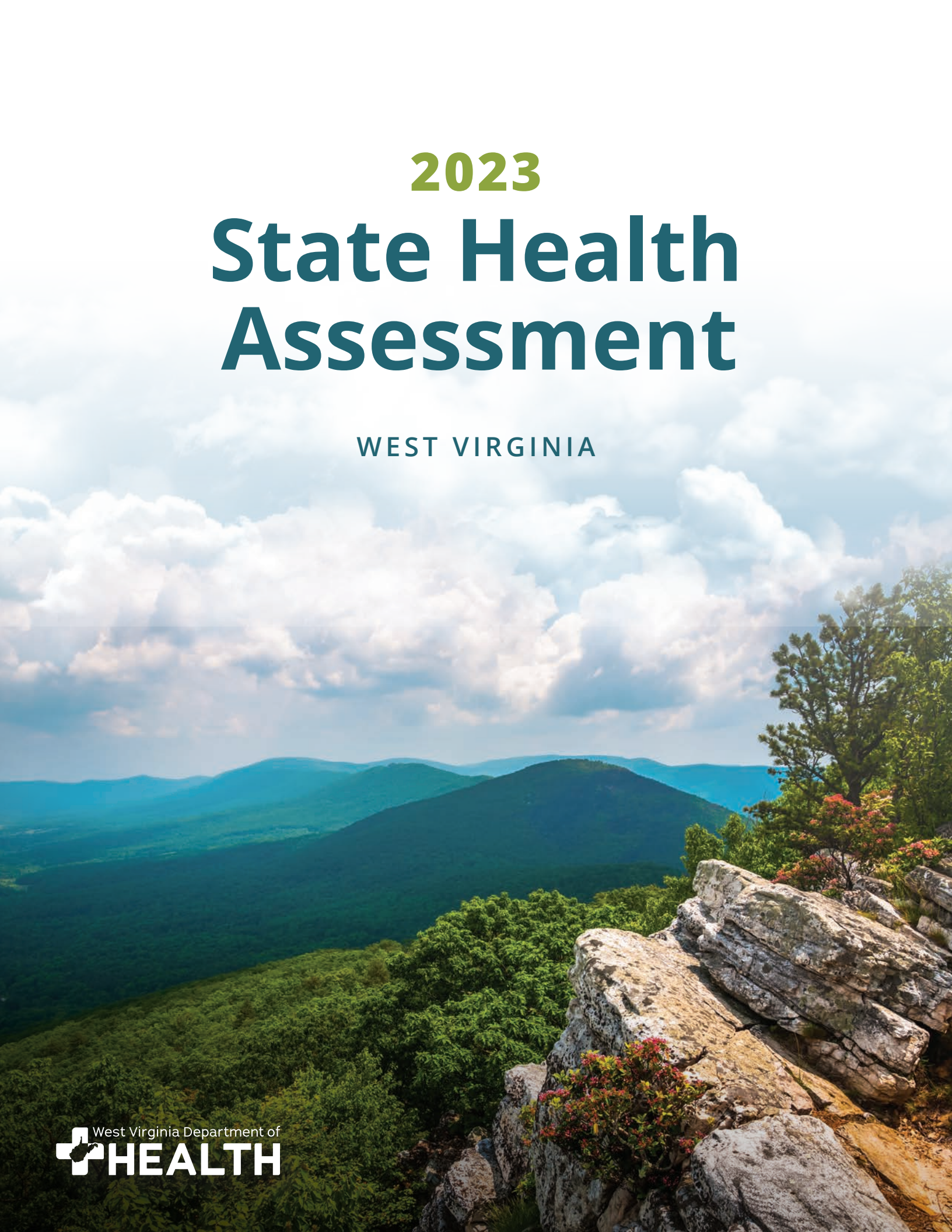
2023

State Health Assessment

WEST VIRGINIA



West Virginia Department of HEALTH

Introduction

Dear Fellow West Virginians,

As a born and raised West Virginian, it is an honor to introduce West Virginia's State Health Assessment (SHA). This was a comprehensive process, developed with community input, that aimed at assessing the current health status of our state's population and outlining a framework to make WV a healthier and happier place to live.

The dedicated WV Bureau for Public Health staff, in collaboration with partners from across the state, have spent the last year collecting data and seeking input from various communities to compile this report. The SHA has revealed both the challenges that persist in our state, such as chronic disease and access to care, as well as promising developments within communities that are actively working to improve health. Additionally, new areas of concern, like substance use disorders have emerged. This process has also highlighted the inequalities that poor health has created for certain populations within our state.

The data generated in the SHA will play a crucial role in writing the State Health Improvement Plan (SHIP), which will lay out a clear, 5-year plan for refocusing our funding and policy priorities to measurably improve our health outcomes. Successful implementation of the SHIP will require a coordinated, consistent effort across the state, no single entity can improve health alone, and we hope that you will continue to partner with us in this goal. On behalf of the wonderful staff at the Bureau for Public Health, but also my family, friends, and community, I extend my deepest gratitude to all the partners from across WV who have played an essential role in shaping this report.

We are all in this together.

Thank you,

Matthew Christiansen, MD, MPH
State Health Officer

EXECUTIVE SUMMARY

Executive Summary

WV Bureau for Public Health is excited to introduce the WV State Health Assessment (SHA), which seeks to measure the overall health and well-being of West Virginians and the State Health Improvement Plan (SHIP), which proposes four priority areas where discrete action can be taken to address those issues. WV has long struggled with poor health outcomes and we must continue to strive to do better. Health, however, is multidisciplinary – from housing and education to clinical care and prevention – and must be seen in the bigger context in order to make a measurable impact. No single person, entity, or organization can be held to improving population health by themselves. The responsibility for improving the health of our state must be seen as everyone's job – employers, first responders, doctors, developers, workers, therapists, and legislators all have a role to play. Everything from the design of our cities and towns to the food available in local communities, and the habits we instill in our children impacts health.

The SHA team used available data to present to stakeholders and residents of WV and did online and in-person surveys to determine priorities for the SHIP. The SHA used the nationally recognized Mobilizing for Action through Planning and Partnerships (MAPP) process (see Appendix A for details) to organize the process, which was overseen by the Health Improvement Advisory Council (Appendix A) and the Prevention Workgroups (Appendix A).

This SHA is organized into three parts. Chapter 1 is an overview of the Drivers of Health in WV. Chapter 2 summarizes the health outcomes here in WV that those Drivers of Health impact. And Chapter 3 highlights the health priorities of West Virginians as determined by surveys and listening sessions and how that leads into the SHIP priority areas.

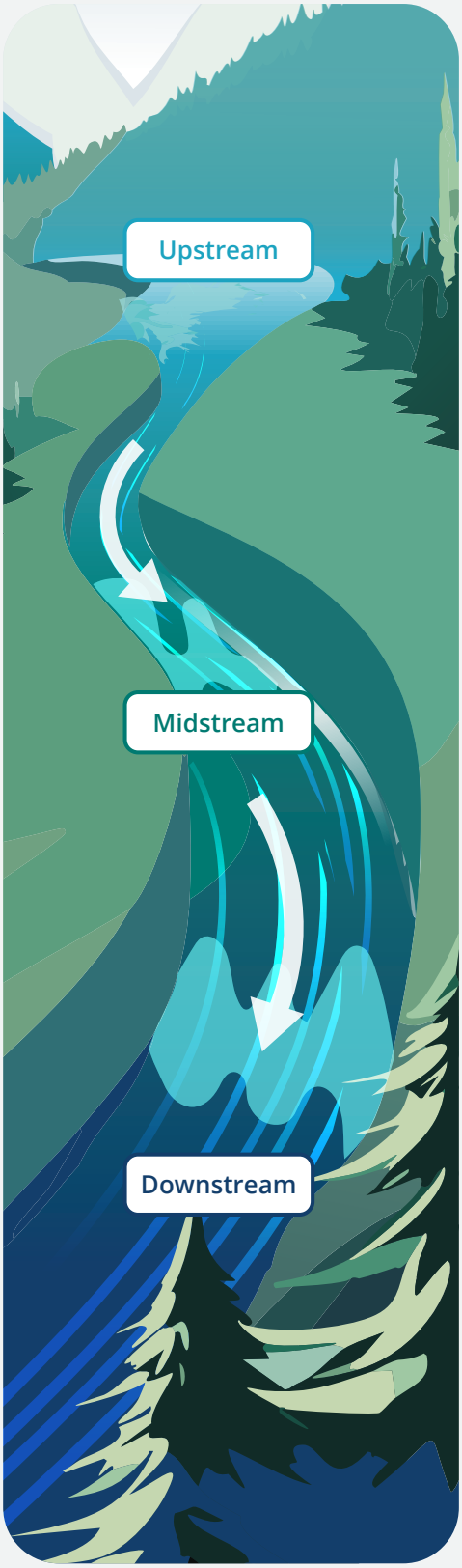
The responsibility for improving the health of our state must be seen as everyone's job – employers, first responders, doctors, developers, workers, therapists, and legislators all have a role to play. Everything from the design of our cities and towns to the food available in local communities, and the habits we instill in our children impacts health.

The Process

The SHA process assesses state performance in delivering essential public health services, covering data use, surveillance, public education, partnerships, planning, policy enforcement, workforce development, evaluation, and research. Its main goal is to evaluate the WV State Public Health System's ability to effectively promote and protect public health. The assessment aims to align resources with state needs, set priorities, and create benchmarks for public health policies and programs and serves as a guide for health planning and SHIP development. The MAPP framework was used to apply strategic thinking to prioritize public health issues and identify resources to address them. To read more about this process, see Appendix A.

The BPH adopted the Healthy People 2030 definition of health equity as "the attainment of the highest level of health for all people" and a health equity lens was applied throughout the development of the SHA. Significant effort was taken to ensure that the surveys were worded in a way that is accessible by all, and that the information was collected from all demographic groups in WV, such as racial and ethnic minorities, rural communities, LGBTQ+ people, among others. Additional in-person listening sessions were held to ensure as wide availability of participation in the surveys as possible.

Health Policies Drive Health Outcomes



POLICIES AND PROGRAMS — Priority for SHIP Interventions

DRIVERS OF HEALTH

- **SOCIAL AND ECONOMIC**
  - Demographics P. 14
  - Economic P. 18
  - Education Access P. 23
- **CLINICAL CARE**
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HEALTH OUTCOMES

- Chronic Disease P. 56
- Mental Health P. 60
- Infectious Disease P. 62
- Mortality P. 67

Adapted from the Robert Wood Johnson Foundation, 2014

Health Equity

The BPH has adopted the Healthy People 2030 definition, which defines health equity as "the attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities."

Method for Incorporation into SHA

A health equity lens approach was utilized in developing the state health assessment. This approach meant applying language in the survey that was inclusive, avoiding bias and stigmatization, while keeping in mind that health equity is intersectional. That means "individuals may belong to more than one group and may have overlapping health and social inequities as well as overlapping strengths and assets." To reach intended audiences in racial and ethnic minority groups, as well as rural communities, survey categories were expanded and messaging was tailored. Based upon feedback from partners, additional listening sessions were also conducted.

Next Steps

Creating a healthier WV and eliminating preventable health inequities can be achieved through concentrated efforts. To combat health equity concerns and address gaps identified in the SHA, the BPH's Office of Community Health and Health Promotion is developing a health equity plan in addition to and in support of the state health improvement plan. The health equity plan includes initiatives for utilizing the health lens approach for new programs and policies, working with our partners to move health equity forward and address social determinants of health related to health disparities.

HEALTH INDICATORS

DEMOGRAPHICS DEFINED

Refers to characteristics of a population, such as age, gender, income, or ethnicity.

MORBIDITY DEFINED

The number or rate of people who get an illness in a specific place. The state of being symptomatic or unhealthy for a disease or condition. It is usually represented or estimated using prevalences or incidences.

MORTALITY DEFINED

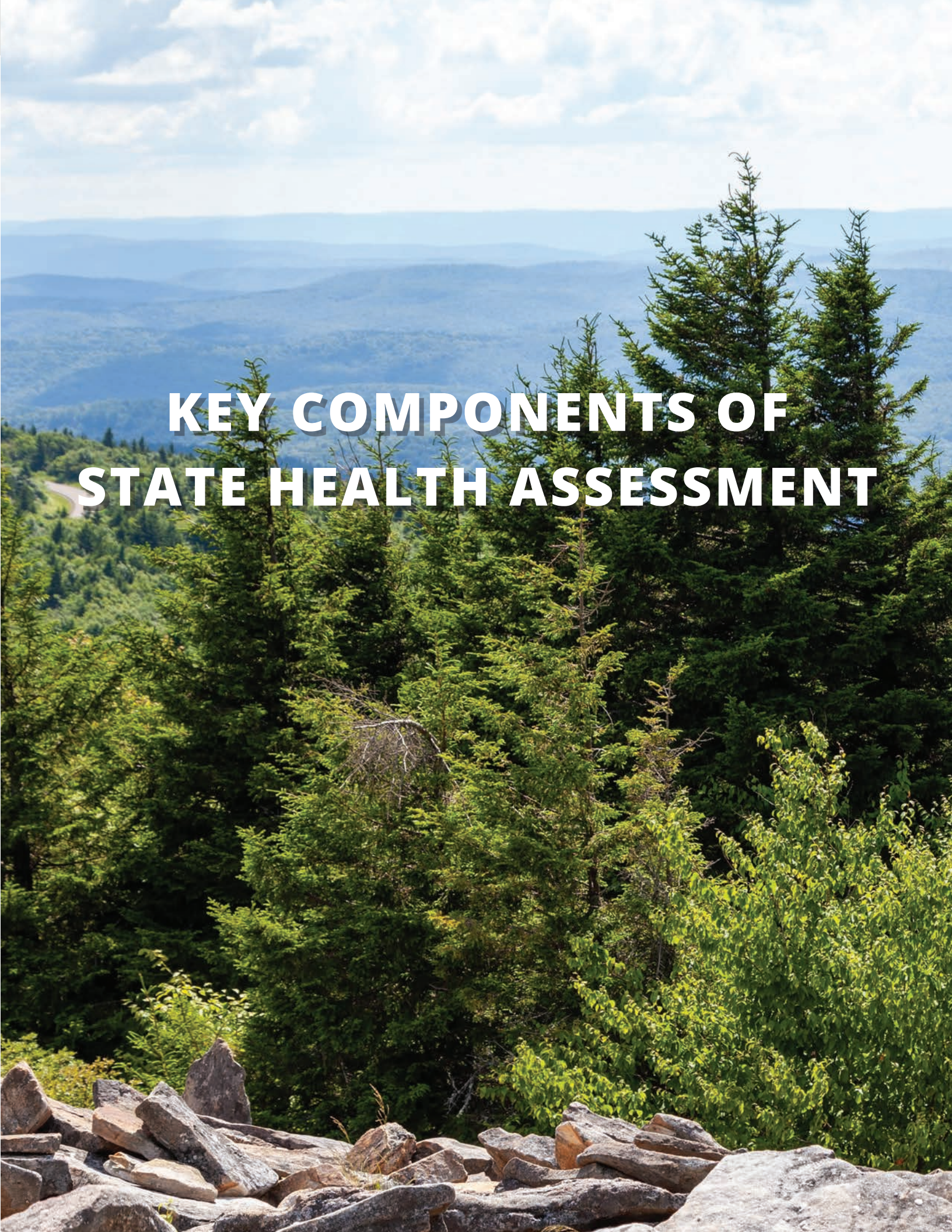
The number of deaths caused by the health event under investigation. It can be expressed as a rate or an absolute number. For the purposes of this report, deaths are counted per 100,000 people to allow for comparisons between populations.

BEHAVIORS DEFINED

Behaviors significantly affect the health and well-being of individuals and populations. They can influence a person's risk of developing a disease or conditions, as well as their risk of death, or they can help protect against these risks.

SYSTEMS DEFINED

All public, private, and voluntary entities that contribute to the delivery of particular public health services within a jurisdiction.



KEY COMPONENTS OF STATE HEALTH ASSESSMENT

Key Components of the SHA

To enhance the health of West Virginia's population and identify critical needs, the Bureau for Public Health engaged a diverse range of public health partners to complete the SHA. The assessment utilized the MAPP framework, consisting of three evaluations.

Following data collection and analysis, BPH brought together public health partners to review converging findings. They identified four key priorities, informed by feedback from the Health Improvement Advisory Council and the Prevention Workgroup, and aligned with existing efforts and resources.

Community Status Assessment

The Community Status Assessment describes WV and its health systems through various data collections. The BPH explored a variety of national and internal data sources, as well as conducted public surveys and live and virtual listening sessions. For this assessment, the SHA/SHIP committee reviewed health risk factors, social determinants of health, root causes, health inequities, and health outcomes. This information helped determine key factors applicable to WV, identify key data indicators, and conduct an initial gap analysis.

Community Health Survey

In September 2023, the Community Health Survey was released. The survey, posted online from September 18 until October 23, aimed to collect data to analyze and provide an overview of the health status, needs, and factors that contribute to health outcomes in WV. Data from the 3,118 individuals participating in the survey was used as a convenience sample methodology and not a general population representation.

Listening Sessions

Face-to-face and virtual community health listening sessions were available at various locations in WV from Sept. 13 to Nov. 9.

- Eight in-person community listening sessions
- Two virtual community listening sessions

Health concerns and health disparities or inequities specific to each region of the state were discussed.

Community Partner Assessment

BPH developed a Community Partner Assessment to identify organizations involved with improving health through:

- **Education**
- **Transportation**
- **Workforce development**

This survey was distributed to 160 community partners and stakeholders and was encouraged to be shared beyond that by partners. Of the respondents, nonprofit organizations, local health departments, and public hospitals made up the highest percentage.

Chapter 1

DRIVERS OF HEALTH

DEMOGRAPHICS

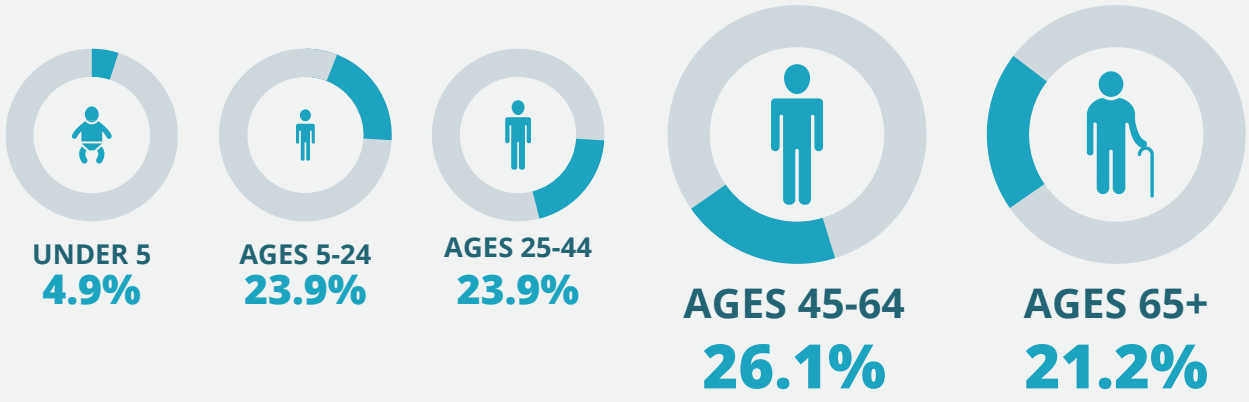
DRIVER OF HEALTH

Understanding the demographics of WV is important for understanding specific health challenges experienced by different population groups.

Population By Age

Population decreased 4.4% between 2012-2022. The state's population peaked in 2012 and has decreased since 2013. West Virginia's current population is estimated to be 1,775,156.

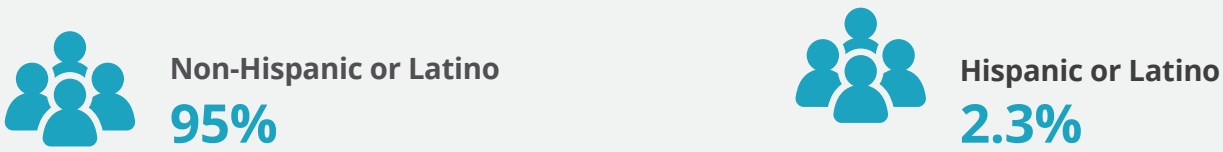
FIGURE 1: POPULATION BY AGE



West Virginia's aging population ranks among the oldest in the nation.

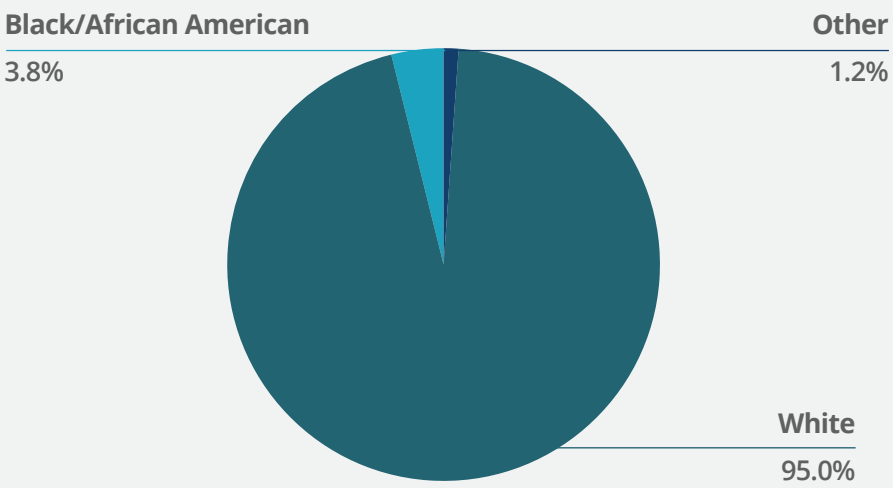
Population By Ethnicity

FIGURE 2: POPULATION BY ETHNICITY



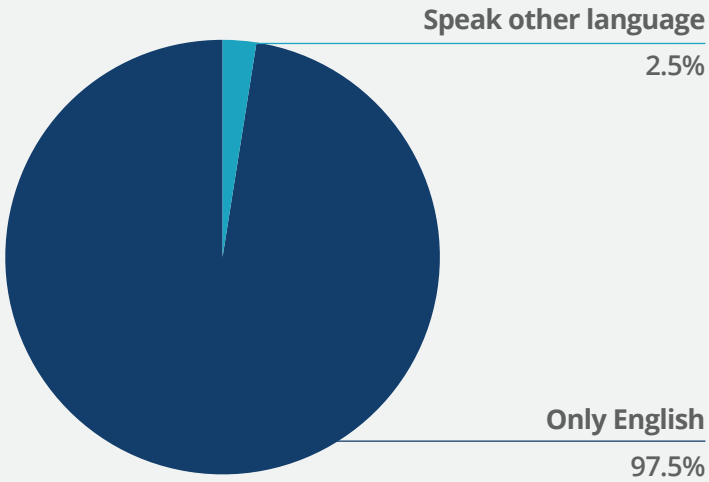
Population by Race

FIGURE 3: POPULATION BY RACE



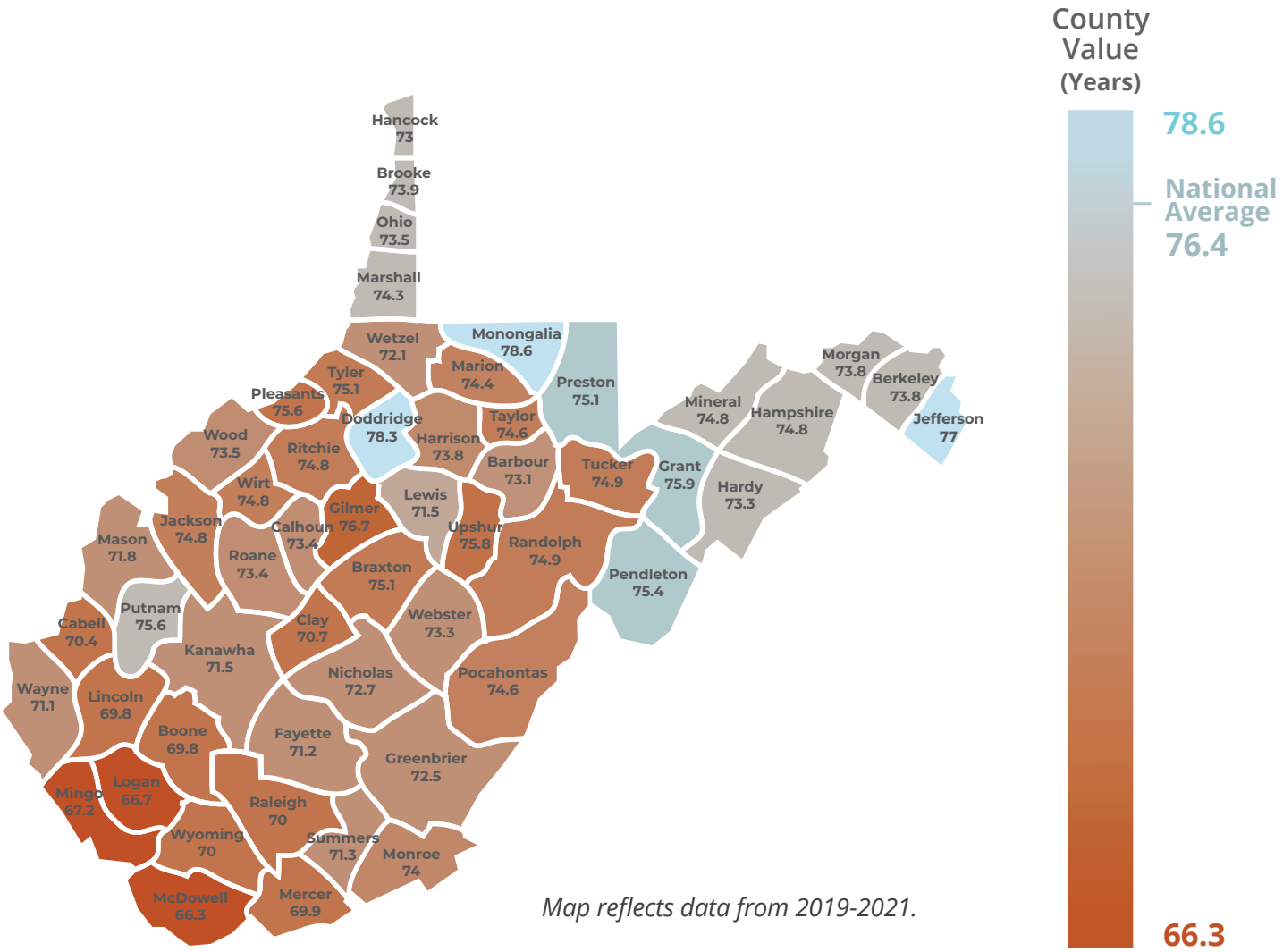
Languages Spoken

FIGURE 4: LANGUAGES SPOKEN



Life Expectancy by County

Life expectancy is a population health outcome that measures the average number of years a person is expected to live. Life expectancy can be affected by many factors including economic hardship, social isolation, lack of access to healthcare, decreased physical activity level, chronic diseases and mental health crises. Unhealthy lifestyles are major risk factors for various chronic diseases and premature death.



Map reflects data from 2019-2021.

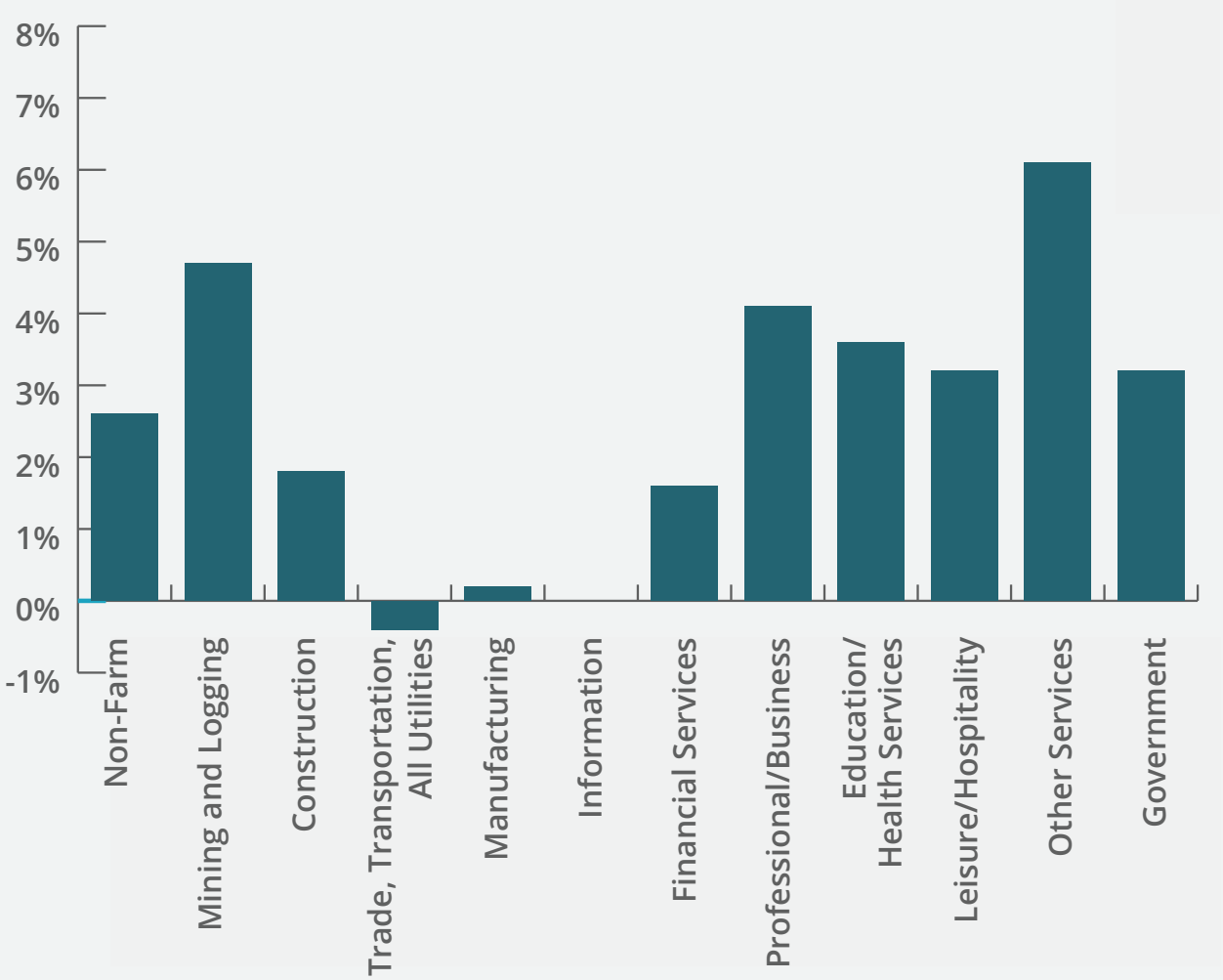
ECONOMIC STABILITY

DRIVER OF HEALTH

Workforce

According to the Bureau of Labor Statistics, there were 791,571 West Virginians who were part of the labor force as of December 2023, and 757,886 of those were employed. Though employment has fluctuated over the past ten years, it should be noted that since 2013 the labor force has decreased from 796,988 to 757,886, but the employment rate has risen from 743,337 to 757,988. It is important to note that the numbers for December 2023 are only preliminary numbers. In 2023, the most prevalent type of employment was non-farm jobs, followed by government positions.

FIGURE 5: % CHANGE OVER 2023 BY JOB TYPE



Unemployment

At 4.7%, unemployment in WV is lower than the national average of 6.3%. The female unemployment rate in WV is 4.3%, whereas it is 5.2% nationally. WV's gender pay gap is 77.1% compared to a national average of 81.5%.

BLACK UNEMPLOYMENT RATE

10.7% 6.5%

WHITE UNEMPLOYMENT RATE

5.0% 6.5%

HISPANIC UNEMPLOYMENT RATE

7.5% 4.7%

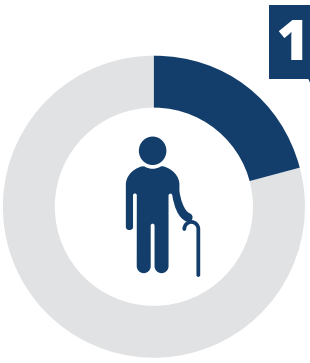
Poverty

Poverty is defined as households living below the federal poverty level. West Virginia has one of the highest poverty rates in the nation, ranking 47th with 17.6% of its population in poverty, compared to the US average of 12.8%. In 2020, the average monthly Supplemental Nutrition Assistance Program (SNAP) benefit was $147.02 per person and $269.27 per household. The monthly average participation was 306,218 individuals and 162,782 households. West Virginia also reports the second highest child poverty rate in the nation with 86,400 children living in poverty.

Poverty Rates

86,400 people **under 18** are in poverty

178,196 people aged **18-64** are in poverty



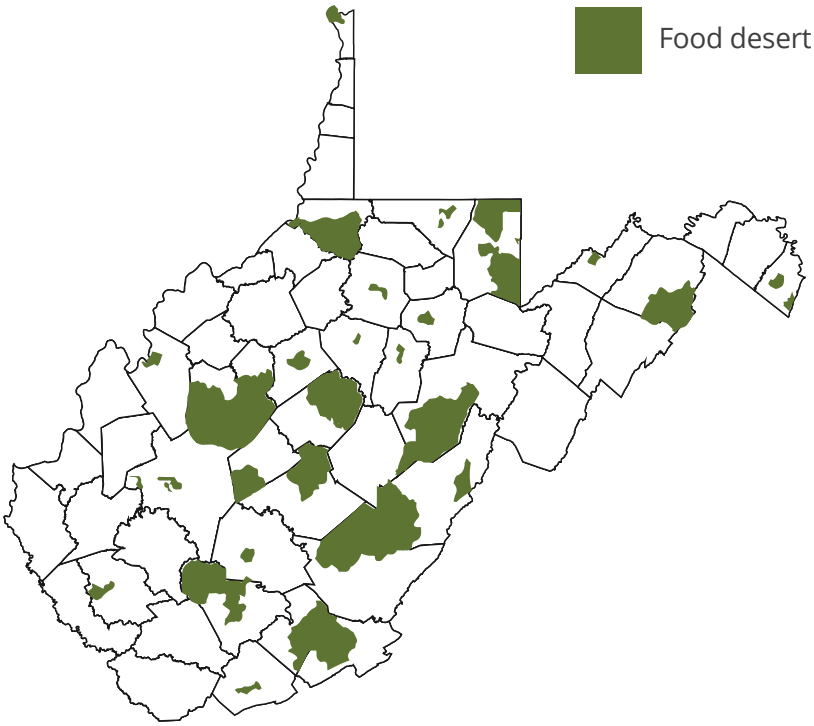
44,229 people aged **65+** are in poverty

Food Insecurity

Food insecurity affects more than 14% of West Virginians. Food deserts are a contributing factor to the high rate. Not only does food insecurity have sweeping health effects on adults, such as mental and physical stress and increased risk of chronic conditions, children are particularly susceptible to its negative impacts on their developing brains. West Virginia ranks 44th in the nation in food deserts.

- At least 33% of the population residing more than one mile (urban areas) or more than 10 miles (rural areas) from the nearest supermarket or large grocery store.
- A local poverty rate of 20% or the median family earnings being 80% or less of the neighborhood's average family salary.

Source: www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/



EDUCATION ACCESS AND QUALITY

DRIVERS OF HEALTH

Learning Disabilities

The number of total students attending WV schools has declined by nearly 10% since 2017. During the 2017-18 school year, 270,613 students were enrolled in West Virginia public schools, enrollment dropped to 245,047 during the 2023-24 school year. While enrollment in public schools has declined, the number of students on Independent Educational Plans (IEP) has increased from 42,597 (15.16%) in 2013 to 48,295 (19.71%) in 2023. The largest increase of IEP occurred during the onset of the COVID-19 pandemic for students in 2019-20. The rise in the number of IEPs based on specific learning disabilities has also increased. Specific learning disabilities (SLDs) are psychological disorders that directly affect the ability to use or understand language. While the data suggests an uptick in IEPS statewide during the COVID-19 pandemic, additional research is warranted.

FIGURE 6: NUMBER OF IEPS IN WV, 2017-2022

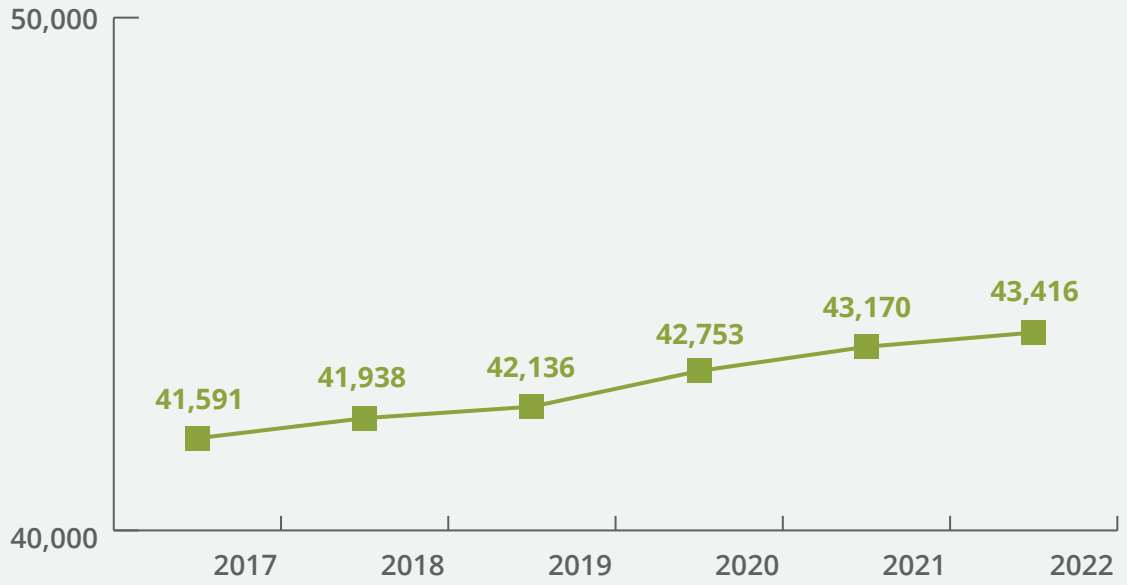
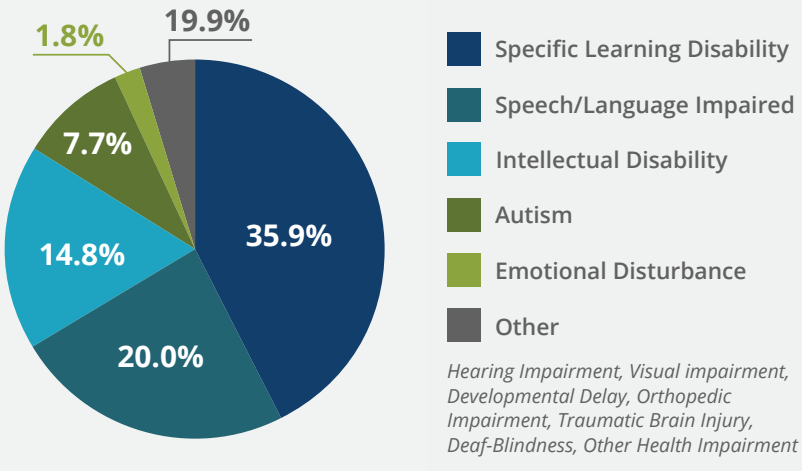


FIGURE 7: IEPS BY TYPE, WV, 2017-2022



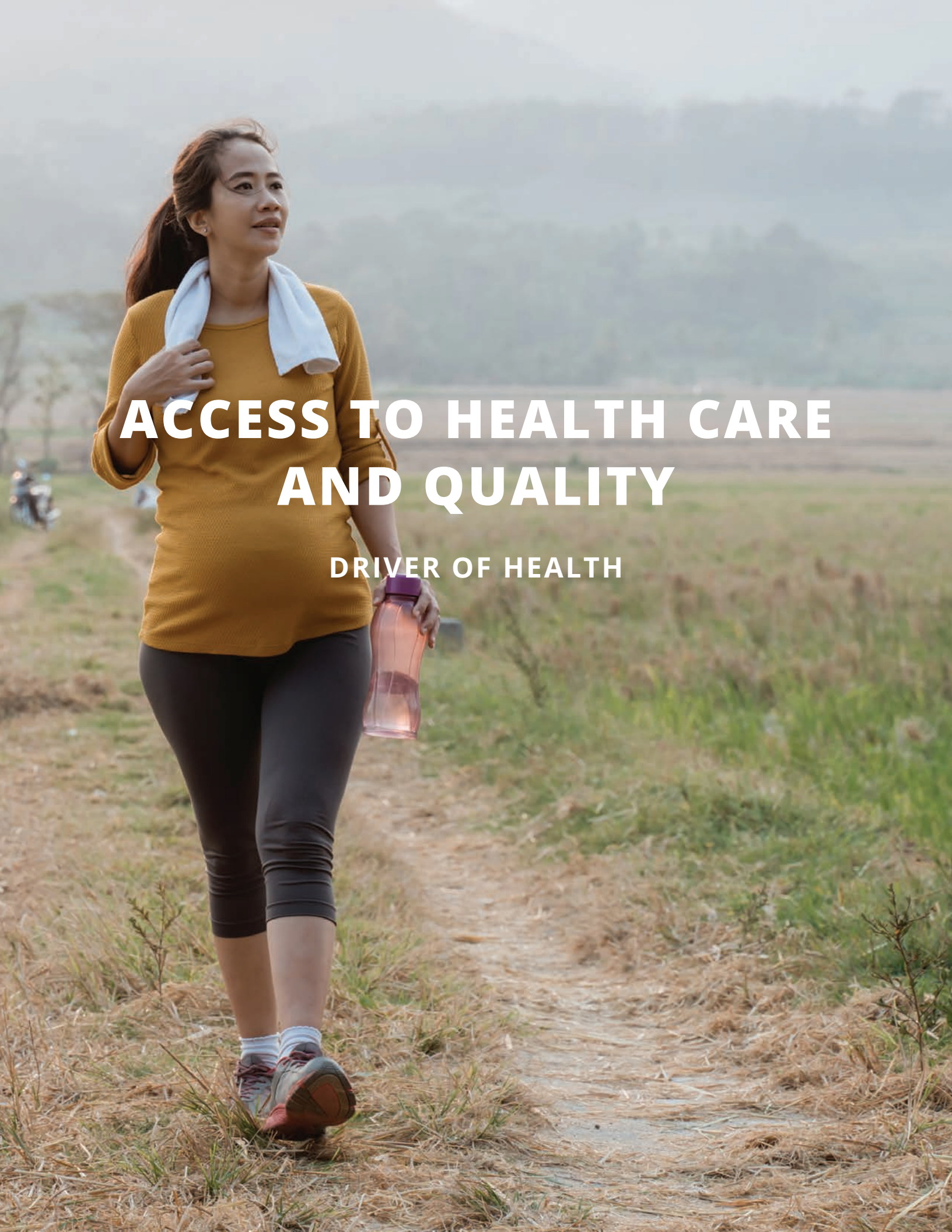
"Data is compiled by the Institute for Policy Research and Public Affairs at West Virginia University. See policyresearch.wvu.edu. Original data collected by the WV Department of Education."

Higher Education Attainment

According to the US Census Bureau, the number of WV students pursuing higher education after high school has steadily declined over the last decade. From 2018-2022, 22.7% of West Virginians aged 25 or older have a bachelor's degree or higher. In 2022, 46.4% of public high school graduates enrolled in a college, university, or career technical school for summer or fall semesters immediately following graduation.

Graduation Rates

As of the 2019-2020 school year, WV ranked number one for high school graduation meaning that 92.1% of WV students graduated from high school. When it came to educational obtainment of a high school diploma, WV ranked 39th with 88.8%. As of 2022, there were 263,486 students in 683 school districts in 55 school districts with 283,044 teachers.



ACCESS TO HEALTH CARE AND QUALITY

DRIVER OF HEALTH

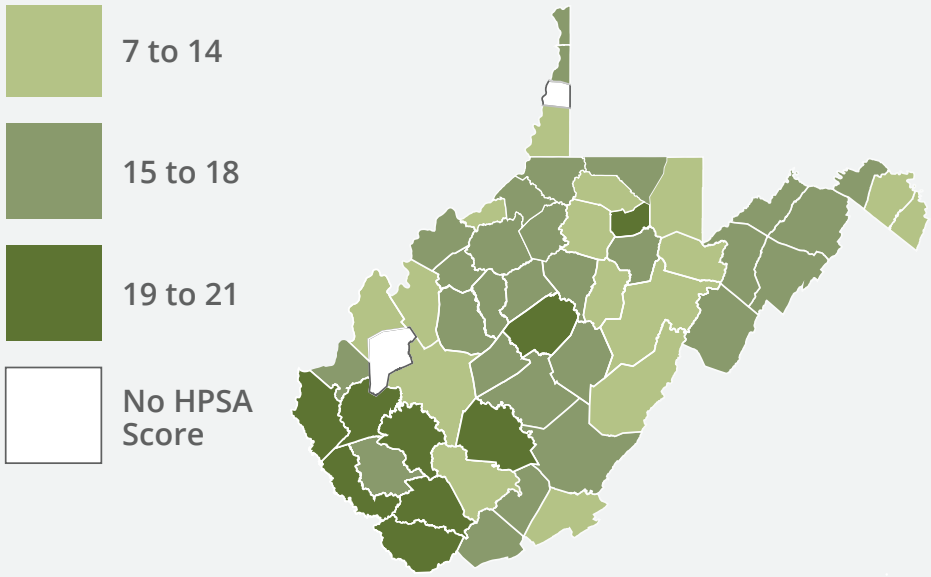
Health Professional Shortage Area

A Health Professional Shortage Area (HPSA) is a designation by the Health Resources and Services Administration indicating a shortage of health care providers. There are several types of HPSA designations. A geographic HPSA designation is where there is a shortage of providers for an entire population within a defined geographic area. A low income HPSA designation is a shortage of providers for a low-income population within a geographic area. A facility may also be designated as a HPSA when there is a shortage of healthcare providers for that specific facility. Auto HPSAs are automatically designated through a statute or by regulation without applying. The map legend located on the left side of each map represents the range of the HPSA score. The darker areas of the maps indicate a higher HPSA score which correlates to an area being more medically underserved.

Primary Care Providers

Primary care providers, including physicians, nurse practitioners, and physician assistants deliver essential services such as diagnosing and treating acute and chronic conditions, providing education, preventing diseases, promoting health, and coordinating care. As of September 2023, West Virginia has 232 primary care providers per 100,000 residents. This number is 20% lower than the national average of 291.9 per 100,000. Despite a gradual increase in primary care providers in WV since 2018, the state still needs approximately 520 more physicians to meet the demand.

FIGURE 8: WV PRIMARY CARE HEALTH PROFESSIONAL SHORTAGE AREA DESIGNATIONS

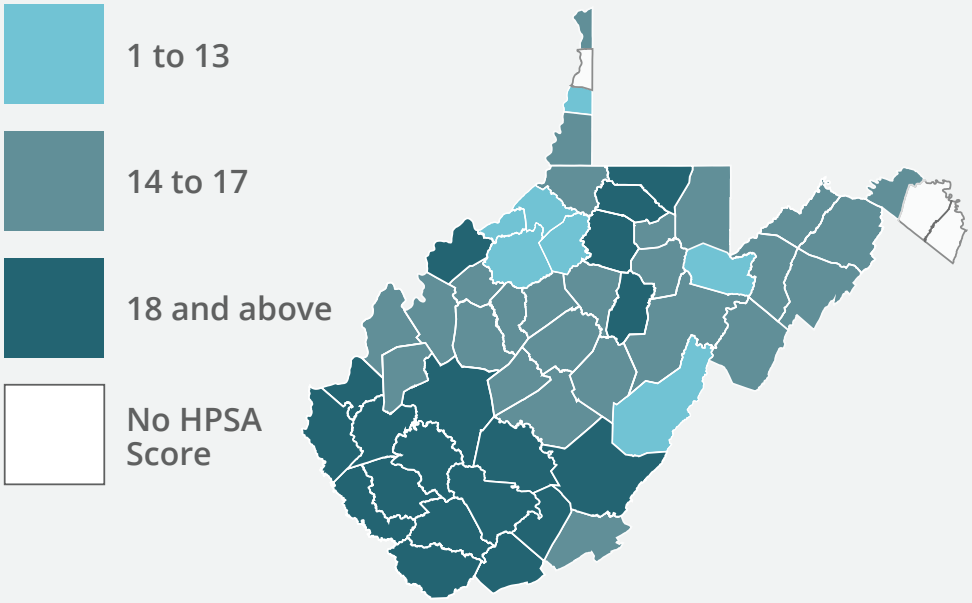


As of November 2023, there were 118 primary care HPSA designations; 114 mental/ behavioral health HPSA designations; and 114 dental health HPSA designations.

Mental Health Providers

Mental health is a crucial aspect of overall well-being, impacted by factors such as adverse childhood experiences, medical conditions, biological factors, substance use, and social isolation. In WV, there is a significant shortage of mental health providers, ranking 48th in the nation with 50% fewer providers compared to the national average. In 2023, there were 185.5 mental health providers per 100,000 people in WV, reflecting a persistent gap in mental health services over the past six years.

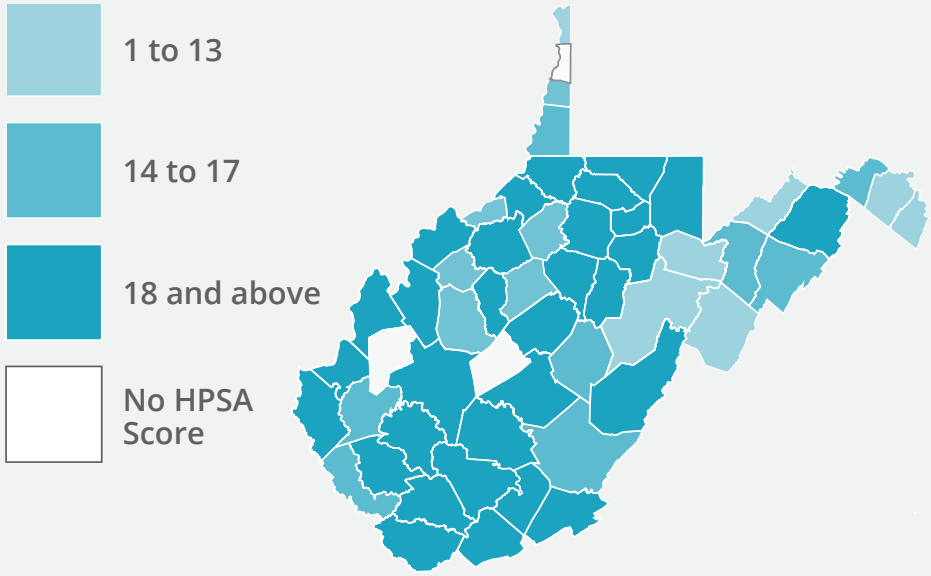
FIGURE 9: WV MENTAL HEALTH PROFESSIONAL SHORTAGE AREA DESIGNATIONS



Dental Providers

Dental care in WV is also limited. The state ranks 43rd nationally for the number of dental providers per 100,000 residents, with 52.4 dental providers per 100,000 people. This ranking has remained lower than the national average for several years. Issues such as tooth loss, oral cancer, and dental decay are more prevalent in WV. In 2023, 56.6% of adults reported visiting a dentist in the past year, while 48% of third graders have experienced tooth decay. Access to adequate dental care is vital for addressing these oral health issues and improving overall health outcomes.

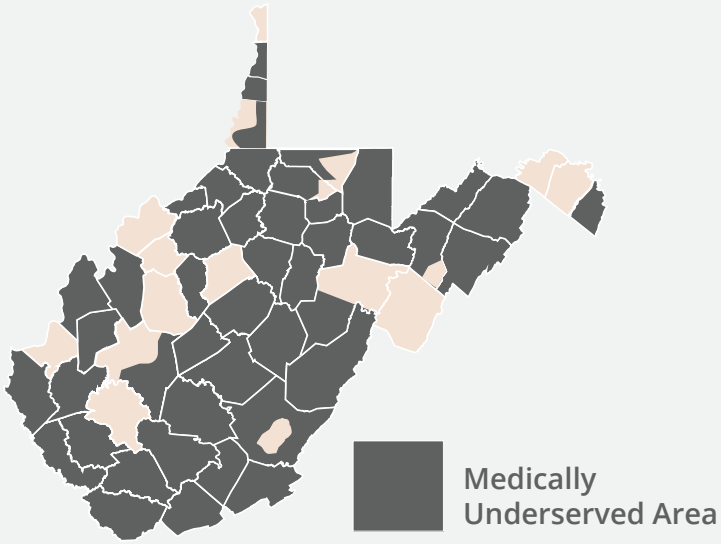
FIGURE 10: WV DENTAL HEALTH PROFESSIONAL SHORTAGE AREA DESIGNATIONS



Medically Underserved Area and Populations

Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) are geographic areas or populations of people having a shortage of primary care services. A MUA designation may be a county, a group of neighboring counties, a group of urban census tracts, or a group of county or civil divisions where as a MUP designation is a subset of people within a defined geographic area who may face economic and cultural barriers to healthcare. The map below depicts the majority of WV designated as a medically underserved area.

FIGURE 11: MEDICALLY UNDERSERVED AREA DESIGNATIONS



Maternity Care

Access to adequate maternity and prenatal care, especially healthcare for women with chronic health conditions, is essential for preventing poor health outcomes and eliminating health disparities. In WV, 56.5% of women had one or more chronic health conditions compared to 37.8% in the US.

WV Maternity Care Deserts

49.1% of WV counties are defined as maternity care deserts vs 32.6% of US counties overall

22.2% of WV women had no birthing hospital within 30-minute drive vs 15.5% in the US

WV saw a **10%** decrease in the number of birthing hospitals between 2019 and 2020

20.1% of all WV births occurred in maternity care deserts

16.3% of WV babies were born to women in rural counties, while 5.8% of maternity care providers practice in rural counties

Mental Health Services

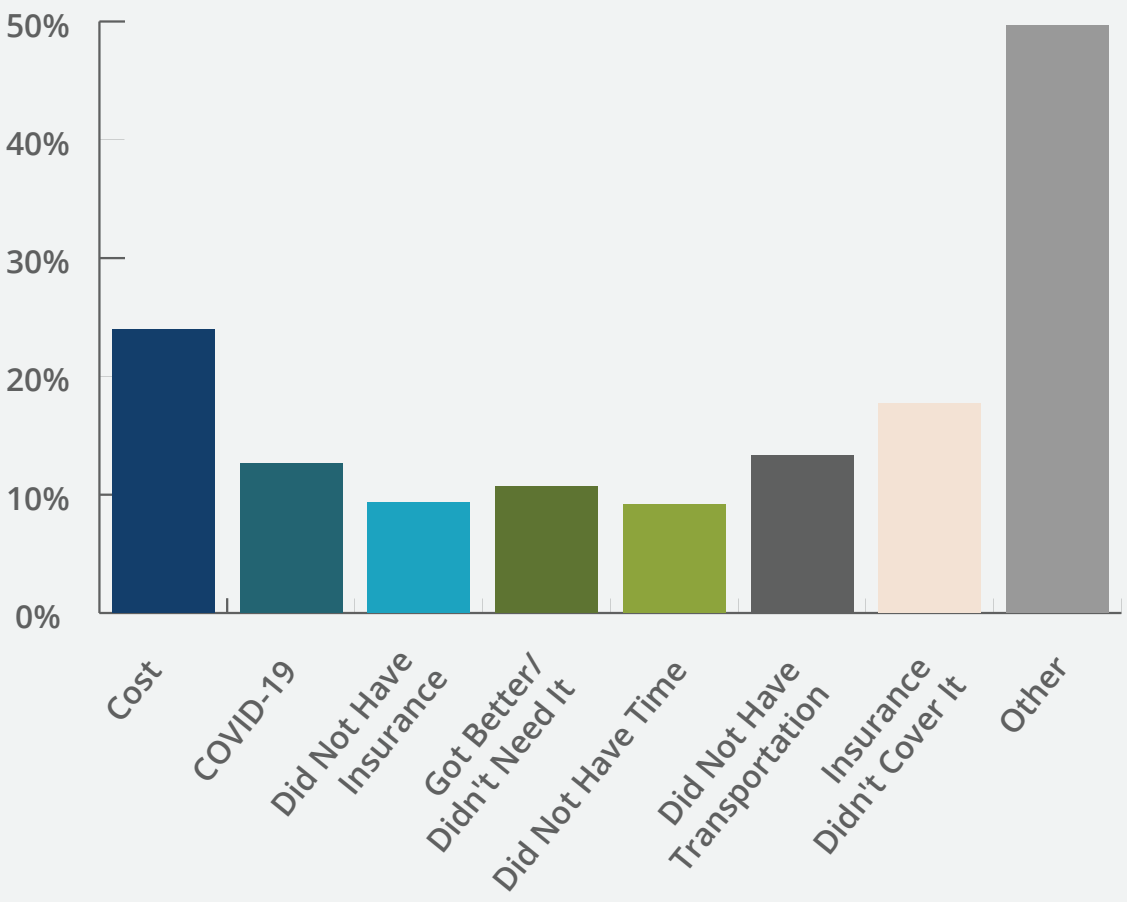
There are a variety of treatments available for mental health and substance use disorders. Often times people battling from mental health disorders are also battling from substance use disorders, making it critical to treat both disorders at the same time. Treatment can involve medications, counseling, support groups, talk therapy, inpatient rehabilitation, and behavioral health care among other options. Evidence-based guidelines help providers evaluate their patient's clinical needs and situation to match them with the right level of care, in the most appropriate available setting.

Behavioral Health Prescriptions

In the past 12 months, did you have a prescription for medicine(s) to help with your mental health, emotions, or nerves?

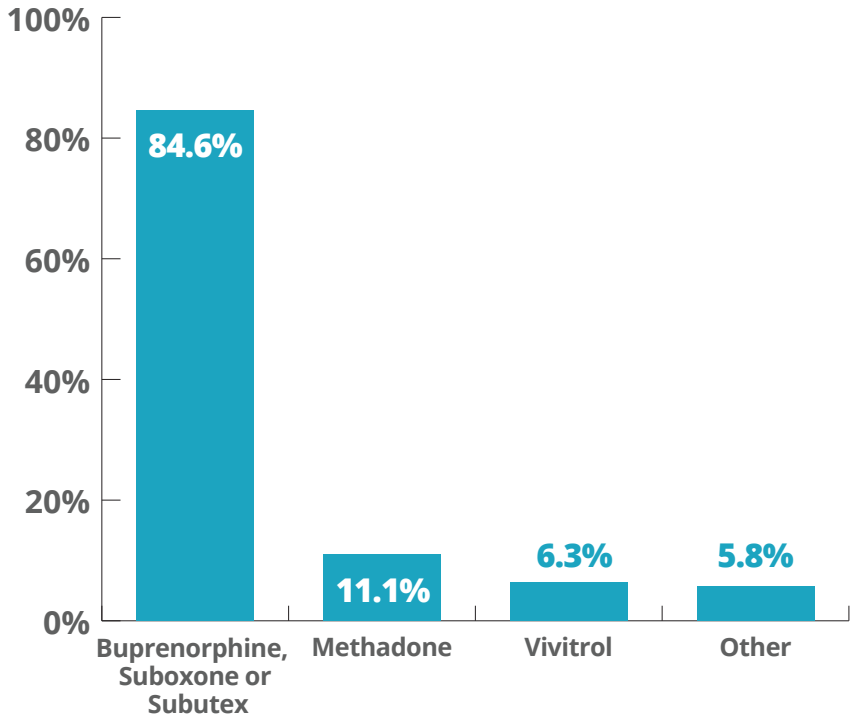
In the past 12 months, was there ever a time when you did not get the medicine(s) you had been prescribed to help with your mental health, emotions, or nerves?

FIGURE 12: REASON PRESCRIPTION FOR MENTAL HEALTH NOT RECEIVED, WV, 2021



Of the respondents, 17.7% reported that their insurance did not cover their mental health prescription; 13.3% reported that they did not have transportation; 12.6% reported not receiving prescripton due to COVID-19; 10.7% reported that they got better or no longer needed the prescribed medicine(s); 9.3% reported that they did not have insurance; and 9.2% reported that they did not have time. Nearly 50% of respondents reported their reason as "other."

Medication used to reduce/stop alcohol/drug use past 12 months

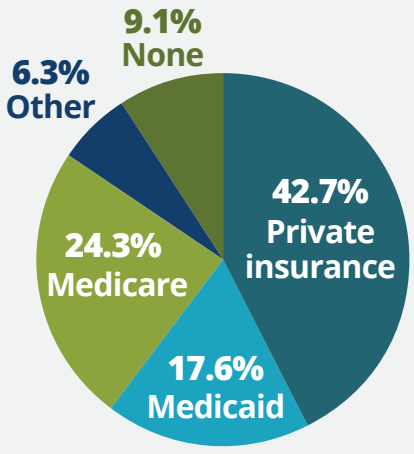


Insurance Status

Improving access to healthcare can be significantly enhanced with comprehensive insurance coverage. This includes obtaining necessary prescriptions, mental health services, cancer diagnoses, and smoking cessation support, all of which contribute to reduced mortality rates.

The status of an individual's insurance coverage plays a key role in accessing timely and appropriate health care. Access to healthcare changed significantly in March 2010 when the Affordable Care Act (ACA) was signed into law. The ACA had a major impact on programs and reformed insurance markets across the country extending coverage to many previously uninsured. On January 1, 2014, full implementation of Medicaid expansion took effect. Since that time, WV has seen a significant drop in the number of people uninsured across the state. The average number of uninsured in WV is 5.9% compared to 8% nationally.

FIGURE 13: SUMMARY OF HEALTH CARE INSURANCE COVERAGE



**WV Bureau for Public Health-Health Statistics Center. WV Behavioral Health Risk Factor Surveillance System Report 2018*

PREVENTATIVE SCREENINGS IMPACTING HEALTH

DRIVER OF HEALTH

Prevention Strategy for Reducing Mortality

Secondary prevention often occurs in the form of screening and aims to eliminate or reduce risk in women with known risk factors. Improving the quality of health care for women before, during, and after pregnancy can help reduce maternal deaths. In 2020-2021, WV women outperformed the national average in well-woman visits, ranking 11th in the country. They also excelled in other preventative clinical services, such as cervical cancer screening, with rates of 79.9% in WV compared to 77.1% nationally, earning an 8th place ranking. WV also surpassed the national average for postpartum visits with a rate of 93%.

In 2020-2021, a higher percentage of WV children received well-child visit and developmental screening services than the national average rates and the state ranked 14th and 9th nationwide, respectively.

State Ranking

Preventive Screenings

Once diagnosed with a chronic disease, it is important to learn how to manage the condition to reduce the progression of disease and the risk of complications. Many chronic diseases have specific evidence-based programs to offer support for specific conditions.

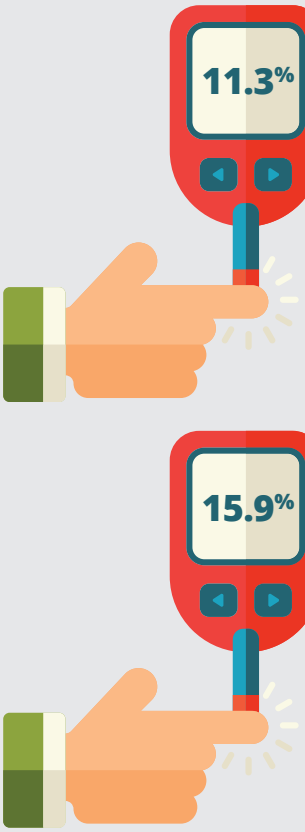
Diabetes Management

Diabetes management is important to prevent complications including heart disease, chronic kidney disease, nerve damage, retinopathy, lower limb amputations, hearing loss, and other issues. Almost half (48.8%) of adults in WV who reported having diabetes have taken a class to help manage their diabetes.

High Cholesterol

Two out of five (41.0%) adults in WV have high cholesterol, which increases the risk of heart disease. Almost 9 out of 10 (87.9%) adults in WV reported their blood cholesterol had been checked within the last five years.

Among adults in WV:



have been diagnosed with prediabetes

have been diagnosed with diabetes

Hypertension Management

Managing hypertension can be accomplished through lifestyle changes like improving physical activity and nutrition, as well as medication as prescribed by a health care provider.

Among surveyed adults in WV:

82.2% of adults in WV with hypertension reported they were currently taking prescription medication for their high blood pressure

37.9% said their health care provider recommended checking their blood pressure outside of the clinic setting

34.3% said they regularly checked their blood pressure outside of the clinic setting

Routine Cancer Screenings

Cancer is one of the leading causes of death for West Virginians. Currently there are screening tests recommended by the US Preventive Services Task Force (USPSTF) for four different types of cancers. Of those four cancer types, three have the highest mortality rates in WV among cancer sites (lung and bronchus, female breast, and colon and rectum, respectively).

Colorectal

Adults ages 45-75 years old are recommended to begin routine screening for colorectal cancer (a recent update, formerly the recommendation advised starting at age 50). There are a variety of different screening tests to check for colorectal cancer. The type and frequency of these tests depend upon a person's preferences, family history, medical condition, and other details. In WV, 70.7% adults reported they met USPSTF recommendations for colorectal cancer screening.

Breast

Women who are 50-74 years old and who are not at a higher risk for breast cancer are recommended by the USPSTF to get a mammogram every two years. The prevalence of meeting this recommendation among women in WV was 78.0%. Women who reported a lower educational attainment level or a lower annual household income were less likely to have met this screening recommendation.

Cervical

Women who are 21-29 years old are recommended to begin routine Pap tests. If the test is normal, these tests are recommended every three years. For those 30-65 years old, USPSTF recommendations are for a Pap test every three years, a high-risk human papillomavirus (hrHPV) test every five years, or a combination of the two every five years. Among women in WV, 85.1% report meeting USPSTF recommendations for cervical cancer screening.

Lung

Lung cancer screening is a relatively recent USPSTF recommendation when compared to the other types of cancer screenings and involves low-dose computed tomography (LDCT). This screening is recommended for adults 50-80 years old who have a 20 pack-year or more smoking history and who currently smoke or have quit within the past 15 years. Among eligible adults, the prevalence of meeting USPSTF recommendations for lung cancer screening was 5.5% in WV.

7 out of **10** eligible adults in WV met the recommendations for **colorectal cancer screening**

8 out of **10** eligible adult women in WV met the recommendations for **breast cancer screening**

8.5 out of **10** eligible adult women in WV met the recommendations for **cervical cancer screening**

Less than 1 out of **10** eligible adults in WV met recommendations for **lung cancer screening**

Well Child Visits and Developmental Screenings

In 2020-2021, a higher percentage of WV children received a well-child visit and developmental screening services than the national average rates and the state ranked 14th and 9th nationwide, respectively.

FIGURE 14: WELL CHILD VISITS IN 2020-2021, WV VS US

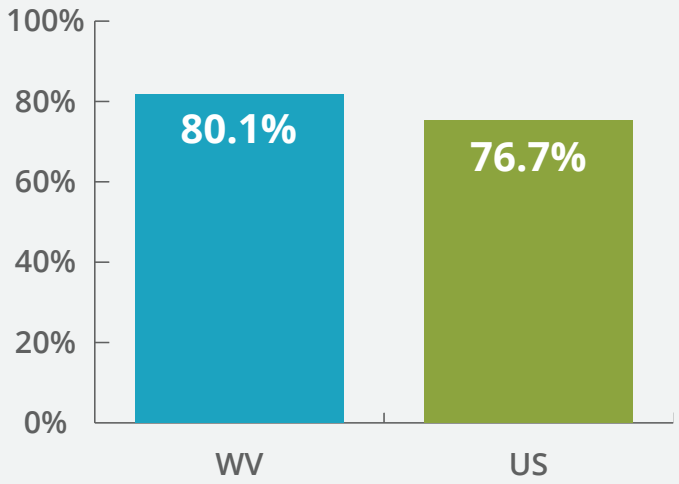
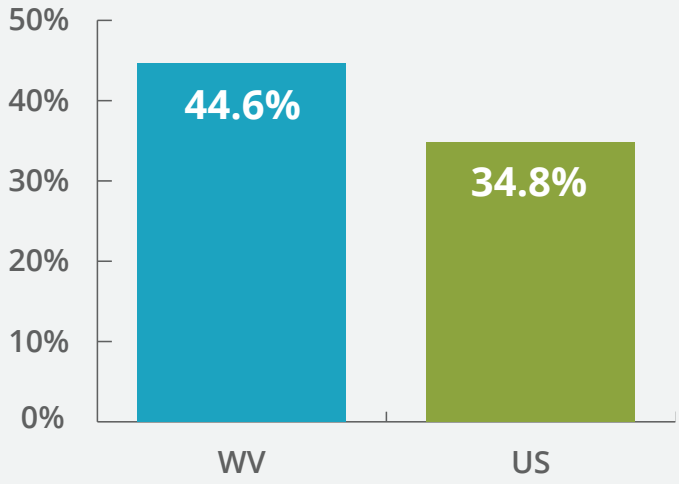
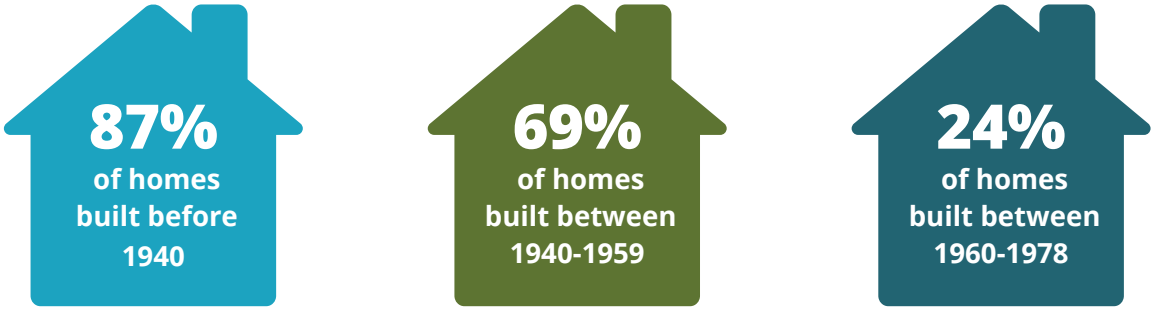


FIGURE 15: DEVELOPMENTAL SCREENING IN 2020-2021, WV VS US

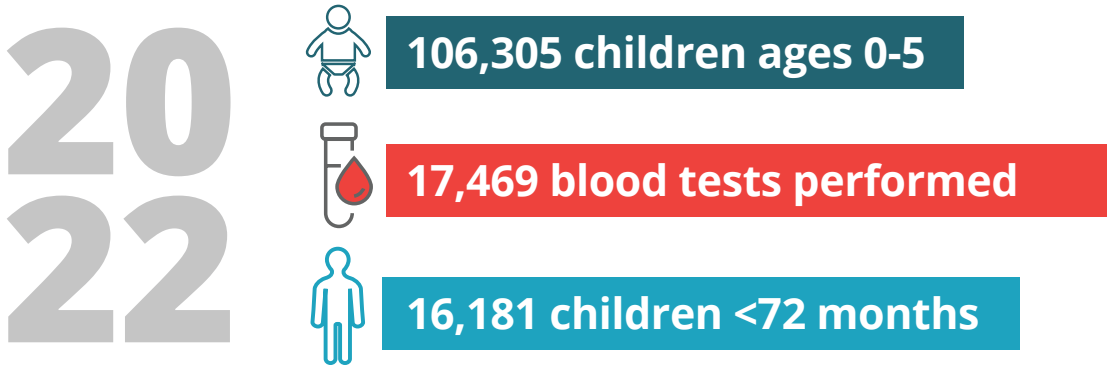


Lead Testing

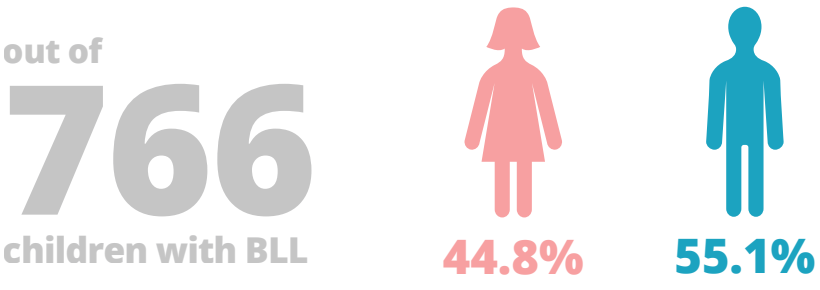
The most common methods of exposure are ingesting lead paint chips, drinking lead-contaminated water, and/or by breathing in lead dust. Since it does not break down, lead poisoning is often a housing-based disease for children. Lead remains a concern in homes built before 1978 and in plumbing systems installed before 1986, including lead-containing pipes, solder, flux.

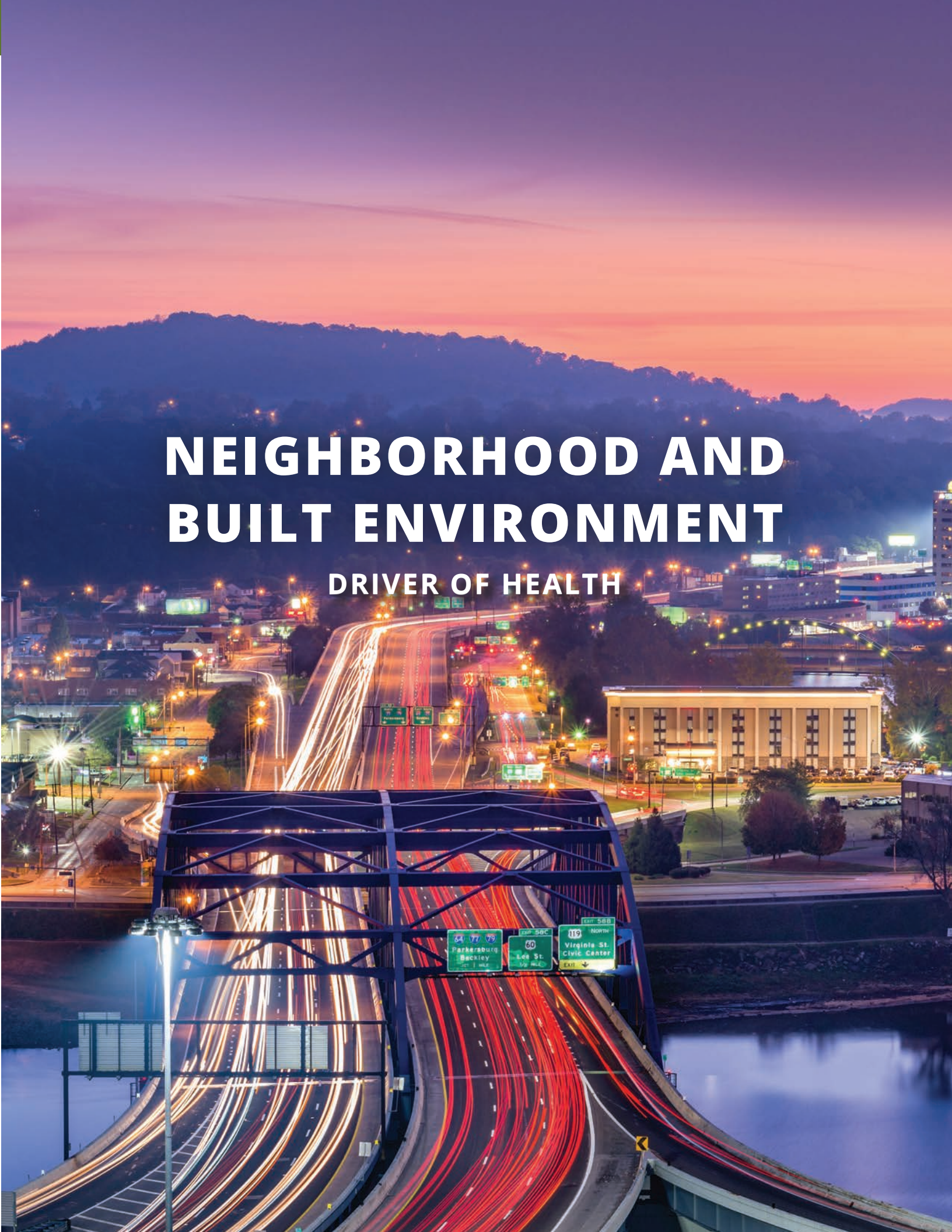


Lead poisoning is listed as a notifiable disease in the State of WV under title 64 series 42 legislative rule. Health care providers, laboratories, and other public health personnel are required to report the occurrence of notifiable diseases as defined in the rule. Additionally, WV requires that all children are screened before the age of six years for elevated blood lead levels. The number of children tested increased by 12% between 2017 and 2022. In 2022, a total of 17,469 blood lead tests were performed for 16,181 children aged ≤ 72-months old.



In 2022, a total of 16,191 children under 72 months of age tested for lead. Of those tested 766 had an elevated blood lead level greater than 3.5µg/dL. 15.2% of children under 72 months screened.





NEIGHBORHOOD AND BUILT ENVIRONMENT

DRIVER OF HEALTH

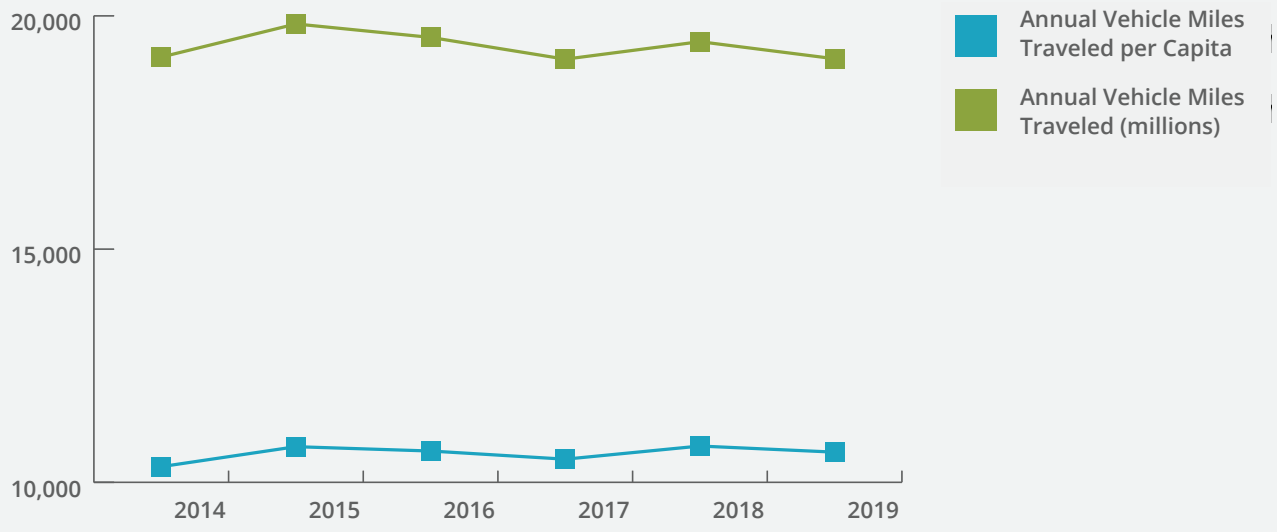
Transportation

Transportation is crucial for West Virginians, providing access to essential services and activities. However, it can impact public health and the environment through emissions and roadway accidents, especially affecting young drivers.

Vehicle Miles Traveled (VMT) reflects roadway use and can indicate public health trends. Increased VMT is linked to higher emissions, more collisions, and worsened health outcomes. WV's VMT has generally declined, as have emissions.

Highway fatalities and serious injuries have also been decreasing. The WV Department of Transportation aims to reduce fatalities by 50% and serious injuries by 66% by 2030, with a long-term goal of zero fatalities.

FIGURE 16: ANNUAL VEHICLE MILES TRAVELED



Crime and Homicide

Violent crime is a serious threat to public health. It not only can cause death, disability, and injuries, but also mental distress and reduced quality of life to people who have been exposed to violent crimes directly or indirectly. Children who experience violence are at risk for long-term physical, behavioral, and mental health problems. Asthma, hypertension, cancer, stroke, and mental disorders are the few examples of health effects from exposure to violence and crime. The WV violent crimes rate is consistently lower than the national rate and appears to be trending downwards while the national rate is trending up.

The overall trends of homicide rate both nationally and in WV increased from 2012 to 2022. WV was lower than the national rate in 2012, 2013, 2015, 2016, 2021, and 2022 and higher in 2014, 2017, 2019, and 2020. From 2020 to 2022, the homicide rate in WV has declined from 6.6 to 4.6 per 100,000 population.

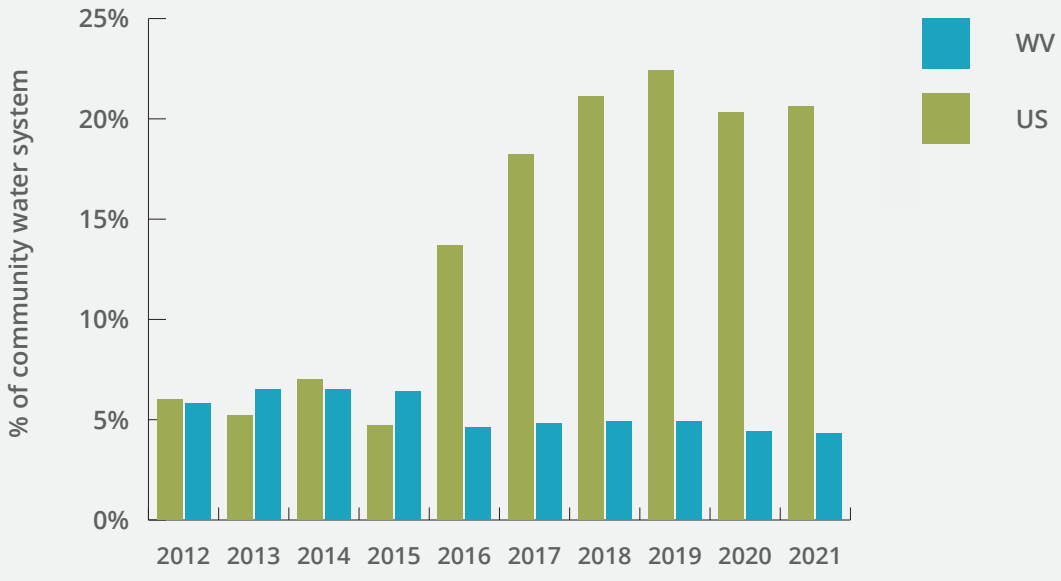
VIOLENT CRIMES WV VS. US, 2022

	CHANGE FROM 2021: WV	CHANGE FROM 2021: US
Homicide	↓ 23.3%	↓ 7.3%
Property Crime	↓ 9.3%	↑ 6.6%
Violent Crime	↓ 4.6%	↓ 1.6%

Water Quality

Safe drinking water is essential to the health of West Virginians. WV health-based violations have seen a significant increase over the last several years. Many of the state's health-based violations result from failure to correct or provide proof of correction of a significant deficiency cited during a sanitary survey inspection. Health-based violations are a priority in WV. BPH and the US Environmental Protection Agency (EPA) are working collaboratively to reduce the number of health-based violations issued to WV public water systems.

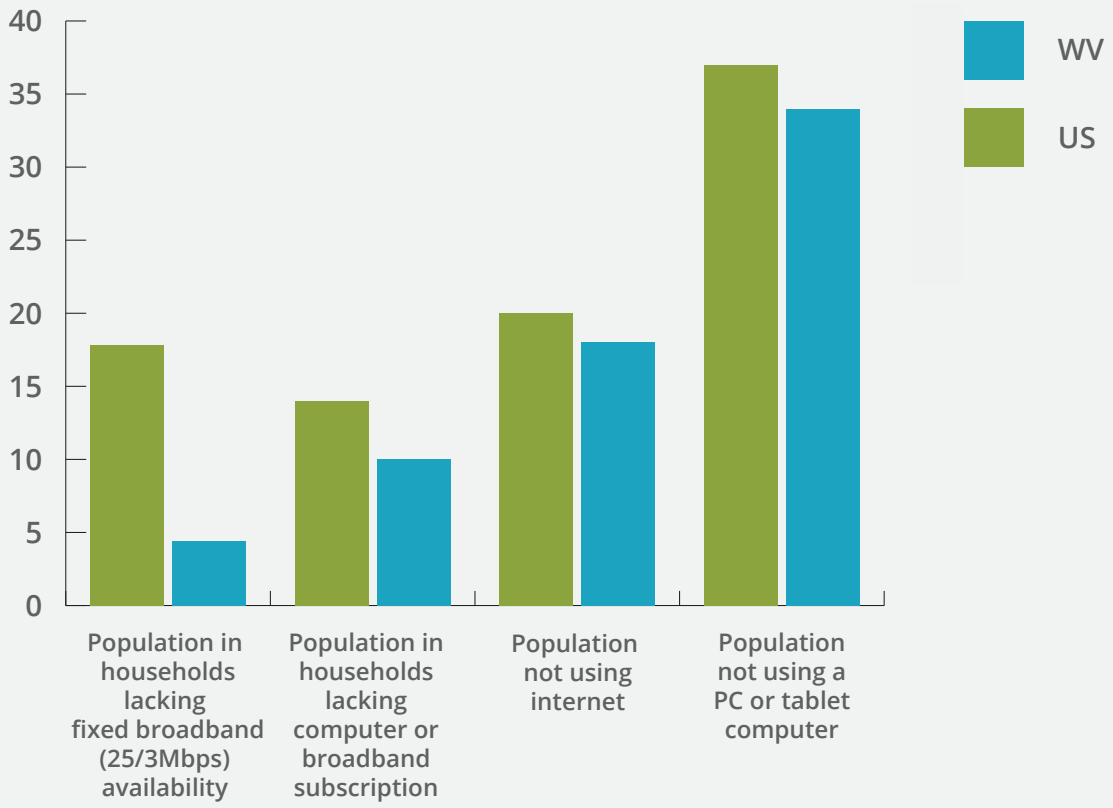
FIGURE 17: QUALITY DRINKING WATER VIOLATIONS WV VS US (% OF COMMUNITY WATER SYSTEMS)



Broadband Internet

The differences in broadband and computer use between WV and the national average could be attributed to the state's high percentage of an aging population, those with disabilities, rural residents, and those with low literacy.

FIGURE 18: POPULATION PERCENTAGE OF LACKING COMPUTER AND INTERNET USE (2017-2021) WV VS US



HEALTH BEHAVIORS

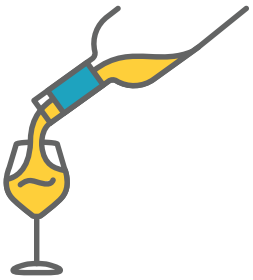
DRIVER OF HEALTH

Substance Use and Mental Health Overview

Substance use and mental health disorders have a significant impact across West Virginia and contribute to poor physical health, high health care costs, lower workforce participation and productivity, and burden law enforcement and EMS systems. They can be effectively reduced using evidence-based prevention and early intervention strategies. Ideally, primary prevention can prevent mental health disorders or substance use disorders before they occur by reducing risk factors and increasing protective factors. Reducing substance use can lower the incidence of substance use disorders, which in turn has been shown to decrease the prevalence of mental health disorders.

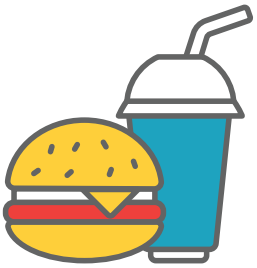
Behaviors that Lead to Chronic Diseases

Tobacco use and/or exposure to secondhand smoke



Excessive alcohol consumption

Physical inactivity



Inadequate nutrition

Substance misuse

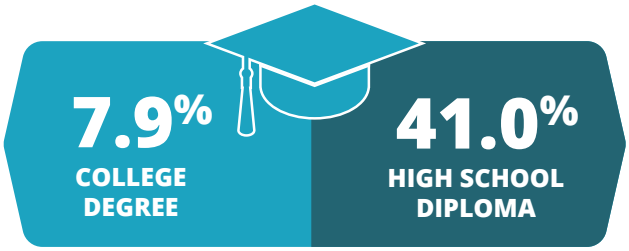
Mental health disorders

Adult Smoking

Cigarette smoking is one of the largest causes of preventable death in the US. An estimated 80% of lung cancer cases and lung cancer deaths are attributed to smoking, and lung cancer has the highest mortality rate of all cancers in WV. In 2021, 22% of adults in WV reported being a current cigarette smoker.

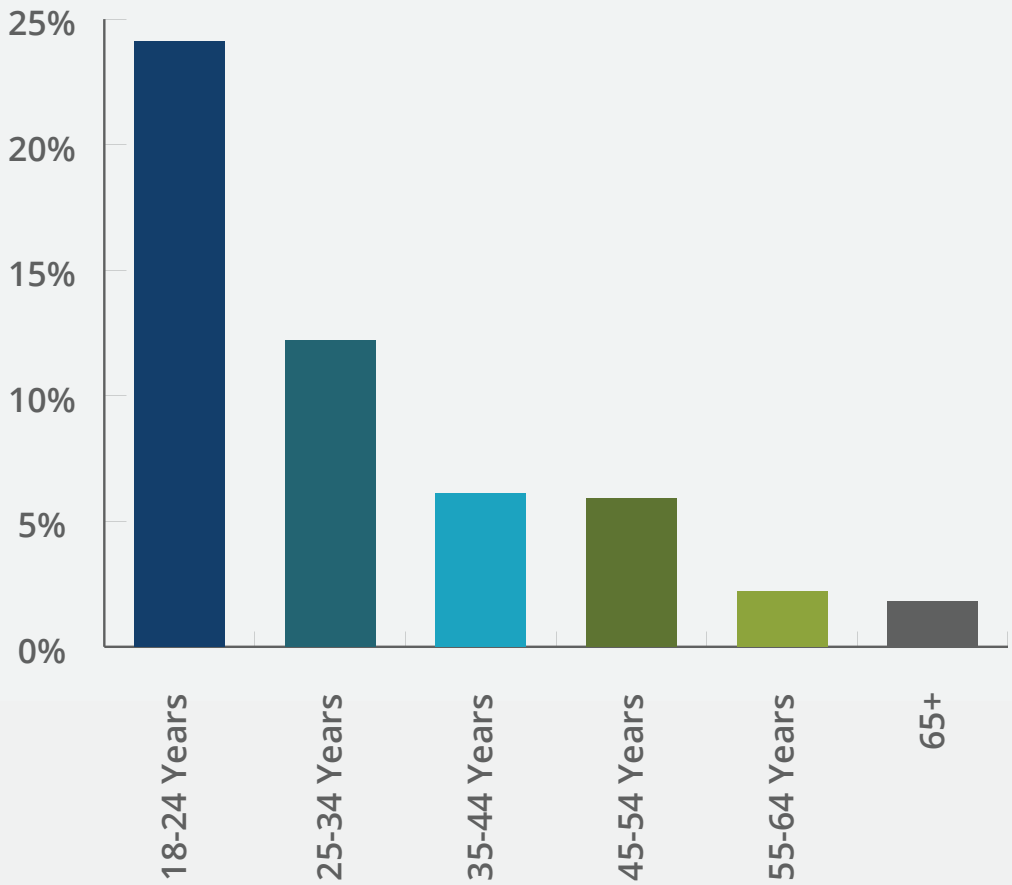
Some population groups may be at higher risk of continued cigarette smoking because of several factors, including industry tailored marketing, stressors related to discrimination or financial problems, and barriers to treatment or cessation programs. For example, black West Virginians have a higher rate of smoking at 26.1% compared to whites 21.5%. Also, West Virginians who identify as LGBTQ+ have a rate of 28.3% smoking compared to those that don't identify as LGBTQ+ at 21.4%.

Health disparities in cigarette smoking among adults in WV include:



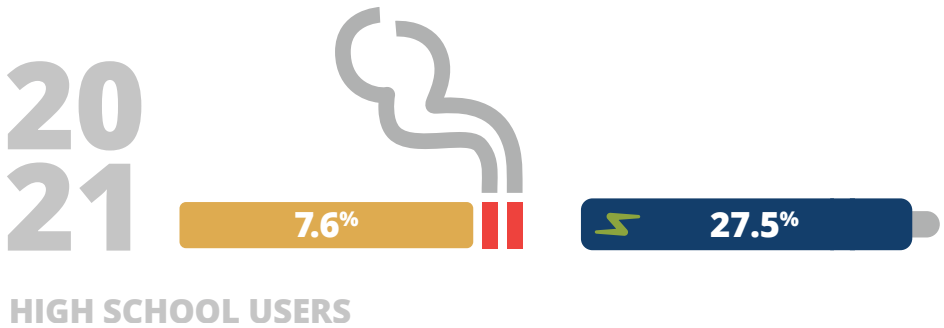
Additionally, 7.1% of WV adults reported currently using electronic cigarettes (also known as e-cigarettes, electronic vapor products, or vapes). Usage in WV of these products is lower than the national rate; however, they have a heavier use among younger age groups and those who identify as LGBTQ+.

FIGURE 19: PREVALENCE OF CURRENT ELECTRONIC CIGARETTE USE AMONG ADULTS BY AGE: WV, 2021



Youth Smoking

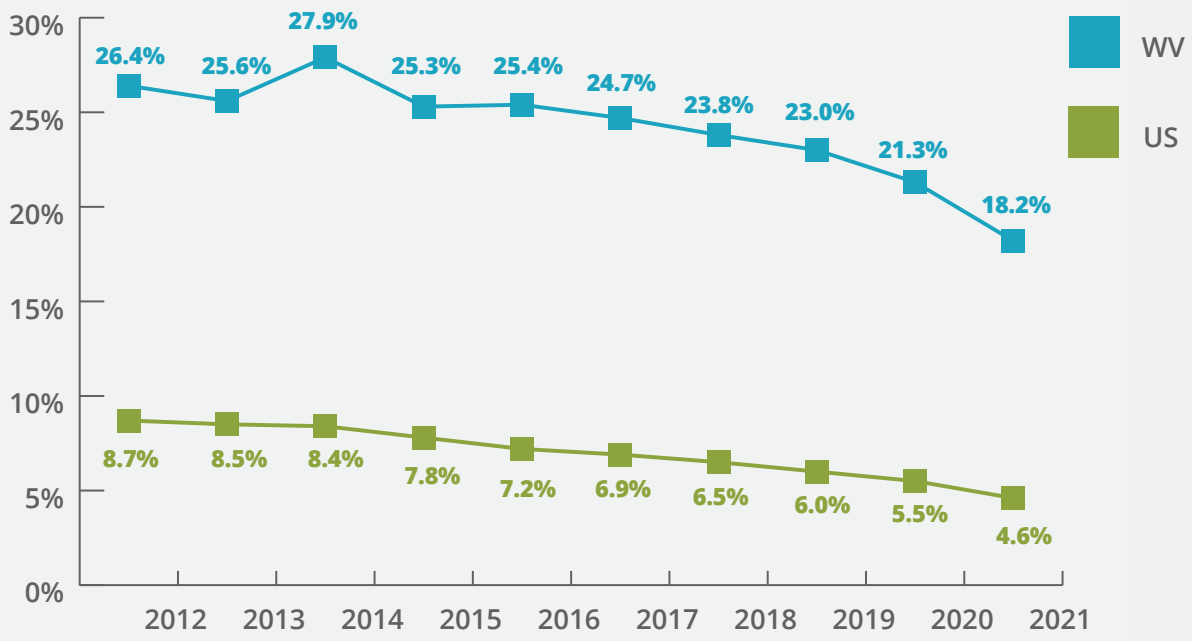
Cigarette smoking among youth has declined in the last decade; however, many have taken up alternative nicotine products such as electronic cigarettes or vapes.



Maternal Smoking

While the percentage of women who smoke during pregnancy has decreased since 2016, the maternal smoking rate in WV was 18.2% in 2021, three times the national rate and ranking WV highest in the nation. Babies whose mothers smoke while pregnant are at a higher risk of preterm birth, low birth weight, Sudden Unexpected Infant Death (SUID), as well as decreased lung function.

FIGURE 20: MATERNAL SMOKING PREVALENCE: US VS WV, 2012-2021



Excessive and Binge Drinking

Excessive drinking refers to binge or heavy drinking. Binge drinking is defined as adult men who reported having five or more drinks on one occasion and adult females who reported having four or more drinks on one occasion (in the past month). Heavy drinking is defined as adult men who reported having 15 or more drinks per week and adult females who reported having eight or more drinks per week.

The prevalence of adults reporting binge drinking has consistently been higher than heavy drinking in WV since 2012.

Behavioral Risk Factor Surveillance System (BRFSS) data shows that excessive drinking for males is typically more than twice that of females in WV.

The prevalence of excessive drinking was higher among LGBTQ+ individuals (24.0%) than straight individuals (13.9%) in WV in 2022.

13.7%
WV MEN

x5 PER MONTH

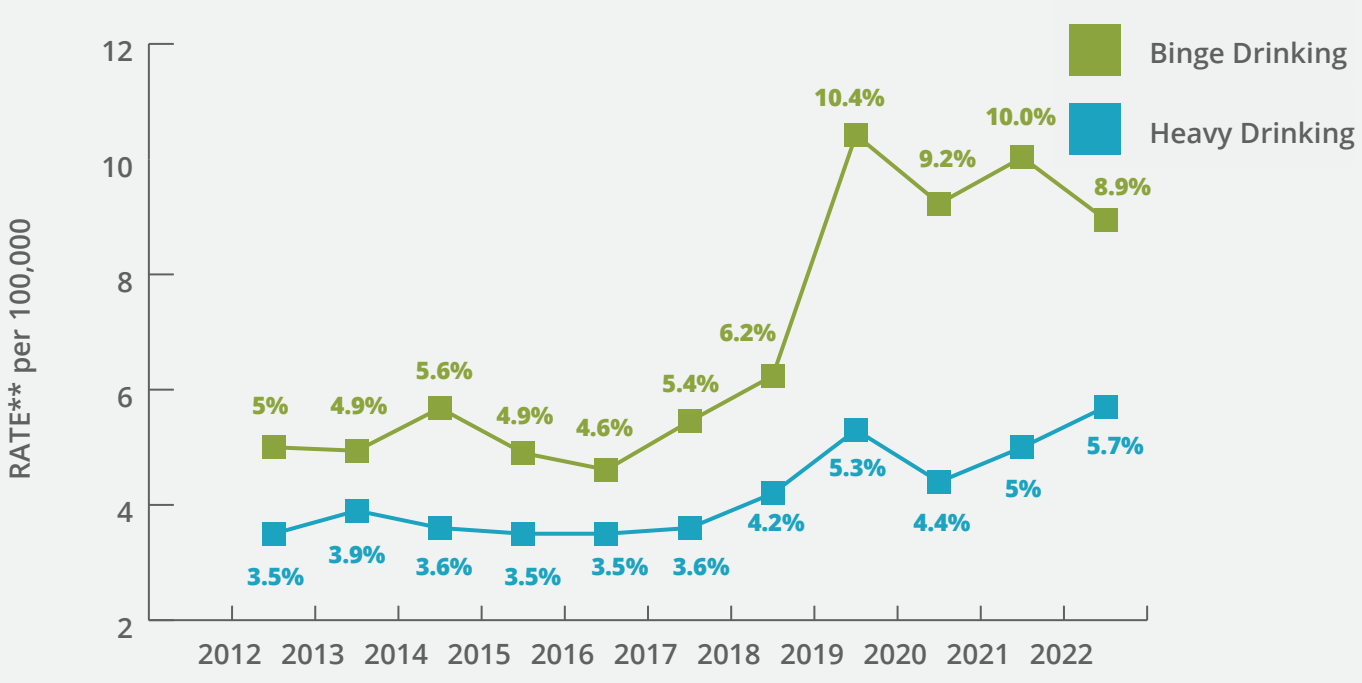
BINGE DRINKING

5.7%
WV MEN

x15 PER WEEK

HEAVY DRINKING

FIGURE 21: PREVALENCE OF ADULTS REPORTING BINGE DRINKING VS HEAVY DRINKING, WV 2012-2022



Non-Medical Prescription Use

Data from the 2021 National Survey on Drug Use and Health (NSDUH) shows that 3.21% of West Virginians 12 years old or older have used prescription pain relievers nonmedically, which is higher than the national estimate of 3.11%. According to NSDUH data available since 2014, 2021 is the first year in which West Virginians reported a higher non-medical prescription drug misuse than the national estimate in all three age categories (12-17 years, 18-26 years, and 26+ years). NSDUH shows young adults 18-25 years old had the highest use 3.44% among West Virginians in 2021.

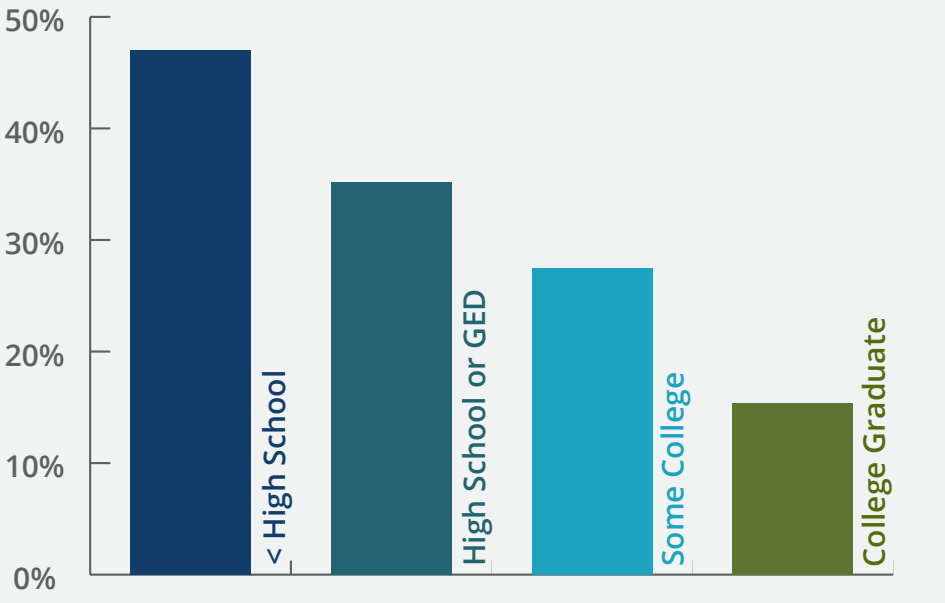
Drug abuse, particularly opioids, has been a critical threat to the state. WV has the highest rate in the country 21.2% for adults reporting using prescription drugs non medically (including pain relievers, stimulants, and sedatives) or illicit drugs (excluding cannabis.)

Adults Reporting Using Prescription Drugs Non-Medically

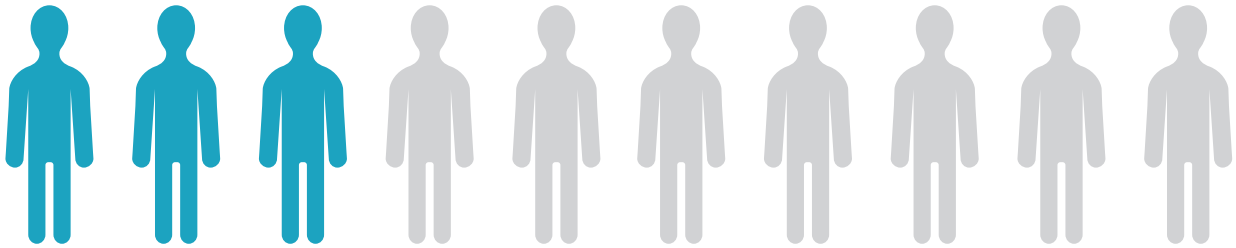
	US	WV
2019	11.3%	12.6%
2020	11.9%	13.8%
2021	12.0%	14.1%
2022	15.5%	25.7%
2023	15.9%	21.2%

Physical Activity or Exercise

FIGURE 22: PREVALENCE OF NO PHYSICAL ACTIVITY OR EXERCISE AMONG ADULTS BY EDUCATIONAL ATTAINMENT: WV, 2021



Data shows that those with the highest percentage of no physical activity are those with the lowest educational attainment.



3 out of 10 people are physically inactive among adults in WV for 2021.

The CDC recommends that adults need at least 150 minutes of moderate-intensity physical activity a week, such as 30 minutes a day, five days a week. Adults also need two days of muscle-strengthening activity each week.

Consumption of Fruits and Vegetables

The data shows that most adults in WV do not consume enough fruits and vegetables to support a healthy diet. In 2021, 90.0% of adults reported they did not get the recommended five servings of fruits and vegetables a day.

9 out of 10 West Virginians are not consuming the recommended amount of fruits and vegetables.

Potential barriers to meeting this recommendation include cost, availability, and accessibility of these products.

The CDC recommends that adults consume 1.5–2 cups of fruit and 2–3 cups of vegetables per day. This is based on the 2020–2025 Dietary Guidelines for Americans, which state that eating more fruits and vegetables is part of a healthy diet.

Chapter 2

HEALTH OUTCOMES

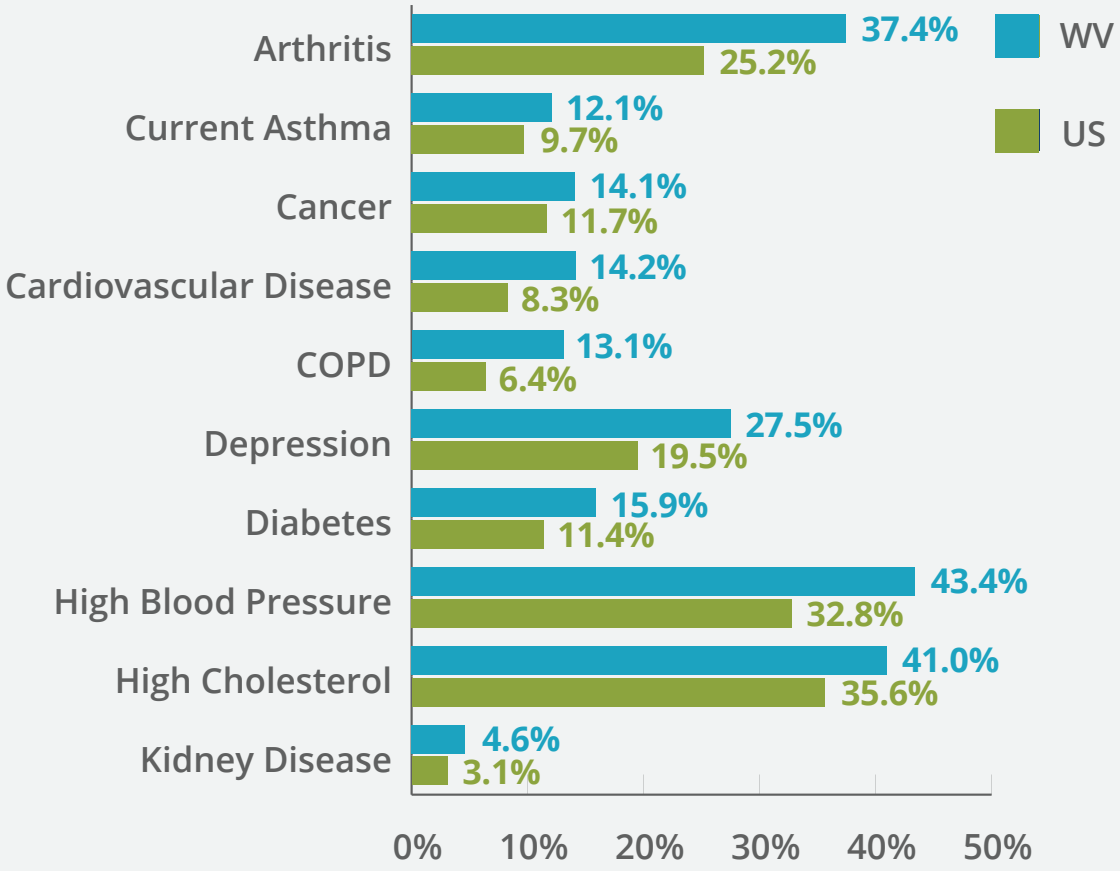
HEALTH OUTCOMES AND IMPACT

HEALTH OUTCOMES

Chronic Disease Among Adults

Many West Virginians are diagnosed with at least one chronic disease (multiple chronic diseases for some), which may decrease quality of life, impact financial status, and cause early death. Of the top ten leading causes of deaths for West Virginians, seven of them were chronic diseases: heart disease, cancers, chronic lower respiratory diseases, diabetes, stroke, Alzheimer's disease, and kidney disease, respectively.

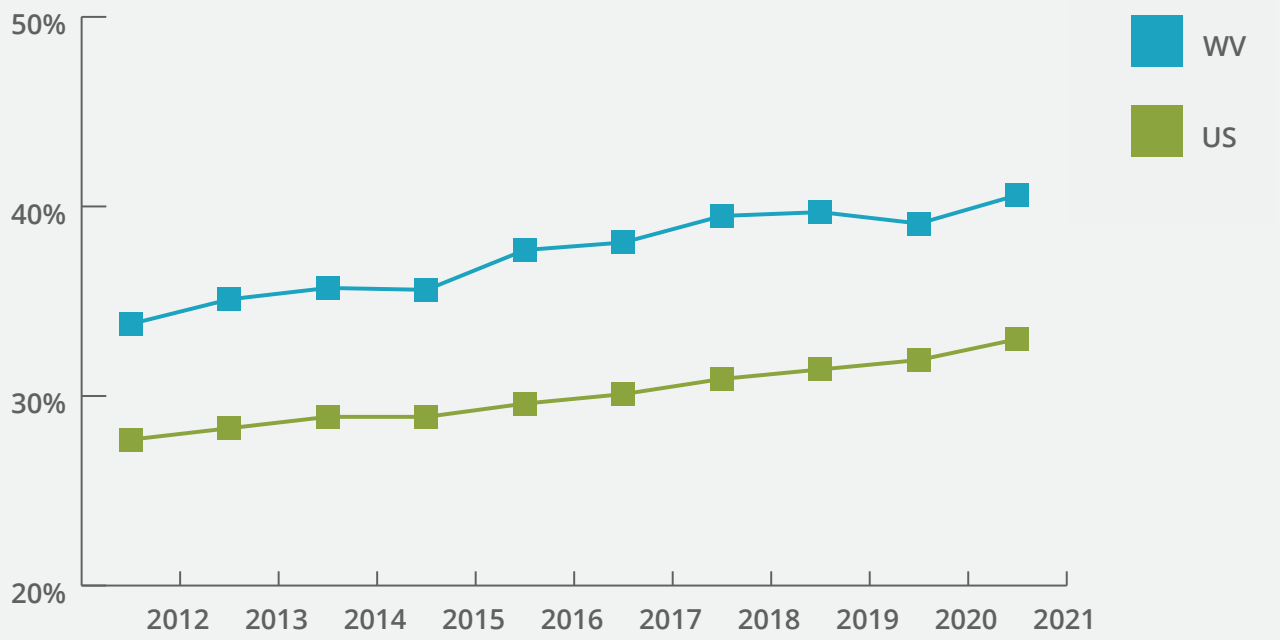
FIGURE 23: PREVALENCE OF CHRONIC DISEASE AMONG ADULTS: US VS WV, 2021



Obesity Among Adults

WV adults have the highest prevalence of obesity in the nation at 40.6%. Obesity is a chronic disease associated with an increased risk of other chronic health conditions, such as decreased quality of life and increased risk of premature death. It is also linked to stroke, heart disease, type 2 diabetes, and several types of cancer, including liver, kidney, colorectal, breast, etc. There are many diverse potential causes of obesity, including genetics, inadequate nutrition and/or physical activity, insufficient sleep, and certain health conditions or medications.

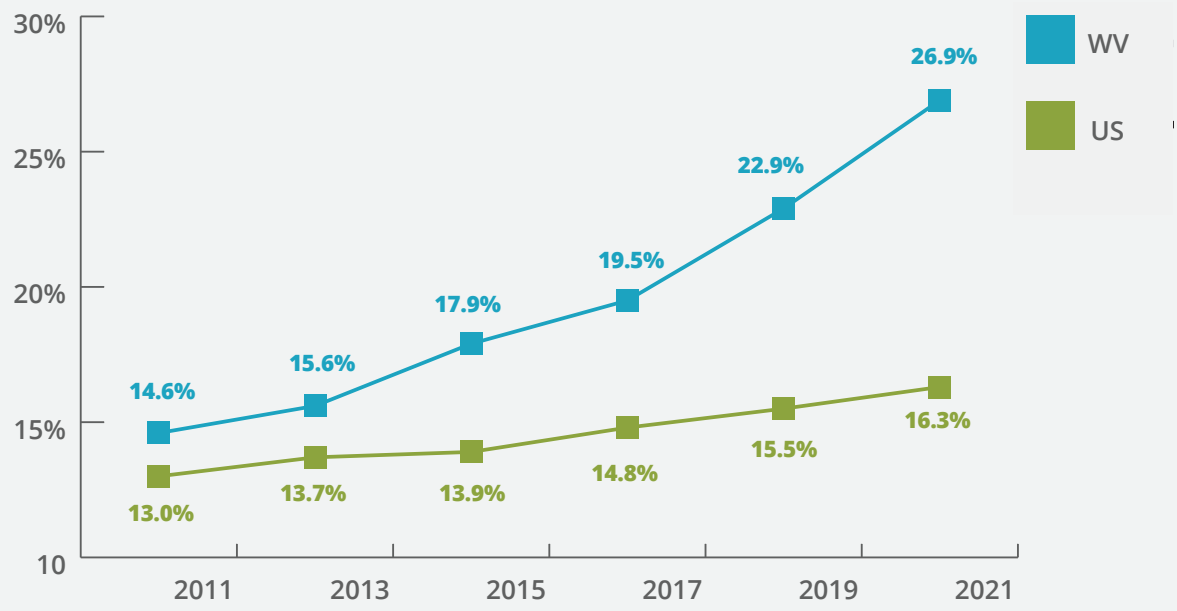
FIGURE 24: PREVALENCE OF OBESITY AMONG ADULTS: US VS WV, 2012-2021



Obesity Among High School Students

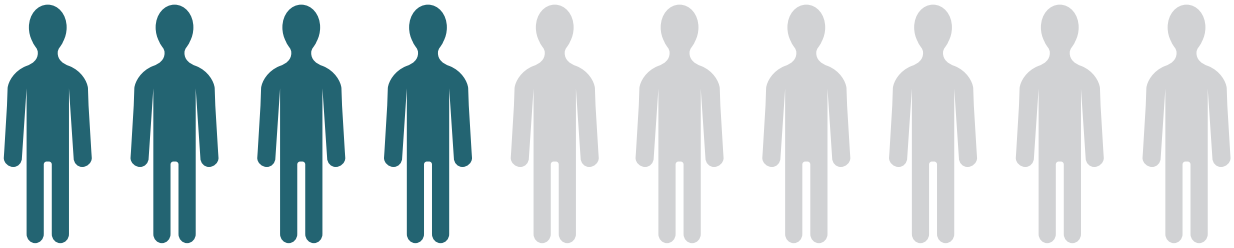
Obesity is increasing at an earlier age. This rate has steadily increased among high school students since 2011. In 2021, the prevalence of obesity was 26.9% for WV high school students.

FIGURE 25: PREVALENCE OF OBESITY AMONG HIGH SCHOOL STUDENTS: US VS WV, 2011-2021



High Blood Pressure

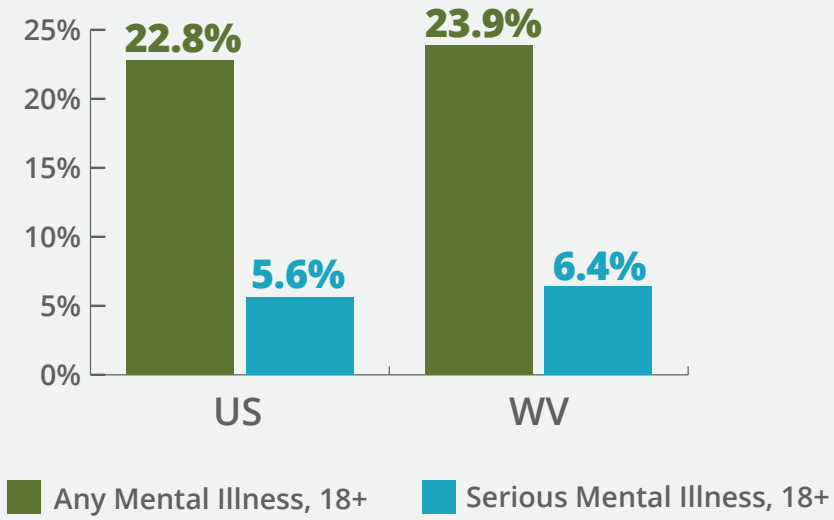
Most health care provider visits involve checking a person's blood pressure using a blood pressure cuff. Additionally, some businesses, such as grocery stores or pharmacies, have blood pressure machines, or home blood pressure monitors can be purchased. Screening is crucial since 43.4% of adults in WV have high blood pressure, which raises risk of heart attack, heart failure, and stroke.



4 out of 10 adults in WV have high blood pressure/hypertension.

Mental Health Disorders

FIGURE 26: PREVALENCE OF MENTAL HEALTH DISORDERS, WV VS US, 2021

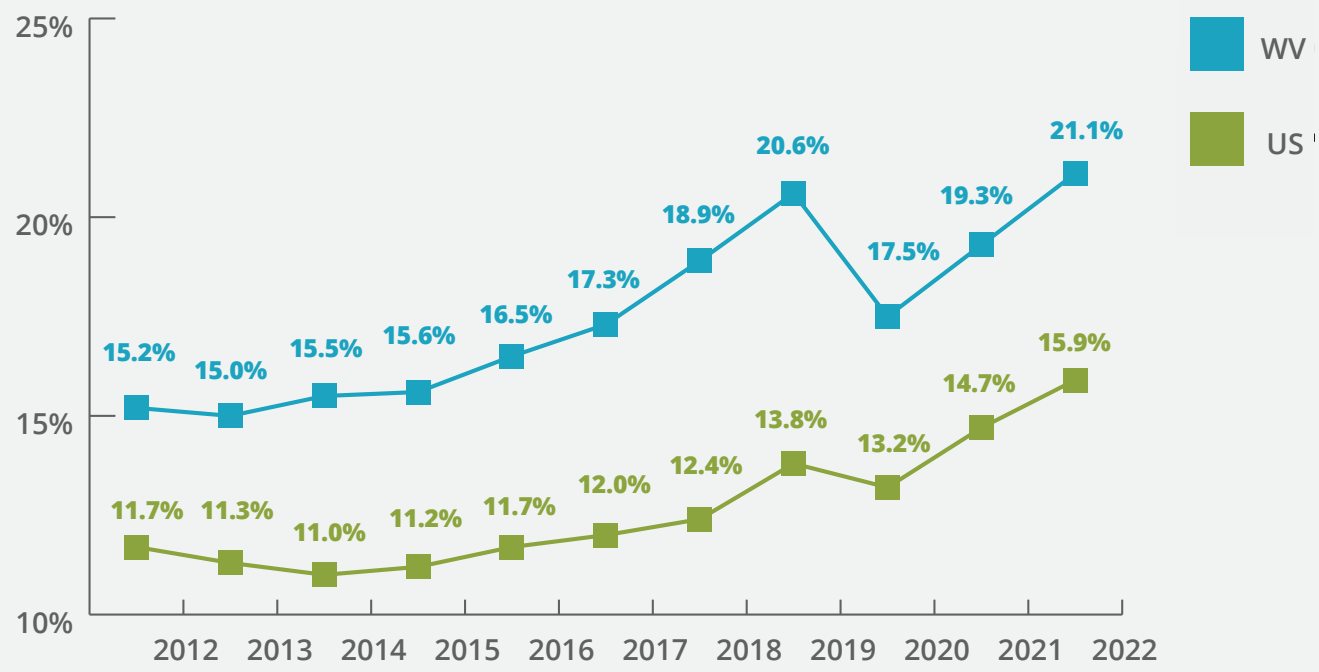


Poor Mental Health Days

Frequent mental distress is defined when a person reports their mental health as 'not good' for 14 or more days in the previous 30 days. According to Healthy People 2030, WV is ranked 50th based on the percentage of West Virginian adults who reported they had frequent mental distress or that their mental health was not good 14 or more days in the past 30 days. America's Health Ranking reports that a total of 21.1% of WV residents experience frequent mental distress throughout the month, which is 5.2% higher than the national average. The following is the demographic data that represents the 21.1% of the population experiencing frequent mental distress.

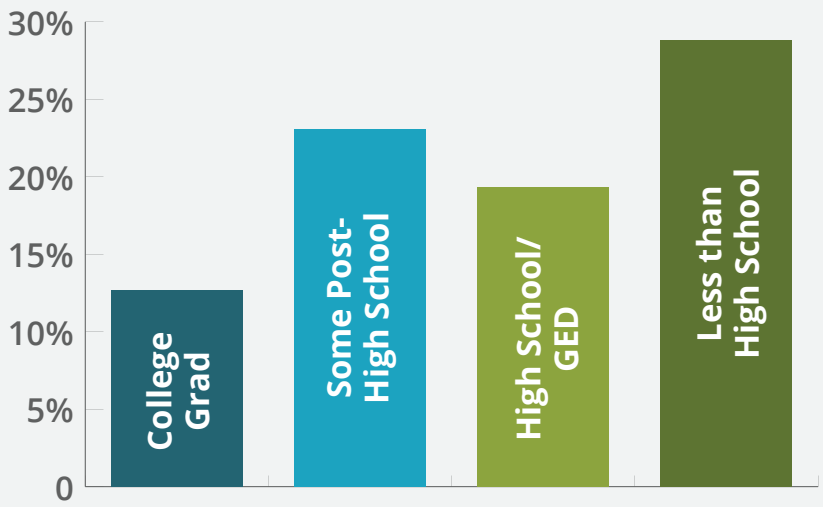
Frequent Mental Distress

FIGURE 27: PREVALENCE OF FREQUENT MENTAL DISTRESS, WV VS US, 2021



WV experiences higher rates of mental distress than the rest of the nation, at 21.2% and 15.9% respectively. Mental distress varies by level of education, but has remained consistently higher among those with lower levels of educational attainment.

FIGURE 28: PREVALENCE OF FREQUENT MENTAL DISTRESS BY EDUCATION LEVEL, 2022



HIV

At the end of 2021, 2,173 people aged 13 years or older had a diagnosed HIV infection and were living in WV. People living with HIV (PLWH) in WV were predominantly male (75%), 55 years old or older (37%), and White (70%), although Black people are disproportionately impacted (19%).

In 2021, the rate of new HIV diagnoses for persons 13 years or older in WV was 10.03 per 100,000 persons, which is double the rate for 2012. Five main transmission categories are present in WV: male to male (MSM) sexual contact, injection drug use (IDU), MSM and IDU, heterosexual contact, and other/unknown. The most prevalent transmission category has shifted over the last five years from MSM to IDU. While IDU was previously a less frequently reported transmission category among West Virginians diagnosed with HIV, IDU is now reported as the transmission category in more than twice as many new diagnoses than MSM or other transmission categories.

FIGURE 29: RATES OF HIV CASES, WV VS. US

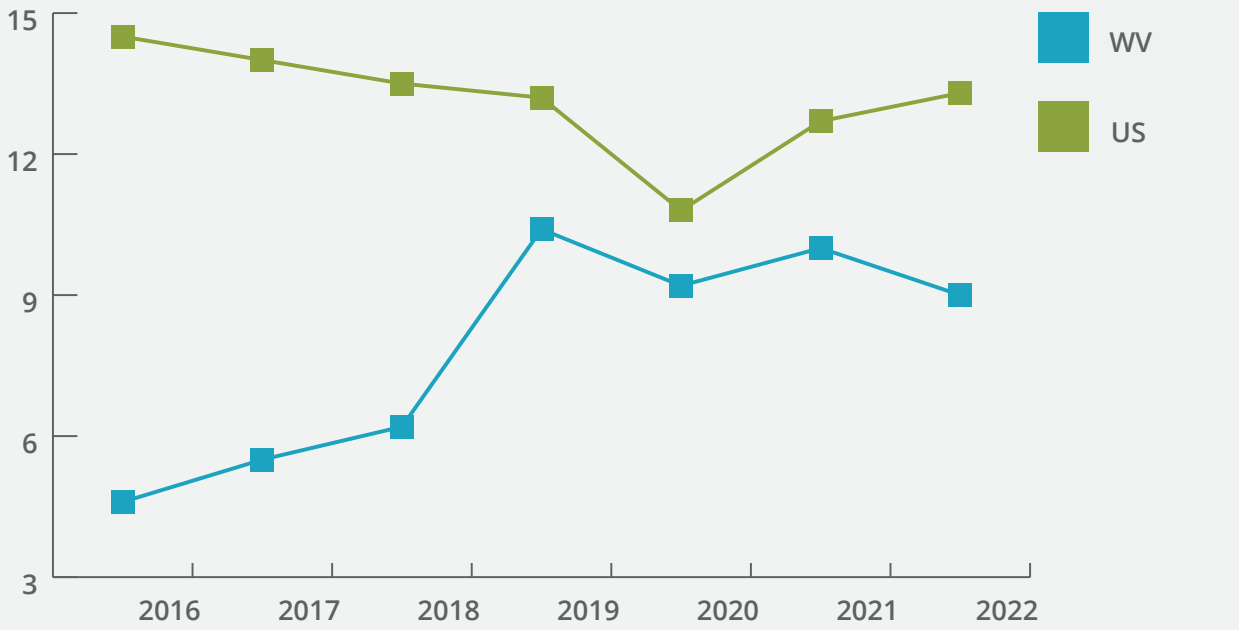
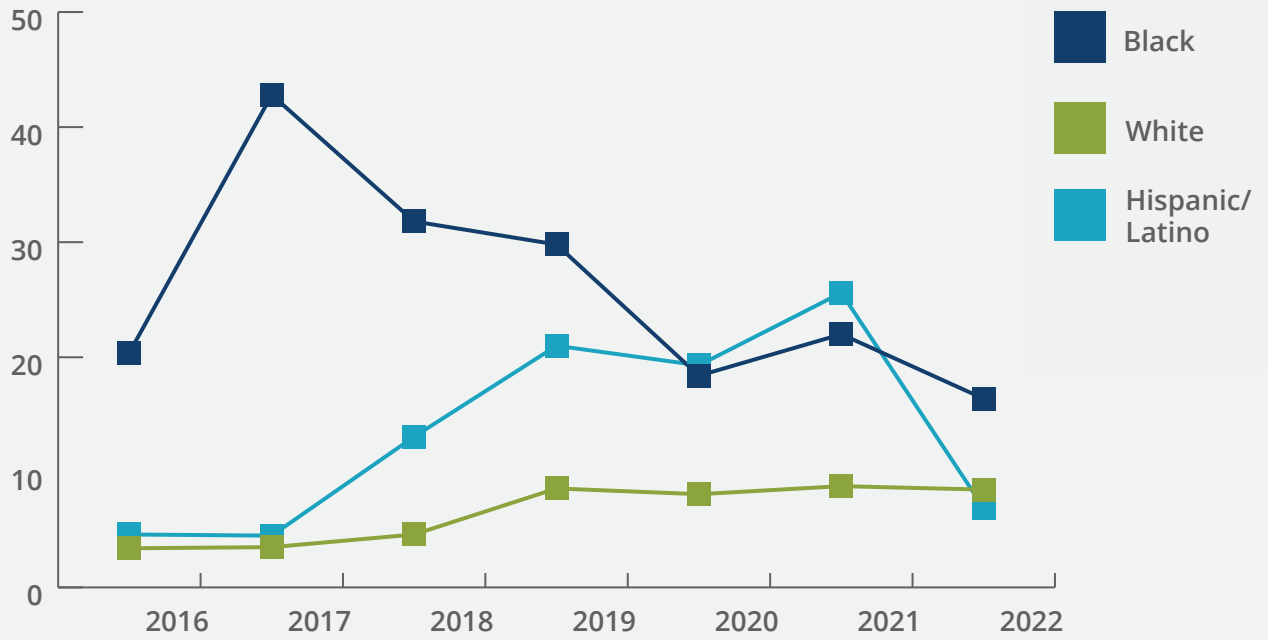


FIGURE 30: RATE OF HIV DIAGNOSES BY RACE/ETHNICITY, PER 100,000, WV, 2016-2022

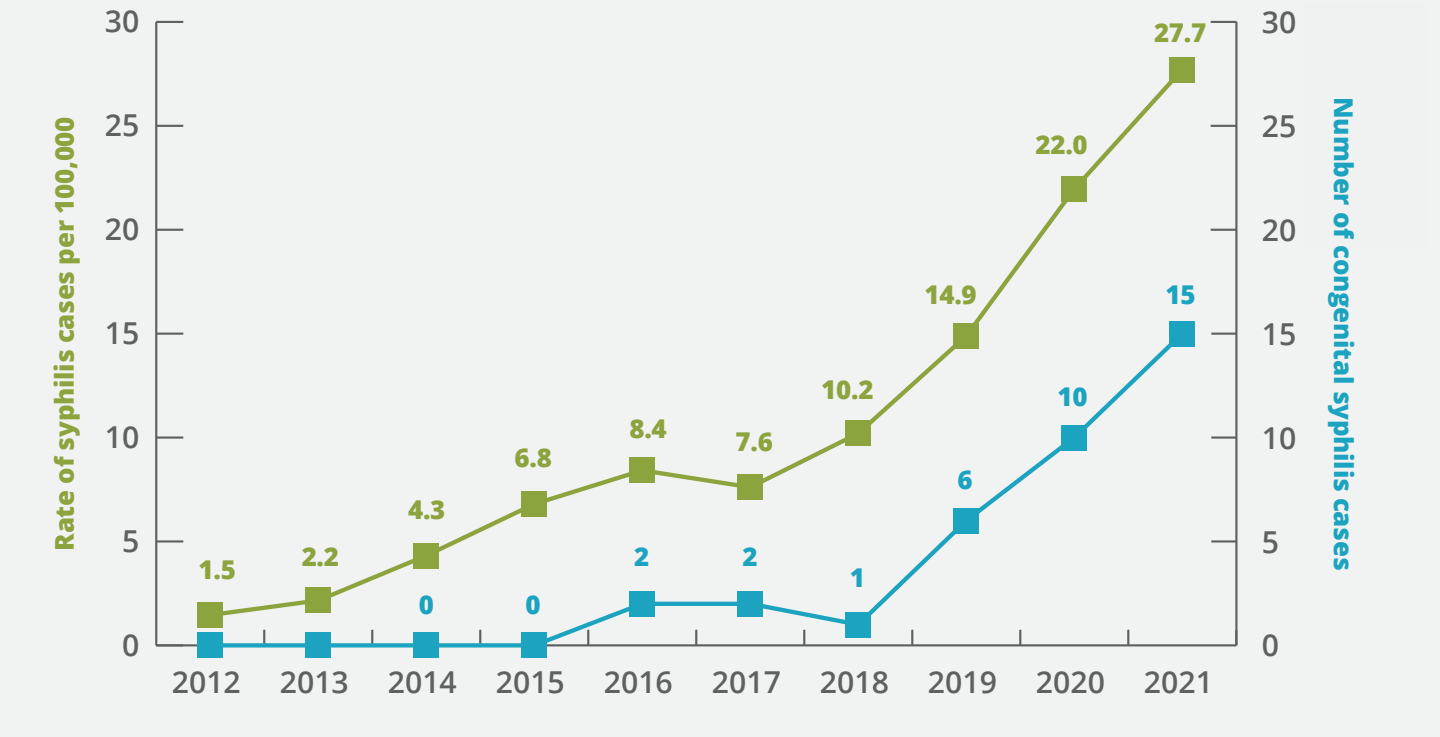


Sexually Transmitted Infections (STIs)

The rate of syphilis infections has increased over the last several years. Rates increased from 1.46 per 100,000 persons in 2012 to 27.71 per 100,000 persons in 2021. The number of reported cases of congenital syphilis also increased steadily over the last five years from two in 2017 to 15 in 2021.

In 2021, there were 497 cases of syphilis reported in WV. Of those cases, 89 (17.9%) reported injection drug use and 62 (12.5%) reported non-injection drug use. An additional 112 reported having partners that used injection drugs, indicating that 53% or 263 cases reported substance abuse or a sexual partner who injects drugs.

FIGURE 31: RATES OF SYPHILIS AND CONGENITAL SYPHILIS CASES BY YEAR, WV, 2012-2021



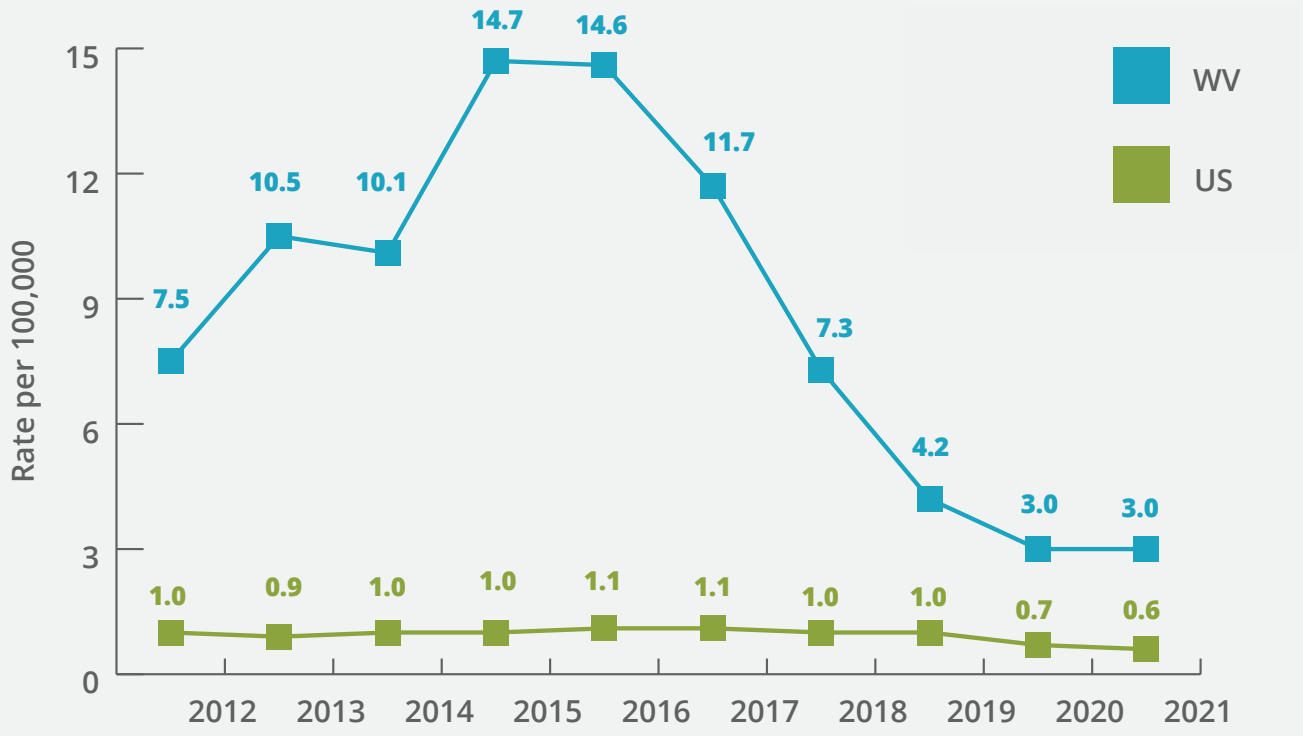
Hepatitis

WV has reported one of the highest incidence rates of acute hepatitis B in the nation for several years. Although that rate has declined steadily since 2017, it is still more than three times the national rate per 100,000 persons. There were 53 acute hepatitis B cases that met the confirmed case status of the Council for State and Territorial (CSTE) surveillance case definition for acute hepatitis B virus infection. Injection and non-injection drug use were the most reported risk factors reported for 2021 cases. Of those 53 cases, 45.3% reported injection drug use (IDU) as a risk factor and 41.5% reported non-injection drug use as a risk factor.

IDU and non-IDU are not mutually exclusive as cases are able to report multiple risk factors. There were 24.5% of cases that had "unknown" IDU risk factor and 33.9% of cases that had "unknown" non-IDU risk factor.

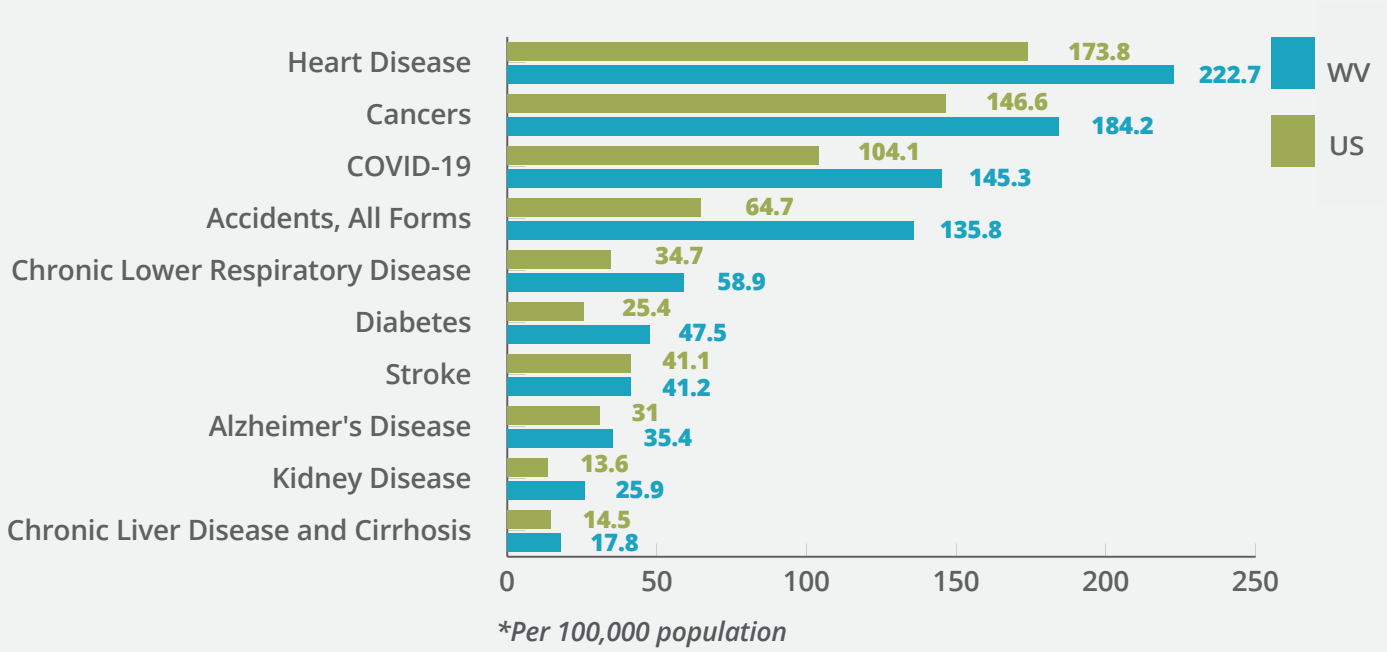
WV has maintained one of the highest incidence rates of acute hepatitis C virus infection in the nation. In 2021, WV's rate of acute hepatitis C cases was four times the national rate. There were 83 acute hepatitis C cases that met the confirmed or probable case status of the CSTE surveillance case definition for acute hepatitis C virus infection. Injection and non-injection drug use were the most reported risk factors reported for 2021 cases. Of those 83 cases, 18.1% reported non-IDU as a risk factor and 15.7% reported IDU as a risk factor. Like hepatitis B cases, IDU and non-IDU are not mutually exclusive as cases are able to report multiple risk factors. For hepatitis C cases, risk factor information was largely unknown with 71.1% of cases having "unknown" non-IDU risk factor and 72.3% having "unknown" IDU risk factor.

FIGURE 32: RATES OF ACUTE HEPATITIS B VIRUS, WV VS. US, 2012-2021



Leading Causes of Death

FIGURE 33: AGE-ADJUSTED MORTALITY RATES FOR LCOD*, 2021



Leading Causes of Death

Heart disease affects 7.2% of adult West Virginians and has been the leading cause of death for the last six years, with 5,538 deaths in 2021. Gender-specific mortality rates were 341.4 deaths per 100,000 males and 279.9 per 100,000 females.

Cancer affects 14.1% of adults, with 16.3% of deaths attributed to it in 2021. West Virginia had the highest cancer death rate in the country at 184.4 per 100,000, with Monongalia County having the lowest rate at 133.0 and McDowell County the highest at 360.5. McDowell County also had the lowest median household income in the state at $30,127, compared to $56,466 in Monongalia County and a statewide median of $50,884.

COVID-19 was the third leading cause of death, responsible for 12.2% of deaths. Mortality rates increased with age, from 0.0 under 14 years to 1,707.1 per 100,000 for those 85 and older.

Health Outcomes

WV had the highest rate of accidental deaths in 2021 with 2,490 deaths, 59.8% of which were due to poisonings, including overdoses. Over half (57.0%) of deaths for residents aged 25-34 were from accidental poisonings. Motor vehicle accidents caused 297 deaths.

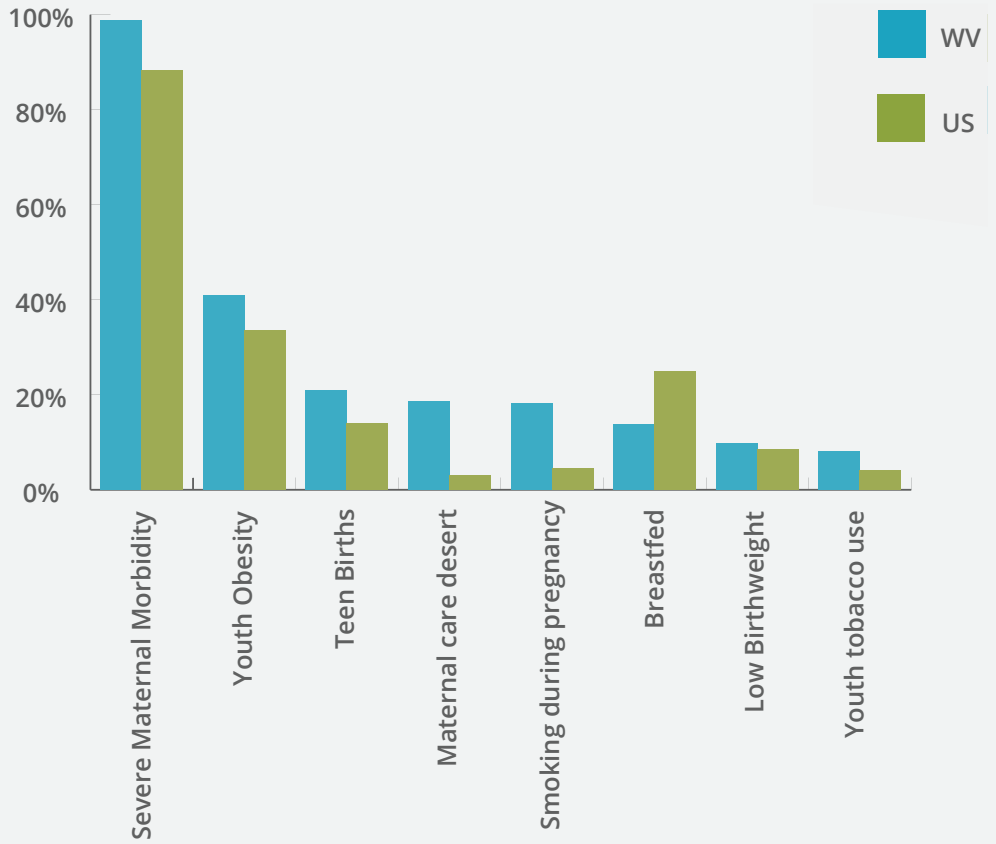
The state also led the nation in deaths attributed to diabetes, which caused 1,202 deaths in 2021. Diabetes was more common among those with less than a high school education and those aged 65 and older.

These conditions and injuries accounted for 59.9% of resident deaths in 2021. West Virginia had the highest prevalence of depression in the US at 27.5% and was 10th in suicide mortality with 20.6 deaths per 100,000. The overdose mortality rate was nearly triple the national average at 92.5 deaths per 100,000 (US rate: 32.4). According to SAMHSA, 3.3% of adults misused pain relievers, and 16.7% had a substance use disorder in 2021.

Risk Factors for Maternal and Child Mortality

Despite West Virginia's better-than-average rates for well-woman and well-child visits in 2021, the state faces significant challenges with maternal mortality (consistent with the national average) and higher-than-average infant and child mortality rates.

FIGURE 34: RISK FACTORS FOR INFANT AND CHILD MORTALITIES IN 2020-2021



Infant Mortality

Infant mortality is defined as the number of infant deaths (before age one) per 1,000 live births. Child mortality is defined as the number of deaths per 100,000 children ages 1-19. In 2020-2021, both WV infant and child morbidities were higher than the national rate and ranked 39th and 33rd, respectively.

Maternal mortality is defined as the number of deaths related to or aggravated by pregnancy (excluding accidental or incidental causes) occurring within 42 days of the end of a pregnancy per 100,000 live births. In 2020-2021, WV maternal mortality is at the national average level and ranked 21st in the country.

FIGURE 35: CHILD & MATERNAL MORTALITY WV, US, STATE RANKING				
HEALTH OUTCOMES	WV	US	STATE RANKING	HEALTHY PEOPLE 2030 GOAL*
Infant Mortality (Number of deaths per 1,000 live births: infants 0-1)	6.7	5.5	39	5
Maternal Mortality (per 100,000 live births)	22.3	22.4	21	15.7
Child Mortality (Number of deaths per 100,000 children: ages 1-19)	32.2	27.4	33	18.5

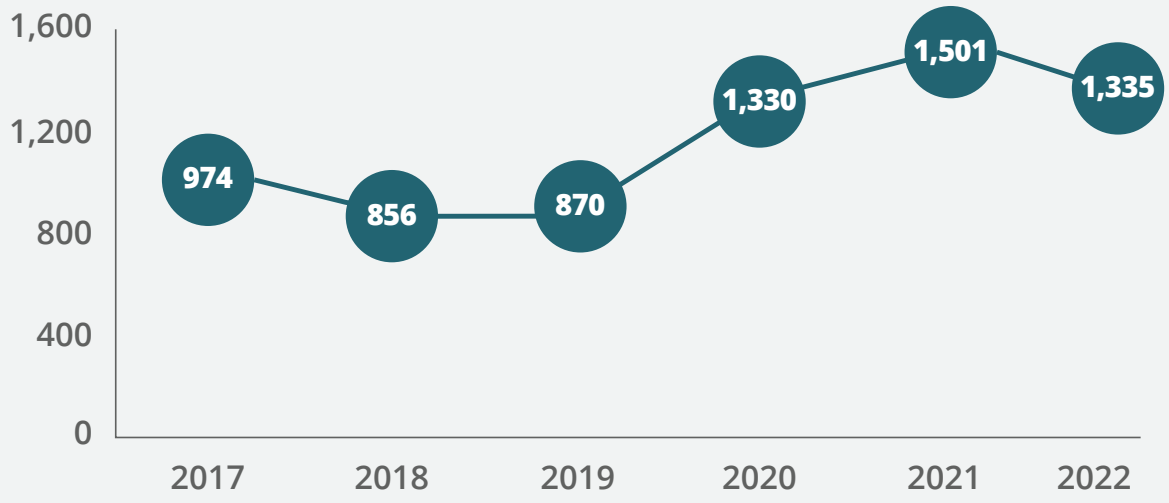
*Data Source: WV and US rate: Americashealthrankings 2023; *: HealthyPeople2030*

Impact of Addiction and Substance Use

The addiction crisis has hit WV harder than any other state. In 2023, the provisional overdose death rate in WV was 71.4/100,000, which is almost triple the national rate of 24.1/100,000. Substance use disorders affect all aspects of life in WV, from work force, health care, first responders, law enforcement, and education and costs our state significantly in terms of lost life and lower productivity, reduced economic activity, and investments in services provided to people with addiction. While some progress has been made recently in reducing overdoses through increased public health and interdiction efforts, efforts must continue to reduce the impact of addiction and substance use on our society.

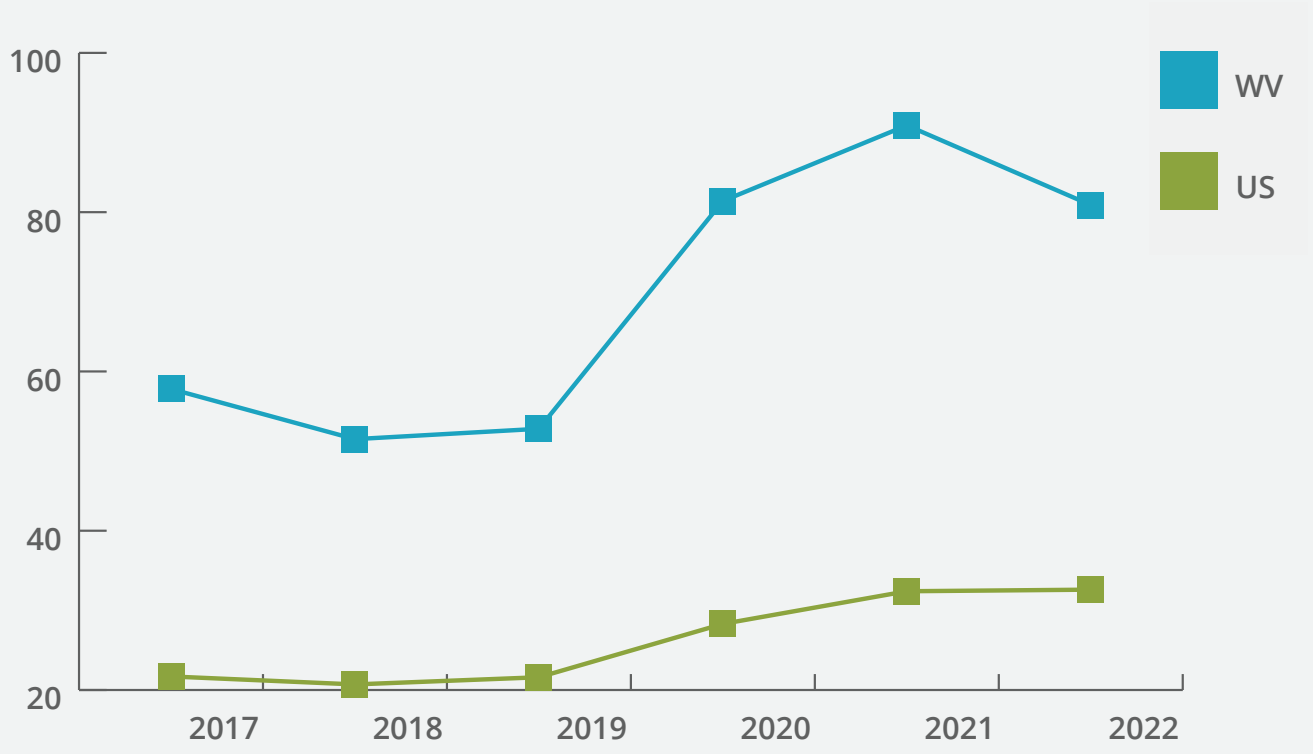
Drug Overdose Deaths

FIGURE 36: WEST VIRGINIA DRUG OVERDOSE DEATHS



Source: http://wonder.cdc.gov

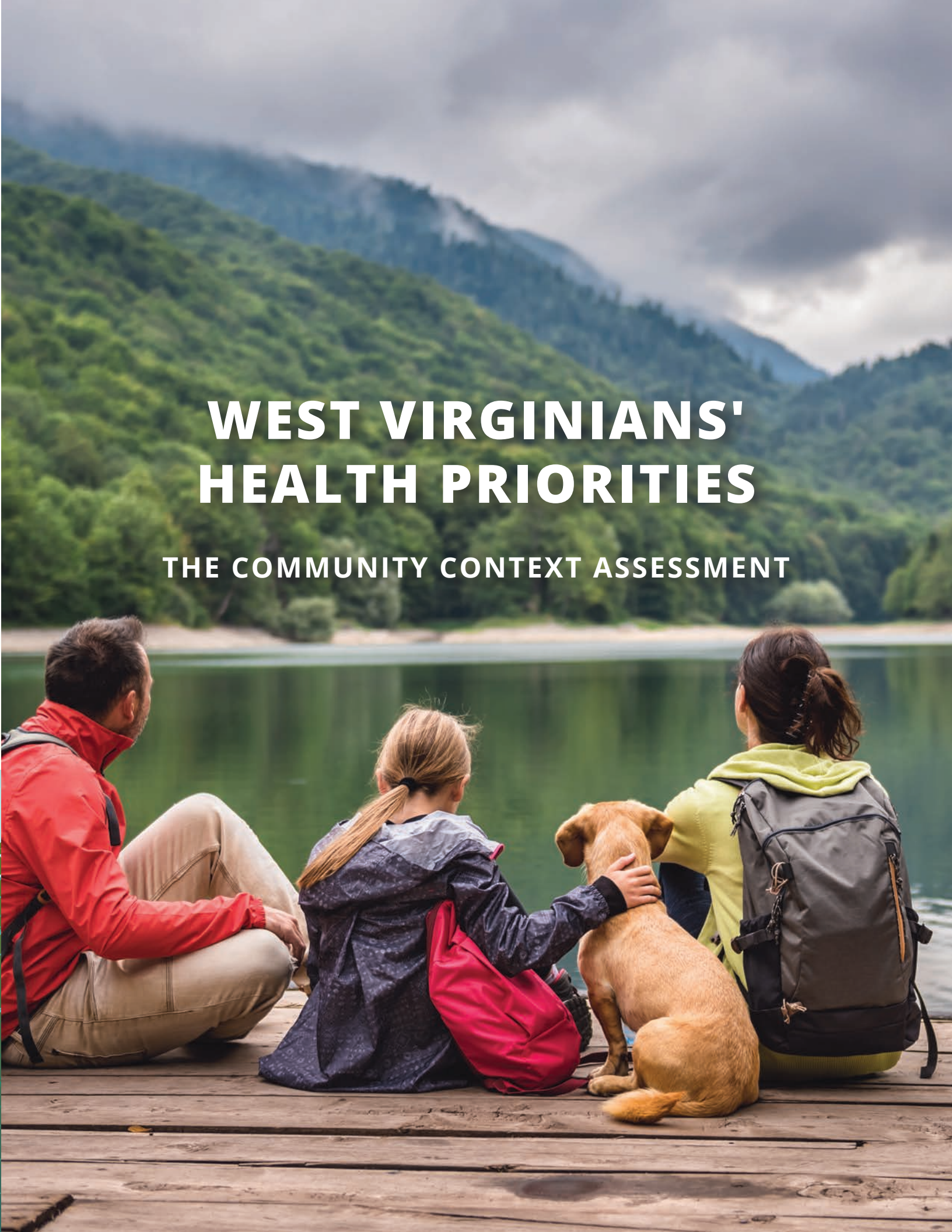
FIGURE 37: DRUG OVERDOSE DEATH RATE, WV, 2017-2022



Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. Multiple Cause of Death 1999-2022 on CDC WONDER Online Database. Data are from the Multiple Cause of Death Files, 1999-2022, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at http://wonder.cdc.gov/mcd-icd10.html on May 7, 2024.

Chapter 3

HEALTH PRIORITIES



WEST VIRGINIANS' HEALTH PRIORITIES

THE COMMUNITY CONTEXT ASSESSMENT

Community Health Assessment Survey

The Community Health Assessment survey was conducted online for West Virginia residents from September 18 to October 23, 2023. It asked about personal health, community quality of life, key local issues, and experiences during the COVID-19 pandemic.

Although the survey was promoted through various media, the results do not fully represent the average West Virginian. More than 80% of respondents who identified their gender were female, and they generally had higher education and income levels. About 24% of responses came from Kanawha, Monongalia, and Wood Counties, while rural areas, men, and those with average education and income were underrepresented.

Privacy concerns are notable among West Virginians, with 27.1% of the 3,118 respondents choosing not to state their gender. This group often stopped mid-survey and frequently selected “prefer not to answer,” which impacts the reliability of their responses.

Listening Sessions

Listening sessions, as part of community engagement, began October 13, 2023, and went through November 9, 2023, with eight sessions hosted in-person throughout the preparedness regions and three virtual sessions engaging participants from across the state. Fifty-five percent of local health departments participated in the in-person sessions. This also provided Mountaineers from various disciplines to assist with identifying challenges, strengths and opportunities in their communities. A few disciplines represented were faith-based, mental health, recovery, and health care related. These sessions included an interactive activity that allowed community participants an opportunity to discuss five topics and provide feedback based on their lived experiences and perceptions. This was an opportunity to discuss community level strengths and weaknesses that impact health outcomes specific to their counties.

Participants were instructed to identify the most impactful theme to health outcomes in their communities. Once the theme was identified groups were instructed to find the cause by using the 5-Whys tool. This tool was used to dig deep into identified issues to address root causes of health challenges in WV.

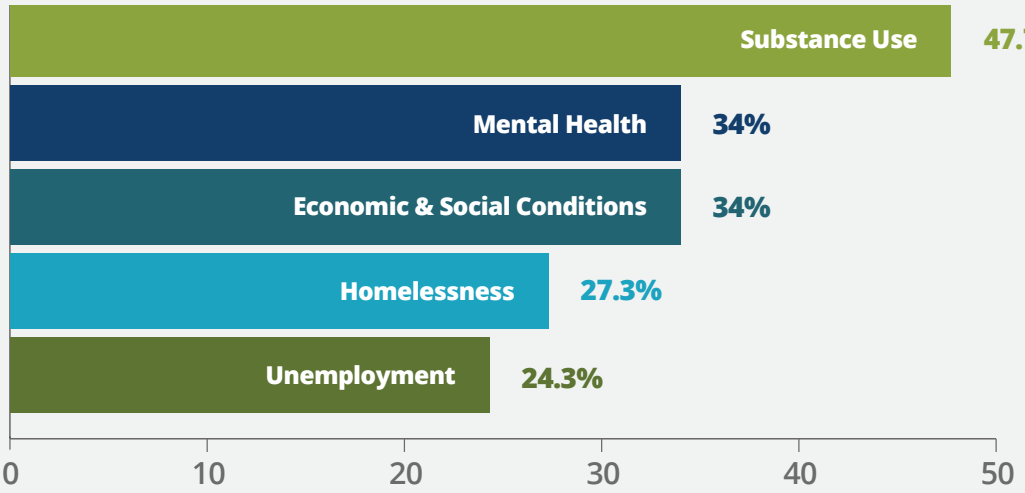
The 5 Whys tool is a problem solving technique that helps identify the root cause of a problem quickly. Causes identified in the 5-Whys exercise included lack of education contributing to poverty, stigmas associated with West Virginia culture that contribute to individuals not advocating for better opportunities, lack of accountability for better services, and lack of funding for needed services within communities.

Community listening sessions were conducted across WV. For locations, see Appendix C, page 93.

Top Health Priorities

Respondents were asked to identify the top priorities in their community with the question, "In your community, what do you think are the most important issues?" Participants could choose up to five options.

FIGURE 38: TOP HEALTH PRIORITIES AMONG WEST VIRGINIANS, COMMUNITY HEALTH SURVEY



**Participants could choose up to five options*

Factors Affecting Quality of Life

The Community Health Survey asked, "In your community, what do you think are the most important factors that affect people's quality of life?" Respondents selected up to five options. Below are the results showing the most frequently chosen options in descending order.

54.3%
Access to healthcare (physical and mental)

24.9%
Good schools

33.5%
Clean environment (water, air, sewage, waste disposal)

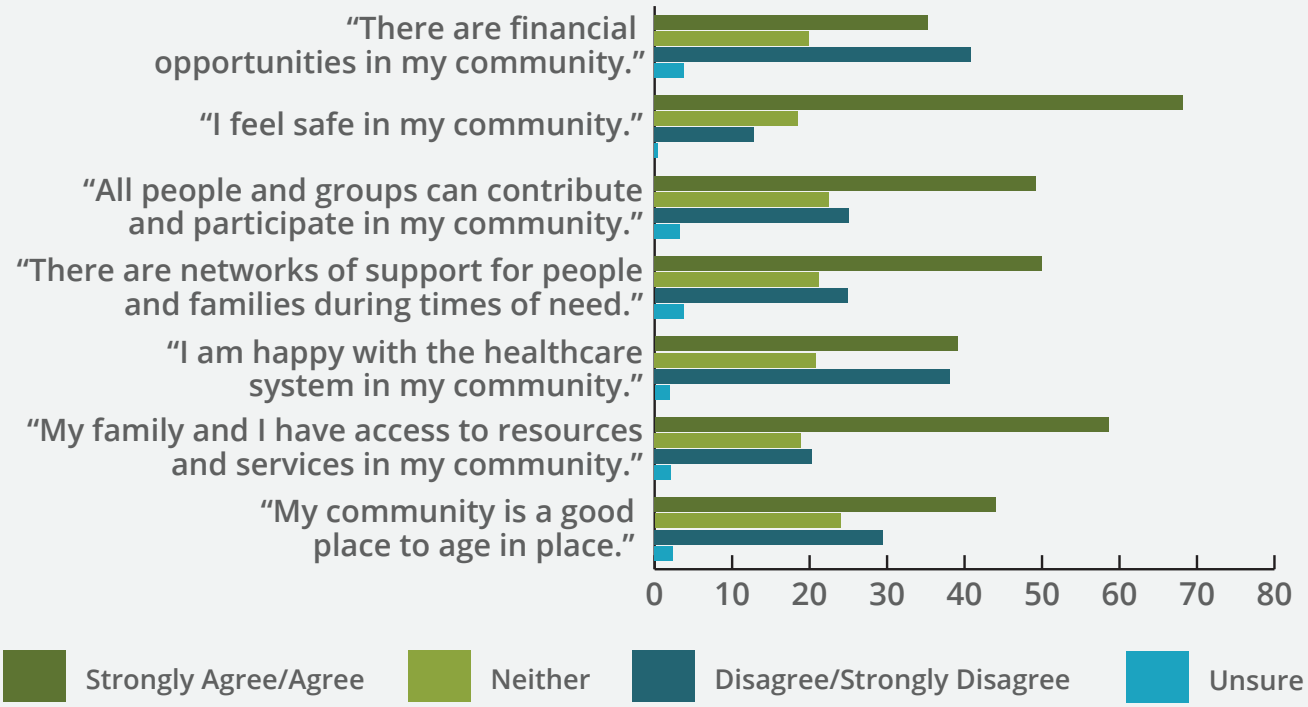
23.8%
Low crime/safe community

32.5%
Good jobs

Community Health Perceptions

To assess community health perceptions, respondents were prompted to, "Please rate your opinion with the following statements about the health and quality of life in your community where one means strongly agree and five means strongly disagree."

FIGURE 39: COMMUNITY HEALTH PERCEPTIONS AMONG WEST VIRGINIANS



Community Health Barriers

Respondents were asked to identify community health barriers with the question,"Which of the following, if any, keeps you from being as healthy as possible?" Respondents were free to select all that apply. Below is the percentage of respondents selecting each option in descending order.

38.7%
Not being at a healthy weight (overweight or underweight)

27.7%
A disease/illness (physical or mental)

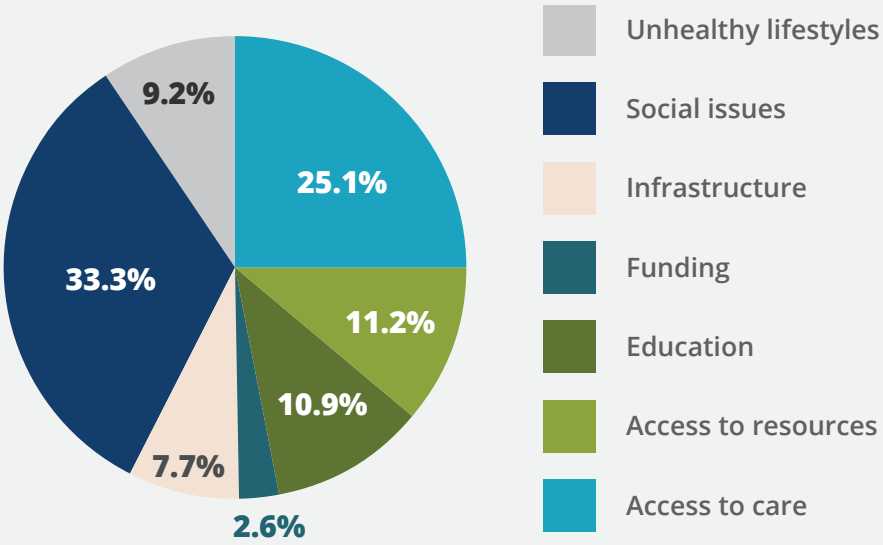
18.6%
Ability to pay for healthcare

15.8%
Ability to pay bills (utilities – power, gas, water, etc.)

15.8%
Lack of personal time off or sick leave from my job

Themes Preventing People From Being Healthy

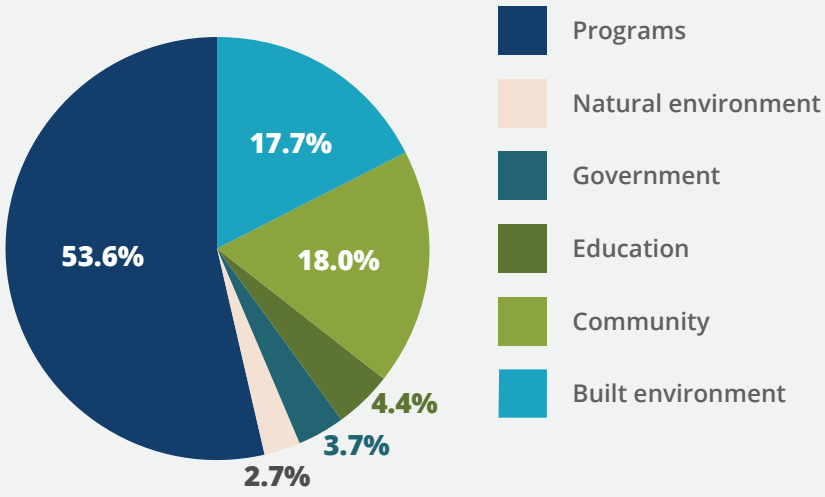
FIGURE 40: COLLECTIVE THEMES ACROSS WV COMMUNITIES PREVENTING PEOPLE FROM BEING HEALTHY



Prevailing topics recognized as barriers in preventing people from being healthy identified lack of family and social support, access to transportation, educational gaps for nutrition, basic infrastructure challenges such as inadequate sanitation in rural areas, underfunded public health programs, and limited access to physical fitness resources. Overall, more than sixty percent of responses from all eleven listening sessions identified lack of access to care and social issues as barriers with the most impact to health in WV communities.

Community Strengths

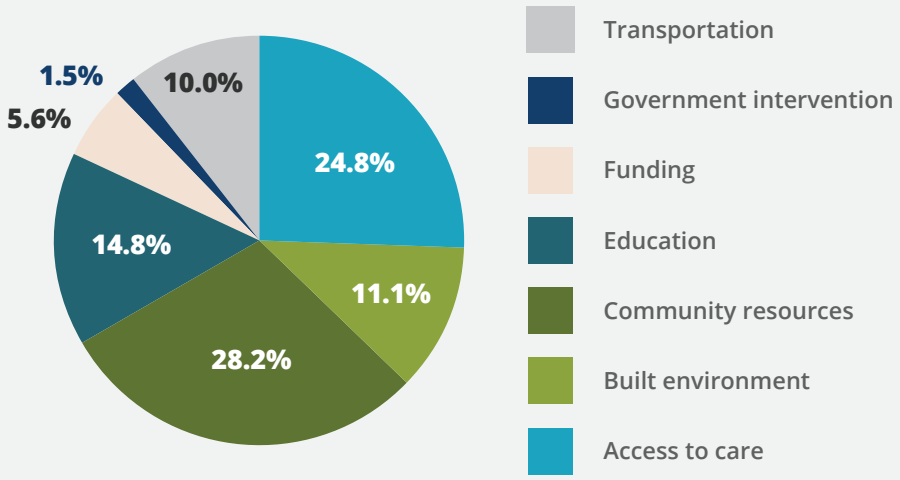
FIGURE 41: FREQUENCY OF IDENTIFIED COMMUNITY STRENGTHS



Strengths highlighted by the listening sessions show participants overwhelmingly value programs within their communities. In addition, community and built environments hold value within the Mountain State. Built environments include outdoors spaces, such as walking trails, fitness centers, parks, and community gardens. Identified programs also highlighted non-profit organizations, medical facilities, youth programs and food assistance programs.

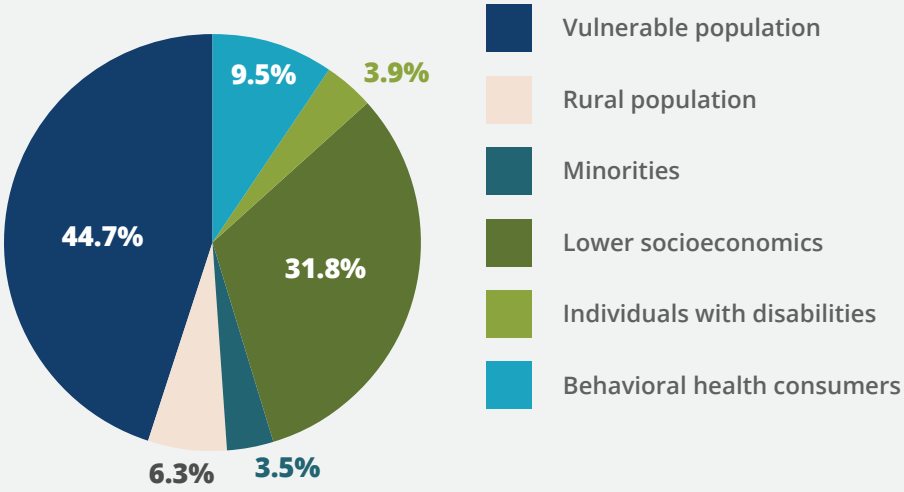
Community Needs

FIGURE 42: FREQUENCY OF IDENTIFIED COMMUNITY NEEDS



Fifty-three percent of responses during all listening sessions identified access to care and community resources as the top two requirements needed to create health communities in the Mountain State. Community resources specified such needs as affordable childcare, afterschool programs, access to affordable and healthy foods, and areas for physical activities. Responses regarding access to care ranged from affordable insurance and healthcare to access of specialty services within rural areas.

FIGURE 43: FREQUENCY OF IDENTIFIED AT-RISK POPULATIONS



Perceived At-Risk Populations

At-risk groups within the community were predominately associated with two groups. Three-quarters of responses identified vulnerable and lower socioeconomics populations as exposed or unprotected with our communities. For purposes of the listening sessions, vulnerable populations are defined as individuals categorized by age, health status, victimization, social or lifetyle factors. Lower socioeconomic populations are those struggling with low or no income, housing and employment deficiencies, lack of education, or access to care categories. Other at-risk categories included rural, behavioral health consumers, minorities, individuals with disabilities, and veterans.

Participants in the listening sessions vocalized a relatively uniform response on how to build on strengths within our communities to improve health for all. Responses were evenly distributed between the following areas: access to care, built environment, communication, community engagement, education, and funding. Suggestions such as providing education to reduce stigmas, strengthen or maintain vaccination rates, become less reactive and more proactive to issues, acknowledging work performed in communities, supporting other programs, and decreasing the duplication of services/programs are just a few of the emphasized suggestions provided during these sessions.

Differences noted among the eight regions include areas of assets and health factors that adversely impact health. Healthcare infrastructure and access to diverse specialties were listed as assets in areas with a strong medical school presence but in more rural areas of the state these were listed as challenges. Regions with fewer opportunities for local secondary education noted education and poverty as higher areas of concern. Location also played a factor with areas experiencing a lack of sanitation infrastructure and access to clean water in rural parts of the Mountain State.

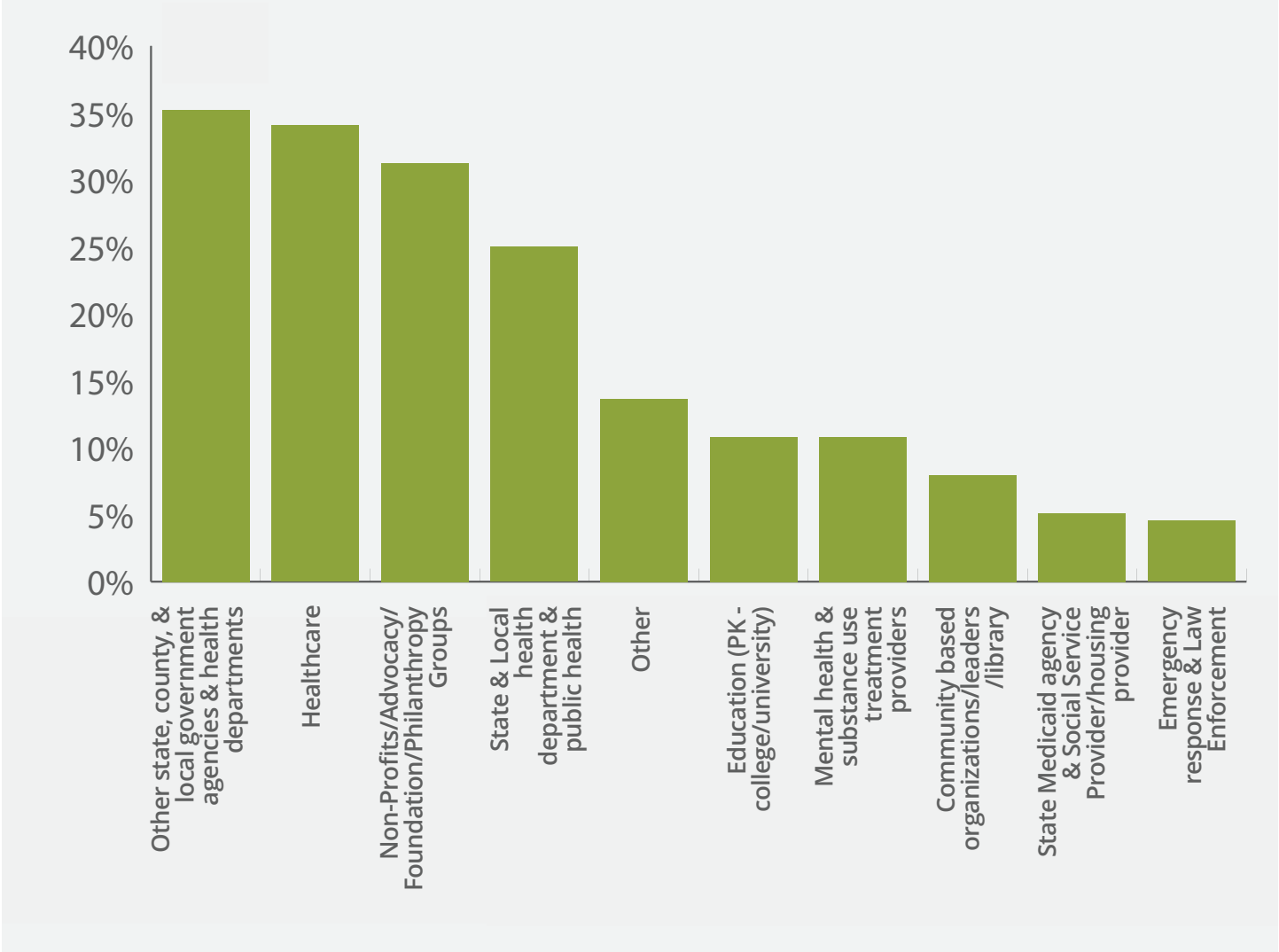
WEST VIRGINIANS' PUBLIC HEALTH PARTNER PRIORITIES

THE COMMUNITY PARTNER ASSESSMENT

The Community Partner Assessment

The State Health Assessment (SHA) team developed the 2023 WV Community Partner Assessment (CPA) and distributed the survey to 160 community partners and stakeholders from September 20, 2023, to October 22, 2023. The objective of the CPA is to gain a broad understanding of existing community resources, describe roles of partners in their communities, assess their capacity, resources, populations served, data collected, and roadblocks they face in their mission of improving health outcomes. The CPA tells the story of WV communities by measuring health equity capacity, engagement, resources, and forces of change among community partners.

FIGURE 44: PARTNER ORGANIZATION TYPE REPRESENTED IN THE CPA



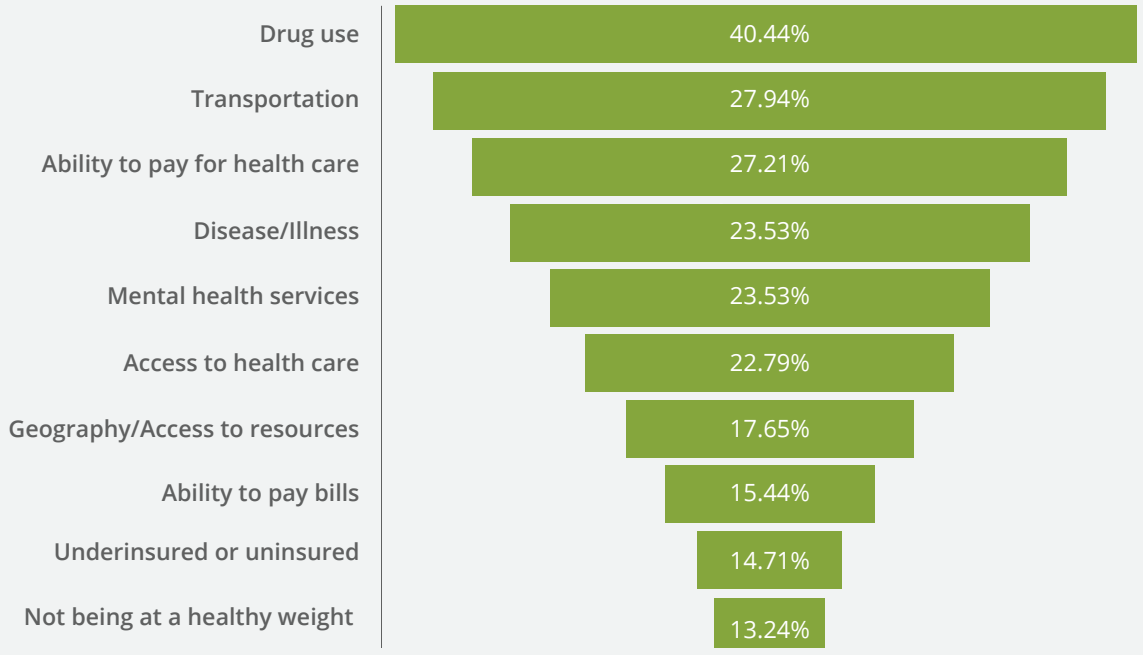
Community Partner Data

FIGURE 45: TARGETED POPULATIONS OF COMMUNITY PARTNERS

- Aging populations
- Children and youth
- Transgender, gender variant, intersex people
- Lesbian, gay, bisexual, queer people
- People with disabilities and medical conditions
- People with mental health disorders
- People with substance use disorders
- Rural populations
- Immigrants, refugees, asylum seekers or other populations who speak English as a second language
- Undocumented people
- People facing food insecurity
- People who are subjected to intimate partner violence
- Public housing residents
- Detained/justice involved people
- Under/uninsured people
- People who are experiencing homelessness
- Individuals with low income
- People living in congregate housing
- Veterans or military personnel
- Other

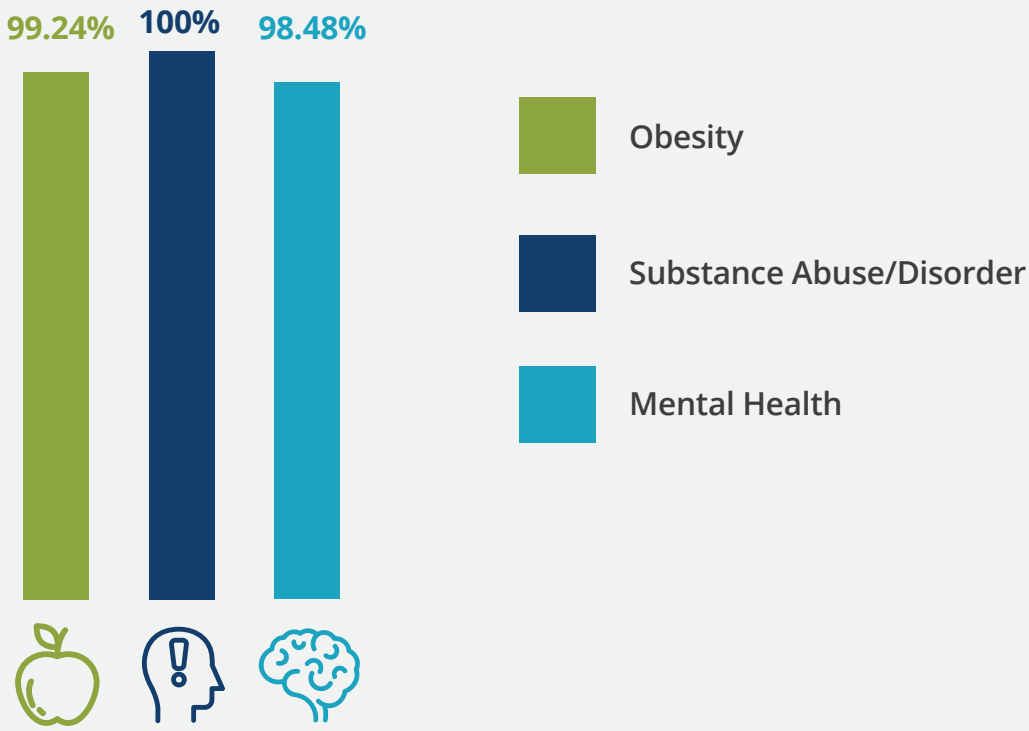
Greatest Threats to Health In WV

FIGURE 46: ISSUES IDENTIFIED AMONG COMMUNITY PARTNERS



Top Health Concerns Among Community Partners in WV

FIGURE 47: TOP HEALTH CONCERNS AMONG COMMUNITY PARTNERS IN WV



Community Partner Needs

- Trained workforce
- Funding
- Policies
- Data and other state-based information to help community planning efforts for specific populations
- Enhanced partnerships
- Communication efforts and/or structure to relay resources/programs in WV
- Political support

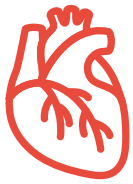
STATE HEALTH IMPROVEMENT PLAN PRIORITIES

Creating the State Health Improvement Plan

The SHA allowed public health to systematically look at West Virginia data that are drivers of population health and the related health outcomes and their impact. The SHA then reached out to West Virginians to see what their health priorities were, factors affecting quality of life and what community health barriers existed, through the Community Context Assessment and Listening Sessions. Lastly the SHA engaged public health partners which further confirmed West Virginians' greatest threats to health, through the Community Partner Assessment. Partners not only described top health concerns in communities but were also able to describe their capacity to address health priorities and what populations they served. Understanding public health partners and their capacity is critical as the state health improvement plan is developed to address priority health issues in WV.

State Health Improvement Plan Priorities

Four major themes were captured from the qualitative and quantitative data found within the State Health Assessment. The Prevention Workgroup members ranked topics within each quadrant as priority health topics: chronic disease, behavioral health, access to care, and maternal and child health. Beginning in 2024, the Bureau for Public Health will engage key partners within the public health system to develop the State Health Improvement Plan. This five-year plan will establish goals, objectives, strategies, and metrics with health priorities. Social determinants and their impact on health were apparent in all qualitative data collection methods.



Chronic Disease

Access to Care

Behavioral Health

Maternal and Child Health

APPENDIX A

Responsibilities of the Prevention Workgroup and HIAC

The primary responsibilities of the Prevention Workgroup are to:

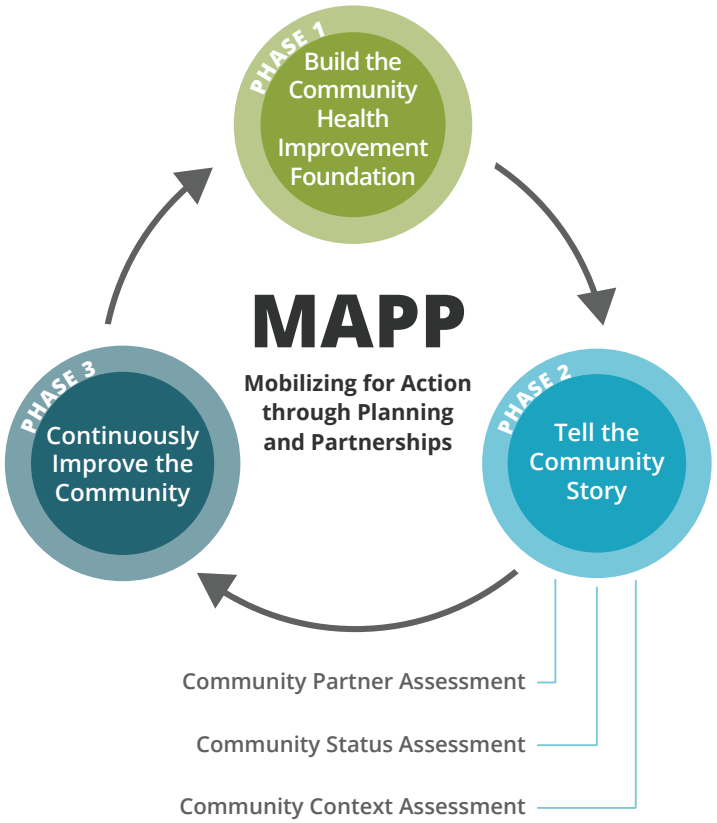
- Participate in workgroup meetings
- Provide secondary or supplemental data for the SHA and identify data gaps, as necessary
- Identify key partners and populations to provide supplemental data
- Participate in the dissemination and promotion of community assessments
- Assist in data interpretation and provide information related to community context or specific populations
- Provide input and recommendations for format of and access to SHA
- Assist with the dissemination of SHA through organizational and professional networks
- Identify priorities, themes, and issues for SHIP
- Participate in prevention sub-workgroups to review data and establish time frames objectives and key activities
- Participate in the implementation of the SHIP
- Assist with the dissemination of the SHIP
- Continually assess and monitor progress of the SHIP

The primary responsibilities of the Health Improvement Advisory Committee are to:

- Participate in monthly HIAC meetings and ad hoc meetings
- Provide public health expertise for the SHA and SHIP development
- Define the framework and structure for the SHA and SHIP processes including access to the SHA
- Define product and document development
- Support the Project Manager, PMQI Manager, and BPH office directors throughout the SHA and SHIP processes
- Review, provide feedback, and approve all documents that are created including project timelines
- Responsible for all agency communication related to the SHA and SHIP processes.
- Define and guide external communication efforts in partnership with BPH Communications
- Identify key stakeholders and populations to provide supplemental data and support the SHIP efforts
- Assist with the dissemination of the SHA
- Continually assess and monitor progress to include state-level health outcomes

Conceptual Framework

The framework chosen for the SHA/SHIP was the Mobilizing for Action through Planning and Partnerships (MAPP) process, a joint project of the National Association of County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC). MAPP is a community-wide strategic planning process that prioritizes public health issues, identifies resources, and outlines steps to take to improve health and wellbeing. It emphasizes partner and community engagement and identifies resources for policy systems, environmental changes, and alignment of community resources towards shared goals. Facilitated by public health leaders, this framework helps the state apply strategic thinking to prioritize public health issues and identify resources to address them. MAPP is not an agency focused process but an interactive process that can improve the efficacy, effectiveness, and ultimately the performance of the public health system. The MAPP process is split into three phases.



Phase 1 will build the state health improvement foundations through developing and enhancing strategic partnerships and creating a common vision.

Phase 2 will tell the community story through the gathering, analyzing, and graphically displaying data.

Phase 3 is continuously improving the community by establishing shared priorities and using a quality improvement approach to make adjustments during implementation.

MAPP guided progress through a community driven process through its strategic planning process that helped a committee prioritize public health issues and the resources that could be used to address them through qualitative and quantitative review. This data review was completed through three assessments: Community Status Assessment, Community Context Analysis, and Community Partner Analysis.

Health Improvement Advisory Council

The SHA and SHIP processes were managed through the following organizational structure. The BPH Health Improvement Advisory Council (HIAC) was composed of the BPH leadership team and placed emphasis on health equity. The Prevention Workgroup was organized to assist with SHA/SHIP development, including a Health Equity Committee.

The Health Improvement Advisory Council was composed of 19 members of BPH leadership & staff. The group included administrative staff and leadership from all of the Bureau's Program Offices. HIAC team members were tasked with providing guidance and strategic leadership of the SHA/SHIP process within the Bureau for Public Health.

Prevention Workgroup

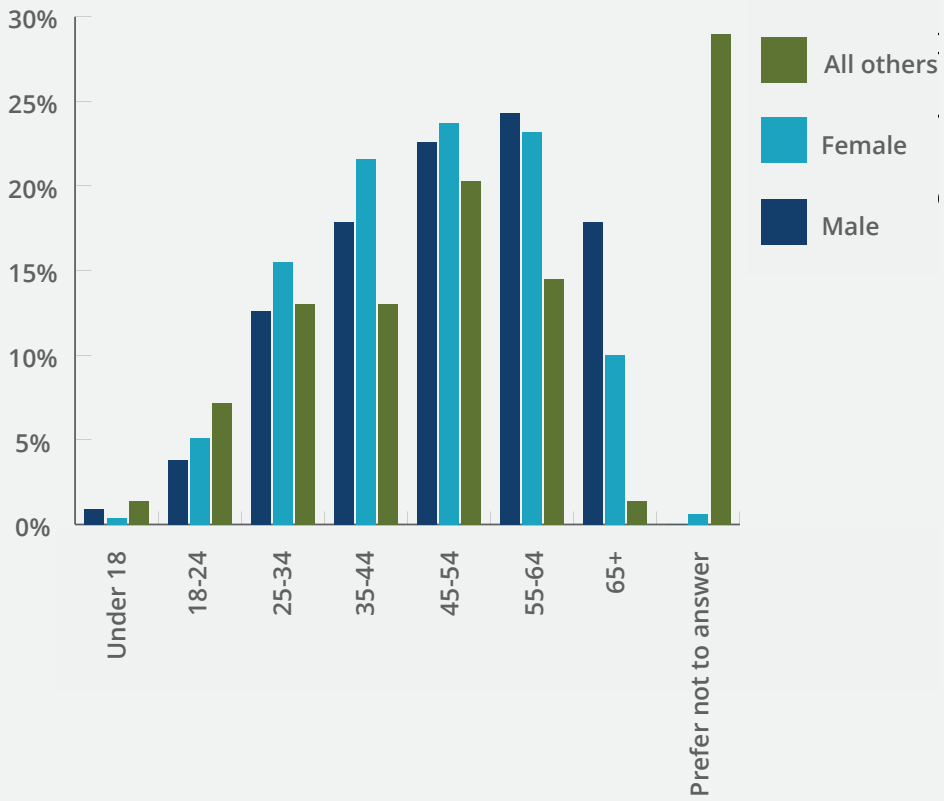
The Prevention Workgroup included representatives from 159 unique organizations across various sectors, such as health, education, nonprofit, philanthropic, and government, all with a stake in WV's population health.

The workgroup addressed primary, secondary, and tertiary prevention, ensuring a comprehensive review during the SHA and SHIP processes. It was supported by a sub-workgroup of BPH and public health experts and community partners focused on prevention.

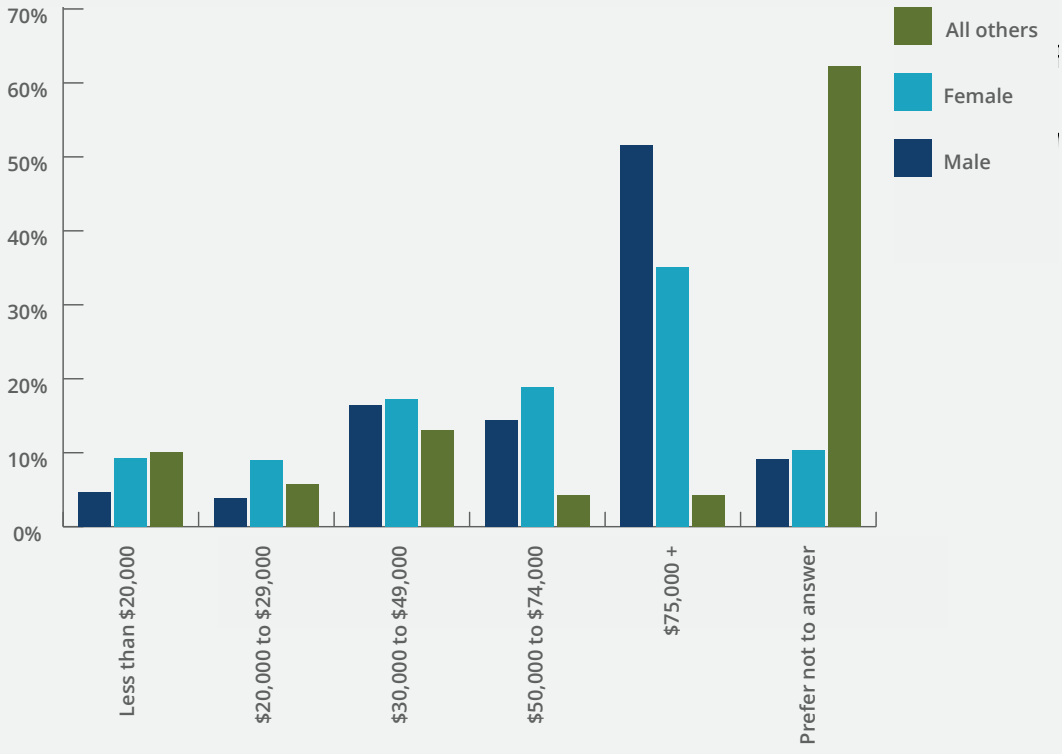
APPENDIX B

Descriptive Data

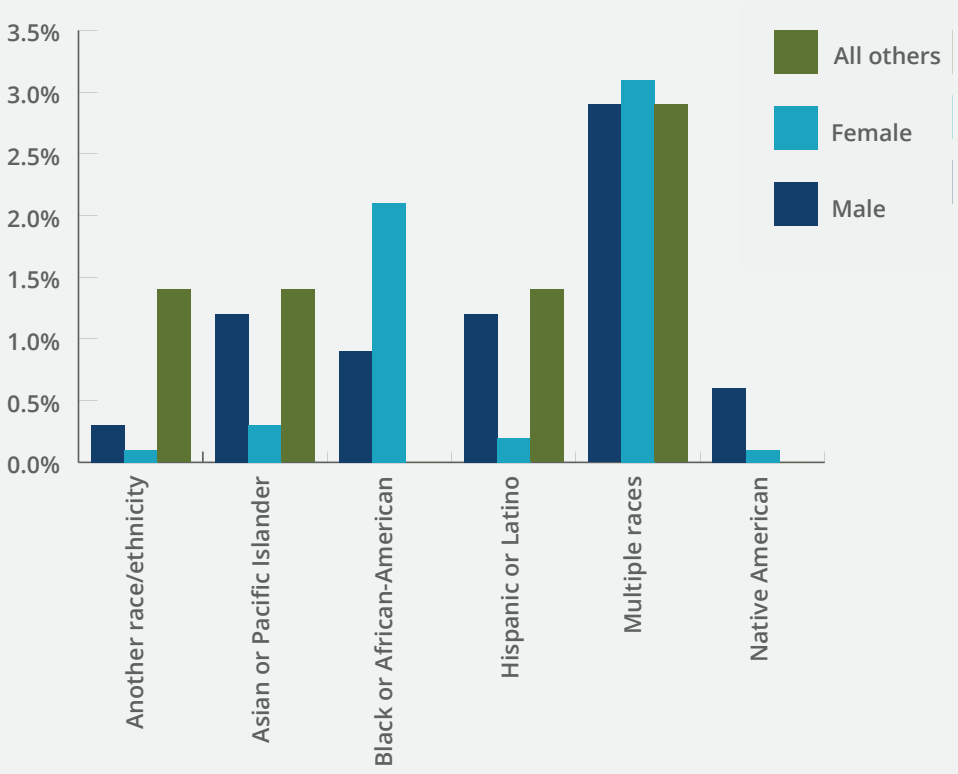
PERCENT OF RESPONSES BY AGE GROUP AND GENDER



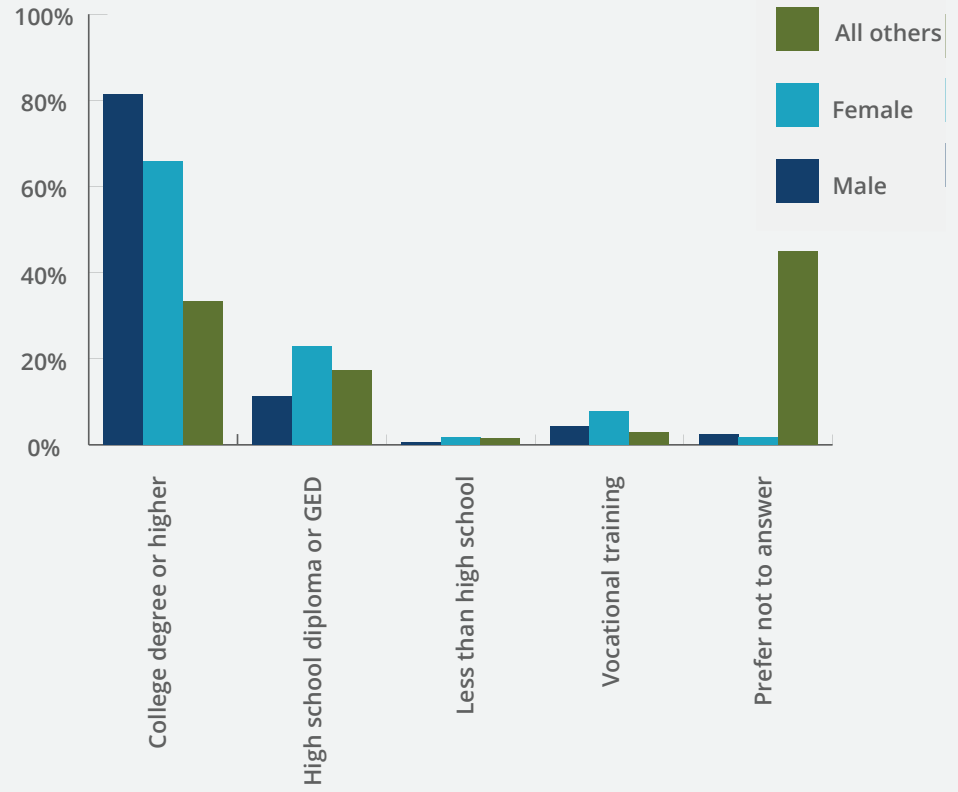
PERCENT OF RESPONSES BY INCOME AND GENDER



PERCENT OF RESPONSES BY RACE AND GENDER



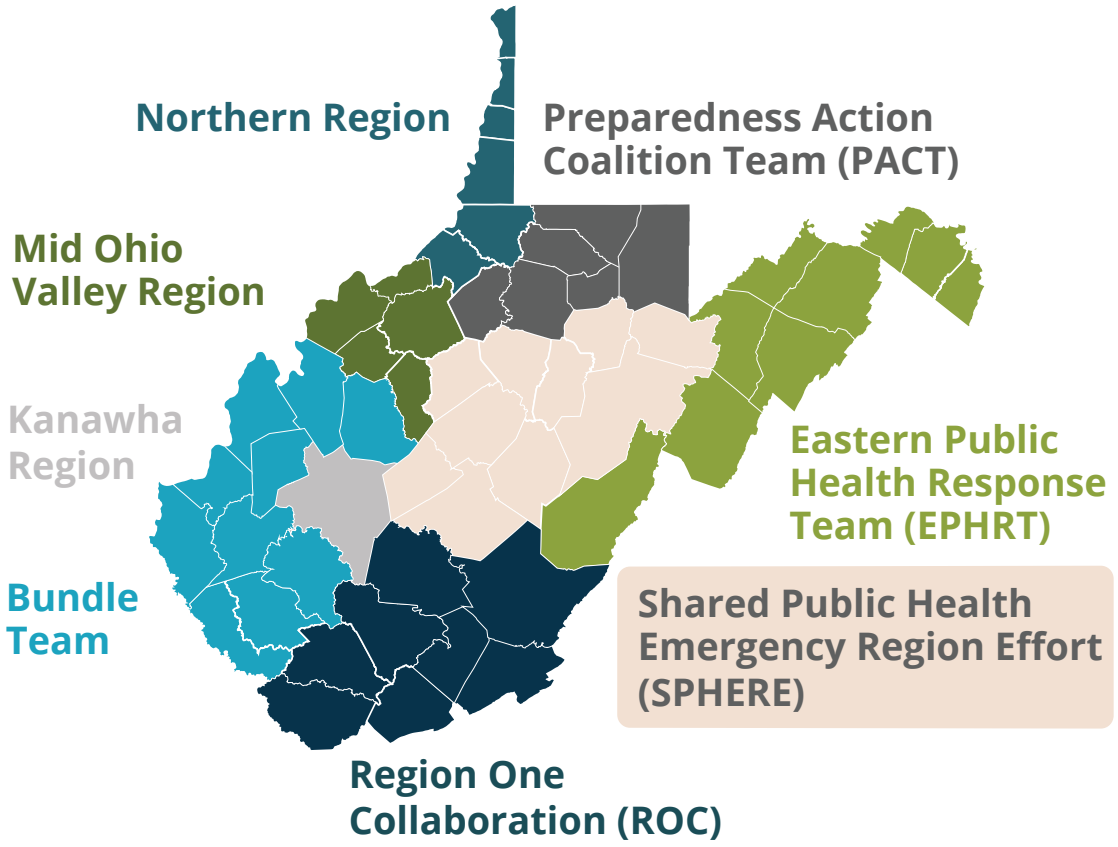
PERCENT OF RESPONSES BY EDUCATION AND GENDER



APPENDIX C

Public Health Preparedness Regions

Listening sessions were conducted in the following regions and cities:



Northern Region
Wheeling

Mid Ohio Valley Region
Parkersburg

Kanawha Region
Charleston

Bundle Team
Huntington

Region One Collaboration (ROC)
Beckley

Shared Public Health Emergency Region Effort (SPHERE)
Buckhannon

Eastern Public Health Response Team (EPHRT)
Keyser

Preparedness Action Coalition Team (PACT)
Morgantown

APPENDIX D

Contributors

WV Bureau for Public Health - Health Improvement

Advisory Committee

Amy Atkins - Deputy Commissioner of Health Improvement

Birgit Shanholtzer - Director, Health Statistics Center

Christi Clark - Director, Office of Laboratory Services

Crystal Lowe - Interim Director, Office of Medical Cannabis

Debbie Hissom - Director, Center for Local Health

Donnie Haynes - Deputy Commissioner of Health Protection

Heidi Staats - Director, Office of Nutrition Services

James Jefferies - Director, Office of Maternal, Child & Family Health

Jason Frame - Director, Office of Environmental Health Services

John Leite - Assistant to the Commissioner

Joseph Ratliff - Director, Office of Emergency Medical Services

Justin Davis - Deputy Commissioner of Public Health Administration

Kathy Cummons - Director, Office of Epidemiology & Prevention Services

Matthew Christiansen - State Health Officer

Matthew Izzo - Director, Office of Chief Medical Examiner

Scott Eubank - Director, Office of Community Health Systems & Health Prevention

Shannon McBee - State Epidemiologist

Prevention Workgroup (Participants & Invited Organizations)

3RNet

A More Excellent Way of Life

AARP

Active Southern WV

Alzheimer's Association

American Academy of Pediatrics

American College of Obstetricians and Gynecologists

Aspire Achievement Project

BARN Community Center

Beckley Area Foundation

Bureau for Behavioral Health

Bureau of Senior Services

Cabin Creek Health System

Camden on Gauley Medical Center

Catholic Charities of WV

Center for Active WV

Center for Rural Health Development

CHANGE Inc.

City of Beckley

City of Welch

Claude Worthington Benedum Foundation

Collegiate Recovery Network

Community Connections

Community Education Group, Inc.

Community Foundation for the Ohio Valley

Connection to the Connection

County Commissioners' Association of WV

Division of Corrections and Rehabilitation

Dunbar School Foundation

Eastern WV Community Foundation

Ebenezer Medical Outreach

Economic Development Greater East (EDGE)
Emergency Medical Services Coalition
Greater Kanawha Valley Foundation
Healthy in the Hills
Herbert Henderson Office of Minority Affairs
Highmark Foundation
Hope in Action Alliance
Innovative Community Solutions
Jefferson County Health Department
Jobs & Hope WV
Keep Your Faith Corp.
Logan Mingo Area Mental Health
Marion County Family Resource Network
Marshall Health
Marshall University Division of Community Health
Marshall University Research Corporation
Marshall University School of Public Health
McDowell County Commission on Aging
Men's Health Equity Institute
Minnie Hamilton Health System
Minority Health Institute
Monroe County Health Center
Mountain Health Network
Mountain State Trauma and Injury Prevention Coalition
Mountaineer Food Bank
NAACP of WV
NOSORH (National Org of State Offices of Rural Health)
Office of Drug Control Policy
PAAC
Pallottine Foundation
Parkersburg Area Community Foundation
Positive People Association
Preston County Senior Services
Prevent Suicide WV
Quality Insights
Race Matters
Reset Inc.
Risen Lord Pantry
Sheba International
Sister's Health Foundation
Sisters of St. Joseph Health and Wellness Foundation
South Central Educational Development, Inc.
Spotted Owl Healthcare Organization
Step By Step WV
Take Me Home WV
The Bernard McDonough Foundation
The Center for Rural Health Development
The Healing House
The REACH Initiative
Tucker Community Foundation
United Way Alliance of the Mid-Ohio Valley
United Way of Central WV
US Department of Housing and Urban Development
We Are Going to Be Alright
Williamson H&W
Women's Health Center of WV
WV Academy of Family Physicians
WV ACES Coalition
WV Alliance of Recovery Residences
WV Area Health Ed Centers
WV Association of Health Plans
WV Association of Local Health Departments
WV Behavioral Healthcare Providers Association
WV Board of Medicine
WV Board of Osteopathic Medicine
WV Board of Pharmacy
WV Bureau for Medical Services
WV Comprehensive Cancer Program
WV Chamber of Commerce

WV Coalition for Minority Health
WV Coalition to End Homelessness
WV Community and Technical College System
WV Community Development HUB
WV Council of Churches
WV Department of Transportation
WV Department of Veterans Assistance
WV Department of Agriculture
WV Department of Education
WV Department of Health and Human Services
WV Developmental Disabilities Council
WV Economic Development
WV Emergency Management Division
WV for Affordable Health Care
WV Farmers Market Association
WV Foster, Adoptive and Kinship Parents Network
WV Health Care Authority
WV Health Information Network
WV Health Right
WV Healthcare Association
WV Health Education Foundation
WV Hospital Association
WV Housing Development Fund
WV Municipal League
WV Nurses Association
WV Perinatal Partnership
WV Prevention Research Center
WV Primary Care Association
WV Public Employees Insurance Agency
WV Public Health Association
WV Rural Health Association
WV School of Osteopathic Medicine
WV Sober Living
WV State University
WV University
WVU Extension
WVU Health Affairs
WVU Institute for Rural Health
WVU Medicine
WVU Office of Health Services Research
WVU School of Public Health
Wyoming County WV Food and Farm Coalition
Your Community Foundation of North Central WV

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