Older West Virginians:

Health Highlights

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Fact Sheets

Demographics
1. Population
2. Marital Status and Households
3. Poverty and Education
4. Labor Force Participation, Disability, and Veteran Status

Chronic Diseases and Conditions
5. Cardiovascular Disease
6. All Cancers
7. Lung Cancer
8. Colorectal Cancer
9. Female Breast Cancer
10. Prostate Cancer
11. Diabetes
12. Influenza and Pneumonia
13. Alzheimer’s Disease and Other Dementias
14. Chronic Lower Respiratory Diseases
15. Asthma
16. Arthritis
17. Mental Health

Risk Factors
18. Cigarette Smoking
19. Obesity and Overweight
20. Physical Activity and Nutrition
21. Hypertension and High Cholesterol

Additional Topics
22. Falls and Motor Vehicle Accidents
23. Dental Health
24. Violence
**Fact Sheet Appendices**

A. Percentage of Population 65 Years and Older by County  
B. Percentage of Households with People Aged 65 and Older by County  
C. Percentage of Population Aged 65 and Older Living below Poverty Level by County  
D. Selected Cancer Incidence Rates by Age Group, 2002-2006  
E. Prevalence of Obesity among People Aged 65 and Older, 2000-2010
Older West Virginians face many health concerns, often coping with illnesses and conditions that become more common and also more problematic with age. The percentage of West Virginians who are aged 65 and older continues to increase, from 15.3% of the state’s population in 2000 to 16.0% in 2010, ranking West Virginia second only to Florida in its proportion of older residents. The Census Bureau estimates that by 2030 nearly one-fourth (24.8%) of the state’s population will be 65 or older. Health care provision to this segment of the population presents unique challenges to the public health sector, as well as to other health care professionals and policymakers.

Responding to this growing concern, the West Virginia Health Statistics Center (WVHSC), Bureau for Public Health, has prepared a series of fact sheets on selected health issues facing the state’s older residents.1 There are 24 fact sheets in all. Selected population statistics focusing on the 65 and older population are presented in the first four fact sheets. The remaining 20 fact sheets each address one of the most common chronic illnesses, conditions, health issues, or behavioral or physiological risk factors affecting older individuals. (While it is recognized that many older residents are coping with more than one illness, condition, or risk factor, it was not feasible to examine multiple risk factors and conditions in this format.2)

The most recent data for West Virginia and the United States have been included, with comparisons between the state and the nation where possible. The data were obtained from a variety of sources, primarily the WVHSC; the Behavioral Risk Factor Surveillance System (BRFSS) established and maintained by the U.S. Centers for Disease Control and Prevention (CDC); the National Center for Health Statistics (NCHS); the West Virginia Cancer Registry; and the American Community Survey, U.S. Census Bureau.

The mortality data provided by the WVHSC represent deaths among state residents, regardless of where the deaths occurred, and are available at http://www.wvdhhr.org/bph/hsc/. The NCHS collects and reports mortality data from all 50 states and the District of Columbia (http://www.cdc.gov/nchs/deaths.htm).

The West Virginia BRFSS data were provided and analyzed by the WVHSC, which houses and supervises the collection of the state data.3 The national BRFSS data were obtained from the national BRFSS website (http://www.cdc.gov/brfss/). The U.S. rates provided by the CDC on the website represent the median prevalence among the specified population group (i.e., half of the states and territories participating in the survey reported a higher rate for that group and half reported a lower rate). The state rates represent the mean, or average, prevalence for the specified population.

The West Virginia Cancer Registry was the source for the incidence rates provided in the five fact sheets that address cancer (http://www.dhhr.wv.gov/oeps/cancer/Documents/Cancer_Incidence_in_WV_2009.pdf). The American Community Survey provided population statistics (http://factfinder.census.gov/home/). Other data sources are cited where used.

It is hoped that these fact sheets will prove useful in providing information on many of the health problems facing West Virginia’s older residents. The individual sheets can easily be removed from the book for copying. They will also be available online at http://www.wvdhhr.org/bph/hsc/vr/publicat.htm to be downloaded and copied for distribution.

1 A series of 22 fact sheets addressing women’s health issues was published by the WVHSC in 2009; West Virginia Women’s Health Highlights is obtainable in hard copy through the WVHSC as well as online at http://www.wvdhhr.org/bph/hsc/vr/publicat.htm.
2 An examination of multiple risk factors and chronic illness can be found in Advocating for Chronic Disease Management and Prevention 2011, issued by the WV Division of Health Promotion and Chronic Disease, Bureau for Public Health, in May 2011.
3 Annual reports on statistics collected by the West Virginia Behavioral Risk Factor Survey are available online at http://www.wvdhhr.org/bph/hsc/vr/publicat.htm.
1. Older West Virginians: Population

According to the 2010 Census, 16.0% of West Virginia’s population is aged 65 and older, an increase from 15.3% in 2000. The 65 and older population in the United States as a whole increased from 12.4% of the total population in 2000 to 13.0% in 2010. West Virginia ranks second only to Florida in the proportion of residents aged 65 and older. The Census Bureau estimates that nearly one-fourth (24.8%) of the state’s population will be 65 and older in 2030.

2010 Census Data

- In 2010, the median age in West Virginia was 41.3, compared with 37.2 in the United States.
- A total of 297,404 residents were aged 65 and older, 129,666 men and 167,738 women.

<table>
<thead>
<tr>
<th>Number of Residents Aged 65 and Older</th>
<th>West Virginia, 2000 and 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>65+</td>
<td>65-74</td>
</tr>
<tr>
<td>2000</td>
<td>276,895</td>
</tr>
<tr>
<td>2010</td>
<td>297,404</td>
</tr>
</tbody>
</table>

- 17.9% of all women in West Virginia were aged 65 and older; 14.2% of all men were 65 and older. Women made up 56.4% of the total 65+ population.
- The number of older West Virginians increased by 7.4%. Proportionately, the largest increase was seen among the oldest old, those aged 85 and older. This group increased 13.0% between 2000 and 2010.
- By race, 16.1% of white residents were aged 65 and older, compared with just 10.0% of African American and 9.9% of Asian residents (2009 estimate).

County-level Estimates

- Aggregated 2005-2009 county data from the American Community Survey showed that Pendleton County had the highest proportion of older residents (21.5%). Monongalia County had the lowest proportion (10.5%).
- Only four counties in the state had proportions of older residents lower than the national average of 12.6%.

Sources: 2010 U.S. Census; 2005-2009 American Community Survey (See Appendix A for data used in the map.)
1. Older West Virginians: Population

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www.wvdhhr.org/bph/hsc
Marital status is an important component in an individual's well-being, both in terms of economic and social support. Studies have indicated that married people, especially men, are generally healthier than those who are widowed, divorced, separated, or never married. Among other factors affected by marital status is the availability of a caregiver; as individuals age, those who are married are more likely to have a spouse who can act as a caregiver if the need arises. With their longer life expectancy, women are more likely than men to live alone in their later years.

Marital Status

- According to 2005-2009 American Community Survey data, 71.5% of all men aged 65 and older in West Virginia are married. This statistic is in sharp contrast to that for older women, only 39.5% of whom are married.
- Women aged 65 and older are over three times more likely to be widowed than men of the same age: 47.7% of women are widowed, compared with only 15.6% of men.
- Similar percentages of older men and women are either divorced or separated (8.9% and 8.4%, respectively) or have never been married (4.0% and 4.3%, respectively).

Households

- 95.7% of older West Virginians live in households, either alone or with others, with the remainder living in nursing homes or in other non-household facilities. Of those living in households, 93.9% are either the householder or the spouse of the householder.
- The householder lives alone in nearly one-half (47.3%) of the households headed by residents aged 65 and older.
- Over one-fourth (27.4%) of all households in West Virginia have at least one person aged 65 or older, compared with a national average of 23.6%.
- The percentage of households with one or more older residents ranges from a low of 18.6% in Monongalia County to a high of 34.5% in Pendleton County. Only three counties have a lower percentage than the U.S. average (23.6%).

Source: 2005-2009 American Community Survey, U.S. Census Bureau. (See Appendix B for data used in the map.)
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Income and education are important factors in determining an individual’s access to health care. Data from the National Longitudinal Mortality Survey indicate that people with incomes in the top five percent live on average about 25% longer than those with incomes in the bottom five percent. People with adequate financial resources generally are better able to meet their needs, including health care, than those living in poverty.

### Poverty Status

- People aged 65 and older in West Virginia are more likely than their national counterparts to live in poverty. More than one in 10 (10.8%) older West Virginians have incomes that fall below 100% of the federal poverty level, compared with 9.8% of other older Americans.

- 15.2% of state residents aged 65 and older have incomes that fall between 100% and 149% of the federal poverty level, compared with 11.6% of older Americans in general.

- According to the American Community Survey, there is a wide variation by county in the proportion of older West Virginians who are living below 100% of the federal poverty level. Summers County has the highest percentage at 21.5%, while Monroe County reported the lowest percentage at 6.2%.

### Educational Attainment

- Older West Virginians generally have less education than older people in the United States as a whole. Over one-third (34.2%) of state residents aged 65 and older did not graduate from high school, compared with one-fourth (25.8%) of other older Americans. Only 11.0% have a college degree, while the national average is 19.3%.

Source: 2005-2009 American Community Survey, U.S. Census Bureau. (See Appendix C for data used in the map.)
3. Older West Virginians: Poverty and Education

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4. Older West Virginians: Labor Force Participation, Disability Status, and Veteran Status

Labor force participants are those individuals who are currently working in a paid position, currently unemployed but looking for work, or waiting to be recalled after a layoff. Being in the labor force after the age of 65 depends to a great extent upon one’s economic status, as well as an individual’s capability to continue working. Having a disability makes it more difficult to work, even if that might be economically necessary or advantageous.

Labor Force Participation

- Older West Virginians are less likely to be working than their counterparts nationwide. Slightly more than one in 10 (10.2%) West Virginians aged 65 and older reported being in the labor force, compared with a national average of 15.0%. Among people aged 65-74, 16.0% of West Virginians are in the labor force; 23.7% of that age group nationwide are employed or looking for work.

Disability

- West Virginians aged 65 and older are more likely to have a disability than those individuals in the United States as a whole. Overall, 45.3% of older residents reported having at least one disability, compared with 37.4% nationwide.

- A higher prevalence of older West Virginians reported having each of the six disabilities covered in the American Community Survey (ACS), as shown in the graph on the lower right.

Veteran Status

- According to data from the ACS, 24.6% of West Virginians aged 65 and older are veterans, compared with 23.9% in the country as a whole. Men make up 94.8% of all older veterans, with women accounting for 5.2%.

- 12.6% of all state veterans served during the World War II era; 13.8% served during the Korean Conflict.

<table>
<thead>
<tr>
<th>Number of Veterans Aged 65 and Older West Virginia, 2005-2009 ACS</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 and Older</td>
</tr>
<tr>
<td>Men</td>
</tr>
<tr>
<td>Women</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: 2005-2009 American Community Survey, U.S. Census Bureau
4. Older West Virginians: Labor Force Participation, Disability Status, and Veteran Status

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5. Older West Virginians: Cardiovascular Disease

Cardiovascular disease (CVD) refers to major disorders of the heart and blood vessels supplying the heart, brain, and peripheral tissues, including heart attack, coronary heart disease, and stroke. CVD is the number one cause of death and disability among both men and women in the United States and West Virginia. Risk factors for CVD include high blood pressure, smoking, high cholesterol, obesity, diabetes, physical inactivity, dental disease, a diet high in saturated fat and low in dietary fiber, and a family history of heart disease or stroke.

The Behavioral Risk Factor Surveillance System (BRFSS) monitors the prevalence of three CVD events, i.e., heart attack, angina or coronary heart disease (CHD), and stroke, among the population. In 2010, 16.3% of West Virginians aged 65 and older reported having had a heart attack, while the corresponding national median was 12.9%. Fourteen percent (14.3%) of older West Virginians had CHD; the U.S. median was 13.1%. A total of 8.6% of state residents aged 65 and older reported a stroke, compared with a U.S. median of 7.9%.

CVD Events by Gender and Age Group

- Overall, 23.7% of men and women aged 65-74 reported one or more CVD events (heart attack, CHD or angina, or stroke), 30.6% of men and 17.7% of women. Among residents aged 75 and older, 31.9% reported one or more CVD events. Men were again more likely to have experienced a CVD event: 37.1% of men, compared with 28.8% of women.

CVD Mortality

- From 1999-2008, the heart disease mortality rate among residents aged 65 and older for the state was consistently higher than the comparable rate for the nation, as seen in the graph to the right. The rate has been decreasing both state- and nationwide, however.

- The state mortality rate for stroke has been somewhat higher than the national rate since 2003, with a state rate of 315.0 deaths per 100,000 population (65 and older) in 2008; the comparable U.S. rate was 293.5.

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center; National Center for Health Statistics
5. Older West Virginians: Cardiovascular Disease

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www.wvdhhr.org/bph/hsc
Cancer comprises more than 100 diseases that are caused by changes in our genes. Certain lifestyle and environmental factors can influence some of these changes and increase an individual’s chances of getting cancer. The risk of cancer can be reduced by avoiding tobacco use, having healthy eating and exercise habits, and avoiding exposure to the sun.

Since 1945, cancer has been the second leading cause of death in West Virginia, following heart disease. While overall heart disease deaths outnumber those from cancer among all West Virginians aged 65 and older, cancer has claimed more lives among both male and female residents aged 65-74 since 1997. In 2008, there were 1,194 cancer deaths in that age group compared with 842 heart disease deaths. Over the decade from 1999 through 2008, 32,625 West Virginians aged 65 and older died from cancer, 16,878 men and 15,747 women. In 2008, there were 1,194 cancer deaths in that age group compared with 842 heart disease deaths.

All Site Cancer Mortality by Gender and Age Group

- In 2007, older West Virginians had higher rates of cancer than their counterparts nationally for all age groups depicted in the graph at the top right. The greatest percentage difference was seen among people aged 65-74 (830.7 vs. 715.5).
- Older men in West Virginia are more likely to die from cancer than older women in all age groups over the age of 65. The 2008 cancer mortality rate among men aged 75-84 was nearly twice the comparable rate among women (1,866.3 vs. 1,044.9).

All Site Cancer Incidence

- Data from 2002-2006 from the WV Cancer Registry showed that cancer incidence increased with age until age 80, at which point it dropped off slightly. The highest average annual rate was 2,566.6 diagnoses per 100,000 population aged 75-79.

Cancer Prevalence by Gender and Age Group

- The Behavioral Risk Factor Surveillance System (BRFSS) monitors the prevalence of cancer in its monthly survey. In 2010, one in five (20.5%) respondents aged 65 and older reported having received a cancer diagnosis at some time in his or her life.
- While older men have higher cancer mortality rates than older women, women were more likely to report a cancer diagnosis than men, as seen in the graph at the bottom right.

Sources: West Virginia Cancer Registry; WV Health Statistics Center; National Center for Health Statistics, Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention
(See Appendix D for incidence rates for 5-year age groups between 65 and 85+.)
6. Older West Virginians: All Cancers

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www.wvdhhr.org/bph/hsc
7. Older West Virginians: Lung Cancer

Lung and bronchus cancer is the most frequently diagnosed cancer in West Virginia, as well as the deadliest. Both men and women in the state have higher rates of lung cancer incidence and mortality than their counterparts nationwide. Approximately 90% of all lung and bronchus cancers are attributable to smoking, with the majority of the remainder due to other environmental exposures such as radon. The incidence of lung cancer is approximately 23 times higher among male smokers and 13 times higher among female smokers than among lifelong nonsmokers. From 1999 through 2008, 10,757 West Virginians aged 65 and older died from lung cancer, 6,135 men and 4,622 women.

Lung Cancer Mortality by Gender and Age Group

- In 2008, the overall mortality rate for lung cancer among West Virginian residents aged 65 and older was 367.6 deaths per 100,000 population. The rates for men and women were 478.4 and 285.7, respectively. Men were markedly more likely to die from lung cancer than women in all age groups over 65, as noted in the graph to the right.

- In 2007, the West Virginia mortality rate from lung cancer among people aged 65-74 was 320.1 deaths per 100,000 population; the U.S. rate was 248.8. Among individuals aged 75-84, the state rate was 444.2, compared with a rate of 371.3 nationwide.

Lung Cancer Incidence

- Invasive lung and bronchus cancer incidence rates increase with age until age 80. On average, 543.1 cases per 100,000 population were diagnosed annually between 2002 and 2006 among West Virginians aged 70-74; an average 562.0 cases were diagnosed among those aged 75-79.

Smoking Prevalence by Gender and Age Group

- According to the Behavioral Risk Factor Surveillance System (BRFSS), in 2010 more than one in 10 (10.8%) older West Virginians were current smokers; the 2010 national median for the 65 and older population was 8.4%.

- Overall, and from ages 65 through 74, men were more likely to smoke than women; however, women aged 75 and older were found to have a higher prevalence of current smoking than men of the same age (7.4% and 5.5%, respectively).

Sources: West Virginia Cancer Registry; WV Health Statistics Center; National Center for Health Statistics; Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention (See Appendix D for incidence rates for 5-year age groups between 65 and 85+.)
7. Older West Virginians: Lung Cancer

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8. Older West Virginians: Colorectal Cancer

Colorectal cancer (CRC) is the second deadliest cancer in West Virginia, as well as nationwide. Risk factors for this cancer include increasing age (over age 50), a family history of CRC, a personal history of colorectal polyps or irritable bowel syndrome, obesity, physical inactivity, heavy alcohol use, smoking, and a diet high in animal fats. Approximately 75% of people diagnosed with CRC, however, are over the age of 50 but have no other identifiable risk factors. From 1999 through 2008, CRC claimed the lives of 3,422 older West Virginians: 1,623 men and 1,799 women.

When diagnosed in the early stages, about 90% of CRC cases are completely curable. The American Cancer Society (ACS) recommends CRC screening beginning at age 50 for people of average risk, using one of several screening options, including a flexible sigmoidoscopy every five years, a colonoscopy every 10 years, or a virtual colonoscopy every five years.

Colorectal Cancer Mortality by Gender and Age Group

- In 2008, the overall mortality rate for CRC among people aged 65 and older in the state was 102.1 deaths per 100,000 population; the rates for men and women were 118.0 and 90.3, respectively. Among residents aged 75-84, the CRC mortality rate for men was nearly twice as high as that among women of the same age (197.1 vs. 103.1).
- In 2007, the CRC mortality rate for the state was higher than the national rate for ages 65-74 and 75-84 and slightly lower among people aged 85 and older.

Colorectal Cancer Incidence

- The average annual incidence rate during the five years from 2002-2006 for invasive CRC increased steadily by age among older West Virginians from an average of 205.7 cases diagnosed per year among residents aged 65-69 to 401.8 cases among those aged 85 and older.

CRC Screening Prevalence by Gender and Age Group

- The Behavioral Risk Factor Surveillance System (BRFSS) monitors CRC screening in its monthly survey. In 2010, little difference was reported by survey respondents by either gender or age group in the prevalence of CRC screening, as shown in the graph on the lower right. Approximately 60% of all respondents had ever had either a sigmoidoscopy or a colonoscopy to screen for CRC.

Sources: West Virginia Cancer Registry; WV Health Statistics Center; National Center for Health Statistics; Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention
(See Appendix D for incidence rates for 5-year age groups between 65 and 85+.)
8. Older West Virginians: Colorectal Cancer

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Breast cancer is the second leading cause of cancer death among women, behind lung cancer. A woman is diagnosed with breast cancer every two minutes in the United States; it is estimated that one woman in seven who lives to the age of 85 will develop the disease. Between 1999 and 2008, 1,760 women over the age of 65 died from breast cancer in West Virginia. The mortality rate for female breast cancer among older women in the state in 2008 was 105.6 deaths per 100,000 population.

Approximately 70% of breast cancers are found through self-examination; by this time, however, the cancer has often spread beyond the breast. Mammograms can detect lumps and other abnormalities in the breasts before symptoms become evident. The American Cancer Society recommends that women aged 40 and older should have a screening mammogram every year. When detected early, the five-year survival rate for breast cancer is 96%.

**Female Breast Cancer Mortality by Age Group**

- The graph on the top right shows breast cancer mortality rates in 2007 among older women in West Virginia and the United States by age group. Little difference can be noted between the state and nation for ages 65-74 and 75-84. West Virginia women aged 85 and older had a higher rate of death from breast cancer in that year than their national counterparts (208.4 deaths per 100,000 population and 170.4 deaths, respectively).

**Female Breast Cancer Incidence**

- The average annual 2002-2006 rate of invasive breast cancer incidence among older West Virginia women increased with age until the age of 80. The average annual rate among women aged 60-64 was 322.3 diagnoses per 100,000 population, while that among women aged 75-79 was 445.0.

**Breast Cancer Screening**

- The Behavioral Risk Factor Surveillance System (BRFSS) monitors breast cancer screening among women aged 40 and older in its survey through a question asking women if they have had a mammogram in the past two years.

- In 2010, 73.5% of West Virginia women aged 65 and older reported having had a mammogram within the past two years; the BRFSS national median was 77.2%. Women who did not have at least 12 years of education were less likely than other women to have had a mammogram.

Sources: West Virginia Cancer Registry; WV Health Statistics Center; National Center for Health Statistics; Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention

(See Appendix D for incidence rates for 5-year age groups between 65 and 85+.)
9. Older West Virginians: Female Breast Cancer

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www.wvdhhr.org/bph/hsc
10. Older West Virginians: Prostate Cancer

All men are at risk for prostate cancer, with the risk increasing with age: Over 70% of prostate cancer cases are diagnosed after the age of 65. African American men are at much higher risk than white men; their incidence rate is approximately 60% higher and their mortality rate is nearly twice as high. Men with a family history of prostate cancer are also at higher risk. Prostate cancer is the second leading cause of cancer death among all men, behind lung cancer. Over the 10 years from 1999 through 2008, 1,815 West Virginia men aged 65 and older died from prostate cancer. The 2008 mortality rate for prostate cancer among older men was 136.9 deaths per 100,000 population.

Screening is extremely important with prostate cancer. Prior to prostate specific antigen (PSA) testing, approved in 1986 by the Food and Drug Administration, about three-fourths of cases were diagnosed in the late stages; presently, about three-fourths of all cases are diagnosed in the early stages, with significantly improved survival rates. The American Cancer Society recommends that both the PSA and digital rectal examination (DRE) should be offered annually to all men beginning at age 50 and earlier (age 40 or 45) for those with additional risk factors.

Prostate Cancer Mortality by Age Group
- In 2007, prostate cancer mortality rates among older men were somewhat higher in the United States as a whole than in the state. As shown in the graph on the top right, the largest difference was seen among the oldest men, those aged 85 and older. The state rate was 441.7 deaths per 100,000 population, compared with a U.S. rate of 528.9.

Prostate Cancer Incidence
- Aggregated data from 2002-2006 from the West Virginia Cancer Registry showed that average annual prostate cancer incidence rates increased with age up to age 80, after which there was a small decline. The highest rate, 897.6 diagnoses per 100,000 population, was reported among men aged 75-79.

Prostate Cancer Screening
- The Behavioral Risk Factor Surveillance System (BRFSS) monitors the prevalence of prostate cancer screening through asking male respondents aged 40 and over if they have ever had either PSA or DRE screening. Overall, in 2010, 91.1% of all men aged 65 and older in West Virginia reported ever having had prostate cancer screening. The prevalence of screening increased with educational attainment.
- In 2010, 63% of West Virginia men aged 65 and older reported having had a PSA test within the past year.

Sources: West Virginia Cancer Registry; WV Health Statistics Center; National Center for Health Statistics; Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention
(See Appendix D for incidence rates for 5-year age groups between 65 and 85+.)
10. Older West Virginians: Prostate Cancer

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West Virginia Bureau for Public Health
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www.wvcancer.com

Data:
WV Cancer Registry
Office of Surveillance and Disease Control
West Virginia Bureau for Public Health
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www.wvcancerregistry.org

Data:
Health Statistics Center
West Virginia Bureau for Public Health
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www.wvdhhr.org/bph/hsc
11. Older West Virginians: 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. The two major types of diabetes are Type 1 diabetes, in which the pancreas produces little or no insulin and daily insulin injections are required, and Type 2 diabetes, the most common type, which occurs when the body either does not produce enough insulin or cannot use the insulin it makes, leading to insulin resistance.

Diabetes prevalence is monitored annually among adults nationwide by the Behavioral Risk Factor Surveillance System (BRFSS). In 2010, 21.3% of West Virginians aged 65 and older reported they had been diagnosed with diabetes; the national median among all older Americans in that year was 19.5%. In 2000, only 12.6% of older West Virginians and 14.1% of older Americans had been diagnosed with diabetes.

Diabetes by Gender and Age Group

- One in four (24.9%) West Virginia men aged 65-74 reported having diabetes in 2010, compared with 21.5% of women of that age. Among respondents aged 75 and older, similar rates of men and women reported diabetes, 19.5% of men and 19.1% of women.

Diabetes by Educational Attainment and Income

- Diabetes prevalence among older West Virginians decreased with increasing education. The rate among those respondents lacking a high school education was nearly twice that of college graduates, as seen in the graph to the right. While no pattern in prevalence was noted with income, older respondents with household incomes of $75,000 and greater were the least likely to report diabetes.

Diabetes Mortality

- Over the decade from 1999 through 2008, the mortality rate from diabetes among people aged 65 and older was consistently higher in the state than in the nation as a whole, as noted in the graph on the lower right.

- In 2008, the mortality rate for diabetes among men aged 65 and older was 202.1 deaths per 100,000 population, while the rate among women of the same ages was 170.3.

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center; National Center for Health Statistics.

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**Prevalence of Diabetes among People Aged 65 and Older by Gender and Age Group**

West Virginia BRFSS, 2010

**Prevalence of Diabetes among People Aged 65 and Older by Educational Attainment**

West Virginia BRFSS, 2010

**Mortality Rates for Diabetes among People Aged 65 and Older**

West Virginia and United States, 1999-2008

NOTE: ICD-10 codes E10-E14
11. Older West Virginians: Diabetes

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www.wvdhhr.org/bph/hsc
12. Older West Virginians: Influenza and Pneumonia

Influenza is a contagious lung disease caused by a virus that damages the lining of the respiratory tract. The disease can weaken the body, making it susceptible to contracting pneumonia, the most common complication of influenza. Influenza and pneumonia combined constitute the fifth leading cause of death among Americans aged 65 and older.

Seasonal influenza, or flu, vaccines can be up to 70% effective in preventing hospitalizations for both influenza and pneumonia among older people. Flu vaccinations are administered annually; a separate pneumococcal vaccination is also recommended for people aged 65 and older and is normally given as a single dose.

The Behavioral Risk Factor Surveillance System (BRFSS) monitors the percentage of the adult population that has received a flu shot in the past year, as well as having ever received the pneumonia vaccine. In 2010, 66.0% of respondents aged 65 and older in West Virginia had received a seasonal flu vaccination, while 62.4% reported having ever had a pneumonia immunization. The corresponding national medians were 67.4% for a flu shot and 68.6% for a pneumonia shot.

Vaccination by Gender and Age Group

- Similar percentages of state men and women aged 65-74 received a flu shot in 2010; men aged 75 and older were more likely than women of the same age to have received a vaccination.

- The same pattern by sex was noted for pneumonia immunization. Men aged 75 and older were more likely to have ever had a pneumonia shot than were their female counterparts.

Influenza/Pneumonia Mortality

- No significant differences were noted between the state and the nation in mortality rates for influenza/pneumonia over the decade from 1999 through 2008. The state’s 2008 rate among residents aged 65 and older was 116.8 deaths per 100,000, compared with a rate of 124.6 for the United States.

- The influenza/pneumonia mortality rate among residents aged 75 and older was 203.9 deaths per 100,000 population in 2008; the rate among residents aged 85 and older was 401.7.

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center; National Center for Health Statistics
For further information, contact:

Program:
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www.wvdhhr.org/bph/hsc
Dementia, which includes Alzheimer’s disease as well as vascular and other dementias, refers to severe loss of mental function. The causes of nontraumatic dementia are thought to have a vascular basis, subject to the same risk factors as stroke and other cardiovascular illness. The greatest risk factor for dementia, however, is age, with women more likely to be diagnosed with the disease than men due to their longer life expectancies.

Cases of diagnosed dementia and, in particular, Alzheimer’s disease, have soared over the past few decades, to the point that most people now know of someone or have a family member with the illness. As the baby boomer generation ages, an avalanche of new cases is predicted, causing a catastrophic drain on the health care system and the families of patients. Over the decade from 1999 through 2008, 8,820 West Virginians aged 65 and older died from dementia, 2,468 men and 6,352 women. Over one-half of these deaths (4,792) were due to Alzheimer’s disease.

Prevalence of Alzheimer’s Disease by Age Group

The Alzheimer’s Association estimated that there were approximately 44,000 people aged 65 and older living with Alzheimer’s disease in West Virginia in 2010. By 2025, this number is expected to increase to over 50,000, as shown in the table below. This will include approximately 3,000 to 4,000 people aged 65-74, 26,000 people aged 75-84, and 21,000 people aged 85 and older.

<table>
<thead>
<tr>
<th>Projected Number of People (in 1,000’s) with Alzheimer’s Disease by Age Group West Virginia, 2000-2025</th>
<th>65-74</th>
<th>75-84</th>
<th>85 and Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2.7</td>
<td>21.0</td>
<td>16.0</td>
</tr>
<tr>
<td>2010</td>
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<td>22.0</td>
<td>19.0</td>
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<td>3.2</td>
<td>22.0</td>
<td>20.0</td>
</tr>
<tr>
<td>2025</td>
<td>3.5</td>
<td>26.0</td>
<td>21.0</td>
</tr>
</tbody>
</table>

Dementia Mortality by Gender and Age Group

In 2008, 1,392 people aged 65 and older died from dementia in West Virginia, 402 men and 990 women. Of these, 653 (177 men and 476 women) had a diagnosis of Alzheimer’s disease.

The overall mortality rate from dementia in 2008 was 488.3 deaths per 100,000 population. As noted in the graph on the top right, the rate increased dramatically by age group.

Alzheimer’s Disease Mortality, 1999-2008

The mortality rate for Alzheimer’s disease doubled in both West Virginia and the United States over the decade from 1999-2008. The state and national rates have been similar over the time period, as shown in the graph on the bottom right.

Sources: Alzheimer’s Association; WV Health Statistics Center; National Center for Health Statistics
13. Older West Virginians: Alzheimer’s Disease and Other Dementias

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www.wvdhhr.org/bph/hsc
14. Older West Virginians: Chronic Lower Respiratory Diseases

Chronic lower respiratory disease (CLRD) is a serious illness characterized by shortness of breath caused by airway obstruction. Overall, CLRD is the third leading cause of death in West Virginia, as well as among state residents aged 65-84, after which it drops to sixth. Only heart disease and cancer claim the lives of more West Virginians.

Three major diseases make up the category of CLRD: (1) chronic bronchitis and (2) emphysema, which together are referred to as COPD and account for the majority of cases and mortality, and (3) asthma. Tobacco smoking is by far the most important risk factor for chronic bronchitis and emphysema, accounting for about 80% of all cases. From 1999 through 2008, 11,231 West Virginians aged 65 and older died from CLRD; of these, 5,396 were men and 5,835 were women. The state’s mortality rates for CLRD have traditionally been higher than the national rates, mirroring the state’s higher smoking rates.

CLRD Mortality by Gender and Age Group

- The 2008 rate of CLRD mortality among state residents aged 65 and older was 467.2 deaths per 100,000 population; the comparable U.S. rate was 311.9.

- The 2008 mortality rates among West Virginia men and women aged 65 and older were 512.2 and 434.0 per 100,000 population, respectively.

- The 2008 mortality rates among state men and women aged 75 and older were 841.5 and 610.6 per 100,000 population, respectively.

Smoking Prevalence by Gender and Age Group

- According to data from the Behavioral Risk Factor Surveillance System (BRFSS), in 2010 more than one in 10 (10.8%) older West Virginians were current smokers; the 2010 national median for the 65 and older population was 8.4%.

- Overall, and from ages 65-74, men were more likely to smoke than women (11.6% vs.10.2%, respectively); however, women aged 75 and older were found to have a higher prevalence of current smoking than men of the same age (7.4% vs. 5.5%, respectively).

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center; National Center for Health Statistics
14. Older West Virginians: Chronic Lower Respiratory Diseases

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www.wvdhhr.org/bph/hsc
15. Older West Virginians: Asthma

Asthma is a chronic lung disease affecting many West Virginians of all ages. Asthma is characterized by overly sensitive airways that become inflamed through exposure to certain triggers and produce symptoms such as wheezing, breathlessness, chest tightness, and coughing. There is no cure for asthma, but symptoms can be controlled through the appropriate use of medication and the avoidance of known triggers. Uncontrolled and poorly managed asthma can lead to illness, emergency room visits, and hospitalizations. Although death from asthma is uncommon, it is more likely among older women than among older men.

The Behavioral Risk Factor Surveillance System (BRFSS) monitors the prevalence of respondents who report they currently have asthma, as well as those who have ever been told they have the condition. In 2010, a total of 7.2% of West Virginians aged 65 and older reported that they currently had asthma. The corresponding national median rate among older Americans was 8.0%.

### Asthma by Gender and Age Group
- Overall, in 2010, 6.6% of men aged 65 and older and 7.6% of women aged 65 and older in the state reported having current asthma.
- Respondents aged 65 through 74 were more likely to report having asthma than those who were 75 years old or older. This was true for both men and women.

### Asthma by Education and Income
- No pattern was noted for the prevalence of current asthma when educational attainment was examined among West Virginians aged 65 and older.
- Current asthma was more frequently reported among older respondents with incomes of less than $35,000 than those with higher incomes. The lowest rate (2.8%) was noted among older West Virginians with household incomes of $75,000 or greater.

### Asthma Hospitalizations
- Between 1999 and 2009, the rate of asthma hospitalizations among West Virginia residents aged 65 and older increased from 16.0 hospitalizations per every 10,000 hospitalizations to 28.0.
- Hospitalization rates among older women have consistently been higher than those among older men, as seen in the graph to the right. In 2009, the female rate was 35.4, compared with a male rate of 18.1.

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center; WV Health Care Authority
15. Older West Virginians: Asthma

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www.wvdhhr.org/bph/hsc
16. Older West Virginians: Arthritis

Arthritis is the leading cause of disability in the United States, as well as being second only to heart disease as a cause of work disability. One of the most common chronic conditions reported, arthritis actually comprises more than 100 diseases that involve the joints, the tissues that surround the joints, and other connective tissue. The condition affects people of all ages, but prevalence increases with age, striking over one-half of all people over the age of 65.

The Behavioral Risk Factor Surveillance System (BRFSS) collects information on arthritis by asking 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?" Data from the 2009 BRFSS showed that 59.5% of West Virginia respondents aged 65 and older answered "yes" when asked this question, similar to the U.S. median among older Americans of 57.0%.

Arthritis Prevalence by Gender and Age Group

- Overall, male residents aged 65 and older reported a prevalence of arthritis of 53.6%, while older women had a prevalence of 63.8%, a rate nearly 20% higher than that among men.

- West Virginia’s men aged 65 through 74 reported higher rates of arthritis than those aged 75 and older, as shown in the graph on the top right; the opposite was true for women, however, with women aged 75 and older more likely than those aged 65 through 74 to have arthritis.

Arthritis Prevalence by Education and Income

- Little difference in arthritis prevalence among residents aged 65 and older was noted by educational attainment, with the exception of respondents with a college education, who were less likely than other respondents to report having arthritis.

- A decrease in arthritis prevalence among older West Virginians was found with increased household income up to $75,000.

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center
16. Older West Virginians: Arthritis

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www.bonenjoint.org

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West Virginia Bureau for Public Health
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www.wvdhhr.org/bph/hsc
Mental health is essential to overall health and well-being. Changes in physical health, family and friendships, and living situations can all affect the mental health of older adults. Many chronic illnesses such as heart disease, arthritis, and cancer can trigger symptoms of clinical depression, as can the death of a spouse or other loved ones. Untreated mental health conditions can cause functional impairment, cognitive disability, inappropriate use of health resources, and untold family and individual suffering. It has been estimated that up to 63% of older adults with a mental health problem do not receive the appropriate treatment.

The Behavioral Risk Factor Surveillance System (BRFSS) monitors self-reported mental health problems through its monthly surveys. Overall, in West Virginia, one in five (19.7%) survey respondents aged 65 and older reported that he or she had one or more days in the month preceding the interview when their mental health was not good. Twelve percent (11.9%) said they had been diagnosed with depression, while 10.0% had been told they had an anxiety disorder.

Mental Health Problems by Gender and Age Group

- Research has shown that women have traditionally been more likely than men to acknowledge mental health problems and seek treatment. BRFSS data from West Virginia support that finding: women aged 65 and older were more likely than men to report bad mental health days (21.0% vs. 18.0%), as well as having been diagnosed with either depression (14.9% vs. 7.9%) or anxiety (12.8% vs. 6.0%). This was found to be true in both the 65-74 and 75 and older age groups.

Suicide Mortality by Gender and Age Group

- Aggregated mortality data from 1999 through 2008 show that there were a total of 510 suicides among West Virginian residents aged 65 and older over the 10-year period. Older men were much more likely to take their own lives than older women: 463 of the 510 suicides were men and 47 were women.

- In 2007, the state mortality rate for men aged 65 and older was 38.6 deaths per 100,000 population; the rate among women was 4.3. The comparable U.S. rates were 28.6 and 3.9, respectively.

- The 1999-2008 data show a significant rise in the suicide rate among men with increasing age, as indicated in the graph on the lower right. The rate among women, on the other hand, decreased with age.
17. Older West Virginians: Mental Health

For further information, contact:

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Office of Behavioral Health Services
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www.wvdhhr.org/bph/hsc
Cigarette smoking is the leading cause of preventable disease and premature death. Smoking affects every organ in the body and is strongly associated with many illnesses and chronic conditions, including coronary heart disease, stroke, cancer (especially lung cancer), chronic obstructive pulmonary disease, and lower bone density in postmenopausal women. Secondhand, or passive, smoke is also detrimental to the health of those exposed to it. The Behavioral Risk Factor Surveillance System (BRFSS) monitors smoking prevalence among adults nationally and statewide, defining current smoking as having smoked 100 cigarettes in one’s lifetime and currently smoking every day or on some days of the week. In 2010, more than one in 10 (10.8%) older West Virginians continued to smoke, while 8.4% of the 65 and older population in the United States as a whole were current smokers.

### Smoking Prevalence by Gender and Age Group
- Overall, and from ages 65 through 74, men were more likely to smoke than women; however, women aged 75 and older were found to have a higher prevalence of current smoking than men of the same age (7.4% and 5.5%, respectively).
- Nearly one-half (49.5%) of older West Virginians have never smoked, while approximately four in 10 smoked at one time but have since quit. These percentages are similar to the national medians, as shown in the graph on the right.
- West Virginia men over the age of 65 were more likely to report being a former smoker (55.2%) than women (28.2%). Women, on the other hand, were more likely than men to have never smoked (61.6% vs. 33.1%).

### Smoking Prevalence by Education and Income
- The prevalence of current smoking among older West Virginians was shown to decrease steadily with increased educational attainment, from 16.5% among those with less than a high school education to just 4.8% among those with a college degree.
- As with education, current smoking rates among West Virginians aged 65 and older decreased with increased household income.
- No similar patterns in prevalence were found for former smoking or never smoking by either educational attainment or household income.

Source: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center
For further information, contact:

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www.wvdhhr.org/bph/hsc
19. Older West Virginians: Obesity and Overweight

Obesity has a significant negative effect on health, regardless of an individual’s age, affecting both the quality and quality of one’s life. Being obese has been associated with a greater risk of cardiovascular disease, hypertension, diabetes, certain cancers, asthma and other respiratory problems, and osteoarthritis. Significant overweight has been linked to prolonged inflammation of the heart tissue. The increase in obesity nationally and statewide has been dramatic, as shown in the graph on the top right.

The Behavioral Risk Factor Surveillance System (BRFSS) monitors the prevalence of overweight and obesity classifications through body mass index (BMI), i.e., a calculation derived from an individual’s height and weight. Obesity is classified as having a BMI of 30 or greater, while overweight is classified as having a BMI of 25.0-29.9. In 2010, the prevalence of obesity among respondents aged 65 and older in the state was 25.9%; the national median among older individuals was 24.4%. Similar rates of overweight among older people were found in the state and nation (39.6% and 40.1%, respectively).

Obesity Prevalence by Gender and Age Group

- In 2010, older men in the state had an overall prevalence of obesity of 23.8%, lower than the rate of 27.5% among older women.
- Little difference between the sexes was noted for ages 65 through 74, with 34.2% of men and 34.4% of women being obese. Women aged 75 and older, however, were over twice as likely as men the same age to be obese, with rates of 20.7% and 9.2%, respectively.

Obesity Prevalence by Education and Income

- The 2010 prevalence of obesity among West Virginians aged 65 and older decreased with educational attainment, with rates ranging from a high of 28.5% among people with less than a high school education to a low of 19.7% among those with a college degree.
- The same pattern was noted between obesity and household income. Three out of 10 (30.1%) older respondents with incomes of less than $15,000 were obese, compared with 23.2% of those with household incomes of $75,000 or more.

Source: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center (See Appendix E for data used in the top graph.)
19. Older West Virginians: Obesity and Overweight

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www.wvdhhr.org/bph/hsc
20. Older West Virginians: Physical Activity and Nutrition

Physical activity and proper nutrition are the keys to healthy aging. Physical inactivity and poor nutrition are each independent risk factors for many conditions, including high blood pressure, obesity, diabetes, osteoporosis, arthritis, cardiovascular diseases, and certain cancers. The majority of older West Virginians do not exercise enough to achieve the benefits associated with regular physical activity; to add to the problem, they consume too much saturated fat and too few servings of fruits and vegetables that are high in nutrients such as vitamins, minerals, and healthy carbohydrates.

The U.S. Centers for Disease Control and Prevention (CDC) recommends two hours and 30 minutes of moderate-intensity or one hour and 15 minutes of vigorous-intensity aerobic activity per week for adults, along with muscle-strengthening activities on two or more days. The CDC also recommends eating at least five servings of fruits and vegetables every day for adequate nutrition.

According to 2010 Behavioral Risk Factor Surveillance System (BRFSS) data, 39.8% of state respondents aged 65 and older reported that they had not participated in any leisure-time physical activities in the past month. The corresponding national median in that year was 32.4%. In 2009, 81.3% of older West Virginians did not consume five or more servings of fruits/vegetables on a daily basis; the national median was 72.5%.

Physical Inactivity by Gender and Age Group
- In 2010, older women in West Virginia were less likely than older men to participate in leisure-time physical activities at all ages, as shown in the graph on the top right.

Meeting CDC Recommendations for Physical Activity
- Among all West Virginians aged 65 and older in 2009, only slightly more than one-fourth (26.7%) met the CDC recommendations for physical activity, much lower than the corresponding U.S. median of 40.1%. Older women in the state were less likely than older men to exercise at the recommended level at all ages over 65.

Fruit and Vegetable Consumption
- The graph on the lower right illustrates the prevalence of inadequate fruit and vegetable consumption by older West Virginians. Little difference was seen between the sexes in 2009 in terms of those respondents who reported eating fewer than five servings of fruits and vegetables daily.

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center
20. Older West Virginians: Physical Activity and Nutrition

For further information, contact:

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www.wvdhhr.org/bph/hsc
Hypertension, or high blood pressure, has long been recognized as a major risk factor for heart attack and the number one risk factor for congestive heart failure and stroke. In West Virginia, hypertension is the primary cause of kidney failure. High cholesterol is a major risk factor for heart attack and stroke. Cholesterol is found naturally in the body, but having too much of a type of cholesterol called low density lipoprotein (LDL) in the blood can result in the formation of plaque in the arteries, narrowing the space for blood flow and sometimes resulting in the formation of a blood clot. Poor blood flow to the heart can increase the risk of heart attack, while decreased blood flow to the brain can cause a stroke.

The likelihood of developing high blood pressure and/or high cholesterol increases with age for both sexes. The Behavioral Risk Factor Surveillance System (BRFSS) monitors both of these risk factors on a biennial basis. In 2009, 63.5% of West Virginians aged 65 and older reported having hypertension; the national median was 59.0%. In the same year, 48.3% of older state residents who had had their cholesterol checked had been told it was high; the median among older Americans in that year was 53.0%.

Hypertension by Gender and Age Group

- Similar rates of hypertension were reported by men and women aged 65 through 74 (63.3% and 60.7%, respectively). Women aged 75 and older were more likely to have been diagnosed with high blood pressure (69.2%) than men of the same age (58.7%).

High Cholesterol by Gender and Age Group

- As noted with hypertension, little difference in high cholesterol prevalence was found between men and women aged 65 through 74 (51.5% and 52.9%, respectively). Among survey respondents aged 75 and older, however, women were markedly more likely at 51.0% to report having high cholesterol than were men of that age (32.2%).

Sources: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center
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Accidental falls and motor vehicle accidents are the first and second leading causes of injury death, respectively, among people aged 65 and older in the United States and in West Virginia. The U.S. Centers for Disease Control and Prevention (CDC) estimates that, each year, one in every three individuals aged 65 and older will suffer a fall. Falls can result in severe injuries including fractures, especially of the hip, and head trauma. A large proportion of deaths from falls occur due to complications following a hip fracture; an estimated 20% of hip fracture patients die within one year of their injury. Age increases the risk of a hip fracture, with people aged 85 and older 10 to 15 times more likely to fracture a hip than those aged 60 to 65. Women are more likely than men to sustain a hip fracture, and white women are more at risk than women of other races. Osteoporosis is a major risk factor for fractures. In the decade from 1999 through 2008, 1,206 older West Virginians died as the result of a fall.

Older drivers are second only to teen drivers in the risk of sustaining injury or dying in a motor vehicle accident, according to the American Automobile Association. Compared with drivers aged 55-64, those aged 65 and older are almost twice as likely to die in car crashes. The risk increases dramatically with age: Drivers aged 75 and older are more than two-and-one-half times more likely to die in a crash than those aged 55-64, and those over the age of 85 are almost four times more likely to die in a crash. Because of slowed reaction times, failing eyesight, the effects of illness, and lapses in perception, it is vital that the driving skills of older drivers be assessed frequently. From 1999-2008, 706 state residents aged 65 and older died from injuries sustained in a motor vehicle accident.

Accidental Fall Mortality by Gender and Age Group

- While older women are at higher risk for sustaining a hip fracture from a fall, older men in West Virginia are at greater risk of dying from a fall, as shown in the graph on the upper right. Aggregated data from 2004-2008 show higher mortality rates from falls among men than among women at all ages over the age of 65.

- In 2007, the mortality rate from falls was somewhat higher in the state than in the nation for all age groups over the age of 65. The difference was greatest among people aged 65-74 (79.6 deaths per 100,000 population in West Virginia vs. 50.3 in the United States).

Motor Vehicle Accident Mortality by Gender and Age Group

- Aggregated 2004-2008 data show that older men in West Virginia are much more likely to die as the result of a motor vehicle accident than older women. The graph on the lower right illustrates the higher mortality rates among men of all ages over 65, a difference particularly marked in the age group of 85 and older.

- In 2007, the motor vehicle accident rate among the oldest old (people aged 85 and older) was almost twice as high in West Virginia than in the United States as a whole (41.3 deaths per 100,000 population vs. 23.2)

Sources: U.S. Centers for Disease Control and Prevention; American Automobile Association; WV Health Statistics Center; National Center for Health Statistics
For further information, contact:

Data:
Health Statistics Center
West Virginia Bureau for Public Health
350 Capitol Street, Room 165
Charleston, WV 25301
Phone: 304.558.9100

www.wvdhhr.org/bph/hsc
An individual’s overall health is closely linked to his or her dental health. Associations exist between dental disease and systemic disease such as heart and lung disease, stroke, and diabetes. As the U.S. Surgeon General states in *Oral Health in America*, we “. . . cannot be healthy without oral health. . . . Oral diseases . . . can affect our ability to eat, the foods we choose, how we look, and the way we communicate.”

The Behavioral Risk Factor Surveillance System (BRFSS) monitors dental health in terms of tooth loss and utilization of dental resources. According to 2010 BRFSS survey data, West Virginians aged 65 and older were more than twice as likely as their counterparts nationally to have lost all of their natural teeth. Thirty-six percent (36.0%) of older West Virginians reported having no natural teeth, compared with a national median of 17.0%. West Virginia reported the highest rate of total tooth loss among respondents aged 65 and older among all 54 states and territories that participated in the survey.

### Tooth Loss by Age Group and Gender

- In 2010, one-third (33.1%) of state residents aged 65 through 74 had no natural teeth, while 39.4% of those aged 75 and older had no teeth. Men and women aged 65 and older reported similar rates of having no natural teeth, 36.9% of men and 35.4% of women.

### Tooth Loss by Educational Attainment and Income

- Educational attainment and household income are major factors in tooth loss. More than six out of 10 (60.8%) older West Virginians who did not finish high school reported having no teeth, while only 10.8% of college graduates did so.

- Older respondents who had household incomes of less than $35,000 were more likely to have no permanent teeth than those with higher incomes.

### Dental Visits and Dental Hygiene

- Slightly less than half (48.5%) of state residents aged 65 and older said they had visited a dentist for any reason in the past year, 48.1% of men and 48.8% of women.

- Income was directly associated with receiving dental care. Respondents with incomes of $35,000 or greater were markedly more likely to have seen a dentist or had their teeth cleaned within the past year than those respondents with lower incomes.

Source: Behavioral Risk Factor Surveillance System, U.S. Centers for Disease Control and Prevention; WV Health Statistics Center
23. Older West Virginians: Dental Health

For further information, contact:

Program:
Oral Health Program
Office of Maternal, Child and Family Health
350 Capitol Street, Room 427
Charleston, WV 25301
Phone: 1.800.642.9704

www.wvdhhr.org/mcfh/ICAH/oral_health_program.asp

Data:
Health Statistics Center
West Virginia Bureau for Public Health
350 Capitol Street, Room 165
Charleston, WV 25301
Phone: 304.558.9100

www.wvdhhr.org/bph/hsc
Violence of any type is devastating to an individual’s physical and mental health and well-being. Violence can be especially harmful to an older individual who may already be dealing with other physical or mental health problems and is now faced with the risk of additional chronic pain or physical disability. There currently is no uniform reporting system on the abuse of older adults, but the National Coalition Against Domestic Abuse estimates that 2.1 million older Americans are abused each year. While definitions of elder abuse differ, mistreatment of older individuals includes physical, sexual, and emotional abuse, as well as neglect or financial exploitation. According to the National Elder Abuse Incidence Study, conducted by the National Center on Elder Abuse, the perpetrator in approximately 90% of elder abuse cases is a family member, with about two-thirds being spouses or adult children. The same study estimated that only about one in six cases of older adult abuse is reported to authorities.

**Violent Crimes and Older West Virginians**

- According to West Virginia State Police (WVSP) data⁴, a total of 494 people aged 65 and older were the victims of violent crime in West Virginia in 2009, 234 men and 260 women. Violent crimes are defined as murder, forcible sex offenses, kidnapping or abduction, assaults, and robbery.

- 272 of the offenses committed against older West Virginians were defined by the WVSP as domestic violence related. The most frequently reported domestic violence offenses are shown in the graph on the upper right, including 190 cases of simple assault, 30 of aggravated assault, and 47 of intimidation.

**Intimate Partner Violence and Older West Virginians**

- The Behavioral Risk Factor Surveillance System (BRFSS) included questions on intimate partner violence (IPV)⁵ in 2006 and 2007. Aggregated data from the two years indicate that more than one in five (22.3%) women aged 65 and older in West Virginia had experienced IPV at some time in their lives. Seven percent (6.6%) of older men had ever experienced IPV.

- One in 10 (10.7%) older women had been physically hurt (hit, slapped, pushed, or kicked) by an intimate partner. Among men aged 65 and older, 2.1% reported having been physically hurt by an intimate partner.

- When asked if they had ever experienced unwanted sex by a current or former intimate partner, 4.7% of women aged 65 and older answered yes to the question.

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⁴ Data on crime in the state are collected through the West Virginia Incident Based Reporting System and published by the State Police annually in a report titled *Crime in West Virginia*.

⁵ Defined as threatened, attempted, or completed physical or sexual violence or emotional abuse by a current or former intimate partner (spouse, ex-spouse, current or former boyfriend or girlfriend, or dating partner).
24. Older West Virginians: Violence

For further information, contact:

Data:
West Virginia State Police
725 Jefferson Road
South Charleston, WV 25309
Phone: 304.746.2100

www.wvstatepolice.com/ucr/ucr.htm

Data:
Health Statistics Center
West Virginia Bureau for Public Health
350 Capitol Street, Room 165
Charleston, WV 25301
Phone: 304.558.9100

www.wvdhhr.org/bph/hsc
### A. Fact Sheet 1 Appendix

**Percentage of Population Who Are 65 Years and Older by County**

**West Virginia, 2005-2009**

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Ranked highest (1) to lowest (55)

Source: 2005-2009 American Community Survey 5-Year Estimates
### Percentage of Households with One or More People Aged 65 and Older
#### West Virginia, 2005-2009

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Ranked highest (1) to lowest (55)
Source: 2005-2009 American Community Survey 5-Year Estimates
### Percentage of Population Aged 65 Years and Older Living Below the Poverty Level by County

**West Virginia, 2005-2009**

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<tr>
<td>Wayne</td>
<td>14.8</td>
<td>14</td>
</tr>
<tr>
<td>Webster</td>
<td>10.4</td>
<td>36</td>
</tr>
<tr>
<td>Wetzel</td>
<td>10.5</td>
<td>35</td>
</tr>
<tr>
<td>Wirt</td>
<td>11.5</td>
<td>27</td>
</tr>
<tr>
<td>Wood</td>
<td>8.9</td>
<td>44</td>
</tr>
<tr>
<td>Wyoming</td>
<td>11.0</td>
<td>32</td>
</tr>
</tbody>
</table>

**WV Total** 10.8

Ranked highest (1) to lowest (55)

Source: 2005-2009 American Community Survey 5-Year Estimates
### Average Annual Incidence Rates* for All Site, Lung and Bronchus, Colorectal, Female Breast, and Prostate Cancers by Age Groups over 65
#### West Virginia, 2002-2006

<table>
<thead>
<tr>
<th></th>
<th>65-69</th>
<th>70-74</th>
<th>75-79</th>
<th>80-84</th>
<th>85 and Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Site</td>
<td>1,809.9</td>
<td>2,282.1</td>
<td>2,566.6</td>
<td>2,537.5</td>
<td>2,171.5</td>
</tr>
<tr>
<td>Lung**</td>
<td>399.3</td>
<td>543.1</td>
<td>562.0</td>
<td>525.9</td>
<td>346.8</td>
</tr>
<tr>
<td>Colorectal**</td>
<td>205.7</td>
<td>286.9</td>
<td>357.7</td>
<td>392.5</td>
<td>401.8</td>
</tr>
<tr>
<td>Female Breast**</td>
<td>343.2</td>
<td>381.2</td>
<td>445.0</td>
<td>375.1</td>
<td>302.8</td>
</tr>
<tr>
<td>Prostate**</td>
<td>694.0</td>
<td>856.3</td>
<td>897.6</td>
<td>757.7</td>
<td>713.5</td>
</tr>
</tbody>
</table>

*Rates are diagnoses per 100,000 population
**Invasive cancers
## Prevalence (%) of Obesity (BMI 30+) among People Aged 65 and Older

**West Virginia and United States, 2000-2010**

<table>
<thead>
<tr>
<th>Year</th>
<th>West Virginia</th>
<th>United States (median)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>15.8</td>
<td>18.3</td>
</tr>
<tr>
<td>2001</td>
<td>18.1</td>
<td>19.8</td>
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<tr>
<td>2002</td>
<td>20.9</td>
<td>19.5</td>
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<tr>
<td>2003</td>
<td>20.5</td>
<td>19.9</td>
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<tr>
<td>2004</td>
<td>22.6</td>
<td>20.3</td>
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<tr>
<td>2005</td>
<td>23.8</td>
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<tr>
<td>2006</td>
<td>25.7</td>
<td>22.0</td>
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<tr>
<td>2007</td>
<td>23.6</td>
<td>23.0</td>
</tr>
<tr>
<td>2008</td>
<td>23.5</td>
<td>22.9</td>
</tr>
<tr>
<td>2009</td>
<td>24.3</td>
<td>23.9</td>
</tr>
<tr>
<td>2010</td>
<td>25.9</td>
<td>24.4</td>
</tr>
</tbody>
</table>