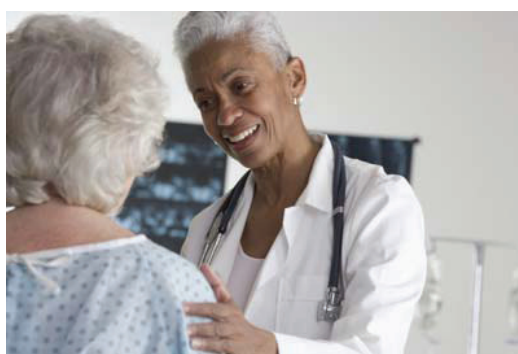


West Virginia Behavioral Risk Factor Surveillance System Report



2011



*Bureau for Public Health
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Charleston, WV 25301*

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

WEST VIRGINIA
BEHAVIORAL RISK FACTOR
SURVEILLANCE SYSTEM REPORT
2011

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EXECUTIVE SUMMARY

INTRODUCTION

Each year since 1984, the West Virginia Behavioral Risk Factor Surveillance System has measured a range of risk factors that can affect our health. This report presents state survey results for the year 2011 as well as county data combined for the latest available five years (typically 2007 through 2011).

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 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 reporting the general health of adults as either “fair” or “poor.”
- Over one-fourth of West Virginia adults (25.1%) consider their health to be either “fair” or “poor.”
- “Fair” or “poor” health is most common among groups of adults who are the oldest, have the lowest educational attainment, and have the lowest household income.
- Approximately 17.6% reported poor physical health for at least 14 days in the past 30 days and 15.3% reported poor mental health at least 14 days in the past 30 days.

Health Care Access

- About one-fourth of West Virginia adults age 18 to 64 have no health care coverage (25.0%).
- Among adults of all ages, slightly less than one-fifth needed medical care within the past 12 months and could not afford it (19.8%).
- More than one-fifth of all adults also do not have a specific personal doctor or health care provider (23.9%).
- One-fourth of West Virginia adults did not have a routine checkup in the past year (25.1%).

Physical Inactivity

- Over one-third of West Virginia adults (35.1%) participate in no leisure-time physical activity or exercise.
- The prevalence of physical inactivity was significantly higher among women than men.
- Approximately 57.0% did not meet aerobic exercise recommendations and 79.8% did not meet muscle strengthening recommendations.

Nutrition

- Nine out of every 10 adults (91.7%) consume fewer than the recommended five servings of fruits and vegetables each day which ranked West Virginia highest in the nation.
- The highest prevalence was found among those with less education and lower income.

Obesity and Overweight

- The obese proportion of the adult population was 32.4%, 3rd highest nationally.
- Approximately two-thirds (68.9%) of West Virginia adults were either obese or overweight.
- Only 22.4% had been advised by a health care professional to lose weight.

Tobacco Use

- More than one-fourth of adults (28.6%) smoke every day or some days which ranked West Virginia the 2nd highest nationally.
- Approximately 53.0% of smokers had tried to quit smoking in the past year.
- West Virginia ranked the 4th highest in smokeless tobacco use in the nation (7.5%).

Hypertension

- West Virginia ranked the 6th highest nationally in the prevalence of hypertension (high blood pressure).
- More than a third of the state's adults (37.0%) have been diagnosed with high blood pressure.
- The prevalence of high blood pressure increased steeply and significantly with increasing age, as would be expected, with 60.8% of West Virginia seniors having hypertension.
- Approximately 84.3% of adults with hypertension currently take medication, the highest in the nation.

Cholesterol

- Approximately 83.3% of West Virginia adults have had their cholesterol level checked.
- About 40.5% of adults had high cholesterol.
- Similar to hypertension, high cholesterol is more prevalent among older adults and those with low levels of educational attainment and low annual household income.

Alcohol Consumption

- The prevalence of binge drinking was 10.1%, the 2nd lowest in the nation.
- The heavy drinking prevalence was 3.9%, the 2nd lowest in the nation.
- In West Virginia, 68.2% of adults did not drink at all in the past month, compared with 44.9% nationally.

Seat Belt Use

- Approximately 82.5% of West Virginia adults always wear a seat belt when they drive or ride in a car.
- Women have a significantly higher prevalence of seat belt use than men.

Immunization

- About half of all adults (55.3%) and 31.5% of seniors had not had a flu immunization in the past 12 months.
- About 68.7% of all adults and 35.6% of seniors never had a pneumonia shot.

Cardiovascular Disease

- West Virginia ranked the 2nd highest in the nation in the prevalence of heart attack among adults at 6.2%.
- West Virginia also ranked highest in the prevalence of angina or coronary heart disease among adults (6.7%).
- For the prevalence of stroke among adults, West Virginia ranked 5th highest nationally (3.8%).
- The overall cardiovascular disease prevalence was highest in the nation at 12.3%.

Diabetes

- Approximately 7.6% of West Virginia adults had borderline or pre-diabetes.
- More than 1 in 10 West Virginia adults had diabetes (12.0%) and ranked West Virginia 4th highest nationally.
- The prevalence of diabetes was highest among those aged 65 and older, those with less than a high school education, and those with the lowest income.
- Among those with diabetes, 81.0% had 2 or more doctor visits in the past year, 67.5% check their glucose daily, and 43.6% have taken a diabetes education class.
- Among those with diabetes, 20.0% have retinopathy or diabetes associated eye problems.

Cancer

- Approximately 6.3% of West Virginia adults had skin cancer and 7.8% had some other type of cancer.
- About 1 in 10 West Virginia adults are cancer survivors (12.7%).
- Cancer prevalence is significantly higher among females than males.
- About one-fifth of WV seniors had cancer during their lives (27.7%).

Asthma

- Approximately 12.0% of West Virginia adults had ever been diagnosed with asthma.
- About 9.2% of West Virginia adults currently had asthma.
- Women had significantly higher prevalence of both lifetime and current asthma than men.
- The prevalence of current asthma was highest among those without a high school diploma and those with an annual household income of less than \$15,000.

Chronic Obstructive Pulmonary Disease

- The prevalence of chronic obstructive pulmonary disease or COPD in West Virginia was 8.8%, the 4th highest in the nation.
- Approximately 20.8% of those with COPD were admitted to the hospital or visited the ER because of their COPD.
- About 44.2% of those with COPD saw a doctor in the past year due to a flare up of their COPD symptoms.
- Among those with COPD, 75.6% say the COPD affects quality of life.

Arthritis

- More than 1 in 3 WV adults have arthritis (35.9%) which ranked West Virginia highest in the nation.
- Approximately 56.5% of those with arthritis reported that they were limited due to arthritis.
- Among those with arthritis, 46.1% reported that arthritis affected their work and 27.7% reported it affected their social activities.

Disability

- West Virginia had the highest disability prevalence nationwide.
- Nearly one-third of adults were disabled because of a physical, mental, or emotional problem (31.4%).
- About 11.2% of West Virginia adults use special equipment such as a cane, a wheelchair, a special bed, or a special telephone, which ranks West Virginia the 2nd highest in the nation.

Kidney Disease

- The prevalence of kidney disease in West Virginia was 2.8%.
- Kidney disease prevalence was highest among seniors, those with low educational attainment, and those with low annual household income.

Vision Impairment

- Approximately 19.0% of West Virginia adults had vision impairment which is defined as vision problems in one or both eyes even when wearing glasses.
- The prevalence of vision impairment was highest among adults 65 and older, those with low educational attainment, and those with low annual household income.

Depression

- About 20.1% of West Virginia adults had depression which was significantly higher than the U.S. prevalence of 16.8%.
- The prevalence of depression was significantly higher among women than men.

Cognitive Impairment

- The prevalence of cognitive impairment, defined as confusion or memory loss that is happening more often or is getting worse, was 7.2% in West Virginia.
- Among those with cognitive impairment, 39.4% discussed it with their doctor.
- Among those with cognitive impairment, 48.5% are getting treatment in the form of therapy or medication.
- Among those with cognitive impairment, 21.9% gave up household activities and 27.4% reported it interfered with work or social activities in the past year.
- Among those with cognitive impairment, 11.7% had been diagnosed with Alzheimer's Disease and 16.8% had been diagnosed with dementia.

HIV Testing

- More than one-fourth of adults in West Virginia have been tested for HIV (27.6%).
- The prevalence of HIV testing was highest among those aged 25-34.
- Approximately 2.3% of West Virginia adults are at high risk of contracting HIV based on their behavior.

End of Life Care

- Almost two-thirds of West Virginia adults (65.6%) do not have a living will or a medical power of attorney.
- While 83.5% reported that it was important to talk to family and their doctor about end of life care, 64.6% have discussed the topic with their family and only 15.7% have discussed it with their doctor.

Comorbidities

- About 1 in 4 West Virginia adults (20.4%) were both disabled and had arthritis.
- Approximately 16.9% of adults were obese and had hypertension.
- About 1 in 8 West Virginia adults (12.9%) were obese and did not exercise.
- Approximately 9.7% of adults were current smokers and had no health care coverage.
- Seven percent of West Virginia adults were obese and had diabetes.
- Only 3.8% of West Virginia adults had both cardiovascular disease and diabetes.

ESTIMATED NUMBER OF PERSONS AT RISK

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

Table ES.1 Percentage and number of persons estimated at risk due to selected risk factors (among adults aged 18 and older or appropriate subset): WVBRFSS 2011

Risk Factor	Year	Percentage Estimated at Risk ^a	Number Estimated at Risk ^a
Self-rated general health is fair or poor	2011	25.1	365,501
No health care coverage, ages 18-64	2011	25.0	287,057
Unable to afford needed medical care	2011	19.8	289,257
No personal doctor or health care provider	2011	23.9	349,070
No routine medical checkup in past year	2011	25.1	364,125
No leisure-time exercise	2011	35.1	508,801
Fewer than 5 servings of fruit/vegetables per day	2011	91.7	1,240,143
Obesity (BMI 30.0+)	2011	32.4	446,036
Overweight (BMI 25.0-29.9)	2011	36.5	502,639
Current cigarette smoking	2011	28.6	417,107
Smokeless tobacco use	2011	7.5	109,819
High blood pressure	2011	37.0	540,201
High cholesterol (among those ever checked)	2011	40.5	472,181
Binge drinking	2011	10.1	144,489
Heavy drinking	2011	3.9	56,196
No flu vaccination in past year	2011	55.3	796,845
Never had a pneumonia vaccination (ages 65 and older)	2011	35.6	105,527
Have had a heart attack	2011	6.2	90,196
Have angina or coronary heart disease	2011	6.7	96,716
Have had a stroke	2011	3.8	56,202
Have any form of cardiovascular disease	2011	12.3	178,335
Diabetes	2011	12.0	175,416
Cancer	2011	12.7	185,224
Lifetime asthma	2011	12.0	174,266
Current asthma	2011	9.2	133,552
Chronic obstructive pulmonary disease (COPD)	2011	8.8	128,952
Arthritis	2011	35.9	522,533
Disability	2011	31.4	453,892
Kidney disease	2011	2.8	41,513
Vision impairment	2011	19.0	277,760
Depression	2011	20.1	293,382
Cognitive impairment	2011	7.2	102,286
At high risk for developing HIV	2011	2.3	33,070
Do not have a living will nor a medical power of attorney	2011	65.6	926,989

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

DEFINITIONS OF COMMON TERMS

Risk Factor

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

Prevalence

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

Confidence Intervals

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

Significant

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

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INTRODUCTION

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

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

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

Twenty-one reports have been published by the WVBPH presenting survey results of the state's participation in the BRFSS since 1984. This report focuses on the 2011 risk factor prevalence estimates and compares them to the years 1984 through 2011. 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.

Table I.1 Topics administered in the survey: WVBRESS, 2002-2011

Topic	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Seatbelt use	x						x		x	x
Hypertension	x	x		x		x		x		x
Cholesterol	x	x		x		x		x		x
Leisure-time physical activity	x	x	x	x	x	x	x	x	x	x
Obesity	x	x	x	x	x	x	x	x	x	x
Cigarette use	x	x	x	x	x	x	x	x	x	x
Smokeless tobacco use	x	x	x				x		x	x
Alcohol consumption	x	x	x	x	x	x	x	x	x	x
Weight control		x						x		x
Fruits & vegetables	x	x		x		x		x		x
Diabetes	x	x	x	x	x	x	x	x	x	x
Routine checkup				x	x	x	x	x	x	x
Breast cancer screening	x		x		x		x		x	
Cervical cancer screening	x		x		x		x		x	
Prostate cancer screening	x		x		x		x		x	
Excess sun exposure	x	x	x							
AIDS/HIV	x	x	x	x	x	x	x	x	x	x
Cancer survivors								x	x	x
Immunization	x	x	x	x	x	x	x	x	x	x
Health insurance	x	x	x	x	x	x	x	x	x	x
Health status	x	x	x	x	x	x	x	x	x	x
Colorectal cancer screening	x		x		x		x		x	
Oral health	x		x		x		x		x	
Emotional support/Life satisfaction				x	x	x	x	x	x	
Firearm ownership	x		x							
Asthma	x	x	x	x	x	x	x	x	x	x
Sleep								x	x	
Disability		x	x	x	x	x	x	x	x	x
Cardiovascular disease	x	x	x	x	x	x	x	x	x	x
Veteran status			x	x	x	x	x	x	x	x
Osteoporosis			x				x			
Arthritis		x	x	x		x		x	x	x
Intimate partner violence					x	x				
Visual impairment and access to eye care						x				
Sexual violence							x			
Falls							x		x	
Drinking and driving							x		x	
HPV vaccine							x		x	

METHODOLOGY

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

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

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

SAMPLE SELECTION

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

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

DEMOGRAPHIC CHARACTERISTICS OF THE WV BRFS SAMPLE

The demographic characteristics of the samples in 2011, both unweighted and weighted to the WV 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, 2011

Demographic Characteristic	Number of Interviews	Percent of Unweighted Sample	Percent of Weighted Sample
Total	5,282	100.0	100.0
<u>Sex</u>			
Male	2,072	39.2	48.5
Female	3,210	60.8	51.5
<u>Race/Ethnicity</u>			
White, Non-Hispanic	4,952	94.0	94.0
Black, Non-Hispanic	135	2.6	3.4
Other	182	3.4	2.6
<u>Age</u>			
18-24	256	4.9	11.9
25-34	545	10.4	15.5
35-44	675	12.9	16.0
45-54	969	18.5	18.3
55-64	1,204	23.0	17.2
65+	1,597	30.4	20.9
<u>Education</u>			
< High School	754	14.3	17.9
HS or GED	2,132	40.4	40.5
Some College	1,292	24.5	25.4
College Degree	1,094	20.8	16.1
<u>Household Income</u>			
<\$15,000	682	15.4	14.6
\$15,000-\$24,999	1,012	22.9	22.5
\$25,000-\$34,999	785	17.7	17.0
\$35,000-\$49,999	701	15.9	16.0
\$50,000-\$74,999	566	12.8	13.7
\$75,000+	678	15.3	16.2
<u>Marital Status</u>			
Married	2,808	53.3	53.4
Divorced	877	16.6	12.5
Widowed	779	14.8	8.7
Separated	100	1.9	1.7
Never Married	610	11.6	20.2
Unmarried Couple	97	1.8	3.6
<u>Employment Status</u>			
Employed for wages	2,108	40.0	45.8
Self-Employed	229	4.3	4.5
Unemployed (>1 year)	117	2.2	2.8
Unemployed (<1 year)	119	2.3	3.1
Homemaker	467	8.9	8.6
Student	83	1.6	3.3
Retired	1,444	27.4	19.3
Unable to Work	707	13.4	12.5

LIMITATIONS

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

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

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

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

ESTIMATES, CONFIDENCE INTERVALS, SIGNIFICANCE, AND RELIABILITY

The prevalence rates presented in this report are derived from surveying a sample of adults rather than all adults in the population; therefore, the rates are estimates of the true values. For this reason, estimates are presented together with their associated confidence intervals. 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)¹. Therefore, we can be 95% confident that the confidence interval contains the true value that we are estimating.

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 (CIs) associated with each of the estimates do not overlap.

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

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

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

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

WEIGHTING OF 2011 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 WV population, using a method known as post-stratification. For 2011 and future years, BRFSS weights will be calculated using a method known as iterative proportional fitting or raking. This weighting method takes into account additional demographic factors allowing for a better fit to West Virginia's socio-demographic profile. The additional factors used in the raking method include age group by sex, detailed race/ethnicity, education, marital status, tenure (rent or own home), gender by race/ethnicity, age group by race/ethnicity, and telephone sample source (landline or cell phone). Due to the addition of cell phone data and the new weighting methodology, 2011 results are not comparable to previous years. 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 to 2011 data. Any changes between 2011 and previous years' data cannot be directly interpreted due to unknown comparability ratios.

COUNTY-LEVEL DATA

County prevalence rates were calculated by using five (5) years of aggregated BRFSS data. The data were reweighted to be representative of the Census 2010 age and sex population distribution by county. In previous years, some counties were grouped due to small sample sizes. For the first time ever, 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, education, and income) show the percentages of persons **within the group** – not in the total survey sample – who report the behavior being examined. This method of presenting risk factor prevalence facilitates identification of at-risk populations for health promotion efforts. Each table shows the number of respondents (# Resp.) who answered the question, the weighted prevalence estimate (%), and the 95% confidence interval for the prevalence (95% CI).

Prevalence estimates were calculated by excluding unknown and/or refused responses from the denominators. Consequently, estimates may be slightly higher than would have been the case had the

unknown/refused responses been included. In editions of this report before 2003, many estimates representing the years 1984 through 1996 were calculated by including unknown responses. In the present report, all such rates have been re-calculated to exclude unknown responses. Therefore, discrepancies may exist between the time trends and 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 hypertension-related questions were administered by all 52 BRFSS participants, ranking 1st in hypertension would mean having the highest prevalence of hypertension while ranking 52nd 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 Health Statistics Center staff. State and county prevalence estimates and rankings for many risk factors are presented in Appendices A and B.

CHAPTER 1: HEALTH STATUS

General Health

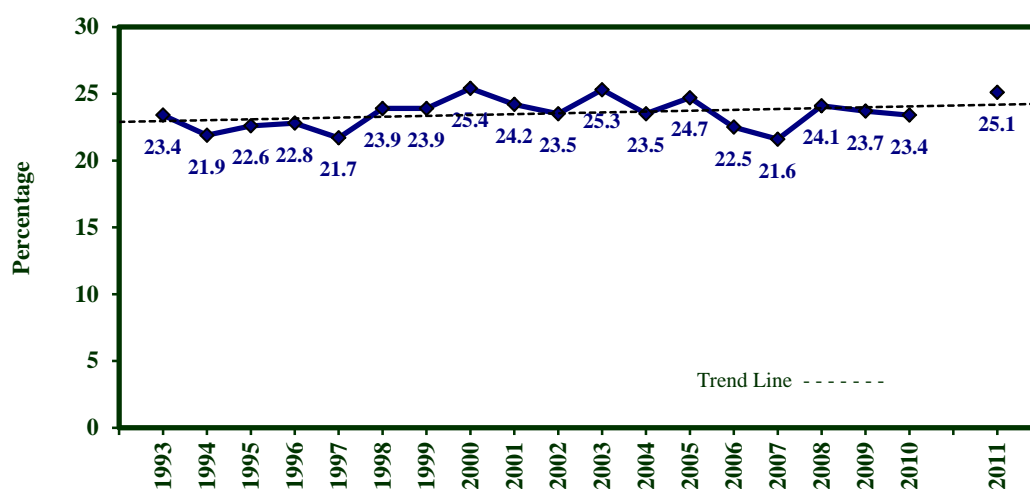
Definition	Responding “Fair” or “Poor” to the question “Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?”
Prevalence	WV: 25.1% (95% CI: 23.7-26.5) U.S.: 18.2% (95% CI: 17.9-18.4) West Virginia’s prevalence was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 52 BRFSS participants.
Gender	Men: 24.0% (95% CI: 21.9-26.1) Women: 26.1% (95% CI: 24.3-27.9) There was no gender difference in the prevalence of fair or poor general health status.
Age	Reports of fair or poor health increased significantly with age. The prevalence ranged from a low of 11.1% among the youngest adults to a high of 34.7% among the oldest.
Education	Adults with less than a high school education had the highest prevalence of fair or poor health, with a prevalence of nearly 45%. Those with more education had a much lower prevalence, with the prevalence for college graduates of 8.8%. Differences in prevalence were significant between every educational bracket.
Household Income	Fair or poor health was experienced by approximately 1 of every 2 adults in the lowest income group (less than \$15,000 annually). The lowest prevalence was among those in the highest income bracket of \$75,000 or more (7.7%). There were significant differences in prevalence between almost every income group.

Table 1.1 Fair or poor health by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,065	24.0	21.9-26.1	3,203	26.1	24.3-27.9	5,268	25.1	23.7-26.5
Age									
18-24	101	*7.7	1.9-13.4	154	14.8	7.7-21.9	255	11.1	6.5-15.7
25-34	237	11.0	6.7-15.4	308	15.3	10.9-19.7	545	13.1	10.1-16.2
35-44	279	19.4	14.6-24.3	394	22.5	17.9-27.1	673	21.0	17.6-24.3
45-54	393	30.7	25.4-35.9	569	26.4	22.3-30.6	962	28.5	25.2-31.8
55-64	481	35.8	31.0-40.7	721	32.8	28.9-36.8	1,202	34.3	31.2-37.5
65+	566	33.1	28.7-37.5	1,029	35.8	32.5-39.1	1,595	34.7	32.0-37.3
Education									
Less than H.S.	282	41.8	35.1-48.6	467	48.1	42.3-53.9	749	45.0	40.5-49.5
H.S. or G.E.D.	831	25.4	22.1-28.8	1,296	30.0	27.1-32.8	2,127	27.7	25.5-29.9
Some Post-H.S.	473	18.8	15.1-22.5	815	16.2	13.5-18.9	1,288	17.3	15.1-19.5
College Graduate	474	7.9	5.4-10.4	620	9.6	6.7-12.4	1,094	8.8	6.8-10.7
Income									
Less than \$15,000	229	52.1	44.1-60.0	448	49.5	43.6-55.4	677	50.6	45.8-55.4
\$15,000- 24,999	352	37.0	31.2-42.8	658	36.0	31.6-40.5	1,010	36.5	32.9-40.1
\$25,000- 34,999	297	24.8	19.4-30.3	487	25.4	20.9-29.8	784	25.1	21.6-28.6
\$35,000- 49,999	310	15.2	10.2-20.2	391	11.1	7.8-14.4	701	13.2	10.2-16.2
\$50,000- 74,999	271	12.0	7.7-16.4	293	13.4	8.6-18.1	564	12.6	9.4-15.8
\$75,000+	328	8.7	5.3-12.1	350	6.6	3.8-9.3	678	7.7	5.5-9.9

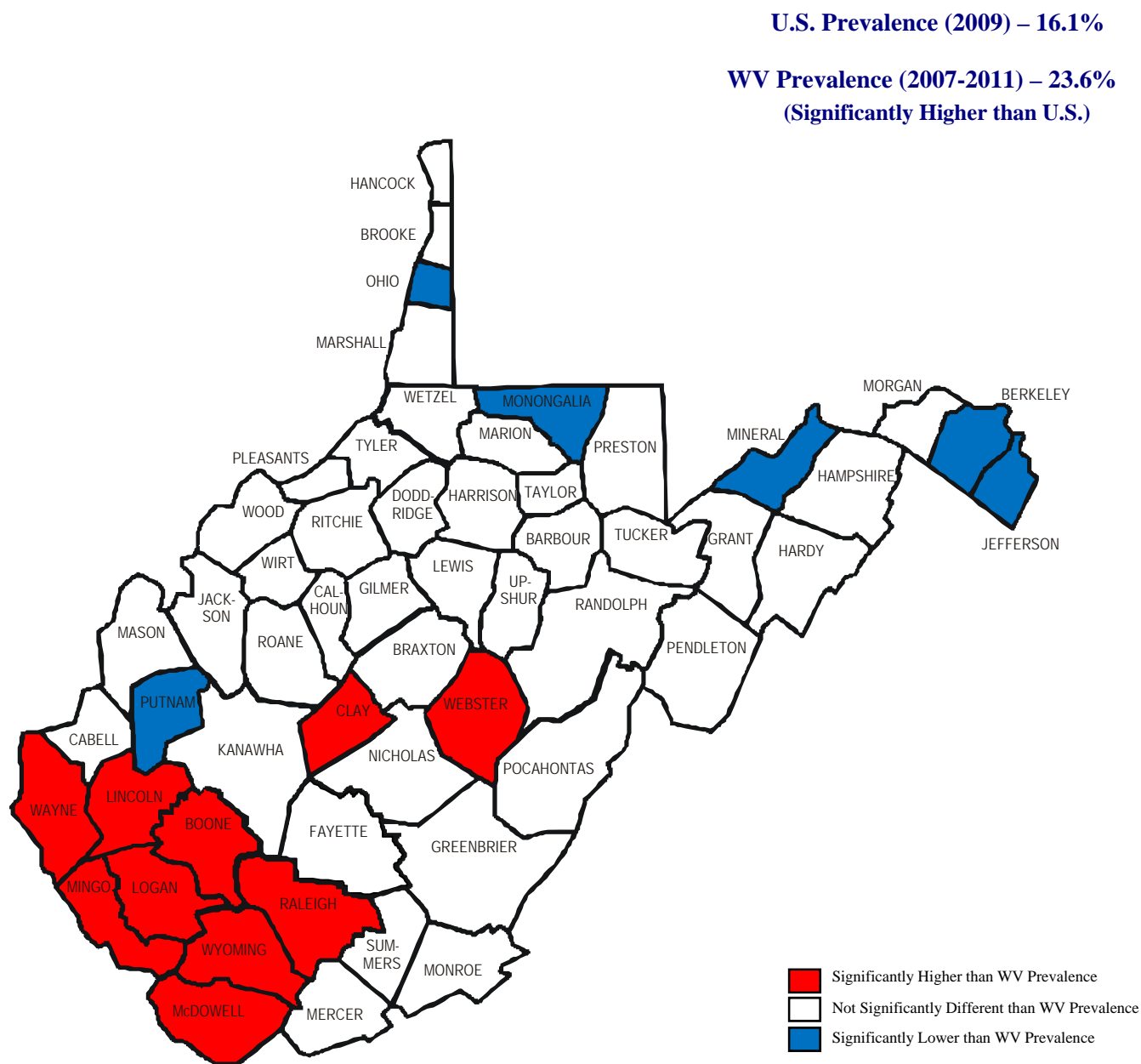
* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

Figure 1.1 Fair or poor health by year: WVBRFSS, 1993-2011



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

Figure 1.2 Fair or poor health by county: WVBRFSS, 2007-2011



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

Physical Health

Definition	Responding at least “14 days” 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: 17.6% (95% CI: 16.3-18.8) U.S.: 12.2% (95% CI: 12.0-12.4) West Virginia ranked the highest among 52 BRFSS participants. West Virginia’s prevalence was significantly higher than the U.S. prevalence of poor physical health.
Gender	Men: 16.6% (95% CI: 14.8-18.5) Women: 18.4% (95% CI: 16.8-20.0) There was no gender difference in the prevalence of poor physical health.
Age	Reports of poor physical health increased significantly with age until age 65 where it declined. The prevalence ranged from a low of 8.7% among the youngest adults to a high of 23.8% among those aged 55-64.
Education	Adults with less than a high school education had the highest prevalence of poor physical health, with a prevalence of 28%. Those with more education had a lower prevalence, with the prevalence for college graduates of 7.7%. Differences were significant between every educational bracket except between those with a high school education and those with some college.
Household Income	Poor physical health was experienced by 33.7% of adults in the lowest income group (less than \$15,000 annually) and 5.8% in the highest income bracket (\$75,000 or more). This was a statistically significant difference in the prevalence of poor physical health.

Table 1.2 Poor physical health by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,037	16.6	14.8-18.5	3,146	18.4	16.8-20.0	5,183	17.6	16.3-18.8
Age									
18-24	102	*7.7	0.9-14.5	153	9.8	4.6-15.0	255	8.7	4.4-13.1
25-34	235	6.3	3.1-9.5	306	12.9	8.6-17.1	541	9.5	6.9-12.2
35-44	279	12.5	8.5-16.5	390	20.4	16.1-24.8	669	16.5	13.5-19.4
45-54	387	23.5	18.7-28.2	570	21.3	17.4-25.2	957	22.4	19.3-25.4
55-64	474	27.8	23.2-32.4	708	19.8	16.4-23.2	1,182	23.8	20.9-26.7
65+	552	18.5	14.8-22.3	993	22.0	19.1-24.8	1,545	20.5	18.2-22.8
Education									
Less than H.S.	273	29.6	23.1-36.0	447	26.4	21.5-31.4	720	28.0	23.9-32.0
H.S. or G.E.D.	821	14.7	12.1-17.3	1,276	21.5	19.0-24.1	2,097	18.1	16.2-19.9
Some Post-H.S.	468	16.9	13.2-20.5	804	15.1	12.3-17.8	1,272	15.9	13.6-18.1
College Graduate	471	7.2	4.7-9.7	614	8.1	5.6-10.7	1,085	7.7	5.9-9.4
Income									
Less than \$15,000	224	34.8	27.6-42.0	440	32.7	27.6-37.9	664	33.7	29.4-38.0
\$15,000- 24,999	342	22.8	18.0-27.7	644	24.1	20.0-28.1	986	23.5	20.4-26.6
\$25,000- 34,999	295	18.9	13.8-23.9	481	16.7	12.9-20.4	776	17.7	14.6-20.8
\$35,000- 49,999	308	12.8	7.1-18.5	390	12.0	8.4-15.6	698	12.4	9.0-15.8
\$50,000- 74,999	269	9.8	5.7-13.9	291	13.7	8.3-19.1	560	11.6	8.2-14.9
\$75,000+	325	6.1	3.5-8.8	346	5.5	2.9-8.1	671	5.8	4.0-7.7

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

Mental Health

Definition	Responding at least “14 days” 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: 15.3% (95% CI: 14.1-16.5) U.S.: 12.0% (95% CI: 11.8-12.2) The WV prevalence of poor mental health was significantly higher than the U.S. prevalence. West Virginia ranked the 4 th highest among 52 BRFSS participants.
Gender	Men: 12.5% (95% CI: 10.7-14.2) Women: 17.9% (95% CI: 16.3-19.6) The prevalence of poor mental health was significantly higher among females than males.
Age	The prevalence of poor mental health varied with age. The prevalence of poor mental health was highest among those aged 45-54 (21%) and lowest among those aged 65 and older (10.2%).
Education	Adults with less than a high school education had the highest prevalence of poor mental health, with a prevalence of 23.3%. Those with more education had a lower prevalence, with the prevalence for college graduates of 8.9%. Differences were significant between every educational bracket except between those with a high school education and those with some college.
Household Income	Poor mental health was experienced by almost 1 of every 3 adults (30.9%) in the lowest income group (less than \$15,000 annually). The lowest prevalence occurred for those in the highest income bracket of \$75,000 or more (8.4%).

Table 1.3 Poor mental health by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,041	12.5	10.7-14.2	3,155	17.9	16.3-19.6	5,196	15.3	14.1-16.5
Age									
18-24	101	*11.4	3.6-19.2	150	18.4	11.2-25.5	251	14.8	9.5-20.1
25-34	236	12.0	7.6-16.4	302	21.6	16.4-26.7	538	16.7	13.3-20.1
35-44	277	9.0	5.5-12.4	389	19.2	14.9-23.5	666	14.1	11.3-16.9
45-54	394	20.4	15.8-25.0	565	21.6	17.8-25.4	959	21.0	18.0-24.0
55-64	468	13.7	10.2-17.1	714	17.3	14.0-20.5	1,182	15.5	13.1-17.9
65+	557	7.9	5.3-10.4	1,008	12.0	9.7-14.3	1,565	10.2	8.5-11.9
Education									
Less than H.S.	278	19.7	14.6-24.8	452	26.8	21.5-32.1	730	23.3	19.6-27.0
H.S. or G.E.D.	817	11.9	9.0-14.8	1,274	17.6	15.2-20.0	2,091	14.7	12.8-16.6
Some Post-H.S.	468	11.9	8.5-15.3	808	16.9	13.9-19.8	1,276	14.7	12.5-16.9
College Graduate	473	6.8	4.1-9.5	616	11.0	7.6-14.3	1,089	8.9	6.7-11.1
Income									
Less than \$15,000	226	27.9	21.1-34.7	440	33.3	27.5-39.2	666	30.9	26.4-35.4
\$15,000- 24,999	344	15.4	11.2-19.6	649	23.6	19.6-27.6	993	20.0	17.0-22.9
\$25,000- 34,999	297	14.7	9.7-19.6	483	15.0	11.5-18.5	780	14.8	11.9-17.8
\$35,000- 49,999	307	6.8	3.9-9.7	388	11.3	7.5-15.2	695	9.0	6.6-11.5
\$50,000- 74,999	268	5.0	2.5-7.5	291	14.3	9.2-19.5	559	9.2	6.4-11.9
\$75,000+	327	*7.5	1.9-13.1	345	9.4	5.8-13.1	672	8.4	4.9-11.8

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

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></p> <p>WV: 21.6% (95% CI: 19.8-23.5) U.S.: 15.3% (95% CI: 15.1-15.6) West Virginia ranked the 2nd highest among 52 BRFSS participants and was significantly higher than the U.S. prevalence.</p> <p><i>Every day</i></p> <p>WV: 10.4% (95% CI: 9.2-11.7) U.S.: 7.5% (95% CI: 7.3-7.7) West Virginia ranked the 4th highest among 52 BRFSS participants and was significantly higher than the U.S. prevalence.</p>
Gender	<p><i>At least 14 days</i></p> <p>Men: 24.0% (95% CI: 20.7-27.2) Women: 19.8% (95% CI: 17.7-21.9) There was no gender difference in the prevalence of poor health limitations for at least 14 days in past 30 days.</p> <p><i>Every day</i></p> <p>Men: 12.1% (95% CI: 9.9-14.3) Women: 9.2% (95% CI: 7.8-10.6) There was no gender difference in the prevalence of poor health limitations every day in past 30 days.</p>
Age	The prevalence of poor health limitations increased significantly with age for the every day indicator but peaked among the 45-54 age group for the 14 day indicator.
Education	In general, the prevalence of poor health limitations was highest among those with the least amount of education and lowest among those with the most education for both the 14 day and every day indicators.
Household Income	The prevalence of poor health limitations varied somewhat for income level but generally declined with increasing annual household income for both the 14 day and every day indicators.

Table 1.4 Poor health limitations at least 14 days in past 30 days by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	961	24.0	20.7-27.2	1,826	19.8	17.7-21.9	2,787	21.6	19.8-23.5
Age									
18-24	49	*10.2	0.0-22.7	92	*9.1	2.3-15.9	141	*9.6	2.7-16.6
25-34	104	*7.6	2.6-12.7	196	12.1	7.3-16.9	300	10.3	6.8-13.8
35-44	138	23.2	15.8-30.6	247	22.7	17.0-28.5	385	22.9	18.4-27.5
45-54	207	37.8	30.3-45.2	359	21.7	16.9-26.6	566	28.9	24.5-33.2
55-64	240	31.9	25.3-38.4	411	23.0	18.5-27.5	651	27.2	23.2-31.1
65+	221	25.3	18.9-31.7	512	25.8	21.6-30.0	733	25.6	22.0-29.2
Education									
Less than H.S.	157	38.9	29.9-48.0	291	32.3	25.7-38.9	448	35.3	29.9-40.7
H.S. or G.E.D.	397	22.3	17.1-27.5	758	22.0	18.7-25.3	1,155	22.1	19.2-25.1
Some Post-H.S.	215	22.6	16.7-28.5	482	14.3	11.2-17.5	697	17.3	14.4-20.3
College Graduate	189	9.4	5.3-13.4	293	7.0	3.8-10.1	482	8.1	5.6-10.6
Income									
Less than \$15,000	153	44.4	35.1-53.8	313	37.9	31.3-44.6	466	40.7	35.2-46.3
\$15,000- 24,999	198	29.1	22.4-35.9	416	23.1	18.2-28.0	614	25.6	21.6-29.5
\$25,000- 34,999	149	21.4	13.8-29.0	282	15.2	10.8-19.6	431	17.9	13.7-22.0
\$35,000- 49,999	125	19.7	11.8-27.6	201	12.3	7.5-17.0	326	15.5	11.1-19.8
\$50,000- 74,999	110	*5.6	1.8-9.4	136	14.6	7.6-21.6	246	9.7	5.8-13.7
\$75,000+	116	*17.6	4.4-30.8	169	*3.9	0.9-7.0	285	*10.2	3.5-16.9

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

Table 1.5 Poor health limitations every day in past 30 days by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	961	12.1	9.9-14.3	1,826	9.2	7.8-10.6	2,787	10.4	9.2-11.7
Age									
18-24	49	*2.7	0.0-7.8	92	*1.8	0.0-4.2	141	*2.2	0.0-4.9
25-34	104	*5.1	0.7-9.6	196	*3.0	0.8-5.1	300	3.9	1.6-6.1
35-44	138	8.4	3.6-13.1	247	10.9	6.6-15.2	385	9.9	6.7-13.1
45-54	207	14.8	9.7-19.9	359	9.8	6.4-13.2	566	12.0	9.1-15.0
55-64	240	19.5	13.7-25.3	411	11.3	8.0-14.7	651	15.2	11.9-18.4
65+	221	18.3	12.6-24.0	512	14.9	11.6-18.3	733	16.2	13.2-19.2
Education									
Less than H.S.	157	22.6	15.3-30.0	291	14.6	10.3-18.9	448	18.2	14.1-22.3
H.S. or G.E.D.	397	9.7	6.9-12.5	758	10.3	7.9-12.6	1,155	10.0	8.2-11.8
Some Post-H.S.	215	10.9	6.6-15.2	482	7.1	5.0-9.3	697	8.5	6.4-10.6
College Graduate	189	5.3	2.4-8.2	293	*2.5	0.6-4.5	482	3.8	2.1-5.5
Income									
Less than \$15,000	153	24.4	16.7-32.1	313	18.3	13.6-23.1	466	21.0	16.7-25.3
\$15,000- 24,999	198	12.4	8.0-16.8	416	9.8	6.6-13.0	614	10.8	8.3-13.4
\$25,000- 34,999	149	8.6	4.3-12.9	282	7.3	4.3-10.3	431	7.9	5.4-10.4
\$35,000- 49,999	125	13.6	6.7-20.6	201	*5.2	2.0-8.3	326	8.8	5.3-12.3
\$50,000- 74,999	110	*2.6	0.0-5.2	136	*6.5	1.6-11.3	246	*4.4	1.7-7.0
\$75,000+	116	*7.3	1.9-12.6	169	*0.9	0.0-2.1	285	*3.8	1.3-6.4

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

CHAPTER 2: HEALTH CARE ACCESS

No Health Care Coverage (among adults 18 to 64)

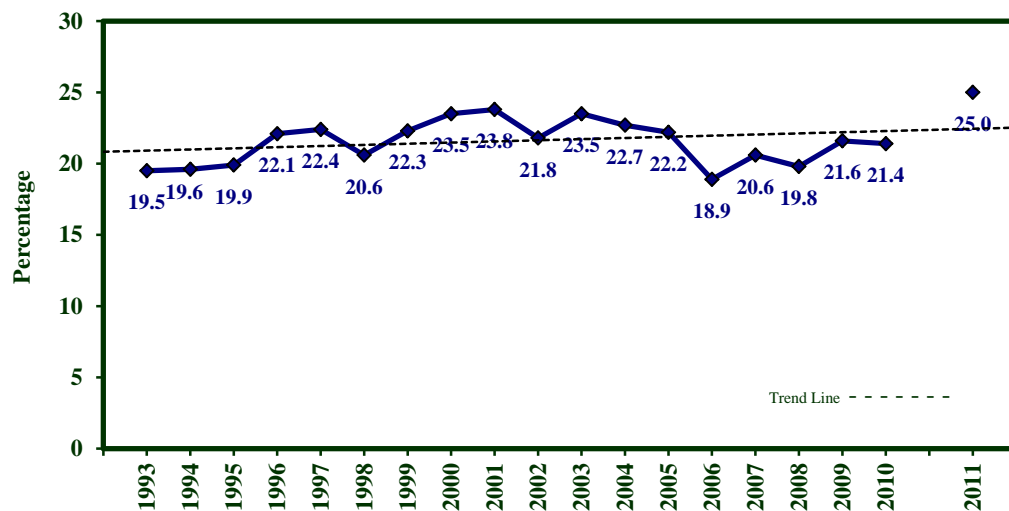
Definition	Responding “No” to the question “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?” The results reported for this section have been limited to adults aged 18-64.
Prevalence	WV: 25.0% (95% CI: 23.2-26.9) U.S.: 21.8% (95% CI: 21.5-22.1) The prevalence of no health care coverage among those aged 18-64 was significantly higher in West Virginia than in the U.S. West Virginia ranked the 12 th highest among 52 BRFSS participants.
Gender	Men: 26.9% (95% CI: 24.0-29.9) Women: 23.1% (95% CI: 20.8-25.4) There was no gender difference in the prevalence of no health care coverage for those aged 18-64.
Age	The prevalence of no health care coverage was significantly higher among those aged 18-44 compared with those aged 55-64.
Education	There was a significant difference in the prevalence of no health coverage between each level of education. Those with less than a high school education had the highest prevalence of no health coverage (42.9%) while those with a college degree had the lowest prevalence of no health coverage (10.1%).
Household Income	The prevalence of lack of health care coverage was significantly higher among low income groups than among those with high income. Nearly 1 in 2, or 45.4%, of those with incomes less than \$15,000 per year had no health care coverage. In contrast, only 6.6% of those making more than \$75,000 per year had no health care coverage.

Table 2.1 No health care coverage among adults aged 18-64 by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,494	26.9	24.0-29.9	2,149	23.1	20.8-25.4	3,643	25.0	23.2-26.9
Age									
18-24	100	*39.8	28.6-50.9	154	27.6	18.8-36.5	254	33.8	26.6-41.0
25-34	236	37.0	29.9-44.1	308	35.0	29.1-40.8	544	36.0	31.4-40.6
35-44	280	22.8	16.9-28.7	395	18.3	14.2-22.5	675	20.6	16.9-24.2
45-54	397	22.2	17.5-26.9	571	22.5	18.6-26.4	968	22.4	19.3-25.4
55-64	481	17.5	13.5-21.4	721	14.6	11.8-17.4	1,202	16.0	13.6-18.5
Education									
Less than H.S.	173	50.7	41.8-59.6	237	34.3	26.2-42.4	410	42.9	36.8-49.0
H.S. or G.E.D.	617	28.8	24.1-33.5	787	25.4	21.9-28.9	1,404	27.2	24.2-30.3
Some Post-H.S.	360	18.0	13.5-22.4	625	22.8	18.9-26.8	985	20.7	17.8-23.7
College Graduate	342	11.1	7.2-15.0	497	9.2	6.2-12.1	839	10.1	7.7-12.5
Income									
Less than \$15,000	172	50.9	41.9-59.8	293	40.4	33.2-47.6	465	45.4	39.7-51.1
\$15,000- 24,999	239	46.3	38.8-53.7	387	42.9	37.1-48.8	626	44.5	39.8-49.2
\$25,000- 34,999	190	21.0	14.3-27.8	320	24.7	19.2-30.3	510	23.0	18.6-27.3
\$35,000- 49,999	215	22.8	14.3-31.4	293	12.8	8.0-17.6	508	17.9	12.8-22.9
\$50,000- 74,999	215	11.2	4.7-17.7	243	*6.2	2.1-10.3	459	8.9	4.9-13.0
\$75,000+	279	*8.3	2.0-14.5	320	*4.8	1.0-8.7	599	6.6	2.8-10.4

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

Figure 2.1 No health care coverage among adults aged 18-64 by year: WVBRFSS, 1993-2011

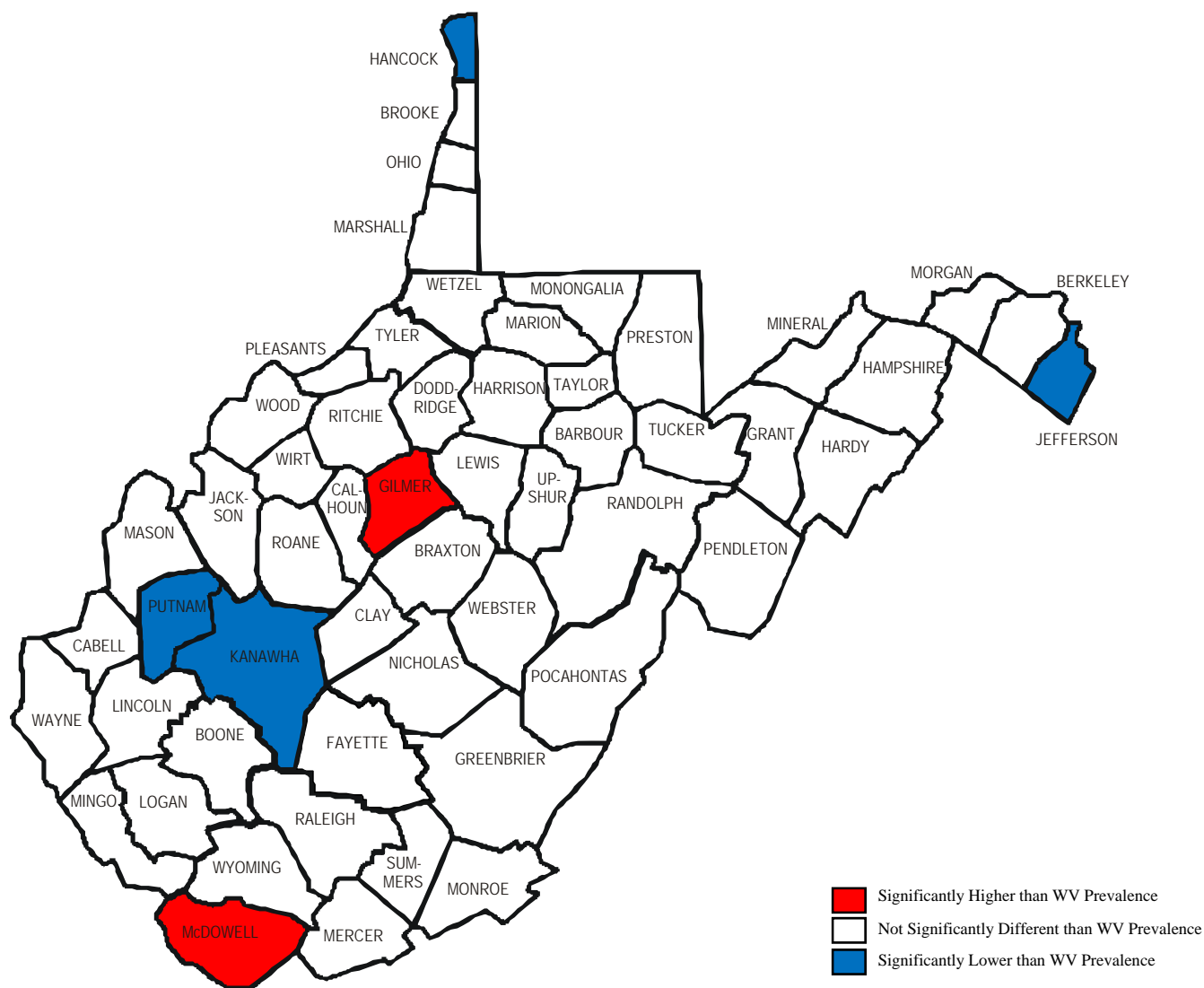


*Due to changes in sample composition and weighting methodology, 2011 results are not directly comparable to previous years.

Figure 2.2 No health care coverage among adults aged 18-64 by county: WVBRFSS, 2007-2011

U.S. Prevalence (2009) – 18.2%

WV Prevalence (2007-2011) – 21.7%
(Significantly Higher than U.S.)



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

PEIA Coverage

Definition Responding “Yes” to the question “Earlier you said that you have health care coverage. Is the coverage through PEIA?” Note: PEIA refers to Public Employees Insurance Agency.

Prevalence **WV: 16.1%** (95% CI: 14.8-17.3)
Because this was a state added question, there are no national data for comparison.

Gender **Men:** 14.8% (95% CI: 13.0-16.7)
Women: 17.1% (95% CI: 15.4-18.9)
There is no gender difference in the prevalence of PEIA coverage.

Age The prevalence of PEIA coverage was highest among those aged 55-64 and was significantly higher than the prevalence of PEIA coverage among those aged 25-44 and 65 and older.

Education Adults with a college degree had the highest prevalence of PEIA coverage and was significantly higher than all other education groups.

Household Income The lowest prevalence of PEIA coverage (8.0%) was among those with incomes less than \$15,000 per year. This prevalence of was significantly lower than all income groups earning \$25,000 per year or more.

Table 2.2 PEIA coverage by demographic characteristics: WVBRFSS, 2011

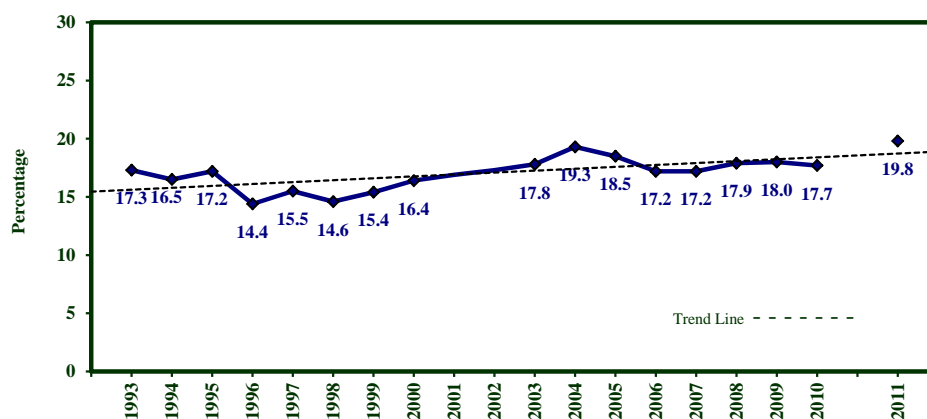
Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,662	14.8	13.0-16.7	2,645	17.1	15.4-18.9	4,307	16.1	14.8-17.3
Age									
18-24	44	*8.1	0.2-16.1	103	20.3	10.9-29.7	147	15.3	8.7-21.9
25-34	148	10.1	5.5-14.6	195	14.0	8.4-19.6	343	12.1	8.4-15.7
35-44	222	13.7	9.0-18.5	306	13.5	9.5-17.5	528	13.6	10.5-16.7
45-54	303	13.8	9.8-17.8	439	21.6	17.2-26.1	742	17.8	14.8-20.9
55-64	399	22.9	18.3-27.5	604	20.0	16.5-23.5	1,003	21.4	18.5-24.3
65+	540	14.1	11.0-17.2	977	14.9	12.4-17.4	1,517	14.5	12.6-16.5
Education									
Less than H.S.	202	5.4	2.1-8.7	362	8.2	4.9-11.6	564	6.9	4.6-9.3
H.S. or G.E.D.	642	14.2	11.3-17.1	1,054	14.5	11.9-17.2	1,696	14.4	12.4-16.3
Some Post-H.S.	394	13.2	9.5-16.9	664	16.3	12.8-19.8	1,058	14.9	12.4-17.5
College Graduate	421	25.8	21.1-30.5	562	32.0	27.2-36.8	983	29.0	25.6-32.3
Income									
Less than \$15,000	142	*5.5	1.7-9.3	326	9.6	5.0-14.3	468	8.0	4.7-11.2
\$15,000- 24,999	235	9.4	5.4-13.4	480	14.0	10.4-17.5	715	12.1	9.4-14.8
\$25,000- 34,999	253	13.9	9.1-18.8	389	16.9	12.3-21.4	642	15.4	12.1-18.8
\$35,000- 49,999	264	24.4	18.5-30.3	354	23.3	18.6-28.0	618	23.8	20.1-27.5
\$50,000- 74,999	247	20.9	15.5-26.3	276	20.3	14.6-26.0	523	20.6	16.7-24.6
\$75,000+	305	15.7	11.5-19.9	332	21.9	16.3-27.5	637	18.6	15.1-22.1

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

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	<p>WV: 19.8% (95% CI: 18.5-21.2) U.S.: 17.0% (95% CI: 16.7-17.2)</p> <p>The West Virginia prevalence of could not afford needed medical care was significantly higher than the national prevalence. West Virginia ranked the 9th highest among 52 BRFSS participants.</p>
Gender	<p>Men: 17.5% (95% CI: 15.5-19.6) Women: 22.0% (95% CI: 20.2-23.8)</p> <p>The prevalence of could not afford needed medical care was significantly higher among women than men.</p>
Age	The 25-34 age group experienced the highest prevalence of could not afford needed medical care and those aged 65 and older had the lowest prevalence. The difference between these two age groups was statistically significant.
Education	Adults with less than a high school education had a significantly higher prevalence of could not afford needed medical care than all other adults. College graduates had a significantly lower prevalence of having problems affording needed health care than those with any lower level of education.
Household Income	The prevalence of could not afford needed medical care became steadily higher as household income declined. The prevalence of could not afford needed medical care was 3.5% for those earning \$75,000 per year or more and 36.4% for those earning less than \$15,000 per year.

Figure 2.3 Could not afford needed medical care by year: WVBRFSS, 1993-2011



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

Table 2.3 Could not afford needed medical care in past year by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,069	17.5	15.5-19.6	3,205	22.0	20.2-23.8	5,274	19.8	18.5-21.2
Age									
18-24	102	21.7	13.2-30.2	154	26.1	18.1-34.1	256	23.8	17.9-29.7
25-34	237	22.9	16.6-29.2	307	32.7	27.0-38.5	544	27.7	23.5-32.0
35-44	279	23.3	17.9-28.8	394	28.5	23.4-33.6	673	26.0	22.2-29.7
45-54	397	20.3	15.9-24.8	572	26.1	22.0-30.2	969	23.3	20.2-26.3
55-64	482	14.8	10.9-18.7	721	20.1	16.9-23.3	1,203	17.5	15.0-20.0
65+	564	4.7	2.9-6.5	1,029	7.0	5.1-8.9	1,593	6.0	4.7-7.3
Education									
Less than H.S.	282	29.7	23.2-36.2	468	26.5	21.1-32.0	750	28.1	23.9-32.3
H.S. or G.E.D.	834	18.0	14.7-21.2	1,295	22.7	19.9-25.5	2,129	20.3	18.1-22.5
Some Post-H.S.	474	15.3	11.6-19.0	818	23.6	20.2-27.0	1,292	20.0	17.5-22.5
College Graduate	474	6.0	3.5-8.6	619	11.8	8.5-15.0	1,093	8.9	6.8-11.0
Income									
Less than \$15,000	230	41.1	33.4-48.8	450	32.6	26.9-38.3	680	36.4	31.7-41.1
\$15,000- 24,999	353	29.6	23.8-35.4	657	35.8	31.2-40.4	1,010	33.0	29.4-36.7
\$25,000- 34,999	298	16.1	10.9-21.2	487	26.5	21.6-31.5	785	21.6	18.0-25.2
\$35,000- 49,999	309	11.5	6.6-16.4	391	14.8	10.6-19.1	700	13.1	9.9-16.4
\$50,000- 74,999	272	10.4	4.9-16.0	294	13.3	8.5-18.1	566	11.7	8.0-15.4
\$75,000+	328	*2.0	0.4-3.7	350	5.2	2.7-7.8	678	3.5	2.0-5.0

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

No Personal Doctor or Health Care Provider

Definition	Responding “No” to the question “Do you have one person you think of as your personal doctor or health care provider?”
Prevalence	WV: 23.9% (95% CI: 22.3-25.5) U.S.: 22.0% (95% CI: 21.8-22.3) The prevalence of no personal doctor was similar for West Virginia and the U.S. West Virginia ranked the 21 st highest among 52 BRFSS participants.
Gender	Men: 29.5% (95% CI: 26.9-32.1) Women: 18.7% (95% CI: 16.9-20.5) The prevalence of not having a personal doctor or health care provider was significantly higher for men than for women.
Age	In general, the prevalence of no personal doctor declined as age increased. The youngest age group, those aged 18-24, had the highest prevalence of no personal doctor (47.7%). The oldest age group (65 and older) had a relatively low prevalence of no personal doctor (7.7%).
Education	There was a significant difference in the prevalence of no doctor between those with less than a high school education (29.4%) and those with a college degree (18.6%).
Household Income	Those earning less than \$15,000 per year had a higher prevalence of not having doctor (28.4%) than those earning \$75,000 or more per year (18.9%).

Table 2.4 No personal doctor or health care provider by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,070	29.5	26.9-32.1	3,205	18.7	16.9-20.5	5,275	23.9	22.3-25.5
Age									
18-24	101	*57.9	47.0-68.8	154	37.0	28.1-45.9	255	47.7	40.3-55.0
25-34	237	53.1	46.1-60.2	308	34.7	28.9-40.5	545	44.0	39.4-48.7
35-44	280	31.3	25.3-37.4	395	19.8	15.4-24.2	675	25.5	21.8-29.3
45-54	396	23.0	18.2-27.7	572	17.8	14.1-21.5	968	20.3	17.3-23.3
55-64	482	13.4	10.0-16.7	721	9.8	7.4-12.2	1,203	11.6	9.5-13.6
65+	566	10.5	7.5-13.5	1,027	5.6	3.9-7.2	1,593	7.7	6.1-9.3
Education									
Less than H.S.	284	35.6	28.5-42.6	466	23.4	18.0-28.9	750	29.4	25.0-33.9
H.S. or G.E.D.	833	33.2	28.9-37.6	1,297	17.2	14.5-19.9	2,130	25.3	22.7-28.0
Some Post-H.S.	474	25.0	20.4-29.7	818	18.3	15.1-21.4	1,292	21.2	18.5-23.9
College Graduate	474	19.4	15.3-23.5	619	17.7	13.5-22.0	1,093	18.6	15.6-21.5
Income									
Less than \$15,000	232	35.2	27.4-42.9	450	22.9	17.9-27.9	682	28.4	23.9-32.9
\$15,000- 24,999	351	35.2	29.0-41.4	659	22.7	18.4-26.9	1,010	28.2	24.5-31.8
\$25,000- 34,999	298	25.8	19.2-32.4	486	19.7	15.1-24.3	784	22.6	18.6-26.5
\$35,000- 49,999	310	26.7	20.0-33.5	391	17.0	12.3-21.8	701	22.0	17.8-26.2
\$50,000- 74,999	272	25.4	18.4-32.4	294	16.2	10.4-22.1	566	21.3	16.6-26.1
\$75,000+	328	21.5	15.1-27.8	350	15.9	10.5-21.2	678	18.9	14.7-23.1

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

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: 25.1% (95% CI: 23.6-26.7) U.S.: 33.1% (95% CI: 32.8-33.4) The West Virginia prevalence of no checkup in the past year was significantly lower than the national prevalence. West Virginia ranked the 6 th lowest among 52 BRFSS participants.
Gender	Men: 29.2% (95% CI: 26.6-31.8) Women: 21.3% (95% CI: 19.5-23.1) The prevalence of no routine checkup in the past year was significantly higher for men than for women.
Age	Those 65 and older had a relatively low prevalence of no checkup in the past year (7.6%) while those aged 25-34 had the highest prevalence (42.8%).
Education	There was a small but significant difference in the prevalence of no checkup in the past year between those with less than a high school education (29.4%) and those with a college degree (19.9%). No other education differences in the prevalence of no routine checkup in the past year were found.
Household Income	Those earning less than \$25,000 per year had a higher prevalence of no routine checkup in the past year than those earning \$25,000 or more per year.

Table 2.5 No routine checkup in past year by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,057	29.2	26.6-31.8	3,181	21.3	19.5-23.1	5,238	25.1	23.6-26.7
Age									
18-24	101	*48.6	37.4-59.9	152	28.5	20.4-36.7	253	39.0	31.7-46.3
25-34	234	48.0	40.9-55.1	306	37.5	31.5-43.4	540	42.8	38.1-47.5
35-44	278	30.5	24.5-36.6	390	26.3	21.3-31.4	668	28.4	24.5-32.4
45-54	394	27.1	22.3-31.9	571	22.1	18.2-26.1	965	24.5	21.4-27.6
55-64	480	21.7	17.6-25.9	717	15.9	12.8-19.0	1,197	18.8	16.2-21.4
65+	562	7.8	5.3-10.3	1,017	7.4	5.6-9.1	1,579	7.6	6.1-9.0
Education									
Less than H.S.	282	35.8	28.7-43.0	458	23.1	17.8-28.4	740	29.4	24.9-34.0
H.S. or G.E.D.	830	29.7	25.5-33.8	1,286	20.4	17.6-23.1	2,116	25.1	22.6-27.6
Some Post-H.S.	471	29.6	24.7-34.6	815	22.4	19.0-25.8	1,286	25.5	22.6-28.4
College Graduate	470	20.3	16.2-24.5	617	19.4	15.2-23.7	1,087	19.9	16.9-22.9
Income									
Less than \$15,000	231	37.1	29.3-44.9	443	27.9	22.7-33.2	674	32.1	27.5-36.7
\$15,000- 24,999	351	36.6	30.4-42.8	655	26.6	22.4-30.8	1,006	31.1	27.4-34.7
\$25,000- 34,999	296	23.1	16.7-29.5	486	22.9	18.1-27.7	782	23.0	19.1-26.9
\$35,000- 49,999	307	24.6	18.2-31.0	387	18.2	13.3-23.0	694	21.4	17.4-25.5
\$50,000- 74,999	271	24.7	18.2-31.2	292	15.7	10.6-20.7	563	20.7	16.4-25.0
\$75,000+	326	23.9	17.4-30.4	348	15.2	10.3-20.1	674	19.9	15.7-24.2

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

CHAPTER 3: PHYSICAL ACTIVITY

No Leisure-Time Physical Activity for Exercise

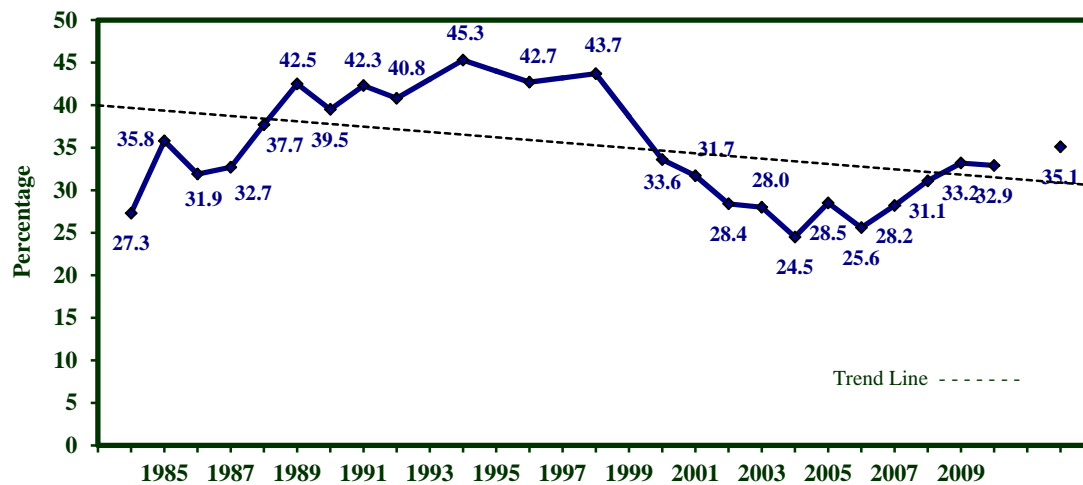
Definition	Responding “No” to the question “During the past month, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise?”
Prevalence	WV: 35.1% (95% CI: 33.5-36.7) U.S.: 25.7% (95% CI: 25.5-26.0) The prevalence of physical inactivity was significantly higher in West Virginia than in the U.S. West Virginia ranked the 4 th highest among 52 BRFSS participants.
Gender	Men: 32.5% (95% CI: 30.1-34.9) Women: 37.5% (95% CI: 35.5-39.5) Women had a significantly higher prevalence of physical inactivity than men.
Age	In general, the prevalence of physical inactivity increased with age. The prevalence of physical inactivity among persons aged 65 and older was significantly higher than the prevalence among those aged less than 55.
Education	The prevalence of physical inactivity was significantly different for all education groups. About half of those lacking a high school education engaged in no physical activity whereas only 17.1% of college graduates were physically inactive.
Household Income	In general, the prevalence of physical inactivity declined with increasing income levels. The prevalence of physical inactivity was significantly higher among adults with incomes of less than \$15,000 than the prevalence among persons with incomes in excess of \$75,000.

Table 3.1 No leisure-time physical activity for exercise by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,055	32.5	30.1-34.9	3,183	37.5	35.5-39.5	5,238	35.1	33.5-36.7
Age									
18-24	100	*10.9	4.4-17.5	153	22.4	15.0-29.7	253	16.5	11.5-21.5
25-34	234	27.7	21.1-34.3	303	25.1	19.6-30.6	537	26.4	22.1-30.7
35-44	277	33.9	27.6-40.2	393	37.8	32.2-43.3	670	35.9	31.7-40.1
45-54	395	36.6	31.4-41.9	569	35.2	30.8-39.7	964	35.9	32.5-39.3
55-64	479	42.2	37.2-47.2	720	41.0	36.9-45.1	1,199	41.6	38.4-44.8
65+	562	37.0	32.5-41.4	1,018	52.1	48.6-55.6	1,580	45.6	42.8-48.4
Education									
Less than H.S.	282	40.5	33.9-47.2	463	60.5	54.6-66.5	745	50.6	46.0-55.2
H.S. or G.E.D.	826	35.1	31.2-39.0	1,284	42.7	39.5-45.9	2,110	38.8	36.3-41.4
Some Post-H.S.	470	32.9	27.9-37.9	813	27.1	23.7-30.6	1,283	29.6	26.7-32.5
College Graduate	472	16.7	13.1-20.4	618	17.5	14.2-20.8	1,090	17.1	14.6-19.6
Income									
Less than \$15,000	231	43.1	35.5-50.8	443	51.3	45.4-57.3	674	47.6	42.8-52.4
\$15,000- 24,999	348	38.2	32.2-44.2	653	43.6	39.0-48.2	1,001	41.2	37.5-44.9
\$25,000- 34,999	297	33.3	27.0-39.7	484	39.9	34.7-45.1	781	36.8	32.7-40.9
\$35,000- 49,999	309	30.2	24.2-36.2	389	31.2	25.8-36.7	698	30.7	26.6-34.8
\$50,000- 74,999	271	26.7	20.7-32.7	294	26.8	21.0-32.6	565	26.7	22.5-30.9
\$75,000+	324	25.6	20.0-31.2	348	19.0	14.3-23.7	672	22.5	18.8-26.3

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

Figure 3.1 No leisure-time physical activity for exercise by year: WVBRFSS, 1984-2011



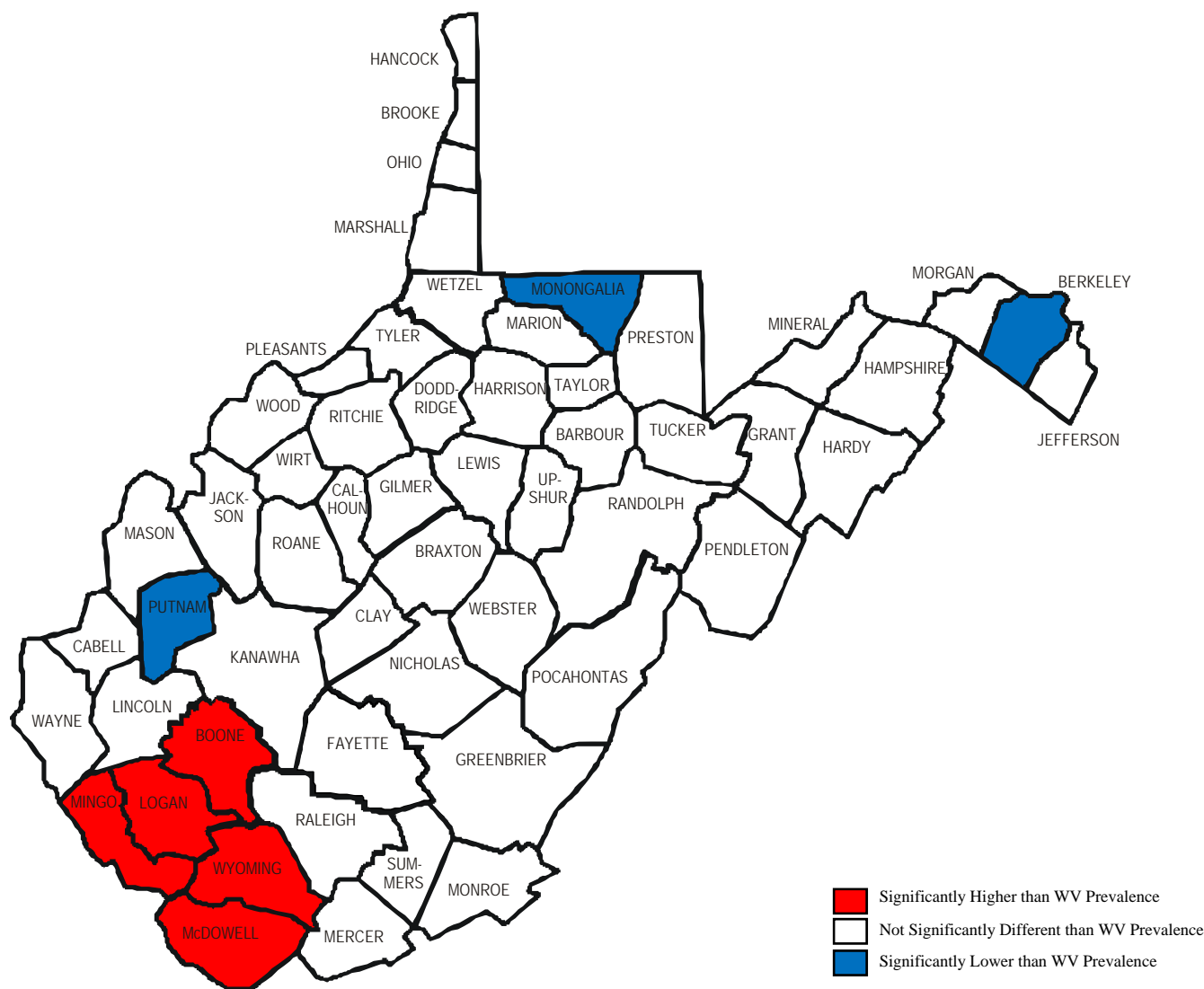
NOTE: Data are not available for the years 1993, 1995, 1997, and 1999.

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

Figure 3.2 No leisure-time physical activity for exercise by county: WVBRFSS, 2007-2011

U.S. Prevalence (2009) – 24.6%

WV Prevalence (2007-2011) – 32.1%
(Significantly Higher than U.S.)



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

Physical Activity Levels

Definition	<p>Highly active is defined as doing enough physical activity to meet the 300 minute aerobic recommendation.</p> <p>Active is defined as doing 150-300 minutes of physical activity.</p> <p>Insufficiently active is defined as doing insufficient physical activity (11-149 minutes).</p> <p>Inactive is defined as doing no physical activity.</p>
Prevalence	<p>Highly Active: 26.1% (95% CI: 24.6-27.7)</p> <p>Active: 16.7% (95% CI: 15.4-17.9)</p> <p>Insufficiently Active: 19.7% (95% CI: 18.3-21.1)</p> <p>Inactive: 37.5% (95% CI: 35.9-39.2)</p> <p>U.S. comparison was not conducted on physical activity levels.</p>
Gender	<p>Highly Active</p> <p>Men: 30.2% (95% CI: 27.7-32.7)</p> <p>Women: 22.3% (95% CI: 20.5-24.2)</p> <p>Men had a significantly higher prevalence of being highly active than women.</p> <p>Active</p> <p>Men: 16.4% (95% CI: 14.4-18.3)</p> <p>Women: 16.9% (95% CI: 15.3-18.5)</p> <p>There was no gender difference in the prevalence of the active level.</p> <p>Insufficiently Active</p> <p>Men: 17.6% (95% CI: 15.5-19.7)</p> <p>Women: 21.6% (95% CI: 19.8-23.5)</p> <p>Women had a significantly higher prevalence of being insufficiently active than men.</p> <p>Inactive</p> <p>Men: 35.8% (95% CI: 33.3-38.4)</p> <p>Women: 39.1% (95% CI: 37.0-41.2)</p> <p>There was no gender difference in the prevalence of the inactive level.</p>
Age	<p>The prevalence of highly active, active, and insufficiently active were highest among those aged 18-24 and lowest among those aged 65 and older. The prevalence of inactive was highest among those aged 65 and older and lowest among those aged 18-24.</p>
Education	<p>The prevalence of highly active, active, and insufficiently active were highest among those with a college degree and lowest among those with less than a high school education. The prevalence of inactive was highest among those with less than a high school education and lowest among those with a college degree.</p>
Household Income	<p>In general, the prevalence of highly active, active, and insufficiently active increase with increasing annual household income and the prevalence of inactive decreases with increasing income.</p>

Table 3.2 Physical activity levels by demographic characteristics: WVBRFSS, 2011

Characteristic	Highly Active			Active		Insufficiently Active		Inactive	
	# Resp.	%	95% CI	%	95% CI	%	95% CI	%	95% CI
TOTAL	5,077	26.1	24.6-27.7	16.7	15.4-17.9	19.7	18.3-21.1	37.5	35.9-39.2
Sex									
Males	1,996	30.2	27.7-32.7	16.4	14.4-18.3	17.6	15.5-19.7	35.8	33.3-38.4
Females	3,081	22.3	20.5-24.2	16.9	15.3-18.5	21.6	19.8-23.5	39.1	37.0-41.2
Age									
18-24	245	31.7	24.4-38.9	21.4	15.9-27.0	25.9	19.2-32.6	21.0	15.2-26.8
25-34	516	25.5	21.4-29.6	20.0	16.1-23.8	24.9	20.8-29.0	29.6	25.1-34.2
35-44	656	27.7	23.4-31.7	16.2	13.3-19.2	18.8	15.6-21.9	37.3	33.1-41.6
45-54	946	24.9	21.7-28.1	17.2	14.4-19.9	20.7	17.8-23.6	37.3	33.8-40.8
55-64	1,179	25.0	22.2-27.8	14.2	12.0-16.4	17.7	15.3-20.0	43.1	39.9-46.4
65+	1,527	24.5	22.0-26.9	13.6	11.6-15.6	13.9	12.0-15.8	48.1	45.2-50.9
Education									
Less than H.S.	717	23.2	18.8-27.6	10.0	7.3-12.7	13.9	10.2-17.6	52.9	48.1-57.6
H.S. or G.E.D.	2,040	24.3	21.8-26.8	15.5	13.5-17.6	18.2	16.1-20.3	42.0	39.3-44.6
Some Post-H.S.	1,252	27.3	24.4-30.2	18.6	16.1-21.2	22.5	19.7-25.4	31.5	28.5-34.5
College Graduate	1,061	32.1	28.9-35.3	23.7	20.7-26.8	25.2	22.0-28.5	18.9	16.3-21.5
Income									
Less than \$15,000	655	23.6	19.0-28.1	10.9	7.9-13.9	15.1	11.9-18.3	50.4	45.5-55.3
\$15,000- 24,999	978	22.1	18.9-25.3	15.0	12.1-18.0	20.1	16.9-23.3	42.8	39.0-46.5
\$25,000- 34,999	769	25.1	21.3-28.9	17.9	14.7-21.0	17.9	14.4-21.4	39.2	35.0-43.4
\$35,000- 49,999	686	27.6	23.3-31.8	17.9	14.5-21.2	21.3	17.4-25.2	33.3	29.0-37.5
\$50,000- 74,999	551	31.1	26.3-35.9	18.3	14.3-22.3	22.6	18.2-27.0	28.0	23.6-32.3
\$75,000+	663	29.9	25.6-34.1	21.4	17.7-25.1	24.0	20.0-28.0	24.7	20.9-28.6

Physical Activity Recommendations

Definition	<p>Did not meet aerobic exercise recommendation is defined as doing less than 150 minutes of physical activity.</p> <p>Did not meet muscle strengthening recommendation is defined as doing physical activity or exercises to strength the muscles less than 2 times per week.</p>
Prevalence	<p><i>Did not meet aerobic exercise recommendation</i> 57.0% (95% CI: 55.3-58.7)</p> <p><i>Did not meet muscle strengthening recommendation</i> 79.8% (95% CI: 78.4-81.2)</p> <p>U.S. comparison was not conducted on physical activity recommendations.</p>
Gender	<p><i>Did not meet aerobic exercise recommendation</i> Men: 53.2% (95% CI: 50.5-55.9) Women: 60.5% (95% CI: 58.4-62.6)</p> <p>Women had a significantly higher prevalence of not meeting the aerobic exercise recommendation than men.</p> <p><i>Did not meet muscle strengthening recommendation</i> Men: 75.1% (95% CI: 72.7-77.4) Women: 84.3% (95% CI: 82.7-85.8)</p> <p>Women had a significantly higher prevalence of not meeting the muscle strengthening recommendation than men.</p>
Age	<p>The prevalence of both did not meet the aerobic exercise recommendation and did not meet the muscle strengthening recommendation increased with age.</p>
Education	<p>The prevalence of both did not meet the aerobic exercise recommendation and did not meet the muscle strengthening recommendation was highest among those with less than a high school education and lowest among those with a college degree.</p>
Household Income	<p>The prevalence of both did not meet the aerobic exercise recommendation and did not meet the muscle strengthening recommendation was highest among those with an annual household income of less than \$15,000 and lowest among those with a \$75,000 or more per year household income.</p>

Table 3.3 Physical activity recommendations by demographic characteristics: WVBRFSS, 2011

Characteristic	Did Not Meet Aerobic Exercise Recommendation			Did Not Meet Muscle Strengthening Recommendation		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	5,096	57.0	55.3-58.7	5,213	79.8	78.4-81.2
Sex						
Males	2,003	53.2	50.5-55.9	2,044	75.1	72.7-77.4
Females	3,093	60.5	58.4-62.6	3,169	84.3	82.7-85.8
Age						
18-24	247	46.7	39.3-54.1	251	66.8	59.8-73.7
25-34	520	54.0	49.2-58.8	535	71.6	67.3-75.8
35-44	659	55.9	51.6-60.1	665	79.2	75.8-82.6
45-54	948	57.9	54.3-61.5	961	83.1	80.4-85.8
55-64	1,181	60.7	57.5-63.8	1,194	84.5	82.2-86.7
65+	1,533	61.8	59.0-64.5	1,572	86.8	84.9-88.7
Education						
Less than H.S.	721	66.5	61.8-71.1	738	89.2	86.1-92.2
H.S. or G.E.D.	2,047	60.0	57.3-62.7	2,101	82.6	80.4-84.8
Some Post-H.S.	1,257	53.7	50.5-57.0	1,275	75.3	72.4-78.3
College Graduate	1,064	44.0	40.5-47.5	1,090	69.6	66.2-72.9
Income						
Less than \$15,000	656	65.5	60.6-70.3	674	84.8	80.5-89.0
\$15,000- 24,999	983	62.4	58.6-66.2	992	83.5	80.4-86.6
\$25,000- 34,999	772	56.8	52.5-61.1	778	78.5	74.8-82.2
\$35,000- 49,999	686	54.6	50.0-59.2	696	81.1	77.7-84.5
\$50,000- 74,999	553	50.3	45.3-55.4	561	74.2	69.4-78.9
\$75,000+	663	48.7	44.1-53.3	669	73.9	70.0-77.8

CHAPTER 4: NUTRITION

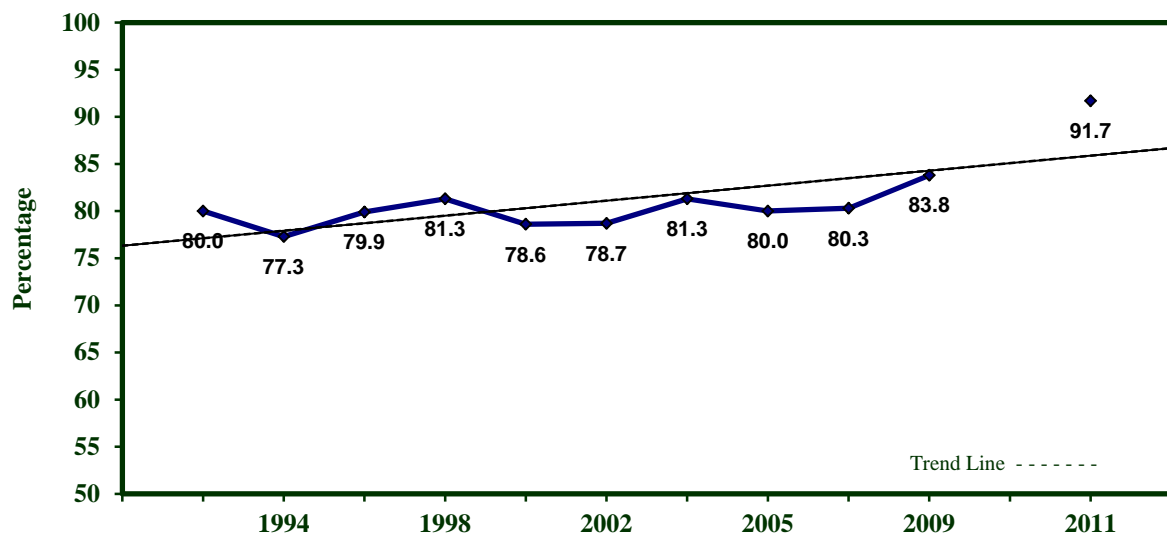
Fruit and Vegetable Consumption

Definition	Consuming fewer than five servings of fruits and vegetables on a daily basis in the past month.
Prevalence	WV: 91.7% (95% CI: 90.8-92.6) U.S.: 82.4% (95% CI: 82.2-82.6) The West Virginia prevalence of consumption of fewer than five servings of fruits and vegetables daily was significantly higher than the U.S. prevalence. West Virginia ranked the highest among the 52 BRFSS participants.
Gender	Men: 93.7% (95% CI: 92.5-95.0) Women: 89.8% (95% CI: 89.5-91.0) Men had a significantly higher prevalence of consumption of fewer than five servings of fruits and vegetables daily than women.
Age	The prevalence of consumption of fewer than 5 servings of fruits and vegetables daily did not vary by age.
Education	College graduates had a significantly lower prevalence of consumption of fewer than 5 servings of fruits and vegetables daily (85.3%) than persons with less than a high school education, a high school degree, or some college.
Household Income	The poorest households (those with less than \$15,000 in annual income) had a significantly higher prevalence of the consumption of fewer than 5 servings of fruits and vegetables per day than the wealthiest group (\$75,000 or more annual household income).

Table 4.1 Consumption of fewer than five servings of fruits and vegetables by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,911	93.7	92.5-95.0	2,969	89.8	88.5-91.0	4,880	91.7	90.8-92.6
Age									
18-24	92	93.1	87.6-98.6	140	92.6	87.3-97.9	232	92.8	89.0-96.7
25-34	219	92.6	89.1-96.1	292	91.8	88.7-94.8	511	92.2	89.8-94.5
35-44	256	93.9	91.0-96.8	380	89.5	86.1-92.9	636	91.7	89.4-93.9
45-54	375	94.3	91.4-97.1	551	87.9	85.1-90.8	926	91.0	89.0-93.0
55-64	440	93.1	90.6-95.5	680	88.0	85.4-90.7	1,120	90.5	88.7-92.3
65+	522	95.5	93.8-97.2	903	90.1	88.0-92.3	1,425	92.5	91.1-94.0
Education									
Less than H.S.	259	97.1	94.7-99.5	396	93.2	89.8-96.7	655	95.2	93.1-97.3
H.S. or G.E.D.	763	94.7	92.8-96.7	1,200	91.6	89.7-93.4	1,963	93.2	91.8-94.5
Some Post-H.S.	433	92.6	89.8-95.3	778	90.1	87.8-92.3	1,211	91.1	89.4-92.9
College Graduate	453	89.1	86.0-92.3	591	81.6	78.1-85.0	1,044	85.3	83.0-87.7
Income									
Less than \$15,000	216	95.9	92.3-99.5	404	94.1	91.3-97.0	620	95.0	92.7-97.2
\$15,000- 24,999	324	94.4	91.6-97.1	617	91.7	88.8-94.6	941	92.9	90.8-94.9
\$25,000- 34,999	276	93.5	89.7-97.4	469	91.4	88.8-94.0	745	92.4	90.1-94.7
\$35,000- 49,999	288	94.2	91.5-96.9	372	89.2	85.8-92.6	660	91.7	89.5-93.9
\$50,000- 74,999	256	93.5	89.6-97.3	286	87.0	82.7-91.3	542	90.6	87.7-93.4
\$75,000+	315	91.4	88.2-94.6	338	84.1	80.0-88.2	653	88.0	85.5-90.6

Figure 4.1 Consumption of fewer than five servings of fruits and vegetables daily by year: WVBRFSS, 1990-2011



NOTE: Data are not available for the years 1991-1993, 1995, 1997, 1999, 2001, 2004, 2006, 2008, and 2010.

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

CHAPTER 5: OBESITY AND OVERWEIGHT

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 ($\text{BMI}=\text{kg}/\text{m}^2$). Overweight is defined as a BMI of 25.0-29.9.
Prevalence	WV: 36.5% (95% CI: 34.9-38.2) U.S.: 35.8% (95% CI: 35.6-36.1) The West Virginia and U.S. prevalence of overweight was similar. West Virginia ranked the 12 th highest among 52 BRFSS participants.
Gender	Men: 41.5% (95% CI: 38.9-44.0) Women: 31.4% (95% CI: 29.4-33.5) Men had a significantly higher prevalence of overweight than women.
Age	In general, the prevalence of overweight increased with age; however, only the 18-24 age group (28.2%) and the 65 and older age group (38.9%) were significantly different from each other.
Education	There was no significant differences in the prevalence of overweight by educational attainment.
Household Income	The prevalence of overweight was significantly higher among those earning more than \$75,000 per year (44.9%) than among those with incomes less than \$15,000 (29.3%).

Table 5.1 Overweight but not obese by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,038	41.5	38.9-44.0	2,920	31.4	29.4-33.5	4,958	36.5	34.9-38.2
Age									
18-24	98	26.8	17.3-36.3	125	29.9	20.3-39.5	223	28.2	21.3-35.0
25-34	236	44.2	37.1-51.2	274	27.5	21.6-33.4	510	36.3	31.7-41.0
35-44	275	43.5	37.0-50.0	368	29.8	24.7-35.0	643	36.8	32.6-41.0
45-54	392	43.7	38.3-49.2	526	31.3	26.8-35.8	918	37.6	34.1-41.2
55-64	473	42.2	37.3-47.2	655	33.2	29.2-37.3	1,128	37.9	34.6-41.1
65+	556	44.2	39.6-48.9	959	34.6	31.2-38.0	1,515	38.9	36.0-41.7
Education									
Less than H.S.	279	34.7	28.3-41.1	429	31.1	25.3-36.9	708	33.0	28.7-37.3
H.S. or G.E.D.	821	40.9	36.8-45.0	1,174	32.8	29.6-36.0	1,995	37.1	34.5-39.8
Some Post-H.S.	466	43.8	38.6-49.0	745	29.9	26.0-33.7	1,211	36.2	33.0-39.4
College Graduate	469	46.6	41.5-51.7	568	31.5	27.1-35.9	1,037	39.2	35.8-42.7
Income									
Less than \$15,000	227	30.1	23.2-37.0	425	28.5	23.2-33.9	652	29.3	25.0-33.6
\$15,000- 24,999	345	37.6	31.7-43.6	603	29.6	25.3-33.9	948	33.3	29.7-36.9
\$25,000- 34,999	298	43.6	36.7-50.6	451	27.1	22.5-31.7	749	35.3	31.0-39.6
\$35,000- 49,999	305	41.0	34.4-47.7	358	34.6	28.9-40.4	663	38.0	33.6-42.4
\$50,000- 74,999	272	47.9	40.9-55.0	275	35.1	28.4-41.8	547	42.4	37.4-47.3
\$75,000+	327	52.1	45.6-58.6	324	35.7	29.3-42.1	651	44.9	40.3-49.4

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

Obesity

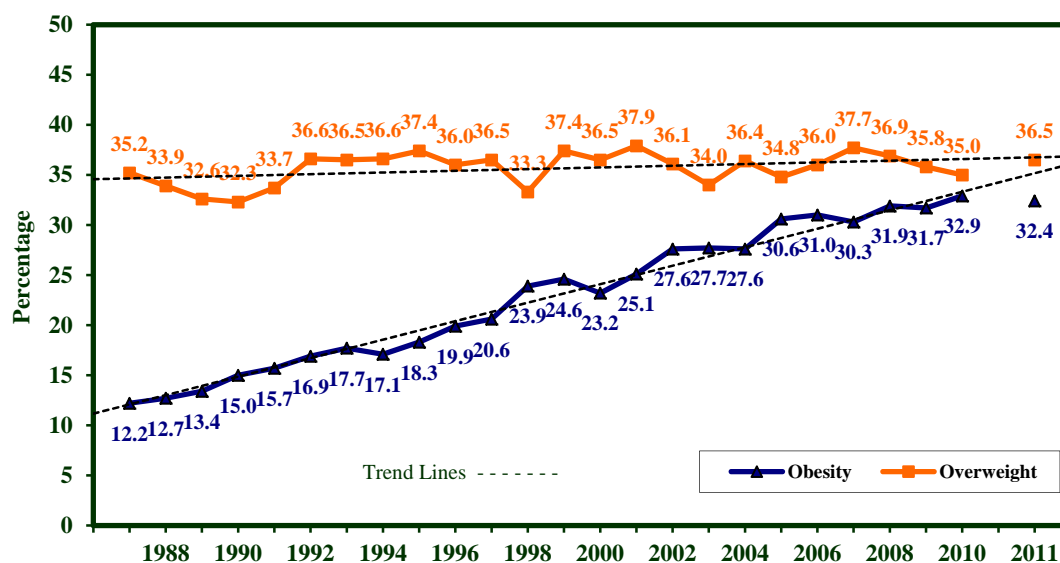
Definition	Body Mass Index (BMI) is a calculation that standardizes the meaning of the terms obesity and overweight, thereby improving the accuracy of comparisons. BMI is body weight in kilograms divided by height in meters squared ($BMI = kg/m^2$). Obesity is defined as a BMI of 30.0 or higher.
Prevalence	WV: 32.4% (95% CI: 30.8-34.0) U.S.: 27.4% (95% CI: 27.1-27.7) The prevalence of obesity in West Virginia was significantly higher than the U.S. prevalence. West Virginia ranked the 3 rd highest among 52 BRFSS participants.
Gender	Men: 30.7% (95% CI: 28.3-33.0) Women: 34.2% (95% CI: 32.1-36.3) There was no significant gender difference for the prevalence of obesity.
Age	There were no consistent age differences in the prevalence of obesity. The 45-54 age group had the highest prevalence of obesity (39.7%) and was significantly higher than the 18-24 age group (19.7%), the 25-34 age group (30.2%), and the 65 and older age group (27.7%).
Education	There were no significant differences in the prevalence of obesity by educational attainment.
Household Income	In general, the prevalence of obesity declined with increasing levels of household income. The prevalence of obesity was significantly higher among those earning less than \$25,000 per year than among those with incomes of \$50,000 or more per year.

Table 5.2 Obesity by demographic characteristics: WVBFRSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,038	30.7	28.3-33.0	2,920	34.2	32.1-36.3	4,958	32.4	30.8-34.0
Age									
18-24	98	18.1	10.1-26.1	125	21.8	13.5-30.1	223	19.7	13.9-25.5
25-34	236	27.2	20.9-33.5	274	33.4	27.4-39.5	510	30.2	25.7-34.6
35-44	275	32.9	26.8-39.0	368	37.3	31.8-42.7	643	35.0	30.9-39.1
45-54	392	37.2	31.9-42.6	526	42.4	37.6-47.2	918	39.7	36.1-43.4
55-64	473	36.3	31.5-41.2	655	40.4	36.2-44.6	1,128	38.3	35.1-41.5
65+	556	28.0	23.9-32.1	959	27.5	24.3-30.8	1,515	27.7	25.1-30.3
Education									
Less than H.S.	279	28.3	22.0-34.7	429	37.4	31.8-43.1	708	32.7	28.5-37.0
H.S. or G.E.D.	821	30.3	26.6-34.0	1,174	36.6	33.4-39.9	1,995	33.3	30.8-35.8
Some Post-H.S.	466	32.0	27.2-36.7	745	33.4	29.5-37.3	1,211	32.8	29.7-35.8
College Graduate	469	32.5	27.7-37.4	568	26.4	22.0-30.9	1,037	29.6	26.2-32.9
Income									
Less than \$15,000	227	31.8	24.6-39.0	425	41.7	36.1-47.4	652	37.1	32.5-41.6
\$15,000- 24,999	345	35.3	29.3-41.4	603	38.7	33.9-43.5	948	37.1	33.3-40.9
\$25,000- 34,999	298	33.4	27.1-39.8	451	37.2	32.1-42.3	749	35.3	31.3-39.4
\$35,000- 49,999	305	37.7	30.9-44.5	358	31.8	26.2-37.4	663	34.9	30.4-39.4
\$50,000- 74,999	272	24.7	18.9-30.5	275	32.0	25.6-38.4	547	27.8	23.5-32.2
\$75,000+	327	27.2	21.9-32.4	324	30.2	24.3-36.0	651	28.5	24.6-32.4

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

Figure 5.1 Obesity and overweight by year: WVBFRSS, 1987-2011

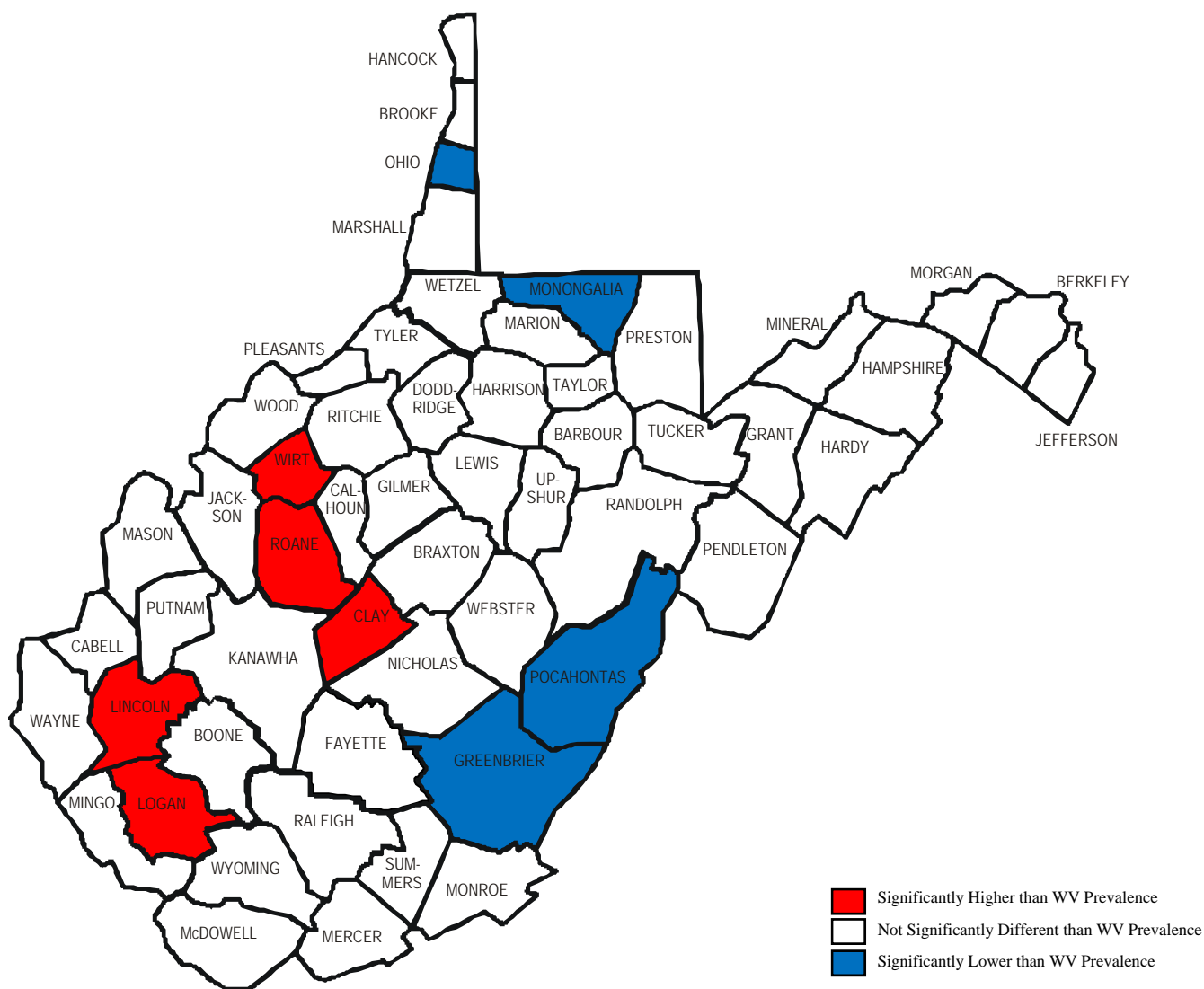


*Due to changes in sample composition and weighting methodology, 2011 results are not directly comparable to previous years.

Figure 5.2 Obesity (body mass index of 30.0 or higher) by county: WVBREFFS, 2007-2011

U.S. Prevalence (2009) – 27.4%

WV Prevalence (2007-2011) – 31.8%
(Significantly Higher than U.S.)



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

Weight Loss Advice

Definition	Responding “Yes, lose weight” to the question “In the past 12 months, has a doctor, nurse, or other health professional given you advice about your weight?”
Prevalence	WV: 22.4% (95% CI: 21.0-23.7) Because this was a state added question, no national data are available for comparison.
Gender	Men: 21.2% (95% CI: 19.2-23.2) Women: 23.5% (95% CI: 21.7-25.2) There was no gender difference in the prevalence of weight loss advice.
Age	There were no consistent age differences in the prevalence of weight loss advice. The 45-54 age group had the highest prevalence of weight loss advice (30.1%) and was significantly higher than the 18-24 age group (10.4%), the 25-34 age group (18.6%), and the 65 and older age group (17.4%). It is interesting to note that this pattern is similar to the age difference pattern observed with the prevalence of obesity.
Education	The prevalence of weight loss advice was significantly higher among those with some college and those with a college degree than among those with less than a high school education.
Household Income	Few differences in the prevalence of weight loss advice were noted by household income. Only the \$15,000-\$24,999 income bracket (20.1%) and the \$75,000 or more income bracket (27.8%) were significantly different from each other.

Table 5.3 Doctor advice to lose weight by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,024	21.2	19.2-23.2	3,142	23.5	21.7-25.2	5,166	22.4	21.0-23.7
Age									
18-24	92	*7.3	2.1-12.4	146	13.6	6.7-20.5	238	10.4	6.0-14.8
25-34	225	17.1	11.5-22.6	296	20.2	15.2-25.1	521	18.6	14.9-22.3
35-44	276	21.3	16.2-26.4	384	28.3	23.3-33.3	660	24.8	21.2-28.4
45-54	388	27.8	23.0-32.7	566	32.2	27.8-36.5	954	30.1	26.8-33.3
55-64	476	28.4	23.9-32.9	712	30.5	26.7-34.3	1,188	29.5	26.5-32.4
65+	560	19.9	16.3-23.5	1,011	15.4	13.0-17.9	1,571	17.4	15.3-19.4
Education									
Less than H.S.	281	15.2	10.3-20.1	457	20.0	15.4-24.5	738	17.6	14.2-20.9
H.S. or G.E.D.	813	20.8	17.7-23.9	1,269	24.0	21.2-26.7	2,082	22.4	20.3-24.4
Some Post-H.S.	466	23.4	19.1-27.7	800	25.4	21.9-28.9	1,266	24.6	21.8-27.3
College Graduate	460	26.3	21.8-30.7	611	22.7	18.5-26.8	1,071	24.4	21.4-27.5
Income									
Less than \$15,000	228	19.4	13.5-25.2	437	25.0	20.1-30.0	665	22.4	18.6-26.2
\$15,000- 24,999	344	19.0	14.1-24.0	643	21.0	17.2-24.7	987	20.1	17.1-23.1
\$25,000- 34,999	297	23.5	18.0-29.0	478	23.2	19.1-27.2	775	23.3	20.0-26.7
\$35,000- 49,999	303	22.2	16.9-27.4	387	22.3	17.6-26.9	690	22.2	18.7-25.7
\$50,000- 74,999	266	20.2	15.2-25.2	287	26.2	20.5-31.9	553	22.9	19.1-26.6
\$75,000+	317	26.0	20.6-31.4	345	29.8	23.8-35.8	662	27.8	23.7-31.8

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

CHAPTER 6: TOBACCO USE

Current Cigarette Smoking

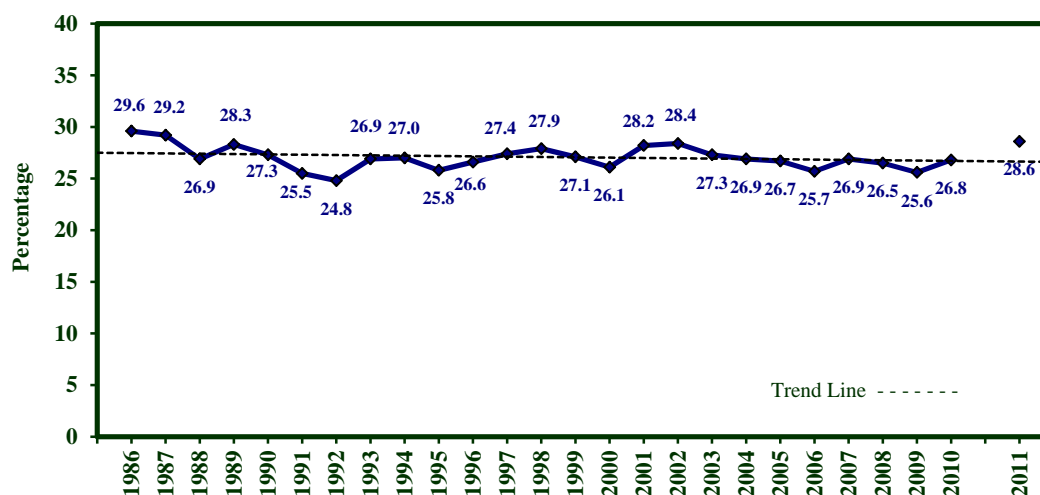
Definition	Current cigarette smoking is defined as smoking at least 100 cigarettes in one's lifetime and currently smoking every day or some days.
Prevalence	WV: 28.6% (95% CI: 27.0-30.2) U.S.: 20.1% (95% CI: 19.8-20.3) The West Virginia prevalence of current cigarette smoking was significantly higher than the national prevalence. West Virginia ranked the 2 nd highest among the 52 BRFSS participants.
Gender	Men: 31.5% (95% CI: 28.9-34.1) Women: 25.9% (95% CI: 24.0-27.9) The prevalence of smoking was significantly higher among men than women.
Age	In general, the prevalence of smoking was higher among those age 18-54 than those aged 55 and older. The prevalence of smoking was significantly lower among those aged 65 and older (10.9%) than among any other age group. The prevalence of smoking was highest in the 25-34 age group (41.4%).
Education	The prevalence of smoking was significantly different for all levels of educational attainment. Adults with less than a high school degree had the highest prevalence of current cigarette smoking (42.3%) while college graduates had the lowest prevalence of smoking (11.8%).
Household Income	In general, the prevalence of current smoking decreased as household income increased. The highest prevalence of smoking was among those earning less than \$15,000 per year (44.2%). The lowest prevalence of smoking was among adults earning \$75,000 or more per year (16.4%).

Table 6.1 Current cigarette smoking by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,062	31.5	28.9-34.1	3,201	25.9	24.0-27.9	5,263	28.6	27.0-30.2
Age									
18-24	102	*45.2	34.0-56.4	154	31.4	22.6-40.1	256	38.5	31.2-45.8
25-34	235	44.0	36.9-51.1	306	38.7	32.7-44.8	541	41.4	36.7-46.1
35-44	280	33.3	27.0-39.6	394	36.1	30.7-41.5	674	34.7	30.6-38.9
45-54	394	36.8	31.5-42.2	572	30.4	26.2-34.7	966	33.6	30.1-37.0
55-64	479	22.8	18.4-27.3	721	19.2	15.7-22.6	1,200	21.0	18.2-23.8
65+	564	12.3	9.2-15.4	1,026	9.8	7.8-11.8	1,590	10.9	9.1-12.6
Education									
Less than H.S.	282	45.0	37.9-52.1	468	39.6	33.6-45.5	750	42.3	37.6-46.9
H.S. or G.E.D.	827	36.4	32.1-40.7	1,294	27.7	24.7-30.7	2,121	32.1	29.4-34.7
Some Post-H.S.	474	27.0	22.3-31.7	816	21.9	18.6-25.2	1,290	24.1	21.3-26.9
College Graduate	474	9.7	6.8-12.6	618	13.9	10.4-17.4	1,092	11.8	9.5-14.1
Income									
Less than \$15,000	231	44.7	36.9-52.5	449	43.8	38.0-49.6	680	44.2	39.4-48.9
\$15,000- 24,999	352	40.7	34.4-46.9	658	31.0	26.5-35.6	1,010	35.3	31.6-39.1
\$25,000- 34,999	297	27.0	20.1-33.8	485	23.9	19.1-28.7	782	25.3	21.2-29.5
\$35,000- 49,999	310	31.1	23.8-38.3	391	23.5	18.2-28.8	701	27.4	22.8-31.9
\$50,000- 74,999	270	25.1	18.4-31.7	294	20.2	13.9-26.4	564	22.9	18.3-27.5
\$75,000+	327	20.2	13.9-26.5	350	11.9	7.8-16.0	677	16.4	12.4-20.4

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

Figure 6.1 Current cigarette smoking by year: WVBRFSS, 1986-2011

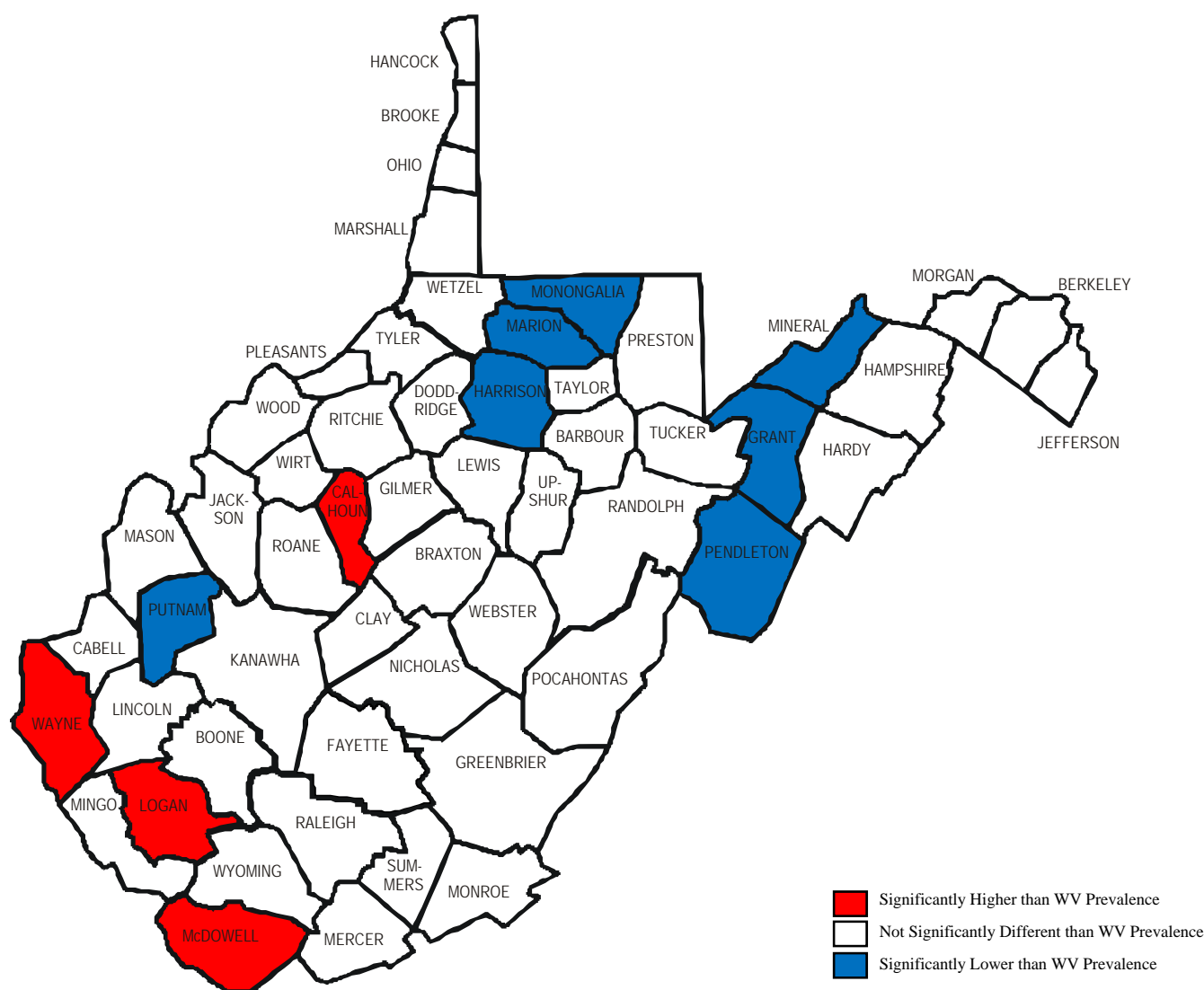


*Due to changes in sample composition and weighting methodology, 2011 results are not directly comparable to previous years.

Figure 6.2 Current cigarette smoking by county: WVBRFSS, 2007-2011

U.S. Prevalence (2009) – 18.0%

WV Prevalence (2007-2011) – 26.9%
(Significantly Higher than U.S.)



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

Smoking Cessation

Definition Among current smokers, responding “Yes” to the question “During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?”

Prevalence **WV: 53.0%** (95% CI: 49.5-56.5)
U.S.: 59.5% (95% CI: 58.9-60.2)
 The U.S. prevalence of smoking cessation was significantly higher than the West Virginia prevalence. West Virginia ranked the 5th lowest among 52 BRFSS participants.

Gender **Men:** 52.4% (95% CI: 47.2-57.7)
Women: 53.6% (95% CI: 49.1-58.1)
 There was no gender difference in the prevalence of smoking cessation.

Age There was no age difference in the prevalence of smoking cessation.

Education There was no educational attainment difference in the prevalence of smoking cessation.

Household Income There was no annual household income difference in the prevalence of smoking cessation.

Table 6.2 Trying to quit smoking by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	537	52.4	47.2-57.7	717	53.6	49.1-58.1	1,254	53.0	49.5-56.5
Age									
18-24	43	*61.6	43.9-79.2	48	*60.9	44.9-76.9	91	*61.3	48.9-73.7
25-34	97	*54.1	43.2-64.9	111	*55.3	45.2-65.4	208	54.6	47.2-62.1
35-44	84	*49.1	37.0-61.2	138	51.2	41.6-60.7	222	50.2	42.6-57.8
45-54	138	49.7	40.4-59.0	175	53.5	45.0-61.9	313	51.4	45.1-57.8
55-64	105	*53.9	42.6-65.2	139	44.8	34.8-54.8	244	49.7	42.0-57.4
65+	68	*41.6	28.3-54.8	101	*54.9	44.3-65.6	169	48.4	39.9-57.0
Education									
Less than H.S.	111	*48.1	37.2-59.1	147	*48.5	38.1-58.9	258	48.3	40.7-55.9
H.S. or G.E.D.	254	52.8	45.0-60.7	326	54.0	47.5-60.5	580	53.3	48.1-58.6
Some Post-H.S.	121	57.3	47.4-67.2	169	53.8	45.3-62.4	290	55.5	49.0-62.0
College Graduate	48	*52.8	37.4-68.3	75	*66.8	55.0-78.6	123	61.0	51.5-70.6
Income									
Less than \$15,000	94	*48.7	36.7-60.7	178	48.7	40.0-57.4	272	48.7	41.5-55.9
\$15,000- 24,999	123	59.1	49.1-69.0	176	53.6	44.4-62.7	299	56.4	49.6-63.2
\$25,000- 34,999	69	*62.0	46.7-77.2	108	*47.2	35.6-58.8	177	54.6	44.7-64.5
\$35,000- 49,999	73	*51.9	36.6-67.3	72	*59.4	46.4-72.3	145	*55.1	44.6-65.6
\$50,000- 74,999	51	*59.6	44.7-74.5	47	*63.2	47.7-78.7	98	*61.0	50.1-71.9
\$75,000+	52	*40.0	23.2-56.8	36	*59.5	40.7-78.3	88	*46.5	33.2-59.9

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

Smokeless Tobacco Use

Definition	Responding “Every day” or “Some days” to the question “Do you currently use chewing tobacco, snuff, or snus every day, some days, or not at all?”
Prevalence	<p>WV: 7.5% (95% CI: 6.5-8.5)</p> <p>U.S.: 3.7% (95% CI: 3.6-3.8)</p> <p>The West Virginia prevalence of smokeless tobacco use was significantly higher than the U.S. prevalence. West Virginia ranked the 4th highest among 52 BRFSS participants.</p>
Gender	<p>Men: 15.0% (95% CI: 13.1-16.9)</p> <p>Women: 0.5% (95% CI: 0.2-0.7)</p> <p>There was a significant gender difference in the prevalence of smokeless tobacco use with men having a higher prevalence than women. No further analysis with the female smokeless tobacco use data could be performed due to unstable estimates.</p>
Age	Those aged 18-54 had the highest prevalence of smokeless tobacco use. The oldest age group (65 and older) had a relatively low prevalence (3.4%).
Education	College graduates had the lowest prevalence of smokeless tobacco use (3.4%) and this prevalence was significantly lower than the prevalence among those with less than a high school education (9.9%).
Household Income	There was no household income difference in the prevalence of smokeless tobacco use.

Table 6.3 Smokeless tobacco use by demographic characteristics: WVBRFSS, 2011

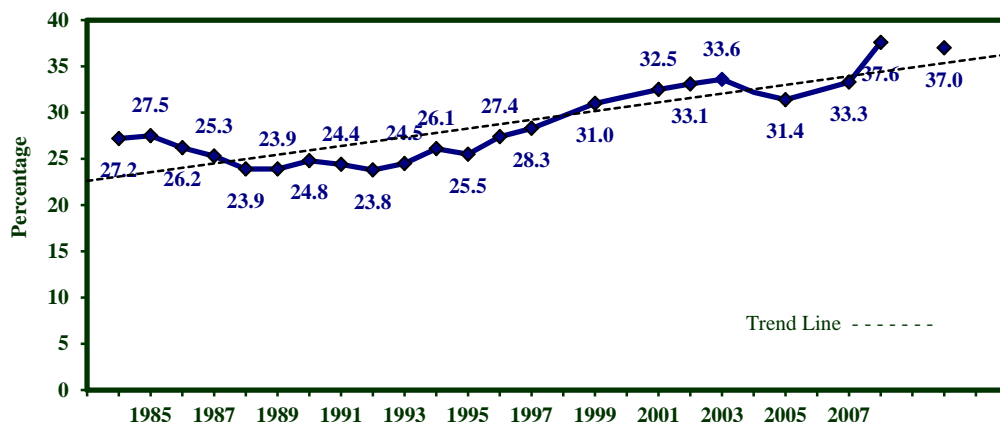
Characteristic	Men			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,072	15.0	13.1-16.9	5,282	7.5	6.5-8.5
Age						
18-24	102	16.7	9.2-24.2	256	8.6	4.7-12.6
25-34	237	18.8	13.4-24.3	545	9.5	6.7-12.4
35-44	280	22.8	17.2-28.3	675	12.2	9.1-15.2
45-54	397	17.6	13.4-21.8	969	8.7	6.5-10.8
55-64	482	9.0	6.2-11.7	1,204	4.5	3.1-5.9
65+	566	7.1	4.5-9.8	1,597	3.4	2.2-4.6
Education						
Less than H.S.	285	19.0	13.2-24.7	754	9.9	6.8-12.9
H.S. or G.E.D.	834	17.9	14.9-20.9	2,132	9.3	7.7-10.9
Some Post-H.S.	474	12.9	9.3-16.6	1,292	5.6	4.0-7.2
College Graduate	474	6.2	3.7-8.8	1,094	3.4	2.1-4.8
Income						
Less than \$15,000	232	15.1	9.5-20.7	682	7.5	4.8-10.2
\$15,000- 24,999	353	16.8	11.8-21.8	1,012	7.6	5.2-10.0
\$25,000- 34,999	298	12.5	8.0-17.1	785	6.1	3.9-8.4
\$35,000- 49,999	310	18.5	12.5-24.6	701	9.7	6.4-13.0
\$50,000- 74,999	272	14.0	9.5-18.6	566	8.0	5.4-10.6
\$75,000+	328	15.3	10.8-19.9	678	8.4	5.9-10.9

CHAPTER 7: HYPERTENSION

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: 37.0% (95% CI: 35.4-38.5) U.S.: 31.6% (95% CI: 31.3-31.8) The prevalence of hypertension among West Virginians was significantly higher than the U.S. prevalence. West Virginia ranked the 6 th highest among 52 BRFSS participants.
Gender	Men: 36.5% (95% CI: 34.1-38.9) Women: 37.4% (95% CI: 35.5-39.4) There was no gender difference in the prevalence of hypertension.
Age	The prevalence of hypertension increased sharply and significantly with increasing age, a well-known phenomenon. Approximately 60.8% of West Virginia seniors have hypertension.
Education	In general, the prevalence of hypertension decreased with higher levels of educational attainment. Adults who did not have a high school diploma had a significantly higher prevalence of hypertension (46.1%) than those with a college degree (28.5%).
Household Income	The prevalence of hypertension among those with an annual household income of less than \$15,000 per year (44.4%) was significantly higher than among those with an annual household income of \$75,000 or more per year (30.4%).

Figure 7.1 Prevalence of hypertension awareness by year: WVBRFSS, 1984-2011



NOTE: Data not available for the years 1998, 2000, 2004, 2006, 2008, and 2010.

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

Table 7.1 Hypertension awareness by demographic characteristics: WVBRFSS, 2011

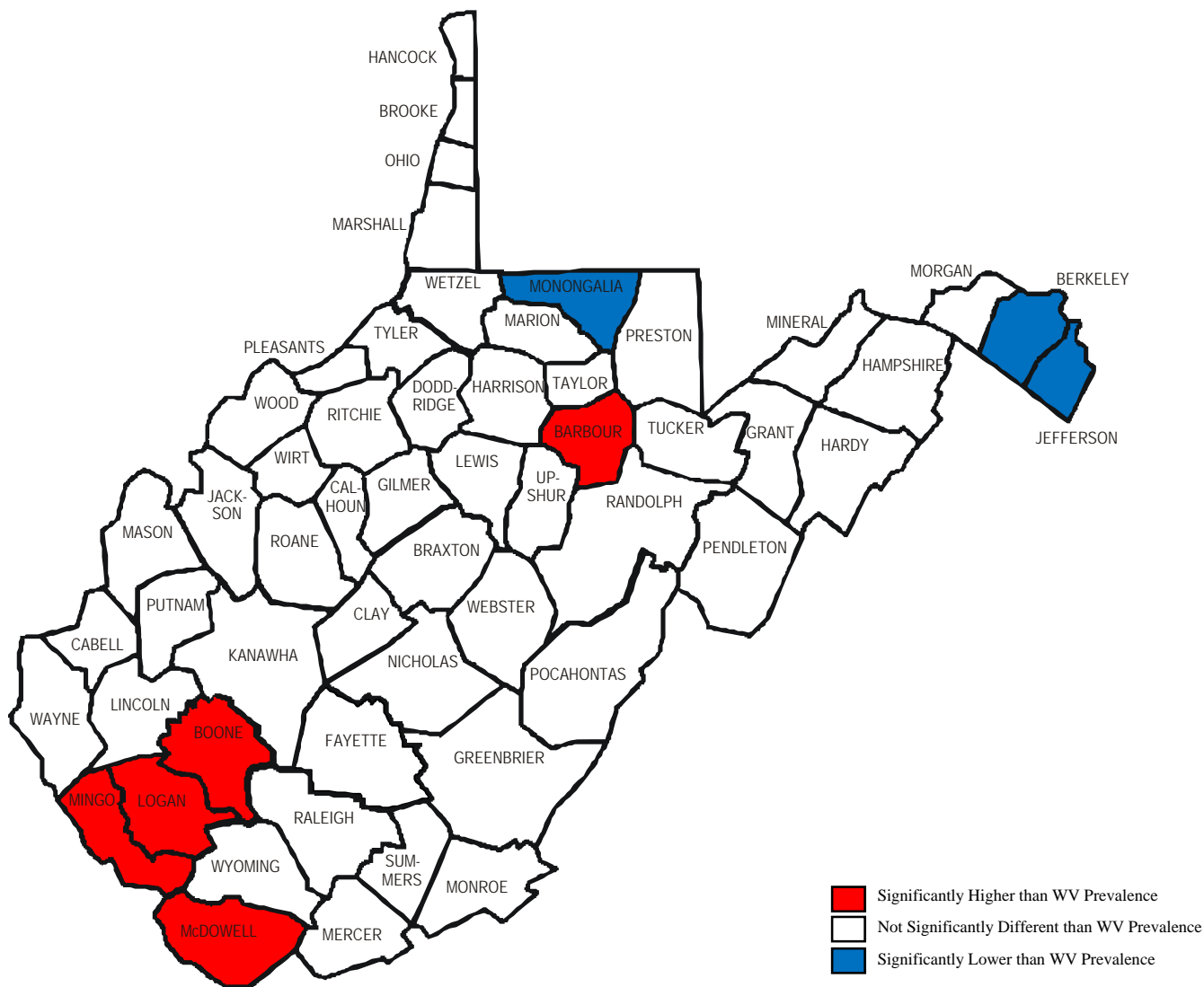
Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,071	36.5	34.1-38.9	3,204	37.4	35.5-39.4	5,275	37.0	35.4-38.5
Age									
18-24	102	*5.9	0.9-11.0	154	*5.4	1.0-9.8	256	*5.7	2.3-9.0
25-34	237	20.5	14.8-26.3	307	12.9	8.7-17.1	544	16.8	13.2-20.4
35-44	280	31.2	25.3-37.2	395	24.9	20.1-29.6	675	28.0	24.2-31.8
45-54	397	40.4	35.0-45.8	571	41.8	37.1-46.4	968	41.1	37.6-44.6
55-64	481	52.8	47.9-57.8	720	51.9	47.8-56.0	1,201	52.4	49.1-55.6
65+	566	57.0	52.4-61.5	1,029	63.7	60.4-67.0	1,595	60.8	58.1-63.6
Education									
Less than H.S.	284	41.3	34.6-47.9	467	50.9	45.0-56.8	751	46.1	41.7-50.6
H.S. or G.E.D.	834	37.3	33.4-41.2	1,297	42.2	39.1-45.3	2,131	39.7	37.2-42.2
Some Post-H.S.	474	33.8	29.1-38.5	817	30.0	26.6-33.4	1,291	31.6	28.8-34.4
College Graduate	474	33.0	28.4-37.5	618	24.1	20.5-27.7	1,092	28.5	25.6-31.4
Income									
Less than \$15,000	231	42.0	34.4-49.5	450	46.4	40.7-52.2	681	44.4	39.8-49.1
\$15,000- 24,999	353	43.4	37.2-49.5	657	43.8	39.3-48.4	1,010	43.6	39.9-47.3
\$25,000- 34,999	298	34.8	28.6-41.0	487	38.0	33.0-42.9	785	36.5	32.6-40.4
\$35,000- 49,999	310	35.1	28.8-41.3	391	32.2	27.3-37.2	701	33.7	29.7-37.7
\$50,000- 74,999	272	33.2	27.0-39.3	294	29.5	23.8-35.3	566	31.5	27.3-35.8
\$75,000+	328	36.8	30.9-42.8	350	22.8	18.0-27.6	678	30.4	26.5-34.3

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

Figure 7.2 Hypertension awareness by county: WVBRFSS, 2003, 2005, 2007, 2009, 2011

U.S. Prevalence (2007) – 27.7%

WV Prevalence (2003, 2005, 2007, 2009, 2011) – 34.6%
(Significantly Higher than U.S.)



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

Hypertension Medication

Definition	Reporting hypertension and responding “Yes” to the questions “Has a doctor or other health professional ever advised you to take medication to help lower or control your high blood pressure?” “Are you currently taking medicine for your high blood pressure?”
Prevalence	<p><i>Doctor Advised to Take Medication</i> WV: 90.3% (95% CI: 88.6-92.0) 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.</p> <p><i>Currently Use Medication</i> WV: 84.3% (95% CI: 82.3-86.3) U.S.: 77.3% (95% CI: 76.8-77.7) The West Virginia prevalence of hypertension medication use was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 52 BRFSS participants.</p>
Gender	<p><i>Doctor Advised to Take Medication</i> Men: 89.7% (95% CI: 86.9-92.5) Women: 90.9% (95% CI: 88.7-93.0) There was no gender difference in the prevalence of hypertension medication advice.</p> <p><i>Currently Use Medication</i> Men: 82.1% (95% CI: 78.8-85.4) Women: 86.4% (95% CI: 84.0-88.8) There was no gender difference in the prevalence of hypertension medication use.</p>
Age	The prevalence of both hypertension medication advice and hypertension medication use increased significantly with increasing age.
Education	There was no educational attainment difference for either the prevalence of hypertension medication advice or the prevalence of hypertension medication use.
Household Income	There was no annual household income difference for either the prevalence of hypertension medication advice or the prevalence of hypertension medication use.

Table 7.2 Use of hypertension medication by demographic characteristics: WVBRFSS, 2011

Characteristic	Doctor Advised to Take Medication			Currently Use Medication		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,242	90.3	88.6-92.0	2,282	84.3	82.3-86.3
Sex						
Males	853	89.7	86.9-92.5	870	82.1	78.8-85.4
Females	1,389	90.9	88.7-93.0	1,412	86.4	84.0-88.8
Age						
18-24	13	*20.8	0.5-41.1	14	*4.2	0.0-12.5
25-34	79	*68.1	57.0-79.3	83	*47.8	36.0-59.7
35-44	180	85.7	79.9-91.6	186	71.9	64.6-79.1
45-54	386	91.3	87.8-94.7	392	83.1	78.9-87.3
55-64	614	93.8	91.8-95.9	622	91.3	88.9-93.7
65+	963	96.6	95.5-97.8	977	96.1	94.8-97.4
Education						
Less than H.S.	400	91.4	87.3-95.6	412	81.8	76.7-86.9
H.S. or G.E.D.	975	89.2	86.4-92.0	993	85.0	81.9-88.1
Some Post-H.S.	497	91.3	88.1-94.4	503	85.3	81.5-89.1
College Graduate	367	90.9	87.4-94.4	371	85.3	81.0-89.7
Income						
Less than \$15,000	360	88.5	83.8-93.1	367	82.0	76.9-87.1
\$15,000- 24,999	475	87.0	82.3-91.7	485	79.6	74.4-84.8
\$25,000- 34,999	324	87.9	83.1-92.7	328	87.5	83.0-92.1
\$35,000- 49,999	279	92.6	89.2-96.1	282	87.1	82.2-92.1
\$50,000- 74,999	212	92.3	88.5-96.1	214	85.9	80.8-91.1
\$75,000+	226	93.6	89.8-97.4	230	86.8	81.6-92.0

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

Hypertension Control – Doctor Advice

Definition	Persons reporting that they have high blood pressure were asked a series of questions about advice a doctor or other health professional gave them about ways to lower or control their high blood pressure. Defined as responding “Yes” to doctor advice about “change eating habits”, “cut down on salt”, “reduce alcohol use”, and “exercise”.
Prevalence	<p><i>Change Eating Habits: 65.0% (95% CI: 62.6-67.3)</i></p> <p><i>Reduce Salt Intake: 63.0% (95% CI: 60.6-65.3)</i></p> <p><i>Reduce Alcohol Intake: 10.8% (95% CI: 9.2-12.5)</i></p> <p><i>Exercise: 73.3% (95% CI: 71.1-75.5)</i></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>Change Eating Habits</i></p> <p>Men: 66.2% (95% CI: 62.5-70.0)</p> <p>Women: 63.8% (95% CI: 60.8-66.8)</p> <p>There was no gender difference in the prevalence doctor advice to change eating habits.</p> <p><i>Reduce Salt Intake</i></p> <p>Men: 66.1% (95% CI: 62.5-69.8)</p> <p>Women: 60.1% (95% CI: 57.0-63.2)</p> <p>There was no gender difference in the prevalence of doctor advice to reduce salt intake.</p> <p><i>Reduce Alcohol Intake</i></p> <p>Men: 16.2% (95% CI: 13.2-19.2)</p> <p>Women: 6.0% (95% CI: 4.5-7.4)</p> <p>The prevalence of doctor advice to reduce alcohol intake was significantly higher for men than women.</p> <p><i>Exercise</i></p> <p>Men: 73.9% (95% CI: 70.3-77.4)</p> <p>Women: 72.8% (95% CI: 70.1-75.5)</p> <p>There was no gender difference in the prevalence of doctor advice to exercise.</p>
Age	The prevalence of doctor advice to change eating habits, reduce salt intake, reduce alcohol intake, and exercise was lowest among the 65 and older age group.
Education	There were no consistent educational attainment differences in the prevalence of doctor advice to change eating habits, reduce salt intake, reduce alcohol intake, or exercise.
Household Income	There were no consistent annual household income differences in the prevalence of doctor advice to change eating habits, reduce salt intake, reduce alcohol intake, or exercise.

Table 7.3 Doctor's advice about controlling hypertension by demographic characteristics: WVBRFSS, 2011

Characteristic	Change Eating Habits		Reduce Salt Intake		Reduce Alcohol Intake		Exercise	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
TOTAL	65.0	62.6-67.3	63.0	60.6-65.3	10.8	9.2-12.5	73.3	71.1-75.5
Sex								
Males	66.2	62.5-70.0	66.1	62.5-69.8	16.2	13.2-19.2	73.9	70.3-77.4
Females	63.8	60.8-66.8	60.1	57.0-63.2	6.0	4.5-7.4	72.8	70.1-75.5
Age								
18-24	*81.6	50.5-100.0	*87.7	70.5-100.0	*12.1	0.0-29.0	*75.3	43.9-100.0
25-34	*64.1	52.6-75.6	*60.0	48.2-71.7	*20.2	10.1-30.3	*69.1	57.9-80.4
35-44	69.9	62.3-77.6	67.2	59.6-74.7	19.0	12.6-25.5	79.3	72.5-86.2
45-54	70.0	64.7-75.4	64.1	58.6-69.6	15.1	10.6-19.5	78.7	74.0-83.5
55-64	70.1	65.9-74.4	66.5	62.2-70.9	10.1	7.4-12.7	77.0	73.0-81.0
65+	55.8	52.2-59.4	57.8	54.2-61.4	4.2	2.8-5.6	66.2	62.7-69.6
Education								
Less than H.S.	60.8	55.1-66.6	63.5	57.9-69.1	7.0	3.9-10.0	68.8	63.3-74.2
H.S. or G.E.D.	63.6	59.9-67.3	63.7	60.1-67.3	12.4	9.7-15.2	73.2	69.7-76.6
Some Post-H.S.	71.8	67.3-76.2	61.4	56.5-66.4	12.6	8.9-16.3	77.1	73.0-81.2
College Graduate	65.6	60.2-71.1	62.9	57.4-68.4	9.3	5.8-12.7	75.6	70.7-80.5
Income								
Less than \$15,000	61.3	54.9-67.6	62.7	56.4-68.9	8.3	4.4-12.1	65.8	59.5-72.0
\$15,000- 24,999	61.4	55.9-66.9	59.5	54.1-64.8	9.4	6.1-12.8	67.8	62.5-73.1
\$25,000- 34,999	70.4	64.5-76.2	62.9	56.7-69.2	14.2	9.1-19.3	78.7	73.4-84.0
\$35,000- 49,999	66.7	60.3-73.0	64.1	57.6-70.5	12.1	7.2-17.1	78.1	72.5-83.7
\$50,000- 74,999	70.9	63.8-77.9	70.1	63.2-77.1	14.1	8.3-19.8	76.9	70.3-83.6
\$75,000+	65.9	58.8-73.0	64.7	57.7-71.7	15.0	9.5-20.6	76.8	70.5-83.1

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

Hypertension Control – Actions Taken

Definition	Persons reporting that they have high blood pressure were asked a series of questions about actions they are taking to lower or control their high blood pressure. Defined as responding “Yes” to currently taking actions to “change eating habits”, “cut down on salt”, “reduce alcohol use”, and “exercise”.
Prevalence	<p><i>Change Eating Habits: 72.8% (95% CI: 70.5-75.0)</i></p> <p><i>Reduce Salt Intake: 69.4% (95% CI: 67.1-71.6)</i></p> <p><i>Reduce Alcohol Intake: 11.4% (95% CI: 9.7-13.0)</i></p> <p><i>Exercise: 57.8% (95% CI: 55.3-60.2)</i></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>Change Eating Habits</i></p> <p>Men: 68.4% (95% CI: 64.6-72.1)</p> <p>Women: 76.7% (95% CI: 74.1-79.4)</p> <p>The prevalence of action taken to change eating habits was significantly higher for women than men.</p> <p><i>Reduce Salt Intake</i></p> <p>Men: 68.5% (95% CI: 64.9-72.1)</p> <p>Women: 70.2% (95% CI: 67.3-73.0)</p> <p>There was no gender difference in the prevalence of action taken to reduce salt intake.</p> <p><i>Reduce Alcohol Intake</i></p> <p>Men: 17.0% (95% CI: 14.0-20.0)</p> <p>Women: 6.3% (95% CI: 4.8-7.8)</p> <p>The prevalence of action taken to reduce alcohol intake was significantly higher among men than women.</p> <p><i>Exercise</i></p> <p>Men: 59.2% (95% CI: 55.4-63.1)</p> <p>Women: 56.4% (95% CI: 53.4-59.5)</p> <p>There was no gender difference in the prevalence of action taken to exercise.</p>
Age	There were no consistent age differences in the prevalence of action taken to change eating habits, reduce salt intake, reduce alcohol intake, or exercise.
Education	There were no consistent educational attainment differences in the prevalence of action taken to change eating habits, reduce salt intake, reduce alcohol intake, or exercise.
Household Income	There were no consistent annual household income differences in the prevalence of action taken to change eating habits, reduce salt intake, reduce alcohol intake, or exercise.

Table 7.4 Actions taken to control hypertension by demographic characteristics: WVBRFSS, 2011

Characteristic	Change Eating Habits		Reduce Salt Intake		Reduce Alcohol Intake		Exercise	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
TOTAL	72.8	70.5-75.0	69.4	67.1-71.6	11.4	9.7-13.0	57.8	55.3-60.2
Sex								
Males	68.4	64.6-72.1	68.5	64.9-72.1	17.0	14.0-20.0	59.2	55.4-63.1
Females	76.7	74.1-79.4	70.2	67.3-73.0	6.3	4.8-7.8	56.4	53.4-59.5
Age								
18-24	*80.9	57.3-100.0	*93.6	83.6-100.0	*5.0	0.0-14.7	*100.0	100.0-100.0
25-34	*65.5	53.3-77.6	*64.6	53.3-76.0	18.5	9.0-28.1	*69.6	58.0-81.3
35-44	71.9	64.0-79.8	69.8	62.2-77.5	16.8	10.8-22.9	56.7	48.5-64.8
45-54	75.1	70.2-80.1	67.3	61.8-72.7	15.3	10.8-19.7	56.6	51.0-62.3
55-64	77.3	73.3-81.3	73.8	69.8-77.8	11.1	8.3-13.8	54.2	49.6-58.8
65+	69.4	66.0-72.8	67.1	63.7-70.6	6.4	4.5-8.2	56.9	53.4-60.4
Education								
Less than H.S.	70.3	64.9-75.8	66.6	61.1-72.2	9.1	5.6-12.5	48.4	42.5-54.2
H.S. or G.E.D.	70.0	66.3-73.6	69.6	66.2-73.1	9.6	7.2-12.0	55.9	52.2-59.7
Some Post-H.S.	79.3	75.3-83.3	70.9	66.3-75.4	14.5	10.7-18.3	64.5	59.8-69.3
College Graduate	76.1	71.3-80.9	71.3	66.2-76.4	16.4	11.9-21.0	69.2	63.9-74.4
Income								
Less than \$15,000	74.7	69.0-80.4	67.8	61.9-73.7	11.8	7.2-16.4	48.1	41.7-54.4
\$15,000- 24,999	72.6	67.7-77.6	68.5	63.4-73.6	7.8	5.0-10.6	55.5	50.0-60.9
\$25,000- 34,999	75.0	69.5-80.5	67.6	61.6-73.6	11.1	6.4-15.9	59.5	53.2-65.7
\$35,000- 49,999	76.0	70.0-82.1	71.4	65.0-77.8	14.4	9.2-19.6	65.8	59.2-72.2
\$50,000- 74,999	73.2	66.1-80.2	76.1	69.8-82.4	15.9	10.1-21.7	63.1	55.6-70.7
\$75,000+	69.9	62.7-77.2	65.4	58.3-72.6	17.3	11.7-22.8	63.4	56.1-70.7

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

CHAPTER 8: CHOLESTEROL

Cholesterol Testing

Definition	Responding “Yes” to the question “Have you ever had your blood cholesterol checked?” Responding “Within the past 5 years” to the question “About how long has it been since you last had your blood cholesterol checked?”
Prevalence	<p><i>Ever</i> WV: 83.3% (95% CI: 81.8-84.8) U.S.: 79.4% (95% CI: 79.1-79.6) The West Virginia prevalence of ever had cholesterol checked was significantly higher than the U.S. prevalence. West Virginia ranked the 10th highest among 52 BRFSS participants.</p> <p><i>Past 5 years</i> WV: 80.5% (95% CI: 79.0-82.1) U.S.: 75.8% (95% CI: 75.5-76.0) The West Virginia prevalence of had cholesterol checked in the past 5 years was significantly higher than the U.S. prevalence. West Virginia ranked the 8th highest among 52 BRFSS participants.</p>
Gender	<p><i>Ever</i> Men: 81.6% (95% CI: 79.1-84.0) Women: 84.9% (95% CI: 83.2-86.6) There was no gender difference in the prevalence of ever had cholesterol checked.</p> <p><i>Past 5 years</i> Men: 78.8% (95% CI: 76.3-81.3) Women: 82.1% (95% CI: 80.3-84.0) There was no gender difference in the prevalence of had cholesterol checked in the past 5 years.</p>
Age	Generally, both the prevalence of ever had cholesterol checked and the prevalence of had cholesterol checked in the past 5 years increased with increasing age. The highest prevalence of each indicator was found among the 65 and older age group.
Education	The prevalence of ever had cholesterol checked and the prevalence of had cholesterol checked in the past 5 years were both highest among college graduates and lowest among those with less than a high school education.
Household Income	The prevalence of ever had cholesterol checked and the prevalence of had cholesterol checked in the past 5 years both increased with increasing levels of annual household income.

Table 8.1 Ever had cholesterol checked by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,016	81.6	79.1-84.0	3,137	84.9	83.2-86.6	5,153	83.3	81.8-84.8
Age									
18-24	88	*51.0	39.1-62.9	141	56.4	47.0-65.8	229	53.7	46.1-61.4
25-34	227	62.4	55.2-69.5	292	66.7	60.7-72.7	519	64.5	59.8-69.2
35-44	271	82.3	77.1-87.5	384	83.7	79.7-87.8	655	83.0	79.7-86.3
45-54	389	87.4	83.5-91.2	567	91.1	88.1-94.0	956	89.3	86.9-91.7
55-64	479	94.2	91.7-96.7	713	94.2	92.2-96.1	1,192	94.2	92.6-95.8
65+	554	97.5	96.1-98.9	1,014	97.9	97.1-98.8	1,568	97.7	97.0-98.5
Education									
Less than H.S.	268	79.0	72.4-85.7	453	83.0	78.7-87.4	721	81.1	77.1-85.0
H.S. or G.E.D.	811	77.8	73.6-82.0	1,268	83.6	80.8-86.4	2,079	80.7	78.1-83.2
Some Post-H.S.	463	83.8	79.5-88.1	801	84.9	81.5-88.2	1,264	84.4	81.7-87.1
College Graduate	469	90.9	87.3-94.4	610	90.0	86.7-93.4	1,079	90.5	88.0-92.9
Income									
Less than \$15,000	217	76.8	69.4-84.2	443	73.7	68.1-79.3	660	75.1	70.6-79.6
\$15,000- 24,999	344	77.7	71.7-83.7	648	79.7	75.7-83.8	992	78.8	75.4-82.3
\$25,000- 34,999	289	82.7	77.2-88.3	479	86.8	82.9-90.7	768	84.9	81.6-88.2
\$35,000- 49,999	308	81.8	75.5-88.1	381	90.9	87.0-94.8	689	86.2	82.4-90.0
\$50,000- 74,999	266	84.1	77.6-90.5	290	87.6	81.8-93.5	556	85.7	81.3-90.1
\$75,000+	324	92.6	86.8-98.4	348	89.4	84.6-94.1	672	91.1	87.3-94.9

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

Table 8.2 Had cholesterol checked in past five years by demographic characteristics: WVBRFSS, 2011

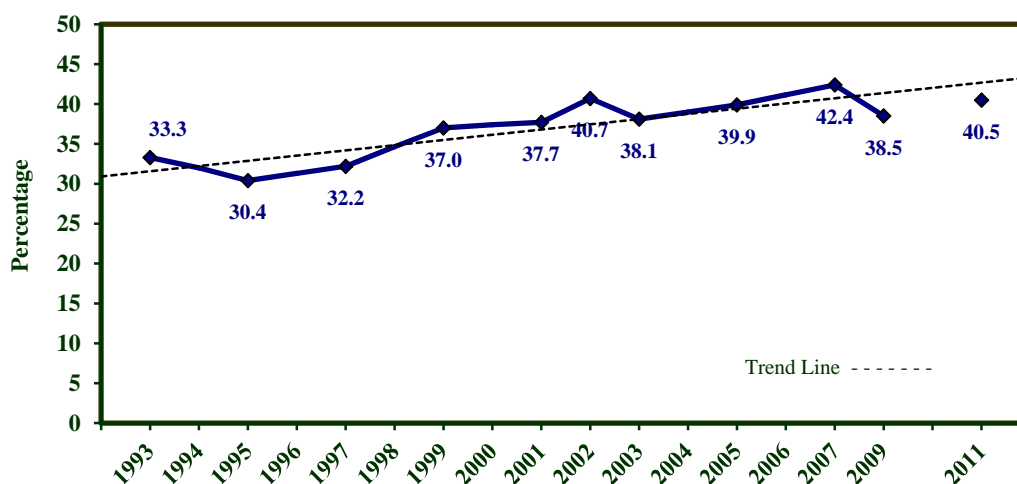
Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,000	78.8	76.3-81.3	3,104	82.1	80.3-84.0	5,104	80.5	79.0-82.1
Age									
18-24	85	*47.3	35.2-59.3	138	53.2	43.5-62.9	223	50.3	42.5-58.1
25-34	226	59.7	52.5-66.9	290	62.8	56.7-68.9	516	61.2	56.5-66.0
35-44	271	79.8	74.4-85.2	381	79.6	75.2-84.0	652	79.7	76.2-83.2
45-54	386	83.4	79.2-87.7	564	88.5	85.3-91.7	950	86.0	83.4-88.7
55-64	475	91.7	88.9-94.5	708	91.6	89.2-93.9	1,183	91.6	89.8-93.5
65+	550	95.2	93.2-97.3	997	96.7	95.6-97.8	1,547	96.1	95.0-97.2
Education									
Less than H.S.	263	76.1	69.3-82.9	446	79.5	74.3-84.6	709	77.8	73.6-82.1
H.S. or G.E.D.	804	75.3	71.0-79.5	1,257	81.3	78.4-84.2	2,061	78.3	75.7-80.9
Some Post-H.S.	461	81.4	76.9-85.9	794	81.4	77.9-84.9	1,255	81.4	78.6-84.2
College Graduate	467	87.1	83.2-91.0	602	88.3	84.7-91.8	1,069	87.7	85.0-90.3
Income									
Less than \$15,000	215	73.8	66.3-81.4	441	70.6	64.9-76.3	656	72.0	67.4-76.6
\$15,000- 24,999	341	75.3	69.3-81.4	643	77.5	73.3-81.6	984	76.5	73.0-80.1
\$25,000- 34,999	287	79.8	74.0-85.6	474	83.5	79.3-87.6	761	81.7	78.2-85.3
\$35,000- 49,999	306	79.8	73.4-86.3	377	89.0	84.9-93.1	683	84.3	80.4-88.2
\$50,000- 74,999	265	82.6	76.1-89.1	286	84.8	78.7-90.9	551	83.6	79.1-88.1
\$75,000+	324	89.3	83.3-95.4	348	87.9	83.0-92.8	672	88.7	84.7-92.6

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

High Cholesterol Prevalence

Definition	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	<p>WV: 40.5% (95% CI: 38.8-42.2)</p> <p>U.S.: 38.5% (95% CI: 38.2-38.8)</p> <p>The prevalence of high cholesterol was similar in West Virginia and the U.S. West Virginia ranked the 11th highest among the 52 BRFSS participants.</p>
Gender	<p>Men: 40.7% (95% CI: 38.1-43.4)</p> <p>Women: 40.3% (95% CI: 38.2-42.5)</p> <p>There was no gender difference in the prevalence of high cholesterol.</p>
Age	The prevalence of high cholesterol generally increased with age with the highest prevalence being among the 55-64 year old age group.
Education	High cholesterol prevalence declined with increasing levels of educational attainment. Adults with less than a high school education had a significantly higher prevalence of high cholesterol than all other educational levels.
Household Income	About half of those with an annual household income of less than \$15,000 had high cholesterol. Only about one-third of those in the upper income brackets reported having high cholesterol levels.

Figure 8.1 Prevalence of high blood cholesterol among those who have ever had their blood cholesterol checked by year: WVBRFSS, 1993-2011



NOTES: Data not available for the years 1994, 1996, 1998, 2000, 2004, 2006, 2008 and 2010.

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

Table 8.3 Prevalence of high cholesterol among those who have ever had their blood cholesterol checked by demographic characteristics: WVBRESS, 2011

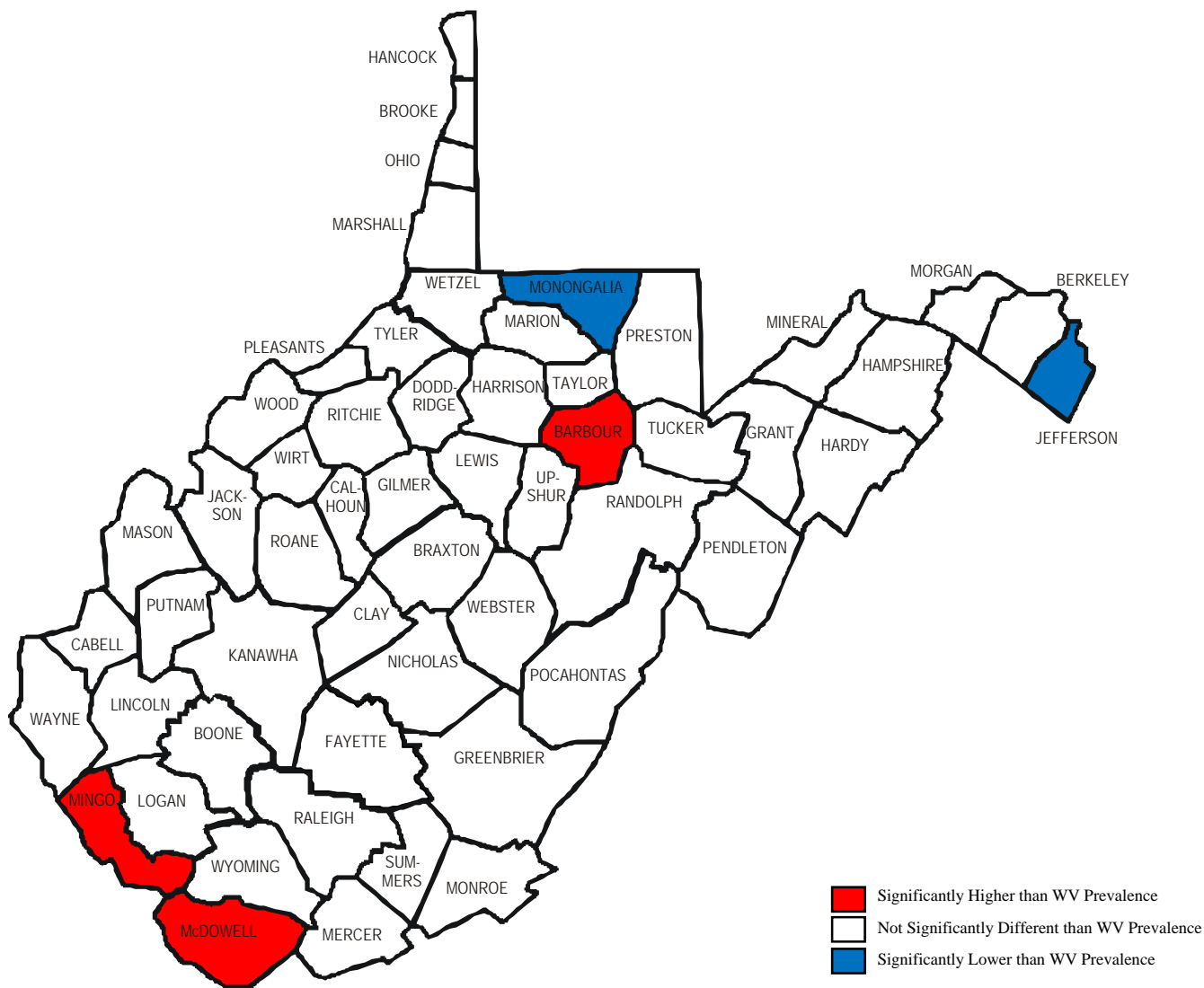
Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,755	40.7	38.1-43.4	2,771	40.3	38.2-42.5	4,526	40.5	38.8-42.2
Age									
18-24	48	*5.9	0.0-12.0	77	*2.1	0.0-4.4	125	*3.9	0.7-7.0
25-34	150	25.0	16.7-33.2	199	22.3	15.7-28.9	349	23.6	18.4-28.9
35-44	225	33.1	26.4-39.8	314	32.7	26.8-38.6	539	32.9	28.4-37.3
45-54	341	43.9	38.1-49.8	513	40.7	35.9-45.5	854	42.3	38.5-46.0
55-64	452	55.4	50.3-60.5	671	51.4	47.2-55.7	1,123	53.4	50.1-56.7
65+	532	49.1	44.4-53.9	975	54.0	50.5-57.5	1,507	51.9	49.1-54.8
Education									
Less than H.S.	225	52.5	44.8-60.1	381	52.4	45.7-59.1	606	52.4	47.4-57.5
H.S. or G.E.D.	683	39.7	35.5-43.9	1,110	45.4	42.0-48.8	1,793	42.6	39.9-45.3
Some Post-H.S.	406	38.5	33.2-43.8	712	34.8	30.9-38.7	1,118	36.4	33.2-39.5
College Graduate	437	34.7	29.8-39.6	563	25.5	21.6-29.4	1,000	30.1	27.0-33.3
Income									
Less than \$15,000	177	48.3	39.4-57.3	358	55.9	49.2-62.7	535	52.5	47.0-58.0
\$15,000- 24,999	291	45.7	38.9-52.5	550	42.2	37.2-47.1	841	43.7	39.6-47.8
\$25,000- 34,999	250	42.4	35.2-49.5	431	45.1	39.6-50.6	681	43.9	39.4-48.3
\$35,000- 49,999	263	42.2	35.1-49.3	353	33.9	28.2-39.6	616	37.9	33.4-42.5
\$50,000- 74,999	239	39.6	32.6-46.6	266	34.5	28.1-41.0	505	37.2	32.5-42.0
\$75,000+	312	34.2	28.5-40.0	319	30.6	24.7-36.4	631	32.6	28.5-36.7

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

Figure 8.2 High cholesterol awareness by county: WVBRFSS, 2003, 2005, 2007, 2009, 2011

U.S. Prevalence (2007) – 37.3%

WV Prevalence (2003, 2005, 2007, 2009, 2011) – 39.9%
(Significantly Higher than U.S.)



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

CHAPTER 9: ALCOHOL CONSUMPTION

Binge Drinking

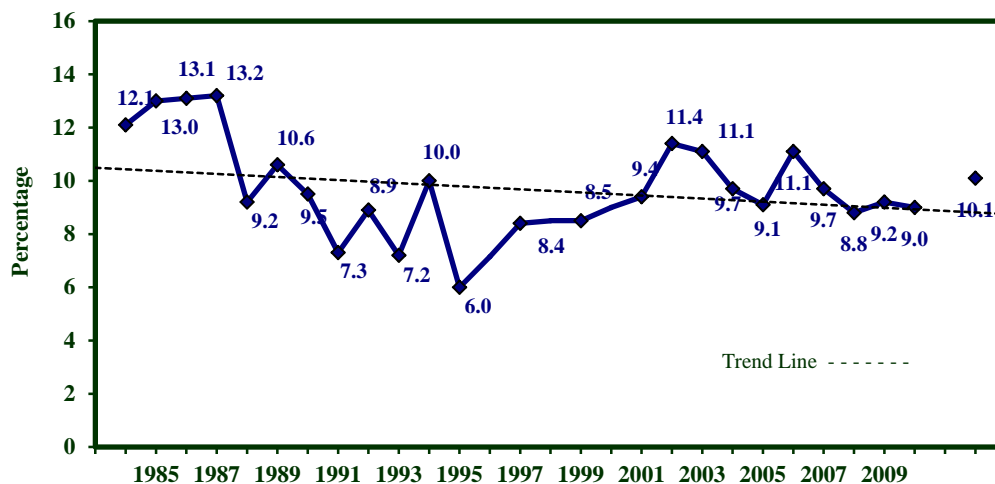
Definition	Defined as consumption of five or more alcoholic drinks for males, or four or more alcoholic drinks for females, on a single occasion during the past month.
Prevalence	WV: 10.1% (95% CI: 8.9-11.4) U.S.: 18.3% (95% CI: 18.0-18.5) The U.S. prevalence of binge drinking was significantly higher than the West Virginia prevalence. West Virginia ranked the 2 nd lowest among 52 BRFSS participants.
Gender	Men: 15.5% (95% CI: 13.3-17.8) Women: 5.2% (95% CI: 4.2-6.1) Men had a significantly higher prevalence of binge drinking than women.
Age	Younger adults had a higher prevalence of binge drinking than those aged 55 and older. The prevalence of binge drinking ranged from highs of 22.9% among the 18-24 age group to lows of only 1.4% among those aged 65 and older.
Education	The prevalence of binge drinking was highest among those with some college (11.5%) and lowest among those with less than a high school education (6.0%).
Household Income	There was no consistent annual household income difference in the prevalence of binge drinking.

Table 9.1 Binge drinking by demographic characteristics: WVBRESS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,017	15.5	13.3-17.8	3,147	5.2	4.2-6.1	5,164	10.1	8.9-11.4
Age									
18-24	96	*34.2	22.8-45.7	149	11.3	6.0-16.7	245	22.9	16.1-29.7
25-34	226	26.4	20.2-32.7	300	7.5	4.2-10.8	526	17.0	13.3-20.6
35-44	272	16.0	11.3-20.7	385	7.9	5.1-10.6	657	11.9	9.2-14.7
45-54	391	15.0	11.1-19.0	563	5.7	3.6-7.8	954	10.3	8.0-12.5
55-64	469	6.8	4.1-9.4	716	2.3	1.2-3.4	1,185	4.5	3.1-5.9
65+	557	*2.5	1.0-3.9	1,007	*0.6	0.1-1.1	1,564	1.4	0.7-2.1
Education									
Less than H.S.	273	9.1	4.1-14.2	456	*2.9	1.2-4.7	729	6.0	3.3-8.6
H.S. or G.E.D.	808	18.0	14.1-21.9	1,271	3.6	2.3-4.9	2,079	10.8	8.7-13.0
Some Post-H.S.	467	17.8	13.5-22.1	805	6.7	4.5-8.9	1,272	11.5	9.2-13.7
College Graduate	466	13.2	9.1-17.2	610	8.7	5.5-12.0	1,076	11.0	8.3-13.6
Income									
Less than \$15,000	224	10.1	5.3-14.9	439	6.1	3.0-9.1	663	7.9	5.2-10.6
\$15,000- 24,999	342	17.1	11.9-22.4	644	5.0	2.9-7.0	986	10.3	7.6-13.0
\$25,000- 34,999	297	11.6	6.1-17.1	481	*3.7	1.5-5.9	778	7.4	4.5-10.3
\$35,000- 49,999	306	21.4	14.2-28.5	388	5.3	2.4-8.2	694	13.5	9.3-17.6
\$50,000- 74,999	265	20.1	13.9-26.2	289	*6.2	2.0-10.3	554	13.8	9.9-17.8
\$75,000+	321	18.2	11.8-24.6	341	7.8	4.7-11.0	662	13.5	9.6-17.3

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

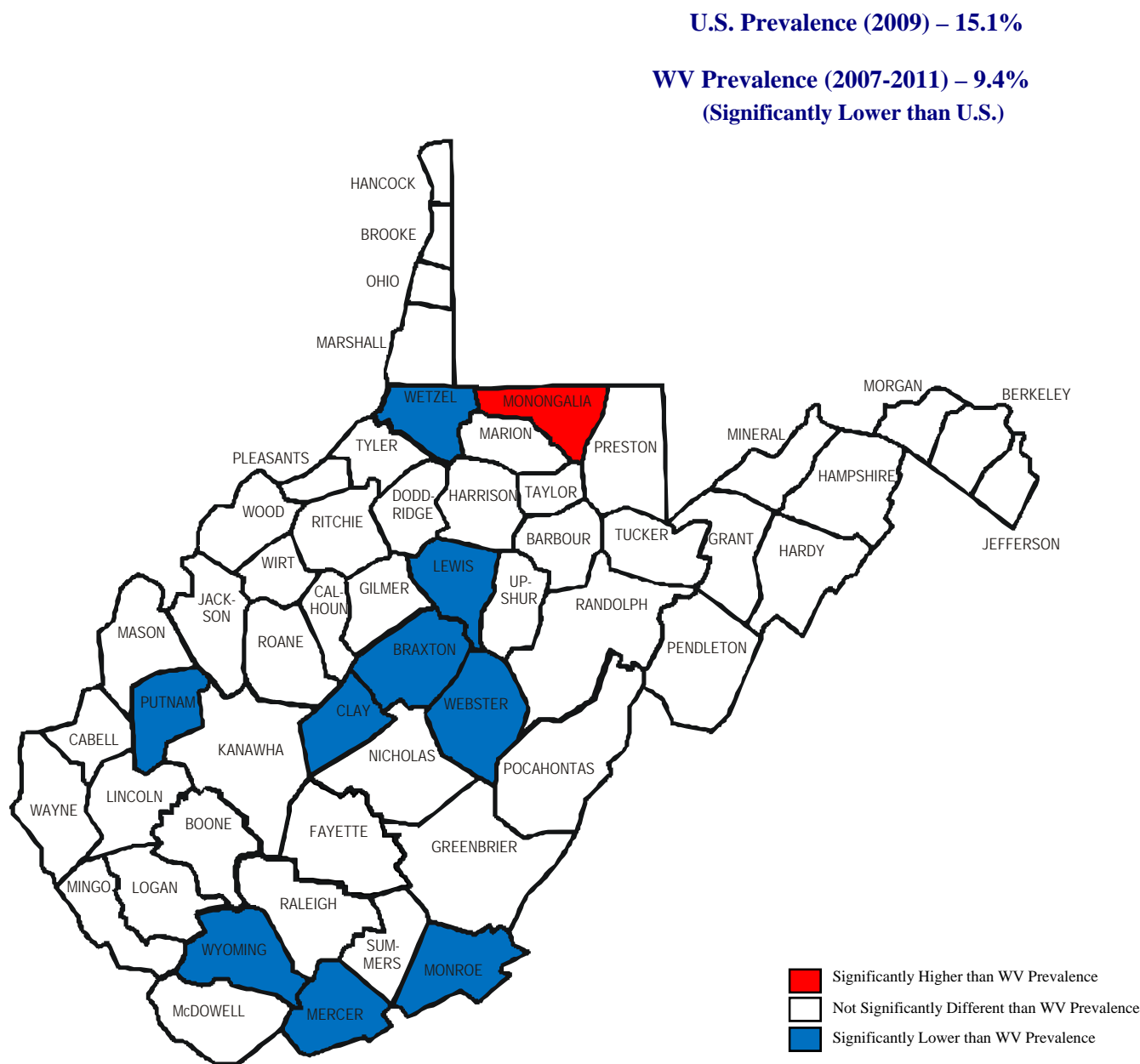
Figure 9.1 Binge drinking by year: WVBRESS, 1984-2011



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

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

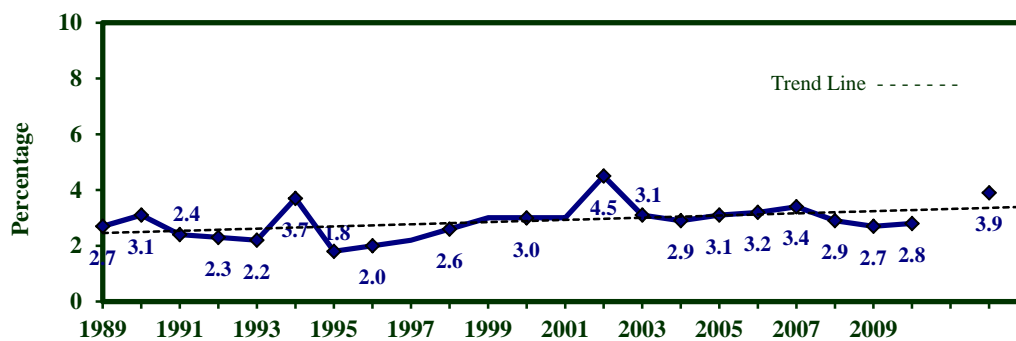
Figure 9.2 Binge drinking by county: WVBFRSS, 2007-2011



Heavy Drinking ¹

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	<p>WV: 3.9% (95% CI: 3.2-4.7)</p> <p>U.S.: 6.6% (95% CI: 6.4-6.7)</p> <p>The U.S. prevalence of heavy drinking was significantly higher than the West Virginia prevalence. West Virginia ranked the 2nd lowest among the 52 BRFSS participants.</p>
Gender	<p>Men: 5.5% (95% CI: 4.0-6.9)</p> <p>Women: 2.5% (95% CI: 1.8-3.2)</p> <p>The prevalence of heavy drinking was significantly higher among men than women.</p>
Age	In general, the prevalence of heavy drinking declined with increasing age. The highest prevalence of heavy drinking was among those aged 18-24 and the lowest prevalence was among those aged 65 and older.
Education	There was educational attainment difference in the prevalence of heavy drinking.
Household Income	There was no annual household income difference in the prevalence of heavy drinking.

Figure 9.3 Heavy drinking by year: WVBRFSS, 1989-2011



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

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

¹ Note: Prior to 2001, heavy drinking was defined as consuming 60 or more drinks during the past month regardless of gender. This report redefines the data prior to 2001 to match the current definition of heavy drinking. Therefore, numbers presented in this chapter may not agree with publications prior to 2003.

Table 9.2 Heavy drinking by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,016	5.5	4.0-6.9	3,152	2.5	1.8-3.2	5,168	3.9	3.2-4.7
Age									
18-24	96	*10.8	2.5-19.1	150	*2.6	0.2-5.1	246	*6.8	2.3-11.3
25-34	228	7.7	4.1-11.4	300	*3.0	0.6-5.4	528	5.4	3.2-7.6
35-44	271	*4.5	1.8-7.2	385	*3.2	1.3-5.1	656	3.9	2.2-5.5
45-54	390	7.1	4.1-10.1	566	4.1	2.2-5.9	956	5.5	3.8-7.3
55-64	470	*1.7	0.5-3.0	716	2.6	1.4-3.8	1,186	2.2	1.3-3.0
65+	555	2.8	1.4-4.3	1,009	*0.4	0.1-0.7	1,564	1.4	0.8-2.1
Education									
Less than H.S.	272	*5.0	1.8-8.3	458	*3.1	1.0-5.1	730	4.0	2.1-5.9
H.S. or G.E.D.	808	7.2	4.4-10.0	1,271	2.0	1.1-2.9	2,079	4.6	3.1-6.1
Some Post-H.S.	468	4.9	2.6-7.3	805	2.5	1.1-3.8	1,273	3.5	2.3-4.8
College Graduate	465	2.5	1.1-4.0	613	3.1	1.7-4.6	1,078	2.8	1.8-3.9
Income									
Less than \$15,000	225	*4.3	0.8-7.8	440	*3.4	1.2-5.6	665	3.8	1.8-5.8
\$15,000- 24,999	339	7.6	3.6-11.7	645	*2.2	0.7-3.8	984	4.6	2.6-6.6
\$25,000- 34,999	295	*3.4	1.2-5.6	480	*3.1	0.9-5.2	775	3.2	1.7-4.8
\$35,000- 49,999	306	4.9	2.1-7.7	388	*1.9	0.3-3.4	694	3.4	1.8-5.0
\$50,000- 74,999	265	5.8	2.5-9.0	292	*3.7	1.2-6.3	557	4.8	2.7-7.0
\$75,000+	322	*6.6	1.1-12.2	343	3.0	1.3-4.7	665	*5.0	1.8-8.1

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

No Drinking

Definition	Defined as the consumption of no alcoholic drinks during the past month.
Prevalence	<p>WV: 68.2% (95% CI: 66.5-69.8) U.S.: 44.9% (95% CI: 44.6-45.2)</p> <p>The West Virginia prevalence of no drinking in the past month was significantly higher than the U.S. prevalence. West Virginia ranked the 2nd highest among 52 BRFSS participants.</p>
Gender	<p>Men: 59.0% (95% CI: 56.3-61.6) Women: 76.7% (95% CI: 74.8-78.6)</p> <p>The prevalence of no drinking in the past month was significantly higher among women than men.</p>
Age	The prevalence of no drinking in the past month generally increased with increasing age.
Education	The prevalence of no drinking in the past month was significantly different for each level of educational attainment. The prevalence of no drinking in the past month was highest among those with less than a high school education and lowest among those with a college degree.
Household Income	The prevalence of no drinking in the past month was highest among those with an annual household income of less than \$15,000 while the lowest prevalence was among those with a household income of \$75,000 or more per year.

Table 9.3 No drinking in past month by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,029	59.0	56.3-61.6	3,159	76.7	74.8-78.6	5,188	68.2	66.5-69.8
Age									
18-24	98	*50.4	39.0-61.8	150	66.8	57.5-76.0	248	58.4	50.9-65.8
25-34	230	42.9	35.8-50.1	300	71.1	65.5-76.7	530	56.9	52.2-61.6
35-44	273	58.4	52.1-64.8	386	69.2	64.2-74.3	659	63.9	59.8-67.9
45-54	391	56.0	50.5-61.4	567	72.6	68.4-76.8	958	64.4	61.0-67.9
55-64	473	66.5	61.8-71.2	719	81.4	78.4-84.3	1,192	74.0	71.2-76.8
65+	557	75.0	71.0-78.9	1,009	90.2	88.2-92.2	1,566	83.7	81.6-85.8
Education									
Less than H.S.	276	74.3	67.7-80.9	458	87.7	82.8-92.6	734	81.1	77.0-85.2
H.S. or G.E.D.	814	60.4	56.1-64.7	1,275	81.3	78.6-84.1	2,089	70.8	68.1-73.4
Some Post-H.S.	469	52.6	47.3-57.9	807	73.5	69.8-77.2	1,276	64.5	61.3-67.6
College Graduate	467	46.9	41.8-52.0	614	59.0	54.2-63.8	1,081	53.0	49.5-56.5
Income									
Less than \$15,000	225	71.7	64.7-78.7	440	82.6	77.3-87.9	665	77.7	73.4-82.0
\$15,000- 24,999	343	63.1	56.8-69.4	647	80.7	76.9-84.4	990	72.9	69.4-76.5
\$25,000- 34,999	297	64.2	57.4-71.1	482	79.5	75.1-83.8	779	72.3	68.2-76.3
\$35,000- 49,999	308	51.3	44.3-58.3	388	77.8	72.9-82.7	696	64.3	59.7-68.8
\$50,000- 74,999	266	54.0	46.8-61.1	292	70.0	63.3-76.7	558	61.2	56.2-66.1
\$75,000+	322	41.9	35.5-48.2	343	53.4	47.0-59.7	665	47.1	42.6-51.7

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

CHAPTER 10: SEAT BELT USE

Usually Wear Seat Belt

Definition	Responding “Always” or “Nearly always” to the question “How often do you use seat belts when you drive or ride in a car?”
Prevalence	WV: 90.5% (95% CI: 89.4-91.7) U.S.: 93.9% (95% CI: 93.8-94.1) The U.S. prevalence of usually wear a seat belt was significantly higher than the West Virginia prevalence. West Virginia ranked the 38 th highest among 52 BRFSS participants.
Gender	Men: 87.0% (95% CI: 85.1-89.0) Women: 93.9% (95% CI: 92.7-95.0) The prevalence of usually wear a seat belt was significantly higher among women than men.
Age	The prevalence of usually wear a seat belt generally increased with age with the highest prevalence being among the 55-64 age group (93.7%) and the lowest among the 18-24 age group (83.2%).
Education	The prevalence of usually wear a seat belt was highest among those with a college degree (94.5%) and lowest among those with less than a high school education (87.4%).
Household Income	The prevalence of usually wear a seat belt varied somewhat by household income but the highest prevalence was among those adults having an annual household income of \$75,000 or more (94.9%) and the lowest prevalence among those earning less than \$15,000 per year (87.1%).

Table 10.1 Usually wear seat belt by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,050	87.0	85.1-89.0	3,178	93.9	92.7-95.0	5,228	90.5	89.4-91.7
Age									
18-24	100	76.3	66.5-86.2	153	90.4	84.7-96.0	253	83.2	77.3-89.1
25-34	233	83.6	78.1-89.0	301	89.9	85.8-94.0	534	86.7	83.3-90.1
35-44	277	87.7	83.6-91.9	391	93.5	90.6-96.4	668	90.6	88.1-93.2
45-54	394	88.8	85.4-92.3	569	95.0	93.1-97.0	963	92.0	90.0-93.9
55-64	478	91.9	89.2-94.6	720	95.4	93.4-97.4	1,198	93.7	92.0-95.3
65+	560	90.0	87.3-92.7	1,016	96.1	94.8-97.4	1,576	93.5	92.1-94.8
Education									
Less than H.S.	280	81.5	75.5-87.5	460	93.2	90.2-96.2	740	87.4	84.0-90.8
H.S. or G.E.D.	824	84.5	81.3-87.8	1,283	92.7	90.8-94.5	2,107	88.5	86.7-90.4
Some Post-H.S.	471	90.4	87.3-93.6	813	95.5	93.9-97.1	1,284	93.3	91.7-95.0
College Graduate	471	94.5	92.0-97.1	617	94.5	90.9-98.2	1,088	94.5	92.3-96.8
Income									
Less than \$15,000	229	85.2	79.2-91.2	444	88.6	84.8-92.3	673	87.1	83.6-90.5
\$15,000- 24,999	347	85.4	81.2-89.7	653	92.6	90.1-95.2	1,000	89.4	87.1-91.8
\$25,000- 34,999	298	85.5	80.0-91.1	483	96.8	95.2-98.4	781	91.5	88.6-94.3
\$35,000- 49,999	308	84.8	78.4-91.1	389	93.5	90.0-97.0	697	89.1	85.3-92.8
\$50,000- 74,999	271	83.0	77.0-89.0	292	96.5	93.3-99.7	563	89.0	85.3-92.7
\$75,000+	323	93.5	90.3-96.6	347	96.5	93.4-99.7	670	94.9	92.7-97.1

Always Wear Seat Belt

Definition	Responding “Always” to the question “How often do you use seat belts when you drive or ride in a car?”
Prevalence	WV: 82.5% (95% CI: 81.1-83.9) U.S.: 86.9% (95% CI: 86.7-87.1) The U.S. prevalence of always wear a seat belt was significantly higher than the West Virginia prevalence. West Virginia ranked the 33 rd highest among the 52 BRFSS participants.
Gender	Men: 76.4% (95% CI: 74.0-78.7) Women: 88.3% (95% CI: 86.8-89.9) The prevalence of always wear a seat belt was significantly higher among women than men.
Age	The prevalence of always wear a seat belt increased as age increased. The prevalence of always wear a seat belt was highest among those aged 65 and older (87.4%) and lowest among those aged 18-24 (69.5%).
Education	The prevalence of always wear a seat belt was significantly higher among college graduates (87.8%) than among those with less than a high school education (78.2%).
Household Income	The prevalence of always wear a seat belt was significantly higher among those with an annual household income of \$75,000 or more (87.6%) than among those with less than \$15,000 annual income (80.3%).

Table 10.2 Always wear seat belt by demographic characteristics: WVBRESS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,050	76.4	74.0-78.7	3,178	88.3	86.8-89.9	5,228	82.5	81.1-83.9
Age									
18-24	100	*61.0	50.0-72.0	153	78.4	70.5-86.3	253	69.5	62.6-76.4
25-34	233	71.9	65.2-78.5	301	85.8	81.3-90.3	534	78.7	74.6-82.8
35-44	277	75.2	69.7-80.8	391	86.2	81.9-90.5	668	80.8	77.2-84.3
45-54	394	80.0	75.8-84.2	569	90.9	88.3-93.5	963	85.5	83.0-88.0
55-64	478	83.8	80.2-87.4	720	90.8	88.2-93.4	1,198	87.3	85.1-89.5
65+	560	80.6	76.9-84.4	1,016	92.5	90.6-94.3	1,576	87.4	85.5-89.4
Education									
Less than H.S.	280	70.6	63.7-77.5	460	85.7	81.0-90.5	740	78.2	74.0-82.5
H.S. or G.E.D.	824	73.4	69.6-77.2	1,283	87.1	84.8-89.4	2,107	80.1	77.9-82.4
Some Post-H.S.	471	80.0	75.7-84.3	813	90.3	87.8-92.8	1,284	85.9	83.5-88.2
College Graduate	471	85.0	81.1-88.9	617	90.6	86.7-94.5	1,088	87.8	85.1-90.6
Income									
Less than \$15,000	229	78.1	71.4-84.8	444	82.1	76.8-87.3	673	80.3	76.1-84.4
\$15,000- 24,999	347	69.7	63.5-75.9	653	85.9	82.5-89.3	1,000	78.7	75.3-82.1
\$25,000- 34,999	298	71.7	65.1-78.2	483	89.1	85.4-92.9	781	80.9	77.1-84.7
\$35,000- 49,999	308	74.8	68.0-81.7	389	88.1	83.9-92.3	697	81.3	77.2-85.5
\$50,000- 74,999	271	75.3	68.7-81.8	292	93.2	88.8-97.5	563	83.2	79.0-87.5
\$75,000+	323	83.6	78.9-88.3	347	92.3	88.5-96.1	670	87.6	84.6-90.7

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

CHAPTER 11: IMMUNIZATION

Adults Lacking a Flu Immunization

Definition	Responding “No” to the question “During the past 12 months, have you had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose?”
Prevalence	<p><i>All adults</i> WV: 55.3% (95% CI: 53.6-56.9) U.S.: 63.3% (95% CI: 63.0-63.6) The U.S. prevalence of no flu immunization in the past year among all adults was significantly higher than the West Virginia prevalence. West Virginia ranked the 3rd lowest among 52 BRFSS participants.</p> <p><i>Adults 65 and older</i> WV: 31.5% (95% CI: 28.8-34.1) U.S.: 39.8% (95% CI: 39.3-40.3) The U.S. prevalence of no flu immunization in the past year among adults 65 and older was significantly higher than the West Virginia prevalence. West Virginia ranked the 3rd lowest among 52 BRFSS participants.</p>
Gender	<p><i>All adults</i> Men: 59.0% (95% CI: 56.5-61.5) Women: 51.7% (95% CI: 49.6-53.9) The prevalence of no flu immunization in the past year among all adults was significantly higher among men than women.</p> <p><i>Adults 65 and older</i> Men: 34.6% (95% CI: 30.1-39.1) Women: 29.1% (95% CI: 26.0-32.2) There was no gender difference in the prevalence of no flu immunization in the past year among adults 65 and older.</p>
Age	The prevalence of no flu immunization in the past year among all adults was lowest among the 65 and older age group (31.5%) and was significantly lower among this age group than all other age groups.
Education	The prevalence of no flu immunization in the past year among all adults was significantly lower among college graduates (44.9%) than all other educational attainment groups. There was no educational attainment difference in the prevalence of no flu immunization in the past year among adults 65 and older.
Household Income	There was no annual household income difference in the prevalence of no flu immunization in the past year among all adults or the prevalence of no flu immunization in the past year among adults 65 and older.

Table 11.1 No flu immunization in past year among all adults by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,046	59.0	56.5-61.5	3,175	51.7	49.6-53.9	5,221	55.3	53.6-56.9
Age									
18-24	98	77.7	68.4-87.1	151	63.9	54.8-73.0	249	70.9	64.3-77.5
25-34	231	75.5	69.7-81.4	301	65.3	59.6-71.0	532	70.5	66.4-74.6
35-44	277	70.5	64.8-76.2	391	64.3	59.0-69.6	668	67.4	63.5-71.3
45-54	393	61.4	56.1-66.7	569	55.8	51.1-60.4	962	58.5	55.0-62.1
55-64	479	44.0	39.0-48.9	719	46.5	42.4-50.7	1,198	45.3	42.0-48.5
65+	562	34.6	30.1-39.1	1,016	29.1	26.0-32.2	1,578	31.5	28.8-34.1
Education									
Less than H.S.	281	67.6	61.7-73.6	458	55.5	49.7-61.3	739	61.5	57.2-65.7
H.S. or G.E.D.	821	59.0	54.9-63.0	1,283	52.9	49.6-56.1	2,104	56.0	53.3-58.6
Some Post-H.S.	470	62.5	57.6-67.4	812	51.8	47.8-55.9	1,282	56.4	53.3-59.6
College Graduate	470	44.9	39.8-50.0	617	44.9	40.1-49.7	1,087	44.9	41.4-48.4
Income									
Less than \$15,000	229	61.3	53.6-69.0	443	59.1	53.5-64.8	672	60.1	55.5-64.8
\$15,000- 24,999	348	62.4	56.6-68.3	653	54.1	49.4-58.7	1,001	57.8	54.1-61.4
\$25,000- 34,999	297	57.3	50.6-64.0	483	50.0	44.7-55.3	780	53.4	49.2-57.7
\$35,000- 49,999	308	55.4	48.6-62.2	389	48.9	43.1-54.7	697	52.2	47.7-56.8
\$50,000- 74,999	270	56.0	49.0-62.9	292	45.2	38.3-52.1	562	51.2	46.2-56.2
\$75,000+	323	55.2	48.9-61.5	347	50.0	43.7-56.3	670	52.8	48.3-57.3

Table 11.2 No flu immunization in past year among adults aged 65 and older by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	562	34.6	30.1-39.1	1,016	29.1	26.0-32.2	1,578	31.5	28.8-34.1
Age									
65+	562	34.6	30.1-39.1	1,016	29.1	26.0-32.2	1,578	31.5	28.8-34.1
Education									
Less than H.S.	111	*43.9	33.6-54.2	221	34.1	27.0-41.2	332	38.4	32.3-44.5
H.S. or G.E.D.	210	31.8	25.0-38.6	497	26.7	22.5-30.9	707	28.5	24.9-32.2
Some Post-H.S.	112	36.2	26.3-46.1	184	28.4	21.3-35.5	296	32.0	26.0-37.9
College Graduate	127	24.5	16.7-32.4	113	29.3	19.5-39.1	240	26.5	20.3-32.6
Income									
Less than \$15,000	56	*34.9	20.8-49.0	153	33.5	25.3-41.7	209	34.0	26.7-41.3
\$15,000- 24,999	114	*30.4	20.3-40.5	266	27.0	21.2-32.8	380	28.3	23.0-33.6
\$25,000- 34,999	108	*38.2	27.9-48.4	162	25.0	16.6-33.3	270	31.1	24.5-37.6
\$35,000- 49,999	94	*30.8	20.3-41.2	95	*33.5	23.2-43.8	189	32.0	24.7-39.4
\$50,000- 74,999	55	*31.8	18.4-45.2	50	*30.8	15.5-46.2	105	*31.4	21.3-41.5
\$75,000+	49	*38.4	23.3-53.6	28	*18.6	3.8-33.5	77	*32.8	20.8-44.7

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

Adults Lacking a Pneumonia Immunization

Definition	Responding “No” to the question “Have you ever had a pneumonia shot?”
Prevalence	<p><i>All adults</i> WV: 68.7% (95% CI: 67.2-70.2) U.S.: 69.4% (95% CI: 69.1-69.6) The prevalence of never had a pneumonia vaccination among all adults was similar for the U.S. and West Virginia. West Virginia ranked the 28th highest among 52 BRFSS participants.</p> <p><i>Adults 65 and older</i> WV: 35.6% (95% CI: 32.9-38.4) U.S.: 31.0% (95% CI: 30.5-31.4) The West Virginia prevalence of never had a pneumonia vaccination among adults 65 and older was significantly higher than the U.S. prevalence. West Virginia ranked the 4th highest among 52 BRFSS participants.</p>
Gender	<p><i>All adults</i> Men: 69.2% (95% CI: 66.9-71.6) Women: 68.2% (95% CI: 66.3-70.1) There was no gender difference in the prevalence of never had a pneumonia vaccination among all adults.</p> <p><i>Adults 65 and older</i> Men: 39.9% (95% CI: 35.3-44.5) Women: 32.5% (95% CI: 29.2-35.8) There was no gender difference in the prevalence of never had a pneumonia vaccination among adults 65 and older.</p>
Age	The prevalence of never had a pneumonia vaccination among all adults was lowest among those aged 65 and older (35.6%) and was significantly lower than all other age groups.
Education	The prevalence of never had a pneumonia vaccination among all adults was highest among those with less than a high school education (61.6%) and was significantly lower than the prevalence among those with some college or a college degree. There was no educational attainment difference in the prevalence of never had a pneumonia vaccination among adults 65 and older.
Household Income	The prevalence of never had a pneumonia vaccination among all adults was lowest among those with an annual household income of less than \$15,000 (62.4%) and highest among those with a household income of \$75,000 or more per year (80.4%). There was no annual household income difference in the prevalence of never had a pneumonia vaccination among adults 65 and older.

Table 11.3 No pneumonia immunization among all adults by demographic characteristics: WVBRFSS, 2011

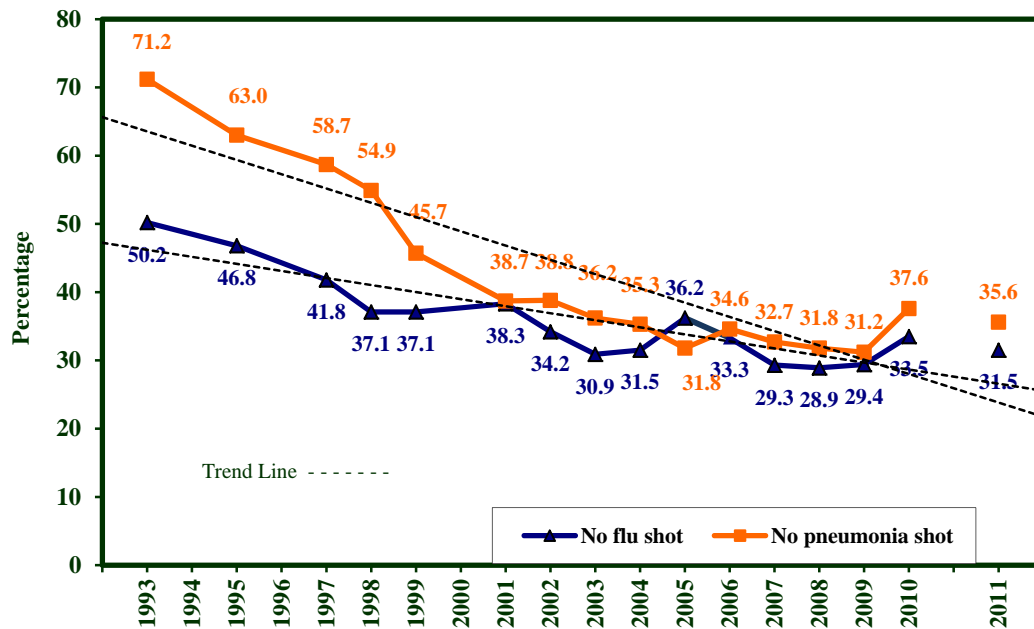
Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,937	69.2	66.9-71.6	3,084	68.2	66.3-70.1	5,021	68.7	67.2-70.2
Age									
18-24	84	81.6	72.0-91.1	138	90.2	84.4-96.0	222	86.0	80.4-91.5
25-34	212	81.1	74.9-87.3	283	90.3	86.7-93.8	495	85.7	82.0-89.3
35-44	259	84.6	79.8-89.5	375	78.5	73.5-83.5	634	81.5	78.0-85.0
45-54	375	78.1	73.6-82.5	556	76.2	72.2-80.2	931	77.1	74.1-80.1
55-64	453	59.7	54.6-64.8	704	67.5	63.6-71.3	1,157	63.7	60.5-66.9
65+	548	39.9	35.3-44.5	1,001	32.5	29.2-35.8	1,549	35.6	32.9-38.4
Education									
Less than H.S.	272	62.7	56.1-69.3	446	60.6	55.0-66.2	718	61.6	57.3-65.9
H.S. or G.E.D.	779	70.7	66.9-74.4	1,249	64.2	61.2-67.2	2,028	67.4	65.0-69.8
Some Post-H.S.	441	71.0	66.3-75.7	783	74.6	71.3-77.9	1,224	73.1	70.3-75.8
College Graduate	441	70.4	65.7-75.2	601	74.8	70.8-78.8	1,042	72.7	69.6-75.8
Income									
Less than \$15,000	218	63.5	56.0-71.0	431	61.5	55.9-67.1	649	62.4	57.8-66.9
\$15,000- 24,999	329	65.0	58.8-71.2	641	66.8	62.6-71.1	970	66.0	62.4-69.6
\$25,000- 34,999	285	63.3	56.9-69.7	471	66.4	61.5-71.4	756	65.0	61.0-68.9
\$35,000- 49,999	290	66.3	59.8-72.9	378	73.2	68.3-78.0	668	69.8	65.7-73.9
\$50,000- 74,999	257	77.4	71.8-83.0	283	72.6	66.6-78.6	540	75.2	71.1-79.3
\$75,000+	308	77.7	72.6-82.9	337	83.5	79.2-87.8	645	80.4	77.0-83.3

Table 11.4 No pneumonia immunization among adults aged 65 and older by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	548	39.9	35.3-44.5	1,001	32.5	29.2-35.8	1,549	35.6	32.9-38.4
Age									
65+	548	39.9	35.3-44.5	1,001	32.5	29.2-35.8	1,549	35.6	32.9-38.4
Education									
Less than H.S.	109	*38.8	28.5-49.0	219	35.9	28.4-43.4	328	37.1	31.0-43.3
H.S. or G.E.D.	201	39.5	32.1-46.8	490	30.1	25.7-34.5	691	33.5	29.6-37.4
Some Post-H.S.	110	*45.1	34.9-55.3	180	35.2	27.7-42.8	290	39.7	33.4-46.0
College Graduate	126	36.6	27.8-45.4	111	30.4	21.0-39.9	237	34.1	27.6-40.6
Income									
Less than \$15,000	54	*27.4	14.4-40.4	152	22.9	15.5-30.2	206	24.5	17.9-31.1
\$15,000- 24,999	110	*35.2	24.9-45.6	264	34.7	28.3-41.1	374	34.9	29.3-40.5
\$25,000- 34,999	105	*39.6	28.9-50.2	159	43.1	33.8-52.3	264	41.5	34.5-48.4
\$35,000- 49,999	94	*42.1	31.2-53.1	95	*38.5	27.9-49.2	189	40.5	32.8-48.2
\$50,000- 74,999	53	*49.3	34.7-63.9	48	*29.9	15.7-44.0	101	*41.4	30.9-51.9
\$75,000+	48	*44.4	29.1-59.8	28	*22.6	6.8-38.3	76	*38.1	26.0-50.3

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

Figure 11.1 No flu immunization (in past 12 months) and no pneumonia immunization (in lifetime) among adults aged 65 and older by year: WVBRFSS, 1993-2011



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

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

CHAPTER 12: CARDIOVASCULAR DISEASE

Heart Attack

Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you a heart attack also called a myocardial infarction?”
Prevalence	WV: 6.2% (95% CI: 5.5-6.9) U.S.: 4.3% (95% CI: 4.2-4.4) The West Virginia prevalence of heart attack was significantly higher than the U.S. prevalence. West Virginia ranked the 2 nd highest among 52 BRFSS participants.
Gender	Men: 8.0% (95% CI: 6.8-9.1) Women: 4.5% (95% CI: 3.8-5.2) Men had a significantly higher prevalence of heart attack than women.
Age	Heart attack prevalence was significantly higher among the 65 and older age group (14.7%) than among any other age group.
Education	Adults with less than a high school education had the highest prevalence of heart attack (10.0%) and was significantly higher than all other educational attainment groups.
Household Income	Heart attack prevalence was also highest among the lowest income groups and lowest among those highest household incomes.

Table 12.1 Heart attack by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,066	8.0	6.8-9.1	3,198	4.5	3.8-5.2	5,264	6.2	5.5-6.9
Age									
18-24	102	*0.0	0.0-0.0	154	*0.0	0.0-0.0	256	*0.0	0.0-0.0
25-34	237	*0.4	0.0-1.0	308	*1.2	0.0-2.6	545	*0.8	0.0-1.6
35-44	280	*3.4	0.9-5.8	393	*1.6	0.4-2.8	673	2.5	1.1-3.9
45-54	397	8.7	5.7-11.6	571	3.2	1.5-4.9	968	5.9	4.2-7.6
55-64	480	12.5	9.0-16.0	720	5.3	3.5-7.0	1,200	8.9	6.9-10.9
65+	562	19.3	15.8-22.9	1,024	11.2	9.1-13.3	1,586	14.7	12.7-16.6
Education									
Less than H.S.	284	13.7	9.6-17.8	466	6.3	4.2-8.4	750	10.0	7.7-12.3
H.S. or G.E.D.	830	7.5	5.8-9.2	1,294	5.7	4.4-7.0	2,124	6.6	5.5-7.7
Some Post-H.S.	474	7.2	5.0-9.4	814	3.4	2.1-4.6	1,288	5.0	3.8-6.2
College Graduate	473	4.0	2.4-5.6	619	1.7	0.8-2.5	1,092	2.8	1.9-3.7
Income									
Less than \$15,000	230	16.3	11.0-21.6	447	8.9	6.2-11.6	677	12.2	9.4-15.1
\$15,000- 24,999	353	11.6	8.2-15.0	655	5.5	3.6-7.3	1,008	8.2	6.4-10.0
\$25,000- 34,999	297	6.6	4.0-9.2	487	3.8	2.1-5.4	784	5.1	3.6-6.6
\$35,000- 49,999	309	6.9	4.2-9.6	391	*1.2	0.2-2.3	700	4.1	2.7-5.6
\$50,000- 74,999	272	*3.3	1.2-5.4	294	*1.9	0.5-3.4	566	2.7	1.3-4.0
\$75,000+	327	5.6	2.9-8.4	350	*1.1	0.2-2.0	677	3.5	2.0-5.1

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

Angina

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	<p>WV: 6.7% (95% CI: 6.0-7.4)</p> <p>U.S.: 4.3% (95% CI: 4.2-4.4)</p> <p>The West Virginia prevalence of angina was significantly higher than the U.S. prevalence. West Virginia ranked the 2nd highest among 52 BRFSS participants.</p>
Gender	<p>Men: 7.6% (95% CI: 6.5-8.7)</p> <p>Women: 5.8% (95% CI: 4.9-6.7)</p> <p>There was no gender difference in the prevalence of angina.</p>
Age	The prevalence of angina was highest among seniors (15.5%) and was significantly higher than any other age group.
Education	Adults with less than a high school education had the highest prevalence of angina (9.0%) and was significantly higher than the prevalence among college graduates (4.8%).
Household Income	Angina prevalence was highest among the lowest income groups and was significantly higher than among those with the highest household incomes.

Table 12.2 Angina by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,050	7.6	6.5-8.7	3,178	5.8	4.9-6.7	5,228	6.7	6.0-7.4
Age									
18-24	102	*0.7	0.0-2.1	153	*0.0	0.0-0.0	255	*0.4	0.0-1.1
25-34	236	*0.0	0.0-0.0	308	*1.4	0.2-2.6	544	*0.7	0.1-1.3
35-44	278	*2.0	0.5-3.4	393	*3.4	1.2-5.6	671	2.7	1.3-4.0
45-54	394	6.5	4.0-8.9	570	4.3	2.3-6.2	964	5.4	3.8-6.9
55-64	478	14.8	11.3-18.3	715	7.8	5.6-10.0	1,193	11.3	9.2-13.3
65+	554	18.7	15.1-22.3	1,011	13.1	10.7-15.5	1,565	15.5	13.4-17.5
Education									
Less than H.S.	276	9.9	6.4-13.4	457	8.0	5.1-10.9	733	9.0	6.7-11.2
H.S. or G.E.D.	828	6.5	5.0-8.1	1,282	7.1	5.7-8.6	2,110	6.8	5.8-7.9
Some Post-H.S.	472	8.3	6.0-10.6	816	4.4	3.0-5.8	1,288	6.1	4.8-7.4
College Graduate	469	7.0	4.8-9.1	618	2.7	1.5-3.9	1,087	4.8	3.6-6.0
Income									
Less than \$15,000	228	10.6	6.6-14.6	441	10.1	7.1-13.1	669	10.3	7.9-12.8
\$15,000- 24,999	350	9.6	6.5-12.7	655	7.9	5.6-10.2	1,005	8.7	6.8-10.6
\$25,000- 34,999	296	8.6	5.6-11.7	485	6.6	4.1-9.1	781	7.5	5.6-9.5
\$35,000- 49,999	306	6.7	4.1-9.4	389	*2.2	0.9-3.5	695	4.5	3.0-6.0
\$50,000- 74,999	272	5.2	2.7-7.6	294	*3.7	1.3-6.2	566	4.5	2.8-6.2
\$75,000+	326	6.1	3.7-8.6	349	*2.1	0.4-3.7	675	4.3	2.7-5.8

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

Stroke

Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you had a stroke?”
Prevalence	<p>WV: 3.8% (95% CI: 3.3-4.4) U.S.: 2.9% (95% CI: 2.8-3.0)</p> <p>The West Virginia prevalence of stroke was significantly higher than the U.S. prevalence. West Virginia ranked the 5th highest among 52 BRFSS participants.</p>
Gender	<p>Men: 3.7% (95% CI: 2.8-4.6) Women: 4.0% (95% CI: 3.3-4.7)</p> <p>There was no gender difference in stroke prevalence.</p>
Age	Stroke prevalence was significantly higher among the 65 and older age group (9.0%) than all other age groups.
Education	Adults with less than a high school education had the highest prevalence of stroke (7.0%) and was significantly higher than all other educational attainment groups.
Household Income	Stroke prevalence was highest among those with an annual household income of less than \$15,000 (6.6%) and lowest among those with household income of \$75,000 or more per year (0.7%).

Table 12.3 Stroke by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,069	3.7	2.8-4.6	3,204	4.0	3.3-4.7	5,273	3.8	3.3-4.4
Age									
18-24	102	*1.4	0.0-4.1	154	*0.0	0.0-0.0	256	*0.7	0.0-2.1
25-34	237	*0.4	0.0-1.2	308	*0.5	0.0-1.3	545	*0.5	0.0-1.0
35-44	280	*1.2	0.0-2.5	393	*2.5	1.0-4.0	673	1.8	0.8-2.8
45-54	395	4.2	2.0-6.3	571	3.0	1.2-4.8	966	3.6	2.2-5.0
55-64	481	5.7	3.0-8.3	721	4.1	2.6-5.7	1,202	4.9	3.4-6.4
65+	566	7.9	5.4-10.4	1029	9.9	7.8-12.0	1,595	9.0	7.4-10.6
Education									
Less than H.S.	283	7.3	3.9-10.6	468	6.8	4.2-9.4	751	7.0	4.9-9.1
H.S. or G.E.D.	833	3.5	2.3-4.7	1295	4.1	3.1-5.2	2,128	3.8	3.0-4.6
Some Post-H.S.	474	2.3	0.9-3.6	817	2.9	1.8-3.9	1,291	2.6	1.8-3.4
College Graduate	474	*2.2	0.8-3.6	619	2.6	1.3-3.9	1,093	2.4	1.4-3.4
Income									
Less than \$15,000	230	*5.0	1.9-8.1	450	7.9	5.1-10.7	680	6.6	4.5-8.7
\$15,000- 24,999	353	7.0	4.3-9.7	659	5.7	3.9-7.6	1,012	6.3	4.7-7.9
\$25,000- 34,999	298	*2.8	0.9-4.7	486	4.0	2.2-5.7	784	3.4	2.1-4.7
\$35,000- 49,999	310	*1.8	0.4-3.2	391	*1.4	0.3-2.5	701	1.6	0.7-2.5
\$50,000- 74,999	272	*3.9	1.2-6.5	293	*1.4	0.0-2.8	565	2.8	1.2-4.4
\$75,000+	328	*0.8	0.0-1.9	350	*0.5	0.0-0.9	678	*0.7	0.0-1.3

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

Any Cardiovascular Disease

Definition Responding “Yes” to any of the questions “Has a doctor, nurse, or other health professional ever told you that you had any of the following?” “. . . ever told you had a heart attack, also called a myocardial infarction?” “. . . ever told you had angina or coronary heart disease?” “. . . ever told you had a stroke?”

Prevalence **WV: 12.3%** (95% CI: 11.3-13.2)
U.S.: 8.4% (95% CI: 8.2-8.5)
 The prevalence of cardiovascular disease was significantly higher in West Virginia than in the U.S. West Virginia ranked the highest among 52 BRFSS participants.

Gender **Men:** 13.9% (95% CI: 12.3-15.4)
Women: 10.8% (95% CI: 9.6-11.9)
 Cardiovascular disease prevalence was significantly higher among men than women.

Age The prevalence of cardiovascular disease was significantly higher among the 65 and older age group (28.3%) than among any other age group.

Education Adults with less than a high school education had the highest prevalence of cardiovascular disease (19.8%) and was significantly higher than all other educational attainment groups.

Household Income Cardiovascular disease prevalence was highest among the lowest income groups and lowest among those with the highest household incomes.

Table 12.4 Any cardiovascular disease by demographic characteristics: WVBRFSS, 2011

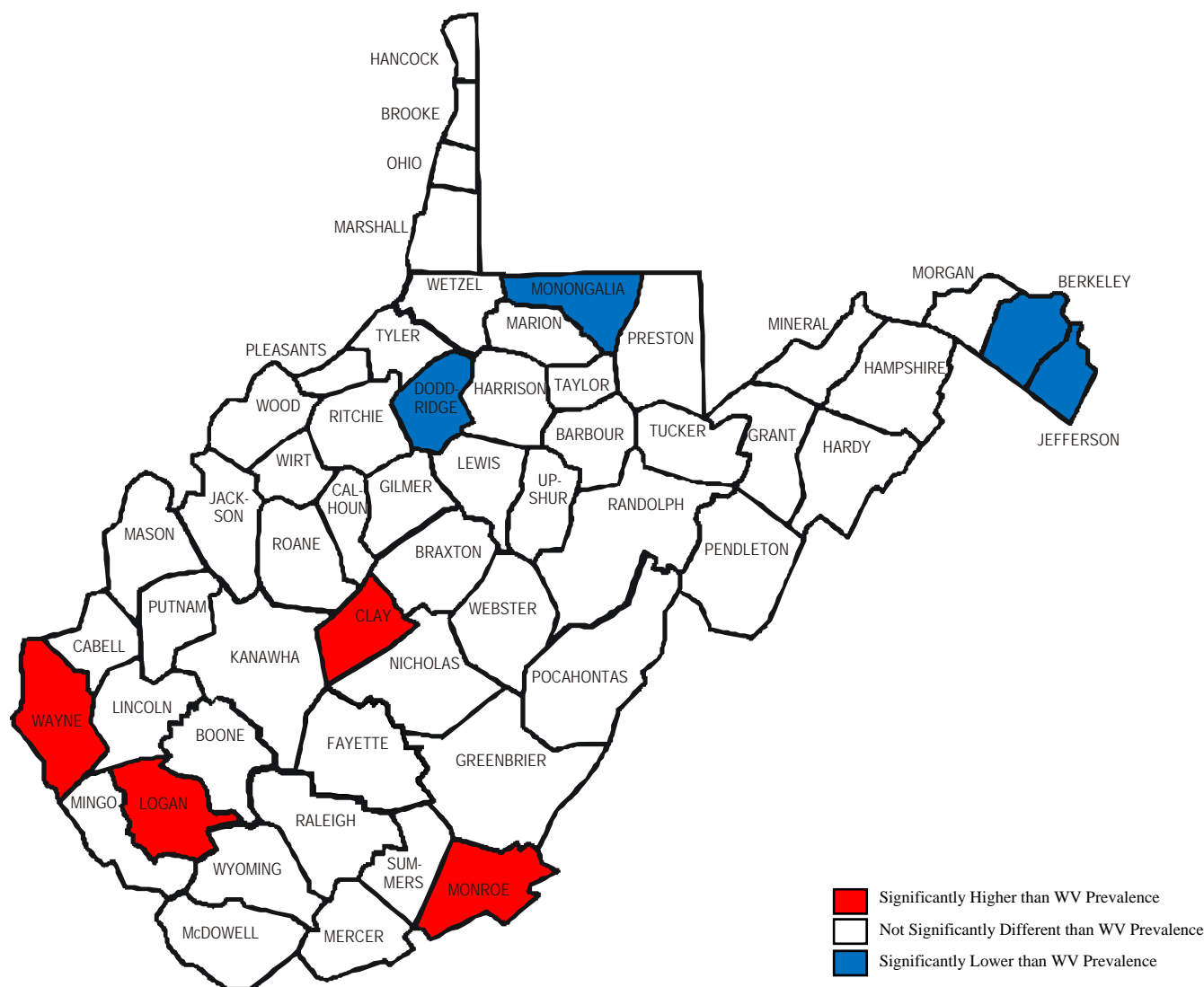
Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,052	13.9	12.3-15.4	3,190	10.8	9.6-11.9	5,242	12.3	11.3-13.2
Age									
18-24	102	*2.1	0.0-5.1	153	*0.0	0.0-0.0	255	*1.1	0.0-2.7
25-34	236	*0.8	0.0-1.9	308	*2.0	0.3-3.6	544	*1.4	0.4-2.4
35-44	278	6.0	2.9-9.1	393	6.1	3.4-8.8	671	6.1	4.0-8.1
45-54	395	12.6	9.1-16.2	570	8.6	5.8-11.4	965	10.6	8.4-12.8
55-64	479	23.4	19.0-27.8	716	13.4	10.7-16.2	1,195	18.4	15.8-21.0
65+	554	33.1	28.7-37.4	1,022	24.8	21.8-27.8	1,576	28.3	25.8-30.9
Education									
Less than H.S.	280	22.6	17.3-27.9	462	17.1	13.2-21.0	742	19.8	16.5-23.1
H.S. or G.E.D.	826	12.7	10.4-14.9	1,288	12.3	10.5-14.2	2,114	12.5	11.0-14.0
Some Post-H.S.	472	12.1	9.2-14.9	816	7.8	5.9-9.6	1,288	9.6	8.0-11.2
College Graduate	469	10.1	7.5-12.7	619	5.5	3.7-7.2	1,088	7.8	6.2-9.3
Income									
Less than \$15,000	228	24.2	18.0-30.4	446	19.0	14.9-23.1	674	21.4	17.8-25.0
\$15,000- 24,999	351	17.6	13.5-21.8	657	14.8	11.9-17.8	1,008	16.1	13.6-18.5
\$25,000- 34,999	296	12.5	8.9-16.2	487	10.6	7.6-13.6	783	11.5	9.2-13.9
\$35,000- 49,999	306	11.6	8.1-15.1	390	3.9	2.1-5.7	696	7.8	5.8-9.8
\$50,000- 74,999	272	9.4	5.7-13.1	293	6.1	3.1-9.1	565	7.9	5.5-10.4
\$75,000+	326	10.6	7.1-14.1	350	3.5	1.6-5.4	676	7.3	5.2-9.4

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

Figure 12.1 Adults diagnosed with any cardiovascular disease by county: WVBRFSS, 2007-2011

U.S. Prevalence (2009) – 7.7%

WV Prevalence (2007-2011) – 12.6%
(Significantly Higher than U.S.)



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

CHAPTER 13: DIABETES

Diabetes Prevalence

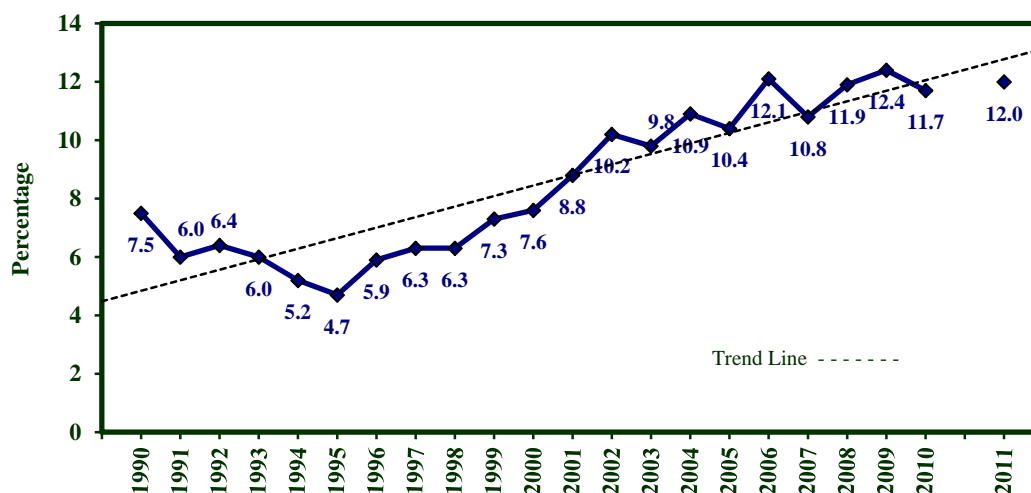
Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you have diabetes?”
Prevalence	WV: 12.0% (95% CI: 11.1-13.0) U.S.: 9.8% (95% CI: 9.7-10.0) West Virginia’s diabetes prevalence was significantly higher than the U.S. prevalence. West Virginia ranked the 4 th highest among 52 BRFSS participants.
Gender	Men: 11.7% (95% CI: 10.2-13.1) Women: 12.4% (95% CI: 11.1-13.6) There was no gender difference in diabetes prevalence.
Age	The oldest adults (65 and older) had the highest diabetes prevalence (21.0%). It is interesting to note that the first significant increase in the prevalence of diabetes was found between the 35-44 age group (7.1%) and the 45-54 age group (14.8%).
Education	Adults with less than a high school education had the highest prevalence of diabetes (17.0%) while college graduates had the lowest prevalence of diabetes (7.5%).
Household Income	There was a significant income difference in the prevalence of diabetes. The prevalence of diabetes was highest among those with an annual household income of less than \$15,000 (18.2%) and lowest among those with a household income of \$75,000 or more per year (7.1%).

Table 13.1 Diabetes prevalence by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,065	11.7	10.2-13.1	3,207	12.4	11.1-13.6	5,272	12.0	11.1-13.0
Age									
18-24	101	*0.0	0.0-0.0	154	*1.2	0.0-2.6	255	*0.6	0.0-1.3
25-34	237	*2.5	0.1-4.9	308	*2.0	0.3-3.7	545	*2.3	0.8-3.7
35-44	279	5.7	2.8-8.6	395	8.4	5.3-11.5	674	7.1	4.9-9.2
45-54	397	14.3	10.4-18.2	571	15.2	11.6-18.8	968	14.8	12.1-17.4
55-64	480	21.5	17.4-25.6	721	18.0	14.9-21.2	1,201	19.8	17.2-22.4
65+	563	21.1	17.3-24.8	1,030	21.0	18.1-23.9	1,593	21.0	18.7-23.3
Education									
Less than H.S.	281	14.6	10.4-18.8	467	19.2	15.1-23.3	748	17.0	14.0-19.9
H.S. or G.E.D.	833	12.0	9.7-14.2	1,298	13.5	11.5-15.5	2,131	12.7	11.2-14.2
Some Post-H.S.	473	11.0	8.1-13.8	818	10.1	7.9-12.3	1,291	10.5	8.7-12.2
College Graduate	474	8.9	6.2-11.6	619	6.1	4.3-7.9	1,093	7.5	5.8-9.1
Income									
Less than \$15,000	230	16.3	11.0-21.5	449	19.7	15.4-24.0	679	18.2	14.8-21.5
\$15,000- 24,999	353	15.8	11.9-19.8	659	13.5	10.6-16.5	1,012	14.6	12.2-17.0
\$25,000- 34,999	297	11.6	7.5-15.8	486	13.9	10.4-17.5	783	12.9	10.1-15.6
\$35,000- 49,999	308	9.8	6.4-13.1	391	7.5	5.0-10.0	699	8.6	6.5-10.7
\$50,000- 74,999	272	7.0	4.2-9.9	294	7.8	4.7-10.8	566	7.4	5.3-9.4
\$75,000+	327	8.5	5.2-11.7	350	5.4	3.0-7.8	677	7.1	5.0-9.1

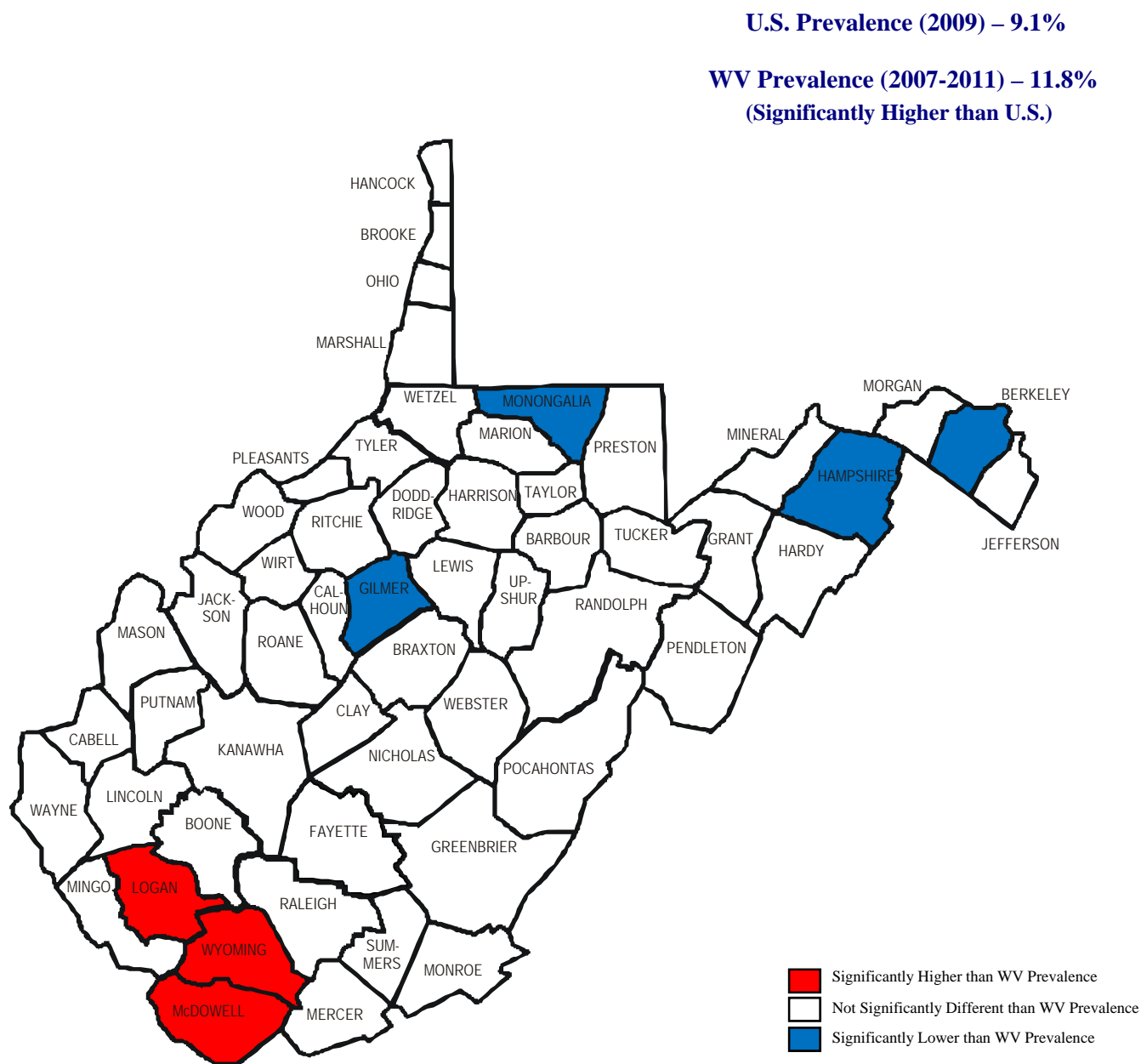
* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 5.

Figure 13.1 Diabetes awareness by year: WVBRFSS, 1990-2011



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

Figure 13.2 Diabetes awareness by county: WVBRFSS, 2007-2011



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

Diabetes Management – Medical Care

Definition

Persons reporting that they have diabetes were asked a series of questions about medical care for their diabetes.

At least 2 doctor visits in the past year is defined as responding “2” or more to the question “About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes?”

At least 2 A1C tests in the past year is defined as responding “2” or more to the following question “About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for A1C?”

Doctor checked feet in the past year is defined as responding “1” or more to the question “About how many times in the past 12 months has a doctor, nurse, or other health professional checked your feet for any sores or irritations?”

Eye exam in the past year is defined as responding “Within the past month” or “Within the past year” to the question “When was the last time you had an eye exam in which the pupils were dilated?”

Prevalence

At Least 2 Doctor Visits in Past Year: 81.0% (95% CI: 77.7-84.3)

At Least 2 A1C Tests in Past Year: 70.1% (95% CI: 66.1-74.0)

Doctor Checked Feet in Past Year: 68.6% (95% CI: 64.8-72.5)

Eye Exam in Past Year: 64.6% (95% CI: 60.5-68.7)

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

At Least 2 Doctor Visits in Past Year

Men: 78.5% (95% CI: 73.3-83.8)

Women: 83.2% (95% CI: 78.9-87.4)

There was no gender difference in the prevalence of had at least 2 doctor visits in the past year.

At Least 2 A1C Tests in Past Year

Men: 66.7% (95% CI: 60.5-72.9)

Women: 73.0% (95% CI: 68.0-78.1)

There was no gender difference in the prevalence of had at least 2 A1C tests in the past year.

Doctor Checked Feet in Past Year

Men: 71.9% (95% CI: 66.1-77.7)

Women: 65.8% (95% CI: 60.6-70.9)

There was no gender difference in the prevalence of doctor checked feet in the past year.

Eye Exam in Past Year

Men: 62.0% (95% CI: 55.5-68.5)

Women: 66.8% (95% CI: 61.7-72.0)

There was no gender difference in the prevalence of had an eye exam in the past year.

Age

Due to a low response rate, all the prevalence estimates for age groups 18-44 were unreliable. The following results are from comparison of the 45-54, 55-64, and 65 and older age groups. There was no age difference in the prevalence of at least 2 doctor visits in the past year, at least 2 A1C tests in the past year, or doctor checked feet in the past year. The prevalence of eye exam in the past year was significantly higher among the 65 and older age group (78.7%) than among the 45-54 and 55-64 age groups.

Education

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

Household Income

Due to a low response rate some prevalence estimates for various annual household income brackets were unreliable. There was no annual household income difference in the prevalence of at least 2 doctor visits in the past year, at least 2 A1C tests in the past year, doctor checked feet in the past year, or eye exam in the past year.

Table 13.2 Medical management of diabetes by demographic characteristics: WVBRFSS, 2011

Characteristic	At Least 2 Doctor Visits in Past Year		At Least 2 A1C Tests in Past Year		Doctor Checked Feet in Past Year		Eye Exam in Past Year	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
TOTAL	81.0	77.7-84.3	70.1	66.1-74.0	68.6	64.8-72.5	64.6	60.5-68.7
Sex								
Males	78.5	73.3-83.8	66.7	60.5-72.9	71.9	66.1-77.7	62.0	55.5-68.5
Females	83.2	78.9-87.4	73.0	68.0-78.1	65.8	60.6-70.9	66.8	61.7-72.0
Age								
18-24	*100.0	100.0-100.0	*100.0	100.0-100.0	*100.0	100.0-100.0	*56.3	0.0-100.0
25-34	*61.4	31.5-91.3	*47.4	14.5-80.2	*38.7	5.7-71.7	*56.1	23.7-88.4
35-44	*77.1	63.9-90.3	*60.9	45.3-76.5	*54.3	38.6-70.0	*51.5	35.7-67.4
45-54	79.4	72.1-86.8	69.1	60.2-78.0	70.9	62.1-79.6	50.7	40.9-60.6
55-64	82.7	76.9-88.5	73.3	66.7-79.9	73.7	67.4-79.9	63.2	55.8-70.5
65+	82.9	77.9-87.9	71.9	65.9-77.8	69.0	63.3-74.7	78.7	73.5-83.9
Education								
Less than H.S.	79.2	71.4-87.0	67.0	57.6-76.3	70.5	62.3-78.7	56.9	47.5-66.3
H.S. or G.E.D.	81.4	76.6-86.3	68.4	62.4-74.3	70.0	64.3-75.7	65.7	59.6-71.8
Some Post-H.S.	79.5	72.5-86.6	72.7	64.9-80.4	63.9	55.3-72.5	67.1	58.8-75.5
College Graduate	86.7	79.6-93.7	78.0	69.0-87.0	*68.5	58.4-78.6	72.7	63.0-82.3
Income								
Less than \$15,000	84.3	77.4-91.1	77.3	68.2-86.4	67.2	58.0-76.5	*56.6	46.5-66.8
\$15,000- 24,999	81.5	75.0-88.1	70.4	62.4-78.4	67.2	58.8-75.6	59.9	50.9-68.8
\$25,000- 34,999	76.1	66.2-86.0	*63.4	52.4-74.3	75.4	66.3-84.5	*67.3	57.1-77.5
\$35,000- 49,999	90.0	82.3-97.7	*65.3	52.7-77.9	*65.4	53.5-77.2	*70.0	58.2-81.8
\$50,000- 74,999	*86.5	75.1-97.9	87.1	77.3-97.0	*72.1	59.2-85.0	*74.6	61.8-87.4
\$75,000+	86.5	77.0-95.9	*82.8	72.3-93.2	*65.0	50.6-79.5	*66.6	52.3-81.0

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

Diabetes Management – Self-Care

Definition

Persons responding that they have diabetes were asked a series of questions about how they care for their own diabetes.

Take insulin is defined as responding “Yes” to the question “Are you now taking insulin?”

Check glucose daily is defined as responding daily to the question “About how often do you check your blood for glucose or sugar?”

Check feet daily is defined as responding at least 1 time per day to the question “About how often do you check your feet for any sores or irritations?”

Taken a diabetes education class is defined as responding “Yes” to the question “Have you ever taken a course or class in how to manage your diabetes yourself?”

Prevalence

Take Insulin: 31.0% (95% CI: 27.1-34.9)

Check Glucose Daily: 67.5% (95% CI: 63.6-71.3)

Check Feet Daily: 68.6% (95% CI: 64.8-72.5)

Taken a Diabetes Education Class: 43.6% (95% CI: 39.5-47.8)

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

Take Insulin

Men: 31.2% (95% CI: 25.1-37.3)

Women: 30.8% (95% CI: 25.8-35.9)

There was no gender difference in the prevalence of take insulin.

Check Glucose Daily

Men: 64.0% (95% CI: 57.9-70.1)

Women: 70.6% (95% CI: 65.7-75.4)

There was no gender difference in the prevalence of check glucose daily.

Check Feet Daily

Men: 71.9% (95% CI: 66.1-77.7)

Women: 65.8% (95% CI: 60.6-70.9)

There was no gender difference in the prevalence of check feet daily.

Taken a Diabetes Education Class

Men: 44.1% (95% CI: 37.6-50.5)

Women: 43.2% (95% CI: 37.9-48.6)

There was no gender difference in the prevalence of taken a diabetes education class.

Age

Due to a low response rate, all the prevalence estimates for age groups 18-44 were unreliable. The following results are from comparison of the 45-54, 55-64, and 65 and older age groups. There was no age difference in the prevalence of take insulin, check glucose daily, check feet daily, or taken a diabetes education class.

Education

Due to a low response rate, all the prevalence estimates for the college graduate group was unreliable. There was no educational attainment difference in the prevalence of take insulin, check glucose daily, or check feet daily. The prevalence of taken a diabetes education class was significantly higher among those with some college (59.4%) than among those with a high school degree (39.2%) or less than a high school education (30.2%).

Household Income

Due to a low response rate, all the prevalence estimates for the \$35,000 and more annual household income brackets were unreliable. There was no annual household income difference in the prevalence of take insulin, check feet daily, or taken a diabetes education class. The prevalence of check glucose daily was significantly lower among the \$15,000-24,999 annual household income bracket (61.6%) than among the less than \$15,000 income bracket (79.3%) and the \$25,000-34,999 income bracket (79.3%).

Table 13.3 Self-care of diabetes by demographic characteristics: WVBRFSS, 2011

Characteristic	Take Insulin		Check Glucose Daily		Check Feet Daily		Taken a Diabetes Education Class	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
TOTAL	31.0	27.1-34.9	67.5	63.6-71.3	68.6	64.8-72.5	43.6	39.5-47.8
Sex								
Males	31.2	25.1-37.3	64.0	57.9-70.1	71.9	66.1-77.7	44.1	37.6-50.5
Females	30.8	25.8-35.9	70.6	65.7-75.4	65.8	60.6-70.9	43.2	37.9-48.6
Age								
18-24	*68.1	15.1-100.0	*100.0	100.0-100.0	*100.0	100.0-100.0	*100.0	100.0-100.0
25-34	*38.1	4.9-71.3	*47.4	14.5-80.2	*38.7	5.7-71.7	*60.1	28.2-92.1
35-44	*43.1	27.4-58.7	*70.5	57.1-84.0	*54.3	38.6-70.0	*59.5	44.3-74.7
45-54	27.8	19.0-36.5	65.4	56.6-74.3	70.9	62.1-79.6	45.1	35.4-54.9
55-64	31.9	25.0-38.8	65.3	58.2-72.4	73.7	67.4-79.9	45.9	38.7-53.2
65+	28.1	22.3-33.8	70.9	65.3-76.5	69.0	63.3-74.7	34.7	28.9-40.5
Education								
Less than H.S.	34.2	25.4-43.0	75.4	67.7-83.0	70.5	62.3-78.7	30.2	21.8-38.6
H.S. or G.E.D.	33.5	27.6-39.3	68.5	62.7-74.3	70.0	64.3-75.7	39.2	33.0-45.4
Some Post-H.S.	27.6	19.6-35.6	61.4	52.9-69.8	63.9	55.3-72.5	59.4	50.8-68.1
College Graduate	*20.1	9.3-30.8	*57.3	46.2-68.5	*68.5	58.4-78.6	*61.5	50.8-72.2
Income								
Less than \$15,000	36.8	27.2-46.5	79.3	71.7-86.9	67.2	58.0-76.5	37.2	27.6-46.7
\$15,000- 24,999	38.2	29.5-47.0	61.6	53.1-70.1	67.2	58.8-75.6	41.9	33.2-50.5
\$25,000- 34,999	29.8	19.9-39.6	79.3	70.9-87.7	75.4	66.3-84.5	*37.0	25.9-48.1
\$35,000- 49,999	*21.6	11.5-31.8	*56.0	43.3-68.7	*65.4	53.5-77.2	*48.4	35.8-60.9
\$50,000- 74,999	*23.9	11.5-36.4	*59.0	44.6-73.3	*72.1	59.2-85.0	*72.9	59.5-86.2
\$75,000+	*24.9	10.5-39.3	*57.0	42.4-71.5	*65.0	50.6-79.5	*75.1	62.8-87.4

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

Other Diabetes Indicators

Definition	Responding “Yes” to the question “Have you ever been told by a doctor or other health professional that you have pre-diabetes or borderline diabetes?”
Prevalence	7.6% (95% CI: 6.7-8.5) 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: 6.8% (95% CI: 5.6-8.0) Women: 8.4% (95% CI: 7.2-9.6) There was no gender difference in the prevalence of pre-diabetes or borderline diabetes.
Age	The prevalence of borderline or pre-diabetes was highest among those aged 65 and older (11.6%) and was significantly higher than the prevalence among those aged 18-34.
Education	The prevalence of borderline or pre-diabetes was significantly higher among those with less than a high school education (10.0%) than among college graduates (5.5%).
Household Income	There was no annual household income difference in the prevalence of borderline or pre-diabetes.

Table 13.4 Borderline or pre-diabetes prevalence by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,744	6.8	5.6-8.0	2,725	8.4	7.2-9.6	4,469	7.6	6.7-8.5
Age									
18-24	94	*1.3	0.0-3.2	145	*3.5	0.0-7.3	239	*2.4	0.3-4.5
25-34	224	*1.5	0.0-3.5	296	5.9	3.1-8.8	520	3.7	2.0-5.5
35-44	262	6.0	2.7-9.2	362	10.3	6.9-13.8	624	8.1	5.7-10.5
45-54	338	7.1	4.3-9.8	487	8.7	6.0-11.4	825	7.9	6.0-9.8
55-64	376	11.7	8.3-15.1	591	9.4	6.4-12.3	967	10.5	8.2-12.7
65+	443	12.6	9.3-16.0	818	10.9	8.5-13.3	1,261	11.6	9.7-13.6
Education									
Less than H.S.	232	8.6	4.9-12.3	367	11.5	7.8-15.3	599	10.0	7.4-12.7
H.S. or G.E.D.	694	6.2	4.5-7.9	1,085	9.0	7.1-10.9	1,779	7.6	6.3-8.9
Some Post-H.S.	400	7.0	4.5-9.6	708	7.7	5.3-10.1	1,108	7.4	5.7-9.2
College Graduate	414	6.0	3.7-8.2	560	5.0	3.0-6.9	974	5.5	4.0-6.9
Income									
Less than \$15,000	180	6.7	3.0-10.3	341	10.4	6.8-14.1	521	8.7	6.1-11.3
\$15,000- 24,999	277	7.7	4.7-10.7	561	10.7	7.7-13.6	838	9.4	7.2-11.5
\$25,000- 34,999	257	7.1	3.7-10.6	406	8.6	5.7-11.5	663	7.9	5.7-10.2
\$35,000- 49,999	271	8.0	4.8-11.1	351	6.3	3.9-8.6	622	7.1	5.2-9.1
\$50,000- 74,999	240	*4.5	1.4-7.6	261	6.7	3.5-9.9	501	5.5	3.2-7.7
\$75,000+	293	7.5	4.4-10.6	324	6.6	3.0-10.2	617	7.1	4.7-9.4

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

Definition	Responding “Yes” to the question “Have you had a test for high blood sugar or diabetes within the past three years?”
Prevalence	61.5% (95% CI: 59.6-63.4) Because this question is part of a state selected optional module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 58.3% (95% CI: 55.3-61.3) Women: 64.4% (95% CI: 62.1-66.7) The prevalence of had a diabetes test in the past 3 years was significantly higher among women than men.
Age	The prevalence of had a diabetes test in the past 3 years was highest among those aged 65 and older (76.4%).
Education	Adults with less than a high school education had the lowest prevalence of had a diabetes test in the past 3 years (50.6%) and was significantly lower than all other educational attainment groups.
Household Income	The prevalence of had a diabetes test in the past 3 years was significantly lower among those with an annual household income of \$15,000 or less (48.1%) than the prevalence among those with a household income of \$75,000 or more per year (74.2%).

Table 13.5 Had a diabetes test in past 3 years by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,664	58.3	55.3-61.3	2,614	64.4	62.1-66.7	4,278	61.5	59.6-63.4
Age									
18-24	91	*30.0	19.7-40.3	143	52.4	42.8-61.9	234	41.2	33.9-48.6
25-34	213	40.5	33.2-47.8	285	59.0	52.7-65.3	498	49.7	44.8-54.6
35-44	249	57.0	50.1-64.0	350	58.9	53.1-64.7	599	58.0	53.4-62.5
45-54	325	60.5	54.5-66.5	474	67.1	62.2-71.9	799	63.9	60.0-67.7
55-64	359	76.8	71.8-81.7	572	71.8	67.5-76.0	931	74.2	70.9-77.4
65+	420	81.0	76.7-85.3	766	72.9	69.2-76.5	1,186	76.4	73.6-79.2
Education									
Less than H.S.	225	50.2	42.4-58.1	349	51.0	44.1-57.9	574	50.6	45.4-55.9
H.S. or G.E.D.	660	54.6	49.8-59.4	1,043	64.2	60.7-67.7	1,703	59.3	56.3-62.4
Some Post-H.S.	381	66.0	60.4-71.6	679	67.1	62.9-71.3	1,060	66.6	63.2-70.0
College Graduate	394	65.9	60.2-71.5	538	73.9	69.1-78.6	932	70.0	66.3-73.7
Income									
Less than \$15,000	175	46.9	38.0-55.8	328	49.2	42.2-56.1	503	48.1	42.6-53.7
\$15,000- 24,999	269	51.6	44.4-58.8	544	58.1	53.0-63.2	813	55.3	51.0-59.5
\$25,000- 34,999	243	57.8	50.0-65.7	399	64.3	58.5-70.1	642	61.3	56.5-66.1
\$35,000- 49,999	264	62.6	54.8-70.4	339	73.3	67.7-78.8	603	67.9	63.0-72.8
\$50,000- 74,999	226	58.7	50.8-66.6	251	72.9	66.5-79.3	477	65.1	59.7-70.5
\$75,000+	278	72.4	65.1-79.6	307	76.2	70.2-82.1	585	74.2	69.4-78.9

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

Definition	Persons reporting that they have diabetes and responding “Yes” to the question “Has a doctor ever told you that diabetes has affected your eyes or that you had retinopathy?”
Prevalence	<p>20.0% (95% CI: 16.5-23.5)</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>Men: 17.8% (95% CI: 12.9-22.7)</p> <p>Women: 21.9% (95% CI: 17.0-26.8)</p> <p>There was no gender difference in the prevalence of retinopathy.</p>
Age	Due to a low response rate, all the prevalence estimates for age groups 18-44 were unreliable. The following results are from comparison of the 45-54, 55-64, and 65 and older age groups. There was no age difference in the prevalence of retinopathy.
Education	The prevalence of retinopathy was significantly higher among those with a high school degree (22.8%) than among those with a college degree (11.4%).
Household Income	Due to a low response rate, the prevalence estimates for the annual household income brackets of \$50,000 or more were unreliable. There was no annual household income difference in the prevalence of retinopathy.

Table 13.6 Told that diabetes affected eyes or have retinopathy by demographic characteristics: WVBRFSS, 2011

Characteristic	Total		
	# Resp.	%	95% CI
TOTAL	756	20.0	16.5-23.5
Sex			
Males	301	17.8	12.9-22.7
Females	455	21.9	17.0-26.8
Age			
18-24	3	*0.0	0.0-0.0
25-34	11	*0.0	0.0-0.0
35-44	44	*25.9	11.3-40.6
45-54	137	25.3	16.6-34.1
55-64	229	21.3	15.1-27.6
65+	329	16.2	11.4-20.9
Education			
Less than H.S.	150	22.9	14.6-31.2
H.S. or G.E.D.	33	22.8	17.5-28.1
Some Post-H.S.	171	15.1	8.6-21.6
College Graduate	101	11.4	5.3-17.4
Income			
Less than \$15,000	148	28.4	19.0-37.8
\$15,000- 24,999	164	21.4	13.7-29.0
\$25,000- 34,999	116	23.8	13.8-33.8
\$35,000- 49,999	75	17.6	7.8-27.4
\$50,000- 74,999	56	*8.2	1.2-15.1
\$75,000+	52	*11.9	2.7-21.2

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

CHAPTER 14: CANCER

Skin Cancer Prevalence

Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you had skin cancer?”
Prevalence	<p>WV: 6.3% (95% CI: 5.6-7.0) U.S.: 5.7% (95% CI: 5.6-5.8)</p> <p>The U.S. and West Virginia prevalence of skin cancer were similar. West Virginia ranked the 13th highest among 52 BRFSS participants.</p>
Gender	<p>Men: 6.1% (95% CI: 5.1-7.2) Women: 6.4% (95% CI: 5.5-7.3)</p> <p>There was no gender difference in skin cancer prevalence.</p>
Age	The prevalence of skin cancer was highest among those aged 65 and older (14.8%) and was significantly higher than all other age groups.
Education	There was no educational attainment difference in the prevalence of skin cancer.
Household Income	There was no annual household income difference in the prevalence of skin cancer.

Table 14.1 Skin cancer prevalence by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,068	6.1	5.1-7.2	3,201	6.4	5.5-7.3	5,269	6.6	5.6-7.0
Age									
18-24	102	*0.0	0.0-0.0	154	*0.9	0.0-2.2	256	*0.4	0.0-1.1
25-34	236	*0.8	0.0-1.9	308	*1.3	0.0-2.6	544	*1.0	0.2-1.9
35-44	280	*1.0	0.0-2.0	394	*2.5	0.4-4.5	674	*1.7	0.6-2.9
45-54	397	5.2	2.6-7.8	571	6.5	4.1-8.9	968	5.8	4.1-7.6
55-64	482	10.1	7.0-13.3	718	8.6	6.1-11.1	1,200	9.4	7.3-11.4
65+	563	16.8	13.4-20.3	1,028	13.2	10.9-15.5	1,591	14.8	12.8-16.7
Education									
Less than H.S.	284	7.8	4.5-11.0	468	7.6	4.9-10.4	752	7.7	5.6-9.8
H.S. or G.E.D.	833	6.1	4.6-7.7	1,297	6.8	5.3-8.3	2,130	6.4	5.4-7.5
Some Post-H.S.	474	5.1	3.2-7.0	813	5.1	3.6-6.5	1,287	5.1	3.9-6.2
College Graduate	472	5.5	3.6-7.4	619	6.5	4.4-8.5	1,091	6.0	4.6-7.4
Income									
Less than \$15,000	231	7.1	3.2-10.9	448	4.8	2.9-6.7	679	5.9	3.8-7.9
\$15,000- 24,999	353	7.4	4.7-10.1	657	6.9	4.8-9.0	1,010	7.1	5.4-8.8
\$25,000- 34,999	297	5.6	3.1-8.2	485	5.9	3.9-8.0	782	5.8	4.2-7.4
\$35,000- 49,999	310	6.6	3.9-9.3	391	7.7	4.8-10.6	701	7.1	5.2-9.1
\$50,000- 74,999	272	5.4	2.6-8.3	294	6.5	3.3-9.6	566	5.9	3.8-8.0
\$75,000+	327	4.6	2.3-6.8	350	5.5	2.7-8.3	677	5.0	3.2-6.8

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

Other Cancer Prevalence

Definition Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you had any other types of cancer?”

Prevalence **WV: 7.8%** (95% CI: 7.0-8.6)
U.S.: 6.5% (95% CI: 6.3-6.6)
 The West Virginia prevalence of other types of cancer was significantly higher than the U.S. prevalence. West Virginia ranked the 2nd highest among 52 BRFSS participants.

Gender **Men:** 5.5% (95% CI: 4.5-6.5)
Women: 10.0% (95% CI: 8.8-11.1)
 There was a significant gender difference in other cancer prevalence with females having a higher prevalence than males.

Age The prevalence of other cancer was highest among those aged 65 and older (16.4%) and was significantly higher than all other age groups.

Education The prevalence of other cancer was significantly higher among those with less than a high school education (10.6%) than among college graduates (6.1%).

Household Income There was no consistent annual household income difference in the prevalence of other types of cancer.

Table 14.2 Other cancer prevalence by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,068	5.5	4.5-6.5	3,202	10.0	8.8-11.1	5,270	7.8	7.0-8.6
Age									
18-24	102	*0.0	0.0-0.0	153	*5.0	1.4-8.6	255	*2.4	0.7-4.2
25-34	235	*0.0	0.0-0.0	308	*3.4	1.1-5.7	543	*1.7	0.5-2.9
35-44	280	*1.0	0.0-2.1	395	9.5	6.4-12.6	675	5.3	3.5-7.0
45-54	397	3.9	1.8-6.0	569	10.2	7.2-13.3	966	7.1	5.2-9.0
55-64	482	9.7	6.7-12.7	720	10.2	7.8-12.5	1,202	10.0	8.0-11.9
65+	564	15.8	12.4-19.3	1029	16.8	14.3-19.4	1,593	16.4	14.4-18.5
Education									
Less than H.S.	284	8.0	4.9-11.2	469	13.2	9.6-16.7	753	10.6	8.2-13.0
H.S. or G.E.D.	834	3.9	2.7-5.2	1,295	10.9	9.1-12.8	2,129	7.4	6.2-8.5
Some Post-H.S.	472	6.3	4.1-8.4	815	8.6	6.5-10.7	1,287	7.6	6.1-9.1
College Graduate	473	5.5	3.5-7.4	618	6.7	4.7-8.7	1,091	6.1	4.7-7.5
Income									
Less than \$15,000	231	6.6	2.9-10.3	449	13.0	9.3-16.6	680	10.1	7.5-12.7
\$15,000- 24,999	351	6.1	3.7-8.5	656	11.1	8.4-13.7	1,007	8.9	7.0-10.7
\$25,000- 34,999	298	4.8	2.3-7.3	487	9.7	7.0-12.4	785	7.4	5.5-9.3
\$35,000- 49,999	309	5.2	2.7-7.7	391	5.9	3.3-8.5	700	5.5	3.7-7.3
\$50,000- 74,999	272	7.1	4.1-10.0	292	6.4	3.4-9.5	564	6.8	4.7-8.9
\$75,000+	328	4.8	2.5-7.1	350	8.2	5.2-11.2	678	6.4	4.5-8.2

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

Overall Cancer Prevalence

Definition Responding “Yes” to either of the questions “Has a doctor, nurse, or other health professional ever told you that you had skin cancer?” “Has a doctor, nurse, or other health professional ever told you that you had any other types of cancer?”

Prevalence **WV: 12.7%** (95% CI: 11.7-13.7)
U.S.: 11.1% (95% CI: 10.9-11.2)
 The West Virginia cancer prevalence was significantly higher than the U.S. prevalence. West Virginia ranked the 4th highest among 52 BRFSS participants.

Gender **Men:** 10.3% (95% CI: 9.0-11.6)
Women: 15.0% (95% CI: 13.6-16.3)
 There was a significant gender difference in cancer prevalence with females having a higher prevalence than males.

Age The oldest adults (65 and older) had the highest cancer prevalence among all age groups in West Virginia. More than one-fourth of WV adults 65 and older, or 27.7% had cancer during their life. The prevalence of cancer generally increased as age increased.

Education Cancer prevalence was significantly higher among those with less than a high school education (16.2%) than among those with some college (11.2%) or college graduates (11.3%).

Household Income There was no annual household income difference in the prevalence of cancer.

Table 14.3 Overall cancer prevalence by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,065	10.3	9.0-11.6	3,197	15.0	13.6-16.3	5,262	12.7	11.7-13.7
Age									
18-24	102	*0.0	0.0-0.0	153	*5.9	2.2-9.7	255	*2.9	1.0-4.7
25-34	234	*0.8	0.0-1.9	308	4.7	2.1-7.4	542	2.7	1.3-4.2
35-44	280	*1.9	0.4-3.4	395	11.6	8.0-15.1	675	6.8	4.8-8.8
45-54	397	7.3	4.4-10.3	568	14.5	11.1-17.9	965	11.0	8.7-13.2
55-64	482	18.5	14.5-22.4	718	17.0	13.9-20.2	1,200	17.7	15.2-20.3
65+	562	28.5	24.3-32.7	1,027	27.2	24.1-30.2	1,589	27.7	25.3-30.2
Education									
Less than H.S.	284	13.7	9.6-17.9	469	18.7	14.6-22.8	753	16.2	13.3-19.2
H.S. or G.E.D.	833	9.2	7.3-11.1	1,294	16.1	13.9-18.3	2,127	12.6	11.1-14.1
Some Post-H.S.	472	9.3	6.8-11.9	812	12.7	10.2-15.2	1,284	11.2	9.5-13.0
College Graduate	471	10.5	7.8-13.1	618	12.1	9.4-14.8	1,089	11.3	9.4-13.2
Income									
Less than \$15,000	231	12.2	7.4-17.1	448	16.3	12.4-20.2	679	14.4	11.4-17.5
\$15,000- 24,999	351	11.8	8.4-15.1	655	16.5	13.3-19.6	1,006	14.4	12.1-16.7
\$25,000- 34,999	297	8.9	5.7-12.1	486	14.6	11.3-17.9	783	11.9	9.6-14.2
\$35,000- 49,999	309	10.7	7.2-14.1	391	12.4	8.8-16.1	700	11.5	9.0-14.0
\$50,000- 74,999	272	11.6	7.7-15.5	292	11.8	7.7-15.9	564	11.7	8.9-14.5
\$75,000+	327	8.1	5.2-11.0	350	12.5	8.7-16.4	677	10.1	7.7-12.5

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

CHAPTER 15: ASTHMA

Lifetime Asthma

Definitions	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you had asthma?”
Prevalence	WV: 12.0% (95% CI: 10.8-13.1) U.S.: 13.5% (95% CI: 13.3-13.7) The West Virginia prevalence of lifetime asthma was significantly lower than the U.S. prevalence. West Virginia ranked the 10 th lowest among 52 BRFSS participants.
Gender	Men: 9.6% (95% CI: 7.9-11.4) Women: 14.1% (95% CI: 12.6-15.6) Women had a significantly higher prevalence of lifetime asthma than men.
Age	The prevalence of lifetime asthma generally decreased with increasing age. The prevalence of lifetime asthma was significantly higher among those aged 18-24 (17.8%) than among those aged 65 and older (9.8%).
Education	The prevalence of lifetime asthma was significantly higher among those with less than a high school education (17.0%) than among those with some college (10.1%) or college graduates (9.8%).
Household Income	The prevalence of lifetime asthma was significantly higher among those with an annual household income of less than \$15,000 (20.6%) than among those with a household income of \$75,000 or more per year (7.4%).

Table 15.1 Lifetime asthma by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,062	9.6	7.9-11.4	3,204	14.1	12.6-15.6	5,266	12.0	10.8-13.1
Age									
18-24	102	16.7	7.9-25.5	154	19.0	11.7-26.3	256	17.8	12.1-23.6
25-34	236	7.9	3.9-11.9	308	15.4	10.9-19.8	544	11.6	8.6-14.6
35-44	279	11.1	6.7-15.5	393	13.1	9.4-16.7	672	12.1	9.2-14.9
45-54	397	8.8	5.3-12.4	570	15.9	12.5-19.2	967	12.4	10.0-14.9
55-64	478	8.7	5.9-11.4	721	12.4	9.7-15.0	1,199	10.5	8.6-12.4
65+	562	6.9	4.5-9.2	1,030	11.9	9.6-14.2	1,592	9.8	8.1-11.4
Education									
Less than H.S.	280	15.1	9.2-21.0	469	18.9	14.3-23.5	749	17.0	13.3-20.8
H.S. or G.E.D.	833	9.2	6.6-11.9	1,294	14.4	12.1-16.7	2,127	11.8	10.0-13.5
Some Post-H.S.	473	7.1	4.6-9.6	816	12.4	9.6-15.1	1,289	10.1	8.2-12.0
College Graduate	471	8.3	5.1-11.5	620	11.3	8.2-14.4	1,091	9.8	7.6-12.0
Income									
Less than \$15,000	229	14.5	8.9-20.2	447	25.5	20.4-30.6	676	20.6	16.8-24.3
\$15,000- 24,999	353	13.2	8.7-17.6	657	19.8	15.6-23.9	1,010	16.8	13.8-19.9
\$25,000- 34,999	297	8.7	4.8-12.6	486	10.9	7.8*14.1	783	9.9	7.4-12.4
\$35,000- 49,999	307	11.4	5.8-17.1	391	9.5	6.3-12.8	698	10.5	7.2-13.8
\$50,000- 74,999	271	*5.3	1.2-9.4	294	10.2	5.8-14.7	565	7.5	4.5-10.5
\$75,000+	328	6.0	3.2-8.7	350	9.0	5.8-12.3	678	7.4	5.3-9.5

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

Current Asthma

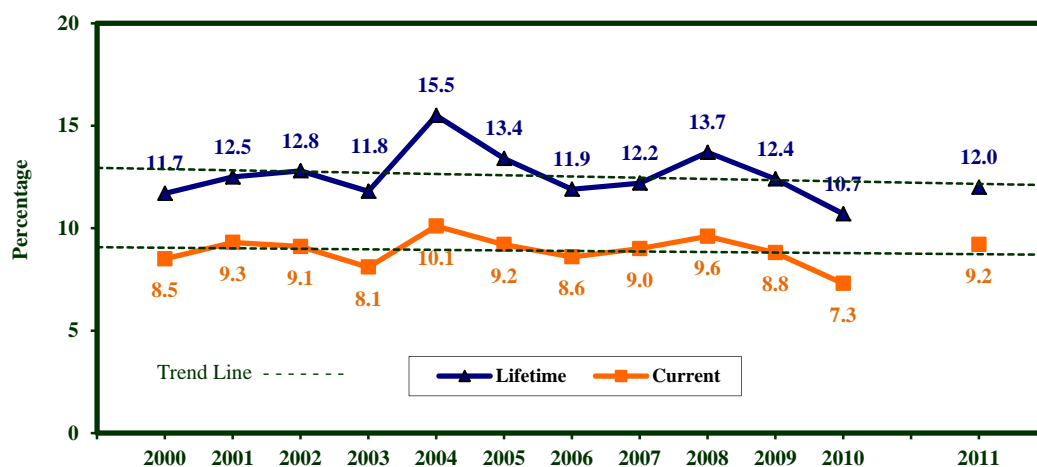
Definitions	Responding “Yes” to the lifetime asthma question and “Yes” to the question “Do you still have asthma?”
Prevalence	<p>WV: 9.2% (95% CI: 8.1-10.2)</p> <p>U.S.: 8.8% (95% CI: 8.6-9.0)</p> <p>The West Virginia and U.S. prevalence of current asthma was similar. West Virginia ranked the 25th highest among 52 BRFSS participants.</p>
Gender	<p>Men: 6.6% (95% CI: 5.0-8.2)</p> <p>Women: 11.6% (95% CI: 10.2-13.0)</p> <p>The prevalence of current asthma was significantly higher among women than men.</p>
Age	There was no age difference in the prevalence of current asthma.
Education	The prevalence of current asthma was highest among adults with less than a high school education (14.8%) and was significantly higher than all other educational attainment groups.
Household Income	The prevalence of current asthma was highest among those with an annual household income of less than \$15,000 (17.5%) and lowest among those with a household income of \$75,000 or more per year (5.0%).

Table 15.2 Current asthma by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,060	6.6	5.0-8.2	3,202	11.6	10.2-13.0	5,262	9.2	8.1-10.2
Age									
18-24	102	*11.4	3.4-19.3	154	14.5	7.8-21.2	256	12.9	7.6-18.1
25-34	236	*4.1	0.9-7.2	307	10.8	7.0-14.5	543	7.4	4.9-9.8
35-44	277	*5.5	1.8-9.1	392	11.1	7.7-14.6	669	8.3	5.8-10.8
45-54	397	7.3	3.9-10.6	570	14.0	10.8-17.2	967	10.7	8.4-13.0
55-64	478	6.6	4.2-9.1	721	11.1	8.6-13.6	1,199	8.9	7.1-10.6
65+	562	6.0	3.8-8.2	1030	9.7	7.6-11.8	1,592	8.1	6.6-9.6
Education									
Less than H.S.	280	12.9	7.1-18.6	469	16.6	12.2-21.0	749	14.8	11.2-18.3
H.S. or G.E.D.	832	7.2	4.8-9.6	1293	11.6	9.5-13.7	2,125	9.4	7.8-11.0
Some Post-H.S.	473	2.7	1.3-4.1	815	9.5	7.1-11.8	1,288	6.5	5.0-8.0
College Graduate	470	3.7	1.8-5.6	620	9.8	6.8-12.7	1,090	6.8	5.0-8.5
Income									
Less than \$15,000	229	13.5	8.0-19.1	446	20.8	16.2-25.5	675	17.5	13.9-21.1
\$15,000- 24,999	353	8.3	4.6-12.0	657	16.9	12.9-20.9	1,010	13.0	10.3-15.8
\$25,000- 34,999	297	*4.9	1.9-8.0	486	8.8	5.9-11.7	783	7.0	4.9-9.1
\$35,000- 49,999	307	*7.5	2.6-12.4	391	7.7	4.7-10.8	698	7.6	4.7-10.5
\$50,000- 74,999	271	*2.6	0.0-5.7	293	8.1	4.5-11.7	564	5.0	2.7-7.4
\$75,000+	327	3.6	1.6-5.7	350	6.6	3.7-9.5	677	5.0	3.3-6.7

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

Figure 18.1 Lifetime and current asthma by year: WVBRFSS, 2000-2011

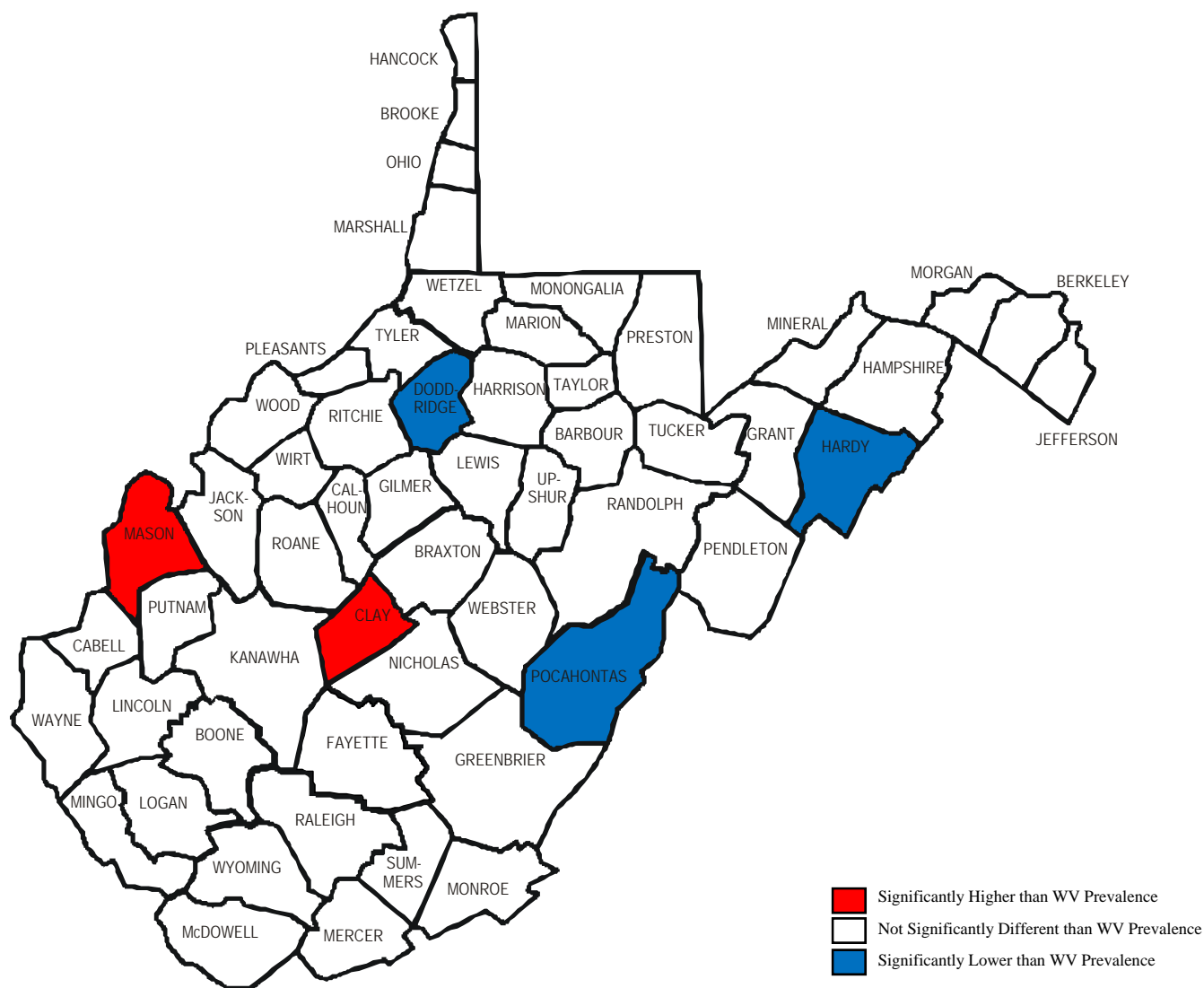


*Due to changes in sample composition and weighting methodology, 2011 results are not directly comparable to previous years.

Figure 18.2 Current asthma by county: WVBRFSS, 2007-2011

U.S. Prevalence (2009) – 8.4%

WV Prevalence (2007-2011) – 8.8%
(Similar to U.S.)



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

CHAPTER 16: CHRONIC OBSTRUCTIVE PULMONARY DISEASE

COPD Prevalence

Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you have (COPD) chronic obstructive pulmonary disease, emphysema, or chronic bronchitis?”
Prevalence	WV: 8.8% (95% CI: 7.9-9.7) U.S.: 6.3% (95% CI: 6.2-6.5) The West Virginia prevalence of COPD was significantly higher than the U.S. prevalence. West Virginia ranked the 4 th highest among 52 BRFSS participants.
Gender	Men: 7.7% (95% CI: 6.4-9.0) Women: 9.9% (95% CI: 8.7-11.1) There was no gender difference in the prevalence of COPD.
Age	The prevalence COPD generally increased with age and was highest among those aged 65 and older (13.7%).
Education	The prevalence of COPD was highest among those with less than a high school education (16.6%) and was significantly higher than all other educational attainment groups.
Household Income	The prevalence of COPD was highest among those with an annual household income of less than \$15,000 (20.5%) and was significantly higher than among all other income levels.

Table 16.1 COPD prevalence by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,066	7.7	6.4-9.0	3,198	9.9	8.7-11.1	5,264	8.8	7.9-9.7
Age									
18-24	102	*2.9	0.0-6.3	154	*2.8	0.0-7.2	256	*2.9	0.1-5.6
25-34	237	*1.7	0.0-4.0	307	5.8	2.8-8.8	544	3.7	1.8-5.6
35-44	280	5.2	2.4-8.1	394	8.0	5.0-11.0	674	6.6	4.5-8.7
45-54	394	6.7	4.1-9.4	571	13.5	10.2-16.7	965	10.1	8.0-12.3
55-64	481	13.5	9.8-17.2	721	11.8	9.0-14.6	1,202	12.6	10.3-15.0
65+	564	14.2	10.7-17.6	1023	13.3	11.0-15.5	1,587	13.7	11.7-15.6
Education									
Less than H.S.	283	14.4	10.1-18.7	464	18.8	14.2-23.4	747	16.6	13.4-19.8
H.S. or G.E.D.	833	7.6	5.5-9.6	1293	10.3	8.5-12.0	2,126	8.9	7.5-10.3
Some Post-H.S.	472	6.1	4.1-8.1	816	7.5	5.6-9.5	1,288	6.9	5.5-8.3
College Graduate	473	*3.0	1.2-4.7	620	3.4	2.0-4.8	1,093	3.2	2.1-4.3
Income									
Less than \$15,000	230	14.0	9.1-18.8	448	25.9	20.5-31.3	678	20.5	16.8-24.3
\$15,000- 24,999	351	12.7	8.8-16.5	658	11.6	8.8-14.4	1,009	12.1	9.7-14.4
\$25,000- 34,999	297	5.9	3.2-8.5	487	7.1	4.6-9.6	784	6.5	4.7-8.3
\$35,000- 49,999	309	5.6	2.6-8.6	390	5.3	2.8-7.8	699	5.4	3.5-7.4
\$50,000- 74,999	272	*4.6	1.5-7.8	294	*4.9	2.0-7.9	566	4.8	2.6-7.0
\$75,000+	328	*2.2	0.5-3.8	350	*2.3	0.7-3.9	678	2.2	1.1-3.4

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

COPD Management – Medical Care

Definition

Persons reporting that they have chronic obstructive pulmonary disease were asked a series of questions about medical care for their COPD.

Ever had a COPD test is defined as responding “Yes” to the question “Have you ever been given a breathing test to diagnose your COPD, chronic bronchitis, or emphysema?”

Seen a doctor in the past year is defined as responding “Yes” to the question “Other than a routine visit, have you had to see a doctor in the past 12 months for symptoms related to shortness of breath, bronchitis, or other COPD, or emphysema flare?”

Been to the hospital or ER in the past year is defined as responding “Yes” to the question “Did you have to visit an emergency room or be admitted to the hospital in the past 12 months because of your COPD, chronic bronchitis, or emphysema?”

Take no medication for COPD is defined as responding “0” to the question “How many different medications do you currently take each day to help with your COPD, chronic bronchitis, or emphysema?”

Prevalence

Ever Had a COPD Test: 80.3% (95% CI: 76.2-84.3)

Seen a Doctor in Past Year: 44.2% (95% CI: 39.0-49.5)

Been to Hospital or ER in Past Year: 20.8% (95% CI: 16.1-25.5)

Take No Medication for COPD: 37.3% (95% CI: 32.1-42.6)

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

Ever Had a COPD Test

Men: 83.5% (95% CI: 77.3-89.8)

Women: 77.8% (95% CI: 72.5-83.2)

There was no gender difference in the prevalence of ever had a COPD test.

Seen a Doctor in Past Year

Men: 41.1% (95% CI: 32.9-49.3)

Women: 46.5% (95% CI: 39.8-53.3)

There was no gender difference in the prevalence of seen a doctor in the past year.

Been to Hospital or ER in Past Year

Men: 16.8% (95% CI: 10.6-22.9)

Women: 23.7% (95% CI: 17.0-30.3)

There was no gender difference in the prevalence of been to the hospital or ER in the past year.

Take No Medication for COPD

Men: 40.0% (95% CI: 31.2-48.7)

Women: 35.4% (95% CI: 29.0-41.8)

There was no gender difference in the prevalence of take no medication for COPD.

Age

Due to a low response rate, all the prevalence estimates for age groups 18-44 were unreliable. The following results are from comparison of the 45-54, 55-64, and 65 and older age groups. There was no age difference in the prevalence of ever had a COPD test, seen a doctor in the past year, been to a hospital or ER in the past year, or take no medication for COPD.

Education

Due to a low response rate, the prevalence estimate for college graduates was unreliable. There was no consistent educational attainment difference in the prevalence of ever had a COPD test, seen a doctor in the past year, been to a hospital or ER in the past year, or take no medication for COPD.

Household Income

Due to a low response rate, the prevalence estimates for annual household income of \$35,000 or higher were unreliable. There was no consistent annual household income difference in the prevalence of ever had a COPD test, seen a doctor in the past year, been to a hospital or ER in the past year, or take no medication for COPD.

Table 16.2 Medical management of COPD by demographic characteristics: WVBRFSS, 2011

Characteristic	Ever Had a COPD Test		Seen a Doctor in Past Year		Been to Hospital or ER in Past Year		Take No Medication for COPD	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
TOTAL	80.3	76.2-84.3	44.2	39.0-49.5	20.8	16.1-25.5	37.3	32.1-42.6
Sex								
Males	83.5	77.3-89.8	41.1	32.9-49.3	16.8	10.6-22.9	40.0	31.2-48.7
Females	77.8	72.5-83.2	46.5	39.8-53.3	23.7	17.0-30.3	35.4	29.0-41.8
Age								
18-24	*50.6	0.0-100.0	*50.6	0.0-100.0	*62.4	11.8-100.0	*49.4	0.0-100.0
25-34	*89.8	75.7-100.0	*34.4	10.6-58.2	*29.3	5.6-53.0	*54.6	27.8-81.4
35-44	*71.6	57.4-85.8	*46.6	30.4-62.9	*27.6	13.0-42.1	*49.8	33.3-66.2
45-54	81.2	72.4-90.0	*51.2	40.0-62.4	21.6	13.0-30.2	*36.2	25.1-47.2
55-64	81.5	74.5-88.4	41.4	31.6-51.1	16.7	8.8-24.7	32.9	23.6-42.2
65+	82.9	77.1-88.8	42.3	34.6-50.1	14.9	9.4-20.4	32.1	24.7-39.5
Education								
Less than H.S.	89.4	83.9-94.9	*51.9	41.5-62.3	*29.0	18.2-39.7	30.4	20.7-40.1
H.S. or G.E.D.	75.2	68.4-82.0	41.3	33.8-48.8	14.8	9.8-19.7	39.0	30.9-47.1
Some Post-H.S.	80.3	71.6-89.0	*39.9	29.5-50.3	19.9	11.8-28.0	*42.4	31.9-52.9
College Graduate	*62.9	43.7-82.0	*35.1	18.7-51.5	*16.8	5.2-28.4	*47.1	28.3-65.9
Income								
Less than \$15,000	81.5	73.8-89.3	*48.3	37.9-58.6	*33.8	22.8-44.8	*35.4	25.2-45.5
\$15,000- 24,999	85.9	79.5-92.3	*45.7	35.5-55.8	20.3	12.1-28.5	*33.3	23.2-43.5
\$25,000- 34,999	*74.2	61.2-87.1	*43.3	28.7-58.0	12.6	3.0-22.2	*49.2	34.5-63.9
\$35,000- 49,999	*85.2	72.9-97.4	*49.2	30.7-67.7	*13.6	2.6-24.5	*36.3	19.0-53.6
\$50,000- 74,999	*70.1	49.8-90.3	*29.6	8.3-50.9	*5.1	0.0-12.4	*36.7	15.6-57.8
\$75,000+	*92.6	78.6-100.0	*36.1	10.9-61.3	*10.0	0.0-23.5	*37.2	12.6-61.8

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

COPD – Quality of Life

Definition	Persons reporting that they have COPD and responding “Yes” to the question “Would you say that shortness of breath affects the quality of your life?”
Prevalence	WV: 75.6% (95% CI: 71.1-80.1) 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: 83.5% (95% CI: 77.1-89.9) Women: 69.9% (95% CI: 63.9-76.0) The prevalence of COPD affects quality of life was significantly higher among men than women.
Age	Due to a low response rate, all the prevalence estimates for age groups 18-44 were unreliable. The following results are from comparison of the 45-54, 55-64, and 65 and older age groups. The prevalence of COPD affects quality of life was significantly lower among those aged 65 and older (69.8%) than among those aged 55-64 (85.5%).
Education	Due to a low response rate, the prevalence estimate for college graduates was unreliable. There was no educational attainment difference in the prevalence of COPD affects quality of life.
Household Income	Due to a low response rate, the prevalence estimates for annual household income brackets of \$35,000 or higher were unreliable. There was no annual household income difference in the prevalence of COPD affects quality of life.

Table 16.3 COPD quality of life by demographic characteristics: WVBRFSS, 2011

Characteristic	COPD Quality of Life		
	# Resp.	%	95% CI
TOTAL	516	75.6	71.1-80.1
Sex			
Males	177	83.5	77.1-89.9
Females	339	69.9	63.9-76.0
Age			
18-24	4	*50.6	0.0-100.0
25-34	18	*57.5	31.7-83.3
35-44	44	*70.1	55.1-85.1
45-54	99	85.1	76.8-93.3
55-64	143	85.5	79.1-91.8
65+	207	69.8	62.8-76.9
Education			
Less than H.S.	138	84.3	76.9-91.6
H.S. or G.E.D.	228	76.0	69.4-82.7
Some Post-H.S.	108	*65.7	55.5-76.0
College Graduate	42	*56.8	38.1-75.5
Income			
Less than \$15,000	159	79.1	70.4-87.8
\$15,000- 24,999	136	78.9	71.1-86.6
\$25,000- 34,999	58	*72.1	59.2-85.0
\$35,000- 49,999	39	*61.1	43.6-78.5
\$50,000- 74,999	24	*71.0	50.9-91.2
\$75,000+	17	*75.9	55.6-96.2

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

CHAPTER 17: ARTHRITIS

Arthritis Prevalence

Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?”
Prevalence	WV: 35.9% (95% CI: 34.4-37.5) U.S.: 24.8% (95% CI: 24.6-25.0) The West Virginia prevalence of arthritis was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 52 BRFSS participants.
Gender	Men: 32.0% (95% CI: 29.6-34.3) Women: 39.7% (95% CI: 37.7-41.7) The prevalence of arthritis was significantly higher among women than men.
Age	The prevalence of arthritis significantly increased with age and was highest among those aged 65 and older (60.0%).
Education	The prevalence of arthritis was significantly higher among those with less than a high school education (51.3%) than all other educational attainment groups.
Household Income	The prevalence of arthritis was highest among those with an annual household income of less than \$15,000 (52.9%) and lowest among those with a household income of \$75,000 or more per year (21.4%).

Table 17.1 Arthritis by demographic characteristics: WVBRESS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,053	32.0	29.6-34.3	3,197	39.7	37.7-41.7	5,250	35.9	34.4-37.5
Age									
18-24	102	*4.7	0.9-8.5	154	13.8	6.2-21.5	256	9.1	4.8-13.4
25-34	237	9.9	5.3-14.5	307	14.6	10.2-19.1	544	12.2	9.0-15.4
35-44	280	27.3	21.3-33.2	394	27.3	22.3-32.2	674	27.3	23.4-31.1
45-54	394	36.3	30.9-41.6	570	41.5	36.9-46.2	964	39.0	35.4-42.5
55-64	478	50.2	45.2-55.1	719	54.8	50.8-58.9	1,197	52.5	49.3-55.7
65+	555	53.2	48.6-57.8	1,027	65.0	61.7-68.3	1,582	60.0	57.3-62.8
Education									
Less than H.S.	276	49.1	41.9-56.2	466	53.4	47.5-59.3	742	51.3	46.7-55.9
H.S. or G.E.D.	829	30.1	26.7-33.6	1,292	44.1	40.9-47.2	2,121	37.0	34.6-39.4
Some Post-H.S.	471	28.1	23.7-32.5	816	33.5	29.8-37.1	1,287	31.2	28.3-34.0
College Graduate	472	22.9	18.9-27.0	618	24.7	20.9-28.5	1,090	23.8	21.1-26.6
Income									
Less than \$15,000	229	49.9	42.0-57.8	446	55.3	49.4-61.2	675	52.9	48.0-57.7
\$15,000- 24,999	348	38.1	32.2-43.9	659	47.7	43.1-52.3	1,007	43.4	39.7-47.1
\$25,000- 34,999	297	32.4	26.3-38.4	486	41.1	36.0-46.1	783	37.0	33.1-40.9
\$35,000- 49,999	310	31.1	25.0-37.3	391	29.5	24.5-34.5	701	30.3	26.4-34.3
\$50,000- 74,999	267	24.7	19.2-30.3	294	33.5	27.3-39.7	561	28.7	24.5-32.9
\$75,000+	327	19.9	15.4-24.4	349	23.2	18.4-27.9	676	21.4	18.1-24.7

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

Figure 17.1 Arthritis by year: WVBRESS, 1990-2011

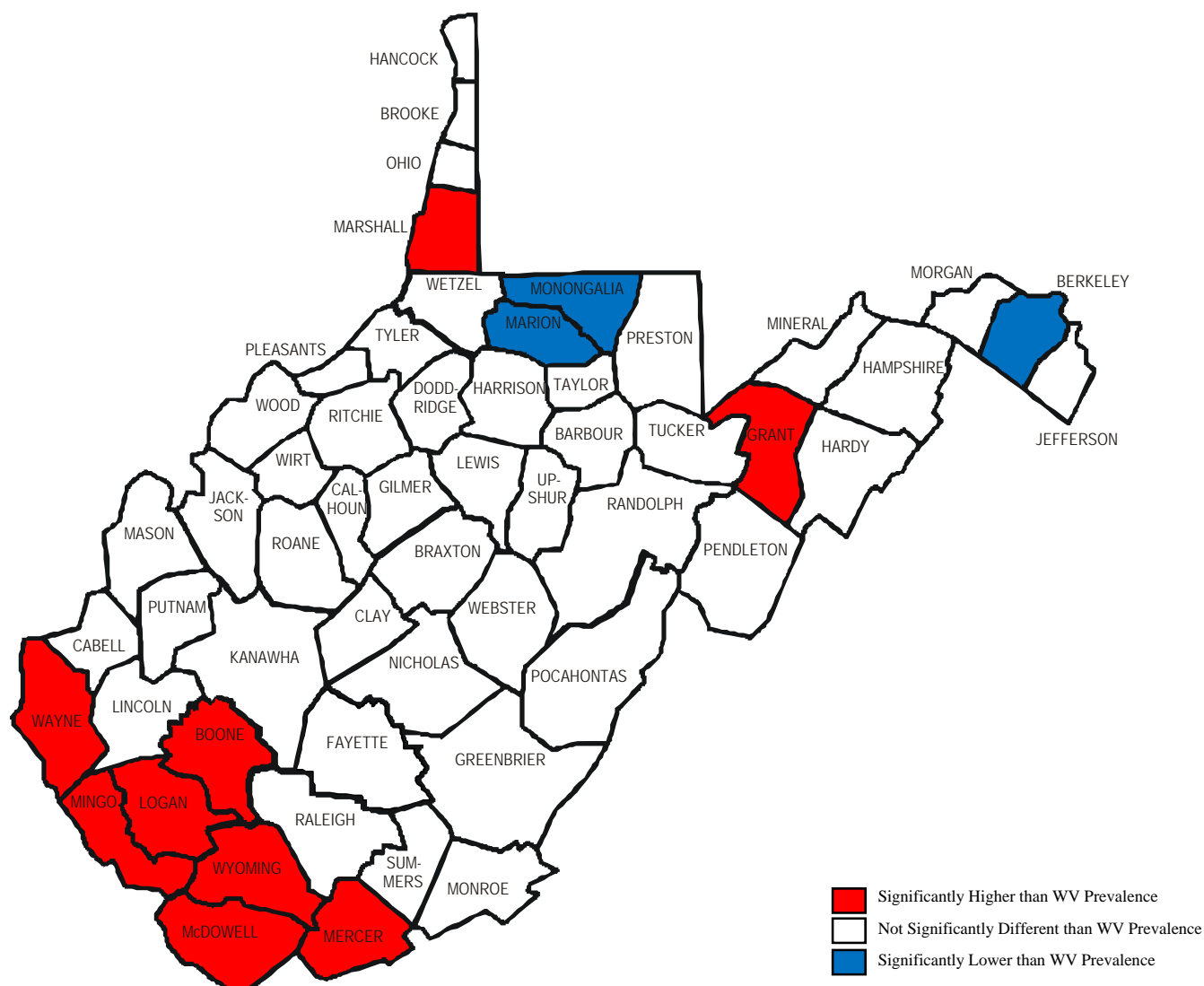


*Due to changes in sample composition and weighting methodology, 2011 results are not directly comparable to previous years.

Figure 19.1 Arthritis by county: WVBRESS, 2005, 2007, 2009-2011

U.S. Prevalence (2009) – 25.9%

WV Prevalence (2005, 2007, 2009-2011) – 35.2%
(Significantly Higher than U.S.)



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

Living With Arthritis

Definition Persons reporting that 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: 56.5%** (95% CI: 54.0-59.0)
U.S.: 51.4% (95% CI: 50.9-51.9)
 The West Virginia prevalence of limited due to arthritis was significantly higher than the U.S prevalence. West Virginia ranked the 5th highest among 52 BRFSS participants.

Gender **Men:** 56.1% (95% CI: 52.0-60.2)
Women: 56.7% (95% CI: 53.6-59.9)
 There was no gender difference in the prevalence of limited due to arthritis.

Age There was no age difference in the prevalence of limited due to arthritis.

Education The prevalence of limited due to arthritis was significantly higher among those with less than a high school education (61.9%) than among college graduates (49.1%).

Household Income The prevalence of limited due to arthritis was significantly higher among those with an annual household income of less than \$15,000 (64.5%) than among those with a household income of \$75,000 or more per year (41.3%).

Table 17.2 Limited in any way because of arthritis by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	751	56.1	52.0-60.2	1,421	56.7	53.6-59.9	2,172	56.5	54.0-59.0
Age									
18-24	6	*60.3	18.7-100.0	15	*61.9	33.1-90.6	21	*61.4	37.5-85.3
25-34	21	*74.0	54.3-93.7	40	*51.8	35.0-68.6	61	*61.0	47.4-74.5
35-44	71	*50.8	37.8-63.9	97	*63.6	53.2-74.0	168	57.1	48.7-65.6
45-54	138	62.9	53.9-71.8	235	58.4	51.1-65.8	373	60.4	54.7-66.2
55-64	227	55.2	47.8-62.5	379	60.7	55.2-66.1	606	58.1	53.5-62.6
65+	287	51.1	44.7-57.5	653	51.8	47.5-56.1	940	51.5	47.9-55.1
Education									
Less than H.S.	151	63.1	54.4-71.8	270	60.9	53.4-68.5	421	61.9	56.2-67.7
H.S. or G.E.D.	307	53.6	47.4-59.8	643	55.7	51.2-60.1	950	54.8	51.2-58.5
Some Post-H.S.	161	56.1	47.3-65.0	320	57.8	51.4-64.1	481	57.1	51.9-62.3
College Graduate	129	49.2	39.3-59.0	186	49.0	40.5-57.5	315	49.1	42.6-55.6
Income									
Less than \$15,000	122	*62.4	52.3-72.4	270	66.0	58.8-73.3	392	64.5	58.5-70.4
\$15,000- 24,999	151	67.3	58.9-75.7	347	54.1	47.5-60.8	498	59.2	53.9-64.5
\$25,000- 34,999	112	*61.6	51.5-71.8	220	56.6	48.9-64.3	332	58.7	52.5-64.9
\$35,000- 49,999	107	*51.8	40.4-63.2	130	47.4	37.7-57.1	237	49.7	42.1-57.3
\$50,000- 74,999	79	*43.9	31.9-55.9	109	*61.4	51.1-71.7	188	53.0	44.8-61.2
\$75,000+	81	*37.5	25.9-49.1	96	*45.3	34.0-56.5	177	41.3	33.2-49.4

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

Definition	Persons reporting that 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	<p>WV: 46.1% (95% CI: 43.6-48.7)</p> <p>U.S.: 35.8% (95% CI: 35.3-36.3)</p> <p>The West Virginia prevalence of arthritis affects work was significantly higher than the U.S. prevalence. West Virginia ranked the 4th highest among 52 BRFSS participants.</p>
Gender	<p>Men: 48.4% (95% CI: 44.2-52.6)</p> <p>Women: 44.4% (95% CI: 41.3-47.6)</p> <p>There was no gender difference in the prevalence of arthritis affects work.</p>
Age	The prevalence of arthritis affects work was lowest among those aged 65 and older (32.9%) and was significantly lower than all other age groups.
Education	The prevalence of arthritis affects work was highest among those with less than a high school education (56.6%) and was significantly higher than all other educational attainment groups.
Household Income	The prevalence of arthritis affects work was significantly higher among those with an annual household income of less than \$15,000 (62.7%) than among those with a household income of \$75,000 or more per year (25.6%).

Table 17.3 Arthritis affects work by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	747	48.4	44.2-52.6	1,419	44.4	41.3-47.6	2,166	46.1	43.6-48.7
Age									
18-24	6	*73.6	40.1-100.0	15	*54.0	23.9-84.1	21	*59.2	35.1-83.2
25-34	21	*65.9	44.2-87.7	40	*52.6	36.0-69.3	61	*58.1	44.6-71.7
35-44	71	*58.2	45.4-71.1	99	*55.8	45.2-66.4	170	57.0	48.7-65.4
45-54	137	60.0	50.9-69.0	229	49.9	42.5-57.4	366	54.5	48.7-60.4
55-64	223	47.6	40.2-55.0	381	49.5	43.8-55.2	604	48.6	44.0-53.2
65+	288	32.6	26.4-38.8	653	33.2	29.1-37.2	941	32.9	29.5-36.4
Education									
Less than H.S.	150	59.7	50.9-68.6	270	53.8	46.1-61.4	420	56.6	50.8-62.4
H.S. or G.E.D.	305	46.3	40.1-52.4	641	44.4	40.0-48.9	946	45.2	41.5-48.8
Some Post-H.S.	160	45.9	37.0-54.8	320	43.4	37.0-49.8	480	44.4	39.2-49.6
College Graduate	129	*34.4	24.3-44.5	186	25.1	18.3-32.0	315	29.6	23.4-35.8
Income									
Less than \$15,000	122	64.3	54.4-74.1	266	61.5	54.3-68.7	388	62.7	56.8-68.6
\$15,000- 24,999	150	57.1	48.0-66.2	346	44.1	37.4-50.8	496	49.1	43.6-54.5
\$25,000- 34,999	111	*49.8	39.1-60.4	220	50.4	42.7-58.0	331	50.1	43.8-56.4
\$35,000- 49,999	107	*45.3	33.8-56.8	129	39.1	29.6-48.6	236	42.4	34.8-50.0
\$50,000- 74,999	79	*31.5	20.2-42.8	110	*36.4	25.8-47.0	189	34.1	26.4-41.9
\$75,000+	81	*26.4	15.9-37.0	96	24.8	15.3-34.3	177	25.6	18.5-32.7

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

Definition	Persons reporting that 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 your normal social activities, such as going shopping, to the movies, or to religious or social gatherings?”
Prevalence	<p>WV: 27.7% (95% CI: 25.4-30.0)</p> <p>U.S.: 20.8% (95% CI: 20.4-21.2)</p> <p>The West Virginia prevalence of arthritis affects social activities was significantly higher than the U.S. prevalence. West Virginia ranked the 6th highest among 52 BRFSS participants.</p>
Gender	<p>Men: 26.9% (95% CI: 23.2-30.6)</p> <p>Women: 28.4% (95% CI: 25.5-31.3)</p> <p>There was no gender difference in the prevalence of arthritis affects social activities.</p>
Age	The prevalence of arthritis affects social activities was lowest among those aged 65 and older (20.3%) and was significantly lower than all other age groups.
Education	The prevalence of arthritis affects social activities was significantly higher among those with less than a high school education (34.4%) than among college graduates (15.5%).
Household Income	The prevalence of arthritis affects social activities was significantly higher among those with an annual household income of less than \$15,000 (47.2%) than among those with a household income of \$75,000 or more per year (12.1%).

Table 17.4 Arthritis affects social activities by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	749	26.9	23.2-30.6	1,420	28.4	25.5-31.3	2,169	27.7	25.4-30.0
Age									
18-24	6	*18.4	0.0-50.9	15	*26.7	0.0-57.3	21	*24.5	0.2-48.9
25-34	21	*20.6	1.5-39.8	40	*28.0	13.9-42.0	61	*24.9	13.5-36.4
35-44	71	*27.5	16.9-38.1	98	*46.5	35.7-57.2	169	36.9	29.0-44.8
45-54	138	39.2	29.9-48.4	235	32.5	25.6-39.3	373	35.5	29.8-41.1
55-64	225	31.2	24.1-38.3	378	26.2	21.3-31.1	603	28.6	24.3-32.8
65+	287	16.0	11.3-20.7	652	22.9	19.3-26.4	939	20.3	17.4-23.1
Education									
Less than H.S.	151	34.0	25.4-42.6	269	34.7	27.2-42.1	420	34.4	28.7-40.0
H.S. or G.E.D.	307	25.3	20.0-30.7	643	31.0	26.8-35.1	950	28.6	25.3-31.9
Some Post-H.S.	159	26.9	19.0-34.8	321	23.2	17.7-28.7	480	24.6	20.1-29.2
College Graduate	129	16.2	8.4-23.9	185	15.0	9.0-20.9	314	15.5	10.7-20.4
Income									
Less than \$15,000	122	*47.7	37.3-58.1	269	46.9	39.1-54.6	391	47.2	40.9-53.5
\$15,000- 24,999	151	43.1	33.7-52.5	346	30.5	24.7-36.3	497	35.3	30.2-40.5
\$25,000- 34,999	111	17.6	9.6-25.7	219	21.1	15.2-27.1	330	19.7	14.9-24.5
\$35,000- 49,999	107	*9.6	3.9-15.4	130	20.1	12.2-28.1	237	14.6	9.7-19.6
\$50,000- 74,999	78	*14.8	5.9-23.7	109	17.0	8.3-25.6	187	15.9	9.7-22.1
\$75,000+	81	*15.3	5.9-24.7	96	*8.9	2.6-15.2	177	12.1	6.4-17.9

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

CHAPTER 18: DISABILITY

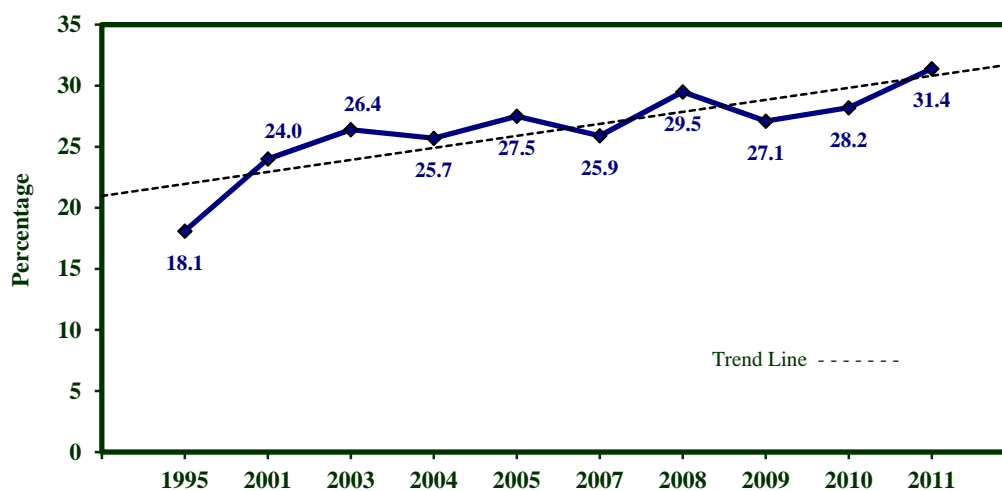
Physical, Mental or Emotional Disability

Definition	Responding “Yes” to the question “Are you limited in any way in any activities because of physical, mental, or emotional problems?”
Prevalence	WV: 31.4% (95% CI: 29.9-32.9) U.S.: 23.7% (95% CI: 23.5-23.9) The West Virginia prevalence of disability was significantly higher than the U.S. prevalence. West Virginia ranked the highest among 52 BRFSS participants.
Gender	Men: 30.4% (95% CI: 28.1-32.7) Women: 32.2% (95% CI: 30.3-34.1) There was no gender difference in the prevalence of disability.
Age	Disability prevalence generally increased with age with the highest prevalence among those aged 55-64 (42.7%).
Education	The prevalence of disability was significantly higher among those with less than a high school education (44.3%) than among all other educational attainment groups.
Household Income	The prevalence of disability was highest among those with an annual household income of less than \$15,00 (52.2%) and lowest among those with a household income of \$75,000 or more per year (16.5%).

Table 18.1 Disability by demographic characteristics: WVBRFSS, 2011

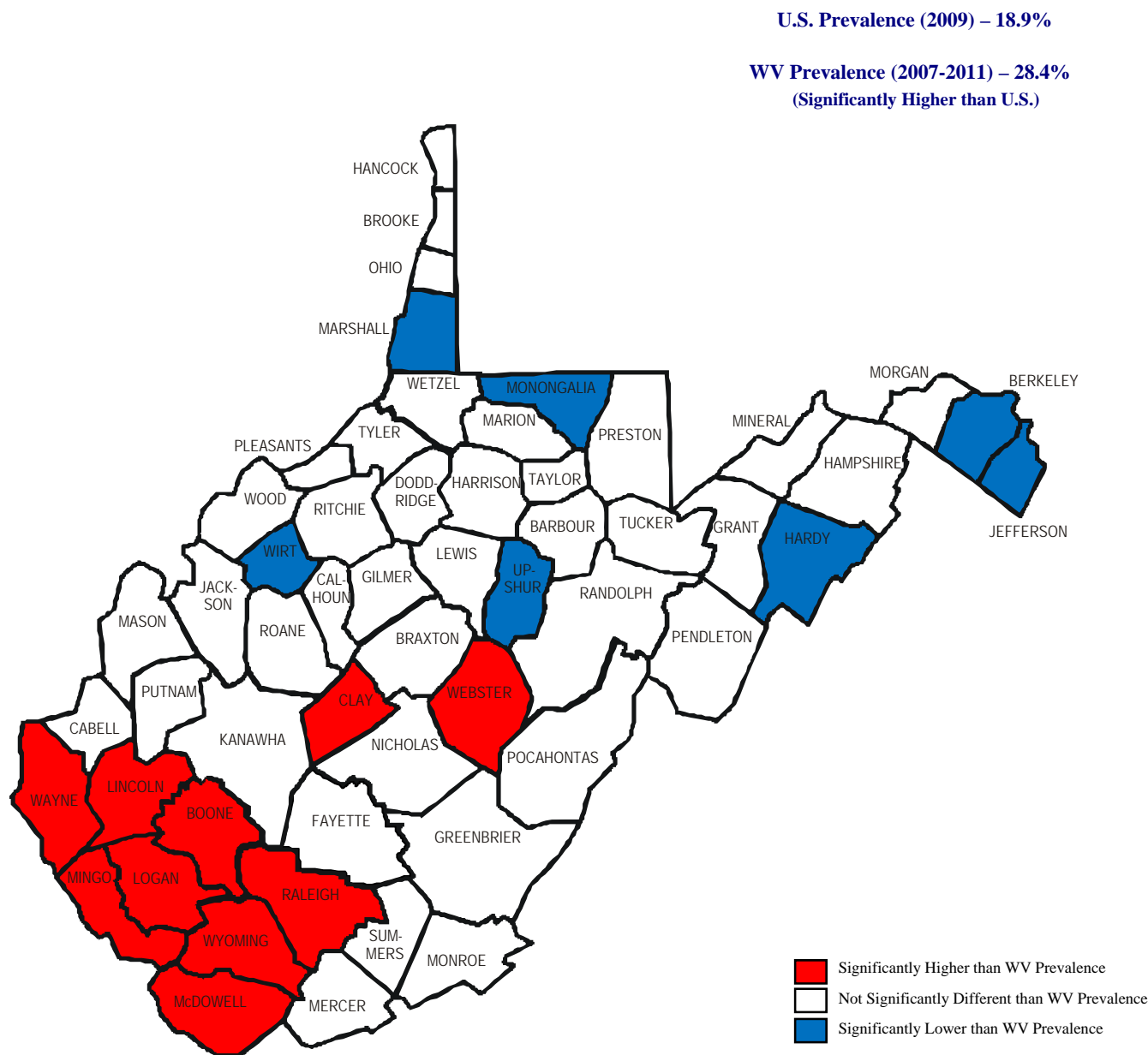
Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,051	30.4	28.1-32.7	3,176	32.2	30.3-34.1	5,227	31.4	29.9-32.9
Age									
18-24	100	14.8	7.5-22.1	153	16.3	9.4-23.2	253	15.6	10.5-20.6
25-34	235	16.5	11.0-21.9	301	20.4	15.5-25.3	536	18.4	14.7-22.1
35-44	277	22.6	17.2-28.0	390	26.6	21.8-31.5	667	24.6	21.0-28.3
45-54	392	38.4	33.0-43.7	570	33.9	29.6-38.3	962	36.1	32.7-39.5
55-64	477	43.3	38.4-48.3	718	42.0	37.9-46.1	1,195	42.7	39.5-45.9
65+	562	40.6	36.1-45.2	1,016	43.2	39.7-46.6	1,578	42.1	39.3-44.8
Education									
Less than H.S.	281	45.0	38.1-52.0	460	43.5	37.8-49.2	741	44.3	39.8-48.7
H.S. or G.E.D.	825	27.5	24.1-30.9	1,281	35.1	32.1-38.1	2,106	31.2	28.9-33.5
Some Post-H.S.	471	31.2	26.5-35.9	812	27.4	24.0-30.8	1,283	29.1	26.3-31.9
College Graduate	470	21.0	16.9-25.1	618	21.6	17.6-25.6	1,088	21.3	18.4-24.2
Income									
Less than \$15,000	229	56.3	48.3-64.3	445	48.7	42.9-54.6	674	52.2	47.3-57.0
\$15,000- 24,999	347	40.8	34.7-46.9	652	37.6	33.2-42.1	999	39.0	35.3-42.7
\$25,000- 34,999	297	27.6	21.6-33.5	482	31.1	26.5-35.6	779	29.4	25.7-33.1
\$35,000- 49,999	310	24.4	19.1-29.8	389	22.9	18.4-27.4	699	23.7	20.2-27.2
\$50,000- 74,999	271	20.3	14.9-25.8	293	29.0	22.8-35.2	564	24.2	20.1-28.3
\$75,000+	322	18.6	13.9-23.3	348	14.1	9.8-18.5	670	16.5	13.3-19.8

Figure 18.1 Disability prevalence by year: WVBRFSS, 1990-2011



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

Figure 18.2 Disability by county: WVBRFSS 2007-2011



Use Special Equipment

Definition	Responding “Yes” to the question “Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?”
Prevalence	<p>WV: 11.2% (95% CI: 10.3-12.2)</p> <p>U.S.: 7.9% (95% CI: 7.7-8.0)</p> <p>The West Virginia prevalence of use special equipment was significantly higher than the U.S. prevalence. West Virginia ranked the 2nd highest among the 52 BRFSS participants.</p>
Gender	<p>Men: 10.9% (95% CI: 9.5-12.3)</p> <p>Women: 11.6% (95% CI: 10.4-12.8)</p> <p>There was no gender difference for the prevalence of use special equipment.</p>
Age	The prevalence of use special equipment increased with age. The largest significant difference in the prevalence of use special equipment was found between the 45-54 age group (11.3%) and the 55-64 age group (18.1%) with the senior population having the largest prevalence (21.4%).
Education	The prevalence of use special equipment was highest among those with less than a high school education (17.4%) and lowest among college graduates (5.5%).
Household Income	The prevalence of use special equipment was highest among those with an annual household income of less than \$15,000 (20.3%) and lowest among those with a household income of \$75,000 or more per year (4.3%).

Table 18.2 Use special equipment by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,054	10.9	9.5-12.3	3,180	11.6	10.4-12.8	5,234	11.2	10.3-12.2
Age									
18-24	100	*0.7	0.0-2.2	153	*1.7	0.0-4.9	253	*1.2	0.0-2.9
25-34	234	*1.6	0.0-3.1	301	*3.0	1.1-5.0	535	2.3	1.0-3.5
35-44	277	7.1	4.0-10.2	391	6.6	3.9-9.3	668	6.9	4.8-8.9
45-54	394	13.0	9.4-16.6	570	9.7	6.8-12.5	964	11.3	9.0-13.6
55-64	479	20.1	15.9-24.3	719	16.1	12.9-19.3	1,198	18.1	15.4-20.8
65+	562	18.6	15.0-22.3	1018	23.5	20.7-26.4	1,580	21.4	19.2-23.7
Education									
Less than H.S.	282	17.6	13.0-22.3	462	17.2	13.1-21.2	744	17.4	14.3-20.4
H.S. or G.E.D.	826	10.3	8.2-12.4	1,283	13.7	11.7-15.8	2,109	12.0	10.5-13.4
Some Post-H.S.	471	10.8	8.0-13.6	813	8.5	6.6-10.3	1,284	9.5	7.9-11.1
College Graduate	471	5.4	3.4-7.3	617	5.6	3.7-7.5	1,088	5.5	4.1-6.8
Income									
Less than \$15,000	230	22.9	16.9-28.9	445	18.2	14.4-21.9	675	20.3	16.9-23.7
\$15,000- 24,999	348	17.4	13.0-21.7	653	15.4	12.1-18.7	1,001	16.3	13.6-19.0
\$25,000- 34,999	298	10.4	7.0-13.9	483	10.3	7.6-13.1	781	10.4	8.2-12.6
\$35,000- 49,999	309	7.5	4.5-10.5	389	5.7	3.3-8.0	698	6.6	4.6-8.5
\$50,000- 74,999	271	4.9	2.2-7.6	293	6.7	3.5-9.9	564	5.7	3.6-7.8
\$75,000+	323	4.7	2.3-7.1	348	3.9	1.7-6.2	671	4.3	2.7-6.0

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

CHAPTER 19: KIDNEY DISEASE

Kidney Disease Prevalence

Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you have kidney disease?”
Prevalence	WV: 2.8% (95% CI: 2.4-3.3) U.S.: 2.5% (95% CI: 2.4-2.6) The West Virginia and U.S. prevalence of kidney disease were similar. West Virginia ranked the 9 th highest among the 52 BRFSS participants.
Gender	Men: 2.5% (95% CI: 1.9-3.2) Women: 3.1% (95% CI: 2.4-3.8) There was no gender difference in the prevalence of kidney disease.
Age	The prevalence of kidney disease was highest among adults aged 65 and older (6.5%) and was significantly higher than all other age groups.
Education	The prevalence of kidney disease was significantly higher among those with less than a high school education (3.9%) than among college graduates (1.6%).
Household Income	There was a significant household income difference in the prevalence of kidney disease between those earning less than \$15,000 (4.6%) and those earning \$50,000-74,999 (1.6%). No other household income differences in kidney disease prevalence were found.

Table 19.1 Kidney disease prevalence by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,066	2.5	1.9-3.2	3,205	3.1	2.4-3.8	5,271	2.8	2.4-3.3
Age									
18-24	101	*0.0	0.0-0.0	154	*0.0	0.0-0.0	255	*0.0	0.0-0.0
25-34	237	*0.4	0.0-1.1	308	*1.5	0.1-3.0	545	*0.9	0.2-1.7
35-44	280	*2.4	0.4-4.5	395	*2.5	0.5-4.5	675	2.5	1.0-3.9
45-54	396	*2.0	0.7-3.4	572	2.3	1.0-3.7	968	2.2	1.2-3.1
55-64	481	3.8	2.0-5.6	720	2.1	1.0-3.2	1,201	3.0	1.9-4.0
65+	563	5.6	3.5-7.7	1,028	7.2	5.2-9.2	1,591	6.5	5.1-8.0
Education									
Less than H.S.	282	*3.4	1.3-5.4	468	4.4	2.4-6.4	750	3.9	2.5-5.4
H.S. or G.E.D.	832	2.5	1.5-3.5	1,295	4.0	2.7-5.3	2,127	3.2	2.4-4.1
Some Post-H.S.	473	2.4	1.0-3.7	817	2.1	1.2-3.1	1,290	2.2	1.5-3.0
College Graduate	474	*2.0	0.8-3.2	620	*1.2	0.4-2.1	1,094	1.6	0.9-2.4
Income									
Less than \$15,000	231	*3.0	1.0-5.1	448	5.9	3.5-8.3	679	4.6	3.0-6.2
\$15,000- 24,999	352	3.1	1.5-4.7	658	4.3	2.5-6.1	1,010	3.8	2.6-5.0
\$25,000- 34,999	296	*2.6	0.8-4.4	486	*2.9	1.0-4.8	782	2.8	1.5-4.1
\$35,000- 49,999	310	*2.6	0.9-4.3	391	*2.0	0.7-3.3	701	2.3	1.2-3.4
\$50,000- 74,999	272	*2.2	0.5-3.8	294	*1.0	0.0-2.0	566	*1.6	0.6-2.6
\$75,000+	328	*1.6	0.2-3.1	350	*2.0	0.0-4.2	678	*1.8	0.5-3.1

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

CHAPTER 20: VISION IMPAIRMENT

Prevalence of Vision Impairment

Definition	Responding “Yes” or “Blind” to the question “Has a doctor, nurse, or other health professional ever said that you have vision impairment in one or both eyes, even when wearing glasses?”
Prevalence	WV: 19.0% (95% CI: 17.8-20.3) U.S.: 19.9% (95% CI: 19.7-20.2) The West Virginia and U.S. prevalence of vision impairment was similar. West Virginia ranked the 25 th highest among 52 BRFSS participants.
Gender	Men: 17.6% (95% CI: 15.7-19.5) Women: 20.3% (95% CI: 18.7-22.0) There was no gender difference in the prevalence of vision impairment.
Age	The prevalence of vision impairment varied somewhat by age but the largest prevalence was found among those aged 65 and older (32.4%) and was significantly higher than all other age groups.
Education	The prevalence of vision impairment was significantly higher among those with less than a high school education (25.9%) than among college graduates (14.1%).
Household Income	The prevalence of vision impairment generally decreased with increasing levels of annual household income with significant differences found between most income brackets.

Table 20.1 Vision Impairment by demographic characteristics: WVBRESS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,070	17.6	15.7-19.5	3,201	20.3	18.7-22.0	5,271	19.0	17.8-20.3
Age									
18-24	102	*11.7	3.9-19.4	154	13.5	6.7-20.2	256	12.5	7.4-17.7
25-34	237	8.6	4.9-12.2	308	10.2	6.6-13.9	545	9.4	6.8-12.0
35-44	279	10.4	6.6-14.2	395	13.6	9.5-17.6	674	12.0	9.2-14.8
45-54	397	18.2	13.7-22.6	568	17.5	14.1-20.9	965	17.8	15.0-20.6
55-64	481	23.7	19.5-27.9	721	24.1	20.6-27.6	1,202	23.9	21.2-26.6
65+	566	30.0	25.8-34.2	1,027	34.3	31.0-37.6	1,593	32.4	29.8-35.0
Education									
Less than H.S.	285	22.5	16.7-28.3	466	29.2	23.9-34.4	751	25.9	21.9-29.8
H.S. or G.E.D.	833	16.0	13.2-18.7	1,294	22.4	19.9-25.0	2,127	19.1	17.3-21.0
Some Post-H.S.	473	19.4	15.3-23.4	816	15.6	12.9-18.3	1,289	17.2	14.9-19.5
College Graduate	474	14.0	10.8-17.3	620	14.1	11.0-17.2	1,094	14.1	11.8-16.3
Income									
Less than \$15,000	232	20.8	14.9-26.7	446	27.0	21.7-32.3	678	24.2	20.2-28.2
\$15,000- 24,999	353	25.0	19.7-30.3	659	24.2	20.4-27.9	1,012	24.5	21.4-27.7
\$25,000- 34,999	298	19.6	14.5-24.7	486	22.6	18.1-27.1	784	21.2	17.8-24.6
\$35,000- 49,999	310	17.9	11.8-23.9	391	16.3	12.2-20.4	701	17.1	13.4-20.8
\$50,000- 74,999	271	13.5	8.9-18.1	294	11.7	8.0-15.4	565	12.7	9.7-15.7
\$75,000+	328	10.6	7.0-14.3	350	10.8	7.1-14.6	678	10.7	8.1-13.3

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

CHAPTER 21: DEPRESSION

Prevalence of Depression

Definition	Responding “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)?”
Prevalence	WV: 20.1% (95% CI: 18.8-21.5) U.S.: 16.8% (95% CI: 16.6-17.0) The West Virginia prevalence of depression was significantly higher than the U.S. prevalence. West Virginia ranked the 14 th highest among 52 BRFSS participants.
Gender	Men: 15.6% (95% CI: 13.6-17.6) Women: 24.4% (95% CI: 22.6-26.2) The prevalence of depression was significantly higher among women than among men.
Age	The prevalence of depression varied quite a bit by age with general increases observed until the age of 54 and then decreases with the age of 55 and older. The prevalence of depression was highest for the 45-54 year old age group (26.9%) and lowest among those aged 65 and older (12.4%).
Education	The prevalence of depression was significantly higher among those with less than a high school education (23.6%) than among college graduates (13.8%). Depression prevalence was significantly lower among college graduates than among all other educational attainment groups.
Household Income	The prevalence of depression also varied somewhat by annual household income. In general, the prevalence of depression was significantly higher among those with an annual household income of less than \$25,000 than among those with a household income of \$25,000 or more per year.

Table 21.1 Depression by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,062	15.6	13.6-17.6	3,204	24.4	22.6-26.2	5,266	20.1	18.8-21.5
Age									
18-24	102	17.1	8.1-26.2	153	23.2	15.5-30.8	255	20.0	14.1-26.0
25-34	235	9.6	5.8-13.5	307	29.2	23.6-34.8	542	19.3	15.7-22.9
35-44	280	13.1	9.0-17.2	395	27.2	22.3-32.0	675	20.2	17.0-23.4
45-54	394	22.2	17.5-26.9	572	31.5	27.2-35.8	966	26.9	23.8-30.1
55-64	480	22.6	18.3-27.0	721	24.4	20.9-27.9	1,201	23.5	20.8-26.3
65+	563	9.0	6.4-11.6	1,029	14.9	12.5-17.3	1,592	12.4	10.6-14.2
Education									
Less than H.S.	282	18.8	13.5-24.2	467	28.3	23.1-33.6	749	23.6	19.9-27.4
H.S. or G.E.D.	830	15.9	12.7-19.2	1,296	24.9	22.1-27.6	2,126	20.3	18.2-22.5
Some Post-H.S.	472	16.4	12.8-20.1	816	25.1	21.7-28.5	1,288	21.4	18.8-23.9
College Graduate	473	10.3	7.2-13.3	620	17.3	13.5-21.1	1,093	13.8	11.4-16.3
Income									
Less than \$15,000	230	30.8	23.8-37.8	450	46.6	40.7-52.5	680	39.5	34.9-44.2
\$15,000- 24,999	351	19.3	14.5-24.0	659	31.3	27.0-35.6	1,010	26.0	22.7-29.2
\$25,000- 34,999	298	10.6	6.3-14.9	487	13.0	9.5-16.5	785	11.9	9.1-14.6
\$35,000- 49,999	308	12.6	7.8-17.5	391	15.5	11.4-19.7	699	14.0	10.8-17.3
\$50,000- 74,999	271	13.4	8.6-18.2	294	20.3	14.6-26.0	565	16.5	12.8-20.2
\$75,000+	327	*8.9	3.4-14.4	350	19.1	14.2-24.1	677	13.6	9.9-17.3

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

CHAPTER 22: COGNITIVE IMPAIRMENT

Cognitive Impairment

Definition	Responding “Yes” to the question “During the past 12 months, have you experienced confusion or memory loss that is happening more often or is getting worse?”
Prevalence	7.2% (95% CI: 6.3-8.0) Because this question was part of a state selected optional module and complete national data are not available, a U.S. comparison was not conducted.
Gender	Men: 7.0% (95% CI: 5.7-8.3) Women: 7.3% (95% CI: 6.2-8.5) There was no gender difference in the prevalence of cognitive impairment.
Age	The prevalence of cognitive impairment was highest among those aged 55-64 (9.6%).
Education	The prevalence of cognitive impairment was significantly higher among those with less than a high school education (11.7%) than among those with a college degree (2.7%).
Household Income	The prevalence of cognitive impairment was highest among those with an annual household income of less than \$15,000 (18.1%) and was significantly higher than all other income brackets.

Table 22.1 Prevalence of cognitive impairment by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,021	7.0	5.7-8.3	3,146	7.3	6.2-8.5	5,167	7.2	6.3-8.0
Age									
18-24	92	*2.2	0.0-5.6	146	*5.4	0.3-10.6	238	*3.8	0.7-6.9
25-34	225	*1.7	0.2-3.2	296	5.4	2.5-8.3	521	3.5	1.9-5.2
35-44	274	6.0	3.1-9.0	383	7.9	4.9-10.9	657	6.9	4.8-9.0
45-54	391	10.1	6.8-13.5	568	8.9	6.3-11.6	959	9.5	7.4-11.7
55-64	476	11.3	7.8-14.9	713	7.9	5.7-10.1	1,189	9.6	7.5-11.7
65+	556	8.2	5.5-10.9	1,012	7.4	5.6-9.1	1,568	7.7	6.2-9.3
Education									
Less than H.S.	281	12.1	8.2-16.0	456	11.3	7.1-15.4	737	11.7	8.8-14.5
H.S. or G.E.D.	813	7.6	5.5-9.7	1,271	7.5	5.9-9.1	2,084	7.5	6.2-8.9
Some Post-H.S.	463	4.9	2.9-6.9	805	7.0	5.2-8.9	1,268	6.1	4.8-7.5
College Graduate	460	2.6	1.2-4.0	609	2.9	1.3-4.5	1,069	2.7	1.7-3.8
Income									
Less than \$15,000	227	18.3	12.7-23.9	437	17.9	12.6-23.1	664	18.1	14.2-21.9
\$15,000- 24,999	342	9.6	6.1-13.1	645	9.4	6.6-12.2	987	9.5	7.3-11.7
\$25,000- 34,999	296	6.4	3.3-9.5	481	6.3	4.1-8.4	777	6.3	4.5-8.2
\$35,000- 49,999	304	6.7	3.7-9.7	388	5.1	2.4-7.8	692	5.9	3.9-7.9
\$50,000- 74,999	264	*4.3	0.6-8.1	289	*1.8	0.5-3.1	553	*3.2	1.0-5.3
\$75,000+	318	*1.8	0.3-3.4	342	*1.5	0.2-2.8	660	*1.7	0.7-2.7

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

Cognitive Impairment – Medical Care

Definition	<p>Persons reporting that they have cognitive impairment were asked a series of questions about medical care related to their cognitive impairment.</p> <p>Discussed cognitive impairment with doctor is defined as responding “Yes” to the question “Has anyone discussed with a health care professional, increases in your confusion or memory loss?”</p> <p>Treatment for cognitive impairment is defined as responding “Yes” to the question “Have you received treatment such as therapy or medications for confusion or memory loss?”</p>
Prevalence	<p><i>Discussed Cognitive Impairment with Doctor</i></p> <p>39.4% (95% CI: 33.8-45.0)</p> <p><i>Treatment for Cognitive Impairment</i></p> <p>48.5% (95% CI: 38.8-58.2)</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>Discussed Cognitive Impairment with Doctor</i></p> <p>Men: 36.5% (95% CI: 27.4-45.7)</p> <p>Women: 42.0% (95% CI: 35.3-48.7)</p> <p>There was no gender difference in the prevalence of discussed cognitive impairment with doctor.</p> <p><i>Treatment for Cognitive Impairment</i></p> <p>Men: 50.2% (95% CI: 32.7-67.6)</p> <p>Women: 47.2% (95% CI: 36.9-57.6)</p> <p>There was no gender difference in the prevalence of treatment for cognitive impairment.</p>
Age	<p>Due to a low response rate, most prevalence estimates for the age groups were unreliable and comparison was not possible.</p>
Education	<p>Due to a low response rate, most prevalence estimates for the educational attainment groups were unreliable and comparison was not possible.</p>
Household Income	<p>Due to a low response rate, most prevalence estimates for the annual household income groups were unreliable and comparison was not possible.</p>

Table 22.2 Medical care for cognitive impairment by demographic characteristics: WVBRFSS, 2011

Characteristic	Discussed Cognitive Impairment with Doctor			Treatment for Cognitive Impairment		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	524	39.4	33.8-45.0	197	48.5	38.8-58.2
Sex						
Males	200	36.5	27.4-45.7	65	*50.2	32.7-67.6
Females	324	42.0	35.3-48.7	132	*47.2	36.9-57.6
Age						
18-24	13	*39.9	4.2-75.6	4	*57.6	0.0-100.0
25-34	30	*45.4	23.7-67.0	12	*36.3	5.7-66.8
35-44	68	*35.4	22.5-48.3	23	*36.6	13.9-59.3
45-54	118	*45.2	34.9-55.5	56	*59.1	44.4-73.8
55-64	139	37.4	27.9-46.8	53	*44.4	28.4-60.4
65+	152	36.2	27.5-45.0	48	*51.3	35.8-66.8
Education						
Less than H.S.	109	*38.7	27.7-49.8	40	*49.7	32.5-67.0
H.S. or G.E.D.	228	35.1	25.8-44.4	71	*51.8	33.6-69.9
Some Post-H.S.	133	*47.6	37.5-57.7	61	*44.0	28.9-59.1
College Graduate	52	*38.6	23.1-54.0	23	*44.2	21.9-66.6
Income						
Less than \$15,000	138	*35.6	25.5-45.7	50	*46.8	29.8-63.8
\$15,000- 24,999	117	32.2	22.3-42.1	35	*56.1	37.5-74.7
\$25,000- 34,999	71	*35.6	23.3-48.0	25	*37.9	18.0-57.7
\$35,000- 49,999	58	*35.3	21.2-49.4	22	*32.5	10.4-54.5
\$50,000- 74,999	33	*41.5	16.5-66.4	15	*33.0	2.3-63.8
\$75,000+	25	*53.5	21.4-85.6	9	*81.3	52.5-100.0

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

Cognitive Impairment – Quality of Life

Definition

Persons reporting that they have cognitive impairment were asked a series of questions about quality of life related to their cognitive impairment.

Provided care in the past month is defined as responding “Always” or “Usually” to the question “During the past 30 days, how often has a family member or friend provided any care or assistance for you because of confusion or memory loss?”

Gave up household activities in the past year is defined as responding “Always” or “Usually” to the question “During the past 12 months, how often have you given up household activities or chores you used to do, because of confusion or memory loss that is happening more often or is getting worse?”

Interfered with work or social activities in the past year is defined as responding “Always” or “Usually” to the question “During the past 12 months, how often has confusion or memory loss interfered with your ability to work, volunteer, or engage in social activities?”

Prevalence

Provided Care in Past Month

24.2% (95% CI: 19.0-29.3)

Gave up Household Activities in Past Year

21.9% (95% CI: 16.8-27.1)

Interfered with Work or Social Activities in Past Year

27.4% (95% CI: 22.1-32.8)

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

Provided Care in Past Month

Men: 26.7% (95% CI: 17.7-35.7)

Women: 21.9% (95% CI: 16.6-27.1)

There was no gender difference in the prevalence of provided care in the past month.

Gave up Household Activities in Past Year

Men: 25.1% (95% CI: 15.9-34.3)

Women: 19.1% (95% CI: 14.1-24.0)

There was no gender difference in the prevalence of gave up household activities in the past year.

Interfered with Work or Social Activities in Past Year

Men: 33.3% (95% CI: 24.1-42.6)

Women: 22.1% (95% CI: 16.9-27.2)

There was no gender difference in the prevalence of interfered with work or social activities in the past year.

Age

Due to a low response rate, all the prevalence estimates for age groups 18-44 were unreliable. The following results are from comparison of the 45-54, 55-64, and 65 and older age groups. There was no age difference in the prevalence of provided care in the past month, gave up household activities in the past year, or interfered with work or social activities in the past year.

Education

Due to a low response rate, the prevalence estimates for those with less than a high school education and college graduates were unreliable. There was no educational attainment difference in the prevalence of provided care in the past month, gave up household activities in the past year, or interfered with work or social activities in the past year.

Household Income

Due to a low response rate, the prevalence estimates for the \$35,000 and over annual household income brackets were unreliable. There was no annual household income difference in the prevalence of provided care in the past month, gave up household activities in the past year, or interfered with work or social activities in the past year.

Table 22.3 Quality of life for cognitive impairment by demographic characteristics: WVBRFSS, 2011

Characteristic	Provided Care in Past Month			Gave up Household Activities in Past Year			Interfered with Work or Social Activities in Past Year		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	530	24.2	19.0-29.3	516	21.9	16.8-27.1	527	27.4	22.1-32.8
Sex									
Males	201	26.7	17.7-35.7	194	25.1	15.9-34.3	200	33.3	24.1-42.6
Females	329	21.9	16.6-27.1	322	19.1	14.1-24.0	327	22.1	16.9-27.2
Age									
18-24	13	*25.2	0.0-61.6	12	*38.4	0.0-77.4	13	*36.2	0.0-72.4
25-34	30	*23.0	5.5-40.4	30	*15.5	3.1-27.8	30	*19.3	1.9-36.7
35-44	69	*19.7	8.7-30.8	69	*20.6	9.5-31.8	68	*32.1	19.6-44.6
45-54	119	22.4	13.5-31.2	116	17.0	9.0-25.0	119	24.4	15.5-33.4
55-64	139	27.3	17.9-36.7	133	26.1	16.9-35.3	139	33.0	23.2-42.8
65+	156	25.1	17.2-33.0	152	21.7	14.2-29.3	154	23.0	15.1-30.9
Education									
Less than H.S.	112	*32.4	21.96-43.0	108	*29.2	19.0-39.3	110	*33.7	22.8-44.6
H.S. or G.E.D.	228	20.2	11.2-29.2	224	22.2	13.0-31.4	228	28.3	18.9-37.6
Some Post-H.S.	135	23.6	15.6-31.5	130	15.8	8.9-22.8	134	23.2	15.4-31.0
College Graduate	53	*19.5	7.7-31.2	52	*12.5	2.4-22.5	53	*13.2	2.9-23.5
Income									
Less than \$15,000	140	22.6	13.5-31.8	135	20.8	12.6-29.0	139	*33.1	22.9-43.4
\$15,000- 24,999	118	26.8	17.6-36.0	115	17.8	9.7-26.0	117	24.6	15.5-33.8
\$25,000- 34,999	71	16.6	7.2-26.1	69	*19.7	8.7-30.7	71	*20.3	9.7-30.9
\$35,000- 49,999	58	*14.2	5.1-23.3	58	*11.6	3.1-20.1	58	*14.4	5.3-23.5
\$50,000- 74,999	33	*14.9	2.9-26.9	32	*24.4	2.0-46.8	33	*26.3	4.1-48.5
\$75,000+	25	*37.5	0.0-77.2	25	*40.7	2.4-79.0	25	*36.0	0.0-76.4

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

Alzheimer's Disease or Dementia Prevalence

Definition Persons reporting that they have cognitive impairment were asked “Has a health care professional ever said that you have Alzheimer’s disease or some other form of dementia?”

Prevalence *Alzheimer’s Disease*
11.7% (95% CI: 6.4-17.1)
Dementia
16.8% (95% CI: 10.5-23.1)
 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 *Alzheimer’s Disease*
Men: 13.7% (95% CI: 3.6-23.7)
Women: 10.2% (95% CI: 4.8-15.5)
 There was no gender difference in the prevalence of Alzheimer’s Disease.
Dementia
Men: 20.1% (95% CI: 8.8-31.5)
Women: 14.1% (95% CI: 7.0-21.2)
 There was no gender difference in the prevalence of dementia.

Age Due to a low response rate, all the prevalence estimates for age groups 18-44 were unreliable. The following results are from comparison of the 45-54, 55-64, and 65 and older age groups. There was no age difference in the prevalence of Alzheimer’s Disease or dementia.

Education Due to a low response rate, the prevalence estimates for those with less than a high school education and college graduates were unreliable. There was no educational attainment difference in the prevalence of Alzheimer’s Disease or dementia.

Household Income Due to a low response rate, most prevalence estimates for the annual household income groups were unreliable and comparison was not possible.

Table 22.4 Alzheimer’s Disease and Dementia by demographic characteristics: WVBRFSS, 2011

Characteristic	Alzheimer’s Disease			Dementia		
	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	194	11.7	6.4-17.1	194	16.8	10.5-23.1
Sex						
Males	66	*13.7	3.6-23.7	66	*20.1	8.8-31.5
Females	128	10.2	4.8-15.5	128	14.1	7.0-21.2

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

CHAPTER 23: HIV

HIV Testing Prevalence

Definition	Persons responding “Yes” to the question “Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation. Include testing fluid from your mouth.”
Prevalence	WV: 27.6% (95% CI: 26.1-29.2) U.S.: 37.4% (95% CI: 37.1-37.7) The West Virginia prevalence of HIV testing was significantly lower than the U.S. prevalence. West Virginia ranked the 7 th lowest among the 52 BRFSS participants.
Gender	Men: 26.8% (95% CI: 24.4-29.2) Women: 28.4% (95% CI: 26.3-30.5) There was no gender difference in the prevalence of HIV testing.
Age	HIV testing prevalence was highest among those aged 25-34 (45.3%), followed by the 35-44 age group (40.5%) and both of these were significantly higher than the 45 and older age groups. Approximately 1 in 3 adults aged 18-24 (34.9%) have ever had a HIV test.
Education	There was no educational attainment difference in the prevalence of HIV testing.
Household Income	The HIV testing prevalence was highest among those with an annual household income of less than \$15,000 (39.5%) and was significantly higher than all other annual income brackets except the \$75,000 or more per year bracket (32.4%).

Table 22.1 HIV testing by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,963	26.8	24.4-29.2	3,067	28.4	26.3-30.5	5,030	27.6	26.1-29.2
Age									
18-24	98	25.0	15.8-34.2	149	45.4	36.0-54.8	247	34.9	28.1-41.8
25-34	230	36.6	29.7-43.5	290	54.4	48.1-60.7	520	45.3	40.5-50.0
35-44	269	36.4	30.1-42.8	375	44.5	38.9-50.1	644	40.5	36.2-44.7
45-54	383	28.9	23.8-33.9	554	24.6	20.4-28.7	937	26.7	23.4-29.9
55-64	455	23.9	19.6-28.2	691	13.5	10.5-16.4	1,146	18.6	16.0-21.2
65+	521	11.0	8.1-13.8	980	6.7	4.9-8.5	1,501	8.5	6.9-10.1
Education									
Less than H.S.	262	25.8	19.5-32.2	438	30.2	23.8-36.5	700	28.0	23.5-32.5
H.S. or G.E.D.	795	25.9	22.2-29.7	1,235	25.6	22.5-28.7	2,030	25.8	23.3-28.2
Some Post-H.S.	450	28.2	23.3-33.1	787	29.4	25.6-33.3	1,237	28.9	25.9-31.9
College Graduate	452	28.5	23.8-33.2	602	31.6	27.0-36.1	1,054	30.0	26.8-33.3
Income									
Less than \$15,000	217	39.5	31.6-47.4	422	39.6	33.3-45.8	639	39.5	34.6-44.5
\$15,000- 24,999	338	30.1	24.0-36.2	635	31.4	26.8-36.0	973	30.8	27.1-34.5
\$25,000- 34,999	285	22.5	16.7-28.4	471	19.5	15.2-23.8	756	20.9	17.3-24.5
\$35,000- 49,999	294	28.6	22.0-35.1	376	24.8	19.2-30.4	670	26.7	22.4-31.1
\$50,000- 74,999	263	19.2	13.4-24.9	283	28.0	21.4-34.6	546	23.1	18.7-27.5
\$75,000+	307	31.3	25.3-37.3	339	33.8	27.9-39.6	646	32.4	28.2-36.7

High Risk for HIV

Definition	Responding “Yes” to the question “Do any of these situations apply to you?” “You have used intravenous drugs in the past year.” “You have been treated for a sexually transmitted or venereal disease in the past year.” “You have given or received money or drugs in exchange for sex in the past year.” “You had anal sex without a condom in the past year.”
Prevalence	<p>WV: 2.3% (95% CI: 1.7-2.9)</p> <p>U.S.: 3.8% (95% CI: 3.7-4.0)</p> <p>The West Virginia prevalence of high risk for HIV was significantly lower than the U.S. prevalence. West Virginia ranked the 2nd lowest among the 52 BRFSS participants.</p>
Gender	<p>Men: 2.8% (95% CI: 1.8-3.8)</p> <p>Women: 1.8% (95% CI: 1.1-2.5)</p> <p>There was no gender difference in the prevalence of high risk for HIV.</p>
Age	There was no age difference in the prevalence of high risk for HIV.
Education	There was no educational attainment difference in the prevalence of high risk for HIV.
Household Income	There was no annual household income difference in the prevalence of high risk for HIV.

Table 22.2 High risk for HIV by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	2,033	2.8	1.8-3.8	3,155	1.8	1.1-2.5	5,188	2.3	1.7-2.9
Age									
18-24	100	*6.6	1.1-12.2	151	*5.4	1.4-9.4	251	6.0	2.6-9.5
25-34	232	*3.1	0.9-5.3	301	*3.3	0.6-6.0	533	3.2	1.5-4.9
35-44	276	*2.3	0.2-4.4	391	*1.9	0.5-3.2	667	*2.1	0.8-3.3
45-54	388	*4.4	1.8-7.1	568	*1.5	0.3-2.7	956	2.9	1.5-4.4
55-64	478	*1.1	0.1-2.1	716	*0.5	0.0-1.1	1,194	*0.8	0.2-1.4
65+	552	*0.2	0.0-0.6	1,000	*0.3	0.0-0.7	1,552	*0.3	0.0-0.5
Education									
Less than H.S.	280	*4.9	1.8-8.1	451	*2.8	0.6-5.0	731	3.9	1.9-5.8
H.S. or G.E.D.	814	*2.8	1.1-4.6	1,275	*1.1	0.2-2.0	2,089	2.0	1.0-3.0
Some Post-H.S.	470	*2.5	1.0-4.1	808	2.3	1.0-3.5	1,278	2.4	1.4-3.4
College Graduate	466	*0.9	0.0-1.8	616	*1.6	0.0-3.5	1,082	*1.2	0.2-2.3
Income									
Less than \$15,000	229	*4.6	1.0-8.2	439	*2.0	0.4-3.5	668	3.2	1.3-5.0
\$15,000- 24,999	344	*2.9	0.8-4.9	648	*2.1	0.4-3.9	992	2.4	1.1-3.8
\$25,000- 34,999	296	*2.1	0.0-4.4	482	*1.5	0.0-3.2	778	*1.8	0.4-3.2
\$35,000- 49,999	306	*1.6	0.2-3.0	389	*1.3	0.0-2.7	695	*1.4	0.4-2.4
\$50,000- 74,999	269	*4.8	1.2-8.4	290	*2.1	0.0-5.1	559	*3.6	1.2-6.0
\$75,000+	320	*0.0	0.0-0.0	347	*1.4	0.0-3.0	667	*0.6	0.0-1.4

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

CHAPTER 24: END OF LIFE CARE

Living Will / Medical Power of Attorney

Definition	Responding “Neither” to the question “A living will and a medical power of attorney are written advance directives that say who you would want to make medical decisions for you if you could not make them for yourself. Have you completed a living will, a medical power of attorney, both, or neither?”
Prevalence	65.6% (95% CI: 64.1-67.2) Because this is a state added question, no U.S. data are available for comparison.
Gender	Men: 67.1% (95% CI: 64.7-69.5) Women: 64.3% (95% CI: 62.3-66.2) There was no gender difference in the prevalence of no living will or medical power of attorney.
Age	The prevalence of no living will or medical power of attorney generally decreased with age. The prevalence of no living will or medical power of attorney was lowest among those aged 65 and older (39.4%) and was significantly lower than all other age groups.
Education	The prevalence of no living will or medical power of attorney was lowest among those with a college degree (56.6%) and was significantly lower than all other educational attainment groups.
Household Income	The prevalence of no living will or medical power of attorney was highest among those with an annual household income of less than \$15,000 (75.9%) and was significantly higher than all other annual household income brackets except the \$50,000-74,999 bracket (68.1%).

Table 24.1 Do not have a living will or medical power of attorney by demographic characteristics: WVBRFSS, 2011

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,998	67.1	64.7-69.5	3,114	64.3	62.3-66.2	5,112	65.6	64.1-67.2
Age									
18-24	91	87.6	79.2-96.0	145	89.1	81.8-96.4	236	88.3	82.8-93.9
25-34	222	81.7	76.5-87.0	295	81.4	76.4-86.3	517	81.6	78.0-85.2
35-44	271	70.3	64.5-76.1	382	72.7	67.9-77.6	653	71.5	67.7-75.3
45-54	385	71.2	66.3-76.1	562	68.8	64.6-73.1	947	70.0	66.8-73.2
55-64	472	58.4	53.4-63.3	707	58.3	54.2-62.3	1,179	58.3	55.1-61.5
65+	550	42.9	38.3-47.6	1,001	36.8	33.4-40.2	1,551	39.4	36.7-42.2
Education									
Less than H.S.	279	70.2	63.7-76.7	451	68.9	63.3-74.5	730	69.6	65.3-73.8
H.S. or G.E.D.	805	70.9	67.4-74.3	1,260	65.1	62.1-68.0	2,065	68.0	65.7-70.3
Some Post-H.S.	459	66.1	61.3-71.0	795	63.9	60.1-67.7	1,254	64.8	61.9-67.8
College Graduate	452	55.0	49.9-60.1	604	58.1	53.5-62.7	1,056	56.6	53.2-60.0
Income									
Less than \$15,000	225	82.6	77.3-87.9	431	70.2	65.1-75.3	656	75.9	72.1-79.6
\$15,000- 24,999	341	67.8	62.2-73.5	643	66.4	62.1-70.7	984	67.0	63.6-70.5
\$25,000- 34,999	296	66.5	60.4-72.5	476	59.3	54.3-64.4	772	62.7	58.8-66.6
\$35,000- 49,999	297	57.4	50.3-64.5	387	61.7	56.1-67.2	684	59.5	55.0-64.0
\$50,000- 74,999	264	66.8	60.4-73.2	285	69.6	63.8-75.5	549	68.1	63.7-72.5
\$75,000+	314	61.1	54.9-67.2	339	61.5	55.5-67.4	653	61.2	57.0-65.5

Discussions about End of Life Care

Definition	<p>Important to talk about end of life care is defined as responding “Agree” or “Strongly agree” to the statement “It is important to talk with my family and doctor about how I want to be treated at the end of life.”</p> <p>Discussed end of life care with doctor is defined as responding “Yes” to the question “Have you ever discussed with your doctor how you would want to be treated if you were dying?”</p> <p>Discussed end of life care with family is defined as responding “Yes” to the question “Have you ever discussed with your family how you would want to be treated if you were dying?”</p>
Prevalence	<p><i>Important to Talk about End of Life Care:</i> 83.5% (95% CI: 82.1-84.8)</p> <p><i>Discussed End of Life Care with Doctor:</i> 15.7% (95% CI: 14.6-16.8)</p> <p><i>Discussed End of Life Care with Family:</i> 64.6% (95% CI: 62.9-66.3)</p> <p>Because these are state added questions, no U.S. data are available for comparison.</p>
Gender	<p><i>Important to Talk about End of Life Care</i></p> <p>Men: 77.8% (95% CI: 75.4-80.2)</p> <p>Women: 88.7% (95% CI: 87.4-90.1)</p> <p>The prevalence of important to talk about end of life care was significantly higher among women than among men.</p> <p><i>Discussed End of Life Care with Doctor</i></p> <p>Men: 14.0% (95% CI: 12.4-15.6)</p> <p>Women: 17.3% (95% CI: 15.8-18.8)</p> <p>The prevalence of discussed end of life care with doctor was significantly higher among women than among men.</p> <p><i>Discussed End of Life Care with Family</i></p> <p>Men: 59.5% (95% CI: 56.8-62.2)</p> <p>Women: 69.5% (95% CI: 67.4-71.5)</p> <p>The prevalence of discussed end of life care with family was significantly higher among women than among men.</p>
Age	<p>The prevalence of important to talk about end of life care was lowest among those aged 18-24 (74.7%) and was significantly lower than among those aged 45 and older. The prevalence of discussed end of life care with doctor and discussed end of life care with family was highest among those aged 65 and older.</p>
Education	<p>The prevalence of important to talk about end of life care was significantly lower among those with less than a high school education (78.3%) than among those with some college (86.5%) and college graduates (87.9%). The prevalence of discussed end of life care with doctor and discussed end of life care with family was highest among college graduates.</p>
Household Income	<p>The prevalence of important to talk about end of life care varied somewhat by annual household income but was lowest among those earning less than \$15,000 per year (78.5%). The prevalence of discussed end of life care with doctor and discussed end of life care with family did not vary consistently across levels of annual household income.</p>

Table 24.2 Discussions about end of life care by demographic characteristics: WVBRFSS, 2011

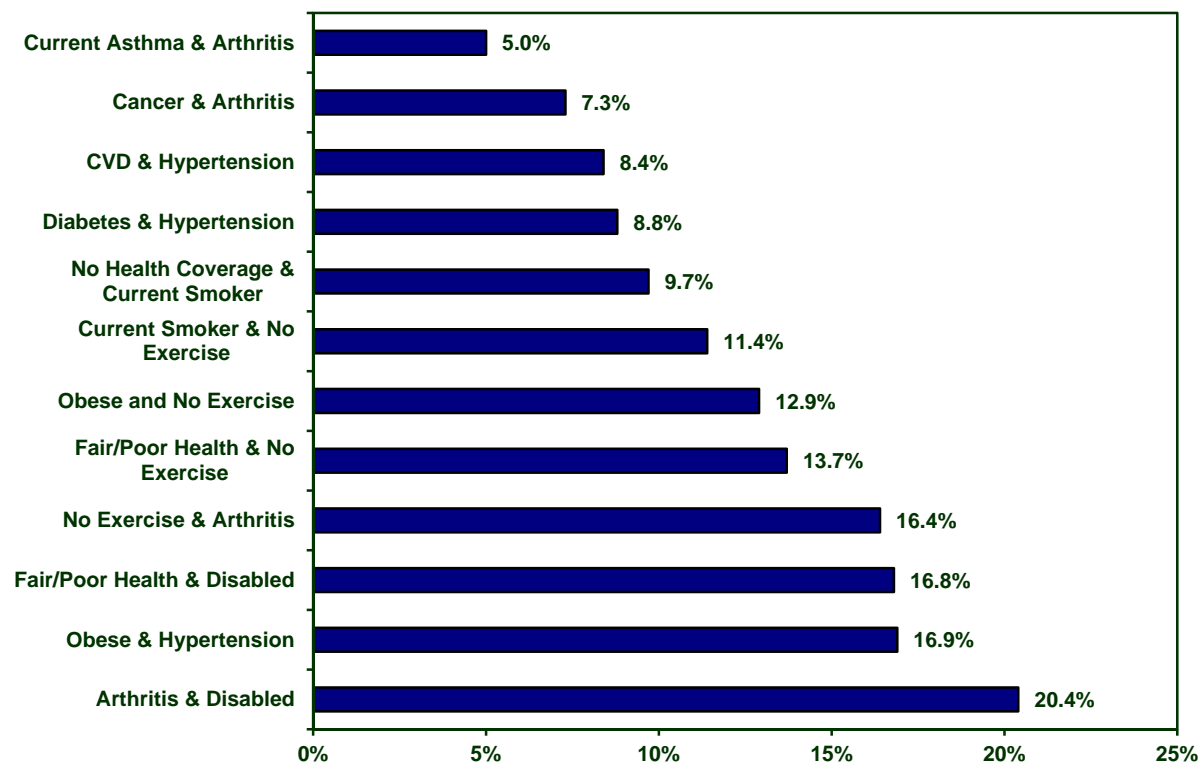
Characteristic	Important to Talk about End of Life Care			Discussed End of Life Care with Doctor			Discussed End of Life Care with Family		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	5,084	83.5	82.1-84.8	5,142	15.7	14.6-16.8	5,159	64.6	62.9-66.3
Sex									
Males	1,987	77.8	75.4-80.2	2,016	14.0	12.4-15.6	2,021	59.5	56.8-62.2
Females	3,097	88.7	87.4-90.1	3,126	17.3	15.8-18.8	3,138	69.5	67.4-71.5
Age									
18-24	236	74.7	68.0-81.4	238	5.3	2.3-8.3	238	38.7	31.3-46.1
25-34	514	81.2	77.3-85.1	520	8.0	5.6-10.3	519	55.9	51.0-60.7
35-44	651	83.8	80.5-87.2	658	14.8	11.8-17.7	660	62.4	58.1-66.7
45-54	939	86.4	83.9-89.0	950	15.3	12.8-17.7	950	70.5	67.2-73.8
55-64	1,183	86.3	84.0-88.7	1,185	18.1	15.7-20.5	1,190	72.8	69.8-75.8
65+	1,529	84.6	82.5-86.7	1,558	26.1	23.6-28.6	1,569	74.9	72.4-77.4
Education									
Less than H.S.	704	78.3	74.2-82.3	734	14.0	11.1-16.9	736	56.2	51.6-60.8
H.S. or G.E.D.	2,054	82.0	79.7-84.2	2,073	14.9	13.3-16.6	2,082	62.0	59.2-64.8
Some Post-H.S.	1,257	86.5	84.1-88.9	1,262	16.3	14.0-18.5	1,263	68.4	65.3-71.6
College Graduate	1,060	87.9	85.4-90.4	1,064	18.7	16.2-21.3	1,069	74.6	71.4-77.9
Income									
Less than \$15,000	638	78.5	74.3-82.8	659	15.1	12.0-18.2	666	53.0	48.1-57.9
\$15,000- 24,999	977	81.1	77.8-84.4	986	16.4	13.8-19.0	989	62.6	58.8-66.5
\$25,000- 34,999	767	86.0	82.6-89.3	776	22.2	18.9-25.6	775	69.1	64.9-73.4
\$35,000- 49,999	689	85.5	81.6-89.3	687	15.6	12.5-18.7	690	71.5	67.1-75.9
\$50,000- 74,999	548	89.3	86.3-92.3	547	13.7	10.8-16.7	550	69.5	64.6-74.4
\$75,000+	658	85.2	81.8-88.5	662	13.9	11.1-16.6	661	69.1	64.4-73.9

CHAPTER 25: COMORBIDITIES

Comorbid Health Conditions and Risk Factors

Many behavior risk factors and health conditions are interrelated. For example, physical activity and nutrition are related to obesity, which is related to cardiovascular diseases. 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 2011 (see Figure 25.1 and Table 25.1). For definitions of risk factors and health conditions please refer to appropriate chapter in this report.

Figure 25.1 Common comorbid conditions: WVBRFSS, 2011



Percentage of Adults with Both Conditions/Risk Factors

Table 25.1 Comorbidities: The prevalence of multiple risk behaviors and/or health conditions among adults: WVBRFSS, 2011

% of Total Population	Fair/Poor Health	No Health Coverage	No Exercise	Obese	Current Smoker	CVD	Hypertension	Diabetes	Current Asthma	Disabled	Cancer	Arthritis
Fair/Poor Health	25.1 (23.7-26.5)	5.4 (4.5-6.2)	13.7 (12.7-14.8)	11.2 (10.2-12.3)	9.4 (8.4-10.4)	7.7 (6.9-8.5)	14.8 (13.7-15.9)	6.6 (5.9-7.4)	4.5 (3.8-5.1)	16.8 (15.7-18.0)	5.2 (4.6-5.8)	16.4 (15.2-17.5)
No Health Coverage	5.4 (4.5-6.2)	20.2 (18.7-21.7)	7.1 (6.2-8.0)	6.6 (5.6-7.5)	9.7 (8.5-10.9)	1.5 (1.1-1.9)	5.3 (4.5-6.0)	1.7 (1.3-2.1)	2.2 (1.6-2.8)	5.8 (5.0-6.7)	1.5 (1.1-1.8)	5.6 (4.8-6.5)
No Exercise	13.7 (12.7-14.8)	7.1 (6.2-8.0)	35.1 (33.5-36.7)	12.9 (11.8-13.9)	11.4 (10.3-12.6)	6.3 (5.6-7.0)	16.8 (15.6-17.9)	6.2 (5.5-6.9)	3.8 (3.2-4.4)	15.3 (14.1-16.4)	5.4 (4.7-6.0)	16.4 (15.3-17.5)
Obese	11.2 (10.2-12.3)	6.6 (5.6-7.5)	12.9 (11.8-13.9)	32.4 (30.8-34.0)	7.9 (7.0-8.9)	4.7 (4.1-5.4)	16.9 (15.7-18.1)	7.0 (6.2-7.8)	4.1 (3.4-4.8)	13.5 (12.4-14.6)	4.2 (3.6-4.8)	14.9 (13.8-16.1)
Current Smoker	9.4 (8.4-10.4)	9.7 (8.5-10.9)	11.4 (10.3-12.6)	7.9 (7.0-8.9)	28.6 (27.0-30.2)	3.3 (2.7-3.9)	8.9 (7.9-9.8)	2.3 (1.8-2.8)	3.5 (2.8-4.2)	10.5 (9.5-11.5)	2.8 (2.2-3.3)	10.0 (9.0-11.0)
CVD	7.7 (6.9-8.5)	1.5 (1.1-1.9)	6.3 (5.6-7.0)	4.7 (4.1-5.4)	3.3 (2.7-3.9)	12.3 (11.3-13.2)	8.4 (7.6-9.2)	3.8 (3.2-4.3)	1.8 (1.5-2.2)	7.8 (7.0-8.6)	3.2 (2.7-3.8)	8.1 (7.3-8.9)
Hypertension	14.8 (13.7-15.9)	5.3 (4.5-6.0)	16.8 (15.6-17.9)	16.9 (15.7-18.1)	8.9 (7.9-9.8)	8.4 (7.6-9.2)	37.0 (35.4-38.5)	8.8 (8.0-9.7)	4.6 (3.9-5.2)	16.6 (15.5-17.7)	6.7 (6.0-7.4)	20.1 (18.9-21.3)
Diabetes	6.6 (5.9-7.4)	1.7 (1.3-2.1)	6.2 (5.5-6.9)	7.0 (6.2-7.8)	2.3 (1.8-2.8)	3.8 (3.2-4.3)	8.8 (8.0-9.7)	12.0 (11.1-13.0)	1.8 (1.4-2.2)	6.6 (5.9-7.3)	2.5 (2.1-3.0)	7.1 (6.4-7.8)
Current Asthma	4.5 (3.8-5.1)	2.2 (1.6-2.8)	3.8 (3.2-4.4)	4.1 (3.4-4.8)	3.5 (2.8-4.2)	1.8 (1.5-2.2)	4.6 (3.9-5.2)	1.8 (1.4-2.2)	9.2 (8.1-10.2)	4.7 (4.1-5.4)	1.6 (1.2-1.9)	5.0 (4.3-5.7)
Disabled	16.8 (15.7-18.0)	5.8 (5.0-6.7)	15.3 (14.1-16.4)	13.5 (12.4-14.6)	10.5 (9.5-11.5)	7.8 (7.0-8.6)	16.6 (15.5-17.7)	6.6 (5.9-7.3)	4.7 (4.1-5.4)	31.4 (29.9-32.9)	6.2 (5.5-6.9)	20.4 (19.1-21.6)
Cancer	5.2 (4.6-5.8)	1.5 (1.1-1.8)	5.4 (4.7-6.0)	4.2 (3.6-4.8)	2.8 (2.2-3.3)	3.2 (2.7-3.8)	6.7 (6.0-7.4)	2.5 (2.1-3.0)	1.6 (1.2-1.9)	6.2 (5.5-6.9)	12.7 (11.7-13.7)	7.3 (6.5-8.0)
Arthritis	16.4 (15.2-17.5)	5.6 (4.8-6.5)	16.4 (15.3-17.5)	14.9 (13.8-16.1)	10.0 (9.0-11.0)	8.1 (7.3-8.9)	20.1 (18.9-21.3)	7.1 (6.4-7.8)	5.0 (4.3-5.7)	20.4 (19.1-21.6)	7.3 (6.5-8.0)	35.9 (34.4-37.5)

*Table interpretation: Each cell represents the percentage of WV adults with **both** of the conditions/risk factors. For example, 3.8% of WV adults have **both** cardiovascular disease and diabetes.*

Appendix A

Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories^a

United States, 2011

State	Fair or Poor Health		Depression		Physical Inactivity		Obesity		Current Smoking		Cardiovascular Disease		Hypertension		Diabetes		Arthritis		Cancer	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Alabama	23.2	5	21.2	9	32.6	6	32.0	4	24.3	10	11.1	4	40.0	1	11.8	6	30.2	4	14.1	2
Alaska	15.5	33	16.5	33	22.0	42	27.4	28	22.9	16	6.0	51	29.4	39	7.9	48	21.3	46	8.6	49
Arizona	17.9	21	17.5	26	24.2	36	24.7	41	19.2	38	8.5	25	28.1	48	9.5	26	23.5	34	11.9	15
Arkansas	24.9	3	22.8	4	30.9	8	30.9	7	27.0	3	11.1	3	35.8	9	11.2	7	28.7	9	11.0	29
California	18.7	18	12.3	50	19.1	50	23.8	47	13.7	51	6.6	47	27.8	49	8.9	35	21.5	45	10.5	40
Colorado	13.8	46	17.6	25	16.5	52	20.7	52	18.3	42	5.4	52	25.0	51	6.7	51	21.8	44	11.1	28
Connecticut	14.9	38	15.4	41	25.5	29	24.5	44	17.1	47	7.1	46	29.7	37	9.3	32	22.5	42	10.7	37
Delaware	14.6	40	14.2	47	27.0	15	28.8	19	21.7	24	8.6	22	34.8	11	9.7	24	26.3	19	12.7	5
D.C.	13.7	47	16.1	37	19.8	48	23.7	48	20.8	30	7.2	45	30.0	34	9.1	34	20.9	47	6.9	51
Florida	20.6	9	16.5	34	26.9	18	26.6	32	19.3	36	10.6	6	34.2	13	10.4	13	26.9	14	14.5	1
Georgia	18.9	16	14.9	45	26.7	20	28.0	24	21.2	26	8.7	21	32.4	19	10.2	19	23.3	37	140.7	35
Hawaii	15.0	36	10.6	52	21.3	46	21.8	51	16.8	48	6.4	49	28.7	44	8.4	40	18.2	52	8.5	50
Idaho	15.4	34	19.6	18	21.4	45	27.0	30	17.2	46	7.8	33	29.4	38	9.4	31	23.1	40	11.2	25
Illinois	17.4	24	16.3	36	25.1	32	27.1	29	20.9	27	7.6	35	31.0	26	9.7	23	24.3	28	9.8	46
Indiana	18.9	17	20.8	10	29.2	10	30.8	8	25.6	7	9.6	12	32.8	16	10.2	17	27.5	13	10.6	38
Iowa	13.0	50	15.2	43	25.9	28	29.0	18	20.4	31	7.5	37	29.9	36	8.2	45	24.4	27	10.8	32
Kansas	15.0	37	15.9	39	26.8	19	29.6	14	22.0	21	8.5	24	30.8	28	9.5	28	23.1	39	11.8	17
Kentucky	22.4	7	19.7	17	29.3	9	30.4	11	29.0	1	11.2	2	38.0	5	10.8	11	31.9	2	12.6	7
Louisiana	23.0	6	18.1	23	33.8	5	33.4	2	25.7	6	10.1	8	38.4	4	11.8	5	25.3	23	10.6	39
Maine	15.9	32	24.4	1	23.0	39	27.8	25	22.8	18	9.5	15	32.2	20	9.6	25	29.7	5	12.1	10
Maryland	14.2	44	13.6	49	26.2	27	28.3	22	19.1	40	7.7	34	31.3	23	9.5	29	23.3	38	10.0	45
Massachusetts	14.0	45	16.7	31	23.5	38	22.7	50	18.2	43	7.3	43	29.2	41	8.0	46	23.6	33	10.9	30
Michigan	17.2	26	20.6	11	23.6	37	31.3	5	23.3	11	9.5	14	34.2	14	10.0	21	31.0	3	11.8	16
Minnesota	12.0	52	15.1	44	21.9	44	25.7	37	19.1	41	6.5	48	26.3	50	7.3	50	20.5	48	10.0	44
Mississippi	24.0	4	18.9	22	36.0	2	34.9	1	26.0	5	10.6	5	39.3	2	12.3	2	29.1	7	10.9	31
Missouri	18.2	19	20.1	15	28.4	11	30.3	12	25.0	9	9.9	10	34.3	12	10.2	16	28.8	8	12.6	6
Montana	17.2	25	20.5	12	24.4	34	24.6	42	22.1	20	8.7	20	30.2	32	8.0	47	26.4	18	13.5	3
Nebraska	14.3	43	16.8	29	26.3	23	28.4	21	20.0	33	8.0	28	28.5	46	8.4	41	23.4	36	11.2	26
Nevada	20.2	10	15.8	40	24.3	35	24.5	45	22.9	17	8.6	23	30.8	27	10.3	15	22.9	41	11.3	21
New Hampshire	13.7	48	21.5	8	22.5	41	26.2	36	19.4	35	7.5	40	30.7	29	8.7	38	25.8	21	12.3	9
New Jersey	16.2	30	11.1	51	26.4	22	23.7	49	16.8	49	8.0	27	30.6	31	8.8	37	22.3	43	9.5	47
New Mexico	19.9	12	20.4	13	25.3	31	26.3	35	21.5	25	7.8	32	28.4	47	9.9	22	24.2	29	10.7	36
New York	16.9	27	15.9	38	26.3	24	24.5	43	18.1	44	7.2	44	30.7	30	10.4	12	24.4	26	10.2	43
North Carolina	19.6	13	17.5	27	26.7	21	29.1	17	21.8	23	9.2	19	32.4	18	10.9	10	25.2	25	12.1	11
North Dakota	14.7	39	17.3	28	27.1	14	27.8	26	21.9	22	7.6	36	29.1	42	8.2	43	24.1	31	9.0	48
Ohio	18.0	20	17.7	24	27.0	16	29.6	13	25.1	8	9.6	13	32.7	17	10.0	20	29.2	6	10.8	34
Oklahoma	20.2	11	21.9	7	31.2	7	31.1	6	26.1	4	9.7	11	35.5	10	11.1	9	27.7	12	11.3	22
Oregon	17.6	22	23.9	2	19.8	49	26.7	31	19.7	34	7.3	42	29.9	35	9.3	33	26.5	17	12.6	8
Pennsylvania	16.8	29	19.3	19	26.2	25	28.6	20	22.4	19	9.3	18	31.3	21	9.5	30	28.4	10	11.3	23
Puerto Rico	34.5	1	16.8	30	47.3	1	26.3	34	14.8	50	10.5	7	36.8	7	13.5	1	19.7	51	4.0	52
Rhode Island	17.4	23	22.0	6	26.2	26	25.4	39	20.0	32	7.9	30	32.9	15	8.4	39	26.6	16	12.0	12
South Carolina	19.1	14	15.3	42	27.2	12	30.8	9	23.1	12	9.5	16	36.4	8	12.1	3	27.9	11	11.9	13
South Dakota	14.6	41	16.4	35	27.0	17	28.1	23	23.0	14	9.3	17	31.0	25	9.5	27	23.5	35	11.9	14
Tennessee	21.0	8	19.2	20	35.1	3	29.2	15	23.0	15	10.0	9	38.7	3	11.2	8	25.9	20	11.4	19
Texas	19.0	15	16.6	32	27.2	13	30.4	10	19.2	37	7.5	39	31.3	22	10.2	18	20.2	49	10.4	41
Utah	13.4	49	22.0	5	18.9	51	24.4	46	11.8	52	6.1	50	22.9	52	6.7	52	19.8	50	10.4	42
Vermont	12.9	51	23.0	3	21.0	47	25.4	38	19.1	39	7.9	29	29.3	40	7.7	49	26.6	15	11.6	18
Virginia	16.8	28	14.1	48	25.0	33	29.2	16	20.9	28	8.2	26	31.2	24	10.4	14	25.7	22	11.2	27
Washington	16.1	31	19.7	16	22.0	43	26.5	33	17.5	45	7.3	41	30.0	33	8.9	36	23.7	32	11.3	24
West Virginia	25.1	2	20.1	14	35.1	4	32.4	3	28.6	2	12.3	1	37.0	6	12.0	4	35.9	1	12.7	4
Wisconsin	14.6	42	14.8	46	22.7	40	27.7	27	20.9	29	7.5	38	28.9	43	8.4	42	25.3	24	10.8	33
Wyoming	15.4	35	19.0	21	25.5	30	25.0	40	23.0	13	7.8	31	28.6	45	8.2	44	24.2	30	11.4	20
United States	18.2		16.8		25.7		27.4		20.1		8.4		31.6		9.8		24.8		11.1	

Source: Centers for Disease Control & Prevention, 2011 Behavioral Risk Factor Surveillance System data; West Virginia Health Statistics Center, 2012
a. 52 states/territories conducted the survey.

Appendix B

2007-2011 WV Behavioral Risk Factors and Health Conditions by County

County	Fair or Poor Health			No Health Insurance Ages 18-64			No Leisure Exercise			Obesity			Cigarette Smoking			Binge Drinking		
	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.
Barbour	28.7	14	ns	31.6	4	ns	37.1	10	ns	35.0	18	ns	26.0	32	ns	*5.8	45	ns
Berkeley	16.9	51	L	19.0	43	ns	27.3	48	L	32.2	32	ns	27.3	23	ns	11.3	11	ns
Boone	31.9	9	H	19.0	42	ns	40.9	5	H	35.2	17	ns	31.2	10	ns	7.1	40	ns
Braxton	29.7	11	ns	30.5	9	ns	33.4	25	ns	31.6	36	ns	26.9	24	ns	*3.9	54	L
Brooke	23.0	35	ns	21.1	37	ns	36.6	11	ns	33.9	22	ns	26.8	25	ns	12.4	5	ns
Cabell	24.3	27	ns	17.4	46	ns	30.4	38	ns	31.9	33	ns	26.7	27	ns	9.3	23	ns
Calhoun	28.5	15	ns	*33.2	2	ns	*33.1	26	ns	*38.5	6	ns	*41.0	1	H	*11.2	12	ns
Clay	*38.4	3	H	*27.8	12	ns	*38.7	7	ns	*45.3	2	H	23.1	42	ns	*3.9	53	L
Doddridge	17.5	50	ns	*26.7	13	ns	32.8	29	ns	27.3	48	ns	26.2	31	ns	*7.2	37	ns
Fayette	24.5	25	ns	25.8	16	ns	34.4	18	ns	33.4	25	ns	29.9	12	ns	9.8	20	ns
Gilmer	22.2	37	ns	*50.4	1	H	*29.2	41	ns	*40.8	4	ns	*34.6	4	ns	*14.9	3	ns
Grant	30.0	10	ns	25.6	19	ns	29.2	42	ns	34.2	21	ns	18.2	53	L	*4.9	49	ns
Greenbrier	24.9	23	ns	29.0	10	ns	30.6	37	ns	26.1	52	L	26.6	29	ns	8.9	25	ns
Hampshire	23.5	31	ns	17.0	49	ns	33.4	24	ns	34.5	20	ns	31.4	9	ns	10.6	15	ns
Hancock	20.7	41	ns	12.2	54	L	30.7	36	ns	31.7	35	ns	23.6	41	ns	10.6	14	ns
Hardy	17.9	47	ns	14.7	53	ns	28.6	44	ns	33.3	27	ns	22.5	45	ns	7.6	30	ns
Harrison	20.0	42	ns	18.4	44	ns	30.2	39	ns	31.5	37	ns	22.4	46	L	7.6	31	ns
Jackson	23.4	33	ns	17.1	48	ns	34.2	19	ns	34.9	19	ns	24.0	38	ns	10.4	17	ns
Jefferson	15.9	53	L	9.8	55	L	27.3	47	ns	30.7	40	ns	22.6	44	ns	13.1	4	ns
Kanawha	23.5	32	ns	18.2	45	L	29.8	40	ns	31.0	39	ns	25.3	34	ns	10.1	19	ns
Lewis	27.3	18	ns	24.3	26	ns	28.6	45	ns	33.3	26	ns	24.5	36	ns	*4.2	51	L
Lincoln	35.1	5	H	25.3	21	ns	35.8	13	ns	40.7	5	H	26.6	28	ns	8.0	28	ns
Logan	34.4	7	H	25.0	22	ns	43.9	4	H	37.6	8	H	35.4	3	H	8.1	27	ns
Marion	20.8	40	ns	22.8	29	ns	31.1	32	ns	29.9	42	ns	21.0	49	L	9.2	24	ns
Marshall	19.6	43	ns	22.3	31	ns	31.4	31	ns	29.0	46	ns	24.1	37	ns	11.6	7	ns
Mason	27.1	19	ns	24.5	25	ns	37.3	8	ns	37.6	9	ns	33.1	6	ns	7.3	35	ns
McDowell	39.0	1	H	30.8	5	H	47.6	1	H	*37.9	7	ns	36.7	2	H	10.6	13	ns
Mercer	26.8	21	ns	19.2	41	ns	33.6	22	ns	32.2	31	ns	28.9	16	ns	6.2	44	L
Mineral	17.8	48	L	14.8	52	ns	26.8	51	ns	32.3	30	ns	15.3	55	L	7.6	32	ns
Mingo	38.9	2	H	21.7	34	ns	44.4	3	H	33.1	29	ns	33.1	7	ns	7.2	38	ns
Monongalia	12.4	55	L	17.3	47	ns	19.5	55	L	23.0	54	L	19.1	52	L	19.5	1	H
Monroe	23.5	30	ns	19.5	40	ns	31.9	30	ns	27.0	49	ns	20.1	50	ns	*4.8	50	L
Morgan	24.8	24	ns	26.0	15	ns	28.7	43	ns	33.2	28	ns	26.8	26	ns	11.6	8	ns
Nicholas	26.9	20	ns	28.7	11	ns	33.0	27	ns	33.8	23	ns	30.3	11	ns	6.6	42	ns
Ohio	15.6	54	L	*25.4	20	ns	26.4	52	ns	23.8	53	L	28.9	17	ns	11.4	10	ns
Pendleton	19.3	45	ns	*22.0	33	ns	31.0	34	ns	*35.5	15	ns	17.4	54	L	*7.2	39	ns
Pleasants	18.8	46	ns	*24.5	24	ns	*28.4	46	ns	*26.2	51	ns	*27.7	21	ns	*5.0	46	ns
Pocahontas	24.4	26	ns	*30.6	7	ns	24.1	53	ns	22.6	55	L	*29.3	15	ns	*17.7	2	ns
Preston	25.1	22	ns	26.3	14	ns	34.4	16	ns	31.9	34	ns	27.9	20	ns	7.8	29	ns
Putnam	19.5	44	L	15.2	51	L	27.2	49	L	27.8	47	ns	19.8	51	L	6.3	43	L
Raleigh	27.8	17	H	20.5	38	ns	33.5	23	ns	31.2	38	ns	23.9	39	ns	6.8	41	ns
Randolph	24.0	29	ns	25.8	17	ns	32.9	28	ns	29.8	43	ns	25.8	33	ns	9.7	21	ns
Ritchie	22.1	38	ns	*32.5	3	ns	34.4	17	ns	33.4	24	ns	29.3	14	ns	*7.5	34	ns
Roane	29.2	12	ns	25.7	18	ns	33.9	20	ns	41.1	3	H	29.8	13	ns	8.8	26	ns
Summers	28.7	13	ns	*16.1	50	ns	33.9	21	ns	37.4	10	ns	22.0	47	ns	*7.3	36	ns
Taylor	28.1	16	ns	20.0	39	ns	38.7	6	ns	26.5	50	ns	26.5	30	ns	9.3	22	ns
Tucker	24.1	28	ns	*22.0	32	ns	*37.2	9	ns	29.1	45	ns	21.4	48	ns	*7.5	33	ns
Tyler	17.8	49	ns	*30.6	6	ns	26.9	50	ns	*36.5	13	ns	23.8	40	ns	11.9	6	ns
Upshur	21.3	39	ns	22.5	30	ns	31.0	35	ns	29.1	44	ns	22.8	43	ns	*4.9	47	ns
Wayne	33.2	8	H	24.2	27	ns	34.7	15	ns	35.4	16	ns	33.7	5	H	10.4	16	ns
Webster	34.7	6	H	*30.6	8	ns	*36.5	12	ns	*36.3	14	ns	*28.8	18	ns	*4.1	52	L
Wetzel	23.2	34	ns	*21.5	35	ns	35.6	14	ns	37.3	11	ns	24.7	35	ns	*3.3	55	L
Wirt	16.6	52	ns	*24.7	23	ns	22.4	54	ns	*47.6	1	H	*27.6	22	ns	*11.5	9	ns
Wood	22.5	36	ns	21.4	36	ns	31.0	33	ns	30.4	41	ns	28.8	19	ns	10.4	18	ns
Wyoming	37.6	4	H	23.0	28	ns	47.4	2	H	36.8	12	ns	33.0	8	ns	*4.9	48	L
WV / US^a / Sig.	23.6	16.1	H	21.7	18.2	H	32.1	24.6	H	31.8	27.4	H	26.9	18.0	H	9.4	15.1	L

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, 2012.

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.

a. US prevalence for all indicators is 2009.

Appendix B, continued **2007-2011 WV Behavioral Risk Factors and Health Conditions by County**

County	Diabetes			Hypertension ^b			High Cholesterol ^b			Cardiovascular Disease			Current Asthma			Disability			Arthritis ^b		
	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.	%	Rank	Sig.
Barbour	9.5	47	ns	45.1	4	H	52.9	1	H	15.1	13	ns	*7.8	39	ns	28.0	28	ns	35.2	37	ns
Berkeley	9.2	49	L	28.1	52	L	37.2	41	ns	10.2	46	L	7.6	40	ns	22.3	45	L	28.0	53	L
Boone	15.2	8	ns	41.5	10	H	43.7	23	ns	16.4	7	ns	11.8	9	ns	36.8	9	H	45.2	4	H
Braxton	14.7	11	ns	31.3	46	ns	39.4	36	ns	15.4	12	ns	6.5	46	ns	34.5	11	ns	38.9	19	ns
Brooke	17.3	7	ns	32.5	41	ns	35.1	50	ns	15.8	9	ns	7.9	37	ns	25.6	39	ns	37.9	23	ns
Cabell	13.7	17	ns	33.1	39	ns	43.1	26	ns	13.1	27	ns	8.5	34	ns	30.5	21	ns	32.1	48	ns
Calhoun	10.2	38	ns	*33.9	36	ns	*44.8	17	ns	*12.4	33	ns	*11.5	10	ns	*30.1	22	ns	*34.9	39	ns
Clay	17.4	6	ns	42.1	8	ns	*50.1	4	ns	20.7	1	H	18.6	1	H	*40.7	2	H	*43.7	8	ns
Doddridge	10.2	40	ns	26.9	54	ns	*35.7	49	ns	*6.4	55	L	*4.1	54	L	20.9	49	ns	*36.6	30	ns
Fayette	11.3	33	ns	37.2	23	ns	39.2	38	ns	12.7	30	ns	10.0	19	ns	30.8	19	ns	40.4	13	ns
Gilmer	*6.6	55	L	*29.1	50	ns	*48.1	7	ns	11.2	42	ns	13.3	5	ns	*37.4	7	ns	*27.0	54	ns
Grant	17.5	5	ns	37.4	22	ns	*45.8	14	ns	14.0	18	ns	13.2	6	ns	28.7	24	ns	46.3	2	H
Greenbrier	11.9	30	ns	37.8	20	ns	40.7	34	ns	13.8	19	ns	9.2	28	ns	27.6	32	ns	38.1	21	ns
Hampshire	7.4	53	L	32.3	43	ns	36.7	43	ns	10.4	45	ns	9.5	24	ns	27.3	34	ns	37.3	27	ns
Hancock	13.8	16	ns	32.5	42	ns	36.1	46	ns	12.5	32	ns	8.2	35	ns	28.3	26	ns	37.1	29	ns
Hardy	10.9	34	ns	34.6	33	ns	36.6	44	ns	9.0	50	ns	*3.9	55	L	20.8	50	L	36.5	31	ns
Harrison	12.2	26	ns	33.1	40	ns	38.0	40	ns	12.6	31	ns	8.6	33	ns	27.6	31	ns	33.6	45	ns
Jackson	11.7	31	ns	39.9	14	ns	45.4	15	ns	13.2	23	ns	8.2	36	ns	27.8	29	ns	36.3	33	ns
Jefferson	9.4	48	ns	28.8	51	L	33.6	52	L	8.7	52	L	9.7	22	ns	20.6	51	L	29.6	52	ns
Kanawha	12.0	29	ns	35.5	31	ns	40.8	33	ns	13.1	25	ns	7.3	42	ns	26.2	37	ns	34.3	42	ns
Lewis	14.7	12	ns	36.1	28	ns	46.4	13	ns	17.5	4	ns	6.3	48	ns	25.0	41	ns	33.4	46	ns
Lincoln	14.8	9	ns	39.9	15	ns	47.5	9	ns	13.1	26	ns	9.4	25	ns	36.9	8	H	39.4	16	ns
Logan	17.9	4	H	43.7	6	H	44.5	19	ns	19.1	3	H	10.2	16	ns	39.7	5	H	44.7	5	H
Marion	10.5	35	ns	33.4	38	ns	34.8	51	ns	12.8	29	ns	10.8	15	ns	27.8	30	ns	30.3	51	L
Marshall	9.8	44	ns	32.0	44	ns	46.6	11	ns	11.9	38	ns	9.1	30	ns	20.5	52	L	42.1	10	H
Mason	12.7	22	ns	38.5	18	ns	39.3	37	ns	13.7	20	ns	14.2	3	H	33.7	14	ns	39.4	15	ns
McDowell	18.8	2	H	45.2	3	H	50.3	3	H	16.1	8	ns	14.1	4	ns	38.7	6	H	46.6	1	H
Mercer	13.5	18	ns	38.8	17	ns	41.9	30	ns	13.4	22	ns	10.1	18	ns	31.1	17	ns	41.2	12	H
Mineral	8.3	52	ns	34.1	35	ns	43.0	27	ns	11.0	43	ns	11.3	11	ns	29.9	23	ns	37.5	26	ns
Mingo	13.1	21	ns	45.9	2	H	47.6	8	H	15.7	10	ns	9.3	26	ns	34.9	10	H	44.0	7	H
Monongalia	7.0	54	L	23.9	55	L	29.4	55	L	6.6	54	L	6.1	49	ns	21.3	48	L	20.6	55	L
Monroe	12.0	28	ns	36.6	26	ns	46.5	12	ns	20.3	2	H	7.2	43	ns	28.5	25	ns	37.9	25	ns
Morgan	10.5	36	ns	36.8	24	ns	43.2	25	ns	14.5	17	ns	10.1	17	ns	32.5	15	ns	34.3	41	ns
Nicholas	9.9	42	ns	36.0	29	ns	37.0	42	ns	12.9	28	ns	6.8	44	ns	34.1	12	ns	41.6	11	ns
Ohio	10.3	37	ns	29.6	48	ns	39.0	39	ns	12.3	34	ns	11.0	12	ns	25.4	40	ns	34.5	40	ns
Pendleton	*8.6	51	ns	*29.2	49	ns	*44.9	16	ns	*9.1	49	ns	*10.9	14	ns	20.1	53	ns	*31.7	49	ns
Pleasants	*9.9	43	ns	27.2	53	ns	*32.6	53	ns	8.9	51	ns	*5.8	51	ns	22.1	46	ns	*35.6	36	ns
Pocahontas	9.6	46	ns	34.2	34	ns	*41.5	31	ns	11.8	39	ns	*4.5	53	L	24.5	43	ns	36.3	34	ns
Preston	10.2	39	ns	31.1	47	ns	35.8	48	ns	9.5	48	ns	6.3	47	ns	27.0	35	ns	33.8	43	ns
Putnam	11.5	32	ns	36.2	27	ns	42.0	29	ns	10.7	44	ns	6.8	45	ns	26.1	38	ns	32.5	47	ns
Raleigh	12.1	27	ns	36.6	25	ns	43.5	24	ns	14.7	16	ns	9.2	29	ns	33.7	13	H	39.0	18	ns
Randolph	10.0	41	ns	37.5	21	ns	35.9	47	ns	11.9	37	ns	9.3	27	ns	31.1	18	ns	37.3	28	ns
Ritchie	12.2	25	ns	42.1	7	ns	*42.8	28	ns	11.4	40	ns	*8.9	32	ns	27.5	33	ns	36.5	32	ns
Roane	14.7	10	ns	40.2	12	ns	44.0	22	ns	13.5	21	ns	13.1	7	ns	28.2	27	ns	34.9	38	ns
Summers	13.4	19	ns	40.8	11	ns	50.0	5	ns	14.8	15	ns	9.6	23	ns	30.7	20	ns	39.2	17	ns
Taylor	8.8	50	ns	33.6	37	ns	36.1	45	ns	12.1	35	ns	9.8	21	ns	26.4	36	ns	36.2	35	ns
Tucker	*14.1	15	ns	*45.9	1	ns	*30.9	54	ns	12.0	36	ns	*12.3	8	ns	22.1	47	ns	*38.5	20	ns
Tyler	9.7	45	ns	*34.9	32	ns	*41.3	32	ns	*8.5	53	ns	*7.4	41	ns	23.2	44	ns	*38.0	22	ns
Upshur	12.4	24	ns	31.3	45	ns	44.3	20	ns	10.1	47	ns	8.9	31	ns	19.9	54	L	31.2	50	ns
Wayne	12.5	23	ns	40.1	13	ns	44.6	18	ns	17.0	5	H	10.9	13	ns	40.3	4	H	44.5	6	H
Webster	14.3	13	ns	*44.5	5	ns	*50.7	2	ns	16.9	6	ns	16.4	2	ns	*40.3	3	H	*40.0	14	ns
Wetzel	14.3	14	ns	37.9	19	ns	44.2	21	ns	15.5	11	ns	*5.5	52	ns	25.0	42	ns	33.7	44	ns
Wirt	20.1	1	ns	*39.0	16	ns	*49.1	6	ns	11.3	41	ns	*9.8	20	ns	17.5	55	L	*42.1	9	ns
Wood	13.3	20	ns	35.9	30	ns	39.7	35	ns	13.2	24	ns	7.8	38	ns	31.5	16	ns	37.9	24	ns
Wyoming	18.4	3	H	42.1	9	ns	47.5	10	ns	15.0	14	ns	6.1	50	ns	42.4	1	H	46.3	3	H
WV / US ^a / Sig.	11.8	9.1	H	34.6	27.7	H	39.9	37.3	H	12.6	7.7	H	8.8	8.4	ns	28.4	18.9	H	35.2	25.9	H

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, 2012.

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.

a. US prevalence for Hypertension and High Cholesterol is 2007. US prevalence for all others is 2009.

b. Data only available for limited years: Hypertension, High Cholesterol (2003, 2005, 2007, 2009, 2011); Arthritis (2005, 2007, 2009-2011).