



2022 Community Health Needs Assessment

Northwood
Health Systems



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Message to the Community

Northwood Health Systems is proud to present its 2022 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 our primary service area including Hancock, Brooke, Ohio, Marshall, and Wetzel counties in West Virginia. Our 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 disabilities, mental illness and drug and alcohol addictions. The data collected in this health assessment 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. The results enable the health system, as well as other providers in the community, 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 organizational decision making.

Individually and collectively, improving the health of the community and region is a top priority of Northwood Health Systems. Beyond the 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 our community.

Executive Summary

The 2022 Northwood Health Systems Community Health Needs Assessment (CHNA) was conducted to identify health issues and needs and 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.

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
- Other Environmental Factors and Indicators Impacting Mental and Physical Health

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, Behavioral Risk Factor Surveillance Systems, SAMHSA, the Centers for Disease Control, Healthy People 2021, County Health Rankings as well as a number of other reports and publications. Data was collected for Hancock, Brooke, Ohio, Marshall, and Wetzel counties, although some selected state and national data is included where local / regional data was not available. Where updated information could not be obtained information from previous collected data was included. Utilization data was included from Northwood Health Systems' patient records. Primary qualitative data collected specifically for this assessment included 2 focus groups consisting of local organizations and professionals, behavioral health workers and 107 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, issues, needs, and possible priority areas for intervention were identified. The Steering Committee prioritized and discussed the needs and identified substance use disorder treatment and recovery services, reducing barriers to treatment caused by inadequate transportation, additional trauma informed counseling services, and suicide prevention 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.

Needs identified by the CHNA that are not being addressed through these implementation strategies are already being addressed by current programs or existing community assets, necessary resources to meet these needs are lacking, or these needs fall outside of the Northwood Health Systems mission.

Methodology

To guide this assessment, the project managers formed a Steering Committee that consisted of representatives who understood the various needs and issues of the service area population. The Steering Committee provided 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 Hancock, Brooke, Ohio, Marshall, and Wetzel counties in West Virginia.

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 includes but is not limited to 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 and Steering Committee members 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 secondary quantitative data collection process included obtaining demographic and socioeconomic data from the West Virginia Department of Health and Human Resources; Behavioral Risk Factor Surveillance Survey (BRFSS) data collected by the Centers for Disease Control and Prevention and the Healthy People 2021 goals from HealthyPeople.gov. The

BRFSS Data are for a five-year summary period and includes information from participants who were adults over the age of 18. In addition, various health and health related data from the following sources were also utilized for the assessment: the U.S. Department of Agriculture, the National Survey on Drug Use and Health (NSDUH) and the County Health Rankings (www.countyhealthrankings.org).

The primary data collection process included qualitative data from 85 stakeholder interviews and 2 focus groups conducted by members of the Northwood staff. 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 May 2022 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 interventions and implementation. Three criteria, including accountable role (the extent to which the health system vs. 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 expanding substance use disorder treatment and recovery services, reducing barriers to accessing treatment caused by inadequate transportation resources, developing additional trauma informed counseling modalities, and training on suicide risk and assessment to clinical staff as 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 Northwood's mission, current capabilities and focus areas, staff and leadership within the partner organizations involved in the CHNA process identified implementation strategies to meet identified needs. The implementation strategies are outlined in a separate document not included in this CHNA report.

Review and Approval

The Northwood Health Systems Board of Directors approved this Executive Summary on June 21, 2022.

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 Hancock, Brooke, Ohio, Marshall, and Wetzel counties. The overall population of this area as of the 2020 Census was 137,756.

Census bureau estimates reflect the population in the service area has declined on average 7% across the counties served over the past 10 years, and the population decline is expected to continue. 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 the ages of 55-84. 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 2% and 10% 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 assets and resources that are available in the community to support residents was compiled. The assets identified a listing of community clinics, community services, food services, homeless services, hospitals,

intellectual disability services, substance abuse and youth services. In 2021 each county in the region except Brooke county was designated as a Health Professional Shortage Area (HPSA).

Primary Research

A total of 85 stakeholder interviews and 2 focus groups were conducted representing individuals from throughout the five 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. The most up to date data available was provided. 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: suicide rates,

poor mental health days, diabetes, hepatitis B, drug overdose death rates, rate of depression.

The region has increasing rates of:

- Excessive alcohol consumption
- Diabetes
- Drug overdose death
- Suicide
- Hepatitis B

West Virginia overall, and the 5 counties served, also has an increasing rate of substance abuse, particularly tobacco products, synthetic opioids, and methamphetamine. Non-medical use of pain relievers has decreased across the state and in the service area. All counties in the service area except Hancock and Marshall, recorded percentages significantly higher than the state average for driving deaths with alcohol involvement.

General Health Status and Access to Care

Access to comprehensive, quality healthcare is important to achieving health equity and increasing the quality of life for members of 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:

- In West Virginia, between 2012 and 2020, the percentage of West Virginia residents who lacked health insurance coverage dropped significantly.
- During this same time frame, 2012 to 2020, the percentage West Virginia residents

receiving Medicaid coverage increased by nearly 40%.

- In West Virginia, between 2012 and 2020, the percentage of adults who needed to see a doctor but could not due to cost dropped from 19.1 to 11.1, which we believe is due to implementation of the Affordable Care Act and Medicaid expansion.
- Between 2007 and 2020, the percentage of adults with no health care provider declined from 23.3% to 15.4%, which surpasses the Healthy People 2020 Goal of 16.1%.
- Hancock, Ohio, Marshall, and Wetzel counties are all designated as medically underserved areas. Wetzel and Hancock Counties are designated shortage areas for Primary Care, Dental and Mental Health Services. Marshall and Ohio Counties are also designated as shortage areas for Dental and Mental Health Care.
- Following a steady increase between 2013 and 2017, utilization of Crisis Stabilization services has decreased over the past 5 years.
- During fiscal years 2014 through 2017, utilization of Northwood psychiatric and medication management services remained relatively consistent. There was a decrease in outpatient medication management services related to COVID restrictions in fiscal year 2020, with service volume resuming the following year.
- Utilization of Group and Individual Outpatient Professional services has increased over the fiscal years from 2014 through 2017. Between 2020 and 2021 both group and individual professional service utilization is trending upward.
- Northwood's professional therapy services for individuals with substance use disorders

have been a significant component of this increase.

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.

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:

- In 2021, West Virginia ranked worst of the 50 states in the number of poor mental health days in the past 30.
- The number of Poor Mental Health Days in West Virginia and in the individual service area counties is highest in 2022 than at any time in the last ten years.
- In 2022, the number of poor mental health days out of the past 30 was slightly lower than the state rate for all counties in the service area except for Wetzel County.
- Adults in Brooke and Ohio Counties have the best ratings of poor or fair health, compared to other counties in the service

area, and all counties in the service area are much better than West Virginia overall.

- Based on 2014 data, SAMHSA reported that, of the 50 states, West Virginia ranked in the top three for the highest percentage of persons with Any Mental Illness.
- Based on 2014 data, SAMHSA reported that West Virginia ranked highest of the 50 states in the percentage of persons with Serious Mental Illness.
- The 26.4% rate of Depression in West Virginia is higher than the national rate of 19.5%.
- According to the American Foundation for Suicide Prevention, in 2022, suicide was the 12th leading cause of death overall in West Virginia.
- Suicide is the second leading cause of death for individuals aged 10 to 34 in West Virginia.
- Brooke County has the highest rate of suicide deaths in the counties served and is higher than the overall state rate.
- 35% of the homeless population in West Virginia can be characterized as Seriously Mentally Ill and 33% as chronic substance abusers.

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 substance use disorder - a cluster of biological, psychological, and social impairments that develop after exposure to a substance 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.

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 the rates of drug and alcohol abuse in the service area counties is equal to and in some instances higher than the state, which has by far the highest rate in the country for drug overdose deaths per capita. Local stakeholders reported in each of the focus groups and interviews that the abuse of synthetic opioids, specifically fentanyl and methamphetamine is increasing, and the local system is struggling to provide adequate access to life saving services in our communities, as evidenced by the steady year over year increase in drug related hospitalizations and mortality over the past two decades and the recent spike in overdose deaths in 2020.

Overall observations and findings from the data include:

- In 2018 all counties in the service area showed a higher percentage of adults who report excessive alcohol consumption compared to the WV state average with Marshall County being the highest at 17%.
- Comparing 2014-2016 to 2016-2018 Region 1 shows a decline in alcohol use among individuals 12 and older, and among individuals 12 to 20. Alcohol

Use Disorder prevalence is also decreased versus prior data for Region 1.

- Three of five counties in Region 1 recorded higher percentages of driving deaths with alcohol involvement than the WV state average.
- WV ranked # 1 in the US for percentage of adults who currently smoke, and of the 5 counties in Region 1 Wetzel County showed a higher percentage of adult smokers than the WV state average.
- Comparing marijuana, cocaine, and heroin use 2014-2016 vs 2016-2018, Region 1 is comparable to the West Virginia state average during this time period across all substances although slightly lower. All three substances showed an increase in usage rate compared to the previous period.
- West Virginia had a significantly higher death rate from drug overdose than the rest of the US between 2001-2019 and in 2020 West Virginia's death rate spiked to nearly triple the US rate.
- In Region 1 Hancock, Brooke, and Ohio counties ranked in the "more vulnerable to overdose" compared across all state counties at rank 20, 23, and 24 respectively.
- Comparing 2015-2016 versus 2017-2018 West Virginia rose from not in the top 5 to number 1 on the list of states for psychostimulant overdose rates.
- Percentage of individuals aged 12 or older needing but not receiving treatment for alcohol use in the past

year has increased in Region 1 between 2012 and 2016.

- Synthetic opioids involved in overdose deaths has become significantly more prevalent than heroin and prescription opioids from 2015 to 2018.

Other Environmental Factors and Indicators Impacting Mental and Physical Health

An examination of various environmental factors for West Virginia shows that the health of our state population is below that of the rest of the nation in many major categories. Many West Virginians report themselves as having fair or poor health and the data reviewed support this.

Specific findings in the data include:

- In 2018, West Virginia ranked eighth highest nationally in annual deaths due to cardiovascular disease.
- In 2020 West Virginia was ranked as the least healthy state in the nation with regard to cardiovascular disease in adults.
- In 2020, West Virginia continued to rank highest nationally in the percentage of adults with diabetes.
- After rising since 2012, Hepatitis A rates in West Virginia are declining.
- West Virginia had the highest rate of Hepatitis B in the United States in 2015.
- In West Virginia, Hepatitis infection rates are steadily growing while the rate is decreasing across the rest of the country.
- Increasing Hepatitis B rates can be attributed to a corresponding increase in

injected street drug use in West Virginia over the past several years.

- Approximately 1 in 4 children in West Virginia live in single-parent households. This rate decreased since 2019 after steadily increasing since 2013. All of the service area counties are above the State rate of 24% for the percentage of children living in a single parent household.
- In 2020, West Virginia was ranked with 5 other states having more that 30% of adults reporting physical inactivity.

Action Plan

Northwood Health Systems completed its most recent Community Health Needs Assessment (CHNA) in May, 2022. 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. Northwood Health Systems' Action Plan is not included as part of this CHNA report.

Review and Approval

The 2022 Community Health Needs Assessment and Action Plan were presented and approved by the Northwood Health Systems Board of Directors on June 21, 2022. Following Board approval the 2022 Northwood Health Systems CHNA was published on the corporate website, making it available to the public.



History and Accomplishments





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 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

Many people are less fortunate and cannot afford the mental health services they need. Providing charity care to poor and indigent patients is a significant part of meeting Northwood's charitable mission. In fiscal year 2021, Northwood provided \$1,081,839 in free clinical services for patients who neither have health insurance nor meet Medicaid eligibility criteria. This high level of charity care equates to 4.6% of Northwood's patient service revenue, and 4.4% of its total operating expenses. Northwood has historically 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. In fiscal year 2021, Northwood made \$3,061,647 in financial contributions to other nonprofit organizations. 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, in fiscal year 2021, Northwood also subsidized \$737,659 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 programs that lose money because those services are important in meeting the needs of the 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 50 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.



In fiscal year 2021, Northwood spent \$230,347 to operate the emergency shelter and care for the homeless in our community. 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 2021, Northwood paid \$360,021 in taxes and assessments to the state of West Virginia.

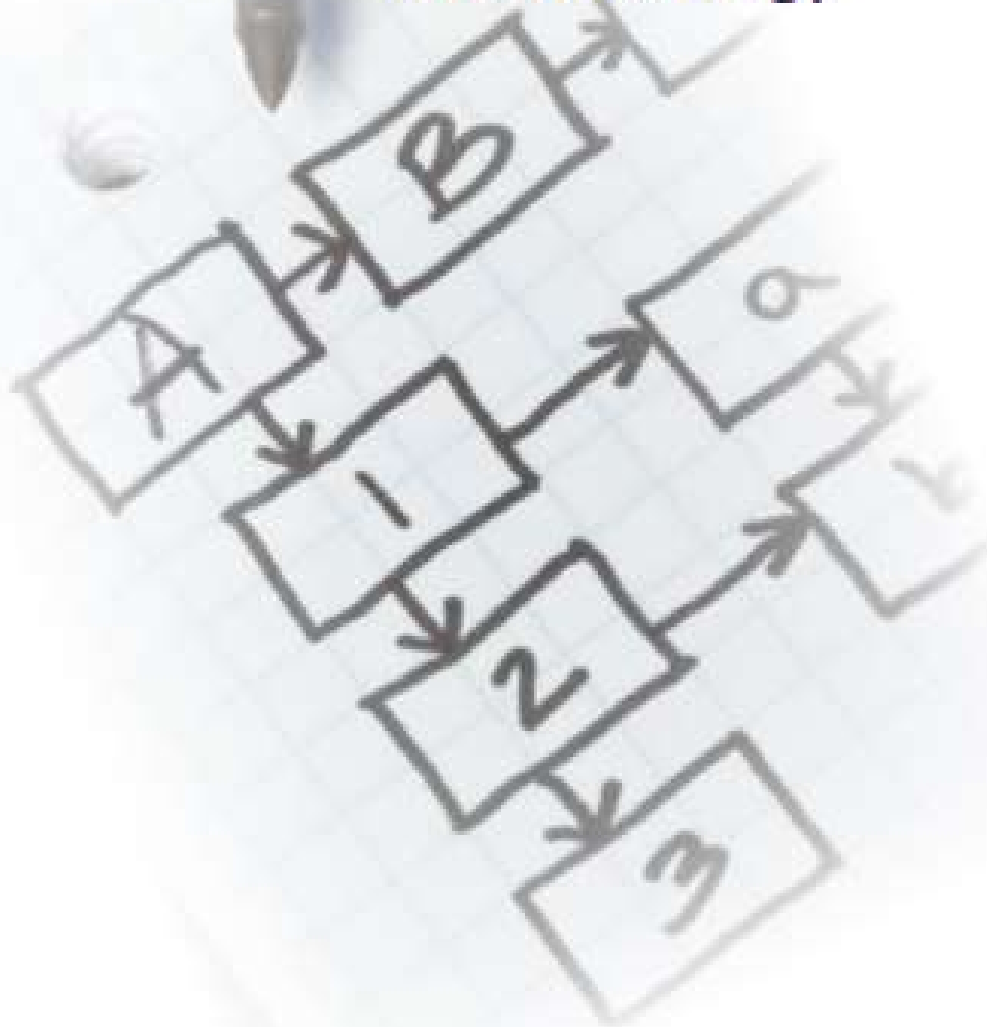
Conclusion

As our mission states, Northwood is committed to helping people achieve their highest possible quality of life. During fiscal year 2021, Northwood provided \$5,513,893 in community benefits, which equates to 18.3% of our total revenue, and 19.9% of our total expenses. Northwood is not aware of any other non-profit health care provider that provided such a high level of quantifiable community benefits in fiscal year 2021.

Northwood has estimated that its federal and state income tax liability for fiscal year 2021 would have been \$1,241,567 if Northwood had been a for-profit company. Whereas, the community benefit provided by Northwood for fiscal year 2021 was \$5,513,893. The community benefit provided by Northwood exceeded its federal and state income tax liability by \$4,272,326 or 444%!

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.

Methodology



Methodology

Community Health Needs Assessment and Planning Approach

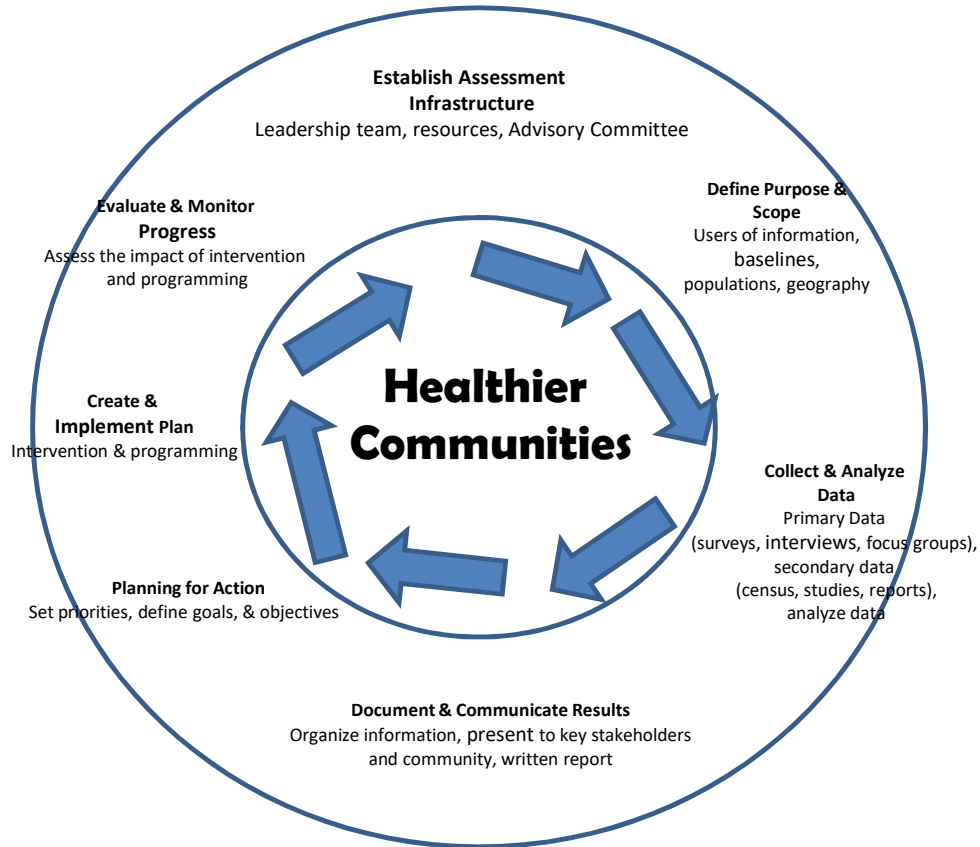
The process of completing the 2022 Northwood Health Systems Community Health Needs Assessment (CHNA) began in November 2021. The purpose of the study is to conduct a comprehensive assessment of the health status and healthcare access needs of residents living in the Northwood Health Systems Primary Service 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, intellectual/development disabilities, 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 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 IRS 990 guidelines.

Figure 1. Schematic of the Community Health Needs Assessment Process





The Northwood Health Systems team assigned to the project includes:

Ed Nolan, Project Director, and development of final report.

Jeremy Sagun, Director of Outpatient Services, research, data collection and analysis, focus group facilitation and assisted with report development and writing.

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 |
|---------------|---|--------------------------|
| 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 |
| Ed Nolan | Project Lead | Northwood Health Systems |
| Jeremy Sagun | Director of Outpatient Services | 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 | |
|---|---|
| Brooke Hancock Family Resource Network | Salvation Army Hancock & Brooke County |
| Catholic Charities Neighborhood Center | 1 st Circuit WV Family Treatment Court |
| Child Protective Services WV DHHR | 2 nd Circuit WV Family Treatment Court |
| A Child's Place CASA | Greater Wheeling Soup Kitchen |
| 1 st and 2 nd Circuit Probation | Wesbanco Bank |
| Lee Day Report Center | Wheeling Health Right |
| Wheeling University | Marshall County Health Department |
| Helping Heroes Inc. | WV Department of Health and Human Resources |
| WVU Extension Services | Wetzel County Health Department |
| City of Wheeling, Clerks Office | Valley Hospice |
| NAMI of Greater Wheeling | WV Northern Community College |
| Ohio County Family Resource Network | Youth Services Systems |
| Ohio County Health Department | YWCA Wheeling |
| Ohio County Schools | |

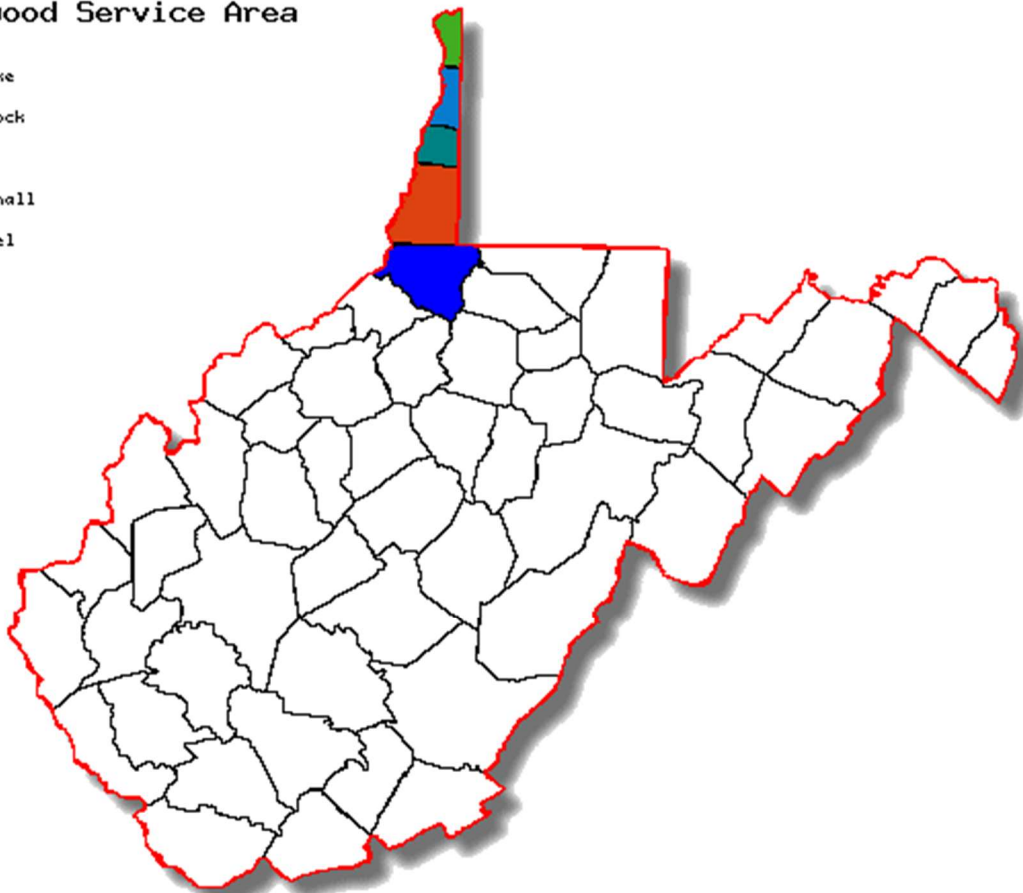
Service Area Definition

The service area selected for the study is the primary service area of Northwood Health Systems. This area includes Brooke, Hancock, Marshall, Ohio and Wetzel Counties in West Virginia.

Figure 2. Northwood Service Area

Northwood Service Area

- - Brooke
- - Hancock
- - Ohio
- - Marshall
- - Wetzel



Source: diymaps.net (c)

Asset Inventory

Northwood Health Systems identified the existing health care facilities available to respond to the health needs of the community. The information in the asset inventory includes: community clinics, community services, hospitals, youth services, homeless services, food services, family services, substance abuse services and intellectual disability 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 IRS guidelines, the assessment team employed both qualitative and quantitative data collection and analysis methods. Qualitative methods ask questions that are exploratory in nature and are typically employed in interviews and focus groups. 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 assessment 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
- Access to Care
- Chronic/Serious Mental Health
- Drug and Alcohol
- Environmental Factors and Indicators Impacting Mental and Physical Health

The Steering Committee members and assessment 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 who 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 but not limited to:

- Demographic and socioeconomic data obtained from 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 West Virginia are BRFSS data collected by the CDC. CDC: (<http://www.cdc.gov/brfss>).
- 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 2020/30 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.
- SAMHSA National Survey on Drug Use and Health (<https://nsduhweb.rti.org/respweb/homepage.cfm>)

The primary data collection process included:

- A total of 85 individual stakeholder interviews conducted via electronic survey or 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 2 focus group sessions were conducted, including 16 participants, to gather information directly from various groups that represent a particular interest group or area. Each of the focus groups was facilitated by members of the Northwood Health Systems Staff.

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 2 focus groups were completed over the course of the study. **Table 3** identifies the focus groups and number of participants in each group.

Table 3: Focus Group Participants

| Attendees | Organization | Participant Organization or Title | Date |
|-----------|--|---|-----------|
| 7 | Northwood Health Systems Employees (various disciplines) | Alcohol and Drug Counselor, Licensed Psychologist, Director of Crisis Services, Treatment Court Supervisor, I/DD Manager of Residential Services, Psychiatric Mental Health Nurse Practitioner, Director of Outpatient Services | 2/23/22 |
| 9 | Ohio County Family Resource Network | Wheeling University, Kings Daughter's Child Care Center, Ohio County Schools, City of Wheeling City Clerk, WV Northern Community College, McPhail Law Office, WV DHHR, WVU Extension Services, OCFRN Director | 2/16/2022 |

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.

Table 4: Key Stakeholder Interview Participants

| Participant | Representing | Perspective |
|------------------|------------------------------|-------------------------|
| Lisa Werner | Wesbanco | Vice President |
| Claudia Raymer | Ohio County FRN | Executive Director |
| Lori Jones | YWCA | Executive Director |
| Julie Gomez | NAMI Ohio County | Executive Director |
| Michael Parker | WV DHHR | Economic Service Worker |
| Melissa Caldwell | WV DHHR CPS | Supervisor |
| Howard Gamble | Ohio County Health Dept. | Administrator |
| Lee Cook | Marshall County Health Dept. | Administrator |
| Ashley Guiler | Wetzel County Health Dept. | RN/Administration |
| Kathie Brown | Wheeling Health Right | Executive Director |

Needs/Issues Prioritization Process

In May 2022 the Steering Committee reviewed the entire primary and secondary data collected through the needs assessment process and discussed the key needs and issues they felt were present in the community. The Steering Committee prioritized the needs and issues in order to identify potential intervention strategies and an action plan. The group identified criteria by which the issues would be evaluated. These criteria included:

Table 5: Evaluation Criteria

| 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 process, 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 organization's mission, current capabilities and focus areas. 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 21, 2022.

Demographics and Assets



Demographic and Socioeconomic Data

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 Brooke, Hancock, Marshall, Ohio and Wetzel counties in West Virginia. The overall population of this area as of the 2020 Census was 138,346. Belmont County, an adjacent county in Ohio, has more than 2% of the active client caseload (2.2%).

Table 6: Summary Demographic Data

| | | Brooke | Hancock | Marshall | Ohio | Wetzel |
|-------------------------|---------------|---------------|----------------|-----------------|-------------|---------------|
| Total Population | | 22,162 | 29,118 | 30,900 | 41,875 | 15,291 |
| Race | White | 95.1% | 94.5% | 97.0% | 92.4% | 97.6% |
| | Black | 1.7% | 2.2% | 0.7% | 3.7% | 0.8% |
| | Other | 3.2% | 3.3% | 2.3% | 3.9% | 1.6% |
| Median Age | | 46.2 | 47.0 | 46.0 | 43.2 | 46.6 |
| Gender | Male | 49.4% | 48.7% | 49.6% | 48.1% | 48.3% |
| | Female | 50.6% | 51.3% | 50.4% | 51.9% | 51.7% |

Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

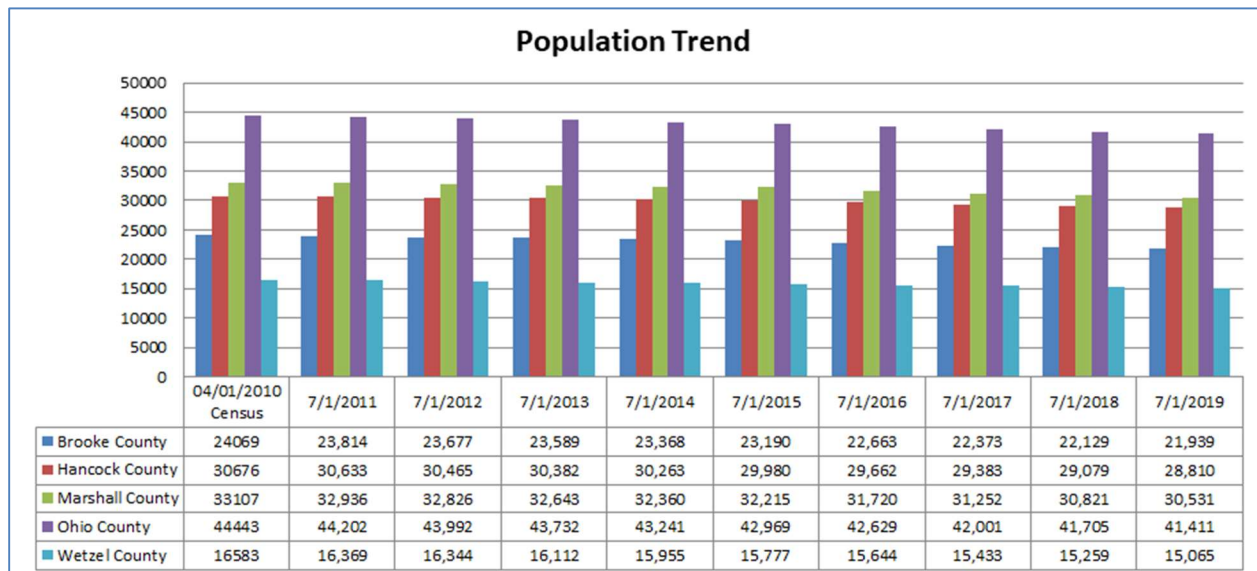
Table 7: Summary of Social and Economic Health Factors

| | Brooke | Hancock | Marshall | Ohio | Wetzel |
|---------------------------------------|---------------|----------------|-----------------|-------------|---------------|
| Unemployment Rate | 3.1% | 7.1% | 4.9% | 5.1% | 7.0% |
| Median Household Income | \$49,722 | \$45,580 | \$43,918 | \$48,418 | \$42,125 |
| Income Below Poverty Level | 13.6% | 13.1% | 15.1% | 13.5% | 23.1% |
| High School Graduate or Higher | 91.2% | 89.3% | 90.9% | 92.9% | 86.2% |
| Commute Travel Time | 23.8 min. | 23.8 min. | 26.9 min. | 19.9 min. | 28 min. |

Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 3 illustrates the Population Trend in Brooke, Hancock, Marshall, Ohio and Wetzel Counties from the 2010 Census, as well as census.gov estimates from 2011 through 2019. On average, population declined 7.74% across the five counties, ranging from a high of 9.15% in Wetzel County to a low of 6.08% in Hancock County. When compared to the State overall, 49 of West Virginia's 55 counties lost population.

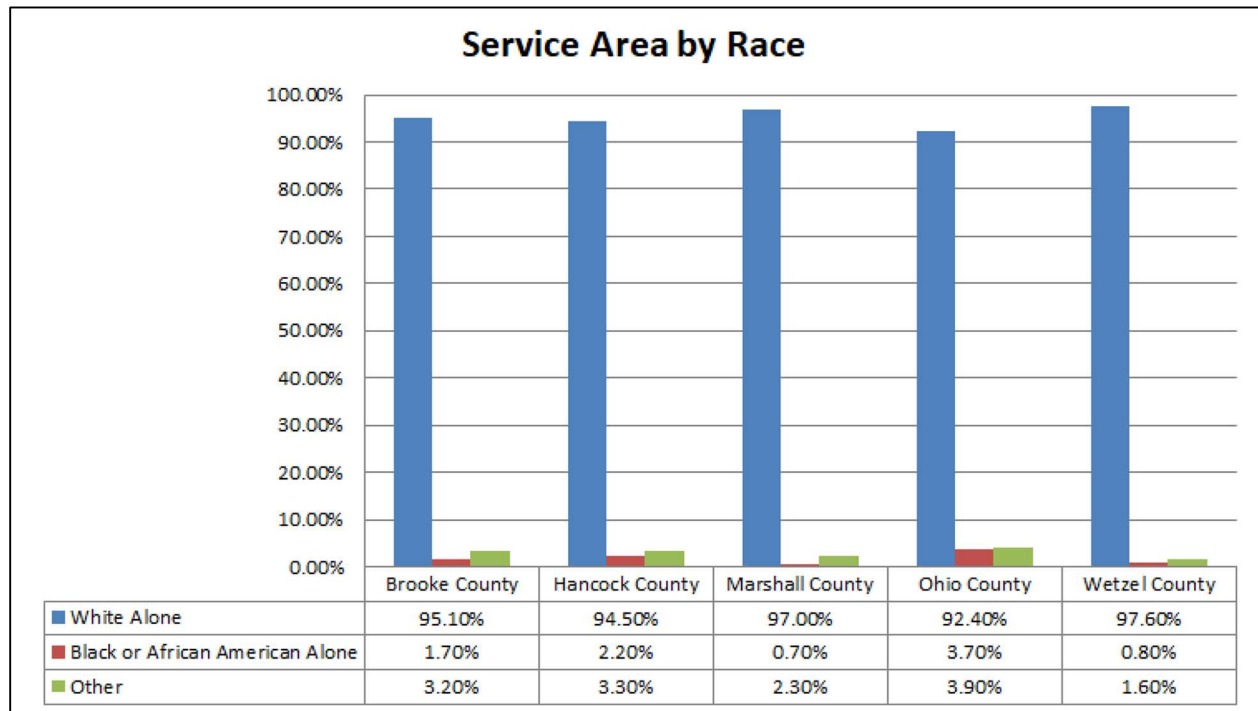
Figure 3. Population Trend



Source: United States Census Bureau, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019

Figure 4 illustrates the Service Area Population by Race. The majority of the population in Brooke (95.1%), Hancock (94.5%), Marshall (97.0%), Ohio (92.4%) and Wetzel (97.6%) counties are 'White Alone'.

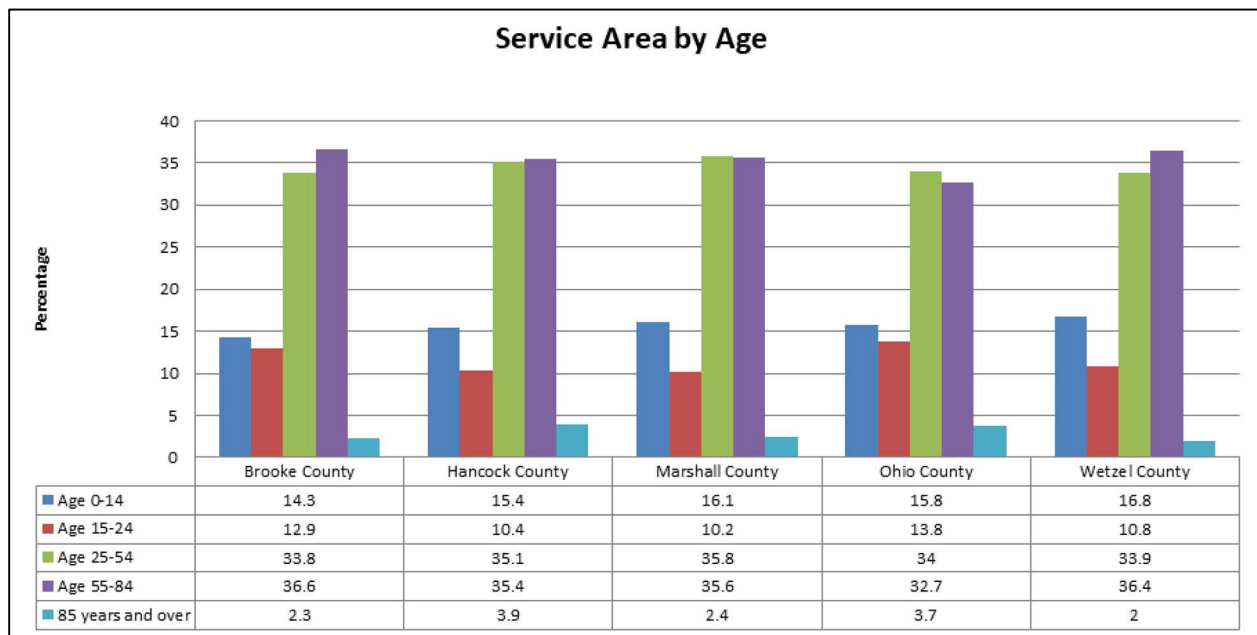
Figure 4. Service Area by Race



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 5 illustrates the Service Area Population by Age. The highest percentage of residents in Marshall (35.8%) and Ohio (34%) Counties is between the ages of 25-54. Brooke (36.6%), Hancock (35.4%) and Wetzel (36.4%) Counties have a higher percentage of residents between the ages of 55 and 84 than the other counties. The lowest percentage of residents falls in the over 85 age range in all five counties.

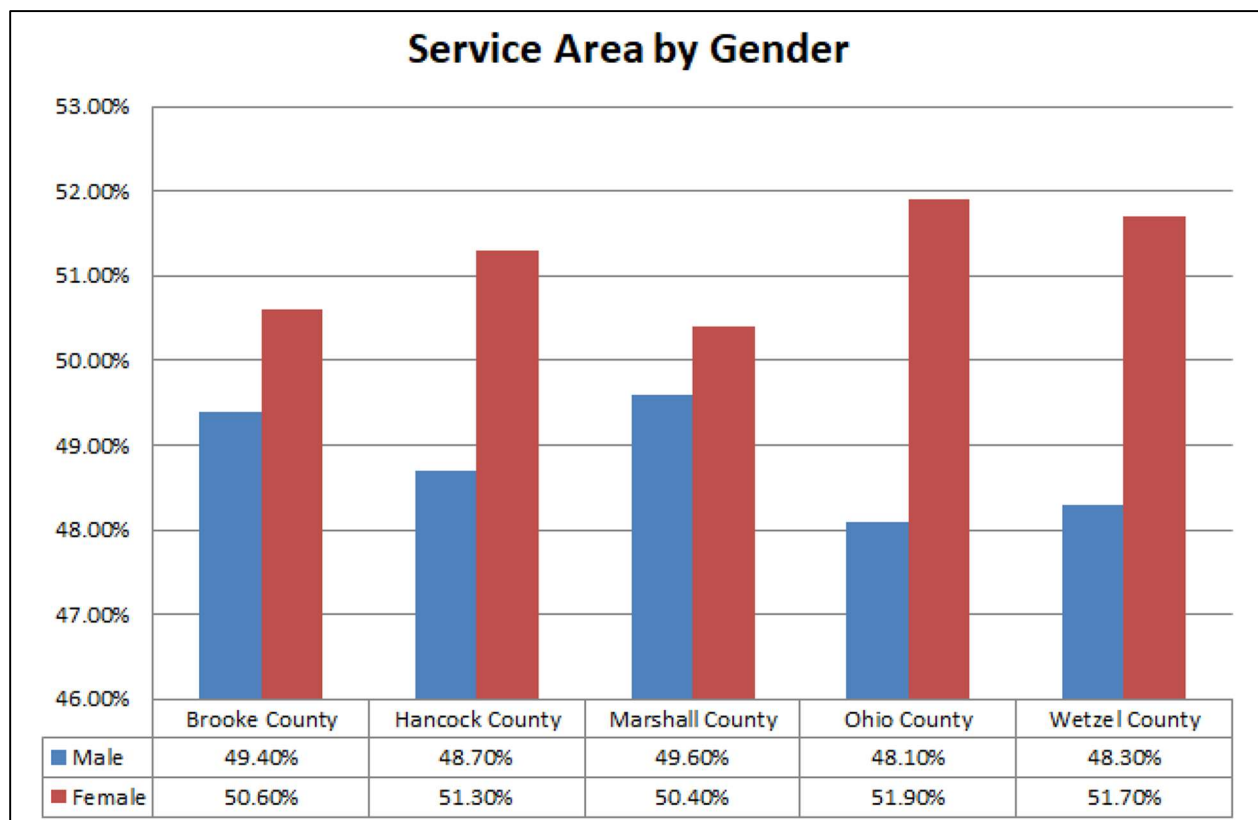
Figure 5. Service Area by Age



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 6 illustrates Population by Gender in the five county service area. All five Counties have a higher Female Population than male; Brooke (50.6%), Hancock (51.3%), Marshall (50.4%), Ohio (51.9%) and Wetzel (51.7%).

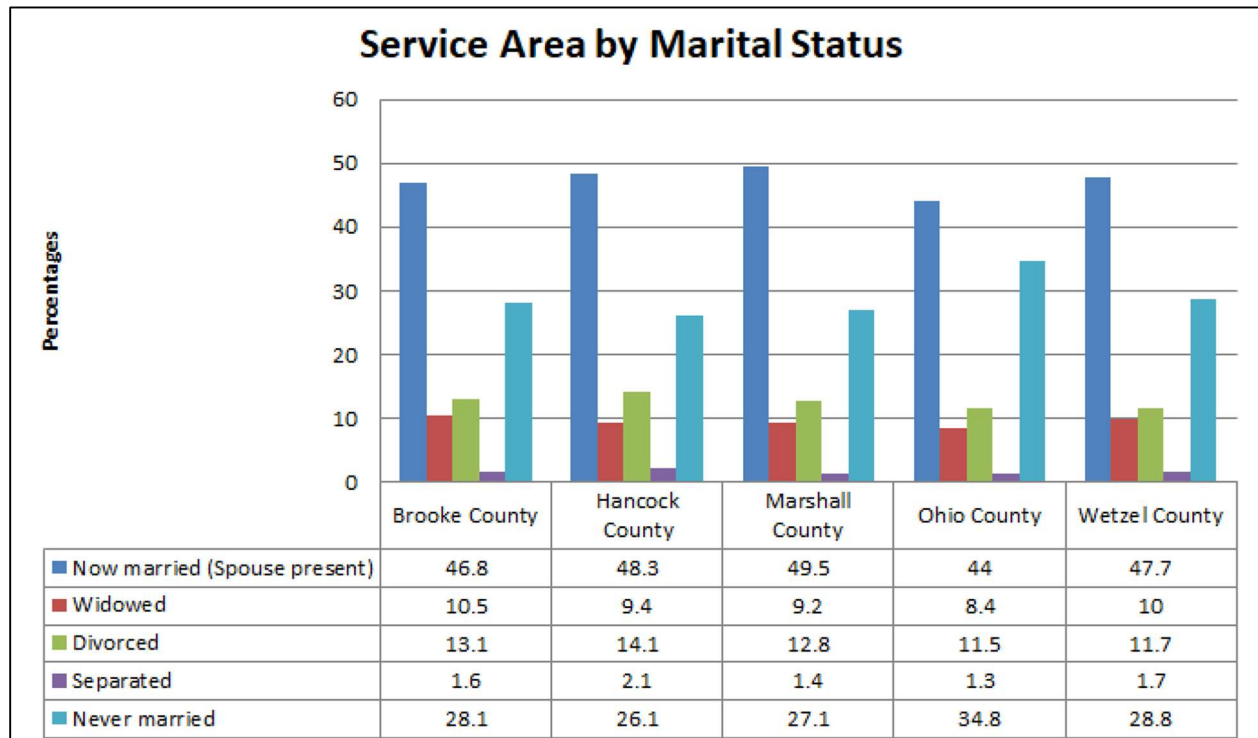
Figure 6. Service Area by Gender



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 7 illustrates the Service Area Population by Marital Status. Comparing marital status, the highest percentage of residents in Brooke (46.8%), Hancock (48.3%), Marshall (49.5%), Ohio (44%) and Wetzel (47.7%) Counties are Married with Spouse Present. Ohio County has the highest percentage (34.8%) of residents Never Married.

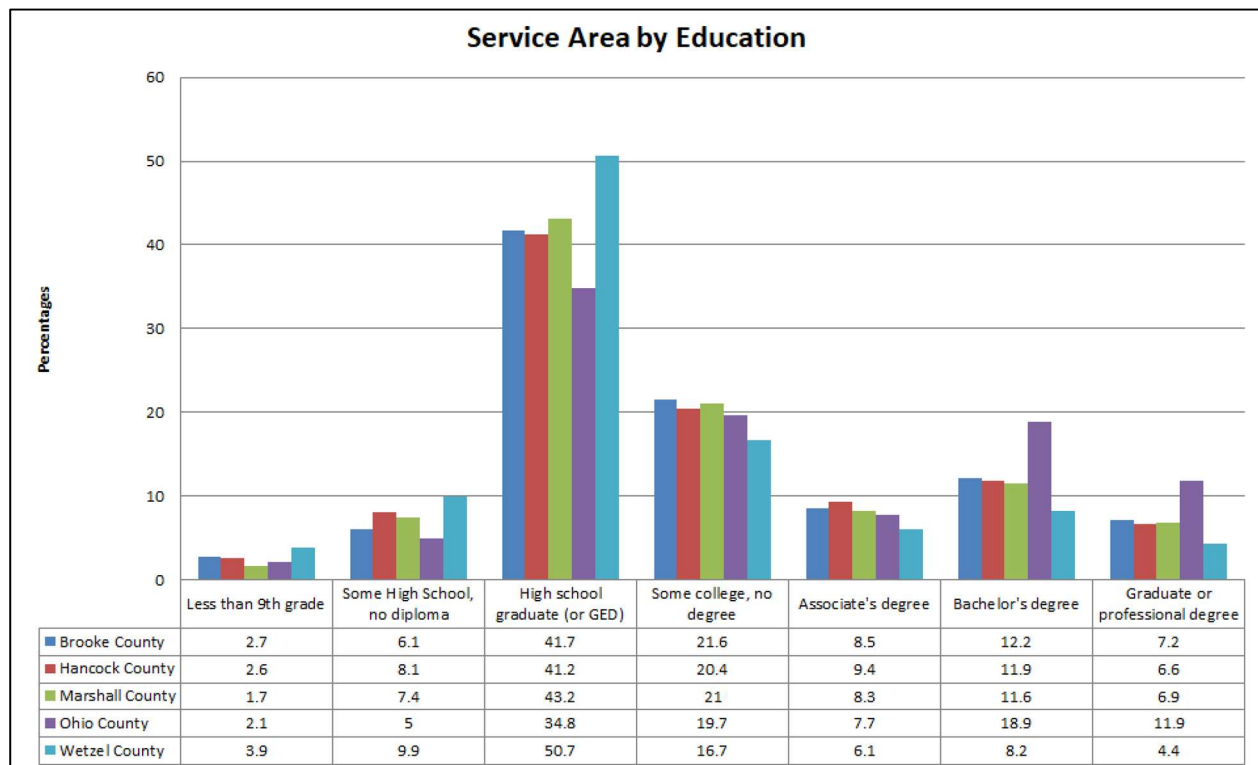
Figure 7. Service Area by Marital Status



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 8 illustrates Service Area by Education Level. Educational attainment for the highest percentage of residents in each county is a High School Graduate or GED as follows: Brooke County (41.7%), Hancock County (41.2%), Marshall County (43.2%), Ohio County (34.8%), and Wetzel County (50.7%). In Ohio County, 58.2% of residents have education beyond high school. In Wetzel County, 13.8% of residents have less than a high school education.

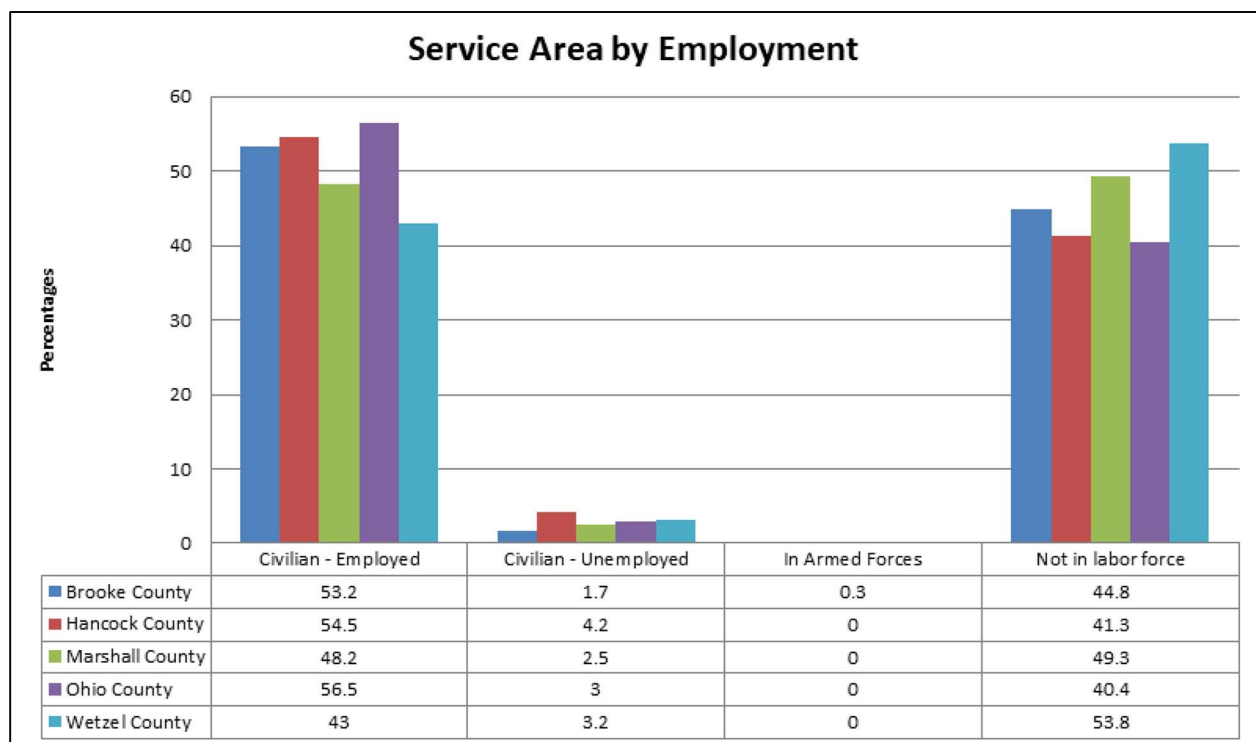
Figure 8. Service Area by Education



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 9 illustrates Service Area Population by Employment. The majority of residents in Brooke, Hancock, and Ohio Counties are Civilian – Employed with 53.2%, 54.5%, 56.5% of residents in each of these counties respectively in the Workforce. The highest percentage of residents in Marshall County (49.3%) and Wetzel County (53.8%) is categorized as Not in Labor Force.

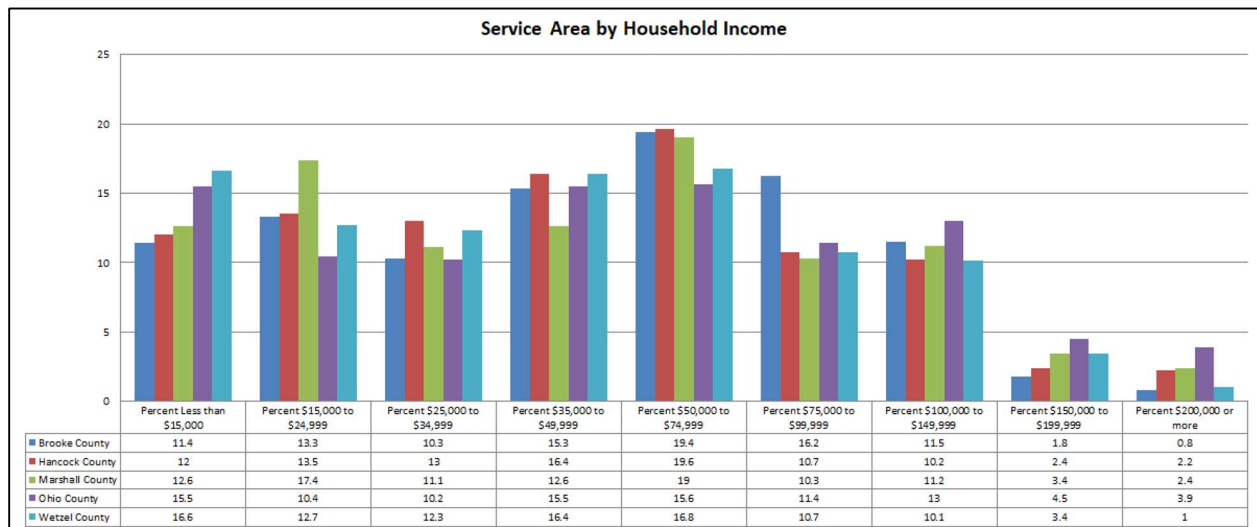
Figure 9. Service Area by Employment



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 10 illustrates Service Area by Household Income. The highest percentage of households in each of the five counties falls within the \$50,000 to \$75,000 income range. Of the five counties, Wetzel County has the highest percentage of households with in the Less Than 15,000 income range.

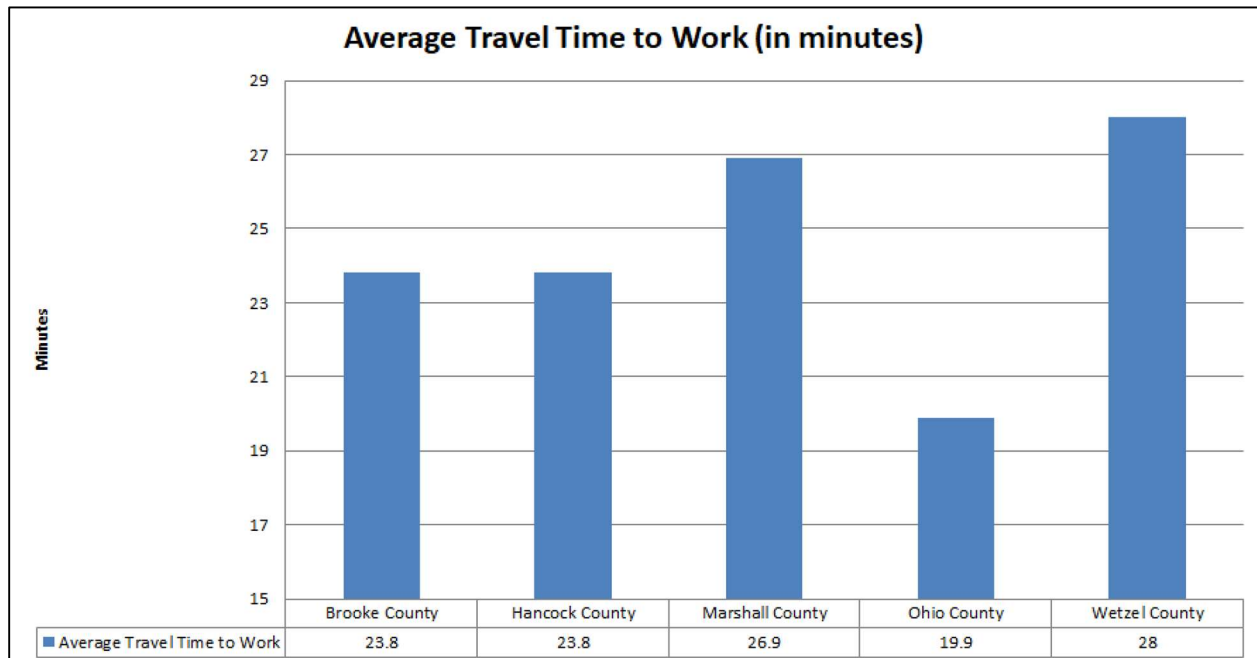
Figure 10. Service Area by Income



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 11 illustrates the Travel Time to Work by residents in Brooke, Hancock, Marshall, Ohio and Wetzel Counties. The shortest commute is for residents of Ohio County who average 19.9 minutes driving time to work daily. The average time it takes residents to get to work in Brooke County is 23.8 minutes, Hancock County is 23.8 minutes, and Marshall County is 26.9 minutes. Wetzel County residents commute an average of 28 minutes to work daily.

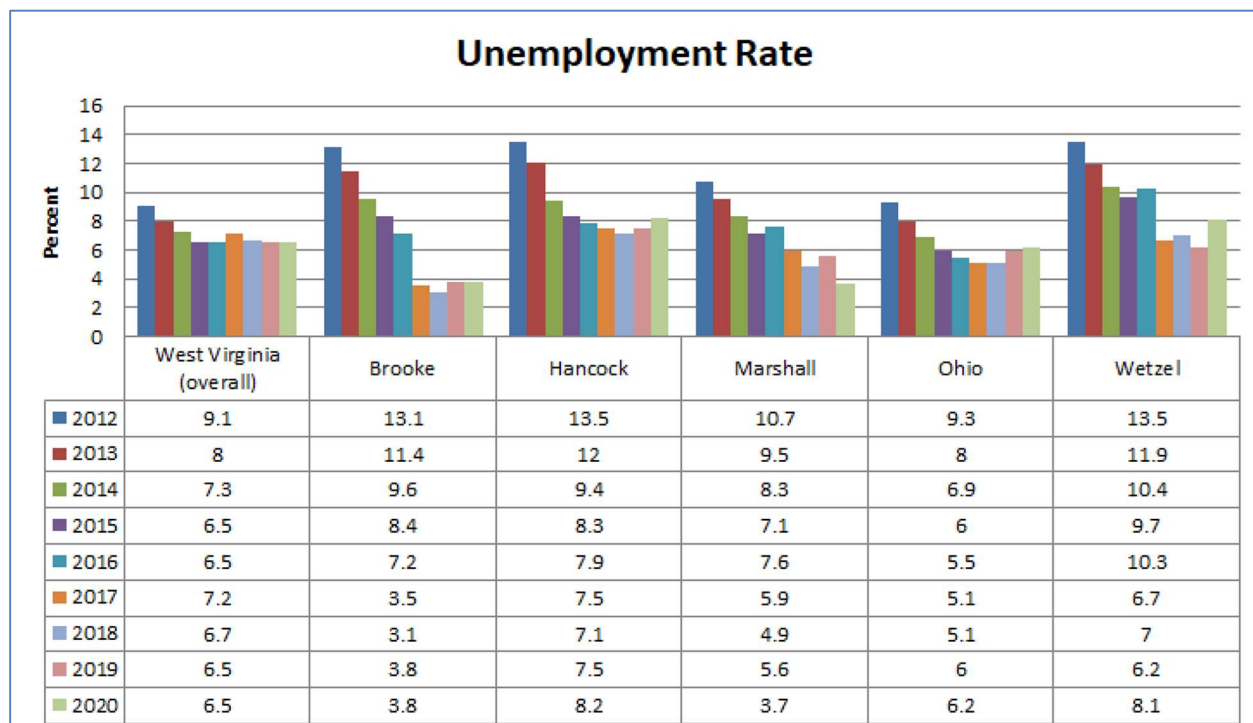
Figure 11. Service Area Average Travel Time to Work (In Minutes)



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 12 illustrates unemployment rates in West Virginia and the service area counties from 2012 to 2020. The unemployment rate in all of the service area counties has decreased from 2012 to 2020. In all of the years reported, Wetzel and Hancock Counties have had the highest unemployment rates of the service area counties. For the most recent year reported, Hancock County has the highest rate at 8.2%, followed closely by Wetzel County at 7.1%, both above the West Virginia (overall) rate (6.5%). Brooke, Marshall, and Ohio Counties are all below the overall West Virginia rate.

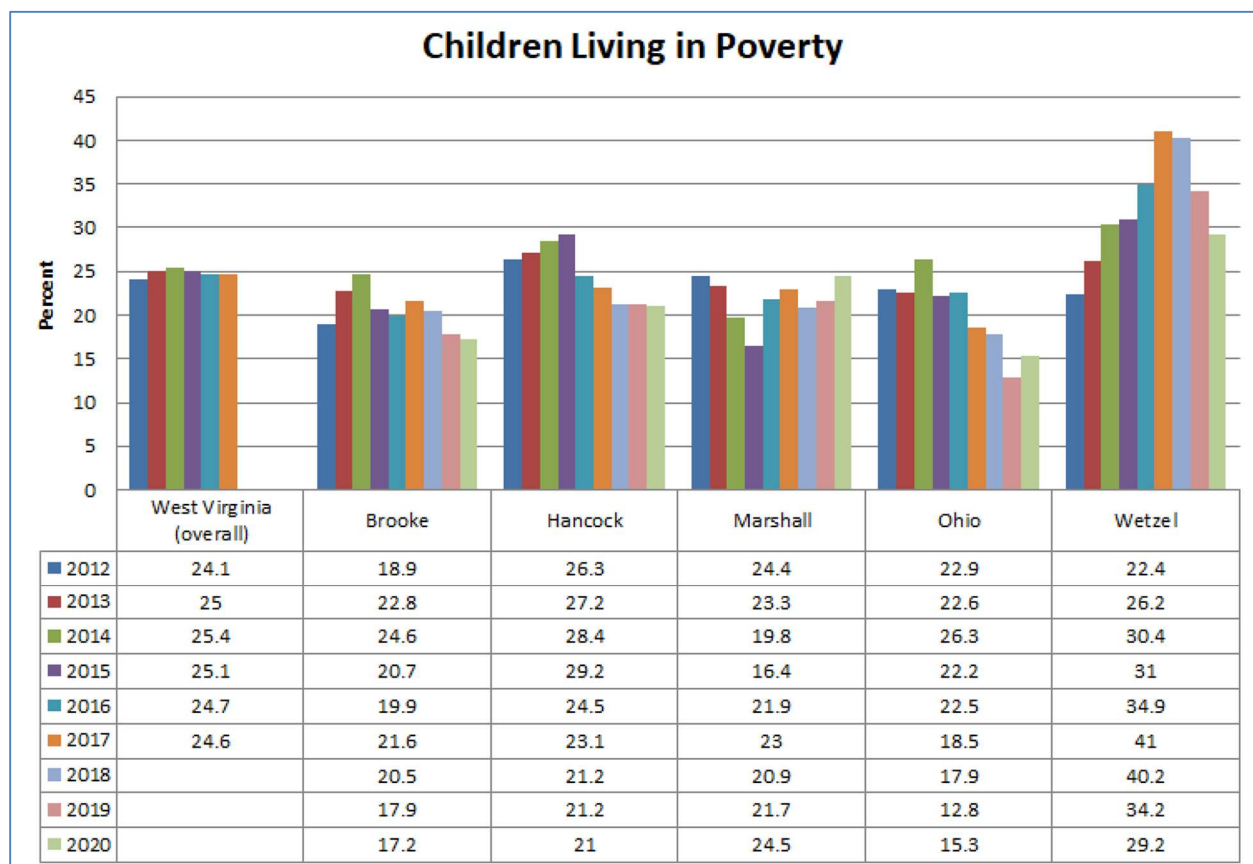
Figure 12. Unemployment Rate



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 13 illustrates the percentage of children living in poverty in West Virginia (overall), and in Brooke, Hancock, Marshall, Ohio and Wetzel counties from 2016-2020. The percentage of children below poverty level in West Virginia (overall) has remained relatively stable. Brooke, Hancock and Ohio Counties have shown decreases. Wetzel and Marshall Counties have had an increase of children living in poverty from 2012 to 2020. Of the service area counties, the highest percent of children in poverty reside in Wetzel County (29.2%), followed by Marshall County (24.5%), Hancock County (21.0%), Brooke County (17.2%), and Ohio County (15.35%).

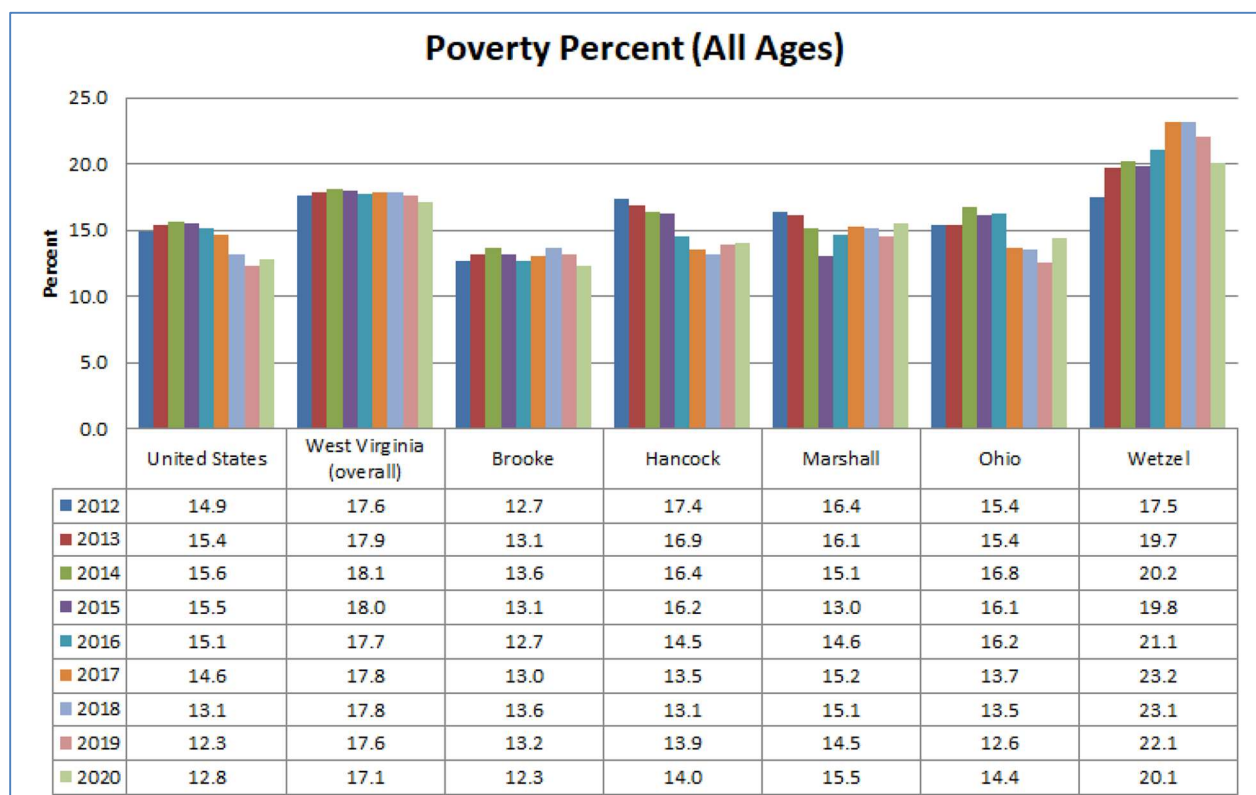
Figure 13. Percentage of Children Living in Poverty



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

Figure 14 illustrates the percentage of individuals living in poverty in the United States, in West Virginia (overall), and in Brooke, Hancock, Marshall, Ohio and Wetzel counties from 2012 through 2020. Within the area served, Wetzel and Marshall Counties have the highest percentage of residents living in poverty in 2020, with rates of 20.1% and 15.5% respectively, both of which are above the US rate of 12.8%. Brooke is the only county below the US rate in 2020. With the exception of Wetzel County, each of the other counties in Northwood’s service area show a poverty rate below the State overall rate of 17.1% in 2020.

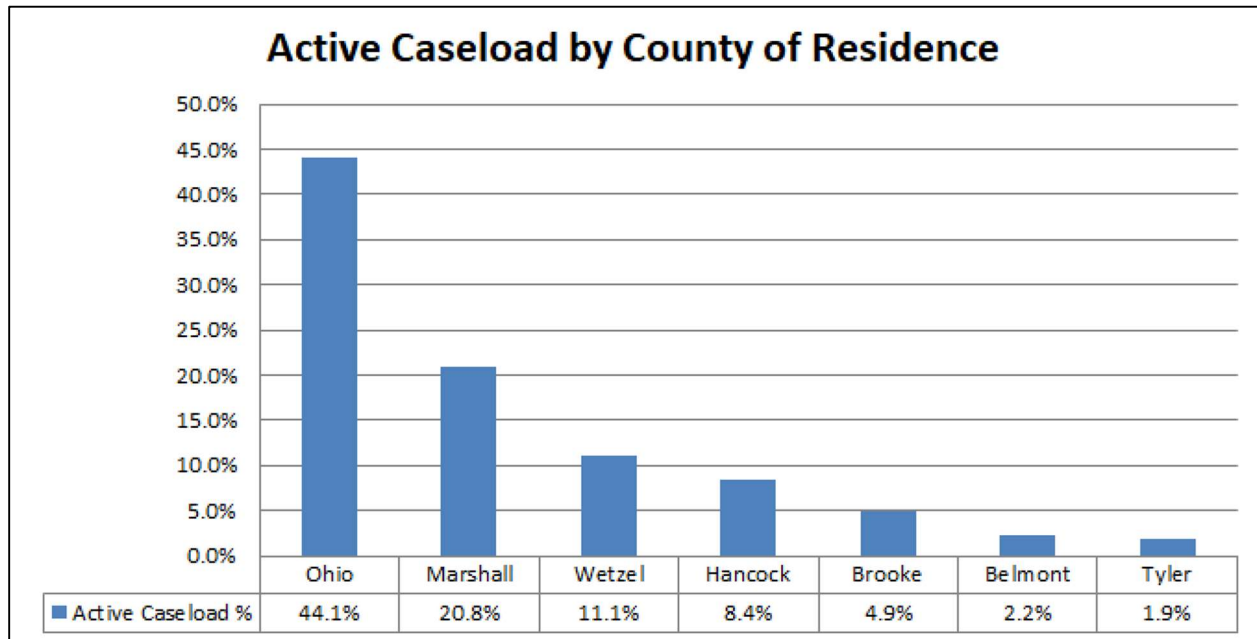
Figure 14. Percentage Living in Poverty, All Ages



Source: United States Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

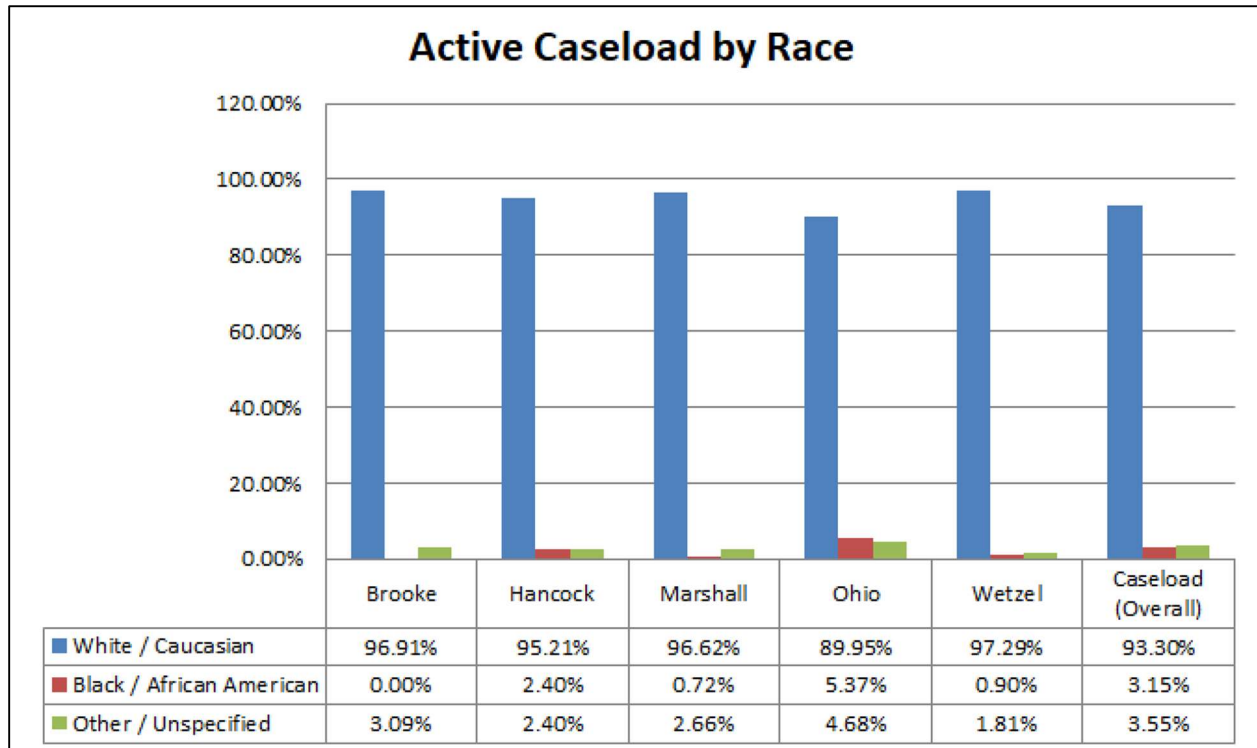
The following tables show demographic information for Northwood's active caseload in contrast to the larger service area.

Figure 15. Active Caseload by County of Residence



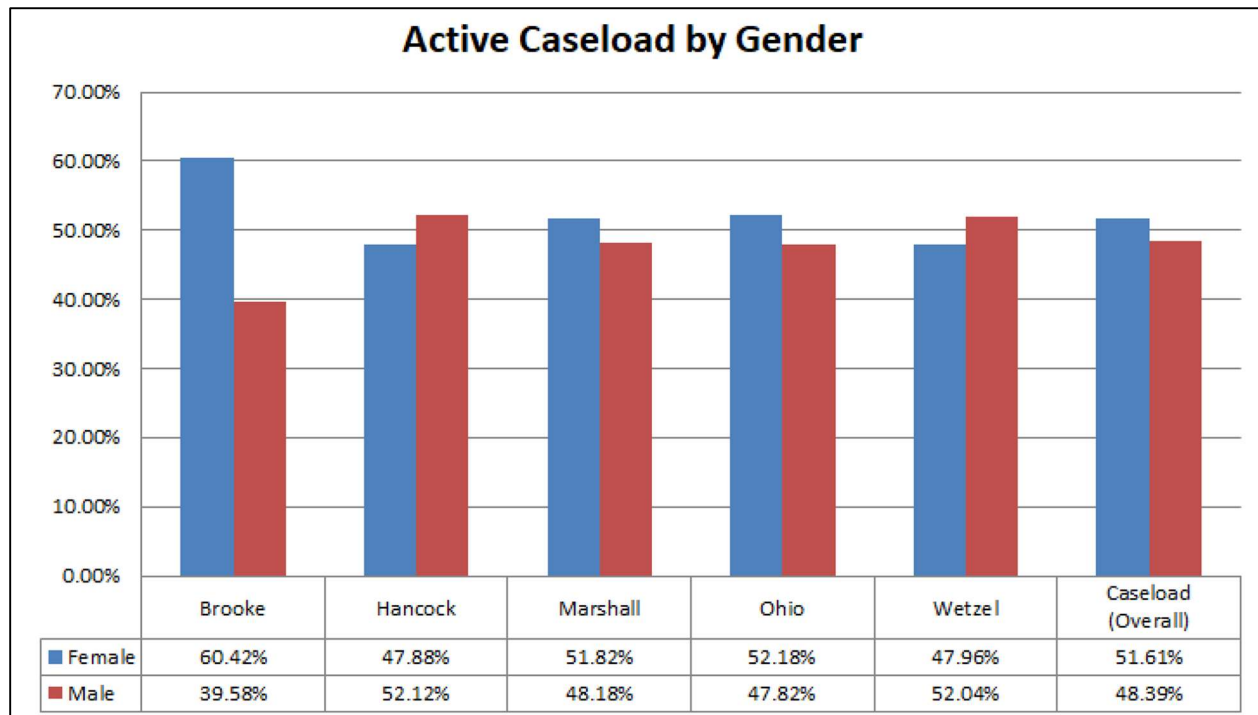
Source: Northwood Health Systems

Figure 16. Active Caseload by Race



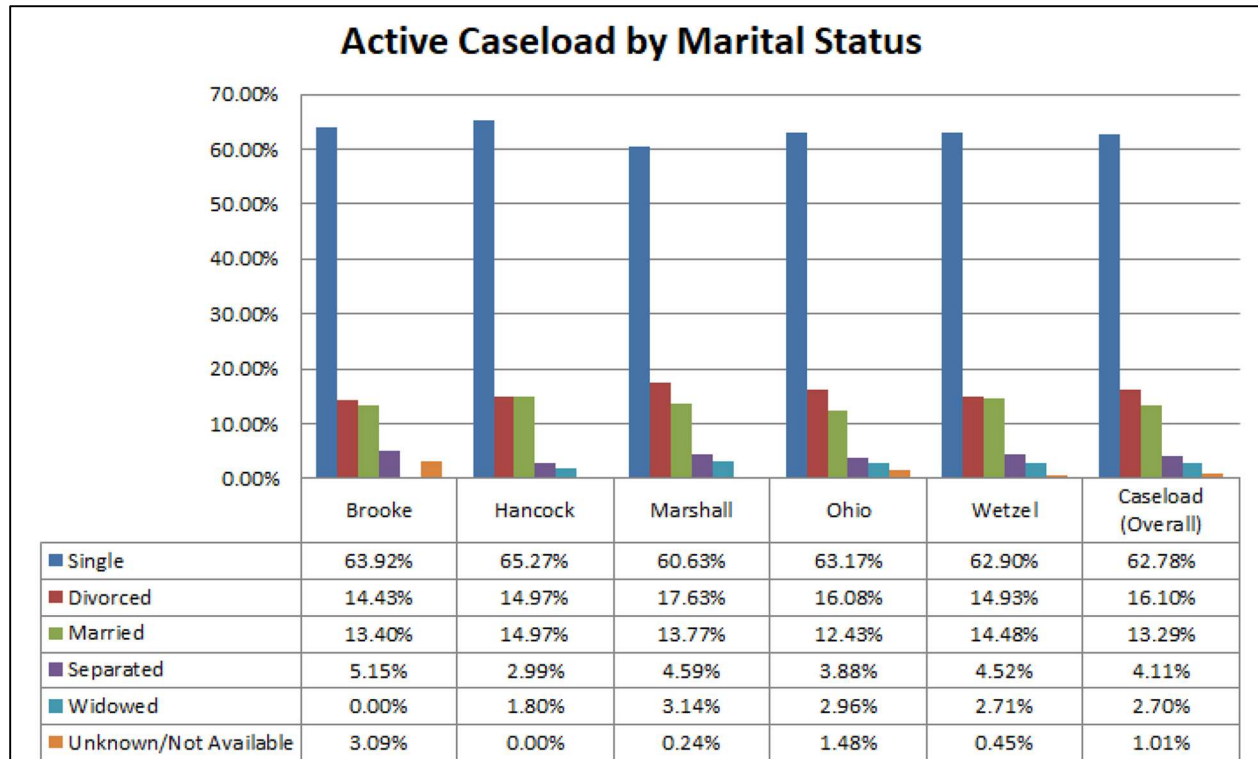
Source: Northwood Health Systems

Figure 17. Active Caseload by Gender



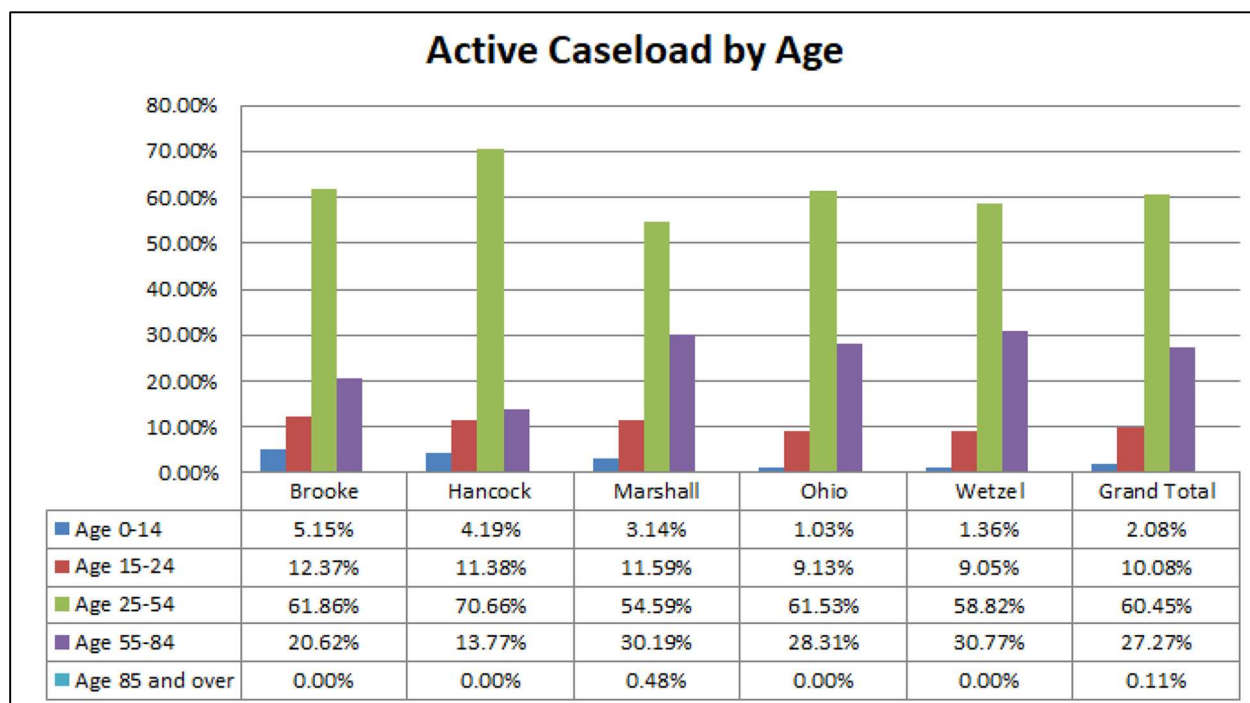
Source: Northwood Health Systems

Figure 18. Active Caseload by Marital Status



Source: Northwood Health Systems

Figure 19. Active Caseload by Age



Source: Northwood Health Systems

Demographic Observations / Conclusions

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

- Brooke and Wetzel Counties experienced population declines of more than 8% since the 2010 census. Hancock, Marshall and Ohio counties showed declines of 6.08%, 7.78%, and 6.82% respectively.
- While 'White alone' made up 72% of the United States population based on the 2010 census, more than 95% of the service area population is 'White alone'. In Wetzel County, fully 97.6% of residents are white.
- More than 70% of the service area population is over 24 years of age.
- Females outnumber males in the service area by slightly more than 2%.
- 47% of residents in the counties served are currently married, with a high of 49.5% in Marshall County, and to a low of 44% in Ohio County.
- Most residents in the service area have a high school diploma or equivalent. Wetzel County has the highest number of residents (13.8%) who have less than a high school education. Ohio County has by far the highest percentage of individuals who have completed a college or professional degree.
- Over the past 9 years, unemployment rates within the service area have declined, with rates in Brooke and Marshall Counties showing the steepest reductions in the period. Within the service area, the unemployment rate is highest in Hancock County (8.25%).
- Within the service area, poverty rates in Hancock (14%), Marshall (15.5%), Ohio (14.4%) and Wetzel (20.1%) Counties exceed the United States (12.8%) rate. While the poverty rate has declined from 2010 census numbers across all other counties in the service area, the poverty rate in Wetzel County has increased by 2.6%.
- Active Northwood caseloads are highest for Ohio (44.1%) and Marshall (20.8%) Counties, which is consistent with these counties having the highest populations in the service area.
- Although individuals living in Brooke and Hancock counties respectively make up 16.1% and 20.8% of Northwood's service area population, active client caseloads from Brooke (4.9%) and Hancock (8.4%) counties are much lower.
- The percentage of active Northwood cases who are female exceeds those who are male by 3.23% overall, and in Brooke county female cases outnumber males by nearly 21%. Male clients outnumber female clients by slightly more than 4% in Hancock and Wetzel counties.

- Active Northwood cases report a much higher rate (62.78%) of never being married than that of the general service area (between 44% and 49.5%).
- Active Northwood cases have a much higher percentage of individuals age 25-54 (60.45%) than the population of the general service area (ranging from 33.8% to 35.8%).



Community Assets

The chart on the following page in **Table 8** identifies a full inventory of community assets and resources for the Northwood Health Systems 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, substance abuse services and intellectual disability services.

Table 8: Northwood Health Systems Community Assets

| Community Clinic | Address | City | State | Zip |
|---|-----------------------------|------------------|--------------|------------|
| Wheeling Health Right | 61-29 th Street | Wheeling | WV | 26003 |
| Community Services | Address | City | State | Zip |
| Family Services Upper Ohio Valley | 2200 Main Street | Wheeling | WV | 26003 |
| United Way of the Upper Ohio Valley | 1307 Chapline Street | Wheeling | WV | 26003 |
| YWCA Wheeling | 1100 Chapline Street | Wheeling | WV | 26003 |
| Food Services | Address | City | State | Zip |
| Catholic Charities Neighborhood Center | 125-18 th Street | Wheeling | WV | 26003 |
| The Soup Kitchen of Greater Wheeling | 1610 Eoff Street | Wheeling | WV | 26003 |
| Homeless Services | Address | City | State | Zip |
| Greater Wheeling Coalition for the Homeless | 84-15 th Street | Wheeling | WV | 26003 |
| Salvation Army Wheeling | 140-16 th Street | Wheeling | WV | 26003 |
| YWCA Wheeling | 1100 Chapline Street | Wheeling | WV | 26003 |
| Hospital | Address | City | State | Zip |
| East Ohio Regional Hospital | 90 N 4 th Street | Martins Ferry | OH | 43935 |
| Reynolds Memorial Hospital | 800 Wheeling Avenue | Glen Dale | WV | 26038 |
| Sistersville General Hospital | 314 South Wells Street | Sistersville | WV | 26175 |
| Trinity Health System, Medical Center East | 380 Summit Avenue | Steubenville | OH | 43952 |
| Trinity Health System, Medical Center West | 4000 Johnson Road | Steubenville | OH | 43952 |
| Weirton Medical Center | 601 Colliers Way | Weirton | WV | 26062 |
| 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 | 210 Anthoni Avenue | Wheeling | WV | 26003 |
| Easter Seals | 1305 National Road | Wheeling | WV | 26003 |
| REM Community Options | 748 McMechen Street | Benwood | WV | 26031 |
| Russell Nesbitt Services | 431 Fulton Street | Wheeling | WV | 26003 |
| Substance Abuse | Address | City | State | Zip |
| Healthways, Inc. | 501 Colliers Way | Weirton | WV | 26062 |
| YSS Recovery Homes | Various | Wheeling | WV | 26003 |
| Miracles Happen | 201 Edgington Lane | Wheeling | WV | 26003 |
| Miracles Blossom | 2 Church Street | Beech Bottom | WV | 26030 |
| ROOTS in Harmony | 1100 Main Street | Wheeling | WV | 26003 |
| Wheeling Treatment Center | 40 Orrs Lane | Triadelphia | WV | 26059 |
| Youth Services System, Inc. | 87 15 th Street | Wheeling | WV | 26003 |
| YWCA Women Inspired in New Directions | 1100 Chapline Street | Wheeling | WV | 26003 |
| Youth Services | Address | City | State | Zip |
| WV CASA | 1224 Chapline Street | Wheeling | WV | 26003 |
| Crittenton Services | 2606 National Road | Wheeling | WV | 26003 |
| Youth Services System, Inc. | 87-15 th Street | Wheeling | WV | 26003 |

Access



Access to Care

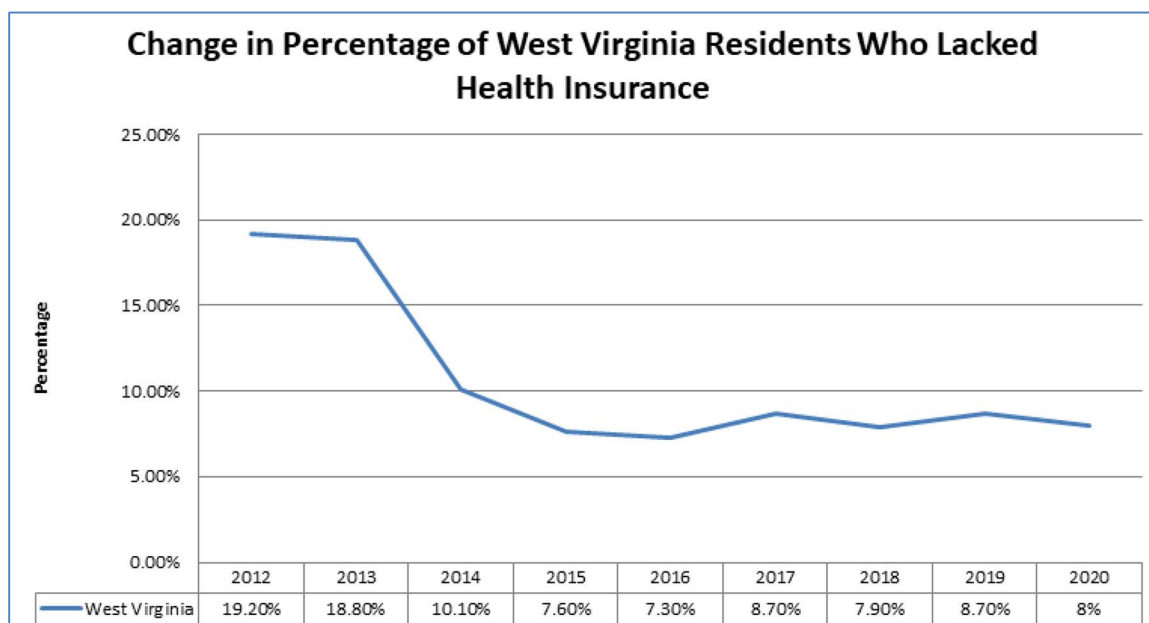
According to the U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion (ODPHP), a person's ability to access health services has a profound effect on every aspect of his or her health. Components that comprise access to care include factors such as coverage, workforce, services, and timeliness.

Coverage

People without health insurance are less likely to have a usual source of medical care, such as a Primary Care Practitioner (PCP), and are more likely to skip routine medical care due to costs, increasing their risk for serious and disabling health conditions. When they do access health services, they are often burdened with large medical bills and out-of-pocket expenses.

Health care coverage in West Virginia has improved dramatically since 2012. **Figure 20** below shows a steep decline in the percentage of West Virginia residents who lacked health insurance, moving from 19.2% in 2012 down to 8% in 2020.

Figure 20. Change in Percentage of West Virginia Residents Who Lacked Health Insurance



Data Source: Centers for Disease Control and Prevention (CDC)'s Behavioral Risk Factor Surveillance System (BRFSS) 2012-2020 Survey Results

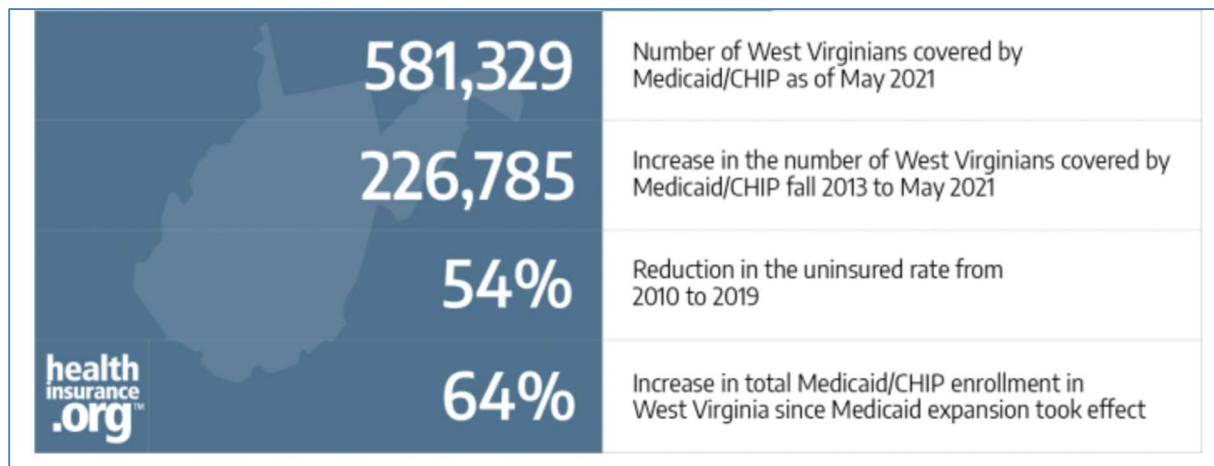
Figure 21 below shows a corresponding increase in Medicaid coverage for West Virginia residents. From 2013 to 2014, Medicaid enrollment increased by more than 50%. These changes are due to implementation of the Affordable Care Act and West Virginia's associated expansion of Medicaid coverage.

In May 2021, there were 581,329 people in West Virginia who were enrolled in Medicaid at some point during the year, representing approximately one third of the state's population. One in five Medicare enrollees in West Virginia is also covered by Medicaid.

One of every two children in West Virginia is covered by Medicaid.

West Virginia has the second lowest per capita income in the country and therefore one of the highest federal Medicaid matching assistance percentages (FMAP), at 74.02% in 2021. For every \$100 spent by the state, the Federal government pays \$290 in matching federal funds.

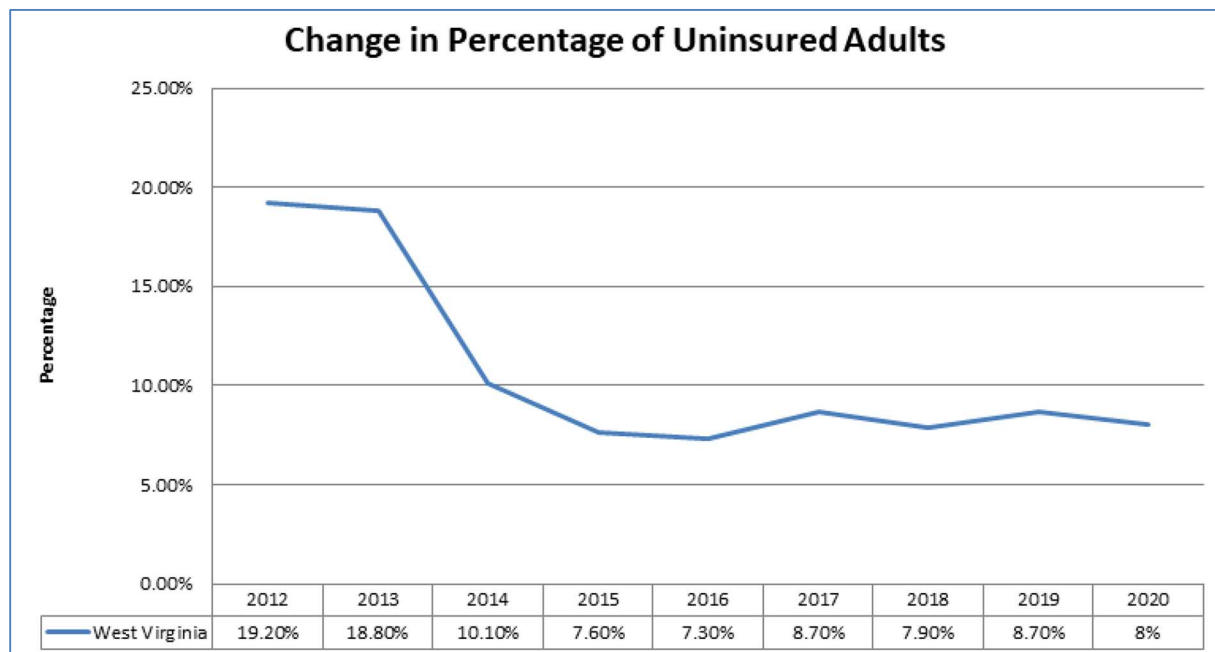
Figure 21. Change in Percentage of West Virginia Residents with Medicaid Coverage



Data Source: Healthinsurance.org

Figure 22. Change in Percentage of Uninsured Adults

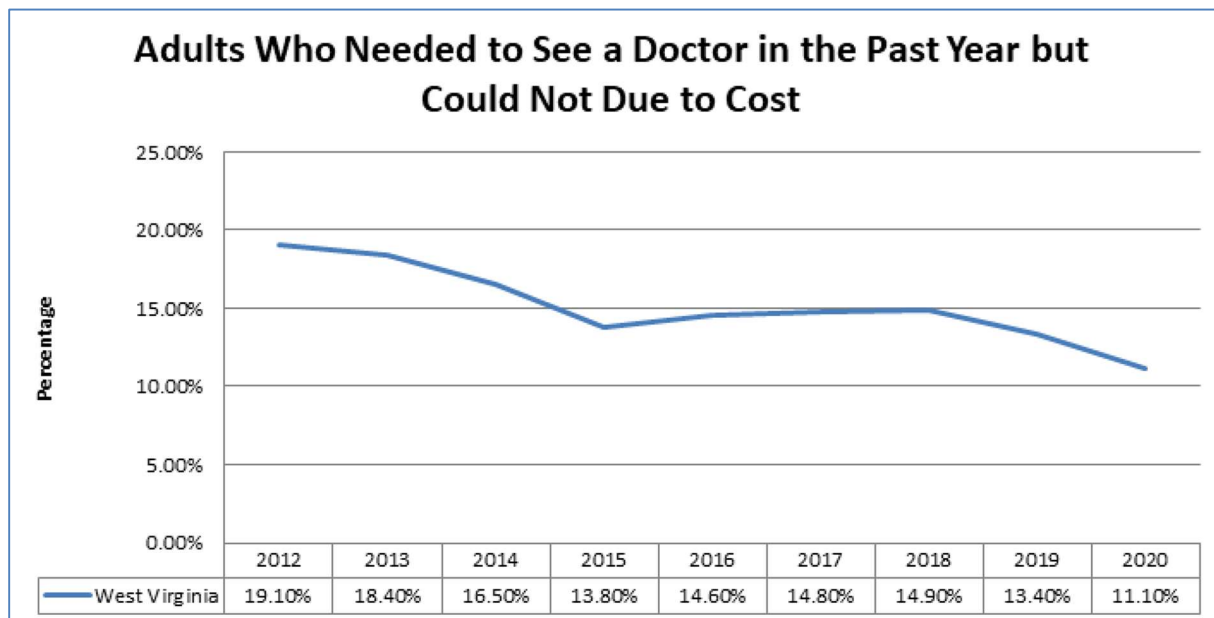
Between 2012 and 2020, the overall percentage of uninsured adults in West Virginia decreased by 11%. This number corresponds to the increase in West Virginia residents receiving Medicaid coverage.



Data Source: United States Census Bureau, Small Area Health Insurance Estimates (SAHIE), 2012-2020

Figure 23 illustrates the percentage of adults who needed to see a doctor in the past year but could not due to cost for the survey years 2012 through 2020. The highest percentage of residents who needed to see a doctor but could not due to cost occurred in 2012 with 19.1%. Following a gradual rise since 2007, rates have trended downward since 2012. We believe the decrease is due to implementation of the Affordable Care Act and Medicaid expansion.

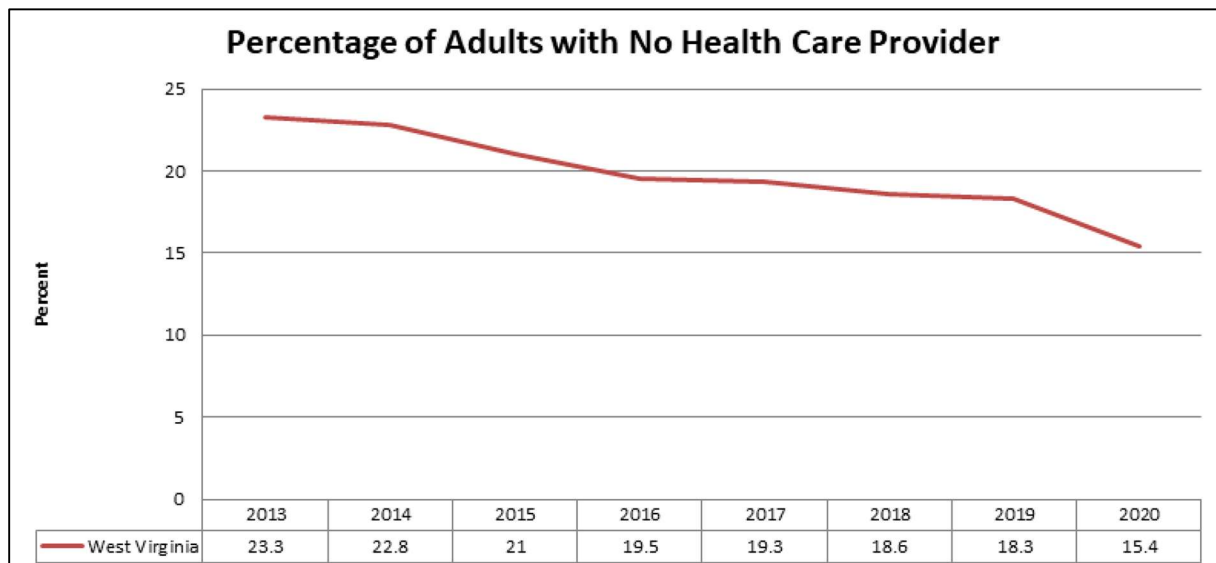
Figure 23. Percentage of Adults Who Needed to See a Doctor in the Past Year but Could Not Due to Cost



Data Source: Centers for Disease Control and Prevention (CDC)'s Behavioral Risk Factor Surveillance System (BRFSS) 2012-2020 Survey Results

Figure 24 illustrates the percentage of adults residing in West Virginia with no health care provider from 2013 through 2020. The highest percentage of residents with no health care provider occurred in 2013 when nearly one out of four adults did not have a health care provider. In 2020, West Virginia surpassed the [healthypeople.gov](https://www.healthypeople.gov) target of 16.1% for the first time.

Figure 24. Percentage of Adults with No Health Care Provider



Data Source: Kaiser Family Foundation, State Health Facts, Access to Care



Workforce

Access to care requires not only financial coverage, but also access to providers.

The Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services develops shortage designation criteria and uses them to decide whether or not a geographic area, population group, or facility is a Health Professional Shortage Area or a Medically Underserved Area or Population.

Health Professional Shortage Areas (HPSA) are areas and population groups within the United States that are experiencing a shortage of health professionals. There are three categories of HPSA designation based on the health discipline that is experiencing a shortage: 1) primary medical; 2) dental; and 3) mental health.

According to information provided by the Health Resources and Services Administration, eighty-four percent of the West Virginia's counties (46 of 55 counties) are designated as a Mental Health Professional Shortage Area (HPSA).

Table 9 illustrates these federal shortage designations for Brooke, Hancock, Marshall, Ohio and Wetzel Counties as of September 2021. Hancock and Wetzel Counties are designated as shortage areas for Primary Care, Dental Health, and Mental Health. Marshall and Ohio Counties are designated shortage areas for Dental and Mental health care.

Table 9: Federal Shortage Designations 2021

| Federal Shortage Designations | | | | | |
|-------------------------------|------------------|-------------------|--------------------|----------------|------------------|
| 2021 | | | | | |
| | Brooke County | Hancock County | Marshall County | Ohio County | Wetzel County |
| Primary Care | | Designated | | | Designated |
| | | | | | |
| Dental Health | | Designated | Designated | Designated | Designated |
| | | | | | |
| Mental Health | | Designated | Designated | Designated | Designated |

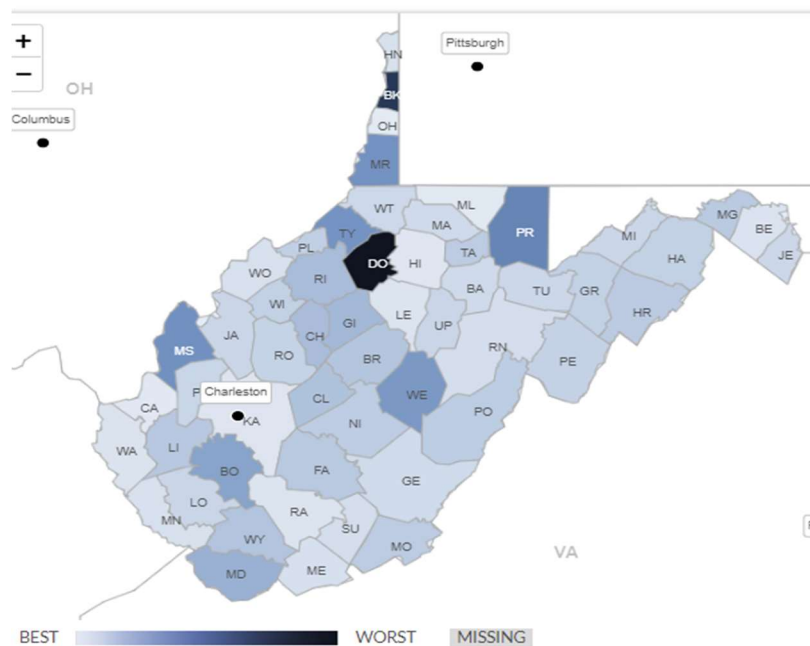
Data Source: Health Resources and Services Administration (data.HRSA.gov)

Mental Health Providers

According to the University of Wisconsin Population Health Institute, one of the factors that can be used to compare and objectively measure access to care is the ratio of the county population to the number of mental health providers including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, and mental health providers who treat alcohol and other drug abuse, as well as advanced practice nurses specializing in mental health. Using this measure for the service area counties, Brooke and Marshall Counties score worst, followed by better scores for Wetzel, Hancock and Ohio counties.

Figure 25. Mental Health Providers

| County | # Mental Health Providers | Number of Individuals Served by One Mental Health Professional |
|----------|---------------------------|--|
| Wetzel | 14 | 1,080 |
| Ohio | 132 | 310 |
| Marshall | 7 | 4,360 |
| Hancock | 42 | 690 |
| Brooke | 3 | 7,310 |

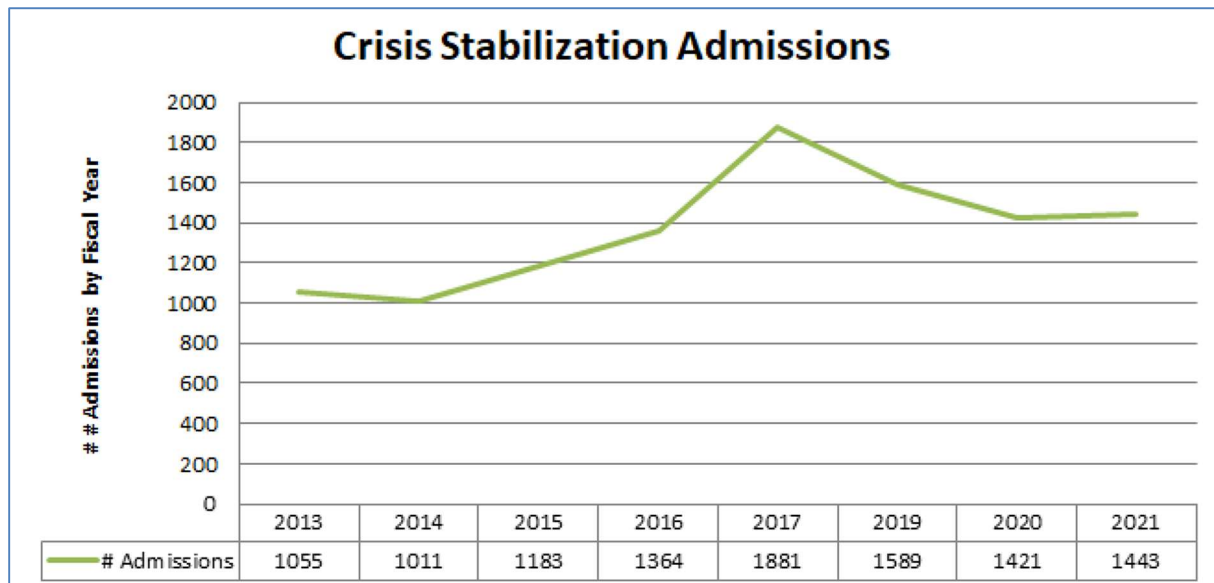


Data Source: 2021 County Health Rankings
www.countyhealthrankings.org

Service Utilization

Figures 26 and 27 illustrate the Northwood program utilization of Crisis Stabilization Services and Psychiatric / Medication Management Services. Utilization of Crisis Stabilization Services steadily increased between fiscal years 2013 and 2017, after which it decreased through FY 2021.

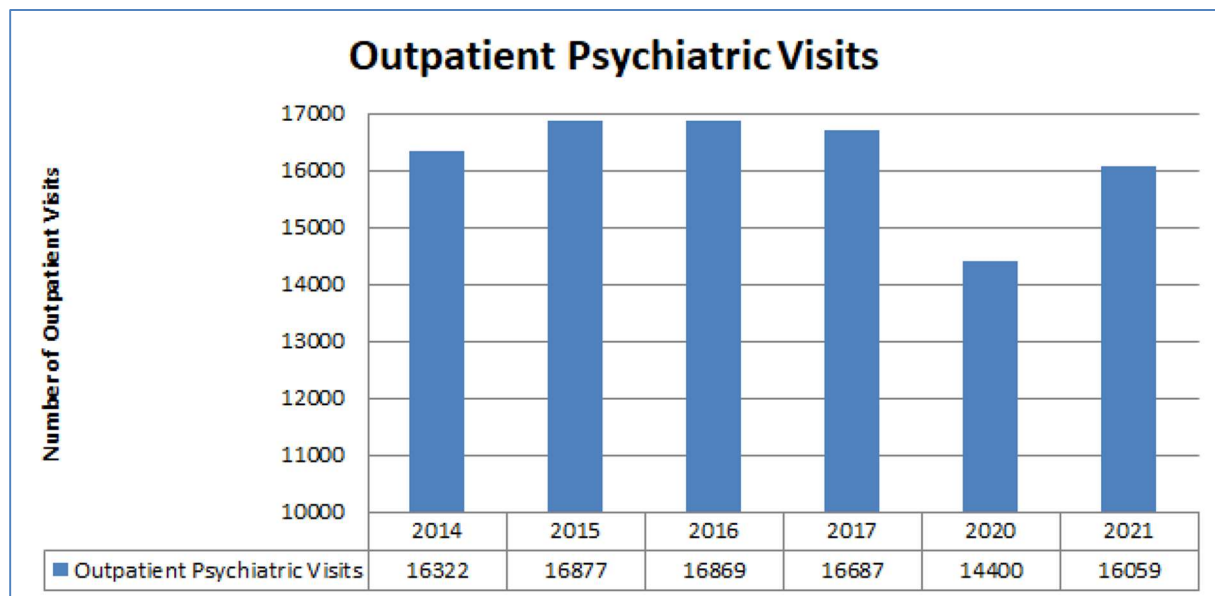
Figure 26. Northwood Program Utilization – Crisis Services



Data Source: Northwood Health Systems

Figure 27. Northwood Program Utilization – Outpatient Psychiatric Visits

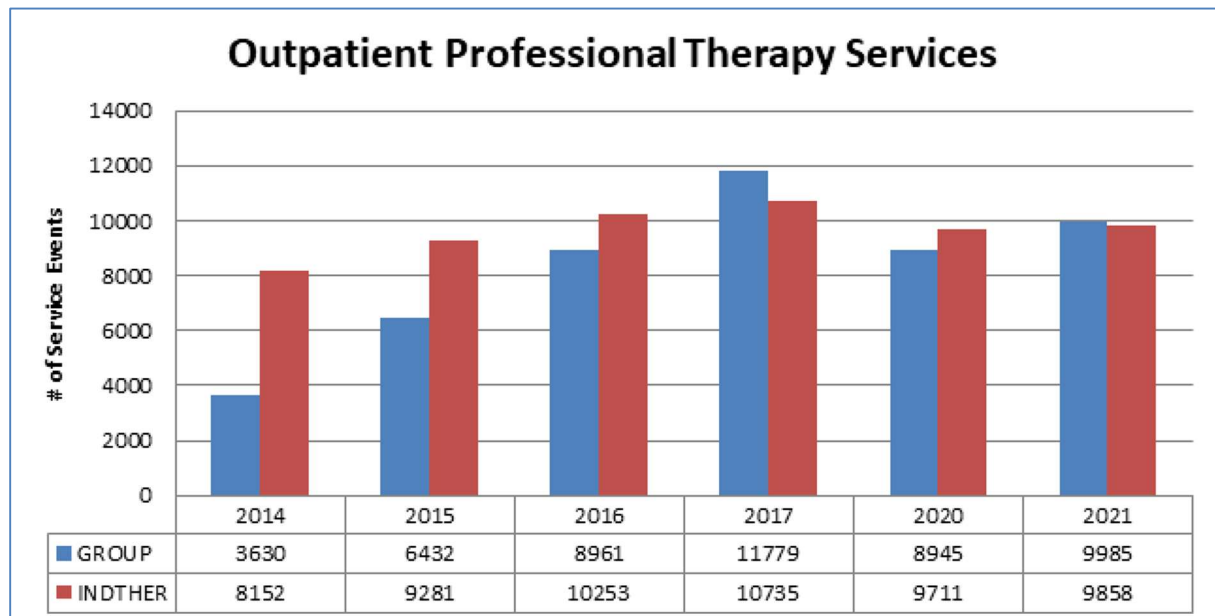
During the fiscal years from 2014 through 2021, the number of Outpatient Psychiatric services provided by Northwood has remained relatively stable, except for a volume reduction in FY 2020 corresponding to COVID restrictions. These visits are again trending upward since that time.



Data Source: Northwood Health Systems

Figure 28 illustrates Northwood program utilization for Outpatient Group and Individual Professional Therapy Services. Utilization of both these services increased over the fiscal years from 2014 through 2017, with the largest increase in services for individuals with substance use disorders.

Figure 28. Northwood Program Utilization – Outpatient Professional Therapy



Data Source: Northwood Health Systems



Access Conclusions

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

- In West Virginia, between 2012 and 2020, the percentage of West Virginia residents who lacked health insurance coverage dropped significantly.
- During this same time frame, 2012 to 2020, the percentage West Virginia residents receiving Medicaid coverage increased by nearly 40%.
- In West Virginia, between 2012 and 2020, the percentage of adults who needed to see a doctor but could not due to cost dropped from 19.1 to 11.1, which we believe is due to implementation of the Affordable Care Act and Medicaid expansion.
- Between 2007 and 2020, the percentage of adults with no health care provider declined from 23.3% to 15.4%, which surpasses the Healthy People 2020 Goal of 16.1%.
- Hancock, Marshall, Ohio and Wetzel Counties are all designated as medically underserved areas. Wetzel and Hancock Counties are designated shortage areas for Primary Care, Dental and Mental Health Services. Marshall and Ohio Counties are also designated as shortage areas for Dental and Mental Health Care.
- Following a steady increase between 2013 and 2017, utilization of Crisis Stabilization services has decreased over the past 5 fiscal years.
- During fiscal years 2014 through 2017, utilization of Northwood psychiatric/medication management services remained relatively consistent. There was a decrease in outpatient medication management services related to COVID restrictions in fiscal year 2020, with service volume resuming the following year.
- Utilization of Group and Individual Outpatient Professional services has increased over the fiscal years from 2014 through 2017. Between 2020 and 2021 both group and individual professional service utilization is trending upward.
- Northwood's professional therapy services for individuals with substance use disorders have been a significant component of this increase.

Chronic/Serious Mental Health



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.

Healthy Days

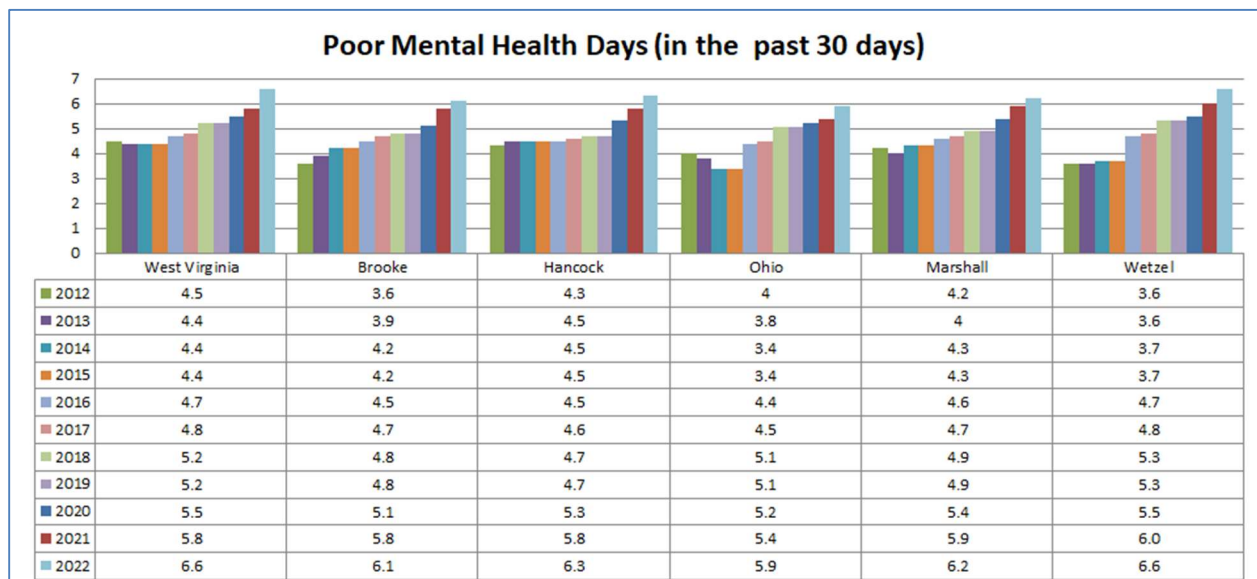
Healthy Days is a popular public health measure that has been correlated with self-rated general physical health, general life satisfaction, medical care utilization, and depression. The core Healthy Days measures assess a person's perceived sense of well-being through questions about health and number of recent days when physical and mental health were not good.

Poor Mental Health Days (in the past 30)

Poor Mental Health Days measures the number of days in the previous 30 days that a person indicates their activities were limited due to mental health difficulties. The measure provides a general indication of wellness, health-related quality of life, and mental distress. In 2021, West Virginia ranked worst of the 50 states in the number of poor mental health days in the past 30.

Figure 29 illustrates the number of Poor Mental Health Days in the past 30 days for adults in the service area from 2012 to 2022. Overall, the number of Poor Mental Health Days is highest in 2022 for both State and for the individual counties than at any time in the last ten years. Ohio County had shown a decrease from 2012 to 2015 but has now jumped to 5.9 days in 2022.

Figure 29. Poor Mental Health Days (in the Past 30 Days)



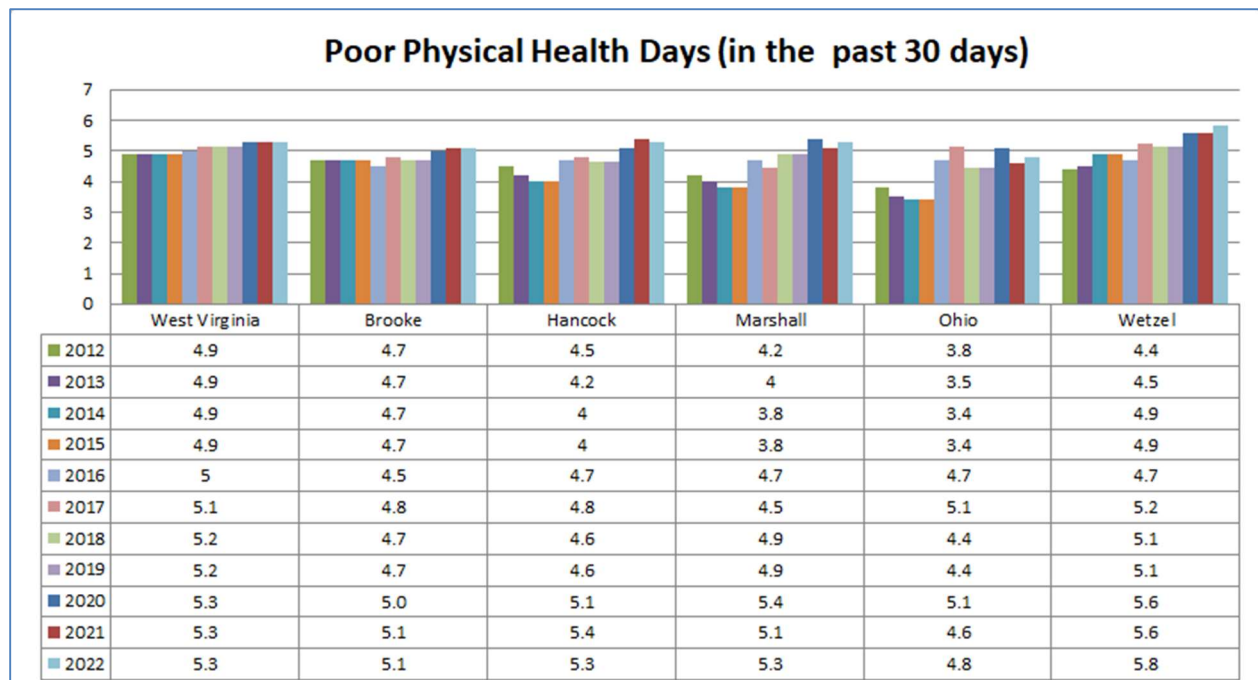
Sources: <http://www.countyhealthrankings.org/>

Poor Physical Health Days (in the past 30)

Poor physical health days is a general indicator of current health as well as the population's health related quality of life. Along with poor mental health days, it provides insight into overall health.

In 2017, West Virginia ranked worst of the 50 states in the number of poor physical health days in the past 30.

Figure 30. Poor Physical Health Days

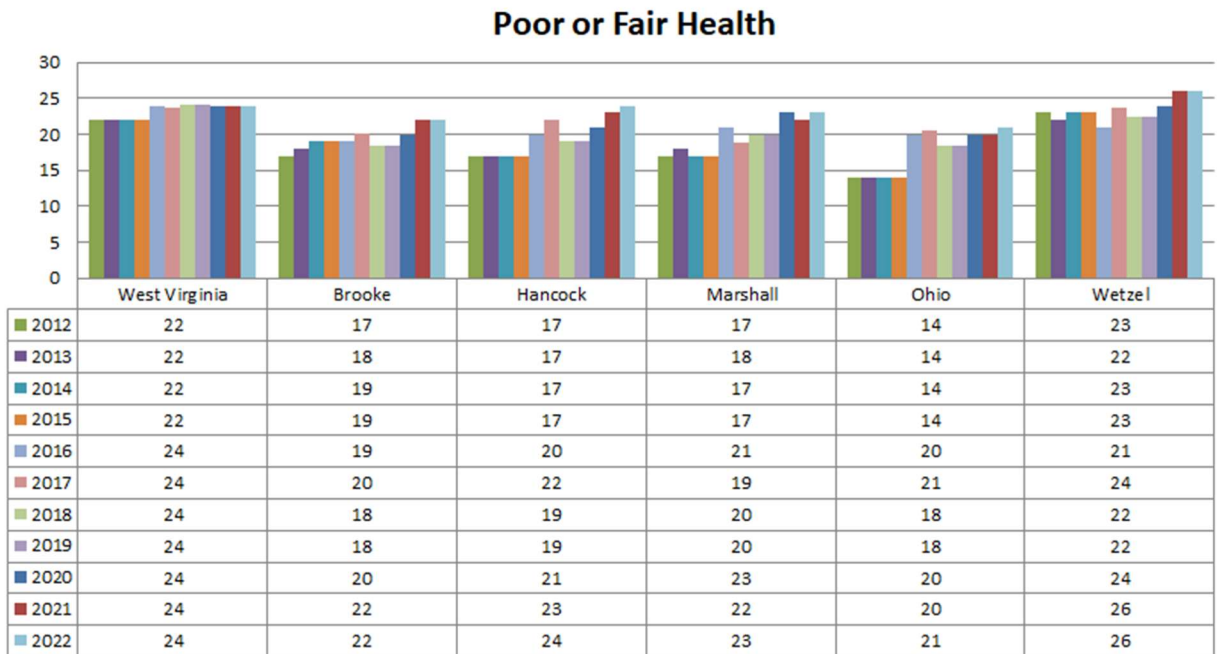


Source: <http://www.countyhealthrankings.org/>

Poor or Fair Health

Figure 31 illustrates the percentage of adults who reported their health as fair or poor by county within the service region from 2012-2022. In 2022 Brooke, Marshall and Ohio Counties experienced a lower percentage of residents with poor or fair health than West Virginia overall, while Hancock and Wetzel Counties have been at or above the overall West Virginia percentage. Numbers for each individual county and for the State overall have trended upward in the last 10 years. West Virginia and the service area of Brooke, Hancock, Marshall and Wetzel counties all exceeded the National rate of 17%.

Figure 31. Percentage of Adults Who Reported Their Health as Poor or Fair



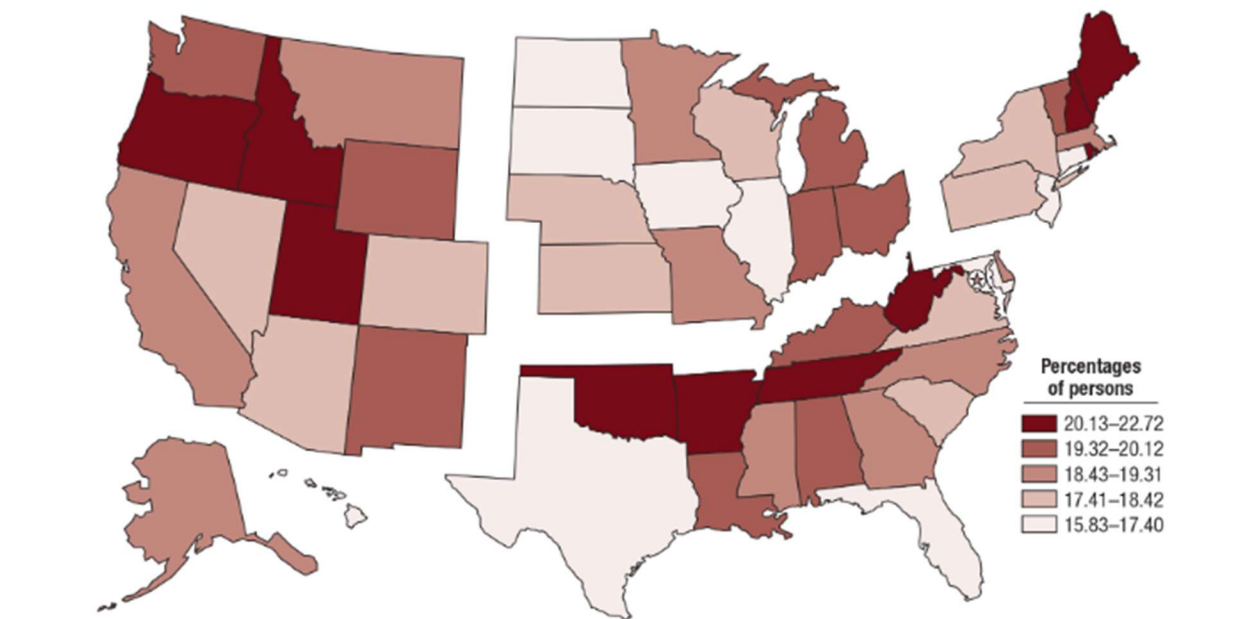
Source: <http://www.countyhealthrankings.org/>

Any Mental Illness

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), “Any Mental Illness (AMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder.” The Any Mental Illness measure includes persons with mild mental illness, moderate mental illness, and serious mental illness based on the level of functional impairment.

In 2020, there were an estimated 52.9 million adults aged 18 or older who experienced any mental illness in the past year, corresponding to a rate of 21 percent of the U.S adult population. Among States, AMI rates ranged from 15.8 percent in New Jersey to 22.7 percent in Oregon. Along with Oregon, the States with the highest rates include Utah, West Virginia, Maine and Rhode Island, all having more than 21 percent of adults with any mental illness.

Figure 32. Any Mental Illness in the Past Year among Persons Aged 18 or Older by State

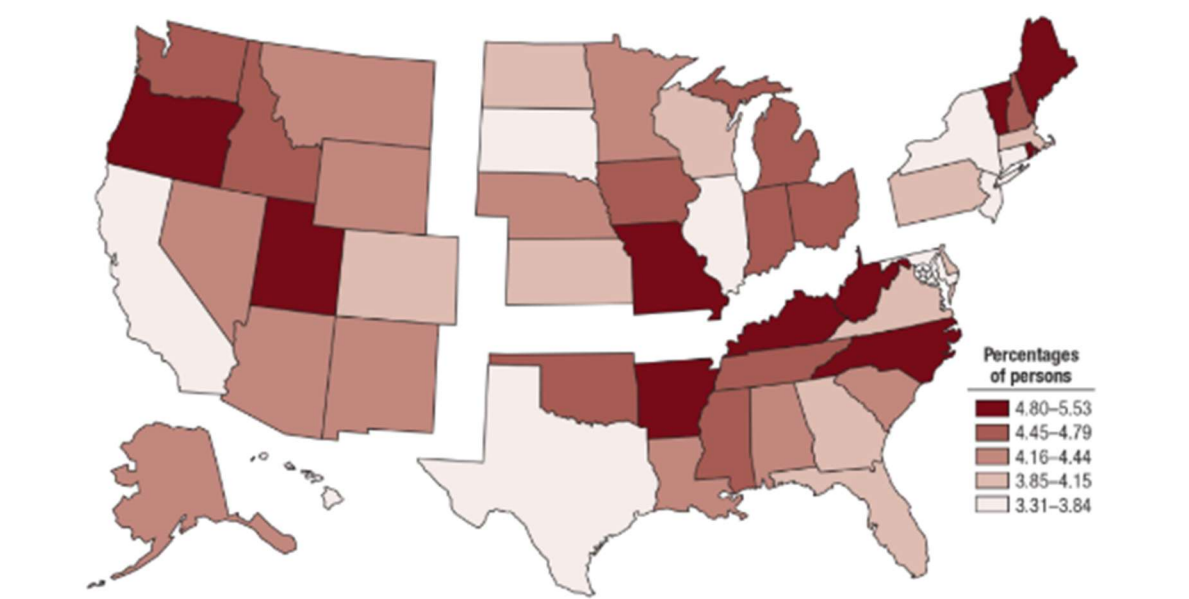


Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2012 to 2014

Serious Mental Illness by State

According to SAMHSA, West Virginia has the highest rate of Serious Mental Illness (SMI) among all states for adults aged 18 or older. The national rate of Serious Mental Illness (SMI) in the past year was estimated to be 4.13 percent based on combined 2012–2014 National Surveys on Drug Use and Health (NSDUH) data. Among individual States, the percentage of adults aged 18 or older with SMI ranged from 3.31 percent in Maryland to 5.53 percent in West Virginia. Along with West Virginia, States with the highest SMI rates include Vermont (5.28 percent), Arkansas (5.2 percent), and Utah (5.17 percent).

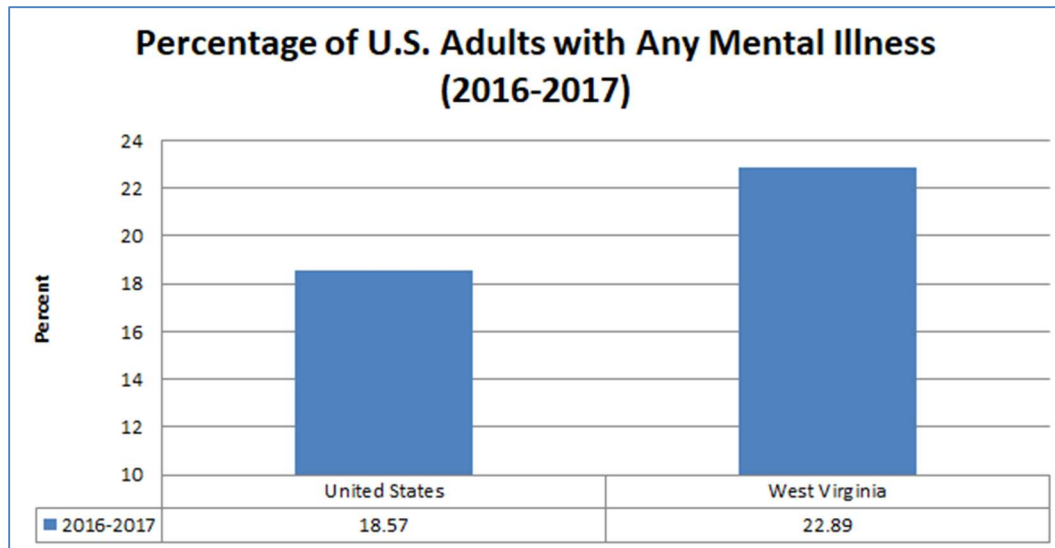
Figure 33. Serious Mental Illness in the Past Year among Persons Aged 18 or Older by State



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2012 to 2014

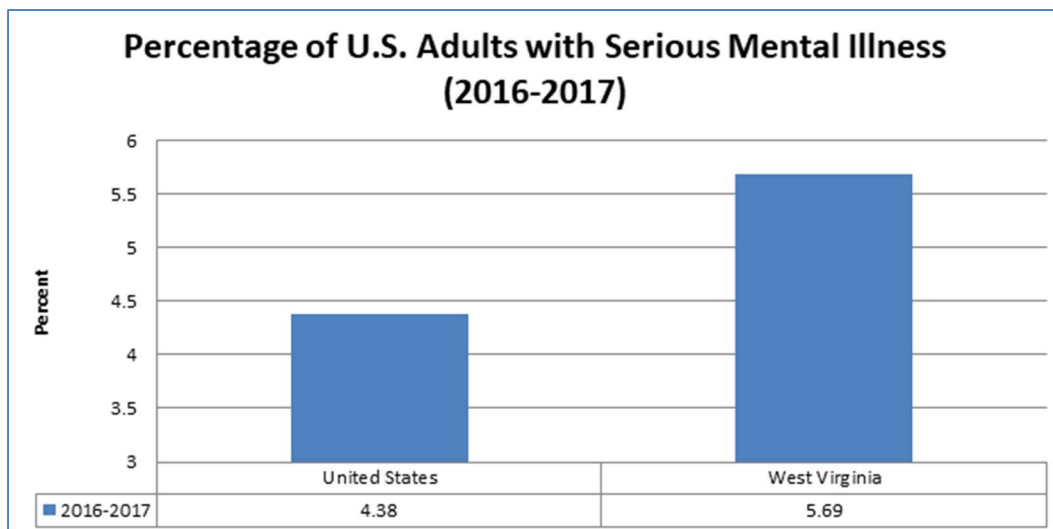
Past Year Mental Health Measures

Figure 34. Percentage of Any Mental Illness among Adults (U.S. and West Virginia)



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2016-2017

Figure 35. Percentage of Serious Mental Illness among Adults (U.S. and West Virginia)



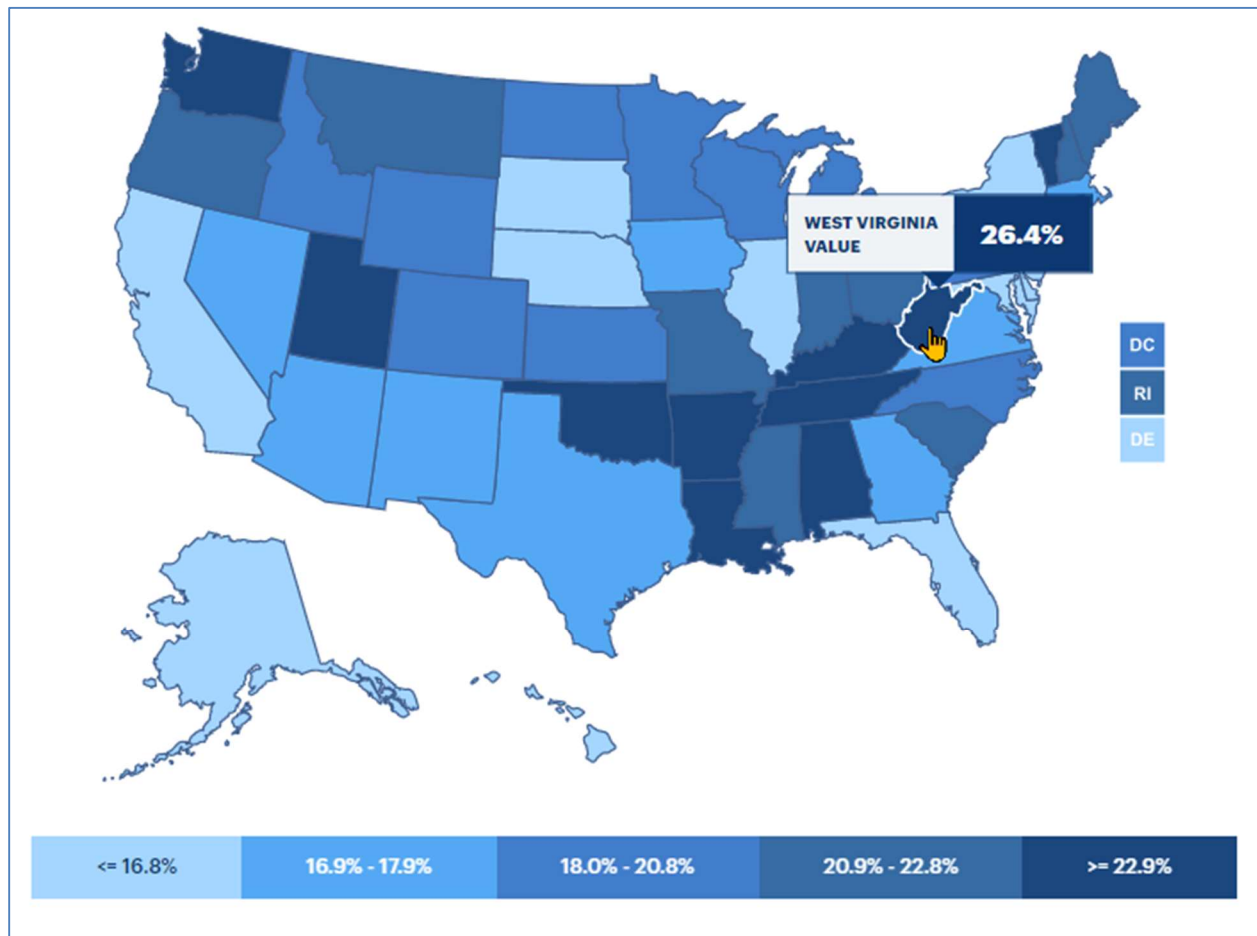
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2016-2017

Past Year Mental Health Measures

According to the SAMHSA National Survey on Drug Use and Health, in 2020, an estimated 14.8 million adults aged 18 or older in the United States had at least one major depressive episode in the past year. This number represented 6.0% of all U.S. adults.

Figure 36 illustrates individuals who reported being told by a health professional that they have a depressive disorder including depression, major depression, minor depression or dysthymia. The 26.4% rate in West Virginia is higher than the national rate of 19.5%.

Figure 36. Percentage of Adults with a Depressive Disorder



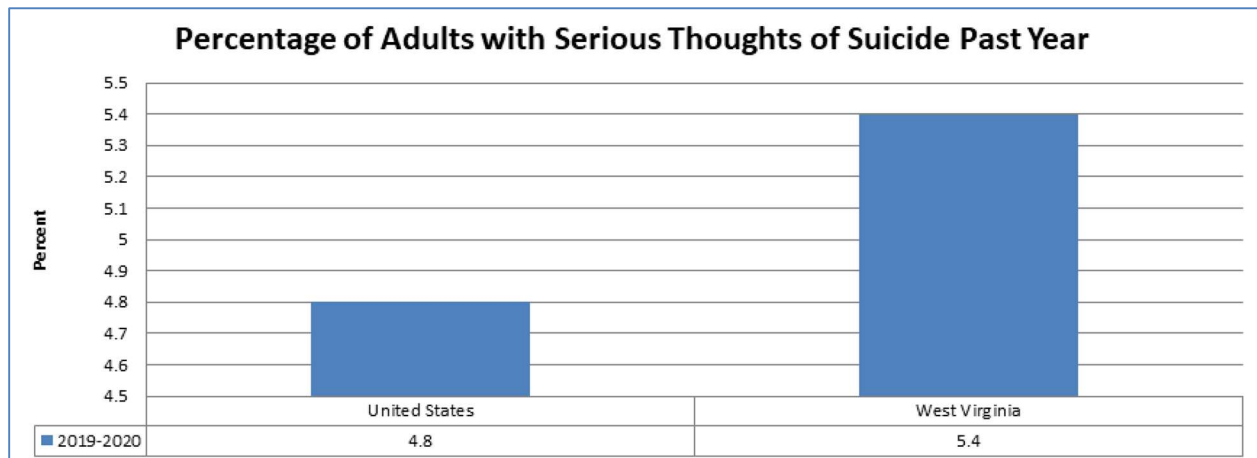
Source: CDC, Behavioral Risk Factor Surveillance System, 2020

Suicide

Suicide is a major cause of death in the United States that affects people of all ages, races, and ethnicities. According to the Centers for Disease Control and Prevention, since 2008, suicide has ranked as the 10th leading cause of death for all ages in the United States. It is the second leading cause of death for ages 10–34. In 2020, the U.S. suicide rate declined by 3% from 2019 after increasing by 33% from 1999 through 2017. Suicide rates in 2020 were 3.9 times higher for males than for females. The suicide rate for the most rural areas is 1.4 times the rate for the most urban areas, and the suicide rate in 2017 for the most rural counties was 53% higher than the rate in 1999. According to the American Foundation for Suicide Prevention, there were nearly 46,000 deaths by suicide in 2020 and an estimated 1.2 million suicide attempts.

Figure 37 illustrates individuals reporting Serious Thoughts of Suicide within the Past Year in the United States and West Virginia from 2019 to 2020. A higher percentage of West Virginia residents reported experiencing serious thoughts of suicide compared to the United States overall during that time period.

Figure 37. Individuals Reporting Serious Thoughts of Suicide Past Year

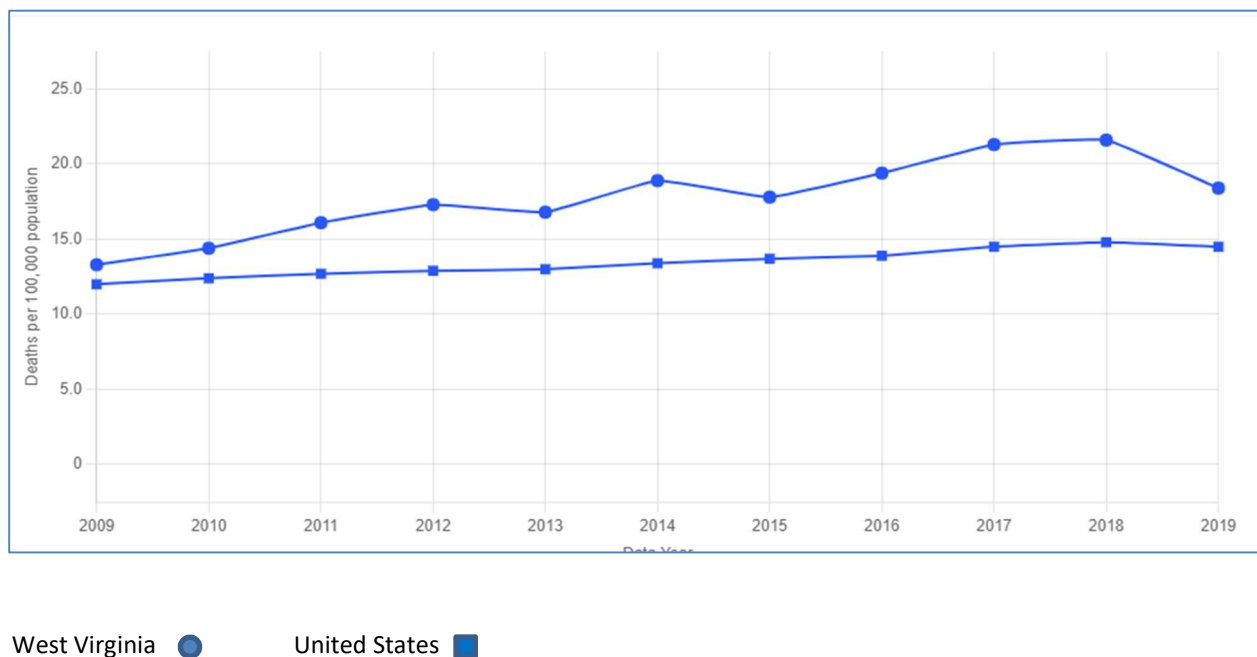


Source: Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2019-2020

West Virginia – Annual Suicide Deaths

According to the American Foundation for Suicide Prevention, suicide is the 10th leading cause of death in the US and the 12th leading cause of death overall in West Virginia. In West Virginia, the rate of suicide deaths is 19.45 per 100,000 population compared to a lower rate of 13.48 nationally for the most recent year available. More than six times as many people died by suicide in West Virginia in 2020 than by alcohol related motor vehicle accidents. It is the second leading cause of death for ages 10 to 34.

Figure 38. Suicide Rates – United States and West Virginia



Source: America's Health Rankings, CDC WONDER Online Database, Underlying Cause of Death, Multiple Cause of Death files

Table 10 illustrates the number and rates of deaths from suicide in each of the counties of the service area and West Virginia from 2008 to 2017. Ohio County had the highest number (67) of suicide deaths of the counties in the service area. Brooke County had the highest rate (19.9) of suicide deaths, followed by Hancock County (16.9). Brooke County had a higher rate of suicide deaths than the state rate of 17.8. Hancock, Marshall, Ohio and Wetzel Counties all had rates below the state rate during this time period.

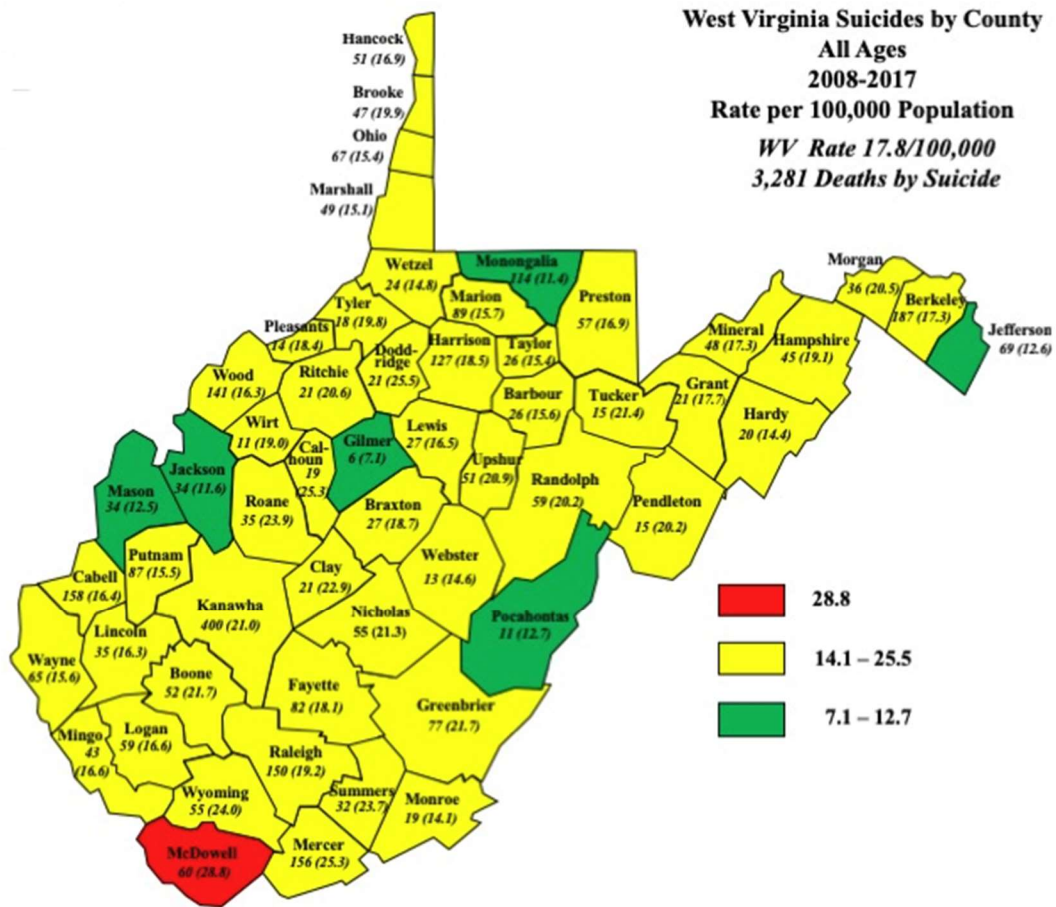
Table 10: Suicide Deaths 2008-2017

| 2008-2017 Suicide Deaths | | | | | | |
|--------------------------|---------------|---------------|----------------|-----------------|-------------|---------------|
| | West Virginia | Brooke County | Hancock County | Marshall County | Ohio County | Wetzel County |
| Number of Suicides | 3,281 | 47 | 51 | 49 | 67 | 24 |
| Rate per 100,000 | 17.8 | 19.9 | 16.9 | 15.1 | 15.4 | 14.8 |

Source: PreventSuicideWV.org

Figure 39 illustrates suicide rates in West Virginia by County from 2008-2017.

Figure 39. West Virginia Suicide Rates by County



Source: PreventSuicideWV.org

Leading Causes of Death by Age Group

According to the National Center for Health Statistics, unintentional injuries ranked first as the leading cause of death for West Virginians between the ages of 1 to 44 years, regardless of race, gender or economic status. Unintentional injury deaths result from a variety of causes but a majority of fatal unintentional injuries include motor vehicle traffic crashes, poisoning (including drugs and other substances), and falls.

Suicide is the second leading cause of death in West Virginia for ages 10 to 34.

Figure 40. Leading Causes of Death by Age Group

| 10 Leading Causes of Death, United States 2020, All Races, Both Sexes | | | | | | | | | | | |
|--|-----------------------------------|-------------------------------|---------------------------------------|---------------------------------------|--|--------------------------------|--------------------------------|--|---|--|--|
| | Age Groups | | | | | | | | | | |
| Rank | <1 | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65+ | All Ages |
| 1 | Congenital Anomalies 4,043 | Unintentional Injury 1,153 | Unintentional Injury 685 | Unintentional Injury 881 | Unintentional Injury 15,117 | Unintentional Injury 31,315 | Unintentional Injury 31,057 | Malignant Neoplasms 34,589 | Malignant Neoplasms 110,243 | Heart Disease 556,665 | Heart Disease 696,962 |
| 2 | Short Gestation 3,141 | Congenital Anomalies 382 | Malignant Neoplasms 382 | Suicide 581 | Homicide 6,466 | Suicide 8,454 | Heart Disease 12,177 | Heart Disease 34,169 | Heart Disease 88,551 | Malignant Neoplasms 440,753 | Malignant Neoplasms 602,350 |
| 3 | SIDS 1,389 | Homicide 311 | Congenital Anomalies 171 | Malignant Neoplasms 410 | Suicide 6,062 | Homicide 7,125 | Malignant Neoplasms 10,730 | Unintentional Injury 27,819 | COVID-19 42,090 | COVID-19 282,836 | COVID-19 350,831 |
| 4 | Unintentional Injury 1,194 | Malignant Neoplasms 307 | Homicide 169 | Homicide 285 | Malignant Neoplasms 1,306 | Heart Disease 3,984 | Suicide 7,314 | COVID-19 16,964 | Unintentional Injury 28,915 | Cerebro-vascular 137,392 | Unintentional Injury 200,955 |
| 5 | Maternal Pregnancy Comp. 1,116 | Heart Disease 112 | Heart Disease 56 | Congenital Anomalies 150 | Heart Disease 870 | Malignant Neoplasms 3,573 | COVID-19 6,079 | Liver Disease 9,503 | Chronic Low Respiratory Disease 18,816 | Alzheimer's Disease 132,741 | Cerebro-vascular 160,264 |
| 6 | Placenta Cord Membranes 700 | Influenza & Pneumonia 84 | Influenza & Pneumonia 55 | Heart Disease 111 | COVID-19 501 | COVID-19 2,254 | Liver Disease 4,938 | Diabetes Mellitus 7,546 | Diabetes Mellitus 18,002 | Chronic Low Respiratory Disease 128,712 | Chronic Low Respiratory Disease 152,657 |
| 7 | Bacterial Sepsis 542 | Cerebro-vascular 55 | Chronic Low Respiratory Disease 54 | Chronic Low Respiratory Disease 93 | Congenital Anomalies 384 | Liver Disease 1,631 | Homicide 4,482 | Suicide 7,249 | Liver Disease 16,151 | Diabetes Mellitus 72,194 | Alzheimer's Disease 134,242 |
| 8 | Respiratory Distress 388 | Perinatal Period 54 | Cerebro-vascular 32 | Diabetes Mellitus 50 | Diabetes Mellitus 312 | Diabetes Mellitus 1,168 | Diabetes Mellitus 2,904 | Cerebro-vascular 5,686 | Cerebro-vascular 14,153 | Unintentional Injury 62,796 | Diabetes Mellitus 102,188 |
| 9 | Circulatory System Disease 386 | Septicemia 43 | Benign Neoplasms 28 | Influenza & Pneumonia 50 | Chronic Low Respiratory Disease 220 | Cerebro-vascular 600 | Cerebro-vascular 2,008 | Chronic Low Respiratory Disease 3,538 | Suicide 7,160 | Nephritis 42,675 | Influenza & Pneumonia 53,544 |
| 10 | Neonatal Hemorrhage 317 | Benign Neoplasms 35 | Suicide 20 | Cerebro-vascular 44 | Complicated Pregnancy 191 | Complicated Pregnancy 594 | Influenza & Pneumonia 1,148 | Homicide 2,542 | Influenza & Pneumonia 6,295 | Influenza & Pneumonia 42,511 | Nephritis 52,547 |

Source: CDC, National Center for Health Statistics (NCHS), National Vital Statistics System

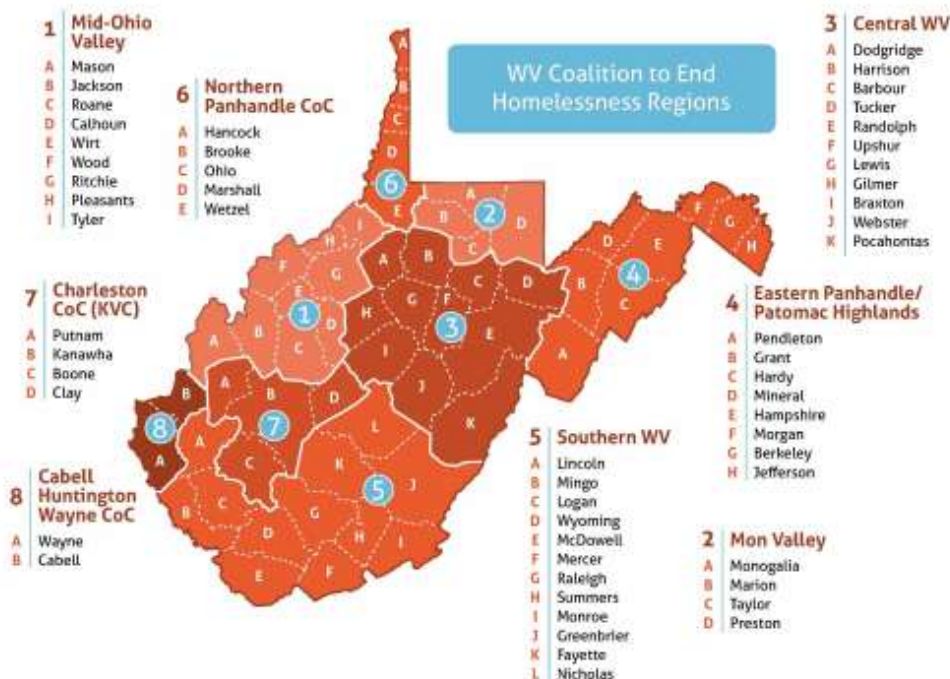
Homelessness and Mental Illness – West Virginia

As of January 2020, The United States Interagency Council on Homelessness reports that West Virginia had an estimated 1,341 experiencing homelessness on any given day, as reported by Continuums of Care to the U.S. Department of Housing and Urban Development (HUD). Of that total, 58 were family households, 104 were Veterans, 112 were unaccompanied young adults (aged 18-24), and 174 were individuals experiencing chronic homelessness.

HUD 2018 Continuum of Care point-in-time data indicates that, of these homeless individuals, 35% could be characterized as Seriously Mentally Ill, 33% as chronic substance abusers, and 12% were victims of domestic violence.

Northwood's service area includes the five counties that comprise the West Virginia Coalition to End Homelessness Region 6 Northern Panhandle Continuum of Care (Brooke, Hancock, Marshall, Ohio and Wetzel Counties).

Figure 41. Northern Panhandle Continuum of Care



Source: HUD 2018 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations

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:

- In 2021, West Virginia ranked worst of the 50 states in the number of poor mental health days in the past 30.
- The number of Poor Mental Health Days in West Virginia and in the individual service area counties is highest in 2022 than at any time in the last ten years.
- In 2022, the number of poor mental health days out of the past 30 was slightly lower than the state rate for all counties in the service area except for Wetzel County.
- Adults in Brooke and Ohio Counties have the best ratings of poor or fair health, compared to other counties in the service area, and all counties in the service area are much better than West Virginia overall.
- Based on 2014 data, SAMHSA reported that, of the 50 states, West Virginia ranked in the top three for the highest percentage of persons with Any Mental Illness.
- Based on 2014 data, SAMHSA reported that West Virginia ranked highest of the 50 states in the percentage of persons with Serious Mental Illness.
- The 26.4% rate of Depression in West Virginia is higher than the national rate of 19.5%.
- According to the American Foundation for Suicide Prevention, in 2022, suicide was the 12th leading cause of death overall in West Virginia.
- Suicide is the second leading cause of death for individuals aged 10 to 34 in West Virginia.
- Brooke County has the highest rate of suicide deaths in the counties served and is higher than the overall state rate.
- 35% of the homeless population in West Virginia can be characterized as Seriously Mentally Ill and 33% as chronic substance abusers.

Drug and Alcohol



Drug and Alcohol

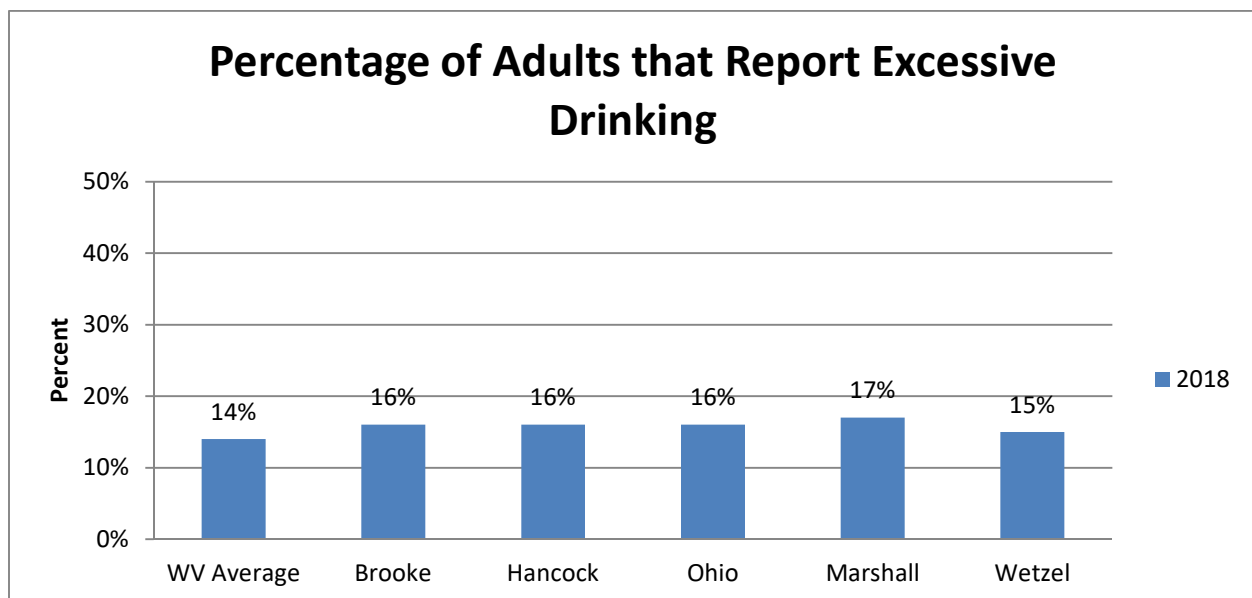
According to the American Society of Addiction Medicine, addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.

Addiction to substances like drugs and alcohol are categorized as substance use disorders and are treated as medical diseases. The data below explores the various addictive substances used locally as well as prevalence, risks, and other related consequences individuals and communities share when addressing addiction.

Alcohol Consumption

Figure 42 illustrates the percentage of adults who reported excessive drinking in the service area and compared to the state average in 2018. All counties in the service area showed a higher percentage compared to the WV state average with Marshall County being the highest at 17%.

Figure 42. Percentage of Adults that Report Excessive Drinking



Source: 2021 County Health Rankings <http://www.countyhealthrankings.org>

Table 11 illustrates the prevalence of alcohol use and alcohol use disorder by age category in West Virginia and Region 1 counties (Brooke, Hancock, Marshall, Ohio, Wetzel) in 2016-2018 versus 2014-2016. Region 1 shows a decline in alcohol use among individuals 12 and older, and among individuals 12 to 20. Alcohol Use Disorder prevalence is also decreased versus prior data for Region 1. Compared to the state averages Region 1 has a greater prevalence of alcohol use and alcohol use disorder across all survey categories except for Alcohol Use Disorder prevalence 2016-2018.

Table 11: Alcohol Use and Alcohol Use Disorder

| | 2014-2016 | | 2016-2018 | |
|--|---------------|----------|---------------|----------|
| | West Virginia | Region 1 | West Virginia | Region 1 |
| Alcohol use in the Past Month among Individuals Aged 12 and Older | 39.8% | 42.8% | 39.1% | 40.6% |
| Alcohol use in the Past Month among Individuals Aged 12 to 20 | 22.5% | 23.8% | 20% | 21.2% |
| Alcohol Use Disorder in the Past Year among Individuals Aged 12 or older | 5% | 5.2% | 4.2% | 4% |

Note: Region 1 is made up of Brooke, Hancock, Marshall, Ohio and Wetzel Counties.

Source: NSDUH 2014-2016, NSDUH 2016-2018

Alcohol Risk and Protective Factors

Table 12 compares alcohol risk and treatment received in West Virginia and Region 1 between 2010-2012 and 2012-2014. This is the most recent data available on the topic. The perception of risk was similar across categories with no trend, however, individuals needing but not receiving treatment for alcohol use increased in 2012-2014 and Region 1 had a higher rate than the state overall.

Table 12: Alcohol Perception of Risk and Protective Factors

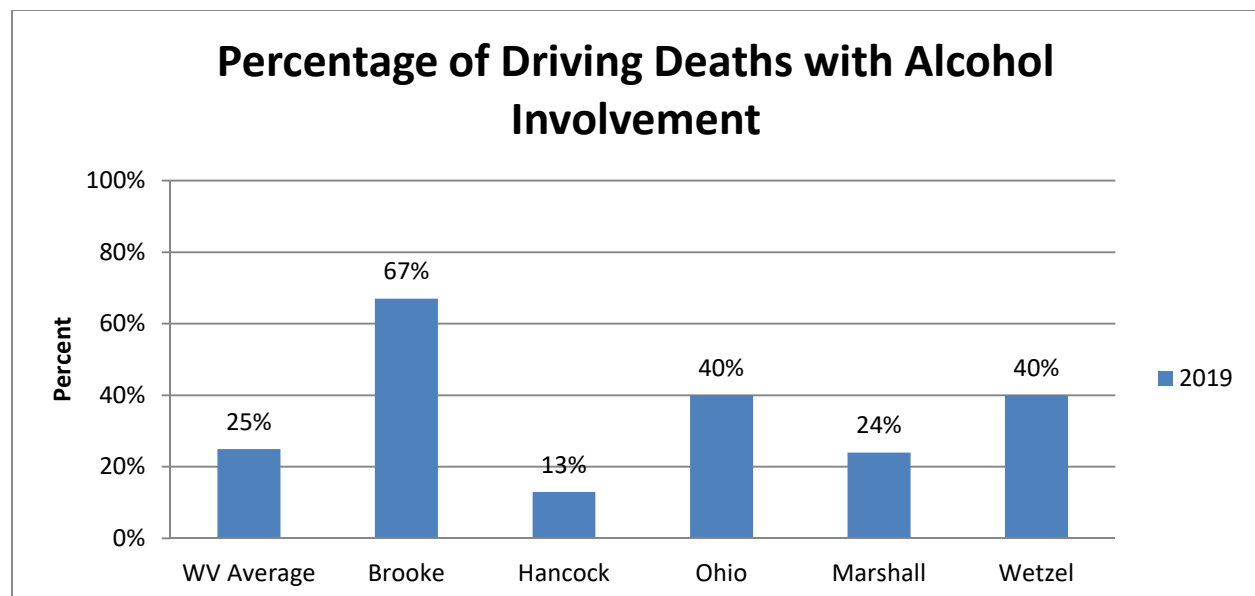
| | 2010-2012 | | 2012-2014 | |
|--|---------------|----------|---------------|----------|
| | West Virginia | Region 1 | West Virginia | Region 1 |
| Perceptions of Great Risk from Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week among Individuals Aged 12 or Older | 41.4% | 41.4% | 41.6% | 41.2% |
| Needing But Not Receiving Treatment for Alcohol Use in the Past Year among Individuals Aged 12 or Older | 5.3% | 5.2% | 5.9% | 6.4% |

Source: NSDUH 2010-2012, NSDUH 2012-2014

Alcohol Related Consequences

Figure 43 illustrates the percentage of driving deaths with alcohol involvement by county using data through 2019. Three of five counties in the service area recorded percentages higher than the state average. Brooke, Ohio, and Wetzel County had the highest percentages reported during this time.

Figure 43. Percentage of Driving Deaths with Alcohol Involvement

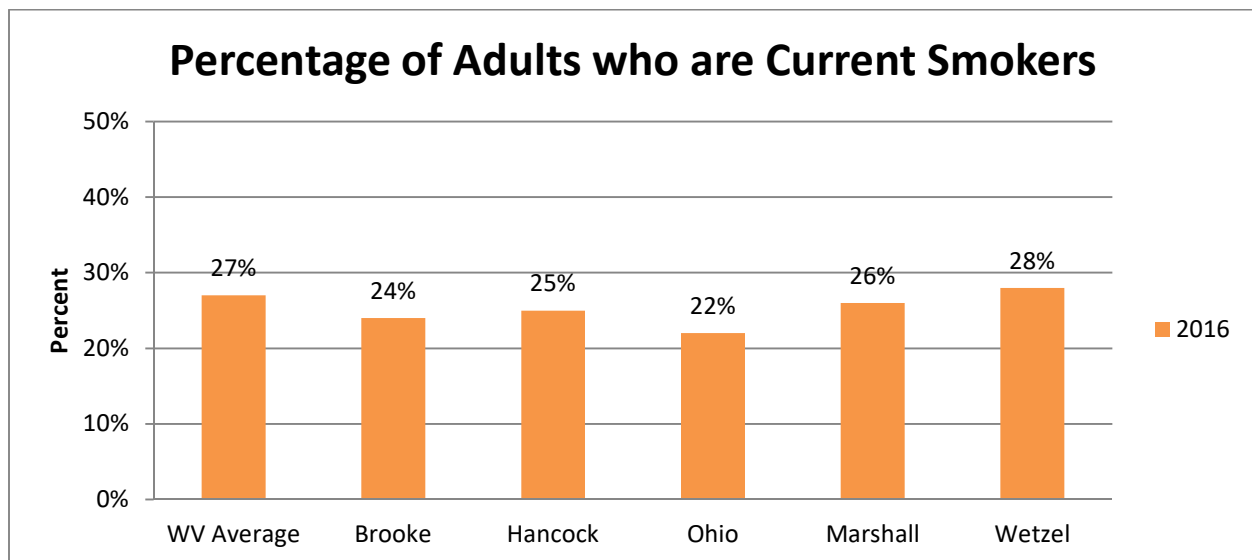


Source: 2021 County Health Rankings <http://www.countyhealthrankings.org>

Tobacco Consumption

Table 13 illustrates the percentage of residents who smoke cigarettes in West Virginia and in Hancock, Brooke, Ohio, Marshall, and Wetzel counties. Of the 5 counties in the service area only Wetzel County showed a higher percentage of adult smokers than the WV state average. Of the 5 counties in the service area Ohio County has the lowest percentage of current adult smokers. According to the WV Behavioral Risk Factor Surveillance System 2018 data, WV ranked # 1 in the US for percentage of adults who currently smoke.

Table 13: Percentage of Adults Who Are Current Smokers



Source: 2021 County Health Rankings <http://www.countyhealthrankings.org>

Figure 44 illustrates percent of tobacco product use and cigarette use in the past month among persons aged 12 or older in Region 1 and West Virginia. Region 1 is now above the overall state average for tobacco product use in the most recent data. Cigarette use in Region 1 has remained flat and is below the WV state average. Comparing 2014-2016 and 2016-2018 tobacco product and cigarette use is decreasing for the state overall but on the rise in Region 1, especially tobacco product use.

Figure 44. Tobacco Product Use in the Past Month among Persons 12 years or Older

| | 2014-2016 | | 2016-2018 | |
|--|---------------|----------|---------------|----------|
| | West Virginia | Region 1 | West Virginia | Region 1 |
| Tobacco Product use in the Past Month among Individuals Aged 12 or Older | 37.6% | 36.5% | 36.8% | 37.3% |
| Cigarette use in the Past Month among Individuals Aged 12 or Older | 29.9% | 28.1% | 29.1% | 28.8% |

Note: Region 1 is made up of Brooke, Hancock, Marshall, Ohio and Wetzel Counties.

Source: NSDUH 2014-2016, NSDUH 2016-2018

Tobacco Risk and Protective Factors

Table 14 illustrates the percentage of residents aged 12 years or older who perceive great risk in smoking one or more packs of cigarettes per day. This is the most recent data available on the topic. Region one is below the West Virginia state average of perceived risk of cigarette smoking during 2010-2012 and 2012-2014. While overall perceived risk of smoking one or more packs of cigarettes per day is on the decline across the state and Region 1 between 2010-2012 and 2012-2014.

Table 14: Tobacco Risk and Protective Factors

| | 2010-2012 | | 2012-2014 | |
|---|---------------|----------|---------------|----------|
| | West Virginia | Region 1 | West Virginia | Region 1 |
| Perceptions of Great Risk of Smoking One or More Packs of Cigarettes per day among Individuals Aged 12 or Older | 66.5% | 66.2% | 63.6% | 63.2% |

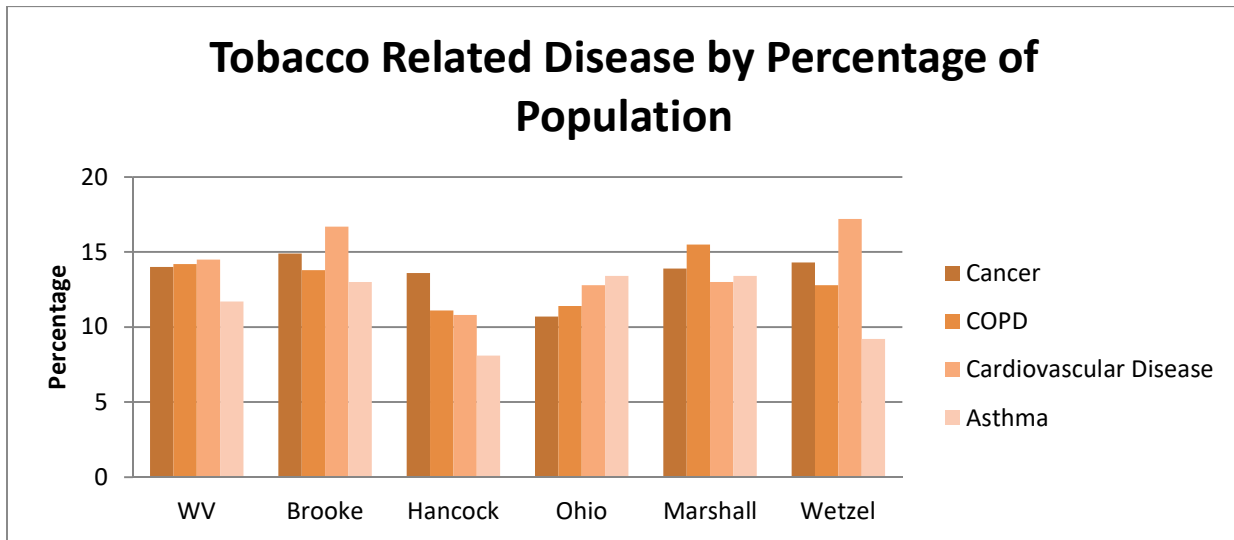
Note: Region 1 is made up of Brooke, Hancock, Marshall, Ohio and Wetzel Counties.

Source: NSDUH 2010-2012, NSDUH 2012-2014

Tobacco Consequences

Figure 45 illustrates prevalence rates of smoking related diseases across the state and service area. Brooke and Wetzel counties had a higher rate of cardiovascular disease than the state overall. None of the counties in the service area were identified as having a statistically higher rate of tobacco related disease than the state overall.

Figure 45. 2018 Tobacco Related Disease by Percentage of Population

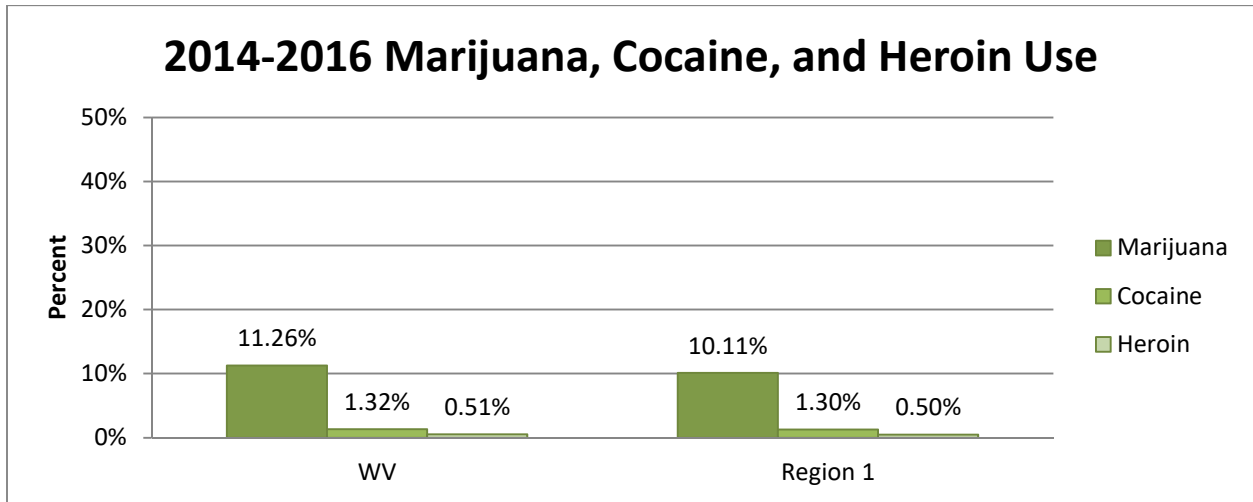


Source: West Virginia Behavioral Risk Factor Surveillance System Report, 2018.

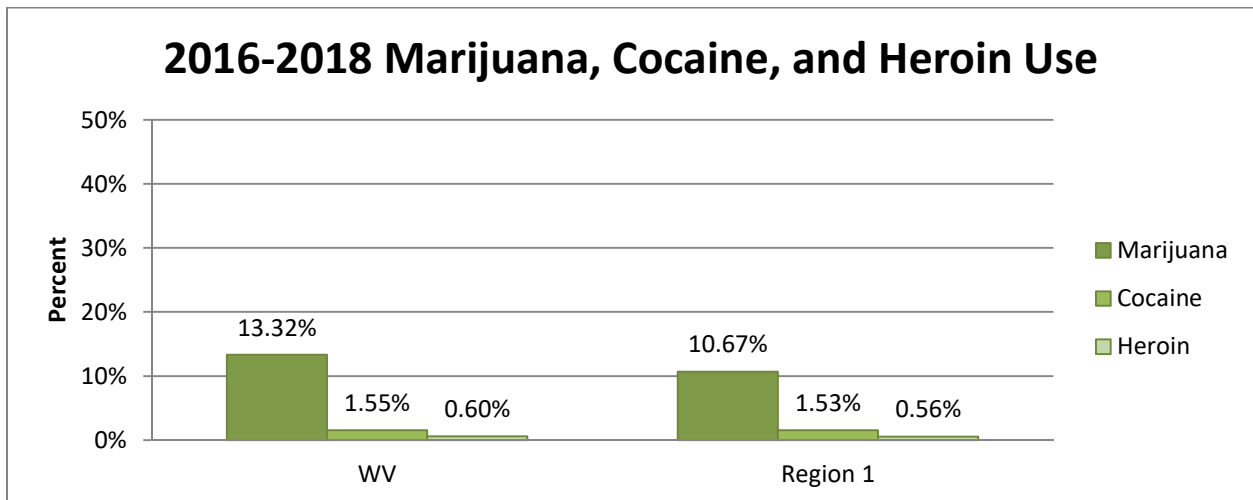
Drug Consumption

Figure 46 shows percentage of marijuana, cocaine and heroin use in the past year among individuals aged 12 and older in West Virginia and Region 1 in 2014-2016 versus 2016-2018. Region 1 (Brooke, Hancock, Marshall, Ohio, Wetzel counties) is similar to the West Virginia state average during this time period across all substances, although slightly lower. All substances showed an increase in usage rate comparing to the previous period. Marijuana has the highest usage rate across the three substances.

Figure 46. Marijuana, Cocaine, and Heroin Use in the Past Year among Individuals Aged 12 and Older 2014-2016 versus 2016-2018



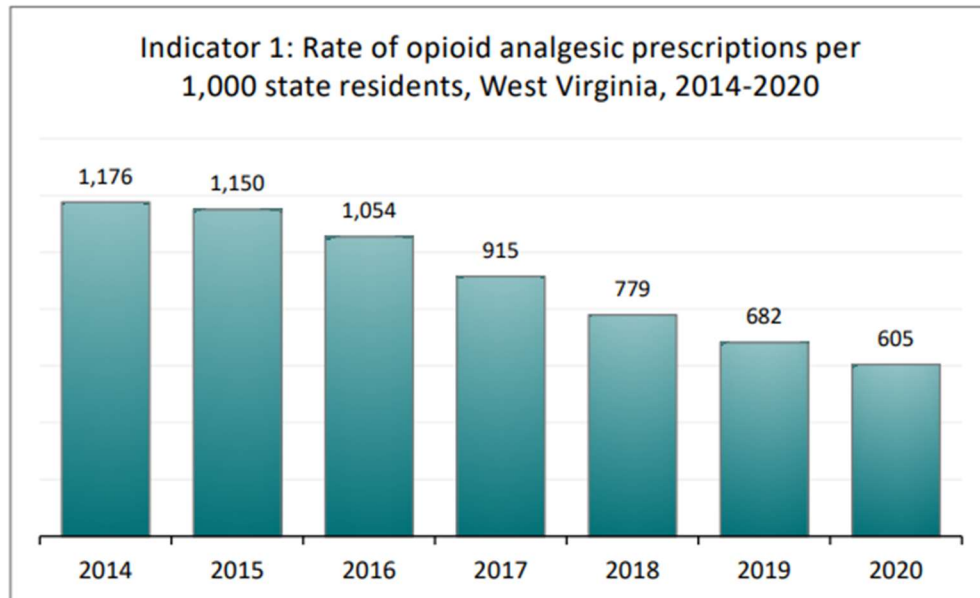
Source: NSDUH 2014, 2015, 2016



Source: NSDUH 2016, 2017, 2018

Table 15 shows the rate of opioid prescriptions per 1,000 West Virginia residents. Since 2014 the rate of opioids prescribes has steadily declined in West Virginia.

Table 15: Rate of opioid analgesic prescriptions per 1,000 residents 2014-2020



This indicator includes all opioid prescriptions that are classified as either II, III, IV or V in the state.

Source: West Virginia Board of Pharmacy 2021

Drug Risk and Protective Factors

Figure 47 illustrates drug risk and protective factors among residents 12 years and older in West Virginia and Region 1 between 2010 and 2014. Perceptions of great risk of smoking marijuana once a month decreased across the state and Region 1. Region 1 recorded lower percentages of illicit drug dependence or abuse than the state. Region 1 also had a lower percentage of individuals needing but not receiving treatment for illicit drug use.

Figure 47. Drug Risk and Protective Factors

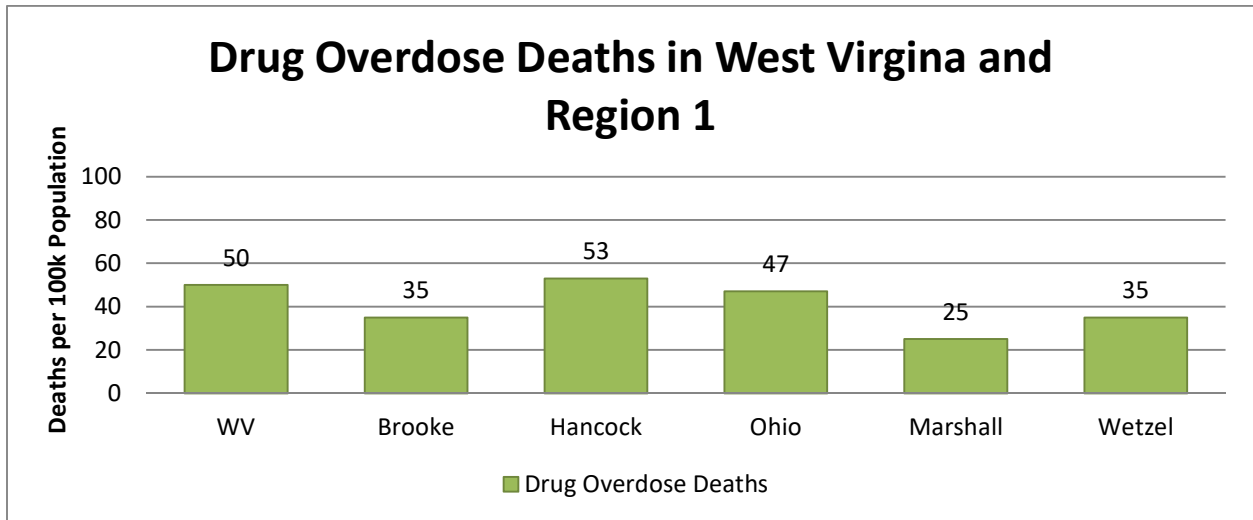
| | 2010-2012 | | 2012-2014 | |
|---|---------------|----------|---------------|----------|
| | West Virginia | Region 1 | West Virginia | Region 1 |
| Perceptions of great risk of smoking marijuana once a month (among persons 12 years or older) | 37.1% | 35.4% | 33.5% | 32.3% |
| Illicit drug dependence or abuse in the past year (among persons 12 years or older) | 2.8% | 2.4% | 2.8% | 2.5% |
| Illicit drug dependence in the past year (among persons 12 years or older) | 2.1% | 1.7% | 2.0% | 1.8% |
| Needing but not receiving treatment for illicit drug use in the past year (among persons 12 years or older) | 2.5% | 2.2% | 2.5% | 2.3% |

Source: NSDUH 2010-2014

Drug Consequences

Figure 48 illustrates number of drug poisoning deaths per 100k population in West Virginia, Brooke, Hancock, Marshall, Ohio and Wetzel Counties between 2017 and 2019. Drug overdose rates in Brooke, Ohio, Marshall, and Wetzel Counties were lower than the state rate but Hancock County was higher than the overall state rate during the same period. Hancock County had the highest drug overdose death rate at 53 per 100,000 populations while Marshall County had the lowest.

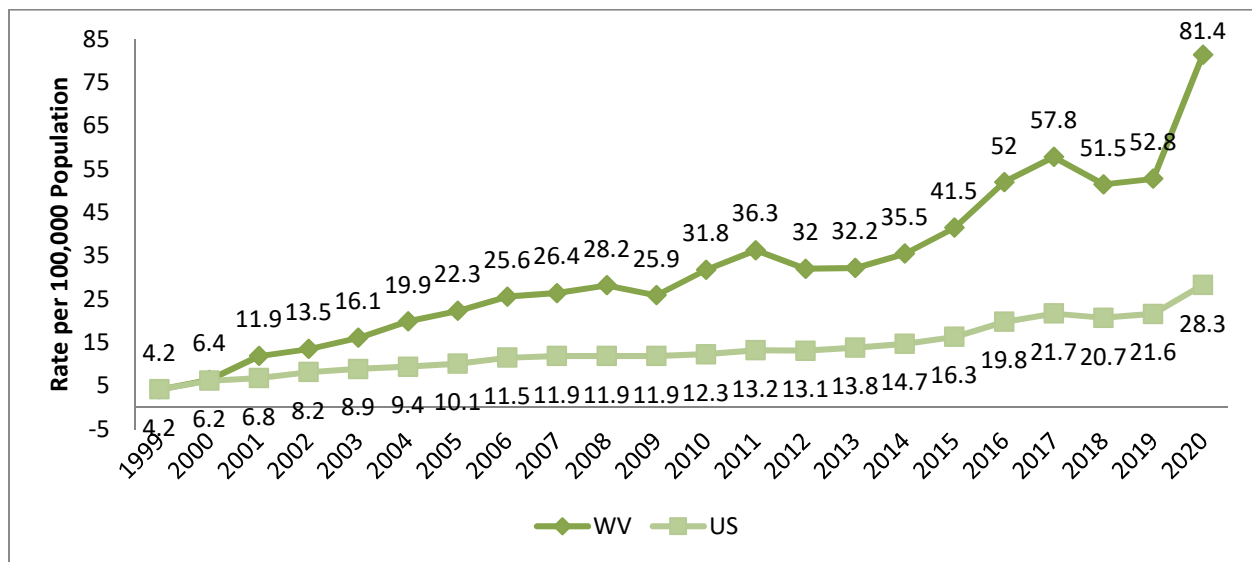
Figure 48. Number of Drug Poisoning Deaths per 100,000 Population in West Virginia and Region 1 from 2017-2019



Source: 2021 County Health Rankings <http://www.countyhealthrankings.org>

Figure 49 Illustrates age-adjusted drug overdose mortality rates in West Virginia and United States. West Virginia had a significantly higher death rate from drug overdose than the rest of the US between 2001-2019. In 2020 West Virginia's death rate spiked to nearly triple the US rate.

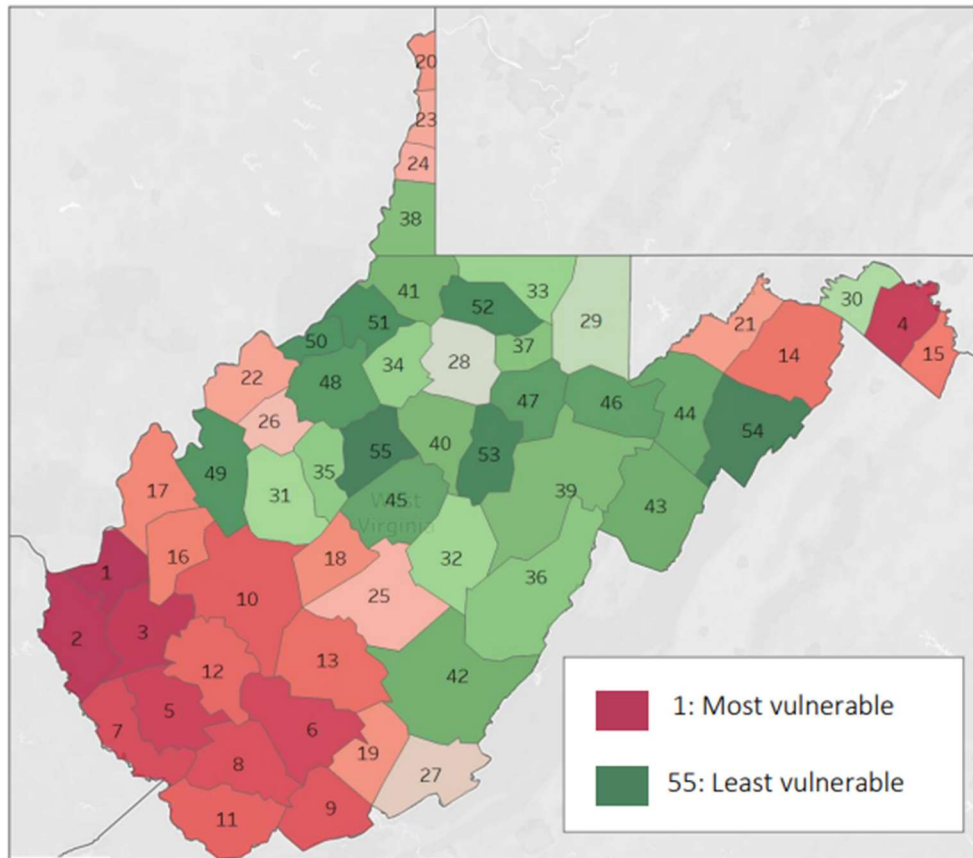
Figure 49. Age-Adjusted Resident Drug Overdose Mortality Rate in West Virginia and United States: 1999-2020



Source: CDC Wonder

Figure 50 illustrates county rankings for vulnerability to all-drug overdose mortality in 2017. Rank 1 being the most vulnerable to Rank 55 being least vulnerable. Hancock, Brooke, and Ohio counties ranked in the more vulnerable half of all counties across the state at 20, 23, and 24 respectively. Hancock county ranked the most vulnerable in Region 1 while Wetzel County ranked the least vulnerable in the region.

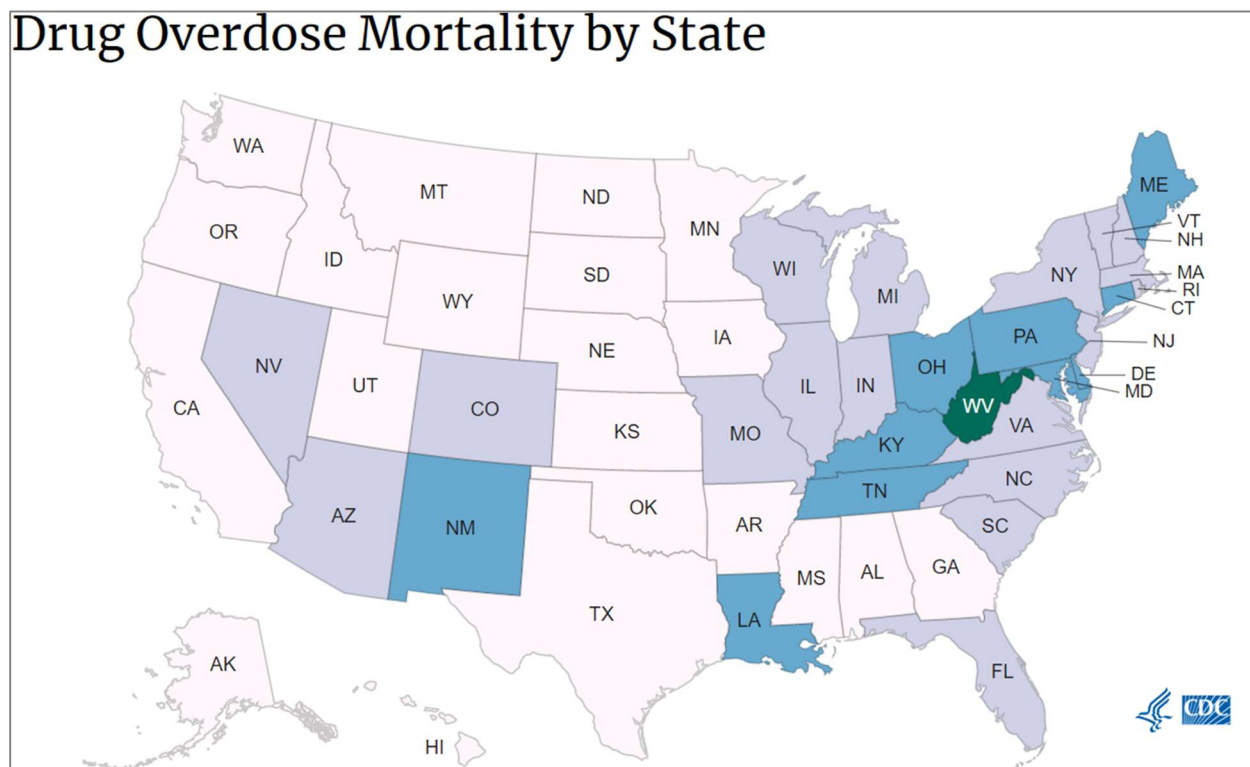
Figure 50. County rankings for vulnerability to all-drug overdose mortality



Source: WV DHHR OD Vulnerability Assessment

Figure 51 illustrates age-adjusted drug overdose death rates by state in the United States in 2020. The 5 states with the highest drug overdose death rates were in order West Virginia (81.4 per 100,000), Kentucky (49.2 per 100,000), Delaware (47.3 per 100,000), Ohio (47.2 per 100,000), and Tennessee (45.6 per 100,000).

Figure 51. Number and Age-adjusted Rates of Drug Overdose Deaths by State, US 2020



Age-Adjusted Death Rates¹

10.3 - < 24.52

38.74 - < 52.96

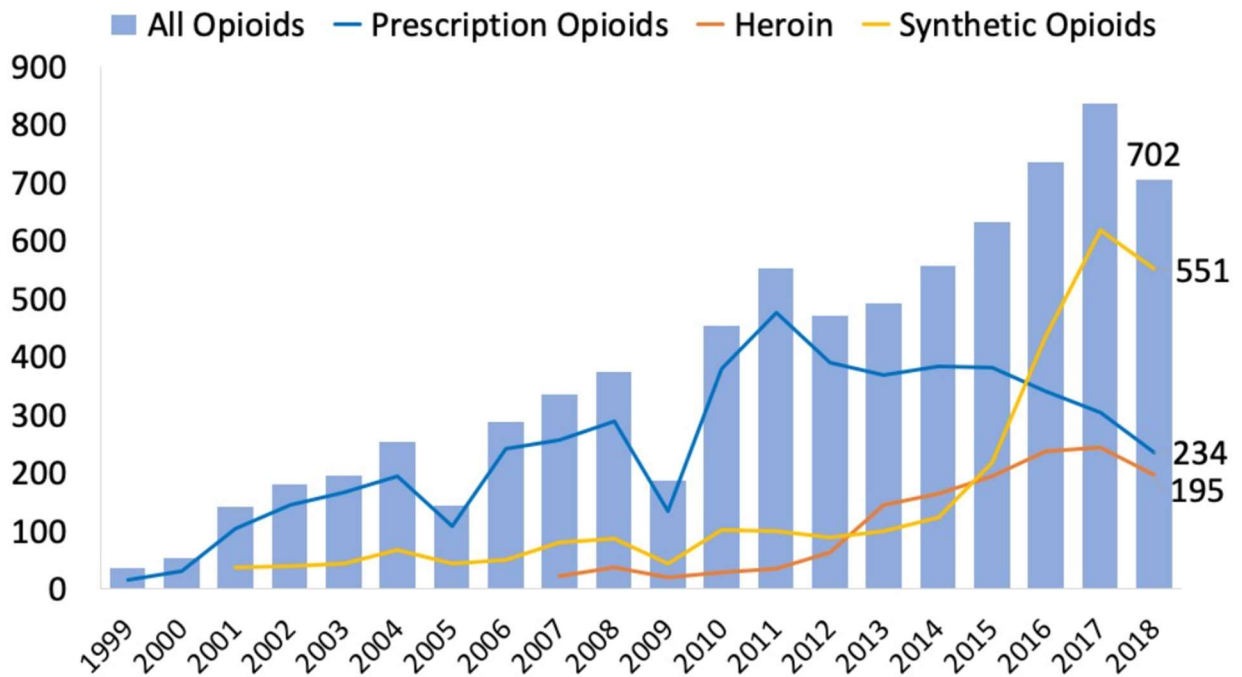
67.18 - 81.4

24.52 - < 38.74

52.96 - < 67.18

Source: Centers for Disease Control and Prevention 2021

Figure 52 Shows number of overdose deaths involving opioids in West Virginia, by category.



Source: CDC Wonder 2020

Figure 53 shows the age-adjusted psychostimulant overdose death rates from highest to lowest in 2015-2016 versus 2017-2018. Psychostimulant drug class includes methamphetamine and prescription stimulants. Cocaine was excluded from this data. West Virginia moved from not in the top 5 to top of the list during this time period.

Figure 53. Age-adjusted psychostimulant overdose rates per 100,000 person years

| Rank | 2015-2016 | | 2017-2018 | |
|------|------------|------|---------------|-------|
| | State | Rate | State | Rate |
| 1 | Nevada | 6.65 | West Virginia | 16.47 |
| 2 | New Mexico | 6.56 | New Mexico | 9.55 |
| 3 | Hawaii | 6.35 | Nevada | 8.92 |
| 4 | Oklahoma | 6.2 | Hawaii | 8.62 |
| 5 | Arizona | 5.9 | Arizona | 8.44 |

Source: CDC Wonder 2020

Focus Groups Input

Locally, focus group participants identified substance abuse as one of the issues that most impacts the behavioral health of the community, though it was commented that increased capacity and service availability has improved in recent years to better meet the growing need. Across the two focus groups conducted for this study, substance abuse was ranked near the top as a community problem and substance use treatment and substance use recovery services were ranked highly as behavioral health related needs. There is a lack of access to needed addiction treatment services in rural parts of the service area made worse by inadequate transportation resources. Stigma toward substance use disorders, harm reduction programs like syringe exchanges and medication-assisted treatment was also identified as a major barrier for people who want to get help. Additionally, a lack of sober living facilities and affordable housing for people in recovery was identified as a problem. The specific focus group comments included:

- Lack of affordable housing/sober living facilities
- Need for more recovery support groups
- Stigma is a major barrier stopping people from getting help
- Methamphetamine use on the rise amongst those in treatment for opioid use disorder
- Lack of transportation to needed substance abuse services in rural areas

Stakeholder Interview Input

Stakeholders participating in individual interviews echoed similar sentiment to the discussions from the focus groups. Individual stakeholders ranked substance abuse as the top problem affecting the community across all surveys. Stakeholder interview surveys ranked substance abuse treatment as the number 1 need and substance abuse recovery services as the number 2 need across all surveys. Stakeholders recognized staffing needs as a major barrier to providing needed services as well a lack of transportation resources in rural areas. Stakeholder comments identified COVID-19 as a major contributor to the increase in substance use in the community due to various factors including isolation, increased anxiety and depression. A portion of stakeholders noted there were not enough options for substance abuse treatment available locally, while another portion believed the treatment options were available but weren't being utilized due to poor interagency communication, lack of information/education to the public, stigma, and other barriers such as lack of access. Specific stakeholder comments included:

- Substance abuse and addiction is the most significant problem in the community
- Some options are available but many people still lack access to evidence-based treatment options
- Lack of communication between treatment agencies present challenges for coordinating care
- Stigma and transportation present major barriers to treatment

Drug & Alcohol Conclusions

Substance use is on the rise nationally as well as state-wide and locally. The tragic consequences of this trend are shown in the data available. Though the data may be lagging, our local focus groups and stakeholders agree that substance use is a major problem for our communities and the recent global events with the pandemic have only made the problem worse over the last 2 years. In our state, West Virginia has experienced a devastating spike in overdose mortality rates in no small part due to the surge of synthetic opioids like fentanyl at a time when substance use is on the rise. This confluence of factors has resulted in West Virginia again leading the nation in overdose death mortality rates. Methamphetamine use has also seen dramatic recent increase in our state according to the data and locally our stakeholders have identified methamphetamine prevalence as equal in challenge to what we face with the opioid epidemic. While new treatment and recovery organizations have sprung up in response, there still remains challenges and barriers to providing lifesaving evidence-based services to our communities.

Local leaders and key stakeholders indicate there is a need for increased access to preventative education, harm reduction programs, and anti-stigma messaging, as well as improved interagency communication, and post-acute support services like recovery housing/affordable housing.

Overall observations and findings from the data include:

- In 2018 all counties in the service area showed a higher percentage of adults who report excessive alcohol consumption compared to the WV state average with Marshall County being the highest at 17%.
- Comparing 2014-2016 to 2016-2018 Region 1 shows a decline in alcohol use among individuals 12 and older, and among individuals 12 to 20. Alcohol Use Disorder prevalence is also decreased versus prior data for Region 1.
- Three of five counties in Region 1 recorded higher percentages of driving deaths with alcohol involvement than the WV state average.
- WV ranked # 1 in the US for percentage of adults who currently smoke and of the 5 counties in Region 1 Wetzel County showed a higher percentage of adult smokers than the WV state average.
- Comparing marijuana, cocaine, and heroin use 2014-2016 vs 2016-2018, Region 1 is comparable to the West Virginia state average during this time period across all substances although slightly lower. All three substances showed an increase in usage rate compared to the previous period.

- West Virginia had a significantly higher death rate from drug overdose than the rest of the US between 2001-2019 and in 2020 West Virginia's death rate spiked to nearly triple the US rate.
- In Region 1 Hancock, Brooke, and Ohio counties ranked in the "more vulnerable to overdose" compared across all state counties at rank 20, 23, and 24 respectively.
- Comparing 2015-2016 versus 2017-2018 West Virginia rose from not in the top 5 to number 1 on the list of states for psychostimulant overdose rates.
- Percentage of individuals aged 12 or older needing but not receiving treatment for alcohol use in the past year has increased in Region 1 between 2012 and 2016.
- Synthetic opioids involved in overdose deaths has become significantly more prevalent than heroin and prescription opioids in the past 4 years through 2018.

Environmental Factors and Indicators Impacting Mental Health and Physical Health



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.

Health Related Quality of Life Indicators

There are a number of indicators that can be measured and tracked to compare quality of life across different geographic areas. These include the following measures that are widely used in public health.

Length of Life measures years of potential lost life before age 75 per 100,000 population. Ranking is based on data from the National Center for Health Statistics Mortality files.

Quality of Life is a reflection of data reported from the Behavioral Risk Factor Surveillance System.

Health Behaviors draws upon data from the National Center for Health Statistice, Behavioral Risk Factor Surveillance System, Centers for Disease Control, US Census, and USDA to provide a summary measure of tobacco use, diet and exercise patterns, alcohol and drug use, and sexual activity.

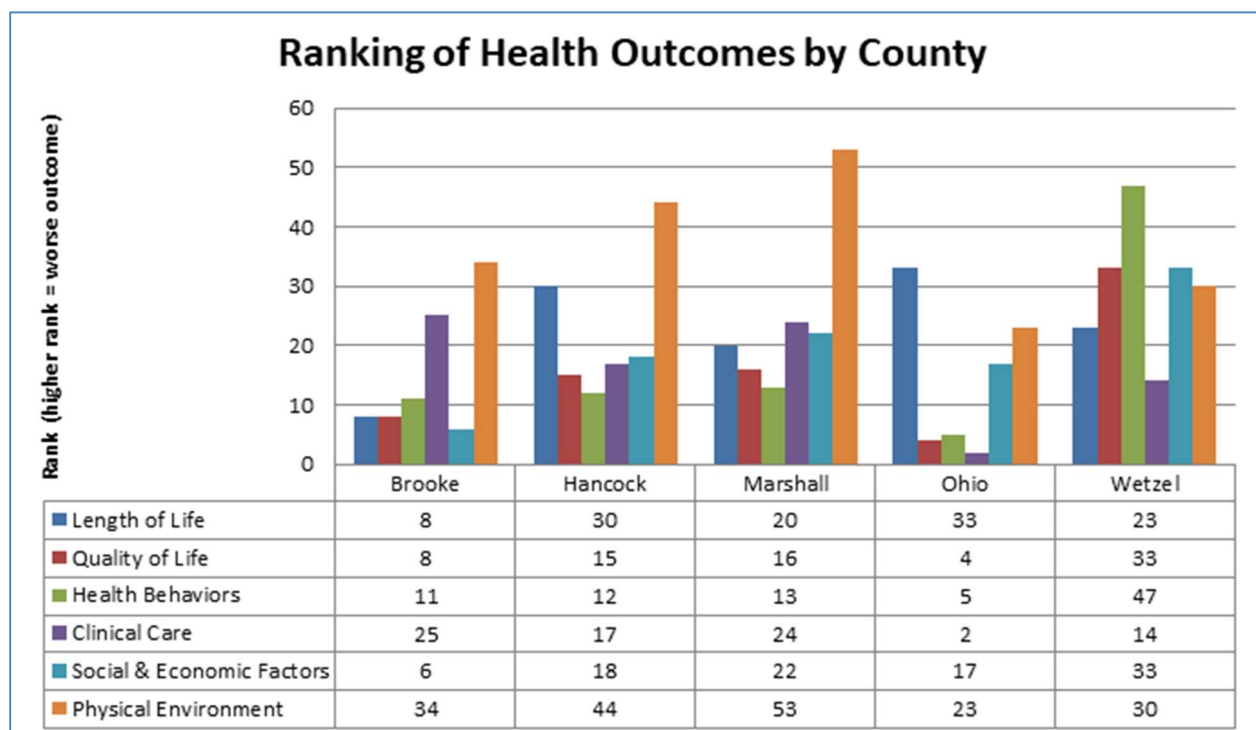
Clinical Care weighs factors that include health insurance coverage, the ratio of population to primary care physicians / dentists / mental health providers, and screening / monitoring for healthcare problems.

Social and Economic Environment score incorporates factors including education, employment, income, family and social support, and community safety.

Physical Environment reflects health related concerns about air pollution, drinking water and severe housing problems.

Figure 54 illustrates ranking of health outcomes by county in the service area. The best rankings in each individual category are: Length of Life – Brooke County; Quality of Life -- Ohio County; Health Behaviors – Ohio County; Clinical Care – Ohio County; Social & Economic Factors – Brooke County; and Physical Environment – Ohio County. The highest (worst) rankings in each individual category are as follows: Length of Life – Ohio County; Quality of Life -- Wetzel County; Health Behaviors – Wetzel County; Clinical Care – Brooke County; Social & Economic Factors – Wetzel County; and Physical Environment – Marshall County.

Figure 54. Health Related Quality of Life Indicators



Source: www.countyhealthrankings.org, 2022 County Health Rankings National Data

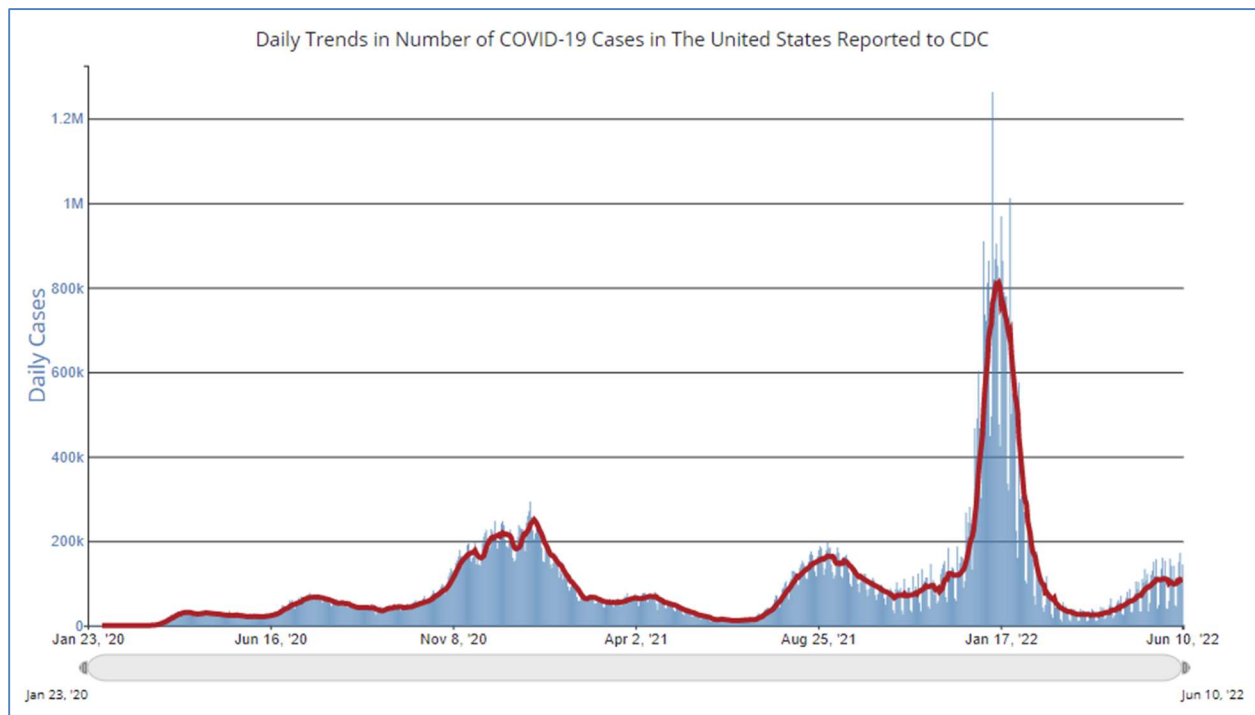
Implications of COVID-19 for Mental Health and Substance Use

In March, 2020 the World Health Organization characterized COVID-19 as a pandemic. When the incidence of infections increased, businesses shut down, resulting in job losses and related economic hardships, school closures, and parents juggling work at home with caring for or homeschooling children. With increasing numbers of infections and deaths, public health authorities recommended widespread restrictions on social gatherings and encouraged people to stay at home and to avoid mixing with people outside of their household. These practices led to an increase in social isolation and feelings of loneliness.

Isolation and job loss have long been linked to poor mental health outcomes. The experience of loneliness has been associated with reduced lifespan and greater risk of mental and physical illnesses.

Early 2020 data shows that drug overdose deaths were particularly pronounced from March to May 2020, coinciding with the start of pandemic-related lockdowns.

Figure 55. Daily Trends in Number of COVID-19 Cases, United States

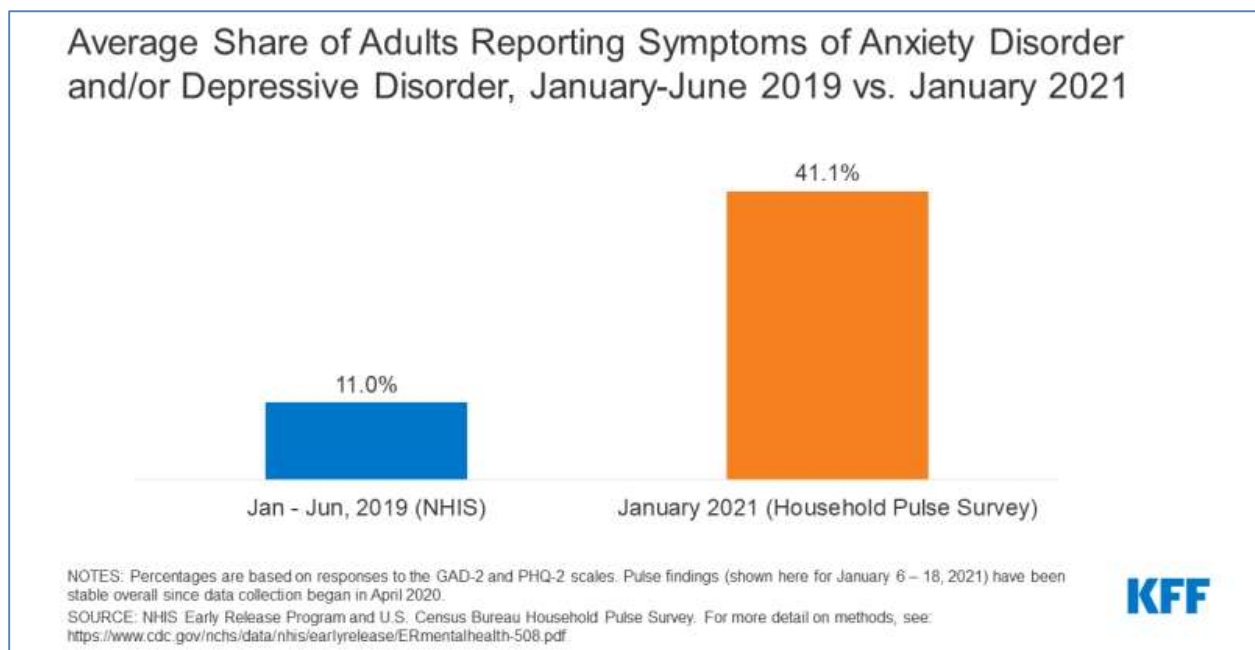


Source: <https://covid.cdc.gov/covid-data-tracker>

The COVID-19 pandemic and the resulting economic recession have negatively affected many people's mental health and created new barriers for people already suffering from mental illness and substance use disorders. During the pandemic, about 4 in 10 adults in the U.S. reported symptoms of anxiety or depressive disorder, up from one in ten adults who reported these symptoms from January to June 2019 (Figure 56).

A Kaiser Family Foundation Health Tracking Poll from July 2020 found that many adults reported specific negative impacts on their mental health and well-being, such as difficulty sleeping (36%) or eating (32%), increases in alcohol consumption or substance use (12%), and worsening chronic conditions (12%), due to worry and stress over the coronavirus.

Figure 56. Average Share of Adults Reporting Symptoms of Anxiety Disorder and/or Depressive Disorder



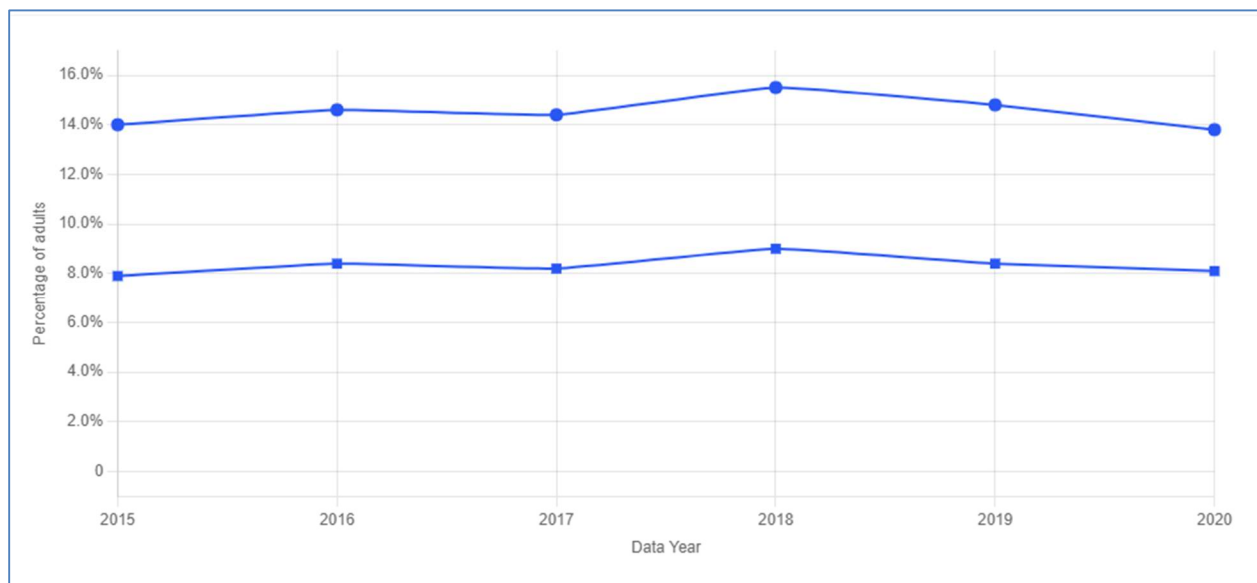
Source: kff.org, Kaiser Family Foundation, "How the COVID-19 Pandemic is Affecting People's Mental Health and Substance Use"

Cardiovascular Diseases

Heart disease and stroke are the US's leading and 5th leading causes of death, respectively. According to the Centers for Disease Control and Prevention, heart disease causes one of every four deaths in the United States. Stroke kills one of every twenty Americans. An estimated 92.1 million adults have at least one type of cardiovascular disease in the United States. Cardiovascular disease is influenced by such modifiable risk factors as smoking, hypertension, high cholesterol, diabetes, obesity, physical inactivity, poor diet, and excessive alcohol use.

In 2020, West Virginia was ranked as the least healthy state with regard to cardiovascular disease in adults. In 2020, according to CDC data, West Virginia ranked tenth highest of the 50 states in death rates due to cardiovascular disease.

Figure 57. Cardiovascular Diseases, West Virginia, United States



West Virginia ■

United States ●

Source: www.countyhealthrankings.org, 2022 County Health Rankings National Data

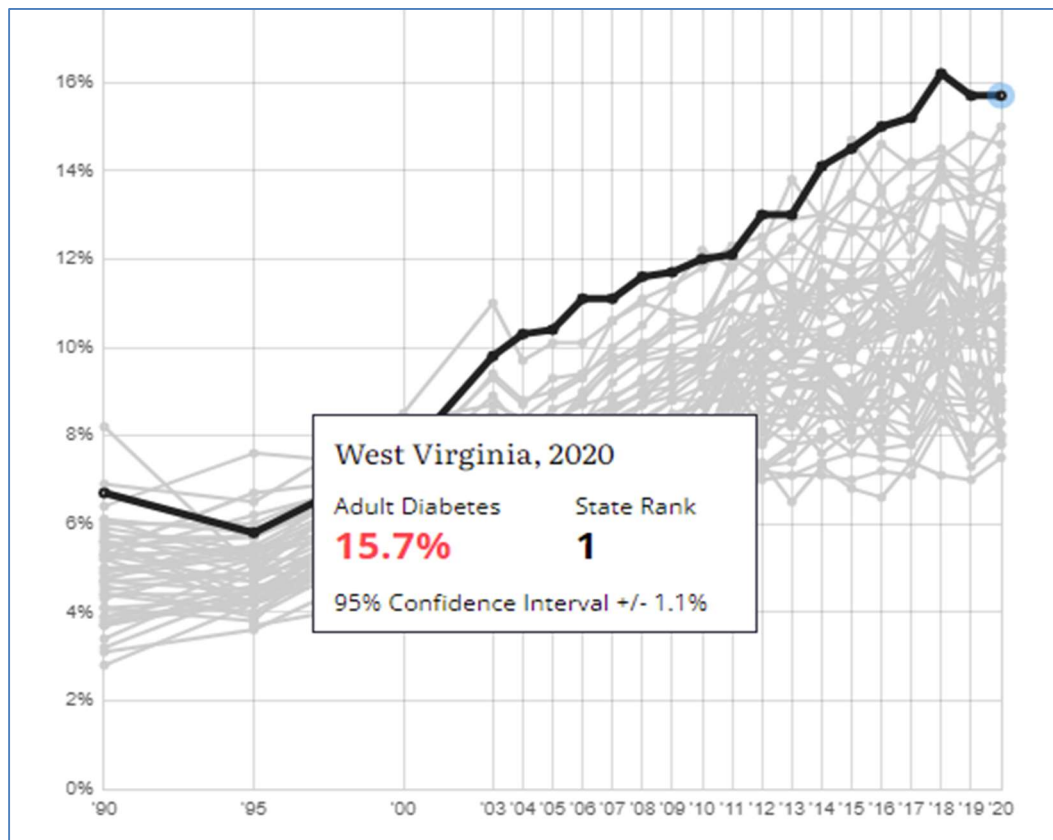
Diabetes

Diabetes was the 8th leading cause of death in the United States in 2020 and contributes to heart disease and stroke, the leading and 5th-leading causes of death, respectively. According to the Centers for Disease Control and Prevention, 11.3% of the United States population has diabetes.

Studies show that onset of type 2 diabetes can be largely prevented through losing weight, increasing physical activity, and improving dietary choices. Type 2 diabetes is associated with numerous modifiable behaviors such as smoking, obesity, physical inactivity, and poor diet; thus, it is an ideal target for prevention.

In 2020, West Virginia ranked highest of the 50 states in the percentage of adults with diabetes.

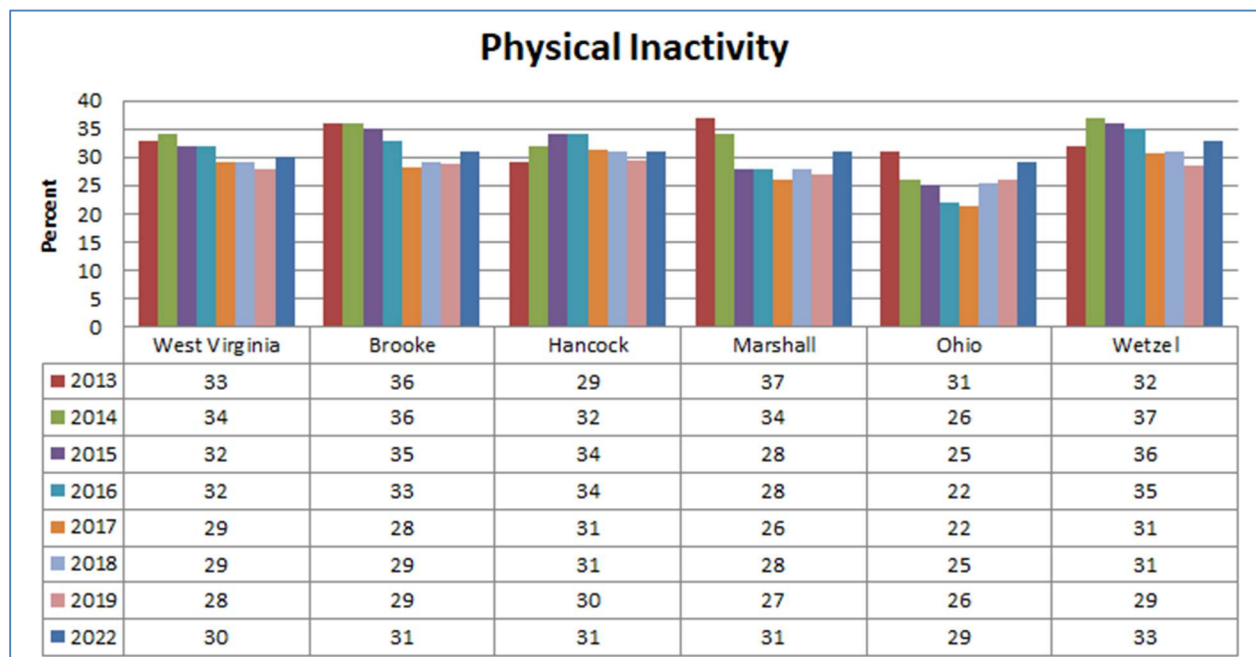
Figure 58 illustrates the percent of adults in West Virginia with diabetes. In 2020, 15.7% of West Virginia residents report being told they have diabetes as compared to the national average at 11.3%.



Source:
Centers for
Disease
Control and
Prevention

Figure 59 illustrates the percentage of adults reported as physically inactive in Brooke, Hancock, Marshall, Ohio and Wetzel counties from 2013-2022. In 2020, West Virginia was one of only 5 states having more than 30% of adults who reported doing no physical activity or exercise in the last 30 days. Adults in Brooke, Hancock, Marshall and Wetzel counties exceed the overall State of West Virginia 2022 inactivity percentage of 30%. Residents of Ohio County showed the lowest levels of physical inactivity with 29% in 2022.

Figure 59. Percentage of Adults Reported as Physically Inactive



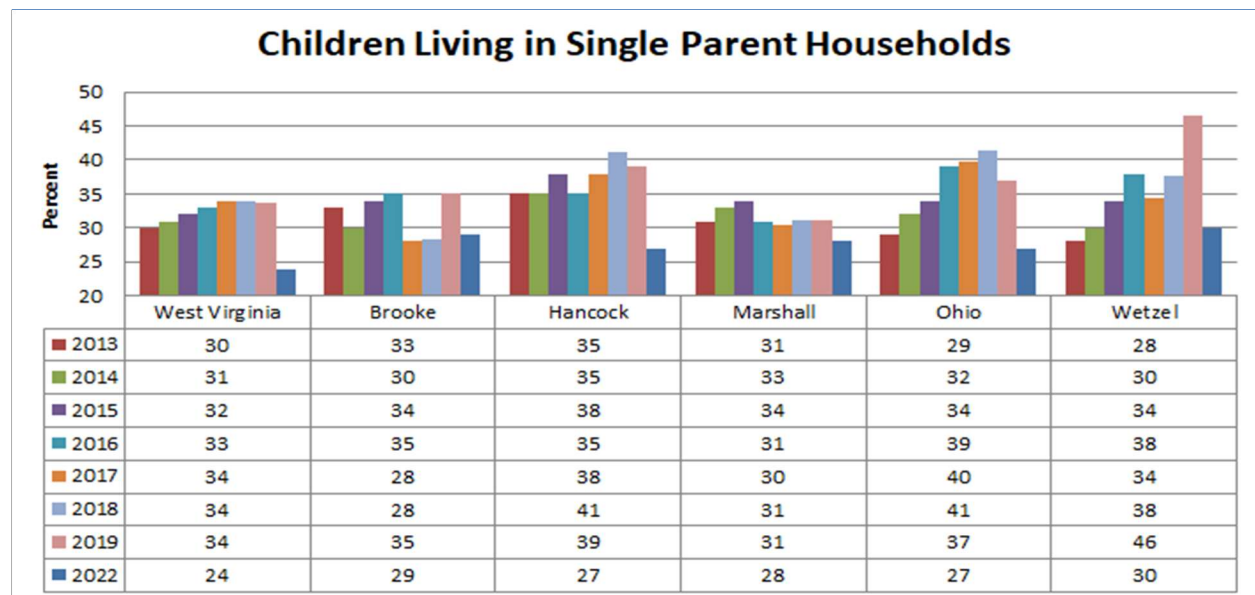
<http://www.countyhealthrankings.org/>

Single Parent Households

Researchers have determined that children growing up with single parents have an elevated risk of cognitive, social, and emotional problems.

Figure 60 illustrates the percentage of children living in single parent households from 2013 to 2022 in West Virginia, Brooke, Hancock, Marshall, Ohio and Wetzel counties. During this period, there was a decrease in the overall state rate from 30% to 24%. All counties in the service area showed a reduction in the percentage of children living in single parent households between 2019 and 2022. The largest decrease occurred in Wetzel County (16%) while the smallest percentage decrease occurred in Marshall County (3%).

Figure 60. Percentage of Children Living in Single Parent Households

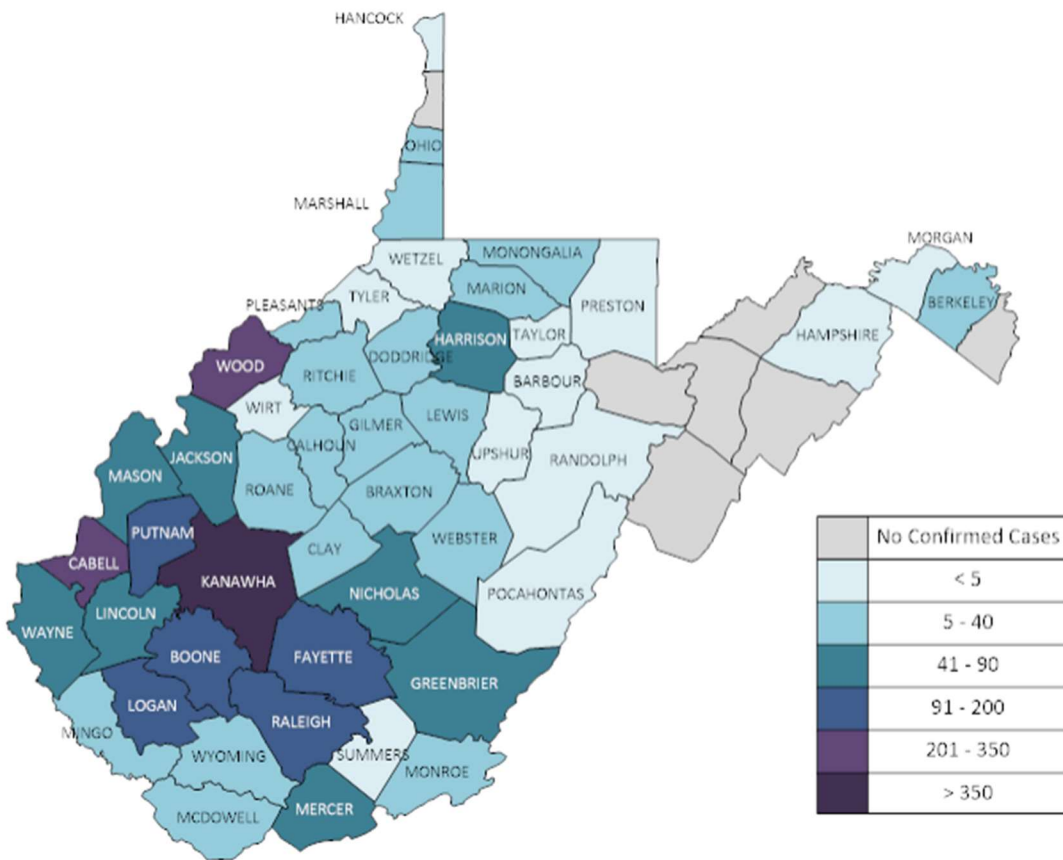


Source: countyhealthrankings.org

Hepatitis

From March 2018 to August 2020, the West Virginia Bureau for Public Health reported an increase in the number of confirmed cases of acute hepatitis A virus. This increase in cases was primarily among injection and non-injection drug users, homeless or mobile individuals, and those who had been recently incarcerated. Viral sequencing linked cases from Kentucky and California. As of August 24, 2020 the number of cases of acute hepatitis A returned to baseline rates and the outbreak was closed.

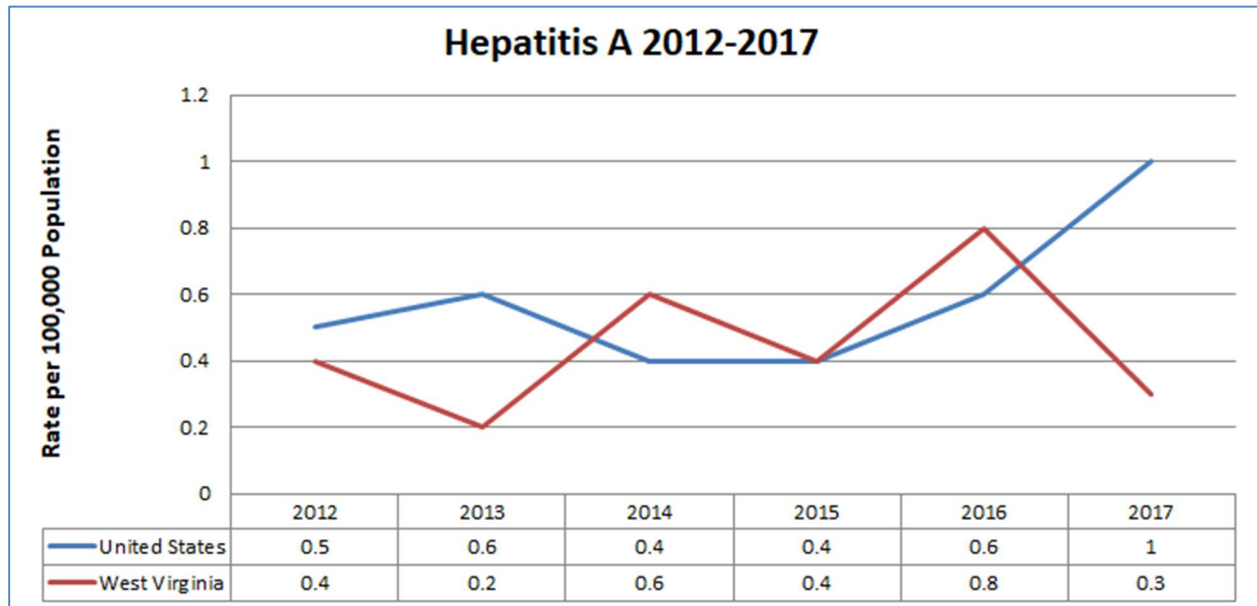
Figure 61. West Virginia Hepatitis A Outbreak Cases as of August 2020



Source: WV Department of Health and Human Resources, Bureau for Public Health, Office of Epidemiology and Prevention Services

Figure 62. Hepatitis A 2012-2017, West Virginia and United States

Hepatitis A confirmed cases have been trending upward in the United States while trending downward in West Virginia specifically.



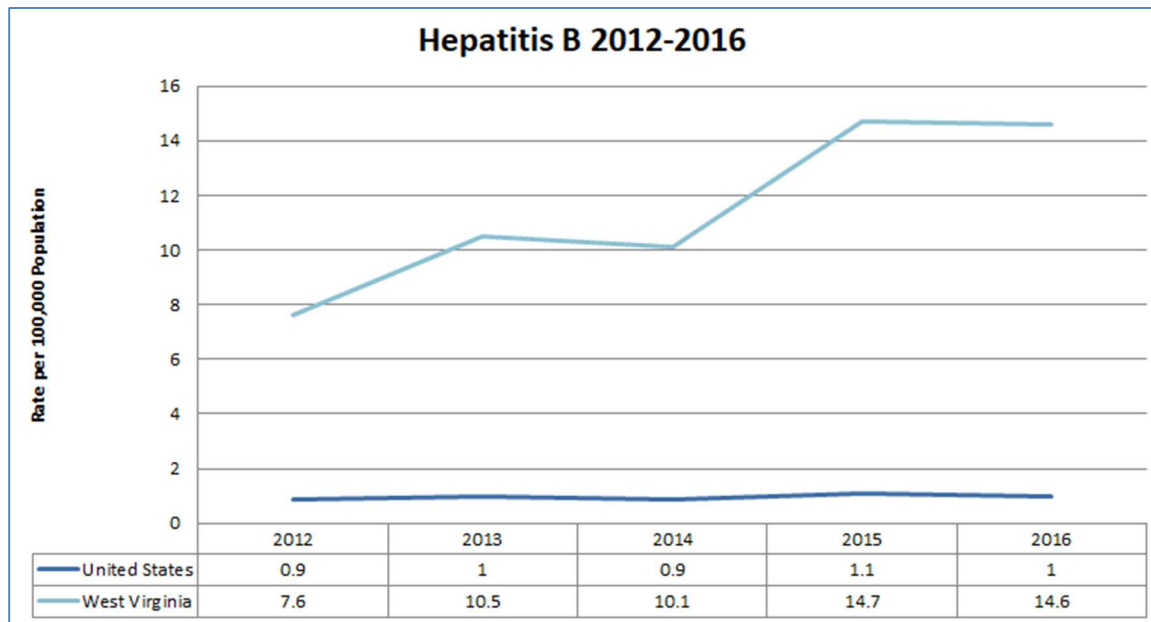
Source: CDC, Viral Hepatitis, Statistics & Surveillance, Viral Hepatitis Surveillance – United States, 2017 Surveillance

Figure 63. Hepatitis B 2012 – 2016, West Virginia and United States

Hepatitis B is a liver infection caused by the Hepatitis B virus (HBV). It is transmitted when blood, semen, or another body fluid from a person infected with the Hepatitis B virus enters the body of someone who is not infected. This can happen through sexual contact; sharing needles, syringes, or other drug-injection equipment, or from mother to baby at birth.

Although Hepatitis B rates have been declining nationally since 2006, HBV rates have been rising in West Virginia. By a significant margin, the two most prominent risks by percentage of cases were injection drug use and use of street drugs. According to the Centers for Disease Control and Prevention, in the United States in 2013, the incidence of acute Hepatitis B was the lowest ever recorded; however, in West Virginia, rates are many times the national average and have been increasing steeply since 2013.

According to the West Virginia Department of Health and Human Resources, Bureau for Public Health, there are epidemic levels of Hepatitis B infection in West Virginia. In 2015, West Virginia had the highest rate of Hepatitis B in the United States at 14.7 per 100,000 population.



Source: Centers for Disease Control and Prevention

Environmental Factors and Indicators Impacting Mental and Physical Health Conclusions

An examination of various environmental factors for West Virginia shows that the health of our state population is below that of the rest of the nation in many major categories. Many West Virginians report themselves as having fair or poor health and the data reviewed support this.

Specific findings in the data include:

- In 2018, West Virginia ranked eighth highest nationally in annual deaths due to cardiovascular disease.
- In 2020 West Virginia was ranked as the least healthy state with regard to cardiovascular disease in adults.
- In 2020, West Virginia continued to rank highest nationally in the percentage of adults with diabetes.
- After rising since 2012, Hepatitis A rates in West Virginia are declining.
- West Virginia had the highest rate of Hepatitis B in the United States in 2015.
- In West Virginia, Hepatitis infection rates are steadily growing while the rate is decreasing across the rest of the country.
- Increasing Hepatitis B rates can be attributed to a corresponding increase in injected street drug use in West Virginia over the past several years.
- In 2020, West Virginia was ranked with 5 other states having more that 30% of adults reporting physical inactivity.
- Approximately 1 in 4 children in West Virginia live in single-parent households. This rate decreased since 2019 after steadily increasing since 2013. All of the service area counties are above the State rate of 24% for the percentage of children living in a single parent household.

Conclusions



Conclusions

Access to Care Conclusions

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

- In West Virginia, between 2012 and 2020, the percentage of West Virginia residents who lacked health insurance coverage dropped significantly.
- During this same time frame, 2012 to 2020, the percentage West Virginia residents receiving Medicaid coverage increased by nearly 40%.
- In West Virginia, between 2012 and 2020, the percentage of adults who needed to see a doctor but could not due to cost dropped from 19.1 to 11.1, which we believe is due to implementation of the Affordable Care Act and Medicaid expansion.
- Between 2007 and 2020, the percentage of adults with no health care provider declined from 23.3% to 15.4%, which surpasses the Healthy People 2020 Goal of 16.1%.
- Hancock, Marshall, Ohio and Wetzel Counties are all designated as medically underserved areas. Wetzel and Hancock Counties are designated shortage areas for Primary Care, Dental and Mental Health Services. Marshall and Ohio Counties are also designated as shortage areas for Dental and Mental Health Care.
- Following a steady increase between 2013 and 2017, utilization of Crisis Stabilization services has decreased over the past 5 fiscal years.
- During fiscal years 2014 through 2017, utilization of Northwood psychiatric/medication management services remained relatively consistent. There was a decrease in outpatient medication management services related to COVID restrictions in fiscal year 2020, with service volume resuming the following year.
- Utilization of Group and Individual Outpatient Professional services has increased over the fiscal years from 2014 through 2017. Between 2020 and 2021 both group and individual professional service utilization is trending upward.
- Northwood's professional therapy services for individuals with substance use disorders have been a significant component of this increase.

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:

- In 2021, West Virginia ranked worst of the 50 states in the number of poor mental health days in the past 30.
- The number of Poor Mental Health Days in West Virginia and in the individual service area counties is highest in 2022 than at any time in the last ten years.
- In 2022, the number of poor mental health days out of the past 30 was slightly lower than the state rate for all counties in the service area except for Wetzel County.
- Adults in Brooke and Ohio Counties have the best ratings of poor or fair health, compared to other counties in the service area, and all counties in the service area are much better than West Virginia overall.
- Based on 2014 data, SAMHSA reported that, of the 50 states, West Virginia ranked in the top three for the highest percentage of persons with Any Mental Illness.
- Based on 2014 data, SAMHSA reported that West Virginia ranked highest of the 50 states in the percentage of persons with Serious Mental Illness.
- The 26.4% rate of Depression in West Virginia is higher than the national rate of 19.5%.
- According to the American Foundation for Suicide Prevention, in 2022, suicide was the 12th leading cause of death overall in West Virginia.
- Suicide is the second leading cause of death for individuals aged 10 to 34 in West Virginia.
- Brooke County has the highest rate of suicide deaths in the counties served and is higher than the overall state rate.
- 35% of the homeless population in West Virginia can be characterized as Seriously Mentally Ill and 33% as chronic substance abusers.

Drug & Alcohol Conclusions

Substance use is on the rise nationally as well as state-wide and locally. The tragic consequences of this trend are shown in the data available. Though the data may be lagging, our local focus groups and stakeholders agree that substance use is a major problem for our communities and the recent global events with the pandemic have only made the problem worse over the last 2 years. In our state, West Virginia has experienced a devastating spike in overdose mortality rates in no small part due to the surge of synthetic opioids like fentanyl at a time when substance use is on the rise. This confluence of factors has resulted in West Virginia again leading the nation in overdose death mortality rates. Methamphetamine use has also seen dramatic recent increase in our state according to the data and locally our stakeholders have identified methamphetamine prevalence as equal in challenge to what we face with the opioid epidemic. While new treatment and recovery organizations have sprung up in response, there still remains challenges and barriers to providing lifesaving evidence-based services to our communities.

Local leaders and key stakeholders indicate there is a need for increased access to preventative education, harm reduction programs, and anti-stigma messaging, as well as improved interagency communication, and post-acute support services like recovery housing/affordable housing.

Overall observations and findings from the data include:

- In 2018 all counties in the service area showed a higher percentage of adults who report excessive alcohol consumption compared to the WV state average with Marshall County being the highest at 17%.
- Comparing 2014-2016 to 2016-2018 Region 1 shows a decline in alcohol use among individuals 12 and older, and among individuals 12 to 20. Alcohol Use Disorder prevalence is also decreased versus prior data for Region 1.
- Three of five counties in Region 1 recorded higher percentages of driving deaths with alcohol involvement than the WV state average.
- WV ranked #1 in the U.S. for percentage of adults who currently smoke and of the 5 counties in Region 1 Wetzel County showed a higher percentage of adult smokers than the WV state average.
- Comparing marijuana, cocaine, and heroin use 2014-2016 vs 2016-2018, Region 1 is comparable to the West Virginia state average during this time period across all substances although slightly lower. All three substances showed an increase in usage rate compared to the previous period.
- West Virginia had a significantly higher death rate from drug overdose than the rest of the US between 2001-2019 and in 2020 West Virginia's death rate spiked to nearly triple the US rate.

- In Region 1 Hancock, Brooke, and Ohio counties ranked in the “more vulnerable to overdose” compared across all state counties at rank 20, 23, and 24 respectively.
- Comparing 2015-2016 versus 2017-2018, West Virginia rose from not in the top 5 to number 1 on the list of states for psychostimulant overdose rates.
- Percentage of individuals aged 12 or older needing but not receiving treatment for alcohol use in the past year has increased in Region 1 between 2012 and 2016.
- Synthetic opioids involved in overdose deaths has become significantly more prevalent than heroin and prescription opioids in the past 4 years through 2018.

Environmental Factors and Indicators Impacting Mental and Physical Health Conclusions

An examination of various environmental factors for West Virginia shows that the health of our state population is below that of the rest of the nation in many major categories. Many West Virginians report themselves as having fair or poor health and the data reviewed support this.

Specific findings in the data include:

- In 2018, West Virginia ranked eighth highest nationally in annual deaths due to cardiovascular disease.
- In 2020 West Virginia was ranked as the least healthy state with regard to cardiovascular disease in adults.
- In 2020, West Virginia continued to rank highest nationally in the percentage of adults with diabetes.
- After rising since 2012, Hepatitis A rates in West Virginia are declining.
- West Virginia had the highest rate of Hepatitis B in the United States in 2015.
- In West Virginia, Hepatitis infection rates are steadily growing while the rate is decreasing across the rest of the country.
- Increasing Hepatitis B rates can be attributed to a corresponding increase in injected street drug use in West Virginia over the past several years.
- In 2020, West Virginia was ranked with 5 other states having more that 30% of adults reporting physical inactivity.
- Approximately 1 in 4 children in West Virginia live in single-parent households. This rate decreased since 2019 after steadily increasing since 2013. All of the service area counties are above the State rate of 24% for the percentage of children living in a single parent household.

Summary

With input from stakeholders, Northwood Health Systems reviewed these conclusions and identified a number of needs related to Northwood's mission and current capabilities. To address these needs, Northwood developed action steps that we believe will serve to improve the health in our region. These steps are contained in an implementation plan that is maintained separately from this document.