



2013 Community Health Needs Assessment



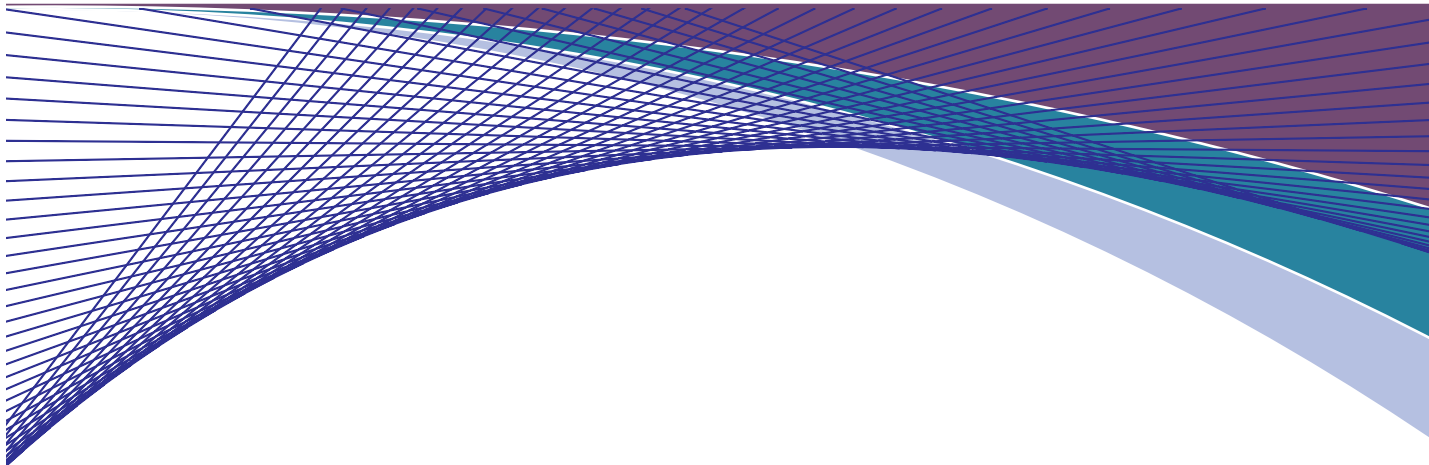
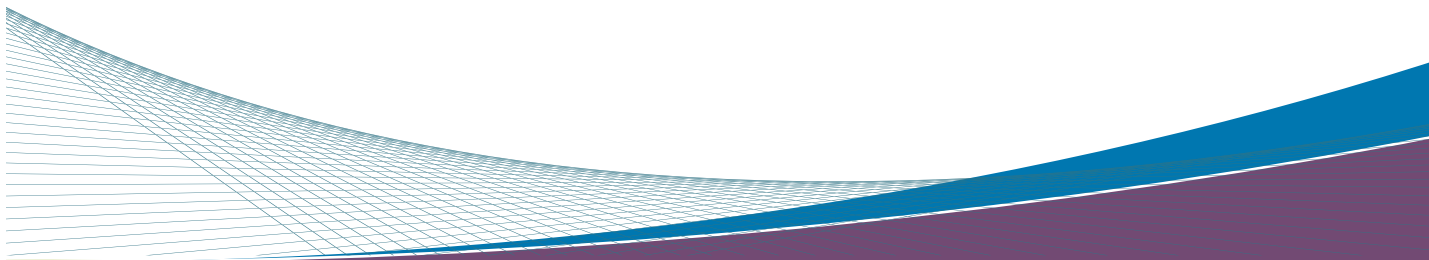


Table of Contents

	Executive Summary
	History and Accomplishments
	Methodology
	Demographics and Assets
	Access
	Chronic/Serious Mental Health
	Drug and Alcohol
	Youth Risk Behavior
	Environmental Factors and Indicators Impacting Mental and Physical Health
	Seniors
	Intellectual and Physical Disabilities
	Conclusions



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TABLE OF CONTENTS

Executive Summary.....	i
History and Accomplishments	1
Methodology.....	7
Demographics and Assets	21
Access.....	35
Access.....	35
Focus Group Input.....	46
Stakeholder Interview Input	46
Access Conclusions	48
Chronic/Serious Mental Health	51
Focus Group Input.....	64
Stakeholder Interview Input	64
Chronic/Serious Mental Health Conclusions	65
Drug and Alcohol.....	67
Prescription Drug Abuse	82
Focus Group Input.....	86
Stakeholder Interview Input	86
Drug and Alcohol Conclusions	87
Youth Risk Behavior	89
Focus Group Input.....	108
Stakeholder Interview Input	108
Youth Risk Behaviors Conclusions	108
Environmental Factors and Indicators Impacting Mental and Physical Health.....	111
Gambling.....	132
Focus Group Input.....	136
Stakeholder Interview Input	136
Environmental Factors and Indicators Impacting Mental and Physical Health Conclusions	137
Seniors.....	139
Seniors Conclusions	150
Intellectual and Physical Disabilities.....	151
Focus Group Input.....	162
Intellectual and Physical Disabilities Conclusions.....	162

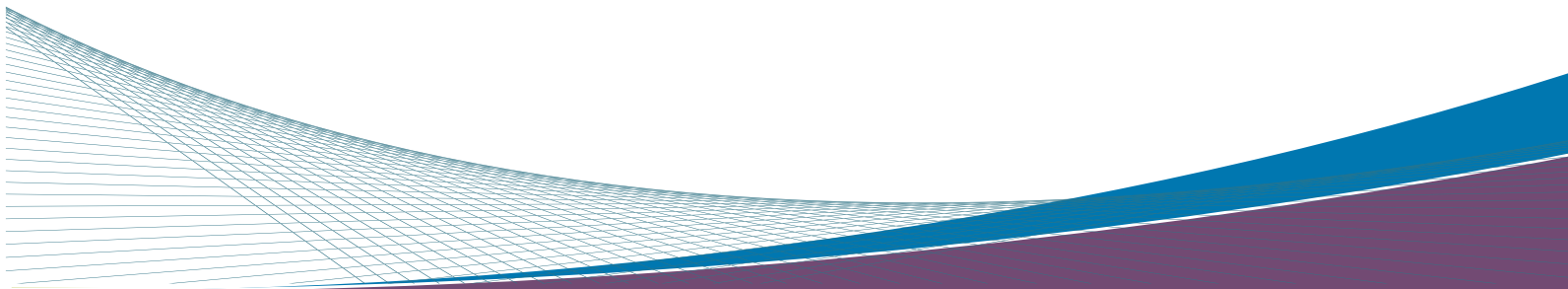


TABLE OF CONTENTS (continued)

Conclusions	165
Access Conclusions	167
Chronic/Serious Mental Health Conclusions	168
Drug and Alcohol Conclusions	169
Youth Risk Behavior Conclusions	170
Environmental Factors and Indicators Impacting Mental and Physical Health Conclusions.....	171
Seniors Conclusions	172
Intellectual and Physical Disabilities Conclusions.....	173
Appendix	175
Appendix A: Stakeholder Interview Guide.....	176
Glossary of Terms	178

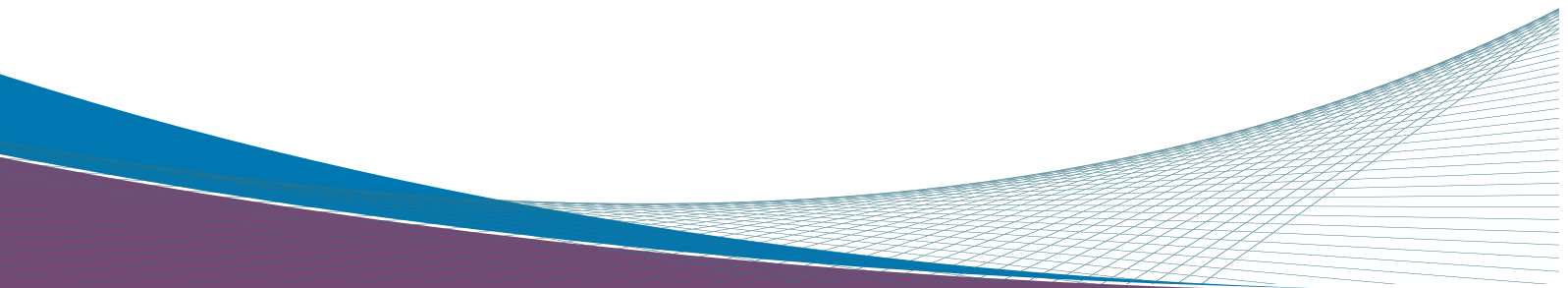


TABLE OF TABLES

Table 1. Steering Committee Membership.....	11
Table 2. Steering Committee Dates and Agenda Topics.....	12
Table 3. Focus Group Participants	16
Table 4. Stakeholder Interview Participants	17
Table 5. Northwood Health Systems Community Assets	34
Table 6. Federal Shortage Designations 2011.....	43
Table 7. Physician Need - Psychiatry.....	43
Table 8. Northwood Program Utilization	44
Table 9. Northwood Program Utilization	45
Table 10. Psychiatric Inpatient Discharges by Hospital	56
Table 11. Acute Discharges by Hospital for 2009	57
Table 12. Suicide Deaths 2000-2009.....	61
Table 13. Alcohol Treatment.....	70
Table 14. Free and Reduced Price Lunch	128
Table 15. Food Desert Data 2010.....	129
Table 16. Physical Environment 2008.....	130
Table 17. 2010 Abuser Behavioral Health Status.	134
Table 18. Firearm Deaths by Type.	135
Table 19. Children with Autism in West Virginia	153
Table 20. Children with Disabilities in West Virginia	154
Table 21. People with Disabilities, Aged 5 and Over	155
Table 22. Parents with Disabilities Who Have Children.....	156
Table 23. Disability Housing Statistics	157
Table 24. Special Education Trends	159
Table 25. Health Care and Special Education Service Utilization, Children Age 3-17	161

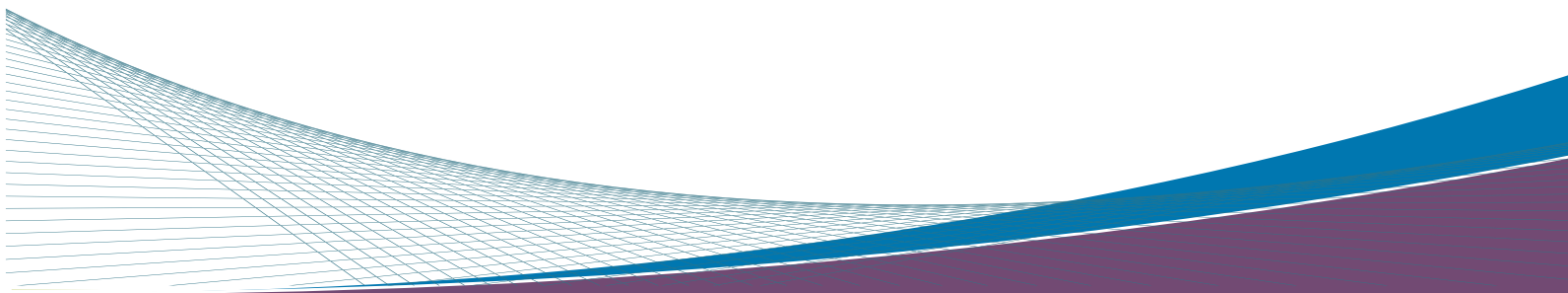


TABLE OF FIGURES

Figure 1.	Schematic of the Community Health Needs Assessment Process	10
Figure 2.	Northwood Health Systems Service Area Map	13
Figure 3.	Population Trend	23
Figure 4.	Service Area by Gender	24
Figure 5.	Service Area by Age	25
Figure 6.	Service Area by Race	26
Figure 7.	Service Area by Marital Status	27
Figure 8.	Service Area by Education	28
Figure 9.	Service Area by Employment	29
Figure 10.	Service Area by Income	30
Figure 11.	Service Area Average Travel Time to Work (In Minutes).....	31
Figure 12.	Map of Northwood Health System Community Assets	33
Figure 13.	Percentage of Adults Who Reported Their Health as Fair to Poor	37
Figure 14.	Percentage of Adults Limited in Any Activity Due to Physical, Mental, or Emotional Problems.....	38
Figure 15.	Percentage of Adults Who Rarely or Never Get the Social or Emotional Support They Need	39
Figure 16.	Percentage of Adults with No Health Insurance, Ages 18-64.....	40
Figure 17.	Percentage of Adults Who Needed to See a Doctor in the Past Year but Could Not Due to Cost.....	41
Figure 18.	Percentage of Adults with No Health Care Provider	42
Figure 19.	Number of Adults Who Reported Poor Mental Health (Average Number in the Past 30 Days)	54
Figure 20.	Individuals Reporting Having Serious Psychological Distress, NSDUH Data	58
Figure 21.	Individuals Reporting Having at Least 1 Major Depressive Episode, NSDUH Data	59
Figure 22.	Veteran Lifeline Calls from West Virginia	60
Figure 23.	Suicide.....	62
Figure 24.	2010 Balance of the State Sheltered Homeless.....	63
Figure 25.	Percentage of Adults Who Reported Binge Drinking (5 Drinks for Men and 4 Drinks for Women on One Occasion)	69
Figure 26.	Persons 12 and Older Meeting DSM-IV Criteria for Alcohol Abuse or Dependence, NSDUH Data	71

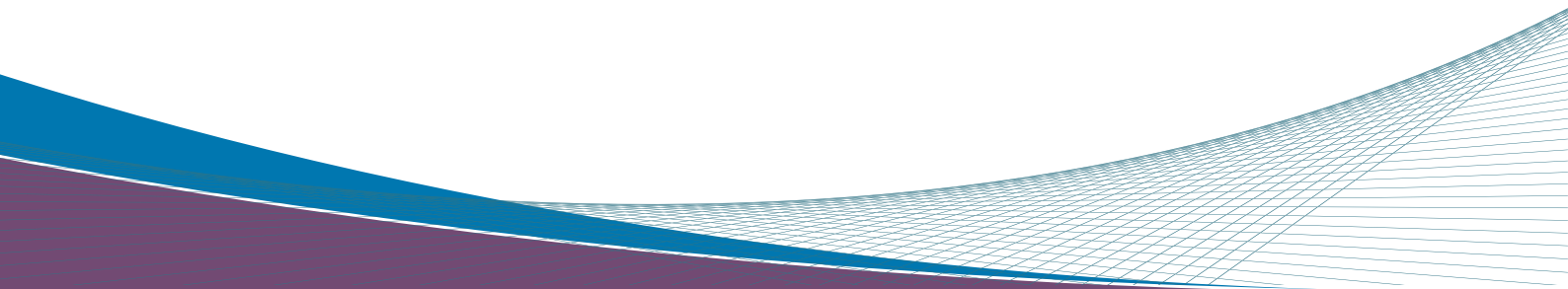


TABLE OF FIGURES (continued)

Figure 27. Driving Under the Influence (DUI) Arrests.....	72
Figure 28. Alcohol-Related Fatal Automobile Accidents	73
Figure 29. Pregnant Women Reporting Any Use of Alcohol During the Last 3 Months of Pregnancy, PRAMS Data	74
Figure 30. Pregnant Women Reporting Smoking During the Last 3 Months of Pregnancy, PRAMS Data	75
Figure 31. Marijuana Use in the Past Months (Persons 12 Years and Older).....	76
Figure 32. Drug Use in the Past Year (Persons 12 Years and Older).....	77
Figure 33. Persons Aged 12 and Older Meeting DSM-IV Criteria for Illicit Drug Abuse or Dependence, NSDUH Data.....	78
Figure 34. Drug Overdose Deaths 2001-2010.....	79
Figure 35. Prescription Painkillers Sold by State in 2010.....	80
Figure 36. Drug Overdose Death Rates by State in 2008.....	81
Figure 37. Prescription Drug Overdose Deaths in West Virginia	83
Figure 38. Hospitalization Discharges with a Drug Related Diagnosis, HCUPnet Data.....	84
Figure 39. Percentage of Students Who Drove After Drinking One or More Times in the Past Month	91
Figure 40. Percentage of Students Who Rode One or More Times in the Past Months with a Driver Who Had Been Drinking	92
Figure 41. Percentage of Students Who Carried a Weapon One or More Times in the Past Month...	93
Figure 42. Percentage of Students Who Carried a Gun One or More Times in the Past Month	94
Figure 43. Percentage of Students Who Were Physically Violent Towards Their Boyfriend/ Girlfriend in the Past Year	95
Figure 44. Percentage of Students Who Felt Sad or Hopeless Every Day for 2 or More Weeks in a Row in the Past Year	96
Figure 45. Percentage of Students Who Attempted Suicide One or More Times in the Past Year ..	97
Figure 46. Percentage of Students Who Smoked Cigarettes Daily for the Past Month	98
Figure 47. Percentage of Students Who Drank 5 or More Drinks in a Row One or More times in the Past Month.....	99
Figure 48. Percentage of Students Who Used Marijuana One or More Times in the Past Month .	100
Figure 49. Percentage of Students Who Used Cocaine in the Past Month	101
Figure 50. Percentage of Students Who Used Inhalants in Their Lifetime.....	102

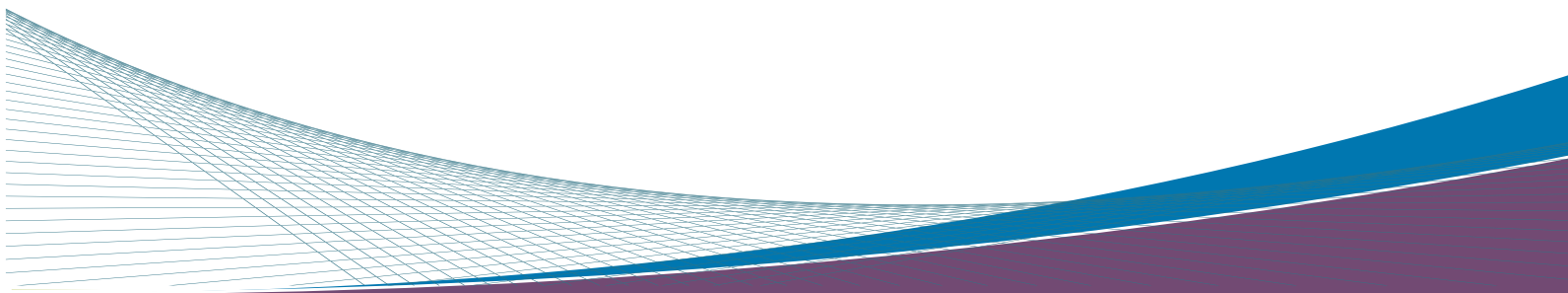


TABLE OF FIGURES (continued)

Figure 51. Percentage of Students Who Used Heroin at Least Once in Their Lifetime	103
Figure 52. Percentage of Students Who Used Prescription Drugs Illegally in Their Lifetime.....	104
Figure 53. Percentage of Students Who Were Not Physically Active for 60 Minutes a Day in the Past 7 Days	105
Figure 54. Percentage of Students Who Watched 3 or More Hours of Television on an Average School Day.....	106
Figure 55. Percentage of Students Who Played Video Games or on the Computer 3 or More Hours on an Average School Day	107
Figure 56. Breast Cancer Mortality Rates	113
Figure 57. Colon Cancer Mortality Rates	114
Figure 58. Bronchus and Lung Cancer Mortality Rates.....	115
Figure 59. Ovarian Cancer Mortality Rates.....	116
Figure 60. Prostate Cancer Mortality Rate	117
Figure 61. Percentage of All Adults Who Reported Having a Heart Attack, Angina, or Stroke	118
Figure 62. Diabetes Mortality Rate	119
Figure 63. Influenza and Pneumonia Mortality Rate	120
Figure 64. Percentage of All Adults Obese (BMI GE 30)	121
Figure 65. Obesity Trends* Among U.S. Adults BRFSS, 1990, 1998, 2006 (*BMI ≥ 30 , or about 30 lbs. overweight for 5'4" person)	122
Figure 66. Percentage of All Adults Who Reported No Leisure Time Physical Activity	123
Figure 67. Unemployment Rate	124
Figure 68. Percentage of Children Living in Poverty	125
Figure 69. Percentage of Adults Living in Poverty	126
Figure 70. Percentage of Children Living in Single Parent Households	127
Figure 71. Percentage of All Restaurants That Are Fast Food Restaurants	131
Figure 72. Violent Crime Rate	133
Figure 73. Percentage of the Population Over the Age of 65.....	141
Figure 74. Percentage of Adults Aged 65 and Older Living in Poverty	142
Figure 75. Percentage of Adults Aged 65 and Older Who Rated Their Health as Fair to Poor	143
Figure 76. Percentage of Adults Over the Age of 65 With Any Disability.....	144
Figure 77. Suicide Rates by County, Years 2000-2009, Ages GE 65.....	145
Figure 78. Alzheimer's Disease Mortality Rate	146

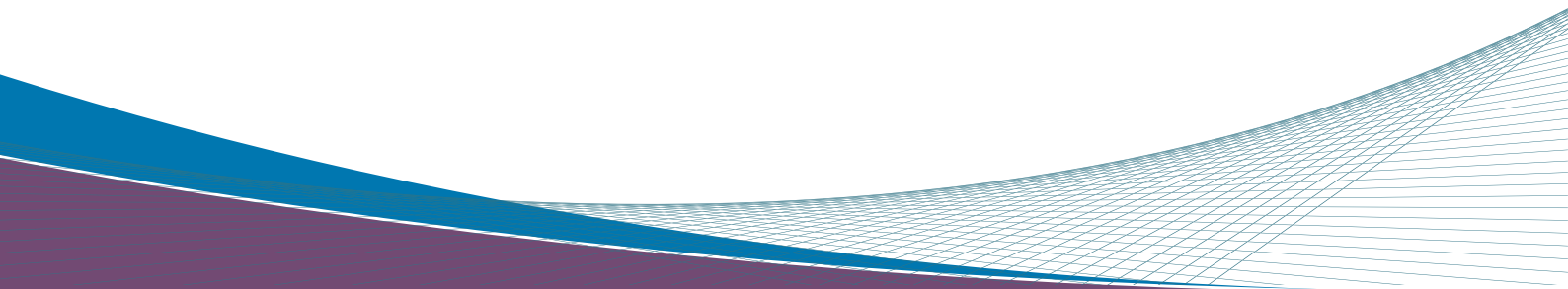
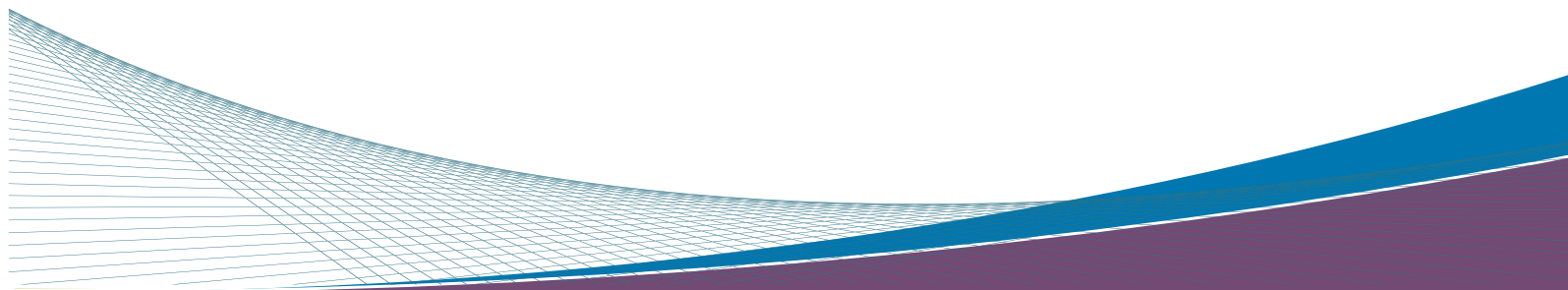
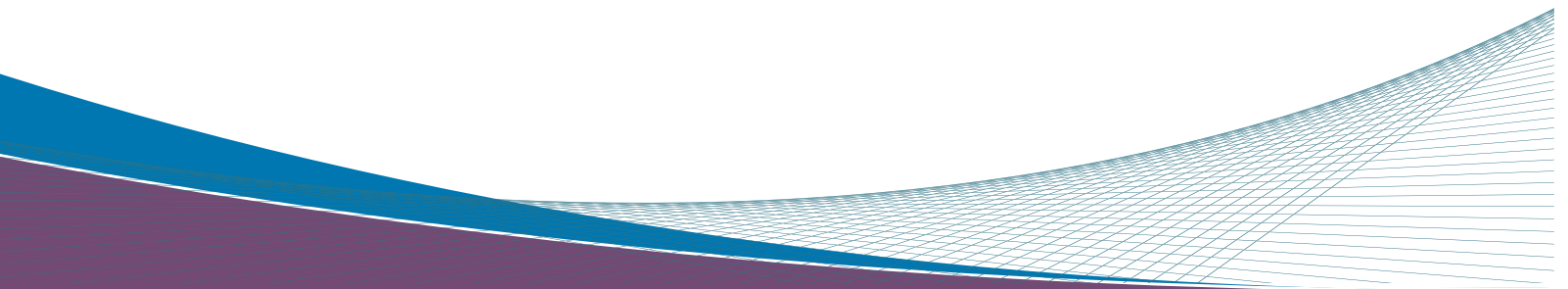


TABLE OF FIGURES (continued)

Figure 79. Percentage of Adults Ages 65 or Older Ever Told They Had a Heart Attack, Angina, Coronary Heart Disease, or Stroke	147
Figure 80. Percentage of Adults Over the Age of 65 with Diabetes	148
Figure 81. Percentage of Adults Over the Age of 65 with Medicare/Medicaid Dual Eligibilities	149
Figure 82. Percentage of Working-Aged Adults by Disability Status in West Virginia, 2009	158
Figure 83. Changes in Special Education Students	160



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Executive Summary



2013 Community Health Needs Assessment





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Message to the Community

Northwood Health Systems is proud to present our 2013 Community Health Needs Assessment (CHNA) Report. This report summarizes a comprehensive review and analysis of health status indicators, public health, socioeconomic, demographic and other qualitative and quantitative data from Marshall, Ohio and Wetzel Counties in West Virginia as our primary service area covers these three counties. Because of our mission to be a world-class organization, dedicated to providing cost-effective, quality care for children, adolescents, adults, and senior citizens with emotional problems, intellectual disabilities, mental illness and drug and alcohol addictions, the data collected focuses on these areas. The data was reviewed and analyzed to determine the top priority needs and issues facing these segments of the community.

The primary purpose of this assessment was to identify the health needs and issues of the selected populations in the primary service area of our organization. In addition, this CHNA provides useful information for public health and health care providers, policy makers, social service agencies, community groups and organizations, religious institutions, businesses, and consumers who are interested in improving the health status of the community and region as well. The results enable the health system as well as other community providers to more strategically identify community health priorities, develop interventions and commit resources to improve the health status of the region.

This report is also offered as a resource to individuals and groups interested in using the information to inform better health care and community agency decision making.

Individually and collectively, improving the health of the community and region is a top priority of Northwood Health Systems. Beyond the education, client care and programs already provided by Northwood Health Systems, we hope the information presented is not only a useful community resource, but also encourages additional activities and collaborative efforts that improve the health status of the community.

Executive Summary

The 2013 Northwood Health Systems Community Health Needs Assessment (CHNA) was conducted to identify health issues and needs as well as to provide critical information to Northwood Health Systems and others in a position to make a positive impact on the health of the region's residents. The results enable the organization and other community partners to more strategically establish priorities, develop interventions and direct resources to improve the health of children, adolescents, adults, and senior citizens with emotional problems, intellectual disabilities, mental illness and drug and alcohol addictions living in the Northwood Health Systems service area.

To assist with the CHNA process, Northwood Health Systems retained Strategy Solutions, Inc., a planning and research firm, whose mission is to create healthy communities. The assessment followed best practices as outlined by the Association of Community Health Improvement.

The assessment was also designed to ensure compliance with current Internal Revenue Service (IRS) guidelines for charitable 501(c) (3) tax-exempt hospitals. This Community Health Needs Assessment included a detailed examination of the following areas:

- Demographics
- General Health Status and Access to Care
- Chronic/Serious Mental Health
- Drug and Alcohol
- Youth Risk Behaviors
- Other Environmental Factors and Indicators Impacting Mental and Physical Health
- Senior Care
- Intellectual and Physical Disabilities

Secondary public health data on disease incidence and mortality as well as behavioral risk factors were gathered from numerous sources including the West Virginia Bureau of Public Health, the Centers for Disease Control, Healthy People 2020, County Health Rankings as well as a number of other reports and publications. Data was collected primarily for Marshall, Ohio and Wetzel counties, although some selected state and national data is included where local/ regional data was not available. Utilization data was included from Northwood Health Systems' patient records. Demographic data was collected from the Nielsen Claritas demographic database. Primary qualitative data collected specifically for this assessment included 3 focus groups including family members and professionals and 16 in-depth stakeholder interviews, representing the needs and interests of various community groups, topic areas and sub-populations. In addition to gathering input from focus groups and stakeholder interviews, input and guidance also came from health system leaders who served on the Steering Committee.

After all primary and secondary data was reviewed and analyzed, the data suggested a total of 35 distinct issues, needs and possible priority areas for intervention. The Steering Committee prioritized and discussed the needs and identified access to outpatient psychiatric services, suicide prevention, mental health within the homeless community, substance abuse, and transition planning and access to services for those with intellectual disabilities as the top priority areas in response to the needs identified in the assessment. The implementation strategies selected by Northwood Health Systems address these needs in a variety of ways.

Methodology

To guide this assessment, the project partners formed a Steering Committee that consisted of health system leaders. These included representatives who understood the various needs and issues of the service area population. The Steering Committee met 3 times between February and May 2013 to provide guidance on the various components of the Community Health Needs Assessment.

Service Area Definition

Consistent with IRS guidelines at the time of data collection, Northwood Health Systems defined the community by geographic location based on the primary service area of the organization. More specifically, the geographic boundary of the primary service area includes Marshall, Ohio and Wetzel counties.

Asset Inventory

The Northwood Health Systems staff identified existing health care facilities and resources within the community available to respond to the health needs of the community. The information included in the asset inventory and map includes a listing of youth services, hospitals, homeless services, food services, family services, community services and autism services.

Qualitative and Quantitative Data Collection

In an effort to examine the health related needs of the residents of the county wide service area and to meet current IRS guidelines and requirements, the methodology employed both qualitative and quantitative data collection and analysis methods. The staff, Steering Committee members and consulting team made significant efforts to ensure that the entire primary service territory, all socio-demographic groups and all potential needs, issues and underrepresented populations were considered in the assessment.

The existing secondary quantitative data collection process included demographic and socioeconomic data obtained from the West Virginia Department of Health and Nielsen/Claritas (www.claritas.com); Behavioral Risk Factor Surveillance Survey (BRFSS) data collected by the Centers for Disease Control and Prevention and the Healthy People 2020 goals from HealthyPeople.gov. The BRFSS Data are for a five-year summary period, the 2006 report includes data from 2002-2006, the 2007-2008 report includes data from 2004-2008, and the 2009-2010 report includes data from 2006-2010; participants were adults over the age of 18; data from Pleasants, Tyler and Wetzel counties are combined due to low sample sizes. In addition,

various health and health related data from the following sources were also utilized for the assessment: the US Department of Agriculture, and the County Health Rankings (www.countyhealthrankings.org).

The primary data collection process included qualitative data from 16 stakeholder interviews and 2 focus groups conducted by members of the health system staff and one focus group facilitated by the consulting team. Interviews and focus groups captured personal perspectives from community members, providers, and leaders with insight and expertise into the health of a specific population group or issue, and the service area overall.

Needs/Issues Prioritization Process

In April 2013 the Steering Committee met to review the primary and secondary data collected through the needs assessment process and discussed needs and issues present in the community. The Steering Committee prioritized the needs and issues identified throughout the assessment in order to identify potential intervention and implementation. Debra Thompson, President of Strategy Solutions, Inc. and Rob Cotter, Research Analyst presented the data and facilitated a prioritization exercise. Three criteria, including accountable role (the extent to which the health system or another entity in the community should take a leadership role on the issue), magnitude of the problem, and capacity (systems and resources to implement evidence based solutions), were used to evaluate identified needs/issues.

Steering Committee members completed the prioritization exercise using a criteria matrix

approach. The group identified depression, access to mental health services, transition planning and family education and resource needs for persons with disabilities, and drug and alcohol abuse as the top priority areas in response to the needs identified in the assessment.

Implementation Strategy Development Process

Following the prioritization session and based on the greatest needs related to the health system's mission, current capabilities and focus areas, staff and leadership within the partner organizations involved in the CHNA process determined top priorities and identified implementation strategies to meet identified needs.

The Northwood Steering Committee prioritized the identified needs based on five different criteria. The process pinpointed communities access to outpatient psychiatric services, suicide prevention, mental health within the homeless community, substance abuse, and transition planning and access to services for those with intellectual disabilities as the top priorities in response to the needs identified in the assessment. The implementation strategies selected by the organization address these top priorities. The implementation strategies are outlined in a separate document and are not included in this CHNA report.

Review and Approval

The Northwood Health Systems Board of Directors approved this Executive Summary on June 20, 2013.

General Findings

Demographics

For purposes of this assessment, the geographic scope of this study (also referred to as the service area, community and/or region) is defined as Marshall, Ohio and Wetzel counties. The overall population of this area as of the 2010 Census was 94,133.

From the 2000 to 2010 census the population of the service area decreased slightly with the 2018 projection showing that trend continuing. The service area has slightly more females than males. While the majority of the population of the service area is between the ages of 25-54, there is a sizable senior population (between 17% and 19%) that is higher than the state. The service area is predominately white non-Hispanic, and the majority of residents are married and living with their spouse.

The majority of the service area has at least a high school education, although between 12 and 16% of the service area county populations lack a high school diploma. Income statistics show that the service area is low to middle class, with an average commute to work of less than 30 minutes.

Asset Inventory

A list of community assets and resources that are available in the community to support residents was compiled. The assets identified a listing of youth services, hospitals, homeless services, food services, family services, community services and autism services.

Primary Research

A total of 16 stakeholder interviews and 3 focus groups (including 25 participants) were conducted representing individuals from throughout the three counties. Stakeholders were identified as experts in a particular field related to their background, experience or professional position and/or someone who understood the needs of a particular underrepresented group or constituency. The interviews and focus groups were conducted across the region with various community constituencies. The results reported herein are qualitative in nature and reflect the perceptions and experiences of interview and focus group participants.

Key Findings –BRFSS & Public Health Data

This assessment reviewed a number of indicators at the county level from the statewide Behavioral Risk Factor Survey (BRFSS) as well as disease incidence and mortality indicators. For this analysis, the service area data was compared to state and national data where possible.

As outlined in the following tables, for many of the BRFSS questions, the service area's data was comparable to the state data, with some slight variability across the indicators. Behavioral risks in the service area where the regional rates were worse than the state/nation or had a negative trend include the percentage of people who rated their health status fair or poor, the percentage of people with no health insurance, percentage of adults who use cocaine, those who have had a heart attack, angina or stroke, individuals having severe psychological distress or a major

depressive episode, percentage of the population having one or more poor mental health days in the last 30 or who are limited due to physical mental or emotional problems, and women smoking or using drugs in the last 3 months of pregnancy.

While not consistent across all counties of the service area, the region has increasing rates of:

- Breast cancer mortality
- Ovarian cancer mortality
- Prostate cancer mortality
- Diabetes mortality
- Drug overdose death
- DUI arrests
- Fatal alcohol related automobile accidents
- Unemployment
- Adults living in poverty
- Alzheimer's rates.



Marshall, Ohio and Wetzel counties also have an increasing rate of substance abuse, particularly of prescription pain killers among adolescents. High school graduation rates are also declining in most counties of the service region.

The color coding illustrates comparisons to the Healthy People 2020 Goal or the national rate (if there is no HP 2020 goal). Red indicates that the regional data is worse than the comparison and green indicates better than the comparison.

Overall Key Findings
The tables below highlight the key findings of the Behavioral Risk Factor Survey.
Table 1 of 2

Behavior Risk	Marshall			Ohio			Pleasants, Tyler, Wetzel			West Virginia		US	HP 2020	WV	US	HP 2020		
	2002-06	2004-08	2006-08	2002-06	2004-08	2006-08	2002-06	2004-08	2006-08	2006-10	2006-08	2006-10	2010	Goal	Comp	Comp	Comp	
GENERAL HEALTH STATUS / ACCESS																		
Reported Health Fair or Poor	21.6%	18.9%	17.9%	17.2%	15.2%	15.2%	20.6%	20.9%	20.3%	23.4%	23.4%	14.7%			-		+	
No Health Insurance (Ages 18-64)	20.8%	19.5%	21.2%	19.5%	21.6%	22.8%	22.5%	27.2%	26.2%	21.4%	21.4%	17.8%	0.0%		+/-		+	
DRUG & ALCOHOL																		
Adults Who Reported Binge Drinking (5 drinks for men, 4 for women)		13.2%	12.9%	11.5%	11.2%	11.2%	8.8%	8.8%	8.9%	9.0%	9.0%	17.1%	24.4%		+/-		-	
DRUG & ALCOHOL																		
Marijuana Use in the Past Month (Persons 12 Years and Older)			7.4%	7.4%	7.4%	7.4%		7.4%			7.7%				-		-	
Drug Use in the Past Year (Persons 12 Years and Older), Marijuana			8.7%	8.7%	8.7%	8.7%		8.7%			9.2%				-		-	
Drug Use in the Past Year (Persons 12 Years and Older), Cocaine			2.8%	2.8%	2.8%	2.8%		2.8%			2.6%				-		-	
Drug Use in the Past Year (Persons 12 Years and Older), Nonmed. Use of Pain Relievers			5.4%	5.4%	5.4%	5.4%		5.4%			5.5%				-		-	
CHRONIC DISEASE																		
Adults Who Reported Having a Heart Attack, Angina, or Stroke	14.5%	14.5%	14.0%	14.0%	14.0%	14.0%	10.3%	10.3%			20.0%				+		+	
Percentage of All Adults Obese (BMI ≥ 30)	27.8%	27.8%	26.4%	26.4%	26.4%	26.4%	33.5%	33.5%			32.9%	27.5%	30.6%		+/-		+/-	
OTHER ENVIRONMENTAL FACTORS / INDICATORS																		
Adults Reporting No Leisure Time/Physical Activity in the Past Month	24.7%	24.7%	24.4%	24.4%	24.4%	24.4%	26.5%	26.5%			32.9%	23.9%	32.6%		-		-	
GERIATRICS																		
Population Over the Age of 65			17.6%	17.6%	18.5%	18.5%					2006-10	12.8%						
Adults Age 65 and Older Living in Poverty			9.8%	9.8%	9.8%	9.8%					16.0%	10.5%						
Adults Age 65 and Older Who Rated Their Health as Fair to Poor					27.7%	27.7%	32.8%	32.8%			36.7%				-		-	
Adults Age 65 and Older Ever told They Had a Heart Attack, Angina, Coronary Heart Disease, or Stroke			30.9%	30.9%	31.6%	31.6%					25.2%	32.8%						
Adults Over the Age of 65 With Diabetes			22.1%	22.1%	22.1%	22.1%					18.6%	17.0%						
Adults Over the Age of 65 with Medicare/Medicaid Dual Eligibles (2010 only)			12.9%	12.9%	15.2%	15.2%					38.3%	38.3%						
Adults Over the Age of 65 With Any Disability			38.9%	38.9%	34.2%	34.2%					2008-10	44.6%						

Source: West Virginia Bureau of Public Health, Centers for Disease Control, www.healthypeople.gov

The color coding illustrates comparisons to the Healthy People 2020 Goal or the national rate (if there is no HP 2020 goal). Red indicates that the regional data is worse than the comparison and green indicates better than the comparison.

The tables below highlight the key findings of the Behavioral Risk Factor Survey.

Table 2 of 2

	Marshall					Ohio					Trend	WV Rate Most recent	USA 2005-06	WV Comp	US Comp	
	2001-02	2003-04	2005-06	2007-08	2009-10	2001-02	2003-04	2005-06	2007-08	2009-10						2009-10 +/-
Behavior Risk DRUG & ALCOHOL																
Drug Overdose Deaths rate per 10,000	1.7	0.0	4.4	2.4	4.5	1.3	1.8	4.4	3.6	4.7	+	5.3				
CHRONIC/SERIOUS MENTAL HEALTH																
Individuals Reporting Having Serious Psychological Distress													14.04%	11.29%		
Individuals Reporting Having at Least 1 Major Depressive Episode													9.08%	7.25%		
West Virginia																
Behavior Risk DRUG & ALCOHOL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Trend					
Pregnant Women Reporting Any Use of Alcohol During Last 3 Months of Pregnancy	2.1%	2.0%	2.0%	3.4%	4.1%	2.9%	4.7%	3.7%	3.0%	3.3%	+					
Pregnant Women Reporting Smoking During the Last 3 Months of Pregnancy	24.5%	26.1%	25.3%	27.5%	28.4%	31.9%	29.4%	30.0%	28.7%	28.9%	+					
Hospitalization Discharges with a Drug-Related Diagnosis, Per 1,000 Discharges						55.2	62.6	58.7	69.7	68.7	+					

Source: West Virginia Bureau of Public Health, Centers for Disease Control, www.healthypeople.gov

The color coding illustrates comparisons to the Healthy People 2020 Goal or the national rate (if there is no HP 2020 goal). Red indicates that the regional data is worse than the comparison and green indicates better than the comparison. Yellow indicates that one county is higher and another is lower.

The following table highlights various health indicators included in the assessment:

Table 1 of 2

Public Health Data	Marshall					Ohio					Trend +/-	WV Rate Most recent	US Rate	HP 2020 goal	WV Comp	US Comp	HP Goal Comp
	2005	2006	2007	2008	2009	2010	2005	2006	2007	2008							
GENERAL HEALTH STATUS / ACCESS																	
Limited in Any Activity Due to Physical, Mental, or Emotional Problems																	
Rarely or Never Get the Social or Emotional Support They Needed																	
Needed to See a Doctor But Could Not Due to Cost, Past Year																	
Adults With No Health Care Provider																	
DRUG & ALCOHOL																	
Driving Under the Influence (DUI) Arrest Rate per 10,000				34.7	46.7	44.7											
Alcohol-Related Fatal Automobile Accidents	20.0%	75.0%	33.0%	50.0%	75.0%				36.3	41.1	40.1						
http://www.cdc.gov/motorvehicle/safety/impaired_driving/impaired-drv_factsheet.html									67.0%	50.0%							
CHRONIC DISEASE																	
Breast Cancer Mortality Rate per 100,000	17.7	3.0	24.4	27.6					15.7	36.0	29.5	15.9					
Colon Cancer Mortality Rate per 100,000	29.5	15.1	24.4	15.4					26.5	24.8	15.9	20.4					
Bronchus and Lung Cancer Mortality Rate per 100,000	76.7	81.5	82.4	43.0					103.0	90.1	107.1	95.4					
Ovarian Cancer Mortality Rate per 100,000	5.9	3.0	0.0	18.4					11.2	9.0	0.0	4.5					
Prostate Cancer Mortality Rate per 100,000	5.9	0.0	6.1	12.3					15.7	6.8	15.9	13.6					
Diabetes Mortality Rate per 100,000	35.4	36.2	39.7	43.0					47.0	65.3	68.0	54.5					
Influenza and Pneumonia Mortality Rate per 100,000	59.0	24.1	39.7	39.9					31.3	47.3	31.7	31.8					
OTHER ENVIRONMENTAL FACTORS / INDICATORS																	
Adults Living in Poverty				17.6%								15.7%					
GERIATRICS																	
Alzheimer's Disease Mortality Rate per 100,000									29.1	29.3	29.5	34.1					
Suicide Rates per 100,000, Age 65+ (2000-2009)												11.67					
CHRONIC/SERIOUS MENTAL HEALTH																	
Suicide Deaths Rate per 10,000 (2000-2009)												1.22					

Source: West Virginia Bureau of Public Health, Centers for Disease Control, www.healthypeople.gov

The color coding illustrates comparisons to the Healthy People 2020 Goal or the national rate (if there is no HP 2020 goal). Red indicates that the regional data is worse than the comparison and green indicates better than the comparison. Yellow indicates that one county is higher and another is lower.

The following table highlights various health indicators included in the assessment:
Table 2 of 2

Public Health Data	Wetzel					Trend +/-	WV Rate Most recent	US Rate	HP 2020 goal	WV Comp	US Comp	HP Goal Comp
	2005	2006	2007	2008	2009							
GENERAL HEALTH STATUS / ACCESS												
Limited in Any Activity Due to Physical, Mental, or Emotional Problems							28.2%	20.8%				
Rarely or Never Get the Social or Emotional Support They Needed							17.7%	19.5%				
Needed to See a Doctor But Could Not Due to Cost, Past Year							17.7%					
Adults With No Health Care Provider							24.1%					
DRUG & ALCOHOL												
Driving Under the Influence (DUI) Arrest Rate per 10,000				11.6	11.1	13.3	+	33.2				
Alcohol-Related Fatal Automobile Accidents				0.0%	0.0%	33.0%	-	38.0%	31.0%			
http://www.cdc.gov/motorvehiclesafety/impaired_driving/impaired-drv_factsheet.html												
CHRONIC DISEASE												
Breast Cancer Mortality Rate per 100,000			30.0	24.3	6.1	0.0	-	15.6	22.2	20.6		
Colon Cancer Mortality Rate per 100,000			24.0	12.2	30.6	24.7	-	21.2				
Bronchus and Lung Cancer Mortality Rate per 100,000			107.9	60.9	85.7	117.1	-	86.3		45.5		
Ovarian Cancer Mortality Rate per 100,000				6.1	12.2	0.0	-	6.3				
Prostate Cancer Mortality Rate per 100,000			36.0	12.2	12.2	12.3	-	12.3	21.9	21.2		
Diabetes Mortality Rate per 100,000			42.0	48.7	30.6	61.6	+	41.6	20.8	65.8		
Influenza and Pneumonia Mortality Rate per 100,000			12.0	24.3	30.6	49.3	+	22.6	16.2			
OTHER ENVIRONMENTAL FACTORS / INDICATORS												
Adults Living in Poverty							-	18.7%				
GERIATRICS												
Alzheimer's Disease Mortality Rate per 100,000				6.0	18.3	24.5	+	30.7	25.1			
Suicide Rates per 100,000, Age 65+ (2000-2009)						17.02		18.08				
CHRONIC/SERIOUS MENTAL HEALTH												
Suicide Deaths Rate per 10,000 (2000-2009)						1.54		1.54				

Source: West Virginia Bureau of Public Health, Centers for Disease Control, www.healthypeople.gov

The color coding illustrates comparisons to the Healthy People 2020 Goal or the national rate (if there is no HP 2020 goal). Red indicates that the regional data is worse than the comparison and green indicates better than the comparison. Yellow indicates that one county is higher and another is lower.

The following table highlights various health indicators included in the assessment:

Public Health Data	Ohio			Marshall			Wetzel			Trend +/-	WV Rate Most recent	US 2011	WV Comp	US Comp
	2010	2011	2012	2010	2011	2012	2010	2011	2012					
CHRONIC/SERIOUS MENTAL HEALTH														
Reported Poor Mental Health (Average Number in the Past 30 Days)	3.3	3.3	4.2	4.0	4.3	4.0	3.5	3.5	3.6	3.6	4.4			
OTHER ENVIRONMENTAL FACTORS / INDICATORS														
Unemployment Rates	5.0%	9.0%	10.7%	4.0%	7.8%	9.3%	7.0%	12.0%	13.5%					
Children Living in Poverty	24.0%	24.0%	26.0%	21.0%	21.0%	25.0%	24.0%	27.0%	28.0%					
Children Living in Single Parent Households		24.0%	27.0%		32.0%	31.0%		24.0%	28.0%					
Restaurants That Are Fast Food Restaurants				70.0%						57.0%				
Violent Crime Rate per 100,000			147	138		451			338	73				298

Source: West Virginia Bureau of Public Health, Centers for Disease Control, www.healthypeople.gov

The color coding illustrates comparisons to the Healthy People 2020 Goal or the national rate (if there is no HP 2020 goal). Red indicates that the regional data is worse than the comparison and green indicates better than the comparison. Yellow indicates that one county is higher and another is lower.

The following table highlights various health indicators included in the assessment:

Public Health Data	Grade					Trend	USA 2009	HP 2020 Goal	US Comp	HP Goal Comp
	9th	10th	11th	12th						
YOUTH RISK FACTORS										
Students Who Drove After Drinking One or More Times in the Past Month	4.7%	4.2%	6.1%	12.6%		+				
Students Who Rode One or More Times in the Past Month With a Driver Who Had Been Drinking	19.5%	15.8%	18.5%	21.2%		+/-	28.3%	25.5%		
Students Who Carried a Weapon One or More Times in the Past Month	23.4%	22.3%	20.6%	15.4%		-				
Students Who Carried a Gun One or More Times in the Past Month	5.7%	6.3%	6.3%	3.5%		+/-				
Students Who Were Physically Violent Towards Their Boyfriend/Girlfriend in the Past Year	11.3%	7.0%	9.3%	13.5%		+/-				
Students Who Felt Sad or Hopeless Every Day for 2 or More Weeks in a Row in the Past Year	25.5%	23.5%	23.7%	25.2%		-				
Students Who Attempted Suicide One or More Times in the Past Year	7.0%	5.7%	4.5%	4.7%		-				
Students Who Smoked Cigarettes Daily for the Past Month	10.7%	10.7%	12.8%	14.1%		+				
Students Who Drank 5 or More Drinks in a Row One or More Times in the Past Month	17.1%	15.5%	21.4%	28.4%		+				
Students Who Used Marijuana One or More Times in the Past Month	16.8%	17.6%	19.9%	25.8%		+				
Students Who Used Cocaine in the Past Month	2.8%	1.5%	2.6%	3.5%		+/-				
Students Who Used Inhalants in Their Lifetime	11.0%	8.7%	7.9%	11.5%		+/-	4.0%			
Students Who Used Heroin at Least Once in Their Lifetime	2.5%	1.3%	4.3%	4.0%		+				
Students Who Used Prescription Drugs Illegally in Their Lifetime	16.8%	13.5%	17.2%	20.9%		+				
Students Who Were Not Physically Active for 60 Minutes a Day in the Past 7 Days	10.6%	12.8%	15.4%	15.2%		+	14.0%			
Students Who Watched 3 or More Hours of Television on an Average School Day	31.1%	31.9%	32.6%	29.3%		+				
Students Who Played Video Games or on the Computer 3 or More Hours on an Average School Day	32.5%	36.6%	29.9%	29.2%		+/-				

Source: West Virginia Bureau of Public Health, Centers for Disease Control, www.healthypeople.gov

General Health Status and Access to Care

Access to comprehensive, quality healthcare is important for the achievement of health equity and for increasing the quality of life for everyone in the community.

There are a number of observations and conclusions that can be derived from the data related to General Health Status and Access to Care. They include:

- Between 2002 and 2010, the percentage of adults in the service area that reported their health status as fair or poor ranged between 15% and 22%. The rates in Marshall and Wetzel counties were comparable to the state rates over time, although Ohio County's rates have historically been lower. Marshall's rate has also been declining over the past 10 years. All counties are above the national rate of 14.7%. However, only 15.3% of disabled persons rated their health status as fair or poor across the state in 2010.
- Between 2009 and 2010, the percentage of adults in West Virginia limited in activity due to physical, mental or emotional problems (28.2%) was higher than the national rate (20.8%).
- The percentage of adults who rarely or never get the social or emotional support they needed in West Virginia (17.7%) is slightly lower than the national rate (19.5%).
- The percentage of adults in the service region without health insurance ranges between 19% and 26%, and has been increasing over the last few years. Wetzel has slightly higher rates than Marshall and Ohio counties, which are comparable to the state. All counties are above the national rate of 17.8% and the Healthy People 2020 Goal of 0%.
- In West Virginia between 2007 and 2010, the percentage of adults who needed to see a doctor but could not due to cost ranged between 17%-18%, which is higher than the Healthy People 2020 Goal (4.2%), while the percentage with no health care provider ranged between 21% and 24%, which is above the Healthy People 2020 Goal of 16.1%.
- Marshall, Ohio, and Wetzel Counties are all designated as medically underserved areas. Wetzel County is a designated shortage area for Primary Care, Dental and Mental Health Services. Marshall County is also designated as a Primary Care shortage area.
- The 2012 Wheeling Hospital Community Health Needs Assessment identified a greater need for psychiatric services in the area, indicating as many as 42 providers may be needed in the hospital's service region.
- Over the last 3 years, demand for Northwood services has increased for psychiatric/medication management, psychologists, therapy and other outpatient (case management, intensive outpatient programs, community focused treatment) services.
- Focus group participants noted that access to services is a challenge as many in the community (both providers and consumers) are not aware of the resources that are available among providers. Limited outpatient mental health services exist along with the need for more psychiatrists

and other mental health professionals, housing and transportation needs.

- Stakeholder interview comments echoed the needs identified in the focus groups. Lack of awareness of programs and services, education about the services that are available and lack of adequate providers in certain areas are barriers to care.
- Stakeholders identified the need for increasing in-home counseling services, individual and group outpatient therapy, and access to appropriate medications as well as the need to integrate physical and mental health services in physician offices. Housing and transportation were also noted as needs, along with the travel distance which is a barrier for some to access services. Several participants noted the need for long term support for vocational activities as a need as well.

Chronic/Serious Mental Health

Conditions that are long-lasting, relapse, enter remission and continue persistently are categorized as chronic conditions. Mental Health refers to a broad array of activities directly or indirectly related to the mental well-being component included in the World Health Organization's definition of health: "A state of complete physical, mental and social well-being, and not merely the absence of disease". Mental health is related to the promotion of well-being, the prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders.

Focus group participants discussed a number of needs and issues related to chronic/serious

mental health management. Poor health status and the scarcity of resources are seen as contributing factors to the problems and challenges for those with mental illness and disabilities. Because of the stigma that still exists regarding mental health treatment, some people are refusing to get the care they need. There is also a "quick fix" attitude within the system and resources are not appropriately invested in long term solutions that will make a difference for persons with disabilities and those with mental health needs. There is also a need for additional mental health resources and support groups to assist those who are willing to seek treatment.

Stakeholders participating in the interview process identified unmet needs related to mental illness. There is the perception that many people with psychiatric issues are untreated or undertreated because of the lack of resources and providers in the community.

There are a number of observations and conclusions that can be derived from the data related to Chronic/Serious Mental Health and related issues. These include:

- Adults in Marshall, Ohio, and Wetzel counties reported that they experienced poor mental health on average 3-4 days out of the past 30, which was slightly lower than the state rate.
- Approximately 81,000 of West Virginia adults live with serious mental illness, while about 18,000 children in the state live with serious mental health conditions.
- West Virginia's public mental health system provides services to only 44% of adults who live with serious mental illness in the state.

- In 2008, approximately 1,400 adults with mental illnesses were incarcerated in prisons in West Virginia.
- Between 2000 and 2009 there were 142 suicides in Marshall, Ohio, and Wetzel Counties combined. Veteran life line calls have increased in 2010-2011 compared to the previous four years.
- Wetzel County ranks 13th, Marshall County ranks 30th, and Ohio County ranks 49th in the state for prevalence of suicide.
- Between 2004 and 2006 between 14% and 15% of West Virginia residents reported serious psychological distress, higher than the national rate; while 9% reported at least one major depressive episode, also higher than the national rate.
- Statewide, 12.6% of sheltered homeless have mental health problems.
- Focus group participants discussed a number of needs and issues related to chronic/serious mental health management, including poor health status and the scarcity of resources as contributing factors to the problems. Also cited was the fact that some people continue to refuse treatment because of the stigma associated with mental illness.
- Focus group participants also discussed that there is a “quick fix” attitude within the system and resources are not appropriately invested in long term solutions that will make a difference for persons with disabilities and those with mental health needs. They noted there is also a need for additional mental health resources and support groups.
- Stakeholders identified a number of unmet needs related to mental illness including the lack of access to care due to the lack of

resources and providers in the community. Respondents expressed that more should be done to manage the more severe mental health needs and issues.

Drug and Alcohol

According to the World Health Organization, substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Psychoactive substance use can lead to dependence syndrome - a cluster of behavioral, cognitive, and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state.

Locally, focus group participants expressed concern that substance abuse is an existing and growing problem and that the current system lacks capacity to adequately and appropriately deal with the problem. There is a perceived lack of prevention and early intervention services for alcohol and drug abuse and more options for addiction services are needed, including residential treatment options.

Stakeholders participating in the interviews echoed the discussions from the focus groups stressing that substance abuse is a real and growing problem within the service area counties, particularly for women. Although some community based resources do exist, such as the post addiction support group at the

YWCA, there is a need for acute as well as post-acute substance abuse treatment. The easy access to drugs and the lack of preventive services is contributing to the increased demand for services.

All across the country, within the state of West Virginia as well as in the service area counties, drug and alcohol use and abuse is a growing concern. Although the specific local data available is limited, it suggests that the rates of drug and alcohol abuse in the service area counties is higher than the state, which has one of the highest rates in the country for the use of prescription pain killers and drug overdose deaths. Local stakeholders reported in both focus groups and interviews that the abuse of prescription drugs, specifically painkillers is increasing, and the local system is struggling to keep up with the increase in demand for services, as evidenced by the increase in drug related hospitalizations and mortality over the past few years.

Local leaders indicate that there is a need for increased access to preventative education and early intervention services as well as residential treatment and post-acute support services.

Overall observations and findings from the data include:

- Between 2004 and 2010 Marshall County reported slightly higher rates of binge drinking, compared to Ohio and Wetzel Counties and the state.
- Compared to the state statistics in 2008-2010, the rate of DUI arrests was higher in Marshall and Ohio Counties when compared to Wetzel County and the state.

- The alcohol related automobile accident rates fluctuated among the counties between 2005 and 2009, but on average were higher than the state rate.
- Between 2006 and 2008, 7.4% of individuals aged 12 and older reported using marijuana within the past month in Marshall, Ohio, and Wetzel Counties.
- Between 2006 and 2008, there were no significant differences between the state and counties in the use of marijuana, cocaine, and nonmedical use of pain relievers, but data suggests that the use rates are increasing.
- Between 2001 and 2011 prescription drug overdose deaths steadily increased in West Virginia.
- Between 2005 and 2009 individuals discharged from a hospital with a drug related diagnosis steadily increased.

Youth Risk Behaviors

The well-being of children determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. The youth risk behaviors topic area addresses a wide range of conditions, health behaviors, and health systems indicators that affect the health, wellness, and quality of life for the entire community.

The percentage of students engaging in risk behaviors suggests that the needs of students in the region are increasing. Sizable and increasing portions of students (up to a third of the population) report various risk behaviors. Students report higher levels of smoking, drug

and alcohol use and violence with age. Stakeholders suggest that the support services available in the schools, although good, are not keeping pace with the needs of children and their families.

Overall findings suggest:

- Between the 9th and 12th grade, there was an increase in the percentage of students who drove or rode in an automobile with someone after drinking (12.6% of seniors drove and 21.2% of seniors rode).
- Although the numbers decreased between 9th and 12th grades, 15.4% of high school seniors carried a weapon one or more times in the past month, with 3.5% carrying a gun.
- A percentage (13.5%) of high school seniors reported physical violence towards their boyfriend/girlfriend.
- Between 9th and 12th grades, approximately 25% of students reported feeling sad or hopeless daily for two or more weeks in the past year and more than 7% of 9th grade students reported that they attempted suicide. Between 9th and 12th grade, the percentage of students who attempted suicide decreased to 4.7%, although this still puts a significant number of students at risk.
- In general, students who reported tobacco use, drinking alcohol, and drug use increased with grade level and sizable portions of the 12th grade student population smoke (14.1%), drink alcohol 5 or more times in the past month (28.4%), use marijuana (25.8%), cocaine (3.5%), inhalants (11.5%), heroin (4.0%), and illegally used prescription drugs (20.9%).

- On average, 30% of students spent at least three hours a day watching television, playing video games, or using a computer (for non-school work) on an average school day, while 15.2% of seniors reported not being physically active for 60 minutes a day in the past 7 days.
- Focus group participants discussed the needs and issues related to the student population in schools. The participants indicated that there is an increased need for student services and resources in schools.
- Stakeholders participating in the interviews indicated that the needs in the student population are increasing, and the support systems available to students in the schools, while they are good, they are not keeping pace with the needs of children and families. Stakeholders suggested reaching children early and focusing on self-esteem, role modeling and prevention education could make a difference if children are reached prior to addictions beginning. There is also a need for daytime programs for kids with severe needs.

Other Environmental Factors and Indicators Impacting Mental and Physical Health

Focus group participants discussed the relationship between environmental characteristics and the impact on mental health and substance abuse as well as domestic violence. The lack of employment opportunities has led to serious issues for many people. Some attribute the challenges to chronic depression or a lack of awareness that stems from poor parenting, and recognize that issues related to

physical health and overall well-being contribute to mental health status.

Stakeholders echoed some of the discussion and concerns expressed in the focus groups related to the poor economy and the depression and stress associated with job loss. Stakeholders also noted that family conflict and gambling also lead to mental health and substance abuse challenges. The regional culture that accepts both gambling and drinking is also a contributor.

The service area counties have a number of environmental and physical health related conditions that are contributing to and impacting the overall well-being and mental health status of their residents. In 2006, Obesity rates in West Virginia were one of the two highest in the nation, although more recently, rates in the service area counties were somewhat lower and closer to the Healthy People 2020 goal; however they still represent almost a third of the population. The region's incidence and mortality rates for many chronic disease conditions are higher than the state rates and in some cases double the Healthy People 2020 goals.

High unemployment and poverty rates as well as a lack of education and awareness are seen as contributing factors to mental health needs and issues. Access to gambling and a culture of acceptance of drinking alcohol also contribute to the incidence of illegal activities, domestic violence and violent crime.

Specific findings in the data include:

- In Marshall, Ohio, and Wetzel counties the mortality rates of breast, colon, bronchus and lung, ovarian, and prostate cancers fluctuated between 2006 and 2009. Breast and bronchus and lung mortality rates were generally higher than the state rates.
- Across Marshall (14.5%), Ohio (14.0%), and Wetzel (10.3%) counties, heart attack, angina, and stroke incidence rates were slightly above the state percentage of 6.0%.
- Diabetes mortality rates were higher in Marshall, Ohio, and Wetzel counties, compared to the state statistics.
- Influenza and pneumonia mortality rates were higher among the counties compared to the state and nation, and in Wetzel County the rates are steadily increasing.
- The percentage of adults who are obese was comparable across the counties, and Marshall and Ohio counties were below the state (32.9%) and Healthy People 2020 Goal of 30.6%.
- There were no significant differences between Marshall, Ohio, and Wetzel counties in terms of adults having no leisure time physical activity in the past month, and all counties were below the state statistic of 32.9% and the Healthy People 2020 Goal of 32.6%.
- The unemployment rates for the state and counties increased between 2010 and 2012 as did the percentage of children living in poverty.

- The percentage of adults living in poverty is comparable across the three counties, with Ohio and Wetzel counties showing a slight decrease between 2000 and 2009.
- Marshall and Wetzel counties are below the state rate of 29.0% for the percentage of children living in a single parent household, although the trend from 2011 to 2012 does show a small increase. Ohio County is above the state rate, but did show a decrease over the two-year period.
- In Marshall, Ohio, and Wetzel counties, between 44% and 54% of students are eligible for free lunch.
- In Marshall, Ohio, and Wetzel counties, between 25% and 43% of the population have low access to a grocery store, and in Marshall and Wetzel counties, 70% and 57%, respectively, of the restaurants are fast food restaurants, compared to the state rate of 52%. Only Ohio County has a lower percentage than the state rate of 51%.
- The violent crime rate between 2012 and 2013 was highest in Ohio County, compared to Marshall and Wetzel counties and the state. The majority of firearm deaths were related to suicide.

Seniors

The population of the service area is aging and has a higher percentage of persons over the age of 65 than the state. Older individuals require additional and different health and human services in order to support them as they age.

While the percentage of seniors in the service area is increasing, they are faring comparatively well in the service area counties in terms of disease incidence and environmental factors facing seniors. The overall findings include:

- The percentage of the population over the age of 65 for Marshall (17.5%), Ohio (18.5%) and Wetzel (19.5%) counties are above the national rate of 12.8% and the state rate of 16.0%.
- The percentage of seniors living in poverty was higher for Wetzel County, compared to Marshall and Ohio counties, and the state rate.
- The percentage of seniors who rated their health as fair to poor was lower in Ohio and Wetzel counties compared to the state. No data was available for Marshall County.
- Compared to the state rate, all three counties had a lower percentage of seniors living with a disability.
- The suicide rate among seniors was slightly lower in Marshall, Ohio, and Wetzel counties, compared to the state rate.
- Alzheimer's disease mortality rates were comparable in Marshall and Ohio counties, compared to the state statistics, and lower in Wetzel County.
- There were no significant differences in adults over the age of 65 who had a heart attack, angina, coronary heart disease, stroke, or diabetes, compared to the state statistics, except for Wetzel County, which had a lower percentage than the state.
- The percentage of seniors who were dual eligible for Medicare/Medicaid was slightly lower in Marshall County, compared to Ohio and Wetzel counties and the state.

Intellectual and Physical Disabilities

Over a third of the households in West Virginia have a member with a disability. While overall in the last 10 years in West Virginia the number of children and young adults diagnosed with a disability decreased slightly for every age group. The number of children and young adults diagnosed with autism and other developmental disabilities has significantly increased. Individuals with disabilities have much higher rates of medical and mental health service utilization than their non-disabled peers. Across the state, while West Virginia has a higher rate of identifying students with disabilities compared to the nation, the rate of identifying students is declining at a higher rate and the average spending on special education is much lower than national rates.

Because of the exploding incidence and prevalence of persons with autism and other intellectual disabilities, the need for services to help graduates transition from schools is increasing as is the need for housing and other support services. Families need more information on how to access services available as well as support to effectively utilize the resources available.

There are a number of general findings that can be derived from the data related Intellectual and Physical Disabilities. They include:

- Between 2000 and 2011 the number of children and young adults diagnosed with Autism increased significantly for every age group.
- Between 2000 and 2011 the number of children and young adults diagnosed with a disability slightly decreased for every age group.
- Across the state, 7.9% of people aged 5 and older have a cognitive disability.
- Across the state, 3.6% of parents with a disability, who have children under the age of 18, have a cognitive disability.
- Over a third of households in West Virginia (34.1%) have a member with a disability.
- A sizable portion (13.8%) of working-aged adults have daily activity limitations, while 13.1% have self-care limitations.
- While West Virginia has a higher rate of identifying students with disabilities compared to the nation, the rate of identifying students with disabilities is declining at a higher rate and West Virginia's average spending on special education is much lower than national rates.
- Children with developmental disabilities have much higher rates of medical and mental health service utilization (in most cases double to triple) than their non-disabled peers.
- For persons with intellectual disabilities, focus group participants identified the need for high school transition planning, integration into the community, supervised employment, affordable housing support, family and resource education needs and access to Medicaid funded services as the most pressing needs for this population in the region.

Action Plan

Northwood Health Systems completed its most recent Community Health Needs Assessment (CHNA) in May, 2013. The CHNA successfully identified several needs related to behavioral health in the community Northwood serves. The top priorities to be addressed were identified, and Northwood has developed an implementation plan to address those needs. Some of the identified needs were outside the scope of Northwood's mission, and others are more effectively addressed by other community organizations. Northwood believes the implementation plan will improve behavioral health in its community.

Review and Approval

The 2013 Community Health Needs Assessment and Action Plan was presented and approved by the Northwood Health Systems Board of Directors on June 20, 2013. Following Board approval the 2013 Northwood Health Systems CHNA will be published and made widely available to the public.





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History and Accomplishments



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History and Recent Accomplishments

Community Health Needs Assessments are necessary to meet the regulatory requirements and guidelines for various healthcare organizations, and according to the community benefit provisions for tax-exempt hospitals recently established by the Internal Revenue Service, and the Patient Protection and Affordable Care Act, non-profit hospitals are to conduct a community health assessment at least once every three years. A Community Health Needs Assessment (CHNA) must take into account the broad interests of the community served by the hospitals and must include individuals with expertise in public health. The Community Health Needs Assessment must be made widely available to the public and an action plan must be developed that identifies how the assessment findings are being implemented in a strategic plan.

Northwood Health Systems' mission is to be a world-class organization, dedicated to providing cost-effective, quality care for children, adolescents, adults, and senior citizens with emotional problems, intellectual and developmental disabilities, mental illness, and drug and alcohol addictions. Northwood Health Systems is committed to helping people achieve their highest possible quality of life. Northwood recognizes its role as an integral part of the communities it serves. Please review our award-winning web site at www.northwoodhealth.com for more information on Northwood, its programs and services, and the many other contributions it makes to the community.

Charity Care

There are many people who are less fortunate and cannot afford the mental health services they need. Providing charity care to these poor and indigent patients is a significant part of meeting Northwood's charitable mission. In fiscal year 2012, Northwood provided \$2,092,239 (at cost) in free clinical services for patients who neither have health insurance nor meet Medicaid eligibility criteria. This high level of charity care equates to 10.3% of Northwood's patient service revenue, and 10.2% of its total operating expenses. The amount of charity care Northwood has provided is extraordinary when compared with the average provider, which offers only 4.7% in charity care as a percentage of total operating expenses, according to the most recent report prepared by the Congressional Budget Office in 2006. Northwood has provided substantially higher levels of charity care than any other major health care provider in our service area. Northwood's Board of Directors and executive management believe that providing charity care to the poor is one of our greatest accomplishments.





Financial and In-Kind Contributions to Other Nonprofits

In addition to providing a high level of charity care to patients, Northwood has also made financial contributions to other nonprofit organizations to help them meet their charitable missions. It is very rare for a nonprofit to make direct financial contributions to other nonprofit organizations, and Northwood's contributions have helped provide shelter, develop treatment programs, further education, and improve health for thousands in our communities. This unusual generosity by Northwood has been a significant community benefit.

Subsidized Health Services

In addition to providing a high level of charity care and making generous financial contributions to other nonprofits, Northwood has also subsidized over one million dollars in programs and services for which there is no, or very limited reimbursement or funding. These subsidized programs and services, while a drain on Northwood's financial resources, play an important role in meeting the needs of the communities we serve. In other words, Northwood operates these programs that we lose money on, because those services are important in meeting the needs of our community.

Emergency Homeless Shelter

Northwood continually assesses the needs of the community. Our assessment showed that the collapse of the steel industry and devastation to other associated industries, have resulted in significant job loss and economic depression over the past 30 years. This economic depression has resulted in a decrease in our standard of living, a breakdown in family support systems, and ultimately a significant increase in homelessness. To better serve our community, Northwood made the decision to operate an emergency homeless shelter in our service area. Northwood pays the full cost of operating the homeless shelter, and receives little to no reimbursement or funding for the service.

West Virginia Assessments and Taxes

Nonprofit health care corporations in the state of West Virginia are also faced with the additional burden of supporting many of the state's general revenue obligations through the imposition of taxes and assessments. Nonprofit corporations located in other states are not required to pay sales and other taxes. In fiscal year 2012, Northwood paid more than a half million dollars in taxes and assessments to the state of West Virginia.





In addition to the community benefits described above, Northwood also provided services to help patients obtain welfare benefits and provided financial contributions directly to needy patients.

Conclusion

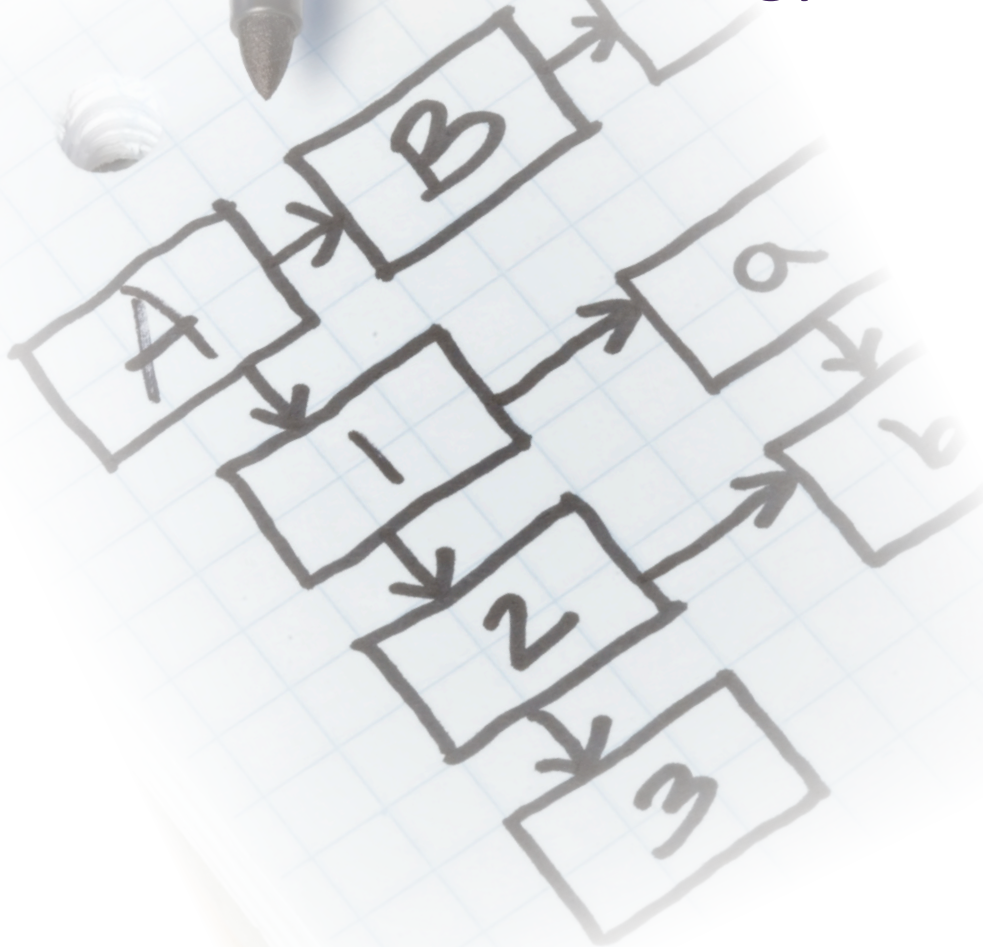
As our mission states, Northwood is committed to helping people achieve their highest possible quality of life. In fiscal year 2012, Northwood provided more than \$7 million in community benefits, which equates to 30.1% of our total revenue, and 30.3% of our total expenses. Northwood is not aware of any other nonprofit health care provider that provided 30.1% of its total revenue or 30.3% of its total expenses in community benefits in fiscal year 2012.

Northwood has calculated that its federal and state income tax liability for fiscal year 2012 would have been \$698,918 if Northwood had been a for-profit company. WHEREAS, the community benefit provided by Northwood for fiscal year 2012 was over \$7 million. The community benefit provided by Northwood exceeded its federal and state income tax liability by more than \$6 million, or 900%!

Clearly, Northwood has provided a variety of valuable benefits to the community that far outweigh the value it receives from its status as a tax-exempt organization.

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Methodology



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Methodology

Community Health Needs Assessment and Planning Approach

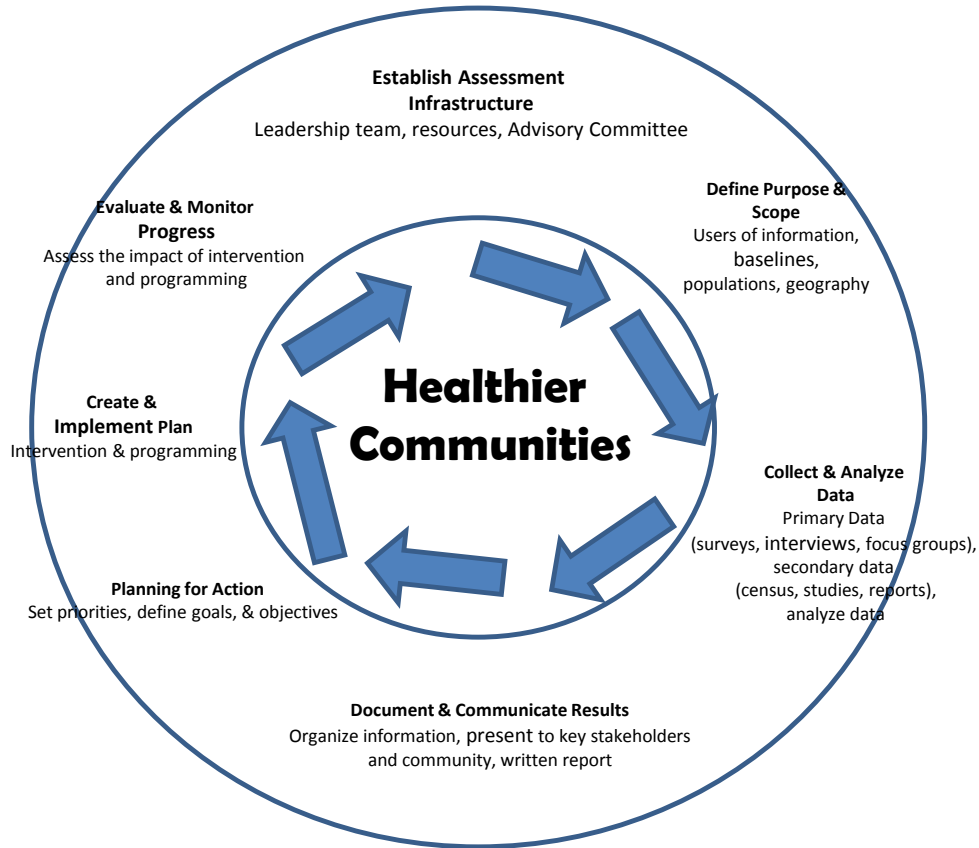
The process of completing the 2013 Northwood Health Systems Community Health Needs Assessment (CHNA) began in January 2013. The purpose of this study is to complete a comprehensive assessment of the health status and healthcare access needs of residents living in the Northwood Health Systems Primary Service Area.

The Community Health Needs Assessment and planning process is a significant step toward meeting the goal and mission of Northwood Health Systems to be a world-class organization, dedicated to providing cost-effective, quality care for children, adolescents, adults, and senior citizens with emotional problems, mental retardation, mental illness and drug and alcohol addictions. This initiative brought the health system and other community leaders together in a collaborative approach to:

- Identify the current health status of community residents to include baseline data for benchmarking and assessment purposes.
- Identify the availability of treatment services, strengths, service gaps and opportunities.
- Determine unmet community health needs and target priorities.
- Develop a plan to direct community benefit and allocation of resources to meet targeted needs.
- Enhance strategic planning for future services.

As illustrated in **Figure 1**, the CHNA process develops a system that is better able to meet the needs of our communities while avoiding duplicative efforts and achieving economies of scale. This process supports the commitment of a cross section of community agencies and organizations working together to achieve healthier communities. The Community Health Needs Assessment Process facilitated by Strategy Solutions, Inc. follows best practices as outlined by the Association of Community Health Improvement, a division of the American Hospital Association in their CHNA Toolkit and follows the latest draft IRS 990 guidelines.

Figure 1. Schematic of the Community Health Needs Assessment Process





Strategy Solutions, Inc. a planning and research firm with the mission to create healthy communities was retained to facilitate the process. The Strategy Solutions, Inc. consulting team that was involved in the project included:

Debra Thompson, BS, MBA, President, served as the Project Director, facilitated the prioritization process and developed the final report

Rob Cotter, BA, MS, Research Analyst, research and demographic analysis and mapping required for the project

Jacqui Lanagan, BA, MS, Director of Nonprofit and Community Services, analyzed the focus group data and interview data

Ann DiVecchio, Research Analyst, assisted with report development and writing

Kathy Roach, Project Coordinator/Analyst, assisted with the report development and writing

Stacy Weber, Project Coordinator, provided logistics coordination, data presentation and reporting support

Melissa Rossi, Operations Manager, provided report development and logistics coordination support

Diane Peters, Business Manager, provided final report editing support

Connie Barringer, Administrative Assistant, provided final report editing support

To support the CHNA process, Northwood Health Systems assembled a Steering Committee that included members of the health system management team. The Steering Committee membership is outlined in **Table 1.**

Table 1: Steering Committee Membership

Name	Title	Organization
Mary Ann Kinder	Director of Scheduling & Intake Management	Northwood Health Systems
Ed Nolan	Director of Operations for Outpatient and Crisis Services	Northwood Health Systems
Rich Stockley	Chief Financial Officer	Northwood Health Systems
Tracey Kinder	Director of Operations for Residential & Day Treatment Services	Northwood Health Systems
Mark Games	President & CEO	Northwood Health Systems



Table 2 outlines the community providers that supplied input and data to the CHNA process for Northwood Health Systems.

Table 2: Community Providers

Community Providers	
Catholic Charities Neighborhood Center	Ohio County Health Department
Change, Inc.	Ohio County Public Library
Greater Wheeling Coalition for the Homeless	WV Department of Health and Human Resources
National Alliance for the Mentally Ill	Youth Services Systems
Northern Panhandle Head Start	YWCA of Wheeling

Service Area Definition

Although at the time this Community Health Needs Assessment process was conducted, the Internal Revenue Service (IRS) had not finalized its guidelines for Community Health Needs Assessments, this process was developed to ensure compliance with the draft guidelines as of June, 2012. The available information published by the IRS and American Hospital Association suggested that the service area selected for the study equal the primary service area of Northwood Health Systems. The geography selected for the study included Marshall, Ohio and Wetzel Counties in West Virginia.

The yellow outlined portion of the map in **Figure 2** illustrates the primary service territory.

Figure 2: Northwood Health Systems Service Area Map



Marshall County	Ohio County	Wetzel County
Zip Code/City	Zip Code/City	Zip Code/City
26031 Benwood	26003 Wheeling	26155 New Martinsville
26033 Cameron	26059 Triadelphia	26159 Paden City
26036 Dallas	26060 Valley Grove	26162 Porters Falls
26038 Glen Dale	26074 West Liberty	26167 Reader
26039 Glen Easton		26186 Wileyville
26040 Mcmechen		26348 Folsom
26041 Moundsville		26377 Jacksonburg
26055 Proctor		26419 Pine Grove
		26437 Smithfield
		26561 Big Run
		26562 Burton
		26575 Hundred
		26581 Littleton

Asset Inventory

Northwood Health Systems identified the existing health care facilities and resources within the community that are available to respond to the health needs of the community. The information included in the asset inventory include: hospitals, youth services, medical center, homeless services, food services, family services, community services and autism services.

Qualitative and Quantitative Data Collection

In an effort to examine the health related needs of the residents of the service area and to meet all of the known guidelines and requirements of the IRS 990 standards that had been published to date, the consulting team employed both qualitative and quantitative data collection and analysis methods. Primary qualitative data was collected for this study. Qualitative methods ask questions that are exploratory in nature and are typically employed in interviews and focus groups. Quantitative and qualitative secondary data were collected for this study. Quantitative data is data that can be displayed numerically. Secondary data includes data and information that was previously collected and published by some other source.

The consulting team and Steering Committee determined that the data collected would be defined within the following categories (that define the various chapters of this study):

- Demographics
- General Health Status and Access to Care
- Chronic/Serious Mental Health
- Drug and Alcohol
- Youth Risk Behaviors
- Other Environmental Factors and Indicators Impacting Mental and Physical Health
- Senior Care
- Intellectual and Physical Disabilities

The Steering Committee members and consulting team made significant efforts to ensure that the entire primary service territory, all socio-demographic groups and all underrepresented populations were included in the study to the extent possible given the resource constraints of the project. This was accomplished by identifying focus groups and key stakeholders that represented various subgroups in the community. In addition, the process included public health participation and input, through extensive use of West Virginia and Centers for Disease Control data and public health department participation in the stakeholder interview process.

The secondary data collection process included:

- Demographic and socioeconomic data obtained from Nielsen/Claritas (www.claritas.com) and the US Census Bureau (www.census.gov).
- Disease incidence and prevalence data obtained from the West Virginia Department of Health and West Virginia Vital Statistics.
- The Centers for Disease Control and Prevention (CDC) conducts an extensive Behavioral Risk Factor Surveillance Survey (BRFSS) each year. The BRFSS survey is conducted by telephone and includes questions regarding health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. The health related indicators included in this report for the US in 2010 are BRFSS data collected by the CDC. The health related indicators included in this report for West Virginia are BRFSS data collected by the CDC. CDC: <http://www.cdc.gov/brfss/>).
- BRFSS Data are for a five-year summary period, the 2006 report includes data from 2002-2006, the 2007-2008 report includes data from 2004-2008, and the 2009-2010 report includes data from 2006-2010; participants were adults over the age of 18; data from Pleasants, Tyler, and Wetzel Counties are combined due to small sample sizes.
- CDC Chronic Disease Calculator, available at <http://cdc.gov/chronicdisease/resources/calculator/index.htm>.
- In 1979, the Surgeon General began a program to set goals for a healthier nation. Since then, Healthy People have set 10 year science-based objectives for the purpose of moving the nation toward better health. Available Healthy People 2020 goals are included in this report (<http://www.healthypeople.gov/2020/default.aspx>).
- County Health Rankings, A collaboration of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, www.countyhealthrankings.org.
- A variety of other reports and publications were utilized for selected data, as noted in the individual sections of the report.

The primary data collection process included:

- A total of 16 individual stakeholder interviews were conducted by members of the Northwood Health Systems staff to gather a personal perspective from those who have insight into the health of a specific population group or issue, the community or the region.

- A total of 3 focus group sessions were conducted including 25 participants to gather information directly from various groups that represent a particular interest group or area. Two of the focus groups were facilitated by members of the Northwood Health Systems Staff and the third focus group was facilitated by Debra Thompson, President of Strategy Solutions, Inc.

Focus Groups

In an effort to obtain in-depth feedback related to what community leaders and residents feel are the biggest challenges and assets in the community a series of focus groups were conducted. The goal was to obtain a broad and diverse picture of health care, health-related behaviors, needs and issues that have an impact on the residents of the Northwood Health Systems Service Area. A total of 3 focus groups were completed over the course of the study with various groups. **Table 3** identifies the focus groups and number of participants in each group.

Table 3: Focus Group Participants

Attendees	Organization	Participants	Date
9	NAMI Wheeling	Consumers/Family Members	3/26/2013
10	Northern Panhandle Continuum of Care	Ohio County Public Library WV Dept. of Health & Human Resources Catholic Charities Neighborhood Center Northern Panhandle Head Start Ohio County Health Department Change, Inc. Greater Wheeling Coalition for the Homeless Wheeling YWCA Youth Services Systems National Alliance for the Mentally Ill	4/16/2013
5	Northwood Health Systems	Clinical Managers and Administrators	4/20/2013

Key Stakeholder Interviews

In an effort to obtain in-depth input related to what community leaders feel are the biggest challenges and assets in the community key stakeholder interviews were conducted with selected individuals that represented key topic areas, issues or interests. The goal was to obtain a broad and diverse picture of health care, health-related behaviors and issues that have an impact on the residents of the service area region. A copy of the interview guide is included in **Appendix A. Table 4** outlines the individual stakeholders who participated in interviews.

Table 4. Stakeholder Interview Participants

Participant	Representing	Perspective	Date
Leah Stout	Ohio County Schools	Director of Special Education	3/15/2013
Debby Novotny	Wetzel County Schools	Director of Special Education	3/18/2013
Shelby Haines	Marshall County Schools	Director of Special Education	3/18/2013
John Moses	Youth Services Systems	Chief Executive Officer	3/15/2013
Kathie Brown	Wheeling Health Right	Executive Director	3/15/2013
George Smoulder	United Way of the Upper Ohio Valley	Executive Director	3/18/2013
Janine Pietras	Salvation Army Wheeling	Social Worker	3/14/2013
Becky Rodocker	Soup Kitchen of Greater Wheeling	Executive Director	3/18/2013
Carolyn Domingez	YWCA	Social Worker	3/25/2013
Kathy Shappel	Augusta Levy	Executive Director	3/25/2013
Jane Ketcham	REM Community Options	Executive Director	3/25/2013
Carrie Casto	WV DHHR Ohio County	Social Worker	3/18/2013
Ronda Francis	Marshall County Health Dept	Administrator	3/25/2013
Howard Gamble	Ohio County Health Department	Administrator	3/14/2013
Janna Torgerson	Salvation Army Moundsville	Captain	3/22/2013
Rick Buckelew	Ohio Valley Medical Center	Director of Behavioral Health	3/15/2013

Needs/Issues Prioritization Process

On April 20, 2013 the Steering Committee met to review all of the primary and secondary data collected through the needs assessment process and to discuss the key needs and issues that they felt were present in the community. During that meeting, the Steering Committee prioritized the needs and issues in order to identify potential intervention strategies and an action plan. The meeting was facilitated by Debra Thompson, President of Strategy Solutions, Inc., who conducted the prioritization exercise using the OptionFinder audience response polling technology. The OptionFinder technology was used to allow participants to easily rate and rank the needs based on the selected criteria. In preparation for the meeting the group identified criteria by which the issues would be evaluated. These criteria included:

Item	Definition	Scoring		
		Low (1)	Medium	High (10)
1. Accountable Organization	The extent to which the issue is an important priority to address in this action planning effort for either the health system or the community	This is an important priority for the community to address	This is important but is not for this action planning effort	This is an important priority for the health system(s)
2. Magnitude of the problem	The degree to which the problem leads to death, disability or impaired quality of life and/or could be an epidemic based on the rate or % of population that is impacted by the issue	Low numbers of people affected; no risk for epidemic	Moderate numbers/ % of people affected and/or moderate risk	High numbers/ % of people affected and/or risk for epidemic
3. Capacity (systems and resources) to implement evidence based solutions	This would include the capacity to and ease of implementing evidence based solutions	There is little or no capacity (systems and resources) to implement evidence based solutions	Some capacity (system and resources) exist to implement evidence based solutions	There is solid capacity (system and resources) to implement evidence based solutions in this area



Action Planning Process

Following the prioritization session, the Northwood Health Systems staff involved in the CHNA process met to discuss the top priorities and identify possible intervention strategies and action plans. The top 4-5 priority need areas were discussed to identify the greatest needs to the hospital's mission, current capabilities and focus areas. Following the prioritization session, the members of the Steering Committee met to identify the key areas that will be the focus of intervention action plans. Following this discussion, clinical and administrative leaders developed an action plan along with the timeframe and budget associated with the activities.

Review and Approval

The final implementation action plan was approved by the Northwood Health Systems Board of Directors on June 20, 2013.

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Demographics and Assets



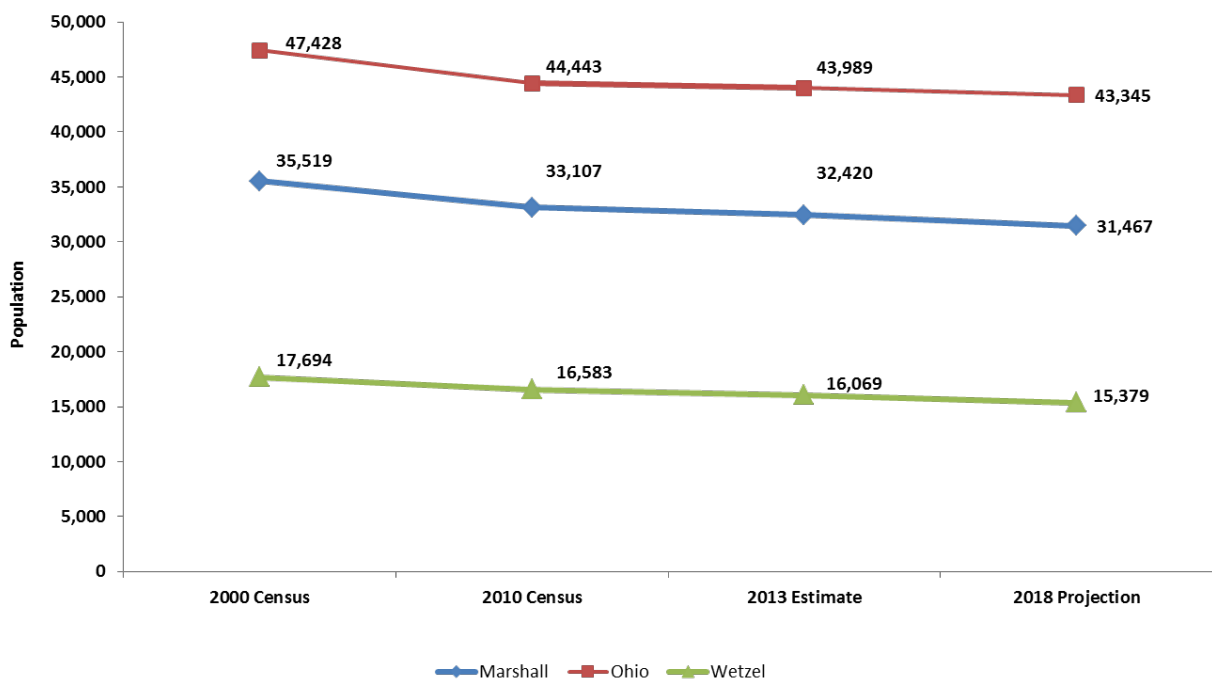
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Demographics

For purposes of this assessment, the geographic scope of this study (also referred to as the service area, community and/or region) is defined as Marshall, Ohio and Wetzel counties. The overall population of this area as of the 2010 Census is 94,133.

Figure 3 illustrates the Population Trend in Marshall, Ohio and Wetzel Counties from the 2000 and 2010 Census, as well as a 2013 estimate and 2018 Projection. The population of all three counties has declined over the past 10 years and is expected to continue to decline over the next few years.

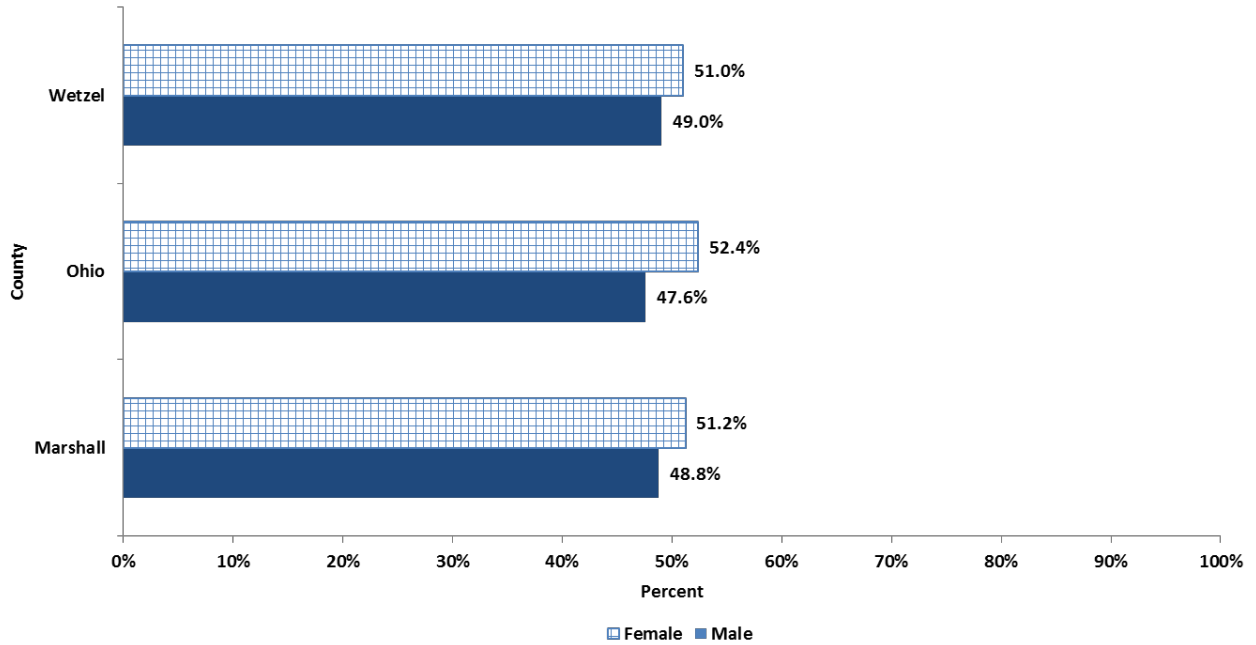
Figure 3. Population Trend



Source: Nielsen/Claritas

Figure 4 illustrates Wetzel, Ohio and Marshall County's Population by Gender. All three Counties have a higher Female Population than male; Wetzel (51.0%), Ohio (52.4%) and Marshall County (51.2%).

Figure 4. Service Area by Gender



Source: Nielsen/Claritas

Figure 5 illustrates the Service Area Population by Age. The highest percentage of residents in Marshall County (36.4%), Ohio County (34.8%) and Wetzel County (35.9%) and are between the ages of 25-54, while the lowest percentage of residents fall in the over 85 age range in all three counties.

Figure 5. Service Area by Age

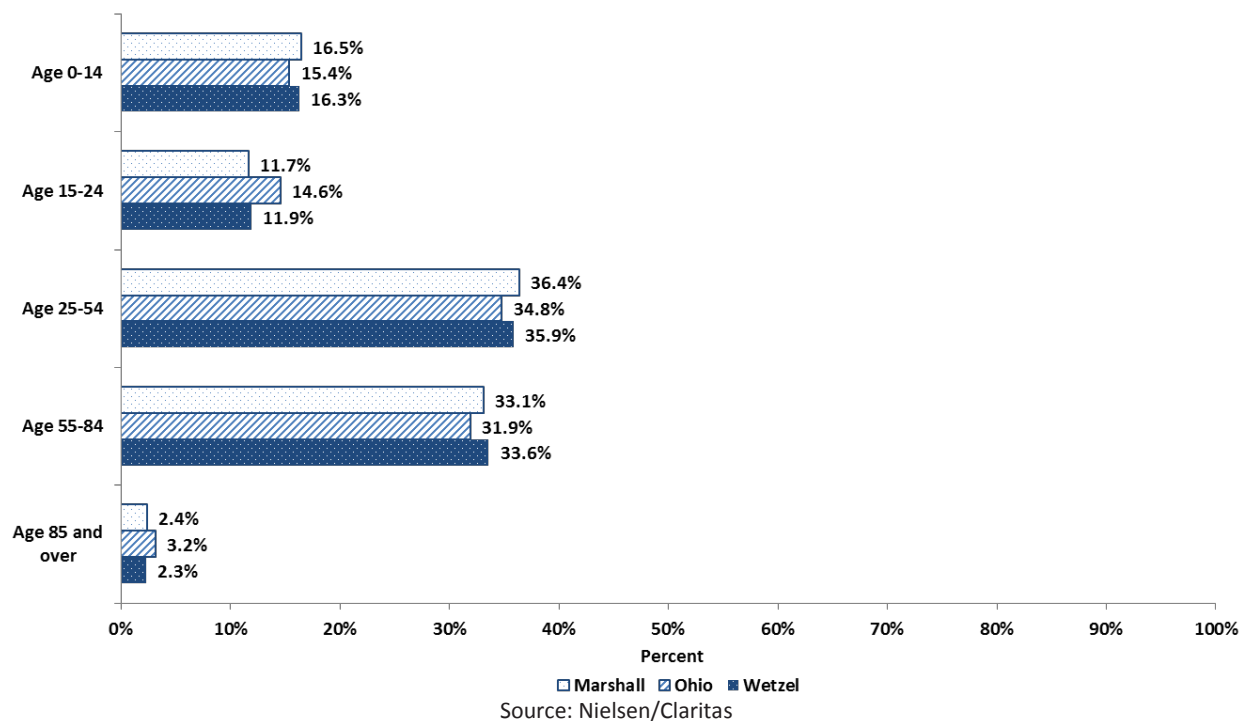
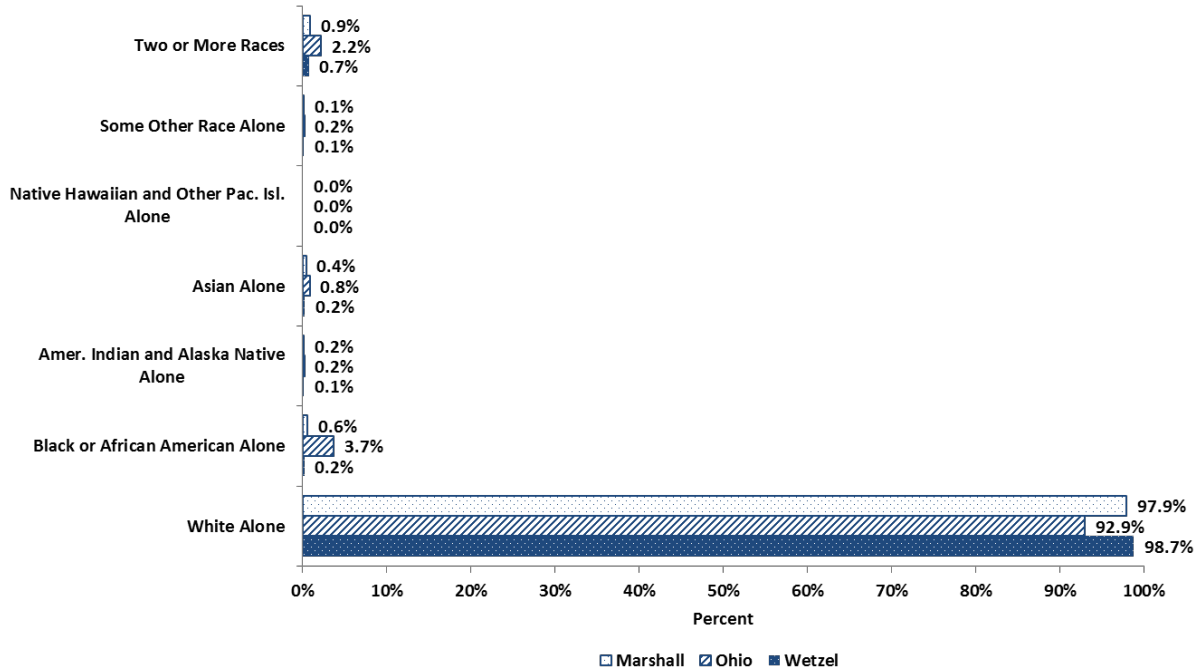


Figure 6 illustrates the Service Area Population by Race. The majority of the population in Marshall (97.9%), Ohio (92.9%) and Wetzel (98.7%) Counties are White Alone.

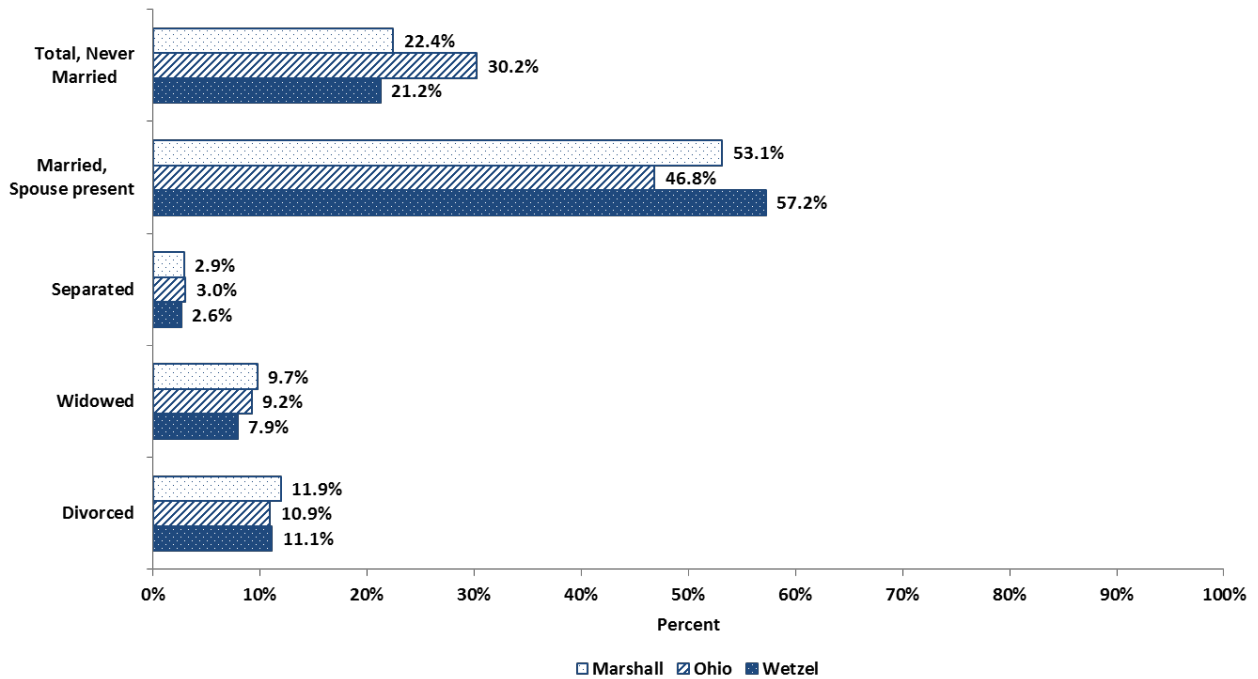
Figure 6. Service Area by Race



Source: Nielsen/Claritas

Figure 7 illustrates the Service Area Population by Marital Status. The majority of residents in Wetzel (57.2%) and Marshall (53.1%) counties are Married with Spouse Present. The highest percentage (46.8%) of residents that reside in Ohio County are Married with Spouse Present.

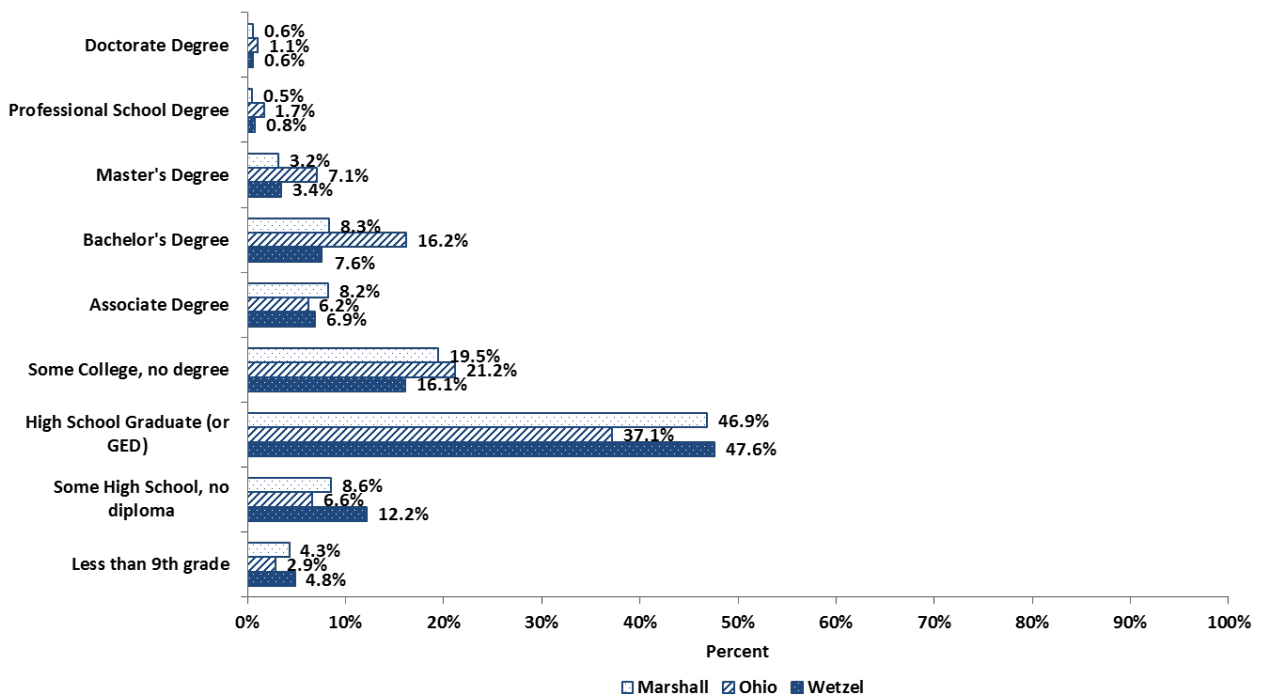
Figure 7. Service Area by Marital Status



Source: Nielsen/Claritas

Figure 8 illustrates Service Area by Education Level. The highest percentage of residents in Marshall County (46.9%), Ohio County (37.1%), and Wetzel County (47.6%) are a High School Graduate or have obtained their GED.

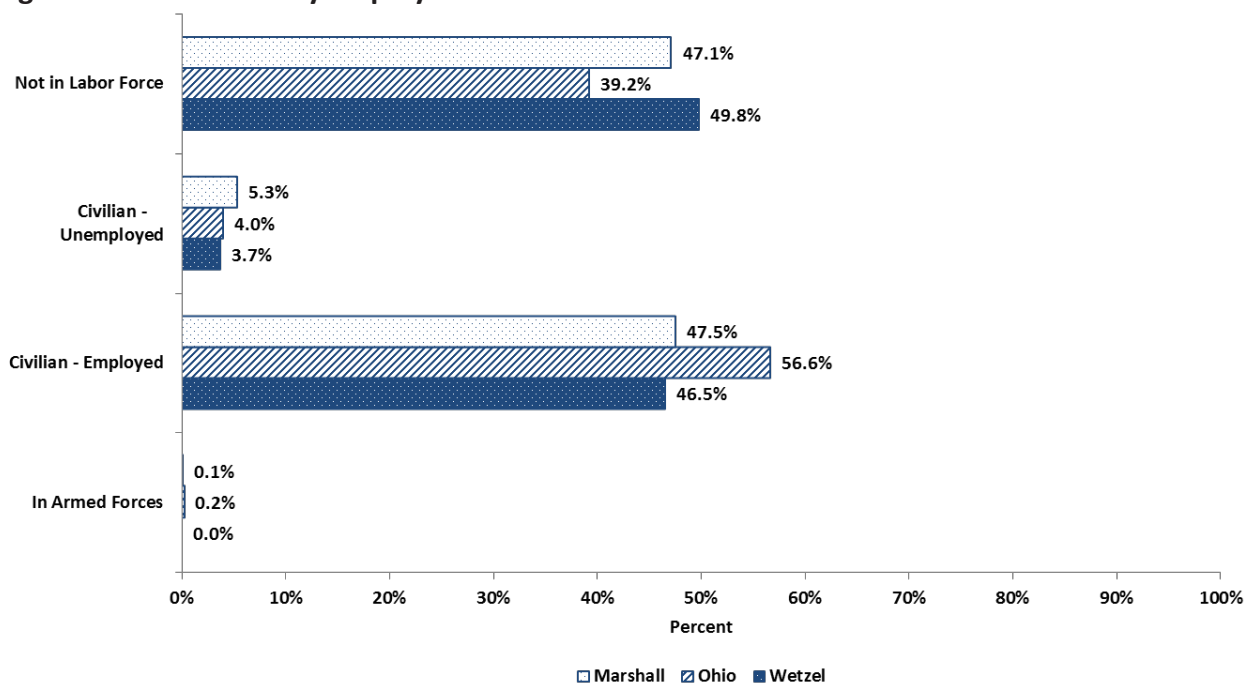
Figure 8. Service Area by Education



Source: Nielsen/Claritas

Figure 9 illustrates Service Area Population by Employment. The majority of residents in Ohio County are Civilian, Employed with 56.6% of residents in the Workforce. The highest percentage of residents in Marshall County are Civilian Employed, with 47.5% of residents in the Workforce, while 49.8% of residents in Wetzel County are Not in Labor Force.

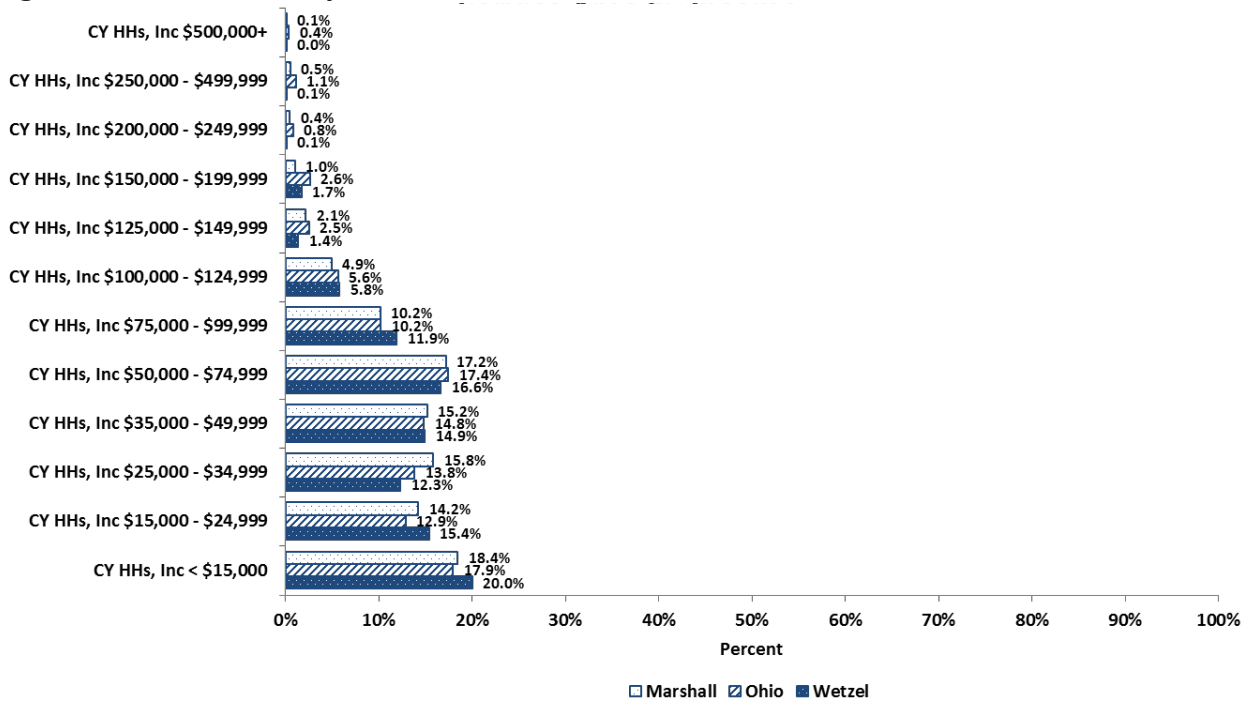
Figure 9. Service Area by Employment



Source: Nielsen/Claritas

Figure 10 illustrates Service Area Population by Income. The highest percentage of residents in Marshall County (18.4%), Ohio County (17.9%), and Wetzel County (20.0%) make less than \$15,000 a year.

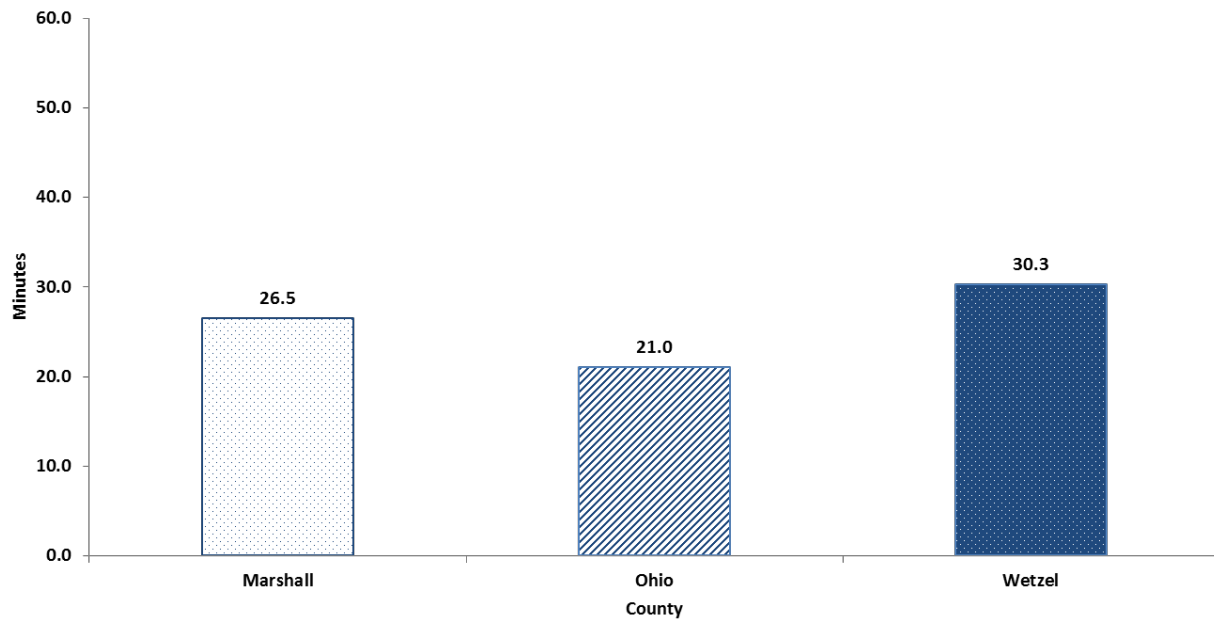
Figure 10. Service Area by Income



Source: Nielsen/Claritas

Figure 11 illustrates the Travel Time to Work by residents in Marshall, Ohio and Wetzel Counties. The average time it takes residents to get to work in Marshall is 26.5 minutes, while it takes residents in Ohio County an average of 21.0 minutes. Wetzel County residents commute an average of 30.3 minutes to work daily.

Figure 11. Service Area Average Travel Time to Work (In Minutes)



Source: Nielsen/Claritas

Demographic Conclusions

There are a number of observations and conclusions that can be derived from the data related Demographics. They include:

- From the 2000 to 2010 census the population of the service area decreased slightly with the 2018 projection showing that trend continuing.
- The service area has slightly more females than males.
- The majority of the population of the service area is between the ages of 25-54.
- The service area is predominately white non-Hispanic.
- The majority of the service area is married and living with their spouse.
- The majority of the service area has at least a high school education.
- In the service area, the percentage of people employed is about equal to the percentage not in the labor force.
- Income statistics show that the service area is low to middle class.
- The average service area travel time to work is 30 minutes or less.

Community Assets

The map below in **Figure 12** identifies an inventory of community assets and resources for the Northwood Health System service area that the Community Health Needs Assessment Steering Committee identified as important to the health of the community. The community assets are categorized into several areas including: hospitals, youth services, medical centers, homeless services, food services, family services, community services, and autism services. The full listing of assets and resources are included in **Table 5**.

Figure 12. Map of Northwood Health System Community Assets



Table 5. Northwood Health System Community Assets

Community Clinic	Address	City	State	Zip
Wheeling Health Right	61 29th Street	Wheeling	WV	26003
Community Services	Address	City	State	Zip
Family Services of the Upper Ohio Valley	51 11th Street #350	Wheeling	WV	26003
United Way of Upper Ohio Valley	51 11th Street #321	Wheeling	WV	26003
YWCA of Wheeling	1100 Chapline Street	Wheeling	WV	26003
Food Services	Address	City	State	Zip
Greater Wheeling Soup Kitchen	1610 Eoff Street	Wheeling	WV	26003
Homeless Services	Address	City	State	Zip
Homeless Coalition	84 15th Street	Wheeling	WV	26003
Hospital	Address	City	State	Zip
Bellaire City Hospital	4697 Harrison Street	Bellaire	OH	43906
East Ohio Regional Hospital	99 North 4th Street	Martins Ferry	OH	43935
Ohio Valley Medical Center	2000 Eoff Street	Wheeling	WV	26003
Reynolds Memorial Hospital	800 Wheeling Avenue	Glen Dale	WV	26038
Wetzel County Hospital	3 East Benjamin Drive	New Martinsville	WV	26155
Wheeling Hospital	1 Medical Park	Wheeling	WV	26003
Intellectual Disability Services	Address	City	State	Zip
ARC of Ohio County	439 Warwood Avenue	Wheeling	WV	26003
Augusta Levy Learning Center	99 Main Street	Wheeling	WV	26003
Easter Seals	1305 National Rd	Wheeling	WV	26003
REM Community Options	748 McMechen Street	Benwood	WV	26031
Russell Nesbitt Services	519 Fulton Street	Wheeling	WV	26003
Substance Abuse	Address	City	State	Zip
Miracles Happen	201 Edgington Lane	Wheeling	WV	26003
Youth Services	Address	City	State	Zip
Youth Services Systems	1000 Chapline Street	Wheeling	WV	26003

Access



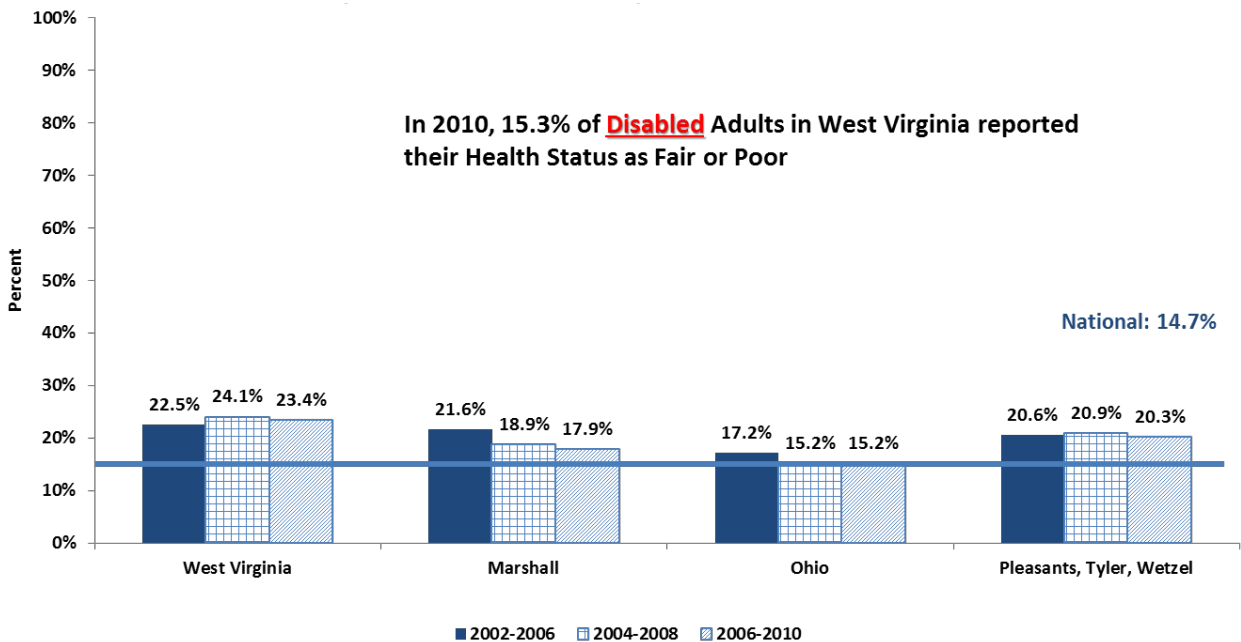
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Access

Access to comprehensive, quality healthcare is important for the achievement of health equity and for increasing the quality of life for everyone in the community.

Figure 13 illustrates the percentage of adults who reported their health as fair or poor by county within the service region from 2002-2010. Marshall and Ohio counties have reported a decline of residents with fair or poor health, while Pleasants, Tyler and Wetzel counties have stayed consistent. All service areas experienced a lower percentage of residents, with fair or poor health, than West Virginia from 2002-2010. West Virginia and the service area of Marshall, Ohio, Pleasants, Tyler and Wetzel counties all exceeded the National rate of 14.7%.

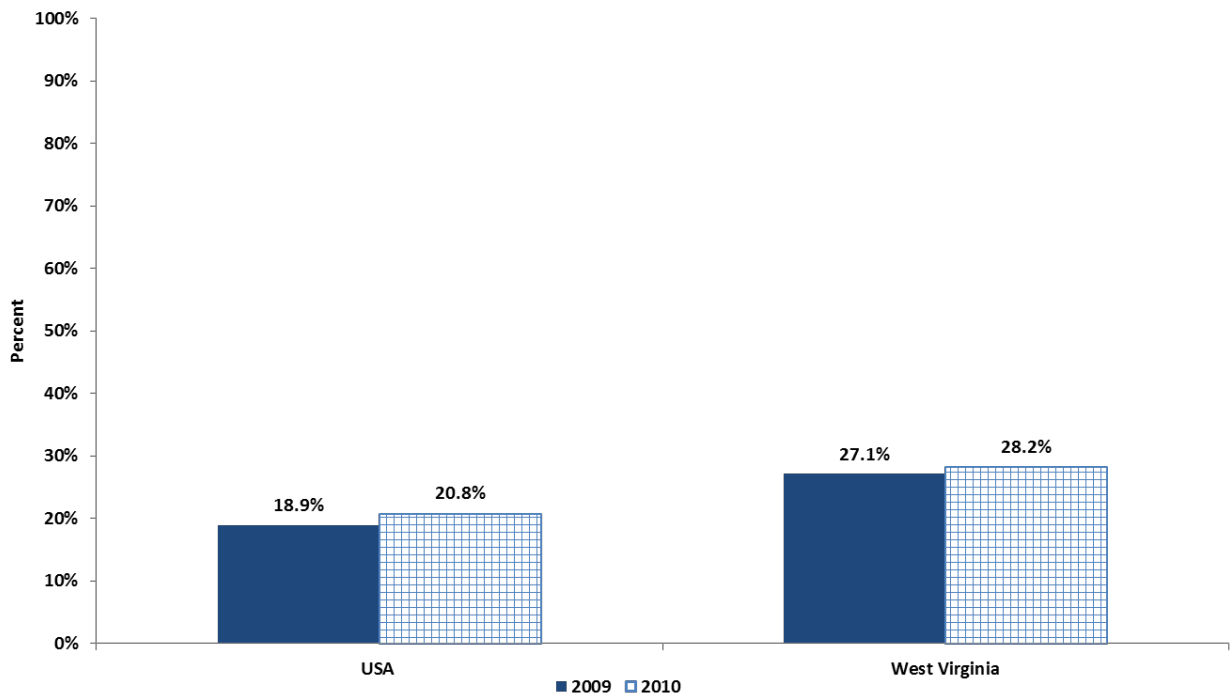
Figure 13. Percentage of Adults Who Reported Their Health as Fair or Poor



Source: West Virginia Behavioral Risk Factor Survey Report, Centers for Disease Control

Figure 14 illustrates the percentage of adults limited in activity due to physical, mental or emotional problems in the United States and West Virginia from 2009-2010. Residents in West Virginia were more limited in activities than residents in the United States with 27.1% of residents in 2009 and 28.2% of residents in 2010, while only 18.9% of the residents in the United States in 2009 and 20.8% in 2010 were limited in activities due to physical, mental or emotional problems.

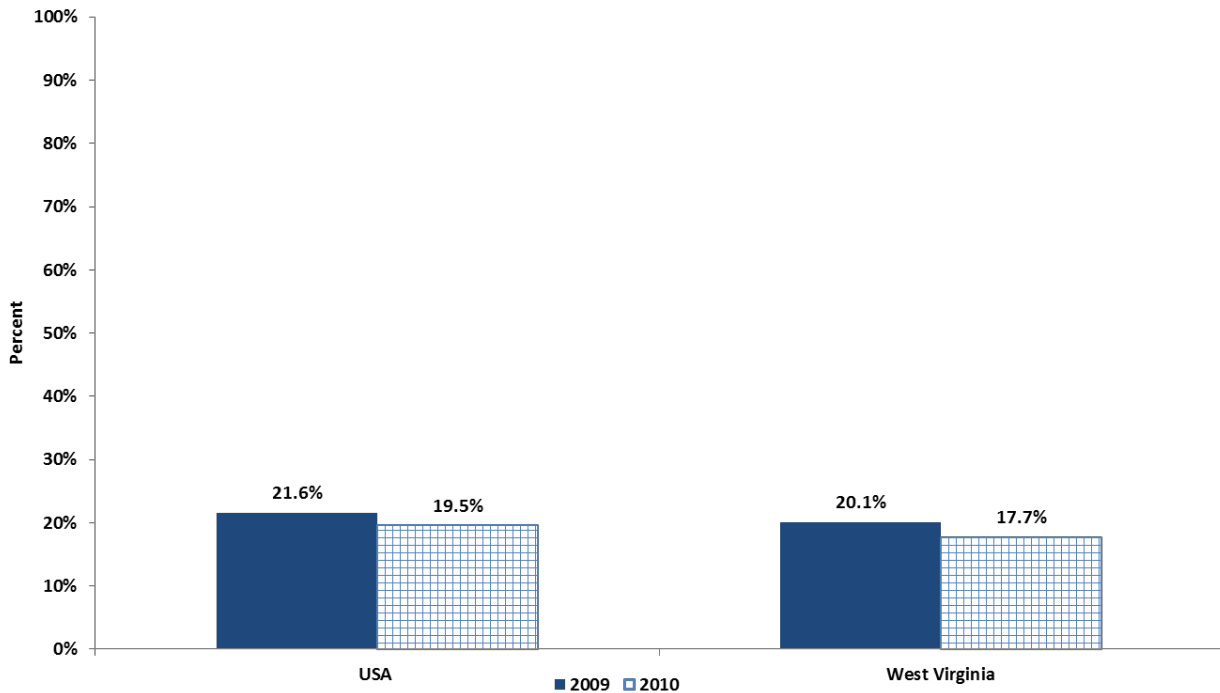
Figure 14. Percentage of Adults Limited in Any Activity Due to Physical, Mental, or Emotional Problems



Source: West Virginia Behavioral Risk Factor Survey Report

Figure 15 illustrates the percentage of adults who rarely or never get the social or emotional support they need in the United States and West Virginia from 2009-2010. West Virginia has a lower percentage of adults who rarely or never get the social or emotional support they need when compared to the United States. West Virginia and the United States both saw a decrease in residents who felt they did not receive the support they need in 2012, with residents in the United States dropping from 21.6% to 19.5% and residents in West Virginia dropping from 20.1% to 17.7%.

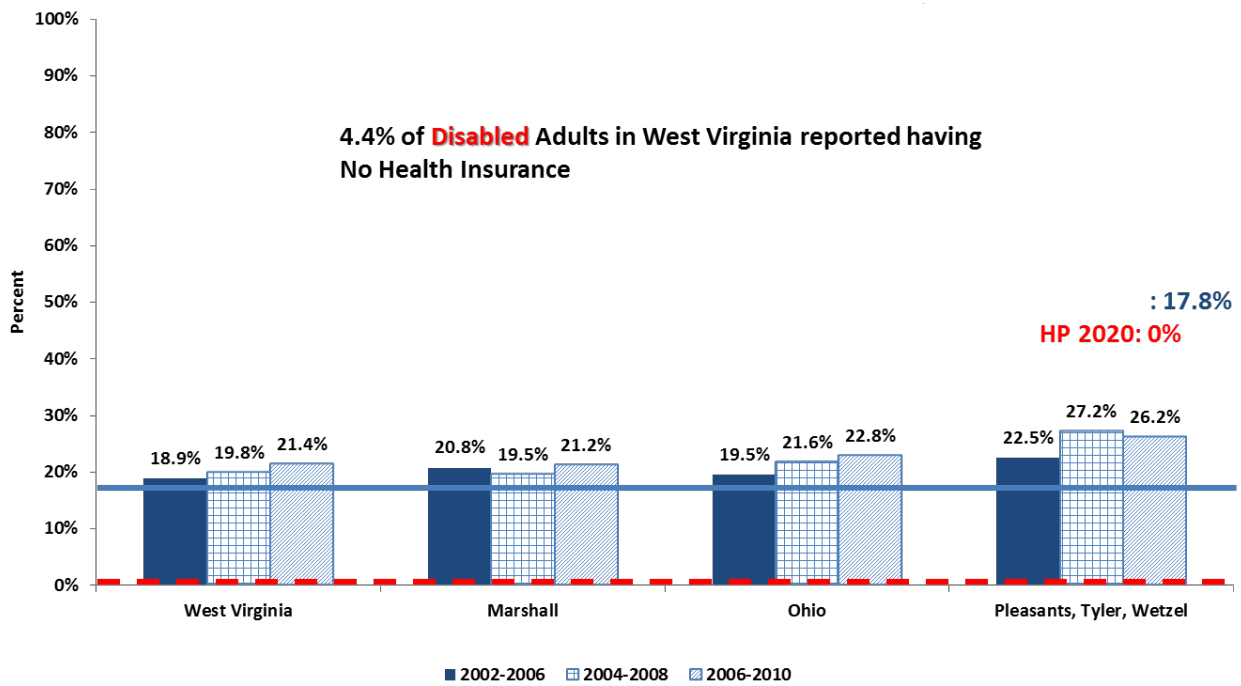
Figure 15. Percentage of Adults Who Rarely or Never Get the Social or Emotional Support They Need



Source: West Virginia Behavioral Risk Factor Survey Report

Figure 16 illustrates the percentage of adults with no health insurance who were age 18-64 from 2002-2010. All service area counties as well as West Virginia, saw an increase of residents with no health insurance over the years. Marshall, Ohio, Pleasants, Tyler and Wetzel counties had a higher percentage of residents than West Virginia with no health insurance, while 4.4% of disabled adults in West Virginia reported having no health insurance. West Virginia and the service area of Marshall, Ohio, Pleasants, Tyler and Wetzel counties all exceeded the Healthy People 2020 Goal.

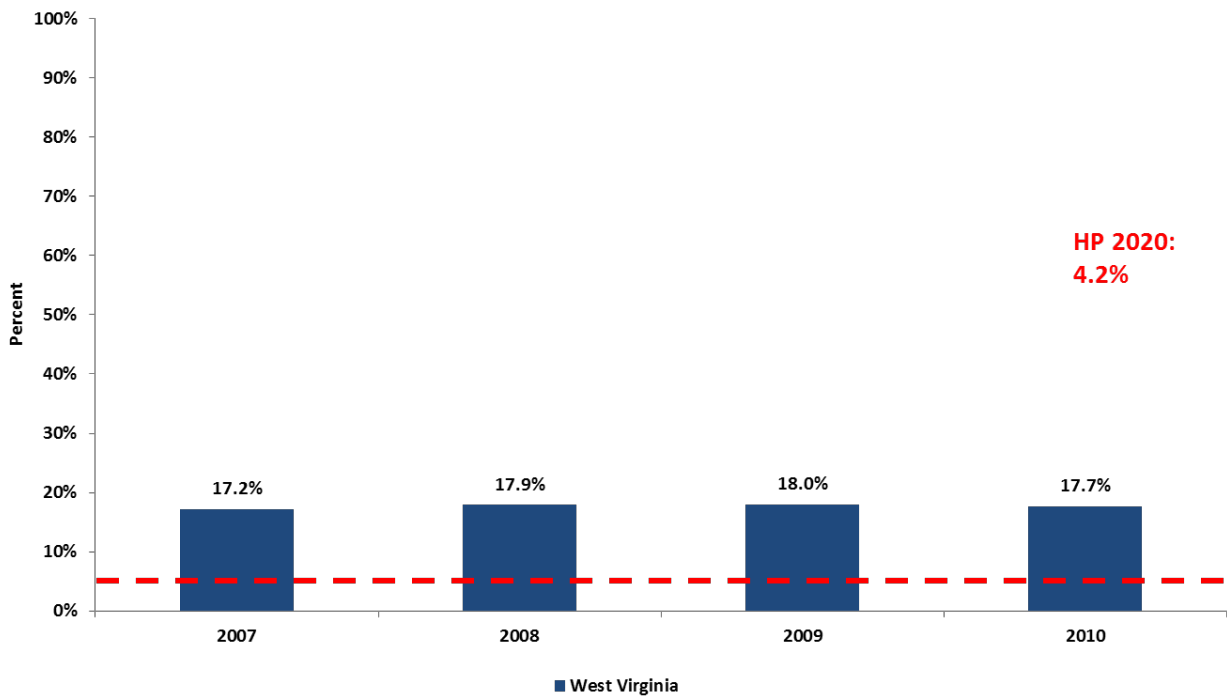
Figure 16. Percentage of Adults with No Health Insurance, Ages 18-64



Source: West Virginia Behavioral Risk Factor Survey Report, Centers for Disease Control, www.healthypeople.gov

Figure 17 illustrates the percentage of adults who needed to see a doctor in the past year, but could not due to cost from 2007-2010 in West Virginia. The highest percentage of residents who needed to see a doctor in the past year but could not due to cost occurred in 2009 with 18.0% a steady rise since 2007, when 17.2% did not see a doctor due to cost. From 2007-2010, West Virginia was above the Healthy People 2020 Goal of 4.2%.

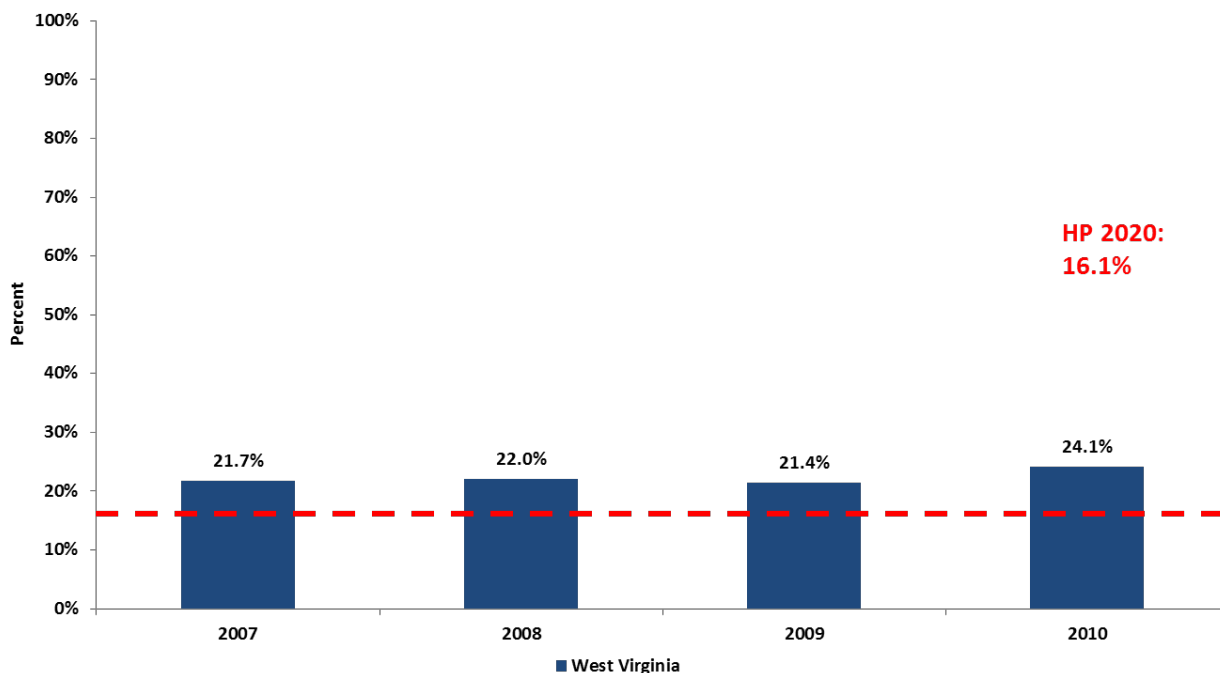
Figure 17. Percentage of Adults Who Needed to See a Doctor in the Past Year but Could Not Due to Cost



Source: West Virginia Behavioral Risk Factor Survey Report, www.healthypeople.gov

Figure 18 illustrates the percentage of adults with no health care provider, residing in West Virginia from 2007-2010. The highest percentage of residents with no health care provider occurred in 2010 with 24.1% a steady rise since 2007, when 21.7% did not have a health care provider. From 2007-2010, West Virginia was above the Healthy People 2020 Goal of 16.1%.

Figure 18. Percentage of Adults with No Health Care Provider



Source: West Virginia Behavioral Risk Factor Survey Report

Table 6 illustrates federal shortage designations in Marshall, Ohio and Wetzel counties in 2001. Marshall, Ohio, and Wetzel Counties are all designated as medically underserved areas. Wetzel County is a designated shortage area for Primary Care, Dental and Mental Health Services. Marshall County is also designated as a Primary Care shortage area.

Table 6. Federal Shortage Designations 2011

Federal Shortage Designations			
2011			
	Marshall County	Ohio County	Wetzel County
Primary Care	Yes	No	Yes
Dental	No	No	Yes
Mental Health	No	No	Yes
Medically Underserved Area/Population	Yes	Yes	Yes

Source: 2012 Wheeling West Virginia Community Health Needs Assessment

Table 7 illustrates Physician need in Psychiatry.

Table 7. Physician Need – Psychiatry

Goodman		Hicks & Glenn		Solucient	
Ratio	FTES	Ratio	FTES	Ratio	FTES
7.2	19.4	3.9	10.5	5.7	15.3

Source: 2012 Wheeling West Virginia Community Health Needs Assessment

Table 8 illustrates the Northwood program utilization for the Crisis Stabilization Unit, Psychiatric/ Medication Management and Residential Group Home program. Utilization of these programs has increased over the past 5 years.

Table 8. Northwood Program Utilization

	Crisis Stabilization Unit	Psychiatric/ Medication Management	Residential Group Home
	FY 2010	FY 2010	FY 2010
MH Only	208	970	7
MH and MRDD	30	205	2
MH and SA	361	573	3
MH/SA/MRDD	4	8	-
MRDD Only	-	20	-
SA Only	10	1	-
Other - Nursing Home Clients	-	121	-
Grand Total	613	1,898	12
	FY 2011	FY 2011	FY 2011
MH Only	267	1,153	8
MH and MRDD	11	209	6
MH and SA	483	689	2
MH/SA/MRDD	6	6	-
MRDD Only	5	19	-
SA Only	14	-	-
Other - Nursing Home Clients	-	137	-
Grand Total	786	2,213	16
	FY 2012	FY 2012	FY 2012
MH Only	232	1172	8
MH and MRDD	11	214	1
MH and SA	483	695	4
MH/SA/MRDD	5	6	-
MRDD Only	11	17	-
SA Only	3	2	-
Other - Nursing Home Clients	-	129	-
Grand Total	745	2,235	13

Source: Northwood Health System

Table 9 illustrates Northwood program utilization for the Psychologist, Therapy and Other Outpatient Programs. Utilization of these programs has increased over the past three years.

Table 9. Northwood Program Utilization

	Psychologist	Therapy	Other Outpatient (TCM,IOP,CFT)
	FY 2010	FY 2010	FY 2010
MH Only	831	369	1,144
MH and MRDD	159	17	158
MH and SA	601	172	658
MH/SA/MRDD	8	2	8
MRDD Only	61	1	17
SA Only	4	-	3
Other	9	1	9
Grand Total	1,673	562	1,997
	FY 2011	FY 2011	FY 2011
MH Only	1,005	572	1,253
MH and MRDD	169	23	153
MH and SA	707	341	732
MH/SA/MRDD	7	2	8
MRDD Only	72	1	22
SA Only	12	1	7
Other	12	1	4
Grand Total	1,984	941	2,179
	FY 2012	FY 2012	FY 2012
MH Only	1039	601	1257
MH and MRDD	154	21	160
MH and SA	717	374	732
MH/SA/MRDD	7	5	7
MRDD Only	54	2	21
SA Only	7	4	3
Other	5	2	-
Grand Total	1,983	1,009	2,180

Source: Northwood Health System

Focus Group Input

Focus group participants had a great deal of discussion related to access to care and services in the region. Providers who participated in the focus groups noted that actual services are limited in the region, and consumers are often unaware of the services that are available. Even though some resources are available, accessing those services is often confusing for older persons and individuals with mental illness. Communication between and among service providers is a challenge, even for those services that do exist in the community, as providers also struggle with a lack of knowledge regarding what is available in the community. Even though there is a central resource number to call for information regarding how to access the system, many are unaware of its existence. The need for increased access to physicians, especially psychiatrists was noted. Transportation and housing were also identified as needs. The Northwood provider group indicated that there is a lack of transition services for young adults with disabilities.

Comments included:

- There is very little available in terms of inpatient treatment for mental illness.
- There is an increased need for community organizations to get involved in the overall health of the community, particularly mental health.
- The stigma associated with mental health is a barrier to change.
- There is an increased need for stable housing for the mentally ill.
- There is a lack of knowledge of available treatment and services.
- There is a need for better communication between service providers.
- There is an increased need for access to physicians/psychiatrists.
- There is a need for increased assistance with transportation.
- There is one telephone number for individuals to call (a central resource) where someone will be available to guide consumers through the maze of services that are potentially available (but people are not aware that it exists).
- Knowing where and how to get help and needed services is confusing, especially for older or mentally ill persons.
- There are not enough adequate transition services for young people with disabilities.

Stakeholder Interview Input

Stakeholders participating in the interviews also noted a number of challenges and needs associated with access to care. Lack of awareness of programs and services and education about the services that are available and the need for them become barriers to care for some, while the demand for and lack of adequate providers in certain areas prevent others from receiving the care they need. Stakeholders mentioned the need for increasing in-home counseling services, individual and group outpatient therapy, and access to appropriate medications as well as the need to integrate physical and mental health services in physician offices. Housing and transportation were also noted as needs along with the travel distance to available services that becomes a barrier for some to access services. Several participants noted the need for long term support for vocational activities as a need as well. The themes from the individual comments included:

- An increase in home counseling services
- Step down programs when coming out of state hospitals
- Access to individual and group therapy
- Long term support for vocational activities
- More personnel with psychiatric experience in schools
- Parent awareness/education about mental illness
- Not much access to transportation services out of the city limits
- Parents unwillingness to travel to get the needed services for their children
- Lack of insurance for mental illness
- Increased treatment programs for women
- Information and Referral (More education)
- Access to the proper medications
- Increased education about mental illness
- Better interaction between the health departments and behavioral health
- Need to focus on vocational programs to help those coming out of hospitalization to learn the skills they need to get jobs
- More shelters to work directly with the mentally ill and more assisted living housing
- Need to include mental health in the primary health care setting so the patients only need to attend 1 appointment instead of several

Access Conclusions

There are a number of observations and conclusions that can be derived from the data related to Access to care. They include:

- Between 2002 and 2010, the percentage of adults in the service area that reported their health status as fair or poor ranged between 15% and 22%. The rates in Marshall and Wetzel counties were comparable to the state rates over time, although Ohio County's rates have historically been lower. Marshall's rate has also been declining over the past 10 years. All counties are above the national rate of 14.7%. However, only 15.3% of disabled persons rated their health status as fair or poor across the state in 2010.
- Between 2009 and 2010, the percentage of adults in West Virginia limited in activity due to physical, mental or emotional problems (28.2%) was higher than the national rate (20.8%).
- The percentage of adults who rarely or never get the social or emotional support they need in West Virginia (17.7%) is slightly lower than the national rate (19.5%).
- The percentage of adults in the service region without health insurance ranges between 19% and 26%, and has been increasing over the last few years. Wetzel has slightly higher rates than Marshall and Ohio counties, which are comparable to the state. All counties are above the national rate of 17.8% and the Healthy People 2020 Goal of 0%.
- In West Virginia between 2007 and 2010, the percentage of adults who needed to see a doctor but could not due to cost ranged between 17%-18%, which is higher than the Healthy People 2020 Goal (4.2%), while the percentage with no health care provider ranged between 21% and 24%, which is above the Healthy People 2020 Goal of 16.1%.
- Marshall, Ohio, and Wetzel Counties are all designated as medically underserved areas. Wetzel County is a designated shortage area for Primary Care, Dental and Mental Health Services. Marshall County is also designated as a Primary Care shortage area.
- The 2012 Wheeling Hospital Community Health Needs Assessment identified a greater need for psychiatric services in the area.
- Over the last 3 years, demand for Northwood services has increased for psychiatric/medication management, psychologists, therapy and other outpatient (TCM, IOP, CFT) services.
- Focus group participants noted that access to services is a challenge, as many in the community (both providers and consumers) are not aware of the resources that are available. Limited outpatient mental health services exist along with the

need for more psychiatrists and other mental health professionals, and housing and transportation needs.

- Stakeholder interview comments echoed the needs identified in the focus groups. Lack of awareness of programs and services and education about the services that are available as well as lack of adequate providers in certain areas are barriers to care.
- Stakeholders identified the need for increasing in-home counseling services, individual and group outpatient therapy, and access to appropriate medications as well as the need to integrate physical and mental health services in physician offices. Housing and transportation were also noted as needs along with the travel distance to available services that become a barrier for some to access services. Several participants noted the need for long term support for vocational activities as well.

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Chronic/Serious Mental Health



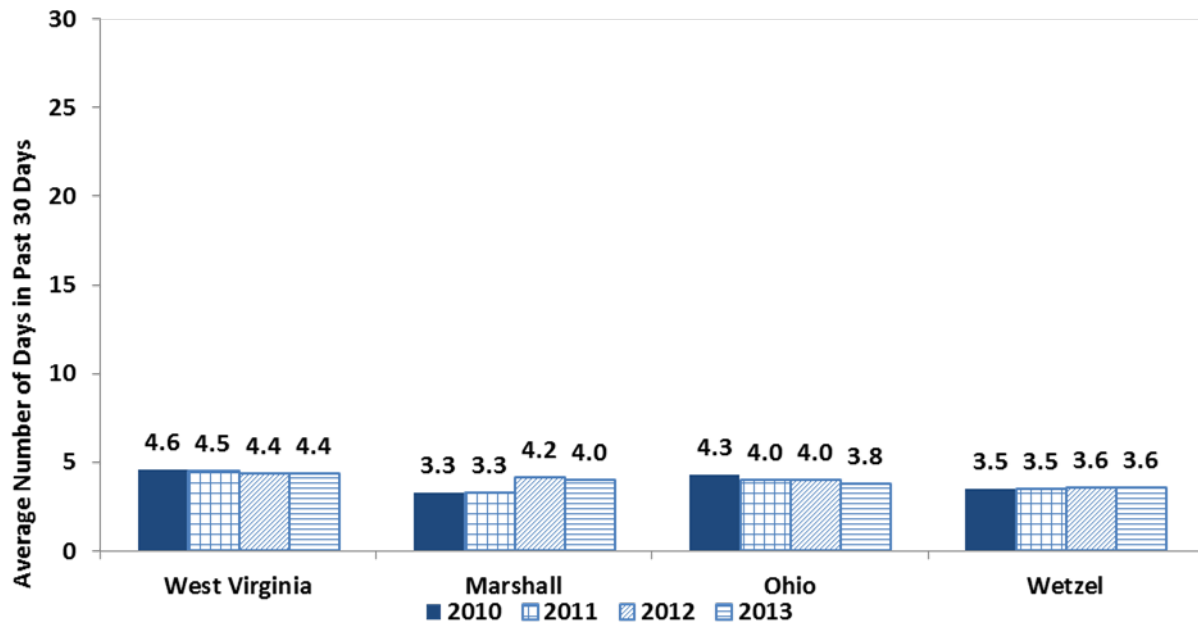
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Chronic/Serious Mental Health

Conditions that are long-lasting, relapse, and are characterized by remission and continued persistence are categorized as chronic diseases. Mental Health refers to a broad array of activities directly or indirectly related to the mental well-being component included in the World Health Organization's definition of health: "A state of complete physical, mental and social well-being, and not merely the absence of disease." Mental health is related to the promotion of well-being, the prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders.

Figure 19 illustrates the number of adults who reported poor mental health in the past 30 days who resided in West Virginia and the service area from 2010 to 2013. Marshall county residents experienced an increase in days of poor mental health ranging from 3.3 in 2010 to 4.0 in 2013, however this was still lower than the average number of poor mental health days reported for the state overall. Residents in Ohio County reported a decrease in the number of poor mental health days, going from 4.3 average days in 2010 to 3.8 days in 2013. Wetzel County residents have reported consistent number of days from 3.5 in 2010 to 3.6 in 2013, a slight increase while still lower than the average number of poor mental health days for the state as a whole.

Figure 19. Number of Adults Who Reported Poor Mental Health (Average Number in the Past 30 Days)



Source: www.countyhealthrankings.org

According to National Association for the Mentally Ill (NAMI) 2010 West Virginia state statistics, mental illness is a serious issue in West Virginia. A sizable number of adults and children live with serious mental illness.

- Of West Virginia's approximately 1.8 million residents, close to 81,000 adults (4.5% of the population) live with serious mental illness, and about 18,000 children live with serious mental health conditions.
- In 2006, 269 West Virginians died by suicide. Suicide is often the result of untreated mental illness.
- Nationally, one life is lost to suicide every 15.8 minutes. Suicide is the 11th leading cause of death overall and is the 3rd leading cause of death among youth and young adults aged 15-24.
- West Virginia's public mental health system provides services to only 44% of adults who live with serious mental illness in the state.
- In 2008, approximately 1,400 adults with mental illnesses were incarcerated in prisons in West Virginia. Additionally, an estimated 31% of female and 14% of male jail inmates nationally live with serious mental illness.

Table 10 illustrates Psychiatric Inpatient discharges by hospital in the service area. Ohio Valley Medical had the highest number of discharges, with 1,585 mental health patients discharged, while Belmont had 318 patients.

Table 10. Psychiatric Inpatient Discharges by Hospital

Wheeling Hospital	Ohio Valley Medical Center	Belmont Hospital	East Ohio Regional Hospital	Reynolds	Total
----	1,585	318	----	----	1,903

Source: 2012 Wheeling West Virginia Community Health Needs Assessment

Table 11 outlines the acute discharges for mental disorders and substance abuse by hospital in the service area in 2009. Ohio Valley Medical Center experienced the highest number of discharges for mental disorders, with 1,277. Belmont Hospital had the highest number of discharges for substance abuse with 136 patients discharged in 2009.

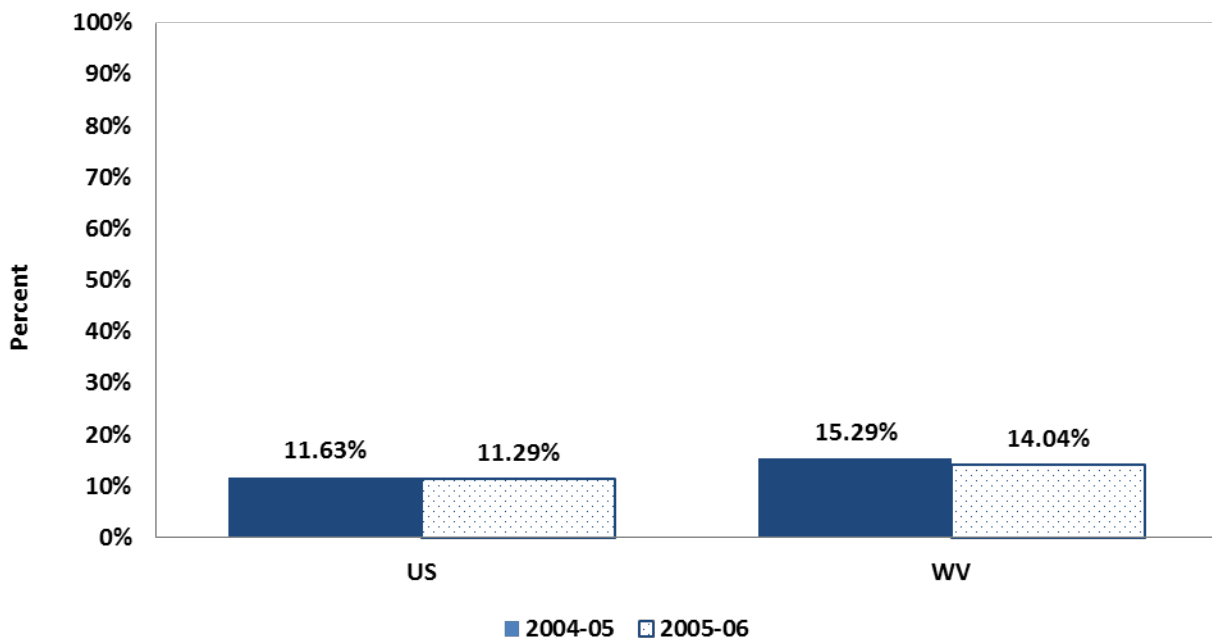
Table 11. Acute Discharges by Hospital for 2009

	Wheeling Hospital	Ohio Valley Medical Center	Belmont Hospital	East Ohio Regional Hospital	Reynolds	Total
Mental Disorders	7	1,277	349	----	3	1,636
Substance Use	6	50	136	----	7	199

Source: 2012 Wheeling West Virginia Community Health Needs Assessment

Figure 20 illustrates individuals reporting having serious psychological distress in the United States and West Virginia from 2004 to 2006. A higher percentage of West Virginia residents reported experiencing psychological distress compared to the United States during that time period.

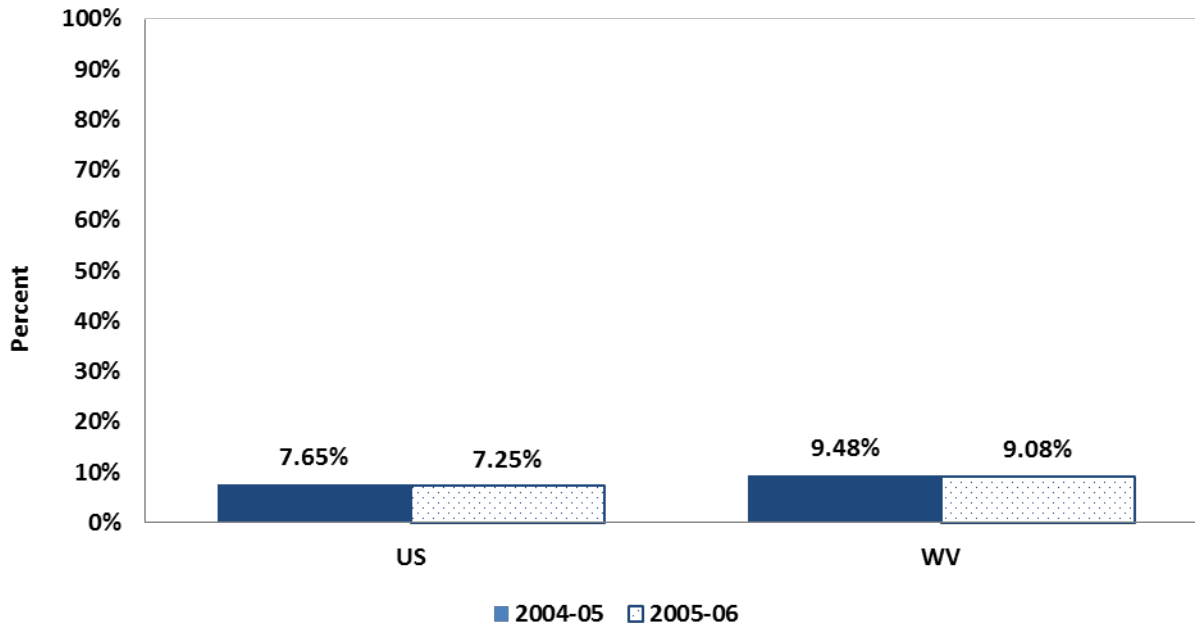
Figure 20. Individuals Reporting Having Serious Psychological Distress, NSDUH Data



Source: Behavioral Health in West Virginia, A State Epidemiological Profile, May 2012

Figure 21 illustrates individuals reporting having at least one major depressive episode from the United States and West Virginia from 2004 to 2006. The rate in West Virginia is higher than the national rate.

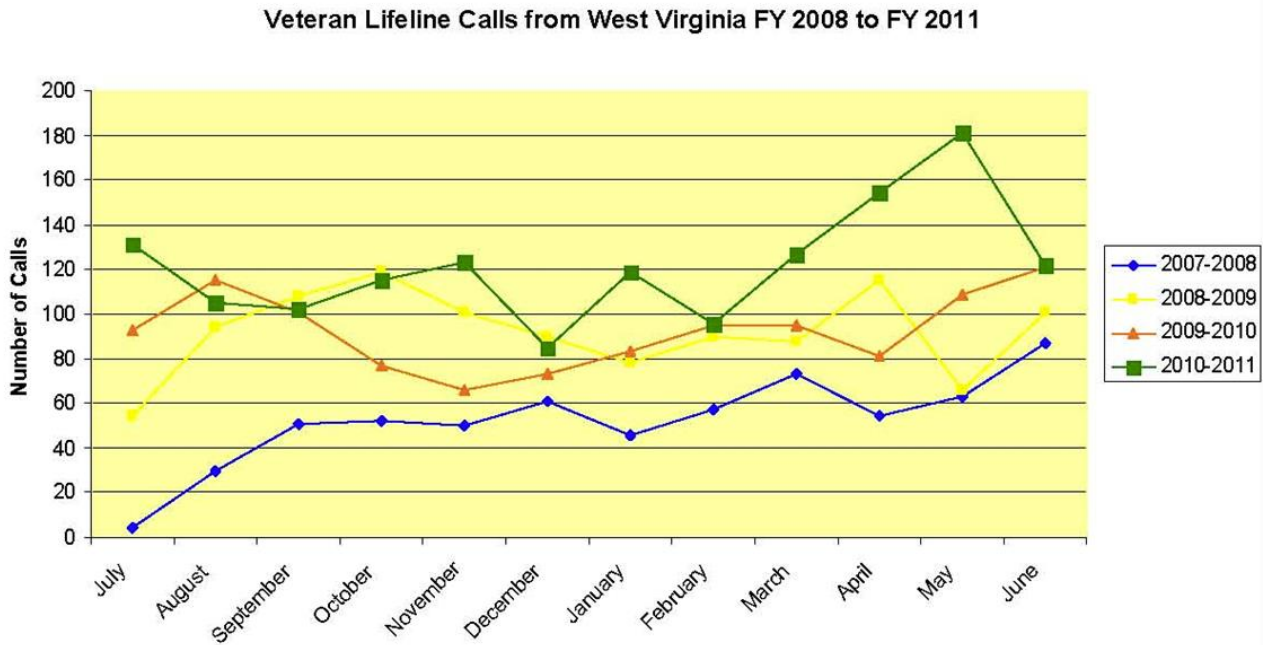
Figure 21. Individuals Reporting Having at Least 1 Major Depressive Episode, NSDUH Data



Source: Behavioral Health in West Virginia, A State Epidemiological Profile, May 2012

Figure 22 illustrates veteran Lifeline calls in West Virginia from 2008-2011. The rates in 2010-11 are higher than the rates during previous years.

Figure 22. Veteran Lifeline Calls from West Virginia



Source: West Virginia Council for the Prevention of Suicide, Annual Report 2011

Table 12 illustrates the number and rates of deaths from suicide in each of the counties of the service area and West Virginia from 2000 to 2009. Ohio County had the highest number (56) of suicide deaths, of the counties in the service area. Marshall County had a higher rate of suicide deaths compared to the state rate of 1.54. Ohio County’s suicide death rate was below the state rate and Wetzel County’s rate was equivalent to the state rate during this time period.

Table 12. Suicide Deaths 2000-2009

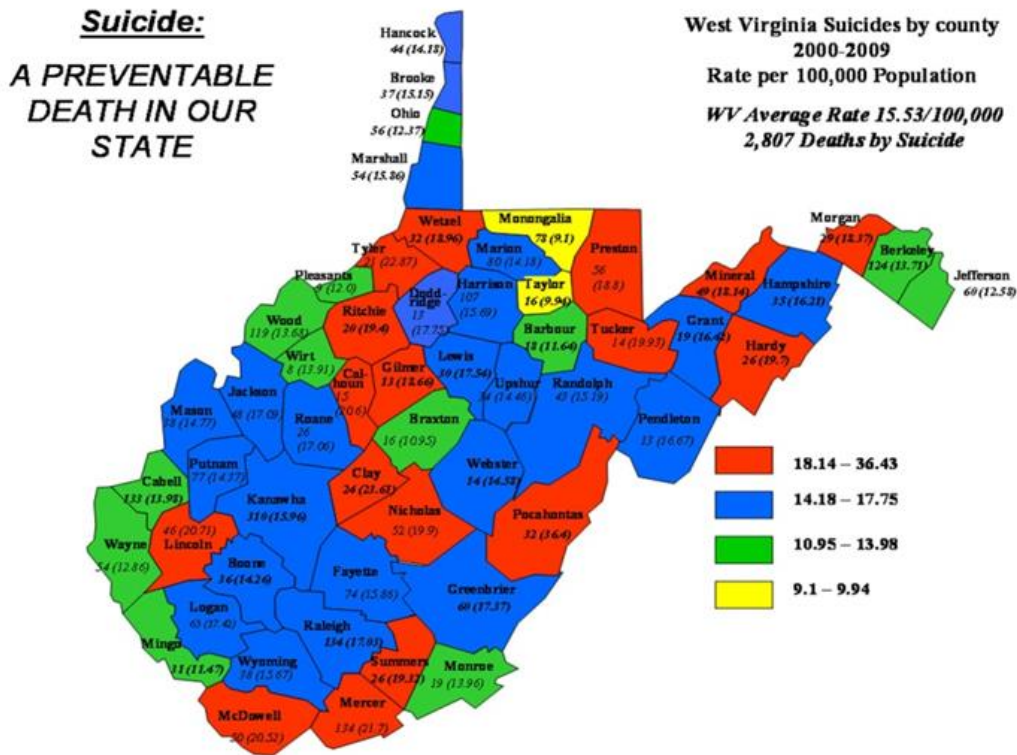
2000-2009 Suicide Deaths				
	West Virginia	Marshall County	Ohio County	Wetzel County
Number of Suicides	2,810	54	56	32
Rate per 10,000	1.54	1.57	1.22	1.54

Source: West Virginia Bureau for Public Health

According to the West Virginia Council for the Prevention of Suicide, suicide is fatal, but it is 100% preventable. The National Violent Death Reporting System reported in a recent study that 1/3 of those who died by suicide tested positive for alcohol at the time of death. Marshall County ranks 30th in the state by the prevalence of suicides; Ohio County ranks 49th in the state by the prevalence suicides; Wetzel County ranks 13th in the state by the prevalence of suicides.

Figure 23 illustrates suicide rates in West Virginia by county from 2000-2009.

Figure 23. Suicide



Source: West Virginia Council for the Prevention of Suicide

Figure 24 illustrates the balance of the state sheltered homeless persons for the remainder of the state of West Virginia. The homeless rates for Marshall, Ohio, and Wetzel Counties were too low to report.

Figure 24. 2010 Balance of the State Sheltered Homeless

	Number of Persons	Percentage
Homeless Use of Alcohol	96	4.5%
Homeless Veterans Using Alcohol	24	19.4%
Homeless Use of Illicit Drugs	79	3.7%
Homeless Veterans Using Drugs	6	4.8%
Homeless Use of Alcohol and Drugs	93	4.3%
Homeless Mental Health Problem	272	12.6%

Note: Homelessness rates for Marshall, Ohio, and Wetzel Counties were too low to report
Source: Behavioral Health in West Virginia, A State Epidemiological Profile, May 2012

Focus Group Input

Focus group participants discussed a number of needs and issues as they relate to chronic/serious mental health management. Poor health status and the scarcity of resources are seen as contributing factors to the problems and challenges for those with mental illness and disabilities. Because of the stigma that still exists regarding mental health treatment, some people are refusing to get the care they need. There is also a “quick fix” attitude within the system and resources are not appropriately invested in the long term solutions that will make a difference for persons with disabilities and those with mental health needs. There is also a need for additional mental health resources and support groups to assist those who are willing to seek treatment. Comment themes that were discussed included:

- Individuals with mental disabilities are disadvantaged to begin with and with a scarcity of resources the problems get worse.
- There is a need to address the stigma related to treatment for mental illness.
- An increased need for case management, outpatient psychological & psychiatric services
- Mental health support groups
- Refusal of treatment for mental illness

Stakeholder Interview Input

Stakeholders participating in the interview process identified unmet needs related to mental illness in the region. There is the perception that many people with psychiatric issues are untreated or undertreated because of the lack of resources and providers in the community. More should be done to manage the more severe mental health needs and issues. Specific themes discussed included:

- Mental illness
- People being untreated or undertreated with psychiatric issues
- Schools need to contract with a Mental Health Consultant to handle some of the more extreme cases and begin the referral process. It is also important to continue to talk with the families and the high school students about mental illness.

Chronic/Serious Mental Health Conclusions

There are a number of observations and conclusions that can be derived from the data related to Chronic/Serious Mental Health and related issues. These include:

- The number of adults who reported poor mental health averaged 3-4 days out of the past 30 days in Marshall, Ohio, and Wetzel counties, which was slightly lower than the state rate.
- Approximately 81,000 of West Virginia adults live with serious mental illness, while about 18,000 children in the state live with serious mental health conditions.
- West Virginia's public mental health system provides services to only 44% of adults who live with serious mental illness in the state.
- Between 2000 and 2009, there were 142 suicides in Marshall, Ohio, and Wetzel Counties combined.
- Veteran life line calls have increased in 2010-2011 compared to the previous four years.
- Wetzel County ranks 13th in the state for prevalence of suicide.
- Between 2004 and 2006 between 14% and 15% of West Virginia residents reported serious psychological distress, higher than the national rate; while 9% reported at least one major depressive episode, also higher than the national rate.
- Statewide, 12.6% of sheltered homeless have mental health problems.
- Focus group participants discussed a number of needs and issues related to chronic/serious mental health management, including poor health status and the scarcity of resources as contributing factors to the problems and challenges for those with mental illness and disabilities, with some people continuing to refuse treatment because of the continued stigma associated with mental illness.
- Focus group participants also discussed that there is also a "quick fix" attitude within the system and resources are not appropriately invested in the long term solutions that will make a difference for persons with disabilities and those with mental health needs. They noted there is also a need for additional mental health resources and support groups.
- Stakeholders identified a number of unmet needs related to mental illness including the lack of access to care due to the lack of resources and providers in the community. Participants expressed that more should be done to manage the more severe mental health needs and issues.

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Drug and Alcohol



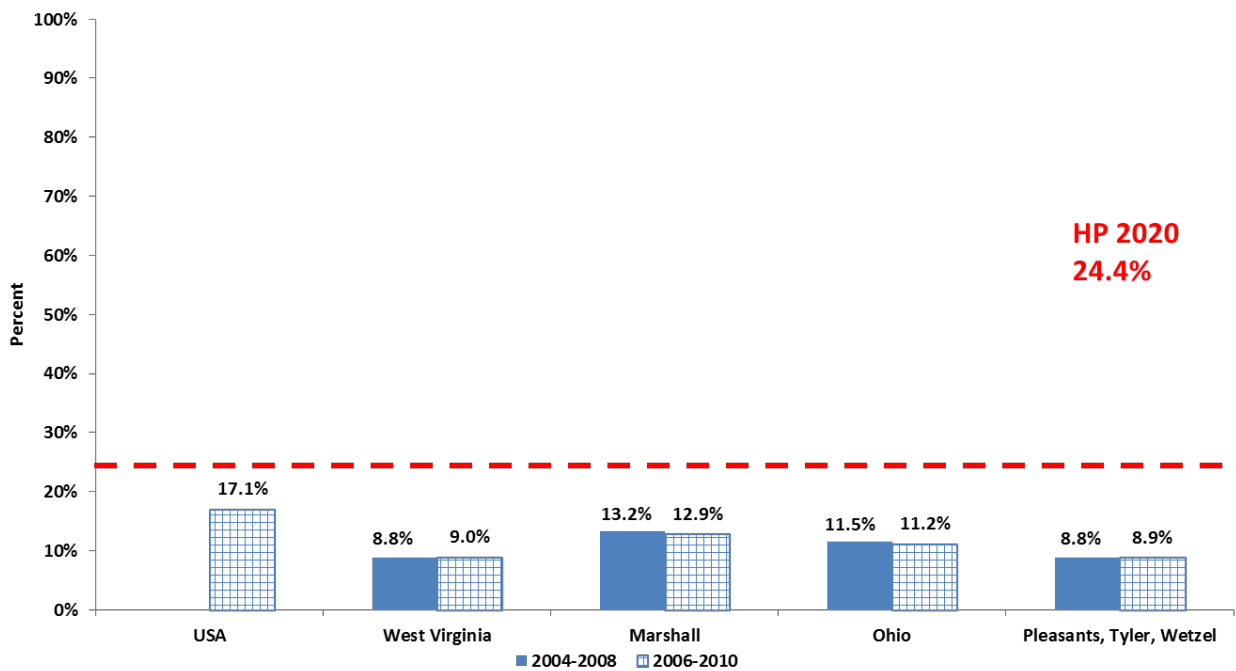
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Drug and Alcohol

According to the World Health Organization, substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Psychoactive substance use can lead to dependence syndrome - a cluster of behavioral, cognitive, and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state.

Figure 25 illustrates the percentage of adults who reported binge drinking in West Virginia, Marshall, Ohio, Pleasants, Tyler and Wetzel Counties from 2004-2008 and 2006-2010. All counties are comparable in the percentage of adults reporting binge drinking from 2004-2008 and 2006-2010. Marshall County saw a decrease in residents binge drinking from 13.2% from 2004-2008 to 12.9% in 2006-2010 as did Ohio County from 11.5% to 11.2%. All counties were higher than the West Virginia rate, where 8.8% of respondents reported binge drinking from 2004-2008 and 9.0% from 2006-2010. The nation, West Virginia, and counties are all below the Healthy People 2020 Goal of 24.4%.

Figure 25. Percentage of Adults Who Reported Binge Drinking (5 Drinks for Men and 4 Drinks for Women on One Occasion)



Source: West Virginia Behavioral Risk Factor Survey Report, Centers for Disease Control, www.healthypeople.gov

Table 13 illustrates the percentage of residents in West Virginia, Marshall, Ohio and Wetzel Counties who needed treatment for alcohol abuse. The service area counties, with a rate of 6.7% of persons needing but not receiving treatment for alcohol use, is higher than the state rate of 6.1%.

Table 13. Alcohol Treatment

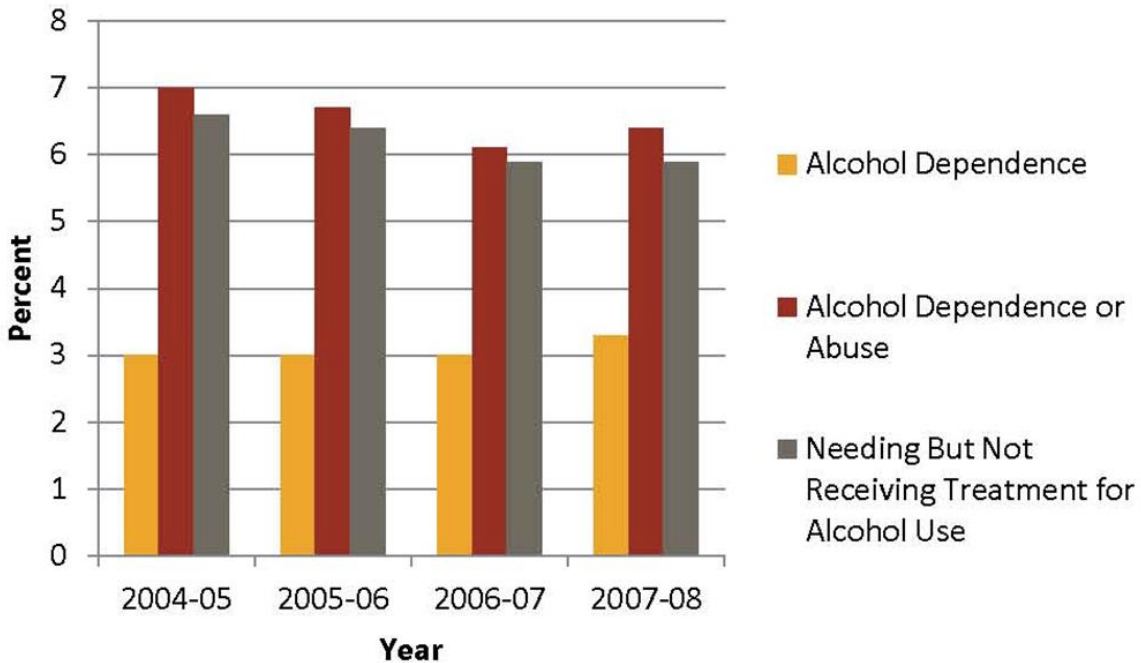
Alcohol Treatment				
	West Virginia	Marshall	Ohio	Wetzel
Perceptions of great risk of an alcoholic beverage once or twice a week (among persons 12 years or older)	42.1%	41.4%	41.4%	41.4%
Persons needing but not receiving treatment for alcohol use in the past year	6.1%	6.7%	6.7%	6.7%

Note: Annual averages are based on 2006-2008 data. Marshall, Ohio and Wetzel County data is reflected from the sub-state region and is made up of the following counties: Brooke, Hancock, Marshall, Ohio and Wetzel.

Source: National Survey on Drug Use and Health

Figure 26 illustrates persons twelve and older meeting DSM-IV criteria for alcohol abuse or dependence for the years 2004 through 2008. Alcohol dependence or abuse consistently had the highest percentage of people (between 6% and 7%) over the four-year period. The people needing but not receiving treatment for alcohol abuse ranged between 5% and 6% and showed a declining trend. The alcohol dependence rate rose slightly between 2007 and 2008.

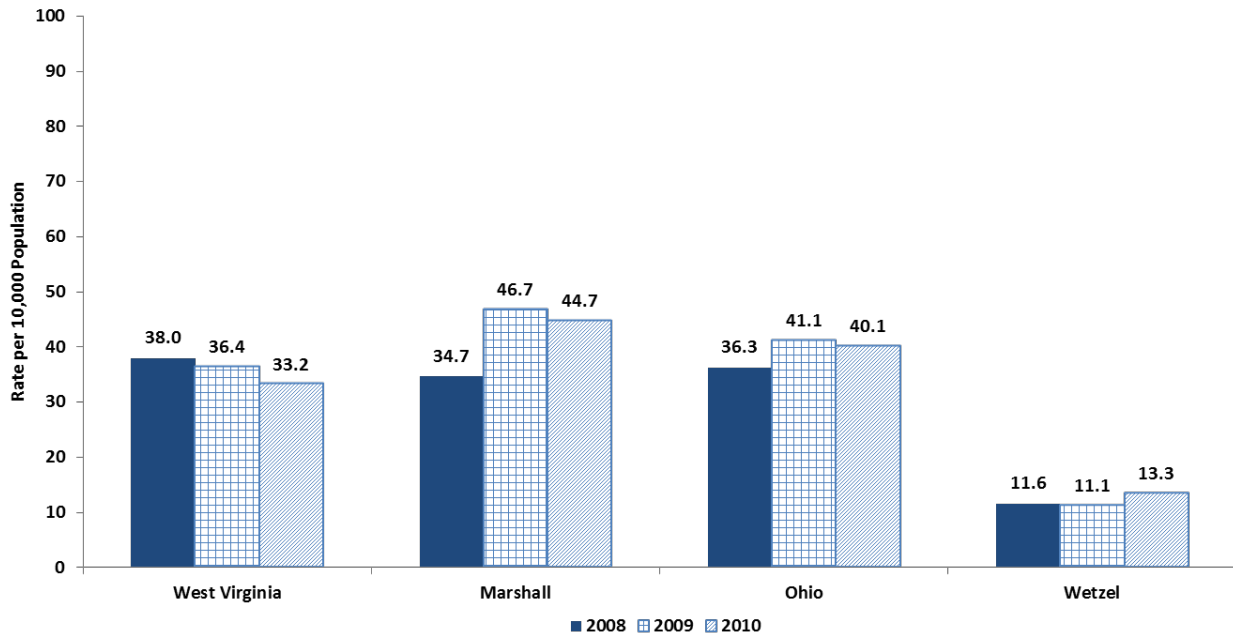
Figure 26. Persons 12 and Older Meeting DSM-IV Criteria for Alcohol Abuse or Dependence, NSDUH Data



Source: Behavioral Health in West Virginia, State Epidemiological Profile, May 2012

Figure 27 illustrates the driving under the influence (DUI) arrest rate in West Virginia, Marshall, Ohio and Wetzel counties from 2008-2010. DUI arrests in West Virginia declined from 38.0 to 33.2 between 2008 and 2010, while Marshall and Ohio counties saw a rise from 2008 to 2009, then a decrease from 2009 to 2010. The Wetzel County DUI arrest rate has risen in 2010 to a rate of 13.3 compared to a rate of 11.6 in 2008 and 11.1 in 2009.

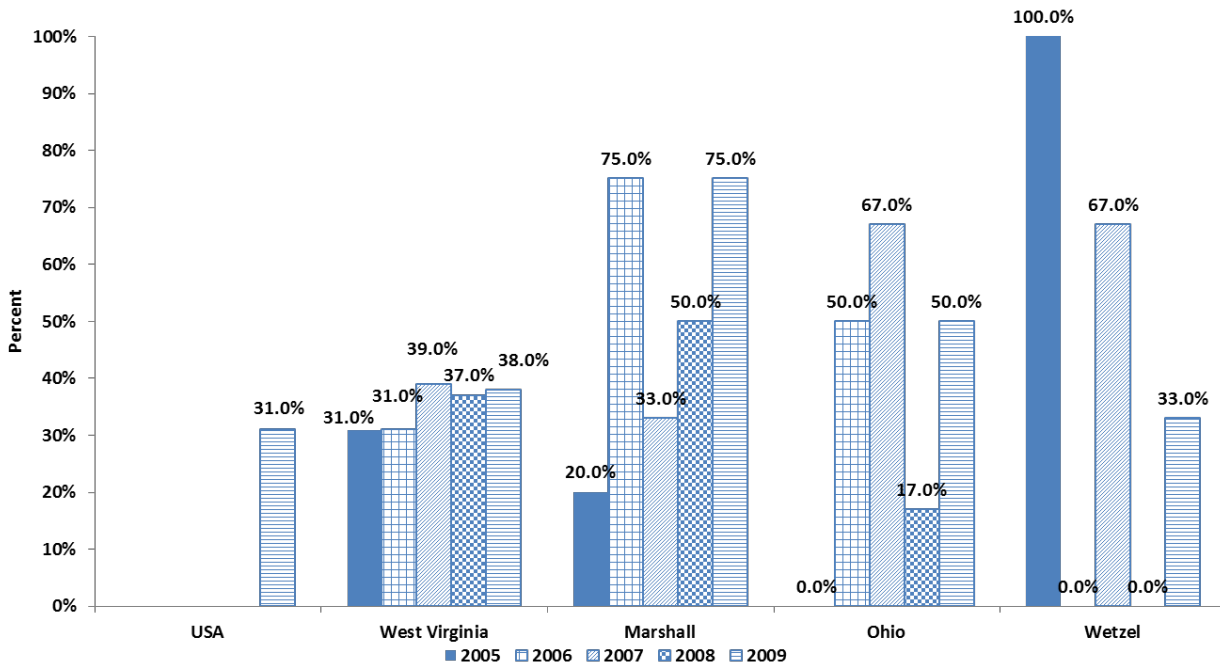
Figure 27. Driving Under the Influence (DUI) Arrests



Source: Fatality Analysis Reporting System

Figure 28 illustrates alcohol related fatal automobile accidents in West Virginia, Marshall, Ohio and Wetzel counties from 2005-2010, where data was available. The majority of alcohol related fatal accidents occurred in Wetzel County in 2005, with 100% of alcohol related accidents identified as fatal. Wetzel County saw a drop in fatal accidents in 2007 (67.0%) as well as in 2009. Compared to West Virginia, Marshall, Ohio and Wetzel counties had a higher percentage of fatal alcohol related automobile accidents through the 4 years of data, with the exception of Marshall County in 2005 (20.0%) and Ohio County in 2008 (17.0%).

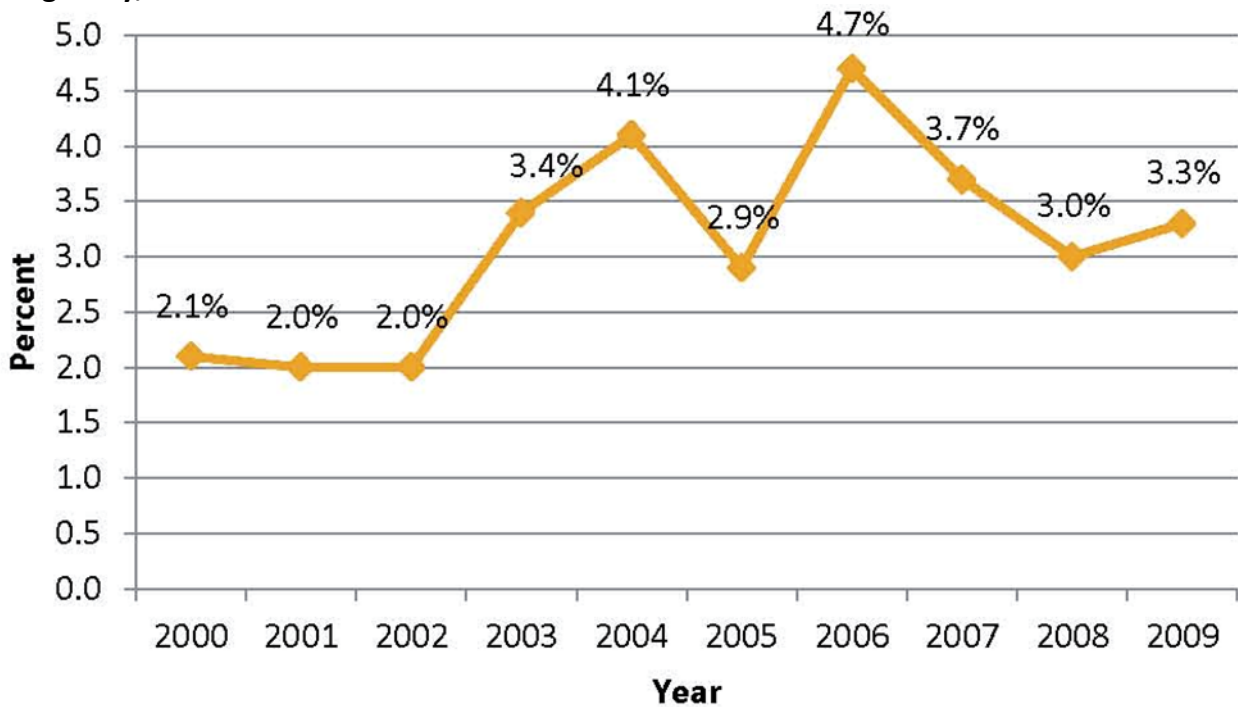
Figure 28. Alcohol-Related Fatal Automobile Accidents



Source: Fatality Analysis Reporting System, Centers for Disease Control

Figure 29 illustrates the percentage of pregnant women reporting any use of alcohol during the last three months of pregnancy from 2000-2009. The highest percentage of pregnant women reporting use of alcohol occurred in 2006 with 4.7%, while the lowest percentage occurred in 2001-2002 with 2.0%. Overall, however, the rate has been trending upward over the past 10 years.

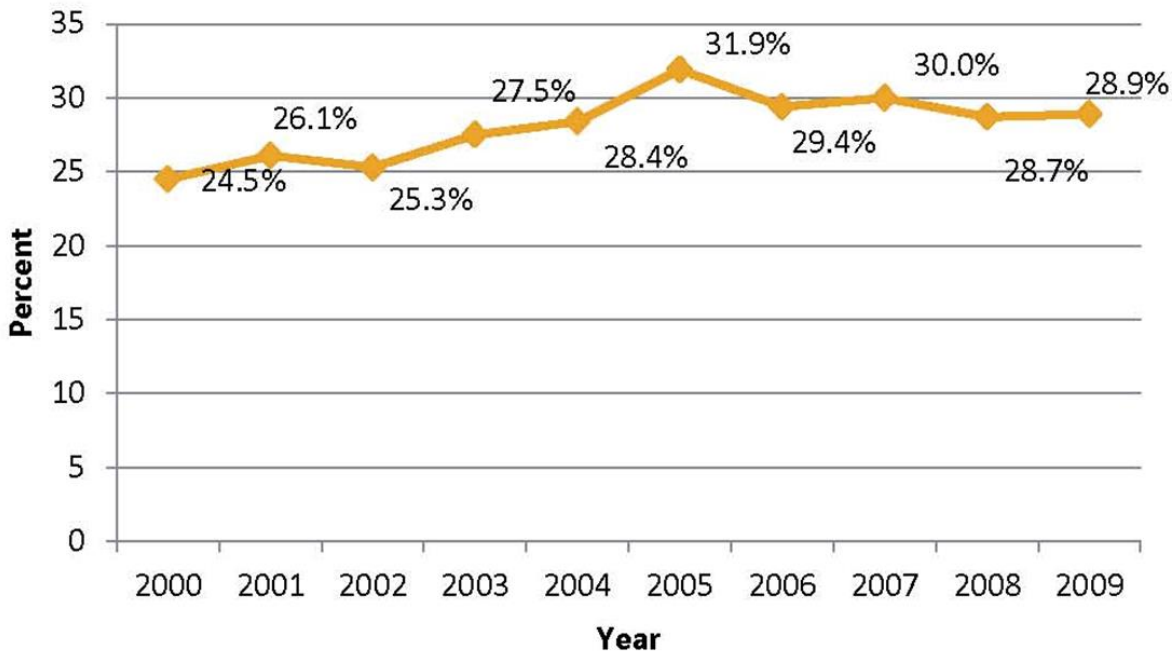
Figure 29. Pregnant Women Reporting Any Use of Alcohol During the Last 3 Months of Pregnancy, PRAMS Data



Source: Behavioral Health in West Virginia, State Epidemiological Profile, May 2012

Figure 30 illustrates the percentage of pregnant women reporting smoking during the last three months of pregnancy from 2000-2009. The highest percentage of pregnant women reporting smoking occurred in 2005 with 31.9%, while the lowest percentage occurred in 2000 with 24.5%. Overall, however, the rate has been trending upward over the past 10 years.

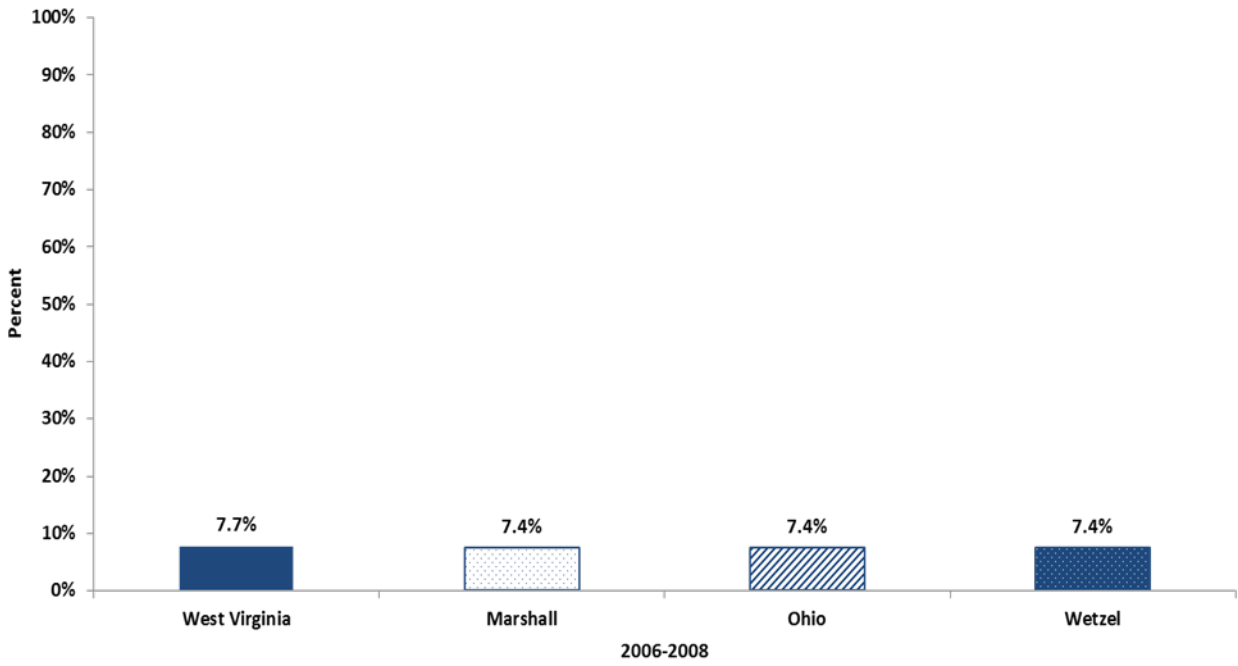
Figure 30. Pregnant Women Reporting Smoking During the Last 3 Months of Pregnancy, PRAMS Data



Source: Behavioral Health in West Virginia, State Epidemiological Profile, May 2012

Figure 31 illustrates marijuana use in the past month in West Virginia, Marshall, Ohio and Wetzel counties from 2006-2010, for persons 12 years and older. Marshall, Ohio and Wetzel counties experienced a slightly lower percentage of residents using marijuana, with 7.4% of persons reporting compared to West Virginia's 7.7%.

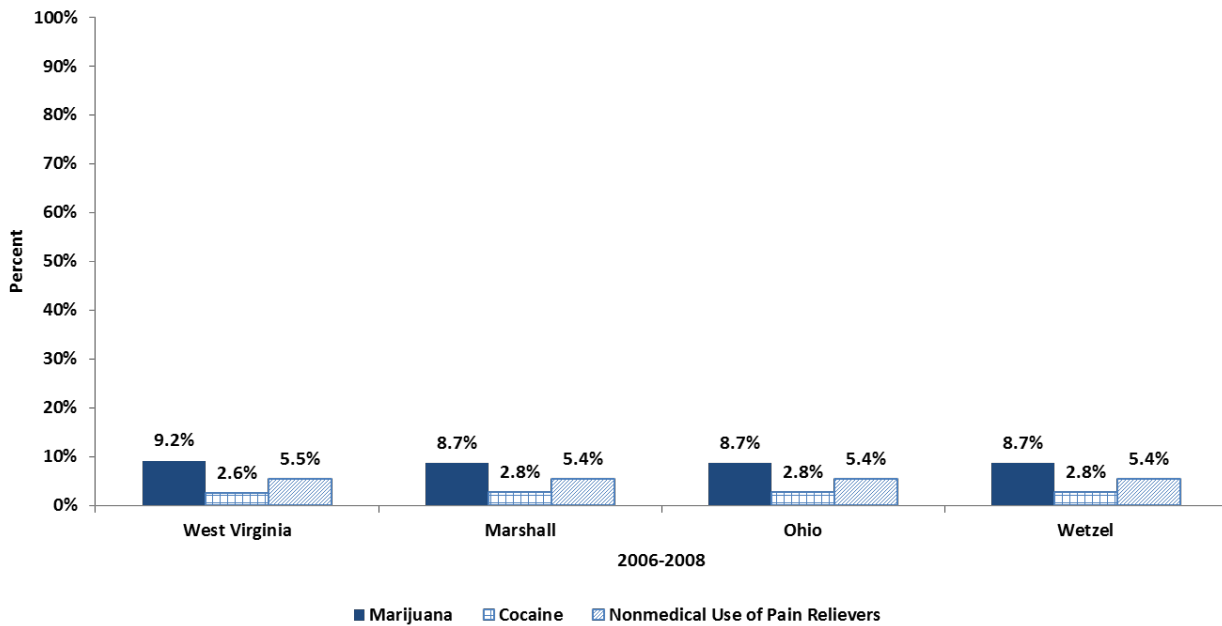
Figure 31. Marijuana Use in the Past Month (Persons 12 Years and Older)



Source: National Survey on Drug Use and Health

Figure 32 illustrates drug use in the past year in West Virginia, Marshall, Ohio and Wetzel counties from 2006-2008. The use of marijuana in the service area counties is slightly lower than the state rate, while the use of cocaine and nonmedical use of pain relievers is comparable.

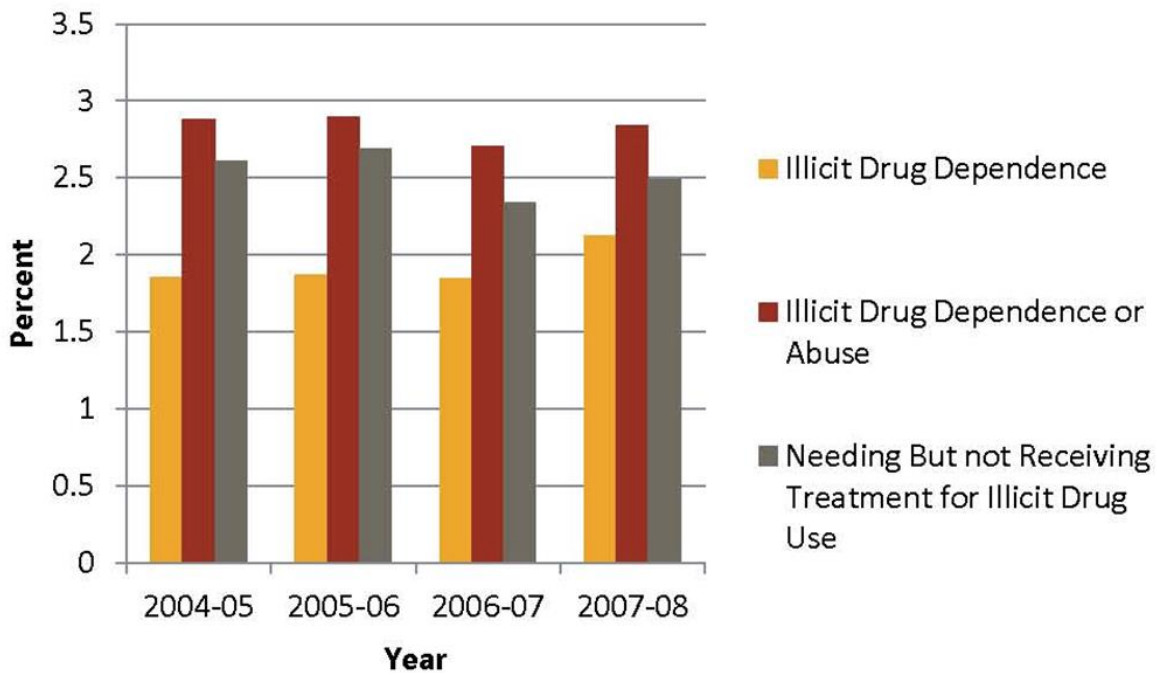
Figure 32. Drug Use in the Past Year (Persons 12 Years and Older)



Source: National Survey on Drug Use and Health

Figure 33 illustrates persons aged 12 and older meeting DSM-IV criteria for illicit drug abuse or dependence from 2004-2008. The percentage of the population with illicit drug dependence or abuse over the 4 year period was around 2.8% while those needing but not receiving treatment for illicit drug use declined slightly 2004 to 2008 to 2.5%. The percentage of the population with illicit drug dependence only rose slightly to about 2.1% of the population.

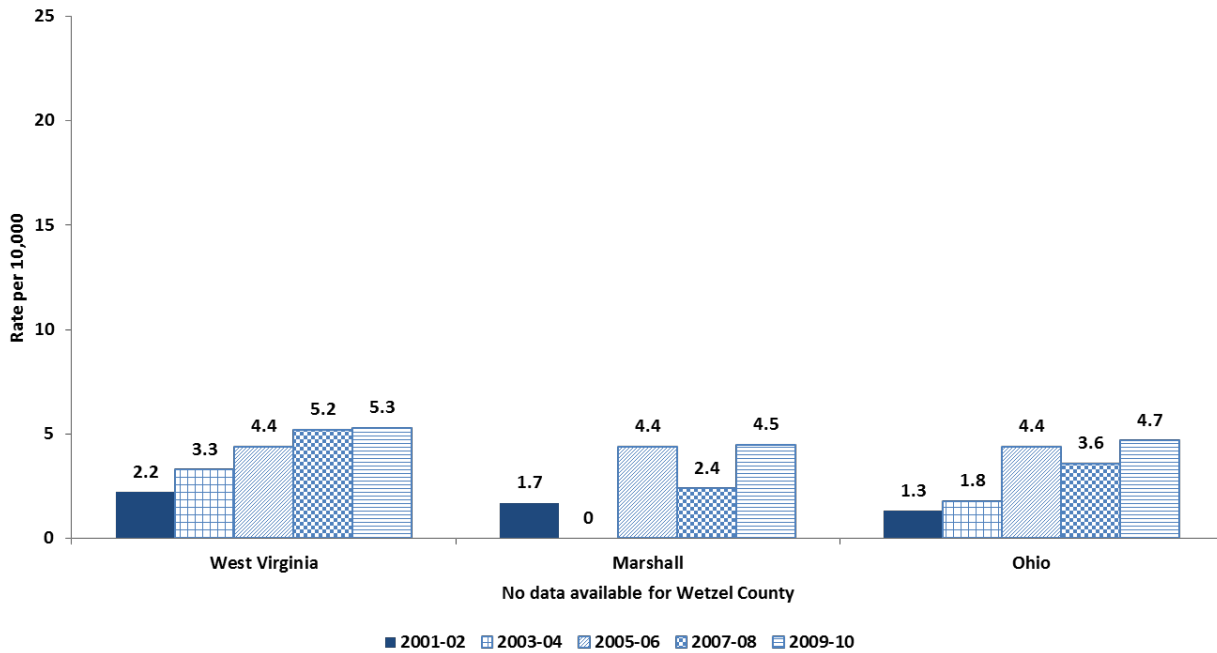
Figure 33. Persons Aged 12 and Older Meeting DSM-IV Criteria for Illicit Drug Abuse or Dependence, NSDUH Data



Source: Behavioral Health in West Virginia, State Epidemiological Profile, May 2012

Figure 34 illustrates drug overdose deaths in West Virginia, Marshall and Ohio counties from 2001-2010. No data was available for Wetzel County. Drug overdose rates in Marshall and Ohio Counties were slightly lower than the state rates from 2001-2010, with the exception of 2005-2006 where both counties and West Virginia had a drug overdose rate of 4.4, per 10,000. The rates in West Virginia as well as in the service area counties all more than doubled over the 10 year period.

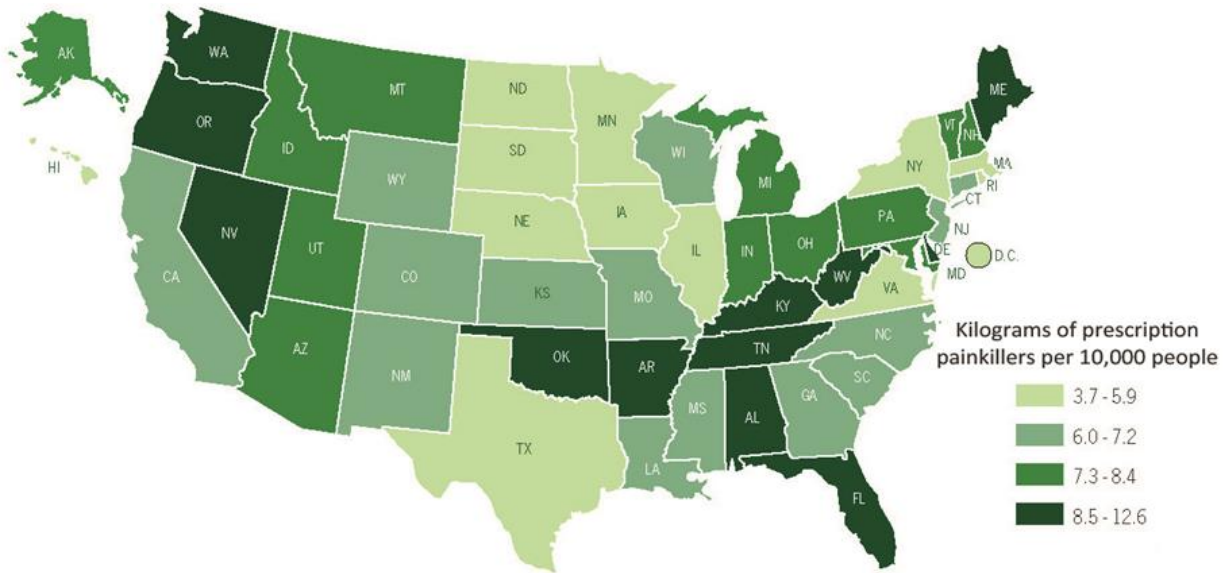
Figure 34. Drug Overdose Deaths 2001-2010



Source: National Survey on Drug Use and Health

Figure 35 illustrates the amount of prescription pain killers sold by state in the United States in 2010, per 10,000 people. The states with the highest kilograms of prescription painkillers sold are Washington, Oregon, Nevada, Oklahoma, Arkansas, Alabama, Florida, Tennessee, Kentucky, West Virginia and Delaware.

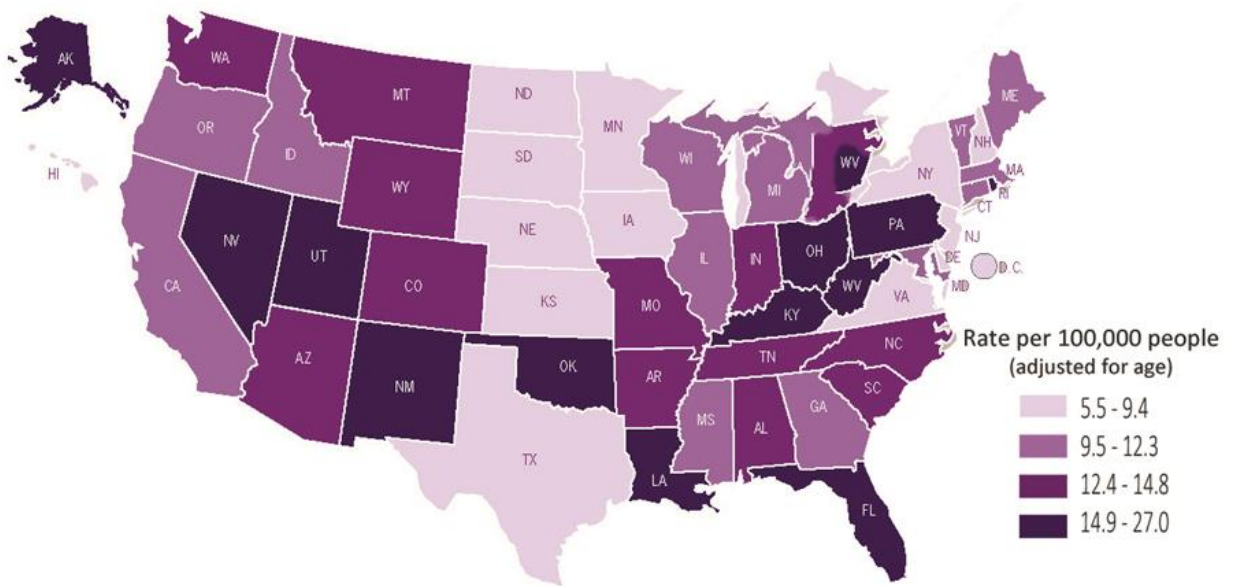
Figure 35. Prescription Painkillers Sold by State in 2010



Source: Automation of Reports and Consolidated Orders System (ARCOS) of the Drug Enforcement Administration (DEA), 2010

Figure 36 illustrates drug overdose death rates by state in the United States in 2008, per 100,000 people. The states with the highest drug overdose death rates include, Alaska, Nevada, Utah, New Mexico, Oklahoma, Louisiana, Florida, Kentucky, West Virginia, Ohio, Pennsylvania and New Jersey.

Figure 36. Drug Overdose Death Rates by State in 2008



Source: National Vital Statistics System, 2008

Prescription Drug Abuse

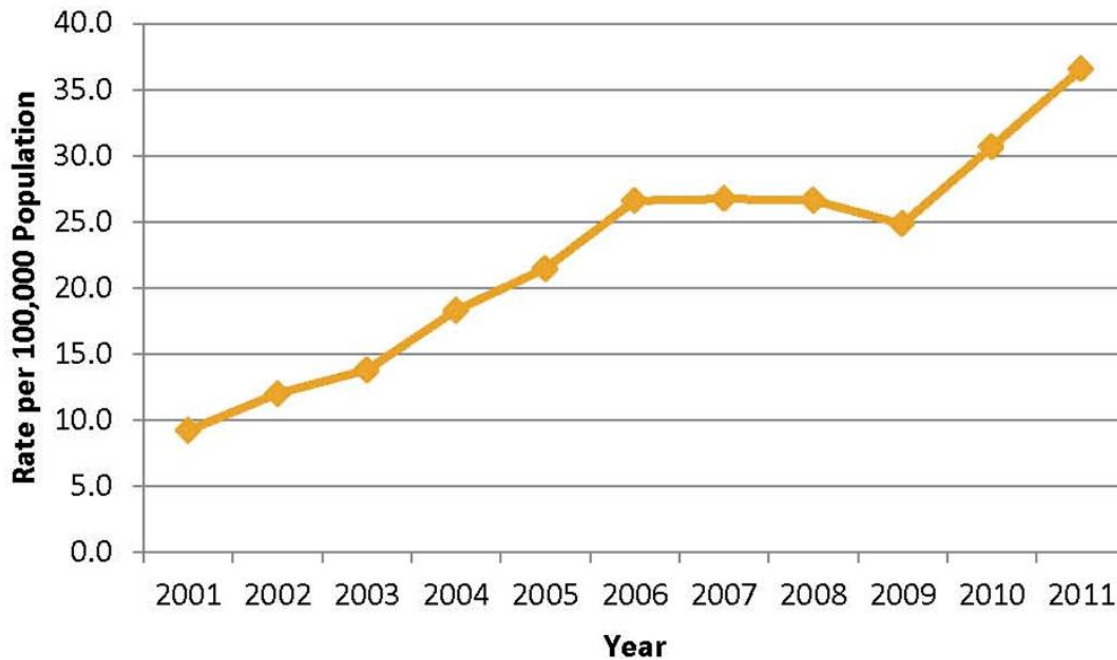
According to the 2011 County Behavioral Health Profiles, there are many types of drugs that are currently being abused, and the rate of prescription drug abuse, particularly painkillers, is increasing to epidemic levels. Across the country, nearly 75% of prescription drug overdoses are due to prescription painkillers. Locally, in Marshall County, drug overdose death rates have risen over 700% in the last 10 years. The report cites the following:

- Many types of prescription drugs are abused.
- Currently there is a growing, deadly epidemic of prescription painkiller abuse in West Virginia and across the country.
- In the US, nearly three out of four prescription drug overdoses are caused by prescription painkillers also called opioid painkillers.
- Marshall County has seen a rise in prescription drug overdose deaths of nearly 700% since 2001.
- More than 12 million people reported using prescription painkillers non-medically across the US in 2010, that is, using them without a prescription or for the feeling they cause.

Source: Marshall, Ohio, & Wetzel County Behavioral Health Profile

Figure 37 illustrates the prescription drug overdose death rate in West Virginia over the past 11 years. Overall there has been a steep increase in the rate to 37 per 100,000 population, although the rate leveled and declined slightly between 2006 and 2009.

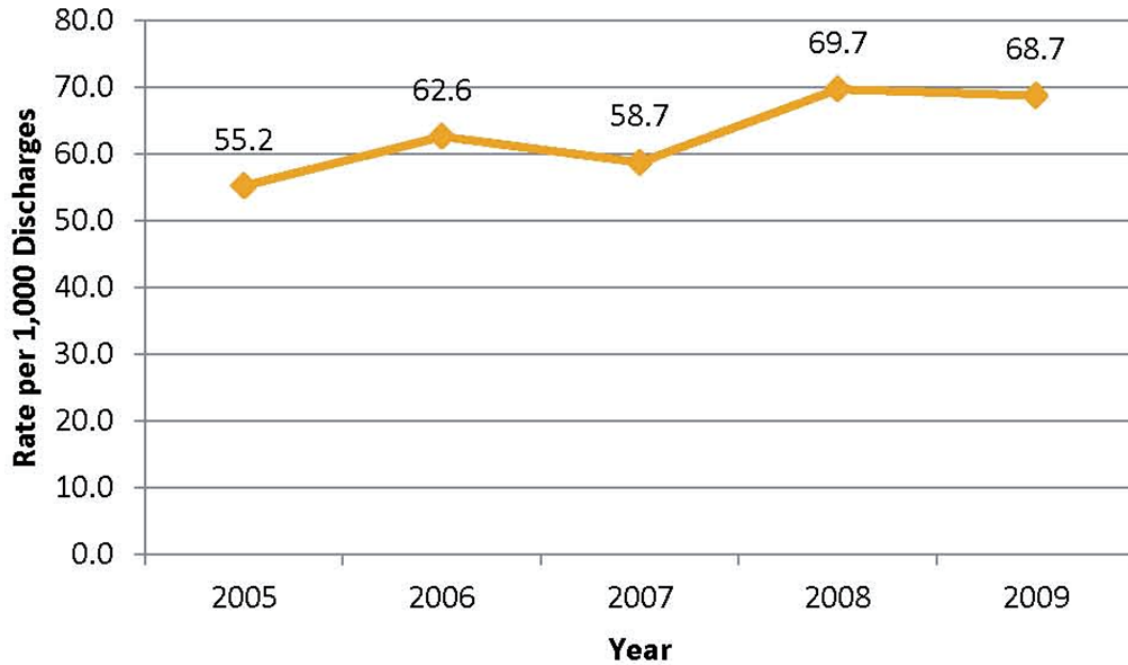
Figure 37. Prescription Drug Overdose Deaths in West Virginia



Source: Behavioral Health in West Virginia: State Epidemiological Profile, May 2012

Figure 38 illustrates hospitalization rate with a drug related diagnosis from 2005-2009. Overall, over the 5 year period, the rate has increased to 68.7 per 1,000 discharges.

Figure 38. Hospitalization Discharges with a Drug Related Diagnosis, HCUPnet Data



Source: Behavioral Health in West Virginia, State Epidemiological Profile, May 2012

Selected Drug Use Percentages, by Age Group for West Virginia 2008-2009

The 2012 Wheeling West Virginia Community Health Needs Assessment reported the following:

- West Virginia is above the national average in:
 - Past Month Use of Illicit Drugs Other Than Marijuana for those 12-17 and those 18 and older
 - Past Year Cocaine ages 18 and older
 - Past Year Nonmedical Pain Reliever Use for those 12-17 and those 18 and older
 - Illicit Drug Dependence ages 12-17 and 18 and older
 - Illicit Drug Dependence ages 12-17 and 18 and older
 - Illicit Drug Dependence or Abuse ages 18 and older
 - Needing But Not Receiving Treatment for Illicit Drug Use ages 18 and older

Source: Wheeling Hospital, Inc., Wheeling, West Virginia and Surrounding Communities Community Health Needs Assessment, December 2012

Focus Groups Input

Locally, focus group participants expressed concern that substance abuse is an existing and growing problem and that the current system lacks capacity to adequately and appropriately deal with the problem. There is a perceived lack of prevention and early intervention services for alcohol and drug abuse and more options for addiction services are needed, including residential treatment options. The specific comments included:

- Lack of residential treatment for drug abuse
- Lack of prevention services for substance abuse
- Lack of early intervention for alcohol and substance abuse
- More options are needed in terms of addiction services

Stakeholder Interview Input

Stakeholders participating in the interviews echoed the discussions from the focus groups stressing that substance abuse is a real and growing problem within the service area counties, particularly for women. Although some community based resources do exist, such as the post addiction support group at the YWCA, there is a need for acute as well as post-acute substance abuse treatment. Easy access to drugs and the lack of preventive services is contributing to an increased demand for services. Specific comments included:

- Substance Abuse (alcohol, illegal & prescription drugs) is an issue
- Need for post hospitalization substance abuse treatment
- Drugs are too easy to access
- Need to focus on women and substance abuse issues
- Definite need for long term residential treatment for drug and alcohol issues
- Need to focus on the adults and educate them on substance abuse and prevention

Drug & Alcohol Conclusions

All across the country, within the state of West Virginia as well as in the service area counties, drug and alcohol use and abuse is a growing concern. Although specific local drug and alcohol data is limited, it suggests that the rates of drug and alcohol abuse in the service area counties is higher than the state, which has one of the highest rates in the country for the use of prescription pain killers and drug overdose deaths. Local stakeholders reported in both focus groups and interviews that the abuse of prescription drugs, specifically painkillers is increasing, and the local system is struggling to keep up with the increase in demand for services, as evidenced by the increase in drug related hospitalizations and mortality over the past few years.

Local leaders indicate that there is a need for increased access to preventative education and early intervention services as well as residential treatment and post-acute support services.

Overall observations and findings from the data include:

- Between 2004 and 2010 Marshall County reported slightly higher rates of binge drinking, compared to Ohio and Wetzel Counties and the state.
- Compared to the state statistics in 2008-2010, the rate of DUI arrests was higher in Marshall and Ohio Counties when compared to Wetzel County and the state.
- The alcohol related automobile accident rates fluctuated among the counties between 2005 and 2009, but on average were higher than the state rate.
- Between 2006 and 2008, 7.4% of individuals aged 12 and older reported using marijuana within the past month in Marshall, Ohio, and Wetzel Counties.
- Between 2006 and 2008, there were no significant differences between the state and counties in the use of marijuana, cocaine, and nonmedical use of pain relievers, but data suggests that the use rates are increasing.
- Between 2001 and 2011 prescription drug overdose deaths steadily increased in West Virginia.
- Between 2005 and 2009 individuals discharged from a hospital with a drug related diagnosis steadily increased.

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Youth Risk Behavior



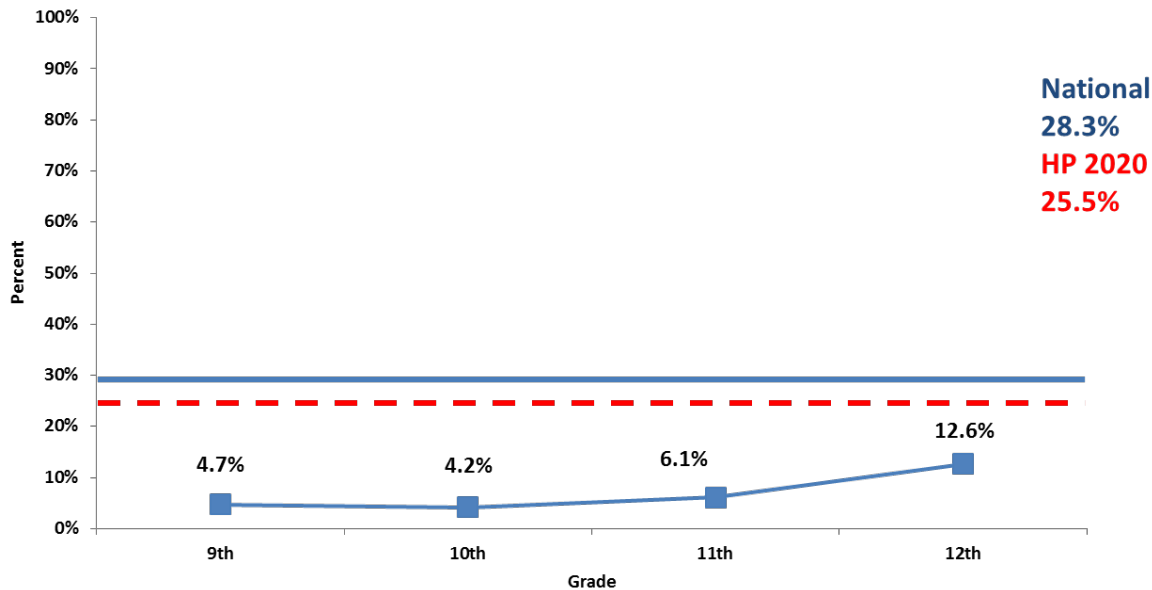
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Youth Risk Behavior

The well-being of children determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. The youth risk behaviors topic area addresses a wide range of conditions, health behaviors, and health systems indicators that affect the health, wellness, and quality of life for the entire community.

Figure 39 illustrates the percentage of high school students who drove after drinking one or more times in the past month. The highest percentage (12.6%) of students who drove after drinking were in 12th grade is more than double the percentage of students in grades 9th through 11th. The lowest percentage of students who drove after drinking was in 10th grade, with 4.2% of students responding. All grades are below the national percent (28.3%) and the Healthy People 2020 Goal (25.5%).

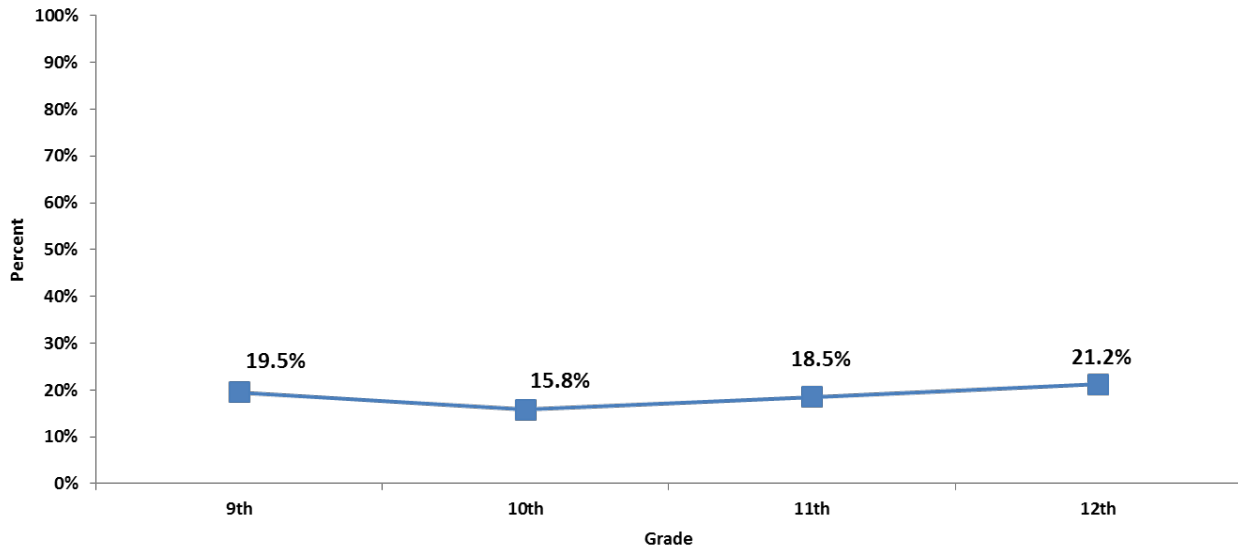
Figure 39. Percentage of Students Who Drove After Drinking One or More Times in the Past Month



Source: 2011 West Virginia Youth Risk Behavior Survey System, Centers for Disease Control, www.healthypeople.gov

Figure 40 illustrates the percentage of students who rode one or more times with a driver who had been drinking, in the past month. The highest percentage (21.2%) of students who had been in the car with a driver who had been drinking was in 12th grade. The lowest percentage of students were 10th graders, with 15.8% reporting they had been in a car with a driver who had been drinking in the past month.

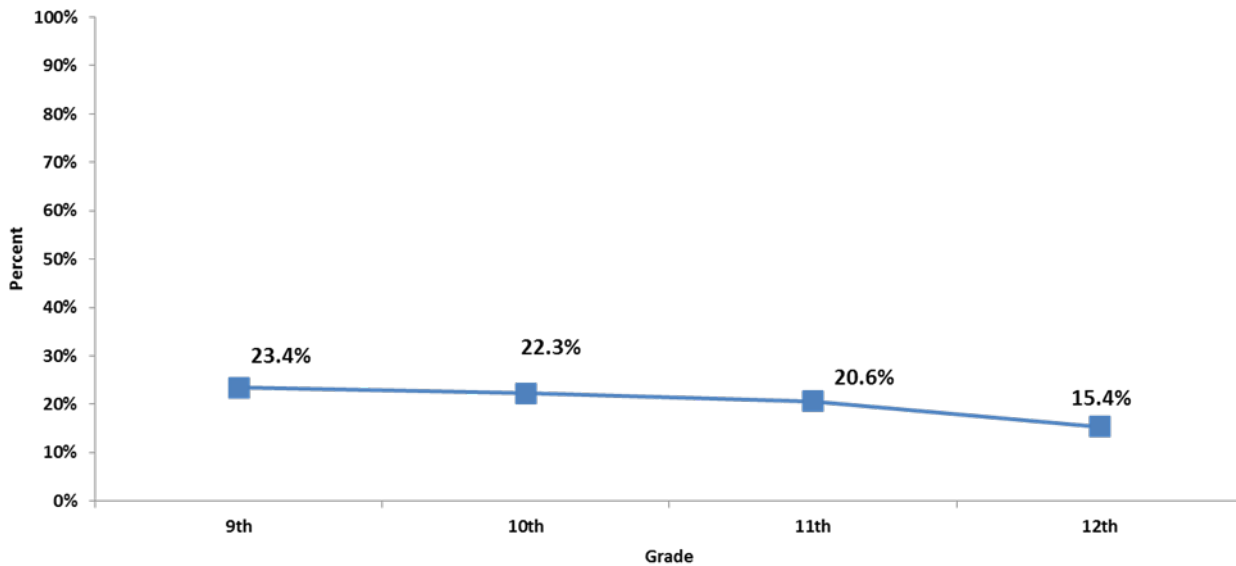
Figure 40. Percentage of Students Who Rode One or More Times in the Past Month with a Driver Who Had Been Drinking



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 41 illustrates the percentage of high school students who carried a weapon one or more times in the past month. The highest percentage of students who carried a weapon were in 9th grade, with 23.4% reporting, while the lowest percentage of students were in 12th grade, with 15.4% reporting. The percentage of students reporting they carried a weapon in the past month decreased with age; students in the higher grade levels were less likely to carry a weapon one or more times in the past month.

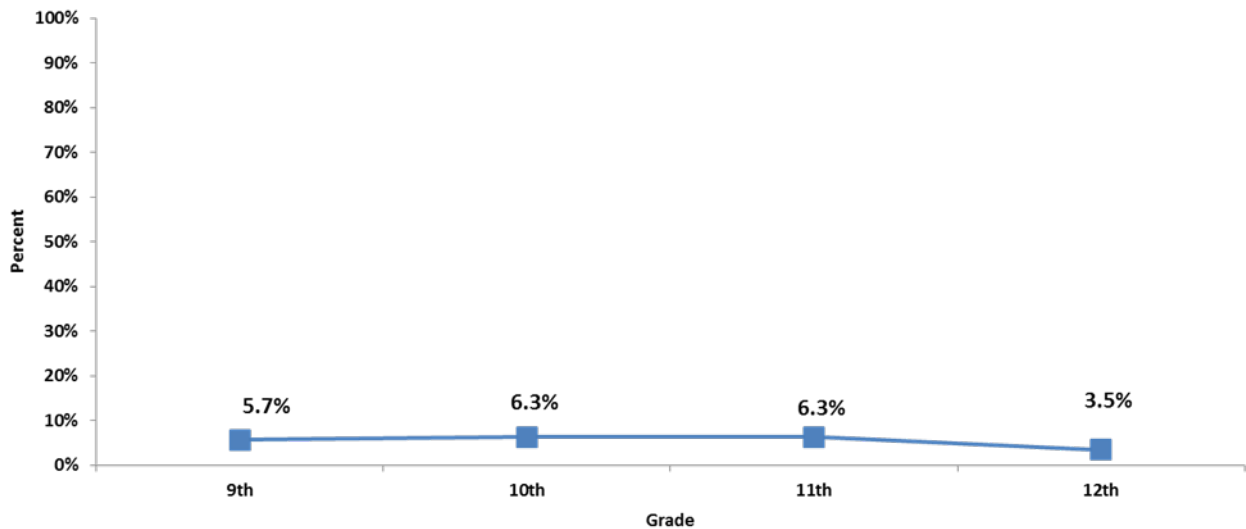
Figure 41. Percentage of Students Who Carried a Weapon One or More Times in the Past Month



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 42 illustrates the percentage of students who carried a gun one or more times in the past month. The highest percentage of students who carried a gun was in 10th and 11th grades, with 6.3% reporting. The lowest percentage (3.5%) of students was in 12th grade.

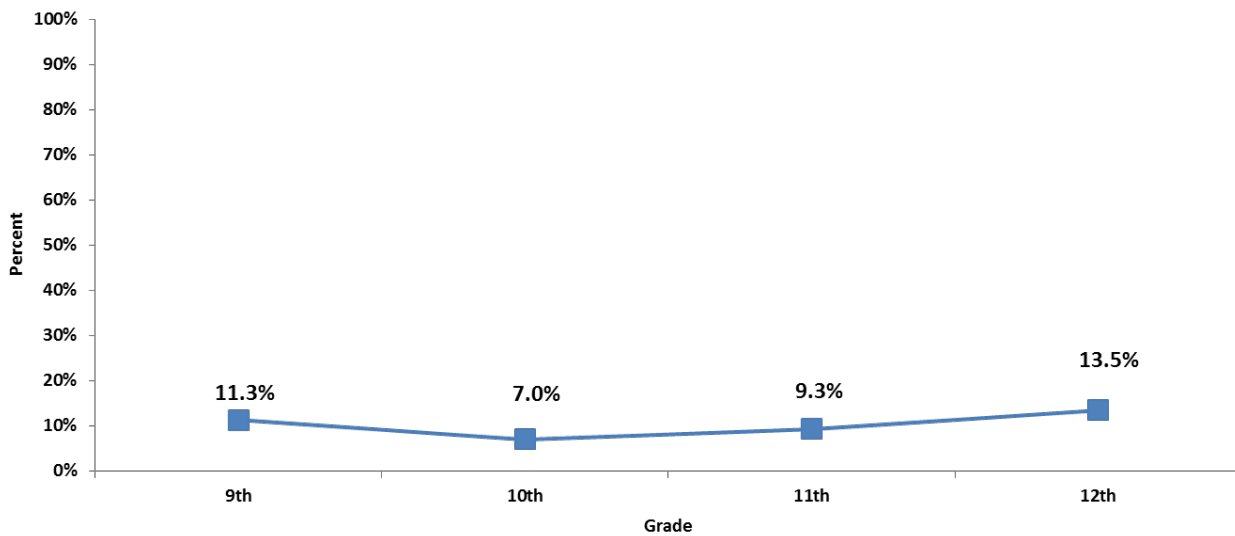
Figure 42. Percentage of Students Who Carried a Gun One or More Times in the Past Month



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 43 illustrates the percentage of students who were physically violent towards their boyfriend or girlfriend in the past year. The highest percentage of students who displayed physical violence toward their significant other was in 12th grade, with 13.5% reporting. The lowest percentage (7.0%) of students reporting physical violence was in 10th grade.

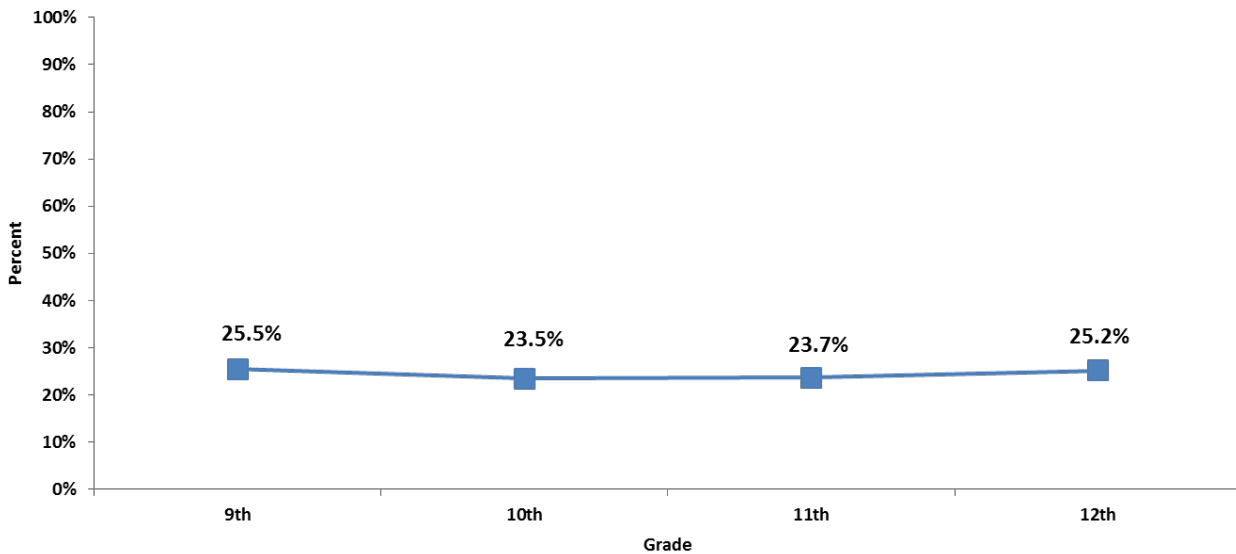
Figure 43. Percentage of Students Who Were Physically Violent Towards Their Boyfriend/Girlfriend in the Past Year



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 44 illustrates the percentage of students who felt sad or hopeless every day for two or more weeks in a row in the past year. The percentage of students who felt sad or hopeless for two or more weeks in a row were consistent throughout grades 9th-12th with 25.5% of 9th grade students, 23.5% of 10th grade, 23.7% of 11th grade and 25.2% of 12th grade students responding. This suggests that a quarter or more of the high school population struggles with depression at least some of the time.

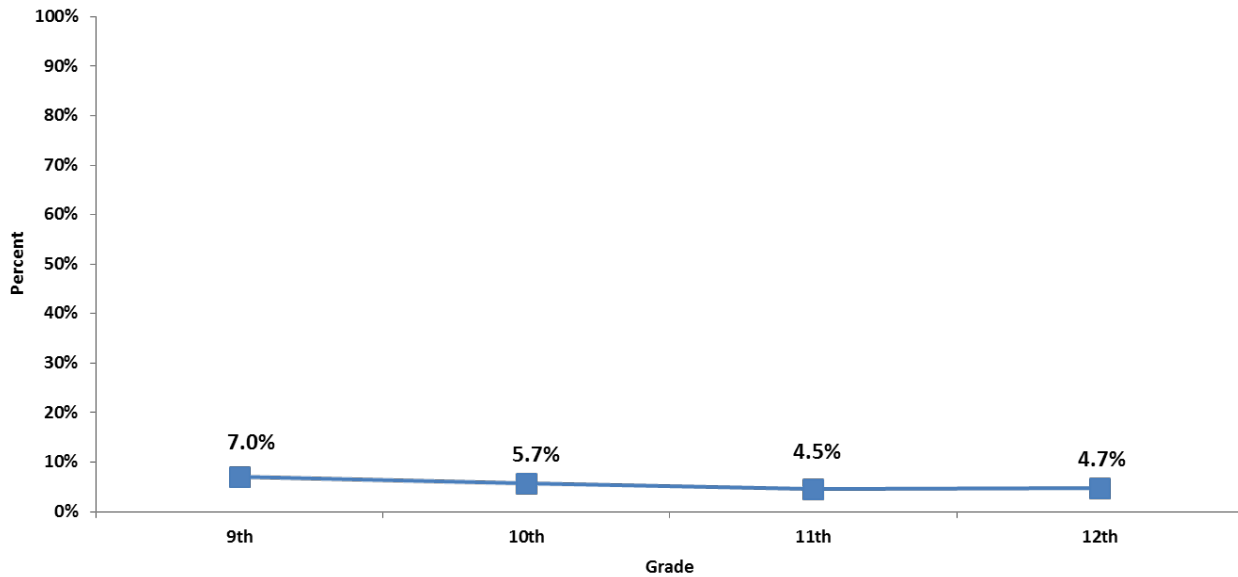
Figure 44. Percentage of Students Who Felt Sad or Hopeless Every Day for 2 or More Weeks in a Row in the Past Year



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 45 illustrates the percentage of high school students who attempted suicide one or more times in the past year. Generally, the percentage of students who attempted suicide declined as the grade level increased with 7.0% of students in 9th grade, 5.7% of 10th grade students, 4.5% of 11th grade students, and 4.7% of 12th grade students reporting attempting suicide in the past year.

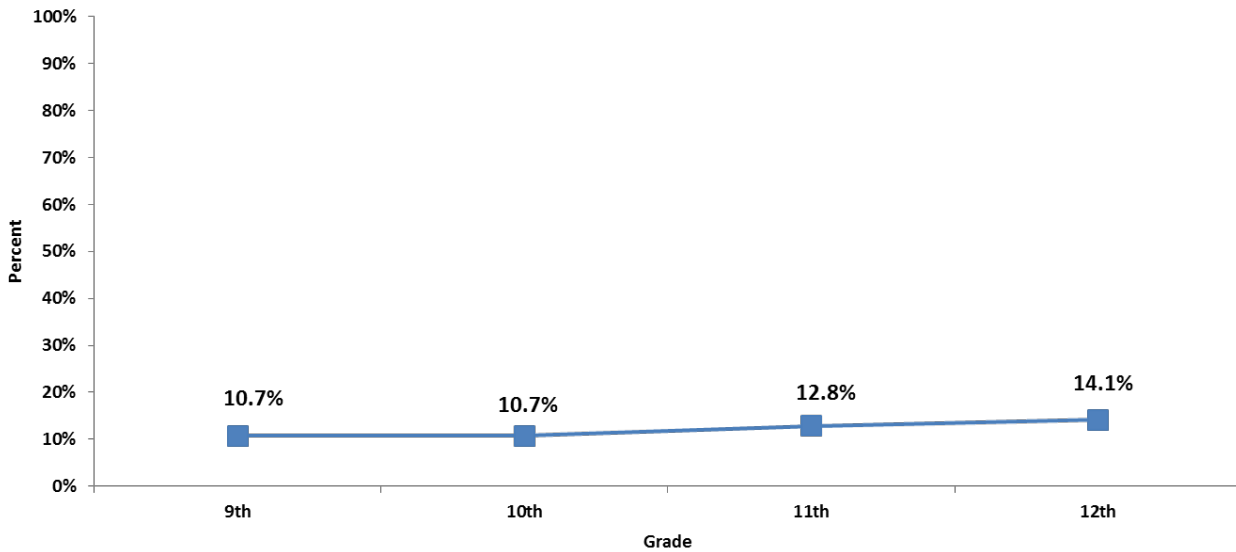
Figure 45. Percentage of Students Who Attempted Suicide One or More Times in the Past Year



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 46 illustrates the percentage of students who smoked daily for the past month. The highest percentage (14.1%) of students who smoked daily was in 12th grade, while 9th and 10th grade students had the lowest percentage of smokers at 10.7%.

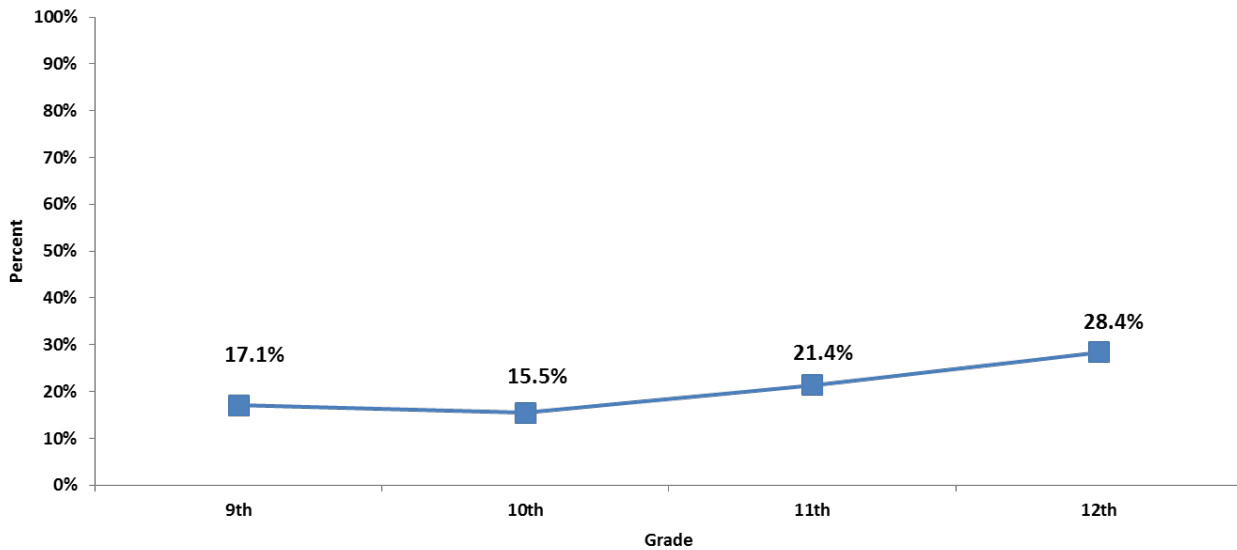
Figure 46. Percentage of Students Who Smoked Cigarettes Daily for the Past Month



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 47 illustrates the percentage of students who drank five or more drinks in a row, one or more times in the past month. The highest percentage (28.4%) of students who drank one or more drinks in a row was in 12th grade. 10th grade students were least likely to have multiple drinks, with 15.5% responding, while 17.1% of 9th grade students and 21.4% of 11th grade students drank multiple drinks in the past month.

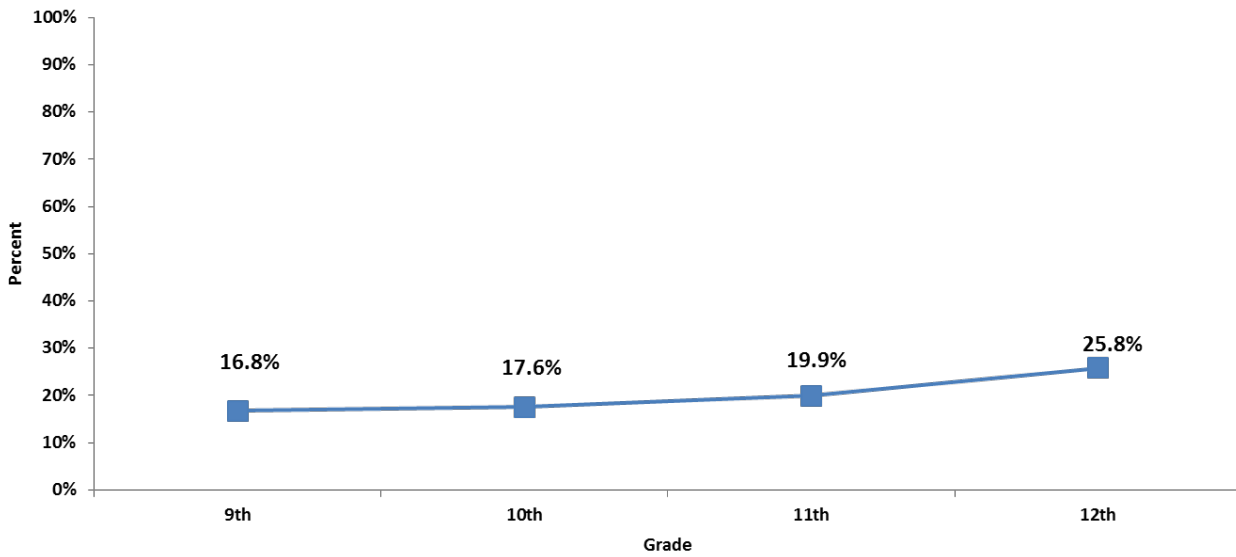
Figure 47. Percentage of Students Who Drank 5 or More Drinks in a Row One or More times in the Past Month



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 48 illustrates the percentage of students who used marijuana one or more times in the past in 9th-12th grades. The rate steadily rises with age. The highest percentage of students who use marijuana was in 12th grade, with 25.8% responding. 19.9% of 11th grade students, 17.6% of 10th grade students, and 16.8% of 9th grade students responded they have used marijuana one or more times in the past month.

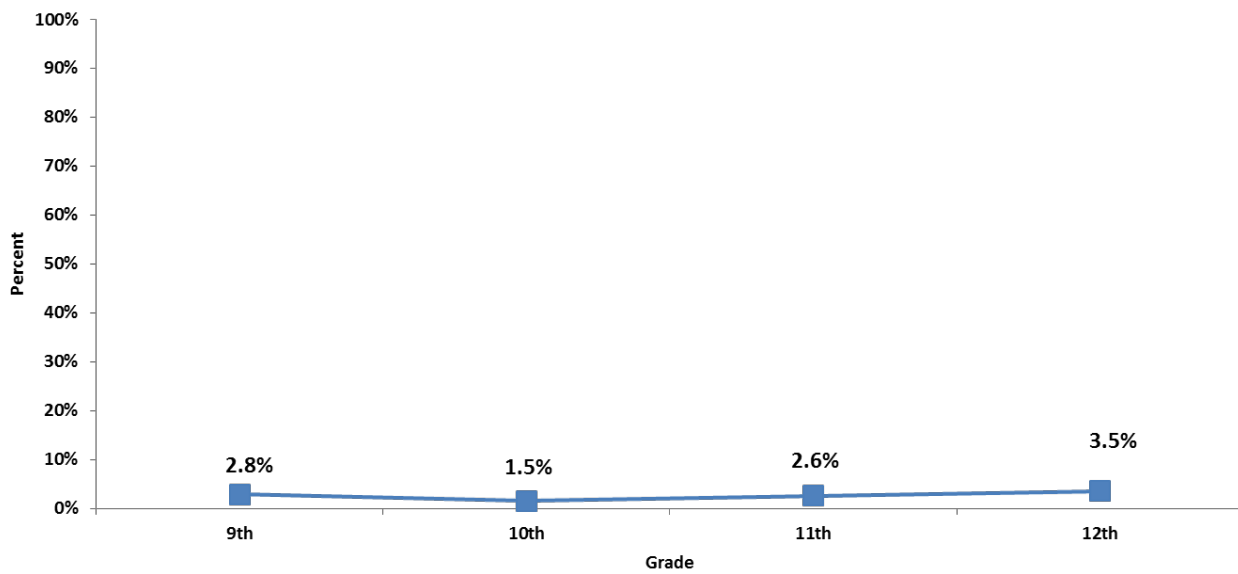
Figure 48. Percentage of Students Who Used Marijuana One or More Times in the Past Month



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 49 illustrates the percentage of students who used cocaine in the past month. The highest percentage of students who reported using cocaine in the past month was in 12th grade, with 3.5% reporting. The lowest percentage (1.5%) of students were in 10th grade, while 2.8% of 9th grade students and 2.6% of 11th grade students reported using cocaine in the past month.

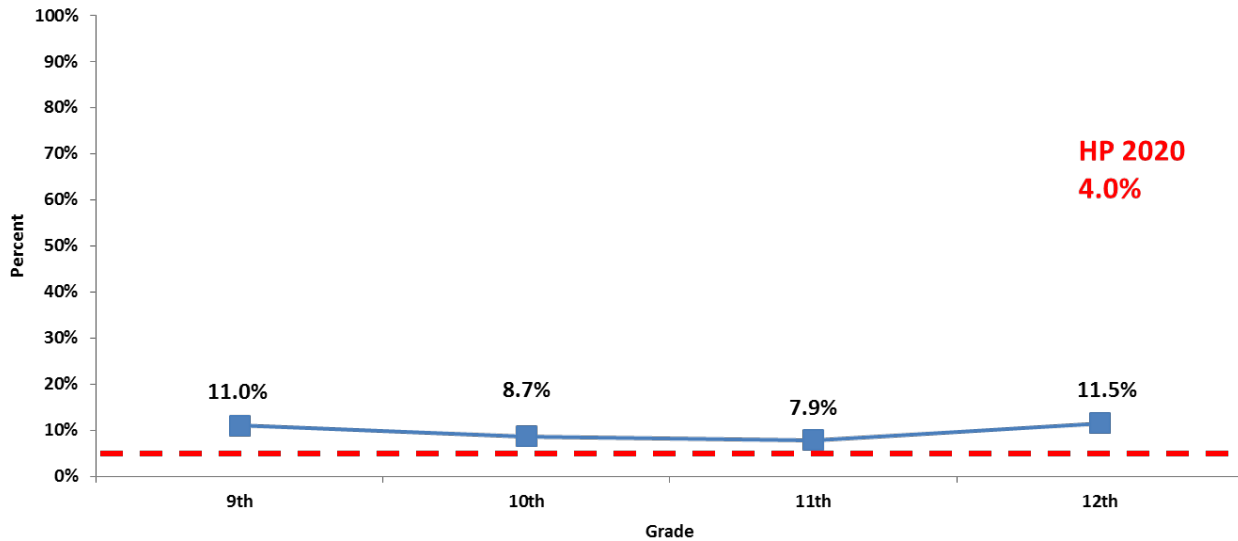
Figure 49. Percentage of Students Who Used Cocaine in the Past Month



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 50 illustrates the percentage of students who reported using inhalants in their lifetime. The highest percentage of students who reported using inhalants in their lifetime was in 12th grade, with 11.5% reporting. The lowest percentage (7.9%) of students was in 11th grade, while 11.0% of 9th grade students and 8.7% of 10th grade students reported trying inhalants at least once in their lifetime. For students in grades 9th-12th, the percentage of students who used inhalants was above the Healthy People 2020 Goal (4.0%) for all four grades.

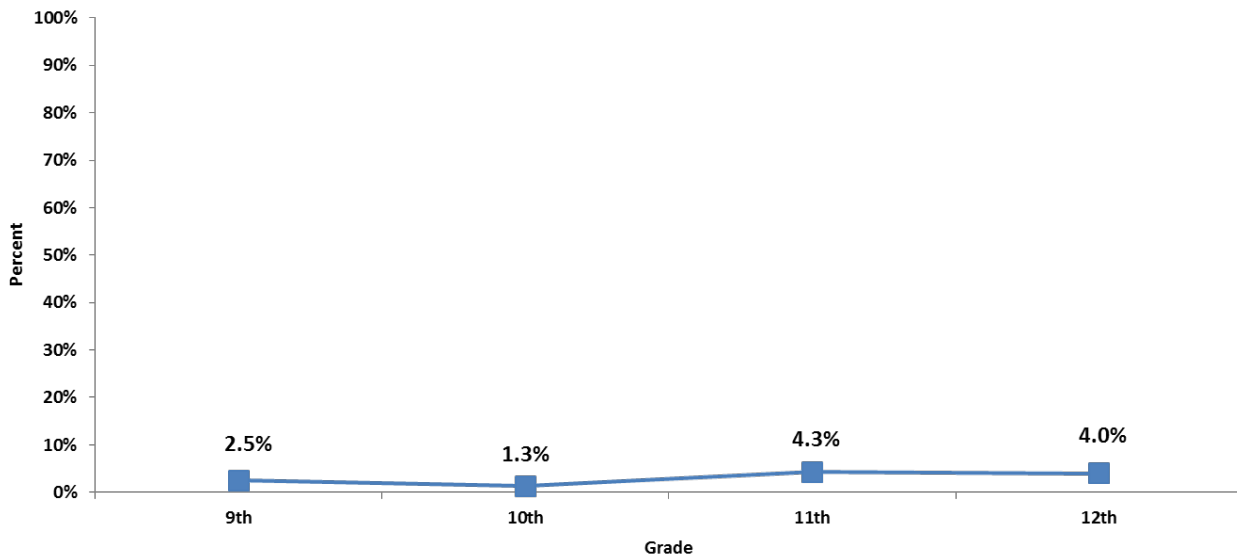
Figure 50. Percentage of Students Who Used Inhalants in Their Lifetime



Source: 2011 West Virginia Youth Risk Behavior Survey System, www.healthypeople.gov

Figure 51 illustrates the percentage of students who used heroin at least once in their lifetime. The highest percentage of students who reported using heroin in their lifetime was in 11th grade, with 4.3% reporting. The lowest percentage (1.3%) of students was 10th grade, while 2.5% of 9th grade students and 4.0% of 12th grade students reported trying heroin at least once in their lifetime.

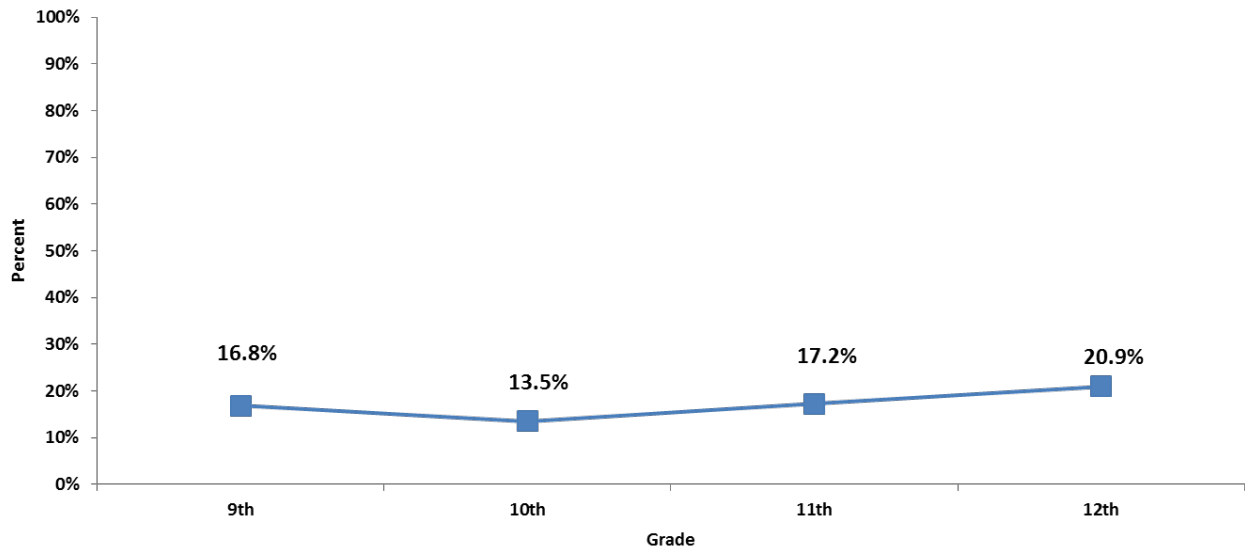
Figure 51. Percentage of Students Who Used Heroin at Least Once in Their Lifetime



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 52 illustrates the percentage of students who used prescription drugs illegally in their lifetime.

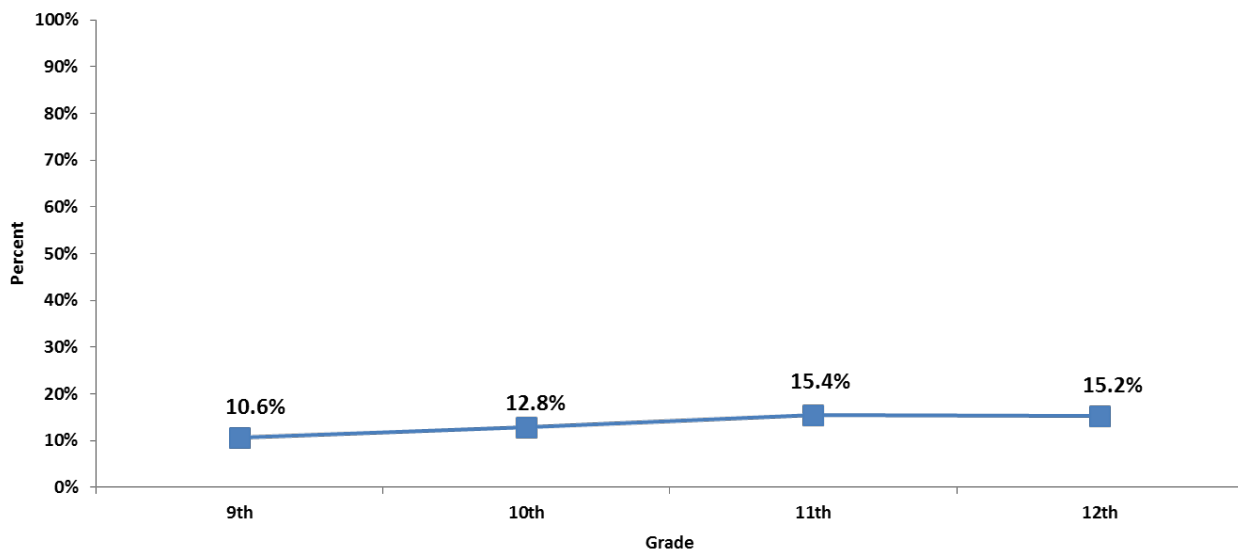
Figure 52. Percentage of Students Who Used Prescription Drugs Illegally in Their Lifetime



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 53 illustrates the percentage of students who were not physically active for 60 minutes a day in the past seven days. Student inactivity appears to increase with age, increasing from 9.2% of 9th grade students to 15.2% of 12th grade students.

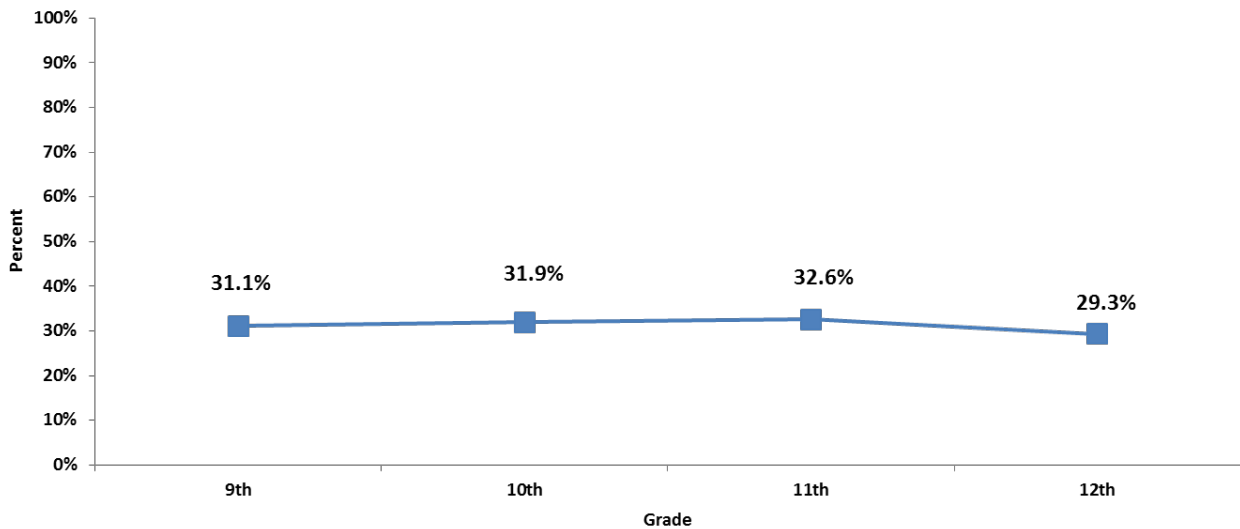
Figure 53. Percentage of Students Who Were Not Physically Active for 60 Minutes a Day in the Past 7 Days



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 54 illustrates the percentage of students who watched three or more hours of television on an average school day. A sizable portion of the high school student population, (almost a third) watches 3 or more hours of television per day. The highest percentage (32.6%) of students who watched three or more hours of television were in 11th grade.

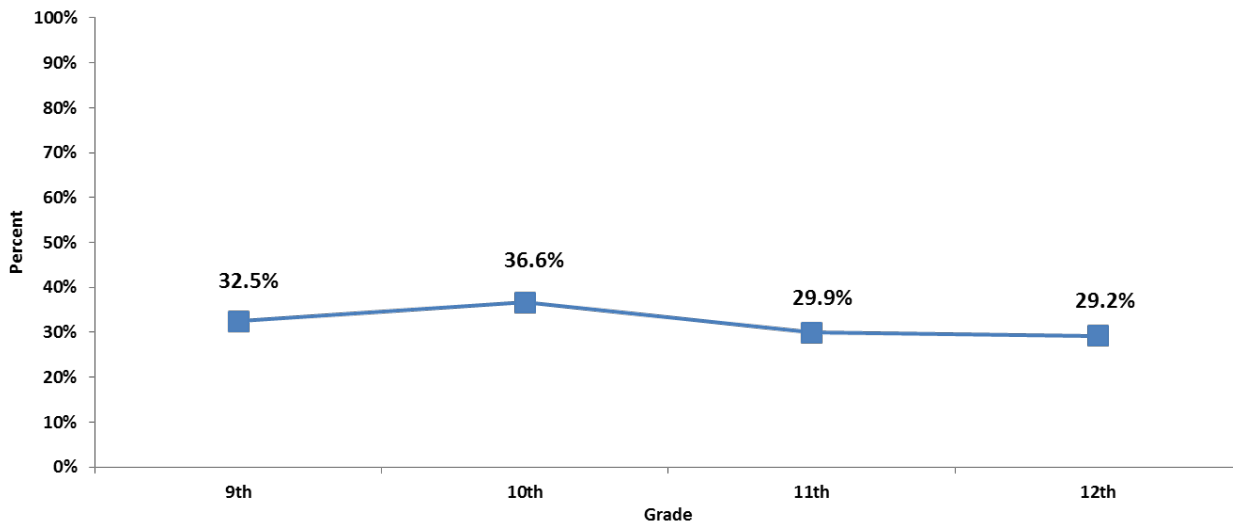
Figure 54. Percentage of Students Who Watched 3 or More Hours of Television on an Average School Day



Source: 2011 West Virginia Youth Risk Behavior Survey System

Figure 55 illustrates the percentage of students who played video games or used the computer for three or more hours on an average school day. While the percentage declines slightly with age, the highest percentage of students who played video or computer games for more than three hours were in 10th grade with 36.6% of students. 10th grade students also reported less drug and alcohol use throughout the year. Almost a third (32.5%) of 9th grade students, 29.9% of 11th grade students, and 29.2% of 12th grade students reported playing video games or using the computer for three or more hours on an average school day.

Figure 55. Percentage of Students Who Played Video Games or on the Computer 3 or More Hours on an Average School Day



Source: 2011 West Virginia Youth Risk Behavior Survey System

Focus Group Input

Focus group participants discussed the needs and issues related to the student population in schools. The participants indicated that there is an increased need for student mental health services and resources in schools.

Stakeholder Interview Input

Stakeholders participating in the interviews indicated that the needs in the student population are increasing, and the support systems available to students in the schools, while they are good, are not keeping pace with the needs of children and families. Youth acceptance, peer pressure, bullying and technology are seen as impacting the growing need. There is recognition that reaching children early and focusing on self-esteem, role modeling and prevention education could make a difference if children are reached prior to addictions beginning. There is also a need for daytime programs for kids with severe needs. Overall comment themes included:

- A need for daytime programs for kids with severe needs
- Increased substance abuse education among the youth
- Increased availability of school counseling
- Youth acceptance and peer pressure contribute to the challenges facing youth
- Need to educate the youth prior to the addictions beginning
- Reach children in the community as a group and focus on self-esteem and role modeling

Youth Risk Behaviors Conclusions

The percentage of students engaging in risk behaviors suggests that the needs of students in the region are increasing. Sizable and increasing portions of students (up to a third of the population) report various risk behaviors. Students report higher levels of smoking, drug and alcohol use and violence with age. Stakeholders suggest that the support services available in the schools, although good, are not keeping pace with the needs of children and their families.

Overall findings suggest:

- Between 9th and 12th grades, there was an increase in the percentage of students who drove or rode in an automobile with someone after drinking (12.6% of seniors drove and 21.2% of seniors rode).

- Although the numbers decreased between 9th and 12th grades, 15.4% of high school seniors carried a weapon one or more times in the past month, with 3.5% carrying a gun.
- A percentage (13.5%) of high school seniors reported physical violence towards their boyfriend/girlfriend.
- Between 9th and 12th grades, approximately 25% of students reported feeling sad or hopeless daily for two or more weeks in the past year and more than 7% of 9th grade students reported that they attempted suicide. Between 9th and 12th grades, the percentage of students who attempted suicide decreased to 4.7%, although this still puts a significant number of students at risk.
- In general, students who reported tobacco use, drinking alcohol, and drug use increased with grade level and sizable portions of the 12th grade student population smoke (14.1%), drink alcohol 5 or more times in the past month (28.4%), use marijuana (25.8%), cocaine (3.5%), inhalants (11.5%), heroine (4.0%), and illegally use prescription drugs (20.9%).
- On average, 30% of students spent at least three hours a day watching television, playing video games, or using a computer (for non-school work) on an average school day, while 15.2% of seniors reported not being physically active for 60 minutes a day in the past 7 days.
- Focus group participants discussed the needs and issues related to the student population in schools. The participants indicated that there is an increased need for student mental health services and resources in schools.
- Stakeholders participating in the interviews indicated that the needs in the student population are increasing, and the support systems available to students in the schools, while they are good, are not keeping pace with the needs of children and families. Stakeholders suggested reaching children early and focusing on self-esteem, role modeling and prevention education could make a difference if children are reached prior to addictions beginning. There is also a need for daytime programs for kids with severe needs.

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Environmental Factors and Indicators Impacting Mental Health and Physical Health



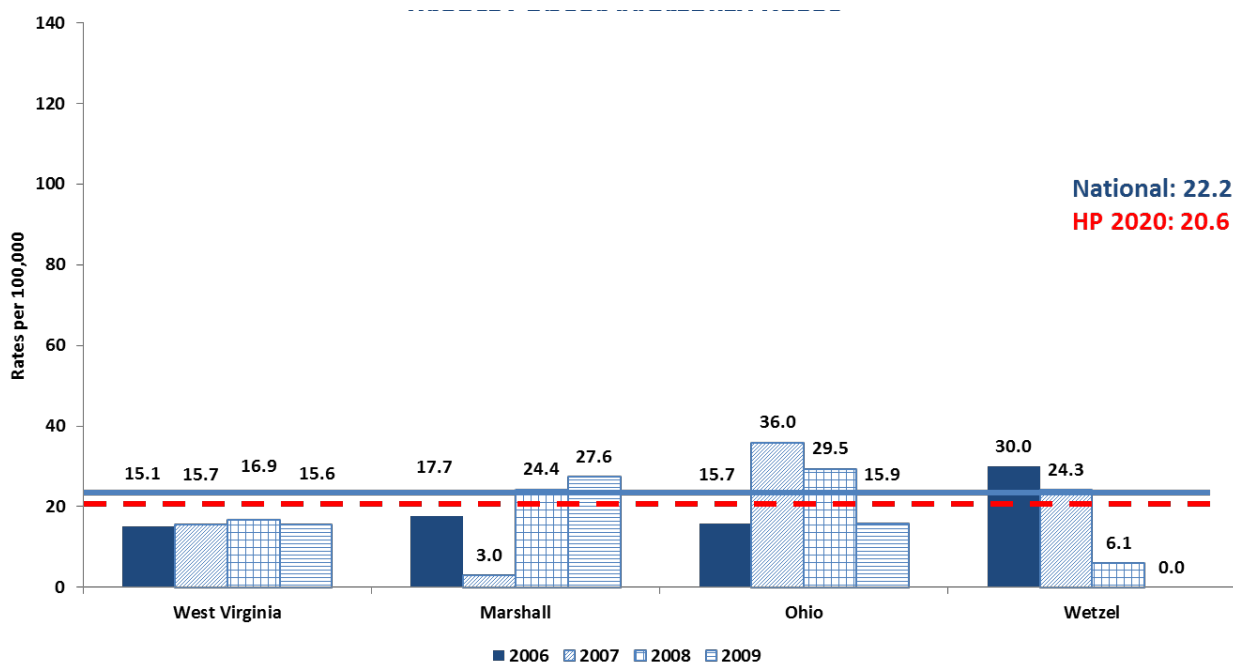
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Environmental Factors and Indicators Impacting Mental and Physical Health

Conditions that are long-lasting, relapse, and are characterized by remission and continued persistence are categorized as chronic diseases. The literature in recent years has been citing the relationship between physical and mental health and as the health care delivery system moves toward population based health management, the intentional integration of mental and physical health programs and services will be an important focus for providers in all disciplines.

Figure 56 illustrates breast cancer mortality rates for West Virginia and the service area counties for 2006-2009, where data was available. Ohio County had a much higher breast cancer mortality rate in 2007 (36.0) compared to the state, while Wetzel had significantly higher mortality in 2006 (30.0), although the Wetzel County rates have been declining. Marshall County exceeded the U.S. rate of 22.2 and Healthy People 2020 Goal of 20.6 in 2008-2009, Ohio County exceeded in 2007-2008 and Wetzel County exceeded the Goal in 2006-2007.

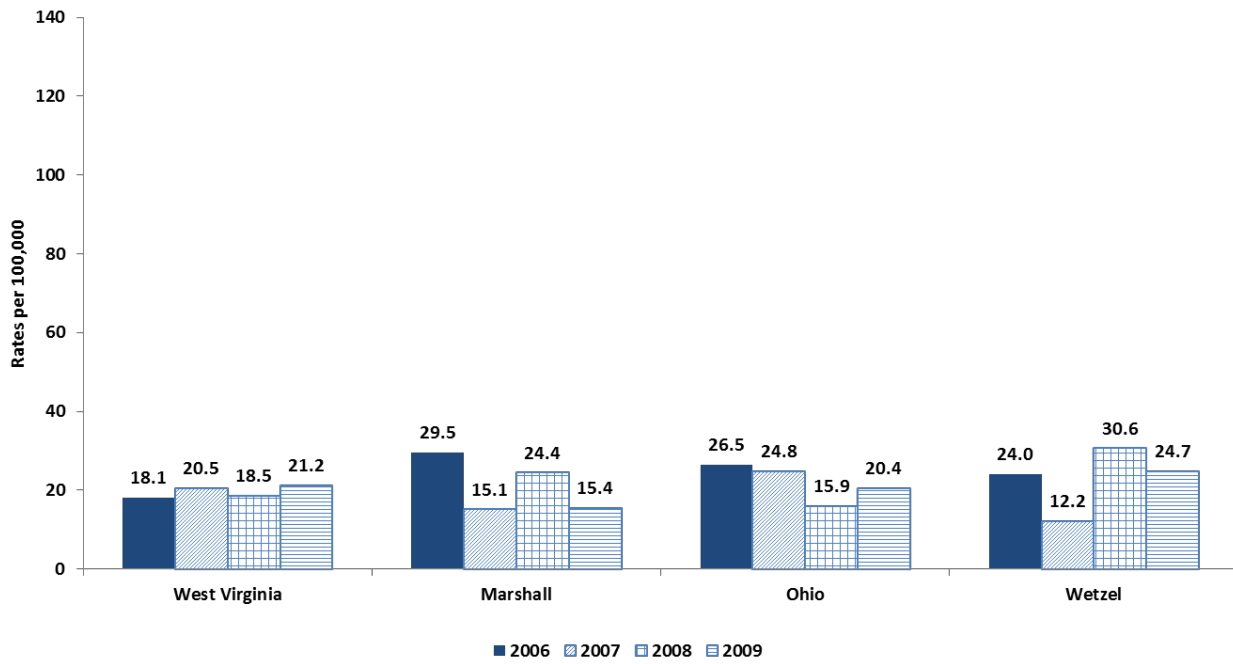
Figure 56. Breast Cancer Mortality Rates



Source: West Virginia Bureau for Public Health, Centers for Disease Control, www.healthypeople.gov

Figure 57 illustrates the colon cancer mortality rates for West Virginia and the service area counties for 2006-2009. In 2007 and 2009, the colon cancer mortality rate for Marshall (15.1, 15.4) was lower than the state rate (20.5, 21.2). Over the four year period, the rates across the state remained somewhat consistent, while service area rates fluctuated.

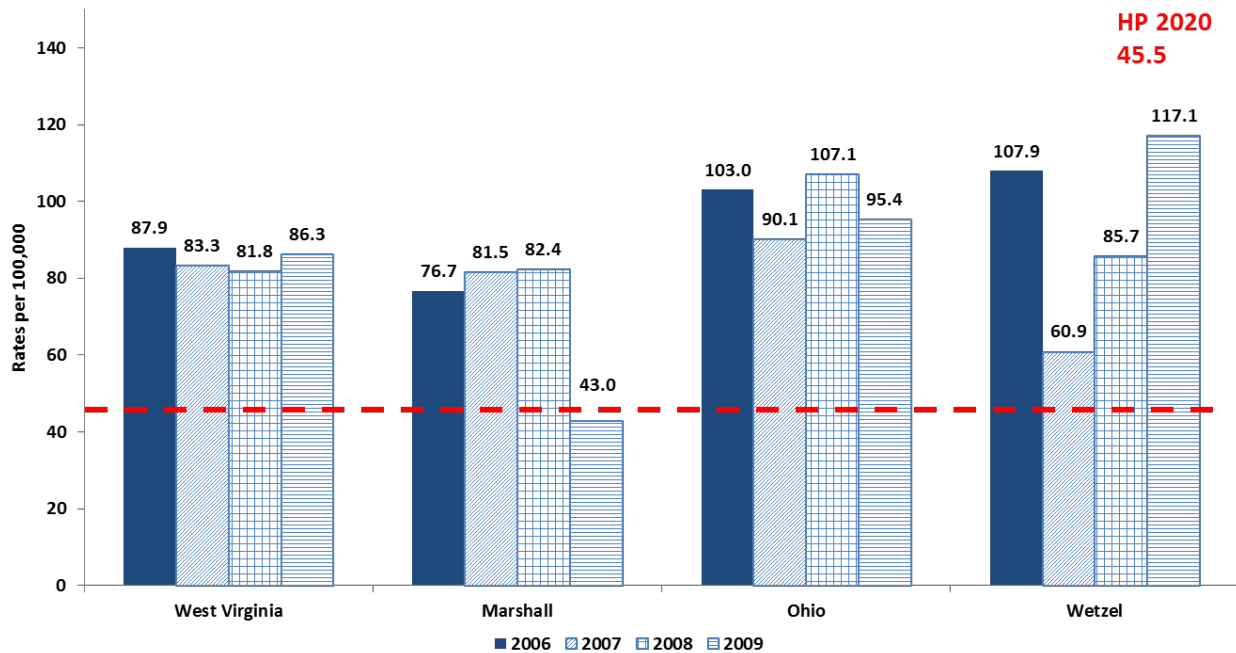
Figure 57. Colon Cancer Mortality Rates



Source: West Virginia Bureau for Public Health

Figure 58 illustrates Bronchus and Lung Cancer Mortality Rates for West Virginia and the service area counties from 2006-2009. For all four years, all service area counties and the state were higher than the Healthy People Goal of 45.5, except Marshall County in 2009, meaning that the service areas had for the most part decreased their rates to meet the Healthy People Goal. Marshall and Ohio counties experienced a decrease in mortality rates from 2008 to 2009, while Wetzel County and the state rates increased.

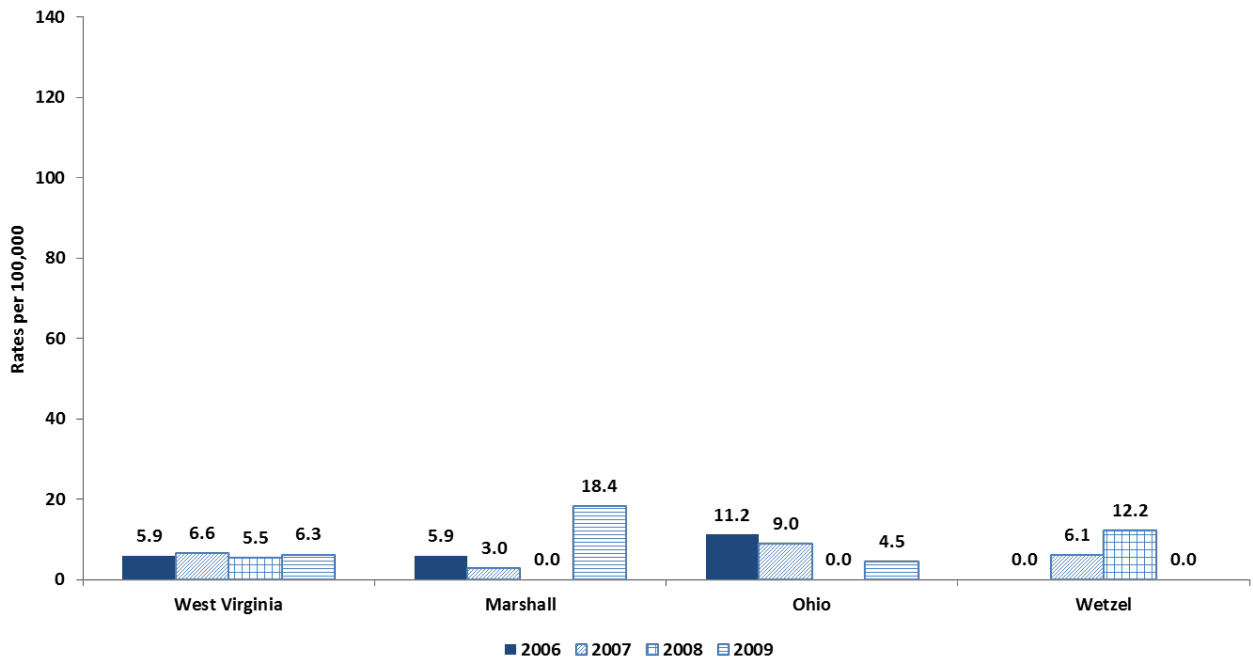
Figure 58. Bronchus and Lung Cancer Mortality Rates



Source: West Virginia Bureau for Public Health, www.healthypeople.gov

Figure 59 illustrates ovarian cancer mortality rates per 100,000 people in Marshall, Ohio and Wetzel Counties as well as West Virginia from 2006 to 2009, where data was available. Marshall County is missing data from 2008, and has the highest reported rate in 2009 with a rate of 18.4, and was significantly higher than the state’s rate of 6.3 for 2009. Ohio County rates decreased from 11.2 in 2006 to 4.5 in 2009, however there was not data reported in 2008. Wetzel County data was only available for 2007 and 2008 and saw an increase from 6.1 to 12.2, while the state data held consistent around 6.0 over all four years.

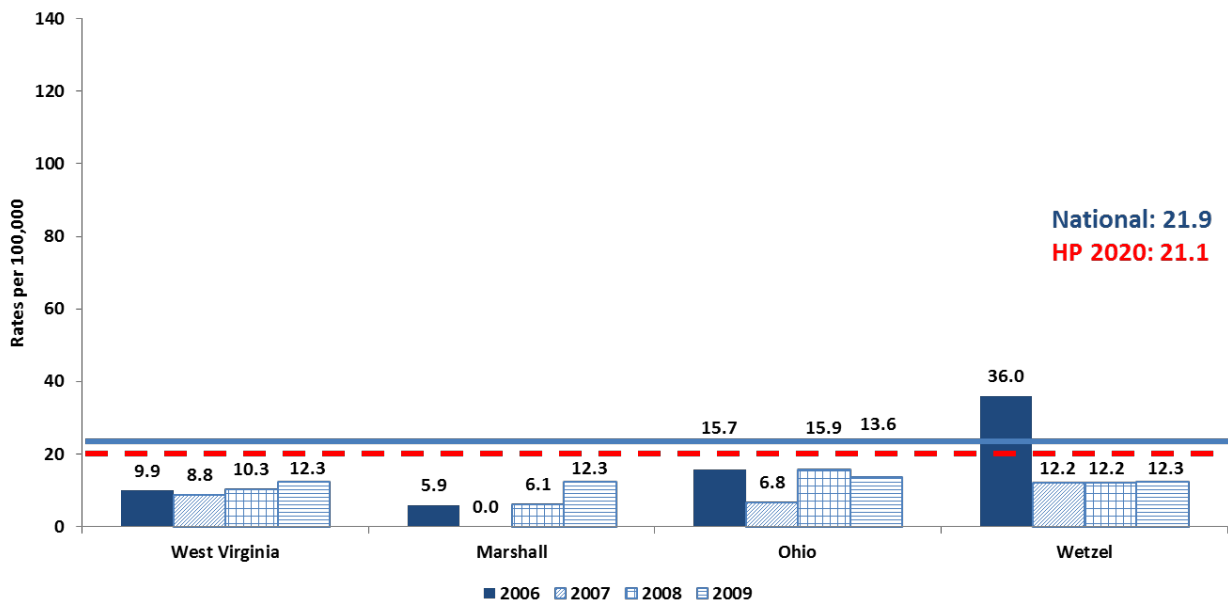
Figure 59. Ovarian Cancer Mortality Rates



Source: West Virginia Bureau for Public Health

Figure 60 illustrates Prostate Cancer mortality rates for West Virginia and the service area counties for 2006-2009. West Virginia and all service area counties were below the U.S. Rate of 21.9 and the 2020 Healthy People Goal of 21.1, except for Wetzel County in 2006, with a rate of 36.0. This means that for the most part the service area counties have met the Healthy People Goal for this indicator. Marshall County saw an increase in mortality rates over four years from 5.9 in 2006 to 12.3 in 2009, no data was reported for 2007. After a rate of 36.0 in 2006, Wetzel County rates decreased to 12.2 in 2007-2008 and 12.3 in 2009, consistent with the state. Ohio County rates were higher than the state, except in 2007 with a rate of 6.8 while the state had a prostate cancer mortality rate of 8.8.

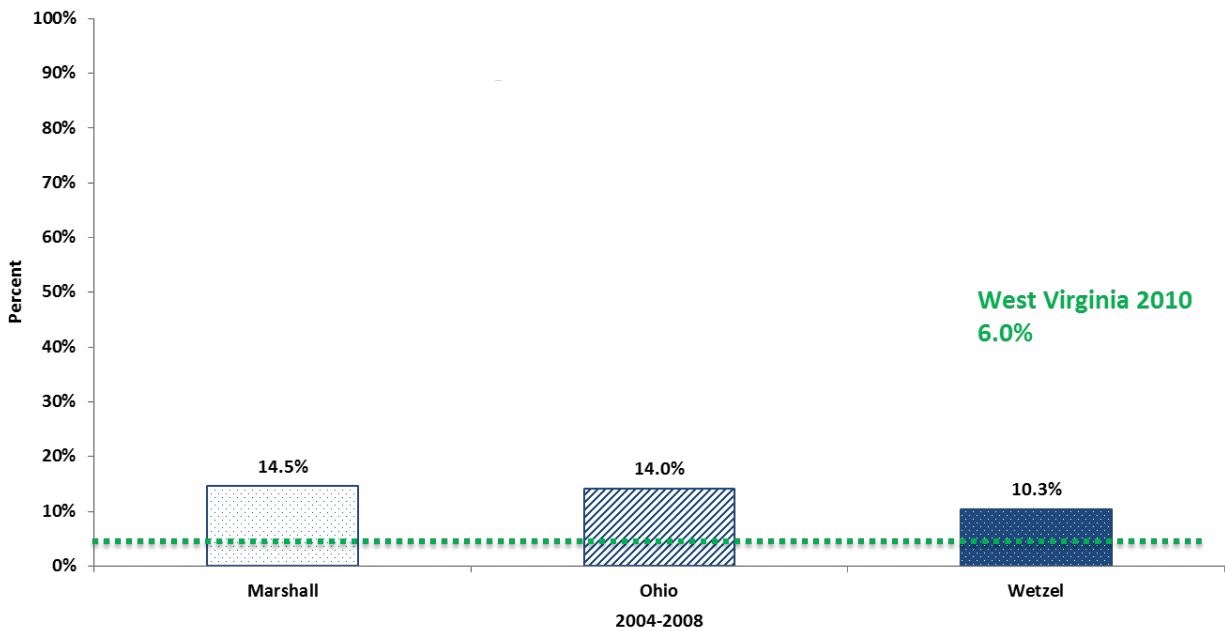
Figure 60. Prostate Cancer Mortality Rate



Source: West Virginia Bureau for Public Health, Centers for Disease Control, www.healthypeople.gov

Figure 61 illustrates the percentage of all adults who reported having a heart attack, angina, or stroke in Marshall, Ohio and Wetzel counties from 2004-2008. All service area counties had a higher percentage of adults reporting a heart attack, angina or stroke than the state (6.0%). Marshall County had the highest percentage of adults who reported having a heart attack, angina, or stroke with 14.5% reporting.

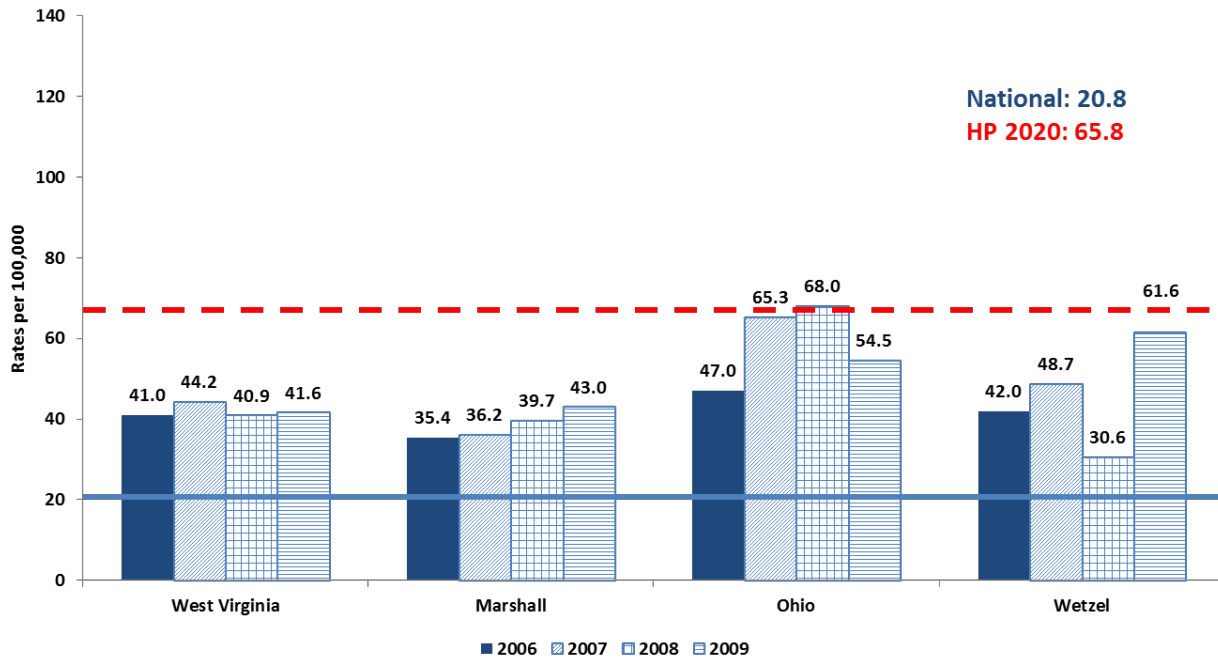
Figure 61. Percentage of All Adults Who Reported Having a Heart Attack, Angina, or Stroke



Source: 2004-2008, 2010 West Virginia Behavioral Risk Factor Survey

Figure 62 illustrates diabetes mortality rates in West Virginia, Marshall, Ohio and Wetzel counties from 2006 to 2009. Ohio County had the highest mortality rates with a rate of 65.3 in 2007 and 68.0 in 2008, the rate did decline to 54.5 in 2009. The Wetzel County diabetes mortality rate increased from 30.6 in 2008 to 61.6 in 2009. Marshall County had a steady increase over the four year period going from a mortality rate of 35.4 in 2006 to 43.0 in 2009. Except for Ohio County’s 2008 rate of 68.0, all remaining counties and the state rates were below the Healthy People 2020 Goal of 65.8. Marshall, Ohio and Wetzel counties, as well as West Virginia were higher than the U.S. rate of 20.8 for diabetes mortality.

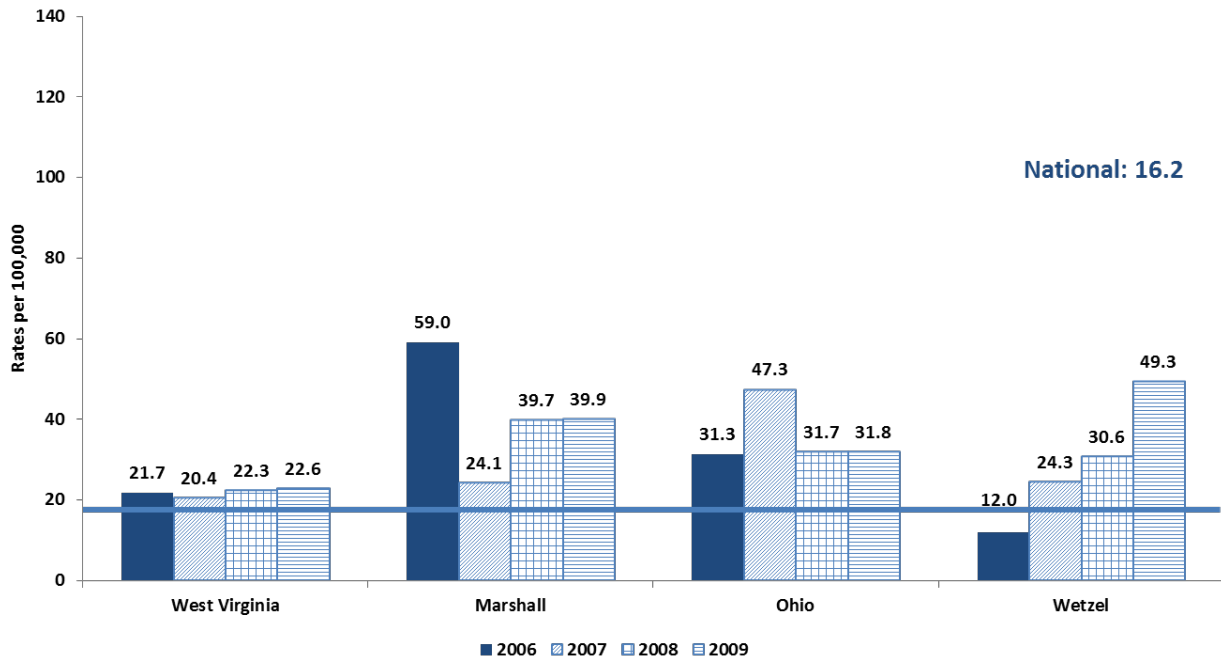
Figure 62. Diabetes Mortality Rate



Source: West Virginia Bureau for Public Health, Centers for Disease Control, www.healthypeople.gov

Figure 63 illustrates Influenza and Pneumonia mortality rates in West Virginia and the service area from 2006 to 2009. Marshall County had the highest influenza and mortality rate in 2006 with a rate of 59.0, significantly higher than the state rate of 22.6. Ohio County had a rate increase from 31.3 in 2006 to 47.3 in 2007, and then decreased in 2008 and 2009, still higher than state rates. Wetzel County had a four year increase from 12.0 in 2006 to 49.3 in 2009. All counties had higher rates than the state all four years except Wetzel County in 2006. Except for Wetzel County’s 2006 mortality rate of 12.0, all other counties and the state had higher influenza and pneumonia mortality rates than the national rate of 16.2.

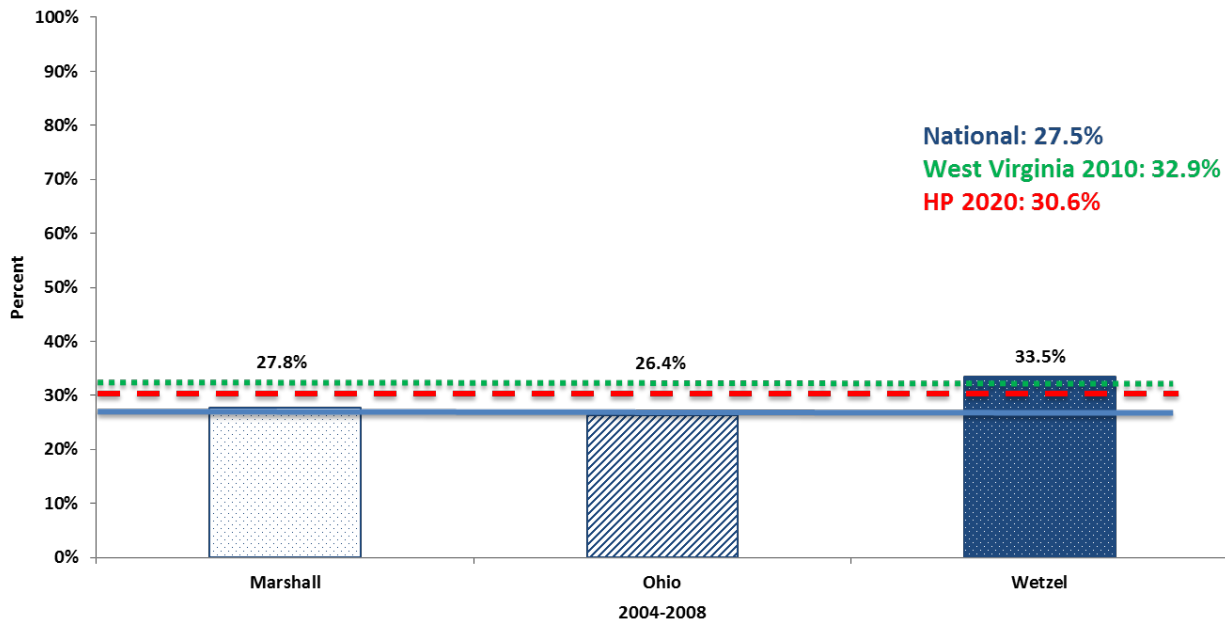
Figure 63. Influenza and Pneumonia Mortality Rate



Source: West Virginia Bureau for Public Health, Centers for Disease Control

Figure 64 illustrates the percentage of all obese adults in Marshall, Ohio and Wetzel Counties from 2004 to 2008, compared to 32.9% of the West Virginia population. With 33.5% of the population obese, Wetzel County (33.5%) exceeded the U.S. (27.5%), West Virginia (32.9%) and the 2020 Healthy People Goal (30.6%). Ohio County had the lowest percentage of its population obese, with only 26.4% of the population above a BMI of 30. Marshall County (27.8%) was above the national rate of 27.5%, but was below both the West Virginia and Healthy People 2020 Goal.

Figure 64. Percentage of All Adults Obese (BMI GE 30)



Source: 2004-2008, 2010 West Virginia Behavioral Risk Factor Survey, Centers for Disease Control, www.healthypeople.gov

Figure 65 illustrates obesity trends among U.S. adults in 1990, 1998 and 2006. This illustrates that obesity rates have increased in West Virginia and as of 2006 the state now has one of the two highest obesity rates in the country.

Figure 65. Obesity Trends* Among U.S. Adults BRFSS, 1990, 1998, 2006
(*BMI ≥ 30 , or about 30 lbs. overweight for 5'4" person)

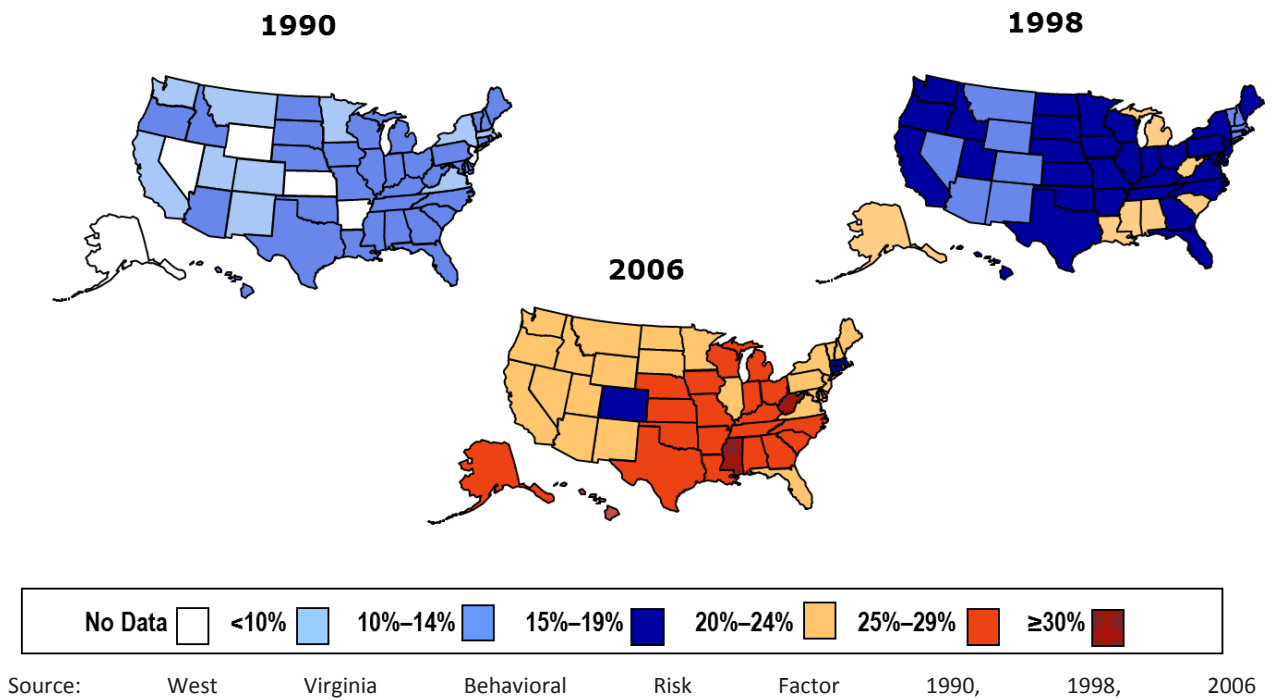
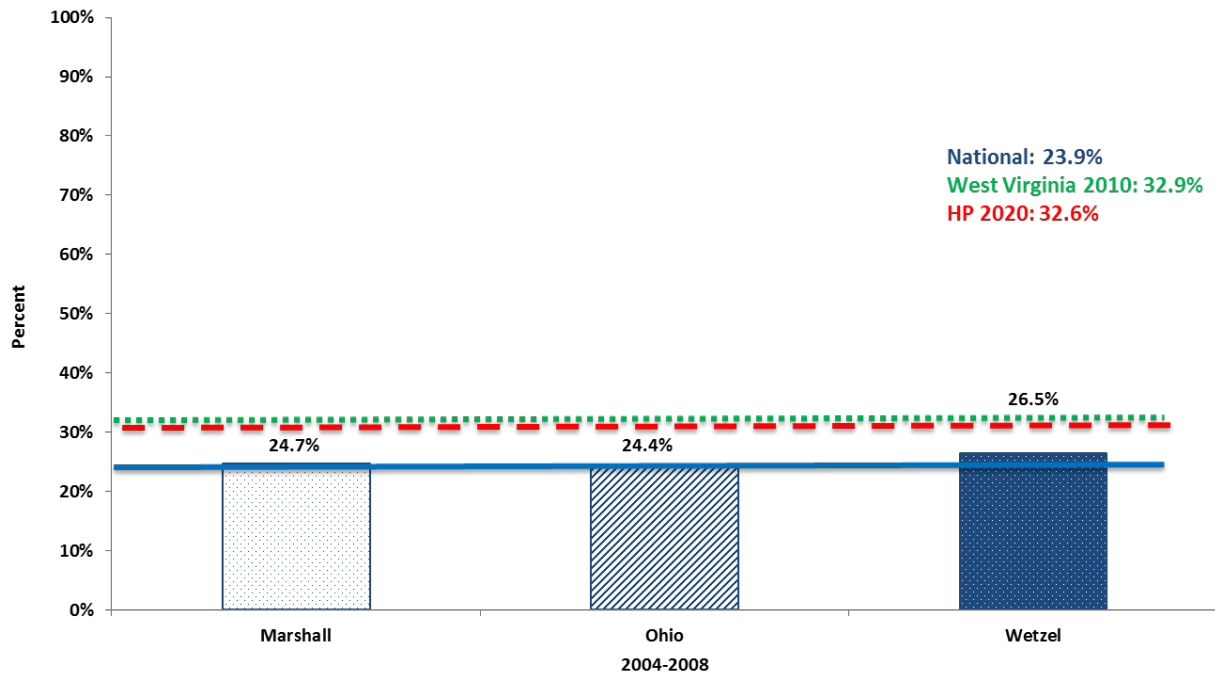


Figure 66 illustrates the percentage of adults who reported no leisure time physical activity in Marshall, Ohio and Wetzel counties from 2004-2008. All service area counties are below the West Virginia 2010 percentage of 32.9% and Healthy People 2020 Goal of 32.6% of its population reporting no leisure time physical activity. The highest percentage of residents that reported no leisure time physical activity resided in Wetzel County, with 26.5%. All counties are above the U.S. rate of 23.9%.

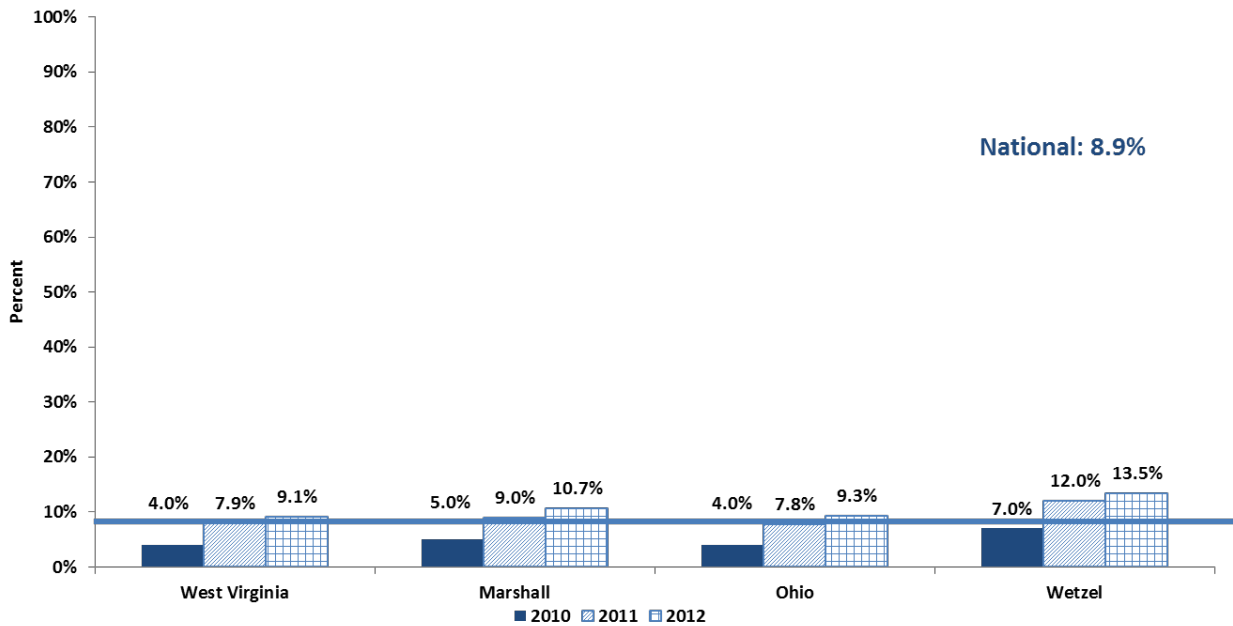
Figure 66. Percentage of All Adults Who Reported No Leisure Time Physical Activity



Source: 2004-2008, 2010 West Virginia Behavioral Risk Factor Survey, Centers for Disease Control, www.healthypeople.gov

Figure 67 illustrates unemployment rates in West Virginia and the service area counties from 2010 to 2012. All service area counties and the state unemployment percentage have increased from 2010 to 2012. The highest percentage of unemployed resided in Wetzel County, with 13.5%, compared to West Virginia’s 9.1%. Marshall County’s unemployment grew from 5.0% to 10.7% in 2012, while Ohio County’s unemployment grew from 4.0% to 9.3% in 2012. For 2012, all counties and the state have unemployment rates above the U.S. rate of 8.9%.

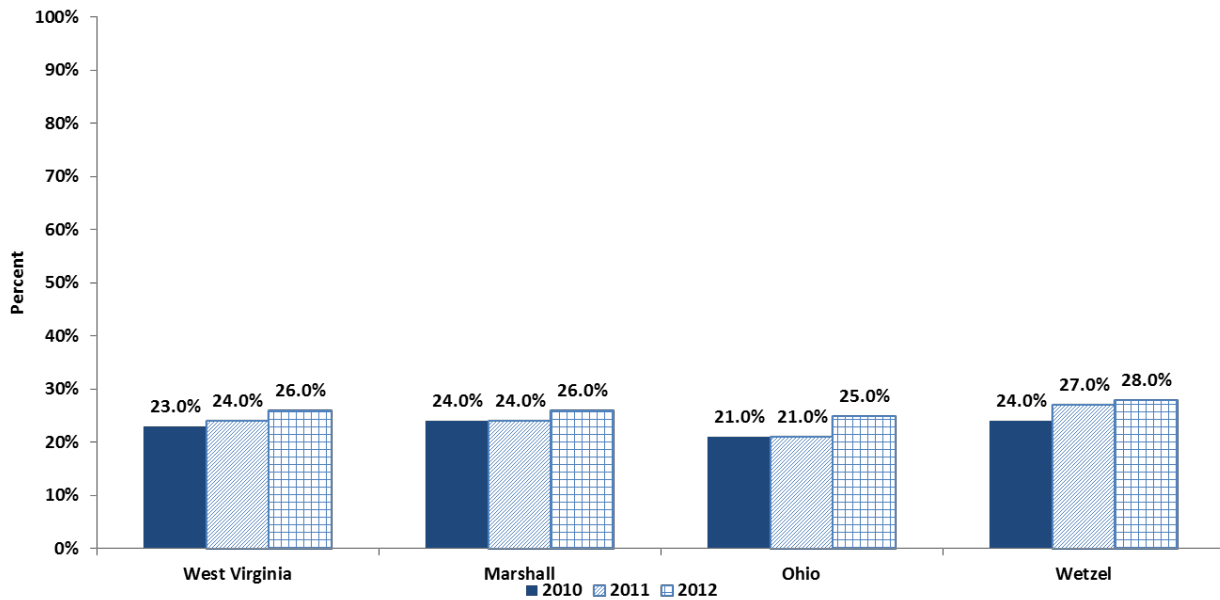
Figure 67. Unemployment Rate



Source: www.countyhealthrankings.org, Centers for Disease Control

Figure 68 illustrates the percentage of children living in poverty in West Virginia, Marshall, Ohio and Wetzel counties from 2010-2012. All service area counties and West Virginia have had an increase of children living in poverty from 2010 to 2012. The highest percent of children reside in Wetzel County, with 28.0%, compared to West Virginia with 26.0%. Marshall County's percent of children living in poverty grew from 24.0% in 2010 to 26.0% in 2012, while Ohio County increased from 21.0% in 2010 to 25.0% in 2012.

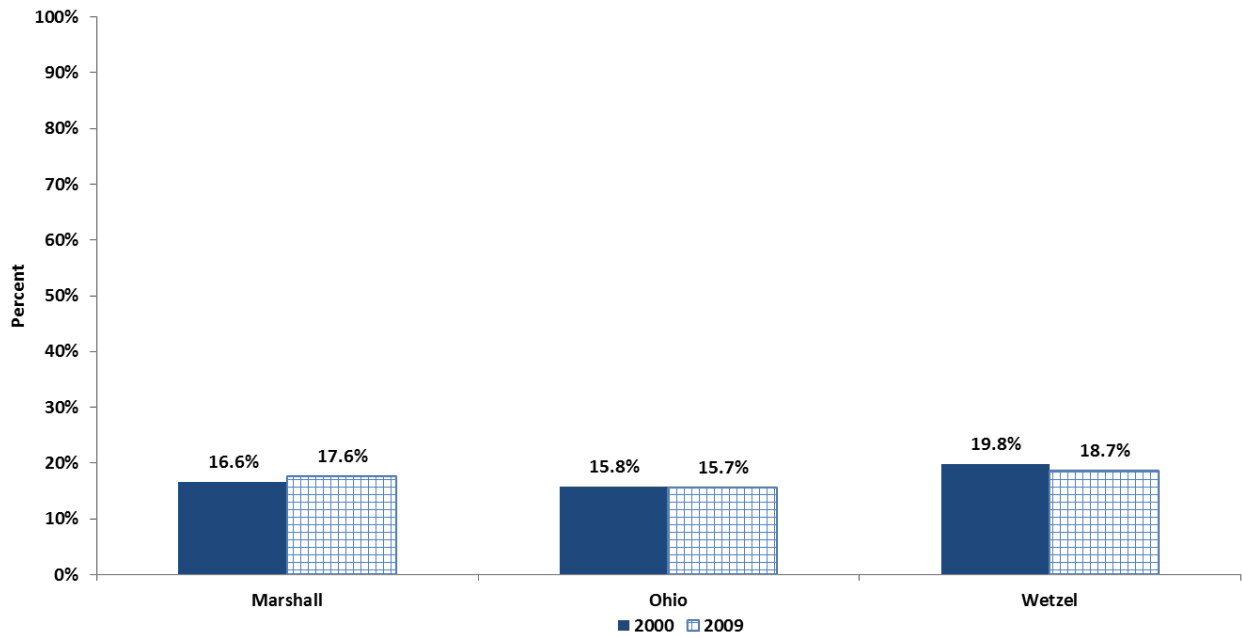
Figure 68. Percentage of Children Living in Poverty



Source: www.countyhealthrankings.org

Figure 69 illustrates the percentage of adults living in poverty in Marshall, Ohio and Wetzel counties from 2000 and 2009. Wetzel County has the highest percent of adults living in poverty, with 19.8% in 2000 and 18.7% in 2009. All service area counties saw an increase in adults living in poverty with Marshall County going from 16.6% in 2000 to 17.6% in 2009 and Ohio County increasing from 15.8% in 2000 to 15.7% in 2009.

Figure 69. Percentage of Adults Living in Poverty



Source: 2012 Wheeling West Virginia Community Health Needs Assessment

Figure 70 illustrates the percentage of children living in single parent households from 2010 to 2012, where data is available, in West Virginia, Marshall, Ohio and Wetzel counties. Marshall and Wetzel counties saw an increase in children living in single parent households from 2011 to 2012, while Ohio County experienced a decrease and the state's percentage stayed the same.

Figure 70. Percentage of Children Living in Single Parent Households

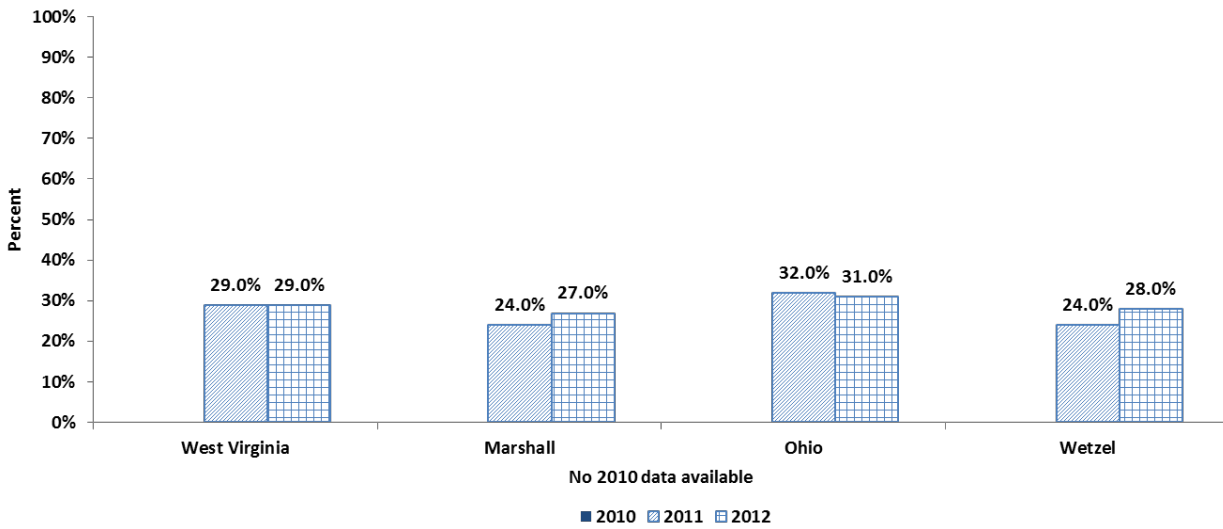


Table 14 illustrates free and reduced price lunch programs in service area counties. Wetzel County has the lowest number of children enrolled in the free and reduced price lunch program with 3,145, while Ohio County has the highest enrollment with 5,645 children.

Table 14. Free and Reduced Price Lunch

WV Department of Education 2013					
Free & Reduced Price Lunch					
	Enrollment	Total Free Eligible	% Free Eligible	Total Reduced Eligible	% Reduced Eligible
Marshall County	5,079	2,732	53.8%	271	5.3%
Ohio County	5,645	2,743	48.6%	236	4.2%
Wetzel County	3,145	1,389	44.2%	236	7.5%

Source: West Virginia Department of Education

Table 15 illustrates the U.S. Department of Agriculture food desert data for 2010 in Marshall, Ohio and Wetzel counties. The service area counties have high percentages of the population (between 25.4% and 43.4%) that have low access to a grocery store.

Table 15. Food Desert Data 2010

US Department of Agriculture Food Desert Data 2010				
	% of Population with Low Access to a Grocery Store	% of Children with Low Access to a Grocery Store	% of Seniors with Low Access to a Grocery Store	% of Households with No Car and Low Access to a Grocery Store
Marshall County	25.4%	5.2%	4.9%	5.7%
Ohio County	29.6%	5.6%	5.9%	5.8%
Wetzel County	43.4%	8.8%	8.5%	6.3%

Source: US Department of Agriculture

Table 16 shows physical environment characteristics for Marshall, Ohio and Wetzel counties in 2008. In Wetzel and Marshall Counties, less than half of the population has access to healthy foods. Healthy foods can be defined as any food believed to be ‘good for you’, especially if high in fiber, natural vitamins, fructose, etc. Healthy foods may reduce cholesterol, reduce atherosclerosis and risk of stroke, help control glucose, halt progression of osteoporosis, and reduce the risk of infections and cancer. A community has access to healthy foods if there are grocery stores and supermarkets in the area rather than fast food restaurants and convenience stores to purchase healthy food, such as fruits, vegetables and whole grain foods.

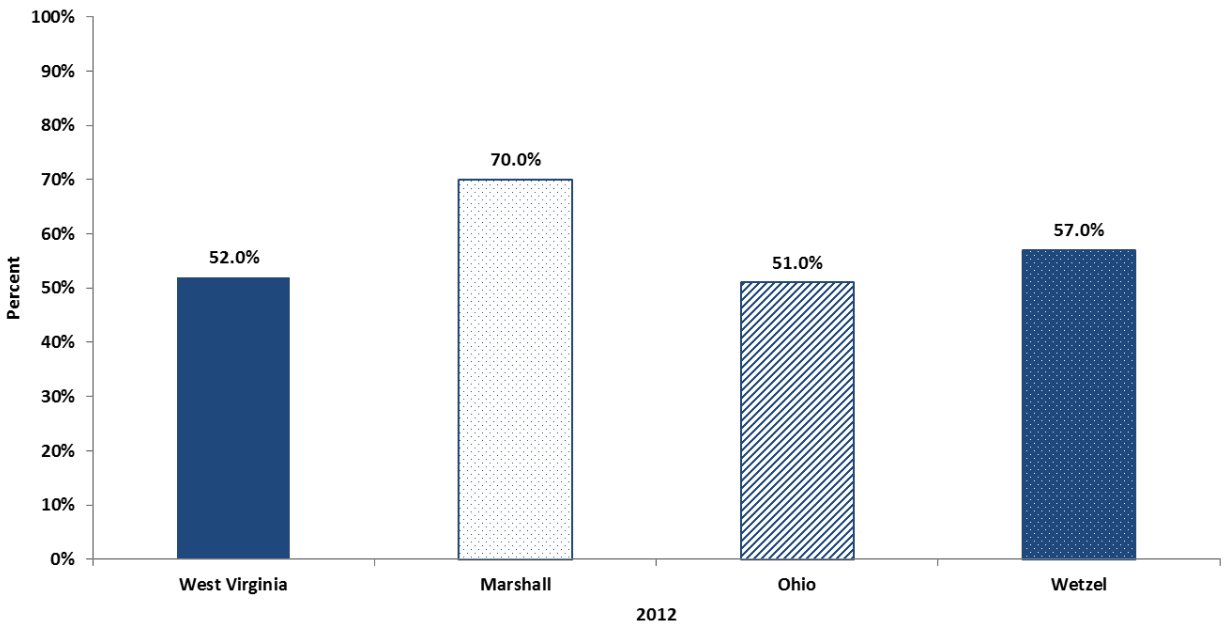
Table 16. Physical Environment 2008

Physical Environment 2008			
Environmental Factor	Marshall County	Ohio County	Wetzel County
Access to Healthy Foods	38.0%	67.0%	46.0%
Recreational Facilities	6	9	18

Source: US Department of Agriculture

Figure 71 illustrates the percentage of restaurants that serve fast food in West Virginia, Marshall, Ohio and Wetzel counties. 70.0% of restaurants in Marshall County serve fast food, compared to 52.0% of restaurants in the state.

Figure 71. Percentage of All Restaurants That Are Fast Food Restaurants



Source: www.countyhealthrankings.org

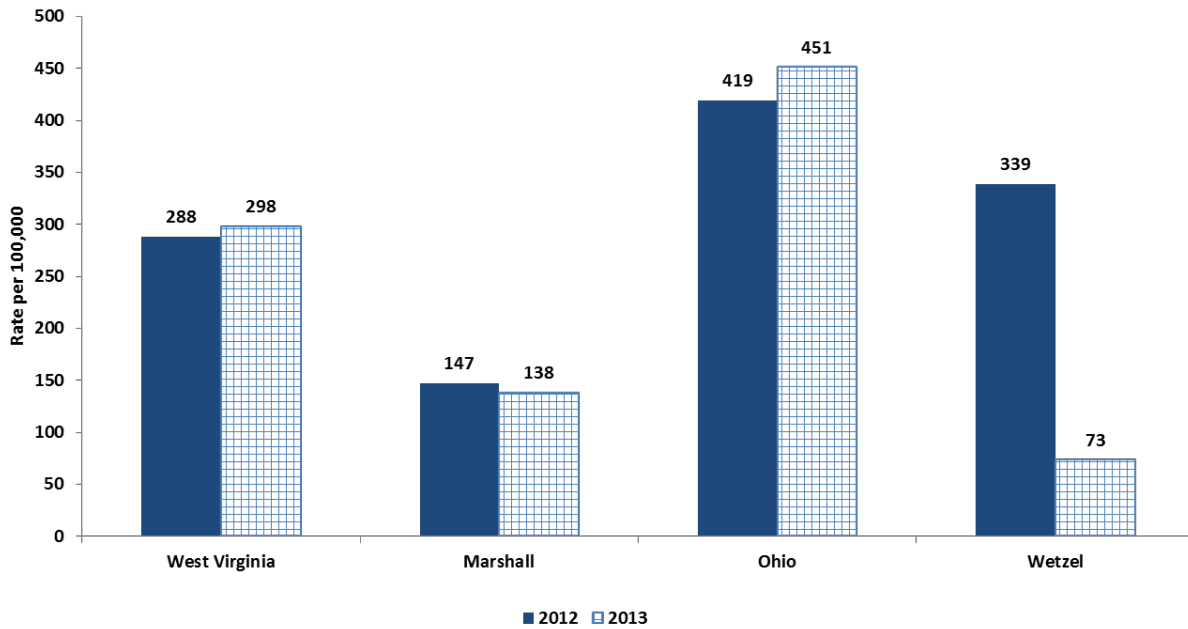
Gambling

According to the Problem Gamblers Network of West Virginia 2009 report, gambling is a problem that is affecting the well-being of many in the state. Over 5,000 individuals reported challenges with gambling and admitted to being in debt and resorting to illegal acts to finance their gambling habits. Specific statistics reported included:

- Between August 2000 and December 2009, 8,045 people have called the hotline
- 5,556 of these calls were from the gamblers themselves
- Most people calling are addicted to electronic gaming machines
- Most are in debt and many have committed illegal acts to finance their gambling

Figure 72 illustrates violent crime rates in West Virginia, Marshall, Ohio and Wetzel counties for 2012 and 2013. Ohio County has the highest rate of violent crimes in both 2012 with a rate of 419 and in 2013 with a rate of 451, compared to the state with 288 in 2012 and 298 in 2013. Marshall and Ohio Counties experienced a decrease in rate of violent crimes from 2012 to 2013, while Ohio County and West Virginia overall experienced an increase.

Figure 72. Violent Crime Rate



Source: www.countyhealthrankings.org

Table 17 shows domestic violence related data from 2010. Wetzel County had the highest percentage of persons where substance abuse contributed to domestic violence, with 38.2% of abuse cases. It is important to note that none of the domestic violence cases identified were referred for mental health treatment.

Table 17. 2010 Abuser Behavioral Health Status

2010 Abuser Behavioral Health Status						
Indicator	Number of Persons			Percent		
	Marshall	Ohio	Wetzel	Marshall	Ohio	Wetzel
Substance abuse identified as contributing to abuse	197	287	171	36.6%	29.0%	38.2%
Referred to a mental health provider	0	*	0	0.0%	*	0.0%

Source: West Virginia Coalition Against Domestic Violence
 *Values based on 5 or fewer are suppressed to protect the confidentiality of the person

Table 18 shows firearm deaths by type for West Virginia and service area counties from 2006 to 2009. The majority of firearm deaths in the service area counties as well as across the state are related to suicide.

Table 18. Firearm Deaths by Type

Firearm Deaths by Type						
2006						
	Unintentional	Suicide	Assault	Legal Intervention	Undetermined	Total
West Virginia	2	192	61	2	3	260
Marshall	0	2	1	0	0	3
Ohio	0	3	0	0	0	3
Wetzel	0	1	0	0	0	1
2007						
	Unintentional	Suicide	Assault	Legal Intervention	Undetermined	Total
West Virginia	2	211	49	2	3	267
Marshall	0	5	0	0	0	5
Ohio	0	5	1	0	0	6
Wetzel	0	2	0	0	0	2
2008						
	Unintentional	Suicide	Assault	Legal Intervention	Undetermined	Total
West Virginia	2	190	38	4	4	238
Marshall	0	2	1	0	0	3
Ohio	0	2	2	0	0	4
Wetzel	0	0	0	0	0	0
2009						
	Unintentional	Suicide	Assault	Legal Intervention	Undetermined	Total
West Virginia	2	190	57	3	2	254
Marshall	1	4	0	0	0	5
Ohio	1	3	1	0	0	5
Wetzel	0	1	1	0	0	2

Source: West Virginia Bureau for Public Health, Health Statistics Center

Focus Group Input

Focus group participants discussed the relationship between environmental characteristics and the impact on mental health and substance abuse as well as domestic violence. The lack of employment opportunities has led to serious issues for many people. Some attribute the challenges to chronic depression or a lack of awareness that stems from poor parenting. However, it is clear that issues related to physical health and overall well-being contribute to mental health status. Specific themes discussed included:

- Lack of employment opportunities have led to poverty, drug use, and symptoms of mental illness
- Domestic violence can often be related to mental illness, but is seldom treated as such
- Chronic depression is problematic for many individuals

Stakeholder Interview Input

Stakeholders echoed some of the discussion and concerns expressed in the focus groups related to the poor economy and the depression and stress associated with job loss. Stakeholders also noted that family conflicts and gambling also lead to mental health and substance abuse challenges. Specific themes discussed included:

- Family conflicts leading to divorced parents or single parents
- Gambling
- Depression and stress from fear of job loss
- Poor economy

Environmental Factors and Indicators Impacting Mental and Physical Health Conclusions

The service area counties have a number of environmental and physical health related conditions that are contributing to and impacting the overall well-being and mental health status of their residents. In 2006, obesity rates in West Virginia were one of the two highest in the nation, although more recently, rates in the service area counties was somewhat lower and closer to the Healthy People 2020 Goal, although they still represent almost a third of the population. The region's incidence and mortality rates for many chronic disease conditions are higher than the state rates and in some cases double the Healthy People 2020 Goals.

High unemployment and poverty rates, as well as a lack of education and awareness, are seen as contributing factors to mental health needs and issues. Access to gambling and a culture of acceptance of drinking alcohol also contribute to the incidence of illegal activities, domestic violence and violent crime.

Specific findings in the data include:

- In Marshall, Ohio, and Wetzel counties the mortality rates of breast, colon, bronchus and lung, ovarian, and prostate cancers fluctuated between 2006 and 2009. Breast and bronchus and lung mortality rates were generally higher than the state rates.
- Across Marshall, Ohio, and Wetzel counties, heart attack, angina, and stroke incidence rates were comparable and above the state percentage of 6.0%.
- Diabetes mortality rates were higher in Marshall, Ohio, and Wetzel counties, compared to the state statistics.
- Influenza and pneumonia mortality rates were higher among the counties compared to the state and nation, and in Wetzel County the rates are steadily increasing.
- The percentage of obese adults was comparable across the counties, with Marshall and Ohio counties below the state (32.9%) and Healthy People 2020 Goal of 30.6%.
- There were no significant differences between Marshall, Ohio, and Wetzel counties in terms of adults having no leisure time physical activity in the past month, and all counties were below the state statistic of 32.9% and the Healthy People 2020 Goal of 32.6%.
- The unemployment rates for the state and counties increased between 2010 and 2012 as did the percentage of children living in poverty.
- The percentage of adults living in poverty is comparable across the three counties, with Ohio and Wetzel counties showing a slight decrease between 2000 and 2009.
- Marshall and Wetzel counties are below the state rate of 29.0% for the percentage of children living in a single parent household, although the trend from 2011 to 2012 does

show a small increase. Ohio County is above the state rate, but did show a decrease over the two-year period.

- In Marshall, Ohio, and Wetzel counties, between 44% and 54% of students are eligible for free lunch.
- In Marshall, Ohio, and Wetzel counties, between 25% and 43% of the population have low access to a grocery store, and in Marshall and Wetzel counties, 70% and 57%, respectively, of the restaurants are fast food restaurants, compared to the state rate of 52%. Only Ohio County has a lower percentage than the state rate of 51%.
- The violent crime rate between 2012 and 2013 was highest in Ohio County, compared to Marshall and Wetzel counties and the state. The majority of firearm deaths were related to suicide.

Seniors



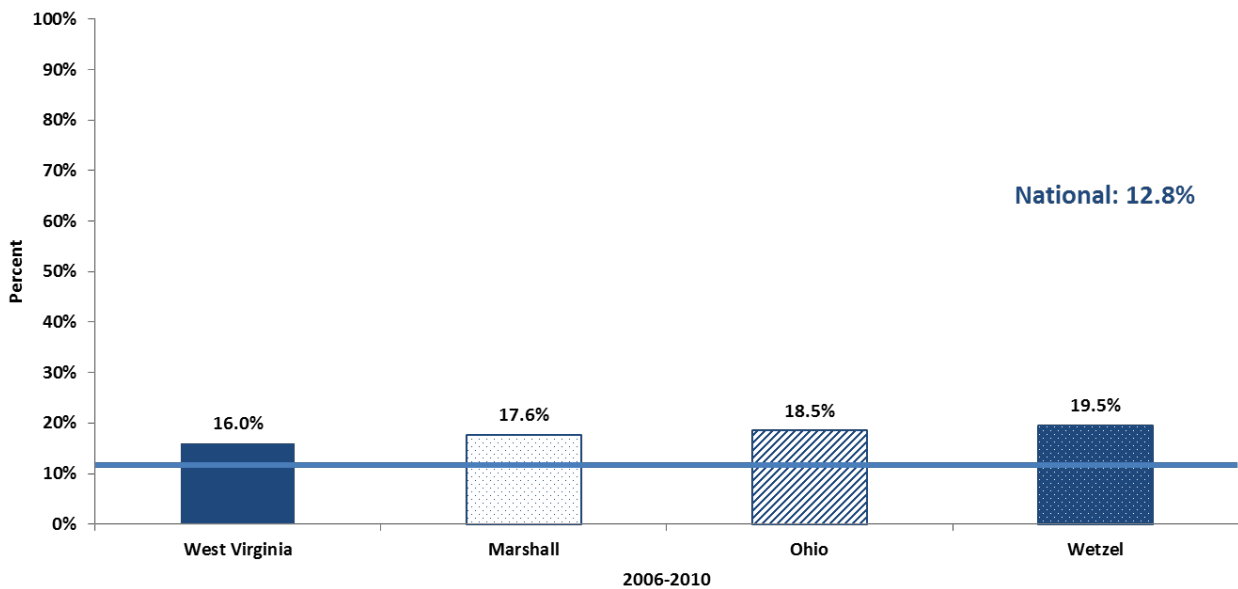
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Seniors

The population of the service area is aging and has a higher percentage of persons over the age of 65 than the state as a whole. Older individuals require additional and different health and human services in order to support them as they age. While the percentage of seniors in the service area is increasing, they are faring comparatively well in the service area counties in terms of disease incidence and environmental factors facing seniors.

Figure 73 illustrates the percentage of the population over the age of 65 in West Virginia, Marshall, Ohio and Wetzel County. Compared to West Virginia (16.0%), the service area has a higher percentage of its population that is over the age of 65; Marshall County has 17.6%, Ohio County has 18.5%, and 19.5% of the population in Wetzel County are residents over the age of 65. Each of the three counties and West Virginia overall, are all above the national rate of 12.8%.

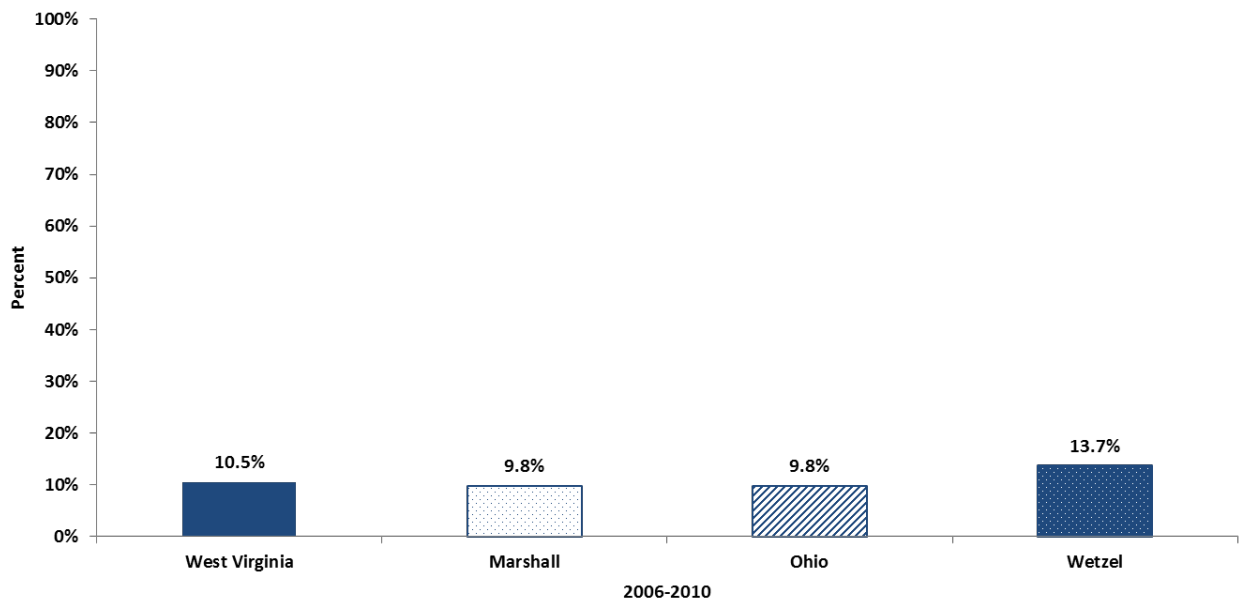
Figure 73. Percentage of the Population Over the Age of 65



Source: 2006-2010 United States Census Bureau

Figure 74 illustrates the percentage of adults aged 65 and older living in poverty in West Virginia, Marshall, Ohio and Wetzel counties. Wetzel County has the highest percentage of residents over the age of 65 living in poverty, with 13.7%. Marshall and Ohio County each have 9.8% of its older residents living in poverty, which is less than West Virginia's (10.5%).

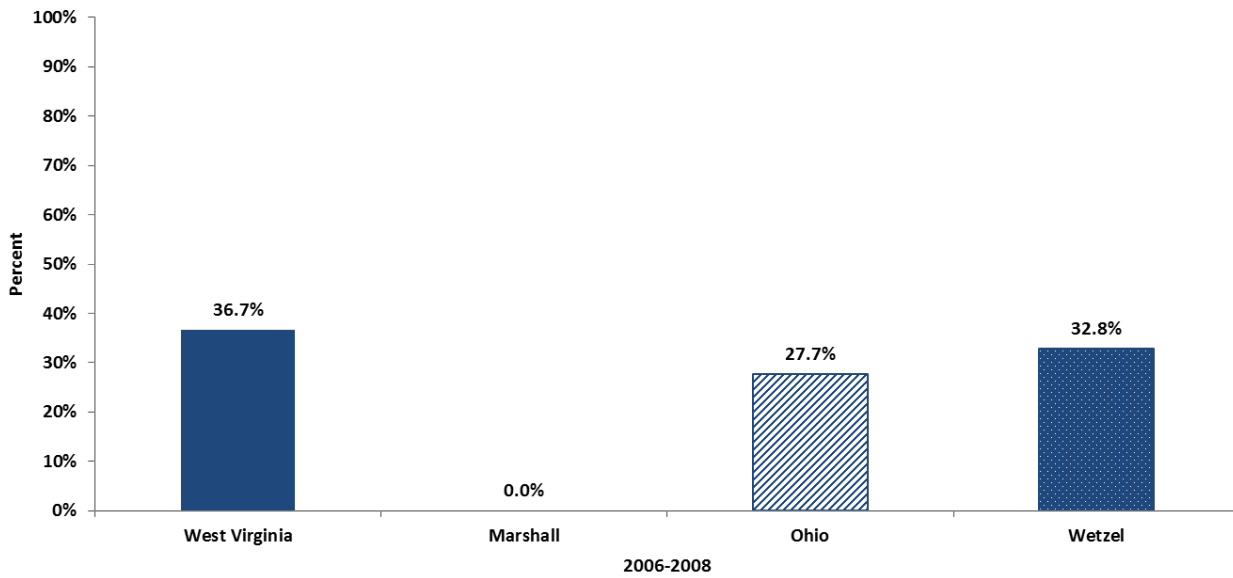
Figure 74. Percentage of Adults Aged 65 and Older Living in Poverty



Source: 2006-2010 United States Census Bureau

Figure 75 illustrates the percentage of adults age 65 and older who rated their health as fair or poor in West Virginia, Marshall, Ohio and Wetzel counties where data is available. Wetzel County had the highest percent (32.8%) of adults, which falls below the 36.7% of West Virginia residents aged 65 and older who reported their health as fair to poor.

Figure 75. Percentage of Adults Aged 65 and Older Who Rated Their Health as Fair to Poor

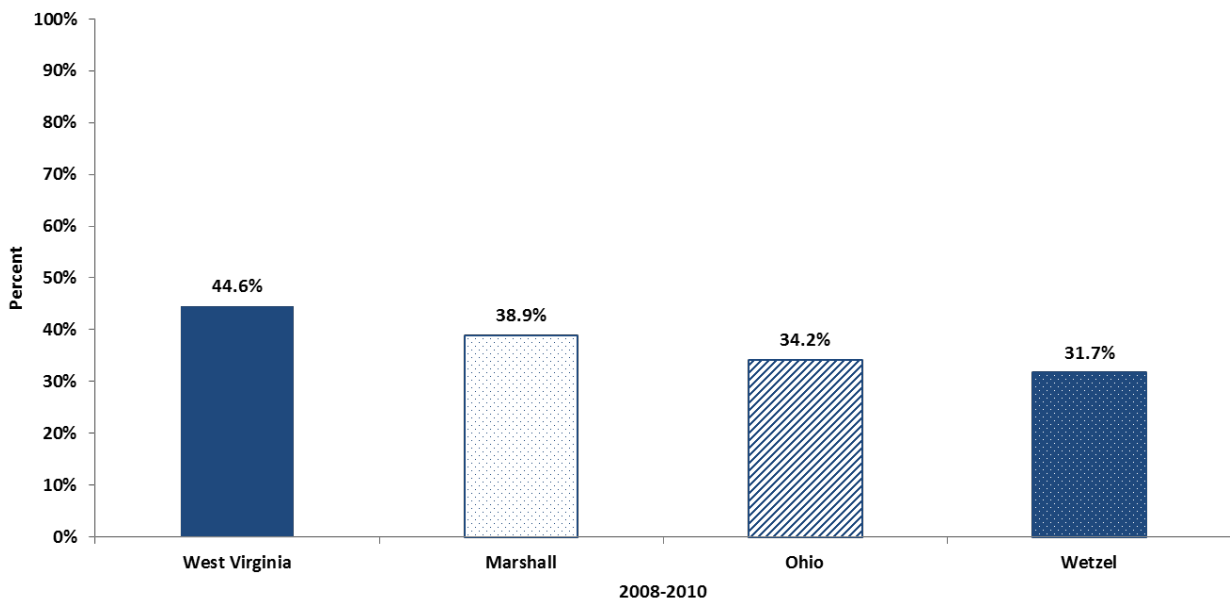


No data available for Marshall County

Source: 2006-2010 West Virginia Behavioral Risk Factor Surveillance System

Figure 76 illustrates the percentage of adults over the age of 65 with any disability in West Virginia, Marshall, Ohio and Wetzel counties from 2008-2010. The highest percentage (38.9%) reside in Marshall County, which is less than the 44.6% of adults residing in the state of West Virginia who have a disability.

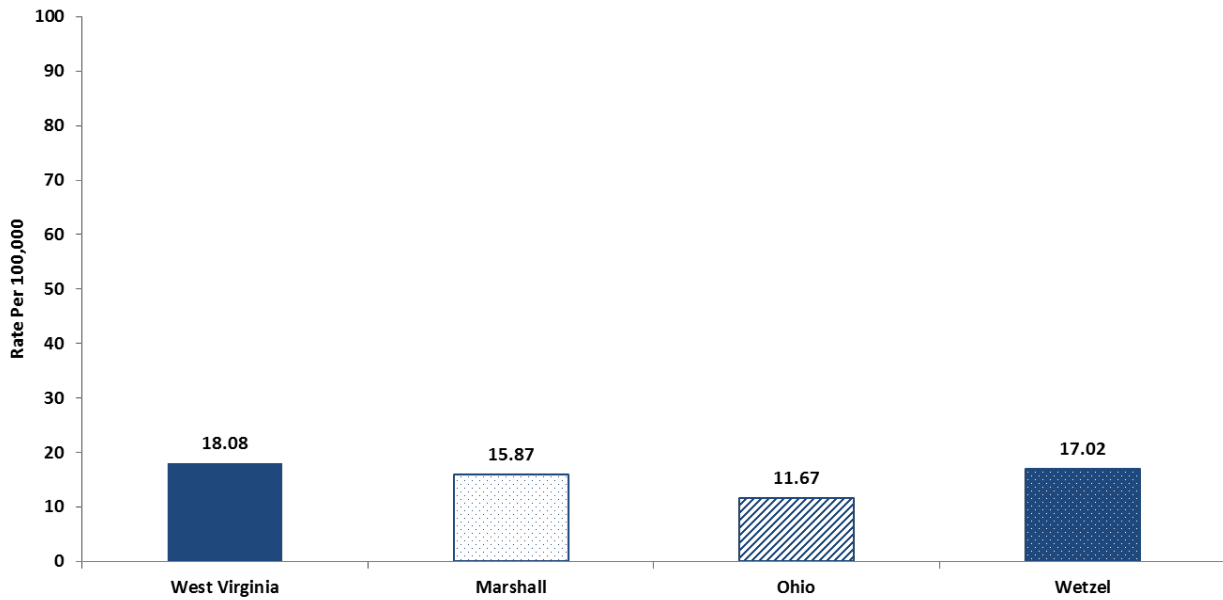
Figure 76. Percentage of Adults Over the Age of 65 With Any Disability



Source: 2008-2010 United States Census Bureau

Figure 77 illustrates suicide rates of adults 65 and older, by county from 2000-2009. Wetzel County had the highest suicide rate for adults age 65 and older. Marshall (15.87) and Ohio (11.67) counties had a rate lower than the state's rate of 18.08.

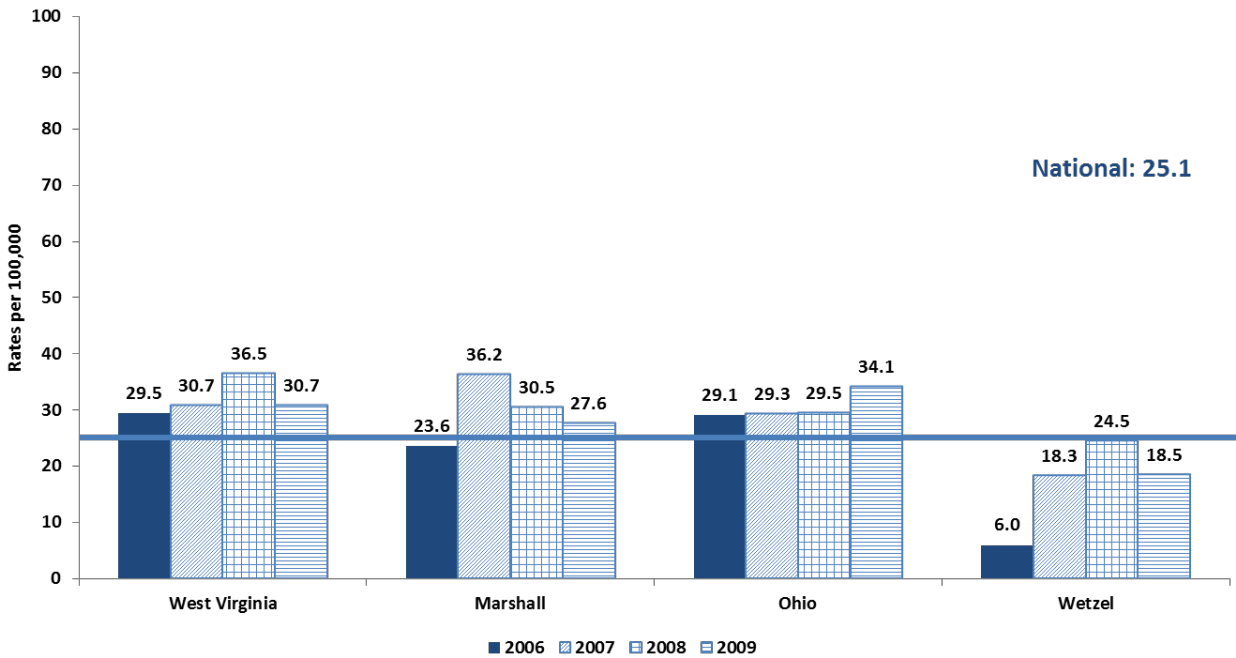
Figure 77. Suicide Rates by County, Years 2000-2009, Ages GE 65



Source: West Virginia Council for the Prevention of Suicide, Annual Report 2001

Figure 78 illustrates Alzheimer’s disease mortality rates in West Virginia, Marshall, Ohio and Wetzel counties from 2006-2009. Marshall County Alzheimer’s mortality rates had declined from 2007-2009 after an increase from 23.6 in 2006 to 36.2 in 2007. Ohio County has seen an increase in mortalities from 29.1 in 2006 to 34.1 in 2009, while Wetzel County has seen a decrease from 24.5 in 2008 to a rate of 18.5 in 2009. When compared to the national mortality rate of 25.1, Ohio County and West Virginia were above the U.S. rate for the four years 2006-2009. Marshall County was higher than the national rate for all years except 2006. Wetzel County was below the U.S. rate for all four years.

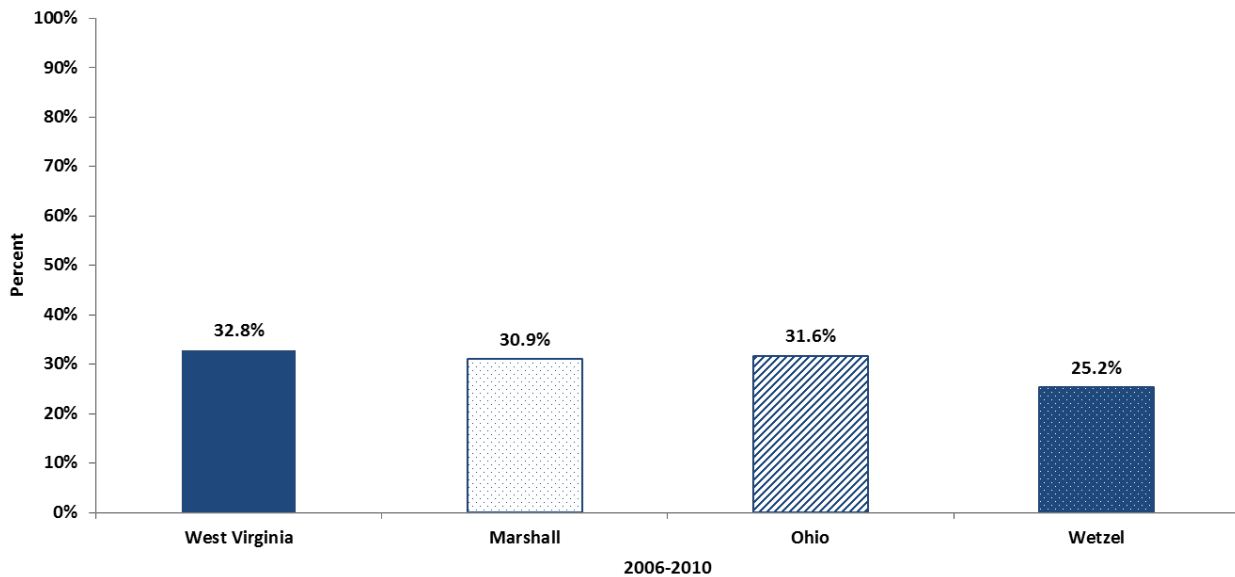
Figure 78. Alzheimer’s Disease Mortality Rate



Source: West Virginia Bureau for Public Health

Figure 79 illustrates the percentage of adults, ages 65 and older, ever told they had a heart attack, angina, coronary heart disease, or stroke in West Virginia, Marshall, Ohio and Wetzel counties from 2006-2010. Marshall (30.9%), Ohio (31.6%) and Wetzel (35.2%) counties had a lower percentage of residents ever told they had a heart attack, angina, coronary heart disease, or stroke than residents of the state.

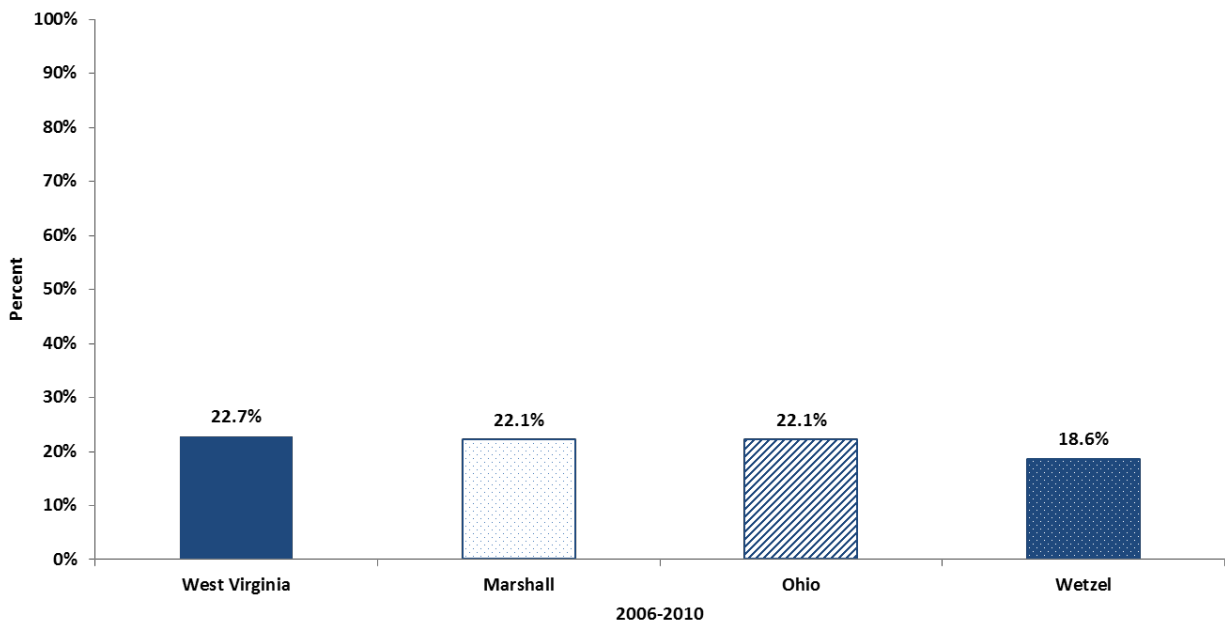
Figure 79. Percentage of Adults Ages 65 or Older Ever Told They Had a Heart Attack, Angina, Coronary Heart Disease, or Stroke



Source: 2006-2010 West Virginia Behavioral Risk Factor Surveillance System

Figure 80 illustrates the percentage of adults age 65 and older with diabetes in West Virginia, Marshall, Ohio and Wetzel counties from 2006-2010. All counties in the service area have fewer seniors with diabetes than the state (22.7%). Marshall and Ohio counties each have 22.1% of residents over the age of 65 with diabetes.

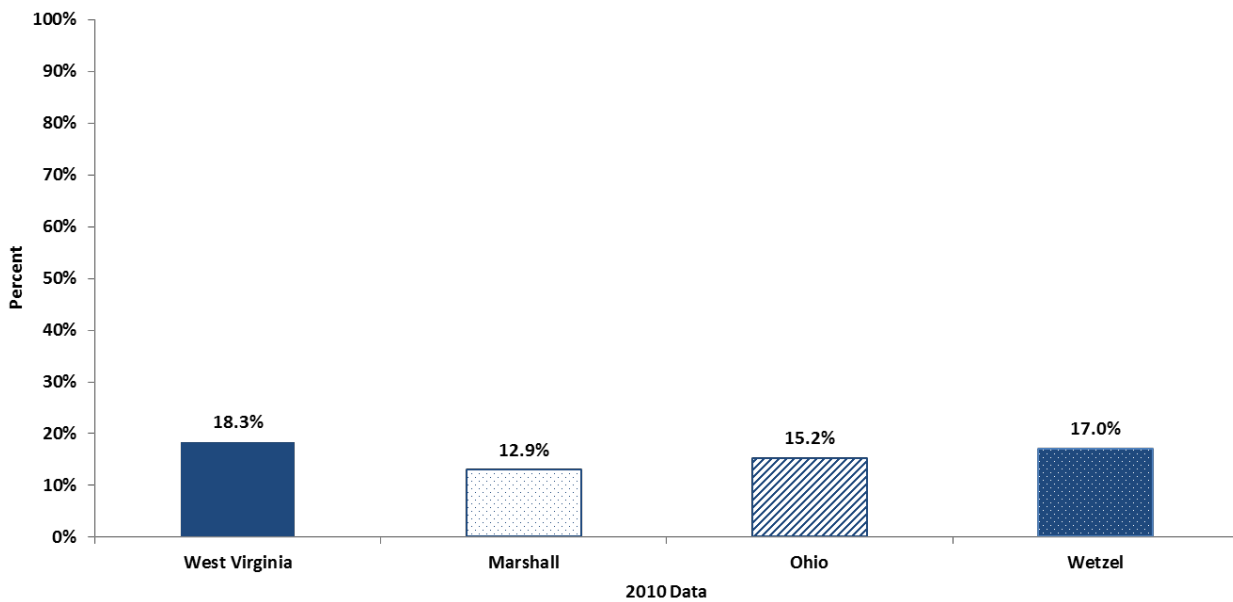
Figure 80. Percentage of Adults Over the Age of 65 With Diabetes



Source: 2006-2010 West Virginia Behavioral Risk Factor Surveillance System

Figure 81 illustrates the percentage of adults over the age of 65 with Medicare/ Medicaid dual eligibilities in West Virginia, Marshall, Ohio and Wetzel counties. Wetzel County has the highest percentage of residents with dual eligibility at 17.0%. All counties have fewer residents eligible for both Medicare and Medicaid than the state (18.3%).

Figure 81. Percentage of Adults Over the Age of 65 with Medicare/Medicaid Dual Eligibilities



Source: 2010 West Virginia Department of Health and Human Resources, Bureau for Medical Services

Seniors Conclusions

The population of the service area is aging and has a higher percentage of senior citizens than the state. Older individuals require additional and different health and human services in order to support them as they age. While the percentage of seniors in the service area is increasing, they are faring comparatively well in the service area counties in terms of disease incidence and environmental factors facing seniors. The overall findings include:

- The percentage of the population over the age of 65 for Marshall (17.5%), Ohio (18.5%) and Wetzel (19.5%) counties are above the national rate of 12.8% and the state rate of 16.0%.
- The percentage of seniors living in poverty was higher for Wetzel County, compared to Marshall and Ohio counties, and state statistics.
- The percentage of seniors who rated their health as fair to poor was lower in Ohio and Wetzel counties compared to the state. No data was available for Marshall County.
- Compared to state statistics, all three counties had a lower percentage of seniors living with a disability.
- The suicide rate among seniors was slightly lower in Marshall, Ohio, and Wetzel counties, compared to state statistics.
- Alzheimer's disease mortality rates were comparable in Marshall and Ohio counties, compared to state statistics, and lower in Wetzel County.
- There were no significant differences in adults over the age of 65 who had a heart attack, angina, coronary heart disease, stroke, or diabetes, compared to state statistics, except for Wetzel County, which had a lower percentage than the state.
- The percentage of seniors who were dual eligible for Medicare/Medicaid was slightly lower in Marshall County, compared to Ohio and Wetzel counties and the state.

Intellectual and Physical Disabilities



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Intellectual and Physical Disabilities

According to Disabled World, A disability is a condition or function judged to be significantly impaired relative to the usual standard of an individual or group. The term is used to refer to individual functioning, including physical impairment, sensory impairment, cognitive impairment, intellectual impairment, mental illness and various types of chronic disease.

Disability is conceptualized as being a multidimensional experience for the person involved. There may be effects on organs or body parts and there may be effects on a person’s participation in areas of life. Correspondingly, three dimensions of disability are recognized in intermediate care facilities: body structure and function (and impairment thereof), activity (and activity restrictions), participation (and participation restrictions). The classification also recognizes the role of physical and social environmental factors in affecting disability outcomes.

Table 19 illustrates children with Autism in West Virginia from 1999-2000 and 2010-2011. The highest number of children in West Virginia with Autism was between the ages 6-11 and occurred in 2010-2011, with 754 children being diagnosed. The number of children in every age group significantly increased from 1999-2000 to 2010-2011 with ages 3-5 going from 14 children to 68, children ages 12-17 going from 89 in 1999-2000 to 478 in 2010-2011, and the total for all age groups, going from 326 to 1,381 children diagnosed with Autism from 2010 and 2011.

Table 19. Children with Autism in West Virginia

Children With Autism in West Virginia for 1999-2000 and 2010-2011 (Child Count by Age Group)					
		1999-2000			2010-2011
Age 3-5		14			68
Age 6-11		202			754
Age 12-17		89			478
Age 18-21		21			81
Total		326			1,381

Source: Reported by the state of WV in accordance with section 618 of IDEA to US Dept. of Education, Office of Special Education

Table 20 illustrates the number of children with disabilities in West Virginia for 1999-2000 and 2010-2011. Children with disability counts have increased since 1999 in age groups 3-5 and 18-21; however, the number of children with disabilities has decreased in children ages 6-11 and 12-17. The most significant decrease in numbers of children diagnosed with disabilities occurred in children aged 12-17 going from 19,954 in 1999-2000 to 16,785 in 2010-2011.

Table 20. Children with Disabilities in West Virginia

Children With Disabilities in West Virginia for 1999-2000 and 2010-2011 (Child Count by Age Group)					
		1999-2000			2010-2011
Age 3-5		5,445			5,607
Age 6-11		22,694			20,191
Age 12-17		19,947			16,785
Age 18-21		2,247			2,423
Total		50,333			45,006

Source: Reported by the state of WV in accordance with section 618 of IDEA to US Dept. of Education, Office of Special Education

Table 21 illustrates the number of people, ages five and older with disabilities by type. The highest number of people (214,000) have been diagnosed with mobility disabilities, which make up 12.5% of the population in West Virginia out of the 20.9% diagnosed with disabilities. Daily activity limitation disabilities are also common in West Virginia residents, with 148,000 diagnosed, or 8.7% of the population.

Table 21. People with Disabilities, Aged 5 and Over

Number of People Ages 5+ with Disabilities, and Disability Rate, by Type of Disability in West Virginia		
	Number of People	Percentage of Population
Any Type of Disability	358,000	20.9%
Hearing	105,000	6.1%
Vision	70,000	4.1%
Cognitive	136,000	7.9%
Mobility	214,000	12.5%
Daily Activity Limitation	148,000	8.7%
Self-Care Abilities	77,000	4.5%
Routine Activities	133,000	7.8%

Source: 2009 West Virginia American Community Survey

Table 22 illustrates the number of parents with disabilities who have children under the age of eighteen. There are 3,600 parents of children under the age of eighteen with a disability in West Virginia. Mobility disabilities are the most common, with 1,800 or 5.6% of the population.

Table 22. Parents with Disabilities Who Have Children

2008-2009		
Parents with Disabilities who Have Children Under 18 (Brooke, Hancock, Marshall, Ohio, Wetzel Counties)		
	Number with Disabilities	Percentage with Disabilities
Parents of Children Under 18	3,600	11.2%
Hearing	1,000	3.1%
Vision	700	2.0%
Mobility	1,800	5.6%
Cognitive	1,200	3.6%
Daily Activity Limitations	1,300	4.1%

Source: 2009 West Virginia American Community Survey

Table 23 illustrates housing statistics for disabilities for Brooke, Hancock, Marshall, Ohio and Wetzel counties from 2005-2007. There are 22,160 or 34.1% household members with a disability in the service area.

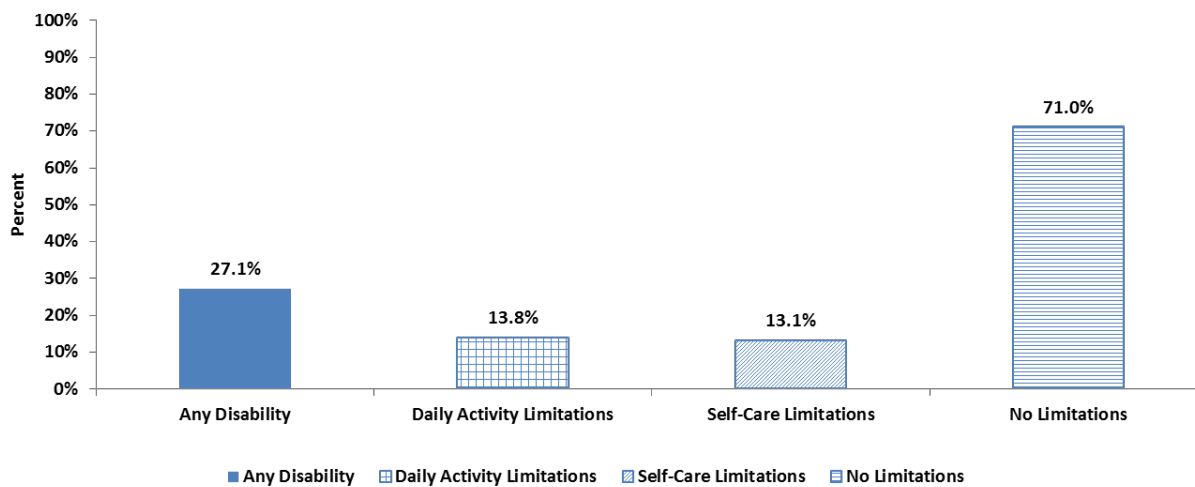
Table 23. Disability Housing Statistics

Disability Housing Statistics for West Virginia 2005-2007 (Brooke, Hancock, Marshall, Ohio, and Wetzel Counties)			
	Total Households	Household Members with a Disability	Percent Household Members with a Disability
Total Household	65,050	22,160	34.1%

Source: Center for Excellence in Disabilities at West Virginia University

Figure 82 illustrates the percentage of working-aged adults by disability status living in West Virginia in 2009. The majority (71.0%) of working aged adults has no limitations; however, 13.8% of adults have daily activity limitations, while 13.1% have self-care limitations.

Figure 82. Percentage of Working-Aged Adults by Disability Status in West Virginia, 2009



Source: 2009 West Virginia American Community Survey

Table 24 illustrates special education trends in West Virginia compared to the United States. While West Virginia has a higher identification rate of students with disabilities compared to the nation, the rate of identifying students with disabilities is declining at a higher rate and average spending on special education is much lower than national rates.

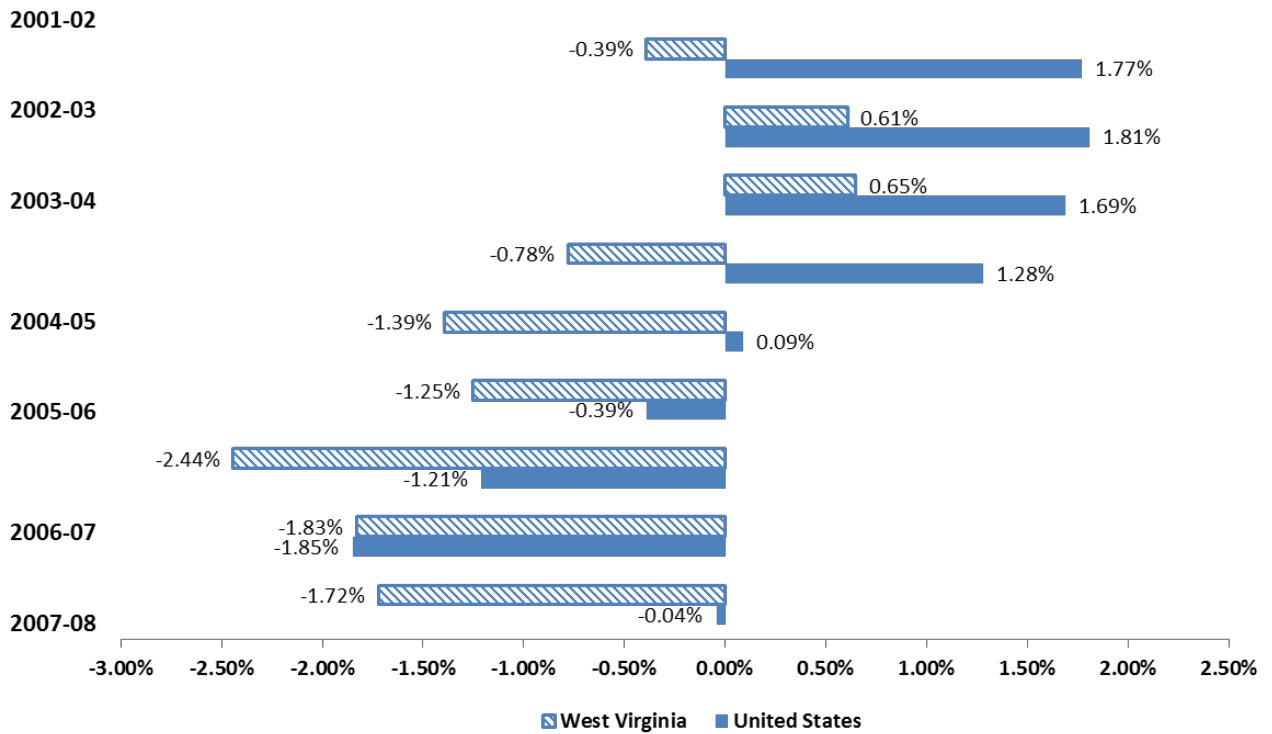
Table 24. Special Education Trends

	West Virginia	WV Rank	US
Identification rate of students with disabilities	16.55	8	13.14
% change in identification of disabilities 2001-09	-1.03	41	-0.29
% of all Specific Learning Disabilities of all students	4.61	32	4.93
% of all students with disabilities	27.86	48	37.51
Teachers/paraprofessionals per 1,000 students	104	43	129
Spending per student (ranked low to high; US=1)	0.67	10	1

Source: Shifting Trends in Special Education, 2011

Figure 83 illustrates changes in the number of special education students from 2001-2008 compared to the United States.

Figure 83. Changes in Special Education Students



Source: Shifting Trends in Special Education, 2011

Table 25 illustrates health care and special education service utilization in children age 3-17.

Table 25. Health Care and Special Education Service Utilization, Children Age 3-17

DD	Services Received in Past Year, % of Children (SE)						
	Saw Medical Specialist	Saw Mental Health Professional	Saw Therapist ^a	>9 Office Visits	>1 Visit to Emergency Department	Had Surgical/Medical Procedure	Special Education Services/Early Intervention
No DD	11.1 (0.14)	3.4 (0.08)	3.3 (0.08)	4.4 (0.09)	5.5 (0.11)	4.4 (0.09)	1.5 (0.06)
≥1 DDs	23.9 (0.45) ^b	26.6 (0.51) ^b	19.6 (0.42) ^b	14.9 (0.38) ^b	10.3 (0.36) ^b	7.5 (0.27) ^b	38.8 (0.52) ^b
≥3 DDs	40.8 (1.54) ^b	48.8 (1.56) ^b	45.8 (1.57) ^b	30.9 (1.43) ^b	16.3 (1.14) ^b	9.8 (0.84) ^b	78.6 (1.32) ^b
ADD/ADHD	24.1 (0.64) ^b	39.4 (0.80) ^b	15.3 (0.53) ^b	18.1 (0.60) ^b	9.8 (0.50) ^b	6.7 (0.37) ^b	36.6 (0.78) ^b
Autism	44.9 (3.11) ^b	54.8 (3.17) ^b	60.5 (3.16) ^b	26.2 (2.78) ^b	8.7 (1.71)	7.7 (1.68)	87.1 (2.03) ^b
Blind	29.3 (4.49) ^b	16.4 (3.96) ^b	17.9 (3.70) ^b	24.9 (4.37) ^b	12.2 (3.05) ^c	19.2 (4.20) ^b	38.5 (4.76) ^b
Cerebral palsy ^d	41.7 (3.74) ^b	18.4 (3.13) ^b	40.8 (3.61) ^b	26.4 (3.15) ^b	11.4 (2.10) ^b	13.6 (2.27) ^b	43.3 (3.66) ^b
Deaf/a lot of trouble hearing	40.3 (2.67) ^b	22.5 (2.51) ^b	43.4 (2.78) ^b	22.3 (2.42) ^b	18.8 (2.17) ^b	17.4 (2.11) ^b	46.1 (2.74) ^b
Learning disability ^a	23.0 (0.60) ^b	28.8 (0.69) ^b	20.0 (0.61) ^b	14.9 (0.53) ^b	9.8 (0.46) ^b	7.4 (0.37) ^b	52.9 (0.73) ^b
Mental retardation	40.1 (2.20) ^b	40.5 (2.32) ^b	49.6 (2.39) ^b	26.3 (2.03) ^b	15.9 (1.79) ^b	11.1 (1.38) ^b	80.8 (1.82) ^b
Seizures	56.7 (2.35) ^b	26.4 (2.21) ^b	29.8 (2.18) ^b	27.1 (2.11) ^b	24.6 (2.00) ^b	10.4 (1.32) ^b	41.5 (2.34) ^b
Stuttering	23.9 (1.37) ^b	20.3 (1.34) ^b	31.6 (1.40) ^b	16.1 (1.18) ^b	14.9 (1.14) ^b	8.1 (0.82) ^b	35.5 (1.55) ^b
Other developmental delay	33.4 (1.04) ^b	31.4 (1.03) ^b	39.6 (1.01) ^b	22.7 (0.85) ^b	12.3 (0.66) ^b	9.9 (0.64) ^b	57.4 (1.02) ^b
Isolated DDs							
ADD/ADHD	19.1 (0.88) ^b	31.9 (1.06) ^b	6.9 (0.62) ^b	12.6 (0.78) ^b	8.1 (0.67) ^b	5.6 (0.50) ^c	12.1 (0.77) ^b
Blind	15.8 (4.66)	18.9 (5.41) ^c	7.1 (2.94)	16.9 (5.38) ^c	11.8 (4.46) ^c
Cerebral palsy ^d	15.0 (3.24)	...	10.6 (2.77) ^b	10.0 (2.96)	4.8 (2.15)	5.8 (2.19)	6.7 (2.22) ^c
Deaf/a lot of trouble hearing	39.6 (3.79) ^b	9.2 (2.00) ^b	28.9 (3.78) ^b	15.1 (2.78) ^b	17.0 (3.09) ^b	16.1 (3.08) ^b	22.1 (3.28) ^b
Learning disability ^e	14.8 (0.90) ^b	13.5 (0.84) ^b	12.2 (0.80) ^b	6.7 (0.53) ^b	8.7 (0.70) ^b	7.0 (0.65) ^b	44.0 (1.16) ^b
Seizures	46.3 (3.68) ^b	10.1 (2.19) ^b	6.1 (1.57)	14.2 (2.24) ^b	20.3 (2.76) ^c	7.1 (1.61)	8.4 (1.91) ^b
Stuttering	14.9 (1.60) ^c	4.8 (0.90)	20.5 (1.78) ^b	8.8 (1.27) ^b	12.4 (1.40) ^b	6.7 (1.11) ^c	11.7 (1.43) ^b

Source: Boulet, SL, Boyle, CA, & Schieve, LA. (2009). Health care US and health and functional impact of developmental disabilities among US children, 1997-2005. Archives of Pediatric Adolescent Medicine, Vol. 163, 19-26

Focus Group Input

The Northwood Health Systems provider focus group participants talked extensively during their group regarding the needs related to persons with physical and especially intellectual disabilities. Because of the exploding incidence and prevalence of persons with autism and other intellectual disabilities, the need for transition services is increasing as is the need for housing and other support services. Families need more information on how to access services available as well as support, to effectively utilize the resources available. The specific themes emerging from the discussion included:

- High school transition planning; connecting students to resources
- Employment after high school graduation; integration into communities and supervised employment
- Housing, available and affordable
- Family and resource education needs
- Access to Medicaid funded services

Intellectual and Physical Disabilities Conclusions

Over a third of the households in West Virginia have a member with a disability. While overall in the last 10 years in West Virginia the number of children and young adults diagnosed with a disability decreased slightly for every age group, the number of children and young adults diagnosed with autism and other developmental disabilities has significantly increased. Individuals with disabilities have much higher rates of medical and mental health service utilization than their non-disabled peers. Across the state, while West Virginia has a higher rate of identifying students with disabilities compared to the nation, the rate of identifying students is declining at a higher rate and the average spending on special education is much lower than national rates.

Because of the exploding incidence and prevalence of persons with autism and other intellectual disabilities, the need for school to work transition services is increasing as is the need for housing and other support services. Families need more information on how to access services available, as well as support to effectively utilize the resources available.

There are a number of general findings that can be derived from the data related to intellectual and physical disabilities. They include:

- Between 2000 and 2011 the number of children and young adults diagnosed with Autism increased significantly for every age group.
- Between 2000 and 2011 the number of children and young adults diagnosed with a disability slightly decreased for every age group.
- Across the state, 7.9% of people aged 5 and older have a cognitive disability.
- Across the state, 3.6% of parents with a disability, who have children under the age of 18, have a cognitive disability.
- Over a third of households in West Virginia (34.1%) have a member with a disability.
- A sizable portion (13.8%) of working-aged adults has daily activity limitations, while 13.1% have self-care limitations.
- While West Virginia has a higher rate of identifying students with disabilities compared to the nation, the rate of identifying students with disabilities is declining at a higher rate and average spending on special education is much lower than national rates.
- Children with developmental disabilities have much higher rates of medical and mental health service utilization (in most cases double to triple) than their non-disabled peers.
- For persons with intellectual disabilities, focus group participants identified the need for high school transition planning, integration into the community and supervised employment, affordable housing support, family and resource education needs and access to Medicaid funded services as the most pressing needs for this population in the region.

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Conclusions



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Conclusions

Access Conclusions

There are a number of observations and conclusions that can be derived from the data related to Access to care. They include:

- Between 2002 and 2010, the percentage of adults in the service area that reported their health status as fair or poor ranged between 15% and 22%. The rates in Marshall and Wetzel counties were comparable to the state rates over time, although Ohio County's rates have historically been lower. Marshall's rate has also been declining over the past 10 years. All counties are above the national rate of 14.7%. However, only 15.3% of disabled persons rated their health status as fair or poor across the state in 2010.
- Between 2009 and 2010, the percentage of adults in West Virginia limited in activity due to physical, mental or emotional problems (28.2%) was higher than the national rate (20.8%).
- The percentage of adults who rarely or never get the social or emotional support they need in West Virginia (17.7%) is slightly lower than the national rate (19.5%).
- The percentage of adults in the service region without health insurance ranges between 19% and 26%, and has been increasing over the last few years. Wetzel has slightly higher rates than Marshall and Ohio counties, which are comparable to the state. All counties are above the national rate of 17.8% and the Healthy People 2020 Goal of 0%.
- In West Virginia between 2007 and 2010, the percentage of adults who needed to see a doctor but could not due to cost ranged between 17%-18%, which is higher than the Healthy People 2020 Goal (4.2%), while the percentage with no health care provider ranged between 21% and 24%, which is above the Healthy People 2020 Goal of 16.1%.
- Marshall, Ohio, and Wetzel Counties are all designated as medically underserved areas. Wetzel County is a designated shortage area for Primary Care, Dental and Mental Health Services. Marshall County is also designated as a Primary Care shortage area.
- The 2012 Wheeling Hospital Community Health Needs Assessment identified a greater need for psychiatric services in the area.
- Over the last 3 years, demand for Northwood services has increased for psychiatric/medication management, psychologists, therapy and other outpatient (TCM, IOP, CFT) services.
- Focus group participants noted that access to services is a challenge, as many in the community (both providers and consumers) are not aware of the resources that are available. Limited outpatient mental health services exist along with the need for more psychiatrists and other mental health professionals, and housing and transportation needs.

- Stakeholder interview comments echoed the needs identified in the focus groups. Lack of awareness of programs and services and education about the services that are available as well as lack of adequate providers in certain areas are barriers to care.
- Stakeholders identified the need for increasing in-home counseling services, individual and group outpatient therapy, and access to appropriate medications as well as the need to integrate physical and mental health services in physician offices. Housing and transportation were also noted as needs along with the travel distance to available services that become a barrier for some to access services. Several participants noted the need for long term support for vocational activities as well.

Chronic/Serious Mental Health Conclusions

There are a number of observations and conclusions that can be derived from the data related to Chronic/Serious Mental Health and related issues. These include:

- The number of adults who reported poor mental health averaged 3-4 days out of the past 30 days in Marshall, Ohio, and Wetzel counties, which was slightly lower than the state rate.
- Approximately 81,000 of West Virginia adults live with serious mental illness, while about 18,000 children in the state live with serious mental health conditions.
- West Virginia's public mental health system provides services to only 44% of adults who live with serious mental illness in the state.
- Between 2000 and 2009, there were 142 suicides in Marshall, Ohio, and Wetzel Counties combined.
- Veteran life line calls have increased in 2010-2011 compared to the previous four years.
- Wetzel County ranks 13th in the state for prevalence of suicide.
- Between 2004 and 2006 between 14% and 15% of West Virginia residents reported serious psychological distress, higher than the national rate; while 9% reported at least one major depressive episode, also higher than the national rate.
- Statewide, 12.6% of sheltered homeless have mental health problems.
- Focus group participants discussed a number of needs and issues related to chronic/serious mental health management, including poor health status and the scarcity of resources as contributing factors to the problems and challenges for those with mental illness and disabilities, with some people continuing to refuse treatment because of the continued stigma associated with mental illness.
- Focus group participants also discussed that there is also a "quick fix" attitude within the system and resources are not appropriately invested in the long term solutions that will make a difference for persons with disabilities and those with mental health needs.

They noted there is also a need for additional mental health resources and support groups.

- Stakeholders identified a number of unmet needs related to mental illness including the lack of access to care due to the lack of resources and providers in the community. Participants expressed that more should be done to manage the more severe mental health needs and issues.

Drug & Alcohol Conclusions

All across the country, within the state of West Virginia as well as in the service area counties, drug and alcohol use and abuse is a growing concern. Although specific drug & alcohol local data available is limited, it suggests that the rates of drug and alcohol abuse in the service area counties is higher than the state, which has one of the highest rates in the country for the use of prescription pain killers and drug overdose deaths. Local stakeholders reported in both focus groups and interviews that the abuse of prescription drugs, specifically painkillers is increasing, and the local system is struggling to keep up with the increase in demand for services, as evidenced by the increase in drug related hospitalizations and mortality over the past few years.

Local leaders indicate that there is a need for increased access to preventative education and early intervention services as well as residential treatment and post-acute support services.

Overall observations and findings from the data include:

- Between 2004 and 2010 Marshall County reported slightly higher rates of binge drinking, compared to Ohio and Wetzel Counties and the state.
- Compared to the state statistics in 2008-2010, the rate of DUI arrests was higher in Marshall and Ohio Counties when compared to Wetzel County and the state.
- The alcohol related automobile accident rates fluctuated among the counties between 2005 and 2009, but on average were higher than the state rate.
- Between 2006 and 2008, 7.4% of individuals aged 12 and older reported using marijuana within the past month in Marshall, Ohio, and Wetzel Counties.
- Between 2006 and 2008, there were no significant differences between the state and counties in the use of marijuana, cocaine, and nonmedical use of pain relievers, but data suggests that the use rates are increasing.
- Between 2001 and 2011 prescription drug overdose deaths steadily increased in West Virginia.
- Between 2005 and 2009 individuals discharged from a hospital with a drug related diagnosis steadily increased.

Youth Risk Behaviors Conclusions

The percentage of students engaging in risk behaviors suggests that the needs of students in the region are increasing. Sizable and increasing portions of students (up to a third of the population) report various risk behaviors. Students report higher levels of smoking, drug and alcohol use and violence with age. Stakeholders suggest that the support services available in the schools, although good, are not keeping pace with the needs of children and their families.

Overall findings suggest:

- Between 9th and 12th grades, there was an increase in the percentage of students who drove or rode in an automobile with someone after drinking (12.6% of seniors drove and 21.2% of seniors rode).
- Although the numbers decreased between 9th and 12th grades, 15.4% of high school seniors carried a weapon one or more times in the past month, with 3.5% carrying a gun.
- A percentage (13.5%) of high school seniors reported physical violence towards their boyfriend/girlfriend.
- Between 9th and 12th grades, approximately 25% of students reported feeling sad or hopeless daily for two or more weeks in the past year and more than 7% of 9th grade students reported that they attempted suicide. Between 9th and 12th grades, the percentage of students who attempted suicide decreased to 4.7%, although this still puts a significant number of students at risk.
- In general, students who reported tobacco use, drinking alcohol, and drug use increased with grade level and sizable portions of the 12th grade student population smoke (14.1%), drink alcohol 5 or more times in the past month (28.4%), use marijuana (25.8%), cocaine (3.5%), inhalants (11.5%), heroine (4.0%), and illegally use prescription drugs (20.9%).
- On average, 30% of students spent at least three hours a day watching television, playing video games, or using a computer (for non-school work) on an average school day, while 15.2% of seniors reported not being physically active for 60 minutes a day in the past 7 days.
- Focus group participants discussed the needs and issues related to the student population in schools. The participants indicated that there is an increased need for student mental health services and resources in schools.

- Stakeholders participating in the interviews indicated that the needs in the student population are increasing, and the support systems available to students in the schools, while they are good, are not keeping pace with the needs of children and families. Stakeholders suggested reaching children early and focusing on self-esteem, role modeling and prevention education could make a difference if children are reached prior to addictions beginning. There is also a need for daytime programs for kids with severe needs.

Environmental Factors and Indicators Impacting Mental and Physical Health Conclusions

The service area counties have a number of environmental and physical health related conditions that are contributing to and impacting the overall well-being and mental health status of their residents. In 2006, Obesity rates in West Virginia were one of the two highest in the nation, although more recently, rates in the service area counties was somewhat lower and closer to the Healthy People 2020 Goal, although they still represent almost a third of the population. The region's incidence and mortality rates for many chronic disease conditions are higher than the state rates and in some cases double the Healthy People 2020 Goals.

High unemployment and poverty rates, as well as a lack of education and awareness, are seen as contributing factors to mental health needs and issues. Access to gambling and a culture of acceptance of drinking alcohol also contribute to the incidence of illegal activities, domestic violence and violent crime.

Specific findings in the data include:

- In Marshall, Ohio, and Wetzel counties the mortality rates of breast, colon, bronchus and lung, ovarian, and prostate cancers fluctuated between 2006 and 2009. Breast and bronchus and lung mortality rates were generally higher than the state rates.
- Across Marshall, Ohio, and Wetzel counties, heart attack, angina, and stroke incidence rates were comparable and above the state percentage of 6.0%.
- Diabetes mortality rates were higher in Marshall, Ohio, and Wetzel counties, compared to the state statistics.
- Influenza and pneumonia mortality rates were higher among the counties compared to the state and nation, and in Wetzel County the rates are steadily increasing.
- The percentage of obese adults was comparable across the counties, with Marshall and Ohio counties below the state (32.9%) and Healthy People 2020 Goal of 30.6%.

- There were no significant differences between Marshall, Ohio, and Wetzel counties in terms of adults having no leisure time physical activity in the past month, and all counties were below the state statistic of 32.9% and the Healthy People 2020 Goal of 32.6%.
- The unemployment rates for the state and counties increased between 2010 and 2012 as did the percentage of children living in poverty.
- The percentage of adults living in poverty is comparable across the three counties, with Ohio and Wetzel counties showing a slight decrease between 2000 and 2009.
- Marshall and Wetzel counties are below the state rate of 29.0% for the percentage of children living in a single parent household, although the trend from 2011 to 2012 does show a small increase. Ohio County is above the state rate, but did show a decrease over the two-year period.
- In Marshall, Ohio, and Wetzel counties, between 44% and 54% of students are eligible for free lunch.
- In Marshall, Ohio, and Wetzel counties, between 25% and 43% of the population have low access to a grocery store, and in Marshall and Wetzel counties, 70% and 57%, respectively, of the restaurants are fast food restaurants, compared to the state rate of 52%. Only Ohio County has a lower percentage than the state rate of 51%.
- The violent crime rate between 2012 and 2013 was highest in Ohio County, compared to Marshall and Wetzel counties and the state. The majority of firearm deaths were related to suicide.

Seniors Conclusions

The population of the service area is aging and has a higher percentage of senior citizens than the state. Older individuals require additional and different health and human services in order to support them as they age. While the percentage of seniors in the service area is increasing, they are faring comparatively well in the service area counties in terms of disease incidence and environmental factors facing seniors. The overall findings include:

- The percentage of the population over the age of 65 for Marshall (17.5%), Ohio (18.5%) and Wetzel (19.5%) counties are above the national rate of 12.8% and the state rate of 16.0%.
- The percentage of seniors living in poverty was higher for Wetzel County, compared to Marshall and Ohio counties, and state statistics.
- The percentage of seniors who rated their health as fair to poor was lower in Ohio and Wetzel counties compared to the state. No data was available for Marshall County.

- Compared to state statistics, all three counties had a lower percentage of seniors living with a disability.
- The suicide rate among seniors was slightly lower in Marshall, Ohio, and Wetzel counties, compared to state statistics.
- Alzheimer's disease mortality rates were comparable in Marshall and Ohio counties, compared to state statistics, and lower in Wetzel County.
- There were no significant differences in adults over the age of 65 who had a heart attack, angina, coronary heart disease, stroke, or diabetes, compared to state statistics, except for Wetzel County, which had a lower percentage than the state.
- The percentage of seniors who were dual eligible for Medicare/Medicaid was slightly lower in Marshall County, compared to Ohio and Wetzel counties and the state.

Intellectual and Physical Disabilities Conclusions

Over a third of the households in West Virginia have a member with a disability. While overall in the last 10 years in West Virginia the number of children and young adults diagnosed with a disability decreased slightly for every age group, the number of children and young adults diagnosed with autism and other developmental disabilities has significantly increased. Individuals with disabilities have much higher rates of medical and mental health service utilization than their non-disabled peers. Across the state, while West Virginia has a higher rate of identifying students with disabilities compared to the nation, the rate of identifying students is declining at a higher rate and the average spending on special education is much lower than national rates.

Because of the exploding incidence and prevalence of persons with autism and other intellectual disabilities, the need for school to work transition services is increasing as is the need for housing and other support services. Families need more information on how to access services available, as well as support to effectively utilize the resources available.

There are a number of general findings that can be derived from the data related intellectual and physical disabilities. They include:

- Between 2000 and 2011 the number of children and young adults diagnosed with Autism increased significantly for every age group.
- Between 2000 and 2011 the number of children and young adults diagnosed with a disability slightly decreased for every age group.
- Across the state, 7.9% of people aged 5 and older have a cognitive disability.
- Across the state, 3.6% of parents with a disability, who have children under the age of 18, have a cognitive disability.

- Over a third of households in West Virginia (34.1%) have a member with a disability.
- A sizable portion (13.8%) of working-aged adults has daily activity limitations, while 13.1% have self-care limitations.
- While West Virginia has a higher rate of identifying students with disabilities compared to the nation, the rate of identifying students with disabilities is declining at a higher rate and average spending on special education is much lower than national rates.
- Children with developmental disabilities have much higher rates of medical and mental health service utilization (in most cases double to triple) than their non-disabled peers.
- For persons with intellectual disabilities, focus group participants identified the need for high school transition planning, integration into the community and supervised employment, affordable housing support, family and resource education needs and access to Medicaid funded services as the most pressing needs for this population in the region.

Appendix

Appendix A

Stakeholder Interview Guide

Thank you for taking the time to talk with us to support the Northwood Health Systems Community Health Needs Assessment Process.

1. First of all, could you tell me a little bit about yourself and your background/ experience with community health related issues.

2. What, in your opinion, are the top 3 community health needs for your community?	3. What, in your opinion are the issues and the environmental factors that are driving these community health needs?
1.	
2.	
3.	
Others mentioned:	

4. Check to see if the area they were selected to represent is one of the top priorities identified above. If not mentioned, say....

Our records indicate that you were selected to participate in these individual interviews because you have specific background/experience/ knowledge regarding _____ . What do you feel are the key issues related to this topic area?

What, in your opinion are the issues and the environmental factors that are driving the needs in this topic area?

Glossary

A

Access to Health Care

The timely use of personal health services to achieve the best possible outcomes.” It can include, but is not limited to, availability of information, care, public or private insurance coverage, transportation, culturally and linguistically competent care, and other factors that affect personal and cultural decisions related to seeking health care services.

Actual Causes of Death

While the leading causes of death are heart disease, cancer, stroke, and respiratory disease, the actual causes of death are defined as lifestyle and behavioral factors such as smoking and physical inactivity that contribute to this nation’s leading killers. Physical inactivity and poor nutrition is catching up to tobacco at the top of the list of actual causes of death. In 2000, the most common actual causes of death in the United States were tobacco (435,000), poor diet and physical inactivity (400,000), alcohol consumption (85,000), microbial agents (e.g., influenza and pneumonia, 75,000), toxic agents (e.g., pollutants, asbestos, etc., 55,000), motor vehicle accidents (43,000), firearms (29,000), sexual behavior (20,000) and illicit use of drugs (17,000).

Adjusted Rates

Adjusted rates are summary rates constructed to permit fair comparison between groups differing in some important characteristic such as age, sex or race. When comparing the rate of disease between two or more counties, adjusted rates standardize the composition of their populations so that the influence of ethnic, racial, or age differences is minimized. Adjusted rates are also referred to as standardized rates and can be contrasted with “crude rates” where there have been no adjustments to the data.

Age

The number of complete years an individual has lived. The age classification is based on the age of the person at his or her last birthday.

Age Adjusted Rate

Age-adjustment is a statistical process applied to rates of disease, death, injuries or other health outcomes which allows communities with different age structures to be compared.

Assessment

One of public health’s three core functions, the others are policy development and assurance. It is the regular collection, analysis and sharing of information about health conditions, risks and resources in a community. Assessment is needed to identify health problems and priorities and the resources available to address the priorities.

Asset Mapping

A tool for mobilizing community resources. It is the process by which the capacities of individuals, civic associations, and local institutions are inventoried.

Attributable Risk

The arithmetic or absolute difference in incidence rates between an exposed and non-exposed group.

B

Behavioral Risk Factors

Behaviors which are believed to cause, or to be contributing factors to, accidents, injuries, disease, and death during youth and adolescence and significant morbidity and mortality in later life.

Benchmarks

Indicators of progress that tell us whether elements of a long-term strategic plan are being achieved.

Best Available Evidence

Conclusive evidence of the links between, for example, socio-environmental factors and health or the effectiveness of interventions is not always available. In such cases, the best available evidence – that which is judged to be the most reliable and compelling – can be used, but with caution.

Bias

In statistics, bias is the difference between this estimator’s expected value and the true value of the parameter being estimated. Although the term bias sounds pejorative, bias is tolerated and sometimes even welcome in statistics.

Birth Rate

The average annual number of births during a year per 1,000 population. Also known as the crude birth rate.

Board of Health

A legally designated governing body whose members are appointed or elected to provide advisory functions and/or governing oversight of public health activities, including assessment, assurance, and policy development, for the protection and promotion of health in their community.

BRFSS

Behavioral Risk Factor Surveillance Survey. A national survey of behavioral risk factors conducted by states with CDC support.

C

Capacity

The ability of an individual, organization or system to effectively complete specific tasks over time and across issues.

Case-Control Study

A study in which people diagnosed as having a disease (cases) are compared with persons who do not have the disease (controls). Also referred to as a retrospective study.

Causality

The relationship between two variables whereby a change in one is followed by a change in the other. The criteria used to assess the likelihood of the causal nature of an association are:

- consistency
- specificity
- strength
- temporal correctness
- coherence (biological plausibility)

Cause of Death

Any condition that leads to or contributes to death and is classifiable according to the International Classification of Diseases.

Cause-Specific Death Rate

A rate which approximates the risk of death from a specific condition; differences in the magnitude of this measure in subgroups and by time and place suggest etiologic hypotheses and document the need for control measures.

CDC

The Centers for Disease Control and Prevention.

Coalition

A group of individuals and/or organizations that join together for a common purpose.

Community

The aggregate of persons with common characteristics such as geographic, professional, cultural, racial, religious, or socio-economic similarities; communities can be defined by location, race, ethnicity, age, occupation, interest in particular problems or outcomes, or other common bonds.

Community Assets

Contributions made by individuals, citizen associations, and local institutions that individually and/or collectively build the community's capacity to assure the health, well being, and quality of life for the community and all its members.

Community Collaboration

A relationship of working together cooperatively toward a common goal. Such relationships may include a range of levels of participation by organizations and members of the community. These levels are determined by: the degree of partnership between community residents and organizations, the frequency of regular communication, the equity of decision making, access to information, and the skills and resources of residents. Community collaboration is a dynamic, ongoing process of working together, whereby the community is engaged as a partner in public health action.

Community Health

A perspective on public health that assumes community to be an essential determinant of health and the indispensable ingredient for effective public health practice. It takes into account the tangible and intangible characteristics of the community, its formal and informal networks and support systems, its norms and cultural nuances, and its institutions, politics, and belief systems.

Community Health Needs Assessment (CHNA)

The Department of Health (DOH) requests that each county prepare a community health needs assessment on a regular basis, usually every four years. The community health needs assessment, or CHNA, identifies those health issues of most concern in the county. Among those issues, a smaller number usually are selected as priority health issues. For those priority health issues, additional detail is provided, additional data collection occurs, stakeholders are identified and invited to participate, and action items are formulated. Progress is charted over the next four years and reported on in the next CHNA document.

Community Health Improvement Process

The community health improvement process involves an ongoing collaborative, community wide effort to identify, analyze, and address health problems; assess applicable data; develop measurable health objectives and indicators; inventory community health assets and resources; identify community perceptions; develop and implement coordinated strategies; identify accountable entities; and cultivate community ownership of the entire process.

Community Health Needs

Traditionally defined as the gaps and deficiencies identified through a community health assessment that needs to be addressed. However, there is increasing recognition that gaps and deficiencies must be balanced with recognition of building on strengths identified in the community.

Community Health Profile

A comprehensive compilation of measures representing multiple categories that contributes to a description of health status at a community level and the resources available to address health needs. Measures within each category may be tracked over time to determine trends, evaluate health interventions or policy decisions, compare community data with peer, state, nation, or benchmark measures, and establish priorities through an informed community process.

Community Health Status

Health status in a community is measured in terms of mortality (rates of death within a population) and morbidity (the incidence and prevalence of disease). Mortality may be represented by crude rates or age-adjusted rates; by degree of premature death (Years of Productive Life Lost); and by cause (disease--cancer and non-cancer or injury--intentional, unintentional). Morbidity may be represented by age-adjusted incidence of disease.

Community Partnerships

A continuum of relationships that foster the sharing of resources, responsibility and accountability in undertaking activities within a community. A cooperative relationship formed between two or more organizations to achieve a shared goal or pursue a common interest.

Community Support

Actions undertaken by those who live in the community that demonstrate the need for and value of a healthy community and an effective local public health system. Community support often consists of, but is not limited to, participation in the design and provision of services, active advocacy for expanded services, participation at board meetings, support for services that are threatened to be curtailed or eliminated, and other activities that demonstrate that the community values a healthy community and an effective local public health system.

Contributing Factors

Those factors that directly or indirectly influence a risk factor's influence on a specific health problem (also referred to as a causative factors, risk factors, or determinants).

Crude Rate

A summary rate based on the actual number of events (e.g., birth or deaths) in a total population over a given time period. A rate that has not been "adjusted" or "standardized" for any other factor, such as age.

D

Death, Illness, and Injury

Health status in a community is measured in terms of mortality (rates of death within a population) and morbidity (rates of the incidence and prevalence of disease). Mortality may be represented by crude rates or age-adjusted rates; by degree of premature death (Years of Productive Life Lost); and by cause (disease - cancer and non-cancer or injury - intentional, unintentional). Morbidity may be represented by age-adjusted incidence of cancer and chronic disease. This is a category of data recommended for collection within the Community Health Status Assessment.

Demographic Characteristics

Demographic characteristics include measures of total population as well as percent of total population by age group, gender, race and ethnicity, where these populations and sub-populations are located, and the rate of change in population density over time, due to births, deaths and migration patterns. This is a category of data recommended for collection within the Community Health Status Assessment. Characteristic data such as size, growth, density, distribution, and vital statistics that are used to study human population. Demographic characteristics of your jurisdiction include measures of total population as well as percent of total population by age group, gender, race and ethnicity, where these populations and sub populations are located, and the rate of change in population density over time, due to births, deaths and migration patterns.

Determinants (or Risk Factors)

Direct causes and risk factors which, based on scientific evidence or theory, are thought to influence directly the level of a specific health problem. Broad causal factors involved in influencing health and illness, including social, economic, genetic, perinatal, nutritional, behavioral, and environmental characteristics. A primary risk factor (causative factor) associated with the level of health problem.

Disadvantaged Groups

Disadvantaged (or vulnerable or marginalized) applies to groups of people who, due to factors usually considered outside their control, do not have the same opportunities as other, more fortunate groups in society. Examples might include unemployed people, refugees and others who are socially excluded.

E

Economic Impact Assessment

Economic impact assessment involves exploring and identifying the ways in which the economy in general, or local economic circumstances in particular, will be affected by a policy, program or project.

Evidence Based

The evidence base refers to a body of information, drawn from routine statistical analyses, published studies and “grey” literature, which tells us something about what is already known about factors affecting health. For example, in the field of housing and health there are a number of studies which demonstrate the links between damp and cold housing and respiratory disease and, increasingly, the links between high quality housing and quality of life.

F

Family

A group of two or more people who reside together and who are related by birth, marriage, or adoption.

Family Household

A family household consists of a householder and one or more people living together in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family. People not related to the householder are not included as part of the householder’s family in census tabulations. In 1950 and 1960, a household enumerated in the census could contain more than one family. Thus, there were more families than family households.

G

Geocode

Addresses matched and assigned to a corresponding latitude and longitude. The process of assigning geographic location information to attribute data that are to be used for analytic purposes.

Geographic Information System (GIS)

GIS combines modern computer and super computing digital technology with data management systems to provide tools for the capture, storage, manipulation, analysis, and visualization of spatial data. Spatial data contains

information, usually in the form of a geographic coordinate system, that gives data location relative to the earth's surface. These spatial attributes enable previously disparate data sets to be integrated into a digital mapping environment. Geographic information systems that are computer based processes for capturing, lining, summarizing, and analyzing data containing geographical location information. These systems are particularly useful in supporting visual analysis and communication of data using maps that display the geographic distribution of data.

H

Health

A dynamic state of complete physical, mental, spiritual and social wellbeing and not merely the absence of disease or infirmity. The state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. It is recognized, however, that health has many dimensions (anatomical, physiological, and mental) and is largely culturally defined. The relative importance of various disabilities will differ depending on the cultural milieu and on the role of the affected individual in that culture. Most attempts at measurement have been assessed in terms of morbidity and mortality.

Health Care

The prevention, treatment, and management of illness and the preservation of mental and physical well-being through the services offered by the medical and allied health professions.

Health Disparity

A statistically significant difference in a health indicator between groups that persists over time.

Health Equity

Distribution of disease, disability and death in such a way as to not create a disproportionate burden on one population; the absence of persistent health differences over time, between racial and ethnic groups.

Health Gain

Improvement in health status.

Health Impact

A health impact can be positive or negative. A positive health impact is an effect which contributes to good health or to improving health. For example, having a sense of control over one's life and having choices is known to have a beneficial effect on mental health and well being, making people feel "healthier". A negative health impact has the opposite effect, causing or contributing to ill health. For example, working in unhygienic or unsafe conditions or spending a lot of time in an area with poor air quality is likely to have an adverse effect on physical health status.

Health Indicator

A health indicator is numeric value for a specific health-related occurrence, such as the percentage of smokers or the number of people diagnosed with cancer within a given population. Health indicators are documented over-time to assess trends and compare values in the local population to state and national averages. While health indicators are important for understanding the depth and breadth of a health problem, data alone cannot solve health problems. Solutions require health experts and community stakeholders working together to understand the context and influences on the problem, including the demographic, social, environmental, and economic characteristics within the population.

Health Issues

Health issues summarize or categorize the health indicators of most concern within a population. A health issue can be a particular disease such as chronic or infectious disease. A health issue also can be the social, economic, or behavioral conditions that are causing or exacerbating a disease. For example, tobacco use, poor diet and lack of physical fitness are health issues because they are known to directly contribute to diseases of the heart, lungs, and circulatory system. Health issues usually are comprised of multiple health indicators and efforts to address and improve a health issue require broad-based community attention and support.

Health Insurance Coverage

A person is considered covered by health insurance at some time during the year if he or she was covered by at least one type of coverage.

Health Promotion

Any planned combination of educational, political, regulatory, and organizational supports for actions and conditions of living conducive to the health of individuals, groups, or communities. An intervention strategy that seeks to eliminate or reduce exposures to harmful factors by modifying human behaviors. Any combination of health education and related organizational, political, and economic interventions designed to facilitate behavioral and environmental adaptations that will improve or protect health. This process enables individuals and communities to control and improve their own health. Health promotion approaches provide opportunities for people to identify problems, develop solutions, and work in partnerships that build on existing skills and strengths. Any combination of educational, organizational, environmental, and economic interventions designed to encourage behavior and conditions of living that are conducive to health.

Healthy People 2010

A national health promotion and disease prevention initiative that brings together national, state, and local government agencies; nonprofit, voluntary, and professional organizations; businesses; communities; and individuals to improve the health of all Americans, eliminate disparities in health, and improve years and quality of healthy life. In Healthy People 2010, 467 health promotion and disease prevention objectives are identified for achievement by the year 2010. There will be a Health People 2020 initiative.

Household

One person or a group of people living in a housing unit.

Housing Unit

A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied or intended for occupancy, as separate living quarters. Separate living quarters are those in which the occupant(s) live separately from any other people in the building and which have direct access from outside the building or through a common hall.

I

Impact Assessment

Impact assessment is about judging the effect that a policy or activity will have on people or places. It has been defined as the prediction or estimation of the consequences of a current or proposed action.

Impact Objective

A short term (less than three years) and measurable. The object of interest is on knowledge, attitudes, or behavior.

Incidence

A measure of the health condition in the population; generally the number of new cases occurring during a specified time period.

Indicator

A measurement that reflects the status of a system. Indicators reveal the direction of a system (a community, the economy, and the environment), whether it is going forward or backward, increasing or decreasing, improving or deteriorating, or staying the same. A measure of health status or a health outcome. An element used to measure health status, risk, or outcome. See also "Health Indicator"

Inequalities Audit or Equity Audit

A review of inequalities within an area or of the coverage of inequalities issues in a policy, program or project, usually with recommendations as to how they can be addressed.

Infrastructure

The resources (e.g., personnel, information, monetary, and organizational) used by the public health system to provide the capacity to perform its duties.

Integrated Impact Assessment

Integrated impact assessment brings together components of environmental, health, social and other forms of impact assessment in an attempt to incorporate an exploration of all the different ways in which policies, programs, or projects may affect the physical, social and economic environment.

Intervention

A public health program intended to improve the health of a specific population or the overall population. The focus of a public health intervention is to prevent rather than treat a disease through surveillance of cases and the promotion of healthy behaviors. Interventions can be used to create change in different settings, including: communities, work sites, schools, health care organizations, faith-based organizations or at home. Interventions may be most effective when they include multiple settings.

Injury

Injuries can be classified by the intent or purposefulness of occurrence in two categories, intentional and unintentional injuries. Intentional injuries are ones that are purposely inflicted and often associated with violence. These include child abuse, domestic violence, sexual assault, aggravated assault, homicide, and suicide. Unintentional injuries include only those injuries that occur without intent of harm and are not purposely inflicted.

International Classification of Disease (ICD-10-CM)

The ICD-10 is used to code mortality data. Its purpose is to provide a common language, specifically number and letter codes, for identifying illnesses, injuries and causes of death. This enables communities, health care organizations, insurance companies, regulatory agencies, etc. to compare rates of disease and injury, as well as allowing comparison of cost and pricing practices.

L

Latent Period

The interval of time from exposure to chemical agents and the onset of signs and symptoms of the illness.

Local Health Department

An administrative or service unit of local or state government concerned with health and carrying some responsibility for the health of a jurisdiction smaller than the state. Functionally, a local (county, multicounty, municipal, town, other) health agency, operated by local government, often with oversight and direction from a local board of health, that carries out public health's core functions throughout a defined geographic area. A more traditional definition is an agency serving less than an entire state that carries some responsibility for health and has at least one full time employee and a specific budget.

M

Mean

The measure of central location commonly called the average. It is calculated by adding together all the individual values in a group of measurements and dividing by the number of values in the group.

Median

The measure of central location which divides a set of data into two equal parts.

Median Age

The median divides the age distribution into two equal parts, one-half of the population falling below the median age and one-half above the median.

Mental Health

A term used to describe either a level of cognitive or emotional well-being or an absence of a mental disorder. Cultural differences, subjective assessments, and competing professional theories all affect how “mental health” is defined.

Morbidity

The condition of being sick or diseased, the prevalence of a disease in a population.

Mortality Rate

The number of deaths from a given condition in a defined population in a specified time period, the ratio of deaths in an area to the population of that area, can be crude or age-adjusted.

N

Natality

Natality is another term for births.

Neonatal Death Rate

The number of deaths among infants under 28 days of age in a defined population and time period divided by the number of live births in that population and time period.

O

Outcome Objective

The level to which a health problem is to be reduced as a result of an intervention, usually measured in terms of mortality, morbidity, or disability. An outcome objective usually is long term (greater than 3 years) and measurable.

P

Per Capita Income

The per capita income for an area is defined as the total personal income in an area, divided by the number of people in that area. The Census Bureau derived per capita income by dividing the total income of a particular group by the total population in that group (excluding patients or inmates in institutional quarters).

Policy Development

One of public health's three core functions, the others are assessment and assurance. Processes by which public health organizations formulate policies and plans to address priority health issues for the populations they serve, and advocate for the adoption and implementation of these policies by legislative and regulatory bodies and by private sector institutions. The means by which problem identification, technical knowledge of possible solutions, and societal values converge to set a course of action. Policy development processes typically involve planning and priority-setting efforts that include broad participation by community members as well as health-related professionals and institutions. Policy development is not synonymous with the development of laws, rules, and regulations. Laws, rules, and regulations may be adopted as tools among others to implement policy. Policy development is a process that enables informed decisions to be made concerning issues related to the public's health. Policy development involves serving the public interest in the development of comprehensive public health policies by promoting the use of the scientific knowledge base in decision making and by leading in developing public health policy.

Population Health

An approach to health that aims to improve the health of the entire population and to reduce health inequities among population groups.

Population Projections

A calculation of population size derived for future dates using assumptions about future trends and data from population censuses, administrative records, sample surveys, and/or other sources.

Prevalence

The number of cases of a disease, infected people or people with some other attribute present during a particular interval of time. It often is expressed as a rate.

Prevention

An active process that promotes the personal, physical and social well-being of individuals and families to reinforce positive health behaviors and lifestyles that minimize morbidity and maximize the overall quality of life. Primary care can be viewed as a form of prevention as its proper use can result in fewer hospitalizations for conditions such as asthma, diabetes, chronic obstructive pulmonary disease, and congestive heart failure, which are affected by the level of care given on an outpatient basis.

Preventive Care

A set of measures taken in advance of symptoms to prevent illness or injury. This type of care is best exemplified by routine physical examinations and immunizations. The emphasis is on preventing illnesses before they occur.

Process Objective

A process objective is short term and measurable. The object of interest is the level of professional practice in the completion of the methods established in a Community Health Plan. Process objectives may be evaluated by audit, peer review, accreditation, certification, or administrative surveillance. Objects of evaluation may include adherence to projected timetables, production, distribution, and utilization of products, and financial audits.

Proportional Mortality

The relative importance of a specific cause of death in relation to all deaths in a population group. The two measures in the proportional mortality rate are measured over the same period of time.

Public Health

The mission of public health is to fulfill society's desire to create conditions so that people can be healthy. Activities that society undertakes to assure the conditions in which people can be healthy. This includes organized community efforts to prevent, identify, and counter threats to the health of the public.

Public Health Leadership

This is demonstrated by both individuals and organizations that are committed to the health of the community. Leadership defines key values and guides action; participates in scanning the environment both internal and external for information critical to implementing the public health mission; keeps the public health mission in focus and articulates it clearly; and facilitates the creation of a vision of excellence, a compelling scenario of a preferred future. Through shared information and decision making, public health leadership facilitates the empowerment of others to create and implement plans to enact the shared vision and to participate actively in the process of community health improvement.

Public Health Mission

To fulfill society's interest in assuring conditions in which people can make choices to be healthy in their communities. Public health carries out its mission through organized, interdisciplinary efforts that help prevent and treat the physical, mental and environmental health concerns of communities and populations.

Public Health System

The network of organizations and professionals that participate in producing public health services for a defined population or community. This network includes governmental public health agencies as well as relevant health care and social service providers, community based organizations, and private institutions with an interest in population health.

Q

Quality of Life

A construct that connotes an overall sense of well-being when applied to an individual and a supportive environment when applied to a community. While some dimensions of quality of life can be quantified using indicators that research has shown to be related to determinants of health and community well being, other valid dimensions include the perceptions of community residents about aspects of their neighborhoods and communities that either enhance or diminish their quality of life.

R

Race/Ethnicity

Race and ethnicity are social, not biological constructs, referring to social groups often sharing cultural heritage and ancestry. Race and ethnicity are not valid biological or genetic categories. As per the U.S. Census, prior to 1980, race was determined either solely by the observation of the enumerator or by a combination of enumerator observation and self-identification. These categories reflect social usage and should not be interpreted as being scientific or anthropological in nature. Furthermore, the race categories include both racial and national-origin groups.

Random

Chance used to refer to the type of error that results from fluctuations around a value because of sampling variability.

Rate

A measure of some event, disease or condition in relation to a unit of population where time and place are stated. A true rate can be determined only if the numerator is included as part of the denominator if the denominator represents the entire population at risk and a unit of time is specified.

Ratio

A relative number expressing the magnitude of one occurrence or condition in relation to another.

Relative Risk

The ratio of the incidence rate of those exposed to a factor to the incidence rate of those not exposed.

Resource Allocation

The process of deciding what is needed to carry out an activity and providing for those needs. This can include making provision for financial resources (money), capital resources (such as buildings and computer hardware) and staff resources (including the number of staff needed and the skill mix required).

Risk Assessment

The scientific process of evaluating adverse effects caused by a substance, activity, lifestyle, or natural phenomenon. Risk assessment is the means by which currently available information about public health problems arising in the environment is organized and understood. A systematic approach to quantifying the risks posed to individuals and populations by environmental pollutants and other potentially harmful exposures.

Root Causes

Root causes are primary causes of health problems that underlie the more obvious causes. Social problems are often root causes that result in health inequalities through complex pathways. For example, racism is a root cause because it results in income inequality, lack of power, residential and occupational segregation, and stress in marginalized groups. These things in turn cause things like inadequate health care, working in dangerous environments, living in cramped conditions where infections spread easily, smoking, and the inability to afford nutritious food. These things, in turn, are related to a host of health problems like injury, infectious and chronic disease, and mental illness. While addressing root causes will not eliminate disease and death, it will reduce health disparities between populations.

S

Social Impact Assessment

Social impact assessment is the process of assessing or estimating, in advance, the social consequences that are likely to follow from specific policy actions or project development, particularly in the context of appropriate national, state or provisional policy legislation. It is based on the assumption that the way in which the environment is structured can have a profound effect on people's ability to interact socially with other people and to develop networks of support. For example, a major road cutting across a residential area can have the effect of dividing a community with implications for social cohesion.

Socioeconomic Characteristics

Socioeconomic characteristics include measures that have been shown to affect health status, such as income, education, and employment, and the proportion of the population represented by various levels of these variables.

Specificity

The ability to identify correctly those who do not have a given disease.

Standard Population

The age distribution of a population for a given period of time

Strategic Planning

A disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why it does it. Strategic planning requires broad scale information gathering, an exploration of alternatives, and an emphasis on the future implications of present decisions. It can facilitate communication and participation, accommodate divergent interests and values, and foster orderly decision making and successful implementation.

Strategies

Patterns of action, decisions, and policies that guide a group toward a vision or goals. Strategies are broad statements that set a direction. They are pursued through specific actions (i.e., those carried out in programs and services of individual components of the local public health system).

Statistical Significance

In statistics “significant” means a finding is probably true and reliable and not due to chance. Significance levels show how likely a result is due to chance. The most common level, used to mean something is good enough to be believed, is 95%. This means that the finding has a 95% chance of being true. When quantitative differences found between populations are labeled as statistically significant, it means the differences are considered highly likely to be real and are not due to mere coincidence (random error). For example, if the diabetes rate for Hispanics is higher than the rate for other racial/ethnic groups and those differences are statistically significant, it means the rates probably reflect true disparities between groups.

Surveillance

The systematic collection, analysis, interpretation, and dissemination of health data to assist in the planning, implementation, and evaluation of public health interventions and programs. Systematic monitoring of the health status of a population. The process of collecting health related data that are representative of a population of interest, for use in assessing trends in disease and other health conditions, measuring the prevalence of health risk factors and health behaviors, and monitoring the use of health services.

Sustainability

The long-term health and vitality - cultural, economic, environmental, and social - of a community. Sustainable thinking considers the connections between various elements of a healthy society, and implies a longer time span (i.e., in decades, instead of years).

Systems Change

The process of improving the capacity of the public health system to work with many sectors to improve the health status of all people in a community.

T

Teen Pregnancy Rate

Annual number of pregnancies to women aged 15-19 per 1,000 female population aged 15-19.

U

Underlying Cause of Death

The disease or injury that initiated the sequence of events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury.

V

Values

The fundamental principles and beliefs that guide a community driven process. These are the central concepts that define how community members aspire to interact. The values provide a basis for action and communicate expectations for community participation.

Vision

A compelling and inspiring image of a desired and possible future that a community seeks to achieve. A health vision states the ideal, establishes a stretch linked explicitly to strategies, inspires commitment, and draws out community values. A vision expresses goals that are worth striving for and appeals to ideals and values that are shared throughout the local public health system.

Vital Events

Live births, deaths, fetal deaths, marriages, divorces, and induced terminations of pregnancy, together with any change in civil status that may occur during an individual's lifetime.

Vital Statistics

Data derived from certificates and reports of birth, death, fetal death, induced termination of pregnancy, marriage, (divorce, dissolution of marriage, or annulment) and related reports. Information compiled by state health agencies concerning births, deaths, marriages, divorces, fetal deaths, and abortions.

Y

Years of Life Lost

A measure of premature mortality. The measure subtracts the person's age at death from the life expectancy for someone that age in a standard population. The younger the age at death, the greater the Years of Life Lost. Since many younger deaths could be prevented or postponed this measure has implications for prevention efforts.

Years of Potential Life Lost

This measure of premature mortality is the number of years between the age at death and age 65 or 75, that is, the number of years which are "lost" by persons who die before one of those ages. This approach places additional value on deaths that occur at earlier ages.