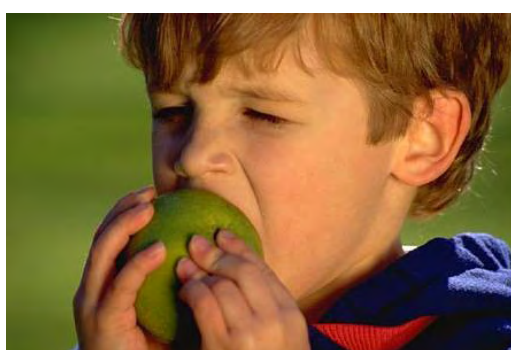


# 2006 West Virginia Behavioral Risk Factor Survey Report



**February 2009**

WEST VIRGINIA  
Department of

**Health &  
Human  
Resources**



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HEALTH STATISTICS CENTER  
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Martha Yeager Walker, Secretary*





**2006**

**WEST VIRGINIA**

**BEHAVIORAL RISK FACTOR**

**SURVEY REPORT**

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Department of Health and Human Resources

February 2009

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# EXECUTIVE SUMMARY

## INTRODUCTION

Each year since 1984, the West Virginia Behavioral Risk Factor Survey has measured a range of risk factors that can affect our health. This report presents state survey results for the year 2006 and county data combined for 2002 through 2006.

The survey is conducted by telephone and represents a collaborative effort between the West Virginia Bureau for Public Health (WVBPH) 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 2<sup>nd</sup> highest nationally in 2006 in reporting the general health of adults as either “fair” or “poor.”
- More than one-fifth of West Virginia adults (22.5% in 2006) considered their health to be either “fair” or “poor.”
- “Fair” or “poor” health was most common among groups of adults who are the oldest, least educated, or lowest in household incomes.

### Health Care Access

- Almost one-fifth of West Virginia adults age 18 to 64 had no health care coverage (18.9% in 2006).
- Among adults of all ages, slightly under one-fifth needed medical care within the past 12 months and could not afford it (17.2% in 2006).
- One-fifth of all age adults also did not have a specific personal doctor or health care provider (20.3% in 2006).

### Physical Inactivity

- Approximately one-fourth of state adults (25.6% in 2006) did not participate in any leisure-time physical activity for exercise. A general downward trend occurred between 1994 and 2006.
- Women were significantly more likely than men to be physically inactive during leisure time.

### Diabetes

- West Virginia ranked highest nationally in 2006 for the prevalence of diabetes. More than one in ten of the state’s adults identified themselves as having diabetes (12.1% in 2006).
- Among diabetic adults, 13.9% did not have an HbA1c test, 33.6% did not have a dilated eye exam, and 29.0% did not have a professional foot exam in the past one year.
- About one-third (33.5% in 2006) of diabetic adults checked their blood glucose at home less than once daily or never.

### **Obesity and Overweight**

- The obese proportion of the adult population was 31.0% in 2006, 2<sup>nd</sup> highest nationally.
- Between 1993 and 2006, a substantial increase in obesity occurred among West Virginia adults. Men and women from a wide range of age, education, and income categories contributed to this unhealthy trend.
- During 2006, two-thirds of West Virginia adults were either obese or overweight.

### **Tobacco Use and Policies**

- Current cigarette smoking: More than one-fourth of adults (25.7% in 2006) smoked every day or some days. West Virginia ranked 2<sup>nd</sup> highest in 2006 in the prevalence of this risk factor among 51 national BRFSS participants (US States and DC).
- About half (49.3% in 2006) of every day smokers tried to quit and succeeded for at least one day in the past year.
- Most adults employed indoors reported that smoking is prohibited in either work areas, public areas, or both within their workplaces.
- A majority of West Virginia adults did not allow cigarette smoking inside their homes (65.3% in 2006).

### **Asthma**

- In 2006, 11.9% of adults had ever been diagnosed with asthma (39<sup>th</sup> highest nationally) while 8.6% had asthma currently (22<sup>nd</sup> highest nationally).
- Women had significantly higher rates of both lifetime and current asthma than men in 2006.

### **Alcohol Consumption**

- West Virginia alcohol consumption remains notably low in comparison with levels consumed elsewhere in the U.S.
- Binge drinking was 11.1% among adults in 2006 (a national rank of 46<sup>th</sup>).
- Heavy drinking among adults was a lower 3.2% in 2006 (a national rank of 49<sup>th</sup>).

### **Cardiovascular Disease**

- West Virginia ranked higher than any other state in 2006 in the prevalence of heart attack among adults. More than seven percent (7.5%) of the state's adults had a history of heart attack, compared with a national average of 4.4%.
- Men reported a significantly higher incidence of heart attack than women (9.2% vs. 5.9% in 2006).
- In the prevalence of stroke among adults, West Virginia ranked 2<sup>nd</sup> highest nationally in 2006. Four percent (4.2%) of the state's adults had had a stroke, compared with a national average of 2.7%.

## 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 I: Percentage and number of persons estimated at risk due to selected risk factors (among adults aged 18 and older or appropriate subset): WVBRFSS, 2006**

Risk Factor	Year	Percentage Estimated at Risk <sup>a</sup>	Number Estimated at Risk <sup>a</sup>
Self-rated general health is fair or poor	2006	22.5	323,000
No health care coverage, ages 18-64	2006	18.9	217,000
Unable to afford needed medical care	2006	17.2	247,000
No personal doctor or health care provider	2006	20.3	292,000
No leisure-time exercise	2006	25.6	368,000
Obesity (BMI 30.0+)	2006	31.0	433,000
Overweight (BMI 25.0-29.9)	2006	36.0	501,000
Current cigarette smoking	2006	25.7	370,000
Binge drinking	2006	11.1	158,000
Heavy drinking	2006	3.2	45,000
Diabetes	2006	12.1	174,000
Have had heart attack	2006	7.5	107,000
Have angina or coronary heart disease	2006	8.3	119,000
Have had stroke	2006	4.2	60,000
Lifetime asthma	2006	11.9	171,000
Current asthma	2006	8.6	123,000

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 prevalences 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 is also referred to as 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 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 state 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 with estimates derived using the same methodologies. The data can be used by health planners to identify high-risk groups, establish health policy and priorities, and monitor the impact of health promotion efforts.

This report focuses on the 2006 risk factor prevalence rates, and compares them to the years 1993 through 2005. Table I.1 on the following page shows topics that have been included in the last 12 years of surveillance, many of which are examined in the present report.

**Table I.1: Topics administered in the survey: WVBRFSS, 1995-2006**

Topic	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Seatbelt nonuse	x	x	x	x	x			x				
Hypertension	x	x	x		x		x	x	x		x	
Cholesterol	x		x		x		x	x	x		x	
Leisure-time physical activity		x		x		x	x	x	x	x	x	x
Obesity	x	x	x	x	x	x	x	x	x	x	x	x
Cigarette use	x	x	x	x	x	x	x	x	x	x	x	x
Smokeless tobacco use	x	x	x	x	x	x	x	x	x	x		
Alcohol consumption	x		x		x		x	x	x	x	x	x
Weight control		x		x		x			x			
Fruits & vegetables		x		x		x		x	x		x	
Diabetes	x	x	x	x	x	x	x	x	x	x	x	x
Routine checkup	x	x	x	x	x	x					x	x
Breast cancer screening	x	x	x	x	x	x		x		x		x
Cervical cancer screening	x	x	x	x	x	x		x		x		x
Prostate cancer screening							x	x		x		x
Excess sun exposure					x			x	x	x		
AIDS/HIV	x	x	x	x	x	x	x	x	x	x	x	x
Bicycle helmets, smoke alarms	x	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	x	x
Health status	x	x	x	x	x	x	x	x	x	x	x	x
Colorectal cancer screening	x		x		x		x	x		x		x
Oral health	x		x		x	x		x		x		x
Emotional support/Life satisfaction											x	x
Firearm ownership	x	x					x	x		x		
Asthma						x	x	x	x	x	x	x
Born / Years in WV	x	x	x								x	
Disability	x						x		x	x	x	x
Cardiovascular disease		x			x	x	x	x	x	x	x	x
Veteran status										x	x	x
Osteoporosis			x	x	x					x		
Arthritis					x		x		x	x	x	
Intimate Partner Violence												x

## METHODOLOGY

The survey is conducted by the method known as Computer Assisted Telephone Interviewing (CATI) and represents a collaborative effort between the WVBPH and CDC. The Bureau 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 WVBPH 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.

CDC provides banks of telephone numbers that are presumed to contain either more household numbers (higher-density stratum) or fewer household numbers (lower-density stratum). The higher-density stratum is sampled at a higher rate than the lower-density stratum. In 2006, the higher-density stratum consisted of banks of listed numbers while the lower-density stratum consisted of banks of unlisted numbers that contained at least one residential number. The higher-density stratum was sampled at a rate of 1.5 to 1 compared to the lower-density stratum. The data ultimately were weighted to account for differences in selection probability. 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. Table M.1 on the following page shows the results for all the telephone numbers attempted in obtaining 3,675 interviews in 2006.

**Table M.1: Disposition of telephone numbers in the sample: WVBRFSS, 2006**

Disposition	Number	Percent
Completed interview.....	3,675	23.69
Partially completed interview.....	119	0.77
Terminated within questionnaire <50% finished.....	97	0.63
Refusal after respondent selection.....	781	5.04
Selected respondent never reached or was reached but did not begin interview during interviewing period.....	211	1.36
Selected respondent away from residence during the entire interviewing period.....	112	0.72
Language problem after respondent selection.....	7	0.05
Selected respondent physically or mentally unable to complete an interview during the entire interviewing period.....	139	0.90
Hang up or termination after number of adults recorded but before respondent selection, explicit refusal.....	13	0.08
Household contact after number of adults recorded but before respondent selection.....	1	0.01
Household members away from residence during entire interviewing period.....	28	0.18
Hang up or termination, housing unit, unknown if eligible respondent.....	515	3.32
Household contact, eligibility undetermined.....	43	0.28
Language problem before respondent selection.....	10	0.06
Physical or mental impairment before respondent selection.....	15	0.10
Hang up or termination, unknown if private residence.....	1,168	7.53
Contacted, unknown if private residence.....	31	0.20
Telephone answering device, message confirms private residential status.....	221	1.42
Telecommunication technological barrier (such as a call blocking message), message confirms private residence.....	13	0.08
Telephone answering device, not sure if private residence.....	237	1.53
Telecommunication technological barrier, not sure if private residence.....	31	0.20
Telephone number changed status from household or possible household to nonworking during the interviewing period.....	88	0.57
No answer.....	597	3.85
Busy.....	66	0.43
On never-call list.....	1	0.01
Out-of-state.....	2	0.01
Household, no eligible respondent.....	8	0.05
Not a private residence.....	1,753	11.30
Dedicated fax/data/modem line with no human contact.....	405	2.61
Cell phone.....	45	0.29
Fast busy.....	41	0.26
Nonworking/disconnected number.....	5,037	32.48
Total.....	15,510	100.00

## QUALITY CONTROL

The degree to which completed interviews are obtained from among the telephone numbers selected for the sample can be shown numerically by response rates. A higher response rate indicates a lower potential for bias in the data. A discussion of response rates and of various sources of statistical bias can be found in CDC's *Behavioral Risk Factor Surveillance System 2006 Year-to-Date Data Quality Handbook*. While there is no definitive formula for response rate, three primary estimates are most useful for the BRFSS:

**CASRO Rate** uses a response rate formula<sup>1</sup> developed by the Council of American Survey Research Organizations (CASRO). The resulting estimate reflects telephone sampling efficiency and the degree of cooperation among eligible persons who were contacted. The formula assumes that numbers that are never contacted contain the same percentage of eligible households as the records whose eligibility status is known. Quality control guidelines by CDC suggest a minimum acceptable value of 40%. West Virginia's monthly CASRO rate ranged from 58.62% to 61.44% in 2006.

**Overall Response Rate** is a conservative response rate<sup>2</sup> that includes a higher percentage of all households in the denominator. Quality control guidelines by CDC suggest a minimum acceptable value of 30%. West Virginia's monthly overall response rate ranged from 52.86% to 56.65% in 2006.

**Cooperation Rate** is a calculation<sup>3</sup> that is not affected by differences in telephone sampling efficiency. It is the proportion of all cases interviewed of all eligible units that were actually contacted. Non-contacts are excluded from the denominator. This rate is based on contacts with households containing an eligible respondent. The denominator of the rate includes completed interviews plus the number of non-interviews that involve the identification of and contact with an eligible respondent. Quality control guidelines by CDC suggest a minimum acceptable value of 65%. West Virginia's monthly cooperation rate ranged from 78.59% to 79.74% in 2006.

The survey results were edited daily to assure proper completion. For verification, call backs were completed randomly to confirm that interviews had been conducted as indicated. After all phone numbers received a final disposition each month, the data were edited to check for entries that were invalid or inconsistent with other entries. Data also were checked for answers that were outside the expected range of values, such as extreme values for height, weight, exercise times, or alcohol consumption. Once all of the data were corrected or verified as correct, the monthly datasets were submitted electronically to CDC. An annual analysis of the data is provided to the state by CDC.

## DEMOGRAPHIC CHARACTERISTICS OF SAMPLE AND POPULATION

The demographic characteristics of the sample in 2006, both unweighted and weighted to the population, are presented in Table M.2. Data were weighted by the census age and sex distribution in order to more accurately estimate the actual prevalence of behavioral risk factors in the adult population of West Virginia.

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<sup>1</sup> CASRO rate = 
$$\frac{\text{Completed Interviews}}{\text{Known Eligibles} + [(\text{Known Eligibles} / \{\text{Known Eligibles} \& \text{Ineligibles}\}) \times (\text{Unknowns})]}$$

<sup>2</sup> Overall response rate = 
$$\frac{\text{Completed Interviews}}{\text{Eligible Households}}$$

<sup>3</sup> Cooperation rate = 
$$\frac{\text{Completed Interviews}}{\text{Completed Interviews} + \text{Terminated Before Completion} + \text{Refusals} + \text{Unable to Communicate}}$$

**Table M.2: Demographic summary: WVBRFSS, 2006**

Demographic characteristic	Number of Interviews	Percent of Unweighted Sample	Percent of Weighted Sample <sup>a</sup>
<b>Total</b>	3,794	<b>100.00</b>	<b>100.00</b>
<u>Sex</u>			
Male	1,495	39.40	48.29
Female	2,299	60.60	51.71
<u>Age</u>			
18-24	145	03.82	12.26
25-34	415	10.94	15.47
35-44	601	15.84	17.07
45-54	761	20.06	19.29
55-64	837	22.06	15.88
65+	1,018	26.83	20.04
Unknown	17	00.45	N/A
<u>Education</u>			
<12 Years			
12 Years	620	16.34	15.36
13-15 Years	1,493	39.35	39.87
16+ Years	824	21.72	23.03
Unknown	850	22.40	21.75
	7	00.18	N/A
<u>Household Income</u>			
<\$15,000	583	15.37	13.73
\$15,000-\$24,999	729	19.21	20.36
\$25,000-\$34,999	496	13.07	14.34
\$35,000-\$49,999	524	13.81	17.46
\$50,000-\$74,999	498	13.13	16.64
\$75,000+	509	13.42	17.47
Unknown	455	11.99	N/A

a. Population weight provided by CDC. Weighted to 2006 age and sex postcensus estimates. Not weighted to education or income level. Unknown values for age were replaced by imputed ages for weighting purposes only. The "Percent of Weighted Sample" is the percent with a known value and excludes records with unknown values.

## LIMITATIONS

The target population consists of civilian, noninstitutionalized persons 18 years of age and older who reside in households with telephones. 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 blood pressure or cholesterol levels. In addition, respondents may have a tendency to understate behaviors known to be unhealthy, socially unacceptable, or illegal. 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. 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 the data by age and sex distribution is done 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 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)<sup>4</sup>. 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 prevalence estimates that have been tested and found to be significantly different. Statistically significant differences between estimates are traditionally determined using statistical tests such as a t-test or chi-squared test. However, when comparing estimates from surveys with a large number of respondents, such as the BRFSS, these statistical tests can indicate statistically significant differences even when there are only small variations in prevalence. This method would label most of the estimate comparisons in this report as significantly different. Therefore, 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. In other words, it can be stated with 95% certainty that the difference found between the two prevalence estimates is not a random occurrence. Although this is not the “classical” statistical test of differences, it is a better method of highlighting the BRFSS results important to the design of effective and efficient health promotion interventions. Identifying differences as significant by this method targets the characteristics most strongly associated with a particular health condition or risk behavior, and directs attention to the largest changes in prevalence over time. Adjectives such as slight, minor, and little are used in this report to describe notable differences that are not considered significant because the confidence intervals do 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; therefore, they 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 9.” 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.
- 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.

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<sup>4</sup> Confidence intervals were derived from the surveyfreq procedure in SAS, a commonly used statistical software package. This procedure estimates sample variances (which are used to calculate confidence intervals) for complex sample designs.



## COUNTY-LEVEL DATA

County prevalence rates were calculated by using multiple years of aggregated BRFSS data. The data were reweighted to be representative of the 2000 age and sex population distribution by county. Aggregated sample sizes were large enough for 24 of the 55 counties to stand alone, that is, to yield individual county prevalence calculations. The data from the remaining 31 counties that had sample sizes too small to stand alone were combined into 12 groupings of counties. The aim was to arrive at as many groups of contiguous counties as possible, provided that the groups' sample sizes were sufficiently large for statistical analysis. Similarity in poverty level was an additional factor in deciding which counties to group together. The 12 groups of counties plus the 24 stand-alone counties resulted in 36 geographical entities (see Appendix L).

In some prior reports, the county prevalence estimates were compared to a middle-year United States prevalence estimate. County maps were included that classified counties according to the degree of difference from the United States prevalence: significantly higher, higher, lower, or significantly lower.<sup>5</sup> 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, not the United States prevalence.* County estimates, as well as county classifications compared to both West Virginia and the United States, can be found in [Appendix M](#). Extensive county data also can be found in the WVBPB publication *West Virginia County Health Profiles, 2004* available online at <http://www.wvdhhr.org/bph/oehp/hsc/profiles2004/default.htm>.

Unlike some previous reports, this report does not include county prevalence estimates of heavy drinking. Based on the reliability standards discussed above, a majority of the county estimates were determined to be unreliable, primarily attributable to the low statewide prevalence of this risk factor. Use caution when interpreting county estimates of heavy drinking published in earlier reports. It is likely that many of the estimates are unreliable.

## PRESENTATION

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 were asked the question, the weighted prevalence estimate (%), and the 95% confidence interval for the prevalence (95% CI).

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

The risk factor sections include West Virginia's rank among the US States and DC. For example, if hypertension-related questions were administered by all 50 US States and DC, ranking 1<sup>st</sup> in

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<sup>5</sup> Significance can be affected by both prevalence level and county sample size.

hypertension would mean having the highest prevalence of hypertension while ranking 51<sup>st</sup> would mean having the lowest prevalence. Some questions are not asked by all US States and DC. In these cases, the rankings should be interpreted with caution, as they may be different if information were available from all participants. 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 rates and rankings were calculated by Health Statistics Center staff. State and county prevalence estimates and rankings for many risk factors are presented in Appendixes A and M.

## CHAPTER 1: HEALTH STATUS

### Fair or Poor General Health in 2006

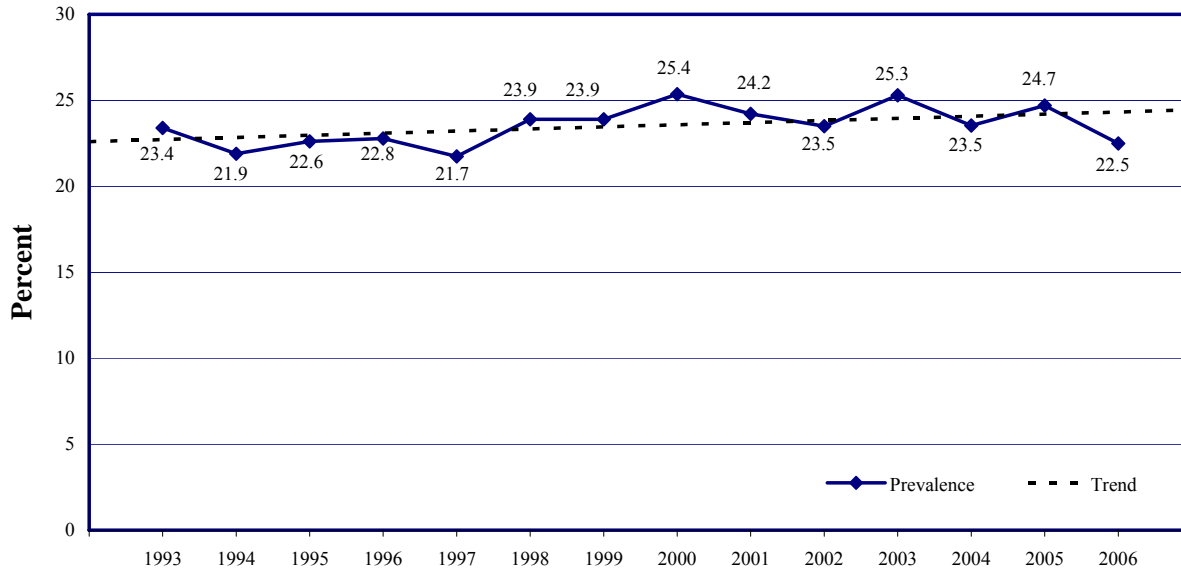
<b>Definition</b>	Responding “Fair” or “Poor” to the following question: “Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?”
<b>Prevalence</b>	<p><b>WV: 22.5%</b> (95% CI: 21.1-24.0) in 2006.</p> <p><b>US: 16.2%</b> (95% CI:15.9-16.5) in 2006.</p> <p>West Virginia ranked 2<sup>nd</sup> highest among 50 US States and DC in 2006.</p>
<b>Gender</b>	<p><b>Men:</b> 20.2% (95% CI: 18.0-22.3) in 2006.</p> <p><b>Women:</b> 24.6% (95% CI: 22.6-26.6) in 2006.</p> <p>Women reported fair or poor health significantly more often than men.</p>
<b>Age</b>	Fair or poor health increased significantly with age. The prevalence ranged from a low of 7.9% for 18-24-year-olds to a high of 36.1% among those 65 and older.
<b>Education</b>	Adults with less than a high school education reported fair or poor health the most frequently, at a prevalence of 46.1%. Significant improvements in general health were seen with each higher level of education. College graduates assigned themselves a fair or poor health status at a rate of only 8.2%.
<b>Household Income</b>	Fair or poor health was experienced by almost 1 of every 2 adults in the lowest income group (less than \$15,000 annually). Among adults with annual household incomes of \$50,000 or more, only about 1 in 10 had fair or poor health.

**Table 1.1 Fair or poor health by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,489	<b>20.2</b>	18.0-22.3	2,292	<b>24.6</b>	22.6-26.6	3,781	<b>22.5</b>	21.0-24.0
<b>Age</b>									
18-24	67	* <b>3.9</b>	0.0-8.3	78	* <b>12.1</b>	4.5-19.7	145	<b>7.9</b>	3.5-12.3
25-34	150	* <b>3.9</b>	0.8-6.9	265	<b>12.9</b>	8.4-17.4	415	<b>8.4</b>	5.6-11.1
35-44	231	<b>16.4</b>	11.3-21.5	368	<b>15.1</b>	10.8-19.5	599	<b>15.7</b>	12.4-19.1
45-54	331	<b>25.6</b>	20.5-30.8	430	<b>26.6</b>	22.2-31.1	761	<b>26.1</b>	22.7-29.6
55-64	370	<b>35.5</b>	30.2-40.9	466	<b>31.2</b>	26.8-35.6	836	<b>33.3</b>	29.9-36.8
65+	336	<b>30.6</b>	25.5-35.8	672	<b>40.0</b>	35.9-44.1	1,008	<b>36.1</b>	32.8-39.3
<b>Education</b>									
Less than H.S.	257	<b>40.6</b>	33.7-47.5	360	<b>52.0</b>	46.0-58.1	617	<b>46.1</b>	41.4-50.8
H.S. or G.E.D.	591	<b>22.4</b>	18.8-26.1	895	<b>27.7</b>	24.2-31.2	1,486	<b>25.1</b>	22.6-27.6
Some Post-H.S.	280	<b>12.3</b>	8.7-15.9	541	<b>17.6</b>	14.0-21.3	821	<b>15.4</b>	12.8-18.0
College Graduate	357	<b>7.8</b>	4.8-10.9	493	<b>8.5</b>	6.0-11.0	850	<b>8.2</b>	6.2-10.1
<b>Income</b>									
Less than \$15,000	168	<b>50.0</b>	40.7-59.3	413	<b>48.4</b>	42.4-54.4	581	<b>49.0</b>	43.9-54.0
\$15,000- 24,999	266	<b>35.8</b>	29.3-42.3	461	<b>33.3</b>	28.0-38.6	727	<b>34.4</b>	30.3-38.5
\$25,000- 34,999	215	<b>19.6</b>	14.0-25.2	280	<b>20.2</b>	15.1-25.3	495	<b>19.9</b>	16.1-23.7
\$35,000- 49,999	237	<b>12.3</b>	7.9-16.8	287	<b>13.7</b>	9.4-18.0	524	<b>13.0</b>	9.9-16.1
\$50,000- 74,999	225	<b>10.9</b>	6.8-14.9	272	<b>9.4</b>	6.0-12.9	497	<b>10.2</b>	7.5-12.8
\$75,000+	246	<b>6.8</b>	3.6-10.0	262	<b>5.8</b>	2.5-9.1	508	<b>6.4</b>	4.1-8.7

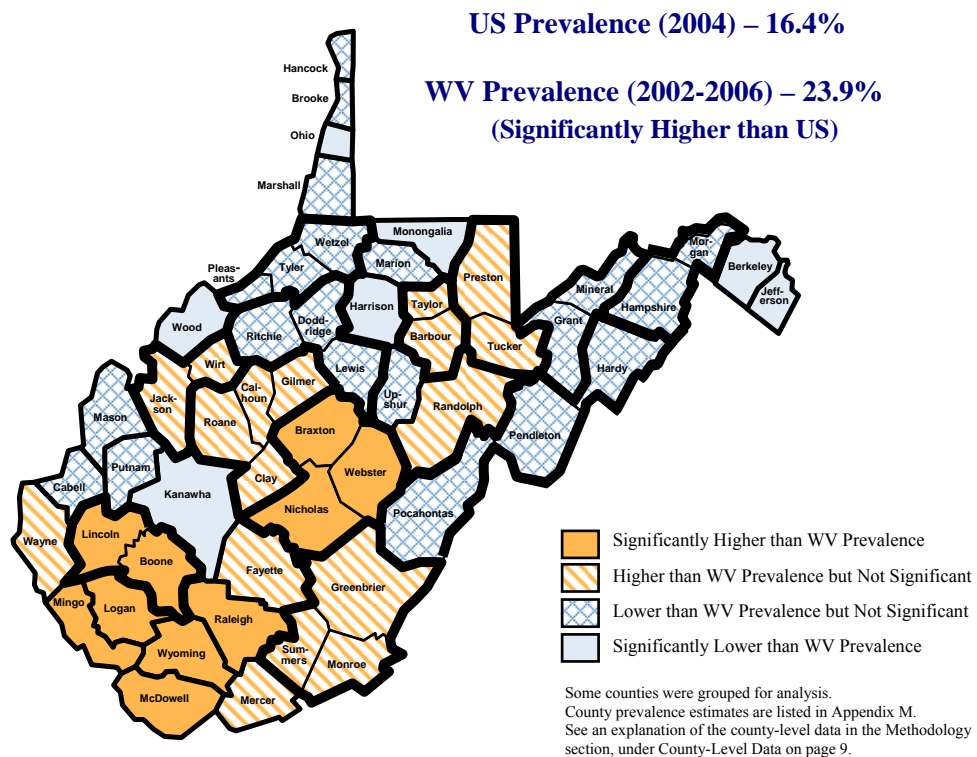
\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion about estimates in the Methodology section.  
 Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.

**Figure 1.1 Fair or poor health by year: WVBRFSS, 1993-2006**



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition: Responding “Fair” or “Poor” to the following question: “Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?”

**Figure 1.2 Fair or poor health by county: WVBRFSS, 2002-2006**



## CHAPTER 2: HEALTH CARE ACCESS

### No Health Care Coverage (among Adults 18 to 64) in 2006

<b>Definition</b>	Responding “No” to the following question: “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?” The results reported for this section have been limited to adults aged 18-64.
<b>Prevalence</b>	<b>WV: 18.9%</b> (95% CI: 17.0-20.8) in 2006. <b>US: 18.6%</b> (95% CI: 18.2-19.0) in 2006. West Virginia ranked 21 <sup>st</sup> highest among 50 US States and DC in 2006.
<b>Time Trends</b>	Health care access significantly increased for both men and women in West Virginia between 2003 and 2006. There were 23.5% (95% CI: 21.5-25.5) of adults in the state without any health care coverage in 2003, compared with only 18.9% (95% CI: 17.0-20.8) in 2006.
<b>Gender</b>	<b>Men:</b> 18.2% (95% CI: 15.3-21.1) in 2006. <b>Women:</b> 19.6% (95% CI: 17.2-22.1) in 2006. There were no significant differences in how frequently men and women reported a lack of health care coverage.
<b>Age</b>	No health care coverage was significantly more prevalent among young adults aged 18-34 than among those aged 45 and older. This trend was slightly more pronounced among men.
<b>Education</b>	Adults with the least education were significantly more at risk for no health care coverage than those with any level of education beyond high school. Approximately 32% of adults without a high school diploma lacked health care coverage, while the rate for college graduates was less than 6%.
<b>Household Income</b>	Lack of health care access was significantly more common among lower income groups. About 40% of adults with household incomes from \$15,000 to less than \$25,000 had no health care coverage. In contrast, adults living in households with incomes of \$50,000 and above had a risk in the much lower 3% to 6% range.

#### WV HEALTHY PEOPLE 2010 OBJECTIVES

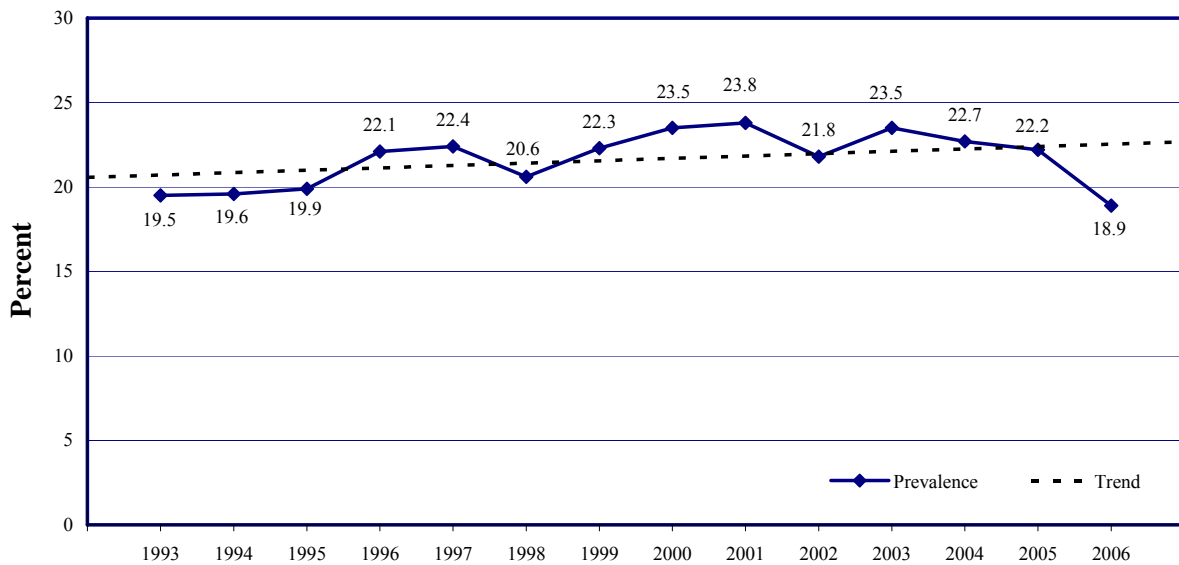
<b>Objective 1.1a</b>	Increase the proportion of persons aged 18-64 with health insurance coverage to 90%. (Baseline: 79.4% in 1998; Current: 81.1% in 2006)
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**Table 2.1 No health care coverage among adults aged 18-64 by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,149	<b>18.2</b>	15.3-21.1	1,607	<b>19.6</b>	17.2-22.1	2,756	<b>18.9</b>	17.0-20.8
<b>Age</b>									
18-24	67	<b>*29.6</b>	18.2-41.0	77	<b>*26.4</b>	15.5-37.3	144	<b>28.0</b>	20.1-36.0
25-34	150	<b>32.2</b>	24.0-40.4	265	<b>25.6</b>	19.9-31.2	415	<b>28.9</b>	23.9-33.9
35-44	231	<b>16.5</b>	11.0-21.9	369	<b>21.8</b>	17.0-26.6	600	<b>19.2</b>	15.5-22.8
45-54	331	<b>8.2</b>	5.2-11.1	430	<b>14.4</b>	10.8-18.0	761	<b>11.3</b>	8.9-13.6
55-64	370	<b>9.1</b>	5.9-12.3	466	<b>13.1</b>	9.7-16.4	836	<b>11.1</b>	8.8-13.5
<b>Education</b>									
Less than H.S.	158	<b>32.0</b>	22.6-41.3	168	<b>32.6</b>	23.8-41.3	326	<b>32.2</b>	25.7-38.8
H.S. or G.E.D.	461	<b>25.2</b>	20.0-30.4	599	<b>25.7</b>	21.3-30.2	1,060	<b>25.5</b>	22.0-28.9
Some Post-H.S.	221	<b>11.4</b>	5.8-17.0	425	<b>18.2</b>	13.5-22.9	646	<b>15.3</b>	11.7-18.9
College Graduate	308	<b>4.6</b>	1.8-7.3	414	<b>6.4</b>	3.3-9.5	722	<b>5.5</b>	3.4-7.5
<b>Income</b>									
Less than \$15,000	118	<b>*35.6</b>	23.9-47.3	243	<b>33.5</b>	25.9-41.1	361	<b>34.3</b>	27.8-40.8
\$15,000- 24,999	168	<b>38.0</b>	28.8-47.1	277	<b>40.7</b>	33.2-48.3	445	<b>39.5</b>	33.7-45.3
\$25,000- 34,999	160	<b>23.6</b>	14.5-32.7	185	<b>24.9</b>	17.1-32.7	345	<b>24.2</b>	18.0-30.3
\$35,000- 49,999	193	<b>12.6</b>	6.6-18.5	247	<b>12.9</b>	8.4-17.3	440	<b>12.7</b>	9.0-16.4
\$50,000- 74,999	202	<b>8.4</b>	3.1-13.7	255	<b>* 4.4</b>	1.8-7.0	457	<b>6.4</b>	3.4-9.4
\$75,000+	220	<b>3.3</b>	0.4-6.3	245	<b>* 2.2</b>	0.4-4.1	465	<b>* 2.8</b>	1.0-4.7

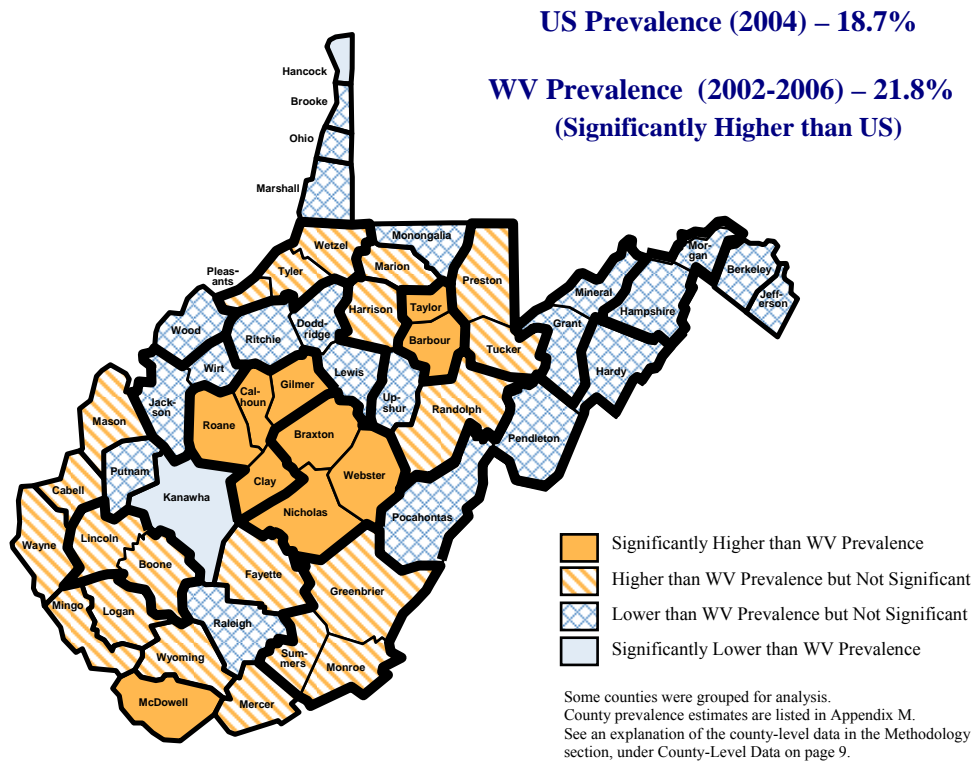
\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion about estimates in the Methodology section. Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008. Population: Non-institutionalized adults age 18 and older residing in West Virginia.

**Figure 2.1 No health care coverage among adults aged 18-64 by year: WVBRFSS, 1993-2006**



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008. Population: Non-institutionalized adults age 18 and older residing in West Virginia. Definition: Responding “No” to the following question: “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?” The results reported for this section have been limited to adults aged 18-64.

**Figure 2.2 No health care coverage among adults aged 18-64 by county: WVBRFSS, 2002-2006**



**Needed Medical Care but Could Not Afford It in 2006**

**Definition** Responding “Yes” to the following question: “Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?” This summary applies to both 2004 and 2005 unless stated otherwise.

**Prevalence** **WV: 17.2%** (95% CI: 15.7-18.7) in 2006.  
**US: 13.3%** (95% CI: 13.0-13.6) in 2006.  
West Virginia ranked 6<sup>th</sup> highest among 50 US States and DC in 2006.

**Time Trends** There was an insignificant down trend in this risk factor between 2004 and 2006.

**Gender** **Men:** 14.0% (95% CI: 11.8-16.1) in 2006.  
**Women:** 20.1% (95% CI: 18.0-22.2) in 2006.  
Women had a significantly higher overall prevalence of this risk factor than men.

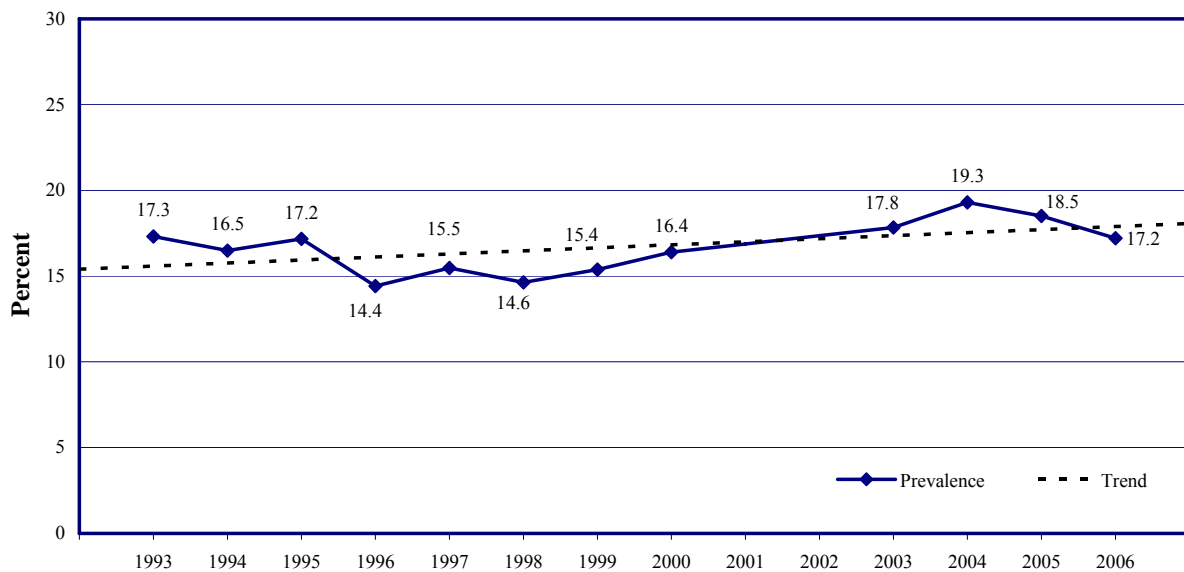
**Age, Education, Household Income** The prevalence of this risk was similar among groups in the 18-54 age range. A significant decline occurred at age 55 and above, however, and those aged 65 and older were significantly less likely to forgo medical care than younger adults. College graduates were significantly less likely to have problems affording needed health care than those with any lower level of education. The prevalence of this risk factor generally increased as household incomes declined. From a high of 30.5% for the \$15,000 to \$24,999 income group, this risk dropped to only 3% among those with \$75,000 and higher annual incomes.

**Table 2.2 Could not afford needed medical care in past 12 months by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,493	<b>14.0</b>	11.8-16.1	2,297	<b>20.1</b>	18.0-22.2	3,790	<b>17.2</b>	15.7-18.7
<b>Age</b>									
18-24	67	<b>14.1</b>	5.8-22.3	78	<b>*30.5</b>	19.3-41.8	145	<b>22.1</b>	14.9-29.2
25-34	150	<b>21.9</b>	14.7-29.0	265	<b>29.4</b>	23.6-35.3	415	<b>25.6</b>	21.0-30.3
35-44	231	<b>15.4</b>	10.7-20.1	369	<b>25.4</b>	20.5-30.3	600	<b>20.5</b>	17.0-23.9
45-54	331	<b>15.1</b>	11.0-19.3	430	<b>23.2</b>	18.9-27.5	761	<b>19.2</b>	16.2-22.2
55-64	370	<b>12.3</b>	8.6-16.0	465	<b>11.9</b>	8.8-15.0	835	<b>12.1</b>	9.7-14.5
65+	340	<b>5.5</b>	2.8-8.2	677	<b>7.9</b>	5.6-10.2	1,017	<b>6.9</b>	5.1-8.6
<b>Education</b>									
Less than H.S.	256	<b>23.3</b>	16.7-29.9	361	<b>22.0</b>	16.8-27.2	617	<b>22.7</b>	18.5-26.9
H.S. or G.E.D.	594	<b>17.3</b>	13.6-20.9	898	<b>23.6</b>	19.9-27.2	1,492	<b>20.4</b>	17.9-23.0
Some Post-H.S.	282	<b>7.4</b>	4.0-10.8	542	<b>21.7</b>	17.2-26.2	824	<b>15.6</b>	12.6-18.7
College Graduate	357	<b>7.4</b>	4.1-10.6	493	<b>10.6</b>	7.5-13.6	850	<b>9.0</b>	6.8-11.2
<b>Income</b>									
Less than \$15,000	169	<b>30.0</b>	21.7-38.4	412	<b>29.1</b>	23.9-34.4	581	<b>29.4</b>	24.9-33.9
\$15,000- 24,999	267	<b>25.7</b>	19.3-32.2	462	<b>34.3</b>	28.4-40.1	729	<b>30.5</b>	26.1-34.8
\$25,000- 34,999	215	<b>21.0</b>	14.3-27.8	281	<b>21.5</b>	15.5-27.6	496	<b>21.3</b>	16.7-25.8
\$35,000- 49,999	237	<b>10.2</b>	5.5-15.0	287	<b>19.1</b>	13.7-24.5	524	<b>14.4</b>	10.8-18.0
\$50,000- 74,999	225	<b>* 4.0</b>	1.2-6.7	273	<b>11.2</b>	6.5-16.0	498	<b>7.5</b>	4.8-10.2
\$75,000+	247	<b>* 2.9</b>	0.7-5.1	262	<b>* 3.2</b>	1.1-5.3	509	<b>3.0</b>	1.5-4.6

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

**Figure 2.3 Could not afford needed medical care in past 12 months by year: WVBRFSS, 1993-2006**



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition: Responding "Yes" to the following question: "Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?"



## No Personal Doctor or Health Care Provider in 2006

**Definition** Responding “No” to the following question: “Do you have one (or more than one) person you think of as your personal doctor or health care provider?”

**Prevalence** **WV: 20.3%** (95% CI: 18.6-22.0) in 2006.  
**US: 20.0%** (95% CI: 19.7-20.4) in 2006.  
 West Virginia ranked 21<sup>st</sup> highest among 50 US States and DC in 2006.

**Time Trends** There was an insignificant down trend in this risk factor between 2004 and 2006.

**Gender** **Men:** 25.3% (95% CI: 22.5-28.2) in 2006.  
**Women:** 15.6% (95% CI: 13.6-17.6) in 2006.  
 The risks of not having a personal doctor or health care provider were significantly higher for men than for women.

**Age** Adults aged 18-44 had significantly higher rates of this risk factor than those in any older age bracket. Among the oldest age group (65 and older), only 6.6% lacked their own personal doctor or health care provider.

**Education** No overall significant differences were noted by educational achievement alone. Among men, however, those with no more than a high school education were significantly more at risk than men with some college education.

**Household Income** Household income was associated with few differences in this risk. In 2006, even adults with \$75,000 and above in household income did not have a significantly lower rate than those from less than \$15,000 income households.

**Table 2.3 No personal doctor or health care provider by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,492	<b>25.3</b>	22.5-28.2	2,293	<b>15.6</b>	13.6-17.6	3,785	<b>20.3</b>	18.6-22.0
<b>Age</b>									
18-24	66	<b>*38.4</b>	25.7-51.2	78	<b>*29.1</b>	17.9-40.4	144	<b>33.9</b>	25.3-42.5
25-34	150	<b>48.3</b>	39.8-56.8	265	<b>27.9</b>	22.1-33.7	415	<b>38.2</b>	32.9-43.4
35-44	232	<b>26.5</b>	20.3-32.7	369	<b>19.6</b>	15.1-24.1	601	<b>23.0</b>	19.2-26.8
45-54	330	<b>20.2</b>	15.8-24.6	429	<b>12.8</b>	9.4-16.3	759	<b>16.5</b>	13.7-19.3
55-64	371	<b>13.6</b>	10.0-17.3	465	<b>9.5</b>	6.6-12.3	836	<b>11.5</b>	9.2-13.9
65+	339	<b>9.7</b>	6.4-13.0	674	<b>4.4</b>	2.8-6.1	1,013	<b>6.6</b>	4.9-8.3
<b>Education</b>									
Less than H.S.	257	<b>31.0</b>	23.8-38.3	360	<b>14.0</b>	8.9-19.1	617	<b>22.8</b>	18.2-27.3
H.S. or G.E.D.	592	<b>31.4</b>	26.5-36.4	895	<b>17.7</b>	14.3-21.1	1,487	<b>24.5</b>	21.4-27.5
Some Post-H.S.	282	<b>18.1</b>	12.9-23.3	542	<b>14.9</b>	10.9-18.9	824	<b>16.2</b>	13.0-19.4
College Graduate	357	<b>17.0</b>	12.5-21.5	493	<b>13.7</b>	10.1-17.4	850	<b>15.4</b>	12.5-18.3
<b>Income</b>									
Less than \$15,000	168	<b>29.7</b>	20.6-38.8	413	<b>17.2</b>	12.2-22.1	581	<b>21.5</b>	17.0-26.1
\$15,000- 24,999	267	<b>27.9</b>	21.3-34.5	461	<b>16.3</b>	11.7-20.9	728	<b>21.4</b>	17.5-25.3
\$25,000- 34,999	215	<b>27.5</b>	20.0-35.0	281	<b>16.4</b>	11.1-21.8	496	<b>22.2</b>	17.5-27.0
\$35,000- 49,999	237	<b>28.8</b>	21.7-35.8	287	<b>11.5</b>	6.9-16.1	524	<b>20.6</b>	16.2-25.0
\$50,000- 74,999	225	<b>17.5</b>	11.8-23.1	273	<b>14.5</b>	9.1-19.9	498	<b>16.0</b>	12.1-19.9
\$75,000+	246	<b>16.4</b>	11.4-21.5	262	<b>12.9</b>	8.5-17.3	508	<b>14.9</b>	11.5-18.3

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

## CHAPTER 3: PHYSICAL INACTIVITY

### No Leisure-Time Physical Activity for Exercise in 2006

<b>Definition</b>	Responding “No” to the following 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?”
<b>Prevalence</b>	<b>WV: 25.6%</b> (95% CI: 23.9-27.3) in 2006. <b>US: 24.0%</b> (95% CI: 23.6-24.3) in 2006. West Virginia ranked 12 <sup>th</sup> highest among 50 US States and DC in 2006.
<b>Time Trends</b>	From 1994 through 2004, the prevalence of risk due to lack of exercise generally declined. Between 2004 and 2005, however, the trend reversed direction, moving up significantly from 24.5% in 2004 to 28.5% in 2005. The trend edged down again slightly in 2006.
<b>Gender</b>	<b>Men: 21.0%</b> (95% CI: 18.6-23.4) in 2006. <b>Women: 29.9%</b> (95% CI: 27.6-32.2) in 2006. Women had a significantly higher overall risk than men. This difference was particularly evident among the oldest adults, those aged 65 and older. Differences among men and women in the youngest age group (aged 18-24) were large also, but were not significant, in part because of the lower survey response rate among this group.
<b>Age</b>	In general, the prevalence of physical inactivity increased with age. The rate among persons aged 65 and older was significantly higher than among those in any less than 45 age bracket.
<b>Education</b>	The prevalence of physical inactivity decreased with increasing education in 2006. A pronounced difference existed between the less than high school educated group (43.0%) and those with a college education (12.0%).
<b>Household Income</b>	The prevalence of physical inactivity was significantly higher among adults with incomes below \$15,000 in 2006, compared with adults living in households with income levels of \$25,000 or more annually.

#### WV HEALTHY PEOPLE 2010 OBJECTIVES

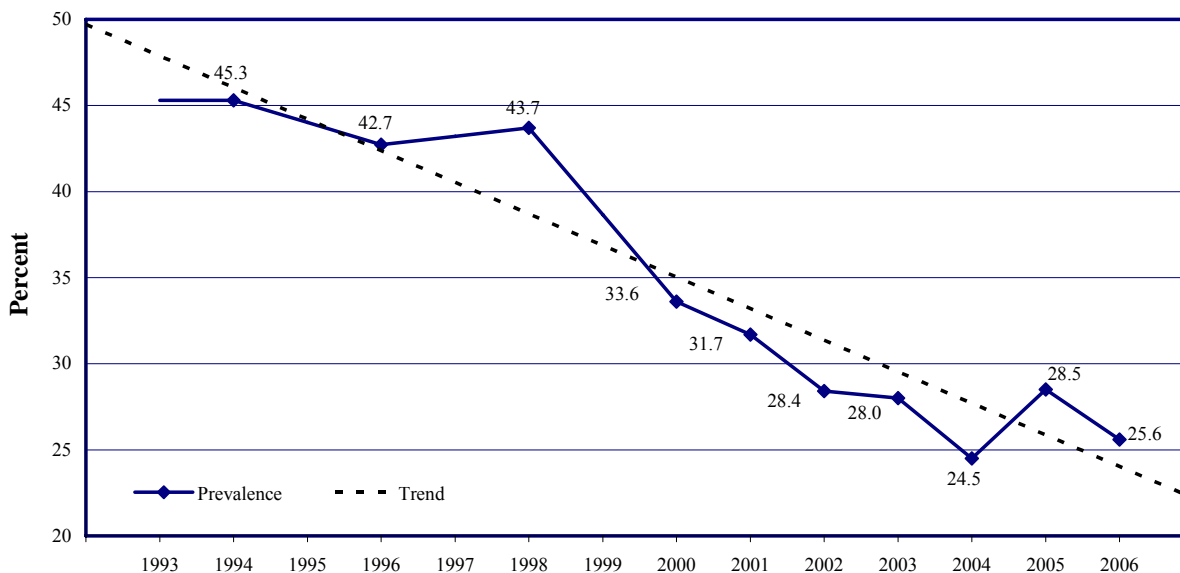
<b>Objective 22.1</b>	Reduce to 37% the proportion of people aged 18 and older who report no leisure-time physical activity. (Baseline: 43.7% in 1998; Current: 25.6% in 2006)
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**Table 3.1 No leisure-time physical activity for exercise by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,493	<b>21.0</b>	18.6-23.4	2,294	<b>29.9</b>	27.6-32.2	3,787	<b>25.6</b>	23.9-27.3
<b>Age</b>									
18-24	67	<b>*11.4</b>	3.3-19.5	78	<b>*25.6</b>	13.8-37.5	145	<b>18.3</b>	11.0-25.6
25-34	150	<b>17.1</b>	10.4-23.7	265	<b>23.9</b>	18.3-29.4	415	<b>20.4</b>	16.1-24.8
35-44	232	<b>22.4</b>	16.6-28.2	368	<b>25.9</b>	21.0-30.8	600	<b>24.2</b>	20.4-28.0
45-54	330	<b>21.5</b>	16.7-26.3	430	<b>29.9</b>	25.3-34.6	760	<b>25.8</b>	22.4-29.1
55-64	370	<b>27.1</b>	22.2-32.1	463	<b>30.1</b>	25.7-34.5	833	<b>28.6</b>	25.3-32.0
65+	340	<b>24.0</b>	19.2-28.7	677	<b>39.0</b>	35.0-43.1	1,017	<b>32.7</b>	29.5-35.9
<b>Education</b>									
Less than H.S.	257	<b>40.6</b>	33.4-47.8	360	<b>45.5</b>	39.5-51.4	617	<b>43.0</b>	38.2-47.7
H.S. or G.E.D.	593	<b>22.3</b>	18.4-26.2	897	<b>32.0</b>	28.4-35.5	1,490	<b>27.2</b>	24.5-29.8
Some Post-H.S.	282	<b>17.0</b>	12.4-21.7	541	<b>29.2</b>	23.7-34.7	823	<b>24.0</b>	20.2-27.8
College Graduate	357	<b>7.9</b>	4.9-10.9	493	<b>16.2</b>	12.5-19.9	850	<b>12.0</b>	9.6-14.4
<b>Income</b>									
Less than \$15,000	168	<b>36.8</b>	27.7-46.0	414	<b>41.0</b>	35.3-46.7	582	<b>39.6</b>	34.7-44.4
\$15,000- 24,999	266	<b>31.1</b>	24.6-37.6	461	<b>35.4</b>	30.0-40.7	727	<b>33.5</b>	29.3-37.6
\$25,000- 34,999	215	<b>26.4</b>	19.3-33.4	281	<b>28.7</b>	22.7-34.7	496	<b>27.5</b>	22.8-32.1
\$35,000- 49,999	237	<b>16.4</b>	11.3-21.6	286	<b>21.8</b>	15.5-28.1	523	<b>19.0</b>	14.9-23.0
\$50,000- 74,999	225	<b>15.5</b>	10.1-21.0	273	<b>24.4</b>	18.7-30.1	498	<b>19.9</b>	15.9-23.8
\$75,000+	247	<b>11.2</b>	7.3-15.2	262	<b>17.3</b>	12.0-22.7	509	<b>13.9</b>	10.7-17.2

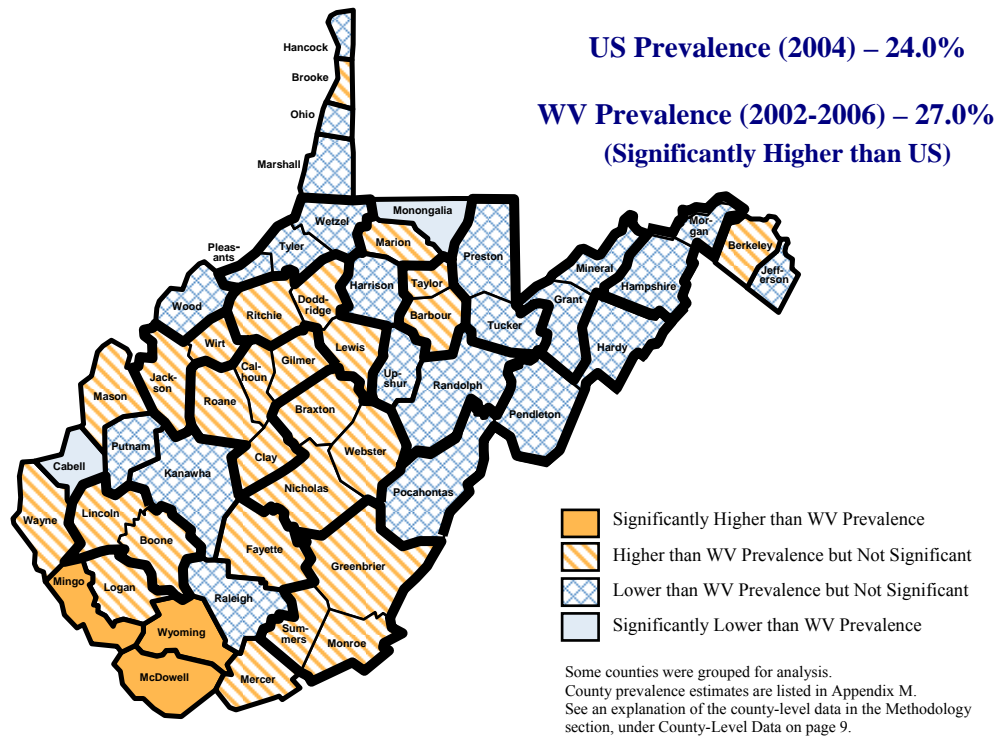
\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

**Figure 3.1 No leisure-time physical activity for exercise by year: WVBRFSS, 1994-2006**

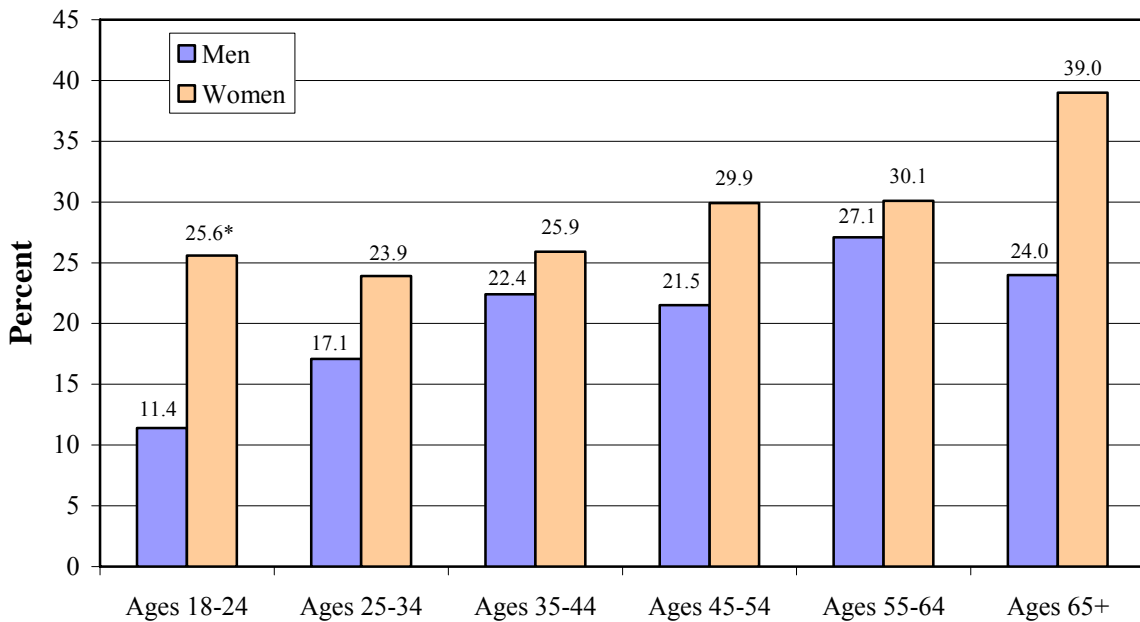


Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition: Responding “No” to the following question: “During the past month, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise?”  
 Notes: Data are not available for the years 1993, 1995, 1997, and 1999. This Y axis does not begin with zero, in order to maintain a 30 percentage point Y axis range that facilitates comparability among a group of graphs presented together.

**Figure 3.2 No leisure-time physical activity for exercise by county: WVBRFSS, 2002-2006**



**Figure 3.3 No leisure-time physical activity for exercise by age and sex: WVBRFSS, 2006**



\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

## CHAPTER 4: DIABETES

### Diabetes Prevalence in 2006

<b>Definition</b>	Responding “Yes” to the following question: “Have you ever been told by a doctor that you have diabetes?” Women told they had diabetes only during pregnancy are treated as an answer of “No.” Those with pre-diabetes and borderline diabetes also are treated as an answer of “No.”
<b>Prevalence</b>	<b>WV: 12.1%</b> (95% CI: 11.0-13.2) in 2006. <b>US: 8.0%</b> (95% CI: 7.8-8.2) in 2006. West Virginia ranked 1 <sup>st</sup> highest among 50 US States and DC in 2006.
<b>Time Trends</b>	Diabetes prevalence among West Virginia adults doubled during the past 13 years. More recently, awareness of having diabetes increased steeply and significantly between 2000 (7.6%) and 2006 (12.1%).
<b>Gender</b>	<b>Men: 12.8%</b> (95% CI: 11.0-14.6) in 2006. <b>Women: 11.5%</b> (95% CI: 10.1-12.9) in 2006. There were no significant differences in how frequently men and women reported a diagnosis of diabetes in 2006.
<b>Age</b>	The oldest adults (65 and older) had the highest diabetes prevalence among all age groups in West Virginia, 23.5% in 2006. Adults aged 18-54 were significantly less likely to be diabetic.
<b>Education</b>	Adults with less than a high school education carried the greatest risk of diabetes, with a prevalence of 20.3% in 2006. The risk for college graduates was significantly lower at 6.6% in 2006. Each increase in education was associated with a lower risk of diabetes, although the differences were not significant between every group.
<b>Household Income</b>	At the lowest income levels, less than \$15,000 annually, more than 20 people in every 100 were diabetic. In contrast, adults living in households with annual incomes of \$35,000 and above generally experienced significantly lower risk levels of fewer than 10 people in every 100.

#### WV HEALTHY PEOPLE 2010 OBJECTIVES

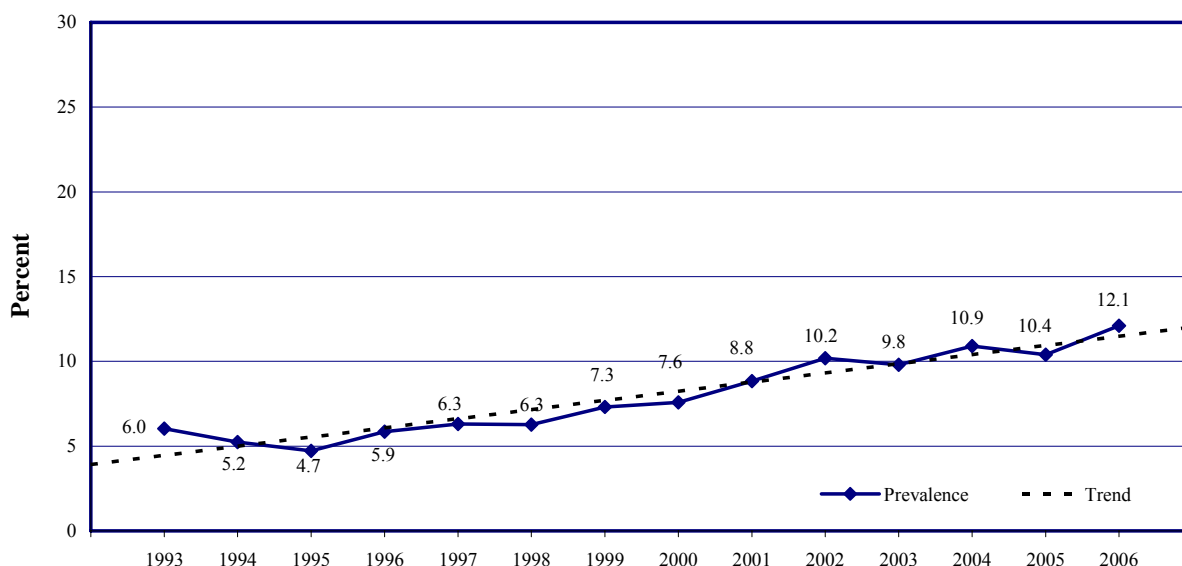
<b>Objective 5.6</b>	Increase to 85% the proportion of persons with diabetes who have a glycosylated hemoglobin measurement at least once a year. (Baseline: 80.1% in 2000; Current: 86.1% in 2006)
<b>Objective 5.7</b>	Increase to 73% the proportion of persons with diabetes who have an annual dilated eye exam. (Baseline: 65.5% in 1998; Current: 66.4% in 2006)
<b>Objective 5.8</b>	Increase to 55% the proportion of persons with diabetes who perform self blood-glucose monitoring (SBGM) at least daily. (Baseline: 50.3% in 1998; Current: 66.5% in 2006)

**Table 4.1 Diabetes prevalence by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,491	<b>12.8</b>	11.0-14.6	2,297	<b>11.5</b>	10.1-12.9	3,788	<b>12.1</b>	11.0-13.2
<b>Age</b>									
18-24	66	* <b>3.5</b>	0.0-8.2	78	* <b>1.7</b>	0.0-5.1	144	* <b>2.6</b>	0.0-5.6
25-34	150	* <b>2.3</b>	0.0-4.5	265	* <b>3.5</b>	1.1-5.9	415	<b>2.9</b>	1.2-4.5
35-44	232	<b>7.0</b>	3.3-10.7	369	<b>4.8</b>	2.0-7.6	601	<b>5.9</b>	3.6-8.2
45-54	331	<b>12.8</b>	8.8-16.8	430	<b>11.4</b>	8.1-14.6	761	<b>12.1</b>	9.5-14.6
55-64	369	<b>25.3</b>	20.4-30.3	464	<b>15.7</b>	12.2-19.2	833	<b>20.4</b>	17.4-23.5
65+	339	<b>23.4</b>	18.6-28.2	678	<b>23.6</b>	20.0-27.2	1,017	<b>23.5</b>	20.6-26.4
<b>Education</b>									
Less than H.S.	258	<b>17.7</b>	12.7-22.8	362	<b>23.0</b>	18.5-27.6	620	<b>20.3</b>	16.9-23.7
H.S. or G.E.D.	591	<b>13.1</b>	10.3-15.9	897	<b>12.1</b>	9.6-14.6	1,488	<b>12.6</b>	10.7-14.5
Some Post-H.S.	282	<b>12.7</b>	8.4-16.9	542	<b>8.9</b>	6.4-11.4	824	<b>10.5</b>	8.2-12.8
College Graduate	356	<b>7.8</b>	4.8-10.8	493	<b>5.4</b>	3.4-7.4	849	<b>6.6</b>	4.8-8.4
<b>Income</b>									
Less than \$15,000	168	<b>24.8</b>	17.6-32.0	413	<b>18.4</b>	14.4-22.4	581	<b>20.6</b>	17.0-24.2
\$15,000- 24,999	267	<b>16.3</b>	11.6-21.0	462	<b>15.9</b>	11.9-19.9	729	<b>16.1</b>	13.0-19.1
\$25,000- 34,999	215	<b>13.5</b>	8.9-18.0	281	<b>11.2</b>	7.2-15.2	496	<b>12.4</b>	9.3-15.4
\$35,000- 49,999	237	<b>8.6</b>	5.0-12.2	286	<b>5.8</b>	3.1-8.4	523	<b>7.3</b>	5.0-9.6
\$50,000- 74,999	225	<b>9.3</b>	5.3-13.3	273	<b>7.9</b>	4.5-11.3	498	<b>8.6</b>	6.0-11.3
\$75,000+	247	<b>9.3</b>	4.9-13.8	262	* <b>3.7</b>	1.2-6.3	509	<b>6.9</b>	4.1-9.6

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

**Figure 4.1 Diabetes prevalence by year: WVBRFSS, 1993-2006**

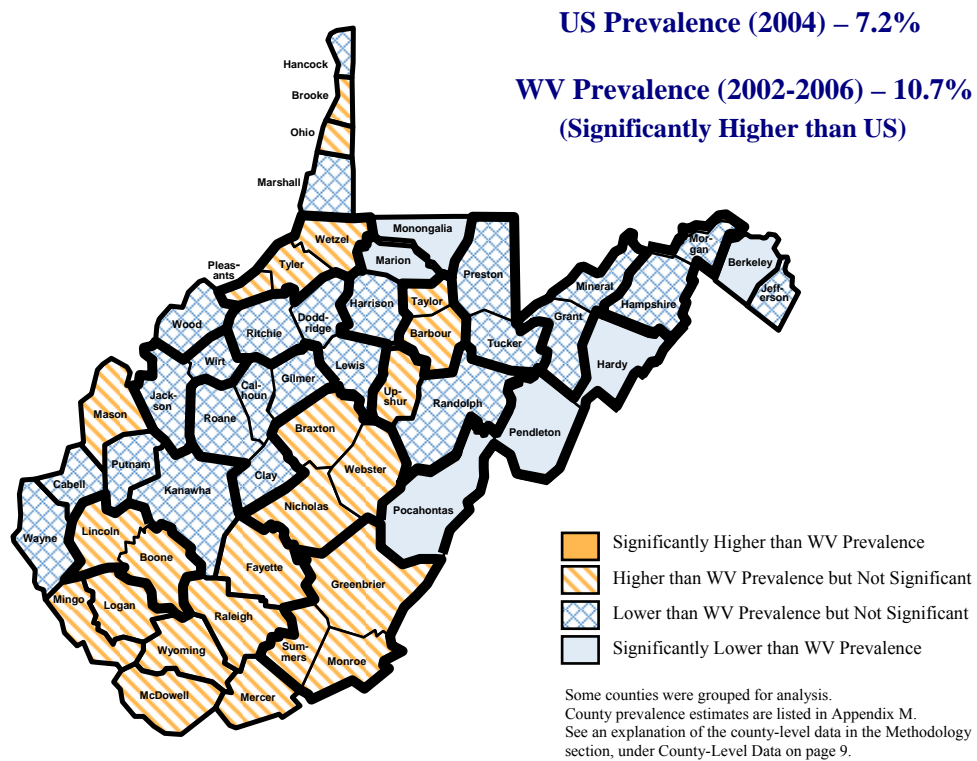


Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.

Population: Non-institutionalized adults age 18 and older residing in West Virginia.

Definition: Responding "Yes" to the following question: "Have you ever been told by a doctor that you have diabetes?" Women told they had diabetes only during pregnancy are treated as an answer of "No." Those with pre-diabetes and borderline diabetes also are treated as an answer of "No."

**Figure 4.2 Diabetes prevalence by county: WVBRFSS, 2002-2006**



## Key Control Issues among Adults with Diabetes in 2006

**Definitions** **No A1c test** - Responding “None” or “Never heard of ‘A one C’ test” to the following question: “A test for ‘A one C’ measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for hemoglobin ‘A one C’?”

**No Eye exam** - Responding with “More than 12 months ago” to the following question: “When was the last time you had an eye exam in which the pupils were dilated? This would have made you temporarily sensitive to bright light.”

**No Foot exam** - Responding “None” to the following question: “About how many times in the past 12 months has a health professional checked your feet for any sores or irritations?”

**Prevalence** **No A1c test**  
**WV: 13.9%** (95% CI: 10.2-17.6) in 2006.

**No eye exam**  
**WV: 33.6%** (95% CI: 28.8-38.3) in 2006.

**No foot exam**  
**WV: 29.0%** (95% CI: 24.5-33.5) in 2006.

**Time Trends** Between 2005 and 2006, there were slight increases in the prevalence of the first two of these risk factors. The prevalence of “No foot exam” decreased slightly.

**Table 4.2 No A1c test among adults with diabetes by demographic characteristics: WVBRFSS, 2006**

Characteristic	2006		
	# Resp.	%	95% CI
<b>TOTAL</b>	467	<b>13.9</b>	10.2-17.6
Males	207	<b>12.5</b>	7.5-17.5
Females	260	<b>15.4</b>	9.9-20.9
<b>Age</b>			
18-44	43	<b>*22.2</b>	7.2-37.3
45-54	83	<b>* 5.6</b>	0.7-10.5
55-64	152	<b>9.1</b>	4.1-14.2
65+	186	<b>18.5</b>	12.2-24.7
<b>Education</b>			
Less than H.S.	119	<b>17.2</b>	10.0-24.4
H.S. or G.E.D.	186	<b>17.3</b>	10.4-24.3
Some Post-H.S.	99	<b>* 5.3</b>	0.6-10.1
College Graduate	60	<b>* 8.9</b>	1.7-16.2
<b>Income</b>			
Less than \$15,000	112	<b>11.1</b>	4.9-17.2
\$15,000- 24,999	110	<b>14.3</b>	7.2-21.4
\$25,000- 34,999	60	<b>* 11.4</b>	2.7-20.1
\$35,000-49,999	45	<b>* 10.5</b>	0.5-20.5
\$50,000+	76	<b>* 12.9</b>	3.7-22.1

\* Use caution when interpreting and reporting this specific estimate.  
See the detailed discussion of estimates in the Methodology section.

**Table 4.3 No eye exam prevalence among adults with diabetes by demographic characteristics: WVBRFSS, 2006**

Characteristic	2006		
	# Resp.	%	95% CI
<b>TOTAL</b>	528	<b>33.6</b>	28.8-38.3
Males	226	<b>31.1</b>	24.3-38.0
Females	302	<b>36.0</b>	29.6-42.5
<b>Age</b>			
18-44	45	<b>* 46.6</b>	29.2-64.0
45-54	86	<b>* 42.2</b>	30.8-53.6
55-64	163	<b>33.9</b>	25.7-42.0
65+	231	<b>24.2</b>	17.9-30.5
<b>Education</b>			
Less than H.S.	149	<b>32.4</b>	23.7-41.1
H.S. or G.E.D.	211	<b>35.7</b>	28.0-43.5
Some Post-H.S.	101	<b>39.8</b>	28.7-50.9
College Graduate	63	<b>* 15.6</b>	5.7-25.5
<b>Income</b>			
Less than \$15,000	130	<b>36.4</b>	26.9-45.9
\$15,000- 24,999	125	<b>30.4</b>	20.7-40.2
\$25,000- 34,999	69	<b>27.6</b>	16.2-39.0
\$35,000-49,999	46	<b>* 33.6</b>	18.5-48.7
\$50,000+	78	<b>* 33.4</b>	21.3-45.5

\* Use caution when interpreting and reporting this specific estimate.  
See the detailed discussion of estimates in the Methodology section.



**Table 4.4 No foot exam prevalence among adults with diabetes by demographic characteristics: WVBRFSS, 2006**

Characteristic	2006		
	# Resp.	%	95% CI
<b>TOTAL</b>	519	<b>29.0</b>	24.5-33.5
Males	223	<b>24.9</b>	18.4-31.4
Females	296	<b>33.2</b>	27.0-39.4
<b>Age</b>			
18-44	47	* <b>33.0</b>	16.9-49.1
45-54	84	* <b>31.2</b>	20.3-42.2
55-64	165	<b>24.7</b>	17.6-31.8
65+	220	<b>28.6</b>	22.1-35.1
<b>Education</b>			
Less than H.S.	142	<b>25.7</b>	17.6-33.8
H.S. or G.E.D.	207	<b>30.9</b>	23.6-38.2
Some Post-H.S.	103	<b>26.6</b>	16.9-36.3
College Graduate	63	* <b>32.7</b>	18.7-46.7
<b>Income</b>			
Less than \$15,000	133	<b>26.5</b>	18.0-35.1
\$15,000- 24,999	119	<b>23.4</b>	15.2-31.6
\$25,000- 34,999	69	<b>33.2</b>	20.6-45.7
\$35,000-49,999	45	* <b>30.9</b>	16.1-45.7
\$50,000+	78	* <b>31.4</b>	20.0-42.8

Note. Excludes amputees.

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

### Additional Diabetes Issues in 2006

**Table 4.5 Other health care issues among adults with diabetes: WVBRFSS, 2006**

Diabetic respondents who...	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>Now take insulin</b>	232	<b>25.2</b>	18.4-32.1	307	<b>21.8</b>	16.7-26.8	539	<b>23.5</b>	19.2-27.8
<b>Now take diabetes pills</b>	231	<b>73.2</b>	66.1-80.3	306	<b>69.0</b>	62.9-75.2	537	<b>71.1</b>	66.4-75.8
<b>Never check blood glucose at home or check it less than once daily</b>	224	<b>35.8</b>	28.7-42.8	295	<b>31.2</b>	25.1-37.3	519	<b>33.5</b>	28.8-38.2
<b>Never self-check feet for sores or check them less than once daily</b>	224	<b>21.9</b>	15.8-28.0	293	<b>20.3</b>	14.7-26.0	517	<b>21.1</b>	17.0-25.3
<b>Have ever had a foot sore that took more than four weeks to heal</b>	230	<b>9.8</b>	5.8-13.8	303	<b>13.1</b>	8.8-17.4	533	<b>11.4</b>	8.5-14.4
<b>Did NOT visit a doctor, nurse, or other health professional even once in the past 12 months for their diabetes</b>	230	<b>3.6</b>	1.2-6.1	300	<b>6.6</b>	2.8-10.4	530	<b>5.1</b>	2.8-7.3
<b>Were told by a doctor that they have diabetic retinopathy</b>	228	<b>16.5</b>	11.4-21.7	303	<b>21.3</b>	16.1-26.6	531	<b>18.9</b>	15.2-22.6
<b>Have NEVER taken a class in self-management of diabetes</b>	231	<b>56.9</b>	49.7-64.1	307	<b>50.5</b>	44.1-57.0	538	<b>53.8</b>	48.9-58.6

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

## CHAPTER 5: OBESITY AND OVERWEIGHT

### Obesity and Overweight in 2006

**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 ( $BMI = \text{kg}/\text{m}^2$ ). Obesity is defined as a BMI of 30.0 or higher and overweight as a BMI of 25.0-29.9.

**Prevalence**

*Obesity*  
**WV: 31.0%** (95% CI: 29.2-32.9) in 2006.  
**US: 25.1%** (95% CI: 24.7-25.4) in 2006.  
West Virginia ranked 2<sup>nd</sup> highest among 50 US States and DC in 2006.

*Overweight*  
**WV: 36.0%** (95% CI: 34.1-37.8) in 2006.  
**US: 36.2%** (95% CI: 35.8-36.6) in 2006.  
West Virginia ranked 33<sup>rd</sup> highest among 50 US States and DC in 2006.

**Time Trends** Obesity increased substantially among West Virginia adults between 1993 and 2005. Men and women from a wide range of age, education, and income categories contributed to this unhealthy trend. The prevalence of overweight adults, in contrast, had only slight year-to-year variations around a barely declining long-term trend line.

**Gender**

*Obesity*  
**Men:** 33.3% (95% CI: 30.4-36.1) in 2006.  
**Women:** 28.9% (95% CI: 26.5-31.2) in 2006.

*Overweight*  
**Men:** 41.7% (95% CI: 38.8-44.7) in 2006.  
**Women:** 30.3% (95% CI: 28.1-32.6) in 2006.

Obesity rate differences by gender alone were small. However, men had a significantly higher risk than women from overweight in 2006.

**Age** The prevalence of being either obese or overweight steadily increased through the 18-44 age groups, although adjacent age groups were not significantly different. In the 45-54 age group, prevalence was slightly higher for obesity, but was slightly lower among the overweight group. For the oldest group (age 65+), the prevalence of being overweight remained similar to levels in the middle age groups. Obesity prevalence in the oldest age group (65+), however, dropped to significantly below that in the 45-54 and 55-64 age groups.

**Education and Household Income** Few differences were significant in the prevalence of obesity or overweight by either educational attainment or household income.

#### WV HEALTHY PEOPLE 2010 OBJECTIVES

**Objective 19.1b** Reduce to 20% the proportion of people who are obese as defined by having a body mass index of 30 or greater. (Baseline: 23.9% in 1998; Current: 31.0% in 2006)

**Table 5.1 Obesity by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,474	<b>33.3</b>	30.4-36.1	2,175	<b>28.9</b>	26.5-31.2	3,649	<b>31.0</b>	29.2-32.9
<b>Age</b>									
18-24	66	<b>*21.7</b>	11.1-32.2	76	<b>*18.6</b>	7.2-30.0	142	<b>20.2</b>	12.5-27.9
25-34	149	<b>33.4</b>	25.4-41.5	259	<b>30.6</b>	24.6-36.6	408	<b>32.0</b>	27.0-37.1
35-44	227	<b>35.9</b>	29.0-42.8	357	<b>31.0</b>	25.6-36.3	584	<b>33.4</b>	29.0-37.8
45-54	327	<b>42.2</b>	36.4-48.1	404	<b>33.3</b>	28.3-38.3	731	<b>37.9</b>	34.0-41.7
55-64	367	<b>35.4</b>	30.0-40.8	435	<b>33.8</b>	29.0-38.7	802	<b>34.6</b>	31.0-38.2
65+	336	<b>27.1</b>	22.0-32.3	641	<b>24.7</b>	21.0-28.3	977	<b>25.7</b>	22.7-28.8
<b>Education</b>									
Less than H.S.	252	<b>30.5</b>	23.8-37.1	341	<b>32.9</b>	27.3-38.5	593	<b>31.6</b>	27.2-36.0
H.S. or G.E.D.	587	<b>34.4</b>	29.9-39.0	848	<b>30.5</b>	26.7-34.2	1,435	<b>32.5</b>	29.5-35.4
Some Post-H.S.	278	<b>34.9</b>	28.1-41.7	516	<b>29.5</b>	24.1-34.9	794	<b>31.9</b>	27.6-36.1
College Graduate	354	<b>31.7</b>	26.0-37.5	468	<b>22.6</b>	18.4-26.8	822	<b>27.3</b>	23.6-30.9
<b>Income</b>									
Less than \$15,000	163	<b>29.5</b>	21.7-37.4	404	<b>30.9</b>	25.7-36.1	567	<b>30.4</b>	26.1-34.8
\$15,000- 24,999	267	<b>34.3</b>	27.6-41.0	444	<b>36.1</b>	30.3-41.9	711	<b>35.3</b>	30.9-39.7
\$25,000- 34,999	213	<b>37.0</b>	29.3-44.8	265	<b>28.2</b>	21.8-34.6	478	<b>32.9</b>	27.8-38.1
\$35,000- 49,999	235	<b>32.5</b>	25.6-39.4	272	<b>29.9</b>	23.8-36.1	507	<b>31.3</b>	26.6-36.0
\$50,000- 74,999	223	<b>30.8</b>	24.1-37.6	255	<b>26.9</b>	21.0-32.8	478	<b>29.0</b>	24.4-33.5
\$75,000+	246	<b>39.0</b>	32.0-46.0	254	<b>20.1</b>	14.7-25.5	500	<b>30.7</b>	26.0-35.5

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

\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates in Methodology.

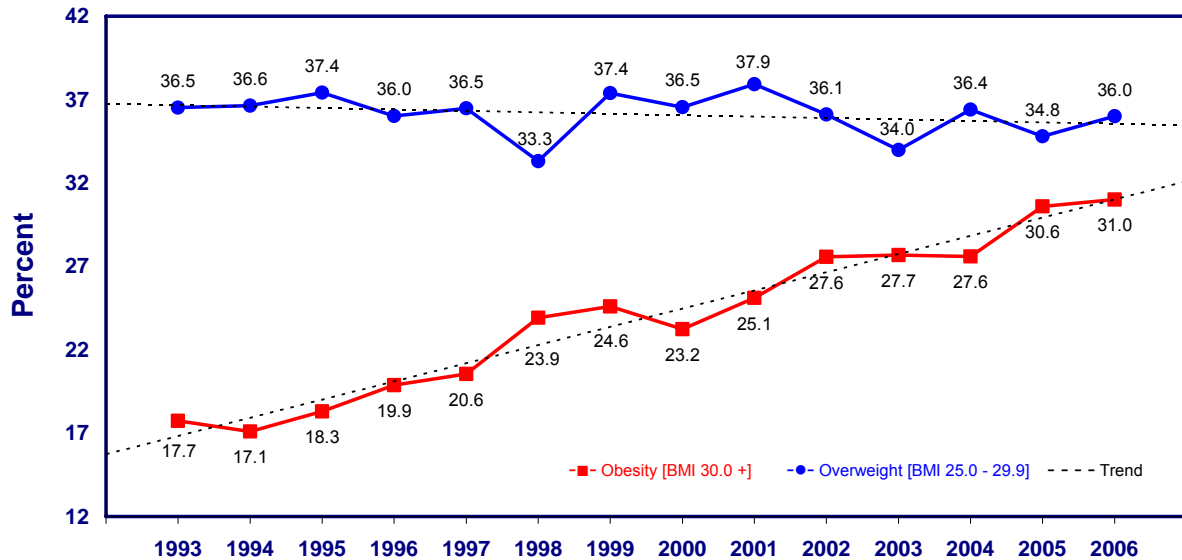
**Table 5.2 Overweight (but not obese) by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,474	<b>41.7</b>	38.8-44.7	2,175	<b>30.3</b>	28.1-32.6	3,649	<b>36.0</b>	34.1-37.8
<b>Age</b>									
18-24	66	<b>*31.8</b>	20.2-43.4	76	<b>21.5</b>	11.6-31.4	142	<b>26.8</b>	19.1-34.5
25-34	149	<b>40.0</b>	31.6-48.4	259	<b>28.5</b>	22.6-34.4	408	<b>34.4</b>	29.2-39.6
35-44	227	<b>47.1</b>	40.2-54.1	357	<b>30.8</b>	25.6-36.1	584	<b>38.9</b>	34.6-43.3
45-54	327	<b>37.9</b>	32.2-43.6	404	<b>27.1</b>	22.5-31.7	731	<b>32.6</b>	28.9-36.4
55-64	367	<b>41.8</b>	36.4-47.3	435	<b>37.4</b>	32.5-42.3	802	<b>39.7</b>	36.0-43.3
65+	336	<b>49.6</b>	43.9-55.3	641	<b>33.7</b>	29.7-37.8	977	<b>40.6</b>	37.2-44.0
<b>Education</b>									
Less than H.S.	252	<b>39.2</b>	32.0-46.3	341	<b>28.9</b>	23.3-34.5	593	<b>34.3</b>	29.7-38.9
H.S. or G.E.D.	587	<b>40.4</b>	35.7-45.1	848	<b>29.7</b>	26.1-33.3	1,435	<b>35.1</b>	32.1-38.1
Some Post-H.S.	278	<b>40.7</b>	33.8-47.7	516	<b>31.3</b>	26.3-36.2	794	<b>35.4</b>	31.2-39.5
College Graduate	354	<b>46.7</b>	40.8-52.6	468	<b>31.1</b>	26.4-35.8	822	<b>39.0</b>	35.2-42.9
<b>Income</b>									
Less than \$15,000	163	<b>40.0</b>	30.9-49.1	404	<b>27.3</b>	21.5-33.0	567	<b>31.6</b>	26.8-36.5
\$15,000- 24,999	267	<b>37.6</b>	30.9-44.3	444	<b>24.7</b>	20.3-29.1	711	<b>30.5</b>	26.6-34.5
\$25,000- 34,999	213	<b>41.8</b>	33.9-49.6	265	<b>35.5</b>	28.9-42.0	478	<b>38.8</b>	33.6-44.1
\$35,000- 49,999	235	<b>44.7</b>	37.2-52.2	272	<b>30.3</b>	23.9-36.6	507	<b>38.0</b>	33.0-43.0
\$50,000- 74,999	223	<b>50.8</b>	43.3-58.2	255	<b>33.9</b>	27.5-40.3	478	<b>42.8</b>	37.7-47.9
\$75,000+	246	<b>42.3</b>	35.5-49.1	254	<b>33.4</b>	27.0-39.9	500	<b>38.4</b>	33.7-43.2

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

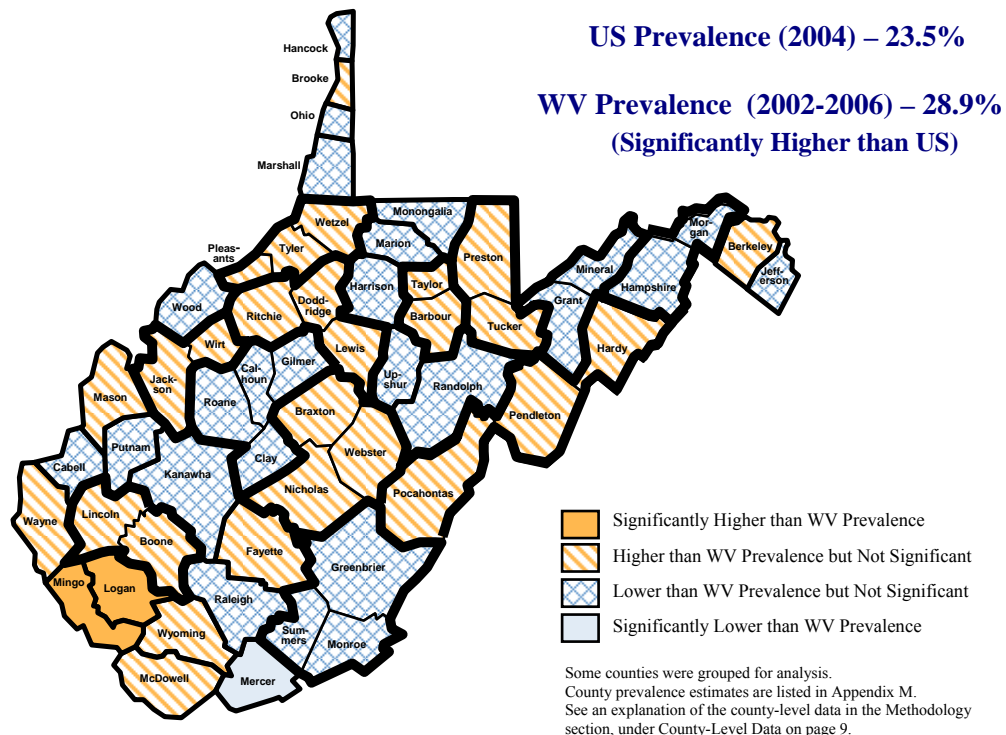
\* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates in Methodology.

**Figure 5.1 Obesity and overweight by year: WVBRFSS, 1993-2006**



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definitions: Body Mass Index (BMI) is a calculation that standardizes the meaning of the terms obesity and overweight, thereby improving the accuracy of comparisons. BMI is body weight in kilograms divided by height in meters squared (BMI=kg/m<sup>2</sup>). Obesity is defined as a body mass index of 30.0 or higher. Overweight is defined as a body mass index of 25.0 - 29.9.  
 Note: This Y axis does not begin with zero, in order to maintain a 30 percentage point Y axis range that facilitates comparability among a group of graphs presented together.

**Figure 5.2 Obesity (body mass index of 30.0 or higher) by county: WVBRFSS, 2002-2006**



## CHAPTER 6: TOBACCO USE

### Current Cigarette Smoking in 2006

<b>Definition</b>	Smoking at least 100 cigarettes in one's lifetime and currently smoking every day or some days.
<b>Prevalence</b>	<b>WV: 25.7%</b> (95% CI: 24.0-27.5) in 2006. <b>US: 19.7%</b> (95% CI: 19.4-20.0) in 2006. West Virginia ranked 2 <sup>nd</sup> highest among 50 US States and DC in 2006.
<b>Time Trends</b>	The proportion of current smokers has fluctuated between approximately 26% and 28% along a flat 1993 through 2006 trend line. After 2002, however, an unbroken series of very slight declines have occurred in the prevalence of smoking among West Virginia adults.
<b>Gender</b>	<b>Men: 25.4%</b> (95% CI: 22.7-28.1) in 2006. <b>Women: 26.1%</b> (95% CI: 23.8-28.3) in 2006. Men and women had no significant difference in their prevalence of current cigarette smoking in 2006.
<b>Age</b>	Adults under age 65 smoked cigarettes significantly less often than those aged 65 and older in 2006. Current smoking prevalence among the 65 and older group was 12.8%, well below the range of 22.1% through 36.2% for the other adult age groups.
<b>Education</b>	Current smoking was significantly less prevalence among college graduates than among those with less education, without regard to whether they were men or women. Among the remaining education groups, however, men with less than a high school education were significantly more likely to be current cigarette smokers than men with any post high school education. For women, there was no such significant difference.
<b>Household Income</b>	The prevalence of current smoking in 2006 decreased steadily as household income increased. Only 12.7% among the highest income group (\$75,000+ annual household income) were current smokers, compared with 38.7% among the lowest income group (less than \$15,000 in annual household income).

#### WV HEALTHY PEOPLE 2010 OBJECTIVES

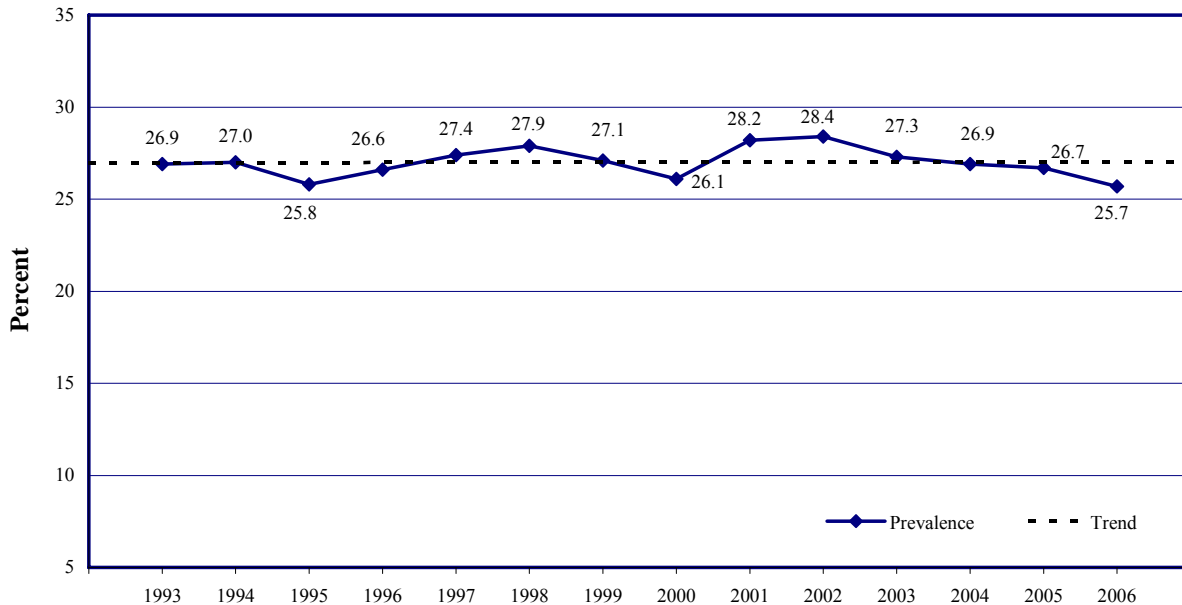
<b>Objective 27.1a</b>	Reduce the prevalence of cigarette smoking among adults aged 18+ to 20% or lower. (Baseline: 28% in 1998; Current: 25.7% in 2006)
<b>Objective 27.1b</b>	Reduce the prevalence of cigarette smoking among adults aged 18+ in the lower socioeconomic level (12 years or fewer of education and a household income of less than \$25,000) to 25% or lower. (Baseline: 36% in 1998; Current: 35.8% in 2006)
<b>Objective 27.1c</b>	Reduce the prevalence of cigarette smoking among women aged 18-44 (i.e., childbearing ages) to 25% or lower. (Baseline: 36% in 1998; Current: 34.0% in 2006)

**Table 6.1 Current cigarette smoking by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,492	<b>25.4</b>	22.7-28.1	2,298	<b>26.1</b>	23.8-28.3	3,790	<b>25.7</b>	24.0-27.5
<b>Age</b>									
18-24	67	<b>*32.3</b>	20.6-43.9	78	<b>*40.3</b>	28.2-52.4	145	<b>36.2</b>	27.7-44.6
25-34	150	<b>33.0</b>	24.9-41.1	265	<b>35.7</b>	29.5-41.9	415	<b>34.3</b>	29.2-39.5
35-44	232	<b>27.5</b>	21.4-33.6	369	<b>28.2</b>	23.1-33.4	601	<b>27.9</b>	23.9-31.8
45-54	330	<b>26.5</b>	21.3-31.6	429	<b>26.8</b>	22.3-31.3	759	<b>26.6</b>	23.2-30.0
55-64	370	<b>22.6</b>	18.0-27.3	466	<b>21.5</b>	17.6-25.4	836	<b>22.1</b>	19.0-25.1
65+	339	<b>12.2</b>	8.5-15.9	678	<b>13.2</b>	10.4-15.9	1,017	<b>12.8</b>	10.6-15.0
<b>Education</b>									
Less than H.S.	258	<b>39.0</b>	31.6-46.4	361	<b>32.6</b>	26.8-38.4	619	<b>35.9</b>	31.1-40.6
H.S. or G.E.D.	593	<b>28.4</b>	23.9-32.9	899	<b>29.0</b>	25.3-32.7	1,492	<b>28.7</b>	25.8-31.6
Some Post-H.S.	281	<b>23.7</b>	18.0-29.5	542	<b>29.3</b>	24.1-34.4	823	<b>26.9</b>	23.0-30.8
College Graduate	356	<b>11.4</b>	7.6-15.2	493	<b>12.1</b>	8.8-15.5	849	<b>11.8</b>	9.2-14.3
<b>Income</b>									
Less than \$15,000	169	<b>41.2</b>	31.7-50.7	414	<b>37.4</b>	31.7-43.2	583	<b>38.7</b>	33.7-43.8
\$15,000- 24,999	267	<b>30.9</b>	24.1-37.7	462	<b>34.5</b>	28.7-40.2	729	<b>32.9</b>	28.5-37.3
\$25,000- 34,999	215	<b>27.9</b>	20.7-35.1	281	<b>26.9</b>	20.7-33.2	496	<b>27.4</b>	22.6-32.3
\$35,000- 49,999	237	<b>24.2</b>	17.8-30.6	287	<b>24.1</b>	18.2-30.0	524	<b>24.1</b>	19.8-28.5
\$50,000- 74,999	223	<b>20.7</b>	14.5-26.9	273	<b>20.0</b>	13.7-26.2	496	<b>20.3</b>	15.9-24.7
\$75,000+	247	<b>12.4</b>	8.0-16.9	262	<b>13.0</b>	8.4-17.5	509	<b>12.7</b>	9.5-15.9

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

**Figure 6.1 Current cigarette smoking by year: WVBRFSS, 1993-2006**



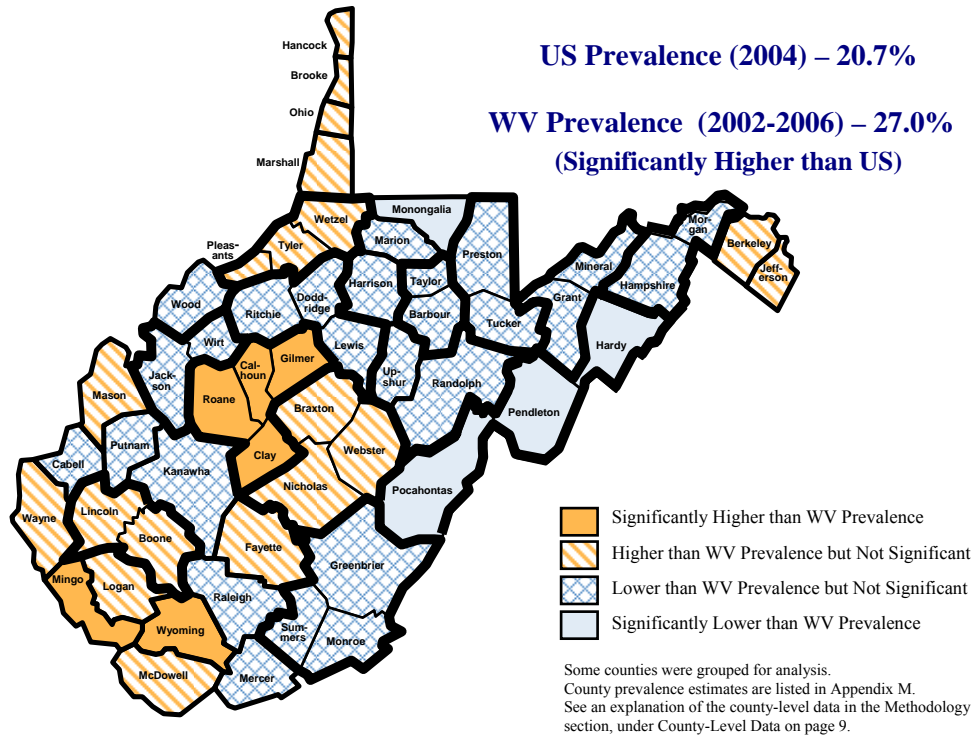
Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.

Population: Non-institutionalized adults age 18 and older residing in West Virginia.

Definition: Smoking at least 100 cigarettes in one's lifetime and currently smoking every day or some days.

Note: This Y axis does not begin with zero, in order to maintain a 30 percentage point Y axis range that facilitates comparability among a group of graphs presented together.

**Figure 6.2 Current cigarette smoking by county: WVBRFSS, 2002-2006**



## “Quit smoking for a day” in 2006

**Definition** Responding “Yes” to the following question: “During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?” (Restricted to every day smokers.)

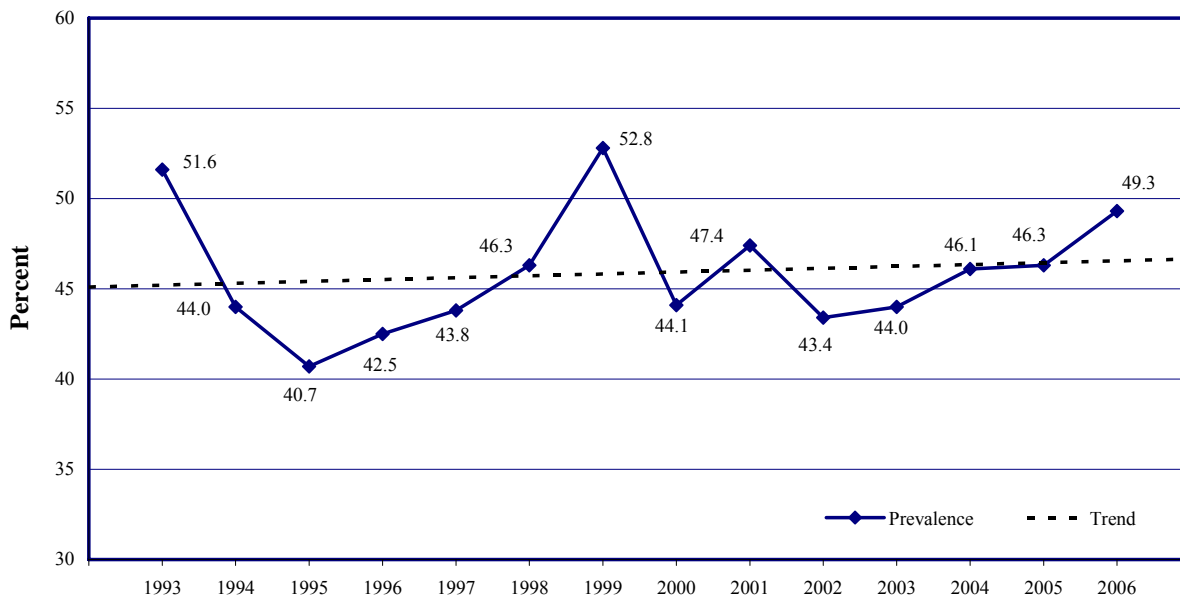
**Prevalence** **WV: 49.3%** (95% CI: 44.9-53.8) in 2006.  
**US: 50.9%** (95% CI: 49.9-51.9) in 2006.  
West Virginia ranked 39<sup>th</sup> highest among 50 US States and DC in 2006.

**Time Trends** Between 2002 and 2006, an unbroken series of slight increases have occurred in the prevalence of West Virginia adults who were trying to quit smoking. The longer term (1993-2006) trend line has fluctuated up and down, however.

**Gender** **Men: 47.9%** (95% CI: 41.1-54.7) in 2006.  
**Women: 50.6%** (95% CI: 44.9-56.4) in 2006.  
There was no significant difference in the prevalence between men and women.

**Age, Education, and Household Income** Reports of attempts to quit smoking were similar among most age, education, and household income groups in 2006.

**Figure 6.3 “Quit smoking for a day” among every day current smokers by year: WVBRFSS, 1993-2006**



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition: Responding “Yes” to the following question: “During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?” (The results reported for this section have been limited to every day current smokers.)  
 Note: This Y axis does not begin with zero, in order to maintain a 30 percentage point Y axis range that facilitates comparability among a group of graphs presented together.

**Table 6.2 “Quit smoking for a day” among every day current smokers by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	298	<b>47.9</b>	41.1-54.7	452	<b>50.6</b>	44.9-56.4	750	<b>49.3</b>	44.9-53.8
<b>Age</b>									
18-24	21	<b>*52.1</b>	29.8-74.4	26	<b>*52.2</b>	30.9-73.6	47	<b>*52.2</b>	36.7-67.6
25-34	30	<b>*55.8</b>	36.6-75.0	77	<b>*60.8</b>	49.2-72.5	107	<b>*58.7</b>	48.0-69.3
35-44	57	<b>*49.8</b>	35.8-63.7	86	<b>*52.4</b>	40.4-64.3	143	<b>51.1</b>	41.8-60.3
45-54	78	<b>*47.6</b>	35.6-59.6	102	<b>*42.5</b>	32.0-52.9	180	<b>45.0</b>	37.0-53.0
55-64	76	<b>*37.6</b>	25.6-49.6	83	<b>*46.6</b>	34.9-58.3	159	<b>41.8</b>	33.3-50.3
65+	35	<b>*38.7</b>	21.1-56.3	75	<b>*46.9</b>	34.4-59.4	110	<b>*43.5</b>	33.1-53.9
<b>Education</b>									
Less than H.S.	78	<b>*43.0</b>	29.7-56.4	95	<b>*51.7</b>	39.8-63.6	173	<b>46.9</b>	37.8-56.0
H.S. or G.E.D.	128	<b>*49.0</b>	38.4-59.5	201	<b>48.6</b>	39.8-57.3	329	<b>48.8</b>	42.0-55.5
Some Post-H.S.	60	<b>*46.2</b>	31.5-60.9	114	<b>*57.4</b>	46.0-68.9	174	<b>53.1</b>	44.0-62.2
College Graduate	31	<b>*58.6</b>	39.3-77.9	41	<b>*36.6</b>	20.9-52.3	72	<b>*48.5</b>	35.0-62.1
<b>Income</b>									
Less than \$15,000	54	<b>*49.9</b>	32.6-67.2	125	<b>*48.9</b>	38.5-59.3	179	<b>49.3</b>	40.0-58.5
\$15,000- 24,999	64	<b>*42.5</b>	28.1-56.9	111	<b>*57.2</b>	45.7-68.7	175	<b>50.9</b>	41.6-60.2
\$25,000- 34,999	46	<b>*67.2</b>	52.3-82.2	54	<b>*39.4</b>	24.9-53.8	100	<b>*54.2</b>	42.7-65.8
\$35,000- 49,999	48	<b>*40.0</b>	24.1-55.9	50	<b>*57.8</b>	42.0-73.6	98	<b>*48.0</b>	36.3-59.7
\$50,000- 74,999	32	<b>*37.1</b>	17.4-56.7	38	<b>*59.0</b>	41.5-76.6	70	<b>*47.3</b>	33.5-61.2
\$75,000+	23	<b>*49.4</b>	27.6-71.1	23	<b>*33.0</b>	11.1-55.0	46	<b>*41.1</b>	25.4-56.9

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.



## Smoking Policies at Work in 2006\*\*

<b>Definition</b>	<p><b>Indoor public and common areas</b> Answered “Not allowed in any public areas” to the question “Which of the following best describes your place of work’s official smoking policy for indoor public or common areas, such as lobbies, rest rooms, and lunchrooms?”</p> <p><b>Indoor work areas</b> Answered “Not allowed in any work areas” to the question “Which of the following best describes your place of work’s official smoking policy for work areas?” after having answered “yes” to the question “While working at your job, are you indoors most of the time?”</p> <p><b>Indoors anywhere at work</b> Answered “Not allowed” to both of the smoking policy questions above.</p>
<b>Prevalence</b>	<p><b>Indoor public and common areas</b> WV: <b>91.2%</b> (95% CI: 89.4-93.0) in 2006.</p> <p><b>Indoor work areas</b> WV: <b>91.8%</b> (95% CI: 90.1-93.6) in 2006.</p> <p><b>Indoors anywhere at work</b> WV: <b>89.6%</b> (95% CI: 87.6-91.5) in 2006.</p>
<b>Trends</b>	<p>There were significant increases in the frequency of indoor worksite no-smoking policies between 2004 and 2006. Almost 90% of employed adults reported that smoking was prohibited in either work areas, public areas, or both within their indoor work facilities in 2006.</p>
<b>Gender</b>	<p>Men reported a significantly lower frequency of no-smoking policies for indoor public/common areas than women in 2006. In the work areas, however, there were only minor differences by gender in the prevalence of policies forbidding smoking.</p>
<b>Age</b>	<p>No significant differences by age were found in workplace smoking policies.</p>
<b>Education</b>	<p>The highest rates of no-smoking policies were found in the workplaces of persons with four or more years of college education. At 96.2%, the prevalence for this group significantly surpassed the prevalence for any of the other groups with lower education levels.</p>
<b>Household Income</b>	<p>There were no significant variations in the prevalence of no-smoking policies among clusters of adults from any household income level.</p>

\*\* Among respondents who are either employed or self-employed AND who work indoors at their jobs most of the time.

**Table 6.3 Workplace smoking policies by separate designated areas by demographic characteristics: WVBRFSS, 2006\*\***

Characteristic	Smoking is not allowed in any indoor public or common areas at place of work (such as lobbies, restrooms, and lunchrooms)			Smoking not allowed in any indoor work areas at place of work.		
	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,378	<b>91.2</b>	89.4-93.0	1,377	<b>91.8</b>	90.1-93.6
Males	472	<b>88.5</b>	85.1-91.9	472	<b>88.2</b>	84.8-91.6
Females	906	<b>93.3</b>	91.4-95.2	905	<b>94.6</b>	92.9-96.4
<b>Age</b>						
18-24	52	<b>95.7</b>	90.8-100	52	<b>96.1</b>	91.6-100
25-34	218	<b>88.5</b>	83.2-93.8	218	<b>91.2</b>	86.3-96.1
35-44	349	<b>90.1</b>	86.2-94.0	348	<b>89.5</b>	85.5-93.4
45-54	420	<b>91.5</b>	88.5-94.5	420	<b>91.8</b>	88.7-94.9
55-64	276	<b>93.1</b>	89.9-96.2	276	<b>93.9</b>	90.9-96.9
65+	55	<b>91.2</b>	83.2-99.2	55	<b>91.2</b>	83.2-99.2
<b>Education</b>						
Less than H.S.	61	* <b>77.0</b>	64.3-89.7	61	* <b>79.3</b>	67.1-91.4
H.S. or G.E.D.	441	<b>87.0</b>	83.1-90.8	441	<b>88.5</b>	84.9-92.2
Some Post-H.S.	347	<b>91.0</b>	87.4-94.7	347	<b>90.4</b>	86.6-94.2
College Graduate	528	<b>97.0</b>	95.4-98.5	527	<b>97.5</b>	95.8-99.1
<b>Income</b>						
Less than \$15,000	63	* <b>80.8</b>	69.9-91.7	63	* <b>81.9</b>	71.2-92.7
\$15,000- 24,999	190	<b>86.1</b>	79.9-92.3	190	<b>87.2</b>	81.2-93.2
\$25,000- 34,999	162	<b>92.7</b>	88.6-96.8	162	<b>92.5</b>	88.6-96.5
\$35,000-49,999	239	<b>88.7</b>	83.8-93.7	239	<b>92.6</b>	88.4-96.7
\$50,000-74,000	289	<b>92.7</b>	88.7-96.7	289	<b>92.5</b>	88.4-96.6
\$75,000+	343	<b>93.8</b>	90.9-96.8	342	<b>94.6</b>	91.8-97.4

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

\*\*Among respondents who are either employed or self-employed AND who work indoors at their jobs most of the time.

**Table 6.4 No workplace smoking permitted by demographic characteristics: WVBRFSS, 2006\*\***

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	472	<b>85.9</b>	82.3-89.5	905	<b>92.4</b>	90.4-94.4	1,377	<b>89.6</b>	87.6-91.5
<b>Age</b>									
18-24	22	* <b>97.6</b>	92.9-100	30	* <b>92.0</b>	82.9-100	52	<b>94.5</b>	89.1-99.9
25-34	67	* <b>82.6</b>	72.3-92.9	151	<b>92.6</b>	88.1-97.1	218	<b>88.1</b>	82.8-93.5
35-44	119	<b>82.8</b>	75.3-90.3	229	<b>92.6</b>	88.6-96.7	348	<b>88.2</b>	84.1-92.2
45-54	153	<b>85.6</b>	79.1-92.1	267	<b>90.8</b>	86.9-94.7	420	<b>88.6</b>	85.0-92.1
55-64	93	<b>86.0</b>	78.8-93.1	183	<b>95.8</b>	92.9-98.8	276	<b>92.0</b>	88.7-95.4
65+	15	* <b>96.5</b>	89.7-100	40	* <b>87.8</b>	75.9-99.7	55	<b>91.2</b>	83.2-99.2
<b>Education</b>									
Less than H.S.	30	* <b>62.6</b>	42.5-82.8	31	* <b>92.4</b>	84.6-100	61	* <b>75.0</b>	62.0-88.0
H.S. or G.E.D.	146	<b>80.2</b>	72.9-87.4	295	<b>88.1</b>	83.6-92.7	441	<b>84.6</b>	80.5-88.7
Some Post-H.S.	89	<b>85.1</b>	76.5-93.6	258	<b>91.4</b>	87.6-95.2	347	<b>89.2</b>	85.3-93.1
College Graduate	206	<b>94.8</b>	91.4-98.2	321	<b>97.3</b>	95.4-99.3	527	<b>96.2</b>	94.3-98.1
<b>Income</b>									
Less than \$15,000	8	* <b>71.8</b>	41.5-100	55	* <b>83.2</b>	71.5-94.8	63	* <b>80.8</b>	69.9-91.7
\$15,000- 24,999	42	* <b>74.6</b>	59.6-89.5	148	<b>89.6</b>	83.8-95.4	190	<b>84.7</b>	78.4-91.1
\$25,000- 34,999	51	<b>85.6</b>	76.2-95.0	111	<b>93.4</b>	88.9-98.0	162	<b>90.0</b>	85.3-94.8
\$35,000- 49,999	80	* <b>80.5</b>	70.5-90.5	159	<b>93.7</b>	89.1-98.2	239	<b>88.2</b>	83.2-93.2
\$50,000- 74,999	106	<b>89.2</b>	81.4-97.0	183	<b>91.7</b>	87.0-96.4	289	<b>90.6</b>	86.3-95.0
\$75,000+	149	<b>91.2</b>	86.3-96.0	193	<b>94.5</b>	90.4-98.6	342	<b>92.8</b>	89.6-96.0

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

\*\*Among respondents who are either employed or self-employed AND who work indoors at their jobs most of the time.

## No Smoking Allowed in the Home in 2006

- Definition** Stated that smoking was not allowed anywhere inside the home.
- Prevalence** WV: **65.3%** (95% CI: 63.4-67.2) in 2006.
- Gender** **Men:** 64.3% (95% CI: 61.3-67.2) in 2006.  
**Women:** 66.3% (95% CI: 63.9-68.7) in 2006.  
 There were no significant differences in this risk factor between men and women.
- Age** A significantly higher prevalence of not allowing smoking in the home was found among those 25-34 years old than among adults grouped into several older age categories.
- Education** No-smoking policies were most common in the homes of persons with four or more years of college education. At 82.9%, the prevalence for this group significantly surpassed the prevalence for any of the other lower education level groups.
- Household Income** Rules forbidding smoking in the home increased with increasing incomes. Adults with household incomes in the \$50,000 and above categories forbid smoking in their homes significantly more often than adults living in households with incomes below \$35,000.

**Table 6.4 No smoking allowed in the home by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,474	<b>64.3</b>	61.3-67.2	2,271	<b>66.3</b>	63.9-68.7	3,745	<b>65.3</b>	63.4-67.2
<b>Age</b>									
18-24	66	<b>*67.9</b>	55.0-80.8	78	<b>*62.5</b>	50.1-75.0	144	<b>65.3</b>	56.3-74.2
25-34	146	<b>75.3</b>	67.9-82.8	261	<b>72.3</b>	66.5-78.1	407	<b>73.8</b>	69.1-78.5
35-44	230	<b>64.1</b>	57.4-70.8	366	<b>65.8</b>	60.3-71.3	596	<b>65.0</b>	60.6-69.3
45-54	325	<b>57.7</b>	51.8-63.5	425	<b>65.0</b>	60.1-69.9	750	<b>61.4</b>	57.6-65.2
55-64	367	<b>60.1</b>	54.6-65.6	463	<b>63.6</b>	58.8-68.3	830	<b>61.8</b>	58.2-65.5
65+	336	<b>63.4</b>	57.9-68.9	667	<b>67.8</b>	63.9-71.8	1,003	<b>66.0</b>	62.7-69.2
<b>Education</b>									
Less than H.S.	251	<b>48.1</b>	40.7-55.6	358	<b>52.2</b>	46.2-58.2	609	<b>50.1</b>	45.3-54.9
H.S. or G.E.D.	586	<b>58.9</b>	54.0-63.8	888	<b>62.6</b>	58.7-66.6	1,474	<b>60.8</b>	57.6-63.9
Some Post-H.S.	280	<b>68.5</b>	62.1-74.9	536	<b>65.7</b>	60.3-71.0	816	<b>66.9</b>	62.7-71.0
College Graduate	353	<b>82.1</b>	78.0-86.3	486	<b>83.7</b>	80.2-87.2	839	<b>82.9</b>	80.2-85.6
<b>Income</b>									
Less than \$15,000	166	<b>49.1</b>	39.8-58.4	412	<b>55.3</b>	49.3-61.2	578	<b>53.1</b>	48.1-58.2
\$15,000- 24,999	264	<b>57.0</b>	49.9-64.0	457	<b>60.3</b>	54.6-65.9	721	<b>58.8</b>	54.4-63.3
\$25,000- 34,999	213	<b>65.2</b>	58.2-72.3	277	<b>62.1</b>	55.8-68.5	490	<b>63.8</b>	59.0-68.6
\$35,000- 49,999	234	<b>61.5</b>	54.1-68.9	286	<b>71.1</b>	65.2-77.0	520	<b>66.0</b>	61.2-70.9
\$50,000- 74,999	222	<b>72.9</b>	66.4-79.4	271	<b>74.5</b>	68.3-80.6	493	<b>73.7</b>	69.2-78.2
\$75,000+	246	<b>81.6</b>	76.7-86.5	259	<b>85.6</b>	81.0-90.1	505	<b>83.3</b>	79.9-86.7

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

## CHAPTER 7: ASTHMA

### Lifetime and Current Asthma among Adults in 2006

**Definitions**                      **Lifetime Asthma:** Responding “Yes” to the following question: “Have you ever been told by a doctor, nurse, or other health professional that you had asthma?”

**Current Asthma:** Responding “Yes” to the lifetime asthma question and “Yes” to the following question: “Do you still have asthma?”

#### Prevalence

##### *Lifetime Asthma*

**WV:** 11.9% (95% CI: 10.5-13.2) in 2006.

**US:** 12.7% (95% CI: 12.5-13.0) in 2006.

West Virginia ranked 39<sup>th</sup> among 50 US States and DC in 2006.

##### *Current Asthma*

**WV:** 8.6% (95% CI: 7.4-9.7) in 2006.

**US:** 8.2% (95% CI: 8.0-8.4) in 2006.

West Virginia ranked 22<sup>nd</sup> among 50 US States and DC in 2006.

#### Time Trends

Between 2000 and 2006 the prevalence of lifetime asthma and the prevalence of current asthma increased only slightly among West Virginia adults.

#### Gender

##### *Lifetime Asthma*

**Men:** 9.5% (95% CI: 7.6-11.4) in 2006.

**Women:** 14.1% (95% CI: 12.2-16.0) in 2006.

Women had a significantly higher prevalence of lifetime asthma than men in 2006.

##### *Current Asthma*

**Men:** 5.3% (95% CI: 3.9-6.6) in 2006.

**Women:** 11.7% (95% CI: 9.9-13.5) in 2006.

In 2006, women were significantly more likely than men to have current asthma.

#### *Current Asthma*

##### **Age**

The current asthma prevalence did not differ significantly by age.

#### *Current Asthma*

##### **Education**

The prevalence of current asthma was significantly higher among adults without a high school diploma.

#### *Current Asthma*

##### **Household Income**

Current asthma was significantly more prevalent among adults with a household income of less than \$15,000. In fact, the poorest adults were about four times more likely to have asthma than the wealthiest adults.

### WV HEALTHY PEOPLE 2010 OBJECTIVES

#### **Objective 24.5**

Reduce the prevalence of current asthma among adults aged 18 years and older to 7.7% or lower. (Revised 2003) (Baseline: 8.5% in 2000; Current: 8.6% in 2006)

**Table 7.1 Lifetime asthma by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,491	<b>9.5</b>	7.6-11.4	2,287	<b>14.1</b>	12.2-16.0	3,778	<b>11.9</b>	10.5-13.2
<b>Age</b>									
18-24	67	<b>17.2</b>	7.4-27.1	78	<b>*17.6</b>	6.9-28.3	145	<b>17.4</b>	10.1-24.7
25-34	150	<b>* 7.3</b>	2.9-11.7	264	<b>11.3</b>	7.2-15.4	414	<b>9.3</b>	6.3-12.3
35-44	232	<b>6.4</b>	3.2-9.6	366	<b>14.0</b>	10.0-18.0	598	<b>10.2</b>	7.6-12.8
45-54	331	<b>8.9</b>	5.7-12.1	428	<b>15.5</b>	11.8-19.2	759	<b>12.2</b>	9.7-14.7
55-64	369	<b>10.2</b>	6.6-13.7	464	<b>14.2</b>	10.7-17.6	833	<b>12.2</b>	9.7-14.7
65+	338	<b>9.2</b>	6.0-12.4	674	<b>13.0</b>	10.3-15.8	1,012	<b>11.4</b>	9.3-13.5
<b>Education</b>									
Less than H.S.	256	<b>13.5</b>	9.2-17.9	358	<b>23.2</b>	18.3-28.0	614	<b>18.2</b>	14.9-21.5
H.S. or G.E.D.	594	<b>11.8</b>	8.4-15.2	895	<b>12.7</b>	10.3-15.1	1,489	<b>12.3</b>	10.2-14.4
Some Post-H.S.	281	<b>* 6.5</b>	1.9-11.0	540	<b>16.2</b>	10.9-21.4	821	<b>12.0</b>	8.4-15.7
College Graduate	356	<b>5.4</b>	2.9-7.8	491	<b>8.0</b>	5.5-10.5	847	<b>6.7</b>	4.9-8.4
<b>Income</b>									
Less than \$15,000	168	<b>16.4</b>	10.6-22.2	412	<b>19.5</b>	14.8-24.2	580	<b>18.4</b>	14.7-22.1
\$15,000- 24,999	267	<b>13.9</b>	8.3-19.6	462	<b>17.8</b>	13.3-22.2	729	<b>16.1</b>	12.5-19.6
\$25,000- 34,999	214	<b>* 9.6</b>	3.8-15.5	278	<b>10.0</b>	6.4-13.7	492	<b>9.8</b>	6.3-13.4
\$35,000- 49,999	237	<b>* 8.8</b>	3.3-14.4	285	<b>10.6</b>	5.9-15.2	522	<b>9.6</b>	6.0-13.3
\$50,000- 74,999	225	<b>6.6</b>	2.9-10.4	272	<b>12.7</b>	8.0-17.5	497	<b>9.6</b>	6.6-12.6
\$75,000+	247	<b>6.0</b>	2.7-9.3	261	<b>5.4</b>	2.6-8.1	508	<b>5.7</b>	3.5-7.9

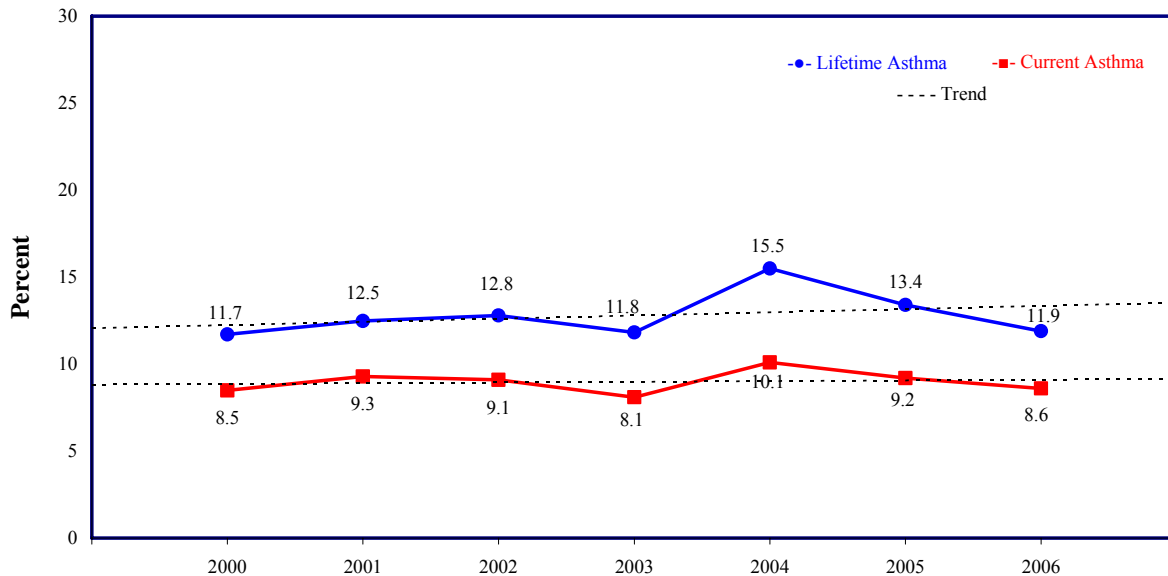
\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

**Table 7.2 Current asthma by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,488	<b>5.3</b>	3.9-6.6	2,281	<b>11.7</b>	9.9-13.5	3,769	<b>8.6</b>	7.4-9.7
<b>Age</b>									
18-24	67	<b>* 4.9</b>	0.0-11.0	78	<b>*17.0</b>	6.3-27.7	145	<b>10.7</b>	4.5-17.0
25-34	150	<b>* 4.4</b>	1.2-7.6	264	<b>8.0</b>	4.5-11.6	414	<b>6.2</b>	3.8-8.6
35-44	232	<b>* 3.2</b>	1.0-5.5	364	<b>12.2</b>	8.3-16.0	596	<b>7.7</b>	5.4-10.0
45-54	330	<b>6.0</b>	3.3-8.7	428	<b>12.0</b>	8.7-15.2	758	<b>9.0</b>	6.9-11.1
55-64	367	<b>5.6</b>	2.8-8.4	462	<b>11.5</b>	8.4-14.6	829	<b>8.6</b>	6.5-10.7
65+	338	<b>7.5</b>	4.5-10.4	672	<b>10.8</b>	8.2-13.4	1,010	<b>9.4</b>	7.5-11.3
<b>Education</b>									
Less than H.S.	255	<b>10.0</b>	6.2-13.8	357	<b>20.8</b>	16.2-25.5	612	<b>15.3</b>	12.2-18.3
H.S. or G.E.D.	593	<b>5.7</b>	3.6-7.7	891	<b>10.0</b>	7.8-12.1	1,484	<b>7.8</b>	6.3-9.3
Some Post-H.S.	280	<b>3.3</b>	0.0-7.0	540	<b>13.9</b>	8.7-19.0	820	<b>9.3</b>	5.9-12.8
College Graduate	356	<b>* 3.1</b>	1.2-5.0	490	<b>5.9</b>	3.7-8.1	846	<b>4.5</b>	3.0-6.0
<b>Income</b>									
Less than \$15,000	167	<b>12.7</b>	7.3-18.0	410	<b>17.7</b>	13.1-22.3	577	<b>15.9</b>	12.4-19.5
\$15,000- 24,999	267	<b>9.0</b>	4.9-13.0	461	<b>14.7</b>	10.4-18.9	728	<b>12.1</b>	9.2-15.1
\$25,000- 34,999	214	<b>* 3.2</b>	0.7-5.6	277	<b>7.2</b>	4.1-10.4	491	<b>5.1</b>	3.1-7.1
\$35,000- 49,999	237	<b>* 5.0</b>	0.2-9.8	285	<b>8.3</b>	3.9-12.6	522	<b>6.5</b>	3.3-9.8
\$50,000- 74,999	224	<b>* 1.7</b>	0.1-3.3	271	<b>8.5</b>	4.4-12.5	495	<b>5.0</b>	2.8-7.1
\$75,000+	247	<b>3.2</b>	1.1-5.3	261	<b>4.4</b>	1.9-6.9	508	<b>3.7</b>	2.1-5.3

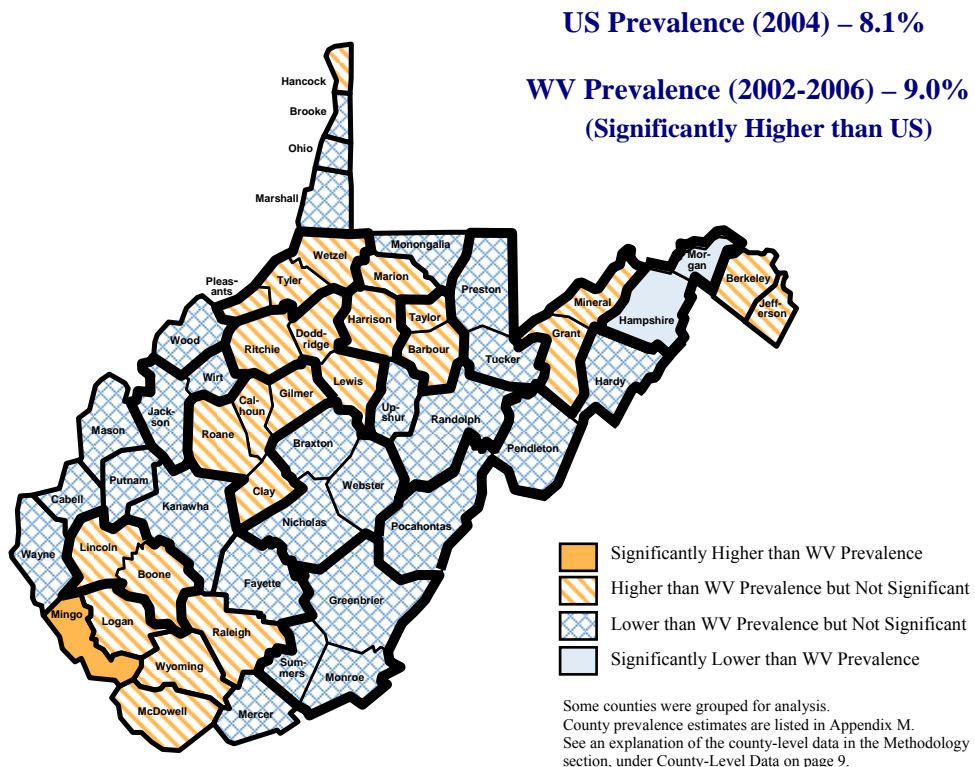
\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

**Figure 7.1 Lifetime and current asthma by year: WVBRFSS, 2000-2006**



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition of Lifetime Asthma: Responding “Yes” to the following question: “Have you ever been told by a doctor, nurse, or other health professional that you had asthma?”  
 Definition of Current Asthma: Responding “Yes” to the lifetime asthma question and “Yes” to the following question: “Do you still have asthma?”

**Figure 7.2 Current asthma by county: WVBRFSS, 2002-2006**



## CHAPTER 8: ALCOHOL CONSUMPTION

### Binge Drinking in 2006 \*

<b>Definition</b>	Consumption of five or more alcoholic drinks for males, or four or more alcoholic drinks for females, on a single occasion during the past one month.
<b>Prevalence</b>	<b>WV: 11.1%</b> (95% CI: 9.7-12.6) in 2006. <b>US: 15.0%</b> (95% CI: 14.7-15.3) in 2006. West Virginia ranked 46 <sup>th</sup> highest among 50 US States and DC in 2006.
<b>Time Trends</b>	A change in the definition of binge drinking for the latest year of data, 2006, has prevented preparation of a time trend analysis for this report. In 2005 and before, binge drinking was defined as the consumption of five or more alcoholic drinks on one occasion in the past month, regardless of gender. In 2006, the definition criteria changed to only four drinks on one occasion for women, and five drinks on one occasion for men.
<b>Gender</b>	<b>Men:</b> 16.0% (95% CI: 13.6-18.4) in 2006. <b>Women:</b> 6.7% (95% CI: 5.1-8.2) in 2006. Men had a significantly higher prevalence of binge drinking than women in 2006.
<b>Age</b>	Younger adults had higher rates of binge drinking than those aged 55 and older. The prevalence ranged from a high of 24% among the 18-24 age group, to lows of only 2%-5% among those in the 55 and older age groups.
<b>Education</b>	There was no significant relationship between binge drinking and educational attainment.
<b>Household Income</b>	There was no consistent relationship between binge drinking and household income levels. The wealthiest income group (\$75,000 and above annually) had the highest 2006 prevalence at 14.7%, however, and this was significantly higher than the prevalence of binge drinking among those in the lowest income group (less than \$15,000 annually in household income).

#### WV HEALTHY PEOPLE 2010 OBJECTIVES

<b>Objective 26.10</b>	Reduce the rate of binge drinking reported among adults 18 and older (binge drinking defined as five or more drinks on any one occasion in the past month) by 20%. (Baseline: 8.4% in 1997; 2006 data is not comparable, because it was collected using a different definition.)
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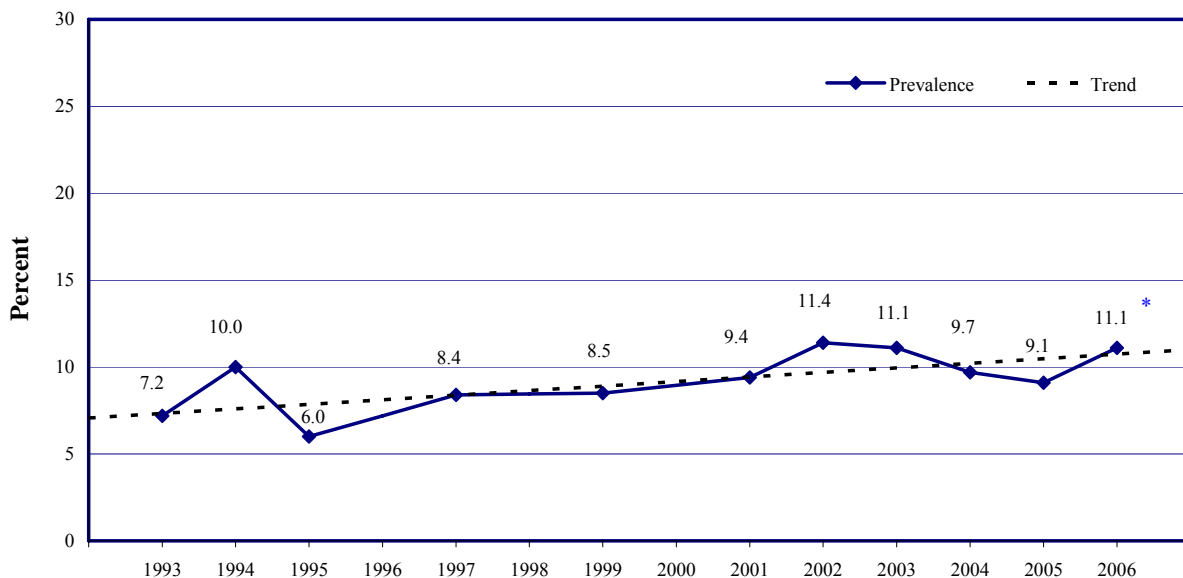
\* Note: The definition of binge drinking changed in 2006 to males having five or more drinks on one occasion in the past month, and females having four or more drinks on one occasion in the past month. The previous definition was consumption of five or more drinks on at least one occasion in the past month, without regard to gender.

**Table 8.1 Binge drinking by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,455	<b>16.0</b>	13.6-18.4	2,280	<b>6.7</b>	5.1-8.2	3,735	<b>11.1</b>	9.7-12.6
<b>Age</b>									
18-24	66	<b>*28.7</b>	17.5-40.0	77	<b>*19.2</b>	9.1-29.4	143	<b>24.1</b>	16.5-31.7
25-34	149	<b>22.5</b>	15.2-29.8	262	<b>9.9</b>	6.2-13.6	411	<b>16.3</b>	12.1-20.5
35-44	226	<b>21.8</b>	16.1-27.6	365	<b>7.8</b>	4.8-10.8	591	<b>14.7</b>	11.4-17.9
45-54	319	<b>15.8</b>	11.4-20.1	427	<b>5.7</b>	3.4-8.1	746	<b>10.7</b>	8.2-13.1
55-64	360	<b>6.6</b>	4.0-9.2	465	<b>* 2.9</b>	1.2-4.6	825	<b>4.7</b>	3.1-6.2
65+	331	<b>3.5</b>	1.6-5.5	671	<b>* 0.9</b>	0.2-1.5	1,002	<b>2.0</b>	1.1-2.9
<b>Education</b>									
Less than H.S.	251	<b>12.2</b>	6.3-18.0	359	<b>* 4.6</b>	1.8-7.5	610	<b>8.5</b>	5.1-11.8
H.S. or G.E.D.	574	<b>16.5</b>	12.6-20.4	893	<b>5.3</b>	3.4-7.3	1,467	<b>10.8</b>	8.6-13.0
Some Post-H.S.	278	<b>16.9</b>	11.4-22.5	538	<b>9.6</b>	5.3-14.0	816	<b>12.8</b>	9.3-16.2
College Graduate	348	<b>17.2</b>	12.5-21.8	487	<b>7.0</b>	4.2-9.7	835	<b>12.0</b>	9.3-14.7
<b>Income</b>									
Less than \$15,000	166	<b>* 9.8</b>	3.4-16.2	409	<b>4.5</b>	2.0-7.0	575	<b>6.4</b>	3.6-9.2
\$15,000- 24,999	258	<b>10.1</b>	5.5-14.8	458	<b>4.3</b>	2.1-6.5	716	<b>6.8</b>	4.4-9.3
\$25,000- 34,999	207	<b>20.1</b>	12.6-27.5	280	<b>7.3</b>	3.8-10.8	487	<b>13.9</b>	9.6-18.3
\$35,000- 49,999	230	<b>17.3</b>	11.5-23.2	287	<b>11.0</b>	5.1-17.0	517	<b>14.3</b>	10.2-18.5
\$50,000- 74,999	224	<b>19.2</b>	12.8-25.7	271	<b>* 7.1</b>	2.1-12.1	495	<b>13.4</b>	9.2-17.5
\$75,000+	244	<b>17.6</b>	12.2-23.0	261	<b>11.0</b>	5.8-16.2	505	<b>14.7</b>	10.9-18.4

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion about estimates in the Methodology section.  
 Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, February 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition for males (change as of 2006): consumption of five or more alcoholic drinks on one or more occasions during the past one month.  
 Definition for females (change as of 2006): consumption of four or more alcoholic drinks on one or more occasions during the past one month.

**Figure 8.1 Binge drinking by year: WVBRFSS, 1993-2006 \***



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, February 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.

\* **Definition Change in 2006:** Males having five or more drinks on one occasion, and females having four or more drinks on one occasion in the past one month. Definition in earlier years: Consumption of five or more alcoholic drinks on one or more occasions in the past one month.

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



## Heavy Drinking in 2006 \*\*

<b>Definition</b>	Consumption of more than two drinks per day for men and more than one drink per day for women during the past one month.
<b>Prevalence</b>	<b>WV: 3.2%</b> (95% CI: 2.4-4.0) in 2006. <b>US: 5.0%</b> (95% CI: 4.8-5.1) in 2006. West Virginia ranked 49 <sup>th</sup> highest among 50 US States and DC in 2006.
<b>Time Trends</b>	From 1993 through 2006, the prevalence of heavy drinking among West Virginia adults has ranged from a low of 1.8% in 1995 to a high of 4.5% in 2002.
<b>Gender</b>	<b>Men:</b> 4.8% (95% CI: 3.3-6.2) in 2006. <b>Women:</b> 1.7% (95% 1.0-2.4) in 2006. Men had higher risks than women in 2006, and this difference was significant.
<b>Age</b>	Heavy drinking was most prevalent among the youngest adults, and least prevalent among the oldest.
<b>Education</b>	There was no significant relationship between heavy drinking and educational attainment.
<b>Household Income</b>	No association was found between heavy drinking and household income.

### WV HEALTHY PEOPLE 2010 OBJECTIVES

<b>Objective 26.9</b>	Reduce the rate of heavy drinking reported among adults 18 and older by 20%. (Baseline: 2.2% in 1997 using a new definition; Current: 3.2% in 2006)
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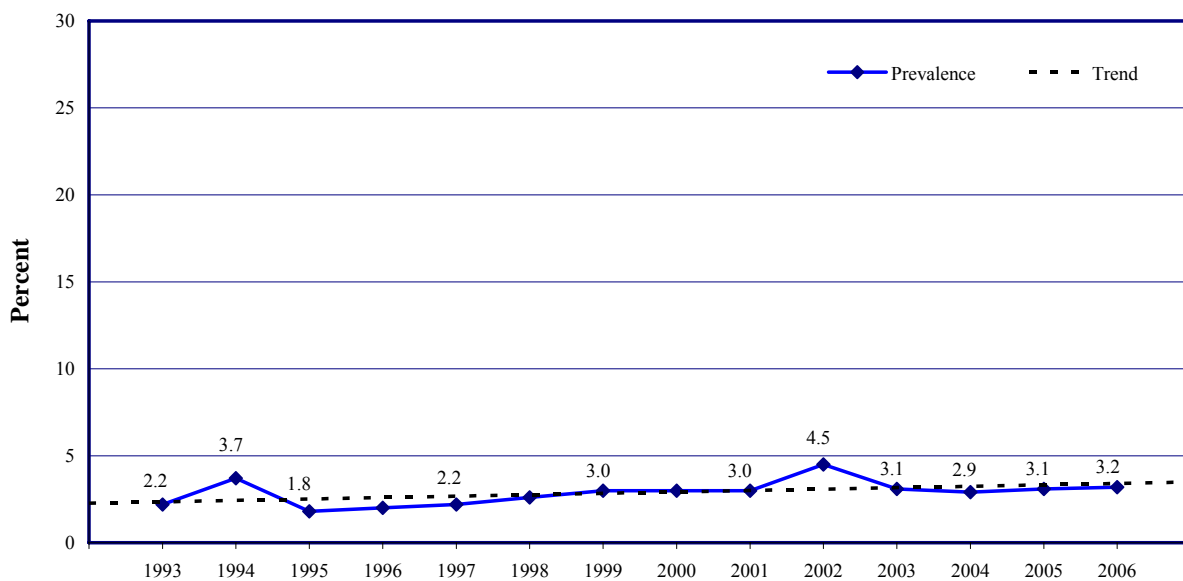
\*\* Note: Prior to 2001, heavy drinking was defined as consuming 60 or more drinks during the past month regardless of gender. This report redefines the data prior to 2001 to match the current definition of heavy drinking. Therefore, numbers presented in this chapter may not agree with data published prior to 2003.

**Table 8.2 Heavier drinking by demographic characteristics: WVBRFSS, 2006**

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	1,454	<b>4.8</b>	3.3-6.2	2,276	<b>1.7</b>	1.0-2.4	3,730	<b>3.2</b>	2.4-4.0
<b>Age</b>									
18-24	65	<b>*11.6</b>	3.8-19.4	76	<b>*2.9</b>	0.0-7.1	141	<b>*7.4</b>	2.9-11.9
25-34	149	<b>*5.5</b>	1.7-9.4	260	<b>*1.4</b>	0.1-2.6	409	<b>*3.5</b>	1.4-5.5
35-44	226	<b>6.2</b>	2.8-9.6	365	<b>*3.4</b>	1.1-5.8	591	<b>4.8</b>	2.8-6.9
45-54	316	<b>*3.4</b>	1.3-5.6	426	<b>*1.7</b>	0.5-2.9	742	<b>2.6</b>	1.3-3.8
55-64	361	<b>*2.2</b>	0.5-3.8	465	<b>*0.9</b>	0.1-1.8	826	<b>*1.5</b>	0.6-2.4
65+	333	<b>*1.5</b>	0.4-2.7	671	<b>*0.5</b>	0.0-1.0	1,004	<b>*0.9</b>	0.4-1.5
<b>Education</b>									
Less than H.S.	250	<b>*4.8</b>	1.3-8.4	359	<b>*0.9</b>	0.0-2.0	609	<b>*2.9</b>	1.0-4.8
H.S. or G.E.D.	573	<b>5.5</b>	2.9-8.1	890	<b>*1.5</b>	0.5-2.5	1,463	<b>3.5</b>	2.1-4.8
Some Post-H.S.	279	<b>*4.8</b>	1.8-7.7	538	<b>*2.3</b>	0.3-4.2	817	<b>3.3</b>	1.6-5.0
College Graduate	348	<b>*3.5</b>	1.3-5.8	486	<b>*1.9</b>	0.7-3.0	834	<b>2.7</b>	1.4-3.9
<b>Income</b>									
Less than \$15,000	165	<b>*4.6</b>	0.0-9.8	408	<b>*0.5</b>	0.0-1.1	573	<b>*2.0</b>	0.1-3.8
\$15,000- 24,999	261	<b>*2.1</b>	0.6-3.7	458	<b>*1.6</b>	0.3-2.9	719	<b>1.9</b>	0.9-2.9
\$25,000- 34,999	208	<b>*6.2</b>	2.2-10.3	279	<b>*1.7</b>	0.1-3.2	487	<b>4.1</b>	1.8-6.3
\$35,000- 49,999	231	<b>7.4</b>	3.4-11.3	286	<b>*2.7</b>	0.0-5.7	517	<b>5.1</b>	2.6-7.7
\$50,000- 74,999	223	<b>*3.8</b>	0.6-7.0	271	<b>*1.8</b>	0.2-3.3	494	<b>*2.8</b>	1.0-4.6
\$75,000+	241	<b>*3.0</b>	0.6-5.4	261	<b>*3.3</b>	0.3-6.3	502	<b>*3.1</b>	1.2-5.0

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion about estimates in the Methodology section.  
 Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, February 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition: Consumption of more than two drinks per day for men and more than one drink per day for women during the past one month.

**Figure 8.2 Heavier drinking by year: WVBRFSS, 1993-2006**



Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, February 2008.  
 Population: Non-institutionalized adults age 18 and older residing in West Virginia.  
 Definition: Consumption of more than two drinks per day for men and more than one drink per day for women during the past one month.  
 Notes: Data are not available for the years 1996, 1998, and 2000. This graph maintains a 30 percentage point Y axis range to facilitate comparability among a group of graphs presented together.

## CHAPTER 9: CARDIOVASCULAR DISEASE

### Heart Attack, Angina, and Stroke in 2006

#### Definition

In 2006, responding “Yes” to the following: “Has a doctor, nurse, or other health professional ever told you that you had any of the following? For each, tell me ‘yes,’ ‘no,’ or you’re ‘not sure.’” The follow-up questions were “. . . 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?” (In 2004 and earlier years, the questions were similar but not identical.)

#### Prevalence

##### Heart Attack

**WV:** 7.5% (95% CI: 6.8-8.3) in 2006.

**US:** 4.4% (95% CI: 4.3-4.6) in 2006.

West Virginia ranked 1<sup>st</sup> highest among 50 US States and DC in 2006.

##### Angina

**WV:** 8.3% (95% CI: 7.4-9.2) in 2006.

**US:** 4.6% (95% CI: 4.5-4.7) in 2006.

West Virginia ranked 1<sup>st</sup> highest among 50 US States and DC in 2006.

##### Stroke

**WV:** 4.2% (95% CI: 3.5-4.8) in 2006.

**US:** 2.7% (95% CI: 2.6-2.8) in 2006.

West Virginia ranked 2<sup>nd</sup> highest among 50 US States and DC in 2006.

#### Gender

##### *Heart attack differences by gender*

**Men:** 9.2% (95% CI: 7.8-10.6) in 2006.

**Women:** 5.9% (95% CI: 4.9-6.9) in 2006.

Men had a significantly higher incidence of heart attack than women.

##### *Angina differences by gender*

**Men:** 8.8% (95% CI: 7.4-10.2) in 2006.

**Women:** 7.9% (95% CI: 6.8-9.0) in 2006.

There were no significant differences in angina rates between men and women.

##### *Stroke differences by gender*

**Men:** 3.9% (95% CI: 2.9-4.8) in 2006.

**Women:** 4.5% (95% CI: 3.6-5.4) in 2006.

Women experienced stroke slightly more often than men.

#### Age, Education, & Household Income

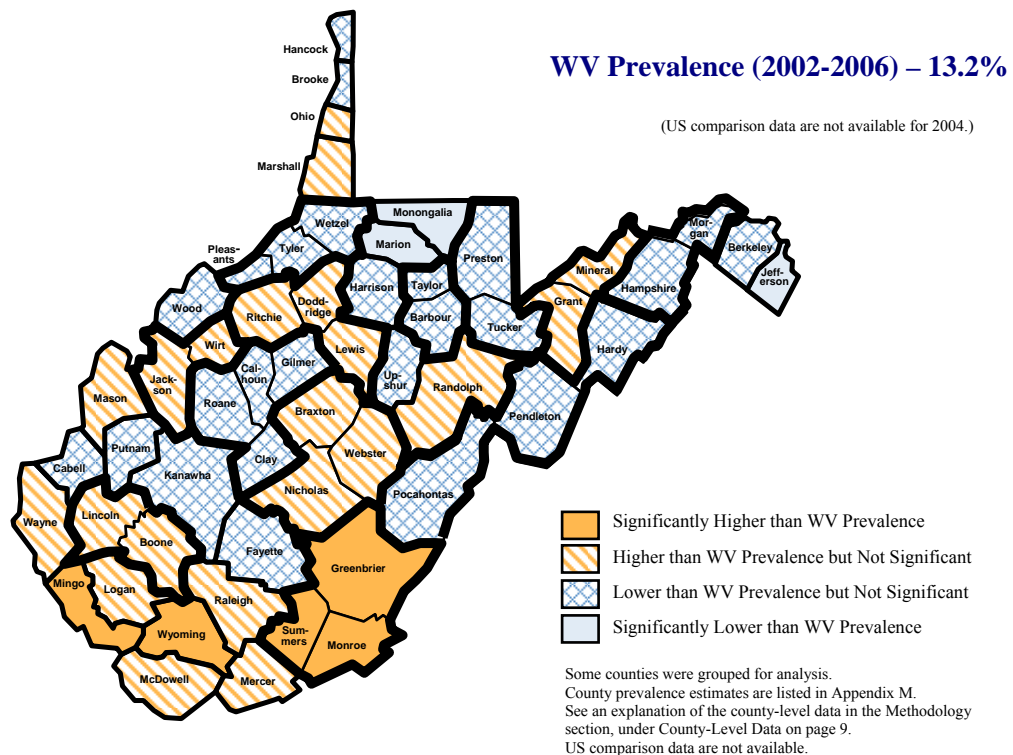
Those aged 65 and older experienced heart attack, angina, and stroke significantly more often than those in younger age groups. Adults with less than a high school education carried a significantly higher risk of heart attack, angina, and stroke than those with more education. Heart attack and angina or other coronary heart disease were significantly more common among those in the less than \$35,000 annually income groups than among those with household incomes of \$35,000 or more per year.

**Table 9.1 Heart attack, angina, or stroke by demographic characteristics: WVBRFSS, 2006**

Characteristic	Heart Attack or Myocardial Infarction			Angina or Coronary Heart Disease			Stroke		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>TOTAL</b>	3,782	<b>7.5</b>	6.6-8.3	3,768	<b>8.3</b>	7.4-9.2	3,784	<b>4.2</b>	3.5-4.8
<b>Sex</b>									
Males	1,489	<b>9.2</b>	7.8-10.6	1,485	<b>8.8</b>	7.4-10.2	1,491	<b>3.9</b>	2.9-4.8
Females	2,293	<b>5.9</b>	4.9-6.9	2,283	<b>7.9</b>	6.8-9.0	2,293	<b>4.5</b>	3.6-5.4
<b>Age</b>									
18-44	na	<b>na</b>	na	na	<b>na</b>	na	na	<b>na</b>	na
45-54	757	<b>5.6</b>	3.9-7.3	757	<b>6.3</b>	4.5-8.0	760	<b>3.1</b>	1.9-4.3
55-64	832	<b>12.3</b>	9.8-14.8	830	<b>15.0</b>	12.4-17.6	831	<b>5.2</b>	3.6-6.8
65+	1,016	<b>19.2</b>	16.5-21.9	1,006	<b>20.7</b>	17.9-23.5	1,016	<b>12.0</b>	9.7-14.3
<b>Education</b>									
Less than H.S.	615	<b>17.7</b>	14.6-20.7	607	<b>15.6</b>	12.7-18.5	616	<b>10.4</b>	7.9-12.9
H.S. or G.E.D.	1,488	<b>6.8</b>	5.5-8.2	1,485	<b>8.4</b>	7.0-9.8	1,490	<b>4.0</b>	3.0-5.1
Some Post-H.S.	822	<b>5.4</b>	3.9-6.9	821	<b>6.6</b>	4.9-8.2	821	<b>2.8</b>	1.7-3.9
College Graduate	850	<b>3.3</b>	2.0-4.6	848	<b>4.9</b>	3.4-6.4	850	<b>1.1</b>	0.5-1.8
<b>Income</b>									
Less than \$15,000	578	<b>13.8</b>	10.9-16.8	578	<b>15.6</b>	12.5-18.7	580	<b>10.3</b>	7.7-13.0
\$15,000- 24,999	727	<b>10.8</b>	8.5-13.2	724	<b>12.0</b>	9.5-14.5	728	<b>6.3</b>	4.5-8.1
\$25,000- 34,999	494	<b>9.2</b>	6.5-11.8	493	<b>10.6</b>	7.8-13.4	495	<b>3.9</b>	2.1-5.7
\$35,000- 49,999	524	<b>3.9</b>	2.2-5.7	524	<b>5.4</b>	3.4-7.4	524	<b>* 1.3</b>	0.4-2.3
\$50,000- 74,999	498	<b>2.7</b>	1.2-4.2	497	<b>5.1</b>	3.2-6.9	497	<b>* 1.9</b>	0.7-3.0
\$75,000+	509	<b>2.5</b>	1.3-3.8	509	<b>3.6</b>	2.1-5.2	509	<b>* 0.9</b>	0.2-1.7

\* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

**Figure 9.1 Adults diagnosed with heart attack, angina, or stroke by county: WVBRFSS, 2002-2006**



**Appendix A**  
**Behavioral Risk Factor Prevalences by Year**  
**West Virginia Behavioral Risk Factor Surveys**  
**1997-2006**

Behavioral Risk Factor	1997 (52 Partic.)		1998 (52 Partic.)		1999 (52 Partic.)		2000 (52 Partic.)		2001 (54 Partic.)		2002 (54 Partic.)		2003 (54 Partic.)		2004 (52 Partic.)		2005 (53 Partic.)		2006 (51 Participant States & DC)	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Hypertension <sup>a</sup>	28.3	3	--	--	31.0	3	--	--	32.5	1	33.1	1	33.6	1	--	--	31.4	2	--	--
Obesity <sup>b</sup>	20.6	4	23.9	1	24.6	1	23.2	5	25.1	2	27.6	1	27.7	3	27.6	3	30.6	3	31.0	2
Physical Inactivity	--	--	43.7	3	--	--	33.6	6	31.7	7	28.4	10	28.0	11	24.5	18	28.5	11	25.6	12
Current Smoking	27.4	5	27.9	3	27.1	6	26.1	6	28.2	4	28.4	4	27.3	3	26.9	2	26.7	4	25.7	2
Smokeless Tobacco <sup>c</sup>	8.7	1	8.4	1	8.6	1	8.8	1	8.2	1	8.4	2	7.7	1	8.1	2	--	--	--	--
Heavy Drinking <sup>d</sup>	2.2	48	--	--	3.0	46	--	--	3.0	52	4.5	45	3.1	49	2.9	50	3.1	49	--	--
Binge Drinking	8.4	49	--	--	8.5	50	--	--	9.4	52	11.4	49	11.1	49	9.7	48	9.1	51	11.1	46
Seatbelt Nonuse <sup>e</sup>	29.3	30	29.8	4	29.7	--	--	--	--	--	25.6	18	--	--	--	--	--	--	--	--

Source: Centers for Disease Control & Prevention - 1997-2006 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2008.

-- Prevalence / rank not available

<sup>a</sup> Hypertension: Asked in 13 states/territories in 2002.

<sup>b</sup> Obesity: Defined as a Body Mass Index of 30.0 or more (BMI=weight in kg/height in meters squared). For the year 1997, publications before 2003 defined obesity as at least 20% more than the ideal weight for height (as calculated from the 1959 Metropolitan Life Insurance height and weight tables).

<sup>c</sup> Smokeless Tobacco Use: Asked in 17 states/territories in 1997; 13-1998; 19-1999; 18-2000; 15-2001; 15-2002; 12-2003; 14-2004.

<sup>d</sup> Heavy Drinking: 51 states in 1997 and 1999. Defined as consumption of more than two drinks per day for men and more than one drink per day for women. For the years 1997 and 1999, publications before 2003 defined heavy drinking as consumption of 60 or more drinks during the past month regardless of gender.

<sup>e</sup> Seatbelt Nonuse: Defined as using a seatbelt almost always, sometimes, seldom, or never; 8 states/territories in 1998.

NOTE: Figures in Appendix A may not agree with 2002 and earlier year BRFSS reports of 1997 and 1998 data. Rates have been re-calculated to exclude unknown responses.









## Appendix E

### Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories<sup>a</sup> United States, 2000

State	Fair or Poor Health		No Health Insurance, Ages 18-64		Diabetes Awareness		Obesity (BMI 30+)		No Leisure Exercise		Less Than 5 Per Day Fruits/Veg		Current Smoking		Smokeless Tobacco Use		Have had Heart Attack		Have had Stroke	
	%	Rnk	%	Rnk	%	Rnk	%	Rnk	%	Rnk	%	Rnk	%	Rnk	%	Rnk	%	Rnk	%	Rnk
Alabama	19.3	6	19.4	13	7.4	4	23.9	2	31.6	9	77.3	23	25.2	10						
Alaska	10.2	50	19.1	14	3.8	52	21.0	23	20.0	48	76.3	34	25.0	12	5.7	5				
Arizona	14.8	21	20.7	9	5.9	33	19.2	33	34.2	5	63.1	52	18.6	49						
Arkansas	19.0	7	20.9	8	6.2	23	23.3	4	28.1	21	77.5	21	25.1	11						
California	16.7	11	21.3	7	6.8	11	19.9	29	26.5	29	73.3	41	17.2	50						
Colorado	12.7	37	15.8	22	5.1	44	14.2	52	19.8	49	76.6	30	20.0	43	4.1	8				
Connecticut	13.9	27	10.6	44	5.5	38	17.4	45	25.2	31	70.7	48	19.9	44						
Delaware	12.4	38	9.7	49	6.4	18	16.6	49	28.0	23	77.5	21	22.9	28			4.2	8	2.3	8
D.C.	12.2	41	12.8	32	7.2	5	21.5	16	20.8	46	68.1	50	20.9	39			3.0	14	2.7	3
Florida	15.3	17	21.6	6	6.9	10	18.7	37	28.8	17	76.7	27	23.2	25						
Georgia	15.2	19	16.5	19	6.8	11	21.5	16	29.0	16	77.7	19	23.5	21			3.7	12	2.2	10
Hawaii	12.4	38	8.3	51	5.2	42	15.7	51	23.2	40	77.6	20	19.7	47						
Idaho	13.1	31	20.4	10	4.9	46	18.9	35	19.8	49	78.9	13	22.3	29	3.3	13				
Illinois	13.0	34	12.8	32	6.2	23	21.7	14	30.9	11	76.8	29	22.3	29						
Indiana	14.1	26	12.3	36	6.0	29	21.8	12	25.4	30	80.0	7	26.9	4			5.2	5	2.5	5
Iowa	10.9	49	10.9	43	6.1	27	21.5	16	27.3	25	81.9	3	23.2	25	3.0	16	4.1	10	1.9	12
Kansas	12.4	38	12.9	30	5.9	33	20.8	24	30.4	12	76.6	30	21.0	37						
Kentucky	21.6	3	16.6	18	6.5	16	23.0	7	41.1	2	77.3	23	30.5	1			5.4	2	2.8	2
Louisiana	16.3	13	25.6	3	6.6	15	23.6	3	36.2	3	84.2	2	24.1	15	3.5	11				
Maine	14.7	23	16.3	20	6.0	29	20.0	27	27.2	26	75.5	36	23.8	18						
Maryland	12.8	35	11.1	40	6.4	18	20.2	26	24.2	38	72.6	43	20.5	42	1.4	18				
Massachusetts	13.5	29	9.9	48	5.8	35	16.8	48	24.6	35	70.0	49	19.9	44						
Michigan	13.7	28	10.1	46	7.0	9	22.4	9	22.9	43	76.9	26	24.1	15						
Minnesota	9.7	52	8.3	51	4.9	46	17.4	45	24.8	34	75.7	35	19.8	46						
Mississippi	20.2	4	22.7	5	7.6	2	25.0	1	33.3	7	81.4	5	23.5	21	7.3	3	5.3	4	2.6	4
Missouri	15.3	16	13.4	28	6.7	14	22.1	10	28.8	17	79.3	12	27.2	3						
Montana	11.3	46	18.0	16	4.9	46	15.9	50	23.3	39	77.2	25	18.8	48	6.3	4	3.4	13	2.3	8
Nebraska	11.3	46	11.1	40	4.9	46	21.1	22	29.6	14	79.4	10	21.2	36	3.9	10				
Nevada	15.8	14	16.0	21	6.8	11	17.9	43	24.9	32	78.7	14	29.0	2	2.6	17				
New Hampshire	10.1	51	10.3	45	4.4	50	18.1	41	26.7	27	73.8	40	25.3	9						
New Jersey	15.7	15	15.4	23	5.8	35	18.5	38	28.6	19	72.6	43	21.0	37						
New Mexico	17.1	9	27.7	1	6.5	16	19.3	32	24.4	36	79.5	9	23.6	20						
New York	14.7	23	15.3	24	6.3	22	17.7	44	29.4	15	72.5	45	21.6	33						
North Carolina	16.6	12	15.1	25	6.4	18	21.8	12	30.4	12	77.9	18	26.1	6	5.2	6				
North Dakota	11.5	44	14.2	26	5.2	42	20.4	25	24.3	37	76.8	27	23.2	25						
Ohio	13.3	30	12.3	36	6.4	18	21.5	16	31.3	10	78.6	15	26.2	5	3.4	12	5.4	2	2.5	5
Oklahoma	15.3	16	20.1	12	5.5	38	19.7	31	34.4	4	81.8	4	23.3	24	4.5	7	4.0	11	1.7	13
Oregon	16.9	10	18.1	15	6.0	29	21.5	16	20.1	47	73.2	42	20.7	40						
Pennsylvania	14.4	25	11.1	40	7.1	7	21.2	21	23.0	42	76.7	29	24.3	14			4.6	6	2.4	7
Puerto Rico	32.8	1	10.1	46	8.5	1	21.7	14	54.1	1	92.8	1	13.1	51						
Rhode Island	14.8	21	13.6	27	6.0	29	17.1	47	27.5	24	70.8	47	23.4	23						
South Carolina	15.0	20	16.9	17	7.1	7	22.0	11	28.1	21	75.4	37	24.9	13			4.5	7	1.7	13
South Dakota	12.1	42	12.7	35	5.7	37	19.8	30	26.7	27	80.1	6	21.9	31						
Tennessee	18.3	8	13.2	29	7.2	5	22.9	8	32.7	8	65.9	51	25.7	8						
Texas	20.2	4	26.9	2	6.2	23	23.1	6	28.5	20	76.6	30	21.9	31	4.1	8				
Utah	11.5	44	12.8	34	5.4	41	19.1	34	15.5	52	79.4	10	12.9	52						
Vermont	11.2	48	11.7	38	4.4	50	18.2	39	23.2	40	71.3	46	21.5	34						
Virginia	13.1	31	12.9	30	6.2	23	18.2	39	25.0	32	74.4	39	21.4	35	3.1	14	4.2	8	2.1	11
Washington	11.9	43	11.5	39	5.5	38	18.8	36	16.9	51	75.3	38	20.7	40	3.1	14				
West Virginia	25.4	2	23.5	4	7.6	2	23.2	5	33.6	6	78.6	15	26.1	6	8.8	1	7.6	1	3.1	1
Wisconsin	12.8	35	8.9	50	6.1	27	20.0	27	22.1	45	78.3	17	24.1	15						
Wyoming	13.1	31	20.2	11	5.0	45	18.0	42	22.6	44	79.6	8	23.8	18	7.5	2				
<b>US Total</b>	<b>15.5</b>		<b>16.3</b>		<b>6.4</b>		<b>20.4</b>		<b>27.8</b>		<b>75.8</b>		<b>22.2</b>		<b>N/A</b>		<b>N/A</b>		<b>N/A</b>	

Source: Centers for Disease Control & Prevention - 2000 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2005.

a. 52 states/territories conducted the survey. States/territories with the same prevalence share the same rank.









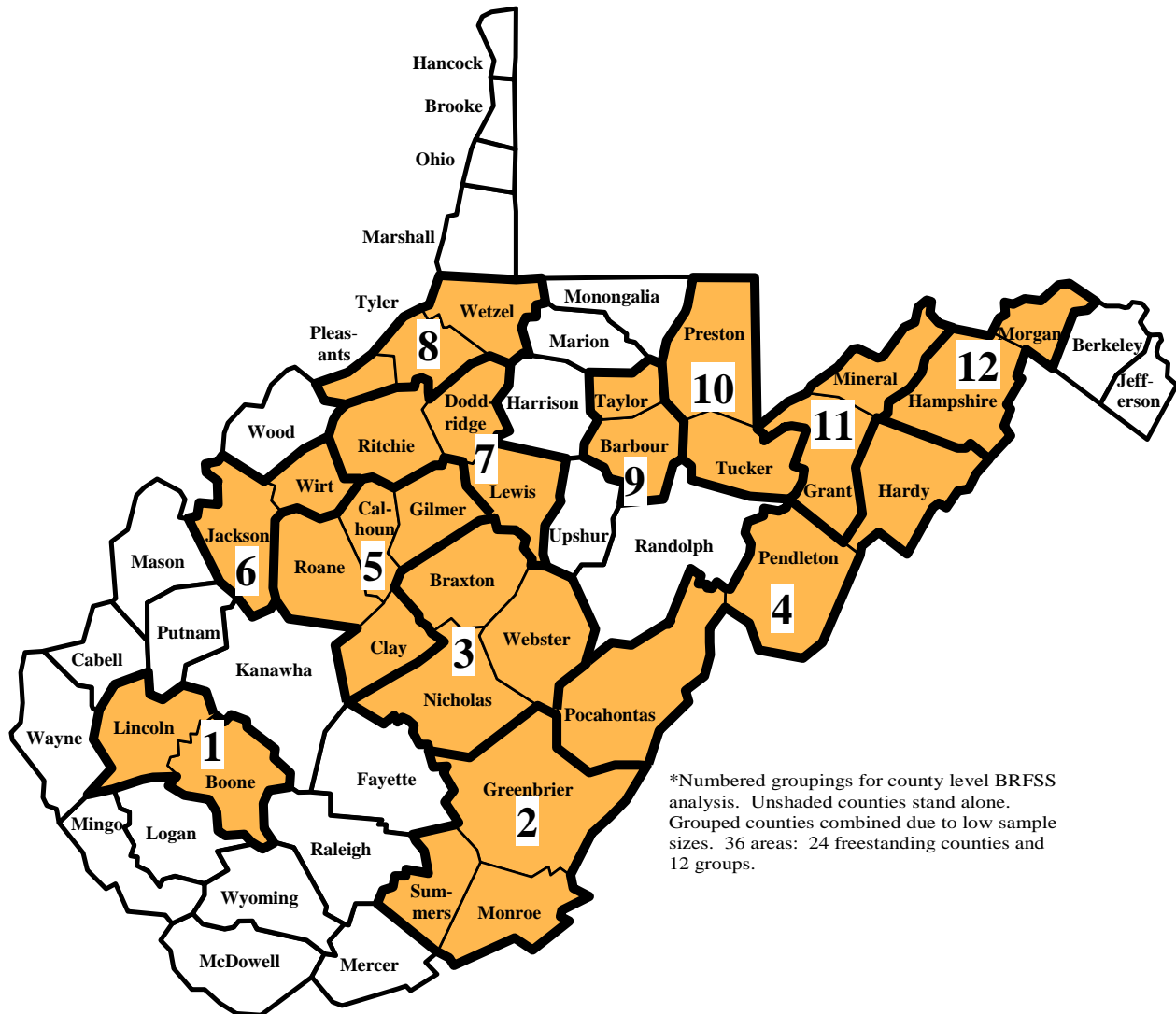




## Appendix L

### Groupings for County Level Analysis for Years 2002-2006

### West Virginia Behavioral Risk Factor Surveillance System



\*Numbered groupings for county level BRFSS analysis. Unshaded counties stand alone. Grouped counties combined due to low sample sizes. 36 areas: 24 freestanding counties and 12 groups.

Group	Counties
1	Boone and Lincoln
2	Greenbrier, Summers, and Monroe
3	Braxton, Nicholas, and Webster
4	Hardy, Pendleton, and Pocahontas
5	Calhoun, Clay, Gilmer, and Roane
6	Jackson and Wirt
7	Doddridge, Lewis, and Ritchie
8	Pleasants, Tyler, and Wetzel
9	Barbour and Taylor
10	Preston and Tucker
11	Grant and Mineral
12	Hampshire and Morgan



# Appendix M

## 2002-2006 WV Behavioral Risk Factors and Health Conditions by County <sup>a</sup>

County	Fair or Poor Health		No Health Insurance Ages 18-64		No Leisure Exercise		Diabetes		Obesity		Cigarette Smoking		Current Asthma		Heart Attack, Angina or Stroke						
	% <sup>b</sup>	Rank <sup>c</sup>	Sig. <sup>d</sup>	% <sup>b</sup>	Rank <sup>c</sup>	Sig. <sup>d</sup>	% <sup>b</sup>	Rank <sup>c</sup>	Sig. <sup>d</sup>	% <sup>b</sup>	Rank <sup>c</sup>	Sig. <sup>d</sup>	% <sup>b</sup>	Rank <sup>c</sup>	Sig. <sup>d</sup>	% <sup>b</sup>	Rank <sup>c</sup>	Sig. <sup>d</sup>			
<b>Individual Counties</b>																					
Berkeley	17.5	33	L/h	17.5	32	I/I	29.2	13	b/H	30.7	13	b/H	30.7	9	b/H	30.7	9	b/H	10.6	28	I/na
Brooke	19.4	28	I/h	21.1	21	I/h	27.8	15	b/h	29.6	16	b/h	30.2	10	b/H	30.2	10	b/H	9.3	34	I/na
Cabell	20.1	27	I/H	22.1	19	b/h	20.4	35	L/L	25.9	29	I/h	23.0	33	I/h	23.0	33	I/h	12.5	21	I/na
Fayette	28.4	9	b/H	27.0	8	b/H	31.2	6	b/H	33.5	6	b/H	27.3	15	b/H	27.3	15	b/H	13.2	18	I/na
Hancock	18.9	30	I/h	13.1	36	L/I	25.5	25	I/h	27.7	23	I/h	27.1	17	b/h	27.1	17	b/h	11.5	25	I/na
Harrison	18.7	31	L/h	24.2	13	b/H	25.2	27	I/h	27.0	25	I/h	26.0	24	I/H	26.0	24	I/H	10.5	29	I/na
Jefferson	16.2	35	L/I	18.2	29	I/I	22.3	34	I/I	28.4	20	I/h	29.4	13	b/h	29.4	13	b/h	7.9	36	L/na
Kanawha	19.4	28	L/H	17.3	33	L/I	25.8	24	I/h	27.8	21	I/H	24.9	30	I/H	24.9	30	I/H	12.1	22	I/na
Logan	35.6	4	H/H	27.8	6	b/H	30.2	11	b/H	45.0	1	H/H	32.4	6	b/H	32.4	6	b/H	17.5	3	b/na
McDowell	42.7	1	H/H	33.9	2	H/H	38.1	2	H/H	31.0	11	b/H	33.2	5	b/H	33.2	5	b/H	17.0	4	b/na
Marion	21.7	22	I/H	23.5	14	b/h	27.3	17	b/h	27.7	23	I/h	25.4	28	I/h	25.4	28	I/h	9.9	32	L/na
Marshall	21.6	23	I/h	20.8	22	I/h	26.0	23	I/h	25.3	33	I/h	31.9	8	b/H	31.9	8	b/H	14.1	12	b/na
Mason	23.2	17	I/H	22.5	16	b/h	27.9	14	b/h	36.1	3	b/H	35.6	3	b/H	35.6	3	b/H	14.6	10	b/na
Mercer	27.5	10	b/H	25.5	10	b/H	27.7	16	b/h	22.9	36	L/I	26.6	22	I/H	26.6	22	I/H	16.8	6	b/na
Mingo	39.8	3	H/H	27.6	7	b/H	42.5	1	H/H	36.7	2	H/H	38.1	2	H/H	38.1	2	H/H	18.8	2	H/na
Monongalia	15.0	36	L/I	20.1	26	I/h	15.9	36	L/L	25.6	32	I/h	19.5	36	L/I	19.5	36	L/I	8.2	35	L/na
Ohio	17.2	34	L/h	19.5	28	I/h	23.7	31	I/I	25.8	30	I/h	29.7	12	b/H	29.7	12	b/H	14.4	11	b/na
Putnam	20.5	26	I/h	16.5	35	I/I	23.9	29	I/I	24.0	35	I/h	25.0	19	I/h	25.0	19	I/h	10.5	29	I/na
Raleigh	30.9	6	H/H	20.4	25	I/h	26.2	21	I/h	26.0	28	I/h	26.8	19	I/H	26.8	19	I/H	15.5	8	b/na
Randolph	24.3	15	b/H	22.3	18	b/h	26.6	20	I/h	24.3	34	I/h	26.8	19	I/h	26.8	19	I/h	14.7	9	b/na
Upshur	22.4	20	I/H	20.7	24	I/h	26.7	19	I/h	28.5	19	I/h	26.2	23	I/h	26.2	23	I/h	10.4	31	I/na
Wayne	27.1	11	b/H	22.7	15	b/h	30.6	9	b/H	32.4	7	b/H	28.9	14	b/H	28.9	14	b/H	14.1	12	b/na
Wood	18.5	32	L/h	20.1	26	I/h	23.3	32	I/I	27.0	25	I/h	26.8	19	I/H	26.8	19	I/H	13.1	19	I/na
Wyoming	40.7	2	H/H	31.6	4	b/H	37.8	3	H/H	32.2	8	b/h	42.4	1	H/H	42.4	1	H/H	21.5	1	H/na
<b>Grouped Counties <sup>a</sup></b>																					
1 Boone, Lincoln	33.7	5	H/H	25.8	9	b/H	30.5	10	b/H	34.5	4	b/H	32.4	6	b/H	32.4	6	b/H	16.0	7	b/na
2 Greenbrier, Summers, Monroe	28.6	8	b/H	25.4	11	b/H	30.7	8	b/H	27.8	21	I/h	25.6	26	I/H	25.6	26	I/H	17.0	4	H/na
3 Braxton, Nicholas, Webster	30.0	7	H/H	28.8	5	H/H	31.1	7	b/H	30.8	12	b/H	27.2	16	b/H	27.2	16	b/H	14.1	12	b/na
4 Hardy, Pendleton, Pocahontas	21.8	21	I/h	20.8	22	I/h	23.0	33	I/I	30.2	14	b/H	20.5	35	L/I	20.5	35	L/I	11.1	27	I/na
5 Calhoun, Clay, Gilmer, Roane	26.5	13	b/H	32.6	3	H/H	31.8	5	b/H	26.5	27	I/h	34.3	4	H/H	34.3	4	H/H	11.2	26	I/na
6 Jackson, Wirt	26.6	12	b/H	17.0	34	I/I	27.1	18	b/h	29.6	16	b/H	25.5	27	I/h	25.5	27	I/h	14.0	16	b/na
7 Doddridge, Lewis, Ritchie	22.8	18	I/H	17.9	30	I/I	29.5	12	b/h	30.0	15	b/h	27.0	18	I/H	27.0	18	I/H	14.1	12	b/na
8 Pleasants, Tyler, Wetzel	20.6	25	I/h	22.5	16	b/h	25.4	26	I/h	31.8	9	b/H	30.1	11	b/H	30.1	11	b/H	11.7	24	I/na
9 Barbour, Taylor	26.5	13	b/H	34.2	1	H/H	32.4	4	b/h	34.2	5	b/H	21.3	34	I/h	21.3	34	I/h	13.1	19	I/na
10 Preston, Tucker	24.0	16	b/H	24.9	12	b/h	26.1	22	I/h	31.7	10	b/H	25.9	25	I/h	25.9	25	I/h	9.8	33	I/na
11 Grant, Mineral	22.5	19	I/H	17.9	30	I/I	23.9	29	I/I	28.7	18	I/h	24.9	30	I/h	24.9	30	I/h	13.7	17	b/na
12 Hampshire, Morgan	21.4	24	I/H	21.2	20	I/h	24.6	28	I/h	25.7	31	I/h	24.8	32	I/h	24.8	32	I/h	12.1	22	I/na
<b>WV / US 2004 / WV vs US</b>	<b>23.9</b>	<b>16.4</b>	<b>H</b>	<b>21.8</b>	<b>18.7</b>	<b>H</b>	<b>27.0</b>	<b>24.0</b>	<b>H</b>	<b>28.9</b>	<b>23.5</b>	<b>H</b>	<b>27.0</b>	<b>20.7</b>	<b>H</b>	<b>27.0</b>	<b>20.7</b>	<b>H</b>	<b>13.2</b>	<b>na</b>	<b>na</b>

Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRESS), West Virginia Health Statistics Center, March 2008.

<sup>a</sup> Some counties were grouped to obtain an adequate sample size for analysis. For these counties, the prevalence, rank, and significance are representative of the combined counties. Individual county estimates are not available for these counties.

<sup>b</sup> See a detailed discussion about the prevalence estimates (shown as %) in the Methodology section.

<sup>c</sup> Counties with the same prevalence share the same rank.

<sup>d</sup> Sig = County estimate vs WV / County estimate vs US 2004.

H - Significantly Higher County Prevalence.

L - Significantly Lower County Prevalence.

h - Higher but not significant.

l - Lower but not significant.

na - No available data for comparison.

