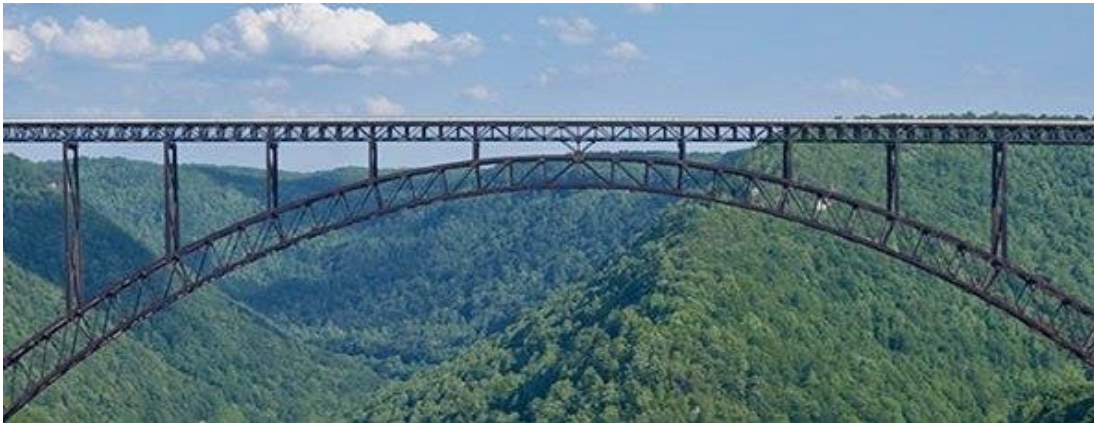


# **MAPP**

**Mobilizing for Action through Planning and Partnerships  
Berkeley, Jefferson and Morgan Counties West Virginia**

## **Community Health Status Assessment A Compilation of Data that Reflects the Community's Health**

**May 2014**



***Bridges to Healthy Transitions:  
Serving the Eastern Panhandle and the State of West Virginia  
West Virginia University School of Nursing, Eastern Division***

Report Prepared By:

***Dr. Joy Buck, PhD, RN***

***Mrs. Rachel Carballo, MPH***

***Ms. Trina Bartlett, MSW***

If any of this report is adapted for publication or presentation, please use the following language when citing: *These data were adapted from: Buck, J., Carballo, R., & Bartlett, T.C. (2014). Eastern Panhandle Mobilizing for Action through Planning and Partnerships Report: A Community Health Status Assessment, West Virginia University School of Nursing, Eastern Division, available at: <http://www.hsc.wvu.edu/eastern/SON/Bridges/Forms/Mapp-Form.aspx>.*

### **ACKNOWLEDGEMENTS**

The Eastern Panhandle Mobilizing for Action through Planning and Partnerships (MAPP) began as a voluntary effort developed by representatives from various organizations and community volunteers. Those individuals involved in the early development of the project and data collection were:

*Teresa Warnick, MAPP facilitator, Family Resource Network  
Alexandra Beaulieu, Community Volunteer  
Joy Buck, WVU School of Nursing, Eastern Division  
Dana DeJarnett, Berkeley Medical Center Wellness Center  
Jeanne Marzell, Shenandoah Valley Medical Systems, Inc.  
Jeremy Exell, VISTA Volunteer, Family Resource Network  
Judith Miller Jones, Healthier Jefferson County  
Lydia Hasting, Community Volunteer  
Lyn Goodwin, Valley Health Systems, Inc.  
Denise Ryan, Berkeley County Health Department  
Robin Truax, Berkeley County Schools  
Sara Douglass, Community Volunteer  
Teresa McCabe, University Healthcare  
Thomas S. Kimm, VISTA Volunteer, Eastern Panhandle Free Clinic  
Ashley Petrolino, MPH Intern  
Tom Conlan, Berkeley County Planning Commission*

The Eastern Panhandle MAPP was generously supported by a grant from the Claude B. Worthington Benedum Foundation with the West Virginia University School of Nursing serving as its administrative home with Dr. Joy Buck, PhD, MSN serving as the Project Director and Ms. Trina Bartlett, MSW as the Project Coordinator. MAPP activities are currently guided by a core group that includes the following members:

*Sharon Awkard, Director of Community Impact, United Way of the Eastern Panhandle  
Trina Bartlett, Coordinator Community Research Initiatives, WVU, School of Nursing, Eastern Division  
Dr. Joy Buck, PhD, Associate Professor, WVU, School of Nursing, Eastern Division  
Tom Conlan, Community Member  
Dana DeJarnett, Health Promotion Specialist, the Wellness Center at Berkeley Medical Center  
Ralph Goolsby, Retired Community Development Manager at WV Development Office  
Brenda Hutchinson, previous Morgan County Commissioner  
Thomas Kimm, Community Member  
Dr. Sharon Mailey, PhD, Professor and Chair, Department of Nursing Education, Shepherd University  
Kathy Mason, Business Programs Manager, Berkeley County Development Authority  
Kathy Olson, Director, Family Resource Network of the Eastern Panhandle  
Anne Prentice, Attorney/court appointed guardian ad litem, in Virginia and West Virginia.  
Denise Ryan, Health Promotion Specialist, Berkeley County Health Department  
Michael Whalton, Executive Director, Eastern WV Community Foundation*

# **TABLE OF CONTENTS**

<i>ACKNOWLEDGEMENTS</i>	<i>i</i>
<i>TABLE OF CONTENTS</i>	<i>- 1 -</i>
<i>INTRODUCTION</i>	<i>- 5 -</i>
<i>OVERVIEW: MOBILIZING FOR ACTION THROUGH PARTNERSHIPS AND PLANNING</i>	<i>- 6 -</i>
The Goals of MAPP	- 6 -
The Elements of MAPP	- 6 -
<i>EXECUTIVE SUMMARY</i>	<i>- 7 -</i>
Population Trends	- 11 -
Economic Factors	- 11 -
Maternal and Child Health	- 12 -
Behavioral Risk Factors	- 13 -
Morbidity and Mortality	- 14 -
Social Factors and Behavioral Health	- 15 -
Environmental Factors	- 17 -
<i>COMMUNITY HEALTH STATUS ASSESSMENT</i>	<i>- 18 -</i>
<i>DEMOGRAPHICS</i>	<i>- 18 -</i>
Population by Age and Sex	- 18 -
Table 2: United States Population by Age and Sex 2000 and 2005	- 18 -
Table 3: United States Population and by Age and Sex 2010	- 18 -
Table 4: West Virginia Population by Age & Sex 2000, 2005, 2010	- 19 -
Table 5: Berkeley County Population by Age & Sex 2000, 2005, 2010	- 20 -
Table 6: Jefferson County Population by Age & Sex 2000, 2005, 2010	- 20 -
Table 7: Morgan County Population by Age & Sex 2000, 2005, 2010	- 21 -
Population by Race/Ethnic Distribution	- 22 -
Table 8: United States Population by Race/Ethnic Distribution 2000, 2005, 2010	- 22 -
Table 9: West Virginia Population by Race/Ethnic Distribution 2000, 2005, 2010	- 23 -
Table 10: Berkeley County Population by Race/Ethnic Distribution 2000, 2005, 2010	- 24 -
Table 11: Jefferson County Population by Race/Ethnic Distribution 2000, 2005, 2010	- 25 -
Table 12: Morgan County Population by Race/Ethnic Distribution 2000, 2005, 2010	- 26 -
Population Change	- 26 -
Table 13: Population Change by Age U.S., WV and Eastern Panhandle Counties 2000 - 2010	- 27 -
Table 14: Population Change by Race/Ethnicity U.S., WV and Eastern Panhandle Counties 2000 - 2010	- 27 -
Socioeconomic and Education Measures	- 28 -
Table 15: Socioeconomic and Educational Attainment in U.S. and WV 2000 and 2010	- 28 -
Table 15a: Socioeconomic and Educational Attainment in U.S. and WV 2008-2012, UPDATED	- 29 -
Table 16: Socioeconomic and Educational Attainment in the Eastern Panhandle Counties 2000 and 2010	- 30 -
Table 16a: Socioeconomic and Educational Attainment in the Eastern Panhandle Counties 2008-2012, UPDATED	- 31 -
<i>HEALTH INDICATORS</i>	<i>- 31 -</i>
Table 17: WV County Health Rankings 2010-2013, UPDATED	- 32 -
Mortality	- 32 -
Table 18: Life Expectancy in U.S., WV and the Eastern Panhandle Counties 2000 and 2010, UPDATED	- 32 -
Table 19: Average Age of Death West Virginia and Eastern Panhandle Counties 2000, 2005, 2010, UPDATED	- 32 -

Table 20: Leading Causes of Death in U.S., WV and Eastern Panhandle Counties 2000 and 2010, UPDATED	- 33 -
Table 21: Years of Potential Life Lost Before Age 65 U.S. and WV 2000, 2010	- 34 -
Injury Mortality	- 34 -
Table 22: Injury Mortality Rates per 100,000 Population U.S. and WV 2001-2010, UPDATED	- 35 -
Table 22a: Injury Mortality Rates due to Poisoning per 100,000 Population U.S. and WV 2000-2010, UPDATED	- 35 -
Table 22b: Poisoning Mortality per 100,000 in West Virginia and the United States, 2010, UPDATED	- 35 -
* Rates based on 20 or fewer deaths may be unstable. Use with caution.	- 36 -
Drug Poisoning is defined in the footnotes	- 36 -
Health Risk Factors	- 37 -
Behavioral Risk Factor Surveillance System	- 37 -
Table 23: Health Risk Factors U.S. and WV 2003, 2006, 2008 and 2011, UPDATED	- 38 -
Table 24: Health Risk Factors Eastern Panhandle Counties 2001 – 2010	- 39 -
Table 25: Primary and Secondary Prevention U.S. and WV for Selected Year	- 40 -
Table 25a: Primary and Secondary Prevention U.S. and WV for Selected Year	- 40 -
Youth Risk Behavior Surveillance System	- 41 -
Table 26: Youth Risk Behavior Survey Public School Students Grades 9 -12 U.S. and WV for Selected Years	- 41 -
Table 27: Infant Mortality U.S., WV and Eastern Panhandle Counties Rates per 1,000 population, UPDATED	- 43 -
Table 28: Infant Mortality by Cause U.S. and WV 2000 – 2008 Rates per 100,000 Population	- 43 -
Table 28a: Infant Mortality by Cause U.S. and WV 2008-2010 Rates per 100,000 Population, UPDATED	- 43 -
Table 29: Infant Mortality Rate by Race and Cause United States 2000 – 2008 Rates per 100,000 Population	- 44 -
Table 29a: Infant Mortality Rate by Race and Cause United States 2008-2010 Rates per 100,000 Population, UPDATED	- 45 -
Table 30: Infant Mortality By Race and Cause West Virginia 2000 - 2008 Rates per 100,000 Population	- 45 -
Table 30a: Infant Mortality By Race and Cause West Virginia 2000 - 2008 Rates per 100,000 Population, UPDATED	- 45 -
Prenatal Care	- 46 -
Table 31: Percent of All Birth Mothers Who Received Prenatal Care Beginning in the First Trimester	- 46 -
Low Birth Weight	- 46 -
Table 32: Percent of Low Birth Weight Births U.S., WV, and Eastern Panhandle Counties 2000, 2005 and 2010, UPDATED	- 47 -
Smoking during Pregnancy	- 47 -
Table 33: Percent of All Birth Mothers Who Used Tobacco During Pregnancy as Reported on Birth Certificates	- 48 -
Table 34: Percent of Women Who Smoked During the Last Three Months of Pregnancy	- 48 -
West Virginia 2000, 2005, 2008, 2010, UPDATED	- 48 -
Drinking Alcohol during Pregnancy	- 49 -
Table 35: Percent Mothers Reported Having Any Alcoholic Drinks During the Last 3 Months of Pregnancy	- 49 -
West Virginia and Comparison to Other States 2000, 2005, 2008,2010, UPDATED	- 49 -
Table 36: Prevalence of Maternal Drinking in the Last Three Months of Pregnancy by Annual Income	- 49 -
Table 37: Prevalence of Maternal Drinking Last Three Months of Pregnancy by Age	- 49 -
West Virginia 2000, 2005, 2009, 2010, UPDATED	- 49 -
Table 38: Prevalence of Maternal Drinking Last Three Months of Pregnancy Among Medicaid Recipients	- 50 -
Table 39: Teen Birth Rates in the U.S. and WV for Selected Years Per 1,000 Population, UPDATED	- 50 -

Table 40: Teen Birth Rates in Eastern Panhandle Counties for Selected Years Per 1,000 Population ____	- 50 -
Table 40a: Percent of Births in Eastern Panhandle Counties to Teenagers, UPDATED _____	- 51 -
Communicable Diseases _____	- 51 -
Table 41: Communicable Diseases U.S. and WV 2000, 2005, 2011, UPDATED _____	- 52 -
Chronic Disease _____	- 53 -
Table 42: Prevalence of Selected Chronic Disease and Risk Factors Heart Disease _____	- 54 -
Table 43: Chronic Obstructive Pulmonary Disease in U.S., WV and Eastern Panhandle Counties, UPDATED _	- 55 -
Table 44: Current Asthma - Adults Who Have Been Told They Currently Have Asthma _____	- 56 -
U.S., WV and Eastern Panhandle Counties 2003, 2006, 2008, 2010, 2012, UPDATED _____	- 56 -
Table 45: Age Adjusted Percent of Adults Who Have Been Diagnosed with Diabetes _____	- 57 -
U.S. WV and Eastern Panhandle Counties 2000, 2005 and 2009, 2007-2011, UPDATED _____	- 57 -
Cancer _____	- 57 -
Table 46: Cancer Incidence Rates per 100,000 Population U.S., WV and Eastern Panhandle Counties 2006-	- 58 -
2010, UPDATED _____	- 58 -
Table 47: Annual Cancer Death Rates Per 100,000 Population U.S., WV and Eastern Panhandle Counties	- 58 -
Through 2006-2010, UPDATED _____	- 58 -
Table 48: Cancer Death Trends Per 100,000 Population Eastern Panhandle Counties Through 2010,	- 58 -
UPDATED _____	- 58 -
ENVIRONMENTAL FACTORS _____	- 59 -
Radon _____	- 59 -
Table 49: Average Indoor Radon Level U.S. and Eastern Panhandle Counties (1986-2013), UPDATED__	- 59 -
Table 50: Average Indoor Radon Level (1986-2013), UPDATED _____	- 59 -
Air Quality _____	- 60 -
Table 51: Berkeley County Air Quality Index 2000, 2005, 2010, 2013, UPDATED _____	- 60 -
SOCIAL AND MENTAL HEALTH _____	- 60 -
Table 52: Behavioral Health Related Diagnoses upon Admission to Substance Abuse Treatment Programs	- 62 -
Aged 12 and Older, UPDATED _____	- 62 -
Table 53: Suicide Rate per 100,000 population US, WV and Eastern Panhandle Counties 2000, 2005, and	- 62 -
2010 _____	- 62 -
Alcohol and Drug Use _____	- 63 -
Table 54: Substance Abuse Related Diagnoses upon Admission to Substance Abuse Treatment Programs	- 64 -
Aged 12 and Older, UPDATED _____	- 64 -
Table 55: West Virginia State Police Seized Drugs Report 2000 and 2005 _____	- 64 -
Table 55a: West Virginia State Police Seized Drugs Report 2010 and 2012, UPDATED _____	- 65 -
Table 56: Rate of Drug and Narcotic Offenses per 1,000 WV and Eastern Panhandle Counties	- 65 -
2000, 2005 and 2010, 2012, UPDATED _____	- 65 -
Table 57: Drug Overdose Deaths per 100,000 WV and Eastern Panhandle Counties _____	- 66 -
Table 58: Any Drug Overdose With at Least One Possible Prescription Drug Involved _____	- 66 -
Table 59: Average Annual Per Capita Number of Retail Prescription Drugs Filled at Pharmacies _____	- 66 -
Table 60: Driving Under the Influence U.S., WV and Eastern Panhandle Counties _____	- 67 -
*County level statistics are solely crashes, not fatal crashes _____	- 67 -
Crime _____	- 68 -
Domestic Violence _____	- 69 -
Table 62: Number of Reported Domestic Violence Investigations WV and Eastern Panhandle Counties	- 71 -
2000, 2005, 2010, and 2012, UPDATED _____	- 71 -
Table 63: Number of Unduplicated Individuals Sheltered at Shenandoah Women's Center _____	- 71 -
Table 64: Number of Non-Sheltered Individuals Receiving Services from Shenandoah Women's Center	- 71 -
2000, 2005, 2010 _____	- 71 -
Homelessness _____	- 72 -

Table 66: Homelessness: Reported Point-In-Time Sheltered Subpopulations in 2013, UPDATED _____	- 72 -
Table 67: Homelessness: Reported Point-In-Time Unsheltered Subpopulations in 2013, UPDATED _____	- 73 -
Child Abuse _____	- 73 -
Table 68: Child Abuse Referrals and Investigations Eastern Panhandle Counties 2010 and 2011 _____	- 74 -
Table 69: Child Abuse Cases Eastern Panhandle Counties 2010 and 2011 _____	- 74 -
<i>APPENDICES</i> _____	- 75 -
Appendix A: US. Census Poverty Thresholds _____	- 75 -
Appendix B: Federal Poverty Level _____	- 76 -
Appendix C: Percent of Women who Smoked During Last Three Months of Pregnancy _____	- 77 -

## **INTRODUCTION**

The Eastern Panhandle's Mobilizing for Action through Planning and Partnerships (MAPP) project is intended to serve as a planning tool for government agencies, educational institutions, nonprofit organizations, community groups and others committed to improving the health of Berkeley, Jefferson and Morgan County residents.

According to the World Health Organization (WHO), the health of a community is not simply determined by the existence or absence of disease. Many factors combine together to affect the health of individuals and communities, and individuals are unlikely to be able to directly control many of the determinants of health<sup>1</sup>. These determinants include, but are not limited to:

- Income and social status - higher income and social status are linked to better health, and the greater the gap between the richest and poorest people, the greater the differences in health.
- Education – low education levels are linked with poor health, more stress and lower self-confidence.
- Physical environment – safe water and clean air, healthy workplaces, safe houses and roads all contribute to good health.
- Employment and working conditions – people in employment are healthier, particularly those who have more control over their working conditions.
- Social support networks – greater support from families, friends and communities is linked to better health.
- Culture – customs, traditions and the beliefs of the family and community affect health.
- Genetics - inheritance plays a part in determining lifespan, health and the likelihood of developing certain illnesses.
- Personal behavior and coping skills – balanced eating, keeping active, smoking, drinking and how we deal with life's stresses and challenges all affect health.
- Health services - access and use of services that prevent and treat disease influences health.
- Sex - men and women suffer from different types of diseases at different ages. There are also social and economic differences associated with a persons' sex that result in health disparities.

The MAPP assessment obtained data about many of these determinants from multiple sources. When possible, trend and comparative data are provided in the body of this report.

---

<sup>1</sup> <http://www.who.int/hia/evidence/doh/en/>

## **OVERVIEW: MOBILIZING FOR ACTION THROUGH PARTNERSHIPS AND PLANNING**



Mobilizing for Action through Planning and Partnerships (MAPP) is a community-driven strategic planning process developed by the National Association of County and City Health Officials (NACCHO) in cooperation with the Centers for Disease Control and Prevention (CDC). This process provides a framework, structure and best practices to help communities improve health and quality of life by taking into account their unique circumstances and needs, using their resources wisely and forming effective partnerships for strategic action.

The vision for implementing MAPP is: "Communities achieving improved health and quality of life by mobilizing partnerships and taking strategic action."

### **The Goals of MAPP**

- Create and implement a well-coordinated plan that uses resources efficiently and effectively.
- Develop long-term strategies that address the multiple factors that affect health in a community.
- Engage the entire community in order to increase community ownership of the process. Community ownership, in turn, increases the credibility and sustainability of health improvement efforts.

### **The Elements of MAPP**

- 1) MAPP engages key stakeholders and residents in creating a vision of a healthy community.
- 2) MAPP brings four assessments together to drive the development of a community strategic plan:
  - The Community Health Status Assessment analyzes data about health status, quality of life and risk factors in the community.
  - Community Themes and Strengths Assessment identifies themes that interest the community and emphasizes community assets.
  - The Local Public Health Assessment measures the capacity of the local public health system to conduct essential public health services.
  - The Forces of Change Assessment identifies forces that are occurring or will occur that will affect the community or the local public health system.

For more information about MAPP, go to <http://www.naccho.org/topics/infrastructure/mapp/>.



## EXECUTIVE SUMMARY

This report is an addendum to the 2013 MAPP Report, a comprehensive health assessment of West Virginia's Eastern Panhandle (Berkeley, Jefferson and Morgan counties) drawing from multiple data sources. Specifically, this reports contains updated Community Health Assessment information. The report also contains certain components of the 2013 MAPP report but does not duplicate data from the 2013 Community Strengths and Themes Survey, the Public Health Assessment, or the Forces of Change Assessment. The 2013 MAPP report contains the most current version of those assessments. The 2013 MAPP report is available for download at: <http://eastern.hsc.wvu.edu/schools/nursing/bridges-to-healthy-transitions-research-reports/>

In general, the region is better positioned than the rest of the state to weather economic uncertainty. During the first decade of the twenty-first century, the Eastern Panhandle experienced significant growth in population and relative prosperity when compared to the rest of the state. Unlike much of West Virginia, the Eastern Panhandle has also seen improvements in health risk behaviors such as smoking, even though the percentage of smokers is higher than the rest of the state in all but Jefferson County. At the same time, the MAPP assessments reveal diverse needs in the community related to economic downturn and rise in unemployment, shifting population demographics and persistent health problems that differ across the three counties.

Demographic trends in the region are quite different than the rest of West Virginia. Between 2000 and 2010, the largest growth in population in the region was among persons between the ages of 50 and 64. The “graying” of the region is important to consider in planning for senior services to help elders to age in place and live as well as possible for as long as possible. There is evidence that the demand is already outstripping the supply of community-based services, especially for elders with lower incomes without local family to help them as they age.

The growth in the aging population over the past ten years was accompanied by a marked increase in ethnic and racial diversity in the region. Historically, racial and ethnic minorities have higher rates of hypertension and diabetes than non-minority populations for myriad reasons, including genetic predisposition. The need to improve primary and secondary prevention of chronic illness in general and diabetes in particular, was identified by the MAPP and University Healthcare Community Health Needs Assessment in both acute and community care settings. Any interventions aimed at improving health outcomes should be culturally and linguistically congruent with the targeted populations. This includes, but is not limited to, considerations of health literacy, native language, the use of interpreters and social conditions. This is best accomplished by engaging the community in both the identification and prioritization of problems and feasible solutions to remedy them.

In addition to chronic illness, the rise of infant mortality in all three Eastern Panhandle counties between 2000 and 2010 warrants further investigation. Ironically, this rise in infant mortality occurred at the same time that access to prenatal care during pregnancy rose. An understanding of the root causes of the rising infant mortality rate is critical to any interventions that aim to decrease the trend.

**There were also income disparities based on sex that warrant closer inspection and intervention. While overall incomes in the region were higher in 2010 when compared to 2000, the percentage of children living in poverty increased and the majority of children living in poverty live in female head of household homes. Moreover, the MAPP Community Themes and Strengths Survey identified statistically**

**significant differences ( $p < .001$ ) in the responses from higher incomes respondents when compared to those with lower incomes. These differences included perceptions of safety, health problems in the region, satisfaction with health services, self-reported health status and overall satisfaction with health.**

Six initial priority areas were identified after analysis of the results of the MAPP visioning process and four health assessments. These priority areas were:

- **Access and Quality of Health Care:** This category includes medical services, community-based and inpatient behavioral health services, substance abuse treatment, social services and long-term care.
- **Economic Security:** The assessments indicate that economic development, better/higher paying jobs and access to higher education and training opportunities are important to residents in all three counties.
- **Environment:** This category includes preferences for better air quality and built environment. A smaller subsection of respondents to the MAPP visioning and assessments indicated preferences for more open green spaces.
- **Recreation and Community:** MAPP visioning and assessment participants expressed preferences for more local parks and organized recreational activities for families, teens and young adults that help bring people together to enhance a sense of community.
- **Safety and Law Enforcement:** All MAPP assessments indicated concerns about drug trafficking and preferences for better communication between police and citizens, community neighborhood watch programs, traffic on highways and local roads and higher minority representation on the police force.
- **Community/Public Health:** This category includes improved access to affordable health promotion for adults, teens and children; smoking cessation; spaces for hiking; and swimming and exercise facilities. Qualitative responses to the Community Strengths and Themes Survey indicate that many respondents have information about what they should be doing to be healthy, including diet and exercise, but they encounter multiple barriers to improving health behaviors.

Representatives from the Eastern Panhandle Health and Human Services Collaborative (HHSC) members were given the initial priority areas and asked to select the top three for intervention. The HHSC representatives ranked the top three priorities as follows:

1. Access to and the quality of health care;
2. Economic security;
3. Community and public health (distant third).

The same MAPP assessment tools were used as part of the Community Health Needs Assessment that was conducted for University Healthcare and associated hospitals (previously known as West Virginia University Hospitals-East). The same initial priority areas were identified by the key University Healthcare key stakeholders, which included hospital administrators, staff, physicians and community leaders. The top three priorities identified by these stakeholders were:

1. Access to and the quality of health care;
2. Community and public health;
3. Economic security (distant third).

Both the HHSC members and University Healthcare key stakeholder groups ranked the top two priority areas much higher than the third priority area. These results are reflective of the socioeconomic differences between the community-at-large and University Healthcare key stakeholders. Respondents who had higher incomes ranked community/public health as the second priority area and economic security was ranked a distant third. By contrast, those with lower income levels ranked economic security much higher than community/public health. These socioeconomic differences are consistent throughout the MAPP assessments and are important to consider during strategic planning as they emphasize the need to engage target populations in the development of interventions to improve health.

Based on analyses of aggregated data that include the MAPP visioning, assessments and community health indicators, the following areas were identified as priority areas for health planning and intervention:

1. Strategies to reduce disparities in maternal/child health, particularly in the area of infant mortality;
2. Access to and the quality of behavioral health providers and services, including substance use prevention and intervention;
3. Regional economic development that includes the creation of higher paying jobs with insurance benefits, opportunities for career growth and improved transitions from public assistance programs to paying jobs;
4. Strategies to improve citizen safety, including targeted interventions in higher crime areas, improved road safety and illicit substance use and abuse;
5. Chronic illness self-management, particularly acute and community-based diabetes care, heart failure and chronic obstructive pulmonary disease (COPD).
6. Early detection and timely intervention in cancer targeting both breast cancer and the links between environment, behavior and the incidence of lung cancer among women;
7. Enhanced collaboration with public health and community-based initiatives to address regional health trends;
8. Better access to healthy foods, including community gardens, increased access to farmer's markets and healthier options in restaurants and schools.

Data to support these conclusions are found in the body of this report that is also available for download at: <http://eastern.hsc.wvu.edu/schools/nursing/bridges-to-healthy-transitions-research-reports/>. Additional reports and periodic updates will also be posted to the website as they become available. Highlights of the data follow.

## Population Trends

Between 2000 and 2010, the Eastern Panhandle experienced significant population growth as well as a shift in its age and racial/ethnic composition.

- While the United States population grew by 9.7% and West Virginia's population grew by 2.5%, Berkeley County's population grew by 37.2%, Jefferson County's population grew by 26.8% and Morgan County's population grew by 17.4%.
- Of this growth, the greatest was among persons ages 50 – 64 years. The percent change was 68.8% in Berkeley County, 51.5% in Jefferson County and 47.4% in Morgan County.
- In Berkeley and Jefferson counties, the second highest population growth rates were among children ages five and under with 44.1% in Berkeley County and 43% in Jefferson County. In Morgan County, the next highest growing population was among individuals ages 65 and older (29.9%), while the population under age five actually dropped by 6.9%.
- The Eastern Panhandle has more racial and ethnic diversity than West Virginia. In 2010, 95% of WV residents were Caucasian, 4.2% Black/African American and 1.2% Hispanic. By contrast, 8.7% of Berkeley County residents were Black/African American and 3.8% were Hispanic/Latin American. Similarly, almost 8% of Jefferson County residents were Black/African American and 4.7% were Hispanic/Latin American.
- Between 2000 and 2010, the number of African Americans grew by 22.5% in WV, by 127% in Berkeley County, by 50.3% in Jefferson County and by 55% in Morgan County. The number of Hispanics grew by 81.4% in West Virginia, 242.7% in Berkeley County, 239.1% in Jefferson County and 47.6% in Morgan County.

These changes in population indicate a need to ensure the availability of quality services to meet the health and social service needs of an elderly population as well as address the needs of children and families. There are significant health disparities and rates of obesity and chronic illness among the African American and Hispanic population, and the need for culturally appropriate services is critical.

## Economic Factors

Between 2000 and 2010, the Eastern Panhandle experienced multiple economic changes:

- The median household income grew significantly in two of the three Eastern Panhandle counties. In Berkeley County, it grew from \$38,763 to \$50,724, and in Jefferson County it grew from \$44,374 to \$62,425. In Morgan County, it grew slightly from \$35,016 to \$37,281.
- The percentage of children living in poverty increased from 14.6% to 19.4% in Berkeley County, from 11.4% to 14.7% in Jefferson County and from 11.6% to 22.0% in Morgan County.
- The unemployment rate grew from 3.6% to 8.7% in Berkeley County and from 3.4% to 6.4% in Jefferson County. It remained stable in Morgan County.

- Responses in the MAPP Community Strengths and Themes Survey to the question “How satisfied are you with jobs and career growth in our county?” indicate widespread dissatisfaction. Fifty-six percent of Berkeley County respondents, 54% of Jefferson County respondents, and 65% of Morgan County respondents were either dissatisfied or very dissatisfied to the question.

There are income disparities based on sex that warrant closer inspection and intervention. While overall incomes in the region were higher in 2010 when compared to 2000, the percentage of children living in poverty increased, and the majority of children living in poverty live in homes with a female head of household.

### **Maternal and Child Health**

- Between 2000 and 2009, the infant mortality rate rose in all three Eastern Panhandle counties: from 7.4/1,000 live births to 13.3/1,000 in Berkeley County; from 3.4/1,000 live births to 9.6/1,000 in Jefferson County and from 6.8/1,000 live births to 18.5/1,000 in Morgan County. This increase occurred at the same time prenatal care increased and national and state infant mortality rates remained relatively stable.
- Behavioral risk factors during pregnancy include smoking and substance abuse. From 2000 to 2009, the percent of pregnant mothers that smoked dropped from 28.4% to 20.6% in Berkeley County, from 21.3% to 15.8% in Jefferson County and from 27.4% to 24.8% in Morgan County. Despite the downward trend, these percentages are much higher than the national average of 13.0% of women who smoked during pregnancy.
- Birth rates among girls ages 15-19 decreased in all three counties from 1999 to 2009 with greater reductions in Berkeley County (from 66 births/1,000 to 46.8/1,000) and Morgan County (from 55.3 births/1,000 to 34/1,000) than in Jefferson County (from 44.6 births/1,000 to 40.3/1,000).
- Compared with unexposed infants, babies whose mothers smoked before and after birth are at three to four fold greater risk of Sudden Infant Death Syndrome. Chronic diseases in the mother, including obesity, hypertension, diabetes and asthma, have been also been associated with poor birth outcomes.
- From 2005-2010, the percent of pregnant women who received prenatal care increased slightly in Berkeley and Jefferson Counties and in West Virginia as a whole.<sup>2</sup>
- From 2005-2010 the percent of low birth weight babies increased in Jefferson and Morgan Counties and decreased in Berkeley County.<sup>3</sup>
- The percent of women who smoked and consumed alcoholic drinks in West Virginia during the last three months of pregnancy has been increasing since 2000.

---

<sup>2</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

<sup>3</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

- In 2000, 24.5% of women smoked during the last three months of pregnancy. In 2010, the percent of women who smoked during the last three months of pregnancy was 30.5%.<sup>4,5</sup>
- The prevalence of maternal drinking in the last three months of pregnancy in West Virginia increased the most from 2009-2010 among women with an annual income less than \$10,000 and women with an annual income of \$35,000-\$49,000.
- Maternal drinking in the last trimester of pregnancy highest among women with an annual income less than \$10,000 and women with an annual income of ≥\$50,000, the prevalence for each of these groups was 5.1%. Excluding women who had an annual income of less than \$15,000, as income increased the prevalence of maternal drinking increased.<sup>6</sup>
- The prevalence of maternal drinking in the last three months of pregnancy in West Virginia was highest among women 35 years and older and among women that are not Medicaid recipients.<sup>7,8</sup>
- The teen birth rate in West Virginia has decreased since 2009 from 48.6 per 1,000 to 44.1 in 2012.<sup>9</sup>
- Teen births are occurring less frequently in the Eastern Panhandle; In Berkeley County there were 152 teen births in 2009 and 118 in 2010, in Morgan County there were 17 teen births in 2009 and 17 in 2010, and in Jefferson County there were 76 teen births in 2009 and 50 in 2010.<sup>10</sup>

## Behavioral Risk Factors

- In 2010, 14.9% of United States residents reported their health as “fair” or “poor” in comparison to 23.4% of West Virginians. Aggregate data from 2006-2010 show 15.1% of Berkeley County residents, 16.8% of Jefferson County residents and 20.9% of residents of Morgan/Hampshire counties reported their health as “fair” or “poor”.
- MAPP responses to “How would you describe your health status?” indicate that 70% of Berkeley County respondents, 62% of Jefferson County respondents, and 69% of Morgan County respondents describe their health as being either “excellent” or “good”. There were 7% of Berkeley County respondents, 12% of Jefferson County respondents and 10% of Morgan County respondents described their health status as being either “poor” or “very poor”.
- Comparison data from 2001-2005 and from 2006-2010 show:

<sup>4</sup> <http://www.cdc.gov/prams/DATA-TobaccoTables.htm#n13>

<sup>5</sup> Centers for Disease Control and Prevention. Pregnancy Risk Assessment Monitoring System (PRAMS): CPONDER <http://apps.nccd.cdc.gov/CPONDER/default.aspx?page=DisplayAllStates&state=0&year=12&category=2&variable=9>

<sup>6</sup> West Virginia Department of Health and Human Resources. 2013 West Virginia Behavioral Health Epidemiological Profile. [http://www.dhhr.wv.gov/bhbf/resources/Documents/2013\\_State\\_Profile.pdf](http://www.dhhr.wv.gov/bhbf/resources/Documents/2013_State_Profile.pdf)

<sup>7</sup> West Virginia Department of Health and Human Resources. 2013 West Virginia Behavioral Health Epidemiological Profile. Retrieved from [http://www.dhhr.wv.gov/bhbf/resources/Documents/2013\\_State\\_Profile.pdf](http://www.dhhr.wv.gov/bhbf/resources/Documents/2013_State_Profile.pdf)

<sup>8</sup> West Virginia Department of Health and Human Resources. 2013 West Virginia Behavioral Health Epidemiological Profile. [http://www.dhhr.wv.gov/bhbf/resources/Documents/2013\\_State\\_Profile.pdf](http://www.dhhr.wv.gov/bhbf/resources/Documents/2013_State_Profile.pdf)

<sup>9</sup> Martin, J.A, Hamilton, B.E, Osterman, M.J.K., Curtin, S.C., & Mathews, M.S. (2013). Births: Final data for 2012. *National Vital Statistics Reports*, 2(9). Retrieved from [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_09.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_09.pdf)

<sup>10</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

- The percentage of Berkeley County residents who did NOT participate in physical activity fell from 32.0% to 26.4% but rose in Jefferson County from 21.7% to 27.4% and in Morgan/Hampshire counties from 24.9% to 29.8%.
- The percentage of obese Berkeley County residents rose from 28.9% to 32.4% and from 26.1% to 32.6% for Morgan/Hampshire county residents. The percent of obese Jefferson County residents fell from 30.4% to 28.9%.
- The percent of adult smokers fell from 30.2% to 28.8% in Berkeley County and from 28.5% to 24.4% in Jefferson County but rose slightly from 28.0 to 28.4% in Morgan/Hampshire counties. The national percent is 17.3%, and the West Virginia percent is 26.8%.

The percent of West Virginia adults who smoke remains significantly higher than the national rate, and only Jefferson County has a lower percent of smokers than the state.

Personal health practices have been shown to be important determinants of overall health. Tobacco use, poor diet and physical inactivity alone contribute to more than a third of the premature deaths in the United States. Evidence-based preventive strategies help reduce the preventable burden of disease through the delivery of appropriate clinical preventive services, through community-level primary and secondary prevention interventions and through appropriate treatment.

### **Morbidity and Mortality**

- The economic impact of chronic illness in the West Virginia is compelling. In 2003, the cost of treating chronic illness and complications was \$2.3 billion with an additional economic loss of \$8.1 billion associated with lower worker productivity and missed work days.
- In 2009, 8.4% of adults in the United States had diabetes. In the Eastern Panhandle, the percent of adults with diabetes ranged from 10.5% to 11%.
- From 2001 to 2011, the percentage of West Virginians with high blood pressure increased nearly 7%.<sup>11</sup>
- From 2000 to 2009, the percent of deaths attributed to unintentional injuries/accidents of all deaths increased in all three Eastern Panhandle counties: from 5.2% to 7.2% in Berkeley County, from 2.4% to 6.1% in Jefferson County and from 3.9% to 4.1% in Morgan County.
- Between 2000 and 2009, the percentage of heart disease deaths of all deaths decreased from 27.5% to 23% in Berkeley County and from 26.5% to 25.8% in Jefferson County. The percent increased slightly from 26.3% to 26.7% in Morgan County.

---

<sup>11</sup> West Virginia Department of Health and Human Resources. West Virginia Behavioral Risk Factor Surveillance System Report. (2011). Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/brfss/2011/BRFSS2011.pdf>



- The percentage of cancer-related deaths of all deaths also decreased between 2000 and 2009 in Berkeley County (from 27.8% to 24.5%) and in Jefferson County (from 26.5% to 25.8%), but rose slightly from 21.7% to 22.0% in Morgan County.
- Cancer mortality rates were either falling or stable in West Virginia and in all three Counties from 2006-2010, yet they remain higher than the national rates. Lung and bronchus cancer mortality among women in Berkeley and Morgan Counties, however, are rising.<sup>12</sup>
- The National Cancer Institute has designated the rising rates of lung cancer among women in Berkeley County as a top priority area.
- The mortality rate for chronic lower respiratory disease increased in Morgan County from 67.1 per 100,000 in 2009 to 96.9 per 100,000 in 2010.<sup>13</sup>
- In West Virginia, the reported number of acute cases and incidence per 100,000 increased for Hepatitis A, B, and C. (2005-2011)<sup>14</sup>
- In West Virginia the number of people diagnosed with AIDS and the number of people living with AIDS decreased. (2005-2011)<sup>15</sup>

### **Social Factors and Behavioral Health**

- The drug overdose death rate per 100,000 population in West Virginia grew from 9.2 in 2001 to 34.7 in 2011. During this same time period, the rate grew from 12.8 to 27.7/100,000 in Berkeley County, from 4.6 to 18.6/100,000 in Jefferson County and from 6.5 to 22.8 in Morgan County.
- West Virginia seized drug reports demonstrate a significant increase in the availability of heroin, prescription drugs and narcotics.
- Substance abuse was identified as the most critical health and safety issue by respondents to the MAPP survey. Additionally, illegal drug abuse was identified as the most important behavior that causes health problems. Based on the MAPP Survey, there is a positive correlation between level of income and perception that substance abuse is a significant problem in the Eastern Panhandle.
- The majority of MAPP Survey respondents indicated that they feel either safe or very safe (Berkeley County – 68%; Jefferson County – 73%; Morgan County – 78 %). Nevertheless, 13% of Berkeley County residents, 12% of Jefferson County residents and 10% of Morgan

---

<sup>12</sup> Centers for Disease Control and Prevention. National Cancer Institute. State Cancer Profiles. <http://statecancerprofiles.cancer.gov/>

<sup>13</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

<sup>14</sup> Centers for Disease Control and Prevention. *Surveillance for Viral Hepatitis – United States, 2011*. (2014). <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm>

<sup>15</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHSTPAtlas/main.html>

County residents felt either “unsafe” or “very unsafe”. Eighty-one percent of respondents who reported feeling “very unsafe” had annual family incomes less than \$20,000.

- Crime statistics and client data provide a mixed message about the prevalence of domestic violence in the Eastern Panhandle, but key informant interviews and MAPP Survey data indicate that it continues to be a significant problem and that the severity of cases is worsening.
- While the DUI arrest rate has been decreasing in the US since 2010, it has been on the rise in West Virginia and Morgan County. The rate is currently decreasing in Berkeley and Jefferson Counties.<sup>16</sup>
- In West Virginia, violent crime and aggravated assault have been climbing since 2003, violent crime increased from 255.2 per 100,000 (2003) to 316.3 per 100,000 (2012), aggravated assault increased from 195.5 per 100,000 to 244.6 per 100,000. Forcible rape and robbery have occurred slightly more frequently and the murder rate has been fairly stable.<sup>17</sup>
- Based on diagnoses upon admission to substance abuse treatment programs in West Virginia, alcohol, cocaine, and cannabis dependence and abuse have been steadily declining since 2008 and opioid abuse and dependence have been increasing. (2008-2011)<sup>18</sup>
- In 2008, 21.7% of diagnoses upon admission to substance abuse treatment facilities were for alcohol abuse, which was higher than other states (8.9%). Alcohol abuse in West Virginia decreased nearly 15% from 2008 to 2011. Opioid dependence was diagnosed upon admission more frequently in West Virginia (36.9%) than in other states (18.9%) in 2011. **Error! Bookmark not defined.**
- The rate of drug and narcotic offenses have been increasing in all three Counties and West Virginia since 2000. (2000-2012)<sup>19</sup>
- Drug overdose deaths have been steadily increasing in West Virginia since 2001 and have fluctuated in the Counties. In Jefferson County the rate has been decreasing since 2007 and in Morgan County the rate has been increasing since 2007. The rate in Berkeley County increased from 2001 to 2007, experienced a minor decrease in 2009 and then increased by 11 per 100,000 in 2011.<sup>20</sup>

---

<sup>16</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from

<http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.aspx>

<sup>17</sup> Federal Bureau of Investigation. (2012). Uniform Crime Reports. Retrieved from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/crime-in-the-u.s.-2012/violent-crime/violent-crime>

<sup>18</sup> Substance Abuse and Mental Health Services Administration. Substance Abuse and Mental Health Data Archive. Retrieved from <http://www.icpsr.umich.edu/icpsrweb/SAMHDA/sda>

<sup>19</sup> Tomblin, E.R. & Smithers, C. R. Crime in West Virginia 2012 Report. Retrieved from <http://www.wvsp.gov/about/Documents/CrimeStatistics/2012wvcrimes.pdf>

<sup>20</sup> WV Drug Overdose Deaths 2001 – 2011 Report provided by the WV Health Statistics Center, January 2013

- Drug overdoses for prescription drugs have fluctuated slightly from 2001-2011, but overall the rates have increased in West Virginia and in all three Counties. **Error! Bookmark not defined.**

## Environmental Factors

- The majority of MAPP survey respondents reported being satisfied or very satisfied with their county's outdoor air quality (Berkeley County – 56%; Jefferson County – 61%; Morgan -69%). The Air Quality Index in Berkeley County improved from 2000 to 2010.
- The percent of days with good air quality has increased drastically; in 2000, 58% of the monitored days were classified as good air quality days and in 2013 85% of the monitored days were classified as good air quality days.<sup>21</sup>
- The percentage of MAPP survey respondents who were also satisfied or very satisfied with indoor air quality in public places (Berkeley County – 59%; Jefferson County - 61%; Morgan County – 70%). The percent who were dissatisfied or very dissatisfied was much lower (Berkeley County – 16%, Jefferson County – 15% and Morgan County - 9%).
- Radon is the second leading cause of lung cancer and the leading cause of lung cancer among non-smokers.
- Radon levels remain high; 4 pCi/L is considered to be a safe level and the Eastern Panhandle had an average radon level of 10 pCi/L from 1986-2013.<sup>22</sup>

When combined, high levels of radon, smoking and a rise in lung cancer among women in Berkeley County warrant further inspection and intervention. Such interventions should be multifaceted and include partnerships among public health, community leaders, health promotion specialists and clinicians to identify and implement multilevel primary and secondary prevention interventions that target both environmental and personal risk factors.

---

<sup>21</sup> United States Environmental Protection Agency. (2013). *Air Quality Index Report*. Retrieved from [http://www.epa.gov/airdata/ad\\_rep\\_aqi.html](http://www.epa.gov/airdata/ad_rep_aqi.html)

<sup>22</sup> Air Chek, Inc. (2014). *Jefferson County Radon Information*. Retrieved from <http://county-radon.info/WV/Jefferson.html>

## COMMUNITY HEALTH STATUS ASSESSMENT

### DEMOGRAPHICS

Demographic data was obtained from United States Census.

#### **Population by Age and Sex**

Tables 2 – 7 show the population by age and sex for the United States, West Virginia and the Eastern Panhandle counties. Certain age groups were summed to reflect the age groups shown.

**Table 2: United States Population by Age and Sex 2000 and 2005**

Age	2000 <sup>23</sup>				2005 <sup>24</sup>			
	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total
<5	9,810,733	9,365,065	19,175,798	6.8%	10,356,773	9,910,403	20,267,176	7.0%
5 – 14	21,043,474	20,034,103	41,077,577	14.6%	20,619,498	19,692,972	40,312,470	14.0%
15-29	29,877,578	28,687,649	58,565,227	20.8%	29,449,764	28,690,947	58,140,711	20.2%
30-49	42,659,073	43,092,246	85,751,319	30.5%	41,893,090	43,068,245	84,961,335	29.5%
50-64	20,253,080	21,607,152	41,860,232	14.9%	24,111,710	25,824,208	49,935,918	17.3%
65+	14,409,625	20,582,128	34,991,753	12.4%	14,844,129	19,916,398	34,760,527	12.0%
<b>Total</b>	<b>138,053,563</b>	<b>143,368,343</b>	<b>281,421,906</b>		<b>141,274,964</b>	<b>147,103,173</b>	<b>288,378,137</b>	

**Table 3: United States Population and by Age and Sex 2010<sup>25</sup>**

Age	2010			
	Male	Female	Total #	% of Total
<5	10,319,427	9,881,935	20,201,362	6.5%
5 – 14	20,969,500	20,056,351	41,025,851	13.3%
15-29	32,953,433	31,774,758	64,728,191	21.0%
30-49	41,641,584	42,099,712	83,741,296	27.1%
50-64	28,534,422	30,246,432	58,780,854	19.0%
65+	17,362,960	22,905,024	40,267,984	13.0%
<b>Total</b>	<b>151,781,326</b>	<b>156,964,212</b>	<b>308,745,538</b>	

<sup>23</sup> <http://factfinder2.census.gov>; United State; Profile of General Demographic Characteristics: 2000 Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>24</sup> [http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/) (ACS 2005-2009 estimates)

**Table 3a United States Population by Age and Sex  
2008-2012, UPDATED<sup>26</sup>**

Age	Total %	Male %	Female %
<5	6.5	6.8	6.3
5-17	4.2	13.8	4.0
18-24	10.0	10.4	9.6
15-44	40.8	41.8	39.8
60+	18.6	16.9	20.3

**Table 4: West Virginia Population by Age & Sex 2000, 2005, 2010**

Age	2000 <sup>27</sup>				2005 <sup>28</sup>				2010 <sup>29</sup>			
	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total
<5	51,864	49,941	101,805	5.6%	50,833	48,103	98,936	5.6%	53,300	50,760	104,060	5.6%
5 – 14	117,076	110,256	227,332	12.6%	109,568	103,337	212,905	12.0%	109,973	105,088	215,061	11.6%
15-29	182,177	177,087	359,264	19.9%	167,892	164,294	332,186	18.7%	176,857	168,883	345,740	18.7%
30-49	261,111	267,884	528,995	29.3%	243,247	252,101	495,348	28.0%	242,419	240,253	482,672	26.0%
50-64	154,404	159,649	314,053	17.4%	180,318	185,672	365,990	20.7%	201,371	206,686	408,057	22.0%
65+	112,538	164,357	276,895	15.3%	114,174	152,211	266,385	15.0%	129,666	167,738	297,404	16.0%
<b>Total</b>	<b>879,170</b>	<b>929,174</b>	<b>1,808,344</b>		<b>866,032</b>	<b>905,718</b>	<b>1,771,750</b>		<b>913,586</b>	<b>939,408</b>	<b>1,852,994</b>	

**Table 4a: West Virginia  
Population by Age 2008-  
2012, UPDATED<sup>30</sup>**

Age	Total %
<5	5.6
5-19	18.1
20-34	18.4
35-44	12.8
45-54	14.8
55-64	14.3
65+	16.2

<sup>26</sup> U.S. Department of Commerce. United States Census Bureau. 2008-2012 American Community Survey 5-Year Estimates  
[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_S0101](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_S0101)

<sup>27</sup> <http://factfinder2.census.gov> West Virginia; DP-1Profile of General Demographic Characteristics: 2000 110th Congressional District Summary File

<sup>28</sup> <http://factfinder2.census.gov> West Virginia, DP01; General Demographic Characteristics: 2005; 2005 American Community Survey

<sup>29</sup> <http://factfinder2.census.gov> West Virginia Profile of General Population and Housing Characteristics: 2010; 2010 Demographic Profile Data

<sup>30</sup> U.S. Department of Commerce. United States Census Bureau. 2008-2012 American Community Survey 5-Year Estimates.  
[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP05)

**Table 5: Berkeley County Population by Age & Sex 2000, 2005, 2010**

Age	2000 <sup>31</sup>				2005 <sup>32</sup>				2010 <sup>33</sup>			
	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total
<5	2,502	2,522	5,024	6.6%	2,946	3,076	6,022	6.5%	3,632	3,609	7,241	7.0%
5 – 14	5,783	5,386	11,169	14.7%	6,457	6,287	12,744	13.8%	7,439	7,211	14,650	14.1%
15-29	7,527	7,312	14,839	19.5%	9,916	9,879	19,795	21.5%	9,586	9,738	19,324	18.6%
30-49	12,067	12,100	24,167	31.8%	14,392	13,920	28,312	30.7%	15,170	15,263	30,433	29.2%
50-64	6,163	6,077	12,240	16.1%	7,598	7,944	15,542	16.9%	10,422	10,241	20,663	19.8%
65+	3,742	4,724	8,466	11.1%	4,354	5,371	9,725	10.6%	5,454	6,404	11,858	11.4%
<b>Total</b>	<b>37,784</b>	<b>38,121</b>	<b>75,905</b>		<b>45,663</b>	<b>46,477</b>	<b>92,140</b>		<b>51,703</b>	<b>52,466</b>	<b>104,169</b>	

**Table 5a: Berkeley County Population by Age 2008-2012, UPDATED<sup>34</sup>**

Age	Total %
<5	6.9
5-19	20.4
20-34	19.2
35-44	14.9
45-54	14.8
55-64	12.3
65+	11.6

**Table 6: Jefferson County Population by Age & Sex 2000, 2005, 2010**

Age	2000 <sup>35</sup>				2005 – 2009 <sup>36</sup>				2010 <sup>37</sup>			
	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total
<5	1,326	1,316	2,642	6.3%	1,725	1,740	3,465	6.8%	1,736	1,641	3,777	7.1%
5 – 14	2,947	2,714	5,661	13.4%	3,371	3,231	6,602	13.0%	3,657	3,797	7,354	13.6%
15-29	4,184	4,245	8,429	20.0%	4,764	4,676	9,440	18.6%	5,073	5,098	10,171	19.0%
30-49	6,656	6,827	13,483	32.0%	7,972	7,923	15,895	31.3%	7,633	7,765	15,398	28.8%
50-64	3,681	3,570	7,251	17.2%	4,864	4,868	9,732	19.2%	5,437	5,547	10,984	20.5%
65+	2,079	2,645	4,724	11.2%	2,640	3,017	5,657	11.1%	2,908	3,406	6,314	11.8%
<b>Total</b>	<b>20,873</b>	<b>21,317</b>	<b>42,190</b>		<b>25,336</b>	<b>25,455</b>	<b>50,791</b>		<b>26,444</b>	<b>27,054</b>	<b>53,498</b>	

<sup>31</sup> <http://factfinder2.census.gov> Berkeley County, WV; DP-1; Profile of General Demographic Characteristics: 2000 Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>32</sup> <http://factfinder2.census.gov> Berkeley County, WV; DP01; General Demographic Characteristics: 2005 ; 2005 American Community Survey

<sup>33</sup> <http://factfinder2.census.gov> Berkeley County WV; DP-1 Profile of General Population and Housing Characteristics: 2010; 2010 Demographic Profile Data;

<sup>34</sup> U.S. Department of Commerce. United States Census Bureau. Berkeley County, WV; 2008-2012 American Community Survey 5-Year Estimates [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_YR_DP05)

<sup>35</sup> [http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/); Jefferson County, WV; (Excel file downloaded through summary retrieval tool)

<sup>36</sup> <http://factfinder2.census.gov> Jefferson County WV; DP-1 Profile of General Population and Housing Characteristics: 2010; 2010 Demographic Profile Data;

**Table 6a: Jefferson County Population by Age 2008-2012, UPDATED<sup>38</sup>**

Age	Total %
<5	6.2
5-19	20.7
20-34	17.7
35-44	14.6
45-54	15.9
55-64	12.9
65+	12.1

**Table 7: Morgan County Population by Age & Sex 2000, 2005, 2010**

Age	2000 <sup>39</sup>				2005 – 2009 ACS <sup>40</sup>				2010 <sup>41</sup>			
	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total	Male	Female	Total #	% of Total
<5	445	460	905	6.1%	486	413	899	5.5%	439	404	843	4.80%
5 – 14	955	941	1,896	12.7%	999	980	1,979	12.1%	1,059	1,020	2,079	11.90%
15-29	1,220	1,181	2,401	16.1%	1319	1262	2,581	15.8%	1,340	1,247	2,587	14.7%
30-49	2,219	2,222	4,441	29.7%	2251	2208	4,459	27.4%	2,344	2,307	4,651	26.5%
50-64	1,400	1,425	2,825	18.9%	1769	1817	3,586	22.0%	2,055	2,110	4,165	23.7%
65+	1,104	1,371	2,475	16.6%	1263	1536	2,799	17.2%	1,512	1,704	3,216	18.3%
<b>Total</b>	<b>7,343</b>	<b>7,600</b>	<b>14,943</b>		<b>8,087</b>	<b>8,216</b>	<b>16,303</b>		<b>8,749</b>	<b>8,792</b>	<b>17,541</b>	

**Table 7a: Morgan County Population by Age 2008-2012, UPDATED<sup>42</sup>**

Age	Total %
<5	4.6
5-19	18.8
20-34	13.6
35-44	13.2
45-54	15.7
55-64	15.9
65+	18.4

<sup>38</sup> U.S. Department of Commerce. United States Census Bureau. Jefferson County, WV2008-2012 American Community Survey 5-Year Estimates [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP05)

<sup>39</sup> <http://factfinder2.census.gov> Morgan County, WV; DP-1 Profile of General Demographic Characteristics: 2000 Census 2000 Summary File 1 (SF 1) 100-Percent Data  
<sup>40</sup> [http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/) Morgan County, WV; (Excel file downloaded through summary retrieval tool)

<sup>41</sup> <http://factfinder2.census.gov> Morgan County, WV; DP-1 Profile of General Population and Housing Characteristics: 2010; 2010 Demographic Profile Data

<sup>42</sup> U.S. Department of Commerce. United States Census Bureau. Morgan County WV; 2008-2012 American Community Survey 5-Year Estimates [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP05)

## Population by Race/Ethnic Distribution

Tables 8 – 12 show the population by race/ethnic population. Population numbers under “other” include the category “two or more races.”

When compared to the United States, West Virginia is relatively homogenous but there is variation across the state. From 2008 to 2012, 74.2% of Americans were White, 12.6% reported were Black or African American, 16.4% Hispanic or Latino, 4.8% Asian, 0.8% American Indian or Alaskan native, 0.2% native Hawaiian/Pacific Islander and 5.3% other. By contrast, only 3.9% of West Virginians were Black or African American and 1.2% reported being Hispanic/Latino.

When compared to the rest of the state in 2010, the Eastern Panhandle had a higher percentage of ethnic and racial minorities. Almost 9% of Berkeley County residents were Black/African American and 3.8% were Hispanic/Latin American. Similarly, almost 8% of Jefferson County residents were Black/African American and 4.7% Hispanic/Latin American. Morgan County roughly approximates the rest of the state.

	2000 <sup>43</sup>		2005 <sup>44</sup>		2010 <sup>45</sup>	
	Number	Percent	Number	Percent	Number	Percent
<b>White</b>	216,930,975	77.1%	220,080,685	76.3%	231,040,398	74.8%
<b>Black or African American</b>	36,419,434	12.9%	36,844,565	12.8%	42,020,743	13.6%
<b>American Indian or Alaska Native</b>	4,119,301	1.5%	4,154,705	1.4%	5,220,579	1.7%
<b>Asian</b>	11,898,828	4.2%	13,879,891	4.8%	17,320,856	5.6%
<b>Hispanic or Latino</b>	35,305,818	12.5%	41,870,703	14.5%	50,477,594	16.3%
<b>Native Hawaiian or Pacific Islander</b>	874,414	0.3%	764,255	0.3%	1,225,195	0.4%
<b>Other</b>	18,521,486	6.6%	18,629,399	6.5%	21,748,084	7.0%
<b>Total Population</b>	281,421,906		288,378,137		308,745,538	

	Number	Percent
<b>White</b>	229,298,906	74.2%
<b>Black or African American</b>	38,825,848	12.6%
<b>American Indian or Alaska Native</b>	2,529,100	0.8%
<b>Asian</b>	14,859,795	4.8%
<b>Hispanic or Latino</b>	50,545,275	16.4%
<b>Native Hawaiian or Pacific Islander</b>	514,402	0.2%
<b>Other</b>	16,417,278	5.3%
<b>Total Population</b>	309,138,711	

<sup>43</sup> <http://factfinder2.census.gov>; United States; Profile of General Demographic Characteristics: 2000 Census 2000 Summary File 1 (SF 1) 100-

<sup>44</sup> [http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/) (ACS 2005-2009 estimates)

<sup>45</sup> <http://factfinder2.census.gov> United States; DP-1 Profile of General Population and Housing Characteristics: 2010 ; 2010 Demographic Profile Data

<sup>46</sup> U.S. Department of Commerce. United States Census Bureau. US. 2008-2012 American Community Survey 5-Year Estimates

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP05)



**Table 9: West Virginia Population by Race/Ethnic Distribution 2000, 2005, 2010**

	2000 <sup>47</sup>		2005 <sup>48</sup>		2010 <sup>49</sup>	
	Number	Percent	Number	Percent	Number	Percent
<b>White</b>	1,733,390	95.9%	1,702,216	96.1%	1,765,642	95.3%
<b>Black or African Am.</b>	62,817	3.5%	62,279	3.5%	76,945	4.2%
<b>American Indian or Alaska Native</b>	10,644	0.6%	11,834	0.7%	13,314	0.7%
<b>Asian</b>	11,873	0.7%	10,476	0.6%	16,465	0.9%
<b>Hispanic or Latino</b>	12,279	0.7%	10,139	0.6%	22,268	1.2%
<b>Native Hawaiian or Pacific Islander</b>	887	0.0%	1,183	0.1%	1,254	0.1%
<b>Other</b>	5,579	0.3%	4,418	0.2%	8,164	0.4%
<b>Total Population</b>	1,808,344		1,771,750		1,852,994	

**Table 9a: West Virginia Population by Race/Ethnic Distribution 2008-2012, UPDATED<sup>50</sup>**

	Number	Percent
<b>White</b>	1,770,036	95.7%
<b>Black or African American</b>	72,993	3.9%
<b>American Indian or Alaska Native</b>	21,224	1.1%
<b>Asian</b>	16,371	0.9%
<b>Hispanic or Latino</b>	22,026	1.2%
<b>Native Hawaiian or Pacific Islander</b>	1,139	0.1%
<b>Other</b>	5,549	0.3%
<b>Total Population</b>	1,850,481	

<sup>47</sup> <http://factfinder2.census.gov> West Virginia; DP-1Profile of General Demographic Characteristics: 2000 110th Congressional District Summary File

<sup>48</sup> <http://factfinder2.census.gov> West Virginia, DP01; General Demographic Characteristics: 2005; 2005 American Community Survey

<sup>49</sup> <http://factfinder2.census.gov>; United State; Profile of General Demographic Characteristics: 2000 Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>50</sup> U.S. Department of Commerce. United States Census Bureau. West Virginia, 2008-2012 American Community Survey 5-Year Estimates

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP05);

**Table 10: Berkeley County Population by Race/Ethnic Distribution 2000, 2005, 2010**

	2000 <sup>51</sup>		2005 <sup>52</sup>		2010 <sup>53</sup>	
	Number	Percent	Number	Percent	Number	Percent
<b>White</b>	71,254	93.9%	85,370	92.7%	94,052	90.3%
<b>Black or African Am.</b>	4,006	5.3%	5,768	6.3%	9,093	8.7%
<b>American Indian or Alaska Native</b>	490	0.6%	N	N	902	0.9%
<b>Asian</b>	531	0.7%	688	0.7%	1,330	1.3%
<b>Hispanic or Latino</b>	1,156	1.5%	2,299	2.5%	3,961	3.8%
<b>Native Hawaiian or Pacific Islander</b>	43	0.1%	N	N	116	0.10%
<b>Other</b>	608	0.8%	1,495	1.6%	1,609	1.5%
<b>Total Population</b>	75,905		92,140		104,169	

**Table 10a: Berkeley County Population by Race/Ethnic Distribution 2008-2012<sup>1</sup>**

	Number	Percent
<b>White</b>	94,702	90.7%
<b>Black or African American</b>	9,165	8.8%
<b>American Indian and Alaska Native</b>	872	0.8%
<b>Asian</b>	1,329	1.3%
<b>Native Hawaiian and Other Pacific Islander</b>	179	0.2%
<b>Some other race</b>	1,103	1.1%
<b>Hispanic or Latino (of any race)</b>	3,940	3.8%
<b>Total population</b>	104,410	104,410

<sup>51</sup> <http://factfinder2.census.gov> Berkeley County, WV; DP-1; Profile of General Demographic Characteristics: 2000 Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>52</sup> <http://factfinder2.census.gov> Berkeley County, WV; DP01; General Demographic Characteristics: 2005 ; 2005 American Community Survey

<sup>53</sup> <http://factfinder2.census.gov> Berkeley County WV; DP-1 Profile of General Population and Housing Characteristics: 2010; 2010 Demographic Profile Data;

**Table 11: Jefferson County Population by Race/Ethnic Distribution 2000, 2005, 2010**

	2000 <sup>54</sup>		2005 <sup>55</sup>		2010 <sup>56</sup>	
	Number	Percent	Number	Percent	Number	Percent
<b>White</b>	38,919	92.2%	46,032	90.6%	48,142	90.0%
<b>Black or African American.</b>	2,813	6.7%	3,763	7.4%	4,228	7.9%
<b>American Indian or Alaska Native</b>	329	0.8%	399	0.8%	502	0.90%
<b>Asian</b>	359	0.9%	645	1.3%	920	1.70%
<b>Hispanic or Latino</b>	734	1.7%	1,910	3.8%	2,489	4.7%
<b>Native Hawaiian or Pacific Islander</b>	37	0.1%	67	0.1%	89	0.20%
<b>Other</b>	355	0.8%	718	1.4%	1,117	2.10%
<b>Total population</b>	42,190		50,791		53,498	

**Table 11a: Jefferson County Population by Race/Ethnic Distribution 2008-2012, UPDATED <sup>57</sup>**

	Number	Percent
<b>White</b>	48,593	90.8%
<b>Black or African American</b>	4,396	8.2%
<b>American Indian and Alaska Native</b>	448	0.8%
<b>Asian</b>	906	1.7%
<b>Native Hawaiian and Other Pacific Islander</b>	55	0.1%
<b>Some other race</b>	815	1.5%
<b>Hispanic or Latino (of any race)</b>	2,509	4.7%
<b>Total population</b>	53,545	

<sup>54</sup> <http://factfinder2.census.gov> Jefferson County, WV; Profile of General Demographic Characteristics: 2000; Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>55</sup> [http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/); Jefferson County, WV; (Excel file downloaded through summary retrieval tool)

<sup>56</sup> <http://factfinder2.census.gov> Jefferson County WV; DP-1 Profile of General Population and Housing Characteristics: 2010; 2010 Demographic Profile Data;

<sup>57</sup> U.S. Department of Commerce. United States Census Bureau. Jefferson County, WV 2008-2012 American Community Survey 5-Year Estimates.

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP05)

**Table 12: Morgan County Population by Race/Ethnic Distribution 2000, 2005, 2010**

	2000 <sup>58</sup>		2005 <sup>59</sup>		2010 <sup>60</sup>	
	Number	Percent	Number	Percent	Number	Percent
<b>White</b>	14,774	98.9%	16,133	99.0%	17,289	98.60%
<b>Black or African Am.</b>	113	0.8%	180	1.1%	175	1.00%
<b>American Indian or Alaska Native</b>	61	0.4%	61	0.4%	185	1.10%
<b>Asian</b>	34	0.2%	78	0.5%	87	0.5%
<b>Hispanic or Latino</b>	124	0.8%	176	1.1%	183	1.00%
<b>Native Hawaiian or Pacific Islander</b>	3	0.0%	0	N	9	0.1%
<b>Other</b>	51	0.3%	182	1.1%	55	0.3%
<b>Total</b>	14,943		16,303		17,541	

**Table 12a: Morgan County Population by Race/Ethnic Distribution 2008-2012, UPDATED <sup>61</sup>**

	Number	Percent
<b>White</b>	48,593	90.8%
<b>Black or African American</b>	4,396	8.2%
<b>American Indian and Alaska Native</b>	448	0.8%
<b>Asian</b>	906	1.7%
<b>Native Hawaiian and Other Pacific Islander</b>	55	0.1%
<b>Some other race</b>	815	1.5%
<b>Hispanic or Latino (of any race)</b>	2,509	4.7%
<b>Total population</b>	53,545	

## Population Change

Population change was calculated by using the data included in Tables 2 – 12, excluding tables for 2008-2012. For each demographic category, the difference between the identified years was determined then divided by the past year figure. (Percent change = [(value at end of period - value at beginning of period)/value at beginning of period] multiplied by 100. All percent changes are positive (representing an increase in population) unless otherwise indicated.

Between 2000 and 2010, the population in the U.S. grew by 9.7% and in WV by 2.5%. By contrast, Berkeley County’s population grew by 37.2%, Jefferson County’s population grew by 26.8% and Morgan County’s population grew by 17.4%. The greatest growth was among 50 – 64 year olds in Berkeley (68.8%), Jefferson (51.5%) and Morgan (47.4%) counties. The growth in aging adults was offset by the growth rates among children age five and under in Berkeley (44%) and Jefferson (43%). This was not true in Morgan County where the second highest population was growth was among individuals ages 65 and older; the percentage of children under the age of five dropped by 6.9%.

<sup>58</sup> <http://factfinder2.census.gov> Morgan County, WV; DP-1 Profile of General Demographic Characteristics: 2000 Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>59</sup> [http://www.census.gov/acs/www/data\\_documentation/summary\\_file/](http://www.census.gov/acs/www/data_documentation/summary_file/) Morgan County, WV; (Excel file downloaded through summary retrieval tool)

<sup>60</sup> <http://factfinder2.census.gov> Morgan County, WV, DP-1 Profile of General Population and Housing Characteristics: 2010 2010 Demographic Profile Data

<sup>61</sup> U.S. Department of Commerce. United States Census Bureau. Morgan County, WV 2008-2012 American Community Survey 5-Year Estimates.

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP05](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP05)

Overall, trending data reveals that the population in all three counties is aging and experiencing a growth of ethnic and racial minorities. Demographic changes indicate a need to ensure the availability of quality services to meet the health and social service needs of an aging population, many of whom have moved from other areas and do not have family nearby, as well as address the needs of children and families.

**Table 13: Population Change by Age U.S., WV and Eastern Panhandle Counties 2000 - 2010**

Age	United States		West Virginia		Berkeley County		Jefferson County		Morgan County	
	2000-2005	2000-2010	2000-2005	2000-2010	2000-2005	2000-2010	2000-2005	2000-2010	2000-2005	2000-2010
<5	5.7%	5.35%	-2.81%	2.21%	19.86%	44.13%	31.15%	42.96%	-0.66%	-6.85%
5 – 14	-1.9%	-0.13%	-6.35%	-5.4%	14.10%	31.17%	16.62%	30.0%	4.38%	9.65%
15-29	-.73	10.52%	-7.53%	-3.76%	33.40%	30.22%	12.0%	17.1%	7.50%	7.75%
30-49	-.092%	-2.34%	-6.36%	-8.76%	17.15%	25.93%	17.89%	14.20%	0.40%	4.73%
50-64	19.29%	40.42%	16.54%	29.93%	26.98%	68.81%	34.22%	51.48%	26.94%	47.43%
65+	-.66%	15.08%	-3.8%	7.4%	14.87%	40.06%	19.75%	33.66%	13.0%	29.94%
<b>Total</b>	<b>2.47%</b>	<b>9.70%</b>	<b>-2.02%</b>	<b>2.5%</b>	<b>21.39%</b>	<b>37.24%</b>	<b>20.39%</b>	<b>26.80%</b>	<b>9.10%</b>	<b>17.39%</b>

Over the past 10 years, all three Eastern Panhandle counties experienced significant growth in the Hispanic and African American populations. Between 2000 and 2010, the number of African Americans grew by 22.49% in WV, by 126.98% in Berkeley County, by 50.3% in Jefferson County and by 54.87% in Morgan County. The number of persons who identified as Hispanic grew by 81.35% in WV, 242.65% in Berkeley County, 239.1% in Jefferson County and 47.58% in Morgan County. Because of this growth, the need for culturally and linguistically appropriate services to address health disparities among minority populations is critical.<sup>62</sup>

**Table 14: Population Change by Race/Ethnicity U.S., WV and Eastern Panhandle Counties 2000 - 2010**

	United States		West Virginia		Berkeley County		Jefferson County		Morgan County	
	2000-2005	2000-2010	2000-2005	2000-2010	2000-2005	2000-2010	2000-2005	2000-2010	2000-2005	2000-2010
<b>White</b>	1.45%	6.5%	-1.80%	1.86%	19.81%	32.0%	18.28%	23.70%	9.20%	17.02%
<b>Black or African American</b>	1.17%	15.38%	-0.86%	22.49%	43.98%	126.98%	33.77%	50.30%	59.29%	54.87%
<b>American Indian or Alaska Native</b>	.86%	26.73%	11.18%	25.08%	NA	84.08%	21.28%	52.58%	0%	203.28%
<b>Asian</b>	16.65%	45.57%	-11.77%	38.68%	29.57%	150.47%	79.66%	156.27%	129.41%	155.88%
<b>Hispanic or Latino</b>	18.59%	42.97%	-17.43	81.35%	98.90%	242.65%	169.21%	239.10%	41.94%	47.58%
<b>Native Hawaiian or Pacific Islander</b>	-12.60%	40.12%	33.37%	41.38%	NA	179.77%	81.08%	140.54%	-100.00%	200%
<b>Other</b>	.58%	17.42%	-20.81%	46.33%	146%	165%	102.25%	214.65%	256.86%	7.41%
<b>Total Population</b>	<b>2.47%</b>	<b>9.70%</b>	<b>-2.02%</b>	<b>2.5%</b>	<b>21.39%</b>	<b>37.24%</b>	<b>20.39%</b>	<b>26.80%</b>	<b>9.10%</b>	<b>17.39%</b>

<sup>62</sup> <http://www.wrha.mb.ca/osd/files/soc-AJPM-evrev-healthcare-systems.pdf>

## Socioeconomic and Education Measures

Socioeconomic data were obtained from the United States Census Bureau, with the exception of unemployment data, which were obtained from the Bureau for Labor Statistics. Some data are based on American Community Survey (ACS) estimates. *(Note: The poverty threshold referenced in US Census data are different than the Federal Poverty Level often used for determining eligibility for social services. The poverty threshold and the Federal Poverty level are included in the Appendices.)*

There is variability in socioeconomic indicators in the Eastern Panhandle. Jefferson County has the lowest unemployment rate and highest median income.

While the median income in all three counties rose substantially from 2000 to 2010, so did the percent of children living in poverty. Families with female heads of household with no husband present and with related children under age 18 had significantly higher poverty levels than the general population in all geographic areas.

**Table 15: Socioeconomic and Educational Attainment in U.S. and WV 2000 and 2010**

	2000		2010	
	United States	West Virginia	United States	West Virginia
<b>Unemployed</b>	5.0% <sup>63</sup>	5.5% <sup>64</sup>	9.6% <sup>65</sup>	8.5% <sup>66</sup>
	Source for all information below <sup>67</sup>	Source for information below unless otherwise referenced <sup>68</sup>	Data source for information below unless otherwise referenced <sup>69</sup>	Source for information below unless otherwise referenced <sup>70</sup>
<b>Median Household Income</b>	\$41,994	\$29,696	\$51,914	\$38,218
<b>Children living below the poverty level</b>	16.1%	23.9%	21.6%	25.5%
<b>Families living below the poverty level</b>	9.2%	13.9%	11.3%	13.2%
<b>Female head of household, no husband present with own children under 18 years</b>	7.2%	5.7% <sup>71</sup>	7.2% <sup>72</sup>	5.7% <sup>73</sup>
<b>Families with female householder, no husband present, with related children under 18 years living below poverty</b>	34.4%	48.8%	39.6%	48.7%
<b>Total People living below poverty level</b>	12.4%	17.9%	15.3%	18.1%
<b>Population age 25 and older that graduated from high school</b>	80.4%	75.2%	85.6% <sup>74</sup>	83.2% <sup>75</sup>
<b>Population age 25 and older with a Bachelor's degree or higher</b>	24.4%	14.8%	28.2% <sup>76</sup>	17.5% <sup>77</sup>

<sup>63</sup> Bureau of Labor Statistics <http://www.bls.gov/lau/lastch00.htm>

<sup>64</sup> Bureau of Labor Statistics <http://www.bls.gov/lau/lastch00.htm>

<sup>65</sup> Bureau of Labor Statistics <http://www.bls.gov/lau/lastrk10.htm>

<sup>66</sup> Bureau of Labor Statistics <http://www.bls.gov/lau/lastrk10.htm>

<sup>67</sup> <http://censtats.census.gov/data/US/01000.pdf>

<sup>68</sup> <http://www.census.gov/prod/cen2000/phc-2-50.pdf>

<sup>69</sup> <http://factfinder2.census.gov> United States, DP03 Selected Economic Characteristics, 2010 American Community Survey 1-Year Estimates

<sup>70</sup> <http://factfinder2.census.gov> West Virginia, DP03, Selected Economic Characteristics in the United States: 2010 American Community Survey 1-Year Estimates

<sup>71</sup> <http://factfinder2.census.gov> West Virginia; DP-1; Profile of General Demographic Characteristics: 2000 ; Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>72</sup> <http://factfinder2.census.gov> United States, DP1, Profile of General Population and Housing Characteristics: 2010 2010 Census Summary File 2

<sup>73</sup> <http://factfinder2.census.gov> West Virginia, DP-1, Profile of General Population and Housing Characteristics: 2010; 2010 Demographic Profile Data

<sup>74</sup> <http://factfinder2.census.gov> United States, S1501, Educational Attainment; 2010 American Community Survey 1-Year Estimates

<sup>75</sup> <http://factfinder2.census.gov> West Virginia, DP02, Selected Social Characteristics in the United States: 2010 American Community Survey 1-Year Estimates

<sup>76</sup> <http://factfinder2.census.gov> United States, S1501, Educational Attainment; 2010 American Community Survey 1-Year Estimates

<sup>77</sup> <http://factfinder2.census.gov> West Virginia, DP02, Selected Social Characteristics in the United States: 2010 American Community Survey 1-Year Estimates

From 2008 to 2012 in West Virginia 49.9% of families in poverty were families with a female householder, no husband, and with related children under 18 years of age, which was nearly 10% higher than the United States. West Virginia has a much lower percentage of individuals age 25 and older with a Bachelor’s degree (7.8%), compared to the United States (28.5%).

	<b>United States</b>	<b>West Virginia</b>
<b>Unemployed</b>	8.3% <sup>78</sup>	7.1% <sup>79</sup>
	Source for all information below <sup>80</sup>	Source for information below <sup>81</sup>
<b>Median Household Income</b>	53,046	40,400
<b>Children living below the poverty level</b>	20.8%	24.1%
<b>Families living below the poverty level</b>	10.9%	12.8%
<b>Families with female householder, no husband present, with related children under 18 years living below poverty</b>	39.1%	49.9%
<b>Total People living below poverty level</b>	14.9%	17.6%
<b>Population age 25 and older that graduated from high school</b>	28.2%	33.9%
<b>Population age 25 and older with a Bachelor’s degree or higher</b>	28.5%	7.8%

Between 2000 and 2010, the median household income grew in all three Eastern Panhandle counties. In Berkeley County, it grew from \$38,763 to \$50,724; in Jefferson County it grew from \$44,374 to \$62,425 and in Morgan County it grew slightly from \$35,016 to \$37,281. Ironically, the percentage of children living in poverty increased in all three counties during the same time. From 2000 to 2010, it grew from 14.6% to 19.4% in Berkeley County, from 11.4% to 14.7% in Jefferson County and from 11.6% to 22.0% in 2010 in Morgan County. Nationally, statewide, and at a county level, families with a female head of household with children are significantly more likely to live below the poverty threshold than other families. This income gap is greater in West Virginia and in Berkeley and Morgan counties than it is nationally.

<sup>78</sup> Bureau of Labor Statistics. *Over-the-Year Change in Unemployment Rates for States* <http://data.bls.gov/timeseries/LNS14000000>

<sup>79</sup> Work Force West Virginia.(2014).*West Virginia’s March Unemployment Rate at 6.1 Percent.* <http://workforcewv.org/lmi/datarel/DRNEWS.pdf>

<sup>80</sup> U.S. Department of Commerce. United States Census Bureau. US 2008-2012 American Community Survey 5-Year Estimates. [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP03](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP03)

<sup>81</sup> U.S. Department of Commerce. United States Census Bureau. WV2008-2012 American Community Survey 5-Year Estimates. [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP03](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP03)

**Table 16: Socioeconomic and Educational Attainment in the Eastern Panhandle Counties 2000 and 2010**

	2000			2010		
	Berkeley County	Jefferson County	Morgan County	Berkeley County	Jefferson County	Morgan County
<b>Unemployed</b>	3.6% <sup>82</sup>	3.4% <sup>83</sup>	3.9% <sup>84</sup>	8.7% <sup>85</sup>	6.4% <sup>86</sup>	3.9% <sup>87</sup>
	Source for information below unless otherwise referenced <sup>88</sup>	Source for information below unless otherwise referenced <sup>89</sup>	Source for information below unless otherwise referenced <sup>90</sup>	Source for information below unless otherwise referenced <sup>91</sup>	Source for information below unless otherwise referenced <sup>92</sup>	Source for information below unless otherwise referenced <sup>93</sup>
<b>Median Household Income</b>	\$38,763	\$ 44,374	\$35,016	\$50,724	\$62,425	\$37,281
<b>Children living below the poverty level</b>	14.6%	11.4%	11.6%	19.4%	14.7%	22.0%
<b>Families living below the poverty level</b>	8.7%	7.2%	8.0%	9.0%	5.7%	11.9%
<b>Female head of household, no husband present with own children under 18 years</b>	6.6% <sup>94</sup>	5.8% <sup>95</sup>	4.6% <sup>96</sup>	7.0% <sup>97</sup>	5.3% <sup>98</sup>	4.6% <sup>99</sup>
<b>Families with female householder, no husband present, with related children under 18 years living below the poverty</b>	40.2%	28.7%	34.6%	43.5%	29.7%	54.3%
<b>Total people living below poverty level</b>	11.5%	10.3%	10.4%	13.3%	10.4%	15.8%
<b>Population age 25 and older that graduated from high school</b>	77.6%	79.0%	75.8%	85.3% <sup>100</sup>	86.7% <sup>101</sup>	84.1 <sup>102</sup>
<b>Population age 25 and older with a Bachelor's Degree or higher</b>	15.1%	21.6%	11.2%	21.4% <sup>103</sup>	29.0% <sup>104</sup>	12.7 <sup>105</sup>

<sup>82</sup> <http://www.bls.gov/lau/#tables>; Labor Force Data by County, 2000 Annual Averages;

<sup>83</sup> <http://www.bls.gov/lau/#tables>; Labor Force Data by County, 2000 Annual Averages;

<sup>84</sup> <http://www.bls.gov/lau/#tables>; Labor Force Data by County, 2000 Annual Averages

<sup>85</sup> <http://www.bls.gov/lau/#tables>; Labor Force Data by County, 2010 Annual Averages;

<sup>86</sup> <http://www.bls.gov/lau/#tables>; Labor Force Data by County, 2010 Annual Averages;

<sup>87</sup> <http://www.bls.gov/lau/#tables>; Labor Force Data by County, 2000 Annual Averages

<sup>88</sup> <http://www.census.gov/prod/cen2000/phc-2-50.pdf>

<sup>89</sup> <http://www.census.gov/prod/cen2000/phc-2-50.pdf>

<sup>90</sup> <http://www.census.gov/prod/cen2000/phc-2-50.pdf>

<sup>91</sup> <http://factfinder2.census.gov> Berkeley County, WV; DP03; Selected Economic Characteristics: 2010 American Community Survey 1-Year estimates

<sup>92</sup> <http://factfinder2.census.gov> Jefferson County, WV; DP03; Selected Economic Characteristics: 2008-2010 American Community Survey 3-Year Estimates

<sup>93</sup> <http://factfinder2.census.gov> Morgan County, WV; DP03; Selected Economic Characteristics: 2006-2010 American Community Survey 5-Year Estimates

<sup>94</sup> <http://factfinder2.census.gov> Berkeley County, WV; DP-1; Profile of General Demographic Characteristics: 2000 ; Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>95</sup> <http://factfinder2.census.gov> Jefferson County, WV; DP-1; Profile of General Demographic Characteristics: 2000 ; Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>96</sup> <http://factfinder2.census.gov> Morgan County, WV; DP-1; Profile of General Demographic Characteristics: 2000 ; Census 2000 Summary File 1 (SF 1) 100-Percent Data

<sup>97</sup> <http://factfinder2.census.gov> Berkeley County, WV; DP-1; Profile of General Population and Housing Characteristics, 2010; 2012 SF2

<sup>98</sup> <http://factfinder2.census.gov> Jefferson County, WV; DP-1; Profile of General Population and Housing Characteristics, 2010; 2010 Population Profile Data

<sup>99</sup> <http://factfinder2.census.gov> Morgan County, WV; DP-1; Profile of General Population and Housing Characteristics, 2010; 2010 Population Profile Data

<sup>100</sup> <http://factfinder2.census.gov> Berkeley County, WV; S1501; Educational attainment; 2010 American Community Survey 1-Year Estimates

<sup>101</sup> <http://factfinder2.census.gov> Jefferson County, WV; DP03; Selected Social Characteristics: 2008-2010 American Community Survey 3-Year Estimates

<sup>102</sup> <http://factfinder2.census.gov> Morgan County, WV; DP02; Selected Social Characteristics: 2006-2010 American Community Survey 5-Year Estimates

<sup>103</sup> <http://factfinder2.census.gov> Berkeley County, WV; S1501; Educational attainment; 2010 American Community Survey 1-Year Estimates

<sup>104</sup> <http://factfinder2.census.gov> Jefferson County, WV; DP03; Selected Social Characteristics: 2008-2010 American Community Survey 3-Year Estimates

<sup>105</sup> <http://factfinder2.census.gov> Morgan County, WV; DP02; Selected Social Characteristics: 2006-2010 American Community Survey 5-Year Estimates



**Table 16a: Socioeconomic and Educational Attainment in the Eastern Panhandle Counties 2008-2012, UPDATED**

	2008-2012		
	Berkeley County	Jefferson County	Morgan County
<b>Unemployed</b>	7.5% <sup>106</sup>	5.8% <sup>107</sup>	7.8% <sup>108</sup>
	Source for information below unless otherwise referenced <sup>109</sup>	Source for information below unless otherwise referenced <sup>110</sup>	Source for information below unless otherwise referenced <sup>111</sup>
<b>Median Household Income</b>	53,332	64,314	35,350
<b>Children living below the poverty level</b>	18.6	15.5	17.4
<b>Families living below the poverty level</b>	8.8	6.0	11.3
<b>Families with female householder, no husband present, with related children under 18 years living below the poverty</b>	37.0	29.1	49.1
<b>Total people living below poverty level</b>	12.7	11.1	14.9
<b>Population age 25 and older that graduated from high school</b>	38.1	31.9	48.5
<b>Population age 25 and older with a Bachelor's Degree or higher</b>	19.4	27.8	15.0

## **HEALTH INDICATORS**

The Robert Wood Johnson Foundation collaborates with the University of Wisconsin Population Health Institute to provide the County Health Rankings & Roadmaps program. Launched in 2010, the project ranks counties in each state by 1) health outcomes and 2) health factors. Each of these rankings represents a weighted summary of a number of measures. Health outcomes represent how healthy county residents are based on premature death, poor physical health days, poor mental health days and low birth weight. Health factors represent influences on health, such as health behavior, clinical care, social and economic factors and the physical environment. Of the 55

<sup>106</sup> U.S. Department of Labor. Bureau of Labor Statistics. Labor Force Data by County, 2008,2009,2010,2011,2012 Averages.

<http://data.bls.gov/search/query/results?cx=013738036195919377644%3A6ih0hfrgl50&q=berkeley+county+vw+inurl%3Abls.gov%2Flau>

<sup>107</sup> U.S. Department of Labor. Bureau of Labor Statistics. Labor Force Data by County, 2008,2009,2010,2011,2012 Averages.

<http://data.bls.gov/search/query/results?cx=013738036195919377644%3A6ih0hfrgl50&q=berkeley+county+vw+inurl%3Abls.gov%2Flau>, Labor Force Data by County, 2008,2009,2010,2011,2012 Averages

<sup>108</sup> U.S. Department of Labor. Bureau of Labor Statistics. Labor Force Data by County, 2008,2009,2010,2011,2012 Averages.

<http://data.bls.gov/search/query/results?cx=013738036195919377644%3A6ih0hfrgl50&q=berkeley+county+vw+inurl%3Abls.gov%2Flau>, Labor Force Data by County, 2008,2009,2010,2011,2012 Averages

<sup>109</sup> U.S. Department of Commerce. United States Census Bureau. Berkeley County, WV. 2008-2012 American Community Survey 5-Year Estimates.

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP03](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP03)

<sup>110</sup> U.S. Department of Commerce. United States Census Bureau. Jefferson County, WV. 2008-2012 American Community Survey 5-Year Estimates

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP03](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP03)

<sup>111</sup> U.S. Department of Commerce. United States Census Bureau. Morgan County, WV. 2008-2012 American Community Survey 5-Year Estimates.

[http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_12\\_5YR\\_DP03](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP03)

West Virginia counties, Jefferson County has ranked among the top 10 (best) for both health outcomes and health factors during all three years.

	Health Outcomes				Health Factors			
	2010	2011	2012	2013 <sup>113</sup>	2010	2011	2012	2013 <sup>114</sup>
<b>Berkeley</b>	15	10	11	14	29	25	15	13
<b>Jefferson</b>	2	6	5	4	6	3	3	3
<b>Morgan</b>	23	16	24	33	3	7	12	8

## Mortality

Life expectancy at birth represents the average number of years that a group of infants would live if the group was to experience throughout life the age-specific death rates present in the year of birth. In general, West Virginians have a shorter life expectancy than the national average. There is a discrepancy between life expectancy nationally as well as locally.

	2000		2010 <sup>115</sup>	
	Male	Female	Male	Female
<b>United States<sup>116</sup></b>	74.1	79.3	76	81
<b>West Virginia</b>	72.3 <sup>117</sup>	77.7 <sup>118</sup>	73	78
<b>Berkeley County<sup>119</sup></b>	72.9	79	74	78
<b>Jefferson County<sup>120</sup></b>	73.8	79.6	75	79
<b>Morgan County<sup>121</sup></b>	73.1	80	74	80

	2000 <sup>122</sup>	2005 <sup>123</sup>	2010 <sup>124</sup>
<b>West Virginia</b>	73.1	72.4	72.2
<b>Berkeley County</b>	68.5	68.5	69.6
<b>Jefferson County</b>	71.9	71.2	71.1
<b>Morgan County</b>	72.3	72.6	75.1

<sup>112</sup> <http://www.countyhealthrankings.org/app/west-virginia/2012/rankings/outcomes/overall>

<sup>113</sup> University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation. County Health Rankings 2013.

[http://www.countyhealthrankings.org/sites/default/files/states/CHR2013\\_WV\\_0.pdf](http://www.countyhealthrankings.org/sites/default/files/states/CHR2013_WV_0.pdf)

<sup>114</sup> University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation. County Health Rankings 2013.

[http://www.countyhealthrankings.org/sites/default/files/states/CHR2013\\_WV\\_0.pdf](http://www.countyhealthrankings.org/sites/default/files/states/CHR2013_WV_0.pdf)

<sup>115</sup> University of Washington; Institute for Health Metrics and Evaluation. (2014). <http://viz.healthmetricsandevaluation.org/us-health-map/#/overview/explore>.

[http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\\_03.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf)

<sup>117</sup> [wonder.cdc.gov/WONDER/help/populations/population-projections/MethodsTable2.xls](http://wonder.cdc.gov/WONDER/help/populations/population-projections/MethodsTable2.xls)

<sup>118</sup> [wonder.cdc.gov/WONDER/help/populations/population-projections/MethodsTable2.xls](http://wonder.cdc.gov/WONDER/help/populations/population-projections/MethodsTable2.xls)

<sup>119</sup> <http://www.healthmetricsandevaluation.org/tools/data-visualization/life-expectancy-county-and-sex-us-1989-2009#/overview/explore>

<sup>120</sup> <http://www.healthmetricsandevaluation.org/tools/data-visualization/life-expectancy-county-and-sex-us-1989-2009#/overview/explore>

<sup>121</sup> <http://www.healthmetricsandevaluation.org/tools/data-visualization/life-expectancy-county-and-sex-us-1989-2009#/overview/explore>

<sup>122</sup> <http://www.wvdhhr.org/bph/hsc/statserv/viewer.asp?target=http://www.wvdhhr.org/bph/hsc/pubs/vital/2005/index.htm&Source=pub.asp&DocID=1> 2000; County Data - Age at Death

<sup>123</sup> <http://www.wvdhhr.org/bph/hsc/statserv/viewer.asp?target=http://www.wvdhhr.org/bph/hsc/pubs/vital/2005/index.htm&Source=pub.asp&DocID=1> County Data - Age at Death

<sup>124</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). 2010 West Virginia Vital Statistics.

<http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

Table 20: Leading Causes of Death in U.S., WV and Eastern Panhandle Counties 2000 and 2010, UPDATED

Cause	2000 Percent of All Deaths					2010 Percent of All Deaths				
	United States <sup>125</sup>	West Virginia <sup>126</sup>	Berkeley County <sup>127</sup>	Jefferson County <sup>128</sup>	Morgan County <sup>129</sup>	United States <sup>130</sup>	West Virginia <sup>131</sup>	Berkeley County <sup>132</sup>	Jefferson County <sup>133</sup>	Morgan County <sup>134</sup>
Heart Disease	29.6%	30.9%	27.5%	33.9%	26.3%	24.1%	23.0%	20.8%	12.9%	31.3%
Malignant Neoplasms	23.0%	22.4%	27.8%	26.5%	21.7%	23.3%	21.9%	19.8%	22.0%	38.7%
Cerebrovascular	7.0%	6.0%	6.3%	5.3%	6.6%	5.2%	5.2%	2.9%	4.3%	5.1%
Chronic Lower Respiratory Disease	5.1%	6.4%	5.2%	5.8%	6.6%	5.6%	7.0%	4.5%	5.4%	9.6%
Unintentional Injury/Accidents	4.1%	3.9%	5.2%	2.4%	3.9%	4.8%	5.9%	4.4%	4.1%	6.2%
Alzheimer's Disease	-	-	-	-	5.2%	3.4%	2.8%	2.2%	2.9%	13.6%

National leading causes of death data in this report are based on information from all death certificates filed in the 50 States and the District of Columbia and reported to the Centers for Disease Control and Prevention. State and county specific data was based on death certificates filed with the WV Office of Vital Statistics. County level percentages were determined by dividing the number of deaths from a specific cause in a given year by the total number of deaths in the given county for the given year times 100. ((Percent of all deaths = [(number of deaths from a specific cause/total number of deaths] multiplied by 100.

The leading cause of death in West Virginia is heart disease followed by malignant neoplasms. The percent of deaths caused by heart disease decreased from 30.9% in 2000 to 23.0% in 2010 while cancer related deaths in the state decreased slightly.

Similar to WV, the two most common causes of death in Berkeley County are cancer and heart disease. Between 2000 and 2010, the percentage of deaths attributed to heart disease decreased from 27.5% to 20.8% of all deaths. Cancer related deaths decreased from 27.8% to 19.8% during the same time frame. The decrease in cancer and heart disease related deaths may well reflect an improvement in primary and secondary prevention efforts and medical management. Deaths attributed to chronic lower respiratory diseases and unintentional injuries, decreased slightly. The most common causes of death in Jefferson County in 2010 were cancer and heart disease. The percentage of deaths caused by cancer and heart disease decreased between 2000 and 2010. By contrast, deaths attributed to unintentional injuries increased from 2.4% to 4.1% of all deaths. The

<sup>125</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_15.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_15.pdf) Page 9, Table C

<sup>126</sup> [http://www.wvdhhr.org/bph/oehp/vital00/vs\\_30.htm](http://www.wvdhhr.org/bph/oehp/vital00/vs_30.htm)

<sup>127</sup> [http://www.wvdhhr.org/bph/oehp/vital00/vs\\_44\\_02.htm](http://www.wvdhhr.org/bph/oehp/vital00/vs_44_02.htm)

<sup>128</sup> [http://www.wvdhhr.org/bph/oehp/vital00/vs\\_44\\_19.htm](http://www.wvdhhr.org/bph/oehp/vital00/vs_44_19.htm)

<sup>129</sup> [http://www.wvdhhr.org/bph/oehp/vital00/vs\\_44\\_33.htm](http://www.wvdhhr.org/bph/oehp/vital00/vs_44_33.htm)

<sup>130</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). 2010 West Virginia Vital Statistics Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>.

<sup>131</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). 2010 West Virginia Vital Statistics Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>.

<sup>132</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). 2010 West Virginia Vital Statistics Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>.

<sup>133</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). 2010 West Virginia Vital Statistics Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>.

<sup>134</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). 2010 West Virginia Vital Statistics Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>.

most common causes of death in Morgan County were heart disease and cancer, both of which increased from 2000 to 2010.

## Years of Potential Life Lost

Years of Potential Life Lost (YPLL) is a measure of premature or preventable mortality occurring before the age of 65, calculated as the difference between age 65 and the age at death. The sum of YPLL over all causes is the total YPLL from all persons dying before the age of 65. For example, a person dying at the age of 45 contributes 20 years total to the total YPLL (65-45 = 20 YPLL). YPLL is an important tool for emphasizing and evaluating causes of death among persons less than 65 years of age.

**Table 21: Years of Potential Life Lost Before Age 65 U.S. and WV 2000, 2010<sup>135</sup>**

	2000				2010			
	United States		West Virginia		United States		West Virginia	
	YPLL	%	YPLL	%	YPLL	%	YPLL	%t
<b>All Causes</b>	11,261,211	100.0%	82,954	100.0%	11,043,870	100.0%	90,585	100.0%
<b>Unintentional Injury</b>	2,022,483	18.0%	16,363	19.7%	2,083,297	18.9%	22,004	24.3%
<b>Malignant Neoplasms</b>	1,866,815	16.6%	15,215	18.3%	1,843,612	16.7%	14,690	16.2%
<b>Heart Disease</b>	1,376,937	12.2%	12,331	14.9%	1,348,874	12.2%	10,523	11.6%
<b>Perinatal Period</b>	913,066	8.1%	4,742	5.7%	786,472	7.1%	4,016	4.4%
<b>Suicide</b>	635,028	5.6%	5,244	6.3%	764,776	6.9%	4,880	5.4%
<b>Homicide</b>	51,612	4.9%	2,308	2.8%	522,701	4.7%	2,682	3.0%
<b>Congenital Anomalies</b>	490,687	4.4%	3,240	3.9%	439,731	4.0%	2,395	2.6%
<b>HIV</b>	320,582	2.8%	NA	NA	NA	NA	NA	NA
<b>Cerebrovascular</b>	248,446	2.2%	NA	NA	230,587	2.1%	NA	NA
<b>Liver Disease</b>	233,500	2.1%	1,821	2.2%	263,317	2.4%	2,062	2.3%
<b>Diabetes Mellitus</b>	NA	NA	2,118	2.6%	216,229	2.0%	2,376	2.6%
<b>Chronic Lower Respiratory Disease</b>	NA	NA	1,589	1.9%	NA	NA	NA	NA
<b>All Others</b>	2,602,055	23.1%	17,983	21.7%	2,544,274	23.0%	22,916	25.3%

## Injury Mortality

Table 22 shows the leading causes of deaths resulting from injury. While motor vehicle accidents were the most common causes of injury deaths from 2001-2006, poisoning became the leading cause of injury deaths in 2007 and continues to hold that position. In West Virginia, poisoning rose significantly from 13.9 during 2001-2003 to 30.0 in 2010. Nationally, drugs—both legal and illegal—cause the vast majority of poisoning deaths. Misuse or abuse of prescription drugs, including opioid analgesic pain relievers, is responsible for much of the increase in drug poisoning deaths.<sup>136</sup> Poisoning deaths steadily increased in the United States from 2000 to 2010 (Table 22a).

<sup>135</sup> <http://webappa.cdc.gov/sasweb/ncipc/vpl10.html>

<sup>136</sup> <http://www.cdc.gov/nchs/data/databriefs/db81.htm>

The rate of poisoning deaths in West Virginia reached its highest level in 2010 and has fluctuated since 2000.

In 2010, there were 282 fatal motor vehicle accidents in WV, in which 199 drivers and 67 passengers were killed. Of these accidents, 107 involved a single vehicle with only one occupant: the driver.<sup>137</sup> Current literature would suggest that, although research into driver suicide is relatively sparse because of the methodological difficulties associated with establishing the intent, at least one in 15 motor vehicle crashes are intentional and remain largely unrecognized.<sup>138</sup>

**Table 22: Injury Mortality Rates per 100,000 Population U.S. and WV 2001-2010, UPDATED<sup>139</sup>**

	2001-2003		2004 - 2006		2007 -2009		2010	
	United States	West Virginia	United States	West Virginia	United States	West Virginia	United States <sup>140</sup>	West Virginia <sup>141</sup>
<b>Motor Vehicle/Traffic</b>	15.0	20.7	14.7	21.5	12.5	20.0	10.9	15.4
<b>Poisoning</b>	9.0	13.9	11.3	17.0	13.4	21.5	13.9	30.0
<b>Firearms</b>	10.4	14.5	10.2	14.4	10.3	13.9	10.3	14.7
<b>Suicide</b>	10.8	15.3	11.1	15.1	11.8	14.9	12.4	15.1

**Table 22a: Injury Mortality Rates due to Poisoning per 100,000 Population U.S. and WV 2000-2010, UPDATED<sup>142</sup>**

	United States	West Virginia
<b>2010</b>	13.9	30.0
<b>2009</b>	13.6	13.7
<b>2008</b>	13.5	26.7
<b>2007</b>	13.3	23.2
<b>2006</b>	12.5	20.7
<b>2005</b>	11.1	11.0
<b>2004</b>	10.4	19.1
<b>2003</b>	9.9	15.2
<b>2002</b>	9.2	13.8
<b>2001</b>	7.8	12.5
<b>2000</b>	7.2	6.8

**Table 22b: Poisoning Mortality per 100,000 in West Virginia and the United States, 2010, UPDATED<sup>143</sup>**

	United States	West Virginia
<b>All Intents Poisoning Deaths</b>	13.9	30.0
<b>All Intents Drug Poisoning Deaths</b>	12.4	27.6
<b>All Intents Non-drug Poisoning Deaths</b>	1.5	2.3
<b>Unintentional Poisoning Deaths</b>	10.7	25.4
<b>Unintentional Drug Poisoning Deaths</b>	9.7	23.9
<b>Unintentional Non-Drug Poisoning Deaths</b>	1.0	1.5

<sup>137</sup> <http://www.fars.nhtsa.dot.gov/Main/index.aspx>

<sup>138</sup> <http://www.sciencedirect.com/science/article/pii/S0020138311002968#>

<sup>139</sup> Centers for Disease Control Health Data Interactive <http://205.207.175.93/HDI/ReportFolders/reportFolders.aspx>

<sup>140</sup> Centers for Disease Control and Prevention. WISQARS database.(2013).Fatal Injury Reports, National and Regional, 1999 – 2010.[http://webappa.cdc.gov/sasweb/ncipc/mortrate10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html)

<sup>141</sup> Centers for Disease Control and Prevention. WISQARS database.(2013).Fatal Injury Reports, National and Regional, 1999 – 2010.[http://webappa.cdc.gov/sasweb/ncipc/mortrate10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html)

<sup>142</sup> Centers for Disease Control and Prevention. WISQARS database.(2013).Fatal Injury Reports, National and Regional, 1999- 2010.[http://webappa.cdc.gov/sasweb/ncipc/mortrate10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html)

<sup>143</sup> Centers for Disease Control and Prevention. WISQARS database.(2013).Fatal Injury Reports, National and Regional, 1999 – 2010.

[http://webappa.cdc.gov/sasweb/ncipc/mortrate10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html)

**Table 22c: Drug Poisoning Deaths Including All Intents per 100,000 by Age and Gender, 2000, 2010, 2000-2010, UPDATED<sup>144</sup>**

	2000		2010		2000-2010	
	All Intents and Drug Poisoning Deaths per 100,000		All Intents and Drug Poisoning Deaths per 100,000		All Intents and Drug Poisoning Deaths per 100,000	
	WV	US	WV	US	WV	US
<b>Gender</b>						
<b>Male</b>	7.7	8.4	33.4	15.2	21.2	12.8
<b>Female</b>	4.8	4.1	22.0	9.6	11.7	7.4
<b>Age</b>						
<b>10-19</b>	.8*	1.1	4.4*	2.1	2.8	1.8
<b>20-30</b>	7.0*	6.2	38.1	15.6	25.0	11.7
<b>31-40</b>	11.6	12.0	59.8	19.6	32.2	16.4
<b>41-50</b>	15.9	14.4	63.1	24.3	36.3	21.9
<b>51-60</b>	4.1*	6.7	28.1	20.6	15.7	14.5
<b>61-85+</b>	2.9*	2.5	6.8	5.7	3.6	4.1

\* Rates based on 20 or fewer deaths may be unstable. Use with caution.  
Drug Poisoning is defined in the footnotes<sup>145</sup>

<sup>144</sup> Centers for Disease Control and Prevention. WISQARS database. (2013). Fatal Injury Reports, National and Regional, 1999 – 2010.

[http://webappa.cdc.gov/sasweb/ncipc/mortrate10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html)

<sup>145</sup> Intentional and accidental self-poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics, to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified, narcotics and psychodysleptics [hallucinogens], not elsewhere classified, other drugs acting on the autonomic nervous system, other and unspecified drugs, medicaments and biological substances. Accidental poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics, including 4-aminophenol derivatives, nonsteroidal anti-inflammatory drugs [NSAID], pyrazolone derivatives, salicylates. Accidental poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified including antidepressants, barbiturates, hydantoin derivatives, iminostilbenes, methaqualone compounds, neuroleptics, psychostimulants, succinimides and oxazolidinediones, and tranquilizers. Accidental and intentional poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], not elsewhere classified, including, cannabis (derivatives), cocaine, codeine, heroin, lysergide [LSD], mescaline, methadone, morphine, and opium (alkaloids). Accidental and intentional poisoning by and exposure to other drugs acting on the autonomic nervous system, including, parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics, parasympathomimetics [cholinergics], sympatholytics [antiadrenergics], and sympathomimetics [adrenergics]. Accidental and intentional poisoning by and exposure to other and unspecified drugs, medicaments, and biological substances including agents primarily acting on smooth and skeletal muscles and the respiratory system, anaesthetics (general) (local) drugs affecting the: cardiovascular system and the gastrointestinal system, hormones and synthetic substitutes, systemic and haematological agents, systemic antibiotics and other anti-infectives, therapeutic gases, topical preparations, vaccines, water-balance agents and drugs affecting mineral and uric acid metabolism. Intentional: Assault by drugs, medicaments and biological substances.

## Health Risk Factors

The percent of adults who report their general health is only fair or poor has improved slightly but is still higher in all Eastern Panhandle counties than it is nationally. While there has been a slight improvement in the percent of Eastern Panhandle residents who participate in physical activity, the percent of individuals who are obese is on an upward trend. The percent of adults who smoke remains significantly higher than the national rate. Only Jefferson County has a lower percentage of smokers than the state.

Personal health practices and behaviors are important determinants of overall health, even among persons with a genetic predisposition to chronic disease. Health behaviors such as tobacco use, poor diet and physical inactivity alone contribute to more than a third of the premature deaths in the United States. Evidence-based preventive strategies help reduce the burden of disease through the delivery of appropriate clinical preventive services, through community-level interventions and through appropriate treatment.<sup>146</sup>

### *Behavioral Risk Factor Surveillance System*

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that collects information on health risk behaviors and health conditions. Random telephone surveys are conducted monthly in all 50 states, the District of Columbia, Guam, Puerto Rico and the U.S. Virgin Islands. In West Virginia, the survey is conducted by the West Virginia Health Statistics Center in collaboration with the CDC. More than 3,000 West Virginia adults are interviewed each year. Because of sample size, county data are aggregate data for multiple years, and Morgan County and Hampshire County data were grouped.

In 2011, a greater percentage of West Virginians reported fair or poor health (23.4%), could not afford needed medical care (17.7%), were obese (32.9%), were current smokers (26.8%), and were not physically active in the past month (29.8%) than the United States as a whole.

In 2010, more than one-fifth (21.4%) of West Virginia adults age 18 to 64 had no health care coverage in comparison to 17.8% nationally. Also in 2010, 17.7% of West Virginia adults reported they had needed medical care within the past 12 months but could not afford it, in comparison with 14.9% nationally. Individuals in the 18-24 age group were most affected by not being able to afford medical care.<sup>147</sup>

From 2001 to 2011, the percent of adults who do not have health insurance decreased in Jefferson county, remained relatively stable in Berkeley County and increased in Morgan/Hampshire counties. The percentage of the population with current asthma decreased in Berkeley and Jefferson Counties and increased in Morgan County from 2001 to 2011. The percentage of the population, from 2001 to 2011 that were current smokers decreased in all three counties. In the Jefferson and Morgan Counties, the percentage of the population reporting no physical activity in the past month increased and the percentage decreased in Berkeley County. The percentage of the population that was obese from 2001 to 2011 remained fairly stable in Jefferson County and increased in Berkeley and Morgan Counties.

---

<sup>146</sup> <http://www.uspreventiveservicestaskforce.org/uspstf07/methods/tfmethods.htm>

<sup>147</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009\\_2010/BRFS2009\\_2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009_2010/BRFS2009_2010.pdf)

**Table 23: Health Risk Factors U.S. and WV 2003, 2006, 2008 and 2011, UPDATED**

	2003 <sup>148</sup>		2006 <sup>149</sup>		2008 <sup>150</sup>		2011 <sup>151</sup>	
	United States	West Virginia	United States	West Virginia	United States	West Virginia	United States	West Virginia
<b>General health is “fair or “poor”</b>	15.7%	24.5%	16.4%	24.3%	16.3%	23.0%	14.7%	23.4%
<b>No Health Insurance (aged 18-64)</b>	16.4%	23.0%	18.5%	20.9%	17.9%	20.5%	16.2%	13.6%
<b>Could Not Afford Needed Medical Care</b>	12.9%	17.8%	13.3%	17.2%	14.1%	17.9%	13.0%	17.7%
<b>No Personal Doctor or Health Care Provider</b>	20.5%	21.6%	20.0%	20.3%	19.4%	22.0%	NA	NA
<b>No Physical Activity in Past Month</b>	26.4%	30.4%	24.2%	27.6%	25.5%	30.2%	23.9%	32.9%
<b>Obesity</b>	21.6%	25.7%	25.1%	30.3%	26.7%	31.6%	27.5%	32.9%
<b>Adults who Are Current Smokers</b>	22.7%	27.4%	19.6%	26.5%	18.4%	26.3%	17.3%	26.8%
<b>Binge Drinking</b>	10.1%	14.5%	15.1%	9.7%	15.1%	9.6%	15.5%	9.1%
<b>Current Asthma</b>	7.7%	9.2%	8.2%	9.3%	8.5%	8.7%	8.6%	7.3%

<sup>148</sup> <http://www.wvdhhr.org/bph/hsc/pubs/brfss/2003/default.htm>

<sup>149</sup> <http://www.wvdhhr.org/bph/hsc/pubs/brfss/2006/2006westvirginiabehavioralriskfactorsurveyreport.pdf>

<sup>150</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007\\_2008/brfs2007\\_2008.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007_2008/brfs2007_2008.pdf)

<sup>151</sup> West Virginia Department of Health and Human Resources. West Virginia Behavioral Risk Factor Surveillance System Report, 2011. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/brfss/2011/BRFSS2011.pdf>



**Table 24: Health Risk Factors Eastern Panhandle Counties 2001 – 2010**

	2001-2005 <sup>152</sup>			2004-2008 <sup>153</sup>			2006-2010 <sup>154</sup>		
	Berkeley County	Jefferson County	Morgan/Hampshire Counties	Berkeley County	Jefferson County	Morgan/Hampshire Counties	Berkeley County	Jefferson County	Morgan/Hampshire Counties
<b>General Health is "Fair" or "Poor"</b>	19.0%	16.4%	22.2%	16.3%	15.8%	21.3%	15.1%	16.8%	20.9%
<b>No Health Insurance</b>	19.2%	16.5%	22.5%	16.9%	12.6%	22.3%	17.7%	9.6%	22.6%
<b>No Physical Activity</b>	32.0%	21.7%	24.9%	27.1%	22.2%	24.6%	26.4%	27.4%	29.8%
<b>Obesity</b>	28.9%	30.4%	26.1%	30.2%	26.3%	29.4%	32.4%	28.9%	32.6%
<b>Adults who Are Current Smokers</b>	30.2%	28.5%	28.0%	29.5%	26.7%	21.8%	28.8%	24.4%	28.4%
<b>Binge Drinking</b>	8.5%	10.4%	17.4	12.4%	12.7%	11.5%	13.6%	12.3%	11.9%
<b>Current Asthma</b>	9.9%	10.6%	5.8%	8.6%	10.0%	7.8%	8.2%	10.2%	9.2%

**Table 24a: Health Risk Factors Eastern Panhandle Counties 2007 – 2011, UPDATED<sup>155</sup>**

	Berkeley County	Jefferson County	Morgan County
<b>General Health is "Fair" or "Poor"</b>	16.9%	15.9%	24.8%
<b>No Health Insurance</b>	19.0%	9.8%	26.0%
<b>No Physical Activity</b>	27.3%	27.3%	28.7%
<b>Obesity</b>	32.2%	30.7%	33.2%
<b>Adults who Are Current Smokers</b>	27.3%	22.6%	26.8%
<b>Binge Drinking</b>	11.3%	13.1%	11.6%
<b>Current Asthma</b>	7.6%	9.7%	10.1%

## Primary and Secondary Prevention

Trend data indicate that the percentage of West Virginians who do not get recommended screening and immunizations remained relatively stable between 2004 and 2010 except for adults aged 50 or older who did NOT perform a home stool blood test which increased. The percent of West Virginia women who had never had a Pap test also increased. Between 2004 and 2012, the percentage of female West Virginians that had not had a Pap test in the last three years increased from 17.4% to 24.0%, the percentage of adults aged 50 and older who have ever had a sigmoidoscopy or colonoscopy increased nearly 10%, and the percentage of adults aged 50 and older who did not perform a home stool blood test (FOBT) in the past year steadily increased.

<sup>152</sup> [http://www.wvdhhr.org/bph/hsc/pubs/BRFSS/2004\\_2005/appendL.pdf](http://www.wvdhhr.org/bph/hsc/pubs/BRFSS/2004_2005/appendL.pdf)

<sup>153</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007\\_2008/BRFS2007\\_2008.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007_2008/BRFS2007_2008.pdf)

<sup>154</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009\\_2010/BRFS2009\\_2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009_2010/BRFS2009_2010.pdf)

<sup>155</sup> Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/>

Table 25: Primary and Secondary Prevention U.S. and WV for Selected Years <sup>156</sup>						
	2004		2006		2008	
	United States	West Virginia	United States	West Virginia	United States	West Virginia
Adults aged 65 and older who had NOT had a flu shot in the past 12 months.	32.0%	32.1%	30.4%	33.65	28.9%	28.9%
Adults aged 65 and older who had never had a pneumonia shot	35.4%	35.3%	33.1%	34.6%	33.1%	31.8%
Adults aged 50 and older who did NOT perform a home stool blood test (FOBT) in the past year.	73.5%	72.8%	75.8%	74.8%	79.0%	78.1%
Adults aged 50+ who have ever had a sigmoidoscopy or colonoscopy	46.6%	53.7%	42.9%	46.6%	37.8%	45.3%
Men aged 50 and older who have not had a PSA (prostate specific antigen) test in the two years	48.2%	47.6%	46.5%	45.9%	45.2%	43.3%
Women aged 40 and older who did not have a mammogram in the past two years	25.2%	27.5%	23.5%	25.5%	24.0%	26.3%
Adult women who had NOT had a Pap test in last three years.	14.0%	17.4%	16.0%	16.2%	17.1%	19.2%

Table 25a: Primary and Secondary Prevention U.S. and WV for Selected Years, UPDATED				
	2010 <sup>157</sup>		2012 <sup>158</sup>	
	United States	West Virginia	United States	West Virginia
Adults aged 65 and older who had NOT had a flu shot in the past 12 months.	32.5%	33.6%	39.9%	31.1%
Adults aged 65 and older who had never had a pneumonia shot	31.2%	37.6%	31.2%	32.0%
Adults aged 50 and older who did NOT perform a home stool blood test (FOBT) in the past year.	82.8%	80.2%	85.8%	81.8%
Adults aged 50+ who have ever had a sigmoidoscopy or colonoscopy	65.2%	54.4%	67.3%	63.5%
Men aged 40 and older who have not had a PSA (prostate specific antigen) test in the two years	46.8%	47.6%	54.8%	51.9%
Women aged 40 and older who did not have a mammogram in the past two years	24.8%	27.7%	26.0%	27.8%
Adult women who had NOT had a Pap test in last three years.	18.7%	21.0%	22.0%	24.0%

<sup>156</sup> <http://apps.nccd.cdc.gov/brfss/>

<sup>157</sup> <http://apps.nccd.cdc.gov/brfss/>

<sup>158</sup> Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/>

## Youth Risk Behavior Surveillance System

The Youth Risk Behavior Surveillance System (YRBSS) monitors six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and young adults. YRBSS includes a national school-based survey, the Youth Risk Behavior Survey (YRBS), conducted by the Centers for Disease Control and Prevention and state, territorial, tribal and local surveys conducted by state, territorial and local education, health agencies and tribal governments.

The West Virginia High School Youth Risk Behavior Survey (YRBS) is an 86-item self-reporting questionnaire that has been administered every two years since 1993 by the West Virginia Department of Education. No county specific data are available.

Overall, data from the Youth Risk Behavior Survey indicate that West Virginia adolescents are less likely to participate in identified risk behaviors than teens nationally. The exceptions are in cigarette smoking and alcohol consumption. The percentage of West Virginia teens who smoked dropped from 28.5% to 19.1% in West Virginia between 2007 and 2011 and the percentage of teens who reported drinking alcohol dropped from 44.4% to 34.3% during the same time frame.

**Table 26: Youth Risk Behavior Survey Public School Students Grades 9 -12 U.S. and WV for Selected Years**

	2003		2007		2011	
	United States <sup>159</sup>	West Virginia <sup>160</sup>	United States <sup>161</sup>	West Virginia <sup>162</sup>	United States <sup>163</sup>	West Virginia <sup>164</sup>
Rode with a driver who had been drinking alcohol one or more times(in a car or other vehicle during the 30 days before the survey)	30.2%	24.3%	29.1%	23.8%	24.1%	18.7%
Did not go to school because they felt unsafe at school or on their way to or from school on at least 1 day (during the 30 days before the survey)	5.4%	5.9%	5.5%	6.8%	5.9%	4.9%
Attempted suicide one or more times (during the 12 months before the survey)	8.5%	9.3%	6.9%	9.1%	7.8%	5.5%
Smoked cigarettes on a least 1 day (during the 30 days before the survey)	21.9%	28.5%	20.0%	27.6%	18.1%	19.1%
Had at least one drink of alcohol on at least one day (during the 30 days before the survey)	44.9%	44.4%	44.7%	43.5%	38.7%	34.3%
Used marijuana one or more times (during the 30 days before the survey)	22.4%	23.1%	19.7%	23.5%	23.1%	19.7%
Ever had sexual intercourse	46.7%	52.0%	47.8%	53.7%	47.4%	50.9%
Had sexual intercourse with four or more persons (during their life)	14.4%	16.5%	14.9%	16.5%	15.3%	12.4%
Used a condom during last sexual intercourse (among students who were currently sexually active)	63.0%	64.7%	61.5%	61.0%	60.2%	60.3%
Obese (students who were ≥ 95 <sup>th</sup> percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts)	12.0%	13.6%	12.8%	14.5%	13.0%	14.6%

<sup>159</sup> [http://www.cdc.gov/healthyyouth/yrbs/pdf/us\\_summary\\_all\\_trend\\_yrbs.pdf](http://www.cdc.gov/healthyyouth/yrbs/pdf/us_summary_all_trend_yrbs.pdf)

<sup>160</sup> [http://wvde.state.wv.us/healthyschools/documents/2011WVHTrendReport\\_000.pdf](http://wvde.state.wv.us/healthyschools/documents/2011WVHTrendReport_000.pdf)

<sup>161</sup> [http://www.cdc.gov/healthyyouth/yrbs/pdf/us\\_summary\\_all\\_trend\\_yrbs.pdf](http://www.cdc.gov/healthyyouth/yrbs/pdf/us_summary_all_trend_yrbs.pdf)

<sup>162</sup> [http://wvde.state.wv.us/healthyschools/documents/2011WVHTrendReport\\_000.pdf](http://wvde.state.wv.us/healthyschools/documents/2011WVHTrendReport_000.pdf)

<sup>163</sup> [http://www.cdc.gov/healthyyouth/yrbs/pdf/us\\_summary\\_all\\_trend\\_yrbs.pdf](http://www.cdc.gov/healthyyouth/yrbs/pdf/us_summary_all_trend_yrbs.pdf)

<sup>164</sup> [http://wvde.state.wv.us/healthyschools/documents/2011WVHTrendReport\\_000.pdf](http://wvde.state.wv.us/healthyschools/documents/2011WVHTrendReport_000.pdf)

## Maternal and Child Health

The Centers for Disease Control and Prevention (CDC) and the WV Health Statistics Center collect data from birth certificate information. This has included information about low birth weight, prenatal care and tobacco use during pregnancy. As changes were made as to what information was collected for birth certificates, some national data was no longer available to compare to state and county level information. Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance project of the CDC and state health departments. States participating in PRAMS collect state-specific, population-based data on maternal attitudes and experiences before, during and shortly after pregnancy. Not all states participate or ask the same questions each year.

Compared with unexposed infants, babies whose mothers smoked before and after birth are at three to four-fold greater risk of Sudden Infant Death Syndrome.<sup>165</sup> Chronic diseases in the mother, including hypertension, diabetes and asthma, have been also been associated with poor birth outcomes. Because of this, implementing strategies that shift from a narrow focus on prenatal and infant care to a broader emphasis on women's health has been identified as strategy for lowering the infant mortality rate.<sup>166</sup>

### Infant Mortality

The infant mortality rate is the rate of death of infants under one year (age 0 – 364 days) per 1,000 or 100,000 live births, depending on the population size. Nationally infant mortality rates are based on birth and infant death certificates registered in all states, DC, Puerto Rico, the Virgin Islands, and Guam. As part of the Vital Statistics Cooperative Program, each state provided matching birth and death certificate numbers for each infant under age one year who died in the state during the designated year. The West Virginia Vital Statistics office collects and reports this information.

The infant mortality rates decreased slightly in 2010 and then increased slightly in 2011 in West Virginia and the United States. The infant mortality rates in all three Eastern Panhandle counties rose steadily between 2000 and 2009. Such increases are significant, and the underlying reasons must be identified. Additionally, because national and statewide infant mortality data show racial disparities, it is vitally important to analyze the role of race, ethnicity and class in the rising infant mortality in the region and develop targeted strategies that address the root causes of the trend.

Birth defects were the leading cause of infant mortality for the United States and West Virginia from 2000 to 2010. The percent of infant deaths due to Sudden Infant Death Syndrome and prematurity and low birth weight decreased in West Virginia from 2000 to 2010. From 2008-2010 in the United States birth defects, prematurity and low birth weight, Sudden Infant Death Syndrome and maternal complications of pregnancy were more common among Black infants than White and Hispanic infants.

---

<sup>165</sup>[http://www.cdc.gov/tobacco/data\\_statistics/sgr/2004/highlights/children/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/2004/highlights/children/index.htm)

<sup>166</sup><http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/K/KIDSCOUNTIndicatorBriefReducingInfantMortality/ReducingInfantMortality.pdf>

	<b>2000</b>	<b>2005</b>	<b>2009</b>	<b>2010</b>	<b>2011<sup>167</sup></b>
<b>United States</b>	6.89 <sup>168</sup>	6.86 <sup>169</sup>	6.39 <sup>170</sup>	6.1 <sup>171</sup>	6.7
	Source for data below <sup>172</sup>	Source for data below <sup>173</sup>	Source for data below <sup>174</sup>		
<b>West Virginia</b>	7.6	8.1	7.8	7.3 <sup>175</sup>	7.6
				Source for data below <sup>176</sup>	
<b>Berkeley County</b>	7.4	9.2	13.3	8.4*	NA
<b>Jefferson County</b>	3.4	4.6	9.6	5.4*	NA
<b>Morgan County</b>	6.8	6.3	18.5	NA	NA

\*Data from 2006-2010

	<b>2000-2002</b>		<b>2003 - 2005</b>		<b>2006 -2008</b>	
	<b>United States</b>	<b>West Virginia</b>	<b>United States</b>	<b>West Virginia</b>	<b>United States</b>	<b>West Virginia</b>
<b>All Causes</b>	689.3	789.2	682.6	773.2	668.3	737.5
<b>Birth Defects</b>	139.8	144.0	136.5	132.6	135.3	142.1
<b>Prematurity and Low Birth Weight</b>	111.1	101.8	114.7	76.8	112.7	86.1
<b>Sudden Infant Death Syndrome</b>	58.3	108.6	53.8	99.0	55.6	127.4
<b>Maternal Complications of Pregnancy</b>	38.0	64.6	42.0	46.3	40.7	36.0

	<b>2008-2010</b>	
	<b>United States</b>	<b>West Virginia</b>
<b>All Causes</b>	638.7	759.5
<b>Birth Defects</b>	130.5	141.3
<b>Prematurity and Low Birth Weight</b>	108.6	81.0
<b>Sudden Infant Death Syndrome</b>	53.6	99.7
<b>Maternal Complications of Pregnancy</b>	40.0	NA

<sup>167</sup> West Virginia Department of Health and Human Resources. West Virginia State Health Profiles. (2012). Retrieved from <http://www.dhhr.wv.gov/publichealthquality/statepublichealthassessment/Documents/2012%20State%20Health%20Profile%20Final%20May%202013.pdf>

<sup>168</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_02.pdf) Page 4, Table C

<sup>169</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_02.pdf) Page 4, Table C

<sup>170</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\\_03.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf) Page 11, Table D

<sup>171</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

<sup>172</sup> [www.wvdhhr.org/bph/oehp/vital00/vs\\_39.htm](http://www.wvdhhr.org/bph/oehp/vital00/vs_39.htm)

<sup>173</sup> [http://www.wvdhhr.org/bph/hsc/pubs/vital/2006/vs\\_41.htm](http://www.wvdhhr.org/bph/hsc/pubs/vital/2006/vs_41.htm)

<sup>174</sup> <http://www.wvdhhr.org/bph/hsc/pubs/vital/2009/2009Vital.pdf> Page 119, Table 58

<sup>175</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

<sup>176</sup> University of Wisconsin Population Health Institute & Robert Wood Johnson Foundation. (2014). County Health Rankings and Roadmaps.

<sup>177</sup> <http://www.cdc.gov/nchs/hdi.htm> Mortality and life expectancy; Infant mortality by cause: US/State 2000-2008

<sup>178</sup> Centers for Disease Control and Prevention. National Center for Health Statistics. Health Data Interactive. Retrieved from <http://205.207.175.93/HDI/TableViewer/tableView.aspx?ReportId=70>

**Table 29: Infant Mortality Rate by Race and Cause United States 2000 – 2008 Rates per 100,000 Population<sup>179</sup>**

	2000-2002				2003 - 2005				2006 -2008			
	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic
<b>All Causes</b>	689.3	573.3	1,353.9	573.7	682.6	570.5	1,333.0	560.3	668.3	558.3	1,273.2	550.3
<b>Birth Defects</b>	139.8	136.1	166.7	145.5	136.5	131.9	166.5	140.6	135.3	131.4	162.8	143.2
<b>Prematurity and Low Birth Weight</b>	111.1	77.6	300.3	81.3	114.7	82.3	298.7	90.5	112.7	80.5	284.6	86.7
<b>Sudden Infant Death Syndrome</b>	58.3	48.6	115.3	30.4	53.8	45.9	102.0	27.1	55.6	47.7	102.3	29.3
<b>Maternal Complications of Pregnancy</b>	38.0	29.5	86.6	23.0	42.0	32.2	99.7	29.2	40.7	32.2	87.8	29.4

<sup>179</sup> <http://www.cdc.gov/nchs/hdi.htm> Mortality and life expectancy, Infant mortality by cause: US/State 2000-2008

**Table 29a: Infant Mortality Rate by Race and Cause United States 2008-2010 Rates per 100,000 Population, UPDATED<sup>180</sup>**

	2008-2010			
	All	White	Black	Hispanic
<b>All Causes</b>	638.7	537.3	1,191.1	538.2
<b>Birth Defects</b>	130.5	127.2	155.3	140.2
<b>Prematurity and Low Birth weight</b>	108.6	77.9	269.8	86.7
<b>Sudden Infant Death Syndrome</b>	53.6	46.1	98.8	30.5
<b>Maternal Complications of Pregnancy</b>	40.0	32.4	80.2	31.3

**Table 30: Infant Mortality By Race and Cause West Virginia 2000 - 2008 Rates per 100,000 Population<sup>181</sup>**

	2000-2002			2003 - 2005			2006 -2008		
	All	White	Black	All	White	Black	All	White	Black
<b>All Causes</b>	789.2	776.4	1,205	773.2	757.4	1,238.1	737.5	713.7	1,479.7
<b>Birth Defects</b>	144.0	140.1	NA	132.6	133.5	NA	142.1	143.9	NA
<b>Prematurity and Low Birth weight</b>	101.8	99.5	NA	76.8	70.2	NA	86.1	82.0	NA
<b>Sudden Infant Death Syndrome</b>	108.6	111.6	NA	99.0	96.7	NA	127.4	125.3	NA
<b>Maternal Complications of Pregnancy</b>	64.6	67.4	NA	46.3	46.7	NA	36.0	32.8	NA

**Table 30a: Infant Mortality By Race and Cause West Virginia 2000 - 2008 Rates per 100,000 Population, UPDATED<sup>182</sup>**

	2008-2010		
	All	White	Black
<b>All Causes</b>	759.5	755.7	953.6
<b>Birth Defects</b>	141.3	138.3	No data available
<b>Prematurity and Low Birth weight</b>	81.0	76.7	No data available
<b>Sudden Infant Death Syndrome</b>	99.7	103.0	No data available
<b>Maternal Complications of Pregnancy</b>	No data available	No data available	No data available

<sup>180</sup> Centers for Disease Control and Prevention.National Center for Health Statistics. Health Data Interactive. Retrieved from <http://205.207.175.93/HDI/TableViewer/tableView.aspx?ReportId=70>

<sup>181</sup> <http://www.cdc.gov/nchs/hdi.htm> Mortality and life expectancy, Infant mortality by cause: US/State 2000-2008

<sup>182</sup> Centers for Disease Control and Prevention.National Center for Health Statistics. Health Data Interactive. Retrieved from <http://205.207.175.93/HDI/TableViewer/tableView.aspx?ReportId=70>

## Prenatal Care

The quality, quantity, and timing of prenatal care influence pregnancy outcome, and inadequate prenatal care increases a woman’s risk for poor pregnancy outcomes. Prenatal care allows health care providers to identify and manage a woman’s risk factors and health conditions and to provide expectant parents with relevant health care advice. Women who begin prenatal care after the first trimester are at a higher risk for poor pregnancy outcomes with infants being born premature, low birth weight or growth retarded.<sup>183</sup> Changes at the national level to the standard birth certificate in 2003, which are gradually being adopted, have made recent state and local comparisons with national data impossible.

In 2010, 83.0% of West Virginia mothers with known prenatal care began their care during the first trimester of pregnancy. Among those with known prenatal care in 2009, 82.5% of white mothers began care during the first trimester and 72.2% of black mothers did.<sup>184</sup> From 2000 to 2010, the percentage of mothers receiving care during the first trimester increased in Berkeley and Jefferson counties but decreased slightly in Morgan County.

**Table 31: Percent of All Birth Mothers Who Received Prenatal Care Beginning in the First Trimester US, WV, and Eastern Panhandle Counties 2000, 2005 and 2010, UPDATED**

	2000	2005	2010
<b>United States</b>	83.2% <sup>185</sup>	83.9% <sup>186</sup>	83.0* <sup>187</sup>
	Source for data below 188	Source for data below 189	Source for data below 190
<b>West Virginia</b>	82.0%	81.5%	83.1%
<b>Berkeley County</b>	82.5%	87.9%	89.3%
<b>Jefferson County</b>	85.7%	87.6%	91.0%
<b>Morgan County</b>	85.6%	89.9%	89.2%

\*Data for 2010-2011

## Low Birth Weight

Low birth weight is when a baby is born weighing less than 5 pounds, 8 ounces. Some low birth weight babies are healthy, even though they’re small. But low birth weight is often the result of prematurity which can be associated with serious health problems, including respiratory distress syndrome (RDS), bleeding on the brain, heart problems and more. While the percentage of low birth weight births rose slightly from 2000 to 2010 in both the United States and West Virginia, the percentage actually declined in Berkeley County and increased in Jefferson and Morgan Counties.

<sup>183</sup>[http://www.cdc.gov/pednss/what\\_is/pnss\\_health\\_indicators.htm](http://www.cdc.gov/pednss/what_is/pnss_health_indicators.htm)

<sup>184</sup><http://www.wvdhhr.org/bph/hsc/pubs/vital/2009/2009Vital.pdf> Pages 28-29, Table 9

<sup>185</sup>[http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_05.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_05.pdf) Page 11, Table E

<sup>186</sup>[http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56\\_06.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_06.pdf) Page 69, Table 26 (B)

<sup>187</sup> Centers for Disease Control and Prevention. (2013). *National Vital Statistics Reports*. Retrieved from [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_02.pdf)

<sup>188</sup> <http://www.wvdhhr.org/bph/hsc/statserv/viewer.asp?target=http://www.wvdhhr.org/bph/hsc/pubs/vital/2005/index.htm&Source=pub.asp&DocID=1> 2000 County Data – Trimester Prenatal Care Began by County

<sup>189</sup> <http://www.wvdhhr.org/bph/hsc/statserv/viewer.asp?target=http://www.wvdhhr.org/bph/hsc/pubs/vital/2005/index.htm&Source=pub.asp&DocID=1> County Data – Trimester Prenatal Care Began by County

<sup>190</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*.

<http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>



Table 32: Percent of Low Birth Weight Births U.S., WV, and Eastern Panhandle Counties 2000, 2005 and 2010, UPDATED			
	2000	2005	2010
<b>United States</b> <sup>191</sup>	7.6%	8.2%	9.8%* <sup>192</sup>
	Source for data below <sup>193</sup>	Source for data below <sup>194</sup>	Source for data below <sup>195</sup>
<b>West Virginia</b>	8.4%	9.5%	9.2%
<b>Berkeley County</b>	8.9%	8.5%	8.0%
<b>Jefferson County</b>	6.1%	6.5%	9.8%
<b>Morgan County</b>	8.9%	6.3%	6.9%

\*Data for 2010-2011

### ***Smoking During Pregnancy***

Smoking during pregnancy can cause a baby to be born too early or to have low birth weight—making it more likely the baby will be sick and have to stay in the hospital longer and for the baby to have certain birth defects, like a cleft lip or cleft palate. Smoking during and after pregnancy is a risk factor for Sudden Infant Death Syndrome (SIDS). Among the West Virginia mothers who reported smoking during pregnancy in 2009, 14.1% of the babies born were low birth weight, compared with 7.4% among non-smoking mothers.<sup>196</sup>

The Centers for Disease Control and the WV Health Statistics Center collect data from birth certificate information. As changes were made to information collected for birth certificates, some national data, such as tobacco use during pregnancy, were no longer available to compare to state and county level information collected from West Virginia birth certificates by the WV Health Statistics Center.

Although the percentage of pregnant Eastern Panhandle mothers who used tobacco during pregnancy declined from 2000 – 2009, the percentages still remained high with Berkeley County at 20.6%, Jefferson County at 15.8% and Morgan County at 24.8%, and the percentage was on an upward trend from 2005 to 2009.

<sup>191</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\\_01.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_01.pdf) Page 59, Table 24

<sup>192</sup> Centers for Disease Control and Prevention. (2013). *National Vital Statistics Reports*. Retrieved from [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_02.pdf)

<sup>193</sup> [http://www.wvdhhr.org/bph/oehp/vital00/vs\\_10.htm](http://www.wvdhhr.org/bph/oehp/vital00/vs_10.htm)

<sup>194</sup> [http://www.wvdhhr.org/bph/hsc/pubs/vital/2005/vs\\_10.htm](http://www.wvdhhr.org/bph/hsc/pubs/vital/2005/vs_10.htm)

<sup>195</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

<sup>196</sup> <http://www.wvdhhr.org/bph/hsc/pubs/vital/2009/2009Vital.pdf> Page 18

Table 33: Percent of All Birth Mothers Who Used Tobacco During Pregnancy as Reported on Birth Certificates U.S. West Virginia and Eastern Panhandle Counties 2000, 2005, 2009			
	2000	2005	2009
<b>United States</b>	12.2 <sup>197</sup>	NA	NA
	Source for data below <sup>198</sup>	Source for data below <sup>199</sup>	Source for data below <sup>200</sup>
<b>West Virginia</b>	26.0%	26.4%	27.2%
<b>Berkeley County</b>	28.4%	20.2%	20.6%
<b>Jefferson County</b>	21.3%	15.3%	15.8%
<b>Morgan County</b>	27.4%	20.1%	24.8%

Of the states participating in the PRAMS survey in 2008, West Virginia had the highest rate of smoking (28.7%) during the last three months of pregnancy, which was much higher than Alabama, which was next highest at 24.0% and well above the overall average among participating states (12.8%). A complete chart of the PRAMS findings is available in Appendix C.

Table 34: Percent of Women Who Smoked During the Last Three Months of Pregnancy <sup>201</sup> West Virginia 2000, 2005, 2008, 2010, UPDATED								
	2000		2005		2008		2010 <sup>202</sup>	
	Rank (of 19 states)	Percent	Rank (of 26 states)	Percent	Rank (of 27 states)	Percent	No Ranks Available	Percent
<b>Overall (of states participating in survey)</b>	NA	13.2%	NA	12.2%	NA	12.8%		NA
<b>West Virginia</b>	1	24.5%	1	31.9%	1	28.7%		30.5%
<b>Arkansas</b>	2	20.3%	3	20.9%	2	24.0%		18.6%
<b>Maine</b>	3	17.5%	5	17.5%	4	19.5%		18.2%
<b>Ohio</b>	4	17.1%	2	21.6%	5	18.9%		16.5%
<b>New York</b>	5	17.0%	NA	12.9%	NA	11.9%		11.4%
<b>Tennessee</b>	NA	NA	NA	NA	3	19.7%		NA

<sup>197</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_05.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_05.pdf), Page 44, Table 24

<sup>198</sup> <http://www.wvdhhr.org/bph/hsc/statserv/viewer.asp?target=http://www.wvdhhr.org/bph/hsc/pubs/vital/2005/index.htm&Source=pub.asp&DocID=1> 2000 County Data Pregnancy Risk Factors, C-Sections, Complications, Anomalies and Abnormal Conditions

<sup>199</sup> [http://www.wvdhhr.org/bph/oehp/hsc/pubs/vital05/vs\\_21.htm](http://www.wvdhhr.org/bph/oehp/hsc/pubs/vital05/vs_21.htm)

<sup>200</sup> <http://www.wvdhhr.org/bph/hsc/pubs/vital/2009/2009Vital.pdf> Page 110

<sup>201</sup> <http://www.cdc.gov/prams/DATA-TobaccoTables.htm#n13> Table 2

<sup>202</sup> Centers for Disease Control and Prevention. Pregnancy Risk Assessment Monitoring System (PRAMS): CPONDER. Retrieved from <http://apps.nccd.cdc.gov/cPONDER/>

## Drinking Alcohol during Pregnancy

The West Virginia PRAMS questionnaire includes questions specifically related to drinking during pregnancy. Data regarding the consumption of alcohol during the last three months of pregnancy indicate that older women (age 36+) are more likely to drink alcohol than younger women. Also, pregnant women who do not receive Medicaid are more likely than Medicaid recipients to drink alcohol during pregnancy.

**Table 35: Percent Mothers Reported Having Any Alcoholic Drinks During the Last 3 Months of Pregnancy<sup>203</sup>  
West Virginia and Comparison to Other States 2000, 2005, 2008,2010, UPDATED**

	2000		2005		2008		2010 <sup>204</sup>	
	Rank (of 19 states)	Percent	Rank (of 26 states)	Percent	Rank (of 29 states)	Percent	Ranks not available	Percent
<b>West Virginia</b>	<b>19</b>	2.1%	<b>25</b>	2.9	<b>29</b>	3.0%		3.7%
<b>Vermont</b>	NA	NA	1	11.3%	1	12.1%		12.9%
<b>Massachusetts</b>	NA	NA	NA	NA	2	11.0%		10.8%
<b>Colorado</b>	1	9.0%	2	11.1%	3	10.7%		11.6%
<b>Washington</b>	4	6.0%	5	8.7%	4	9.8%		7.6%
<b>Rhode Island</b>	NA	NA	3	9.2%	5	9.5%		10.7%
<b>New Jersey</b>	NA	NA	4	8.9%	13	7.2%		7.4%
<b>Illinois</b>	2	6.9%	NA	NA	NA	NA		NA
<b>New York</b>	3	6.5%	16	7.0%	12	7.3%		6.7%

**Table 36: Prevalence of Maternal Drinking in the Last Three Months of Pregnancy by Annual Income<sup>205</sup>  
West Virginia 2005, 2007 and 2009,2010, UPDATED**

	<\$10,000	\$10,000- \$14,999	\$15,000- \$19,999	\$20,000- \$24,999	\$25,000- \$34,999	\$35,000- \$49,000	≥\$50,000
<b>2005</b>	3.1%	1.5%	3.8%	0.2%	7.0%	1.6%	2.5%
<b>2007</b>	2.8%	2.2%	4.2%	0.6%	8.4%	2.9%	5.3%
<b>2009</b>	2.5%	1.0%	1.8%	3.6%	1.7%	3.2%	6.4%
<b>2010<sup>206</sup></b>	5.1%	1.8%	0.4%	2.2%	2.6%	4.1%	5.1%

**Table 37: Prevalence of Maternal Drinking Last Three Months of Pregnancy by Age<sup>207</sup>  
West Virginia 2000, 2005, 2009, 2010, UPDATED**

	2000	2005	2009	2010 <sup>208</sup>
<b>&lt; 20 years</b>	2.5%	2.6%	2.7%	2.5%
<b>20-24 years</b>	1.4%	2.5%	2.7%	3.4%
<b>25-34 years</b>	1.2%	2.5%	4.1%	3.3%
<b>35+ years</b>	3.8%	7.0%	5.7%	8.9%

<sup>203</sup> <http://apps.nccd.cdc.gov/cPONDER/>

<sup>204</sup> Centers for Disease Control and Prevention. Pregnancy Risk Assessment Monitoring System (PRAMS): CPONDER <http://apps.nccd.cdc.gov/cPONDER/default.aspx?page=DisplayAllStates&state=0&year=12&category=2&variable=9>

<sup>205</sup> <http://www.dhhr.wv.gov/bhhf/resources/Documents/WV%202012%20Behavioral%20Health%20Profile.pdf> page. 36

<sup>206</sup> West Virginia Department of Health and Human Resources. 2013 West Virginia Behavioral Health Epidemiological Profile.

[http://www.dhhr.wv.gov/bhhf/resources/Documents/2013\\_State\\_Profile.pdf](http://www.dhhr.wv.gov/bhhf/resources/Documents/2013_State_Profile.pdf)

<sup>207</sup> <http://www.dhhr.wv.gov/bhhf/resources/Documents/WV%202012%20Behavioral%20Health%20Profile.pdf> page. 35

<sup>208</sup> West Virginia Department of Health and Human Resources. 2013 West Virginia Behavioral Health Epidemiological Profile. [http://www.dhhr.wv.gov/bhhf/resources/Documents/2013\\_State\\_Profile.pdf](http://www.dhhr.wv.gov/bhhf/resources/Documents/2013_State_Profile.pdf)

**Table 38: Prevalence of Maternal Drinking Last Three Months of Pregnancy Among Medicaid Recipients<sup>209</sup>  
West Virginia 2000, 2005, 2009,2010, UPDATED**

	2005	2007	2009	2010 <sup>210</sup>
<b>Medicaid</b>	2.8%	2.9%	2.4%	3.4%
<b>Non-Medicaid</b>	3.2%	4.9%	4.8%	4.3%

## Teen Birth Rates

National teen birth rate data are collected through the Centers for Disease Control and Prevention Vital Statistics Reporting System through data reported on birth certificates. The teen birth rate = (number of live births to females in the defined age group/total number of females in the defined age group) X 1,000. The number of females in an age group is based on U.S. 2000 census and estimates derived from the U.S. 2000 census. The WV teen birth rates are calculated in the same manner by the WV Vital Statistics office.

Although West Virginia’s teen birth rates were below the nation in 2000, they rose above the national rates in 2009 and remained above the national rates in 2012. During this same time period, Morgan County rates have steadily declined while there has been more variability in Berkeley and Jefferson County, with rates down from the previous ten years.

**Table 39: Teen Birth Rates in the U.S. and WV for Selected Years Per 1,000 Population, UPDATED**

	United States				West Virginia			
	2000 <sup>211</sup>	2005 <sup>212</sup>	2009 <sup>213</sup>	2012 <sup>214</sup>	2000 <sup>215</sup>	2002-2006 <sup>216</sup>	2009 <sup>217</sup>	2012 <sup>218</sup>
<b>Ages 15 - 19</b>	48.5	40.5	39.1	29.4	46.4	41.5	48.6	44.1
<b>Ages 15 - 17</b>	27.4	21.4	20.1	8.2	22.8	20.4	24.6	20.1
<b>Ages 18 - 19</b>	79.2	69.9	66.2	21.2	79.8	70.7	79.7	78.8

**Table 40: Teen Birth Rates in Eastern Panhandle Counties for Selected Years Per 1,000 Population**

	1999 - 2003 <sup>219</sup>			2002 - 2006 <sup>220</sup>			2009 <sup>221</sup>		
	Berkeley County	Jefferson County	Morgan County	Berkeley County	Jefferson County	Morgan County	Berkeley County	Jefferson County	Morgan County
<b>Ages 15 – 19</b>	66.6	44.6	55.3	66.4	38.0	46.0	46.8	40.3	34.0
<b>Ages 15 – 17</b>	32.7	24.5	27	34.1	22.4	22.2	20.9	18.8	15.5
<b>Ages 18 - 19</b>	123.7	68.1	108.1	119.6	56.3	90.4	94.8	65.1	67.8

<sup>209</sup> <http://www.dhhr.wv.gov/bhfh/resources/Documents/WV%202012%20Behavioral%20Health%20Profile.pdf> page. 37

<sup>210</sup> West Virginia Department of Health and Human Resources. 2013 West Virginia Behavioral Health Epidemiological Profile. Retrieved from [http://www.dhhr.wv.gov/bhfh/resources/Documents/2013\\_State\\_Profile.pdf](http://www.dhhr.wv.gov/bhfh/resources/Documents/2013_State_Profile.pdf)

<sup>211</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_09.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_09.pdf) Page 2, Table 1

<sup>212</sup> [http://wonder.cdc.gov/wonder/sci\\_data/natal/detail/type\\_txt/natal05/Births05.pdf](http://wonder.cdc.gov/wonder/sci_data/natal/detail/type_txt/natal05/Births05.pdf) Page 6, Table A

<sup>213</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60\\_01.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_01.pdf) Page 5, Table A

<sup>214</sup> US Department of Health and Human Services. Office of Adolescent Health. (2014). *Trends in teen pregnancy and childbearing*. Retrieved from <http://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/trends.html>

<sup>215</sup> [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_09.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_09.pdf) Page 2, Table 1

<sup>216</sup> [http://www.wvdhhr.org/bph/hsc/pubs/vital/2006/vs\\_12.htm](http://www.wvdhhr.org/bph/hsc/pubs/vital/2006/vs_12.htm)

<sup>217</sup> Report from the WV Health Statistics Center, August 2012

<sup>218</sup> Martin, J.A, Hamilton, B.E, Osterman, M.J.K., Curtin, S.C., & Mathews, M.S. (2013). Births: Final data for 2012. *National Vital Statistics Reports*, 2(9). Retrieved from

[http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_09.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_09.pdf)

<sup>219</sup> [http://www.wvdhhr.org/bph/oehp/vital03/vs\\_12.htm](http://www.wvdhhr.org/bph/oehp/vital03/vs_12.htm)

<sup>220</sup> [http://www.wvdhhr.org/bph/hsc/pubs/vital/2006/vs\\_12.htm](http://www.wvdhhr.org/bph/hsc/pubs/vital/2006/vs_12.htm)

<sup>221</sup> Report from the WV Health Statistics Center, August 2012

Table 40a: Percent of Births in Eastern Panhandle Counties to Teenagers, UPDATED			
	2010 <sup>222</sup>		
	Berkeley County	Jefferson County	Morgan County
<b>Ages 15 – 19</b>	9.2%	8.3%	13.0%
<b>Ages 15 – 17</b>	3.0%	2.2%	2.3%
<b>Ages 18 - 19</b>	6.2%	6.1%	10.7%

## Communicable Diseases

Most communicable disease data was available only on a national and state level, with little county level data available because the numbers are often very small or they are not released in order to protect the confidentiality of persons with communicable diseases such as sexually transmitted diseases. Data are also collected on rates of vaccinations for specific preventable illnesses.

The Centers for Disease Control and Prevention (CDC) works in partnership with local and state health departments to track the incidence of specific diseases such as tuberculosis, Hepatitis, HIV/AIDS among other illnesses that impact the nation’s overall health. Rates of Hepatitis B & C are have been linked by public health officials to rates of injectable drug. In 2000, the incidence of acute, symptomatic Hepatitis B in West Virginia was below the national average (1.7/100,000 compared to 2.9/100,000. By 2011, the incidence in the state was 7.6/100,000, much higher than the national rate of 1.0/100,000. Nationally, the incidence of Hepatitis A, B, and C is decreasing, but in West Virginia it is increasing.

While the rate of people in West Virginia diagnosed with AIDS (6.6/100,000 in 2011) and living with a diagnosis of AIDS (53.2/100,000 in 2011) are both lower than the national rates (19.0 and 190.0 respectively), the Eastern Panhandle counties are in very close proximity to areas with some of the highest incident rates in the country. In 2010, the rate of AIDS diagnosis was 130.6/ 100,000 in Washington D.C., 26.5 in Maryland, 10.00 in Pennsylvania and 13.0 in Virginia.

The incidence of people living with a diagnosis of AIDS in 2009 was 1,704.7/100,000 in Washington, DC; 370.3 in Maryland, 171.2 in Pennsylvania and 142.9 in Virginia. Twenty-one percent of individuals diagnosed with either HIV or AIDS in West Virginia between 2006 and 2010 were women. Fifty-five percent of all HIV/AIDS cases from 2006-2010 were attributed to men who have sex with men, 16% were attributed to heterosexual contact and 10% were attributed to injecting drug use. The mode of transmission in 16% of cases was unknown.<sup>223</sup>

<sup>222</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). *2010 West Virginia Vital Statistics*. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

<sup>223</sup> [http://www.dhhr.wv.gov/oeps/std-hiv-hep/HIV\\_AIDS/Documents/HIV%20Surveillance%20Summary%202011%20Update%20V2.pdf](http://www.dhhr.wv.gov/oeps/std-hiv-hep/HIV_AIDS/Documents/HIV%20Surveillance%20Summary%202011%20Update%20V2.pdf) Page 17

**Table 41: Communicable Diseases U.S. and WV 2000, 2005, 2011, UPDATED**

	2000		2005		2011	
	United States	West Virginia	United States	West Virginia	United States	West Virginia
<b>People Diagnosed with AIDS per 100,000 population<sup>224</sup></b>	17.3	2.9	15.0	4.7	19.0 <sup>225</sup>	6.6 <sup>226</sup>
<b>People Living with an AIDS Diagnosis per 100,000 Population<sup>227</sup></b>	133.8	30.6	168.5	45.9	190.0 <sup>228</sup>	53.2 <sup>229</sup>
<b>Tuberculosis Cases</b>	16,309 <sup>230</sup>	33 <sup>231</sup>	14,068 <sup>232</sup>	28 <sup>233</sup>	10,516 <sup>234</sup>	13 <sup>235</sup>
<b>Tuberculosis Rate per 100,000 population</b>	5.8 <sup>236</sup>	1.8 <sup>237</sup>	4.8 <sup>238</sup>	1.5 <sup>239</sup>	3.4 <sup>240</sup>	0.7 <sup>241</sup>
<b>Hepatitis B: Reported Number of Acute Cases</b>	8,036 <sup>242</sup>	30 <sup>243</sup>	5,494 <sup>244</sup>	69 <sup>245</sup>	2,890 <sup>(2011)246</sup>	129 <sup>(2012)247</sup>
<b>Hepatitis B: Incidence per 100,000 Population of Acute, Symptomatic Hepatitis B</b>	2.9 <sup>248</sup>	1.7 <sup>249</sup>	1.8 <sup>250</sup>	3.8 <sup>251</sup>	1.0 <sup>(2012)252</sup>	7.6 <sup>(2012)253</sup>
<b>Hepatitis C Reported Number of Acute Cases</b>	3,197 <sup>254</sup>	22 <sup>255</sup>	694 <sup>256</sup>	19 <sup>257</sup>	1,229 <sup>258</sup>	46 <sup>259</sup>
<b>Hepatitis C Incidence per 100,000 Population of Acute, Symptomatic Hepatitis C</b>	1.1 <sup>260</sup>	NA	0.2 <sup>261</sup>	1.0 <sup>262</sup>	0.4 <sup>(2011)263</sup>	3.0 <sup>(2012)264</sup>
<b>Hepatitis A Reported Number of Acute Cases</b>	13,397 <sup>265</sup>	52 <sup>266</sup>	4,488 <sup>267</sup>	4 <sup>268</sup>	1,398 <sup>269</sup>	8 <sup>270</sup>
<b>Hepatitis A Incidence per 100,000 Population of Acute, Symptomatic Hepatitis A</b>	4.8 <sup>271</sup>	NA	1.5 <sup>272</sup>	.2 <sup>273</sup>	0.4 <sup>274</sup>	0.4 <sup>275</sup>

<sup>224</sup> <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>225</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>226</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>227</sup> <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>228</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>229</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>230</sup> <http://www.cdc.gov/tb/statistics/reports/2010/table1.htm>

<sup>231</sup> <http://www.dhhr.wv.gov/oeps/tuberculosis/Documents/2010%20WV%20TB%20Profile.pdf> Page 131

<sup>232</sup> <http://www.dhhr.wv.gov/oeps/tuberculosis/Documents/2010%20WV%20TB%20Profile.pdf> Page 131

<sup>233</sup> <http://www.dhhr.wv.gov/oeps/tuberculosis/Documents/2010%20WV%20TB%20Profile.pdf> Page 131

<sup>234</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>235</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>236</sup> <http://www.cdc.gov/tb/statistics/reports/2010/table1.htm> Page 131

<sup>237</sup> <http://www.dhhr.wv.gov/oeps/tuberculosis/Documents/2010%20WV%20TB%20Profile.pdf> Page 131

<sup>238</sup> <http://www.dhhr.wv.gov/oeps/tuberculosis/Documents/2010%20WV%20TB%20Profile.pdf> Page 131

<sup>239</sup> <http://www.dhhr.wv.gov/oeps/tuberculosis/Documents/2010%20WV%20TB%20Profile.pdf> Page 131

<sup>240</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>241</sup> Centers for Disease Control and Prevention. Atlas. (2012). Retrieved from <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>

<sup>242</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1b.htm>

<sup>243</sup> <http://www.dhhr.wv.gov/oeps/std-hiv-hep/hepatitis/Documents/Hepatitis%20B%20Acute%20Cases%202000-2010.pdf>

<sup>244</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1b.htm>

<sup>245</sup> <http://www.dhhr.wv.gov/oeps/std-hiv-hep/hepatitis/Documents/Hepatitis%20B%20Acute%20Cases%202000-2010.pdf>

<sup>246</sup> Centers for Disease Control and Prevention. *Surveillance for Viral Hepatitis – United States, 2011*. (2014). <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm>

<sup>247</sup> West Virginia Department of Health and Human Resources. *Acute Hepatitis B – West Virginia, 2012*. <http://www.dhhr.wv.gov/oeps/disease/ATOZ/documents/acute-hep-b-2012.pdf>

<sup>248</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1b.htm>

<sup>249</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table2b.htm>

<sup>250</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1b.htm>

<sup>251</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table2b.htm>

<sup>252</sup> West Virginia Department of Health and Human Resources. *Acute Hepatitis B – West Virginia, 2012*. <http://www.dhhr.wv.gov/oeps/disease/ATOZ/documents/acute-hep-b-2012.pdf>

<sup>253</sup> West Virginia Department of Health and Human Resources. *Acute Hepatitis B – West Virginia, 2012*. <http://www.dhhr.wv.gov/oeps/disease/ATOZ/documents/acute-hep-b-2012.pdf>

<sup>254</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1a.htm>

<sup>255</sup> <http://www.dhhr.wv.gov/oeps/disease/Surveillance/Documents/TABLE%201.pdf>

<sup>256</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1a.htm>

<sup>257</sup> <http://www.cdc.gov/hepatitis/Statistics/2009Surveillance/Table4.1.htm>

<sup>258</sup> Centers for Disease Control and Prevention. *Surveillance for Viral Hepatitis – United States, 2011*. (2014). <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm>

<sup>259</sup> Centers for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. (2013). <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Table4.1.htm>

<sup>260</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1c.htm>

<sup>261</sup> <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1a.htm>

<sup>262</sup> <http://www.cdc.gov/hepatitis/Statistics/2009Surveillance/Table4.1.htm>

<sup>263</sup> Anil, L. West Virginia Bureau for Public Health. *Call for action:Hepatitis C in West Virginia*. (2013). <http://www.dhhr.wv.gov/oeps/documents/2013-symposium/2013-Symposium-HepatitisC.pdf>

<sup>264</sup> Anil, L. West Virginia Bureau for Public Health. *Call for action:Hepatitis C in West Virginia*. (2013). <http://www.dhhr.wv.gov/oeps/documents/2013-symposium/2013-Symposium-HepatitisC.pdf>

<sup>265</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm#hepA>

<sup>266</sup> West Virginia Department of Health and Human Resources. Retrieved from <http://www.dhhr.wv.gov/oeps/disease/Surveillance/Documents/TABLE%201.pdf>

<sup>267</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2009Surveillance/Table2.1.htm>

<sup>268</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2009Surveillance/Table2.1.htm>

<sup>269</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm#hepA>

<sup>270</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm#hepA>

<sup>271</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2008Surveillance/Table1c.htm>

<sup>272</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2009Surveillance/Table2.1.htm>

<sup>273</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2009Surveillance/Table2.1.htm>

<sup>274</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm#hepA>

<sup>275</sup> Center for Disease Control and Prevention. *Viral Hepatitis Statistics and Surveillance*. Retrieved from <http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/Commentary.htm#hepA>

## Chronic Disease

The CDC Division for Heart Disease and Stroke Prevention maintains an online tool that provides national and state data trends and maps regarding heart attack incidence and the prevalence of coronary heart disease, high blood pressure and high cholesterol. The WV Behavioral Risk Factor Surveillance System (BRFSS) provides similar data by county. The WV BRFSS collects information on health risk behaviors and health conditions by conducting random telephone surveys monthly. Currently, the survey is conducted by the West Virginia Health Statistics Center in collaboration with the CDC, and more than 3,000 West Virginia adults are interviewed each year.

The prevalence of chronic illnesses such as chronic obstructive pulmonary disease (COPD), heart disease and failure, high blood pressure and diabetes is higher in West Virginia and in the Eastern Panhandle than the United States. The economic impact of chronic illness in the state is compelling. In 2003, the cost of treating chronic illness and complications was \$2.3 billion with an additional economic loss of \$8.1 billion associated with lower worker productivity and missed work days.<sup>276</sup>

The following from the “West Virginia Behavioral Risk Factor Survey Report 2009-2010” and the “West Virginia Behavioral Risk Factor Survey Report 2011” provides a snapshot of chronic health issues in West Virginia.<sup>277 278</sup>

- West Virginia ranked highest in the nation in 2009 and 2nd in the nation in 2011 in the prevalence of heart attack among adults. The prevalence of heart attack was 6.5% in 2009 and 6.3% in 2010.
- Men had a significantly higher prevalence of heart attack than women.
- West Virginia also ranked higher than any other state in 2009 and 2011 in prevalence of angina or coronary heart disease among adults (7.1% in 2009 and 6.7% in 2011).
- West Virginia ranked 4th highest nationally in 2009 and 5th highest in 2011 (3.7% in 2009 and 3.8% in 2011) for prevalence of stroke.
- Regarding the prevalence of chronic obstructive pulmonary disease (COPD), West Virginia ranked 4th highest in the nation (8.8% in 2011).
- For every 10 adults in West Virginia, approximately 1 had diabetes in 2011 (12.0%) and ranked West Virginia 4th highest in the United States.
- The prevalence of heart attack, angina and stroke was significantly higher among those 65 and older, those with less than a high school education and those with an annual household income of less than \$15,000.

The prevalence of individuals who have had a heart attack as well as those who have been diagnosed with heart disease and high cholesterol in the Eastern Panhandle counties is higher than the national prevalence, with the exception of coronary heart disease in Jefferson County. The percentage of individuals who have been diagnosed with high cholesterol in all three Eastern Panhandle counties is higher than for the United States.

---

<sup>276</sup> [http://www.chronicdiseaseimpact.com/state\\_sheet/WV.pdf](http://www.chronicdiseaseimpact.com/state_sheet/WV.pdf)

<sup>277</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009\\_2010/brfs2009\\_2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009_2010/brfs2009_2010.pdf) (page 54)

<sup>278</sup> West Virginia Department of Health and Human Services. West Virginia Behavioral Risk Factor Survey Report 2011. (2013). <http://www.wvdhhr.org/bph/hsc/statserv/brfss.asp>

**Table 42: Prevalence of Selected Chronic Disease and Risk Factors Heart Disease  
U.S., WV and Eastern Panhandle Counties 2000 – 2009, 2011/2012, UPDATED**

	Had Heart Attack			Had Coronary Heart Disease			Had High Blood Pressure			Had High Cholesterol		
	2000	2004-2009	2012	2000	2004-2009	2012	2001	2002,03,05,07,09	2011	2000-2001	2002,03,05,07,09	2011
<b>United States</b> <sup>279</sup>	3.2%	NA	4.5% 280	3.6%	NA	4.3% 281	28.0%	NA	28.6% 282	25.4%	NA	37.5% 283
<b>West Virginia</b> <sup>284</sup>	7.1%	NA	7.4 <sup>285</sup>	8.7%	NA	8.5% 286	30.8%	NA	37.6% 287	34.1%	NA	38.4% 288
<b>Berkeley County</b> <sup>289</sup>	NA	4.9%	NA	NA	6.9%	NA	NA	26.8%	NA	NA	36.9%	NA
<b>Jefferson County</b> <sup>290</sup>	NA	4.5%	NA	NA	4.2%	NA	NA	25.9%	NA	NA	29.9%	NA
<b>Morgan/Hampshire Counties (grouped)</b> <sup>291</sup>	NA	4.0%	NA	NA	7.8%	NA	NA	31.7%	NA	NA	39.0%	NA

The Work-Related Lung Disease (WoRLD) Surveillance System, a CDC national surveillance system, is maintained by the National Institute for Occupational Safety and Health (NIOSH) and includes up-to-date state and national data related respiratory disease surveillance data on the pneumoconioses, occupational asthma and other airways diseases and several other respiratory conditions including chronic obstructive pulmonary disease. Rates of COPD are higher in the Eastern Panhandle than in the United States.

<sup>279</sup> [http://apps.nccd.cdc.gov/NCVDSS\\_DTM/#](http://apps.nccd.cdc.gov/NCVDSS_DTM/#)

<sup>280</sup> Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/page.asp?cat=CH&yr=2012&state=WV#CH>

<sup>281</sup> Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/page.asp?cat=CH&yr=2012&state=WV#CH>

<sup>282</sup> Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/page.asp?cat=CH&yr=2012&state=WV#CH>

<sup>283</sup> Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/page.asp?cat=CH&yr=2012&state=WV#CH>

<sup>284</sup> [http://apps.nccd.cdc.gov/NCVDSS\\_DTM/#](http://apps.nccd.cdc.gov/NCVDSS_DTM/#)

<sup>285</sup> Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/page.asp?cat=CH&yr=2012&state=WV#CH>

<sup>286</sup> Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/page.asp?cat=CH&yr=2012&state=WV#CH>

<sup>287</sup> West Virginia Department of Health and Human Resources. West Virginia Behavioral Risk Factor Surveillance System Report. (2011). Retrieved from

<http://www.wvdhhr.org/bph/hsc/pubs/brfss/2011/BRFSS2011.pdf>

<sup>288</sup> Behavioral Risk Factor Surveillance System. Prevalence and Trends Data. Retrieved from <http://apps.nccd.cdc.gov/brfss/page.asp?cat=CH&yr=2012&state=WV#CH>

<sup>289</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/chronicdiseasemanandprev2011/advocating\\_for\\_chronic\\_disease\\_management\\_and\\_prevention\\_2011.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/chronicdiseasemanandprev2011/advocating_for_chronic_disease_management_and_prevention_2011.pdf) Page 23 Appendix D

<sup>290</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/chronicdiseasemanandprev2011/advocating\\_for\\_chronic\\_disease\\_management\\_and\\_prevention\\_2011.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/chronicdiseasemanandprev2011/advocating_for_chronic_disease_management_and_prevention_2011.pdf) Page 23 Appendix D

<sup>291</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/chronicdiseasemanandprev2011/advocating\\_for\\_chronic\\_disease\\_management\\_and\\_prevention\\_2011.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/chronicdiseasemanandprev2011/advocating_for_chronic_disease_management_and_prevention_2011.pdf) Page 23 Appendix D



**Table 43: Chronic Obstructive Pulmonary Disease in U.S., WV and Eastern Panhandle Counties, UPDATED**

	COPD Mortality Rates (Per 100,000 Population)				COPD Hospital Discharge Rates (Per 10,000 Population)			
	2000	2005	2008 <sup>292</sup>	2010	2000	2005	2008	2010
<b>United States</b>	42.2 <sup>293</sup>	41.6 <sup>294</sup>	40.6	39.8 <sup>295</sup>	23.8 <sup>296</sup>	24.4 <sup>297</sup>	NA	32.2 <sup>298</sup>
	Data Source for below <sup>299</sup>				Data Source for below <sup>300</sup>	Data Source for below <sup>301</sup>	Data Source for below <sup>302</sup>	
<b>West Virginia</b>	63.2	59.4 <sup>303</sup>	68.5	73.1 <sup>304</sup>	52.7	47.2	52.8	NA
<b>Berkeley County</b>	50.9	NA	54.3	NA	20.4	NA	18.9	NA
<b>Jefferson County</b>	61.3	NA	66.5	NA	21.6	NA	13.9	NA
<b>Morgan County</b>	52.3	NA	40.7	NA	11.4	NA	19.0	NA

**Table 43a: Chronic Lower Respiratory Disease Mortality Rate per 100,000, 2009 & 2010, UPDATED<sup>305,306,307</sup>**

	2003	2009	2010
<b>United States</b>	43.4	44.7	44.6
<b>West Virginia</b>	72.6	83.5	80.6
<b>Berkeley County</b>	50.4	47.2	45.1
<b>Jefferson County</b>	21.6	51.2	54.2
<b>Morgan County</b>	38.7	67.1	96.9

<sup>292</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/COPD\\_an\\_overview\\_in\\_WV/COPD2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/COPD_an_overview_in_WV/COPD2010.pdf) Page 22, Appendix B

<sup>293</sup> <http://www.cdc.gov/copd/data.htm>

<sup>294</sup> <http://www.cdc.gov/copd/data.htm>

<sup>295</sup> Centers for Disease Control and Prevention. (2014). *Wide-ranging Online Data for Epidemiologic Research*. Retrieved from <http://wonder.cdc.gov/controller/datarequest/D76.jsessionid=79D5E354C8F17BEB7121E2EE3C628828>

<sup>296</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/COPD\\_an\\_overview\\_in\\_WV/COPD2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/COPD_an_overview_in_WV/COPD2010.pdf) Page 12

<sup>297</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/COPD\\_an\\_overview\\_in\\_WV/COPD2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/COPD_an_overview_in_WV/COPD2010.pdf) Page 12

<sup>298</sup> Ford, E.S., Croft, J.B., Mannino, D.M., Wheaton, A.G., Zhang, X., Giles, W.H. (2013). COPD surveillance--United States, 1999-2011. *Chest*, 144, 284-305. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/23619732>

<sup>299</sup> <http://www.wvdhhr.org/bph/hsc/pubs/other/clrd/appendix.htm#>

<sup>300</sup> <http://www.wvdhhr.org/bph/hsc/pubs/other/clrd/appendix.htm#>

<sup>301</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/COPD\\_an\\_overview\\_in\\_WV/COPD2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/COPD_an_overview_in_WV/COPD2010.pdf) Page 12

<sup>302</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/COPD\\_an\\_overview\\_in\\_WV/COPD2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/COPD_an_overview_in_WV/COPD2010.pdf) Page 21, Appendix A

<sup>303</sup> [http://www.wvdhhr.org/bph/hsc/pubs/other/COPD\\_an\\_overview\\_in\\_WV/COPD2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/other/COPD_an_overview_in_WV/COPD2010.pdf)

<sup>304</sup> Centers for Disease Control and Prevention. (2014). *Wide-ranging Online Data for Epidemiologic Research*. Retrieved from <http://wonder.cdc.gov/controller/datarequest/D76.jsessionid=79D5E354C8F17BEB7121E2EE3C628828>

<sup>305</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. 2003 *West Virginia Vital Statistics*. <http://www.wvdhhr.org/bph/hsc/pubs/vital/2003/INDEX.HTM#death>

<sup>306</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. 2009 *West Virginia Vital Statistics*. <http://www.wvdhhr.org/bph/hsc/pubs/vital/2009/2009vital.pdf>

<sup>307</sup> West Virginia Department of Health and Human Resources. Health Statistics Center. (2014). 2010 *West Virginia Vital Statistics*. <http://www.wvdhhr.org/bph/hsc/pubs/vital/2010/2010Vital.pdf>

While the percentage of persons who have been diagnosed with asthma is increasing nationally, it is decreasing in West Virginia, Berkeley County and Jefferson County. The rate is rising in Morgan and Hampshire counties.

<b>Table 44: Current Asthma - Adults Who Have Been Told They Currently Have Asthma U.S., WV and Eastern Panhandle Counties 2003, 2006, 2008, 2010, 2012, UPDATED</b>					
	<b>2003<sup>308</sup></b>	<b>2006<sup>309</sup></b>	<b>2008<sup>310</sup></b>	<b>2010<sup>311</sup></b>	<b>2012<sup>312</sup></b>
<b>United States</b>	7.7%	8.2%	8.5%	8.6%	8.9%
<b>West Virginia</b>	9.2%	8.6%	9.6%	7.3%	10.2%
	<b>2001- 2005</b>	<b>2004-2008<sup>313</sup></b>	<b>2006-2010<sup>314</sup></b>		<b>2007-2011<sup>315</sup></b>
<b>Berkeley County</b>	9.9%	8.6%	8.2%	NA	7.6%
<b>Jefferson County</b>	10.6%	10.0%	10.2%	NA	9.7%
<b>Morgan and Hampshire Counties</b>	5.8%	7.8%	9.2%	NA	10.1%*

\*Exclusively Morgan County

In 2009, Eastern Panhandle adults (10.5% in Berkeley County, 10.6% in Jefferson County and 11.0% in Morgan County) had been diagnosed with diabetes.

The following bullets from the “West Virginia Behavioral Risk Factor Survey Report 2009-2010” and “West Virginia Behavioral Risk Factor Survey Report 2011” provide a snapshot of diabetes in West Virginia:<sup>316</sup>

- In 2011, West Virginia ranked fourth highest in the nation for the prevalence of diabetes.
- The prevalence of diabetes among adults has increased steeply and significantly since 1995.
- There was no significant gender difference in diabetes prevalence in either 2009 or 2010.
- The oldest adults (65 and older) had the highest diabetes prevalence among all age groups, and prevalence of diabetes generally increased as age increased.
- Adults with less than a high school education had the highest prevalence of diabetes while college graduates had the lowest prevalence of diabetes for both 2009 and 2010. Each increase in education was associated with a lower prevalence of diabetes, although the differences were not significant between every group.
- There was a significant income difference in the prevalence of diabetes. The prevalence generally decreased with increasing income.
- 7.6% of West Virginia adults had borderline or pre-diabetes in 2011.

Ambulatory care is medical care for patients who do not need to be admitted to a hospital for treatment. Ambulatory Care Sensitive (ACS) discharges indicate inpatient admissions for diabetes, perforated appendixes, COPD, hypertension, congestive heart failure, dehydration, bacterial

<sup>308</sup> [http://www.wvdhhr.org/bph/hsc/pubs/BRFSS/2004\\_2005/appendL.pdf](http://www.wvdhhr.org/bph/hsc/pubs/BRFSS/2004_2005/appendL.pdf)

<sup>309</sup> <http://www.wvdhhr.org/bph/hsc/pubs/brfss/2006/2006westvirginiabehavioralriskfactorsurveyreport.pdf> Page 36

<sup>310</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007\\_2008/BRFS2007\\_2008.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007_2008/BRFS2007_2008.pdf) Page 59

<sup>311</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009\\_2010/BRFS2009\\_2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009_2010/BRFS2009_2010.pdf) Page 62

<sup>312</sup> Centers for Disease Control and Prevention. (2014). *2012 adult asthma data: Prevalence Tables and Maps*. Retrieved from <http://www.cdc.gov/asthma/brfss/2012/tableC1.htm>

<sup>313</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007\\_2008/BRFS2007\\_2008.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2007_2008/BRFS2007_2008.pdf) Page 87 , Appendix O

<sup>314</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009\\_2010/brfs2009\\_2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009_2010/brfs2009_2010.pdf) Page 81, Appendix E

<sup>315</sup> West Virginia Department of Health and Human Resources. West Virginia Behavioral Risk Factor Surveillance System Report, 2011. Retrieved from

<http://www.wvdhhr.org/bph/hsc/pubs/brfss/2011/BRFSS2011.pdf>

<sup>316</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009\\_2010/brfs2009\\_2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009_2010/brfs2009_2010.pdf)

pneumonia, urinary tract infection, asthma and other conditions that, in theory, could have been prevented if adequate ambulatory care resources were available and/or accessed.

In 2011, 36.4% of Berkeley Medical Center’s ACS discharges were among persons with diabetes. Of these discharges, 53% were uncontrolled diabetes and 22.8% were long-term complication of diabetes. Also in 2011, 22.5% of Jefferson Medical Center’s ACS discharges were among persons with diabetes. Fifty percent of these diabetes-related discharges were due to uncontrolled diabetes and 33.3% due to long-term complications of the disease.<sup>317</sup>

In 2012, 31.5% of War Memorial’s inpatient discharges were among persons with diabetes. Of these diabetes-related inpatient discharges, 15.7% were due to uncontrolled diabetes and 28.1% were due to long-term complications of the disease.<sup>318</sup>

Table 45: Age Adjusted Percent of Adults Who Have Been Diagnosed with Diabetes U.S. WV and Eastern Panhandle Counties 2000, 2005 and 2009, 2007-2011, UPDATED				
	2000	2005	2009	2007-2011 <sup>319</sup>
<b>United States<sup>320</sup></b>	6.0%	7.3%	8.4%	9.8%
<b>West Virginia<sup>321</sup></b>	7.3%	10.1%	10.8%	12.0%
<b>Berkeley County<sup>322</sup></b>	NA	10.1%	10.5%	9.2%
<b>Jefferson County<sup>323</sup></b>	NA	9.0%	10.6%	9.4%
<b>Morgan County<sup>324</sup></b>	NA	11.0%	11.0%	10.5%

## Cancer

The National Cancer Institute provides an online tool for determining cancer incidence rates by state, county, sex, race and cancer type. The data are collected by the National Center for Health Statistics.

About 1 in 10 West Virginia adults are cancer survivors (10.4% in 2009 and 12.7% in 2011). Cancer prevalence is higher among females than males, and about one-fifth of WV seniors had cancer during their lives (27.7%).<sup>325</sup>

From 2006-2010, Berkeley County’s overall cancer rate and lung cancer rate were higher than the national rate. While Jefferson and Morgan counties show overall cancer rates that are below both the state and national rate, the death rates are higher than those of the nation. Jefferson County’s female breast cancer rate was lower than both the national and state rate. No county cancer death rates were below the U.S. rate.

<sup>317</sup> WVU Hospitals East

<sup>318</sup> Valley Health

<sup>319</sup> West Virginia Department of Health and Human Resources. West Virginia Behavioral Risk Factor Surveillance System Report, 2011. Retrieved from <http://www.wvdhhr.org/bph/hsc/pubs/brfss/2011/BRFSS2011.pdf>

<sup>320</sup> <http://www.cdc.gov/diabetes/statistics/prev/national/figageadult.htm>

<sup>321</sup> <http://apps.nccd.cdc.gov/ddtstrs/Index.aspx?stateid=54&state=West%20Virginia&cat=prevalence&Data=data&view=TO&trend=prevalence&id=1>

<sup>322</sup> [http://apps.nccd.cdc.gov/DDT\\_STRS2/CountyPrevalenceData.aspx?Stateid=54&mode=DBT](http://apps.nccd.cdc.gov/DDT_STRS2/CountyPrevalenceData.aspx?Stateid=54&mode=DBT)

<sup>323</sup> [http://apps.nccd.cdc.gov/DDT\\_STRS2/CountyPrevalenceData.aspx?Stateid=54&mode=DBT](http://apps.nccd.cdc.gov/DDT_STRS2/CountyPrevalenceData.aspx?Stateid=54&mode=DBT)

<sup>324</sup> [http://apps.nccd.cdc.gov/DDT\\_STRS2/CountyPrevalenceData.aspx?Stateid=54&mode=DBT](http://apps.nccd.cdc.gov/DDT_STRS2/CountyPrevalenceData.aspx?Stateid=54&mode=DBT)

<sup>325</sup> [http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009\\_2010/brfs2009\\_2010.pdf](http://www.wvdhhr.org/bph/hsc/pubs/brfss/2009_2010/brfs2009_2010.pdf) Page V.

**Table 46: Cancer Incidence Rates per 100,000 Population U.S., WV and Eastern Panhandle Counties 2006-2010, UPDATED <sup>326</sup>**

	All Cancer Sites	Lung and Bronchus	Male Prostrate	Female Breast
<b>United States</b>	453.7	65.0	143.8	119.8
<b>West Virginia</b>	478.4	85.7	131.8	110.2
<b>Berkeley County</b>	472.5	88.6	121.4	111.8
<b>Jefferson County</b>	355.5	80.2	92.9	106.6
<b>Morgan County</b>	391.9	53.2	86.9	90.1

**Table 47: Annual Cancer Death Rates Per 100,000 Population U.S., WV and Eastern Panhandle Counties Through 2006-2010, UPDATED <sup>327,328</sup>**

	All Cancer Sites	Lung and Bronchus	Lung and Bronchus (among females)	Male Prostrate	Female Breast
<b>United States</b>	176.4 (falling)	49.5 (falling)	39.2 (falling)	23.0 (falling)	22.6(falling)
<b>West Virginia</b>	201.2 (falling)	65.2 (falling)	50.9 (stable)	20.9 (falling)	22.1(falling)
<b>Berkeley County</b>	205.9 (falling)	62.7 (stable)	50.9 (rising)	23.8 (falling)	26.7(stable)
<b>Jefferson County</b>	209.2 (stable)	63.8(stable)	52.7 (stable)	25.7 (stable)	24.4 (stable)
<b>Morgan County</b>	224.2 (stable)	80.8(stable)	82.8 (rising)	NA	NA

Similar to other Appalachian communities, the rates of cancer death are either falling or stable in the Eastern Panhandle, with the exception of lung and bronchus cancer among women, which is increasing in Berkeley and Morgan County. However, more cases of cancer are detected in the later stages for many reasons.

**Table 48: Cancer Death Trends Per 100,000 Population Eastern Panhandle Counties Through 2010, UPDATED <sup>329</sup>**

	Above U.S. Rate	Similar to U.S. Rate	Below U.S. Rate
<b>Rising Trend</b>	<b>Morgan County</b> (Lung and Bronchus-female)	<b>Berkeley County</b> (Lung and Bronchus-female)	None
<b>Stable Trend</b>	<b>Jefferson County</b> (Lung and Bronchus, All Cancer, Colon and Rectum ) <b>Morgan County</b> (Lung and Bronchus, All Cancer) <b>Berkeley County</b> (Lung and Bronchus)	<b>Berkeley County</b> (Breast-female, Bladder, Leukemia, Non-Hodgkin Lymphoma, Pancreas) <b>Morgan County</b> (Colon and Rectum) <b>Jefferson County</b> (Lung and Bronchus –female, Breast-female, Non-Hodgkin Lymphoma, Pancreas, Prostate)	None
<b>Falling Trend</b>	<b>Berkeley County</b> (All Cancer, Colon and Rectum)	<b>Berkeley County</b> (Ovary, Prostate)	None

<sup>326</sup> Centers for Disease Control and Prevention. National Cancer Institute. State Cancer Profiles. <http://statecancerprofiles.cancer.gov/>

<sup>327</sup> Centers for Disease Control and Prevention. National Cancer Institute. State Cancer Profiles. <http://statecancerprofiles.cancer.gov/>

<sup>328</sup> National Cancer Institute. Surveillance, epidemiology, and end results program. <http://seer.cancer.gov/>

<sup>329</sup> Centers for Disease Control and Prevention. National Cancer Institute. State Cancer Profiles. <http://statecancerprofiles.cancer.gov/>

## **ENVIRONMENTAL FACTORS**

Because people constantly interact with the environment, maintaining a healthy environment is essential for increasing quality of life and years of a healthy life. Globally, nearly 25% of all deaths and the total disease burden can be attributed to environmental factors.<sup>330</sup>

Environmental issues include:

- Exposure to hazardous substances in the air, water, soil and food
- Natural and technological disasters
- Physical hazards
- Nutritional deficiencies
- The built environment

## **Radon**

Radon is an invisible, odorless cancer-causing, radioactive gas that is linked to lung cancer. It comes from the natural breakdown of uranium in soil, rock and water and gets into the air. It can enter a building through cracks and other holes in the foundation and can build up in homes over time.

The Surgeon General has warned that radon is the second leading cause of lung cancer in the United States today and the number one cause of lung cancer among non-smokers. The risk of lung cancer is especially high among individuals who smoke and live in homes with high radon levels. Radon gas in America's homes poses a serious health risk.<sup>331</sup>

The average indoor radon level is estimated to be about 1.3 pCi/L (picocuries per liter), and the U.S. Environmental Protection Agency (EPA) has established that the "action level" for deciding when you need to "do something" about radon is 4 pCi/L.<sup>332</sup> The average radon levels in Berkeley, Jefferson and Morgan are all well above the "action level" and pose an increased risk of lung cancer to residents. Radon testing is strongly encouraged so steps can be taken to reduce the risk of developing lung cancer.

<b>Table 49: Average Indoor Radon Level U.S. and Eastern Panhandle Counties (1986-2013), UPDATED</b>			
<b>United States<sup>333</sup></b>	<b>Berkeley County<sup>334</sup></b>	<b>Jefferson County<sup>335</sup></b>	<b>Morgan County<sup>336</sup></b>
1.3 pCi/L	8.9 pCi/L	8.2 pCi/L	13.2 pCi/L

<b>Table 50: Average Indoor Radon Level (1986-2013), UPDATED</b>			
	<b>Berkeley County<sup>337</sup></b>	<b>Jefferson County<sup>338</sup></b>	<b>Morgan County<sup>339</sup></b>
<b>Results under 2pCi/L</b>	29%	27%	26%
<b>Results between 2 and 3.9 pCi/L</b>	19%	18%	20%
<b>Results 4 pCi/L and higher</b>	52%	55%	54%

<sup>330</sup> World Health Organization (WHO). Preventing disease through healthy environments. Geneva, Switzerland: WHO; 2006

<sup>331</sup> <http://www.epa.gov/radon/healthrisks.html>

<sup>332</sup> [http://www.epa.gov/radon/pubs/citguide.html#E1\\_Radon](http://www.epa.gov/radon/pubs/citguide.html#E1_Radon)

<sup>333</sup> Air Chek, Inc. (2014). *Berkeley County Radon Information*. Retrieved from <http://county-radon.info/WV/Berkeley.html>

<sup>334</sup> Air Chek, Inc. (2014). *Berkeley County Radon Information*. Retrieved from <http://county-radon.info/WV/Berkeley.html>

<sup>335</sup> Air Chek, Inc. (2014). *Jefferson County Radon Information*. Retrieved from <http://county-radon.info/WV/Jefferson.html>

<sup>336</sup> Air Chek, Inc. (2014). *Morgan County Radon Information*. Retrieved from <http://county-radon.info/WV/Morgan.html>

<sup>337</sup> Air Chek, Inc. (2014). *Berkeley County Radon Information*. Retrieved from <http://county-radon.info/WV/Berkeley.html>

<sup>338</sup> Air Chek, Inc. (2014). *Jefferson County Radon Information*. Retrieved from <http://county-radon.info/WV/Jefferson.html>

<sup>339</sup> Air Chek, Inc. (2014). *Morgan County Radon Information*. Retrieved from <http://county-radon.info/WV/Morgan.html>

## Air Quality

Air Quality Index (AQI) is an indicator of overall air quality, because it takes into account all of the criteria air pollutants measured within a geographic area. AQI includes all available pollutant measurements. The summary values include both qualitative measures (days of the year having "good" air quality, for example) and descriptive statistics (median AQI value, for example).

- **# Days with AQI:** The number of days in the year when AQI measurements from the monitoring site were taken
- **Good AQI:** 0 through 50
- **Moderate AQI:** 51 through 100
- **Unhealthy for Sensitive Groups:** 101 through 150
- **Unhealthy:** 151 through 200
- **Very Unhealthy:** 201 or higher
- **Maximum:** The highest daily AQI value in the year
- **Median:** Half of daily AQI values during the year that were less than or equal to the median value, and half equaled or exceeded it

The only AQI monitoring in the Eastern Panhandle is in Berkeley County. Both the number of days air quality is monitored and the percent of good air days are rising.

**Table 51: Berkeley County Air Quality Index 2000, 2005, 2010, 2013, UPDATED<sup>340</sup>**

	Number of Days when Air Quality Was....								AQI Statistics	
	# Days with AQI	Good	% Good Days	Moderate	% Moderate Days	Unhealthy for Sensitive Groups	Unhealthy	Very Unhealthy	Maximum	Median
<b>2000</b>	113	65	57.5%	45	39.82%	3	0	0	116	46
<b>2005</b>	264	173	65.53%	89	33.71%	2	0	0	137	44
<b>2010</b>	263	194	73.76%	67	25.47%	2	0	0	135	44
<b>2013</b>	264	225	85.23%	38	14.39%	NA	0	0	31	38

## SOCIAL AND MENTAL HEALTH

Poor mental health is a major source of distress, disability and social burden<sup>341</sup>. In 2011, one in five American adults had mental illness (defined as a diagnosable mental, behavioral or emotional disorder excluding developmental and substance use disorders.) The rate was twice as high among those aged 18 to 25 (29.8%) than those aged 50 and older (14.3%).<sup>342</sup>

The Behavioral Risk Factor Surveillance System (BRFSS), a continuously conducted, telephone health survey, monitors many health factors, including mental health. It includes the question, "Thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good?"

<sup>340</sup> United States Environmental Protection Agency. (2013). *Air Quality Index Report*. Retrieved from [http://www.epa.gov/airdata/ad\\_rep\\_aqi.html](http://www.epa.gov/airdata/ad_rep_aqi.html)

<sup>341</sup> <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5341a1.htm>

<sup>342</sup> <http://www.samhsa.gov/newsroom/advisories/1211273220.aspx>

From 2006 – 2010, 14.9% of West Virginia’s population and 10.4% of the population in the United States reported having 14 or more mentally unhealthy days. The average number of mentally unhealthy days was 4.4 in West Virginia and 3.5 nationally.<sup>343</sup>

Key informant interviews and focus groups demonstrate serious concerns about issues of mental health, substance abuse and interpersonal violence in the Eastern Panhandle. While these issues are intertwined, services remain fragmented. The current health and social services system is designed to address specific incidents or issues rather than to provide holistic services to an individual and/or family unit. Substance abuse treatment services are very limited, particularly for lower-income individuals and families, so there are often waiting lists for services.

Hospital discharge data validate widespread concern about the availability of quality community-based behavioral health programs and providers in the Eastern Panhandle. The number one discharge-related group from University Healthcare Berkeley Medical Center in 2011 was psychoses (551 discharges with the next highest being 513 discharges for normal newborn.)<sup>344</sup>

Representatives of Shenandoah Valley Medical System’s Behavioral Health Services report that adults wait one or more months for services and children wait three months or more. Persons who are already patients have priority access since they are already established, but they still wait two or three weeks for service. The wait for children who are already patients may decrease by one month. Children may have to wait five months for an intake.<sup>345</sup>

Table 52 is based on data from the Substance Abuse and Mental Health Data Archive (SAMHDA), which is maintained by the Substance Abuse and Mental Health Services Administration (SAMHSA). Table 52 displays data specifically from the Treatment Episode Data Set (TEDS), which is a national census data system that tracks admissions to certain substance abuse treatment programs. The laws determining which programs are mandated to participate vary by state; some states require all programs to provide admission data and other states’ requirements apply exclusively to programs receiving public funding. The data reflect admissions, not individuals.<sup>346</sup>

From 2008 to 2011, attention deficit/disruptive behavior disorders increased slightly in West Virginia and depressive disorders decreased slightly. With the exception of the category ‘other conditions’ West Virginia had higher percentages of every behavioral health disorder displayed in Table 52 for every year. Depressive disorder was diagnosed upon admission in 2011 in West Virginia 7% more than in other states.

---

<sup>343</sup> <http://apps.nccd.cdc.gov/HRQOL/>

<sup>344</sup> University Healthcare

<sup>345</sup> Key informant interview, December 2012, Jeanne Marzell, MSN, CNS-AP, APN-MAC

<sup>346</sup> Substance Abuse and Mental Health Services Administration (SAMHSA). Substance Abuse and Mental Health Data Archive (SAMHDA). Treatment Episode Data Set - Admissions (TEDS-A) Series. Retrieved from <http://www.icpsr.umich.edu/icpsrweb/SAMHDA/series/56>

**Table 52: Behavioral Health Related Diagnoses upon Admission to Substance Abuse Treatment Programs Aged 12 and Older, UPDATED<sup>347</sup>**

	2008		2009		2010		2011	
	West Virginia	All other states	West Virginia	All other states	West Virginia	All other states	West Virginia	All other states
<b>Anxiety disorders</b>	2.3%	.4%	2.3%	.4%	2.8%	.3%	2.9%	.3%
<b>Depressive disorders</b>	8.8%	1.4%	8.2%	1.3%	7.5%	.9%	7.7%	.7%
<b>Schizophrenia/other psychotic disorders</b>	1.5%	.6%	1.2%	.5%	1.9%	.3%	1.2%	.2%
<b>Bipolar disorders</b>	6.3%	.8%	5.8%	.8%	6.6%	.5%	4.9%	.4%
<b>Attention deficit/disruptive behavior disorders</b>	.7%	.2%	.8%	.2%	.9%	.2%	1.0%	.2%
<b>Other mental health condition</b>	2.1%	.9%	2.7%	.8%	3.2%	.6%	3.1%	.5%
<b>Other condition</b>	.8%	3.6%	1.3%	3.3%	.7%	2.6%	.7%	2.8%

## Suicide

Nationally, suicide was the tenth leading cause of death for all ages in 2010 and resulted in an estimated \$34.6 billion in combined medical and work loss costs. Based on a 2009 study in 16 states, 33.3% of suicide decedents tested positive for alcohol, 23% for antidepressants and 20.8% for opiates, including heroin and prescription **pain killers**.<sup>348</sup>

Nationally, there is one suicide for every 25 attempted suicides.<sup>349</sup> In 2010, there were 282 fatal motor vehicle accidents in WV, in which 199 drivers and 67 passengers were killed. Of these accidents, 107 involved a single vehicle with only one occupant: the driver.<sup>350</sup> Current literature would suggest that, although research into driver suicide is relatively sparse because of the methodological difficulties associated with establishing the intent, at least one in 15 motor vehicle crashes are intentional and remain largely unrecognized.<sup>351</sup>

In 2011, the national rate for self-harm with nonfatal injuries was 156.54/100,000<sup>352</sup> with an estimated \$6.5 billion in combined medical and work loss costs.<sup>353</sup>

**Table 53: Suicide Rate per 100,000 population US, WV and Eastern Panhandle Counties 2000, 2005, and 2010**

	2000	2005	2010
<b>United States<sup>354</sup></b>	10.4	11.0	12.4
<b>West Virginia<sup>355</sup></b>	13.6	15.1	15.9
<b>Berkeley County<sup>356</sup></b>	10.5	16.2	11.5
<b>Jefferson County<sup>357</sup></b>	4.7	4.1	11.2
<b>Morgan County<sup>358</sup></b>	6.7	18.9	0.0

<sup>347</sup> Substance Abuse and Mental Health Services Administration. Substance Abuse and Mental Health Data Archive. Retrieved from <http://www.icpsr.umich.edu/icpsrweb/SAMHDA/sda>

<sup>348</sup> <http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.PDF>

<sup>349</sup> [http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6013a1.htm?s\\_cid=ss6013a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6013a1.htm?s_cid=ss6013a1_w)

<sup>350</sup> <http://www.fars.nhtsa.dot.gov/Main/index.aspx>

<sup>351</sup> <http://www.sciencedirect.com/science/article/pii/S0020138311002968#>

<sup>352</sup> <http://webappa.cdc.gov/sasweb/ncipc/nfirates2001.htm>

<sup>353</sup> <http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.PDF>

<sup>354</sup> [http://webappa.cdc.gov/sasweb/ncipc/mortrate10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html)

<sup>355</sup> WV Suicides by County 2000-2010, Report provided for WV Health Statistics Center, December 2012

<sup>356</sup> WV Suicides by County 2000-2010, Report provided for WV Health Statistics Center, December 2012

<sup>357</sup> WV Suicides by County 2000-2010, Report provided for WV Health Statistics Center, December 2012

<sup>358</sup> WV Suicides by County 2000-2010, Report provided for WV Health Statistics Center, December 2012



## Alcohol and Drug Use

Both alcohol and drug abuse or misuse can have an immediate effect on a person's health and can increase the risk of many harmful health conditions and social issues. In 2011, the financial impact of drug and alcohol abuse in West Virginia was more than \$1.6 billion with a projected cost of more than \$2.3 billion by 2017 if action is not taken.<sup>359</sup> These costs include the cost on West Virginia's criminal justice, healthcare, education, workforce and welfare systems.

From 2000 to 2010, the amount of drugs being seized by the West Virginia State Police greatly increased. Of particular significance was the rise in heroin (from 25 dose units/items to 1,527.28 dose units/items) and other narcotics, including codeine, Demerol, Dilaudid and methadone, (from 5,133.06 dose units/items to 31,369.37 dose unit/items.) Based on diagnoses upon admission to a substance abuse treatment program, alcohol, cocaine, and cannabis dependence and abuse have been steadily declining since 2008 and opioid abuse and dependence have been increasing.

Table 54 is based on data from the Substance Abuse and Mental Health Data Archive (SAMHDA), which is maintained by the Substance Abuse and Mental Health Services Administration (SAMHSA). Table 54 displays data specifically from the Treatment Episode Data Set (TEDS), which is a national census data system that tracks admissions to certain substance abuse treatment programs. The laws determining which programs are mandated to participate vary by state; some states require all programs to provide admission data and other states' requirements apply exclusively to programs receiving public funding. The data reflect admissions, not individuals.<sup>360</sup>

In 2008, 21.7% of diagnoses upon admission to substance abuse treatment facilities were for alcohol abuse, which was higher than other states (8.9%). Alcohol abuse in West Virginia decreased nearly 15% from 2008 to 2011. Opioid dependence was diagnosed upon admission more frequently in West Virginia (36.9%) than in other states (18.9%) in 2011.

---

<sup>359</sup> <http://www.pvnet.org/Funding%20Study/reports.htm>

<sup>360</sup> Substance Abuse and Mental Health Services Administration (SAMHSA). Substance Abuse and Mental Health Data Archive (SAMHDA). Treatment Episode Data Set - Admissions (TEDS-A) Series. Retrieved from <http://www.icpsr.umich.edu/icpsrweb/SAMHDA/series/56>

**Table 54: Substance Abuse Related Diagnoses upon Admission to Substance Abuse Treatment Programs Aged 12 and Older, UPDATED<sup>361</sup>**

	2008		2009		2010		2011	
	West Virginia	All other states	West Virginia	All other states	West Virginia	All other states	West Virginia	All other states
<b>Alcohol-induced disorder</b>	.1%	1.1%	.2%	1.2%	.2%	1.1%	.1%	.8%
<b>Substance induced disorder</b>	.3%	1.8%	.2%	1.9%	.4%	1.8%	.4%	2.1%
<b>Alcohol intoxication</b>	.2%	7.4%	.2%	7.4%	.2%	6.5%	.1%	6.6%
<b>Alcohol dependence</b>	16.5%	22.6%	16.0%	22.6%	14.2%	21.9%	12.6%	22.3%
<b>Opioid dependence</b>	18.6%	13.4%	22.2%	14.9%	27.2%	16.3%	36.9%	18.9%
<b>Cocaine dependence</b>	2.8%	8.9%	1.8%	7.4%	1.0%	6.7%	.9%	6.1%
<b>Cannabis dependence</b>	3.9%	8.8%	3.1%	9.4%	2.8%	10.0%	3.0%	9.4%
<b>Other substance dependence</b>	7.8%	8.5%	7.7%	8.3%	10.3%	9.4%	9.7%	9.7%
<b>Alcohol abuse</b>	21.7%	8.9%	20.7%	9.0%	14.9%	9.3%	9.4%	7.8%
<b>Cannabis abuse</b>	3.1%	7.2%	3.0%	7.3%	2.8%	7.6%	2.5%	7.5%
<b>Other substance abuse</b>	.7%	1.0%	.6%	1.0%	.7%	1.2%	.8%	1.3%
<b>Opioid abuse</b>	1.3%	.6%	1.4%	.6%	1.4%	.8%	1.9%	1.0%
<b>Cocaine abuse</b>	.4%	1.8%	.4%	1.6%	.3%	1.7%	.1%	1.5%

**Table 55: West Virginia State Police Seized Drugs Report 2000 and 2005**

	2000 <sup>362</sup>	2005 <sup>363</sup>
<b>Amphetamines/Methamphetamines</b>	374.80 dose units/items	1,155.02 dose units/items
<b>Crack cocaine</b>	287 dose units/items	444.27 dose units/items
<b>Cocaine</b>	32 dose units/items	135.08 dose units/items
<b>Heroin</b>	25 dose units/items	331 dose units/items
<b>Other drugs (antidepressants, tranquilizers, etc.)</b>	1,867.00 dose units/items	1,845.51 dose units/items
<b>Other Narcotics (Codeine, Demerol, Dilaudid, methadone, etc.)</b>	5,133.06 dose units/items	20,797.49 dose units/items

<sup>361</sup> Substance Abuse and Mental Health Services Administration. Substance Abuse and Mental Health Data Archive. Retrieved from <http://www.icpsr.umich.edu/icpsrweb/SAMHDA/sda>

<sup>362</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2000wvcrimes.pdf> Special Reports: Seized Drug Report Summary

<sup>363</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2005wvcrimes.pdf> Pages 666-668

Table 55a: West Virginia State Police Seized Drugs Report 2010 and 2012, UPDATED		
	2010 <sup>364</sup>	2012 <sup>365</sup>
<b>Amphetamines/Methamphetamines</b>	497.05 dose units/items	402.87 dose units/items
<b>Crack cocaine</b>	59.10 dose units/items	46.03 dose units/items
<b>Cocaine</b>	131.03 dose units/items	53.01 dose units/items
<b>Heroin</b>	1,527.58 dose units/items	3,587.72 dose units/items
<b>Other drugs (antidepressants, tranquilizers, etc.)</b>	6,670.79 dose units/items	6,880.28 dose units/items
<b>Other narcotics (codeine, demerol, dilaudid, methadone, etc.)</b>	31,369.37 dose units/items	29,139.34 dose units/items

Based on the West Virginia State Police report on seized drugs, the dose units/item for heroin and other drugs, such as antidepressants and tranquilizers have been increasing since 2000 and amphetamines, crack cocaine, cocaine, and other narcotics, including codeine and Demerol, are decreasing. The rate of drug offenses (the number of reported offenses/population for that year x 1,000) increased both statewide and in the Eastern Panhandle from 2000 – 2010. Drug offense rates were calculated by adding all of the drug offenses from reporting entities in each county. A drug offense is defined as the violation of the laws prohibiting the production, distribution and/or use of certain controlled substances and the equipment or devices utilized in their preparation and/or use.

*Note: in Berkeley County, the Eastern Panhandle Drug and Violence Task Force reported offenses for the first time in 2010. In Jefferson County, only three entities - Charles Town Police Department, the Jefferson County Sheriff's Office and the State Police - reported offenses in 2000. In future years, reports would also come from the Harpers Ferry Police Department, the Ranson Police Department, Shepherdstown Police Department and Shepherd University. In Morgan County, the Berkeley Springs and Paw Paw Police Departments reported offenses only in 2000, with no reports in 2005 or 2010.*

Table 56: Rate of Drug and Narcotic Offenses per 1,000 WV and Eastern Panhandle Counties 2000, 2005 and 2010, 2012, UPDATED				
	2000 <sup>366</sup>	2005 <sup>367</sup>	2010 <sup>368</sup>	2012 <sup>369</sup>
<b>West Virginia</b>	2.934	5.496	7.043	NA
<b>Berkeley County</b>	3.310	3.278	9.984	10.71
<b>Jefferson County</b>	2.015	3.406	4.038	5.52
<b>Morgan County</b>	1.740	1.595	4.219	9.33

From 2001 to 2011, the death rate for drug overdoses more than doubled in West Virginia, as well as in all three Eastern Panhandle counties. At the same time, the *prescription* drug overdose death rate more than tripled in West Virginia and all three Eastern Panhandle counties.

<sup>364</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2010wvcrimes.pdf> Pages 646-650

<sup>365</sup> Tomblin, E.R. & Smithers, C. R. Crime in West Virginia 2012 Report. Retrieved from <http://www.wvsp.gov/about/Documents/CrimeStatistics/2012wvcrimes.pdf>

<sup>366</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2000wvcrimes.pdf>

<sup>367</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2005wvcrimes.pdf>

<sup>368</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2010wvcrimes.pdf>

<sup>369</sup> Tomblin, E.R. & Smithers, C. R. Crime in West Virginia 2012 Report. Retrieved from <http://www.wvsp.gov/about/Documents/CrimeStatistics/2012wvcrimes.pdf>

In 2000, the death rate for *illicit drugs* in West Virginia was 6.7/100,000, just slightly below the national rate of 6.9/100,000. By 2007, the WV rate had risen to 22.2/100,000 in comparison to the national rate of 12.7/100,000.<sup>370</sup>

**Table 57: Drug Overdose Deaths per 100,000 WV and Eastern Panhandle Counties<sup>371</sup>  
2001, 2003, 2005, 2007, 2009, 2011**

	2001	2003	2005	2007	2009	2011
<b>West Virginia</b>	9.2	14.5	20.5	25.3	23.7	34.7
<b>Berkeley County</b>	12.8	23.7	20.6	17.1	25.3	27.7
<b>Jefferson County</b>	4.6	15.2	12.3	27.3	26.4	18.6
<b>Morgan County</b>	6.5	31.7	30.4	11.5	17.1	22.8

A drug overdose death is defined as one that may have been prescribed to the decedent by a physician or any appropriate health professional. It does not specify where the drug was obtained whether legally or illegally. The data only applies to deaths occurring in West Virginia, not any residents who died out of state.

**Table 58: Any Drug Overdose With at Least One Possible Prescription Drug Involved<sup>372</sup>  
Rate per 100,000 Population**

	2001	2003	2005	2007	2009	2011
<b>West Virginia</b>	8.7	13.7	19.2	24.4	22.4	33.5
<b>Berkeley</b>	8.9	21.3	19.5	15.1	23.3	25.8
<b>Jefferson</b>	4.6	15.2	10.3	23.4	20.7	16.8
<b>Morgan</b>	6.5	31.7	24.3	11.5	11.4	22.8

West Virginia has the highest annual per capita number of retail prescription drugs filled at pharmacies nationwide, and the West Virginia Prescription Drug Abuse Quitline reported in 2010 that 73% of the calls they received were for abuse of Opioids.<sup>373</sup>

The data in Table 57 reflect the total number of prescription drugs filled at retail pharmacies only. All products were filled by retail pharmacies, including new prescription and refills of both brand name and generic drugs.

**Table 59: Average Annual Per Capita Number of Retail Prescription Drugs Filled at Pharmacies<sup>374</sup>  
US and WV 2008, 2009 and 2011, UPDATED**

	2008		2009		2011 <sup>375</sup>	
	United States	West Virginia	United States	West Virginia	United States	West Virginia
<b>Ages 0 – 18</b>	3.8	6.0	3.9	6.3	4.1	6.0
<b>Ages 19 – 64</b>	11.6	17.4	11.3	18.4	11.9	19.4
<b>Ages 65+</b>	30.1	41.9	31.2	38.7	28.0	37.3

<sup>370</sup> <http://www.dhhr.wv.gov/bhfh/resources/Documents/WV%202012%20Behavioral%20Health%20Profile.pdf> Page 119

<sup>371</sup> WV Drug Overdose Deaths 2001 – 2011 Report provided by the WV Health Statistics Center, January 2013

<sup>372</sup> WV Drug Overdose Deaths 2001 – 2011 Report provided by the WV Health Statistics Center, January 2013

<sup>373</sup> <http://www.dhhr.wv.gov/bhfh/resources/Documents/WV%202012%20Behavioral%20Health%20Profile.pdf> Page 101

<sup>374</sup> <http://www.dhhr.wv.gov/bhfh/resources/Documents/WV%202012%20Behavioral%20Health%20Profile.pdf> Page 111

<sup>375</sup> West Virginia Department of Health and Human Resources. 2013 West Virginia Behavioral Health Epidemiological Profile. Retrieved from [http://www.dhhr.wv.gov/bhfh/resources/Documents/2013\\_State\\_Profile.pdf](http://www.dhhr.wv.gov/bhfh/resources/Documents/2013_State_Profile.pdf)

The driving under the influence arrest rate is higher in Berkeley, Morgan, and Jefferson Counties than it is in West Virginia.

Table 60: Driving Under the Influence U.S., WV and Eastern Panhandle Counties 2005, 2009 and 2010,2011,2012, UPDATED					
	DUI Arrest Rate Per 10,000 Population				
	2008	2009	2010	2011 <sup>376</sup>	2012 <sup>377</sup>
<b>United States</b>	NA	NA	45.5 <sup>378</sup>	38.7 <sup>379,380</sup>	40.7 <sup>381</sup>
<b>West Virginia<sup>382</sup></b>	38.0	36.4	33.2	36.0	39.6
<b>Berkeley County<sup>383</sup></b>	47.2	53.1	52.9	51.7	50.9
<b>Jefferson County<sup>384</sup></b>	84.9	71.3	78.9	51.2	67.3
<b>Morgan County<sup>385</sup></b>	23.0	18.3	40.5	39.5	49.8

Table 60a: Alcohol-Related Fatal Vehicle Crashes (Data reflects % of persons killed in motor vehicle crashes where driver's blood alcohol content was .01% or higher), UPDATED				
	2005	2007	2009	2011
<b>United States</b>	38% <sup>386</sup>	37% <sup>387</sup>	38% <sup>388</sup>	36% <sup>389</sup>
<b>West Virginia<sup>390</sup></b>	31%	39%	38%	32% <sup>391</sup>
<b>Berkeley County<sup>392</sup></b>	36%	39%	43%	39%* <sup>393</sup>
<b>Jefferson County<sup>394</sup></b>	25%	42%	43%	55* <sup>395</sup>
<b>Morgan County<sup>396</sup></b>	20%	33%	20%	NA

\*County level statistics are solely crashes, not fatal crashes

<sup>376</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from

<http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.aspx>

<sup>377</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from

<http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.aspx>

<sup>378</sup> U.S. Department of Justice. Federal Bureau of Investigation. Crime in the United States. Estimated Number of Arrests. (2010). Retrieved from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2010/crime-in-the-u.s.-2010/tables/10tbl29.xls>

<sup>379</sup> U.S. Department of Justice. Federal Bureau of Investigation. Crime in the United States. Estimated Number of Arrests. (2011). Retrieved from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/table-29>

<sup>380</sup> U.S. Department of Commerce. United States Census Bureau. Retrieved from <https://www.census.gov/popclock/>

<sup>381</sup> U.S. Department of Commerce. United States Census Bureau. Retrieved from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/crime-in-the-u.s.-2012/tables/29tabledataadecpdf>

<sup>382</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/Berkeley%20County.pdf> Page 2

<sup>383</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/Berkeley%20County.pdf> Page 2

<sup>384</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/Jefferson%20County.pdf> Page 2

<sup>385</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/morgan%20County.pdf> Page 2

<sup>386</sup> <http://www-nrd.nhtsa.dot.gov/Pubs/811002.pdf> Page 32, Table 13

<sup>387</sup> <http://www-nrd.nhtsa.dot.gov/Pubs/811002.pdf> Page 32, Table 13

<sup>388</sup> <http://www-nrd.nhtsa.dot.gov/Pubs/811385.PDF> Page 6, Table 4

<sup>389</sup> U.S. Department of Transportation. National Highways Traffic Safety Administration. (2012). Traffic Safety Facts 2011 data. Retrieved from <http://www-nrd.nhtsa.dot.gov/Pubs/811700.pdf>

<sup>390</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/Berkeley%20County.pdf> Page 2

<sup>391</sup> U.S. Department of Transportation. National Highways Traffic Safety Administration. (2012). Traffic Safety Facts 2011 data. Retrieved from <http://www-nrd.nhtsa.dot.gov/Pubs/811700.pdf>

<sup>392</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/Berkeley%20County.pdf> Page 2

<sup>393</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from

<http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.aspx>

<sup>394</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/Jefferson%20County.pdf> Page 2

<sup>395</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from

<http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.aspx>

<sup>396</sup> <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/morgan%20County.pdf> Page 2

## Crime

While West Virginia's crime rate has consistently been well below the national rate, the violent crime rate is growing statewide while falling nationally. Violent crime is composed of four offenses: murder and non-negligent manslaughter, forcible rape, robbery and aggravated assault as defined below:

- Murder - The willful (non-negligent) killing of one human being by another.
- Forcible Rape - The carnal knowledge of a female forcibly and against her will. Assaults or attempts to commit rape by force are also included.
- Robbery - The taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence, and/or by putting the victim in fear.
- Aggravated Assault - An unlawful attack by one person upon another for the purpose of inflicting severe bodily injury. This type of assault is usually accompanied by the use of a weapon or other means likely to produce death or serious bodily harm.

In West Virginia, forcible rape, robbery and aggravated assault all rose from 2003 -2010 although these crime rates fell nationally.

All data are based on the uniform crime reporting system, in which state data are collected in the same manner that national data are collected. West Virginia data are somewhat limited by police departments that do not comply with the national standards and/or do not provide reports.

In Berkeley County, the Eastern Panhandle Drug and Violence Task Force reported offenses for the first time in 2010. In Jefferson County, only three entities – the Charles Town Police Department, the Jefferson County Sheriff's Office and the State Police - reported offenses in 2000. In future years, reports would also come from the Harpers Ferry Police Department, the Ranson Police Department, Shepherdstown Police Department and Shepherd University. In Morgan County, the Berkeley Springs and Paw Paw Police Departments reported offenses only in 2000, with no reports in 2005 or 2010.

County crime rates equal the # of reported incidents/county population during the given year x 100,000. Consistent with the manner in which forcible rape rates are determined by the FBI, county forcible rape rates were determined based on the female population (all ages) in a given year.

Table 61: Uniform Crime Report Rates per 100,000 Population U.S. and WV 2003 and 2005				
	2003		2005	
	United States <sup>397</sup>	West Virginia <sup>398</sup>	United States <sup>399</sup>	West Virginia <sup>400</sup>
<b>Violent Crime</b>	475.8	255.4	469.2	272.8
<b>Murder and Non-negligent Manslaughter</b>	5.7	4.0	5.6	4.4
<b>Forcible Rape</b>	32.2	17.2	31.7	17.7
<b>Robbery</b>	142.5	38.7	140.7	44.6
<b>Aggravated Assault</b>	295.4	195.5	291.1	206.1

Table 61a: Uniform Crime Report Rates per 100,000 Population U.S. and WV 2010 and 2012, UPDATED				
	2010 <sup>401</sup>		2012 <sup>402</sup>	
	United States	West Virginia	United States	West Virginia
<b>Violent Crime</b>	403.6	314.6	386.9	316.3
<b>Murder and non-negligent manslaughter</b>	4.8	3.3	4.7	3.9
<b>Forcible Rape</b>	27.5	19.1	52.9	22.7
<b>Robbery</b>	119.0	44.7	112.9	45.2
<b>Aggravated Assault</b>	252.5	247.5	242.3	244.6

## Domestic Violence

Domestic violence, or abuse, in West Virginia is defined as the occurrence of one or more of the following acts between family or household members:

- Attempting to cause or intentionally knowingly or recklessly causing physical harm to another with or without dangerous or deadly weapons;
- Placing another in reasonable apprehension of physical harm;
- Creating fear of physical harm by harassment, psychological abuse or threatening acts;
- Committing either sexual assault or sexual abuse;
- Holding, confining detaining or abducting another person against that person’s will.

The prevalence of domestic violence in the Eastern Panhandle is difficult to measure. Domestic violence data from the West Virginia State Police is based on the West Virginia Incident-Based Reporting (WV-IBR.), which is compatible with the National Incident-Based Reporting System (NIBRS).

<sup>397</sup> [http://www2.fbi.gov/ucr/05cius/data/table\\_01.html](http://www2.fbi.gov/ucr/05cius/data/table_01.html)

<sup>398</sup> [http://www2.fbi.gov/ucr/cius\\_04/documents/CIUS\\_2004\\_Section2.pdf](http://www2.fbi.gov/ucr/cius_04/documents/CIUS_2004_Section2.pdf) Page 8, Table 4

<sup>399</sup> [http://www2.fbi.gov/ucr/05cius/data/table\\_01.html](http://www2.fbi.gov/ucr/05cius/data/table_01.html)

<sup>400</sup> [http://www2.fbi.gov/ucr/05cius/data/table\\_05.html](http://www2.fbi.gov/ucr/05cius/data/table_05.html)

<sup>401</sup> <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2010/crime-in-the-u.s.-2010/tables/10tbl04.xls>

<sup>402</sup> Federal Bureau of Investigation. (2012). Uniform Crime Reports. Retrieved from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/crime-in-the-u.s.-2012/violent-crime/violent-crime>

As of January 1, 1999, West Virginia fully committed to IBR by only accepting data in the WV-IBR format. Full conversion and adjustment to the new system is still ongoing. Local agency systems must meet both NIBRS and the state-specific requirements that address state-level criminal justice issues. Before a local agency begins submitting data to WV-IBR and the FBI, the agency must demonstrate its ability to meet NIBRS and WV-IBR reporting requirements.

All reporting agencies that have data in the West Virginia Uniform Crime report must have successfully demonstrated that their record systems are capable of producing reliable crime information in the NIBRS and WV-IBR format. Some agencies were unable or unwilling to submit any data in some years. Also, some agencies only reported six months of data.<sup>403</sup> Because of this, crime reports, including domestic violence reports, may not be included.

The issue of domestic violence cannot be separated from behavioral health needs. The West Virginia Coalition Against Domestic Violence highlights the following factors in the 2010-2011 fiscal year:

- Alcohol and drugs were involved in 30% of cases of abuse against children and 34% of cases of abuse against another adult;
- A history of either being abused or being abusive was documented in 51% of cases of abuse against children and 42% cases of abuse against adults;
- Stress was documented as a contributing factor in 21% of cases of abuse against children and 15% of abuse against adults.<sup>404</sup>

Information obtained from key informant interviews reveals that not all offenses are reported to law enforcement, and not all victims seek services. The severity of violence is increasing and the numbers don't reflect the magnitude of the problem.

Shenandoah Women's Center, which serves Berkeley, Jefferson and Morgan counties, lost significant funding between 2005 and 2010, which limited the number of people who could be served.<sup>405</sup> While the number of individuals seeking shelter steadily declined between 2000 and 2010, professionals in the field report this is not necessarily an indicator that the incidence of violence is declining. They do report the following have a substantial impact on if and where victims of domestic violence seek shelter:

- **A poor economy:** While domestic violence is more than three times as likely to occur when couples are experiencing high levels of financial strain, a bad economy also discourages many victims from leaving their partners as they are afraid they won't be able to get a job or may lose a job.<sup>406</sup>
- **Changes in the law:** In West Virginia, protective orders are now easier to get and last for a longer period of time.<sup>407</sup>
- **Location of the shelter:** The shelter in Martinsburg, which serves all three counties, is very centrally located and visible and well-known address for many. Bordered by Maryland and Virginia, many victims seek shelter in other communities, and key informant interviews with staff in out-of state-shelters report regularly serving West Virginians.<sup>408</sup>

---

<sup>403</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2005wvcrimes.pdf> Page 3

<sup>404</sup> WV Coalition Against Domestic Violence Fiscal Year 2010-2011 Summary of Selected Data, Pages 7 - 8

<sup>405</sup> Ann Smith, Executive Director of Shenandoah Women's Center

<sup>406</sup> <http://www.wvcadv.org/2012%20DV%20Fact%20Sheet.pdf>

<sup>407</sup> Ann Smith, Executive Director of Shenandoah Women's Center

<sup>408</sup> Raine Johnson, the Laurel Center, Winchester Virginia; Terri Hamrick, Survivors Incorporated, Gettysburg, PA



Data from the West Virginia State Police Uniform Crime Reports demonstrate no significant trends in the Eastern Panhandle.

Table 62: Number of Reported Domestic Violence Investigations WV and Eastern Panhandle Counties 2000, 2005, 2010, and 2012, UPDATED				
	2000 <sup>409</sup>	2005 <sup>410</sup>	2010 <sup>411</sup>	2012 <sup>412</sup>
<b>West Virginia</b>	12,208	12,083	11,174	12,329
<b>Berkeley</b>	1,118	394	663	747
<b>Jefferson</b>	190	189	214	185
<b>Morgan</b>	75	46	63	89

Tables 63 – 65 reflect data provided directly by Shenandoah Women’s Center:

Table 63: Number of Unduplicated Individuals Sheltered at Shenandoah Women’s Center 2000, 2005, 2010						
	Adults			Children		
	2000	2005	2010	2000	2005	2010
<b>Berkeley County</b>	51	34	36	44	30	16
<b>Jefferson County</b>	15	9	6	10	7	3
<b>Morgan County</b>	3	6	4	1	4	1
<b>Total</b>	69	49	46	55	41	20

In addition to providing shelter, Shenandoah Women’s Center provides assistance with protection orders, hotline calls, court advocacy, counseling, etc.

Table 64: Number of Non-Sheltered Individuals Receiving Services from Shenandoah Women’s Center 2000, 2005, 2010						
	Adults			Children		
	2000	2005	2010	2000	2005	2010
<b>Berkeley County</b>	380	572	496	69	50	74
<b>Jefferson County</b>	200	289	272	37	32	68
<b>Morgan County</b>	46	82	67	6	8	36
<b>Total</b>	626	943	835	112	90	178

<sup>409</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2000wvcrimes.pdf> Special Reports: Domestic Violence

<sup>410</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2005wvcrimes.pdf> Pages 684 - 701

<sup>411</sup> <http://www.statepolice.wv.gov/about/Documents/CrimeStatistics/2010wvcrimes.pdf> Pages 663- 680

<sup>412</sup> Tomblin, E.R. & Smithers, C. R. Crime in West Virginia 2012 Report. Retrieved from <http://www.wvsp.gov/about/Documents/CrimeStatistics/2012wvcrimes.pdf>

**Table 65: Individuals Served by the West Virginia Coalition Against Domestic Violence (WVCADV) in 2012, UPDATED<sup>413</sup>**

	Berkeley		Jefferson		Morgan	
	#	%	#	%	#	%
<b>Sheltered</b>	29		12	NA	8	NA
<b>Non-sheltered</b>	342		152	NA	74	NA
<b>Identified as having a mental disability</b>	NA	NA	NA	NA	7	8.5%
<b>Referred to a mental health provider</b>	18	4.9%	36	22.0%	NA	NA
<b>Substance abuse identified as contributing to abuse</b>	104	35.1	40	31.7%	20	37.0%

## Homelessness

Subpar health can indirectly lead to homelessness and homelessness can exacerbate poor physical and behavioral health and cause new health issues to arise. An injury or illness can lead to unemployment, which can result in a lack of health insurance to cover the costs of treating one's ailment and without insurance an individual may not be able to restore their health and return to work. Lacking an income, they may not be able to maintain housing payments. Individuals that are homeless are three to four times more likely to perish prematurely and experience an average life expectancy of 41 years, which is nearly 38 years lower than the national average.<sup>414</sup>

**Table 66: Homelessness: Reported Point-In-Time Sheltered Subpopulations in 2013, UPDATED<sup>415</sup>**

	WV		Jefferson		Berkeley		Morgan	
	#	%	#	%	#	%	#	%
<b>Chronically Homeless</b>	250	15.5%	7	28.0%	64	22.6%	0	0%
<b>Veterans</b>	292	18.1%	3	12.0%	176	62.2%	0	0%
<b>Mental Illness</b>	422	26.2%	7	28.0%	146	51.6%	0	0%
<b>Chronic Substance Abuse</b>	538	33.4%	2	8.0%	140	49.5%	0	0%
<b>HIV/AIDS</b>	17	1.1%	0	0%	5	1.8%	0	0%
<b>Domestic Violence</b>	192	11.9%	6	24.0%	32	11.3%	0	0%
<b>Total Sheltered</b>	1,612		25		283		0	

<sup>413</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from

<http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.asp>

<sup>414</sup> National Health Care for the Homeless Council. (2011). *Homelessness and health: What's the connection?* Retrieved from [http://www.nhchc.org/wp-content/uploads/2011/09/Hln\\_health\\_factsheet\\_Jan10.pdf](http://www.nhchc.org/wp-content/uploads/2011/09/Hln_health_factsheet_Jan10.pdf)

<sup>415</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from

<http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.aspx>

**Table 67: Homelessness: Reported Point-In-Time Unsheltered Subpopulations in 2013, UPDATED<sup>416</sup>**

	WV		Jefferson		Berkeley		Morgan	
	#	%	#	%	#	%	#	%
<b>Chronically Homeless</b>	182	29.0%	1	33.3%	4	22.2%	8	38.1%
<b>Veterans</b>	37	5.9%	0	0%	5	27.8%	1	4.8%
<b>Mental Illness</b>	206	32.8%	0	0%	4	22.2%	2	9.5%
<b>Chronic Substance Abuse</b>	330	52.5%	0	0%	4	22.2%	16	76.2%
<b>HIV/AIDS</b>	17	2.7%	0	0%	1	5.6%	2	9.5%
<b>Domestic Violence</b>	122	19.4%	0	0%	2	11.1%	6	28.6
<b>Total Sheltered</b>	628		3		18		21	

## Child Abuse

Child abuse and neglect can have a long-lasting impact on children, families and communities. Abuse has been shown to damage a child’s growing brain and is linked to cognitive delays and emotional difficulties as well as numerous physical and mental health problems throughout life.

In 2010, the State of West Virginia changed the definition of child abuse, and this affected how cases are reported and tracked. Because of this, data gathered after 2010 cannot be accurately compared to previous years.<sup>417</sup> This definition change has also affected the scope of work that DHHR can do with a family.

Prior to 2010, the West Virginia Department of Health and Human Resources (DHHR) pursued cases in which a child may be at risk for abuse and investigated “incidents” to determine if they had occurred. Since 2010, the definition shifted from risk to safety. Now child protective workers are looking for clearly observable family conditions that are actively occurring or in the process of occurring that will likely result in severe harm to the child. Also, DHHR no longer provides services to help prevent child abuse in families. While workers can make referrals to families, DHHR has no authority to ensure families follow up on this.

From 2010-2011, there was an upward trend in all reports related to child abuse:

- Reports, or referrals, from mandated reporters and other concerned citizens
- The number of referred calls that were accepted for further investigation

<sup>416</sup> West Virginia Department of Health and Human Resources. 2014 county profiles. Retrieved from <http://www.dhhr.wv.gov/bhhf/Sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Pages/2014-County-Profiles.aspx>

<sup>417</sup> Kathy Bradley, Region 3 Community Services Manager, DHHR.

- The total caseload (including cases that were opened in the prior year)
- The number of cases so severe they went to court

All of the data below was provided by the WV Department of Health and Human Resources, Bureau for Children and Families:<sup>418</sup>

<b>Table 68: Child Abuse Referrals and Investigations Eastern Panhandle Counties 2010 and 2011</b>				
	<b>Referrals Received by DHHR</b>		<b>Referrals Accepted for Investigation</b>	
	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>
<b>Berkeley County</b>	1,681	2,000	786	818
<b>Jefferson County</b>	532	658	248	253
<b>Morgan County</b>	246	287	103	124
<b>Total</b>	2,459	2,945	1,137	1,195

<b>Table 69: Child Abuse Cases Eastern Panhandle Counties 2010 and 2011</b>				
	<b>Total Child Protective Services Caseload</b>		<b>Cases Opened (Went to Court)</b>	
	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>
<b>Berkeley County</b>	850	974	92	102
<b>Jefferson County</b>	383	405	39	38
<b>Morgan County</b>	73	78	4	9
<b>Total</b>	1,306	1,475	135	149

<sup>418</sup> Report for the West Virginia Department of Health and Human Resources, Bureau for Children and Families, June 2012

**APPENDICES**

**Appendix A: US. Census Poverty Thresholds**

This U.S. Poverty Threshold is used for statistical purposes and is estimated by the Census Bureau to report how many Americans live in poverty each year. The poverty threshold is also used as the official Federal poverty definition by the Office of Management and Budget (OMB). The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using Consumer Price Index). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits.

2010 Poverty Thresholds by Size of Family and Number of Related Children Under 18 Years									
Size of Family Unit	Weighted Average Thresholds	Related Children Under 18 Years							
		0	1	2	3	4	5	6	7
<i>One person (unrelated individual)</i>	\$11,139								
<i>Under 65 years</i>	\$11,344	\$11,344							
<i>65 Years and Over</i>	\$10,458	\$10,458							
<i>Two People</i>	\$14,218								
<i>Householder under 65</i>	14,676	\$14,602	\$15,030						
<i>Householder 65+</i>	\$13,194	\$13,180	\$14,973						
<i>Three people</i>	\$17,374	\$17,057	\$17,552	\$17,568					
<i>Four people</i>	\$22,314	\$22,491	\$22,859	\$22,113	\$22,190				
<i>Five People</i>	\$26,439	\$27,123	\$27,518	\$26,675	\$26,023	\$25,625			
<i>Six People</i>	\$29,897	\$31,197	\$31,320	\$30,675	\$30,056	\$29,137	\$28,591		
<i>Seven People</i>	\$34,009	\$35,896	\$36,120	\$35,347	\$34,809	\$33,805	\$32,635	\$31,351	
<i>Eight People</i>	\$37,934	\$40,146	\$40,501	\$39,772	\$39,133	\$38,227	\$37,076	\$35,879	\$35,575

## **Appendix B: Federal Poverty Level**

The Federal Poverty Level is used not for statistical purposes but to determine who receives federal subsidies or aid as well as to provide financial guidelines for receiving assistance from health and social service organizations.

<b>2010 Federal Poverty Level</b>	
<b>Size of family unit</b>	<b>100 Percent of Poverty</b>
1	\$10,830
2	\$14,570
3	\$18,310
4	\$22,050
5	\$25,790
6	\$29,530
7	\$33,270
8	\$37,010
For families with more than 8 persons, add \$3,740 for each additional person.	

## **Appendix C: Percent of Women who Smoked During Last Three Months of Pregnancy**

<b>Percent of Women Who Smoked During The Last Three Months of Pregnancy<sup>419</sup></b>			
	<b>2000</b>	<b>2005</b>	<b>2008</b>
Alabama	14.0%	-	-
Alaska	16.8%	16.0%	15.0%
Arkansas	20.3%	20.9%	24.0%
Colorado	10.2%	10.2%	8.1%
Delaware	-	-	13.3%
Florida	9.1%	8.3%	-
Georgia	-	10.3%	8.1%
Hawaii	8.4%	8.4%	8.5%
Illinois	12.5%	10.4%	9.6%
Louisiana	11.9	-	-
Maine	17.5%	17.5%	19.5%
Maryland	-	10.0%	10.9%
Massachusetts	-	-	9.8%
Michigan	-	15.8%	16.0%
Minnesota	-	15.6%	11.6%
Mississippi	-	-	15.6%
Nebraska	14.0%	15.2%	14.0%
New Jersey	-	6.7%	6.8%
New Mexico	9.3	8.6	-
New York	17.0%	12.9%	11.9%
New York City	-	5.0%	-
North Carolina	13.9%	13.3%	12.5%
Ohio	17.1 %	21.6%	18.9%
Oklahoma	16.9	19.6	16.9
Oregon	-	13.7%	11.2%
Pennsylvania	-	-	15.6%
Rhode Island	-	11.7%	10.8%
South Carolina	12.4%	14.9%	-
Tennessee	-	-	19.7%
Utah	7.3%	5.1%	5.16%
Vermont	-	16.4%	18.1%
Washington	11.1%	9.2%	11.2%
West Virginia	24.5%	31.9%	28.7%
Wisconsin	-	-	13.2%
Wyoming	-	-	16.1%
<b>Overall</b>	<b>13.2%</b>	<b>12.2%</b>	<b>12.8%</b>

<sup>419</sup> <http://www.cdc.gov/prams/DATA-TobaccoTables.htm#n13>

