many adverse health and social consequences including injury, violence, risky sexual behavior, alcoholism, unemployment, liver diseases, and various cancers.[4]

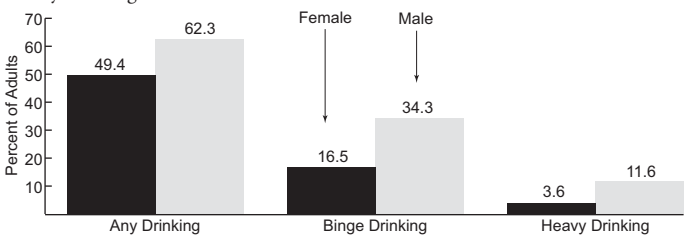
Excessive drinking includes binge drinking and heavy drinking. The National Survey on Drug Use and Health defines binge drinking as having five or more drinks on one occasion (at the same time or within a couple of hours of each other). Heavy drinking is defined as binge drinking on 5 or more of the past 30 days. Thus, binge drinking includes heavy drinking. While not presented here, the CDC has also defined heavy drinking as consuming more than one drink per day on average for women and two drinks per day on average for men.[4]

In 2007–2009, a greater percentage of men than women aged 18 and older reported past month alcohol use (62.3 versus 49.4 percent, respectively). Men were also more likely than women to report binge drinking (34.3 versus 16.5 percent, respectively) and heavy drinking (11.6 versus 3.6 percent, respectively). Despite being less likely to binge drink or drink heavily, women tend to face alcohol-related problems at a lower drinking level than men due to differences in body size and other biological factors.[5]

Binge and heavy drinking among women varies significantly by age and race and ethnicity. Younger women aged 18–25 years were more likely than women of other age groups to report binge and heavy drinking in the past month (33.8 and 9.1 percent, respectively; data not shown). With respect to race and ethnicity, binge drinking was highest among non-Hispanic Native Hawaiian/Other Pacific Islanders and non-Hispanic American Indian/Alaska Native women (27.7 and 21.3 percent, respectively). However, heavy drinking was most common among non-Hispanic White women and non-Hispanic women of multiple races, as well as non-Hispanic American Indian/Alaska Native women (4.1, 4.3, and 4.4 percent, respectively). Non-Hispanic Asian women were least likely to report binge and heavy drinking.

Past Month Alcohol Use Among Adults Aged 18 and Older, by Level of Drinking* and Sex, 2007–2009

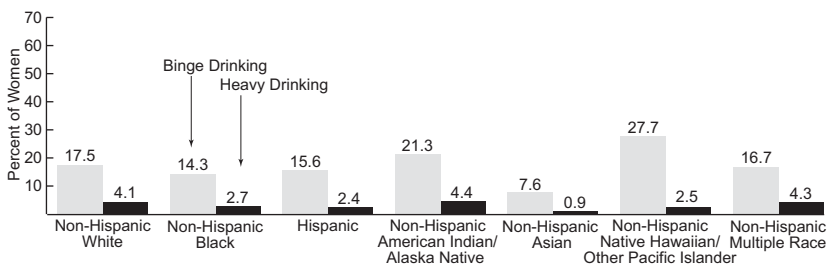
Source II.3: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health



**Any drinking indicates at least 1 drink in past month; binge drinking indicates 5 or more drinks on the same occasion in the past month; heavy drinking indicates 5 or more drinks on the same occasion for 5 or more days in the past month.*

Binge and Heavy Alcohol Consumption* in the Past Month Among Women Aged 18 and Older, by Race/Ethnicity, 2007–2009

Source II.3: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health



**Binge drinking indicates 5 or more drinks on the same occasion in the past month; heavy drinking indicates 5 or more drinks on the same occasion on 5 or more days in the past month.*

CIGARETTE SMOKING

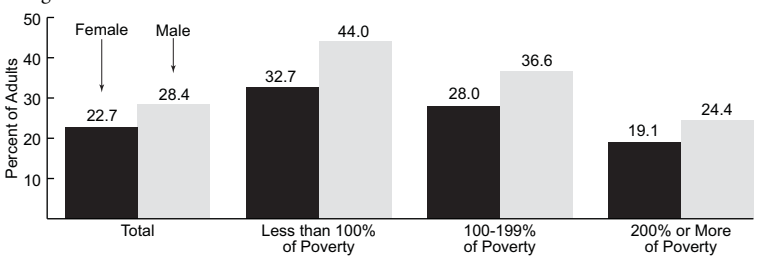
According to the U.S. Surgeon General, smoking damages every organ in the human body.[6] Cigarette smoke contains toxic ingredients that prevent red blood cells from carrying a full load of oxygen, impair genes that control the growth of cells, and bind to the airways of smokers. This contributes to numerous chronic illnesses, including several types of cancers, chronic obstructive pulmonary disease (COPD), cardiovascular disease, reduced bone density and fertility, and premature death.[6] Due to its high prevalence and wide-ranging health consequences, smoking is the single largest cause of preventable death and disease for both men and women in the United States. Cigarettes are responsible for 443,000 deaths, or 1 in 5 deaths, annually.[6]

In 2007–2009, women aged 18 and older were less likely than men to report smoking in the past month (22.7 versus 28.4 percent, respectively). For both men and women, smoking was more common among those with lower incomes. For example, 32.7 percent of women with household incomes below 100 percent of poverty smoked in the past month, compared to 19.1 percent of women with incomes of 200 percent or more of poverty. Smoking was significantly lower among women than men in every poverty category, but the difference was greater at lower income levels. Smoking also varied greatly by race and ethnicity. Among women, smoking ranged from 8.3 percent among non-Hispanic Asians to 41.8 percent among non-Hispanic American Indian/Alaska Natives (data not shown).

Quitting smoking has major and immediate health benefits, including reducing the risk of diseases caused by smoking and improving overall health.[6] In 2007–2009, about 8 percent of women and men who had ever smoked daily and smoked in the previous 3 years had not smoked in the past year. The proportion of adults who quit smoking varied by poverty level for both women and men. For example, women with household incomes of 200 percent or more of poverty were more than twice as likely to have quit smoking as women with household incomes of less than 100 percent of poverty (9.9 versus 3.9 percent, respectively). There were no significant differences in quitting smoking by sex overall or by poverty level. In 2009, five states reported covering all recommended treatments for tobacco dependence in their Medicaid programs.[7]

Past Month Cigarette Smoking Among Adults Aged 18 and Older, by Poverty Status* and Sex, 2007–2009

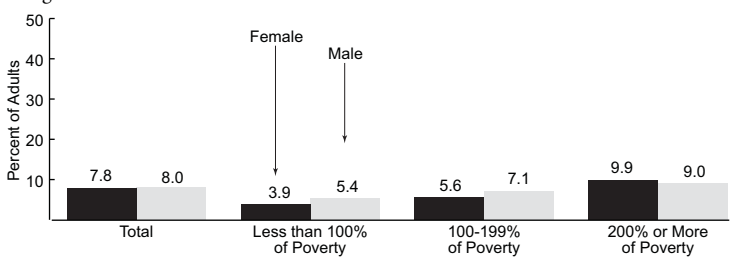
Source II.3: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health



*Poverty level, defined by the U.S. Census Bureau, was $21,954 for a family of four in 2009.

Recent Smoking Cessation* Among Adults Aged 18 and Older, by Poverty Status and Sex, 2007–2009**

Source II.3: Substance Abuse and Mental Health Services Administration, National Survey o Drug Use and Health



*Defined as the proportion of adults who did not smoke in the past year among those who ever smoked daily at some point in their lives and smoked in the past 3 years; excludes adults who started smoking in the past year. **Poverty level, defined by the U.S. Census Bureau, was $21,954 for a family of four in 2009.

ILLICIT DRUG USE

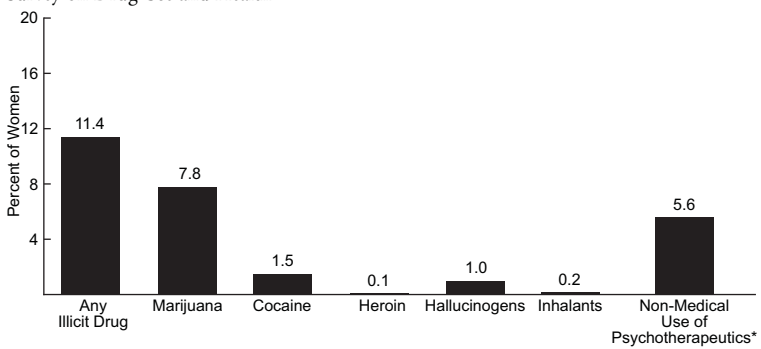
Illicit drug use is associated with serious health and social consequences, including addiction and drug-induced death, impaired cognitive functioning, kidney and liver damage, decreased productivity, and family disintegration.[8,9] Illicit drugs include marijuana, cocaine, heroin, hallucinogens, inhalants, and non-medical use of prescription-type psychotherapeutic drugs, such as pain relievers, stimulants, and sedatives. Methamphetamine is a type of psychotherapeutic drug that has limited medical use for narcolepsy and attention deficit disorder, and is now manufactured and distributed illegally.[8]

In 2007–2009, 11.4 percent of adult women aged 18 years and older reported using an illicit drug within the past year, compared to 17.0 percent of adult men (data not shown). Illicit drug use was highest among younger adults; almost one-third (30.4 percent) of adult women aged 18–25 reported past-year illicit drug use (data not shown). Marijuana was the most commonly used illicit drug among women aged 18 and older (7.8 percent), followed by the non-medical use of psychotherapeutics (5.6 percent).

Illicit drug use varies by race and ethnicity. Among women, the use of any illicit drug was highest among non-Hispanic American Indian/Alaska Native, non-Hispanic Native Hawaiian/Other Pacific Islander and non-Hispanic women of multiple races (17.5, 17.6, and 17.7 percent, respectively) and lowest among non-Hispanic Asian women (5.4 percent). Racial and ethnic differences for specific types of illicit drugs are generally similar to differences for any illicit drug use. However, non-Hispanic White and Hispanic women had among the highest rates of reported cocaine use (1.7 and 1.4 percent, respectively), while non-Hispanic Black and non-Hispanic Asian women were least likely to report cocaine use (0.9 and 0.4 percent, respectively). Non-Hispanic White women were also among the most likely to have used psychotherapeutic drugs for non-medical use (6.3 percent; data not shown).

Past Year Use of Illicit Drugs Among Women Aged 18 and Older, by Drug Type, 2007–2009

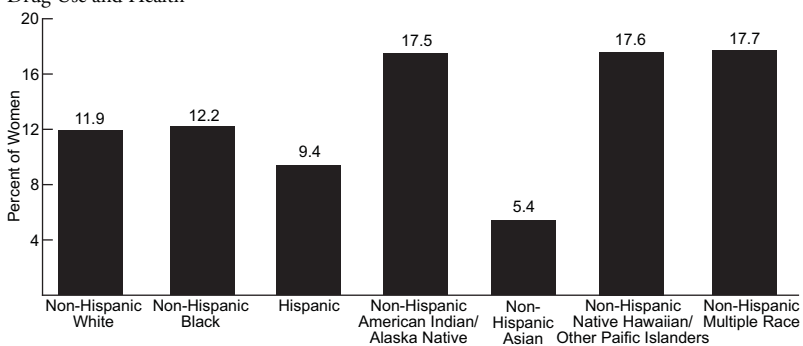
Source II.3: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health



**Includes prescription-type pain relievers, tranquilizers, stimulants, and sedatives, but not over-the-counter drugs*

Past Year Use of Any Illicit Drug* Among Women Aged 18 and Older, by Race/Ethnicity, 2007–2009

Source II.3: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health



**Includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, and any prescription-type psychotherapeutic drugs used for non-medical purposes.*

LIFE EXPECTANCY

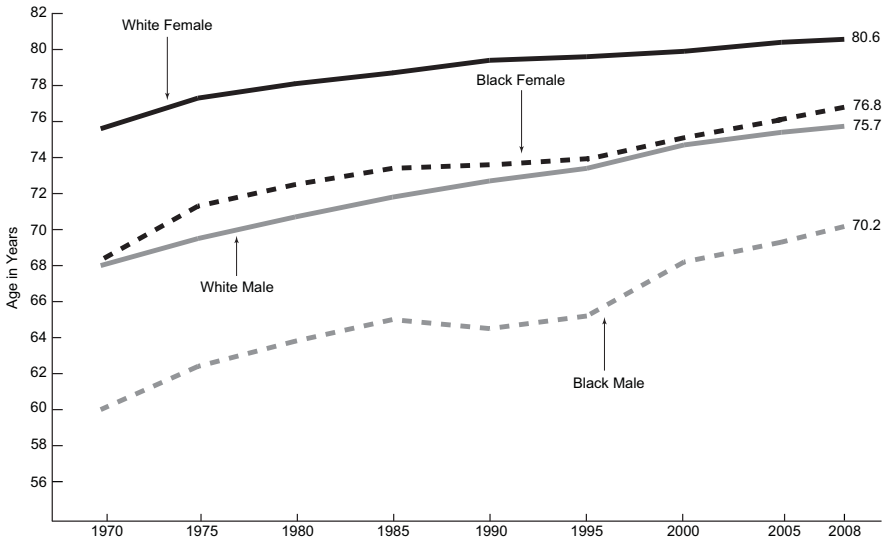
The overall life expectancy of a baby born in 2008 was 77.8 years (data not shown); this varied, however, by sex and race. A baby girl born in the United States in 2008 could expect to live 80.3 years, 5.0 years longer than a baby boy, whose life expectancy would be 75.3 years (data not shown). The differential between male and female life expectancy was greater among Blacks than Whites. Black males born in 2008 could expect to live 70.2 years, 6.6 years fewer than Black females (76.8 years). The difference between White males and females was 4.9 years, with life expectancies at birth of 75.7 and 80.6 years, respectively. White females could expect to live 3.8 years longer than Black females. The lower life expectancy among Blacks may be partly accounted for by higher infant mortality rates, as well as higher mortality rates throughout the lifespan.[10]

Life expectancy has increased since 1970 for males and females in both racial groups. Between 1970 and 2008, White males' life expectancy increased from 68.0 to 75.7 years (11.3 percent), while White females' life expectancy increased from 75.6 to 80.6 years (6.6 percent). During the same period, the life expectancy for Black males increased from 60.0 to 70.2 years (17.0 percent), while life expectancy increased from 68.3 to 76.8 years (12.4 percent) for Black females. Between 1970 and 2008, the greater gains in life expectancy for males than females and for Blacks than Whites have led to reduced disparities by sex and race.

While life expectancy estimates have not historically been calculated and reported for the Hispanic, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaska Native, and multiple race populations, the U.S. Census Bureau has calculated projected life expectancies for these groups. Among females born in 2010, those who are Hispanic are projected to have the longest life expectancy (83.7 years) followed by those of multiple races (81.7 years), Native Hawaiian/Pacific Islanders (81.6 years), American Indian/Alaska Natives (81.5 years), and Asians (81.1 years). In comparison, non-Hispanic White females born in 2010 are projected to live 81.1 years (data not shown). Males of every race are projected to have a shorter life expectancy than their female counterparts.[11]

Life Expectancy at Birth, by Race* and Sex, 1970–2008**

Source II.4: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Both racial categories include Hispanics. **2008 data are preliminary.

LEADING CAUSES OF DEATH

In 2007, there were 1,200,336 deaths of women aged 18 and older in the United States. Of these deaths, nearly half were attributable to heart disease and malignant neoplasms (cancer), which were responsible for 25.5 and 22.4 percent of deaths, respectively. The next two leading causes of death were cerebrovascular diseases (stroke), which accounted for 6.8 percent of deaths, and chronic lower respiratory disease, which accounted for 5.5 percent.

Heart disease was the leading cause of death for women in most racial and ethnic groups; the exceptions were non-Hispanic Asian/Pacific Islander and non-Hispanic American Indian/Alaska Native women, for whom the leading cause of death was cancer. One of the most noticeable differences in leading causes of death by race and ethnicity is that diabetes mellitus was the seventh leading cause of death among non-Hispanic White women, while it was the fourth among all other racial and ethnic groups. Similarly, chronic lower respiratory disease was the fourth and fifth leading causes of death among non-Hispanic White and non-Hispanic American Indian/Alaska Native women, respectively, while it ranked seventh among other racial and ethnic groups. Nephritis, or kidney inflamation, was the fifth leading cause of death among non-Hispanic Black women, but ranked eighth and ninth among women of other races and ethnicities.

Hypertension was the tenth leading cause among non-Hispanic Black and non-Hispanic Asian/Pacific Islander women, accounting for 2.0 and 1.6 percent of deaths, respectively (data not shown). Also noteworthy is that non-Hispanic American Indian/Alaska Native women experienced a higher proportion of deaths due to unintentional injury (8.2 percent) and liver disease (4.8 percent; seventh leading cause of death) than women of other racial and ethnic groups. Liver disease was also the tenth leading cause of death among Hispanic women, accounting for 2.0 percent of deaths (data not shown).

Ten Leading Causes of Death Among Women Aged 18 and Older, by Race/Ethnicity, 2007

Source II.5: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	Non-Hispanic Asian/Pacific Islander	Non-Hispanic American Indian/ Alaska Native
Cause of Death	**% (Rank)**	**% (Rank)**	**% (Rank)**	**% (Rank)**	**% (Rank)**	**% (Rank)**
Heart Disease	25.5 **(1)**	25.6 **(1)**	26.0 **(1)**	23.8 **(1)**	22.9 **(2)**	18.2 **(2)**
Malignant Neoplasms (cancer)	22.4 **(2)**	22.3 **(2)**	22.7 **(2)**	23.2 **(2)**	27.9 **(1)**	19.6 **(1)**
Cerebrovascular Diseases (stroke)	6.8 **(3)**	6.7 **(3)**	7.0 **(3)**	6.7 **(3)**	9.5 **(3)**	5.0 **(6)**
Chronic Lower Respiratory Disease	5.5 **(4)**	6.2 **(4)**	2.7 **(7)**	2.9 **(7)**	2.5 **(7)**	5.0 **(5)**
Alzheimer's Disease	4.4 **(5)**	4.8 **(5)**	2.6 **(8)**	3.0 **(6)**	2.4 **(8)**	N/A
Unintentional Injury	3.4 **(6)**	3.4 **(6)**	2.7 **(6)**	4.3 **(5)**	3.6 **(5)**	8.2 **(3)**
Diabetes Mellitus	3.0 **(7)**	2.5 **(7)**	5.1 **(4)**	5.8 **(4)**	4.2 **(4)**	6.7 **(4)**
Influenza and Pneumonia	2.4 **(8)**	2.4 **(8)**	N/A	2.4 **(8)**	3.0 **(6)**	2.1 **(9)**
Nephritis (kidney inflammation)	2.0 **(9)**	1.8 **(9)**	3.4 **(5)**	2.3 **(9)**	1.9 **(9)**	2.7 **(8)**
Septicemia (blood poisoning)	1.6 **(10)**	1.4 **(10)**	2.5 **(9)**	N/A	N/A	2.0 **(10)**

N/A = not in the top 10 leading causes of death for this racial/ethnic group.

HEALTH-RELATED QUALITY OF LIFE

Health-related quality of life has been defined as "an individual's or group's perceived physical and mental health over time."[12] Because health-related quality of life encompasses multiple aspects of health, it is often measured in different ways, including self-reported health status and the number of days in the past month that a person felt that either their physical or mental health was not good.

In 2007–2009, 53.2 percent of adults reported being in excellent or very good health, while 30.4 percent reported being in good health and 16.4 percent reported being in fair or poor health (data not shown). Self-reported health status was similar among men and women, with 53.9 percent of men and 52.6 percent of women reporting excellent or very good health. Among both sexes, self-reported health status declined with age. Among women, those aged 65 years and older were least likely to report excellent or very good health (38.0 percent), compared to 59.4 percent of women aged 18–44 years.

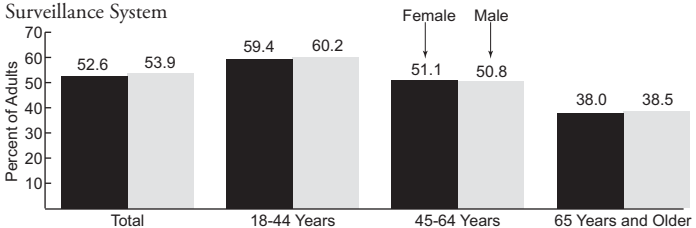
The proportion of women reporting excellent or very good health also varied by race and ethnicity (data not shown). More than half of non-Hispanic White, non-Hispanic Asian, and non-Hispanic Native Hawaiian/Other Pacific Islander women reported excellent or very good health. Hispanic, non-Hispanic American Indian/Alaska Native, and non-Hispanic Black women were least likely to report excellent or very good health (35.8, 39.3, and 40.9 percent, respectively).

In 2007–2009, women reported more physically and mentally unhealthy days than men. Women reported an average of 4.0 days of poor physical health, compared to 3.2 days per month for men. Similarly, women reported an average of 3.9 mentally unhealthy days, while men reported an average of 2.9 days per month (data not shown).

Among women, the average number of past-month physically and mentally unhealthy days varied by race and ethnicity. For both physical and mental health, non-Hispanic American Indian/Alaska Native and non-Hispanic women of multiple races reported the highest average number of unhealthy days in the past month (6.5 and 5.9 physically unhealthy days, respectively; 5.8 mentally unhealthy days for both groups). Non-Hispanic Asian women reported the lowest number of physically and mentally unhealthy days on average (2.5 and 2.4 unhealthy days, respectively).

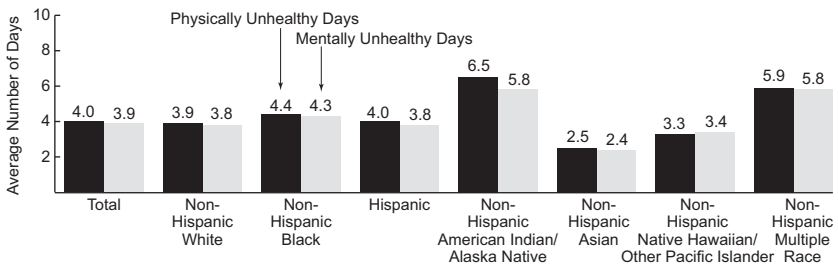
Adults Aged 18 and Older Reporting Excellent or Very Good Health, by Age and Sex, 2007–2009

Source II.6: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System



Average Number of Physically and Mentally Unhealthy Days* in Past Month Among Women Aged 18 and Older, by Race/Ethnicity, 2007–2009

Source II.6: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System



*Self-reported number of days in past 30 days that physical or mental health were not good.

ACTIVITY LIMITATIONS

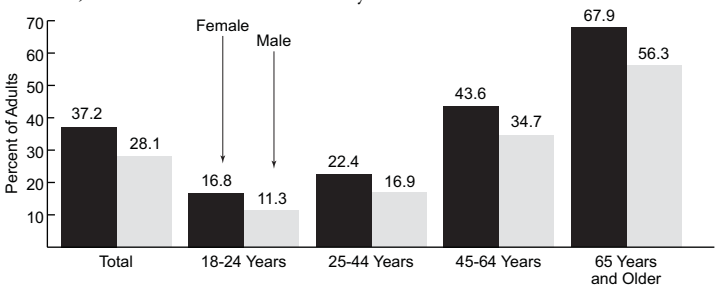
Activity limitations are defined in different ways. One common definition is whether a person is able to perform physical tasks (e.g., walking up ten steps, standing for two hours, carrying a ten pound object), or engaging in social activities and recreation (e.g., going shopping, visiting friends, sewing, reading) without the assistance of another person or using special equipment.[13] In 2007–2009, 32.8 percent of adults reported being limited in their ability to perform one or more of these common activities (data not shown). Women were more likely than men to report being limited in their activities (37.2 versus 28.1 percent, respectively).

The percentage of adults reporting activity limitations increased with age among both men and women. Only 16.8 percent of women aged 18–24 years reported activity limitations, compared to 22.4 percent of those aged 25–44 years, 43.6 percent of women aged 45–64 years, and 67.9 percent of women aged 65 years and older. A similar pattern was observed among males, with a smaller proportion of younger men reporting limitations (11.3 and 16.9 percent of men aged 18–24 and 25–44 years, respectively) compared to those aged 45–64 and 65 years and older (34.7 and 56.3 percent, respectively).

Activity limitations among women varied by poverty level. About 45 percent of women with household incomes less than 200 percent of poverty reported an activity limitation, compared to 34.3 percent of women with household incomes of 200 percent or more of poverty (data not shown). Some causes of activity limitations also varied by poverty status. For instance, women with household incomes below 100 percent of poverty were more likely to report that depression, anxiety, or other emotional problems caused activity limitations (16.7 percent), compared to women with household incomes of 100–199 percent and 200 percent or more of poverty (9.6 and 6.2 percent, respectively). The most common reported cause of activity limitations among women was arthritis (37.4 percent).

Adults Aged 18 and Older with Activity Limitations,* by Age and Sex, 2007–2009

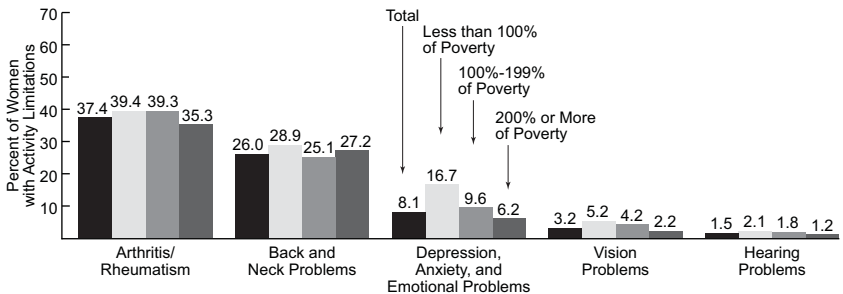
Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Activity limitations are defined as having difficulty performing certain physical, social, or recreational activities without the assistance of another person or using special equipment.

Women Aged 18 and Older with Activity Limitations,* by Selected Conditions and Poverty Status, 2007–2009**

Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Activity limitations are defined as having difficulty performing certain physical, social, or recreational activities without the assistance of another person or using special equipment. **Poverty level, defined by the U.S. Census Bureau, was $21,954 for a family of four in 2009.

OVERWEIGHT AND OBESITY

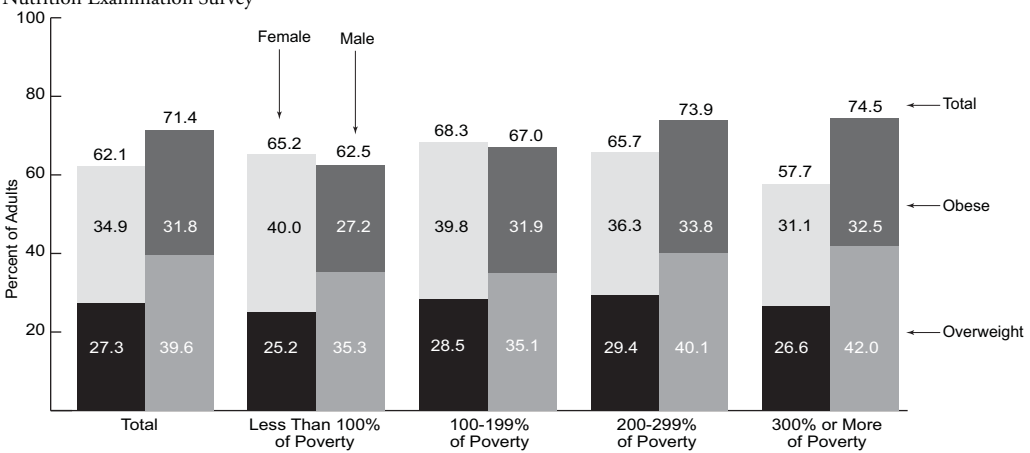
Being overweight or obese is associated with an increased risk of numerous diseases and conditions, including high blood pressure, Type 2 diabetes, heart disease, stroke, arthritis, certain types of cancer, and reproductive health risks.[14] The annual medical costs attributable to obesity are estimated to be as high as $147 billion.[14] Measurements of overweight and obesity are based on Body Mass Index (BMI), which is a ratio of weight to height. In 2005–2008, two-thirds of adults were overweight or obese; this includes 33.2 percent who were classified as overweight (BMI of 25.0 to 29.9) and 33.4 percent of adults who were classified as obese (BMI of 30.0 or more; data not shown).

In 2005–2008, women were less likely than men to be overweight (27.3 versus 39.6 percent, respectively) but more likely than men to be obese (34.9 versus 31.8 percent, respectively). The excess obesity among women compared to men was entirely restricted to extreme obesity defined by a BMI of 40.0 or more (7.1 versus 4.1 percent, respectively; data not shown). Overweight/obesity varied by poverty status in different ways for men and women. Among women, obesity was highest among those with household incomes of less than 100 percent of poverty, and there was no consistent pattern for overweight. Among men, however, both overweight and obesity tended to increase with household income. The sex difference in obesity was highest among those with household incomes of less than 100 percent of poverty (40.0 percent among women versus 27.2 percent among men) and disappeared among those with household incomes of 300 percent or more of poverty (31.1 percent among women versus 32.5 percent among men). With respect to overweight, women were less likely to be overweight than men at every income level.

Overweight/obesity also varies by race and ethnicity. In 2005–2008, non-Hispanic Black and Mexican-American women were significantly more likely to be obese than non-Hispanic White women (50.1 and 41.6 versus 32.7 percent, respectively; data not shown). Higher obesity rates have also been reported among American Indian/Alaska Native women.[15] Community prevention strategies that seek to address risk factors for overweight and obesity by promoting healthy eating and physical activity include efforts to improve access to healthy foods, parks, and recreational facilities.[16]

Overweight and Obesity* Among Adults Aged 18 and Older, by Poverty Status** and Sex, 2005–2008

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Overweight is defined as having a Body Mass Index (BMI) between 25.0 and 29.9; obesity is defined as having a BMI of 30.0 or more. Percentages may not add to totals due to rounding. **Poverty level, defined by the U.S. Census Bureau, was $22,025 for a family of four in 2008.

DIABETES

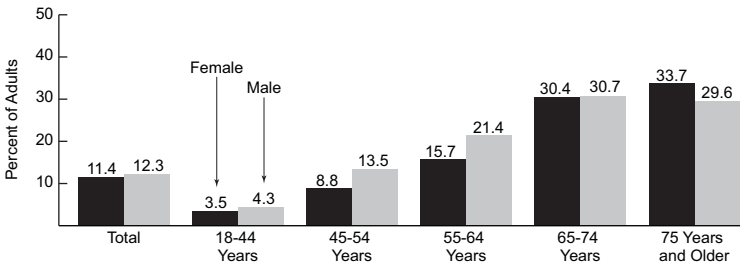
Diabetes mellitus is a chronic condition characterized by high blood sugar and is among the leading causes of death in the U.S.[17] Complications of diabetes are serious and may include blindness, kidney damage, heart disease, stroke, nervous system disease, and amputation. The main types of diabetes are Type 1, Type 2, and gestational (diabetes occurring or first recognized during pregnancy). Type 1 diabetes is usually diagnosed in children and young adults, but may occur at any age. Risk factors for Type 1 diabetes include autoimmune, genetic, and environmental factors. Type 2 diabetes accounts for 90–95 percent of all diabetes cases. While it is often diagnosed among adults, Type 2 diabetes has been increasing among children and adolescents, as well. Type 2 diabetes risk factors include obesity, physical inactivity, a family history of the disease, and gestational diabetes.

In 2005–2008, 22 million or 11.8 percent of adults were found to have diabetes (tested positive for the condition on a fasting plasma glucose test, glycohemoglobin A1C test, or 2-hour oral glucose test; data not shown). Diabetes prevalence did not vary by sex and generally increased with age for both men and women. Women aged 65 years and older were significantly more likely than younger women to have diabetes. More than 30 percent of women aged 65 years and older had diabetes, compared to 15.7 percent of 55- to 64-year-olds and 8.8 percent of those aged 45–54 years. Other data indicate higher diabetes prevalence in certain minority groups, particularly Hispanic, non-Hispanic Black, and American Indian/Alaska Native populations.[17]

Diabetes can be successfully managed through diet modification, physical activity, glucose monitoring, and medication.[17] Diagnosis is critical to develop a treatment plan and prevent serious complications. Among women aged 18 years and older who were found to have diabetes, only 54.9 percent reported that they had been told by a health professional that they have diabetes. Non-Hispanic Black women were more likely than non-Hispanic White women to have ever been told by a health professional that they have diabetes (63.7 versus 49.1 percent, respectively). Other observed differences were not statistically significant.

Adults Aged 18 and Older Who Have Diabetes,* by Age and Sex, 2005–2008

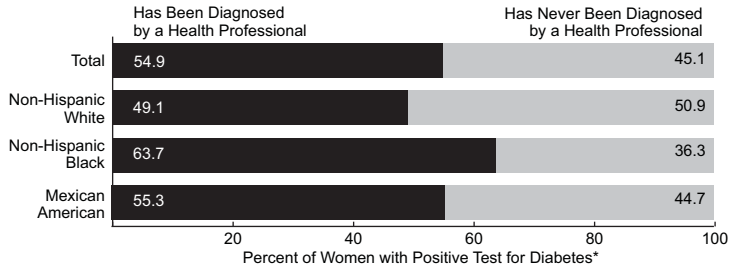
Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Tested positive on a Fasting Plasma Glucose (FPG) test, glycohemoglobin A1C test, or 2-hour oral glucose test.

Women Aged 18 and Older Who Have Diabetes,* by Race/Ethnicity and Diagnosis Status,† 2005–2008**

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Tested positive on a Fasting Plasma Glucose (FPG) test, glycohemoglobin A1C test, or 2-hour oral glucose test. **The samples of Other Hispanic, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, and persons of multiple races were too small to produce reliable results. †Reported a health professional has ever told them they have diabetes.

HIGH BLOOD PRESSURE

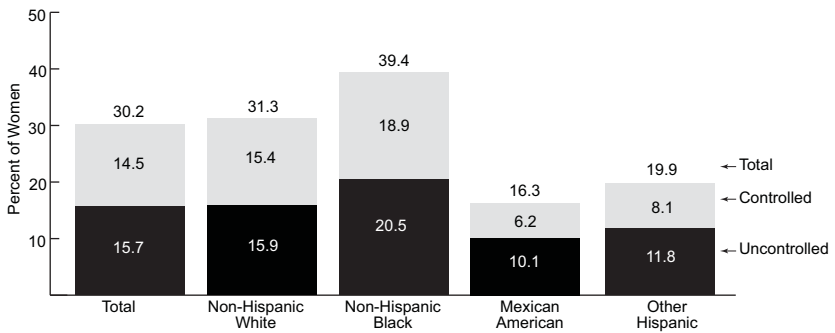
High blood pressure, or hypertension, is a risk factor for a number of conditions, including heart disease and stroke. It is defined as a systolic blood pressure (during heartbeats) of 140 mmHg or higher, a diastolic blood pressure (between heartbeats) of 90 mmHg or higher, or current use of blood pressure-lowering medication. In 2005–2008, about 30 percent of both women and men were identified as having high blood pressure. This includes about 14 percent of adults with controlled hypertension, who had a normal blood pressure measurement and reported using blood pressure-lowering medication, and about 16 percent with uncontrolled hypertension, who had a high blood pressure measurement with or without the use of medication. High blood pressure can also be controlled by losing excess body weight, participating in regular physical activity, and adopting a healthy diet with lower sodium intake.[18]

The prevalence of hypertension varies by race and ethnicity. For example, 39.4 percent of non-Hispanic Black women had high blood pressure compared to 16.3 percent of Mexican American women.

Among women with uncontrolled high blood pressure in 2005–2008, 54.4 percent had been previously diagnosed by a health professional and were taking medication for the condition; 11.9 percent had been previously diagnosed but were not taking medication; and 33.7 percent had never been diagnosed. Diagnosis status among women with uncontrolled high blood pressure varied by age as well as race and ethnicity. Younger women aged 18–44 were most likely to be undiagnosed (41.0 percent), while older women aged 65 and over were most likely to be diagnosed and taking medication (64.0 percent). With respect to race and ethnicity, Mexican American women with uncontrolled high blood pressure were most likely to be undiagnosed (45.6 percent), while non-Hispanic Black women were most likely to have been diagnosed and taking medication (61.3 percent; data not shown).

Women Aged 18 and Older with High Blood Pressure,* by Race/ Ethnicity, 2005–2008**

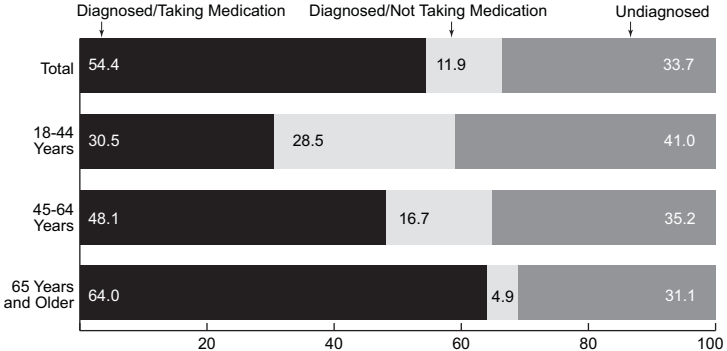
Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Includes a measured systolic pressure (during heartbeats) of ≥140mmHg or a diastolic blood pressure (between heartbeats) ≥90mmHg (uncontrolled hypertension, with or without blood pressure-lowering medication) and normal blood pressure (≤140/90mmHg) with reported current medication use (controlled hypertension). Percentages may not add to totals due to rounding. **The samples of American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.

Diagnosis Status* Among Women Aged 18 and Older with Uncontrolled High Blood Pressure, by Age, 2005–2008**

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Reported whether they had ever been told by a health professional that they have high blood pressure and whether they were taking blood pressure-lowering medication. **Includes a measured systolic pressure (during heartbeats) of ≥140mmHg or a diastolic blood pressure (between heartbeats) ≥90mmHg.

HEART DISEASE AND STROKE

Cardiovascular disease is an abnormal function of the heart and blood vessels. Coronary heart disease and stroke are the most common forms of cardiovascular disease and are the first and third leading causes of death for both men and women in the United States.[19] Risk factors for both include high blood pressure and cholesterol, excess weight, physical inactivity, age, and family history. Stroke involves blocked blood flow to the brain, whereas coronary heart disease involves reduced blood flow to the heart, which can result in a heart attack. Chest pain is a common heart attack symptom but women are more likely than men to have other symptoms, such as shortness of breath, nausea and vomiting, and back or jaw pain.[20] Stroke symptoms can include numbness, headache, dizziness, and blurred vision.

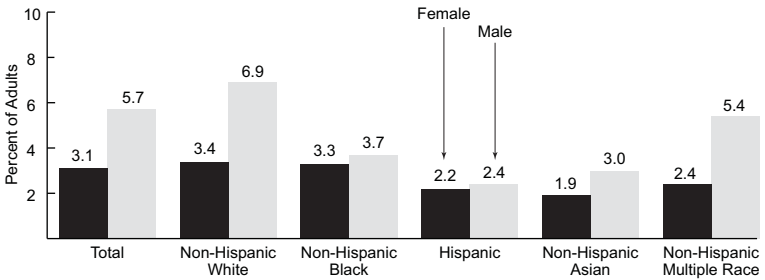
In 2007–2009, men were more likely than women to have been diagnosed with coronary heart disease (5.7 versus 3.1 percent, respectively). However, this difference was significant only among non-Hispanic Whites. The proportion of women with coronary heart disease was higher among non-Hispanic White and non-Hispanic Black women (3.4 and 3.3 percent, respectively) than among Hispanic and non-Hispanic Asian women (2.2 and 1.9 percent, respectively).

In 2007–2009, the percentage of adults reporting that they had ever been diagnosed with a stroke was slightly higher among women than men (2.9 versus 2.4 percent, respectively). Among both men and women, the proportion of persons ever having had a stroke was higher among those with lower household incomes. For example, among women, those with household incomes below 200 percent of poverty are more than twice as likely to have had a stroke as those with household incomes of 400 percent or more of poverty (4.1 versus 1.7 percent, respectively).

There is evidence that women diagnosed with cardiovascular disease are less likely than men to receive certain treatments that have been reported to improve outcomes. For reasons that are poorly understood, 42 percent of women will die within a year of having a heart attack compared to 24 percent of men.[21] Although differences in treatment may contribute, women also tend to get heart disease at older ages than men and they are more likely to have other chronic conditions.

Adults Aged 18 and Older with Coronary Heart Disease,* by Race/Ethnicity and Sex, 2007–2009**

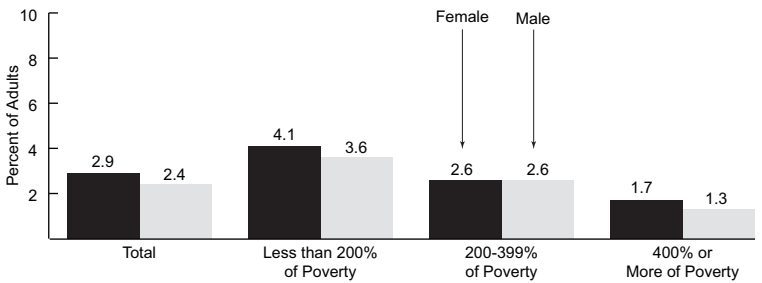
Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Reported a health professional had ever told them that they had coronary heart disease. Rates reported are not age-adjusted. **The sample of American Indian/Alaska Natives and Native Hawaiian/Pacific Islanders was too small to produce reliable results.

Adults Aged 18 and Older Who Have Had a Stroke,* by Poverty Status and Sex, 2007–2009**

Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Reported a health professional had ever told them that they had a stroke. Rates reported are not age-adjusted. **Poverty level, defined by the U.S. Census Bureau, was $21,954 for a family of four in 2009.

CANCER

Cancer is the second leading cause of death for both men and women. It is estimated that 774,370 new cancer cases will be diagnosed among females and more than 270,000 females will die of cancer in 2011. Based on prior years, lung and bronchus cancer is expected to be the leading cause of cancer death among females, accounting for 71,340 deaths, or 26 percent of all cancer deaths, followed by breast cancer, which will be responsible for 39,520, or 15 percent of deaths. Colorectal cancer, pancreatic cancer, and ovarian cancer will also be major causes of cancer deaths among females, accounting for an additional 57,890 deaths combined.

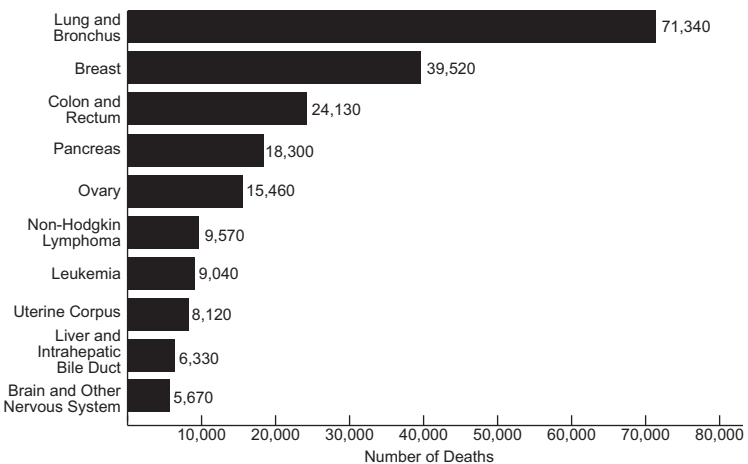
Due to the varying survival rates for different types of cancer, the most common causes of death from cancer are not always the most common types of cancer. For instance, although lung and bronchus cancer causes the greatest number of deaths, breast cancer is more commonly diagnosed among females. In 2007, invasive breast cancer occurred among 120.4 per 100,000 females, whereas lung and bronchus cancer occurred in only 54.5 per 100,000. Other types of cancer that are commonly diagnosed but are not among the top 10 causes of cancer death include thyroid, melanoma, and cervical cancer.

Recommended screening can help detect several forms of cancer in early, more treatable stages, including breast, colorectal, and cervical cancer, and is shown to reduce mortality.[22] Vaccines are also available to help prevent hepatitis B and human papillomavirus (HPV) which can cause liver and cervical cancer, respectively.

Racial and ethnic disparities in cancer incidence may be explained by differences in behavioral risk factors, such as smoking, heavy alcohol consumption, obesity, poor nutrition, and physical inactivity that are largely a product of

Leading Causes of Cancer Deaths Among Females (All Ages), by Site, 2011 Estimates

Source II.7: American Cancer Society



Invasive Cancer Incidence Rates per 100,000 Females (All Ages), by Site and Race/Ethnicity, 2007*

Source II.8: Centers for Disease Control and Prevention and National Cancer Institute

	Total (Rank)	White**	Black**	Hispanic†	American Indian/Alaska Native**†	Asian/ Pacific Islander**†
Breast	120.4 (1)	121.0	117.0	88.2	67.3	83.4
Lung and Bronchus	54.5 (2)	55.9	50.3	26.0	35.8	26.9
Colon and Rectum	39.7 (3)	38.5	47.1	32.6	28.8	31.1
Uterine Corpus	23.3 (4)	23.7	20.8	18.2	13.8	16.1
Thyroid	17.2 (5)	18.0	10.1	16.4	8.5	17.7
Non-Hodgkin Lymphoma	15.7 (6)	16.1	11.4	14.4	8.5	9.5
Melanoma	15.4 (7)	17.3	1.1	4.3	4.4	1.2
Ovary	12.2(8)	12.6	9.1	10.2	8.0	9.0
Cervix	7.9 (13)	7.5	10.2	11.5	7.0	6.9

**All rates are age-adjusted. **May include Hispanics. †Results should be interpreted with caution.*

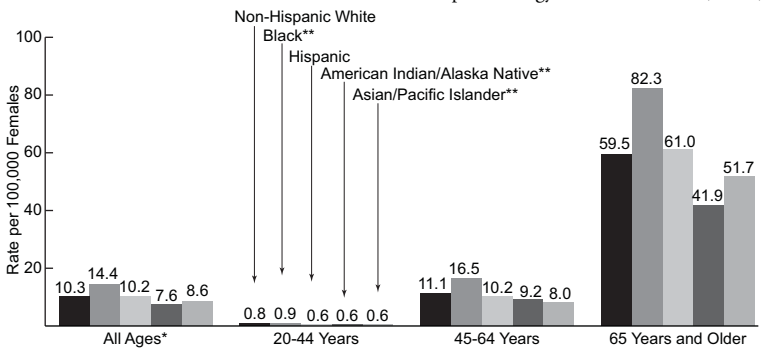
socioeconomic differences.[22] Healthy behavioral choices are not as accessible in poor or disadvantaged neighborhoods. Racial and ethnic disparities in cancer death rates tend to be even greater because they are a function of differences in incidence, as well as stage at diagnosis, treatment, and patient survival, which are greatly influenced by health care access and quality.

Pancreatic cancer is the tenth most common cancer in women but the fourth leading cause of cancer death. It is generally not diagnosable in early stages and is highly lethal, with only 6 percent surviving 5 years beyond diagnosis.[22] In 2000–2008, pancreatic cancer incidence rates ranged from 7.6 per 100,000 for American Indian/Alaska Native females to 14.4 for Black females. Risk of pancreatic cancer increases greatly with age as well as smoking, diabetes, and obesity.[22] Overall, Black women aged 65 years and older were most likely to have developed pancreatic cancer (82.3 per 100,000 women).

In contrast to pancreatic cancer, breast cancer can be detected by mammography in the early or localized stage and can be successfully treated. In 2000–2007, more than 90 percent of non-Hispanic White women survived 5 years after breast cancer diagnosis, compared to about 80 percent of Black, Hispanic, and American Indian/Alaska Native women. The lower 5-year survival rate for these minority women is related to detection at more advanced stages, when treatment is less successful, as well as lower survival rates at any given stage of diagnosis. For example, only 51.9 percent of breast cancer cases among Black women were diagnosed in the early, localized stage, compared to 63.1 percent of breast cancer cases among non-Hispanic White women (data not shown). Black women also had lower survival rates than non-Hispanic White women at every stage of diagnosis, including the most advanced stage in which cancer has spread to distant organs (17.7 versus 30.7 percent, respectively). Additional health conditions and unequal access to care and treatment may contribute to lower survival rates among minority women.[23]

Pancreatic Cancer Incidence Among Females, by Age and Race/Ethnicity, 2000–2008*

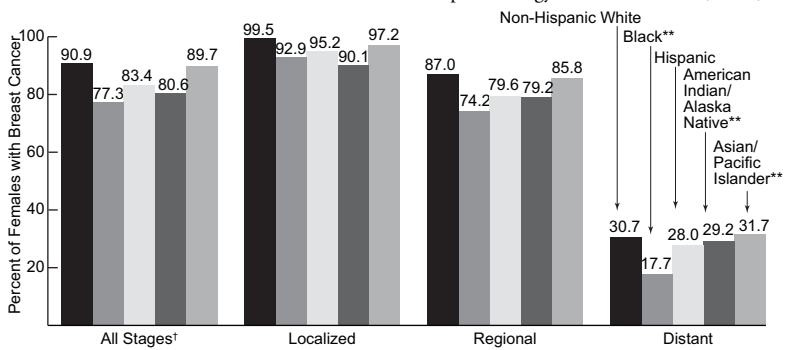
Source II.9: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER)



*All rates are age-adjusted. **May include Hispanics.

Five-year Period Survival Rates for Breast Cancer Among Females, by Stage* and Race/Ethnicity, 2000–2007

Source II.9: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER)



*Localized cancer is limited to the organ in which it began (no evidence of spread); regional cancer has spread beyond the primary site; distant cancer has spread to distant organs or lymph nodes. **May include Hispanics. †Includes cancers with undetermined stage.

SECONDHAND TOBACCO SMOKE EXPOSURE

Exposure to secondhand tobacco smoke among nonsmokers can cause heart disease and lung cancer in adults, as well as sudden infant death syndrome, respiratory and ear infections, and asthma exacerbation among children.[24] Nonsmoking adults and children may be exposed at home, worksites or daycare centers, and public places.

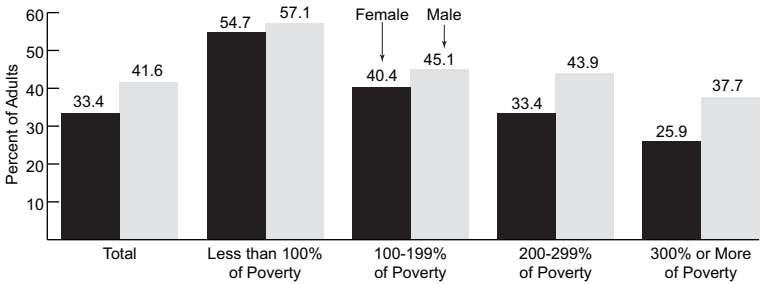
In 2005–2008, an estimated 50.3 million or 37.0 percent of nonsmoking adults were exposed to secondhand tobacco smoke exposure, determined by detection of a tobacco marker in a blood sample. Overall, secondhand smoke exposure was more common among men than women (41.6 versus 33.4 percent, respectively). However, this sex difference was not observed among adults living in households with incomes below the poverty level, where more than half of adults were exposed to secondhand smoke. Secondhand smoke exposure decreased as income increased, but more so for women than men. Since only 6.3 percent of nonsmoking adults reported living in a household with a smoker (data not shown), the majority of secondhand smoke exposure occurs outside the home.

Exposure to secondhand smoke also varies by race and ethnicity. Over half of non-Hispanic Black women were exposed to secondhand smoke compared to about 30 percent of non-Hispanic White and Hispanic women. While this racial and ethnic disparity may partly reflect racial and ethnic differences in the metabolic clearance of the tobacco marker,[25] nonsmoking Black women were also more likely than their non-Hispanic White counterparts to report living in a household with a smoker (10.2 versus 5.4 percent, respectively; data not shown).

Although the prevalence of secondhand tobacco smoke exposure has declined by over 20 percent in the past decade, only half of all states and the District of Columbia have comprehensive smoke-free laws covering workplaces, restaurants, and bars.[25] National Healthy People 2020 objectives include universal state adoption of comprehensive smoke-free laws and a 10 percent reduction in the proportion of nonsmoking persons exposed to secondhand smoke.[26]

Secondhand Smoke Exposure* Among Nonsmoking Adults Aged 18 and Older, by Poverty Status and Sex, 2005–2008**

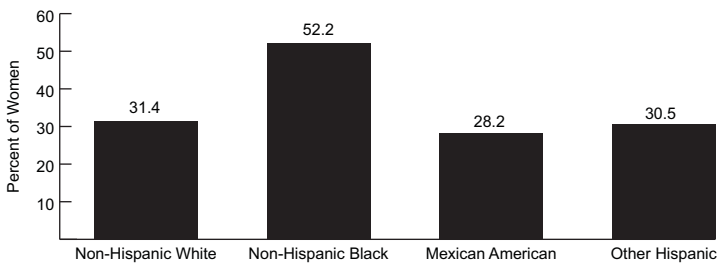
Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Defined as a serum cotinine level ≥0.05ng/mL among nonsmokers who did not report current smoking and had a serum cotinine level ≤10ng/mL. **Poverty level, defined by the U.S. Census Bureau, was $22,025 for a family of four in 2008.

Secondhand Smoke Exposure* Among Nonsmoking Women, by Race/Ethnicity, 2005–2008**

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Defined as a serum cotinine level ≥0.05ng/mL among non-smokers who did not report current smoking and had a serum cotinine level ≤10ng/mL. **The samples of American Indian/Alaska Native, Asian, and Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.

ASTHMA

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of wheezing, chest tightness, shortness of breath, and coughing. This disorder may be aggravated by allergens, environmental tobacco smoke and air pollution, poor housing conditions (mold, cockroaches, and dust mites), infections of the respiratory tract, and exercise.[27] However, by taking certain precautions, persons with asthma may be able to effectively manage this disorder and participate in daily activities.

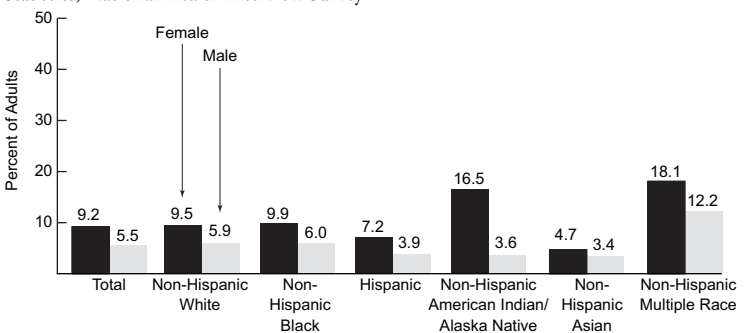
In 2007–2009, women were more likely to have asthma than men (9.2 versus 5.5 percent, respectively); this was true for all racial and ethnic groups. Non-Hispanic women of multiple races and non-Hispanic American Indian/Alaska Native women were most likely to have asthma (18.1 and 16.5 percent, respectively), while Hispanic and non-Hispanic Asian women were least likely to have asthma (7.2 and 4.7 percent, respectively).

A visit to the emergency room due to an asthma attack may indicate that asthma is not being effectively controlled or treated. In 2007–2009, 23.2 percent of women with an asthma attack in the past year sought emergency care for their condition. The proportion of women suffering an asthma attack who visited the emergency room varies by income. Women with household incomes below 100 percent of poverty were most likely to have visited an emergency room (32.4 percent), compared to 18.1 percent of those with incomes of 400 percent or more of poverty.

Women with asthma can effectively manage their condition by creating an asthma management plan with their doctor and knowing about and avoiding asthma triggers.[27] Consistent access to and use of medication can reduce the likelihood of an asthma attack, as well as the use of hospital and emergency care for people with asthma.[28]

Adults Aged 18 and Older with Asthma,* by Race/Ethnicity and Sex, 2007–2009**

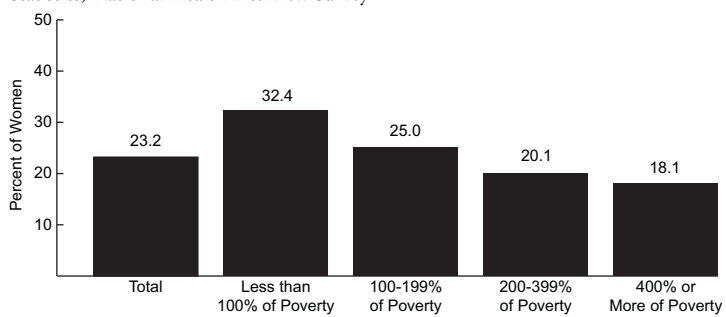
Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Reported that (1) a health professional has ever told them that they have asthma, and (2) they still have asthma. Rates reported are not age-adjusted. **The sample of Native Hawaiian/Pacific Islanders was too small to produce reliable results.

Emergency Room Visits Among Women Suffering an Asthma Attack* in the Past Year, by Poverty Status, 2007–2009**

Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Reported that (1) a health professional has ever told them that they have asthma, and (2) they had an asthma attack in the past year. **Poverty level, defined by the U.S. Census Bureau, was $21,954 for a family of four in 2009.

MENTAL ILLNESS

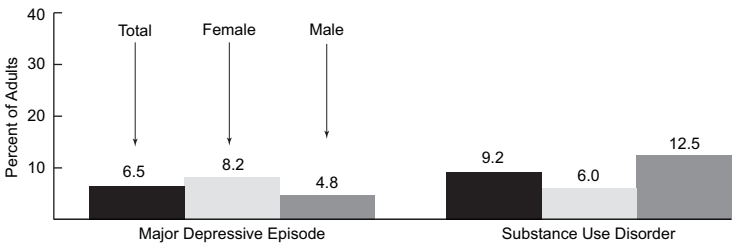
Overall, mental illness affects both women and men equally and about half of all Americans will meet the criteria for a diagnosable mental disorder over the course of their lives.[29] However, types of mental disorders vary with sex. Women are more likely than men to experience an anxiety or mood disorder, such as depression, while men are more likely than women to experience an impulse-control or substance use disorder.

A major depressive episode is defined according to the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) as a period of 2 weeks or longer during which there is either depressed mood or loss of interest or pleasure and at least four other symptoms that reflect a change in functioning, such as problems with sleep, eating, energy, concentration, and self-image. In 2009, an estimated 9.6 million women aged 18 years and older, comprising 8.2 percent of that population, reported experiencing a major depressive episode in the past year, compared to 5.2 million or 4.8 percent of men. Although women were more likely than men to experience a past-year major depressive episode, men were twice as likely as women to experience a past-year substance use disorder (12.5 versus 6.0 percent, respectively).

Suicide accounts for more than 30,000 deaths in the United States each year and is the third leading cause of death for women and men aged 18–35 years.[30] The overwhelming majority of suicides are accompanied by mental illness. While completed suicide is more common among men than women, women tend to have more nonfatal suicide attempts.[31] In 2007, the age-adjusted suicide death rate was 6.1 per 100,000 women aged 18 and older, compared to 24.1 per 100,000 men of the same age. By contrast, the age-adjusted rate of self-inflicted non-fatal injury was higher among women than men (162 versus 131 per 100,000 population; data not shown). Among both men and women, suicide rates are highest for non-Hispanic Whites and non-Hispanic American Indian/Alaska Natives. Treatment of mental illness and suicidal behavior through psychotherapy and medication can help to prevent suicide.[31,32]

Past Year Major Depressive Episode* and Substance Use Disorder Among Adults Aged 18 and Older, by Sex, 2009**

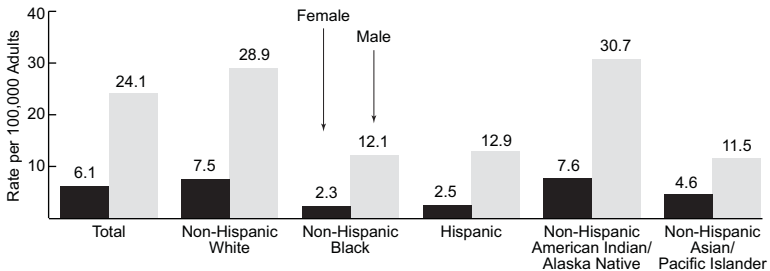
Source II.10: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health



**A past year major depressive episode is defined as a period of 2 weeks or longer during which there is either depressed mood or loss of interest or pleasure and at least four other symptoms that reflect a change in functioning, such as problems with sleep, eating, energy, concentration, and self-image.*
***Past year substance use disorder defined as abuse or dependence on alcohol or illicit drugs; abuse relates to social problems due to substance use, such as problems with work, family, or the law; dependence relates to health and emotional problems, such as tolerance or withdrawal.*

Suicide Deaths per 100,000 Adults Aged 18 and Older,* by Race/Ethnicity and Sex, 2007

Source II.5: Centers for Disease Control and Prevention, National Vital Statistics System



**Age-adjusted to the 2000 population distribution.*

VIOLENCE AGAINST WOMEN

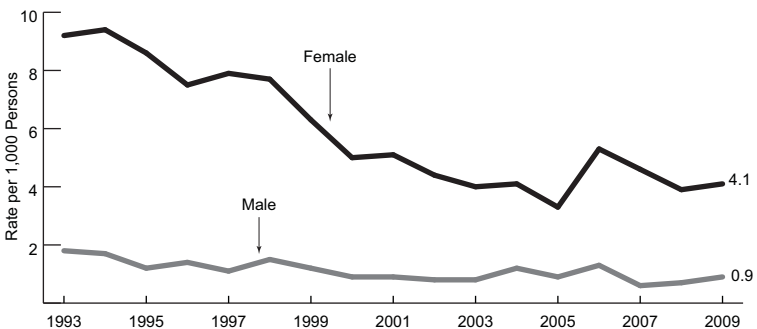
In 2009, an estimated 4.3 million nonfatal violent crimes were committed in the United States, reflecting a significant decline over the previous year and a 39 percent decline since 2000. Males were more likely than females to experience nonfatal violent crime victimization overall (18.4 versus 15.8 per 1,000 persons aged 12 and older, respectively; data not shown).[33] However, females were more likely to experience nonfatal intimate partner violence (IPV) than males (4.1 versus 0.9 per 1,000 persons aged 12 and older). This reflects a significant decrease in the rate of nonfatal IPV since the early 1990s; in 1993 the rate of nonfatal IPV reported by females aged 12 and older was 9.2 per 1,000 females.[34] Intimate partner violence includes victimization committed by spouses or ex-spouses, boyfriends or girlfriends, and ex-boyfriends or ex-girlfriends.

Although fatal intimate partner violence has also declined since the early 1990s, females are more than twice as likely as males to be killed by intimate partners.[34] There is also a racial disparity in intimate partner violence, with Black females experiencing higher rates of both fatal and nonfatal violence than White females.[34]

Overall, the majority of nonfatal violent crimes (67.5 percent) against females aged 12 and older in 2009 were committed by non-strangers, including intimate partners, family members or other relatives, and friends or acquaintances. In comparison, less than half of male victims of violent crime knew their attackers (45.1 percent; data not shown). The proportion of violent crimes committed against females in which the offender was known by the victim was highest for rape and sexual assault (79.4 percent), followed by simple and aggravated assault (70.2 and 64.5 percent, respectively). Only robberies were committed about equally between strangers and non-strangers (47.5 and 46.4 percent, respectively).

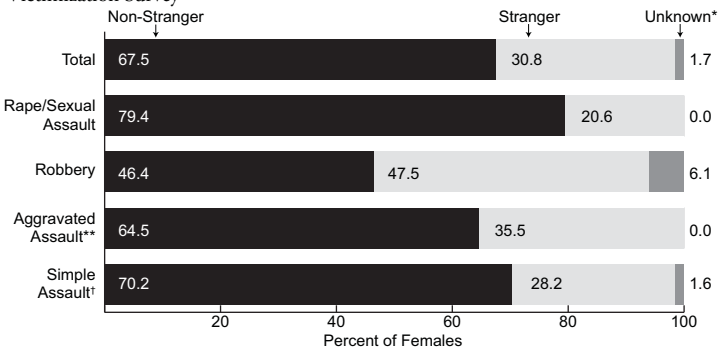
Nonfatal Intimate Partner Violence Perpetrated Against Persons Aged 12 and Older, by Sex, 1993–2009

Source II.11: U.S. Department of Justice, Bureau of Justice Statistics, National Crime Victimization Survey



Nonfatal Violent Crime Experienced by Females Aged 12 and Older, by Type of Offense and Relationship to Perpetrator, 2009

Source II.12: U.S. Department of Justice, Bureau of Justice Statistics, National Crime Victimization Survey



**Use extreme caution when interpreting; estimates based on 10 or fewer sample cases. **Defined as an attack or attempted attack with a weapon, regardless of whether an injury occurred, and an attack without a weapon when serious injury results. †Defined as an attack or attempted attack without a weapon resulting in less serious or no injury.*

SEXUALLY TRANSMITTED INFECTIONS

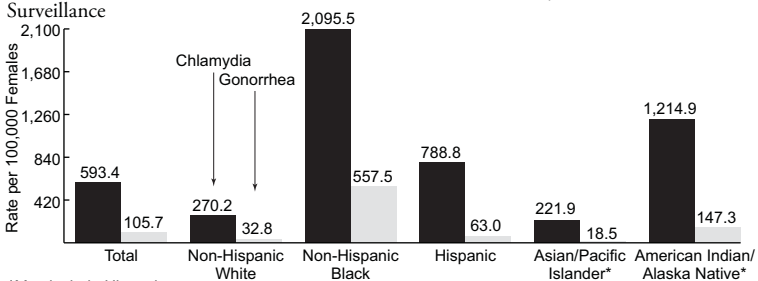
Sexually transmitted infections (STIs) are considered a hidden epidemic because symptoms are often absent and the causes are not openly discussed. Yet there are approximately 19 million new STI cases in the United States each year at an annual health care cost of nearly 16 billion dollars.[35] Active infections can increase the likelihood of contracting another STI, such as HIV, and untreated STIs can lead to pelvic inflammatory disease, infertility, and adverse pregnancy outcomes. Safer sex practices, screening, and treatment can help reduce the burden of STIs.

The Centers for Disease Control and Prevention requires state and local reporting of new chlamydia, gonorrhea, syphilis, and HIV cases (see page on HIV/AIDS). Reported STI rates among females of all ages vary by age and race and ethnicity. Rates are highest among adolescents and young adults; over 70 percent of all chlamydia and gonorrhea cases in females occurred among those under 25 years of age in 2009 (data not shown). With the exception of Asian/Pacific Islanders, minority females had higher STI rates than non-Hispanic White females. For example, compared with non-Hispanic White females, the chlamydia rate was 7.8 times higher for non-Hispanic Black females, 4.5 times higher for American Indian/Alaska Native females, and 2.9 times higher for Hispanic females. The syphilis rate was also highest among non-Hispanic Black females (8.2 versus 1.4 per 100,000 females overall; data not shown).

Although chlamydia, gonorrhea, and syphilis can be cured with appropriate antibiotics, viral STIs, such as herpes, HIV, and human papillomavirus (HPV) cannot be cured but can be monitored and managed to prevent symptoms and disease progression.[36] HPV is the most common STI with over 40 different types, some of which can cause genital warts and cervical cancer among women. Overall, 41.3 percent of women aged 18–59 tested positive for one or more HPV types in 2005–2008. While HPV cannot be treated, it may clear on its own over time. HPV was detected in over 50 percent of 18- to 24-year-olds compared to about 40 percent of women aged 25–59. Non-Hispanic Black women also had a higher prevalence of HPV infection than non-Hispanic White and Mexican American women (57.7 versus 38.5 and 45.1 percent, respectively; data not shown). A vaccine for high-risk HPV types is available and recommended for girls and young adult women. Pap smears can also detect early disease signs that can be treated to prevent cervical cancer.[36]

Rates of Chlamydia and Gonorrhea Among Females (All Ages), by Race/Ethnicity, 2009

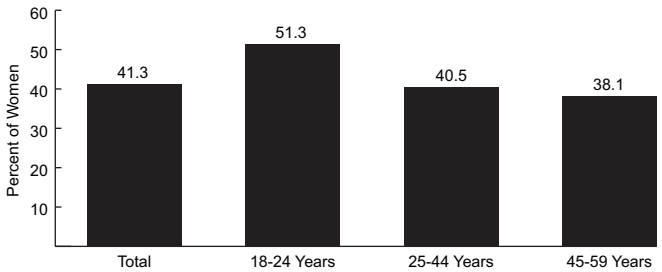
Source II.13: Centers for Disease Control and Prevention, Sexually Transmitted Disease Surveillance



*May include Hispanics.

HPV Infection* Among Women Aged 18–59, by Age, 2005–2008

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Based on lab results from a vaginal swab.

HIV/AIDS

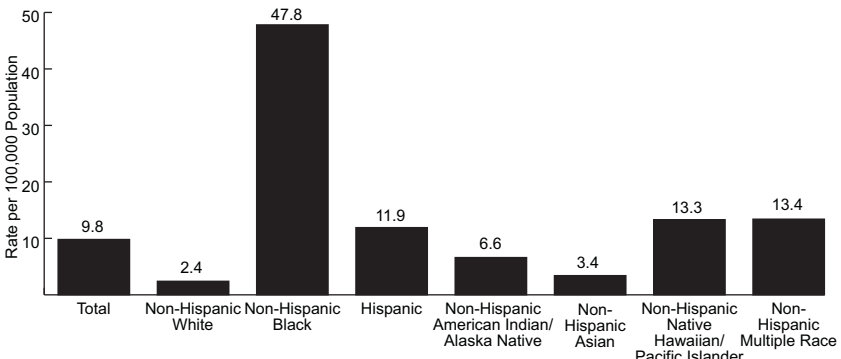
Acquired immunodeficiency syndrome (AIDS) is the final stage of infection with the human immunodeficiency virus (HIV), which destroys or disables the cells that are responsible for fighting infection. AIDS is diagnosed when HIV has weakened the immune system enough that the body has difficulty fighting infections.[37] HIV is predominantly transmitted through sexual contact and injection drug use. While HIV and AIDS disproportionately affect men who have sex with men, an increasing proportion of HIV/AIDS diagnoses occur among women and particularly minority women. In 2009, adolescent and adult females accounted for about one-fourth of new HIV and AIDS diagnoses, up from 7 percent in 1985.[38] The rate of new HIV diagnoses was 32.7 per 100,000 males (data not shown) and 9.8 cases per 100,000 females aged 13 and older in 2009.

Rates of new cases among adolescent and adult females vary dramatically by race and ethnicity. HIV disproportionately affects non-Hispanic Black females at a rate that was nearly twenty times higher than among non-Hispanic White females (47.8 versus 2.4 cases per 100,000 females). In 2009, new HIV diagnoses were also elevated among females of every minority group, but especially Hispanic, non-Hispanic Native Hawaiian/Other Pacific Islander and non-Hispanic females of multiple races (11.9, 13.3, and 13.4 cases per 100,000 females, respectively).

Early detection of HIV infection is critical in preventing transmission of the virus to others, and persons aware of their HIV infection can benefit from advances in medicine that may significantly prolong their lives. Early entry to care can also produce significant cost savings for medical treatment.[39] Despite these individual and societal benefits, a large proportion of people identified as HIV-positive receive an AIDS diagnosis simultaneously or within a year of HIV diagnosis. In 2008, 31 percent of HIV-positive females of all ages received an AIDS diagnosis within 12 months of their HIV diagnosis, which was slightly less than among males (34 percent). Women and younger persons tend to receive earlier diagnoses perhaps due, in part, to more frequent testing opportunities (e.g. routine reproductive health visits) and greater risk awareness.[40]

Estimated Rates of New HIV Cases Reported Among Females Aged 13 and Older,* by Race/Ethnicity, 2009

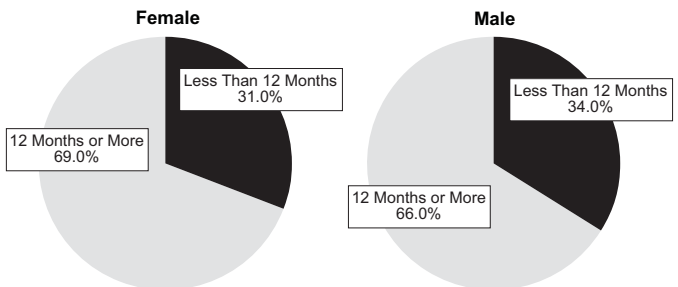
Source II.14: Centers for Disease Control and Prevention, HIV Surveillance Report



Data collected from 40 states with confidential name-based reporting.

Time to an AIDS Diagnosis After a Diagnosis of HIV Infection, by Sex, 2008

Source II.14: Centers for Disease Control and Prevention, HIV Surveillance Report



ARTHRITIS

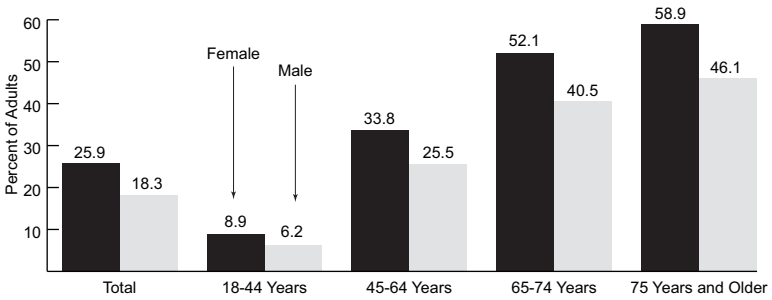
Arthritis is the leading cause of disability and activity limitations among United States adults.[41] Arthritis comprises more than 100 different diseases that affect areas in or around the joints.[42] The most common type is osteoarthritis, which is a degenerative joint disease that causes pain and loss of movement due to deterioration in the cartilage covering the ends of bones in the joints. Types of arthritis that primarily affect women include lupus arthritis, fibromyalgia, and rheumatoid arthritis, which is the most serious and disabling type of arthritis.[42]

In 2007–2009, 22.2 percent of adults in the United States reported that they had ever been diagnosed with arthritis (data not shown); this represents more than 49 million adults among whom 21 million had an arthritis-attributable activity limitation.[41] Arthritis was more common among women than men (25.9 versus 18.3 percent, respectively). The proportion of adults with arthritis increases dramatically with age for both sexes. Fewer than 9 percent of women aged 18–44 years had ever been diagnosed with arthritis, compared to 52.1 percent of women aged 65–74 years, and 58.9 percent of women aged 75 years and older. Similarly, only 6.2 percent of men aged 18–44 had ever been diagnosed with arthritis compared to 40.5 percent of those aged 65–74 and 46.1 percent of those aged 75 and older.

Obesity has been associated with the onset and progression of osteoarthritis.[41] Between 2007–2009, nearly one-third of obese adults and one-quarter of overweight adults had been diagnosed with arthritis, compared to 16.4 percent of normal/underweight adults. Arthritis was more common among obese women (34.8 percent) than obese men (24.6 percent) and among overweight women (27.2 percent) than overweight men (18.4 percent). Nearly one-fifth (18.9 percent) of normal/underweight women had been diagnosed with arthritis compared to 12.7 percent of normal/underweight men.

Adults Aged 18 and Older with Arthritis,* by Age and Sex, 2007–2009

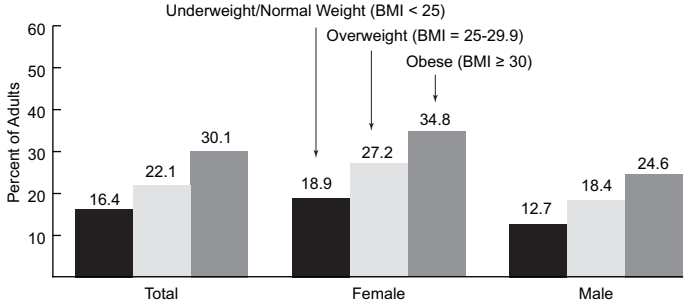
Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Reported a health professional has ever told them they have arthritis.

Adults Aged 18 and Older with Arthritis,* by Sex and Body Mass Index, 2007–2009**

Source II.1: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*Reported a health professional has ever told them they have arthritis. **Body Mass Index (BMI) is a ratio of weight to height.

OSTEOPOROSIS

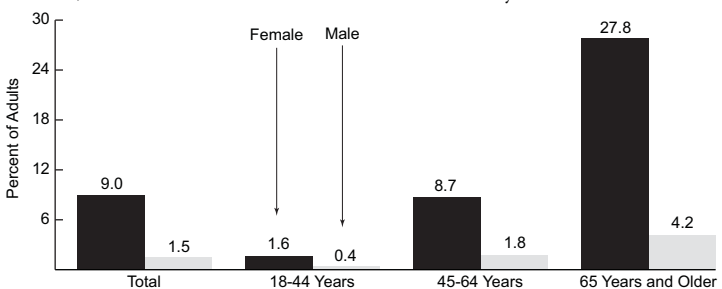
Osteoporosis is a bone weakness characterized by low bone density with symptoms that generally occur only after the disease is advanced.[43] Bone fractures are the most common consequence; others include loss of height, stooped posture, and back and neck pain from spinal fractures. Risk of osteoporosis increases with age and is much more common among women than men. In 2005–2008, an estimated 9.8 million women (9.0 percent) and 1.5 million men (1.5 percent) had osteoporosis. More than one in four women aged 65 and older had been diagnosed with osteoporosis, compared with 4.2 percent of men. Among women aged 65 and older, osteoporosis varied significantly by race and ethnicity. About 30 percent of non-Hispanic White and Hispanic women aged 65 and older reported that they had been diagnosed with osteoporosis, compared to 11.1 percent of non-Hispanic Black women of the same age (data not shown).

Osteoporosis may be prevented and treated by getting the recommended amounts of calcium, vitamin D, and regular weight-bearing physical activity (such as walking), and by taking prescription medication when appropriate.[43,44] To promote early diagnosis and the prevention of complications, bone density tests are recommended for all women aged 65 and older and younger women who have a risk factor, including low weight, smoking, heavy alcohol consumption, and family history of a broken hip.[45]

Bone fractures among the elderly most commonly occur among those with osteoporosis and can have devastating consequences. For example, 1 in every 5 hip fracture patients die within a year of their injury.[44] Falls are a common direct cause of osteoporosis-related fracture and are the leading cause of injury—both fatal and nonfatal—among adults aged 65 and older. In 2009, there were 2.2 million unintentional nonfatal fall injuries treated in emergency departments among adults aged 65 and older (data not shown). The rate of nonfatal fall injury was higher among women than men and increased with age. Among both women and men, the rate of nonfatal fall injury was about five times higher among those aged 85 and older than those aged 65–69. Fall prevention efforts can include muscle strengthening, home hazard assessments and modifications, and avoiding sedative medications that may impair balance and coordination.[44]

Diagnosed Osteoporosis* Among Adults Aged 18 and Older, By Age and Sex, 2005–2008

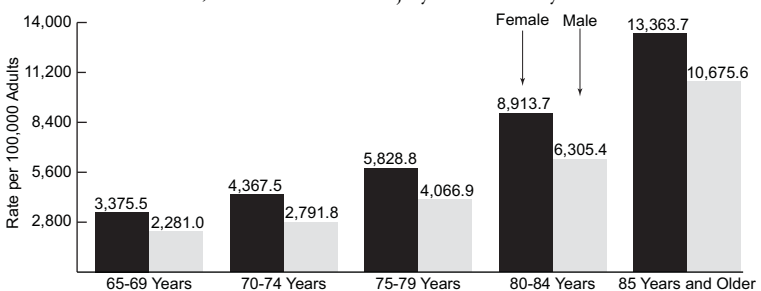
Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Reported a health professional had ever told them they had osteoporosis.

Nonfatal Unintentional Injury Due to Falls* per 100,000 Adults Aged 65 and Older, by Age and Sex, 2009

Source II.5: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, National Electronic Injury Surveillance System



*Treated in hospital emergency departments.

ALZHEIMER'S DISEASE

Alzheimer's disease is the most common form of dementia.[46] Early signs include difficulty remembering names and completing familiar tasks, with later disease progression leading to disorientation, personality changes, and difficulty speaking, swallowing, and walking. Although the risk for Alzheimer's disease increases with age, it is not a normal part of aging. Risk factors include a family history, head trauma or traumatic brain injury, and cardiovascular disease risk factors such as high cholesterol, hypertension, diabetes, smoking, and physical inactivity.

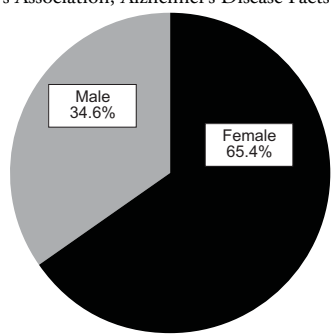
In 2011, 5.2 million or 13 percent of U.S. adults aged 65 and older are estimated to have Alzheimer's disease and another 200,000 below age 65 are thought to have younger-onset Alzheimer's. Due to the aging of the population, the number of adults aged 65 and older with Alzheimer's disease is expected to triple by 2050.[46] Women constitute 3.4 million or nearly two-thirds of adults aged 65 and older with Alzheimer's.

Alzheimer's disease is the fifth leading cause of death among men and women aged 65 and older.[46] Severe dementia causes complications, such as immobility and swallowing disorders, that can lead to death. In 2007, 1.9 per 1,000 or nearly 74,000 adults aged 65 and older, 70 percent of whom were women, died of Alzheimer's. The risk of death due to Alzheimer's increases greatly with age, from 0.2 deaths per 1,000 for those aged 65–74 years to 8.5 deaths per 1,000 for those aged 85 and older. Overall, women are nearly twice as likely as men to die of Alzheimer's disease (2.4 versus 1.3 deaths per 1,000 aged 65 and older). The greater rates of Alzheimer's prevalence and mortality among women are related to their longer life expectancy rather than an increased age-specific risk of disease.[46]

Not only are women more likely than men to have Alzheimer's, they are also more likely to be caregivers for someone with Alzheimer's. Of the nearly 15 million Americans who provide unpaid care for a person with Alzheimer's or another dementia, 60 percent are women and they report a high level of emotional and physical stress.[46,47] Given the large and increasing burden of Alzheimer's disease, advances in prevention, early diagnosis, and treatment are greatly needed. Recently, a new diagnostic category of "preclinical Alzheimer's disease" was developed to aid research for early detection and treatment prior to the onset of symptoms.[46]

Adults Aged 65 and Older with Alzheimer's Disease,* By Sex, 2011

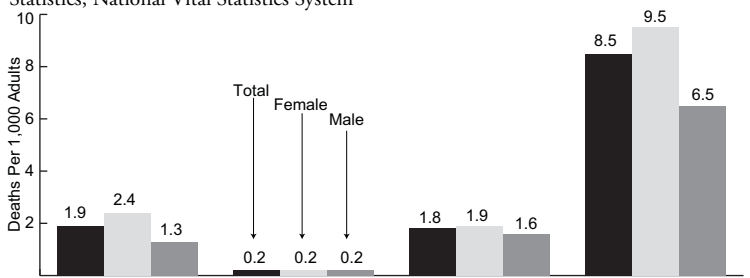
Source II.15: Alzheimer's Association, Alzheimer's Disease Facts and Figures.



**Estimates are from the Chicago Health and Aging Project incidence rates converted to prevalence estimates and applied to 2011 U.S. Census Bureau estimates of the population aged 65 and older.*

Deaths Due to Alzheimer's Disease* per 1,000 Adults Aged 65 and Older, By Age and Sex, 2007

Source II.16: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



**Deaths with Alzheimer's disease listed as underlying cause.*

SLEEP DISORDERS

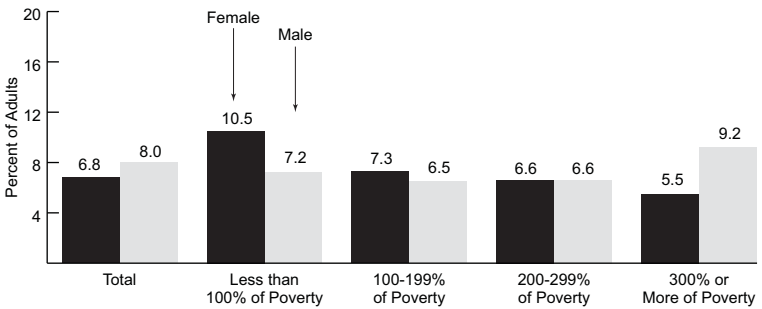
An estimated 50 to 70 million adults in the United States suffer from a chronic sleep or wakefulness disorder, which can impair functioning and increase the risk of injury and various chronic conditions, including diabetes and cardiovascular disease.[48] Common forms of sleep disorders include insomnia, narcolepsy, restless legs syndrome, and sleep apnea.[49] Chronic snoring may be an indicator of obstructive sleep apnea—a serious disorder in which the airway is obstructed during sleep and there is momentary oxygen disruption followed by gasping or snorting.[49,50] Sleep apnea results in reduced sleep quality and fatigue and can produce severe cardiovascular complications as a consequence of disordered breathing. Treatments for sleep apnea can include behavioral modifications, such as weight loss and smoking cessation, as well as certain devices and surgery.

In 2005–2008, 6.8 percent of women and 8.0 percent of men reported that they had ever been told by a health professional that they had a sleep disorder. Among women, sleep disorders were more common among those with lower incomes. For example, 10.5 percent of women with household incomes below 100 percent of poverty had reported that that they had been diagnosed with a sleep disorder, compared to 5.5 percent of women with incomes of 300 percent or more of poverty. Among men, however, sleep disorders were most common at higher income levels. Over 9 percent of men with household incomes of 300 percent or more of poverty reported that they had ever been told by a health professional that they had a sleep disorder, compared to 6.5 percent of men with incomes between 100–199 percent of poverty.

The prevalence of sleep disorders also varies by body mass index—a ratio of weight to height. Obesity can increase the risk of sleep apnea by obstructing the upper airway; however, sleep disorders can occur at any weight. In 2005–2008, women who were obese were three times more likely to have been diagnosed with a sleep disorder than women who were not overweight or obese (11.4 versus 3.8 percent, respectively). Weight loss can resolve some cases of sleep apnea.[50]

Sleep Disorders* Among Adults Aged 18 and Older, by Poverty Status and Sex, 2005–2008**

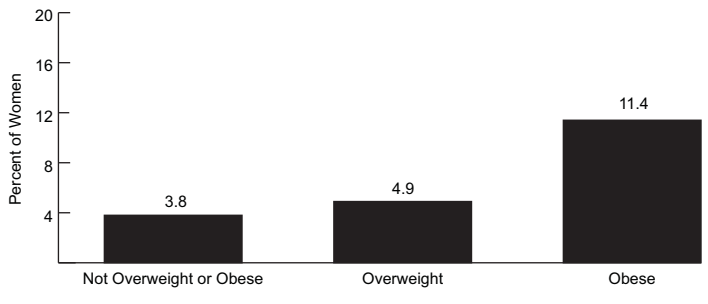
Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Reported that a health professional has ever told them they have a sleep disorder: this may include insomnia, restless legs, sleep apnea, and other conditions. **Poverty level, defined by the U.S. Census Bureau, was $22,025 for a family of four in 2008.

Sleep Disorders* Among Women Aged 18 and Older, by Body Mass Index, 2005–2008**

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



*Reported that a health professional has ever told them they have a sleep disorder: this may include insomnia, restless legs, sleep apnea, and other conditions. **Body Mass Index (BMI) is a ratio of weight to height; overweight is defined as a BMI of 25.0 to 29.9; obesity is defined as a BMI of 30.0 or higher.

ORAL HEALTH

Poor oral health can cause chronic pain of the mouth and face and can impair the ability to eat normally. To prevent caries (tooth decay) and periodontal (gum) disease, the American Dental Association recommends brushing at least twice a day and flossing at least once per day, and receiving regular dental checkups.[51]

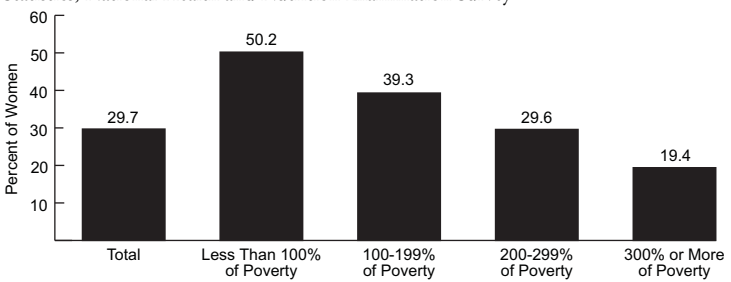
In 2005–2008, about 30 percent of adults reported that their teeth were in fair or poor condition (30.8 percent; data not shown). Self-reported oral health status did not vary by sex but did vary greatly by poverty status and race and ethnicity. For example, 50.2 percent of women with household incomes of less than 100 percent of poverty reported that their teeth were in fair or poor condition compared to 19.4 percent of women with household incomes of 300 percent or more of poverty. Nearly 50 percent of Mexican American women and more than 40 percent of Other Hispanic and non-Hispanic Black women reported fair or poor oral health compared to about 25 percent of non-Hispanic White women (data not shown).

Dental restoration, such as fillings or crowns, can be used to treat cavities caused by caries. In 2005–2008, 21.0 percent of adults had untreated dental decay and 78.9 percent had at least one tooth restored (data not shown). Men were somewhat more likely than women to have untreated dental decay (24.5 versus 17.7 percent, respectively) and less likely to have had dental restoration (75.9 versus 81.6 percent, respectively; data for men not shown).

Dental decay and restoration vary by poverty status and race and ethnicity. Dental decay was about twice as high among non-Hispanic Black and Mexican American women (34.1 and 28.9 percent, respectively) compared to non-Hispanic White and Other Hispanic women (14.0 and 16.8 percent, respectively). Conversely, dental restoration was higher among non-Hispanic White and Other Hispanic women (84.0 and 86.5 percent, respectively) compared to non-Hispanic Black and Mexican American women (70.6 and 73.2 percent, respectively). Women with household incomes below poverty were three times more likely to have untreated dental decay than women living in households at 300 percent or more of poverty (30.3 versus 10.3 percent, respectively) and were less likely to have had dental restoration (68.3 versus 89.9 percent, respectively; data not shown).

Self-Reported Fair/Poor Oral Health Status Among Women Aged 18 and Older, by Poverty Status,* 2005–2008

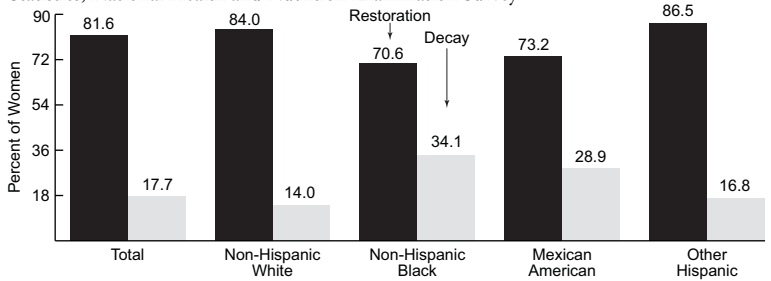
Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



Poverty level, defined by the U.S. Census Bureau, was $22,025 for a family of four in 2008.

Presence of Tooth Restoration and Decay Among Women Aged 18 and Older, by Race/Ethnicity,* 2005–2008

Source II.2: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey



The samples of American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.

PRECONCEPTION HEALTH

Efforts to improve pregnancy outcomes and the health of mothers and infants should begin prior to conception, whether before a first or subsequent pregnancy.[52] It is important to establish health and healthy behaviors well before pregnancy as most women do not become aware of their pregnancy until several weeks or more after conception. Key indicators of preconception health include not smoking or drinking prior to pregnancy, taking a daily multi-vitamin, and achieving a healthy weight prior to pregnancy.[53]

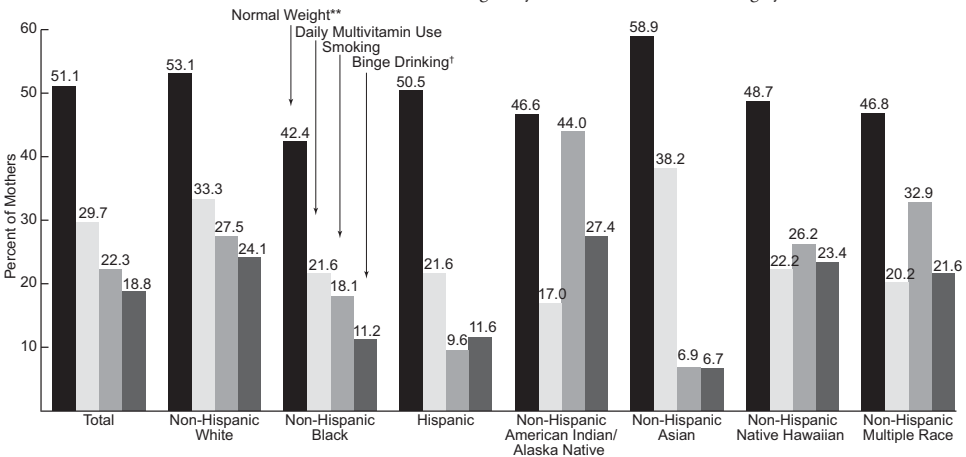
Frequent drinking, especially early in pregnancy, can cause fetal alcohol syndrome and alcohol-related birth defects.[52,54] Smoking also increases the risk of pregnancy complications, preterm birth, and low birth weight.[52] In 2006–2008, nearly one in five recent mothers in a 29-state area reported binge drinking (consumed 5 or more drinks in a sitting) at least once within 3 months prior to pregnancy (18.8 percent) and 22.3 percent reported smoking. Binge drinking and smoking in the three months prior to pregnancy were highest among non-Hispanic American Indian/Alaska Native women (27.4 and 44.0 percent, respectively). Non-Hispanic White, non-Hispanic Native Hawaiian, and non-Hispanic women of multiple races also had elevated rates of preconception substance use, while non-Hispanic Asian women had the lowest reported rates.

Daily use of multi-vitamins containing folic acid can reduce the risk of neural tube defects in infants by two-thirds.[52] In 2006–2008, only 29.7 percent of recent mothers reported daily multi-vitamin use in the month prior to pregnancy. Daily preconception multi-vitamin use was highest among non-Hispanic Asian mothers (38.2 percent), followed by non-Hispanic White mothers (33.3 percent); only about one in five mothers of other racial and ethnic groups consumed daily multi-vitamins prior to pregnancy.

Women should also attain a healthy weight prior to pregnancy. Only about half of new mothers (51.1 percent) reported a healthy or normal pre-pregnancy weight for their height. Non-Hispanic Asian mothers were most likely to have attained a healthy pre-pregnancy weight (58.9 percent), while non-Hispanic Black mothers were least likely (42.4 percent). About one-third of non-Hispanic Black and non-Hispanic American Indian/Alaska Native mothers were obese prior to pregnancy (data not shown).

Selected Preconception Health Indicators Among Recent Mothers, by Race/Ethnicity, 2006–2008*

Source II.17: Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



**Includes data from a total of 29 states and New York City; 20 states contributed all 3 years; mothers completed surveys between 2 and 9 months postpartum. **Defined as a pre-pregnancy body mass index (ratio of weight to height) between 18.5 and 24.9. †Defined as drinking 5 or more alcohol drinks in one sitting at least once in the 3 months prior to pregnancy.*

UNINTENDED PREGNANCY AND CONTRACEPTION

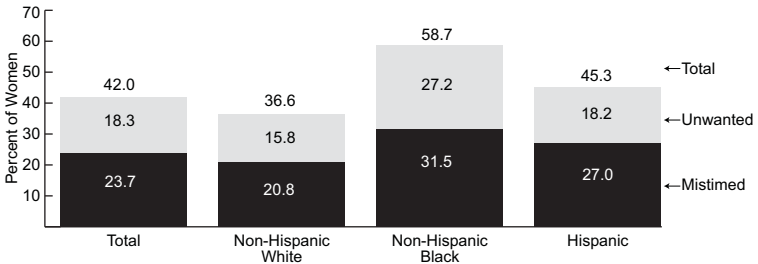
Unintended pregnancies are associated with many negative health outcomes for both mother and child, including delayed prenatal care, poor maternal mental health, reduced mother-child relationship quality, and poor developmental outcomes for children.[55] Unintended pregnancies are defined as being mistimed or unwanted at the time of conception. It is difficult to estimate the total rate of unintended pregnancy due to known reporting issues, specifically related to the underreporting of pregnancies ending in abortion. However, in 2006–2008, 42.0 percent of women reported that their last pregnancy ending in a live birth was unintended at the time of conception. This includes 18.3 percent of women reporting an unwanted pregnancy and 23.7 percent reporting a mistimed pregnancy. Pregnancies that are unwanted rather than mistimed tend to have poorer outcomes.

Unintended pregnancy varies by race and ethnicity. In 2006–2008, 58.7 percent of non-Hispanic Black women reported that their last pregnancy ending in a live birth was unintended, followed by 45.3 percent of Hispanic women and 36.6 percent of non-Hispanic White women. Both non-Hispanic Black and Hispanic women were more likely than non-Hispanic White women to report a mistimed pregnancy (31.5 and 27.0 versus 20.8 percent, respectively). Non-Hispanic Black women were more likely than non-Hispanic White and Hispanic women to report an unwanted pregnancy (27.2 versus 15.8 and 18.2 percent, respectively).

Unintended pregnancies can be averted with proper use of effective contraceptives. In 2006–2008, 4.5 million or 10.6 percent of women at risk of unintended pregnancy—who were having intercourse and not sterile, pregnant, or trying to get pregnant—reported that they were not using contraception. Non-Hispanic Black women were more likely than non-Hispanic White and Hispanic women to not be using contraception while at risk of unintended pregnancy (16.3 versus 9.4 and 9.0 percent, respectively). Differences in contraceptive use, as well as method choice and contraceptive effectiveness, may contribute to racial and ethnic disparities in unintended pregnancy.[56]

Unintended Pregnancy* Among Last Live Births to Women Aged 15–44, by Race/Ethnicity, 2006–2008**

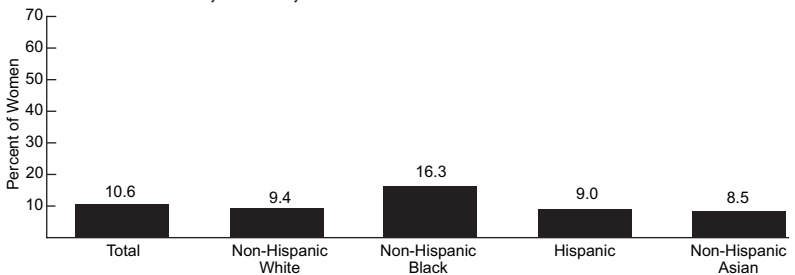
Source II.18: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth



**Reported to be unwanted or mistimed at the time of conception among the most recent pregnancy that ended in a live birth. Percentages may not add to totals due to rounding. **The samples of American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.*

No Contraceptive Use Among Women Aged 15–44 Years at Risk of Unintended Pregnancy,* by Race/Ethnicity, 2006–2008**

Source II.19: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth



**At risk of unintended pregnancy is defined as having had intercourse in the last 3 months among those who were not currently pregnant, trying to get pregnant, or sterile for health reasons. **The samples of American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.*

SMOKING DURING PREGNANCY

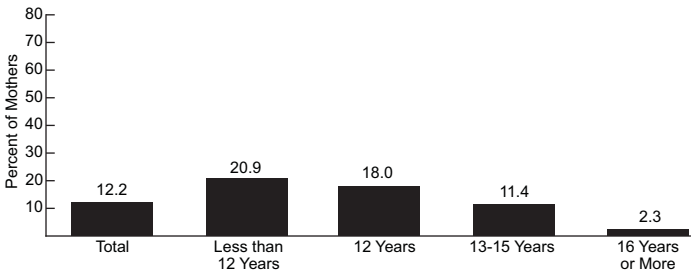
Smoking during pregnancy can have a negative impact on the health of women, infants, and children by increasing the risk of fertility problems and pregnancy complications, as well as preterm birth, low birth weight, and sudden infant death syndrome—some of the leading causes of infant mortality.[6] Quitting smoking prior to and any time during pregnancy carries benefits, especially considering the many additional risks of postnatal tobacco smoke exposure for infants and children including respiratory infections, ear infections, and asthma.[6]

In 2006–2008, 12.2 percent of recent mothers in a 29-state area reported that they had smoked in the last 3 months of pregnancy. Smoking in the last 3 months of pregnancy varied significantly by maternal education level, ranging from 2.3 percent among women with 16 or more years of education to 20.9 percent among women with less than 12 years of education. The proportion of women who smoked in the last 3 months of pregnancy also varied by maternal race and ethnicity. About one-quarter of non-Hispanic American Indian/Alaska Native mothers (25.8 percent) reported having smoked in the last 3 months of pregnancy, while less than 5 percent of non-Hispanic Asian and Hispanic mothers reported doing so (2.4 and 3.9 percent, respectively; data not shown).

Due to awareness of the neonatal health consequences of smoking, pregnancy may be a time period of heightened motivation to quit. In 2006–2008, 45.3 percent of mothers in a 29-state area who reported smoking in the 3 months prior to pregnancy had not smoked in the last 3 months of pregnancy. Smoking cessation during pregnancy varied significantly by maternal education level. More than 70 percent of women with 16 or more years of education who smoked prior to pregnancy had quit smoking by the last 3 months of pregnancy. By contrast, fewer than one-third of mothers with less than 12 years of education had quit smoking during pregnancy (28.7 percent). Medicaid coverage of both medication and counseling for smoking cessation may help women with less education and resources to successfully quit smoking.[57]

Cigarette Smoking in the Last 3 Months of Pregnancy, by Maternal Education Level, 2006–2008*

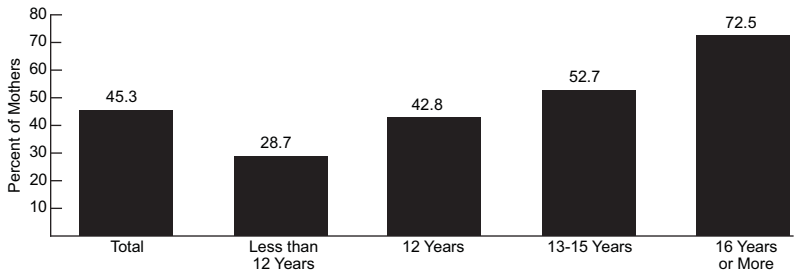
Source II.17: Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*Includes data from a total of 29 states and New York City; 20 states contributed all 3 years; mothers completed surveys between 2 and 9 months postpartum.

Smoking Cessation During Pregnancy,* by Maternal Education Level, 2006–2008**

Source II.17: Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*Defined as the proportion of mothers who reported not smoking in the last 3 months of pregnancy among those who reported smoking in the three months prior to pregnancy. **Includes data from a total of 29 states and New York City; 20 states contributed all 3 years; mothers completed surveys between 2 and 9 months postpartum.

LIVE BIRTHS AND DELIVERY TYPE

According to preliminary data, there were 4.1 million live births in the United States in 2009 and the crude birth rate was 13.5 births per 1,000 total population, a decrease of 4 percent from 2008 (data not shown). Hispanic women continued to have the highest fertility rate (93.3 births per 1,000 women aged 15–44 years) in 2009, followed by non-Hispanic Black and Asian/Pacific Islander women (68.9 and 68.7 per 1,000 women aged 15–44 years, respectively) despite decreases in the number of births within each of those groups. Non-Hispanic White women had the lowest birth rate (58.5 per 1,000 women aged 15–44 years).

With regard to age, overall birth rates were highest among mothers aged 25–29 years (110.5 live births per 1,000 women), followed by those aged 30–34 years (97.7 births per 1,000 women). Between 2008 and 2009, the birth rate declined in every age group presented except for mothers aged 40–44 years (data not shown). The birth rate for non-Hispanic White women was highest among 25- to 29-year-olds (102.6 per 1,000), while the birth rates for non-Hispanic Blacks, Hispanics, and American Indian/Alaska Natives were highest among 20- to 24-year-olds (123.8, 151.2, and 109.1 per 1,000 women, respectively). The birth rate among Asian/Pacific Islanders was highest among 30- to 34-year-olds (123.3 per 1,000 women).

The proportion of births delivered by cesarean section has steadily increased since 1996. Among all births in 2008, nearly one-third (32.3 percent) were delivered by cesarean section, compared to about one-fifth of births in 1996 (20.7 percent). Preliminary data for 2009 indicate that this trend is continuing, with 32.9 percent of births delivered by cesarean section, an increase of almost 60 percent since 1996.[58] This far exceeds the World Health Organization's recommended upper limit of 15 percent of births.[59] Induction of labor has also increased more than 140 percent since 1990, from 9.5 percent in 1990 to 23.1 percent in 2008.

Live Births per 1,000 Women, by Age and Race/Ethnicity, 2009*

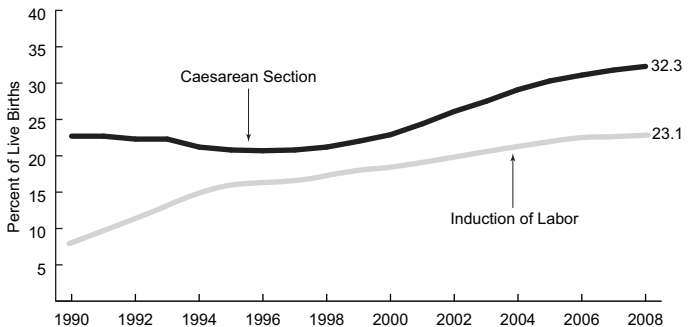
Source II.20: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	American Indian/ Alaska Native**	Asian/Pacific Islander**
Total	66.7	58.5	68.9	93.3	62.8	68.7
15-19 Years	39.1	25.6	59.0	70.1	55.5	14.6
20-24 Years	96.3	76.7	123.8	151.2	109.1	57.5
25-29 Years	110.5	102.6	101.9	145.0	90.8	110.5
30-34 Years	97.7	97.4	73.2	108.2	63.8	123.3
35-39 Years	46.6	43.9	36.5	56.1	29.0	68.1
40-44 Years	10.1	9.0	9.0	14.0	6.5	15.8

*Data are preliminary. **Includes Hispanics.

Births Involving Cesarean Section and Induction of Labor, 1990–2008

Source II.21: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



MATERNAL MORBIDITY AND MORTALITY

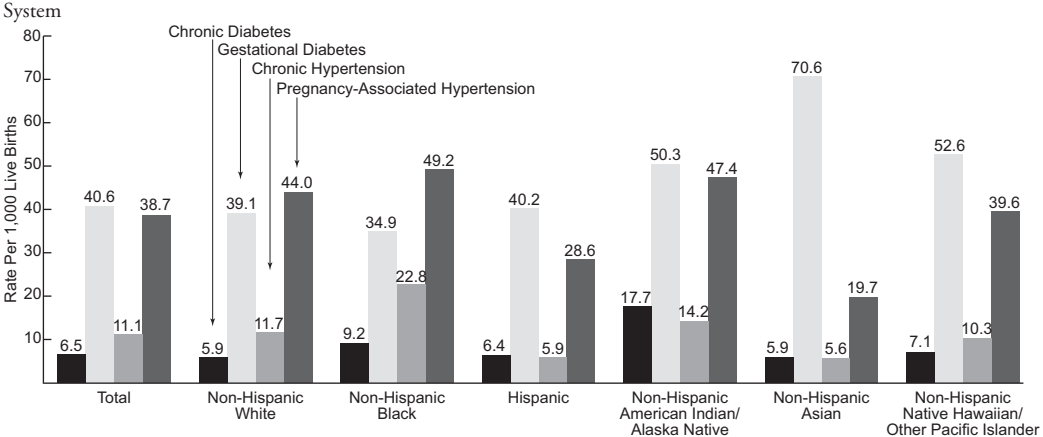
Diabetes and hypertension are the most commonly reported health conditions among pregnant women. Diabetes, both chronic and gestational (developing only during pregnancy), may pose health risks to a woman and her baby. Women with gestational diabetes are at increased risk for developing diabetes later in life.[60] In 2008, among the 27 states that collected this information on the revised birth certificate, chronic or pre-existing diabetes occurred at a rate of 6.5 per 1,000 live births while gestational diabetes was a complication in 40.6 per 1,000 live births. Chronic diabetes was highest among non-Hispanic American Indian/Alaska Native mothers (17.7 per 1,000 live births) and lowest among non-Hispanic White and non-Hispanic Asian mothers (5.9 per 1,000). However, non-Hispanic Asian mothers had the highest rate of gestational diabetes at 70.7 per 1,000 live births, followed by non-Hispanic Native Hawaiian/Pacific Islander and non-Hispanic American Indian/Alaska Native mothers (53.0 and 50.3 per 1,000, respectively).

Hypertension during pregnancy can also be either chronic in nature or gestational. Severe hypertension during pregnancy can result in preeclampsia, fetal growth restriction, and early delivery.[61] In 2008, in the 27 states that used the revised birth certificate, chronic and pregnancy-associated hypertension were present in 11.1 and 38.7 per 1,000 live births, respectively. Chronic hypertension was most common among non-Hispanic Black women (22.8 per 1,000 live births) and least common among Hispanic and non-Hispanic Asian women (5.9 and 5.5 per 1,000, respectively). Pregnancy-associated hypertension exceeded a rate of 40 per 1,000 live births among non-Hispanic White, non-Hispanic Black, and non-Hispanic American Indian/Alaska Native mothers and was lowest among non-Hispanic Asian mothers (19.7 per 1,000).

In 2007, there were 548 maternal deaths (12.7 per 100,000 live births) related to or aggravated by pregnancy which occurred during or within 42 days after the end of the pregnancy.[62] This does not include 221 deaths of women that were due to complications during pregnancy or childbirth and that occurred after 42 days postpartum, or the deaths of pregnant women due to external causes such as unintentional injury, homicide, or suicide. The maternal mortality rate among non-Hispanic Black women (28.4 per 100,000 live births) was roughly 3 times the rates among non-Hispanic White and Hispanic women (10.5 and 8.9 per 100,000, respectively; data not shown—see *Child Health USA, 2011* for more detail).

Selected Maternal Morbidities and Risk Factors in Pregnancy, by Race/Ethnicity, 2008*

Source II.22: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



**Data are from 27 states that implemented the 2003 revision of the birth certificate as of January 1, 2008, representing 65% of all U.S. births.*

POSTPARTUM DEPRESSIVE SYMPTOMS

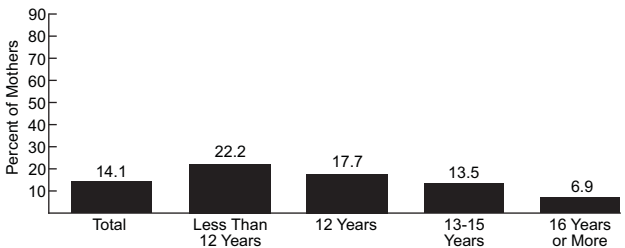
The birth of a child is a major life event that can be joyous, but also stressful in its new demands and responsibilities. Hormonal changes and lack of sleep can contribute to "baby blues" or mild depressive symptoms, such as occasional sadness, crying, irritability, and trouble concentrating, which are common and transient.[63] Depression occurs when these symptoms, including depressed mood and loss of interest in activities, are severe and last for more than two weeks.[64] Other symptoms can include changes in appetite, feelings of worthlessness or guilt, and suicidal thoughts.

In 2006–2008, 14.1 percent of recent mothers in a 22-state area reported postpartum depressive symptoms since the birth of their child in the previous 2–9 months. Postpartum depressive symptoms varied significantly by education level, from 6.9 percent among mothers with at least 16 years of education to 22.2 percent among mothers with less than 12 years of education. The proportion of mothers reporting postpartum depressive symptoms exceeded 20 percent among non-Hispanic American Indian/Alaska Native, non-Hispanic Black, and non-Hispanic mothers of multiple race and was lowest among non-Hispanic White mothers (11.9 percent; data not shown). Factors that may increase the risk of postpartum depression include previous depressive episodes, stressful life events, and limited social support.[64,65]

Early diagnosis and treatment are important as postpartum depression can interfere with maternal-infant bonding and child development.[64] Screening for depression is encouraged by the American College of Obstetricians and Gynecologists both during and after pregnancy. In 2006–2008, 73.9 percent of recent mothers in an 8-state area reported that a health care provider talked with them about "baby blues" or postpartum depression during or after their most recent pregnancy. Non-Hispanic American Indian/Alaska Native and non-Hispanic White mothers were most likely to report that a health care worker discussed postpartum depression (83.7 and 78.8 percent, respectively), while non-Hispanic Asian and mothers of multiple races were least likely to do so (58.9 and 61.5 percent, respectively).

Postpartum Depressive Symptoms Among Women with a Recent Live Birth,* by Maternal Education Level, 2006–2008**

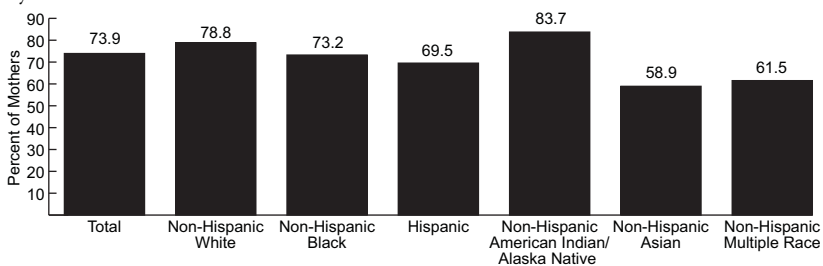
Source II.17: Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*Defined as reporting often or always feeling depressed or a loss of interest in activities since the birth of the infant; mothers completed surveys between 2 and 9 months postpartum. **Includes data from a total of 22 states; 14 states contributed all 3 years.

Women with a Recent Live Birth Who Reported that a Health Care Provider Discussed Postpartum Depression, by Race/Ethnicity,* 2006–2008**

Source II.17: Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*The sample of Native Hawaiians was too small to produce reliable results. **Includes data from a total of 8 states and New York City; 7 states contributed all 3 years. Respondents completed surveys between 2 and 9 months postpartum.

BREASTFEEDING

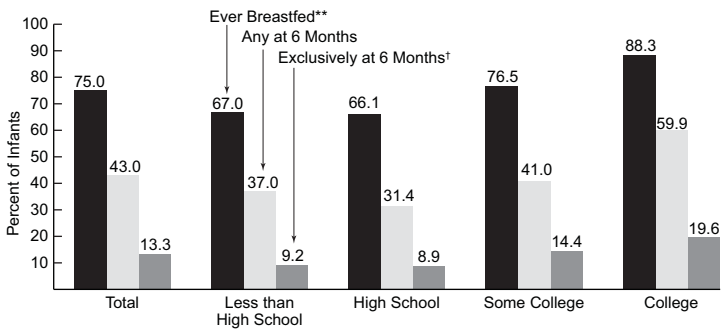
Breast milk benefits the health, growth, immunity, and development of infants, and mothers who breastfeed may have a reduced risk of Type 2 diabetes and breast and ovarian cancer.[66] Among infants born in 2007, 75.0 percent were reported to have ever been breastfed, representing a significant increase over the 68.3 percent of infants ever breastfed in 1999. The American Academy of Pediatrics recommends that infants be exclusively breastfed—without supplemental solids or liquids—for the first 6 months of life;[67] however, only 43.0 percent of infants born in 2007 were breastfed at 6 months, and only 13.3 percent were exclusively breastfed through 6 months.

Breastfeeding practices vary considerably by a number of factors, including maternal race and ethnicity, education, age, and income. With respect to education, infants born to mothers with a college education were most likely to have ever been breastfed (88.3 percent) and to continue to be breastfed, while only about two-thirds of infants born to mothers with a high school degree or less were breastfed. With respect to race and ethnicity, Asian infants were most likely to ever be breastfed (86.4 percent) while non-Hispanic Black infants were the least likely to ever be breastfed (58.1 percent). Infants born to older mothers and those with higher household incomes were also more likely to be breastfed (data not shown). These sociodemographic patterns persist with regard to the duration and exclusivity of breastfeeding.

Maternal employment can also affect whether and for how long an infant is breastfed; mothers working full-time are less likely to breastfeed at 6 months than those working part-time or not at all.[68] In 2009, half of all mothers with children under 1 year of age were employed, and two-thirds of those mothers were employed full-time (data not shown).[69] The Affordable Care Act, signed into law on March 23, 2010, helps to support breastfeeding among working women by requiring break time and a private, sanitary place for nursing mothers to express breast milk during the workday.[70]

Infants* Who Are Breastfed, by Maternal Education and Duration, 2007

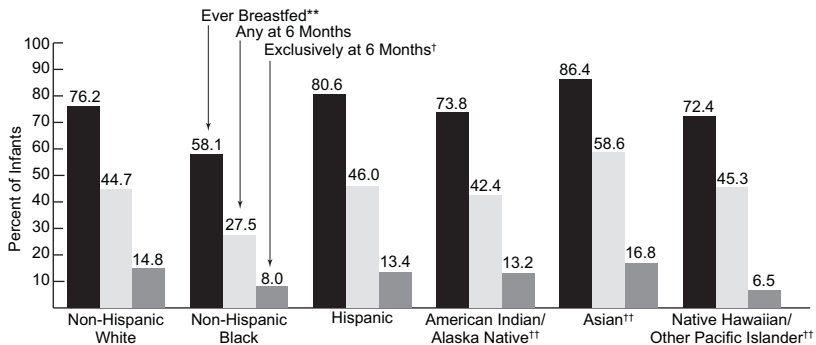
Source II.23: Centers for Disease Control and Prevention, National Immunization Survey



*Includes only infants born in 2007; data are provisional. **Reported that child was ever breastfed or fed human breast milk. †Exclusive breastfeeding is defined as only human breast milk—no solids, water, or other liquids.

Infants* Who Are Breastfed, by Race/Ethnicity and Duration, 2007

Source II.23: Centers for Disease Control and Prevention, National Immunization Survey



*Includes only infants born in 2007; data are provisional. **Reported that child was ever breastfed or fed human breast milk. †Exclusive breastfeeding is defined as only human breast milk—no solids, water, or other liquids. ††Includes Hispanics.

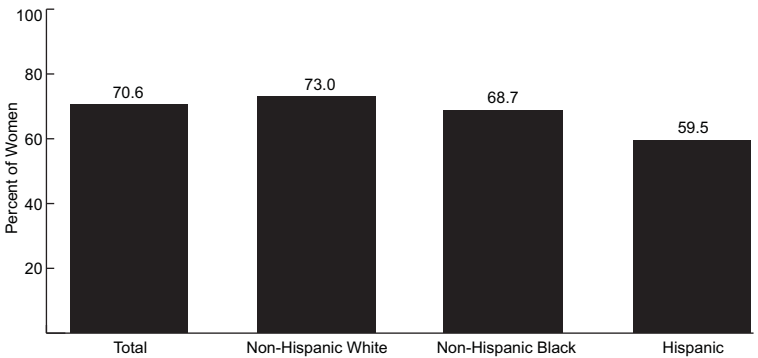
MATERNITY LEAVE

Maternity leave from employment after childbirth provides critical time for maternal-infant bonding and adjustment to life with a new baby. Longer length of maternity leave is associated with increased breastfeeding duration, as well as improved maternal mental health and child development.[71,72] The Family and Medical Leave Act (FMLA) guarantees both women and men up to 12 weeks of unpaid leave around the birth or adoption of a child as long as they work for larger employers (50+ employees) and meet certain tenure and working hour requirements. However, many women cannot afford to take unpaid leave and usually use a combination of short-term disability, sick leave, vacation, and personal days in order to have some portion of their maternity leave paid. The U.S. is one of only 5 countries in the world that does not mandate paid maternity leave.[73]

In 2006–2008, 65.9 percent of women reported being employed during their last pregnancy (data not shown), of which 70.6 percent reported taking maternity leave. Thus, nearly one-third of employed women did not report taking any maternity leave (29.4 percent). When taken, the average length of maternity leave was 10.3 weeks (data not shown). The proportion of women who took maternity leave for their last child varied by race and ethnicity. Hispanic women were less likely to report having taken any maternity leave than non-Hispanic White or non-Hispanic Black women (59.5 versus 73.0 and 68.7 percent, respectively). Among women who reported taking maternity leave for their last pregnancy, 33.1 percent did not have any portion of their maternity leave paid. Only 24.9 percent of women reported paid maternity leave for more than 2 months (9 or more weeks).

Women Aged 18–44 Who Took Maternity Leave for Their Last Pregnancy, by Race/Ethnicity,* 2006–2008

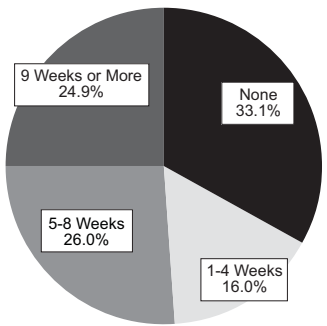
Source II.18: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth



**The samples of American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.*

Weeks of Paid Maternity Leave Received Among Women Aged 18–44 Who Took Maternity Leave,* 2006–2008

Source II.18: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth



**Respondents were asked to report based on their last pregnancy.*

LESBIAN AND BISEXUAL WOMEN

Research suggests that lesbian and bisexual women are at increased risk for adverse health outcomes, including overweight and obesity, poor mental health, substance abuse, violence, and barriers to optimal health care resulting from social and economic inequities.[74,75] Although frequently referred to as part of a larger group of sexual minorities, including gay men and transgender individuals, the health status and needs of lesbians and bisexual women are uniquely shaped by a range of factors including sexual identity and behavior, as well as traditional sociodemographic factors, like age, education, and race and ethnicity. The terms "lesbian" and "bisexual" are used to define women according to their sexual orientation which can reflect sexual identity, behavior, or attraction;[76] however, for the purposes of the data presented on this page, both lesbian and bisexual refer to women's self-reported identity.[77]

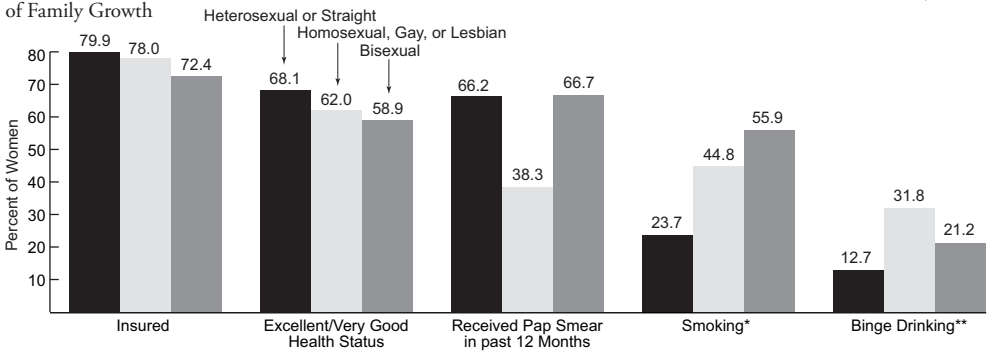
In 2006–2008, 1.1 percent or 590,000 women aged 18–44 years self-identified as homosexual, gay, or lesbian and 3.5 percent or 1.9 million self-identified as bisexual. The proportion of women who reported any same-sex sexual behavior, however, was substantially higher at 12.7 percent, while 16.7 percent of women in this age group reported some degree of same-sex attraction (data not shown).

Among reproductive-aged women in 2006–2008, differences were observed for several health indicators by sexual identity. Bisexual women were less likely than heterosexual women to report having health insurance (72.4 versus 79.9 percent, respectively) and marginally less likely to report being in excellent or very good health (58.9 versus 68.1 percent, respectively); no significant difference was observed between lesbian and heterosexual women for either indicator. Conversely, while approximately 66 percent of heterosexual and bisexual women received a Pap smear in the past 12 months, only 38.3 percent of lesbians reported receiving this service. Both lesbian and bisexual woman, however, were about twice as likely as straight women to report smoking and binge drinking (defined as consuming 5 or more drinks within a couple of hours at least once a month during the past year). Nearly half of lesbian and bisexual women reported smoking, while 31.8 percent and 21.2 percent of lesbians and bisexuals, respectively, reported binge drinking.

A recent report from the Institute of Medicine concluded that to better understand and meet the unique needs of lesbian, gay, bisexual and transgender people, more data are needed in several priority areas: demographics, social influences, health care inequalities, and transgender-specific health needs.[76] The U.S. Department of Health and Human Services is working to increase the number of federally-funded health and demographic surveys that collect and report sexual orientation and gender identity data.[78]

Selected Health Indicators Among Females Aged 18–44 Years, by Sexual Identity, 2006–2008

Source II.24: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth



*Smoked at least one cigarette per day on average in the past year. **Defined as consuming 5 or more drinks within a couple of hours at least once a month on average in the past year.

AMERICAN INDIAN AND ALASKA NATIVE WOMEN

In 2009, 1.5 percent of the U.S. adult female population, or 1.8 million women, identified themselves as American Indian or Alaska Native, either alone or combined with one or more other races.[79] American Indian and Alaska Natives include diverse tribes and cultures distributed throughout the country, but the areas with the largest concentration are in the West, South, and Midwest, particularly Alaska, New Mexico, South Dakota, Montana, Oklahoma, North Dakota, and Arizona.[80] American Indian/Alaska Native communities generally face many challenges as a consequence of displacement and cultural trauma, including high rates of poverty, low rates of educational attainment, and poor health.[81,82]

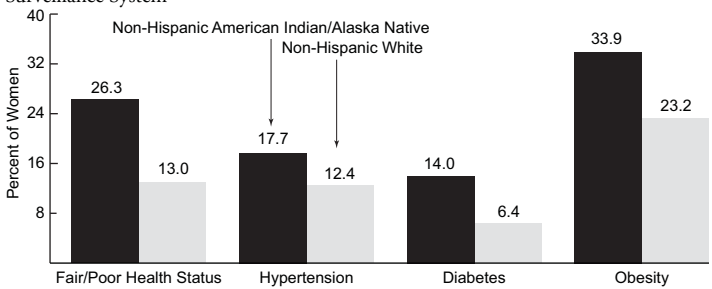
In 2007–2009, non-Hispanic American Indian/Alaska Native women were more than twice as likely to report their health as fair or poor and to report having been diagnosed with diabetes than non-Hispanic White women. They were also more likely to be obese and to have been diagnosed with hypertension. For example, about one-third (33.9 percent) of non-Hispanic American Indian/Alaska Native women were obese, compared to 23.2 percent of non-Hispanic White women. Non-Hispanic American Indian/Alaska Native women also had the highest rate of past-month cigarette smoking (41.8 percent), as well as high rates of binge and heavy drinking and illicit drug use (see *Alcohol Use, Cigarette Smoking*, and *Illicit Drug Use*).

Mirroring higher rates of substance use and chronic conditions, non-Hispanic American Indian/Alaska Native women were also more likely than non-Hispanic White women to die from several specific causes, including unintentional injury, homicide, liver disease, diabetes, and nephritis (kidney inflammation), as well as HIV and hepatitis.

Although many of the health problems afflicting American Indian/Alaska Native women are preventable, geographic, cultural, and financial factors often serve as barriers to accessing quality health care and engaging in healthy behaviors. The Indian Health Service (IHS) helps to provide health care to federally recognized tribes living on or near reservations; yet about 4 in 10 American Indian/Alaska Natives are not served by IHS.[81]

Selected Health Indicators* Among Women Aged 18 and Older, by Race, 2007–2009

Source II.6: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System



*Based on self-reports of health status and doctor-diagnosed health conditions; estimates are age-adjusted.

Deaths per 100,000* Females Aged 15 and Older From Selected Causes, by Race, 2005–2007

Source II.16: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

	Non-Hispanic American Indian/Alaska Native	Non-Hispanic White
Diabetes	54.8	22.0
Unintentional Injury	50.5	33.4
Chronic Liver Disease and Cirrhosis	28.9	7.4
Nephritis (kidney inflammation)	20.6	13.7
Suicide	7.4	7.0
Homicide	4.9	2.0
Viral Hepatitis	3.2	1.5
HIV	2.3	0.7

*Age-adjusted death rates.

NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER WOMEN

In 2009, nearly 300,000 U.S. women (0.24 percent) identified themselves as Native Hawaiian and Other Pacific Islander, either alone or combined with one or more other races.[79] The Native Hawaiian and Other Pacific Islander population includes a diversity of cultures among people native to Hawai'i, Samoa, Guam, Tonga, Fiji or other Pacific Islands. Native Hawaiian/Other Pacific Islanders live throughout the United States, with the largest concentrations in Hawai'i, Alaska, Utah, Nevada, California, Oregon, and Washington.[83] Although this small population has often been grouped with Asians, masking significant health disparities, more specific data is emerging as a consequence of a federal directive to separate these groups.[84]

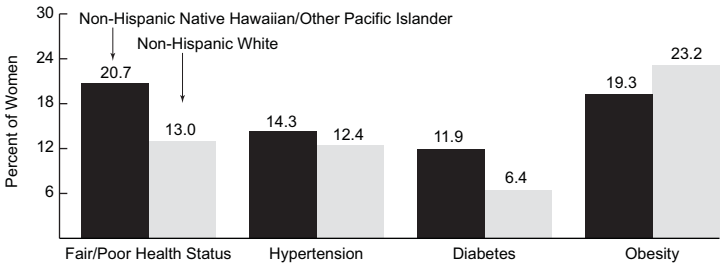
In 2007–2009, non-Hispanic Native Hawaiian/Other Pacific Islander women were more likely than non-Hispanic White women to report their health as fair or poor (20.7 versus 13.0 percent, respectively) and to report having been diagnosed with diabetes (11.9 versus 6.4 percent, respectively). Some studies have also shown higher rates of cardiovascular disease and related risk factors among Native Hawaiian/Other Pacific Islanders.[85] Non-Hispanic Native Hawaiian/Other Pacific Islander women have the highest rates of reported binge drinking and illicit drug use (27.7 and 17.6 percent, respectively; see *Alcohol Use* and *Illicit Drug Use*) and have an HIV diagnosis rate that is 5.5 times higher than non-Hispanic White women (see *HIV/AIDS*).

Cancer is another condition that disproportionately affects Native Hawaiian/Other Pacific Islander women.[86] In 2000–2005, Native Hawaiian women living in Hawaii had higher cancer incidence and mortality rates than their White counterparts both overall and for breast, lung, endometrial, pancreatic, stomach, cervical, and liver cancer. Samoan and Tongan women have also been shown to have high cancer incidence rates.[86]

As indigenous populations, Native Hawaiian/Other Pacific Islanders have endured a similar history of disenfranchisement to American Indian/Alaska Natives and share several health issues like substance abuse, diabetes, and other chronic diseases. The Native Hawaiian Health Care Improvement Act established Papa Ola Lokahi, an advocacy organization, as well as a health care system and scholarships to address the health needs of Native Hawaiians through culturally appropriate outreach, education, and health care.[87]

Selected Health Indicators* Among Women Aged 18 and Older, by Race, 2007–2009

Source II.6: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System



*Based on self-reports of health status and doctor-diagnosed health conditions; estimates are age-adjusted.

Cancer Incidence and Mortality Rates Among Females (All Ages), by Site and Race, 2000–2005*

Source II.25: University of Hawai'i at Mānoa, University of Hawai'i Cancer Center, Hawai'i Tumor Registry

Site	Incidence Rate per 100,000		Mortality Rate per 100,000	
	Native Hawaiian	White	Native Hawaiian	White
All Sites	447.8	413.6	171.0	133.6
Breast	157.5	127.5	27.7	21.1
Lung and Bronchus	61.9	47.9	43.3	32.4
Uterine Corpus	38.5	23.0	6.3	2.5
Pancreas	16.2	9.2	14.0	8.1
Stomach	10.9	4.0	7.4	2.2
Cervix	9.6	7.0	4.5	1.8
Liver	6.3	2.0	5.1	2.7

*Includes only residents of Hawaii; estimates are age-adjusted.