



West Virginia Behavioral Risk Factor Surveillance System Report 2017

**West Virginia
Behavioral Risk Factor
Surveillance System Report
2017**

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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 health. This report presents state survey results for the year 2017 as well as county data combined for the latest available five years (2013 through 2017).

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 2nd highest nationally in the prevalence of general health of adults as either fair or poor.
- ◆ Over one-fourth of West Virginia adults (25.9%) considered their health to be either fair or poor.
- ◆ Fair/poor health was most common among groups of adults aged 55-64, 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 or poor health was highest in Boone, Fayette, Lincoln, Logan, McDowell, Mercer, Mingo, Raleigh, and Wyoming counties.
- ◆ West Virginia ranked the highest in the nation for the prevalence of poor physical health, poor mental health, and activity limitations due to poor physical or mental health.

Impairment

- ◆ The prevalence of difficulty concentrating, remembering, or making decisions was 18.9% among West Virginians, compared to 11.4% nationally, which ranked the State highest nationally.
- ◆ Over one-fifth of West Virginians had serious difficulty walking or climbing stairs (24.2%).
- ◆ Approximately 6.8% of West Virginia adults had difficulty bathing or dressing.
- ◆ The prevalence of having difficulty doing errands alone among West Virginians was 13.5%, significantly higher than the national prevalence of 7.3%.
- ◆ Approximately 8.6% of West Virginia adults are blind or have serious vision impairment, the 2nd highest in the nation.
- ◆ The prevalence of deaf or hearing impaired was the highest in the nation at 13.7% compared to 6.2% for the U.S.

EXECUTIVE SUMMARY

Health Care Access

- ◆ The prevalence of West Virginia adults (18-64) with no health care coverage was 11.3%, significantly lower than the national average of 14.7%
- ◆ Almost one-fifth of all adults do not have a personal doctor or health care provider (19.3%).
- ◆ Approximately 14.8% of West Virginia adults could not afford needed medical care in the past year.
- ◆ Over one-fifth of West Virginia adults did not have a routine checkup in the past year (23.8%).
- ◆ Among West Virginia adults, 41.9% have private insurance, followed by Medicare (24.2%) and Medicaid (18.0%).

Weight Status

- ◆ The prevalence of obesity in West Virginia was 38.1%, the highest in the nation.
- ◆ The prevalence of obesity was significantly higher in Logan and Mason counties than in the rest of the State.
- ◆ Over two-thirds (71.7%) of West Virginia adults were either overweight or obese, the highest in the U.S.
- ◆ The prevalence of overweight or obese was highest among men, those aged 45 and older, and those with an annual household income of \$35,000-\$74,999.

Physical Activity

- ◆ Over one-fourth of West Virginia adults (31.6%) participate in no leisure-time physical activity or exercise which ranked West Virginia 9th highest in the nation.
- ◆ Physical inactivity was highest among those aged 45 and older, those with less than a college education, and those with annual household income of less than \$25,000.
- ◆ The prevalence of physical inactivity was significantly higher in Grant, Logan, Mingo, and Wyoming counties than the rest of the State.
- ◆ Approximately 31.5% of adults in the State are highly active and 16.4% are active.
- ◆ While 33.1% of West Virginia adults met only aerobic activity guidelines, 7.7% met only muscle strengthening guidelines and 15.1% met both guidelines.

Nutrition

- ◆ Nine out of every 10 adults (90.8%) in West Virginia consume fewer than five servings of fruits and vegetables daily which ranked West Virginia the 2nd highest in the nation.
- ◆ The highest prevalence of consuming fewer than five servings of fruits and vegetables daily was found among those with less than a college education and an annual household income less than \$15,000.
- ◆ The prevalence of consuming fewer than five servings of fruit and vegetables daily was significantly higher in Clay, Gilmer, Lincoln, Mason, Mingo, Webster, and Wirt counties than the rest of the State.
- ◆ Over one-third of West Virginia adults consume at least one sugar sweetened beverage a day (35.8%).

EXECUTIVE SUMMARY

Tobacco Use

- ◆ More than one-fourth of adults (26.0%) currently smoke cigarettes every day or some days which ranked West Virginia the highest nationally.
- ◆ The prevalence of current smoking was highest among those aged 35-44, those with less than a high school education, and those with an annual household income of less than \$15,000.
- ◆ The prevalence of current cigarette smoking was highest in Mingo County.
- ◆ Approximately 55.9% of current smokers had tried to quit smoking in the past year which was the 14th lowest in the nation.
- ◆ West Virginia ranked the 2nd highest in the nation in the prevalence of smokeless tobacco use (8.9%) among adults.
- ◆ West Virginia ranked 7th highest in the nation in prevalence of current e-cigarette use (5.7%) among adults.
- ◆ Approximately 15.2% of West Virginia adults reported using marijuana.

Alcohol Consumption

- ◆ The West Virginia heavy drinking prevalence was 3.6% which was the lowest in the nation.
- ◆ The prevalence of binge drinking among West Virginia adults was 11.5%, the 2nd lowest in the nation.
- ◆ Binge drinking was highest among men, those aged 18-24, those with some college education or college graduates, and those with a household income of \$75,000 or more per year.
- ◆ The prevalence of binge drinking was significantly higher in Brooke, Jefferson, and Monongalia counties than the rest of the State.

Seat Belt Use

- ◆ Approximately 3.4% of West Virginia adults seldom or never wear a seat belt when they drive or ride in a car.
- ◆ Men had a significantly higher prevalence of seldom or never wear a seat belt when they drive or ride in a car than women.
- ◆ The prevalence of seldom or never wear a seatbelt was highest among those aged 25-34, those with less than a high school education, and those with an annual household income less than \$15,000.

Sunburn

- ◆ Among West Virginia adults 18.5% reported having a red or painful sunburn in the past year.

HIV Risk

- ◆ West Virginia ranked 2nd lowest in the nation in prevalence of high risk behaviors for HIV (4.2%).

Cholesterol Testing

- ◆ About 91.1% of West Virginia adults had their cholesterol checked at least once.
- ◆ Among those who had their cholesterol checked, 95.1% had it checked in the past 5 years.

EXECUTIVE SUMMARY

Diabetes Testing

- ◆ Among West Virginia adults who do not have diabetes, 63.6% have had a diabetes test in the past 3 years.

HIV Testing

- ◆ Over one-third of West Virginia adults (36.1%) had been tested for HIV.
- ◆ The prevalence of HIV testing was highest among those between the ages of 35-44 and those with some post high school education or a college degree.

Lung Cancer Screening

- ◆ Among West Virginia adults, 2.5% had a CT scan or CAT scan in the past 12 months to check for lung cancer.

Immunization

- ◆ About 45.5% of all adults and 67.1% of seniors had a flu vaccine in the past 12 months.
- ◆ Among West Virginia adults and adults aged 65 and older, 40.2% and 73.7%, respectively, had ever received the pneumonia vaccine.
- ◆ Over one-quarter (28.0%) of West Virginia adults had ever received the shingles vaccine.

Doctor's advice

- ◆ Approximately 23.7% of West Virginia adults had a doctor advise them to reduce sodium or salt intake.
- ◆ Over one-third (40.3%) of West Virginia adults had a doctor advise them to quit smoking cigarettes or using any tobacco products.

Secondhand Smoking

- ◆ One-fourth (25.8%) of West Virginia adults reported that smoking was allowed inside their home.

Hypertension

- ◆ Approximately 43.5% of West Virginia adults have been told by a health care professional that they have hypertension which ranked the State the 2nd highest in the nation.
- ◆ The prevalence of hypertension was highest among those aged 65 and older, and those with less than a high school education.
- ◆ The prevalence of hypertension was significantly higher in Logan, Mingo, and Nicholas counties than in the rest of the State.
- ◆ More than three-fourths (79.6%) of those with hypertension are taking medication.

EXECUTIVE SUMMARY

High Cholesterol

- ◆ The prevalence of high cholesterol among West Virginia adults was 39.7%, the highest in the nation.
- ◆ The prevalence of high cholesterol was highest among those aged 45 and older, those with less than a high school education, and those with an annual household income of less than \$15,000.
- ◆ The prevalence of high cholesterol was significantly higher in Clay, Marshall, Mingo, Monroe, Raleigh, Summers, Webster, Wirt, and Wyoming counties than in the rest of the State.

Cardiovascular Disease

- ◆ West Virginia ranked the highest in the nation in the prevalence of heart attack (7.5%), and coronary heart disease (7.4%)
- ◆ West Virginia ranked the 3rd highest in the nation in the prevalence of stroke (4.8%)
- ◆ The cardiovascular disease prevalence was highest in the nation at 14.4%.
- ◆ The prevalence of cardiovascular disease was highest among those aged 65 and older, those with less than a high school education, and those with an annual household income less than \$15,000.
- ◆ The prevalence of cardiovascular disease was significantly higher in Logan and Mingo counties than the State as a whole.
- ◆ Almost one half (49.5%) of West Virginia adults were currently watching or reducing their sodium intake.

Diabetes

- ◆ More than 1 in 10 West Virginia adults had been told they have diabetes by a health professional (15.2%) which ranked West Virginia the 2nd highest nationally.
- ◆ The prevalence of diabetes was highest among adult aged 45 and older, those with less than a high school education, and those with an annual household income of less than \$25,000.
- ◆ The prevalence of diabetes was significantly higher in Logan, McDowell, and Wayne counties than the State as a whole.
- ◆ Approximately 11.3% of West Virginia adults had borderline or pre-diabetes.
- ◆ The prevalence of borderline or pre-diabetes was highest among those aged 45 and older, those with less than a high school education, and those with a household income of less than \$15,000 a year.

EXECUTIVE SUMMARY

Cancer

- ◆ Approximately 7.5% of West Virginia adults reporting having a health professional tell them they had skin cancer.
- ◆ About 7.8% of West Virginia adults reporting having a health professional tell them they had some other type of cancer.
- ◆ About 1 in 8 West Virginia adults are cancer survivors (13.9%) which ranked West Virginia the 7th highest for overall cancer prevalence.
- ◆ Cancer prevalence was highest among adults aged 65 and older, those with less than a high school education, and those with an annual household income of less than \$50,000.
- ◆ Over one-third (34.2%) of West Virginia adults with cancer received a written summary of all cancer treatments they received.
- ◆ Among West Virginia adults with cancer 6.7% participated in a clinical trial as part of their cancer treatment.

Respiratory Diseases

- ◆ Approximately 18.9% of West Virginia adults have ever been diagnosed with asthma and 12.7% of West Virginia adults currently had asthma.
- ◆ Women had significantly higher prevalence of both lifetime and current asthma than men.
- ◆ The prevalence of both lifetime asthma and current asthma 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 current asthma was significantly higher in Mercer County compared to the rest of the state.
- ◆ The prevalence of chronic obstructive pulmonary disease or COPD in West Virginia was 15.0%, the highest in the nation.
- ◆ The prevalence of COPD was highest among adults aged 65 and older, those with less than a high school education, and those with an annual household income of less than \$15,000.
- ◆ The prevalence of COPD was significantly higher in Fayette, Logan, McDowell, and Mingo counties than the rest of the State.
- ◆ Among West Virginia adults who had COPD, 25.4% reported having a cough on most days, 23.0% reported coughing up phlegm or mucous on most days, and 37.4% reported shortness of breath.

Arthritis

- ◆ More than 1 in 3 West Virginia adults had arthritis (39.2%) which ranked West Virginia highest in the nation.
- ◆ Arthritis prevalence was higher 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.
- ◆ The prevalence of arthritis was highest in Braxton, Fayette, Lincoln, Logan, McDowell, Raleigh Webster, and Wyoming counties.
- ◆ Among those with arthritis, 58.6% experienced activity limitations.
- ◆ Approximately 47.9% of those with arthritis experienced work limitations and 26.7% experienced social activity limitations.

EXECUTIVE SUMMARY

Kidney Disease

- ◆ The prevalence of kidney disease in West Virginia was 3.6% and was the 2nd highest in the nation.
- ◆ Kidney disease prevalence was highest among seniors, those with low educational attainment, and those with low income.

Comorbidities

- ◆ Over one fifth (21.6%) of West Virginia adults were obese and had hypertension.
- ◆ Approximately 16.5% of adults had arthritis and did not exercise.
- ◆ About 1 in 8 West Virginia adults (14.3%) were obese and did not exercise.
- ◆ Approximately 11.0% of West Virginia adults had depression and were current smokers.
- ◆ About 9.3% of West Virginia adults were obese and had diabetes.
- ◆ Approximately 4.7% of West Virginia adults had both cardiovascular disease and diabetes.
- ◆ Approximately 3.8% of adults were current smokers and had no health care coverage.

Depression

- ◆ Over one-fourth, 26.0%, of West Virginia adults had diagnosed depression, the highest in the U.S.
- ◆ The prevalence of depression was significantly higher among women than men.
- ◆ The prevalence of depression was highest among those with less than a high school education and with a household income less than \$15,000 per year.
- ◆ The prevalence of depression was highest in Fayette, Lincoln, Logan, Webster, and Wyoming counties than the rest of the State.

Social Determinants of Health

- ◆ Approximately 14.5% of West Virginia adults reported being unable to pay bills in the past year.
- ◆ Approximately 12.9% of West Virginia adults reported that they did not have enough money to make ends meet at the end of the month.
- ◆ Approximately 8.2% of West Virginia adults reported that they considered their neighborhood to be unsafe.
- ◆ Nearly one-fourth (23.4%) of West Virginia adults reported that they had been food insecure in the past year.
- ◆ Approximately 24.3% of West Virginia adults reported that they couldn't afford to eat balanced meals at times in the past year.
- ◆ Nearly one-fifth (18.6%) of West Virginia adults reported that they were stressed all or most of the time in the past month.

ESTIMATED NUMBER OF PERSONS WITH DISEASE OR RISK FACTOR

Table ES.1 below shows selected risk factor prevalence and the corresponding number of West Virginians who are estimated to have the risk factor or disease.

Table ES.1 Percentage and Number of Persons Estimated with Disease or Risk Factor (Among Adults Aged 18 and Older or Appropriate Subset): WVBRFSS 2017

Risk Factor/Chronic Disease/Health-Related Factor	Percentage Prevalence Estimate (%)	Estimated Number of Adults	Risk Factor/Chronic Disease/Health-Related Factor	Percentage Prevalence Estimate (%)	Estimated Number of Adults
General Health is Fair or Poor	25.9	375,585	Seldom or Never Wear a Seatbelt	3.4	46,208
Poor Physical Health	18.8	267,035	High Risk for HIV	5.2	56,907
Poor Mental Health	17.3	248,102	Ever Had Cholesterol Checked	91.1	1,224,338
Cognitive Difficulty	18.9	270,579	Cholesterol Checked in Past 5 Years	95.1	1,164,474
Difficulty Walking	24.2	347,315	Diabetes Test	63.6	729,286
Difficulty Dressing or Bathing	6.8	96,981	HIV Test	36.1	466,506
Difficulty Doing Errands Alone	13.5	192,876	Flu Vaccine	45.5	624,677
Vision Impairment	8.6	122,906	Pneumonia Vaccination (ages 65 and older)	73.7	247,946
Hearing Impairment	13.7	197,154	Shingles Vaccine	28.0	196,629
No Health Care Coverage (Ages 18-64)	11.3	121,641	Hypertension	43.5	631,149
No Personal Doctor or Health Care Provider	19.3	279,283	Hypertension Medication	79.6	502,078
Unable to Afford Needed Medical Care	14.8	214,058	High Cholesterol	39.7	482,410
No Routine Medical Checkup in Past Year	23.8	338,743	Heart Attack	7.5	107,965
Overweight (BMI 25.0-29.9)	33.6	455,689	Coronary Heart Disease	7.4	106,728
Obesity (BMI 30.0+)	38.1	515,995	Stroke	4.8	68,960
Overweight or Obese (BMI 25.0+)	71.7	971,684	Cardiovascular Disease	14.4	206,297
No Leisure-time Physical Activity	31.6	438,521	Pre-diabetes	11.3	134,321
Consumed < 5 Servings of Fruits and Vegetables Daily	90.8	1,194,443	Diabetes	15.2	220,426
Current Cigarette Smoking	26.0	370,689	Cancer	13.9	200,325
Smoking Cessation	55.9	206,010	Current Asthma	12.7	182,240
Smokeless Tobacco Use	8.9	126,824	Chronic Obstructive Pulmonary Disease	15.0	215,744
Marijuana Use	15.2	219,530	Arthritis	39.2	565,075
E-cigarette Use	5.7	80,709	Kidney Disease	4.2	61,084
Heavy Drinking	3.6	50,120	Depression	26.0	375,559
Binge Drinking	11.5	162,083			



Definition 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 6 for additional discussion.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	iii
TABLE OF CONTENTS.....	xii
INTRODUCTION	1
METHODOLOGY	3
SECTION 1: HEALTH STATUS	9
CHAPTER: 1 HEALTH STATUS	10
<i>General Health</i>	10
<i>Physical Health</i>	13
<i>Mental Health</i>	15
<i>Poor Health Limitations</i>	17
CHAPTER 2: IMPAIRMENT	20
<i>Cognitive Difficulty</i>	20
<i>Difficulty Walking</i>	22
<i>Difficulty Dressing or Bathing</i>	24
<i>Difficulty Doing Errands Alone</i>	26
<i>Prevalence of Vision Impairment</i>	28
<i>Prevalence of Hearing Impairment</i>	30
CHAPTER 3: HEALTH CARE ACCESS	32
<i>No Health Care Coverage (among adults aged 18-64)</i>	32
<i>No Personal Doctor or Health Care Provider</i>	35
<i>Could Not Afford Needed Medical Care</i>	37
<i>No Routine Checkup in Past Year</i>	39
SECTION 2: RISK BEHAVIORS	41
CHAPTER 4: WEIGHT STATUS.....	42
<i>Overweight</i>	42
<i>Obesity</i>	44
<i>Overweight or Obese</i>	47
CHAPTER 5: PHYSICAL ACTIVITY.....	50
<i>No Leisure-Time Physical Activity or Exercise</i>	52
<i>Physical Activity Levels</i>	53
<i>Physical Activity Recommendations</i>	56
CHAPTER 6: NUTRITION	59
<i>Fruit and Vegetable Consumption</i>	59
<i>Sugar Sweetened Beverages</i>	62
CHAPTER 7: TOBACCO USE	64
<i>Current Cigarette Smoking</i>	64
<i>Smoking Cessation</i>	67
<i>Smokeless Tobacco Use</i>	69
<i>Current E-Cigarette Use</i>	72

TABLE OF CONTENTS

CHAPTER 8: MARIJUANA USE	74
<i>Marijuana Use</i>	74
CHAPTER 9: ALCOHOL CONSUMPTION.....	76
<i>Heavy Drinking</i>	76
<i>Binge Drinking</i>	78
CHAPTER 10: INJURY.....	81
<i>Seldom or Never Wear Seatbelt</i>	81
CHAPTER 11: SUNBURN.....	83
<i>Sunburn in Past Year</i>	83
CHAPTER 12: HIGH RISK FOR HIV.....	85
<i>High Risk for HIV</i>	85
SECTION 3: PREVENTIVE PRACTICES	87
CHAPTER 13: CHOLESTEROL TESTING.....	88
<i>Ever Had Cholesterol Checked</i>	88
<i>Had Cholesterol Checked in Past 5 Years</i>	90
CHAPTER 14: DIABETES TESTING	92
<i>Diabetes Test</i>	92
CHAPTER 15: LUNG CANCER TESTING	94
<i>Lung Cancer Test</i>	94
CHAPTER 16: HIV TESTING	96
<i>HIV Test</i>	96
CHAPTER 17: IMMUNIZATIONS	98
<i>Flu Vaccine</i>	98
<i>Flu Vaccine, Ages 65 and Older</i>	100
<i>Pneumonia Vaccine</i>	102
<i>Pneumonia Vaccine, Ages 65 and Older</i>	104
<i>Shingles Vaccine</i>	106
CHAPTER 18: DOCTOR ADVICE	108
<i>Doctor Advised to Reduce Sodium</i>	108
<i>Doctor Advised to Quit Tobacco</i>	110
CHAPTER 19: SECONDHAND SMOKE	112
<i>Smoking Never Allowed in Home</i>	112
SECTION 4: CHRONIC DISEASES.....	114
CHAPTER 20: HYPERTENSION	115
<i>Hypertension Prevalence</i>	115
<i>Hypertension Medication</i>	118
CHAPTER 21: HIGH CHOLESTEROL.....	120
<i>High Cholesterol</i>	120
CHAPTER 22: CARDIOVASCULAR DISEASE	122
<i>Heart Attack</i>	122

TABLE OF CONTENTS

<i>Angina or Coronary Heart Disease</i>	125
<i>Stroke</i>	127
<i>Cardiovascular Disease</i>	129
<i>Watching Sodium Intake</i>	132
CHAPTER 23: DIABETES	134
<i>Diabetes Prevalence</i>	134
<i>Pre-Diabetes or Borderline Diabetes</i>	137
CHAPTER 24: CANCER	139
<i>Skin Cancer Prevalence</i>	139
<i>Other Cancer Prevalence</i>	141
<i>Overall Cancer Prevalence</i>	143
<i>Written Summary of Cancer Treatment</i>	146
CHAPTER 25: RESPIRATORY DISEASES	148
<i>Lifetime Asthma</i>	148
<i>Current Asthma</i>	150
<i>Chronic Obstructive Pulmonary Disease</i>	153
<i>COPD Symptoms</i>	156
CHAPTER 26: ARTHRITIS	159
<i>Arthritis Prevalence</i>	159
<i>Activity Limitations</i>	162
<i>Work Limitations</i>	164
<i>Social Activity Limitations</i>	166
CHAPTER 27: KIDNEY DISEASE	168
<i>Kidney Disease Prevalence</i>	168
CHAPTER 28: DEPRESSION	170
<i>Ever Diagnosed with Depression</i>	170
CHAPTER 29: COMORBIDITIES	173
<i>Comorbid Health Conditions and Risk Factors</i>	173
SECTION 5: SOCIAL DETERMINANTS OF HEALTH	175
CHAPTER 30: SOCIAL DETERMINANTS OF HEALTH	176
<i>Inability to Pay Bills in Past Year</i>	176
<i>Not Enough Money at the End of Month</i>	178
<i>Unsafe Neighborhood</i>	180
<i>Food Insecurity in Past Year</i>	182
<i>Healthy Meal Insecurity</i>	184
<i>Stress</i>	186



TABLE OF CONTENTS

Appendix A188
Appendix B.....189



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 preventive screenings, 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 Department of Health and Human Resources, Bureau for Public Health (BPH) became one of the 15 initial participants in 1984. Since then, the system has expanded to include all 50 states, the District of Columbia, Guam, and Puerto Rico.

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-eight reports have been published by the BPH presenting survey results of the State's participation in the BRFSS since 1984. This report focuses on the 2017 risk factor prevalence estimates and compares them to the years 1984 through 2017. 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 2017

In 2017, West Virginia opted to ask several Optional Modules including: Pre-Diabetes, Respiratory Health (COPD Symptoms), Sugar Sweetened Beverages, Sodium or Salt-Related Behavior, and Social Determinants of Health. The West Virginia questionnaire also included several state-added questions about insurance status, cancer treatment, cancer clinical trial participation, sunburn, lung cancer screening, doctor advice to quit tobacco, indoor smoking, and marijuana use.

Table I.1 Topics Administered in the Survey: WVBRFSS, 2007-2017

Topic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Adverse Childhood Events								X			
AIDS/HIV	X	X	X	X	X	X	X	X	X	X	X
Alcohol Consumption	X	X	X	X	X	X	X	X	X	X	X
Arthritis	X		X	X	X	X	X	X	X	X	X
Asthma	X	X	X	X	X	X	X	X	X	X	X
Cancer			X	X	X	X	X	X	X	X	X
Cancer Screenings		X		X		X		X		X	
Cardiovascular Disease	X	X	X	X	X	X	X	X	X	X	X
Cholesterol	X		X		X		X		X		X
Diabetes	X	X	X	X	X	X	X	X	X	X	X
Disability	X	X	X	X	X	X	X	X	X		
Emotional Support/ Life Satisfaction	X	X	X	X							
Falls		X		X		X		X		X	
Fruits & Vegetables	X		X		X		X		X		X
Health Insurance	X	X	X	X	X	X	X	X	X	X	X
Health Status	X	X	X	X	X	X	X	X	X	X	X
HPV Vaccine		X		X		X			X		
Hypertension	X		X		X		X		X		X
Immunization	X	X	X	X	X	X	X	X	X	X	X
Intimate Partner Violence	X										
Leisure-time Physical Activity	X	X	X	X	X	X	X	X	X	X	X
Obesity	X	X	X	X	X	X	X	X	X	X	X
Oral Health		X		X		X		X		X	
Osteoporosis		X				X					
Routine Checkup	X	X	X	X	X	X	X	X	X	X	X
Seatbelt Use		X		X	X	X	X	X	X	X	X
Sexual Violence		X									
Sleep			X	X			X	X		X	
Tobacco Use		X		X	X	X	X	X	X	X	X
Weight Control			X		X						

Methodology

The survey is conducted by the method known as Computer Assisted Telephone Interviewing (CATI) and represents a collaborative effort between the West Virginia Health Statistics Center (WVHSC) and the Centers for Disease Control and Prevention (CDC). The WVHSC provides telephones, office space, interviewers, and supervision of the data collection. Approximately 50% of the cost is supported through financial assistance from the CDC. A standardized set of core questions and survey protocols, computer-assisted telephone interviewing software, data processing services, and analytic consultation are also 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 2016 state-level estimates from the National Health Interview Survey, 96.8% of West Virginia households have telephones, with 51.0% of households having landline telephones and 45.7% cell phone only. In addition, a growing number of adults (38.6%) live in wireless-only households. In order to better represent these latter residents, the 2017 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, or if the selected respondent was unable to communicate. Additionally, a land line number was disqualified if it 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 2017, 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, 2017

Demographic Characteristic	Number of Interviews	Percent of Unweighted Sample	Percent of Weighted Sample
Total	5,472	100.0	100.0
<u>Sex</u>			
Male	2,356	43.1	49.0
Female	3,116	56.9	51.0
<u>Race/Ethnicity</u>			
White, Non-Hispanic	5,109	94.2	92.8
Black, Non-Hispanic	122	2.3	3.3
Other, Non-Hispanic	74	1.4	1.4
Multiracial, Non-Hispanic	76	1.4	1.2
Hispanic	42	0.8	1.4
<u>Age</u>			
18-24	214	4.0	11.6
25-34	487	9.0	14.6
35-44	605	11.2	15.2
45-54	900	16.6	15.7
55-64	1,296	23.9	18.1
65+	1,921	35.4	24.6
<u>Education</u>			
< High School (HS)	606	11.1	14.6
HS or GED	1,937	35.5	39.9
Some College	1,409	25.8	27.4
College Degree	1,508	27.6	18.1
<u>Household Income</u>			
<\$15,000	636	13.9	14.5
\$15,000-\$24,999	940	20.5	21.3
\$25,000-\$34,999	572	12.5	13.2
\$35,000-\$49,999	660	14.4	13.7
\$50,000-\$74,999	681	14.9	14.2
\$75,000+	1,092	23.8	23.1
<u>Marital Status</u>			
Married	2,860	52.4	52.0
Divorced	913	16.7	13.4
Widowed	768	14.1	8.8
Separated	100	1.8	1.7
Never Married	670	12.3	19.8
Unmarried Couple	145	2.7	4.3
<u>Employment Status</u>			
Employed for wages	1,996	36.6	42.3
Self-Employed	288	5.3	4.8
Unemployed (>1 year)	106	1.9	3.0
Unemployed (<1 year)	121	2.2	3.5
Homemaker	354	6.5	7.3
Student	83	1.5	3.8
Retired	1,735	31.8	22.0
Unable to Work	777	14.2	13.4



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 overrepresentation 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. Unreliability was a consistent issue when examining the prevalence of health factors by race and as a result no statistics by race are presented in this report.

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). 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 6.”



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

The estimate is based on responses from fewer than 50 respondents in the subsample or denominator of the prevalence estimate calculation.

The 95% confidence interval of the estimate has a width or range greater than 20 (e.g., 95% CI = 10.0-30.5).

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.

WEIGHTING OF 2017 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 are 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 2011-2017 statistics. Any changes between 2011 and previous years' statistics 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 statistics.

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 West Virginia's 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 can be found in Appendix 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 demographic table in this report shows the weighted frequency or estimated number of West Virginia adults who exhibit a behavior or condition, 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 appendices 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 1st in diabetes would mean having the highest prevalence of diabetes among all the U.S. states and territories while ranking 53rd 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.

West Virginia Behavioral Risk Factor Surveillance System Report

2017



SECTION 1: HEALTH STATUS

General Health

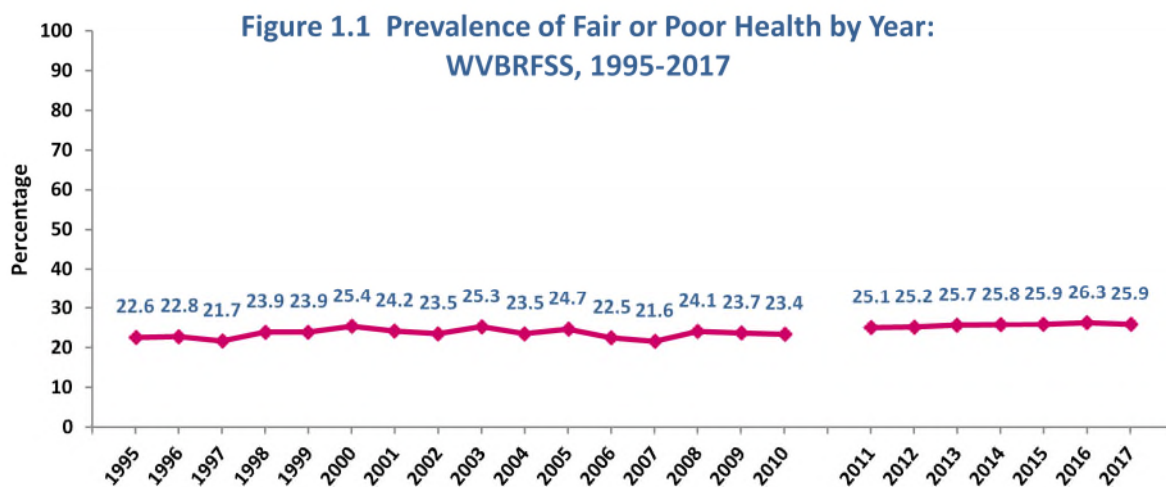
Definition	Responding “Fair” or “Poor” to the question, “Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?”
Prevalence	WV: 25.9% (95% CI: 24.5-27.3) U.S.: 18.6% (95% CI: 18.4-18.9) West Virginia’s prevalence of fair or poor health was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants, after Puerto Rico.
Gender	Men: 24.6% (95% CI: 22.6-26.6) Women: 27.2% (95% CI: 25.3-29.1) There was no gender difference in the prevalence of fair or poor health.
Age	The prevalence of fair or poor health tended to be higher among older individuals than among younger individuals. The prevalence of fair or poor health was significantly higher among those aged 45 and older than among those aged 44 and younger. Additionally, the prevalence of fair or poor health was significantly lower among those aged 18-24 (6.3%) than among all other age groups.
Education	The prevalence of fair or poor health was highest among those with less than a high school education (45.4%) and lowest among college graduates (9.9%). Significant differences in the prevalence of fair or poor health were found between each educational attainment bracket.
Household Income	The prevalence of fair or poor health was 52.8% in the lowest household income group (less than \$15,000 annually). The lowest prevalence of fair or poor health (8.8%) 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 most income groups.

CHAPTER 1: HEALTH STATUS

Table 1.1 Prevalence of Fair or Poor Health by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	174,457	24.6	22.6-26.6	201,128	27.2	25.3-29.1	375,585	25.9	24.5-27.3
Age									
18-24	5,383	*6.2	1.2-11.2	5,250	*6.5	1.4-11.6	10,633	6.3	2.8-9.9
25-34	13,940	13.1	7.8-18.4	17,719	17.1	11.9-22.3	31,659	15.1	11.4-18.8
35-44	21,087	19.2	14.0-24.3	26,702	24.5	19.3-29.8	47,789	21.8	18.1-25.5
45-54	29,071	26.1	21.0-31.1	38,581	33.8	29.1-38.5	67,652	30.0	26.5-33.4
55-64	51,130	40.1	35.5-44.7	48,632	36.6	32.5-40.6	99,763	38.3	35.2-41.4
65+	51,939	32.4	28.7-36.2	63,227	32.7	29.5-35.8	115,166	32.5	30.1-35.0
Education									
Less than H.S.	44,371	41.2	34.4-48.1	50,971	49.8	42.9-56.7	95,343	45.4	40.5-50.3
H.S. or G.E.D.	82,527	27.6	24.3-31.0	86,934	31.2	27.9-34.4	169,460	29.4	27.0-31.7
Some Post-H.S.	36,062	19.6	16.0-23.2	47,686	22.4	19.3-25.6	83,748	21.1	18.7-23.5
College Graduate	10,870	9.3	6.8-11.8	15,004	10.4	8.1-12.6	25,874	9.9	8.2-11.5
Income									
Less than \$15,000	41,146	51.2	43.2-59.1	50,314	54.3	48.1-60.5	91,460	52.8	47.9-57.8
\$15,000 - 24,999	43,735	36.1	30.3-41.8	49,852	37.2	32.4-42.0	93,586	36.6	32.9-40.4
\$25,000 - 34,999	17,409	22.8	17.3-28.2	19,331	23.7	18.5-28.9	36,740	23.2	19.5-27.0
\$35,000 - 49,999	19,381	22.9	17.5-28.3	16,089	20.2	14.9-25.4	35,470	21.6	17.8-25.3
\$50,000 - 74,999	12,307	13.3	9.3-17.3	12,163	15.7	11.2-20.1	24,470	14.4	11.4-17.4
\$75,000+	13,017	8.8	6.0-11.6	11,325	8.8	5.9-11.6	24,342	8.8	6.8-10.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

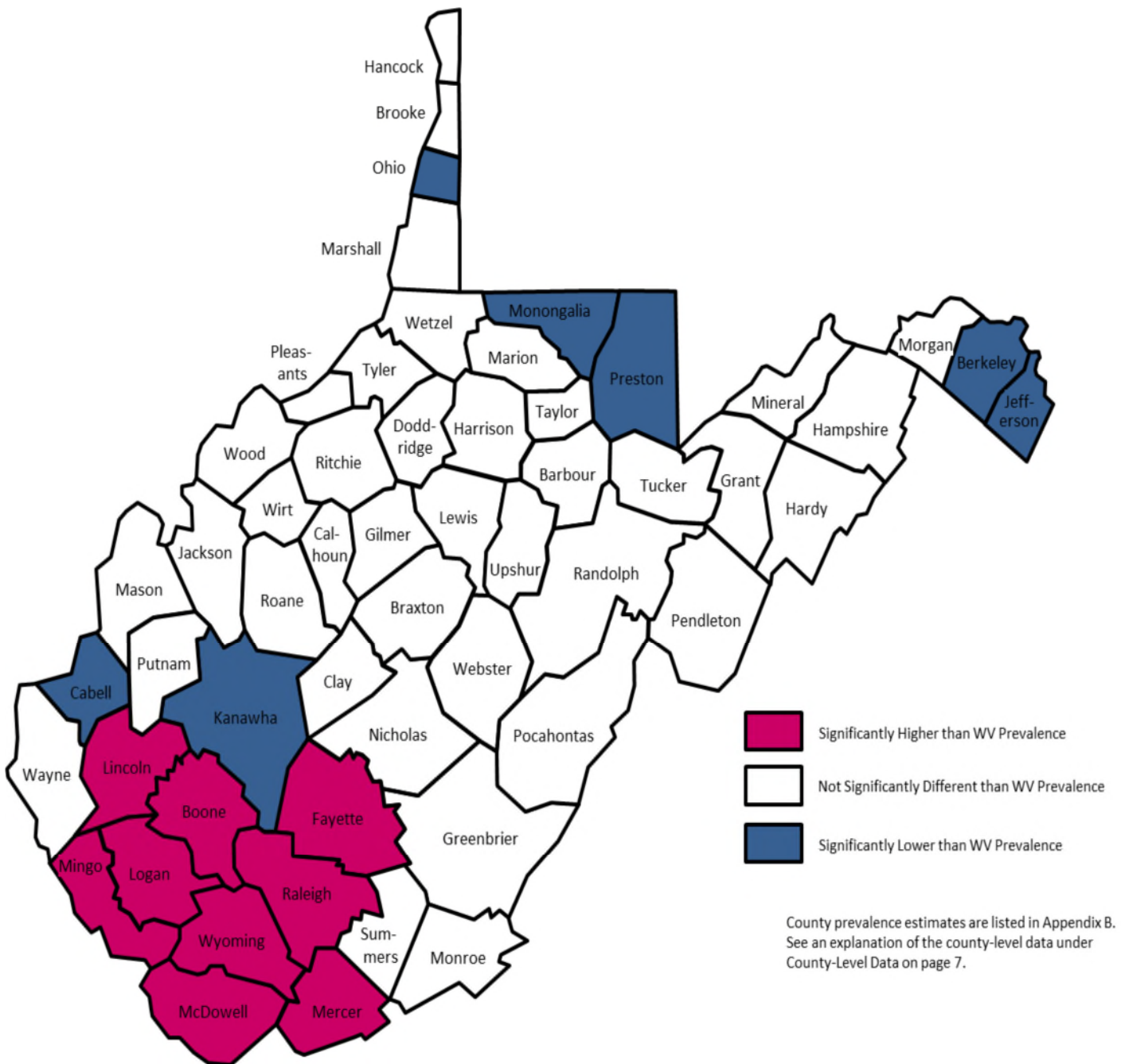


*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

CHAPTER 1: HEALTH STATUS

Figure 1.2 Prevalence of Fair or Poor Health by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 25.9%
Significantly Higher than U.S.



Physical Health

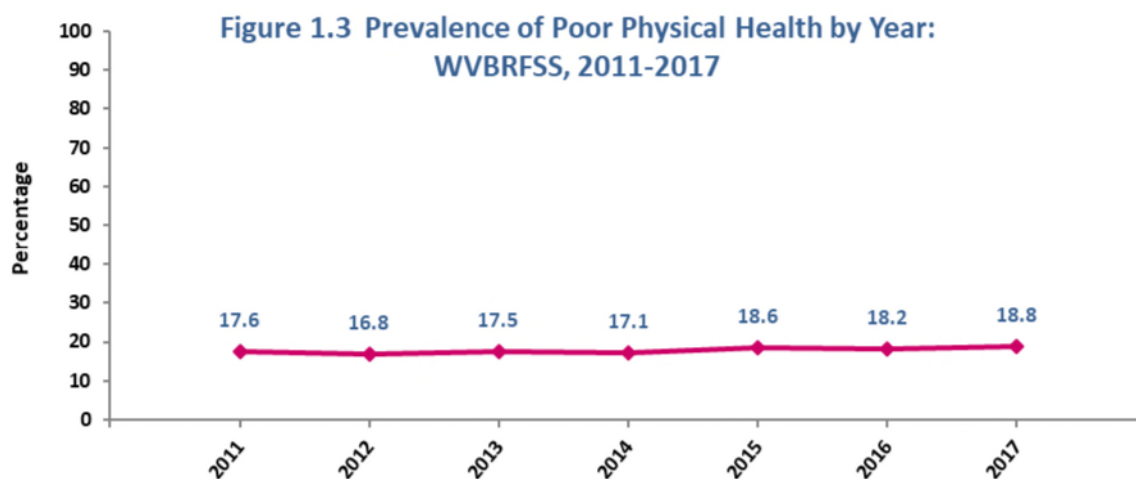
Definition	Responding at least “14 days” or more to the question, “Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?”
Prevalence	WV: 18.8% (95% CI: 17.5-20.0) U.S.: 12.4% (95% CI: 12.2-12.6) West Virginia ranked the highest among 53 BRFSS participants. West Virginia’s prevalence was significantly higher than the U.S. prevalence of poor physical health.
Gender	Men: 16.8% (95% CI: 15.0-18.6) Women: 20.7% (95% CI: 18.9-22.4) The prevalence of poor physical health was significantly higher among females than among males.
Age	The prevalence of poor physical health was generally higher among older individuals than younger. The prevalence of poor physical health was significantly lower among those aged 18-24 (6.1%) and 25-34 (8.3%) than among all other age groups. The prevalence of poor physical health was significantly higher among those aged 55-64 (28.9%) than among all other age groups.
Education	The prevalence of poor physical health was significantly higher among those with less than a high school education (34.4%) than among those with some college (16.5%) or college graduates (8.4%). The prevalence of poor physical health was significantly lower among college graduates than among all other groups.
Household Income	The prevalence of poor physical health was highest among adults with an annual household income of less than \$15,000 (39.4%), which was significantly higher than all other income groups. The prevalence of poor physical health was lowest among those in the highest income bracket of \$75,000 or more (6.4%), which was significantly lower than among those with income less than \$50,000.

CHAPTER 1: HEALTH STATUS

Table 1.2 Prevalence of Poor Physical Health by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	117,459	16.8	15.0-18.6	149,576	20.7	18.9-22.4	267,035	18.8	17.5-20.0
Age									
18-24	4,667	*5.4	0.3-10.4	5,441	*6.8	1.8-11.8	10,107	*6.1	2.5-9.6
25-34	5,048	*4.8	1.4-8.2	12,085	11.9	7.4-16.4	17,133	8.3	5.4-11.1
35-44	15,407	14.1	9.4-18.8	21,226	19.8	14.6-24.9	36,634	16.9	13.4-20.4
45-54	21,109	19.1	14.4-23.7	26,037	23.2	19.0-27.3	47,146	21.1	18.0-24.3
55-64	35,745	28.5	24.2-32.9	37,909	29.2	25.3-33.0	73,654	28.9	26.0-31.8
65+	33,781	21.7	18.4-25.0	46,682	24.9	21.9-27.8	80,463	23.4	21.2-25.6
Education									
Less than H.S.	35,186	34.0	27.1-40.9	34,280	34.8	28.5-41.2	69,466	34.4	29.7-39.1
H.S. or G.E.D.	44,823	15.3	12.8-17.8	65,641	24.2	21.2-27.2	110,464	19.6	17.6-21.5
Some Post-H.S.	26,630	14.6	11.4-17.7	38,072	18.1	15.2-21.1	64,702	16.5	14.3-18.6
College Graduate	10,192	8.7	6.4-11.1	11,583	8.1	6.1-10.0	21,775	8.4	6.8-9.9
Income									
Less than \$15,000	26,829	34.4	27.3-41.6	39,222	43.7	37.7-49.8	66,051	39.4	34.7-44.1
\$15,000 - 24,999	32,281	27.0	21.6-32.4	34,471	26.4	22.0-30.8	66,753	26.7	23.2-30.2
\$25,000 - 34,999	14,446	19.1	14.0-24.3	14,776	18.4	13.6-23.2	29,223	18.8	15.2-22.3
\$35,000 - 49,999	8,747	10.5	6.4-14.6	10,974	13.9	9.2-18.7	19,721	12.2	9.0-15.3
\$50,000 - 74,999	8,634	9.4	5.9-13.0	8,885	11.6	7.4-15.9	17,518	10.4	7.7-13.2
\$75,000+	8,161	5.6	3.5-7.6	9,387	7.3	4.9-9.8	17,548	6.4	4.8-8.0

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



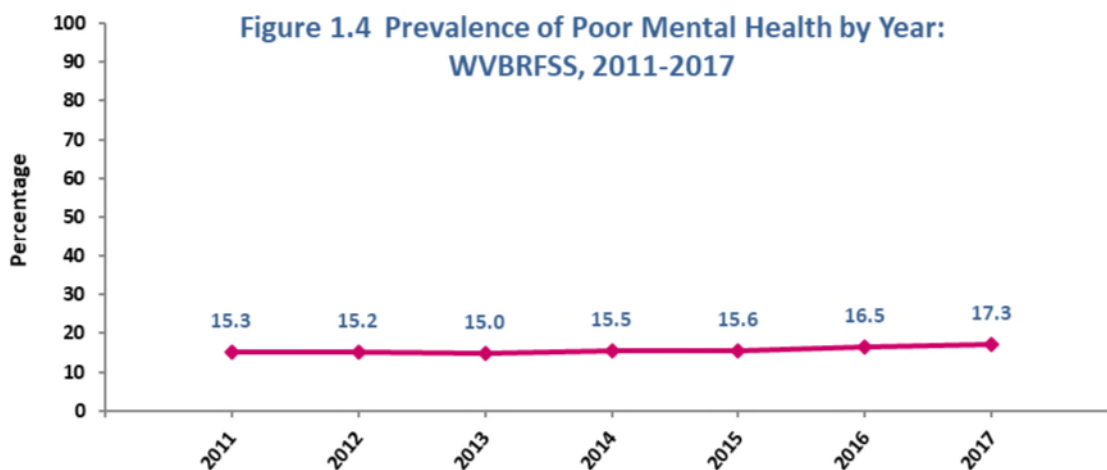
Mental Health

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	WV: 17.3% (95% CI: 16.0-18.6) U.S.: 12.4% (95% CI: 12.2-12.6) The WV prevalence of poor mental health was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 15.4% (95% CI: 13.5-17.3) Women: 19.2% (95% CI: 17.4-20.9) The prevalence of poor mental health was significantly higher among females than males.
Age	The prevalence of poor mental health varied by age. The prevalence of poor mental health was highest among those aged 35-44 (22.2%) and lowest among those aged 65 and older (9.7%). The prevalence of poor mental health was significantly lower among those aged 65 and older than among all other age groups.
Education	The prevalence of poor mental health was significantly lower among college graduates (8.7%) than among all other educational attainment groups.
Household Income	The prevalence of poor mental health was significantly higher among those with an annual household income of less than \$15,000 (32.9%) than among those earning \$25,000 or more per year. The prevalence of poor mental health was significantly lower among those with an annual household income of \$75,000 or more (8.1%) than all other income brackets.

CHAPTER 1: HEALTH STATUS

Table 1.3 Prevalence of Poor Mental Health by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	108,556	15.4	13.5-17.3	139,546	19.2	17.4-20.9	248,102	17.3	16.0-18.6
Age									
18-24	15,819	18.2	10.1-26.3	15,091	18.9	10.6-27.2	30,910	18.5	12.7-24.3
25-34	20,513	19.4	13.1-25.6	21,034	20.4	14.8-26.0	41,548	19.9	15.7-24.0
35-44	21,599	19.8	14.5-25.2	26,408	24.5	19.2-29.8	48,008	22.2	18.4-25.9
45-54	17,481	15.7	11.6-19.8	26,024	23.1	19.0-27.2	43,504	19.4	16.5-22.3
55-64	20,530	16.2	12.7-19.8	27,785	21.1	17.7-24.5	48,315	18.7	16.3-21.2
65+	11,020	6.9	5.0-8.9	22,758	12.1	9.9-14.3	33,778	9.7	8.2-11.3
Education									
Less than H.S.	26,851	25.2	18.7-31.7	25,223	25.4	19.2-31.6	52,074	25.3	20.8-29.8
H.S. or G.E.D.	46,714	15.7	12.7-18.8	61,515	22.3	19.2-25.5	108,229	18.9	16.7-21.1
Some Post-H.S.	26,685	14.6	11.0-18.2	38,461	18.3	15.2-21.5	65,146	16.6	14.2-18.9
College Graduate	8,307	7.1	4.7-9.5	14,346	10.0	7.6-12.4	22,653	8.7	7.0-10.4
Income									
Less than \$15,000	24,644	31.0	23.6-38.5	31,179	34.5	28.5-40.5	55,822	32.9	28.1-37.6
\$15,000 - 24,999	23,749	19.6	14.3-24.9	32,836	25.1	20.6-29.5	56,585	22.4	19.0-25.9
\$25,000 - 34,999	14,594	19.3	13.4-25.2	11,481	14.4	9.5-19.4	26,075	16.8	13.0-20.6
\$35,000 - 49,999	10,727	12.7	8.2-17.2	12,630	15.8	10.3-21.4	23,356	14.2	10.6-17.8
\$50,000 - 74,999	8,397	9.1	4.9-13.3	13,072	17.0	12.2-21.8	21,470	12.7	9.5-15.8
\$75,000+	10,272	7.0	4.1-9.9	10,374	8.1	5.5-10.6	20,646	7.5	5.5-9.4



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	<p><i>At least 14 days</i> WV: 24.6% (95% CI: 22.7-26.4) U.S.: 16.0% (95% CI: 15.7-16.3) West Virginia ranked the highest among 53 BRFSS participants and the WV prevalence was significantly higher than the U.S. prevalence.</p> <p><i>Every day</i> WV: 13.6% (95% CI: 12.2-15.0) U.S.: 7.8% (95% CI: 7.5-8.0) West Virginia ranked the highest among 53 BRFSS participants and the WV prevalence was significantly higher than the U.S. prevalence.</p>
Gender	<p><i>At least 14 days</i> Men: 24.7% (95% CI: 21.9-27.6) Women: 24.5% (95% CI: 22.1-26.9) There was no gender difference in the prevalence of poor health limitations for at least 14 days in the past month.</p> <p><i>Every day</i> Men: 15.7% (95% CI: 13.3-18.0) Women: 12.0% (95% CI: 10.2-13.7) There was no gender difference in the prevalence of poor health limitations every day in the past month.</p>
Age	The prevalence of poor health limitations were higher among older age groups than younger age groups for both the 14 day indicator and the every day indicator.
Education	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. Significant differences were observed between each level of education for the 14 day indicator and nearly all education levels for the every day indicator.
Household Income	The prevalence of poor health limitations was significantly among those with an annual household income less than \$15,000 a year than among those earning \$75,000 or more per year for both the 14 day and every day indicators.

CHAPTER 1: HEALTH STATUS

Table 1.4 Prevalence of Poor Health Limitations at Least 14 Days in the Past 30 Days by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	88,450	24.7	21.9-27.6	109,849	24.5	22.1-26.9	198,299	24.6	22.7-26.4
Age									
18-24	3,117	*6.7	0.1-13.2	5,339	*10.2	2.1-18.3	8,456	*8.5	3.2-13.8
25-34	5,512	*9.8	3.3-16.4	12,792	19.6	12.6-26.5	18,303	15.1	10.2-19.9
35-44	14,338	26.3	18.0-34.6	15,357	23.1	16.2-30.1	29,695	24.6	19.2-29.9
45-54	15,916	30.1	22.5-37.7	23,436	32.5	26.7-38.4	39,353	31.5	26.9-36.2
55-64	26,372	37.5	31.4-43.7	25,061	28.1	23.6-32.6	51,433	32.2	28.5-36.0
65+	21,493	29.6	24.3-35.0	27,641	27.1	22.9-31.2	49,135	28.1	24.8-31.4
Education									
Less than H.S.	27,861	44.7	35.5-53.8	26,089	35.6	28.0-43.2	53,951	39.8	33.9-45.7
H.S. or G.E.D.	34,637	23.5	19.2-27.7	49,301	28.9	24.7-33.1	83,938	26.4	23.3-29.4
Some Post-H.S.	18,970	19.8	14.8-24.8	26,174	20.4	16.6-24.2	45,144	20.1	17.1-23.2
College Graduate	6,354	12.7	8.6-16.8	8,075	10.6	7.5-13.7	14,429	11.5	9.0-13.9
Income									
Less than \$15,000	23,451	44.2	34.8-53.7	29,862	40.4	33.7-47.1	53,313	42.0	36.4-47.5
\$15,000 - 24,999	22,677	31.2	24.1-38.4	25,453	28.2	22.8-33.7	48,130	29.6	25.2-33.9
\$25,000 - 34,999	9,459	24.3	16.7-31.9	9,865	18.3	12.2-24.4	19,324	20.8	16.0-25.6
\$35,000 - 49,999	5,397	14.8	7.9-21.6	8,181	19.2	11.3-27.1	13,578	17.2	11.8-22.5
\$50,000 - 74,999	5,082	12.5	6.8-18.2	7,760	18.3	11.3-25.3	12,842	15.4	10.9-20.0
\$75,000+	6,707	11.9	7.1-16.8	6,791	10.3	6.2-14.4	13,499	11.1	7.9-14.2

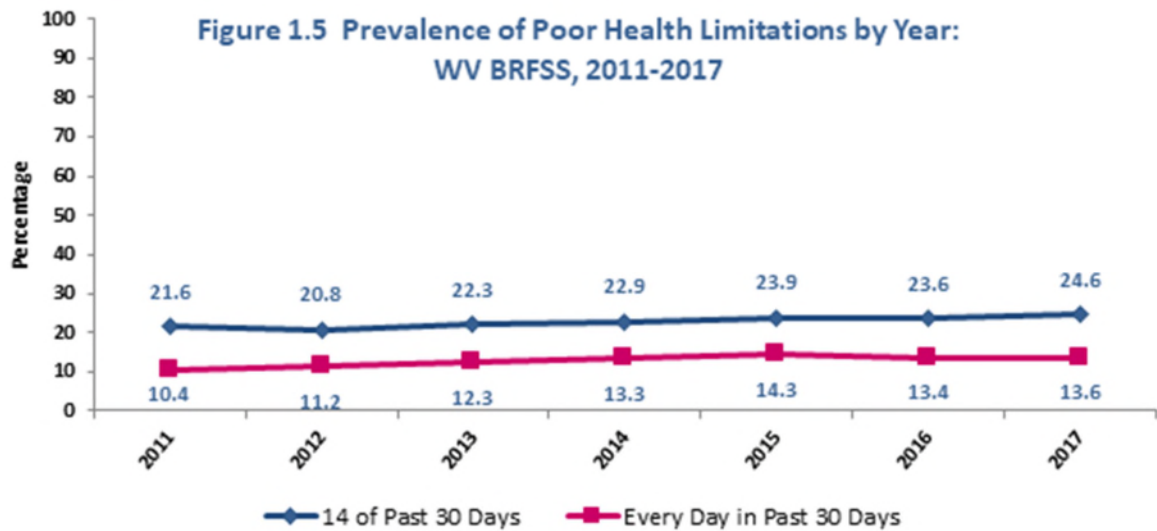
* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Table 1.5 Prevalence of Poor Health Limitations Every Day in the Past 30 Days by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	55,962	15.7	13.3-18.0	53,675	12.0	10.2-13.7	109,637	13.6	12.2-15.0
Age									
18-24	2,628	*5.6	0.0-11.9	4,071	*7.8	0.3-15.2	6,699	*6.8	1.8-11.7
25-34	1,360	*2.4	0.0-5.3	3,424	*5.2	1.4-9.1	4,784	*3.9	1.5-6.4
35-44	8,209	15.1	8.2-21.9	6,266	9.4	4.7-14.2	14,475	12.0	7.9-16.0
45-54	8,714	16.5	10.5-22.5	12,034	16.7	12.0-21.4	20,747	16.6	12.9-20.3
55-64	18,840	26.8	21.2-32.4	12,355	13.8	10.4-17.2	31,195	19.6	16.4-22.7
65+	14,510	20.0	15.3-24.7	15,304	15.0	11.8-18.2	29,814	17.1	14.3-19.8
Education									
Less than H.S.	17,104	27.4	19.6-35.2	15,672	21.4	14.9-27.8	32,776	24.2	19.2-29.2
H.S. or G.E.D.	24,279	16.4	12.8-20.1	22,368	13.1	10.1-16.1	46,648	14.7	12.3-17.0
Some Post-H.S.	10,531	11.0	7.2-14.8	12,209	9.5	6.8-12.2	22,740	10.1	7.9-12.4
College Graduate	3,421	6.9	3.9-9.8	3,215	4.2	2.5-6.0	6,636	5.3	3.7-6.8
Income									
Less than \$15,000	13,567	25.6	18.0-33.2	16,638	22.5	16.8-28.2	30,205	23.8	19.2-28.4
\$15,000 - 24,999	14,247	19.6	13.6-25.7	10,580	11.7	8.1-15.3	24,827	15.2	11.9-18.6
\$25,000 - 34,999	5,062	13.0	7.6-18.4	4,688	8.7	4.5-12.9	9,750	10.5	7.2-13.8
\$35,000 - 49,999	4,416	12.1	5.6-18.6	4,920	11.6	5.4-17.8	9,336	11.8	7.3-16.3
\$50,000 - 74,999	3,416	8.4	3.6-13.2	2,984	7.0	3.0-11.0	6,399	7.7	4.6-10.8
\$75,000+	3,360	6.0	2.6-9.4	1,901	*2.9	0.8-5.0	5,261	4.3	2.4-6.2

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

CHAPTER 1: HEALTH STATUS



Cognitive Difficulty

Definition	Responding “Yes” to the question, “Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?”
Prevalence	WV: 18.9% (95% CI: 17.6-20.3) U.S.: 11.4% (95% CI: 11.2-11.6) The West Virginia prevalence of cognitive difficulty was significantly higher than the U.S. prevalence. West Virginia ranked highest among the 53 BRFSS participants.
Gender	Men: 16.7% (95% CI: 14.8-18.6) Women: 21.1% (95% CI: 19.2-22.9) There was no gender difference for the prevalence of cognitive difficulty.
Age	The prevalence of cognitive difficulty was significantly higher among those aged 45-54 (20.2%) and 55-64 (21.9%) than among those aged 65 and older (15.1%).
Education	The prevalence of cognitive difficulty was highest among those with less than a high school education (33.4%) and lowest among college graduates (6.7%). There were significant differences in the prevalence of cognitive difficulty between each educational attainment level.
Household Income	The prevalence of cognitive difficulty was significantly higher among those with an annual household income of less than \$15,000 (37.3%) than among all other income brackets. The prevalence of cognitive difficulty was significantly lower among those with an annual household income of \$75,000 or more (5.7%) than among those earning less than \$50,000 per year.

CHAPTER 2: IMPAIRMENT

Table 2.1 Prevalence of Cognitive Difficulty by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	116,983	16.7	14.8-18.6	153,596	21.1	19.2-22.9	270,579	18.9	17.6-20.3
Age									
18-24	14,383	16.6	8.8-24.4	18,450	23.3	13.9-32.7	32,833	19.8	13.7-25.9
25-34	17,646	16.5	10.6-22.4	22,774	22.3	16.5-28.2	40,419	19.3	15.2-23.5
35-44	20,565	19.1	13.8-24.4	20,080	18.6	13.9-23.3	40,645	18.8	15.3-22.4
45-54	17,509	16.0	11.9-20.1	27,457	24.4	20.0-28.7	44,966	20.2	17.2-23.3
55-64	23,545	18.7	15.0-22.4	33,206	25.1	21.4-28.7	56,751	21.9	19.3-24.5
65+	21,492	13.6	10.8-16.4	31,202	16.3	13.7-18.9	52,694	15.1	13.2-17.0
Education									
Less than H.S.	32,510	30.2	23.4-37.1	37,098	36.8	29.9-43.7	69,608	33.4	28.5-38.3
H.S. or G.E.D.	52,136	17.7	14.6-20.7	68,990	25.1	21.8-28.3	121,126	21.2	19.0-23.5
Some Post-H.S.	24,943	13.7	10.4-17.0	37,019	17.7	14.7-20.7	61,962	15.8	13.6-18.0
College Graduate	7,394	6.4	4.2-8.6	10,046	7.0	5.0-9.0	17,440	6.7	5.3-8.2
Income									
Less than \$15,000	29,367	37.1	29.6-44.7	34,408	37.4	31.5-43.4	63,775	37.3	32.6-42.0
\$15,000 - 24,999	29,343	24.3	18.7-30.0	40,523	30.6	25.8-35.4	69,865	27.6	23.9-31.3
\$25,000 - 34,999	13,387	17.8	12.4-23.1	11,968	15.2	10.2-20.2	25,356	16.5	12.8-20.1
\$35,000 - 49,999	7,770	9.3	5.9-12.7	14,050	17.6	12.3-22.9	21,820	13.3	10.2-16.5
\$50,000 - 74,999	6,412	7.0	4.0-9.9	8,287	10.8	6.5-15.0	14,699	8.7	6.2-11.2
\$75,000+	7,299	4.9	2.5-7.4	8,471	6.6	4.0-9.2	15,770	5.7	3.9-7.5

Difficulty Walking

Definition	Responding “Yes” to the question, “Do you have serious difficulty walking or climbing stairs?”
Prevalence	WV: 24.2 (95% CI: 22.9-25.5) U.S.: 14.1% (95% CI: 13.9-14.4) The West Virginia prevalence of difficulty walking was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among the 53 BRFSS participants, after Puerto Rico.
Gender	Men: 21.9% (95% CI: 19.9-23.8) Women: 26.5% (95% CI: 24.7-28.3) The prevalence of difficulty walking was significantly higher among women than men.
Age	The prevalence of difficulty walking was significantly higher among those aged 55 and older than among those aged 54 or younger.
Education	The prevalence of difficulty walking decreased was highest among those with a less than a high school education (42.0%) and lowest among those with a college degree (11.3%). There were significant differences in the prevalence of difficulty walking between each educational attainment group.
Household Income	The prevalence of difficulty walking was significantly higher among those with an annual household income of less than \$15,000 (45.2%) than among all other income levels. The prevalence of difficulty walking was significantly lower among those with an annual household income of \$75,000 or more (7.1%) than among all other income levels. There were significant differences in the prevalence of difficulty walking between nearly all income groups.

CHAPTER 2: IMPAIRMENT

Table 2.2 Prevalence of Difficulty Walking by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	153,494	21.9	19.9-23.8	193,821	26.5	24.7-28.3	347,315	24.2	22.9-25.5
Age									
18-24	3,126	*3.6	0.0-7.8	2,670	*3.4	0.0-7.2	5,796	*3.5	0.6-6.3
25-34	6,045	*5.6	1.7-9.6	7,834	7.6	4.1-11.2	13,879	6.6	4.0-9.3
35-44	15,720	14.6	10.1-19.1	18,463	17.1	12.5-21.7	34,183	15.9	12.6-19.1
45-54	26,700	24.3	19.3-29.2	36,084	31.9	27.2-36.5	62,784	28.1	24.7-31.5
55-64	48,267	38.2	33.6-42.8	51,232	38.5	34.5-42.6	99,499	38.3	35.3-41.4
65+	51,214	32.5	28.7-36.3	76,764	40.0	36.7-43.4	127,977	36.6	34.1-39.2
Education									
Less than H.S.	42,512	39.7	32.9-46.6	45,252	44.4	37.7-51.0	87,764	42.0	37.2-46.8
H.S. or G.E.D.	67,869	22.9	19.8-26.0	81,985	29.8	26.7-32.9	149,853	26.2	24.0-28.4
Some Post-H.S.	31,103	17.1	13.9-20.2	48,755	23.2	20.1-26.3	79,858	20.4	18.1-22.6
College Graduate	12,010	10.4	8.0-12.9	17,296	12.0	9.8-14.3	29,306	11.3	9.7-13.0
Income									
Less than \$15,000	30,576	38.8	31.4-46.2	46,675	50.7	44.5-56.9	77,251	45.2	40.4-50.0
\$15,000 - 24,999	41,680	34.4	28.7-40.2	46,568	35.1	30.4-39.7	88,248	34.8	31.1-38.4
\$25,000 - 34,999	20,405	27.0	21.0-33.0	19,024	24.1	18.7-29.4	39,430	25.5	21.5-29.5
\$35,000 - 49,999	14,316	17.0	12.6-21.5	16,253	20.4	15.5-25.3	30,569	18.7	15.3-22.0
\$50,000 - 74,999	12,141	13.2	9.3-17.1	12,766	16.6	12.3-20.9	24,907	14.7	11.9-17.6
\$75,000+	9,230	6.3	4.1-8.4	10,301	8.0	5.5-10.5	19,530	7.1	5.4-8.7

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Difficulty Dressing or Bathing

Definition	Responding “Yes” to the question, “Do you have difficulty dressing or bathing?”
Prevalence	WV: 6.8% (95% CI: 6.0-7.5) U.S.: 4.1% (95% CI: 4.0-4.2) The West Virginia prevalence of difficulty dressing or bathing is significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among the 53 BRFSS participants, after Puerto Rico.
Gender	Men: 6.3% (95% CI: 5.2-7.4) Women: 7.2% (95% CI: 6.2-8.3) There was no gender difference for the prevalence of difficulty dressing or bathing.
Age	The prevalence of difficulty dressing or bathing was lowest among those aged 18-24 (0.9%) and highest among those aged 55-64 (10.5%), a significant difference.
Education	The prevalence of difficulty dressing or bathing was significantly higher among those with less than a high school education (13.0%) than among all other educational attainment levels. The prevalence of difficulty dressing or bathing was significantly lower among those with a college degree (2.4%) than among all other educational attainment levels.
Household Income	The prevalence of difficulty dressing or bathing was significantly higher among those with an annual household income of less than \$15,000 (16.3%) than among all other income levels. The prevalence of difficulty dressing or bathing was significantly lower among those with an annual household income of \$75,000 or more (1.4%) than among all other income levels.

CHAPTER 2: IMPAIRMENT

Table 2.3 Prevalence of Difficulty Dressing or Bathing by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	44,201	6.3	5.2-7.4	52,781	7.2	6.2-8.3	96,981	6.8	6.0-7.5
Age									
18-24	353	*0.4	0.0-1.2	1,094	*1.4	0.0-4.1	1,447	*0.9	0.0-2.2
25-34	5,125	*4.8	0.9-8.7	2,633	*2.6	0.6-4.6	7,758	*3.7	1.5-5.9
35-44	6,624	6.2	3.2-9.1	5,274	4.9	2.3-7.5	11,898	5.5	3.5-7.5
45-54	5,465	4.9	2.7-7.2	12,492	11.1	7.7-14.4	17,957	8.0	6.0-10.1
55-64	12,908	10.2	7.4-13.0	14,282	10.8	8.2-13.3	27,190	10.5	8.6-12.4
65+	12,556	7.9	5.8-10.1	16,801	8.8	6.9-10.7	29,357	8.4	7.0-9.8
Education									
Less than H.S.	11,454	10.7	6.7-14.6	15,808	15.5	11.1-19.9	27,262	13.0	10.1-16.0
H.S. or G.E.D.	21,241	7.2	5.3-9.1	19,357	7.0	5.4-8.7	40,598	7.1	5.8-8.4
Some Post-H.S.	8,076	4.4	2.8-6.1	14,740	7.0	5.1-8.9	22,816	5.8	4.5-7.1
College Graduate	3,430	3.0	1.7-4.2	2,876	2.0	1.2-2.8	6,306	2.4	1.7-3.2
Income									
Less than \$15,000	11,084	13.9	9.0-18.8	16,893	18.4	13.8-23.0	27,977	16.3	13.0-19.7
\$15,000 - 24,999	9,338	7.7	5.0-10.4	12,587	9.5	6.8-12.1	21,925	8.6	6.7-10.5
\$25,000 - 34,999	4,871	6.4	3.4-9.5	5,608	7.1	3.5-10.7	10,478	6.8	4.4-9.1
\$35,000 - 49,999	4,240	5.0	2.5-7.6	3,685	4.6	2.3-7.0	7,926	4.8	3.1-6.6
\$50,000 - 74,999	3,294	3.6	1.6-5.5	3,395	4.4	1.9-6.9	6,689	4.0	2.4-5.5
\$75,000+	1,777	*1.2	0.3-2.1	2,148	*1.7	0.6-2.8	3,925	1.4	0.7-2.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Difficulty Doing Errands Alone

Definition	Responding “Yes” to the question, “Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor’s office or shopping?”
Prevalence	WV: 13.5% (95% CI: 12.4-14.6) U.S.: 7.3% (95% CI: 7.1-7.4) The West Virginia prevalence of difficulty doing errands alone was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among the 53 BRFSS participants, after Puerto Rico.
Gender	Men: 10.1% (95% CI: 8.6-11.6) Women: 16.7% (95% CI: 15.1-18.3) The prevalence of difficulty doing errands alone was significantly higher among women than among men.
Age	The prevalence of difficulty doing errands alone was significantly higher among those aged 35 and older than among those aged 34 and younger.
Education	The prevalence of difficulty doing errands alone was significantly higher among those with less than a high school education (26.7%) than among all other educational attainment groups. The prevalence of difficulty doing errands alone was significantly lower among college graduates (5.0%) than among all other educational attainment levels.
Household Income	The prevalence of difficulty doing errands alone was significantly higher among those with an annual household income of less than \$15,000 (32.2%) than among all other income brackets. The prevalence of difficulty doing errands alone was significantly lower among those with an annual household income of \$75,000 or more (2.8%) than among all other income groups.

CHAPTER 2: IMPAIRMENT

Table 2.4 Prevalence of Difficulty Doing Errands Alone by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	70,659	10.1	8.6-11.6	122,217	16.7	15.1-18.4	192,876	13.5	12.4-14.6
Age									
18-24	4,037	*4.7	0.1-9.2	7,130	*9.0	2.2-15.8	11,167	*6.7	2.7-10.8
25-34	5,535	*5.2	1.3-9.1	9,923	9.7	5.7-13.6	15,458	7.4	4.6-10.2
35-44	12,579	11.7	7.4-16.0	16,441	15.4	10.7-20.0	29,020	13.5	10.4-16.7
45-54	11,634	10.5	7.1-13.9	21,615	19.1	15.2-23.0	33,250	14.9	12.2-17.5
55-64	18,570	14.7	11.3-18.2	23,459	17.7	14.5-20.9	42,029	16.2	13.9-18.6
65+	17,441	11.1	8.5-13.6	43,426	22.7	19.8-25.5	60,867	17.4	15.5-19.4
Education									
Less than H.S.	21,883	20.6	15.0-26.1	33,595	33.1	26.7-39.6	55,478	26.7	22.4-31.0
H.S. or G.E.D.	31,439	10.6	8.3-13.0	49,502	18.0	15.4-20.7	80,940	14.2	12.4-16.0
Some Post-H.S.	12,398	6.8	4.7-8.9	30,793	14.6	11.9-17.3	43,191	11.0	9.2-12.8
College Graduate	4,939	4.3	2.7-5.9	8,005	5.6	4.1-7.1	12,944	5.0	3.9-6.1
Income									
Less than \$15,000	20,518	25.8	19.1-32.6	34,487	37.6	31.7-43.6	55,005	32.2	27.6-36.7
\$15,000 - 24,999	18,003	14.9	10.6-19.1	27,422	20.7	16.7-24.6	45,425	17.9	15.0-20.8
\$25,000 - 34,999	6,973	9.3	5.5-13.0	10,693	13.6	9.3-17.9	17,666	11.5	8.6-14.3
\$35,000 - 49,999	4,446	5.3	2.6-7.9	10,208	12.8	8.6-17.0	14,653	8.9	6.5-11.4
\$50,000 - 74,999	3,870	4.2	2.0-6.4	7,009	9.1	5.2-13.0	10,879	6.4	4.3-8.6
\$75,000+	3,116	2.1	0.9-3.3	4,485	3.5	1.7-5.3	7,601	2.8	1.7-3.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Prevalence of Vision Impairment

Definition	Responding “Yes” to the question, “Are you blind or do you have serious difficulty seeing, even when wearing glasses?”
Prevalence	WV: 8.6% (95% CI: 7.7-9.4) U.S.: 4.9% (95% CI: 4.8-5.1) The West Virginia prevalence of vision impairment was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants, after Puerto Rico.
Gender	Men: 7.5% (95% CI: 6.3-8.7) Women: 9.6% (95% CI: 8.4-10.8) There was no gender difference in the prevalence of vision impairment.
Age	The prevalence of vision impairment was significantly higher among those aged 45 and older than among those aged 44 and younger.
Education	The prevalence of visual impairment was significantly higher among those with less than a high school education (15.8%) than among all other educational attainment levels and significantly lower among those with a college degree (2.7%) than among all other educational attainment levels.
Household Income	The prevalence of vision impairment was significantly higher among those with an annual household income of less than \$15,000 (19.4%) than among all other income brackets. The prevalence of vision impairment was significantly lower among those with incomes of \$35,000 or more per year than among those with incomes of less than \$35,000 per year.

CHAPTER 2: IMPAIRMENT

Table 2.5 Prevalence of Vision Impairment by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	52,788	7.5	6.3-8.7	70,117	9.6	8.4-10.8	122,906	8.6	7.7-9.4
Age									
18-24	1,570	*1.8	0.0-4.3	4,491	*5.7	1.2-10.1	6,062	*3.7	1.1-6.2
25-34	3,781	*3.5	0.3-6.9	5,754	*5.6	2.2-9.0	9,536	4.5	2.2-6.9
35-44	5,422	5.0	2.4-7.6	6,229	5.8	3.1-8.4	11,651	5.4	3.5-7.3
45-54	11,140	10.1	6.4-13.7	12,333	10.8	7.8-13.9	23,474	10.5	8.1-12.8
55-64	14,106	11.1	8.1-14.2	14,840	11.2	8.5-13.8	28,946	11.2	9.2-13.1
65+	14,778	9.3	7.1-11.6	26,122	13.6	11.3-15.9	40,900	11.7	10.0-13.3
Education									
Less than H.S.	16,893	15.7	11.0-20.4	16,081	15.8	11.7-19.9	32,973	15.8	12.6-18.9
H.S. or G.E.D.	18,281	6.2	4.6-7.8	32,076	11.6	9.4-13.8	50,357	8.8	7.4-10.1
Some Post-H.S.	13,940	7.6	5.0-10.3	17,812	8.5	6.2-10.7	31,752	8.1	6.3-9.8
College Graduate	2,853	2.5	1.3-3.7	4,149	2.9	1.8-3.9	7,002	2.7	1.9-3.5
Income									
Less than \$15,000	14,692	18.5	13.1-23.9	18,562	20.2	15.7-24.6	33,254	19.4	15.9-22.8
\$15,000 - 24,999	15,733	13.0	8.7-17.2	16,605	12.5	9.2-15.8	32,338	12.7	10.1-15.4
\$25,000 - 34,999	5,931	7.8	4.5-11.2	7,914	10.0	6.3-13.7	13,845	8.9	6.4-11.4
\$35,000 - 49,999	3,084	*3.7	1.3-6.0	3,846	4.8	2.2-7.5	6,929	4.2	2.5-6.0
\$50,000 - 74,999	2,979	*3.2	1.3-5.2	2,352	*3.1	1.2-4.9	5,331	3.2	1.8-4.5
\$75,000+	3,116	*2.1	0.7-3.5	2,845	*2.2	0.9-3.5	5,962	2.2	1.2-3.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Prevalence of Hearing Impairment

Definition	Responding “Yes” to the question, “Are you deaf or do you have serious difficulty hearing?”
Prevalence	WV: 13.7% (95% CI: 12.7-14.8) U.S.: 6.2% (95% CI: 6.1-6.3) The West Virginia prevalence of hearing impairment was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 17.1% (95% CI: 15.4-18.8) Women: 10.6% (95% CI: 9.3-11.8) The prevalence of hearing impairment is significantly higher among men than women.
Age	The prevalence of hearing impairment was significantly higher among those aged 45 and older than among those aged 44 and younger.
Education	The prevalence of hearing impairment was significantly higher among those with less than a high school education (23.5%) than among all other educational attainment levels and significantly lower among those with a college degree (7.1%) than among all other educational attainment levels.
Household Income	The prevalence of hearing impairment was significantly higher among those with an annual household income of less than \$35,000 than among those with incomes of \$50,000 or more per year.

CHAPTER 2: IMPAIRMENT

Table 2.6 Prevalence of Hearing Impairment by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	119,721	17.1	15.4-18.8	77,433	10.6	9.3-11.8	197,154	13.7	12.7-14.8
Age									
18-24	1,669	*1.9	0.0-4.6	4,125	*5.2	0.7-9.7	5,794	*3.5	0.9-6.0
25-34	5,538	*5.2	1.4-8.9	6,360	*6.2	2.5-9.9	11,898	5.7	3.0-8.3
35-44	9,270	8.6	4.8-12.3	6,963	6.4	3.3-9.5	16,232	7.5	5.1-9.9
45-54	17,333	15.7	11.4-20.1	11,680	10.2	7.0-13.5	29,012	12.9	10.2-15.6
55-64	32,497	25.6	21.5-29.8	11,735	8.8	6.5-11.1	44,233	17.0	14.6-19.4
65+	53,414	33.9	30.1-37.7	36,165	18.8	16.2-21.5	89,578	25.6	23.3-27.9
Education									
Less than H.S.	30,789	28.9	22.7-35.0	18,218	17.9	13.3-22.4	49,007	23.5	19.6-27.4
H.S. or G.E.D.	52,611	17.7	15.1-20.4	33,201	12.0	9.7-14.3	85,811	15.0	13.2-16.7
Some Post-H.S.	25,666	14.1	11.2-17.0	18,308	8.7	6.5-10.9	43,974	11.2	9.4-13.0
College Graduate	10,655	9.2	6.9-11.6	7,707	5.4	3.7-7.0	18,362	7.1	5.7-8.5
Income									
Less than \$15,000	18,201	22.9	16.9-28.9	13,310	14.4	10.4-18.4	31,511	18.3	14.8-21.8
\$15,000 - 24,999	26,447	21.8	17.1-26.5	18,467	13.9	10.4-17.3	44,913	17.7	14.8-20.5
\$25,000 - 34,999	19,842	26.2	20.1-32.3	7,897	9.9	6.3-13.5	27,739	17.8	14.3-21.4
\$35,000 - 49,999	13,953	16.6	12.0-21.2	7,326	9.2	5.2-13.2	21,278	13.0	9.9-16.0
\$50,000 - 74,999	14,149	15.4	11.0-19.7	4,209	5.5	2.9-8.1	18,357	10.9	8.2-13.5
\$75,000+	12,003	8.2	5.7-10.6	5,207	4.0	2.2-5.9	17,211	6.2	4.7-7.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

No Health Care Coverage (among adults aged 18-64)

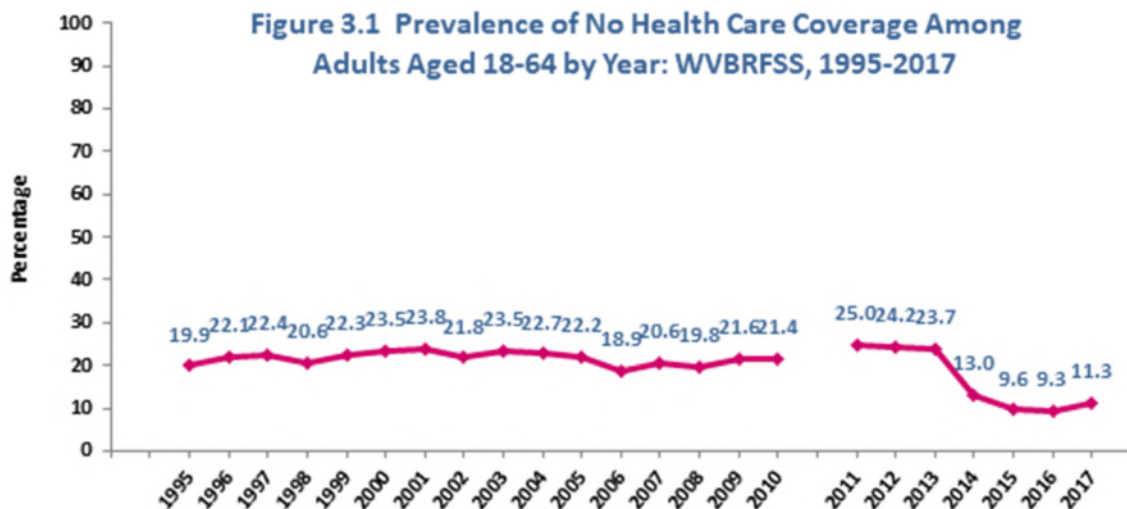
Definition	Responding “No” to the question, “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?” The results reported for this indicator have been limited to adults aged 18-64.
Prevalence	WV: 11.3% (95% CI: 9.9-12.7) U.S.: 14.7% (95% CI: 14.4-15.0) The prevalence of no health care coverage among those aged 18-64 was significantly lower in West Virginia than in the U.S. West Virginia ranked the 35 th highest among 53 BRFSS participants.
Gender	Men: 13.4% (95% CI: 11.2-15.6) Women: 9.1% (95% CI: 7.4-10.9) The prevalence of no health care coverage among those 18-64 was significantly higher among males than females.
Age	The prevalence of no health care coverage was significantly higher among those aged 25-34 (15.0%) and than among those aged 55-64 (7.7%).
Education	The prevalence of no health coverage among those aged 18-64 was significantly lower among college graduates (5.0%) than among all other educational attainment levels.
Household Income	The prevalence of no health care coverage among those aged 18-64 was significantly higher among those with an annual household income of less than \$50,000 than among those with an income of \$75,000 or more per year (3.6%).

CHAPTER 3: HEALTH CARE ACCESS

Table 3.1 Prevalence of No Health Care Coverage Among Adults Aged 18-64 by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	72,318	13.4	11.2-15.6	49,323	9.1	7.4-10.9	121,641	11.3	9.9-12.7
Age									
18-24	13,046	15.4	7.5-23.4	9,487	*11.8	4.5-19.1	22,534	13.7	8.2-19.1
25-34	21,305	20.0	14.0-26.0	10,330	10.0	5.8-14.1	31,634	15.0	11.4-18.7
35-44	13,314	12.1	7.7-16.5	9,072	8.4	5.1-11.7	22,386	10.2	7.5-13.0
45-54	14,663	13.2	9.1-17.3	10,266	9.0	6.1-11.8	24,929	11.1	8.5-13.6
55-64	9,990	7.8	5.3-10.4	10,168	7.6	5.4-9.9	20,157	7.7	6.0-9.4
Education									
Less than H.S.	14,306	18.5	11.5-25.6	8,390	13.0	5.6-20.4	22,697	16.0	10.9-21.1
H.S. or G.E.D.	37,460	16.4	12.6-20.3	20,028	10.3	7.4-13.1	57,488	13.6	11.1-16.0
Some Post-H.S.	16,733	11.5	7.8-15.1	14,431	8.7	5.9-11.6	31,164	10.0	7.7-12.3
College Graduate	3,819	4.3	1.8-6.8	6,352	5.5	2.9-8.2	10,172	5.0	3.2-6.9
Income									
Less than \$15,000	10,042	14.8	7.5-22.0	5,299	7.5	3.3-11.8	15,341	11.1	6.9-15.3
\$15,000 - 24,999	18,359	21.0	14.3-27.7	11,330	12.2	8.1-16.2	29,689	16.4	12.5-20.3
\$25,000 - 34,999	10,963	21.6	13.6-29.6	5,384	9.3	4.2-14.5	16,348	15.1	10.4-19.8
\$35,000 - 49,999	6,230	10.6	5.0-16.3	8,635	16.0	9.1-22.9	14,865	13.2	8.8-17.7
\$50,000 - 74,999	6,480	*9.1	3.6-14.6	4,993	8.3	4.0-12.6	11,473	8.7	5.1-12.3
\$75,000+	5,720	4.5	2.0-7.0	2,882	*2.5	0.4-4.6	8,601	3.6	1.9-5.2

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

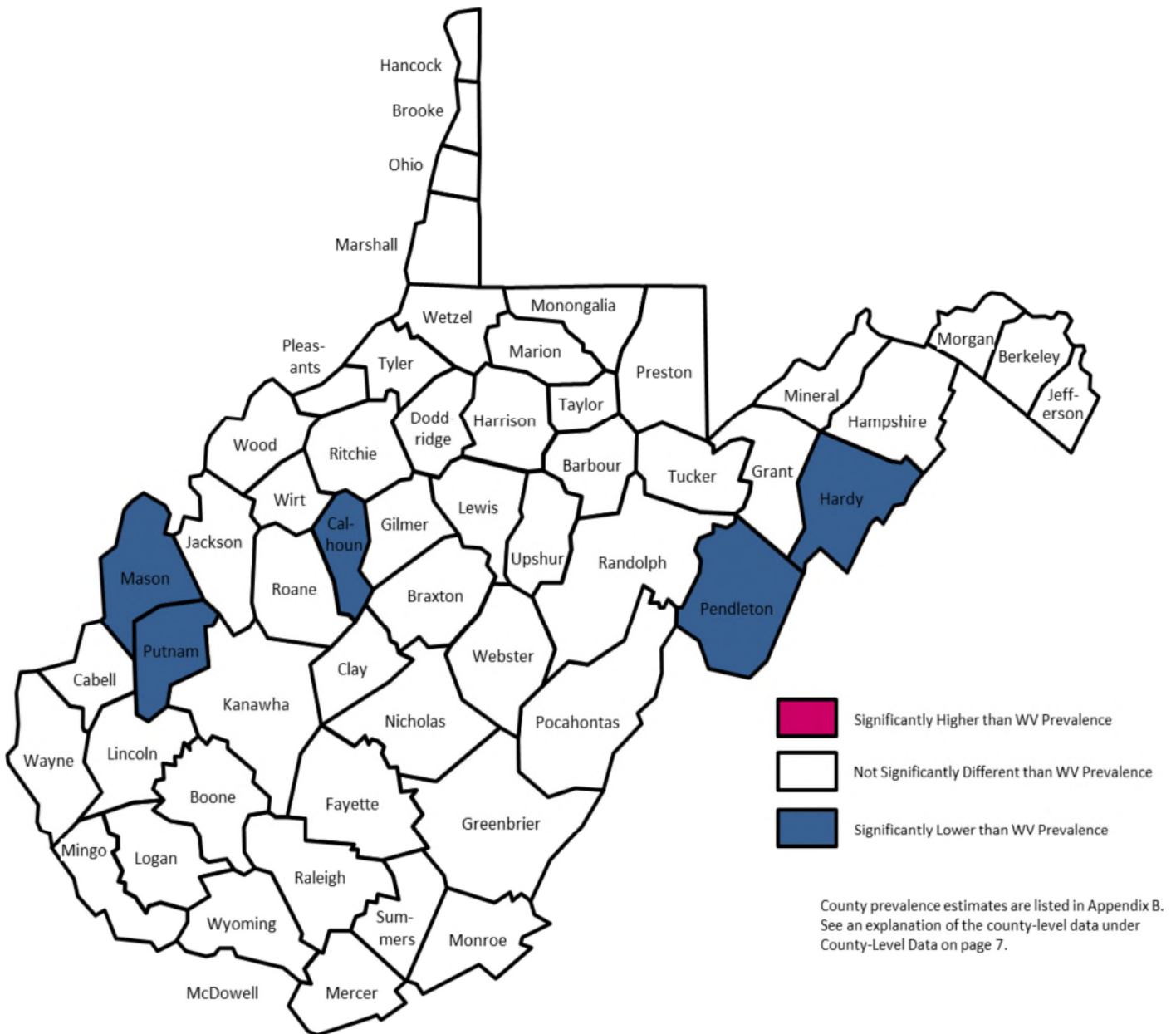


*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

CHAPTER 3: HEALTH CARE ACCESS

Figure 3.2 Prevalence of No Health Care Coverage Among Adults Aged 18-64 by County: WVBFRSS, 2013-2017

WV Prevalence (2013-2017) - 13.5%



No Personal Doctor or Health Care Provider

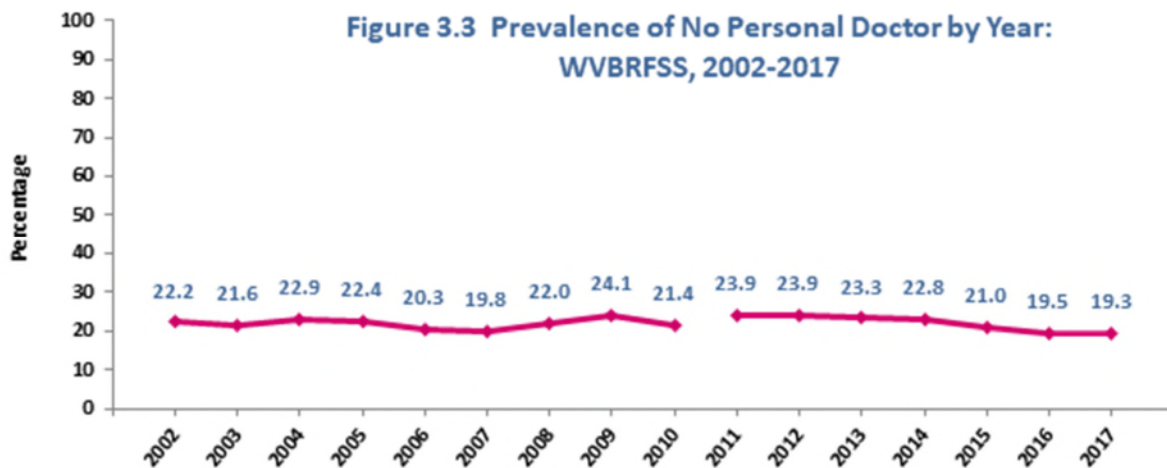
Definition	Responding “No” to the question, “Do you have one person you think of as your personal doctor or health care provider?”
Prevalence	WV: 19.3% (95% CI: 17.8-20.8) U.S.: 22.5% (95% CI: 22.2-22.7) West Virginia ranked the 34 th highest among 53 BRFSS participants. The U.S. prevalence of no personal doctor or health care provider was significantly higher than the West Virginia prevalence.
Gender	Men: 25.0% (95% CI: 22.6-27.4) Women: 13.8% (95% CI: 12.2-15.5) The prevalence of no personal doctor or health care provider was significantly higher among men than among women.
Age	The prevalence of no personal doctor or health care provider was significantly higher among those aged 18-44 than among those aged 45 and older. The prevalence of no personal doctor or health care provider was significantly lower among those aged 55-64 (10.0%) and those aged 65 and older (5.4%) than among all other younger age groups.
Education	The prevalence of no personal doctor or health care provider was significantly lower among college graduates (13.3%) than among all other educational attainment levels.
Household Income	There was no annual household income difference in the prevalence of no personal doctor or health care provider.

CHAPTER 3: HEALTH CARE ACCESS

Table 3.3 Prevalence of No Personal Doctor or Health Care Provider by Demographics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	176,956	25.0	22.6-27.4	102,327	13.8	12.2-15.5	279,283	19.3	17.8-20.8
Age									
18-24	32,059	*37.3	27.1-47.6	26,336	32.6	23.2-42.0	58,395	35.0	28.0-42.0
25-34	51,551	48.4	40.9-55.9	25,113	24.2	18.7-29.8	76,664	36.5	31.6-41.4
35-44	39,076	35.5	29.2-41.8	18,510	17.0	12.5-21.5	57,586	26.3	22.3-30.3
45-54	29,149	26.1	20.9-31.4	10,445	9.2	6.3-12.0	39,594	17.5	14.5-20.6
55-64	12,605	9.9	7.0-12.8	13,389	10.1	7.5-12.6	25,994	10.0	8.0-11.9
65+	11,008	6.9	4.7-9.0	8,071	4.2	2.8-5.5	19,079	5.4	4.2-6.6
Education									
Less than H.S.	34,378	31.9	24.5-39.2	16,024	15.7	10.6-20.9	50,402	24.0	19.3-28.7
H.S. or G.E.D.	75,486	25.3	21.5-29.0	36,866	13.2	10.5-16.0	112,352	19.4	17.1-21.8
Some Post-H.S.	47,818	26.1	21.4-30.8	33,139	15.6	12.3-18.9	80,956	20.5	17.6-23.3
College Graduate	18,736	16.0	12.4-19.6	15,972	11.0	8.2-13.9	34,708	13.3	11.0-15.5
Income									
Less than \$15,000	18,131	22.5	15.5-29.5	17,707	19.1	13.6-24.6	35,838	20.7	16.3-25.1
\$15,000 - 24,999	36,226	29.9	23.4-36.3	24,650	18.4	14.1-22.6	60,876	23.8	20.0-27.7
\$25,000 - 34,999	14,814	19.4	13.2-25.6	12,649	15.5	9.9-21.2	27,462	17.4	13.2-21.6
\$35,000 - 49,999	17,934	21.4	15.5-27.3	9,028	11.3	6.7-16.0	26,961	16.5	12.7-20.3
\$50,000 - 74,999	21,816	23.6	17.0-30.2	8,497	11.0	7.0-15.0	30,314	17.8	13.7-22.0
\$75,000+	37,596	25.4	20.4-30.4	12,261	9.5	6.0-13.0	49,858	18.0	14.8-21.2

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

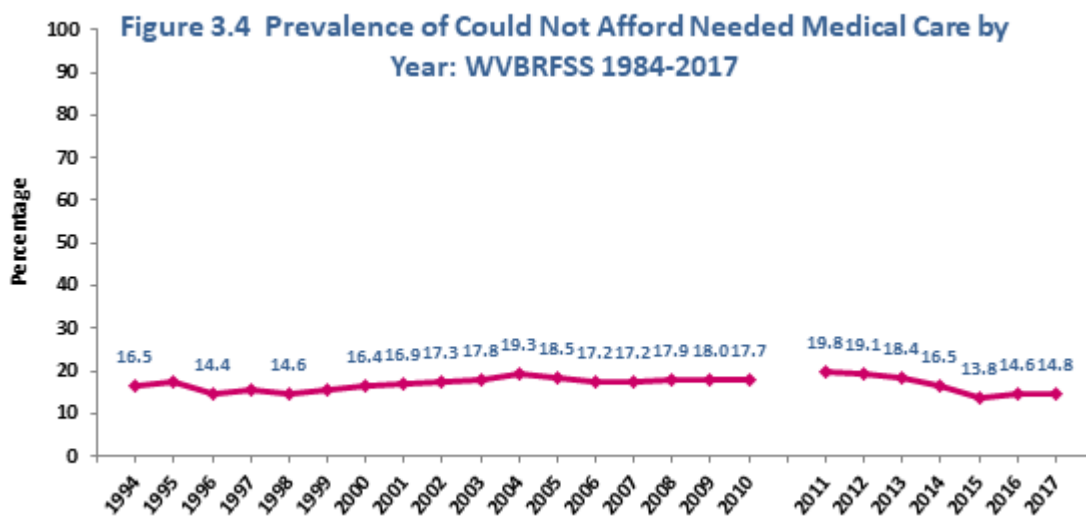
Could Not Afford Needed Medical Care

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: 14.8% (95% CI: 13.6-16.1) U.S.: 13.5% (95% CI: 13.3-13.7) The West Virginia prevalence of could not afford needed medical care was equivalent to the national prevalence. West Virginia ranked the 15 th highest among 53 BRFSS participants.
Gender	Men: 15.2% (95% CI: 13.2-17.1) Women: 14.5% (95% CI: 12.9-16.1) There was no gender difference in the prevalence of could not afford needed medical care.
Age	The prevalence of could not afford needed medical care was significantly lower among those aged 65 and older (6.2%) than among all other age groups.
Education	The prevalence of could not afford needed medical care was significantly lower among college graduates (7.3%) than among all other educational attainment levels.
Household Income	The prevalence of could not afford needed medical care was significantly higher among those with an annual household income of less than \$25,000 than among those earning \$35,000 or more per year. The prevalence of could not afford needed medical care was significantly lower among those with an annual household income of \$75,000 or more than among all other income brackets.

CHAPTER 3: HEALTH CARE ACCESS

Table 3.4 Prevalence of Could Not Afford Needed Medical Care by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	107,012	15.2	13.2-17.1	107,046	14.5	12.9-16.1	214,058	14.8	13.6-16.1
Age									
18-24	13,911	16.0	8.0-24.1	12,180	15.1	8.1-22.1	26,091	15.6	10.2-20.9
25-34	23,697	22.6	16.2-29.1	16,972	16.4	11.4-21.4	40,669	19.5	15.4-23.6
35-44	20,189	18.4	13.3-23.5	21,515	19.8	14.9-24.6	41,704	19.1	15.6-22.6
45-54	18,859	16.9	12.6-21.3	20,904	18.3	14.6-22.1	39,763	17.6	14.8-20.5
55-64	20,408	16.0	12.4-19.5	22,891	17.3	14.0-20.5	43,299	16.6	14.2-19.0
65+	9,379	5.9	4.0-7.7	12,583	6.5	4.8-8.2	21,963	6.2	5.0-7.5
Education									
Less than H.S.	23,418	21.7	15.4-28.0	17,360	17.0	12.1-22.0	40,778	19.4	15.4-23.5
H.S. or G.E.D.	45,178	15.2	12.3-18.2	39,141	14.0	11.4-16.7	84,320	14.7	12.7-16.7
Some Post-H.S.	30,741	16.7	12.9-20.5	38,833	18.3	15.0-21.5	69,574	17.6	15.1-20.0
College Graduate	7,490	6.4	4.2-8.7	11,591	8.0	5.9-10.2	19,081	7.3	5.8-8.9
Income									
Less than \$15,000	20,625	25.8	18.4-33.3	19,651	21.2	16.2-26.2	40,276	23.4	19.0-27.7
\$15,000 - 24,999	29,844	24.8	19.0-30.5	24,603	18.4	14.4-22.4	54,448	21.4	18.0-24.9
\$25,000 - 34,999	14,826	19.4	13.7-25.1	13,568	16.6	11.6-21.6	28,394	18.0	14.2-21.8
\$35,000 - 49,999	12,128	14.4	9.6-19.1	11,618	14.6	9.7-19.4	23,746	14.5	11.1-17.9
\$50,000 - 74,999	9,623	10.5	5.7-15.2	9,124	11.8	7.3-16.3	18,746	11.1	7.8-14.4
\$75,000+	7,185	4.9	2.6-7.1	8,577	6.7	3.9-9.4	15,762	5.7	3.9-7.4



*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

No Routine Checkup in Past Year

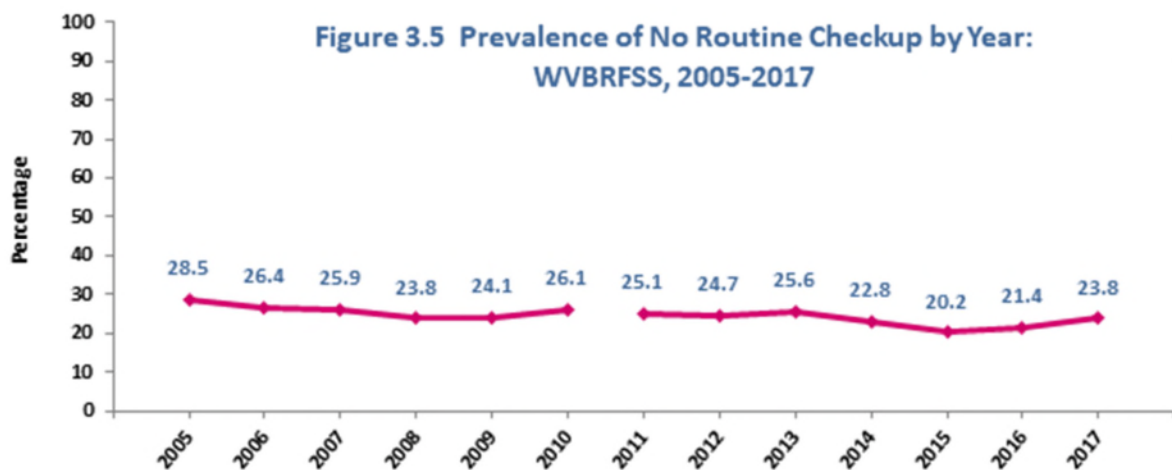
Definition	Responding “More than a year ago” to the question, “About how long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.”
Prevalence	WV: 23.8% (95% CI: 22.2-25.3) U.S.: 29.3% (95% CI: 29.0-29.6) The U. S. prevalence of no checkup in the past year was significantly higher than the West Virginia prevalence. West Virginia ranked the 6 th lowest among 53 BRFSS participants.
Gender	Men: 28.5% (95% CI: 26.0-30.9) Women: 19.3% (95% CI: 17.4-21.1) The prevalence of no routine checkup in the past year was significantly higher among males than among females.
Age	The prevalence of no checkup in the past year was significantly higher among those aged 18-44 than among those aged 45 and older. The prevalence of no checkup in the past year was significantly lower among those aged 65 and older (8.0%) than among all other age groups.
Education	There was no educational attainment difference in the prevalence of no checkup in the past year.
Household Income	There was no annual household income difference in the prevalence of no checkup in the past year.

CHAPTER 3: HEALTH CARE ACCESS

Table 3.5 Prevalence of No Routine Checkup in the Past Year by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	198,139	28.5	26.0-30.9	140,604	19.3	17.4-21.1	338,743	23.8	22.2-25.3
Age									
18-24	40,650	*48.1	37.4-58.8	20,721	26.8	17.8-35.7	61,372	37.9	30.6-45.2
25-34	45,503	45.3	37.7-52.9	32,909	32.2	26.0-38.4	78,411	38.7	33.7-43.6
35-44	41,585	38.5	32.1-44.9	28,198	25.9	20.6-31.2	69,783	32.2	28.0-36.4
45-54	33,611	30.4	25.1-35.8	20,464	18.0	14.0-21.9	54,076	24.1	20.8-27.5
55-64	21,032	16.7	13.1-20.3	23,047	17.5	14.3-20.6	44,079	17.1	14.7-19.5
65+	13,427	8.4	6.3-10.6	14,697	7.7	5.9-9.5	28,124	8.0	6.6-9.4
Education									
Less than H.S.	28,736	27.3	20.3-34.2	14,179	14.2	9.6-18.8	42,915	20.9	16.6-25.2
H.S. or G.E.D.	80,693	27.7	23.8-31.6	51,410	18.8	15.7-21.8	132,103	23.4	20.8-25.9
Some Post-H.S.	56,769	31.4	26.6-36.3	48,125	22.8	19.2-26.5	104,894	26.8	23.8-29.8
College Graduate	30,582	26.3	21.9-30.7	26,769	18.6	15.1-22.1	57,350	22.0	19.3-24.8
Income									
Less than \$15,000	24,789	31.9	23.8-39.9	17,540	19.5	14.3-24.7	42,328	25.3	20.5-30.0
\$15,000 - 24,999	38,990	33.4	26.7-40.1	30,151	22.8	18.3-27.4	69,141	27.8	23.8-31.8
\$25,000 - 34,999	22,792	29.8	22.5-37.2	16,163	20.2	14.3-26.0	38,955	24.9	20.2-29.6
\$35,000 - 49,999	19,465	23.4	17.2-29.6	15,236	19.2	13.8-24.6	34,701	21.3	17.2-25.5
\$50,000 - 74,999	23,663	25.9	19.9-31.8	14,014	18.1	12.8-23.4	37,677	22.3	18.3-26.3
\$75,000+	38,205	25.9	21.1-30.6	25,235	19.6	15.3-23.9	63,440	22.9	19.7-26.2

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

West Virginia Behavioral Risk Factor Surveillance System Report

2017



SECTION 2: RISK BEHAVIORS

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 ($BMI=kg/m^2$). Overweight is defined as a BMI of 25.0-29.9.
Prevalence	WV: 33.6% (95% CI: 32.0-35.2) U.S.: 35.3% (95% CI: 35.0-35.6) The prevalence of overweight in West Virginia was similar to the U.S. prevalence. West Virginia ranked the 6 th lowest among 53 BRFSS participants.
Gender	Men: 37.9% (95% CI: 35.4-40.3) Women: 29.2% (95% CI: 27.1-31.2) The prevalence of overweight was significantly higher among males than among females.
Age	The prevalence of overweight was significantly lower among those aged 18-24 (28.4%) than among those aged 65 and older. The prevalence of overweight was significantly higher among those aged 65 and older (40.1%) than among all other age groups except the 55-64 age group.
Education	The prevalence of overweight was significantly higher among college graduates (37.8%) than among those with less than a high school education (29.7%).
Household Income	The prevalence of overweight was significantly higher among those with an annual household income of \$75,000 or more (40.3%) than among those with an income of less than \$25,000 per year (26.3%).

CHAPTER 4: WEIGHT STATUS

Table 4.1 Overweight Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	262,050	37.9	35.4-40.3	193,639	29.2	27.1-31.2	455,689	33.6	32.0-35.2
Age									
18-24	28,521	33.1	23.2-43.0	15,275	22.4	13.2-31.6	43,796	28.4	21.5-35.3
25-34	35,336	33.3	26.5-40.1	22,969	25.6	19.5-31.7	58,304	29.8	25.1-34.4
35-44	35,073	32.6	26.4-38.8	31,285	31.1	25.3-36.9	66,358	31.9	27.6-36.1
45-54	38,587	35.6	30.1-41.0	27,513	26.3	21.9-30.7	66,100	31.0	27.5-34.5
55-64	51,410	41.1	36.4-45.7	33,095	27.8	23.9-31.7	84,505	34.6	31.5-37.7
65+	71,636	46.3	42.3-50.3	62,572	34.8	31.5-38.2	134,208	40.1	37.5-42.7
Education									
Less than H.S.	31,174	30.5	24.0-37.0	26,701	28.8	22.4-35.1	57,875	29.7	25.1-34.2
H.S. or G.E.D.	115,570	39.4	35.5-43.4	69,092	27.8	24.5-31.1	184,662	34.1	31.5-36.8
Some Post-H.S.	63,543	35.1	30.4-39.7	55,659	29.2	25.4-33.1	119,202	32.1	29.1-35.1
College Graduate	51,224	44.6	40.0-49.3	41,976	31.8	27.8-35.8	93,200	37.8	34.7-40.9
Income									
Less than \$15,000	21,221	27.0	19.7-34.3	22,448	25.7	20.2-31.2	43,669	26.3	21.8-30.8
\$15,000 - 24,999	42,886	35.7	29.7-41.6	34,280	28.2	23.6-32.9	77,166	31.9	28.2-35.7
\$25,000 - 34,999	32,617	42.8	35.4-50.1	18,383	24.9	19.4-30.3	51,000	33.9	29.2-38.7
\$35,000 - 49,999	28,914	34.7	28.5-40.9	25,527	34.1	28.0-40.2	54,441	34.4	30.1-38.8
\$50,000 - 74,999	32,888	36.0	29.8-42.2	20,951	29.7	23.9-35.4	53,839	33.3	28.9-37.6
\$75,000+	71,143	48.7	43.5-53.9	35,430	29.9	25.1-34.7	106,573	40.3	36.6-43.9

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 ($BMI=kg/m^2$). Obese is defined as a BMI of 30.0 or higher.
Prevalence	WV: 38.1% (95% CI: 36.4-39.7) U.S.: 30.1% (95% CI: 29.8-30.4) The West Virginia prevalence of obesity was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 39.4% (95% CI: 36.9-41.9) Women: 36.6% (95% CI: 34.5-38.8) There was no gender difference in the prevalence of obesity.
Age	The prevalence of obesity was significantly lower among those aged 18-24 (24.5%) and those aged 65 and older (33.5%) than among those aged 35-64. The prevalence of obesity was highest among those aged 45-54 (47.0%) and was significantly higher than among those aged 18-34 and 65 and older.
Education	The prevalence of obesity was significantly higher among those with some college education (42.5%) than among college graduates (33.2%).
Household Income	The prevalence of obesity was significantly lower among those with an annual household income of \$75,000 or more (33.6%) than among those earning \$35,000-\$74,999 per year but equivalent to those earning less than \$35,000 per year.

CHAPTER 4: WEIGHT STATUS

Table 4.2 Obesity Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	272,634	39.4	36.9-41.9	243,361	36.6	34.5-38.8	515,995	38.1	36.4-39.7
Age									
18-24	23,348	27.1	17.8-36.4	14,516	21.3	12.6-30.0	37,864	24.5	18.1-31.0
25-34	42,395	40.0	32.5-47.4	27,782	30.9	24.4-37.4	70,177	35.8	30.8-40.9
35-44	50,703	47.1	40.5-53.7	36,560	36.4	30.4-42.3	87,263	41.9	37.4-46.4
45-54	51,200	47.2	41.5-52.9	49,002	46.8	41.7-52.0	100,202	47.0	43.2-50.9
55-64	52,202	41.7	37.1-46.4	54,638	45.9	41.5-50.2	106,841	43.7	40.5-46.9
65+	51,649	33.4	29.6-37.2	60,435	33.6	30.3-36.9	112,085	33.5	31.0-36.0
Education									
Less than H.S.	41,192	40.3	32.9-47.6	33,837	36.5	30.1-42.9	75,029	38.5	33.5-43.4
H.S. or G.E.D.	111,357	38.0	34.1-41.9	89,882	36.2	32.6-39.8	201,239	37.2	34.5-39.9
Some Post-H.S.	79,122	43.7	38.8-48.6	78,655	41.3	37.1-45.5	157,777	42.5	39.2-45.7
College Graduate	40,963	35.7	31.3-40.1	40,866	31.0	27.1-34.8	81,829	33.2	30.2-36.1
Income									
Less than \$15,000	30,815	39.2	31.4-47.0	35,277	40.4	34.3-46.5	66,092	39.8	34.9-44.8
\$15,000 - 24,999	46,867	39.0	32.7-45.3	46,875	38.6	33.5-43.7	93,742	38.8	34.8-42.9
\$25,000 - 34,999	26,370	34.6	27.6-41.6	32,900	44.5	37.6-51.4	59,270	39.5	34.5-44.4
\$35,000 - 49,999	40,852	49.1	42.4-55.7	28,183	37.6	31.3-43.9	69,035	43.7	39.0-48.3
\$50,000 - 74,999	38,036	41.6	35.0-48.2	30,187	42.8	36.3-49.2	68,223	42.1	37.5-46.8
\$75,000+	55,975	38.3	33.3-43.4	33,040	27.9	23.3-32.5	89,015	33.6	30.1-37.1

Overweight or Obese

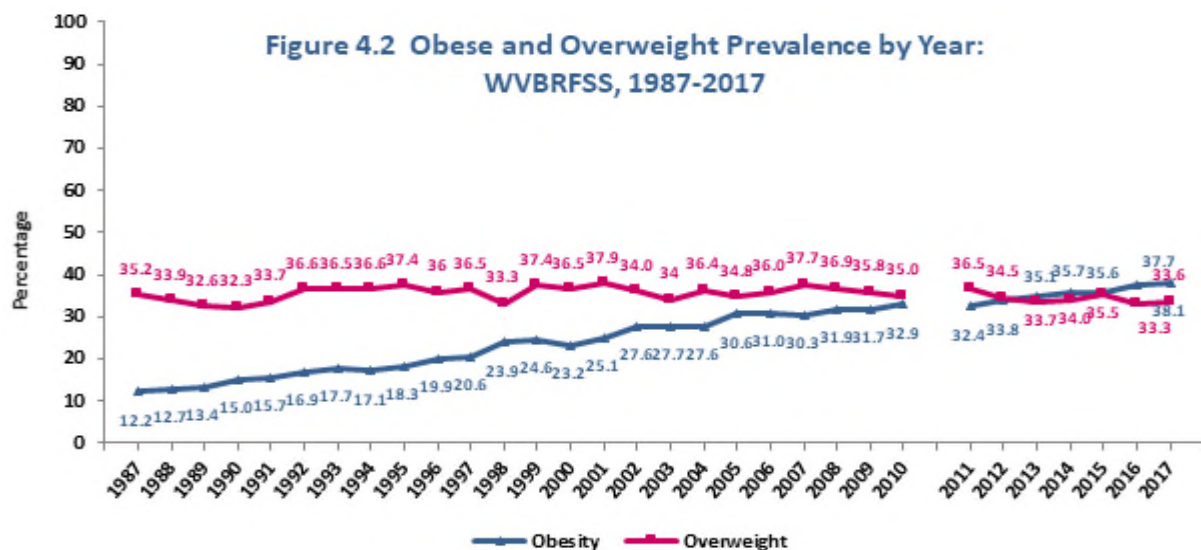
Definition	Body Mass Index (BMI) is a calculation that standardizes the meaning of the terms obesity and overweight, thereby improving the accuracy of comparisons. BMI is body weight in kilograms divided by height in meters squared ($BMI=kg/m^2$). Overweight or obese is defined as a BMI of 25.0 or higher.
Prevalence	WV: 71.7% (95% CI: 70.1-73.3) U.S.: 65.4% (95% CI: 65.1-65.7) The West Virginia prevalence of overweight or obese was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 77.3% (95% CI: 75.0-79.6) Women: 65.8% (95% CI: 63.6-68.1) The prevalence of overweight or obese was significantly higher among men than women.
Age	The prevalence of overweight or obese was significantly higher among those aged 45 and older than among those aged 34 and younger. The prevalence of overweight or obese was significantly lower among those aged 18-24 (52.9%) than among all other age groups.
Education	There was educational attainment difference in the prevalence of overweight or obese.
Household Income	The prevalence of overweight or obese was significantly higher among those with an annual household income of \$35,000-\$74,999 than among those with an annual household income of less than \$15,000 (66.2%).

CHAPTER 4: WEIGHT STATUS

Table 4.3 Overweight or Obese Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	534,684	77.3	75.0-79.6	437,000	65.8	63.6-68.1	971,684	71.7	70.1-73.3
Age									
18-24	51,870	*60.2	49.8-70.7	29,791	*43.7	32.9-54.5	81,660	52.9	45.3-60.5
25-34	77,731	73.3	66.6-80.0	50,751	56.5	49.5-63.5	128,482	65.6	60.7-70.5
35-44	85,776	79.7	74.4-85.0	67,845	67.5	61.5-73.5	153,621	73.8	69.8-77.9
45-54	89,787	82.8	78.3-87.2	76,515	73.1	68.5-77.7	166,302	78.0	74.8-81.2
55-64	103,613	82.8	79.2-86.4	87,733	73.7	69.9-77.5	191,346	78.4	75.7-81.0
65+	123,286	79.7	76.5-82.9	123,007	68.5	65.2-71.8	246,293	73.7	71.3-76.0
Education									
Less than H.S.	72,366	70.7	63.5-78.0	60,538	65.3	58.6-71.9	132,904	68.1	63.2-73.1
H.S. or G.E.D.	226,927	77.4	73.8-81.0	158,974	64.0	60.3-67.8	385,901	71.3	68.7-73.9
Some Post-H.S.	142,665	78.8	74.5-83.0	134,315	70.5	66.2-74.8	276,980	74.5	71.5-77.6
College Graduate	92,187	80.4	76.6-84.1	82,842	62.8	58.6-67.0	175,029	70.9	68.0-73.8
Income									
Less than \$15,000	52,036	66.3	58.6-73.9	57,725	66.1	60.0-72.2	109,761	66.2	61.3-71.0
\$15,000 - 24,999	89,753	74.7	68.9-80.5	81,155	66.9	61.7-72.1	170,908	70.8	66.9-74.7
\$25,000 - 34,999	58,987	77.3	70.7-84.0	51,283	69.3	62.5-76.2	110,270	73.4	68.6-78.2
\$35,000 - 49,999	69,766	83.8	79.0-88.6	53,711	71.7	65.3-78.2	123,477	78.1	74.0-82.1
\$50,000 - 74,999	70,924	77.6	71.9-83.3	51,138	72.5	66.5-78.4	122,062	75.4	71.2-79.5
\$75,000+	127,118	87.0	83.4-90.6	68,470	57.8	52.5-63.1	195,588	73.9	70.6-77.2

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

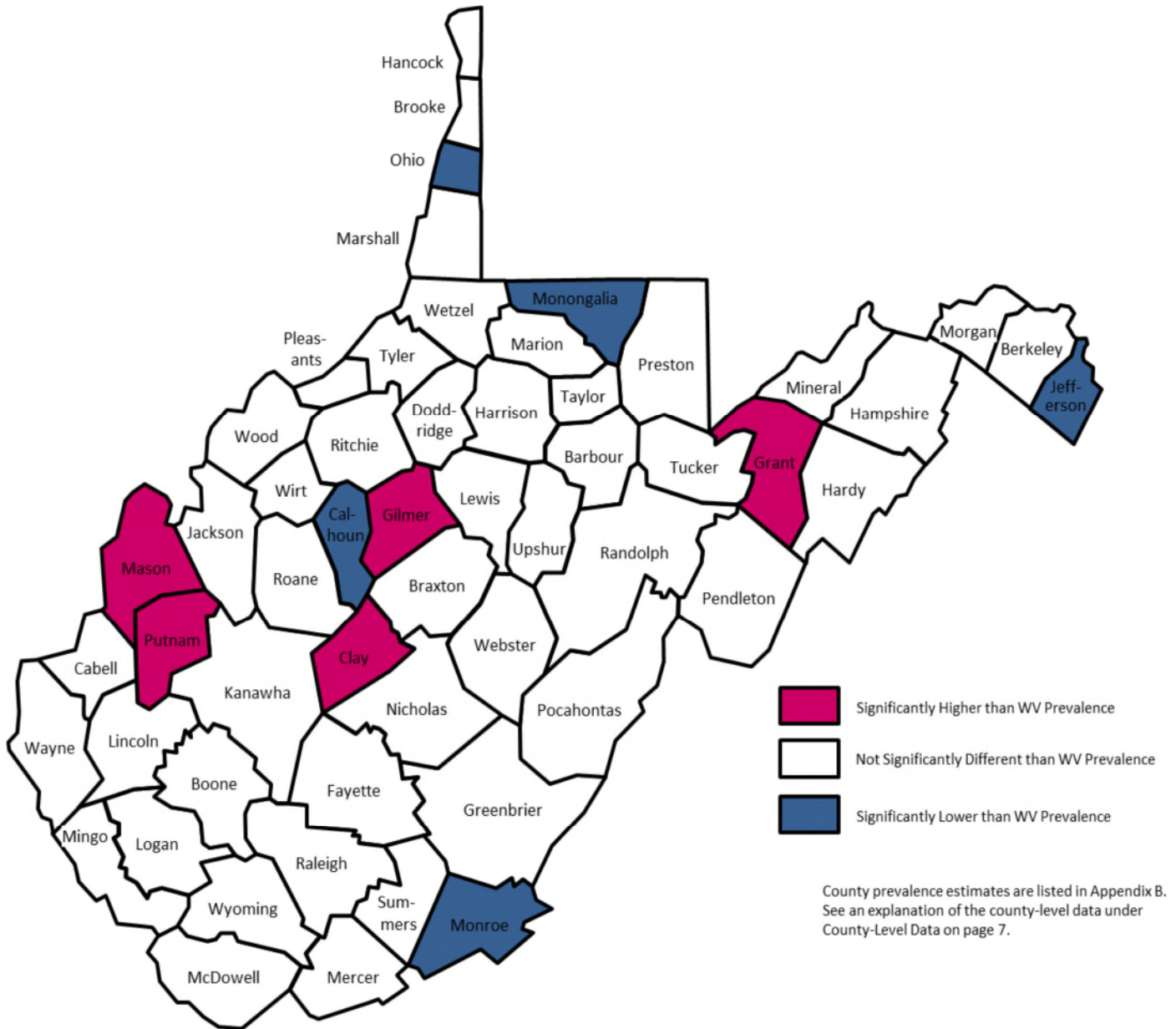


*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

CHAPTER 4: WEIGHT STATUS

Figure 4.3 Overweight or Obese Prevalence (Body Mass Index of 25.0 or Higher) by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 70.4%



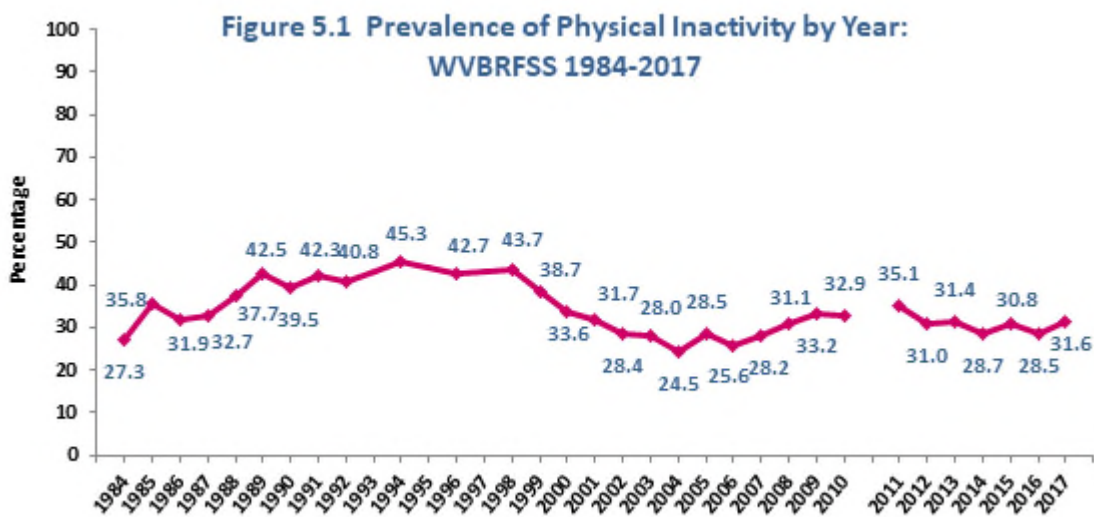
No Leisure-Time Physical Activity or Exercise

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: 31.6% (95% CI: 30.0-33.1) U.S.: 26.9% (95% CI: 26.6-27.2) The West Virginia prevalence of physical inactivity was significantly higher than the U.S. prevalence. West Virginia ranked the 9 th highest among 53 BRFSS participants.
Gender	Men: 30.4% (95% CI: 28.1-32.8) Women: 32.7% (95% CI: 30.6-34.7) There was no gender difference in the prevalence of physical inactivity.
Age	The prevalence of physical inactivity was significantly higher among those aged 45 and older than among those aged 44 and younger. The prevalence of physical inactivity was significantly lower among those aged 18-24 (16.2%) than among all other age groups except the 25-34 age group.
Education	The prevalence of physical inactivity was significantly higher among those with less than a high school education (42.8%) or a high school education (36.5%) than among those with some college (27.3%) or college graduates (18.5%).
Household Income	The prevalence of physical inactivity was significantly higher among adults with an annual household income of less than \$15,000 (42.7%) than among those with an income of \$25,000 or more per year. The prevalence of physical inactivity was significantly lower among those with an annual household income of \$75,000 or more (16.9%) than among all other income brackets.

CHAPTER 5: PHYSICAL ACTIVITY

Table 5.1 Prevalence of Physical Inactivity by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	206,474	30.4	28.1-32.8	232,048	32.7	30.6-34.7	438,521	31.6	30.0-33.1
Age									
18-24	13,805	17.6	9.1-26.0	10,915	14.8	7.3-22.3	24,721	16.2	10.6-21.9
25-34	28,279	27.4	20.4-34.4	22,015	22.0	16.4-27.6	50,294	24.8	20.3-29.3
35-44	28,279	27.2	21.1-33.4	25,638	24.9	19.5-30.3	53,917	26.1	22.0-30.2
45-54	39,769	36.6	31.0-42.3	42,751	38.7	33.7-43.6	82,521	37.7	33.9-41.4
55-64	43,240	34.8	30.3-39.4	52,472	40.3	36.2-44.5	95,713	37.6	34.6-40.7
65+	50,700	32.7	28.9-36.5	77,334	40.9	37.5-44.3	128,034	37.2	34.7-39.8
Education									
Less than H.S.	42,759	41.2	34.1-48.3	42,831	44.6	37.8-51.3	85,590	42.8	37.9-47.8
H.S. or G.E.D.	98,543	35.0	31.1-38.9	101,601	38.1	34.6-41.6	200,144	36.5	33.9-39.1
Some Post-H.S.	47,761	26.5	22.2-30.7	57,435	28.0	24.4-31.5	105,197	27.3	24.5-30.0
College Graduate	17,151	15.4	12.1-18.6	29,659	21.0	17.8-24.1	46,810	18.5	16.2-20.8
Income									
Less than \$15,000	31,071	42.3	34.2-50.3	38,380	43.1	37.0-49.2	69,451	42.7	37.8-47.7
\$15,000 - 24,999	40,995	36.0	30.0-42.0	49,581	38.4	33.5-43.4	90,576	37.3	33.4-41.1
\$25,000 - 34,999	25,066	33.6	26.8-40.4	25,260	32.7	26.7-38.8	50,326	33.2	28.6-37.7
\$35,000 - 49,999	27,327	33.4	27.0-39.8	25,061	32.6	26.5-38.7	52,388	33.0	28.6-37.4
\$50,000 - 74,999	25,953	28.9	22.7-35.2	22,907	30.1	24.3-35.8	48,859	29.5	25.2-33.7
\$75,000+	22,617	15.5	11.8-19.3	23,276	18.4	14.5-22.3	45,892	16.9	14.2-19.6

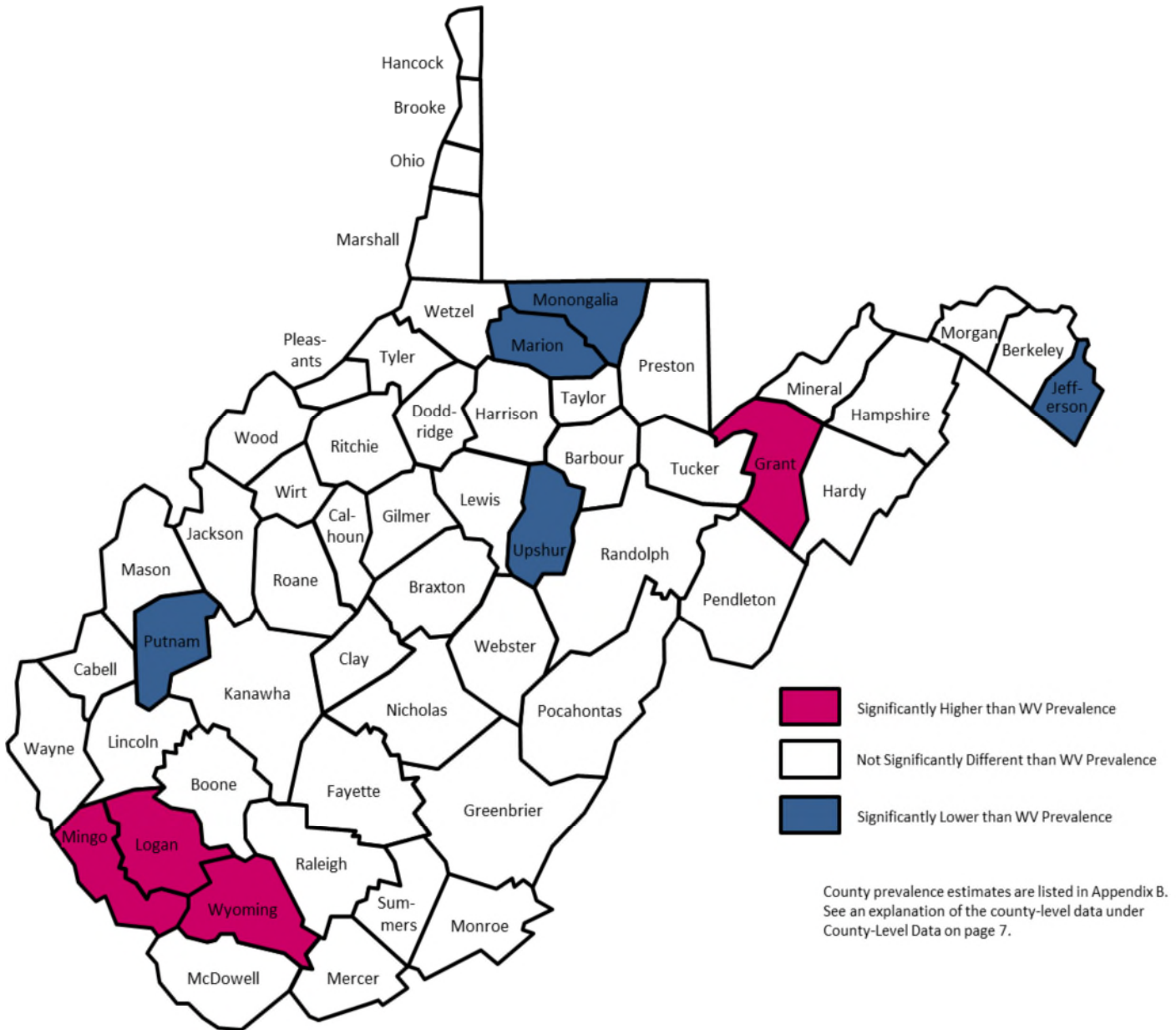


*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

CHAPTER 5: PHYSICAL ACTIVITY

Figure 5.2 Prevalence of Physical Inactivity by County: WVBFRSS, 2013-2017

WV Prevalence (2013-2017) - 30.2%



Physical Activity Levels

Definition	<p>Highly active is defined as doing enough physical activity to meet the 300 minute per week aerobic recommendation.</p> <p>Active is defined as doing 150-300 minutes of aerobic physical activity per week.</p> <p>Insufficiently active is defined as doing insufficient physical activity (11-149 minutes per week).</p> <p>Inactive is defined as doing no physical activity.</p>
Prevalence	<p>Highly Active: WV: 31.5% (95% CI: 29.9-33.1) U.S.: 30.7% (95% CI: 30.4-31.0)</p> <p>The West Virginia prevalence of highly active was similar to the U.S. prevalence. West Virginia ranked the 20th highest among 53 BRFSS participants.</p> <p>Active: WV: 16.4% (95% CI: 15.1-17.6) U.S.: 19.0% (95% CI: 18.7-19.3)</p> <p>The West Virginia prevalence of active was significantly lower than the U.S. prevalence. West Virginia ranked the 6th lowest among 53 BRFSS participants.</p> <p>Insufficiently Active: WV: 17.7% (95% CI: 16.4-19.1) U.S.: 20.5% (95% CI: 20.2-20.8)</p> <p>The West Virginia prevalence of insufficiently active was significantly lower than the U.S. prevalence. West Virginia ranked the 4th lowest among 53 BRFSS participants.</p> <p>Inactive: WV: 34.4% (95% CI: 32.8-36.1) U.S.: 29.9% (95% CI: 29.5-30.2)</p> <p>The West Virginia prevalence of inactive was significantly higher than the U.S. prevalence. West Virginia ranked the 11th highest among 53 BRFSS participants.</p>
Gender	<p>Highly Active: Men: 33.2% (95% CI: 30.8-35.7) Women: 29.8% (95% CI: 27.7-31.9)</p> <p>There was no gender difference in the prevalence of being highly active.</p> <p>Active: Men: 15.5% (95% CI: 13.6-17.3) Women: 17.2% (95% CI: 15.5-19.0)</p> <p>There was no gender difference in the prevalence of active.</p> <p>Insufficiently Active: Men: 17.5% (95% CI: 15.4-19.5) Women: 17.9% (95% CI: 16.2-19.7)</p> <p>There was no gender difference in the prevalence of insufficiently active.</p>

CHAPTER 5: PHYSICAL ACTIVITY

Inactive:

Men: 33.9% (95% CI: 31.4-36.3)

Women: 35.0% (95% CI: 32.9-37.1)

There was no gender difference in the prevalence of inactive.

Age

The prevalence of highly active was significantly higher among those aged 65 and older (34.0%) than among those aged 45-54 (27.0%). The prevalence of active was significantly higher among those aged 18-24 (22.5%) than among those aged 65 and older (13.2%). The prevalence of insufficiently active was significantly lower among those 65 and older (13.0%) than among those aged 25-54. The prevalence of inactive was significantly higher among those 45 and older than among those aged 18-44.

Education

The prevalence of highly active was significantly higher among college graduates (35.5%) than among those with less than a high school education (26.1%). The prevalence of active was significantly lower among those with less than a high school education (8.9%) than all other educational attainment levels. The prevalence of insufficiently active was significantly higher among those college graduates (21.9%) than among those with a high school education (15.0%). The prevalence of inactive was significantly higher among those with less than a high school education (47.4%) than among all other educational attainment groups. Additionally, the prevalence of inactive was significantly lower among college graduates (20.6%) than among all other educational attainment groups.

Household Income

The prevalence of highly active was significantly higher among those with an annual household income of \$75,000 or more (36.4%) than among those earning less than \$15,000 per year (24.4%). The prevalence of active was significantly lower among those with an annual household income of less than \$15,000 (11.7%) than among those with an income of \$50,000 or more per year. The prevalence of insufficiently active was significantly higher among those with an annual household income of \$75,000 or more (23.6%) than among those earning \$15,000-\$34,999 per year. The prevalence of inactive was significantly higher among those with an annual household income of less than \$25,000 than among those earning \$50,000 or more per year.

CHAPTER 5: PHYSICAL ACTIVITY

Table 5.2 Prevalence of Physical Activity Levels by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Highly Active			Active			Insufficiently Active			Inactive		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	420,176	31.5	29.9-33.1	218,292	16.4	15.1-17.6	236,262	17.7	16.4-19.1	459,671	34.4	32.8-36.1
Sex												
Male	216,445	33.2	30.8-35.7	100,644	15.5	13.6-17.3	113,754	17.5	15.4-19.5	220,566	33.9	31.4-36.3
Female	203,731	29.8	27.7-31.9	117,648	17.2	15.5-19.0	122,509	17.9	16.2-19.7	239,104	35.0	32.9-37.1
Age												
18-24	51,243	35.1	27.7-42.6	32,881	22.5	16.3-28.8	30,999	21.3	14.7-27.9	30,693	21.0	14.7-27.4
25-34	67,810	34.6	29.6-39.6	35,472	18.1	14.4-21.8	38,897	19.8	15.9-23.8	53,827	27.5	22.7-32.2
35-44	59,367	30.1	25.8-34.3	37,712	19.1	15.6-22.6	43,300	21.9	18.1-25.8	56,946	28.9	24.5-33.2
45-54	56,913	27.0	23.6-30.4	30,865	14.7	12.0-17.3	38,124	18.1	15.1-21.1	84,613	40.2	36.3-44.1
55-64	72,526	28.9	26.1-31.8	37,609	15.0	12.8-17.2	41,842	16.7	14.3-19.1	98,775	39.4	36.3-42.5
65+	112,318	34.0	31.4-36.5	43,753	13.2	11.4-15.0	43,100	13.0	11.3-14.8	131,495	39.8	37.1-42.4
Education												
Less than H.S.	49,609	26.1	21.3-30.9	16,991	8.9	6.2-11.6	33,498	17.6	13.1-22.1	90,313	47.4	42.2-52.6
H.S. or G.E.D.	165,745	31.4	28.7-34.0	76,502	14.5	12.5-16.5	79,462	15.0	13.0-17.1	206,757	39.1	36.4-41.8
Some Post-H.S.	118,456	31.9	28.8-34.9	71,284	19.2	16.5-21.9	69,909	18.8	16.3-21.4	111,865	30.1	27.2-33.1
College Graduate	86,126	35.5	32.5-38.4	53,514	22.0	19.4-24.7	53,183	21.9	19.2-24.6	49,955	20.6	18.1-23.0
Income												
Less than \$15,000	37,524	24.4	20.0-28.7	17,982	11.7	8.4-15.0	26,566	17.3	13.4-21.1	71,930	46.7	41.6-51.8
\$15,000 - 24,999	71,647	30.3	26.4-34.2	35,212	14.9	12.0-17.8	34,562	14.6	11.4-17.8	94,868	40.1	36.2-44.1
\$25,000 - 34,999	50,771	34.9	29.7-40.0	19,927	13.7	10.2-17.1	22,486	15.4	11.7-19.2	52,485	36.0	31.3-40.8
\$35,000 - 49,999	49,102	31.9	27.4-36.4	24,117	15.7	12.4-19.0	27,040	17.6	14.0-21.1	53,693	34.9	30.3-39.4
\$50,000 - 74,999	49,644	31.2	27.0-35.4	32,404	20.4	16.4-24.3	27,103	17.0	13.6-20.5	49,953	31.4	27.0-35.8
\$75,000+	95,674	36.4	32.8-39.9	55,289	21.0	17.9-24.1	62,007	23.6	20.4-26.8	50,145	19.1	16.1-22.0

Physical Activity Recommendations

Definition

Met aerobic activity recommendation only is defined as doing 150 minutes or more of aerobic activity per week but doing less than two days of muscle strengthening activities.

Met muscle strengthening recommendation only is defined as doing physical activity or exercises to strengthen the muscles two or more days per week but less than 150 minutes of aerobic activity per week.

Met both aerobic and muscle strengthening recommendations is defined as doing 150 minutes or more of aerobic activity and doing muscle strengthening activities two or more days per week.

Did not meet aerobic or muscle strengthening activity recommendation is defined as doing less than 150 minutes of aerobic activity and doing muscle strengthening activities less than two days per week.

Prevalence

Met aerobic recommendations only:

WV: 33.1% (95% CI: 31.5-34.7)

U.S.: 29.7% (95% CI: 29.4-30.0)

The West Virginia prevalence of met aerobic recommendation only was significantly higher than the U.S. prevalence. West Virginia ranked the 8th highest among 53 BRFSS participants.

Met muscle strengthening recommendation only:

WV: 7.7% (95% CI: 6.6-8.7)

U.S.: 10.1 (95% CI: 9.9-10.3)

The West Virginia prevalence of met muscle strengthening recommendation only was significantly lower than the U.S. prevalence. West Virginia ranked the 2nd lowest among 53 BRFSS participants.

Met both aerobic and muscle strengthening recommendations:

WV: 15.1% (95% CI: 13.8-16.4)

U.S.: 20.2% (95% CI: 19.9-20.4)

The West Virginia prevalence of met both aerobic and muscle strengthening recommendations was significantly lower than the U.S. prevalence. West Virginia ranked the 2nd lowest among 53 BRFSS participants.

Did not meet either aerobic or muscle strengthening recommendations:

WV: 44.2% (95% CI: 42.5-45.9)

U.S.: 40.1% (95% CI: 39.7-40.4)

The West Virginia prevalence of did not meet either aerobic or muscle strengthening recommendations was significantly higher than the U.S. prevalence. West Virginia ranked the 9th highest among 53 BRFSS participants.

CHAPTER 5: PHYSICAL ACTIVITY

Gender

Met aerobic recommendation only:

Men: 31.8% (95% CI: 29.4-34.1)

Women: 34.3% (95% CI: 32.2-36.5)

There was no gender difference in the prevalence of meeting aerobic recommendation only.

Met muscle strengthening recommendation only:

Men: 10.0% (95% CI: 8.2-11.8)

Women: 5.4% (95% CI: 4.3-6.5)

The prevalence of meeting muscle strengthening recommendation only was significantly higher among men than women.

Met both aerobic and muscle strengthening recommendations:

Men: 17.2% (95% CI: 15.1-19.3)

Women: 13.1% (95% CI: 11.5-14.6)

The prevalence of meeting both aerobic and muscle strengthening recommendations was significantly higher among men than women.

Did not meet either aerobic or muscle strengthening recommendations:

Men: 41.0% (95% CI: 38.4-43.5)

Women: 47.2% (95% CI: 45.0-49.4)

The prevalence of not meeting either aerobic or muscle strengthening activity recommendations was significantly higher among women than men.

Age

There was no age difference in the prevalence of meeting aerobic recommendation only. The prevalence of meeting muscle strengthening recommendation only generally was significantly higher among those aged 18-24 (18.0%) than among those aged 35 and older and significantly lower among those aged 65 and older (5.5%) than among those aged 34 and younger. The prevalence of meeting both aerobic and muscle strengthening recommendations was significantly higher among those aged 18-24 (26.8%) than among those aged 35 and older and was significantly higher among those aged 25-34 (21.7%) than among those aged 45 and older. The prevalence of not meeting either aerobic or muscle strengthening recommendation was significantly higher among those aged 45 and older than among those aged 18-34.

Education

There was no education difference in the prevalence of meeting aerobic recommendation only or meeting muscle strengthening recommendation only. The prevalence of meeting both aerobic and muscle strengthening recommendations was significantly lower among those with less than a high school education (5.8%) than among all other education groups and significantly higher among college graduates (23.2%) than among all other educational groups. The prevalence of not meeting either aerobic or muscle strengthening recommendations was significantly higher among those with less than a high school education (55.7%) than all other education groups and was significantly lower among college graduates (33.6%) than among all other education groups.

CHAPTER 5: PHYSICAL ACTIVITY

Household Income

There was no annual household income difference in the prevalence of meeting aerobic recommendation only or meeting muscle strengthening recommendation only. The prevalence of meeting both aerobic and muscle strengthening recommendations was significantly higher among those with an annual household income of \$50,000 or more than among those earning less than \$25,000 per year. The prevalence of not meeting either aerobic or muscle strengthening recommendation was significantly higher among those with an annual household income of less than \$15,000 (57.6%) than among all other income brackets and significantly lower among those with an income of \$75,000 or more (32.6%) than all other income brackets.

Table 5.3 Prevalence of Meeting Physical Activity Recommendations by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Met Aerobic Guidelines Only			Met Muscle Strengthening Guidelines Only			Met Both Aerobic and Muscle Strengthening			Didn't Meet Aerobic or Muscle Strengthening		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	442,135	33.1	31.5-34.7	102,270	7.7	6.6-8.7	201,745	15.1	13.8-16.4	590,194	44.2	42.5-45.9
Sex												
Male	207,190	31.8	29.4-34.1	65,210	10.0	8.2-11.8	112,305	17.2	15.1-19.3	267,119	41.0	38.4-43.5
Female	234,945	34.3	32.2-36.5	37,060	5.4	4.3-6.5	89,440	13.1	11.5-14.6	323,075	47.2	45.0-49.4
Age												
18-24	45,282	31.0	23.9-38.1	26,357	18.0	11.6-24.4	39,162	26.8	19.9-33.7	35,335	24.2	17.6-30.8
25-34	61,315	31.5	26.7-36.3	20,747	10.6	7.4-13.9	42,195	21.7	17.4-25.9	70,564	36.2	31.3-41.2
35-44	66,270	33.5	29.2-37.8	12,286	6.2	4.1-8.4	32,170	16.3	12.8-19.7	87,188	44.1	39.4-48.7
45-54	67,365	31.8	28.2-35.4	13,538	6.4	4.6-8.2	21,667	10.2	8.1-12.4	109,104	51.5	47.7-55.4
55-64	83,195	33.2	30.2-36.2	10,301	4.1	2.9-5.3	27,434	10.9	9.0-12.8	129,837	51.8	48.6-54.9
65+	118,707	35.8	33.2-38.3	18,362	5.5	4.3-6.7	39,116	11.8	10.1-13.5	155,522	46.9	44.2-49.5
Education												
Less than H.S.	56,494	29.6	24.8-34.4	16,882	8.9	4.8-12.9	11,122	5.8	3.1-8.5	106,213	55.7	50.4-61.0
H.S. or G.E.D.	172,451	32.7	30.0-35.3	33,239	6.3	4.8-7.8	71,463	13.5	11.4-15.7	251,019	47.5	44.7-50.3
Some Post-H.S.	128,258	34.5	31.4-37.6	31,163	8.4	6.4-10.4	62,386	16.8	14.1-19.4	149,820	40.3	37.2-43.5
College Graduate	84,691	34.6	31.7-37.5	20,986	8.6	6.8-10.4	56,775	23.2	20.5-25.9	82,152	33.6	30.6-36.5
Income												
Less than \$15,000	44,218	28.7	24.1-33.3	9,131	5.9	3.2-8.6	11,947	7.8	5.0-10.5	88,826	57.6	52.6-62.7
\$15,000 - 24,999	80,019	33.9	30.0-37.7	18,788	8.0	5.2-10.7	27,127	11.5	8.5-14.4	110,307	46.7	42.6-50.8
\$25,000 - 34,999	51,289	35.1	30.1-40.0	9,257	6.3	3.9-8.7	20,470	14.0	9.8-18.1	65,282	44.6	39.6-49.7
\$35,000 - 49,999	47,787	31.0	26.7-35.2	11,190	7.3	4.7-9.8	25,741	16.7	12.9-20.5	69,542	45.1	40.4-49.8
\$50,000 - 74,999	51,421	32.2	28.0-36.4	7,408	4.6	3.1-6.2	31,215	19.5	15.7-23.4	69,648	43.6	38.9-48.3
\$75,000+	95,859	36.2	32.7-39.8	25,226	9.5	7.1-11.9	57,138	21.6	18.6-24.6	86,228	32.6	29.2-36.1

Fruit and Vegetable Consumption

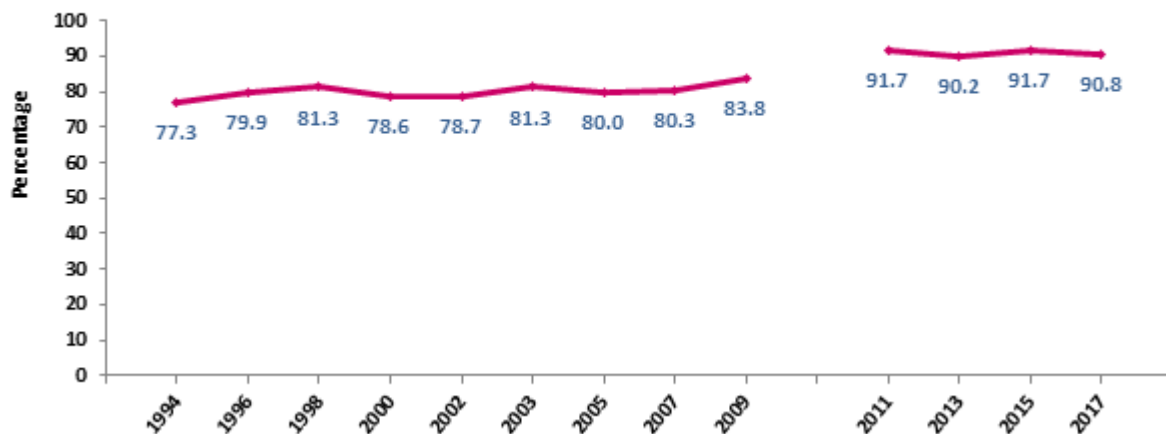
Definition	Consuming fewer than five servings of fruits and vegetables on a daily basis in the past month.
Prevalence	WV: 90.8% (95% CI: 89.8-91.8) U.S.: 82.7% (95% CI: 82.4-83.0) The West Virginia prevalence of consuming fewer than five servings of fruits and vegetables daily was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants.
Gender	Men: 91.6% (95% CI: 90.2-93.1) Women: 90.0% (95% CI: 88.6-91.4) There was no gender difference in the prevalence of consuming fewer than five servings of fruits and vegetables daily.
Age	There was no age difference in the prevalence of consuming fewer than five servings of fruits and vegetables daily.
Education	The prevalence of consuming fewer than five servings of fruits and vegetables daily was significantly lower among college graduates (85.5%) than among all other educational attainment groups.
Household Income	The prevalence of consuming fewer than five servings of fruits and vegetables daily was significantly higher among those with an annual household income of less than \$15,000 (93.5%) than among those with an income of \$75,000 or more (87.9%) per year.

CHAPTER 6: NUTRITION

Table 6.1 Prevalence of Consuming Less than Five Servings of Fruits and Vegetables Daily by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	590,228	91.6	90.2-93.1	604,214	90.0	88.6-91.4	1,194,443	90.8	89.8-91.8
Age									
18-24	72,245	91.6	85.9-97.4	63,281	87.8	80.8-94.8	135,527	89.8	85.3-94.3
25-34	87,653	90.7	86.1-95.4	82,524	86.1	81.5-90.6	170,177	88.4	85.2-91.7
35-44	89,122	90.7	86.7-94.7	85,405	88.0	84.3-91.8	174,526	89.4	86.6-92.2
45-54	94,634	89.7	86.0-93.4	96,757	92.7	90.2-95.3	191,390	91.2	89.0-93.5
55-64	112,598	94.4	92.2-96.7	113,748	90.6	88.2-93.0	226,345	92.5	90.8-94.1
65+	129,710	91.9	89.8-94.1	159,689	92.2	90.4-94.0	289,399	92.1	90.7-93.5
Education									
Less than H.S.	84,137	92.0	87.5-96.6	82,377	94.6	91.6-97.6	166,514	93.3	90.5-96.0
H.S. or G.E.D.	246,496	91.6	89.1-94.0	230,776	92.1	90.0-94.3	477,273	91.8	90.2-93.5
Some Post-H.S.	163,368	94.0	91.7-96.3	175,217	89.6	86.8-92.5	338,585	91.7	89.8-93.6
College Graduate	95,704	87.7	84.6-90.9	115,315	83.8	80.9-86.8	211,019	85.5	83.4-87.7
Income									
Less than \$15,000	67,555	95.0	91.3-98.7	76,338	92.2	88.4-96.1	143,894	93.5	90.8-96.3
\$15,000 - 24,999	103,782	92.2	88.4-96.0	113,760	91.8	88.8-94.8	217,542	92.0	89.6-94.4
\$25,000 - 34,999	65,580	94.9	91.3-98.5	64,698	89.8	85.4-94.2	130,278	92.3	89.4-95.2
\$35,000 - 49,999	70,162	91.7	87.8-95.5	65,726	89.3	84.6-93.9	135,888	90.5	87.5-93.5
\$50,000 - 74,999	78,223	90.8	87.3-94.4	65,643	88.1	84.3-92.0	143,866	89.6	86.9-92.2
\$75,000+	128,109	89.5	86.2-92.7	105,665	86.0	82.6-89.4	233,774	87.9	85.5-90.2

Figure 6.1 Prevalence of Consuming Less than Five Servings of Fruits and Vegetables Daily by Year: WVBRFSS, 1994-2017

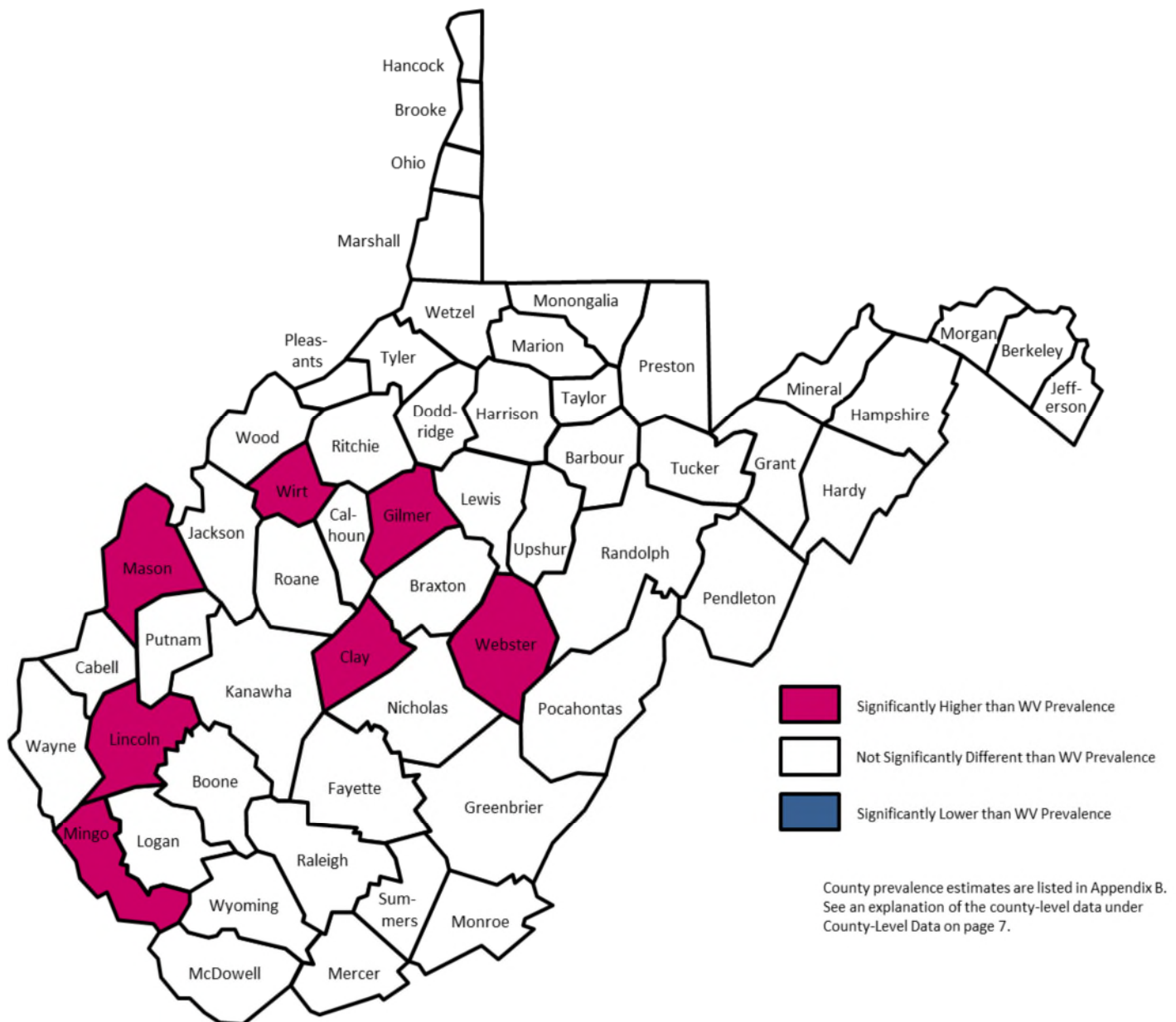


*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

CHAPTER 6: NUTRITION

Figure 6.2 Prevalence of Consuming Less than Five Servings of Fruits and Vegetables Daily by County: WVBRFSS, 2009, 2011, 2013, 2015, 2017

WV Prevalence (2009, 2011, 2013, 2015, 2017) - 89.6%



Sugar Sweetened Beverages

Definition	Daily consumption of soda, pop, or any sugar added beverage. Responding “1” or more times per day to the question, “During the past 30 days, how often did you drink regular soda or pop that contains sugar? Do not include diet soda or diet pop.” or responding “1” or more times per day to the question, “During the past 30 days, how often did you drink sugar sweetened fruit drinks, sweet tea, and sports or energy drinks? Do not include 100% fruit juice, diet drinks, or artificially sweetened drinks.”
Prevalence	WV: 35.8% (95% CI: 34.1-37.5) 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: 39.7% (95% CI: 37.1-42.3) Women: 32.1% (95% CI: 29.9-34.3) The prevalence of daily consumption of sugar sweetened beverages was significantly higher among men than among women.
Age	The prevalence of daily consumption of sugar sweetened beverages was significantly higher among those aged 18-54 than among those aged 55 and older.
Education	The prevalence of daily consumption of sugar sweetened beverages was significantly higher among those with less than a high school education (48.4%) than among all other educational attainment groups and significantly lower among college graduates (19.8%) than among all other educational attainment groups.
Household Income	The prevalence of daily consumption of sugar sweetened beverages was significantly higher among those with an annual household income of less than \$25,000 than among those with an annual household income of \$50,000 or more.

CHAPTER 6: NUTRITION

Table 6.2 Prevalence of Daily Consumption of Sugar Sweetened Beverages by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	250,874	39.7	37.1-42.3	216,222	32.1	29.9-34.3	467,096	35.8	34.1-37.5
Age									
18-24	30,658	46.1	34.1-58.2	29,286	43.2	32.1-54.3	59,944	44.6	36.4-52.8
25-34	41,435	45.3	37.2-53.3	38,911	41.5	34.6-48.4	80,346	43.4	38.1-48.7
35-44	53,306	53.6	46.7-60.4	38,485	40.3	34.0-46.6	91,791	47.1	42.4-51.8
45-54	44,691	43.3	37.5-49.2	40,947	38.7	33.6-43.8	85,638	41.0	37.1-44.8
55-64	41,120	34.9	30.2-39.6	30,772	24.6	20.9-28.3	71,892	29.6	26.6-32.6
65+	38,794	25.9	22.3-29.6	37,275	20.5	17.5-23.5	76,069	22.9	20.6-25.3
Education									
Less than H.S.	48,490	49.2	41.5-56.9	43,790	47.6	40.4-54.7	92,281	48.4	43.1-53.7
H.S. or G.E.D.	113,441	43.7	39.5-47.9	86,265	33.8	30.2-37.5	199,706	38.8	36.0-41.6
Some Post-H.S.	65,352	38.9	34.0-43.9	61,958	32.4	28.2-36.5	127,310	35.4	32.2-38.6
College Graduate	23,590	22.4	18.3-26.5	23,999	17.9	14.7-21.0	47,589	19.8	17.3-22.4
Income									
Less than \$15,000	33,044	46.2	38.1-54.3	33,221	39.7	33.4-46.0	66,265	42.7	37.6-47.8
\$15,000 - 24,999	46,503	44.5	38.0-50.9	47,124	38.5	33.3-43.8	93,627	41.3	37.2-45.4
\$25,000 - 34,999	32,181	45.3	37.5-53.1	22,266	30.4	23.6-37.1	54,447	37.7	32.5-42.9
\$35,000 - 49,999	32,929	42.2	35.3-49.1	23,762	31.8	25.1-38.5	56,692	37.1	32.3-41.9
\$50,000 - 74,999	28,500	32.9	26.1-39.8	17,678	24.2	18.8-29.6	46,178	28.9	24.4-33.4
\$75,000+	42,964	32.1	26.8-37.3	26,992	22.7	18.0-27.3	69,956	27.7	24.1-31.2

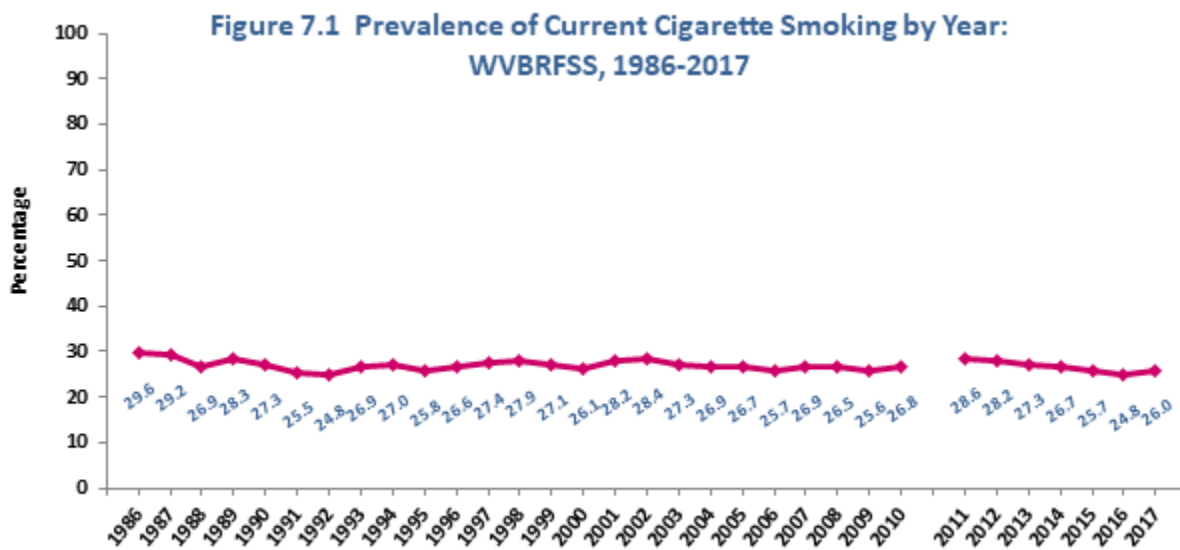
Current Cigarette Smoking

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: 26.0% (95% CI: 24.5-27.5) U.S.: 16.3% (95% CI: 16.1-16.6) The West Virginia prevalence of current cigarette smoking was significantly higher than the U.S. prevalence. West Virginia ranked the highest among the 53 BRFSS participants.
Gender	Men: 25.1% (95% CI: 22.8-27.3) Women: 26.9% (95% CI: 24.8-29.0) There was no gender difference in the prevalence of current cigarette smoking.
Age	The prevalence of current cigarette smoking was highest among those aged 35-44 (36.5%), significantly higher than among those aged 18-24 (28.6%) and among those aged 55 and older. The prevalence of current smoking was significantly lower among those 65 and older (11.2%) than among all other age groups.
Education	The prevalence of current cigarette smoking was lowest among college graduates (10.5%) 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 (41.3%), and the prevalence was significantly higher than all other education groups.
Household Income	The prevalence of current cigarette smoking was among those with an annual household income less than \$15,000 per year (44.6%), significantly higher than among those with income levels of \$25,000 or more per year. The lowest prevalence of smoking was among adults earning \$75,000 or more per year (13.3%), significantly lower than those with incomes less than \$50,000.

CHAPTER 7: TOBACCO USE

Table 7.1 Prevalence of Current Cigarette Smoking by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	175,390	25.1	22.8-27.3	195,300	26.9	24.8-29.0	370,689	26.0	24.5-27.5
Age									
18-24	22,906	26.4	17.5-35.3	24,057	31.0	21.0-41.0	46,962	28.6	21.9-35.2
25-34	35,582	33.2	26.0-40.5	37,840	36.9	30.4-43.4	73,422	35.0	30.1-39.9
35-44	34,915	32.6	26.2-38.9	42,880	40.6	34.5-46.6	77,796	36.5	32.1-41.0
45-54	29,595	27.1	21.9-32.4	39,863	35.3	30.5-40.1	69,458	31.3	27.7-34.8
55-64	30,313	24.1	20.0-28.2	31,276	23.7	20.1-27.3	61,589	23.9	21.2-26.6
65+	20,322	12.9	10.2-15.6	18,717	9.8	7.8-11.8	39,039	11.2	9.6-12.8
Education									
Less than H.S.	41,500	38.7	31.6-45.8	44,394	44.0	37.0-51.1	85,893	41.3	36.2-46.3
H.S. or G.E.D.	80,067	27.1	23.5-30.7	80,602	29.6	26.2-33.1	160,670	28.3	25.8-30.8
Some Post-H.S.	42,745	23.5	19.2-27.9	53,949	25.8	22.1-29.5	96,694	24.8	21.9-27.6
College Graduate	11,077	9.7	6.9-12.5	16,033	11.2	8.7-13.7	27,110	10.5	8.7-12.4
Income									
Less than \$15,000	34,583	43.6	35.7-51.4	41,495	45.5	39.3-51.7	76,078	44.6	39.7-49.6
\$15,000 - 24,999	40,838	33.8	27.7-39.8	48,679	37.1	32.0-42.3	89,517	35.5	31.6-39.5
\$25,000 - 34,999	18,541	24.6	18.4-30.7	16,816	21.4	15.6-27.1	35,357	22.9	18.8-27.1
\$35,000 - 49,999	17,632	21.0	15.4-26.6	15,841	19.9	14.3-25.5	33,472	20.5	16.5-24.4
\$50,000 - 74,999	21,758	23.8	17.4-30.1	14,064	18.3	13.1-23.4	35,822	21.3	17.1-25.5
\$75,000+	17,460	11.9	8.2-15.7	19,087	14.9	10.8-18.9	36,548	13.3	10.6-16.1

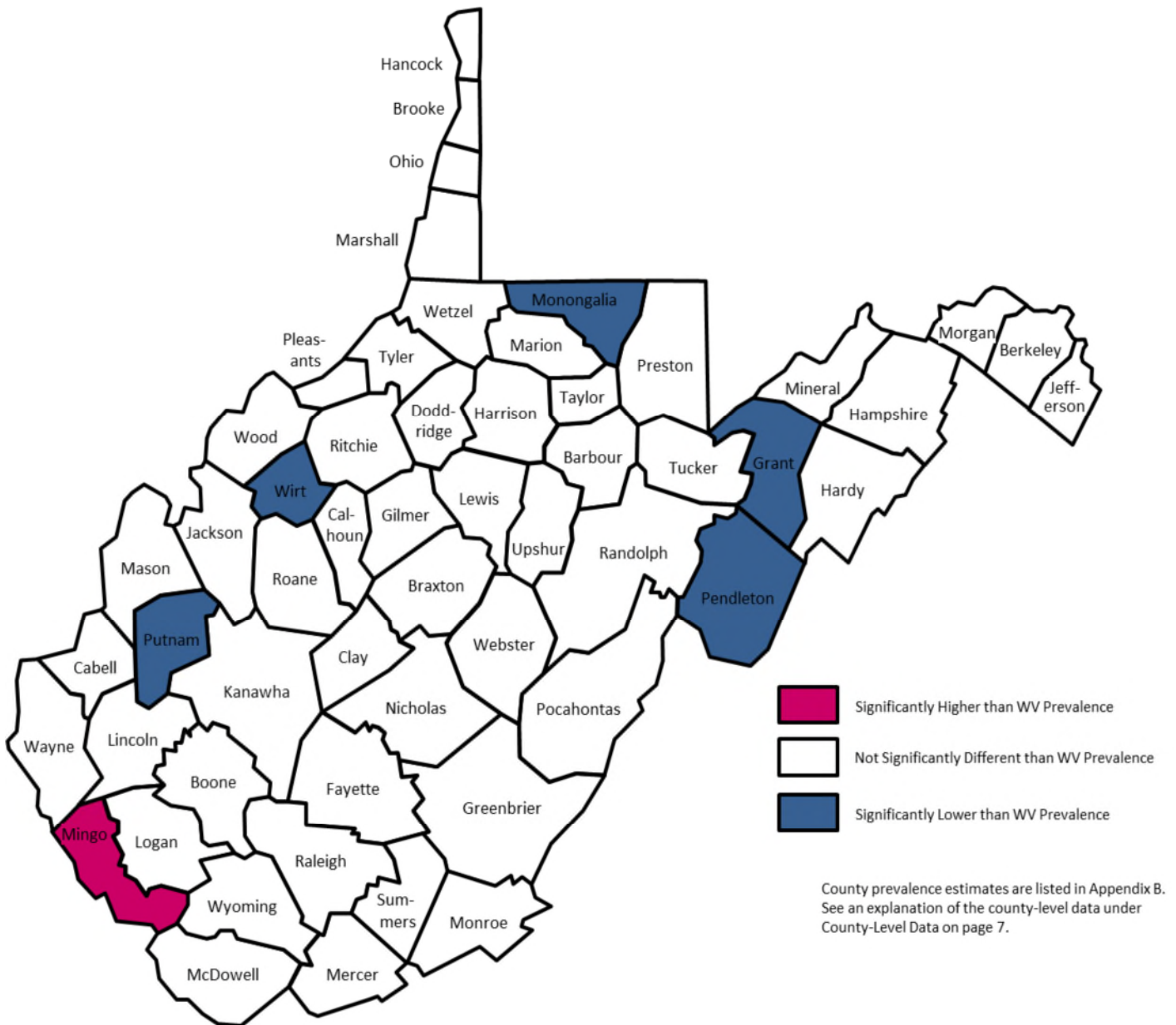


*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

CHAPTER 7: TOBACCO USE

Figure 7.2 Prevalence of Current Cigarette Smoking by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 26.1%



Smoking Cessation

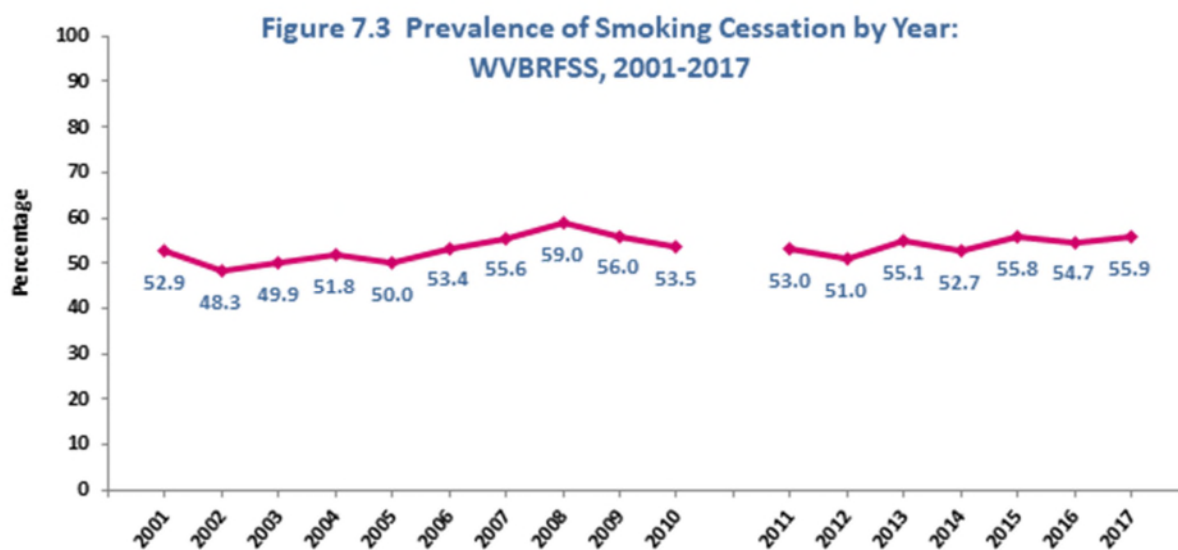
Definition	Current smokers responding “Yes” to the question, “During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?”
Prevalence	WV: 55.9% (95% CI: 52.4-59.3) U.S.: 58.9% (95% CI: 58.1-59.6) The West Virginia prevalence of smoking cessation among was similar to the U.S. West Virginia ranked the 14 th lowest among 53 BRFSS participants.
Gender	Men: 55.9% (95% CI: 50.7-61.2) Women: 55.8% (95% CI: 51.2-60.4) There was no gender difference in the prevalence of smoking cessation.
Age	The prevalence of smoking cessation was lowest in adults aged 65 and older (41.3%) which was significantly higher than adults aged 34 and younger.
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.

CHAPTER 7: TOBACCO USE

Table 7.2 Prevalence of Smoking Cessation by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	97,038	55.9	50.7-61.2	108,971	55.8	51.2-60.4	206,010	55.9	52.4-59.3
Age									
18-24	18,408	*83.4	68.6-98.2	19,493	*81.0	66.8-95.3	37,901	*82.2	71.9-92.4
25-34	22,633	*65.1	52.5-77.8	20,336	*53.7	42.4-65.1	42,969	59.2	50.6-67.8
35-44	18,143	*52.0	39.9-64.0	22,454	*52.4	42.3-62.4	40,597	52.2	44.4-59.9
45-54	14,902	*50.4	38.9-61.8	19,543	49.0	40.4-57.6	34,445	49.6	42.7-56.5
55-64	14,744	49.1	39.3-58.8	18,274	58.4	49.8-67.0	33,019	53.8	47.3-60.3
65+	7,529	*37.0	26.6-47.5	8,609	*46.0	35.2-56.8	16,138	41.3	33.8-48.9
Education									
Less than H.S.	19,264	*46.4	34.7-58.2	24,245	*54.6	43.3-65.9	43,509	50.7	42.5-58.9
H.S. or G.E.D.	44,654	56.5	48.8-64.2	45,321	56.2	49.2-63.2	89,974	56.4	51.2-61.6
Some Post-H.S.	27,835	66.2	56.6-75.8	30,361	56.3	48.0-64.5	58,196	60.6	54.3-66.9
College Graduate	5,285	*48.3	32.9-63.8	8,723	*54.4	42.6-66.2	14,008	51.9	42.5-61.4
Income									
Less than \$15,000	18,990	*54.9	43.3-66.6	24,609	59.3	50.2-68.5	43,600	57.3	50.0-64.6
\$15,000 - 24,999	26,275	64.3	54.5-74.2	26,681	54.8	45.9-63.8	52,957	59.2	52.4-65.9
\$25,000 - 34,999	10,162	*54.8	40.8-68.8	8,952	*53.2	38.0-68.5	19,114	*54.1	43.7-64.4
\$35,000 - 49,999	8,154	*46.2	30.9-61.5	7,765	*49.0	32.9-65.2	15,919	*47.6	36.4-58.7
\$50,000 - 74,999	12,605	*57.9	42.8-73.1	5,659	*40.2	24.9-55.6	18,264	*51.0	39.5-62.5
\$75,000+	8,644	*52.4	34.9-69.8	11,838	*62.0	47.5-76.5	20,483	*57.5	46.3-68.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

Current 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	WV: 8.9% (95% CI: 7.8-9.9) U.S.: 3.7% (95% CI: 3.6-3.8) The West Virginia prevalence of smokeless tobacco use was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants.
Gender	Men: 16.6% (95% CI: 14.6-18.6) Women: 1.4% (95% CI: 0.8-2.1) The prevalence of smokeless tobacco use was significantly higher among men.
Age	The prevalence of smokeless tobacco use was highest among those aged 35-44 (13.6%) and lowest among those aged 65 and older (5.0%), a significant difference.
Education	The prevalence of smokeless tobacco use (4.4%) was significantly lower among college graduates than among those with less than a high school education (11.6%) and those with a high school degree (1.2%).
Household Income	There was no annual household income difference in the prevalence of smokeless tobacco use.

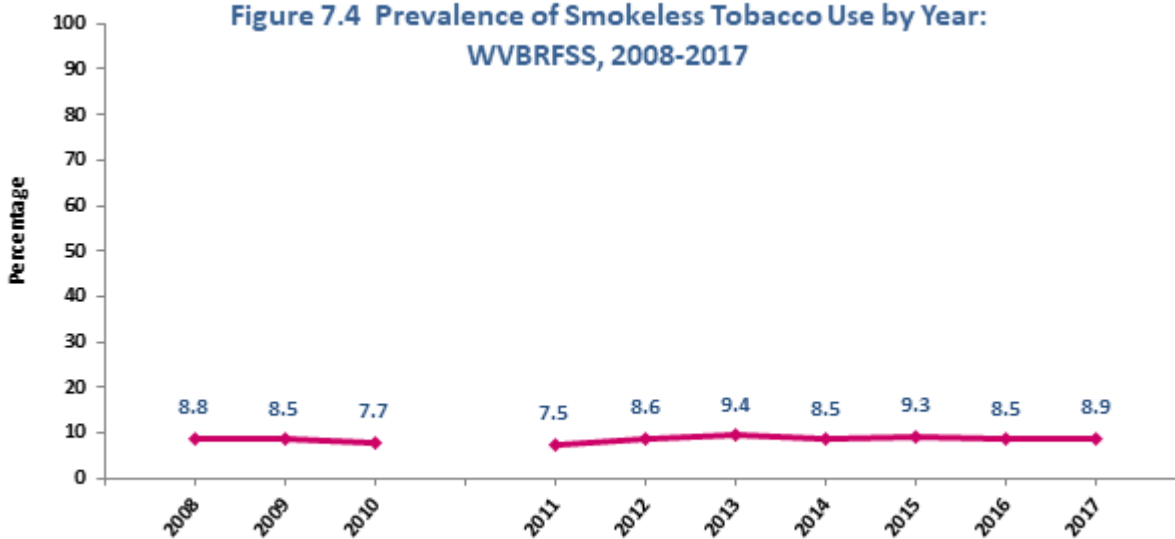
CHAPTER 7: TOBACCO USE

Table 7.3 Prevalence of Current Smokeless Tobacco Use by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	116,255	16.6	14.6-18.6	10,569	1.4	0.8-2.1	126,824	8.9	7.8-9.9
Age									
18-24	18,246	21.0	12.1-29.9	2,018	*2.5	0.0-6.2	20,265	12.2	7.0-17.4
25-34	16,794	15.7	10.3-21.0	1,918	*1.9	0.2-3.5	18,712	8.9	6.0-11.8
35-44	22,490	20.9	15.3-26.5	1,776	*1.7	0.1-3.2	24,267	11.3	8.3-14.4
45-54	19,189	17.7	13.3-22.1	2,018	*1.8	0.3-3.3	21,208	9.6	7.2-12.0
55-64	21,379	16.9	13.2-20.7	915	*0.7	0.0-1.4	22,295	8.6	6.7-10.6
65+	17,822	11.3	8.7-13.9	1,922	*1.0	0.3-1.7	19,745	5.6	4.4-6.9
Education									
Less than H.S.	21,136	19.7	14.1-25.3	3,065	*3.0	0.8-5.3	24,201	11.6	8.4-14.8
H.S. or G.E.D.	59,663	20.2	16.8-23.7	3,811	*1.4	0.3-2.5	63,474	11.2	9.2-13.1
Some Post-H.S.	25,756	14.1	10.5-17.8	1,916	*0.9	0.1-1.8	27,671	7.0	5.2-8.9
College Graduate	9,557	8.4	5.9-10.8	1,778	*1.2	0.3-2.2	11,335	4.4	3.2-5.6
Income									
Less than \$15,000	18,345	23.1	15.9-30.2	2,085	*2.3	0.5-4.1	20,430	11.9	8.3-15.6
\$15,000 - 24,999	22,306	18.5	13.4-23.6	2,506	*1.9	0.5-3.3	24,812	9.8	7.1-12.5
\$25,000 - 34,999	12,816	16.9	10.8-23.1	89	*0.1	0.0-0.3	12,905	8.4	5.2-11.5
\$35,000 - 49,999	10,607	12.6	8.0-17.2	2,111	*2.6	0.1-5.2	12,718	7.8	5.1-10.5
\$50,000 - 74,999	9,997	10.9	6.6-15.1	727	*0.9	0.0-2.1	10,724	6.4	3.9-8.8
\$75,000+	26,371	17.9	13.6-22.3	377	*0.3	0.0-0.7	26,748	9.7	7.3-12.2

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Figure 7.4 Prevalence of Smokeless Tobacco Use by Year: WVBRFSS, 2008-2017

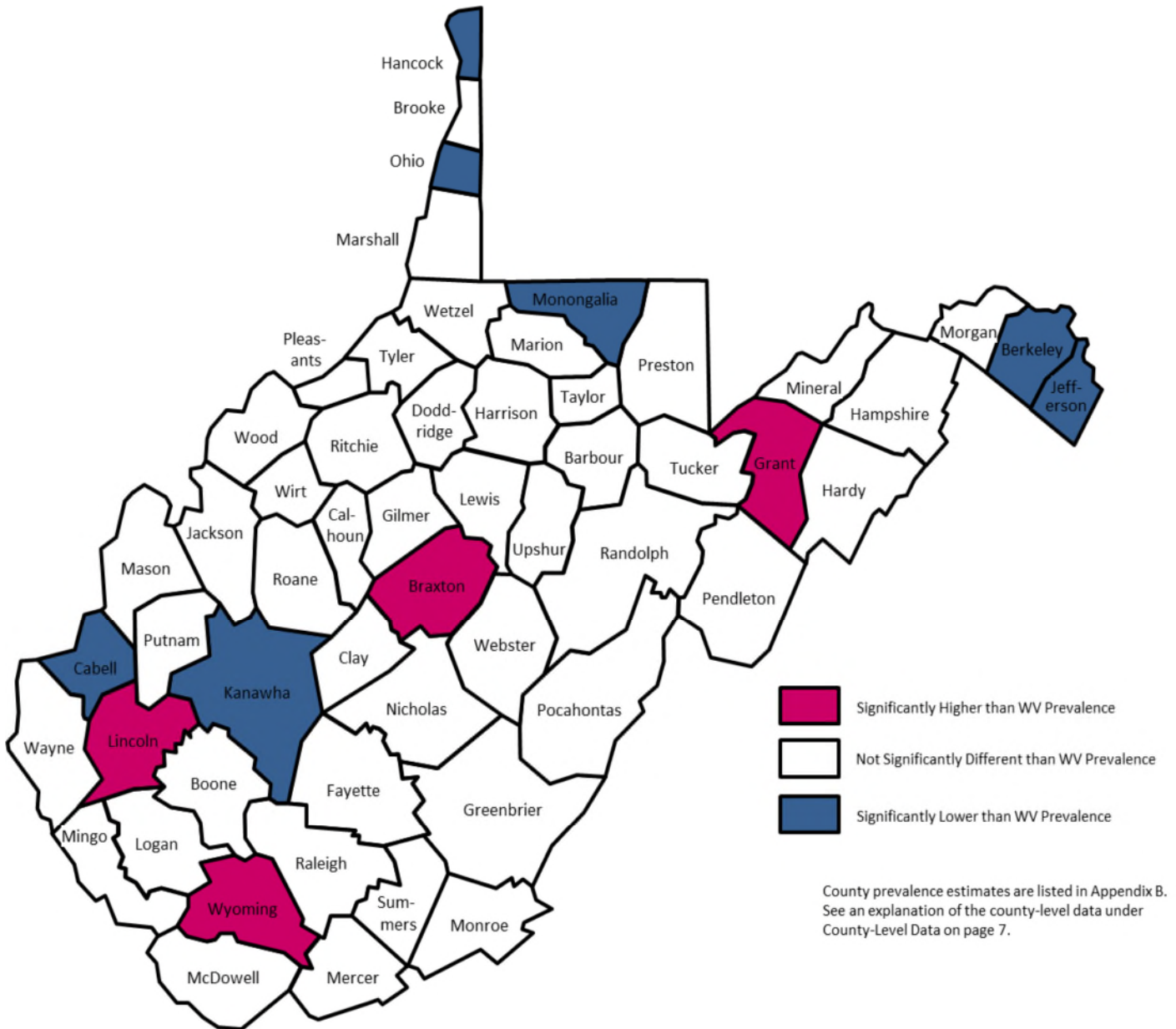


*Due to changes in sample composition and weighting methodology, 2011-2017 results are not directly comparable to previous years.

CHAPTER 7: TOBACCO USE

Figure 7.5 Prevalence of Current Smokeless Tobacco Use by County: WVBFRSS, 2013-2017

WV Prevalence (2013-2017) - 8.9%



Current E-Cigarette Use

Definition	Responding “Every day” or “Some days” to the question, “Do you now use e-cigarettes or other electronic “vaping” products every day, some days, or not at all?”
Prevalence	WV: 5.7% (95% CI: 4.8-6.6) U.S.: 4.4% (95% CI: 4.3-4.5) The West Virginia prevalence of currently use e-cigarettes was significantly higher than the U.S. prevalence. West Virginia ranked the 7 th highest among 54 BRFSS participants.
Gender	Men: 6.5% (95% CI: 5.0-8.0) Women: 4.9% (95% CI: 3.8-5.9) There was no gender difference in the prevalence of currently use e-cigarettes.
Age	The prevalence of currently use e-cigarettes was significantly higher among those aged 18-24 (10.9%) than among those aged 45 and older.
Education	The prevalence of currently use e-cigarettes was significantly lower among those with a college education (2.4%) than all other levels of educational attainment.
Household Income	There was no annual household income difference in the prevalence of current e-cigarette use.

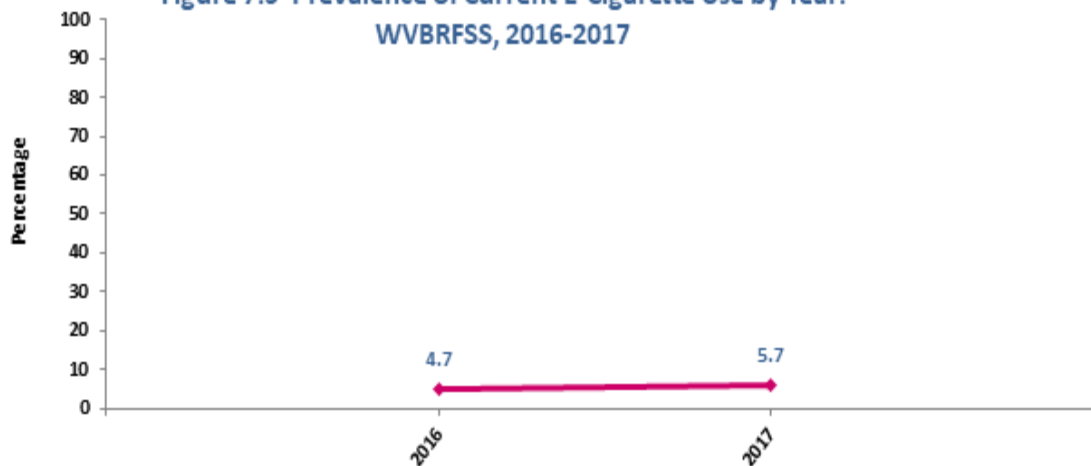
CHAPTER 7: TOBACCO USE

Table 7.4 Prevalence of Current E-Cigarette Use by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	45,376	6.5	5.0-8.0	35,328	4.9	3.8-5.9	80,704	5.7	4.8-6.6
Age									
18-24	14,133	16.4	8.7-24.1	3,841	*4.8	0.2-9.5	17,974	10.9	6.2-15.5
25-34	11,434	11.0	5.8-16.1	7,054	7.0	3.8-10.2	18,489	9.0	6.0-12.1
35-44	10,458	9.7	5.7-13.7	9,148	8.6	5.0-12.2	19,605	9.2	6.5-11.8
45-54	4,655	4.3	2.1-6.4	7,120	6.3	3.9-8.8	11,774	5.3	3.7-6.9
55-64	3,152	2.5	1.1-4.0	5,446	4.1	2.3-5.9	8,599	3.3	2.2-4.5
65+	1,544	*1.0	0.2-1.7	2,719	1.4	0.6-2.2	4,264	1.2	0.7-1.8
Education									
Less than H.S.	9,702	*9.1	3.7-14.6	4,985	*5.0	1.3-8.6	14,687	7.1	3.8-10.4
H.S. or G.E.D.	18,097	6.2	4.0-8.4	15,595	5.7	4.0-7.5	33,692	6.0	4.6-7.4
Some Post-H.S.	14,545	8.0	5.1-10.8	11,560	5.5	3.6-7.5	26,105	6.7	5.0-8.4
College Graduate	3,032	*2.7	0.9-4.4	3,189	2.2	1.1-3.3	6,220	2.4	1.4-3.4
Income									
Less than \$15,000	6,074	7.7	3.3-12.1	5,013	5.5	2.9-8.2	11,086	6.5	4.1-9.0
\$15,000 - 24,999	8,992	7.5	3.9-11.1	9,871	7.5	4.9-10.2	18,863	7.5	5.3-9.7
\$25,000 - 34,999	5,054	6.7	3.2-10.2	3,009	*3.8	1.0-6.6	8,063	5.2	3.0-7.5
\$35,000 - 49,999	4,776	*5.7	2.0-9.4	3,734	*4.7	1.5-7.9	8,510	5.2	2.8-7.7
\$50,000 - 74,999	4,857	*5.3	1.7-8.9	1,765	*2.3	0.5-4.1	6,622	3.9	1.8-6.1
\$75,000+	4,330	*3.0	0.6-5.3	5,900	4.6	2.1-7.1	10,229	3.7	2.0-5.4

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Figure 7.5 Prevalence of Current E-Cigarette Use by Year: WVBRFSS, 2016-2017



Marijuana Use

Definition	Reported at least one day of use in response to the question “During the past 30 days, on how many days did you use marijuana or hashish?”
Prevalence	WV: 15.2% (95% CI: 13.8-16.6) 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: 18.4% (95% CI: 16.1-20.6) Women: 12.2% (95% CI: 10.6-13.8) The prevalence of marijuana use was significantly higher among men than among women.
Age	The prevalence of marijuana use was significantly higher among those aged 18-24 (31.2%) than among those 35 and older.
Education	There were no significant educational attainment differences for prevalence of marijuana use.
Household Income	Prevalence of marijuana use was significantly higher among those with an annual household income of less than \$25,000 than among those earning \$35,000 or more per year.

CHAPTER 8: MARIJUANA USE

Table 8.1 Prevalence of Marijuana Use in the Past Month: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	129,873	18.4	16.1-20.6	89,657	12.2	10.6-13.8	219,530	15.2	13.8-16.6
Age									
18-24	32,553	*37.5	27.1-47.9	19,467	24.4	15.2-33.5	52,019	31.2	24.2-38.2
25-34	28,755	26.8	20.0-33.7	15,721	15.2	10.6-19.9	44,475	21.2	16.9-25.4
35-44	22,961	21.0	15.3-26.6	19,152	17.6	13.0-22.1	42,104	19.3	15.6-22.9
45-54	15,950	14.5	10.3-18.6	13,203	11.6	8.5-14.7	29,153	13.0	10.4-15.6
55-64	13,644	10.8	7.8-13.8	9,891	7.4	5.2-9.7	23,535	9.1	7.2-10.9
65+	12,730	8.0	5.7-10.2	10,591	5.5	4.0-7.0	23,321	6.6	5.3-7.9
Education									
Less than H.S.	25,485	23.6	16.6-31.0	13,630	13.4	7.9-19.0	39,115	18.7	13.9-23.4
H.S. or G.E.D.	54,546	18.3	14.9-21.8	34,566	12.4	9.8-15.0	89,112	15.5	13.3-17.7
Some Post-H.S.	30,412	16.6	12.6-20.5	27,723	13.1	10.1-16.0	58,135	14.7	12.3-17.1
College Graduate	17,518	15.1	11.4-18.7	13,738	9.5	6.8-12.2	31,256	12.0	9.8-14.2
Income									
Less than \$15,000	19,272	24.3	16.8-31.8	13,414	14.5	10.0-18.5	32,687	19.0	14.7-23.3
\$15,000 - 24,999	28,598	23.7	17.3-30.1	19,570	14.7	10.8-18.5	48,168	19.0	15.2-22.7
\$25,000 - 34,999	12,157	15.9	10.2-21.7	9,462	11.6	6.6-16.6	21,619	13.7	9.9-17.5
\$35,000 - 49,999	9,426	11.1	6.6-15.7	6,613	8.3	4.1-12.5	16,039	9.8	6.6-12.9
\$50,000 - 74,999	10,261	11.2	7.0-15.3	5,750	7.4	4.2-10.7	16,001	9.4	6.7-12.2
\$75,000+	19,573	13.3	9.4-17.2	13,310	10.3	7.0-13.6	32,883	11.9	6.7-12.2

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Heavy Drinking

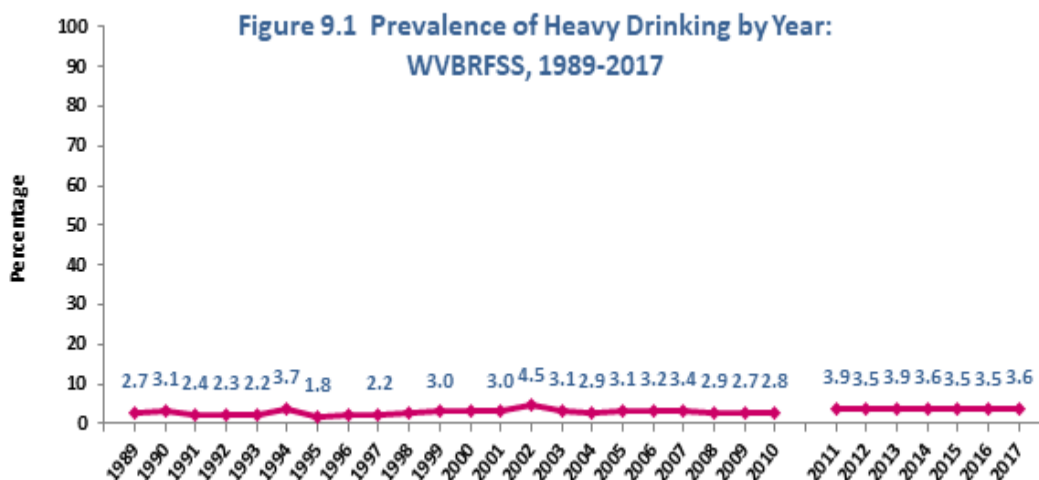
Definition	Defined as the consumption of more than two drinks per day for men and more than one drink per day for women during the past month.
Prevalence	WV: 3.6% (95% CI: 2.9-4.2) U.S.: 6.2% (95% CI: 6.0-6.4) The U.S. prevalence of heavy drinking was significantly higher than the West Virginia prevalence. West Virginia ranked the lowest among the 53 BRFSS participants.
Gender	Men: 4.5% (95% CI: 3.4-5.6) Women: 2.7% (95% CI: 1.9-3.4) There was no difference by gender in the prevalence of heavy drinking.
Age	The prevalence of heavy drinking was significantly higher among those aged 18-24 (6.5%) than among those aged 65 and older (1.9%).
Education	There was no educational attainment difference in the prevalence of heavy drinking.
Household Income	There was no difference by annual household income in the prevalence of heavy drinking.

CHAPTER 9: ALCOHOL USE

Table 9.1 Prevalence of Heavy Drinking by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	30,829	4.5	3.4-5.6	19,291	2.7	1.9-3.4	50,120	3.6	2.9-4.2
Age									
18-24	7,088	*8.7	2.9-14.5	3,131	*4.1	0.1-8.1	10,218	6.5	2.9-10.0
25-34	2,933	*2.9	0.5-5.2	4,783	4.7	2.0-7.5	7,716	3.8	2.0-5.6
35-44	5,717	5.4	2.6-8.1	2,057	*2.0	0.3-3.7	7,774	3.7	2.1-5.3
45-54	5,678	5.2	2.6-7.9	3,469	*3.1	1.3-5.0	9,147	4.2	2.6-5.8
55-64	6,340	5.2	3.0-7.3	2,475	1.9	0.8-3.0	8,816	3.5	2.3-4.7
65+	3,073	2.0	0.8-3.1	3,375	1.8	1.0-2.6	6,449	1.9	1.2-2.6
Education									
Less than H.S.	4,472	*4.4	1.5-7.2	1,294	*1.3	0.0-2.7	5,766	2.9	1.3-4.5
H.S. or G.E.D.	13,506	4.7	2.8-6.5	7,137	2.6	1.3-4.0	20,643	3.7	2.5-4.9
Some Post-H.S.	7,954	4.5	2.4-6.6	5,820	2.8	1.4-4.2	13,774	3.6	2.4-4.8
College Graduate	4,896	4.3	2.3-6.4	5,040	3.6	2.0-5.1	9,936	3.9	2.7-5.1
Income									
Less than \$15,000	2,726	*3.6	1.3-5.9	1,009	*1.1	0.0-2.4	3,736	2.3	1.0-3.5
\$15,000 - 24,999	4,824	*4.1	1.5-6.6	5,568	4.2	1.9-6.6	10,392	4.2	2.4-5.9
\$25,000 - 34,999	2,557	*3.4	1.1-5.8	604	*0.8	0.0-1.9	3,161	*2.1	0.8-3.4
\$35,000 - 49,999	4,209	*5.1	1.8-8.4	2,807	*3.6	0.6-6.6	7,016	4.4	2.2-6.6
\$50,000 - 74,999	2,700	*3.0	1.1-4.9	2,659	*3.5	1.2-5.7	5,359	3.2	1.8-4.7
\$75,000+	7,419	5.2	2.9-7.5	4,327	3.4	1.7-5.1	11,746	4.4	2.9-5.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

Binge Drinking

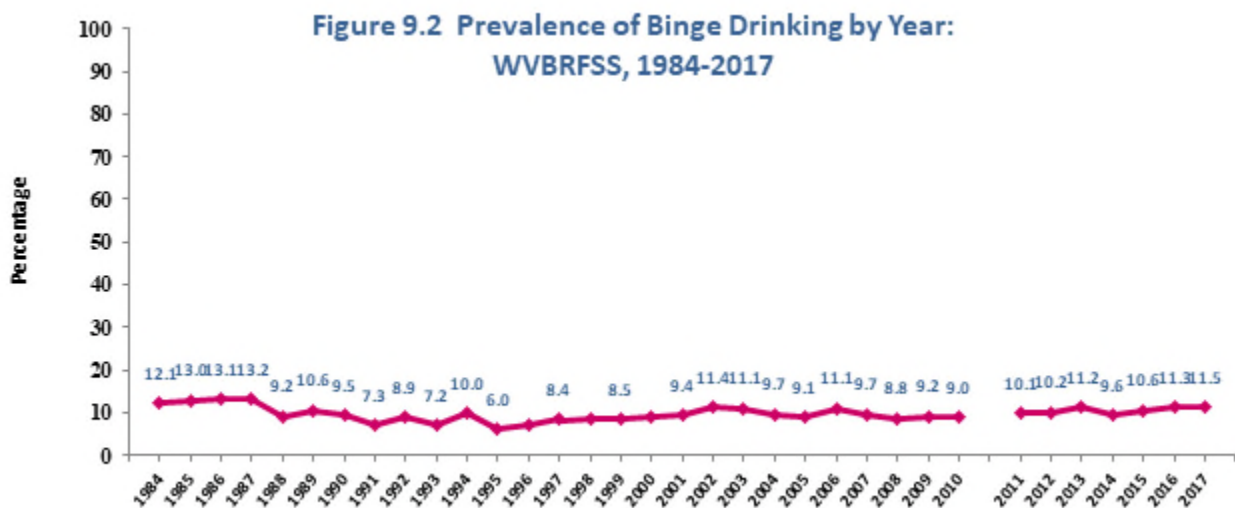
Definition	Defined as the consumption of five or more alcoholic drinks for males, or four or more alcoholic drinks for females, on a single occasion during the past month.
Prevalence	WV: 11.5% (95% CI: 10.3-12.8) U.S.: 17.0% (95% CI: 16.7-17.2) The U.S. prevalence of binge drinking was significantly higher than the West Virginia prevalence. West Virginia ranked the 2 nd lowest among 53 BRFSS participants.
Gender	Men: 16.3% (95% CI: 14.2-18.3) Women: 7.1% (95% CI: 5.8-8.4) The prevalence of binge drinking was significantly higher among men than women.
Age	The prevalence of binge drinking was significantly higher among those aged 18-24 (27.2%) than among those aged 35 and older. The prevalence of binge drinking was significantly lower among those 65 and older (2.4%) than among all other age groups.
Education	The prevalence of binge drinking was significantly higher among those with some post-high school education (14.4%) and college graduates (12.8%) than among those with less than a high school education (7.2%).
Household Income	The prevalence of binge drinking was significantly higher among those with an annual household income of \$75,000 or more (14.9%) than among those earning less than \$15,000.

CHAPTER 9: ALCOHOL CONSUMPTION

Table 9.2 Prevalence of Binge Drinking by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	111,217	16.3	14.2-18.3	50,866	7.1	5.8-8.4	162,083	11.5	10.3-12.8
Age									
18-24	29,328	*35.0	24.8-45.2	14,587	18.8	10.9-26.8	43,915	27.2	20.6-33.9
25-34	22,191	21.8	15.9-27.8	13,197	13.1	8.7-17.5	35,389	17.5	13.8-21.2
35-44	23,843	22.5	16.9-28.0	8,748	8.3	5.0-11.6	32,591	15.4	12.1-18.7
45-54	14,578	13.5	9.4-17.6	6,033	5.4	3.2-7.6	20,610	9.4	7.1-11.7
55-64	14,848	12.0	8.8-15.3	6,138	4.7	2.8-6.5	20,986	8.2	6.4-10.1
65+	6,131	3.9	2.5-5.4	2,163	1.1	0.4-1.8	8,294	2.4	1.6-3.2
Education									
Less than H.S.	10,264	10.0	4.8-15.2	4,213	*4.3	1.2-7.4	14,477	7.2	4.1-10.3
H.S. or G.E.D.	45,645	15.9	12.7-19.1	13,446	5.0	3.1-6.8	59,091	10.6	8.7-12.5
Some Post-H.S.	36,382	20.3	15.8-24.7	19,367	9.4	6.5-12.2	55,748	14.4	11.8-17.0
College Graduate	18,927	16.7	12.8-20.6	13,840	9.7	6.8-12.6	32,767	12.8	10.5-15.2
Income									
Less than \$15,000	10,488	13.5	8.0-19.0	4,455	*4.9	2.0-7.8	14,943	8.9	5.9-11.9
\$15,000 - 24,999	19,517	16.5	10.5-22.4	11,599	8.8	5.5-12.1	31,116	12.4	9.1-15.8
\$25,000 - 34,999	11,143	15.1	10.0-20.1	4,324	*5.5	1.8-9.3	15,467	10.2	7.1-13.3
\$35,000 - 49,999	13,926	16.8	11.4-22.1	7,831	9.9	4.9-14.9	21,758	13.4	9.8-17.1
\$50,000 - 74,999	14,057	15.6	10.0-21.2	4,539	5.9	2.8-9.1	18,596	11.2	7.7-14.6
\$75,000+	29,813	20.6	16.1-25.1	10,591	8.4	5.3-11.4	40,404	14.9	12.1-17.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

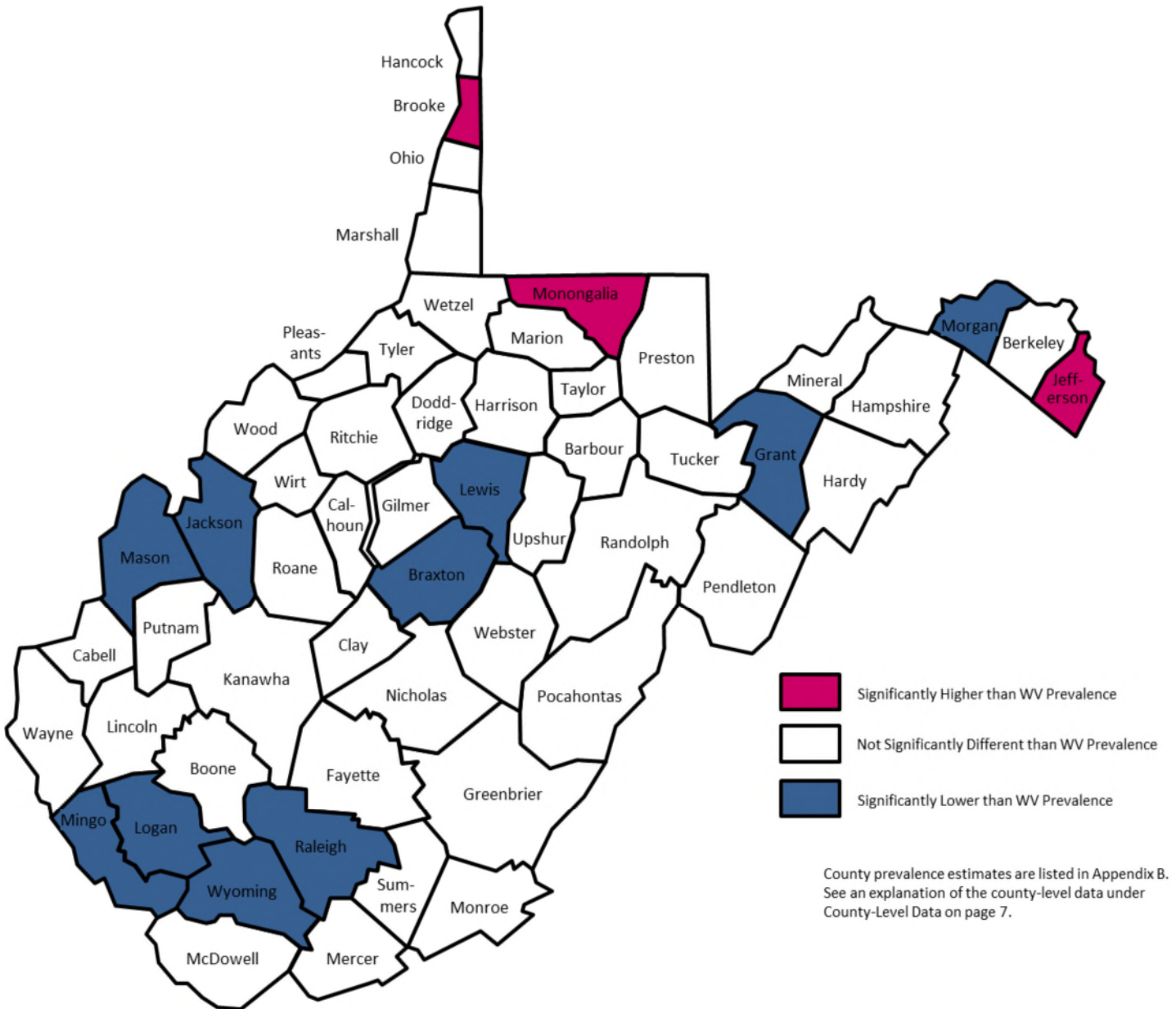


*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

CHAPTER 8: ALCOHOL USE

Figure 9.3 Prevalence of Binge Drinking by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 10.8%



Seldom or Never Wear Seatbelt

Definition	Responding “Seldom” or “Never” to the question, “How often do you use seat belts when you drive or ride in a car?”
Prevalence	WV: 3.4% (95% CI: 2.7-4.0) U.S.: 2.8% (95% CI: 2.7-2.9) The West Virginia prevalence of seldom or never wear seatbelt among those aged 65 and older was similar to the U.S. prevalence. West Virginia ranked the 21 st highest among the 53 BRFSS participants.
Gender	Men: 4.5% (95% CI: 3.3-5.8) Women: 2.2% (95% CI: 1.5-2.9) The prevalence of seldom or never wear a seat belt was significantly higher among men than among women.
Age	There was no age difference in the prevalence of seldom or never wear a seatbelt.
Education	The prevalence of seldom or never wear a seat belt decreased with increasing educational attainment level and was significantly higher among those with a high school education or G.E.D. (3.7%) and among those with less than a high school education (5.4%) than among college graduates.
Household Income	There was no difference by annual household income in the prevalence of seldom or never wear a seatbelt.

CHAPTER 10: INJURY

Table 10.1 Prevalence of Seldom or Never Wear a Seatbelt: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	30,612	4.5	3.3-5.8	15,596	2.2	1.5-2.9	46,208	3.4	2.7-4.0
Age									
18-24	6,580	*8.5	1.5-15.4	878	*1.2	0.0-3.5	7,458	*4.9	1.1-8.8
25-34	5,989	*5.8	2.3-9.4	1,928	*1.9	0.1-3.8	7,918	3.9	1.9-5.9
35-44	3,790	*3.7	1.2-6.2	3,621	*3.6	1.1-6.1	7,411	3.6	1.9-5.4
45-54	5,675	5.2	2.5-8.0	2,469	*2.3	0.6-3.9	8,145	3.7	2.1-5.3
55-64	3,294	2.7	1.2-4.1	3,312	2.5	1.1-4.0	6,606	2.6	1.6-3.6
65+	5,283	3.4	1.8-5.1	3,388	1.8	0.9-2.7	8,671	2.5	1.7-3.4
Education									
Less than H.S.	7,899	*7.7	3.1-12.3	2,770	*2.9	0.6-5.2	10,669	5.4	2.7-8.0
H.S. or G.E.D.	13,211	4.7	2.8-6.7	6,857	2.6	1.3-3.8	20,068	3.7	2.5-4.9
Some Post-H.S.	7,700	4.3	2.1-6.5	4,817	2.4	1.2-3.6	12,517	3.3	2.1-4.5
College Graduate	1,803	*1.6	0.6-2.6	1,151	*0.8	0.2-1.5	2,954	1.2	0.6-1.7
Income									
Less than \$15,000	3,896	*5.3	2.0-8.6	2,488	*2.8	0.9-4.7	6,384	4.0	2.1-5.8
\$15,000 - 24,999	9,356	*8.3	3.4-13.2	4,629	3.6	1.6-5.6	13,985	5.8	3.2-8.4
\$25,000 - 34,999	2,031	*2.7	0.4-5.0	1,329	*1.7	0.2-3.3	3,360	*2.2	0.9-3.6
\$35,000 - 49,999	2,078	*2.5	0.3-4.8	1,456	*1.9	0.0-4.0	3,534	*2.2	0.7-3.8
\$50,000 - 74,999	2,747	*3.1	0.7-5.5	1,465	*1.9	0.1-3.8	4,212	*2.5	1.0-4.1
\$75,000+	5,869	4.1	1.7-6.4	817	*0.7	0.0-1.4	6,686	2.5	1.2-3.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Sunburn in Past Year

Definition	Responded at least “One” to the question, “In the past 12 months, how many times did you have a red OR painful sunburn that lasted a day or more?”
Prevalence	WV: 18.5% (95% CI: 17.0-22.0) 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	Men: 20.8% (95% CI: 18.5-23.2) Women: 16.3% (95% CI: 14.4-18.2) The prevalence of sunburn in the past year was significantly higher among men than among women.
Age	The prevalence of sunburn in the past year was significantly higher among those aged 18-24(36.8%), significantly higher than among those 65 and older (3.9%).
Education	The prevalence of seldom or never wear a seat belt decreased with increasing educational attainment level and was significantly higher among college graduates (24.9%) than among those with a high school education or G.E.D. (15.9%) and among those with less than a high school education (12.6%).
Household Income	The prevalence of sunburn in past year was significantly higher among those with an annual household income of at least \$75,000 (28.3%) than those with an annual income less than \$50,000.

CHAPTER 11: SUNBURN

Table 11.1 Prevalence of Sunburn in the Past Year: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	131,017	20.8	18.5-23.2	109,755	16.3	14.4-18.2	240,772	18.5	17.0-20.0
Age									
18-24	23,948	*35.7	24.1-47.3	25,766	*37.9	27.3-48.6	49,714	36.8	29.0-44.7
25-34	37,252	41.5	33.5-49.4	28,098	30.6	24.2-37.0	65,350	36.0	30.8-41.1
35-44	24,264	25.1	19.3-30.8	25,138	26.3	20.6-31.9	49,402	25.7	21.6-29.7
45-54	23,331	22.8	17.9-27.6	14,782	14.0	10.7-17.4	38,113	18.3	15.4-21.3
55-64	13,919	11.8	8.7-14.9	11,124	8.9	6.4-11.3	25,043	10.3	8.3-12.2
65+	8,221	5.5	3.5-7.4	4,848	2.6	1.7-3.6	13,069	3.9	2.9-5.0
Education									
Less than H.S.	15,107	15.3	8.4-22.2	9,025	9.8	4.7-14.9	24,131	12.6	8.3-17.0
H.S. or G.E.D.	45,086	17.6	14.1-21.1	36,092	14.2	11.2-17.2	81,178	15.9	13.6-18.2
Some Post-H.S.	40,965	24.4	19.8-29.0	35,089	18.2	14.4-22.0	76,054	21.1	18.1-24.1
College Graduate	29,858	28.4	23.7-33.1	29,550	22.2	18.5-25.9	59,408	24.9	22.0-27.9
Income									
Less than \$15,000	8,315	11.7	6.4-17.1	10,833	12.9	7.8-18.1	19,148	12.4	8.6-16.1
\$15,000 - 24,999	17,165	16.6	11.6-21.6	18,053	14.7	10.4-19.1	35,219	15.6	12.3-18.9
\$25,000 - 34,999	13,554	19.5	12.6-26.4	10,070	13.9	8.4-19.5	23,624	16.7	12.2-21.1
\$35,000 - 49,999	10,461	13.6	9.0-18.1	10,384	14.0	8.8-19.2	20,845	13.8	10.3-17.2
\$50,000 - 74,999	21,915	25.5	18.9-32.2	16,791	23.0	17.1-28.8	38,706	24.3	19.9-28.8
\$75,000+	43,396	32.3	27.0-37.6	28,098	23.7	19.0-28.4	71,494	28.3	24.7-31.9

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

High Risk for HIV

Definition	Responding “Yes” to the to situations involving high risk behaviors for HIV.
Prevalence	WV: 4.2% (95% CI: 3.4-5.0) U.S.: 6.4% (95% CI: 6.2-6.6) The West Virginia prevalence of high risk for HIV was significantly lower than the U.S. prevalence. West Virginia ranked the 2 nd lowest among the 53 BRFSS participants.
Gender	Men: 5.5% (95% CI: 4.1-6.8) Women: 2.9% (95% CI: 2.0-3.8) The prevalence of high risk for HIV was significantly higher among men than among women.
Age	The prevalence of high risk for HIV significantly higher among those aged 18-24 (13.8%) among those 35 and older.
Education	The prevalence of high risk for HIV decreased with increasing educational attainment level and was significantly higher among those with some post high school education (5.0%) and among those with less than a high school education (6.6%) than among college graduates (2.3%).
Household Income	The prevalence of high risk for HIV significantly higher in those with an annual household income of \$15,000-\$24,999 (6.1%) than those with an annual income more than \$75,000 (2.2%).

CHAPTER 12: HIV RISK

Table 12.1 Prevalence of High Risk for HIV: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	36,395	5.5	4.1-6.8	20,512	2.9	2.0-3.8	56,907	4.2	3.4-5.0
Age									
18-24	12,390	16.6	8.6-24.6	7,998	11.0	4.6-17.4	20,388	13.8	8.7-19.0
25-34	10,192	10.2	5.9-14.4	6,692	6.9	3.5-10.2	16,885	8.5	5.8-11.2
35-44	5,125	*5.0	1.9-8.1	3,154	*3.2	1.1-5.2	8,279	4.1	2.2-6.0
45-54	5,694	5.3	2.3-8.2	1,258	*1.2	0.1-2.2	6,952	3.2	1.6-4.8
55-64	1,137	*0.9	0.1-1.8	832	*0.6	0.0-1.3	1,969	*0.8	0.2-1.3
65+	1,856	*1.2	0.1-2.3	578	*0.3	0.0-0.6	2,434	*0.7	0.2-1.2
Education									
Less than H.S.	9,054	8.8	4.2-13.3	4,085	*4.6	0.9-7.7	13,139	6.6	3.8-9.5
H.S. or G.E.D.	13,549	4.9	2.9-7.0	5,459	*2.1	0.7-3.4	19,008	3.5	2.3-4.8
Some Post-H.S.	10,786	6.1	3.3-8.8	8,279	4.1	2.3-6.0	19,065	5.0	3.4-6.6
College Graduate	3,007	*2.7	1.0-4.4	2,689	*1.9	0.6-3.3	5,696	2.3	1.2-3.3
Income									
Less than \$15,000	6,344	8.8	3.8-13.7	1,928	*2.2	0.5-3.9	8,272	5.2	2.7-7.6
\$15,000 - 24,999	7,776	7.0	3.2-10.8	6,578	5.2	2.4-8.1	14,354	6.1	3.7-8.4
\$25,000 - 34,999	4,950	*6.7	1.9-11.4	2,282	*3.0	0.3-5.7	7,232	4.8	2.1-7.6
\$35,000 - 49,999	2,428	*3.0	0.5-5.5	641	*0.8	0.0-2.0	3,069	*2.0	0.5-3.4
\$50,000 - 74,999	5,787	*6.5	2.2-10.8	1,646	*2.2	0.3-4.1	7,433	4.5	2.0-7.3
\$75,000+	4,329	*3.0	1.2-4.9	1,519	*1.2	0.0-2.4	5,848	2.2	1.0-3.3

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

West Virginia Behavioral Risk Factor
Surveillance System Report

2017



**SECTION 3:
PREVENTIVE
PRACTICES**

Ever Had Cholesterol Checked

Definition	Responding “Yes” to the question, “Have you ever had your blood cholesterol checked?”
Prevalence	WV: 91.1% (95% CI: 89.9-92.3) U.S.: 91.2% (95% CI: 91.0-91.4) The West Virginia prevalence of ever had cholesterol checked among those aged 65 and older was similar to the U.S. prevalence. West Virginia ranked the 22 nd highest among 53 BRFSS participants.
Gender	Men: 90.1% (95% CI: 88.2-91.9) Women: 92.0% (95% CI: 90.5-93.6) There was no significant gender difference in the prevalence of ever had cholesterol checked.
Age	The prevalence of ever had cholesterol checked was significantly higher in adults aged 65 and older (98.9%) than all other age groups.
Education	There was no educational attainment difference in the prevalence of ever had cholesterol checked.
Household Income	There was no annual household income difference in the prevalence of ever had cholesterol checked.

CHAPTER 13: CHOLESTEROL TESTING

Table 13.1 Prevalence of Ever Had Cholesterol Checked by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	582,653	90.1	88.2-91.9	641,685	92.0	90.5-93.6	1,224,338	91.1	89.9-92.3
Age									
18-24	36,954	63.6	51.2-76.0	43,849	63.7	53.0-74.5	80,803	63.7	55.5-71.8
25-34	73,492	81.6	75.5-87.8	74,541	85.1	79.9-90.4	148,033	83.4	79.3-87.4
35-44	92,579	89.1	85.1-93.1	97,562	92.9	90.0-95.9	190,141	91.0	88.5-93.5
45-54	100,639	93.8	90.9-96.7	108,163	95.5	93.4-97.6	208,803	94.7	92.9-96.5
55-64	119,946	95.9	93.9-97.9	127,227	97.2	95.8-98.6	247,173	96.6	95.3-97.8
65+	154,242	98.5	97.6-99.4	186,192	99.3	98.8-99.8	340,433	98.9	98.4-99.4
Education									
Less than H.S.	83,473	88.5	82.5-94.5	87,700	89.8	84.3-95.3	171,173	89.2	85.1-93.2
H.S. or G.E.D.	244,311	89.9	87.0-92.9	239,606	91.7	89.1-94.3	483,917	90.8	88.8-92.8
Some Post-H.S.	147,729	88.6	84.9-92.3	185,348	93.5	91.0-96.0	333,077	91.3	89.1-93.4
College Graduate	106,329	94.7	92.4-97.0	128,500	92.1	89.1-94.3	234,828	93.3	91.3-95.2
Income									
Less than \$15,000	60,488	81.7	73.9-89.5	81,072	94.8	91.8-97.7	141,561	88.7	84.6-92.8
\$15,000 - 24,999	96,899	88.7	83.7-93.7	113,767	90.7	87.3-94.1	210,666	89.8	86.8-92.7
\$25,000 - 34,999	64,471	91.7	86.3-97.1	72,052	93.6	88.9-98.3	136,523	92.7	89.1-96.3
\$35,000 - 49,999	71,922	91.6	87.3-95.9	72,514	94.7	91.0-98.5	144,436	93.1	90.2-96.0
\$50,000 - 74,999	79,289	93.1	89.6-96.7	71,802	95.5	92.7-98.3	151,091	94.2	91.9-96.5
\$75,000+	129,015	92.8	89.8-95.8	116,176	92.5	89.2-95.9	245,191	92.7	90.4-94.9

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Had Cholesterol Checked in the Past 5 Years

Definition	Reported having blood cholesterol checked and responding “Within the past 5 years” to the question, “About how long has it been since you last had your blood cholesterol checked?”
Prevalence	WV: 95.1% (95% CI: 94.3-96.0) U.S.: 95.3% (95% CI: 95.1-95.4) The West Virginia prevalence of had cholesterol checked in the past 5 years among those aged 65 and older was similar to the U.S. West Virginia ranked the 22 nd highest among the 53 BRFSS participants.
Gender	Men: 94.0% (95% CI: 92.6-95.4) Women: 96.1% (95% CI: 95.1-97.1) There was no significant gender difference in the prevalence of had cholesterol checked in the past five years.
Age	The prevalence of had cholesterol checked in the past five years was significantly higher among those aged 65 and older (98.7%) than among all other age groups.
Education	There was no significant educational attainment difference in the prevalence of had cholesterol checked in the past five years.
Household Income	There was no significant annual household income difference in the prevalence of had cholesterol checked in the past five years.

CHAPTER 13: CHOLESTEROL TESTING

Table 13.2 Prevalence of Had Cholesterol Checked in the Past 5 Years by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	547,611	94.0	92.6-95.4	616,863	96.1	95.1-97.1	1,164,474	95.1	94.3-96.0
Age									
18-24	29,915	81.0	68.7-93.2	41,428	94.5	88.1-100	71,344	88.3	81.5-95.1
25-34	67,039	91.2	86.2-96.2	68,448	91.8	86.8-96.8	135,487	91.5	88.0-95.1
35-44	85,690	92.6	88.9-96.2	91,509	93.8	90.8-96.7	177,199	93.2	90.9-95.5
45-54	92,792	92.2	88.8-95.6	103,928	96.1	93.9-98.3	196,720	94.2	92.2-96.2
55-64	115,411	96.2	94.4-98.1	123,700	97.2	95.9-98.5	139,111	96.7	95.6-97.9
65+	151,962	98.5	97.6-99.4	184,099	98.9	98.1-99.6	336,061	98.7	98.1-99.3
Education									
Less than H.S.	78,662	94.2	90.4-98.0	81,970	93.5	89.2-97.8	160,632	93.8	91.0-96.7
H.S. or G.E.D.	228,041	93.3	90.9-95.8	230,509	96.2	94.5-97.9	458,550	94.8	93.3-96.2
Some Post-H.S.	139,420	94.4	91.7-97.1	179,394	96.8	95.4-98.2	318,815	95.7	94.3-97.2
College Graduate	100,676	94.7	92.3-97.0	124,460	96.9	95.2-98.5	225,136	95.9	94.5-97.3
Income									
Less than \$15,000	55,751	92.2	87.3-97.0	77,409	95.5	92.3-98.6	133,160	94.1	91.3-96.8
\$15,000 - 24,999	90,737	93.6	90.4-96.9	107,272	94.3	91.3-97.3	198,010	94.0	91.8-96.2
\$25,000 - 34,999	60,615	94.0	88.9-99.1	68,372	94.9	91.0-98.8	128,987	94.5	91.3-97.6
\$35,000 - 49,999	68,608	95.4	92.4-98.4	69,440	95.8	92.8-98.7	138,048	95.6	93.5-97.7
\$50,000 - 74,999	75,296	95.0	91.7-98.2	70,909	98.8	97.1-100	146,205	96.8	94.9-98.7
\$75,000+	123,085	95.4	93.0-97.8	112,780	97.1	95.3-98.9	235,865	96.2	94.7-97.7

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Diabetes Test

Definition	Reported not having diabetes and responding “Yes” to the question, “Have you had a test for high blood sugar or diabetes within the past three years?”
Prevalence	WV: 63.6% (95% CI: 61.7-65.5) 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: 61.7% (95% CI: 58.7-64.6) Women: 65.5% (95% CI: 63.0-68.0) There was no significant gender difference in the prevalence of had a diabetes test in the past three years.
Age	The prevalence of had a diabetes test in the past three years was significantly higher among those aged 55 and older than among those younger than 55.
Education	The prevalence of had a diabetes test in the past three years was significantly higher among college graduates (67.5%) than among those with less than a high school education (56.6%).
Household Income	The prevalence of had a diabetes test in the past three years was significantly lower among those with an annual household income of \$15,000 or less (54.2%) than among those with an income of \$35,000 or more.

CHAPTER 14: DIABETES TESTING

Table 14.1 Prevalence of Had a Diabetes Test in the Past Three Years by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	343,449	61.7	58.7-64.6	385,837	65.5	63.0-68.0	729,286	63.6	61.7-65.5
Age									
18-24	24,871	*33.5	23.2-43.9	33,890	*45.5	34.7-56.4	58,761	39.6	32.0-47.2
25-34	39,309	42.0	34.2-49.8	55,874	59.9	53.0-66.7	95,183	50.9	45.6-56.2
35-44	55,335	58.0	51.0-65.0	62,204	64.3	58.2-70.5	117,539	61.2	56.6-65.8
45-54	61,590	69.8	63.8-75.9	61,639	68.9	63.8-74.0	123,229	69.4	65.4-73.3
55-64	71,769	78.8	74.2-83.3	70,798	74.3	70.0-78.5	142,567	76.5	73.4-79.6
65+	88,752	81.1	77.3-84.9	99,265	72.8	69.1-76.6	188,018	76.5	73.8-79.2
Education									
Less than H.S.	42,955	54.3	45.7-62.9	44,047	58.9	50.7-67.2	87,002	56.6	50.5-62.6
H.S. or G.E.D.	143,105	61.2	56.5-65.9	138,851	63.1	58.9-67.3	281,955	62.1	58.9-65.3
Some Post-H.S.	91,784	62.7	56.9-68.4	118,952	70.4	65.9-74.9	210,736	66.8	63.2-70.4
College Graduate	64,933	68.1	62.9-73.2	83,457	67.1	62.6-71.6	148,390	67.5	64.1-70.9
Income									
Less than \$15,000	32,795	52.6	43.1-62.1	39,773	55.6	48.3-63.0	72,568	54.2	48.3-60.2
\$15,000 - 24,999	53,142	56.8	49.1-64.5	60,315	60.4	54.4-66.4	113,457	58.7	53.8-63.5
\$25,000 - 34,999	35,323	60.8	52.1-69.5	44,900	69.1	62.1-76.1	80,223	65.2	59.6-70.8
\$35,000 - 49,999	43,478	66.8	59.3-74.4	47,578	72.7	66.0-79.4	91,056	69.8	64.7-74.8
\$50,000 - 74,999	51,662	69.4	61.9-76.8	46,208	74.1	67.7-80.5	97,871	71.5	66.5-76.5
\$75,000+	82,748	66.9	61.2-72.6	76,026	67.1	61.6-72.5	158,774	67.0	63.1-70.9

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Lung Cancer Test

Definition	Responding “Yes” to “In the last 12 months, did you have a CT or CAT scan to check for lung cancer?”
Prevalence	WV: 2.5% (95% CI: 2.0-3.0) 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	Men: 2.7% (95% CI: 1.9-3.4) Women: 2.3% (95% CI: 1.7-2.9) No significant gender difference in prevalence of lung cancer screening.
Age	The prevalence of lung cancer screening was significantly higher among those 65 and older compared to those 54 and younger.
Education	There was no significant educational attainment difference in the prevalence of lung cancer screening.
Household Income	The prevalence of lung cancer screening was significantly higher among those with an annual household income less than \$15,000 than the prevalence among those with an income of \$75,000 or more.

CHAPTER 15: LUNG CANCER SCREENING

Table 15.1 Prevalence of Had a Lung Cancer Screening by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	16,751	2.7	1.9-3.4	15,520	2.3	1.7-2.9	32,271	2.5	2.0-3.0
Age									
18-24	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0
25-34	1,373	*1.5	0.0-3.3	0.0	0.0	0.0-0.0	1,373	*0.7	0.0-1.6
35-44	902	*0.9	0.0-2.7	771	*0.8	0.0-1.9	1,672	*0.9	0.0-1.9
45-54	1,869	*1.8	0.3-3.4	3,077	*.29	1.2-4.7	4,946	2.4	1.2-3.6
55-64	3,267	2.8	1.3-4.3	4,147	3.3	1.9-4.8	7,414	3.1	2.0-4.1
65+	9,340	6.3	4.2-8.5	7,476	4.2	2.6-5.7	16,816	5.1	3.9-6.4
Education									
Less than H.S.	6,237	6.4	2.9-10.0	2,631	*2.8	1.0-4.7	8,868	4.7	2.6-6.7
H.S. or G.E.D.	5,137	2.0	1.1-2.9	5,596	2.2	1.3-3.2	10,733	2.1	1.5-2.8
Some Post-H.S.	2,989	1.8	0.8-2.8	4,786	2.5	1.4-3.6	7,775	2.2	1.4-2.9
College Graduate	2,387	2.3	1.0-3.5	2,508	*1.9	0.8-3.0	4,895	2.1	1.2-2.9
Income									
Less than \$15,000	2,795	*4.0	1.4-6.6	3,005	3.6	1.6-5.6	5,799	3.8	2.2-5.4
\$15,000 - 24,999	3,274	*3.2	1.3-5.2	2,758	2.3	1.1-3.5	6,033	2.7	1.6-3.8
\$25,000 - 34,999	3,268	*4.7	1.6-8.1	871	*1.2	0.0-2.5	4,139	2.9	1.1-4.7
\$35,000 - 49,999	2,761	3.6	1.6-5.6	2,668	*3.6	1.4-5.9	5,429	3.6	2.1-5.1
\$50,000 - 74,999	839	*1.0	0.0-2.1	103	*0.1	0.0-0.4	942	0.6	0.0-1.2
\$75,000+	1,504	*1.1	0.4-1.9	1,601	*1.4	0.2-2.5	3,106	1.2	0.6-1.9

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

HIV Test

Definition	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: 36.1% (95% CI: 34.4-37.8) U.S.: 39.7% (95% CI: 39.4-40.0) The West Virginia prevalence of ever had a HIV test was significantly lower than the U.S. prevalence. West Virginia ranked 28 th highest among 53 BRFSS participants.
Gender	Men: 36.2% (95% CI: 33.6-38.7) Women: 36.0% (95% CI: 33.7-38.3) There was no gender difference in the prevalence of ever had a HIV test.
Age	The prevalence of ever had a HIV test was significantly higher among those aged 35-44 (57.5%) than among all other age groups except 25-34 (52.3%). The prevalence of ever had a HIV test was significantly lower in adults aged 65 and older (14.5%) than all other age groups.
Education	The prevalence of ever had a HIV test was significantly higher among those with some college (40.8%) than among high school graduates (32.1%).
Household Income	There was no annual household income difference in the prevalence of ever had a HIV test.

CHAPTER 16: HIV TESTING

Table 16.1 Prevalence of Ever Had a HIV Test by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	227,693	36.2	33.6-38.7	238,813	36.0	33.7-38.3	466,506	36.1	34.4-37.8
Age									
18-24	27,123	*35.9	25.3-46.5	32,141	*46.1	35.2-57.0	59,264	40.8	33.1-48.5
25-34	46,450	48.9	41.0-56.8	52,002	55.8	48.9-62.6	98,452	52.3	47.1-57.6
35-44	48,216	50.6	43.6-57.5	61,530	64.3	58.1-70.6	109,746	57.5	52.8-62.2
45-54	42,106	41.0	35.2-46.8	43,191	41.3	36.2-46.3	85,297	41.1	37.3-45.0
55-64	36,608	32.4	27.7-37.1	28,459	23.2	19.7-26.6	65,067	27.6	24.7-30.5
65+	25,265	17.6	14.6-20.6	20,613	11.9	9.5-14.2	45,878	14.5	12.6-16.3
Education									
Less than H.S.	34,953	37.2	29.5-44.9	32,946	36.3	28.8-43.7	67,898	36.7	31.4-42.1
H.S. or G.E.D.	93,811	35.7	31.5-39.9	70,564	28.4	24.8-31.9	164,375	32.1	29.4-34.9
Some Post-H.S.	61,010	36.7	31.8-41.7	84,070	44.4	40.0-48.8	145,079	40.8	37.5-44.1
College Graduate	37,920	35.7	31.0-40.4	50,790	38.1	34.0-42.2	88,710	37.0	33.9-40.1
Income									
Less than \$15,000	29,179	43.0	34.7-51.2	32,594	39.0	32.6-45.4	61,773	40.8	35.6-45.9
\$15,000 - 24,999	43,644	39.9	33.3-46.4	48,124	39.3	34.0-44.6	91,768	39.6	35.4-43.7
\$25,000 - 34,999	26,057	37.2	29.5-45.0	22,765	31.6	24.7-38.5	48,822	34.4	29.2-39.5
\$35,000 - 49,999	22,478	30.2	23.8-36.6	22,371	31.8	25.0-38.6	44,849	30.9	26.3-35.6
\$50,000 - 74,999	29,884	36.1	29.2-43.0	24,351	33.9	27.9-39.9	54,235	35.1	30.4-39.7
\$75,000+	45,764	33.5	28.4-38.7	47,606	39.3	34.1-44.4	93,370	36.2	32.5-39.9

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Flu Vaccine

Definition	Responding “Yes” to the question, “During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in your nose?”
Prevalence	WV: 45.5% (95% CI: 43.8-47.2) U.S.: 40.0% (95% CI: 39.7-40.4) The West Virginia prevalence of had a flu vaccine in the past year was significantly higher than the U.S. prevalence. West Virginia ranked the 8 th highest among the 53 BRFSS participants.
Gender	Men: 41.2% (95% CI: 38.7-43.6) Women: 49.7% (95% CI: 47.4-51.9) The prevalence of had a flu vaccine in the past year was significantly higher among women than among men.
Age	The prevalence of had a flu vaccine in the past year was significantly higher among those aged 65 and older (67.1%) than among all other age groups.
Education	The prevalence of had a flu vaccine in the past year was significantly higher among college graduates (50.6%) than among those a high school degree (43.6%).
Household Income	There were no consistent annual household income differences in the prevalence of had a flu vaccine in the past year.

CHAPTER 17: IMMUNIZATIONS

Table 17.1 Prevalence of Had a Flu Vaccine in the Past Year by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	276,335	41.2	38.7-43.6	348,342	49.7	47.4-51.9	624,677	45.5	43.8-47.2
Age									
18-24	26,831	*34.9	24.1-45.7	33,155	*45.3	34.7-55.8	59,986	40.0	32.4-47.5
25-34	23,789	23.5	17.3-29.7	33,116	33.7	27.4-40.0	56,905	28.5	24.1-33.0
35-44	24,127	23.6	17.9-29.3	37,932	37.7	31.8-43.7	62,060	30.6	26.5-34.8
45-54	35,971	33.4	28.0-38.7	48,234	44.4	39.3-49.4	84,205	38.9	35.2-42.6
55-64	59,728	48.4	43.6-53.1	67,202	51.7	47.6-55.9	126,930	50.1	46.9-53.2
65+	103,514	67.1	63.2-70.9	125,409	67.1	63.8-70.3	228,923	67.1	64.6-69.6
Education									
Less than H.S.	39,556	38.7	31.5-46.0	47,431	49.8	42.9-56.8	86,987	44.1	39.0-49.1
H.S. or G.E.D.	117,008	42.2	38.2-46.2	118,987	45.2	41.5-48.8	235,995	43.6	40.9-46.3
Some Post-H.S.	68,397	38.2	33.5-42.8	105,054	52.0	47.8-56.2	173,451	45.5	42.3-48.7
College Graduate	50,995	45.7	41.0-50.3	76,550	54.6	50.5-58.7	127,545	50.6	47.6-53.7
Income									
Less than \$15,000	28,564	39.3	31.8-46.8	35,415	40.3	50.5-58.7	63,979	39.9	35.1-44.6
\$15,000 - 24,999	43,717	38.6	32.6-44.6	56,353	44.1	34.2-46.5	100,070	41.5	37.6-45.4
\$25,000 - 34,999	36,636	49.2	41.6-56.8	38,265	50.4	39.0-49.2	74,901	49.8	44.7-54.9
\$35,000 - 49,999	34,540	42.3	35.8-48.8	41,676	55.6	49.0-62.1	76,216	48.6	44.0-53.3
\$50,000 - 74,999	37,466	41.9	35.5-48.3	42,527	56.1	49.9-62.4	79,993	48.4	43.8-53.0
\$75,000+	56,439	39.3	34.3-44.3	67,623	53.9	48.8-59.0	124,062	46.1	42.5-49.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Flu Vaccine, Ages 65 and Older

Definition	Responding “Yes” to the question, “During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in your nose?” Restricted to adults aged 65 and older.
Prevalence	WV: 67.1% (95% CI: 64.6-69.6) U.S.: 60.2% (95% CI: 59.6-60.8) The West Virginia prevalence of had a flu vaccine in the past year among those aged 65 and older was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among the 53 BRFSS participants.
Gender	Men: 67.1% (95% CI: 63.2-70.9) Women: 67.1% (95% CI: 63.8-70.3) There was no gender difference in the prevalence of had a flu vaccine in the past year among those aged 65 and older.
Race/Ethnicity	No race/ethnicity statistics are reported due to unreliable estimates.
Education	There was no educational attainment difference in the prevalence of had a flu vaccine in the past year among those aged 65 and older.
Household Income	There was no annual household income difference in the prevalence of had a flu vaccine in the past year among those aged 65 and older.

CHAPTER 17: IMMUNIZATIONS

Table 17.2 Prevalence of Had a Flu Vaccine in the Past Year Among Those Aged 65 and Older by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	103,514	67.1	63.2-70.9	125,409	67.1	63.8-70.3	228,923	67.1	64.6-69.6
Education									
Less than H.S.	16,745	*58.6	47.7-69.5	24,634	70.1	61.7-78.5	41,379	64.9	58.1-71.8
H.S. or G.E.D.	45,977	71.9	66.0-77.8	48,971	62.2	56.9-67.4	94,948	66.5	62.6-70.5
Some Post-H.S.	23,146	66.1	58.4-73.8	30,937	70.3	63.9-76.6	54,083	68.4	63.5-73.4
College Graduate	17,526	65.7	58.7-72.6	20,457	71.5	65.3-77.6	37,983	68.7	64.0-73.3
Income									
Less than \$15,000	7,122	*63.6	49.2-78.1	12,424	*58.9	48.5-69.2	19,545	60.5	52.1-68.9
\$15,000 - 24,999	21,398	68.0	59.1-77.0	25,187	65.0	57.6-72.5	46,585	66.4	60.6-72.1
\$25,000 - 34,999	16,620	*65.7	55.4-76.0	17,006	72.9	64.1-81.8	33,626	69.2	62.3-76.1
\$35,000 - 49,999	17,617	70.3	61.7-78.9	17,247	70.5	61.5-79.6	34,865	70.4	64.2-76.7
\$50,000 - 74,999	12,886	*62.7	52.0-73.3	12,339	72.1	62.2-82.1	25,225	67.0	59.5-74.4
\$75,000+	12,996	66.1	56.5-75.7	9,582	*67.3	57.0-77.7	22,578	66.6	59.5-73.7

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Pneumonia Vaccine

Definition	Responding “Yes” 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?”
Prevalence	WV: 40.2% (95% CI: 38.6-41.8) U.S.: 38.3% (95% CI: 38.0-38.6) The West Virginia prevalence of ever had a pneumonia vaccine was equivalent to the U.S. prevalence. West Virginia ranked the 16 th highest among the 53 BRFSS participants.
Gender	Men: 37.9% (95% CI: 35.5-40.3) Women: 42.4% (95% CI: 40.2-44.5) There was no gender difference in the prevalence of ever had a pneumonia vaccine.
Age	The prevalence of ever had a pneumonia vaccine was significantly higher among those aged 65 and older (73.7%) than among all other age groups.
Education	The prevalence of ever had a pneumonia vaccine was significantly higher among those with less than a high school education (45.3%) than college graduates (35.5%).
Household Income	The prevalence of ever had a pneumonia vaccine was significantly lower among those with an annual household income of \$50,000 or more per year than among those earning less than \$50,000.

CHAPTER 17: IMMUNIZATIONS

Table 17.3 Prevalence of Ever Had a Pneumonia Vaccine by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	239,991	37.9	35.5-40.3	281,807	42.4	40.2-44.5	521,799	40.2	38.6-41.8
Age									
18-24	19,559	*30.8	19.6-41.9	12,532	*22.7	11.7-33.7	32,091	27.0	19.2-34.8
25-34	20,509	22.6	16.2-29.1	17,469	19.3	13.4-25.1	37,978	21.0	16.6-25.3
35-44	16,278	16.7	11.7-21.6	19,175	19.9	14.7-25.0	35,452	18.2	14.7-21.8
45-54	27,390	26.3	21.1-31.4	34,027	31.7	26.9-36.5	61,417	29.0	25.5-32.6
55-64	46,584	38.5	33.9-43.2	56,253	44.1	39.9-48.3	102,838	41.4	38.3-44.5
65+	108,319	71.4	67.6-75.1	139,626	75.6	72.5-78.6	247,946	73.7	71.3-76.1
Education									
Less than H.S.	39,788	40.5	33.5-47.4	45,474	50.6	43.7-57.6	85,261	45.3	40.3-50.3
H.S. or G.E.D.	97,202	37.0	33.1-40.9	115,206	46.4	42.7-50.2	212,408	41.6	38.9-44.3
Some Post-H.S.	61,070	36.5	31.8-41.3	77,626	40.5	36.4-44.5	138,696	38.6	35.6-41.7
College Graduate	41,811	40.0	35.3-44.6	43,291	32.1	28.6-35.6	85,102	35.5	32.7-38.4
Income									
Less than \$15,000	29,257	43.2	35.2-51.2	39,864	48.0	41.6-54.3	69,121	45.8	40.8-50.9
\$15,000 - 24,999	42,285	39.4	33.3-45.5	54,829	45.5	40.3-50.7	97,114	42.6	38.6-46.6
\$25,000 - 34,999	33,700	46.9	39.2-54.6	32,225	43.8	37.2-50.4	65,925	45.4	40.3-50.4
\$35,000 - 49,999	38,139	47.5	40.9-54.2	32,743	46.0	39.3-52.6	70,882	46.8	42.1-51.5
\$50,000 - 74,999	27,716	33.1	27.1-39.0	25,657	35.3	29.6-41.1	53,373	34.1	30.0-38.3
\$75,000+	34,295	25.1	20.9-29.4	34,701	29.1	24.5-33.6	68,996	27.0	23.9-30.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Pneumonia Vaccine, Ages 65 and Older

Definition	Responding “Yes” 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?” Restricted to adults aged 65 and older.
Prevalence	WV: 73.7% (95% CI: 71.3-76.1) U.S.: 74.2% (95% CI: 73.7-74.8) The West Virginia prevalence of ever had a pneumonia vaccine among those aged 65 and older was similar to the U.S. prevalence. West Virginia ranked the 19 th lowest among the 53 BRFSS participants.
Gender	Men: 71.4% (95% CI: 67.6-75.1) Women: 75.6% (95% CI: 72.5-78.6) There was no gender difference in the prevalence of ever had a pneumonia vaccine among those aged 65 and older.
Education	There was no educational attainment difference in the prevalence of ever had a pneumonia vaccine among those aged 65 and older.
Household Income	There was no annual household income difference in the prevalence of ever had a pneumonia vaccine among those aged 65 and older.

CHAPTER 17: IMMUNIZATIONS

Table 17.4 Prevalence of Ever Had a Pneumonia Vaccine Among Those Aged 65 and Older by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	108,319	71.4	67.6-75.1	139,626	75.6	72.5-78.6	247,946	73.7	71.3-76.1
Education									
Less than H.S.	19,611	*69.0	58.7-79.4	27,737	80.0	72.8-87.2	47,348	75.1	68.9-81.3
H.S. or G.E.D.	46,202	73.5	67.6-79.4	55,445	71.5	66.4-76.5	101,647	72.4	68.5-76.2
Some Post-H.S.	24,367	71.8	64.2-79.3	34,892	79.4	73.7-85.1	59,259	76.1	71.4-80.7
College Graduate	18,019	68.3	61.4-75.3	21,341	75.8	69.6-81.9	39,360	72.2	67.5-76.8
Income									
Less than \$15,000	8,540	*75.2	61.8-88.6	16,100	77.2	68.8-85.6	24,641	76.5	69.3-83.7
\$15,000 - 24,999	20,593	66.1	57.1-75.1	28,133	73.4	66.4-80.4	48,726	70.1	64.5-75.7
\$25,000 - 34,999	18,480	75.7	66.4-85.0	17,319	75.4	66.5-84.4	35,799	75.6	69.1-82.0
\$35,000 - 49,999	18,784	75.0	66.3-83.6	17,077	71.8	62.0-81.6	35,861	73.4	66.9-79.9
\$50,000 - 74,999	13,493	*67.8	57.1-78.5	12,969	76.3	67.3-85.3	26,462	71.7	64.5-78.9
\$75,000+	12,171	*64.1	54.0-74.1	10,520	*75.1	65.0-85.2	22,691	68.8	61.5-76.0

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Shingles Vaccine

Definition	Responding “Yes” to the question, “Have you ever had the shingles or zoster vaccine?” Question asked among those aged 45 and older.
Prevalence	WV: 28.0% (95% CI: 26.4-29.7) U.S.: 27.7% (95% CI: 27.3-28.1) The West Virginia prevalence of ever had a shingles vaccine older was similar to the U.S. prevalence. West Virginia ranked the 24 th lowest among the 53 BRFSS participants.
Gender	Men: 27.5% (95% CI: 25.0-30.0) Women: 28.5% (95% CI: 26.3-30.7) There was no gender difference in the prevalence of had the shingles vaccine.
Age	The prevalence of had the shingles vaccine was significantly higher among those aged 65 and older (42.8%) than among all other age groups.
Education	The prevalence of had the shingles vaccine was significantly higher among college graduates (36.5%) than among all other educational attainment levels.
Household Income	The prevalence of had the shingles vaccine was significantly higher among those with an annual household income of \$35,000-\$49,999 (33.6%) and \$50,000-\$74,999 (33.0%) than those with an annual income of less than \$15,000 per year (21.0%).

CHAPTER 17: IMMUNIZATIONS

Table 17.5 Prevalence of Had the Shingles Vaccine Among Those Aged 45 and Older by Demographic Characteristics: WVBFRSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	90,719	27.5	25.0-30.0	105,910	28.5	26.3-30.7	196,629	28.0	26.4-29.7
Age									
45-54	2,348	*4.4	1.1-7.6	4,234	7.6	3.9-11.3	6,582	6.0	3.5-8.5
55-64	21,046	17.2	13.7-20.7	23,739	18.3	15.2-21.3	44,785	17.7	15.4-20.1
65+	66,835	43.8	39.7-47.8	77,937	42.0	38.6-45.4	144,772	42.8	40.2-45.4
Education									
Less than H.S.	12,987	21.6	15.4-27.8	13,555	24.3	18.1-30.4	26,542	22.9	18.5-27.3
H.S. or G.E.D.	36,871	26.7	22.6-30.7	40,175	25.4	22.1-28.8	77,047	26.0	23.4-28.6
Some Post-H.S.	22,880	29.7	24.4-34.9	28,673	29.4	25.1-33.7	51,554	29.5	26.2-32.8
College Graduate	17,981	33.2	28.2-38.2	23,506	39.4	34.8-44.0	41,486	36.5	33.1-39.8
Income									
Less than \$15,000	8,160	23.5	15.9-31.0	8,983	19.2	14.0-24.5	17,143	21.0	16.6-25.5
\$15,000 - 24,999	12,148	20.7	15.2-26.2	20,884	29.7	24.6-34.8	33,032	25.6	21.8-29.4
\$25,000 - 34,999	12,283	28.0	20.8-35.1	11,683	27.2	20.6-33.8	23,966	27.6	22.7-32.5
\$35,000 - 49,999	16,378	35.5	28.2-42.9	14,235	31.6	25.2-38.0	30,613	33.6	28.7-38.5
\$50,000 - 74,999	15,559	33.3	26.4-40.2	13,147	32.6	25.8-39.5	28,706	33.0	28.1-37.9
\$75,000+	13,475	24.2	18.9-29.5	13,146	26.7	21.4-32.0	26,621	25.4	21.6-29.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Doctor Advised to Reduce Sodium

Definition	Responding “Yes” to the question, “Has a doctor ever advised you to reduce sodium or salt intake?”
Prevalence	WV: 23.7% (95% CI: 22.3-25.0) 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	Men: 23.5% (95% CI: 21.5-25.5) Women: 23.9% (95% CI: 22.0-25.7) There was no gender difference in the prevalence of doctor advised to reduce sodium.
Age	The prevalence of doctor advised to reduce sodium was significantly higher among those aged 65 and older (35.6%) than among all other age groups except those aged 55-64.
Education	The prevalence of doctor advised to reduce sodium was significantly higher among those with less than a high school education (30.7%) than those who had some college and college graduates.
Household Income	The prevalence of doctor advised to reduce sodium was significantly higher among those with an annual household income of \$15,000 or less (32.0%) than among those with an annual household income of \$25,000.

CHAPTER 18: DOCTOR ADVICE

Table 18.1 Prevalence of Advised by Doctor to Reduce Sodium by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	149,098	23.5	21.5-25.5	161,136	23.9	22.0-25.7	310,234	23.7	22.3-25.0
Age									
18-24	1,206	*1.8	0.0-4.3	9,163	*13.4	5.4-21.4	10,370	7.7	3.3-12.0
25-34	5,510	6.0	2.6-9.3	8,430	9.0	5.2-12.8	13,939	7.5	5.0-10.0
35-44	16,717	16.8	11.6-22.1	19,185	20.1	14.9-25.3	35,901	18.4	14.7-22.1
45-54	28,601	27.6	22.3-32.8	25,219	23.8	19.5-28.2	53,820	25.7	22.3-29.1
55-64	39,939	33.7	29.2-38.3	35,440	28.3	24.4-32.2	75,379	31.0	28.0-33.9
65+	56,141	37.6	33.6-41.5	62,547	34.1	30.8-37.3	118,688	35.6	33.1-38.2
Education									
Less than H.S.	29,142	29.2	23.0-35.3	29,771	32.3	25.8-38.8	58,913	30.7	26.2-35.2
H.S. or G.E.D.	64,510	24.9	21.6-28.2	67,608	26.6	23.4-29.8	132,119	25.7	23.4-28.0
Some Post-H.S.	30,667	18.1	14.7-21.4	43,211	22.4	19.0-25.7	73,878	20.4	18.0-22.7
College Graduate	24,779	23.6	19.9-27.4	20,016	14.9	12.2-17.5	44,795	18.7	16.5-20.9
Income									
Less than \$15,000	24,012	33.6	26.3-40.8	25,974	30.7	25.0-36.5	49,986	32.0	27.5-36.6
\$15,000 - 24,999	30,696	29.6	24.2-35.1	34,204	27.9	23.3-32.6	64,900	28.7	25.2-32.3
\$25,000 - 34,999	16,749	23.6	17.9-29.4	16,296	22.2	17.1-27.3	33,046	22.9	19.1-26.7
\$35,000 - 49,999	16,993	21.6	16.4-26.8	18,945	25.4	20.0-30.7	35,938	23.4	19.7-27.2
\$50,000 - 74,999	18,794	21.5	16.6-26.5	13,326	18.2	13.6-22.8	32,120	20.0	16.6-23.4
\$75,000+	23,786	17.6	13.9-21.2	15,515	13.1	9.7-16.5	39,301	15.5	13.0-18.0

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Doctor Advised To Quit Tobacco

Definition	Responding “Yes” to the question, “In the past 12 months did any doctor, dentist, nurse, or other health professional advise you to quit smoking cigarettes or using any other tobacco products?”
Prevalence	WV: 40.3% (95% CI: 37.9-42.6) 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: 38.3% (95% CI: 35.0-41.7) Women: 42.3% (95% CI: 39.0-45.7) There was no gender difference in the prevalence of doctor advised to quit tobacco.
Age	The prevalence of doctor advised to quit tobacco was significantly lower among those aged 65 and older (22.4%) than among all other age groups.
Education	The prevalence of doctor advice to quit tobacco was significantly lower among college graduates (29.2%) than among all other educational attainment levels.
Household Income	The prevalence of doctor advice to quit tobacco was significantly lower among those with an annual household income of \$75,000 or more (26.9%) than all other income groups.

CHAPTER 18: DOCTOR ADVICE

Table 18.2 Prevalence of Doctor Advised to Quit Smoking by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	136,943	38.3	35.0-41.7	138,568	42.3	39.0-45.7	275,512	40.3	37.9-42.6
Age									
18-24	12,248	*43.2	25.0-61.3	13,872	*57.4	37.8-76.9	26,120	*49.7	36.3-63.1
25-34	18,639	*35.5	25.3-45.7	26,015	51.2	41.4-60.9	44,655	43.2	36.0-50.4
35-44	27,752	50.6	41.3-59.9	25,742	45.2	36.7-53.7	53,494	47.9	41.6-54.2
45-54	25,596	47.9	39.4-56.3	31,740	50.9	44.0-57.8	57,336	49.5	44.1-54.9
55-64	29,877	43.8	37.5-50.2	24,636	42.4	36.3-48.6	54,513	43.2	38.7-47.6
65+	22,152	22.7	18.6-26.8	16,157	21.9	17.3-26.5	38,309	22.4	19.3-25.4
Education									
Less than H.S.	29,204	40.2	32.0-48.5	29,716	49.1	39.9-58.3	58,920	44.3	38.1-50.5
H.S. or G.E.D.	58,607	38.9	33.7-44.2	56,364	43.0	37.7-48.3	114,971	40.8	37.1-44.6
Some Post-H.S.	39,013	40.4	34.0-46.8	39,353	41.9	35.9-47.9	78,366	41.1	36.7-45.5
College Graduate	10,120	27.1	20.0-34.2	12,812	31.0	24.3-37.7	22,932	29.2	24.3-34.0
Income									
Less than \$15,000	26,404	51.8	42.6-61.0	31,579	60.3	52.7-67.9	57,983	56.1	50.1-62.1
\$15,000 - 24,999	32,630	49.4	41.6-57.3	30,868	43.2	36.2-50.2	63,498	46.2	41.0-51.4
\$25,000 - 34,999	16,148	38.8	29.2-48.5	15,624	*44.8	34.7-55.0	31,772	41.5	34.5-48.6
\$35,000 - 49,999	13,813	30.8	22.7-38.9	11,018	34.3	24.3-44.2	24,831	32.2	25.9-38.5
\$50,000 - 74,999	18,442	37.3	27.9-46.7	10,311	32.9	23.5-42.3	28,753	35.6	28.8-42.4
\$75,000+	14,836	27.6	20.0-35.2	12,399	30.2	21.6-38.8	27,235	28.7	23.0-34.4

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Smoking Allowed in the Home

Definition	Responding “Allowed” to the question, “Not counting decks, porches, or garages, inside your home, is smoking ...?”
Prevalence	WV: 25.8% (95% CI: 24.2-27.4) Because this question is from a state added module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 27.0% (95% CI: 24.6-29.4) Women: 24.7% (95% CI: 22.6-26.7) There was no gender difference in the prevalence of had the smoking allowed in home.
Age	The prevalence of smoking allowed in home was significantly lower among those aged 65 and older (21.0%) than adults aged 18-24, 45-54, and 55-64.
Education	The prevalence of smoking allowed in home was significantly higher those with less than a high school education (43.6%) than among all other educational attainment levels.
Household Income	The prevalence of smoking allowed in home was significantly higher among those with an annual household income less than \$15,000 (45.1%) than among all other household incomes.

CHAPTER 19: SECONDHAND SMOKE

Table 19.1 Prevalence of Smoking Never Allowed in the Home by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	169,928	27.0	24.6-29.4	166,125	24.7	22.6-26.7	336,053	25.8	24.2-27.4
Age									
18-24	24,665	36.8*	25.2-48.5	20,152	29.4*	19.0-39.9	44,817	33.1	25.3-40.9
25-34	21,789	23.8	16.8-30.8	22,352	24.0	17.8-30.1	44,141	23.9	19.2-28.5
35-44	25,432	25.9	19.8-32.0	26,394	27.4	21.5-33.4	51,825	26.7	22.4-30.9
45-54	28,195	27.9	22.6-33.3	30,738	29.2	24.5-33.9	58,936	28.6	25.0-32.2
55-64	34,597	29.2	24.8-33.7	30,653	24.5	20.9-28.2	65,250	26.8	23.9-29.7
65+	34,278	22.8	19.3-26.3	35,431	19.5	16.6-22.3	69,709	21.0	18.8-23.2
Education									
Less than H.S.	43,143	43.7	36.1-51.3	40,177	43.5	36.3-50.7	83,320	43.6	38.4-48.8
H.S. or G.E.D.	77,353	30.0	26.1-33.9	73,751	29.1	25.6-32.6	151,104	29.5	26.9-32.2
Some Post-H.S.	38,937	23.2	18.9-27.4	37,131	19.3	16.0-22.5	76,068	21.1	18.4-23.7
College Graduate	10,494	10.0	7.2-12.8	14,744	11.0	8.5-13.6	25,238	10.6	8.7-12.5
Income									
Less than \$15,000	32,437	45.7	37.5-53.8	37,540	44.6	38.2-51.0	69,977	45.1	40.0-50.1
\$15,000 - 24,999	40,166	38.8	32.3-45.4	36,679	29.9	25.0-34.8	76,845	34.0	29.9-38.0
\$25,000 - 34,999	18,419	26.0	19.6-32.4	16,543	22.7	16.7-28.8	34,963	24.3	19.9-28.7
\$35,000 - 49,999	16,075	21.0	15.3-26.7	12,386	16.8	11.8-21.7	28,461	18.9	15.1-22.7
\$50,000 - 74,999	17,785	20.5	14.9-26.2	11,527	15.8	11.0-20.5	29,312	18.3	14.6-22.1
\$75,000+	17,744	13.2	9.2-17.1	12,786	10.8	7.2-14.4	30,529	12.1	9.4-14.7

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

West Virginia Behavioral Risk Factor
Surveillance System Report

2017



**SECTION 4:
CHRONIC
DISEASES**

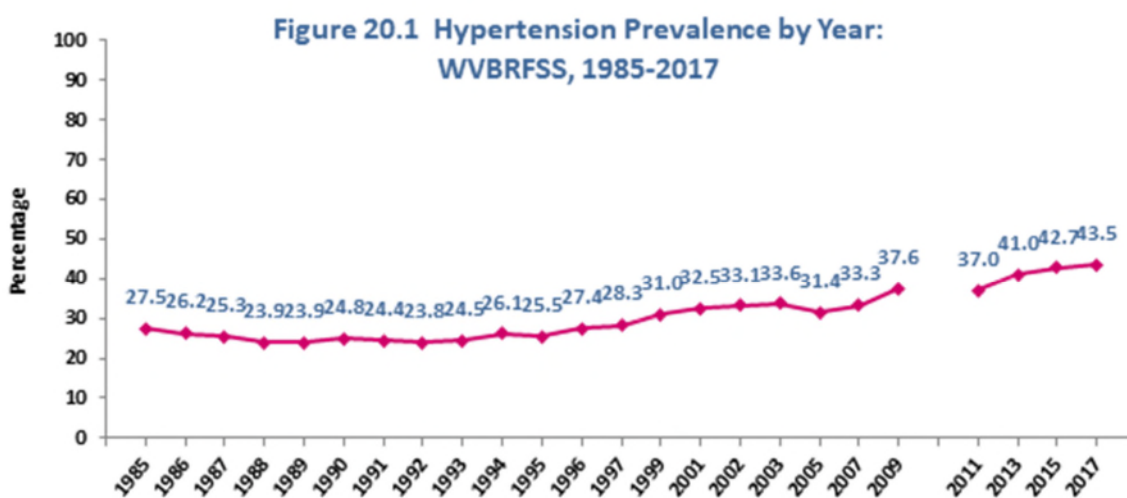
Hypertension Prevalence

Definition	Responding “Yes” to the question, “Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?”
Prevalence	WV: 43.5% (95% CI: 41.9-45.1) U.S.: 32.5% (95% CI: 32.2-32.8) West Virginia’s prevalence of hypertension was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants.
Gender	Men: 46.4% (95% CI: 43.9-48.8) Women: 40.8% (95% CI: 38.8-42.9) Prevalence of hypertension was significantly higher among men than women.
Age	The prevalence of hypertension was significantly higher among adults aged 65 and older (69.4%) than all other age groups.
Education	The prevalence of hypertension was significantly lower among college graduates (35.4%) than those with a high school education or less.
Household Income	The prevalence of hypertension was significantly lower among those with an annual household income of \$75,000 or greater than all other income groups.

CHAPTER 20: HYPERTENSION

Table 20.1 Hypertension Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	328,935	46.4	43.9-48.8	302,214	40.8	38.8-42.9	631,149	43.5	41.9-45.1
Age									
18-24	12,610	14.5	6.4-22.6	6,899	*8.5	3.1-14.0	19,510	11.6	6.6-16.6
25-34	19,837	18.5	12.9-24.1	16,354	15.8	10.7-20.8	36,191	17.2	13.4-21.0
35-44	45,168	41.0	34.6-47.5	26,337	24.2	19.1-29.3	71,505	32.6	28.5-36.8
45-54	54,166	48.6	42.9-54.3	49,237	43.0	38.1-47.9	103,403	45.8	42.0-49.5
55-64	80,792	63.7	59.1-68.2	69,644	52.2	48.1-56.4	150,436	57.8	54.7-60.9
65+	113,789	71.1	67.4-74.7	131,933	68.0	64.9-71.2	245,722	69.4	67.0-71.8
Education									
Less than H.S.	61,213	56.4	49.0-63.8	50,814	49.6	42.7-56.4	112,027	53.1	48.0-58.2
H.S. or G.E.D.	139,378	46.7	42.8-50.7	123,392	44.1	40.6-47.7	262,770	45.5	42.8-48.1
Some Post-H.S.	78,478	42.7	38.0-47.4	84,402	39.7	35.8-43.6	162,880	41.1	38.1-44.4
College Graduate	49,747	42.5	38.1-46.9	42,874	29.6	26.3-33.0	92,620	35.4	32.6-38.1
Income									
Less than \$15,000	38,295	47.9	40.0-55.7	42,586	45.9	39.9-51.9	80,881	46.8	42.0-51.7
\$15,000 - 24,999	62,781	51.8	45.4-58.2	67,263	50.1	45.0-55.3	130,043	50.9	46.9-55.0
\$25,000 - 34,999	36,691	48.2	40.8-55.6	33,681	41.3	34.9-47.6	70,372	44.6	39.8-49.4
\$35,000 - 49,999	44,072	52.1	45.4-58.7	33,978	42.6	36.4-48.7	78,050	47.5	42.9-52.0
\$50,000 - 74,999	42,218	45.7	39.2-52.1	33,361	43.0	37.0-49.1	75,578	44.5	40.0-48.9
\$75,000+	59,350	40.1	35.2-45.0	33,585	26.0	21.8-30.2	92,934	33.5	30.3-36.8

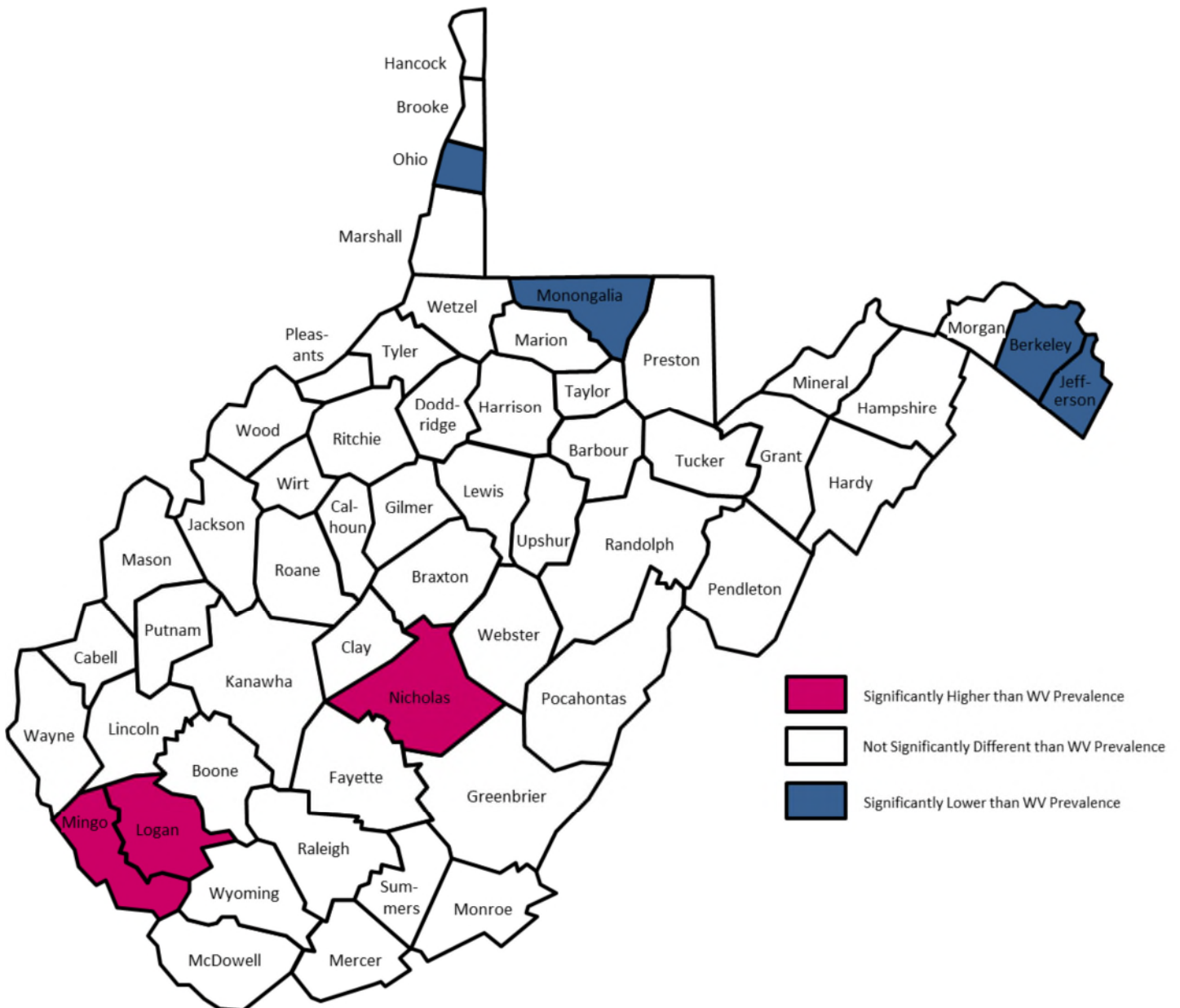


Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

CHAPTER 20: HYPERTENSION

Figure 20.2 Hypertension Prevalence by County: WVBFRSS, 2009, 2011, 2013, 2015, 2017

WV Prevalence (2009, 2011, 2013, 2015, 2017) - 40.4%



Hypertension Medication

Definition	Reported having been told they have high blood pressure and responding “Yes” to the question, “Are you currently taking medicine for your high blood pressure?”
Prevalence	WV: 79.6% (95% CI: 77.5-81.7) U.S.: 76.0% (95% CI: 75.5-76.5) The West Virginia prevalence of taking medication for hypertension was significantly higher than the U.S. prevalence. West Virginia ranked the 12 th highest among the 53 BRFSS participants.
Gender	Men: 75.4% (95% CI: 72.1-78.7) Women: 84.2% (95% CI: 81.6-86.8) Prevalence of hypertension medication was higher among women than men.
Age	The prevalence of taking medication for hypertension was significantly higher in adults ages 65 and older (95.2%) than all other age groups.
Education	There was no educational attainment difference in the prevalence of taking medication for hypertension.
Household Income	There was no consistent annual household income difference in the prevalence of taking medication for hypertension.

CHAPTER 20: HYPERTENSION

Table 20.2 Use of Hypertension Medication by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	247,685	75.4	72.1-78.7	254,393	84.2	81.6-86.8	502,078	79.6	77.5-81.7
Age									
18-24	1,907	*15.1	0.0-35.5	0.0	0.0	0.0-0.0	1,907	*9.8	0.0-23.2
25-34	4,022	*20.3	7.5-33.0	4,831	*29.5	14.3-44.8	8,853	24.5	14.6-34.3
35-44	21,074	*46.7	36.4-56.9	15,970	*60.6	49.0-72.3	37,045	51.8	43.9-59.7
45-54	40,833	75.4	68.1-82.7	42,168	85.6	80.6-90.7	83,001	80.3	75.7-84.8
55-64	71,086	88.0	84.2-91.7	63,270	90.8	87.5-94.2	134,356	89.3	86.8-91.9
65+	106,680	94.1	91.8-96.3	126,880	96.2	94.8-97.6	233,560	95.2	93.9-96.5
Education									
Less than H.S.	41,744	68.5	59.0-77.9	44,370	87.3	80.8-93.8	86,115	77.0	70.8-83.3
H.S. or G.E.D.	104,623	75.1	69.8-80.3	108,042	87.6	83.7-91.4	212,665	80.9	77.6-84.3
Some Post-H.S.	60,735	77.4	71.5-83.3	65,798	78.0	72.4-83.5	126,533	77.7	73.6-81.7
College Graduate	40,462	81.6	76.1-87.1	35,451	82.7	77.5-87.9	75,912	82.1	78.3-85.9
Income									
Less than \$15,000	29,502	77.0	68.4-85.6	34,124	80.1	72.5-87.7	63,626	78.7	73.0-84.4
\$15,000 - 24,999	42,863	68.5	59.3-77.7	54,598	81.2	75.1-87.3	97,460	75.1	69.5-80.7
\$25,000 - 34,999	28,127	77.0	68.8-85.2	30,532	90.7	84.8-96.5	58,660	83.5	78.4-88.7
\$35,000 - 49,999	37,127	84.2	77.2-91.2	30,129	88.7	82.1-95.2	67,256	86.2	81.3-91.1
\$50,000 - 74,999	34,438	81.6	73.3-89.9	27,815	83.4	76.4-90.4	62,253	82.4	76.8-88.0
\$75,000+	44,156	74.4	67.4-81.4	25,497	75.9	67.3-84.5	69,653	74.9	69.5-80.4

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

High Cholesterol

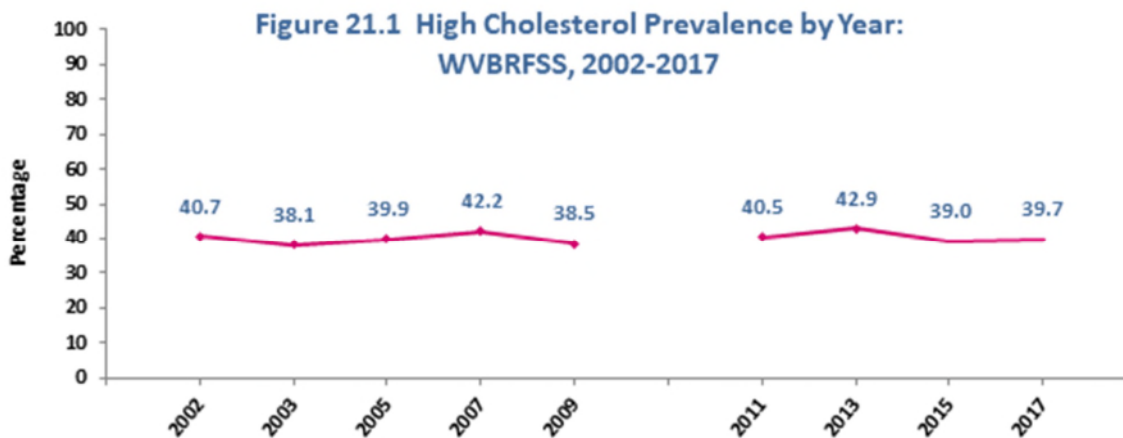
Definition	Responding “Yes” to the question, “Have you ever had your blood cholesterol checked?” and responding “Yes” to the question, “Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high?”
Prevalence	WV: 39.7% (95% CI: 38.1-41.3) U.S.: 33.4% (95% CI: 33.1-33.7) The WV prevalence of high cholesterol was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 40.0% (95% CI: 37.6-42.5) Women: 39.4 (95% CI: 37.3-41.5) There was no gender difference in the prevalence of high cholesterol.
Age	The prevalence of high cholesterol was significantly higher in those ages 55 and older than those aged 54 and younger.
Education	The prevalence of high cholesterol was significantly higher among those with less than a high school education (47.0%) than those with some college (36.8%) and college graduates (33.3%).
Household Income	The prevalence of high cholesterol was significantly higher among those with an annual household income of less than \$15,000 (46.7%) than the prevalence among those with an income of \$25,000 or more.

CHAPTER 21: HIGH CHOLESTEROL

Table 21.1 Prevalence of High Cholesterol by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	231,358	40.0	37.6-42.5	251,052	39.4	37.3-41.5	482,410	39.7	38.1-41.3
Age									
18-24	0.0	0.0	0.0-0.0	8,159	*18.6	8.0-29.3	8,159	*10.2	4.1-16.3
25-34	11,416	15.7	8.9-22.4	8,752	11.8	6.7-16.8	20,167	13.7	9.5-17.9
35-44	25,524	27.6	21.2-34.1	19,085	19.7	14.7-24.7	44,609	23.5	19.5-27.6
45-54	41,999	42.0	36.1-47.8	42,914	39.9	34.9-44.9	84,913	40.9	37.1-44.7
55-64	62,840	52.7	47.9-57.5	69,413	55.1	51.0-59.3	132,253	53.9	50.8-57.1
65+	87,389	57.2	53.2-61.3	101,455	55.0	51.6-58.8	188,844	56.0	53.4-58.7
Education									
Less than H.S.	40,760	49.3	41.7-56.8	38,819	44.9	37.9-51.9	79,578	47.0	41.9-52.2
H.S. or G.E.D.	101,519	41.8	37.8-45.8	107,221	45.1	41.4-48.8	208,740	43.4	40.7-46.2
Some Post-H.S.	53,779	36.8	32.1-41.5	66,348	36.0	32.1-39.9	120,127	36.4	33.3-39.4
College Graduate	35,300	33.3	29.1-37.5	38,664	30.1	26.6-33.7	73,965	31.6	28.9-34.3
Income									
Less than \$15,000	29,880	50.3	41.8-58.8	35,121	44.1	37.6-50.6	65,001	46.7	41.5-51.9
\$15,000 - 24,999	41,015	42.9	36.6-49.2	50,918	45.3	40.0-50.7	91,932	44.2	40.1-48.3
\$25,000 - 34,999	33,667	52.6	44.7-60.4	23,904	33.4	27.4-39.3	57,571	42.4	37.5-47.4
\$35,000 - 49,999	26,853	37.4	30.8-44.1	31,119	43.0	36.7-49.3	57,972	40.2	35.7-44.8
\$50,000 - 74,999	28,841	36.5	30.2-42.7	27,349	38.1	32.1-44.1	56,190	37.2	32.9-41.6
\$75,000+	41,519	32.2	27.6-36.9	32,277	27.9	23.5-32.3	73,796	30.2	26.9-33.4

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

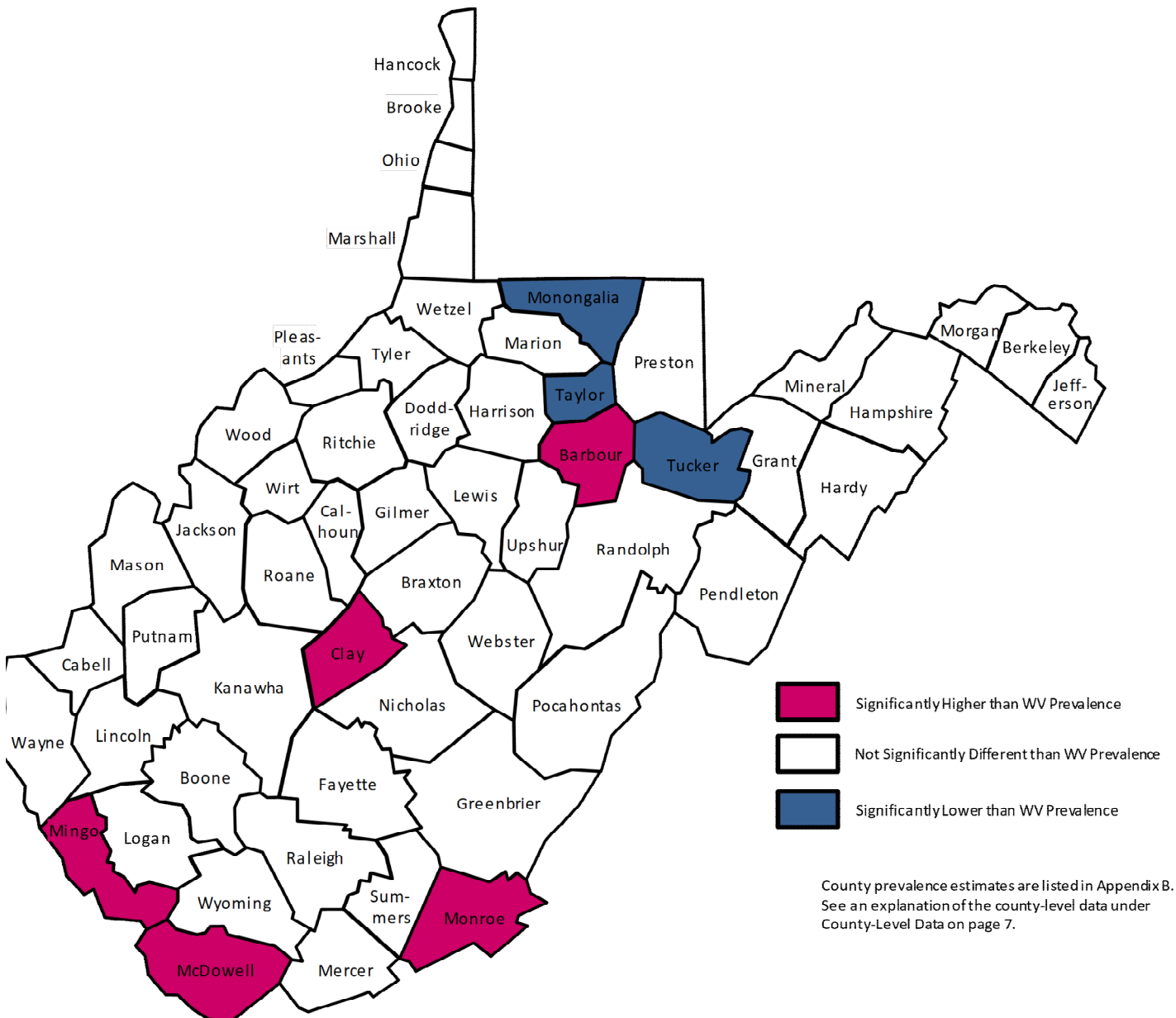


Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

CHAPTER 21: HIGH CHOLESTEROL

Figure 21.2 Prevalence of High Cholesterol by County: WVBRFSS, 2009, 2011, 2013, 2015, 2017

WV Prevalence (2009, 2011, 2013, 2015, 2017) - 40.1%



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	WV: 7.5% (95% CI: 6.7-8.2) U.S.: 4.3% (95% CI: 4.1-4.4) The West Virginia prevalence of heart attack was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 8.9% (95% CI: 7.7-10.1) Women: 6.1% (95% CI: 5.1-7.1) The prevalence of heart attack was significantly higher among men than among women.
Age	The prevalence of heart attack was significantly higher among those aged 65 and older (16.7%) than all other age groups.
Education	The prevalence of heart attack was significantly lower among college graduates (4.1%) than those with at most a high school education.
Household Income	The prevalence of heart attack was significantly higher among those with an annual household income of less than \$15,000 (11.7%) and was significantly higher than the prevalence among those earning \$35,000 or more. The prevalence of heart attack was lowest among those with a household income of \$75,000 or more per year (2.1%) and was significantly lower than among all other income groups.

CHAPTER 22: CARDIOVASCULAR DISEASE

Table 22.1 Heart Attack Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	63,105	8.9	7.7-10.1	44,860	6.1	5.1-7.1	107,965	7.5	6.7-8.2
Age									
18-24	834	*1.0	0.0-2.9	1,094	*1.4	0.0-4.0	1,929	*1.2	0.0-2.8
25-34	0.0	0.0	0.0-0.0	973	*0.9	0.0-2.3	973	*0.5	0.0-1.1
35-44	2,285	*2.1	0.1-4.0	2,037	*1.9	0.1-3.6	4,322	*2.0	0.7-3.3
45-54	7,543	6.8	4.1-9.5	7,098	6.2	3.8-8.6	14,641	6.5	4.7-8.3
55-64	18,626	14.7	11.4-18.0	8,156	6.1	4.1-8.1	26,782	10.3	8.4-12.2
65+	33,715	21.1	17.7-24.4	25,095	13.1	10.6-15.6	58,810	16.7	14.7-18.7
Education									
Less than H.S.	18,471	17.0	12.4-21.6	14,353	14.2	9.7-18.6	32,823	15.6	12.4-18.8
H.S. or G.E.D.	23,494	7.9	6.2-9.7	17,440	6.3	4.8-7.8	40,934	7.1	6.0-8.3
Some Post-H.S.	13,687	7.4	5.4-9.5	9,722	4.6	3.0-6.1	23,409	5.9	4.7-7.2
College Graduate	7,453	6.4	4.6-8.2	3,345	2.3	1.4-3.3	10,798	4.1	3.2-5.1
Income									
Less than \$15,000	10,041	12.5	8.3-16.7	10,162	11.0	7.3-14.8	20,203	11.7	9.0-14.5
\$15,000 - 24,999	16,055	13.4	9.6-17.2	8,628	6.5	4.3-8.6	24,683	9.8	7.6-11.9
\$25,000 - 34,999	12,235	16.0	11.2-20.8	4,564	5.6	3.0-8.2	16,799	10.6	7.9-13.3
\$35,000 - 49,999	5,820	6.9	4.2-9.6	4,252	5.3	2.9-7.8	10,072	6.1	4.3-8.0
\$50,000 - 74,999	6,317	6.8	4.1-9.5	3,878	5.0	2.1-7.9	10,195	6.0	4.0-8.0
\$75,000+	3,711	2.5	1.4-3.6	2,045	1.6	0.3-2.9	5,756	2.1	1.2-2.9

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

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	WV: 7.4% (95% CI: 6.7-8.2) U.S.: 4.0% (95% CI: 3.9-4.2) The West Virginia prevalence of coronary heart disease was significantly higher than the U.S. prevalence. West Virginia ranked highest among the 53 BRFSS participants.
Gender	Men: 8.3% (95% CI: 7.2-9.4) Women: 6.6% (95% CI: 5.7-7.5) There was no significant gender difference in the prevalence of coronary heart disease.
Age	The prevalence of coronary heart disease was significantly higher in adults aged 65 and older (17.4%) than all other age groups.
Education	The prevalence of coronary heart disease and was significantly higher among those with less than a high school education (10.7%) than among those with some college (6.3%) or a college degree (4.6%).
Household Income	The prevalence of coronary heart disease was significantly higher among those with an annual household income of less than \$15,000 (10.4%) than among those earning \$50,000 or more.

CHAPTER 22: CARDIOVASCULAR DISEASE

Table 22.2 Angina or Coronary Heart Disease Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	58,296	8.3	7.2-9.4	48,433	6.6	5.7-7.5	106,728	7.4	6.7-8.2
Age									
18-24	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0
25-34	1,130	*1.1	0.0-2.5	856	*0.8	0.0-2.4	1,986	*0.9	0.0-2.0
35-44	2,026	*1.8	0.4-3.3	3,219	*3.0	1.1-4.9	5,245	2.4	1.2-3.6
45-54	5,322	4.8	2.4-7.3	5,562	4.9	3.0-6.7	10,854	4.9	3.3-6.4
55-64	18,954	15.0	11.6-18.3	8,310	6.3	4.3-8.3	27,264	10.5	8.5-12.5
65+	30,374	19.5	16.3-22.7	29,928	15.7	13.2-18.3	60,302	17.4	15.4-19.4
Education									
Less than H.S.	12,135	11.6	7.8-15.4	9,667	9.7	6.5-12.8	21,803	10.7	8.2-13.1
H.S. or G.E.D.	24,643	8.4	6.6-10.2	22,332	8.1	6.4-9.8	46,975	8.2	7.0-9.5
Some Post-H.S.	13,689	7.4	5.4-9.5	1,336	5.4	3.9-6.9	25,025	6.3	5.1-7.6
College Graduate	7,708	6.6	4.6-8.6	4,977	3.5	2.3-4.6	12,684	4.9	3.8-6.0
Income									
Less than \$15,000	7,741	9.8	6.0-13.5	9,944	10.9	7.6-14.2	17,685	10.4	7.9-12.9
\$15,000 - 24,999	12,342	10.4	7.3-13.6	9,352	7.0	5.0-8.9	21,694	8.6	6.8-10.4
\$25,000 - 34,999	9,015	12.0	7.9-16.0	4,736	5.8	3.2-8.4	13,750	8.8	6.4-11.1
\$35,000 - 49,999	7,113	8.5	5.2-11.8	7,262	9.1	5.5-12.7	14,374	8.8	6.4-11.2
\$50,000 - 74,999	6,472	7.0	4.3-9.7	3,405	4.5	2.0-7.0	9,877	5.9	4.0-7.7
\$75,000+	6,493	4.4	2.8-6.0	2,176	1.7	0.7-2.7	8,669	3.1	2.2-4.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Stroke

Definition	Responding “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you had a stroke?”
Prevalence	WV: 4.8% (95% CI: 4.2-5.4) U.S.: 3.2% (95% CI: 3.1-3.3) The West Virginia prevalence of stroke was significantly higher than the U.S. prevalence. West Virginia ranked the 3 rd highest among the 53 BRFSS participants.
Gender	Men: 4.8% (95% CI: 3.9-5.7) Women: 4.7% (95% CI: 3.9-5.5) There was no gender difference for the prevalence of stroke.
Age	The prevalence of stroke was significantly higher among those aged 65 and older (9.0%) than the prevalence among all other age groups under age 55.
Education	The prevalence of stroke was significantly higher among those with less than a high school education (9.1%) than all other educational attainment levels.
Household Income	The prevalence of stroke was significantly higher among those with an annual household income less than \$15,000 (9.1%) than among those earning \$25,000 or more per year.

CHAPTER 22: CARDIOVASCULAR DISEASE

Table 22.3 Stroke Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	33,975	4.8	3.9-5.7	34,985	4.7	3.9-5.5	68,960	4.8	4.2-5.4
Age									
18-24	816	*0.9	0.0-2.8	1,102	*1.4	0.0-3.3	1,918	*1.2	0.0-2.5
25-34	2,486	*2.3	0.0-5.0	0.0	0.0	0.0-0.0	2,486	*1.2	0.0-2.5
35-44	2,274	*2.1	0.4-3.7	4,912	*4.5	1.8-7.2	7,186	3.3	1.7-4.9
45-54	3,041	*2.7	1.0-4.5	4,244	3.7	2.0-5.5	7,285	3.2	2.0-4.5
55-64	10,625	8.4	5.7-11.0	6,967	5.2	3.5-7.0	17,592	6.8	5.2-8.4
65+	13,904	8.7	6.6-10.8	17,760	9.2	7.2-11.1	31,664	9.0	7.5-10.4
Education									
Less than H.S.	10,151	9.4	5.9-13.0	9,000	8.8	5.9-11.7	19,151	9.1	6.8-11.4
H.S. or G.E.D.	12,825	4.3	2.9-5.7	16,266	5.8	4.3-7.4	29,091	5.0	4.0-6.1
Some Post-H.S.	7,679	4.2	2.5-5.9	7,015	3.3	2.1-4.5	14,694	3.7	2.7-4.7
College Graduate	3,321	2.8	1.7-4.0	2,703	1.9	0.8-2.9	6,024	2.3	1.5-3.1
Income									
Less than \$15,000	8,047	10.2	6.0-14.5	7,482	8.1	5.3-10.9	15,529	9.1	6.6-11.6
\$15,000 - 24,999	7,504	6.2	3.7-8.7	8,563	6.4	4.3-8.5	16,067	6.3	4.7-7.9
\$25,000 - 34,999	3,140	4.1	1.8-6.5	3,511	4.3	2.1-6.5	6,652	4.2	2.6-5.8
\$35,000 - 49,999	3,331	3.9	1.8-6.1	3,223	*4.0	1.2-6.9	6,554	4.0	2.2-5.8
\$50,000 - 74,999	1,545	*1.7	0.4-3.0	2,596	*3.3	1.3-5.4	4,141	2.4	1.3-3.6
\$75,000+	4,630	3.1	1.6-4.7	2,482	*1.9	0.5-3.4	7,112	2.6	1.5-3.6

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Cardiovascular Disease

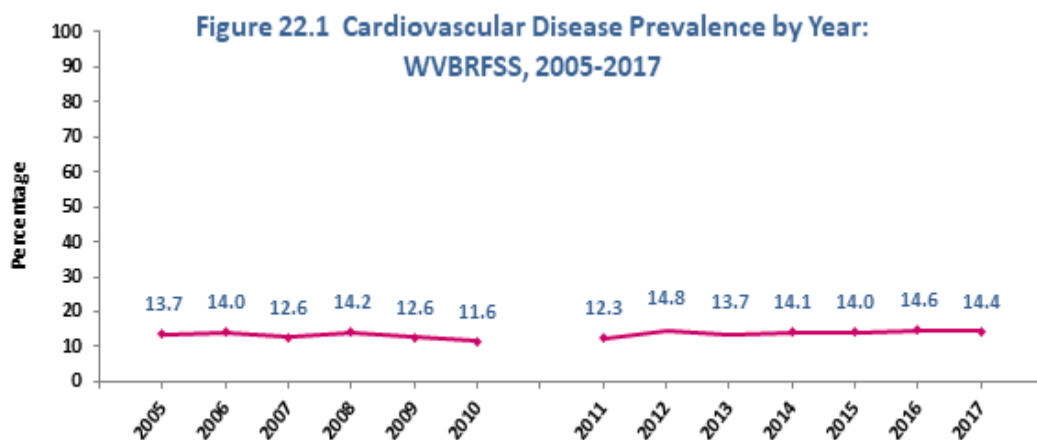
Definition	Responding “Yes” to any of the questions, “Has a doctor, nurse, or other health professional ever told you that you had any of the following?” “... ever told you had a heart attack, also called a myocardial infarction?”, “...ever told you had angina or coronary heart disease?”, “... ever told you had a stroke?”
Prevalence	WV: 14.4% (95% CI: 13.3-15.4) U.S.: 8.5% (95% CI: 8.4-8.7) The West Virginia prevalence of cardiovascular disease was significantly higher than the U.S. prevalence. West Virginia ranked the highest among the 53 BRFSS participants.
Gender	Men: 15.7% (95% CI: 14.1-17.3) Women: 13.1% (95% CI: 11.7-14.4) There was no significant difference by gender for prevalence of cardiovascular disease.
Age	The prevalence of cardiovascular disease was significantly higher among those aged 65 and older (30.7%) than among all other age groups.
Education	The prevalence of cardiovascular disease was significantly higher among those with less than a high school education (25.8%) than all other educational attainment levels. The prevalence of cardiovascular disease was significantly lower in college graduates (8.4%) than all other educational attainment levels.
Household Income	The prevalence of cardiovascular disease was significantly higher among those with an annual household income less than \$15,000 (22.7%) and was significantly higher than the prevalence among those earning \$35,000 or more per year. The prevalence of cardiovascular disease was significantly lower among those with an annual household income of \$75,000 or more (6.2%) than all other income groups.

CHAPTER 22: CARDIOVASCULAR DISEASE

Table 22.4 Cardiovascular Disease Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	110,247	15.7	14.1-17.3	96,049	13.1	11.7-14.4	206,297	14.4	13.3-15.4
Age									
18-24	1,650	*2.0	0.0-4.7	2,196	*2.7	0.0-6.0	3,846	*2.3	0.2-4.4
25-34	3,043	*2.8	0.0-5.7	1,830	*1.8	0.0-3.8	4,873	*2.3	0.5-4.1
35-44	5,663	5.2	2.5-7.9	8,779	8.2	4.7-11.7	14,442	6.7	4.5-8.9
45-54	10,897	9.9	6.6-13.2	13,182	11.6	8.5-14.6	24,080	10.7	8.5-13.0
55-64	32,558	25.8	21.7-30.0	18,149	13.7	10.9-16.5	50,707	19.6	17.1-22.1
65+	55,504	35.2	31.3-39.1	51,326	26.9	23.8-30.0	106,831	30.7	28.2-33.1
Education									
Less than H.S.	29,116	27.4	21.6-33.2	24,303	24.1	18.8-29.4	53,419	25.8	21.9-29.7
H.S. or G.E.D.	42,628	14.6	12.1-17.0	40,101	14.5	12.2-16.8	82,730	14.5	12.9-16.2
Some Post-H.S.	25,079	13.7	10.8-16.5	22,821	10.8	8.6-13.0	47,900	12.1	10.4-13.9
College Graduate	13,303	11.4	9.0-13.8	8,704	6.0	4.4-7.7	22,006	8.4	7.0-9.9
Income									
Less than \$15,000	18,730	23.9	18.0-29.8	19,784	21.7	16.9-26.5	38,514	22.7	19.0-26.5
\$15,000 - 24,999	25,836	21.9	17.2-26.7	19,473	14.6	11.5-17.6	45,309	18.0	15.3-20.8
\$25,000 - 34,999	17,429	23.0	17.4-28.6	9,426	11.6	7.9-15.2	26,855	17.1	13.8-20.4
\$35,000 - 49,999	11,422	13.7	9.7-17.6	11,248	14.1	9.6-18.6	22,670	13.9	10.9-16.9
\$50,000 - 74,999	9,921	10.7	7.4-14.0	7,904	10.4	6.6-14.3	17,825	10.6	8.1-13.1
\$75,000+	10,798	7.3	5.2-9.5	6,171	4.8	2.7-6.9	16,969	6.2	4.6-7.7

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

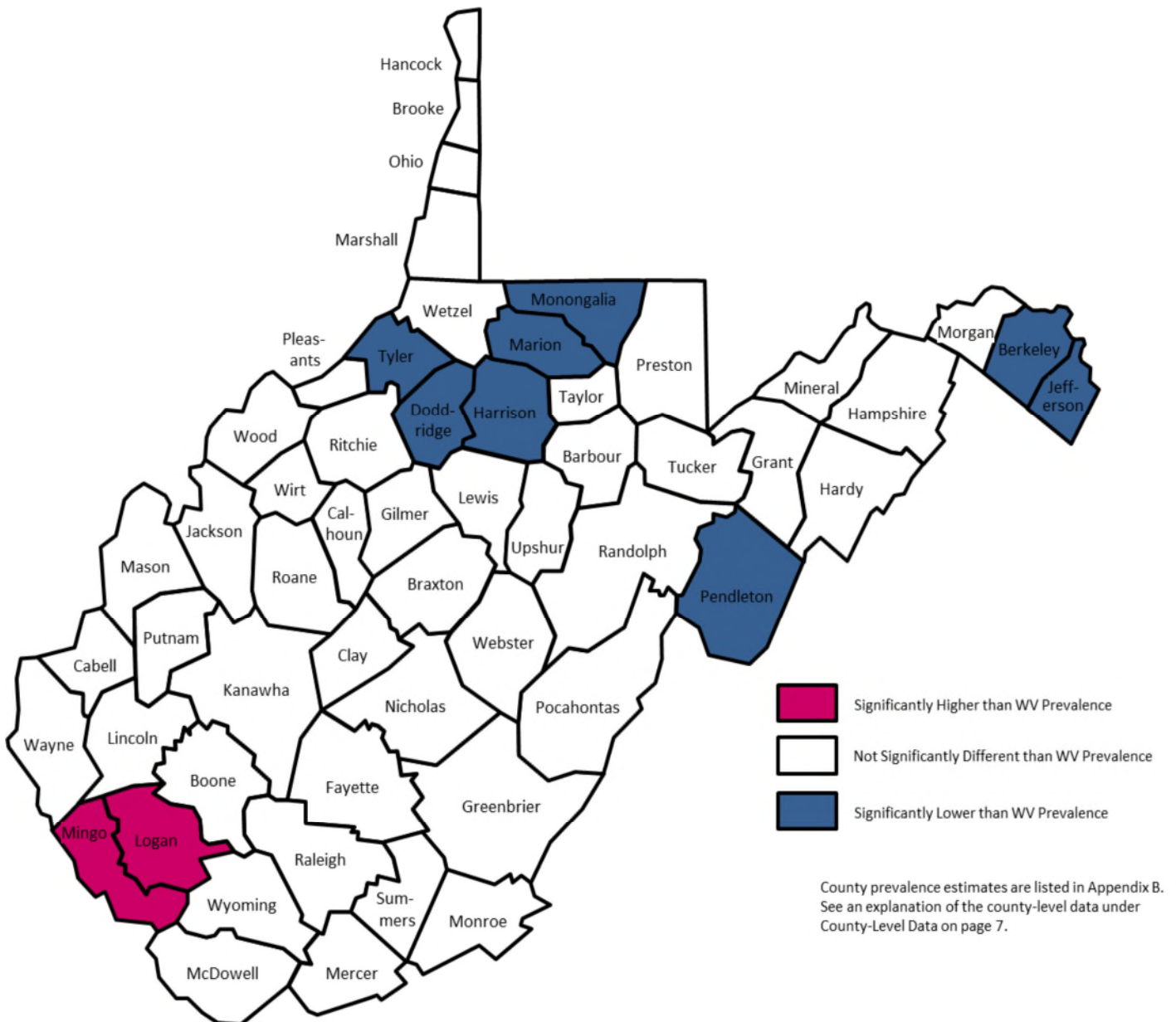


*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

CHAPTER 22: CARDIOVASCULAR DISEASE

Figure 22.2 Cardiovascular Disease Prevalence by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 14.2%



Watching Sodium Intake

Definition	Responding “Yes” to “Are you currently watching or reducing your sodium or salt intake?”
Prevalence	WV: 49.5% (95% CI: 47.8-51.2) Because this question is from a state added module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 49.5% (95% CI: 46.9-52.1) Women: 49.5% (95% CI: 47.2-51.7) There were no gender differences in the prevalence of watching sodium intake.
Age	The prevalence of watching sodium intake was significantly higher in adults aged 65 and older (63.1%) than among those less than 55.
Education	The prevalence of watching sodium intake significantly lower in adults with a college education (45.7%) than adults with a high school education (51.1%).
Household Income	The prevalence of watching sodium intake was significantly higher among those with an annual household income of less than \$15,000 (56.0%) than those earning \$75,000 or more. The prevalence of watching sodium intake was significantly lower among those with an annual household income of \$75,000 or more (40.4%) than among those earning less than \$35,000.

CHAPTER 22: CARDIOVASCULAR DISEASE

Table 22.5 Watching Sodium Intake Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	314,202	49.5	46.9-52.1	335,363	49.5	47.2-51.7	649,564	49.5	47.8-51.2
Age									
18-24	19,940	*30.1	18.7-41.6	18,624	27.0	17.4-36.7	38,564	28.5	21.1-36.0
25-34	29,405	31.8	24.4-39.2	31,003	33.0	26.6-39.4	60,407	32.4	27.5-37.3
35-44	42,832	43.0	36.2-49.8	37,357	38.6	32.4-44.8	80,188	40.8	36.2-45.4
45-54	55,575	53.6	47.8-59.5	52,778	49.8	44.7-55.0	108,353	51.7	47.8-55.6
55-64	71,007	60.0	55.2-64.7	74,096	59.3	55.1-63.5	145,103	59.6	56.5-62.8
65+	91,865	61.0	57.0-65.0	119,143	64.9	61.5-68.2	211,009	63.1	60.5-65.7
Education									
Less than H.S.	54,472	54.5	46.9-62.1	46,696	50.2	43.2-57.2	101,168	52.4	47.2-57.7
H.S. or G.E.D.	128,149	49.4	45.2-53.6	139,942	54.8	51.0-58.6	268,090	52.1	49.3-54.9
Some Post-H.S.	77,689	45.9	40.9-50.8	91,746	47.3	43.1-51.6	169,435	46.7	43.4-49.9
College Graduate	53,512	50.6	45.8-55.4	56,570	41.9	37.9-45.9	110,082	45.7	42.6-48.8
Income									
Less than \$15,000	39,748	55.3	47.2-63.4	47,916	56.6	50.1-63.1	87,663	56.0	50.9-61.2
\$15,000 - 24,999	58,897	65.5	50.0-62.9	67,736	55.1	49.7-60.4	126,632	55.7	51.6-59.9
\$25,000 - 34,999	35,563	50.1	42.3-57.8	37,614	51.0	44.1-57.9	73,177	50.5	45.4-55.7
\$35,000 - 49,999	36,712	46.7	40.0-53.4	33,695	45.2	38.7-51.6	70,407	46.0	41.3-50.6
\$50,000 - 74,999	39,205	44.8	38.2-51.4	37,185	50.8	44.4-57.1	76,390	47.5	42.9-52.2
\$75,000+	58,591	43.3	38.0-48.5	44,314	37.1	32.2-42.1	102,906	40.4	36.8-44.0

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

Diabetes Prevalence

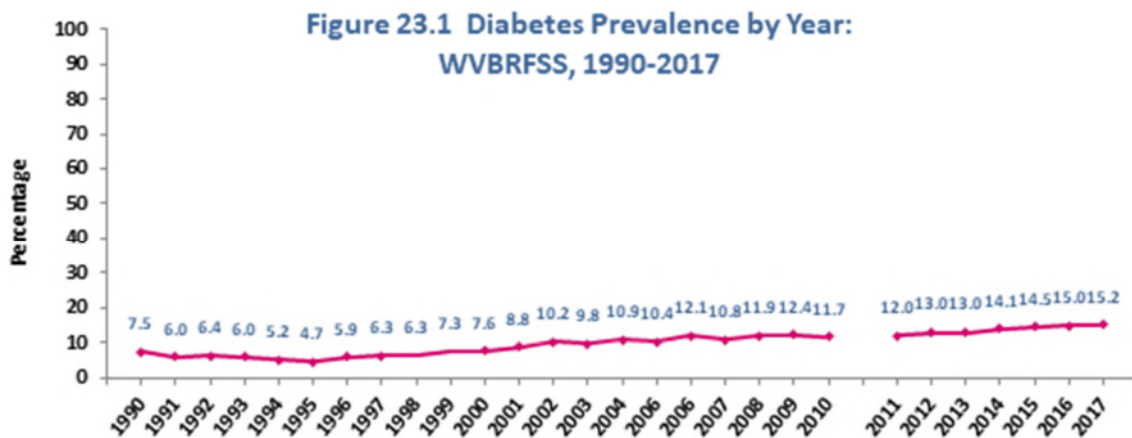
Definition	Responding “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you have diabetes?”
Prevalence	WV: 15.2% (95% CI: 14.2-16.3) U.S.: 10.9% (95% CI: 10.7-11.1) The West Virginia prevalence of diabetes was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among the 53 BRFSS participants.
Gender	Men: 15.3% (95% CI: 13.7-16.8) Women: 15.2% (95% CI: 13.8-16.8) There was no gender difference in the prevalence of diabetes.
Age	The prevalence of diabetes was significantly higher in adults aged 55 and older than adults younger than 55.
Education	The prevalence of diabetes was significantly higher among those with less than a high school education (21.5%) than among all other educational attainment levels.
Household Income	The diabetes prevalence was significantly lower among those with an annual household income of \$75,000 or more a year (7.1%) than all other income groups.

CHAPTER 23: DIABETES

Table 23.1 Diabetes Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	108,285	15.3	13.7-16.8	112,141	15.2	13.8-16.6	220,426	15.2	14.2-16.3
Age									
18-24	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0
25-34	3,940	*3.7	1.1-6.2	2,748	*2.7	0.8-4.5	6,689	3.2	1.6-4.8
35-44	10,338	9.4	5.8-13.0	7,220	6.7	3.7-9.7	17,558	8.0	5.7-10.4
45-54	17,136	15.4	11.3-19.5	18,353	16.1	12.3-19.9	35,489	15.8	13.0-18.5
55-64	32,299	25.3	21.2-29.4	32,369	24.3	20.6-27.9	64,668	24.8	22.0-27.5
65+	43,588	27.3	23.8-30.8	50,074	25.9	22.9-28.8	93,663	26.5	24.2-28.8
Education									
Less than H.S.	21,324	19.7	14.8-24.6	23,924	23.4	18.3-28.5	45,248	21.5	18.0-25.0
H.S. or G.E.D.	45,381	15.2	12.8-17.6	46,776	16.8	14.4-19.1	92,157	16.0	14.3-17.7
Some Post-H.S.	27,429	15.0	12.0-17.9	27,998	13.2	10.8-15.6	55,427	14.0	12.1-15.9
College Graduate	14,152	12.1	9.3-14.9	13,444	9.3	7.4-11.2	27,595	10.5	8.9-12.2
Income									
Less than \$15,000	15,064	18.7	13.5-24.0	17,909	19.5	15.2-23.8	32,973	19.1	15.8-22.5
\$15,000 - 24,999	22,040	18.2	14.0-22.4	27,948	20.9	17.1-24.7	49,988	19.6	16.8-22.4
\$25,000 - 34,999	11,507	15.1	10.5-19.6	12,800	15.7	11.4-20.1	24,307	15.4	12.3-18.6
\$35,000 - 49,999	15,773	18.8	14.0-23.6	11,791	14.8	11.0-18.6	27,564	16.8	13.7-19.9
\$50,000 - 74,999	15,178	16.4	12.3-20.6	12,688	16.4	12.1-20.7	27,866	16.4	13.4-19.4
\$75,000+	14,182	9.6	7.0-12.1	5,611	4.3	2.5-6.2	19,792	7.1	5.5-8.7

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

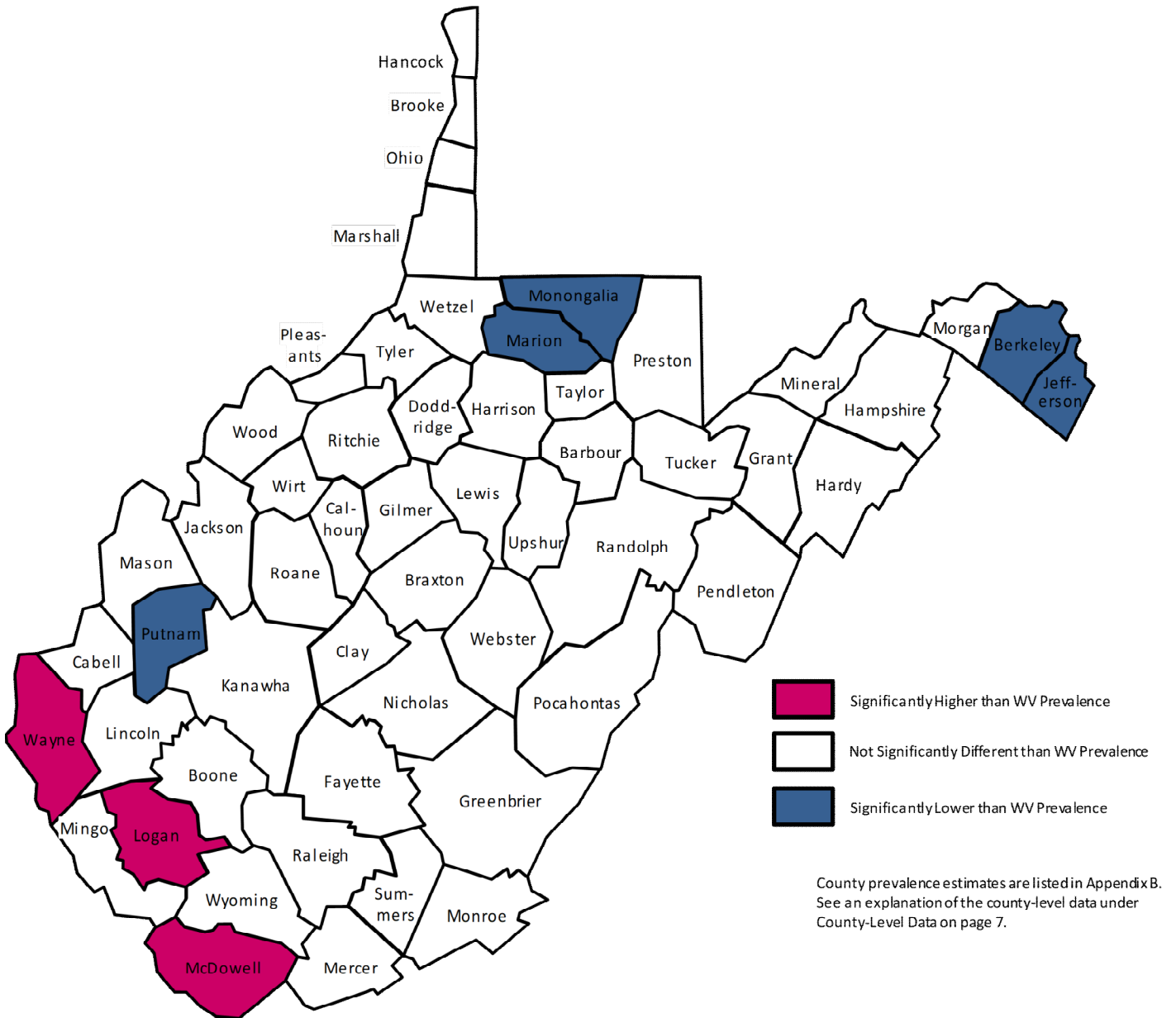


*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

CHAPTER 23: DIABETES

Figure 23.2 Diabetes Prevalence by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 14.4%



Pre-Diabetes or Borderline Diabetes

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	WV: 11.3% (95% CI: 10.2-12.4) Because this question is part of a state added optional module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 10.9% (95% CI: 9.3-12.6) Women: 11.7% (95% CI: 10.2-13.2) There was no gender difference in the prevalence of pre-diabetes or borderline diabetes.
Age	The prevalence of pre-diabetes or borderline diabetes was significantly higher among those aged 45 and older than among those aged 44 and younger.
Education	The prevalence of pre-diabetes or borderline diabetes was significantly higher in adults with less than a high school education than some college (9.3%) and college graduates (7.5%).
Household Income	The prevalence of pre-diabetes or borderline diabetes was significantly lower among those with an annual household income of \$75,000 or more (5.2%), significantly lower than all other income groups.

CHAPTER 23: DIABETES

Table 23.2 Prevalence of Pre-Diabetes or Borderline Diabetes by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	62,991	10.9	9.3-12.6	71,330	11.7	10.2-13.2	134,321	11.3	10.2-12.4
Age									
18-24	2,047	*2.5	0.0-6.1	4,955	*6.4	0.8-11.9	7,002	*4.4	1.1-7.7
25-34	3,750	*3.9	0.4-7.4	5,595	5.8	2.6-9.1	9,346	4.9	2.5-7.2
35-44	7,689	7.9	4.1-11.6	9,029	9.1	5.2-13.0	16,717	8.5	5.8-11.2
45-54	13,976	15.6	10.9-20.3	13,648	14.6	10.9-18.3	27,624	15.1	12.1-18.1
55-64	15,313	16.6	12.2-21.0	15,090	15.3	12.0-18.7	30,403	15.9	13.2-18.7
65+	19,943	17.5	13.8-21.1	22,660	16.0	13.1-18.8	42,604	16.6	14.4-18.9
Education									
Less than H.S.	14,075	16.7	10.9-22.5	10,743	13.8	8.7-19.0	24,818	15.3	11.4-19.2
H.S. or G.E.D.	30,585	12.7	9.8-15.6	31,514	13.8	11.1-16.6	62,098	13.3	11.3-15.2
Some Post-H.S.	10,887	7.2	4.9-9.5	19,710	11.1	8.4-13.8	30,598	9.3	7.5-11.1
College Graduate	7,444	7.7	5.3-10.0	9,363	7.3	5.4-9.3	16,807	7.5	6.0-9.0
Income									
Less than \$15,000	10,893	17.2	10.4-24.0	8,715	11.9	7.5-16.2	19,608	14.3	10.4-18.3
\$15,000 - 24,999	12,327	12.9	8.2-17.6	15,894	15.4	11.3-19.4	28,222	14.2	11.1-17.3
\$25,000 - 34,999	7,689	12.3	7.6-16.9	9,705	14.6	8.9-20.2	17,394	13.5	9.8-17.1
\$35,000 - 49,999	6,922	10.4	6.2-14.5	8,349	12.5	8.3-16.7	15,271	11.4	8.5-14.4
\$50,000 - 74,999	10,410	13.6	8.4-18.7	8,154	12.7	7.5-17.9	18,563	13.2	9.5-16.8
\$75,000+	6,922	5.5	3.4-7.6	5,837	4.9	3.1-6.7	12,758	5.2	3.8-6.6

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

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: 7.5% (95% CI: 6.8-8.2) U.S.: 6.1% (95% CI: 5.9-6.2) The West Virginia prevalence of skin cancer is significantly higher than the U.S. prevalence. West Virginia ranked the 9 th highest among the 53 BRFSS participants.
Gender	Men: 7.4% (95% CI: 6.3-8.4) Women: 7.6% (95% CI: 6.7-8.6) There was no gender difference in the prevalence of skin cancer.
Age	The prevalence of skin cancer was significantly higher among those aged 65 and older (18.5%) than among all other age groups.
Education	There was no educational attainment difference in the prevalence of skin cancer.
Household Income	There was no consistent annual household income difference in prevalence of skin cancer.

CHAPTER 24: CANCER

Table 24.1 Skin Cancer Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	52,242	7.4	6.3-8.4	56,517	7.6	6.7-8.6	108,759	7.5	6.8-8.2
Age									
18-24	0.0	0.0	0.0-0.0	468	*0.6	0.0-1.7	468	*0.3	0.0-0.8
25-34	738	*0.3	0.0-1.7	2,824	*2.7	0.6-4.9	3,561	*1.7	0.5-2.9
35-44	344	*1.7	0.0-0.9	2,545	*2.3	0.6-4.1	2,889	*1.3	0.4-2.3
45-54	4,497	1.3	1.8-6.3	5,034	4.4	2.5-6.3	9,530	4.2	2.8-5.7
55-64	10,779	10.2	5.8-11.1	15,722	11.8	9.1-14.5	26,501	10.2	8.3-12.1
65+	35,884	18.5	19.2-25.9	29,224	15.1	12.6-17.6	65,109	18.5	16.4-20.5
Education									
Less than H.S.	8,753	6.9	5.1-11.3	5,622	5.5	2.6-8.4	14,375	6.9	4.7-9.0
H.S. or G.E.D.	22,025	7.8	5.7-9.1	22,965	8.2	6.5-9.9	44,990	7.8	6.6-9.0
Some Post-H.S.	12,236	7.0	4.7-8.6	15,616	7.4	5.9-9.2	27,852	7.0	5.7-8.4
College Graduate	8860	8.1	5.6-9.6	12,314	8.5	6.5-10.5	21,174	8.1	6.7-9.5
Income									
Less than \$15,000	3,862	5.4	2.2-7.5	5,521	6.0	3.5-8.4	9,383	5.4	3.6-7.3
\$15,000 - 24,999	11,177	9.4	6.3-12.2	12,877	9.6	6.9-12.3	24,054	9.4	7.5-11.4
\$25,000 - 34,999	6,665	7.2	5.3-12.1	4,654	5.7	3.2-8.2	11,319	7.2	5.1-9.3
\$35,000 - 49,999	7,876	9.0	5.8-12.8	6,985	8.8	5.6-11.9	14,861	9.0	6.7-11.4
\$50,000 - 74,999	7,988	8.1	5.6-11.7	5,725	7.4	4.4-10.3	13,713	8.1	5.9-10.2
\$75,000+	7,833	6.2	3.5-7.1	9,273	7.2	5.0-9.5	17,106	6.2	4.8-7.6

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

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: 7.8% (95% CI: 7.0-8.6) U.S.: 6.8% (95% CI: 6.6-6.9) The West Virginia prevalence of other cancer was significantly higher than the U.S. prevalence. West Virginia ranked the 12 th highest among the 53 BRFSS participants.
Gender	Men: 6.3% (95% CI: 5.2-7.5) Women: 9.2% (95% CI: 8.1-10.3) The prevalence of other cancer was significantly higher among women than among men.
Age	The prevalence of other cancer was significantly higher among those aged 65 and older (17.2%) than among all other age groups.
Education	The prevalence of other cancer was significantly higher among those with less than a high school education (11.4%) than college graduates (6.8%).
Household Income	The prevalence of other cancer decreased was significantly higher among those with an annual household income of \$15,000-\$24,999 (10.5%) than among those earning \$50,000 or more per year.

CHAPTER 24: CANCER

Table 24.2 Other Cancer Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	44,932	6.3	5.2-7.5	68,057	9.2	8.1-10.3	112,990	7.8	7.0-8.6
Age									
18-24	3,055	*3.5	0.0-8.2	0.0	0.0	0.0-0.0	3,055	*1.8	0.0-4.3
25-34	0.0	0.0	0.0-0.0	3,052	*3.0	0.6-5.3	3,052	*1.5	0.3-2.6
35-44	979	*0.9	0.0-2.2	6,954	6.4	3.3-9.5	7,933	3.6	2.0-5.3
45-54	3,851	3.5	1.5-5.4	8,966	7.9	5.2-10.6	12,817	5.7	4.0-7.4
55-64	9,231	7.2	4.9-9.6	14,009	10.5	8.0-13.1	23,240	8.9	7.2-10.7
65+	26,713	16.7	13.6-19.9	33,963	17.5	15.0-20.1	60,676	17.2	15.2-19.2
Education									
Less than H.S.	12,055	11.1	6.3-15.9	11,802	11.6	7.9-15.4	23,857	11.4	8.3-14.5
H.S. or G.E.D.	16,282	5.5	4.0-7.0	26,416	9.5	7.6-11.3	42,697	7.4	6.2-8.6
Some Post-H.S.	9,311	5.1	3.3-6.8	19,384	9.1	7.1-11.2	28,695	7.2	5.9-8.6
College Graduate	7,284	6.2	4.3-8.1	10,456	7.2	5.5-9.0	17,741	6.8	5.5-8.1
Income									
Less than \$15,000	4,933	6.2	3.2-9.1	9,336	10.1	7.0-13.3	14,270	8.3	6.1-10.5
\$15,000 - 24,999	13,260	10.9	6.6-15.3	13,617	10.2	7.6-12.8	26,877	10.5	8.1-13.0
\$25,000 - 34,999	5,850	7.7	4.0-11.3	8,260	10.1	6.7-13.5	14,110	8.9	6.4-11.4
\$35,000 - 49,999	5,100	6.0	3.2-8.8	7,757	9.7	6.3-13.2	12,857	7.8	5.6-10.0
\$50,000 - 74,999	3,883	4.2	2.1-6.3	5,313	6.9	4.1-9.7	9,196	5.4	3.7-7.1
\$75,000+	6,604	4.5	2.8-6.1	7,257	5.6	3.5-7.7	13,861	5.0	3.7-6.3

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Overall Cancer Prevalence

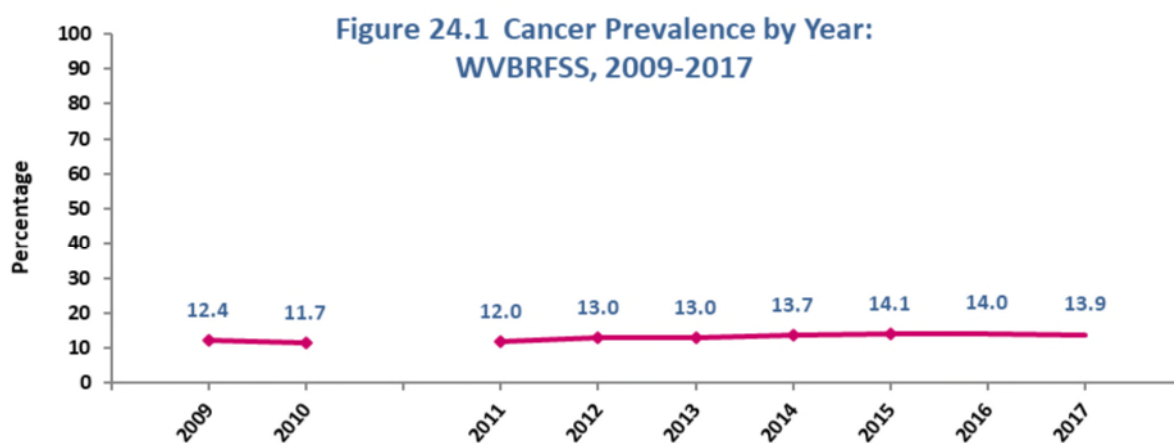
Definition	Responding “Yes” to either of the questions, “Has a doctor, nurse, or other health professional ever told you that you had skin cancer” or “Has a doctor, nurse, or other health professional ever told you that you had any other types of cancer?”
Prevalence	WV: 13.9% (95% CI: 12.9-14.9) U.S.: 11.5% (95% CI: 11.4-11.7) The West Virginia prevalence of cancer was significantly higher than the U.S. prevalence. West Virginia ranked the 7 th highest among 53 BRFSS participants.
Gender	Men: 12.2% (95% CI: 10.8-13.7) Women: 15.4% (95% CI: 14.0-16.8) The prevalence of cancer was significantly higher among women than men.
Age	The prevalence of cancer was significantly higher in those aged 65 and older (31.0%) than all other age groups.
Education	There was no educational attainment difference in the prevalence of cancer.
Household Income	The prevalence of cancer was significantly lower among those with an annual household income of \$75,000 or more (10.1%) than those earning \$15,000-\$24,999 (17.5%) and those earning \$35,000-\$49,999 (15.3%).

CHAPTER 24: CANCER

Table 24.3 Cancer Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	86,591	12.2	10.8-13.7	113,734	15.4	14.0-16.8	200,325	13.9	12.9-14.9
Age									
18-24	3,055	*3.5	0.0-8.2	468	*0.6	0.0-1.7	3,523	*2.1	0.0-4.6
25-34	738	*0.7	0.0-1.7	5,566	5.4	2.3-8.6	6,303	3.0	1.4-4.6
35-44	1,323	*1.2	0.0-2.6	8,624	8.0	4.6-11.3	9,947	4.6	2.7-6.4
45-54	8,181	7.4	4.5-10.3	13,400	11.8	8.6-14.9	21,580	9.6	7.4-11.8
55-64	18,526	14.6	11.3-17.9	28,207	21.3	17.9-24.7	46,733	18.0	15.6-20.4
65+	53,665	33.8	30.0-37.7	55,656	28.7	25.7-31.8	109,320	31.0	28.6-33.4
Education									
Less than H.S.	17,683	16.5	11.2-21.8	15,651	15.4	11.0-19.9	33,334	16.0	12.5-19.4
H.S. or G.E.D.	33,846	11.4	9.3-13.5	45,950	16.5	14.0-18.9	79,796	13.8	12.2-15.4
Some Post-H.S.	20,345	11.1	8.6-13.6	31,770	15.0	12.5-17.6	52,115	13.2	11.4-15.0
College Graduate	14,349	12.3	9.7-14.9	20,363	14.1	11.6-16.6	34,712	13.3	11.5-15.1
Income									
Less than \$15,000	7,462	9.4	5.7-13.0	14,280	15.5	11.6-19.3	21,741	12.6	9.9-15.3
\$15,000 - 24,999	21,955	18.2	13.3-23.1	22,544	16.8	13.4-20.2	44,498	17.5	14.6-20.4
\$25,000 - 34,999	11,355	14.9	10.3-19.6	11,211	13.7	9.8-17.7	22,566	14.3	11.3-17.3
\$35,000 - 49,999	11,508	13.6	9.5-17.7	13,668	17.2	12.8-21.5	25,176	15.3	12.3-18.3
\$50,000 - 74,999	11,187	12.1	5.8-15.7	10,590	13.7	9.8-17.6	21,777	12.8	10.2-15.4
\$75,000+	12,995	8.8	6.5-11.1	14,978	11.7	8.8-14.6	27,972	10.1	8.3-12.0

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

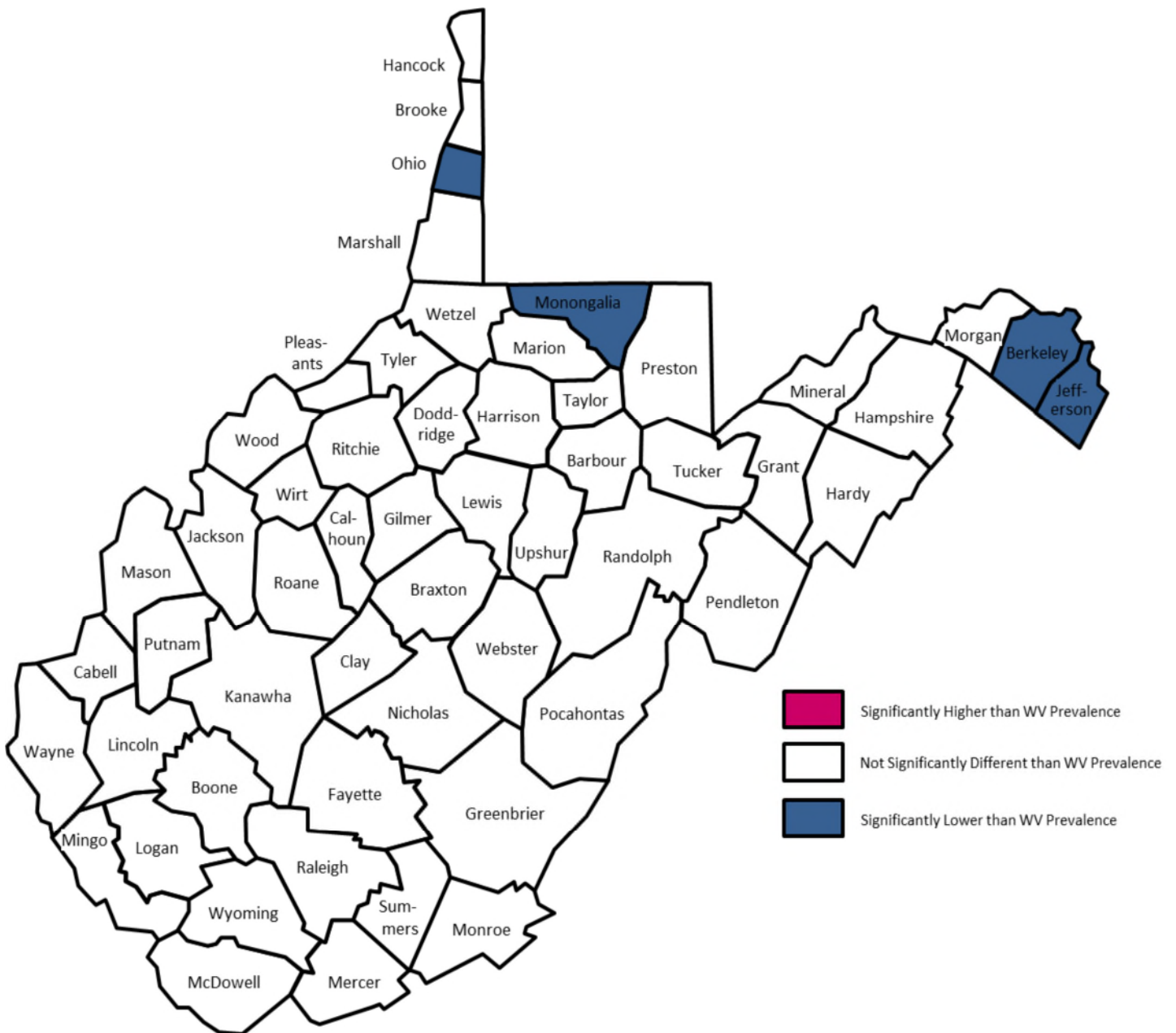


*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

CHAPTER 24: CANCER

Figure 24.2 Cancer Prevalence by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 13.7%



Written Summary of Cancer Treatment

Definition	Responding “Yes” to the question, “Did any doctor, nurse, or other health professional ever give you a written summary of all the cancer treatments that you received?”
Prevalence	WV: 34.2% (95% CI: 30.4-38.1) Because this question is part of a state added question and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 36.9% (95% CI:30.6-43.1) Women: 32.3% (95% CI: 27.4-37.1) There was no gender difference in the prevalence of written summary of cancer treatment.
Age	There was no age difference in the prevalence of written summary of cancer treatment.
Education	There was no educational attainment difference in the prevalence of written summary of cancer treatment.
Household Income	There was no consistent annual household income difference in the prevalence of written summary of cancer treatment.

CHAPTER 24: CANCER

Table 24.4 Written Summary of Cancer Treatment Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	26,962	36.9	30.6-43.1	31,694	32.3	27.4-37.1	58,656	34.2	30.4-38.1
Age									
18-24	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0	0.0	0.0	0.0-0.0
25-34	0.0	0.0	0.0-0.0	734	*14.8	0.0-34.4	734	*14.8	0.0-34.4
35-44	320	*100.0	100.0-100.0	3,466	*48.6	24.2-73.1	3,786	*50.9	27.2-74.5
45-54	3,914	*57.7	36.4-78.9	5,205	*43.5	28.3-58.6	9,119	*48.6	35.9-61.3
55-64	6,361	*38.9	26.4-51.5	7,992	32.9	23.8-42.1	14,352	35.4	27.9-42.8
65+	15,688	33.5	26.5-40.6	13,950	28.8	22.7-34.8	29,638	31.1	26.5-35.7
Education									
Less than H.S.	4,213	*27.6	12.2-43.1	4,698	*36.7	20.5-52.9	8,911	*31.8	20.4-43.1
H.S. or G.E.D.	8,429	31.8	22.3-41.3	12,950	32.4	24.5-40.3	21,379	32.2	26.1-38.2
Some Post-H.S.	8,276	*43.9	31.7-56.0	7,331	27.5	18.9-36.1	15,606	34.3	26.9-41.6
College Graduate	6,044	*48.4	36.9-59.9	6,715	35.7	26.6-44.9	12,759	40.8	33.5-48.0
Income									
Less than \$15,000	2,621	*45.6	23.5-67.8	3,603	*32.9	19.2-46.1	6,223	*37.1	25.2-48.9
\$15,000 - 24,999	7,450	*42.4	26.6-58.1	5,031	*26.1	15.5-36.6	12,481	33.8	24.7-43.0
\$25,000 - 34,999	1,362	*14.2	3.9-24.6	2,345	*23.8	11.4-36.2	3,708	19.1	10.9-27.3
\$35,000 - 49,999	2,742	*26.3	13.0-39.7	5,223	*40.6	27.0-54.3	7,965	34.2	24.4-44.1
\$50,000 - 74,999	4,620	*42.8	27.2-58.4	2,910	*30.5	15.4-45.6	7,530	*37.0	26.0-48.1
\$75,000+	4,622	*41.1	27.2-55.0	6,173	*44.0	30.6-57.4	10,796	42.7	33.0-52.4

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Lifetime Asthma

Definition	Responding “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you had asthma?”
Prevalence	WV: 18.9% (95% CI: 17.5-20.2) U.S.: 14.2% (95% CI: 13.9-14.4) The West Virginia prevalence of lifetime asthma was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 16.5% (95% CI: 14.6-18.5) Women: 21.1% (95% CI: 19.3-22.9) The prevalence of lifetime asthma was significantly higher among women than among men.
Age	The prevalence of lifetime asthma was significantly higher among those aged 18-24 (26.9%) than those aged 55 and older.
Education	The prevalence of lifetime asthma was significantly higher among those with less than a high school education (24.4%) than among college graduates (14.4%).
Household Income	The prevalence of lifetime asthma was significantly higher among those with an annual household income of less than \$25,000 than those earning \$35,000 or more. The prevalence of lifetime asthma was significantly lower among those earning \$75,000 or more (12.6%) than those earning less than \$25,000 annually.

CHAPTER 25: RESPIRATORY DISEASES

Table 25.1 Lifetime Asthma Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	116,907	16.5	14.6-18.5	155,838	21.1	19.3-22.9	272,745	18.9	17.5-20.2
Age									
18-24	23,055	26.7	17.4-36.0	21,839	27.0	18.1-36.0	44,893	26.9	20.4-33.3
25-34	22,229	20.7	14.7-26.8	17,231	16.7	11.5-21.9	39,460	18.8	14.8-22.8
35-44	16,970	15.4	10.5-20.4	22,822	21.0	16.1-25.9	39,792	18.2	14.7-21.7
45-54	15,551	14.0	10.0-18.0	29,943	26.3	21.9-30.6	45,494	20.2	17.2-23.2
55-64	17,488	13.7	10.6-16.9	27,997	21.0	17.6-24.5	45,484	17.5	15.1-19.8
65+	20,445	12.9	10.3-15.5	35,462	18.3	15.7-21.0	55,906	15.9	14.0-17.8
Education									
Less than H.S.	23,203	21.7	15.6-27.8	27,856	27.3	21.2-33.3	51,059	24.4	20.1-28.7
H.S. or G.E.D.	51,080	17.1	13.9-20.4	63,026	22.6	19.5-25.7	114,107	19.8	17.5-22.0
Some Post-H.S.	24,362	13.3	10.0-16.6	45,543	21.4	18.0-24.8	69,905	17.7	15.3-20.1
College Graduate	18,262	15.6	12.0-19.3	19,202	13.3	10.6-16.0	37,464	14.4	12.1-16.6
Income									
Less than \$15,000	18,260	23.0	16.3-29.7	28,288	30.5	24.8-36.2	46,549	27.0	22.7-31.4
\$15,000 - 24,999	25,948	21.5	16.2-26.9	35,369	26.5	21.7-31.2	61,316	24.1	20.6-27.7
\$25,000 - 34,999	12,785	16.9	10.7-23.1	13,667	16.8	12.0-21.6	26,452	16.8	13.0-20.7
\$35,000 - 49,999	11,157	13.2	8.7-17.8	15,717	19.7	14.3-25.1	26,874	16.4	12.8-19.9
\$50,000 - 74,999	12,184	13.2	8.9-17.4	12,226	15.8	11.4-20.2	24,410	14.4	11.3-17.4
\$75,000+	16,799	11.4	7.6-15.1	18,151	14.1	10.6-17.6	34,950	12.6	10.1-15.2

Current Asthma

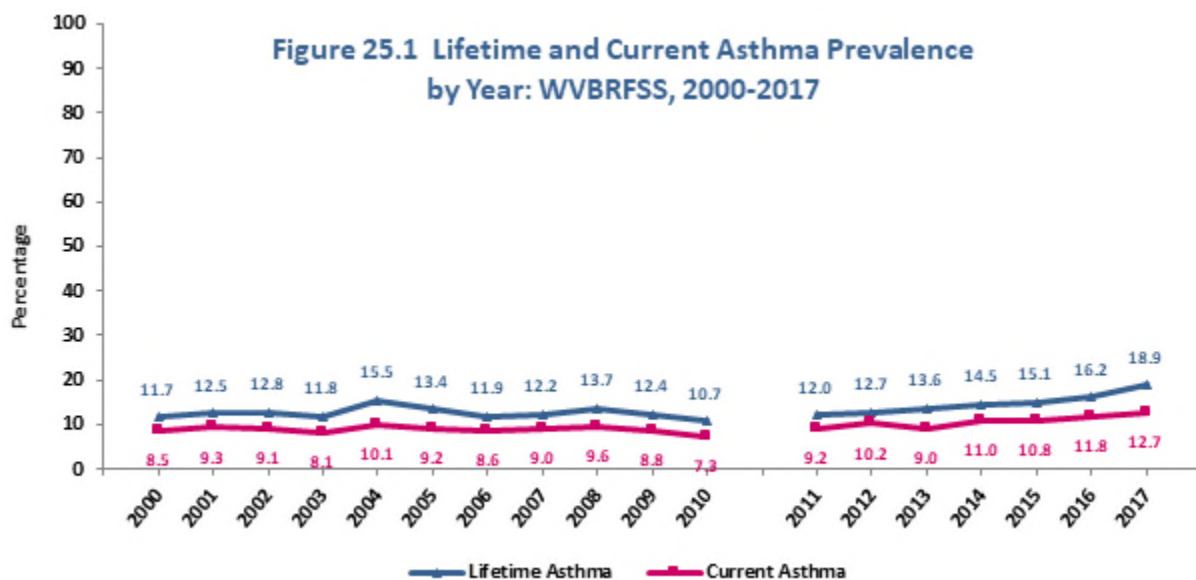
Definition	Responding “Yes” to the lifetime asthma question, and “Yes” to the question, “Do you still have asthma?”
Prevalence	WV: 12.7% (95% CI: 11.6-13.8) U.S.: 9.1% (95% CI: 8.9-9.3) The West Virginia prevalence of current asthma was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants.
Gender	Men: 9.3% (95% CI: 7.8-10.8) Women: 15.9% (95% CI: 14.3-17.5) The prevalence of current asthma was significantly higher among women than among men.
Age	There was no significant age difference in the prevalence of current asthma.
Education	The prevalence of current asthma was significantly higher among those with less than a high school education (18.2%) than those with some college (12.2%) and college graduates (7.7%).
Household Income	The prevalence of current asthma was significantly higher among those with an annual household income of less than \$25,000 a year than among those earning \$25,000 or more.

CHAPTER 25: RESPIRATORY DISEASES

Table 25.2 Current Asthma Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	65,306	9.3	7.8-10.8	116,934	15.6	14.3-17.5	182,240	12.7	11.6-13.8
Age									
18-24	9,035	*10.6	4.0-17.2	14,125	17.6	9.8-25.4	23,249	14.0	8.9-19.2
25-34	8,815	8.3	4.0-12.7	11,575	11.3	6.9-15.8	20,390	9.8	6.7-12.9
35-44	7,503	6.8	3.6-10.0	14,827	13.8	9.7-17.8	22,331	10.3	7.7-12.9
45-54	10,393	9.4	6.0-12.8	24,108	21.3	17.3-25.4	34,501	15.4	12.8-18.1
55-64	13,983	11.0	8.1-13.9	23,777	17.9	14.6-21.1	37,760	14.5	12.3-16.7
65+	14,895	9.4	7.0-11.8	27,888	14.4	12.0-16.9	42,784	12.2	10.5-13.9
Education									
Less than H.S.	14,368	13.6	8.5-18.7	23,345	23.0	17.2-28.8	37,713	18.2	14.3-22.1
H.S. or G.E.D.	30,045	10.1	7.7-12.6	46,357	16.7	14.1-19.4	76,402	13.3	11.5-15.1
Some Post-H.S.	12,328	6.8	4.5-9.0	35,570	16.8	13.7-19.9	47,898	12.2	10.2-14.2
College Graduate	8,565	7.4	4.9-9.9	11,453	7.9	6.0-9.8	20,018	7.7	6.2-9.2
Income									
Less than \$15,000	9,408	11.9	7.5-16.3	25,272	27.4	21.8-32.9	34,680	20.2	16.5-24.0
\$15,000 - 24,999	17,762	14.9	10.2-19.6	27,283	20.6	16.3-24.9	45,045	17.9	14.7-21.1
\$25,000 - 34,999	7,696	10.2	5.6-14.9	9,796	12.1	8.2-16.1	17,492	11.2	8.2-14.3
\$35,000 - 49,999	7,225	8.6	4.9-12.2	11,707	14.7	9.9-19.4	18,932	11.5	8.5-14.5
\$50,000 - 74,999	4,008	4.4	2.2-6.5	7,662	9.9	6.4-13.4	11,670	6.9	4.9-8.9
\$75,000+	8,125	5.5	3.0-8.0	11,365	8.8	6.1-11.6	19,490	7.0	5.2-8.9

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

Chronic Obstructive Pulmonary Disease

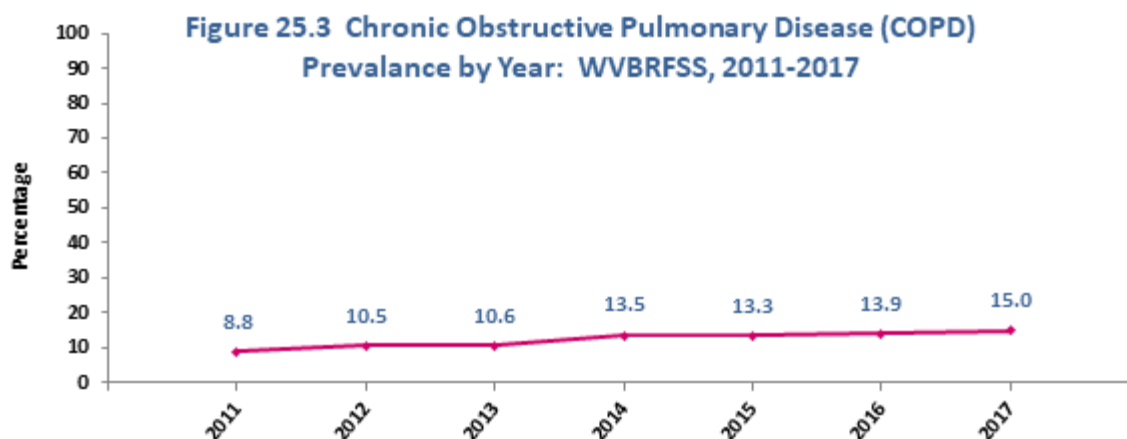
Definition	Responding “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you have chronic obstructive pulmonary disease or COPD, emphysema, or chronic bronchitis?”
Prevalence	WV: 15.0% (95% CI: 13.9-16.1) U.S.: 6.5% (95% CI: 6.4-6.7) The prevalence of chronic obstructive pulmonary disease (COPD) was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 13.6% (95% CI: 12.1-15.2) Women: 16.2% (95% CI: 14.7-17.7) There was no significant gender difference in the prevalence of COPD.
Age	The prevalence of COPD was significantly higher among those aged 65 and older (21.2%) than those aged 54 and younger.
Education	The prevalence of COPD was significantly higher among those with less than a high school education (25.7%) than all other educational attainment levels. The prevalence of COPD was lower among college graduates (5.4%) than all other educational attainment levels.
Household Income	The prevalence of COPD was significantly higher among those with an annual household income of less than \$25,000 than those earning \$25,000 or more. The prevalence of COPD was significantly lower among those earning \$75,000 or more(4.5%) than all other income levels.

CHAPTER 25: RESPIRATORY DISEASES

Table 25.3 Chronic Obstructive Pulmonary Disease (COPD) Prevalence by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	96,355	13.6	12.1-15.2	119,389	16.2	14.7-17.7	215,744	15.0	13.9-16.1
Age									
18-24	3,886	*4.5	0.1-8.9	4,553	*5.7	1.1-10.3	8,439	*5.1	1.9-8.3
25-34	7,057	6.6	2.7-10.4	7,801	7.5	4.1-11.0	14,858	7.1	4.5-9.6
35-44	9,283	8.5	4.8-12.2	16,136	14.8	10.2-19.4	25,419	11.6	8.7-14.6
45-54	12,550	11.3	7.6-14.9	23,904	21.2	17.1-25.3	36,455	16.2	13.5-19.0
55-64	27,820	22.0	18.0-25.9	26,348	19.8	16.5-23.1	54,168	20.9	18.3-23.4
65+	34,489	21.8	18.5-25.1	40,192	20.8	18.0-23.6	74,681	21.2	19.1-23.4
Education									
Less than H.S.	24,822	23.1	17.5-28.7	28,770	28.5	22.7-34.4	53,592	25.7	21.7-29.8
H.S. or G.E.D.	46,685	15.7	13.0-18.4	49,817	17.9	15.3-20.5	96,503	16.8	14.9-18.6
Some Post-H.S.	18,682	10.2	7.7-12.8	32,071	15.1	12.4-17.8	50,753	12.9	11.0-14.7
College Graduate	5,799	5.0	3.3-6.6	8,399	5.8	4.2-7.5	14,198	5.4	4.3-6.6
Income									
Less than \$15,000	18,045	22.5	16.6-28.4	30,604	33.6	28.0-39.2	48,649	28.4	24.3-32.6
\$15,000 - 24,999	27,834	23.0	18.1-28.0	60,475	22.7	18.6-26.9	58,309	22.9	19.7-26.1
\$25,000 - 34,999	11,036	14.8	10.0-19.6	9,675	11.9	7.7-16.2	20,711	13.3	10.1-16.5
\$35,000 - 49,999	10,173	12.1	8.1-16.0	8,744	11.0	7.4-14.6	18,917	11.6	8.9-14.2
\$50,000 - 74,999	7,753	8.4	5.3-11.5	8,174	10.6	6.5-14.6	15,927	9.4	6.8-11.9
\$75,000+	7,049	4.8	2.5-7.1	5,456	4.2	2.3-6.1	12,505	4.5	3.0-6.0

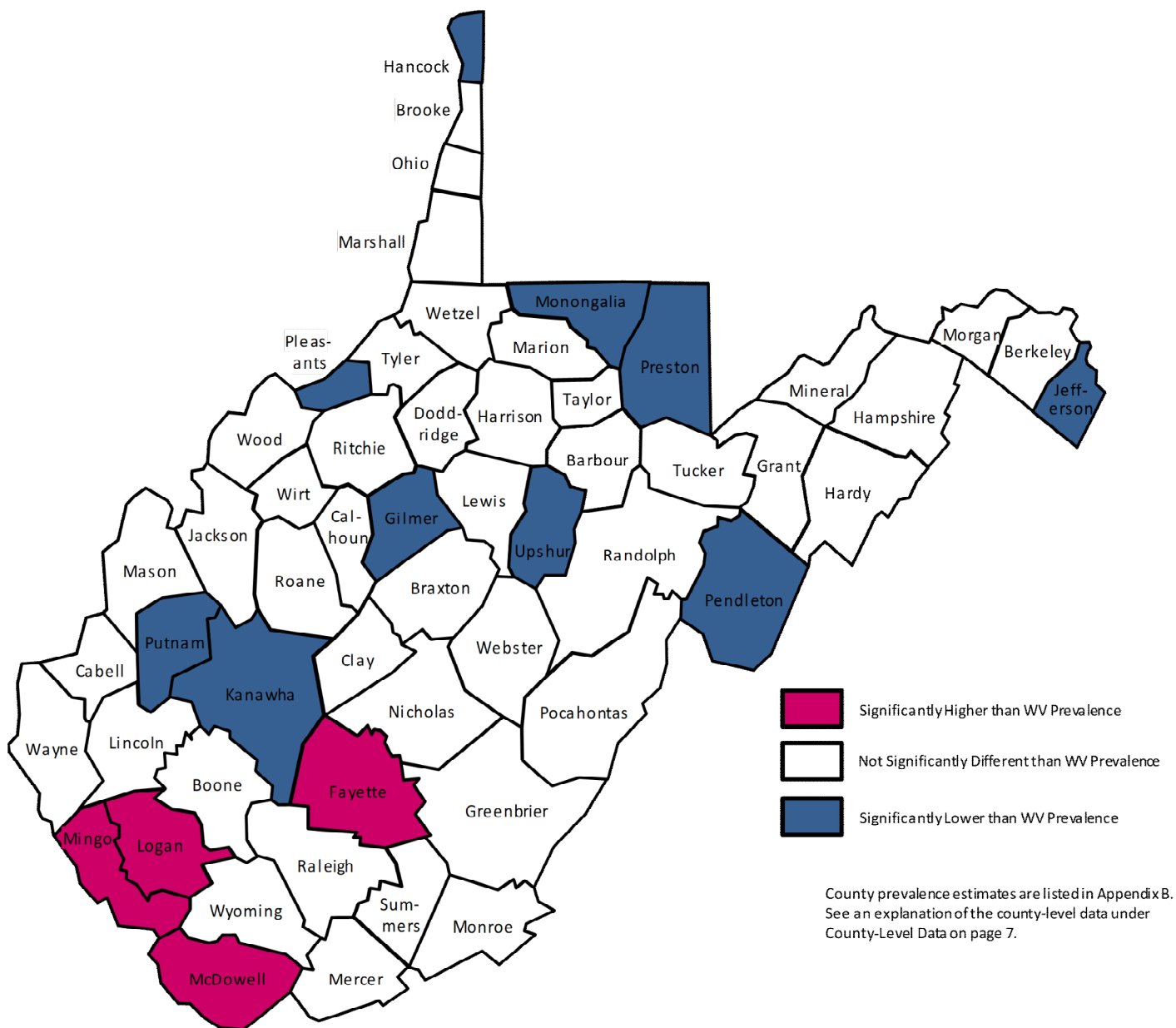
* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



CHAPTER 25: RESPIRATORY DISEASES

Figure 25.4 Prevalence of Chronic Obstructive Pulmonary Disease (COPD) by County: WVBRSFSS, 2013-2017

WV Prevalence (2013-2017) - 13.3%



COPD Symptoms

Definition	Responding “Yes” to any of the following: “During the past 3 months, did you have a cough on most days?”; “During the past 3 months, did you cough up phlegm or mucous on most days?”; “Did you have shortness of breath either when hurrying on level ground or when walking up a slight hill or stairs?”
Prevalence	<p><i>Cough:</i> WV: 25.4% (95% CI: 23.9-26.9)</p> <p><i>Phlegm:</i> WV: 23.0% (95% CI: 21.5-24.5)</p> <p><i>Shortness of Breath:</i> WV: 37.4% (95% CI: 35.7-39.0)</p> <p>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.</p>
Gender	<p><i>Cough:</i> Men: 24.4% (95% CI: 22.2-26.6) Women 21.7% (95% CI: 19.8-23.6)</p> <p>There was no gender difference in the prevalence of cough on most days in past 3 months.</p> <p><i>Phlegm:</i> Men: 24.3% (95% CI: 22.0-26.6) Women: 21.7% (95% CI: 19.8-23.6)</p> <p>There was no gender difference in the prevalence of cough up phlegm most days in past 3 months.</p> <p><i>Shortness of Breath:</i> Men: 32.7% (95% CI: 30.4-35.1) Women: 41.7% (95% CI: 39.5-43.9)</p> <p>The prevalence of shortness of breath was significantly higher among women than men.</p>

CHAPTER 25: RESPIRATORY DISEASES

Age

Cough: There was no consistent age difference in the prevalence of cough most days in past 3 months.

Phlegm: There was no age difference in the prevalence of cough up phlegm most days in past 3 months.

Shortness of Breath: The prevalence of shortness of breath was significantly higher in adults aged 55 and older than adults aged 54 and younger.

Education

Cough: The prevalence of cough most days in past 3 months was significantly higher in those with less than a high school education (38.3%) than all other educational attainment levels.

Phlegm: The prevalence of cough up phlegm most days in past 3 months was significantly higher in those with less than a high school education (37.3%) than all other educational attainment groups.

Shortness of Breath: The prevalence of shortness of breath was significantly higher in those with less than a high school education (56.8%) than all other educational attainment groups.

Household Income

Cough: The prevalence of cough most days in past 3 months was significantly higher in those with an annual household income less than \$25,000 than those earning \$25,000 or more. The prevalence of cough most days in past 3 months was significantly lower in those earning \$75,000 or more (12.1%) than all other income levels.

Phlegm: The prevalence of cough up phlegm most days in past 3 months was significantly higher in those with an annual household income less than \$25,000 than those earning \$35,000 or more.

Shortness of Breath: The prevalence of shortness of breath was significantly lower in those with an annual household income of \$75,000 or more (12.5%) than all other income groups.

CHAPTER 25: RESPIRATORY DISEASES

Table 25.4 Prevalence of COPD symptoms by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Cough			Phlegm			Shortness of Breath		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	336,035	25.4	23.9-26.9	303,542	23.0	21.5-24.5	491,973	37.4	35.7-39.0
Men	156,866	24.4	22.2-26.6	155,676	24.3	22.0-26.6	208,554	32.7	30.4-35.1
Women	179,170	26.3	24.3-28.3	147,866	21.7	19.8-23.6	283,419	41.7	39.5-43.9
Age									
18-24	32,069	23.0	16.2-29.8	34,260	24.7	17.5-31.9	24,279	17.4	11.4-23.4
25-34	35,339	18.9	14.6-23.3	36,866	19.7	15.3-24.1	51,349	27.6	22.8-32.4
35-44	46,722	23.7	19.5-27.8	41,615	21.1	17.1-25.0	57,011	29.0	24.7-33.4
45-54	58,632	27.9	24.4-31.3	47,238	22.5	19.3-25.7	78,763	37.5	33.8-41.3
55-64	70,976	29.0	26.1-31.9	62,280	25.5	22.6-28.3	116,254	47.6	44.4-50.9
65+	91,579	27.2	24.8-29.6	79,630	23.7	21.4-26.0	161,698	48.3	45.7-51.0
Education									
Less than H.S.	74,246	38.3	33.3-43.4	71,939	37.3	32.1-42.4	109,854	56.8	51.5-62.1
H.S. or G.E.D.	148,176	28.5	26.0-30.9	129,687	24.9	22.5-27.4	221,061	42.7	39.9-45.4
Some Post-H.S.	79,585	21.7	19.1-24.3	71,775	19.6	17.1-22.1	113,541	31.1	28.3-34.0
College Graduate	33,818	14.0	11.9-16.1	30,141	12.5	10.5-14.5	46,863	19.5	17.2-21.9
Income									
Less than \$15,000	65,217	41.3	36.3-46.2	54,075	34.4	29.6-39.1	89,169	57.1	51.9-62.3
\$15,000 - 24,999	78,233	34.1	30.1-38.0	70,579	30.9	26.8-34.9	115,104	50.5	46.4-54.7
\$25,000 - 34,999	34,815	23.9	19.6-28.2	34,415	23.6	19.3-27.9	56,764	39.1	34.2-44.0
\$35,000 - 49,999	30,429	19.7	16.1-23.3	28,039	18.2	14.7-21.7	57,135	37.3	32.7-41.8
\$50,000 - 74,999	29,470	18.2	14.6-21.8	26,323	16.3	12.7-19.8	44,247	27.4	23.3-31.5
\$75,000+	30,835	12.1	9.8-14.4	29,805	11.7	9.4-13.9	42,101	16.5	13.9-19.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Arthritis Prevalence

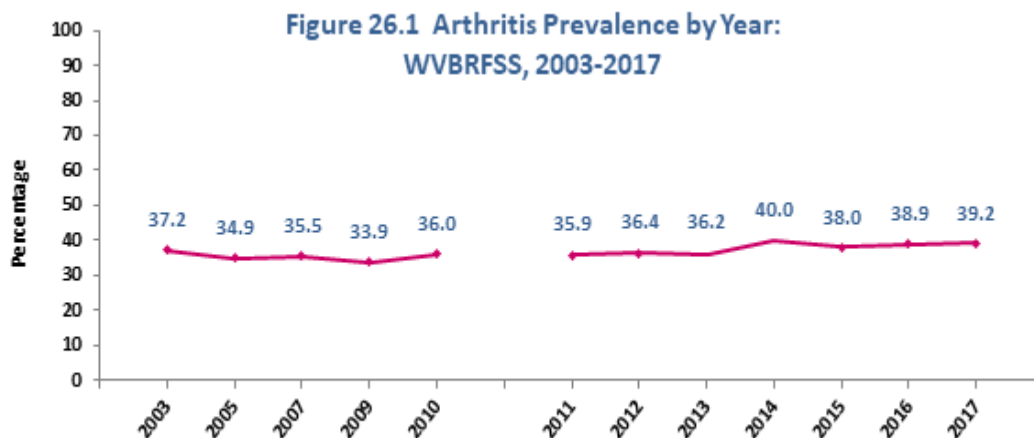
Definition	Responding “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?”
Prevalence	WV: 39.2% (95% CI: 37.6-40.7) U.S.: 24.5% (95% CI: 24.3-24.8) The West Virginia prevalence of arthritis was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 36.0% (95% CI: 33.7-38.2) Women: 42.2% (95% CI: 40.1-44.3) The prevalence of arthritis was significantly higher among men than women.
Age	The prevalence of arthritis was significantly higher among those aged 55 and older than among those younger than 55.
Education	The prevalence of arthritis was highest among those with less than a high school education (52.7%) and was significantly higher than all other educational attainment groups. The arthritis prevalence was lowest among those with a college degree (27.4%) and was significantly lower than all other education groups.
Household Income	The prevalence of arthritis was significantly higher among those with an annual household income of less than \$15,000 (54.0%) than among those earning \$35,000 or more per year. The arthritis prevalence was significantly lower among than those earning \$75,000 or more per year (24.2%) than among all other income brackets.

CHAPTER 26: ARTHRITIS

Table 26.1 Prevalence of Arthritis by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	254,208	36.0	33.7-38.2	310,867	42.2	40.1-44.3	565,075	39.2	37.6-40.7
Age									
18-24	7,308	*8.4	2.9-13.9	2,421	*3.1	0.0-6.6	9,728	5.9	2.5-9.2
25-34	12,359	11.6	6.3-16.9	19,235	18.6	13.3-23.9	31,595	15.1	11.3-18.8
35-44	26,715	24.3	18.7-30.0	33,070	30.4	24.7-36.0	59,785	27.3	23.3-31.3
45-54	42,959	38.7	33.1-44.2	50,010	44.1	39.2-49.1	92,969	41.4	37.7-45.1
55-64	72,901	57.4	52.7-62.0	79,983	60.1	56.1-64.1	152,884	58.8	55.7-61.8
65+	88,869	55.8	51.9-59.8	125,402	64.9	61.7-68.2	214,271	60.8	58.3-63.4
Education									
Less than H.S.	54,667	50.7	43.4-58.0	55,787	54.8	47.7-61.8	110,454	52.7	47.6-57.8
H.S. or G.E.D.	111,080	37.3	33.6-41.0	129,213	46.5	42.9-50.1	240,293	41.8	39.2-44.4
Some Post-H.S.	59,228	32.4	28.2-36.7	82,272	38.9	35.1-42.7	141,500	35.9	33.0-38.7
College Graduate	28,681	24.5	20.8-28.3	42,743	29.7	26.3-33.0	71,423	27.4	24.9-29.9
Income									
Less than \$15,000	39,785	50.0	42.0-58.0	53,129	57.4	51.2-63.7	92,914	54.0	49.0-59.0
\$15,000 - 24,999	47,470	39.3	33.4-45.1	68,081	51.3	46.1-56.4	115,551	45.5	41.6-49.5
\$25,000 - 34,999	36,125	47.6	40.2-55.1	35,912	44.3	37.7-50.8	72,037	45.9	40.9-50.8
\$35,000 - 49,999	27,763	32.9	27.0-38.8	32,439	40.6	34.5-46.8	60,202	36.7	32.4-40.9
\$50,000 - 74,999	32,936	35.7	29.6-41.9	28,494	37.0	31.2-42.9	61,430	36.3	32.0-40.6
\$75,000+	34,557	23.3	19.2-27.5	32,472	25.2	21.1-29.3	67,029	24.2	21.3-27.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

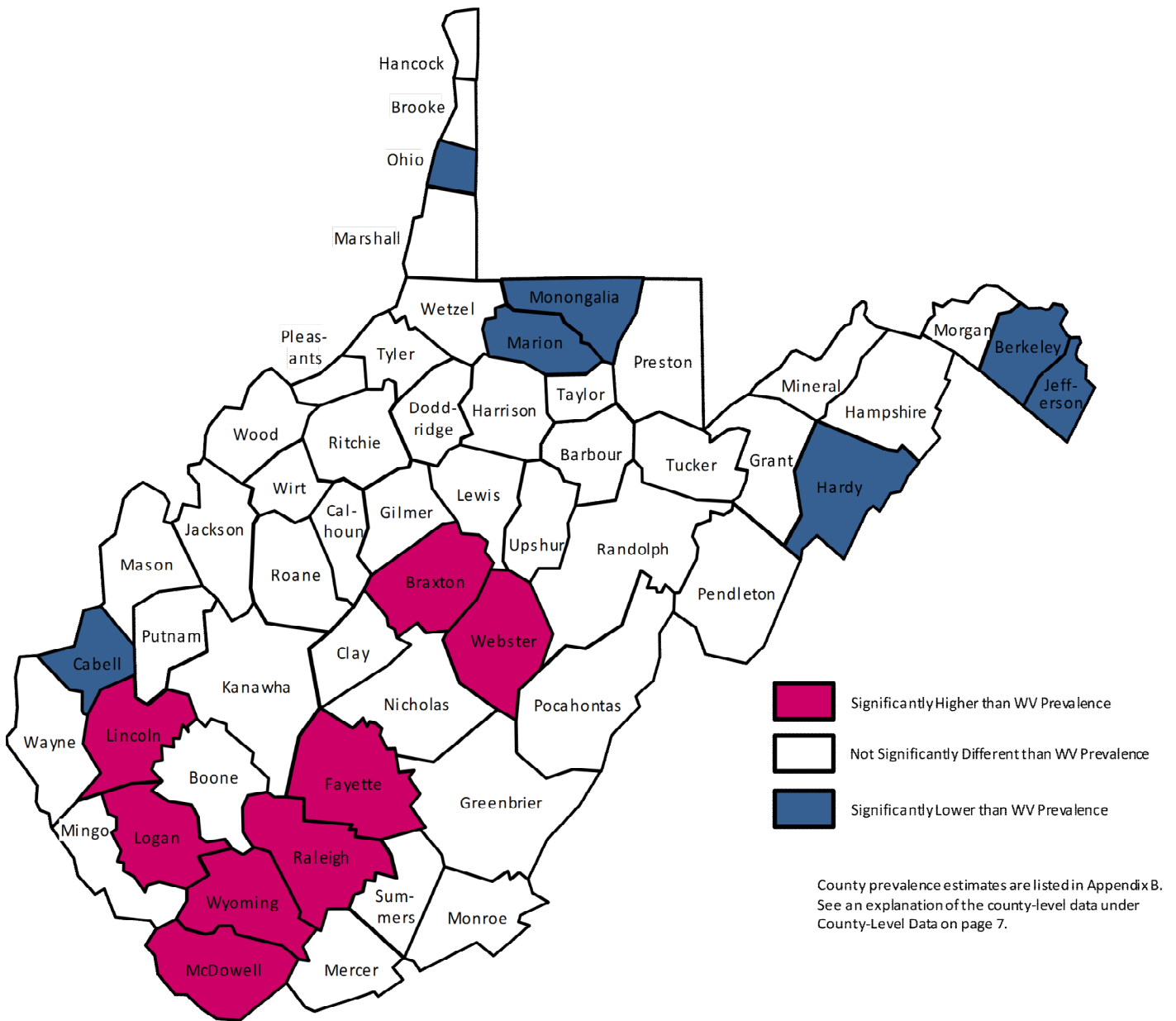


*Due to changes in sample composition and weighting methodology, 2011-2015 results are not directly comparable to previous years.

CHAPTER 26: ARTHRITIS

Figure 26.2 Arthritis Prevalence by County: WVBRFSS, 2013-2017

WV Prevalence (2013-2017) - 38.4%



Activity Limitations

Definition	Reported having been told they have arthritis and responding “Yes” to the question, “Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?”
Prevalence	WV: 58.6% (95% CI: 56.3-60.9) U.S.: 52.5% (95% CI: 51.9-53.0) The West Virginia prevalence of activity limitations due to arthritis was significantly higher than the national prevalence. West Virginia ranked the 3 rd highest among 53 BRFSS participants.
Gender	Men: 57.4% (95% CI: 53.7-61.1) Women: 59.6% (95% CI: 56.7-62.5) There was no gender difference in the prevalence of activity limitations due to arthritis.
Age	There was no consistent age difference in the prevalence of activity limitations due to arthritis.
Education	The prevalence of activity limitations due to arthritis was significantly higher among those with less than a high school education (63.5%) and those with some post high school education (62.1%) than among college graduates (48.9%).
Household Income	The prevalence of activity limitations due to arthritis was significantly higher among those with an annual household income less than \$25,000 than among those earning more than \$25,000.

CHAPTER 26: ARTHRITIS

Table 26.2 Prevalence of Activity Limitations Due to Arthritis by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	144,957	57.4	53.7-61.1	184,669	59.6	56.7-62.5	329,626	58.6	56.3-60.9
Age									
18-24	2,124	*29.1	0.0-58.6	1,094	*45.2	0.0-100.0	3,219	*33.1	5.4-60.8
25-34	5,677	*46.8	22.0-71.6	11,136	*57.9	42.2-73.6	16,813	*53.6	39.9-67.4
35-44	14,412	*53.9	40.6-67.3	22,295	*68.2	58.1-78.3	36,707	61.8	53.4-70.1
45-54	27,914	65.0	56.4-73.6	35,088	70.2	63.3-77.0	63,002	67.8	62.4-73.2
55-64	46,105	63.4	57.3-69.5	52,587	66.0	60.8-71.2	98,693	64.8	60.8-68.7
65+	46,763	53.3	48.0-58.7	62,032	49.6	45.4-53.8	108,795	51.2	47.9-54.5
Education									
Less than H.S.	34,295	62.9	54.1-71.8	35,678	64.0	56.5-71.5	69,973	63.5	57.6-69.3
H.S. or G.E.D.	61,204	55.6	49.8-61.3	74,886	58.4	53.7-63.1	136,090	57.1	53.4-60.8
Some Post-H.S.	35,827	60.8	53.6-67.9	51,933	63.1	57.7-68.6	87,760	62.1	57.8-66.5
College Graduate	13,263	46.6	38.3-55.0	21,518	50.3	44.2-56.5	34,781	48.9	43.9-53.9
Income									
Less than \$15,000	28,131	71.1	62.4-79.9	39,878	75.1	68.5-81.6	68,009	73.4	68.1-78.7
\$15,000 - 24,999	33,708	71.9	64.4-79.4	45,039	66.4	60.4-72.4	78,746	68.6	64.0-73.3
\$25,000 - 34,999	21,391	*59.7	49.5-69.8	18,460	51.4	42.5-60.3	39,851	55.5	48.8-62.3
\$35,000 - 49,999	15,246	*54.9	44.5-65.3	17,009	52.4	43.3-61.6	32,255	53.6	46.7-60.4
\$50,000 - 74,999	14,625	*44.9	34.7-55.2	14,774	52.1	42.3-61.9	29,399	48.3	41.1-55.5
\$75,000+	11,675	33.8	24.9-42.6	16,147	49.9	40.9-59.0	27,822	41.6	35.1-48.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Work Limitations

Definition	Reported having been told they have arthritis and responding “Yes” to the question, “Do arthritis or joint symptoms now affect whether you work, the type of work you do, or the amount of work you do?”
Prevalence	WV: 47.9% (95% CI: 45.5-50.2) U.S.: 37.0% (95% CI: 36.5-37.6) The West Virginia prevalence of work limitations due to arthritis was significantly higher than the national prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 47.6% (95% CI: 43.9-51.4) Women: 48.1% (95% CI: 45.1-51.1) There was no gender difference in the prevalence of work limitations due to arthritis.
Age	There was no consistent age difference in the prevalence of work limitations due to arthritis.
Education	The prevalence of work limitations due to arthritis was significantly higher among those with less than a high school education (54.2%) than among college graduates (31.8%). Additionally, the prevalence of work limitations due to arthritis was significantly lower among college graduates than among all other educational attainment levels.
Household Income	The prevalence of work limitations due to arthritis was significantly higher among those with an annual household income less than \$15,000 per year (68.1%) than those earning \$25,000 or more. The prevalence of work limitations due to arthritis were significantly lower for those with an annual income of \$75,000 or more (26.6%) than those earning less than \$50,000.

CHAPTER 26: ARTHRITIS

Table 26.3 Prevalence of Work Limitations Due to Arthritis by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	119,548	47.6	43.9-51.4	148,708	48.1	45.1-51.1	268,256	47.9	45.5-50.2
Age									
18-24	2,571	*35.2	4.3-66.1	1,952	*80.6	43.1-100.0	4,523	*46.5	17.2-75.8
25-34	5,861	*47.4	23.1-71.8	11,299	*58.7	43.3-74.2	17,159	*54.3	40.6-68.0
35-44	15,412	*59.5	46.4-72.6	23,165	70.0	60.2-79.9	38,577	65.4	57.4-73.5
45-54	26,482	63.2	54.5-71.8	29,372	59.3	51.8-66.7	55,854	61.1	55.4-66.7
55-64	41,267	56.8	50.6-63.0	41,474	52.0	46.5-75.4	82,741	54.3	50.1-58.4
65+	25,995	29.6	24.8-34.4	41,009	32.9	28.9-36.9	67,005	31.5	28.4-34.6
Education									
Less than H.S.	28,290	53.3	44.3-62.3	30,447	55.0	47.1-62.9	58,737	54.2	48.2-60.1
H.S. or G.E.D.	54,502	49.4	43.7-55.1	62,903	48.9	44.1-53.7	117,405	49.1	45.4-52.8
Some Post-H.S.	26,667	45.4	38.1-52.7	42,036	51.3	45.7-56.9	68,702	48.8	44.3-53.3
College Graduate	9,722	34.3	25.8-42.8	12,879	30.2	24.5-35.9	22,601	31.8	27.0-36.7
Income									
Less than \$15,000	28,286	72.5	64.2-80.8	34,321	64.8	57.9-71.7	62,607	68.1	62.8-73.4
\$15,000 - 24,999	29,080	62.7	54.7-70.7	37,938	55.8	49.5-62.2	67,018	58.6	53.6-63.6
\$25,000 - 34,999	15,299	42.7	32.9-52.5	16,391	45.8	36.8-54.8	31,690	44.2	37.5-50.9
\$35,000 - 49,999	10,456	37.8	27.7-47.9	15,058	47.3	37.9-56.7	25,515	42.9	35.9-49.9
\$50,000 - 74,999	11,652	36.3	26.3-46.3	9,746	34.2	24.7-43.7	21,398	35.3	28.4-42.2
\$75,000+	9,593	27.8	19.0-36.6	8,207	25.4	17.0-33.8	17,800	26.6	20.6-32.7

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Social Activity Limitations

Definition	Reported having been told they have arthritis and responding “A Lot” to the question, “During the past 30 days, to what extent has your arthritis or joint symptoms interfered with our normal social activities, such as going shopping, to the movies, or to religious or social gatherings?”
Prevalence	WV: 26.7% (95% CI: 24.6-28.8) U.S.: 22.2% (95% CI: 21.7-22.7) The West Virginia prevalence of social activity limitations due to arthritis was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants.
Gender	Men: 27.1% (95% CI: 23.8-30.4) Women: 31.9% (95% CI: 29.1-34.8) There was no gender difference in the prevalence of social activity limitations due to arthritis.
Age	The prevalence of social activity limitations due to arthritis was significantly lower in adults aged 65 and older (23.2%) than adults aged 35-64.
Education	The prevalence of social activity limitations due to arthritis was significantly higher among those with less than a high school education (29.9%) than among all other educational attainment levels. Additionally, the prevalence of social activity limitations due to arthritis was significantly lower among college graduates (16.3%) than among all other educational attainment levels.
Household Income	The prevalence of social activity limitations due to arthritis was significantly higher among those with an annual household income of less than \$15,000 (52.0%) than all other income brackets. The prevalence of social activity limitations due to arthritis was significantly lower among those earning \$75,000 or more per year (13.0%) than among those earning less than \$50,000 a year.

CHAPTER 26: ARTHRITIS

Table 26.4 Prevalence of Social Activity Limitations Due to Arthritis by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	68,527	27.1	23.8-30.4	98,339	31.9	29.1-64.8	166,866	29.8	27.6-31.9
Age									
18-24	0.0	0.0	0.0-0.0	1,094	*45.2	0.0-100	1,094	*11.2	0.0-31.8
25-34	1,016	*8.2	0.0-23.5	6,592	*34.3	18.9-49.7	7,608	*24.1	12.4-35.8
35-44	8,394	*31.4	19.2-43.6	15,325	*47.9	36.4-59.4	23,719	40.4	31.8-49.0
45-54	14,932	34.9	26.0-43.8	19,464	38.9	31.5-46.3	34,396	37.1	31.3-24.8
55-64	21,817	30.0	24.2-35.8	26,932	34.0	28.8-39.1	48,749	32.1	28.2-35.9
65+	20,709	23.6	18.9-28.2	28,545	23.0	19.4-26.5	49,254	23.2	20.4-26.1
Education									
Less than H.S.	21,689	40.4	31.8-49.1	23,550	42.5	34.6-50.5	45,239	41.5	35.6-47.4
H.S. or G.E.D.	30,094	27.1	22.1-32.1	41,298	32.3	27.6-36.9	71,393	29.9	26.5-33.3
Some Post-H.S.	12,758	21.6	15.6-27.6	25,499	31.5	26.2-36.7	38,257	27.3	23.3-31.3
College Graduate	3,986	13.9	8.5-19.3	7,669	18.0	13.1-22.9	11,655	16.3	12.7-20.0
Income									
Less than \$15,000	19,340	48.6	38.8-58.4	28,594	54.5	47.2-61.9	47,935	52.0	46.0-57.9
\$15,000 - 24,999	17,187	36.6	28.2-45.0	23,539	34.7	28.4-41.1	40,726	35.5	30.4-40.6
\$25,000 - 34,999	10,018	27.7	19.3-36.2	10,366	29.1	20.8-37.3	20,384	28.4	22.5-34.3
\$35,000 - 49,999	5,455	19.6	11.2-28.1	8,458	26.1	17.0-35.1	13,914	23.1	16.8-29.4
\$50,000 - 74,999	5,000	15.3	8.7-21.8	6,870	24.1	15.1-33.1	111,870	19.4	13.8-24.9
\$75,000+	2,696	7.8	2.9-12.7	5,959	18.7	11.0-26.4	8,655	13.0	8.4-17.6

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Kidney Disease Prevalence

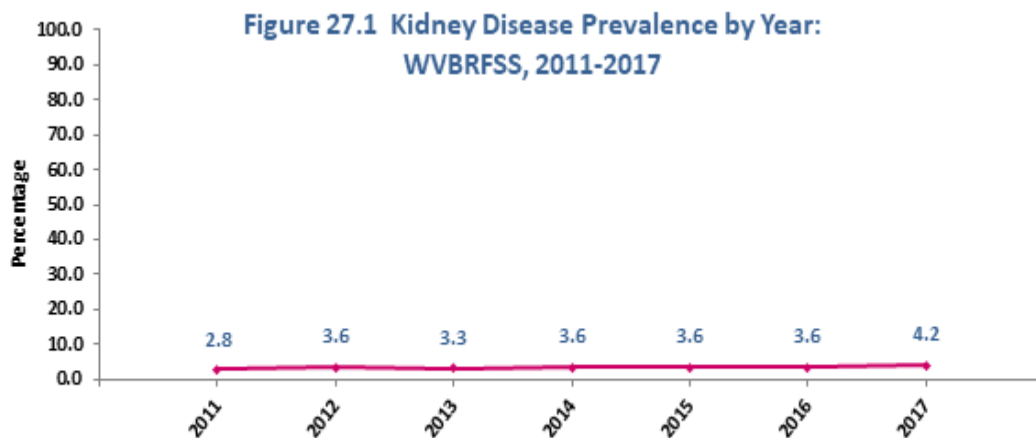
Definition	Responding “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you have kidney disease?”
Prevalence	WV: 4.2% (95% CI: 3.6-4.8) U.S.: 3.2% (95% CI: 3.0-3.3) The prevalence of kidney disease in West Virginia was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 53 BRFSS participants.
Gender	Men: 3.7% (95% CI: 2.9-4.5) Women: 4.8% (95% CI: 3.9-5.6) There was no gender difference in the prevalence of kidney disease.
Age	The prevalence of kidney disease was significantly higher among those aged 65 and older (8.5%) than those aged 45-55 (4.3%).
Education	The prevalence of kidney disease was significantly higher among those with less than a high school education (6.2%) than among those with some college (3.1%) or college graduates (2.6%). The prevalence of kidney disease was significantly lower among college graduates than those with less and a high school education or a high school diploma (5.0%).
Household Income	The prevalence of kidney disease was significantly higher among those with an annual household income of less than \$15,000 (6.8%) than among those earning \$50,000 or more per year. The prevalence of kidney disease was significantly lower among than those earning \$75,000 or more per year (1.6%) than among those earning less than \$25,000.

CHAPTER 27: KIDNEY DISEASE

Table 27.1 Prevalence of Kidney Disease by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	25,923	3.7	2.9-4.5	35,161	4.8	3.9-5.6	61,084	4.2	3.6-4.8
Age									
18-24	0	0	0	0	0	0	0	0	0
25-34	0	0	0	1,739	*1.7	0.0-3.6	1,739	*0.8	0.0-1.8
35-44	2,518	*2.3	0.5-4.1	2,295	*2.1	0.2-4.0	4,813	*2.2	0.9-3.5
45-54	4,279	3.8	1.7-6.0	5,401	4.8	2.6-6.9	9,680	4.3	2.8-5.8
55-64	5,608	4.4	2.5-6.3	8,949	6.7	4.5-8.9	14,556	5.6	4.1-7.1
65+	13,519	8.5	6.1-10.9	16,572	8.6	6.7-10.5	30,090	8.5	7.0-10.0
Education									
Less than H.S.	5,828	5.4	2.7-8.0	7,125	7.0	4.2-9.8	12,953	6.2	4.2-8.1
H.S. or G.E.D.	13,379	4.5	3.1-5.9	15,555	5.6	4.1-7.1	28,934	5.0	4.0-6.1
Some Post-H.S.	3,904	2.1	1.1-3.2	8,309	3.9	2.5-5.3	12,212	3.1	2.2-4.0
College Graduate	2,813	2.4	1.2-3.6	3,962	2.7	1.8-3.7	6,775	2.6	1.8-3.4
Income									
Less than \$15,000	4,616	5.8	2.8-8.8	7,119	7.7	4.8-10.6	11,735	6.8	4.7-8.9
\$15,000 - 24,999	6,419	5.3	2.9-7.7	8,192	6.2	4.0-8.4	14,611	5.7	4.1-7.4
\$25,000 - 34,999	2,708	*3.5	1.3-5.8	2,848	*3.5	1.3-5.6	5,557	3.5	1.9-5.1
\$35,000 - 49,999	3,388	*4.0	1.6-6.4	4,093	5.2	2.7-7.6	7,481	4.6	2.9-6.3
\$50,000 - 74,999	1,299	*1.4	0.3-2.5	1,886	*2.5	0.6-4.3	3,185	1.9	0.8-2.9
\$75,000+	2,365	*1.6	0.7-2.5	2,176	*1.7	0.4-2.9	4,541	1.6	0.9-2.4

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.



Ever Diagnosed with Depression

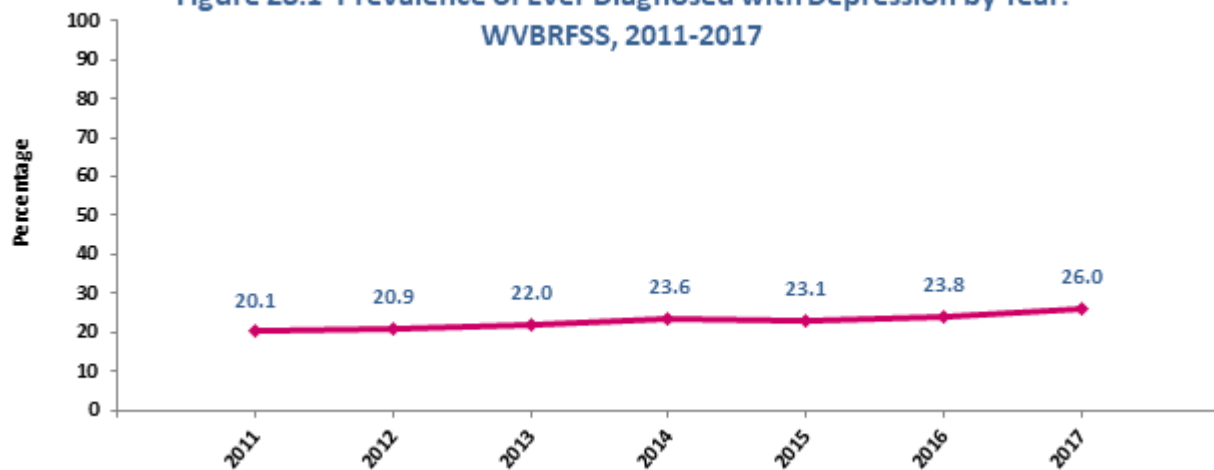
Definition	Responding “Yes” to the question, “Has a doctor, nurse, or other health professional ever told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)?”
Prevalence	WV: 26.0% (95% CI: 24.5-27.5) U.S.: 19.1% (95% CI: 18.9-19.4) The West Virginia prevalence of ever diagnosed with depression was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 53 BRFSS participants.
Gender	Men: 19.8% (95% CI: 17.8-21.9) Women: 32.0% (95% CI: 29.9-34.0) The prevalence of ever diagnosed with depression was significantly higher among females than among males.
Age	The prevalence of ever diagnosed with depression was significantly lower among those 65 and older (17.5%), than all age groups.
Education	The prevalence of ever diagnosed with depression was significantly higher among those with less than a high school education (31.7%) than among college graduates (20.7%). The prevalence of ever diagnosed with depression was significantly lower among college graduates than those with some college (27.7%) and those with less than a high school education.
Household Income	The prevalence of ever diagnosed with depression was significantly higher among those with an annual household income less than \$15,000 (40.3%) than among all other income levels. The prevalence of ever diagnosed with depression was significantly lower among those with an annual household income of \$75,000 or more (15.5%) than among those with an annual household income of less than \$35,000.

CHAPTER 28: DEPRESSION

Table 28.1 Prevalence of Ever Diagnosed with Depression by Demographic Characteristics: WVBFRSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	140,147	19.8	17.8-21.9	235,412	32.0	29.9-34.0	375,559	26.0	24.5-27.5
Age									
18-24	19,130	22.0	13.4-30.7	25,490	31.6	21.9-41.2	44,620	26.6	20.1-33.1
25-34	22,531	21.2	15.3-27.1	36,019	34.8	28.5-41.2	58,550	27.9	23.5-32.3
35-44	25,789	23.4	17.7-29.1	40,542	37.4	31.6-43.3	66,331	30.4	26.2-34.5
45-54	24,449	22.1	17.4-26.7	40,460	35.6	30.9-40.2	64,909	28.9	25.6-32.2
55-64	27,873	22.0	18.1-25.9	49,955	37.7	33.7-41.7	77,828	30.0	27.2-32.9
65+	19,884	12.5	9.9-15.1	41,690	21.6	18.9-24.4	61,574	17.5	15.5-19.4
Education									
Less than H.S.	27,755	26.1	19.5-32.7	38,222	37.5	30.8-44.2	65,977	31.7	27.0-36.4
H.S. or G.E.D.	56,811	19.1	16.0-22.2	88,231	31.7	28.3-35.2	145,042	25.2	22.8-27.5
Some Post-H.S.	36,133	19.6	15.8-23.5	73,585	34.7	30.8-38.6	109,718	27.7	24.9-30.5
College Graduate	19,080	16.3	12.7-20.0	34,930	24.3	20.8-27.8	54,010	20.7	18.2-23.3
Income									
Less than \$15,000	25,543	32.1	24.9-39.4	43,567	47.3	41.2-53.4	69,111	40.3	35.5-45.0
\$15,000 - 24,999	31,653	26.3	20.5-32.1	46,747	35.0	30.1-39.9	78,400	30.9	27.1-34.6
\$25,000 - 34,999	20,730	27.2	20.7-33.7	23,654	29.0	22.9-35.1	44,384	28.1	23.7-32.5
\$35,000 - 49,999	12,878	15.3	10.8-19.8	22,214	27.8	22.0-33.7	35,092	21.4	17.7-25.1
\$50,000 - 74,999	15,827	17.1	11.8-22.4	21,037	27.4	21.7-33.0	36,864	21.8	17.9-25.6
\$75,000+	14,211	9.6	6.8-12.5	28,545	22.2	17.9-26.5	42,756	15.5	12.9-18.1

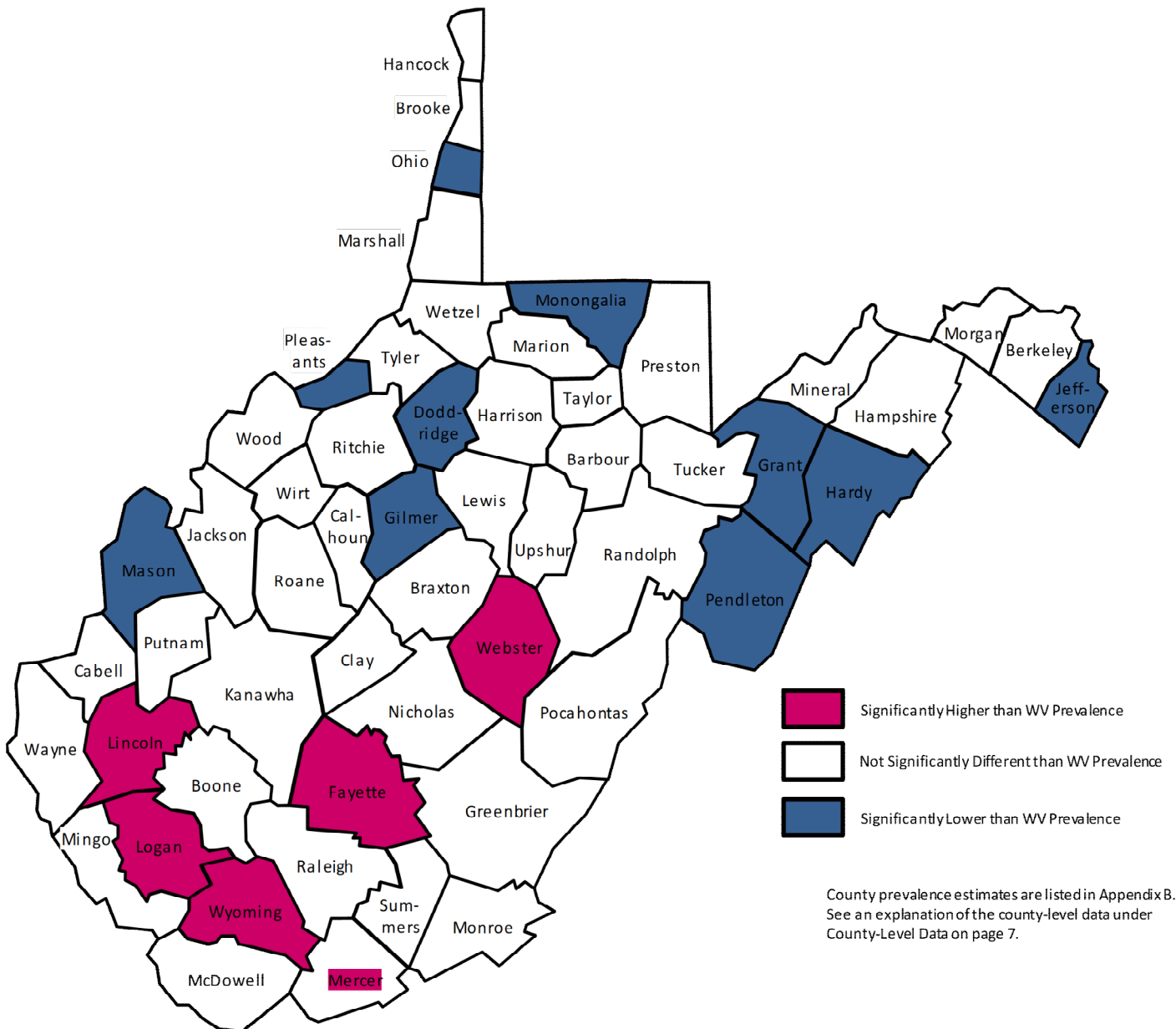
Figure 28.1 Prevalence of Ever Diagnosed with Depression by Year: WVBFRSS, 2011-2017



CHAPTER 28: DEPRESSION

Figure 28.2 Prevalence of Ever Diagnosed with Depression by County: WVBRFSS, 2013-2017

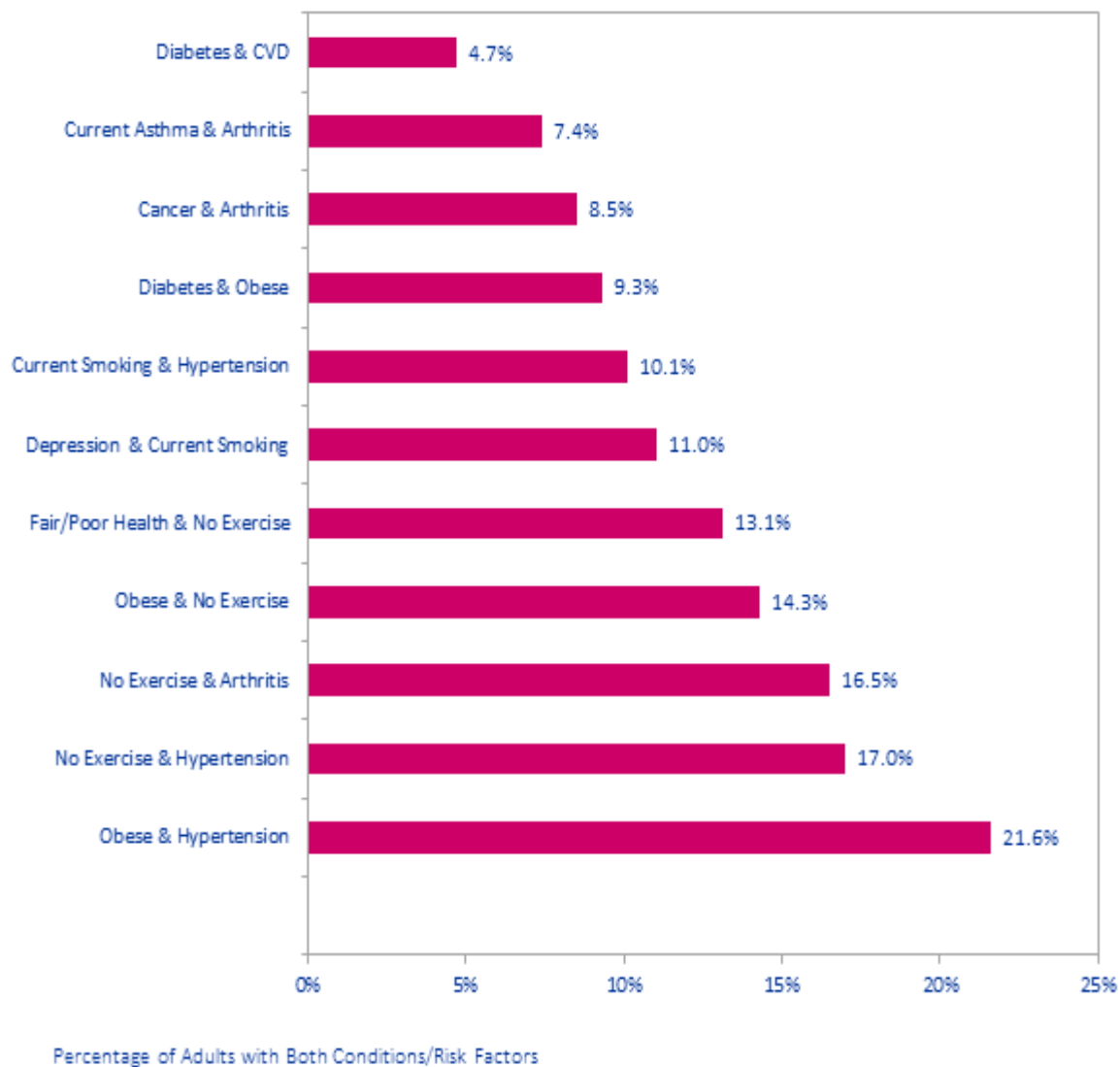
WV Prevalence (2013-2017) - 23.7%



Comorbid Health Conditions and Risk Factors

Many behavioral risk factors and health conditions are interrelated. For example, the lack of physical activity and poor 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 2017 (see Figure 22.1 and Table 22.1). For definitions of risk factors and health conditions, please refer to appropriate chapter in this report.

Figure 29.1 Comorbidities: The Prevalence of Multiple Risk Behaviors and/or Health Conditions Among Adults: WVBRFSS, 2017



CHAPTER 29: COMORBIDITIES

Table 29.1 Comorbidities: The Prevalence of Multiple Risk Behaviors and/or Health Conditions Among Adults: WVBRFSS, 2017

% of Total Population	Fair/Poor Health	No Health Coverage	No Exercise	Obese	Current Smoker	Cardiovascular Disease	Diabetes	Current Asthma	Cancer	Arthritis	Hypertension	Depression
Fair/Poor Health	25.9 (24.5-27.3)	1.7 (1.3-2.2)	13.1 (12.1-14.2)	12.9 (11.9-14.0)	9.1 (8.1-10.0)	8.3 (7.5-9.1)	7.7 (6.9-8.4)	6.0 (5.2-6.7)	5.6 (5.0-6.3)	17.1 (16.0-18.3)	16.4 (15.3-17.5)	11.2 (10.2-12.2)
No Health Coverage	1.7 (1.3-2.2)	8.7 (7.6-9.8)	2.8 (2.1-3.5)	2.7 (2.1-3.4)	3.8 (3.1-4.5)	0.7 (0.4-1.0)	0.5 (0.3-0.7)	0.8 (0.5-1.1)	0.5 (0.2-0.7)	2.1 (1.6-2.6)	2.3 (1.8-2.9)	2.3 (1.7-2.8)
No Exercise	13.1 (12.1-14.2)	2.8 (2.1-3.5)	31.6 (30.0-33.1)	14.3 (13.2-15.5)	10.1 (9.0-11.1)	7.0 (6.3-7.8)	7.0 (6.3-7.9)	5.3 (4.6-6.0)	5.3 (4.6-5.9)	16.5 (15.4-17.7)	17.0 (15.8-18.1)	10.1 (9.1-11.1)
Obese	12.9 (11.9-14.0)	2.7 (2.1-3.4)	14.3 (13.2-15.5)	38.1 (36.4-39.7)	8.9 (7.8-9.9)	6.2 (5.5-7.0)	9.3 (8.5-10.2)	6.1 (5.3-6.9)	5.5 (4.8-6.2)	18.4 (17.2-19.7)	21.6 (20.3-22.9)	11.9 (10.8-13.0)
Current Smoker	9.1 (8.1-10.0)	3.8 (3.1-4.5)	10.1 (9.0-11.1)	8.9 (7.8-9.9)	26.0 (24.5-27.5)	3.8 (3.2-4.3)	3.0 (2.5-3.5)	4.4 (3.7-5.1)	2.6 (2.1-3.1)	10.1 (9.1-11.0)	10.0 (9.0-10.9)	11.0 (9.9-12.1)
Cardiovascular Disease	8.3 (7.5-9.1)	0.7 (0.4-1.0)	6.7 (6.0-7.5)	6.2 (5.5-7.0)	3.8 (3.2-4.3)	14.4 (13.3-15.4)	4.7 (4.2-5.3)	3.2 (2.7-3.8)	3.7 (3.2-4.3)	9.4 (8.6-10.3)	10.5 (9.6-11.3)	5.1 (4.4-5.7)
Diabetes	7.7 (6.9-8.4)	0.5 (0.3-0.7)	7.0 (6.3-7.8)	9.3 (8.5-10.2)	3.0 (2.5-3.5)	4.7 (4.2-5.3)	15.2 (14.2-16.3)	2.9 (2.4-3.3)	3.3 (2.8-3.7)	9.4 (8.6-10.2)	11.9 (11.0-12.8)	4.8 (4.2-5.4)
Current Asthma	6.0 (5.2-6.7)	0.8 (0.5-1.1)	5.3 (4.6-6.0)	6.1 (5.3-6.9)	4.4 (3.7-5.1)	3.2 (2.7-3.8)	2.9 (2.4-3.3)	12.7 (11.6-13.8)	2.1 (1.7-2.5)	7.4 (6.6-8.2)	6.7 (6.0-7.4)	5.6 (4.8-6.4)
Cancer	5.6 (5.0-6.3)	0.5 (0.2-0.7)	5.3 (4.6-5.9)	5.5 (4.8-6.2)	2.6 (2.1-3.1)	3.7 (3.2-4.3)	3.3 (2.8-3.7)	2.1 (1.7-2.5)	13.9 (12.9-14.9)	8.5 (7.7-9.3)	8.5 (7.8-9.3)	3.5 (3.0-4.1)
Arthritis	17.1 (16.0-18.3)	2.1 (1.6-2.6)	16.5 (15.4-17.7)	18.4 (17.2-19.7)	10.1 (9.1-11.0)	9.4 (8.6-10.3)	9.4 (8.6-10.2)	7.4 (6.6-8.2)	8.5 (7.7-9.3)	39.2 (37.6-40.7)	24.3 (23.1-25.6)	14.0 (12.9-15.0)
Hypertension	16.4 (15.3-17.5)	2.3 (1.8-2.9)	17.0 (15.8-18.1)	21.6 (20.3-22.9)	10.0 (9.0-10.0)	10.5 (9.6-11.3)	11.9 (11.0-12.8)	6.7 (6.0-7.4)	8.5 (7.8-9.3)	24.3 (23.1-25.6)	43.5 (41.9-45.1)	12.9 (11.8-13.9)
Depression	11.2 (10.2-12.2)	2.3 (1.7-2.8)	10.1 (9.1-11.1)	11.9 (10.8-13.0)	11.0 (9.9-12.1)	5.1 (4.4-5.7)	4.8 (4.2-5.4)	5.6 (4.8-6.4)	3.5 (3.0-4.1)	14.0 (12.9-15.0)	12.9 (11.8-13.9)	26.0 (24.5-27.5)

Table interpretation: Each cell represents the percentage of West Virginia adults with **both** of the conditions/risk factors. For example, 7.4% of West Virginia adults have **both** asthma and arthritis.

2017



SECTION 5: SOCIAL DETERMINANTS OF HEALTH

Inability to Pay Bills in the Past Year

Definition	Answering “Yes” to the question “During the last 12 months, was there a time when you were not able to pay your mortgage, rent or utility bills?”
Prevalence	WV: 14.5% (95% CI: 13.2-15.8) This question was part of a state added module and national data are not available, therefore, a U.S. comparison was not conducted.
Gender	Men: 13.9% (95% CI: 12.0-15.9) Women: 15.0% (95% CI: 13.3-16.7) There was no gender difference in the prevalence of inability to pay bills in the past year.
Age	The prevalence of inability to pay bills in the past year was significantly lower among those 65 and older (6.2%) which was a significantly lower than all other age groups. The prevalence of inability to pay bills in the past year was significantly higher in adults aged 25-44 than adults aged 55 and older.
Education	The prevalence of inability to pay bills in the past year was significantly higher among those with less than a high school education (22.0%) than high school graduates (14.2%) and college graduates (6.0%). The prevalence of inability to pay bills in the past year was significantly lower among college graduates (6.7%) than among all other educational attainment levels.
Household Income	The prevalence of inability to pay bills in the past year was significantly higher among those with an annual household income less than \$15,000 (33.7%) than among those earning more \$25,000 or more. The prevalence of inability to pay bills in the past year was significantly among those with an annual household income of \$75,000 or more (3.1%) than among those earning less than \$25,000.

CHAPTER 30: SOCIAL DETERMINANTS OF HEALTH

Table 30.1 Prevalence of Inability to Pay Bills in the Past Year by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	88,328	13.9	12.0-15.9	101,393	15.0	13.3-16.7	189,722	14.5	13.2-15.8
Age									
18-24	10,377	*15.7	6.2-25.3	8,821	13.1	5.5-20.6	19,197	14.4	8.3-20.5
25-34	17,223	18.8	12.4-25.3	21,894	23.5	17.6-29.4	39,117	21.2	16.8-25.5
35-44	22,768	22.9	17.1-28.8	21,208	22.0	16.6-27.4	43,976	22.5	18.5-26.5
45-54	16,179	15.6	11.2-20.0	17,662	16.7	13.0-20.4	33,841	16.2	13.3-19.0
55-64	14,541	12.3	9.1-15.4	17,139	13.7	10.8-16.6	31,679	13.0	10.8-15.1
65+	6,562	4.3	2.7-6.0	14,216	7.7	5.7-9.7	20,779	6.2	4.9-7.5
Education									
Less than H.S.	21,595	21.7	15.2-28.2	20,676	22.4	16.2-28.5	42,270	22.0	17.5-26.5
H.S. or G.E.D.	36,828	14.2	11.1-17.2	36,326	14.3	1.6-17.0	73,154	14.2	12.2-16.2
Some Post-H.S.	24,617	14.6	10.7-18.5	35,252	18.2	15.0-21.4	59,870	16.5	14.0-19.0
College Graduate	5,288	5.0	3.0-7.0	9,139	6.8	4.8-8.9	14,428	6.0	4.6-7.5
Income									
Less than \$15,000	21,566	30.2	22.8-37.7	31,001	36.6	30.5-42.8	52,567	33.7	28.9-38.5
\$15,000 - 24,999	27,609	26.6	20.5-32.8	33,097	27.0	22.1-31.9	60,706	26.8	22.9-30.7
\$25,000 - 34,999	12,357	17.4	10.6-24.2	4,819	6.6	3.6-9.5	17,176	11.9	8.1-15.7
\$35,000 - 49,999	6,816	8.6	4.5-12.8	9,230	12.4	7.7-17.0	16,046	10.5	7.4-13.6
\$50,000 - 74,999	5,781	6.6	2.8-10.5	3,584	*4.9	2.0-7.8	9,365	5.8	3.3-8.3
\$75,000+	4,031	*3.0	0.6-5.3	3,919	*3.3	1.3-5.4	7,950	3.1	1.6-4.7

Not Enough Money at the End of the Month

Definition	Responding “Not have enough money to make ends meet” to the question, “In general, how do your finances usually work out at the end of the month? Do you find that you usually:”
Prevalence	WV: 12.9% (95% CI: 11.7-14.1) Because this question is part of a state added module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 11.1% (95% CI: 9.4-12.8) Women: 14.6% (95% CI: 12.9-16.3) The prevalence of not enough money at the end of the month was significantly higher among women than men.
Age	The prevalence of not enough money at the end of the month was significantly lower among those aged 65 and older (7.0%) than all other age groups except those aged 18-24.
Education	The prevalence of not enough money at the end of the month was significantly higher among those with less than a high school education (22.9%) than all other educational attainment groups. The prevalence of not enough money at the end of the month was significantly lower among college graduates (6.0%) than all other educational attainment groups.
Household Income	The prevalence of not enough money at the end of the month was significantly higher among those with an annual household income of less than \$25,000 (36.2%) than those earning \$25,000 or more. The prevalence of not enough money at the end of the month was significantly lower among those making more than \$75,000 a year (1.8%) than those earning less than \$50,000.

CHAPTER 30: SOCIAL DETERMINANTS OF HEALTH

Table 30.2 Prevalence of Not Enough Money at the End of the Month by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	69,488	11.1	9.4-12.8	97,171	14.6	12.9-16.3	166,659	12.9	11.7-14.1
Age									
18-24	4,103	*6.2	1.2-11.2	9,032	13.8	5.8-21.9	13,136	10.0	5.2-14.8
25-34	11,946	13.1	7.6-18.6	14,947	16.3	11.1-21.5	26,893	14.7	10.9-18.5
35-44	16,902	17.2	11.8-22.7	20,075	20.9	15.5-26.3	36,977	19.0	15.2-22.9
45-54	15,788	15.6	11.1-20.1	17,832	17.1	13.3-20.8	33,620	16.3	13.4-19.2
55-64	12,837	11.0	8.0-14.0	19,605	15.9	12.7-19.1	32,441	13.5	11.3-15.7
65+	7,911	5.3	3.5-7.2	15,003	8.3	6.3-10.3	22,915	7.0	5.6-8.4
Education									
Less than H.S.	18,779	18.9	13.1-24.8	24,918	27.1	20.7-33.5	43,697	22.9	18.5-27.2
H.S. or G.E.D.	32,638	12.8	10.1-15.5	36,865	14.9	12.1-17.6	69,503	13.8	11.9-15.8
Some Post-H.S.	14,200	8.6	5.7-11.4	27,899	14.6	11.7-17.5	42,099	11.8	9.7-13.9
College Graduate	3,870	3.7	2.1-5.3	7,490	5.6	3.8-7.4	11,360	4.8	3.6-6.0
Income									
Less than \$15,000	24,434	34.8	27.0-42.5	31,061	37.4	31.2-43.6	55,495	36.2	31.3-41.1
\$15,000 - 24,999	20,264	19.8	14.8-24.7	28,445	23.4	18.7-28.1	48,709	21.7	18.3-25.1
\$25,000 - 34,999	4,410	6.3	2.7-9.8	7,133	9.7	5.6-13.9	11,543	8.0	5.3-10.8
\$35,000 - 49,999	3,181	*4.1	1.5-6.8	6,046	8.1	4.3-12.0	9,227	6.1	3.8-8.4
\$50,000 - 74,999	2,778	*3.2	0.5-5.8	3,518	4.8	2.2-7.4	6,295	3.9	2.1-5.8
\$75,000+	1,612	*1.2	0.2-2.2	2,863	*2.4	0.6-4.3	4,475	1.8	0.7-2.8

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Unsafe Neighborhood

Definition	Responding “Unsafe” or “Extremely Unsafe” to the question, “How safe from crime do you consider your neighborhood to be?”
Prevalence	WV: 8.2% (95% CI: 7.3-9.2) This question was part of a state added module and national data are not available, therefore, a U.S. comparison was not conducted.
Gender	Men: 7.7% (95% CI: 6.3-9.1) Women: 8.8% (95% CI: 7.4-10.2) There was no gender differences in the prevalence of unsafe neighborhoods.
Age	There was no age difference in the prevalence of unsafe neighborhoods.
Education	The prevalence of unsafe neighborhoods was significantly higher among those with less than a high school education (14.3%) than among all other educational attainment levels.
Household Income	The prevalence of unsafe neighborhoods was significantly higher among those with an annual household income less than \$15,000 (15.7) than those earning \$35,000 or more. The prevalence of unsafe neighborhoods was significantly lower among those with an annual household income of \$75,000 or more (4.2%) than those earning less than earning less than \$35,000.

CHAPTER 30: SOCIAL DETERMINANTS OF HEALTH

Table 30.3 Prevalence of Unsafe Neighborhoods by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	48,043	7.7	6.3-9.1	58,509	8.8	7.4-10.2	106,552	8.2	7.3-9.2
Age									
18-24	6,412	*10.1	2.7-17.5	7,236	*10.6	2.7-18.5	13,649	10.3	4.9-15.8
25-34	4,466	4.9	2.1-7.7	8,453	9.2	5.1-13.3	12,918	7.1	4.5-9.6
35-44	6,851	6.9	3.7-10.2	8,163	8.5	5.0-12.0	15,014	7.7	5.3-10.1
45-54	10,582	10.4	6.7-14.1	8,259	7.9	5.3-10.5	18,841	9.1	6.9-11.4
55-64	11,606	9.9	6.8-12.9	10,221	8.3	5.9-10.7	21,827	9.1	7.2-11.0
65+	8,126	5.5	3.6-7.3	15,510	8.6	6.6-10.7	23,636	7.2	5.8-8.6
Education									
Less than H.S.	13,077	13.6	8.6-18.6	13,502	15.0	9.3-20.7	26,580	14.3	10.5-18.0
H.S. or G.E.D.	17,498	6.9	4.7-9.0	21,821	8.7	6.4-10.9	39,319	7.8	6.2-9.3
Some Post-H.S.	11,781	7.0	4.6-9.4	15,491	8.1	5.9-10.3	27,272	7.6	6.0-9.2
College Graduate	5,687	5.4	3.4-7.4	7,694	5.8	3.7-7.8	13,381	5.6	4.2-7.1
Income									
Less than \$15,000	9,621	13.7	8.2-19.2	14,465	17.5	12.0-23.0	24,086	15.7	11.8-19.7
\$15,000 - 24,999	9,955	9.9	6.1-13.7	12,985	10.8	7.5-14.1	22,941	10.4	7.9-12.9
\$25,000 - 34,999	6,685	9.5	4.2-14.8	6,261	8.6	5.1-12.1	12,946	9.0	5.9-12.2
\$35,000 - 49,999	3,692	4.8	2.1-7.4	3,612	4.9	2.6-7.1	7,304	4.8	3.1-6.5
\$50,000 - 74,999	5,830	6.8	3.6-10.0	2,185	3.0	1.0-5.0	8,015	5.0	3.1-7.0
\$75,000+	5,501	4.1	2.1-6.0	5,209	4.4	2.2-6.6	10,710	4.2	2.8-5.7

Food Insecurity in the Past Year

Definition	Responding “Often true” or “Sometimes true” to the question, “The first statement is, “The food that I bought just didn’t last, and I didn’t have money to get more.” Was that often, sometimes, or never true for you in the last 12 months?”
Prevalence	WV: 23.4% (95% CI: 21.9-25.0) This question was part of a state added module and national data are not available, therefore, a U.S. comparison was not conducted.
Gender	Men: 21.5% (95% CI: 19.2-23.8) Women: 25.3% (95% CI: 23.2-27.4) There was no gender difference in the prevalence of food insecurity in the past year.
Age	The prevalence of food insecurity in past year was significantly higher among those aged 35-44 (30.8%) than among those age 55 and older. The prevalence of food insecurity in the past year was lowest among those aged 65 and older (11.1%) than all other age group.
Education	The prevalence of food insecurity in the past year was significantly higher among those with less than a high school education (42.0%) than all other educational attainment groups. The prevalence of food insecurity in the past year was significantly lower in those with a college education (7.9%) than all other educational attainment groups.
Household Income	The prevalence of food insecurity in the past year was significantly higher among those with an annual household income less than \$15,000 (56.8%), significantly higher than among all other income levels. The prevalence of food insecurity in the past year was lowest among those with an income of \$75,000 or more (4.0%) than all other income levels.

CHAPTER 30: SOCIAL DETERMINANTS OF HEALTH

Table 30.4 Food Insecurity in the Past Year by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	136,270	21.5	19.2-23.8	169,913	25.3	23.2-27.4	306,183	23.4	21.9-25.0
Age									
18-24	16,780	*25.2	14.4-35.9	24,819	36.3	25.4-47.2	41,598	30.8	23.1-38.5
25-34	23,105	25.2	18.0-32.4	27,962	30.1	23.9-36.4	51,067	27.7	22.9-32.5
35-44	31,794	31.9	25.4-38.5	31,822	33.3	27.1-39.5	63,616	32.6	28.1-37.1
45-54	27,297	26.5	21.1-31.9	28,331	26.9	22.3-31.6	55,628	26.7	23.2-30.3
55-64	23,619	19.9	15.9-23.9	32,007	25.9	22.1-29.6	55,626	22.9	20.2-25.7
65+	12,996	8.6	6.4-10.9	24,049	13.2	10.8-15.5	37,044	11.1	9.4-12.8
Education									
Less than H.S.	40,078	40.0	32.5-47.6	40,378	44.2	37.0-51.4	80,455	42.0	36.8-47.3
H.S. or G.E.D.	57,739	22.2	18.6-25.8	74,487	29.4	25.8-33.0	132,226	25.8	23.2-28.3
Some Post-H.S.	30,594	18.1	14.0-22.3	43,968	22.9	19.3-26.4	74,562	20.7	18.0-23.3
College Graduate	7,859	7.5	5.0-10.0	11,081	8.3	5.9-10.6	18,940	7.9	6.2-9.6
Income									
Less than \$15,000	40,483	56.6	48.5-64.7	47,613	57.0	50.7-63.4	88,096	56.8	51.8-61.9
\$15,000 - 24,999	39,304	37.9	31.4-44.5	45,432	37.1	31.9-42.3	84,736	37.5	33.4-41.6
\$25,000 - 34,999	16,765	23.6	16.5-30.8	17,282	23.6	17.8-29.4	34,048	23.6	19.0-28.2
\$35,000 - 49,999	7,956	10.2	5.9-14.4	12,811	17.2	11.7-22.8	20,767	13.6	10.1-17.1
\$50,000 - 74,999	6,845	7.8	3.4-12.2	7,313	10.0	5.7-14.4	14,158	8.8	5.7-11.9
\$75,000+	4,575	3.4	1.5-5.3	5,459	4.6	2.1-7.1	10,034	4.0	2.4-5.5

Healthy Meal Insecurity

Definition	Responding “Often true” or “Sometimes true” to the question, “I couldn’t afford to eat balanced meals. Was that often, sometimes, or never true for you in the last 12 months?”
Prevalence	WV: 24.2% (95% CI: 22.6-25.7) 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	Men: 23.5% (95% CI: 21.1-25.8) Women: 24.8% (95% CI: 22.7-26.8) There were no gender differences in the prevalence of healthy meal insecurity in the past year.
Age	The prevalence of healthy meal insecurity was significantly lower lowest among those aged 65 and older (11.1%) than all other age groups.
Education	The prevalence of healthy meal insecurity was significantly higher among those with less than a high school education (38.1%) than all other educational attainment groups. The prevalence of healthy meal insecurity was significantly lower in those with a college degree (7.9%) than all other educational attainment groups.
Household Income	The prevalence of healthy meal insecurity was significantly higher among those with an annual household income of less than \$15,000 (55.9%) than all other income groups. The prevalence of healthy meal insecurity was significantly lower among those earning \$75,000 a year or more (5.0%) than all other income groups.

CHAPTER 30: SOCIAL DETERMINANTS OF HEALTH

Table 30.5 Prevalence of Healthy Meal Insecurity by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	148,605	23.5	21.1-25.8	166,236	24.8	22.7-26.8	314,841	24.2	22.6-25.7
Age									
18-24	18,282	*27.4	16.4-38.5	19,753	28.9	18.9-38.9	38,035	28.1	20.7-35.6
25-34	28,152	31.2	23.6-38.8	29,599	32.2	25.7-38.6	57,751	31.7	26.7-36.6
35-44	32,256	32.4	25.8-39.0	30,968	32.2	26.2-38.2	63,223	32.3	27.8-36.8
45-54	26,954	26.2	20.9-31.6	30,290	28.7	24.0-33.4	57,244	27.5	23.9-31.0
55-64	28,537	24.1	19.9-28.3	31,894	25.8	22.0-29.6	60,431	24.9	22.1-27.8
65+	14,425	9.6	7.1-12.0	22,603	12.5	10.2-14.8	37,028	11.1	9.5-12.8
Education									
Less than H.S.	41,360	41.4	33.9-49.0	31,181	34.4	27.8-41.1	72,541	38.1	33.0-43.2
H.S. or G.E.D.	63,214	24.5	20.8-28.1	74,418	29.4	25.8-33.0	137,631	26.9	24.3-29.5
Some Post-H.S.	35,179	20.9	16.5-25.3	46,154	24.0	20.4-27.6	81,332	22.5	19.7-25.4
College Graduate	8,853	8.4	5.6-11.2	14,483	10.8	8.2-13.4	23,336	9.7	7.8-11.7
Income									
Less than \$15,000	38,690	54.5	46.3-62.7	47,532	57.1	50.7-63.5	86,222	55.9	50.8-61.0
\$15,000 - 24,999	41,936	40.6	34.0-47.2	43,107	35.4	30.3-40.5	85,043	37.8	33.6-41.9
\$25,000 - 34,999	17,548	25.0	18.3-31.7	16,367	22.4	16.6-28.1	33,914	23.7	19.2-28.1
\$35,000 - 49,999	10,158	13.0	8.3-17.7	13,800	18.6	13.1-24.2	23,958	15.7	12.1-19.4
\$50,000 - 74,999	10,321	11.8	6.7-16.9	8,434	11.5	7.0-16.1	18,755	11.7	8.2-15.1
\$75,000+	5,543	*4.1	1.4-6.8	7,263	6.1	3.3-8.9	12,806	5.0	3.1-7.0

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Stress

Definition	Responding “All of the time” or “Most of the time” to the question, “Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because his/her mind is troubled all the time. Within the last 30 days, how often have you felt this kind of stress? “
Prevalence	WV: 18.6% (95% CI: 17.2-20.0) Because this question is part of a state added module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 16.7% (95% CI: 14.7-18.7) Women: 20.4% (95% CI: 18.5-22.4) There was no gender difference in the prevalence of stress.
Age	The prevalence of stress was significantly lower among adults aged 65 and older (9.3%) than among all other age groups.
Education	The prevalence of stress was significantly higher among those with less than a high school education (27.3%) than all other educational attainment levels. The prevalence of stress was significantly lower among college graduates (9.3%) than all other educational attainment levels.
Household Income	The prevalence of stress was significantly higher among those with an annual household income of less than \$15,000 (36.9%) than all other income groups. The prevalence of stress was significantly lower among those with an annual household income of \$75,000 or more (8.1%) than those earning less than \$50,000.

CHAPTER 30: SOCIAL DETERMINANTS OF HEALTH

Table 30.6 Prevalence of Stress by Demographic Characteristics: WVBRFSS, 2017

Characteristic	Men			Women			Total		
	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI	Weighted Frequency	%	95% CI
TOTAL	105,516	16.7	14.7-18.7	137,379	20.4	18.5-22.4	242,895	18.6	17.2-20.0
Age									
18-24	14,268	21.3	11.7-30.9	16,310	23.8	14.5-33.2	30,578	22.6	15.9-29.3
25-34	16,924	18.5	12.4-24.6	25,365	27.2	20.7-33.7	42,289	22.9	18.4-27.4
35-44	22,214	22.6	16.8-28.3	25,655	26.7	20.9-32.5	47,869	24.6	20.5-28.7
45-54	20,483	20.0	15.2-24.7	24,821	23.6	19.4-27.9	45,304	21.8	18.7-25.0
55-64	19,924	16.8	13.2-20.5	24,713	19.9	16.5-23.3	44,638	18.4	15.9-20.9
65+	11,213	7.5	5.3-9.6	19,682	10.8	8.7-12.9	30,895	9.3	7.8-10.8
Education									
Less than H.S.	27,244	27.3	20.5-34.1	24,975	27.3	20.7-33.8	52,220	27.3	22.6-32.0
H.S. or G.E.D.	42,002	16.2	13.1-19.3	53,581	21.2	17.9-24.4	95,583	18.7	16.4-20.9
Some Post-H.S.	25,164	15.0	11.3-18.8	43,535	22.6	19.0-26.1	68,699	19.1	16.5-21.7
College Graduate	11,105	10.5	7.4-13.7	15,288	11.4	8.9-14.0	26,393	11.0	9.1-13.0
Income									
Less than \$15,000	23,287	32.8	25.1-40.5	33,882	40.4	34.0-46.8	57,170	36.9	31.9-41.9
\$15,000 - 24,999	26,093	25.2	19.1-31.4	32,174	26.3	21.5-31.1	58,267	25.8	22.0-29.6
\$25,000 - 34,999	11,055	15.6	10.5-20.7	11,029	15.1	10.0-20.2	22,084	15.3	11.7-19.0
\$35,000 - 49,999	9,682	12.5	8.1-16.8	11,608	15.7	10.5-20.9	21,291	14.0	10.7-17.4
\$50,000 - 74,999	11,915	13.6	8.6-18.7	9,054	12.4	8.1-16.7	20,969	13.1	9.7-16.4
\$75,000+	9,851	7.3	4.5-10.0	10,609	9.0	6.0-11.9	20,460	8.1	6.1-10.1

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 6.

Appendix A
2017 WV Behavioral Risk Factors and Health Conditions by County

State	Fair or Poor Health		Obesity		Physical Inactivity		Current Smoking		Cardiovascular Disease		Diabetes		Cancer		Arthritis		Depression	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Alabama	23.3	6	36.3	5	32.0	8	20.9	11	12.2	4	14.1	4	14.3	3	33.3	2	23.8	7
Alaska	17.7	27	34.2	10	20.6	50	21.0	10	6.4	48	7.4	51	9.0	50	22.4	41	18.5	36
Arizona	19.2	17	29.5	32	25.1	32	15.6	36	8.0	31	10.4	31	13.3	11	24.3	32	18.8	34
Arkansas	24.2	5	35.0	7	32.5	5	22.3	6	12.8	3	12.2	11	13.6	10	30.9	5	24.8	4
California	17.6	28	25.1	50	20.0	51	11.3	51	6.3	50	10.5	29	10.4	43	19.4	50	17.3	44
Colorado	14.5	47	22.6	53	19.5	52	14.6	40	6.0	53	7.4	52	11.7	27	21.4	46	17.4	43
Connecticut	14.5	46	26.9	44	24.0	41	12.7	50	7.4	42	9.8	36	11.6	32	23.2	38	17.6	40
Delaware	18.8	21	31.8	25	31.0	12	17.0	28	8.7	20	11.3	17	12.9	18	25.3	23	19.7	29
D.C.	10.8	53	23.0	52	23.0	45	14.5	41	6.3	51	7.8	49	7.4	51	14.6	53	15.4	50
Florida	19.4	15	28.4	38	29.2	17	16.1	30	9.8	15	10.5	26	14.5	2	24.8	27	17.1	45
Georgia	18.5	23	31.6	26	31.0	11	17.5	22	8.3	24	11.4	15	10.7	42	22.2	43	16.3	47
Guam	21.9	8	34.3	8	33.4	3	26.4	1	8.4	23	13.9	5	4.2	53	15.6	52	9.0	53
Hawaii	14.8	45	23.8	51	23.5	44	12.8	49	6.4	49	10.9	22	9.8	46	21.0	47	11.8	52
Idaho	15.1	43	29.3	34	24.2	40	14.3	43	7.6	39	8.7	45	13.2	15	24.4	31	21.8	19
Illinois	17.9	26	31.1	29	24.0	42	15.5	37	7.6	38	11.0	21	9.8	47	24.4	29	17.8	39
Indiana	20.6	13	33.6	13	29.8	14	21.8	8	9.6	16	11.8	13	11.7	28	28.4	11	23.5	9
Iowa	15.4	40	36.4	4	25.0	33	17.1	27	8.2	26	9.6	37	12.6	22	24.7	28	20.5	25
Kansas	16.7	33	32.3	20	27.9	21	17.4	23	8.2	27	10.5	28	12.0	26	24.1	34	20.9	23
Kentucky	25.5	3	34.3	9	34.4	2	24.6	3	12.8	2	12.9	9	14.2	5	32.4	3	24.3	5
Louisiana	22.9	7	36.2	6	31.8	9	23.1	4	11.0	9	13.6	6	11.0	41	27.3	17	21.9	18
Maine	16.1	35	29.1	35	25.2	31	17.3	24	9.6	17	10.7	24	15.0	1	31.2	4	26.0	2
Maryland	15.4	39	31.3	28	25.6	28	13.8	45	7.6	37	10.4	34	11.0	40	24.9	26	17.6	41
Massachusetts	15.2	42	25.8	46	24.8	37	13.7	47	7.7	34	9.5	39	12.1	25	23.9	37	18.4	37
Michigan	18.4	24	32.3	21	27.2	23	19.3	14	10.4	10	11.0	20	12.7	19	30.5	6	23.3	10
Minnesota	12.7	52	28.4	37	24.6	38	14.5	42	6.8	47	7.8	50	11.5	34	19.7	49	19.0	33
Mississippi	25.3	4	37.3	2	33.2	4	22.2	7	11.5	7	14.2	3	11.4	36	29.2	8	20.7	24
Missouri	19.0	19	32.5	19	29.2	16	20.8	12	10.3	11	10.4	33	13.3	12	27.8	13	22.4	17
Montana	16.0	36	25.3	48	25.0	34	17.2	26	7.6	36	7.9	48	13.6	8	25.6	20	21.2	22
Nebraska	14.9	44	32.8	18	25.4	30	15.4	38	8.1	29	10.1	35	11.0	39	24.0	36	19.4	31
Nevada	20.3	14	26.7	45	28.0	20	17.6	20	8.5	22	10.4	32	11.5	35	20.3	48	15.6	49
New Hampshire	13.9	50	28.1	40	23.9	43	15.7	35	7.1	45	8.4	46	14.2	6	26.5	19	23.0	13
New Jersey	18.4	25	27.2	43	29.0	18	13.7	46	7.5	41	11.0	19	10.3	44	22.9	39	14.8	51
New Mexico	21.4	10	28.4	39	24.5	39	17.5	21	7.4	44	10.7	23	11.6	30	25.4	22	21.2	21
New York	17.3	30	25.7	47	27.2	24	14.1	44	7.4	43	10.5	30	9.1	49	22.6	40	16.0	48
North Carolina	19.1	18	32.1	22	25.6	29	17.2	25	9.3	18	11.4	14	12.4	23	24.4	30	19.9	28
North Dakota	15.3	41	33.1	14	27.6	22	18.3	19	7.7	35	9.0	43	10.3	45	24.2	33	20.0	27
Ohio	18.9	20	33.8	12	29.6	15	21.1	9	9.9	14	11.3	16	11.7	29	29.1	10	22.6	16
Oklahoma	21.6	9	36.5	3	32.4	6	20.1	13	11.1	8	12.7	10	13.0	17	27.7	15	23.7	8
Oregon	17.6	29	29.4	33	21.4	48	16.1	31	7.8	33	9.6	38	14.2	4	26.6	18	24.1	6
Pennsylvania	18.6	22	31.6	27	24.9	35	18.7	17	10.3	12	10.6	25	12.7	20	29.2	9	19.6	30
Puerto Rico	37.1	1	32.9	16	54.0	1	11.3	52	11.6	6	17.2	1	5.6	52	21.5	44	18.1	38
Rhode Island	17.2	31	30.0	31	26.3	25	14.9	39	8.0	30	8.9	44	13.3	14	27.4	16	23.1	12
South Carolina	19.3	16	34.1	11	28.4	19	18.8	16	10.0	13	13.4	7	13.1	16	28.2	12	20.5	26
South Dakota	14.3	48	31.9	24	24.9	36	19.3	15	9.2	19	11.1	18	11.3	38	22.2	42	17.4	42
Tennessee	21.3	11	32.8	17	30.6	13	22.6	5	11.6	5	13.1	8	13.3	13	30.2	7	22.9	14
Texas	20.8	12	33.0	15	32.1	7	15.7	34	7.8	32	11.9	12	9.5	48	21.4	45	16.7	46
Utah	13.6	51	25.2	49	21.1	49	8.9	53	6.0	52	7.1	53	11.6	33	19.3	51	22.6	15
Vermont	14.1	49	27.6	42	21.6	47	15.8	33	8.3	25	8.2	47	13.6	9	27.8	14	25.2	3
Virginia	16.4	34	30.0	30	25.9	26	16.4	29	8.5	21	10.5	27	11.6	31	25.0	25	19.0	32
Washington	16.0	37	27.7	41	19.2	53	13.5	48	7.6	40	9.1	40	12.3	24	24.0	35	23.2	11
West Virginia	25.9	2	38.1	1	31.6	10	26.0	2	14.4	1	15.2	2	13.9	7	39.2	1	26.0	1
Wisconsin	16.9	32	32.0	23	22.4	46	16.0	32	6.9	46	9.1	41	11.4	37	25.5	21	18.8	35
Wyoming	15.4	38	28.8	36	25.7	27	18.7	18	8.2	28	9.0	42	12.7	21	25.3	24	21.3	20
United States	18.6		30.1		26.9		16.3		8.5		10.9		11.5		24.5		19.1	

Source: Centers for Disease Control & Prevention, 2017 Behavioral Risk Factor Surveillance System data; West Virginia Department of Health and Human Services Health Statistics Center, 2017

Appendix B
2013-2017 WV Behavioral Risk Factors and Health Conditions by County

County	Fair or Poor Health			No Health Care Coverage (18-64)			Obesity			Obese or Overweight			Physical Inactivity			Meets PA Recommendations**		
	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.
Barbour	26.3	28	ns	17.3	6	ns	34.7	39	ns	67.6	45	ns	33.1	16	ns	42.0	41	ns
Berkeley	22.3	44	L	14.1	26	ns	36.4	34	ns	71.7	26	ns	28.5	39	ns	45.1	23	ns
Boone	37.3	3	H	11.4	43	ns	39.5	21	ns	75.1	13	ns	30.5	26	ns	42.3	39	ns
Braxton	23.6	39	ns	17.1	7	ns	31.2	50	ns	66.2	49	ns	33.2	15	ns	44.3	30	ns
Brooke	23.7	38	ns	14.2	25	ns	37.3	28	ns	70.6	35	ns	31.0	25	ns	48.5	11	ns
Cabell	21.1	50	L	15.5	15	ns	30.0	51	L	67.9	42	ns	28.8	37	ns	43.6	33	ns
Calhoun	31.9	11	ns	*7.4	53	L	29.1	52	ns	*57.6	54	L	24.9	48	ns	*37.0	50	ns
Clay	34.2	9	ns	13.1	30	ns	39.7	20	ns	78.6	3	H	33.6	13	ns	*36.2	54	ns
Doddridge	20.9	51	ns	*21.6	2	ns	*44.4	4	ns	*74.8	15	ns	*34.6	8	ns	*51.1	5	ns
Fayette	34.7	8	H	13.7	28	ns	40.6	14	ns	71.6	27	ns	34.5	9	ns	42.6	37	ns
Gilmer	*21.4	46	ns	*31.8	1	ns	*50.5	1	ns	*83.5	2	H	*29.3	32	ns	*49.1	7	ns
Grant	26.6	25	ns	*13.7	29	ns	40.4	15	ns	84.3	1	H	42.2	2	H	39.8	44	ns
Greenbrier	27.6	21	ns	15.5	16	ns	34.4	42	ns	70.7	34	ns	29.5	31	ns	47.4	13	ns
Hampshire	25.1	32	ns	10.2	49	ns	40.4	16	ns	72.2	23	ns	25.8	46	ns	49.0	9	ns
Hancock	24.5	33	ns	16.9	9	ns	40.7	13	ns	75.2	12	ns	31.4	22	ns	44.0	32	ns
Hardy	24.4	35	ns	*7.2	54	L	43.4	8	ns	76.2	7	ns	33.8	11	ns	42.9	35	ns
Harrison	24.3	36	ns	14.4	22	ns	34.2	43	ns	71.3	29	ns	30.3	29	ns	45.6	20	ns
Jackson	24.0	37	ns	10.8	46	ns	37.0	30	ns	67.8	44	ns	27.5	41	ns	45.7	19	ns
Jefferson	14.4	54	L	12.9	31	ns	32.5	45	ns	63.1	52	L	23.1	53	L	52	3	H
Kanawha	23.2	42	L	12.7	32	ns	36.8	32	ns	71.2	31	ns	29.1	35	ns	44.1	31	ns
Lewis	24.5	34	ns	15.2	17	ns	38.6	23	ns	72.2	22	ns	32.4	19	ns	44.5	29	ns
Lincoln	34.8	7	H	15.0	19	ns	43.3	9	ns	75.9	9	ns	31.7	21	ns	39.7	45	ns
Logan	35.1	6	H	16.5	10	ns	43.8	6	H	72.3	21	ns	38.5	5	H	37.0	51	L
Marion	23.3	41	ns	12.3	38	ns	47.7	47	L	66.5	48	ns	25.2	47	L	44.6	28	ns
Marshall	25.5	29	ns	11.6	42	ns	31.5	12	ns	75.0	14	ns	30.3	28	ns	45.2	22	ns
Mason	25.2	30	ns	8.2	52	ns	43.4	7	H	76.2	8	H	32.8	18	ns	37.7	49	ns
McDowell	42.2	1	H	17.1	8	L	47.7	2	H	73.4	19	ns	36.7	6	ns	41.5	42	ns
Mercer	30.2	14	H	16.5	11	ns	36.9	31	ns	73.7	17	ns	34.2	10	ns	42.8	36	ns
Mineral	21.3	47	ns	11.9	41	ns	35.4	36	ns	69.1	38	ns	29.6	30	ns	53.2	1	H
Mingo	37.9	2	H	14.3	23	ns	40.3	17	ns	75.6	10	ns	43.5	1	H	35.7	55	L
Monongalia	13.7	55	L	12.4	36	ns	27.5	55	L	60.0	53	L	22.4	55	L	48.9	10	ns
Monroe	26.9	24	ns	14.7	20	ns	28.0	54	L	56.4	55	L	26.4	44	ns	46.1	17	ns
Morgan	27.7	20	ns	12.2	40	ns	44.1	5	ns	75.6	11	ns	33.6	12	ns	46.0	18	ns
Nicholas	29.5	17	ns	17.6	5	ns	40.0	19	ns	72.6	20	ns	33.3	14	ns	36.6	52	L
Ohio	19.8	53	L	11.1	44	ns	31.4	49	ns	64.2	51	L	27.0	42	ns	46.6	16	ns
Pendleton	21.7	45	ns	*6.3	55	L	37.0	29	ns	*68.7	39	ns	29.2	34	ns	*46.7	14	ns
Pleasants	27.7	19	ns	*10	50	ns	*33.8	44	ns	*71.6	28	ns	23.2	52	ns	*40.2	43	ns
Pocahontas	21.1	49	ns	15.0	18	ns	28.8	53	ns	65.3	50	ns	23.3	51	ns	*49.0	8	ns
Preston	21.2	48	L	10.7	47	ns	35.2	37	ns	69.8	37	ns	31.3	23	ns	44.8	26	ns
Putnam	22.8	43	ns	9.3	51	L	37.5	27	ns	74.5	16	H	26.2	45	L	46.6	15	ns
Raleigh	30.3	13	H	12.6	33	ns	38.1	26	ns	71.9	25	ns	31.1	24	ns	42.4	38	ns
Randolph	26.3	27	ns	11.0	45	ns	34.6	40	ns	67.8	43	ns	30.4	27	ns	44.8	25	ns
Ritchie	28.3	18	ns	16.0	13	ns	46.4	3	ns	77.2	6	ns	35.2	7	ns	*39.2	46	ns
Roane	27.1	22	ns	14.6	21	ns	42.8	11	ns	73.7	18	ns	24.5	49	ns	47.6	12	ns
Summers	33.9	10	ns	12.4	35	ns	31.7	46	ns	70.1	36	ns	32.1	20	ns	44.9	24	ns
Taylor	27.0	23	ns	12.2	39	ns	38.6	24	ns	66.9	47	ns	29.3	33	ns	42.1	40	ns
Tucker	26.4	26	ns	*18.0	4	ns	*35.0	38	ns	77.3	5	ns	26.7	43	ns	*43.1	34	ns
Tyler	20.0	52	ns	*14.1	27	ns	31.4	48	ns	67.0	46	ns	27.9	40	ns	*51.5	4	ns
Upshur	25.1	31	ns	16.3	12	ns	38.4	25	ns	70.8	33	ns	22.8	54	L	52.8	2	H
Wayne	30.4	12	ns	10.3	48	ns	40.2	18	ns	72.1	24	ns	33.0	17	ns	38.5	47	L
Webster	35.6	5	ns	18.6	3	ns	*43.3	10	ns	78.6	4	ns	*39.9	4	ns	*49.4	6	ns
Wetzel	29.7	16	ns	12.4	34	ns	36.5	33	ns	68.0	41	ns	28.9	36	ns	37.9	48	ns
Wirt	*29.9	15	ns	*12.4	37	ns	*34.4	41	ns	*68.6	40	ns	23.5	50	ns	*44.8	27	ns
Wood	23.5	40	ns	14.2	24	ns	36.4	35	ns	71.3	30	ns	28.7	38	ns	45.5	21	ns
Wyoming	36.2	4	H	15.6	14	ns	39.3	22	ns	70.9	32	ns	40.7	3	H	36.3	53	L
West Virginia	25.9			13.5			36.4			70.4			30.2			44.3		

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, 2017.
 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.
 ** This question was asked 2009-2017 (odd years)

Appendix B, continued
2013-2017 WV Behavioral Risk Factors and Health Conditions by County

County	< 5 Servings of Fruits & Vegetables**			Current Smoking			Smokeless Tobacco Use			Binge Drinking			Hypertension**			High Cholesterol**		
	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.
Barbour	87.6	41	ns	31.6	2	ns	9.9	31	ns	7.5	41	ns	44.7	15	ns	45.6	13	ns
Berkeley	89.2	29	ns	27.9	21	ns	5.0	54	L	12.7	12	ns	33.9	51	L	36.8	47	ns
Boone	91.5	13	ns	30.6	7	ns	13.2	9	ns	9.7	29	ns	43.4	17	ns	40.9	26	ns
Braxton	87.8	39	ns	21.5	50	ns	15.5	5	H	6.3	50	L	37.4	46	ns	40.0	30	ns
Brooke	90.5	19	ns	25.4	37	ns	9.4	37	ns	18.2	2	H	40.2	33	ns	38.3	40	ns
Cabell	89.5	26	ns	29.5	11	ns	5.6	50	L	12.1	15	ns	38.1	42	ns	38.5	38	ns
Calhoun	83.2	54	ns	29.5	9	ns	11.8	17	ns	11.2	20	ns	*41.2	29	ns	*39.2	33	ns
Clay	94.1	4	H	27.3	27	ns	12.9	12	ns	*5.9	52	ns	47.2	6	ns	*53.3	2	H
Doddridge	86.3	51	ns	*31.5	3	ns	*13.0	10	ns	*14.6	8	ns	31.8	53	ns	*33.6	52	ns
Fayette	89.4	27	ns	29.3	12	ns	9.7	35	ns	8.9	32	ns	43.3	18	ns	38.7	36	ns
Gilmer	97.4	2	H	*25.9	33	ns	*14.8	6	ns	*7.2	44	ns	*45.4	10	ns	*42.5	20	ns
Grant	87.9	37	ns	15.6	53	L	17.0	3	H	*5.4	54	L	46.1	9	ns	47.0	10	ns
Greenbrier	88.3	35	ns	27.8	22	ns	9.7	34	ns	10.3	27	ns	43.3	19	ns	38.4	39	ns
Hampshire	87.0	47	ns	26.8	29	ns	10.1	30	ns	12.6	13	ns	38.7	38	ns	39.1	34	ns
Hancock	88.3	34	ns	29.1	13	ns	5.4	53	L	11.1	21	ns	37.8	45	ns	34.8	50	ns
Hardy	86.6	50	ns	21.9	48	ns	11.0	23	ns	9.6	30	ns	37.1	49	ns	33.9	51	ns
Harrison	90.0	22	ns	26.2	31	ns	10.6	25	ns	11.0	22	ns	38.2	41	ns	39.3	31	ns
Jackson	87.4	45	ns	24.8	40	ns	8.9	40	ns	7.9	38	ns	42.9	22	ns	43.0	19	ns
Jefferson	86.2	52	ns	23.2	43	ns	5.5	52	L	17.1	3	H	30.7	54	L	37.4	43	ns
Kanawha	90.1	20	ns	25.1	39	ns	6.3	46	L	12.4	14	ns	39.9	34	ns	41.0	24	ns
Lewis	88.1	36	ns	28.4	18	ns	11.4	20	ns	7.0	45	L	44.9	13	ns	46.1	12	ns
Lincoln	93.5	5	H	27.5	24	ns	18.7	1	H	11.4	18	ns	46.9	7	ns	41.6	22	ns
Logan	90.9	17	ns	29.5	10	ns	12.4	15	ns	6.1	51	L	48.3	3	H	44.4	14	ns
Marion	89.6	25	ns	28.5	17	ns	10.3	26	ns	13.5	43	ns	37.4	47	ns	37.5	42	ns
Marshall	85.4	53	ns	23.1	44	ns	9.4	36	ns	14.8	9	ns	38.4	39	ns	46.9	11	H
Mason	92.8	8	H	28.3	19	ns	7.6	44	ns	6.6	7	ns	46.4	8	ns	41.0	25	ns
McDowell	87.0	48	ns	31.3	4	ns	8.3	43	ns	7.3	46	L	42.8	23	ns	43.4	16	ns
Mercer	92.0	11	ns	27.4	25	ns	9.1	38	ns	8.6	33	ns	42.0	28	ns	40.7	27	ns
Mineral	87.6	42	ns	25.6	35	ns	10.2	28	ns	15.1	6	ns	42.2	26	ns	37.0	45	ns
Mingo	93.3	6	H	32.6	1	H	11.6	18	ns	*3.4	55	L	47.2	5	H	51.5	3	H
Monongalia	89.4	28	ns	19.1	52	L	5.6	51	L	25.3	1	H	26.1	55	L	27.5	55	L
Monroe	89.0	31	ns	24.2	41	ns	12.9	11	ns	*6.5	48	ns	40.9	30	ns	50.7	5	H
Morgan	92.9	7	ns	22.4	46	ns	10.1	29	ns	7.5	40	ns	40.4	32	ns	39.3	32	ns
Nicholas	89.9	24	ns	27.3	26	ns	11.3	21	ns	11.5	17	ns	47.2	4	H	38.7	35	ns
Ohio	91.3	14	ns	28.1	20	ns	*4.6	55	L	15.3	5	ns	32.0	52	L	38.0	41	ns
Pendleton	87.2	46	ns	14.2	54	L	*10.6	24	ns	*16.6	4	ns	37.8	44	ns	*48.6	7	ns
Pleasants	92.5	9	ns	*23.3	42	ns	*12.8	13	ns	*7.9	37	ns	39.4	35	ns	*35.9	49	ns
Pocahontas	87.5	44	ns	19.4	51	ns	*6.1	47	ns	*8.2	35	ns	36.9	50	ns	*40.4	28	ns
Preston	88.4	33	ns	25.8	34	ns	9.8	32	ns	12.0	16	ns	39.4	36	ns	38.5	37	ns
Putnam	87.8	40	ns	21.5	49	L	8.5	42	ns	11.2	19	ns	42.9	21	ns	41.1	23	ns
Raleigh	91.3	15	ns	29.0	14	ns	9.7	33	ns	7.8	39	L	42.2	25	ns	43.9	15	ns
Randolph	87.6	43	ns	28.7	16	ns	11.2	22	ns	9.9	28	ns	37.3	48	ns	37.3	44	ns
Ritchie	88.9	32	ns	25.5	36	ns	*12.7	14	ns	*6.5	49	ns	48.7	1	ns	*36.6	48	ns
Roane	87.9	38	ns	26.2	32	ns	13.6	8	ns	7.9	36	ns	43.0	20	ns	43.3	17	ns
Summers	90.1	21	ns	26.3	30	ns	9.1	39	ns	10.6	24	ns	44.8	14	ns	48.8	6	ns
Taylor	89.1	30	ns	25.2	38	ns	5.9	49	ns	7.5	42	ns	42.2	27	ns	32.1	53	L
Tucker	*78.2	55	ns	22.1	47	ns	*5.9	48	ns	*9.4	31	ns	38.3	40	ns	28.8	54	L
Tyler	92.4	10	ns	22.6	45	ns	*10.3	27	ns	12.8	11	ns	38.1	43	ns	*47.6	9	ns
Upshur	86.7	49	ns	27.1	28	ns	11.4	19	ns	10.6	25	ns	40.8	31	ns	41.9	21	ns
Wayne	90.9	16	ns	27.8	23	ns	8.6	41	ns	8.3	34	ns	45.1	12	ns	36.8	46	ns
Webster	94.6	3	H	30.2	8	ns	*17.4	2	ns	*6.5	47	ns	45.3	11	ns	*51.0	4	ns
Wetzel	91.8	12	ns	30.8	6	ns	12.3	16	ns	10.9	23	ns	48.5	2	ns	43.3	18	ns
Wirt	98.1	1	H	14.0	55	L	*14.8	7	ns	*13.0	10	ns	42.6	24	ns	*55.2	1	ns
Wood	90.0	23	ns	28.8	15	ns	6.9	45	ns	10.3	26	ns	38.9	37	ns	40.1	29	ns
Wyoming	90.5	18	ns	31.1	5	ns	15.5	4	H	*5.5	53	L	44.7	16	ns	48.6	8	H
West Virginia	89.6			26.1			8.9			10.8			40.4			40.1		

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, 2017.
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.
** This question was asked 2009-2017 (odd years).

Appendix B, continued
2013-2017 WV Behavioral Risk Factors and Health Conditions by County

County	Cardiovascular Disease			Diabetes			Cancer			Current Asthma			COPD			Arthritis			Depression		
	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.
Barbour	15.6	19	ns	16.6	13	ns	15.2	11	ns	12.4	18	ns	15.6	14	ns	42.5	18	ns	28.0	11	ns
Berkeley	11.1	46	L	10.8	49	L	9.5	51	L	13.0	12	ns	11.1	40	ns	32.9	48	L	22.1	32	ns
Boone	17.2	9	ns	17.7	7	ns	15.9	9	ns	10.2	32	ns	17.5	7	ns	44.5	9	ns	29.1	6	ns
Braxton	12.4	32	ns	13.4	34	ns	14.0	21	ns	12.9	13	ns	13.7	23	ns	46.8	4	H	22.1	33	ns
Brooke	16.8	10	ns	17.2	8	ns	13.1	29	ns	12.0	21	ns	13.4	25	ns	39.4	29	ns	23.4	26	ns
Cabell	12.1	36	ns	12.4	40	ns	12.0	39	ns	12.5	16	ns	12.7	31	ns	32.4	50	L	23.5	24	ns
Calhoun	11.8	39	ns	10.1	53	ns	18.8	2	ns	17.0	1	ns	11.4	39	ns	38.2	34	ns	21.5	35	ns
Clay	15.9	16	ns	16.0	16	ns	9.8	49	ns	6.0	53	L	10.1	45	ns	42.9	15	ns	26.0	18	ns
Doddridge	*8.1	54	L	*14.0	29	ns	10.2	48	ns	*11.4	23	ns	*14.5	16	ns	*40.8	24	ns	17.2	50	ns
Fayette	15.7	18	ns	16.7	11	ns	16.0	8	ns	14.6	5	ns	19.1	4	H	43.7	10	H	29.3	5	H
Gilmer	*12.1	37	ns	*17.9	6	ns	9.8	50	ns	*5.0	54	L	*7.5	51	L	*33.0	47	ns	11.4	54	L
Grant	19.2	4	ns	19.9	3	ns	20.4	1	ns	10.1	33	ns	11.4	38	ns	42.2	19	ns	13.9	53	L
Greenbrier	14.7	23	ns	13.8	32	ns	15.1	12	ns	7.9	47	L	16.6	9	ns	41.0	23	ns	20.7	39	ns
Hampshire	13.7	25	ns	12.3	42	ns	11.1	46	ns	7.4	50	L	12.5	33	ns	38.1	36	ns	20.3	41	ns
Hancock	11.5	41	ns	15.9	17	ns	11.8	41	ns	6.6	51	L	8.3	50	L	35.3	43	ns	21.1	38	ns
Hardy	12.1	35	ns	13.9	30	ns	9.5	52	ns	12.5	17	ns	10.9	42	ns	29.5	52	L	16.3	51	L
Harrison	11.1	45	L	15.8	20	ns	14.8	13	ns	13.4	10	ns	13.7	22	ns	38.6	33	ns	22.9	30	ns
Jackson	12.9	30	ns	12.8	37	ns	12.6	34	ns	7.9	48	L	13.2	27	ns	37.9	37	ns	20.5	40	ns
Jefferson	10.1	49	L	9.5	54	L	9.2	54	L	8.4	46	ns	7.0	53	L	23.1	54	L	18.0	47	L
Kanawha	13.9	24	ns	15.8	19	ns	13.4	26	ns	9.2	42	L	11.5	37	L	37.4	38	ns	25.6	19	ns
Lewis	12.7	31	ns	17.0	9	ns	16.3	6	ns	11.9	22	ns	11.0	41	ns	38.1	35	ns	18.4	46	ns
Lincoln	18.1	6	ns	18.5	5	ns	16.4	5	ns	16.1	3	ns	17.7	5	ns	46.0	5	H	30.8	2	H
Logan	19.0	5	H	20.6	2	H	11.5	44	ns	14.2	7	ns	19.7	3	H	48.2	2	H	29.6	4	H
Marion	11.2	43	L	10.3	52	L	12.9	32	ns	9.9	34	ns	10.6	44	ns	32.7	49	L	23.1	28	ns
Marshall	13.3	29	ns	13.8	31	ns	15.5	10	ns	11.4	24	ns	13.2	28	ns	41.0	21	ns	28.3	9	ns
Mason	13.3	27	ns	13.5	33	ns	11.9	40	ns	8.8	44	ns	17.1	8	ns	44.7	8	ns	17.9	49	L
McDowell	19.3	3	ns	20.8	1	H	13.0	30	ns	14.6	6	ns	19.9	2	H	47.2	3	H	27.2	13	ns
Mercer	16.5	14	ns	12.8	38	ns	13.5	25	ns	14.2	8	H	16.1	10	ns	41.4	20	ns	25.6	20	ns
Mineral	10.9	47	ns	11.3	46	ns	13.7	23	ns	9.4	39	ns	9.9	47	ns	33.2	46	ns	20.1	43	ns
Mingo	22.1	1	H	16.6	12	ns	12.4	35	ns	15.9	4	ns	23.2	1	H	43.2	11	ns	27.9	12	ns
Monongalia	7.7	55	L	8.7	55	L	9.4	53	L	8.7	45	L	7.3	52	L	21.5	55	L	19.9	44	L
Monroe	16.5	13	ns	16.0	15	ns	12.7	33	ns	9.8	37	ns	11.5	36	ns	39.3	30	ns	24.0	23	ns
Morgan	16.8	11	ns	16.6	14	ns	16.2	7	ns	9.8	36	ns	12.1	34	ns	34.4	44	ns	26.9	14	ns
Nicholas	15.2	21	ns	13.0	35	ns	14.6	15	ns	10.5	28	ns	15.6	13	ns	43.1	13	ns	28.6	7	ns
Ohio	11.6	40	ns	11.3	47	ns	10.5	47	L	13.1	11	ns	10.7	43	ns	31.9	51	L	19.7	45	ns
Pendleton	8.4	53	L	14.5	24	ns	14.1	20	ns	*6.4	52	ns	*4.6	55	L	37.2	39	ns	16.3	52	L
Pleasants	9.8	50	ns	11.8	45	ns	12.3	38	ns	*10.7	26	ns	*5.4	54	L	*40.2	26	ns	10.9	55	L
Pocahontas	11.5	42	ns	15.2	22	ns	11.7	42	ns	12.5	15	ns	14.1	20	ns	36.2	42	ns	23.3	27	ns
Preston	11.2	44	ns	12.4	39	ns	11.6	43	ns	12.7	14	ns	9.0	49	L	34.2	45	ns	20.2	42	ns
Putnam	12.0	38	ns	10.7	50	L	14.3	19	ns	9.7	38	ns	10.0	46	L	36.2	41	ns	24.3	22	ns
Raleigh	14.9	22	ns	14.1	28	ns	14.6	17	ns	12.3	19	ns	15.4	15	ns	42.6	17	H	26.6	16	ns
Randolph	13.3	28	ns	11.9	44	ns	14.7	14	ns	12.1	20	ns	12.0	35	ns	38.6	32	ns	23.4	25	ns
Ritchie	12.2	33	ns	15.9	18	ns	11.4	45	ns	*9.4	40	ns	13.2	29	ns	41.0	22	ns	24.8	21	ns
Roane	16.7	12	ns	15.0	23	ns	12.4	36	ns	7.7	49	ns	13.9	21	ns	39.0	31	ns	23.0	29	ns
Summers	16.3	15	ns	14.5	26	ns	17.9	3	ns	9.0	43	ns	14.4	17	ns	43.2	12	ns	28.5	8	ns
Taylor	10.6	48	ns	12.4	41	ns	14.6	18	ns	10.3	31	ns	12.7	32	ns	42.7	16	ns	21.2	37	ns
Tucker	9.2	51	ns	11.0	48	ns	13.6	24	ns	9.2	41	ns	13.7	24	ns	29.1	53	L	17.9	48	ns
Tyler	8.5	52	L	10.4	51	ns	12.3	37	ns	*4.4	55	L	13.4	26	ns	40.4	25	ns	21.5	36	ns
Upshur	12.1	34	ns	12.1	43	ns	17.2	4	ns	9.9	35	ns	9.1	48	L	37.2	40	ns	22.8	31	ns
Wayne	15.4	20	ns	19.4	4	H	13.7	22	ns	14.1	9	ns	15.9	12	ns	39.7	28	ns	26.6	15	ns
Webster	15.8	17	ns	17.0	10	ns	13.2	28	ns	*16.2	2	ns	17.6	6	ns	*50.7	1	H	*36.1	1	H
Wetzel	17.5	8	ns	14.5	25	ns	12.9	31	ns	10.7	27	ns	12.7	30	ns	45.6	6	ns	28.2	10	ns
Wirt	*20.8	2	ns	13.0	36	ns	8.9	55	ns	*11.2	25	ns	*14.1	18	ns	*43.1	14	ns	*21.6	34	ns
Wood	13.5	26	ns	15.4	21	ns	13.4	27	ns	10.5	29	ns	14.1	19	ns	39.8	27	ns	26.2	17	ns
Wyoming	18.0	7	ns	14.4	27	ns	14.6	16	ns	10.3	30	ns	16.1	11	ns	45.5	7	H	30.8	3	H
West Virginia	14.2			14.4			13.7			10.8			11.1			38.4			23.7		

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, 2017.
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.