West Virginia Behavioral Risk Factor Surveillance System Report









# 2012



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

*Earl Ray Tomblin, Governor Karen L. Bowling, Cabinet Secretary* 

# WEST VIRGINIA BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM REPORT 2012

Earl Ray Tomblin Governor

Karen L. Bowling Cabinet Secretary Department of Health and Human Resources

Letitia E. Tierney, MD, JD Commissioner & State Health Officer Bureau for Public Health

Anne Williams, RN, BSN, MS-HCA Deputy Commissioner, Health Improvement Bureau for Public Health

> Daniel M. Christy, MPA Director Health Statistics Center

### **Report Prepared By**

Birgit A. Shanholtzer, MA Senior Epidemiologist Associate Director Health Statistics Center

### **Division of Behavioral Surveillance Staff**

Phillipa Lewin, Division Director Fred King, Division Director (former) John McLaury, Programmer/Analyst

### Epidemiology Section Staff Tonya Yablonsky, BRFSS Epidemiologist

### **2012 BRFSS Interviewers**

Rebecca Park, Gale Ardman, Betty Wilson, Shenandoah Gore, Laura Elswick, Michael Hunter, Sandra Johnson, Carolyn J Hunter, Vickie Hairston, Sarah Elliott, Newman Jackson, Linda Maxwell, Deborah Pack, Mima Chapman, Annemarie Barnes, Norman Jackson, Kimberly Shrader, Richard Bertolotti, Jasmine Handley, Ayrista Miller

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### INTRODUCTION

Each year since 1984, the West Virginia Behavioral Risk Factor Surveillance System has measured a range of risk factors that can affect our health. This report presents state survey results for the year 2012 as well as county data combined for the latest available five years (typically 2008 through 2012).

The survey is conducted by telephone and represents a collaborative effort between the West Virginia Health Statistics Center (WVHSC) and the Centers for Disease Control and Prevention (CDC) in Atlanta. Standardized survey methods are provided by the CDC. All 50 states, the District of Columbia, and several U.S. territories now participate in the system, known as the Behavioral Risk Factor Surveillance System (BRFSS).

The information in this document serves as a resource for governments, business leaders, schools, and community groups, all of which are helping to shape the health of West Virginia.

### **HIGHLIGHTS OF FINDINGS**

#### **Health Status**

- West Virginia ranked 2<sup>nd</sup> highest nationally in the prevalence of general health of adults as either fair or poor.
- Over one-fourth of West Virginia adults (25.2%) considered their health to be either fair or poor.
- Fair/poor health was most common among groups of adults aged 65 and older, those with less than a high school education, and those who have an annual household income of less than \$15,000.
- The prevalence of fair/poor health was significantly higher among White, Non-Hispanics than among Hispanics.
- Approximately 16.8% reported poor physical health for at least 14 days in the past 30 days and 15.2% reported poor mental health at least 14 days in the past 30 days.

### **Health Care Access**

- About one-fourth of West Virginia adults (18 to 64) have no health care coverage (24.2%).
- Among adults of all ages, slightly less than one-fifth needed medical care within the past 12 months and could not afford it (19.1%).
- More than one-fifth of all adults also do not have a personal doctor or health care provider (23.9%).
- Almost one-fourth of West Virginia adults did not have a routine checkup in the past year (24.7%).

### **Physical Activity**

- Almost one-third of West Virginia adults (31.0%) participate in no leisure-time physical activity or exercise which ranked West Virginia 3<sup>rd</sup> highest in the nation.
- The prevalence of physical inactivity was significantly higher among women than men.
- The prevalence of physical inactivity among White, Non-Hispanics was significantly higher than the prevalence among Multiracial, Non-Hispanics.
- The prevalence of physical inactivity was highest in Lincoln, Logan, McDowell, Mingo, and Wyoming counties.

### **Oral Health**

- Almost half of all West Virginia adults did not have a dental visit in the past year (43.6%) which was 5<sup>th</sup> highest in the U.S.
- A majority of those with less than a high school education had no dental visit in the past year (69.3%) as did those with an annual household income of less than \$15,000 (67.3%).
- More than half of West Virginia adults had 1 or more permanent teeth extracted (62.3%) which ranked the State 2<sup>nd</sup> highest in the nation.
- About one-third of adults aged 65 and older were missing all their teeth (33.7%), the highest in the nation.

### Weight Status

- The prevalence of obesity in West Virginia was 33.8%, 4<sup>th</sup> highest in the nation.
- The prevalence of obesity was significantly higher in Wirt County than the rest of the State.
- Approximately two-thirds (68.3%) of West Virginia adults were either obese or overweight, 4<sup>th</sup> highest in the U.S.
- Only 20.7% of all adults had been advised by a health care professional to lose weight.

### **Tobacco Use**

- More than one-fourth of adults (28.2%) currently smoke cigarettes every day or some days which ranked West Virginia the 2<sup>nd</sup> highest nationally.
- The prevalence of cigarette smoking was significantly higher among Multiracial, Non-Hispanics than among White, Non-Hispanics.
- Approximately 51.0% of current smokers had tried to quit smoking in the past year which was lowest in the nation.
- West Virginia ranked the highest in the nation in smokeless tobacco use (8.6%).

### **Cancer Screening**

- Among women aged 40 and older, 27.8% had not had a mammogram in the past 2 years.
- Almost one-fourth of adult women in West Virginia did not have a Pap test in the past 3 years (24.0%).
- Among men aged 50 and older, 50.8% did not have a prostate specific antigen (PSA) test in the past year.
- A large proportion of adults aged 50 and older did not have a fecal occult blood test (FOBT) in the past year (87.1%) which ranked West Virginia the 6<sup>th</sup> lowest in the nation.
- Among adults aged 50 and older, 40.0% have not had a sigmoidoscopy or colonoscopy in the past 10 years.

### **Alcohol Consumption**

- The prevalence of binge drinking among West Virginia adults was 10.2%, the lowest in the nation.
- The West Virginia heavy drinking prevalence was 3.5% which was also the lowest in the nation.
- In West Virginia, 68.1% of adults did not drink at all in the past month, compared with 47.0% nationally which ranked the State the 3<sup>rd</sup> highest.

### Injury

- Approximately 80.7% of West Virginia adults always wear a seat belt when they drive or ride in a car.
- Women had a significantly higher prevalence of seat belt use than men.
- Over one-fourth of West Virginia adults aged 45 and older fell during the past year (27.6%) and among those 34.8% suffered an injury from the fall.

### Immunization

- About half of all adults (56.1%) and 31.1% of seniors did not have a flu immunization in the past 12 months.
- About 67.5% of all adults and 32.0% of seniors never had a pneumonia vaccination.
- About 8.3% of West Virginia adults ages 18-49 had at least 1 of the HPV vaccine shots.

### **Cardiovascular Disease**

- West Virginia ranked the highest in the nation in the prevalence of heart attack among adults at 7.4%.
- West Virginia also ranked highest in the prevalence of angina or coronary heart disease among adults (8.5%).
- For the prevalence of stroke among adults, West Virginia ranked 4<sup>th</sup> highest nationally (4.2%).
- The overall cardiovascular disease prevalence was highest in the nation at 14.8%.
- The prevalence of cardiovascular disease was highest among those with less than a high school education (27.7%) and annual household income less than \$15,000 (25.6%).
- The prevalence of cardiovascular disease was significantly higher in Boone, Logan, McDowell, Raleigh, and Wayne counties than the State as a whole.

#### Diabetes

- Approximately 8.3% of West Virginia adults had borderline or pre-diabetes.
- More than 1 in 10 West Virginia adults had diabetes (13.0%) and ranked West Virginia the highest nationally.
- The prevalence of diabetes was significantly higher among White, Non-Hispanics and Black, Non-Hispanics than among Multiracial, Non-Hispanics and Hispanics.
- The prevalence of diabetes was highest among those aged 65 and older, those with less than a high school education, and those with an annual household income of less than \$15,000.
- Among those with diabetes, 78.4% had 2 or more doctor visits in the past year, 66.1% check their glucose daily, and 48.2% have taken a diabetes education class.
- Among those with diabetes, 18.5% have retinopathy or diabetes associated eye problems.

### Cancer

- Approximately 7.1% of West Virginia adults had skin cancer and 7.5% had some other type of cancer.
- About 1 in 8 West Virginia adults are cancer survivors (13.3%).
- Cancer prevalence was significantly higher among females than males.
- Over one-fourth of West Virginia seniors had cancer during their lifetime (29.0%).

### **Respiratory Diseases**

- Approximately 12.7% of West Virginia adults had ever been diagnosed with asthma and 10.2% of West Virginia adults currently had asthma.
- Women had significantly higher prevalence of both lifetime and current asthma than men.
- The prevalence of current asthma was highest among those without a high school diploma and those with an annual household income of less than \$15,000.
- The prevalence of chronic obstructive pulmonary disease or COPD in West Virginia was 10.5%, the 2<sup>nd</sup> highest in the nation.
- The prevalence of COPD was highest among adults aged 65 and older, those without a high school diploma and those with an annual household income of less than \$15,000.

### Osteoporosis

- The prevalence of osteoporosis among adults in West Virginia was 8.7%.
- Women had a significantly higher prevalence of osteoporosis than men.

### Arthritis

- More than 1 in 3 West Virginia adults had arthritis (36.4%) which ranked West Virginia highest in the nation.
- The prevalence of arthritis was significantly higher among women than men.
- Arthritis prevalence was highest among those with less than a high school education and those with an annual household income of less than \$15,000.
- The prevalence of arthritis was highest in Fayette, Logan, McDowell, Mingo, Nicholas, Wayne, and Wyoming counties.

#### Disability

- West Virginia had the highest disability prevalence nationwide.
- Over one-fourth of West Virginia adults were disabled because of a physical, mental, or emotional problem (28.6%).
- Over half of adults with an annual household income of less than \$15,000 were disabled (53.6%).
- About 11.2% of West Virginia adults use special equipment such as a cane, a wheelchair, a special bed, or a special telephone, which ranks West Virginia the 2<sup>nd</sup> highest in the nation.
- Among those who are disabled, 32.2% use special equipment.

#### **Kidney Disease**

- The prevalence of kidney disease in West Virginia was 3.6% and was the 5<sup>th</sup> highest in the nation.
- The prevalence of kidney disease was significantly higher among women than men.
- Kidney disease prevalence was highest among seniors and those with low educational attainment.

#### **Vision Impairment**

- Approximately 17.5% of West Virginia adults had vision impairment which is defined as vision problems in one or both eyes even when wearing glasses.
- The prevalence of vision impairment was significantly higher among women than men.
- The prevalence of vision impairment was highest among those with low educational attainment and those with low annual household income.

#### Depression

- About 20.9% of West Virginia adults had depression which was significantly higher than the U.S. prevalence of 16.9%.
- The prevalence of depression was significantly higher among women than men.

### **Cognitive Impairment**

- The prevalence of cognitive impairment, defined as confusion or memory loss that is happening more often or is getting worse, was 6.2% in West Virginia.
- Among those with cognitive impairment, 42.6% discussed it with their doctor and 48.1% are getting treatment in the form of therapy or medication.
- Among those with cognitive impairment, 17.3% gave up household activities and 22.2% reported it interfered with work or social activities in the past year.
- Among those with cognitive impairment, 21.5% had been diagnosed with Alzheimer's Disease or dementia.

#### HIV

- More than one-fourth of adults in West Virginia have been tested for HIV (30.3%).
- The prevalence of HIV testing was significantly higher among Black, Non-Hispanics than among White, Non-Hispanics.
- The prevalence of HIV testing was also significantly higher among Multiracial, Non-Hispanics than among White, Non-Hispanics.
- The prevalence of HIV testing was highest among those aged 35-44.
- Approximately 2.6% of West Virginia adults are at high risk of contracting HIV based on their behavior.

### **Caregiver Status**

- Approximately 19.3% of West Virginia adults provided regular care or assistance to a friend or family member in the past month.
- The prevalence of caregiving in the past month was significantly higher among women (22.2%) than among men (16.1%).
- West Virginia adults aged 55-64 had the highest prevalence of caregiving in the past month and the 45-54 age group had the 2<sup>nd</sup> highest prevalence.

### Comorbidities

- Almost 1 in 5 West Virginia adults (18.5%) were both disabled and had arthritis.
- About 16.6% of adults experienced fair/poor health and were disabled.
- Approximately 15.1% of adults had arthritis and did not exercise.
- About 1 in 8 West Virginia adults (12.9%) were obese and did not exercise.
- Approximately 9.0% of adults were current smokers and had no health care coverage.
- About 7.5% of West Virginia adults were obese and had diabetes.
- Approximately 4.9% of West Virginia adults had both cardiovascular disease and diabetes.

### ESTIMATED NUMBER OF PERSONS AT RISK

Table ES.1 below shows selected risk factor rates and the corresponding numbers of West Virginians who are estimated to be at risk. Data are shown for the latest available year.

## Table ES.1 Percentage and Number of Persons Estimated at Risk Due to Selected Risk Factors (Among Adults Aged 18 and Older or Appropriate Subset): WVBRFSS 2012

Risk Factor	Percentage Estimated at Risk <sup>a</sup>	Number Estimated at Risk <sup>a</sup>
General health is fair or poor	25.2	370,551
No health care coverage (ages 18-64)	24.2	277,266
Unable to afford needed medical care	19.1	281,389
No personal doctor or health care provider	23.9	351,965
No routine medical checkup in past year	24.7	359,328
No leisure-time exercise	31.0	455,999
Overweight (BMI 25.0-29.9)	34.5	483,158
Obesity (BMI 30.0+)	33.8	473,062
Overweight or Obese (BMI 25.0+)	68.3	956,220
Current cigarette smoking	28.2	412,897
Smokeless tobacco use	8.6	125,997
Binge drinking	10.2	147,198
Heavy drinking	3.5	50,216
No flu vaccination in past year	56.1	817,263
Never had a pneumonia vaccination (ages 65 and older)	32.0	99,189
No dental visit in the past year	43.6	635,496
Fell in the past year (ages 45 and older)	27.6	231,263
No mammogram in the past 2 years (women 40 and older)	27.8	138,969
No Pap test in the past 3 years (women)	24.0	128,114
No Prostate Specific Antigen (PSA) test in the past year (men 50 and older)	50.8	157,699
No Fecal Occult Blood Test (FOBT) in the past year (ages 50 and older)	87.1	624,539
Have had a heart attack	7.4	109,121
Have had a stroke	4.2	61,386
Have any form of cardiovascular disease	14.8	215,637
Diabetes	13.0	191,129
Cancer	13.3	194,498
Current asthma	10.2	149,608
Chronic obstructive pulmonary disease (COPD)	10.5	153,581
Arthritis	36.4	532,851
Disability	28.6	420,537
Osteoporosis	8.7	124,458
Kidney disease	3.6	52,347
Vision impairment	17.5	256,742
Depression	20.9	305,855
Cognitive impairment	6.2	89,615
Caregiver status	19.3	278,625
At high risk for developing HIV	2.6	38,073

a. The percentages and numbers of persons estimated to be at risk are subject to sampling error. Please refer to the confidence intervals presented in the chapters of this report for a more complete perspective. In addition, the risk estimates were derived from population estimates available at the end of the data collection period. Later estimates of the same population may result in different estimated numbers of persons at risk.

### **DEFINITIONS OF COMMON TERMS**

#### **Risk Factor**

A risk factor is a health-related behavior or practice that has been shown to increase the probability of developing a condition or disease. This report presents West Virginia prevalence estimates for selected risk factors.

#### Prevalence

Prevalence is the percentage of the population having a particular condition or characteristic or practicing a certain health-related behavior. This report presents the results of the Behavioral Risk Factor Surveillance System (BRFSS) in West Virginia as a series of prevalence estimates for selected risk factors. Prevalence can also be calculated as a rate or frequency.

#### **Confidence Intervals**

Confidence intervals (CIs) reflect sampling error. They are presented as upper and lower boundary values surrounding the prevalence estimate; the true value of the estimate can be expected to fall within this range with a confidence of 95%.

#### Significant

Significant is the term used to describe prevalence estimates that have been tested and found to be statistically different. In this report, a difference is said to be significant when the 95% confidence intervals (CIs) associated with each of the prevalence estimates do not overlap. In other words, it can be stated with 95% certainty that the difference found between the two prevalence estimates is not a random occurrence. Identifying differences as significant can detect changes in prevalence over time and direct attention to characteristics associated with a particular health condition or risk behavior. In this report, adjectives such as slight, minor, and little may be used to describe less reliable differences, those for which the confidence intervals do overlap. See Methodology on page 5 for additional discussion.

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### **INTRODUCTION**

Personal health practices have been shown to be important determinants of overall health. Unhealthy behaviors such as smoking, overeating, or lack of exercise can lead to the chronic diseases that cause more than 50% of all deaths in the United States. Other practices, such as getting vaccinated or wearing seatbelts, have a positive effect by preventing disease and unintentional injury. It is clear that the adoption of healthier lifestyles can reduce the suffering, disability, and economic burden imposed by illness and extend life expectancy in West Virginia and the nation.

The Behavioral Risk Factor Surveillance System (BRFSS) was established by the U.S. Centers for Disease Control and Prevention (CDC) based in Atlanta in order to permit states to determine the prevalence of certain health risk factors and health conditions among their adult populations. West Virginia, through the West Virginia Bureau for Public Health (WVBPH) of the West Virginia Department of Health and Human Resources, became 1 of the 15 initial participants in 1984. Since then, the system has expanded to include all 50 states, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

The technique of interviewing a random sample of state residents by telephone offers quality control advantages and is a faster, more cost-effective way of obtaining this information than in-person interviews. Over time, trends that occur in risk factors can be monitored. Participation in the BRFSS has the additional benefit of permitting states to compare their data to each other and to the nation with estimates derived using the same methodologies. The data can be used by public health professionals and researchers to identify high-risk groups, establish health policy and priorities, and monitor the impact of health promotion efforts.

Twenty-two reports have been published by the WVBPH presenting survey results of the State's participation in the BRFSS since 1984. This report focuses on the 2012 risk factor prevalence estimates and compares them to the years 1984 through 2012. Table I.1 on the following page shows topics that have been included in the last 10 years of surveillance, many of which are examined in the present report.

### WHAT'S NEW FOR 2012

As yearly sample size for the WV BRFSS increases, more types of socio-demographic characteristics of the sample can be analyzed. For the 2012 BRFSS data, analysis of indicators by race and ethnicity was conducted and are included in this report. To be consistent with reporting of national data by the CDC, data for five separate race/ethnicity categories are reported in this publication. The five race/ethnicity categories are:

- White, Non-Hispanic
- Black, Non-Hispanic
- Other, Non-Hispanic
- Multiracial, Non-Hispanic
- Hispanic

These categories were derived from several questions on the BRFSS questionnaire pertaining to how respondents reported their own race and ethnicity. Race/ethnicity differences in the prevalence estimates are reported for most indicators assuming there was sufficient sample size in each race/ethnicity category to allow for reliable estimates. See page 5 of this report for a discussion of reliability of prevalence estimates.

### Table I.1 Topics Administered in the Survey: WVBRFSS, 2003-2012

Торіс	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Seatbelt use				Х		Х		Х	Х	Х
Hypertension	x		Х		Х		Х		х	
Cholesterol	X		Х		Х		Х		Х	
Leisure-time physical		V		v		V		v		v
activity	X	X	X	X	X	X	X	X	X	X
Obesity	X	X	X	X	X	X	X	X	X	X
Cigarette use	X	X	X	X	X	X	X	Х	X	X
Smokeless tobacco use	X	Х				Х		Х	Х	X
Alcohol consumption	X	X	X	X	X	X	X	X	X	X
Weight control	X						Х		Х	
Fruits & vegetables	X		Х		Х		Х		X	
Diabetes	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Routine checkup			Х	Х	Х	Х	Х	Х	Х	Х
Breast cancer screening		Х		Х		Х		Х		Х
Cervical cancer screening		Х		Х		Х		Х		Х
Prostate cancer										
screening		X		X		X		X		X
Excess sun exposure	X	X								
AIDS/HIV	X	Х	Х	Х	Х	Х	Х	Х	Х	Х
Cancer survivors							Х	Х	Х	Х
Immunization	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Health insurance	X	Х	Х	Х	Х	Х	Х	Х	Х	Х
Health status	х	Х	Х	Х	Х	Х	Х	Х	х	Х
Colorectal cancer screening		Х		Х		Х		Х		Х
Oral health		X		X		X		X		X
Emotional support/		Λ								Λ
Life satisfaction			X	X	X	X	X	X		
Asthma	X	X	X	X	X	X	X	X	X	X
Sleep							X	Х		
Disability	X	X	Х	Х	X	X	Х	Х	X	X
Cardiovascular disease	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Veteran status		Х	Х	Х	Х	Х	Х	Х	Х	Х
Osteoporosis		Х				Х				Х
Arthritis	Х	Х	Х		Х		Х	Х	Х	Х
Intimate partner violence				X	X					
Sexual violence						Х				
Falls				Х		Х		Х		Х
Drinking and driving				Х		Х		Х		Х
HPV vaccine						Х		Х		Х

The survey is conducted by the method known as Computer Assisted Telephone Interviewing (CATI) and represents a collaborative effort between the WVHSC and CDC. The WVHSC provides telephones, office space, interviewers, and supervision of the data collection. Financial assistance, a standardized set of core questions and survey protocols, computer-assisted telephone interviewing software, data processing services, and analytic consultation are provided by the CDC.

A prepared introductory statement and the core questions were developed and tested in the field by the CDC. The interviews take approximately 15-20 minutes. In addition to behavioral risk factors and certain health conditions, they cover standard demographic characteristics and selected preventive health practices. A very limited number of questions of topical interest may be added by individual states to the survey.

Phone calls and interviews are conducted by the WVHSC for approximately a two to three week period each month. The monthly interview schedule reduces the possibility of bias because of seasonal variations in certain lifestyles. To assure maximum response rates, calls are made weekdays from noon to 9:00 p.m., Saturdays from 10:00 a.m. to 7:00 p.m., and Sundays from 2:00 p.m. to 6:00 p.m.

### SAMPLE SELECTION

The sample was selected by random digit dialing (RDD). Telephone directories are not relied upon since they do not include unlisted or new numbers. From 1984 through 1998, sampling was conducted in a multistage cluster design based on the Mitofsky-Waksberg Sampling Method for Random Digit Dialing. Since 1999, the sampling method known as Disproportionate Stratified Sampling (DSS) has been used. Both methods eliminate many unassigned and business phone numbers from the selection process.

According to 2011 state-level estimates from the National Health Interview Survey, 97.5% of West Virginia households have telephones, with 59.6% of households having landline telephones. In addition, a growing number of adults (25.7%) live in wireless-only households. In order to better represent these latter residents, the 2012 West Virginia dataset includes data from interviews conducted by cell phone. The addition of cell phone only households improves coverage of certain population groups including the young and those with lower socioeconomic status. CDC provides banks of telephone numbers (landline and cell phone) that are presumed to contain household numbers. Calls were made until each number resulted in a completed interview or a refusal or was disqualified. A number was disqualified if it was nonresidential or nonworking, if there was no eligible respondent available during the survey, if the selected respondent was unable to communicate, or if the number had been called at least 15 times without success (encompassing a minimum of three attempts each during afternoons, evenings, and weekends). Within each household, the actual respondent was chosen randomly to avoid possible biases related to the time of day and household telephone answering preferences. Since the number of adult residents and the number of telephone lines may differ from household to household, resulting in different probabilities of being selected, data were weighted to compensate for this bias.

### DEMOGRAPHIC CHARACTERISTICS OF THE WV BRFSS SAMPLE

The demographic characteristics of the samples in 2012, both unweighted and weighted to the West Virginia population, are presented in Table M.1. Data were weighted according to the process described later in this chapter in order to more accurately estimate the actual prevalence of behavioral risk factors in the adult population of West Virginia.

### Table M.1 Demographic Summary: WVBRFSS, 2012

Demographic characteristic	Number of Interviews	Percent of Unweighted Sample	Percent of Weighted Sample
Total	5,409	100.0	100.0
<u>Sex</u> Male Female	2,271 3,138	42.0 58.0	48.8 51.2
<u>Race/Ethnicity</u> White, Non-Hispanic Black, Non-Hispanic Other, Non-Hispanic Multiracial, Non-Hispanic Hispanic	5,061 118 52 93 68	93.9 2.2 1.0 1.7 1.3	93.7 1.9 1.1 2.1 1.2
<u>Age</u> 18-24 25-34 35-44 45-54 55-64 65+	301 489 689 893 1,302 1,707	5.6 9.1 12.8 16.6 24.2 31.7	11.9 14.6 15.7 17.8 18.3 21.8
Education < High School (HS) HS or GED Some College College Degree	771 2,167 1,253 1,213	14.3 40.1 23.2 22.5	17.3 40.2 26.0 16.5
Household Income <\$15,000 \$15,000-\$24,999 \$25,000-\$34,999 \$35,000-\$49,999 \$50,000-\$74,999 \$75,000+	712 1,072 637 685 660 848	15.4 23.2 13.8 14.9 14.3 18.4	14.3 23.3 13.9 15.0 14.9 18.5
Marital Status Married Divorced Widowed Separated Never Married Unmarried Couple	2,850 841 857 96 637 118	52.8 15.6 15.9 1.8 11.8 2.2	53.4 11.7 9.4 1.6 20.1 3.8
Employment Status Employed for wages Self-Employed Unemployed (>1 year) Unemployed (<1 year) Homemaker Student Retired Unable to Work	2,092 245 119 125 442 88 1,577 716	38.7 4.5 2.2 2.3 8.2 1.6 29.2 13.3	44.1 4.9 3.0 3.9 8.0 3.2 20.5 12.4

#### LIMITATIONS

The target population consists of civilian, non-institutionalized persons 18 years of age and older who reside in households with telephones, including those with landlines and/or cell phones. Some questions in the questionnaire also pertain to children who live in such households. State residents who do not fit the target population are not represented in prevalence estimates.

Self-reported behavior obtained by telephone must be interpreted with caution. The validity of survey results depends on the accuracy of the responses given by the persons interviewed. This may be affected by the ability to recall past behavior. For example, individuals may not accurately recall fruit and vegetable intake or exercise levels. In addition, respondents may have a tendency to understate behaviors known to be unhealthy, socially unacceptable, or illegal. For example, a person may not accurately report their weight. These biases may vary depending on the specific risk factor.

Other sources of bias may result from greater difficulty in contacting some persons, from higher refusal rates, or from lower telephone coverage (including either landlines or cell phones). Given the possibility that persons not interviewed for these reasons may behave differently from the general population, estimates for the population based on the survey sample may be biased. Weighting of the data is conducted in order to correct for over- or underrepresentation of these groups.

Finally, breaking down the data into smaller categories decreases the sample size of the individual strata, thereby decreasing the power to determine statistically significant differences. Prevalence rates based on denominators of fewer than 50 responses are considered statistically unreliable.

### ESTIMATES, CONFIDENCE INTERVALS, SIGNIFICANCE, AND RELIABILITY

The prevalence rates presented in this report are derived from surveying a sample of adults rather than all adults in the population; therefore, the rates are estimates of the true values. For this reason, estimates are presented together with their associated confidence intervals (CIs). A confidence interval is a range of values around an estimate, which reflects sampling error and represents the uncertainty of the estimate. This report presents 95% confidence intervals (95% CI)<sup>1</sup>. Therefore, one can be 95% confident that the confidence interval contains the true value that is being estimated

Significant is the term used in this report to describe when prevalence estimates have been tested and found to be significantly different from each other. Statistically significant differences between estimates are traditionally determined using statistical tests such as a t-test or chi-square test. However, this report uses the following more conservative method for determining significance. Two prevalence estimates are said to be "significantly" different when the 95% confidence intervals associated with each of the estimates do not overlap.

Reliability refers to the precision of an estimate. If an estimate is termed reliable, there is confidence that the same, or a very similar, estimate would be obtained if the survey were to be repeated within the same time period. Estimates that are determined to be unreliable may not reflect the true prevalence and should be reported and interpreted with caution. Throughout this report, unreliable estimates are noted with this message: "Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5."

<sup>&</sup>lt;sup>1</sup> Confidence intervals were derived from the surveyfreq procedure in SAS, a commonly used statistical software package. This procedure estimates sample variances (which are used to calculate confidence intervals) for complex sample designs.

Based on CDC recommendations, estimates in this report were termed unreliable if any of the three following conditions were met:

- 1) The estimate is based on responses from fewer than 50 respondents in the subsample or denominator of the prevalence estimate calculation.
- 2) The 95% confidence interval of the estimate has a width or range greater than 20 (e.g., 95% CI = 10.0-30.5).
- 3) The estimate has a relative standard error (RSE) of 30.0% or higher. The RSE is obtained by dividing the standard error of the estimate by the estimate itself. It is calculated by the SAS software.

#### WEIGHTING OF 2012 DATA RESULTS

Beginning in 2011, CDC changed the weighting procedures for the BRFSS. Prior to 2011, weights for the BRFSS data were calculated based on the sex and age distribution of the West Virginia population, using a method known as post-stratification. For 2011 and future years, BRFSS weights will be calculated using a method known as iterative proportional fitting or raking. This weighting method takes into account additional demographic factors allowing for a better fit to West Virginia's socio-demographic profile. The additional factors used in the raking method include age group by sex, detailed race/ethnicity, education, marital status, tenure (rent or own home), gender by race/ethnicity, age group by race/ethnicity, and telephone sample source (landline or cell phone). Due to the addition of cell phone data and the new weighting methodology, 2011 and later results are not comparable to previous years of data. Although time trend graphs for state prevalence estimates are included in this report, they should be interpreted with caution as no direct comparison can be made between 1984-2010 and 2011-2012 data. Any changes between 2011 and previous years' data cannot be directly interpreted due to unknown comparability ratios. This is noted in time trend graphs in this report as a break in the line between 2010 and 2011 data.

### **COUNTY-LEVEL DATA**

County prevalence rates were calculated by using five (5) years of aggregated BRFSS data. The data were reweighted to be representative of the Census 2010 age and sex population distribution by county. In previous years, some counties were grouped due to small sample sizes; however, beginning in 2011, all counties have an individual prevalence estimate. In this report, county estimates were compared to the total West Virginia estimate for the same time period. This method better identifies disparities between counties. It also clearly identifies counties in need of health promotion interventions. The county maps included in this report classify counties according to the degree of difference from the West Virginia prevalence. County estimates, rankings, and statistical comparison to overall West Virginia estimates B.

#### **PRESENTATION OF RESULTS**

In the sections that follow, the prevalence data are presented in a variety of ways, including by state rank, yearly state and national prevalence, and demographic variables. It should be stressed that the risk factor prevalence estimates for the demographic variables (age, sex, race/ethnicity, education, and income) show the percentages of persons **within the group** – not in the total survey sample – who report the behavior being examined. This method of presenting risk factor prevalence facilitates identification of at-risk populations for health promotion efforts. Each table shows the number of respondents (# Resp.) who answered the question, the weighted prevalence estimate (%), and the 95% confidence interval for the prevalence (95% CI).

Prevalence estimates were calculated by excluding unknown and/or refused responses from the denominators. Consequently, estimates may be slightly higher than would have been the case had the unknown/refused responses been included. In editions of this report before 2003, many estimates representing the years 1984 through 1996 were calculated by including unknown responses. In the present report, all such rates have been re-calculated to exclude unknown responses. Therefore, discrepancies may exist between the time trends and appendixes in this report and those in older editions.

The risk factor sections also include West Virginia's rank among the BRFSS participants. For example, if diabetes-related questions were administered by all 53 BRFSS participants, ranking 1<sup>st</sup> in diabetes would mean having the highest prevalence of diabetes among all the U.S. states and territories while ranking 53<sup>rd</sup> would mean having the lowest prevalence. Some questions are not asked of all BRFSS participants. In these cases, the rankings are not presented. In addition, readers should note that differences between states often are less than one percentage point and that statistical significance was not tested when determining rankings. The prevalence estimates and rankings by state were calculated by WVHSC staff using the U.S. dataset provided by the CDC. State and county prevalence estimates and rankings for many risk factors are presented in Appendices A and B.

### **CHAPTER 1: HEALTH STATUS**

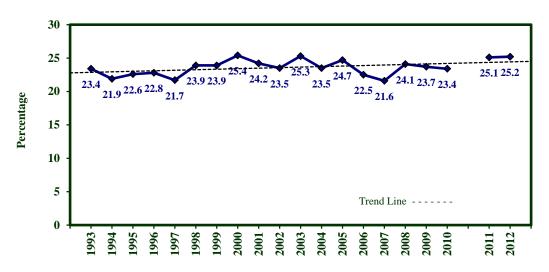
### **General Health**

Definition	Responding "Fair" or "Poor" to the question "Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?"
Prevalence	<ul> <li>WV: 25.2% (95% CI: 23.9-26.6)</li> <li>U.S.: 18.1% (95% CI: 17.9-18.3)</li> <li>West Virginia's prevalence was significantly higher than the U.S. prevalence.</li> <li>West Virginia ranked the 2<sup>nd</sup> highest among 53 BRFSS participants.</li> </ul>
Gender	Men: 24.1% (95% CI: 22.1-26.1) Women: 26.3% (95% CI: 24.5-28.1) There was no gender difference in the prevalence of fair or poor general health status.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 25.2% (95% CI: 23.8-26.5)</li> <li>Black, Non-Hispanic: 31.8% (95% CI: 22.0-41.7)</li> <li>Other, Non-Hispanic: 34.9% (95% CI: 18.3-51.1)</li> <li>Multiracial, Non-Hispanic: 18.8% (95% CI: 9.9-27.7)</li> <li>Hispanic: 14.6% (95% CI: 6.3-22.8)</li> <li>The prevalence of fair/poor health was significantly higher among White, Non-Hispanics than among Hispanics. No other racial/ethnic differences were found in the prevalence of fair/poor health.</li> </ul>
Age	The prevalence of fair or poor health significantly increased with increasing age. The prevalence ranged from a low of 8.7% among the youngest adults to a high of 38.6% among the elderly.
Education	Adults with less than a high school education had the highest prevalence of fair or poor health, with a prevalence of over 50%. Those with more education had a much lower prevalence, with the prevalence for college graduates of 9.0%. Significant differences in prevalence were found between each educational bracket.
Household Income	The prevalence of fair or poor health was over 50% in the lowest income group (less than \$15,000 annually). The lowest prevalence of fair or poor health (8.1%) was among those in the highest income bracket (\$75,000 or more annually). There were significant differences in the prevalence of fair or poor health between almost every income group.

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,268	24.1	22.1-26.1	3,132	26.3	24.5-28.1	5,400	25.2	23.9-26.6	
Age										
18-24	132	5.9	1.0-10.8	168	11.7	5.5-17.9	300	8.7	4.8-12.7	
25-34	217	10.2	5.6-14.8	271	13.2	8.5-17.8	488	11.7	8.4-14.9	
35-44	301	15.0	10.7-19.3	388	21.1	16.4-25.8	689	18.0	14.8-21.2	
45-54	376	29.1	23.8-34.4	516	29.1	24.8-33.5	892	29.1	25.7-32.5	
55-64	596	33.1	28.7-37.4	702	33.5	29.6-37.4	1,298	33.3	30.4-36.2	
65+	640	41.0	36.7-45.2	1,065	36.8	33.4-40.1	1,705	38.6	36.0-41.3	
Education										
Less than H.S.	329	45.7	39.5-51.9	436	55.7	50.0-61.4	765	50.6	46.4-54.8	
H.S. or G.E.D.	938	24.5	21.4-27.5	1,228	25.9	23.2-28.6	2,166	25.2	23.1-27.2	
Some Post-H.S.	475	18.7	15.0-22.3	777	18.9	15.6-22.1	1,252	18.8	16.4-21.2	
College Graduate	525	7.4	5.3-9.5	687	10.5	8.0-13.0	1,212	9.0	7.3-10.6	
Income										
Less than \$15,000	252	50.1	42.6-57.5	459	51.2	45.6-56.9	711	50.7	46.2-55.3	
\$15,000 - 24,999	405	32.7	27.3-38.1	665	36.2	31.9-40.4	1,070	34.6	31.2-38.0	
\$25,000 - 34,999	285	33.7	27.5-39.9	352	21.2	16.4-26.0	637	27.5	23.5-31.4	
\$35,000 - 49,999	314	15.2	11.1-19.2	370	18.5	13.1-24.0	684	16.8	13.4-20.1	
\$50,000 - 74,999	320	12.7	8.6-16.9	340	11.8	8.0-15.7	660	12.3	9.5-15.2	
\$75,000+	426	8.9	5.9-11.8	422	7.2	4.2-10.3	848	8.1	6.0-10.3	

#### Table 1.1 Fair or Poor Health by Demographic Characteristics: WVBRFSS, 2012

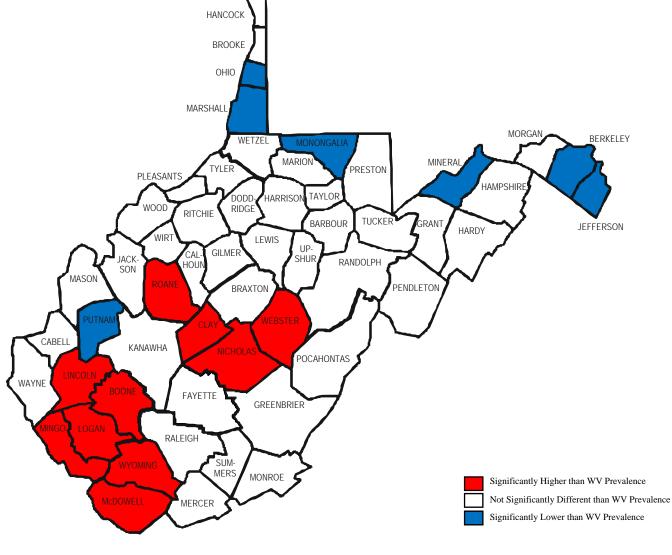
Figure 1.1 Fair or Poor Health by Year: WVBRFSS, 1993-2012



\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

U.S. Prevalence (2010) – 16.3%

### WV Prevalence (2008-2012) – 24.3% (Significantly Higher than U.S.)



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

### **Physical Health**

Definition	Responding at least "14 days" or more to the question "Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"
Prevalence	WV: 16.8% (95% CI: 15.6-17.9) U.S.: 12.4% (95% CI: 12.2-12.5) West Virginia ranked the 2 <sup>nd</sup> highest among 53 BRFSS participants. West Virginia's prevalence was significantly higher than the U.S. prevalence of poor physical health.
Gender	Men: 14.7% (95% CI: 13.1-16.4) Women: 18.7% (95% CI: 17.1-20.3) Females had a significantly higher prevalence of poor physical health than males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 16.8% (95% CI: 15.6-18.0)</li> <li>Black, Non-Hispanic: 16.4% (95% CI: 8.4-24.3)</li> <li>Other, Non-Hispanic: *13.4% (95% CI: 2.5-24.3)</li> <li>Multiracial, Non-Hispanic: 18.9% (95% CI: 9.6-28.2)</li> <li>Hispanic: *12.7% (95% CI: 3.5-21.8)</li> <li>There was no race/ethnicity difference in the prevalence of poor physical health status.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of poor physical health generally increased with advancing age with a statistically significant difference between the 35-44 and 45-54 age groups. The prevalence ranged from a low of 9.1% among those aged 25-34 to a high of 22.0% among those aged 55-64.
Education	Adults with less than a high school education had the highest prevalence of poor physical health, with a prevalence of 31.8%. Those with more education had a lower prevalence, with the prevalence for college graduates of 7.2%. Differences were significant between every educational bracket except between those with a high school education and those with some college.
Household Income	The prevalence of poor physical health was highest among adults in the lowest income group of less than \$15,000 annually (32.0%) and was lowest among those in the highest income bracket of \$75,000 or more (5.6%). There was a statistically significant difference in the prevalence of poor physical health between these 2 income groups.

Table 1 2 Dee	n Dharai an I Han lak	h hu Domoorahio	Change stanistics.	WWDDESS 2012
Table 1.2 P00	r Physical Health	h by Demographic	Characteristics:	W V BKF 55, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,246	14.7	13.1-16.4	3,086	18.7	17.1-20.3	5,332	16.8	15.6-17.9	
Age										
18-24	132	*8.1	2.6-13.6	168	11.6	6.0-7.1	300	9.8	5.8-13.7	
25-34	214	6.0	2.7-9.4	272	12.2	7.6-16.8	486	9.1	6.2-12.0	
35-44	298	8.0	4.7-11.3	387	15.9	11.8-20.0	685	12.0	9.3-14.6	
45-54	374	18.9	14.5-23.3	512	22.2	18.3-26.1	886	20.6	17.6-23.5	
55-64	592	22.2	18.3-26.1	690	21.7	18.3-25.2	1,282	22.0	19.3-24.6	
65+	630	20.5	17.0-24.0	1,035	23.1	20.2-26.0	1,665	21.9	19.7-24.2	
Education										
Less than H.S.	321	27.1	21.7-32.6	424	36.7	31.3-42.1	745	31.8	28.0-35.7	
H.S. or G.E.D.	929	15.3	12.8-17.8	1,203	18.0	15.6-20.5	2,132	16.6	14.9-18.4	
Some Post-H.S.	472	11.4	8.3-14.5	770	14.6	11.9-17.3	1,242	13.2	11.2-15.3	
College Graduate	523	4.9	3.2-6.7	686	9.4	7.1-11.7	1,209	7.2	5.7-8.7	
Income										
Less than \$15,000	250	29.3	22.9-35.6	449	34.2	29.1-39.3	699	32.0	28.0-36.1	
\$15,000 - 24,999	402	22.3	17.3-27.3	654	26.2	22.1-30.3	1,056	24.5	21.3-27.6	
\$25,000 - 34,999	283	17.4	12.5-22.2	350	14.6	10.4-18.8	633	16.0	12.8-19.2	
\$35,000 - 49,999	309	10.7	7.0-14.4	370	14.3	10.4-18.3	679	12.4	9.7-15.1	
\$50,000 - 74,999	317	8.1	4.8-11.3	340	8.5	5.1-11.9	657	8.3	5.9-10.6	
\$75,000+	426	4.1	2.1-6.1	420	7.6	4.7-10.4	846	5.6	3.9-7.3	

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

### **Mental Health**

Definition	Responding at least "14 days" or more to the question "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"
Prevalence	<ul> <li>WV: 15.2% (95% CI: 14.1-16.4)</li> <li>U.S.: 12.0% (95% CI: 11.8-12.2)</li> <li>The WV prevalence of poor mental health was significantly higher than the U.S. prevalence. West Virginia ranked the 3<sup>rd</sup> highest among 53 BRFSS participants.</li> </ul>
Gender	Men: 12.3% (95% CI: 10.7-14.0) Women: 18.0% (95% CI: 16.3-19.7) The prevalence of poor mental health was significantly higher among females than males.
Race/Ethnicity	White, Non-Hispanic: 15.1% (95% CI: 13.9-16.3) Black, Non-Hispanic: 13.8% (95% CI: 5.8-21.8) Other, Non-Hispanic: *20.8% (95% CI: 7.2-34.5) Multiracial, Non-Hispanic: 19.5% (95% CI: 10.2-28.8) Hispanic: *11.2% (95% CI: 4.0-18.4) There was no race/ethnicity difference in the prevalence of poor mental health status. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	The prevalence of poor mental health varied with age. The prevalence of poor mental health was highest among those aged 45-54 (18.2%) and lowest among those aged 65 and older (8.7%). The prevalence of poor mental health was significantly lower among those aged 65 and older than among all other age groups.
Education	Adults with less than a high school education had the highest prevalence of poor mental health, with a prevalence of 23.0% and was significantly higher than all other education groups. Those with more education had a lower prevalence, with the prevalence among college graduates of 7.6% which was significantly lower than all other education groups.
Household Income	Poor mental health was experienced by almost 1 of every 3 adults (30.9%) in the lowest income group (less than \$15,000 annually). The lowest prevalence occurred for those in the highest income bracket of \$75,000 or more (6.8%).

### Table 1.3 Poor Mental Health by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,238	12.3	10.7-14.0	3,088	18.0	16.3-19.7	5,326	15.2	14.1-16.4	
Age										
18-24	132	11.0	4.9-17.2	166	20.7	13.5-27.9	298	15.7	11.0-20.5	
25-34	216	14.3	9.3-19.3	271	16.2	11.4-20.9	487	15.2	11.7-18.7	
35-44	299	13.4	9.0-17.7	382	21.7	17.0-26.4	681	17.5	14.2-20.7	
45-54	369	14.5	10.6-18.4	510	21.9	17.8-25.9	879	18.2	15.4-21.1	
55-64	591	14.8	11.5-18.1	694	21.0	17.7-24.4	1,285	17.9	15.6-20.3	
65+	625	6.5	4.4-8.7	1,044	10.4	8.3-12.6	1,669	8.7	7.2-10.3	
Education										
Less than H.S.	318	22.0	16.6-27.4	422	24.1	19.1-29.1	740	23.0	19.3-26.7	
H.S. or G.E.D.	923	12.0	9.6-14.5	1,211	19.4	16.8-22.0	2,134	15.6	13.8-17.4	
Some Post-H.S.	472	11.3	8.1-14.5	768	17.0	13.7-20.4	1,240	14.6	12.2-16.9	
College Graduate	524	4.5	2.4-6.5	684	10.7	8.1-13.2	1,208	7.6	6.0-9.3	
Income										
Less than \$15,000	245	24.9	18.6-31.3	452	35.4	29.9-40.9	697	30.9	26.6-35.1	
\$15,000 - 24,999	401	17.7	12.8-22.5	657	22.6	18.7-26.5	1,058	20.4	17.4-23.5	
\$25,000 - 34,999	282	12.6	8.3-16.8	347	16.3	11.7-21.0	629	14.4	11.3-17.6	
\$35,000 - 49,999	313	9.8	5.8-13.8	367	14.3	9.0-19.5	680	11.9	8.6-15.2	
\$50,000 - 74,999	318	7.7	4.2-11.1	340	10.3	6.7-13.9	658	8.9	6.4-11.4	
\$75,000+	424	5.0	2.5-7.4	421	9.2	6.1-12.3	845	6.8	4.9-8.8	

### **Poor Health Limitations**

Definition	Responding to the question "During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?"
Prevalence	<ul> <li>At least 14 days</li> <li>WV: 20.8% (95% CI: 19.0-22.5)</li> <li>U.S.: 15.3% (95% CI: 15.1-15.6)</li> <li>West Virginia ranked the 3<sup>rd</sup> highest among 53 BRFSS participants and was significantly higher than the U.S. prevalence.</li> <li><i>Every day</i></li> <li>WV: 11.2% (95% CI: 9.9-12.5)</li> <li>U.S.: 7.6% (95% CI: 7.4-7.8)</li> <li>West Virginia ranked the 5<sup>th</sup> highest among 53 BRFSS participants and was significantly higher than the U.S. prevalence.</li> </ul>
Gender	<ul> <li>At least 14 days</li> <li>Men: 22.8% (95% CI: 19.9-25.8)</li> <li>Women: 19.2% (95% CI: 17.2-21.3)</li> <li>There was no gender difference in the prevalence of poor health limitations for at least 14 days in the past 30 days.</li> <li><i>Every day</i></li> <li>Men: 12.4% (95% CI: 10.2-14.6)</li> <li>Women: 10.3% (95% CI: 8.7-11.9)</li> <li>There was no gender difference in the prevalence of poor health limitations every day in the past 30 days.</li> </ul>
Race/Ethnicity	At least 14 days Race/ethnicity differences in the prevalence of poor health limitations for at least 14 days in the past 30 days could not be analyzed due to unreliable estimates. <i>Every day</i> Race/ethnicity differences in the prevalence of poor health limitations every day in the past 30 days could not be analyzed due to unreliable estimates.
Age	The prevalence of poor health limitations increased significantly with age for both the every day indicator and the 14 day indicator.
Education	In general, the prevalence of poor health limitations was highest among those with the least amount of education and lowest among those with the most education for both the 14 day and every day indicators.
Household Income	The prevalence of poor health limitations varied somewhat for income level but generally declined with increasing annual household income for both the 14 day and every day indicators.

# Table 1.4 Poor Health Limitations at Least 14 Days in the Past 30 Days by DemographicCharacteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,030	22.8	19.9-25.8	1,777	19.2	17.2-21.3	2,807	20.8	19.0-22.5
Age									
18-24	74	*7.8	1.5-14.1	116	*8.3	3.1-13.6	190	8.1	4.1-12.1
25-34	94	*11.8	4.7-18.8	162	9.0	4.2-13.8	256	10.2	6.1-14.3
35-44	130	17.0	10.2-23.8	228	21.7	15.9-27.5	358	19.7	15.3-24.1
45-54	178	29.8	22.2-37.4	331	23.7	18.5-28.9	509	26.2	21.8-30.6
55-64	280	31.7	25.2-38.3	418	23.4	18.8-28.0	698	27.1	23.1-31.0
65+	274	32.9	26.6-39.1	514	24.2	20.0-28.4	788	27.7	24.1-31.2
Education									
Less than H.S.	177	43.9	35.5-52.2	281	32.0	25.6-38.3	458	37.4	32.2-42.6
H.S. or G.E.D.	441	20.7	16.6-24.7	688	19.3	16.1-22.6	1,129	19.9	17.4-22.5
Some Post-H.S.	230	16.1	11.0-21.1	464	14.9	11.5-18.3	694	15.4	12.5-18.2
College Graduate	182	8.7	4.8-12.6	342	11.3	7.7-14.8	524	10.2	7.6-12.9
Income									
Less than \$15,000	150	41.1	32.0-50.1	325	33.6	27.5-39.8	475	36.5	31.3-41.7
\$15,000 - 24,999	227	22.1	15.9-28.3	419	21.8	17.4-26.2	646	21.9	18.3-25.6
\$25,000 - 34,999	134	29.8	20.9-38.7	189	14.9	9.0-20.8	323	21.7	16.4-26.9
\$35,000 - 49,999	124	20.9	13.1-28.7	196	15.7	10.2-21.3	320	18.0	13.4-22.7
\$50,000 - 74,999	134	10.4	4.7-16.1	176	7.4	3.6-11.3	310	8.8	5.5-12.2
\$75,000+	136	*7.5	2.5-12.5	198	8.9	4.9-12.9	334	8.2	5.0-11.4

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

# Table 1.5Poor Health Limitations Every Day in the Past 30 Days by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,030	12.4	10.2-14.6	1,777	10.3	8.7-11.9	2,807	11.2	9.9-12.5
Age									
18-24	74	*2.8	0.0-6.7	116	*3.3	0.0-6.7	190	*3.1	0.5-5.6
25-34	94	*4.0	0.0-8.1	162	*3.5	0.2-6.7	256	*3.7	1.2-6.3
35-44	130	9.0	3.9-14.0	228	10.1	5.9-14.3	358	9.6	6.4-12.8
45-54	178	16.5	10.5-22.5	331	12.9	8.6-17.2	509	14.4	10.9-17.9
55-64	280	17.4	11.7-23.1	418	10.9	7.5-14.3	698	13.7	10.6-16.9
65+	274	20.6	15.2-26.1	514	17.3	13.5-21.1	788	18.6	15.5-21.8
Education									
Less than H.S.	177	22.7	15.8-29.5	281	19.6	14.2-24.9	458	21.0	16.7-25.3
H.S. or G.E.D.	441	12.9	9.7-16.2	688	9.3	7.0-11.6	1,129	10.9	9.0-12.8
Some Post-H.S.	230	7.1	3.5-10.6	464	8.7	5.9-11.4	694	8.1	5.9-10.2
College Graduate	182	*4.2	1.5-6.9	342	4.2	2.2-6.3	524	4.2	2.6-5.9
Income									
Less than \$15,000	150	22.0	14.7-29.3	325	19.7	14.6-24.9	475	20.6	16.4-24.8
\$15,000 - 24,999	227	11.1	6.8-15.4	419	10.1	7.1-13.2	646	10.5	8.0-13.0
\$25,000 - 34,999	134	16.7	9.7-23.7	189	*6.9	2.6-11.1	323	11.3	7.4-15.3
\$35,000 - 49,999	124	*8.8	3.5-14.1	196	7.6	3.5-11.7	320	8.1	4.9-11.4
\$50,000 - 74,999	134	*4.6	0.7-8.5	176	*4.6	1.3-7.9	310	4.6	2.1-7.2
\$75,000+	136	*4.2	0.8-7.6	198	*3.1	0.7-5.5	334	3.6	1.6-5.7

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

### **CHAPTER 2: HEALTH CARE ACCESS**

### No Health Care Coverage (among adults 18 to 64)

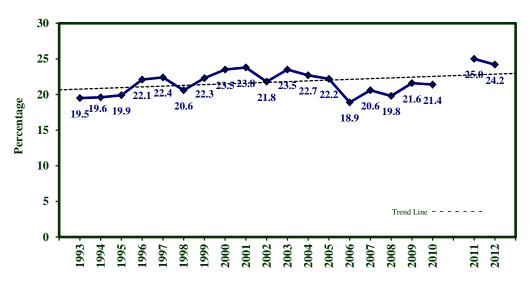
Definition	Responding "No" to the question "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?" The results reported for this indicator have been limited to adults aged 18-64.
Prevalence	WV: 24.2% (95% CI: 22.5-26.0) U.S.: 22.2% (95% CI: 21.8-22.5) The prevalence of no health care coverage among those aged 18-64 was significantly higher in West Virginia than in the U.S West Virginia ranked the 15 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 26.9% (95% CI: 24.2-29.6) Women: 21.6% (95% CI: 19.3-23.8) The prevalence of no health care coverage for those aged 18-64 was significantly higher among males than among females.
Race/Ethnicity	White, Non-Hispanic: 23.8% (95% CI: 22.0-25.6) Black, Non-Hispanic: *24.1% (95% CI: 13.0-35.3) Other, Non-Hispanic: *24.1% (95% CI: 7.7-40.6) Multiracial, Non-Hispanic: *37.1% (95% CI: 23.0-51.2) Hispanic: *32.2% (95% CI: 15.0-49.3) There was no race/ethnicity difference in the prevalence of no health care coverage for those aged 18-64. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	The prevalence of no health care coverage was significantly higher among those aged 18-44 compared with those aged 45-64.
Education	Those with less than a high school education had the highest prevalence of no health coverage $(36.3\%)$ while those with a college degree had the lowest prevalence of no health coverage $(9.7\%)$ .
Household Income	The prevalence of lack of health care coverage was significantly higher among low income groups than among those with high income. Approximately 40% of those with incomes less than \$25,000 per year had no health care coverage, while about 25% of those earning \$25,000-\$49,999 per year had no health care coverage. In contrast, only 3.8% of those making more than \$75,000 per year had no health care coverage.

# Table 2.1 No Health Care Coverage Among Adults Aged 18-64 by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,621	26.9	24.2-29.6	2,044	21.6	19.3-23.8	3,665	24.2	22.5-26.0
Age				cc					
18-24	132	40.2	31.1-49.4	167	31.7	23.7-39.7	299	36.1	30.0-42.2
25-34	217	41.7	34.4-49.1	271	29.9	23.6-36.2	488	35.9	31.0-40.8
35-44	301	30.2	24.3-36.1	388	20.9	16.4-25.4	689	25.6	21.8-29.4
45-54	375	19.4	14.7-24.1	515	17.1	13.5-20.6	890	18.2	15.3-21.1
55-64	596	10.1	7.5-12.7	703	13.7	10.5-16.9	1,299	11.9	9.9-14.0
Education									
Less than H.S.	189	41.1	32.8-49.3	215	30.8	23.2-38.4	404	36.3	30.6-41.9
H.S. or G.E.D.	687	31.4	27.2-35.6	770	26.7	23.1-30.3	1,457	29.2	26.4-32.1
Some Post-H.S.	352	21.1	16.2-26.1	528	18.8	14.6-23.0	880	19.8	16.6-23.0
College Graduate	393	10.7	6.8-14.5	530	8.8	6.0-11.6	923	9.7	7.3-12.0
Income									
Less than \$15,000	181	47.2	38.4-55.9	273	36.3	29.4-43.3	454	41.4	35.7-47.0
\$15,000 - 24,999	263	46.2	39.0-53.4	385	41.2	35.3-47.1	648	43.5	38.9-48.2
\$25,000 - 34,999	177	30.3	22.1-38.5	210	23.5	17.0-30.0	387	26.9	21.7-32.2
\$35,000 - 49,999	214	27.1	20.0-34.3	261	16.3	9.5-23.2	475	21.9	16.9-26.8
\$50,000 - 74,999	257	10.0	5.5-14.6	280	6.4	3.1-9.7	537	8.3	5.4-11.2
\$75,000+	362	*3.7	1.5-5.9	380	*4.0	1.5-6.5	742	3.8	2.2-5.5

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

### Figure 2.1 No Health Care Coverage Among Adults Aged 18-64 by Year: WVBRFSS, 1993-2012

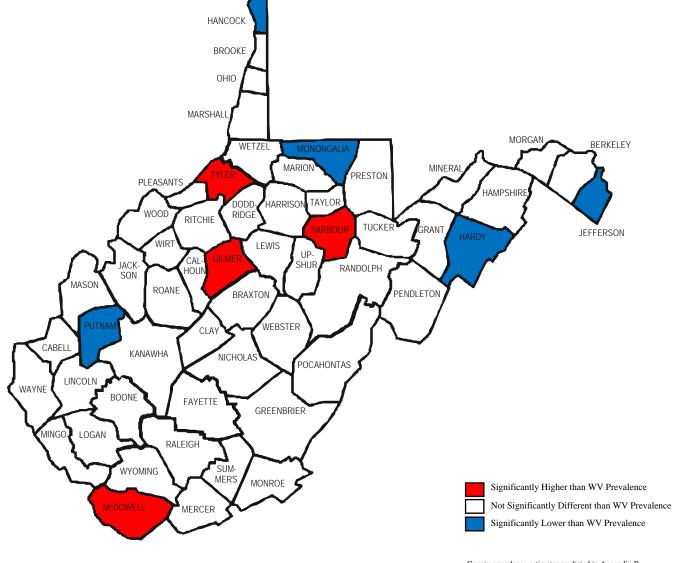


\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

### Figure 2.2 No Health Care Coverage Among Adults Aged 18-64 by County: WVBRFSS, 2008-2012

U.S. Prevalence (2010) – 18.1%

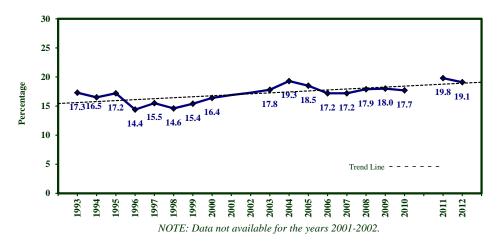
### WV Prevalence (2008-2012) – 22.4% (Significantly Higher than U.S.)



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

### **Could Not Afford Needed Medical Care**

Definition	Responding "Yes" to the question "Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?"
Prevalence	WV: 19.1% (95% CI: 17.8-20.5) U.S.: 16.5% (95% CI: 16.3-16.8) The West Virginia prevalence of could not afford needed medical care was significantly higher than the national prevalence. West Virginia ranked the 12 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 16.9% (95% CI: 15.0-18.9) Women: 21.2% (95% CI: 19.4-23.1) The prevalence of could not afford needed medical care was significantly higher among women than men.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 18.7% (95% CI: 17.3-20.1)</li> <li>Black, Non-Hispanic: *28.4% (95% CI: 17.9-38.9)</li> <li>Other, Non-Hispanic: *33.3% (95% CI: 16.5-50.0)</li> <li>Multiracial, Non-Hispanic: *26.3% (95% CI: 15.5-37.2)</li> <li>Hispanic: *10.2% (95% CI: 2.1-18.3)</li> <li>There was no race/ethnicity difference in the prevalence of could not afford needed medical care.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The 25-34 age group experienced the highest prevalence of could not afford needed medical care $(30.7\%)$ and those aged 65 and older had the lowest prevalence $(5.9\%)$ . The difference between these two age groups was statistically significant.
Education	Adults with less than a high school education had a significantly higher prevalence of could not afford needed medical care (26.4%) than college graduates (6.8%). Additionally, college graduates had a significantly lower prevalence of having problems affording needed health care than those with other education levels.
Household Income	The prevalence of could not afford needed medical care became steadily higher as household income declined. The prevalence of could not afford needed medical care was 3.7% for those earning \$75,000 per year or more and 32.1% for those earning less than \$15,000 per year.



\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

# Table 2.3 Could Not Afford Needed Medical Care in Past Year by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men				Woi	nen	Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,268	16.9	15.0-18.9	3,135	21.2	19.4-23.1	5,403	19.1	17.8-20.5
Age									
18-24	131	23.9	16.1-31.7	168	33.1	25.1-41.1	299	28.4	22.7-34.0
25-34	216	26.0	19.4-32.6	272	35.6	29.1-42.1	488	30.7	26.0-35.4
35-44	301	17.9	13.2-22.6	388	29.0	24.0-34.0	689	23.4	19.9-26.9
45-54	376	21.8	16.9-26.7	517	24.4	20.3-28.5	893	23.1	19.9-26.3
55-64	598	11.4	8.3-14.4	703	13.6	10.5-16.6	1,301	12.5	10.3-14.6
65+	640	5.6	3.4-7.8	1,065	6.1	4.5-7.8	1,705	5.9	4.6-7.2
Education									
Less than H.S.	329	24.0	18.4-29.5	439	28.9	23.4-34.4	768	26.4	22.5-30.3
H.S. or G.E.D.	938	18.6	15.5-21.7	1,228	22.6	19.8-25.4	2,166	20.6	18.5-22.6
Some Post-H.S.	475	17.5	13.2-21.8	776	21.8	18.0-25.5	1,251	20.0	17.1-22.8
College Graduate	525	4.3	2.3-6.3	688	9.2	6.7-11.7	1,213	6.8	5.2-8.4
Income									
Less than \$15,000	252	33.2	26.1-40.4	458	31.3	26.0-36.6	710	32.1	27.8-36.5
\$15,000 - 24,999	405	31.7	26.1-37.4	665	34.6	30.0-39.3	1,070	33.4	29.8-36.9
\$25,000 - 34,999	285	14.3	9.0-19.6	352	23.6	18.2-29.1	637	18.9	15.1-22.7
\$35,000 - 49,999	314	14.6	9.6-19.5	371	20.8	14.8-26.8	685	17.5	13.6-21.4
\$50,000 - 74,999	320	7.5	3.8-11.2	340	9.4	5.7-13.1	660	8.4	5.8-11.0
\$75,000+	426	*2.5	0.4-4.5	422	5.3	2.6-7.9	848	3.7	2.1-5.3

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

### No Personal Doctor or Health Care Provider

Definition	Responding "No" to the question "Do you have one person you think of as your personal doctor or health care provider?"
Prevalence	WV: 23.9% (95% CI: 22.5-25.4) U.S.: 22.1% (95% CI: 21.8-22.4) The prevalence of no personal doctor was significantly higher in West Virginia than the U.S. West Virginia ranked the 19 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 29.6% (95% CI: 27.3-32.0) Women: 18.5% (95% CI: 16.7-20.3) The prevalence of not having a personal doctor or health care provider was significantly higher among men than among women.
Race/Ethnicity	White, Non-Hispanic: 23.3% (95% CI: 21.8-24.8) Black, Non-Hispanic: *35.8% (95% CI: 24.6-47.0) Other, Non-Hispanic: *29.2% (95% CI: 13.3-45.2) Multiracial, Non-Hispanic: *33.4% (95% CI: 21.1-45.8) Hispanic: *29.5% (95% CI: 15.9-43.1) There was no race/ethnicity difference in the prevalence of not having a personal doctor or health care provider. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	In general, the prevalence of no personal doctor declined as age increased. The youngest age group, those aged 18-24, had the highest prevalence of no personal doctor (49.4%). The oldest age group (65 and older) had a relatively low prevalence of no personal doctor (5.2%).
Education	There was a significant difference in the prevalence of no doctor between those with less than a high school education $(26.2\%)$ and those with a college degree $(17.7\%)$ .
Household Income	Those earning less than \$15,000 per year had a higher prevalence of not having a doctor (31.2%) than those earning \$75,000 or more per year (17.5%).

# Table 2.4 No Personal Doctor or Health Care Provider by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,269	29.6	27.3-32.0	3,138	18.5	16.7-20.3	5,407	23.9	22.5-25.4
Age									
18-24	131	51.0	41.5-60.6	168	47.7	39.3-56.0	299	49.4	43.1-55.7
25-34	217	57.0	49.9-64.2	272	37.4	30.9-44.0	489	47.4	42.4-52.3
35-44	301	36.7	30.7-42.7	388	19.9	15.5-24.4	689	28.4	24.6-32.2
45-54	376	25.1	20.1-30.2	517	13.9	10.5-17.3	893	19.5	16.4-22.5
55-64	598	16.2	12.9-19.5	704	7.4	5.2-9.6	1,302	11.8	9.8-13.8
65+	640	6.1	4.0-8.1	1,067	4.5	3.1-5.8	1,707	5.2	4.0-6.3
Education									
Less than H.S.	329	29.9	23.8-36.0	441	22.3	17.0-27.6	770	26.2	22.1-30.2
H.S. or G.E.D.	938	34.5	30.7-38.3	1,228	20.3	17.4-23.3	2,166	27.6	25.2-30.1
Some Post-H.S.	476	25.5	20.7-30.3	777	17.1	13.7-20.4	1,253	20.7	17.9-23.5
College Graduate	525	22.6	18.2-27.0	688	12.9	9.9-16.0	1,213	17.7	15.0-20.3
Income									
Less than \$15,000	252	40.3	32.8-47.9	460	24.3	19.0-29.5	712	31.2	26.7-35.8
\$15,000 - 24,999	406	39.5	33.5-45.5	666	25.0	20.7-29.3	1,072	31.5	27.8-35.1
\$25,000 - 34,999	285	30.7	23.9-37.6	352	13.8	9.2-18.3	637	22.3	18.0-26.6
\$35,000 - 49,999	314	24.7	19.0-30.4	371	13.0	8.5-17.6	685	19.2	15.4-22.9
\$50,000 - 74,999	320	18.3	13.3-23.2	340	10.7	6.7-14.8	660	14.7	11.5-18.0
\$75,000+	426	22.2	17.1-27.2	422	11.6	7.5-15.7	848	17.5	14.1-20.9

### No Routine Checkup in Past Year

Definition	Responding "More than a year ago" to the question "About how long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition."
Prevalence	WV: 24.7% (95% CI: 23.3-26.2) U.S.: 32.2% (95% CI: 31.9-32.5) The West Virginia prevalence of no checkup in the past year was significantly lower than the national prevalence. West Virginia ranked the 7 <sup>th</sup> lowest among 53 BRFSS participants.
Gender	Men: 28.1% (95% CI: 25.8-30.5) Women: 21.5% (95% CI: 19.7-23.4) The prevalence of no routine checkup in the past year was significantly higher for men than for women.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 24.5% (95% CI: 22.9-26.0)</li> <li>Black, Non-Hispanic: *20.2% (95% CI: 9.9-30.5)</li> <li>Other, Non-Hispanic: *30.9% (95% CI: 16.0-45.8)</li> <li>Multiracial, Non-Hispanic: *39.9% (95% CI: 26.9-52.9)</li> <li>Hispanic: *21.6% (95% CI: 9.4-33.9)</li> <li>The prevalence of no routine checkup in the past year was significantly higher among Multiracial, Non-Hispanics than among White, Non-Hispanics. There were no other race/ethnicity differences in the prevalence of no routine checkup in the past year.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	Those 65 and older had a relatively low prevalence of no checkup in the past year (8.2%) while those aged 18-24 had the highest prevalence (45.4%).
Education	There was no difference in the prevalence of no checkup in the past year among the various education levels.
Household Income	Those earning less than \$25,000 per year had a higher prevalence of no routine checkup in the past year than those earning \$50,000 or more per year.

### Table 2.5 No Routine Checkup in Past Year by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,239	28.1	25.8-30.5	3,101	21.5	19.7-23.4	5,340	24.7	23.3-26.2
Age									
18-24	130	49.7	40.2-59.3	166	40.8	32.4-49.1	296	45.4	39.0-51.7
25-34	212	46.1	38.7-53.5	264	33.6	27.2-40.1	476	40.0	35.0-45.0
35-44	297	35.9	30.0-41.8	386	31.6	26.4-36.7	683	33.8	29.8-37.7
45-54	372	26.5	21.4-31.6	510	19.4	15.7-23.2	882	23.0	19.8-26.2
55-64	596	14.9	11.7-18.0	699	12.3	9.5-15.1	1,295	13.6	11.5-15.7
65+	627	8.3	5.9-10.7	1,054	8.1	6.2-10.0	1,681	8.2	6.7-9.7
Education									
Less than H.S.	320	31.0	24.8-37.2	428	20.0	15.0-25.0	748	25.6	21.6-29.6
H.S. or G.E.D.	927	29.0	25.3-32.7	1,215	23.6	20.6-26.6	2,142	26.4	24.0-28.8
Some Post-H.S.	469	25.7	20.7-30.7	771	21.8	18.0-25.6	1,240	23.5	20.4-26.5
College Graduate	522	26.2	21.6-30.7	683	17.8	14.5-21.2	1,205	21.9	19.1-24.8
Income									
Less than \$15,000	246	36.2	28.6-43.8	453	27.8	22.5-33.2	699	31.4	26.9-35.9
\$15,000 - 24,999	397	34.2	28.3-40.2	659	25.3	21.0-29.5	1,056	29.3	25.7-32.8
\$25,000 - 34,999	283	24.5	18.3-30.7	349	22.1	16.9-27.4	632	23.3	19.3-27.4
\$35,000 - 49,999	313	27.6	21.9-33.4	370	23.4	17.1-29.7	683	25.6	21.4-29.9
\$50,000 - 74,999	319	18.8	13.6-24.0	336	13.4	9.2-17.6	655	16.3	12.9-19.7
\$75,000+	425	22.8	17.8-27.8	420	12.6	9.2-16.1	845	18.3	15.1-21.6

## **CHAPTER 3: PHYSICAL ACTIVITY**

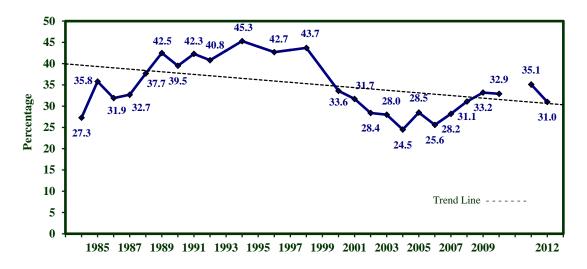
## No Leisure-Time Physical Activity for Exercise

Definition	Responding "No" to the question "During the past month, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise?"
Prevalence	WV: 31.0% (95% CI: 29.5-32.4) U.S.: 23.5% (95% CI: 23.3-23.8) The prevalence of physical inactivity was significantly higher in West Virginia than in the U.S. West Virginia ranked the 3 <sup>rd</sup> highest among 53 BRFSS participants.
Gender	Men: 27.2% (95% CI: 25.1-29.4) Women: 34.5% (95% CI: 32.5-36.5) Women had a significantly higher prevalence of physical inactivity than men.
Race/Ethnicity	White, Non-Hispanic: 31.2% (95% CI: 29.7-32.7) Black, Non-Hispanic: *34.9% (95% CI: 24.7-45.1) Other, Non-Hispanic: *34.7% (95% CI: 17.5-52.0) Multiracial, Non-Hispanic: 17.1% (95% CI: 8.7-25.6) Hispanic: *26.5% (95% CI: 14.5-38.6) The prevalence of physical inactivity among White, Non-Hispanics was significantly higher than the prevalence among Multiracial, Non-Hispanics. There were no other race/ethnicity differences in the prevalence of physical inactivity. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	In general, the prevalence of physical inactivity increased with age. The prevalence of physical inactivity among persons aged 65 and older was significantly higher than the prevalence among those aged less than 55.
Education	The prevalence of physical inactivity was significantly different for all education groups. About half of those lacking a high school education engaged in no physical activity (45.1%) whereas only 15.9% of college graduates were physically inactive.
Household Income	In general, the prevalence of physical inactivity declined with increasing income levels. The prevalence of physical inactivity was significantly higher among adults with incomes of less than \$15,000 (44.4%) than among persons with incomes in excess of \$75,000 (15.2%).

# Table 3.1 No Leisure-Time Physical Activity for Exercise by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,271	27.2	25.1-29.4	3,137	34.5	32.5-36.5	5,408	31.0	29.5-32.4	
Age										
18-24	133	14.8	7.9-21.7	168	27.6	20.4-34.8	301	21.0	16.0-26.0	
25-34	217	16.0	10.6-21.3	272	23.2	17.4-29.1	489	19.5	15.6-23.5	
35-44	301	26.3	20.7-31.9	388	33.1	27.8-38.4	689	29.7	25.8-33.5	
45-54	376	30.1	24.8-35.5	517	32.1	27.6-36.5	893	31.1	27.6-34.6	
55-64	598	35.2	30.8-39.6	704	37.2	33.2-41.2	1,302	36.2	33.3-39.2	
65+	640	34.7	30.6-38.9	1,066	44.7	41.3-48.1	1,706	40.3	37.7-43.0	
Education										
Less than H.S.	330	38.9	32.8-44.9	441	51.5	45.9-57.2	771	45.1	41.0-49.3	
H.S. or G.E.D.	939	32.1	28.6-35.6	1,227	37.1	34.0-40.2	2,166	34.5	32.2-36.8	
Some Post-H.S.	476	20.6	16.5-24.8	777	29.3	25.5-33.0	1,253	25.5	22.7-28.3	
College Graduate	525	11.5	8.6-14.4	688	20.2	16.8-23.6	1,213	15.9	13.6-18.2	
Income										
Less than \$15,000	252	41.0	33.7-48.2	459	47.1	41.5-52.7	711	44.4	40.0-48.9	
\$15,000 - 24,999	406	33.8	28.4-39.3	666	42.8	38.3-47.3	1,072	38.8	35.3-42.3	
\$25,000 - 34,999	285	35.6	29.1-42.1	352	32.9	27.4-38.5	637	34.3	30.0-38.6	
\$35,000 - 49,999	314	29.1	23.2-35.0	371	26.5	21.2-31.9	685	27.9	23.9-31.9	
\$50,000 - 74,999	320	17.4	12.8-22.0	340	25.6	20.4-30.9	660	21.3	17.8-24.8	
\$75,000+	426	13.9	10.1-17.6	422	16.9	12.9-21.0	848	15.2	12.5-18.0	

Figure 3.1 No Leisure-Time Physical Activity for Exercise by Year: WVBRFSS, 1984-2012



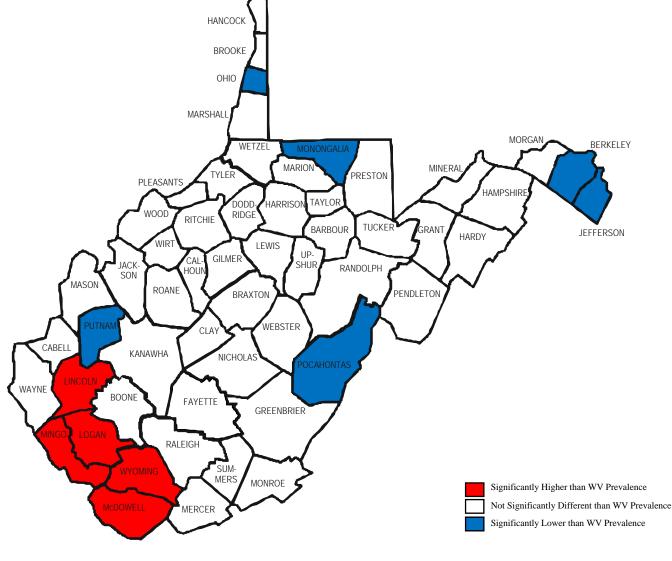
NOTE: Data are not available for the years 1993, 1995, 1997, and 1999.

\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

#### Figure 3.2 No Leisure-Time Physical Activity for Exercise by County: WVBRFSS, 2008-2012

U.S. Prevalence (2010) – 24.4%

### WV Prevalence (2008-2012) – 32.6% (Significantly Higher than U.S.)



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

## **CHAPTER 4: ORAL HEALTH**

## No Dental Visit in the Past Year

Definition	Any responses other than "Within the past year" to the question "How long has it been since you last visited a dentist or a dental clinic for any reason? Include visits to dental specialists, such as orthodontists."
Prevalence	WV: 43.6% (95% CI: 42.0-45.2) U.S.: 34.5% (95% CI: 34.2-34.8) The West Virginia prevalence of no dental visit in the past year was significantly higher than the U.S. prevalence. West Virginia ranked the 5 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 46.0% (95% CI: 43.5-48.4) Women: 41.3% (95% CI: 39.2-43.4) The prevalence of no dental visit in the past year was significantly higher among men than women.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 43.2% (95% CI: 41.5-44.8)</li> <li>Black, Non-Hispanic: *51.0% (95% CI: 39.9-62.1)</li> <li>Other, Non-Hispanic: *53.5% (95% CI: 36.3-70.7)</li> <li>Multiracial, Non-Hispanic: *52.6% (95% CI: 39.2-66.0)</li> <li>Hispanic: 38.3% (95% CI: 23.6-53.1)</li> <li>There was no race/ethnicity difference in the prevalence of no dental visit in the past year.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of no dental visit in the past year varied somewhat by age but was significantly higher among those aged 65 and older (50.4%) than among those aged 18-24 (37.7%).
Education	The prevalence of no dental visit in the past year was highest among those with less than a high school education ( $69.3\%$ ) and highest among those with a college degree ( $21.1\%$ ). There were significant differences in the prevalence of no dental visit in the past year between each level of educational attainment.
Household Income	The poorest households (those with less than \$15,000 in annual income) had a significantly higher prevalence of no dental visit in the past year (67.3%) than the wealthiest group that earns \$75,000 or more (17.3%).

### Table 4.1 No Dental Visit in the Past Year: WVBRFSS, 2012

Characteristic		Me	n		Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,251	46.0	43.5-48.4	3,108	41.3	39.2-43.4	5,359	43.6	42.0-45.2	
Age										
18-24	131	34.8	26.0-43.6	167	40.7	32.3-49.0	298	37.7	31.6-43.8	
25-34	215	46.3	39.0-53.7	270	38.9	32.4-45.4	485	42.7	37.7-47.6	
35-44	298	44.6	38.3-50.8	388	34.6	29.4-39.8	686	39.6	35.5-43.7	
45-54	372	51.4	45.7-57.1	513	42.3	37.5-47.2	885	46.8	43.1-50.6	
55-64	594	44.5	40.0-49.0	700	37.0	33.0-41.0	1,294	40.7	37.7-43.7	
65+	636	50.5	46.2-54.8	1,048	50.2	46.8-53.7	1,684	50.4	47.7-53.1	
Education										
Less than H.S.	327	71.4	65.6-77.3	431	67.1	61.6-72.7	758	69.3	65.3-73.4	
H.S. or G.E.D.	926	49.2	45.4-53.0	1,215	43.3	40.1-46.5	2,141	46.3	43.8-48.8	
Some Post-H.S.	475	37.2	32.0-42.3	772	36.5	32.3-40.6	1,247	36.8	33.5-40.0	
College Graduate	522	22.6	18.4-26.7	686	19.6	16.2-23.0	1,208	21.1	18.4-23.8	
Income										
Less than \$15,000	250	68.1	61.0-75.3	455	66.6	61.2-72.1	705	67.3	62.9-71.6	
\$15,000 - 24,999	403	64.7	59.0-70.4	659	55.7	51.1-60.4	1,062	59.8	56.1-63.4	
\$25,000 - 34,999	284	52.7	45.9-59.4	351	41.0	34.9-47.0	635	46.8	42.2-51.5	
\$35,000 - 49,999	308	44.0	37.6-50.4	369	37.1	30.8-43.4	677	40.7	36.2-45.2	
\$50,000 - 74,999	319	32.2	26.1-38.4	339	19.3	14.7-24.0	658	26.1	22.1-30.1	
\$75,000+	425	20.7	16.2-25.2	421	12.9	8.9-17.0	846	17.3	14.2-20.4	

## Had One or More Permanent Teeth Extracted

Definition	Responding "1 to 5," "6 or more but not all," or "All" to the question "How many of your permanent teeth have been removed because of tooth decay or gum disease? Include teeth lost to infection, but do not include teeth lost for other reasons, such as injury or orthodontics."
Prevalence	WV: 62.3% (95% CI: 60.7-63.9) U.S.: 45.6% (95% CI: 45.3-45.9) The West Virginia prevalence of had one or more permanent teeth extracted was significantly higher than the U.S. prevalence. West Virginia ranked the 2 <sup>nd</sup> highest among 53 BRFSS participants.
Gender	Men: 60.6% (95% CI: 58.2-63.1) Women: 64.0% (95% CI: 61.9-66.1) There was no gender difference in the prevalence of had one or more permanent teeth extracted.
Race/Ethnicity	White, Non-Hispanic: 62.6% (95% CI: 60.9-64.2) Black, Non-Hispanic: *56.3% (95% CI: 44.9-67.8) Other, Non-Hispanic: *63.7% (95% CI: 47.9-79.5) Multiracial, Non-Hispanic: *59.1% (95% CI: 45.8-72.4) Hispanic: *56.0% (95% CI: 40.5-71.6) There was no race/ethnicity difference in the prevalence of had one or more permanent teeth extracted. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	The prevalence of had one or more permanent teeth extracted increased with advanced age as might be expected.
Education	There were significant differences in the prevalence of had one or more permanent teeth extracted between each level of educational attainment. Those with less than a high school education had the largest prevalence of had one or more permanent teeth extracted (85.2%) while college graduates had the lowest prevalence (37.4%).
Household Income	The prevalence of had one or more permanent teeth extracted was significantly lower among those with \$75,000 or more annual household income (38.1%) than all other income groups. The largest prevalence of had one or more permanent teeth extracted was highest among those earning less than \$15,000 per year (77.0%).

Characteristic		Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,242	60.6	58.2-63.1	3,088	64.0	61.9-66.1	5,330	62.3	60.7-63.9	
Age										
18-24	131	21.1	13.3-28.9	167	18.9	12.6-25.3	298	20.0	15.0-25.1	
25-34	217	38.8	31.6-46.0	270	45.4	38.7-52.1	487	42.1	37.1-47.0	
35-44	301	46.7	40.6-52.9	387	55.1	49.7-60.5	688	50.9	46.8-55.0	
45-54	371	72.7	67.8-77.6	511	69.5	65.1-73.9	882	71.1	67.8-74.4	
55-64	589	76.9	73.1-80.6	693	77.5	74.2-80.8	1,282	77.2	74.7-79.7	
65+	628	88.5	85.8-91.3	1,039	88.1	86.1-90.2	1,667	88.3	86.6-90.0	
Education										
Less than H.S.	327	80.5	74.9-86.2	434	90.0	86.2-93.8	761	85.2	81.7-88.7	
H.S. or G.E.D.	927	64.6	60.8-68.4	1,203	69.8	66.5-73.0	2,130	67.1	64.6-69.6	
Some Post-H.S.	471	54.8	49.3-60.4	769	56.2	52.0-60.5	1,240	55.6	52.2-59.0	
College Graduate	516	36.9	32.3-41.4	680	37.9	33.9-41.9	1,196	37.4	34.3-40.4	
Income										
Less than \$15,000	247	71.7	64.6-78.9	455	81.0	76.1-85.8	702	77.0	72.8-81.1	
\$15,000 - 24,999	400	69.4	63.6-75.1	652	75.3	71.1-79.6	1,052	72.7	69.2-76.2	
\$25,000 - 34,999	283	75.5	69.2-81.8	346	68.5	62.5-74.6	629	72.1	67.7-76.4	
\$35,000 - 49,999	311	64.0	57.9-70.2	369	64.0	57.6-70.4	680	64.0	59.6-68.5	
\$50,000 - 74,999	316	55.2	48.8-61.7	338	52.9	46.9-58.9	654	54.1	49.7-58.6	
\$75,000+	422	40.1	34.7-45.5	420	35.6	30.5-40.7	842	38.1	34.4-41.9	

### Table 4.2 Had One or More Teeth Extracted by Demographic Characteristics: WVBRFSS, 2012

### Table 4.3 Permanent Teeth Extractions by Demographic Characteristics: WVBRFSS, 2012

Characteristic		No Teeth Missing (all ages)			6 or More Teeth Missing (all ages)			All Teeth Missing (age 65 and older)		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	5,330	37.7	36.1-39.3	5,330	32.3	30.9-33.7	1,667	33.7	31.1-36.4	
Gender										
Males	2,242	39.4	36.9-41.8	2,242	30.6	28.5-32.7	628	32.6	28.4-36.8	
Females	3,088	36.0	33.9-38.1	3,088	33.9	32.0-35.8	1,039	34.7	31.3-38.0	
Age										
18-24	298	80.0	74.9-85.0	298	*2.4	0.8-4.0				
25-34	487	57.9	53.0-62.9	487	10.3	7.1-13.5				
35-44	688	49.1	45.0-53.2	688	17.1	13.8-20.4				
45-54	882	28.9	25.6-32.2	882	33.1	29.5-36.6				
55-64	1,282	22.8	20.3-25.3	1,282	43.1	40.1-46.2				
65+	1,667	11.7	10.0-13.4	1,667	65.1	62.5-67.7	1,667	33.7	31.1-36.4	
Education										
Less than H.S.	761	14.8	11.3-18.3	761	61.5	57.2-65.9	360	58.8	53.1-64.5	
H.S. or G.E.D.	2,130	32.9	30.4-35.4	2,130	34.8	32.6-37.1	679	29.4	25.7-33.2	
Some Post-H.S.	1,240	44.4	41.0-47.8	1,240	23.7	21.1-26.2	356	23.9	19.1-28.7	
College Graduate	1,196	62.6	59.6-65.7	1,196	9.2	7.6-10.8	271	8.1	4.8-11.4	
Income										
Less than \$15,000	702	23.0	18.9-27.2	702	54.7	50.1-59.3	250	53.5	46.4-60.6	
\$15,000 - 24,999	1,052	27.3	23.8-30.8	1,052	41.6	38.1-45.1	410	41.5	36.0-47.0	
\$25,000 - 34,999	629	27.9	23.6-32.3	629	39.9	35.5-44.3	244	33.1	26.4-39.9	
\$35,000 - 49,999	680	36.0	31.5-40.4	680	31.0	27.0-35.0	206	17.8	11.6-24.0	
\$50,000 - 74,999	654	45.9	41.4-50.3	654	17.4	14.3-20.5	120	14.3	7.5-21.2	
\$75,000+	842	61.9	58.1-65.6	842	8.8	6.7-10.9	102	*7.2	1.3-13.0	

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **CHAPTER 5: WEIGHT STATUS**

## Overweight

Definition	Body Mass Index (BMI) is a calculation that standardizes the meaning of the terms obesity and overweight, thereby improving the accuracy of comparisons. BMI is body weight in kilograms divided by height in meters squared (BMI=kg/m <sup>2</sup> ). Overweight is defined as a BMI of 25.0-29.9.
Prevalence	WV: 34.5% (95% CI: 33.0-36.1) U.S.: 35.8% (95% CI: 35.5-36.1) The West Virginia and U.S. prevalence of overweight was similar. West Virginia ranked the 11 <sup>th</sup> lowest among 53 BRFSS participants.
Gender	Men: 38.9% (95% CI: 36.5-41.3) Women: 30.0% (95% CI: 28.1-32.0) Men had a significantly higher prevalence of overweight than women.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 34.7% (95% CI: 33.1-36.3)</li> <li>Black, Non-Hispanic: *30.0% (95% CI: 19.9-40.1)</li> <li>Other, Non-Hispanic: *38.6% (95% CI: 21.3-55.9)</li> <li>Multiracial, Non-Hispanic: *26.4% (95% CI: 16.2-36.6)</li> <li>Hispanic: *40.6% (95% CI: 25.2-55.9)</li> <li>There was no race/ethnicity difference in the prevalence of overweight.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	In general, the prevalence of overweight increased with age. The prevalence of overweight was lowest among those aged 18-24 (25.0%) and highest among the 55-64 age group (37.7%).
Education	The prevalence of overweight varied by educational attainment. The prevalence of overweight was significantly lower among those with less than a high school education (31.4%) and those with some college (31.9%) than among those with a college degree (39.8%).
Household Income	There was some variability in the prevalence of overweight status among income brackets. The prevalence of overweight was highest among those earning \$35,000-\$49,999 per year (39.9%) and lowest among those with incomes less than \$15,000 (25.4%).

### Table 5.1 Overweight but not Obese by Demographic Characteristics: WVBRFSS, 2012

Characteristic		Me	n		Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,238	38.9	36.5-41.3	2,887	30.0	28.1-32.0	5,125	34.5	33.0-36.1	
Age		]								
18-24	130	26.7	18.3-35.1	146	23.0	15.7-30.2	276	25.0	19.3-30.7	
25-34	212	37.7	30.8-44.7	246	27.4	21.2-33.5	458	32.8	28.1-37.5	
35-44	296	35.9	29.8-41.9	363	33.2	27.9-38.5	659	34.6	30.5-38.6	
45-54	370	41.8	36.2-47.4	472	29.3	24.6-33.9	842	35.7	32.0-39.3	
55-64	591	43.2	38.8-47.7	641	31.7	27.8-35.7	1,232	37.7	34.7-40.7	
65+	634	43.2	38.9-47.5	1,005	32.0	28.8-35.2	1,639	37.0	34.4-39.7	
Education										
Less than H.S.	320	38.0	31.8-44.3	404	24.2	19.5-29.0	724	31.4	27.4-35.4	
H.S. or G.E.D.	923	37.8	34.2-41.4	1,133	32.6	29.4-35.7	2,056	35.3	32.9-37.8	
Some Post-H.S.	471	35.2	30.2-40.2	717	29.2	25.3-33.1	1,188	31.9	28.8-35.0	
College Graduate	523	47.9	43.0-52.8	633	31.4	27.3-35.5	1,156	39.8	36.6-43.0	
Income										
Less than \$15,000	250	27.8	21.5-34.2	428	23.4	18.8-27.9	678	25.4	21.6-29.2	
\$15,000 - 24,999	398	37.0	31.4-42.7	628	25.8	21.8-29.9	1,026	31.0	27.6-34.4	
\$25,000 - 34,999	282	36.0	29.6-42.4	333	32.0	26.1-37.8	615	34.1	29.7-38.4	
\$35,000 - 49,999	313	45.1	38.8-51.4	343	33.7	27.7-39.6	656	39.9	35.4-44.3	
\$50,000 - 74,999	318	40.7	34.4-47.1	310	35.7	29.6-41.8	628	38.5	34.0-42.9	
\$75,000+	423	44.3	38.7-49.9	398	33.4	28.1-38.6	821	39.6	35.7-43.5	

Note: Overweight is defined as a body mass index of 25.0-29.9.

## Obesity

Definition	Body Mass Index (BMI) is a calculation that standardizes the meaning of the terms obesity and overweight, thereby improving the accuracy of comparisons. BMI is body weight in kilograms divided by height in meters squared (BMI=kg/m <sup>2</sup> ). Obesity is defined as a BMI of 30.0 or higher.
Prevalence	WV: 33.8% (95% CI: 32.2-35.4) U.S.: 27.7% (95% CI: 27.4-28.0) The prevalence of obesity in West Virginia was significantly higher than the U.S. prevalence. West Virginia ranked the 4 <sup>th</sup> highest among 53 BRFSS participants.
Gender	<b>Men:</b> 34.5% (95% CI: 32.1-36.9)
	Women: 33.1% (95% CI: 31.0-35.1)
	There was no significant gender difference for the prevalence of obesity.
Race/Ethnicity	White, Non-Hispanic: 33.8% (95% CI: 32.1-35.4) Black, Non-Hispanic: *43.3% (95% CI: 31.9-54.6) Other, Non-Hispanic: *27.3% (95% CI: 10.2-44.3) Multiracial, Non-Hispanic: *32.9% (95% CI: 19.7-46.0) Hispanic: *25.1% (95% CI: 12.0-38.1) There was no race/ethnicity difference in the prevalence of obesity. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	There were no consistent age differences in the prevalence of obesity. The 35-44 age group had the highest prevalence of obesity (39.6%) and was significantly higher than the 18-24 age group (26.1%) and the 65 and older age group (28.7%).
Education	The prevalence of obesity was significantly lower among college graduates (28.1%) than among high school graduates (35.6%) and those with some college (35.0%).
Household Income	There was no household income difference in the prevalence of obesity.

Table 5.2	<b>Obesity by</b>	Demographic	<b>Characteristics:</b>	WVBRFSS, 2012
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Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,238	34.5	32.1-36.9	2,887	33.1	31.0-35.1	5,125	33.8	32.2-35.4	
Age		]								
18-24	130	24.2	15.6-32.7	146	28.5	19.8-37.1	276	26.1	20.0-32.2	
25-34	212	32.6	25.4-39.7	246	30.5	24.2-36.8	458	31.6	26.8-36.4	
35-44	296	43.4	37.2-49.5	363	35.5	30.0-41.0	659	39.6	35.4-43.7	
45-54	370	40.2	34.5-45.8	472	34.5	29.8-39.3	842	37.4	33.7-41.1	
55-64	591	37.2	32.8-41.5	641	39.3	35.0-43.5	1,232	38.2	35.1-41.2	
65+	634	27.6	23.7-31.5	1,005	29.5	26.2-32.8	1,639	28.7	26.1-31.2	
Education										
Less than H.S.	320	27.9	22.3-33.5	404	38.8	33.1-44.5	724	33.1	29.1-37.2	
H.S. or G.E.D.	923	36.5	32.8-40.2	1,133	34.6	31.3-37.8	2,056	35.6	33.1-38.1	
Some Post-H.S.	471	39.0	33.7-44.3	717	31.8	27.7-35.9	1,188	35.0	31.8-38.3	
College Graduate	523	30.2	25.7-34.8	633	26.0	22.1-29.8	1,156	28.1	25.2-31.1	
Income										
Less than \$15,000	250	31.8	24.8-38.7	428	36.7	31.1-42.3	678	34.5	30.1-38.9	
\$15,000 - 24,999	398	34.9	29.2-40.6	628	39.3	34.6-44.0	1,026	37.3	33.6-40.9	
\$25,000 - 34,999	282	34.8	28.2-41.5	333	37.3	31.3-43.3	615	36.0	31.5-40.5	
\$35,000 - 49,999	313	30.7	25.0-36.4	343	32.0	25.5-38.4	656	31.3	27.0-35.6	
\$50,000 - 74,999	318	38.7	32.5-44.9	310	31.4	25.6-37.2	628	35.4	31.1-39.7	
\$75,000+	423	40.1	34.4-45.8	398	25.6	20.7-30.4	821	33.9	30.0-37.8	

Note: Obesity is defined as a body mass index of 30.0 or higher.



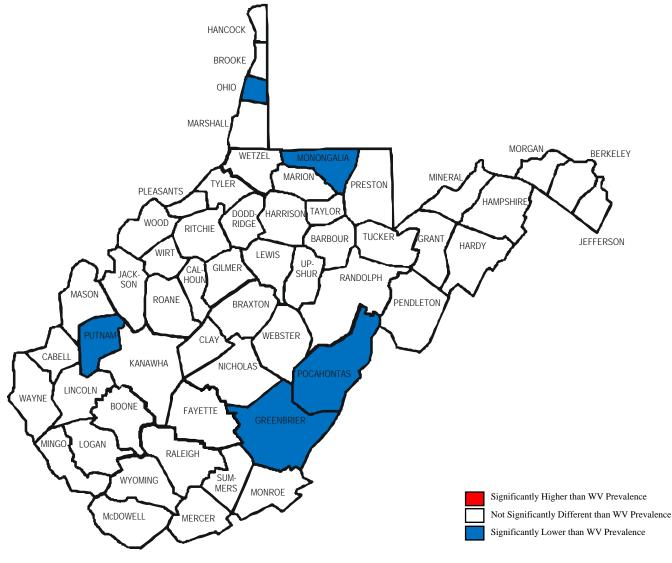
#### Figure 5.1 Obesity and Overweight by Year: WVBRFSS, 1987-2012

\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

Figure 5.2 Obesity (Body Mass Index of 30.0 or Higher) by County: WVBRFSS, 2008-2012

U.S. Prevalence (2010) – 27.8%





County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

## **Overweight or Obese**

Definition	Body Mass Index (BMI) is a calculation that standardizes the meaning of the terms obesity and overweight, thereby improving the accuracy of comparisons. BMI is body weight in kilograms divided by height in meters squared $(BMI=kg/m^2)$ . Overweight or obese is defined as a BMI of 25.0 or higher.
Prevalence	WV: 68.3% (95% CI: 66.8-69.9) U.S.: 63.5% (95% CI: 63.2-63.8) The prevalence of overweight or obese in West Virginia was significantly higher than the U.S. prevalence. West Virginia ranked the 4 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 73.4% (95% CI: 71.2-75.7) Women: 63.1% (95% CI: 61.0-65.2) Men had a significantly higher prevalence of overweight or obese than women.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 68.5% (95% CI: 66.9-70.1)</li> <li>Black, Non-Hispanic: *73.3% (95% CI: 62.0-84.6)</li> <li>Other, Non-Hispanic: *65.9% (95% CI: 50.0-81.7)</li> <li>Multiracial, Non-Hispanic: *59.2% (95% CI: 46.1-72.3)</li> <li>Hispanic: *65.6% (95% CI: 51.2-80.1)</li> <li>There was no race/ethnicity difference in the prevalence of overweight or obese.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	There were no consistent age differences in the prevalence of overweight or obese. The 18-24 age group had the lowest prevalence of overweight or obese (51.1%) and was significantly lower than all other age groups.
Education	There was no significant difference in the prevalence of overweight or obese by educational attainment.
Household Income	In general, the prevalence of overweight or obese increased with increasing levels of household income. The prevalence of overweight or obese was significantly lower among those earning less than \$21,000 per year (59.9%) than among all other income groups.

### Table 5.3 Overweight or Obese by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,238	73.4	71.2-75.7	2,887	63.1	61.0-65.2	5,125	68.3	66.8-69.9	
Age										
18-24	130	50.9	41.3-60.4	146	51.4	42.4-60.5	276	51.1	44.5-57.7	
25-34	212	70.3	63.5-77.2	246	57.8	50.9-64.8	458	64.4	59.4-69.3	
35-44	296	79.2	74.2-84.3	363	68.7	63.6-73.8	659	74.1	70.5-77.7	
45-54	370	82.0	77.5-86.4	472	63.8	58.9-68.7	842	73.1	69.7-76.5	
55-64	591	80.4	76.9-83.8	641	71.0	67.1-74.9	1,232	75.9	73.2-78.5	
65+	634	70.8	66.9-74.7	1,005	61.5	58.1-64.9	1,639	65.7	63.1-68.3	
Education										
Less than H.S.	320	66.0	59.8-72.1	404	63.0	57.2-68.8	724	64.6	60.3-68.8	
H.S. or G.E.D.	923	74.3	70.9-77.7	1,133	67.1	63.9-70.4	2,056	70.9	68.6-73.3	
Some Post-H.S.	471	74.2	69.3-79.1	717	61.0	56.7-65.3	1,188	67.0	63.7-70.2	
College Graduate	523	78.1	74.0-82.2	633	57.4	53.0-61.7	1,156	67.9	64.9-71.0	
Income		]								
Less than \$15,000	250	59.6	52.1-67.0	428	60.1	54.3-65.9	678	59.9	55.2-64.5	
\$15,000 - 24,999	398	72.0	66.5-77.4	628	65.1	60.5-69.7	1,026	68.3	64.7-71.8	
\$25,000 - 34,999	282	70.8	64.5-77.2	333	69.3	63.2-75.3	615	70.1	65.7-74.5	
\$35,000 - 49,999	313	75.8	70.3-81.4	343	65.6	59.7-71.6	656	71.1	67.1-75.2	
\$50,000 - 74,999	318	79.4	74.3-84.5	310	67.1	61.3-72.9	628	73.9	70.0-77.8	
\$75,000+	423	84.4	79.9-88.8	398	58.9	53.4-64.4	821	73.5	69.9-77.1	

Note: Overweight or obese is defined as a body mass index of 25.0 or higher.

## Weight Loss Advice

Definition	Responding "Yes, lose weight" to the question "In the past 12 months, has a doctor, nurse, or other health professional given you advice about your weight?"
Prevalence	<b>WV: 20.7%</b> (95% CI: 19.4-21.9) Because this was a state added question, no national data are available for comparison.
Gender	<b>Men:</b> 19.5% (95% CI: 17.6-21.4) <b>Women:</b> 21.8% (95% CI: 20.1-23.5) There was no gender difference in the prevalence of weight loss advice.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 20.9% (95% CI: 19.5-22.2)</li> <li>Black, Non-Hispanic: 22.6% (95% CI: 14.3-31.0)</li> <li>Other, Non-Hispanic: *18.0% (95% CI: 3.0-33.1)</li> <li>Multiracial, Non-Hispanic: *16.1% (95% CI: 6.7-25.6)</li> <li>Hispanic: *16.1% (95% CI: 6.7-25.5)</li> <li>There was no race/ethnicity difference in the prevalence of weight loss advice.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	There were no consistent age differences in the prevalence of weight loss advice. The 55-64 age group had the highest prevalence of weight loss advice $(28.2\%)$ and was significantly higher than the 18-24 age group $(9.0\%)$ , the 25-34 age group $(13.2\%)$ , and the 65 and older age group $(18.1\%)$ .
Education	The prevalence of weight loss advice was significantly higher among those with a college degree (23.1%) than among those with less than a high school education (17.1%).
Household Income	There was no household income difference in the prevalence of weight loss advice.

Table 5.3 Doctor	Advice to Lose	Weight by	Demographic	Characteristics.	WVBRFSS, 2012
Table 5.5 Ductor	Auvice to Luse	weight by	Demographic	Characteristics.	W V DIAT 55, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,219	19.5	17.6-21.4	3,088	21.8	20.1-23.5	5,307	20.7	19.4-21.9
Age									
18-24	123	*5.5	0.8-10.3	161	12.6	6.8-18.4	284	9.0	5.2-12.7
25-34	208	9.1	4.9-13.3	262	17.5	12.5-22.5	470	13.2	9.9-16.6
35-44	294	23.1	17.9-28.3	384	25.8	20.9-30.7	678	24.5	20.9-28.0
45-54	365	26.1	21.0-31.2	511	27.2	22.8-31.5	876	26.6	23.3-30.0
55-64	591	28.2	24.2-32.2	695	28.2	24.5-31.9	1,286	28.2	25.5-30.9
65+	632	18.9	15.5-22.3	1,054	17.4	14.9-20.0	1,686	18.1	16.0-20.1
Education									
Less than H.S.	321	16.7	12.1-21.2	434	17.6	13.3-21.9	755	17.1	14.0-20.3
H.S. or G.E.D.	908	18.3	15.4-21.1	1,210	24.9	22.1-27.8	2,118	21.5	19.5-23.6
Some Post-H.S.	469	21.1	17.2-25.1	767	19.4	16.1-22.7	1,236	20.2	17.6-22.7
College Graduate	520	23.3	19.2-27.5	674	22.9	19.4-26.5	1,194	23.1	20.4-25.9
Income									
Less than \$15,000	240	13.3	8.3-18.3	449	24.7	19.7-29.7	689	19.8	16.2-23.5
\$15,000 - 24,999	399	19.8	15.0-24.5	657	21.8	17.9-25.6	1,056	20.9	17.9-23.9
\$25,000 - 34,999	279	19.0	14.1-23.9	351	24.9	19.8-29.9	630	21.9	18.4-25.5
\$35,000 - 49,999	305	19.0	14.2-23.8	367	20.1	15.0-25.2	672	19.5	16.0-23.0
\$50,000 - 74,999	314	23.9	18.5-29.3	330	28.1	22.8-33.5	644	25.9	22.1-29.7
\$75,000+	421	22.9	18.5-27.4	415	20.1	16.0-24.1	836	21.7	18.6-24.8

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **CHAPTER 6: TOBACCO USE**

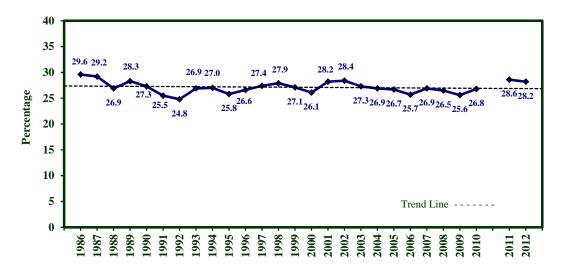
## **Current Cigarette Smoking**

Definition	Current cigarette smoking is defined as smoking at least 100 cigarettes in one's lifetime and currently smoking every day or some days.
Prevalence	WV: 28.2% (95% CI: 26.7-29.7) U.S.: 18.8% (95% CI: 18.5-19.0) The West Virginia prevalence of current cigarette smoking was significantly higher than the national prevalence. West Virginia ranked the 2 <sup>nd</sup> highest among the 53 BRFSS participants.
Gender	<b>Men</b> : 28.7% (95% CI: 26.5-31.0) <b>Women:</b> 27.6% (95% CI: 25.6-29.6) There was no gender difference in the prevalence of cigarette smoking.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 27.7% (95% CI: 26.2-29.3)</li> <li>Black, Non-Hispanic: 26.4% (95% CI: 16.9-35.9)</li> <li>Other, Non-Hispanic: *31.9% (95% CI: 16.1-47.8)</li> <li>Multiracial, Non-Hispanic: *42.8% (95% CI: 29.5-56.0)</li> <li>Hispanic: *28.0% (95% CI: 15.2-40.8)</li> <li>The prevalence of cigarette smoking was significantly higher among Multiracial, Non-Hispanics than among White, Non-Hispanics. There was no other race/ethnicity difference in the prevalence of cigarette smoking.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	In general, the prevalence of smoking was higher among those aged 18-54 than those aged 55 and older. The prevalence of smoking was significantly lower among those aged 65 and older $(10.4\%)$ than among any other age group. The prevalence of smoking was highest in the 25-34 age group (42.1%).
Education	The prevalence of smoking was lowest among college graduates $(13.5\%)$ and was significantly lower than all other education groups. Adults with less than a high school degree had the highest prevalence of current cigarette smoking $(41.0\%)$ and the prevalence was significantly higher than all other education groups.
Household Income	The prevalence of current smoking decreased as household income increased. The highest prevalence of smoking was among those earning less than \$15,000 per year (44.4%). The lowest prevalence of smoking was among adults earning \$75,000 or more per year (15.0%).

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,262	28.7	26.5-31.0	3,128	27.6	25.6-29.6	5,390	28.2	26.7-29.7	
Age										
18-24	132	32.2	23.7-40.7	167	34.2	26.1-42.4	299	33.2	27.3-39.1	
25-34	214	39.5	32.2-46.8	271	44.8	38.1-51.5	485	42.1	37.2-47.1	
35-44	300	31.0	25.1-36.9	388	35.5	30.2-40.8	688	33.2	29.3-37.2	
45-54	376	34.2	28.9-39.6	516	33.9	29.3-38.6	892	34.1	30.6-37.6	
55-64	598	29.7	25.6-33.8	700	21.4	17.9-24.9	1,298	25.5	22.8-28.2	
65+	636	10.8	8.0-13.5	1,064	10.1	7.9-12.2	1,700	10.4	8.7-12.1	
Education										
Less than H.S.	327	40.5	34.2-46.8	438	41.5	35.8-47.2	765	41.0	36.7-45.3	
H.S. or G.E.D.	936	31.5	27.9-35.0	1,225	28.0	24.9-31.1	2,161	29.8	27.4-32.1	
Some Post-H.S.	475	27.0	22.3-31.6	775	26.2	22.3-30.0	1,250	26.5	23.5-29.5	
College Graduate	523	11.7	8.5-15.0	686	15.2	12.0-18.5	1,209	13.5	11.2-15.8	
Income										
Less than \$15,000	251	48.0	40.5-55.5	456	41.6	35.9-47.2	707	44.4	39.8-49.0	
\$15,000 - 24,999	405	37.5	31.6-43.3	665	35.2	30.5-39.8	1,070	36.2	32.5-39.8	
\$25,000 - 34,999	283	28.2	21.7-34.7	352	25.0	19.5-30.5	635	26.6	22.4-30.9	
\$35,000 - 49,999	314	27.9	22.0-33.9	369	26.2	20.1-32.4	683	27.1	22.8-31.4	
\$50,000 - 74,999	319	20.6	15.5-25.8	338	19.9	14.9-24.8	657	20.3	16.7-23.9	
\$75,000+	425	14.6	10.6-18.7	422	15.6	11.2-20.0	847	15.0	12.1-18.0	

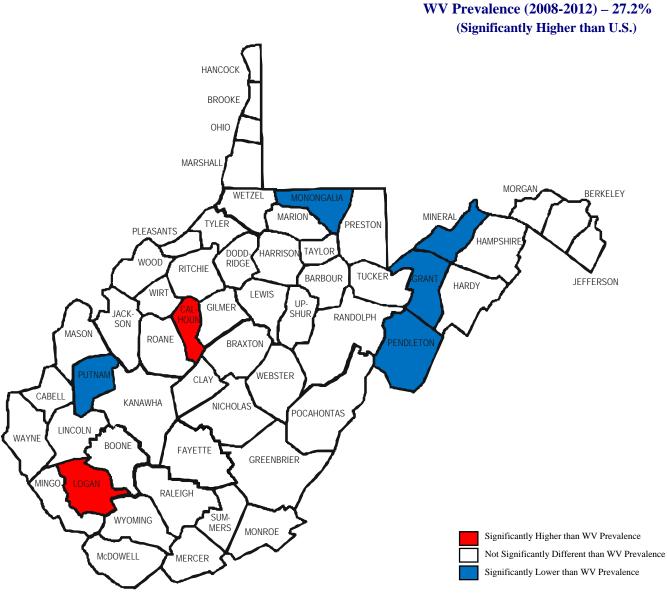
#### Table 6.1 Current Cigarette Smoking by Demographic Characteristics: WVBRFSS, 2012

#### Figure 6.1 Current Cigarette Smoking by Year: WVBRFSS, 1986-2012



\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

U.S. Prevalence (2010) - 17.1%



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

## **Smoking Cessation**

Definition	Among current smokers, responding "Yes" to the question "During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?"
Prevalence	WV: 51.0% (95% CI: 47.7-54.3) U.S.: 60.4% (95% CI: 59.8-61.1) The U.S. prevalence of smoking cessation was significantly higher than the West Virginia prevalence. West Virginia ranked the lowest among 53 BRFSS participants.
Gender	<b>Men</b> : 47.3% (95% CI: 42.5-52.0) <b>Women:</b> 54.7% (95% CI: 50.3-59.1) There was no gender difference in the prevalence of smoking cessation.
Race/Ethnicity	No race/ethnicity analysis was conducted for smoking cessation due to small sample size.
Age	There was no age difference in the prevalence of smoking cessation.
Education	There was no educational attainment difference in the prevalence of smoking cessation.
Household Income	There was no annual household income difference in the prevalence of smoking cessation.

Table 6.2 Trying	g to Quit Smoking	y by Demographic	Characteristics:	WVBRFSS, 2012
Table 0.2 Hym	5 to Quit Smoking	5 by Demographic	character istics.	

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	567	47.3	42.5-52.0	719	54.7	50.3-59.1	1,286	51.0	47.7-54.3
Age									
18-24	43	*65.4	50.4-80.4	54	*54.2	39.0-69.3	97	*59.7	49.0-70.5
25-34	77	*39.4	27.9-51.0	104	*54.5	43.8-65.2	181	47.4	39.4-55.4
35-44	84	*51.3	39.6-63.0	129	53.3	43.7-62.9	213	52.4	44.9-59.8
45-54	124	45.1	35.5-54.7	178	56.6	48.2-64.9	302	50.8	44.4-57.3
55-64	174	44.5	36.3-52.6	148	59.3	50.3-68.4	322	50.7	44.6-56.9
65+	65	*39.1	26.0-52.2	105	*47.5	36.2-58.7	170	43.6	35.0-52.2
Education									
Less than H.S.	117	*40.0	29.8-50.2	146	57.8	48.0-67.5	263	48.9	41.7-56.0
H.S. or G.E.D.	265	47.1	40.2-53.9	298	52.1	45.5-58.8	563	49.4	44.6-54.2
Some Post-H.S.	123	53.3	43.3-63.3	179	55.3	46.3-64.2	302	54.4	47.7-61.1
College Graduate	62	*56.1	41.3-70.9	96	*55.3	43.7-66.8	158	55.6	46.5-64.8
Income									
Less than \$15,000	110	*45.6	34.7-56.6	170	58.0	48.9-67.2	280	52.2	44.9-59.4
\$15,000 - 24,999	130	*49.5	39.4-59.5	188	55.6	47.0-64.2	318	52.8	46.2-59.3
\$25,000 - 34,999	65	*47.1	33.1-61.1	74	*57.5	44.6-70.5	139	52.0	42.3-61.7
\$35,000 - 49,999	74	*40.8	28.1-53.4	77	*49.2	34.8-63.6	151	44.6	35.2-54.1
\$50,000 - 74,999	61	*39.8	26.3-53.3	59	*59.4	45.5-73.3	120	*48.9	38.8-58.9
\$75,000+	55	*53.0	38.1-67.9	55	*55.4	39.8-71.0	110	*54.1	43.3-64.9

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **Smokeless Tobacco Use**

Definition	Responding "Every day" or "Some days" to the question "Do you currently use chewing tobacco, snuff, or snus every day, some days, or not at all?"
Prevalence	<ul> <li>WV: 8.6% (95% CI: 7.6-9.5)</li> <li>U.S.: 3.5% (95% CI: 3.4-3.6)</li> <li>The West Virginia prevalence of smokeless tobacco use was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.</li> </ul>
Gender	Men: 17.2% (95% CI: 15.3-19.1) Women: *0.4% (95% CI: 0.1-0.6) There was a significant gender difference in the prevalence of smokeless tobacco use with men having a significantly higher prevalence than women. No further analysis with the female smokeless tobacco use data could be performed due to unstable estimates. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 8.8% (95% CI: 7.8-9.9)</li> <li>Black, Non-Hispanic: *1.1% (95% CI: 0.0-3.4)</li> <li>Other, Non-Hispanic: *3.7% (95% CI: 0.0-9.0)</li> <li>Multiracial, Non-Hispanic: *7.1% (95% CI: 1.1-13.1)</li> <li>Hispanic: *9.2% (95% CI: 0.0-18.6)</li> <li>The prevalence of smokeless tobacco use was significantly higher among White, Non-Hispanics than among Black, Non-Hispanics. There was no other race/ethnicity difference in the prevalence of smokeless tobacco use.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of smokeless tobacco use was highest among those aged 35-44 (14.4%) and lowest among those aged 65 and older (4.0%).
Education	College graduates had the lowest prevalence of smokeless tobacco use $(5.1\%)$ and this prevalence was significantly lower than the prevalence among those with less than a high school education (12.5%) and those with a high school degree (10.2%).
Household Income	There was no household income difference in the prevalence of smokeless tobacco use.

### Table 6.3 Smokeless Tobacco Use by Demographic Characteristics: WVBRFSS, 2012

Characteristic		Me	en	Total			
	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,266	17.2	15.3-19.1	5,400	8.6	7.6-9.5	
Age							
18-24	133	16.2	10.0-22.3	300	8.6	5.4-11.9	
25-34	216	22.0	15.9-28.0	487	11.4	8.2-14.7	
35-44	300	28.2	22.6-33.9	688	14.4	11.3-17.6	
45-54	375	19.3	14.8-23.9	892	9.6	7.3-12.0	
55-64	598	11.4	8.6-14.2	1,300	5.8	4.3-7.2	
65+	638	8.7	6.3-11.2	1,705	4.0	2.9-5.1	
Education							
Less than H.S.	329	23.7	18.3-29.2	769	12.5	9.6-15.5	
H.S. or G.E.D.	937	19.4	16.4-22.3	2,164	10.2	8.6-11.8	
Some Post-H.S.	474	13.0	9.5-16.5	1,249	5.6	4.1-7.2	
College Graduate	525	10.4	7.2-13.6	1,213	5.1	3.5-6.8	
Income							
Less than \$15,000	251	14.9	9.5-20.2	709	7.3	4.8-9.8	
\$15,000 - 24,999	405	19.2	14.3-24.1	1,070	8.7	6.4-11.0	
\$25,000 - 34,999	283	17.1	11.6-22.5	635	8.5	5.6-11.4	
\$35,000 - 49,999	314	16.9	12.1-21.7	685	8.9	6.2-11.5	
\$50,000 - 74,999	320	16.8	12.0-21.7	659	8.9	6.3-11.6	
\$75,000+	425	17.8	13.6-21.9	847	10.2	7.8-12.7	

# **CHAPTER 7: CANCER SCREENING**

## **Breast Cancer Screening – Clinical Breast Exam**

Definitions	<ul> <li>Never Had a Clinical Breast Exam (CBE)</li> <li>Responding "No" to the question "A clinical breast exam is when a doctor, nurse, or other health professional feels the breasts for lumps. Have you ever had a clinical breast exam?"</li> <li>No Clinical Breast Exam (CBE) in the Past Year</li> <li>Responding "Yes" to the above question and any response other than "Within the past year" to the question "How long has it been since your last breast exam?"</li> <li>Both indicators are restricted to women aged 40 and older.</li> </ul>
Prevalence	<ul> <li>Never Had a Clinical Breast Exam (CBE)</li> <li>WV: 11.6% (95% CI: 10.2-13.1)</li> <li>U.S.: 7.6% (95% CI: 7.3-7.8)</li> <li>The West Virginia prevalence of never had a clinical breast exam among women aged 40 and older was significantly higher than the U.S. prevalence. West Virginia ranked the 4<sup>th</sup> highest among 53 BRFSS participants.</li> <li>No Clinical Breast Exam (CBE) in the Past Year</li> <li>WV: 42.6% (95% CI: 40.4-44.9)</li> <li>U.S.: 39.6% (95% CI: 39.2-40.1)</li> <li>The West Virginia prevalence of no clinical breast exam in the past year among women aged 40 and older was significantly higher than the U.S. prevalence.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was completed on these indicators due to small sample size.
Age	The prevalence of never had a clinical breast exam was highest among those aged 65 and older (16.0%) and lowest among those aged 40-44 (8.0%). This difference was statistically significant. The prevalence of no clinical breast exam in the past year was highest among those aged 65 and older (48.3%) and was significantly higher than the prevalence among those aged 45-64.
Education	The prevalence of never had a clinical breast exam was highest among those with less than a high school education and was significantly higher than all other education groups. The prevalence of no clinical breast exam in the past year showed a similar pattern.
Household Income	The prevalence of never had a clinical breast exam was highest among those with an annual household income of less than \$15,000 per year and was significantly higher than among those with an annual household income of \$75,000 or more per year. The prevalence of no clinical breast exam in the past year showed a similar pattern.

# Table 7.1 Prevalence of Clinical Breast Exam (CBE) Among Women 40 and Older byDemographic Characteristics: WVBRFSS, 2012

Characteristic	Never Had a CBE			No CBE in Past Year		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,460	11.6	10.2-13.1	2,414	42.6	40.4-44.9
Age						
40-44	197	8.0	3.8-12.3	194	46.6	38.9-54.3
45-54	514	8.2	5.5-10.9	512	37.1	32.4-41.8
55-64	702	10.9	8.4-13.3	694	39.1	35.0-43.1
65+	1,047	16.0	13.5-18.6	1,014	48.3	44.8-51.8
Education						
Less than H.S.	380	21.5	16.9-26.0	370	55.4	49.5-61.2
H.S. or G.E.D.	1,006	12.4	10.1-14.6	985	42.5	39.1-46.0
Some Post-H.S.	569	7.6	5.3-9.9	560	43.0	38.3-47.7
College Graduate	503	4.4	2.5-6.3	497	26.9	22.7-31.0
Income						
Less than \$15,000	377	20.9	16.2-25.6	370	54.9	48.8-61.0
\$15,000 - 24,999	520	13.2	10.0-16.4	509	49.6	44.4-54.7
\$25,000 - 34,999	294	10.2	6.1-14.3	289	42.2	35.7-48.7
\$35,000 - 49,999	302	11.3	7.3-15.3	299	41.6	35.2-47.9
\$50,000 - 74,999	252	6.0	2.5-9.5	252	33.9	27.3-40.6
\$75,000+	309	*3.5	1.2-5.7	306	25.3	20.0-30.7

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **Breast Cancer Screening – Mammogram**

Definitions	<ul> <li>Never Had a Mammogram</li> <li>Responding "No" to the question "A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?"</li> <li>No Mammogram in the Past 2 Years</li> <li>Responding "Yes" to the above question and any response other than "Within the past year" or "Within the past 2 years " to the question "How long has it been since you had your last mammogram?"</li> <li>Both indicators are restricted to women aged 40 and older.</li> </ul>
Prevalence	<ul> <li>Never Had a Mammogram</li> <li>WV: 10.5% (95% CI: 9.0-12.0)</li> <li>U.S.: 7.8% (95% CI: 7.6-8.1)</li> <li>The West Virginia prevalence of never had a mammogram among women aged 40 and older was significantly higher than the U.S. prevalence. West Virginia ranked the 6<sup>th</sup> highest among 53 BRFSS participants.</li> <li>No Mammogram in the Past 2 Years</li> <li>WV: 27.8% (95% CI: 25.7-29.9)</li> <li>U.S.: 25.7% (95% CI: 25.3-26.1)</li> <li>The West Virginia prevalence of no mammogram in the past 2 years among women aged 40 and older was similar to the U.S. prevalence. West Virginia ranked the 21<sup>st</sup> highest among 53 BRFSS participants.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was completed on these indicators due to small sample size.
Age	The prevalence of never had a mammogram was highest among those aged 40-44 (32.0%) and lowest among those aged 65 and older (5.1%). This difference was statistically significant. The prevalence of no mammogram in the past 2 years was highest among those aged 40-44 (49.7%) and was significantly higher than all other age groups.
Education	There was no educational attainment difference in the prevalence of never had a mammogram. The prevalence of no mammogram in the past 2 years was highest among those with less than a high school education (37.7%) and was significantly higher than all other educational attainment groups.
Household Income	There was no household income difference in the prevalence of never had a mammogram. The prevalence of no mammogram in the past 2 years was highest among those with an annual household income of less than \$15,000 per year (38.5%) and was significantly higher than among those with an annual household income of \$75,000 or more per year (20.7%).

# Table 7.2 Prevalence of Mammogram Among Women 40 and Older by DemographicCharacteristics: WVBRFSS, 2012

	Never Had a			No Mammogram in the			
Characteristic	Mammogram				Past 2 Years		
	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,475	10.5	9.0-12.0	2,445	27.8	25.7-29.9	
Age							
40-44	197	32.0	24.9-39.1	197	49.7	42.0-57.3	
45-54	515	12.8	9.4-16.3	509	29.9	25.4-34.5	
55-64	702	5.9	3.9-7.8	698	19.2	15.9-22.5	
65+	1,061	5.1	3.7-6.6	1,041	25.3	22.4-28.3	
Education							
Less than H.S.	383	13.0	9.1-17.0	370	37.7	32.0-43.4	
H.S. or G.E.D.	1,012	11.2	8.8-13.5	1,000	28.1	24.9-31.2	
Some Post-H.S.	573	9.9	6.9-12.9	572	25.6	21.5-29.7	
College Graduate	505	6.7	3.9-9.5	501	18.7	14.8-22.7	
Income							
Less than \$15,000	378	15.0	10.3-19.6	369	38.5	32.5-44.5	
\$15,000 - 24,999	523	10.1	7.0-13.2	517	32.6	27.8-37.4	
\$25,000 - 34,999	297	11.1	6.6-15.5	297	23.3	17.6-29.0	
\$35,000 - 49,999	304	7.1	3.4-10.8	304	23.1	17.4-28.7	
\$50,000 - 74,999	252	8.3	4.3-12.3	252	18.9	13.2-24.5	
\$75,000+	309	8.3	4.6-11.9	307	20.7	15.6-25.9	

## **Cervical Cancer Screening**

Definitions	<ul> <li>Never Had a Pap Test</li> <li>Responding "No" to the question "A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?"</li> <li>No Pap Test in the Past 3 Years</li> <li>Responding "Yes" to the above question and responding "Within the past 5 years (3 years but less than 5 years ago)" or "5 or more years ago" to the question "How long has it been since you had your last Pap test?"</li> <li>Both indicators are restricted to adult women.</li> </ul>
Prevalence	<ul> <li>Never Had a Pap Test</li> <li>WV: 6.8% (95% CI: 5.5-8.1)</li> <li>U.S.: 8.4% (95% CI: 8.1-8.7)</li> <li>The West Virginia prevalence of never had a Pap test among women was similar to the U.S. prevalence. West Virginia ranked the 38<sup>th</sup> highest among 53 BRFSS participants.</li> <li>No Pap Test in the Past 3 Years</li> <li>WV: 24.0% (95% CI: 21.7-26.2)</li> <li>U.S.: 22.4% (95% CI: 22.0-22.8)</li> <li>The West Virginia prevalence of no Pap test in the past 3 years among women was similar to the U.S. prevalence. West Virginia ranked the 16<sup>th</sup> highest among 53 BRFSS participants.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was completed on these indicators due to small sample size.
Age	The prevalence of never had a Pap test was highest among those aged 18-24 (29.6%). The prevalence of no Pap test in the past 3 years was highest among those aged 65 and older (40.3%) and was significantly higher than the prevalence among all other age groups except the 18-24 year old age group (32.0%).
Education	There was no educational attainment difference in the prevalence of never had a Pap test. The prevalence of no Pap test in the past 3 years was highest among those with less than a high school education (36.3%) and was significantly higher than the prevalence among those with some college (22.2%) and among college graduates (11.7%).
Household Income	There was no annual household income difference in the prevalence of never had a Pap test. The prevalence of no Pap test in the past 3 years was highest among those with an annual household income of less than \$15,000 per year (29.9%) and was significantly higher than among those with an annual household income of \$75,000 or more per year (10.6%).

# Table 7.3 Prevalence of Pap Test Among Women by Demographic Characteristics: WVBRFSS,2012

Characteristic	Never Had a Pap Test			No Pap Test in the Past 3 Years		
-	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	3,116	6.8	5.5-8.1	2,048	24.0	21.7-26.2
Age						
18-24	167	29.6	21.4-37.8	167	32.0	23.7-40.3
25-34	269	*2.7	0.8-4.7	261	13.9	9.0-18.8
35-44	388	*2.3	0.6-4.1	317	17.8	13.0-22.7
45-54	513	*2.1	0.8-3.5	355	22.7	17.8-27.6
55-64	701	3.2	1.7-4.7	417	18.9	14.8-22.9
65+	1,057	7.4	5.6-9.1	531	40.3	35.6-45.0
Education						
Less than H.S.	434	8.1	5.1-11.2	227	36.3	28.8-43.8
H.S. or G.E.D.	1,217	8.0	6.0-10.0	761	27.0	23.3-30.7
Some Post-H.S.	774	6.9	4.0-9.7	534	22.2	17.8-26.6
College Graduate	688	*2.6	1.0-4.1	526	11.7	8.7-14.7
Income						
Less than \$15,000	453	7.2	4.4-10.0	263	29.9	23.2-36.6
\$15,000 - 24,999	662	5.3	3.2-7.4	418	25.7	20.9-30.6
\$25,000 - 34,999	351	6.1	2.9-9.2	229	24.4	18.1-30.8
\$35,000 - 49,999	371	*5.9	0.9-10.9	250	23.1	15.4-30.7
\$50,000 - 74,999	338	*3.8	0.7-6.8	251	13.3	8.3-18.3
\$75,000+	422	*2.5	0.2-4.9	322	10.6	6.4-14.7

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **Prostate Cancer Screening – Digital Rectal Exam**

Definitions	<ul> <li>Never Had a Digital Rectal Exam (DRE)</li> <li>Responding "No" to the question "A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?"</li> <li>No Digital Rectal Exam (DRE) in the Past Year</li> <li>Responding "Yes" to the above question and any response other than "Within the past year" to the question "How long has it been since your last digital rectal exam?"</li> <li>Both indicators are restricted to men ages 50 and older.</li> </ul>
Prevalence	<ul> <li>Never Had a Digital Rectal Exam (DRE)</li> <li>WV: 28.5% (95% CI: 25.7-31.3)</li> <li>Because this was a state added question, no U.S. data are available for comparison.</li> <li>No Digital Rectal Exam (DRE) in the Past Year</li> <li>WV: 65.3% (95% CI: 62.5-68.1)</li> <li>Because this was a state added question, no U.S. data are available for comparison.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was completed on these indicators due to small sample size.
Age	The prevalence of never had a digital rectal exam was significantly higher among those aged 50-54 (45.6%) than among all other age groups. The prevalence of no digital rectal exam in the past year was highest among those aged 50-54 (75.9%) and was significantly higher than the prevalence among those aged 65 and older (59.1%).
Education	The prevalence of never had a digital rectal exam was highest among those with less than a high school education (39.7%) and was significantly higher than the prevalence among those with some college (21.8%) and among college graduates (21.6%). The prevalence of no digital rectal exam in the past year showed a similar pattern.
Household Income	The prevalence of never had a digital rectal exam was highest among those with an annual household income of less than \$15,000 per year (48.6%) and was significantly higher than among those with annual household incomes of \$25,000 or more per year. The prevalence of no digital rectal exam in the past year was highest among those with an annual household income of less than \$15,000 per year (77.7%) and was significantly higher than among those with annual household incomes of \$50,000 or more per year.

# Table 7.4 Prevalence of Digital Rectal Exam (DRE) Among Men Aged 50 and Older byDemographic Characteristics: WVBRFSS, 2012

Characteristic	Never Had a DRE			No DRE in the Past Year		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,422	28.5	25.7-31.3	1,402	65.3	62.5-68.1
Age						
50-54	208	45.6	37.9-53.4	207	75.9	69.2-82.6
55-64	585	27.6	23.5-31.6	580	65.6	61.4-69.9
65+	629	20.3	16.7-23.9	615	59.1	54.9-63.4
Education						
Less than H.S.	233	39.7	32.4-47.0	226	72.0	65.4-78.7
H.S. or G.E.D.	577	29.0	24.6-33.3	567	69.1	64.9-73.2
Some Post-H.S.	296	21.8	16.5-27.2	296	57.0	50.8-63.3
College Graduate	315	21.6	16.3-26.8	312	58.3	52.4-64.3
Income						
Less than \$15,000	155	48.6	39.0-58.1	152	77.7	70.3-85.1
\$15,000 - 24,999	268	32.4	25.7-39.1	265	67.5	60.9-74.1
\$25,000 - 34,999	209	23.6	16.8-30.3	206	62.5	55.1-70.0
\$35,000 - 49,999	199	27.1	19.9-34.4	198	67.0	60.1-73.9
\$50,000 - 74,999	183	22.8	15.7-29.9	182	56.9	48.7-65.1
\$75,000+	245	23.1	16.7-29.6	245	62.6	56.0-69.2

## **Prostate Cancer Screening – Prostate Specific Antigen Test**

Definitions	<ul> <li>Never Had a Prostate Specific Antigen (PSA) Test</li> <li>Responding "No" to the question "A Prostate Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?"</li> <li>No Prostate Specific Antigen (PSA) Test in the Past Year</li> <li>Responding "Yes" to the above question and any response other than "Within the past year" to the question "How long has it been since you had your last PSA test?"</li> <li>Both indicators are restricted to men ages 50 and older.</li> </ul>
Prevalence	<ul> <li>Never Had a Prostate Specific Antigen (PSA) Test</li> <li>WV: 31.7% (95% CI: 28.8-34.7)</li> <li>U.S.: 30.6% (95% CI: 30.0-31.2)</li> <li>The West Virginia prevalence of never had a prostate specific antigen test among men aged 50 and older was similar to the U.S. prevalence. West Virginia ranked the 20<sup>th</sup> highest among 53 BRFSS participants.</li> <li>No Prostate Specific Antigen (PSA) Test in the Past Year</li> <li>WV: 50.8% (95% CI: 47.7-53.9)</li> <li>U.S.: 54.2% (95% CI: 53.6-54.8)</li> <li>The West Virginia prevalence of no prostate specific antigen test in the past year among men aged 50 and older was similar to the U.S. prevalence. West Virginia ranked the 14<sup>th</sup> lowest among 53 BRFSS participants.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was completed on these indicators due to small sample size.
Age	The prevalence of never had a prostate specific antigen test was significantly higher among those aged 50-54 (52.5%) than among all other age groups. The prevalence of no prostate specific antigen test in the past year followed a similar pattern.
Education	The prevalence of never had a prostate specific antigen test was highest among those with less than a high school education $(46.5\%)$ and was significantly higher than the prevalence among those with some college $(23.7\%)$ and among college graduates $(17.2\%)$ . The prevalence of no prostate specific antigen test in the past year was highest among those with less than a high school education $(67.0\%)$ and was significantly higher than all other educational attainment groups.
Household Income	The prevalence of never had a prostate specific antigen test was highest among those with an annual household income of less than \$15,000 per year (59.8%) and was significantly higher than among all other income brackets. The prevalence of no prostate specific antigen test in the past year was highest among those with an annual household income of less than \$15,000 per year (71.8%) and was significantly higher than among those with annual household incomes of \$25,000 or more per year.

# Table 7.5Prevalence of Prostate Specific Antigen (PSA)Test Among Men Aged 50 and Older byDemographic Characteristics:WVBRFSS, 2012

Characteristic	Never Had a PSA Test			No PSA Test in the Past Year		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,316	31.7	28.8-34.7	1,295	50.8	47.7-53.9
Age						
50-54	193	52.5	44.6-60.4	191	68.0	60.7-75.4
55-64	541	28.3	24.0-32.5	534	46.7	42.0-51.4
65+	582	24.1	20.1-28.2	570	45.6	41.0-50.1
Education						
Less than H.S.	199	46.5	38.7-54.3	195	67.0	59.4-74.5
H.S. or G.E.D.	535	34.9	30.2-39.6	524	52.3	47.6-57.1
Some Post-H.S.	275	23.7	18.0-29.4	273	41.1	34.7-47.5
College Graduate	306	17.2	12.5-21.9	302	40.9	34.8-47.0
Income						
Less than \$15,000	134	59.8	50.1-69.5	133	71.8	62.8-80.7
\$15,000 - 24,999	232	42.4	35.0-49.8	228	59.3	52.1-66.6
\$25,000 - 34,999	192	27.9	20.3-35.4	192	54.7	46.9-62.6
\$35,000 - 49,999	194	23.7	16.9-30.6	191	46.0	38.2-53.8
\$50,000 - 74,999	178	19.3	12.2-26.3	177	37.7	29.6-45.8
\$75,000+	239	26.6	19.8-33.4	232	44.0	36.8-51.3

## **Colorectal Cancer Screening – Fecal Occult Blood Test**

Definitions	<ul> <li>Never Had a Fecal Occult Blood Test (FOBT)</li> <li>Responding "No" to the question "A blood stool test is a test that may use a special kit at home to determine whether the stool contains blood. Have you ever had this test using a home kit?"</li> <li>No Fecal Occult Blood Test (FOBT) in the Past Year</li> <li>Responding "Yes" to the above question and any response other than "Within the past year" to the question "How long has it been since you had your last blood stool test using a home kit?"</li> <li>Both indicators are restricted to adults aged 50 and older.</li> </ul>
Prevalence	<ul> <li>Never Had a Fecal Occult Blood Test (FOBT)</li> <li>WV: 64.7% (95% CI: 62.9-66.5)</li> <li>U.S.: 63.8% (95% CI: 63.5-64.2)</li> <li>The West Virginia prevalence of never had a fecal occult blood test among those aged 50 and older was similar to the U.S. prevalence. West Virginia ranked the 31<sup>st</sup> highest among 53 BRFSS participants.</li> <li>No Fecal Occult Blood Test (FOBT) in the Past Year</li> <li>WV: 87.1% (95% CI: 85.9-88.4)</li> <li>U.S.: 89.2% (95% CI: 89.0-89.5)</li> <li>The West Virginia prevalence of no fecal occult blood test in the past year among those aged 50 and older was significantly lower than the U.S. prevalence. West Virginia ranked the 6<sup>th</sup> lowest among 53 BRFSS participants.</li> </ul>
Gender	<ul> <li>Never Had a Fecal Occult Blood Test (FOBT)</li> <li>Men: 67.1% (95% CI: 64.4-69.7)</li> <li>Women: 62.6% (95% CI: 60.2-64.9)</li> <li>There was no gender difference in the prevalence of never had a FOBT.</li> <li>No Fecal Occult Blood Test (FOBT) in the Past Year</li> <li>Men: 85.8% (95% CI: 83.9-87.8)</li> <li>Women: 88.3% (95% CI: 86.7-89.8)</li> <li>There was no gender difference in the prevalence of no FOBT in the past year.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was conducted on these indicators due to small sample size.
Age	The prevalence of never had a fecal occult blood test was highest among those aged 50-54 and was significantly higher than all other age groups. The prevalence of no fecal occult blood test in the past year had a similar pattern.
Education	There was no educational attainment difference in the prevalence of never had a fecal occult blood test or the prevalence of no fecal occult blood test in the past year.
Household Income	There was no household income difference in the prevalence of never had a fecal occult blood test or the prevalence of no fecal occult blood test in the past year.

# Table 7.6 Prevalence of Fecal Occult Blood Test (FOBT) Among Adults Aged 50 and Older byDemographic Characteristics: WVBRFSS, 2012

Characteristic	Never Had a FOBT			No FOBT in the Past Year		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	3,464	64.7	62.9-66.5	3,399	87.1	85.9-88.4
Sex						
Males	1,427	67.1	64.4-69.7	1,406	85.8	83.9-87.8
Females	2,037	62.6	60.2-64.9	1,993	88.3	86.7-89.8
Age						
50-54	496	79.8	75.9-83.7	494	93.7	91.3-96.1
55-64	1,289	65.1	62.3-68.0	1,275	86.7	84.7-88.7
65+	1,679	57.3	54.6-59.9	1,630	84.3	82.4-86.3
Education						
Less than H.S.	574	67.0	62.6-71.3	554	87.8	84.8-90.8
H.S. or G.E.D.	1,428	67.1	64.5-69.7	1,402	88.7	86.9-90.5
Some Post-H.S.	757	59.8	55.9-63.7	747	84.8	81.9-87.6
College Graduate	702	62.4	58.5-66.3	693	85.7	82.9-88.5
Income						
Less than \$15,000	466	65.7	60.7-70.7	456	87.3	83.8-90.7
\$15,000 - 24,999	724	59.8	55.7-64.0	709	83.2	80.1-86.3
\$25,000 - 34,999	460	64.0	59.1-69.0	453	86.0	82.3-89.8
\$35,000 - 49,999	451	66.0	61.3-70.7	446	89.6	86.7-92.4
\$50,000 - 74,999	370	64.1	58.7-69.4	368	84.7	80.6-88.7
\$75,000+	458	69.7	65.2-74.2	454	90.1	87.3-92.9

## **Colorectal Cancer Screening – Sigmoidoscopy or Colonoscopy**

Definitions	<ul> <li>Never Had a Sigmoidoscopy or Colonoscopy</li> <li>Responding "No" to the question "Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?"</li> <li>No Sigmoidoscopy or Colonoscopy in the Past 10 Years</li> <li>Responding "Yes" to the above question and any response other than "10 or more years ago" to the question "How long has it been since you had your last sigmoidoscopy or colonoscopy?"</li> <li>Both indicators are restricted to adults aged 50 and older.</li> </ul>
Prevalence	<ul> <li>Never Had a Sigmoidoscopy or Colonoscopy</li> <li>WV: 36.5% (95% CI: 34.7-38.4)</li> <li>U.S.: 32.6% (95% CI: 32.3-33.0)</li> <li>The West Virginia prevalence of never had a sigmoidoscopy or colonoscopy among those aged 50 and older was significantly higher than the U.S. prevalence. West Virginia ranked the 16<sup>th</sup> highest among 53 BRFSS participants.</li> <li>No Sigmoidoscopy or Colonoscopy in the Past 10 Years</li> <li>WV: 40.0% (95% CI: 38.1-41.9)</li> <li>U.S.: 36.4% (95% CI: 36.0-36.8)</li> <li>The West Virginia prevalence of no sigmoidoscopy or colonoscopy in the past 10 years among those aged 50 and older was significantly higher than the U.S. prevalence.</li> </ul>
Gender	<ul> <li>Never Had a Sigmoidoscopy or Colonoscopy</li> <li>Men: 37.6% (95% CI: 34.7-40.5)</li> <li>Women: 35.6% (95% CI: 33.2-37.9)</li> <li>There was no gender difference in the prevalence of never had a sigmoidoscopy or colonoscopy.</li> <li>No Sigmoidoscopy or Colonoscopy in the Past 10 Years</li> <li>Men: 40.9% (95% CI: 37.9-43.8)</li> <li>Women: 39.2% (95% CI: 36.8-41.7)</li> <li>There was no gender difference in the prevalence of no sigmoidoscopy or colonoscopy in the past 10 years.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was conducted on these indicators due to small sample size.
Age	The prevalence of never had a sigmoidoscopy or colonoscopy and the prevalence of no sigmoidoscopy or colonoscopy in the past 10 years was significantly higher among those aged 50-54 than among all other age groups.
Education	The prevalence of never had a sigmoidoscopy or colonoscopy and the prevalence of no sigmoidoscopy or colonoscopy in the past 10 years was significantly higher among those with less than a high school education than among all other education groups.
Household Income	The prevalence of never had a sigmoidoscopy or colonoscopy and the prevalence of no sigmoidoscopy or colonoscopy in the past 10 years was highest among those with an annual household income of less than \$15,000 per year.

Table 7.7 Prevalence of Sigmoidoscopy or Colonoscopy Among Adults Aged 50 and Older byDemographic Characteristics: WVBRFSS, 2012

Characteristic	Sig	Never l gmoidos Colono	scopy or	No Sigmoidoscopy or Colonoscopy in the Past 10 Years			
	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	3,476	36.5	34.7-38.4	3,444	40.0	38.1-41.9	
Sex							
Males	1,433	37.6	34.7-40.5	1,419	40.9	37.9-43.8	
Females	2,043	35.6	33.2-37.9	2,025	39.2	36.8-41.7	
Age							
50-54	498	49.9	44.9-54.9	494	53.4	48.4-58.4	
55-64	1,296	35.3	32.4-38.2	1,287	38.2	35.3-41.2	
65+	1,682	31.3	28.8-33.9	1,663	35.3	32.7-37.9	
Education							
Less than H.S.	577	46.2	41.5-50.9	569	49.7	45.0-54.4	
H.S. or G.E.D.	1,434	37.7	34.9-40.6	1,419	40.9	38.0-43.8	
Some Post-H.S.	755	32.1	28.4-35.9	749	37.0	33.1-40.8	
College Graduate	707	26.4	22.7-30.1	704	28.8	25.1-32.6	
Income							
Less than \$15,000	473	46.5	41.1-51.9	466	52.0	46.6-57.4	
\$15,000 - 24,999	721	43.1	38.9-47.4	714	46.6	42.3-50.9	
\$25,000 - 34,999	462	37.8	32.7-42.9	461	41.3	36.2-46.4	
\$35,000 - 49,999	452	32.0	27.0-37.0	451	34.2	29.2-39.3	
\$50,000 - 74,999	371	26.3	21.2-31.5	369	29.3	24.0-34.6	
\$75,000+	459	30.3	25.5-35.2	458	32.9	28.0-37.9	

# **CHAPTER 8: ALCOHOL CONSUMPTION**

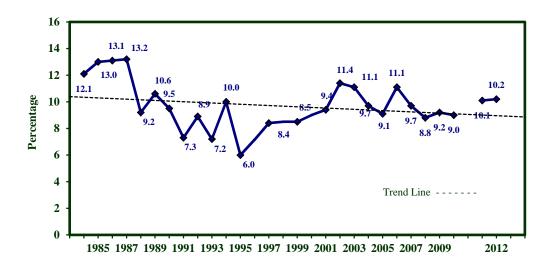
## **Binge Drinking**

Definition	Defined as consumption of five or more alcoholic drinks for males, or four or more alcoholic drinks for females, on a single occasion during the past month.
Prevalence	WV: 10.2% (95% CI: 9.1-11.3) U.S.: 16.8% (95% CI: 16.6-17.1) The U.S. prevalence of binge drinking was significantly higher than the West Virginia prevalence. West Virginia ranked the lowest among 53 BRFSS participants.
Gender	Men: 15.5% (95% CI: 13.7-17.4) Women: 5.1% (95% CI: 4.1-6.2) Men had a significantly higher prevalence of binge drinking than women.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 10.1% (95% CI: 9.0-11.2)</li> <li>Black, Non-Hispanic: *11.8% (95% CI: 3.7-19.9)</li> <li>Other, Non-Hispanic: *12.2% (95% CI: 0.9-23.5)</li> <li>Multiracial, Non-Hispanic: *12.2% (95% CI: 4.2-20.2)</li> <li>Hispanic: *5.5% (95% CI: 0.1-11.0)</li> <li>There was no race/ethnicity difference in the prevalence of binge drinking.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	In general, the prevalence of binge drinking decreased with increased age. The prevalence of binge drinking was significantly higher among those aged 18-24 (19.2%) than among those aged 65 and older (1.8%).
Education	There was no educational attainment differences in the prevalence of binge drinking.
Household Income	The prevalence of binge drinking was lowest among those with an annual household income of \$25,000-\$34,999 per year and was significantly lower than those earning less than \$15,000 per year (12.5%) than those earning \$50,000 or more per year.

Characteristic		Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,219	15.5	13.7-17.4	3,097	5.1	4.1-6.2	5,316	10.2	9.1-11.3	
Age										
18-24	129	24.9	16.9-33.0	167	13.3	7.6-19.1	296	19.2	14.3-24.2	
25-34	210	23.4	17.1-29.6	265	8.6	4.9-12.3	475	16.0	12.3-19.8	
35-44	294	19.8	14.8-24.7	384	6.6	3.9-9.3	678	13.2	10.4-16.1	
45-54	370	15.2	11.0-19.3	511	5.2	3.0-7.5	881	10.2	7.8-12.5	
55-64	581	13.1	10.0-16.1	695	1.9	0.9-2.8	1,276	7.4	5.7-9.0	
65+	629	2.9	1.6-4.2	1,054	0.9	0.3-1.5	1,683	1.8	1.1-2.4	
Education										
Less than H.S.	321	14.3	9.6-19.0	434	2.5	0.2-4.8	755	8.5	5.8-11.2	
H.S. or G.E.D.	910	15.1	12.3-18.0	1,212	4.6	3.0-6.2	2,122	10.0	8.3-11.6	
Some Post-H.S.	469	15.8	11.7-19.9	768	5.9	3.7-8.1	1,237	10.2	8.0-12.4	
College Graduate	518	17.5	13.3-21.6	679	7.8	5.4-10.2	1,197	12.5	10.1-15.0	
Income										
Less than \$15,000	246	21.5	14.9-28.1	454	5.6	2.5-8.6	700	12.5	9.0-15.9	
\$15,000 - 24,999	398	16.2	11.5-20.8	656	5.6	3.0-8.1	1,054	10.3	7.8-12.8	
\$25,000 - 34,999	277	8.3	4.1-12.6	349	3.2	1.0-5.3	626	5.8	3.4-8.1	
\$35,000 - 49,999	312	13.6	9.0-18.1	369	5.0	2.0-7.9	681	9.5	6.7-12.3	
\$50,000 - 74,999	315	19.3	13.6-25.0	334	5.6	2.4-8.8	649	12.9	9.4-16.3	
\$75,000+	421	16.9	12.7-21.1	415	6.6	3.7-9.4	836	12.4	9.7-15.1	

#### Table 8.1 Binge Drinking by Demographic Characteristics: WVBRFSS, 2012

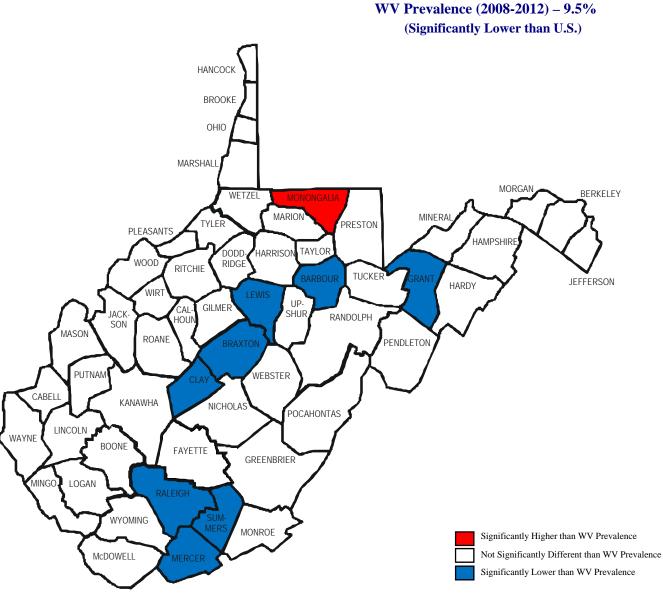
#### Figure 8.1 Binge Drinking by Year: WVBRFSS, 1984-2012



#### NOTE: Data are not available for the years 1996, 1998, and 2000.

\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

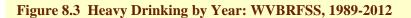
U.S. Prevalence (2010) – 14.7%

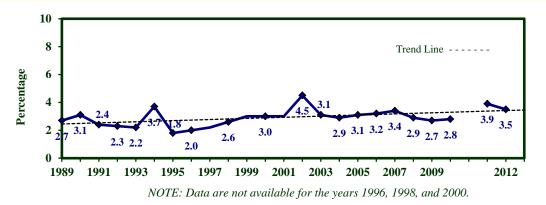


County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

## **Heavy Drinking**

Definition	Defined as the consumption of more than two drinks per day for men and more than one drink per day for women during the past month.
Prevalence	<ul> <li>WV: 3.5% (95% CI: 2.9-4.1)</li> <li>U.S.: 5.9% (95% CI: 5.7-6.0)</li> <li>The U.S. prevalence of heavy drinking was significantly higher than the West Virginia prevalence. West Virginia ranked the lowest among the 53 BRFSS participants.</li> </ul>
Gender	Men: 5.1% (95% CI: 4.0-6.2) Women: 2.0% (95% CI: 1.4-2.6) The prevalence of heavy drinking was significantly higher among men than women.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 3.4% (95% CI: 2.8-4.0)</li> <li>Black, Non-Hispanic: *4.4% (95% CI: 0.7-8.1)</li> <li>Other, Non-Hispanic: *10.2% (95% CI: 0.1-20.2)</li> <li>Multiracial, Non-Hispanic: *2.9% (95% CI: 0.0-7.7)</li> <li>Hispanic: *3.2% (95% CI: 0.0-7.6)</li> <li>There was no race/ethnicity difference in the prevalence of heavy drinking.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The highest prevalence of heavy drinking was among those aged $45-54$ ( $4.9\%$ ) and was significantly higher than the prevalence among those aged $65$ and older ( $1.7\%$ ).
Education	There was no educational attainment difference in the prevalence of heavy drinking.
Household Income	There was no annual household income difference in the prevalence of heavy drinking.





\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

Table 8.2 Heavy	<b>Drinking by</b>	v Demographic	<b>Characteristics:</b>	WVBRFSS, 2012
			01101 00001 10 01000	

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,219	5.1	4.0-6.2	3,101	2.0	1.4-2.6	5,320	3.5	2.9-4.1	
Age										
18-24	128	*5.4	1.4-9.5	166	*4.0	1.0-7.0	294	4.7	2.2-7.3	
25-34	211	*4.2	1.3-7.1	266	*2.5	0.3-4.7	477	3.3	1.5-5.1	
35-44	290	6.1	3.2-9.1	384	*1.5	0.1-2.9	674	3.8	2.2-5.4	
45-54	372	6.8	3.9-9.7	511	3.1	1.5-4.7	883	4.9	3.3-6.6	
55-64	583	5.1	3.1-7.1	697	1.6	0.7-2.5	1,280	3.3	2.2-4.4	
65+	629	3.1	1.7-4.5	1,055	*0.6	0.2-1.0	1,684	1.7	1.0-2.3	
Education										
Less than H.S.	325	7.7	4.3-11.1	434	*0.4	0.0-1.1	759	4.1	2.3-5.9	
H.S. or G.E.D.	908	5.2	3.6-6.8	1,216	2.3	1.2-3.3	2,124	3.8	2.8-4.7	
Some Post-H.S.	467	4.0	2.1-5.8	767	*1.8	0.6-3.1	1,234	2.7	1.7-3.8	
College Graduate	518	3.4	1.4-5.4	680	3.1	1.6-4.7	1,198	3.3	2.0-4.5	
Income										
Less than \$15,000	244	*7.4	2.8-12.0	456	*1.4	0.1-2.7	700	4.0	1.8-6.1	
\$15,000 - 24,999	397	5.7	2.9-8.5	656	*2.0	0.5-3.4	1,053	3.6	2.2-5.1	
\$25,000 - 34,999	279	*1.9	0.4-3.5	349	*3.2	0.8-5.6	628	2.6	1.1-4.0	
\$35,000 - 49,999	311	4.7	2.1-7.2	369	*3.2	0.7-5.6	680	3.9	2.2-5.7	
\$50,000 - 74,999	315	6.0	3.0-9.0	336	*1.3	0.0-2.8	651	3.8	2.1-5.5	
\$75,000+	423	4.9	2.5-7.3	415	2.6	1.3-4.0	838	3.9	2.4-5.4	

## No Drinking

Definition	Defined as the consumption of no alcoholic drinks during the past month.
Prevalence	WV: 68.1% (95% CI: 66.6-69.6) U.S.: 47.0% (95% CI: 46.7-47.3) The West Virginia prevalence of no drinking in the past month was significantly higher than the U.S. prevalence. West Virginia ranked the 3 <sup>rd</sup> highest among 53 BRFSS participants.
Gender	Men: 59.4% (95% CI: 57.0-61.8) Women: 76.4% (95% CI: 74.6-78.2) The prevalence of no drinking in the past month was significantly higher among women than men.
Race/Ethnicity	White, Non-Hispanic: 68.6% (95% CI: 67.0-70.1) Black, Non-Hispanic: *65.7% (95% CI: 54.8-76.6) Other, Non-Hispanic: *55.1% (95% CI: 38.4-71.9) Multiracial, Non-Hispanic: *50.4% (95% CI: 37.2-63.5) Hispanic: *78.4% (95% CI: 65.2-91.7) The prevalence of no drinking in the past month was significantly higher among White, Non-Hispanics than among Multiracial, Non-Hispanics. There was no other race/ethnicity difference in the prevalence of no drinking in the past month. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	The prevalence of no drinking in the past month generally increased with increasing age. The prevalence of no drinking in the past month was significantly higher among those aged 65 and older (83.3%) than among all other age groups. The prevalence of no drinking in the past month was significantly lower among those aged 18-24 (57.6%) than among those aged 55 and older.
Education	The prevalence of no drinking in the past month was significantly different for each level of educational attainment. The prevalence of no drinking in the past month was highest among those with less than a high school education (81.3%) and lowest among those with a college degree (53.7%).
Household Income	The prevalence of no drinking in the past month was highest among those with an annual household income of less than $15,000$ (74.5%) and was significantly higher than the prevalence was among those with a household income of $75,000$ or more per year (51.4%).

### Table 8.3 No Drinking in the Past Month by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,243	59.4	57.0-61.8	3,105	76.4	74.6-78.2	5,348	68.1	66.6-69.6	
Age										
18-24	131	50.3	40.7-59.8	167	65.4	57.3-73.6	298	57.6	51.3-64.0	
25-34	212	52.2	44.8-59.5	267	69.2	63.3-75.1	479	60.6	55.8-65.4	
35-44	297	51.5	45.3-57.7	384	74.0	69.2-78.7	681	62.6	58.7-66.6	
45-54	375	58.3	52.7-63.8	511	70.7	66.3-75.2	886	64.5	60.9-68.1	
55-64	589	60.8	56.4-65.2	698	80.6	77.5-83.8	1,287	70.8	68.1-73.6	
65+	633	77.0	73.4-80.6	1,056	88.2	86.0-90.3	1,689	83.3	81.3-85.3	
Education										
Less than H.S.	329	69.4	63.4-75.4	435	93.6	90.4-96.9	764	81.3	77.7-84.9	
H.S. or G.E.D.	920	63.1	59.4-66.8	1,216	81.5	78.9-84.2	2,136	72.1	69.8-74.4	
Some Post-H.S.	473	53.7	48.3-59.1	770	68.8	64.8-72.8	1,243	62.3	59.0-65.6	
College Graduate	520	47.0	42.1-51.9	680	60.2	56.0-64.4	1,200	53.7	50.5-57.0	
Income										
Less than \$15,000	249	62.3	54.9-69.8	456	83.8	79.2-88.4	705	74.5	70.2-78.8	
\$15,000 - 24,999	403	66.8	61.172.4	658	84.1	80.7-87.6	1,061	76.4	73.1-79.6	
\$25,000 - 34,999	279	69.8	63.5-76.2	350	77.0	71.5-82.5	629	73.4	69.2-77.7	
\$35,000 - 49,999	313	62.6	56.4-68.9	369	72.4	66.4-78.4	682	67.3	62.9-71.6	
\$50,000 - 74,999	319	48.3	42.0-54.7	336	68.6	63.1-74.1	655	57.9	53.5-62.2	
\$75,000+	423	46.2	40.5-51.9	415	58.1	52.8-63.4	838	51.4	47.4-55.4	

# **CHAPTER 9: INJURY**

# **Usually Wear Seat Belt**

Definition	Responding "Always" or "Nearly always" to the question "How often do you use seat belts when you drive or ride in a car?"
Prevalence	WV: 89.2% (95% CI: 88.2-90.3) U.S.: 93.9% (95% CI: 93.8-94.1) The U.S. prevalence of usually wear a seat belt was significantly higher than the West Virginia prevalence. West Virginia ranked the 10 <sup>th</sup> lowest among 53 BRFSS participants.
Gender	Men: 85.7% (95% CI: 83.8-87.5) Women: 92.7% (95% CI: 91.5-93.8) The prevalence of usually wear a seat belt was significantly higher among women than men.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 89.2% (95% CI: 88.1-90.3)</li> <li>Black, Non-Hispanic: 91.8% (95% CI: 85.2-98.3)</li> <li>Other, Non-Hispanic: *92.7% (95% CI: 79.3-100.0)</li> <li>Multiracial, Non-Hispanic: *87.4% (95% CI: 76.5-98.2)</li> <li>Hispanic: 91.5% (95% CI: 82.5-100.0)</li> <li>There was no race/ethnicity difference in the prevalence of usually wear a seat belt.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of usually wear a seat belt generally increased with age. The prevalence of usually wear a seat belt among those aged 55-64 (93.7%) and those aged 65 and older (93.9%) was significantly higher than among all the other age groups.
Education	The prevalence of usually wear a seat belt was significantly higher among those with some college $(92.6\%)$ and among college graduates $(94.3\%)$ than among those with a high school education $(86.2\%)$ or less than high school education $(86.5\%)$ .
Household Income	There was no consistent household income difference in the prevalence of usually wear a seat belt.

## Table 9.1 Usually Wear a Seat Belt by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,259	85.7	83.8-87.5	3,128	92.7	91.5-93.8	5,387	89.2	88.2-90.3	
Age										
18-24	133	80.3	73.1-87.6	167	87.8	82.4-93.3	300	83.9	79.4-88.5	
25-34	215	80.8	74.8-86.8	270	89.3	85.5-93.2	485	85.0	81.4-88.6	
35-44	299	82.7	77.9-87.5	388	90.5	87.1-93.9	687	86.6	83.6-89.5	
45-54	372	83.2	78.6-87.6	516	93.2	90.6-95.7	888	88.2	85.6-90.9	
55-64	598	92.4	90.1-94.7	700	95.0	93.1-96.9	1,298	93.7	92.2-95.2	
65+	636	91.0	88.5-93.6	1,065	96.0	94.8-97.3	1,701	93.9	92.5-95.2	
Education										
Less than H.S.	326	83.8	78.6-88.9	438	89.3	85.6-93.0	764	86.5	83.3-89.7	
H.S. or G.E.D.	934	81.1	77.9-84.2	1,224	91.5	89.6-93.5	2,158	86.2	84.3-88.1	
Some Post-H.S.	473	90.4	87.4-93.5	774	94.3	92.3-96.2	1,247	92.6	90.9-94.3	
College Graduate	525	92.7	89.9-95.5	688	95.9	94.1-97.6	1,213	94.3	92.7-96.0	
Income										
Less than \$15,000	247	80.7	73.8-87.5	456	88.1	83.9-92.2	703	84.9	81.1-88.7	
\$15,000 - 24,999	405	83.6	79.0-88.2	664	89.0	85.8-92.2	1,069	86.6	83.9-89.3	
\$25,000 - 34,999	283	85.4	80.4-90.5	351	94.0	90.9-97.1	634	89.7	86.7-92.7	
\$35,000 - 49,999	313	88.0	83.4-92.5	371	96.3	94.2-98.3	684	91.9	89.3-94.5	
\$50,000 - 74,999	320	90.0	86.1-94.0	338	91.3	87.8-94.7	658	90.6	88.0-93.3	
\$75,000+	425	86.7	82.8-90.7	422	96.9	94.8-98.9	847	91.2	88.8-93.6	

# **Always Wear Seat Belt**

Definition	Responding "Always" to the question "How often do you use seat belts when you drive or ride in a car?"
Prevalence	WV: 80.7% (95% CI: 79.3-82.0) U.S.: 86.0% (95% CI: 85.8-86.3) The U.S. prevalence of always wear a seat belt was significantly higher than the West Virginia prevalence. West Virginia ranked the 36 <sup>th</sup> highest among the 53 BRFSS participants.
Gender	Men: 74.7% (95% CI: 72.5-76.9) Women: 86.4% (95% CI: 84.8-87.9) The prevalence of always wear a seat belt was significantly higher among women than men.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 80.7% (95% CI: 79.3-82.1)</li> <li>Black, Non-Hispanic: *78.7% (95% CI: 68.6-88.8)</li> <li>Other, Non-Hispanic: *87.4% (95% CI: 73.2-100.0)</li> <li>Multiracial, Non-Hispanic: *77.7% (95% CI: 65.5-89.8)</li> <li>Hispanic: *80.9% (95% CI: 66.2-95.6)</li> <li>There was no race/ethnicity difference in the prevalence of always wear a seat belt.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of always wear a seat belt generally increased as age increased. The prevalence of always wear a seat belt was highest among those aged 65 and older (87.9%) and lowest among those aged 25-34 (72.6%). This difference was statistically significant.
Education	The prevalence of always wear a seat belt was significantly higher among those with some college $(83.1\%)$ and college graduates $(87.4\%)$ than among those with a high school education $(77.4\%)$ and those with less than a high school education $(78.2\%)$ .
Household Income	There was no household income difference in the prevalence of always wear a seat belt.

## Table 9.2 Always Wear a Seat Belt by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,259	74.7	72.5-76.9	3,128	86.4	84.8-87.9	5,387	80.7	79.3-82.0	
Age										
18-24	133	70.6	62.3-78.8	167	77.1	69.8-84.5	300	73.7	68.2-79.3	
25-34	215	63.6	56.4-70.8	270	81.9	76.9-86.8	485	72.6	68.0-77.2	
35-44	299	70.4	64.7-76.1	388	83.6	79.3-87.8	687	77.0	73.4-80.6	
45-54	372	71.5	66.2-76.8	516	87.5	84.3-90.7	888	79.6	76.4-82.8	
55-64	598	83.4	79.9-86.8	700	90.4	87.9-92.9	1,298	86.9	84.8-89.0	
65+	636	83.8	80.5-87.1	1,065	91.1	89.2-93.0	1,701	87.9	86.1-89.7	
Education										
Less than H.S.	326	71.8	65.7-77.8	438	84.8	80.5-89.0	764	78.2	74.4-82.0	
H.S. or G.E.D.	934	69.8	66.2-73.4	1,224	85.4	83.0-87.8	2,158	77.4	75.1-79.6	
Some Post-H.S.	473	79.6	75.4-83.9	774	85.8	82.7-89.0	1,247	83.1	80.6-85.7	
College Graduate	525	83.5	79.7-87.3	688	91.2	88.9-93.5	1,213	87.4	85.2-89.6	
Income										
Less than \$15,000	247	70.5	62.9-78.1	456	82.0	77.3-86.7	703	77.0	72.7-81.3	
\$15,000 - 24,999	405	73.8	68.4-79.2	664	83.1	79.4-86.8	1,069	78.9	75.8-82.1	
\$25,000 - 34,999	283	73.3	66.9-79.7	351	85.5	80.9-90.1	634	79.4	75.4-83.4	
\$35,000 - 49,999	313	77.3	71.7-82.8	371	90.8	87.2-94.4	684	83.7	80.3-87.2	
\$50,000 - 74,999	320	76.7	71.2-82.2	338	86.6	82.4-90.8	658	81.4	77.8-84.9	
\$75,000+	425	77.9	73.2-82.5	422	90.6	87.3-94.0	847	83.5	80.4-86.5	

# Fell During the Past Year

Definition	Responding "One" or more to the question "In the past 12 months, how many times have you fallen? By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level." This indicator is restricted to those aged 45 and older.
Prevalence	WV: 27.6% (95% CI: 26.0-29.3) U.S.: 26.0% (95% CI: 25.7-26.3) The West Virginia prevalence of fell at least one time during the past year was similar to the U.S. prevalence. West Virginia ranked the 25 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 26.5% (95% CI: 24.0-28.9) Women: 28.7% (95% CI: 26.5-30.8) There was no gender difference in the prevalence of fell at least one time during the past year.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 27.6% (95% CI: 25.9-29.2)</li> <li>Black, Non-Hispanic: *30.2% (95% CI: 18.3-42.1)</li> <li>Other, Non-Hispanic: *33.6% (95% CI: 12.8-54.4)</li> <li>Multiracial, Non-Hispanic: *30.0% (95% CI: 14.5-45.6)</li> <li>Hispanic: *21.9% (95% CI: 9.2-34.5)</li> <li>There was no race/ethnicity difference in the prevalence of fell at least one time during the past year.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	There was no age difference in the prevalence fell at least one time during the past year.
Education	The prevalence of fell at least one time during the past year was significantly higher among those with less than a high school education (34.1%) than among high school graduates (26.2%) and college graduates (22.3%).
Household Income	The prevalence of fell at least one time during the past year was significantly higher among those with an annual household income of less than \$15,000 (42.0%) than among all other income brackets.

# Table 9.3 Fell at Least One Time During the Past Year by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	1,582	26.5	24.0-28.9	2,269	28.7	26.5-30.8	3,851	27.6	26.0-29.3	
Age										
45-54	364	25.4	20.5-30.4	504	27.8	23.4-32.2	868	26.6	23.3-30.0	
55-64	587	29.6	25.6-33.7	693	28.7	24.9-32.4	1,280	29.1	26.4-31.9	
65+	626	24.6	20.9-28.3	1,050	29.5	26.3-32.7	1,676	27.4	24.9-29.8	
Education										
Less than H.S.	254	28.8	22.5-35.1	362	39.1	33.3-44.8	616	34.1	29.8-38.4	
H.S. or G.E.D.	655	25.9	22.2-29.6	939	26.5	23.3-29.6	1,594	26.2	23.8-28.6	
Some Post-H.S.	325	29.5	24.0-35.0	516	27.0	22.8-31.2	841	28.1	24.7-31.5	
College Graduate	347	20.7	16.2-25.2	448	23.8	19.4-28.2	795	22.3	19.1-25.4	
Income										
Less than \$15,000	180	37.2	29.0-45.3	355	45.5	39.4-51.6	535	42.0	37.0-47.0	
\$15,000 - 24,999	291	28.4	22.3-34.4	489	33.0	28.2-37.8	780	31.0	27.2-34.8	
\$25,000 - 34,999	225	28.3	22.0-34.7	273	26.3	20.3-32.3	498	27.3	23.0-31.7	
\$35,000 - 49,999	216	23.9	17.6-30.2	274	22.6	17.1-28.1	490	23.3	19.1-27.4	
\$50,000 - 74,999	211	24.0	17.4-30.7	216	24.0	17.5-30.4	427	24.0	19.3-28.6	
\$75,000+	286	22.1	16.6-27.6	262	15.6	10.9-20.3	548	19.3	15.5-23.1	

# Suffered an Injury from a Fall in the Past Year

Definition	Responding "One" or more to the question "How many of these falls caused an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor." This indicator is restricted to adults aged 45 and older who reported at least one fall in the past year.
Prevalence	WV: 34.8% (95% CI: 31.5-38.1) U.S.: 39.2% (95% CI: 38.5-39.9) The U.S. prevalence of had an injury from a fall in the past year was significantly higher than the West Virginia prevalence. West Virginia ranked the 7 <sup>th</sup> lowest among the 53 BRFSS participants.
Gender	Men: 28.3% (95% CI: 23.4-33.1) Women: 40.1% (95% CI: 35.8-44.5) The prevalence of had an injury from a fall in the past year was significantly higher among women than men.
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	There was no age difference in the prevalence of had an injury from a fall in the past year.
Education	There was no educational attainment difference in the prevalence of had an injury from a fall in the past year.
Household Income	The prevalence of had an injury from a fall in the past year was significantly higher among those with an annual household income of less than $$15,000$ (51.3%) than among most of the other income brackets.

# Table 9.4 Had an Injury From a Fall in the Past Year by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	431	28.3	23.4-33.1	650	40.1	35.8-44.5	1,081	34.8	31.5-38.1	
Age										
45-54	95	*33.1	22.4-43.8	142	40.1	30.9-49.4	237	36.8	29.8-43.8	
55-64	175	27.6	20.4-34.7	201	37.1	29.7-44.6	376	32.3	27.1-37.5	
65+	161	24.7	17.3-32.0	303	42.2	35.7-48.8	464	35.3	30.3-40.4	
Education										
Less than H.S.	77	*26.0	15.1-36.9	139	45.9	36.1-55.6	216	37.6	30.1-45.2	
H.S. or G.E.D.	181	26.3	19.2-33.3	256	35.4	28.8-42.0	437	31.1	26.2-36.0	
Some Post-H.S.	96	*33.5	22.6-44.3	148	43.9	35.0-52.9	244	39.1	32.2-46.1	
College Graduate	77	*28.9	18.0-39.9	106	*35.2	25.2-45.3	183	32.4	25.0-39.8	
Income										
Less than \$15,000	69	*50.2	36.6-63.9	157	51.9	42.6-61.3	226	51.3	43.6-59.1	
\$15,000 - 24,999	87	*31.0	19.9-42.0	158	29.8	21.9-37.7	245	30.2	23.8-36.7	
\$25,000 - 34,999	71	*25.8	13.8-37.8	70	*54.1	40.9-67.4	141	39.3	30.1-48.5	
\$35,000 - 49,999	53	*22.1	10.2-33.9	65	*45.4	31.5-59.4	118	33.3	23.6-43.1	
\$50,000 - 74,999	50	*22.1	7.0-37.2	47	*29.3	14.9-43.6	97	*25.4	15.0-35.9	
\$75,000+	60	*14.7	5.3-24.1	43	*21.4	9.3-33.5	103	17.0	9.6-24.5	

# **CHAPTER 10: IMMUNIZATION**

## Seasonal Flu Vaccine

Definition	Responding "No" to the question "During the past 12 months, have you had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose?" This indicator is among all adults.
Prevalence	WV: 56.1% (95% CI: 54.5-57.6) U.S.: 64.0% (95% CI: 63.7-64.3) The U.S. prevalence of no seasonal flu vaccine in the past year among all adults was significantly higher than the West Virginia prevalence. West Virginia ranked the 3 <sup>rd</sup> lowest among 53 BRFSS participants.
Gender	Men: 59.9% (95% CI: 57.5-62.2) Women: 52.5% (95% CI: 50.5-54.6) The prevalence of no seasonal flu vaccine in the past year among all adults was significantly higher among men than women.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 55.6% (95% CI: 54.0-57.2)</li> <li>Black, Non-Hispanic: *60.2% (95% CI: 49.5-70.9)</li> <li>Other, Non-Hispanic: *68.6% (95% CI: 53.7-83.4)</li> <li>Multiracial, Non-Hispanic: *60.0% (95% CI: 47.1-72.9)</li> <li>Hispanic: *65.9% (95% CI: 53.4-78.4)</li> <li>There was no race/ethnicity difference in the prevalence of no seasonal flu vaccine in the past year among all adults.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of no seasonal flu vaccine in the past year among all adults was lowest among the 65 and older age group (31.1%) and was significantly lower than all other age groups. The prevalence of no seasonal flu vaccine in the past year among all adults was highest among those aged 18-24 (72.6%) and was significantly higher than those aged 45 and older.
Education	The prevalence of no seasonal flu vaccine in the past year among all adults was significantly higher among those with less than a high school education (60.8%) than among college graduates (50.0%).
Household Income	There was no annual household income difference in the prevalence of no seasonal flu vaccine in the past year among all adults.

# Table 10.1 No Seasonal Flu Vaccine in the Past Year Among All Adults by DemographicCharacteristics: WVBRFSS, 2012

Characteristic	Men				Wor	nen	Total			
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,247	59.9	57.5-62.2	3,122	52.5	50.5-54.6	5,369	56.1	54.5-57.6	
Age										
18-24	125	75.7	67.2-84.1	166	69.6	61.8-77.4	291	72.6	66.9-78.4	
25-34	216	76.2	70.2-82.3	267	70.0	64.1-75.9	483	43.2	69.0-77.4	
35-44	296	73.3	68.0-78.6	387	60.3	55.0-65.6	683	66.8	63.1-70.6	
45-54	373	62.4	56.9-67.9	516	57.7	52.9-62.5	889	60.0	56.4-63.7	
55-64	597	51.7	47.2-56.1	700	47.0	42.9-51.1	1,297	49.3	46.3-52.3	
65+	634	32.1	28.0-36.2	1,064	30.3	27.1-33.5	1,698	31.1	28.6-33.7	
Education										
Less than H.S.	326	67.1	61.4-72.7	438	54.3	48.8-59.8	764	60.8	56.8-64.7	
H.S. or G.E.D.	928	62.0	58.4-65.5	1,223	53.0	49.8-56.2	2,151	57.6	55.2-60.0	
Some Post-H.S.	469	55.0	49.7-60.4	773	54.1	50.0-58.2	1,242	54.5	51.2-57.8	
College Graduate	523	53.3	48.4-58.1	684	46.8	42.6-51.1	1,207	50.0	46.8-53.2	
Income										
Less than \$15,000	247	69.8	63.5-76.2	454	55.9	50.4-61.4	701	61.9	57.7-66.2	
\$15,000 - 24,999	405	64.0	58.5-69.4	663	57.3	52.8-61.7	1,068	60.3	56.8-63.7	
\$25,000 - 34,999	283	53.3	46.5-60.0	352	48.7	42.5-54.8	635	51.0	46.4-55.5	
\$35,000 - 49,999	312	55.9	49.7-62.1	371	53.5	47.4-59.6	683	54.8	50.4-59.1	
\$50,000 - 74,999	319	58.2	51.9-64.5	338	47.5	41.5-53.4	657	53.2	48.8-57.5	
\$75,000+	424	55.2	49.6-60.8	419	49.9	44.5-55.4	843	52.9	48.9-56.8	

Definition	Responding "No" to the question "During the past 12 months, have you had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose?" This indicator is restricted to adults aged 65 and older.
Prevalence	WV: 31.1% (95% CI: 28.6-33.7) U.S.: 41.0% (95% CI: 40.5-41.5) The U.S. prevalence of no seasonal flu vaccine in the past year among adults 65 and older was significantly higher than the West Virginia prevalence. West Virginia ranked the 3 <sup>rd</sup> lowest among 53 BRFSS participants.
Gender	Men: 32.1% (95% CI: 28.0-36.2) Women: 30.3% (95% CI: 27.1-33.6) There was no gender difference in the prevalence of no seasonal flu vaccine in the past year among adults 65 and older.
Race/Ethnicity	No race/ethnicity analysis was completed due to small sample size.
Education	There was no educational attainment difference in the prevalence of no seasonal flu vaccine in the past year among adults 65 and older.
Household Income	There was no annual household income difference in the prevalence of no seasonal flu vaccine in the past year among adults 65 and older.

# Table 10.2 No Seasonal Flu Vaccine in the Past Year Among Adults Aged 65 and Older byDemographic Characteristics: WVBRFSS, 2012

Characteristic		Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	634	32.1	28.0-36.2	1,064	30.3	27.1-33.6	1,698	31.1	28.6-33.7	
Age										
65+	634	32.1	28.0-36.2	1,064	30.3	27.1-33.6	1,698	31.1	28.6-33.7	
Education										
Less than H.S.	137	38.5	29.5-47.5	224	34.9	27.7-42.0	361	36.5	30.8-42.1	
H.S. or G.E.D.	247	31.4	24.9-37.9	449	28.1	23.6-32.7	696	29.5	25.7-33.3	
Some Post-H.S.	120	29.7	21.0-38.4	239	28.0	21.0-35.0	359	28.7	23.2-34.1	
College Graduate	129	25.4	17.7-33.1	151	31.9	23.8-39.9	280	28.3	22.7-33.9	
Income										
Less than \$15,000	70	*44.7	31.4-58.0	184	31.5	23.7-39.3	254	36.0	29.1-42.9	
\$15,000 - 24,999	142	33.3	24.4-42.2	276	29.8	23.0-36.5	418	31.2	25.8-36.6	
\$25,000 - 34,999	108	28.2	18.6-37.8	142	28.5	20.4-36.6	250	28.4	22.1-34.6	
\$35,000 - 49,999	99	27.8	18.3-37.2	110	33.0	23.1-42.8	209	30.0	23.1-36.9	
\$50,000 - 74,999	62	*27.6	15.7-39.5	58	*24.1	12.6-35.6	120	26.0	17.7-34.4	
\$75,000+	62	*35.3	21.0-49.6	40	*30.8	14.8-46.9	102	*33.9	22.9-44.8	

## Never Had a Pneumonia Vaccination

Definition	Responding "No" to the question "A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?" This indicator is among all adults.
Prevalence	WV: 67.5% (95% CI: 66.0-69.0) U.S.: 70.1% (95% CI: 69.8-70.4) The U.S. prevalence of never had a pneumonia vaccination among all adults was significantly higher than the West Virginia prevalence. West Virginia ranked the 8 <sup>th</sup> lowest among 53 BRFSS participants.
Gender	Men: 69.6% (95% CI: 67.4-71.8) Women: 65.6% (95% CI: 63.7-67.6) There was no gender difference in the prevalence of never had a pneumonia vaccination among all adults.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 67.5% (95% CI: 66.0-69.0)</li> <li>Black, Non-Hispanic: *68.6% (95% CI: 58.2-78.9)</li> <li>Other, Non-Hispanic: *76.5% (95% CI: 61.9-91.1)</li> <li>Multiracial, Non-Hispanic: *68.4% (95% CI: 56.7-80.1)</li> <li>Hispanic: *68.7% (95% CI: 56.4-81.1)</li> <li>There was no race/ethnicity difference in the prevalence of never had a pneumonia vaccination among all adults.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of never had a pneumonia vaccination among all adults was lowest among those aged 65 and older (32.0%) and was significantly lower than all other age groups.
Education	The prevalence of never had a pneumonia vaccination among all adults was lowest among those with less than a high school education (57.6%) and was significantly lower than the prevalence among all other educational attainment categories.
Household Income	The prevalence of never had a pneumonia vaccination among all adults was lowest among those with an annual household income of less than \$15,000 (58.7%) and highest among those with a household income of \$75,000 or more per year (78.8%).

# Table 10.3 Never Had a Pneumonia Vaccination Among All Adults by DemographicCharacteristics: WVBRFSS, 2012

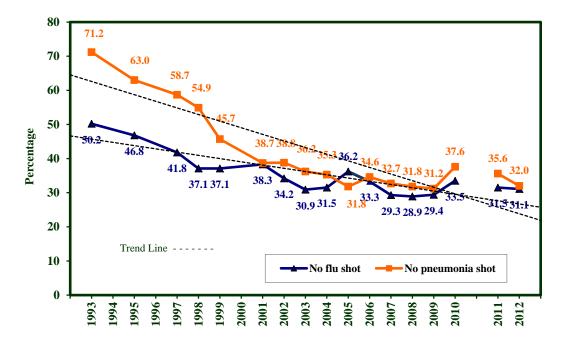
Characteristic	Men				Wor	nen	Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,110	69.6	67.4-71.8	3,028	65.6	63.7-67.6	5,138	67.5	66.0-69.0
Age									
18-24	103	76.5	67.8-85.3	143	81.3	73.4-89.1	246	79.0	73.1-84.8
25-34	188	89.7	84.8-94.6	250	87.2	82.6-91.7	438	88.4	85.1-91.8
35-44	276	89.2	85.5-92.9	376	82.5	78.4-86.6	652	85.8	83.0-88.6
45-54	349	78.9	74.1-83.7	509	75.8	71.7-80.0	858	77.3	74.2-80.5
55-64	577	62.6	58.2-67.0	692	64.6	60.6-68.5	1,269	63.6	60.6-66.6
65+	611	34.3	30.1-38.5	1,037	30.3	27.2-33.4	1,648	32.0	29.5-34.6
Education									
Less than H.S.	315	62.5	56.4-68.5	428	52.7	47.1-58.4	743	57.6	53.4-61.7
H.S. or G.E.D.	871	71.3	68.0-74.6	1,188	64.9	61.9-67.9	2,059	68.1	65.9-70.3
Some Post-H.S.	429	68.4	63.4-73.3	742	70.9	67.2-74.7	1,171	69.9	66.9-72.9
College Graduate	494	74.7	70.7-78.7	666	71.9	68.2-75.6	1,160	73.2	70.5-76.0
Income									
Less than \$15,000	234	59.8	52.3-67.3	441	57.9	52.4-63.4	675	58.7	54.2-63.2
\$15,000 - 24,999	383	66.4	61.0-71.7	649	62.4	58.0-66.8	1,032	64.1	60.7-67.5
\$25,000 - 34,999	271	63.0	56.5-69.5	347	66.0	60.4-71.6	618	64.5	60.2-68.8
\$35,000 - 49,999	297	72.0	66.7-77.4	362	64.9	58.9-70.9	659	68.6	64.6-72.7
\$50,000 - 74,999	298	76.6	71.5-81.8	330	73.3	68.2-78.5	628	75.0	71.4-78.7
\$75,000+	394	79.4	75.1-83.7	411	78.2	73.8-82.5	805	78.8	75.8-81.9

Definition	Responding "No" to the question "A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?" This indicator is restricted to adults aged 65 and older.
Prevalence	WV: 32.0% (95% CI: 29.5-34.6) U.S.: 32.3% (95% CI: 31.8-32.8) The West Virginia prevalence of never had a pneumonia vaccination among adults 65 and older was similar to the U.S. prevalence. West Virginia ranked the 24 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 34.3% (95% CI: 30.1-38.5) Women: 30.3% (95% CI: 27.2-33.4) There was no gender difference in the prevalence of never had a pneumonia vaccination among adults 65 and older.
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Education	There was no educational attainment difference in the prevalence of never had a pneumonia vaccination among adults 65 and older.
Household Income	There was no annual household income difference in the prevalence of never had a pneumonia vaccination among adults 65 and older.

# Table 10.4 Never Had a Pneumonia Vaccination Among Adults Aged 65 and Older byDemographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	611	34.3	30.1-38.5	1,037	30.3	27.2-33.4	1,648	32.0	29.5-34.6	
Age										
65+	611	34.3	30.1-38.5	1,037	30.3	27.2-33.4	1,648	32.0	29.5-34.6	
Education										
Less than H.S.	137	35.6	26.9-44.3	217	26.7	19.9-33.5	354	30.8	25.4-36.2	
H.S. or G.E.D.	234	35.5	28.6-42.4	437	31.1	26.4-35.8	671	32.9	28.9-36.9	
Some Post-H.S.	115	29.2	20.2-38.2	234	30.4	23.8-36.9	349	29.9	24.6-35.2	
College Graduate	124	35.2	26.1-44.2	148	37.2	28.7-45.6	272	36.1	29.8-42.3	
Income										
Less than \$15,000	68	*38.1	25.0-51.3	178	26.1	18.5-33.7	246	30.2	23.5-37.0	
\$15,000 - 24,999	137	36.8	27.7-45.9	272	26.8	20.9-32.6	409	30.7	25.6-35.8	
\$25,000 - 34,999	105	30.9	21.1-40.7	142	34.4	25.8-43.0	247	32.6	26.1-39.1	
\$35,000 - 49,999	96	31.9	21.9-41.9	107	*33.8	23.7-43.9	203	32.7	25.6-39.9	
\$50,000 - 74,999	58	*31.9	19.1-44.6	58	*37.6	24.1-51.1	116	34.5	25.3-43.8	
\$75,000+	58	*45.2	30.3-60.2	40	*27.9	13.3-42.6	98	*39.1	27.7-50.5	

Figure 10.1 No Seasonal Flu Vaccine (in Past 12 Months) and No Pneumonia Vaccination (in Lifetime) Among Adults Aged 65 and Older by Year: WVBRFSS, 1993-2012



NOTE: Data are not available for the years 1994, 1996, and 2000.

\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

## HPV

Definitions	<ul> <li>Had HPV Vaccine</li> <li>Responding "Yes" to the question "A vaccine to prevent the human papilloma virus or HPV infection is available and is called the cervical cancer or genital warts vaccine, HPV shot, Gardasil, or Cervarix. Have you EVER had an HPV vaccination?"</li> <li>Had Full Course of HPV Vaccine</li> <li>Responding "Yes" to the above question and responding "All shots" or "3" to the question "How many HPV shots did you receive?"</li> <li>Both indicators are restricted to adults ages 18-49.</li> </ul>
Prevalence	<ul> <li>Had HPV Vaccine</li> <li>WV: 8.3% (95% CI: 6.7-9.9)</li> <li>Because this is part of a state selected optional module, U.S. data are not available for comparison.</li> <li>Had Full Course of HPV Vaccine</li> <li>WV: 61.2% (95% CI: 50.4-72.0)</li> <li>Because this is part of a state selected optional module, U.S. data are not available for comparison.</li> </ul>
Gender	<ul> <li>Had HPV Vaccine</li> <li>Men: 3.7% (95% CI: 1.7-5.8)</li> <li>Women: 12.8% (95% CI: 10.3-15.4)</li> <li>The prevalence of had the HPV vaccination was significantly higher among females than among males.</li> <li>Had Full Course of HPV Vaccine</li> <li>Men: *44.2% (95% CI: 13.7-74.7)</li> <li>Women: 65.7% (95% CI: 54.9-76.5)</li> <li>There was no gender difference in the prevalence of had full course of HPV vaccination.</li> </ul>
Race/Ethnicity	<i>Had HPV Vaccine</i> No race/ethnicity analysis was conducted due to small sample size. <i>Had Full Course of HPV Vaccine</i> No race/ethnicity analysis was conducted due to small sample size.
Age	The prevalence of had the HPV vaccination was highest among those aged 18-24 (25.0%) and was significantly higher than all other age groups. No analysis on the prevalence of had full course of HPV vaccine was conducted due to small sample size.
Education	There was no educational attainment difference in the prevalence of had the HPV vaccination. No analysis on the prevalence of had full course of HPV vaccine was conducted due to small sample size.
Household Income	There was no consistent household income difference in the prevalence of had the HPV vaccination. No analysis on the prevalence of had full course of HPV vaccine was conducted due to small sample size.

### Table 10.5 HPV Vaccination by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Ha	d HPV	Vaccine	Had Full Course of HPV Vaccine			
	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	1,770	8.3	6.7-9.9	114	*61.2	50.4-72.0	
Gender							
Male	760	3.7	1.7-5.8	16	*44.2	13.7-74.7	
Female	1,010	12.8	10.3-15.4	98	*65.7	54.9-76.5	
Age							
18-24	273	25.0	19.3-30.8	69	*68.7	55.3-82.0	
25-34	463	4.9	2.8-7.0	22	*45.7	23.2-68.3	
35-44	659	2.4	1.2-3.7	16	*59.7	31.8-87.5	
45-49	375	*2.2	0.2-4.1	7	*3.5	0.0-11.1	
Education							
Less than H.S.	176	*6.9	2.8-11.0	12	*37.5	8.6-66.4	
H.S. or G.E.D.	660	7.4	5.0-9.9	42	*69.5	54.1-84.9	
Some Post-H.S.	455	11.5	7.7-15.2	38	*57.0	37.7-76.3	
College Graduate	479	6.2	3.5-8.9	22	*71.4	47.7-95.1	
Income							
Less than \$15,000	210	*4.9	1.8-8.0	10	*69.6	38.0-100.0	
\$15,000 - 24,999	323	12.9	8.6-17.1	35	*59.4	41.0-77.9	
\$25,000 - 34,999	165	*8.3	3.0-13.5	11	*37.2	3.3-71.2	
\$35,000 - 49,999	217	*3.8	0.9-6.6	9	*73.1	37.2-100.0	
\$50,000 - 74,999	273	7.0	3.3-10.6	15	*76.9	52.5-100.0	
\$75,000+	371	*6.3	2.0-10.5	9	*65.9	23.9-100.0	

# **CHAPTER 11: CARDIOVASCULAR DISEASE**

	Heart Attack							
Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you had a heart attack also called a myocardial infarction?"							
Prevalence	<ul> <li>WV: 7.4% (95% CI: 6.7-8.2)</li> <li>U.S.: 4.4% (95% CI: 4.3-4.5)</li> <li>The West Virginia prevalence of heart attack was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.</li> </ul>							
Gender	Men: 9.2% (95% CI: 8.0-10.5) Women: 5.7% (95% CI: 4.8-6.6) Men had a significantly higher prevalence of heart attack than women.							
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 7.6% (95% CI: 6.8-8.4)</li> <li>Black, Non-Hispanic: *6.7% (95% CI: 1.5-11.9)</li> <li>Other, Non-Hispanic: *3.9% (95% CI: 0.0-9.5)</li> <li>Multiracial, Non-Hispanic: *4.3% (95% CI: 0.9-7.7)</li> <li>Hispanic: *4.5% (95% CI: 0.0-9.2)</li> <li>There was no race/ethnicity difference in the prevalence of heart attack.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>							
Age	The prevalence of heart attack was significantly higher among the 65 and older age group (17.3%) than among any other age group.							
Education	Adults with less than a high school education had the highest prevalence of heart attack (15.1%) and was significantly higher than all other educational attainment groups.							
Household Income	The prevalence of heart attack prevalence was highest among those earning less than \$15,000 per year (14.4%) and lowest among those whose annual household income was \$75,000 or more (2.8%). This was a statistically significant difference.							

### Table 11.1 Heart Attack by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,265	9.2	8.0-10.5	3,127	5.7	4.8-6.6	5,392	7.4	6.7-8.2	
Age										
18-24	133	*0.0	0.0-0.0	168	*0.6	0.0-1.7	301	*0.3	0.0-0.8	
25-34	217	*1.6	0.0-3.5	272	*1.0	0.0-2.1	489	*1.3	0.2-2.4	
35-44	301	*2.1	0.5-3.7	386	*2.3	0.3-4.4	687	2.2	0.9-3.5	
45-54	374	9.3	5.8-12.8	514	4.7	2.8-6.7	888	7.0	5.0-9.0	
55-64	594	13.9	10.5-17.2	703	6.2	4.1-8.2	1,297	10.0	8.0-11.9	
65+	640	22.1	18.4-25.8	1,062	13.5	11.1-15.9	1,702	17.3	15.1-19.4	
Education										
Less than H.S.	328	16.8	12.5-21.2	437	13.3	9.8-16.9	765	15.1	12.3-17.9	
H.S. or G.E.D.	937	8.1	6.4-9.8	1,224	5.0	3.8-6.3	2,161	6.6	5.6-7.7	
Some Post-H.S.	474	8.8	6.2-11.4	774	3.6	2.4-4.9	1,248	5.9	4.5-7.2	
College Graduate	525	4.4	2.8-6.1	688	3.2	1.9-4.6	1,213	3.8	2.8-4.9	
Income										
Less than \$15,000	248	16.8	11.8-21.7	453	12.5	9.0-16.0	701	14.4	11.4-17.3	
\$15,000 - 24,999	405	12.5	8.9-16.2	664	6.8	4.9-8.6	1,069	9.3	7.4-11.3	
\$25,000 - 34,999	285	10.9	7.0-14.8	352	4.3	2.1-6.6	637	7.6	5.4-9.9	
\$35,000 - 49,999	314	8.0	4.9-11.0	371	4.5	2.2-6.9	685	6.3	4.4-8.3	
\$50,000 - 74,999	320	5.9	3.2-8.6	340	2.7	1.2-4.3	660	4.4	2.8-6.0	
\$75,000+	426	3.9	2.0-5.8	422	1.5	0.3-2.6	848	2.8	1.7-4.0	

# Angina or Coronary Heart Disease

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you had angina or coronary heart disease?"
Prevalence	<ul> <li>WV: 8.5% (95% CI: 7.7-9.3)</li> <li>U.S.: 4.5% (95% CI: 4.4-4.6)</li> <li>The West Virginia prevalence of angina or coronary heart disease was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.</li> </ul>
Gender	Men: 9.0% (95% CI: 7.7-10.3) Women: 8.1% (95% CI: 7.0-9.1) There was no gender difference in the prevalence of angina or coronary heart disease.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 8.6% (95% CI: 7.8-9.5)</li> <li>Black, Non-Hispanic: *7.7% (95% CI: 1.0-14.4)</li> <li>Other, Non-Hispanic: *6.3% (95% CI: 0.0-12.5)</li> <li>Multiracial, Non-Hispanic: *4.0% (95% CI: 0.4-7.5)</li> <li>Hispanic: *7.3% (95% CI: 1.5-13.0)</li> <li>There was no race/ethnicity difference in the prevalence of angina or coronary heart disease.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of angina or coronary heart disease was highest among those aged 65 and older (17.2%) and was significantly higher than all other age groups.
Education	Adults with less than a high school education had the highest prevalence of angina or coronary heart disease (15.4%) and was significantly higher than the prevalence among all other educational attainment groups.
Household Income	The prevalence of angina or coronary heart disease prevalence was highest among those with an annual household income of less than \$15,000 (13.8%), which was significantly higher than the prevalence among those earning \$25,000 or more per year.

## Table 11.2 Angina or Coronary Heart Disease by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,243	9.0	7.7-10.3	3,108	8.1	7.0-9.1	5,351	8.5	7.7-9.3	
Age										
18-24	132	*0.0	0.0-0.0	168	*0.6	0.0-1.8	300	*0.3	0.0-0.9	
25-34	216	*1.7	0.0-3.7	271	*2.2	0.3-4.2	487	*2.0	0.6-3.4	
35-44	301	*3.1	0.8-5.4	387	4.6	2.1-7.2	688	3.8	2.1-5.6	
45-54	374	10.3	6.6-14.1	512	8.2	5.3-11.2	886	9.3	6.9-11.7	
55-64	587	14.3	11.1-17.5	699	9.5	7.1-11.9	1,286	11.9	9.9-13.9	
65+	627	19.0	15.6-22.4	1,049	15.9	13.3-18.5	1,676	17.2	15.2-19.3	
Education										
Less than H.S.	323	13.6	9.5-17.7	427	17.1	13.0-21.3	750	15.4	12.5-18.3	
H.S. or G.E.D.	923	7.6	5.9-9.3	1,216	6.9	5.6-8.3	2,139	7.3	6.2-8.4	
Some Post-H.S.	472	10.4	7.5-13.2	774	5.9	4.1-7.7	1,246	7.8	6.2-9.4	
College Graduate	524	5.8	3.9-7.7	687	5.2	3.4-7.1	1,211	5.5	4.2-6.8	
Income										
Less than \$15,000	244	13.0	8.5-17.6	450	14.3	10.5-18.1	694	13.8	10.9-16.7	
\$15,000 - 24,999	401	9.8	6.5-13.2	661	11.4	8.8-14.0	1,062	10.7	8.6-12.8	
\$25,000 - 34,999	282	10.9	6.9-14.9	351	5.4	2.8-7.9	633	8.1	5.8-10.5	
\$35,000 - 49,999	313	10.2	6.9-13.6	368	4.5	2.2-6.8	681	7.5	5.5-9.6	
\$50,000 - 74,999	316	10.0	6.4-13.7	338	4.6	2.4-6.9	654	7.5	5.3-9.7	
\$75,000+	425	5.2	3.1-7.3	421	3.2	1.4-5.0	846	4.3	2.9-5.8	

	Stroke
Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you had a stroke?"
Prevalence	<ul> <li>WV: 4.2% (95% CI: 3.6-4.8)</li> <li>U.S.: 2.9% (95% CI: 2.8-3.0)</li> <li>The West Virginia prevalence of stroke was significantly higher than the U.S. prevalence. West Virginia ranked the 4<sup>th</sup> highest among 53 BRFSS participants.</li> </ul>
Gender	<b>Men</b> : 3.7% (95% CI: 2.9-4.5) <b>Women</b> : 4.7% (95% CI: 3.8-5.5) There was no gender difference in stroke prevalence.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 4.1% (95% CI: 3.5-4.7)</li> <li>Black, Non-Hispanic: *9.2% (95% CI: 2.2-16.3)</li> <li>Other, Non-Hispanic: *6.6% (95% CI: 0.0-13.9)</li> <li>Multiracial, Non-Hispanic: *3.9% (95% CI: 0.6-7.2)</li> <li>Hispanic: *3.0% (95% CI: 0.0-6.8)</li> <li>There was no race/ethnicity difference in the prevalence of stroke.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of stroke was significantly higher among the 65 and older age group (8.7%) than the prevalence among all other age groups.
Education	Adults with less than a high school education had the highest prevalence of stroke (8.5%) and was significantly higher than all other educational attainment groups.
Household Income	Those with an annual household income of less than \$15,000 had the highest prevalence of stroke (7.6%), which was significantly higher than the prevalence among those earning \$35,000 or more per year.

### Table 11.3 Stroke by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,265	3.7	2.9-4.5	3,136	4.7	3.8-5.5	5,401	4.2	3.6-4.8	
Age										
18-24	133	*2.2	0.0-5.2	168	*0.0	0.0-0.0	301	*1.1	0.0-2.7	
25-34	217	*0.0	0.0-0.0	272	*2.9	0.5-5.4	489	*1.4	0.2-2.7	
35-44	300	*3.1	0.9-5.2	388	*3.4	1.3-5.5	688	3.2	1.7-4.7	
45-54	375	*1.6	0.5-2.8	517	3.8	1.7-5.9	892	2.7	1.5-3.9	
55-64	596	6.2	4.1-8.4	704	4.1	2.6-5.6	1,300	5.2	3.8-6.5	
65+	638	7.4	5.3-9.5	1,065	9.8	7.7-11.9	1,703	8.7	7.2-10.2	
Education										
Less than H.S.	329	6.5	3.6-9.5	440	10.5	7.1-13.9	769	8.5	6.2-10.7	
H.S. or G.E.D.	936	3.7	2.5-4.8	1,228	3.7	2.7-4.7	2,164	3.7	2.9-4.5	
Some Post-H.S.	475	2.7	1.4-3.9	776	4.0	2.6-5.4	1,251	3.4	2.4-4.4	
College Graduate	524	2.0	0.8-3.1	688	1.9	0.9-3.0	1,212	1.9	1.2-2.7	
Income										
Less than \$15,000	252	5.5	2.8-8.2	459	9.3	6.2-12.3	711	7.6	5.5-9.7	
\$15,000 - 24,999	402	6.4	3.4-9.3	665	5.8	4.1-7.6	1,067	6.1	4.4-7.7	
\$25,000 - 34,999	285	4.9	2.5-7.4	352	*3.7	1.4-6.0	637	4.3	2.6-6.0	
\$35,000 - 49,999	314	*1.4	0.3-2.4	371	*2.5	0.8-4.1	685	1.9	0.9-2.8	
\$50,000 - 74,999	320	*1.6	0.1-3.1	340	*0.7	0.0-1.6	660	*1.2	0.3-2.1	
\$75,000+	425	*1.1	0.2-2.1	422	*1.9	0.5-3.4	847	1.5	0.7-2.3	

# Any Cardiovascular Disease

Definition	Responding "Yes" to any of the questions "Has a doctor, nurse, or other health professional ever told you that you had any of the following?" " ever told you had a heart attack, also called a myocardial infarction?" " ever told you had angina or coronary heart disease?" " ever told you had a stroke?"
Prevalence	<ul> <li>WV: 14.8% (95% CI: 13.7-15.8)</li> <li>U.S.: 8.6% (95% CI: 8.4-8.7)</li> <li>The prevalence of cardiovascular disease was significantly higher in West Virginia than in the U.S. West Virginia ranked the highest among 53 BRFSS participants.</li> </ul>
Gender	Men: 15.8% (95% CI: 14.1-17.4) Women: 13.8% (95% CI: 12.5-15.2) There was no gender difference in the prevalence of cardiovascular disease.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 14.9% (95% CI: 13.8-16.0)</li> <li>Black, Non-Hispanic: 17.5% (95% CI: 8.9-26.2)</li> <li>Other, Non-Hispanic: *13.6% (95% CI: 3.8-23.4)</li> <li>Multiracial, Non-Hispanic: 9.8% (95% CI: 4.4-15.2)</li> <li>Hispanic: *8.8% (95% CI: 2.6-15.0)</li> <li>There was no race/ethnicity difference in the prevalence of stoke.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of cardiovascular disease was significantly higher among the 65 and older age group (30.8%) than among any other age group.
Education	Adults with less than a high school education had the highest prevalence of cardiovascular disease (27.7%), which was significantly higher than all other educational attainment groups.
Household Income	The prevalence of cardiovascular disease was highest among those with an annual household income of less than \$15,000 (25.6%), which was significantly higher than the prevalence among all other income brackets.

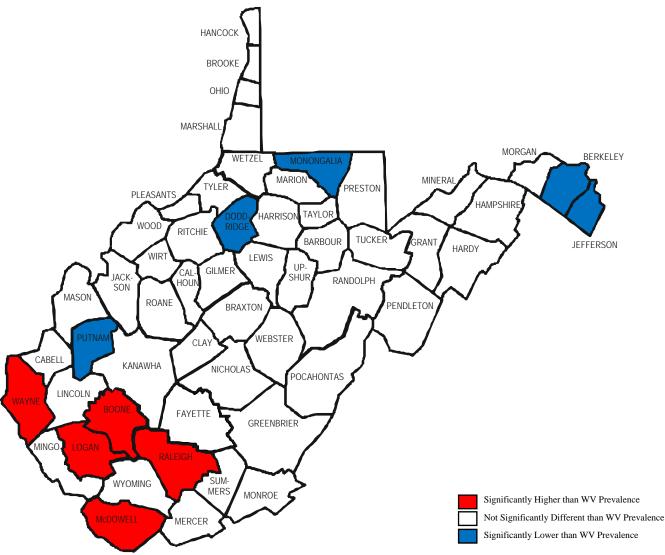
# Table 11.4 Prevalence of Any Cardiovascular Disease by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,251	15.8	14.1-17.4	3,110	13.8	12.5-15.2	5,361	14.8	13.7-15.8	
Age										
18-24	132	*2.2	0.0-5.3	168	*1.2	0.0-2.9	300	*1.7	0.0-3.5	
25-34	217	*3.3	0.6-6.0	271	*5.0	1.9-8.0	488	4.1	2.1-6.2	
35-44	300	6.5	3.4-9.5	385	8.0	4.7-11.3	685	7.2	5.0-9.5	
45-54	371	15.9	11.5-20.3	510	13.1	9.7-16.6	881	14.5	11.7-17.3	
55-64	589	23.1	19.1-27.0	700	15.6	12.7-18.6	1,289	19.3	16.8-21.7	
65+	636	34.5	30.4-38.6	1,054	27.9	24.8-31.0	1,690	30.8	28.3-33.3	
Education										
Less than H.S.	325	26.8	21.5-32.2	429	28.5	23.6-33.5	754	27.7	24.0-31.3	
H.S. or G.E.D.	931	13.7	11.5-16.0	1,218	12.4	10.6-14.2	2,149	13.1	11.6-14.5	
Some Post-H.S.	470	15.3	11.9-18.8	771	10.3	8.0-12.5	1,241	12.5	10.5-14.4	
College Graduate	524	9.6	7.2-12.0	688	8.4	6.2-10.7	1,212	9.0	7.3-10.6	
Income										
Less than \$15,000	247	25.0	19.1-30.9	450	26.1	21.3-30.9	697	25.6	21.9-29.3	
\$15,000 - 24,999	402	19.5	14.9-24.1	661	17.5	14.5-20.6	1,063	18.4	15.8-21.1	
\$25,000 - 34,999	284	18.0	13.2-22.8	351	10.9	7.3-14.4	635	14.4	11.5-17.4	
\$35,000 - 49,999	314	15.4	11.3-19.5	369	7.7	4.8-10.6	683	11.8	9.2-14.3	
\$50,000 - 74,999	316	13.1	9.0-17.2	338	6.9	4.3-9.6	654	10.2	7.7-12.7	
\$75,000+	424	7.9	5.3-10.5	421	5.5	3.2-7.7	845	6.9	5.1-8.6	

Figure 11.1 Cardiovascular Disease Prevalence by County: WVBRFSS, 2008-2012

U.S. Prevalence (2010) - 8.4%





County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

## **CHAPTER 12: DIABETES**

## **Diabetes Prevalence**

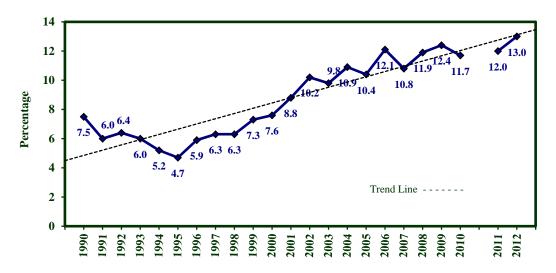
Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you have diabetes?"
Prevalence	WV: 13.0% (95% CI: 12.0-14.0) U.S.: 10.2% (95% CI: 10.0-10.4) West Virginia's diabetes prevalence was significantly higher than the U.S. prevalence. West Virginia ranked the 2 <sup>nd</sup> highest among 53 BRFSS participants.
Gender	Men: 12.7% (95% CI: 11.2-14.2) Women: 13.2% (95% CI: 12.0-14.5) There was no gender difference in diabetes prevalence.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 13.0% (95% CI: 12.0-14.0)</li> <li>Black, Non-Hispanic: 22.8% (95% CI: 13.6-32.0)</li> <li>Other, Non-Hispanic: *12.9% (95% CI: 0.0-27.1)</li> <li>Multiracial, Non-Hispanic: *5.9% (95% CI: 1.6-10.1)</li> <li>Hispanic: *6.6% (95% CI: 1.5-11.6)</li> <li>The prevalence of diabetes was significantly higher among White, Non-Hispanics and Black, Non-Hispanics than among Multiracial, Non-Hispanics and Hispanics. There was no other race/ethnicity difference in the prevalence of diabetes.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	Adults aged 65 and older had the highest diabetes prevalence (24.9%) and was significantly higher than the prevalence among all other age groups.
Education	Adults with less than a high school education had the highest prevalence of diabetes (18.6%), which was significantly higher than the prevalence among all other age groups. College graduates had the lowest prevalence of diabetes (9.3%).
Household Income	The prevalence of diabetes was highest among those with an annual household income of less than $15,000 (19.7\%)$ and was significantly higher than the prevalence among those earning $35,000$ or more per year. The lowest prevalence of diabetes was among those with a household income of $75,000$ or more per year (7.3%).

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,271	12.7	11.2-14.2	3,134	13.2	12.0-14.5	5,405	13.0	12.0-14.0	
Age										
18-24	133	*1.5	0.0-3.6	167	*0.9	0.0-2.7	300	*1.2	0.0-2.6	
25-34	217	*2.6	0.3-5.0	272	*2.5	0.7-4.3	489	2.6	1.1-4.1	
35-44	301	5.2	2.5-7.9	388	7.6	4.4-10.8	689	6.4	4.3-8.5	
45-54	376	15.1	10.8-19.4	517	15.2	11.6-18.8	893	15.2	12.4-18.0	
55-64	598	18.4	15.0-21.8	703	18.2	15.0-21.4	1,301	18.3	16.0-20.6	
65+	640	26.1	22.3-29.9	1,065	23.9	21.0-26.8	1,705	24.9	22.6-27.2	
Education										
Less than H.S.	330	15.7	11.6-19.8	440	21.6	17.4-25.9	770	18.6	15.6-21.6	
H.S. or G.E.D.	939	12.4	10.1-14.6	1,226	14.4	12.4-16.5	2,165	13.4	11.8-14.9	
Some Post-H.S.	476	12.9	9.9-16.0	777	9.5	7.4-11.5	1,253	11.0	9.2-12.7	
College Graduate	525	10.1	7.5-12.7	687	8.6	6.3-10.8	1,212	9.3	7.6-11.0	
Income										
Less than \$15,000	252	18.0	12.4-23.6	459	20.9	16.5-25.4	711	19.7	16.2-23.2	
\$15,000 - 24,999	406	16.7	12.7-20.7	664	16.0	13.0-19.1	1,070	16.3	13.9-18.8	
\$25,000 - 34,999	285	13.6	9.4-17.9	352	13.9	10.0-17.8	637	13.8	10.9-16.6	
\$35,000 - 49,999	314	12.0	8.4-15.6	371	8.8	5.8-11.9	685	10.5	8.1-12.9	
\$50,000 - 74,999	320	12.0	8.1-16.0	340	8.6	5.5-11.6	660	10.4	7.9-12.9	
\$75,000+	426	8.0	5.5-10.6	422	6.3	4.0-8.6	848	7.3	5.5-9.0	

#### Table 12.1 Diabetes Prevalence by Demographic Characteristics: WVBRFSS, 2012

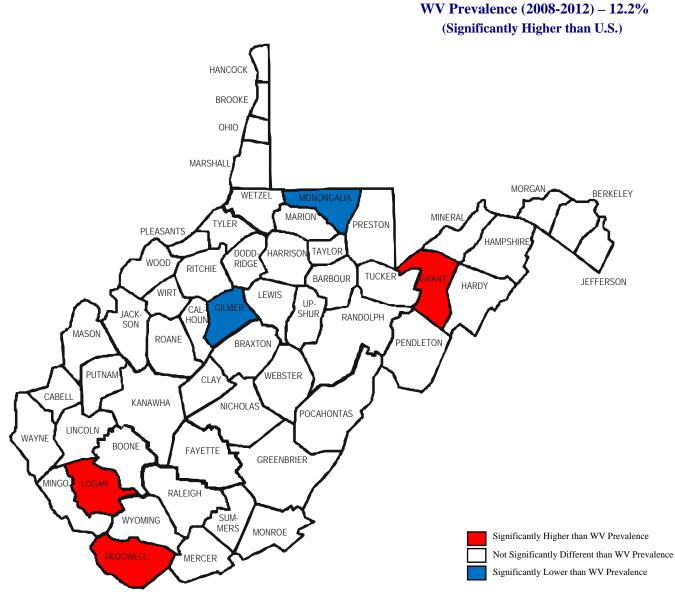
\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

#### Figure 12.1 Diabetes Prevalence by Year: WVBRFSS, 1990-2012



\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

**U.S. Prevalence** (2010) – 9.3%



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

# **Diabetes Management – Medical Care**

Definitions	<ul> <li>Persons reporting that they have diabetes were asked a series of questions about medical care for their diabetes.</li> <li>At least 2 doctor visits in the past year is defined as responding "2" or more to the question "About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes?"</li> <li>At least 2 A1C tests in the past year is defined as responding "2" or more to the following question "About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for A1C?"</li> <li>Doctor checked feet in the past year is defined as responding "1" or more to the question "About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for A1C?"</li> <li>Doctor checked feet in the past year is defined as responding "1" or more to the question "About how many times in the past 12 months has a doctor, nurse, or other health professional checked your feet for any sores or irritations?"</li> <li>Eye exam in the past year is defined as responding "Within the past month" or "Within the past year" to the question "When was the last time you had an eye exam in which the pupils were dilated?"</li> </ul>
Prevalence	At Least 2 Doctor Visits in Past Year: 78.4% (95% CI: 74.8-82.0) At Least 2 A1C Tests in Past Year: 70.9% (95% CI: 67.0-74.9) Doctor Checked Feet in Past Year: 65.7% (95% CI: 61.9-69.6) Eye Exam in Past Year: 68.1% (95% CI: 64.3-72.0) Because this question is part of a state selected optional module and complete national data are not available, a U.S. comparison was not conducted.
Gender	<ul> <li>At Least 2 Doctor Visits in Past Year</li> <li>Men: 73.7% (95% CI: 67.7-79.6)</li> <li>Women: 82.7% (95% CI: 78.5-86.8)</li> <li>There was no gender difference in the prevalence of had at least 2 doctor visits in the past year.</li> <li>At Least 2 AIC Tests in Past Year</li> <li>Men: 68.6% (95% CI: 62.4-74.8)</li> <li>Women: 73.1% (95% CI: 68.3-78.0)</li> <li>There was no gender difference in the prevalence of had at least 2 A1C tests in the past year.</li> <li>Doctor Checked Feet in Past Year</li> <li>Men: 69.1% (95% CI: 63.2-74.9)</li> <li>Women: 62.6% (95% CI: 57.5-67.7)</li> <li>There was no gender difference in the prevalence of doctor checked feet in the past year.</li> <li>Eye Exam in Past Year</li> <li>Men: 64.6% (95% CI: 58.5-70.7)</li> <li>Women: 71.3% (95% CI: 66.6-76.1)</li> <li>There was no gender difference in the prevalence of had an eye exam in the past year.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	Due to small sample size, some prevalence estimates for various age groups were unreliable. There was no age difference in the prevalence of at least 2 doctor visits in the past year, at least 2 A1C tests in the past year, doctor checked feet in the past year, or eye exam in the past year.

**Education** There was no educational attainment difference in the prevalence of at least 2 doctor visits in the past year, at least 2 A1C tests in the past year, doctor checked feet in the past year, or eye exam in the past year.

**Household Income** Due to small sample size, some prevalence estimates for various annual household income brackets were unreliable. There was no annual household income difference in the prevalence of at least 2 doctor visits in the past year, at least 2 A1C tests in the past year, or doctor checked feet in the past year. The prevalence of had an eye exam in the past year was significantly higher among those with an annual household income of \$75,000 or more per year (82.7%) than among those earning less than \$15,000 (57.6%) or those earning \$15,000-\$24,999 per year (65.1%).

#### Table 12.2 Medical Management of Diabetes by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Visit	At Least 2 Doctor Visits in Past Year		At Least 2 A1C Tests in Past Year		Doctor Checked Feet in Past Year		Eye Exam in Past Year	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	
TOTAL	78.4	74.8-82.0	70.9	67.0-74.9	65.7	61.9-69.6	68.1	64.3-72.0	
Sex									
Males	73.7	67.7-79.6	68.6	62.4-74.8	69.1	63.2-74.9	64.6	58.5-70.7	
Females	82.7	78.5-86.8	73.1	68.3-78.0	62.6	57.5-67.7	71.3	66.6-76.1	
Age									
18-24	*36.4	0.0-92.4	*63.0	6.8-100.0	*63.0	6.8-100.0	*63.0	6.8-100.0	
25-34	*49.3	19.9-78.8	*60.9	31.5-90.3	*56.2	26.7-85.7	*44.9	16.1-73.7	
35-44	*64.2	47.5-80.9	*56.7	39.1-74.3	*52.5	35.6-69.3	*48.9	32.1-65.8	
45-54	76.9	67.6-86.3	*64.7	54.3-75.0	*64.2	54.1-74.2	63.3	53.4-73.2	
55-64	84.1	78.6-89.6	79.8	73.7-86.0	67.9	61.3-74.6	70.5	63.8-77.1	
65+	81.3	76.8-85.7	72.0	66.8-77.2	68.2	63.0-73.4	74.3	69.4-79.2	
Education									
Less than H.S.	77.5	69.8-85.1	65.9	56.9-74.9	*63.2	54.7-71.8	62.3	53.5-71.2	
H.S. or G.E.D.	77.8	72.1-83.5	67.9	61.6-74.2	62.6	56.4-68.8	66.7	60.6-72.7	
Some Post-H.S.	76.5	68.7-84.3	76.4	68.6-84.3	74.6	67.3-81.9	72.2	64.8-79.7	
College Graduate	85.6	78.1-93.1	79.9	71.9-88.0	64.7	55.4-74.1	76.9	68.8-85.1	
Income									
Less than \$15,000	77.4	67.6-87.2	*64.1	53.3-74.9	*64.9	55.1-74.8	57.6	47.8-67.3	
\$15,000 - 24,999	74.5	66.9-82.1	72.2	64.3-80.1	63.1	55.1-71.1	65.1	56.8-73.4	
\$25,000 - 34,999	78.8	69.2-88.4	*72.0	61.2-82.8	*66.7	56.0-77.5	*62.3	51.5-73.1	
\$35,000 - 49,999	82.3	72.8-91.7	80.5	71.0-90.0	*72.0	61.2-82.9	*71.0	59.7-82.3	
\$50,000 - 74,999	*72.6	60.4-84.9	*67.9	55.2-80.5	*69.3	57.5-81.1	*74.2	62.2-86.3	
\$75,000+	89.2	80.6-97.9	*82.0	71.9-92.2	*67.3	55.9-78.7	82.7	73.5-91.8	

	Diabetes Management – Self-Care
Definition	Persons responding that they have diabetes were asked a series of questions about how they care for their diabetes. Take insulin is defined as responding "Yes" to the question "Are you now taking insulin?" Check glucose daily is defined as responding at least 1 time per day to the question "About how often do you check your blood for glucose or sugar?" Check feet daily is defined as responding at least 1 time per day to the question "About how often do you check your feet for any sores or irritations?" Taken a diabetes education class is defined as responding "Yes" to the question "Have you ever taken a course or class in how to manage your diabetes yourself?"
Prevalence	<ul> <li>Take Insulin: 32.7% (95% CI: 29.0-36.4)</li> <li>Check Glucose Daily: 66.1% (95% CI: 62.3-70.0)</li> <li>Check Feet Daily: 74.6% (95% CI: 71.0-78.2)</li> <li>Taken a Diabetes Education Class: 48.2% (95% CI: 44.2-52.1)</li> <li>Because this question is part of a state selected optional module and complete national data are not available, a U.S. comparison was not conducted.</li> </ul>
Gender	<ul> <li><i>Take Insulin</i></li> <li>Men: 29.7% (95% CI: 24.2-35.2)</li> <li>Women: 35.4% (95% CI: 30.4-40.3)</li> <li>There was no gender difference in the prevalence of take insulin.</li> <li><i>Check Glucose Daily</i></li> <li>Men: 54.6% (95% CI: 48.5-60.8)</li> <li>Women: 76.5% (95% CI: 72.2-80.8)</li> <li>The prevalence of check glucose daily was significantly higher among females than males.</li> <li><i>Check Feet Daily</i></li> <li>Men: 73.4% (95% CI: 67.9-79.0)</li> <li>Women: 75.7% (95% CI: 71.0-80.3)</li> <li>There was no gender difference in the prevalence of check feet daily.</li> <li><i>Taken a Diabetes Education Class</i></li> <li>Men: 45.7% (95% CI: 39.6-51.7)</li> <li>Women: 50.4% (95% CI: 45.3-55.6)</li> <li>There was no gender difference in the prevalence of taken a diabetes education class.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	Due to small sample size, some of the prevalence estimates for certain age groups were unreliable. There was no age difference in the prevalence of take insulin, check glucose daily, check feet daily, or taken a diabetes education class.
Education	There was no educational attainment difference in the prevalence of take insulin, check glucose daily, or check feet daily. The prevalence of taken a diabetes education class was significantly lower among those with less than a high school education (29.6%) than the prevalence among all other educational attainment groups.

# **Household Income** Due to small sample size, some of the prevalence estimates for certain annual household income brackets were unreliable. There was no annual household income difference in the prevalence of take insulin, check glucose daily, check feet daily, or taken a diabetes education class.

Characteristic	Take Insulin		Check Glucose Daily		Check Feet Daily		Taken a Diabetes Education Class	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
TOTAL	32.7	29.0-36.4	66.1	62.3-70.0	74.6	71.0-78.2	48.2	44.2-52.1
Sex								
Males	29.7	24.2-35.2	54.6	48.5-60.8	73.4	67.9-79.0	45.7	39.6-51.7
Females	35.4	30.4-40.3	76.5	72.2-80.8	75.7	71.0-80.3	50.4	45.3-55.6
Age								
18-24	*63.0	6.8-100.0	*100.0	100.0-100.0	*63.6	7.6-100.0	*63.0	6.8-100.0
25-34	*26.0	2.2-49.8	*44.1	15.5-72.8	*55.9	26.1-85.7	*44.9	16.1-73.7
35-44	*28.6	13.0-44.2	*60.3	43.5-77.1	*77.2	62.6-91.8	*58.1	41.3-74.9
45-54	29.8	20.7-38.9	*62.4	52.3-72.6	75.4	66.5-84.4	*48.2	38.0-58.4
55-64	31.9	25.4-38.4	63.5	56.5-70.5	73.4	66.8-80.0	53.8	46.7-60.8
65+	35.0	29.8-40.2	71.5	66.5-76.4	76.4	71.7-81.1	42.8	37.5-48.1
Education								
Less than H.S.	35.3	27.2-43.5	73.0	65.2-80.8	68.3	59.8-76.8	29.6	21.7-37.6
H.S. or G.E.D.	33.8	28.1-39.5	66.0	59.8-72.1	75.5	70.2-80.8	52.3	46.2-58.5
Some Post-H.S.	32.5	24.9-40.2	63.8	55.7-71.9	77.7	70.7-84.7	55.2	47.1-63.4
College Graduate	23.1	15.0-31.3	56.3	46.6-66.1	78.1	69.3-87.0	58.7	49.2-68.1
Income								
Less than \$15,000	37.7	28.4-47.0	71.6	61.8-81.4	79.2	71.2-87.3	42.0	31.9-52.0
\$15,000 - 24,999	36.6	28.7-44.5	70.2	62.8-77.6	70.0	62.2-77.9	44.6	36.6-52.5
\$25,000 - 34,999	*34.4	24.0-44.7	*63.8	52.9-74.7	80.7	71.3-90.1	*54.4	43.3-65.4
\$35,000 - 49,999	*28.9	18.0-39.8	*66.4	55.3-77.6	78.6	68.6-88.5	*61.3	50.0-72.7
\$50,000 - 74,999	*24.3	13.9-34.8	*55.0	41.7-68.3	*78.5	68.3-88.6	*57.5	44.6-70.4
\$75,000+	*26.1	15.6-36.7	*48.2	36.0-60.5	*66.7	54.5-78.9	*53.1	40.8-65.3

#### Table 12.3 Self-Care of Diabetes by Demographic Characteristics: WVBRFSS, 2012

#### **Other Diabetes Indicators**

Definition	Responding "Yes" to the question "Have you ever been told by a doctor or other health professional that you have pre-diabetes or borderline diabetes?"
Prevalence	<b>8.3%</b> (95% CI: 7.4-9.2) Because this question is part of a state selected optional module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 8.1% (95% CI: 6.8-9.4) Women: 8.6% (95% CI: 7.4-9.8) There was no gender difference in the prevalence of pre-diabetes or borderline diabetes.
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	The prevalence of borderline diabetes or pre-diabetes generally increased with age.
Education	There was no education difference in the prevalence of borderline diabetes or pre-diabetes.
Household Income	There was no annual household income difference in the prevalence of borderline diabetes or pre-diabetes.

# Table 12.4 Borderline Diabetes or Pre-Diabetes prevalence by Demographic Characteristics:WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,888	8.1	6.8-9.4	2,621	8.6	7.4-9.8	4,509	8.3	7.4-9.2
Age									
18-24	123	*0.4	0.0-1.2	163	*4.1	0.6-7.7	286	*2.2	0.4-4.1
25-34	205	*3.3	0.4-6.2	261	*3.1	1.1-5.2	466	3.2	1.4-5.0
35-44	282	5.7	2.8-8.6	360	9.2	5.7-12.7	642	7.4	5.1-9.7
45-54	321	12.0	8.0-16.0	436	9.5	6.5-12.6	757	10.8	8.2-13.3
55-64	479	12.2	8.9-15.6	571	12.2	9.2-15.2	1,050	12.2	10.0-14.5
65+	473	13.0	9.8-16.2	809	11.3	8.8-13.8	1,282	12.0	10.0-14.0
Education									
Less than H.S.	261	8.1	4.8-11.4	330	12.1	7.9-16.2	591	10.0	7.3-12.6
H.S. or G.E.D.	782	8.3	6.2-10.4	1,002	8.4	6.7-10.2	1,784	8.4	7.0-9.7
Some Post-H.S.	389	8.0	5.2-10.8	675	8.1	5.7-10.4	1,064	8.0	6.2-9.8
College Graduate	455	7.6	5.1-10.2	611	6.8	4.7-8.9	1,066	7.2	5.5-8.8
Income									
Less than \$15,000	195	11.1	6.2-15.9	348	11.8	8.1-15.5	543	11.5	8.5-14.5
\$15,000 - 24,999	319	7.2	4.4-10.1	533	10.0	6.8-13.2	852	8.8	6.6-11.0
\$25,000 - 34,999	236	10.8	6.1-15.5	293	9.8	5.8-13.7	529	10.3	7.2-13.4
\$35,000 - 49,999	263	7.8	4.7-10.9	331	8.2	5.0-11.4	594	8.0	5.8-10.2
\$50,000 - 74,999	273	9.2	5.2-13.1	303	5.9	3.1-8.6	576	7.6	5.1-10.0
\$75,000+	379	7.0	4.3-9.8	385	6.3	3.9-8.7	764	6.7	4.9-8.6

Definition	Responding "Yes" to the question "Have you had a test for high blood sugar or diabetes within the past three years?"
Prevalence	<b>62.6%</b> (95% CI: 60.9-64.4) Because this question is part of a state selected optional module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 61.5% (95% CI: 58.7-64.2) Women: 63.8% (95% CI: 61.5-66.1) There was no gender difference in the prevalence of had a diabetes test in the past 3 years.
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	The prevalence of had a diabetes test in the past 3 years generally increased with age.
Education	Adults with less than a high school education had the lowest prevalence of had a diabetes test in the past 3 years (54.6%) and college graduates had the highest prevalence of had a diabetes test in the past 3 years (67.2%).
Household Income	The prevalence of had a diabetes test in the past 3 years was significantly lower among those with an annual household income of less than \$15,000 (56.5%) than the prevalence among those with a household income of \$75,000 or more per year (72.0%).

# Table 12.5 Had a Diabetes Test in the Past 3 Years by Demographic Characteristics: WVBRFSS,2012

Characteristic	Men				Woi	nen	Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,821	61.5	58.7-64.2	2,536	63.8	61.5-66.1	4,357	62.6	60.9-64.4
Age									
18-24	119	42.2	32.3-52.2	159	44.3	35.8-52.9	278	43.3	36.7-49.9
25-34	198	52.2	44.6-59.9	257	51.3	44.5-58.2	455	51.8	46.7-56.9
35-44	275	54.3	47.9-60.8	349	62.7	57.1-68.3	624	58.4	54.1-62.7
45-54	313	65.7	59.7-71.7	423	64.3	59.2-69.4	736	65.0	61.1-69.0
55-64	467	76.5	72.3-80.7	556	75.8	71.7-79.9	1,023	76.1	73.2-79.1
65+	444	74.5	70.2-78.9	773	75.5	72.1-79.0	1,217	75.1	72.4-77.8
Education									
Less than H.S.	248	52.6	45.3-59.8	310	56.9	50.2-63.7	558	54.6	49.6-59.6
H.S. or G.E.D.	762	60.4	56.2-64.5	972	64.3	60.8-67.9	1,734	62.3	59.5-65.0
Some Post-H.S.	367	68.0	62.2-73.8	659	63.0	58.5-67.5	1,026	65.1	61.5-68.7
College Graduate	443	64.6	59.4-69.9	592	69.5	65.2-73.9	1,035	67.2	63.8-70.5
Income									
Less than \$15,000	185	50.7	41.9-59.4	335	60.8	54.3-67.3	520	56.5	51.1-61.8
\$15,000 - 24,999	309	57.2	50.5-64.0	517	57.3	52.0-62.6	826	57.3	53.1-61.5
\$25,000 - 34,999	224	63.1	55.4-70.7	290	69.6	63.1-76.0	514	66.4	61.4-71.4
\$35,000 - 49,999	255	61.6	54.7-68.6	320	68.5	62.1-74.9	575	65.0	60.2-69.8
\$50,000 - 74,999	263	68.6	62.1-75.1	293	67.0	60.7-73.3	556	67.8	63.3-72.4
\$75,000+	371	72.9	67.4-78.3	377	70.8	65.6-76.1	748	72.0	68.1-75.8

Definition	Persons reporting that they have diabetes and responding "Yes" to the question "Has a doctor ever told you that diabetes has affected your eyes or that you had retinopathy?"
Prevalence	<b>18.5%</b> (95% CI: 15.3-21.7) Because this question is part of a state selected optional module and complete national data are not available, a U.S. comparison was not conducted.
Gender	<b>Men</b> : 19.6% (95% CI: 14.6-24.5) <b>Women</b> : 17.6% (95% CI: 13.4-21.8) There was no gender difference in the prevalence of retinopathy.
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	Due to small sample size, some of the prevalence estimates for certain age groups were unreliable. There was no age difference in the prevalence of retinopathy.
Education	There was no educational attainment difference in the prevalence of retinopathy.
Household Income	The prevalence of retinopathy was highest among those with an annual household income of less than \$15,000 (32.4%) and was significantly higher than most other annual household income brackets.

Table 12.6 Told That Diabetes Affected Eyes or Have Retinopathy by DemographicCharacteristics: WVBRFSS, 2012

Characteristic	Total						
	# Resp.	%	95% CI				
TOTAL	839	18.5	15.3-21.7				
Sex							
Males	349	19.6	14.6-24.5				
Females	490	17.6	13.4-21.8				
Age							
18-24	3	*0.0	0.0-0.0				
25-34	13	*8.9	0.0-25.7				
35-44	40	*22.7	9.0-36.5				
45-54	128	22.3	12.8-31.7				
55-64	235	17.0	11.7-22.3				
65+	418	18.1	14.0-22.3				
Education							
Less than H.S.	174	24.4	16.9-31.9				
H.S. or G.E.D.	354	17.3	12.2-22.3				
Some Post-H.S.	180	17.0	10.8-23.2				
College Graduate	130	13.6	6.8-20.4				
Income							
Less than \$15,000	157	32.4	22.6-42.2				
\$15,000 - 24,999	215	21.3	14.9-27.7				
\$25,000 - 34,999	102	11.5	4.3-18.7				
\$35,000 - 49,999	83	11.6	3.4-19.8				
\$50,000 - 74,999	74	14.3	5.2-23.4				
\$75,000+	77	9.6	1.7-17.5				

# CHAPTER 13: CANCER

#### **Skin Cancer Prevalence**

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you had skin cancer?"
Prevalence	WV: 7.1% (95% CI: 6.4-7.9) U.S.: 5.6% (95% CI: 5.5-5.7) The West Virginia prevalence of skin cancer was significantly higher than the U.S. prevalence. West Virginia ranked the 7 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 7.4% (95% CI: 6.3-8.5) Women: 6.9% (95% CI: 5.9-7.8) There was no gender difference in skin cancer prevalence.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 7.3% (95% CI: 6.6-8.1)</li> <li>Black, Non-Hispanic: *0.7% (95% CI: 0.0-2.2)</li> <li>Other, Non-Hispanic: *4.2% (95% CI: 0.0-11.2)</li> <li>Multiracial, Non-Hispanic: *6.0% (95% CI: 0.7-11.3)</li> <li>Hispanic: *5.8% (95% CI: 0.7-10.9)</li> <li>The prevalence of skin cancer was significantly higher among White, Non-Hispanics than among Black, Non-Hispanics. There was no other race/ethnicity difference in the prevalence of skin cancer.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	Due to small sample size, some of the prevalence estimates for certain age groups were unreliable. The prevalence of skin cancer was highest among those aged 65 and older (17.3%) and was significantly higher than all other age groups.
Education	There was no educational attainment difference in the prevalence of skin cancer.
Household Income	There was no annual household income difference in the prevalence of skin cancer.

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,266	7.4	6.3-8.5	3,129	6.9	5.9-7.8	5,395	7.1	6.4-7.9
Age									
18-24	133	*1.5	0.0-3.6	167	*1.1	0.0-2.5	300	*1.3	0.0-2.6
25-34	217	*2.9	0.5-5.4	270	*2.2	0.2-4.1	487	*2.6	1.0-4.2
35-44	301	*0.2	0.0-0.5	388	*2.7	0.9-4.5	689	*1.4	0.5-2.3
45-54	376	4.6	2.3-6.9	517	5.4	3.1-7.7	893	5.0	3.4-6.6
55-64	597	11.5	8.5-14.5	703	7.2	5.1-9.2	1,300	9.3	7.5-11.1
65+	636	19.6	16.3-22.9	1,062	15.6	13.0-18.1	1,698	17.3	15.3-19.4
Education									
Less than H.S.	329	6.7	4.1-9.2	438	7.6	4.8-10.3	767	7.1	5.2-9.0
H.S. or G.E.D.	936	7.2	5.5-8.8	1,224	5.9	4.6-7.2	2,160	6.6	5.5-7.6
Some Post-H.S.	476	7.4	4.9-9.8	775	8.1	6.1-10.1	1,251	7.8	6.2-9.4
College Graduate	524	9.0	6.5-11.5	688	6.2	4.2-8.2	1,212	7.6	6.0-9.2
Income									
Less than \$15,000	252	6.4	3.1-9.7	460	6.4	4.2-8.7	712	6.4	4.5-8.3
\$15,000 - 24,999	405	8.1	5.2-10.9	662	6.2	4.4-8.0	1,067	7.0	5.4-8.6
\$25,000 - 34,999	284	9.4	6.0-12.7	351	5.9	3.3-8.5	635	7.7	5.5-9.8
\$35,000 - 49,999	314	8.6	5.5-11.7	371	9.0	5.7-12.4	685	8.8	6.5-11.1
\$50,000 - 74,999	319	6.8	4.0-9.6	340	10.0	6.3-13.6	659	8.3	6.0-10.6
\$75,000+	425	7.2	4.8-9.6	421	4.3	2.4-6.2	846	5.9	4.3-7.5

#### **Other Cancer Prevalence**

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you had any other types of cancer?"
Prevalence	WV: 7.5% (95% CI: 6.8-8.2) U.S.: 6.3% (95% CI: 6.2-6.4) The West Virginia prevalence of other types of cancer was significantly higher than the U.S. prevalence. West Virginia ranked the 4 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 4.9% (95% CI: 4.0-5.8) Women: 10.0% (95% CI: 8.9-11.1) The prevalence of other types of cancer was significantly higher among females than among males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 7.5% (95% CI: 6.8-8.3)</li> <li>Black, Non-Hispanic: *7.9% (95% CI: 2.4-13.3)</li> <li>Other, Non-Hispanic: *3.7% (95% CI: 0.0-8.0)</li> <li>Multiracial, Non-Hispanic: *6.6% (95% CI: 1.8-11.5)</li> <li>Hispanic: *10.2% (95% CI: 1.1-19.3)</li> <li>There was no race/ethnicity difference in the prevalence of other types of cancer.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of other cancer was highest among those aged 65 and older (15.7%) and was significantly higher than all other age groups.
Education	There was no educational attainment difference in the prevalence of other cancer.
Household Income	The prevalence of other types of cancer was significantly higher among those with an annual household income of less than \$15,000 (10.2%) than among those earning \$75,000 or more per year (4.3%).

Table 12.2 Other	Concer Drevelor och	. Domosmanhia Chana	And attention WWDDECC 2012
Table 13.2 Other	Cancer Prevalence D	y Demographic Chara	cteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,269	4.9	4.0-5.8	3,128	10.0	8.9-11.1	5,397	7.5	6.8-8.2
Age									
18-24	133	*0.0	0.0-0.0	167	*1.0	0.0-2.5	300	*0.5	0.0-1.2
25-34	217	*1.2	0.0-2.8	270	6.8	3.3-10.2	487	3.9	2.0-5.8
35-44	301	*1.8	0.3-3.3	384	6.5	3.8-9.1	685	4.1	2.6-5.6
45-54	376	3.4	1.5-5.3	517	9.9	7.2-12.7	893	6.7	5.0-8.4
55-64	598	6.7	4.2-9.1	704	11.2	8.7-13.7	1,302	9.0	7.2-10.7
65+	638	13.4	10.6-16.3	1,064	17.5	14.8-20.1	1,702	15.7	13.7-17.6
Education									
Less than H.S.	329	5.9	3.3-8.5	438	14.3	10.7-18.0	767	10.0	7.8-12.3
H.S. or G.E.D.	939	4.3	3.1-5.6	1,226	9.8	8.0-11.5	2,165	7.0	5.9-8.0
Some Post-H.S.	476	4.9	2.9-6.9	773	9.1	7.0-11.2	1,249	7.3	5.8-8.8
College Graduate	524	5.3	3.5-7.2	687	7.8	5.7-9.9	1,211	6.6	5.2-8.0
Income									
Less than \$15,000	252	5.2	2.4-8.1	458	14.1	10.4-17.7	710	10.2	7.8-12.6
\$15,000 - 24,999	406	4.9	2.9-6.9	665	11.5	8.8-14.2	1,071	8.5	6.8-10.3
\$25,000 - 34,999	285	8.3	5.0-11.6	352	11.5	7.8-15.2	637	9.9	7.4-12.4
\$35,000 - 49,999	314	5.1	2.6-7.5	370	6.7	4.0-9.3	684	5.8	4.0-7.6
\$50,000 - 74,999	319	6.3	3.3-9.3	339	6.4	3.9-9.0	658	6.3	4.4-8.3
\$75,000+	426	1.9	0.8-3.0	421	7.3	4.8-9.8	847	4.3	3.0-5.6

#### **Overall Cancer Prevalence**

Definition	Responding "Yes" to either of the questions "Has a doctor, nurse, or other health professional ever told you that you had skin cancer?" "Has a doctor, nurse, or other health professional ever told you that you had any other types of cancer?"
Prevalence	WV: 13.3% (95% CI: 12.3-14.2) U.S.: 10.8% (95% CI: 10.6-10.9) The West Virginia cancer prevalence was significantly higher than the U.S. prevalence. West Virginia ranked the 3 <sup>rd</sup> highest among 53 BRFSS participants.
Gender	Men: 11.4% (95% CI: 10.0-12.7) Women: 15.1% (95% CI: 13.7-16.5) The prevalence of cancer was significantly higher among females than males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 13.4% (95% CI: 12.4-14.4)</li> <li>Black, Non-Hispanic: *8.6% (95% CI: 2.9-14.3)</li> <li>Other, Non-Hispanic: *7.9% (95% CI: 0.0-16.0)</li> <li>Multiracial, Non-Hispanic: 11.9% (95% CI: 4.9-18.9)</li> <li>Hispanic: *14.7% (95% CI: 4.7-24.8)</li> <li>There was no race/ethnicity difference in the prevalence of cancer.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of cancer generally increased as age increased. Those aged 65 and older had the highest cancer prevalence among all age groups in West Virginia. More than one-fourth of WV adults 65 and older (29.0%) had cancer during their life.
Education	There was no educational attainment difference in the prevalence of cancer.
Household Income	The prevalence of cancer was lowest among those with an annual household income of \$75,000 or more (9.2%) and was significantly lower than those earning less than \$35,000 per year.

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,265	11.4	10.0-12.7	3,121	15.1	13.7-16.5	5,386	13.3	12.3-14.2
Age									
18-24	133	*1.5	0.0-3.6	166	*1.8	0.0-3.6	299	*1.6	0.2-3.0
25-34	217	*3.6	0.8-6.4	268	8.4	4.5-12.2	485	5.9	3.6-8.3
35-44	301	*1.8	0.3-3.3	384	8.8	5.7-11.9	685	5.3	3.5-7.0
45-54	376	8.0	5.0-10.9	517	13.8	10.5-17.1	893	10.9	8.7-13.2
55-64	597	17.2	13.7-20.8	703	16.8	13.8-19.8	1,300	17.0	14.7-19.3
65+	635	29.3	25.5-33.2	1,061	28.7	25.5-31.8	1,696	29.0	26.5-31.4
Education									
Less than H.S.	328	11.7	8.2-15.2	435	19.3	15.2-23.4	763	15.4	12.7-18.1
H.S. or G.E.D.	936	11.0	9.0-13.0	1,223	14.2	12.2-16.2	2,159	12.5	11.1-13.9
Some Post-H.S.	476	11.0	8.1-13.9	772	15.6	12.9-18.4	1,248	13.6	11.6-15.6
College Graduate	524	12.5	9.6-15.4	687	12.3	9.6-14.9	1,211	12.4	10.4-14.4
Income									
Less than \$15,000	252	10.5	6.5-14.6	458	18.0	14.1-22.0	710	14.7	11.9-17.6
\$15,000 - 24,999	405	11.6	8.3-14.9	662	15.5	12.6-18.5	1,067	13.8	11.6-16.0
\$25,000 - 34,999	285	15.7	11.4-20.0	351	16.5	12.2-20.7	636	16.1	13.1-19.1
\$35,000 - 49,999	314	13.1	9.3-17.0	370	13.7	9.8-17.7	684	13.4	10.7-16.2
\$50,000 - 74,999	318	12.5	8.6-16.5	339	14.8	10.6-18.9	657	13.6	10.7-16.5
\$75,000+	425	8.2	5.6-10.8	420	10.4	7.5-13.3	845	9.2	7.2-11.1

# **CHAPTER 14: RESPIRATORY DISEASES**

	Lifetime Asthma
Definitions	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you had asthma?"
Prevalence	WV: 12.7% (95% CI: 11.7-13.8) U.S.: 13.2% (95% CI: 13.0-13.4) The West Virginia prevalence of lifetime asthma was similar to the U.S. prevalence. West Virginia ranked the 33 <sup>rd</sup> highest among 53 BRFSS participants.
Gender	Men: 9.7% (95% CI: 8.2-11.2) Women: 15.6% (95% CI: 14.1-17.2) The prevalence of lifetime asthma was significantly higher among females than among males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: *12.4% (95% CI: 11.2-13.5)</li> <li>Black, Non-Hispanic: *10.0% (95% CI: 3.5-16.5)</li> <li>Other, Non-Hispanic: *18.9% (95% CI: 5.4-32.4)</li> <li>Multiracial, Non-Hispanic: *25.7% (95% CI: 14.6-36.8)</li> <li>Hispanic: *12.9% (95% CI: 3.6-22.2)</li> <li>The prevalence of lifetime asthma was significantly higher among Multiracial, Non-Hispanics than among White, Non-Hispanics. There was no other race/ethnicity difference in the prevalence of lifetime asthma.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	There was no age difference in the prevalence of lifetime asthma.
Education	The prevalence of lifetime asthma was significantly higher among those with less than a high school education (19.2%) than among all other educational attainment groups.
Household Income	The prevalence of lifetime asthma was significantly higher among those with an annual household income of less than \$15,000 (21.6%) than among all other income brackets.

Table 14-1	Prevalence of	f Lifetime	Asthma h	v Demographi	Characteristics.	WVBRFSS, 2012
1 aute 14.1	I revalence of	Litetime	Astinna D	y Demographic	. Characteristics.	W V DIAT 55, 2012

Characteristic	Men				Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
TOTAL	2,259	9.7	8.2-11.2	3,133	15.6	14.1-17.2	5,392	12.7	11.7-13.8	
Age										
18-24	132	*9.7	3.8-15.6	167	14.2	7.8-20.5	299	11.9	7.5-16.2	
25-34	215	10.1	5.8-14.4	272	20.1	14.9-25.3	487	15.1	11.7-18.5	
35-44	300	11.6	7.7-15.5	388	16.4	12.4-20.5	688	14.0	11.2-16.8	
45-54	375	9.4	6.2-12.7	517	15.1	11.5-18.7	892	12.3	9.9-14.8	
55-64	595	7.9	5.3-10.4	702	15.6	12.6-18.5	1,297	11.7	9.8-13.7	
65+	636	9.9	7.1-12.7	1,065	13.6	11.3-16.0	1,701	12.0	10.2-13.8	
Education										
Less than H.S.	327	12.4	8.3-16.4	439	26.2	21.2-31.2	766	19.2	15.9-22.5	
H.S. or G.E.D.	931	8.9	6.7-11.1	1,226	13.7	11.5-15.9	2,157	11.2	9.7-12.8	
Some Post-H.S.	475	9.7	6.4-13.0	776	13.8	10.8-16.8	1,251	12.0	9.8-14.3	
College Graduate	525	8.9	6.1-11.7	688	12.5	9.7-15.3	1,213	10.7	8.7-12.7	
Income										
Less than \$15,000	251	16.7	11.3-22.2	459	25.3	20.3-30.4	710	21.6	17.9-25.4	
\$15,000 - 24,999	402	10.3	6.8-13.8	664	17.1	13.7-20.5	1,066	14.1	11.6-16.5	
\$25,000 - 34,999	283	11.7	7.1-16.3	352	14.3	10.1-18.4	635	13.0	9.9-16.1	
\$35,000 - 49,999	314	6.7	3.7-9.6	371	17.7	12.1-23.3	685	11.9	8.7-15.1	
\$50,000 - 74,999	320	6.4	3.5-9.4	340	12.8	8.8-16.7	660	9.4	7.0-11.9	
\$75,000+	426	7.3	4.5-10.1	422	9.4	6.4-12.3	848	8.2	6.2-10.3	

#### **Current Asthma**

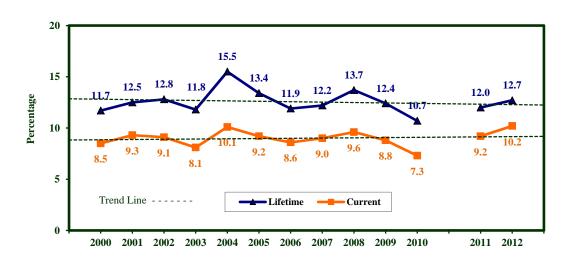
Definitions	Responding "Yes" to the lifetime asthma question and "Yes" to the question "Do you still have asthma?"
Prevalence	WV: 10.2% (95% CI: 9.2-11.2) U.S.: 8.9% (95% CI: 8.7-9.0) The West Virginia prevalence of current asthma was significantly higher than the U.S. prevalence. West Virginia ranked the 12 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 7.3% (95% CI: 6.0-8.6) Women: 13.0% (95% CI: 11.6-14.5) The prevalence of current asthma was significantly higher among women than men.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 9.9% (95% CI: 8.9-10.9)</li> <li>Black, Non-Hispanic: *9.2% (95% CI: 2.7-15.6)</li> <li>Other, Non-Hispanic: *14.9% (95% CI: 3.0-26.7)</li> <li>Multiracial, Non-Hispanic: 17.8% (95% CI: 8.2-27.4)</li> <li>Hispanic: *11.3% (95% CI: 2.3-20.3)</li> <li>There was no race/ethnicity difference in the prevalence of current asthma.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	There was no age difference in the prevalence of current asthma.
Education	The prevalence of current asthma was highest among adults with less than a high school education (17.6%) and was significantly higher than all other educational attainment groups.
Household Income	The prevalence of current asthma was highest among those with an annual household income of less than \$15,000 (18.7%) and was significantly higher than the prevalence among all other income brackets.

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,254	7.3	6.0-8.6	3,126	13.0	11.6-14.5	5,380	10.2	9.2-11.2
Age									
18-24	131	*6.7	1.6-11.7	167	12.0	5.9-18.1	298	9.2	5.3-13.2
25-34	215	7.0	3.3-10.7	271	15.9	11.0-20.8	486	11.4	8.3-14.5
35-44	299	7.7	4.6-10.8	386	12.9	9.2-16.6	685	10.3	7.9-12.7
45-54	375	7.9	4.9-11.0	516	13.0	9.5-16.4	891	10.5	8.2-12.8
55-64	594	5.9	3.6-8.2	701	13.7	10.8-16.5	1,295	9.8	8.0-11.7
65+	634	8.2	5.6-10.8	1,063	11.5	9.3-13.7	1,697	10.1	8.4-11.8
Education									
Less than H.S.	326	11.0	7.1-14.8	438	24.3	19.4-29.3	764	17.6	14.4-20.8
H.S. or G.E.D.	929	6.9	4.9-8.9	1,223	11.2	9.2-13.3	2,152	9.0	7.6-10.4
Some Post-H.S.	473	6.0	3.5-8.5	774	11.0	8.3-13.8	1,247	8.9	7.0-10.8
College Graduate	525	5.9	3.6-8.3	687	9.3	6.9-11.8	1,212	7.7	6.0-9.4
Income									
Less than \$15,000	250	14.0	8.9-19.0	457	22.2	17.4-27.1	707	18.7	15.1-22.2
\$15,000 - 24,999	401	8.8	5.6-12.1	664	14.5	11.3-17.8	1,065	12.0	9.7-14.3
\$25,000 - 34,999	282	8.3	4.4-12.2	352	11.8	8.1-15.6	634	10.1	7.4-12.8
\$35,000 - 49,999	314	*2.9	1.0-4.8	369	15.4	10.0-20.9	683	8.9	5.9-11.8
\$50,000 - 74,999	320	5.2	2.6-7.9	338	9.9	6.3-13.6	658	7.4	5.2-9.7
\$75,000+	426	5.5	3.0-8.0	422	7.0	4.5-9.6	848	6.2	4.4-8.0

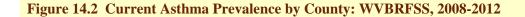
#### Table 14.2 Prevalence of Current Asthma by Demographic Characteristics: WVBRFSS, 2012

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

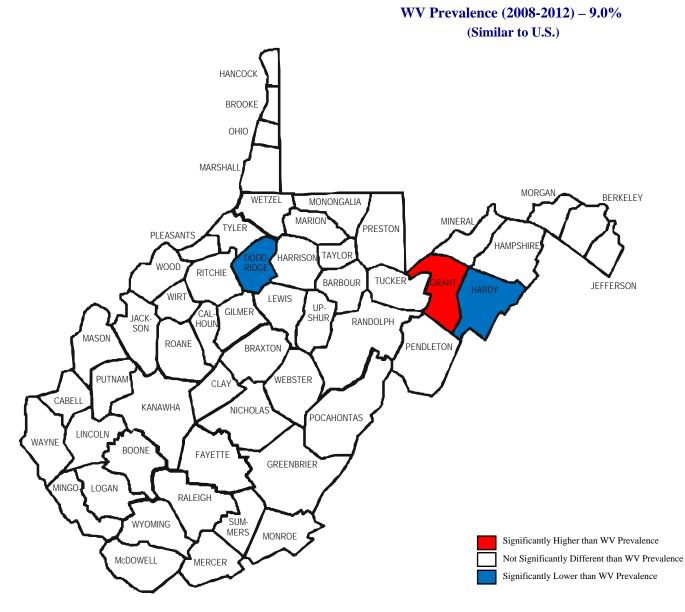
#### Figure 14.1 Lifetime and Current Asthma by Year: WVBRFSS, 2000-2012



\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.



U.S. Prevalence (2010) – 8.6%



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

### **Chronic Obstructive Pulmonary Disease Prevalence**

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you have chronic obstructive pulmonary disease or COPD, emphysema, or chronic bronchitis?"
Prevalence	WV: 10.5% (95% CI: 9.6-11.4) U.S.: 6.4% (95% CI: 6.2-6.5) The West Virginia prevalence of chronic obstructive pulmonary disease (COPD) was significantly higher than the U.S. prevalence. West Virginia ranked the 2 <sup>nd</sup> highest among 53 BRFSS participants.
Gender	Men: 8.4% (95% CI: 7.2-9.7) Women: 12.4% (95% CI: 11.1-13.7) The prevalence of COPD was significantly higher among females than males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 10.5% (95% CI: 9.5-11.4)</li> <li>Black, Non-Hispanic: *9.5% (95% CI: 3.9-15.2)</li> <li>Other, Non-Hispanic: *14.0% (95% CI: 3.2-24.8)</li> <li>Multiracial, Non-Hispanic: *10.8% (95% CI: 4.0-17.7)</li> <li>Hispanic: *7.4% (95% CI: 2.1-12.7)</li> <li>There was no race/ethnicity difference in the prevalence of COPD.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence COPD generally increased with age and was highest among those aged 65 and older (16.4%).
Education	The prevalence of COPD was highest among those with less than a high school education (22.2%) and was significantly higher than all other educational attainment groups.
Household Income	The prevalence of COPD was highest among those with an annual household income of less than \$15,000 (22.8%) and was significantly higher than among all other income levels.

# Table 14.3 Chronic Obstructive Pulmonary Disease (COPD) Prevalence by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,255	8.4	7.2-9.7	3,129	12.4	11.1-13.7	5,384	10.5	9.6-11.4
Age									
18-24	133	*0.0	0.0-0.0	167	*0.8	0.0-2.0	300	*0.4	0.0-1.0
25-34	215	*4.5	1.4-7.7	272	6.5	3.3-9.7	487	5.5	3.3-7.7
35-44	300	*4.2	1.6-6.8	388	11.0	7.3-14.7	688	7.6	5.3-9.8
45-54	371	8.2	5.2-11.3	517	15.1	11.5-18.7	888	11.7	9.4-14.1
55-64	594	14.9	11.6-18.2	700	15.7	12.6-18.7	1,294	15.3	13.0-17.5
65+	636	14.5	11.3-17.7	1,063	17.9	15.1-20.8	1,699	16.4	14.3-18.6
Education									
Less than H.S.	324	16.3	11.9-20.7	440	28.1	23.2-33.0	764	22.2	18.8-25.5
H.S. or G.E.D.	931	7.1	5.5-8.7	1,224	9.8	8.0-11.5	2,155	8.4	7.2-9.6
Some Post-H.S.	474	8.3	5.6-10.9	773	10.7	8.2-13.2	1,247	9.7	7.8-11.5
College Graduate	525	3.5	2.1-4.9	688	5.3	3.7-6.9	1,213	4.4	3.3-5.5
Income									
Less than \$15,000	248	16.5	11.4-21.7	458	27.5	22.6-32.4	706	22.8	19.2-26.4
\$15,000 - 24,999	401	12.3	8.7-15.8	666	16.3	12.9-19.7	1,067	14.5	12.0-17.0
\$25,000 - 34,999	285	12.4	8.0-16.8	352	9.8	6.5-13.1	637	11.1	8.3-13.8
\$35,000 - 49,999	313	7.3	4.4-10.2	371	9.4	5.9-12.8	684	8.3	6.0-10.5
\$50,000 - 74,999	320	5.0	2.6-7.4	338	5.6	3.1-8.0	658	5.2	3.5-7.0
\$75,000+	425	1.8	0.7-3.0	422	2.9	1.3-4.5	847	2.3	1.3-3.3

# **CHAPTER 15: OSTEOPOROSIS**

# **Osteoporosis Prevalence**

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you have osteoporosis?"
Prevalence	<b>WV: 8.7%</b> (95% CI: 7.9-9.5) Because this is a state added question, national data are not available for comparison.
Gender	Men: 2.6% (95% CI: 1.9-3.3) Women: 14.5% (95% CI: 13.1-15.8) The prevalence of osteoporosis was significantly higher among females than among males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 8.8% (95% CI: 8.0-9.7)</li> <li>Black, Non-Hispanic: *4.8% (95% CI: 1.2-8.5)</li> <li>Other, Non-Hispanic: *8.9% (95% CI: 0.4-17.4)</li> <li>Multiracial, Non-Hispanic: *6.2% (95% CI: 1.9-10.6)</li> <li>Hispanic: *8.4% (95% CI: 2.7-14.1)</li> <li>There was no race/ethnicity difference in the prevalence of osteoporosis.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	Due to small sample size, some prevalence estimates for various age groups were unreliable. The prevalence of osteoporosis generally increased with age and was highest among those aged 65 and older (20.7%).
Education	The prevalence of osteoporosis was highest among those with less than a high school education $(12.5\%)$ and was significantly higher than the prevalence among those with a college degree $(5.8\%)$ .
Household Income	The prevalence of osteoporosis was highest among those with an annual household income of less than \$15,000 (11.7%) and was significantly higher than the prevalence among those earning \$50,000 or more per year.

#### Table 15.1 Osteoporosis Prevalence by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,214	2.6	1.9-3.3	3,053	14.5	13.1-15.8	5,267	8.7	7.9-9.5
Age									
18-24	124	*1.6	0.0-3.9	160	*0.0	0.0-0.0	284	*0.8	0.0-2.0
25-34	208	*0.0	0.0-0.0	263	*1.0	0.0-3.1	471	*0.5	0.0-1.5
35-44	294	*1.5	0.0-3.3	383	*2.9	0.8-5.0	677	*2.2	0.8-3.6
45-54	359	*3.1	1.1-5.1	508	12.7	9.3-16.0	867	8.0	6.0-10.0
55-64	591	3.2	1.7-4.6	689	20.9	17.5-24.2	1,280	12.0	10.1-14.0
65+	632	5.0	3.2-6.8	1,030	33.1	29.7-36.4	1,662	20.7	18.4-22.9
Education									
Less than H.S.	321	*3.1	0.8-5.3	421	22.1	17.6-26.7	742	12.5	9.8-15.1
H.S. or G.E.D.	905	2.0	1.1-2.8	1,197	14.2	12.2-16.2	2,102	8.0	6.9-9.1
Some Post-H.S.	467	3.3	1.6-5.1	758	13.5	10.9-16.0	1,225	9.1	7.4-10.7
College Graduate	520	2.5	1.3-3.7	674	9.0	6.9-11.2	1,194	5.8	4.6-7.1
Income									
Less than \$15,000	237	*3.1	1.0-5.2	438	18.2	13.9-22.4	675	11.7	9.0-14.4
\$15,000 - 24,999	398	*2.9	1.1-4.7	648	18.0	14.7-21.3	1,046	11.2	9.2-13.2
\$25,000 - 34,999	279	*2.5	0.4-4.5	345	15.2	11.3-19.2	624	8.8	6.6-11.1
\$35,000 - 49,999	306	4.8	2.0-7.6	365	13.3	9.8-16.7	671	8.8	6.6-11.0
\$50,000 - 74,999	313	*1.5	0.1-3.0	333	9.7	6.5-12.8	646	5.4	3.7-7.1
\$75,000+	420	*1.6	0.5-2.7	414	6.5	4.0-9.0	834	3.7	2.5-5.0

# **CHAPTER 16: ARTHRITIS**

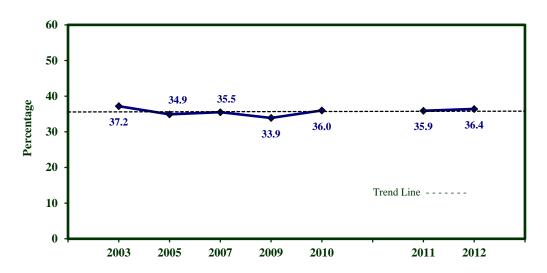
#### **Arthritis Prevalence**

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"
Prevalence	<ul> <li>WV: 36.4% (95% CI: 35.0-37.9)</li> <li>U.S.: 25.6% (95% CI: 25.4-25.9)</li> <li>The West Virginia prevalence of arthritis was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.</li> </ul>
Gender	Men: 32.6% (95% CI: 30.4-34.8) Women: 40.1% (95% CI: 38.1-42.1) The prevalence of arthritis was significantly higher among women than men.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 36.6% (95% CI: 35.1-238.1)</li> <li>Black, Non-Hispanic: 32.0% (95% CI: 22.3-41.6)</li> <li>Other, Non-Hispanic: *38.4% (95% CI: 21.4-55.4)</li> <li>Multiracial, Non-Hispanic: *34.1% (95% CI: 22.5-45.8)</li> <li>Hispanic: *28.9% (95% CI: 17.5-40.2)</li> <li>There was no race/ethnicity difference in the prevalence of arthritis.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of arthritis significantly increased with age. The prevalence of arthritis was highest among those aged 65 and older (59.5%) and significantly higher than the prevalence among those aged 54 and younger.
Education	The prevalence of arthritis was significantly higher among those with less than a high school education (48.3%) than all other educational attainment groups.
Household Income	The prevalence of arthritis was highest among those with an annual household income of less than \$15,000 (50.5%), which was significantly higher than the prevalence among all other income brackets. The prevalence of arthritis was lowest among those with a household income of \$75,000 or more per year (21.8%), which was significantly lower than the prevalence among all other income brackets.

Table 16.1	Arthritis Prevalence b	v Demographic	Characteristics:	WVBRESS, 2012
1 abic 10.1	AI unities I i cvalence u	y Demographic	Characteristics.	W V DINE 00, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,254	32.6	30.4-34.8	3,116	40.1	38.1-42.1	5,370	36.4	35.0-37.9
Age									
18-24	133	*7.5	2.7-12.2	168	*1.0	0.0-2.3	301	4.4	1.8-6.9
25-34	215	11.8	6.9-16.7	271	13.5	8.8-18.2	486	12.6	9.3-16.0
35-44	298	23.0	17.8-28.3	383	28.3	23.2-33.3	681	25.6	21.9-29.3
45-54	373	35.7	30.2-41.2	513	43.5	38.7-48.4	886	39.7	36.0-43.3
55-64	595	53.0	48.5-57.4	699	56.3	52.3-60.4	1,294	54.7	51.7-57.7
65+	634	50.4	46.1-54.8	1,060	66.6	63.4-69.8	1,694	59.5	56.9-62.2
Education									
Less than H.S.	329	42.3	36.2-48.4	439	54.4	48.7-60.1	768	48.3	44.1-52.4
H.S. or G.E.D.	927	32.9	29.5-36.3	1,217	42.3	39.2-45.5	2,144	37.5	35.2-39.8
Some Post-H.S.	475	32.8	28.1-37.5	772	35.8	32.0-39.7	1,247	34.5	31.5-37.5
College Graduate	522	20.8	17.3-24.4	684	27.6	24.1-31.2	1,206	24.3	21.5-26.8
Income									
Less than \$15,000	248	45.1	37.8-52.5	455	54.6	48.9-60.3	703	50.5	45.9-55.0
\$15,000 - 24,999	405	38.7	33.2-44.2	663	43.9	39.4-48.4	1,068	41.6	38.1-45.1
\$25,000 - 34,999	283	37.1	30.6-43.5	352	44.6	38.6-50.6	635	40.8	36.4-45.3
\$35,000 - 49,999	312	30.6	25.0-36.1	367	40.8	35.0-46.7	679	35.4	31.4-39.5
\$50,000 - 74,999	320	31.6	25.8-37.5	340	29.5	24.4-34.7	660	30.6	26.7-34.6
\$75,000+	425	20.7	16.5-24.8	415	23.2	18.8-27.5	840	21.8	18.7-24.8

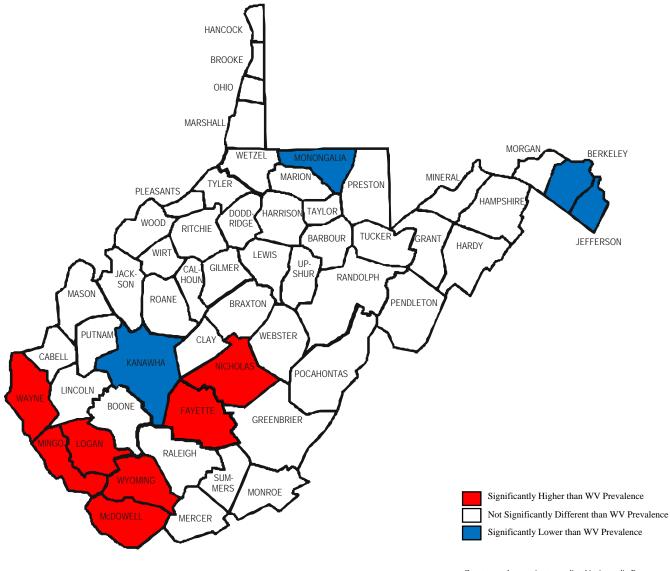
#### Figure 16.1 Arthritis Prevalence by Year: WVBRFSS, 2003-2012



\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

U.S. Prevalence (2010) – N/A

WV Prevalence (2007, 2009-2012) - 35.6%



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

# **CHAPTER 17: DISABILITY**

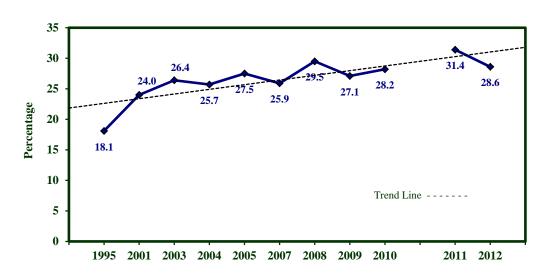
# Physical, Mental or Emotional Disability

Definition	Responding "Yes" to the question "Are you limited in any way in any activities because of physical, mental, or emotional problems?"
Prevalence	<ul> <li>WV: 28.6% (95% CI: 27.2-30.0)</li> <li>U.S.: 20.4% (95% CI: 20.2-20.6)</li> <li>The West Virginia prevalence of disability was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.</li> </ul>
Gender	<b>Men</b> : 27.2% (95% CI: 25.1-29.3) <b>Women</b> : 30.0% (95% CI: 28.1-31.9) There was no gender difference in the prevalence of disability.
Race/Ethnicity	White, Non-Hispanic: 28.3% (95% CI: 26.8-29.7) Black, Non-Hispanic: 27.2% (95% CI: 17.9-36.6) Other, Non-Hispanic: *33.7% (95% CI: 16.8-50.7) Multiracial, Non-Hispanic: *35.2% (95% CI: 22.4-48.1) Hispanic: *36.0% (95% CI: 21.2-50.9) There was no race/ethnicity difference in the prevalence of disability. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	The prevalence of disability significantly increased with age.
Education	The prevalence of disability was significantly higher among those with less than a high school education (44.8%) than among all other educational attainment groups.
Household Income	The prevalence of disability was highest among those with an annual household income of less than \$15,000 (53.6%) and was significantly higher than the prevalence among all other income brackets. The prevalence of disability was lowest among those with a household income of \$75,000 or more per year (14.0%).

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,265	27.2	25.1-29.3	3,129	30.0	28.1-31.9	5,394	28.6	27.2-30.0
Age									
18-24	133	*10.6	4.3-16.9	168	11.2	5.2-17.2	301	10.9	6.6-15.2
25-34	216	13.8	8.6-19.0	271	20.5	15.0-26.1	487	17.1	13.3-20.9
35-44	300	21.4	16.4-26.4	387	26.2	21.3-31.1	687	23.8	20.3-27.3
45-54	375	32.0	26.6-37.3	516	35.6	30.9-40.3	891	33.8	30.3-37.4
55-64	598	40.3	35.9-44.7	701	37.3	33.3-41.3	1,299	38.8	35.8-41.7
65+	637	36.6	32.4-40.7	1,065	37.1	33.8-40.4	1,702	36.9	34.3-39.5
Education									
Less than H.S.	326	41.9	35.8-48.1	436	47.7	42.1-53.3	762	44.8	40.6-48.9
H.S. or G.E.D.	937	26.9	23.7-30.1	1,225	29.3	26.5-32.1	2,162	28.1	25.9-30.2
Some Post-H.S.	476	25.2	20.8-29.6	776	27.2	23.4-30.9	1,252	26.3	23.5-29.2
College Graduate	525	15.2	12.0-18.4	688	18.4	15.3-21.5	1,213	16.8	14.6-19.1
Income									
Less than \$15,000	252	55.8	48.3-63.2	457	52.0	46.4-57.6	709	53.6	49.1-58.2
\$15,000 - 24,999	405	36.2	30.6-41.7	664	34.0	29.8-38.1	1,069	34.9	31.6-38.3
\$25,000 - 34,999	283	32.6	26.4-38.9	351	29.1	23.4-34.7	634	30.9	26.6-35.1
\$35,000 - 49,999	314	20.8	16.1-25.5	370	25.9	20.2-31.7	684	23.2	19.5-26.9
\$50,000 - 74,999	319	16.7	12.3-21.2	340	18.4	13.9-22.9	659	17.5	14.4-20.7
\$75,000+	426	13.3	9.4-17.1	422	15.0	11.0-19.0	848	14.0	11.2-16.8

#### Table 17.1 Disability Prevalence by Demographic Characteristics: WVBRFSS, 2012

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

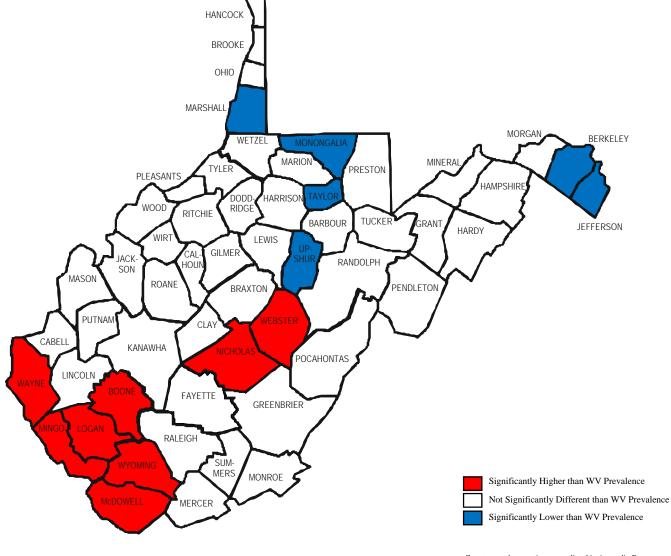


#### Figure 17.1 Disability Prevalence by Year: WVBRFSS, 1990-2012

\*Due to changes in sample composition and weighting methodology, 2011-2012 results are not directly comparable to previous years.

U.S. Prevalence (2010) – 20.8%

#### WV Prevalence (2008-2012) – 29.0% (Significantly Higher than U.S.)



County prevalence estimates are listed in Appendix B. See an explanation of the county-level data under County-Level Data on page 6.

# **Use Special Equipment**

Definition	Responding "Yes" to the question "Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?"
Prevalence	WV: 11.2% (95% CI: 10.3-12.0) U.S.: 8.1% (95% CI: 7.9-8.2) The West Virginia prevalence of the use of special equipment was significantly higher than the U.S. prevalence. West Virginia ranked the 2 <sup>nd</sup> highest among the 53 BRFSS participants.
Gender	Men: 10.9% (95% CI: 9.5-12.3) Women: 11.4% (95% CI: 10.2-12.5) There was no gender difference for the prevalence of the use of special equipment.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 10.9% (95% CI: 10.0-11.8)</li> <li>Black, Non-Hispanic: 17.0% (95% CI: 9.8-24.3)</li> <li>Other, Non-Hispanic: *12.0% (95% CI: 1.6-22.4)</li> <li>Multiracial, Non-Hispanic: *15.3% (95% CI: 4.0-26.7)</li> <li>Hispanic: *8.3% (95% CI: 2.7-14.0)</li> <li>There was no race/ethnicity difference in the prevalence of the use of special equipment.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of the use of special equipment was significantly higher among those aged 65 and older (23.0%) than among all other age groups.
Education	The prevalence of the use of special equipment was highest among those with less than a high school education (20.7%), which was significantly higher than the prevalence among all other educational attainment groups.
Household Income	The prevalence of the use of special equipment was significantly higher among those with an annual household income of less than \$15,000 (23.9%) than among all other income brackets.

Table 17.2 Use S	pecial Equipment b	v Demographic Ch	aracteristics: WVBRFSS, 2012
	provide Englander of the		

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,268	10.9	9.6-12.3	3,134	11.4	10.2-12.5	5,402	11.2	10.3-12.0
Age									
18-24	133	*3.4	0.0-7.3	167	*0.6	0.0-1.7	300	*2.0	0.0-4.2
25-34	216	*2.9	0.7-5.1	270	*2.1	0.1-4.1	486	*2.5	1.0-4.0
35-44	300	4.2	1.9-6.4	388	4.6	2.4-6.9	688	4.4	2.8-6.0
45-54	376	12.3	8.7-15.9	517	10.1	7.2-13.1	893	11.2	8.9-13.5
55-64	598	16.5	13.2-19.7	703	14.6	11.7-17.5	1,301	15.5	13.4-17.7
65+	639	21.1	17.6-24.6	1,067	24.4	21.6-27.3	1,706	23.0	20.8-25.2
Education									
Less than H.S.	329	18.3	14.0-22.7	439	23.2	19.0-27.5	768	20.7	17.7-23.8
H.S. or G.E.D.	938	10.4	8.5-12.3	1,227	10.4	8.8-12.1	2,165	10.4	9.1-11.7
Some Post-H.S.	475	10.2	7.1-13.3	776	8.9	6.9-10.8	1,251	9.4	7.7-11.2
College Graduate	525	5.4	3.6-7.3	688	5.6	3.9-7.3	1,213	5.5	4.3-6.8
Income									
Less than \$15,000	252	24.9	18.9-31.0	458	23.1	18.6-27.5	710	23.9	20.3-27.5
\$15,000 - 24,999	406	16.4	12.7-20.0	665	15.2	12.4-18.1	1,071	15.7	13.5-18.0
\$25,000 - 34,999	283	12.9	8.8-17.0	352	7.3	4.6-10.1	635	10.1	7.6-12.6
\$35,000 - 49,999	314	6.0	3.3-8.6	371	6.5	3.9-9.1	685	6.2	4.4-8.1
\$50,000 - 74,999	320	6.1	3.4-8.7	340	3.3	1.6-5.0	660	4.8	3.1-6.4
\$75,000+	425	*4.8	1.9-7.7	422	3.0	1.4-4.5	847	4.0	2.2-5.8

# **Disabled and Use Special Equipment**

Definition	Prevalence of the use of special equipment among those reporting they are disabled.
Prevalence	WV: 32.2% (95% CI: 29.7-34.8) U.S.: 30.5% (95% CI: 30.0-31.1) The West Virginia prevalence of the use of special equipment among those who are disabled was similar to the U.S. prevalence. West Virginia ranked the 17 <sup>th</sup> highest among the 53 BRFSS participants.
Gender	Men: 33.3% (95% CI: 29.2-37.3) Women: 31.3% (95% CI: 28.1-34.5) There was no gender difference for the prevalence of the use of special equipment among those who are disabled.
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	The prevalence of the use of special equipment among those who are disabled was significantly higher among those aged 65 and older (48.5%) than the prevalence among all other age groups.
Education	The prevalence of the use of special equipment among those who are disabled was highest among those with less than a high school education (37.1%) and was significantly higher than the prevalence among college graduates (24.1%).
Household Income	The prevalence of the use of special equipment among those who are disabled was highest among those with an annual household income of less than \$15,000 (39.1%) and was significantly higher than the prevalence among those earning \$35,000 or more per year.

# Table 17.3 Disabled and Use Special Equipment by Demographic Characteristics: WVBRFSS,2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	688	33.3	29.2-37.3	1,004	31.3	28.1-34.5	1,692	32.2	29.7-34.8
Age									
18-24	13	*23.0	0.0-52.8	18	*5.0	0.0-14.9	31	*14.0	0.0-30.7
25-34	26	*21.0	6.0-36.0	50	*8.7	0.0-17.5	76	*13.7	5.7-21.8
35-44	64	*15.8	6.5-25.1	96	15.4	7.7-23.0	160	15.6	9.6-21.5
45-54	118	33.8	24.4-43.2	185	25.7	18.4-32.9	303	29.5	23.6-35.4
55-64	234	34.9	28.1-41.6	260	34.8	28.4-41.3	494	34.8	30.2-39.5
65+	233	45.1	38.0-52.2	390	51.1	45.4-56.7	623	48.5	44.1-52.9
Education									
Less than H.S.	151	34.5	26.2-42.9	216	39.3	31.9-46.7	367	37.1	31.5-42.6
H.S. or G.E.D.	302	34.2	28.2-40.2	411	30.0	25.2-34.9	713	32.1	28.3-35.9
Some Post-H.S.	140	34.8	25.3-44.3	230	26.6	20.3-32.9	370	30.0	24.5-35.5
College Graduate	95	21.8	13.1-30.5	145	26.0	18.4-33.6	240	24.1	18.4-29.9
Income									
Less than \$15,000	149	38.6	29.5-47.6	253	39.5	32.3-46.8	402	39.1	33.4-44.8
\$15,000 - 24,999	168	39.6	31.0-48.1	248	35.6	29.1-42.2	416	37.4	32.1-42.7
\$25,000 - 34,999	99	*34.8	24.3-45.3	101	21.5	12.9-30.0	200	28.5	21.6-35.4
\$35,000 - 49,999	76	*24.9	14.4-35.5	95	22.5	12.9-32.0	171	23.6	16.5-30.7
\$50,000 - 74,999	59	*26.8	14.4-39.1	68	*12.4	5.0-19.7	127	19.6	12.2-27.0
\$75,000+	61	*28.1	11.4-44.8	60	*13.5	5.4-21.6	121	21.2	11.1-31.4

# **CHAPTER 18: KIDNEY DISEASE**

### **Kidney Disease Prevalence**

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you have kidney disease?"
Prevalence	WV: 3.6% (95% CI: 3.0-4.1) U.S.: 2.7% (95% CI: 2.6-2.8) The West Virginia prevalence of kidney disease was significantly higher than the U.S. prevalence. West Virginia ranked the 5 <sup>th</sup> highest among the 53 BRFSS participants.
Gender	Men: 2.8% (95% CI: 2.1-3.4) Women: 4.3% (95% CI: 3.6-5.1) The prevalence of kidney disease was significantly higher among females than among males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 3.7% (95% CI: 3.1-4.2)</li> <li>Black, Non-Hispanic: *2.2% (95% CI: 0.1-4.3)</li> <li>Other, Non-Hispanic: *0.0% (95% CI: 0.0-0.0)</li> <li>Multiracial, Non-Hispanic: *2.5% (95% CI: 0.0-5.1)</li> <li>Hispanic: *2.0% (95% CI: 0.0-4.2)</li> <li>There was no race/ethnicity difference in the prevalence of kidney disease.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of kidney disease was highest among adults aged 65 and older (8.0%) and was significantly higher than all other age groups.
Education	The prevalence of kidney disease was significantly higher among those with less than a high school education $(6.1\%)$ than among all other educational attainment groups.
Household Income	There was no consistent household income difference in the prevalence of kidney disease.

<b>Table 18.1</b>	<b>Kidney Disease</b>	<b>Prevalence by</b>	Demographic	<b>Characteristics:</b>	WVBRFSS, 2012
I HOIC IOII	Inditey Discuse	I I C valence by	Demographic	Character istics.	

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,261	2.8	2.1-3.4	3,127	4.3	3.6-5.1	5,388	3.6	3.0-4.1
Age									
18-24	133	*0.8	0.0-2.4	168	*2.7	0.0-5.5	301	*1.8	0.2-3.3
25-34	217	*0.0	0.0-0.0	271	*0.5	0.0-1.1	488	*0.2	0.0-0.6
35-44	300	*1.4	0.1-2.7	386	*1.2	0.2-2.3	686	*1.3	0.5-2.2
45-54	374	*2.5	0.7-4.2	516	4.4	2.4-6.4	890	3.4	2.1-4.8
55-64	598	4.0	2.1-5.9	701	4.5	2.7-6.3	1,299	4.2	2.9-5.6
65+	633	6.4	4.4-8.4	1,063	9.2	7.2-11.1	1,696	8.0	6.5-9.4
Education									
Less than H.S.	328	4.7	2.3-7.0	439	7.6	4.8-10.4	767	6.1	4.3-7.9
H.S. or G.E.D.	935	2.3	1.3-3.2	1,225	4.7	3.4-5.9	2,160	3.4	2.6-4.2
Some Post-H.S.	473	3.0	1.6-4.4	772	3.4	2.2-4.7	1,245	3.2	2.3-4.2
College Graduate	524	1.7	0.7-2.6	687	1.8	1.0-2.7	1,211	1.8	1.1-2.4
Income									
Less than \$15,000	250	*4.0	1.4-6.6	456	7.4	4.5-10.2	706	5.9	3.9-7.9
\$15,000 - 24,999	404	3.4	1.7-5.1	663	6.8	4.7-8.9	1,067	5.3	3.9-6.7
\$25,000 - 34,999	284	3.9	1.8-6.1	351	3.5	1.8-5.3	635	3.7	2.3-5.1
\$35,000 - 49,999	313	*3.4	1.3-5.6	370	*2.1	0.8-3.5	683	2.8	1.5-4.1
\$50,000 - 74,999	319	*1.6	0.2-3.1	339	*2.6	0.8-4.4	658	2.1	0.9-3.2
\$75,000+	425	*1.0	0.1-1.8	422	*1.0	0.0-2.1	847	*1.0	0.3-1.7

# **CHAPTER 19: VISION IMPAIRMENT**

### **Prevalence of Vision Impairment**

Definition	Responding "Yes" or "Blind" to the question "Has a doctor, nurse, or other health professional ever said that you have vision impairment in one or both eyes, even when wearing glasses?"
Prevalence	<ul> <li>WV: 17.5% (95% CI: 16.3-18.7)</li> <li>U.S.: 16.5% (95% CI: 16.2-16.7)</li> <li>The West Virginia prevalence of vision impairment was similar to the U.S. prevalence. West Virginia ranked the 18<sup>th</sup> highest among 53 BRFSS participants.</li> </ul>
Gender	Men: 14.5% (95% CI: 12.9-16.2) Women: 20.3% (95% CI: 18.6-22.0) The prevalence of vision impairment was significantly higher among females than among males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 17.1% (95% CI: 15.9-18.3)</li> <li>Black, Non-Hispanic: 18.4% (95% CI: 10.6-26.1)</li> <li>Other, Non-Hispanic: *17.6% (95% CI: 6.0-29.1)</li> <li>Multiracial, Non-Hispanic: *28.7% (95% CI: 17.0-40.3)</li> <li>Hispanic: *24.3% (95% CI: 10.9-37.7)</li> <li>There was no race/ethnicity difference in the prevalence of vision impairment.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	There was no consistent age difference in the prevalence of vision impairment.
Education	The prevalence of vision impairment was significantly higher among those with less than a high school education (26.9%) than among all other educational attainment groups.
Household Income	The prevalence of vision impairment was significantly higher among those with an annual household income of less than \$15,000 (31.4%) and was significantly higher than all other income brackets.

#### Table 19.1 Prevalence of Vision Impairment by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,267	14.5	12.9-16.2	3,134	20.3	18.6-22.0	5,401	17.5	16.3-18.7
Age									
18-24	133	13.2	7.1-19.2	168	16.0	8.9-23.0	301	14.5	9.9-19.2
25-34	216	9.3	4.9-13.6	270	13.7	9.4-17.9	486	11.4	8.4-14.5
35-44	301	13.6	9.4-17.8	388	17.2	13.0-21.5	689	15.4	12.4-18.4
45-54	374	15.6	11.6-19.5	517	25.2	20.8-29.5	891	20.4	17.4-23.4
55-64	597	16.3	13.1-19.6	702	23.4	19.9-27.0	1,299	19.9	17.5-22.3
65+	640	17.7	14.2-21.2	1,067	22.3	19.4-25.2	1,707	20.3	18.0-22.5
Education									
Less than H.S.	329	22.8	17.6-28.0	438	31.1	26.0-36.2	767	26.9	23.2-30.6
H.S. or G.E.D.	936	13.8	11.4-16.3	1,227	20.9	18.3-23.6	2,163	17.3	15.5-19.1
Some Post-H.S.	476	14.5	10.9-18.2	777	18.4	15.0-21.7	1,253	16.7	14.2-19.2
College Graduate	525	7.4	5.1-9.7	688	10.8	8.2-13.5	1,213	9.1	7.4-10.9
Income									
Less than \$15,000	250	27.9	21.6-34.2	459	34.1	28.8-39.3	709	31.4	27.3-35.5
\$15,000 - 24,999	405	21.6	16.8-26.3	665	22.4	18.8-26.1	1,070	22.1	19.1-25.0
\$25,000 - 34,999	285	15.3	10.5-20.1	351	23.4	18.0-28.8	636	19.3	15.7-22.9
\$35,000 - 49,999	314	7.9	4.7-11.1	371	20.8	14.9-26.7	685	14.0	10.6-17.4
\$50,000 - 74,999	320	10.4	6.7-14.1	340	10.2	6.6-13.9	660	10.3	7.7-13.0
\$75,000+	425	5.9	3.5-8.3	422	10.1	6.7-13.4	847	7.7	5.7-9.7

## **CHAPTER 20: DEPRESSION**

## **Prevalence of Depression**

Definition	Responding "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)?"
Prevalence	WV: 20.9% (95% CI: 19.6-22.2) U.S.: 16.9% (95% CI: 16.7-17.1) The West Virginia prevalence of depression was significantly higher than the U.S. prevalence. West Virginia ranked the 10 <sup>th</sup> highest among 53 BRFSS participants.
Gender	Men: 17.5% (95% CI: 15.7-19.4) Women: 24.0% (95% CI: 22.2-25.8) The prevalence of depression was significantly higher among women than among men.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 20.9% (95% CI: 19.6-22.2)</li> <li>Black, Non-Hispanic: 21.3% (95% CI: 11.5-31.0)</li> <li>Other, Non-Hispanic: *18.2% (95% CI: 6.4-29.9)</li> <li>Multiracial, Non-Hispanic: *20.8% (95% CI: 10.6-30.9)</li> <li>Hispanic: *16.4% (95% CI: 6.2-26.6)</li> <li>There was no race/ethnicity difference in the prevalence of depression.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of depression varied quite a bit by age with general increases observed until the age of 54 and then decreases with the age of 55 and older. The prevalence of depression was highest for the 45-54 year old age group (25.1%) and lowest among those aged 65 and older (14.7%).
Education	The prevalence of depression was significantly higher among those with less than a high school education (27.2%) than among college graduates (14.4%). The prevalence of depression was significantly lower among college graduates than among all other educational attainment groups.
Household Income	The prevalence of depression also was significantly higher among those with an annual household income of less than \$15,000 (37.3%) than among all other income brackets.

#### Table 20.1 Depression Prevalence by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,258	17.5	15.7-19.4	3,124	24.0	22.2-25.8	5,382	20.9	19.6-22.2
Age									
18-24	133	14.5	7.8-21.2	168	18.4	12.3-24.5	301	16.4	11.9-20.9
25-34	216	14.6	9.6-19.6	272	29.0	23.0-35.0	488	21.7	17.7-25.7
35-44	299	17.9	13.0-22.7	387	28.5	23.5-33.6	686	23.2	19.6-26.7
45-54	372	21.8	16.9-26.6	514	28.3	23.8-32.7	886	25.1	21.8-28.4
55-64	594	22.2	18.4-26.1	702	26.7	23.2-30.3	1,296	24.5	21.9-27.1
65+	638	13.4	10.4-16.3	1,059	15.8	13.3-18.3	1,697	14.7	12.8-16.6
Education									
Less than H.S.	327	23.9	18.5-29.3	437	30.5	25.3-35.7	764	27.2	23.4-30.9
H.S. or G.E.D.	933	15.9	13.3-18.4	1,223	22.6	19.9-25.3	2,156	19.1	17.2-21.0
Some Post-H.S.	473	21.4	16.9-25.9	776	25.0	21.5-28.6	1,249	23.5	20.7-26.3
College Graduate	524	9.6	6.6-12.6	684	19.0	15.7-22.3	1,208	14.4	12.1-16.6
Income									
Less than \$15,000	250	30.0	23.4-36.6	457	43.0	37.4-48.6	707	37.3	33.0-41.7
\$15,000 - 24,999	401	23.7	18.8-28.6	664	26.6	22.7-30.6	1,065	25.3	22.2-28.4
\$25,000 - 34,999	284	16.1	11.0-21.2	352	19.8	14.8-24.8	636	18.0	14.4-21.5
\$35,000 - 49,999	313	11.7	7.9-15.5	369	17.5	12.9-22.1	682	14.4	11.5-17.4
\$50,000 - 74,999	320	16.3	11.0-21.7	339	19.9	15.2-24.5	659	18.0	14.4-21.6
\$75,000+	424	10.5	7.0-14.1	422	14.2	10.2-18.1	846	12.1	9.5-14.8

## **CHAPTER 21: COGNITIVE IMPAIRMENT**

	Cognitive Impairment
Definition	Responding "Yes" to the question "During the past 12 months, have you experienced confusion or memory loss that is happening more often or is getting worse?"
Prevalence	<b>6.2%</b> (95% CI: 5.5-7.0) Because this was a state added question, national data are not available for comparison.
Gender	Men: 6.3% (95% CI: 5.2-7.5) Women: 6.1% (95% CI: 5.2-7.1) There was no gender difference in the prevalence of cognitive impairment.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 6.2% (95% CI: 5.4-7.0)</li> <li>Black, Non-Hispanic: *5.9% (95% CI: 1.9-9.8)</li> <li>Other, Non-Hispanic: *6.7% (95% CI: 0.2-13.1)</li> <li>Multiracial, Non-Hispanic: *5.5% (95% CI: 1.4-9.6)</li> <li>Hispanic: *7.9% (95% CI: 0.0-16.3)</li> <li>There was no race/ethnicity difference in the prevalence of cognitive impairment.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of cognitive impairment was highest among those aged $45-54$ (9.7%) and was significantly higher than the prevalence among those aged $65$ and older (5.6%).
Education	The prevalence of cognitive impairment was significantly higher among those with less than a high school education (10.9%) than among all other educational attainment groups. The prevalence of cognitive impairment was significantly lower among college graduates (2.6%) than among all other educational attainment groups.
Household Income	The prevalence of cognitive impairment was highest among those with an annual household income of less than \$15,000 (13.7%) and was significantly higher than all other income brackets.

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#### Table 21.1 Prevalence of Cognitive Impairment by Demographic Characteristics: WVBRFSS, 2012

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,220	6.3	5.2-7.5	3,086	6.1	5.2-7.1	5,306	6.2	5.5-7.0
Age									
18-24	125	*2.7	0.0-5.5	162	*1.2	0.0-2.8	287	*1.9	0.3-3.6
25-34	208	5.9	2.5-9.3	264	5.0	2.1-8.0	472	5.5	3.2-7.8
35-44	294	6.1	3.2-9.0	382	6.1	3.6-8.6	676	6.1	4.2-8.0
45-54	365	7.7	4.5-10.9	509	11.6	8.4-14.8	874	9.7	7.4-11.9
55-64	591	8.4	5.9-10.9	698	5.8	4.0-7.6	1,289	7.1	5.5-8.6
65+	631	5.9	3.9-7.8	1,049	5.4	3.9-6.9	1,680	5.6	4.4-6.8
Education									
Less than H.S.	321	12.1	8.0-16.1	431	9.6	6.6-12.6	752	10.9	8.3-13.4
H.S. or G.E.D.	909	6.0	4.4-7.6	1,211	6.8	5.2-8.4	2,120	6.4	5.3-7.6
Some Post-H.S.	469	4.9	2.9-6.8	766	5.4	3.7-7.1	1,235	5.1	3.9-6.4
College Graduate	520	3.0	1.4-4.7	674	2.2	1.1-3.4	1,194	2.6	1.6-3.6
Income									
Less than \$15,000	240	12.7	8.1-17.3	448	14.5	10.7-18.3	688	13.7	10.8-16.7
\$15,000 - 24,999	401	9.4	6.0-12.8	657	7.8	5.6-10.0	1,058	8.5	6.5-10.4
\$25,000 - 34,999	279	7.3	4.0-10.6	349	*4.0	1.5-6.4	628	5.6	3.6-7.7
\$35,000 - 49,999	306	*4.4	1.8-7.0	365	*3.6	1.4-5.8	671	4.0	2.3-5.7
\$50,000 - 74,999	314	*3.5	1.4-5.7	334	4.8	2.2-7.3	648	4.1	2.5-5.8
\$75,000+	420	*3.0	1.0-5.0	413	*2.8	0.6-4.9	833	2.9	1.4-4.3

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **Cognitive Impairment – Medical Care**

Definition	Persons reporting that they have cognitive impairment were asked a series of questions about medical care related to their cognitive impairment. Discussed cognitive impairment with doctor is defined as responding "Yes" to the question "Has anyone discussed with a health care professional, increases in your confusion or memory loss?" Treatment for cognitive impairment is defined as responding "Yes" to the question "Have you received treatment such as therapy or medications for confusion or memory loss?"
Prevalence	<ul> <li>Discussed Cognitive Impairment with Doctor</li> <li>42.6% (95% CI: 37.2-48.0)</li> <li>Treatment for Cognitive Impairment</li> <li>48.1% (95% CI: 39.5-56.6)</li> <li>Because these were state added questions, national data are not available for comparison.</li> </ul>
Gender	Discussed Cognitive Impairment with Doctor Men: 41.6% (95% CI: 33.1-50.2) Women: 43.5% (95% CI: 36.5-50.4) There was no gender difference in the prevalence of discussed cognitive impairment with doctor. <i>Treatment for Cognitive Impairment</i> Men: *47.7% (95% CI: 33.4-62.1) Women: *48.3% (95% CI: 38.1-58.6) There was no gender difference in the prevalence of treatment for cognitive impairment.
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	Due to small sample size, most prevalence estimates for the age groups were unreliable and comparison was not possible.
Education	Due to small sample size, most prevalence estimates for the educational attainment groups were unreliable and comparison was not possible.
Household Income	Due to small sample size, most prevalence estimates for the annual household income groups were unreliable and comparison was not possible.

# Table 21.2 Medical Care for Cognitive Impairment by Demographic Characteristics: WVBRFSS,2012

Characteristic	Impai	rment	Cognitive with Doctor	Treatment for Cognitive Impairment		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	436	42.6	37.2-48.0	174	48.1	39.5-56.6
Sex						
Males	178	41.6	33.1-50.2	62	*47.7	33.4-62.1
Females	258	43.5	36.5-50.4	112	*48.3	38.1-58.6
Age						
18-24	9	*23.3	0.0-52.8	2	*0.0	0.0-0.0
25-34	31	*40.7	22.4-59.1	12	*54.2	24.4-83.9
35-44	48	*39.2	23.8-54.6	17	*47.7	20.5-75.0
45-54	95	*47.9	36.2-59.5	41	*33.4	16.8-50.1
55-64	120	42.7	32.7-52.6	51	*55.3	40.1-70.5
65+	133	44.4	35.1-53.7	51	*59.7	45.0-74.3
Education						
Less than H.S.	97	*37.7	26.3-49.1	37	*44.7	25.7-63.6
H.S. or G.E.D.	188	43.4	35.2-51.6	72	*48.4	35.4-61.5
Some Post-H.S.	98	*46.2	35.2-57.1	42	*54.5	37.6-71.3
College Graduate	53	*44.9	28.5-61.4	23	*40.1	14.4-65.7
Income						
Less than \$15,000	106	*37.6	27.1-48.2	40	*38.3	21.0-55.5
\$15,000 - 24,999	114	43.7	32.7-54.8	44	*45.9	28.3-63.4
\$25,000 - 34,999	45	*35.7	19.2-52.2	13	*54.5	23.3-85.7
\$35,000 - 49,999	44	*58.8	42.2-75.4	22	*52.8	29.3-76.3
\$50,000 - 74,999	34	*38.1	20.6-55.7	13	*41.5	12.9-70.1
\$75,000+	31	*44.7	24.3-65.1	15	*33.9	5.8-62.0

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **Cognitive Impairment – Quality of Life**

Definition	<ul> <li>Persons reporting that they have cognitive impairment were asked a series of questions about quality of life related to their cognitive impairment.</li> <li>Provided care in the past month is defined as responding "Always" or "Usually" to the question "During the past 30 days, how often has a family member or friend provided any care or assistance for you because of confusion or memory loss?"</li> <li>Gave up household activities in the past year is defined as responding "Always" or "Usually" to the question "During the past 12 months, how often have you given up household activities or chores you used to do, because of confusion or memory loss that is happening more often or is getting worse?"</li> <li>Interfered with work or social activities in the past year is defined as responding "Always" or "Usually" to the question "During the past 12 months, how often have you given up household activities in the past year is defined as responding "Always" or memory loss that is happening more often or is getting worse?"</li> </ul>
Prevalence	<ul> <li>Provided Care in Past Month</li> <li>20.7% (95% CI: 16.1-25.2)</li> <li>Gave up Household Activities in Past Year</li> <li>17.3% (95% CI: 13.0-21.5)</li> <li>Interfered with Work or Social Activities in Past Year</li> <li>22.2% (95% CI: 17.5-26.8)</li> <li>Because these were state added questions, national data are not available for comparison.</li> </ul>
Gender	<ul> <li>Provided Care in Past Month</li> <li>Men: 18.6% (95% CI: 11.8-25.4)</li> <li>Women: 22.5% (95% CI: 16.3-28.7)</li> <li>There was no gender difference in the prevalence of provided care in the past month.</li> <li>Gave up Household Activities in Past Year</li> <li>Men: 16.6% (95% CI: 9.9-23.4)</li> <li>Women: 17.8% (95% CI: 12.4-23.2)</li> <li>There was no gender difference in the prevalence of gave up household activities in the past year.</li> <li>Interfered with Work or Social Activities in Past Year</li> <li>Men: 17.4% (95% CI: 10.5-24.3)</li> <li>Women: 26.2% (95% CI: 19.9-32.4)</li> <li>There was no gender difference in the prevalence of interfered with work or social activities in the past year.</li> </ul>
Race/Ethnicity	No race/ethnicity analysis was conducted due to small sample size.
Age	Due to small sample size, all the prevalence estimates for age groups 18-44 were unreliable. There was no age difference in the prevalence of provided care in the past month, gave up household activities in the past year, or interfered with work or social activities in the past year.
Education	Due to small sample size, the prevalence estimates for some education groups were unreliable. There was no educational attainment difference in the prevalence of provided care in the past month, gave up household activities in the past year, or interfered with work or social activities in the past year.

# **Household Income** Due to small sample size, the prevalence estimates for some annual household income brackets were unreliable. There was no annual household income difference in the prevalence of provided care in the past month, gave up household activities in the past year, or interfered with work or social activities in the past year.

## Table 21.3 Quality of Life for Cognitive Impairment by Demographic Characteristics: WVBRFSS,2012

Characteristic	Provided Care in Past Month		Gave up Household Activities in Past Year			Interfered with Work or Social Activities in Past Year			
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	438	20.7	16.1-25.2	430	17.3	13.0-21.5	426	22.2	17.5-26.8
Sex									
Males	181	18.6	11.8-25.4	180	16.6	9.9-23.4	173	17.4	10.5-24.3
Females	257	22.5	16.3-28.7	250	17.8	12.4-23.2	253	26.2	19.9-32.4
Age									
18-24	10	*17.2	0.0-46.8	10	*0.0	0.0-0.0	10	*0.0	0.0-0.0
25-34	30	*18.9	3.7-34.2	31	*24.6	7.5-41.6	28	*31.0	11.9-50.1
35-44	48	*19.6	5.9-33.3	46	*20.4	6.2-34.5	47	*21.0	7.2-34.9
45-54	94	13.9	6.8-21.0	94	20.6	12.1-29.0	91	24.0	14.5-33.5
55-64	120	24.8	15.2-34.4	119	16.8	9.0-24.6	116	22.1	13.8-30.4
65+	136	25.7	17.3-34.1	130	12.3	6.1-18.5	134	21.9	13.6-30.2
Education									
Less than H.S.	100	*28.1	17.3-38.9	99	21.7	11.7-31.7	96	*24.9	14.7-35.0
H.S. or G.E.D.	187	15.9	10.1-21.6	182	15.1	9.5-20.6	185	20.6	13.8-27.4
Some Post-H.S.	98	20.6	11.1-30.0	98	16.3	7.7-24.9	93	24.7	15.0-34.4
College Graduate	53	*18.9	6.3-31.6	51	*15.5	3.2-27.8	52	*15.0	2.7-27.3
Income									
Less than \$15,000	107	18.5	10.0-27.0	105	21.0	12.0-30.0	101	*26.5	16.4-36.5
\$15,000 - 24,999	114	19.6	9.9-29.3	113	19.4	10.0-28.9	113	*27.2	17.0-37.5
\$25,000 - 34,999	45	*22.9	8.3-37.4	43	*11.8	1.6-22.0	43	*15.7	4.2-27.2
\$35,000 - 49,999	44	*12.7	1.2-24.2	43	*13.1	1.3-24.9	44	*14.6	2.7-26.5
\$50,000 - 74,999	34	*22.2	7.8-36.6	35	*9.1	0.0-19.3	34	*8.4	0.0-17.6
\$75,000+	31	*12.4	0.0-25.6	31	*10.1	0.0-22.7	31	*18.4	3.3-33.4

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

#### **Alzheimer's Disease or Dementia Prevalence**

Definition	Persons reporting that they have cognitive impairment were asked "Has a health care professional ever said that you have Alzheimer's Disease or some other form of dementia?"
Prevalence	<ul> <li>Alzheimer's Disease or Dementia</li> <li>21.5% (95% CI: 14.4-28.6)</li> <li>Because these were state added questions, national data are not available for comparison.</li> </ul>
Gender	<i>Alzheimer's Disease or Dementia</i> Men: *19.1% (95% CI: 7.8-30.5) Women: 23.4% (95% CI: 14.4-32.3) There was no gender difference in the prevalence of dementia. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Race/Ethnicity	No race/ethnicity analysis was completed due to small sample size.
Age	No age analysis was completed due to small sample size
Education	No education analysis was completed due to small sample size
Household Income	No household income analysis was completed due to small sample size

## CHAPTER 22: HIV

HIV	Testing	Preval	lence
		Livia	

Definition	Persons responding "Yes" to the question "Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation. Include testing fluid from your mouth."
Prevalence	WV: 30.3% (95% CI: 28.7-31.8) U.S.: 37.0% (95% CI: 36.7-37.3) The West Virginia prevalence of HIV testing was significantly lower than the U.S. prevalence. West Virginia ranked the 13 <sup>th</sup> lowest among the 53 BRFSS participants.
Gender	Men: 29.7% (95% CI: 27.3-32.0) Women: 30.8% (95% CI: 28.8-32.8) There was no gender difference in the prevalence of HIV testing.
Race/Ethnicity	White, Non-Hispanic: 29.2% (95% CI: 27.7-30.8) Black, Non-Hispanic: *47.2% (95% CI: 35.9-58.4) Other, Non-Hispanic: *45.1% (95% CI: 28.2-62.1) Multiracial, Non-Hispanic: *53.9% (95% CI: 40.8-67.0) Hispanic: *24.1% (95% CI: 11.3-36.9) The prevalence of HIV testing was significantly higher among Black, Non- Hispanics than among White, Non-Hispanics. The prevalence of HIV testing was also significantly higher among Multiracial, Non-Hispanics than among White, Non-Hispanics. There was no other race/ethnicity difference in the prevalence of HIV testing. * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.
Age	The prevalence of HIV testing was highest among those aged 35-44 (50.9%), followed by the 25-34 age group (49.8%) and both of these were significantly higher than all other age groups.
Education	There was no educational attainment difference in the prevalence of HIV testing.
Household Income	The prevalence of HIV testing was highest among those with an annual household income of less than \$15,000 (39.4%) and was significantly higher than among those earning \$25,000 or more per year.

Characteristic		Me	n		Won	ıen		Total					
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI				
TOTAL	2,111	29.7	27.3-32.0	2,951	30.8	28.8-32.8	5,062	30.3	28.7-31.8				
Age													
18-24	131	24.1	16.1-32.1	162	35.6	27.8-43.5	293	29.6	24.0-35.3				
25-34	206	42.0	34.6-49.4	256	57.9	51.2-64.7	462	49.8	44.7-54.9				
35-44	289	48.0	41.7-54.3	368	54.0	48.4-59.6	657	50.9	46.7-55.1				
45-54	353	31.1	25.7-36.5	496	27.5	23.1-31.9	849	29.3	25.8-32.7				
55-64	548	23.5	19.7-27.3	663	16.9	13.8-20.0	1,211	20.1	17.7-22.6				
65+	579	12.2	9.3-15.2	987	10.9	8.4-13.4	1,566	11.5	9.6-13.4				
Education													
Less than H.S.	296	25.7	19.7-31.7	406	28.7	23.1-34.2	702	27.2	23.1-31.3				
H.S. or G.E.D.	877	28.9	25.3-32.5	1,156	27.8	24.7-30.9	2,033	28.4	26.0-30.7				
Some Post-H.S.	446	33.3	28.1-38.6	730	33.6	29.5-37.7	1,176	33.5	30.3-36.7				
College Graduate	491	30.7	26.0-35.4	657	35.1	30.9-39.2	1,148	32.9	29.8-36.1				
Income	-												
Less than \$15,000	227	37.0	29.3-44.6	430	41.3	35.4-47.2	657	39.4	34.7-44.2				
\$15,000 - 24,999	386	34.5	28.7-40.4	624	34.3	29.6-38.9	1,010	34.4	30.7-38.0				
\$25,000 - 34,999	269	28.0	21.4-34.7	334	22.6	17.3-28.0	603	25.3	21.0-29.6				
\$35,000 - 49,999	300	30.3	24.2-36.5	354	28.1	22.4-33.8	654	29.3	25.1-33.5				
\$50,000 - 74,999	293	29.3	23.1-35.5	326	29.9	24.3-35.5	619	29.6	25.4-33.8				
\$75,000+	399	28.9	23.5-34.2	396	32.8	27.6-38.1	795	30.6	26.8-34.4				

#### Table 22.1 HIV Testing by Demographic Characteristics: WVBRFSS, 2012

## High Risk for HIV

Definition	Responding "Yes" to the question "Do any of these situations apply to you? You have used intravenous drugs in the past year. You have been treated for a sexually transmitted or venereal disease in the past year. You have given or received money or drugs in exchange for sex in the past year. You had anal sex without a condom in the past year."
Prevalence	WV: 2.6% (95% CI: 2.0-3.2) U.S.: 3.8% (95% CI: 3.7-4.0) The West Virginia prevalence of high risk for HIV was significantly lower than the U.S. prevalence. West Virginia ranked the 6 <sup>th</sup> lowest among the 53 BRFSS participants.
Gender	Men: 2.9% (95% CI: 1.9-3.9) Women: 2.3% (95% CI: 1.6-3.1) There was no gender difference in the prevalence of high risk for HIV.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 2.5% (95% CI: 1.8-3.1)</li> <li>Black, Non-Hispanic: *3.6% (95% CI: 0.0-7.8)</li> <li>Other, Non-Hispanic: *3.2% (95% CI: 0.0-9.4)</li> <li>Multiracial, Non-Hispanic: *2.6% (95% CI: 0.0-6.0)</li> <li>Hispanic: *5.8% (95% CI: 0.0-13.5)</li> <li>There was no race/ethnicity difference in the prevalence of high risk for HIV.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	Due to small sample size, some of the age group prevalence estimates were unreliable. The prevalence of high risk for HIV was significantly higher among those aged 18-24 (9.9%) than among those aged 25-34 (3.6%) or those aged 35-44 (2.5%).
Education	There was no educational attainment difference in the prevalence of high risk for HIV.
Household Income	Due to small sample size, some of the household income prevalence estimates were unreliable. There was no annual household income difference in the prevalence of high risk for HIV.

Characteristic		Me	n		Wom	ien		Total					
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI				
TOTAL	2,239	2.9	1.9-3.9	3,097	2.3	1.6-3.1	5,336	2.6	2.0-3.2				
Age		ſ											
18-24	133	9.7	4.4-15.0	167	10.1	5.2-15.1	300	9.9	6.3-13.6				
25-34	214	*3.3	0.6-5.9	270	*4.0	1.5-6.5	484	3.6	1.8-5.4				
35-44	296	*1.9	0.3-3.6	386	*3.1	1.1-5.1	682	2.5	1.2-3.8				
45-54	368	*2.3	0.3-4.3	513	*0.7	0.0-1.6	881	*1.5	0.4-2.6				
55-64	591	*1.6	0.2-2.9	697	*0.3	0.0-0.6	1,288	*0.9	0.2-1.6				
65+	632	*0.8	0.2-1.4	1,044	*0.0	0.0-0.0	1,676	*0.4	0.1-0.6				
Education													
Less than H.S.	322	6.3	3.0-9.5	431	*1.4	0.0-3.2	753	3.8	1.9-5.7				
H.S. or G.E.D.	921	3.3	1.7-5.0	1,212	2.6	1.3-3.8	2,133	3.0	1.9-4.0				
Some Post-H.S.	472	*1.4	0.3-2.5	768	3.1	1.6-4.7	1,240	2.4	1.4-3.4				
College Graduate	523	*0.4	0.0-0.9	684	*1.4	0.2-2.6	1,207	*0.9	0.2-1.5				
Income													
Less than \$15,000	246	*4.5	0.9-8.0	452	5.0	2.2-7.7	698	4.7	2.5-6.9				
\$15,000 - 24,999	401	*3.6	1.1-6.0	657	*2.7	0.7-4.6	1,058	3.1	1.5-4.6				
\$25,000 - 34,999	282	*1.0	0-2.8	347	*2.1	0.0-4.4	629	*1.6	0.1-3.0				
\$35,000 - 49,999	310	*3.1	0.6-5.5	369	*0.5	0.0-1.4	679	*1.9	0.5-3.2				
\$50,000 - 74,999	317	*2.1	0.1-4.1	338	*2.6	0.3-4.8	655	*2.3	0.8-3.8				
\$75,000+	421	*0.9	0.0-2.2	422	*1.8	0.0-3.6	843	*1.3	0.2-2.4				

#### Table 22.2 High Risk for HIV by Demographic Characteristics: WVBRFSS, 2012

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

## **CHAPTER 23: CAREGIVER STATUS**

	Provided Care in the Past Month
Definition	Responding "Yes" to the question "People may provide regular care or assistance to a friend or family member who has a health problem, long-term illness, or disability. During the past month, did you provide any such care or assistance to a friend or family member?"
Prevalence	<b>19.3%</b> (95% CI: 18.1-20.6) Because this is a state added question, no U.S. data are available for comparison.
Gender	Men: 16.1% (95% CI: 14.3-18.0) Women: 22.3% (95% CI: 20.6-24.0) The prevalence of provided care in the past month was significantly higher among females than among males.
Race/Ethnicity	<ul> <li>White, Non-Hispanic: 19.1% (95% CI: 17.8-20.4)</li> <li>Black, Non-Hispanic: 14.2% (95% CI: 6.4-22.0)</li> <li>Other, Non-Hispanic: *36.7% (95% CI: 20.4-53.1)</li> <li>Multiracial, Non-Hispanic: *26.6% (95% CI: 15.8-37.4)</li> <li>Hispanic: *10.1% (95% CI: 3.4-16.8)</li> <li>The prevalence of provided care in the past month was significantly higher among White, Non-Hispanics than among Hispanics. There was no other race/ethnicity difference in the prevalence of provided care in the past month.</li> <li>* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.</li> </ul>
Age	The prevalence of provided care in the past month was highest among those aged 55-64 (24.3%) and was significantly higher than the prevalence among those aged 65 and older (15.8%). The prevalence of provided care in the past month was also significantly higher among those aged 45-54 (21.2%) than the prevalence among those aged 65 and older.
Education	There was no educational difference in the prevalence of provided care in the past month.
Household Income	There was no household income difference in the prevalence of provided care in the past month.

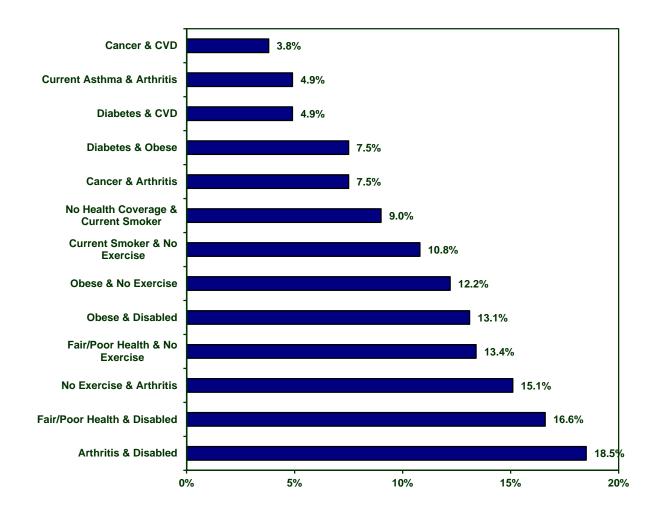
# Table 23.1 Prevalence of Provided Care in the Past Month by Demographic Characteristics:WVBRFSS, 2012

Characteristic		Me	n		Wor	nen		Total					
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI				
TOTAL	2,222	16.1	14.3-18.0	3,094	22.3	20.6-24.0	5,316	19.3	18.1-20.6				
Age													
18-24	125	17.0	9.5-24.4	161	19.7	12.9-26.5	286	18.3	13.2-23.3				
25-34	208	13.7	8.5-18.8	263	20.0	14.6-25.3	471	16.8	13.0-20.5				
35-44	294	17.0	12.4-21.7	383	22.6	18.1-27.1	677	19.8	16.6-23.0				
45-54	365	16.4	12.2-20.6	511	25.8	21.6-30.1	876	21.2	18.2-24.2				
55-64	591	17.8	14.5-21.1	699	30.6	26.8-34.4	1,290	24.3	21.7-26.8				
65+	633	15.1	12.0-18.3	1,055	16.3	13.7-18.8	1,688	15.8	13.8-17.7				
Education													
Less than H.S.	321	14.0	9.6-18.4	433	17.4	12.9-21.9	754	15.7	12.6-18.9				
H.S. or G.E.D.	911	14.9	12.2-17.6	1,213	23.1	20.3-25.9	2,124	18.9	17.0-20.9				
Some Post-H.S.	469	19.3	15.1-23.5	768	22.4	19.1-25.8	1,237	21.1	18.4-23.7				
College Graduate	520	17.1	13.2-21.0	676	25.4	21.7-29.1	1,196	21.3	18.6-24.0				
Income													
Less than \$15,000	242	15.1	9.9-20.2	450	19.5	14.6-24.4	692	17.6	14.0-21.2				
\$15,000 - 24,999	400	16.8	12.4-21.3	658	21.8	18.1-25.5	1,058	19.6	16.7-22.4				
\$25,000 - 34,999	279	14.1	9.5-18.7	351	28.5	22.8-34.2	630	21.3	17.6-25.1				
\$35,000 - 49,999	306	19.0	14.0-24.1	367	30.4	24.9-35.9	673	24.5	20.7-28.2				
\$50,000 - 74,999	313	14.6	10.3-18.8	333	23.5	18.4-28.6	646	18.8	15.4-22.1				
\$75,000+	421	14.2	10.5-17.9	415	23.7	19.1-28.3	836	18.4	15.4-21.3				

### **CHAPTER 24: COMORBIDITIES**

#### **Comorbid Health Conditions and Risk Factors**

Many behavior risk factors and health conditions are interrelated. For example, physical activity and nutrition are related to obesity, which is related to cardiovascular disease. Comorbidity is the presence of more than one health condition or risk factor in an individual at the same time. Identifying common comorbid factors is important to understanding how to prevent and reduce serious health conditions and chronic diseases. The purpose of this chapter is to introduce some of the common comorbidities among West Virginia adults in 2012 (see Figure 24.1 and Table 24.1). For definitions of risk factors and health conditions please refer to appropriate chapter in this report.



#### Figure 24.1 Common Comorbid Conditions: WVBRFSS, 2012

Percentage of Adults with Both Conditions/Risk Factors

% of Total Population	Fair/Poor Health	No Health Coverage	No Exercise	Obese	Current Smoker	CVD	Diabetes	Current Asthma	Disabled	Cancer	Arthritis
Fair/Poor Health	<b>25.2</b> (23.9-26.6)	<b>4.4</b> (3.7-5.1)	<b>13.4</b> (12.3-14.4)	<b>11.6</b> (10.6-12.7)	<b>9.1</b> (8.2-10.0)	<b>8.7</b> (7.9-9.5)	<b>7.1</b> (6.4-7.8)	<b>5.1</b> (4.4-5.8)	<b>16.6</b> (15.5-17.8)	<b>5.4</b> (4.8-6.1)	<b>16.1</b> (15.0-17.2)
No Health Coverage	<b>4.4</b> (3.7-5.1)	<b>192</b> (17.8-20.6)	<b>5.5</b> (4.8-6.3)	<b>6.4</b> (5.5-7.4)	<b>9.0</b> (7.9-10.1)	<b>1.6</b> (1.2-2.1)	<b>1.2</b> (0.8-1.5)	<b>2.2</b> (1.6-2.8)	<b>4.1</b> (3.4-4.8)	<b>1.0</b> (0.7-1.4)	<b>4.7</b> (4.0-5.4)
No Exercise	<b>13.4</b> (12.3-14.4)	<b>5.5</b> (4.8-6.3)	<b>31.0</b> (29.5-32.4)	<b>12.2</b> (11.1-13.2)	<b>10.8</b> (9.8-11.8)	<b>6.7</b> (5.9-7.4)	<b>6.2</b> (5.5-6.9)	<b>3.9</b> (3.3-4.5)	<b>13.5</b> (12.5-14.5)	<b>4.9</b> (4.3-5.5)	<b>15.1</b> (14.1-16.2)
Obese	<b>11.6</b> (10.6-12.7)	<b>6.4</b> (5.5-7.4)	<b>12.2</b> (11.1-13.2)	<b>33.8</b> (32.2-35.4)	<b>8.3</b> (7.3-9.2)	<b>6.3</b> (5.5-7.0)	<b>7.5</b> (6.7-8.3)	<b>4.4</b> (3.7-5.2)	<b>13.1</b> (12.0-14.2)	<b>4.0</b> (3.4-4.5)	<b>15.3</b> (14.2-16.4)
Current Smoker	<b>9.1</b> (8.2-10.0)	<b>9.0</b> (7.9-10.1)	<b>10.8</b> (9.8-11.8)	<b>8.3</b> (7.3-9.2)	<b>28.2</b> (26.7-29.7)	<b>4.2</b> (3.6-4.8)	<b>2.5</b> (2.1-3.0)	<b>3.7</b> (3.1-4.4)	<b>9.9</b> (8.9-10.9)	<b>3.1</b> (2.6-3.6)	<b>9.6</b> (8.6-10.5)
CVD	<b>8.7</b> (7.9-9.5)	<b>1.6</b> (1.2-2.1)	<b>6.7</b> (5.9-7.4)	<b>6.3</b> (5.5-7.0)	<b>4.2</b> (3.6-4.8)	<b>14.8</b> (13.7-15.8)	<b>4.9</b> (4.3-5.5)	<b>2.4</b> (1.9-2.9)	<b>8.4</b> (7.6-9.2)	<b>3.8</b> (3.3-4.4)	<b>9.6</b> (8.8-10.5)
Diabetes	<b>7.1</b> (6.4-7.8)	<b>1.2</b> (0.8-1.5)	<b>6.2</b> (5.5-6.9)	<b>7.5</b> (6.7-8.3)	<b>2.5</b> (2.1-3.0)	<b>4.9</b> (4.3-5.5)	<b>13.0</b> (12.0-14.0)	<b>1.8</b> (1.4-2.2)	<b>6.5</b> (5.8-7.2)	<b>2.9</b> (2.5-3.4)	<b>8.0</b> (7.2-8.7)
Current Asthma	<b>5.1</b> (4.4-5.8)	<b>2.2</b> (1.6-2.8)	<b>3.9</b> (3.3-4.5)	<b>4.4</b> (3.7-5.2)	<b>3.7</b> (3.1-4.4)	<b>2.4</b> (1.9-2.9)	<b>1.8</b> (1.4-2.2)	<b>10.2</b> (9.2-11.2)	<b>5.1</b> (4.4-5.8)	<b>1.8</b> (1.4-2.2)	<b>4.9</b> (4.2-5.5)
Disabled	<b>16.6</b> (15.5-17.8)	<b>4.1</b> (3.4-4.8)	<b>13.5</b> (12.5-14.5)	<b>13.1</b> (12.0-14.2)	<b>9.9</b> (8.9-10.9)	<b>8.4</b> (7.6-9.2)	<b>6.5</b> (5.8-7.2)	<b>5.1</b> (4.4-5.8)	<b>28.6</b> (27.2-30.0)	<b>5.8</b> (5.2-6.5)	<b>18.5</b> (17.3-19.6)
Cancer	<b>5.4</b> (4.8-6.1)	<b>1.0</b> (0.7-1.4)	<b>4.9</b> (4.3-5.5)	<b>4.0</b> (3.4-4.5)	<b>3.1</b> (2.6-3.6)	<b>3.8</b> (3.3-4.4)	<b>2.9</b> (2.5-3.4)	<b>1.8</b> (1.4-2.2)	<b>5.8</b> (5.2-6.5)	<b>13.3</b> (12.3-14.2)	<b>7.5</b> (6.8-8.2)
Arthritis	<b>16.1</b> (15.0-17.2)	<b>4.7</b> (4.0-5.4)	<b>15.1</b> (14.1-16.2)	<b>15.3</b> (14.2-16.4)	<b>9.6</b> (8.6-10.5)	<b>9.6</b> (8.8-10.5)	<b>8.0</b> (7.2-8.7)	<b>4.9</b> (4.2-5.5)	<b>18.5</b> (17.3-19.6)	<b>7.5</b> (6.8-8.2)	<b>36.4</b> (35.0-37.9)

*Table interpretation: Each cell represents the percentage of WV adults with both of the conditions/risk factors For example, 4.9% of WV adults have both asthma and arthritis.* 

#### Appendix A

#### Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories<sup>a</sup> United States, 2012

State	Fair o He	r Poor alth		lealth overage -64	Phy: Inact		Оь	esity		rent king		vascular ease	Car	ncer	Diat	betes	etes	Artl	nritis	Depr	ression
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	Rank	%	Rank	%	Rank
Alabama	25.0	3	23.5	16	27.2	10	33.0	5	23.8	10	11.8	4	13.2	4	12.2	5	5	33.9	3	21.9	6
Alaska	14.1	43	19.9	30	18.5	47	25.7	40	20.5	20	6.3	51	7.1	50	7.0	53		22.5	45	16.9	32
Arizona	18.1	21	24.7	14	22.6	29	26.0	37	17.1	43	8.6	25	12.5	9	10.6	16		25.0	31	18.8	22
Arkansas	23.7	5	31.1	2	31.5	2	34.5	3	25.0	4	11.4	5	12.5	10	11.3	11	11	30.3	6	22.2	5
a.v.a				10	10.0		25.0	10	10.6			10					25	22.0	16		<i></i>
California	17.7	22	25.1	12	19.2	44	25.0	43	12.6	52	6.7	49	9.9	41	9.8	25		22.0	46	11.6	51
Colorado	14.5	40	21.4	23	17.0	51 32	20.5	53	17.7	37	5.9	52	10.9	30	7.4	48		23.2	43	17.4	28
Connecticut	14.2	42	12.8	48	22.1	32 22	25.6	41	16.0	49	7.1 9.9	47	11.3	22	9.1	35		24.3	36	16.7	36 47
Delaware	16.4	29	13.9	44	23.5	22	26.9	33	19.7	24	9.9	12	12.4	11	9.6	30	30	28.0	15	14.8	47
D.C.	12.1	51	9.8	52	17.4	49	21.9	52	19.6	27	7.4	43	6.5	51	8.2	44	44	18.2	52	16.3	39
Florida	19.9	12	27.6	4	23.3	25	25.2	42	17.7	38	10.1	11	13.8	1	11.4	10	10	26.4	22	16.9	33
Georgia	17.5	24	27.3	5	23.6	20	29.1	20	20.4	22	8.8	22	10.6	33	9.9	24	24	24.0	39	16.7	35
Guam	21.8	8	26.6	8	27.6	9	29.1	21	25.8	3	8.4	29	3.0	53	9.6	31	31	15.5	53	9.0	53
T T	14.0	20	12.7	40	10.7	16	22.6	50	14.6	50	6.6	50	0.0	49	70	47	47	20.2	50	11.5	50
Hawaii Idaha	14.8	39	12.7 23.4	49	18.7	46	23.6	50 25	14.6	50	6.6 7.4	50	9.0	48	7.8	47		20.3	50 24	11.5 19.9	52
Idaho Illinois	15.6	37		17	20.3	41	26.8	35	16.4	45	7.4	44	12.1	14	8.5	41		26.0			16
Illinois Indiana	17.4 20.0	26 11	20.0	29 22	21.8	34 12	28.1 31.4	26 8	18.6 24.0	32 7	7.9 9.7	32	9.5 10.5	44 34	9.4 10.9	33 12		25.4	28	15.0 19.5	45 19
Indiana	∠0.0	11	21.8	22	25.9	12	51.4	0	∠4.0		9.1	15	10.5	54	10.9	12	12	27.8	17	19.3	19
Iowa	14.0	45	13.4	46	23.1	26	30.4	12	18.1	35	8.8	21	11.5	20	9.7	28	28	25.9	25	17.0	31
Kansas	16.0	34	20.5	26	22.9	28	29.8	14	19.4	28	8.6	24	11.2	24	9.4	32	32	24.0	37	16.5	38
Kentucky	23.9	4	20.9	25	29.7	6	31.3	9	28.3	1	12.1	3	13.1	5	10.7	13	13	35.0	2	23.4	1
Louisiana	22.5	7	25.7	10	29.9	5	34.7	1	24.8	6	10.3	8	10.3	37	12.3	4	4	28.0	14	17.2	29
Maina	16.1	22	15.7	41	20.0	20	20.2	25	20.2	22	0.4	17	11.0	16	0.7	20	20	20.6	10	22.7	2
Maine	16.1	33	15.7	41	20.9	38	28.3	25	20.3	23	9.4	17	11.8	16	9.7	29		29.6	10	22.7	3
Maryland	15.8	36	15.7 6.9	42	23.1	27	27.6	28	16.2	48	7.6	40	9.2	46	10.2	21		23.5	42	14.2	49 21
Massachusetts Michigan	13.4 17.1	48 27		53 37	19.8 23.3	43 24	22.9 31.1	51 11	16.4 23.3	46 11	7.1 9.9	46 14	11.0 12.3	28 12	8.3 10.5	42 18		23.1 31.8	44 4	18.9 20.6	11
Michigan	17.1	21	16.6	57	23.5	24	51.1	11	23.3	11	9.9	14	12.3	12	10.5	10	10	51.0	4	20.0	11
Minnesota	11.7	53	13.2	47	17.6	48	25.7	39	18.8	31	7.0	48	10.3	36	7.3	49	49	21.4	48	17.1	30
Mississippi	23.4	6	27.3	6	30.8	4	34.6	2	24.0	8	11.0	7	11.0	29	12.5	3	3	30.8	5	18.4	23
Missouri	18.7	18	20.3	28	24.7	18	29.6	18	23.9	9	9.7	16	12.7	8	10.7	14	14	29.6	9	20.1	14
Montana	15.8	35	23.2	19	20.5	39	24.3	46	19.7	26	8.4	27	13.4	2	7.2	51	51	27.8	18	20.0	15
Nebraska	14.4	41	18.0	35	21.0	37	28.6	23	19.7	25	7.8	36	10.9	31	8.1	45	45	24.6	33	16.7	34
Nevada	19.0	16	30.2	3	21.0	35	26.2	36	19.7	34	8.7	23	9.6	43	8.9	38		24.0	38	16.3	41
New Hampshire	13.5	46	15.8	40	20.0	42	27.3	31	17.2	41	7.7	38	11.7	17	9.1	36		27.3	19	19.6	18
New Jersey	16.1	32	18.6	32	24.9	15	24.6	45	17.3	40	7.5	42	9.1	47	9.3	34		21.8	47	13.0	50
rie w berbey	10.1	52	10.0	52	2>	10	21.0	15	17.5		7.0	.2	<i></i>	• *	7.5	5.	51	21.0		15.0	50
New Mexico	21.1	9	26.8	7	21.8	33	27.1	32	19.3	29	7.8	34	10.4	35	10.3	20	20	23.9	40	19.9	17
New York	17.5	23	18.6	31	24.7	17	23.6	49	16.2	47	8.1	31	9.0	49	9.7	27	27	25.0	30	14.8	48
North Carolina	19.3	13	25.4	11	24.9	16	29.6	17	20.9	19	8.9	19	12.1	13	10.4	19	19	26.1	23	17.5	27
North Dakota	13.4	47	16.0	39	23.8	19	29.7	16	21.2	18	7.7	39	10.0	39	8.6	40	40	24.5	35	15.0	46
Ohio	18.3	19	17.8	36	25.3	13	30.1	13	23.3	12	9.9	13	11.1	26	11.7	7	7	30.0	7	18.9	20
Oklahoma	19.0	15	22.1	20	28.3	8	32.2	6	23.3	13	10.2	9	11.2	25	11.5	9		28.0	16	21.9	7
Oregon	18.2	20	23.3	18	16.3	53	27.3	30	17.9	36	8.8	20	12.7	7	9.9	23		28.0	13	23.4	2
Pennsylvania	16.9	28	16.2	38	23.5	23	29.1	22	21.4	17	9.2	18	11.1	27	10.2	22		29.1	11	18.0	24
Puerto Rico	36.1	1	9.8	51	42.4	1	28.4	24	12.6	51	11.4	6	4.8	52	16.4	1		24.6	34	16.3	40
Rhode Island	16.3	30	18.4	33	23.6	21	25.7	38	17.4	39	8.4	28	11.3	23	9.8	26		26.8	21	20.3	12
South Carolina	18.9	17	26.5	9	25.1	14	31.6	7	22.5	14	10.2	10	12.0	15	11.6	8		28.9	12	18.0	25
South Dakota	13.1	50	13.8	45	22.5	30	28.1	27	22.0	15	8.2	30	10.8	32	7.8	46	46	23.7	41	15.3	44
Tennessee	21.1	10	21.9	21	28.6	7	31.1	10	24.9	5	12.5	2	12.9	6	11.9	6	6	29.8	8	20.2	13
Texas	19.2	14	35.8	1	27.2	11	29.2	19	18.2	33	7.5	41	9.3	45	10.6	15		21.3	49	15.5	43
Utah	13.1	49	20.4	27	16.5	52	24.3	47	10.6	53	5.6	53	9.9	40	7.2	52		20.0	51	21.0	9
Vermont	12.1	52	11.9	50	17.2	50	23.7	48	16.5	44	7.7	37	11.6	19	7.3	50		27.2	20	21.8	8
Virginia	17.5	25	18.2	34	22.5	31	27.4	29	19.0	30	8.5	26	10.1	38	10.6	17		25.5	27	16.6	37
Washington	16.2	31	21.2	24	19.0	45	26.8	34	17.2	42	7.2	45	11.6	18	8.8	39		25.2	29	22.3	4
West Virginia	25.2	2	24.2	15	31.0	3	33.8	4	28.2	2	14.8	1	13.3	3	13.0	2		36.4	1	20.9	10
Wisconsin	14.0	44	14.7	43	20.4	40	29.7	15	20.4	21	7.8	33	9.6	42	8.3	43		25.7	26	16.1	42
Wyoming	14.9	38	24.8	13	21.1	36	24.6	44	21.8	16	7.8	35	11.4	21	9.1	37	37	24.7	32	18.0	26
The Market State of the	10.1						25 -		10.0		0.1		10.0		10.2			25.4		160	
United States	18.1		22.2		23.5		27.7		18.8		8.6		10.8		10.2			25.6		16.9	

Source: Centers for Disease Control & Prevention, 2012 Behavioral Risk Factor Surveillance System data; West Virginia Health Statistics Center, 2013 a. 53 states/territories conducted the survey.

County	Fair o	or Poor H	lealth		alth Insu ges 18-6		No Le	eisure Ex	ercise		Obesity		Ciga	rette Sm	oking	Bir	ige Drinl	king
	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.
Barbour	26.9	16	ns	*36.8	2	Н	34.6	21	ns	35.6	20	ns	*29.1	18	ns	*3.4	55	L
Berkeley	17.9	51	L	20.5	37	ns	28.0	46	L	33.0	34	ns	27.9	25	ns	11.5	10	ns
Boone	33.6	7	Н	22.8	30	ns	38.2	7	ns	33.5	30	ns	32.0	11	ns	8.1	32	ns
Braxton	30.1	13	ns	30.8	8	ns	33.9	26	ns	31.6	38	ns	24.3	42	ns	*4.4	51	L
Brooke	22.5	35	ns	20.2	41	ns	35.6	16	ns	34.8	24	ns	30.0	16	ns	10.1	19	ns
Cabell	24.2	31	ns	18.9	46	ns	30.3	41	ns	33.1	33	ns	27.6	27	ns	9.7	21	ns
Calhoun	25.9	23	ns	*34.7	4	ns	32.7	28	ns	*36.4	13	ns	*42.2	1	Н	14.3	4	ns
Clay	*38.5	3	Н	*27.9	13	ns	26.7	12	ns	*43.3	2	ns	*24.8	40	ns	*3.7	53	L
Doddridge	20.4	43	ns	*27.4	14	ns	*35.9	14	ns	24.7	53	ns	24.7	41	ns	*5.0	48	ns
Fayette	25.5	26	ns	27.3	15	ns	35.0	19	ns	35.9	15	ns	28.3	22	ns	9.4	25	ns
Gilmer	*22.1	37	ns	*48.9	1	Н	*28.2	45	ns	*42.5	3	ns	*35.2	2	ns	*11.5	11	ns
Grant	32.2	9	ns	*33.8	6	ns	30.2	42	ns	39.8	4	ns	17.8	54	L	*4.8	50	L
Greenbrier	25.5	27	ns	28.7	12	ns	31.6	33	ns	26.1	51	L	26.6	30	ns	9.6	22	ns
Hampshire	25.6	25 20	ns	17.7	49 52	ns	34.3	24	ns	34.0	27	ns	32.5	8	ns	11.8	8	ns
Hancock	21.6	39 45	ns	14.1	53	L	31.6	32	ns	31.5	40	ns	25.0	39	ns	10.2	17	ns
Hardy Harrison	20.3 20.8	45 42	ns	13.2 20.2	54 40	L	30.6 32.7	38 29	ns	33.8 32.1	29 37	ns	23.1 24.1	45 43	ns	*6.3 7.7	41 34	ns
	20.8	42 38	ns	20.2		ns	30.8		ns	35.8	37 17	ns	24.1	43	ns	8.6	28	ns
Jackson Jefferson	16.5	53	ns L	13.1	43 55	ns L	25.5	36 51	ns L	33.8	28	ns	25.5	28	ns	8.0 14.4	3	ns
Kanawha	24.4	30	ns	19.7	45	ns	30.4	40	ns	31.4	41	ns ns	25.3	36	ns ns	10.2	16	ns ns
Lewis	30.2	12	ns	22.8	31	ns	31.5	34	ns	33.5	31	ns	25.3	35	ns	*3.5	54	L
Lincoln	32.5	8	Н	22.8	36	ns	40.5	6	H	38.3	6	ns	28.2	23	ns	10.1	18	ns
Logan	36.3	6	н	25.6	21	ns	43.7	4	Н	38.3	7	ns	33.9	3	Н	8.0	33	ns
Marion	21.4	41	ns	26.3	19	ns	30.2	43	ns	31.0	42	ns	23.0	46	ns	9.2	26	ns
Marshall	19.0	50	L	23.1	28	ns	32.3	30	ns	28.2	48	ns	26.4	31	ns	12.6	6	ns
Mason	26.5	18	ns	22.5	34	ns	37.4	9	ns	36.3	14	ns	32.9	6	ns	9.5	24	ns
McDowell	39.6	1	Н	33.5	7	Н	46.3	1	н	37.4	12	ns	33.0	5	ns	10.6	13	ns
Mercer	25.8	24	ns	19.8	44	ns	34.4	23	ns	34.8	22	ns	29.1	19	ns	6.0	44	L
Mineral	17.3	52	L	18.0	48	ns	26.3	50	ns	30.6	44	ns	19.7	52	L	7.4	35	ns
Mingo	39.4	2	н	20.5	38	ns	44.4	3	н	32.8	35	ns	32.4	9	ns	7.1	38	ns
Monongalia	13.5	55	L	15.4	51	L	21.1	55	L	23.4	54	L	18.1	53	L	19.7	1	Н
Monroe	23.6	33	ns	25.6	22	ns	30.8	37	ns	27.4	49	ns	19.9	51	ns	*5.6	46	ns
Morgan	24.7	29	ns	26.3	20	ns	27.1	48	ns	34.2	26	ns	25.3	37	ns	8.4	29	ns
Nicholas	30.7	11	Н	27.0	17	ns	35.2	18	ns	35.7	18	ns	30.1	15	ns	6.4	40	ns
Ohio	16.5	54	L	20.1	42	ns	25.4	52	L	25.6	52	L	27.7	26	ns	11.7	9	ns
Pendleton	19.9	46	ns	*26.5	18	ns	30.4	39	ns	*37.9	8	ns	17.5	55	L	*7.4	36	ns
Pleasants	19.2	49	ns	*16.6	50	ns	25.0	53	ns	*30.4	45	ns	*22.8	47	ns	*7.4	37	ns
Pocahontas	26.5	17	ns	*34.3	5	ns	22.6	54	L	21.9	55	L	29.0	20	ns	*14.7	2	ns
Preston	26.0	21	ns	23.6	25	ns	35.7	15	ns	34.7	25	ns	28.6	21	ns	8.3	30	ns
Putnam	19.7	47	L	14.3	52	L	27.4	47	L	27.1	50	L	21.4	49	L	8.2	31	ns
Raleigh	28.2	15	ns	20.4	39	ns	34.4	22	ns	32.5	36	ns	26.1	33	ns	6.2	43	L
Randolph	24.7	28	ns	24.6	24	ns	33.5	27	ns	34.8	23	ns	26.1	32	ns	8.6	27	ns
Ritchie	21.5	40	ns	*30.7	9	ns	37.9	8	ns	*37.8	9	ns	32.8	7	ns	*9.8	20	ns
Roane	31.8	10	Н	22.0	35	ns	35.5	17	ns	37.5	11	ns	33.6	4	ns	10.4	15	ns
Summers	26.1	20	ns	*25.5	23	ns	34.1	25	ns	35.6	19	ns	20.1	50	ns	*4.0	52	L
Taylor	26.4	19	ns	22.8	32	ns	40.9	5	ns	30.2	46	ns	25.2	38	ns	13.1	5	ns
Tucker	22.3	36	ns	*27.1	16	ns	*37.2	10	ns	29.3	47	ns	*28.0	24	ns	*6.3	42	ns
Tyler	20.3	44	ns	*35.0	3	Н	31.2	35	ns	35.2	21	ns	26.0	34	ns	12.2	7	ns
Upshur	22.9	34	ns	22.9	29 27	ns	30.2	44	ns	30.9	43	ns	22.1	48	ns	*6.6	39	ns
Wayne	29.0 37.2	14	ns H	23.2 *30.0	27	ns	34.7 36.9	20 11	ns	33.3 *39.3	32 5	ns	31.1	13 29	ns	10.4 *5.0	14	ns
Webster		5 22			10 47	ns			ns			ns	26.7		ns	*5.0 *5.5	49 47	ns
Wetzel Wirt	26.0 19.3	48	ns ns	18.3 *28.7	47	ns ns	36.0 26.4	13 49	ns ns	35.9 *45.4	16 1	ns ns	31.9 *30.8	12 14	ns ns	*5.5 *11.5	47	ns ns
Wood	24.1	48 32	ns	22.7	33	ns	20.4 32.2	31	ns	*45.4 31.6	39	ns	*30.8 29.5	14	ns	*11.5 9.6	23	ns
Wyoming	24.1 37.4	32 4	ns H	22.7	26	ns	32.2 46.2	2	ns H	31.6	39 10	ns	29.5 32.1	17	ns	9.6 *6.0	45	ns
WV / U.S. <sup>a</sup> / Sig.	24.3	16.3	н	22.4	18.1	н	32.6	24.4	Н	32.5	27.8	Н	27.2	17.1	Н	9.5	14.7	L

Appendix B 2008-2012 WV Behavioral Risk Factors and Health Conditions by County

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, 2013.

Sig. - Indicates whether county prevalence estimate is significantly different than WV prevalence. H = significantly higher, ns = not significantly different, L = significantly lower.

\* Unreliable prevalence estimate - use caution when reporting and interpreting. See discussion on page 5 about unreliable estimates.

a. U.S. prevalence for all indicators is 2010.

Appendix B, continued
2008-2012 WV Behavioral Risk Factors and Health Conditions by County

County		Diabetes		Cardio	vascular	Disease	Cur	rent Ast	hma	]	Disability	Ŷ		Arthritis	b
	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.
Barbour	9.9	48	ns	11.6	38	ns	9.1	30	ns	25.9	40	ns	32.7	45	ns
Berkeley	10.1	45	ns	10.5	44	L	6.9	47	ns	22.7	48	L	29.3	52	L
Boone	14.1	14	ns	19.1	3	Н	10.2	21	ns	36.5	8	Н	42.0	10	ns
Braxton	15.5	9	ns	15.3	14	ns	8.8	32	ns	35.6	11	ns	40.8	12	ns
Brooke Cabell	15.6 14.8	8 11	ns ns	14.5 13.2	18 25	ns ns	8.3 10.5	37 17	ns ns	26.0 30.2	39 22	ns ns	37.6 31.4	25 50	ns ns
Calhoun	12.0	33	ns	*10.1	48	ns	*11.4	11	ns	26.0	38	ns	*38.3	19	ns
Clay	16.3	6	ns	17.8	7	ns	18.9	1	ns	*36.0	9	ns	*38.1	21	ns
Doddridge	9.2	52	ns	6.3	55	L	*2.6	55	L	21.4	53	ns	*36.5	32	ns
Fayette	12.1	31	ns	13.2	23	ns	9.5	28	ns	29.9	24	ns	42.5	8	н
Gilmer	*6.6	55	L	10.7	42	ns	*14.3	4	ns	*36.9	7	ns	*28.7	53	ns
Grant	22.4	1	Н	19.4	2	ns	18.9	2	Н	35.0	13	ns	45.0	3	ns
Greenbrier	11.5	37	ns	11.5	39	ns	9.3	29	ns	29.3	26	ns	37.7	24	ns
Hampshire Hancock	10.3 12.4	44 27	ns ns	11.3 11.8	40 37	ns ns	10.5 8.7	18 34	ns ns	27.2 26.3	34 37	ns ns	38.1 34.8	20 38	ns ns
Hardy	12.4	34	ns	10.3	46	ns	*4.6	54	L	20.3	51	ns	34.6	40	ns
Harrison	12.5	25	ns	12.9	28	ns	9.9	25	ns	29.4	25	ns	36.8	29	ns
Jackson	13.0	23	ns	12.5	33	ns	8.7	33	ns	27.4	32	ns	37.0	27	ns
Jefferson	9.9	46	ns	8.2	53	L	8.2	38	ns	23.1	45	L	28.1	54	L
Kanawha	12.4	26	ns	13.8	21	ns	8.0	39	ns	27.3	33	ns	32.5	46	L
Lewis	14.3	13	ns	18.1	6	ns	8.6	35	ns	27.1	35	ns	33.0	43	ns
Lincoln	12.0	32	ns	13.5	22	ns	7.7	42	ns	35.8	10	ns	40.5	14	ns
Logan Marion	17.2 10.8	4 39	H	19.4 13.2	1 24	Н	9.6	27 13	ns	40.4 28.2	3 29	Н	44.0	4 51	Н
Marshall	9.3	59	ns ns	13.2	24 34	ns ns	11.2 10.5	15	ns ns	28.2	29 47	ns L	31.4 40.5	13	ns ns
Mason	10.6	41	ns	14.9	17	ns	12.4	7	ns	32.7	14	ns	39.8	16	ns
McDowell	17.5	3	Н	18.6	4	Н	13.0	6	ns	38.7	4	Н	47.9	1	н
Mercer	13.9	15	ns	13.0	27	ns	8.5	36	ns	30.7	20	ns	40.4	15	ns
Mineral	9.9	49	ns	10.9	41	ns	10.3	20	ns	28.0	30	ns	37.1	26	ns
Mingo	13.1	22	ns	17.3	11	ns	8.9	31	ns	35.2	12	Н	43.5	6	Н
Monongalia	7.7	54	L	6.8	54	L	7.0	46	ns	20.7	55	L	21.4	55	L
Monroe	11.8	36	ns	18.3	5	ns	*5.8	52	ns	28.5	27	ns	36.9	28	ns
Morgan Nicholas	12.3 11.8	29 35	ns ns	13.1 14.0	26 19	ns ns	11.8 6.9	8 48	ns ns	31.9 37.0	17 6	ns H	32.4 44.0	47 5	ns H
Ohio	10.3	42	ns	12.0	36	ns	10.2	22	ns	25.7	41	ns	35.1	37	ns
Pendleton	12.3	30	ns	12.5	32	ns	14.7	3	ns	22.3	50	ns	*37.8	23	ns
Pleasants	13.6	19	ns	8.9	51	ns	*6.0	51	ns	23.5	44	ns	31.5	49	ns
Pocahontas	8.6	53	ns	12.7	29	ns	*5.4	53	ns	26.7	36	ns	35.2	36	ns
Preston	9.7	50	ns	10.3	47	ns	7.9	40	ns	28.3	28	ns	33.9	41	ns
Putnam	10.7	40	ns	10.3	45	L	6.5	50	ns	25.1	42	ns	32.1	48	ns
Raleigh Randolph	13.5 12.7	20 24	ns ns	16.3 12.7	12 31	H	10.5 11.4	16 12	ns ns	32.7 31.4	15 18	ns ns	38.9 35.3	17 35	ns
Ritchie	12.7	12	ns	8.7	52	ns ns	*10.0	24	ns	30.7	21	ns	33.0	55 44	ns ns
Roane	15.0	10	ns	15.2	15	ns	10.0	23	ns	30.1	23	ns	36.0	34	ns
Summers	12.3	28	ns	14.0	20	ns	11.7	9	ns	31.0	19	ns	36.2	33	ns
Taylor	9.9	47	ns	12.0	35	ns	9.8	26	ns	22.1	52	L	34.7	39	ns
Tucker	13.8	17	ns	8.9	50	ns	11.6	10	ns	21.0	54	ns	*36.5	31	ns
Tyler	10.3	43	ns	10.7	43	ns	*7.4	45	ns	23.1	46	ns	38.8	18	ns
Upshur	11.1	38	ns	10.0	49	ns	11.0	14	ns	22.5	49	L	33.2	42	ns
Wayne Webster	13.6 16.0	18 7	ns	17.5 16.0	8 13	H	10.7 14.2	15 5	ns	38.7 *43.5	5 2	н Н	43.1 *42.1	7 9	H
Wetzel	13.8	16	ns ns	16.0	9	ns ns	14.2 6.9	5 49	ns ns	*43.5 27.9	2 31	H ns	*42.1	30	ns ns
Wirt	19.4	2	ns	17.5	16	ns	*7.4	49	ns	24.4	43	ns	*41.0	11	ns
Wood	13.4	21	ns	12.7	30	ns	7.7	41	ns	32.4	16	ns	38.1	22	ns
Wyoming	17.1	5	ns	17.4	10	ns	7.5	43	ns	45.3	1	Н	45.6	2	Н
WV / U.S. <sup>a</sup> / Sig.	12.2	9.3	Н	13.1	8.4	Н	9.0	8.6	ns	29.0	20.8	н	35.6	N/A	N/A

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, 2013.

Sig. - Indicates whether county prevalence estimate is significantly different than WV prevalence. H = significantly higher, ns = not significantly different, L = significantly lower.

\* Unreliable prevalence estimate - use caution when reporting and interpreting. See discussion on page 5 about unreliable estimates.

a. U.S. prevalence for all indicators is 2010. U.S. data for arthritis was not available for 2010.

b. Data only available for limited years: Arthritis ( 2007, 2009-2012).