BORDER HEALTH

Women living along the U.S.–Mexico border face different challenges and barriers to care and health risks than women in the general U.S. population. High rates of poverty and uninsurance among women in the U.S. border region contribute to barriers in accessing care. This special border health supplement to *Women's Health USA* is intended to provide policymakers and women's health advocates with a snapshot of women's health in the border region.

The U.S.–Mexico border region refers to an area encompassing 100 kilometers (62 miles) north and south of the U.S.–Mexico border. This area includes 80 *municipios* in 6 Mexican states and 48 counties in 4 U.S. States. The Healthy Border 2010 initiative of the U.S.–Mexico Border Health Commission limits this region to 44 U.S. border counties, excluding Maricopa, Pinal, and La Paz counties in Arizona and Riverside County in California. The "Border Region" referred to in this supplement also refers to those 44 U.S. counties in Arizona, California, New Mexico, and Texas.

Technical Note: While every effort has been made to cite the most recent and reliable data available for the border region, in some cases estimates are presented that represent only a portion of border counties. This is the case for estimates based on the U.S. Census Bureau's Current Population Survey and the Centers for Disease Control and Prevention's Local Area Behavioral Risk Factor Surveillance System, each of which includes 9 border counties and represents 89.9 and 89.1 percent of the entire border population, respectively. It is acknowledged that the population residing in the counties included in these analyses may differ substantially from the population of those living in the remaining 35 border counties, who only account for about 10 percent of the border population.

U.S.–MEXICO BORDER POPULATION

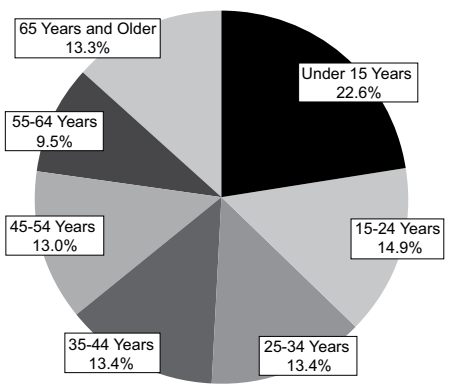
In 2007, there were more than 7.2 million people in the United States living on the U.S.–Mexico border, with females comprising 50.6 percent of that total. Females younger than 35 years of age accounted for 50.9 percent of the female population, while those aged 35–64 years accounted for 35.9 percent, and women aged 65 years and older accounted for 13.3 percent.

The female population living on the U.S.–Mexico border is younger than the overall U.S. population. Nearly 23 percent of females in the U.S. border region were under 15 years of age compared to 19.4 percent of those in the entire United States. Similarly, females aged 45 years and older accounted for 35.8 percent of females in the border region, compared to 40.0 percent of females in the total U.S. population.

The distribution of the population by sex was fairly even across all age groups with the exception of those aged 65 years and older. Within that age group, women accounted for the majority of the population (56.8 percent).

U.S. Female Border Population,* by Age, 2007

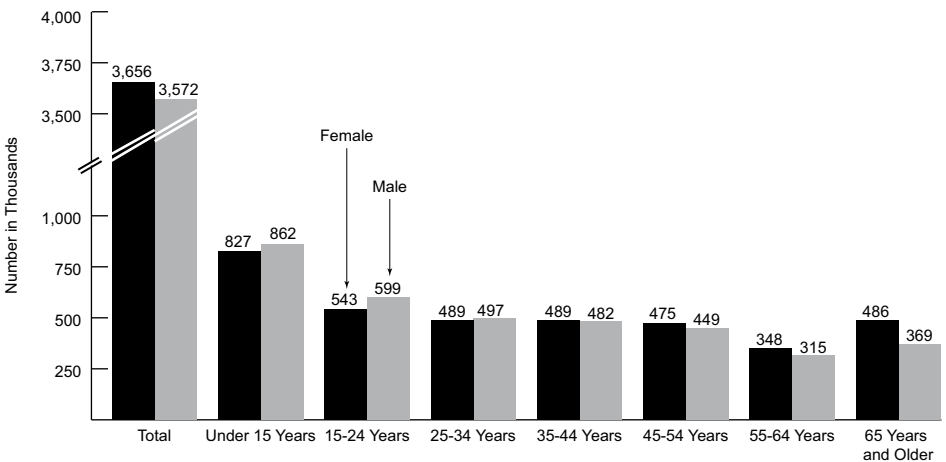
Source IV.1: U.S. Census Bureau, American Community Survey



Includes only non-institutionalized population not living in group housing. Percentages do not add to 100 due to rounding.

U.S. Border Population,* by Age and Sex, 2007

Source IV.1: U.S. Census Bureau, American Community Survey



Includes only non-institutionalized population not living in group housing.

POVERTY STATUS

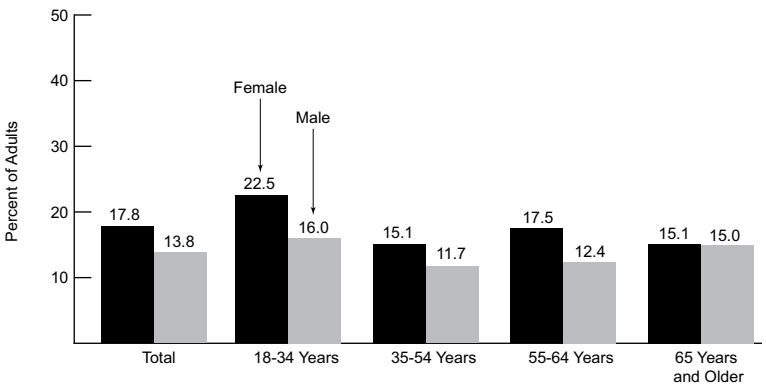
In 2007, an estimated 15.8 percent of adults aged 18 and older in the U.S. border region were living below the poverty level.[1] Nearly 18 percent of women in the border region had household incomes below 100 percent of poverty, which was more than twice the percentage of women living in poverty in the U.S. population overall (8.8 percent; data not shown).

In the U.S. border region, poverty status varied with age and sex. Women were significantly more likely than men to be living in poverty overall (17.8 versus 13.8 percent, respectively), and in every age group below 65 years of age. About 15 percent of men and women aged 65 years and older had household incomes below the poverty level. Among women, those aged 18–34 years were most likely to have household incomes below 100 percent of poverty (22.5 percent), followed by women aged 55–64 years (17.5 percent).

Poverty status also varies with household type. In 2007, women and men in the U.S. border region who were in married-couple families[2] were least likely to have household incomes below 100 percent of poverty (11.8 percent). Women who were heads of households with no spouse present were most likely to be living below the poverty level (31.4 percent). This was significantly more than among men who were heads of households with no spouse present (23.0 percent). Nearly one-quarter of women living alone or with non-relatives also lived in poverty in 2007, as did 19.4 percent of women living with parents or other relatives.

Adults Aged 18 and Older Living Below the Poverty Level, by Age and Sex, 2007*

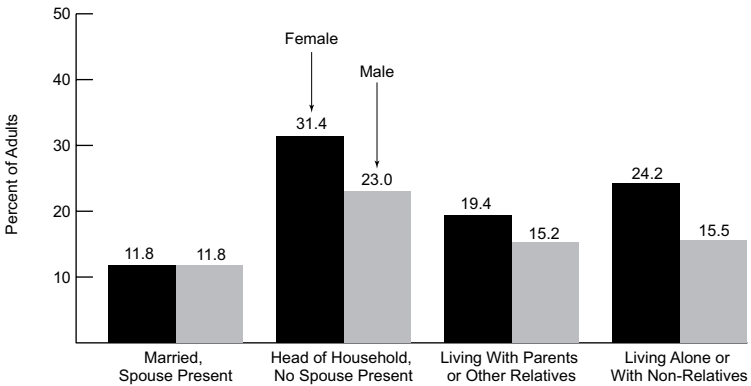
Source IV.2: U.S. Census Bureau, Current Population Survey



Based on survey responses from 9 border counties representing 89.9 percent of the border population. Poverty level, defined by the U.S. Census Bureau, was $21,027 for a family of four in 2007.

Adults Aged 18 and Older Living Below the Poverty Level, by Household Type and Sex, 2007*

Source IV.2: U.S. Census Bureau, Current Population Survey



Based on survey responses from 9 border counties representing 89.9 percent of the border population. Poverty level, defined by the U.S. Census Bureau, was $21,027 for a family of four in 2007.

OVERWEIGHT AND OBESITY

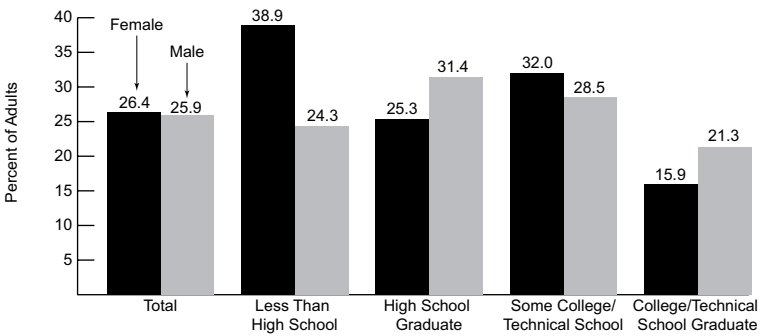
Being overweight or obese is associated with an increased risk of numerous diseases and conditions, including high blood pressure, Type 2 diabetes, heart disease, stroke, arthritis, certain types of cancer, and reproductive health risks.[3] Measurements of overweight and obesity are based on Body Mass Index (BMI), which is a ratio of weight to height. In 2007, 36.9 percent of adults in the U.S. border region reported themselves to be overweight (BMI of 25.0–29.9), while an additional 26.1 percent reported themselves to be obese (BMI of 30.0 or more). These rates were similar to those of the total U.S. population; 36.6 percent of adults reported themselves to be overweight, while 26.3 percent reported themselves to be obese (data not shown).[4]

Overall, women and men in the U.S. border region had similar rates of obesity (26.4 and 25.8 percent, respectively), but men were more likely than women to be overweight (45.3 versus 28.5 percent, respectively; data not shown). Obesity among women varied by level of education. In 2007, women with less than a high school diploma were most likely to be obese (38.9 percent) followed by women with some college or technical school training (32.0 percent). Women who were college or technical school graduates were least likely to report being obese (15.9 percent).

Rates of obesity among women in the U.S. border region also varied by race and ethnicity. Among women in 2007, Hispanics were more likely to be obese (31.6 percent) than non-Hispanic White women (23.3 percent) and non-Hispanic women of other races (17.2 percent). Rates of overweight did not vary significantly among women by race and ethnicity.

Obesity* Among Adults Aged 18 and Older, by Level of Education and Sex, 2007

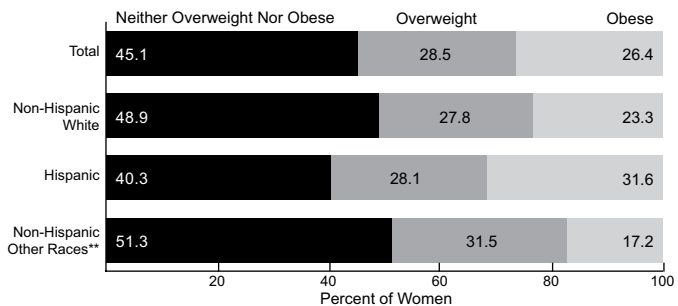
Source IV.3: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System



Defined as having a Body Mass Index (BMI) of 30.0 or more. Results are based on survey responses from 9 counties representing 89.1 percent of the border population.

Overweight and Obesity* Among Women Aged 18 and Older, by Race/Ethnicity, 2007

Source IV.3: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System



*Overweight is defined as having a Body Mass Index (BMI) of 25.0-29.9; obesity is defined as having a BMI of 30.0 or more. Results are based on survey responses from 9 counties representing 89.1 percent of the border population. **Includes non-Hispanic Blacks, Asian/Pacific Islanders, American Indian/Alaska Natives, persons of more than one race, and persons of other races not specified.*

DIABETES

Diabetes mellitus is a chronic condition and a leading cause of death and disability in the United States. Complications of diabetes are serious and may include blindness, kidney damage, heart disease, stroke, and nervous system disease. The main types of diabetes are Type 1, Type 2, and gestational (occuring only during pregnancy). Type 1 diabetes is usually diagnosed in children and young adults, but may occur at any age. Type 2 diabetes is the most common; it is often diagnosed among adults but has increased among children. Risk factors for Type 2 diabetes include obesity, physical inactivity, and a family history of the disease.

In 2007, 9.5 percent of adults in the U.S. border region reported having ever been told by a health professional that they have chronic diabetes. This was slightly higher than among the overall U.S. adult population (8.0 percent).

Diabetes prevalence in the U.S. border region varied among women by race and ethnicity, as well as age. Non-Hispanic White women were less likely to report having ever been told that they have diabetes (6.4 percent), than Hispanic and non-Hispanic women of other races (11.0 and 13.6 percent, respectively).

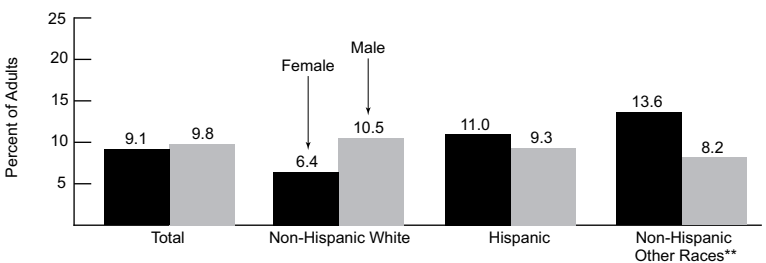
Diabetes prevalence increased with age among women in the U.S. border region in 2007. Those aged 65 years and older were most likely to report having ever been told by a health professional that they have diabetes (21.6 percent), followed by women aged 45–64 years (12.2 percent), and those aged 35–44 years (4.2 percent).

Among women, diabetes prevalence also increased with Body Mass Index. Nearly 18 percent of women in the border region who were obese had ever been diagnosed with diabetes, compared to 7.8 percent of women who were overweight but not obese, and only 4.4 percent of women who were at a healthy weight (data not shown).

One objective in Healthy Border 2010 was to reduce the rate of deaths due to diabetes by 10 percent from 26.9 deaths per 100,000 people in 2000 to 24.2 per 100,000 in 2010. Limited progress has been made to date on this objective, however. The overall mortality rate due to diabetes was 26.8 in 2005.[5]

Adults Aged 18 and Older with Diabetes,* by Race/Ethnicity, 2007

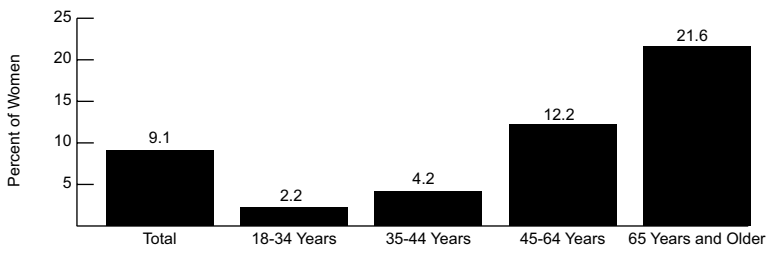
Source IV.3: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System



*Reported that they have ever been told by a health professional that they have diabetes; does not include gestational diabetes. Results are based on survey responses from 9 counties representing 89.1 percent of the border population. **Includes non-Hispanic Blacks, Asian/Pacific Islanders, American Indian/Alaska Natives, persons of more than one race, and persons of other races.

Women Aged 18 and Older with Diabetes,* by Age, 2007

Source IV.3: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System



*Reported that they have ever been told by a health professional that they have diabetes; does not include gestational diabetes. Results are based on survey responses from 9 counties representing 89.1 percent of the border population.

HEALTH RISK BEHAVIORS

A number of behaviors, such as cigarette smoking and alcohol abuse can have negative long-term consequences for an individual's health. In 2007, 16.2 percent of adults in the U.S. border region were current cigarette smokers (smoked some days or every day). This was slightly lower than in the U.S. population overall (19.8 percent; data not shown).

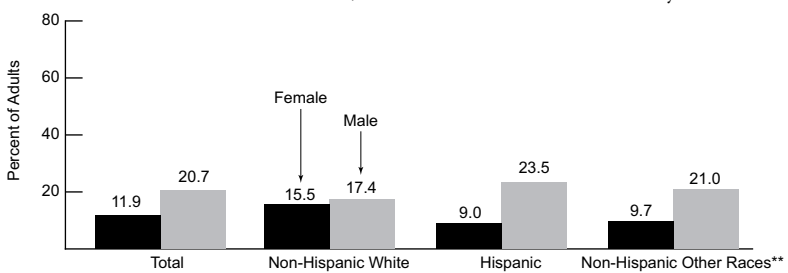
Rates of cigarette smoking in the U.S. border region varied by sex; men were significantly more likely than women to be cigarette smokers (20.7 versus 11.9 percent, respectively). Among women in the border region, cigarette smoking varied by race and ethnicity. Non-Hispanic White women were most likely to be current cigarette smokers (15.5 percent), compared to 9.0 percent of Hispanic women and 9.7 percent of non-Hispanic women of other races.

Men aged 21 and older in the U.S. border region were also more likely than women to have consumed alcohol in the past month (64.1 versus 44.9 percent, respectively). Among men and women aged 21 and older, past-month alcohol consumption increased as level of education increased. Among women in the U.S. border region, those with a college or technical school degree were most likely to have consumed alcohol in the past month (59.2 percent), compared to 36.8 percent of high school graduates, and 16.9 percent of those who did not graduate from high school.

While behaviors such as these can contribute to negative health outcomes, other behaviors, such as regular leisure-time physical activity, can help reduce health risks. In 2007, 25.0 percent of adults in the U.S. border region reported that they did not engage in any leisure-time physical activity in the previous 30 days. Overall, women were more likely than men to have reported being physically inactive (28.0 versus 21.8 percent, respectively). Among women, those with higher levels of education were more likely to have engaged in physical activity in the past month. Nearly 50 percent of women without a high school diploma did not engage in any leisure-time physical activity, compared to 30.2 percent of women who attended college or technical school, and 14.1 percent of women with a college or technical school diploma (data not shown).

Current Cigarette Smoking Among Adults Aged 18 and Older, by Race/Ethnicity and Sex, 2007*

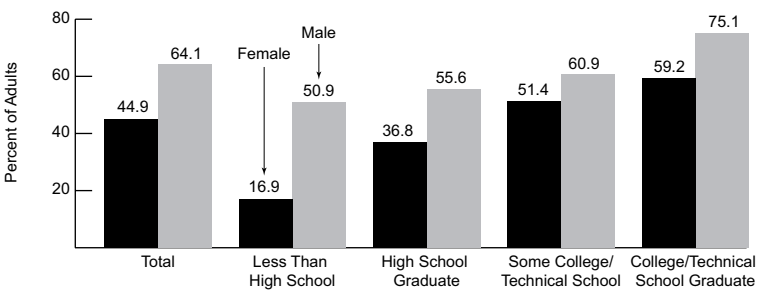
Source IV.3: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System



*Results are based on survey responses from 9 counties representing 89.1 percent of the border population.
**Includes non-Hispanic Blacks, Asian/Pacific Islanders, American Indian/Alaska Natives, persons of more than one race, and persons of other races not specified.

Past Month Alcohol Consumption Among Adults Aged 21 and Older, by Level of Education and Sex, 2007*

Source IV.3: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System



*Results are based on survey responses from 9 counties representing 89.1 percent of the border population.

REPRODUCTIVE HEALTH

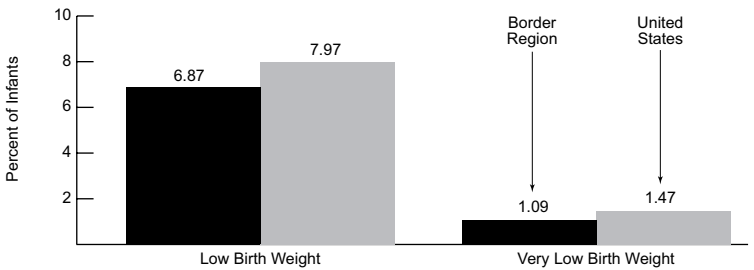
From 2002 to 2004, there were an average of 123,116 live births per year in the U.S. border region. These births accounted for about 3.1 percent of total U.S. births during this period. The percentage of infants born at low and very low birth weight was lower in the U.S. border region than in the United States as a whole. Nearly 6.9 percent of infants born in the border region in 2002–2004 had a low birth weight (less than 2,500 grams), compared to 7.97 percent of infants born in the United States. Similarly, 1.09 percent of infants in the border region were born at a very low birth weight (less than 1,500 grams), compared to 1.47 percent of infants in the United States.

The percentage of live births delivered by cesarean section in 2002–2004 was slightly higher in the border region than in the United States overall (29.8 versus 27.4 percent, respectively). The percentage of births to teen mothers was also higher in the border region than in the United States as a whole (5.01 versus 3.45 percent, respectively; data not shown).

Gestational diabetes (occurring only during pregnancy) can pose health risks to a mother and her baby and women with the condition are at increased risk for developing diabetes later in life.[6] In 2002, women giving birth in the U.S. border region were less likely to have had gestational diabetes than women in the U.S. population (2.44 versus 3.31 percent, respectively). Severe hypertension during pregnancy can result in preeclampsia, fetal growth restriction, premature birth, placental abruption, and stillbirth.[7] In 2002, women giving birth in the border region were also less likely to have pregnancy-induced hypertension than women in the United States as a whole (2.05 versus 3.83 percent, respectively).

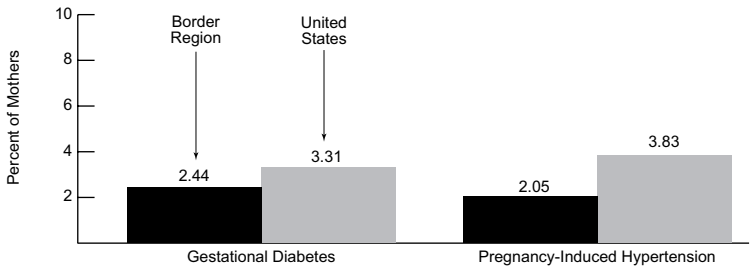
Low and Very Low Birth Weight Infants, by Location, 2002–2004

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



Maternal Morbidity and Risk Factors During Pregnancy, by Location, 2002

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



LEADING CAUSES OF DEATH

In 2005, there were 47,386 deaths recorded in the U.S. border region. Females accounted for 22,637, or 47.8 percent, of these deaths. Overall, the death rate among this population was 849.7 per 100,000 males and 587.6 per 100,000 females, which is lower than that of the overall U.S. population (951.1 and 677.6 per 100,000, respectively; data not shown).

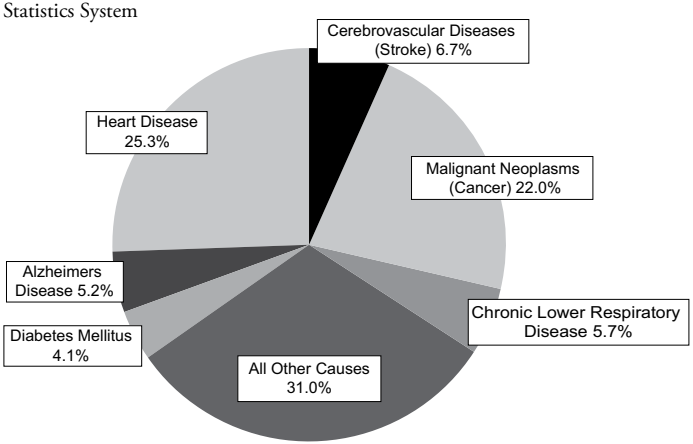
The top 10 leading causes of death for females accounted for 81.6 percent of all deaths (data not shown). Among females, heart disease accounted for 25.3 percent of deaths, followed by malignant neoplasms, or cancer (22.0 percent), and cerebrovascular diseases or stroke (6.7 percent).

The leading cause of death among both females and males was heart disease, which was the cause of death for 145.2 and 229.4 per 100,000 people, respectively, followed by cancer (135.0 and 194.7 per 100,000, respectively). Males had higher mortality rates than females for all of the leading causes of death except for Alzheimers disease, which was the cause of death for 28.3 per 100,000 females and 21.1 per 100,000 males.

The leading causes of death among females in the U.S. border region were similar to that of the U.S. female population overall. In general, mortality rates due to the top 10 leading causes were lower among those in the border region, with the exception of Alzheimers disease and diabetes mellitus. Alzheimers disease accounted for 28.3 deaths per 100,000 females in the border region, compared to 25.1 deaths per 100,000 females in the U.S. population overall. Similarly, diabetes mellitus was the cause of death for 24.8 per 100,000 females in the border region, compared to 21.6 per 100,000 females among the general population (data not shown).

Leading Causes of Death Among Females, 2005*

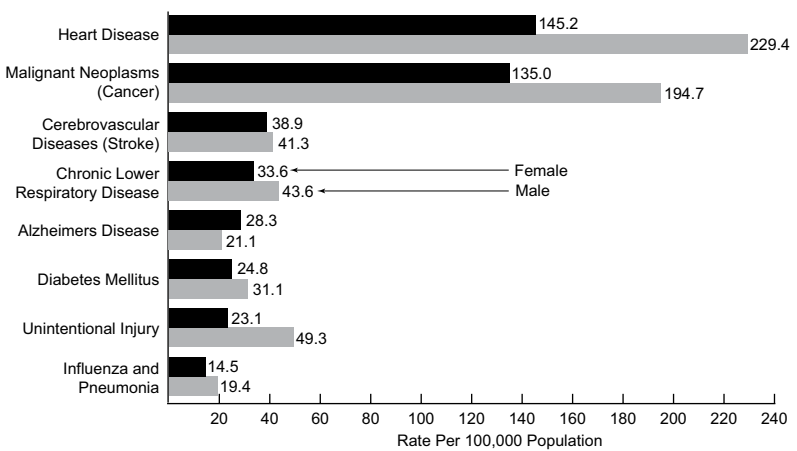
Source IV.5: Centers for Disease Control and Prevention, National Vital Statistics System



*Includes females of all ages in the 44 counties constituting the U.S.-Mexico border region.

Leading Causes of Death (All Ages), by Sex, 2005*

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



*Includes people of all ages in the 44 counties constituting the U.S.-Mexico border region; rates are age-adjusted.

CERVICAL CANCER MORTALITY

Regular cervical cancer screening can decrease the likelihood of death due to cervical cancer by detecting and treating precancerous lesions and invasive cancer before it has spread. Research suggests that high rates of cervical cancer mortality may be indicative of reduced access to health care, a lack of culturally competent communication, and a deficiency in patient/provider education.[8] In 2003–2005, women in the U.S. border region had a greater mortality rate due to cervical cancer than the overall U.S. female population (2.7 versus 2.4 deaths per 100,000 women, respectively).

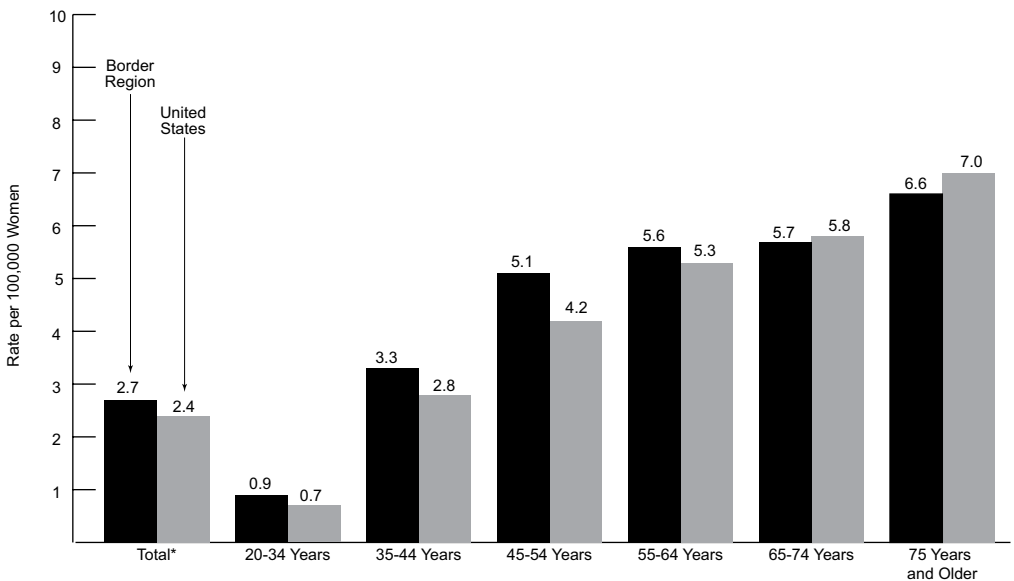
Cervical cancer mortality rates vary by age. Younger women in the U.S. border region had higher mortality rates than the population as a whole; however, older women in the general population had higher mortality rates than those in the U.S. border region. For instance, among women aged 35–44 years, 3.3 deaths per 100,000 women in the border region were due to cervical cancer, compared to 2.8 deaths per 100,000 women in the United States. However, among women aged 75 years and older, cervical cancer was the cause of 6.6 deaths per 100,000 women in the U.S. border region, compared to 7.0 deaths per 100,000 women in the United States.

One objective in Healthy Border 2010 was to reduce the cervical cancer death rate by 30 percent, from 3.7 deaths per 100,000 women in 2000 to 2.6 per 100,000 by 2010. Significant progress has been made in achieving that goal with a cervical cancer mortality rate of 2.7 per 100,000 women in 2003–2005.[5]

Cervical cancer screening is recommended at least every 3 years beginning within 3 years of sexual activity or by age 21. A vaccine for genital human papillomavirus, the leading cause of cervical cancer, was approved by the Food and Drug Administration in 2006 and is recommended for female adolescents and women aged 9–26 years.[9]

Cervical Cancer Mortality Among Women, by Age and Residence, 2003-2005

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



*Age-adjusted.

ACCESS TO CARE

People living on the U.S.–Mexico border face numerous barriers to accessing health care, including high rates of uninsurance and limited access to health care facilities. People who are uninsured are less likely than those with insurance to seek health care, which can result in poor health outcomes and higher health care costs. In 2007, more than one-quarter of adults in the U.S. border region lacked health insurance (26.7 percent), compared to 16.7 percent of adults in the total U.S. population. When considering only adults aged 18–64 years, 31.2 percent of those in the U.S. border region lacked health insurance, compared to 19.6 percent of those in the general U.S. population (data not shown).

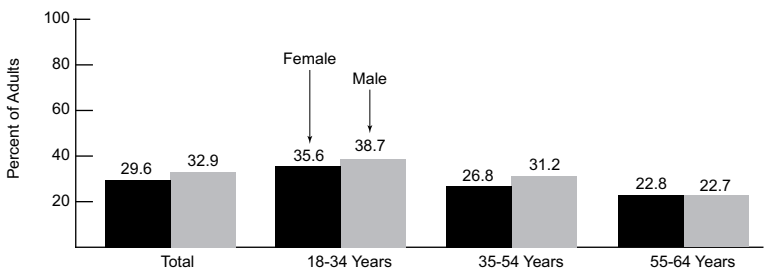
Among adults aged 18–64 years in the U.S. border region, men were more likely than women to lack health insurance overall (32.9 versus 29.6 percent, respectively) and in most age groups. Among both men and women, rates of uninsurance decreased as age increased. Among women, 35.6 percent of 18-to 34-year-olds lacked health insurance, compared to 26.8 percent of those aged 35–54 years, and 22.8 percent of 55- to 64-year-olds.

Among women aged 18–64 years, just more than half reported having private health insurance in 2007, while 13.4 percent had public insurance, and 6.2 percent had both private and public insurance (data not shown).

Another indicator of access to health care is the rate at which adults receive preventive screenings and recommended tests. Cholesterol screenings are recommended at least every 5 years to detect high cholesterol, a risk factor for heart disease. In 2007, 69.1 percent of adults in the U.S. border region reported receiving a cholesterol screening within the previous 5 years, slightly less than the U.S. population overall (74.8 percent; data not shown). Cholesterol screening increased with age among both men and women. Among women in the U.S. border region, those aged 65 years and older were most likely to have received the screening in the past 5 years (91.6 percent) followed by 45- to 64-year-olds (84.0 percent), while those aged 18–34 years were least likely to have been screened (50.8 percent).

Adults Aged 18-64 Without Health Insurance,* by Age** and Sex, 2007

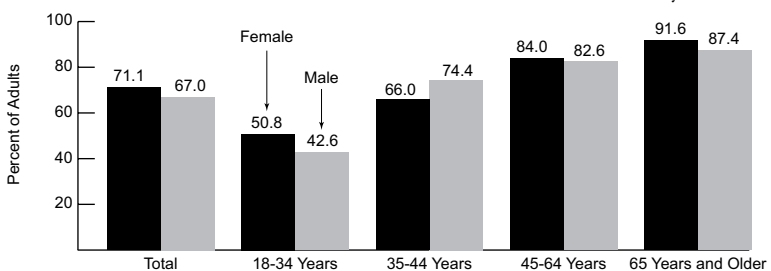
Source IV.2: U.S. Census Bureau, Current Population Survey



**Based on survey responses from 9 border counties representing 89.9 percent of the border population.
**Due to the small number of uninsured adults aged 65 and older, a reliable estimate could not be produced.

Receipt of Recommended Cholesterol Screening Among Adults Aged 18 and Older, by Age and Sex, 2007*

Source IV.3: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System



*Screening received within the past 5 years. Results are based on survey responses from 9 border counties representing 89.1 percent of the border population.

HRSA PROGRAMS ON THE BORDER

The U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA) supports programs that promote access to health care services for underserved and vulnerable populations, including individuals living along the U.S.–Mexico border.

Healthy Border 2010 aims to improve the quality of life, increase the number of years of healthy life, and eliminate health disparities. Four objectives focusing on the health and wellness of women are to:

- Reduce the female breast cancer mortality rate by 20 percent;
- Reduce the cervical cancer mortality rate by 30 percent;
- Increase the proportion of mothers receiving prenatal care in the first trimester to 85 percent; and
- Reduce the adolescent (15–17 years of age) pregnancy rate by 33 percent.

HRSA's Office of Rural Health Policy (ORHP) manages the HRSA Border Health Initiative. ORHP assists rural communities in strengthening health care services by supporting programs that aim to improve the recruitment and retention of health professionals and eliminate health disparities. In a collaborative effort, ORHP, the University of North Dakota Center for Rural Health, and the Rural Policy Research Institute developed the Rural Assistance Center (RAC; www.raconline.org). The RAC is a Web-based resource that assists residents along the U.S.–Mexico border in locating and competing for funding opportunities that address the health care needs and challenges of their communities. ORHP's Border Health Initiative also works closely with the U.S.–Mexico Border Health Commission (BHC), which is composed of the U.S. and Mexican secretaries of health, the chief health officers of the 10 border States, and prominent community health professionals from both nations. The mission of the BHC is to provide international leadership to optimize health and quality of life along the U.S.–Mexico border. Information on the BHC can be found at www.borderhealth.org.

HRSA's Maternal and Child Health Bureau (MCHB) currently funds six Healthy Start grantees along the U.S.–Mexico border. Healthy Start programs work to bring women into prenatal care early in their pregnancies, reducing infant mortality rates and low birth weights, while working to eliminate health disparities related to pregnancies. The six grantees are located in each of the four U.S. border States and utilize *promotoras* to provide support and guidance to the community; this model has been shown to work particularly well in border projects where program participants and the communities at large are faced with a variety of unique challenges and barriers. The HRSA Office of Women's Health has also translated several of its preventive health publications under the Bright Futures for Women's Health and Wellness Initiative to reach more Spanish speaking women (www.hrsa.gov/womenshealth).

Other HRSA Offices and Bureaus contribute to accomplishing the mission and vision of HRSA on the U.S.–Mexico border through a myriad of programs and initiatives. The Bureau of Health Professions (BHPr) supports Area Health Education Centers and Centers of Excellence, including the U.S.–Mexico Border Health Centers of Excellence Consortium. The Bureau of Primary Health Care (BPHC) delivers primary care services through a variety of Community Health Centers and Migrant Health Centers. The HIV/AIDS Bureau (HAB) funds Ryan White Parts A–F including Special Programs of National Significance, AIDS Education and Training Centers, Dental Programs, and the Minority AIDS Initiative.