

# West Virginia Women's Health Highlights



March 2009



*Bureau for Public Health  
Health Statistics Center  
350 Capitol Street, Room 165  
Charleston, WV 25301*

*Joe Manchin III, Governor  
Martha Yeager Walker, Secretary*



# **West Virginia**

## **Women's Health Highlights**



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**Secretary, Department of Health and Human Resources**

**March 2009**

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# Introduction

Women and men in West Virginia share many of the same health care concerns. Women, however, often face unique challenges in dealing with health issues, even when coping with illnesses, conditions, and health-related behaviors that are common to both sexes. In some instances, women are faring worse than men in the pursuit of a longer and healthier life. A recent study<sup>1</sup> by researchers at Harvard University found that, while life expectancy was increasing overall in the United States for both women and men, this was not true in all parts of the country. Actual reduction in life expectancy from 1983 to 1999 occurred in a large number of U.S. counties, including many in Appalachia, and was substantially greater among women than among men in some of those areas. Women in West Virginia were found to have lower life expectancies in general than their counterparts nationwide, with women in some parts of the state showing the marked reduction in life expectancy reported in the Harvard study. No West Virginia counties had a life expectancy among women that was at or above the national average of 79.6 years.

In part as a result of these findings, the West Virginia Health Statistics Center, Bureau for Public Health, has prepared a series of fact sheets on selected health concerns facing women in the state. The fact sheets presented in this document, 22 in all, cover a wide variety of health topics, from chronic diseases such as cancer and cardiovascular disease, to risk factors such as smoking and obesity, to sexually transmitted diseases and violence toward women. The fact sheets can be easily removed from the book for copying. They are also available online at <http://www.wvdhhr.org/bph/oehp/hsc/vr/publicat.htm> to be downloaded and copied for distribution.

The most recent data available for West Virginia and the United States have been included, with comparisons between women in the state and nation where possible. The data were obtained from a variety of sources, primarily the Health Statistics Center; the Behavioral Risk Factor Surveillance System (U.S. Centers for Disease Control and Prevention [CDC]); the Youth Risk Behavior Survey (West Virginia Department of Education/CDC); and the West Virginia Cancer Registry and the HIV/AIDS/STD Program in the West Virginia Division of Surveillance and Disease Control. Other sources are provided where used.

It is hoped that this document will be found useful by health professionals, public health personnel, legislators, policymakers, and consumers in addressing the challenges that we all share in the effort to improve both the quality and quantity of life experienced by West Virginia women.

<sup>1</sup> Ezzati M, Friedman AB, Kulkarni SC, Murray CJL (2008). The reversal of fortunes: Trends in county mortality and cross-country mortality disparities in the United States. *PLoS Med* 5(4): e66 doi =10.1371/journal.pmed.0050066.





# Demographics

According to Census Bureau estimates, women made up 51.0% of West Virginia's population in 2007; in the United States, women accounted for 50.7% of the population. Women in West Virginia were older than women in the nation as a whole, more likely to be white, less likely to be in the labor force, and more likely to live below the poverty level if they are head of the household.

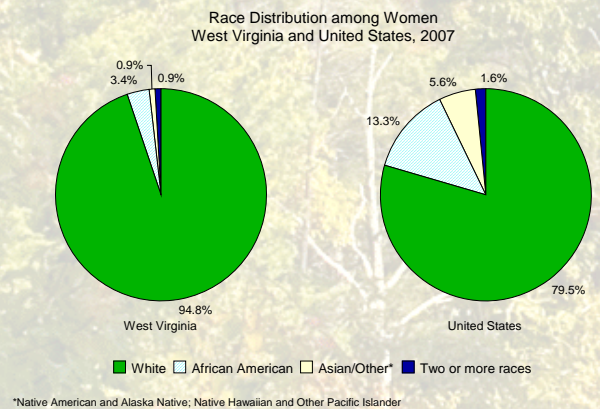
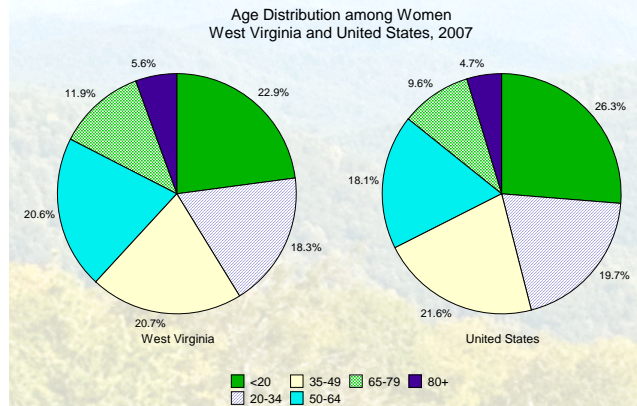
## In 2007,

- the median age of women in West Virginia was 41.8, compared with 37.9 in the United States.
- 17.5% of women in West Virginia were aged 65 or older; in the United States, 14.3% of women were 65 or older. In West Virginia, 22.9% of the female population was under the age of 20, compared with 26.3% in the United States.
- 94.8% of women in West Virginia were white, 3.4% were African American, and 1.8% were Asian or other races; in the United States, 79.5% of women were white, 13.3% were African American, and 7.2% were Asian or other races.
- only 1.0% of women in West Virginia identified themselves as Hispanic; in the United States, 14.4% of women reported being Hispanic.

## In 2006,

- 49.0% of state women aged 16 and older were in the labor force, compared with 58.7% in the nation.
- the median earnings of women in West Virginia was \$25,758; in the United States, it was \$32,649 (full-time, year-round workers).
- in West Virginia, 16.1% of families were headed by women (no spouse present), compared with 18.7% of families in the United States.
- 50.6% of West Virginia families headed by women (no spouse present) with children under the age of 18 were living in poverty; in the United States, 36.9% of such households were living in poverty.

**A higher percentage of women in West Virginia (64.9%) were married or widowed than in the United States (58.4%). Only 21.4% of women in West Virginia have never been married, compared with 27.3% in the United States as a whole.**



## Demographics

### **For further information contact:**

Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
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[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Pregnancy Outcomes

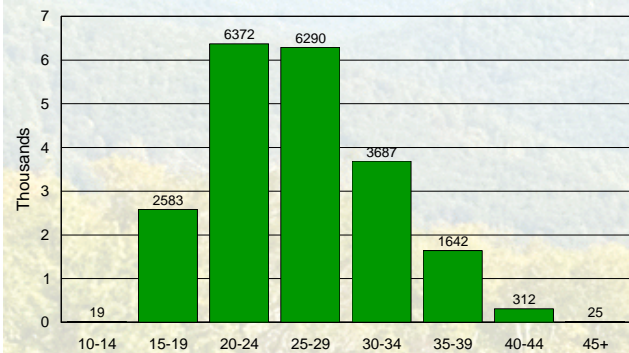
Women in West Virginia have been giving birth at a lower rate than the United States as a whole since 1980. The state's birth rate has changed little over the past decade, ranging from 11.3 to 11.6 births per 1,000 population. It has consistently been among states with the lowest birth rates in the nation; in 2006, West Virginia had the 47th lowest birth rate, with only New Hampshire, Maine, and Vermont recording lower rates.

## In 2006,

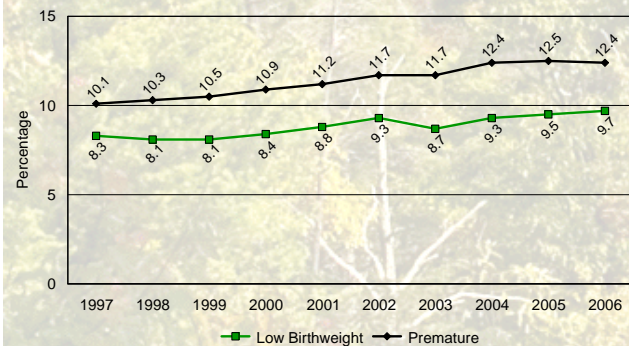
- there were 20,931 resident births in West Virginia, for a birth rate of 11.5 births per 1,000 population; the U.S. birth rate was 14.2.
- there were 2,602 births to teenage mothers, which represented 12.4% of all births. Nineteen of these births were to young teens aged 10-14.
- 12.4% of the births to state residents were pre-term. The percentage of premature births in West Virginia has increased over the past decade; it was 10.1% in 1997.
- West Virginia had the 5<sup>th</sup> highest percentage of low-birthweight births in the nation at 9.7%.; the U.S. rate was 8.3%. The state ranked 1<sup>st</sup> in low-birthweight births among white women (9.5%) and 2<sup>nd</sup> in low-birthweight births among African American women (16.2%) in 2006.
- 81.5% of women giving birth in West Virginia with known prenatal care received care in the first trimester, compared with a national average of 86.1% in 2005.
- 37.8% of the women giving birth in West Virginia were unmarried, slightly lower than the national average of 38.5%.
- there were 120 resident fetal deaths occurring after 20 or more weeks of gestation.
- there were 155 infant deaths in the state. The state's infant death rate was 7.4 deaths per 1,000 births; the 2005 U.S. rate was 6.9.

**Overall, 27.2% of women giving birth in West Virginia in 2006 smoked during pregnancy. By county, McDowell and Doddridge reported the highest rates of maternal smoking with 43.6% and 42.6%, respectively. The national rate of maternal smoking was 10.7% in 2005.**

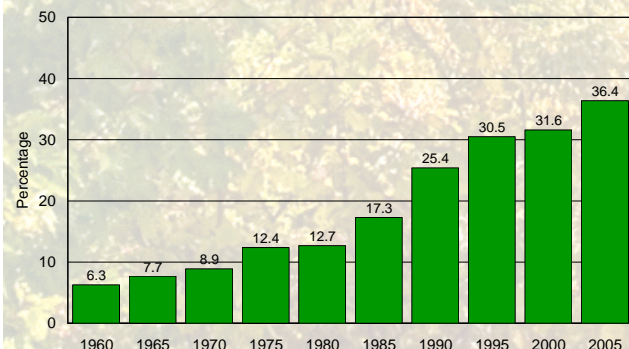
Number of Births by Age of Mother  
West Virginia Residents, 2006



Percentage of Low Birthweight and Premature Births  
West Virginia, 1997-2006



Percentage of Births to Unmarried Mothers  
West Virginia, 1960-2005



Sources: WV Health Statistics Center; *Health Care State Rankings 2008*, CQ Press, Washington, DC

## Women and Pregnancy Outcomes

### For further information contact:

Program:  
Research, Evaluation and Planning  
Office of Maternal, Child and Family Health  
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# Women and Cardiovascular Disease

Cardiovascular disease (CVD) refers to major disorders of the heart and blood vessels supplying the heart, brain, and peripheral tissues. Heart disease (primarily coronary heart disease) and stroke were the first and third leading causes of death, respectively, among women in West Virginia in 2006. CVD accounted for 35.1% of total deaths among white women in that year and 37.7% of total deaths among African American women. Misperceptions still exist, however, that women have less to fear from CVD than men, although it is estimated that 1 in 2 women will eventually die of heart disease or stroke, compared with 1 in 25 who will eventually die of breast cancer.

The symptoms of CVD are often different in women than in men. Most people are aware that a heart attack can be signaled by pressure or pain in the chest, pain radiating to the shoulders or arm, and/or lightheadedness, nausea, sweating, and shortness of breath. In addition, women may have other signs such as stomach pain, unexplained anxiety, weakness or fatigue, and/or palpitations. When these symptoms are not recognized, women may not get the care they need as soon as necessary; according to the American Heart Association, 38% of women will die within one year after a heart attack, compared with 25% of men.

## In 2007,

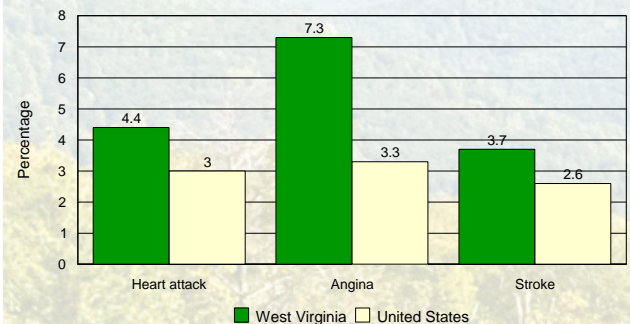
- women in West Virginia were significantly more likely than women nationwide to report having had either a heart attack, angina, or stroke.

## In 2006,

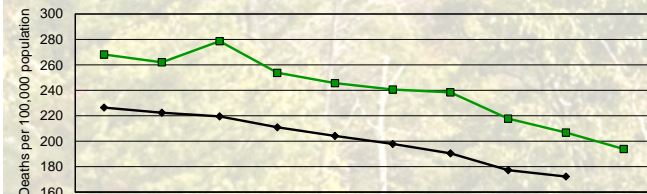
- the age-adjusted rate of heart disease mortality among women in West Virginia was 193.8 deaths per 100,000 population; the comparable rate in the United States in 2005 was 172.3.
- the age-adjusted rate of stroke mortality among women in West Virginia was 48.8 deaths per 100,000 population; the comparable rate in the United States in 2005 was 45.6.

**Risk factors for CVD include high blood pressure, smoking, high blood cholesterol, obesity, physical inactivity, diabetes, dental disease, a diet high in saturated fat and low in dietary fiber, and a family history of heart disease or stroke.**

Prevalence of Adult Women Reporting Having Been Told They Have Had a Heart Attack, Angina, or a Stroke West Virginia and United States, 2007



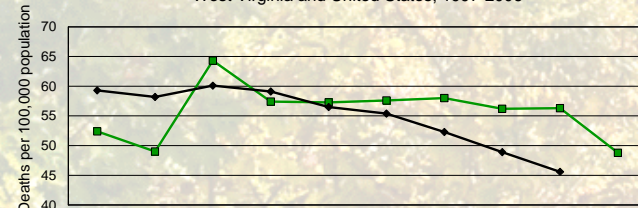
Heart Disease Mortality Rates\* among Women West Virginia and United States, 1997-2006



|      | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ■ WV | 268.1 | 262   | 278.6 | 253.8 | 245.6 | 240.7 | 238.4 | 217.7 | 206.8 | 193.8 |
| ◆ US | 226.5 | 222.4 | 219.5 | 210.9 | 204.2 | 197.8 | 190.4 | 177.3 | 172.3 | NA    |

\*Rates are age adjusted to the 2000 U.S. standard million.

Stroke Mortality Rates\* among Women West Virginia and United States, 1997-2006



|      | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------|------|------|------|------|------|------|------|------|------|------|
| ■ WV | 52.4 | 49   | 64.3 | 57.4 | 57.3 | 57.6 | 58   | 56.2 | 56.3 | 48.8 |
| ◆ US | 59.3 | 58.2 | 60.1 | 59.1 | 56.5 | 55.4 | 52.3 | 48.9 | 45.6 | NA   |

\*Rates are age adjusted to the 2000 U.S. standard million.

Sources: American Heart Association; Behavioral Risk Factor Surveillance System (BRFSS); WV Health Statistics Center

## Women and Cardiovascular Disease

### For further information contact:

Program:

Cardiovascular Health Program  
Office of Community Health Systems and  
Health Promotion  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
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[www.wvhpcd.org](http://www.wvhpcd.org)

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# Women and Diabetes

Diabetes is a metabolic disorder characterized by high levels of glucose in the blood resulting from defects in insulin production, insulin action, or both. When glucose builds up in the blood, damage can occur to blood vessels and nerves, as well as the body's organs, including the heart, kidneys, and eyes. There are three major types of diabetes. In Type 1 diabetes, the pancreas produces little or no insulin and daily insulin injections are required; it is usually diagnosed under the age of 30. Type 2 diabetes, the most common type, usually occurs in persons over the age of 30, when the body either does not produce enough insulin or cannot use the insulin it makes, leading to insulin resistance. In gestational diabetes, glucose intolerance has its onset during pregnancy and leaves a woman at higher risk for Type 2 diabetes later in life.

The effects of diabetes can be very different for men and women. Women with Type 1 diabetes are more likely than men to have complications such as retinopathy and kidney damage. Women with Type 2 diabetes are at greater risk than men with the disease for diabetes-related heart disease and blindness, as well as depression. Diabetes doubles the risk of a second heart attack in women but not in men. Pregnant women with diabetes, either preexisting or gestational, are more likely to have complications than women without diabetes; their infants are more likely to develop Type 2 diabetes as adults.

Risk factors for Type 2 diabetes include being nonwhite or Hispanic, a family history of diabetes, overweight/obesity, physical inactivity, hypertension, low HDL cholesterol and high triglyceride levels, smoking, and having polycystic ovary syndrome. Lower educational and socioeconomic levels are also associated with diabetes. The risk of diabetes increases with age.

## In 2007,

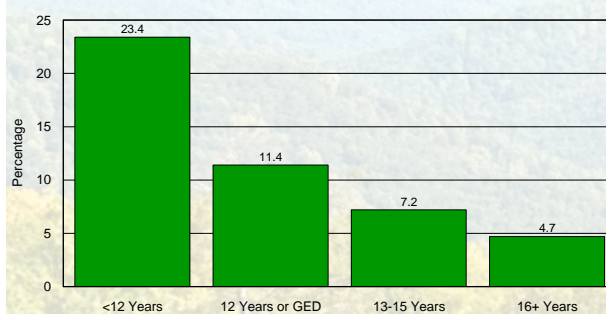
- 10.5% of adult women in West Virginia reported having been told they have diabetes, compared with a national median of 8.1%. In 1998, only 6.7% reported diabetes.
- 20.5% of state women aged 65 and older had been told they had diabetes. Nearly 1 in 4 (23.4%) women with less than a high school education reported diabetes, compared with 4.7% of women with college degrees.

## In 2006,

- the mortality rate for diabetes among women in West Virginia was 30.0 deaths per 100,000 population; in 2005, it was 31.3, significantly higher than the U.S. rate of 21.6.

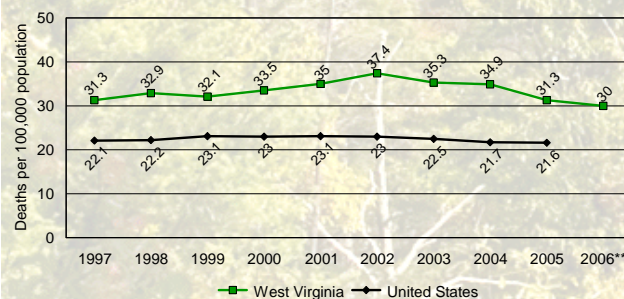
**It has been estimated that 1 in 4 African American women over 55 years of age has diabetes.**

Prevalence of Women Who Have Been Told They Have Diabetes\* by Educational Level West Virginia BRFSS, 2007



\*Does not include gestational diabetes

Diabetes Mortality Rates\* among Women West Virginia and United States, 1997-2006



\*Rates are age adjusted to the 2000 U.S. standard million.

\*\*No U.S. data available

## Women and Diabetes

### For further information contact:

Program:  
Diabetes Prevention and Control Program  
Office of Community Health Systems and  
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West Virginia Bureau for Public Health  
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# Women and Breast Cancer

Approximately 70% of breast cancers are found through self-examination; by this time, however, the cancer has often spread beyond the breast. Mammograms, low-level X-rays of the breasts, can detect lumps and other abnormalities in the breasts before symptoms can become evident. The American Cancer Society recommends that women in their 20s and 30s should have a clinical breast exam by a health care professional every three years, with annual exams after age 40. Women aged 40 and older should have a screening mammogram every year and should continue to do so as long as they are in good health. Women at high risk (as determined by their health care provider) should have an MRI and mammogram every year. When detected early, the five-year survival rate for breast cancer is 96%.

## In 2006,

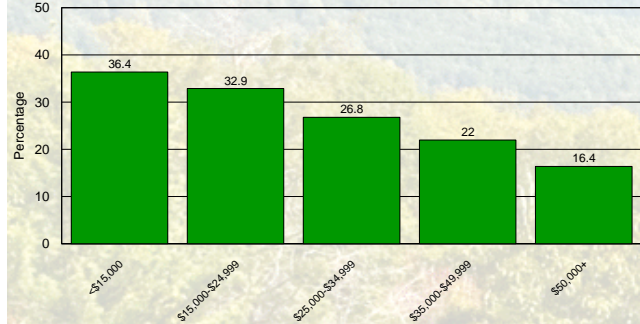
- 35.0% of women aged 40-49 had not had a mammogram in the past two years, compared with 21.2% of women aged 50-59, 14.4% of women aged 60-64, and 24.8% of women aged 65 and older.
- the prevalence of women aged 40 and older who had not had a mammogram in the past two years declined with increasing education and income. Women with incomes of <\$25,000 were significantly more likely than women with incomes of \$50,000+ to have not had a mammogram.
- 57.8% of women aged 40-64 who were uninsured had not had a mammogram, compared with only 20.2% of those who had health care coverage, a statistically significant difference.
- the age-adjusted mortality rate from female breast cancer in West Virginia was 21.9 deaths per 100,000 women. In 2005, the state rate was 27.6; the U.S. rate was 24.1.

## In 2005,

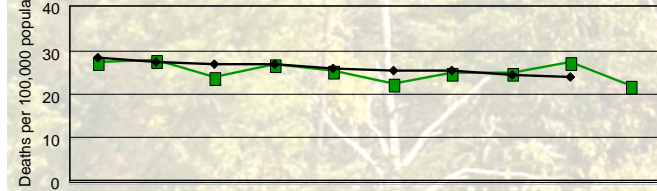
- the age-adjusted incidence rate of invasive breast cancer in West Virginia was 114.5 new cases per 100,000 women. The 2004 rate of 116.2 was comparable to the U.S. rate of 117.7 in that year. In 2003, the last year for which U.S. data are available, the state incidence rate of in situ breast cancer was 24.6 new cases per 100,000 women, significantly lower than the national rate of 28.4.

**In 2006, 25.5% of West Virginia women aged 40 and older had not received a mammogram in the previous two years; the United States median was 23.5%. The state rate has been similar to the national median for the past decade.**

Prevalence of Women Aged 40+ Who Have Not Had a Mammogram In the Past Two Years by Household Income Level West Virginia BRFSS, 2006



Breast Cancer Mortality Rates\* among Women West Virginia and United States, 1997-2006



|      | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------|------|------|------|------|------|------|------|------|------|------|
| ■ WV | 27.3 | 28.1 | 24   | 27   | 25.4 | 22.4 | 25.1 | 25.1 | 27.6 | 21.9 |
| ◆ US | 28.3 | 27.6 | 26.7 | 26.8 | 26.1 | 25.6 | 25.3 | 24.5 | 24.1 | NA   |

\*Rates are age adjusted to the 2000 U.S. standard million.

Sources: American Cancer Society; Behavioral Risk Factor Surveillance System (BRFSS); WV Cancer Registry; WV Health Statistics Center

## Women and Breast Cancer

### For further information contact:

**Program:**

WV Breast & Cervical Cancer  
Screening Program  
Office of Maternal, Child and  
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West Virginia Bureau for Public Health  
350 Capitol Street, Room 427  
Charleston, WV 25301  
Phone: 304.558.5388

[www.wvdhhr.org/bccsp](http://www.wvdhhr.org/bccsp)

**Data:**

WV Cancer Registry  
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Disease Control  
West Virginia Bureau for Public Health  
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Phone: 304.558.6421

[www.wvcancerregistry.org](http://www.wvcancerregistry.org)

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[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Cervical Cancer

Cervical cancer was once the leading cause of cancer death among women in the United States. Since the use of Pap tests to screen for cervical cancer, however, its incidence and mortality have decreased significantly. Most cervical cancers are preceded by the formation of precancerous cells, or dysplasia, which is detectable through screening. Human papillomavirus (HPV) has also been identified as a co-factor in the development of this cancer. If found in its early stages, cervical cancer can be cured; the five-year survival rate for invasive cancer diagnosed in its earliest stage is 92%. The American Cancer Society recommends that all women over the age of 21 who have not had a total hysterectomy (unless the surgery was done as a treatment for cervical cancer or precancer) should undergo regular screening with Pap tests at intervals determined by their health care providers.

## In 2006,

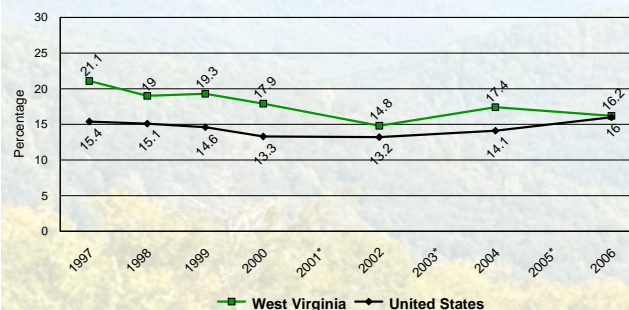
- 16.2% of women aged 18 and older in West Virginia had not had a Pap test within the past three years, compared with a national median of 16.0%.
- the prevalence of women who had not had a Pap test ranged from a high of 31.8% among women aged 65 and older to a low of 9.8% among women aged 18-24.
- lack of education had a direct association with not having had a Pap test. Thirty percent (30.4%) of women having less than a high school education had not been screened, compared with only 8.9% of college-educated women, a statistically significant difference.
- 23.6% of uninsured women aged 18-64 had not had a Pap test in the past three years; only 11.0% of women who did have health insurance had not been screened, a statistically significant difference.
- the age-adjusted mortality rate for cervical cancer in West Virginia was 2.4 deaths per 100,000 women; the comparable 2005 U.S. rate was also 2.4.

## In 2005,

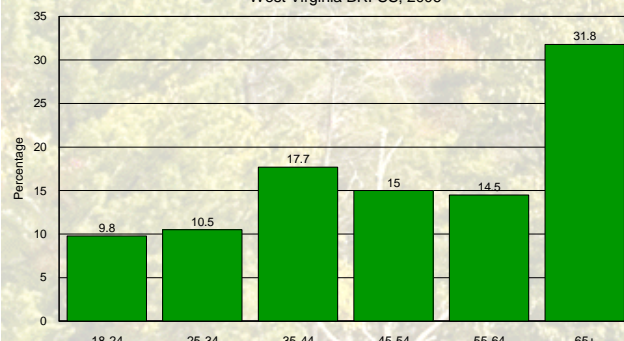
- the state age-adjusted incidence rate for invasive cervical cancer was 10.5 new cases per 100,000 women. In 2004, it was 9.4, compared with a national rate of 7.9.

The most important risk factor for cervical cancer is infection with certain types of human papillomavirus (HPV). Cigarette smoking and a family history of cervical cancer are also known risk factors.

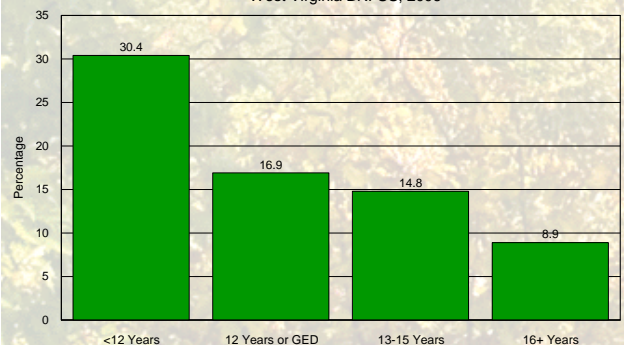
Prevalence of Women Aged 18+ Who Did Not Have a Pap Test In the Past Three Years  
West Virginia and United States BRFSS, 1997-2006



Prevalence of Women Aged 18+ Who Have Not Had a Pap Test In the Past Three Years By Age Group  
West Virginia BRFSS, 2006



Prevalence of Women Aged 18+ Who Have Not Had a Pap Test In the Past Three Years By Educational Attainment  
West Virginia BRFSS, 2006



Sources: Amer. Cancer Society; Behavioral Risk Factor Surveillance System (BRFSS); WV Cancer Registry; WV Health Statistics Center.

## Women and Cervical Cancer

### For further information contact:

**Program:**

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# Women and Lung Cancer

Lung and bronchus cancer is the most frequently diagnosed cancer among women in West Virginia and the United States; in fact, lung cancer causes more deaths among women than breast, uterine, and ovarian cancers combined. Women in West Virginia have traditionally had higher rates of lung cancer incidence and mortality than women nationwide, and this continues to be the case. Research has shown that lung cancer in women has biological differences from lung cancer in men, including genetic differences in the susceptibility to the carcinogens in tobacco smoke, genetic differences in cancer cell growth and the metabolism of the chemicals found in tobacco, and hormonal differences that could affect cancer growth and development. Women tend to be slightly younger than men at age of diagnosis but are more likely to survive at all stages of the disease.

By far, most lung cancers are attributable to smoking. However, roughly 20% of lung cancers in women occur in lifelong nonsmokers, a higher percentage than occurs in men. Risk factors for lung cancer in nonsmoking women are being studied, including exposure to secondhand smoke at home and in the workplace, radon exposure, and genetic and hormonal causes. The biggest risk factor, however, remains smoking, and never starting or quitting smoking is the most effective way to reduce one's risk of lung cancer.

## In 2006,

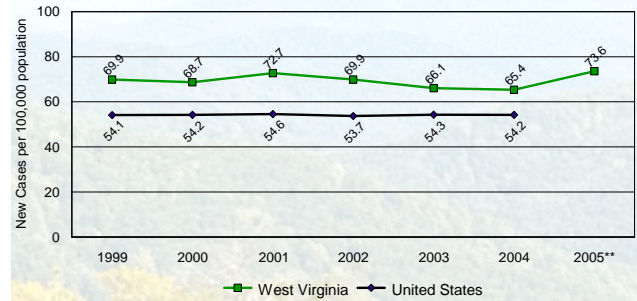
- the lung cancer mortality rate among women in West Virginia was 53.6 deaths per 100,000 women. In 2005, it was 49.5, significantly higher than the U.S. rate of 40.5 in that year. The state rate has been consistently higher than the national rate.

## In 2005,

- the incidence rate for new cases of invasive lung cancer among women in West Virginia was 73.6 cases per 100,000 women. In 2004, it was 65.4, compared with a national rate of 54.2. The state rate was significantly higher than the national rate every year from 1999-2004.

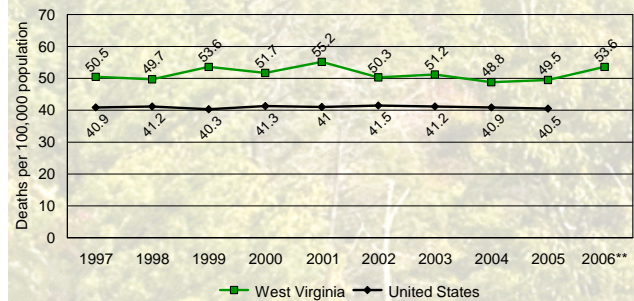
The prevalence of smoking among women in West Virginia has changed little over the past decade. In 2007, 25.4% of adult West Virginia women were current cigarette smokers, compared with a national median of 18.4%. Three out of 10 (30.5%) young women aged 18-24 reported smoking in that year.

Invasive Lung Cancer Incidence Rates\* among Women West Virginia and United States, 1999-2005



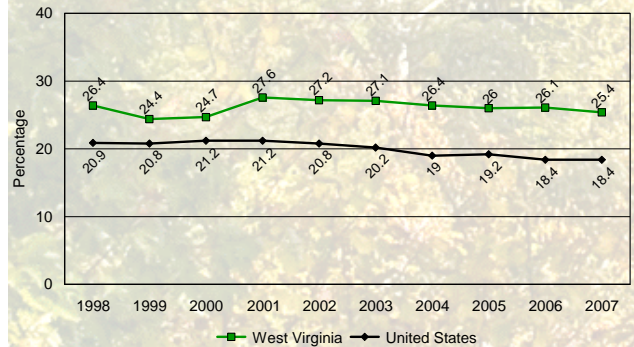
\*Rates are age adjusted to the 2000 U.S. standard million.  
\*\*No U.S. data available

Lung Cancer Mortality Rates\* among Women West Virginia and United States, 1997-2006



\*Rates are age adjusted to the 2000 U.S. standard million.  
\*\*No U.S. data available

Prevalence of Current Smoking among Women West Virginia and United States BRFSS, 1998-2007



Sources: Amer. Cancer Society; Behavioral Risk Factor Surveillance System (BRFSS); WV Cancer Registry; WV Health Statistics Center

## Women and Lung Cancer

### For further information contact:

**Program:**

Comprehensive Cancer Control Program  
Office of Community Health Systems and  
Health Promotion

West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvcancerregistry.org](http://www.wvcancerregistry.org)



**Data:**

WV Cancer Registry  
Office of Surveillance and  
Disease Control  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 125  
Charleston, WV 25301  
Phone: 304.558.6421

[www.wvcancerregistry.org](http://www.wvcancerregistry.org)

**Data:**

Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)

# Women and Colorectal Cancer

Colorectal cancer (CRC) is the third leading cause of cancer death among women, after lung and breast cancer. While there has long been a misperception that men are more likely than women to develop CRC, women get this disease in almost the same numbers as men and require the same screening as men. The primary prevention for CRC is regular screening; most colorectal cancers begin as polyps, which can be detected and removed before they become cancerous. Although the rate of CRC screening among women has increased over the past decade, women are still more likely to obtain screening for breast and cervical cancers.

Risk factors for CRC include older age, menopause, a family history of colorectal cancer or a personal or family history of polyps, a personal history of breast or uterine cancer, a personal history of Crohn's disease or inflammatory bowel disease, obesity, eating a "Western" diet of red meats, refined grains, and sweets, cigarette smoking, and having diabetes.

## In 2006,

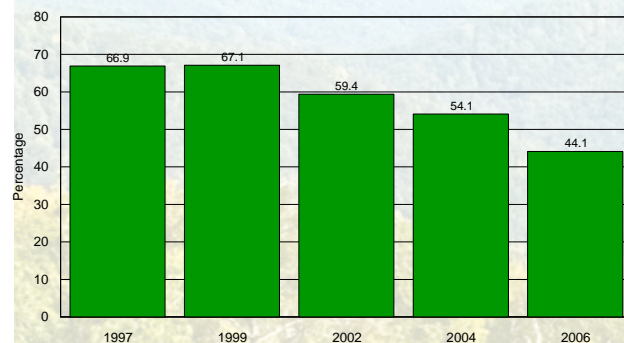
- 44.1% of women aged 50 and older in West Virginia had never had a sigmoidoscopy or colonoscopy; the national median for women was 42.2%.
- 67.4% of women aged 50-64 without health care coverage had never had a sigmoidoscopy or colonoscopy, compared with 45.6% of women with health care coverage, a statistically significant difference.
- the West Virginia age-adjusted mortality rate for CRC among women was 15.8 deaths per 100,000 population; the 2005 state rate was 16.7, compared with a U.S. rate of 14.6.

## In 2005,

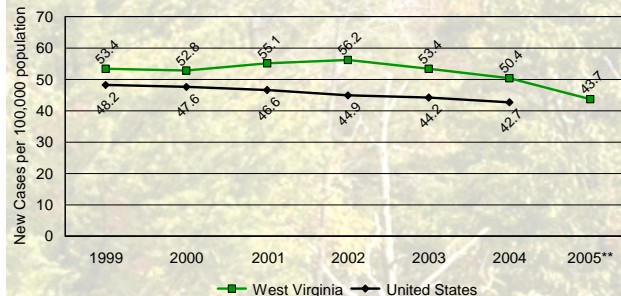
- the age-adjusted incidence rate of CRC among women in West Virginia was 43.7 new cases per 100,000 population, significantly lower than the state rate of 53.4 in 1999.

**Women taking hormone replacement therapy (HRT) have been found to be less likely to develop CRC, while physical activity may offer some protection among women who have never used HRT. Taking supplemental calcium has also been associated with a reduced risk.**

Prevalence of Women Who Have Never Had a Sigmoidoscopy or Colonoscopy  
West Virginia BRFSS, 1997-2006

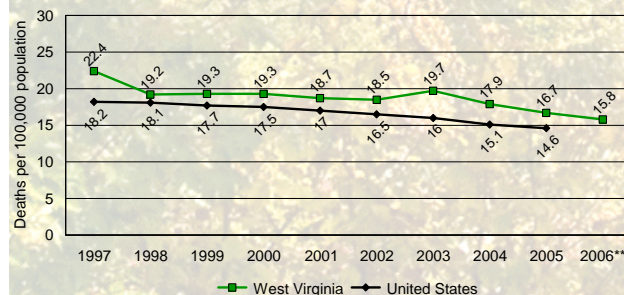


Colorectal Cancer Incidence Rates\* among Women  
West Virginia and United States, 1999-2005



\*Rates are age adjusted to the 2000 U.S. standard million.  
\*\*No U.S. data available

Colorectal Cancer Mortality Rates\* among Women  
West Virginia and United States, 1997-2006



\*Rates are age adjusted to the 2000 U.S. standard million.  
\*\*No U.S. data available

Sources: American Cancer Society.; Behavioral Risk Factor Surveillance System (BRFSS); WV Cancer Registry; WV Health Statistics Center

## Women and Colorectal Cancer

### For further information contact:

Program:

Comprehensive Cancer Control Program  
Office of Community Health Systems and  
Health Promotion

West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvcancerregistry.org](http://www.wvcancerregistry.org)

Data:

WV Cancer Registry  
Office of Surveillance and  
Disease Control  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 125  
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[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)





# Women and Arthritis

Arthritis is the leading cause of disability in the United States, affecting approximately 46 million people. Of these, 60% are women. Arthritis actually comprises over 100 different diseases and conditions that involve the joints, the tissues that surround the joints, and other connective tissue. The most common types of arthritis are osteoarthritis (OA), rheumatoid arthritis (RA), fibromyalgia, and systemic lupus erythematosus (SLE), all of which disproportionately affect women. Osteoarthritis, the progressive deterioration of the cartilage that covers the ends of the bones in a joint, is the most frequently diagnosed type of arthritis. It generally affects women more severely than men, with women reporting higher rates of activity and work limitations than men, as well as increased psychological distress. Despite this, women are three times less likely to undergo hip or knee arthroplasty. It is important for women to discuss any symptoms of arthritis with their health care providers.

## In 2007,

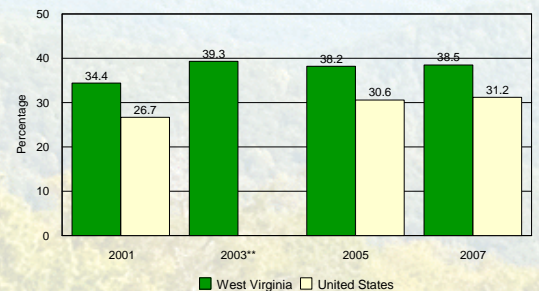
- 38.5% of adult West Virginia women reported they had been told they have arthritis; the national median was 31.2%.
- 44.1% of women with arthritis were limited in some way because of their symptoms.
- the prevalence of arthritis, especially OA, increased significantly with age. Nearly two-thirds (64.3%) of state women aged 65 and older reported arthritis.
- arthritis prevalence declined with increasing education. Women with some education beyond high school were significantly less likely to report arthritis than those with 12 or fewer years of education.
- over one-half (55.0%) of women with incomes of less than \$15,000 had arthritis, compared with 30.2% of women with incomes in excess of \$75,000.
- 31.9% of women with arthritis said their doctor had suggested losing weight to help with their symptoms; 43.6% said their doctor had suggested participating in exercise.

**Exercise is an important part of arthritis treatment. The CDC estimates that persons with arthritis who do not exercise are about twice as likely to have an impaired quality of life as those who do exercise.**

**In 2005, 39.1% of women who had arthritis reported that they did not engage in leisure time physical activity.**

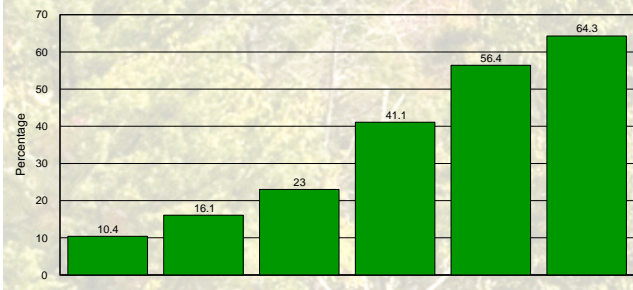
Sources: Arthritis Foundation; Behavioral Risk Factor Surveillance System (BRFSS); US Centers for Disease Control and Prevention (CDC)

Prevalence of Women Reporting Arthritis\*  
West Virginia and United States BRFSS  
2001, 2003, 2005, 2007



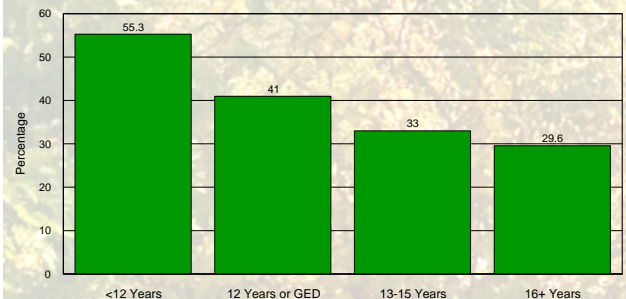
\*Answered "yes" to the question "Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"  
\*\*No U.S. data available

Prevalence of Women Who Have Been Told They Have Arthritis\*  
By Age Group  
West Virginia BRFSS, 2007



\*Answered "yes" to the question "Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"

Prevalence of Women Who Have Been Told They Have Arthritis\*  
By Educational Level  
West Virginia BRFSS, 2007



\*Answered "yes" to the question "Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"

## Women and Arthritis

### For further information contact:

Program:

Osteoporosis and Arthritis Program  
Office of Community Health Systems and  
Health Promotion  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvbonenjoint.org](http://www.wvbonenjoint.org)

Data:

Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Asthma

Asthma is a common chronic disease of the lung airways. When these airways become inflamed and swollen, they narrow, making it hard to breathe. Although boys are more likely than girls to have asthma during childhood, the opposite is true during adulthood. Asthma attacks and complications are often more severe among women than men, especially during childbearing years. Between the ages of 20 and 50, women are three times more likely than men to be hospitalized with asthma. Attacks frequently take place just before or during a women's period, suggesting that reproductive hormones play a role. Asthma worsens in approximately 30% of pregnant women with asthma and can lead to serious complications for both mother and fetus. Although mortality from asthma is not common, women are more likely to die from an asthma attack than men, especially among the elderly.

Thirty to forty percent of asthma starts in adulthood. The exact cause of asthma is unknown, but several things have been shown to precipitate its development, among them cigarette smoking, allergies, and having a respiratory infection. Triggers of asthma attacks vary among individuals and can include animal dander, cold air, smoke, dust mites, pollen, and exercise. It has been suggested that viral infections may also lead to the development of asthma.

## In 2007,

- 11.0% of adult West Virginia women reported currently having asthma; the median for U.S. women was 10.1%.
- current asthma prevalence was highest among women with less than a high school education and those with the lowest household incomes.

## In 2006,

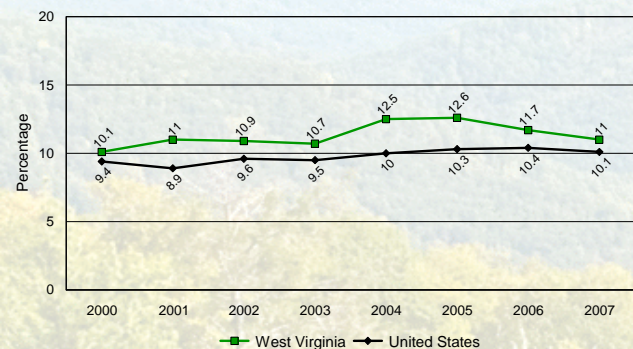
- 54.0% of women with asthma reported having had an asthma attack in the previous year.
- 30.4% of women with asthma reported that it had limited their activity for one or more days in the past year.
- 22.7 asthma hospitalizations<sup>2</sup> occurred among women aged 18 and older, compared with 8.4 among men.

**Asthma is a particular concern during pregnancy, because a decrease in oxygen levels in the mother's blood can affect the baby's oxygen levels as well.**

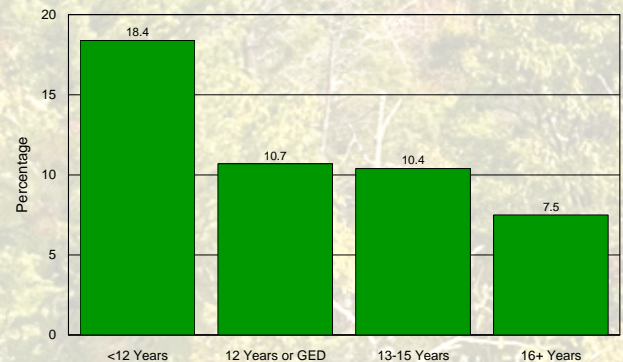
<sup>2</sup>Rate per 10,000 population

National Heart, Lung, and Blood Institute; Behavioral Risk Factor Surveillance System (BRFSS); West Virginia Health Care Authority

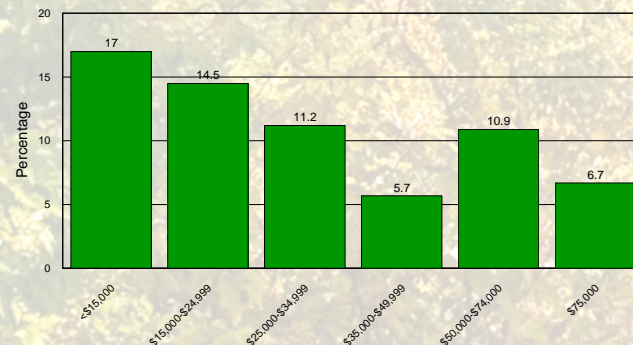
Prevalence of Current Asthma among Women  
West Virginia and United States BRFSS, 2000-2007



Prevalence of Women with Current Asthma by Educational Level  
West Virginia BRFSS, 2007



Prevalence of Women with Current Asthma by Household Income  
West Virginia BRFSS, 2007



## Women and Asthma

### For further information contact:

**Program:**

Asthma Education and Prevention  
Office of Community Health Systems and  
Health Promotion

West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvasthma.org](http://www.wvasthma.org)

**Data:**

Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Mental Health

Mental illnesses can affect men and women differently, and researchers are beginning to identify the biological and psychosocial factors that contribute to these differences. Women are more than twice as likely as men to suffer from depressive and anxiety disorders and are nine times more likely to suffer from an eating disorder. Depression is also often more persistent in women than in men. Women attempt suicide at a rate two to three times as often as men, although they are less likely to succeed.

The hormonal changes that women experience are thought to contribute to gender-related differences in mental health and illness. There is evidence of increased vulnerability to depression and anxiety during periods of hormonal fluctuation such as the menstrual cycle, pregnancy and the postpartum period, and menopause. The higher incidence of depression and anxiety in women may also be linked to the particular stresses women face, including juggling home and work responsibilities, coping with single parenthood, and being the caregivers for children and aging relatives. Women are also more likely to have a negative body image than men, sometimes leading to the development of eating disorders in adolescence and young adulthood.

## In 2007,

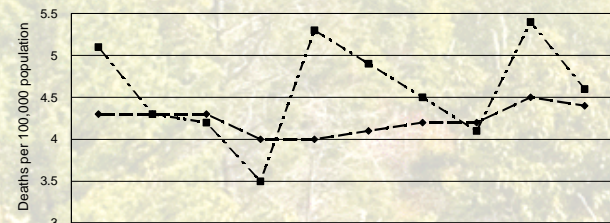
- 34.0% of adult women in West Virginia reported that their mental health (including stress, depression, and problems with emotions) was not good on one or more days during the previous month. One in 13 women (7.5%) said their mental health was not good on every day of the month. Women aged 65 and older were less likely to report poor mental health than younger women.
- 40.9% of female high school students reported that they had felt sad or hopeless almost every day for two or more weeks in a row, so much so that they stopped doing some usual activities.
- 19.8% of female high school students in West Virginia reported that they had seriously considered attempting suicide during the previous 12 months; 11.4% said they had actually attempted suicide, and 3.8% had their suicide attempt treated by a doctor or nurse.

## In 2006,

- one-fourth (25.7%) of adult women in West Virginia responded “yes” to the question “Has a doctor or other health care provider EVER told you that you have a depressive disorder?”
- 22.2% of adult women in the state responded “yes” to the question “Has a doctor or other health care provider EVER told you that you had an anxiety disorder?”
- there were 57 suicides among women in West Virginia. Thirty-one (54.4%) of these deaths were the result of firearm injury.

Sources: U.S. Dept. of Health and Human Services, [www.womenshealth.gov](http://www.womenshealth.gov); Behavioral Risk Factor Surveillance System (BRFSS); Youth Risk Behavior Survey (YRBS); CDC WISQARS (Web-based Injury Statistics Query and Reporting System)

Annual Suicide Rates\* among Females  
West Virginia and United States, 1996-2005



|      | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|------|------|------|------|------|------|------|------|------|------|------|
| ■ WV | 5.1  | 4.3  | 4.2  | 3.5  | 5.3  | 4.9  | 4.5  | 4.1  | 5.4  | 4.6  |
| ◆ US | 4.3  | 4.3  | 4.3  | 4    | 4    | 4.1  | 4.2  | 4.2  | 4.5  | 4.4  |

\*Rates are age adjusted to the 2000 U.S. standard population.

**Domestic violence and abuse are associated with an increased risk of developing psychiatric problems or exacerbating existing ones. At the same time, if a woman is living with a serious mental illness, this may increase her vulnerability to abuse.**

## Women and Mental Health

### For further information contact:

Program:  
Bureau for Behavioral Health and Health Facilities  
350 Capitol Street, Room 350  
Charleston, WV 25301  
Phone: 304.558.0627

[www.wvdhhr.org/bhhf](http://www.wvdhhr.org/bhhf)

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Disability

Disability affects women of all ages, educational levels, and incomes. Disability is defined by the Census Bureau as a long-lasting sensory, physical, mental, or emotional condition or conditions that make it difficult for a person to do functional or participatory activities. These activities can include seeing, hearing, walking, climbing stairs, learning, dressing, bathing, going outside the home, or working at a job. The most common disabilities result from chronic disorders such as arthritis, heart disease, hypertension, back problems, mental illness, and respiratory conditions. Because they experience more chronic conditions and generally live longer than men, women are more likely than men to face living with a disability during their lifetime.

According to the 2006 American Community Survey, nearly 1 in 4 (23.4%) females aged 5 and older in West Virginia had at least one disability as defined by the Census Bureau, compared with 15.6% of females in the United States.

## In 2007,

- the percentage of adult women in the state who answered “yes” when asked “Are you limited in any activities because of physical, mental, or emotional problems?” was 25.8%, compared with a national median of 20.3%.
- nearly half (48.3%) of women in West Virginia who had incomes of less than \$15,000 reported having a disability that limited their activities.

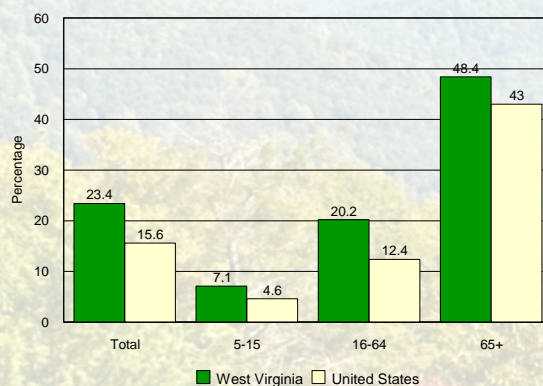
## In 2006,

- only 24.1% of women with disabilities in West Virginia of working age (16-64) were employed; in the United States, 34.2% were employed.
- 15.5% of West Virginia women aged 65 and older had a self-care disability, i.e., one that made it difficult to dress, bathe, or get around inside the home; nationally, 12.0% of older women reported a self-care disability.
- 25.9% of West Virginia women aged 65 and older reported they found it difficult to “go outside the home alone to shop or visit a doctor’s office,” compared with 21.4% of older women in the United States.
- 28.3% of the female population aged 5 and older with a disability and known income status was living below the poverty level in West Virginia, compared with a national average of 23.4%.

**In 2007, 1 in 10 (9.7%) adult women in West Virginia reported a health problem that required the use of special equipment, such as a cane, a wheelchair, a special bed, or a special telephone. Among women aged 65 and older, the percentage was 25.2%.**

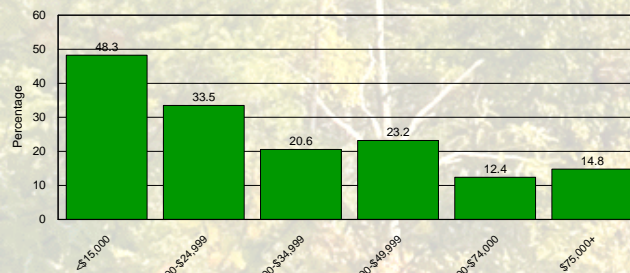
Sources: 2006 American Community Survey, U.S. Census Bureau; Behavioral Risk Factor Surveillance System (BRFSS)

Percentage of Female Population Reporting a Disability by Age West Virginia and the United States, 2006



Source: American Community Survey, US Census Bureau

Prevalence of Women Who Have a Disability\* By Household Income West Virginia BRFSS, 2007



\*Answered “yes” to the question “Are you limited in any activities because of a physical, mental, or emotional problem?”

## Women and Disability

### For further information contact:

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)





# Women and Obesity

Obesity has a significant negative effect on health, affecting both the quality and length of one's life. Being obese contributes to the risks of developing hypertension and diabetes, as well as being an independent risk factor for cardiovascular disease. Significant overweight has been linked to prolonged inflammation of heart tissue.

While both men and women suffer health consequences from obesity, there are many conditions that uniquely or primarily affect women. Being overweight or obese increases the risk of certain cancers, especially after menopause. Before menopause a woman's ovaries produce most of her estrogen; following menopause, however, most estrogen comes from fat tissue. Obesity therefore raises a woman's estrogen levels, increasing the risk of breast cancer, as well as endometrial, ovarian, and uterine cancers. Women have a stronger association between osteoarthritis and obesity than men, with obese women nearly four times as likely as nonobese women to develop arthritis. In addition, obesity is the best predictor of gallbladder disease in women.

Nationally, 1 in 5 women giving birth is obese, which results in higher risks of pregnancy-related hypertension and diabetes. Obese women are more likely to have premature births, require Cesarean deliveries, and have complications following the birth.

## In 2007,

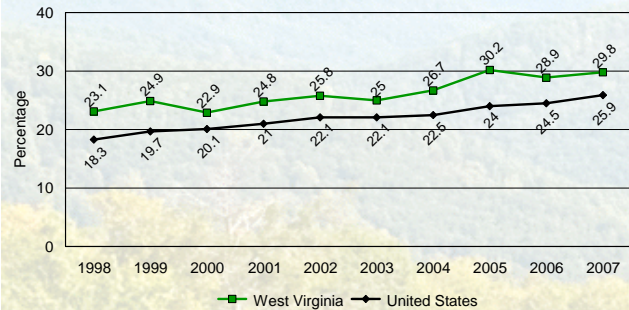
- 29.8% of women aged 18 and older in West Virginia were obese, compared with the U.S. median of 25.9%.
- obesity prevalence increased with age, declining after age 65. The highest percentage (40.0%) was found among women aged 55-64. Obesity was more prevalent among women with less education and lower household income levels than among other women.
- 11.7% of female high school students in West Virginia were obese<sup>3</sup>; the national median was 8.5%.

**Obesity and overweight in adults are determined by body mass index (BMI), a ratio of weight to height calculated as weight in kilograms divided by height in meters squared. Obesity is defined as a BMI of 30 or greater, overweight as a BMI of 25-29, and healthy weight as a BMI of less than 25.**

<sup>3</sup>Students who were greater than or equal to 95<sup>th</sup> percentile for BMI, by age and sex, based on reference data.

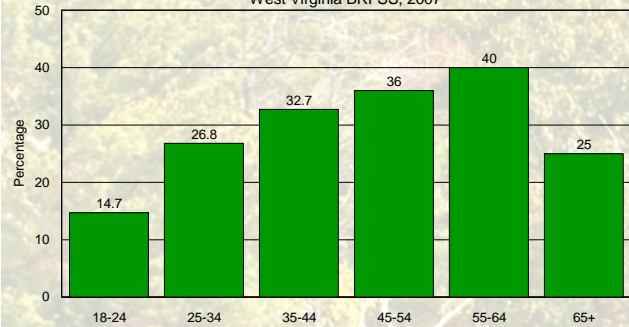
Sources: American Obesity Association; American Cancer Society; Behavioral Risk Factor Surveillance System (BRFSS); Youth Risk Behavior Survey (YRBS)

Prevalence of Obesity\* among Women  
West Virginia and United States BRFSS, 1998-2007



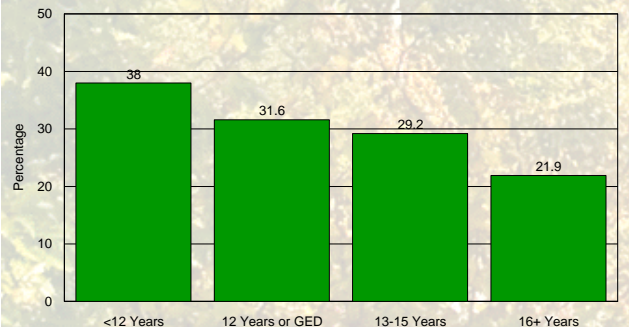
\* BMI 30 or greater

Prevalence of Obesity\* among Women by Age Group  
West Virginia BRFSS, 2007



\* BMI 30 or greater

Prevalence of Obesity\* among Women by Educational Level  
West Virginia BRFSS, 2007



\* BMI 30 or greater

## Women and Obesity

### For further information contact:

Program:  
Office of Healthy Lifestyles  
Office of Community Health Systems and  
Health Promotion  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvohl.org](http://www.wvohl.org)

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and High Blood Pressure

High blood pressure, or hypertension, has long been recognized as a major risk factor for heart attack and is the number one risk factor for congestive heart failure and stroke. In West Virginia, high blood pressure is the primary cause of kidney failure. While younger women are generally less likely than men to have high blood pressure, after

**High blood pressure has been defined as readings above 140/90 mmHg; however, optimal blood pressure levels are less than 120/80 mmHg.**

menopause a woman's chance of becoming hypertensive becomes greater than a man's, pointing to a hormonal association. Fewer women receive treatment for their hypertension than men; American Heart Association statistics show that only about 60% of hypertensive women are treated and only about one-third of those have their blood

pressure controlled at optimal levels. Hypertension is the most frequent complication in pregnancy, with 1 in 10 pregnant women diagnosed with high blood pressure. Both preexisting and gestational high blood pressure can be dangerous for mother and fetus and can result in low birthweight and premature delivery.

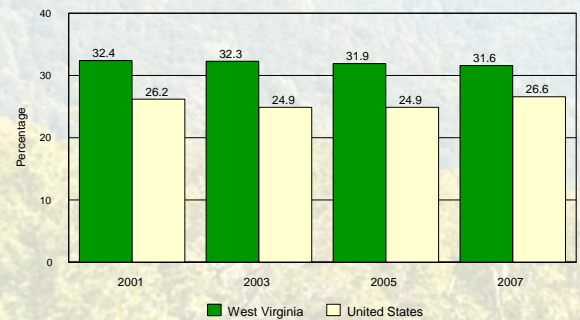
Risk factors for high blood pressure include a family history of hypertension and being overweight or obese. African American women are more likely than women of other races to develop hypertension at an earlier age, making them more susceptible to serious health problems. Women who take birth control pills are two to three times more likely to develop high blood pressure than other women; an even greater risk is posed if a woman also smokes cigarettes.

## In 2007,

- 31.6% of adult women in West Virginia had been told they had high blood pressure, a markedly higher percentage than the U.S. median of 26.6%. Among women aged 65 and older, 61.9% reported hypertension.
- half (50.3%) of all women having less than a high school education had high blood pressure, compared with 1 in 5 (21.2%) college-educated women, a statistically significant difference.
- 86.9% of women with high blood pressure were taking medication to lower or control their hypertension.

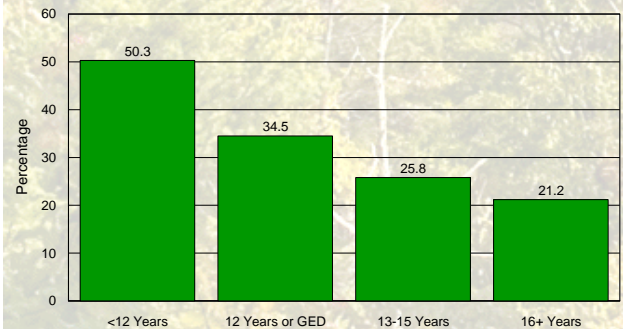
**Steps to prevent high blood pressure include maintaining a healthy weight, being physically active, eating foods with less salt and sodium, drinking alcohol in moderation, and eating low-fat dairy foods.**

Prevalence of High Blood Pressure\* among Women West Virginia and United States BRFSS 2001, 2003, 2005, 2007



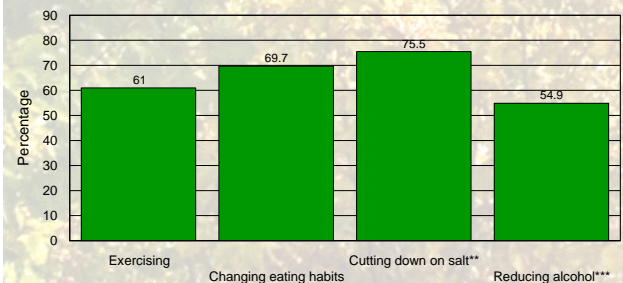
\*Have ever been told they have high blood pressure

Prevalence of High Blood Pressure\* among Women by Educational Level West Virginia BRFSS, 2007



\*Have ever been told they have high blood pressure

Prevalence of Steps Being Taken to Lower or Control Blood Pressure among Women Who Have Hypertension\* West Virginia BRFSS, 2007



\*Have ever been told they have high blood pressure

\*\*Respondents who report using salt

\*\*\*Respondents who report drinking alcohol

Sources: American Heart Association; Behavioral Risk Factor Surveillance System (BRFSS)

## Women and High Blood Pressure

### For further information contact:

Program:  
Cardiovascular Health Program  
Office of Community Health Systems and  
Health Promotion  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvhpcd.org](http://www.wvhpcd.org)

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Physical Inactivity

The health benefits of physical activity, or exercise, are great for men and women alike, but women have traditionally been more likely than men to be physically inactive. Being physically active lowers the risk of heart disease, high blood pressure, stroke, Type 2 diabetes, osteoarthritis, osteoporosis, and breast and colon cancer. It can reduce depression and anxiety and improve mood and feelings of well-being. Exercise aids in weight reduction and weight maintenance. Women of all ages need physical activity; postmenopausal women who are physically active have been shown to have a reduced rate of cardiovascular disease and respiratory illness mortality than those who do not exercise.

Exercise does not need to be strenuous to produce health benefits. The Surgeon General emphasizes that moderate activity in longer duration can be as beneficial as shorter sessions of more vigorous activity, e.g., 30 minutes of brisk walking versus 15 minutes of jogging. Even 10 minutes of walking three times a day can be beneficial. Women need to find activities they enjoy that they can and will fit into their daily routines. Women who have been sedentary should start with short intervals of exercise (5-10 minutes) and build up to longer intervals. They should also check with their health care provider before beginning an exercise program.

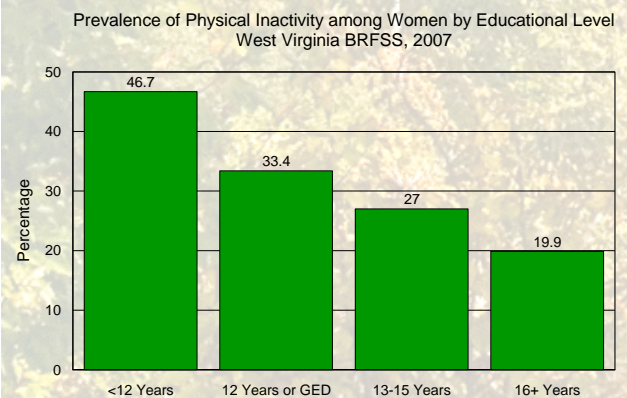
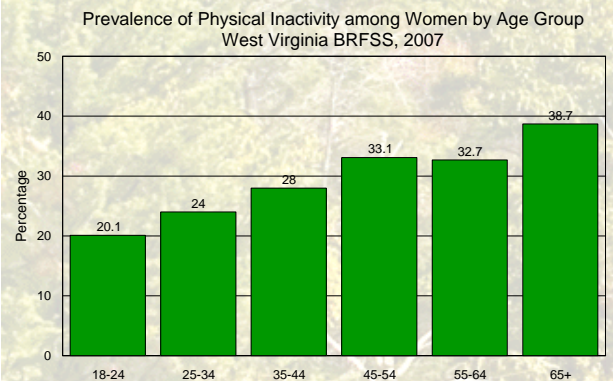
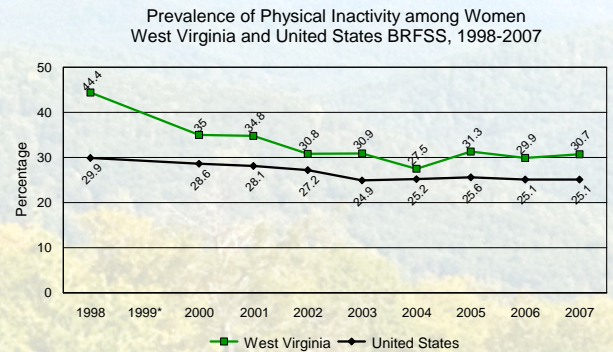
## In 2007,

- women in West Virginia were more likely to be physically inactive than their counterparts nationwide<sup>4</sup>. Over thirty percent (30.7%) of state women did not participate in any leisure-time physical activities, compared with a national median of 25.1%.
- older women (aged 65+) were significantly more likely than younger women to be physically inactive.
- women who did not finish high school were significantly more likely to be physically inactive than women having more education.

**In West Virginia, more than 4 out of 10 (42.4%) obese women did not engage in leisure-time physical activity in 2006, compared with approximately 1 in 4 (24.3%) nonobese women, a statistically significant difference.**

<sup>4</sup>Did not participate in any leisure-time physical activities (i.e., other than their regular job) during the past month.

Sources: CDC: *The Surgeon General's Report on Physical Activity and Health*; Behavioral Risk Factor Surveillance System (BRFSS)



## Women and Physical Inactivity

### For further information contact:

Program:

Office of Healthy Lifestyles

Office of Community Health Systems and  
Health Promotion

West Virginia Bureau for Public Health

350 Capitol Street, Room 206

Charleston, WV 25301

Phone: 304.558.0644

[www.wvohl.org](http://www.wvohl.org)

Data:

Health Statistics Center

West Virginia Bureau for Public Health

350 Capitol Street, Room 156

Charleston, WV 25301

Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Nutrition

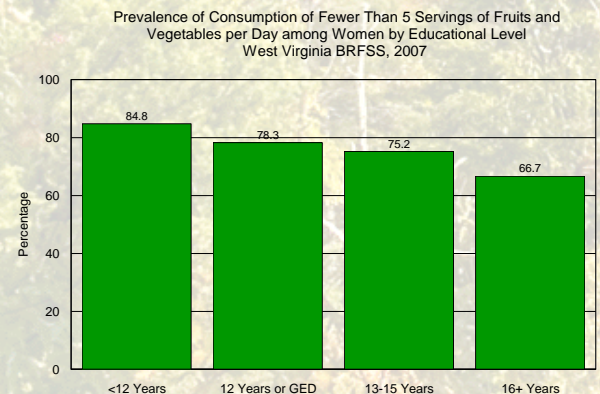
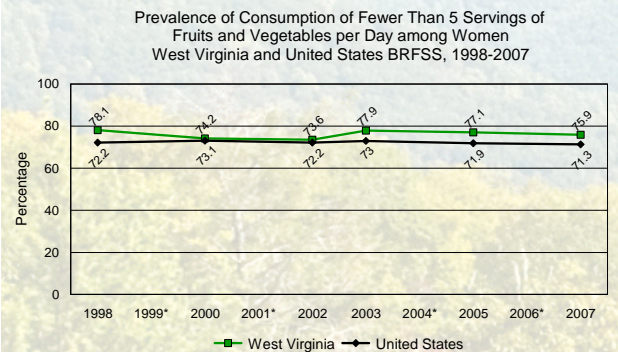
Eating a nutritious diet is essential to maintaining good health at all stages of life. Women have different dietary needs at different times, including adolescence, pregnancy, and menopause, and their requirements for certain nutrients such as calcium, folic acid, and iron can differ from those of men depending on their stage of life. Both women and men, however, are at risk for numerous chronic diseases and conditions that can affect their quality and duration of life. Nutrition can play a large role in the development and severity of these illnesses. Poor diet has been linked to cardiovascular disease, many cancers, diabetes, stroke, and hypertension. Because of the benefits shown to be provided by a healthful diet, the American Cancer Society and the American Heart Association recommend eating five or more servings of fruits and vegetables every day, choosing whole grains over refined grains, and limiting intake of processed foods and red meats. Cooking oils and foods with monounsaturated and polyunsaturated fats should be substituted for those containing saturated fats.

Eating a variety of fruits and vegetables on a daily basis is one of the best ways to positively influence health due to the nutrient-rich properties of these foods. Fruits and vegetables contain antioxidants and phytochemicals, which have been shown to have protective, disease-preventing compounds. They have very low amounts of saturated fats and high amounts of fiber, while being low in calories, an important factor in preventing or treating obesity.

## In 2007,

- 75.9% of adult West Virginian women reported that they did not consume five or more servings of fruits and vegetables daily, compared with a national median of 71.3%.
- 36.4% of women said they ate three to four servings of fruits and vegetables each day, while 34.1% of women ate one to two servings.
- fruit and vegetable consumption was directly related to level of education. Women with less than a high school education were significantly less likely to eat the recommended amounts of fruits and vegetables than women with a college degree.
- 82.5% of female high school students in West Virginia ate fruits and vegetables fewer than five times a day. The U. S. median among female high school students in that year was 83.4%.

**The rate of fruit and vegetable consumption by women has changed little over the past decade. High percentages of women in both the state and the nation continue to eat fewer than the recommended amounts of these foods.**



## Women and Nutrition

### For further information contact:

Program:  
Office of Healthy Lifestyles  
Office of Community Health and  
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West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
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[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)





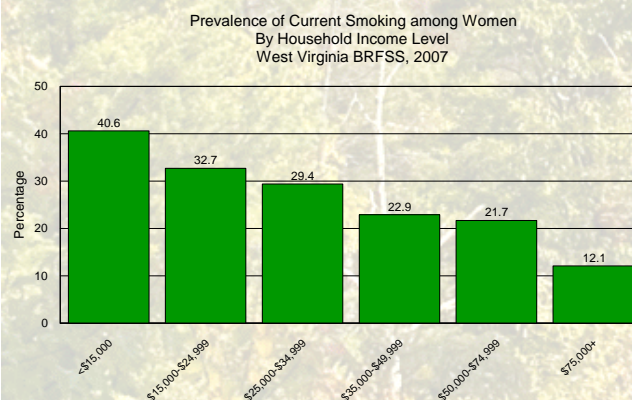
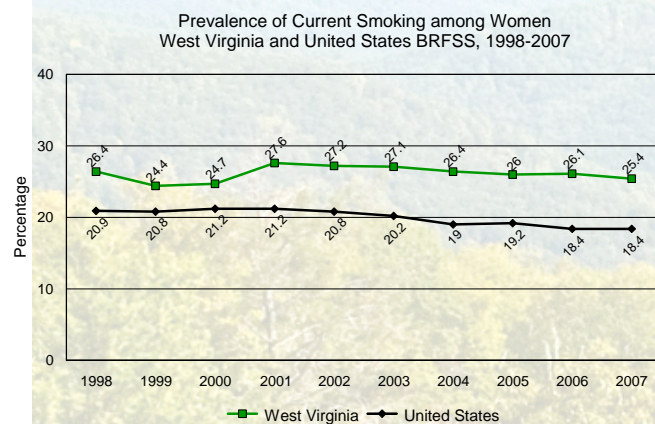
# Women and Smoking

While men still smoke at slightly higher rates than women in West Virginia and the United States, the gap between the sexes continues to close. As a result, women are suffering from tobacco-related diseases at similar, and sometimes even greater, rates as men. Lung cancer has claimed more lives among women than breast cancer since 1987; current female smokers aged 35 and older are 12 times more likely than female nonsmokers to die prematurely from lung cancer. Smoking is estimated to be responsible for 80% of deaths from chronic lower respiratory diseases (CLRD), i.e., emphysema and chronic bronchitis, and women now outnumber men in the number of CLRD deaths nationally and statewide. Women who smoke are twice as likely to suffer a stroke as women who do not smoke; they double their risk for coronary heart disease. Postmenopausal women who smoke are more likely to have hip fractures than other women due to lower bone density. Smoking during pregnancy can result in serious health problems for both mother and infant, including premature birth and low birthweight.

Women in West Virginia have traditionally reported higher smoking rates than their counterparts nationally. Especially concerning is the fact that the state ranked 2<sup>nd</sup> highest in the nation in 2006 in the percentage of women of reproductive age (18-44) who smoke (34.0%). In that same year, 27.2% of resident births in West Virginia were to mothers who smoked during pregnancy, compared with only 10.5% of births in the United States as a whole (2005 data).

## In 2007,

- 25.4% of adult women in the state were current smokers<sup>5</sup>; the national median among women was 18.4%. Smoking rates among West Virginia women have been significantly higher than the comparable U.S. rates for the past decade.
- young women aged 25-34 reported the highest prevalence of smoking by age at 39.9%. The prevalence of smoking among state women with incomes of less than \$35,000 was significantly higher than that among women with higher incomes. Smoking rates were also higher among less educated women.
- 14.5% of female high school students in West Virginia reported current frequent cigarette use<sup>6</sup>, the highest rate among the 39 states surveyed in the Youth Risk Behavior Survey. The median for females among the participating schools was 8.2%.



**In 2005, the lung cancer mortality rate among women in West Virginia was 49.5 deaths per 100,000 population. This was significantly higher than the U.S. rate among women of 40.5.**

<sup>5</sup>Currently smoke every day or on some days

<sup>6</sup>Smoked cigarettes on 20 or more days during the prior month

Sources: American Lung Association; Behavioral Risk Factor Surveillance System (BRFSS); Youth Risk Behavior Survey (YRBS); US Centers for Disease Control and Prevention; WV Health Statistics Center

## Women and Smoking

### For further information contact:

Program:  
Division of Tobacco Prevention  
Office of Community Health Systems and  
Health Promotion  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvntp.org](http://www.wvntp.org)

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Health Statistics Center  
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350 Capitol Street, Room 156  
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# Women and Health Care Access

Access to health care is essential to a woman's economic and health security. As the primary caregivers for their children and often other sick or aging relatives, a woman's health and well-being is vital to her whole family as well as herself. Women are more likely to use the health care system than men because of their need for reproductive and related services, a higher incidence of chronic illness, especially in middle age and beyond, and longer periods of disability and limitations in later years. Issues such as health care costs and health care coverage are priorities in confronting problems facing women in our state and the nation today.

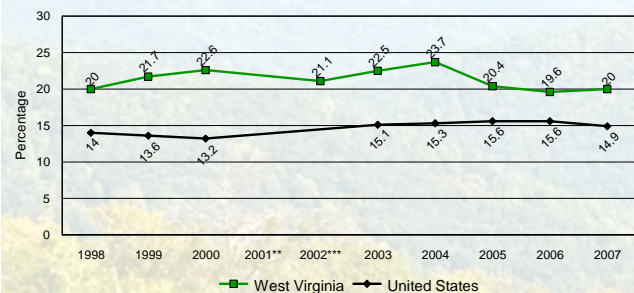
Differences exist between men and women in health care coverage. A national survey conducted by the Kaiser Family Foundation found that, among women aged 64 and younger, 64% receive coverage through employer-sponsored insurance, 29% as a dependent; only 13% of men are covered as a dependent. Because so many more women than men receive coverage as dependents, they are at greater risk of losing coverage when premiums rise or in the event of becoming divorced or widowed. Women who are young, single, work part-time, or are unemployed are at the greatest risk of being uninsured.

## In 2007,

- 1 in 5 (20.0%) women aged 18-64 in West Virginia was uninsured, compared with the national median of 14.9%.
- 64.2% of uninsured women aged 18-64 reported that they had needed medical care in the past 12 months but could not afford it.
- having no coverage was inversely associated with age. Over one-fourth (26.6%) of women in West Virginia aged 18-24 reported having no coverage, compared with 14.2% of women aged 55-64.
- while one-third (33.6%) of women aged 18-64 who did not graduate from high school had no health care coverage, only 7.0% of college graduates were without coverage, a statistically significant difference.

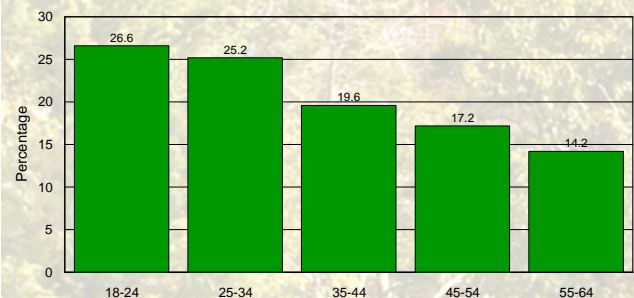
**In 2007, 23.8% of uninsured women aged 18-64 in West Virginia described their health as only "fair or poor," compared with 19.3% of women with health care coverage.**

Prevalence of Women Aged 18-64 Who Have No Health Care Coverage\* West Virginia and United States BRFSS, 1998-2007



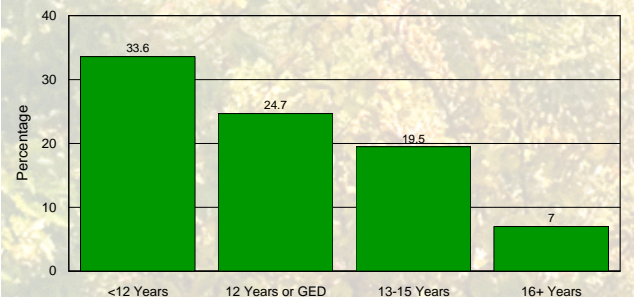
\*Answered "no" to the question "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?"  
 \*\* No data available. \*\*\*No U.S. data available.

Prevalence of Women Aged 18-64 Who Have No Health Care Coverage\* by Age Group West Virginia BRFSS, 2007



\*Answered "no" to the question "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?"

Prevalence of Women Aged 18-64 Who Have No Health Care Coverage\* by Educational Level West Virginia BRFSS, 2007



\*Answered "no" to the question "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?"

Sources: 2004 Kaiser Women's Health Survey, Kaiser Family Foundation; Behavioral Risk Factor Surveillance System (BRFSS)

## Women and Health Care Access

### For further information contact:

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
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Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Dental Health

An individual's overall health is closely linked to her dental health. Associations have been found in numerous studies between dental disease and systemic disease (i.e., heart and lung disease, stroke, and diabetes). It has been shown that having missing or decayed teeth affects one's mental health as well. According to *Oral Health in America: A Report of the Surgeon General*, we . . . "cannot be healthy without oral health. . . . Oral diseases are progressive and cumulative and become more complex over time.

They can affect our ability to eat, the foods we choose, how we look, and the way we communicate. These diseases can affect economic productivity and compromise our ability to work at home, at school, or on the job." The Surgeon General goes on to state ". . . ignoring oral health problems can lead to needless pain and suffering, causing devastating complications to an individual's well-being, with financial and social costs that significantly diminish quality of life."

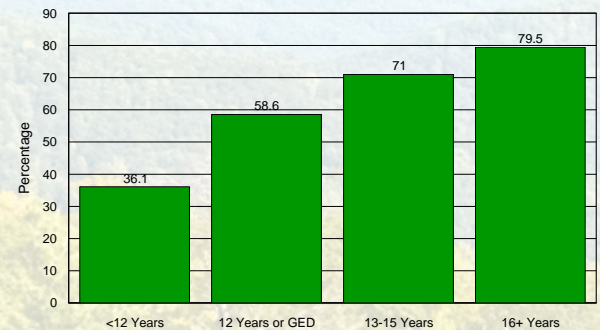
Because of the hormonal changes women experience throughout their lives, they are more susceptible to oral health problems, especially the development of periodontal disease. Hormonal fluctuations are particularly strong at puberty, during a woman's menstrual cycle, if a woman takes birth control pills, during pregnancy, and at menopause. Women who have gum disease are more likely to give birth to a preterm or low-birthweight infant.

## In 2006,

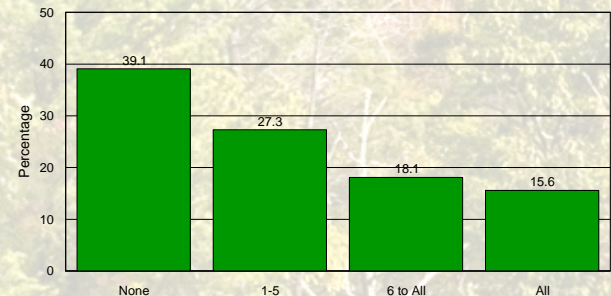
- 62.9% of adult women in West Virginia reported that they had visited a dentist during the previous 12 months for any reason; nationwide, 72.2% of women had been to a dentist in the past year.
- women who did not graduate from high school were significantly less likely to have visited a dentist in the previous year than other women.
- 40.9% of West Virginia women reported having had any permanent teeth extracted, ranging from 21.7% of women aged 18-24 to 90.5% of women aged 65 and older. More than 4 out of 10 (41.7%) women aged 65 and older had no natural teeth; nearly 4 out of 10 (38.4%) women without a high school education had no natural teeth.

**West Virginia ranks 1<sup>st</sup> in the nation in the percentage of older women who have lost all of their natural teeth. In 2006, 41.7% of state women aged 65 and older reported having had all of their natural teeth extracted, compared with a national median of 20.2%.**

Prevalence of Women Who Had Visited a Dentist in the Past Year  
By Educational Level  
West Virginia BRFSS, 2006

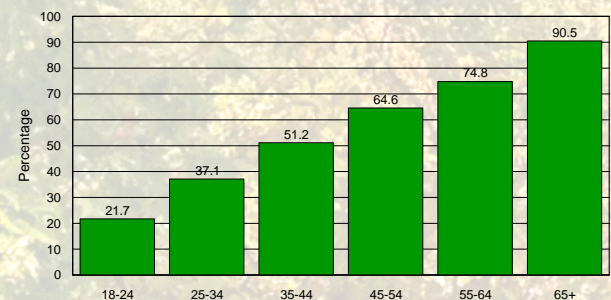


Prevalence of Women with Any Natural Teeth Extracted\*  
By Number of Teeth Lost  
West Virginia BRFSS, 2006



\*Permanent teeth lost to decay or gum disease

Prevalence of Women with Any Natural Teeth Extracted\*  
By Age Group  
West Virginia BRFSS, 2006



\*Permanent teeth lost to decay or gum disease

Sources: *Oral Health in America: A Report of the Surgeon General*; Behavioral Risk Factor Surveillance System (BRFSS)

## Women and Dental Health

### For further information contact:

Program:  
Oral Health Program  
Office of Maternal, Child and Family Health  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 427  
Charleston, WV 25301  
Phone: 304.558.5388

[www.wvdhhr.org/mcfh/ICAH/oral](http://www.wvdhhr.org/mcfh/ICAH/oral)

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Immunization

Influenza and pneumonia combined are consistently in the top 10 leading causes of death among West Virginia women. Influenza (also called “flu”) is a highly contagious viral respiratory disease characterized by an abrupt onset of fever, sore throat, body aches, and cough that can lead to serious complications, including pneumonia. As women are usually the primary caregivers in their families, their exposure to viruses through their children and other family members is maximized. Because influenza viruses constantly change, or mutate, a new vaccination is produced annually. The National Immunization Program at the U.S. Centers for Disease Control and Prevention (CDC) recommends the yearly vaccine for all adults aged 50 and older and all children aged 6 months to their 5th birthday, as well as persons who have chronic medical conditions, especially asthma, other lung diseases, and heart disease. Nursing home residents and out-of-home caregivers should also receive the vaccine. Because influenza has significant potential for morbidity and mortality in pregnant women, an inactivated vaccination (containing the killed virus) is recommended for women who will be entering their second or third trimester during flu season.

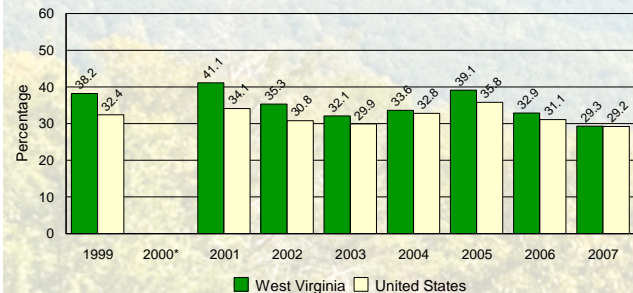
Pneumonia refers to any infection of the lung. The most common type of pneumonia is caused by the *Pneumococcus* bacterium; approximately 5% of people who get pneumococcal pneumonia die from the disease. Those at greatest risk from pneumonia are the elderly, the very young, and people with chronic health problems such as heart or lung disease, diabetes, and cancer. While some people receiving the vaccine still develop pneumococcal pneumonia, vaccination lowers the risk of developing medical complications from the disease, shortens hospital stays, and reduces the risk of dying. Pregnant women should consult their health care providers before being vaccinated.

## In 2007,

- nearly 3 out of 10 (29.3%) women aged 65 and older in West Virginia had not had an influenza vaccination within the past year, comparable to the U.S. median of 29.2%. The prevalence of unvaccinated women in this age group has been slowly decreasing since 1999.
- 31.9% of women aged 65 and older in West Virginia had never had a pneumonia vaccination, compared with a national median of 30.1%. The percentage of older women who have never had a pneumonia vaccination decreased significantly between 1999 and 2007.

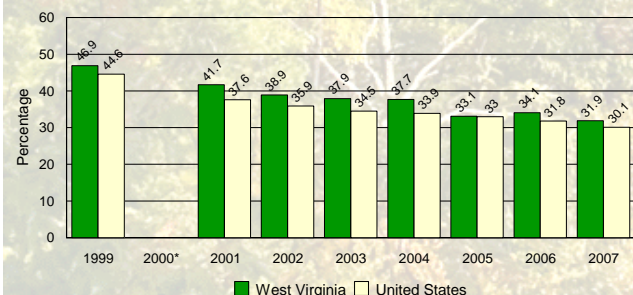
**Cigarette smoking is a risk factor for developing influenza and pneumonia because it damages the lungs, making an infection more likely. In 2007, 25.4% of adult women in West Virginia reported current cigarette smoking, including 13.2% of women aged 65 and older.**

Prevalence of Women Aged 65 and Older Who Have Not Had a Flu Shot in the Past Year West Virginia and United States BRFSS, 1999-2007



\*No data available

Prevalence of Women Aged 65 and Older Who Have Never Had a Pneumonia Vaccination West Virginia and United States BRFSS, 1999-2007



\*No data available

Sources: National Immunization Program, CDC; Behavioral Risk Factor Surveillance Program (BRFSS)

## Women and Immunization

### For further information contact:

Program:  
Immunization Program  
Office of Surveillance and Disease Control  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 125  
Charleston, WV 25301  
Phone: 304.558.2188

[www.wvimmunization.org](http://www.wvimmunization.org)

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)





# Women and Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) are infections that can be passed from one person to another through any type of sexual contact. Some STDs, such as chlamydia, gonorrhea, and syphilis, are caused by bacteria and can be treated and cured with antibiotics. Others, such as the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) and human papillomavirus (HPV) are caused by viruses; the HIV virus, which is responsible for causing AIDS, is one of the deadliest. There is no cure for viral STDs but new treatments and antiviral medications can address symptoms and allow people to live longer and stronger lives. Teens and young women (aged 15-34) and women of color are at highest risk for infection with STDs.

Untreated STDs can have severe consequences if not treated, especially among women. Some can lead to pelvic inflammatory disease, which can cause pain, ectopic pregnancy, and infertility; others, such as HIV/AIDS, can be fatal. Untreated STDs during pregnancy can have harmful effects on both the mother and infant, including early labor, low birthweight, uterine infections, infections in the newborn, and stillbirth. Many women do not have symptoms when they become infected, which is why screening for these diseases is so important.

In the United States, more than 25% of the people living with HIV in 2006 were women. The CDC estimated that the HIV prevalence rate for African American women was nearly 18 times the rate for white women.

## From 1984 through 2007,

- 260 AIDS cases were reported among women and girls in West Virginia, 17% of the total. Of these, 100 (38.5%) were African American.

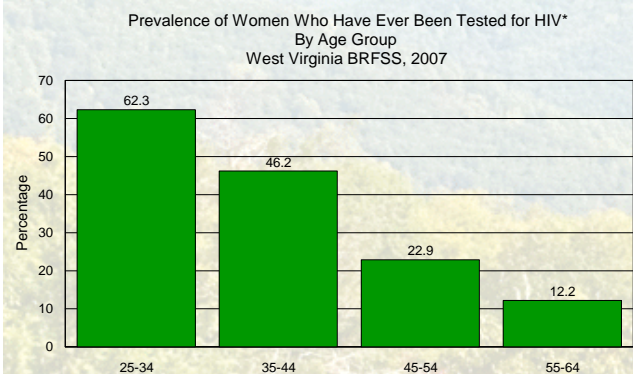
## From 1989 through 2007,

- 219 HIV cases were reported among women and girls in West Virginia, 30% of the total. Of these, 117 (53.4%) were African American.

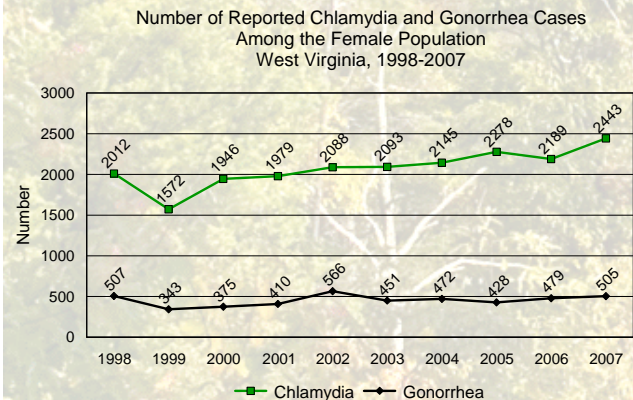
## In 2007,

- 36.9% of all women aged 18-64 in West Virginia had ever been tested for HIV. Almost two-thirds (62.3%) of women aged 25-34 reported they had received testing that was not part of a blood donation.
- 2,443 cases of chlamydia were reported in West Virginia among women and girls, 77% of all reported cases. The number of reported cases has increased each year but one since 1999.
- 505 cases of gonorrhea were reported among females, 54% of all reported cases. The number of cases reported each year from 1998-2007 has ranged from a low of 343 in 1999 to a high of 566 in 2002.

Sources: U.S. Centers for Disease Control and Prevention (CDC); Behavioral Risk Factor Surveillance System (BRFSS); WV Division of Surveillance and Disease Control, HIV/AIDS/STD Program



\*Not during a blood donation; includes fluid from the mouth.



## Women and Sexually Transmitted Diseases

### For further information contact:

Program:  
AIDS/HIV &STD Program  
Office of Surveillance and Disease Control  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 125  
Charleston, WV 25301  
Phone: 304.558.2195

[www.wvhiv.org](http://www.wvhiv.org)

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)



# Women and Violence

Violence of any type can be devastating to a woman's physical and mental health and well-being. In addition to any immediate injuries caused by the violence, her long-term risk of chronic pain, physical disability, substance abuse, and mental illness, particularly depression, is increased. Sexual abuse increases a woman's risk of unintended pregnancy, adverse pregnancy outcomes, and sexually transmitted diseases. Abuse can be physical, mental, or emotional. Whether the abuse is perpetrated by a spouse, a boyfriend or girlfriend, a family member, an acquaintance, or a stranger, violence against women is a crime.

## In 2006,

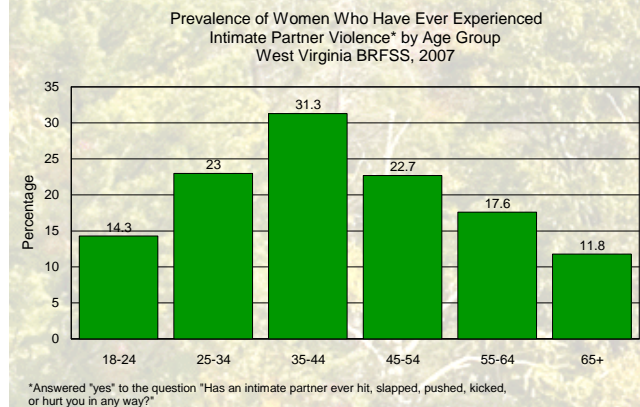
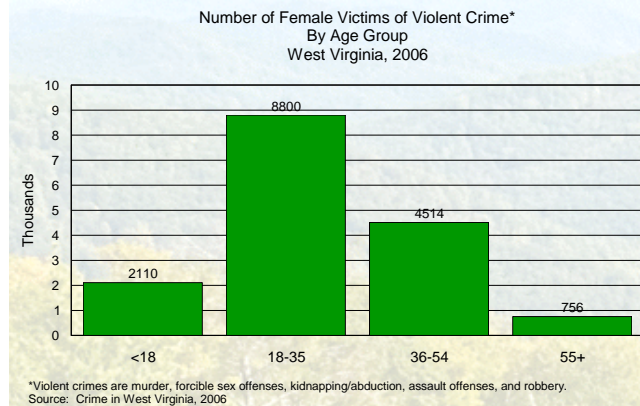
- 16,644 females were victims of violent crime<sup>7</sup> in West Virginia, representing 57.6% of total victims. Of the female victims with a known age, 13.0% were under the age of 18.
- 92.6% of the female violent crime victims with a known race were white; 7.1% were African American.
- 85% of sexual assault victims were female; 93% of offenders were male.
- 14,072 domestic violence offenses were reported to law enforcement in West Virginia; 10,530 (74.8%) of the victims were female. The most frequently reported domestic violence offense was simple assault, followed by intimidation, aggravated assault, and sexual crimes.
- there were 36 homicides among females in West Virginia; 19 (52.8%) of these were the result of domestic violence.

## In 2007,

- 20.2% of adult women in West Virginia answered "yes" when asked "Has an intimate partner ever hit, slapped, pushed, kicked, or hurt you in any way?"
- 11.7% of adult women answered "yes" to the question "Have you ever experienced any unwanted sex by a current or former intimate partner?"
- 11.9% of female high school students in West Virginia reported that they had been hit, slapped, or physically hurt on purpose by their boyfriend during the previous 12 months.
- 12.1% of female high school students reported they had been forced to have sexual intercourse.

<sup>7</sup>Violent crimes include murder, forcible sex offenses, kidnapping/abduction, assault offenses, and robbery.

Sources: WV State Police, *Crime in West Virginia, 2006*; Behavioral Risk Factor Surveillance System (BRFSS); Youth Risk Behavior Survey (YRBS)



**Domestic violence is broadly defined in West Virginia code as physical, mental, sexual, or emotional abuse that occurs between family or household members as well as intimate partners (i.e., spouse, former spouse, current or past boyfriend or girlfriend, including same sex partner, or a party in a perceived relationship).**

**Sexual assault occurs when a person is forced or manipulated into doing something sexual without their consent by either someone who is known or by a stranger. It can also include unwanted sexual comments, unwanted sexual contact, or sexual harassment.**

## Women and Violence

### For further information contact:

Program:  
Injury Prevention Program  
Office of Community Health Systems and  
Health Promotion  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 206  
Charleston, WV 25301  
Phone: 304.558.0644

[www.wvhpcd.org](http://www.wvhpcd.org)

Data:  
Health Statistics Center  
West Virginia Bureau for Public Health  
350 Capitol Street, Room 156  
Charleston, WV 25301  
Phone: 304.558.9100

[www.wvdhhr.org/bph/oehp/hsc](http://www.wvdhhr.org/bph/oehp/hsc)

