

Bureau for Public Health
Office of Epidemiology \& Health Promotion HEALTH STATISTICS CENTER 350 Capitol Street, Room 165

Charleston, WV 25301
J oe Manchin III, Governor


2004-2005

## WEST VIRGINIA

# BEHAVIORAL RISK FACTOR SURVEY REPORT 

Joe Manchin III<br>Governor

Martha Yeager Walker
Secretary
Department of Health and Human Resources

May 2007

# West Virginia Bureau for Public Health 

Chris Curtis, MPH
Acting Commissioner
Catherine Slemp, MD, MPH
Acting State Health Officer
Joe Barker, MPA
Director, Office of Epidemiology and Health Promotion

## Health Statistics Center

Daniel M. Christy, MPA, Director
James C. Doria, Statistical Services Program Manager
Fred King, Behavioral Risk Factor Surveillance System Manager

## Report Prepared By

Patricia G. Watson, Programmer/Analyst
Amy B. Wenmoth, MA, Epidemiologist

## Report Edited By

Eugenia Thoenen, Editorial Consultant

## Statistical Services Staff

Thomas N. Leonard, MS, Programmer/Analyst
Tom Light, Programmer
Philip Simmons, MS, Programmer/Analyst

## 2004-2005 BRFSS Interviewers

Deborah Pack, Gale Ardman, Carolyn J. Hunter, Laura Elswick, Mima Chapman, Norma Anderson, Mandy Ranson, Amanda Fowler, Russell Hicks, Claudia Hudson-Sims, Martin Kemmish, Sandra Johnson, Steve Ardman

## Suggested Citation

All material appearing in this report is in the public domain and may be reproduced freely. Please acknowledge the source with the following citation:

2004-2005 West Virginia Behavioral Risk Factor Survey Report WV Health Statistics Center, 2007

## Additional Information Available

To access additional Health Statistics Center publications, visit our website: www.wvdhhr.org/bph/oehp/hsc/vr/publicat.htm or call (304) 558-9100.

The Health Statistics Center can do customized reports and data analysis for grants, formal research, agency use, or specific community health planning activities. If you have questions about the data in this report, or feel you may need additional information, please call (304) 558-9100 and ask for a Statistical Services staff member.

## 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 years 2004 and 2005 as well as county data combined for the latest available five years (typically 2001 through 2005).

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 2nd highest nationally in 2004 and 2005 in reporting the general health of adults as either "fair" or "poor."
- Almost one-fourth of West Virginia adults (23.5\% in 2004 and $24.7 \%$ in 2005) consider their health to be either "fair" or "poor."
- "Fair" or "poor" health is most common among groups of adults who are the oldest, least educated, or lowest in household incomes.


## Health Care Access

- More than one-fifth of West Virginia adults age 18 to 64 have no health care coverage (22.7\% in 2004 and $22.2 \%$ in 2005).
- Among adults of all ages, slightly less than one-fifth needed medical care within the past 12 months and could not afford it (19.3\% in 2004 and $18.5 \%$ in 2005).
- More than one-fifth of all age adults also do not have a specific personal doctor or health care provider ( $22.9 \%$ in 2004 and $22.4 \%$ in 2005).


## Physical Inactivity

- Approximately one-fourth of state adults ( $24.5 \%$ in 2004 and $28.5 \%$ in 2005) participate in no leisure-time physical activity or exercise. A downward trend occurring between 1998 and 2004 was followed by a significant increase in 2005.
- Women are significantly more likely than men to be physically inactive during leisure time.
- Moderate or vigorous exercise is more frequent among groups who are younger, more educated, or from higher income households.


## Nutrition

- Eight out of every 10 adults ( $80.0 \%$ ) consume fewer than the recommended 5 servings of fruits and vegetables each day. West Virginia ranked $7^{\text {th }}$ highest nationally in the prevalence of this risk factor in 2005.
- Men have higher rates of this nutrition risk than women.
- Over the long term, this risk factor measured an identical $80.0 \%$ in both 1990 and 2005, despite fluctuations recorded during the intervening years.


## Obesity and Overweight

- The obese proportion of the adult population was $27.6 \%$ in 2004 and $30.6 \%$ in $2005,3^{\text {rd }}$ highest nationally in both years.
- Between 1987 and 2005, 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 2004 and 2005, approximately two-thirds of West Virginia adults were either obese or overweight.


## Tobacco Use and Policies

- Current cigarette smoking: More than one-fourth of adults (26.9\% in 2004 and $26.7 \%$ in 2005) smoke every day or some days. West Virginia ranked $2^{\text {nd }}$ highest in 2004 and $4^{\text {th }}$ highest in 2005 in the prevalence of this risk factor among national BRFSS participants.
- Current smokeless tobacco use: The 2004 rate of smokeless tobacco use among men was $16.6 \%$, while the prevalence among women in the same year was $0.4 \%$.
- Fewer than half ( $46.1 \%$ in 2004 and $46.3 \%$ in 2005) of every day smokers have tried to quit and succeeded for at least one day in the past year.
- Most adults employed indoors report that smoking is prohibited in either work areas, public areas, or both within their workplaces.
- A majority of West Virginia adults report that smoking is not allowed inside their homes.


## Alcohol Consumption

- West Virginia alcohol consumption remains notably low in comparison with levels consumed elsewhere in the U.S.
- Binge drinking was $9.7 \%$ in 2004 and $9.1 \%$ in 2005 (a national rank of $48^{\text {th }}$ in 2004 and $51^{\text {st }}$ in 2005).
- Heavy drinking was $2.9 \%$ in 2004 and $3.1 \%$ in 2005 (a national rank of $50^{\text {th }}$ in 2004 and $49^{\text {th }}$ in 2005).
- No alcohol had been consumed in the last 30 days by over two-thirds ( $68.0 \%$ in 2005) of the age 18 and older population.


## Diabetes

- West Virginia ranked highest nationally in 2004 for the prevalence of diabetes. West Virginia ranked $2^{\text {nd }}$ highest nationally in 2005.
- Over $10 \%$ of West Virginia adults identify themselves as having diabetes (10.9\% in 2004 and $10.4 \%$ in 2005).
- Among diabetic adults, $12 \%$ have not had an HbA1c test, $30 \%$-33\% have not had a dilated eye exam, and $30 \%-35 \%$ have not had a professional foot exam in the past one year.
- About one-third ( $39.7 \%$ in 2004 and $34.9 \%$ in 2005) of diabetic adults check their blood glucose at home less than once daily or never.


## Hypertension

- West Virginia ranked $2^{\text {nd }}$ highest nationally in 2005 in the prevalence of hypertension (high blood pressure). Almost a third of the state's adults (31.4\%) have ever been diagnosed with high blood pressure.
- Reports of high blood pressure increase steeply and significantly with increasing age. In 2005, the prevalence ranged from a low of $10.9 \%$ among young adults ( $25-34$ ) to a high of $57.5 \%$ among older adults (age 65 and older).
- Two-thirds ( $66.5 \%$ in 2005) of the adults with hypertension have received advice from a health professional to exercise to help lower or control their high blood pressure, and 58.1\% reported that they were exercising for this reason.
- Other activities of adults with hypertension in 2005 to help lower or control their high blood pressure were taking medicine (83.1\%), cutting down on salt (76.1\%), changing eating habits (70.1\%), and reducing alcohol (49.0\%).


## Cholesterol

- In 2005, 20.5\% of adults had never had their cholesterol checked. Of those who had, 39.9\% reported that it was high ( $1^{\text {st }}$ highest nationally).


## Cardiovascular Disease

- West Virginia ranked higher than any other state in 2005 in the prevalence of heart attack among adults. Seven percent ( $7.0 \%$ ) of the state's adults had had a heart attack, compared with a national average of $4.1 \%$.
- Men report a significantly higher incidence of heart attack than women ( $8.5 \%$ vs. $5.5 \%$ in 2005).
- More than half (52.1\%) of the adults with a history of heart attack had their first attack before the age of 55 .
- In the prevalence of stroke among adults, West Virginia ranked $5^{\text {th }}$ highest nationally in 2005. Three percent (3.4\%) of the state's adults had had a stroke, compared with the national average of $2.6 \%$.
- Approximately three-fourths of adults who had experienced heart attack or stroke said they did not receive any outpatient rehabilitation after leaving the hospital in 2004 or 2005.
- More than one in three adults age 35 and older report that they are on daily or alternate-day aspirin therapy.


## Cancer Screening

- Colon cancer: Almost three-quarters ( $72.8 \%$ in 2004) of adults aged 50 and older reported that they did not perform a home stool blood test in the past two years. About half ( $53.7 \%$ in 2004) had never had a sigmoidoscopy or colonoscopy ( $5^{\text {th }}$ highest in the nation).
- Prostate cancer: Forty percent ( $40.3 \%$ ) of men aged 40 and older had never had a PSA (prostate specific antigen) test in 2004.
- Breast cancer: Among women aged 40 and older, $27.5 \%$ reported in 2004 that they did not have a mammogram in the past two years.
- Cervical cancer: Seventeen percent (17.4\%) of all women aged 18 and older did not have a Pap test in the past three years. Five percent (5.4\%) had never had a Pap test.


## Asthma

- In $2005,13.4 \%$ of adults had ever been diagnosed with asthma ( $16^{\text {th }}$ highest nationally) while $9.2 \%$ had asthma currently ( $8^{\text {th }}$ highest nationally).
- Women had significantly higher rates of both lifetime and current asthma than men in 2005.


## Arthritis

- West Virginia ranked higher than any other state in 2005 in the prevalence (34.9\%) of adults with some form of an arthritis diagnosis.
- The prevalence of arthritis increased significantly among adults at each higher age grouping through age 64 . Fewer than $10 \%$ of adults aged 18 to 24 had ever been diagnosed with some form of arthritis, compared with nearly $60 \%$ of those aged 65 and older. The statewide prevalence in 2005 was $34.9 \%$.
- More than 4 in 10 adults with arthritis symptoms ( $43.5 \%$ in 2005) also reported some related limitations in their usual activities.


## Disability

- West Virginia had the highest disability rate nationwide in both 2004 and 2005. More than one-fourth of adults were disabled because of a physical, mental, or emotional problem ( $25.7 \%$ in 2004 and $27.4 \%$ in 2005).
- Almost $10 \%$ of state adults use special equipment such as a cane, a wheelchair, a special bed, or a special telephone ( $8.7 \%$ in 2004 and $9.6 \%$ in 2005).


## Emotional Support and Life Satisfaction

- Almost 8 in 10 (78.9\%) West Virginia adults reported in 2005 that they always or usually get the emotional support they need.
- Over 9 in 10 (91.8\%) West Virginia adults were satisfied with their own lives in 2005.


## Immunization

- Among adults aged 65 and older, over $30 \%$ had not had a flu shot in the past 12 months ( $31.5 \%$ in 2004 and $36.2 \%$ in 2005). Over $30 \%$ of state seniors had never had a pneumonia shot ( $35.3 \%$ in 2004 and $31.8 \%$ in 2005).


## Sexually Transmitted Diseases

- Most adults aged 18 to 64 ( $90.2 \%$ in 2004) have not received any counseling about condom use from a health professional in the past one year.
- Between $2 \%$ and $3 \%$ of adults aged 18 to 64 engage in high-risk behavior for sexually transmitted diseases ( $2.3 \%$ in 2004 and $3.0 \%$ in 2005).


## Family Planning

- Parenthood questions were asked of women aged 18-44 and not currently pregnant and men aged $18-59$. Among this group, $46.2 \%$ of West Virginians and $41.5 \%$ of U. S. adults responded in 2004 that they would like to have a child in the future.
- Among a similar subset of West Virginia adults in 2004, the majority reported taking steps to avoid pregnancy. The most common types of contraception were sterilization, followed in order by birth control pills, condoms, and all other methods combined.


## Oral Health

- Thirty-six percent (36.0\%) of adults in 2004 had not had their teeth cleaned by a dentist or dental hygienist in the past year. West Virginia's rank was $9^{\text {th }}$ highest nationally.


## Sunburn

- In 2004, more than a third (35.1\%) of adults had experienced sunburn with redness lasting at least 12 hours sometime in the past 12 months.


## Firearms

- Six percent (6.0\%) of West Virginia adults kept loaded and unlocked firearms in or around their homes in 2004.
- Although the national average was significantly lower at $4.3 \%$, the state ranked close to the middle ( $20^{\text {th }}$ highest) nationally in 2004.
- Men (8.8\%) reported a significantly higher prevalence than women (3.8\%) in the presence of loaded and unlocked firearms in the home.


## 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, 2004-2005

| Risk Factor | Year | Percentage Estimated at Risk ${ }^{\text {a }}$ | Number Estimated at Risk ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
| Self-rated general health is fair or poor | 2005 | 24.7 | 352,900 |
| No health care coverage, ages 18-64 | 2005 | 22.2 | 253,100 |
| Unable to afford needed medical care | 2005 | 18.5 | 264,700 |
| No personal doctor or health care provider | 2005 | 22.4 | 320,100 |
| No leisure-time exercise | 2005 | 28.5 | 407,800 |
| Fewer than 5 servings of fruit/vegetables per day | 2005 | 80.0 | 1,135,100 |
| Obesity (BMI 30.0+) | 2005 | 30.6 | 425,600 |
| Overweight (BMI 25.0-29.9) | 2005 | 34.8 | 484,000 |
| Current cigarette smoking | 2005 | 26.7 | 380,700 |
| Current smokeless tobacco use | 2004 | 8.1 | 114,200 |
| Binge drinking | 2005 | 9.1 | 128,800 |
| Heavy drinking | 2005 | 3.1 | 44,100 |
| Diabetes | 2005 | 10.4 | 149,100 |
| High blood pressure | 2005 | 31.4 | 448,800 |
| High blood cholesterol (among those ever checked) | 2005 | 39.9 | 438,100 |
| Have had heart attack | 2005 | 7.0 | 99,300 |
| Have angina or coronary heart disease | 2005 | 8.2 | 117,000 |
| Have had stroke | 2005 | 3.4 | 48,000 |
| No home stool blood test in past 2 years, ages 50+ | 2004 | 72.8 | 451,800 |
| Never had sigmoidoscopy or colonoscopy, ages 50+ | 2004 | 53.7 | 336,500 |
| Never had digital rectal exam, men ages 40+ | 2004 | 29.7 | 124,700 |
| Never had Prostate Specific Antigen (PSA) test, men ages 40+ | 2004 | 40.3 | 163,300 |
| No clinical breast exam in past 1 year, women ages 40+ | 2004 | 35.8 | 169,400 |
| No mammogram in past 2 years, women ages 40+ | 2004 | 27.5 | 132,100 |
| No Pap test in past 3 years, women ages 18+ | 2004 | 17.4 | 94,500 |
| Never had Pap test, women ages 18+ | 2004 | 5.4 | 39,600 |
| Lifetime asthma | 2005 | 13.4 | 191,100 |
| Current asthma | 2005 | 9.2 | 131,100 |
| Arthritis | 2005 | 34.9 | 494,100 |
| Disability | 2005 | 27.4 | 391,100 |
| No flu immunization in past 12 months, ages 65+ | 2005 | 36.2 | 103,000 |
| Never had pneumonia shot, ages 65+ | 2005 | 31.8 | 87,700 |
| No professional dental cleaning in past year (among those with teeth) | 2004 | 36.0 | 433,800 |
| 6 or more teeth removed due to tooth decay or gum disease | 2004 | 31.9 | 451,500 |
| All teeth removed, ages 65+ | 2004 | 42.9 | 118,900 |
| Sunburn with redness lasting 12 or more hours in past 12 months | 2004 | 35.1 | 499,400 |
| Loaded and unlocked firearms in home | 2004 | 6.2 | 84,000 |

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 on page 9 for additional discussion.

## What's NEW IN THIS REPORT

## Two Years of Data

For the first time since 1986-1987, the BRFSS report includes two years of data - 2004 and 2005. Note that some data were not collected in both years of the survey.

## First-Time Data

Type of health care coverage, including PEIA (Chapter 2)
Doctor advice and related actions taken to reduce hypertension risks (Chapter 11)
Adult asthma symptoms, prescription use, and health care utilization (Chapter 17)
Child asthma prevalence (Chapter 17)
Illness due to poor indoor and outdoor air (Chapter 17)
Life satisfaction and emotional support (Chapter 20)
Child influenza immunization (Chapter 21)
STD high-risk behavior (Chapter 22)
Family planning (Chapter 23)
Comorbidities - the presence of multiple risk factors and health conditions (Chapter 27)

## New County Maps and Appendix

County prevalence estimates are now compared to the overall West Virginia prevalence rather than the United States prevalence. See Methodology and Appendix L for additional information.

## New Methods to Determine Reliability of Estimates

All estimates were judged on three reliability criteria. Estimates meeting any of these criteria were noted as unreliable. Be cautious in reporting and interpreting these estimates. See Methodology for additional discussion.

## TABLE OF CONTENTS

Executive Summary ..... iii
Introduction ..... 1
Methodology ..... 3
Chapter 1: Health Status ..... 12
Chapter 2: Health Care Access. ..... 15
Chapter 3: Physical Inactivity ..... 23
Chapter 4: Nutrition ..... 27
Chapter 5: Obesity and Overweight ..... 29
Chapter 6: Current Cigarette Smoking ..... 33
Chapter 7: Smokeless Tobacco Use. ..... 36
Chapter 8: Other Tobacco Indicators. ..... 39
Chapter 9: Alcohol Consumption ..... 45
Chapter 10: Diabetes. ..... 51
Chapter 11: Hypertension ..... 57
Chapter 12: Cholesterol. ..... 60
Chapter 13: Cardiovascular Disease ..... 63
Chapter 14: Colorectal Cancer Screening ..... 68
Chapter 15: Prostate Cancer Screening. ..... 69
Chapter 16: Breast and Cervical Cancer Screening ..... 70
Chapter 17: Asthma ..... 73
Chapter 18: Arthritis ..... 79
Chapter 19: Disability ..... 82
Chapter 20: Emotional Support and Life Satisfaction ..... 85
Chapter 21: Immunization. ..... 87
Chapter 22: Sexually Transmitted Diseases. ..... 90
Chapter 23: Family Planning. ..... 92
Chapter 24: Oral Health ..... 95
Chapter 25: Sunburn ..... 97
Chapter 26: Firearms ..... 98
Chapter 27: Comorbidities. ..... 100
Appendix A: Selected Behavioral Risk Factor Prevalences by Year in West Virginia
Appendix B-J: Behavioral Risk Factor Prevalences by State for Each Year
Appendix K: Groupings for County-Level Analysis
Appendix L: Behavioral Risk Factors and Health Conditions by County

## 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.

Eighteen reports have been published by the WVBPH presenting survey results of the state's participation in the BRFSS since 1984. This report focuses on the 2004 and 2005 risk factor prevalence rates and compares them to the years 1984 through 2003. Table I. 1 on the following page shows topics that have been included in the last 11 years of surveillance, many of which are examined in the present report.

Table I.1: Topics administered in the survey: WVBRFSS, 1995-2005

| Topic | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |
| Obesity | X | X | x | X | x | x | X | X | X | x | X |
| Cigarette use | 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 |
| 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 |
| Routine checkup | x | x | x | x | x | x |  |  |  |  | X |
| Breast cancer screening | x | X | X | X | x | X |  | X |  | x |  |
| Cervical cancer screening | x | x | X | x | x | x |  | x |  | x |  |
| Prostate cancer screening |  |  |  |  |  |  | x | X |  | x |  |
| Excess sun exposure |  |  |  |  | x |  |  | X | x | X |  |
| AIDS/HIV | 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 |
| Health insurance | x | x | x | x | x | x | x | x | x | x | x |
| Health status | x | x | x | x | x | x | x | x | x | x | x |
| Colorectal cancer screening | x |  | x |  | x |  | X | X |  | X |  |
| Oral health | X |  | x |  | x | x |  | x |  | x |  |
| Emotional support/Life satisfaction |  |  |  |  |  |  |  |  |  |  | x |
| Firearm ownership | X | x |  |  |  |  | x | x |  | x |  |
| Asthma |  |  |  |  |  | x | x | x | X | x | x |
| Born / Years in WV | X | X | x |  |  |  |  |  |  |  | X |
| Disability | X |  |  |  |  |  | X |  | X | x | X |
| Cardiovascular disease |  | X |  |  | X | X | X | X | X | X | X |
| Veteran status |  |  |  |  |  |  |  |  |  | x | X |
| Osteoporosis |  |  | X | X | X |  |  |  |  | X |  |
| Arthritis |  |  |  |  | x |  | x |  | x | x | 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

According to figures from the 2000 U.S. Census, $95.3 \%$ of West Virginia households have telephones, compared to $97.6 \%$ of households in the United States. 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 higherdensity stratum is sampled at a higher rate than the lower-density stratum. In 2004-2005, the higherdensity 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. Tables M. 1 and M. 2 on the following pages show the results for all the telephone numbers attempted in obtaining 3,442 interviews in 2004 and 3,553 interviews in 2005.

Table M.1: Disposition of telephone numbers in the sample: WVBRFSS, 2004

| Disposition | Number | Percent |
| :---: | :---: | :---: |
| Completed interview. | 3,390 | 28.25 |
| Partially completed interview | 52 | 0.43 |
| Terminated within questionnaire $<50 \%$ finished | 54 | 0.45 |
| Refusal after respondent selection.. | 581 | 4.84 |
| Selected respondent never reached or was reached but did not begin interview during interviewing period. | 182 | 1.52 |
| Selected respondent away from residence during the entire interviewing period. | 113 | 0.94 |
| Selected respondent physically or mentally unable to complete an interview during the entire interviewing period.. | 110 | 0.92 |
| Hang up or termination after number of adults recorded but before respondent selection, explicit refusal. | 13 | 0.11 |
| Household members away from residence during entire interviewing period. | 31 | 0.26 |
| Hang up or termination, housing unit, unknown if eligible respondent. | 374 | 3.12 |
| Household contact, eligibility undetermined. | 41 | 0.34 |
| Language problem before respondent selection. | 3 | 0.03 |
| Physical or mental impairment before respondent selection................. | 8 | 0.07 |
| Hang up or termination, unknown if private residence...................... | 935 | 7.79 |
| Contacted, unknown if private residence.. | 40 | 0.33 |
| Telephone answering device, message confirms private residential status. | 163 | 1.36 |
| Telecommunication technological barrier (such as a call blocking message), message confirms private residence. | 14 | 0.12 |
| Telephone answering device, not sure if private residence................. | 194 | 1.62 |
| Telecommunication technological barrier, not sure if private residence. | 30 | 0.25 |
| Telephone number changed status from household or possible household to nonworking during the interviewing period. | 62 | 0.52 |
| No answer. | 532 | 4.43 |
| Busy... | 55 | 0.46 |
| On never-call list. | 2 | 0.02 |
| Out-of-state number. | 1 | 0.01 |
| Household, no eligible respondent. | 8 | 0.07 |
| Not a private residence. | 1,408 | 11.73 |
| Dedicated fax/data/modem line with no human contact | 304 | 2.53 |
| Cell phone. | 13 | 0.11 |
| Fast busy. | 23 | 0.25 |
| Nonworking/disconnected number. | 3,257 | 27.14 |
| Total. | 12,000 | 100.00 |

Table M.2: Disposition of telephone numbers in the sample: WVBRFSS, 2005

| Disposition | Number | Percent |
| :---: | :---: | :---: |
| Completed interview | 3,461 | 25.19 |
| Partially completed interview. | 92 | 0.67 |
| Terminated within questionnaire $<50 \%$ finished | 63 | 0.46 |
| Refusal after respondent selection. | 649 | 4.72 |
| Selected respondent never reached or was reached but did not begin interview during interviewing period. | 195 | 1.42 |
| Selected respondent away from residence during the entire interviewing period. | 132 | 0.96 |
| Language problem after respondent selection...................... | 5 | 0.04 |
| Selected respondent physically or mentally unable to complete an interview during the entire interviewing period. | 142 | 1.03 |
| Hang up or termination after number of adults recorded but before respondent selection, explicit refusal. | 8 | 0.06 |
| Household contact after number of adults recorded but before respondent selection. | 2 | 0.01 |
| Household members away from residence during entire interviewing period. | 31 | 0.23 |
| Hang up or termination, housing unit, unknown if eligible respondent. | 433 | 3.15 |
| Household contact, eligibility undetermined. | 48 | 0.35 |
| Language problem before respondent selection. | 6 |  |
| Physical or mental impairment before respondent selection. | 11 | 0.04 |
| Hang up or termination, unknown if private residence. | 1,112 | 8.09 |
| Contacted, unknown if private residence............. | 37 | 0.27 |
| Telephone answering device, message confirms private residential status. | 179 | 1.30 |
| Telecommunication technological barrier (such as a call blocking message), message confirms private residence.. | 15 | 0.11 |
| Telephone answering device, not sure if private residence................. | 216 | 1.57 |
| Telecommunication technological barrier, not sure if private residence. | 24 | 0.17 |
| Telephone number changed status from household or possible household to nonworking during the interviewing period.. | 69 | 0.50 |
| No answer. | 579 | 4.21 |
| Busy. | 72 | 0.52 |
| Household, no eligible respondent | 7 | 0.05 |
| Not a private residence. | 1,625 | 11.83 |
| Dedicated fax/data/modem line with no human contact | 332 | 2.42 |
| Cell phone. | 53 | 0.39 |
| Fast busy.. | 20 | 0.15 |
| Nonworking/disconnected number. | 4,122 | 30.00 |
| Total. | 13,740 | 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 2005 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 ${ }^{1}$ 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 CASRO rate was $61 \%$ in 2004 and $60 \%$ in 2005.

Overall Response Rate is a conservative response rate ${ }^{2}$ 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 overall response rate was $56 \%$ in 2004 and $54 \%$ in 2005.

Cooperation Rate is a calculation ${ }^{3}$ 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 cooperation rate was $87 \%$ in 2004 and $81 \%$ in 2005\%.

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.

[^0]
## DEMOGRAPHIC CHARACTERISTICS OF SAMPLE AND POPULATION

The demographic characteristics of the samples in 2004 and 2005, both unweighted and weighted to the population, are presented in Tables M.3 and M.4. 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.

Table M.3: Demographic summary: WVBRFSS, 2004

| Demographic characteristic | Number of Interviews | Percent of Unweighted Sample | Percent of Weighted Sample ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
| Total | 3,442 | 100.0 | 100.0 |
| Sex |  |  |  |
| Male | 1,321 | 38.4 | 48.0 |
| Female | 2,121 | 61.6 | 52.0 |
| Age |  |  |  |
| 18-24 | 190 | 5.5 | 12.4 |
| 25-34 | 463 | 13.5 | 15.6 |
| 35-44 | 599 | 17.4 | 18.0 |
| 45-54 | 699 | 20.3 | 19.9 |
| 55-64 | 636 | 18.5 | 14.6 |
| 65+ | 849 | 24.7 | 19.6 |
| Unknown | 6 | 0.2 |  |
| Education |  |  |  |
| <12 Years | 628 | 18.3 | 17.5 |
| 12 Years | 1,325 | 38.5 | 39.2 |
| 13-15 Years | 731 | 21.2 | 22.5 |
| 16+ Years | 753 | 21.9 | 20.7 |
| Unknown | 5 | 0.2 | 0.1 |
| Household Income |  |  |  |
| <\$15,000 | 633 | 18.4 | 14.9 |
| \$15,000-\$24,999 | 666 | 19.4 | 18.7 |
| \$25,000-\$34,999 | 418 | 12.1 | 11.8 |
| \$35,000-\$49,999 | 520 | 15.1 | 16.4 |
| \$50,000-\$74,999 | 444 | 12.9 | 14.5 |
| \$75,000+ | 376 | 10.9 | 12.2 |
| Unknown | 385 | 11.2 | 11.5 |

a. Population weight provided by CDC. Weighted to 2004 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.

Table M.4: Demographic summary: WVBRFSS, 2005

| Demographic characteristic | Number of Interviews | Percent of Unweighted Sample | Percent of Weighted Sample ${ }^{\text {b }}$ |
| :---: | :---: | :---: | :---: |
| Total | 3,553 | 100.0 | 100.0 |
| Sex |  |  |  |
| Male | 1,360 | 38.3 | 48.1 |
| Female | 2,193 | 61.7 | 51.9 |
| Age |  |  |  |
| 18-24 | 170 | 4.8 | 12.2 |
| 25-34 | 464 | 13.1 | 15.8 |
| 35-44 | 577 | 16.2 | 17.4 |
| 45-54 | 745 | 21.0 | 19.4 |
| 55-64 | 642 | 18.1 | 15.3 |
| 65+ | 944 | 26.6 | 19.9 |
| Unknown | 11 | 0.3 |  |
| Education |  |  |  |
| <12 Years | 632 | 17.8 | 17.7 |
| 12 Years | 1,426 | 40.1 | 40.1 |
| 13-15 Years | 752 | 21.2 | 22.0 |
| 16+ Years | 739 | 20.8 | 20.2 |
| Unknown | 4 | 0.1 | 0.1 |
| Household Income |  |  |  |
| <\$15,000 | 602 | 16.9 | 13.5 |
| \$15,000-\$24,999 | 732 | 20.6 | 19.9 |
| \$25,000-\$34,999 | 468 | 13.2 | 13.4 |
| \$35,000-\$49,999 | 472 | 13.3 | 13.4 |
| \$50,000-\$74,999 | 471 | 13.3 | 14.7 |
| \$75,000+ | 386 | 10.9 | 12.0 |
| Unknown | 422 | 11.9 | 13.0 |

b. Population weight provided by CDC. Weighted to 2005 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.

## 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) ${ }^{1}$. Therefore, we can be $95 \%$ confident that the confidence interval contains the true value that we are estimating.

Significant is the term used in this report to describe 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.
[^1]
## 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 K).

In 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. ${ }^{4}$ 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 L. Extensive county data also can be found in the WVBPH publication West Virginia County Health Profiles, 2004 available online at http://www.wvdhhr.org/ bph/oehp/hsc/profiles2004/default.htm.

Unlike 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.

[^2]The risk factor sections include West Virginia's rank among the BRFSS participants. For example, if hypertension-related questions were administered by all 54 BRFSS participants, ranking $1^{\text {st }}$ in hypertension would mean having the highest prevalence of hypertension while ranking $54^{\text {th }}$ would mean having the lowest prevalence. Some questions are not asked by all BRFSS participants. 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 L.

## Chapter 1: Health Status

## Fair or Poor General Health in 2004 and 2005

Definition

Time Trends

Gender

Age

Education

Household Income

Prevalence WV: 23.5\% (95\% CI: 21.9-25.1) in 2004; 24.7\% (95\% CI: 23.1-26.3) in 2005. US: 16.4\% (95\% CI: 16.2-16.7) in 2004; 16.7\% (95\% CI: 16.4-17.0) in 2005. West Virginia ranked $2^{\text {nd }}$ highest among 52 BRFSS participants in 2004 and $2^{\text {nd }}$ highest among 53 BRFSS participants in 2005.
Responding "Fair" or "Poor" to the following question: "Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?"

From 1993 through 2005, the prevalence of fair or poor general health has been fluctuating around a slowly increasing trend line (see Figure 1.1).

Men: 24.7\% (95\% CI: 22.1-27.3) in 2004; 25.2\% (95\% CI: 22.6-27.8) in 2005. Women: 22.5\% (95\% CI: 20.5-24.4) in 2004; 24.3\% (95\% CI: 22.4-26.3) in 2005. There was little difference in how frequently men and women reported a fair or poor general health status.

Reports of fair or poor health increased significantly with age. The 2004 prevalence ranged from a low of $6.8 \%$ among the youngest adults to a high of $38.6 \%$ among the oldest. Variation by age was similar in 2005, with a prevalence of $10.2 \%$ among 25-34-year-olds increasing to a high of $39.0 \%$ among those 65 and older.

Adults with less than a high school education carried the greatest risk due to fair or poor health, with a prevalence of nearly $50 \%$. Those with more education had a much lower prevalence, with the risk for college graduates limited to the $9 \%-$ $10 \%$ range. Differences were significant between every educational bracket in both years.

Fair or poor health was experienced by approximately 1 of every 2 adults in the lowest income group (less than $\$ 15,000$ annually). Significant declines in prevalence occurred for those in the $\$ 25,000$ to $\$ 34,999$ bracket (approximately 1 in 4) and for adults with the highest incomes (approximately 1 in 20).

## QUICK STATS

- West Virginia adults who reported their general health to be excellent or very good represented $47 \%$ of the population in 2004 and 43\% in 2005.
- Due to poor physical or mental health, $6 \%$ to $7 \%$ of adults in both years were unable to perform their usual activities, such as self-care, work, or recreation, every day during the past 30 days.

Table 1.1 Fair or poor health by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,315 | 24.7 | 22.1-27.3 | 2,117 | 22.5 | 20.5-24.4 | 3,432 | 23.5 | 21.9-25.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | * 9.6 | 2.0-17.3 | 115 | * 3.9 | 0.5-7.3 | 190 | * 6.8 | 2.5-11.1 |
| 25-34 | 180 | 13.6 | 7.9-19.3 | 281 | 10.1 | 6.4-13.8 | 461 | 11.8 | 8.4-15.3 |
| 35-44 | 237 | 18.5 | 13.0-24.0 | 362 | 18.6 | 14.1-23.1 | 599 | 18.6 | 15.0-22.1 |
| 45-54 | 294 | 28.1 | 22.6-33.7 | 401 | 21.5 | 17.2-25.9 | 695 | 24.8 | 21.3-28.3 |
| 55-64 | 256 | 35.6 | 29.2-42.0 | 380 | 33.7 | 28.4-38.9 | 636 | 34.6 | 30.5-38.7 |
| 65+ | 271 | 40.7 | 34.3-47.2 | 574 | 37.1 | 32.8-41.4 | 845 | 38.6 | 35.0-42.3 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 225 | 49.9 | 42.6-57.2 | 402 | 46.0 | 40.4-51.5 | 627 | 47.7 | 43.2-52.2 |
| H.S. or G.E.D. | 525 | 27.2 | 23.0-31.4 | 795 | 22.7 | 19.5-25.8 | 1,320 | 25.0 | 22.3-27.6 |
| Some Post-H.S. | 259 | 16.3 | 10.8-21.8 | 470 | 14.6 | 11.2-17.9 | 729 | 15.4 | 12.3-18.4 |
| College Graduate | 304 | 9.1 | 5.6-12.6 | 447 | 9.5 | 6.6-12.3 | 751 | 9.3 | 7.1-11.5 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 165 | 47.1 | 37.8-56.4 | 464 | 47.2 | 42.0-52.4 | 629 | 47.2 | 42.4-52.0 |
| \$15,000-24,999 | 261 | 34.3 | 27.8-40.8 | 403 | 27.2 | 22.4-31.9 | 664 | 30.6 | 26.6-34.6 |
| \$25,000-34,999 | 165 | 28.8 | 21.2-36.5 | 253 | 18.9 | 13.5-24.3 | 418 | 23.6 | 19.0-28.3 |
| \$35,000-49,999 | 213 | 15.6 | 10.4-20.9 | 305 | 11.5 | 7.7-15.3 | 518 | 13.5 | 10.3-16.7 |
| \$50,000-74,999 | 214 | 14.9 | 9.6-20.1 | 230 | 9.8 | 6.0-13.5 | 444 | 12.6 | 9.2-16.0 |
| \$75,000+ | 187 | 6.1 | 2.9-9.4 | 189 | 3.5 | 0.9-6.0 | 376 | 5.0 | 2.8-7.1 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 1.2 Fair or poor health by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,357 | 25.2 | 22.6-27.8 | 2,188 | 24.3 | 22.4-26.3 | 3,545 | 24.7 | 23.1-26.3 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | *12.9 | 3.9-21.9 | 101 | * 9.2 | 3.5-14.8 | 169 | 11.1 | 5.7-16.5 |
| 25-34 | 180 | 11.4 | 6.2-16.6 | 282 | 9.0 | 5.4-12.5 | 462 | 10.2 | 7.0-13.3 |
| 35-44 | 226 | 21.9 | 16.2-27.6 | 351 | 20.2 | 15.6-24.8 | 577 | 21.0 | 17.4-24.7 |
| 45-54 | 286 | 27.0 | 21.4-32.7 | 457 | 26.9 | 22.5-31.2 | 743 | 27.0 | 23.4-30.5 |
| 55-64 | 275 | 35.4 | 29.2-41.6 | 366 | 31.6 | 26.5-36.8 | 641 | 33.5 | 29.5-37.5 |
| 65+ | 320 | 39.7 | 33.9-45.5 | 622 | 38.4 | 34.2-42.6 | 942 | 39.0 | 35.5-42.4 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 249 | 49.3 | 41.8-56.8 | 381 | 48.5 | 42.7-54.4 | 630 | 49.0 | 44.2-53.7 |
| H.S. or G.E.D. | 555 | 23.2 | 19.2-27.2 | 867 | 26.3 | 23.2-29.4 | 1,422 | 24.8 | 22.3-27.3 |
| Some Post-H.S. | 248 | 20.6 | 15.0-26.3 | 503 | 17.4 | 13.9-20.9 | 751 | 18.8 | 15.7-21.9 |
| College Graduate | 304 | 11.2 | 7.4-14.9 | 434 | 8.6 | 6.0-11.2 | 738 | 9.9 | 7.6-12.2 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 60.3 | 51.3-69.2 | 433 | 48.9 | 43.5-54.4 | 599 | 53.3 | 48.4-58.1 |
| \$15,000-24,999 | 269 | 37.8 | 31.3-44.3 | 460 | 30.5 | 25.8-35.2 | 729 | 33.9 | 30.0-37.9 |
| \$25,000-34,999 | 213 | 27.0 | 20.5-33.5 | 254 | 20.9 | 15.6-26.2 | 467 | 24.2 | 19.9-28.5 |
| \$35,000-49,999 | 207 | 12.2 | 7.7-16.7 | 265 | 12.0 | 8.1-16.0 | 472 | 12.1 | 9.1-15.2 |
| \$50,000-74,999 | 209 | 9.1 | 4.1-14.2 | 262 | 7.8 | 4.3-11.2 | 471 | 8.5 | 5.4-11.6 |
| \$75,000+ | 175 | 7.9 | 4.0-11.7 | 211 | 6.3 | 2.9-9.8 | 386 | 7.1 | 4.5-9.8 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 1.1 Fair or poor health by year: WVBRFSS, 1993-2005


Figure 1.2 Fair or poor health by county: WVBRFSS, 2001-2005

US Prevalence (2003) - 16.2\%


## Chapter 2: Health Care Access

## No Health Care Coverage (among Adults 18 to 64) in 2004 and 2005

| Definition | Responding "No" to the following question: "Do you have any kind of health <br> care coverage, including health insurance, prepaid plans such as HMOs, or <br> government plans such as Medicare?" The results reported for this section have <br> been limited to adults aged 18-64. |
| :--- | :--- |
| Prevalence | WV: $22.7 \%$ (95\% CI: 20.7-24.7) in 2004; 22.2\% (95\% CI: 20.2-24.2) in 2005. <br> US: 18.7\% (95\% CI: 18.4-19.1) in 2004; 18.8\% (95\% CI: 18.5-19.1) in 2005. <br> West Virginia ranked 10 hith highest among 52 BRFSS participants in 2004 and 14 |
| highest among 53 BRFSS participants in 2005. |  |

## WV Healthy People 2010 ObJECTIVES

Objective 1.1a Increase the proportion of persons aged 18-64 with health insurance coverage to $90 \%$. (Baseline: $79.4 \%$ in 1998; Current: $77.8 \%$ in 2005)

Table 2.1 No health care coverage among adults aged 18-64 by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,045 | 21.6 | 18.6-24.7 | 1,537 | 23.7 | 21.2-26.3 | 2,582 | 22.7 | 20.7-24.7 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 74 | *38.0 | 25.9-50.0 | 114 | 38.3 | 28.4-48.2 | 188 | 38.1 | 30.3-46.0 |
| 25-34 | 181 | 29.7 | 22.5-37.0 | 282 | 28.4 | 22.7-34.0 | 463 | 29.1 | 24.5-33.7 |
| 35-44 | 236 | 23.5 | 17.5-29.5 | 361 | 25.4 | 20.3-30.5 | 597 | 24.5 | 20.5-28.4 |
| 45-54 | 298 | 11.6 | 8.0-15.3 | 400 | 16.9 | 12.9-21.0 | 698 | 14.3 | 11.6-17.0 |
| 55-64 | 256 | 9.9 | 5.9-13.8 | 380 | 14.3 | 10.4-18.1 | 636 | 12.1 | 9.4-14.9 |
| 65+ |  |  |  |  |  |  |  |  |  |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 147 | 37.6 | 28.5-46.8 | 206 | 33.0 | 25.2-40.8 | 353 | 35.2 | 29.3-41.2 |
| H.S. or G.E.D. | 431 | 26.5 | 21.5-31.6 | 571 | 30.4 | 26.0-34.8 | 1,002 | 28.4 | 25.0-31.7 |
| Some Post-H.S. | 216 | 16.8 | 10.4-23.2 | 389 | 20.8 | 15.8-25.7 | 605 | 18.9 | 14.9-22.9 |
| College Graduate | 250 | 6.9 | 3.4-10.3 | 369 | 10.4 | 6.8-14.1 | 619 | 8.7 | 6.2-11.3 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 127 | *40.1 | 29.6-50.6 | 271 | 42.2 | 35.1-49.3 | 398 | 41.2 | 35.1-47.4 |
| \$15,000-24,999 | 168 | 45.6 | 36.8-54.4 | 270 | 41.6 | 34.8-48.3 | 438 | 43.4 | 38.0-48.9 |
| \$25,000-34,999 | 126 | 25.9 | 16.4-35.3 | 195 | 33.4 | 25.1-41.6 | 321 | 29.8 | 23.5-36.1 |
| \$35,000-49,999 | 188 | 13.1 | 7.1-19.1 | 271 | 10.7 | 6.2-15.3 | 459 | 11.9 | 8.1-15.6 |
| \$50,000-74,999 | 192 | * 4.5 | 1.0-7.9 | 209 | * 4.5 | 0.5-8.4 | 401 | 4.5 | 1.9-7.0 |
| \$75,000+ | 171 | * 3.9 | 1.0-6.9 | 179 | * 4.6 | 0.9-8.4 | 350 | 4.2 | 1.9-6.6 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 2.2 No health care coverage among adults aged 18-64 by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,035 | 24.1 | 20.8-27.3 | 1,559 | 20.4 | 18.1-22.7 | 2,594 | 22.2 | 20.2-24.2 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 67 | *42.3 | 29.5-55.1 | 102 | 21.4 | 13.0-29.9 | 169 | 32.0 | 24.0-40.0 |
| 25-34 | 182 | 37.6 | 29.9-45.3 | 282 | 23.4 | 17.9-28.8 | 464 | 30.5 | 25.7-35.3 |
| 35-44 | 226 | 22.5 | 16.5-28.5 | 350 | 26.3 | 21.3-31.3 | 576 | 24.4 | 20.5-28.3 |
| 45-54 | 284 | 13.4 | 9.1-17.6 | 459 | 16.4 | 12.8-19.9 | 743 | 14.9 | 12.1-17.7 |
| 55-64 | 276 | 10.2 | 6.3-14.2 | 366 | 15.1 | 11.3-18.9 | 642 | 12.7 | 10.0-15.5 |
| 65+ |  |  |  |  |  |  |  |  |  |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 168 | 35.7 | 26.5-44.8 | 189 | 32.2 | 24.6-39.8 | 357 | 34.2 | 28.0-40.4 |
| H.S. or G.E.D. | 425 | 27.7 | 22.5-32.8 | 601 | 23.6 | 19.9-27.3 | 1,026 | 25.7 | 22.5-28.9 |
| Some Post-H.S. | 191 | 18.6 | 11.7-25.5 | 399 | 19.8 | 15.1-24.4 | 590 | 19.3 | 15.4-23.2 |
| College Graduate | 250 | 12.6 | 7.0-18.1 | 370 | 8.9 | 5.3-12.4 | 620 | 10.7 | 7.4-14.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 114 | *44.5 | 33.7-55.4 | 251 | 39.5 | 32.4-46.7 | 365 | 41.6 | 35.5-47.8 |
| \$15,000-24,999 | 178 | 36.9 | 28.5-45.3 | 303 | 38.6 | 32.3-44.8 | 481 | 37.8 | 32.6-42.9 |
| \$25,000-34,999 | 150 | 28.8 | 20.2-37.3 | 193 | 17.1 | 11.2-23.0 | 343 | 23.3 | 17.9-28.7 |
| \$35,000-49,999 | 166 | 15.8 | 8.8-22.8 | 222 | 9.8 | 4.3-15.3 | 388 | 12.9 | 8.4-17.4 |
| \$50,000-74,999 | 190 | 10.3 | 4.5-16.1 | 240 | * 5.0 | 1.5-8.5 | 430 | 7.8 | 4.3-11.3 |
| \$75,000+ | 161 | * 5.7 | 1.2-10.1 | 197 | * 3.2 | 0.5-6.0 | 358 | * 4.5 | 1.8-7.2 |

[^3]Figure 2.1 No health care coverage among adults aged 18-64 by year: WVBRFSS, 1993-2005


Figure 2.2 No health care coverage among adults aged 18-64 by county: WVBRFSS, 2001-2005



Figure 2.3 Inability to afford needed medical care by year: WVBRFSS, 1993-2005


Table 2.3 Could not afford needed medical care in past 12 months by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,317 | 17.2 | 14.8-19.7 | 2,118 | 21.3 | 19.2-23.4 | 3,435 | 19.3 | 17.8-20.9 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | *21.9 | 11.4-32.3 | 115 | 32.2 | 22.9-41.5 | 190 | 26.9 | 19.9-33.9 |
| 25-34 | 181 | 19.9 | 13.7-26.2 | 282 | 32.1 | 26.2-37.9 | 463 | 26.0 | 21.6-30.3 |
| 35-44 | 236 | 23.1 | 17.1-29.0 | 361 | 29.9 | 24.7-35.2 | 597 | 26.5 | 22.6-30.5 |
| 45-54 | 298 | 17.4 | 12.8-22.1 | 401 | 18.6 | 14.4-22.8 | 699 | 18.0 | 14.9-21.2 |
| 55-64 | 254 | 11.9 | 7.8-16.1 | 380 | 17.9 | 13.7-22.2 | 634 | 15.0 | 12.0-18.0 |
| 65+ | 271 | 7.8 | 4.1-11.5 | 575 | 6.2 | 4.2-8.3 | 846 | 6.9 | 4.9-8.8 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 225 | 29.9 | 22.9-36.9 | 401 | 25.2 | 20.1-30.4 | 626 | 27.3 | 23.1-31.5 |
| H.S. or G.E.D. | 526 | 18.0 | 14.1-22.0 | 796 | 24.3 | 20.8-27.9 | 1,322 | 21.1 | 18.4-23.8 |
| Some Post-H.S. | 259 | 12.7 | 7.9-17.6 | 471 | 21.4 | 17.2-25.7 | 730 | 17.5 | 14.3-20.7 |
| College Graduate | 305 | 10.6 | 6.3-14.8 | 447 | 12.2 | 8.6-15.8 | 752 | 11.4 | 8.6-14.2 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 168 | 34.9 | 26.1-43.8 | 465 | 35.8 | 30.7-41.0 | 633 | 35.5 | 30.9-40.1 |
| \$15,000-24,999 | 260 | 26.8 | 20.5-33.2 | 403 | 30.2 | 25.1-35.4 | 663 | 28.6 | 24.5-32.6 |
| \$25,000-34,999 | 164 | 19.4 | 11.9-26.9 | 253 | 27.2 | 20.4-34.0 | 417 | 23.5 | 18.5-28.6 |
| \$35,000-49,999 | 215 | 14.2 | 8.5-19.8 | 305 | 14.3 | 9.6-18.9 | 520 | 14.2 | 10.6-17.9 |
| \$50,000-74,999 | 214 | * 5.5 | 2.0-9.1 | 230 | 8.2 | 4.1-12.4 | 444 | 6.7 | 4.0-9.4 |
| \$75,000+ | 187 | * 3.3 | 0.4-6.1 | 189 | * 4.3 | 0.9-7.8 | 376 | * 3.7 | 1.5-5.9 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 2.4 Could not afford needed medical care in past 12 months by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,357 | 16.5 | 14.2-18.9 | 2,192 | 20.4 | 18.4-22.4 | 3,549 | 18.5 | 17.0-20.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | 20.3 | 10.4-30.3 | 102 | 29.2 | 19.5-38.9 | 170 | 24.7 | 17.6-31.7 |
| 25-34 | 181 | 24.9 | 18.1-31.8 | 282 | 26.9 | 21.4-32.4 | 463 | 25.9 | 21.5-30.3 |
| 35-44 | 226 | 20.9 | 15.2-26.5 | 351 | 28.1 | 23.0-33.2 | 577 | 24.5 | 20.7-28.4 |
| 45-54 | 286 | 16.1 | 11.5-20.7 | 459 | 22.7 | 18.6-26.8 | 745 | 19.5 | 16.4-22.6 |
| 55-64 | 275 | 12.6 | 8.5-16.8 | 366 | 14.6 | 10.9-18.4 | 641 | 13.6 | 10.9-16.4 |
| 65+ | 319 | 5.3 | 2.7-7.9 | 623 | 7.4 | 5.2-9.5 | 942 | 6.5 | 4.9-8.2 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 249 | 30.6 | 23.8-37.5 | 382 | 22.6 | 17.5-27.6 | 631 | 26.7 | 22.4-31.0 |
| H.S. or G.E.D. | 555 | 16.3 | 12.6-20.0 | 869 | 23.0 | 19.7-26.3 | 1,424 | 19.7 | 17.2-22.2 |
| Some Post-H.S. | 248 | 11.3 | 6.5-16.0 | 503 | 23.8 | 19.3-28.3 | 751 | 18.7 | 15.3-22.0 |
| College Graduate | 304 | 8.8 | 5.3-12.3 | 435 | 8.9 | 5.9-11.8 | 739 | 8.8 | 6.6-11.1 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 32.4 | 23.7-41.1 | 435 | 32.7 | 27.5-37.9 | 601 | 32.6 | 28.0-37.2 |
| \$15,000-24,999 | 268 | 26.1 | 19.8-32.3 | 462 | 34.2 | 29.1-39.3 | 730 | 30.4 | 26.4-34.4 |
| \$25,000-34,999 | 214 | 22.8 | 16.2-29.3 | 254 | 22.3 | 16.6-27.9 | 468 | 22.5 | 18.1-27.0 |
| \$35,000-49,999 | 207 | 10.7 | 6.0-15.4 | 265 | 10.9 | 5.8-16.1 | 472 | 10.8 | 7.4-14.3 |
| \$50,000-74,999 | 209 | * 5.8 | 2.0-9.5 | 262 | 8.0 | 4.4-11.6 | 471 | 6.8 | 4.2-9.4 |
| \$75,000+ | 175 | * 4.2 | 0.8-7.6 | 211 | * 3.8 | 0.8-6.9 | 386 | 4.0 | 1.7-6.3 |

[^4]
## No Personal Doctor or Health Care Provider in 2004 and 2005

| Definition | Responding "No" to the following question: "Do you have one (or more than <br> one) person you think of as your personal doctor or health care provider?" |
| :--- | :--- |
| Prevalence | WV: 22.9\% (95\% CI: 21.2-24.6) in 2004; 22.4\% (95\% CI: 20.6-24.2) in 2005. <br> US: 20.5\% (95\% CI: 20.1-20.8) in 2004; 20.5\% (95\% CI: 20.2-20.8) in 2005. |
| West Virginia ranked 18" highest among 52 BRFSS participants in 2004 and $17^{\text {th }}$ |  |
| highest among 53 BRFSS participants in 2005. |  |

## WV Healthy People 2010 OBJECTIVES

Objective 1.2
(Developmental) Increase the proportion of persons with a personal primary care provider. (Baseline: 78.0 in 2001; Current: $77.6 \%$ in 2005)

Table 2.5 No personal doctor or health care provider by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,321 | 28.3 | 25.5-31.2 | 2,120 | 17.9 | 15.9-19.8 | 3,441 | 22.9 | 21.2-24.6 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | *47.5 | 35.3-59.8 | 115 | 37.8 | 28.2-47.4 | 190 | 42.8 | 35.0-50.6 |
| 25-34 | 181 | 45.5 | 37.8-53.3 | 282 | 29.9 | 24.0-35.8 | 463 | 37.8 | 32.8-42.7 |
| 35-44 | 237 | 35.6 | 29.1-42.2 | 362 | 20.7 | 16.0-25.3 | 599 | 28.0 | 24.0-32.0 |
| 45-54 | 298 | 21.1 | 16.3-25.8 | 401 | 13.9 | 10.4-17.5 | 699 | 17.5 | 14.5-20.4 |
| 55-64 | 256 | 16.0 | 11.3-20.7 | 380 | 8.7 | 5.5-11.9 | 636 | 12.3 | 9.4-15.1 |
| 65+ | 272 | 8.0 | 4.5-11.5 | 576 | 6.5 | 4.2-8.8 | 848 | 7.1 | 5.1-9.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 226 | 28.1 | 21.6-34.6 | 402 | 20.3 | 15.1-25.4 | 628 | 23.7 | 19.7-27.7 |
| H.S. or G.E.D. | 527 | 33.1 | 28.3-37.8 | 798 | 20.2 | 16.9-23.5 | 1,325 | 26.8 | 23.8-29.7 |
| Some Post-H.S. | 260 | 26.5 | 20.0-32.9 | 470 | 14.9 | 10.8-19.0 | 730 | 20.2 | 16.5-23.9 |
| College Graduate | 306 | 21.1 | 16.1-26.2 | 447 | 14.9 | 11.0-18.7 | 753 | 17.9 | 14.7-21.1 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 168 | 45.5 | 36.0-54.9 | 465 | 19.9 | 15.0-24.8 | 633 | 29.7 | 24.8-34.6 |
| \$15,000-24,999 | 262 | 37.4 | 30.6-44.2 | 404 | 26.5 | 21.5-31.5 | 666 | 31.7 | 27.5-35.9 |
| \$25,000-34,999 | 165 | 23.6 | 16.4-30.8 | 253 | 17.7 | 11.8-23.6 | 418 | 20.5 | 15.9-25.1 |
| \$35,000-49,999 | 215 | 23.6 | 17.3-30.0 | 305 | 15.1 | 10.5-19.6 | 520 | 19.3 | 15.4-23.2 |
| \$50,000-74,999 | 214 | 19.9 | 14.2-25.6 | 230 | 10.9 | 5.8-16.0 | 444 | 16.0 | 12.1-19.9 |
| \$75,000+ | 187 | 14.6 | 9.1-20.2 | 189 | 12.3 | 6.4-18.3 | 376 | 13.6 | 9.6-17.7 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 2.6 No personal doctor or health care provider by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,359 | 29.2 | 26.2-32.2 | 2,191 | 16.1 | 14.2-18.0 | 3,550 | 22.4 | 20.6-24.2 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | *53.6 | 40.9-66.3 | 102 | 30.5 | 21.0-40.0 | 170 | 42.3 | 34.1-50.6 |
| 25-34 | 182 | 54.4 | 46.7-62.1 | 282 | 27.2 | 21.4-33.1 | 464 | 40.9 | 35.9-45.9 |
| 35-44 | 226 | 33.8 | 27.1-40.5 | 349 | 19.7 | 15.0-24.3 | 575 | 26.6 | 22.5-30.7 |
| 45-54 | 286 | 18.6 | 13.7-23.6 | 459 | 13.5 | 10.2-16.8 | 745 | 16.0 | 13.1-19.0 |
| 55-64 | 275 | 13.9 | 9.2-18.6 | 366 | 9.6 | 6.4-12.8 | 641 | 11.7 | 8.9-14.5 |
| 65+ | 320 | 8.2 | 5.2-11.2 | 624 | 5.2 | 3.4-7.0 | 944 | 6.4 | 4.8-8.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 250 | 33.2 | 25.7-40.8 | 382 | 20.1 | 14.7-25.4 | 632 | 26.9 | 22.1-31.6 |
| H.S. or G.E.D. | 555 | 29.9 | 25.2-34.5 | 869 | 15.3 | 12.5-18.1 | 1,424 | 22.5 | 19.7-25.2 |
| Some Post-H.S. | 249 | 27.6 | 20.7-34.5 | 503 | 16.8 | 12.8-20.9 | 752 | 21.3 | 17.5-25.0 |
| College Graduate | 304 | 25.5 | 19.6-31.4 | 435 | 13.6 | 9.8-17.3 | 739 | 19.5 | 16.0-23.1 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 31.8 | 22.9-40.7 | 433 | 23.5 | 18.1-28.8 | 599 | 26.6 | 21.9-31.4 |
| \$15,000-24,999 | 270 | 33.2 | 26.4-40.1 | 462 | 17.6 | 13.5-21.7 | 732 | 25.0 | 21.0-29.0 |
| \$25,000-34,999 | 214 | 28.7 | 21.5-35.8 | 254 | 12.7 | 7.6-17.9 | 468 | 21.4 | 16.8-26.1 |
| \$35,000-49,999 | 207 | 29.2 | 21.7-36.6 | 265 | 14.8 | 9.8-19.9 | 472 | 22.3 | 17.6-27.0 |
| \$50,000-74,999 | 209 | 23.4 | 16.5-30.3 | 262 | 13.6 | 8.5-18.7 | 471 | 18.7 | 14.3-23.1 |
| \$75,000+ | 175 | 22.3 | 15.3-29.4 | 211 | 9.3 | 5.4-13.3 | 386 | 16.2 | 12.0-20.5 |

[^5]
## Type of Health Care Coverage in 2004 and 2005

Table 2.7 Type of health care coverage among adults who currently have coverage: WVBRFSS, 2004 and 2005

Definition "What type of health care coverage do you use to pay for most of your medical care? Is it coverage through: Your employer, someone else's employer, a plan that you or someone else buys on your own, Medicare, Medicaid or Medical Assistance, the military, CHAMPUS, TriCare, VA, or some other source?"

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| Your employer | 980 | 39.0 | 36.9-41.2 | 1,098 | 40.4 | 38.4-42.5 |
| Someone else's employer | 509 | 21.7 | 19.8-23.6 | 525 | 21.0 | 19.2-22.8 |
| Plan bought on own | 109 | 3.9 | 3.1-4.7 | 109 | 3.8 | 3.0-4.6 |
| Medicare | 806 | 24.7 | 22.9-26.4 | 901 | 24.1 | 22.5-25.8 |
| Medicaid or Medical Assistance | 197 | 7.0 | 5.9-8.2 | 198 | 6.6 | 5.6-7.7 |
| Military, CHAMPUS, TriCare, VA, or some other source | 92 | 3.7 | 2.8-4.5 | 106 | 3.9 | 3.1-4.8 |

Table 2.8 Health care coverage through the West Virginia Public Employees Insurance Agency (PEIA), among all those who currently have any coverage: WVBRFSS, 2004 and 2005

Definition Responding "Yes" to the question: "Is the coverage through PEIA?"

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| PEIA Coverage | 2,646 | 12.7 | 11.3-14.2 | 2,896 | 12.3 | 10.9-13.7 |

## No Leisure-Time Physical Activity for Exercise in 2004 and 2005

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?"
$\begin{array}{lll}\text { Prevalence } & \text { WV: } 24.5 \% \text { (95\% CI: 22.9-26.1) in 2004; 28.5\% (95\% CI: 26.8-30.3) in } 2005 . \\ & \text { US: } \quad 24.0 \% \text { (95\% CI: 23.7-24.3) in 2004; } \mathbf{2 5 . 5 \%} \text { (95\% CI: 25.2-25.7) in } 2005 .\end{array}$ West Virginia ranked $18^{\text {th }}$ highest among 52 BRFSS participants in 2004, and $11^{\text {th }}$ highest among 53 BRFSS participants in 2005.

Time Trends From 1984 until 1994, the physical inactivity risk increased from $27.3 \%$ to $45.3 \%$. After 1998, however, the trend improved, with the prevalence dropping to a low of $24.5 \%$ in 2004 . The prevalence rose again in 2005 to $28.5 \%$, a significant one-year increase.

Gender Men: 21.3\% (95\% CI: 18.8-23.7) in 2004; 25.5\% (95\% CI: 22.8-28.2) in 2005. Women: 27.5\% (95\% CI: 25.4-29.7) in 2004; 31.3\% (95\% CI: 29.1-33.5) in 2005. Women had a significantly higher overall risk than men in both years.

Age In general, the prevalence of physical inactivity increased with age. In both years, the rate among persons aged 65 and older was significantly higher than that among those aged less than 45.

Education The prevalence of physical inactivity decreased with increasing education in both 2004 and 2005. Significant differences were noted between each level of education in both years.

Household Income The prevalence of physical inactivity was significantly higher than the state average among adults with incomes of less than \$15,000 in both 2004 and 2005. Persons with incomes in excess of $\$ 75,000$ were significantly less likely to be inactive than those with incomes of less than $\$ 35,000$ in both years.

## WV Healthy People 2010 Objectives

Objective 22.1 Reduce to $37 \%$ the proportion of people aged 18 and older who report no leisure-time physical activity. (Baseline: $43.7 \%$ in 1998; Current: $28.5 \%$ in 2005)

Table 3.1 No leisure-time physical activity for exercise by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,320 | 21.3 | 18.8-23.7 | 2,121 | 27.5 | 25.4-29.7 | 3,441 | 24.5 | 22.9-26.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | 14.4 | 6.4-22.3 | 115 | 17.8 | 10.1-25.6 | 190 | 16.1 | 10.5-21.6 |
| 25-34 | 181 | 15.4 | 9.8-21.0 | 282 | 19.0 | 14.1-23.9 | 463 | 17.2 | 13.5-20.9 |
| 35-44 | 237 | 21.9 | 16.2-27.6 | 362 | 24.6 | 19.8-29.4 | 599 | 23.3 | 19.6-27.0 |
| 45-54 | 297 | 24.2 | 18.9-29.5 | 401 | 28.4 | 23.4-33.3 | 698 | 26.3 | 22.7-29.9 |
| 55-64 | 256 | 24.6 | 18.9-30.2 | 380 | 32.5 | 27.2-37.8 | 636 | 28.6 | 24.8-32.5 |
| 65+ | 272 | 25.5 | 19.8-31.1 | 577 | 36.7 | 32.4-41.1 | 849 | 32.1 | 28.6-35.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 226 | 40.8 | 33.7-48.0 | 402 | 41.8 | 36.3-47.3 | 628 | 41.4 | 37.0-45.8 |
| H.S. or G.E.D. | 526 | 23.0 | 19.0-26.9 | 798 | 29.7 | 26.1-33.2 | 1,324 | 26.3 | 23.6-29.0 |
| Some Post-H.S. | 260 | 14.3 | 9.7-18.8 | 471 | 23.4 | 19.1-27.6 | 731 | 19.2 | 16.1-22.4 |
| College Graduate | 306 | 10.1 | 6.5-13.6 | 447 | 15.4 | 11.5-19.3 | 753 | 12.8 | 10.1-15.5 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 168 | 38.2 | 29.6-46.7 | 465 | 37.9 | 32.8-42.9 | 633 | 38.0 | 33.5-42.5 |
| \$15,000-24,999 | 262 | 31.8 | 25.5-38.1 | 404 | 32.7 | 27.5-37.9 | 666 | 32.3 | 28.2-36.3 |
| \$25,000-34,999 | 165 | 21.0 | 14.0-28.1 | 253 | 25.2 | 19.2-31.3 | 418 | 23.2 | 18.7-27.8 |
| \$35,000-49,999 | 215 | 14.6 | 9.2-20.0 | 305 | 22.1 | 16.8-27.3 | 520 | 18.4 | 14.6-22.2 |
| \$50,000-74,999 | 214 | 15.8 | 10.3-21.2 | 230 | 19.8 | 13.7-25.8 | 444 | 17.5 | 13.4-21.6 |
| \$75,000+ | 186 | 12.6 | 7.3-17.9 | 189 | 12.6 | 7.5-17.7 | 375 | 12.6 | 8.9-16.3 |

Table 3.2 No leisure-time physical activity for exercise by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,360 | 25.5 | 22.8-28.2 | 2,192 | 31.3 | 29.1-33.5 | 3,552 | 28.5 | 26.8-30.3 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | 24.0 | 12.6-35.5 | 102 | 17.5 | 9.6-25.4 | 170 | 20.8 | 13.8-27.9 |
| 25-34 | 182 | 16.1 | 10.3-21.9 | 282 | 22.6 | 17.3-27.9 | 464 | 19.3 | 15.4-23.2 |
| 35-44 | 226 | 24.2 | 18.1-30.2 | 351 | 29.0 | 23.7-34.3 | 577 | 26.6 | 22.6-30.6 |
| 45-54 | 286 | 28.5 | 22.8-34.2 | 458 | 35.8 | 30.9-40.6 | 744 | 32.1 | 28.4-35.9 |
| 55-64 | 276 | 26.5 | 21.0-32.1 | 366 | 37.4 | 31.9-42.8 | 642 | 32.1 | 28.1-36.0 |
| 65+ | 320 | 33.1 | 27.5-38.7 | 624 | 38.3 | 34.0-42.6 | 944 | 36.1 | 32.7-39.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 250 | 42.3 | 34.8-49.8 | 382 | 44.7 | 38.8-50.5 | 632 | 43.4 | 38.7-48.2 |
| H.S. or G.E.D. | 556 | 26.4 | 22.3-30.6 | 869 | 37.6 | 33.9-41.3 | 1,425 | 32.1 | 29.3-34.9 |
| Some Post-H.S. | 249 | 20.6 | 14.7-26.6 | 503 | 23.7 | 19.5-27.9 | 752 | 22.4 | 19.0-25.9 |
| College Graduate | 304 | 12.8 | 8.9-16.7 | 435 | 17.0 | 13.2-20.7 | 739 | 14.9 | 12.2-17.6 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 34.5 | 26.4-42.6 | 435 | 43.3 | 37.9-48.7 | 602 | 39.9 | 35.3-44.5 |
| \$15,000-24,999 | 270 | 28.9 | 22.8-34.9 | 462 | 35.4 | 30.3-40.6 | 732 | 32.4 | 28.4-36.3 |
| \$25,000-34,999 | 214 | 27.1 | 20.3-33.8 | 254 | 36.9 | 30.0-43.8 | 468 | 31.5 | 26.7-36.4 |
| \$35,000-49,999 | 207 | 24.4 | 18.1-30.8 | 265 | 26.5 | 20.7-32.4 | 472 | 25.4 | 21.1-29.8 |
| \$50,000-74,999 | 209 | 18.6 | 12.1-25.1 | 262 | 20.7 | 15.4-25.9 | 471 | 19.6 | 15.4-23.8 |
| \$75,000+ | 175 | 12.1 | 6.8-17.4 | 211 | 17.5 | 12.3-22.8 | 386 | 14.6 | 10.9-18.4 |

Figure 3.1 No leisure-time physical activity for exercise by year: WVBRFSS, 1984-2005


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

Figure 3.2 No leisure-time physical activity for exercise by county: WVBRFSS, 2001-2005


## Moderate and Vigorous Physical Activity in 2005

## Definitions

## Prevalence

## Moderate or Vigorous Physical Activity

Adults who reported participating in either moderate physical activity, for 30 or more minutes per day for 5 or more days per week, or vigorous activity, for 20 or more minutes per day on 3 or more days.

## Insufficient Physical Activity

Adults who reported some physical activity but not enough to meet the moderate or vigorous physical activity recommendations listed above.

## No Physical Activity

Adults who report doing no physical activity that meets the moderate or vigorous physical activity recommendations listed above. (This CDC definition varies from that of No Leisure-Time Physical Activity.)

## Moderate or Vigorous Physical Activity

WV: 39.4\% (95\% CI: 37.4-41.4) in 2005.
US: $\quad \mathbf{4 8 . 1} \%$ (95\% CI: 47.8-48.5) in 2005.
West Virginia ranked $49^{\text {th }}$ highest among 53 participants in 2005.
Insufficient Physical Activity
WV: 36.8\% (95\% CI: 34.9-38.7) in 2005.
US: $\quad 37.7 \%$ (95\% CI: 37.4-38.1) in 2005.
West Virginia ranked $34^{\text {th }}$ highest among 53 participants in 2005.

## No Physical Activity

WV: 23.8\% (95\% CI: 22.2-25.5) in 2005.
US: $\quad \mathbf{1 4 . 2 \%}$ (95\% CI: 13.9-14.4) in 2005.
West Virginia ranked 3 ${ }^{\text {rd }}$ highest among 53 participants in 2005.
Table 3.3 Adults meeting recommendations for moderate or vigorous physical activity for exercise, by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,297 | 41.9 | 38.7-45.0 | 2,094 | 37.2 | 34.7-39.6 | 3,391 | 39.4 | 37.4-41.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 65 | *59.2 | 46.2-72.2 | 97 | *55.0 | 44.3-65.7 | 162 | 57.1 | 48.7-65.6 |
| 25-34 | 174 | 50.5 | 42.6-58.4 | 274 | 41.5 | 35.2-47.7 | 448 | 46.0 | 40.9-51.0 |
| 35-44 | 218 | 44.1 | 37.0-51.1 | 338 | 44.1 | 38.3-49.8 | 556 | 44.1 | 39.5-48.6 |
| 45-54 | 275 | 33.7 | 27.6-39.7 | 444 | 36.7 | 31.8-41.7 | 719 | 35.2 | 31.3-39.1 |
| 55-64 | 262 | 38.1 | 31.7-44.6 | 346 | 31.8 | 26.4-37.1 | 608 | 34.9 | 30.7-39.1 |
| 65+ | 301 | 30.8 | 25.3-36.4 | 589 | 23.5 | 19.9-27.1 | 890 | 26.5 | 23.4-29.7 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 229 | 31.3 | 23.7-38.9 | 354 | 29.8 | 23.8-35.7 | 583 | 30.6 | 25.7-35.4 |
| H.S. or G.E.D. | 526 | 38.3 | 33.5-43.1 | 829 | 35.4 | 31.6-39.2 | 1,355 | 36.8 | 33.8-39.9 |
| Some Post-H.S. | 241 | 48.9 | 41.5-56.3 | 485 | 38.7 | 33.4-43.9 | 726 | 42.9 | 38.5-47.2 |
| College Graduate | 300 | 51.3 | 44.9-57.6 | 423 | 44.8 | 39.6-50.1 | 723 | 48.1 | 44.0-52.2 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 157 | 34.3 | 25.4-43.1 | 413 | 24.2 | 19.2-29.2 | 570 | 28.0 | 23.4-32.6 |
| \$15,000-24,999 | 255 | 39.9 | 32.6-47.2 | 438 | 36.4 | 31.1-41.7 | 693 | 38.1 | 33.6-42.5 |
| \$25,000-34,999 | 204 | 32.4 | 25.4-39.4 | 250 | 34.7 | 28.0-41.3 | 454 | 33.5 | 28.6-38.3 |
| \$35,000-49,999 | 196 | 44.2 | 36.4-52.0 | 257 | 41.6 | 34.6-48.6 | 453 | 42.9 | 37.7-48.2 |
| \$50,000-74,999 | 203 | 42.5 | 34.9-50.0 | 257 | 46.2 | 39.5-53.0 | 460 | 44.3 | 39.2-49.4 |
| \$75,000+ | 173 | 50.9 | 42.7-59.1 | 206 | 49.4 | 41.9-56.9 | 379 | 50.2 | 44.6-55.8 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## CHAPTER 4: NUTRITION

## Consumption of Fewer than Five Servings of Vegetables and Fruits Daily in 2005

| Definition | Consuming fewer than five servings of fruits and vegetables on a regular daily basis. |
| :---: | :---: |
| Prevalence | WV: 80.0\% (95\% CI: 78.5-81.5) in 2005. <br> US: 75.8\% (95\% CI: 75.5-76.1) in 2005. <br> West Virginia ranked $7^{\text {th }}$ highest among 53 BRFSS participants in 2005. |
| Time Trends | From 1990 through 2005, the prevalence of this risk factor fluctuated little, producing a basically flat trend line. Between 2003 and 2005 (no related data were collected in 2004), a slight decline occurred, from 81.3 \% in 2003 to 80.0\% in 2005. |
| Gender | Men: 83.0\% (95\% CI: 80.7-85.3) in 2005. <br> Women: 77.1\% (95\% CI: 75.2-79.1) in 2005. <br> Men had a significantly higher overall prevalence of this risk factor than women. |
| Age | The prevalence of this risk factor did not vary greatly by age, although there was a significant difference between the youngest (84.7\%) and the oldest (74.0\%) age groups. |
| Education | Overall, and among women, college graduates had a significantly lower rate of this risk factor than persons with less education. |
| Household Income | The poorest households (those with less than $\$ 15,000$ in annual income) were at significantly higher risk than the wealthiest group ( $\$ 75,000$ or more annual household income). Little difference was noted among the other income groups. |

## WV Healthy People 2010 ObJECTIVES

Objective 19.2 Increase to $35 \%$ the proportion of people aged 18 and older who consume at least five servings of vegetables and fruits per day. (Baseline: $18.7 \%$ in 1998; Current: 20.0\% in 2005)

Table 4.1 Consumption of fewer than five servings of fruits and vegetables by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,350 | 83.0 | 80.7-85.3 | 2,178 | 77.1 | 75.2-79.1 | 3,528 | 80.0 | 78.5-81.5 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | 86.4 | 77.9-95.0 | 100 | 82.8 | 75.0-90.6 | 168 | 84.7 | 78.9-90.5 |
| 25-34 | 179 | 77.9 | 71.2-84.6 | 281 | 77.7 | 72.6-82.7 | 460 | 77.8 | 73.6-82.0 |
| 35-44 | 226 | 87.1 | 82.4-91.9 | 349 | 81.9 | 77.6-86.2 | 575 | 84.5 | 81.3-87.7 |
| 45-54 | 284 | 86.2 | 81.9-90.5 | 456 | 80.5 | 76.6-84.5 | 740 | 83.4 | 80.4-86.3 |
| 55-64 | 275 | 79.9 | 74.7-85.1 | 366 | 73.8 | 69.0-78.7 | 641 | 76.8 | 73.3-80.4 |
| 65+ | 316 | 80.0 | 75.3-84.8 | 617 | 69.7 | 65.6-73.7 | 933 | 74.0 | 70.9-77.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 247 | 85.9 | 81.0-90.8 | 377 | 82.3 | 77.7-86.9 | 624 | 84.1 | 80.8-87.5 |
| H.S. or G.E.D. | 550 | 87.3 | 84.2-90.3 | 864 | 79.8 | 76.8-82.8 | 1,414 | 83.5 | 81.4-85.6 |
| Some Post-H.S. | 249 | 82.9 | 77.6-88.3 | 502 | 79.1 | 75.3-82.9 | 751 | 80.7 | 77.5-83.8 |
| College Graduate | 303 | 72.3 | 66.4-78.3 | 432 | 64.7 | 59.7-69.7 | 735 | 68.5 | 64.7-72.4 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 89.0 | 83.3-94.7 | 433 | 82.3 | 78.3-86.3 | 599 | 84.8 | 81.5-88.1 |
| \$15,000-24,999 | 267 | 83.1 | 77.2-89.0 | 458 | 77.9 | 73.5-82.3 | 725 | 80.4 | 76.8-84.0 |
| \$25,000-34,999 | 211 | 81.2 | 75.4-86.9 | 254 | 68.9 | 62.4-75.3 | 465 | 75.5 | 71.2-79.9 |
| \$35,000-49,999 | 206 | 81.1 | 75.1-87.1 | 262 | 79.9 | 74.6-85.2 | 468 | 80.5 | 76.5-84.5 |
| \$50,000-74,999 | 209 | 85.3 | 80.1-90.5 | 261 | 73.3 | 67.7-79.0 | 470 | 79.6 | 75.7-83.5 |
| \$75,000+ | 174 | 78.3 | 71.7-84.9 | 210 | 69.8 | 63.3-76.4 | 384 | 74.3 | 69.6-79.0 |

Figure 4.1 Consumption of fewer than five servings of fruits and vegetables daily by year: WVBRFSS, 1990-2005


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

## CHAPTER 5: OBESITY AND OVERWEIGHT

## Obesity and Overweight in 2004 and 2005

## Definition

## Prevalence Obesity

## Gender

Age

Education and Household Income

WV: $\mathbf{2 7 . 6 \%}$ (95\% CI: 25.9-29.4) in 2004; 30.6\% (95\% CI: 28.8-32.4) in 2005.
US: $\quad \mathbf{2 3 . 5 \%}$ (95\% CI: 23.2-23.8) in 2004; 24.5\% (95\% CI: 24.2-24.8) in 2005.
WV: 27.6\% (95\% CI: 25.9-29.4) in 2004; 30.6\% (95\% CI: 28.8-32.4) in 2005.
US: $23.5 \%$ (95\% CI: 23.2-23.8) in 2004; 24.5\% (95\% CI: 24.2-24.8) in 2005.
West Virginia ranked $3^{\text {rd }}$ highest among 52 BRFSS participants in 2004 and $3^{\text {rd }}$ highest among 53 BRFSS participants in 2005.

## Overweight

WV: 36.4\% (95\% CI: 34.5-38.3) in 2004; 34.8\% (95\% CI: 33.0-36.7) in 2005. US: $\quad \mathbf{3 6 . 7 \%}$ (95\% CI: 36.4-37.1) in 2004; 36.8\% (95\% CI: 36.5-37.1) in 2005. West Virginia ranked $32^{\text {nd }}$ highest among 52 BRFSS participants in 2004 and $50^{\text {th }}$ highest among 53 BRFSS participants in 2005.

Time Trends Between 1987 and 2005, a substantial increase in obesity prevalence occurred among West Virginia adults. Men and women from a wide range of age, education, and income categories contributed to this unhealthy trend. The rate of overweight, in contrast, had only slight year-to-year variations around a flat longterm trend line. Between 2004 and 2005, obesity estimates increased, while the overweight prevalence declined marginally, but these one-year changes were not significant. During both 2004 and 2005, approximately two-thirds of West Virginia adults were either obese or overweight.
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 $=\mathrm{kg} / \mathrm{m}^{2}$ ). Obesity is defined as a BMI of 30.0 or higher and overweight as a BMI of 25.0-29.9.

## Obesity

Men: 28.5\% (95\% CI: 25.8-31.3) in 2004; 31.0\% (95\% CI: 28.2-33.8) in 2005.
Women: 26.7\% (95\% CI: 24.6-28.9) in 2004; 30.2\% (95\% CI: 28.0-32.5) in 2005.

## Overweight

Men: 43.6\% (95\% CI: 40.5-46.6) in 2004; 40.7\% (95\% CI: 37.7-43.7) in 2005.
Women: 29.5\% (95\% CI: 27.3-31.8) in 2004; 29.1\% (95\% CI: 26.9-31.3) in 2005.
Obesity rate differences by gender alone were very small. However, men had a significantly higher risk than women from overweight in both years.

The prevalence of being either obese or overweight steadily increased into the middle age groups (18-54) in both 2004 and 2005, although adjacent age groups were not significantly different. Among those aged 65 and older, the prevalence of being overweight (but not obese) continued its association with increased age. In contrast, the prevalence of obesity in both years was steeply and significantly lower among the oldest age group when compared with the next oldest age group.

Few differences were significant in the prevalence of either obesity or overweight by educational attainment in 2004 and 2005. Similarly, no significant differences were noted by household income.

Table 5.1 Obesity by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,313 | 28.5 | 25.8-31.3 | 2,019 | 26.7 | 24.6-28.9 | 3,332 | 27.6 | 25.9-29.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 74 | 19.7 | 10.0-29.3 | 111 | 14.0 | 7.3-20.7 | 185 | 16.9 | 11.0-22.9 |
| 25-34 | 179 | 31.9 | 24.7-39.2 | 269 | 21.1 | 15.6-26.5 | 448 | 26.7 | 22.1-31.2 |
| 35-44 | 236 | 29.7 | 23.2-36.1 | 346 | 28.2 | 23.0-33.3 | 582 | 28.9 | 24.8-33.0 |
| 45-54 | 296 | 32.0 | 26.2-37.7 | 383 | 31.9 | 26.8-36.9 | 679 | 31.9 | 28.1-35.8 |
| 55-64 | 255 | 37.1 | 30.7-43.4 | 365 | 37.4 | 31.8-43.0 | 620 | 37.2 | 33.0-41.5 |
| 65+ | 271 | 19.6 | 14.7-24.5 | 543 | 24.7 | 20.8-28.7 | 814 | 22.6 | 19.4-25.7 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 224 | 31.0 | 24.1-37.9 | 384 | 32.1 | 26.7-37.4 | 608 | 31.6 | 27.3-35.9 |
| H.S. or G.E.D. | 523 | 27.8 | 23.6-32.0 | 757 | 30.2 | 26.6-33.8 | 1,280 | 29.0 | 26.2-31.8 |
| Some Post-H.S. | 260 | 30.2 | 23.7-36.7 | 449 | 25.5 | 21.0-30.0 | 709 | 27.7 | 23.8-31.6 |
| College Graduate | 304 | 26.2 | 20.7-31.7 | 427 | 17.0 | 13.2-20.9 | 731 | 21.6 | 18.2-25.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 31.1 | 22.6-39.6 | 442 | 30.4 | 25.7-35.2 | 609 | 30.7 | 26.3-35.1 |
| \$15,000-24,999 | 260 | 30.1 | 23.5-36.7 | 391 | 33.7 | 28.4-39.0 | 651 | 31.9 | 27.7-36.1 |
| \$25,000-34,999 | 164 | 29.8 | 22.1-37.5 | 244 | 26.0 | 20.1-32.0 | 408 | 27.8 | 23.0-32.7 |
| \$35,000-49,999 | 213 | 32.7 | 25.7-39.7 | 297 | 22.8 | 17.7-27.8 | 510 | 27.7 | 23.4-32.0 |
| \$50,000-74,999 | 214 | 23.8 | 17.6-30.0 | 222 | 24.5 | 18.4-30.6 | 436 | 24.1 | 19.7-28.5 |
| \$75,000+ | 187 | 26.8 | 20.1-33.4 | 182 | 19.3 | 13.3-25.3 | 369 | 23.6 | 19.0-28.2 |

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

Table 5.2 Obesity by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,348 | 31.0 | 28.2-33.8 | 2,097 | 30.2 | 28.0-32.5 | 3,445 | 30.6 | 28.8-32.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 67 | *22.3 | 11.9-32.6 | 98 | 20.0 | 11.6-28.5 | 165 | 21.2 | 14.5-28.0 |
| 25-34 | 182 | 32.3 | 25.0-39.6 | 274 | 29.9 | 24.0-35.8 | 456 | 31.1 | 26.4-35.8 |
| 35-44 | 223 | 38.3 | 31.5-45.1 | 329 | 31.0 | 25.5-36.5 | 552 | 34.7 | 30.3-39.1 |
| 45-54 | 284 | 37.5 | 31.5-43.6 | 442 | 34.6 | 29.7-39.5 | 726 | 36.1 | 32.2-40.0 |
| 55-64 | 272 | 29.2 | 23.4-35.1 | 342 | 40.5 | 34.8-46.3 | 614 | 34.8 | 30.7-39.0 |
| 65+ | 318 | 22.1 | 17.2-27.0 | 603 | 25.1 | 21.2-29.0 | 921 | 23.8 | 20.8-26.9 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 248 | 32.8 | 26.0-39.7 | 364 | 31.6 | 26.0-37.2 | 612 | 32.3 | 27.8-36.7 |
| H.S. or G.E.D. | 548 | 31.2 | 26.8-35.7 | 833 | 31.7 | 28.1-35.4 | 1,381 | 31.5 | 28.6-34.3 |
| Some Post-H.S. | 247 | 31.0 | 24.4-37.7 | 482 | 30.2 | 25.5-35.0 | 729 | 30.6 | 26.6-34.5 |
| College Graduate | 304 | 28.6 | 22.9-34.3 | 416 | 26.1 | 21.4-30.7 | 720 | 27.3 | 23.6-31.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 164 | 33.8 | 25.0-42.7 | 417 | 30.3 | 25.2-35.4 | 581 | 31.7 | 27.0-36.3 |
| \$15,000-24,999 | 268 | 31.0 | 24.6-37.4 | 447 | 29.8 | 24.8-34.8 | 715 | 30.4 | 26.3-34.4 |
| \$25,000-34,999 | 211 | 32.4 | 25.3-39.5 | 244 | 33.4 | 26.6-40.1 | 455 | 32.8 | 27.9-37.8 |
| \$35,000-49,999 | 207 | 28.2 | 21.5-34.9 | 253 | 34.9 | 28.1-41.7 | 460 | 31.3 | 26.5-36.1 |
| \$50,000-74,999 | 209 | 36.2 | 29.0-43.4 | 252 | 28.4 | 22.4-34.3 | 461 | 32.5 | 27.8-37.3 |
| \$75,000+ | 174 | 25.5 | 18.7-32.3 | 204 | 25.0 | 18.5-31.4 | 378 | 25.3 | 20.6-30.0 |

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 on page 9.

Table 5.3 Overweight but not obese by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,313 | 43.6 | 40.5-46.6 | 2,019 | 29.5 | 27.3-31.8 | 3,332 | 36.4 | 34.5-38.3 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 74 | 30.1 | 19.0-41.2 | 111 | 18.7 | 10.9-26.6 | 185 | 24.6 | 17.7-31.6 |
| 25-34 | 179 | 41.6 | 33.8-49.3 | 269 | 25.4 | 19.9-30.8 | 448 | 33.7 | 28.8-38.5 |
| 35-44 | 236 | 42.8 | 36.0-49.6 | 346 | 28.6 | 23.3-33.9 | 582 | 35.8 | 31.4-40.1 |
| 45-54 | 296 | 47.6 | 41.4-53.8 | 383 | 33.3 | 28.1-38.6 | 679 | 40.5 | 36.4-44.6 |
| 55-64 | 255 | 43.5 | 36.9-50.0 | 365 | 31.1 | 26.0-36.3 | 620 | 37.3 | 33.1-41.5 |
| 65+ | 271 | 51.4 | 44.9-57.8 | 543 | 34.4 | 30.1-38.7 | 814 | 41.7 | 37.9-45.4 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 224 | 35.4 | 28.4-42.4 | 384 | 30.8 | 25.7-36.0 | 608 | 32.9 | 28.6-37.1 |
| H.S. or G.E.D. | 523 | 44.6 | 39.8-49.5 | 757 | 31.0 | 27.3-34.8 | 1,280 | 38.1 | 35.0-41.2 |
| Some Post-H.S. | 260 | 42.0 | 34.9-49.0 | 449 | 25.9 | 21.5-30.3 | 709 | 33.4 | 29.3-37.5 |
| College Graduate | 304 | 49.4 | 43.2-55.5 | 427 | 29.7 | 24.9-34.6 | 731 | 39.5 | 35.5-43.5 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 34.0 | 25.3-42.8 | 442 | 28.5 | 23.8-33.2 | 609 | 30.7 | 26.2-35.2 |
| \$15,000-24,999 | 260 | 39.8 | 33.1-46.4 | 391 | 25.4 | 20.8-30.1 | 651 | 32.4 | 28.3-36.5 |
| \$25,000-34,999 | 164 | 43.4 | 35.0-51.9 | 244 | 35.5 | 28.5-42.5 | 408 | 39.3 | 33.9-44.8 |
| \$35,000-49,999 | 213 | 44.0 | 36.4-51.5 | 297 | 32.8 | 27.0-38.7 | 510 | 38.4 | 33.6-43.2 |
| \$50,000-74,999 | 214 | 53.3 | 45.7-61.0 | 222 | 24.7 | 18.7-30.6 | 436 | 41.0 | 35.8-46.2 |
| \$75,000+ | 187 | 47.5 | 39.7-55.2 | 182 | 25.4 | 18.6-32.2 | 369 | 38.1 | 32.7-43.5 |

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

Table 5.4 Overweight but not obese by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,348 | 40.7 | 37.7-43.7 | 2,097 | 29.1 | 26.9-31.3 | 3,445 | 34.8 | 33.0-36.7 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 67 | 20.0 | 10.2-29.8 | 98 | 18.5 | 10.3-26.6 | 165 | 19.3 | 12.9-25.7 |
| 25-34 | 182 | 39.6 | 32.0-47.1 | 274 | 25.0 | 19.5-30.5 | 456 | 32.4 | 27.7-37.2 |
| 35-44 | 223 | 44.5 | 37.4-51.5 | 329 | 26.8 | 21.6-32.1 | 552 | 35.7 | 31.3-40.2 |
| 45-54 | 284 | 42.0 | 35.8-48.3 | 442 | 31.8 | 27.2-36.5 | 726 | 37.0 | 33.0-40.9 |
| 55-64 | 272 | 44.3 | 37.7-50.8 | 342 | 28.6 | 23.4-33.8 | 614 | 36.5 | 32.2-40.7 |
| 65+ | 318 | 49.2 | 43.3-55.2 | 603 | 37.4 | 33.1-41.7 | 921 | 42.4 | 38.9-45.9 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 248 | 37.9 | 30.7-45.0 | 364 | 32.3 | 26.8-37.8 | 612 | 35.2 | 30.6-39.8 |
| H.S. or G.E.D. | 548 | 40.8 | 36.1-45.4 | 833 | 29.2 | 25.7-32.6 | 1,381 | 35.0 | 32.1-37.9 |
| Some Post-H.S. | 247 | 37.4 | 30.6-44.2 | 482 | 28.3 | 23.7-32.8 | 729 | 32.1 | 28.2-36.0 |
| College Graduate | 304 | 46.2 | 39.9-52.5 | 416 | 27.6 | 22.9-32.3 | 720 | 37.1 | 33.1-41.1 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 164 | 40.4 | 31.5-49.3 | 417 | 31.2 | 26.1-36.3 | 581 | 34.8 | 30.1-39.5 |
| \$15,000-24,999 | 268 | 37.0 | 30.5-43.5 | 447 | 29.5 | 24.6-34.5 | 715 | 33.1 | 29.1-37.1 |
| \$25,000-34,999 | 211 | 44.1 | 36.6-51.5 | 244 | 32.6 | 26.1-39.1 | 455 | 38.9 | 33.8-44.0 |
| \$35,000-49,999 | 207 | 48.4 | 40.8-56.0 | 253 | 25.5 | 19.6-31.5 | 460 | 37.8 | 32.6-42.9 |
| \$50,000-74,999 | 209 | 35.1 | 28.1-42.2 | 252 | 30.6 | 24.4-36.9 | 461 | 33.0 | 28.3-37.8 |
| \$75,000+ | 174 | 49.6 | 41.3-58.0 | 204 | 25.7 | 19.5-32.0 | 378 | 38.6 | 33.1-44.1 |

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

Figure 5.1 Obesity and overweight by year: WVBRFSS, 1987-2005


Figure 5.2 Obesity (body mass index of $\mathbf{3 0 . 0}$ or higher) by county: WVBRFSS, 2001-2005


## 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: $30.6 \%$ in 2005)

## CHAPTER 6: CURRENT CigARETTE SMOKING

## Current Cigarette Smoking in 2004 and 2005

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

Prevalence WV: 26.9\% (95\% CI: 25.1-28.7) in 2004; 26.7\% (95\% CI: 24.9-28.4) in 2005. US: 20.7\% (95\% CI: 20.4-21.0) in 2004; 20.4\% (95\% CI: 20.2-20.7) in 2005. West Virginia ranked $2^{\text {nd }}$ highest among 52 BRFSS participants in 2004 and $4^{\text {th }}$ highest among 53 BRFSS participants in 2005.

Time Trends The 1986 through 2005 trend line shows a very slight decline in the prevalence of smoking among West Virginia adults. The proportion of current smokers fluctuated between approximately $25 \%$ and $30 \%$ during these years.

Gender Men: 27.5\% (95\% CI: 24.7-30.3) in 2004; 27.4\% (95\% CI: 24.6-30.2) in 2005. Women: 26.4\% (95\% CI: 24.1-28.6) in 2004; 26.0\% (95\% CI: 23.8-28.2) in 2005. Men had a marginally higher risk as a group than women in both years, but these differences were not significant.

Age Adults under age 55 smoked cigarettes significantly more often than those aged 55 and older in 2004 and 65 and older in 2005. In both years, current smoking prevalence among the 65 and older group was about $10 \%$, compared with an average rate of nearly $27 \%$ statewide.

Education Adults with less than a high school degree were more likely to be current smokers than any group with post-high school educations, a significant difference in 2005. In contrast, the smoking risks among college graduates were lower than other groups in both years by a significant margin.

## Household Income

The prevalence of current smoking decreased as household income increased in both years, ranging from about $17 \%$ to $38 \%$.

## WV Healthy People 2010 ObJECTIVES

Objective 27.1a Reduce the prevalence of cigarette smoking among adults aged 18+ to $20 \%$ or lower. (Baseline: $28 \%$ in 1998; Current: $26.7 \%$ in 2005)

Objective 27.1b 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: $33.0 \%$ in 2005)

Objective 27.1c Reduce the prevalence of cigarette smoking among women aged 18-44 (i.e., childbearing ages) to $25 \%$ or lower. (Baseline: $36 \%$ in 1998; Current: $34.5 \%$ in 2005)

Table 6.1 Current cigarette smoking by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,319 | 27.5 | 24.7-30.3 | 2,117 | 26.4 | 24.1-28.6 | 3,436 | 26.9 | 25.1-28.7 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | *38.3 | 26.7-50.0 | 113 | 36.8 | 26.9-46.7 | 188 | 37.6 | 29.9-45.3 |
| 25-34 | 181 | 33.0 | 25.6-40.4 | 282 | 32.5 | 26.6-38.3 | 463 | 32.7 | 28.0-37.5 |
| 35-44 | 237 | 36.2 | 29.5-42.9 | 362 | 35.3 | 29.9-40.7 | 599 | 35.7 | 31.5-40.0 |
| 45-54 | 298 | 27.6 | 22.1-33.1 | 399 | 29.5 | 24.6-34.5 | 697 | 28.6 | 24.9-32.3 |
| 55-64 | 255 | 22.2 | 16.7-27.7 | 380 | 19.9 | 15.6-24.1 | 635 | 21.0 | 17.5-24.5 |
| 65+ | 271 | 8.1 | 4.7-11.4 | 577 | 11.4 | 8.5-14.3 | 848 | 10.0 | 7.8-12.2 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 226 | 38.4 | 31.2-45.6 | 400 | 36.0 | 30.5-41.6 | 626 | 37.1 | 32.6-41.5 |
| H.S. or G.E.D. | 526 | 33.6 | 28.9-38.4 | 798 | 29.9 | 26.1-33.6 | 1,324 | 31.8 | 28.7-34.8 |
| Some Post-H.S. | 260 | 23.5 | 17.7-29.3 | 470 | 24.2 | 19.6-28.7 | 730 | 23.9 | 20.3-27.5 |
| College Graduate | 305 | 11.1 | 7.3-14.8 | 446 | 13.7 | 10.0-17.4 | 751 | 12.4 | 9.8-15.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 168 | 41.8 | 32.7-50.9 | 462 | 34.9 | 29.7-40.1 | 630 | 37.6 | 32.8-42.3 |
| \$15,000-24,999 | 262 | 29.4 | 23.1-35.7 | 403 | 32.2 | 26.8-37.5 | 665 | 30.9 | 26.8-35.0 |
| \$25,000-34,999 | 164 | 33.1 | 24.7-41.5 | 253 | 29.3 | 22.5-36.0 | 417 | 31.1 | 25.7-36.5 |
| \$35,000-49,999 | 215 | 26.2 | 19.4-33.0 | 305 | 28.5 | 22.7-34.3 | 520 | 27.4 | 22.9-31.8 |
| \$50,000-74,999 | 214 | 22.1 | 15.6-28.7 | 230 | 16.2 | 10.4-21.9 | 444 | 19.5 | 15.1-24.0 |
| \$75,000+ | 187 | 20.2 | 13.7-26.6 | 189 | 13.2 | 7.5-18.8 | 376 | 17.1 | 12.7-21.5 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 6.2 Current cigarette smoking by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,358 | 27.4 | 24.6-30.2 | 2,190 | 26.0 | 23.8-28.2 | 3,548 | 26.7 | 24.9-28.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | *36.0 | 23.7-48.3 | 102 | *40.5 | 30.2-50.8 | 170 | 38.2 | 30.2-46.2 |
| 25-34 | 182 | 37.6 | 30.1-45.1 | 282 | 31.2 | 25.4-37.1 | 464 | 34.4 | 29.6-39.2 |
| 35-44 | 226 | 24.9 | 18.9-30.8 | 351 | 33.3 | 27.7-38.8 | 577 | 29.1 | 25.0-33.2 |
| 45-54 | 285 | 28.1 | 22.5-33.7 | 459 | 28.7 | 24.3-33.1 | 744 | 28.4 | 24.8-31.9 |
| 55-64 | 275 | 28.4 | 22.5-34.3 | 364 | 22.2 | 17.6-26.8 | 639 | 25.3 | 21.5-29.0 |
| 65+ | 320 | 11.7 | 7.9-15.4 | 623 | 9.7 | 7.3-12.1 | 943 | 10.5 | 8.4-12.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 250 | 43.3 | 35.7-50.8 | 382 | 32.1 | 26.5-37.7 | 632 | 37.9 | 33.1-42.7 |
| H.S. or G.E.D. | 554 | 27.9 | 23.5-32.2 | 868 | 29.0 | 25.5-32.6 | 1,422 | 28.5 | 25.7-31.3 |
| Some Post-H.S. | 249 | 22.9 | 16.9-28.9 | 503 | 25.1 | 20.4-29.9 | 752 | 24.2 | 20.5-27.9 |
| College Graduate | 304 | 15.8 | 11.2-20.4 | 434 | 15.8 | 12.0-19.6 | 738 | 15.8 | 12.8-18.8 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 34.1 | 25.6-42.5 | 435 | 38.9 | 33.5-44.4 | 601 | 37.1 | 32.4-41.8 |
| \$15,000-24,999 | 270 | 30.7 | 24.3-37.1 | 462 | 28.4 | 23.6-33.2 | 732 | 29.5 | 25.5-33.4 |
| \$25,000-34,999 | 214 | 27.4 | 20.7-34.1 | 252 | 21.9 | 16.0-27.8 | 466 | 24.9 | 20.4-29.4 |
| \$35,000-49,999 | 207 | 24.6 | 18.1-31.0 | 265 | 24.5 | 18.0-31.0 | 472 | 24.5 | 20.0-29.1 |
| \$50,000-74,999 | 208 | 22.6 | 15.8-29.5 | 262 | 18.8 | 13.8-23.8 | 470 | 20.8 | 16.5-25.1 |
| \$75,000+ | 175 | 16.2 | 10.2-22.3 | 211 | 17.8 | 11.5-24.1 | 386 | 17.0 | 12.6-21.3 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 6.1 Current cigarette smoking by year: WVBRFSS, 1986-2005


Figure 6.2 Current cigarette smoking by county: WVBRFSS, 2001-2005


## CHAPTER 7: SmOKELESS TOBACCO UsE

## Current Smokeless Tobacco Use in 2004

$\left.\begin{array}{ll}\text { Definition } & \begin{array}{l}\text { Used or tried any smokeless tobacco products and currently use chewing tobacco } \\ \text { or snuff every day or on some days. }\end{array} \\ \text { Prevalence } & \begin{array}{l}\text { WV: 8.1\% (95\% CI: 6.9-9.4) in 2004. } \\ \text { West Virginia ranked 2 }\end{array} \\ \text { late highest among 14 BRFSS participants in 2004, the }\end{array}\right\}$

## WV Healthy People 2010 Objectives

Objective 27.7 Reduce smokeless tobacco use among adult men aged $18+$ to $13 \%$ or lower. (Baseline: $18 \%$ in 1998; Current: $16.6 \%$ in 2004)

Table 7.1 Current smokeless tobacco use by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,305 | 16.6 | 14.1-19.0 | 2,091 | * 0.4 | 0.0-0.7 | 3,396 | 8.1 | 6.9-9.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 72 | *16.9 | 6.9-26.9 | 112 | $(-)$ | (-) | 184 | * 9.1 | 3.7-14.6 |
| 25-34 | 178 | 24.7 | 17.6-31.8 | 280 | $(-)$ | $(-)$ | 458 | 12.4 | 8.6-16.2 |
| 35-44 | 236 | 20.9 | 15.3-26.5 | 355 | $(-)$ | (-) | 591 | 10.4 | 7.5-13.4 |
| 45-54 | 294 | 16.7 | 11.8-21.6 | 397 | $(-)$ | $(-)$ | 691 | 8.3 | 5.8-10.9 |
| 55-64 | 253 | 10.8 | 6.7-15.0 | 375 | $(-)$ | $(-)$ | 628 | 5.7 | 3.5-7.8 |
| 65+ | 270 | 8.7 | 4.7-12.7 | 568 | (-) | (-) | 838 | 3.7 | 2.0-5.4 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 222 | 22.0 | 15.7-28.4 | 395 | (-) | (-) | 617 | 10.4 | 7.3-13.5 |
| H.S. or G.E.D. | 519 | 20.7 | 16.5-24.9 | 789 | $(-)$ | (-) | 1,308 | 10.5 | 8.3-12.8 |
| Some Post-H.S. | 258 | 11.5 | 6.2-16.9 | 462 | $(-)$ | $(-)$ | 720 | 5.5 | 2.9-8.0 |
| College Graduate | 304 | 9.5 | 5.7-13.3 | 443 | $(-)$ | (-) | 747 | 4.6 | 2.7-6.5 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 19.3 | 10.4-28.3 | 457 | (-) | (-) | 623 | 7.5 | 3.8-11.3 |
| \$15,000-24,999 | 261 | 19.7 | 13.9-25.6 | 398 | $(-)$ | (-) | 659 | 10.1 | 7.0-13.2 |
| \$25,000-34,999 | 161 | 13.9 | 7.5-20.3 | 250 | $(-)$ | $(-)$ | 411 | 6.6 | 3.4-9.7 |
| \$35,000-49,999 | 211 | 20.6 | 14.1-27.0 | 304 | $(-)$ | $(-)$ | 515 | 10.1 | 6.7-13.4 |
| \$50,000-74,999 | 211 | 14.9 | 9.2-20.6 | 229 | $(-)$ | $(-)$ | 440 | 8.4 | 5.1-11.7 |
| \$75,000+ | 186 | 12.7 | 7.2-18.2 | 188 | $(-)$ | $(-)$ | 374 | 7.2 | 4.0-10.4 |

Note: The number of women reporting use of smokeless tobacco was too small for subgroup analysis.

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 7.1 Current smokeless tobacco use by year: WVBRFSS, 1986-2004


NOTE: Data are not available for the year 2005.

Figure 7.2 Current male smokeless tobacco use by county: WVBRFSS, 2000-2004


Some counties were grouped for analysis.
County prevalence estimates are listed in Appendix L.
See an explanation of the county-level data, including the new county maps, under County-Level Data on page 10.
US data are not available.

## Lifetime Smokeless Tobacco Use in 2004

## Definition

Responding "Yes" to the following question: "Have you ever used or tried any smokeless tobacco products such as chewing tobacco or snuff?"

Table 7.2 Adults who have ever used smokeless tobacco by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,305 | 48.4 | 45.3-51.5 | 2,091 | 4.8 | 3.7-6.0 | 3,396 | 25.7 | 23.9-27.6 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 72 | *47.6 | 35.1-60.1 | 112 | *10.8 | 4.1-17.6 | 184 | 29.6 | 21.8-37.3 |
| 25-34 | 178 | 61.3 | 53.6-69.0 | 280 | 6.3 | 3.4-9.2 | 458 | 33.9 | 28.9-38.8 |
| 35-44 | 236 | 55.5 | 48.6-62.4 | 355 | 3.9 | 1.8-6.0 | 591 | 29.4 | 25.2-33.7 |
| 45-54 | 294 | 46.6 | 40.4-52.8 | 397 | 4.2 | 2.1-6.4 | 691 | 25.0 | 21.3-28.7 |
| 55-64 | 253 | 42.8 | 36.3-49.3 | 375 | *2.4 | 0.7-4.1 | 628 | 22.1 | 18.4-25.8 |
| 65+ | 270 | 36.7 | 30.4-43.0 | 568 | 3.4 | 1.8-5.1 | 838 | 17.1 | 14.1-20.2 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 222 | 54.0 | 46.7-61.3 | 395 | 7.6 | 4.0-11.2 | 617 | 27.9 | 23.6-32.2 |
| H.S. or G.E.D. | 519 | 51.7 | 46.8-56.6 | 789 | 3.7 | 2.2-5.2 | 1,308 | 28.0 | 24.9-31.1 |
| Some Post-H.S. | 258 | 47.9 | 40.6-55.2 | 462 | 5.9 | 3.4-8.4 | 720 | 25.2 | 21.2-29.3 |
| College Graduate | 304 | 38.4 | 32.4-44.3 | 443 | *3.0 | 0.9-5.1 | 747 | 20.2 | 16.9-23.5 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 49.8 | 40.4-59.2 | 457 | 5.5 | 2.5-8.5 | 623 | 22.6 | 17.8-27.4 |
| \$15,000-24,999 | 261 | 49.8 | 42.9-56.8 | 398 | 4.6 | 2.2-7.0 | 659 | 26.4 | 22.3-30.5 |
| \$25,000-34,999 | 161 | 53.1 | 44.6-61.7 | 250 | *5.8 | 2.0-9.5 | 411 | 28.1 | 22.9-33.3 |
| \$35,000-49,999 | 211 | 56.8 | 49.3-64.3 | 304 | 3.3 | 1.4-5.3 | 515 | 29.5 | 24.8-34.2 |
| \$50,000-74,999 | 211 | 46.1 | 38.5-53.8 | 229 | *5.5 | 1.8-9.2 | 440 | 28.2 | 23.2-33.1 |
| \$75,000+ | 186 | 35.7 | 28.3-43.2 | 188 | *4.1 | 0.4-7.7 | 374 | 22.0 | 17.2-26.8 |

[^6]
## CHAPTER 8: OTHER TOBACCO INDICATORS

## "Quit smoking for a day" in 2004 and 2005

| 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: 46.1\% (95\% CI: 41.8-50.4) in 2004; 46.3\% (95\% CI: 42.0-50.7) in 2005. US: $\quad \mathbf{4 8 . 2 \%}$ (95\% CI: 47.2-49.1) in 2004; 49.5\% (95\% CI: 48.6-50.4) in 2005. West Virginia ranked $37^{\text {th }}$ highest among 52 BRFSS participants in 2004 and $46^{\text {th }}$ highest among 53 BRFSS participants in 2005. |
| Time Trends | The percentage of smokers who attempted to quit decreased in the early 1990s and then increased to a high of $52.8 \%$ in 1999. Between 1999 and 2002, the rate significantly decreased to $43.4 \%$. Since 2002 the prevalence has increased slightly. |
| Gender | Men: $46.5 \%$ (95\% CI: 39.8-53.1) in 2004; 43.9\% (95\% CI: 37.2-50.7) in 2005. Women: $45.8 \%$ ( $95 \%$ CI: $40.3-51.3$ ) in 2004; 48.6\% (95\% CI: 43.0-54.2) in 2005. 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 age, education, and household income groups in both 2004 and 2005.

Figure 8.1 "Quit smoking for a day" among every day current smokers by year: WVBRFSS, 1993-2005


Table 8.1 "Quit smoking for a day" among every day current smokers by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 282 | 46.5 | 39.8-53.1 | 440 | 45.8 | 40.3-51.3 | 722 | 46.1 | 41.8-50.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 23 | *52.1 | 30.3-74.0 | 31 | *75.5 | 58.4-92.6 | 54 | *63.5 | 49.2-77.9 |
| 25-34 | 47 | *60.5 | 46.0-75.0 | 72 | *44.0 | 31.2-56.8 | 119 | 52.4 | 42.6-62.2 |
| 35-44 | 79 | *44.0 | 31.7-56.2 | 116 | *43.8 | 33.6-54.0 | 195 | 43.9 | 35.9-51.8 |
| 45-54 | 62 | 36.3 | 23.3-49.2 | 98 | *37.0 | 26.4-47.6 | 160 | 36.7 | 28.4-44.9 |
| 55-64 | 49 | *40.3 | 25.2-55.4 | 75 | *45.4 | 32.7-58.2 | 124 | 42.8 | 32.9-52.8 |
| 65+ | 21 | *47.9 | 24.6-71.1 | 48 | *27.5 | 14.0-41.1 | 69 | *34.7 | 22.5-47.0 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 75 | *46.7 | 33.8-59.5 | 117 | *44.2 | 33.4-54.9 | 192 | 45.3 | 37.0-53.6 |
| H.S. or G.E.D. | 131 | 45.1 | 35.3-54.9 | 184 | 43.5 | 35.2-51.8 | 315 | 44.3 | 37.9-50.8 |
| Some Post-H.S. | 51 | *51.3 | 35.8-66.7 | 101 | *48.9 | 37.2-60.6 | 152 | 49.9 | 40.5-59.4 |
| College Graduate | 25 | *43.3 | 22.5-64.1 | 37 | *56.0 | 38.1-73.9 | 62 | *49.7 | 35.6-63.9 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 61 | *50.8 | 35.8-65.9 | 133 | *49.4 | 39.1-59.8 | 194 | 50.0 | 41.3-58.7 |
| \$15,000-24,999 | 66 | *39.5 | 25.8-53.2 | 100 | *48.9 | 37.8-60.0 | 166 | 44.3 | 35.5-53.1 |
| \$25,000-34,999 | 40 | *47.4 | 29.7-65.2 | 57 | *49.4 | 34.1-64.7 | 97 | *48.4 | 36.6-60.2 |
| \$35,000-49,999 | 42 | *56.1 | 39.5-72.7 | 63 | *41.8 | 27.7-55.9 | 105 | *48.6 | 37.8-59.5 |
| \$50,000-74,999 | 31 | *40.2 | 19.9-60.4 | 25 | *51.4 | 29.2-73.7 | 56 | *44.2 | 28.9-59.6 |
| \$75,000+ | 25 | *53.5 | 32.9-74.1 | 16 | *43.5 | 16.5-70.5 | 41 | *50.0 | 33.6-66.4 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 8.2 "Quit smoking for a day" among every day current smokers by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 281 | 43.9 | 37.2-50.7 | 427 | 48.6 | 43.0-54.2 | 708 | 46.3 | 42.0-50.7 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 21 | *52.9 | 29.8-75.9 | 35 | *62.8 | 45.9-79.7 | 56 | *58.0 | 43.6-72.4 |
| 25-34 | 51 | *54.5 | 39.9-69.1 | 72 | *61.5 | 49.2-73.7 | 123 | 57.8 | 48.1-67.4 |
| 35-44 | 48 | *42.8 | 27.7-57.9 | 98 | *43.1 | 31.9-54.2 | 146 | 43.0 | 34.0-52.0 |
| 45-54 | 68 | *36.9 | 24.4-49.4 | 111 | *43.6 | 33.6-53.7 | 179 | 40.3 | 32.2-48.3 |
| 55-64 | 61 | *39.1 | 25.5-52.8 | 63 | *37.5 | 24.5-50.5 | 124 | 38.4 | 28.9-48.0 |
| 65+ | 31 | *26.5 | 8.0-45.1 | 47 | *31.3 | 17.6-45.0 | 78 | *29.1 | 17.8-40.4 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 83 | *47.1 | 34.9-59.4 | 89 | *29.1 | 18.2-40.1 | 172 | 40.0 | 31.2-48.8 |
| H.S. or G.E.D. | 119 | *44.0 | 33.5-54.5 | 192 | 49.9 | 41.8-57.9 | 311 | 47.1 | 40.5-53.7 |
| Some Post-H.S. | 44 | *37.9 | 20.4-55.4 | 101 | *54.4 | 42.7-66.1 | 145 | 48.5 | 38.6-58.4 |
| College Graduate | 34 | *40.4 | 22.3-58.6 | 44 | *67.3 | 52.3-82.4 | 78 | *53.6 | 41.4-65.9 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 48 | *49.7 | 33.2-66.2 | 122 | *46.0 | 35.6-56.4 | 170 | 47.3 | 38.3-56.2 |
| \$15,000-24,999 | 64 | *38.5 | 25.2-51.8 | 97 | *48.5 | 37.1-59.8 | 161 | 43.5 | 34.6-52.4 |
| \$25,000-34,999 | 44 | *40.8 | 24.5-57.0 | 44 | *33.0 | 18.6-47.3 | 88 | *37.5 | 26.2-48.8 |
| \$35,000-49,999 | 40 | *50.8 | 33.5-68.1 | 49 | *64.0 | 48.6-79.4 | 89 | *57.7 | 45.8-69.5 |
| \$50,000-74,999 | 32 | *37.4 | 18.0-56.9 | 41 | *57.9 | 41.8-73.9 | 73 | *46.5 | 33.3-59.7 |
| \$75,000+ | 21 | *38.7 | 13.5-64.0 | 23 | *52.2 | 26.7-77.6 | 44 | *45.4 | 27.2-63.6 |

[^7]
## Health Professional Advice on Smoking Cessation in 2004 and 2005

## Definition

## Prevalence

Gender

Age, Education, and Income

Responding "None" to the following question: "In the last 12 months, on how many visits were you advised to quit smoking by a doctor or other health provider?" The respondent group was limited to current smokers who had seen a doctor, nurse, or other health professional to get any kind of care for themselves in the past 12 months.

WV: $\quad \mathbf{2 9 . 3} \%$ ( $95 \%$ CI: 25.4-33.3) in 2004; 29.8\% (95\% CI: 25.5-34.2) in 2005.
Men: 28.6\% (95\% CI: 22.2-35.1) in 2004; 36.5\% (95\% CI: 29.2-43.7) in 2005.
Women: 29.9\% (95\% CI: 24.9-34.9) in 2004; 23.8\% (95\% CI: 19.2-28.5) in 2005. Men received significantly less health advice about smoking cessation than women in 2005. There was no significant difference in this risk factor between men and women in 2004, however.

No consistent patterns emerged within age, education, or income groups.

Table 8.3 No health professional advice on smoking cessation by demographic characteristics: WVBRFSS, 2004 and 2005 (among smokers who sought any medical care in the past 12 months)

| Characteristic | 2004 |  |  | 2005. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 688 | 29.3 | 25.4-33.3 | 707 | 29.8 | 25.5-34.2 |
| Males | 251 | 28.6 | 22.2-35.1 | 269 | 36.5 | 29.2-43.7 |
| Females | 437 | 29.9 | 24.9-34.9 | 438 | 23.8 | 19.2-28.5 |
| Age |  |  |  |  |  |  |
| 18-24 | * 55 | 32.9 | 19.2-46.5 | * 55 | 42.7 | 27.4-58.1 |
| 25-34 | 123 | 37.9 | 28.3-47.4 | 114 | 35.4 | 25.8-45.1 |
| 35-44 | 153 | 23.2 | 15.7-30.7 | 128 | 24.8 | 16.3-33.3 |
| 45-54 | 162 | 24.8 | 17.5-32.1 | 182 | 25.0 | 17.7-32.4 |
| 55-64 | 118 | 27.7 | 19.0-36.4 | 141 | 20.9 | 13.5-28.3 |
| 65+ | * 77 | 35.0 | 23.3-46.7 | * 84 | 29.9 | 19.0-40.7 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 164 | 23.4 | 15.6-31.2 | * 162 | 36.1 | 25.9-46.3 |
| H.S. or G.E.D. | 293 | 30.6 | 24.4-36.8 | 305 | 28.5 | 22.4-34.6 |
| Some Post-H.S. | 152 | 32.3 | 23.7-40.9 | 143 | 26.8 | 17.6-36.0 |
| College Graduate | * 78 | 30.1 | 19.2-41.0 | * 97 | 27.7 | 16.5-38.8 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 182 | 30.6 | 22.2-38.9 | 161 | 24.1 | 16.1-32.0 |
| \$15,000-24,999 | 146 | 29.1 | 21.0-37.2 | 157 | 28.4 | 19.7-37.0 |
| \$25,000-34,999 | * 87 | 27.0 | 16.2-37.9 | 85 | 21.8 | 12.0-31.5 |
| \$35,000-49,999 | * 106 | 34.2 | 24.0-44.5 | * 95 | 29.1 | 18.6-39.7 |
| \$50,000-74,000 | * 67 | 19.3 | 8.2-30.3 | * 79 | 34.2 | 21.0-47.3 |
| \$75,000+ | * 48 | 35.7 | 21.0-50.4 | * 54 | 28.4 | 14.1-42.7 |

Note: This group includes only those current and every day smokers who visited a doctor or other health professional in the past 12 months.

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## Smoking Policies at Work in 2004 and 2005

## Definition Indoor public and common areas

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?"

## Indoor work areas

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?"

## Prevalence Indoor public and common areas

WV: $\quad \mathbf{8 2 . 3} \% ~(95 \%$ CI: 79.8-84.9) in 2004; 88.2\% (95\% CI: 86.2-90.1) in 2005. West Virginia ranked 2 ${ }^{\text {nd }}$ highest among 21 BRFSS participants in 2004 and $1^{\text {st }}$ highest among 15 BRFSS participants in 2005. (US prevalence is not available.)

## Indoor work areas

WV: 86.4\% (95\% CI: 84.1-88.7) in 2004; 92.3\% (95\% CI: 90.5-94.0) in 2005.
West Virginia ranked $8^{\text {th }}$ highest among 21 BRFSS participants in 2004 and $1^{\text {st }}$
highest among 15 BRFSS participants in 2005. (US prevalence is not available.)
Trends Overall, there were significant improvements in the frequency of worksite nosmoking policies between 2004 and 2005. A higher prevalence of no-smoking policies was found in work areas than in public/common areas, but this difference was only significant in 2005. More than $80 \%$ of employed adults reported that smoking was prohibited in either work areas, public areas, or both within their workplace.

Men reported a significantly lower frequency of no-smoking policies in work areas than women in both 2004 and 2005. In public/common areas, men had a significantly lower prevalence than women in 2004 but not in 2005.

Age, Education, and Income

The highest rates of no-smoking policies were found in the workplaces of persons with four or more years of college education and/or a household income of $\$ 75,000$ or more annually.

Table 8.4 Workplace smoking policies by demographic characteristics: WVBRFSS, 2004**

| 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 work areas at place of work. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,289 | 82.3 | 79.8-84.9 | 1,287 | 86.4 | 84.1-88.7 |
| Males | 449 | 77.5 | 72.9-82.1 | 449 | 80.4 | 76.0-84.7 |
| Females | 840 | 86.1 | 83.4-88.9 | 838 | 91.1 | 89.0-93.2 |
| Age |  |  |  |  |  |  |
| 18-24 | 82 | * 66.8 | 55.4-78.2 | 82 | * 75.0 | 64.5-85.4 |
| 25-34 | 256 | 83.5 | 78.3-88.8 | 255 | 87.9 | 83.5-92.4 |
| 35-44 | 343 | 83.4 | 79.1-87.8 | 342 | 85.5 | 81.3-89.7 |
| 45-54 | 347 | 86.5 | 82.5-90.6 | 347 | 92.0 | 88.8-95.2 |
| 55-64 | 212 | 86.1 | 81.0-91.2 | 212 | 86.8 | 81.7-91.9 |
| 65+ | 47 | * 82.7 | 71.1-94.3 | 47 | * 84.8 | 73.5-96.1 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 74 | * 73.1 | 61.2-85.0 | 74 | * 72.3 | 60.3-84.3 |
| H.S. or G.E.D. | 461 | 73.3 | 68.3-78.3 | 461 | 79.3 | 74.8-83.8 |
| Some Post-H.S. | 311 | 84.8 | 80.1-89.5 | 310 | 87.9 | 83.5-92.3 |
| College Graduate | 441 | 92.4 | 89.4-95.3 | 440 | 95.7 | 93.5-97.9 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 91 | * 73.3 | 62.1-84.6 | 90 | 80.5 | 70.9-90.2 |
| \$15,000-24,999 | 197 | 76.5 | 69.4-83.6 | 197 | 84.1 | 78.3-90.0 |
| \$25,000-34,999 | 164 | 75.9 | 68.2-83.6 | 164 | 85.2 | 79.0-91.4 |
| \$35,000-49,999 | 260 | 80.3 | 74.1-86.4 | 260 | 85.7 | 80.5-91.0 |
| \$50,000-74,000 | 258 | 86.0 | 81.1-91.0 | 257 | 87.5 | 82.7-92.3 |
| \$75,000+ | 243 | 91.4 | 86.9-95.8 | 243 | 91.9 | 87.6-96.3 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.
** Among respondents who are either employed or self-employed AND who work indoors at their job most of the time.
Table 8.5 Workplace smoking policies by demographic characteristics: WVBRFSS, 2005**

| Characteristic | Smoking is not allowed in any indoor public or common areas at place of work <br> (such as lobbies, restrooms, and lunchrooms) |  |  | Smoking not allowed in any work areas at place of work. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,352 | 88.2 | 86.2-90.1 | 1,352 | 92.3 | 90.5-94.0 |
| Males | 455 | 86.6 | 83.1-90.2 | 456 | 89.5 | 86.2-92.8 |
| Females | 897 | 89.3 | 87.1-91.6 | 896 | 94.5 | 92.8-96.2 |
| Age |  |  |  |  |  |  |
| 18-24 | 67 | 87.9 | 79.7-96.2 | 67 | 90.2 | 82.1-98.3 |
| 25-34 | 254 | 84.0 | 78.9-89.0 | 255 | 89.0 | 84.8-93.3 |
| 35-44 | 344 | 89.2 | 85.8-92.7 | 344 | 92.1 | 88.9-95.3 |
| 45-54 | 414 | 91.2 | 88.2-94.1 | 414 | 95.4 | 93.4-97.5 |
| 55-64 | 214 | 88.5 | 83.9-93.0 | 214 | 94.5 | 91.3-97.7 |
| 65+ | 55 | * 79.8 | 67.2-92.3 | 54 | * 86.8 | 75.5-98.1 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 88 | 85.5 | 78.1-92.9 | 88 | 85.1 | 76.3-93.9 |
| H.S. or G.E.D. | 481 | 82.4 | 78.3-86.6 | 480 | 90.5 | 87.2-93.9 |
| Some Post-H.S. | 328 | 90.4 | 87.0-93.8 | 329 | 91.8 | 88.3-95.4 |
| College Graduate | 455 | 93.7 | 91.3-96.0 | 455 | 96.2 | 94.4-98.1 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 79 | 81.4 | 71.8-91.0 | 79 | 91.7 | 85.2-98.3 |
| \$15,000-24,999 | 236 | 86.4 | 81.3-91.5 | 235 | 89.4 | 84.2-94.6 |
| \$25,000-34,999 | 185 | 86.0 | 80.2-91.8 | 185 | 88.4 | 83.0-93.7 |
| \$35,000-49,999 | 227 | 86.2 | 81.4-91.0 | 228 | 92.6 | 88.5-96.7 |
| \$50,000-74,000 | 270 | 89.4 | 85.4-93.3 | 270 | 93.6 | 90.7-96.5 |
| \$75,000+ | 274 | 93.8 | 89.7-97.9 | 274 | 95.6 | 91.8-99.3 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.
** Among respondents who are either employed or self-employed AND who work indoors at their job most of the time.


## No Smoking Allowed in the Home in 2004 and 2005

## Definition

Prevalence

Stated that smoking was not allowed anywhere inside the home.
WV: 62.5\% (95\% CI: 60.6-64.4) in 2004; 65.4\% (95\% CI: 63.5-67.3) in 2005. West Virginia ranked lowest among 21 BRFSS participants in 2004 and $2^{\text {nd }}$ lowest among 15 BRFSS participants in 2005. (US prevalence is not available.)

Gender

Age, Education, and Income

Men: 62.3\% (95\% CI: 59.3-65.3) in 2004; 64.1\% (95\% CI: 61.1-67.1) in 2005.
Women: 62.7\% (95\% CI: 60.3-65.0) in 2004; 66.6\% (95\% CI: 64.2-68.9) in 2005. There were no significant differences in this risk factor between men and women.

No consistent pattern was evident by age group. The prevalence of smoke-free homes increased markedly with increasing education and income levels in both 2004 and 2005. Only minor differences existed among most age groups.

Table 8.6 No smoking allowed in the home by demographic characteristics: WVBRFSS, 2004 and 2005

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,394 | 62.5 | 60.6-64.4 | 3,483 | 65.4 | 63.5-67.3 |
| Males | 1,304 | 62.3 | 59.3-65.3 | 1,331 | 64.1 | 61.1-67.1 |
| Females | 2,090 | 62.7 | 60.3-65.0 | 2,152 | 66.6 | 64.2-68.9 |
| Age |  |  |  |  |  |  |
| 18-24 | 184 | 62.2 | 54.3-70.2 | 167 | 57.7 | 49.4-66.0 |
| 25-34 | 457 | 67.7 | 63.0-72.4 | 452 | 73.2 | 68.7-77.7 |
| 35-44 | 591 | 56.6 | 52.2-61.1 | 568 | 63.7 | 59.3-68.1 |
| 45-54 | 691 | 59.9 | 55.8-63.9 | 731 | 62.3 | 58.4-66.2 |
| 55-64 | 627 | 61.0 | 56.9-65.2 | 633 | 63.5 | 59.4-67.7 |
| 65+ | 838 | 67.7 | 64.3-71.1 | 922 | 69.9 | 66.6-73.3 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 616 | 44.4 | 40.0-48.9 | 607 | 50.5 | 45.6-55.5 |
| H.S. or G.E.D. | 1,308 | 60.5 | 57.5-63.6 | 1,401 | 61.8 | 58.8-64.8 |
| Some Post-H.S. | 719 | 66.0 | 61.8-70.2 | 742 | 68.8 | 64.8-72.8 |
| College Graduate | 747 | 77.7 | 74.4-80.9 | 729 | 81.1 | 78.0-84.3 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 622 | 47.8 | 43.0-52.6 | 585 | 48.3 | 43.5-53.2 |
| \$15,000-24,999 | 658 | 56.2 | 51.8-60.5 | 716 | 60.6 | 56.3-64.9 |
| \$25,000-34,999 | 411 | 57.9 | 52.4-63.4 | 459 | 65.1 | 60.1-70.1 |
| \$35,000-49,999 | 515 | 63.3 | 58.6-68.0 | 466 | 70.5 | 65.8-75.1 |
| \$50,000-74,000 | 440 | 76.0 | 71.6-80.5 | 467 | 77.4 | 73.2-81.5 |
| \$75,000+ | 374 | 76.9 | 72.1-81.7 | 382 | 81.9 | 77.3-86.5 |

## CHAPTER 9: ALCOHOL CONSUMPTION

## Binge Drinking in 2004 and 2005

Definition Consumption of five or more alcoholic drinks on one or more occasions during the past one month.

| Prevalence | WV: $\mathbf{9 . 7 \%}$ (95\% CI: 8.4-11.1) in 2004; 9.1\% (95\% CI: 7.9-10.3) in 2005. |
| :--- | :--- |
|  | US: $14.8 \%$ (95\% CI: $14.5-15.0$ ) in 2004; 14.2\% (95\% CI: 14.0-14.5) in 2005. |
|  | West Virginia ranked $48^{\text {th }}$ highest |
|  |  | West Virginia ranked $48^{\text {th }}$ highest among 52 BRFSS participants in 2004 and $51^{\text {st }}$ highest among 53 BRFSS participants in 2005.

Time Trends Overall from 1984 through 2005, there was a downward trend in binge drinking prevalence. A marked increase between 1995 and 2002 has been followed by a slight decline since.

Gender Men: 15.5\% (95\% CI: 13.1-17.8) in 2004; 14.0\% (95\% CI: 11.7-16.2) in 2005. Women: $4.5 \%$ ( $95 \%$ CI: $3.3-5.6$ ) in 2004; 4.6\% (95\% CI: 3.5-5.7) in 2005.
Men had a significantly higher prevalence of binge drinking than women in both 2004 and 2005.

Age Younger adults had higher rates of binge drinking than those aged 45 and older. The prevalence ranged from highs of $15 \%-20 \%$ among the $18-24$ age group to lows of only $1 \%-3 \%$ among those aged 65 and older.

Education There was no significant relationship between binge drinking and educational attainment. The lowest overall prevalence (8\%) occurred among those with the least education in both 2004 and 2005.

Household Income
There was no consistent relationship between binge drinking and household income; however, the highest income group ( $\$ 75,000$ and above annually) had the highest prevalence in both 2004 (16.0\%) and 2005 (11.7\%).

## WV Healthy People 2010 Objectives

Objective 26.10 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; Current: $9.1 \%$ in 2005)

Table 9.1 Binge drinking by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,309 | 15.5 | 13.1-17.8 | 2,113 | 4.5 | 3.3-5.6 | 3,422 | 9.7 | 8.4-11.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 74 | 26.3 | 15.7-36.9 | 114 | 13.9 | 6.8-21.1 | 188 | 20.3 | 13.8-26.8 |
| 25-34 | 180 | 20.4 | 14.3-26.4 | 282 | 7.8 | 4.4-11.2 | 462 | 14.1 | 10.6-17.6 |
| 35-44 | 232 | 23.1 | 17.0-29.2 | 360 | 3.9 | 1.8-5.9 | 592 | 13.2 | 9.9-16.5 |
| 45-54 | 295 | 14.9 | 10.5-19.4 | 398 | * 3.1 | 1.3-5.0 | 693 | 9.0 | 6.5-11.4 |
| 55-64 | 255 | 6.8 | 3.6-9.9 | 379 | * 3.0 | 1.1-4.9 | 634 | 4.8 | 3.0-6.7 |
| 65+ | 271 | * 2.6 | 0.5-4.7 | 576 | (-) | (-) | 847 | * 1.1 | 0.2-1.9 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 224 | 12.2 | 6.7-17.6 | 398 | 4.5 | 2.0-7.1 | 622 | 7.9 | 5.0-10.7 |
| H.S. or G.E.D. | 520 | 15.1 | 11.4-18.8 | 797 | 3.0 | 1.5-4.5 | 1,317 | 9.1 | 7.1-11.2 |
| Some Post-H.S. | 259 | 19.5 | 13.5-25.5 | 469 | 7.1 | 3.8-10.4 | 728 | 12.8 | 9.4-16.1 |
| College Graduate | 304 | 14.7 | 10.5-18.9 | 446 | 4.1 | 1.9-6.3 | 750 | 9.2 | 6.9-11.6 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 168 | 10.9 | 5.0-16.8 | 464 | 4.6 | 2.1-7.2 | 632 | 7.0 | 4.3-9.8 |
| \$15,000-24,999 | 262 | 11.2 | 6.9-15.5 | 402 | * 2.8 | 0.9-4.7 | 664 | 6.8 | 4.5-9.1 |
| \$25,000-34,999 | 164 | 17.8 | 10.5-25.1 | 253 | 7.2 | 3.2-11.2 | 417 | 12.2 | 8.1-16.4 |
| \$35,000-49,999 | 214 | 22.4 | 15.8-29.0 | 304 | * 3.0 | 0.9-5.0 | 518 | 12.6 | 9.0-16.2 |
| \$50,000-74,999 | 211 | 10.5 | 6.0-15.0 | 229 | * 4.2 | 1.4-7.1 | 440 | 7.7 | 4.9-10.6 |
| \$75,000+ | 185 | 22.6 | 15.7-29.4 | 189 | * 7.5 | 2.1-12.8 | 374 | 16.0 | 11.4-20.5 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 9.2 Binge drinking by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,345 | 14.0 | 11.7-16.2 | 2,184 | 4.6 | 3.5-5.7 | 3,529 | 9.1 | 7.9-10.3 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 66 | 21.6 | 11.6-31.6 | 102 | * 8.7 | 2.9-14.4 | 168 | 15.1 | 9.3-21.0 |
| 25-34 | 180 | 25.8 | 18.9-32.6 | 281 | 6.4 | 3.1-9.7 | 461 | 16.1 | 12.2-20.1 |
| 35-44 | 225 | 17.8 | 12.3-23.3 | 350 | 5.6 | 3.0-8.3 | 575 | 11.6 | 8.6-14.7 |
| 45-54 | 282 | 7.3 | 4.2-10.5 | 455 | 5.9 | 3.5-8.2 | 737 | 6.6 | 4.6-8.5 |
| 55-64 | 272 | 9.5 | 5.8-13.3 | 365 | * 1.6 | 0.3-2.9 | 637 | 5.5 | 3.5-7.4 |
| 65+ | 318 | 4.9 | 2.4-7.4 | 622 | 1.5 | 0.6-2.5 | 940 | 2.9 | 1.8-4.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 247 | 14.8 | 9.1-20.5 | 382 | * 0.6 | 0.0-1.4 | 629 | 7.9 | 4.8-11.0 |
| H.S. or G.E.D. | 549 | 14.5 | 11.0-17.9 | 864 | 5.1 | 3.3-6.9 | 1,413 | 9.7 | 7.7-11.6 |
| Some Post-H.S. | 248 | 13.8 | 8.7-18.9 | 500 | 6.2 | 3.5-8.9 | 748 | 9.3 | 6.7-12.0 |
| College Graduate | 300 | 12.2 | 7.9-16.5 | 435 | 4.9 | 2.6-7.2 | 735 | 8.6 | 6.1-11.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 17.4 | 10.5-24.4 | 435 | * 4.0 | 1.1-6.9 | 601 | 9.1 | 5.8-12.4 |
| \$15,000-24,999 | 267 | 14.7 | 9.5-20.0 | 461 | 5.7 | 2.9-8.5 | 728 | 9.9 | 7.0-12.8 |
| \$25,000-34,999 | 211 | 11.6 | 6.5-16.7 | 252 | * 4.1 | 1.7-6.6 | 463 | 8.2 | 5.1-11.2 |
| \$35,000-49,999 | 204 | 12.4 | 7.4-17.5 | 264 | * 3.4 | 1.4-5.5 | 468 | 8.1 | 5.3-10.9 |
| \$50,000-74,999 | 208 | 14.8 | 9.4-20.1 | 259 | * 3.8 | 1.3-6.3 | 467 | 9.5 | 6.4-12.6 |
| \$75,000+ | 172 | 16.1 | 9.3-22.8 | 211 | * 7.0 | 2.9-11.1 | 383 | 11.7 | 7.6-15.8 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 9.1 Binge drinking by year: WVBRFSS, 1984-2005


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

Figure 9.2 Binge drinking by county: WVBRFSS, 2001-2005


## Heavy Drinking in 2004 and $2005{ }^{1}$

| 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. |
| :---: | :---: |
| Prevalence | WV: $\mathbf{2 . 9 \%}$ (95\% CI: 2.2-3.6) in 2004; 3.1\% (95\% CI: 2.4-3.9) in 2005. US: $\quad \mathbf{5 . 0 \%}$ ( $95 \%$ CI: 4.9-5.2) in 2004; 5.1\% (95\% CI: 5.0-5.3) in 2005. West Virginia ranked $50^{\text {th }}$ highest among 52 BRFSS participants in 2004 and $49^{\text {th }}$ highest among 53 BRFSS participants in 2005. |
| Time Trends | From 1989 through 2005, the prevalence of heavy drinking among West Virginia adults has changed little, ranging from a low of $1.8 \%$ in 1995 to a high of $4.5 \%$ in 2002. |
| Gender | Men: 3.8\% (95\% CI: 2.5-5.0) in 2004; 4.7\% (95\% CI: 3.3-6.1) in 2005. Women: 2.1\% (95\% CI: 1.3-2.8) in 2004; 1.7\% (95\% 1.0-2.4) in 2005. Men had higher risks than women in both years. This difference was significant in 2005. |
| Age | Heavy drinking was most prevalent among the youngest adults (around 5\%-6\%), and least prevalent among the oldest (around 1\%). |
| Education | While adults with the most education had the lowest rates of heavy drinking both years, the difference was not significant. |
| Household Inc | No association was found between heavy drinking and household income. |

## Quick Stats

- $68.0 \%$ of West Virginia adults consumed no alcoholic beverages in the past 30 days.


## WV Healthy People 2010 ObJectives

Objective 26.9
Reduce the rate of heavy drinking reported among adults 18 and older by 20\%. (Baseline: 2.2\% in 1997 using a new definition; Current: 3.1\% in 2005)

[^8]Table 9.3 Heavy drinking by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,305 | 3.8 | 2.5-5.0 | 2,111 | 2.1 | 1.3-2.8 | 3,416 | 2.9 | 2.2-3.6 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 74 | * 8.1 | 1.9-14.2 | 115 | * 3.5 | 0.1-7.0 | 189 | * 5.8 | 2.3-9.4 |
| 25-34 | 179 | * 2.8 | 0.1-5.5 | 282 | * 1.4 | 0.1-2.8 | 461 | * 2.1 | 0.6-3.6 |
| 35-44 | 231 | * 4.9 | 2.0-7.8 | 359 | * 2.4 | 0.5-4.2 | 590 | 3.6 | 1.9-5.3 |
| 45-54 | 296 | 5.4 | 2.5-8.2 | 397 | * 2.6 | 0.8-4.4 | 693 | 4.0 | 2.3-5.6 |
| 55-64 | 253 | * 1.2 | 0.0-2.5 | 378 | * 1.3 | 0.2-2.3 | 631 | * 1.3 | 0.4-2.1 |
| 65+ | 270 | * 0.4 | 0.0-1.2 | 576 | * 1.5 | 0.1-2.9 | 846 | * 1.0 | 0.1-1.9 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 223 | * 3.4 | 0.3-6.5 | 398 | * 2.3 | 0.2-4.4 | 621 | * 2.8 | 1.0-4.6 |
| H.S. or G.E.D. | 518 | 4.3 | 2.1-6.5 | 797 | * 0.9 | 0.2-1.5 | 1,315 | 2.6 | 1.4-3.8 |
| Some Post-H.S. | 260 | * 4.4 | 1.6-7.1 | 469 | * 3.3 | 1.1-5.4 | 729 | 3.8 | 2.1-5.5 |
| College Graduate | 302 | * 2.3 | 0.7-3.9 | 444 | 2.6 | 1.1-4.0 | 746 | 2.5 | 1.4-3.5 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 165 | * 0.6 | 0.0-1.7 | 464 | * 1.5 | 0.1-2.8 | 629 | * 1.1 | 0.2-2.1 |
| \$15,000-24,999 | 261 | * 4.7 | 1.7-7.7 | 402 | * 2.1 | 0.4-3.7 | 663 | 3.3 | 1.7-5.0 |
| \$25,000-34,999 | 162 | * 4.0 | 0.0-8.1 | 253 | * 1.7 | 0.1-3.3 | 415 | * 2.8 | 0.7-4.9 |
| \$35,000-49,999 | 214 | * 6.0 | 2.0-10.0 | 304 | * 1.5 | 0.0-3.0 | 518 | 3.7 | 1.6-5.9 |
| \$50,000-74,999 | 213 | * 1.0 | 0.0-2.0 | 228 | * 1.6 | 0.1-3.0 | 441 | * 1.3 | 0.4-2.1 |
| \$75,000+ | 186 | * 5.1 | 1.5-8.8 | 188 | * 4.1 | 0.5-7.8 | 374 | 4.7 | 2.1-7.3 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 9.4 Heavy drinking by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,338 | 4.7 | 3.3-6.1 | 2,182 | 1.7 | 1.0-2.4 | 3,520 | 3.1 | 2.4-3.9 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 65 | * 5.6 | 0.0-11.6 | 100 | * 3.6 | 0.0-7.6 | 165 | * 4.6 | 0.9-8.2 |
| 25-34 | 180 | 6.2 | 2.6-9.8 | 282 | * 2.4 | 0.4-4.4 | 462 | 4.3 | 2.2-6.4 |
| 35-44 | 222 | * 6.3 | 2.4-10.1 | 349 | * 1.8 | 0.2-3.3 | 571 | 4.0 | 1.9-6.1 |
| 45-54 | 282 | * 3.2 | 1.2-5.3 | 456 | 2.1 | 0.9-3.2 | 738 | 2.6 | 1.5-3.8 |
| 55-64 | 271 | 4.8 | 2.1-7.5 | 366 | * 1.0 | 0.0-2.1 | 637 | 2.9 | 1.4-4.3 |
| 65+ | 316 | * 2.6 | 0.7-4.6 | 620 | * 0.3 | 0.0-0.7 | 936 | * 1.3 | 0.4-2.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 247 | 9.8 | 4.7-14.9 | 381 | * 0.4 | 0.0-1.0 | 628 | 5.2 | 2.5-7.9 |
| H.S. or G.E.D. | 546 | 4.6 | 2.6-6.5 | 865 | * 1.9 | 0.8-3.0 | 1,411 | 3.2 | 2.1-4.3 |
| Some Post-H.S. | 246 | * 2.4 | 0.6-4.2 | 499 | * 2.2 | 0.5-3.9 | 745 | 2.3 | 1.0-3.5 |
| College Graduate | 298 | * 2.4 | 0.7-4.1 | 434 | * 1.7 | 0.3-3.1 | 732 | 2.0 | 0.9-3.1 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 165 | * 5.4 | 1.8-8.9 | 433 | * 2.2 | 0.1-4.2 | 598 | 3.4 | 1.5-5.2 |
| \$15,000-24,999 | 266 | 6.4 | 2.9-10.0 | 461 | * 1.5 | 0.2-2.8 | 727 | 3.8 | 2.0-5.6 |
| \$25,000-34,999 | 210 | * 3.0 | 0.1-5.9 | 253 | * 1.9 | 0.2-3.6 | 463 | * 2.5 | 0.7-4.2 |
| \$35,000-49,999 | 202 | * 4.2 | 1.4-7.0 | 264 | * 1.5 | 0.0-3.3 | 466 | * 2.9 | 1.2-4.6 |
| \$50,000-74,999 | 208 | * 4.4 | 1.6-7.2 | 260 | * 1.9 | 0.0-3.8 | 468 | 3.2 | 1.5-4.9 |
| \$75,000+ | 173 | * 5.5 | 1.2-9.8 | 210 | * 3.4 | 0.2-6.5 | 383 | * 4.5 | 1.8-7.2 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 9.3 Heavy drinking by year: WVBRFSS, 1989-2005


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

## No Alcoholic Beverages in 2005

## Definition

Consumption of no alcoholic beverages in the past 30 days.

Table 9.5 No alcoholic beverages in past 30 days by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,358 | 59.6 | 56.5-62.6 | 2,191 | 75.8 | 73.7-78.0 | 3,549 | 68.0 | 66.1-69.9 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | *52.0 | 39.2-64.7 | 102 | *63.4 | 53.2-73.6 | 170 | 57.6 | 49.3-65.8 |
| 25-34 | 182 | 44.8 | 37.0-52.6 | 282 | 71.5 | 65.9-77.2 | 464 | 58.1 | 53.1-63.0 |
| 35-44 | 226 | 55.5 | 48.5-62.4 | 351 | 72.1 | 67.1-77.2 | 577 | 63.9 | 59.6-68.3 |
| 45-54 | 286 | 65.2 | 59.3-71.1 | 458 | 69.7 | 65.2-74.3 | 744 | 67.5 | 63.8-71.2 |
| 55-64 | 276 | 64.4 | 58.2-70.6 | 366 | 80.4 | 76.0-84.8 | 642 | 72.6 | 68.8-76.4 |
| 65+ | 318 | 73.1 | 67.8-78.3 | 623 | 90.2 | 87.7-92.6 | 941 | 83.1 | 80.4-85.8 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 250 | 66.8 | 59.1-74.5 | 382 | 92.7 | 90.1-95.4 | 632 | 79.4 | 74.8-83.9 |
| H.S. or G.E.D. | 554 | 63.0 | 58.3-67.7 | 869 | 78.8 | 75.5-82.0 | 1,423 | 71.0 | 68.1-73.9 |
| Some Post-H.S. | 249 | 60.5 | 53.5-67.4 | 502 | 69.1 | 64.2-74.1 | 751 | 65.6 | 61.5-69.6 |
| College Graduate | 304 | 45.8 | 39.5-52.1 | 435 | 64.1 | 59.1-69.0 | 739 | 54.9 | 50.8-59.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 68.1 | 59.5-76.7 | 435 | 88.2 | 84.1-92.3 | 602 | 80.5 | 76.3-84.8 |
| \$15,000-24,999 | 269 | 66.2 | 59.3-73.0 | 462 | 80.3 | 75.8-84.8 | 731 | 73.7 | 69.6-77.8 |
| \$25,000-34,999 | 214 | 67.1 | 60.1-74.1 | 253 | 77.3 | 71.5-83.1 | 467 | 71.7 | 67.1-76.4 |
| \$35,000-49,999 | 207 | 56.7 | 49.2-64.3 | 265 | 76.8 | 71.3-82.4 | 472 | 66.3 | 61.5-71.2 |
| \$50,000-74,999 | 209 | 52.7 | 45.2-60.2 | 262 | 65.8 | 59.6-71.9 | 471 | 58.9 | 54.0-63.9 |
| \$75,000+ | 175 | 37.7 | 29.9-45.6 | 211 | 50.5 | 43.1-58.0 | 386 | 43.8 | 38.3-49.2 |

[^9]
## CHAPTER 10: DIABETES

## Diabetes Awareness in 2004 and 2005

## Definition

Prevalence WV: 10.9\% (95\% CI: 9.8-12.1) in 2004; 10.4\% (95\% CI: 9.4-11.5) in 2005. US: $\quad 7.2 \%$ (95\% CI: 7.1-7.4) in 2004; 7.8\% (95\% CI: 7.6-7.9) in 2005. West Virginia ranked $1^{\text {st }}$ highest among 52 BRFSS participants in 2004 and $2^{\text {nd }}$ highest among 53 BRFSS participants in 2005.

The rate of diabetes among West Virginia adults increased during 8 of the past 10 years. Awareness of having diabetes increased steeply and significantly between 2000 (7.6\%) and 2004 (10.9\%). The statewide prevalence declined to $10.4 \%$ in 2005.

Gender Men: 11.6\% (95\% CI: 9.7-13.5) in 2004; 9.7\% (95\% CI: 8.1-11.3) in 2005. Women: 10.3\% (95\% CI: 8.9-11.6) in 2004; 11.1\% (95\% CI: 9.7-12.5) in 2005. There were no significant differences in how frequently men and women reported a diagnosis of diabetes in either 2004 or 2005.

The oldest adults (65 and older) had the highest diabetes prevalence among all age groups in West Virginia, 22.1\% in 2004 and 21.1\% in 2005. Adults aged 1854 were significantly less likely to be diabetic in both years. The prevalence was lower at the younger ages.

Education Adults with less than a high school education carried the greatest risk of diabetes, with a prevalence of $18.0 \%$ in 2004 and $15.1 \%$ in 2005 . The risk for college graduates was significantly lower at $7.5 \%$ in 2004 and $6.6 \%$ in 2005. Each increase in education was associated with a lower risk of diabetes, although the differences were not significant between every group.

At the lowest income levels, less than $\$ 15,000$ annually, more than 15 people in every 100 were diabetic. In contrast, adults living in households with annual incomes of \$50,000 and above experienced significantly lower risks, around 5 in every 100. The prevalence generally decreased with increasing income.

Table 10.1 Diabetes awareness by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,319 | 11.6 | 9.7-13.5 | 2,119 | 10.3 | 8.9-11.6 | 3,438 | 10.9 | 9.8-12.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | * 1.4 | 0.0-4.2 | 115 | * 1.4 | 0.0-3.4 | 190 | * 1.4 | 0.0-3.1 |
| 25-34 | 181 | * 1.9 | 0.0-4.5 | 282 | * 2.0 | 0.4-3.6 | 463 | * 1.9 | 0.4-3.5 |
| 35-44 | 237 | 8.4 | 4.1-12.8 | 362 | 4.8 | 2.1-7.6 | 599 | 6.6 | 4.1-9.2 |
| 45-54 | 298 | 11.6 | 7.4-15.7 | 401 | 9.6 | 6.5-12.7 | 699 | 10.6 | 8.0-13.2 |
| 55-64 | 255 | 21.1 | 15.5-26.6 | 379 | 17.8 | 13.7-21.9 | 634 | 19.4 | 16.0-22.8 |
| 65+ | 271 | 24.5 | 18.7-30.3 | 576 | 20.5 | 16.8-24.1 | 847 | 22.1 | 18.9-25.3 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 225 | 17.1 | 11.6-22.6 | 401 | 18.8 | 14.7-22.8 | 626 | 18.0 | 14.7-21.3 |
| H.S. or G.E.D. | 526 | 11.9 | 8.9-14.9 | 797 | 11.2 | 8.8-13.5 | 1,323 | 11.6 | 9.7-13.5 |
| Some Post-H.S. | 260 | 8.5 | 4.9-12.2 | 471 | 6.3 | 4.2-8.4 | 731 | 7.3 | 5.3-9.3 |
| College Graduate | 306 | 9.8 | 5.9-13.7 | 447 | 5.4 | 3.1-7.7 | 753 | 7.5 | 5.3-9.8 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 16.0 | 9.8-22.2 | 464 | 18.5 | 14.8-22.3 | 631 | 17.5 | 14.2-20.9 |
| \$15,000-24,999 | 261 | 13.8 | 9.0-18.7 | 403 | 10.8 | 7.3-14.3 | 664 | 12.3 | 9.3-15.2 |
| \$25,000-34,999 | 165 | 14.8 | 8.6-20.9 | 253 | 12.3 | 8.0-16.7 | 418 | 13.5 | 9.8-17.2 |
| \$35,000-49,999 | 215 | 10.9 | 6.6-15.2 | 305 | 7.8 | 4.6-10.9 | 520 | 9.3 | 6.6-12.0 |
| \$50,000-74,999 | 214 | 9.4 | 5.1-13.8 | 230 | * 2.9 | 0.7-5.1 | 444 | 6.6 | 3.9-9.2 |
| \$75,000+ | 187 | 7.7 | 3.4-12.0 | 189 | * 2.6 | 0.4-4.8 | 376 | 5.5 | 2.8-8.1 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 10.2 Diabetes awareness by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,359 | 9.7 | 8.1-11.3 | 2,192 | 11.1 | 9.7-12.5 | 3,551 | 10.4 | 9.4-11.5 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | na | Na | 102 | * 1.7 | 0.0-5.1 | 170 | * 0.8 | 0.0-2.5 |
| 25-34 | 182 | * 2.9 | 0.3-5.4 | 282 | * 2.2 | 0.7-3.8 | 464 | 2.6 | 1.1-4.1 |
| 35-44 | 226 | 8.0 | 4.2-11.8 | 351 | 7.9 | 4.7-11.1 | 577 | 8.0 | 5.5-10.4 |
| 45-54 | 286 | 8.9 | 5.5-12.2 | 458 | 10.2 | 7.0-13.4 | 744 | 9.5 | 7.2-11.8 |
| 55-64 | 276 | 15.1 | 10.5-19.7 | 366 | 17.7 | 13.5-21.9 | 642 | 16.4 | 13.3-19.5 |
| 65+ | 319 | 21.7 | 16.6-26.7 | 624 | 20.8 | 17.2-24.3 | 943 | 21.1 | 18.2-24.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 250 | 14.1 | 9.5-18.7 | 382 | 16.2 | 12.2-20.2 | 632 | 15.1 | 12.1-18.2 |
| H.S. or G.E.D. | 556 | 9.5 | 7.0-12.0 | 869 | 12.6 | 10.2-15.0 | 1,425 | 11.0 | 9.3-12.8 |
| Some Post-H.S. | 249 | 8.9 | 5.6-12.3 | 503 | 9.1 | 6.4-11.9 | 752 | 9.1 | 7.0-11.2 |
| College Graduate | 303 | 7.0 | 4.1-9.9 | 435 | 6.3 | 4.0-8.6 | 738 | 6.6 | 4.8-8.5 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 14.9 | 8.9-21.0 | 434 | 15.6 | 12.0-19.1 | 601 | 15.3 | 12.1-18.5 |
| \$15,000-24,999 | 270 | 13.6 | 9.2-17.9 | 462 | 12.5 | 8.9-16.1 | 732 | 13.0 | 10.2-15.8 |
| \$25,000-34,999 | 214 | 11.9 | 7.2-16.5 | 254 | 12.1 | 7.8-16.4 | 468 | 12.0 | 8.8-15.2 |
| \$35,000-49,999 | 207 | 8.3 | 4.7-11.9 | 265 | 9.8 | 5.9-13.7 | 472 | 9.0 | 6.3-11.7 |
| \$50,000-74,999 | 209 | 7.6 | 4.0-11.1 | 262 | 7.9 | 4.4-11.4 | 471 | 7.7 | 5.2-10.2 |
| \$75,000+ | 175 | * 4.0 | 1.4-6.5 | 211 | * 2.4 | 0.3-4.6 | 386 | 3.2 | 1.6-4.9 |

[^10]Figure 10.1 Diabetes awareness by year: WVBRFSS, 1990-2005


Figure 10.2 Diabetes awareness by county: WVBRFSS, 2001-2005


## Key Control Issues among Adults with Diabetes in 2004 and 2005

## Definitions

Prevalence

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?"

No A1c test
WV: $\quad \mathbf{1 2 . 3} \%$ (95\% CI: 8.1-16.5) in 2004; 12.1\% (95\% CI: 8.6-15.7) in 2005.
No eye exam
WV: $\quad \mathbf{3 3 . 0} \%$ (95\% CI: 27.5-38.5) in 2004; 29.6\% (95\% CI: 24.6-34.7) in 2005.
No foot exam
WV: $\quad \mathbf{3 5 . 3} \%$ (95\% CI: 29.8-40.9) in 2004; 30.2\% (95\% CI: 25.3-35.1) in 2005.

Time Trends Between 2004 and 2005, there were slight declines in the prevalence of all these risk factors.

## WV Healthy People 2010 ObJECTIVES

Objective 5.6
Objective 5.7 Increase to $73 \%$ the proportion of persons with diabetes who have an annual dilated eye exam. (Baseline: $65.5 \%$ in 1998; Current: $70.4 \%$ in 2005)

Table 10.3 No A1c test among adults with diabetes by demographic characteristics: WVBRFSS, 2004 and 2005

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 374 | 12.3 | 8.1-16.5 | 358 | 12.1 | 8.6-15.7 |
| Males | 146 | 12.8 | 6.1-19.4 | 136 | 12.4 | 6.7-18.1 |
| Females | 228 | 11.8 | 6.6-17.1 | 222 | 11.9 | 7.5-16.3 |
| Age |  |  |  |  |  |  |
| 18-44 | 39 | * 33.8 | 15.7-51.8 | 55 | * 11.7 | 3.6-19.7 |
| 45-54 | 68 | * 1.4 | 0.0-3.5 | 61 | * 15.2 | 6.1-24.3 |
| 55-64 | 120 | * 7.3 | 1.4-13.2 | 95 | * 9.7 | 3.4-16.1 |
| 65+ | 147 | 12.9 | 7.1-18.7 | 147 | 12.5 | 6.6-18.4 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 109 | 17.1 | 8.9-25.4 | 83 | * 23.9 | 13.8-34.0 |
| H.S. or G.E.D. | 159 | 14.5 | 7.0-21.9 | 155 | 7.2 | 3.2-11.1 |
| Some Post-H.S. | 54 | * 5.4 | 0.0-11.5 | 67 | * 9.8 | 2.3-17.4 |
| College Graduate | 51 | * 3.9 | 0.0-11.5 | 53 | * 12.6 | 2.8-22.5 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 116 | 16.6 | 7.7-25.6 | 84 | 19.4 | 10.3-28.5 |
| \$15,000-24,999 | 66 | * 13.3 | 4.2-22.4 | 80 | * 10.2 | 3.5-16.9 |
| \$25,000-34,999 | 53 | * 18.9 | 3.8-33.9 | 55 | * 14.0 | 3.9-24.2 |
| \$35,000-49,999 | 48 | * 13.9 | 1.7-26.1 | 44 | * 5.2 | 0.0-12.8 |
| \$50,000+ | 47 | * 0.0 | na | 50 | * 7.6 | 0.0-15.2 |

[^11]Table 10.4 No eye exam prevalence among adults with diabetes by demographic characteristics: WVBRFSS, 2004 and 2005

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 409 | 33.0 | 27.5-38.5 | 412 | 29.6 | 24.6-34.7 |
| Males | 160 | 34.3 | 25.5-43.0 | 155 | 33.2 | 24.8-41.7 |
| Females | 249 | 31.8 | 25.2-38.3 | 257 | 26.7 | 20.7-32.7 |
| Age |  |  |  |  |  |  |
| 18-44 | 43 | * 59.5 | 42.8-76.3 | 55 | * 46.2 | 31.2-61.1 |
| 45-54 | 73 | * 33.8 | 21.0-46.5 | 69 | * 26.7 | 14.7-38.7 |
| 55-64 | 121 | 30.7 | 21.5-40.0 | 105 | 28.8 | 19.4-38.2 |
| 65+ | 172 | 24.3 | 16.8-31.8 | 183 | 24.0 | 17.1-31.0 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 122 | 35.7 | 25.8-45.5 | 107 | * 42.1 | 31.2-53.1 |
| H.S. or G.E.D. | 168 | 37.5 | 28.7-46.4 | 173 | 30.5 | 22.5-38.5 |
| Some Post-H.S. | 62 | * 26.3 | 12.5-40.2 | 77 | 22.2 | 12.6-31.9 |
| College Graduate | 56 | * 22.0 | 7.9-36.0 | 55 | * 13.4 | 3.8-23.0 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 128 | 31.3 | 21.5-41.0 | 99 | * 30.9 | 20.0-41.8 |
| \$15,000-24,999 | 74 | * 42.9 | 29.6-56.1 | 97 | 33.1 | 22.3-43.9 |
| \$25,000-34,999 | 58 | * 37.9 | 23.1-52.8 | 58 | * 34.6 | 20.7-48.6 |
| \$35,000-49,999 | 50 | * 25.9 | 12.4-39.4 | 47 | * 21.8 | 8.6-34.9 |
| \$50,000+ | 49 | * 31.1 | 15.0-47.3 | 53 | * 28.8 | 15.5-42.1 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 10.5 No foot exam prevalence among adults with diabetes by demographic characteristics: WVBRFSS, 2004 and 2005

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 405 | 35.3 | 29.8-40.9 | 413 | 30.2 | 25.3-35.1 |
| Males | 160 | 30.7 | 22.3-39.0 | 156 | 28.1 | 20.4-35.7 |
| Females | 245 | 40.2 | 33.1-47.3 | 257 | 31.9 | 25.7-38.2 |
| Age |  |  |  |  |  |  |
| 18-44 | 43 | * 61.7 | 45.3-78.2 | 56 | * 29.7 | 16.9-42.5 |
| 45-54 | 73 | * 30.5 | 18.6-42.4 | 71 | * 19.9 | 9.7-30.1 |
| 55-64 | 120 | 25.2 | 16.6-33.7 | 103 | 27.2 | 18.0-36.4 |
| 65+ | 169 | 34.2 | 26.2-42.2 | 183 | 36.9 | 29.1-44.7 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 120 | 30.8 | 21.3-40.4 | 107 | * 34.4 | 24.3-44.5 |
| H.S. or G.E.D. | 167 | 36.3 | 27.7-44.9 | 172 | 26.7 | 19.4-34.0 |
| Some Post-H.S. | 62 | * 41.8 | 27.2-56.4 | 78 | * 32.9 | 21.7-44.2 |
| College Graduate | 55 | * 35.2 | 19.9-50.5 | 56 | 29.5 | 16.3-42.7 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 124 | * 39.1 | 28.4-49.8 | 101 | 25.2 | 16.0-34.4 |
| \$15,000-24,999 | 75 | * 33.5 | 21.0-46.1 | 98 | * 30.3 | 20.2-40.5 |
| \$25,000-34,999 | 57 | * 45.4 | 30.3-60.5 | 57 | * 40.6 | 26.5-54.7 |
| \$35,000-49,999 | 50 | * 33.3 | 19.1-47.5 | 46 | * 18.9 | 5.8-31.9 |
| \$50,000+ | 48 | * 23.8 | 9.8-37.7 | 53 | * 28.4 | 15.9-40.9 |

Note. Excludes amputees.

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## Additional Diabetes Issues in 2004 and 2005

Table 10.6 Other health care issues among adults with diabetes: WVBRFSS, 2004

| Diabetic respondents who... | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI |
| Now take insulin | 164 | 15.6 | 10.0-21.2 | 253 | 24.6 | 18.4-30.7 | 417 | 20.0 | 15.7-24.2 |
| Now take diabetes pills | 163 | 76.1 | 68.4-83.7 | 253 | 70.2 | 63.7-76.8 | 416 | 73.2 | 68.1-78.3 |
| Never check blood glucose at home or check it less than once daily | 160 | 47.1 | 38.3-55.9 | 251 | 32.1 | 25.6-38.6 | 411 | 39.7 | 34.1-45.3 |
| Never self-check feet for sores or check them less than once daily | 159 | 18.1 | 11.5-24.7 | 246 | 19.4 | 13.9-24.9 | 405 | 18.7 | 14.4-23.1 |
| Have ever had a foot sore that took more than four weeks to heal | 164 | 9.7 | 4.8-14.6 | 253 | 11.4 | 6.7-16.1 | 417 | 10.5 | 7.1-13.9 |
| Did NOT visit a doctor, nurse, or other health professional even once in the past 12 months for their diabetes | 162 | * 6.6 | 1.6-11.6 | 250 | * 5.8 | 1.8-9.8 | 412 | 6.2 | 3.0-9.4 |
| Were told by a doctor that they have diabetic retinopathy | 160 | 30.6 | 22.7-38.4 | 247 | 24.3 | 18.0-30.6 | 407 | 27.5 | 22.4-32.5 |
| Have NEVER taken a class in selfmanagement of diabetes | 163 | 57.1 | 48.5-65.6 | 253 | 58.2 | 51.4-65.1 | 416 | 57.7 | 52.2-63.1 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 10.7 Other health care issues among adults with diabetes: WVBRFSS, 2005

| Diabetic respondents who... | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI | $\begin{gathered} \hline \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI |
| Now take insulin | 161 | 25.1 | 17.5-32.7 | 264 | 28.3 | 22.0-34.7 | 425 | 26.9 | 22.0-31.8 |
| Now take diabetes pills | 161 | 71.8 | 64.0-79.7 | 264 | 69.9 | 63.4-76.3 | 425 | 70.8 | 65.8-75.7 |
| Never check blood glucose at home or check it less than once daily | 154 | 42.3 | 33.9-50.8 | 260 | 29.2 | 23.1-35.3 | 414 | 34.9 | 29.9-40.0 |
| Never self-check feet for sores or check them less than once daily | 151 | 24.9 | 17.4-32.4 | 260 | 15.0 | 10.2-19.7 | 411 | 19.3 | 15.0-23.6 |
| Have ever had a foot sore that took more than four weeks to heal | 159 | 18.9 | 12.0-25.8 | 263 | 13.9 | 9.1-18.7 | 422 | 16.1 | 12.1-20.2 |
| Did NOT visit a doctor, nurse, or other health professional even once in the past 12 months for their diabetes | 158 | * 5.7 | 2.1-9.3 | 257 | * 3.5 | 1.3-5.8 | 415 | 4.5 | 2.5-6.6 |
| Were told by a doctor that they have diabetic retinopathy | 157 | 19.2 | 12.6-25.9 | 262 | 16.2 | 11.4-20.9 | 419 | 17.5 | 13.6-21.5 |
| Have NEVER taken a class in selfmanagement of diabetes | 160 | 61.5 | 53.0-70.0 | 263 | 48.8 | 42.0-55.5 | 423 | 54.5 | 49.1-59.8 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## WV Healthy People 2010 ObJectives

Objective 5.8
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: $65.1 \%$ in 2005)

## CHAPTER 11: HYPERTENSION

## Hypertension Awareness in 2005

Definition Responding "Yes" to the following question: "Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?"

Prevalence WV: 31.4\% (95\% CI: 29.7-33.1) in 2005.
US: $\quad \mathbf{2 6 . 2 \%}$ (95\% CI: 25.9-26.4) in 2005.
West Virginia ranked $2^{\text {nd }}$ highest among 53 BRFSS participants in 2005.
Time Trends From 1995 through 2003, hypertension awareness grew steadily. The prevalence declined slightly between 2003 and 2005, however.

Gender Men: 30.9\% (95\% CI: 28.2-33.6) in 2005.
Women: 31.9\% (95\% CI: 29.8-34.1) in 2005.
There was little difference in how frequently men and women reported having been diagnosed with high blood pressure.

Age Hypertension awareness increased steeply and significantly with increasing age, a well-known phenomenon. The prevalence ranged from a low of $10.9 \%$ among young adults (25-34) to a high of $57.5 \%$ among older adults (age 65 and older).

## Education and Household Income

Adults without a high school diploma reported hypertension significantly more often than those with more education. Those with incomes of less than $\$ 15,000$ were more likely than those with incomes of $\$ 25,000$ or more to have hypertension.

## WV Healthy People 2010 Objectives

Objective 12.3 Decrease the proportion of adults who have high blood pressure to no more than 22\%. (Baseline: 28.3\% in 1997; Current: $31.4 \%$ in 2005)

Figure 11.1 Prevalence of hypertension awareness by year: WVBRFSS, 1984-2005


NOTE: Data not available for the years 1998, 2000, 2004.

Table 11.1 Hypertension awareness by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,356 | 30.9 | 28.2-33.6 | 2,191 | 31.9 | 29.8-34.1 | 3,547 | 31.4 | 29.7-33.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | * 7.7 | 1.2-14.1 | 102 | * 3.0 | 0.0-6.5 | 170 | * 5.4 | 1.7-9.1 |
| 25-34 | 181 | 14.0 | 8.7-19.2 | 282 | 7.8 | 4.4-11.1 | 463 | 10.9 | 7.7-14.0 |
| 35-44 | 226 | 19.7 | 14.2-25.2 | 350 | 19.0 | 14.5-23.6 | 576 | 19.3 | 15.8-22.9 |
| 45-54 | 286 | 38.1 | 32.0-44.2 | 459 | 32.4 | 27.7-37.0 | 745 | 35.2 | 31.3-39.1 |
| 55-64 | 276 | 48.7 | 42.3-55.2 | 366 | 46.7 | 41.2-52.3 | 642 | 47.7 | 43.5-52.0 |
| 65+ | 317 | 51.3 | 45.4-57.2 | 623 | 61.9 | 57.7-66.0 | 940 | 57.5 | 54.0-61.0 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 249 | 40.1 | 33.1-47.2 | 382 | 46.7 | 41.0-52.5 | 631 | 43.3 | 38.7-47.9 |
| H.S. or G.E.D. | 554 | 30.5 | 26.3-34.8 | 868 | 33.6 | 30.1-37.0 | 1,422 | 32.1 | 29.4-34.8 |
| Some Post-H.S. | 249 | 27.4 | 21.6-33.1 | 503 | 27.0 | 22.7-31.3 | 752 | 27.1 | 23.7-30.6 |
| College Graduate | 303 | 26.2 | 20.8-31.6 | 435 | 22.3 | 18.3-26.3 | 738 | 24.3 | 20.9-27.6 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 41.3 | 32.7-49.9 | 435 | 42.1 | 36.9-47.3 | 602 | 41.8 | 37.2-46.4 |
| \$15,000-24,999 | 268 | 39.3 | 32.7-45.9 | 461 | 38.3 | 33.2-43.4 | 729 | 38.8 | 34.6-42.9 |
| \$25,000-34,999 | 214 | 34.6 | 27.6-41.6 | 254 | 27.7 | 21.7-33.7 | 468 | 31.5 | 26.7-36.2 |
| \$35,000-49,999 | 207 | 29.5 | 22.9-36.0 | 265 | 25.1 | 19.6-30.6 | 472 | 27.4 | 23.1-31.7 |
| \$50,000-74,999 | 209 | 21.7 | 15.5-27.9 | 262 | 23.0 | 17.8-28.3 | 471 | 22.3 | 18.2-26.4 |
| \$75,000+ | 175 | 24.7 | 17.9-31.4 | 211 | 21.4 | 15.6-27.1 | 386 | 23.1 | 18.6-27.6 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 11.2 Hypertension awareness by county: WVBRFSS, 2001- 2003, 2005


## Actions and Medical Advice among Adults with Hypertension in 2005

Table 11.2 Exercise activity in order to help lower or control high blood pressure among adults with hypertension: WVBRFSS, 2005

| Characteristic | Adults who are exercising to help lower or control high blood pressure |  |  | Adults ever advised by a health professional to exercise to help lower or control high blood pressure |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,260 | 58.1 | 55.0-61.2 | 1,253 | 66.5 | 63.5-69.5 |
| Males | 474 | 58.0 | 53.0-62.9 | 469 | 67.1 | 62.3-71.9 |
| Females | 786 | 58.2 | 54.4-62.0 | 784 | 65.9 | 62.3-69.5 |
| Age |  |  |  |  |  |  |
| 18-24 | 9 | na | na | 9 | na | na |
| 25-34 | 45 | * 71.3 | 57.1-85.4 | 45 | * 75.7 | 62.5-88.8 |
| 35-44 | 110 | * 60.6 | 50.4-70.9 | 110 | 76.4 | 67.6-85.3 |
| 45-54 | 250 | 58.2 | 51.5-64.9 | 248 | 71.3 | 65.0-77.5 |
| 55-64 | 301 | 60.1 | 54.0-66.2 | 301 | 71.6 | 66.2-77.1 |
| 65+ | 538 | 54.8 | 50.1-59.5 | 533 | 58.7 | 54.1-63.4 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 321 | 49.9 | 43.6-56.2 | 318 | 59.1 | 52.9-65.3 |
| H.S. or G.E.D. | 509 | 57.9 | 53.0-62.8 | 506 | 66.9 | 62.2-71.7 |
| Some Post-H.S. | 234 | 59.6 | 52.5-66.6 | 233 | 70.5 | 64.2-76.8 |
| College Graduate | 193 | 70.1 | 63.1-77.1 | 193 | 72.7 | 65.7-79.7 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 287 | 49.0 | 42.3-55.6 | 285 | 64.9 | 58.6-71.2 |
| \$15,000-24,999 | 300 | 54.0 | 47.5-60.5 | 298 | 61.8 | 55.5-68.1 |
| \$25,000-34,999 | 149 | 61.3 | 52.4-70.2 | 147 | 69.3 | 61.0-77.7 |
| \$35,000-49,999 | 140 | 59.8 | 51.0-68.6 | 141 | 71.6 | 63.9-79.3 |
| \$50,000-74,000 | 117 | 64.4 | 54.0-74.8 | 117 | * 68.9 | 58.3-79.5 |
| \$75,000+ | 95 | 73.9 | 64.6-83.2 | 94 | 87.0 | 80.4-93.6 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 11.3 Other activity and related medical advice to help lower or control high blood pressure among adults with hypertension: WVBRFSS, 2005

|  | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c\|} \hline \# \\ \text { Resp. } \end{array}$ | \% | 95\% CI | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI |
| Adults Who Are... |  |  |  |  |  |  |  |  |  |
| Taking medicine | 479 | 77.3 | 72.8-81.9 | 800 | 88.2 | 85.6-90.9 | 1,279 | 83.1 | 80.5-85.7 |
| Changing eating habits | 472 | 67.2 | 62.4-72.0 | 786 | 72.6 | 69.1-76.1 | 1,258 | 70.1 | 67.1-73.0 |
| Cutting down on salt ${ }^{\text {a }}$ | 438 | 71.5 | 66.7-76.3 | 699 | 80.5 | 77.1-83.9 | 1,137 | 76.1 | 73.2-79.1 |
| Reducing alcohol ${ }^{\text {b }}$ | 160 | 44.2 | 35.5-52.8 | 143 | 57.1 | 48.2-66.1 | 303 | 49.0 | 42.5-55.4 |
| Adults Whose <br> Health Professional Advised... |  |  |  |  |  |  |  |  |  |
| Taking medicine | 475 | 85.1 | 81.0-89.2 | 788 | 93.6 | 91.6-95.6 | 1,263 | 89.6 | 87.3-91.8 |
| Changing eating habits | 475 | 68.4 | 63.6-73.1 | 786 | 60.9 | 57.1-64.7 | 1,261 | 64.4 | 61.4-67.4 |
| Cutting down on salt ${ }^{\text {a }}$ | 459 | 67.8 | 63.0-72.6 | 749 | 69.7 | 66.1-73.4 | 1,208 | 68.8 | 65.8-71.8 |
| Reducing alcohol ${ }^{\text {b }}$ | 209 | 43.1 | 35.6-50.6 | 195 | 38.6 | 30.9-46.2 | 404 | 41.4 | 35.9-46.9 |

a. This response group excludes those who reported never using salt.
b. This response group excludes those who reported never drinking alcohol.

## CHAPTER 12: CHOLESTEROL

## No Cholesterol Screening

Definition

Prevalence

Gender

Age, Education, \& Household Income

Responding "No" to the following question: "Blood cholesterol is a fatty substance found in the blood. Have you ever had your blood cholesterol checked?"

WV: 20.5\% (95\% CI: 18.7-22.3) in 2005.
US: 22.8\% (95\% CI: 22.5-23.1) in 2005.
West Virginia ranked $37^{\text {th }}$ highest among 53 BRFSS participants in 2005.
Men: 24.7\% (95\% CI: 21.6-27.7) in 2005.
Women: $16.6 \%$ (95\% CI: 14.6-18.6) in 2005.
Lack of cholesterol screening was significantly more prevalent among men than women.

Generally, lack of cholesterol screening was more common among groups who were younger, had less education, or had lower income.

## WV Healthy People 2010 Objectives

Objective 12.4
Increase to at least $75 \%$ the proportion of adults who have had their blood cholesterol checked within the preceding five years. (Baseline: $67.2 \%$ in 1997; Current: $76.6 \%$ in 2005)

Table 12.1 Prevalence of never having had a blood cholesterol screening by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,337 | 24.7 | 21.6-27.7 | 2,139 | 16.6 | 14.6-18.6 | 3,476 | 20.5 | 18.7-22.3 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 65 | 62.7 | 50.4-75.0 | 89 | 40.7 | 29.7-51.8 | 154 | 52.4 | 43.7-61.1 |
| 25-34 | 179 | 42.9 | 35.2-50.6 | 266 | 38.0 | 31.6-44.4 | 445 | 40.5 | 35.5-45.5 |
| 35-44 | 222 | 29.7 | 22.9-36.4 | 349 | 17.6 | 13.3-21.9 | 571 | 23.5 | 19.5-27.5 |
| 45-54 | 281 | 11.6 | 7.4-15.8 | 456 | 11.0 | 7.9-14.1 | 737 | 11.3 | 8.7-13.9 |
| 55-64 | 270 | 7.3 | 3.7-10.8 | 363 | 3.9 | 1.8-6.1 | 633 | 5.5 | 3.5-7.6 |
| 65+ | 318 | 5.7 | 3.1-8.3 | 607 | 4.1 | 2.5-5.6 | 925 | 4.8 | 3.3-6.2 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 242 | 30.0 | 22.2-37.8 | 367 | 18.6 | 13.2-24.0 | 609 | 24.5 | 19.6-29.4 |
| H.S. or G.E.D. | 546 | 28.9 | 24.0-33.7 | 843 | 17.0 | 13.8-20.2 | 1,389 | 22.9 | 19.9-25.8 |
| Some Post-H.S. | 245 | 23.8 | 16.7-31.0 | 493 | 15.9 | 11.7-20.1 | 738 | 19.2 | 15.3-23.1 |
| College Graduate | 303 | 12.6 | 7.9-17.3 | 434 | 15.0 | 10.9-19.0 | 737 | 13.8 | 10.7-16.9 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 164 | 33.8 | 24.6-43.0 | 422 | 19.4 | 14.3-24.5 | 586 | 24.9 | 20.1-29.7 |
| \$15,000-24,999 | 266 | 26.1 | 19.6-32.6 | 447 | 20.1 | 15.3-24.8 | 713 | 22.9 | 18.9-26.9 |
| \$25,000-34,999 | 209 | 18.7 | 12.3-25.1 | 253 | 16.8 | 11.1-22.5 | 462 | 17.8 | 13.5-22.1 |
| \$35,000-49,999 | 204 | 23.7 | 16.4-30.9 | 262 | 14.2 | 9.0-19.5 | 466 | 19.2 | 14.6-23.8 |
| \$50,000-74,999 | 207 | 15.4 | 9.4-21.3 | 258 | 16.6 | 10.9-22.4 | 465 | 16.0 | 11.8-20.1 |
| \$75,000+ | 174 | 18.6 | 10.7-26.5 | 209 | 9.3 | 4.6-13.9 | 383 | 14.3 | 9.4-19.2 |

## High Cholesterol Awareness among Those Who Have Ever Had It Checked

Definition Responding "Yes" to the following question: "Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high?"

Prevalence WV: 39.9\% (95\% CI: 37.9-41.9) in 2005.
US: 35.9\% (95\% CI: 35.6-36.3) in 2005. West Virginia ranked $1^{\text {st }}$ highest among 53 BRFSS participants in 2005.

Time Trends Between 1995 and 2005, the prevalence of high cholesterol among West Virginia adults generally increased.

Gender

Age Generally, the prevalence of high blood cholesterol increased with increasing age.

Education Prevalence declined with increasing education. Adults with less than a high school education were significantly more likely than college graduates to have high cholesterol.

## Household Income

About half of those with an annual household income of less than $\$ 15,000$ had high cholesterol. Only about one-third of those in the upper income brackets reported having high cholesterol levels.

Figure 12.1 Prevalence of high blood cholesterol by year: WVBRFSS, 1993-2005*


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

* Among those who have ever had blood cholesterol checked.

Table 12.2 Prevalence of high cholesterol among those who have ever had their blood cholesterol checked by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,078 | 39.8 | 36.6-43.1 | 1,832 | 40.0 | 37.5-42.5 | 2,910 | 39.9 | 37.9-41.9 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 28 | 9.0 | 0.0-19.6 | 52 | 9.2 | 1.3-17.2 | 80 | 9.1 | 2.7-15.5 |
| 25-34 | 102 | 14.1 | 7.4-20.8 | 173 | 19.6 | 13.5-25.6 | 275 | 16.9 | 12.4-21.4 |
| 35-44 | 161 | 35.4 | 27.5-43.2 | 284 | 34.6 | 28.5-40.8 | 445 | 35.0 | 30.1-39.9 |
| 45-54 | 246 | 47.0 | 40.2-53.7 | 402 | 39.8 | 34.6-45.0 | 648 | 43.3 | 39.1-47.6 |
| 55-64 | 245 | 56.3 | 49.5-63.1 | 347 | 49.8 | 44.1-55.5 | 592 | 52.9 | 48.5-57.3 |
| 65+ | 294 | 44.8 | 38.7-51.0 | 566 | 54.7 | 50.2-59.2 | 860 | 50.6 | 46.9-54.2 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 186 | 45.4 | 37.2-53.5 | 314 | 52.4 | 46.1-58.8 | 500 | 49.0 | 43.9-54.2 |
| H.S. or G.E.D. | 415 | 39.8 | 34.7-44.9 | 712 | 41.7 | 37.6-45.7 | 1,127 | 40.8 | 37.6-44.0 |
| Some Post-H.S. | 206 | 38.6 | 31.4-45.8 | 428 | 38.3 | 33.1-43.5 | 634 | 38.4 | 34.2-42.7 |
| College Graduate | 271 | 37.1 | 30.7-43.4 | 376 | 29.4 | 24.6-34.3 | 647 | 33.3 | 29.3-37.4 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 116 | 49.7 | 39.1-60.2 | 359 | 51.7 | 45.8-57.6 | 475 | 51.0 | 45.7-56.3 |
| \$15,000-24,999 | 207 | 45.5 | 37.6-53.3 | 368 | 46.8 | 40.9-52.7 | 575 | 46.2 | 41.4-51.0 |
| \$25,000-34,999 | 175 | 42.4 | 34.4-50.5 | 217 | 38.7 | 31.4-46.0 | 392 | 40.7 | 35.2-46.2 |
| \$35,000-49,999 | 165 | 35.4 | 27.7-43.0 | 231 | 34.7 | 28.1-41.4 | 396 | 35.0 | 30.0-40.1 |
| \$50,000-74,999 | 183 | 35.7 | 28.3-43.1 | 225 | 32.2 | 25.7-38.7 | 408 | 34.0 | 29.1-39.0 |
| \$75,000+ | 151 | 38.1 | 29.8-46.3 | 190 | 26.3 | 19.8-32.8 | 341 | 32.3 | 27.0-37.6 |

Figure 12.2 High cholesterol awareness by county: WVBRFSS, 2001-2003, 2005


# CHAPTER 13: CARDIOVASCULAR DISEASE 

## Heart Attack, Angina, and Stroke in 2004 and 2005

Definition

Prevalence Heart Attack
WV: $\quad \mathbf{6 . 8 \%}$ (95\% CI: 5.9-7.7) in 2004, 7.0\% (95\% CI: 6.1-7.9) in 2005.
US: US prevalence is not available in 2004, 4.1\% (95\% CI: 4.0-4.2) in 2005. West Virginia ranked $1^{\text {st }}$ highest among 8 BRFSS participants in 2004 and $1^{\text {st }}$ highest among 53 BRFSS participants in 2005.

## Angina

WV: $\quad 7.6 \%$ (95\% CI: 6.6-8.5) in 2004, 8.2\% (95\% CI: 7.3-9.2) in 2005.
US: US prevalence is not available in 2004, 4.5\% (95\% CI: 4.4-4.6) in 2005. West Virginia ranked $1^{\text {st }}$ highest among 8 BRFSS participants in 2004 and $2^{\text {nd }}$ highest among 53 BRFSS participants in 2005.

## Stroke

WV: $\quad 3.1 \%$ (95\% CI: 2.5-3.7) in 2004, 3.4\% (95\% CI: 2.7-4.0) in 2005.
US: US prevalence is not available in 2004, 2.6\% (95\% CI: 2.5-2.7) in 2005.
West Virginia ranked $1^{\text {st }}$ highest among 8 BRFSS participants in 2004 and $5^{\text {th }}$
highest among 53 BRFSS participants in 2005

## Heart attack differences by gender

Men: 8.6\% (95\% CI: 7.0-10.2) in 2004, 8.5\% (95\% CI: 7.0-10.0) in 2005.
Women: 5.1\% (95\% CI: 4.1-6.1) in 2004, 5.5\% (95\% CI: 4.5-6.6) in 2005.
Men had a significantly higher incidence of heart attack than women.

## Angina differences by gender

Men: 7.7\% (95\% CI: 6.3-9.2) in 2004, 7.9\% (95\% CI: 6.4-9.3) in 2005.
Women: 7.4\% (95\% CI: 6.2-8.5) in 2004, 8.6\% (95\% CI: 7.3-9.8) in 2005.
There were no significant differences in angina rates between men and women.

## Stroke differences by gender

Men: 2.8\% (95\% CI: 1.9-3.6) in 2004, 2.6\% (95\% CI: 1.7-3.5) in 2005.
Women: 3.4\% (95\% CI: 2.6-4.2) in 2004, 4.1\% (95\% CI: 3.2-4.9) in 2005.
Women experienced stroke slightly more often than men.
Age, Education, \& Household Income

In 2005, 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 infraction?" ". . . 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.)

## Gender

Those aged 65 and older experienced heart attack, angina, and stroke significantly more often than most 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, angina, and stroke were significantly more common among the lowest income groups than among those with the highest household incomes.

Table 13.1 Heart attack, angina, or stroke by demographic characteristics: WVBRFSS, 2004

| Characteristic | Heart Attack or Myocardial Infarction |  |  | Angina or Coronary Heart Disease |  |  | Stroke |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,391 | 6.8 | 5.9-7.7 | 3,381 | 7.6 | 6.6-8.5 | 3,387 | 3.1 | 2.5-3.7 |
| Sex |  |  |  |  |  |  |  |  |  |
| Males | 1,302 | 8.6 | 7.0-10.2 | 1,298 | 7.7 | 6.3-9.2 | 1,300 | 2.8 | 1.9-3.6 |
| Females | 2,089 | 5.1 | 4.1-6.1 | 2,083 | 7.4 | 6.2-8.5 | 2,087 | 3.4 | 2.6-4.2 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-44 | 1,233 | 1.9 | 1.0-2.9 | 1,231 | 1.6 | 0.9-2.3 | 1,231 | * 0.5 | 0.1-0.9 |
| 45-54 | 687 | 5.0 | 3.2-6.7 | 688 | 6.7 | 4.6-8.7 | 689 | 2.3 | 1.2-3.5 |
| 55-64 | 627 | 10.9 | 8.2-13.6 | 623 | 11.9 | 9.1-14.7 | 624 | 4.9 | 3.2-6.7 |
| 65+ | 838 | 17.0 | 14.1-19.8 | 833 | 19.2 | 16.2-22.1 | 837 | 8.5 | 6.5-10.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 615 | 14.4 | 11.5-17.4 | 606 | 14.1 | 11.2-17.0 | 616 | 7.0 | 4.9-9.1 |
| H.S. or G.E.D. | 1,307 | 6.4 | 4.9-8.0 | 1,306 | 7.1 | 5.6-8.5 | 1,302 | 2.6 | 1.8-3.5 |
| Some Post-H.S. | 719 | 4.2 | 2.8-5.7 | 719 | 4.9 | 3.4-6.5 | 720 | 2.2 | 1.3-3.1 |
| College Graduate | 746 | 3.8 | 2.4-5.2 | 746 | 5.8 | 4.1-7.5 | 745 | 1.5 | 0.7-2.3 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 621 | 11.8 | 8.7-14.8 | 614 | 12.6 | 9.9-15.4 | 617 | 5.5 | 3.8-7.2 |
| \$15,000-24,999 | 660 | 8.9 | 6.5-11.3 | 659 | 10.1 | 7.6-12.6 | 660 | 4.4 | 2.8-6.1 |
| \$25,000-34,999 | 409 | 7.1 | 4.4-9.8 | 410 | 6.1 | 3.7-8.6 | 410 | 3.5 | 1.5-5.5 |
| \$35,000-49,999 | 515 | 4.5 | 2.6-6.3 | 513 | 6.1 | 3.9-8.3 | 514 | * 1.9 | 0.8-3.0 |
| \$50,000-74,999 | 440 | 2.8 | 1.4-4.2 | 439 | 5.8 | 3.6-8.0 | 440 | * 1.3 | 0.4-2.3 |
| \$75,000+ | 374 | * 2.5 | 1.0-4.1 | 373 | 3.3 | 1.4-5.2 | 373 | * 1.0 | 0.2-1.8 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 13.2 Heart attack, angina, or stroke by demographic characteristics: WVBRFSS, 2005

| Characteristic | Heart Attack or Myocardial Infarction |  |  | Angina orCoronary Heart Disease |  |  | Stroke |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,544 | 7.0 | 6.1-7.9 | 3,528 | 8.2 | 7.3-9.2 | 3,544 | 3.4 | 2.7-4.0 |
| Sex |  |  |  |  |  |  |  |  |  |
| Males | 1,356 | 8.5 | 7.0-10.0 | 1,349 | 7.9 | 6.4-9.3 | 1,358 | 2.6 | 1.7-3.5 |
| Females | 2,188 | 5.5 | 4.5-6.6 | 2,179 | 8.6 | 7.3-9.8 | 2,186 | 4.1 | 3.2-4.9 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-44 | 1,210 | 1.3 | 0.6-2.0 | 1,208 | 2.3 | 1.4-3.2 | 1,210 | * 0.6 | 0.2-1.0 |
| 45-54 | 745 | 6.1 | 4.2-8.0 | 745 | 6.0 | 4.2-7.9 | 741 | 3.0 | 1.7-4.4 |
| 55-64 | 640 | 7.5 | 5.3-9.8 | 636 | 13.3 | 10.4-16.3 | 641 | 4.7 | 2.9-6.5 |
| 65+ | 938 | 20.2 | 17.1-23.2 | 928 | 20.2 | 17.3-23.1 | 941 | 9.0 | 6.8-11.2 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 631 | 12.0 | 9.2-14.8 | 621 | 11.7 | 9.0-14.4 | 631 | 7.1 | 4.8-9.3 |
| H.S. or G.E.D. | 1,422 | 7.1 | 5.7-8.5 | 1,416 | 8.8 | 7.2-10.3 | 1,424 | 2.7 | 1.9-3.5 |
| Some Post-H.S. | 750 | 6.4 | 4.5-8.4 | 749 | 8.7 | 6.6-10.8 | 747 | 3.5 | 2.0-4.9 |
| College Graduate | 738 | 2.9 | 1.7-4.1 | 738 | 3.7 | 2.4-5.1 | 738 | * 1.3 | 0.5-2.2 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 597 | 11.2 | 8.4-13.9 | 592 | 14.8 | 11.8-17.9 | 601 | 7.6 | 5.1-10.0 |
| \$15,000-24,999 | 730 | 10.2 | 7.7-12.7 | 729 | 11.6 | 9.0-14.1 | 730 | 5.8 | 3.8-7.8 |
| \$25,000-34,999 | 467 | 9.1 | 6.3-11.9 | 467 | 8.4 | 5.6-11.1 | 468 | 3.6 | 1.9-5.3 |
| \$35,000-49,999 | 472 | 4.2 | 2.3-6.1 | 470 | 5.5 | 3.3-7.6 | 471 | * 1.3 | 0.3-2.2 |
| \$50,000-74,999 | 471 | 2.5 | 1.0-3.9 | 471 | 3.1 | 1.7-4.5 | 469 | * 0.4 | 0.0-0.8 |
| \$75,000+ | 385 | * 2.4 | 0.9-3.9 | 386 | 2.8 | 1.2-4.5 | 385 | * 0.4 | 0.0-1.1 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 13.1 Adults diagnosed with heart attack, angina, or stroke by county: WVBRFSS, 2001-2005


## Other Cardiovascular Disease Issues

Table 13.3 Heart attack and stroke before age 55: WVBRFSS, 2004

|  | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI |
| Respondents who had their first heart attack before the age of $55^{\text {a }}$ | 128 | 53.2 | 43.6-62.9 | 112 | *50.1 | 39.7-60.5 | 240 | 52.1 | 44.8-59.3 |
| Respondents who had their first stroke before the age of $55^{\text {b }}$ | 44 | *51.7 | 35.8-67.6 | 80 | *35.5 | 23.7-47.3 | 124 | 42.7 | 32.9-52.5 |

a. Among respondents who have ever been told by a doctor that they had a heart attack.
b. Among respondents who have ever been told by a doctor that they had a stroke.

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 13.4 No rehabilitation following a heart attack or stroke: WVBRFSS, 2004 and 2005

| Characteristics | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \# \\ \text { Resp } \end{gathered}$ | \% | 95\% CI | $\begin{gathered} \# \\ \text { Resp } \end{gathered}$ | \% | 95\% CI | $\begin{gathered} \hline \begin{array}{c} \# \\ \text { Resp. } \end{array} \end{gathered}$ | \% | 95\% CI |
| In 2004 <br> No rehabilitation after leaving hospital following a heart attack or stroke | 159 | 71.9 | 64.1-79.8 | 188 | 78.4 | 72.0-84.9 | 347 | 74.8 | 69.5-80.0 |
| In 2005 ** <br> No rehabilitation after leaving hospital following a heart attack or stroke | 169 | 75.7 | 68.9-82.5 | 210 | 79.7 | 74.0-85.5 | 379 | 77.6 | 73.1-82.1 |

** The 2005 results are not directly comparable to the earlier year data due to a change in the survey questions.

## Aspirin Therapy in 2004 and 2005

Table 13.5 Daily or alternate-day aspirin therapy among adults aged 35 and older by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,052 | 41.5 | 38.2-44.7 | 1,694 | 32.1 | 29.7-34.6 | 2,746 | 36.5 | 34.5-38.5 |
| Age |  |  |  |  |  |  |  |  |  |
| 35-44 | 236 | 20.0 | 14.4-25.5 | 355 | 10.0 | 6.5-13.4 | 591 | 14.9 | 11.6-18.2 |
| 45-54 | 294 | 34.6 | 28.7-40.5 | 396 | 26.9 | 22.0-31.7 | 690 | 30.6 | 26.8-34.5 |
| 55-64 | 252 | 52.7 | 46.0-59.3 | 375 | 39.7 | 34.3-45.1 | 627 | 46.0 | 41.7-50.3 |
| 65+ | 270 | 63.6 | 57.4-69.8 | 568 | 49.4 | 44.9-53.9 | 838 | 55.2 | 51.5-58.9 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 197 | 38.9 | 31.6-46.3 | 356 | 38.7 | 33.2-44.2 | 553 | 38.8 | 34.4-43.2 |
| H.S. or G.E.D. | 419 | 41.9 | 36.7-47.1 | 662 | 32.4 | 28.5-36.3 | 1,081 | 37.0 | 33.8-40.2 |
| Some Post-H.S. | 184 | 42.0 | 34.4-49.6 | 334 | 29.5 | 24.2-34.8 | 518 | 35.0 | 30.5-39.4 |
| College Graduate | 250 | 42.3 | 35.7-48.9 | 340 | 27.0 | 22.0-32.1 | 590 | 34.8 | 30.6-39.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 135 | 37.8 | 28.5-47.0 | 377 | 39.8 | 34.3-45.2 | 512 | 39.0 | 34.3-43.8 |
| \$15,000-24,999 | 213 | 47.0 | 39.6-54.4 | 316 | 37.1 | 31.3-42.9 | 529 | 41.9 | 37.2-46.6 |
| \$25,000-34,999 | 131 | 37.5 | 28.5-46.5 | 206 | 34.2 | 26.9-41.4 | 337 | 35.7 | 30.0-41.4 |
| \$35,000-49,999 | 159 | 37.0 | 29.0-45.0 | 235 | 21.1 | 15.8-26.3 | 394 | 28.6 | 23.8-33.3 |
| \$50,000-74,999 | 167 | 40.7 | 32.7-48.6 | 178 | 28.3 | 21.0-35.6 | 345 | 35.1 | 29.6-40.6 |
| \$75,000+ | 161 | 42.2 | 34.2-50.3 | 154 | 24.6 | 17.4-31.7 | 315 | 35.0 | 29.3-40.6 |

Table 13.6 Daily or alternate-day aspirin therapy among adults aged 35 and older by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,095 | 41.0 | 37.9-44.2 | 1,779 | 35.4 | 33.0-37.8 | 2,874 | 38.1 | 36.1-40.0 |
| Age |  |  |  |  |  |  |  |  |  |
| 35-44 | 224 | 20.3 | 14.7-25.9 | 347 | 12.9 | 8.9-16.9 | 571 | 16.6 | 13.1-20.0 |
| 45-54 | 282 | 38.0 | 31.9-44.2 | 454 | 26.7 | 22.2-31.2 | 736 | 32.3 | 28.5-36.1 |
| 55-64 | 274 | 48.6 | 42.1-55.1 | 362 | 43.4 | 37.9-48.9 | 636 | 46.0 | 41.7-50.2 |
| 65+ | 315 | 59.1 | 53.3-65.0 | 616 | 54.3 | 50.0-58.6 | 931 | 56.3 | 52.8-59.8 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 209 | 44.4 | 36.9-52.0 | 335 | 41.2 | 35.3-47.1 | 544 | 42.8 | 38.1-47.6 |
| H.S. or G.E.D. | 456 | 39.7 | 34.9-44.6 | 738 | 34.0 | 30.3-37.7 | 1,194 | 36.7 | 33.7-39.8 |
| Some Post-H.S. | 193 | 41.2 | 33.9-48.6 | 384 | 35.5 | 30.2-40.8 | 577 | 37.8 | 33.5-42.1 |
| College Graduate | 236 | 40.6 | 33.9-47.2 | 319 | 32.6 | 27.1-38.1 | 555 | 36.7 | 32.4-41.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 148 | 40.2 | 31.2-49.2 | 378 | 41.0 | 35.6-46.5 | 526 | 40.7 | 35.9-45.5 |
| \$15,000-24,999 | 222 | 48.5 | 41.3-55.7 | 377 | 39.9 | 34.3-45.5 | 599 | 43.9 | 39.4-48.4 |
| \$25,000-34,999 | 166 | 49.8 | 41.5-58.1 | 203 | 30.9 | 23.8-38.0 | 369 | 41.1 | 35.5-46.7 |
| \$35,000-49,999 | 164 | 40.2 | 32.1-48.3 | 209 | 35.1 | 28.2-42.0 | 373 | 37.8 | 32.4-43.1 |
| \$50,000-74,999 | 165 | 30.7 | 23.5-38.0 | 198 | 23.4 | 17.4-29.4 | 363 | 27.3 | 22.5-32.0 |
| \$75,000+ | 150 | 32.7 | 24.7-40.6 | 163 | 31.4 | 24.0-38.9 | 313 | 32.1 | 26.6-37.6 |

## Cardiovascular Disease Prevention Activities in 2004

Table 13.7 Adults who are being more physically active (in order to lower their risk of heart disease or stroke) and health professional advice on the same: WVBRFSS, 2004

| Characteristic | Adults who are being more physically active |  |  | Adults advised by a health professional in the past 12 months to be more physically active |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,388 | 71.4 | 69.7-73.2 | 3,392 | 36.6 | 34.8-38.5 |
| Sex |  |  |  |  |  |  |
| Males | 1,298 | 71.6 | 68.9-74.4 | 1,302 | 32.0 | 29.2-34.8 |
| Females | 2,090 | 71.2 | 69.1-73.4 | 2,090 | 40.9 | 38.5-43.3 |
| Age |  |  |  |  |  |  |
| 18-24 | 183 | 79.0 | 72.5-85.5 | 184 | 17.8 | 11.8-23.7 |
| 25-34 | 458 | 77.3 | 73.2-81.4 | 458 | 27.1 | 22.5-31.7 |
| 35-44 | 589 | 71.5 | 67.5-75.5 | 591 | 34.8 | 30.5-39.1 |
| 45-54 | 688 | 70.5 | 66.8-74.2 | 691 | 45.6 | 41.5-49.7 |
| 55-64 | 627 | 66.9 | 62.8-70.9 | 626 | 47.1 | 42.8-51.4 |
| 65+ | 837 | 66.1 | 62.6-69.7 | 836 | 40.8 | 37.2-44.5 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 613 | 57.3 | 52.8-61.8 | 613 | 37.2 | 32.9-41.5 |
| H.S. or G.E.D. | 1,306 | 73.1 | 70.4-75.9 | 1,310 | 37.6 | 34.6-40.6 |
| Some Post-H.S. | 720 | 74.6 | 71.1-78.2 | 720 | 35.6 | 31.5-39.6 |
| College Graduate | 745 | 76.4 | 73.0-79.8 | 745 | 35.5 | 31.7-39.4 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 623 | 63.2 | 58.6-67.9 | 622 | 37.4 | 32.9-42.0 |
| \$15,000-24,999 | 654 | 70.9 | 66.9-74.8 | 660 | 37.8 | 33.6-42.1 |
| \$25,000-34,999 | 410 | 68.6 | 63.5-73.7 | 411 | 39.7 | 34.4-45.0 |
| \$35,000-49,999 | 515 | 76.8 | 72.9-80.7 | 513 | 37.5 | 32.8-42.2 |
| \$50,000-74,000 | 439 | 73.8 | 69.1-78.4 | 439 | 35.4 | 30.4-40.3 |
| \$75,000+ | 373 | 78.1 | 73.6-82.7 | 374 | 37.6 | 32.3-43.0 |

Table 13.8 Other activity and related medical advice to help lower the risk of heart disease or stroke among adults: WVBRFSS, 2004

|  | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \# \\ \text { Resp. } \end{gathered}$ | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| Adults Who Are...... |  |  |  |  |  |  |  |  |  |
| Eating fewer high-fat or highcholesterol foods | 1,281 | 59.9 | 56.8-63.0 | 2,067 | 69.6 | 67.3-71.9 | 3,348 | 64.9 | 63.0-66.9 |
| Eating more fruits and vegetables | 1,299 | 72.6 | 69.9-75.3 | 2,093 | 82.3 | 80.5-84.2 | 3,392 | 77.7 | 76.0-79.3 |
| Adults Whose Health Professional Advised (in past 12 months)... |  |  |  |  |  |  |  |  |  |
| Eating fewer high-fat or highcholesterol foods | 1,304 | 29.6 | 26.8-32.3 | 2,089 | 35.6 | 33.3-37.9 | 3,393 | 32.7 | 30.9-34.5 |
| Eating more fruits and vegetables | 1,301 | 30.8 | 28.0-33.6 | 2,086 | 39.1 | 36.8-41.5 | 3,387 | 35.1 | 33.3-37.0 |

## CHAPTER 14: COLORECTAL CANCER SCREENING

## Home Stool Blood Testing and Sigmoidoscopy or Colonoscopy in 2004

| Definition | No home stool blood testing <br> No home stool blood testing (or fecal occult blood testing, FOBT) in the past two years among adults aged 50 and older. |
| :---: | :---: |
|  | No sigmoidoscopy or colonoscopy <br> Adults aged 50 and older who have never had a sigmoidoscopy or colonoscopy. |
| Prevalence | No home stool blood testing <br> WV: 72.8\% (95\% CI: 70.5-75.1) in 2004; US: 73.0\% (95\% CI: 72.5-73.4). <br> West Virginia ranked $29^{\text {th }}$ highest among 52 BRFSS participants in 2004. |
|  | No sigmoidoscopy or colonoscopy <br> WV: $\mathbf{5 3 . 7 \%}$ (95\% CI: 51.2-56.2) in 2004; US: $\mathbf{4 6 . 2 \%}$ (95\% CI: 45.7-46.7) <br> West Virginia ranked $5^{\text {th }}$ highest among 52 BRFSS participants in 2004. |
| Gender | No home stool blood testing <br> Men: 67.9\% (95\% CI: 64.1-71.8) in 2004. <br> Women: 76.9\% (95\% CI: 74.2-79.7) in 2004. <br> This risk was significantly higher among women than men. |
|  | No sigmoidoscopy or colonoscopy <br> Men: 53.3\% (95\% CI: 49.2-57.4) in 2004. <br> Women: 54.1\% (95\% CI: 50.9-57.2) in 2004. <br> Not having had a sigmoidoscopy or colonoscopy did not differ by gender. |

## WV Healthy People 2010 Objectives

Objective 3.7
Attain a level of at least $50 \%$ of people aged 50 and older who have received a colorectal screening examination (fecal occult blood testing) within the preceding 1-2 years and increase to at least $40 \%$ those who have ever received proctosigmoidoscopy. (Baseline for proctosigmoidoscopy: $34.4 \%$ in 1997; Current: $46.3 \%$ in 2004)

Table 14.1 No colorectal cancer screening among adults aged 50 and over by demographic characteristics: WVBRFSS, 2004

| Characteristic | Adults who did not have a home stool blood test in the past two years |  |  | Adults who have never had a signoidoscopy or colonscopy |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1815 | 72.8 | 70.5-75.1 | 1834 | 53.7 | 51.2-56.2 |
| Sex |  |  |  |  |  |  |
| Males | 672 | 67.9 | 64.1-71.8 | 677 | 53.3 | 49.2-57.4 |
| Females | 1143 | 76.9 | 74.2-79.7 | 1157 | 54.1 | 50.9-57.2 |
| Age |  |  |  |  |  |  |
| 50-54 | 355 | 76.1 | 71.1-81.1 | 359 | 68.8 | 63.7-74.0 |
| 55-64 | 625 | 72.7 | 68.8-76.6 | 635 | 51.2 | 46.9-55.5 |
| 65+ | 835 | 71.3 | 67.9-74.7 | 840 | 47.8 | 44.0-51.5 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 436 | 80.5 | 76.3-84.6 | 441 | 59.9 | 54.8-64.9 |
| H.S. or G.E.D. | 703 | 72.0 | 68.2-75.8 | 710 | 54.4 | 50.3-58.5 |
| Some Post-H.S. | 324 | 69.3 | 63.8-74.8 | 328 | 51.3 | 45.4-57.3 |
| College Graduate | 349 | 68.3 | 62.9-73.7 | 352 | 47.2 | 41.3-53.0 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 379 | 78.4 | 73.9-83.0 | 387 | 58.2 | 52.8-63.7 |
| \$15,000-24,999 | 392 | 74.4 | 69.5-79.3 | 394 | 57.0 | 51.6-62.4 |
| \$25,000-34,999 | 227 | 64.7 | 57.7-71.6 | 233 | 51.5 | 44.4-58.6 |
| \$35,000-49,999 | 218 | 72.1 | 65.7-78.5 | 220 | 54.3 | 47.1-61.4 |
| \$50,000-74,000 | 187 | 71.2 | 64.2-78.1 | 187 | 55.0 | 47.3-62.7 |
| \$75,000+ | 160 | 66.4 | 58.3-74.5 | 159 | 43.7 | 35.1-52.3 |

## Chapter 15: Prostate Cancer Screening

## Digital Rectal Exam and PSA Test in 2004

## Definition

Prevalence

No digital rectal exam
Men aged 40 years and older who have never had a digital rectal exam
No Prostate Specific Antigen (PSA) test
Men aged 40 years and older who have never had a PSA test (prostate specific antigen).

No digital rectal exam
WV: 29.7\% (95\% CI: 26.5-33.0) in 2004.
US: 25.2\% (95\% CI: 24.6-25.8) in 2004.
West Virginia ranked $6^{\text {th }}$ highest among 52 BRFSS participants in 2004.
No Prostate Specific Antigen (PSA) test
WV: 40.3\% (95\% CI: 36.8-43.8) in 2004.
US: 39.4\% (95\% CI: 38.7-40.0) in 2004.
West Virginia ranked $26^{\text {th }}$ highest among 52 BRFSS participants in 2004.

## Quick Stats

- $4.2 \%$ of the West Virginia adult males ages 40 and older had ever been diagnosed with prostate cancer in 2004.

Table 15.1 No prostate cancer screening among males aged 40 and older by demographic characteristics: WVBRFSS, 2004

| Characteristic | Adult males aged 40 and older who have never had a digital rectal exam |  |  | Adult males aged 40 and older who have never had a PSA test |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| Males | 949 | 29.7 | 26.5-33.0 | 908 | 40.3 | 36.8-43.8 |
| Age |  |  |  |  |  |  |
| 40-44 | 127 | 59.8 | 50.6-69.1 | 119 | 82.2 | 74.4-90.0 |
| 45-54 | 296 | 35.7 | 29.8-41.7 | 282 | 49.7 | 43.4-56.1 |
| 55-64 | 255 | 21.6 | 16.3-26.9 | 249 | 29.4 | 23.4-35.4 |
| 65+ | 271 | 12.1 | 8.0-16.2 | 258 | 14.8 | 10.1-19.5 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 185 | 35.5 | 27.9-43.2 | 173 | 46.0 | 37.9-54.1 |
| H.S. or G.E.D. | 373 | 33.5 | 28.0-38.9 | 358 | 41.8 | 36.1-47.5 |
| Some Post-H.S. | 170 | 29.7 | 22.3-37.1 | 166 | 36.6 | 28.7-44.5 |
| College Graduate | 219 | 17.6 | 12.3-22.9 | 209 | 35.7 | 28.5-42.8 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 125 | 38.5 | 28.6-48.4 | 113 | * 55.2 | 45.1-65.4 |
| \$15,000-24,999 | 195 | 27.4 | 20.5-34.3 | 187 | 37.6 | 29.9-45.3 |
| \$25,000-34,999 | 121 | 32.2 | 22.7-41.7 | 119 | 34.1 | 24.6-43.7 |
| \$35,000-49,999 | 143 | 32.0 | 23.5-40.6 | 136 | 40.4 | 31.4-49.5 |
| \$50,000-74,000 | 151 | 30.2 | 22.2-38.2 | 145 | * 42.2 | 33.4-50.9 |
| \$75,000+ | 137 | 20.4 | 13.2-27.6 | 136 | 38.5 | 29.8-47.1 |

[^12]
## CHAPTER 16: BREAST AND CERVICAL CANCER Screening

## Clinical Breast Exam, Mammogram, or Pap Smear in 2004

## Definitions No Clinical Breast Exam

Women aged 40 years and older who did not have a clinical breast exam (CBE) in the past one year.

## No Mammogram

Women aged 40 years and older who did not have a mammogram in the past two years.

## No Pap Test in the Past Three Years

No Pap test in the past three years among women aged 18 and older.

## Never Had a Pap Test

Women aged 18 and older who have never had a Pap test.

## Prevalence

No Clinical Breast Exam
WV: 35.8\% (95\% CI: 33.1-38.5) in 2004.
US: 35.6\% (95\% CI: 35.1-36.2) in 2004.
West Virginia ranked $25^{\text {th }}$ highest among 52 BRFSS participants in 2004.

## No Mammogram

WV: 27.5\% (95\% CI: 25.0-30.0) in 2004.
US: 25.4\% (95\% CI: 25.0-25.9) in 2004.
West Virginia ranked $20^{\text {th }}$ highest among 52 BRFSS participants in 2004.
No Pap Test in the Past Three Years
WV: 17.4\% (95\% CI: 15.2-19.7) in 2004.
US: 14.6\% (95\% CI: 14.3-15.0) in 2004.
West Virginia ranked $8^{\text {th }}$ highest among 52 BRFSS participants in 2004.
Never Had a Pap Test
WV: 5.4\% (95\% CI: 4.1-6.6) in 2004.
US: $\quad \mathbf{5 . 8 \%}$ (95\% CI: 5.5-6.1) in 2004.
West Virginia ranked $23^{\text {rd }}$ highest among 52 BRFSS participants in 2004.

## WV Healthy People 2010 ObJectives

Objective 3.6
Increase to at least $95 \%$ the proportion of women aged 18 and older who have ever received a Pap test and to at least $85 \%$ those who received a Pap test within the preceding three years. (Baseline: $93.4 \%$ and $78.9 \%$, respectively, in 1997; Current: $94.6 \%$ and $82.6 \%$, respectively, in 2004)

Table 16.1 No breast cancer screening among women aged 40 and older by demographic characteristics: WVBRFSS, 2004

| Characteristic | Adult females aged 40 and older who have not had a clinical breast exam (CBE) in the past one year |  |  | Adult females aged 40 and older who have not had a mammogram in the past two years |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| Females | 1,504 | 35.8 | 33.1-38.5 | 1,527 | 27.5 | 25.0-30.0 |
| Age |  |  |  |  |  |  |
| 40-44 | 182 | 32.9 | 25.4-40.4 | 183 | 41.6 | 33.7-49.4 |
| 45-54 | 394 | 34.3 | 29.2-39.4 | 398 | 25.8 | 21.1-30.6 |
| 55-64 | 377 | 31.6 | 26.5-36.8 | 378 | 19.1 | 14.8-23.4 |
| 65+ | 551 | 41.2 | 36.7-45.7 | 568 | 28.5 | 24.3-32.6 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 324 | 49.2 | 43.2-55.3 | 334 | 39.5 | 33.6-45.4 |
| H.S. or G.E.D. | 604 | 32.5 | 28.5-36.5 | 610 | 26.2 | 22.4-30.1 |
| Some Post-H.S. | 283 | 37.6 | 31.4-43.8 | 288 | 24.0 | 18.6-29.5 |
| College Graduate | 291 | 25.7 | 20.0-31.4 | 293 | 19.9 | 14.7-25.1 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 344 | 52.2 | 46.3-58.0 | 355 | 41.4 | 35.7-47.2 |
| \$15,000-24,999 | 282 | 36.0 | 29.8-42.3 | 286 | 32.0 | 25.9-38.2 |
| \$25,000-34,999 | 182 | 38.1 | 30.3-45.9 | 183 | 23.0 | 16.6-29.4 |
| \$35,000-49,999 | 203 | 26.8 | 20.1-33.4 | 203 | 26.7 | 19.9-33.5 |
| \$50,000-74,000 | 150 | 26.9 | 19.1-34.8 | 152 | 21.9 | 14.6-29.2 |
| \$75,000+ | 129 | 22.6 | 14.7-30.5 | 129 | 9.4 | 4.1-14.7 |

Note: Both of these groups have totals that are restricted to adult females aged 40 years and older. (The next table contains different ages.)

Figure 16.1 No mammography in past two years among women aged 40 and older: WVBRFSS, 1990-2004


NOTE: Data are not available for the years 2001, 2003, and 2005.

Table 16.2 No cervical cancer screening by demographic characteristics: WVBRFSS, 2004

| Characteristic | Adult females aged 18 and older who have not had a Pap test in the past three years |  |  | Adult females aged 18 and older who have never had a Pap test |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| Females | 1,469 | 17.4 | 15.2-19.7 | 2,110 | 5.4 | 4.1-6.6 |
| Age |  |  |  |  |  |  |
| 18-24 | 115 | 16.6 | 8.8-24.5 | 115 | 13.4 | 6.1-20.8 |
| 25-34 | 268 | 8.8 | 5.1-12.5 | 280 | * 1.5 | 0.0-2.9 |
| 35-44 | 319 | 13.8 | 9.6-18.0 | 361 | * 2.6 | 1.0-4.3 |
| 45-54 | 256 | 13.1 | 8.5-17.6 | 399 | * 0.6 | 0.0-1.2 |
| 55-64 | 209 | 21.2 | 15.1-27.4 | 377 | 3.5 | 1.6-5.5 |
| 65+ | 302 | 35.4 | 29.5-41.4 | 574 | 11.2 | 8.3-14.2 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 235 | 34.9 | 27.9-41.9 | 400 | 10.2 | 6.7-13.7 |
| H.S. or G.E.D. | 546 | 17.9 | 14.2-21.6 | 796 | 5.2 | 3.3-7.2 |
| Some Post-H.S. | 346 | 14.1 | 9.8-18.5 | 467 | * 4.4 | 1.6-7.2 |
| College Graduate | 342 | 7.8 | 4.7-10.9 | 445 | * 2.3 | 0.8-3.8 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 288 | 29.6 | 23.7-35.5 | 464 | 8.3 | 5.7-11.0 |
| \$15,000-24,999 | 278 | 22.1 | 16.0-28.1 | 401 | 7.1 | 3.4-10.7 |
| \$25,000-34,999 | 172 | 16.1 | 10.0-22.2 | 251 | * 2.2 | 0.1-4.3 |
| \$35,000-49,999 | 240 | 10.4 | 5.9-14.9 | 305 | * 2.0 | 0.0-4.3 |
| \$50,000-74,000 | 182 | 10.1 | 5.2-14.9 | 230 | * 3.6 | 0.7-6.5 |
| \$75,000+ | 136 | * 5.9 | 0.4-11.4 | 189 | * 2.8 | 0.0-6.5 |

Note: Both of these groups have totals that include adult females aged 18 years and older. (The previous table contains different ages.)

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 16.2 No Pap test in past three years: WVBRFSS, 1992-2004


NOTE: Data are not available for the years 2001, 2003 and 2005.

## CHAPTER 17: Asthma

## Lifetime and Current Asthma among Adults in 2004 and 2005

Definitions

Prevalence

Time Trends

Gender

Current Asthma Age

## Current Asthma

Education and
Household Income

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?"

## Lifetime Asthma

WV: 15.5\% (95\% CI: 14.1-16.9) in 2004; 13.4\% (95\% CI: 12.0-14.8) in 2005. US: $\mathbf{1 3 . 4 \%}$ (95\% CI: 13.1-13.6) in 2004; 12.6\% (95\% CI: 12.3-12.8) in 2005. West Virginia ranked $3^{\text {rd }}$ among 52 BRFSS participants in 2004 and $16^{\text {th }}$ among 53 BRFSS participants in 2005.

## Current Asthma

WV: $\mathbf{1 0 . 1} \%$ (95\% CI: 9.0-11.2) in 2004; 9.2\% (95\% CI: 8.1-10.4) in 2005. US: 8.1\% (95\% CI: 7.9-8.3) in 2004; 7.9\% (95\% CI: 7.7-8.0) in 2005.
West Virginia ranked $2^{\text {nd }}$ among 52 BRFSS participants in 2004 and $8^{\text {th }}$ among 53 BRFSS participants in 2005.

Between 2000 and 2004 the prevalence of lifetime asthma significantly increased (from $11.7 \%$ to $15.5 \%$ ). There was a slight reduction to $13.4 \%$ in 2005. The prevalence of current asthma increased only slightly between 2000 and 2005.

## Lifetime Asthma

Men: 13.5\% (95\% CI: 11.4-15.7) in 2004; 10.4\% (95\% CI: 8.4-12.4) in 2005. Women: $17.2 \%$ (95\% CI: 15.4-19.1) in 2004; 16.2\% (95\% CI: 14.3-18.1) in 2005. Women had a significantly higher prevalence of lifetime asthma than men in 2005.

## Current Asthma

Men: $7.5 \%$ (95\% CI: 5.9-9.1) in 2004; 5.6\% (95\% CI: 4.1-7.1) in 2005.
Women: 12.5\% (95\% CI: 10.9-14.2) in 2004; 12.6\% (95\% CI: 10.9-14.3) in 2005. In both years, women were significantly more likely than men to have asthma.

Generally the current asthma prevalence did not differ significantly by age. In 2004, the prevalence of current asthma was highest among adults aged 55 to 64 (12.5\%), whereas in 2005 the prevalence was highest among those aged 18 to 24 (15.0\%).

In 2004 and 2005, the prevalence of current asthma was significantly higher among adults without a high school diploma and among those with a household income of less than $\$ 15,000$. In fact, the poorest adults were about three times more likely to have asthma than the wealthiest adults.

## WV Healthy People 2010 Objectives

Objective $24.5 \quad$ 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: $9.2 \%$ in 2005)

Table 17.1 Lifetime asthma by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,315 | 13.5 | 11.4-15.7 | 2,118 | 17.2 | 15.4-19.1 | 3,433 | 15.5 | 14.1-16.9 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | *14.6 | 5.9-23.3 | 115 | 16.1 | 8.7-23.5 | 190 | 15.3 | 9.6-21.0 |
| 25-34 | 180 | 15.6 | 9.8-21.3 | 282 | 18.4 | 13.5-23.4 | 462 | 17.0 | 13.2-20.8 |
| 35-44 | 236 | 13.8 | 9.1-18.5 | 362 | 18.1 | 13.7-22.5 | 598 | 16.0 | 12.8-19.2 |
| 45-54 | 297 | 13.4 | 9.3-17.6 | 400 | 14.6 | 10.8-18.3 | 697 | 14.0 | 11.2-16.8 |
| 55-64 | 255 | 11.5 | 7.3-15.7 | 379 | 20.3 | 15.6-25.0 | 634 | 16.0 | 12.8-19.2 |
| 65+ | 270 | 12.6 | 8.4-16.8 | 576 | 16.8 | 13.3-20.3 | 846 | 15.1 | 12.4-17.8 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 225 | 17.3 | 11.3-23.3 | 402 | 24.0 | 19.2-28.7 | 627 | 21.0 | 17.3-24.8 |
| H.S. or G.E.D. | 524 | 13.3 | 10.1-16.6 | 797 | 16.7 | 13.6-19.8 | 1,321 | 15.0 | 12.7-17.3 |
| Some Post-H.S. | 259 | 13.6 | 8.7-18.5 | 470 | 15.0 | 11.2-18.7 | 729 | 14.3 | 11.3-17.4 |
| College Graduate | 305 | 11.1 | 7.2-15.1 | 446 | 14.5 | 10.9-18.2 | 751 | 12.9 | 10.2-15.6 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 165 | 16.1 | 9.2-22.9 | 464 | 30.3 | 25.4-35.1 | 629 | 24.8 | 20.8-28.9 |
| \$15,000-24,999 | 261 | 17.1 | 11.9-22.3 | 404 | 15.7 | 11.8-19.6 | 665 | 16.3 | 13.1-19.6 |
| \$25,000-34,999 | 165 | 16.2 | 10.0-22.4 | 252 | 16.4 | 11.2-21.5 | 417 | 16.3 | 12.3-20.3 |
| \$35,000-49,999 | 215 | 11.5 | 6.3-16.7 | 304 | 11.7 | 7.5-15.8 | 519 | 11.6 | 8.3-14.9 |
| \$50,000-74,999 | 214 | 10.0 | 5.0-15.0 | 230 | 15.5 | 10.1-20.9 | 444 | 12.4 | 8.7-16.1 |
| \$75,000+ | 187 | 11.9 | 7.2-16.7 | 189 | 10.7 | 6.1-15.2 | 376 | 11.4 | 8.0-14.7 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 17.2 Lifetime asthma by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,357 | 10.4 | 8.4-12.4 | 2,188 | 16.2 | 14.3-18.1 | 3,545 | 13.4 | 12.0-14.8 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | 18.2 | 8.2-28.2 | 102 | 29.7 | 19.8-39.5 | 170 | 23.8 | 16.7-30.9 |
| 25-34 | 182 | 8.4 | 4.0-12.8 | 282 | 12.0 | 8.0-16.1 | 464 | 10.2 | 7.2-13.2 |
| 35-44 | 226 | 8.9 | 4.9-13.0 | 351 | 14.7 | 10.6-18.8 | 577 | 11.9 | 9.0-14.8 |
| 45-54 | 285 | 6.1 | 3.4-8.9 | 458 | 16.5 | 12.8-20.1 | 743 | 11.3 | 9.0-13.7 |
| 55-64 | 276 | 10.8 | 6.8-14.8 | 365 | 15.7 | 11.5-19.8 | 641 | 13.3 | 10.4-16.1 |
| 65+ | 318 | 11.5 | 7.6-15.4 | 621 | 13.4 | 10.5-16.3 | 939 | 12.6 | 10.3-14.9 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 249 | 15.8 | 10.5-21.2 | 380 | 18.9 | 14.3-23.6 | 629 | 17.3 | 13.8-20.9 |
| H.S. or G.E.D. | 555 | 7.8 | 4.9-10.6 | 867 | 15.6 | 12.8-18.5 | 1,422 | 11.8 | 9.7-13.8 |
| Some Post-H.S. | 248 | 10.7 | 6.1-15.4 | 503 | 17.8 | 13.3-22.3 | 751 | 14.9 | 11.6-18.2 |
| College Graduate | 304 | 10.2 | 5.8-14.6 | 435 | 13.0 | 9.5-16.4 | 739 | 11.6 | 8.8-14.4 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 17.7 | 9.8-25.6 | 435 | 20.7 | 16.0-25.3 | 601 | 19.5 | 15.4-23.7 |
| \$15,000-24,999 | 269 | 12.6 | 7.4-17.7 | 461 | 19.8 | 15.4-24.1 | 730 | 16.4 | 13.0-19.7 |
| \$25,000-34,999 | 213 | 9.6 | 5.3-13.8 | 253 | 14.5 | 9.1-19.8 | 466 | 11.8 | 8.4-15.2 |
| \$35,000-49,999 | 207 | 7.7 | 3.9-11.4 | 265 | 13.3 | 8.0-18.6 | 472 | 10.4 | 7.1-13.6 |
| \$50,000-74,999 | 209 | 8.8 | 4.4-13.2 | 262 | 14.0 | 9.1-18.9 | 471 | 11.3 | 8.0-14.6 |
| \$75,000+ | 175 | * 6.9 | 1.5-12.3 | 211 | 14.1 | 7.9-20.3 | 386 | 10.3 | 6.2-14.4 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 17.3 Current asthma by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,312 | 7.5 | 5.9-9.1 | 2,114 | 12.5 | 10.9-14.2 | 3,426 | 10.1 | 9.0-11.2 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 74 | * 4.3 | 0.0-9.1 | 115 | 9.7 | 4.0-15.4 | 189 | 6.9 | 3.2-10.7 |
| 25-34 | 180 | * 6.4 | 2.3-10.6 | 282 | 13.0 | 8.6-17.4 | 462 | 9.7 | 6.7-12.8 |
| 35-44 | 235 | 8.4 | 4.7-12.1 | 361 | 12.9 | 9.1-16.7 | 596 | 10.7 | 8.0-13.4 |
| 45-54 | 297 | 8.5 | 4.9-12.0 | 398 | 11.5 | 8.1-14.8 | 695 | 10.0 | 7.6-12.5 |
| 55-64 | 255 | 8.2 | 4.5-11.9 | 379 | 16.6 | 12.3-21.0 | 634 | 12.5 | 9.6-15.4 |
| 65+ | 269 | 8.2 | 4.8-11.5 | 575 | 11.8 | 8.7-14.8 | 844 | 10.3 | 8.0-12.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 225 | 10.7 | 6.3-15.2 | 401 | 20.8 | 16.3-25.3 | 626 | 16.4 | 13.1-19.6 |
| H.S. or G.E.D. | 523 | 8.1 | 5.4-10.7 | 795 | 12.4 | 9.6-15.2 | 1,318 | 10.2 | 8.3-12.1 |
| Some Post-H.S. | 258 | 7.0 | 3.9-10.2 | 469 | 9.0 | 6.3-11.7 | 727 | 8.1 | 6.0-10.2 |
| College Graduate | 304 | * 4.3 | 1.6-6.9 | 446 | 9.2 | 6.2-12.2 | 750 | 6.8 | 4.8-8.8 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 165 | 13.9 | 7.3-20.5 | 463 | 25.6 | 21.0-30.3 | 628 | 21.2 | 17.3-25.0 |
| \$15,000-24,999 | 260 | 14.0 | 9.0-19.0 | 404 | 12.1 | 8.6-15.5 | 664 | 13.0 | 10.0-16.0 |
| \$25,000-34,999 | 165 | 6.2 | 2.8-9.7 | 252 | 11.5 | 7.1-15.9 | 417 | 9.0 | 6.1-11.8 |
| \$35,000-49,999 | 215 | * 5.1 | 2.1-8.1 | 303 | 6.9 | 3.5-10.3 | 518 | 6.0 | 3.7-8.3 |
| \$50,000-74,999 | 213 | * 2.6 | 0.6-4.6 | 229 | 7.3 | 3.7-10.9 | 442 | 4.7 | 2.7-6.6 |
| \$75,000+ | 186 | * 3.3 | 0.7-5.9 | 189 | 7.6 | 3.7-11.5 | 375 | 5.2 | 2.9-7.5 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 17.4 Current asthma by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,353 | 5.6 | 4.1-7.1 | 2,180 | 12.6 | 10.9-14.3 | 3,533 | 9.2 | 8.1-10.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | * 8.7 | 1.2-16.2 | 101 | 21.6 | 12.6-30.6 | 169 | 15.0 | 9.0-20.9 |
| 25-34 | 181 | * 2.6 | 0.2-5.0 | 282 | 9.2 | 5.6-12.8 | 463 | 5.9 | 3.7-8.1 |
| 35-44 | 226 | * 5.6 | 2.2-9.1 | 347 | 12.0 | 8.2-15.8 | 573 | 8.9 | 6.3-11.4 |
| 45-54 | 282 | * 3.1 | 1.3-5.0 | 456 | 13.0 | 9.7-16.3 | 738 | 8.1 | 6.2-10.0 |
| 55-64 | 276 | 7.4 | 4.2-10.7 | 364 | 12.2 | 8.5-15.9 | 640 | 9.9 | 7.4-12.3 |
| 65+ | 318 | 6.5 | 3.6-9.5 | 621 | 10.9 | 8.2-13.6 | 939 | 9.1 | 7.1-11.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 247 | 10.2 | 5.9-14.5 | 379 | 15.6 | 11.2-19.9 | 626 | 12.8 | 9.7-15.9 |
| H.S. or G.E.D. | 553 | 2.9 | 1.3-4.5 | 862 | 12.1 | 9.5-14.7 | 1,415 | 7.5 | 6.0-9.1 |
| Some Post-H.S. | 248 | * 6.0 | 2.3-9.7 | 502 | 13.7 | 9.8-17.7 | 750 | 10.5 | 7.7-13.4 |
| College Graduate | 304 | 6.3 | 2.6-10.0 | 434 | 9.8 | 6.8-12.9 | 738 | 8.0 | 5.6-10.4 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 165 | 14.4 | 6.8-22.0 | 434 | 18.3 | 13.8-22.7 | 599 | 16.8 | 12.8-20.8 |
| \$15,000-24,999 | 268 | 7.8 | 3.4-12.1 | 459 | 15.7 | 11.6-19.7 | 727 | 11.9 | 8.9-14.9 |
| \$25,000-34,999 | 212 | * 4.2 | 1.6-6.7 | 252 | 11.3 | 6.6-16.0 | 464 | 7.4 | 4.8-10.0 |
| \$35,000-49,999 | 207 | 5.7 | 2.4-9.0 | 264 | 9.3 | 4.6-14.1 | 471 | 7.4 | 4.5-10.3 |
| \$50,000-74,999 | 209 | * 3.5 | 0.9-6.1 | 260 | 10.0 | 5.5-14.4 | 469 | 6.6 | 4.0-9.1 |
| \$75,000+ | 175 | * 2.9 | 0.1-5.6 | 210 | 8.8 | 4.4-13.2 | 385 | 5.6 | 3.1-8.2 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 17.1 Lifetime and current asthma by year: WVBRFSS, 2000-2005


Figure 17.2 Current asthma by county: WVBRFSS, 2001-2005


## Lifetime and Current Asthma among Children in 2005

For the first time in 2005, the West Virginia Behavioral Risk Factor Survey collected data on children age 17 and younger. BRFSS adult respondents were asked demographic, asthma, and immunization questions about a randomly selected child in the household. The data have been weighted to be representative of children in West Virginia.

Table 17.5 Lifetime and current asthma among children: WVBRFSS, 2005

|  | Lifetime Asthma |  |  | Current Asthma |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,002 | 12.6 | 10.3-15.0 | 999 | 8.5 | 6.6-10.5 |
| MALES | 493 | 14.8 | 11.2-18.3 | 492 | 9.3 | 6.5-12.2 |
| FEMALES | 505 | 10.5 | 7.5-13.5 | 503 | 7.7 | 5.1-10.4 |

## Additional Information on Asthma among Adults in 2005

Table 17.6 Asthma symptoms, medication use, and health care visits among adults with current asthma: WVBRFSS, 2005

| ADULTS WITH CURRENT ASTHMA WHO... | \# Resp. | \% | 95\% CI |
| :---: | :---: | :---: | :---: |
| SYMPTOMS |  |  |  |
| Had an asthma attack in the past 12 months | 322 | 49.4 | 42.7-56.0 |
| Experienced asthma symptoms every day in the past 30 days | 305 | 26.0 | 19.4-32.6 |
| Had difficulty sleeping due to asthma on 1 or more days in past $\mathbf{3 0}$ days | 225 | 56.9 | 48.9-65.0 |
| Were limited in activities because of asthma on 1 or more days in the past 12 months | 305 | 27.6 | 21.4-33.8 |
| MEDICATION USE |  |  |  |
| Took medication to prevent an asthma attack on 25 to $\mathbf{3 0}$ days in the past $\mathbf{3 0}$ days | 320 | 36.9 | 30.8-43.1 |
| Took medication during an asthma attack 30 or more times in the past $\mathbf{3 0}$ days | 315 | 13.3 | 8.9-17.6 |
| HEALTH CARE VISITS |  |  |  |
| Visited a doctor for a routine asthma checkup in the past 12 months | 322 | 56.6 | 49.9-63.3 |
| Visited a doctor for worsening asthma symptoms in the past 12 months | 315 | 26.5 | 21.0-32.1 |
| Visited an emergency room or urgent care center for asthma in the past 12 months | 320 | 18.9 | 13.9-23.9 |

## Quick Stats

- $36.2 \%$ of adults with lifetime asthma were first diagnosed with asthma at the age of 10 or younger.


## Illness Caused by Environmental Air in 2004

## Definitions Indoor Air Illness: Responding "Yes" to the following question: "Things like dust, mold, and chemicals inside the home or office can cause poor indoor air quality. In the past 12 months have you had an illness or symptom that you think was caused by something in the air inside a home, office, or other building?" <br> Outdoor Air Illness: Responding "Yes" to the following question: "Things like smog, automobile exhaust, and chemicals can cause outdoor air pollution. In the past 12 months have you had an illness or symptom that you think was caused by pollution in the air outdoors? This question does not refer to natural agents like pollen or dust in outdoor air." <br> Illnesses or symptoms experienced in the past 12 months that were caused by something encountered in the air over 12 months ago are counted as "yes" responses. <br> Prevalence Indoor Air Illness <br> WV: 19.3\% (95\% CI: 17.7-20.9). US: 21.8\% (95\% CI: 21.5-22.1 <br> West Virginia ranked $43^{\text {rd }}$ among 52 BRFSS participants in 2004. <br> Outdoor Air Illness <br> WV: 12.9\% (95\% CI: 11.6-14.2). US: $\mathbf{1 3 . 1 \%}$ (95\% CI: 12.9-13.4 West Virginia ranked 19 ${ }^{\text {th }}$ among 52 BRFSS participants in 2004. <br> Gender Indoor Air Illness <br> Men: 15.9\% (95\% CI: 13.6-18.2). Women: 22.4\% (95\% CI: 20.4-24.5). <br> Women were significantly more likely than men to report having an illness in the past 12 months that was caused by poor indoor air. <br> Outdoor Air Illness <br> Men: 11.5\% (95\% CI: 9.7-13.4). Women: 14.1\% (95\% CI: 12.4-15.9). <br> There was no gender difference in the prevalence of outdoor air illnesses.

Figure 17.3 Indoor and outdoor air illnesses by asthma status: WVBRFSS, 2004


Adults with asthma were significantly more likely to report illnesses caused by poor indoor and outdoor air than adults without asthma.

## CHAPTER 18: ARTHRITIS

## Diagnosed with Some Form of Arthritis in 2005

Definition Responding "Yes" to the following question: "Have you EVER been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"

Prevalence WV: 34.9\% (95\% CI: 33.1-36.6) in 2005.
US: $\quad \mathbf{2 6 . 6 \%}$ (95\% CI: 26.4-26.9) in 2005.
West Virginia ranked 1 ${ }^{\text {st }}$ highest among 53 BRFSS participants in 2005.
Gender

Age The prevalence of arthritis significantly increased among adults at each higher age grouping through age 64 . Fewer than $10 \%$ of adults aged 18 to 24 had ever been diagnosed with some form of arthritis, compared with nearly $60 \%$ of those aged 65 and older.

Education

Household Income
The prevalence of arthritis decreased as educational attainment increased. Adults without a high school diploma/GED had a significantly higher rate of arthritis than those at all higher levels of education.

The risk of arthritis also decreased as household income increased. Adults in the poorest households were nearly twice as likely as those in the wealthiest households to have been diagnosed with arthritis (49.9\% versus 25.2\%).

Figure 18.1 Arthritis by gender and year: WVBRFSS, 1999, 2001, 2003, 2005


Table 18.1 Arthritis by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,347 | 31.2 | 28.5-33.9 | 2,177 | 38.2 | 36.0-40.5 | 3,524 | 34.9 | 33.1-36.6 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 67 | * 3.8 | 0.0-8.0 | 100 | * 7.1 | 2.0-12.1 | 167 | * 5.4 | 2.1-8.7 |
| 25-34 | 180 | 11.6 | 6.8-16.5 | 281 | 12.5 | 8.4-16.6 | 461 | 12.1 | 8.9-15.2 |
| 35-44 | 226 | 24.6 | 18.6-30.7 | 347 | 26.7 | 21.6-31.8 | 573 | 25.7 | 21.7-29.6 |
| 45-54 | 282 | 38.8 | 32.6-44.9 | 456 | 41.3 | 36.4-46.2 | 738 | 40.0 | 36.1-44.0 |
| 55-64 | 274 | 45.2 | 38.8-51.7 | 364 | 60.7 | 55.3-66.1 | 638 | 53.1 | 48.8-57.4 |
| 65+ | 316 | 55.8 | 49.9-61.8 | 620 | 62.2 | 58.0-66.4 | 936 | 59.6 | 56.1-63.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 248 | 42.5 | 35.4-49.7 | 378 | 47.1 | 41.3-52.9 | 626 | 44.7 | 40.1-49.4 |
| H.S. or G.E.D. | 550 | 30.5 | 26.4-34.6 | 865 | 42.1 | 38.4-45.7 | 1,415 | 36.4 | 33.6-39.2 |
| Some Post-H.S. | 249 | 28.6 | 22.6-34.5 | 500 | 35.7 | 31.0-40.4 | 749 | 32.8 | 29.0-36.5 |
| College Graduate | 299 | 24.8 | 19.6-30.0 | 432 | 26.3 | 22.0-30.6 | 731 | 25.6 | 22.2-29.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 164 | 47.9 | 38.9-56.9 | 432 | 51.1 | 45.6-56.6 | 596 | 49.9 | 45.0-54.7 |
| \$15,000-24,999 | 269 | 38.2 | 31.8-44.7 | 457 | 39.7 | 34.6-44.8 | 726 | 39.0 | 34.9-43.1 |
| \$25,000-34,999 | 211 | 35.4 | 28.4-42.4 | 254 | 38.6 | 32.0-45.2 | 465 | 36.9 | 32.0-41.7 |
| \$35,000-49,999 | 207 | 28.3 | 21.9-34.7 | 264 | 32.7 | 26.6-38.8 | 471 | 30.4 | 26.0-34.9 |
| \$50,000-74,999 | 208 | 24.7 | 18.6-30.8 | 258 | 29.3 | 23.5-35.1 | 466 | 26.9 | 22.6-31.1 |
| \$75,000+ | 173 | 24.9 | 17.8-32.0 | 211 | 25.6 | 19.5-31.7 | 384 | 25.2 | 20.5-30.0 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 18.2 Arthritis by county: WVBRFSS, 1999, 2001, 2003, 2005


Some counties were grouped for analysis.
County prevalence estimates are listed in Appendix L.
See an explanation of the county-level data, including the new county maps, under County-Level Data on page 10.

## Definition

## Prevalence

## Joint Pain

Responding "Yes" to the following question: "The next questions refer to your joints. Please do NOT include the back or neck. During the past 30 days, have you had any symptoms of pain, aching, or stiffness in or around a joint?"

## Activity Limitations

Responding "Yes" to the following question: "Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?" (This question was asked only of those who had reported three months of joint symptoms or a diagnosis of arthritis.)

Joint Pain
WV: $\quad \mathbf{4 8 . 4 \%}$ (95\% CI: 46.5-50.4) in 2005.
US: $\quad \mathbf{3 9 . 1} \%$ ( $95 \%$ CI: 38.8-39.5) in 2005.
West Virginia ranked 1 ${ }^{\text {st }}$ highest among 53 BRFSS participants in 2005.

## Activity Limitations

WV: $\quad$ 43.5\% (95\% CI: 41.0-46.0) in 2005.
US: $\quad \mathbf{3 1 . 0} \% ~(95 \%$ CI: 30.6-31.5) in 2005.
West Virginia ranked $2^{\text {nd }}$ highest among 53 BRFSS participants in 2005.

Table 18.2 Joint pain during the past 30 days and limitations in usual activities due to arthritis or joint symptoms by demographic characteristics: WVBRFSS, 2005

| Characteristic | Pain, aching, or stiffness in or around a joint (not including neck or back) in the past 30 days |  |  | Limitations in usual activitiesbecause of arthritis or jointsymptoms (among adults whoreported 3 months of jointsymptoms or a diagnosis of arthritis) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,542 | 48.4 | 46.5-50.4 | 1,955 | 43.5 | 41.0-46.0 |
| Sex |  |  |  |  |  |  |
| Males | 1,357 | 47.7 | 44.7-50.8 | 722 | 44.5 | 40.5-48.5 |
| Females | 2,185 | 49.1 | 46.6-51.5 | 1,233 | 42.7 | 39.6-45.7 |
| Age |  |  |  |  |  |  |
| 18-24 | 170 | 23.4 | 16.7-30.2 | 34 | * 42.4 | 23.9-60.9 |
| 25-34 | 462 | 34.2 | 29.5-39.0 | 139 | 30.6 | 22.0-39.1 |
| 35-44 | 575 | 46.6 | 42.1-51.1 | 259 | 45.3 | 38.6-52.0 |
| 45-54 | 742 | 56.6 | 52.6-60.5 | 436 | 42.7 | 37.6-47.8 |
| 55-64 | 642 | 62.0 | 57.9-66.2 | 433 | 49.1 | 44.0-54.3 |
| 65+ | 940 | 57.9 | 54.5-61.4 | 645 | 43.6 | 39.4-47.8 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 630 | 57.0 | 52.1-61.9 | 437 | 54.7 | 49.3-60.1 |
| H.S. or G.E.D. | 1,421 | 50.5 | 47.4-53.5 | 813 | 45.0 | 41.1-48.9 |
| Some Post-H.S. | 750 | 46.6 | 42.4-50.8 | 394 | 36.7 | 31.5-41.9 |
| College Graduate | 737 | 38.8 | 34.9-42.7 | 309 | 32.2 | 26.5-38.0 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 600 | 62.3 | 57.5-67.2 | 427 | 61.9 | 56.6-67.3 |
| \$15,000-24,999 | 729 | 51.6 | 47.2-55.9 | 424 | 51.0 | 45.5-56.4 |
| \$25,000-34,999 | 468 | 52.5 | 47.3-57.6 | 267 | 44.5 | 37.7-51.3 |
| \$35,000-49,999 | 472 | 44.7 | 39.7-49.8 | 235 | 34.6 | 28.0-41.2 |
| \$50,000-74,000 | 470 | 41.8 | 36.9-46.7 | 212 | 27.7 | 21.1-34.2 |
| \$75,000+ | 385 | 36.9 | 31.6-42.2 | 152 | 25.0 | 17.5-32.5 |

[^13]
## CHAPTER 19: DISABILITY

## Disability in 2004 and 2005

## Definition

## Prevalence

## Time Trends

## Gender

Age

Education

Responding "Yes" to the following question: "Are you limited in any way in any activities because of physical, mental, or emotional problems?"

WV: 25.7\% (95\% CI: 24.1-27.4) in 2004; 27.4\% (95\% CI: 25.7-29.1) in 2005. US: $\quad 17.3 \%$ (95\% CI: 17.1-17.6) in 2004; 18.2\% (95\% CI: 18.0-18.4) in 2005. West Virginia ranked $1^{\text {st }}$ highest among 52 BRFSS participants in 2004 and $1^{\text {st }}$ highest among 53 BRFSS participants in 2005.

The prevalence of disability in West Virginia increased significantly from 1995 (18.1\%) to 2003 (26.4\%). It has remained relatively stable since then. A slight decline in 2004 (to 25.7\%) was offset by a minor increase in 2005 (to 27.4\%).

Men: 26.4\% (95\% CI: 23.8-29.1) in 2004, 27.2\% (95\% CI: 24.5-29.8) in 2005. Women: 25.1\% (95\% CI: 23.1-27.1) in 2004, 27.6\% (95\% CI: 25.6-29.7) in 2005. There were no significant differences in this risk factor between men and women in either 2004 or 2005.

Disability generally increased with age. Adults aged 55 and older had significantly higher rates than any group below age 45 in both 2004 and 2005.

There was a significant inverse relationship between disability and educational attainment. In both years, adults without a high school diploma were more than twice as likely as college graduates to report limitations.

Disability was most prevalent among those with the lowest incomes. About half of all adults in the poorest households were limited, compared with approximately $11 \%$ of those in the wealthiest homes.

Figure 19.1 Disability by year: WVBRFSS, 1995, 2001, 2003, 2004, 2005


NOTE: Data are not available for the years 1996, 1997, 1998, 1999, 2000, and 2002.

Table 19.1 Disability by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,309 | 26.4 | 23.8-29.1 | 2,107 | 25.1 | 23.1-27.1 | 3,416 | 25.7 | 24.1-27.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 72 | * 9.0 | 1.7-16.3 | 115 | * 8.8 | 3.4-14.3 | 187 | 8.9 | 4.4-13.5 |
| 25-34 | 178 | 11.5 | 6.5-16.4 | 280 | 12.8 | 8.8-16.8 | 458 | 12.1 | 8.9-15.3 |
| 35-44 | 234 | 23.2 | 17.2-29.3 | 359 | 20.9 | 16.2-25.5 | 593 | 22.0 | 18.2-25.8 |
| 45-54 | 296 | 33.2 | 27.4-39.0 | 399 | 24.9 | 20.4-29.4 | 695 | 29.0 | 25.3-32.7 |
| 55-64 | 256 | 39.0 | 32.6-45.4 | 378 | 38.3 | 32.9-43.8 | 634 | 38.7 | 34.5-42.9 |
| 65+ | 271 | 38.5 | 32.2-44.8 | 573 | 36.7 | 32.4-41.0 | 844 | 37.4 | 33.8-41.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 224 | 40.9 | 33.9-48.0 | 399 | 37.8 | 32.5-43.1 | 623 | 39.2 | 34.9-43.5 |
| H.S. or G.E.D. | 522 | 28.7 | 24.4-33.0 | 795 | 25.4 | 22.0-28.8 | 1,317 | 27.1 | 24.4-29.8 |
| Some Post-H.S. | 256 | 20.6 | 15.2-25.9 | 468 | 23.1 | 19.0-27.1 | 724 | 21.9 | 18.6-25.2 |
| College Graduate | 305 | 16.7 | 12.1-21.3 | 443 | 15.0 | 11.6-18.4 | 748 | 15.8 | 13.0-18.6 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 53.9 | 44.4-63.5 | 465 | 44.5 | 39.4-49.7 | 631 | 48.1 | 43.3-52.9 |
| \$15,000-24,999 | 261 | 35.9 | 29.3-42.6 | 403 | 27.7 | 22.9-32.5 | 664 | 31.6 | 27.5-35.7 |
| \$25,000-34,999 | 163 | 28.4 | 21.0-35.7 | 251 | 22.3 | 16.7-28.0 | 414 | 25.2 | 20.6-29.8 |
| \$35,000-49,999 | 213 | 20.4 | 14.4-26.4 | 304 | 19.1 | 14.5-23.8 | 517 | 19.7 | 15.9-23.5 |
| \$50,000-74,999 | 212 | 15.5 | 10.5-20.6 | 230 | 11.5 | 7.5-15.6 | 442 | 13.7 | 10.4-17.1 |
| \$75,000+ | 186 | 12.0 | 7.2-16.8 | 189 | 10.0 | 5.5-14.5 | 375 | 11.1 | 7.8-14.5 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 19.2 Disability by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,357 | 27.2 | 24.5-29.8 | 2,189 | 27.6 | 25.6-29.7 | 3,546 | 27.4 | 25.7-29.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | *14.5 | 5.5-23.5 | 102 | 14.7 | 7.9-21.5 | 170 | 14.6 | 8.9-20.3 |
| 25-34 | 182 | 14.9 | 9.3-20.6 | 281 | 11.5 | 7.6-15.4 | 463 | 13.2 | 9.8-16.7 |
| 35-44 | 226 | 24.8 | 18.8-30.8 | 349 | 24.5 | 19.5-29.5 | 575 | 24.6 | 20.7-28.5 |
| 45-54 | 283 | 30.9 | 25.1-36.8 | 458 | 29.0 | 24.5-33.4 | 741 | 29.9 | 26.3-33.6 |
| 55-64 | 276 | 39.9 | 33.5-46.3 | 366 | 35.3 | 30.0-40.6 | 642 | 37.5 | 33.4-41.7 |
| 65+ | 320 | 34.7 | 29.1-40.3 | 624 | 40.8 | 36.6-45.1 | 944 | 38.3 | 34.9-41.7 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 250 | 44.1 | 36.8-51.5 | 381 | 38.4 | 32.8-44.0 | 631 | 41.4 | 36.7-46.0 |
| H.S. or G.E.D. | 553 | 27.3 | 23.2-31.4 | 869 | 29.3 | 25.9-32.6 | 1,422 | 28.3 | 25.7-30.9 |
| Some Post-H.S. | 249 | 22.6 | 17.0-28.3 | 502 | 26.8 | 22.4-31.1 | 751 | 25.1 | 21.6-28.5 |
| College Graduate | 304 | 15.4 | 10.9-19.9 | 435 | 16.1 | 12.5-19.7 | 739 | 15.7 | 12.9-18.6 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 60.6 | 51.7-69.5 | 434 | 47.6 | 42.2-53.1 | 601 | 52.6 | 47.8-57.4 |
| \$15,000-24,999 | 270 | 36.3 | 29.8-42.7 | 462 | 35.1 | 30.1-40.2 | 732 | 35.7 | 31.6-39.7 |
| \$25,000-34,999 | 214 | 33.3 | 26.1-40.4 | 254 | 22.5 | 17.0-28.0 | 468 | 28.4 | 23.7-33.0 |
| \$35,000-49,999 | 206 | 15.7 | 10.5-20.9 | 265 | 20.5 | 15.0-26.0 | 471 | 18.0 | 14.2-21.8 |
| \$50,000-74,999 | 209 | 15.7 | 9.7-21.7 | 261 | 13.5 | 9.1-17.9 | 470 | 14.7 | 10.9-18.4 |
| \$75,000+ | 174 | 10.4 | 5.7-15.1 | 211 | 12.2 | 7.6-16.9 | 385 | 11.2 | 7.9-14.6 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## Use of Special Equipment in 2004 and 2005

## Definition

Responding "Yes" to the following question: "Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?"

Table 19.3 Use of special equipment by demographic characteristics: WVBRFSS, 2004

| Characteristic | Special Equipment Use in 2004 Among All Adults |  |  | Special Equipment Use in 2004 Among Disabled Adults (See disabled defined on p.82.) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,422 | 8.7 | 7.7-9.7 | 965 | 28.5 | 25.3-31.6 |
| Males | 1,313 | 8.6 | 7.0-10.1 | 382 | 28.9 | 23.9-33.8 |
| Females | 2,109 | 8.8 | 7.5-10.0 | 583 | 28.0 | 24.0-32.0 |
| Age |  |  |  |  |  |  |
| 18-24 | 188 | * 1.5 | 0.0-3.6 | 17 | * 16.4 | 0.0-38.0 |
| 25-34 | 458 | * 0.9 | 0.1-1.7 | 60 | * 5.3 | 0.0-10.9 |
| 35-44 | 595 | 3.4 | 1.8-5.0 | 126 | 13.7 | 7.1-20.3 |
| 45-54 | 697 | 9.6 | 7.3-12.0 | 207 | 31.4 | 24.4-38.3 |
| 55-64 | 635 | 14.0 | 11.0-17.0 | 242 | 33.0 | 26.3-39.6 |
| 65+ | 843 | 19.3 | 16.4-22.1 | 312 | 38.4 | 32.5-44.3 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 626 | 17.4 | 14.3-20.5 | 265 | 37.4 | 30.9-43.9 |
| H.S. or G.E.D. | 1,317 | 8.8 | 7.2-10.5 | 374 | 28.3 | 23.2-33.5 |
| Some Post-H.S. | 725 | 5.6 | 4.0-7.3 | 190 | 21.0 | 14.8-27.1 |
| College Graduate | 750 | 4.2 | 2.9-5.6 | 134 | 21.0 | 13.8-28.3 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 631 | 19.4 | 15.9-23.0 | 316 | 34.9 | 28.8-41.1 |
| \$15,000-24,999 | 663 | 9.8 | 7.5-12.1 | 212 | 24.7 | 18.4-30.9 |
| \$25,000-34,999 | 415 | 10.6 | 7.4-13.7 | 105 | * 37.4 | 27.4-47.5 |
| \$35,000-49,999 | 517 | 4.0 | 2.3-5.6 | 108 | 16.2 | 8.8-23.5 |
| \$50,000-74,000 | 443 | 3.5 | 1.7-5.3 | 68 | * 21.3 | 10.6-32.0 |
| \$75,000+ | 376 | * 2.2 | 0.7-3.7 | 45 | * 15.6 | 4.1-27.2 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 19.4 Use of special equipment by demographic characteristics: WVBRFSS, 2005

| Characteristic | Special Equipment Use in 2005 Among All Adults |  |  | Special Equipment Use in 2005 <br> Among Disabled Adults <br> (See disabled defined on p.82.) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,548 | 9.6 | 8.6-10.6 | 1,073 | 30.7 | 27.6-33.8 |
| Males | 1,359 | 9.9 | 8.2-11.5 | 404 | 32.3 | 27.2-37.4 |
| Females | 2,189 | 9.4 | 8.2-10.6 | 669 | 29.3 | 25.5-33.0 |
| Age |  |  |  |  |  |  |
| 18-24 | 170 | * 0.8 | 0.0-2.4 | 28 | * 5.5 | 0.0-16.1 |
| 25-34 | 463 | * 2.3 | 0.9-3.8 | 61 | * 13.7 | 4.4-23.0 |
| 35-44 | 576 | 5.7 | 3.6-7.8 | 141 | 22.2 | 14.5-29.8 |
| 45-54 | 743 | 9.7 | 7.3-12.1 | 222 | 28.8 | 22.1-35.6 |
| 55-64 | 642 | 13.7 | 10.8-16.6 | 243 | 33.4 | 26.9-39.9 |
| 65+ | 943 | 21.1 | 18.2-24.0 | 373 | 45.8 | 40.1-51.5 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 631 | 14.7 | 11.7-17.7 | 279 | 31.8 | 25.6-38.0 |
| H.S. or G.E.D. | 1,423 | 10.1 | 8.4-11.8 | 447 | 31.5 | 26.6-36.4 |
| Some Post-H.S. | 751 | 8.0 | 6.0-10.0 | 214 | 28.6 | 21.9-35.3 |
| College Graduate | 739 | 5.8 | 4.1-7.5 | 130 | 28.5 | 20.1-36.9 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 602 | 23.8 | 19.9-27.7 | 328 | 42.6 | 36.3-48.9 |
| \$15,000-24,999 | 731 | 11.7 | 9.2-14.2 | 271 | 28.5 | 22.6-34.4 |
| \$25,000-34,999 | 468 | 9.4 | 6.2-12.6 | 128 | 30.1 | 20.8-39.4 |
| \$35,000-49,999 | 472 | 5.4 | 3.4-7.4 | 94 | 24.2 | 15.0-33.5 |
| \$50,000-74,000 | 470 | 3.1 | 1.5-4.6 | 69 | 17.8 | 8.6-27.0 |
| \$75,000+ | 385 | 2.7 | 1.2-4.2 | 46 | * 15.3 | 5.5-25.1 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## CHAPTER 20: EMOTIONAL SUPPORT AND LIFE SATISFACTION

## Emotional and Social Support in 2005

Definition

Prevalence

Gender

Age, Education, Household Income

Responding "Always" or "Usually" to the following question: "How often do you get the social and emotional support you need?" (The response options offered were "Always," "Usually," "Sometimes," "Rarely," and "Never.")

WV: 78.9\% (95\% CI: 77.3-80.5) in 2005.
US: $\quad 77.9 \%$ (95\% CI: 77.6-78.2) in 2005.
West Virginia ranked 28 ${ }^{\text {th }}$ highest among 53 BRFSS participants in 2005.
Men: $80.0 \%$ (95\% CI: 77.5-82.5) in 2005.
Women: 77.9\% (95\% CI: 75.9-79.9) in 2005.
There was no significant difference in emotional and social support between men and women.

Adults with increasing levels of education and income were more likely to report receiving emotional and social support. This support was highest among the 2534 age group ( $82.5 \%$ ), and among those aged 65 and older (81.4\%), but the differences by age were slight.

Table 20.1 Emotional support by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,313 | 80.0 | 77.5-82.5 | 2,146 | 77.9 | 75.9-79.9 | 3,459 | 78.9 | 77.3-80.5 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 67 | 82.2 | 72.4-92.0 | 99 | 77.6 | 68.9-86.2 | 166 | 79.9 | 73.4-86.5 |
| 25-34 | 176 | 81.8 | 75.8-87.7 | 276 | 83.3 | 78.8-87.8 | 452 | 82.5 | 78.8-86.3 |
| 35-44 | 222 | 78.3 | 72.3-84.3 | 346 | 74.3 | 69.2-79.3 | 568 | 76.2 | 72.3-80.1 |
| 45-54 | 277 | 76.9 | 71.6-82.1 | 450 | 76.1 | 72.0-80.3 | 727 | 76.5 | 73.2-79.8 |
| 55-64 | 267 | 79.8 | 74.8-84.8 | 364 | 75.5 | 70.7-80.3 | 631 | 77.6 | 74.1-81.1 |
| 65+ | 302 | 82.7 | 78.2-87.2 | 603 | 80.5 | 77.1-83.8 | 905 | 81.4 | 78.7-84.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 234 | 69.4 | 62.8-76.1 | 368 | 67.9 | 62.3-73.4 | 602 | 68.7 | 64.3-73.0 |
| H.S. or G.E.D. | 534 | 79.8 | 75.9-83.7 | 852 | 77.1 | 73.9-80.3 | 1,386 | 78.4 | 75.9-80.9 |
| Some Post-H.S. | 243 | 84.1 | 78.8-89.3 | 496 | 78.2 | 74.1-82.4 | 739 | 80.6 | 77.3-83.9 |
| College Graduate | 301 | 86.2 | 81.4-90.9 | 427 | 87.6 | 84.3-90.9 | 728 | 86.9 | 84.0-89.7 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 157 | 57.7 | 48.6-66.9 | 424 | 63.9 | 58.7-69.0 | 581 | 61.6 | 56.9-66.3 |
| \$15,000-24,999 | 261 | 75.3 | 69.5-81.1 | 447 | 70.2 | 65.2-75.2 | 708 | 72.6 | 68.8-76.4 |
| \$25,000-34,999 | 205 | 80.3 | 74.2-86.3 | 251 | 81.6 | 76.5-86.6 | 456 | 80.9 | 76.8-84.9 |
| \$35,000-49,999 | 205 | 79.5 | 72.9-86.1 | 262 | 80.7 | 74.6-86.8 | 467 | 80.1 | 75.6-84.6 |
| \$50,000-74,999 | 208 | 90.6 | 86.7-94.5 | 260 | 87.2 | 83.1-91.3 | 468 | 89.0 | 86.1-91.8 |
| \$75,000+ | 173 | 91.7 | 87.4-96.1 | 209 | 90.2 | 85.8-94.5 | 382 | 91.0 | 87.9-94.1 |

## General Life Satisfaction in 2005

## Definition

Prevalence

## Gender

 Household IncomeResponding "Very satisfied" or "Satisfied" to the following question: "In general, how satisfied are you with your life?" (The response options offered were "Very satisfied," "Satisfied," "Dissatisfied," or "Very dissatisfied.")

WV: $\quad \mathbf{9 1 . 8} \%$ (95\% CI: 90.7-92.9) in 2005.
US: $\quad 94.4 \%$ (95\% CI: 94.2-94.5) in 2005.
West Virginia ranked lowest among 53 BRFSS participants in 2005.
Men: 92.2\% (95\% CI: 90.5-93.9) in 2005.
Women: 91.4\% (95\% CI: 90.1-92.8) in 2005.
There was no significant difference in this satisfaction factor between men and women.

Reports of general life satisfaction did not vary significantly among most age groups. Adults with four or more years of college education, however, were significantly more satisfied with life than any less-educated group. The greatest differences occurred by household income, particularly for men. The prevalence of being satisfied with life was $97.0 \%$ in the group with the highest household income, declined significantly to $89.4 \%$ among the $\$ 15,000-\$ 24,999$ income group, and was the lowest (79.2\%) among the lowest income group (less than \$15,000 annually).

Table 20.2 Very satisfied or satisfied with life by demographic characteristics: WVBRFSS, 2005

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,328 | 92.2 | 90.5-93.9 | 2,151 | 91.4 | 90.1-92.8 | 3,479 | 91.8 | 90.7-92.9 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 68 | 88.7 | 80.4-96.9 | 99 | 91.8 | 85.2-98.4 | 167 | 90.2 | 84.8-95.5 |
| 25-34 | 175 | 93.5 | 89.6-97.3 | 276 | 95.4 | 92.9-97.9 | 451 | 94.4 | 92.2-96.7 |
| 35-44 | 223 | 93.8 | 90.5-97.1 | 345 | 91.6 | 88.4-94.8 | 568 | 92.7 | 90.4-95.0 |
| 45-54 | 280 | 90.1 | 86.4-93.8 | 449 | 88.2 | 85.3-91.2 | 729 | 89.2 | 86.8-91.5 |
| 55-64 | 266 | 93.2 | 90.1-96.2 | 362 | 88.9 | 85.6-92.2 | 628 | 91.0 | 88.7-93.2 |
| 65+ | 314 | 94.2 | 91.6-96.8 | 612 | 92.6 | 90.2-95.0 | 926 | 93.3 | 91.5-95.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 241 | 87.3 | 82.4-92.2 | 372 | 89.2 | 85.6-92.7 | 613 | 88.2 | 85.2-91.2 |
| H.S. or G.E.D. | 542 | 93.3 | 90.7-95.9 | 853 | 90.7 | 88.5-92.8 | 1,395 | 92.0 | 90.3-93.6 |
| Some Post-H.S. | 243 | 90.3 | 85.7-94.9 | 497 | 90.2 | 86.9-93.6 | 740 | 90.3 | 87.5-93.0 |
| College Graduate | 301 | 96.4 | 94.2-98.7 | 426 | 96.3 | 94.6-98.1 | 727 | 96.4 | 95.0-97.8 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 158 | 75.2 | 66.9-83.4 | 425 | 81.6 | 77.6-85.6 | 583 | 79.2 | 75.2-83.2 |
| \$15,000-24,999 | 261 | 88.6 | 84.4-92.9 | 451 | 90.1 | 87.3-92.9 | 712 | 89.4 | 86.9-91.9 |
| \$25,000-34,999 | 209 | 94.9 | 92.0-97.9 | 249 | 93.4 | 90.3-96.5 | 458 | 94.2 | 92.1-96.4 |
| \$35,000-49,999 | 206 | 97.4 | 95.4-99.4 | 262 | 93.6 | 89.0-98.3 | 468 | 95.6 | 93.1-98.1 |
| \$50,000-74,999 | 209 | 95.8 | 91.7-99.9 | 259 | 96.3 | 93.9-98.7 | 468 | 96.0 | 93.6-98.5 |
| \$75,000+ | 172 | 98.0 | 96.0-100 | 207 | 95.8 | 91.0-100 | 379 | 97.0 | 94.5-99.5 |

## CHAPTER 21: IMMUNIZATION

## Adults Aged 65 or Older Lacking a Flu or Pneumonia Immunization

## Definition

## Prevalence

Trends

## Gender

## Flu immunization

Men: 28.8\% (95\% CI: 23.0-34.6) in 2004, 32.3\% (95\% CI: 26.8-37.8) in 2005. Women: 33.4\% (95\% CI: 29.2-37.7) in 2004, 39.0\% (95\% CI: 34.8-43.1) in 2005. There were no gender differences in flu immunization.

## Pneumonia immunization

Men: 31.7\% (95\% CI: 25.6-37.7) in 2004, 29.9\% (95\% CI: 24.5-35.3) in 2005. Women: 37.7\% (95\% CI: 33.4-42.1) in 2004, 33.1\% (95\% CI: 29.1-37.2) in 2005. There were no gender differences in pneumonia immunization.

## WV HEALTHY PEOPLE 2010 OBJECTIVES

| Objective 14.13a | Increase the proportion of noninstitutionalized adults $65+$ years who are vaccinated for: |
| :--- | :--- |
| 14.13a. 1 Influenza to $90 \%$. (Baseline: $58 \%$ in 1997 ; Current: $63.8 \%$ in 2005) |  |
| 14.13a. 2 Pneumococcal disease to $90 \%$. (Baseline: $41 \%$ in 1997 ; Current: $68.2 \%$ in 2005) |  |

Table 21.1 No immunizations among adults aged 65 and older by demographic characteristics: WVBRFSS, 2004

| Characteristic | No Flu Immunization in Past 12 Months |  |  | Never Had Pneumonia Immunization |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 847 | 31.5 | 28.0-35.0 | 831 | 35.3 | 31.7-38.9 |
| Males | 271 | 28.8 | 23.0-34.6 | 265 | 31.7 | 25.6-37.7 |
| Females | 576 | 33.4 | 29.2-37.7 | 566 | 37.7 | 33.4-42.1 |
| Age |  |  |  |  |  |  |
| 65+ | 847 | 31.5 | 28.0-35.0 | 831 | 35.3 | 31.7-38.9 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 274 | 40.3 | 33.9-46.7 | 270 | 39.3 | 32.9-45.7 |
| H.S. or G.E.D. | 319 | 26.5 | 21.0-31.9 | 312 | 33.3 | 27.4-39.1 |
| Some Post-H.S. | 125 | 30.8 | 22.1-39.5 | 122 | 32.6 | 23.5-41.6 |
| College Graduate | 127 | 26.0 | 17.6-34.4 | 125 | 34.6 | 25.6-43.7 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 234 | 41.3 | 34.4-48.3 | 228 | 38.9 | 32.0-45.9 |
| \$15,000-24,999 | 227 | 28.2 | 21.8-34.6 | 224 | 35.9 | 28.9-42.8 |
| \$25,000-34,999 | 96 | *27.1 | 17.0-37.1 | 94 | *30.4 | 20.0-40.8 |
| \$35,000-49,999 | 61 | *26.2 | 14.5-37.9 | 60 | *43.5 | 30.0-57.1 |
| \$50,000-74,000 | 43 | *23.6 | 10.2-37.0 | 42 | *20.3 | 8.5-32.1 |
| \$75,000+ | 25 | *23.7 | 6.3-41.1 | 25 | *32.4 | 13.4-51.4 |

[^14]Table 21.2 No immunizations among adults aged 65 and older by demographic characteristics: WVBRFSS, 2005

| Characteristic | No Flu Immunization in Past 12 Months |  |  | Never Had Pneumonia Immunization |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 941 | 36.2 | 32.8-39.6 | 919 | 31.8 | 28.5-35.0 |
| Males | 319 | 32.3 | 26.8-37.8 | 309 | 29.9 | 24.5-35.3 |
| Females | 622 | 39.0 | 34.8-43.1 | 610 | 33.1 | 29.1-37.2 |
| Age |  |  |  |  |  |  |
| 65+ | 941 | 36.2 | 32.8-39.6 | 919 | 31.8 | 28.5-35.0 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 273 | 45.1 | 38.5-51.7 | 264 | 28.3 | 22.4-34.2 |
| H.S. or G.E.D. | 392 | 36.3 | 31.1-41.5 | 381 | 38.5 | 33.2-43.8 |
| Some Post-H.S. | 158 | 27.1 | 19.9-34.3 | 156 | 26.5 | 19.2-33.8 |
| College Graduate | 116 | 30.2 | 21.3-39.1 | 116 | 26.2 | 17.6-34.7 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 232 | 44.8 | 37.6-52.0 | 226 | 36.0 | 29.0-43.0 |
| \$15,000-24,999 | 248 | 33.4 | 27.0-39.8 | 241 | 28.0 | 21.9-34.2 |
| \$25,000-34,999 | 123 | 31.9 | 22.9-40.9 | 120 | 32.5 | 23.3-41.7 |
| \$35,000-49,999 | 84 | * 31.3 | 21.0-41.5 | 84 | 28.0 | 18.3-37.7 |
| \$50,000-74,000 | 41 | * 38.6 | 23.1-54.1 | 41 | *28.7 | 14.4-43.1 |
| \$75,000+ | 28 | * 14.0 | 1.9-26.2 | 27 | *40.8 | 21.3-60.3 |

[^15]Figure 21.1 No flu immunization (in past 12 months) and no pneumonia immunization (in lifetime) among adults aged 65 and older by year: WVBRFSS, 1993-2005


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

## Flu Immunizations among Children in 2005

In 2005, the West Virginia Behavioral Risk Factor Survey collected data for the first time on children aged 17 and younger. BRFSS adult respondents were asked demographic, asthma, and immunization questions about a randomly selected child in the household. The data have been weighted to be representative of children in West Virginia.

Definition Responding "No" to both of the following questions: "During the past 12 months, has the child had a flu shot? A flu shot is an influenza vaccine injected in [his/her] arm or thigh? During the past 12 months, has the child had an influenza vaccine sprayed in [his/her] nose?"

Table 21.3 No current influenza immunizations among children: WVBRFSS, 2005

|  | No influenza immunizations among <br> children during the past 12 months |  |  |
| :--- | :---: | :---: | :---: |
|  | \# Resp. | $\%$ | $95 \%$ CI |
| TOTAL | 954 | $\mathbf{7 9 . 3}$ | $76.3-82.2$ |
| MALES | 479 | $\mathbf{7 8 . 5}$ | $74.3-82.6$ |
| FEMALES | 472 | $\mathbf{8 0 . 0}$ | $75.8-84.2$ |

## CHAPTER 22: SEXUALLY TRANSMITTED DISEASES

## HIV Testing Prevalence in 2004 and 2005

## Definition

## Prevalence

Age In both 2004 and 2005, HIV testing was significantly higher among those aged 25-34 than among adults in any other age group.

Table 22.1 HIV testing among adults aged 18-64 by demographic characteristics: WVBRFSS, 2004 and 2005

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 2,436 | 33.6 | 31.5-35.8 | 2,491 | 32.5 | 30.4-34.6 |
| Sex |  |  |  |  |  |  |
| Males | 991 | 32.3 | 29.0-35.6 | 995 | 28.1 | 25.0-31.3 |
| Females | 1,445 | 34.9 | 32.1-37.7 | 1,496 | 36.9 | 34.0-39.7 |
| Age |  |  |  |  |  |  |
| 18-24 | 180 | 32.4 | 25.1-39.7 | 163 | 34.9 | 27.2-42.6 |
| 25-34 | 444 | 53.1 | 48.0-58.3 | 442 | 53.1 | 48.0-58.3 |
| 35-44 | 560 | 42.1 | 37.6-46.6 | 559 | 36.3 | 31.9-40.6 |
| 45-54 | 658 | 25.0 | 21.4-28.6 | 718 | 24.1 | 20.7-27.5 |
| 55-64 | 594 | 14.5 | 11.4-17.6 | 609 | 15.6 | 12.4-18.7 |
| Education |  |  |  |  |  |  |
| Less than H.S. | 323 | 32.4 | 26.5-38.3 | 337 | 29.5 | 23.7-35.4 |
| H.S. or G.E.D. | 943 | 30.4 | 27.0-33.8 | 984 | 28.5 | 25.3-31.8 |
| Some Post-H.S. | 571 | 36.6 | 31.9-41.2 | 571 | 37.8 | 33.1-42.5 |
| College Graduate | 597 | 36.8 | 32.5-41.1 | 598 | 36.0 | 31.7-40.3 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 369 | 42.1 | 35.8-48.4 | 344 | 34.1 | 28.1-40.0 |
| \$15,000-24,999 | 412 | 36.8 | 31.4-42.3 | 457 | 31.3 | 26.4-36.2 |
| \$25,000-34,999 | 301 | 32.1 | 26.0-38.2 | 336 | 31.9 | 26.2-37.6 |
| \$35,000-49,999 | 438 | 33.3 | 28.2-38.3 | 377 | 32.6 | 27.2-38.1 |
| \$50,000-74,000 | 385 | 29.5 | 24.5-34.4 | 420 | 32.9 | 27.9-38.0 |
| \$75,000+ | 337 | 32.1 | 26.6-37.6 | 346 | 34.9 | 29.4-40.5 |

## Quick Stats

- $38.2 \%$ of adults aged 18-64 who were tested for HIV in 2005 received their last test at a private doctor’s office, $27.9 \%$ at a hospital, and $20.6 \%$ at a clinic.


## Definition

Responding "No" to the following question: "In the past 12 months has a doctor, nurse, or other health professional talked to you about preventing sexually transmitted diseases through condom use?"

Table 22.2 No condom counseling among adults aged 18-64 by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,027 | 93.3 | 91.1-95.5 | 1,514 | 87.1 | 85.0-89.3 | 2,541 | 90.2 | 88.7-91.7 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 72 | *76.3 | 65.2-87.5 | 112 | 61.6 | 51.8-71.3 | 184 | 69.1 | 61.6-76.5 |
| 25-34 | 177 | 92.2 | 87.9-96.5 | 279 | 82.2 | 77.6-86.8 | 456 | 87.2 | 84.0-90.4 |
| 35-44 | 233 | 98.7 | 97.4-100 | 352 | 88.5 | 84.9-92.1 | 585 | 93.6 | 91.5-95.6 |
| 45-54 | 292 | 96.9 | 94.8-98.9 | 398 | 96.6 | 94.6-98.5 | 690 | 96.7 | 95.3-98.1 |
| 55-64 | 253 | 97.7 | 96.0-99.5 | 373 | 98.6 | 97.2-99.9 | 626 | 98.2 | 97.1-99.3 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 143 | 94.5 | 89.1-100 | 201 | 84.1 | 77.9-90.3 | 344 | 89.1 | 85.0-93.3 |
| H.S. or G.E.D. | 423 | 92.9 | 89.5-96.2 | 566 | 89.4 | 86.5-92.4 | 989 | 91.3 | 89.0-93.5 |
| Some Post-H.S. | 213 | 87.9 | 81.5-94.4 | 382 | 85.1 | 80.4-89.9 | 595 | 86.4 | 82.5-90.4 |
| College Graduate | 247 | 99.0 | 97.7-100 | 364 | 87.6 | 83.4-91.8 | 611 | 93.1 | 90.8-95.4 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 126 | 93.9 | 88.4-99.4 | 267 | 79.6 | 73.7-85.4 | 393 | 86.1 | 81.9-90.2 |
| \$15,000-24,999 | 166 | 94.3 | 89.4-99.3 | 266 | 81.9 | 76.3-87.4 | 432 | 87.7 | 83.9-91.5 |
| \$25,000-34,999 | 123 | 92.9 | 87.2-98.6 | 193 | 85.6 | 79.6-91.6 | 316 | 89.0 | 84.8-93.2 |
| \$35,000-49,999 | 183 | 90.6 | 84.5-96.8 | 270 | 93.5 | 89.8-97.2 | 453 | 92.1 | 88.6-95.7 |
| \$50,000-74,999 | 188 | 95.3 | 91.1-99.5 | 208 | 91.6 | 86.4-96.9 | 396 | 93.7 | 90.3-97.0 |
| \$75,000+ | 169 | 96.8 | 93.6-100 | 177 | 91.7 | 86.7-96.7 | 346 | 94.6 | 91.7-97.5 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## High-Risk Behavior in 2004 and 2005

## Definition

Responding "Yes" to the following question: "I'm going to read you a list. When I'm done, please tell me if any of the situations apply to you. You don't need to tell me which one.
You have used intravenous drugs in the past year.
You have been treated for a sexually transmitted or venereal disease in the past year.
You have given or received money or drugs in exchange for sex in the past year.
You had anal sex without a condom in the past year.
Do any of these situations apply to you?"

Table 22.3 High-risk behavior among adults aged 18-64 by gender: WVBRFSS, 2004 and 2005

| Characteristic | 2004 |  |  | 2005 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 2,538 | 2.3 | 1.6-3.1 | 2,556 | 3.0 | 2.1-3.8 |
| Males | 1,027 | 1.9 | 0.9-3.0 | 1,025 | 3.4 | 2.0-4.8 |
| Females | 1,511 | 2.7 | 1.7-3.8 | 1,531 | 2.5 | 1.5-3.6 |

## ChAPTER 23: FAMILY PLANNING

## Children Currently in Household in 2004

Definition
Answered one or more children to the following question: "How many children less than 18 years of age live in your household?"

Table 23.1 Adults in households with at least one child by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,321 | 36.8 | 33.7-39.9 | 2,120 | 36.9 | 34.5-39.3 | 3,441 | 36.8 | 34.9-38.8 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | 41.9 | 29.6-54.2 | 115 | 49.8 | 39.8-59.8 | 190 | 45.8 | 37.8-53.7 |
| 25-34 | 181 | 59.5 | 51.8-67.2 | 282 | 78.7 | 73.4-84.0 | 463 | 69.0 | 64.3-73.8 |
| 35-44 | 237 | 66.3 | 60.0-72.6 | 361 | 70.2 | 65.1-75.4 | 598 | 68.3 | 64.2-72.3 |
| 45-54 | 298 | 36.4 | 30.5-42.4 | 401 | 26.8 | 22.0-31.6 | 699 | 31.6 | 27.7-35.4 |
| 55-64 | 256 | 6.5 | 3.0-9.9 | 380 | 9.0 | 5.3-12.7 | 636 | 7.8 | 5.2-10.3 |
| 65+ | 272 | 5.4 | 2.2-8.7 | 577 | 2.8 | 1.0-4.6 | 849 | 3.9 | 2.2-5.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 226 | 32.0 | 24.7-39.3 | 402 | 26.9 | 21.5-32.3 | 628 | 29.2 | 24.7-33.6 |
| H.S. or G.E.D. | 527 | 38.5 | 33.7-43.4 | 797 | 36.9 | 33.0-40.8 | 1,324 | 37.7 | 34.6-40.9 |
| Some Post-H.S. | 260 | 35.0 | 27.8-42.3 | 471 | 41.7 | 36.5-46.9 | 731 | 38.6 | 34.3-43.0 |
| College Graduate | 306 | 39.0 | 33.0-45.0 | 447 | 40.6 | 35.4-45.7 | 753 | 39.8 | 35.9-43.8 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 168 | 31.3 | 21.6-41.1 | 465 | 26.8 | 22.1-31.5 | 633 | 28.5 | 23.7-33.3 |
| \$15,000-24,999 | 262 | 34.4 | 27.7-41.2 | 403 | 39.7 | 34.1-45.3 | 665 | 37.2 | 32.8-41.5 |
| \$25,000-34,999 | 165 | 34.9 | 26.2-43.6 | 253 | 39.9 | 32.8-47.0 | 418 | 37.5 | 31.9-43.1 |
| \$35,000-49,999 | 215 | 43.4 | 35.8-50.9 | 305 | 44.9 | 38.8-51.0 | 520 | 44.2 | 39.3-49.0 |
| \$50,000-74,999 | 214 | 47.6 | 40.0-55.3 | 230 | 40.9 | 33.8-48.1 | 444 | 44.7 | 39.4-50.0 |
| \$75,000+ | 187 | 31.7 | 24.7-38.8 | 189 | 47.3 | 39.4-55.2 | 376 | 38.5 | 33.2-43.9 |

Figure 23.1 Adults by number of children in household: WVBRFSS, 2004


## Children Being Planned in 2004

Definition Responded that a child is wanted, in answer to the question: "How do you feel about having a child sometime in the future?"

Prevalence WV: 46.2\% (95\% CI: 41.8-50.6) in 2004.
US: $\mathbf{4 1 . 5 \%}$ (95\% CI: 40.8-42.2) in 2004.
West Virginia ranked 3 ${ }^{\text {rd }}$ highest among 52 BRFSS participants in 2004.
Gender
Men: 41.1\% (95\% CI: 34.9-47.3) in 2004
Women: 52.9\% (95\% CI: 46.8-58.9) in 2004
The difference in child planning between men and women was not significant.
Age Wanting children in the future varied steeply and significantly by age, with the highest prevalence among the youngest adults. Among the younger ages, the groups differed little by gender, but the variations by overall age in wanting children were all significant and reliable. More than three-fourths (78.7\%) of all adults aged 18-24 reported wanting children. This dropped significantly to only half among those aged 25-34 (50.4\%), and the prevalence among the adults aged 35-44 dropped significantly again, to only about one in four (22.6\%).

Education There were no significant differences in wanting children by education level.
Household Income No significant differences in plans to have children were noted by household income.

Table 23.2 Adults who want a child in the future by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men aged 18-59 |  |  | Women not pregnant and aged 18-44 |  |  | Total ** |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 328 | 41.1 | 34.9-47.3 | 325 | 52.9 | 46.8-58.9 | 653 | 46.2 | 41.8-50.6 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 33 | *84.2 | 71.8-96.6 | 78 | *75.1 | 64.6-85.5 | 111 | 78.7 | 70.6-86.8 |
| 25-34 | 95 | *49.4 | 38.6-60.2 | 140 | *51.5 | 42.8-60.3 | 235 | 50.4 | 43.4-57.4 |
| 35-44 | 83 | 22.5 | 13.3-31.8 | 107 | 22.7 | 14.3-31.2 | 190 | 22.6 | 16.3-28.9 |
| 45-54 | 82 | 17.5 | 9.2-25.8 |  |  |  | 82 | 17.5 | 9.2-25.8 |
| 55-59 | 35 | *18.5 | 4.6-32.3 |  |  |  | 35 | *18.5 | 4.6-32.3 |
| 60+ |  |  |  |  |  |  |  |  |  |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.
** The total prevalence shown above includes only non-pregnant women aged 18-44 and men aged 18-59.


## Quick Stats

- $3.9 \%$ of the adult female population between the ages of 18 and 44 typically were pregnant at the same time during 2004.


## Pregnancy Prevention Issues in 2004

Table 23.3 Adults currently taking steps to avoid pregnancy by demographic characteristics: WVBRFSS, 2004

| Characteristic | Women aged 18-44, sexually active, not pregnant |  |  | Men aged $18-59$, sexually active |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| Sex |  |  |  |  |  |  |
| Males |  |  |  | 747 | 58.0 | 54.1-61.9 |
| Females | 563 | 75.4 | 71.4-79.4 |  |  |  |
| Age |  |  |  |  |  |  |
| 18-24 | 83 | 79.2 | 69.7-88.8 | 41 | * 69.3 | 53.9-84.8 |
| 25-34 | 219 | 75.1 | 69.0-81.3 | 157 | 71.4 | 63.6-79.2 |
| 35-44 | 261 | 73.4 | 67.4-79.4 | 198 | 62.7 | 55.4-69.9 |
| 45-54 |  |  |  | 238 | 48.8 | 42.0-55.6 |
| 55-59 |  |  |  | 113 | 32.4 | 23.5-41.4 |
| 60+ |  |  |  |  |  |  |
| Education |  |  |  |  |  |  |
| Less than H.S. | 62 | * 56.4 | 42.2-70.5 | 86 | * 49.9 | 38.2-61.5 |
| H.S. or G.E.D. | 191 | 75.0 | 68.2-81.9 | 304 | 58.1 | 51.9-64.2 |
| Some Post-H.S. | 166 | 81.4 | 75.0-87.8 | 164 | 57.4 | 48.7-66.0 |
| College Graduate | 144 | 77.9 | 70.7-85.2 | 193 | 62.6 | 55.4-69.9 |
| Income |  |  |  |  |  |  |
| Less than \$15,000 | 80 | * 73.3 | 60.9-85.7 | 57 | * 57.0 | 41.5-72.5 |
| \$15,000-24,999 | 109 | 70.8 | 61.2-80.5 | 112 | * 54.5 | 44.3-64.6 |
| \$25,000-34,999 | 71 | * 79.5 | 67.8-91.3 | 84 | * 55.8 | 44.0-67.5 |
| \$35,000-49,999 | 103 | 77.0 | 68.6-85.4 | 148 | 62.5 | 54.2-70.9 |
| \$50,000-74,000 | 88 | * 70.4 | 60.1-80.7 | 165 | 60.3 | 52.1-68.5 |
| \$75,000+ | 69 | 82.2 | 73.0-91.4 | 145 | 53.9 | 45.2-62.5 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Figure 23.2 Types of contraception among adults taking steps to prevent pregnancy: WVBRFSS, 2004


## Chapter 24: Oral Health

## No Teeth Cleaning in the Past Year, 2004

Definition Responding with "Longer than a year ago" to the following question: "How long has it been since you had your teeth cleaned by a dentist or dental hygienist?" (The responses reported for this section were limited to those who had not had all their teeth extracted. The totals include those who reported never seeing a dentist.)

Prevalence WV: 36.0\% (95\% CI: 34.0-38.1) in 2004.
US: $\mathbf{3 1 . 6 \%}$ (95\% CI: 31.3-32.0) in 2004.
West Virginia ranked $9^{\text {th }}$ highest among 52 BRFSS participants in 2004.
Gender

Age, Education, and Household Income

Men: 40.0\% (95\% CI: 36.6-43.3) in 2004.
Women: $32.3 \%$ (95\% CI: 29.7-34.8) in 2004.
Men reported no teeth cleaning by a dentist or dental hygienist in the past year significantly more often than women.

The prevalence of no teeth cleaning improved significantly with almost every increase in education or income level. There were only minor variations by age. The highest rates of no teeth cleaning in the past year were among those with less than a high school education, in households with an annual income of less than $\$ 15,000$, and in the 35-44 age group.

Table 24.1 No Teeth Cleaning by a Dentist or Dental Hygienist in the Past Year: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,104 | 40.0 | 36.6-43.3 | 1,702 | 32.3 | 29.7-34.8 | 2,806 | 36.0 | 34.0-38.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 73 | *34.7 | 22.7-46.7 | 112 | 31.8 | 22.4-41.1 | 185 | 33.3 | 25.6-40.9 |
| 25-34 | 177 | 45.6 | 37.7-53.5 | 271 | 34.0 | 27.8-40.2 | 448 | 39.9 | 34.8-45.0 |
| 35-44 | 228 | 48.2 | 41.2-55.3 | 344 | 41.6 | 35.9-47.4 | 572 | 44.9 | 40.4-49.5 |
| 45-54 | 261 | 36.6 | 30.2-43.0 | 357 | 25.4 | 20.6-30.1 | 618 | 30.9 | 26.9-34.9 |
| 55-64 | 201 | 35.2 | 28.3-42.2 | 296 | 26.6 | 21.3-32.0 | 497 | 30.9 | 26.5-35.3 |
| 65+ | 162 | 35.3 | 27.5-43.2 | 318 | 32.5 | 27.0-38.0 | 480 | 33.7 | 29.1-38.3 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 124 | 69.7 | 60.8-78.6 | 207 | 54.0 | 46.1-61.8 | 331 | 61.2 | 55.2-67.2 |
| H.S. or G.E.D. | 448 | 47.1 | 41.8-52.4 | 636 | 37.2 | 33.0-41.5 | 1,084 | 42.4 | 39.0-45.8 |
| Some Post-H.S. | 236 | 31.0 | 24.0-37.9 | 433 | 27.7 | 23.0-32.4 | 669 | 29.2 | 25.1-33.3 |
| College Graduate | 295 | 22.1 | 16.9-27.2 | 426 | 17.9 | 13.8-22.0 | 721 | 19.9 | 16.7-23.2 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 112 | *66.5 | 55.8-77.2 | 297 | 57.1 | 50.4-63.7 | 409 | 60.9 | 55.0-66.8 |
| \$15,000-24,999 | 197 | 52.2 | 44.2-60.2 | 300 | 49.4 | 42.9-55.9 | 497 | 50.8 | 45.6-55.9 |
| \$25,000-34,999 | 128 | 46.8 | 37.1-56.6 | 220 | 25.0 | 18.4-31.5 | 348 | 34.9 | 29.0-40.8 |
| \$35,000-49,999 | 196 | 41.3 | 33.5-49.1 | 288 | 26.8 | 21.2-32.5 | 484 | 33.9 | 29.1-38.8 |
| \$50,000-74,999 | 202 | 23.8 | 17.3-30.3 | 217 | 15.3 | 9.8-20.8 | 419 | 20.1 | 15.7-24.4 |
| \$75,000+ | 180 | 18.7 | 12.9-24.5 | 184 | 10.3 | 5.5-15.1 | 364 | 15.0 | 11.2-18.9 |

[^16]
## Other Dental Issues in 2004

Table 24.2 No visit to a dentist or dental clinic in the past year for any reason by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,315 | 39.0 | 36.1-42.0 | 2,113 | 36.1 | 33.8-38.4 | 3,428 | 37.5 | 35.6-39.4 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | *27.8 | 17.0-38.5 | 114 | 28.4 | 19.6-37.1 | 189 | 28.1 | 21.1-35.0 |
| 25-34 | 179 | 37.4 | 29.8-45.0 | 282 | 27.6 | 21.9-33.3 | 461 | 32.5 | 27.8-37.3 |
| 35-44 | 237 | 39.7 | 32.9-46.5 | 362 | 37.0 | 31.5-42.5 | 599 | 38.3 | 34.0-42.7 |
| 45-54 | 297 | 32.2 | 26.5-38.0 | 399 | 26.8 | 22.1-31.6 | 696 | 29.5 | 25.8-33.2 |
| 55-64 | 255 | 43.2 | 36.7-49.7 | 379 | 37.9 | 32.5-43.3 | 634 | 40.5 | 36.3-44.7 |
| 65+ | 270 | 54.0 | 47.5-60.4 | 573 | 52.0 | 47.6-56.5 | 843 | 52.8 | 49.1-56.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 224 | 70.7 | 64.1-77.4 | 400 | 61.8 | 56.3-67.3 | 624 | 65.7 | 61.4-70.0 |
| H.S. or G.E.D. | 524 | 43.0 | 38.2-47.9 | 793 | 39.8 | 36.0-43.6 | 1,317 | 41.4 | 38.3-44.5 |
| Some Post-H.S. | 260 | 26.5 | 20.7-32.3 | 471 | 25.7 | 21.4-30.1 | 731 | 26.1 | 22.5-29.6 |
| College Graduate | 305 | 19.9 | 15.0-24.7 | 446 | 17.6 | 13.6-21.6 | 751 | 18.7 | 15.6-21.8 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 53.4 | 43.8-62.9 | 462 | 55.8 | 50.5-61.1 | 628 | 54.9 | 50.0-59.8 |
| \$15,000-24,999 | 260 | 52.0 | 45.1-58.9 | 403 | 51.0 | 45.4-56.5 | 663 | 51.5 | 47.1-55.9 |
| \$25,000-34,999 | 164 | 46.2 | 37.8-54.7 | 253 | 30.3 | 23.9-36.7 | 417 | 37.9 | 32.6-43.2 |
| \$35,000-49,999 | 215 | 40.2 | 32.7-47.6 | 304 | 24.9 | 19.4-30.4 | 519 | 32.5 | 27.8-37.1 |
| \$50,000-74,999 | 214 | 23.7 | 17.4-30.0 | 230 | 15.5 | 10.2-20.9 | 444 | 20.1 | 15.9-24.4 |
| \$75,000+ | 187 | 17.3 | 11.9-22.8 | 189 | 10.5 | 5.7-15.2 | 376 | 14.4 | 10.7-18.1 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

Table 24.3 Permanent natural teeth risks by demographic characteristics: WVBRFSS, 2004

| Characteristic | No Teeth Missing (all ages) |  |  | 6 or More Teeth Missing (all ages) |  |  | All Teeth Missing (aged 65 and over only) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 3,415 | 38.9 | 36.9-40.9 | 3,415 | 31.9 | 30.2-33.6 | 840 | 42.9 | 39.2-46.6 |
| Males | 1,310 | 40.7 | 37.6-43.9 | 1,310 | 29.9 | 27.3-32.6 | 271 | 41.1 | 34.7-47.5 |
| Females | 2,105 | 37.3 | 34.8-39.7 | 2,105 | 33.7 | 31.5-35.9 | 569 | 44.1 | 39.7-48.6 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 189 | 81.4 | 74.9-87.9 | 189 | * 0.7 | 0.0-2.0 |  |  |  |
| 25-34 | 462 | 65.1 | 60.3-69.9 | 462 | 7.2 | 4.7-9.8 |  |  |  |
| 35-44 | 597 | 47.1 | 42.7-51.6 | 597 | 18.2 | 14.7-21.6 |  |  |  |
| 45-54 | 693 | 29.3 | 25.6-33.1 | 693 | 32.5 | 28.7-36.3 |  |  |  |
| 55-64 | 629 | 16.2 | 13.1-19.2 | 629 | 51.0 | 46.7-55.3 |  |  |  |
| 65+ | 840 | 10.2 | 7.9-12.5 | 840 | 69.6 | 66.1-73.0 | 840 | 42.9 | 39.2-46.6 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 625 | 16.5 | 12.6-20.4 | 625 | 64.5 | 60.0-69.1 | 273 | 67.9 | 61.8-74.0 |
| H.S. or G.E.D. | 1,313 | 32.3 | 29.1-35.5 | 1,313 | 34.8 | 32.0-37.7 | 314 | 39.3 | 33.1-45.5 |
| Some Post-H.S. | 727 | 50.8 | 46.4-55.2 | 727 | 19.0 | 16.1-21.9 | 125 | 28.9 | 20.2-37.6 |
| College Graduate | 745 | 57.7 | 53.7-61.6 | 745 | 12.5 | 10.1-15.0 | 126 | 12.1 | 6.3-17.8 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 631 | 24.2 | 19.6-28.9 | 631 | 52.7 | 47.7-57.6 | 233 | 63.0 | 56.3-69.7 |
| \$15,000-24,999 | 663 | 29.7 | 25.3-34.0 | 663 | 44.6 | 40.3-48.9 | 225 | 46.7 | 39.4-54.1 |
| \$25,000-34,999 | 413 | 34.8 | 29.4-40.3 | 413 | 35.7 | 30.5-40.9 | 94 | *34.8 | 24.1-45.6 |
| \$35,000-49,999 | 519 | 42.7 | 37.9-47.6 | 519 | 21.5 | 17.6-25.3 | 60 | *22.3 | 10.8-33.9 |
| \$50,000-74,999 | 440 | 51.8 | 46.4-57.1 | 440 | 15.6 | 12.0-19.1 | 43 | *15.1 | 2.1-28.2 |
| \$75,000+ | 373 | 57.3 | 51.8-62.8 | 373 | 10.3 | 7.2-13.4 | 24 | * 5.2 | 0.0-12.9 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## CHAPTER 25: SUNBURN

## Sunburn Risk in 2004

## Definition

Prevalence
WV: 35.1\% (95\% CI: 33.2-37.0) in 2004.
US: 33.5\% (95\% CI: 33.2-33.8) in 2004.
West Virginia ranked $28^{\text {th }}$ highest among 52 BRFSS participants in 2004.

Gender

Age, Education, Household Income

Men: 40.8\% (95\% CI: 37.7-43.9) in 2004.
Women: 29.8\% (95\% CI: 27.4-32.1) in 2004.
Men had a significantly higher overall prevalence of this risk than women.
The prevalence of sunburn was significantly higher among women and men aged 18-44 than among older adults. Higher levels of education and income also were associated with higher rates of sunburn.

Table 25.1 Sunburned in last 12 months by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,320 | 40.8 | 37.7-43.9 | 2,118 | 29.8 | 27.4-32.1 | 3,438 | 35.1 | 33.2-37.0 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 75 | *54.4 | 42.2-66.6 | 115 | 60.8 | 51.0-70.5 | 190 | 57.5 | 49.6-65.3 |
| 25-34 | 181 | 55.0 | 47.1-62.8 | 282 | 49.5 | 43.2-55.8 | 463 | 52.2 | 47.2-57.3 |
| 35-44 | 237 | 55.0 | 48.2-61.8 | 362 | 40.9 | 35.4-46.4 | 599 | 47.8 | 43.4-52.3 |
| 45-54 | 297 | 38.4 | 32.3-44.5 | 400 | 23.3 | 18.9-27.8 | 697 | 30.8 | 26.9-34.6 |
| 55-64 | 256 | 29.0 | 23.0-35.0 | 380 | 15.6 | 11.5-19.7 | 636 | 22.2 | 18.5-25.8 |
| 65+ | 272 | 14.8 | 10.3-19.3 | 575 | 6.3 | 3.9-8.7 | 847 | 9.8 | 7.4-12.1 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 226 | 28.0 | 21.0-35.0 | 401 | 21.0 | 15.8-26.3 | 627 | 24.1 | 19.8-28.4 |
| H.S. or G.E.D. | 527 | 40.5 | 35.6-45.4 | 797 | 25.8 | 22.1-29.5 | 1,324 | 33.3 | 30.2-36.4 |
| Some Post-H.S. | 260 | 46.8 | 39.5-54.2 | 470 | 36.4 | 31.2-41.6 | 730 | 41.2 | 36.7-45.6 |
| College Graduate | 305 | 45.4 | 39.2-51.5 | 447 | 37.5 | 32.4-42.6 | 752 | 41.3 | 37.4-45.3 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 168 | 36.2 | 26.5-45.9 | 464 | 22.7 | 17.9-27.4 | 632 | 27.9 | 23.0-32.8 |
| \$15,000-24,999 | 262 | 30.3 | 23.6-37.0 | 403 | 28.9 | 23.5-34.3 | 665 | 29.6 | 25.3-33.8 |
| \$25,000-34,999 | 165 | 39.6 | 31.3-48.0 | 252 | 32.6 | 25.6-39.5 | 417 | 36.0 | 30.6-41.4 |
| \$35,000-49,999 | 215 | 48.8 | 41.2-56.3 | 305 | 33.2 | 27.3-39.1 | 520 | 40.9 | 36.0-45.8 |
| \$50,000-74,999 | 214 | 44.8 | 37.2-52.4 | 230 | 36.2 | 29.1-43.2 | 444 | 41.0 | 35.8-46.3 |
| \$75,000+ | 186 | 54.4 | 46.7-62.1 | 189 | 41.6 | 33.7-49.5 | 375 | 48.8 | 43.2-54.4 |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## Chapter 26: Firearms

## Loaded and Unlocked Firearms in or around the Home in 2004

Definition

Prevalence

Time Trends

Gender

Responding "Yes" to all of the following questions: "Are any firearms kept in or around your home? Are any of these firearms now loaded? Are any of these loaded firearms also unlocked? (By "unlocked" we mean you do not need a key or a combination to get the gun or to fire it. We don't count a safety as a lock.)"

WV: $\quad 6.2 \%$ (95\% CI: 5.3-7.1) in 2004.
US: $\quad 4.3 \%$ (95\% CI: 4.2-4.4) in 2004.
West Virginia ranked $20^{\text {th }}$ highest among 52 BRFSS participants 2004.
For the years between 2001 and 2004 in which these data were collected, the percentage of West Virginians at risk due to loaded and unlocked firearms kept in and around the home has fluctuated between approximately $6 \%$ and $8 \%$.

Men: 8.8\% (95\% CI: 7.1-10.4) in 2004
Women: 3.8\% (95\% CI: 2.9-4.7) in 2004
Men reported a significantly higher risk than women, overall and in almost every demographic category.

Adults aged 55-64 were at the highest risk (10.7\%) of having a loaded and unlocked firearm around the home in 2004. In this 55-64 age range, the risk prevalence was notably different by gender as well. The rate for men in this age group was $16.0 \%$, while the same age women had a distinctly lower rate of $5.5 \%$. For the remaining age groups, the risk varied between $3.8 \%$ and $8.2 \%$.

Education There were no significant differences in this risk factor by education level.

Household Income

The prevalence varied significantly by income for men. Males with incomes of $\$ 75,000$ or more had a sharply higher rate than women in the same income group, $15.0 \%$ ( $95 \%$ CI: 9.1-21.0) versus 2.5\% (95\% CI: 0.3-4.7). Otherwise, few differences in prevalence existed among adults from various income categories.

## QUICK STATS

- Over half of the adults had a firearm that was kept in or around the home.
- Men were significantly more likely to have a firearm in or around the home than women (68.2\% vs. 49.6\%).
- Approximately $19 \%$ of adults who had a loaded and unlocked gun in or around the home also had a child living in the home.

Table 26.1 LOADED and UNLOCKED firearms in or around the home by demographic characteristics: WVBRFSS, 2004

| Characteristic | Men |  |  | Women |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI | \# Resp. | \% | 95\% CI |
| TOTAL | 1,249 | 8.8 | 7.1-10.4 | 2,028 | 3.8 | 2.9-4.7 | 3,277 | 6.2 | 5.3-7.1 |
| Age |  |  |  |  |  |  |  |  |  |
| 18-24 | 71 | 4.9 | 0.0-9.8 | 109 | 2.6 | 0.0-5.8 | 180 | 3.8 | 0.8-6.8 |
| 25-34 | 176 | 6.6 | 2.6-10.6 | 275 | 2.5 | 0.7-4.3 | 451 | 4.6 | 2.4-6.8 |
| 35-44 | 225 | 5.3 | 2.6-8.0 | 349 | 3.4 | 1.4-5.4 | 574 | 4.3 | 2.7-6.0 |
| 45-54 | 281 | 10.6 | 6.9-14.3 | 387 | 5.9 | 3.5-8.4 | 668 | 8.2 | 6.0-10.4 |
| 55-64 | 243 | 16.0 | 11.3-20.7 | 359 | 5.5 | 2.7-8.3 | 602 | 10.7 | 7.9-13.4 |
| 65+ | 252 | 9.2 | 5.2-13.2 | 545 | 2.9 | 1.5-4.2 | 797 | 5.5 | 3.6-7.3 |
| Education |  |  |  |  |  |  |  |  |  |
| Less than H.S. | 214 | 7.7 | 3.9-11.6 | 381 | 4.0 | 1.8-6.1 | 595 | 5.6 | 3.6-7.7 |
| H.S. or G.E.D. | 491 | 6.9 | 4.5-9.3 | 768 | 3.9 | 2.3-5.5 | 1,259 | 5.4 | 4.0-6.9 |
| Some Post-H.S. | 248 | 10.6 | 6.8-14.4 | 448 | 4.4 | 2.6-6.3 | 696 | 7.3 | 5.3-9.3 |
| College Graduate | 295 | 11.3 | 7.6-15.0 | 430 | 2.9 | 1.4-4.4 | 725 | 7.0 | 5.0-9.0 |
| Income |  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 163 | 7.1 | 3.7-10.5 | 448 | 3.2 | 1.7-4.7 | 611 | 4.7 | 3.1-6.3 |
| \$15,000-24,999 | 248 | 6.5 | 3.1-10.0 | 391 | 2.8 | 1.2-4.4 | 639 | 4.6 | 2.7-6.4 |
| \$25,000-34,999 | 157 | 8.6 | 3.7-13.6 | 240 | 5.5 | 2.1-9.0 | 397 | 7.0 | 4.0-10.0 |
| \$35,000-49,999 | 205 | 9.8 | 5.9-13.7 | 297 | 3.3 | 1.3-5.4 | 502 | 6.5 | 4.3-8.6 |
| \$50,000-74,999 | 204 | 7.5 | 4.1-10.9 | 222 | 4.9 | 1.8-8.0 | 426 | 6.3 | 4.0-8.7 |
| \$75,000+ | 179 | 15.0 | 9.1-21.0 | 184 | 2.5 | 0.3-4.7 | 363 | 9.6 | 6.0-13.1 |

Figure 26.1 Firearms in or around the home by gender in West Virginia: WVBRFSS, 2004


## CHAPTER 27: COMORBIDITIES

## Comorbid Health Conditions and Risk Factors

Many behavior risk factors and health conditions are interrelated. For example, physical activity and nutrition are related to obesity, which is related to cardiovascular diseases. Comorbidity is the presence of more than one health condition or risk factor in an individual at the same time. Identifying common comorbid factors is important to understanding how to prevent and reduce serious health conditions and chronic diseases. The previous 26 chapters of this report provide detailed data on individual health conditions and risk factors. The purpose of this chapter is to introduce some of the common comorbidities among West Virginia adults in 2005 (see Figure 27.1 and Table 27.1).

Figure 27.1 Common comorbid conditions: WVBRFSS, 2005


## Definitions of Health Conditions and Risk factors

Fair or Poor Health: Reported health as fair or poor from choices of "excellent," "very good," "good," "fair," or "poor." No Health Coverage: Adults aged 18 and older without current health care coverage.
<5 Fruits \& Vegs per Day: Reported consuming fewer than 5 servings of fruits and vegetables daily.
No Exercise: Other than their regular job, did not participate in any physical activities or exercise in the past month.
Obese: Body Mass Index (BMI) of 30.0 or higher. BMI equals body weight in kilograms divided by height in meters squared.
Heavy Drinker: Consumption of more than two alcoholic drinks per day for men and more than one drink per day for women.
Binge Drinker: Consumption of five or more alcoholic drinks on one or more occasion during the past month.
Current Smoker: Have smoked 100 cigarettes in lifetime and now smoke every day or some days.
Hypertension: Ever been told by a doctor, nurse, or other health professional that they have high blood pressure.
High Cholesterol: Ever had cholesterol checked and ever been told by a doctor, nurse, or other health professional that it is high.
CVD: Ever been told by a doctor, nurse, or other health professional that they had a heart attack, angina or coronary heart disease, or stroke.
Diabetes: Ever been told by a doctor that they have diabetes.
Current Asthma: Ever been told by a doctor, nurse, or other health professional that they had asthma and still have asthma.
Arthritis: Ever been told by a doctor, nurse, or other health professional that they have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.
Disabled: Limited in any way in any activities because of physical, mental, or emotional problems.

Table 27.1 Comorbidities: The prevalence of multiple risk behaviors and/or health conditions among adults: WVBRFSS, 2005
Table interpretation: Each cell represents the percentage of WV adults with both of the conditions/risk factors. For example, $8.0 \%$ of WV adults have both diabetes and high cholesterol.

| \% of Total <br> Population | Fair or <br> Poor <br> Health | No <br> Health Coverage | <5 Fruits \& Vegs per Day | No Exercise | Obese | Heavy <br> Drinker | Binge Drinker | Current <br> Smoker | Hypertension | High <br> Cholesterol | CVD | Diabetes | Current Asthma | Arthritis | Disabled |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fair or Poor Health | $\begin{gathered} 24.7 \\ (23.1-26.3) \end{gathered}$ | $\begin{gathered} 4.8 \\ (3.9-5.8) \end{gathered}$ | $\begin{gathered} \mathbf{2 0 . 4} \\ (18.9-22.0) \end{gathered}$ | $\begin{gathered} \mathbf{1 1 . 7} \\ (10.6-12.9) \end{gathered}$ | $\begin{gathered} 9.9 \\ (8.8-11.0) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 6} \\ (0.3-0.9) \end{gathered}$ | $\begin{gathered} 1.7 \\ (1.2-2.2) \end{gathered}$ | $\begin{gathered} 8.5 \\ (7.5-9.6) \end{gathered}$ | $\begin{gathered} 13.8 \\ (12.6-15.0) \end{gathered}$ | $\begin{gathered} \mathbf{1 4 . 9} \\ (13.5-16.3) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 4} \\ (7.5-9.4) \end{gathered}$ | $\begin{gathered} \mathbf{6 . 1} \\ (5.2-6.9) \end{gathered}$ | $\begin{gathered} \text { 4.1 } \\ (3.4-4.8) \end{gathered}$ | $\begin{gathered} \mathbf{1 4 . 7} \\ (13.5-15.9) \end{gathered}$ | $\begin{gathered} 16.2 \\ (14.8-17.5) \end{gathered}$ |
| No Health Coverage | $\begin{gathered} 4.8 \\ (3.9-5.8) \end{gathered}$ | $\begin{array}{r} \mathbf{1 8 . 1} \\ (16.4 \\ -19.7) \end{array}$ | $\begin{gathered} 15.2 \\ (13.6-16.8) \end{gathered}$ | $\begin{gathered} 5.9 \\ (4.8-6.9) \end{gathered}$ | $\begin{gathered} 5.1 \\ (4.1-6.0) \end{gathered}$ | $\begin{gathered} 1.2 \\ (0.7-1.7) \end{gathered}$ | $\begin{gathered} 2.9 \\ (2.1-3.7) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 4} \\ (7.2-9.7) \end{gathered}$ | $\begin{gathered} 3.7 \\ (3.0-4.5) \end{gathered}$ | $\begin{gathered} 3.6 \\ (2.9-4.4) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 6} \\ (1.2-2.1) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 0} \\ (0.7-1.4) \end{gathered}$ | $\begin{gathered} 1.7 \\ (1.1-2.3) \end{gathered}$ | $\begin{gathered} 4.2 \\ (3.5-4.9) \end{gathered}$ | $\begin{gathered} 5.0 \\ (4.1-5.9) \end{gathered}$ |
|  <br> Vegs per Day | $\begin{gathered} 20.4 \\ (18.9-22.0) \end{gathered}$ | $\begin{gathered} 15.2 \\ (13.6-16.8) \end{gathered}$ | $\begin{gathered} \mathbf{8 0 . 0} \\ (78.5-81.5) \end{gathered}$ | $\begin{gathered} 24.7 \\ (23.0-26.4) \end{gathered}$ | $\begin{gathered} 25.9 \\ (24.2-27.7) \end{gathered}$ | $\begin{gathered} 2.6 \\ (1.9-3.3) \end{gathered}$ | $\begin{gathered} 7.8 \\ (6.7-9.0) \end{gathered}$ | $\begin{gathered} 22.8 \\ (21.1-24.5) \end{gathered}$ | $\begin{gathered} 24.7 \\ (23.1-26.3) \end{gathered}$ | $\begin{gathered} 31.6 \\ (29.8-33.5) \end{gathered}$ | $\begin{gathered} 10.8 \\ (9.7-11.9) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 1} \\ (7.2-9.1) \end{gathered}$ | $\begin{gathered} 7.4 \\ (6.4-8.4) \end{gathered}$ | $\begin{gathered} 27.4 \\ (25.8-29.1) \end{gathered}$ | $\begin{gathered} 22.4 \\ (20.8-23.9) \end{gathered}$ |
| No Exercise | $\begin{gathered} \mathbf{1 1 . 7} \\ (10.6-12.9) \end{gathered}$ | $\begin{gathered} 5.9 \\ (4.8-6.9) \end{gathered}$ | $\begin{gathered} 24.7 \\ (23.0-26.4) \end{gathered}$ | $\begin{gathered} 28.5 \\ (26.8-30.3) \end{gathered}$ | $\begin{gathered} \mathbf{1 1 . 2} \\ (10.0-12.4) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 0} \\ (0.5-1.5) \end{gathered}$ | $\begin{gathered} 2.0 \\ (1.5-2.6) \end{gathered}$ | $\begin{gathered} 8.9 \\ (7.7-10.1) \end{gathered}$ | $\begin{gathered} \mathbf{1 1 . 7} \\ (10.6-12.9) \end{gathered}$ | $\begin{gathered} 13.7 \\ (12.4-15.1) \end{gathered}$ | $\begin{gathered} 6.3 \\ (5.5-7.2) \end{gathered}$ | $\begin{gathered} 4.6 \\ (3.9-5.4) \end{gathered}$ | $\begin{gathered} 3.4 \\ (2.7-4.0) \end{gathered}$ | $\begin{gathered} 12.8 \\ (11.6-13.9) \end{gathered}$ | $\begin{gathered} 12.3 \\ (11.1-13.5) \end{gathered}$ |
| Obese | $\begin{gathered} 9.9 \\ (8.8-11.0) \end{gathered}$ | $\begin{gathered} 5.1 \\ (4.1-6.0) \end{gathered}$ | $\begin{gathered} 25.9 \\ (24.2-27.7) \end{gathered}$ | $\begin{gathered} \mathbf{1 1 . 2} \\ (10.0-12.4) \end{gathered}$ | $\begin{gathered} 30.6 \\ (28.8-32.4) \end{gathered}$ | $\begin{gathered} \mathbf{0 . \mathbf { 4 } ^ { * }} \\ (0.1-0.6) \end{gathered}$ | $\begin{gathered} 2.3 \\ (1.7-2.9) \end{gathered}$ | $\begin{gathered} 6.8 \\ (5.7-7.8) \end{gathered}$ | $\begin{gathered} \mathbf{1 3 . 8} \\ (12.6-15.1) \end{gathered}$ | $\begin{gathered} \mathbf{1 5 . 1} \\ (13.6-16.6) \end{gathered}$ | $\begin{gathered} 4.9 \\ (4.2-5.7) \end{gathered}$ | $\begin{gathered} 5.8 \\ (5.0-6.6) \end{gathered}$ | $\begin{gathered} 3.6 \\ (2.9-4.4) \end{gathered}$ | $\begin{gathered} 13.0 \\ (11.8-14.2) \end{gathered}$ | $\begin{gathered} \mathbf{1 1 . 1} \\ (9.9-12.3) \end{gathered}$ |
| Heavy <br> Drinker | $\begin{gathered} \mathbf{0 . 6} \\ (0.3-0.9) \end{gathered}$ | $\begin{gathered} 1.2 \\ (0.7-1.7) \end{gathered}$ | $\begin{gathered} 2.6 \\ (1.9-3.3) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 0} \\ (0.5-1.5) \end{gathered}$ | $\begin{gathered} \mathbf{0 . \mathbf { 4 } ^ { * }} \\ (0.1-0.6) \end{gathered}$ | $\begin{gathered} 3.1 \\ (2.4-3.9) \end{gathered}$ | $\begin{gathered} 2.6 \\ (1.9-3.3) \end{gathered}$ | $\begin{gathered} 2.0 \\ (1.4-2.6) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 7} \\ (0.4-1.0) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 9} \\ (0.5-1.3) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 2 *} \\ (0.0-0.4) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 1 ^ { * }} \\ (0.0-0.2) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 2 *} \\ (0.0-0.3) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 0} \\ (0.6-1.4) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 8} \\ (0.4-1.1) \end{gathered}$ |
| Binge <br> Drinker | $\begin{gathered} 1.7 \\ (1.2-2.2) \end{gathered}$ | $\begin{gathered} 2.9 \\ (2.1-3.7) \end{gathered}$ | $\begin{gathered} 7.8 \\ (6.7-9.0) \end{gathered}$ | $\begin{gathered} 2.0 \\ (1.5-2.6) \end{gathered}$ | $\begin{gathered} 2.3 \\ (1.7-2.9) \end{gathered}$ | $\begin{gathered} 2.6 \\ (1.9-3.3) \end{gathered}$ | $\begin{gathered} \mathbf{9 . 1} \\ (7.9-10.3) \end{gathered}$ | $\begin{gathered} 4.8 \\ (3.9-5.7) \end{gathered}$ | $\begin{gathered} 2.0 \\ (1.4-2.5) \end{gathered}$ | $\begin{gathered} 2.2 \\ (1.6-2.8) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 6} \\ (0.3-0.9) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 3 ^ { * }} \\ (0.1-0.5) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 5 *} \\ (0.2-0.8) \end{gathered}$ | $\begin{gathered} 2.2 \\ (1.7-2.8) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 8} \\ (1.2-2.3) \end{gathered}$ |
| Current <br> Smoker | $\begin{gathered} 8.5 \\ (7.5-9.6) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 4} \\ (7.2-9.7) \end{gathered}$ | $\begin{gathered} 22.8 \\ (21.1-24.5) \end{gathered}$ | $\begin{gathered} 8.9 \\ (7.7-10.1) \end{gathered}$ | $\begin{gathered} 6.8 \\ (5.7-7.8) \end{gathered}$ | $\begin{gathered} 2.0 \\ (1.4-2.6) \end{gathered}$ | $\begin{gathered} 4.8 \\ (3.9-5.7) \end{gathered}$ | $\begin{gathered} 26.7 \\ (24.9-28.4) \end{gathered}$ | $\begin{gathered} 6.9 \\ (5.9-7.8) \end{gathered}$ | $\begin{gathered} 8.9 \\ (7.8-10.0) \end{gathered}$ | $\begin{gathered} 3.3 \\ (2.7-3.9) \end{gathered}$ | $\begin{gathered} 1.8 \\ (1.4-2.3) \end{gathered}$ | $\begin{gathered} 2.7 \\ (2.0-3.3) \end{gathered}$ | $\begin{gathered} 8.4 \\ (7.4-9.4) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 8} \\ (7.7-9.9) \end{gathered}$ |
| Hypertension | $\begin{gathered} 13.8 \\ (12.6-15.0) \end{gathered}$ | $\begin{gathered} 3.7 \\ (3.0-4.5) \end{gathered}$ | $\begin{gathered} 24.7 \\ (23.1-26.3) \end{gathered}$ | $\begin{gathered} 11.7 \\ (10.6-12.9) \end{gathered}$ | $\begin{gathered} \mathbf{1 3 . 8} \\ (12.6-15.1) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 7} \\ (0.4-1.0) \end{gathered}$ | $\begin{gathered} \mathbf{2 . 0} \\ (1.4-2.5) \end{gathered}$ | $\begin{gathered} 6.9 \\ (5.9-7.8) \end{gathered}$ | $\begin{gathered} 31.4 \\ (29.7-33.1) \end{gathered}$ | $\begin{gathered} 21.0 \\ (19.4-22.6) \end{gathered}$ | $\begin{gathered} 8.7 \\ (7.7-9.7) \end{gathered}$ | $\begin{gathered} \mathbf{6 . 8} \\ (6.0-7.7) \end{gathered}$ | $\begin{gathered} 3.4 \\ (2.7-4.0) \end{gathered}$ | $\begin{gathered} \mathbf{1 7 . 4} \\ (16.1-18.8) \end{gathered}$ | $\begin{gathered} 13.5 \\ (12.2-14.7) \end{gathered}$ |
| High <br> Cholesterol | $\begin{gathered} \mathbf{1 4 . 9} \\ (13.5-16.3) \end{gathered}$ | $\begin{gathered} 3.6 \\ (2.9-4.4) \end{gathered}$ | $\begin{gathered} 31.6 \\ (29.8-33.5) \end{gathered}$ | $\begin{gathered} 13.7 \\ (12.4-15.1) \end{gathered}$ | $\begin{gathered} 15.1 \\ (13.6-16.6) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 9} \\ (0.5-1.3) \end{gathered}$ | $\begin{gathered} 2.2 \\ (1.6-2.8) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 9} \\ (7.8-10.0) \end{gathered}$ | $\begin{gathered} \mathbf{2 1 . 0} \\ (19.4-22.6) \end{gathered}$ | $\begin{gathered} 39.9 \\ (37.9-41.9) \end{gathered}$ | $\begin{gathered} 10.3 \\ (9.1-11.5) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 0} \\ (6.9-9.1) \end{gathered}$ | $\begin{gathered} 4.7 \\ (3.9-5.5) \end{gathered}$ | $\begin{gathered} 20.9 \\ (19.3-22.5) \end{gathered}$ | $\begin{gathered} \text { 16.1 } \\ (14.6-17.6) \end{gathered}$ |
| CVD | $\begin{gathered} \mathbf{8 . 4} \\ (7.5-9.4) \end{gathered}$ | $\begin{gathered} 1.6 \\ (1.2-2.1) \end{gathered}$ | $\begin{gathered} 10.8 \\ (9.7-11.9) \end{gathered}$ | $\begin{gathered} 6.3 \\ (5.5-7.2) \end{gathered}$ | $\begin{gathered} 4.9 \\ (4.2-5.7) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 2 *} \\ (0.0-0.4) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 6} \\ (0.3-0.9) \end{gathered}$ | $\begin{gathered} 3.3 \\ (2.7-3.9) \end{gathered}$ | $\begin{gathered} 8.7 \\ (7.7-9.7) \end{gathered}$ | $\begin{gathered} 10.3 \\ (9.1-11.5) \end{gathered}$ | $\begin{gathered} 13.7 \\ (12.5-14.9) \end{gathered}$ | $\begin{gathered} 3.8 \\ (3.1-4.4) \end{gathered}$ | $\begin{gathered} \mathbf{2 . 1} \\ (1.6-2.6) \end{gathered}$ | $\begin{gathered} 8.4 \\ (7.4-9.3) \end{gathered}$ | $\begin{gathered} 8.2 \\ (7.2-9.2) \end{gathered}$ |
| Diabetes | $\begin{gathered} \mathbf{6 . 1} \\ (5.2-6.9) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 0} \\ (0.7-1.4) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 1} \\ (7.2-9.1) \end{gathered}$ | $\begin{gathered} 4.6 \\ (3.9-5.4) \end{gathered}$ | $\begin{gathered} 5.8 \\ (5.0-6.6) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 1 ^ { * }} \\ (0.0-0.2) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 3}{ }^{*} \\ (0.1-0.5) \end{gathered}$ | $\begin{gathered} 1.8 \\ (1.4-2.3) \end{gathered}$ | $\begin{gathered} 6.8 \\ (6.0-7.7) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 0} \\ (6.9-9.1) \end{gathered}$ | $\begin{gathered} 3.8 \\ (3.1-4.4) \end{gathered}$ | $\begin{gathered} \mathbf{1 0 . 4} \\ (9.4-11.5) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 1} \\ (0.8-1.4) \end{gathered}$ | $\begin{gathered} 5.8 \\ (5.0-6.6) \end{gathered}$ | $\begin{gathered} 5.2 \\ (4.5-6.0) \end{gathered}$ |
| Current Asthma | $\begin{gathered} \text { 4.1 } \\ (3.4-4.8) \end{gathered}$ | $\begin{gathered} 1.7 \\ (1.1-2.3) \end{gathered}$ | $\begin{gathered} 7.4 \\ (6.4-8.4) \end{gathered}$ | $\begin{gathered} 3.4 \\ (2.7-4.0) \end{gathered}$ | $\begin{gathered} 3.6 \\ (2.9-4.4) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 2} \mathbf{2}^{*} \\ (0.0-0.3) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 5 *} \\ (0.2-0.8) \end{gathered}$ | $\begin{gathered} 2.7 \\ (2.0-3.3) \end{gathered}$ | $\begin{gathered} 3.4 \\ (2.7-4.0) \end{gathered}$ | $\begin{gathered} 4.7 \\ (3.9-5.5) \end{gathered}$ | $\begin{gathered} 2.1 \\ (1.6-2.6) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 1} \\ (0.8-1.4) \end{gathered}$ | $\begin{gathered} 9.2 \\ (8.1-10.4) \end{gathered}$ | $\begin{gathered} 4.7 \\ (4.0-5.4) \end{gathered}$ | $\begin{gathered} 4.5 \\ (3.7-5.2) \end{gathered}$ |
| Arthritis | $\begin{gathered} \mathbf{1 4 . 7} \\ (13.5-15.9) \end{gathered}$ | $\begin{gathered} 4.2 \\ (3.5-4.9) \end{gathered}$ | $\begin{gathered} 27.4 \\ (25.8-29.1) \end{gathered}$ | $\begin{gathered} 12.8 \\ (11.6-13.9) \end{gathered}$ | $\begin{gathered} \mathbf{1 3 . 0} \\ (11.8-14.2) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 0} \\ (0.6-1.4) \end{gathered}$ | $\begin{gathered} 2.2 \\ (1.7-2.8) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 4} \\ (7.4-9.4) \end{gathered}$ | $\begin{gathered} \mathbf{1 7 . 4} \\ (16.1-18.8) \end{gathered}$ | $\begin{gathered} 20.9 \\ (19.3-22.5) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 4} \\ (7.4-9.3) \end{gathered}$ | $\begin{gathered} \mathbf{5 . 8} \\ (5.0-6.6) \end{gathered}$ | $\begin{gathered} 4.7 \\ (4.0-5.4) \end{gathered}$ | $\begin{gathered} 34.9 \\ (33.1-36.6) \end{gathered}$ | $\begin{gathered} \mathbf{1 7 . 0} \\ (15.7-18.3) \end{gathered}$ |
| Disabled | $\begin{gathered} 16.2 \\ (14.8-17.5) \end{gathered}$ | $\begin{gathered} 5.0 \\ (4.1-5.9) \end{gathered}$ | $\begin{gathered} 22.4 \\ (20.8-23.9) \end{gathered}$ | $\begin{gathered} 12.3 \\ (11.1-13.5) \end{gathered}$ | $\begin{gathered} 11.1 \\ (9.9-12.3) \end{gathered}$ | $\begin{gathered} \mathbf{0 . 8} \\ (0.4-1.1) \end{gathered}$ | $\begin{gathered} \mathbf{1 . 8} \\ (1.2-2.3) \end{gathered}$ | $\begin{gathered} 8.8 \\ (7.7-9.9) \end{gathered}$ | $\begin{gathered} 13.5 \\ (12.2-14.7) \end{gathered}$ | $\begin{gathered} \mathbf{1 6 . 1} \\ (14.6-17.6) \end{gathered}$ | $\begin{gathered} \mathbf{8 . 2} \\ (7.2-9.2) \end{gathered}$ | $\begin{gathered} 5.2 \\ (4.5-6.0) \end{gathered}$ | $\begin{gathered} 4.5 \\ (3.7-5.2) \end{gathered}$ | $\begin{gathered} \mathbf{1 7 . 0} \\ (15.7-18.3) \end{gathered}$ | $\begin{gathered} 27.4 \\ (25.7-29.1) \end{gathered}$ |

* Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.


## Appendix A

## Behavioral Risk Factor Prevalences by Year West Virginia Behavioral Risk Factor Surveys <br> 1997-2005

| Behavioral Risk | 1997 <br> (52 Partic.) |  | 1998 <br> (52 Partic.) |  | 1999(52 Partic.) |  | $2000$ <br> (52 Partic.) |  | $2001$ <br> (54 Partic.) |  | $2002$ <br> (54 Partic.) |  | 2003 <br> (54 Partic.) |  | 2004 <br> (52 Partic.) |  | 2005 <br> (53 Partic.) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Factor | \% | Rank | \% | Rank | \% | Rank | \% | Rank | \% | Rank | \% | Rank | \% | Rank | \% | Rank | \% | Rank |
| Hypertension ${ }^{\text {a }}$ | 28.3 | 3 | -- | -- | 31.0 | 3 | -- | -- | 32.5 | 1 | 33.1 | 1 | 33.6 | 1 | -- | -- | 31.4 | 2 |
| Obesity ${ }^{\text {b }}$ | 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 |
| Physical Inactivty | -- | -- | 43.7 | 3 | -- | -- | 33.6 | 6 | 31.7 | 7 | 28.4 | 10 | 28.0 | 11 | 24.5 | 18 | 28.5 | 11 |
| 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 |
| Smokeless Tobacco ${ }^{\text {c }}$ | 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 ${ }^{\text {d }}$ | 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 |
| Seatbelt Nonuse ${ }^{e}$ | 29.3 | 30 | 29.8 | 4 | 29.7 | -- | -- | -- | -- | -- | 25.6 | 18 | -- | -- | -- | -- | -- | -- |

Source: Centers for Disease Control \& Prevention - 1997-2005 Beahvioral Risk Factor Data; West Virginia Health Statistics Center, 2006.
-- Prevalence / rank not available
${ }^{a}$ Hypertension: Asked in 13 states/territories in 2002.
${ }^{\text {b }}$ 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).
${ }^{\text {c }}$ Smokeless Tobacco Use: Asked in 17 states/territories in 1997; 13-1998; 19-1999; 18-2000; 15-2001; 15-2002; 12-2003; 14-2004.
${ }^{\text {a }}$ 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.
${ }^{e}$ 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.

Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories ${ }^{\text {a }}$ United States, 1997

| State | No Health Insurance, Ages 18-64 |  | Diabetes Awareness |  | Hypertension Awareness |  | Obesity ${ }^{\text {b }}$ |  | Current <br> Smoking |  | Smokeless <br> Tobacco Use |  | Binge Drinking |  | Heavy Drinking ${ }^{\text {c }}$ |  | Drinking \& Driving |  | Searbelt <br> Nonuse |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 17.3 | 16 | 7.0 | 2 | 28.9 | 2 | 18.2 | 15 | 24.6 | 14 | 5.4 | 5 | 11.4 | 37 | 4.0 | 19 | 1.5 | 36 | 33.7 | 21 |
| Alaska | 22.8 | 4 | 3.3 | 48 | 22.6 | 31 | 19.7 | 5 | 26.5 | 8 | 5.6 | 4 | 16.5 | 10 | 3.2 | 37 | 2.2 | 23 | 34.1 | 20 |
| Arizona | 17.9 | 13 | 3.1 | 49 | 16.3 | 52 | 12.4 | 51 | 21.1 | 42 | 1.4 | 17 | 8.8 | 46 | 3.7 | 26 | 1.4 | 39 | 19.5 | 45 |
| Arkansas | 21.6 | 9 | 5.1 | 17 | 26.3 | 8 | 18.1 | 16 | 28.4 | 3 |  |  | 9.2 | 43 | 2.8 | 43 | 1.6 | 33 | 34.3 | 19 |
| California | 22.7 | 5 | 5.6 | 12 | 21.2 | 42 | 16.0 | 32 | 18.4 | 50 |  |  | 15.2 | 19 |  |  | 2.5 | 18 | 12.7 | 52 |
| Colorado | 14.0 | 28 | 3.9 | 43 | 20.4 | 49 | 11.8 | 52 | 22.5 | 33 |  |  | 15.3 | 18 | 3.3 | 33 | 2.5 | 18 | 28.5 | 31 |
| Connecticut | 10.8 | 49 | 5.1 | 17 | 20.6 | 47 | 14.7 | 42 | 21.6 | 40 |  |  | 15.5 | 16 | 3.8 | 21 | 2.1 | 24 | 30.7 | 26 |
| Delaware | 13.0 | 35 | 6.4 | 4 | 25.5 | 10 | 18.8 | 12 | 26.6 | 7 |  |  | 11.9 | 36 | 3.6 | 29 | 2.0 | 25 | 30.1 | 28 |
| D.C. | 13.2 | 33 | 4.6 | 33 | 19.4 | 51 | 14.5 | 45 | 18.8 | 48 |  |  | 12.1 | 35 | 4.7 | 11 | 2.5 | 18 | 21.9 | 44 |
| Florida | 22.6 | 6 | 5.7 | 11 | 26.0 | 9 | 16.1 | 31 | 23.6 | 23 |  |  | 13.1 | 32 | 5.7 | 5 | 1.9 | 26 | 23.8 | 42 |
| Georgia | 13.7 | 31 | 4.1 | 38 | 21.4 | 40 | 14.4 | 46 | 22.4 | 35 | 4.0 | 8 | 9.4 | 41 | 2.8 | 43 | 1.0 | 43 | 24.6 | 39 |
| Hawaii | 7.4 | 52 | 5.0 | 20 | 23.9 | 18 | 13.6 | 50 | 18.7 | 49 |  |  | 17.1 | 9 | 5.8 | 4 | 2.4 | 21 | 12.8 | 51 |
| Idaho | 20.1 | 11 | 4.0 | 41 | 24.1 | 16 | 16.3 | 29 | 19.9 | 47 |  |  | 14.9 | 22 | 3.8 | 21 | 1.3 | 40 | 40.4 | 10 |
| Illinois | 13.5 | 32 | 7.0 | 2 | 24.3 | 15 | 17.1 | 21 | 23.2 | 26 |  |  | 16.3 | 11 | 4.4 | 15 | 2.8 | 14 | 31.8 | 25 |
| Indiana | 14.6 | 25 | 5.2 | 15 | 25.2 | 12 | 21.2 | 3 | 26.4 | 9 | 3.3 | 12 | 12.6 | 34 | 3.6 | 29 | 1.9 | 26 | 38.1 | 13 |
| Iowa | 12.0 | 41 | 4.6 | 33 | 23.4 | 21 | 19.4 | 7 | 23.1 | 28 |  |  | 17.9 | 6 | 4.4 | 15 | 3.8 | 3 | 32.8 | 23 |
| Kansas | 11.5 | 45 | 3.0 | 51 | 20.9 | 44 | 14.7 | 42 | 22.6 | 32 | 5.0 | 7 | 13.3 | 31 | 3.4 | 32 | 2.7 | 15 | 46.1 | 4 |
| Kentucky | 16.8 | 19 | 5.3 | 14 | 27.1 | 6 | 21.8 | 2 | 30.7 | 1 | 6.2 | 3 | 9.4 | 41 | 2.4 | 47 | 0.6 | 52 | 34.5 | 18 |
| Louisiana | 24.4 | 3 | 5.5 | 13 | 25.1 | 13 | 19.6 | 6 | 24.5 | 16 | 3.7 | 11 | 15.2 | 19 | 5.1 | 9 | 3.2 | 9 | 25.6 | 37 |
| Maine | 14.3 | 27 | 4.9 | 22 | 22.8 | 28 | 16.2 | 30 | 22.7 | 31 |  |  | 13.8 | 30 | 3.7 | 26 | 0.9 | 46 | 30.4 | 27 |
| Maryland | 11.7 | 44 | 5.9 | 7 | 23.8 | 19 | 17.5 | 19 | 20.4 | 46 |  |  | 6.3 | 52 | 2.2 | 48 | 0.9 | 46 | 23.8 | 42 |
| Massachusetts | 11.0 | 48 | 4.7 | 28 | 19.8 | 50 | 14.8 | 41 | 20.5 | 44 |  |  | 17.9 | 6 | 6.0 | 3 | 1.8 | 29 | 37.0 | 15 |
| Michigan | 11.8 | 42 | 5.8 | 10 | 23.3 | 22 | 19.3 | 9 | 26.0 | 10 |  |  | 18.9 | 4 | 5.1 | 9 | 3.5 | 8 | 27.7 | 33 |
| Minnesota | 9.6 | 50 | 3.9 | 43 | 21.2 | 42 | 16.5 | 27 | 21.8 | 39 |  |  | 15.6 | 15 | 3.8 | 21 | 3.8 | 3 | 40.2 | 11 |
| Mississippi | 18.3 | 12 | 6.1 | 6 | 34.4 | 1 | 22.0 | 1 | 23.1 | 28 |  |  | 9.5 | 40 | 3.0 | 40 | 1.2 | 41 | 43.4 | 5 |
| Missouri | 15.0 | 24 | 4.8 | 26 | 27.3 | 5 | 19.1 | 10 | 28.6 | 2 |  |  | 15.0 | 21 | 3.1 | 39 | 3.0 | 12 | 38.1 | 13 |
| Montana | 17.9 | 13 | 3.1 | 49 | 22.9 | 27 | 14.6 | 44 | 20.5 | 44 | 5.3 | 6 | 14.0 | 29 | 2.6 | 45 | 2.6 | 16 | 42.4 | 7 |
| Nebraska | 9.5 | 51 | 4.2 | 36 | 22.4 | 35 | 17.0 | 22 | 22.1 | 37 |  |  | 16.3 | 11 | 3.3 | 33 | 3.8 | 3 | 42.2 | 8 |
| Nevada | 16.7 | 20 | 4.0 | 41 | 24.1 | 16 | 14.1 | 48 | 28.0 | 4 |  |  | 19.2 | 3 | 6.1 | 2 | 3.1 | 11 | 26.2 | 35 |
| New Hampshire | 12.3 | 40 | 3.9 | 43 | 22.6 | 31 | 14.2 | 47 | 24.7 | 13 |  |  | 16.1 | 13 | 3.8 | 21 | 1.9 | 26 | 41.6 | 9 |
| New Jersey | 14.0 | 28 | 5.2 | 15 | 23.6 | 20 | 16.0 | 32 | 21.4 | 41 |  |  | 13.1 | 32 | 2.9 | 41 | 1.5 | 36 | 27.6 | 34 |
| New Mexico | 25.7 | 2 | 4.9 | 22 | 21.3 | 41 | 14.9 | 40 | 22.1 | 37 |  |  | 14.6 | 24 | 4.7 | 11 | 1.7 | 30 | 16.5 | 48 |
| New York | 16.9 | 18 | 4.8 | 26 | 22.7 | 30 | 16.0 | 32 | 23.1 | 28 |  |  | 9.2 | 43 | 3.5 | 31 | 0.8 | 46 | 25.5 | 38 |
| North Carolina | 17.2 | 17 | 5.0 | 20 | 23.3 | 22 | 18.3 | 14 | 25.8 | 11 |  |  | 9.0 | 45 | 3.3 | 33 | 1.1 | 42 | 15.2 | 50 |
| North Dakota | 14.4 | 26 | 3.5 | 47 | 25.5 | 10 | 17.0 | 22 | 22.3 | 36 |  |  | 18.4 | 5 | 3.2 | 37 | 3.7 | 3 | 59.6 | 1 |
| Ohio | 12.7 | 39 | 4.7 | 28 | 22.0 | 37 | 17.7 | 17 | 25.1 | 12 | 2.4 | 16 | 8.7 | 48 | 2.6 | 45 | 1.0 | 43 | 30.0 | 29 |
| Oklahoma | 20.9 | 10 | 5.9 | 7 | 21.7 | 38 | 15.1 | 38 | 24.6 | 14 | 3.8 | 9 | 8.8 | 46 | 2.9 | 41 | 1.5 | 36 | 36.9 | 16 |
| Oregon | 15.2 | 23 | 4.7 | 28 | 22.8 | 28 | 19.4 | 7 | 20.7 | 43 |  |  | 14.3 | 28 | 4.6 | 13 | 1.6 | 33 | 16.0 | 49 |
| Pennsylvania | 11.5 | 45 | 5.1 | 17 | 21.7 | 38 | 17.5 | 19 | 24.2 | 20 | 3.8 | 9 | 14.6 | 24 | 3.7 | 26 | 1.7 | 30 | 32.5 | 24 |
| Puerto Rico | 11.8 | 42 | 10.5 | 1 | 20.9 | 44 | 19.0 | 11 | 14.4 | 51 |  |  | 10.9 | 38 | 4.0 | 19 | 3.2 | 9 | 24.5 | 40 |
| Rhode Island | 13.1 | 34 | 4.9 | 22 | 22.5 | 33 | 13.8 | 49 | 24.3 | 18 |  |  | 14.9 | 22 | 5.4 | 8 | 1.6 | 33 | 43.1 | 6 |
| South Carolina | 17.6 | 15 | 4.9 | 22 | 26.8 | 7 | 16.9 | 25 | 23.4 | 24 | 2.8 | 14 | 9.7 | 39 | 3.8 | 21 | 0.9 | 46 | 19.5 | 45 |
| South Dakota | 16.4 | 21 | 3.8 | 46 | 20.6 | 47 | 17.0 | 22 | 24.3 | 18 |  |  | 20.9 | 2 | 4.3 | 18 | 3.7 | 6 | 57.9 | 2 |
| Tennessee | 13.9 | 30 | 4.4 | 35 | 27.8 | 4 | 17.7 | 17 | 26.9 | 6 |  |  | 7.2 | 51 | 2.0 | 50 | 1.0 | 43 | 33.5 | 22 |
| Texas | 28.2 | 1 | 5.9 | 7 | 23.1 | 25 | 18.7 | 13 | 22.5 | 33 |  |  | 17.4 | 8 | 5.5 | 6 | 4.0 | 2 | 18.6 | 47 |
| Utah | 12.8 | 37 | 4.1 | 38 | 22.5 | 33 | 15.2 | 36 | 13.8 | 52 |  |  | 7.7 | 50 | 1.9 | 51 | 0.8 | 50 | 35.0 | 17 |
| Vermont | 16.5 | 21 | 4.7 | 28 | 20.9 | 44 | 15.9 | 35 | 23.3 | 25 |  |  | 16.1 | 13 | 5.5 | 6 | 3.0 | 12 | 26.2 | 35 |
| Virginia | 12.8 | 37 | 4.2 | 36 | 24.5 | 14 | 16.4 | 28 | 24.4 | 17 | 3.0 | 13 | 14.5 | 26 | 4.4 | 15 | 2.4 | 21 | 28.3 | 32 |
| Washington | 13.0 | 35 | 4.1 | 38 | 23.2 | 24 | 15.2 | 36 | 23.8 | 22 | 2.8 | 14 | 14.5 | 26 | 4.5 | 14 | 1.7 | 30 | 24.1 | 41 |
| West Virginia | 22.4 | 7 | 6.3 | 5 | 28.3 | 3 | 20.6 | 4 | 27.4 | 5 | 8.7 | 1 | 8.4 | 49 | 2.2 | 48 | 0.8 | 50 | 29.3 | 30 |
| Wisconsin | 11.2 | 46 | 4.7 | 27 | 23.1 | 25 | 16.6 | 26 | 23.2 | 26 |  |  | 23.3 | 1 | 6.2 | 1 | 5.2 | 1 | 38.7 | 12 |
| Wyoming | 22.4 | 7 | 3.0 | 51 | 22.1 | 36 | 15.0 | 39 | 24.0 | 21 | 7.6 | 2 | 15.4 | 17 | 3.3 | 33 | 2.6 | 16 | 49.8 | 3 |
| US Total | 16.9 |  | 5.2 |  | 23.2 |  | 16.9 |  | 22.9 |  | N/A |  | 13.4 |  | 4.0 |  | 2.1 |  | 26.7 |  |

Source: Centers for Disease Control \& Prevention - 1997 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2005.
NOTE: Figures in Appendix B may not agree with 1997 data in 2002 and earlier year BRFSS reports. Rates have been re-calculated to exclude unknown responses.
a. 52 states/territories conducted the survey. States/territories with the same prevalence share the same rank.
b. Obesity has been redefined to match the current definition: a BMI of 30 or higher.
c. Heavy drinking has been redefined to match the 2001 definition: more than two drinks per day for men and more than one drink per day for women.

Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories ${ }^{\text {a }}$ United States, 1998

| State | Fair or Poor Health |  | No Health <br> Insurance, <br> Ages 18-64 |  | Diabetes Awareness |  | Obesity ${ }^{\text {b }}$ |  | No Leisure Exercise |  | Less Than 5 <br> Per Day <br> Fruits/Veg |  | Current <br> Smoking |  | Smokeless Tobacco Use |  | No Flu Shot Past 12 Mo., Ages 65+ |  | Never had Pneumovax, Ages 65+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 21.3 | 4 | 19.5 | 12 | 7.0 | 5 | 21.3 | 5 | 29.7 | 22 | 76.1 | 28 | 24.6 | 14 |  |  |  |  |  |  |
| Alaska | 11.0 | 46 | 21.8 | 7 | 3.0 | 51 | 21.4 | 4 | 23.5 | 41 | 76.8 | 23 | 26.1 | 7 | 5.4 | 4 |  |  |  |  |
| Arizona | 10.3 | 50 | 15.8 | 22 | 2.8 | 52 | 13.1 | 52 | 51.3 | 2 | 90.9 | 2 | 21.8 | 36 |  |  |  |  |  |  |
| Arkansas | 20.4 | 6 | 19.1 | 14 | 6.7 | 7 | 19.8 | 15 | 35.9 | 8 | 72.1 | 45 | 25.9 | 11 |  |  |  |  |  |  |
| California | 14.6 | 18 | 21.2 | 9 | 5.5 | 24 | 17.3 | 33 | 25.5 | 34 | 72.5 | 43 | 19.2 | 48 |  |  |  |  |  |  |
| Colorado | 11.6 | 43 | 17.3 | 17 | 4.6 | 34 | 14.4 | 49 | 21.3 | 45 | 74.0 | 36 | 22.8 | 27 |  |  |  |  |  |  |
| Connecticut | 11.7 | 41 | 10.6 | 45 | 4.5 | 35 | 15.5 | 42 | 27.2 | 28 | 72.0 | 47 | 20.9 | 43 |  |  |  |  |  |  |
| Delaware | 12.8 | 26 | 9.7 | 51 | 4.4 | 37 | 17.2 | 34 | 35.4 | 10 | 73.3 | 40 | 24.5 | 16 | 1.1 | 13 |  |  |  |  |
| D.C. | 12.4 | 30 | 13.0 | 33 | 7.1 | 4 | 20.2 | 11 | 38.5 | 6 | 82.3 | 7 | 21.6 | 38 |  |  |  |  |  |  |
| Florida | 15.5 | 13 | 22.4 | 5 | 6.3 | 10 | 18.0 | 30 | 31.1 | 18 | 75.1 | 30 | 22.0 | 34 |  |  |  |  |  |  |
| Georgia | 15.9 | 12 | 16.9 | 19 | 5.9 | 16 | 19.2 | 21 | 29.6 | 23 | 79.3 | 14 | 23.6 | 21 |  |  | 36.9 | 4 | 49.6 | 8 |
| Hawaii | 12.3 | 32 | 7.0 | 52 | 5.6 | 21 | 15.5 | 42 | 18.0 | 50 | 72.5 | 43 | 19.5 | 47 |  |  |  |  |  |  |
| Idaho | 12.2 | 35 | 18.3 | 16 | 4.3 | 42 | 16.4 | 36 | 20.4 | 47 | 76.2 | 26 | 20.3 | 45 | 3.6 | 7 |  |  |  |  |
| Illinois | 12.5 | 28 | 13.0 | 33 | 6.2 | 12 | 18.5 | 25 | 27.1 | 29 | 77.3 | 21 | 23.1 | 25 |  |  | 35.3 | 6 | 45.3 | 11 |
| Indiana | 13.3 | 25 | 15.9 | 21 | 6.0 | 13 | 19.9 | 14 | 27.1 | 29 | 76.5 | 24 | 26.0 | 9 | 2.6 | 12 | 33.7 | 8 | 53.2 | 4 |
| Iowa | 11.2 | 44 | 10.7 | 44 | 5.2 | 29 | 19.8 | 15 | 26.7 | 31 | 81.4 | 9 | 23.4 | 22 |  |  |  |  |  |  |
| Kansas | 12.0 | 38 | 13.0 | 33 | 4.0 | 44 | 17.7 | 31 | 38.3 | 7 | 76.5 | 24 | 21.1 | 42 |  |  |  |  |  |  |
| Kentucky | 21.9 | 3 | 17.3 | 17 | 5.6 | 21 | 20.4 | 10 | 42.6 | 5 | 84.3 | 4 | 30.8 | 1 |  |  |  |  |  |  |
| Louisiana | 16.1 | 10 | 25.9 | 2 | 6.4 | 8 | 21.8 | 3 | 32.2 | 17 | 82.7 | 6 | 25.5 | 12 |  |  | 40.3 | 1 | 60.4 | 1 |
| Maine | 12.5 | 28 | 15.7 | 25 | 3.6 | 48 | 17.4 | 32 | 27.7 | 26 | 73.6 | 39 | 22.4 | 31 |  |  |  |  |  |  |
| Maryland | 13.9 | 20 | 15.7 | 25 | 5.4 | 26 | 20.5 | 8 | 20.3 | 48 | 69.9 | 50 | 22.4 | 31 |  |  |  |  |  |  |
| Massachusetts | 10.9 | 47 | 10.5 | 46 | 3.9 | 45 | 14.3 | 50 | 25.4 | 36 | 69.0 | 51 | 20.9 | 43 |  |  |  |  |  |  |
| Michigan | 14.5 | 19 | 11.9 | 41 | 7.0 | 5 | 21.2 | 6 | 21.4 | 44 | 72.6 | 42 | 27.4 | 4 |  |  |  |  |  |  |
| Minnesota | 10.4 | 49 | 9.9 | 49 | 4.7 | 33 | 16.2 | 38 | 25.5 | 34 | 68.1 | 52 | 18.0 | 50 |  |  | 36.4 | 5 | 53.9 | 3 |
| Mississippi | 21.0 | 5 | 22.5 | 4 | 7.6 | 3 | 22.8 | 2 | 33.8 | 11 | 84.4 | 3 | 24.1 | 17 |  |  |  |  |  |  |
| Missouri | 15.2 | 14 | 15.8 | 22 | 5.7 | 19 | 20.5 | 8 | 27.9 | 24 | 80.0 | 11 | 26.4 | 6 |  |  |  |  |  |  |
| Montana | 12.0 | 38 | 21.3 | 8 | 3.6 | 48 | 15.0 | 47 | 25.2 | 37 | 76.2 | 26 | 21.4 | 39 | 6.8 | 3 | 27.1 | 13 | 44.1 | 12 |
| Nebraska | 12.3 | 32 | 9.8 | 50 | 5.2 | 29 | 18.3 | 26 | 26.1 | 32 | 82.3 | 7 | 22.0 | 34 |  |  |  |  |  |  |
| Nevada | 12.4 | 30 | 19.2 | 13 | 4.4 | 37 | 14.0 | 51 | 24.1 | 40 | 77.9 | 19 | 30.3 | 2 |  |  |  |  |  |  |
| New Hampshire | 9.9 | 52 | 13.7 | 32 | 3.9 | 45 | 15.6 | 41 | 24.8 | 38 | 72.1 | 45 | 23.3 | 24 |  |  |  |  |  |  |
| New Jersey | 11.8 | 40 | 11.8 | 42 | 5.4 | 26 | 15.5 | 42 | 32.6 | 16 | 73.9 | 37 | 19.1 | 49 |  |  | 33.3 | 9 | 52.8 | 5 |
| New Mexico | 15.0 | 17 | 25.7 | 3 | 5.0 | 31 | 15.2 | 45 | 23.0 | 43 | 79.3 | 14 | 22.5 | 30 |  |  |  |  |  |  |
| New York | 13.8 | 21 | 16.6 | 20 | 6.0 | 13 | 16.3 | 37 | 31.0 | 19 | 74.5 | 33 | 24.1 | 17 |  |  |  |  |  |  |
| North Carolina | 16.6 | 9 | 15.2 | 27 | 6.4 | 8 | 19.4 | 18 | 27.7 | 26 | 78.6 | 17 | 24.6 | 14 |  |  |  |  |  |  |
| North Dakota | 13.7 | 22 | 12.7 | 38 | 4.2 | 43 | 19.2 | 21 | 33.1 | 14 | 77.2 | 22 | 20.0 | 46 | 4.0 | 5 |  |  |  |  |
| Ohio | 16.1 | 10 | 10.4 | 47 | 5.8 | 18 | 20.0 | 13 | 29.8 | 21 | 84.0 | 5 | 26.0 | 7 | 3.5 | 8 | 31.0 | 10 | 51.4 | 6 |
| Oklahoma | 12.6 | 27 | 22.3 | 6 | 7.8 | 2 | 19.5 | 17 | 42.9 | 4 | 79.7 | 13 | 23.9 | 19 | 3.8 | 6 |  |  |  |  |
| Oregon | 13.4 | 24 | 15.8 | 22 | 5.3 | 28 | 18.3 | 26 | 18.9 | 49 | 75.1 | 30 | 21.1 | 41 |  |  |  |  |  |  |
| Pennsylvania | 15.1 | 16 | 12.9 | 36 | 5.6 | 21 | 19.4 | 18 | 32.7 | 15 | 75.1 | 30 | 23.8 | 20 |  |  |  |  |  |  |
| Puerto Rico | 32.4 | 1 | 12.6 | 39 | 9.6 | 1 | 19.3 | 20 | 57.4 | 1 | 91.9 | 1 | 15.3 | 51 |  |  |  |  |  |  |
| Rhode Island | 13.5 | 23 | 11.7 | 43 | 6.0 | 13 | 16.8 | 35 | 29.9 | 20 | 75.4 | 29 | 22.6 | 29 |  |  |  |  |  |  |
| South Carolina | 15.2 | 14 | 18.7 | 15 | 5.7 | 19 | 20.6 | 7 | 33.7 | 12 | 78.2 | 18 | 24.7 | 13 | 3.1 | 9 | 37.5 | 2 | 49.3 | 9 |
| South Dakota | 11.7 | 41 | 15.2 | 27 | 3.1 | 50 | 15.8 | 40 | 33.3 | 13 | 80.0 | 11 | 27.2 | 5 |  |  |  |  |  |  |
| Tennessee | 18.2 | 8 | 14.8 | 29 | 5.9 | 16 | 19.2 | 21 | 35.8 | 9 | 70.3 | 49 | 26.1 | 9 |  |  | 30.4 | 11 | 48.9 | 10 |
| Texas | 18.6 | 7 | 27.5 | 1 | 5.5 | 24 | 20.2 | 11 | 27.9 | 24 | 77.5 | 20 | 21.9 | 36 |  |  | 35.3 | 6 | 50.1 | 7 |
| Utah | 10.8 | 48 | 13.8 | 30 | 4.4 | 37 | 15.9 | 39 | 17.1 | 52 | 73.8 | 38 | 14.2 | 52 |  |  |  |  |  |  |
| Vermont | 10.0 | 51 | 12.4 | 40 | 4.4 | 37 | 14.8 | 48 | 26.0 | 33 | 70.8 | 48 | 22.3 | 33 |  |  |  |  |  |  |
| Virginia | 12.3 | 32 | 13.8 | 30 | 4.5 | 35 | 18.7 | 24 | 24.8 | 38 | 73.0 | 41 | 22.9 | 26 | 3.0 | 10 |  |  |  |  |
| Washington | 11.1 | 45 | 12.8 | 37 | 4.9 | 32 | 18.1 | 29 | 17.6 | 51 | 74.2 | 35 | 21.4 | 39 | 3.0 | 10 |  |  |  |  |
| West Virginia | 23.9 | 2 | 20.6 | 10 | 6.3 | 10 | 23.9 | 1 | 43.7 | 3 | 81.3 | 10 | 27.9 | 3 | 8.4 | 1 | 37.1 | 3 | 54.9 | 2 |
| Wisconsin | 12.1 | 36 | 10.0 | 48 | 4.4 | 37 | 18.3 | 26 | 23.4 | 42 | 74.3 | 34 | 23.4 | 22 |  |  |  |  |  |  |
| Wyoming | 12.1 | 36 | 20.2 | 11 | 3.7 | 47 | 15.1 | 46 | 21.0 | 46 | 78.8 | 16 | 22.8 | 27 | 6.9 | 2 | 28.6 | 12 | 44.1 | 12 |
| US Total | 14.8 |  | 16.8 |  | 5.6 |  | 18.4 |  | 29.1 |  | 76.1 |  | 22.8 |  | N/A |  | N/A |  | N/A |  |

Source: Centers for Disease Control \& Prevention - 1998 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2005.
NOTE: Figures in Appendix C may not agree with 1998 data in 2002 and earlier year BRFSS reports. Rates have been re-calculated to exclude unknown responses.
a. 52 states/territories conducted the survey. States/territories with the same prevalence share the same rank.
b. Obesity has been redefined to match the current definition: a BMI of 30 or higher.

| State | Fair or Poor Health |  | No Health Insurance, Ages 18-64 |  | Diabetes Awareness |  | Hypertension Awareness |  | Obesity (BMI 30+) |  | Current <br> Smoking |  | Smokeless <br> Tobacco Use |  | Binge Drinking |  | Heavy Drinking ${ }^{\text {b }}$ |  | Drinking \& Driving |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 18.4 | 8 | 18.0 | 17 | 7.4 | 3 | 31.2 | 2 | 22.4 | 5 | 23.5 | 19 |  |  | 11.7 | 43 | 4.0 | 35 | 1.9 | 36 |
| Alaska | 10.7 | 47 | 24.8 | 4 | 3.5 | 52 | 21.3 | 46 | 20.4 | 20 | 27.3 | 4 | 5.4 | 5 | 18.9 | 8 | 5.1 | 18 | 2.1 | 32 |
| Arizona | 8.4 | 52 | 16.7 | 20 | 4.3 | 45 | 14.2 | 52 | 12.3 | 52 | 20.1 | 46 | 0.8 | 18 | 8.8 | 49 | 7.7 | 2 | 1.8 | 38 |
| Arkansas | 19.7 | 6 | 19.8 | 14 | 6.6 | 7 | 28.4 | 6 | 22.7 | 4 | 27.2 | 5 |  |  | 10.3 | 46 | 3.3 | 44 | 1.5 | 44 |
| California | 15.8 | 13 | 22.2 | 6 | 6.1 | 15 | 23.0 | 33 | 18.7 | 31 | 18.7 | 49 |  |  | 15.5 | 24 |  |  | 2.3 | 29 |
| Colorado | 11.5 | 43 | 16.3 | 21 | 3.8 | 51 | 22.2 | 39 | 14.9 | 49 | 22.5 | 27 | 3.8 | 10 | 17.2 | 17 | 5.7 | 11 | 3.6 | 10 |
| Connecticut | 11.6 | 41 | 12.3 | 41 | 4.3 | 45 | 20.4 | 51 | 15.1 | 48 | 22.8 | 26 |  |  | 14.0 | 31 | 4.5 | 27 | 2.9 | 17 |
| Delaware | 12.4 | 34 | 11.3 | 45 | 6.0 | 21 | 25.5 | 17 | 17.5 | 38 | 25.5 | 9 |  |  | 18.9 | 8 | 5.5 | 14 | 3.2 | 13 |
| D.C. | 13.0 | 27 | 15.2 | 24 | 6.5 | 9 | 24.7 | 21 | 18.5 | 33 | 20.6 | 41 |  |  | 13.0 | 34 | 4.1 | 34 | 1.4 | 47 |
| Florida | 15.3 | 15 | 20.4 | 9 | 6.9 | 5 | 27.8 | 7 | 18.6 | 32 | 20.6 | 41 |  |  | 12.9 | 35 | 5.1 | 18 | 2.0 | 34 |
| Georgia | 15.0 | 16 | 15.6 | 23 | 5.6 | 27 | 26.3 | 12 | 21.1 | 14 | 23.8 | 16 |  |  | 12.5 | 37 | 3.9 | 36 | 1.5 | 44 |
| Hawaii | 14.3 | 18 | 10.3 | 49 | 5.2 | 35 | 22.7 | 37 | 15.7 | 46 | 18.5 | 50 |  |  | 14.0 | 31 | 5.6 | 13 | 2.3 | 29 |
| Idaho | 12.9 | 28 | 20.0 | 12 | 4.8 | 41 | 23.0 | 33 | 20.0 | 23 | 21.5 | 37 |  |  | 14.7 | 29 | 4.3 | 31 | 1.8 | 38 |
| Illinois | 14.7 | 17 | 13.6 | 32 | 6.4 | 10 | 26.7 | 10 | 20.9 | 17 | 24.2 | 14 |  |  | 19.7 | 4 | 6.1 | 8 | 4.4 | 3 |
| Indiana | 12.8 | 31 | 15.1 | 25 | 6.6 | 7 | 25.7 | 16 | 19.9 | 24 | 27.0 | 8 |  |  | 19.1 | 6 | 7.1 | 3 | 3.2 | 13 |
| Iowa | 12.1 | 37 | 10.9 | 48 | 5.2 | 35 | 24.2 | 24 | 21.5 | 11 | 23.5 | 19 |  |  | 18.3 | 10 | 5.9 | 9 | 3.9 | 7 |
| Kansas | 12.9 | 28 | 12.5 | 39 | 5.4 | 29 | 21.4 | 45 | 18.9 | 30 | 21.0 | 40 |  |  | 11.7 | 43 | 3.7 | 39 | 2.8 | 18 |
| Kentucky | 21.6 | 3 | 17.3 | 19 | 6.4 | 10 | 27.5 | 8 | 21.7 | 8 | 29.7 | 2 |  |  | 9.8 | 48 | 2.8 | 48 | 1.6 | 42 |
| Louisiana | 16.9 | 11 | 25.8 | 2 | 6.1 | 15 | 26.0 | 15 | 22.3 | 6 | 23.5 | 19 | 4.1 | 8 | 15.0 | 25 | 4.8 | 24 | 3.6 | 10 |
| Maine | 12.9 | 28 | 16.1 | 22 | 5.4 | 29 | 26.6 | 11 | 19.4 | 28 | 23.3 | 22 |  |  | 14.8 | 28 | 4.7 | 25 | 1.1 | 51 |
| Maryland | 14.2 | 19 | 11.1 | 47 | 6.8 | 6 | 24.5 | 23 | 18.2 | 34 | 20.3 | 44 |  |  | 15.9 | 21 | 5.1 | 18 | 2.4 | 24 |
| Massachusetts | 11.6 | 41 | 8.3 | 51 | 5.0 | 38 | 21.8 | 44 | 14.7 | 50 | 19.3 | 48 |  |  | 17.4 | 12 | 5.8 | 10 | 2.8 | 18 |
| Michigan | 11.5 | 43 | 11.4 | 44 | 5.4 | 29 | 25.2 | 18 | 22.8 | 3 | 25.1 | 11 |  |  | 19.0 | 7 | 7.0 | 4 | 3.1 | 15 |
| Minnesota | 10.0 | 49 | 6.8 | 52 | 4.8 | 41 | 22.0 | 41 | 15.5 | 47 | 19.5 | 47 |  |  | 16.3 | 20 | 5.4 | 15 | 4.1 | 5 |
| Mississippi | 20.9 | 4 | 20.3 | 11 | 7.9 | 2 | 33.5 | 1 | 23.2 | 2 | 22.9 | 25 | 6.1 | 4 | 12.1 | 40 | 4.3 | 31 | 2.7 | 21 |
| Missouri | 15.7 | 14 | 13.1 | 36 | 6.1 | 15 | 24.6 | 22 | 21.7 | 8 | 27.1 | 6 | 3.9 | 9 | 16.4 | 19 | 5.0 | 21 | 3.0 | 16 |
| Montana | 10.9 | 46 | 20.9 | 8 | 5.9 | 23 | 23.2 | 32 | 15.8 | 44 | 20.2 | 45 | 6.2 | 3 | 17.6 | 11 | 4.9 | 23 | 3.4 | 12 |
| Nebraska | 12.4 | 34 | 9.8 | 50 | 4.3 | 45 | 22.0 | 41 | 21.0 | 16 | 23.2 | 23 | 4.5 | 7 | 16.6 | 18 | 3.9 | 36 | 3.7 | 9 |
| Nevada | 13.8 | 21 | 21.2 | 7 | 5.8 | 24 | 29.1 | 4 | 15.8 | 44 | 31.5 | 1 | 3.2 | 13 | 21.0 | 2 | 9.3 | 1 | 5.5 | 1 |
| New Hampshire | 10.6 | 48 | 13.2 | 34 | 4.3 | 45 | 23.4 | 31 | 14.6 | 51 | 22.3 | 32 |  |  | 20.0 | 3 | 6.8 | 5 | 3.8 | 8 |
| New Jersey | 12.7 | 32 | 14.1 | 29 | 5.4 | 29 | 23.5 | 29 | 17.0 | 40 | 20.6 | 41 |  |  | 12.3 | 38 | 3.4 | 43 | 1.3 | 48 |
| New Mexico | 16.9 | 11 | 25.8 | 2 | 5.5 | 28 | 20.9 | 49 | 17.7 | 37 | 22.5 | 27 |  |  | 14.9 | 26 | 4.4 | 30 | 2.3 | 29 |
| New York | 13.7 | 22 | 17.4 | 18 | 5.7 | 26 | 22.9 | 35 | 17.4 | 39 | 21.8 | 35 | 0.8 | 18 | 13.9 | 33 | 4.5 | 27 | 1.6 | 42 |
| North Carolina | 17.9 | 9 | 13.6 | 32 | 6.1 | 15 | 24.0 | 26 | 21.5 | 11 | 25.1 | 11 |  |  | 12.0 | 42 | 2.9 | 47 | 1.7 | 40 |
| North Dakota | 12.2 | 36 | 13.8 | 31 | 5.0 | 38 | 26.1 | 14 | 21.9 | 7 | 22.1 | 34 |  |  | 19.7 | 4 | 4.2 | 33 | 4.4 | 3 |
| Ohio | 13.7 | 22 | 12.2 | 42 | 6.1 | 15 | 27.4 | 9 | 20.3 | 21 | 27.6 | 3 | 3.0 | 15 | 12.1 | 40 | 2.3 | 51 | 1.2 | 49 |
| Oklahoma | 17.4 | 10 | 20.4 | 9 | 5.8 | 24 | 20.9 | 49 | 21.1 | 14 | 25.2 | 10 | 5.0 | 6 | 8.1 | 51 | 2.5 | 49 | 2.5 | 23 |
| Oregon | 13.7 | 22 | 18.6 | 15 | 4.6 | 43 | 22.3 | 38 | 19.9 | 24 | 21.4 | 38 |  |  | 14.9 | 26 | 4.5 | 27 | 1.9 | 36 |
| Pennsylvania | 13.7 | 22 | 12.5 | 39 | 6.4 | 10 | 23.9 | 27 | 20.3 | 21 | 23.1 | 24 | 3.4 | 11 | 15.9 | 21 | 4.7 | 25 | 2.4 | 24 |
| Puerto Rico | 33.0 | 1 | 13.2 | 34 | 9.6 | 1 | 26.2 | 13 | 21.3 | 13 | 13.7 | 52 |  |  | 10.6 | 45 | 3.6 | 40 | 2.0 | 34 |
| Rhode Island | 12.6 | 33 | 12.6 | 38 | 5.3 | 33 | 22.9 | 35 | 16.8 | 42 | 22.3 | 32 |  |  | 15.6 | 23 | 5.2 | 16 | 2.6 | 22 |
| South Carolina | 13.9 | 20 | 18.2 | 16 | 6.4 | 10 | 25.2 | 18 | 20.6 | 18 | 23.6 | 18 |  |  | 12.3 | 38 | 5.0 | 21 | 2.1 | 32 |
| South Dakota | 13.1 | 26 | 13.0 | 37 | 4.9 | 40 | 23.8 | 28 | 19.6 | 27 | 22.5 | 27 |  |  | 17.4 | 12 | 3.6 | 40 | 4.1 | 5 |
| Tennessee | 19.9 | 5 | 14.2 | 27 | 6.0 | 21 | 28.6 | 5 | 20.5 | 19 | 24.8 | 13 |  |  | 7.7 | 52 | 2.5 | 49 | 1.5 | 44 |
| Texas | 19.2 | 7 | 26.3 | 1 | 6.2 | 14 | 24.2 | 24 | 21.6 | 10 | 22.4 | 30 | 3.2 | 13 | 17.3 | 15 | 5.7 | 11 | 2.8 | 18 |
| Utah | 10.0 | 49 | 14.2 | 27 | 4.2 | 50 | 21.3 | 46 | 16.7 | 43 | 14.0 | 51 | 1.8 | 17 | 10.2 | 47 | 3.1 | 45 | 1.2 | 49 |
| Vermont | 9.9 | 51 | 14.8 | 26 | 4.3 | 45 | 21.0 | 48 | 18.0 | 36 | 21.7 | 36 |  |  | 17.4 | 12 | 6.5 | 6 | 2.4 | 24 |
| Virginia | 11.7 | 40 | 11.2 | 46 | 6.1 | 15 | 23.5 | 29 | 19.3 | 29 | 21.4 | 38 | 3.3 | 12 | 12.7 | 36 | 3.9 | 36 | 2.4 | 24 |
| Washington | 12.0 | 38 | 14.1 | 29 | 5.2 | 35 | 22.1 | 40 | 18.2 | 34 | 22.4 | 30 | 2.7 | 16 | 14.4 | 30 | 5.2 | 16 | 1.7 | 40 |
| West Virginia | 23.9 | 2 | 22.3 | 5 | 7.3 | 4 | 31.0 | 3 | 24.6 | 1 | 27.1 | 6 | 8.6 | 1 | 8.5 | 50 | 3.0 | 46 | 1.1 | 51 |
| Wisconsin | 11.9 | 39 | 12.1 | 43 | 5.3 | 33 | 25.0 | 20 | 19.9 | 24 | 23.7 | 17 |  |  | 27.0 | 1 | 6.4 | 7 | 4.9 | 2 |
| Wyoming | 11.3 | 45 | 19.9 | 13 | 4.6 | 43 | 22.0 | 41 | 16.9 | 41 | 23.9 | 15 | 8.1 | 2 | 17.3 | 15 | 3.6 | 40 | 2.4 | 24 |
| US Total | 14.9 |  | 18.6 |  | 5.9 |  | 24.4 |  | 19.4 |  | 22.5 |  | N/A |  | 14.7 |  | 4.8 |  | 2.4 |  |

Source: Centers for Disease Control \& Prevention - 1999 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.
b. Heavy drinking has been redefined to match the 2001 definition: more than two drinks per day for men and more than one drink per day for women.

Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories ${ }^{\text {a }}$ 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 <br> Per Day Fruits/Veg |  | Current <br> 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 |  |  |  |  |
| US Total | 15.5 |  | 16.3 |  | 6.4 |  | 20.4 |  | 27.8 |  | 75.8 |  | 22.2 |  | N/A |  | N/A |  | N/A |  |

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.

| State | Fair or Poor Health |  | No Health <br> Insurance, <br> Ages 18-64 |  | Diabetes Awareness |  | Hypertension Awareness |  | Obesity (BMI 30+) |  | No Leisure Exercise |  | Current <br> Smoking |  | Smokeless Tobacco Use |  | Binge Drinking |  | Heavy Drinking |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 21.2 | 5 | 17.8 | 21 | 9.6 | 2 | 31.6 | 2 | 24.5 | 7 | 31.2 | 10 | 23.8 | 22 |  |  | 11.6 | 44 | 4.2 | 42 |
| Alaska | 11.3 | 49 | 20.3 | 11 | 4.0 | 54 | 21.8 | 51 | 22.1 | 21 | 21.1 | 44 | 26.2 | 8 |  |  | 18.2 | 5 | 5.8 | 13 |
| Arizona | 16.1 | 15 | 20.5 | 9 | 6.1 | 34 | 23.6 | 43 | 18.5 | 48 | 21.9 | 41 | 21.5 | 41 | 2.6 | 13 | 16.8 | 10 | 6.1 | 9 |
| Arkansas | 19.5 | 8 | 19.9 | 14 | 7.8 | 9 | 29.7 | 5 | 22.4 | 17 | 31.5 | 8 | 25.5 | 13 | 6.5 | 3 | 11.3 | 45 | 4.6 | 37 |
| California | 16.0 | 16 | 17.3 | 22 | 6.5 | 28 | 23.3 | 45 | 21.9 | 23 | 26.6 | 19 | 17.2 | 51 |  |  | 15.5 | 22 | 6.2 | 8 |
| Colorado | 13.2 | 34 | 17.9 | 19 | 4.6 | 50 | 21.6 | 52 | 14.9 | 54 | 19.2 | 50 | 22.3 | 33 | 4.0 | 9 | 16.7 | 11 | 5.5 | 16 |
| Connecticut | 11.5 | 47 | 11.3 | 46 | 6.3 | 31 | 24.0 | 41 | 17.9 | 49 | 24.0 | 34 | 20.6 | 45 | 0.7 | 15 | 13.8 | 34 | 5.2 | 24 |
| Delaware | 13.1 | 37 | 10.1 | 49 | 7.1 | 16 | 27.2 | 13 | 20.8 | 30 | 25.7 | 28 | 25.0 | 15 |  |  | 15.7 | 19 | 7.1 | 4 |
| D.C. | 13.2 | 34 | 14.2 | 30 | 8.3 | 6 | 29.0 | 7 | 20.0 | 36 | 24.2 | 32 | 20.8 | 44 |  |  | 14.8 | 27 | 6.1 | 9 |
| Florida | 16.0 | 16 | 21.5 | 8 | 8.2 | 7 | 26.9 | 15 | 18.8 | 46 | 27.7 | 13 | 22.4 | 30 |  |  | 12.0 | 40 | 5.5 | 16 |
| Georgia | 15.9 | 18 | 15.9 | 27 | 6.9 | 19 | 26.9 | 15 | 22.7 | 13 | 27.3 | 16 | 23.7 | 24 |  |  | 11.9 | 41 | 3.9 | 47 |
| Guam | 18.1 | 10 | 20.0 | 13 | 9.5 | 3 | 24.5 | 35 | 21.2 | 25 | 27.4 | 15 | 31.2 | 1 |  |  | 18.1 | 6 | 5.3 | 23 |
| Hawaii | 12.4 | 44 | 8.8 | 53 | 6.2 | 32 | 24.1 | 37 | 17.9 | 49 | 18.9 | 51 | 20.5 | 46 |  |  | 10.4 | 49 | 5.1 | 28 |
| Idaho | 13.0 | 38 | 17.9 | 19 | 5.4 | 45 | 24.6 | 34 | 20.5 | 32 | 21.0 | 45 | 19.6 | 49 |  |  | 12.8 | 38 | 4.2 | 42 |
| Illinois | 13.6 | 31 | 11.7 | 42 | 6.6 | 25 | 24.8 | 33 | 21.0 | 28 | 26.5 | 21 | 23.7 | 24 |  |  | 17.3 | 9 | 5.5 | 16 |
| Indiana | 14.0 | 28 | 16.2 | 26 | 6.5 | 28 | 25.8 | 25 | 24.5 | 7 | 26.2 | 24 | 27.4 | 6 |  |  | 13.8 | 34 | 4.4 | 39 |
| Iowa | 11.9 | 46 | 10.1 | 49 | 5.7 | 38 | 25.5 | 29 | 22.5 | 15 | 25.9 | 26 | 22.1 | 38 |  |  | 16.2 | 14 | 4.7 | 36 |
| Kansas | 12.6 | 41 | 12.1 | 40 | 5.8 | 37 | 23.9 | 42 | 21.6 | 24 | 26.7 | 18 | 22.2 | 35 |  |  | 14.7 | 28 | 4.8 | 33 |
| Kentucky | 21.7 | 4 | 18.0 | 18 | 6.7 | 21 | 30.1 | 4 | 24.6 | 5 | 33.4 | 4 | 30.9 | 2 | 4.9 | 7 | 8.7 | 53 | 2.7 | 53 |
| Louisiana | 15.5 | 20 | 25.3 | 4 | 7.6 | 12 | 27.6 | 11 | 24.0 | 9 | 35.6 | 2 | 24.6 | 16 |  |  | 13.8 | 34 | 4.1 | 44 |
| Maine | 13.2 | 34 | 15.3 | 28 | 6.7 | 21 | 25.2 | 31 | 19.5 | 41 | 23.2 | 36 | 23.9 | 20 |  |  | 15.4 | 23 | 5.5 | 16 |
| Maryland | 13.8 | 30 | 11.8 | 41 | 6.9 | 19 | 26.3 | 22 | 20.5 | 32 | 24.2 | 32 | 21.1 | 42 |  |  | 11.9 | 41 | 5.2 | 24 |
| Massachusetts | 12.1 | 45 | 9.4 | 51 | 5.6 | 42 | 23.6 | 43 | 16.6 | 53 | 22.8 | 39 | 19.5 | 50 |  |  | 18.1 | 6 | 7.0 | 5 |
| Michigan | 14.6 | 25 | 11.6 | 44 | 7.2 | 13 | 27.3 | 12 | 25.0 | 3 | 23.4 | 35 | 25.6 | 12 |  |  | 18.0 | 8 | 5.9 | 11 |
| Minnesota | 11.0 | 51 | 6.4 | 54 | 4.4 | 52 | 22.3 | 49 | 19.9 | 37 | 17.1 | 52 | 22.2 | 35 |  |  | 19.6 | 3 | 5.8 | 13 |
| Mississippi | 22.9 | 3 | 22.0 | 7 | 9.3 | 4 | 31.3 | 3 | 26.5 | 1 | 33.4 | 4 | 25.3 | 14 |  |  | 11.8 | 43 | 4.5 | 38 |
| Missouri | 15.5 | 20 | 12.9 | 36 | 6.6 | 25 | 26.5 | 19 | 23.2 | 11 | 27.5 | 14 | 25.9 | 10 |  |  | 14.1 | 33 | 4.8 | 33 |
| Montana | 4.4 | 26 | 20.4 | 10 | 5.6 | 42 | 26.8 | 17 | 18.8 | 46 | 21.9 | 41 | 21.9 | 40 | 6.0 | 4 | 16.7 | 11 | 4.4 | 39 |
| Nebraska | 13.0 | 38 | 16.5 | 25 | 5.2 | 47 | 22.6 | 47 | 20.7 | 31 | 31.4 | 9 | 20.2 | 48 | 3.5 | 11 | 14.6 | 30 | 4.3 | 41 |
| Nevada | 13.6 | 31 | 20.2 | 12 | 5.7 | 38 | 25.6 | 27 | 19.5 | 41 | 22.6 | 40 | 26.9 | 7 |  |  | 16.7 | 11 | 7.8 | 2 |
| New Hampshire | 9.4 | 54 | 13.4 | 33 | 5.4 | 45 | 22.8 | 46 | 19.4 | 43 | 19.5 | 49 | 24.1 | 19 |  |  | 15.8 | 17 | 6.3 | 7 |
| New Jersey | 15.5 | 20 | 13.5 | 32 | 7.1 | 16 | 26.1 | 23 | 19.6 | 40 | 26.6 | 19 | 21.1 | 42 | 0.8 | 14 | 13.5 | 37 | 4.0 | 46 |
| New Mexico | 16.9 | 11 | 26.5 | 3 | 6.2 | 32 | 20.0 | 54 | 19.7 | 38 | 25.8 | 27 | 23.8 | 22 |  |  | 15.8 | 17 | 5.0 | 30 |
| New York | 16.3 | 14 | 19.5 | 15 | 6.6 | 25 | 26.0 | 24 | 20.3 | 35 | 28.7 | 12 | 23.2 | 27 |  |  | 14.4 | 31 | 5.0 | 30 |
| North Carolina | 16.4 | 13 | 16.7 | 23 | 6.7 | 21 | 27.2 | 13 | 22.9 | 12 | 26.4 | 22 | 25.7 | 11 |  |  | 9.8 | 50 | 4.1 | 44 |
| North Dakota | 12.6 | 41 | 14.2 | 30 | 5.1 | 48 | 24.1 | 37 | 20.4 | 34 | 23.2 | 36 | 22.1 | 38 | 5.6 | 6 | 22.3 | 2 | 4.8 | 33 |
| Ohio | 14.2 | 27 | 13.0 | 35 | 7.2 | 13 | 26.6 | 18 | 22.4 | 17 | 26.2 | 24 | 27.6 | 5 |  |  | 16.2 | 14 | 5.4 | 21 |
| Oklahoma | 19.6 | 7 | 25.1 | 5 | 7.7 | 10 | 28.5 | 9 | 22.6 | 14 | 32.8 | 6 | 28.7 | 3 | 4.9 | 7 | 11.0 | 48 | 3.5 | 50 |
| Oregon | 14.8 | 24 | 16.6 | 24 | 5.7 | 38 | 24.9 | 32 | 21.1 | 27 | 20.8 | 46 | 20.5 | 46 |  |  | 14.7 | 28 | 5.9 | 11 |
| Pennsylvania | 14.0 | 28 | 11.3 | 46 | 6.7 | 21 | 28.1 | 10 | 22.1 | 21 | 24.7 | 31 | 24.5 | 17 |  |  | 15.6 | 21 | 5.2 | 24 |
| Puerto Rico | 34.5 | 1 | 9.3 | 52 | 9.8 | 1 | 26.4 | 21 | 22.2 | 20 | 49.2 | 1 | 12.5 | 53 |  |  | 11.3 | 45 | 3.8 | 49 |
| Rhode Island | 15.3 | 23 | 10.5 | 48 | 6.4 | 30 | 25.4 | 30 | 17.7 | 51 | 24.9 | 30 | 23.9 | 20 |  |  | 15.1 | 24 | 7.5 | 3 |
| South Carolina | 15.6 | 19 | 19.2 | 17 | 8.1 | 8 | 28.8 | 8 | 22.5 | 15 | 26.4 | 22 | 26.0 | 9 |  |  | 12.3 | 39 | 5.5 | 16 |
| South Dakota | 12.6 | 41 | 12.4 | 38 | 6.1 | 34 | 24.1 | 37 | 21.2 | 25 | 25.4 | 29 | 22.3 | 33 | 5.7 | 5 | 18.5 | 4 | 3.9 | 47 |
| Tennessee | 19.9 | 6 | 12.4 | 38 | 7.7 | 10 | 29.3 | 6 | 23.4 | 10 | 35.1 | 3 | 24.4 | 18 |  |  | 6.8 | 54 | 2.5 | 54 |
| Texas | 19.3 | 9 | 26.6 | 2 | 7.1 | 16 | 25.6 | 27 | 24.6 | 5 | 27.1 | 17 | 22.4 | 30 | 3.9 | 10 | 15.1 | 24 | 5.4 | 21 |
| Utah | 10.0 | 53 | 14.6 | 29 | 4.3 | 53 | 22.3 | 49 | 19.1 | 45 | 16.5 | 54 | 13.2 | 52 |  |  | 9.7 | 51 | 3.1 | 51 |
| Vermont | 11.5 | 47 | 13.4 | 33 | 5.1 | 48 | 21.4 | 53 | 17.6 | 52 | 20.3 | 48 | 22.4 | 30 |  |  | 15.7 | 19 | 6.8 | 6 |
| Virgin Islands | 16.6 | 12 | 31.8 | 1 | 7.2 | 13 | 26.5 | 19 | 24.7 | 4 | 29.2 | 11 | 9.6 | 54 |  |  | 11.1 | 47 | 5.7 | 15 |
| Virginia | 13.3 | 33 | 12.7 | 37 | 6.0 | 36 | 25.8 | 25 | 20.9 | 29 | 23.2 | 36 | 22.5 | 28 | 3.0 | 12 | 14.3 | 32 | 5.1 | 28 |
| Washington | 12.8 | 40 | 11.6 | 44 | 5.7 | 38 | 24.4 | 36 | 19.3 | 44 | 17.1 | 52 | 22.5 | 28 |  |  | 14.9 | 26 | 5.0 | 30 |
| West Virginia | 24.2 | 2 | 23.8 | 6 | 8.8 | 5 | 32.5 | 1 | 25.1 | 2 | 31.7 | 7 | 28.2 | 4 | 8.2 | 1 | 9.4 | 52 | 3.0 | 52 |
| Wisconsin | 11.2 | 50 | 11.7 | 42 | 5.6 | 42 | 24.1 | 37 | 22.4 | 17 | 20.7 | 47 | 23.6 | 26 |  |  | 25.7 | 1 | 8.7 | 1 |
| Wyoming | 10.9 | 52 | 19.5 | 15 | 4.5 | 51 | 22.4 | 48 | 19.7 | 38 | 21.2 | 43 | 22.2 | 35 | 8.1 | 2 | 16.0 | 16 | 5.2 | 24 |
| US Total | 15.7 |  | 16.4 |  | 6.8 |  | 25.8 |  | 21.6 |  | 26.4 |  | 22.7 |  | N/A |  | 14.5 |  | 5.2 |  |

Source: Centers for Disease Control \& Prevention - 2001 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2005.
a. 54 states/territories conducted the survey. States/territories with the same prevalence share the same rank.
b. For 2001, heavy drinking was redefined as $>$ two drinks per day for men and $>$ one drink per day for women. It was defined as $>=$ two drinks per day for all adults previously.

## Appendix G

Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories ${ }^{\text {a }}$
United States, 2002

| State | Fair or Poor Health |  | No Health Insurance, Ages 18-64 |  | Diabetes <br> Awareness |  | $\begin{aligned} & \text { Obesity } \\ & \text { (BMI 30+) } \end{aligned}$ |  | No Leisure Exercise |  | Less Than 5 Per Day Fruits/Veg |  | Current <br> Smoking |  | Binge Drinking |  | No Flu Shot <br> Past 12 Mo., <br> Ages 65+ |  | Seatbelt <br> Nonuse |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 19.7 | 8 | 18.2 | 22 | 8.5 | 5 | 25.7 | 4 | 27.3 | 14 | 78.9 | 18 | 24.4 | 18 | 14.5 | 36 | 35.2 | 13 | 16.6 | 41 |
| Alaska | 13.0 | 38 | 20.1 | 15 | 3.5 | 54 | 23.4 | 18 | 22.4 | 36 | 77.2 | 30 | 29.3 | 3 | 18.2 | 11 | 30.5 | 33 | 29.4 | 13 |
| Arizona | 15.1 | 25 | 19.2 | 18 | 6.4 | 30 | 19.6 | 40 | 22.6 | 34 | 77.4 | 25 | 23.4 | 23 | 16.9 | 21 | 30.3 | 34 | 19.5 | 35 |
| Arkansas | 19.0 | 9 | 22.7 | 9 | 7.9 | 10 | 23.7 | 15 | 27.4 | 13 | 79.3 | 15 | 26.3 | 12 | 12.7 | 44 | 31.0 | 30 | 35.4 | 5 |
| California | 15.6 | 22 | 18.0 | 23 | 7.4 | 15 | 19.2 | 44 | 22.7 | 33 | 72.6 | 40 | 16.4 | 51 | 14.9 | 35 | 28.5 | 39 | 7.7 | 53 |
| Colorado | 12.5 | 42 | 18.6 | 20 | 4.4 | 52 | 16.5 | 54 | 19.3 | 46 | 76.1 | 34 | 20.4 | 46 | 18.6 | 7 | 26.7 | 45 | 21.1 | 32 |
| Connecticut | 12.2 | 44 | 12.7 | 44 | 5.9 | 41 | 18.0 | 50 | 22.0 | 37 | 69.7 | 52 | 19.4 | 48 | 16.3 | 26 | 28.6 | 38 | 17.7 | 38 |
| Delaware | 14.8 | 27 | 10.4 | 51 | 7.1 | 21 | 22.4 | 26 | 27.1 | 15 | 80.5 | 8 | 24.7 | 15 | 18.3 | 9 | 28.5 | 39 | 19.7 | 34 |
| D.C. | 10.8 | 53 | 12.2 | 46 | 7.6 | 13 | 20.7 | 34 | 20.9 | 41 | 66.2 | 53 | 20.4 | 46 | 17.0 | 20 | 41.3 | 6 | 12.1 | 50 |
| Florida | 15.3 | 23 | 22.3 | 10 | 7.6 | 13 | 19.4 | 42 | 27.9 | 11 | 72.6 | 40 | 22.0 | 36 | 13.7 | 40 | 43.0 | 4 | 16.6 | 41 |
| Georgia | 15.3 | 23 | 17.8 | 24 | 7.1 | 21 | 23.5 | 16 | 25.7 | 20 | 77.4 | 25 | 23.2 | 25 | 12.8 | 43 | 40.7 | 7 | 16.9 | 40 |
| Guam | 18.6 | 10 | 23.3 | 8 | 8.4 | 7 | 23.8 | 13 | 24.6 | 24 | 73.1 | 39 | 31.9 | 2 | 17.7 | 16 | 55.9 | 3 | 14.3 | 44 |
| Hawaii | 11.4 | 50 | 10.3 | 52 | 5.8 | 43 | 17.1 | 53 | 16.1 | 53 | 79.6 | 11 | 21.0 | 44 | 11.9 | 47 | 26.1 | 50 | 10.4 | 52 |
| Idaho | 13.6 | 34 | 19.8 | 17 | 6.1 | 38 | 20.2 | 38 | 19.3 | 46 | 78.4 | 20 | 20.6 | 45 | 15.8 | 30 | 34.9 | 15 | 34.8 | 6 |
| Illinois | 14.9 | 26 | 16.4 | 28 | 6.8 | 27 | 21.9 | 29 | 28.6 | 9 | 79.1 | 17 | 22.8 | 29 | 17.8 | 14 | 38.9 | 10 | 25.3 | 20 |
| Indiana | 16.4 | 17 | 17.2 | 26 | 7.4 | 15 | 24.1 | 11 | 27.5 | 12 | 78.3 | 21 | 27.6 | 6 | 15.9 | 28 | 33.7 | 20 | 23.1 | 27 |
| Iowa | 11.5 | 49 | 10.8 | 49 | 6.5 | 29 | 22.9 | 23 | 21.8 | 39 | 80.2 | 9 | 23.2 | 25 | 20.1 | 4 | 26.5 | 46 | 24.1 | 24 |
| Kansas | 12.4 | 43 | 13.1 | 42 | 6.4 | 30 | 22.8 | 25 | 22.5 | 35 | 81.8 | 5 | 22.1 | 35 | 15.8 | 30 | 31.4 | 28 | 33.3 | 8 |
| Kentucky | 23.8 | 2 | 21.1 | 12 | 7.0 | 24 | 24.4 | 10 | 26.6 | 16 | 79.8 | 10 | 32.6 | 1 | 7.9 | 54 | 34.3 | 17 | 25.5 | 19 |
| Louisiana | 17.9 | 11 | 27.1 | 3 | 7.1 | 21 | 25.5 | 5 | 33.5 | 3 | 82.8 | 3 | 23.9 | 20 | 13.6 | 41 | 42.7 | 5 | 20.7 | 33 |
| Maine | 14.7 | 28 | 16.9 | 27 | 7.3 | 17 | 20.7 | 34 | 25.8 | 19 | 70.6 | 49 | 23.6 | 22 | 15.4 | 33 | 26.2 | 49 | 27.4 | 16 |
| Maryland | 11.7 | 47 | 11.3 | 48 | 6.9 | 26 | 19.4 | 42 | 23.0 | 31 | 70.3 | 50 | 21.9 | 37 | 14.4 | 37 | 34.1 | 19 | 12.5 | 49 |
| Massachusetts | 13.3 | 37 | 10.8 | 49 | 5.8 | 43 | 18.3 | 49 | 20.8 | 42 | 70.3 | 50 | 18.9 | 50 | 18.3 | 9 | 27.4 | 43 | 27.8 | 15 |
| Michigan | 13.4 | 36 | 13.8 | 36 | 7.9 | 10 | 25.4 | 7 | 24.1 | 29 | 77.4 | 25 | 24.2 | 19 | 16.9 | 21 | 32.3 | 23 | 16.2 | 43 |
| Minnesota | 10.9 | 51 | 7.9 | 53 | 4.9 | 51 | 22.4 | 26 | 16.2 | 52 | 77.3 | 28 | 21.7 | 38 | 21.1 | 3 | 23.4 | 54 | 24.5 | 22 |
| Mississippi | 23.0 | 4 | 26.7 | 4 | 8.6 | 4 | 26.8 | 2 | 32.5 | 4 | 80.8 | 6 | 27.3 | 7 | 12.4 | 45 | 37.0 | 11 | 27.2 | 17 |
| Missouri | 17.1 | 15 | 15.8 | 29 | 7.3 | 17 | 23.2 | 20 | 26.5 | 17 | 80.8 | 6 | 26.5 | 11 | 17.2 | 19 | 31.4 | 28 | 33.2 | 9 |
| Montana | 12.8 | 40 | 21.1 | 12 | 5.5 | 49 | 18.7 | 47 | 19.2 | 48 | 77.3 | 28 | 21.2 | 41 | 19.8 | 5 | 32.3 | 23 | 31.5 | 10 |
| Nebraska | 13.7 | 30 | 13.8 | 36 | 5.8 | 43 | 23.2 | 20 | 22.0 | 37 | 82.0 | 4 | 22.7 | 30 | 17.6 | 18 | 31.7 | 27 | 31.3 | 12 |
| Nevada | 17.2 | 13 | 25.8 | 5 | 6.2 | 33 | 21.6 | 30 | 24.8 | 23 | 77.7 | 24 | 26.0 | 14 | 19.8 | 5 | 39.7 | 8 | 21.2 | 31 |
| New Hampshire | 11.6 | 48 | 13.6 | 39 | 6.2 | 33 | 17.9 | 51 | 19.9 | 45 | 71.5 | 46 | 23.2 | 25 | 16.6 | 24 | 27.7 | 42 | 36.2 | 4 |
| New Jersey | 14.7 | 28 | 15.7 | 30 | 6.1 | 38 | 19.0 | 45 | 26.0 | 18 | 71.8 | 44 | 19.0 | 49 | 13.9 | 39 | 30.9 | 31 | 17.4 | 39 |
| New Mexico | 17.0 | 16 | 25.0 | 6 | 6.2 | 33 | 19.7 | 39 | 23.0 | 31 | 78.1 | 22 | 21.2 | 41 | 14.4 | 37 | 33.4 | 21 | 13.2 | 47 |
| New York | 16.1 | 19 | 17.6 | 25 | 7.2 | 19 | 20.6 | 36 | 25.1 | 22 | 72.3 | 42 | 22.3 | 34 | 17.9 | 13 | 35.4 | 12 | 19.2 | 36 |
| North Carolina | 21.0 | 5 | 19.2 | 18 | 7.2 | 19 | 23.5 | 16 | 29.5 | 7 | 76.4 | 32 | 26.3 | 12 | 10.9 | 50 | 31.8 | 26 | 12.7 | 48 |
| North Dakota | 13.6 | 34 | 11.4 | 47 | 6.1 | 38 | 23.4 | 18 | 21.7 | 40 | 79.6 | 11 | 21.5 | 39 | 22.0 | 2 | 26.1 | 50 | 47.6 | 1 |
| Ohio | 13.7 | 30 | 13.4 | 41 | 7.7 | 12 | 23.0 | 22 | 25.4 | 21 | 79.5 | 13 | 26.6 | 8 | 15.9 | 28 | 33.4 | 21 | 23.5 | 25 |
| Oklahoma | 17.7 | 12 | 23.7 | 7 | 6.7 | 28 | 22.9 | 23 | 30.6 | 6 | 85.6 | 1 | 26.6 | 8 | 13.3 | 42 | 27.3 | 43 | 22.4 | 29 |
| Oregon | 16.1 | 19 | 20.5 | 14 | 6.2 | 33 | 20.3 | 37 | 17.9 | 51 | 73.7 | 38 | 22.4 | 32 | 16.3 | 26 | 32.0 | 25 | 12.1 | 50 |
| Pennsylvania | 15.9 | 21 | 12.6 | 45 | 8.1 | 9 | 23.9 | 12 | 24.4 | 27 | 74.6 | 37 | 24.5 | 17 | 16.9 | 21 | 29.5 | 35 | 31.4 | 11 |
| Puerto Rico | 33.0 | 1 | 7.8 | 54 | 10.5 | 1 | 22.0 | 28 | 46.8 | 1 | 85.5 | 2 | 13.2 | 52 | 10.6 | 51 | 64.6 | 2 | 7.4 | 54 |
| Rhode Island | 13.7 | 30 | 13.7 | 38 | 5.6 | 47 | 18.5 | 48 | 24.6 | 24 | 71.4 | 47 | 22.4 | 32 | 17.7 | 16 | 26.4 | 47 | 24.4 | 23 |
| South Carolina | 17.2 | 13 | 18.4 | 21 | 8.4 | 7 | 25.8 | 3 | 24.6 | 24 | 76.1 | 34 | 26.6 | 8 | 12.4 | 45 | 30.6 | 32 | 25.2 | 21 |
| South Dakota | 12.9 | 39 | 14.3 | 34 | 6.3 | 32 | 21.2 | 33 | 23.8 | 30 | 79.3 | 15 | 22.6 | 31 | 18.5 | 8 | 25.8 | 53 | 45.1 | 2 |
| Tennessee | 20.7 | 6 | 15.1 | 32 | 8.5 | 5 | 24.5 | 9 | 33.6 | 2 | 71.6 | 45 | 27.7 | 5 | 8.2 | 53 | 28.4 | 41 | 18.8 | 37 |
| Texas | 20.1 | 7 | 31.3 | 2 | 7.0 | 24 | 25.5 | 5 | 29.3 | 8 | 76.1 | 34 | 22.9 | 28 | 17.8 | 14 | 39.0 | 9 | 13.8 | 46 |
| Utah | 10.4 | 54 | 15.4 | 31 | 4.4 | 52 | 17.5 | 52 | 18.9 | 49 | 79.4 | 14 | 12.8 | 53 | 10.1 | 52 | 28.9 | 37 | 28.0 | 14 |
| Vermont | 10.9 | 51 | 13.6 | 39 | 5.9 | 41 | 18.9 | 46 | 18.3 | 50 | 70.9 | 48 | 21.1 | 43 | 16.5 | 25 | 26.4 | 47 | 23.5 | 25 |
| Virgin Islands | 16.2 | 18 | 34.5 | 1 | 9.1 | 3 | 24.9 | 8 | 30.7 | 5 | 64.3 | 54 | 9.4 | 54 | 11.7 | 48 | 67.8 | 1 | 22.6 | 28 |
| Virginia | 13.7 | 30 | 14.4 | 33 | 6.2 | 33 | 23.8 | 13 | 24.4 | 27 | 72.1 | 43 | 24.6 | 16 | 15.6 | 32 | 34.7 | 16 | 22.1 | 30 |
| Washington | 12.6 | 41 | 14.0 | 35 | 5.8 | 43 | 21.3 | 32 | 15.0 | 54 | 76.2 | 33 | 21.5 | 39 | 15.1 | 34 | 35.0 | 14 | 14.3 | 44 |
| West Virginia | 23.5 | 3 | 21.8 | 11 | 10.2 | 2 | 27.6 | 1 | 28.4 | 10 | 78.7 | 19 | 28.4 | 4 | 11.4 | 49 | 34.2 | 18 | 25.6 | 18 |
| Wisconsin | 12.0 | 46 | 13.0 | 43 | 5.1 | 50 | 21.6 | 30 | 20.0 | 44 | 76.5 | 31 | 23.3 | 24 | 24.9 | 1 | 26.0 | 52 | 33.7 | 7 |
| Wyoming | 12.2 | 44 | 20.1 | 15 | 5.6 | 47 | 19.5 | 41 | 20.4 | 43 | 77.9 | 23 | 23.7 | 21 | 18.1 | 12 | 29.4 | 36 | 41.8 | 3 |
| US Total | 16.0 |  | 17.8 |  | 7.1 |  | 21.9 |  | 25.3 |  | 75.6 |  | 22.6 |  | 15.7 |  | 33.6 |  | 19.4 |  |

a. 54 states/territories conducted the survey. States/territories with the same prevalence share the same rank.

## Appendix H

Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories ${ }^{\mathrm{a}}$ United States, 2003

| State | Fair or Poor Health |  | High Cholesterol |  | Diabetes <br> Awareness |  | Hypertension Awareness |  | Obesity (BMI 30+) |  | No Leisure Exercise |  | Less Than 5 Per Day Fruits/Veg |  | Current <br> Smoking |  | Binge Drinking |  | No Flu Shot Past 12 Mo., Ages 65+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 20.3 | 5 | 36.0 | 4 | 8.7 | 9 | 33.1 | 3 | 28.4 | 1 | 29.9 | 7 | 77.4 | 27 | 25.3 | 13 | 12.1 | 47 | 29.8 | 29 |
| Alaska | 11.8 | 49 | 27.6 | 52 | 5.0 | 53 | 20.8 | 52 | 23.5 | 23 | 19.2 | 45 | 77.4 | 27 | 26.2 | 6 | 18.4 | 11 | 33.5 | 9 |
| Arizona | 15.6 | 23 | 34.6 | 13 | 6.3 | 37 | 22.7 | 46 | 20.1 | 43 | 21.2 | 38 | 77.1 | 30 | 20.8 | 38 | 16.6 | 26 | 31.1 | 19 |
| Arkansas | 19.7 | 7 | 34.8 | 11 | 7.4 | 22 | 30.5 | 4 | 25.2 | 6 | 29.1 | 9 | 79.2 | 16 | 24.8 | 17 | 12.5 | 46 | 29.0 | 33 |
| California | 15.1 | 26 | 32.7 | 31 | 7.2 | 26 | 23.4 | 40 | 23.2 | 24 | 22.3 | 32 | 73.1 | 43 | 16.8 | 51 | 15.9 | 31 | 27.5 | 36 |
| Colorado | 12.0 | 47 | 31.9 | 35 | 4.7 | 54 | 19.8 | 53 | 16.0 | 54 | 16.8 | 53 | 75.8 | 37 | 18.6 | 48 | 18.3 | 12 | 25.8 | 44 |
| Connecticut | 12.6 | 40 | 30.8 | 41 | 5.9 | 45 | 24.2 | 32 | 19.1 | 49 | 21.0 | 40 | 70.2 | 52 | 18.6 | 48 | 16.5 | 27 | 25.7 | 45 |
| Delaware | 14.2 | 30 | 34.7 | 12 | 7.7 | 20 | 27.7 | 14 | 24.0 | 15 | 26.5 | 16 | 78.0 | 20 | 21.9 | 31 | 18.6 | 9 | 30.0 | 28 |
| D.C. | 12.4 | 41 | 29.2 | 49 | 8.2 | 13 | 25.2 | 24 | 20.3 | 40 | 22.5 | 31 | 70.4 | 51 | 22.0 | 27 | 18.6 | 9 | 37.0 | 6 |
| Florida | 18.1 | 10 | 35.1 | 7 | 8.5 | 10 | 29.3 | 7 | 19.9 | 46 | 27.9 | 12 | 76.4 | 35 | 23.9 | 20 | 15.5 | 32 | 34.1 | 7 |
| Georgia | 16.3 | 21 | 33.2 | 26 | 7.8 | 18 | 28.0 | 12 | 25.2 | 6 | 24.5 | 23 | 77.0 | 31 | 22.8 | 23 | 13.0 | 45 | 33.0 | 10 |
| Guam | 18.2 | 9 | 28.1 | 50 | 10.3 | 3 | 22.1 | 49 | 21.9 | 30 | 30.2 | 6 | 70.5 | 50 | 34.0 | 1 | 18.7 | 8 | 40.3 | 3 |
| Hawaii | 12.2 | 45 | 27.0 | 54 | 7.6 | 21 | 23.2 | 42 | 16.4 | 53 | 18.3 | 50 | 72.4 | 46 | 17.2 | 50 | 13.3 | 43 | 23.6 | 51 |
| Idaho | 13.6 | 34 | 31.1 | 39 | 6.3 | 37 | 23.1 | 43 | 21.8 | 32 | 18.6 | 49 | 79.6 | 14 | 19.0 | 47 | 15.5 | 32 | 29.7 | 30 |
| Illinois | 15.0 | 27 | 33.6 | 20 | 7.3 | 25 | 24.1 | 33 | 23.7 | 20 | 25.7 | 20 | 76.9 | 32 | 23.4 | 22 | 17.3 | 20 | 37.8 | 5 |
| Indiana | 16.7 | 19 | 35.1 | 7 | 7.8 | 18 | 27.0 | 17 | 26.0 | 4 | 26.2 | 18 | 78.0 | 20 | 26.1 | 7 | 15.1 | 37 | 33.9 | 8 |
| Iowa | 11.7 | 50 | 31.7 | 36 | 6.7 | 34 | 25.1 | 25 | 23.9 | 17 | 22.7 | 29 | 82.9 | 4 | 21.7 | 32 | 19.4 | 4 | 22.5 | 52 |
| Kansas | 13.3 | 35 | 29.4 | 48 | 6.0 | 43 | 23.3 | 41 | 22.6 | 28 | 25.9 | 19 | 81.2 | 9 | 20.4 | 40 | 13.9 | 42 | 29.2 | 32 |
| Kentucky | 22.8 | 4 | 35.5 | 5 | 8.5 | 10 | 29.8 | 6 | 25.6 | 5 | 30.6 | 2 | 81.8 | 7 | 30.8 | 2 | 9.3 | 52 | 30.9 | 21 |
| Louisiana | 17.3 | 15 | 30.8 | 41 | 8.5 | 10 | 29.0 | 8 | 24.8 | 11 | 30.5 | 3 | 83.6 | 3 | 26.5 | 5 | 16.4 | 28 | 31.7 | 16 |
| Maine | 14.7 | 29 | 33.6 | 20 | 7.4 | 22 | 26.0 | 21 | 19.9 | 46 | 20.6 | 42 | 73.0 | 44 | 23.7 | 21 | 16.8 | 24 | 25.2 | 46 |
| Maryland | 12.2 | 45 | 33.9 | 17 | 7.0 | 31 | 25.0 | 26 | 21.9 | 30 | 21.3 | 37 | 71.1 | 48 | 20.1 | 41 | 15.0 | 39 | 31.6 | 17 |
| Massachusetts | 12.4 | 41 | 32.4 | 33 | 6.2 | 41 | 23.1 | 43 | 16.8 | 52 | 21.6 | 36 | 71.0 | 49 | 19.1 | 46 | 18.3 | 12 | 25.1 | 48 |
| Michigan | 15.2 | 24 | 38.2 | 1 | 7.9 | 17 | 26.8 | 18 | 25.2 | 6 | 21.8 | 34 | 79.9 | 12 | 26.1 | 7 | 19.1 | 5 | 32.5 | 12 |
| Minnesota | 11.2 | 52 | 30.8 | 41 | 5.5 | 50 | 22.2 | 48 | 23.0 | 25 | 15.0 | 54 | 75.8 | 37 | 21.1 | 36 | 19.7 | 3 | 19.7 | 54 |
| Mississippi | 23.1 | 3 | 33.1 | 27 | 11.0 | 1 | 33.4 | 2 | 28.1 | 2 | 30.3 | 5 | 82.1 | 6 | 25.6 | 9 | 11.4 | 48 | 31.0 | 20 |
| Missouri | 17.4 | 14 | 33.6 | 20 | 6.9 | 32 | 27.5 | 15 | 23.6 | 22 | 24.0 | 24 | 79.8 | 13 | 27.2 | 4 | 17.2 | 22 | 30.1 | 27 |
| Montana | 12.3 | 43 | 29.8 | 47 | 5.5 | 50 | 21.3 | 50 | 18.8 | 50 | 20.2 | 43 | 78.1 | 19 | 20.0 | 42 | 19.1 | 5 | 27.2 | 38 |
| Nebraska | 12.8 | 39 | 30.5 | 44 | 6.4 | 36 | 23.5 | 39 | 23.9 | 17 | 20.7 | 41 | 82.2 | 5 | 21.2 | 34 | 18.0 | 16 | 26.4 | 41 |
| Nevada | 17.5 | 13 | 36.8 | 3 | 6.3 | 37 | 23.6 | 38 | 21.2 | 36 | 24.7 | 22 | 79.6 | 14 | 25.2 | 14 | 17.9 | 18 | 40.0 | 4 |
| New Hampshire | 10.8 | 53 | 33.4 | 23 | 5.6 | 49 | 22.5 | 47 | 20.2 | 41 | 19.9 | 44 | 71.5 | 47 | 21.2 | 34 | 17.7 | 19 | 26.1 | 42 |
| New Jersey | 15.2 | 24 | 33.8 | 19 | 7.1 | 29 | 25.6 | 22 | 20.1 | 43 | 26.9 | 15 | 73.4 | 42 | 19.4 | 45 | 16.0 | 30 | 32.8 | 11 |
| New Mexico | 16.9 | 18 | 27.2 | 53 | 5.7 | 48 | 21.1 | 51 | 20.2 | 41 | 22.9 | 28 | 77.6 | 25 | 22.0 | 27 | 15.3 | 35 | 27.6 | 35 |
| New York | 17.2 | 17 | 34.9 | 9 | 7.4 | 22 | 25.3 | 23 | 20.9 | 37 | 27.1 | 14 | 74.2 | 40 | 21.6 | 33 | 16.9 | 23 | 32.0 | 14 |
| North Carolina | 18.9 | 8 | 34.0 | 16 | 8.1 | 14 | 28.6 | 11 | 24.0 | 15 | 25.0 | 21 | 76.9 | 32 | 24.8 | 17 | 8.6 | 53 | 31.2 | 18 |
| North Dakota | 13.2 | 36 | 32.6 | 32 | 6.2 | 41 | 24.0 | 34 | 23.7 | 20 | 23.7 | 25 | 78.5 | 17 | 20.5 | 39 | 21.4 | 2 | 27.0 | 39 |
| Ohio | 14.2 | 30 | 33.9 | 17 | 8.9 | 8 | 26.3 | 20 | 24.9 | 10 | 26.4 | 17 | 77.3 | 29 | 25.2 | 14 | 16.7 | 25 | 32.0 | 14 |
| Oklahoma | 17.8 | 12 | 32.0 | 34 | 7.2 | 26 | 28.0 | 12 | 24.4 | 14 | 30.4 | 4 | 84.6 | 2 | 25.1 | 16 | 13.3 | 43 | 24.2 | 49 |
| Oregon | 16.2 | 22 | 34.1 | 15 | 6.3 | 37 | 24.0 | 34 | 21.5 | 35 | 18.8 | 46 | 75.9 | 36 | 20.9 | 37 | 15.5 | 32 | 29.5 | 31 |
| Pennsylvania | 15.0 | 27 | 35.2 | 6 | 8.0 | 16 | 26.5 | 19 | 23.8 | 19 | 22.6 | 30 | 75.3 | 39 | 25.4 | 12 | 18.0 | 16 | 30.9 | 21 |
| Puerto Rico | 35.0 | 1 | 30.3 | 45 | 11.0 | 1 | 27.3 | 16 | 22.9 | 26 | 45.2 | 1 | 84.7 | 1 | 13.6 | 52 | 9.8 | 51 | 59.8 | 2 |
| Rhode Island | 14.2 | 30 | 33.1 | 27 | 6.8 | 33 | 28.9 | 9 | 18.4 | 51 | 23.3 | 26 | 72.9 | 45 | 22.4 | 25 | 18.2 | 15 | 23.8 | 50 |
| South Carolina | 16.7 | 19 | 33.4 | 23 | 9.3 | 7 | 28.8 | 10 | 24.5 | 13 | 23.3 | 26 | 77.7 | 24 | 25.5 | 11 | 14.4 | 40 | 30.7 | 25 |
| South Dakota | 13.0 | 37 | 31.2 | 38 | 7.1 | 29 | 24.8 | 27 | 22.9 | 26 | 21.7 | 35 | 81.0 | 10 | 22.7 | 24 | 19.0 | 7 | 22.1 | 53 |
| Tennessee | 18.1 | 10 | 30.1 | 46 | 9.4 | 6 | 30.3 | 5 | 25.0 | 9 | 29.8 | 8 | 77.8 | 23 | 25.6 | 9 | 6.6 | 54 | 30.9 | 21 |
| Texas | 20.2 | 6 | 34.3 | 14 | 8.1 | 14 | 24.6 | 29 | 24.6 | 12 | 27.6 | 13 | 77.5 | 26 | 22.1 | 26 | 16.3 | 29 | 32.3 | 13 |
| Utah | 11.3 | 51 | 27.8 | 51 | 5.5 | 50 | 18.8 | 54 | 20.8 | 39 | 17.3 | 52 | 80.5 | 11 | 11.9 | 53 | 10.2 | 50 | 25.2 | 46 |
| Vermont | 10.7 | 54 | 30.9 | 40 | 5.8 | 46 | 23.1 | 43 | 19.6 | 48 | 18.7 | 48 | 67.5 | 53 | 19.5 | 43 | 17.3 | 20 | 25.9 | 43 |
| Virgin Islands | 17.3 | 15 | 31.5 | 37 | 9.8 | 4 | 24.8 | 27 | 22.0 | 29 | 28.6 | 10 | 66.1 | 54 | 10.0 | 54 | 14.2 | 41 | 65.1 | 1 |
| Virginia | 12.9 | 38 | 32.9 | 29 | 7.2 | 26 | 24.4 | 30 | 21.7 | 33 | 22.1 | 33 | 74.2 | 40 | 22.0 | 27 | 15.1 | 37 | 30.4 | 26 |
| Washington | 13.8 | 33 | 33.3 | 25 | 6.6 | 35 | 23.8 | 36 | 21.7 | 33 | 17.7 | 51 | 76.7 | 34 | 19.5 | 43 | 15.2 | 36 | 26.6 | 40 |
| West Virginia | 25.3 | 2 | 38.1 | 2 | 9.8 | 4 | 33.6 | 1 | 27.7 | 3 | 28.0 | 11 | 81.3 | 8 | 27.3 | 3 | 11.1 | 49 | 30.9 | 21 |
| Wisconsin | 12.0 | 47 | 32.8 | 30 | 6.0 | 43 | 24.3 | 31 | 20.9 | 37 | 18.8 | 46 | 78.5 | 17 | 22.0 | 27 | 24.2 | 1 | 27.9 | 34 |
| Wyoming | 12.3 | 43 | 34.9 | 9 | 5.8 | 46 | 23.8 | 36 | 20.1 | 43 | 21.1 | 39 | 77.9 | 22 | 24.6 | 19 | 18.3 | 12 | 27.4 | 37 |
| US Total | 16.2 |  | 33.6 |  | 7.5 |  | 25.8 |  | 22.8 |  | 24.6 |  | 76.5 |  | 22.2 |  | 15.8 |  | 30.8 |  |

Source: Centers for Disease Control \& Prevention - 2003 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2005.
a. 54 states/territories conducted the survey. States/territories with the same prevalence share the same rank.

Behavioral Risk Factor Prevalences in 49 States, District of Columbia, and Territories ${ }^{\text {a }}$ United States, 2004

| State | Fair or Poor Health |  | No Health Insurance, Ages 18-64 |  | No Leisure Exercise |  | Obesity <br> (BMI 30+) |  | Current Smoking |  | Smokeless <br> Tobacco Use |  | Binge Drinking |  | Diabetes |  | Current Asthma |  | No Flu Immun. Past 12 Mo., Ages 65+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 20.2 | 6 | 19.7 | 17 | 29.6 | 6 | 28.8 | 2 | 24.9 | 8 |  |  | 12.7 | 41 | 8.1 | 10 | 8.6 | 18 | 33.7 | 15 |
| Alaska | 12.3 | 40 | 17.7 | 22 | 20.6 | 38 | 23.7 | 22 | 24.8 | 9 |  |  | 16.4 | 17 | 4.2 | 52 | 9.0 | 13 | 35.9 | 6 |
| Arizona | 14.9 | 27 | 21.6 | 13 | 24.2 | 21 | 21.2 | 41 | 18.5 | 45 |  |  | 15.5 | 24 | 6.6 | 30 | 7.2 | 43 | 33.6 | 16 |
| Arkansas | 19.9 | 7 | 22.4 | 11 | 26.5 | 10 | 26.1 | 6 | 25.6 | 6 | 6.5 | 3 | 11.2 | 46 | 7.1 | 25 | 7.4 | 38 | 30.8 | 32 |
| California | 17.5 | 15 | 20.1 | 16 | 22.7 | 27 | 22.2 | 34 | 14.8 | 49 |  |  | 14.7 | 28 | 7.1 | 25 | 7.7 | 32 | 29.0 | 35 |
| Colorado | 11.7 | 48 | 17.9 | 21 | 18.7 | 45 | 16.8 | 52 | 20.0 | 36 |  |  | 17.3 | 11 | 4.3 | 51 | 8.7 | 17 | 21.1 | 52 |
| Connecticut | 11.4 | 49 | 11.3 | 48 | 18.9 | 43 | 19.7 | 48 | 18.1 | 47 |  |  | 14.9 | 27 | 6.0 | 41 | 9.7 | 4 | 26.7 | 41 |
| Delaware | 13.7 | 31 | 10.5 | 50 | 21.8 | 32 | 21.1 | 42 | 24.4 | 11 |  |  | 17.4 | 10 | 7.0 | 27 | 10.0 | 3 | 30.5 | 33 |
| D.C. | 11.1 | 50 | 12.1 | 46 | 22.3 | 28 | 22.5 | 33 | 20.9 | 25 |  |  | 16.7 | 16 | 8.3 | 7 | 9.2 | 10 | 44.7 | 3 |
| Florida | 16.5 | 19 | 24.7 | 7 | 23.6 | 24 | 22.9 | 31 | 20.2 | 34 |  |  | 12.5 | 43 | 7.8 | 12 | 7.3 | 41 | 34.5 | 11 |
| Georgia | 15.4 | 26 | 19.3 | 19 | 25.8 | 12 | 24.7 | 15 | 20.0 | 38 |  |  | 12.1 | 45 | 7.3 | 21 | 7.4 | 38 | 35.5 | 8 |
| Idaho | 12.5 | 38 | 18.5 | 20 | 19.1 | 41 | 20.8 | 45 | 17.4 | 48 |  |  | 12.7 | 42 | 6.1 | 40 | 8.0 | 29 | 33.6 | 17 |
| Illinois | 15.5 | 25 | 16.6 | 29 | 24.9 | 15 | 23.0 | 30 | 22.2 | 19 |  |  | 17.5 | 9 | 6.0 | 41 | 8.4 | 24 | 34.5 | 12 |
| Indiana | 17.4 | 17 | 17.4 | 25 | 25.3 | 14 | 25.5 | 9 | 24.9 | 7 |  |  | 14.5 | 29 | 7.7 | 15 | 8.4 | 24 | 35.6 | 7 |
| Iowa | 12.4 | 39 | 12.9 | 45 | 21.3 | 36 | 23.5 | 23 | 20.8 | 27 | 3.5 | 9 | 19.0 | 4 | 6.4 | 36 | 6.6 | 49 | 25.8 | 44 |
| Kansas | 13.0 | 32 | 15.3 | 34 | 23.2 | 25 | 23.2 | 26 | 19.8 | 41 |  |  | 12.9 | 40 | 6.5 | 33 | 7.4 | 38 | 31.7 | 27 |
| Kentucky | 21.9 | 4 | 17.3 | 26 | 29.8 | 3 | 25.8 | 7 | 27.5 | 1 | 5.0 | 4 | 9.6 | 49 | 7.5 | 18 | 8.3 | 26 | 35.1 | 10 |
| Louisiana | 18.8 | 10 | 25.7 | 5 | 29.8 | 4 | 26.9 | 5 | 23.5 | 14 | 4.1 | 6 | 14.2 | 32 | 8.3 | 7 | 6.2 | 50 | 31.2 | 30 |
| Maine | 15.9 | 21 | 15.2 | 35 | 21.5 | 34 | 23.4 | 24 | 21.0 | 24 |  |  | 14.9 | 26 | 7.5 | 18 | 9.6 | 7 | 27.4 | 39 |
| Maryland | 11.8 | 47 | 13.3 | 44 | 21.8 | 31 | 23.9 | 20 | 19.5 | 42 |  |  | 12.9 | 39 | 7.2 | 23 | 7.8 | 31 | 35.4 | 9 |
| Massachusetts | 12.0 | 45 | 11.0 | 49 | 20.0 | 40 | 18.4 | 51 | 18.5 | 46 |  |  | 17.0 | 14 | 5.6 | 47 | 9.7 | 4 | 29.3 | 34 |
| Michigan | 14.2 | 30 | 14.3 | 40 | 22.1 | 29 | 25.4 | 10 | 23.3 | 15 |  |  | 16.1 | 20 | 7.7 | 15 | 8.3 | 26 | 32.8 | 22 |
| Minnesota | 10.0 | 52 | 9.2 | 51 | 15.9 | 52 | 22.6 | 32 | 20.7 | 28 |  |  | 19.8 | 3 | 5.0 | 50 | 7.5 | 36 | 21.6 | 51 |
| Mississippi | 23.0 | 3 | 23.8 | 8 | 31.3 | 2 | 29.5 | 1 | 24.5 | 10 |  |  | 10.4 | 47 | 9.6 | 3 | 7.1 | 44 | 33.0 | 20 |
| Missouri | 15.8 | 22 | 15.7 | 32 | 24.8 | 16 | 24.9 | 13 | 24.1 | 13 |  |  | 16.2 | 18 | 7.3 | 21 | 9.1 | 12 | 30.9 | 31 |
| Montana | 12.8 | 34 | 23.1 | 9 | 18.9 | 44 | 19.7 | 47 | 20.4 | 30 |  |  | 17.1 | 12 | 6.0 | 41 | 8.6 | 18 | 27.6 | 38 |
| Nebraska | 12.2 | 41 | 15.2 | 36 | 21.6 | 33 | 23.2 | 27 | 20.3 | 33 | 4.5 | 5 | 17.6 | 7 | 6.3 | 39 | 6.9 | 47 | 23.8 | 49 |
| Nevada | 18.1 | 12 | 25.4 | 6 | 24.2 | 20 | 21.1 | 43 | 23.2 | 16 |  |  | 18.0 | 6 | 6.4 | 36 | 7.1 | 44 | 40.8 | 4 |
| New Hampshire | 11.1 | 51 | 14.1 | 41 | 18.5 | 46 | 21.6 | 38 | 21.7 | 22 | 2.0 | 12 | 16.1 | 22 | 6.5 | 33 | 10.3 | 1 | 29.0 | 36 |
| New Jersey | 15.7 | 23 | 17.1 | 28 | 25.7 | 13 | 21.9 | 37 | 18.8 | 44 | 0.8 | 13 | 14.5 | 30 | 6.8 | 29 | 8.6 | 18 | 32.0 | 25 |
| New Mexico | 18.6 | 11 | 25.9 | 4 | 21.2 | 37 | 21.5 | 39 | 20.3 | 32 |  |  | 13.0 | 37 | 6.5 | 33 | 9.3 | 9 | 27.3 | 40 |
| New York | 17.5 | 16 | 17.2 | 27 | 26.5 | 9 | 22.1 | 36 | 19.9 | 39 |  |  | 15.3 | 25 | 7.5 | 18 | 8.9 | 15 | 34.0 | 13 |
| North Carolina | 18.0 | 13 | 21.8 | 12 | 24.7 | 17 | 24.2 | 19 | 23.1 | 17 | 4.1 | 7 | 9.6 | 50 | 8.4 | 5 | 7.5 | 36 | 32.8 | 23 |
| North Dakota | 12.2 | 43 | 16.0 | 30 | 21.3 | 35 | 24.6 | 16 | 19.9 | 40 |  |  | 20.5 | 2 | 5.9 | 45 | 7.7 | 32 | 25.7 | 46 |
| Ohio | 14.6 | 29 | 15.4 | 33 | 23.0 | 26 | 25.3 | 11 | 25.9 | 5 | 2.7 | 11 | 16.9 | 15 | 7.8 | 12 | 8.5 | 22 | 32.3 | 24 |
| Oklahoma | 19.7 | 8 | 26.0 | 3 | 27.8 | 8 | 24.9 | 14 | 26.1 | 4 |  |  | 13.0 | 38 | 8.0 | 11 | 8.3 | 26 | 24.8 | 47 |
| Oregon | 15.6 | 24 | 21.0 | 14 | 17.2 | 50 | 21.2 | 40 | 20.0 | 35 |  |  | 13.2 | 36 | 6.6 | 30 | 9.7 | 4 | 29.0 | 37 |
| Pennsylvania | 15.9 | 20 | 14.5 | 38 | 24.4 | 19 | 24.3 | 18 | 22.7 | 18 |  |  | 17.6 | 8 | 7.8 | 12 | 8.8 | 16 | 36.0 | 5 |
| Puerto Rico | 34.8 | 1 | 9.2 | 52 | 46.6 | 1 | 24.3 | 17 | 12.6 | 50 |  |  | 12.3 | 44 | 10.7 | 2 | 6.2 | 50 | 64.4 | 1 |
| Rhode Island | 14.8 | 28 | 14.4 | 39 | 24.2 | 22 | 19.0 | 49 | 21.3 | 23 |  |  | 18.3 | 5 | 7.2 | 23 | 9.6 | 7 | 26.5 | 42 |
| South Carolina | 17.7 | 14 | 19.7 | 18 | 23.8 | 23 | 25.1 | 12 | 24.3 | 12 |  |  | 13.5 | 35 | 8.3 | 7 | 7.6 | 35 | 33.8 | 14 |
| South Dakota | 12.6 | 36 | 13.5 | 43 | 19.0 | 42 | 23.8 | 21 | 20.3 | 31 |  |  | 17.0 | 13 | 6.6 | 30 | 6.7 | 48 | 23.0 | 50 |
| Tennessee | 19.4 | 9 | 13.7 | 42 | 29.7 | 5 | 27.2 | 4 | 26.2 | 3 |  |  | 8.3 | 52 | 8.4 | 5 | 9.0 | 13 | 33.5 | 18 |
| Texas | 20.4 | 5 | 30.7 | 2 | 26.1 | 11 | 25.8 | 8 | 20.5 | 29 | 4.0 | 8 | 15.7 | 23 | 7.7 | 15 | 7.1 | 44 | 32.8 | 21 |
| Utah | 12.6 | 37 | 17.7 | 23 | 16.9 | 51 | 20.4 | 46 | 10.5 | 51 |  |  | 9.3 | 51 | 5.1 | 49 | 8.0 | 29 | 24.5 | 48 |
| Vermont | 12.0 | 44 | 14.6 | 37 | 18.1 | 48 | 18.7 | 50 | 20.0 | 37 |  |  | 16.1 | 21 | 5.3 | 48 | 8.5 | 22 | 33.2 | 19 |
| Virgin Islands | 16.7 | 18 | 32.2 | 1 | 28.8 | 7 | 23.2 | 28 | 9.4 | 52 | 0.4 | 14 | 13.6 | 34 | 8.8 | 4 | 4.6 | 52 | 60.6 | 2 |
| Virginia | 12.7 | 35 | 15.9 | 31 | 21.9 | 30 | 23.1 | 29 | 20.8 | 26 | 3.3 | 10 | 13.8 | 33 | 7.0 | 27 | 7.3 | 41 | 31.3 | 29 |
| Washington | 13.0 | 33 | 17.5 | 24 | 17.3 | 49 | 22.2 | 35 | 19.2 | 43 |  |  | 14.2 | 31 | 6.4 | 36 | 9.2 | 10 | 31.8 | 26 |
| West Virginia | 23.5 | 2 | 22.7 | 10 | 24.5 | 18 | 27.6 | 3 | 26.9 | 2 | 8.1 | 2 | 9.7 | 48 | 10.9 | 1 | 10.1 | 2 | 31.5 | 28 |
| Wisconsin | 11.9 | 46 | 11.9 | 47 | 18.5 | 47 | 23.2 | 25 | 21.9 | 20 |  |  | 21.8 | 1 | 5.7 | 46 | 8.6 | 18 | 25.7 | 45 |
| Wyoming | 12.2 | 42 | 20.3 | 15 | 20.1 | 39 | 20.8 | 44 | 21.7 | 21 | 9.3 | 1 | 16.2 | 19 | 6.0 | 41 | 7.7 | 32 | 26.0 | 43 |
| US Total | 16.4 |  | 18.7 |  | 24.0 |  | 23.5 |  | 20.7 |  | N/A |  | 14.8 |  | 7.2 |  | 8.1 |  | 32.2 |  |

Source: Centers for Disease Control \& Prevention - 2004 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2006.
a. 52 states/territories conducted the survey. No data available for Hawaii. States/territories with the same prevalence share the same rank.
b. Influenza immunization was measured by questions about either a flu shot or a flu vaccine sprayed in the nose. Before 2004, this measure included only the flu shot question.

Behavioral Risk Factor Prevalences in 50 States, District of Columbia, and Territories ${ }^{\text {a }}$ United States, 2005

| State | Fair or Poor Health |  | No Health Insurance, Ages 18-64 |  | No Leisure Exercise |  | Obesity <br> (BMI 30+) |  | Current <br> Smoking |  | History of <br> Heart Attack, <br> Angina,Stroke |  | Binge Drinking |  | Diabetes |  | Current Asthma |  | No Flu Immun. Past 12 Mo., Ages 65+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk | \% | Rnk |
| Alabama | 21.0 | 7 | 20.0 | 19 | 29.7 | 9 | 28.9 | 5 | 24.8 | 7 | 10.1 | 6 | 10.4 | 47 | 9.8 | 4 | 7.1 | 43 | 38.9 | 9 |
| Alaska | 12.8 | 42 | 18.5 | 8 | 21.4 | 43 | 27.4 | 8 | 24.9 | 6 | 5.4 | 51 | 17.5 | 7 | 4.4 | 53 | 7.8 | 29 | 38.9 | 9 |
| Arizona | 15.5 | 25 | 25.2 | 8 | 22.6 | 34 | 21.1 | 47 | 20.2 | 30 | 8.5 | 19 | 14.5 | 26 | 7.5 | 25 | 7.4 | 35 | 37.4 | 18 |
| Arkansas | 21.6 | 4 | 23.1 | 10 | 30.6 | 6 | 28.0 | 7 | 23.5 | 10 | 9.4 | 11 | 10.4 | 47 | 8.1 | 16 | 7.5 | 32 | 34.5 | 26 |
| California | 17.6 | 14 | 19.9 | 20 | 23.9 | 27 | 22.7 | 38 | 15.2 | 50 | 7.1 | 39 | 14.0 | 31 | 7.1 | 31 | 7.2 | 40 | 33.7 | 30 |
| Colorado | 12.7 | 44 | 18.4 | 9 | 17.3 | 52 | 17.8 | 53 | 19.8 | 36 | 5.2 | 52 | 16.2 | 14 | 4.8 | 52 | 8.2 | 22 | 25.3 | 51 |
| Connecticut | 12.2 | 46 | 10.6 | 49 | 21.2 | 45 | 20.1 | 51 | 16.5 | 49 | 6.9 | 42 | 14.8 | 22 | 6.5 | 41 | 8.0 | 25 | 28.7 | 44 |
| Delaware | 13.0 | 39 | 9.2 | 51 | 23.3 | 29 | 23.5 | 34 | 20.6 | 25 | 9.1 | 12 | 15.6 | 18 | 8.6 | 11 | 8.5 | 18 | 34.1 | 28 |
| D.C. | 12.5 | 45 | 11.2 | 48 | 22.5 | 35 | 21.7 | 42 | 20.0 | 32 | 6.5 | 48 | 16.8 | 9 | 7.1 | 31 | 9.2 | 8 | 45.3 | 4 |
| Florida | 17.7 | 13 | 25.4 | 5 | 26.9 | 15 | 22.8 | 37 | 21.6 | 19 | 10.4 | 5 | 14.1 | 30 | 8.8 | 10 | 6.8 | 47 | 44.2 | 5 |
| Georgia | 16.7 | 19 | 18.7 | 7 | 27.2 | 13 | 26.5 | 14 | 22.1 | 17 | 7.5 | 33 | 12.1 | 42 | 8.3 | 14 | 7.3 | 36 | 38.9 | 9 |
| Hawaii | 13.6 | 32 | 9.3 | 50 | 19.5 | 46 | 19.7 | 52 | 17.0 | 48 | 6.9 | 42 | 16.5 | 13 | 7.3 | 27 | 7.5 | 32 | 27.3 | 47 |
| Idaho | 14.9 | 27 | 22.3 | 12 | 21.6 | 41 | 24.5 | 25 | 17.9 | 45 | 8.4 | 22 | 13.3 | 36 | 6.8 | 36 | 7.3 | 36 | 35.8 | 24 |
| Illinois | 15.7 | 24 | 16.9 | 28 | 25.6 | 21 | 25.1 | 23 | 19.9 | 35 | 8.1 | 25 | 16.8 | 9 | 7.9 | 20 | 7.0 | 45 | 43.8 | 6 |
| Indiana | 16.7 | 19 | 18.2 | 10 | 26.9 | 15 | 27.2 | 10 | 27.3 | 2 | 8.7 | 16 | 14.3 | 28 | 8.3 | 14 | 8.2 | 22 | 36.0 | 23 |
| Iowa | 12.2 | 46 | 13.0 | 41 | 24.7 | 25 | 25.4 | 20 | 20.4 | 27 | 8.4 | 22 | 18.6 | 4 | 6.8 | 36 | 7.2 | 40 | 28.2 | 45 |
| Kansas | 13.1 | 38 | 15.6 | 32 | 24.4 | 26 | 23.9 | 30 | 17.8 | 46 | 7.9 | 29 | 12.4 | 40 | 6.9 | 34 | 6.9 | 46 | 33.8 | 29 |
| Kentucky | 23.7 | 2 | 20.5 | 18 | 31.5 | 5 | 28.6 | 6 | 28.7 | 1 | 11.0 | 3 | 10.4 | 47 | 8.9 | 8 | 8.8 | 15 | 37.5 | 17 |
| Louisiana | 21.2 | 6 | 25.4 | 5 | 33.4 | 2 | 30.8 | 2 | 22.6 | 13 | 9.8 | 9 | 14.0 | 31 | 9.2 | 6 | 5.9 | 52 | 37.4 | 18 |
| Maine | 14.7 | 29 | 14.9 | 35 | 22.3 | 39 | 22.7 | 38 | 20.8 | 23 | 8.7 | 16 | 14.0 | 31 | 7.5 | 25 | 10.2 | 3 | 32.3 | 35 |
| Maryland | 11.9 | 50 | 12.7 | 44 | 22.9 | 33 | 24.4 | 26 | 18.9 | 41 | 7.0 | 41 | 11.9 | 43 | 7.2 | 30 | 8.3 | 21 | 40.3 | 8 |
| Massachusetts | 13.2 | 36 | 11.8 | 47 | 23.3 | 29 | 20.7 | 49 | 18.1 | 43 | 7.2 | 37 | 15.7 | 17 | 6.4 | 44 | 9.6 | 6 | 30.0 | 41 |
| Michigan | 15.1 | 26 | 14.7 | 36 | 22.5 | 35 | 26.2 | 15 | 22.0 | 18 | 9.0 | 13 | 16.6 | 12 | 8.1 | 16 | 9.1 | 12 | 32.7 | 33 |
| Minnesota | 11.3 | 52 | 8.1 | 52 | 16.2 | 53 | 23.7 | 32 | 20.0 | 32 | 6.1 | 49 | 18.7 | 3 | 5.8 | 49 | 8.4 | 20 | 21.9 | 53 |
| Mississippi | 23.6 | 4 | 21.8 | 15 | 32.4 | 4 | 30.9 | 1 | 23.6 | 8 | 10.7 | 4 | 9.8 | 50 | 9.8 | 4 | 7.2 | 40 | 38.2 | 13 |
| Missouri | 17.6 | 14 | 15.5 | 33 | 25.4 | 24 | 26.9 | 12 | 23.4 | 11 | 9.7 | 10 | 14.7 | 23 | 7.7 | 22 | 9.0 | 13 | 38.1 | 15 |
| Montana | 14.4 | 31 | 25.6 | 4 | 22.4 | 38 | 21.3 | 44 | 19.2 | 40 | 7.1 | 39 | 16.8 | 9 | 5.7 | 50 | 7.9 | 28 | 30.2 | 40 |
| Nebraska | 13.3 | 34 | 16.5 | 29 | 23.8 | 28 | 26.0 | 16 | 21.3 | 21 | 7.2 | 37 | 17.3 | 8 | 7.3 | 27 | 6.7 | 49 | 27.1 | 48 |
| Nevada | 17.2 | 16 | 25.3 | 7 | 26.8 | 17 | 21.2 | 45 | 23.1 | 12 | 8.3 | 24 | 17.6 | 6 | 7.1 | 31 | 7.1 | 43 | 47.0 | 3 |
| New Hampshire | 11.1 | 53 | 12.4 | 45 | 21.6 | 41 | 23.1 | 36 | 20.4 | 27 | 8.1 | 25 | 14.7 | 23 | 6.5 | 41 | 10.3 | 2 | 29.6 | 43 |
| New Jersey | 16.6 | 21 | 17.2 | 11 | 29.2 | 10 | 22.1 | 41 | 18.0 | 44 | 7.8 | 30 | 13.2 | 37 | 7.7 | 22 | 7.5 | 32 | 36.1 | 22 |
| New Mexico | 17.9 | 12 | 25.8 | 3 | 23.3 | 29 | 21.7 | 42 | 21.5 | 20 | 6.9 | 42 | 10.6 | 45 | 7.3 | 27 | 8.9 | 14 | 32.0 | 37 |
| New York | 16.9 | 18 | 16.0 | 31 | 27.1 | 14 | 22.2 | 40 | 20.4 | 27 | 7.7 | 32 | 14.7 | 23 | 8.1 | 16 | 9.3 | 7 | 37.1 | 20 |
| North Carolina | 18.6 | 11 | 22.5 | 11 | 25.6 | 21 | 25.9 | 17 | 22.6 | 13 | 8.7 | 16 | 10.5 | 46 | 8.5 | 12 | 6.5 | 51 | 34.4 | 27 |
| North Dakota | 12.0 | 49 | 13.6 | 39 | 23.1 | 32 | 25.4 | 20 | 20.1 | 31 | 7.8 | 30 | 18.9 | 2 | 6.7 | 38 | 7.3 | 36 | 29.7 | 42 |
| Ohio | 14.8 | 28 | 15.1 | 34 | 25.6 | 21 | 24.3 | 28 | 22.3 | 16 | 8.1 | 25 | 15.2 | 19 | 7.7 | 22 | 8.0 | 25 | 35.2 | 25 |
| Oklahoma | 18.7 | 10 | 24.8 | 9 | 30.6 | 6 | 26.8 | 13 | 25.1 | 5 | 9.9 | 7 | 12.6 | 39 | 8.9 | 8 | 8.5 | 18 | 26.8 | 50 |
| Oregon | 16.1 | 22 | 20.9 | 17 | 18.6 | 49 | 23.8 | 31 | 18.5 | 42 | 7.4 | 34 | 13.9 | 34 | 6.7 | 38 | 10.1 | 4 | 31.0 | 38 |
| Pennsylvania | 14.6 | 30 | 12.8 | 42 | 25.8 | 20 | 25.3 | 22 | 23.6 | 8 | 8.8 | 14 | 16.0 | 15 | 8.1 | 16 | 8.1 | 24 | 40.5 | 7 |
| Puerto Rico | 34.1 | 1 | 8.0 | 53 | 49.0 | 1 | 23.7 | 32 | 13.1 | 51 | 11.5 | 2 | 15.2 | 19 | 12.5 | 1 | 8.8 | 15 | 67.8 | 1 |
| Rhode Island | 13.2 | 36 | 13.4 | 40 | 25.9 | 19 | 21.0 | 48 | 19.8 | 36 | 7.4 | 34 | 15.1 | 21 | 6.4 | 44 | 10.7 | 1 | 32.6 | 34 |
| South Carolina | 17.2 | 16 | 22.3 | 12 | 26.3 | 18 | 29.1 | 4 | 22.5 | 15 | 8.8 | 14 | 12.8 | 38 | 10.3 | 3 | 6.6 | 50 | 38.7 | 12 |
| South Dakota | 12.8 | 42 | 14.0 | 38 | 22.5 | 35 | 25.5 | 19 | 19.8 | 36 | 8.5 | 19 | 18.0 | 5 | 6.4 | 44 | 7.3 | 36 | 23.7 | 52 |
| Tennessee | 19.5 | 9 | 16.1 | 30 | 33.1 | 3 | 27.4 | 8 | 26.7 | 3 | 9.9 | 7 | 8.6 | 52 | 9.1 | 7 | 7.7 | 31 | 38.2 | 13 |
| Texas | 19.8 | 8 | 32.7 | 2 | 27.4 | 12 | 27.0 | 11 | 20.0 | 32 | 8.5 | 19 | 14.3 | 28 | 7.9 | 20 | 6.8 | 47 | 38.1 | 15 |
| Utah | 13.0 | 39 | 17.1 | 26 | 18.5 | 50 | 21.2 | 45 | 11.5 | 52 | 5.6 | 50 | 8.3 | 53 | 5.5 | 51 | 8.0 | 25 | 30.3 | 39 |
| Vermont | 11.5 | 51 | 14.2 | 37 | 19.2 | 47 | 20.2 | 50 | 19.3 | 39 | 7.4 | 34 | 15.8 | 16 | 6.0 | 48 | 9.8 | 5 | 33.6 | 31 |
| Virgin Islands | 16.1 | 22 | 33.1 | 1 | 30.0 | 8 | 25.6 | 18 | 8.1 | 53 | 4.2 | 53 | 11.3 | 44 | 8.4 | 13 | 4.4 | 53 | 62.5 | 2 |
| Virginia | 13.3 | 34 | 12.8 | 42 | 21.3 | 44 | 25.1 | 23 | 20.6 | 25 | 8.1 | 25 | 12.2 | 41 | 6.9 | 34 | 8.7 | 17 | 32.9 | 32 |
| Washington | 13.4 | 33 | 17.1 | 26 | 17.4 | 51 | 23.3 | 35 | 17.6 | 47 | 6.9 | 42 | 13.8 | 35 | 6.3 | 47 | 9.2 | 8 | 32.1 | 36 |
| West Virginia | 24.7 | 2 | 22.2 | 14 | 28.5 | 11 | 30.6 | 3 | 26.7 | 3 | 13.7 | 1 | 9.1 | 51 | 10.4 | 2 | 9.2 | 8 | 36.2 | 21 |
| Wisconsin | 12.1 | 48 | 12.2 | 46 | 18.7 | 48 | 24.4 | 26 | 20.7 | 24 | 6.9 | 42 | 22.1 | 1 | 6.6 | 40 | 9.2 | 8 | 28.1 | 46 |
| Wyoming | 13.0 | 39 | 21.0 | 16 | 22.0 | 40 | 24.2 | 29 | 21.3 | 21 | 6.8 | 47 | 14.4 | 27 | 6.5 | 41 | 7.8 | 29 | 26.9 | 49 |
| US Total | 16.7 |  | 18.8 |  | 25.5 |  | 24.5 |  | 20.4 |  | 8.3 |  | 14.2 |  | 7.8 |  | 7.9 |  | 36.6 |  |

Source: Centers for Disease Control \& Prevention - 2005 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2006.
a. 53 states/territories conducted the survey. States/territories with the same prevalence share the same rank.
b. Influenza immunization was measured by questions about either a flu shot or a flu vaccine sprayed in the nose. Before 2004, this measure included only the flu shot question.

## Appendix K

## Groupings for County Level Analysis for Years 2001-2005

West Virginia Behavioral Risk Factor Surveillance System


| 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 L
2001-2005 WV Behavioral Risk Factors and Health Conditions by County

| County | Fair or Poor Health |  |  | No Health Insurance Ages 18-64 |  |  | No Leisure Exercise |  |  | Obesity |  |  | Cigarette Smoking |  |  | Smokeless Tobacco Use ${ }^{\text {a }}$ |  |  | Binge Drinking |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* |
| Individual Counties |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Berkeley | 19.0 | 31 | L/h | 19.2 | 29 | 1/h | 32.0 | 9 | h/H | 28.9 | 14 | h/H | 30.2 | 13 | h/H | 9.9 | 33 | L/na | 8.5 | 23 | I/L |
| Brooke | 21.0 | 27 | 1/h | 20.8 | 22 | 1/h | 29.9 | 14 | h/h | 28.2 | 15 | h/h | 31.8 | 8 | h/h | $17.7^{\text {b }}$ | 18 | h/na | 17.3 | 3 | h/h |
| Cabell | 21.7 | 24 | 1/H | 22.4 | 19 | 1/h | 21.1 | 35 | L / 1 | 24.6 | 31 | 1/h | 24.5 | 32 | 1/h | 9.7 | 34 | L/na | 14.2 | 5 | H/1 |
| Fayette | 28.6 | 9 | h/H | 26.9 | 11 | h/H | 31.8 | 11 | h/H | 31.3 | 6 | h/H | 30.5 | 12 | h/H | 19.4 | 14 | h/na | 9.6 | 16 | I/L |
| Hancock | 19.8 | 29 | 1/h | 15.3 | 36 | L/1 | 24.2 | 31 | 1/1 | 25.8 | 26 | 1/h | 27.6 | 19 | h/h | $7.1{ }^{\text {b }}$ | 35 | L/na | 12.9 | 6 | h/l |
| Harrison | 18.4 | 33 | L/h | 24.9 | 13 | h/H | 26.4 | 23 | 1/h | 25.5 | 28 | 1/h | 27.8 | 17 | h/H | 17.5 | 20 | h/na | 10.1 | 13 | I/L |
| Jefferson | 16.4 | 35 | L/h | 16.5 | 35 | L/1 | 21.7 | 34 | L/ $/$ | 30.4 | 8 | h/H | 28.5 | 15 | h/H | $6.7^{\text {b }}$ | 36 | L/na | 10.4 | 11 | h/L |
| Kanawha | 19.7 | 30 | L/h | 18.0 | 32 | L/1 | 26.6 | 21 | $1 / \mathrm{h}$ | 27.3 | 20 | 1/H | 25.8 | 24 | 1/H | 12.5 | 31 | L/ na | 12.3 | 8 | h/L |
| Logan | 34.0 | 4 | H/H | 30.3 | 5 | h/H | 32.4 | 8 | h/H | 40.4 | 1 | H/H | 30.6 | 11 | h/h | 17.9 | 17 | h/na | 8.3 | 25 | I/L |
| McDowell | 45.0 | 1 | H/H | 35.2 | 1 | H/H | 36.0 | 3 | H/H | 30.4 | 8 | h/H | 32.5 | 6 | h/H | 19.3 | 15 | h/na | $3.7{ }^{\text {b }}$ | 36 | L/L |
| Marion | 23.0 | 19 | 1/H | 23.7 | 16 | h/h | 27.8 | 20 | 1/h | 27.0 | 21 | 1/h | 25.5 | 27 | 1/h | 15.1 | 26 | 1/na | 9.9 | 14 | I/L |
| Marshall | 21.3 | 25 | 1/h | 20.0 | 25 | 1/h | 26.3 | 24 | $1 / \mathrm{h}$ | 22.8 | 34 | 1/1 | 31.5 | 9 | h/H | 13.6 | 28 | 1/na | 12.8 | 7 | h/1 |
| Mason | 24.5 | 18 | h/H | 19.9 | 26 | 1/h | 30.6 | 13 | h/h | 31.9 | 5 | h/H | 35.5 | 3 | h/H | $23.5{ }^{\text {b }}$ | 7 | h/na | $9.5{ }^{\text {b }}$ | 17 | 1/1 |
| Mercer | 27.6 | 13 | h/H | 25.9 | 12 | h/H | 28.9 | 18 | h/h | 22.9 | 33 | 1/h | 25.6 | 26 | 1/h | 17.2 | 21 | h/na | 6.5 | 32 | L/L |
| Mingo | 37.5 | 2 | H/H | 32.4 | 2 | H/H | 46.9 | 1 | H/H | 34.0 | 3 | h/H | 35.8 | 2 | H/H | 16.2 | 23 | 1/na | $4.9{ }^{\text {b }}$ | 34 | L/L |
| Monongalia | 15.3 | 36 | L/1 | 19.4 | 28 | 1/h | 17.0 | 36 | L/L | 23.2 | 32 | 1/h | 22.6 | 35 | L/h | 13.6 | 28 | 1/na | 16.5 | 4 | H/h |
| Ohio | 18.5 | 32 | L/h | 17.4 | 34 | 1/1 | 25.8 | 26 | 1/h | 22.8 | 34 | 1/h | 31.9 | 7 | h/H | $10.9^{\text {b }}$ | 32 | 1/na | 17.7 | 1 | H/h |
| Putnam | 21.2 | 26 | 1/H | 17.9 | 33 | 1/1 | 26.3 | 24 | 1/h | 22.4 | 36 | L/1 | 24.8 | 31 | 1/h | 15.3 | 24 | 1/na | 9.2 | 19 | I/L |
| Raleigh | 29.1 | 8 | H/H | 23.9 | 15 | h/H | 28.6 | 19 | h/h | 25.5 | 28 | 1/h | 27.5 | 20 | 1/H | 22.6 | 9 | h/na | 6.1 | 33 | L/L |
| Randolph | 26.7 | 14 | h/H | 24.0 | 14 | h/h | 29.3 | 15 | h/h | 25.4 | 30 | 1/h | 25.0 | 30 | $1 / \mathrm{h}$ | $26.3{ }^{\text {b }}$ | 4 | h/na | 6.8 | 31 | I/L |
| Upshur | 21.9 | 23 | 1/h | 23.1 | 17 | h/h | 25.0 | 29 | 1/h | 28.0 | 16 | h/h | 29.1 | 14 | h/h | 20.3 | 13 | h / na | 6.9 | 30 | I/L |
| Wayne | 28.6 | 9 | h/H | 22.2 | 21 | 1/h | 32.0 | 9 | h/H | 29.1 | 13 | h/H | 31.5 | 9 | h/H | 14.4 | 27 | 1/na | 8.3 | 25 | I/L |
| Wood | 18.3 | 34 | L/h | 22.4 | 19 | 1/h | 23.8 | 33 | L/1 | 26.8 | 23 | 1/H | 25.3 | 29 | 1/h | 12.6 | 30 | 1/na | 10.8 | 10 | h/L |
| Wyoming | 37.4 | 3 | H/H | 29.8 | 7 | h/H | 37.6 | 2 | H/H | 27.5 | 18 | 1/h | 39.7 | 1 | H/H | 22.6 | 9 | h/na | $4.9{ }^{\text {b }}$ | 34 | L/L |
| Grouped Counties ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Boone, Lincoln | 32.3 | 5 | H/H | 27.5 | 10 | h/H | 34.1 | 5 | H/H | 34.1 | 2 | H/H | 34.2 | 5 | H/H | 17.1 | 22 | h/na | 9.0 | 20 | I/L |
| Greenbrier, Summers, Monroe | 29.8 | 7 | H/H | 27.9 | 9 | h/H | 33.8 | 7 | H/H | 29.3 | 12 | h/H | 27.1 | 21 | 1/H | 23.5 | 7 | h/na | 7.6 | 28 | I/L |
| Braxton, Nicholas, Webster | 30.5 | 6 | H/H | 30.0 | 6 | H/H | 33.9 | 6 | h/H | 30.0 | 10 | h/H | 26.1 | 23 | 1/h | 28.3 | 2 | H/na | 7.0 | 29 | I/L |
| Hardy, Pendleton, Pocahontas | 22.7 | 20 | 1/H | 19.7 | 27 | 1/h | 24.2 | 31 | 1/1 | 25.8 | 26 | 1/h | 23.9 | 34 | 1/h | 27.1 | 3 | h/na | 9.7 | 15 | I/L |
| Calhoun, Clay, Gilmer, Roane | 28.6 | 9 | h/H | 31.5 | 3 | H/H | 35.1 | 4 | H/H | 27.4 | 19 | 1/h | 34.5 | 4 | H/H | 37.0 | 1 | H/na | 10.3 | 12 | h/L |
| Jackson, Wirt | 28.6 | 9 | h/H | 20.3 | 23 | 1/h | 29.0 | 17 | h/h | 26.9 | 22 | 1/h | 26.9 | 22 | 1/h | 21.0 | 12 | h/na | 8.8 | 21 | I/L |
| Doddridge, Lewis, Ritchie | 25.0 | 15 | h/H | 19.1 | 30 | 1/h | 31.5 | 12 | h/H | 28.0 | 16 | h/h | 25.4 | 28 | 1/h | 19.1 | 16 | h/na | 8.6 | 22 | I/L |
| Pleasants, Tyler, Wetzel | 20.5 | 28 | 1/h | 20.1 | 24 | 1/h | 25.6 | 27 | 1/h | 29.6 | 11 | h/H | 24.4 | 33 | 1/h | 24.2 | 6 | h/na | 8.1 | 27 | I/L |
| Barbour, Taylor | 25.0 | 15 | h/H | 31.5 | 3 | h/H | 29.3 | 15 | h/h | 30.9 | 7 | h/H | 21.6 | 36 | 1/1 | 21.6 | 11 | h/na | 9.5 | 17 | I/L |
| Preston, Tucker | 24.9 | 17 | h/H | 29.1 | 8 | h/H | 25.4 | 28 | 1/h | 32.4 | 4 | h/H | 25.7 | 25 | 1/h | 24.6 | 5 | h/na | 8.5 | 23 | I/L |
| Grant, Mineral | 22.6 | 21 | 1/H | 18.5 | 31 | 1/h | 26.6 | 21 | 1/h | 26.7 | 24 | 1/h | 27.7 | 18 | h/h | 15.3 | 24 | 1/na | 12.2 | 9 | h/l |
| Hampshire, Morgan | 22.2 | 22 | 1/H | 22.5 | 18 | 1/h | 24.9 | 30 | 1/h | 26.1 | 25 | 1/h | 28.0 | 16 | h/H | 17.6 | 19 | h/na | 17.4 | 2 | H/h |
| WV / US 2003 / WV vs US | 24.3 | 16.2 | H | 22.8 | 18.2 | H | 28.2 | 24.6 | H | 27.7 | 22.8 | H | 27.5 | 22.2 | H | 16.9 | NA | NA | 10.1 | 15.8 | L |
| Source: Centers for Disease Control \& Prevention - 1999-2005 Behavioral Risk Factor Data; West Virginia Health Statistics Center, 2006. <br> a. Data only available for limited years: Smokeless Tobacco Use (2000-2004); Hypertension, High Cholesterol (2001-2003, 2005); Arthritis (1999, 2001, 2003, 2005). <br> b. Unreliable prevalence estimate - use caution when reporting and interpreting. <br> c. Some counties were grouped to obtain an adequate sample size for analysis. For these counties, the prevalence, rank, and significance are representive of the combined counties. Individual county estimates are not available for these grouped counties. <br> * Sig. = County estimate vs WV / vs US 2003. <br> H - Significantly higher. <br> h - Higher but not significant. <br> I- Lower but not significant. <br> L - Significantly lower. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Note: Counties with the same prevalence share the same rank. page 113 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# Appendix L, continued 

2001-2005 WV Behavioral Risk Factors and Health Conditions by County

| County | Diabetes |  |  | Hypertension ${ }^{\text {a }}$ |  |  | High Cholesterol ${ }^{\text {a }}$ |  |  | Heart Attack, Angina or Stroke |  |  | Current Asthma |  |  | Arthritis ${ }^{\text {a }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* | \% | Rank | Sig.* |
| Individual Counties |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Berkeley | 8.0 | 33 | 1/h | 26.2 | 33 | L/h | 36.6 | 26 | 1/h | 11.2 | 28 | 1/na | 9.9 | 14 | h/h | 26.9 | 34 | L/1 |
| Brooke | 13.2 | 2 | h/H | 34.4 | 15 | h/H | 42.9 | 9 | h/h | 12.3 | 20 | 1/na | 7.5 | 29 | 1/1 | 30.9 | 28 | 1/h |
| Cabell | 8.8 | 27 | 1/h | 28.8 | 30 | 1/h | 36.2 | 29 | 1/h | 12.9 | 15 | 1/na | 8.9 | 18 | 1/h | 35.9 | 13 | h/H |
| Fayette | 9.8 | 18 | 1/h | 29.6 | 26 | 1/h | 35.7 | 30 | 1/h | 12.5 | 18 | 1/na | 8.3 | 24 | 1/h | 33.8 | 20 | 1/H |
| Hancock | 8.3 | 32 | 1/h | 23.1 | 35 | L/1 | 34.2 | 32 | 1/h | 11.7 | 25 | 1/na | 10.1 | 12 | h/h | 29.0 | 32 | 1/h |
| Harrison | 8.8 | 27 | 1/h | 33.0 | 19 | h/H | 35.1 | 31 | 1/h | 10.4 | 31 | 1/na | 8.6 | 20 | 1/h | 32.0 | 24 | 1/H |
| Jefferson | 9.8 | 18 | 1/h | 26.4 | 32 | L/h | 25.4 | 36 | L/L | 8.2 | 36 | L/ na | 10.6 | 9 | h/h | 28.6 | 33 | 1/h |
| Kanawha | 10.3 | 13 | h/H | 33.1 | 18 | h/H | 40.5 | 16 | h/H | 12.2 | 21 | 1/na | 8.1 | 25 | 1/h | 30.5 | 29 | 1/H |
| Logan | 11.0 | 10 | h/h | 38.4 | 3 | h/H | 44.7 | 3 | h/H | 17.6 | 2 | h/na | 11.7 | 4 | h/h | 41.6 | 3 | h/H |
| McDowell | 16.0 | 1 | H/H | 41.1 | 2 | h/H | 48.2 | 1 | h/H | 17.6 | 2 | h/na | 12.7 | 1 | h/H | 47.8 | 1 | H/H |
| Marion | 6.5 | 36 | L/1 | 30.7 | 24 | 1/h | 31.3 | 34 | L/1 | 9.5 | 34 | L/ na | 10.8 | 8 | h/h | 31.7 | 25 | 1/h |
| Marshall | 10.4 | 12 | h/h | 29.1 | 28 | 1/h | 39.0 | 20 | 1/h | 10.9 | 29 | 1/na | 7.4 | 30 | 1/1 | 32.7 | 21 | 1/h |
| Mason | 11.1 | 8 | h/h | 29.5 | 27 | 1/h | 37.9 | 21 | 1/h | 13.7 | 11 | h/na | 7.3 | 31 | 1/1 | 36.8 | 11 | h/H |
| Mercer | 12.2 | 3 | h/H | 36.1 | 7 | h/H | 40.1 | 17 | h/H | 15.4 | 7 | h/na | 10.1 | 12 | h/h | 35.9 | 13 | h/H |
| Mingo | 11.9 | 4 | h/H | 42.9 | 1 | H/H | 39.9 | 19 | h/h | 17.6 | 2 | h/na | 12.7 | 1 | h/H | 44.4 | 2 | H/H |
| Monongalia | 6.8 | 35 | L/1 | 21.8 | 36 | L/1 | 29.9 | 35 | L/1 | 8.6 | 35 | L/ na | 9.2 | 15 | h/h | 18.3 | 36 | L/L |
| Ohio | 9.8 | 18 | 1/h | 28.5 | 31 | 1/h | 37.9 | 21 | 1/h | 14.5 | 8 | h / na | 8.6 | 20 | 1/h | 31.5 | 26 | 1/h |
| Putnam | 10.0 | 15 | 1/h | 33.7 | 16 | h/H | 37.6 | 24 | 1/h | 11.3 | 27 | 1/na | 7.9 | 27 | 1/h | 26.2 | 35 | L/1 |
| Raleigh | 10.9 | 11 | h/H | 35.2 | 14 | h/H | 37.1 | 25 | 1/h | 14.5 | 8 | h/na | 11.0 | 6 | h/H | 38.3 | 6 | h/H |
| Randolph | 9.4 | 25 | 1/h | 35.5 | 10 | h/H | 34.0 | 33 | 1/h | 14.3 | 10 | h/na | 7.0 | 34 | 1/1 | 32.4 | 22 | 1/h |
| Upshur | 9.7 | 21 | 1/h | 23.6 | 34 | L/1 | 40.8 | 15 | h/h | 9.6 | 33 | 1/na | 6.5 | 35 | 1/1 | 31.5 | 26 | 1/h |
| Wayne | 9.7 | 21 | 1/h | 35.4 | 12 | h/H | 43.2 | 8 | h/H | 12.7 | 17 | 1/na | 8.6 | 20 | 1/h | 34.4 | 18 | h/H |
| Wood | 9.9 | 16 | 1/h | 31.8 | 21 | 1/H | 36.3 | 27 | 1/h | 12.2 | 21 | 1/na | 7.3 | 31 | 1/1 | 34.0 | 19 | h/H |
| Wyoming | 9.6 | 23 | 1/h | 36.2 | 6 | h/H | 43.3 | 7 | h/h | 23.5 | 1 | H/ na | 8.6 | 20 | 1/h | 37.6 | 9 | h/H |
| Grouped Counties ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Boone, Lincoln | 11.6 | 5 | h/H | 38.1 | 4 | h/H | 44.0 | 4 | h/H | 15.8 | 6 | h/na | 11.2 | 5 | h/H | 38.6 | 5 | h/H |
| Greenbrier, Summers, Monroe | 10.3 | 13 | h/h | 36.3 | 5 | h/H | 42.2 | 12 | h/H | 16.2 | 5 | h/na | 9.0 | 17 | 1/h | 38.2 | 7 | h/H |
| Braxton, Nicholas, Webster | 11.3 | 6 | h/H | 33.4 | 17 | h/H | 37.8 | 23 | 1/h | 13.6 | 12 | h/na | 9.1 | 16 | 1/h | 32.3 | 23 | 1/h |
| Hardy, Pendleton, Pocahontas | 7.0 | 34 | 1/1 | 32.8 | 20 | h/h | 43.4 | 6 | h/H | 10.0 | 32 | 1/na | 7.6 | 28 | 1/1 | 30.0 | 30 | 1/h |
| Calhoun, Clay, Gilmer, Roane | 9.9 | 16 | 1/h | 35.6 | 9 | h/H | 42.0 | 13 | h/H | 11.9 | 24 | 1/na | 12.7 | 1 | h/H | 36.3 | 12 | h/H |
| Jackson, Wirt | 8.8 | 27 | 1/h | 31.3 | 23 | 1/h | 42.8 | 10 | h/H | 13.2 | 13 | h/na | 7.2 | 33 | 1/1 | 35.4 | 16 | h/H |
| Doddridge, Lewis, Ritchie | 8.7 | 30 | 1/h | 35.4 | 12 | h/H | 43.9 | 5 | h/H | 13.0 | 14 | 1/na | 11.0 | 6 | h/h | 40.6 | 4 | h/H |
| Pleasants, Tyler, Wetzel | 11.1 | 8 | h/h | 31.6 | 22 | 1/h | 41.2 | 14 | h/h | 11.5 | 26 | 1/na | 10.5 | 10 | h/h | 35.5 | 15 | h/H |
| Barbour, Taylor | 11.3 | 6 | h/h | 35.7 | 8 | h/H | 42.7 | 11 | h/H | 12.2 | 21 | 1/na | 8.1 | 25 | 1/h | 37.1 | 10 | h/H |
| Preston, Tucker | 8.5 | 31 | 1/h | 29.0 | 29 | 1/h | 36.3 | 27 | 1/h | 10.7 | 30 | 1/na | 8.9 | 18 | 1/h | 37.8 | 8 | h/H |
| Grant, Mineral | 9.2 | 26 | 1/h | 35.5 | 10 | h/H | 46.7 | 2 | h/H | 12.9 | 15 | 1/na | 10.5 | 10 | h/h | 35.2 | 17 | h/h |
| Hampshire, Morgan | 9.5 | 24 | 1/h | 30.7 | 24 | 1/h | 40.0 | 18 | h/h | 12.4 | 19 | 1/na | 5.8 L | 36 | L/1 | 29.7 | 31 | 1/h |
| WV / US 2003 / WV vs US | 10.0 | 7.5 | H | 32.6 | 25.8 | H | 39.1 | 33.6 | H | 13.0 | NA | NA | 9.2 | 7.7 | H | 33.9 | 27.1 | H |
|  <br> a. Data only available for limited years: <br> b. Unreliable prevalence estimate - use <br> c. Some counties were grouped to obta of the combined counties. Individual | ention <br> okeless <br> on whe <br> adequa <br> ty esti | 99-2005 <br> bacco Us <br> porting <br> ample siz <br> sare not | avioral <br> 2000-20 <br> interpre <br> or analy <br> ailable fo | Facto Hype <br> For the hese gr | ta; Wes ion, Hig <br> ounties, <br> d count | rginia holester <br> prevale |  | Center, 2005); <br> ignifican | 6. <br> ritis (19 <br> are repre | 2001, <br> tive | 2005). |  | * Sig. = County estimate vs WV / vs US 2003. H - Significantly higher. <br> h-Higher but not significant. |  |  |  |  |  |
| Note: Counties with the same prevalence share the same rank. |  |  |  |  |  |  |  |  |  |  |  |  | page 11 |  |  |  |  |  |


[^0]:    ${ }^{1}$ CASRO rate $=$ $\qquad$
    Known Eligibles + [(Known Eligibles/\{Known Eligibles \& Ineligibles \}) x (Unknowns)]
    ${ }^{2}$ Overall response rate $=\ldots$ Completed Interviews
    Eligible Households
    ${ }^{3}$ Cooperation rate $=$ $\qquad$

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

[^2]:    ${ }^{4}$ Significance can be affected by both prevalence level and county sample size.

[^3]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^4]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^5]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^6]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^7]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^8]:    1 Note: Prior to 2001, heavy drinking was defined as consuming 60 or more drinks during the past month regardless of gender. This report redefines the data prior to 2001 to match the current definition of heavy drinking. Therefore, numbers presented in this chapter may not agree with publications prior to 2003.

[^9]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^10]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^11]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^12]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^13]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^14]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^15]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

[^16]:    * Use caution when interpreting and reporting this estimate. See discussion of unstable estimates on page 9.

