State Health Assessment

Wyoming
Department
of Health

2018

Letter from the Public Health Division Senior Administrator

Dear Wyoming Resident,

Wyoming is often described as a small town with long streets. Our residents pride themselves on their frontier spirit, their independence, and their hardworking nature. Traveling the state to hear the communities' voices was an important part of developing this assessment. Embarking on a state health assessment is an important undertaking. Fully understanding and investigating the most serious issues facing our state is imperative to developing solutions. Partnering with key stakeholders both within and outside the traditional public health infrastructure is critical to addressing and making a difference on our most pressing problems.

Ensuring opportunities for all residents to be healthy benefits our state and communities. However, we know Wyoming residents often experience varying access to key resources that influence health. Varying access may be attributable to geographic characteristics and the physical environment, social and economic factors, and the services available within communities.

This assessment helps us identify where or how those opportunities might differ among communities or subpopulations within the state. The findings from this assessment help us understand our strengths and opportunities for improving health and wellbeing. Additionally, this assessment will help us to work within existing partnerships, as well as establish new partnerships and initiatives that can address our most pressing concerns as a state. We are fortunate to have so many advocates for health and wellbeing across our state – from local coalitions, nonprofits, and our healthcare system to local and state government champions and programs.

This assessment looks at the many complex factors that interact with and influence our health. It tells us a point-in-time story about our current health status, resources, and capacity to address health. It also helps us identify and address health disparities. This assessment will be a valuable tool to inform future health priorities and to guide the development of the Wyoming State Health Improvement Plan.

The Wyoming Department of Health, Public Health Division is committed to working with our partners and stakeholders to promote, protect, and improve health and prevent disease and injury in Wyoming. We are grateful for the many strong partnerships we have and look forward to opportunities to take action together with our communities to continue pursuing health for the residents of Wyoming.

I am thankful to the many staff and partners who contributed to this assessment. Their tireless efforts have made it possible to better understand Wyoming's current health challenges and opportunities.

Finally, many thanks to you for your interest in Wyoming's health.

Sincerely,

Stephanie Pyle, MBA
Senior Administrator
Wyoming Department of Health, Public Health Division

Acknowledgments

Wyoming Department of Health (WDH) staff contributed many hours organizing, writing, and reviewing this assessment. We are thankful for their time and commitment to contributing content and offering critical feedback and suggestions throughout the state health assessment (SHA) process. We thank the Wyoming Business Council (WBC) for partnering with us on community engagement sessions. With their support, we were able to hear directly from Wyoming residents. Finally, many images contained in the SHA were produced by Wyoming residents and photographers as part of annual National Rural Health Day Photo Contests.

The Public Health Division (PHD) of the WDH led a collaborative process to develop this SHA. Primary responsibility for planning and coordination rested with the Office of Performance Improvement, under the direction of the Performance Improvement Manager (PIM). The PIM supported an advisory team and a steering committee through the process.

Members of the advisory team included:

- Stephanie Pyle, PHD Senior Administrator
- Dr. Alexia Harrist, State Health Officer, State Epidemiologist, and Public Health Sciences Section Chief
- Angie Van Houten, Community Health Section Chief
- Laura Hurst, Health Readiness and Response Section Chief
- Dr. Ashley Busacker, Senior Epidemiology Advisor
- Lindsay Huse, Public Health Nursing (PHN) State Supervisor
- Feliciana Turner, Performance Improvement Manager
- Cari Cuffney, Policy Analyst for the Director's Unit for Policy, Research, and Evaluation (DUPRE)

Members of the multi-sector steering committee included:

- Sheila Bush, Wyoming Medical Society Executive Director
- Jan Cartwright, Wyoming Primary Care Association Executive Director
- Dr. Grant Christensen, Wind River Cares Provider
- Julie Daniels, University of Wyoming Extension Office Community Development Educator
- Toni Decklever, Wyoming Nurses Association Lobbyist
- Teri Green, Wyoming State Medicaid Agent
- Laurie Heath, Community Member
- Michelle Heinen, Family Voices/Uplift Executive Director
- Dr. David Jones, University of Wyoming, College of Health Sciences Interim Dean and Professor
- Rick Kaysen, Wyoming Association of Municipalities Executive Director
- Tobi Lyon-Moore, Wyoming Nurses Association Executive Director
- Natalia Macker, Wyoming County Commissioners Association Representative
- Janet Marschner, Community Member and Business Owner
- Liz Mikesell, Wyoming Afterschool Alliance Board Member
- Chris Newman, Behavioral Health Division Senior Administrator
- Byron Oedekoven, Wyoming Association of Sheriffs and Chiefs of Police Executive Director
- Lisa Osvold, Aging Division Senior Administrator
- Michelle Panos, Health and Human Service Policy Advisor for Former Governor Mead
- Carmalee Rose, Wyoming Department of Workforce Services Deputy Administrator of Business Services
- Korin Schmidt, Wyoming Department of Health Deputy Director and Department of Family Services Senior Administrator
- Craig Showalter, Wyoming Community Foundation President and Chief Executive Officer
- Sam Shumway, American Association of Retired Persons State Director

Executive Summary

A state health assessment (SHA) provides a roadmap for health departments and their partners to identify important health-related issues. It also informs health improvement planning. It is our hope that this 2018 Wyoming SHA will provide the Wyoming Department of Health (WDH) Public Health Division (PHD), its stakeholders, and residents with insight into the drivers of health in our state, and help identify ways to work together toward a healthier Wyoming.

PHD worked with many partners and residents while developing the SHA. A steering committee comprised of professionals and community members was established to ensure the assessment considered many perspectives. An internal advisory team focused on the process to ensure the SHA included all elements depicted in the model to the left.

Demographics

Wyoming is a rapidly aging state, where the elderly population (65+) grew 3.7 percent in one year. By 2030, it is projected that the elderly population will make up over one-fifth of the state's residents. Additionally, Wyoming has seen an increase in its minority population, with 87 percent of total population growth due to growing minority populations. Wyoming's largest minority group is Hispanic (10 percent), followed by American Indian (2.7 percent).

Physical Environment and Social Determinants of Health

Air and water quality indicators demonstrate Wyoming's strengths. Air pollution is low and has been steadily decreasing over the last two decades. Additionally, Wyoming has had no cases of reportable disease due to public water systems over the last five years.

Wyoming residents experience severe housing problems at a lower rate than households nationally. Other social determinants of health – education, employment, income, family and social support, and community safety – are also key factors that influence health.

In Wyoming, during school year 2016-2017, nearly 20 percent of expected graduates did not complete high school. The most current national data (school year 2015-2016) indicates that in the U.S., 16 percent do not graduate. However, 41 percent of Wyoming fourth-grade students are at or above a proficient reading level (compared to 35 percent nationally), which is an important indicator of readiness to learn.

Wyoming's unemployment rate has decreased from 5.3 percent in 2016 to 3.8 percent in 2018. Within Wyoming, about 21 percent of those aged 65-74 remain in the workforce. Workforce fatality data indicates that those 65 and older account for 17 percent of all workplace fatalities, though they make up only 6 percent of the total workforce. Furthermore, Wyoming has the third highest rate of occupational fatalities in the nation (7.7 workers per 100,000 full-time equivalent employees, compared to 3.5 nationally), with motor vehicle crashes accounting for half of all worker deaths.

Median Income	
(2014 inflation-adjusted dollars)	
Wyoming	
Men 65+ Living Alone	$26,354
Women 65+ Living Alone	$20,601

The median income for Wyomingites is slightly greater than the national median income at $61,279 (compared to $60,336). However, the median income among both Wyoming men and women over the age of 65 who live alone is far less, according to the 2016 *Aging in Wyoming* report produced by the University of Wyoming, Center on Aging.

It is also worth noting that 12 percent of Wyoming' children live in poverty, which is lower than the national value of 20 percent.

Family and social support is also linked to health outcomes across the lifespan. In Wyoming, 11 percent of youth and young adults may experience lack of social connection due to not being in school or the workplace. Additionally, over one-third of Wyoming's older adults (45+) experience loneliness and almost 30 percent of seniors (65+) live alone.

Community safety indicators highlight that Wyoming has a low violent crime rate, but many Wyomingites lose their lives to injury, both intentional and unintentional. Over 85 percent of firearm-related deaths are suicides in Wyoming. Further, Wyoming consistently has a higher rate than the U.S. of unintentional injury deaths (61.9 per 100,000 versus 47.4 per 100,000 in 2016). Males and those 75 years and older die from unintentional injury to a greater degree than other populations.

Clinical Care

Wyoming's expansive geography and sparse population can create challenges for Wyomingites to access quality clinical care. There are 95 federally-designated health professional shortage areas (HPSAs) throughout the state, indicating too few primary care, dental, and/or mental health providers and services. Behavioral Risk Factor Surveillance System (BRFSS) data further illustrates access-to-care issues. Roughly 14 percent of adults report not having insurance or being able to see a doctor in the past year. Another 31 percent also report not having a personal healthcare provider. Hispanic Wyomingites are at the highest risk for experiencing all three of those issues.

Source: Behavioral Risk Factor Surveillance System
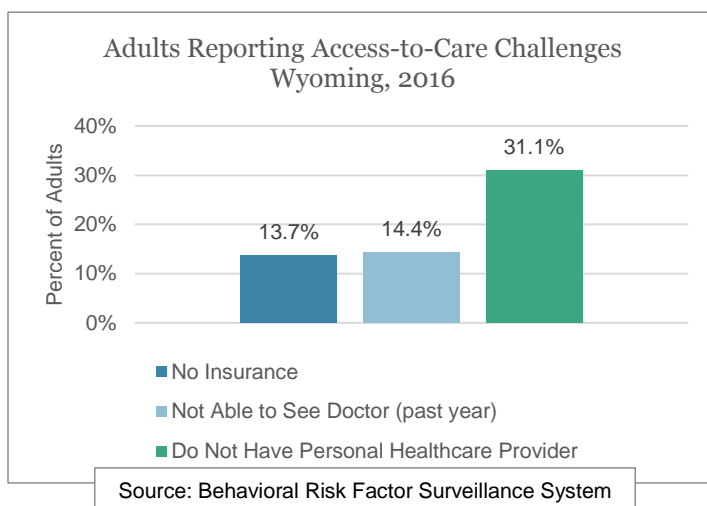
Driving the point home, Wyoming residents cited access to care as the number one health problem and barrier to health in Wyoming. Wyomingites and public health system partners also cited lack of Medicaid expansion as a barrier to health and a negative force of change impacting the system's ability to deliver essential public health services.

While access is a continual challenge for the state, there is growing access to clinical telehealth services.

Health Behaviors

Several health behaviors – tobacco use, alcohol and drug use, diet and exercise, and sexual activity – have a direct impact on health.

In Wyoming, 18.9 percent of adults smoke. Wyoming has been trending down overall; however, a higher percentage of American Indian/Alaskan Natives (37.4 percent), Black non-Hispanics (34.1 percent), and individuals who make less than $25,000 per year (31.5 percent) smoke. Pregnant Wyoming women who smoke in the third trimester has decreased nearly two percentage points (from 12.9 in 2012 to 10.6 percent in 2016), but remains higher than the national comparison (7.2 percent in 2016). In 2016, more than 15 percent of Wyoming adolescents aged 15-19 and American Indian/Alaskan Native women reported smoking during the third trimester.

In 2016, about 18 percent of Wyoming adults reported binge drinking. Youth alcohol use and binge drinking have greatly improved over the last decade; however, almost 1 in 5 middle and high school students used alcohol in the past month and just over 10 percent reported binge drinking in 2016. Alcohol use contributes to motor vehicle crashes and deaths in Wyoming as well, with 35 percent of driving deaths involving alcohol (from 2012-2016). Over 80 percent of those fatal crashes involve a male driver.

While Wyoming's drug overdose death rate has increased over the last decade, it has not shown the dramatic increase in recent years that has been seen in some other states. The highest mortality rates for drug overdoses (poisonings) in Wyoming are among those people 35-49 and 50-64 years of age, followed by those 20-34 years of age. American Indian/Alaskan Natives experience overdose deaths at a rate of 29.2 per 100,000. For Whites, that rate is 17.5 per 100,000. The overall rate of overdoses is 12.2 per 100,000 in Wyoming.

Alcohol and drug use were the most frequently cited health behaviors of concern for Wyomingites who participated in community listening sessions (and related survey).

Nearly 1 in 3 Wyoming adults experience obesity, which is largely influenced by diet and exercise. Lack of adequate access to food is a problem for 12 percent of the population. Additionally, over 80 percent of adults do not eat the recommended amount of fruits and vegetables. While nearly 3 in 4 people in Wyoming have access to locations for physical activity, over 20 percent of adults are physically inactive.

Sexual activity impacts health. In Wyoming, chlamydia affects a higher number of people than any other sexually transmitted infection (STI); however, gonorrhea cases have increased three and one-half times from 2014 to 2017. Gonorrhea rates in Wyoming are lower than national rates, but have risen at a faster pace in the last several years. Gonorrhea rates are highest among 20-29 year olds. Wyoming has seen an increase in syphilis cases as well. Aside from STIs, teen births are another important indicator. In Wyoming, the teen birth rate has declined 52 percent, but Wyoming still ranks 10th highest in the nation for teen births.

Health Outcomes

Health outcomes are a measure of how long Wyomingites are living and how well they feel. Wyomingites have a lower life expectancy than Americans overall (78.62 years, Wyoming; 79.08 years, U.S.).

The top causes of death in Wyoming are heart disease, cancer, accidents and adverse events (i.e., unintentional injury), and chronic lower respiratory disease. When looking at death among subpopulations we find:

- Infant death rates are lower in Wyoming that in the U.S.; however, mothers under the age of 20 experience the highest rate of infant death in Wyoming.
- Child deaths are declining in Wyoming and the U.S. Wyoming rates have declined at a faster rate than the U.S.
- Deaths among adolescents 15-18 years old are mostly due to motor vehicle crashes.
- Wyoming ranks third in the nation for suicide deaths, with a rate that is nearly double the national rate.
- People aged 35-49 and those over 65, as well as Whites, American Indians, and males, are the highest-risk populations for suicide.

When it comes to quality of life, Wyomingites experience physically and mentally unhealthy days at about the same rate as adults in the U.S. Additionally, over 15 percent of Wyoming adults have been diagnosed with a depressive disorder, and just over 3 in 10 Wyoming high school students experience depression.

Chronic conditions also impact quality of life for Wyomingites. Diabetes affects 8.3 percent of adults over the age of 20 and is the leading cause of non-traumatic leg amputation, blindness, and kidney failure. Diabetes was also responsible for over $330 million in hospital charges in one year (2016-2017). American Indian/Alaskan Natives and individuals who make less than $25,000 per year are at greatest risk for diabetes.

Heart disease affects about 6 percent of adults; however, those over the age of 65 and those who make less than $25,000 per year are at greatest risk. Heart disease is another costly condition, accounting for over $530 million in hospital charges in one year.

Over 383 new cancer diagnoses were made in Wyoming in 2015. In that same year, Wyoming saw more women diagnosed with lung cancer than men for the first time. Cancer hospital charges were over $95 million.

Living with HIV is another important indicator of quality of life. The rate of newly diagnosed cases of HIV declined from 2016 to 2017 from 3.3 per 100,000 to 1.9. Men are over six times as likely to be diagnosed with HIV compared with women. All new diagnosed HIV cases in 2017 were among persons 25-54 years old.

Preterm births (babies born before 37 weeks gestation) can have immediate and long-lasting impacts on quality of life. Wyoming's percentage of preterm births is similar to the U.S. (9.5 percent and 9.9 percent, respectively). Campbell, Fremont, and Uinta Counties all have preterm births over 11.5 percent. Additionally, preterm birth is slightly more common among women with a Medicaid-paid delivery than non-Medicaid-paid deliveries.

Capacity

Capacity to deliver the 10 Essential Public Health Services is another important factor to consider in this assessment.

The following page illustrates some of the key findings from the SHA.

Wyoming's public health system capacity assessment indicated that Wyoming's system is strongest in delivering the following services:
- Diagnosing and Investigating Health Problems
- Educating and Empowering the Public
- Mobilizing Community Partnerships
- Developing Policies and Plans
- Enforcing Laws and Regulations

However, Wyoming's system could benefit from improving its delivery of other essential services, such as:

- Monitoring Health Status
- Assuring a Competent Workforce
- Research and Innovation
- Linking to Health Services
- Evaluating Services
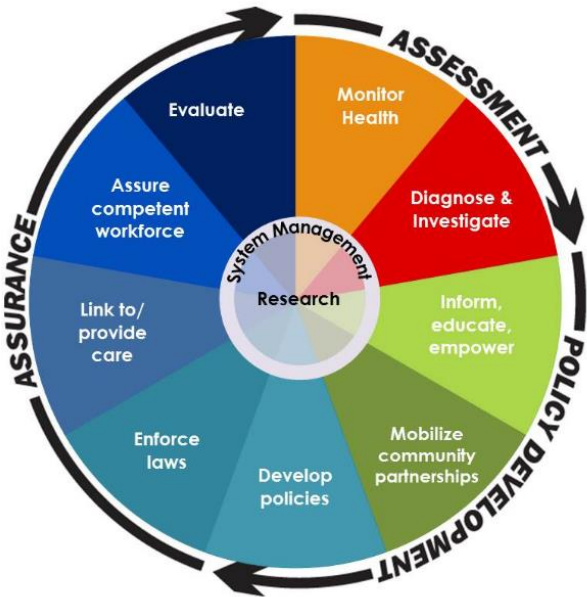
Assessment participants also identified the following short- and long-term opportunities for improving the system's capacity to deliver services.

Short-Term Opportunities	Long-Term Opportunities
- Greater alignment of priorities and data across partners - Improving partner communication - Diversifying partnerships, especially among academic and tribal health partners - Improving access to data - Expanding the public health workforce	- Creating new ideology of systems-level thinking (decision-making should be driven by system-level, data-driven planning and health impacts of all policies assessed) - Reducing/removing programmatic silos - Coordinating evaluation services - Developing state health improvement plan

The following page contains key findings of this SHA.

2018 Wyoming State Health Assessment Key Findings

The highlights from the 2018 Wyoming State Health Assessment give us a snapshot of how Wyoming residents experience health and disease, as well as the conditions that influence their health experience.

Wyoming Department of Health

Health Behaviors

Alcohol-Related Driving Deaths
35%

Adult Obesity
29%

Adult Physical Inactivity
21%

Adult Smoking
19%

Lack of Access to Food
12%

Gonorrhea cases increased **3.5** times in three years (2014-2017).

◇ National (if available)

Clinical Care

Breast Cancer Detected Early
70%

People with Diabetes without A1C Test
31%

Lack of Health Care Provider
31%

Uninsured
16%

Social & Economic Factors

Children in Single-Parent Homes
28%

9th Graders Not Graduating
20%

Children in Poverty
12%

Unemployment
4%

Spotlight on Aging

- By 2030, over one-fifth of the state's population is expected to be over age 65
- Wyoming Medicaid long-term care costs for 2017 were $130M; projected to increase to $184 million - $312 million by 2030
- The median age in Wyoming is 37.7 and is one of the fastest growing in the country
- 29% of seniors (65+) live alone
- 35% of older adults (45+) experience loneliness

Health Outcomes

351
Premature Deaths
(before age 75) per 100,000

2017 Top Causes of Death
per 100,000 population

- Heart Disease (148.99)
- Cancer (135.14)
- Accidents & Adverse Events (55.81)
- Chronic Lower Respiratory Disease (54.23)

62.2
Unintentional Injury Deaths
per 100,000 (U.S.: 49.9)

24.8
Suicide Deaths
per 100,000 (U.S.: 13.5)

12%
> 14 Days Mental Distress

9.5%
Preterm Births
(born before 37 weeks gestation)

Quality of Life
- Average Unhealthy Days in Past Month: 3.9
- High Schoolers Reporting Depression: 32%

Wyoming Speaks About Health Issues

Issues identified by Wyoming residents during community engagement sessions and surveys.

Health Conditions
- Mental Health
- Obesity
- Diabetes

Access Issues
- Access to Care
- Affordable Care
- Access to Mental Health Care

Health Behaviors
- Drug Use
- Alcohol Use

Source: Wyoming Department of Health, Public Health Division

Contents

Photo Credit: Lachelan Cruickshank on Unsplash

Introduction

What is the Wyoming State Health Assessment?

The SHA is a collaborative process to identify and understand data about the health of Wyoming residents and the resources and capacity available to promote and protect the public's health. The SHA looks at a variety of information that can give stakeholders the best picture of health in Wyoming, including:

- Data about health and discussion about factors that can help or hurt our health;
- Community and stakeholder perspectives about health needs and solutions;
- Health-related resources that can address needs;
- Strengths, weaknesses, opportunities, and threats to health in Wyoming; and,
- Capacity of the public health system.

Key Working Groups and SHA Process

The SHA was led by PHD's vision of "healthy people and communities across Wyoming" and the mission to "promote, protect, and improve health and prevent disease and injury in Wyoming." An internal advisory team and a steering committee were established to guide the SHA process. The steering committee, made up of representatives from education, government, business and industry, health care, community services, and other services providers, brought a variety of perspectives, values, and insights to the process. The full process and methodology is found in Appendix A.

Advisory Team Responsibilities	Steering Committee Responsibilities
- Coordinate and track progress to ensure achievement of milestones - Identify and address process issues - Provide subject matter expertise and perspective - Communicate with health department staff and stakeholders about progress - Demonstrate a shared commitment to assessing and improving health in Wyoming	- Guide SHA processes - Contribute to monthly work sessions and/or subcommittee meetings - Engage in product and process decision-making - Provide multi-sector perspective on health issues, data, and resources - Demonstrate a shared commitment to assessing and improving health in Wyoming

Approach

Identifying Indicators

PHD used the County Health Rankings and Roadmaps (CHR-R) model for assessing health data, which focuses on modifiable factors impacting individual and community health.[1] Each factor is assigned a weight based on literature reviews, historic advancements in public health, other ranking schemes, CHR-R analysis, and stakeholder input.[2] Social and economic factors carry the most weight in this model.

The CHR-R model supports health equity. According to the Robert Wood Johnson Foundation, health equity means that "everyone has a fair and just opportunity to be healthier. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care."[3] The model provides a meaningful way to explore the health of our population that addresses the role of individuals, environments, policies, and equity. Additionally, it provides a way to look broadly at all the stakeholders and policies that influence health, leading to a system-level perspective where multiple sectors, agencies, and partners have a shared responsibility to create communities that allow Wyoming residents to thrive.
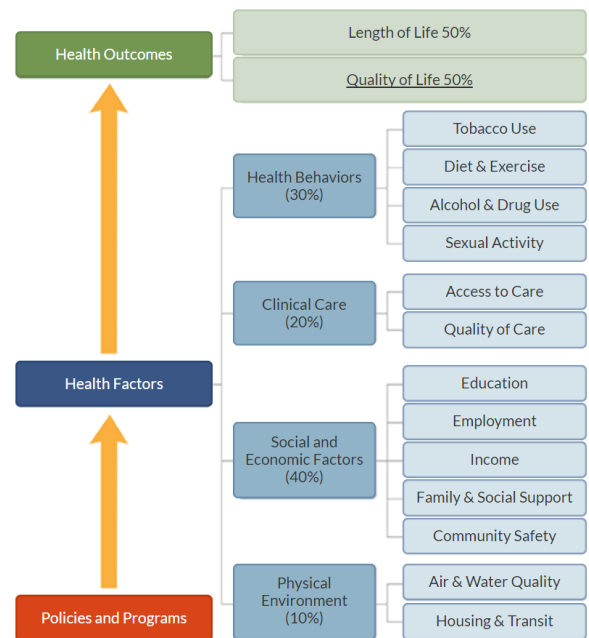
Indicators were explored through several avenues:

- Data gathered from a number of databases to help understand how each of these indicators impacts Wyoming residents.
- Residents' perspectives on health issues and ideas for improving it.
- Partners' and stakeholders' assessment of resources and capacity in the state that improve health.

Using the CHR-R Action Center tools and resources, all of this information was used to produce a comprehensive health assessment that discusses the findings related to each of these indicators. While the CHR-R Wyoming profile indicators were used as a baseline, additional measures were added based on the identified priorities of the advisory team. Indicators were adopted after review by PHD staff, WDH leadership, and the steering committee.

Wyoming in Context

Who We Are and Where We Live

Wyoming is a high-altitude western state consisting of high plains and the Rocky Mountains and boasts a mild climate. The average elevation of the state is 6,700 feet above sea level.[4] Wyoming occupies 97,818 square miles, making it the 10th largest state in area. However, Wyoming is the least populous state, with a 2017 estimated population of 579,315. This means there are only 5.8 people per square mile, varying by county from a high of 34.2 people to a low of 0.9 people per square mile.[5] Seventeen of Wyoming's counties are considered frontier, meaning they have less than six people per square mile. Another four counties are considered rural and only two are urban.

Population Density by County, Wyoming
2010
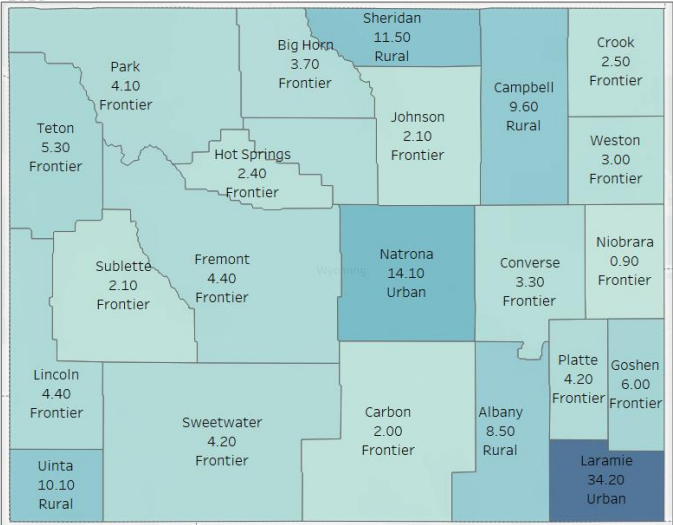
Source: U.S. Census Quick Facts

Many refer to Wyoming as "one community with long streets." Wyoming has two major interstate highways that cross the entirety of the state. Interstate 25 provides north/south access throughout the eastern part of the state, while Interstate 80 serves the east/west access needs throughout the southern part of the state.

WYOMING SPEAKS
Geography Barriers

"Distance from regional medical centers."

"Location and ability to travel to larger area for more specialized care."

"Our location is the main barrier to health management."

"Transportation to appointments for some seniors and low-income residents."

"The distance needed to travel to seek health services."

"Isolation."

"Distance to major cities and specialists."

Communities that are not located near these corridors tend to be more isolated. Wyoming's large land mass and sparse population create challenges when it comes to health. Lack of access to healthcare services can hinder residents' preventive and treatment options. Access to other health resources, such as healthy food and safe walking/biking paths, may also be more limited in smaller Wyoming communities. Economic opportunities may be fewer in very rural and frontier areas of the state. Research indicates there is a strong relationship between economic opportunity and health outcomes. A study published in the American Journal of Public Health concluded that "economic opportunity is a robust, independent predictor of health."[6]

Race and Ethnicity

According to 2017 population estimates, Wyoming's population is predominantly white (92.8 percent). The Hispanic population stands at 10 percent. Wyoming has two federally recognized American Indian tribes, the Eastern Shoshone and Northern Arapaho, which account for 2.7 percent of the state's population. Most American Indian residents live in Fremont County, where the Wind River Indian Reservation is located.

- Overall, Wyoming's total minority population has grown 17.2 percent since 2010, now standing at 92,750.

- During the same time period, the state's overall increase in population was only 2.8 percent. Over 87 percent of the total growth was attributable to increasing minority populations, with the largest minority group being Hispanic.[7]

- Nearly 4 percent of Wyoming residents are immigrants, translating to 21,999 people in 2015. The top countries of origin for immigrants in Wyoming were Mexico (46.9 percent), the Philippines (5.1 percent), China (4.4 percent), Guatemala (4.2 percent), and England (4.1 percent).[8]
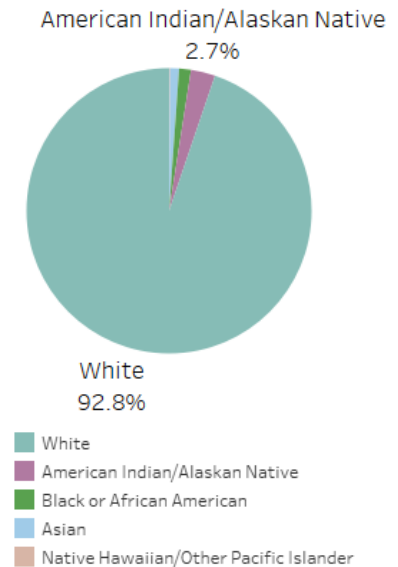
Source: U.S. Census Quick Facts

Population Growth, Age, and Sex

Growth

- The state's total population grew about 2.8 percent from 2010 to 2017, according to the American Community Survey (ACS) Demographic and Housing Estimates and Census Quick Facts data. Overall, the total population has grown by about 15,000 people since 2010.

- However, the recent economic downturn has caused an approximate 1 percent decline in population from 2016 to 2017.
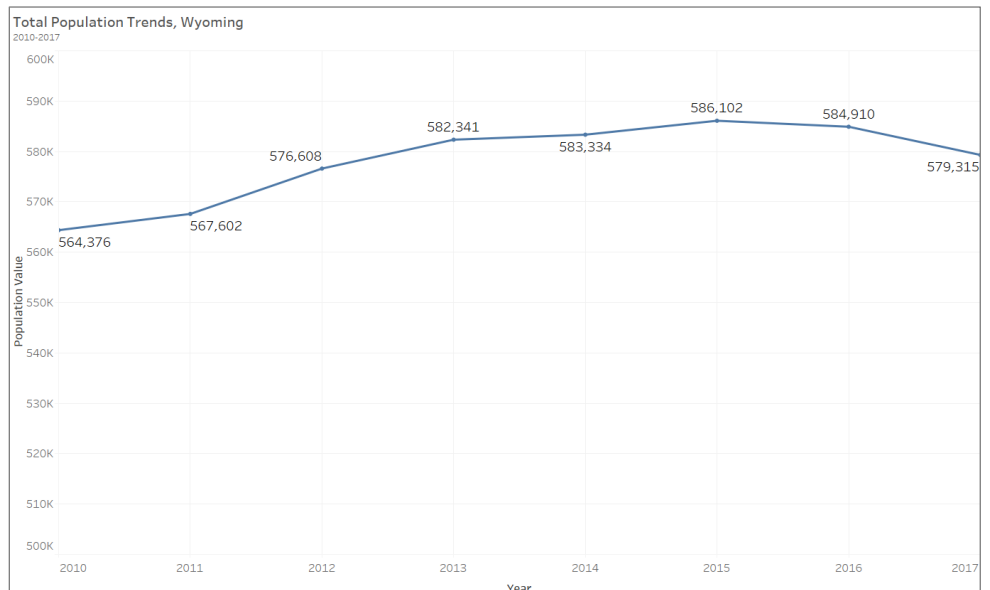
Source: U.S. Census American Fact Finder

Age

- Wyoming's aging population is trending upward.

- Conversely, there is a decline in the 19-64 years old population.

- The under 18 population remains relatively stable.

Age Distribution, Wyoming
2010-2017

[Chart showing three lines over years 2010-2017. 19-64 Year Olds line starting at 63.8% and ending at 61.9%. Under 18 line starting at 24.0% and ending at 23.7%. 65 and Older line starting at 12.2% and ending at 14.4%. Y-axis labeled "Percent Population" from 0% to 65%. X-axis labeled "Year" from 2010 to 2017.]

Source: U.S. Census American Community Survey Demographic and Housing Estimates

In 2018, the Wyoming Department of Administration and Information, Economic Analysis Division reported that the elderly population (age 65 and over) grew 3.7 percent between July 2016 and July 2017, while the median age also rose by 0.5 to 37.7 years, indicating that "the aging of Wyoming's population has picked up speed, and the pace was one of the fastest in the country."[7]

The elderly population is projected to be over one-fifth of the state's total residents by 2030. A lack of younger workers to fill jobs as baby boomers retire, which is further complicated by younger people leaving the state,[7] will have significant impacts on the economy and healthcare. In anticipation of an aging population, improving the population's health and delaying or preventing the need for costly long-term care services will be imperative. According to the Wyoming State Plan on Aging, such services are projected to cost Medicaid anywhere from $184 to $312 million in 2030, an increase from $130 million in 2017. The plan further notes that the primary method to influence that cost toward the lower end of the estimate is encouraging healthy aging-in-place, thus reinforcing the importance of home- and community-based services that can delay or prevent the need for institutional care. Other factors that may influence the future cost include:

- A decreasing ratio of working-age adults per older individual;
- An aging population that experiences greater chronic disease burden;
- The high and increasing long-term care costs;
- A population that is not prepared to pay for long-term care costs out-of-pocket; and
- A small and weakening long-term care insurance market.[9]

Sex

Wyoming remains approximately half female and half male.

Wyoming's National Context

According to the [2017 Annual America's Health Rankings Report](#), Wyoming ranks 26th in the nation in overall health. The report highlights key strengths and challenges for the state.

Strengths	Challenges
• Low levels of air pollution • Low prevalence of diabetes • Low cancer death rate	• Low number of primary care physicians • Low immunization coverage among children • High occupational fatality rate
Highlights	
• Obesity decreased 6 percent in past two years • Excessive drinking increased 14 percent in past year • Air pollution decreased 24 percent in past two years	• Drug deaths increased 167 percent in the last decade • Cancer deaths decreased 5 percent in past five years

The report further indicates how Wyoming ranks in comparison to other states in the below core areas. The lower the number, the better the ranking.

- Community/Environment (e.g., air pollution, children in poverty, infectious disease, violent crime): **7**

- Policy (e.g., immunizations, public health funding, uninsured): **48**

- Clinical Care (e.g., dentists, mental health providers, primary care physicians): **32**

- Behaviors (e.g., substance abuse, obesity, smoking): **34**

- Outcomes (e.g., deaths, diabetes, mental distress): **19**

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Photo Credit: Scott Webb on Unsplash

Photo Credit: Devon Janse van Rensburg on Unsplash

Physical Environment

The physical environment where Wyomingites live, learn, work, and play greatly influences the health of individuals and communities. The state features mountains, wide-open spaces, fresh air, streams and lakes, and an ability to bring people unparalleled access to places that have been relatively untouched. Wyoming has many recreation areas and abundant wildlife and is widely known for Grand Teton National Park (elevation 13,770 feet with an area of 1,290 square miles) and Yellowstone National Park (3,500 square mile national park atop a volcanic hot spot). While the frontier nature of the state means being spared some of the environmental concerns that tend to plague larger urban areas (such as dangerous levels of vehicle-emitted pollutants, noise pollution, and loss of tree cover and green spaces), not everyone has equal access to the pure environment Wyoming can offer. Traveling to Wyoming's natural spaces, accessing recreation and parks, and living in spaces free of urban issues can be expensive. Persons with low incomes, unsteady employment, and lack of access to reliable transportation, or persons who require access to social services or who must frequently access healthcare services, may have fewer opportunities to benefit from nature.

Certain characteristics of Wyoming's physical environment create a health paradox. Few options exist for commuters, especially in rural areas, and most rely on personal vehicles to get them to and from jobs, medical care, and other activities. Time spent driving increases sedentary time, putting Wyomingites at increased risk of being overweight and obese.[10] However, use of personal vehicles also creates increased access to healthcare, employment, and education. Wyoming's transportation infrastructure calls for creative alternatives for reducing sedentary time for Wyomingites.

Quality of housing is another determinant of a number of health outcomes, yet it is typically not addressed by traditional healthcare or public health systems. Income level determines the quality of housing that is obtained, meaning those with fewer resources often end up in housing that puts them at risk for poor health outcomes and greater expense. The Wyoming Business Council reported in November 2017 that Wyoming's most populated counties "all struggle with tight, expensive real estate markets,"[11] meaning that even individuals and families that fall within the median income for a county may still not be able to afford quality housing.

Although air and water quality, quality and affordability of housing, and transit options will impact the health of all Wyoming residents, communities of color, lower-income communities, and tribal populations continue to be disproportionately affected by environmental conditions that can hurt health outcomes,[12] making environmental justice a public health concern. Programs and initiatives aimed at improving Wyoming's physical environment should consider the positive and negative health impacts that these programs may have, as well as consider the ways in which these programs may be able to mitigate or reduce health disparities.

Climate

Wyoming boasts sunny days and a relatively cool climate. Average temperatures in January range from 5 to 10° F, and in July between 85 and 95° F. It is not uncommon to experience early freezes in the fall and late freezes in the spring. Snow, wind, and severe hailstorms are common in the state. Snow falls most frequently from November through May, with wind contributing to blizzard conditions at times. Wind can often reach 30 to 40 miles per hour, with gusts of 50 or 60 mph. Hailstorms during the summer months are the most destructive type of local storm for the state. Tornadoes can occur, but are not as frequent or destructive.[4]

Climate influences health and disease in a number of ways. Wyoming's wind and snow can contribute to health issues ranging from allergies and asthma to road safety. Winter weather conditions can also discourage outdoor physical activity. Drought conditions contribute to wildfire conditions in the heat of summer. In 2018, 949 wildfires (state and private) burned 595,000 acres in Wyoming (C. Fallbeck, personal communication, February 22, 2019), and the state experienced smoke from fires that burned in other states, such as California, Washington, and Montana. While the Wyoming Department of Environmental Quality (WDEQ) Air Quality Division has a smoke management program to manage air emissions from controlled burning, wildfire smoke is not controllable and can negatively impact air quality and health for Wyoming residents.

Infrared imagery for Roosevelt Fire, 2018
inciweb.nwcg.gov/incident/maps/6212/

As climates change across the globe, it can further threaten health. According to the National Climate Assessment produced by the U.S. Global Change Research Program:[13]

Climate change threatens human health and well-being in many ways, including impacts from increased extreme weather events, wildfires, decreased air quality, threats to mental health, and illnesses transmitted by food, water, and disease-carriers such as mosquitos and ticks. Some of these health impacts are already underway in the United States.

The assessment notes that certain people and communities are and will be especially vulnerable to the effects of a changing climate. Those people and communities include "children, the elderly, the sick, the poor, and some communities of color."[14]

Air and Water Quality

Poor air and water quality can affect health in a number of ways:
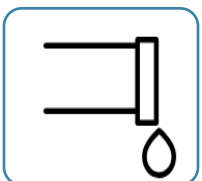
- Dust, smoke, and soot cause respiratory symptoms and exacerbate heart and lung diseases.[15]

- Indoor air pollution, such as asbestos, mold, and radon create health hazards.[16]

- Long-term or repeated exposure to indoor air pollution can lead to several diseases that can cause death, such as respiratory disease, heart disease, and cancer.[17]

- Improperly disposed of prescription medicines, pesticides, or other chemicals can harm the environment and wildlife, and compromise drinking water sources.[18]

- Contaminated drinking water can expose people to bacteria and viruses that can cause vomiting, diarrhea, stomach pain, and fever.[19]

Upper Green River Basin

Elevated winter-time ground-level ozone levels were discovered in the Upper Green River Basin (UGRB) of Wyoming in 2005, and in 2012 the EPA classified the UGRB as a marginal non-attainment area for the 2008 ozone standard.[20] Factors contributing to elevated ground-level ozone in the UGRB include snow cover, temperature inversions, low winds, sunlight, and the presence of precursor chemicals, some of which are related to oil and gas development.[21] Exposure to ground-level ozone can have negative health effects, including shortness of breath, cough, and aggravation of lung diseases such as asthma and emphysema, and increased total non-accidental mortality.[22] The Wyoming DEQ has partnered with oil and gas industry operators and the UGRB communities to reduce production of pollutants which can be precursors to ozone formation. In 2016, the EPA promulgated a final determination of attainment for the UGRB according to the 2008 standards, an important step toward formal re-designation of the area to attainment.[20] Currently, for the 2015 ozone standard – the most stringent ozone standard – all of Wyoming's counties are meeting the standard and have been designated by the EPA as attainment/unclassifiable.[23]

Given the large recreation and tourism industry in Wyoming, it is important that Wyoming's air quality and water sources are safe. In 2016, Wyoming state parks and recreation areas had over 4 million visitors and the national parks in Wyoming collectively had over 8 million. Additionally, in 2015, Wyoming issued close to 600,000 fishing and hunting licenses.[24] Many residents and tourists alike are exposed to Wyoming's air and water sources, and ensuring their safety is important.

The WDEQ is responsible for enforcing state and federal environmental laws and serves as the state's regulatory agency that protects, conserves, and enhances Wyoming's land, air, and water. WDEQ conducts permitting, monitoring, and inspection activities in order to ensure the safety and protection of Wyoming's air and water resources.

Other WDH efforts include:

- Distributing public health messaging regarding environmental hazards including wildfires.

- Responding to indoor air quality issues.

- Raising radon awareness and offering radon detection kits to Wyoming residents.

- Public health messaging
- Radon kits
- Air quality response
- Permits
- Air monitoring
- Inspection

- Lead poisoning response
- Waterborne disease investigation and response
- Water testing
- Medication donation and disposal

- Receiving and responding to lead poisoning reports.

- Leading illness investigations that may be related to potentially contaminated drinking water.

- Water testing for biological and chemical contaminants.

- Promoting proper disposal and/or donation of prescription medications.
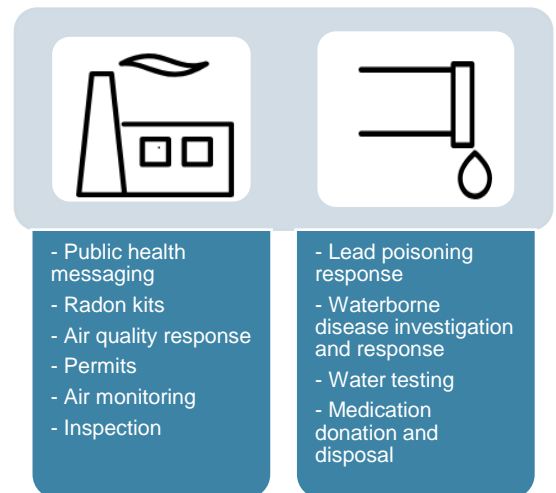
Air pollution rates and disease attributable to public water systems are two primary indicators of air and water quality.

- Wyoming's 2012 air pollution rate, defined by average daily density of fine particulate matter (micrograms per cubic meter PM2.5), was 6.5 micrograms per cubic meter, compared to 8.7 nationally, according to the County Health Rankings (CHR).

- Air quality in Wyoming has improved over the past two decades, with common outdoor pollutants decreasing by 19 percent between 1997 and 2016.[25]

- WDEQ's Annual Network Plan for 2018 further notes that Wyoming fully complied with National Ambient Air Quality Standards from 2015 to 2017.[26]

Air Pollution Rate, Wyoming and U.S. 2012

Source: County Health Rankings
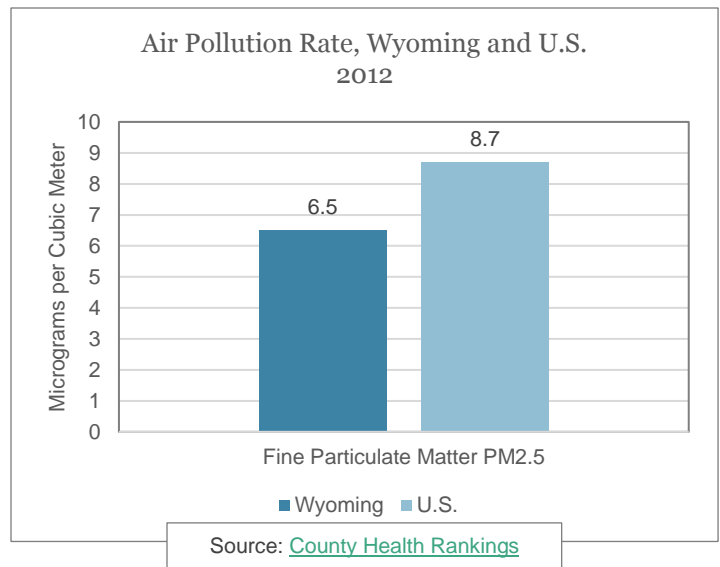
- WDEQ's Air Quality Monitoring Network also supplies real-time information about air quality in categories such as particulate matter, ground-level ozone, and nitrogen dioxide.

- Wyoming has had no cases of reportable diseases due to public water systems over the last five years per infectious disease surveillance conducted by PHD.

Housing and Transit

Housing and health interact at several levels. Access to safe, affordable housing increases safety and a sense of home or belonging, and decreases negative factors such as exposure to toxins, pollution, unsafe water, and injury. Affordability means that income can support a home where an individual or family is protected, while leaving sufficient funds for other needed expenses. Affordable homes in healthy neighborhoods mean protection from crime, a safe environment free from physical hazards, and increased opportunities for activity, leisure, social connection, and access to services such as healthy foods and healthcare.[27]
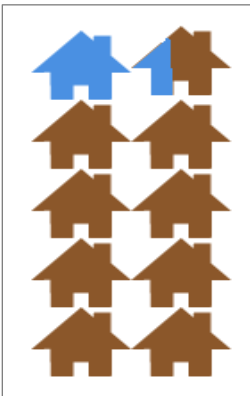
- According to the 2018 CHR data, 1.2 in 10 Wyoming households face severe housing problems, as defined by at least one of four housing problems:
  - overcrowding,
  - high housing costs,
  - lack of kitchen, or
  - lack of plumbing facilities.

- Nationally, 2 in 10 households experience said problems.

Eight local Public Housing Agencies (PHAs) are located throughout the state:[28]

- Buffalo
- Casper
- Cheyenne
- Douglas
- Evanston
- Hanna
- Lusk
- Rock Springs

PHAs work to ensure safe, affordable housing for Wyoming residents in the communities they serve. Additionally, the Wyoming Community Development Authority (WCDA) was created in 1975 through state statute (Wyo. Stat. §§ 9-7-101-125) to finance housing for homebuyers. The WCDA also administers three affordable rental housing development programs. WCDA programs and services are intended to make it easier for Wyomingites to finance their first home and/or make affordable rental properties available.[29]

In addition to housing, transit is an important factor in health. Health outcomes related to transportation such as obesity (due to increased sedentary time), air pollution, and traffic crashes were estimated to cost the U.S. over $370 billion dollars in 2008. However, the vast majority of federal funding, across the country, goes toward building or maintaining highways and other roadway infrastructure, while relatively little investment is made in public or alternative transit options.[30] The reliance on motor vehicle transportation can lead to greater health impacts from pollution, sedentary time, and crashes.[31] Alternative transportation options, such as walking, biking, and public transit, can help communities reduce these health impacts and encourage positive health behaviors.[32]

- According to CHR data, nearly 8 in 10 Wyoming workers drive alone to work. Wyoming is similar to the national percentage of 76.
  - o Of workers who commute alone, 15 percent have a commute of 30 minutes or more, which is less than the 35 percent reported nationally.

The Wyoming Department of Transportation (WYDOT) supports transit programs in Wyoming, with all 23 counties having at least one provider of public transportation. Senior centers act as the primary transit provider in some communities.[33] While public transit does exist in each county, the availability and sophistication of these systems varies by community, and private motor vehicle use remains an important option for most.

WYDOT also administers the Safe Routes to School (SRTS) program, which is a federally funded program intended to enable and encourage children to walk and bike to school; make walking and bicycling to school safer and more appealing; and facilitate projects that reduce traffic and improve safety near primary and middle schools.[34]

In addition to WYDOT public transit and SRTS efforts, legislation in Wyoming (Senate Enrolled Act 8 from the 2016 legislative session) called for the creation of a 13-member Bicycle and Pedestrian System Task Force to be appointed by the governor. The task force was tasked with developing the *Bicycle and Pedestrian System Report* released in 2018. The report provided recommendations to the legislature and other state agencies. Some of the high-priority recommendations identified in the report are summarized in the table on the next page.

Bicycle and Pedestrian System Task Force Report Recommendations[35]		
Policy	Fiscal	Multisector Involvement
• Legislative support • Appropriations • Creation of WYDOT Office of Bicycle and Pedestrian Transportation	• $10 million to fund statewide initiative to address community and rural walkability, cycling, and trails	• Governor collaboration with state agencies to incorporate budgets and work plans • Business Council action to enhance Wyoming Main Street program to offer incentives, funding, and support • Tourism Office action to promote and advertise Wyoming walkability, trails, pathways, and bike routes • WDH action to work with local and state stakeholders to promote physical activity and active transportation • State Parks action to complete a system-wide trail plan and long-distance bike trails • Department of Education action to partner with communities, school districts, and others to promote SRTS program
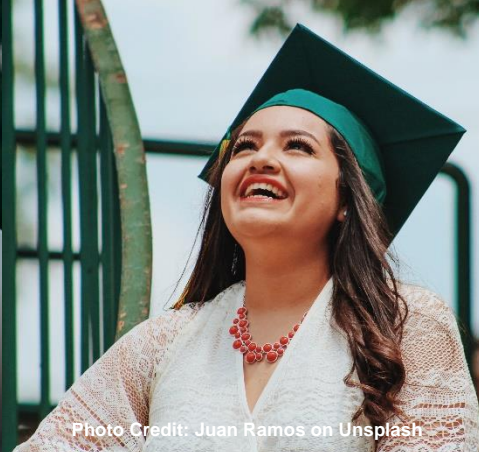
Social and Economic Factors

While physical environment broadly impacts health and the ability of people to pursue health, 40 percent of our health outcomes are driven by social and economic factors like education, employment, income, family and social support, and community safety, according to CHR.[36] Whether discussing diabetes prevention, reducing the rate of low birthweight babies, or improving mental health, addressing the root cause of health outcomes is nearly impossible without also discussing the role that social and economic factors play in the short- and long-term health of individuals and communities.

Relationships between health outcomes and social and economic factors have been thoroughly demonstrated, including the relationships between income and health, education and health, and employment and health.[37] In these relationships, the more education and income a person has, and the more opportunities for stable employment, the better overall health a person will experience. The opposite is also true. The Robert Wood Johnson Foundation concludes that loss of employment can result in negative health outcomes, including poor mental health. Even when they may be steadily employed, persons with lower incomes are less likely to have access to health insurance through their employer,[38] and "those with lower wages are less likely to access preventive care services that insurance may cover, such as screenings for high blood pressure and elevated cholesterol."[39] While income, education, and employment impact health, they also impact each other, and it is not difficult to begin to understand how, for example, a person with lower educational achievement (which may be a result of a lack of family support, an unsafe environment, being unable to access a quality education institution, or any number of other social factors) may then experience a lower quality of employment. The complex relationships between these factors contributes to health disparities on a large scale, and it is not enough to simply address just one of the aforementioned determinants.

Disparities in income, education, and other determinants of health contribute to disparities in health outcomes. CHR demonstrated in its 2015 report that "the unhealthiest counties also had greater income inequality."[40]

The rural nature of many of Wyoming's communities can also contribute to health disparities. A report released in July 2018 by the University of Minnesota highlights the lower level of social support experienced by rural workers who also act as caregivers in communities where care for the elderly or other social services are difficult to come by. Compared to their urban counterparts, rural caregivers receive less support through employer programs, are less able to telecommute, and receive less paid leave.[41] Considering Wyoming's aging population, social support issues may become an even more critical leverage point for those looking to improve the health of Wyomingites.

Education

Safety

Social Determinants of Health

Employment

Family and Social Support

Income

Connections between education, employment, income, and other social and economic factors and health disparities will be further discussed in the following section. Even a brief analysis of ways in which social and economic factors impact health reveals that the traditional healthcare system and public health professionals will not be able to accomplish long-lasting reductions in health disparities without partnering with education professionals, workforce development systems and partners, family service providers, local governments, and community leaders in order to address the root causes of our most pressing health disparities.

Education

Education has been linked to health outcomes and can influence health in a number of ways. A national study found that as education level increases, so does the number of years a person can expect to live past the age of 25. For both men and women with a college education, five additional years of life can be expected compared to those without a high school education.[42] Adults with higher levels of education are more likely to:[43, 44]

- Experience less illness
- Generate lower medical care costs
- Be productive workers
- Experience less stress
- Have healthier lifestyles
- Produce next-generation advantages related to education and health outcomes

- Have higher quality employment
- Have higher earnings
- Experience safe working conditions
- Gain benefits like sick leave and insurance
- Afford quality housing
- Have access to healthy food and exercise

The 2016-2017 school performance ratings released by the Wyoming Department of Education (WDE) indicated that approximately 56 percent of schools are meeting or exceeding expectations.[45] The Quality Counts state report cards issued by *Education Week* rated Wyoming in the top 10 states for quality education in 2017, with a score of 80.3, compared to a national average of 74.2. Wyoming was graded in the A and B categories for:

- Chance of success
  - Early foundations
  - Adult outcomes
- K-12 Achievement
  - Equity
- School Finance
  - Equity
  - Spending[46]

However, according to the Annie E. Casey Foundation 2018 Kids Count Wyoming profile, the state ranks 25th in the nation based on key education indicators:

- Young children (ages 3 and 4) not in preschool;
- Fourth-graders not proficient in reading;
- Eighth-graders not proficient in math; and
- High school students not graduating on time. [47]

Wyoming's economic downturn led to difficult budgetary decisions at the legislative level to manage decreasing revenue overall, which led to cuts to the WDE's budget. In the 2016 and 2017 legislative sessions, education-related budget reductions of approximately $77 million occurred, with further cuts being phased over three years.[48] In 2017 the Select Committee on School Finance Recalibration (Committee) commissioned a study on the state's funding model. The study's recommendations were as follows:

APA Consulting 2017 recommendations to the Select Committee on School Finance Recalibration[49]
• Suggested class size ratios for elementary and secondary schools • Raising model teacher salaries by approximately $3,900 per year • Retaining the current model salaries for administrators and other classified staff • Increasing base personnel resources, including healthcare • Increasing base personnel resources by 30 percent for each at-risk student and English language learner student • Increase resources for career and technical education • Maintain 100 percent reimbursement for special education services

While much of the research that examines school funding and academic achievement has been inconclusive, recent studies suggest that school financing can impact achievement and education quality. A 2015 study published in *Education Next* found that when examining the effect of increased spending on adult outcomes such as educational attainment, wages, and poverty incidence, there were significant gains for low-income students associated with increased spending due to school finance reform.[50] Significant decreases in education spending in Wyoming could have long-term impacts on students' economic and health outcomes, especially among lower-income students.

Despite the mentioned challenges, Wyoming's percentage of the population aged 25 and older with a high school diploma or bachelor's degree has increased 1.1 and 3.4 percent, respectively, from 2015 to 2016.[24] Overall enrollment at the state's only university – the University of Wyoming – declined 3.1 percent during the same years; however, the number of bachelor's degrees issued increased by almost 7 percent in a similar time frame.[24]

Some key education indicators are displayed below:

Error bars represent 95% confidence intervals.

Adults 25-44 with Some College, Wyoming and U.S. 2012-2016

Source: County Health Rankings

4th Grade Reading at or Above Proficient, Wyoming and U.S. 2017

* Indicates statistically significant difference between WY and U.S.

Source: National Assessment of Education Progress (NAEP)[52]
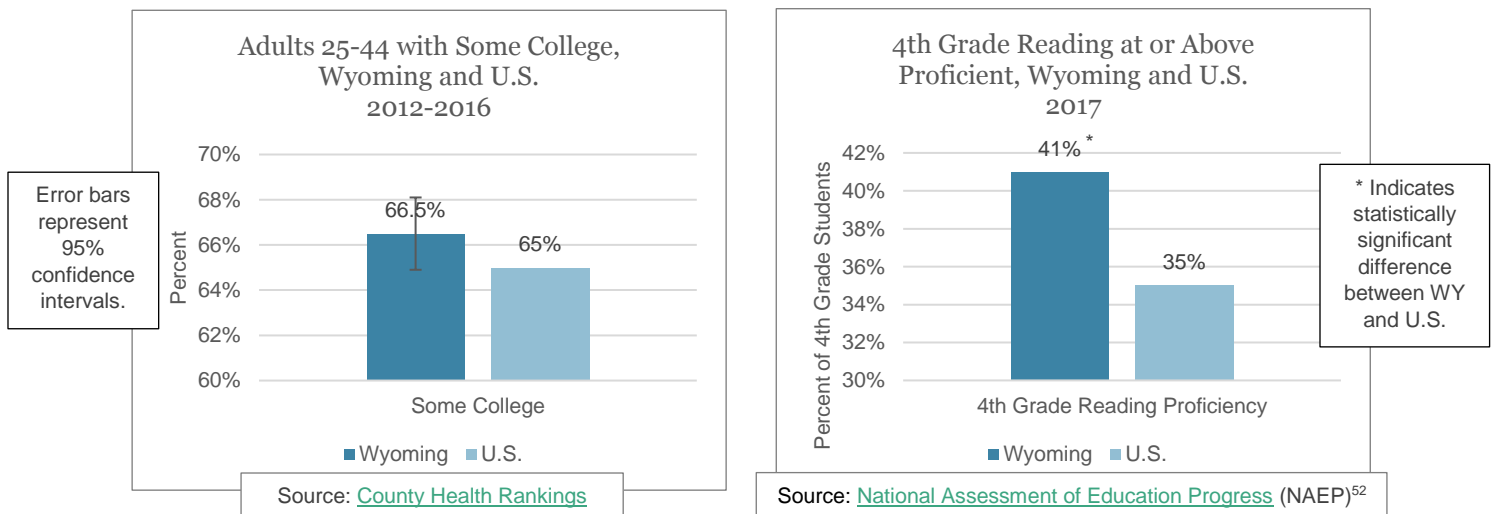
- WDE graduation data for school year 2016-2017 indicates that 80.2 percent of ninth-grade cohorts achieve high school graduation.[51]

- The most current national data cited in the CHR (school year 2015-2016) indicates that in the U.S., 84 percent of ninth-grade cohorts achieve high school graduation.

- From 2012 to 2016, CHR data indicates that 66.5 percent of Wyoming adults aged 25-44 have some college education. That value is 65 percent nationally.

- Wyoming is performing better than the national average on fourth-grade reading being at or above a proficient level.[52]

Employment

Greater employment opportunities are connected to better access to health insurance, higher income, and other factors that positively impact health. Laid-off workers are 54 percent more likely to have fair or poor health compared to those who are continuously employed, and are 83 percent more likely to develop a new health condition.[53] Unfavorable employment experiences, such as underemployment, loss of employment, and low-wage work may also negatively impact mental health, resulting in depression and poor ability to cope with job loss.[54]

Related to working conditions and hazards, unsafe workplaces can lead to more injury and death among workers. In 2017, 2.8 million nonfatal workplace injuries occurred in the U.S. in private industry settings,[55] and over 5,000 workplace deaths occurred in the U.S.[56] Nationally, workers 65 years and older experienced the highest number of fatalities by age group, accounting for 15 percent of fatally-injured workers in 2017.[56] In Wyoming, workers 65 and older accounted for 17 percent of fatalities from 2012 to 2017; however, this population makes up just 6 percent of the total Wyoming workforce.[57] Further, Wyoming had the third highest rate of worker deaths (7.7 workers per 100,000 full-time equivalent employees, compared to 3.5 nationally) in 2017. Motor vehicle crashes are the leading cause of occupational death, accounting for half of all Wyoming worker fatalities from 2012 to 2017.[57]

Unemployment Rates, Wyoming and U.S. 2016 and 2018

Sources: CHR (2016 Wyoming and U.S.); Bureau of Labor Statistics (2018 Wyoming and U.S.)
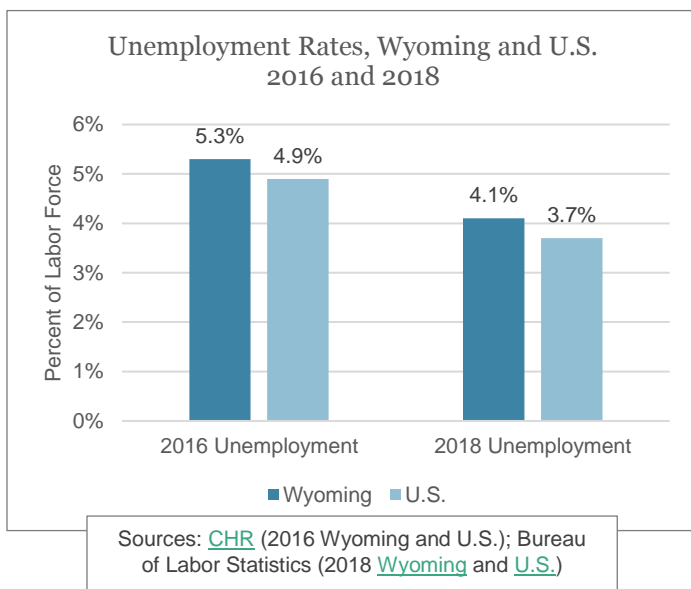
- In Wyoming, about 21 percent of people aged 65 to 74 remain in the workforce.[58]

- Per CHR and Bureau of Labor Statistics (BLS) data, Wyoming's unemployment rate has decreased from 5.3 percent in 2016 to 4.1 percent (November 2018). Wyoming was slightly above the national rates of 4.9 percent and 3.7 percent for the same time periods, respectively.

- Between public and private sectors, the largest employers in Wyoming consist of government agencies, academic and educational institutions, retail, tourism, healthcare facilities, and energy/coal.[59]

- Many of these employers were also likely to offer benefits to employees, such as medical and dental insurance, retirement plans, and paid vacation and sick leave. [60]

    o Full-time workers were more likely than part-time workers to be afforded benefits.[60]

Wyoming's economy has been significantly impacted by the Powder River Basin, which is a geologic structural basin that covers about 19,500 square miles in northeastern Wyoming and southeastern Montana[61] and contains large coal deposits. It has offered many job opportunities in the past; however, coal production in the state has seen a 22 percent decline, leading to 713 fewer jobs over a nine-month period in 2016.[62] Such shifts in a major industry can have devastating effects on individuals, families, and communities with impacts to mental and physical health. While recent forecasts from the Energy Information Administration predict that Wyoming's coal mines may have steady demand for the next 30 years,[63] Wyoming faced revenue and budget shortfalls impacting funding for health, education, and other services in the state, which may impact short- and long-term health outcomes.

In 2014, Wyoming experienced the smallest employment growth (1.8 percent) in the region (consisting of Wyoming, Colorado, Utah, Idaho, Montana, North Dakota, South Dakota, and Nebraska), but was one of only two states to experience an overall wage increase. [64] Within the construction field, however, Wyoming's wages declined between 2009 and 2013 by 16.7 percent.[64]

Income

In the two previous sections, educational attainment and employment were discussed in relation to health and impact on income generation. Here, income will be explored further. Employment serves as the primary source of income for most individuals, though some may obtain income from other public and private sources, such as Social Security, retirement, or investments.

Income can be used not only to purchase medical insurance or healthcare services, but can also provide greater opportunities to access healthy food, physical activity opportunities, quality housing, and transportation, thereby influencing health in a number of ways. On the other hand, poverty can lead to chronic stress, greater exposure to environmental hazards, and poorer health outcomes. Research links income to a variety of health outcomes, such as birth weight and chronic conditions across the lifespan.[65] Patterns in national data also show that higher income levels are linked to physically and mentally healthier children and adults, as well as longer life spans.[65]

Indicators that help us understand income among Wyomingites are shared here:

- Per CHR, in 2016, 12 percent of Wyoming children lived in poverty. In comparison, the national rate was 20 percent in 2016.

- CHR indicates 37 percent of Wyoming children were eligible for free or reduced-priced lunch during the 2015-2016 school year, which has not changed significantly since the 2010-11 school year.

- Wyomingites have a slightly higher overall median household income than the national average at $61,279 (compared to $60,336).[66] However, among Wyoming men and women aged 65 and older who live alone, there is a great decrease in median household income: $26,354 and $20,601, respectively.[58]

- Overall, Wyoming women earned $0.74 on the dollar compared to men in 2016.[67]

- Wyoming wage records from 2000 to 2017 indicate males earn an average of $46,270 per year while females earn an average of $29,011 (62.7 percent of men's wages).[68]

Median Income, Wyoming and U.S. 2017

Source: Small Area Income and Poverty Estimates
Error bars represent 95% confidence intervals.

- Another important metric to view is income inequality or the ratio of household income at the 80th percentile to income at the 20th percentile. A higher inequality ratio signifies a greater gap between the top and bottom ends of the income spectrum. The 2018 Wyoming CHR report indicates that Wyoming fares better than the nation on this metric with an overall ratio of 4.2, compared to a national ratio of 5.
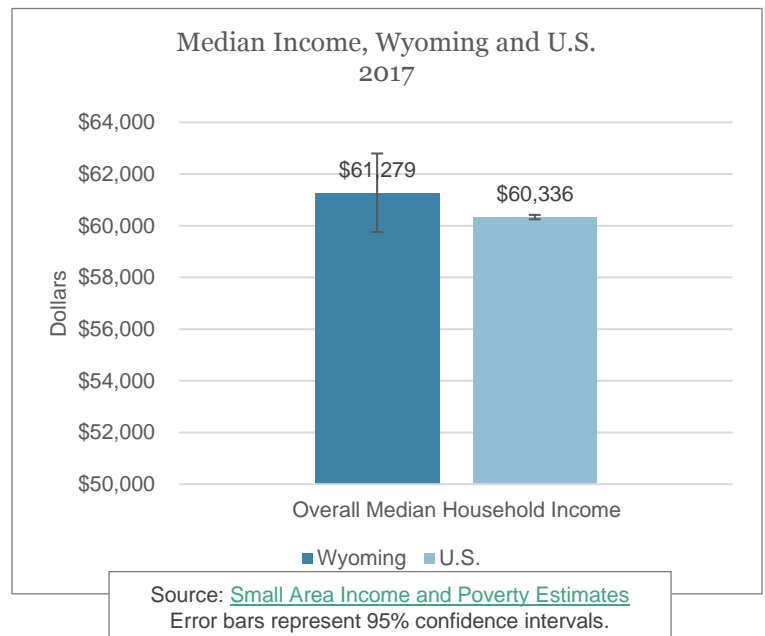
Wyoming individuals' and families' income and wealth can be impacted by policy and other factors:

- Wyoming does not impose an individual income tax, which allows workers to keep more of their earnings.

- That same tax policy limits revenue that could support state and local public services.

- While Wyo. Stat. § 27-4-402(a) provides for a minimum wage of $5.15 per hour, Wyoming employers are expected to comply with the federal rate of $7.25 per hour. Over the last decade, legislative bills to increase the minimum wage in Wyoming have repeatedly failed.

- Personal bankruptcy in Wyoming has risen 1.6 percent from 2015 to 2016, and Wyoming's rate of bankruptcy per 100,000 was 153 in 2016.[24]

- Finally, the overall cost of living increased 2.3 percent (for all consumer categories tracked) for Wyomingites in 2017, meaning residents paid more for goods and services, reducing discretionary income for other needs.[69]

Categorical Inflation Rate, Wyoming 4th Quarter 2017

Source: Wyoming Department of Administration & Information Cost of Living Index[69]
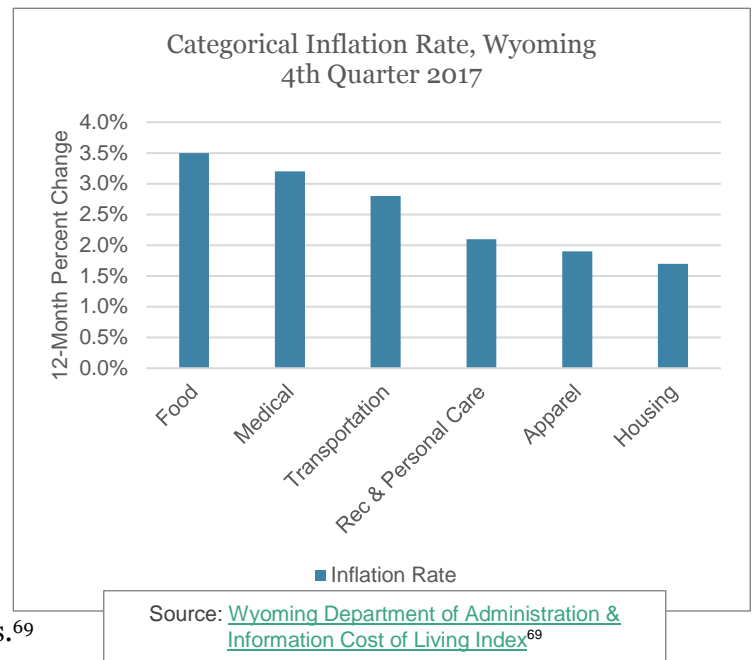
Family and Social Support

Social support comes from relationships with relatives, friends, co-workers, and others in our communities. Social capital, defined as the links, shared values, and common understandings in society that enable individuals and groups to trust and work with each other and be engaged in community,[70] also contributes to social support. Having both individual and community level social supports can help individuals manage stress, particularly chronic stress, which is linked to many negative health outcomes across the life span.[71] Lack of social relationships and connection have been found to increase the risk of heart disease and stroke,[72] early death, mental and emotional challenges, and unhealthy behaviors.[73]

Loneliness and social isolation may be of increasing concern among the growing aging population. A national study conducted by AARP in 2010 found that 35 percent of older adults (ages 45 and older) reported being lonely. A perceived lack of support and fewer friends were associated with feelings of loneliness among the respondents.[74] Additionally, older adults who live alone can experience lack of support or reduced access to resources. In Wyoming, almost 30 percent of Wyoming residents aged 65 and older live alone.[58] Aging-in-place, with appropriate care and community services, is a strategy that helps elderly residents delay more costly long-term care options.[9]

WYOMING SPEAKS
About Isolation

Residents identified social isolation and a lack of community connection as a barrier to health. However, they also recognized that when community connections were in place, communities did it well.

Conversely, mental health outcomes for children in single-parent households may improve when individual, family, and social resources are improved.[75] In Wyoming, 28 percent of children live in single-parent households, which is not significantly different from 34 percent nationally (2012-2016 data).

Following are a few key indicators of family and social support relevant to Wyoming.

Social Associations per 10,000,
Wyoming and U.S.
2015

13.3
WY

9
U.S.
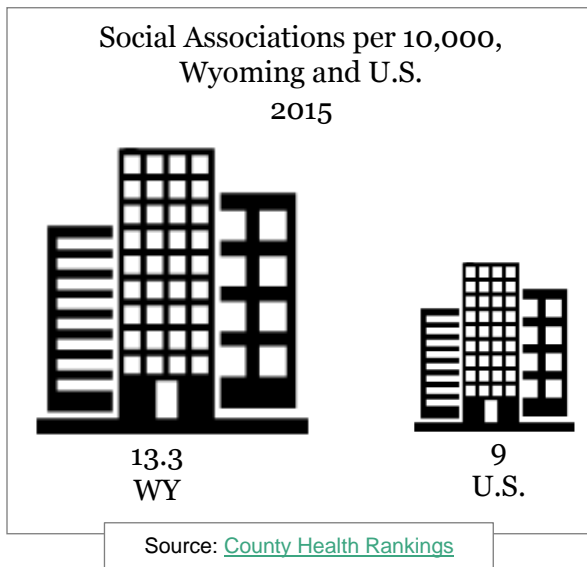
- Social organizations or associations such as civic groups, bowling or other recreational centers, fitness centers, sports organizations, labor organizations, and other such entities that serve a given population are important places for connection.

- CHR reports that in Wyoming, there are 13.3 associations per 10,000 population, which is higher than the national average of 9 per 10,000.

- Measuring how many youth and young adults (ages 16-24) are not working or in school may indicate a disconnection from valuable social supports. The most current data cited in CHR shows that 11 percent of Wyoming youth and young adults are disconnected from those settings.

Another factor to consider is residential segregation. While segregation such as separate schools or seating is illegal, structural and institutional policies and practices may still contribute to racism and segregation. Residential segregation is one example of structural racism that can exist and has been linked to poorer birth outcomes, greater exposure to pollutants, increased risk of disease and premature death, greater crime rates, and restricted access to healthcare systems.[76]

The CHR values presented here are based on an index of neighborhood dissimilarity, where higher values indicate greater residential segregation between residents.

- Relative to segregation between black and white residents, Wyoming's index rating from 2012 to 2016 was 68 (out of 100, which would indicate complete segregation).

- Segregation between non-white and white residents, from 2010 to 2016, was lower at an index rating of 37.

Community Safety

This SHA has examined multiple social and economic factors that influence health – education, employment, income, and family and social support. The interconnection between these factors should be clear. Community safety is no different. In fact, as it specifically relates to violence, "the same social factors that shape health – including education, income and wealth, and related conditions where we live, learn, work, and play – also are strongly linked to violence."[77]

Community safety generally encompasses intentional (e.g., interpersonal violence and crime as well as self-inflicted violence) and unintentional injury (e.g., falls, crashes). Unintentional injuries are the leading cause of death for Americans ages 1 to 44, and claim almost 200,000 lives each year. Wyoming consistently ranks among the highest in the nation for injury-related deaths.[78]

Community safety issues are linked to health outcomes in complex ways. When violence results in injury or death (interpersonal or self-inflicted), the connection is clear. However, exposure to violence can increase the risk for poor health for both direct victims and those who experience it indirectly in their homes or communities. Some of the ways violence can affect health are presented in the following table.

Ways Violence Can Affect Health[77]	
• Restricting health-promoting behaviors, such as walking or participating in outdoor play, due to concerns about violence and safety. • Participating in health-harming behaviors, such as using alcohol or drugs, to cope with repeated exposure to crime or violence. • Developing a chronic disease as a result of the prolonged stress that accompanies living in an unsafe community.	• Sustaining long-term changes in one's ability to cope with stressors in life. • Creating disconnected communities, thus limiting social support. • Creating economic barriers, such as reduced business operation in high-crime neighborhoods, which may limit employment and investment opportunities for communities.

From 2015 to 2016, Wyoming experienced a 10 percent increase in violent crimes, according to the Federal Bureau of Investigation (FBI), Uniform Crime Report (UCR).[79] Murder (25 percent increase) and rape (19.9 percent increase) largely contribute to the overall rate increase.[79]

Several CHR indicators related to violence are described below and summarized in the table to the right.

- CHR data indicate Wyoming's violent crime rate is lower than the national average; however, it is significantly higher than the state with the least violent crime, which is 62 per 100,000.

- Wyoming's homicide rate is lower than the national rate.

- The firearm death rate is significantly higher in Wyoming than the national rate, and over 85 percent of firearm-related deaths were suicides according to vital records data.

Violent Crime and Firearm Fatalities per 100,000		
Category	Wyoming	National
Violent Crime Offenses (2012-2014)	201	380
Homicides (2010-2016)	3	5.51
Firearm Fatalities (2012-2016)	18	11.03

Source: Federal Bureau of Investigation, Uniform Crime Report

A number of best-practice laws exist to support the prevention of firearm injuries and deaths. However, Wyoming has been slow to adopt these types of laws. Per the Giffords Law Center Annual Gun Scorecard, Wyoming scored an "F" on firearm safety best-practice laws.[80] According to the Giffords Law Center, there are six best-practice laws that can support firearm injury prevention.

Firearm Safety Best Practice Laws

- Background checks for firearm shows, online, and private sales
- Imposing liability for negligent storage of firearms
- Conceal carry permits
- Laws monitoring ownership for those convicted of domestic violence
- Risk protection orders that allow for temporary removal of firearms by famiy, household members, or law enforcement
- Limits on military-style weapons

Unintentional injury is another factor that contributes to community safety. While individual behavior change is an easy focus of injury prevention, the ecological approach to addressing the underlying determinants – societal structure and policies, community boundaries and values, organizational influences, and interpersonal relationships – of behavior and environmental risk for injury can offer a more complete way to address community safety.[81]

Common causes of fatal unintentional injuries are motor vehicle crashes, unintentional poisoning or overdose, and falls. These causes are preventable. Policy levers can be used to aid prevention of injury; however, in some cases, policies may hinder preventive measures.

For example, seat belt use is proven to decrease the risk of death and serious injury related to motor vehicle crashes. In Wyoming, only about 80 percent of the population wears a seat belt.[24] Primary seat belt laws, which allow law enforcement to issue a citation to a driver for not wearing one as a primary violation, provide for more effective and proactive enforcement of seat belt usage.[82] However, Wyoming does not have a primary seat belt law. Rather, Wyoming's law is secondary, meaning that law enforcement may only issue citations for seat belt violations if a driver is pulled over for another reason.

A policy related to motor vehicles where Wyoming does well is child passenger restraint laws. Wyoming is highly rated by the CDC for its law requiring that all passengers aged eight or younger be buckled in a car seat or booster seat. Evidence demonstrates that requiring safety seats increases the use of safety seats and thus better protects children from injury.[83]

Additionally, other best-practice laws exist to support the prevention of motor vehicle crashes. While the laws noted below have not been enacted in Wyoming[78, 84], some communities have banned the use of hand-held devices while driving.

> **Motor Vehicle Safety Best Practice Laws**
>
> - Ban on use of hand-held devices while driving (these may exist locally, but not at the state level)
>
> - No universal helmet law for riders older than 18
>
> - No primary seat belt law
>
> - Provisions for mature drivers (such as accelerated licensce renewal frequency; restriction of online or mailed renewals; vision testing; road testing; or reduced or waived renewal fees)

Injury deaths are an important indicator of community safety. From 2012 to 2016, Wyoming experienced injury deaths at a rate of 90 per 100,000, which is higher than the national rate of 65 per 100,000. It is important to note that injury deaths include both intentional (e.g., homicide or suicide[i]) and unintentional (e.g., motor vehicle deaths, workplace injury fatalities) deaths.

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[i] While suicide is an injury-related death, suicide is explored in more detail in the Health Outcomes section, under Life Expectancy and Mortality.

Unintentional injury is the leading cause of death for Wyoming residents 1-44 years of age, per Wyoming Vital Statistics Services (WY VSS) data. WY VSS data helps us identify the following notable findings related to unintentional injury in Wyoming.

Age-Adjusted Unintentional Injury Mortality Rate per 100,000 Population, Wyoming and U.S. 2004-2016

Source: Wyoming Vital Statistics Services (WY) and CDC WISQARS (U.S.)
Shaded area represents 95% confidence intervals.
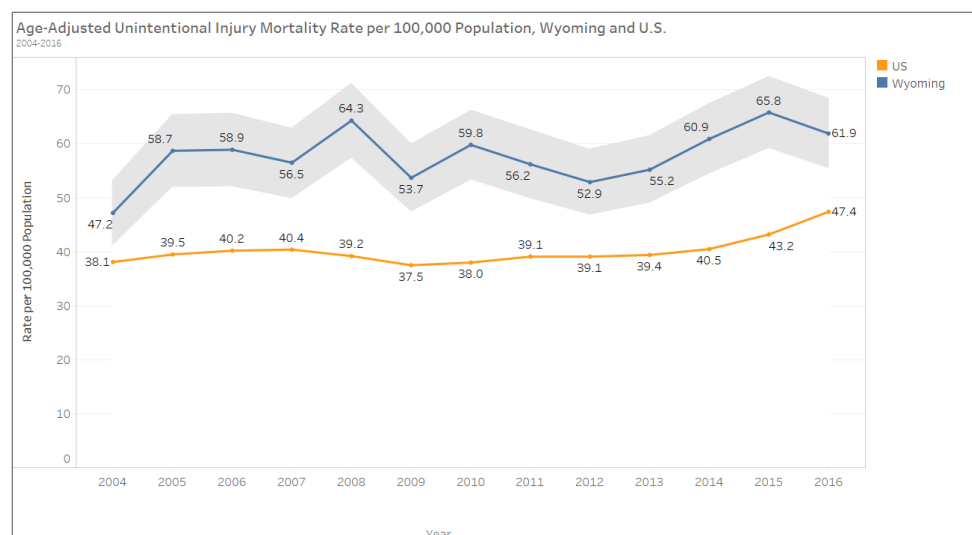
- Unintentional injury mortality rates in Wyoming are consistently higher than the U.S. In 2016 the Wyoming unintentional injury mortality rate was 61.9 deaths per 100,000 people compared to the U.S. rate of 47.4 deaths per 100,000.

- Unintentional injury mortality rates are highest among males, and those 75 years and older.

- The leading mechanisms of unintentional injury mortality are motor vehicle crashes, unintentional poisoning, and falls.

Unintentional Injury Mortality Rate by Age, Wyoming
2012-2016

Source: Wyoming Vital Statistics Services

It is important to discuss the role of emergency medical services (EMS) and trauma systems as critical factors in community safety as well.

EMS involves a coordinated and systematic response to the need for emergency medical care, which often involves many individuals and entities. Typically, comprehensive EMS and trauma systems are made up of the following:

- Public and private organizations
- Communications and transportation networks
- Trauma systems, hospitals, trauma centers, and specialty care centers
- Rehabilitation facilities
- Highly trained emergency response professionals
- An informed public[85]

Emerging practices, such as community EMS, are expanding the role and reach of EMS providers, which can improve access to primary care and public health services, especially in rural communities.[86]

Below are two key indicators of EMS capabilities in Wyoming, based on Office of EMS data collection and reporting.

- In 2017, 51 percent of emergency medical service responses arrived on scene in <8:59 minutes, which is the benchmark used for response.

- Of trauma patients requiring a transfer to definitive care in 2016, 29 percent spent under 2 hours in the emergency department.

Planning for emergencies and responding appropriately also saves lives and minimizes the health and safety consequences of such events. Wyoming invests in public health preparedness and response (PHPR) capabilities, such as Public Health Lab testing, disease surveillance, community preparedness, medical countermeasure dispensing, emergency operations coordination, and medical material management and distribution. Capabilities are addressed through state and local collaboration to ensure Wyoming communities are able to plan for and respond to public health emergencies.

- The Medical Counter Measures Operational Readiness Status (MCM ORR) identifies how well Wyoming is able to demonstrate capability to receive, stage, store, distribute, and dispense medical material during a public health emergency. The CDC rated Wyoming as "established," which meets the requirement to be established by 2022.

- Activation of the incident command and management team ensures that emergencies within a community, region, or state are responded to quickly and efficiently. In 2018, 100 percent of the command and general staff roles were activated and filled within 60 minutes during an actual or exercised event.

Photo Credit: Jon Tyson on Unsplash

Photo Credit: freestocks.org

Photo Credit: Denise Pisciotti

Clinical Care

Clinical care involves the places where people seek treatment for their medical needs and the providers who deliver that care. According to CHR, clinical care is only responsible for 10 percent of a person's overall health. While the various determinants of health that fall outside of clinical care have a greater impact on health overall, access to and quality of clinical care still deserve attention, especially in light of Wyoming's geographical barriers discussed previously. According to Healthy People 2020, "Access to comprehensive, quality healthcare services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans."[87]

Access to care encompasses cost, transportation, physical location of providers, and geographic factors that impact a person's ability to get the care needed. A broader view of access may also include considering the quality of care available, and whether or not available healthcare is culturally appropriate. A 2011 Robert Wood Johnson Foundation Issue Brief – *What is the link between having health insurance and getting adequate care?* – found that lack of insurance generally means lack of access to doctors, less preventive care, and worse outcomes. Disparities exist for racial and ethnic minorities and those with lower socioeconomic status, who bear a disproportionate burden related to access issues.[39] In 2010, the Patient Protection & Affordable Care Act (often referred to as ACA) passed at the federal level, which aimed to decrease disparities in health insurance status and access to care by increasing the number of people with health insurance. The policy has resulted in decreased rates of uninsured persons, with even more significant gains in states that expanded Medicaid.[88] In 2018, 24,529 Wyoming residents enrolled in insurance through the Wyoming exchange set up under the ACA; however, those who do not qualify for subsidies are paying the highest insurance rates in the nation.[89]
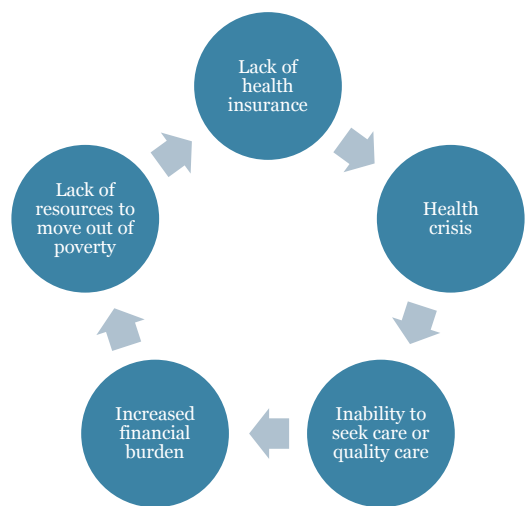
The social determinants of health often work together to dictate a person's access to care. The 2016 National Healthcare Quality and Disparities Report produced by the Agency for Healthcare Research and Quality (AHRQ) demonstrated that households below the poverty line experience lower quality care than middle- and high-income households, and those without health insurance experience lower quality care than those with insurance.[88] This pattern has held since 2000 and highlights the damaging cycle created by the interplay of income, health insurance, and quality of care. For example, when persons with a low income experience a health crisis and cannot rely on health insurance, they are less likely to receive the care they need without incurring severe financial hardship. This financial hardship may make it harder to move out of poverty or seek future healthcare to meet their needs. In addition to lack of insurance, many Wyomingites also experience geographic and workforce barriers to clinical care.

Access to Care

The CHR framework assesses access to care using measures related to those who are uninsured, and the ratio of population to primary care physicians, mental health providers, and dentists.[90] Additionally, the CHR selection of access-to-care metrics is guided by CDC's characteristics of access – coverage, services, timeliness, and workforce – and other standard measurement strategies.[91] As such, this SHA primarily assesses access to care in the same manner.

Wyoming has 95 federally-designated health professional shortage areas (HPSAs) throughout the state. This means our geographic areas, populations, and facilities have too few primary care, dental, and/or mental health providers and services. Having provider shortages undoubtedly creates access-to-care challenges for Wyomingites.

In addition to having many HPSAs around the state, the Behavioral Risk Factor Surveillance System (BRFSS) data indicates other access challenges for Wyoming adults. In 2016:

- 13.7 percent of Wyoming adults reported having no health insurance of any kind, which has decreased from 21 percent in 2011.

- 14.4 percent reported not being able to see a doctor at least once in the past year due to the cost.

- 31.1 percent of Wyoming adults do not have a person they consider their personal doctor or healthcare provider.

- Wyoming Hispanics were at the highest risk for experiencing all three of these access-to-care issues.

Adults Reporting Access-to-Care Challenges
Wyoming, 2016

13.7% 14.4% 31.1%

No Insurance
Not Able to See Doctor (past year)
Do Not Have Personal Healthcare Provider

Source: Behavioral Risk Factor Surveillance System

- There is no difference in access to healthcare providers or insurance status for rural and non-rural Wyoming residents, according to population density breakdowns of the data.
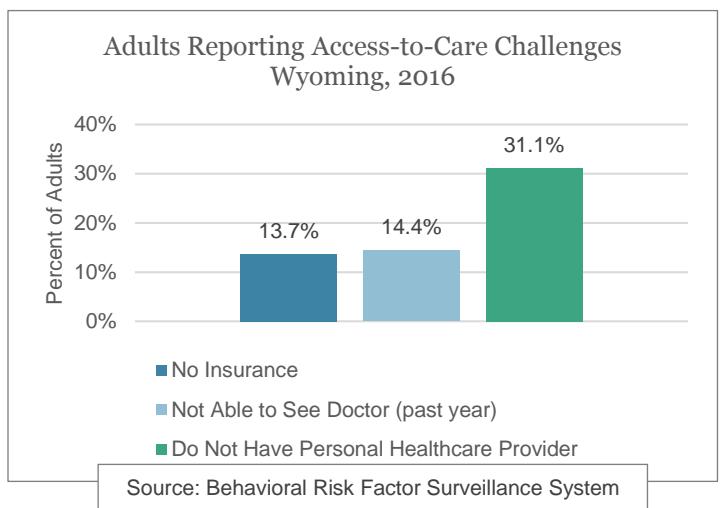
Despite access difficulties, in 2017, Wyoming ranked 14th in the nation for rural health out of 47 states with rural counties, and received an overall "B" grade from the F. Marie Hall Institute for Rural and Community Health. Wyoming ranks higher than all mountain division region states (Arizona, Idaho, Montana, Nevada, New Mexico, and Utah) except Colorado. Specifically, for access to care, Wyoming scored as follows:[92]

Access to Care			
Category	Rural Wyoming, 2017	Rural U.S., 2017	Wyoming Grade and National Rank
Primary Care Physicians practicing in rural counties	67.7 per 100,000	54.5 per 100,000	B+ 11th
Mental Care Psychiatrists practicing in rural counties	4.7 per 100,000	3.4 per 100,000	B+ 13th
Dental Care Dentists practicing in rural counties	57.2 per 100,000	42.8 per 100,000	B+ 12th
Uninsured Proportion of rural population under age 65	15.6 percent	ii	C+ Not Ranked

Source: Rural Health Report Card[92]

The table to the right summarizes the provider-to-population ratios in Wyoming compared to the U.S., according to the CHR.

Provider-to-Population Ratios		
Category	Wyoming	U.S.
Primary Care (2015) Physician-to-resident ratio	1 provider per 1,499 residents	1 provider per 1,320 residents
Mental Care (2017) Psychiatrist-to-resident ratio	1 provider per 334 residents	1 provider per 470 residents
Dental Care (2016) Dentist-to-resident ratio	1 provider per 1,557 residents	1 provider per 1,480 residents

Source: County Health Rankings

While primary indicators related to provider availability are focused on physicians, mental health providers, and dentists, Wyoming acknowledges that advance practicing registered nurses (APRNs) and physician assistants (PAs), as well as many other medical and health professionals are instrumental to supporting Wyomingites in receiving healthcare services and lifestyle education. In Wyoming, there are 511 licensed APRNs who list a Wyoming primary residence[93] that can provide clinical care and education to patients. Additionally, 358 PAs are licensed[iii] in Wyoming.[94]

Other key indicators of access relate to healthcare coverage:

- In 2015, 16 percent of the total Wyoming population was uninsured compared to 11 percent nationally according to CHR.
- CHR also notes that 8 percent of Wyoming children (under age 19) were not insured in 2015.
- It is estimated by the Centers for Medicare and Medicaid that in 2016, 13.3 percent of the Wyoming population was covered by Medicare.

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ii The Rural Health Report Card did not cite the national uninsured rate for the rural population; however, the Robert Wood Johnson Foundation's *Characteristics of the Remaining Uninsured: An Update* report issued in July 2018 cited the proportion of the rural population as uninsured at 12.7 percent.
iii This includes those with emeritus, active, temporary, and renewed license status.

- Likewise, Wyoming Medicaid point-in-time enrollment estimates indicate that 9.4 percent of the population was covered by Medicaid-only in 2016.[95] For Wyoming residents who utilize services under Medicaid, 95 percent receive some type of care within their county.[96]
- Wyoming is one of 19 states that did not expand Medicaid under the ACA, which was intended to extend coverage to Americans under the age of 65.[92]

Measures of access to healthcare services from the 2016 BRFSS, 2016 National Survey of Children's Health (NSCH), and 2016 National Immunization Survey (NIS) indicate that in Wyoming:

- 66.5 percent of adults visited the dentist or dental clinic within the past year for any reason. (BRFSS)
- 77.1 percent of adults received a wellness checkup in the last two years. (BRFSS)
- 33.9 percent of adults received a flu vaccination in the last 12 months. (BRFSS)
- 33.6 percent of adults have ever received a pneumococcal vaccination. (BRFSS)

- 79.1 percent of children (ages 1-17) visited a dentist or other oral healthcare provider for preventive dental care in the last year. (NSCH)
- 75.7 percent of adolescents (ages 12-17) had one or more preventive medical visits in the last 12 months. (NSCH)
- 62.8 percent of children (19-35 months old) have received the combined 7-vaccine series. (NIS)

Additionally, mental health and substance abuse treatment admission rates for Wyoming adults and youth provide some insight into access to those services. The following tables provide the treatment admission rates for adults (18 and older) and youth (under 18) in state fiscal year 2018, based on the Behavioral Health Division (BHD) data.[97]

Mental Health Treatment Admission Rates per 100,000[iv]	Total Statewide	Adults (18+)	Youth (Under 18)
	1796.15	1288.13	508.02

Source: WDH-Behavioral Health Division[97]

Substance Abuse Treatment Admission Rates per 100,000[iv] by Primary Presenting Problem[v]	Adults (18+)	Youth (Under 18)
All Substances	1610.08	90.87
Alcohol	612.91	27.52
Marijuana	344.45	47.60
Opiates and Synthetics	206.84	2.25
All Other Drugs	445.88	13.50

Source: WDH-Behavioral Health Division[97]

[iv] Based on 2018 census estimates.
[v] A patient can present with more than one primary presenting problem (e.g., both alcohol and marijuana).

Clinical telehealth services are a valuable indicator of access to care, given the challenges many rural Wyoming residents face when it comes to receiving primary and specialty healthcare. Currently, the best proxy measure of access to clinical telehealth services comes from Medicaid billing data. From state fiscal year (SFY) 2013 to SFY 2017, Medicaid data indicate the following:

- 61 percent increase in the number of unique providers delivering clinical telehealth services per billing records (from 31 providers in SFY 2013 to 50 providers in SFY 2017); 79 percent of these services were related to behavioral health.

- 80 percent increase in the number of unique patients receiving said services (from 687 in SFY 2013 to 1,239 in SFY 2017).

- 47 percent increase in the number of unique claims for clinical telehealth services (from 2,806 in SFY 2013 to 4,127 in SFY 2017).

As the aging population in Wyoming grows, the impact of poor access to healthcare will become even more important as subsequent increases in chronic health conditions can be expected to balloon the costs of healthcare in general.

- Healthcare costs, as defined by the amount of price-adjusted Medicare reimbursements per enrollee (Parts A and B), amounted to $8,145 in 2015. No ideal level of spending on patients has been established at a national level to guide states in assessing their overall spending.[98]

Finally, access to care is an important issue for Wyomingites, as demonstrated through the community listening sessions.

WYOMING SPEAKS
About Access and Quality

In Wyoming community listening sessions, access to care was cited as the most significant barrier to health, and quality of care was cited third (as depicted in the image to the right).

Community Listening Sessions: Identified Barriers to Health

Barriers
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Access 61.5%
Other 13.4%
Attitudes 6.5%
Quality of Care 7.8%
Health Behaviors
Social Determinants 6.0%
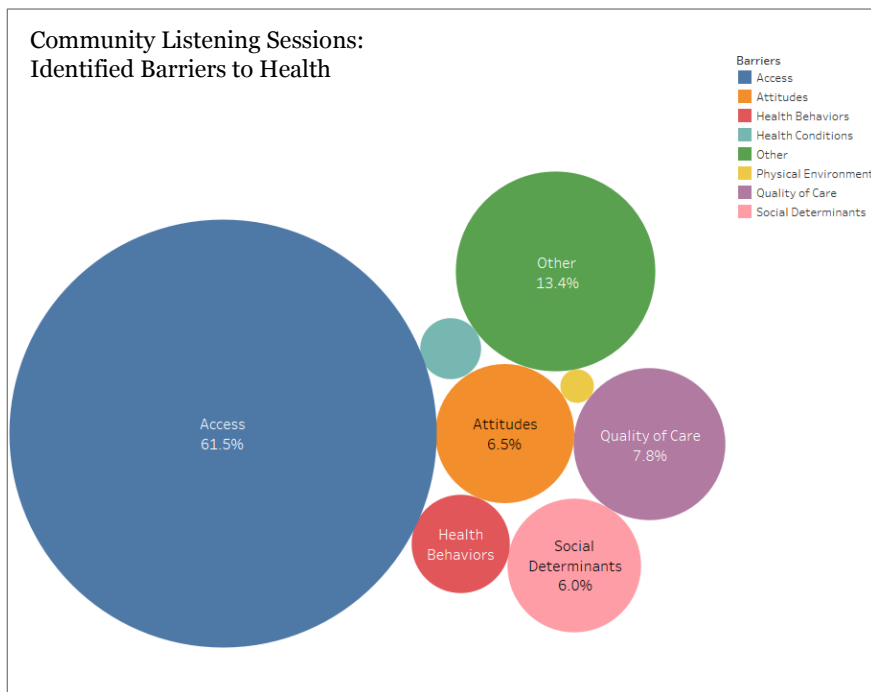
Quality of Care

While accessing care is an important factor in meeting health needs, the quality of care is another important factor in clinical care. Clinical practice guidelines, integrated care, shared decision-making, continuous quality improvement, supportive technological practices, and patient safety measures can all contribute to high-quality care while containing costs.[99] Poor care and coordination can contribute to avoidable medical care and expenses.

Minority and lower-income populations are more likely to receive lower-quality care than their white or higher-income counterparts.[39] In some cases, they will be subject to lower-quality care even when insurance, income, and other conditions are accounted for.[100]

In Wyoming:

- CHR indicates preventable hospital stays among Medicare enrollees were 43 per 1,000 enrollees in Wyoming. Nationally, the rate was 49 per 1,000.

- According to BRFSS, 69 percent of Wyoming residents with diabetes received HbA1c monitoring in 2016. The national Healthy People 2020 benchmark is 71.1 percent.

- Wyoming has a relatively low rate of mammography screening. According to 2016 BRFSS data, 64.1 percent of women aged 50-74 received a mammogram in the last two years, which is lower than the national rate of 77.6 percent.

The stage at which breast cancer is detected is another important measure of quality. Longitudinal data demonstrates that the uptake of mammography screening has increased the detection of cancer in early stages, while late-stage diagnoses have declined. In Wyoming, 2015 cancer surveillance data shows the percent of female breast cancer diagnoses by stage[101] as listed on the below table.

Breast Cancer Stage	Percent of Women Diagnosed at Stage Wyoming, 2015
In Situ (abnormal cells that are not cancer, but could become cancerous)	15%
Local (cancer is limited to the place where it started, with no sign of spread)	55%
Regional (cancer has spread to nearby lymph nodes, tissues, or organs)	24%
Distant (cancer has spread to distant parts of the body)	4%
Unknown or Unstaged (not enough information to determine the stage)	<1%

Source: Wyoming Cancer Surveillance System

Photo Credit: Bruno Nascimento on Unsplash
Photo Credit: Dan Gold on Unsplash
Photo Credit: Jacob Postuma on Unsplash

Health Behaviors

According to the CHR, 30 percent of our individual health is determined by our behavior. Health behavior is the individual choices we make that have a direct impact on our overall health, including the food we choose to eat, the level of exercise we choose to pursue, and the choices we make regarding alcohol and tobacco use, among others.

While our health is greatly impacted by our choices, these choices stem from many factors, from individual genetics to the environment in which we live and work, to the policies that influence our decisions. All of these factors make up what are referred to as the "Social Determinants of Health (SDOH)."[102] Addressing SDOH is an important step for public health systems to get to the root cause of many of the health conditions arising from our behaviors. This approach "shifts the lens from individual attribution and responsibility to societal organization and the myriad institutions, structures, inequalities, and ideologies undergirding health behaviors."[103]

Addressing the built environment is one example of addressing SDOH. For example, higher levels of neighborhood walkability[104] have been shown to have an association with healthier weight and increased physical activity. However, persons who live in economically disadvantaged neighborhoods may struggle to engage in physical activity in their neighborhoods due to increased crime, violence, and sidewalks and streets in need of physical repair. Creating interventions to increase physical activity in such a community must focus on the drivers of individual choices.

Federal and state policies can have large positive or negative impacts on health behavior, yet are not within the immediate influence of individuals making those choices. For instance, implementing or increasing a tobacco tax is a policy that has been shown to decrease tobacco use.[105] While using tobacco is ultimately a personal choice, there are powerful outside factors that may influence a person's decision to use (or quit using) tobacco that are difficult or slow to change but are a vital part of the environment in which health choices are made.

Tobacco Use

Smoking is the leading cause of preventable death globally. Tobacco use also increases the risk of developing concerning health issues in Wyoming, such as heart disease, cancer, and lower respiratory diseases (all of which are also some of Wyoming's leading causes of death).

A 2012 study titled *The Cost of Substance Abuse in Wyoming* found that the 2010 cost of tobacco use in Wyoming was over $689 million, with productivity losses accounting for about 65 percent of that cost, and healthcare costs

Tobacco-Related Costs, Wyoming 2010

$241M
$448M

■ Health Care ■ Lost Productivity

Source: Cost of Substance Abuse Study[106]
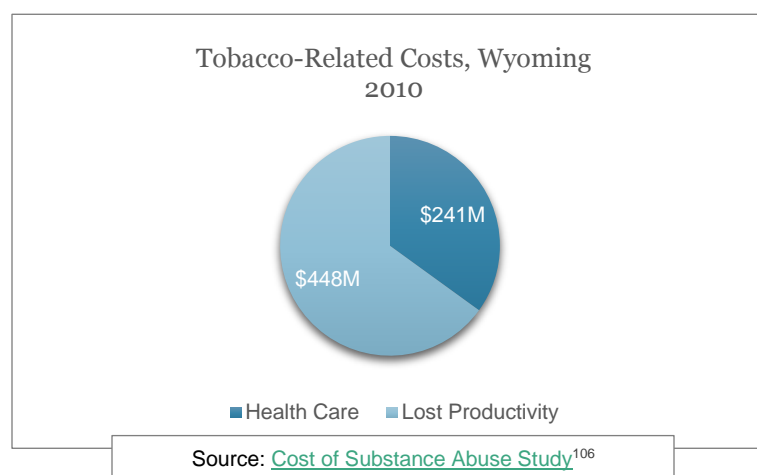
accounting for the remainder.[106] Several policy factors contribute to continued smoking and tobacco-related disparities.

- Wyoming has the 8th lowest cigarette tax nationally, at $0.60 per pack.[107]

- Wyoming does not have a statewide smoke-free law, despite a majority of adults supporting statewide smoke-free indoor air laws for indoor workplaces (78 percent), restaurants (77 percent), and casinos and clubs (54 percent). Fewer people support smoke-free indoor air laws for bars (49 percent).[107] Several communities have implemented local comprehensive smoke-free laws. Six cities have such laws, providing protection from secondhand smoke to 28 percent of Wyoming residents.

- In 2016, BRFSS data indicates that 18.9 percent of Wyoming adults reported current smoking (smoked at least 100 cigarettes in lifetime and are currently smoking every day or some days). The national median in 2016 was 17.1 percent.

Percent of Adults Who Are Current Smokers, Wyoming and U.S.
2011-2016

Source: Behavioral Risk Factor Surveillance System
Shaded area represents 95% confidence intervals.

- The highest rates of smoking in Wyoming are found among Black non-Hispanics, American Indian/Alaska Natives, and those who make less than $25,000 per year per BRFSS data.

Percent of Adults Who Are Current Smokers by Income, Wyoming
2016

Source: Behavioral Risk Factor Surveillance System
Error bars represent 95% confidence intervals.

- Encouragingly, BRFSS also indicates that 45.7 percent of Wyoming tobacco users also report quitting tobacco use on one or more days in the last year. Comprehensive state tobacco cessation programs can further assist tobacco users with meeting their goal of quitting tobacco by promoting health systems change, expanding coverage of proven cessation treatments, and supporting state quit line capacity.[105]
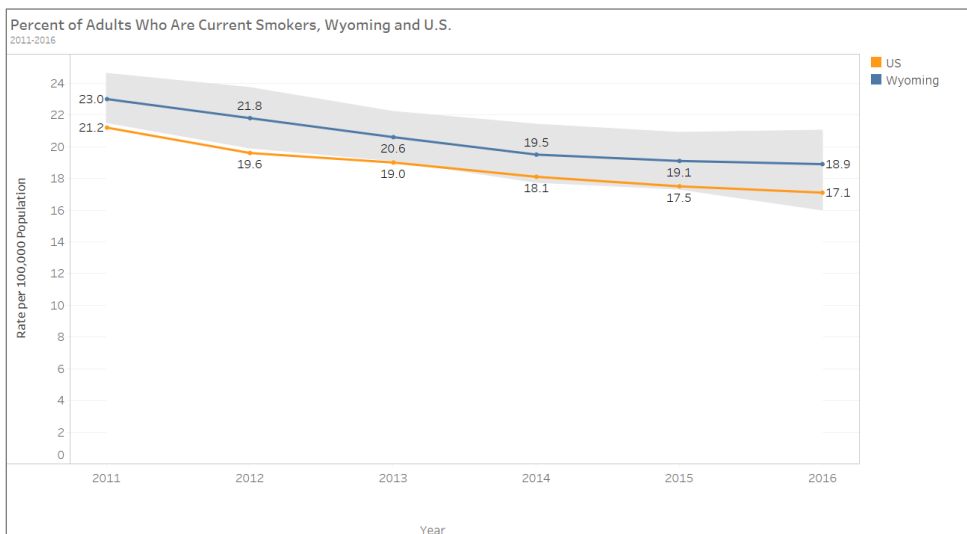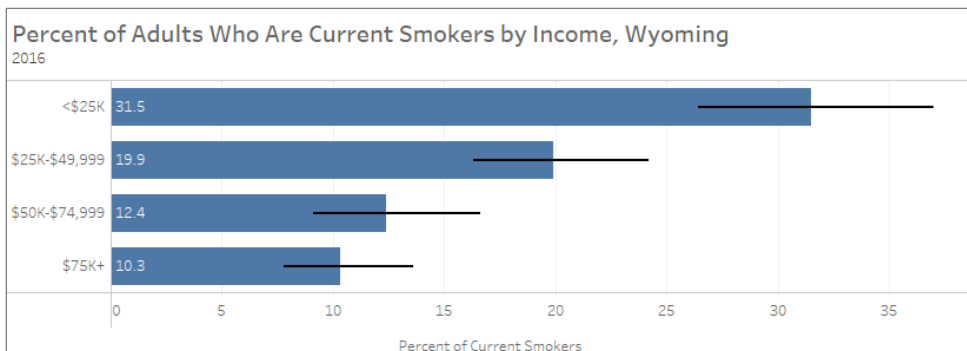
Smoking during pregnancy is associated with negative health outcomes for both mothers and their infants.

- Smoking in the third trimester has decreased from 12.9 percent to 10.6 percent between 2012 and 2016. Nationally, maternal smoking has also declined during this time (8.7 percent and 7.2 percent, respectively). Wyoming remains above the national value.

- Maternal smoking is higher among women who had their delivery paid by Medicaid (22.5 percent) compared to those that did not (6.4 percent).

- Smoking in the third trimester is above 15 percent among adolescents aged 15-19 years old and among American Indian women.

Percent of Women Who Reported Smoking in the Third Trimester (among women who gave birth to a live infant), Wyoming and U.S.
2012-2016

Source: WY Vital Statistics Services

Percent of Women Who Reported Smoking in the Third Trimester by Insurance Status, Wyoming
2012-2016
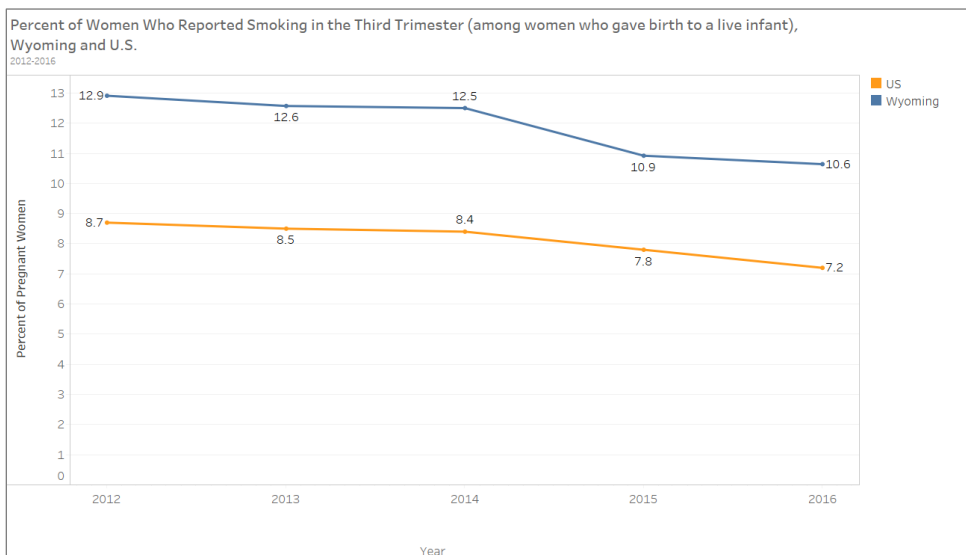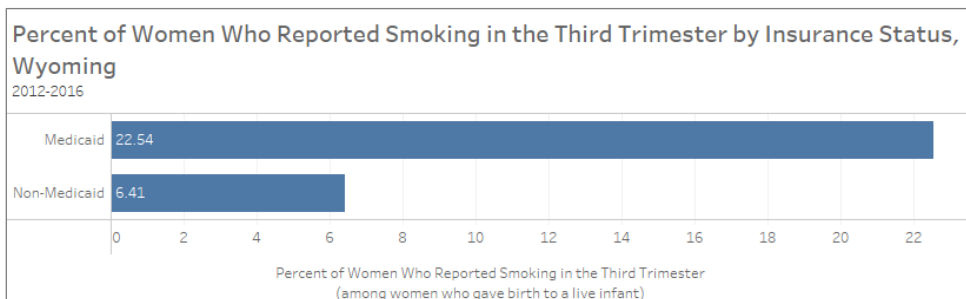
Source: WY Vital Statistics Services

Alcohol and Drug Use

Alcohol and drug use are known to negatively impact health. Moderate to excessive alcohol use can lead to increased risk of several types of cancer, chronic conditions, mental health problems, social and family problems, dependence, injury, and other risky behaviors. Drug use can contribute to similar issues as alcohol, and increases the risk for contracting communicable diseases. In 2017, 76 percent of Wyoming hepatitis C cases in people under the age of 36 were attributed to injection drug use. Injection drug use was the second most commonly reported risk factor among those diagnosed with HIV from 2013 to 2017 in Wyoming. Syringe service programs are evidence-based and cost-effective public health interventions that reduce new HIV and viral hepatitis infections, increase entry into substance use disorder treatment, and reduce overdose deaths.[108]

The Cost of Substance Abuse in Wyoming study similarly found that the 2010 cost of alcohol use in Wyoming was over $843 million, with productivity losses accounting for about 70 percent of that cost, while healthcare costs accounted for 24 percent, crime costs 4 percent, and other costs 2 percent. Drug use cost over $391 million, with 48 percent of those costs attributable to productivity losses, 37 percent to healthcare costs, 14 percent to crime, and less than 1 percent to other costs.[106]

Alcohol Related Costs, Wyoming
2010

Source: Cost of Substance Abuse Study[106]
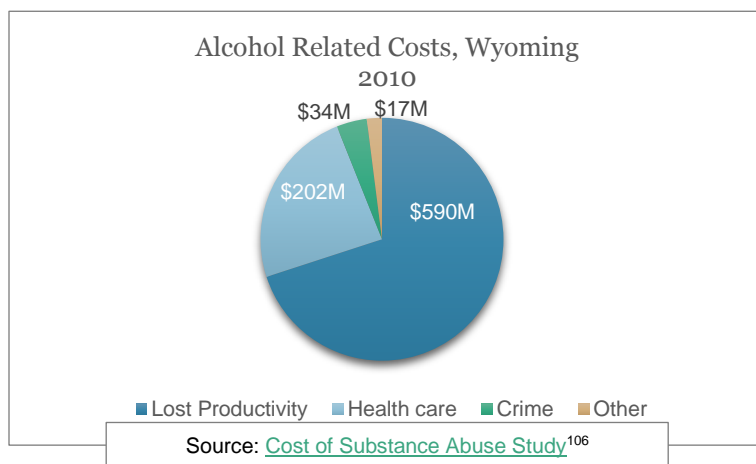
Policy factors can enable harmful drug and alcohol use or restrict the use of proven harm-reduction measures. There are policy barriers in Wyoming that impact drug and alcohol use.

Recommended Intervention	Policy Barrier
• Increased unit price of alcohol through taxation (Community Preventive Services Task Force [CPSTF] Recommendation)[109]	• Low Wyoming alcohol taxes, with beer taxes at $0.02 per gallon.[110]
• Sobriety Checkpoints to reduce impaired driving (CPSTF Recommendation)[111]	• Prohibited by interpretation of roadblock statute, Wyo. Stat. §§ 7-17-101-103.[112]

Some key indicators related to alcohol and drug use are presented below.

- Binge drinking is a concern. In 2016, 18.4 percent of Wyoming adults reported binge (four or more drinks for women and five or more for men in about two hours[113]) drinking according to BRFSS data. This is comparable to national levels of 18 percent.

- Although youth alcohol use and binge drinking have improved greatly over the last decade, almost 1 in 5 middle and high school students reported alcohol use during the past month, and 10.5 percent reported binge drinking, according to the 2016 Prevention Needs Assessment (PNA) data.[114]

Percent of Fatal Crashes that were Alcohol-Related by Sex, Wyoming
2012-2016

| Female | 17.6 |
| Male | 82.4 |

Percent of Fatal Crashes that were Alcohol-Related by Driver's Sex

Source: Wyoming Highway Safety Comprehensive Report on Traffic Crashes[115]

Percent of Fatal Crashes that were Alcohol-Related by Age, Wyoming
2012-2016

14-20 years	6.40
21-29 years	33.14
30-49 years	38.95
50-59 years	14.53
60+ years	6.98

Percent of Fatal Crashes that were Alcohol-Related by Driver's Age

Source: Wyoming Highway Safety Comprehensive Report on Traffic Crashes[115]

- Alcohol-impaired driving deaths are a public health challenge in Wyoming. From 2012 to 2016, Fatality Analysis Reporting System (FARS) data showed that 35 percent of driving deaths in Wyoming involved alcohol, compared to 29 percent nationally.

- The majority of alcohol-related fatal crashes occur among male drivers, and one-third of fatal crashes are among drivers 21-29 years of age.[115]

Drug overdose deaths in Wyoming occur at a rate of 12.2 per 100,000, according to National Center for Health Statistics (NCHS) 2017 data.[vi]

Age-Adjusted Drug Overdose Death Rates per 100,000 Population, Wyoming and U.S.
2012-2016

Source: National Center for Health Statistics
Shaded area represents 95% confidence intervals.
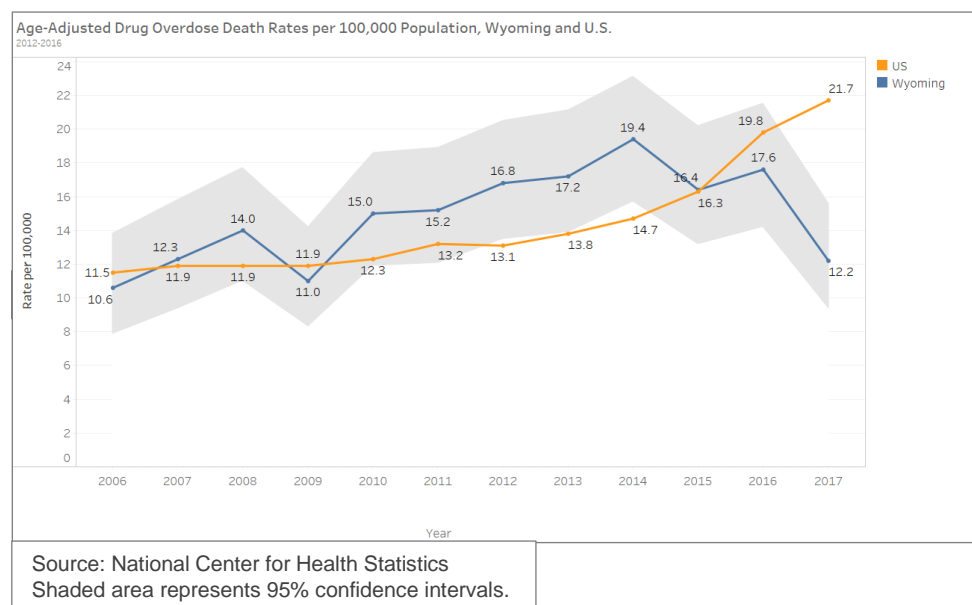
- A study commissioned by PHD in early 2018 showed Wyoming to have a stabilizing rate of poisoning deaths due to opioids while the nation continues to increase.[116]

- Per 2012-2016 NCHS data, the highest rates of mortality for drug overdoses (poisonings) in Wyoming are among those 35-49 years of age and 50-64, followed by those 20-34 years of age.

Drug Overdose Death Rate by Age, Wyoming
2012-2016

Source: National Center for Health Statistics
Error bars represent 95% confidence intervals. * Indicates data not reported due to small data values.

- 2012-2016 NCHS data indicates that the drug overdose mortality rate among American Indian/Alaska Natives was 29.2 per 100,000 and that the rate among Whites was 17.5 per 100,000. Rates for other races are not reported because of small data values.
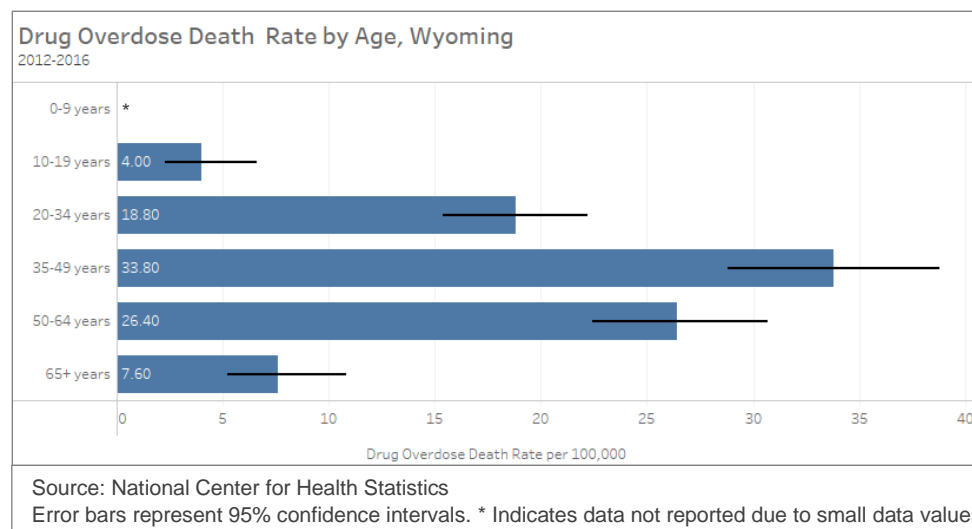
- From 2012 through 2016, opioids (prescription and illicit) were involved in nearly half (49 percent) of drug overdose deaths; prescription opioids were involved in the majority of opioid overdose deaths (73 percent).[vii]

Misuse or abuse of prescription drugs within the last month among Wyoming middle and high school students was 1.96 percent in 2016 according to the PNA survey.[114] The National Survey of Drug Use and Health (NSDUH) indicated that in 2016-2017, Wyomingites 18-25 years of age were most likely to report misuse use of prescription pain relievers (7.41 percent) in the last year compared with those ages 12-17 (3.09 percent) and those 26 years and older (3.8 percent); similar to national figures.[117]

WYOMING SPEAKS
About Alcohol and Drug Use

Wyoming residents cited drug and alcohol use as top health behaviors of concern, when asked what they thought were the biggest health problems in the state.

[vi] Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS). Multiple Cause of Death 1999-2017 on CDC Wonder Online Database, released December 2018. Data are from the Multiple Cause of Death Files, 1999-2017, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Underlying Cause of Death codes X40-44 (drug poisoning, unintentional), X60-64 (drug poisoning, self-harm/suicide), X85 (drug poisoning, assault/homicide), and Y10-14 (drug poisoning, undetermined intent) were used to identify drug overdose deaths. Accessed at http://wonder.cdc.gov/mcd-icd10.html on Dec 18, 2018.
[vii] Same data set as noted in Footnote iii above. Underlying Cause of Death codes X40-44 (drug poisoning, unintentional), X60-64 (drug poisoning, self-harm/suicide), X85 (drug poisoning, assault/homicide), and Y10-14 (drug poisoning, undetermined intent) were used to identify drug overdose deaths. Opioid overdose deaths were identified using multiple cause codes T40.0, T40.1, T40.2, T40.3, T40.4, and T40.6. Prescription opioid deaths were identified using multiple cause codes T40.2, T40.3, T40.4. Accessed at http://wonder.cdc.gov/mcd-icd10.html on Jan 18, 2019.

Diet and Exercise

A healthy diet and regular physical activity are known ways to improve and maintain personal health. A lack of nutritious food can lead to increased risk for weight gain, heart disease, and diabetes.[118] Increasing physical activity decreases more than just weight gain; it is also effective at reducing the risk of premature death, cardiovascular disease, type II diabetes, and some cancers.[119] It can also improve mental health and mood, improve sleep, prevent falls, and improve overall quality of life.

In state fiscal year 2017 (July 1, 2016 – June 30, 2017), hospitalizations due to common chronic conditions were associated with $1.239 billion in hospital charges, according to hospital discharge data (provided by the Wyoming Hospital Association; computed by WDH).

	Cancer	Heart Disease	Stroke	Diabetes	COPD
Number of Discharges	3,763	23,912	1,695	19,213	11,674
Total Charges	$93,521,709	$531,198,649	$45,997,416	$332,390,733	$235,946,145
Total Charges: $1.239 Billion					

- Over 80 percent of employed Wyoming residents reported not eating five servings of fruits and vegetables daily and only half met physical activity recommendations, according to 2015 Wyoming BRFSS data.

- BRFSS also identified that over a quarter of employed Wyoming adults were obese according to 2016 estimates.

- Improving the number of Wyoming workers who are physically active and eating a healthy diet can reduce economic burden resulting from lost productivity associated with chronic disease. Centers for Disease Control and Prevention (CDC) estimates lost productivity can cost U.S. employers $225 billion annually, or about $1,685 per person.[120]

- According to the CDC Prevention Status Report for nutrition, physical activity, and obesity in Wyoming, the state rates poorly on policies related to school sales of nutritious foods and beverages; state executive branch properties and facilities being covered by a policy on nutrition standards for the sale of food and beverages; and obesity standards inclusion in state licensing regulations of childcare facilities. Wyoming did slightly better on birthing facilities that support breastfeeding.[121] Efforts within PHD have been working to improve performance in many of these key areas.

- In 2014, nearly 1 in 3 Wyoming adults (29 percent) was obese, comparable to the national average of 28 percent, per CHR data. Generally across the U.S., obesity prevalence is significantly higher for adults living in rural areas than those who live in urban settings; however, Wyoming is the only state in which the reverse is true.[122]

Food Environment Index, Wyoming and U.S. 2015

Source: County Health Rankings
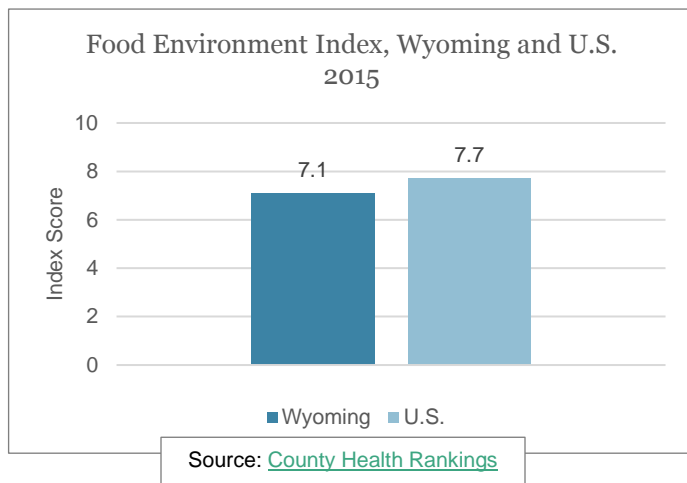
- The food environment index rates the healthy food environment on a scale of 0-10, with 0 being worst and 10 being best. Wyoming's index score was 7.1, compared to the national index score of 7.7, based on 2015 USDA Food Environment Atlas and Map the Meal Gap data.

- Food insecurity, or lack of adequate access to food, was a problem for 12 percent of Wyoming's population in 2015 according to Mind the Meal Gap data.

- Limited access to healthy foods measures the proportion of the population that are low-income and do not live close to a grocery store. In 2015, 9 percent of the population was considered to have limited access to healthy foods, according to USDA Food Environment Atlas data.

In Wyoming, 84.3 percent of adults consume less than the recommended amount of fruits (2 cups equivalent based on a 2,000 calorie/day diet) and vegetables (2 ½ cups equivalent based on a 2,000 calorie/day diet).[123]

Participation in physical activity is another important factor in health.

Adult Physical Activity, Wyoming 2016

Source: Behavioral Risk Factor Surveillance System

- According to CHR, 74 percent of the Wyoming population had adequate access to locations for physical activity in 2016, compared to 83 percent nationally.

- Physical inactivity is reported by 21.4 percent of Wyoming adults in 2016, meaning no leisure-time physical activity for over one-fifth of the population, according to BRFSS data.
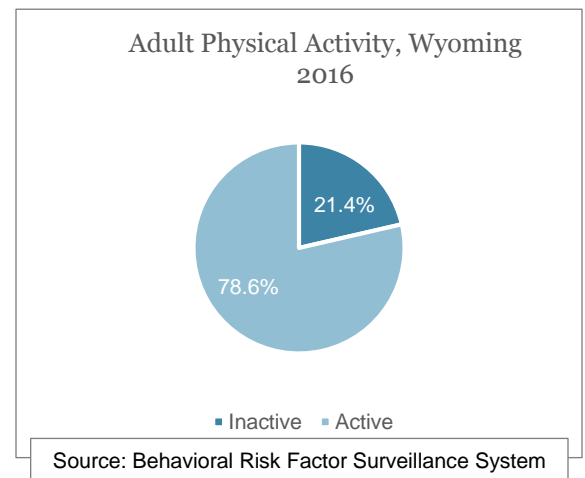
Insufficient sleep can be linked to weight gain due to an imbalance in appetite control, energy metabolism, and glucose processing hormones.[124] Conversely, properly-timed exercise can improve sleep quality. However, many Wyomingites are not getting enough sleep. In 2016, nearly 4 in 10 Wyoming adults reported fewer than 7 hours of sleep on average, according to BRFSS data.

Sexual Activity

Sexual risk behaviors can increase the risk for transmission and contraction of sexually transmitted infections, as well as unintended and teen pregnancy. In 2016, CDC reported over 2 million cases combined of the three nationally-reported sexually transmitted infections (STI) – chlamydia, gonorrhea, and syphilis – the highest numbers ever reported.[125]

CDC estimates that STIs annually cost $16 billion (in 2010 dollars) for medical costs alone in the U.S. For curable STIs, the cost is estimated to be $724 million.[126] Based on the CDC's Sexually Transmitted Infection Costs saved tool (STIC),[127] STI prevention and control in Wyoming prevented an estimated 3,797 STI cases and 1.5 HIV cases, resulting in $3.2 million in total cost savings in 2017.

Wyoming employs and supports Expedited Partner Therapy (EPT), which is the practice of treating the sex partners of persons with STIs without an intervening personal assessment by a healthcare provider. This practice facilitates partner management among heterosexual men and women with chlamydia and gonorrhea. This service is available in every county through the PHN offices.

Gonorrhea Incidence Rate per 100,000 Population, Wyoming and U.S.
2008-2017

Source: Wyoming Patient Reporting Investigating Surveillance Manager
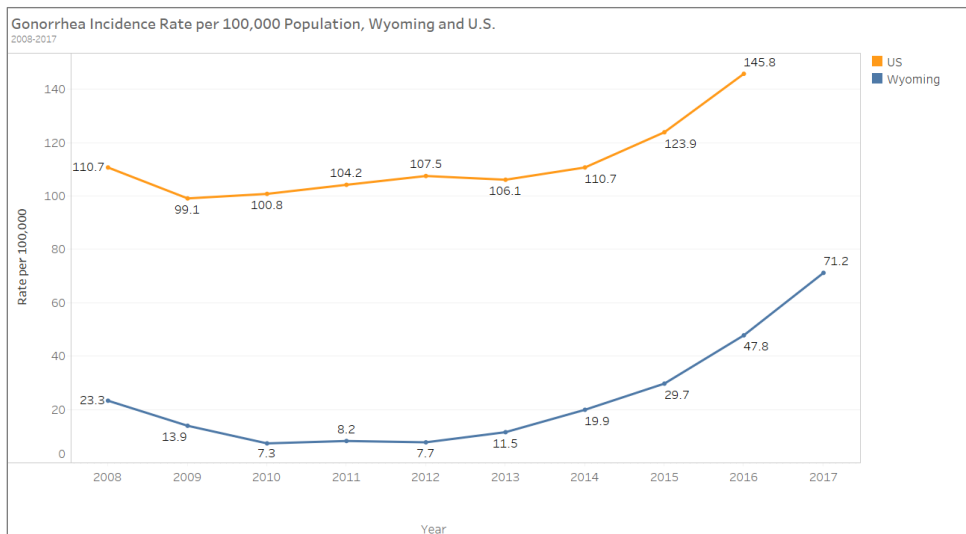
- PHD Communicable Disease Surveillance found that while chlamydia affects a higher number of people than any other STI in Wyoming, gonorrhea cases increased three and one-half times between 2014 and 2017, from 19.9 per 100,000 vs. 71.2 per 100,000.

- Gonorrhea rates in Wyoming are lower than the national rate, but have risen at a faster pace in the last several years.

- Gonorrhea rates are highest among the 20-24 year (277 per 100,000) and 25-29 year (266 per 100,000) age groups.

Gonorrhea Incidence Rate by Age, Wyoming
2017

Source: Wyoming Patient Reporting Investigating Surveillance Manager

- PHD Communicable Disease Surveillance reports that Wyoming had 365.2 cases of chlamydia per 100,000 population in 2017, which has decreased from 411 per 100,000 in 2013 and is lower than the national rate.
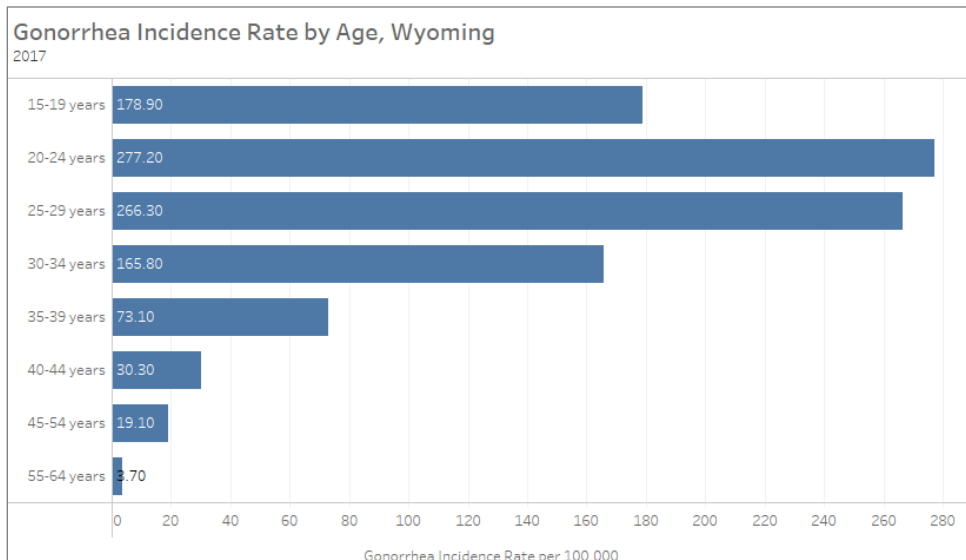
- Syphilis rates in Wyoming have increased from 2013 to 2017 from 1.6 per 100,000 to 4.5 per 100,000. Nationally, the rate has also increased, but Wyoming rates remain well under the national rates (27.4 per 100,000 in 2016). Men who have sex with men are disproportionately affected by syphilis in Wyoming. Of the 2017 male cases (whose gender of sex partner was known), 50 percent reported male-to-male sexual contact.

Unintended pregnancies make up half of all pregnancies in the U.S. Unintended pregnancies are associated with poor outcomes, such as delayed prenatal care, preterm birth, and negative physical and mental health effects for children.[128] In addition, teenage mothers may not receive or utilize recommended prenatal care and may be at higher risk for preterm delivery regardless of socioeconomic status or prenatal care.[129, 130]

Teen Birth Rate per 1,000 Females 15-19 Years, Wyoming and U.S.
2006-2016

Source: WY Vital Statistics Services

Percent of Teen Births by Insurance Status, Wyoming
2011-2016

Source: WY Vital Statistics Services
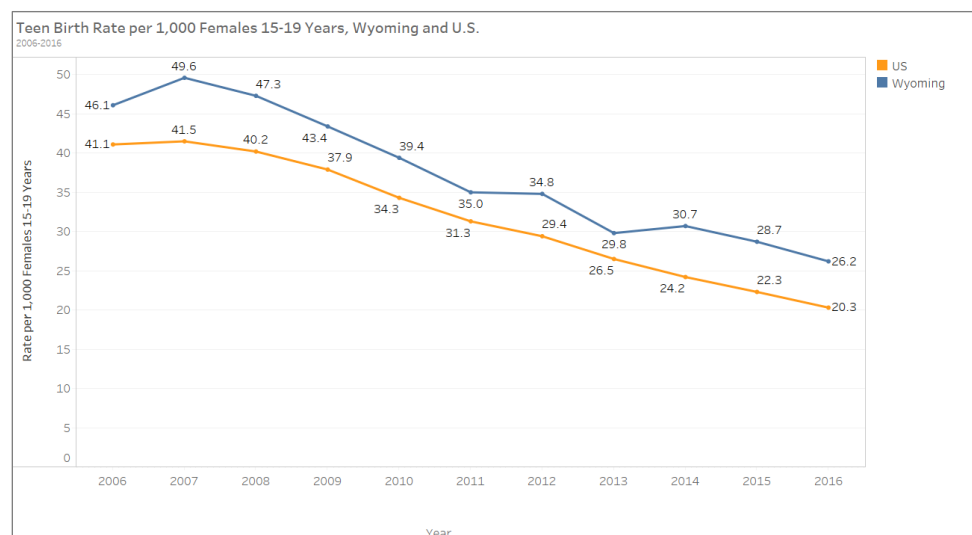
- Although teen (15-19 years old) births have declined 52 percent from 1991 to 2016, Wyoming is still ranked 10th highest for teen birth rate in the nation in 2016.[131]

- The decline in Wyoming's teen birth rate resulted in an estimated $4 million in savings in 2015. However, public spending was estimated at $55 million in 2010 for all unintended pregnancies in Wyoming.[131]
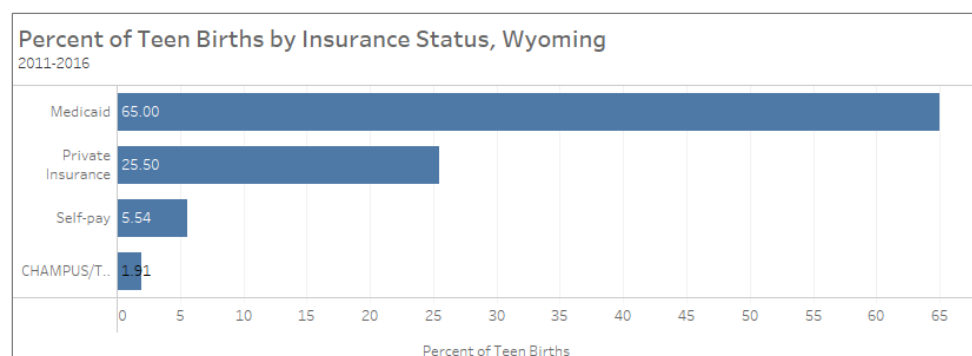
- Per CHR, there were 32 per 1,000 teen births in Wyoming from 2010 to 2016. Nationally, the rate was 27 per 1,000 for the same time period.

- Deliveries among teenage mothers were more likely to be paid by Medicaid or other government insurance compared to mothers aged 20-34 years. Among teens 15-19 years, 65 percent of deliveries from 2011-2016 were paid by Medicaid or other government insurance according to Wyoming Vital Statistics Services data.

Health Outcomes

Indicators in this section represent how long Wyoming residents live (length of life) and how healthy they feel while alive (quality of life). Many indicators presented here are related to the top eight diagnoses of concern for Wyoming Medicaid. Combined, these conditions accounted for over $121 million in Medicaid expenditures in state fiscal year 2017 (July 1, 2016 through June 30, 2017).[96] Further assessing these and other conditions will shine light on potential health priorities that should be addressed to improve health outcome and quality of life, and reduce healthcare expenses.

Mental health	Alcohol/substance abuse	Suicide/intentional self-inflicted injury
Diabetes	$121 million Medicaid costs SFY 2017	Asthma/chronic obstructive pulmonary disease (COPD)
Respiratory infections	Heart disease	Low birthweight/preterm births
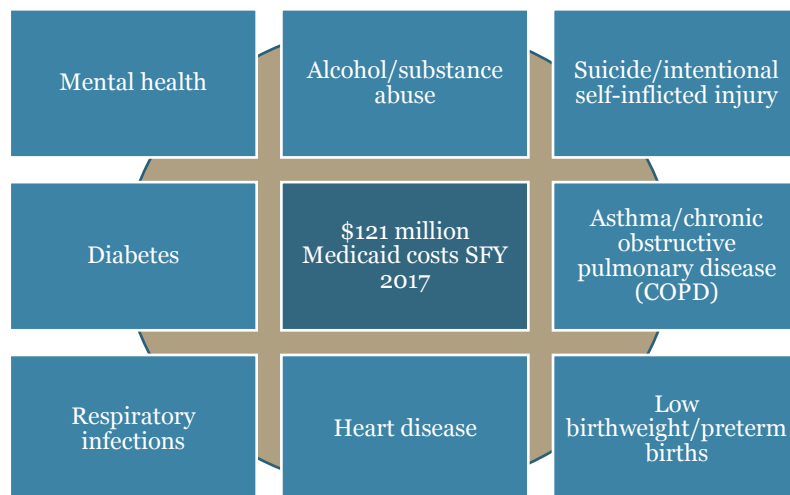
Life Expectancy and Mortality

Where we live can greatly impact life expectancy. A population-based analysis of life expectancy across the country found that geographic disparities in U.S. counties are "large and increasing. Much of the variation in life expectancy can be explained by a combination of socioeconomic and race/ethnicity factors, behavioral and metabolic risk factors, and health care factors."[132]

Nationally, the average life expectancy is 79.08 years. Wyomingites' life expectancy is lower than the national average at 78.62 years.

The graph on the next page depicts the 2014 life expectancy by Wyoming County with Wyoming and U.S. comparisons.[133]

Life Expectancy, Both Sexes - Wyoming Counties, Wyoming, and U.S.
2014

County	Life Expectancy
Albany	80.54
Big Horn	77.76
Campbell	77.47
Carbon	77.30
Converse	78.77
Crook	79.94
Fremont	75.82
Goshen	79.81
Hot Springs	77.09
Johnson	79.51
Laramie	78.88
Lincoln	80.03
Natrona	77.65
Niobrara	78.86
Park	80.17
Platte	78.82
Sheridan	78.40
Sublette	80.48
Sweetwater	77.87
Teton	83.46
Uinta	77.38
Washakie	78.86
Weston	78.76
Wyoming	78.62
U.S.	79.08

Life Expectancy (Years)

Source: Institute for Health Metrics and Evaluation, U.S. Health Map[133]
Error bars represent 95% confidence intervals.

- Per CHR, premature death (the age-adjusted number of years of potential life lost before age 75 per 100,000 population) was 7,400 in Wyoming from 2014 to 2016, compared to a national value of 6,700 years of potential life lost.

- Between 2014 and 2016, there were 351 age-adjusted, premature deaths per 100,000 population in Wyoming according to CHR.

- Wyoming vital statistics data illustrates that adolescent deaths occurred at significantly higher rates than other populations in 2016.

- In 2017, vital statistics data also show that heart disease (148.99 per 100,000 population), cancer (135.14 per 100,000), and accidents and adverse events (i.e., unintentional injury) (55.81 per 100,000) were the top three causes of death. It should be noted that chronic lower respiratory disease (54.23) was a close fourth cause of death.

Population	Death Rate
Premature Death (deaths prior to age 75 per 100,000, 2014-2016) (County Health Rankings)	351
Infants < 1 (per 1,000 live births, 2016) (WY Vital Statistics Services)	5.01
Children Under 12 (per 100,000, 2016) (WY Vital Statistics Services)	14.8
Adolescents/Young Adults Aged 12-24 (per 100,000, 2016) (WY Vital Statistics Services)	75.13
Pregnant Women or those within 42 days of the termination of the pregnancy (maternal mortality) (per 100,000 live births, 2016) (WY Vital Statistics Services)	40.63

Sources: County Health Rankings and WY Vital Statistics Services

Infant mortality is used as an international marker of a community's health. The U.S. infant mortality rate is higher than most industrialized nations. The U.S. infant mortality rate has declined slightly in recent years to 5.9 deaths per 1,000 live births.
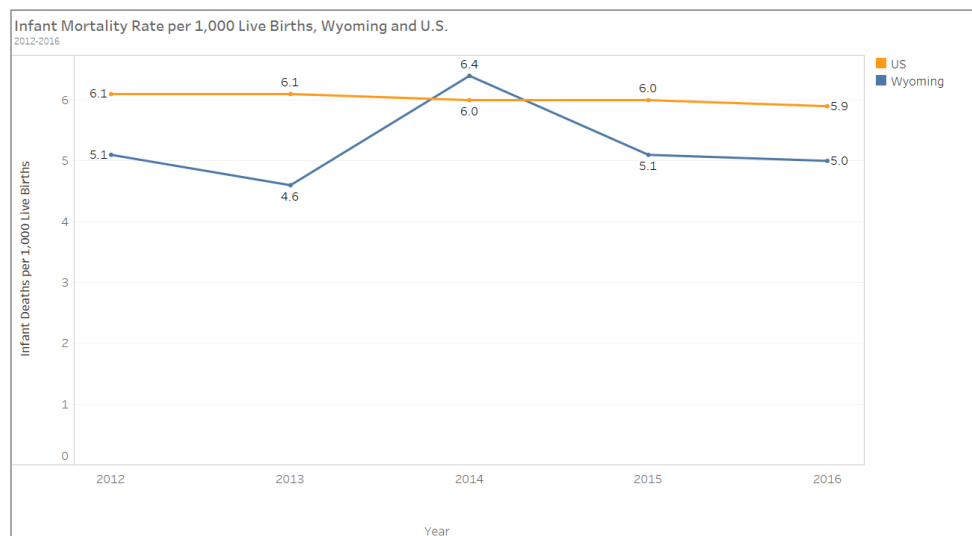
Infant Mortality Rate per 1,000 Live Births, Wyoming and U.S.
2012-2016

Source: WY Vital Statistics Services

Infant Mortality Rate by Maternal Age, Wyoming
2012-2016

Source: WY Vital Statistics Services

Child Mortality Rate per 100,000 Children 0-18 Years, Wyoming and U.S.
2004-2016
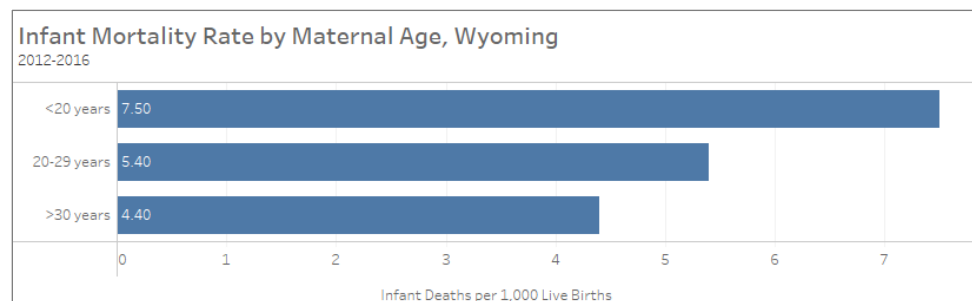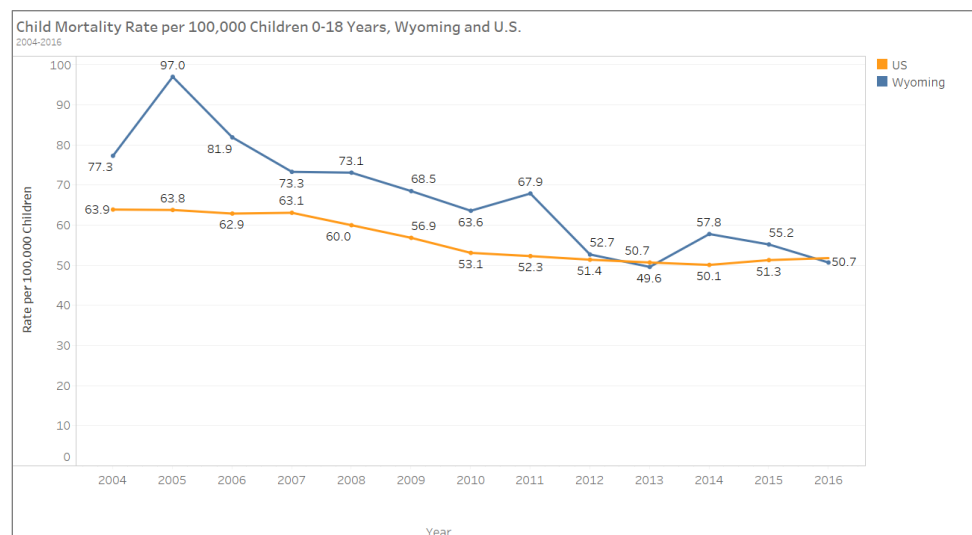
Source: WY Vital Statistics Services

- According to vital statistics data, the Wyoming infant mortality rate has varied between 4.6 deaths and 6.4 deaths per 1,000 live births in the last five years. It is most recently below the U.S. rate at 5.0 deaths per 1,000 live births.

- Mothers under the age of 20 have the highest rate of infant mortality in Wyoming (7.5 deaths per 1,000 live births), per vital statistics data.

- Vital statistics data shows that child mortality rates have been declining in Wyoming and the U.S.; however, Wyoming child mortality rates have declined at a faster rate than the U.S. as a whole.

- In 2016, the Wyoming child mortality rate was 50.7 deaths per 100,000 children 0-18 years, per vital records. The U.S. rate was 51.8 deaths per 100,000 during the same year per NCHS data.

- Wyoming vital records show that unintentional injury is the leading cause of child death.

Child Mortality Rate per 100,000 Children 0-18 Years by Age, Wyoming
2012-2016

Age	Rate
<1 year	5.20
1-4 years	32.80
5-9 years	16.40
10-14 years	12.30
15-18 years	56.60

Child Mortality Rate per 100,000

Source: WY Vital Statistics Services
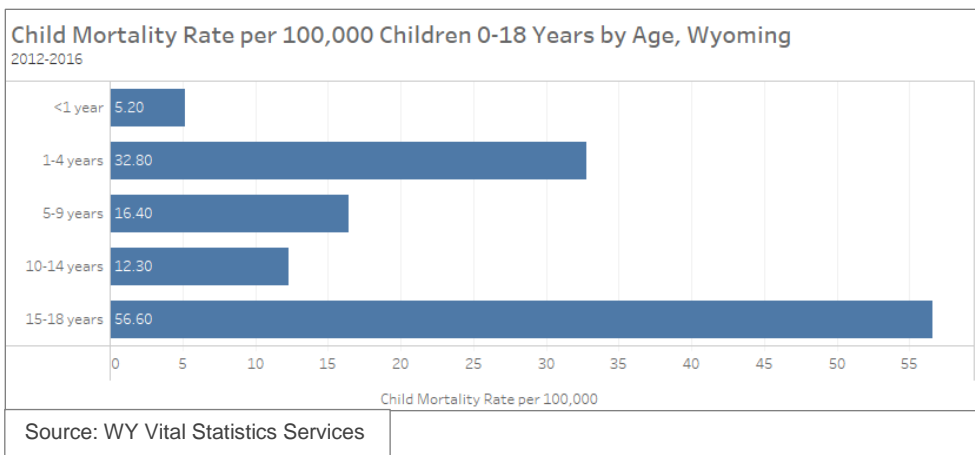
- Vital records data also indicates children 15-18 years have the highest rates of child mortality. These high rates are mostly attributed to deaths related to motor vehicle crashes.

- Suicide is another cause of death of public health concern. In 2016, Wyoming ranked third in the nation for suicide deaths.[134] Wyoming's age-adjusted rate of suicide that year was 24.8 per 100,000 population per vital records data. Wyoming's rate was nearly double the national rate of 13.5 per 100,000 nationally in 2016.[134]

Suicide Rate per 100,000 Population by Age, Wyoming
2016

Age	Rate
10-19 years	9.30
20-34 years	24.50
35-49 years	38.40
50-64 years	31.00
65+ years	38.60

Suicide Rate per 100,000

Source: WY Vital Statistics Services
Error bars represent 95% confidence intervals.
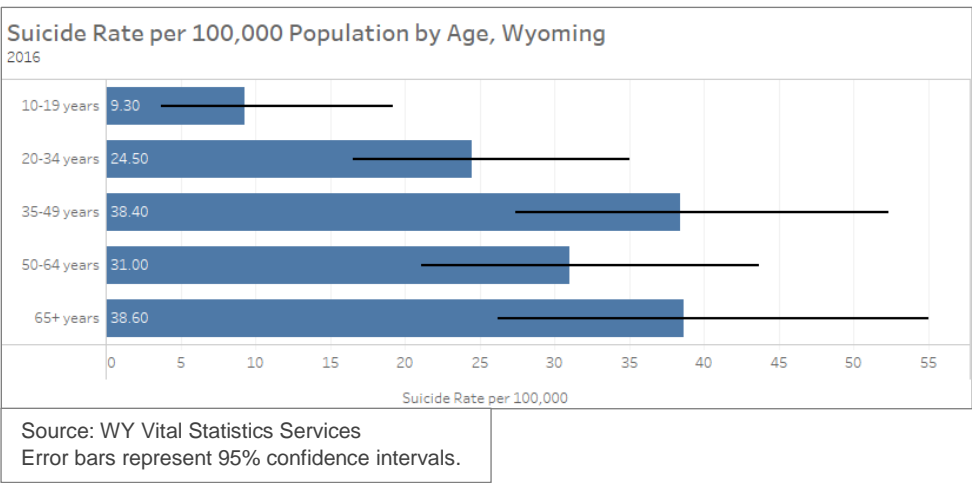
- Wyoming vital statistics data demonstrate that people between the ages of 35 and 49 and those over 65, Whites and American Indians, and males are the highest risk populations.

- Vital statistics data reveal the leading mechanisms for suicide in Wyoming are firearms, poisoning, and suffocation.

Age-Adjusted Suicide Rate per 100,000 by Race, Wyoming
2012-2016

Race	Rate
American Indian/ Alask..	25.10
Asian/Pacific Islander	1.70
Non-Hispanic Black	4.70
Non-Hispanic White	25.60

Suicide Rate per 100,000

Source: WY Vital Statistics Services
Error bars represent 95% confidence intervals.
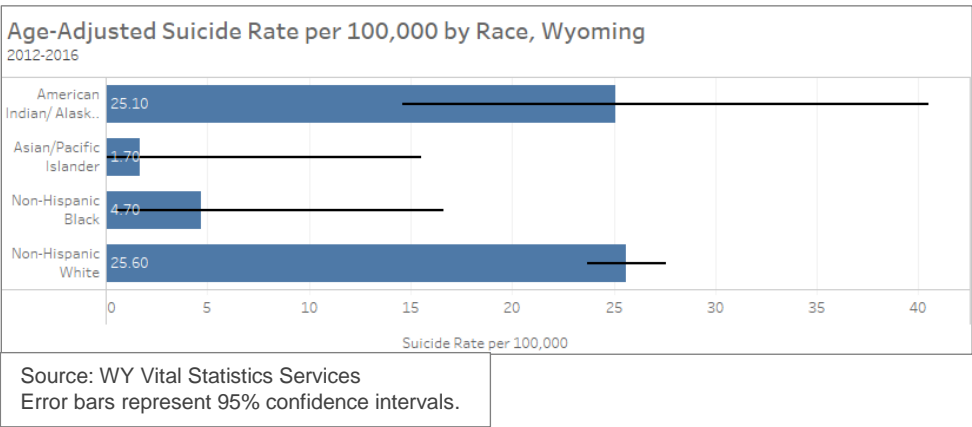
Quality of Life

Quality of life refers to how healthy people feel and includes indicators related to physical and mental health. Additionally, birth outcomes are important indicators of current and future quality of life.

In 2016, 15.7 percent of Wyoming adults reported poor or fair health, which is similar to the national proportion of 15 percent, according to BRFSS data. BRFSS data also indicates that Wyoming adults experienced an average of 3.9 physically unhealthy days and 3.6 mentally unhealthy days per month, not dissimilar to national numbers. Likewise, over one in ten adults experienced either physical or mental distress for more than 14 days.

Adult Unhealthy Days in Past Month, Wyoming and U.S. 2016

Source: Behavioral Risk Factor Surveillance System
Error bars represent 95% confidence intervals.

Adult Physical and Mental Distress, Wyoming 2016

Source: Behavioral Risk Factor Surveillance System
Error bars represent 95% confidence intervals.
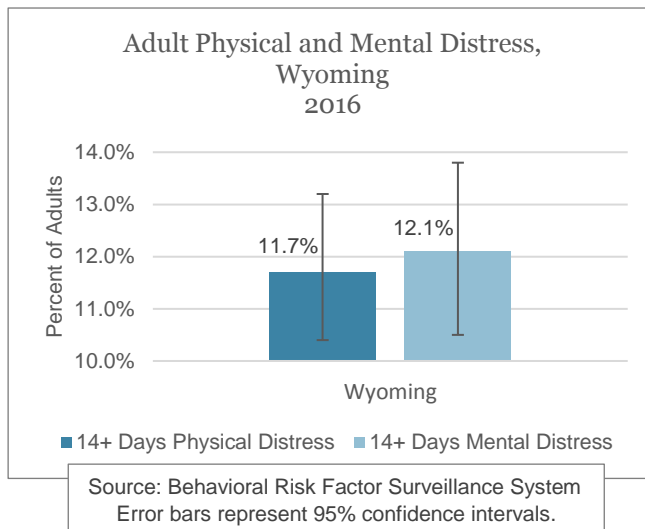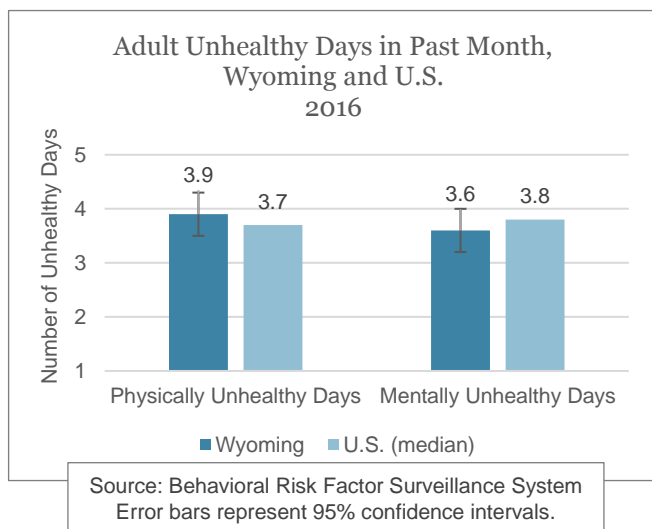
- In 2016, 15.5 percent of Wyoming adults reported that they have been diagnosed with a depressive disorder, according to BRFSS data.

- Meanwhile, 2015 Youth Risk Behavior Surveillance (YRBS) data indicate that just over 3 in 10 Wyoming high school students report experiencing depression, as defined by ever feeling sad or hopeless almost every day for two or more weeks in a row in the past year.

> **WYOMING SPEAKS**
> **About Health Conditions**
>
> Residents cited obesity, diabetes, and mental health as top health conditions impacting Wyoming.

Chronic conditions, and the treatment and management thereof, impact how healthy people feel. Chronic conditions included in this assessment are diabetes, heart disease, cancer, HIV, preterm births, and low birth weight.

Diabetes affects 8.3 percent of Wyoming adults, according to 2016 BRFSS data.

- Diabetes is a leading cause of non-traumatic leg amputation, blindness, and kidney failure.

- BRFSS data breakdowns show that American Indian/Alaska Natives and individuals that make less than $25,000 per year are at the highest risk of diabetes in the State.

Diabetes Prevalence* by Income, Wyoming
2016

Income	Percent
<$25K	12.9
$25K-$49,999	7.9
$50K-$74,999	7.4
$75K+	5.0

Percent of Adults with Diabetes
*Percent of adults who reported being told by a healthcare provider that they have diabetes.

Source: Behavioral Risk Factor Surveillance System
Error bars represent 95% confidence intervals.
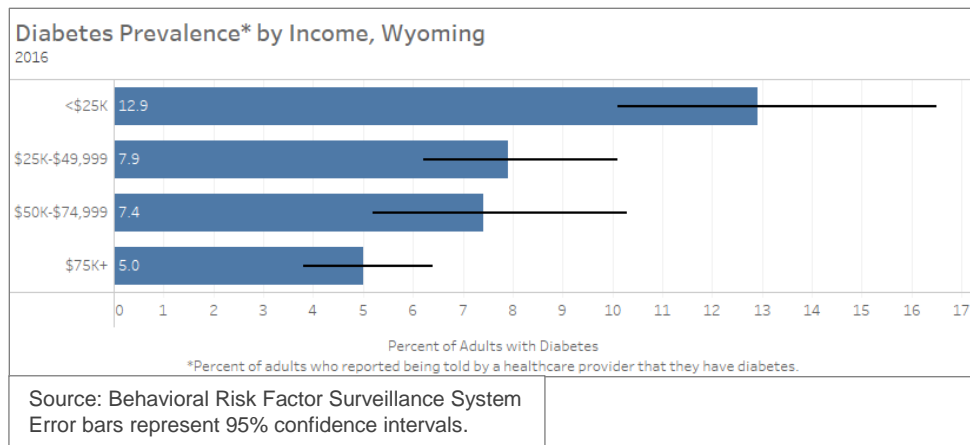
Heart disease has been diagnosed in 6.2 percent of the adult population and stroke affects 3 percent of the adult population according to 2016 BRFSS data.

- High blood pressure, a risk factor for both heart disease and stroke, affects nearly 30 percent of the adult population.

- Breakdowns of the BRFSS data show that individuals at highest risk for heart disease are those over the age of 65, and people who make less than $25,000 per year. The main risk factors for heart disease include smoking; a high fat, low fiber diet; and lack of physical activity.

- Heart disease is the leading cause of death in Wyoming based on vital statistics data.

Heart Disease Prevalence* by Age, Wyoming
2016

Age	Percent
18-44 years	2.40
45-64 years	7.90
65+ years	21.30

Percent of Adults with Heart Disease
*Percent of adults who reported being told by a healthcare provider that they have heart disease.

Source: Behavioral Risk Factor Surveillance System
Error bars represent 95% confidence intervals.

Heart Disease Prevalence* by Income, Wyoming
2016

Income	Percent
<$25K	13.0
$25K-$49,999	9.3
$50K-$74,999	4.8
$75K+	3.7

Percent of Adults with Heart Disease
*Percent of adults who reported being told by a healthcare provider that they have heart disease.

Source: Behavioral Risk Factor Surveillance System
Error bars represent 95% confidence intervals.

In 2015, the cancer incidence rate was 383.8 per 100,000 population in Wyoming, which is lower than the national incidence rate that year of 429.5 per 100,000.

- Cancer surveillance data found that in 2015, for the first time ever, more women were diagnosed with lung cancer than men in Wyoming.

- Cancer is the second leading cause of death in Wyoming based on vital statistics records.

Age-Adjusted Cancer Incidence Rate per 100,000 Population, Wyoming and U.S.
2011-2015

Source: WY Cancer Surveillance System
Shaded area represents 95% confidence intervals.
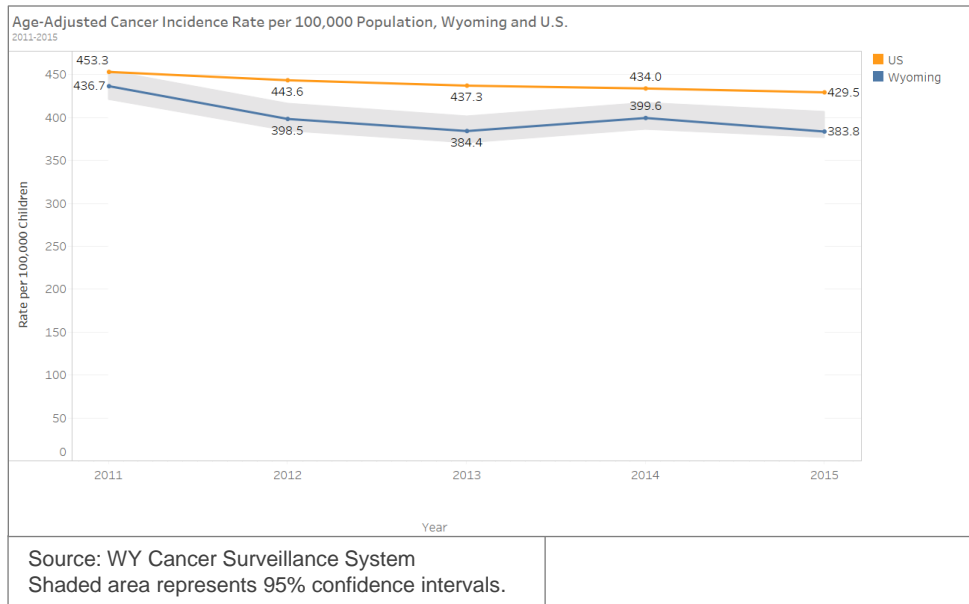
Living with HIV is another important indicator of quality of life. In 2016, there were 52 people per 100,000 population in Wyoming living with HIV, according to the Wyoming Communicable Disease Surveillance Program. The program also found the following:

Newly Diagnosed HIV Rate per 100,000 Population, Wyoming and U.S.
2008-2017

Source: Electronic HIV/AIDS Reporting System

Newly Diagnosed HIV Rate per 100,000 Population by Sex, Wyoming
2017

Source: Electronic HIV/AIDS Reporting System
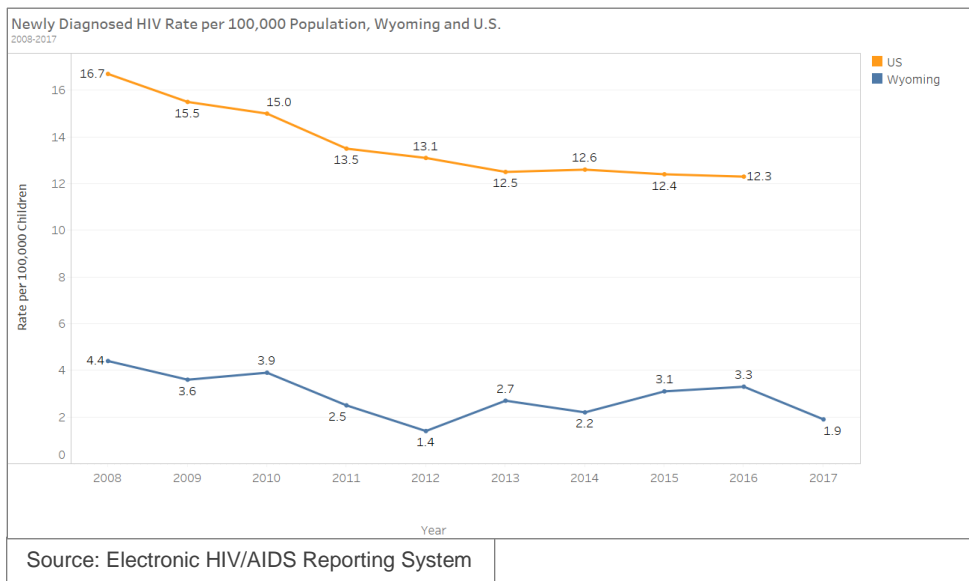
- In 2017, the rate of newly diagnosed HIV cases was 1.9 per 100,000 population, a decline from 3.3 per 100,000 in 2016.

- The rate of newly diagnosed HIV cases in Wyoming has ranged between 1.4 cases per 100,000 in 2012 to 4.4 cases per 100,000 in 2008.

- The rate of newly diagnosed HIV cases in Wyoming is consistently lower than the rate in the U.S.

- In Wyoming in 2017, men were over six times as likely to be newly diagnosed with HIV compared with women.

- All newly diagnosed HIV cases in 2017 were among patients who were 25-54 years old.
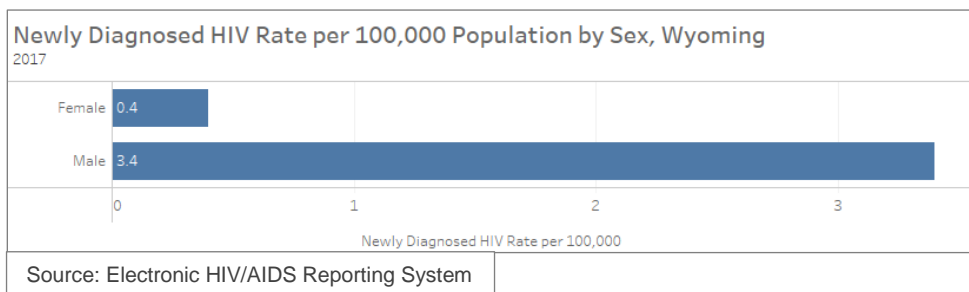
Babies born prematurely (before 37 weeks gestation) can have immediate complications and long-term health challenges such as impaired vision, hearing, and dental problems, behavioral and learning challenges, and chronic health issues.[135]

- In 2016, 9.5 percent of live births in Wyoming were preterm (occurring prior to 37 weeks gestation), according to vital records, compared to 9.9 percent of births nationally.

- There are disparities in the percent of preterm births across Wyoming. Six counties are below 8 percent, while Fremont, Uinta, and Campbell counties are over 11.5 percent.

Percent of Live Births Born Preterm by County, Wyoming 2012-2016

Source: WY Vital Statistics Services

Percent of Live Births Born Preterm by Medicaid-Paid Delivery, Wyoming 2012-2016

Source: WY Vital Statistics Services
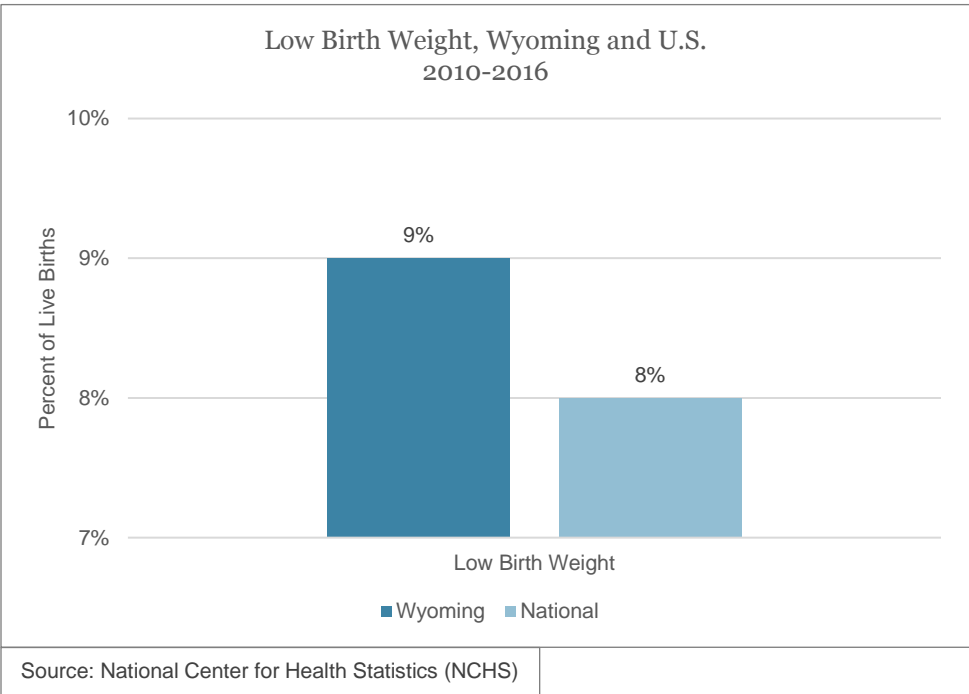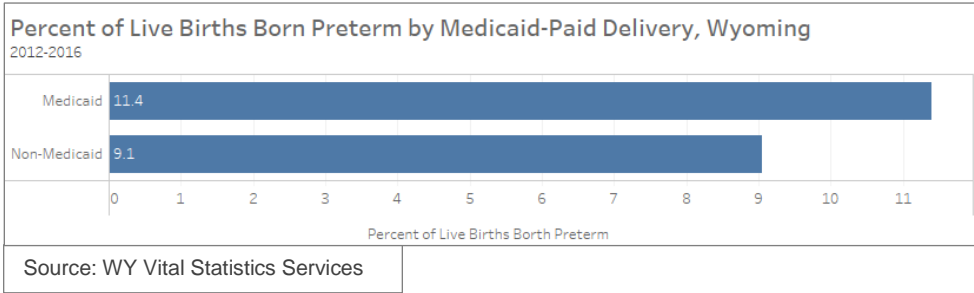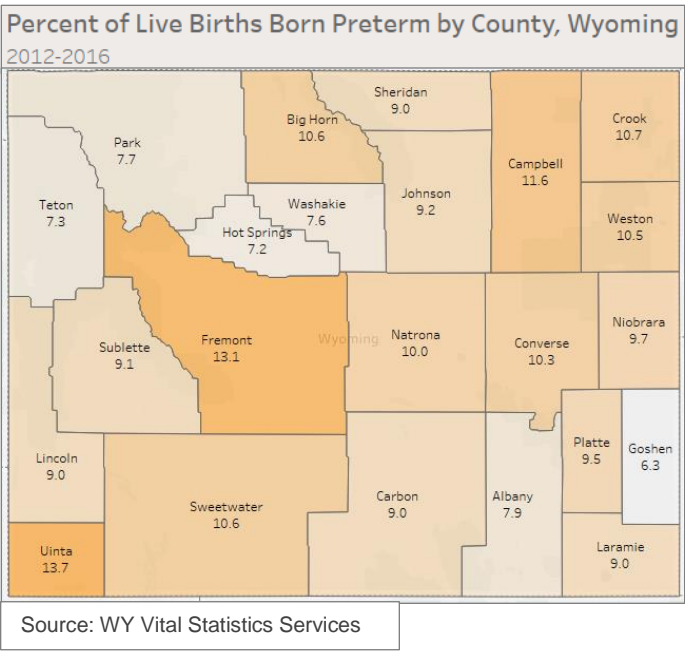
- Women with a Medicaid-paid delivery have a slightly higher percent of preterm birth (11.4 percent) compared to women with a non-Medicaid-paid delivery (9.1 percent).

Low Birth Weight, Wyoming and U.S. 2010-2016

Source: National Center for Health Statistics (NCHS)

- Low birth weight can also signify risk for premature death or health challenges over the life course. While the chief determinant of low birthweight is preterm delivery, other factors such as inadequate weight gain during pregnancy, smoking, alcohol or drug use, mother's age, and race may also contribute.[136]

- In 2010-2016, 9 percent of live births were low birthweight, compared to 8 percent nationally, according to the NCHS natality data.

Resources

Wyoming is fortunate to have abundant resources that can be leveraged to improve health. From a high-level perspective, Wyoming has resources that are aligned with the socioecological model, which helps us see how our resources range from individual to environmental and societal levels. The diagram below illustrates the key people, places, institutions, and other resources in our state.

Wyoming's public institutions, physical assets, economic assets, and policy are resources that impact and influence health.

Examples include state and local government and academic institutions, state-owned healthcare facilities and the Public Health Lab, insurers, health-focused businesses, natural resources, infrastructure, community space, businesses and major employers, business supports, business and industry revenue, and existing or future policy.

Wyoming's associations, clubs, networks, and private and nonprofit agencies are able to influence programs, services, and community organizations to improve health.

Examples include healthcare associations and private or nonprofit healthcare organizations, regulatory agencies, public-health-focused associations, advocacy and community mobilization stakeholder groups, community service-oriented associations, clubs, networks, private and nonprofit organizations, education associations, advocacy and policy development associations, and communications and media entities.

Wyoming's residents are incredible resources and are most impacted by health issues.

Examples include the public health and healthcare workforces, populations served through public health programs and clinical services, all subpopulations, policy makers, and philanthropists.

Additionally, it is important to think about which resources PHD may have direct access to and which are more indirect. This will serve PHD in identifying where relationships may need to be established to further health efforts in Wyoming.
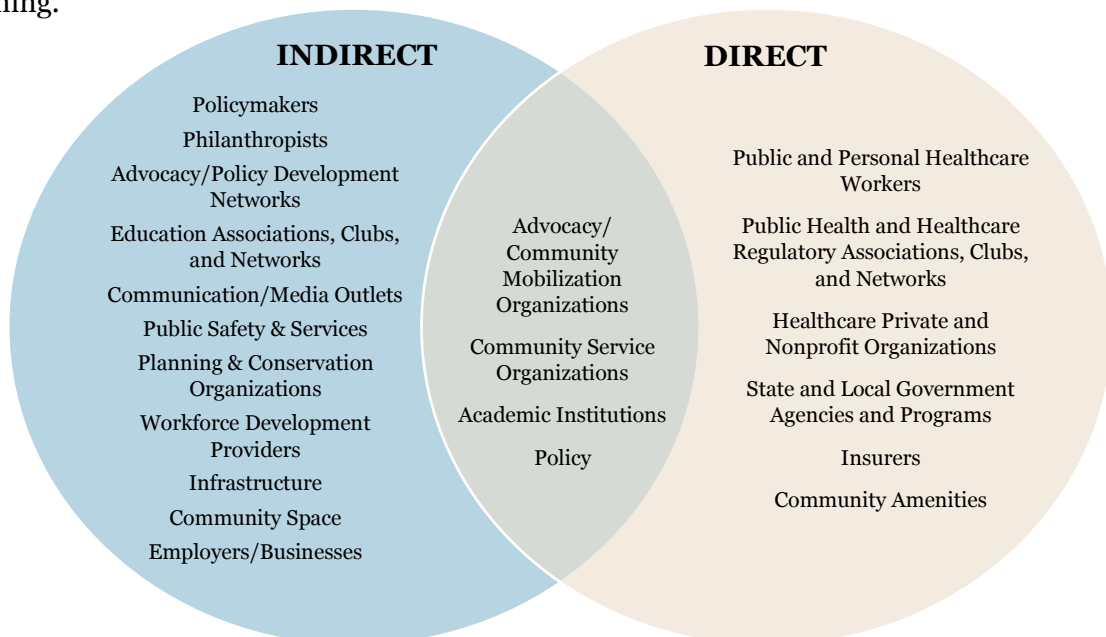
Perceptions

Assessing and improving the health of the state cannot be done without input from a wide variety of partners, stakeholders, and residents. Understanding the opinions, observations, and experiences of those who live and work in Wyoming ensures that future efforts to plan interventions will best fit the true needs of the public. Those who engage with public health are in an ideal position to reflect back to PHD the perceived capacity of the public health system to deliver on each of the 10 Essential Public Health Services.

To best gather information at this level, PHD facilitated discussions about health, what constitutes health, what hinders health, and what capacity and opportunities might exist to improve health.

Public Health System Capacity Assessment

PHD hosted Wyoming's first-ever Public Health System Capacity Summit (summit) on April 10, 2018. The summit was planned and coordinated by an SHA steering committee subcommittee. One hundred thirty-one internal and external system partners were invited to participate. Invitees represented a variety of system partners, including but not limited to:

System Partner Invitees	
• Epidemiology Professionals • Vital Records Professionals • Performance Management and Quality Improvement Councils • Workforce Development Professionals • Medical Community Members • Hospitals and Healthcare Organizations and Associations • Mental Health and Substance Abuse Treatment Providers • Public Health Programs • Local Health Departments • Tribal Health Organizations • Public Health Emergency Preparedness Professionals • Emergency Medical Services Professionals • Public Health Lab Professionals • Healthcare Regulatory Agencies • Health Insurers	• Academic Institutions • Research and Evaluation Professionals • Education Professionals • Public, Private, and Voluntary Organizations • Coalition and Stakeholder Organizations • Government Agencies • Legislators • Health and/or Crisis Communication Professionals • Business Leaders • Housing Authorities • Transportation Professionals • Community Development Organizations • Planning Organizations • Faith Community Members • Law Enforcement Professionals

Of those invited, 73 participants registered or informed PHD of their intent to attend. A total of 57 system partners attended and participated in the assessment process.

Assessment Tool

PHD used the National Public Health Performance Standards (NPHPS) 3.0 assessment guidance and instrument to conduct the assessment in Wyoming. The NPHPS tool is the only validated tool of its kind and is considered the gold standard. The standards have been determined to be highly valid measures of public health system performance.[137] The assessment process included participants assessing the 10 Essential Public Health Services (EPHS) against four model standards using five voting options, as depicted here. Additionally, participants discussed strengths, weaknesses, and opportunities, which were captured by note-takers. An analysis of the discussion data is presented below. The full methodology and results are available in Appendix A.

10 Essential Public Health Services

Model Standards

1. Planning & Implementation
2. State-Local Relationships
3. Performance Management & Quality Improvement
4. PH Capacity & Resources

Optimal	> 75% activity met
Significant	50% < activities met < 75%
Moderate	25% < activities met < 50%
Minimal	0% < activities met < 25%
No/None	0% or absolutely no activity

What is going on in our state?
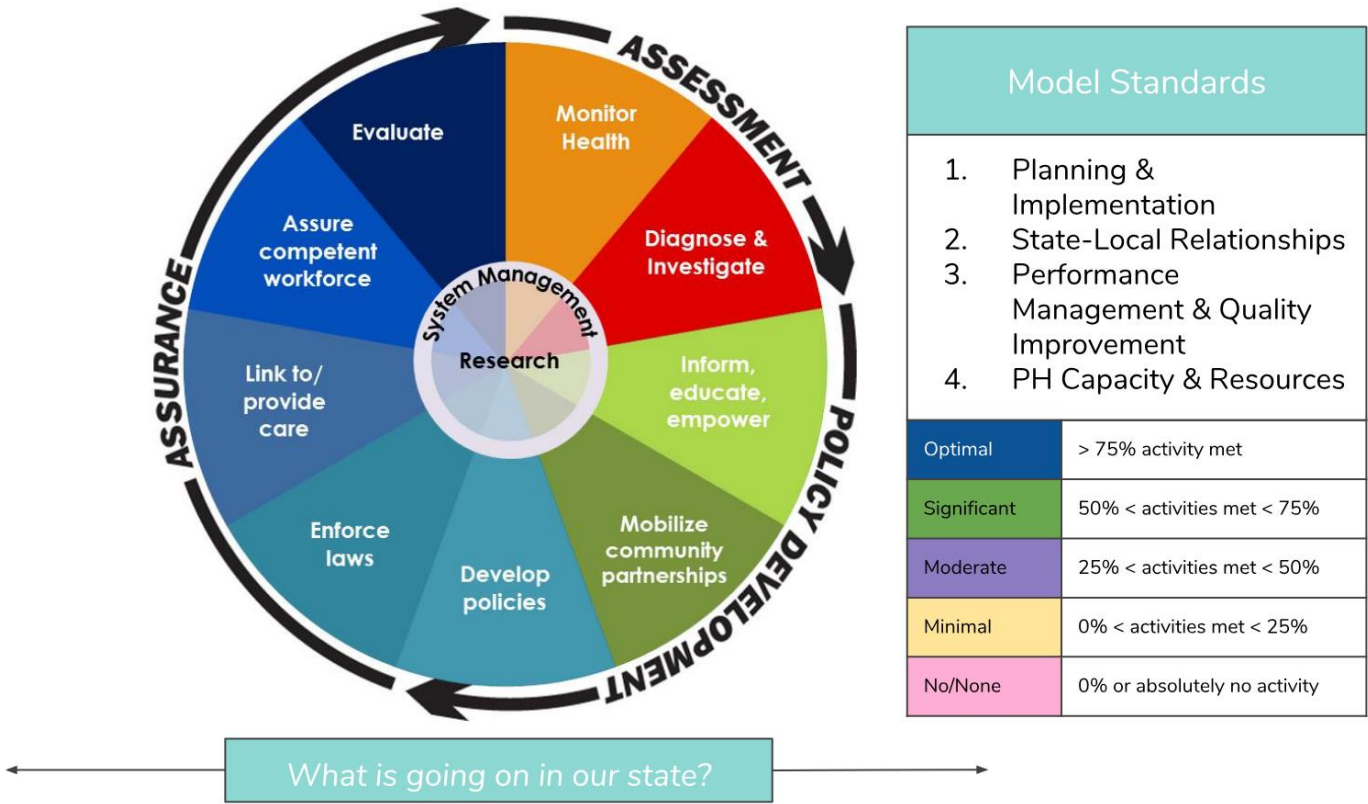
Across all 10 EPHS, Wyoming scored an average of 50.4, a significant level of public health system service delivery.

Essential Services by Activity Level

Essential Service	Average Performance Score	Activity Level
ES 2: Diagnose and Investigate	75.4	Optimal
ES 3: Educate/Empower	69.7	Significant
ES 4: Mobilize Partnerships	62.5	Significant
ES 5: Develop Policies/Plans	56.8	Significant
ES 6: Enforce Laws	52.6	Significant
ES 1: Monitor Health Status	45.8	Moderate
ES 8: Assure Workforce	41.0	Moderate
ES 10: Research/Innovations	33.3	Moderate
ES 7: Link to Health Services	33.3	Moderate
ES 9: Evaluate Services	33.3	Moderate

Source: WY Public Health System Capacity Assessment

- The assessment revealed five services that were above average, which indicate services that the Wyoming system is relatively strong in delivering.
- Five services were below average, indicating room for improvement.

Participants also rated the capacity of the health system to carry out the essential services across the four model standards. Overall ratings are summarized here. More in-depth analysis is available in Appendix D.

Essential Services Ratings by Model Standards	Planning and Implementation (Model Standard 1)	State and Local Partnerships (Model Standard 2)	Performance Management and Quality Improvement (Model Standard 3)	Public Health Capacity and Resource Management (Model Standard 4)
Monitoring Health Status	75	41.7	25	41.7
Diagnosing and Investigating Health Problems	85	75	75	66.7
Informing, Educating, and Empowering People	68.8	75	50	85
Mobilizing Community Partnerships	75	50	50	75
Developing Policies and Plans	75	66.7	43.8	41.7
Enforcing Laws and Regulations	68.8	50	50	41.7
Linking People to Needed Health Services	37.5	37.5	25	33.3
Assuring a Competent Public and Personal Healthcare Workforce	37.5	37.5	25	58.3
Evaluating Effectiveness, Accessibility, and Quality of Health Services	35	37.5	33.3	41.7
Researching New Insights	50	33.3	8.3	33.3

Short-term and long-term opportunities for improvement were identified by participants. Those opportunities are summarized in the following table. Along with the data presented throughout this document, these opportunities will be considered as PHD works to develop a state health improvement plan.

Short-Term Opportunities	Long-Term Opportunities
- Greater alignment of priorities and data across partners - Improving partner communication - Diversifying partnerships, especially among academic and tribal health partners - Improving access to data - Expanding the public health workforce	- Creating new ideology of systems-level thinking (decision-making should be driven by system-level, data-driven planning and health impacts of all policies assessed) - Reducing/removing programmatic silos - Coordinating evaluation services - Developing state health improvement plan

Community Engagement

Perhaps the most important voice to consider when assessing the health of the state is that of the people who live, learn, and work in Wyoming. PHD partnered with the Wyoming Business Council (WBC) to conduct community engagement sessions across the state in the fall of 2017. PHD visited 11 communities, covering 10 of 23 counties, to better understand what communities perceive as their greatest health concerns and potential solutions to health problems. PHD partnered with local businesses (i.e., local coffee shops) or community partners (i.e., recreation centers, community colleges) to host open houses and listening sessions.

In addition to the engagement sessions, an online survey containing the same questions was created. The survey was available for Wyomingites who were unable to attend the community sessions. The survey was promoted through press releases, community centers (e.g., libraries, fitness and recreation centers, colleges), the PHD website, and media coverage related to the community sessions. A copy of the survey was also offered to WDH staff.
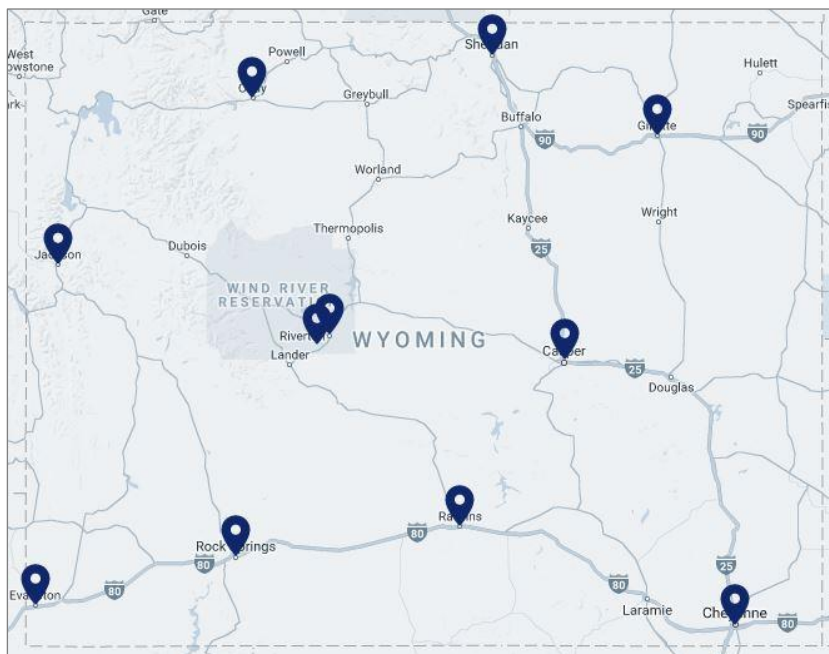
The following five open-ended questions were asked of in-person and online participants:

1. What are the biggest health problems in your community?

2. What are the barriers to health in your community?

3. What do you think your community does well when it comes to health?

4. What solutions do you think could help address the problems you identified?

5. Do you seek healthcare in or out of your community? Why?

Community members were asked to rate the importance of health issues previously identified as PHD priorities, such as access to care, mortality, various health behaviors and conditions, and health disparities.

PHD considered population density (urban, rural, and frontier classification), geographic position within the state, 2017 County Health Ranking (top and bottom 5), and diversity (≥ 9 percent of the population is non-white or minority) to select counties that would provide a representative look at the health challenges and opportunities experienced by Wyoming residents and their ideas for solutions.

Over 100 community members attended the community engagement sessions and more than 400 community member responses to the online survey were collected. From WDH staff, an additional 180 survey responses were received. WDH survey results are provided in Appendix B. The methodology for analyzing the responses is available in Appendix A.

State Results

The state analysis includes the individual responses received through the community engagements sessions, as well as through the online survey. The themes are ordered by the overarching category (e.g., health conditions) and then the top related issues that respondents shared (e.g., obesity) within that category. For the primary results, not all categories or issues are presented and therefore, percentages will not equal 100 percent. However, the corresponding image shows all categories. The bubble size depicts how frequently an issue was identified. The analysis also includes a subset of responses. In Appendix C, a similar snapshot for each county visited is provided.

Question 1: What are the biggest health problems?

Health Conditions (28.7 percent of responses)

- Mental Health
- Obesity
- Diabetes

Access (27.8 percent of responses)

- Access to Care
- Affordability of Insurance/Care
- Access to Mental Health Care

Health Behaviors (26.6 percent of responses)

- Drug Use
- Alcohol Use

Source: Community Engagement Respondents
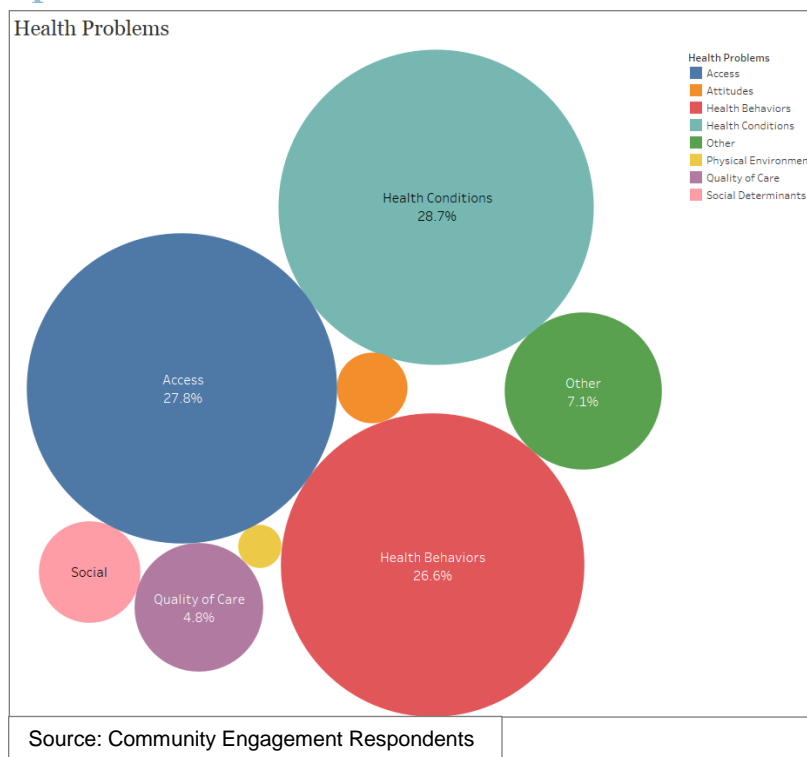
Wyomingites identified mental health, obesity, and diabetes as the health conditions of greatest concern. In addition to health conditions, they cited access to care as a significant health problem. For example, some of the responses include:

- "There isn't adequate healthcare."
- "Not enough quality doctors in the area."
- "Lack of quality, competent healthcare providers/facilities."
- "We do not have enough primary care provider choices in our community."
- "Limited medical staff and facilities."
- "The lack of medical insurance and competent medical providers is a huge problem in our state. Without access to basic medical care, our overall health will continue to deteriorate, causing disability that could have been prevented had proper care been granted."

- "Shortage of RNs, CNAs for long-term care, training, and retention."
- "Cost, even with insurance: premium + deductibles + copay = too much."
- "Not being able to afford health insurance."
- "Prescription drug costs."
- "[There] isn't adequate or available mental health care."
- "Lack of access to adequate mental health care."
- "Lack of mental health and dental services that take Medicaid."

Finally, both drug and alcohol use were both frequently cited as health problems in our state.

Question 2: What are the barriers to health?

Access (61.5 percent of responses)

- Affordability of Insurance/Care
- Access to Care
- Geography

Other (13.4 percent of responses)

- Public Funding
- Community Connection

Access was the most frequently cited barrier for Wyomingites. Some responses include:
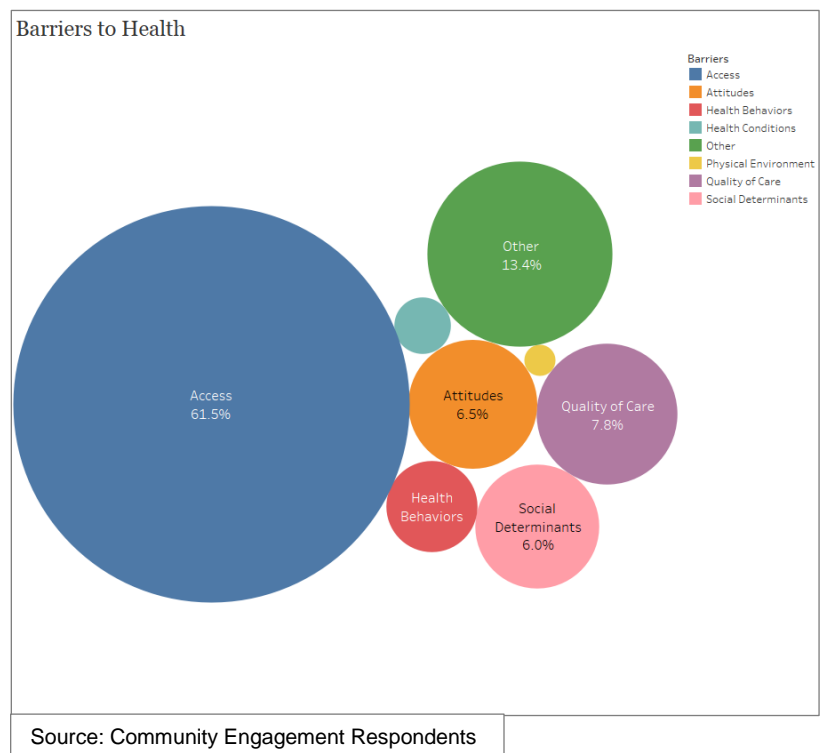
Barriers to Health

Barriers
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other 13.4%
Access 61.5%
Attitudes 6.5%
Quality of Care 7.8%
Health Behaviors
Social Determinants 6.0%

Source: Community Engagement Respondents

- "Low-income citizens are unable to seek medical attention for fear of the crushing debt that will follow. Even with health insurance, a family is still hesitant to take a child or themselves in to the doctor because the remaining portion of the bill is often more than they can pay."

- "Increased costs for those who can afford insurance. Unaffordable costs for those who do not have employer-provided insurance."

- "The cost of healthcare and medical insurance and medications is beyond the reach of many people."

- "Cost. Doctors are incredibly expensive."

- "Finding and keeping good physicians."

- "Long wait times for doctors' appointments."

- "Difficulty attracting and keeping good providers."

- "Lack of providers, accessibility to care."

- "Lack of CNAs and poor pay. Lack of home health agency."

- "Lack of medical doctors in rural communities."

- "Distance from regional medical centers."

- "Location and ability to travel to larger area for more specialized care."

- "Our location is the main barrier to health management."

- "Transportation to appointments for some seniors and low-income residents."

- "The distance needed to travel to seek health services."

- "Isolation."

- "Distance to major cities and specialists."

Additionally, Wyoming residents identified lack of public funding and community connection as barriers to health. Example responses pertaining to these barriers include:

- "Money (e.g., no Medicaid expansion, reduced funding for mental health care and substance abuse care)."

- "Decreased funding for all service providers."

- "Funding – to build more recreation features, sidewalks, etc."

- "Financial distributions by government."

- "State-level funding."

- "Cliques – closed social groups."

- "Isolation of the community."

- "It seems everyone is so concerned about one group instead [of] the community as a whole. There are several facets to our community."

- "[There is] not a strong cohesive community resource network."

Question 3: What does the community do well when it comes to health?

Access (48.7 percent of responses)

- Access to Care

- Access to Recreation

Other (28.9 percent of responses)

- Public Health

- Health Fairs

- Community Connection

- Coalitions/Partnerships

When asked what communities do well when it comes to health, many Wyoming residents recognized the efforts their communities were making toward increasing access to healthcare services or the services that were available to them, despite the concerns they

Does Well

Does Well
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Quality of Care 8.5%

Other 28.9%

Access 48.7%

Health Behaviors 6.6%

Physical
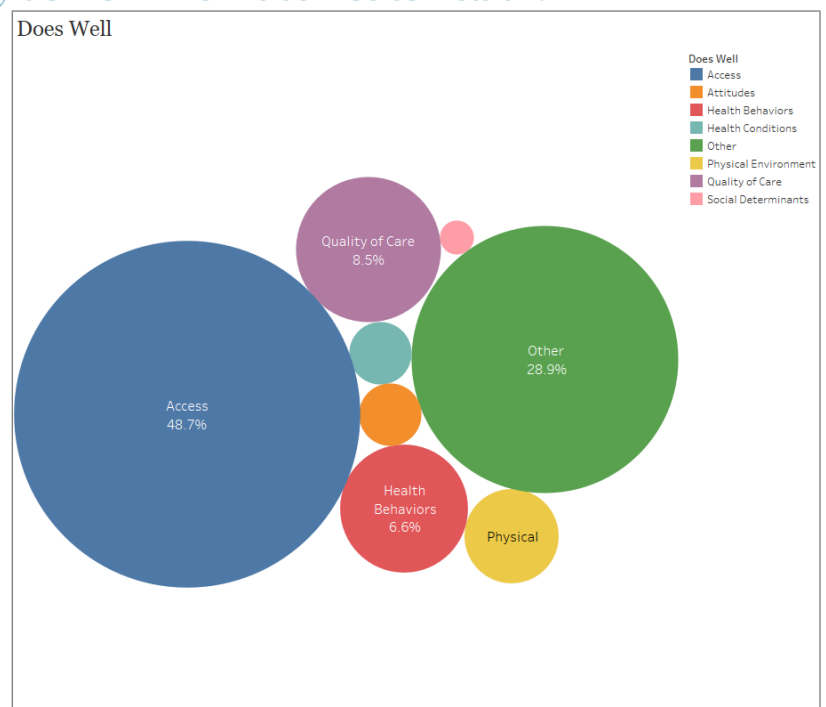
Source: Community Engagement Respondents

have related to access as a health problem or barrier. For example, Wyomingites shared feedback such as:

- "Good effort to make services available for most conditions for underserved populations."
- "We have an amazing array of doctors, nurses, [and] practitioners in town."
- "There are now some 'one-stop' facilities that have multiple services."
- "Great primary care."
- "We have a great hospital and clinics."
- "We have a clinic that is funded by private donations, which assist the local physician in operating his practices so he can stay in the area and make a living. We also fund after-hours call[s] by donation in order to have this service."

- "We have options available to receive care and information."
- "Very active public health department."
- "Public Health accomplishes much and they have a real concern for people in our county. They hold flu clinics [and] community baby showers, and are in the PATCH organization (planned approach to community health)."
- "Great doctors and hospital with excellent services; very responsive to healthcare needs."
- "I have seen great improvement in the availability of clinics and other short-term/non-emergency care options."

Wyoming residents cited access to recreation as something communities do well. For example:

- "Outdoor recreation options (Greenway, bike lanes, parks, charity races)."
- "Good recreation opportunities."
- "Lots of outdoor activities."
- "Opportunities for exercise both indoors and out."

Wyomingites noted that public health education and services were done well, that health fairs were a great community resource, that community connection supported health, and that coalitions and partnerships were an asset. Example responses include:

- "Public Health has a positive impact."
- "Public Health does try to provide awareness and activities for children."
- "Awareness of effects of smoking."
- "Public Health advertises when flu shots are available."
- "Our hospital, library, senior center, and other businesses/agencies have free medical information presentations, wellness education (including nutrition and exercise), and some free services."
- "Awareness campaigns."
- "Public health does an excellent job with flu shots and immunizations."

- "Blood drives through the Wyoming Health Fairs."
- "Health fairs are wonderful outlets for tracking annual changes in health."
- "Some employers offer health fairs at no cost to their employees."
- "Our hospital puts on a Health Fair annually and it brings in an abundance of different healthcare providers, businesses, the billing company, etc. to speak about what services are offered throughout town and even the state. This is a great resource for the public to see the different services we have in our community and surrounding communities."

- "Strong community pride – leaders [who] care a lot about the community."

- "Community health projects (Biggest Loser) and activities."

- "We have great resources with people who truly care to help; family and social support."

- "[We have the] will and resources to deal with community issues (and champions)."

- "We have a very active Public Health Department and good relationships with many other healthcare organizations in the area."

- "Entities overall collaborate very well and have a positive working relationship."

- "Strong partnerships."

- "Suicide prevention coalition."

Question 4: What are possible solutions to health problems?

.Access (44.1 percent of responses)

- Access to Care

- Affordability of Insurance/Care

- Access to Mental Health Care

Other (33.1 percent of responses)

- Public Funding

- Public Health

- Coalitions/Partnerships

When asked about solutions, Wyoming residents offered potential solutions to address the access-to-care issues identified as concerns. Here are some of their ideas:

- "More provider availability."

- "Urgent care facility for evenings and weekends."

- "Change the rules about Telemedicine/Telehealth to make it easier for professionals to become licensed to 'see' patients across state lines, and get paid for it with no problems."

- "Recruit other health insurance providers."

- "Recruit and retain doctors in our community."

- "Alcohol [use] and depression screenings."

- "Increase the number of providers, especially those related to behavioral health."

Source: Community Engagement Respondents
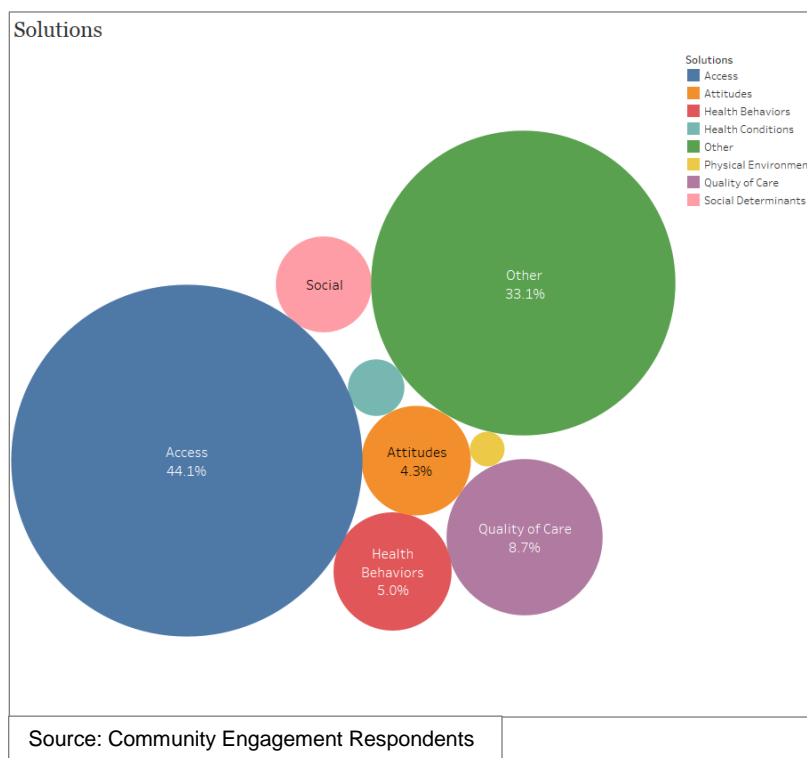
- "Government, nonprofit, or corporate-sponsored clinics that don't charge people living at a certain percentage of poverty."

- "Universal healthcare."

- "Expand Medicaid."

- "Expansion of free and low-cost clinics' hours and services, especially to include mental and dental health services."

- "Scale fees based on incomes so people can afford medical services."

- "Can we partner with a neighboring state to make it more attractive and feasible for the health insurance companies to offer more healthcare plans and better rates with better coverage?"

- "True parity of mental health and substance abuse reimbursement."

- "More mental health providers with better access and funds to increase the awareness of mental health issues that lead to suicide."
- "Counseling center that is open all hours."
- "Coordinated system of care for mental health."

- "Education on mental health and substance abuse; funding for rehabilitation."
- "Adolescent mental health services – co-locate with Public Health."

Additionally, many Wyoming residents suggested solutions related to increasing public funding, public health education and services, and coalitions and partnerships. Here are some related responses:

- "Reliable state funding for mental health care and substance abuse."
- "Stable funding streams."
- "Increase funding for Medicaid and mental health services."
- "Universal, single-payer system."
- "Provide more funding from the state for those [who are] disabled and elderly [who] have no other resources to draw from."
- "Increase mental health funding."
- "Restore cuts to WDH programs."
- "Assist hospitals with grants to increase the level of salary for healthcare providers."
- "More taxpayer dollars spent on public health."
- "[Offer] education on addiction of any kind."
- "Nutrition education classes."
- "Advertising, education, motiving community to be active and eat healthy."
- "Drug/alcohol awareness campaign."
- "Work with OB/GYNs to education them on the benefits to mothers and babies of [fewer] C-sections."
- "Provide a health-promoting built environment for everyone regardless of their social and economic status."

- "Address the social and physical determinants of health."
- "Improved public education on healthcare services, access, options, and policies."
- "More advertising about the dangers of cigarettes and chewing tobacco."
- "Continued prevention efforts."
- "Promote a healthy culture."
- "Continue with the collaboration of efforts. Losing those will directly affect our community."
- "Community-led primary prevention measures to address social determinants of health."
- "Having committees and funds to increase awareness."
- "Greater community alliances, local and statewide. Sharing of resources."
- "Break down the silos within the healthcare provider community."
- "Coordination with programs, quit being territorial."
- "Collaboration between healthcare professionals and law enforcement for more comprehensive treatment of offenders."

Out-Migration of Healthcare in Wyoming

In addition to the analysis of the problems, barriers, what communities do well, and potential solutions, the Wyoming Business Council (WBC) analyzed the question, "Do you seek healthcare in or out of your community? Why?" They found that it was not uncommon for Wyomingites to seek healthcare both in and out of the community.

Out-Migration of Care in Wyoming, 2017
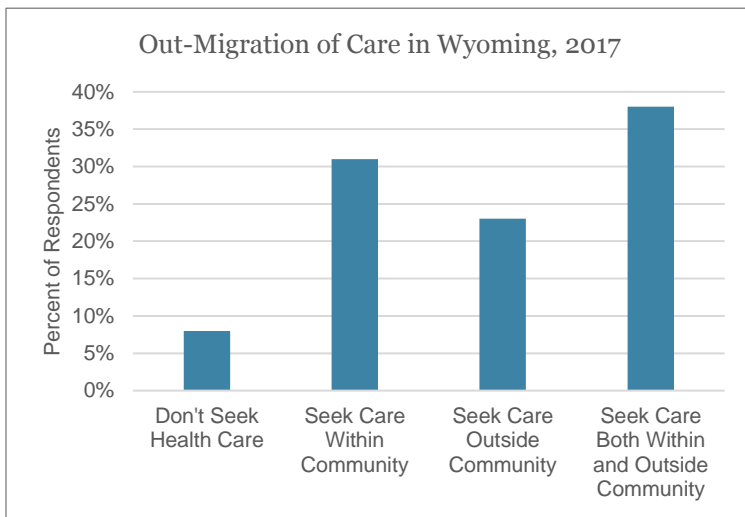
Source: Community Engagement Respondents Analyzed by WBC.

Why are people leaving their communities to receive healthcare?

1. Require specialized care that isn't available in their community
2. Not comfortable [with]/lack trust [in] with medical staff
3. More cost-effective elsewhere
4. Prior misdiagnoses
5. Staff turnover is high and providers are inconsistent
6. Long wait times to schedule appointments and receive test results
7. Concerns of lack of confidentiality

Source: Community Engagement Respondents Analyzed by WBC.

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Health Insurance
- Access to Primary Care Providers
- Mental Health
- Drug Abuse and Overdose
- Suicide

Notably, community members were more likely to cite they did not know if infant deaths, premature births, substance use during pregnancy, childhood immunizations, and sexually transmitted infections were important issues as compared to all other issues rated.

Priority Issues - Community Perceptions of Importance By Importance

Priority Issue	High Importance	Medium Importance	Low Importance	Don't Know if Important
Health Insurance	80.3%	14.9%	2.9%	1.9%
Access to Primary Care Providers	78.3%	17.2%	4.1%	2.1%
Mental Health	76.3%	15.3%	5.3%	3.1%
Drug Abuse/Overdose	76.2%	16.5%	3.9%	3.4%
Suicide	75.0%	15.4%	5.3%	4.3%
Alcohol Abuse	73.2%	18.6%	5.3%	2.9%
Health Services for Senior Citizens	66.0%	22.9%	4.7%	6.3%
Tobacco Use	56.5%	30.2%	9.3%	4.0%
Substance Use During Pregnancy	56.5%	25.1%	6.4%	12.1%
Access to Exercise/Recreation Opp..	55.9%	27.7%	13.4%	2.9%
Access to Healthy Food	54.0%	27.3%	13.9%	4.8%
Obesity	54.0%	31.1%	11.3%	3.6%
Cancer Screening	51.0%	33.9%	7.7%	7.4%
Childhood Immunizations	47.9%	29.1%	11.4%	11.6%
Sexually Transmitted Infections	47.7%	32.9%	7.9%	11.5%
Injury	40.5%	39.7%	13.1%	8.8%
Infant Deaths	38.8%	22.7%	14.9%	23.7%
Premature Births	37.3%	28.3%	11.1%	23.3%

Source: Community Engagement Respondents

Photo Credit: Henry & Co. on Unsplash

Conclusion

The 2018 SHA is the first-ever in the state of Wyoming. Through numerous data, insights into the health and wellbeing of Wyoming's residents have been gathered and explored. In-depth collaboration with key stakeholders around the state and discussions with residents have given PHD a better understanding of viewpoints, experiences, and priorities around health in the state. Framing the discussion of these variables using the CHR-R model provides a roadmap for understanding how many different factors, from physical environment, policies, education, income, and clinical care, to the health choices and behaviors residents make impact diseases, quality of life, and even death.

This assessment will become an important tool with which PHD, stakeholders, and Wyoming residents can collaboratively prioritize and plan efforts to improve the overall health of Wyoming. It is also the beginning of a cycle that will include prioritization of efforts, planning interventions and use of resources, implementation of new partnerships and strategic efforts, and evaluation of efforts to ensure that we are truly impacting health in an efficient, effective way. By working together, Wyoming residents and the generations to come can look forward to a healthier future.

Public comment, taken from January 22 – February 5, 2019, also provides additional context for PHD and stakeholders to consider in future iterations of the SHA or in the development of a state health improvement plan (SHIP). Feedback, such as data and/or topics that could have been included or explored more; stakeholder engagement suggestions; populations to consider in future SHA/SHIP efforts; and potential solutions that could contribute to a larger health improvement strategy, will be used to move planning activities forward.

Appendices

Appendix A – Methods

Quantitative Methods

Selecting Indicators

PHD selected the County Health Rankings & Roadmaps (CHR & R) model, pictured to the right, to guide indicator selection. This model provides a comprehensive view of indicators that impact health and health outcomes.

The SHA advisory team initially met to discuss indicator selection. Using CHR & R reports for Wyoming, the team decided which indicators to include. Additionally, the team identified any gaps within the CHR & R data and added additional measures to the list. In assessing measures to add to the list, the team wanted to ensure data was available and reliable, relevant, and was released on a regular basis.

The initial indicator list was shared with PHD staff and other WDH division senior administrators for review and feedback. Upon making any necessary changes, the list was shared with the steering committee for the same purpose. Based on steering committee feedback, the list was reviewed once more and finalized.

Several team members began collecting the data in more detail to include specific descriptions, data sources, the most current data value for Wyoming and the nation (if available), and any relevant benchmarks.

Identifying Indicators for Further Analysis

In addition, the SHA advisory team also initiated a process to identify indicators for more detailed analysis. First, they used the following criteria to create a pared-down version of the indicator list.

- Indicator is within the health department's scope and authority
- Indicator where the Wyoming and national average or HP2020 benchmark were significantly different
- Indicator also included in the CHR & R Gaps Report for Wyoming
- Indicator has a known disparity
- Indicator has state or national attention (e.g., leadership interest, legislative priorities, federal funding priority, etc.)
- Indicator is increasing or decreasing in a negative direction

Each of the remaining indicators was then ranked by PHD unit managers, PHD leadership, and the SHA advisory team to create an initial set of potential priorities for further review by the Steering Committee. Seventeen of the 20 respondents (85 percent) took the ranking survey. The indicators were ranked on the below criteria using a scale of 1 to 4, where 1 was low and 4 was high.

- Health Equity – disproportionate effects among subgroups of the population
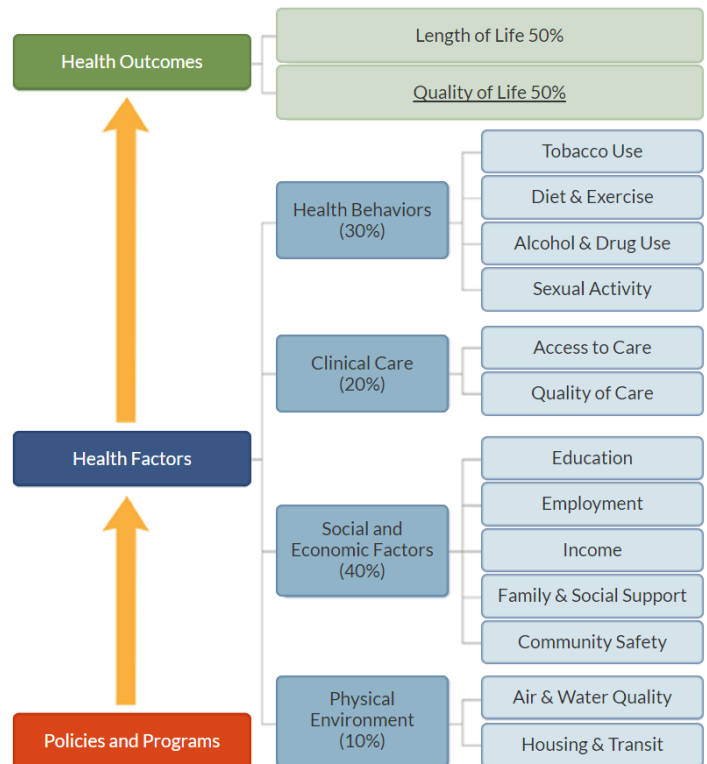
- Magnitude/Extent – a large number of individuals are affected by the problem or the problem is very severe
- Impactability – problem is amenable to population-level intervention
- Political Will – there is political will to address the issue in the state

Mean scores for indicators and their respective CHR & R domain were calculated. Domain results are displayed below.
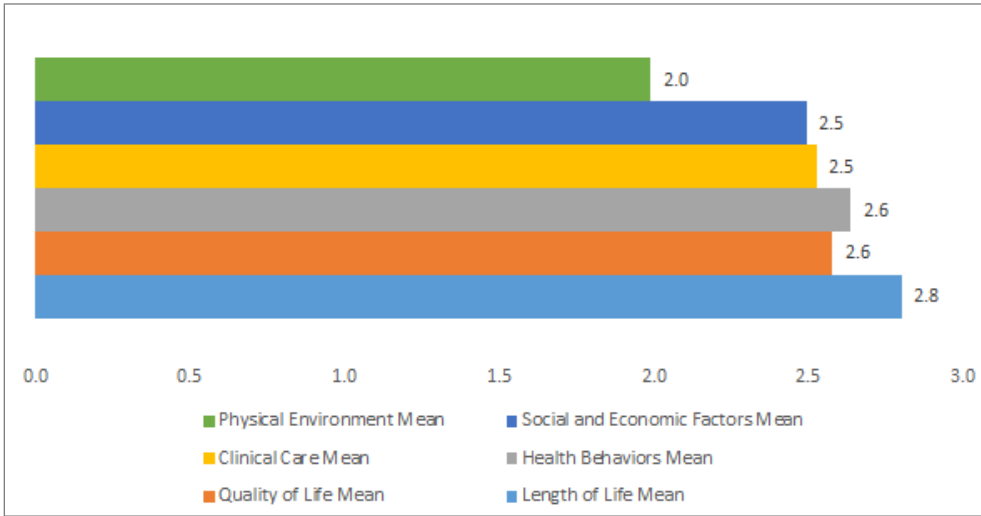
There were 48 indicators with a range of scores from 1.38 to 3.04 (with a mean of 2.55). The team used a threshold of a score of 2.7 to highlight indicators for the steering committee as potential priorities.

The steering committee used this information, in addition to community perceptions data to further discuss and identify priorities. The SHA advisory team then finalized after discussion and voting at the March 16, 2018 meeting. The state health officer/state epidemiologist then led the development of the analytic plan for selected indicators.

The analytic plan for the subset of indicators is detailed below.

Length of Life
- Suicide
- Infant Mortality
- Child Mortality
- Maternal Mortality

Age, sex (except maternal mortality), race/ethnicity, location, cause of death, manner of death

For infant mortality only: socioeconomic status

Quality of Life
- Heart Disease Prevalence
- Diabetes Prevalence
- Cancer Incidence
- Preterm Birth

Age, sex, race/ethnicity, location, socioeconomic status

Health Behaviors
- Alcohol-Impaired Driving Deaths
- Adult Smoking
- Drug Overdose Deaths
- Sexually Transmitted Infections
- Teen Births

Age, sex, race/ethnicity, location

For adult smoking (including pregnant women) and teen births: socioeconomic status and trimester

Clinical Care
- Access to Mental Health Providers
- Access to Primary Care Providers

Health provider shortage area maps, self-reported data related to access (where available)

Social & Economic Factors
- Injury Deaths

Age, sex, race/ethnicity, location, cause of death, setting of death

The epidemiology team conducted the analysis per the identified plan. They then made recommendations on data visualization and notable findings to include in the SHA.

Limitations
Quantitative data used in the SHA is subject to timeliness limitations. The most current data available was used to develop the SHA, but in many cases, the most current data is one or more years old. Where available, PHD used data sources where more current data for the indicator was accessible.

Qualitative Methods

Community Selection
The team used the below criteria to select counties in which to host community engagement sessions.

- Urban, rural, frontier classification;
- Geographic position;
- County health rank (top and bottom 5); and,
- Minority populations (≥ 9% of the population).

The below table provides a detailed assessment of the counties according to the criteria. The counties noted in blue bold text are the selected counties. The red- and green-colored cells under the County Health Rank column indicates the counties that fall in the bottom (red) and top (green) five in the state, respectively.

County	Urban, Rural, Frontier Classification	Geographic Position	County Health Rank	Minority Populations >=9% of Population
Albany	Rural	Southeast	15	Yes
Big Horn	Frontier	Northwest	18	Yes
Campbell	**Rural**	**Northeast**	**9**	**Yes**
Carbon	**Frontier**	**Southeast**	**22**	**Yes**
Converse	Frontier	Central	10	Yes
Crook	Frontier	Northeast	3	No
Fremont	**Frontier**	**Central**	**23**	**Yes**
Goshen	Frontier	Southeast	7	Yes
Hot Springs	Frontier	Northwest	20	No
Johnson	Frontier	Northeast	4	No
Laramie	**Urban**	**Southeast**	**16**	**Yes**
Lincoln	Frontier	Southwest	8	No
Natrona	**Urban**	**Central**	**19**	**Yes**
Niobrara	Frontier	Central	14	No
Park	**Frontier**	**Northwest**	**6**	**No**
Platte	Frontier	Southeast	12	Yes
Sheridan	**Rural**	**Northeast**	**5**	**No**
Sublette	Frontier	Southwest	2	Yes
Sweetwater	Frontier	Southwest	17	Yes
Teton	**Frontier**	**Northwest**	**1**	**Yes**
Uinta	**Rural**	**Southwest**	**21**	**Yes**
Washakie	Frontier	Northwest	13	Yes
Weston	Frontier	Northeast	11	Yes

Guiding Questions
The questions used to guide community engagement efforts were:

1. What are the biggest health problems in your community?
2. What are the barriers to health in your community?
3. What do you think your community does well when it comes to health?
4. What solutions do you think could help address the problems you identified?
5. Do you seek healthcare in or out of your community? Why?

In addition, community members were asked to rate the importance of pre-defined health issues such as access to care, mortality issues, and various health behaviors and conditions. The specific question was, "How important are these issues to your community?" Each issue was listed and response options for each issue were "Low Importance, Medium Importance, High Importance, I Don't Know if This is Important."

Collection Methods

For the community engagement sessions, PHD partnered with the Wyoming Business Council (WBC) to host sessions in two formats:

- **Open House** held 2-6 p.m. at a local business or community partner agency. The open house was an informal opportunity for community members to share their opinions about health. Flip charts were placed around the venue and participants could write their answer on the flip charts or on sticky notes that were placed on the flip charts. Written responses were then transferred by hand to a spreadsheet containing all location sites.
- **Listening Session** held 6:30-7:30 p.m. at the same location as the open house. Listening sessions were more traditional community forums where the WBC facilitator and/or PHD staff guided the group in discussing the same questions as were provided during the open house. When listening sessions were attended, responses were written down by the facilitator and later transferred by hand to the same spreadsheet as the open house responses.

Additionally, PHD offered an **online survey** containing the same questions for community members who were not able to attend a community engagement session or who lived in counties not visited.

In three counties – Laramie, Sweetwater, and Teton – PHD offered Spanish-language interpretation services. The service was minimally used in Laramie and Sweetwater. However, in Teton County, it resulted in responses in-person and to the online survey. Those responses were included in the analysis.

Promotion Methods

The community engagement sessions and online survey were promoted using the following methods:

- Press Releases
- Wyoming Business Council Facebook Account
- Various PHD Program Facebook Accounts and Program Partners/Networks
- Partner Business and Organizations' Facebook Accounts and Networks
- Free Media Coverage
- Wallet-Sized Cards Distributed at Various Community Centers

Participation

Over 100 participants engaged in the open houses and/or listening sessions across the state. PHD kept sign-in sheets to capture attendance and give community members an opportunity to indicate their interest in further information/involvement as it relates to the SHA. Not all participants provided their information on the sign-in sheets. This created some limitations to establishing an accurate count.

For the online survey, 447 responses were received from September 9, 2017 through November 6, 2017. Survey responses were received directly by community members, as well as through paper copies collected at some

community engagement sessions or by community partners and public health offices. The hard copies were hand entered online by PHD staff. All 23 counties were represented in the responses.

Additionally, a copy of the online survey was created for WDH staff. This survey provided staff an opportunity to engage in the process without skewing the community member data. For the WDH survey, 187 responses were received between November 1, 2017 and November 17, 2017. All divisions were represented in the responses. However, the overall response rate was low with 8.75 percent of staff responding.

Analysis

Guiding Questions 1-4

Guiding questions 1-4 were analyzed by WDH staff using QDA Miner Lite (free version). Three staff members participated in the coding and analysis process.

All three staff members coded and discussed a sample set of 30 responses using an initial codebook drafted from the CHR-R model. Upon review of the samples, the codebook was updated and finalized. The final codebook used is presented on the following pages.

ATTITUDES

Attitudes about Health Insurance Policies – refers to an attitude toward the Affordable Care Act (ACA) or other government health insurance policies.

Attitudes about Physical Activity – refers to attitudes toward exercise, or toward exercise as part of community culture.

Attitude toward Change – refers to a person or community's attitude toward change.

Attitude toward Vaccines – refers to feelings, attitudes, or beliefs toward vaccines.

Attitude toward Drug or Alcohol Culture – refers to the culture or attitude that exists regarding the use of drugs or alcohol.

Attitude about Individual Responsibility – refers to attitudes surrounding individual responsibility and motivation.

ACCESS

Access to Information – refers to ability/inability to find health-related information or information about resources that may support health.

Access to Specialized Care – refers to the ability/inability to access specialized care, the existence/lack of specialized care facilities, or ability/inability to obtain clinical referrals to additional or specialized care.

Access to Care – refers to ability/inability to find or see a provider or access care when needed or desired.

Access to Veteran's Healthcare – refers to accessibility and quality of veteran's care.

Affordability of Insurance/Care – refers to limited access to insurance or care due to cost factors.

Access to Vaccines – refers to access to vaccines/immunizations.

Access to Mental Healthcare – refers to availability/unavailability of mental healthcare, level of priority placed on mental healthcare, or access to mental health providers.

Access to Dental Care – refers to ability/inability to access dental care providers, cost of dental care, or issues with dental health.

Access to Aging Care – refers to the care or resources available/unavailable to the elderly population.

Access to Emergency Care – refers to the level of emergency care present or available, or the quality of emergency care.

Complementary and Alternative Medicine – refers to access to or use of complementary medicine, alternative medicine, or treatment that falls outside of traditional medical practice.

Access to Prescription Medication – refers to ability/inability to access necessary prescription medication.

Geography – refers to physical distance between people and their providers, or the ability/inability to access care due to distance or transportation.

Access to Recreation – refers to ability/inability to access recreation activities, recreation areas, and exercise options during all months.

Access to Healthy Food – refers to ability/inability to obtain healthy food, or the cost of healthy food.

QUALITY OF CARE

Real or Perceived Quality of Care – refers to the level of trust or confidence in providers or the health care system, or to the quality of healthcare providers or services, including levels of oversight of the healthcare system and the presence of quality checks.

Over-Prescribing – refers to the over-prescribing of prescription medications, opioids, etc.

HEALTH BEHAVIORS

Drug Use – refers to drug use, misuse, abuse, and/or the buying/selling of drugs.

Alcohol Use – refers to alcohol use, misuse, abuse and/or level of alcohol use.

Smoking/Tobacco Use – refers to the use of tobacco, cigarettes, or other nicotine products.

HEALTH CONDITIONS

Addiction – refers to addiction to drugs or alcohol as a condition.

Mental Health Status – refers to the state or quality of a person's mental health.

Obesity – refers to a state of being obese or overweight.

Diabetes – refers to the presence of diabetes.

Sexually Transmitted Infections (STIs) – refers to the presence or condition of STIs.

Heart Disease – refers to the presence of heart disease or associated factors, such as high blood pressure.

PHYSICAL ENVIRONMENT

Walking-Friendly Environment – refers to community features and attitudes that do or do not encourage walking or makes walking easy/difficult.

SOCIAL DETERMINANTS

Wages – refers to quantity of wages earned.

Poverty – refers to low or inadequate financial resources.

Income Disparity – refers to income disparities or disparities in resource accessibility.

Cost of Living – refers to the expenses associated with living.

OTHER

Suicide

Stigma – refers to real or perceived stigma.

Language/Culturally-Appropriate Services – refers to how language interacts with ability to access healthcare or information, language discrepancies in healthcare, or availability/unavailability of culturally-appropriate services or care.

Health Fairs – refers to the presence of health fairs or access to them.

Prioritizing the Health of Children – refers to the level of priority placed on children's health.

Disability Resources – refers to access to or availability/unavailability of resources for persons with disabilities.

Community Connection – refers to a feeling or sense of being connected (or not) to one's community, existence (or lack) of personal connections, or presence (or lack) of community support and engagement opportunities.

COUNTIES
Each Wyoming County received an individual code in order to support analysis by county.

Exercise – refers to the level of exercise people experience or pursue.

Healthy Eating – refers to the quality of food intake.

Unintended Pregnancy – refers to unintended pregnancy as an issue.

Sleep – refers to adequate/inadequate sleep or the results of getting enough or not enough sleep.

Injury – refers to the presence of injury.

Pain – refers to the presence of pain or the ability/inability to manage it.

Cancer – refers to the presence of cancer.

Chronic Disease – refers to chronic health conditions or the treatment/management of them (not including diabetes and heart disease).

Infectious Disease – refers to the presence of disease, viruses, etc. that can be transmitted such as colds, flus, etc. (not including STIs).

Quality Parks – refers to quality of parks or recreation, or access to parks.

Environmental Health – refers to the presence of pollution or environmental hazards.

Affordability of Housing – refers to the ability/inability to afford quality housing or access affordable housing.

Quality of Housing – refers to quality of housing units.

Employment – refers to ability/inability to access stable employment.

Education – refers to formal education, certifications, or other schooling.

Public Health – refers to the level of education or information distributed to the public regarding health issues, prevention of health conditions, health policies, or available resources and services.

Nutrition Assistance – refers to assistance with accessing food and nutrition services.

Obesity Management – refers to ability to access care regarding obesity, including fitness and nutrition resources.

Coalitions/Partnerships – refers to the presence of (or need for) coalitions and community partnerships.

Public Funding – refers to grants, public or private funding, etc. that is or is not available for addressing health issues.

Consumer Safety – refers to the safety of products people use or consume.

Politics – refers to perceptions about politics in health, healthcare, or public health.

Holistic Health – refers to holistic practices or beliefs and their interaction with health (whole person approach to health).

The total number of responses for both the community and WDH data were divided by three, giving each staff member approximately the same number of cases to code using the above-mentioned codebook.
Weekly check-in calls were established to discuss any coding challenges and questions, and to clean the data (e.g., when cases did not actually include responses to the guiding questions being analyzed). Data cleaning resulted in a total of 681 unique responses that were coded and analyzed for the community data and 179 for the WDH data.

When each staff person completed their respective coding, they each queried the QDA system to retrieve their cases and respective codes. The query was exported into individual Excel spreadsheets.

A final spreadsheet, created and shared in Google Sheets, was used to combine the three individual Excel spreadsheets and establish a location for the final analysis of the community and WDH data. A query was created in the Google Sheet to allow for analysis by question using code categories, specific codes, and text responses matching any specific code.

Guiding Question 5

Guiding question 5 was analyzed by WBC and the results were shared with PHD for inclusion in the SHA.

Priority Issues Rating

Priority issue ratings were collected through the online survey as well as manual submission into SurveyMonkey for priority ratings collected at the community engagement sessions. The results were combined and analyzed by PHD epidemiology staff. The aggregate results were provided for inclusion in the SHA.

Limitations

Several limitations should be noted. First, the majority of community engagement questions were open-ended, allowing for a wide variety of interpretation and responses. Second, based on interpretation of the questions, some responses were too vague to code, thus removing them from the final analysis. Third, when asked to rate the importance of health issues, interpretation also factored into how a respondent rated the issues. For example, the respondent may have interpreted the question as asking how they, *individually*, feel about the importance of an issue and its impact on their community. Or, the respondent could have interpreted the question as asking how they perceive the issues' importance to the *community*. If they perceived that the community did not see an issue as important, even if there was a problem related to that health issue (e.g., tobacco use), they may have rated it of lower importance, rather than high. Finally, PHD acknowledges the data represented a small number of unique responses, especially at the county level, which limits the interpretation of the responses and the ability to generalize those responses to the population at large.

Resource/Asset Identification

A steering committee subcommittee was formed to support the identification of resources and assets. The subcommittee first defined the scope as outlined below. They also identified the boundaries (Wyoming), and then established a resource/asset inventory.

- Residents
- Associations, Clubs, Networks
- Private and Nonprofit Organizations
- Public Institutions
- Physical Assets/Resources
- Economic Assets
- Intangibles

The subcommittee further refined the scope by creating a "direct" and "indirect" list for each category. The "direct" resources and assets were defined by the subcommittee as either being health-focused/related or a resource in which there is an existing relationship. "Indirect" was defined as resources and assets that were not specifically health-focused, but have interest or influence over health or where there might be an indirect or non-existent relationship to the resource.

After developing the initial inventory list, PHD program managers, PHN field staff, and Women, Infant, and Children (WIC) field staff were given the opportunity to review the list and provide feedback relative to each resource category or in general.

The inventory was updated to include sub-categories within each category for both direct and indirect resources. The final inventory was then used to identify and present resources in the context of the socioecological model and as they pertain to the key indicators explored in the SHA.

System Capacity Assessment

Planning Process

PHD used the National Public Health Performance Standards (NPHPS), Version 3.0 to guide the system capacity assessment process. A steering committee subcommittee was formed to support the planning and implementation of the capacity assessment.

The subcommittee:

- Determined how to adapt or adopt the guidance to best fit Wyoming's needs;
- Established a list of key stakeholders and partners to invite;
- Helped select the facilitation vendor;
- Identified logistic and planning needs;
- Established the event agenda; and,
- Identified key materials for participants.

The subcommittee selected the process depicted in the image below to guide the assessment.
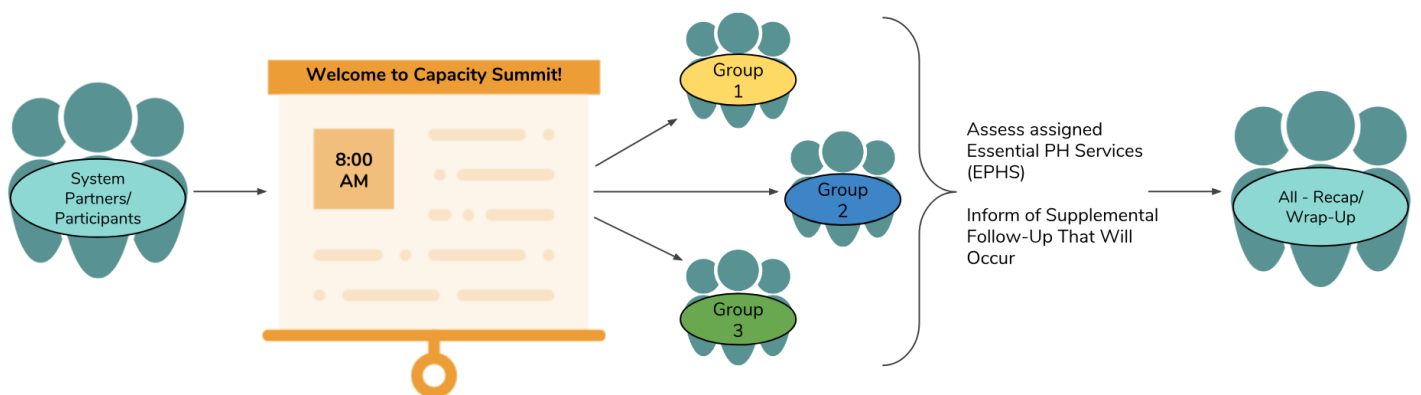
Participants were guided in the assessment of the 10 Essential Public Health Services against four model standards, using five voting/response options, pictured on the next page.

10 Essential Public Health Services
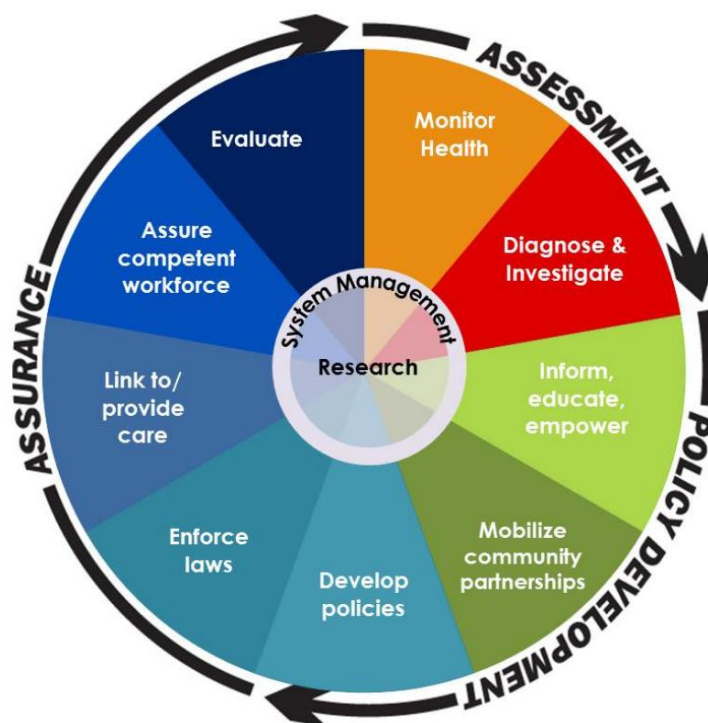
Model Standards

1. Planning & Implementation
2. State-Local Relationships
3. Performance Management & Quality Improvement
4. PH Capacity & Resources

Optimal	> 75% activity met
Significant	50% < activities met < 75%
Moderate	25% < activities met < 50%
Minimal	0% < activities met < 25%
No/None	0% or absolutely no activity

What is going on in our state?

Discussion - Model Standard 1.3: Performance Management & Quality Improvement

Model Standard 1.3: Performance Management & Quality Improvement	
Strengths	[type notes here]
Weaknesses	[type notes here]
Opportunities for Immediate Improvements/ Partnerships	[type notes here]
Priorities or Longer Term Improvement Opportunities	[type notes here]
Other	[type notes here]

Votes - Model Standard 1.3: Performance Management & Quality Improvement

Model Standard 1.3: Performance Management & Quality Improvement				
1.3.1: How well do system partner organizations work together to review the effectiveness of their efforts to monitor health status?				
No Activity	Minimal	Moderate	Significant	Optimal
1.3.2: How well do system partner organizations actively manage and improve their collective performance in health status monitoring?				
No Activity	Minimal	Moderate	Significant	Optimal

Assessment Implementation and Analysis

During the assessment, external facilitators guided participants through the discussion and voting process, per the NPHPS Facilitator Guide while internal recorders/note-takers captured the votes and discussion predefined template. A sample of the template used is pictured to the left.

Upon completion of the assessment event, the Performance Improvement Manager (PIM) transferred the voting data from the recorders' notes to an NPHPS Assessment Instrument developed by the Association of State and Territory Health Officials (ASTHO) evaluation team. Through the assessment instrument, voting data was converted to quantitative data using the following scale:

- No Activity = 0
- Minimal = 25
- Moderate = 50
- Significant = 75
- Optimal = 100

Using the participants' collective responses to all of the assessment questions, a scoring process generates a score for each model standard and essential service, and one overall assessment score.

The PIM and the recorders reviewed and cleaned the qualitative notes before submitting them to ASTHO for their analysis. A final report was developed by ASTHO and returned to PHD for inclusion in the SHA.

In addition to the ASTHO analysis of the voting and qualitative data from the event, PHD sent a follow-up survey via SurveyMonkey to participants the day after the event. The follow-up survey contained:

- Questions related to the priority participants would place on the model standards (in connection to the essential services they participated in assessing (based on the supplemental priority questions in the NPHPS guidance);

- Questions related to WDH's contribution to the achievement of those model standards (based on the supplemental agency contribution questions in the NPHPS guidance);

- Questions about events, trends, and factors that can influence our system (forces of change); and

- Questions about the participants' experience at the event to help PHD evaluate how well the event went and what could be improved.

The survey was open from April 11 through April 27, 2018 for participants to respond. The participants received a reminder on April 20 and were encouraged to participate in the survey if they had not done so already. A total of 36 responses were received, translating to a 63 percent response rate. However, because the questions were not required on the survey, some respondents skipped the question. PHD indicated the number of respondents to particular questions in the context of the results. A copy of the survey questions are stored on a Google Drive maintained by the Office of Performance Improvement.

Responses to the follow-up survey were analyzed using the SurveyMonkey summary report. The summary report detailed the responses to each individual question.

Priority Model Standards
The priority model standards questions were used to further identify the priority participants would place on the model standards related to the services they helped assess. Survey respondents were instructed to use a scale of 1 to 10 (with 1 being lowest and 10 being highest) to indicate how important it was to improve our system performance for each model standard, by EPHS. PHD analyzed the results by compiling the proportion of responses at a 7 or higher for each service and the related model standards. PHD included each individual, rounded percentage that corresponds with ratings of 7, 8, 9, and 10.

WDH Contribution

The WDH contribution questions were used to further understand participants' views on WDH's contribution to achieving each model standard for the services they helped assess. Survey respondents were instructed to use the below scale to rate how much of each model standard was achieved through the direct contribution of WDH:

- 0 for no contribution to the model standard
- 25 for WDH contribution of 0-25%
- 50 for WDH contribution of 26-50%

- 75 for WDH contribution of 51-75%
- 100 for WDH contribution of 76-100%

PHD analyzed the results by compiling the proportion of responses at a 75 or higher for each service and the related model standards. PHD included each individual, rounded percentage that corresponds with ratings of 75 and 100.

Forces of Change

Survey respondents were asked to respond to a series of questions relating to *trends*, *events*, and *factors* that can impact the public health system in Wyoming and/or its ability to carry out services. For the purpose of the survey the following definitions were provided:

- Trends are patterns over time, such as migration in and out of a community or a growing disillusionment with government.
- Factors are discrete elements, such as a community's large ethnic population, an urban setting, or a jurisdiction's proximity to a major waterway.
- Events are one-time occurrences, such as a hospital closure, a natural disaster, or a passage of new legislation.

Respondents were also made aware that forces of change can be realized in several ways, including but not limited to:

- Social
- Economic
- Political
- Technological
- Environmental
- Scientific
- Legal
- Ethical

Respondents were asked to identify *positive* and *negative* forces that have occurred recently or may occur in the future. They were also asked to identify characteristics of the state that may pose *opportunities* or *threats*.

The forces of change results were analyzed by categorizing the independent responses. The first level of categorization was whether the response pertained to positive, negative or future forces. The second level of categorization was whether the response was an event, a factor, or a trend. Finally, responses were categorized by the way a force could be realized:

- Economic
- Environmental
- Legal/Political
- Social
- Technological/Scientific
- Other

Responses were then summarized into a table.

Additionally, the opportunities and threats results were similarly analyzed. The first level of categorization was whether the response was noted as an opportunity or a threat. The second level of categorization was whether it was event, factor, or trend.

These responses were also summarized into a table.

There are a number of limitations to the NPHPS assessment data due to self-report, wide variations in the breadth and knowledge of participants, the variety of assessment methods used, and differences in interpretation of assessment questions. Data and resultant information should not be interpreted to reflect the capacity or performance of any single agency or organization within the public health system or used for comparisons between jurisdictions or organizations. Use of NPHPS generated data and associated recommendations are limited to guiding an overall public health infrastructure and performance improvement process for the public health system as determined by organizations involved in the assessment.

All performance scores are an average; Model Standard scores are an average of the question scores within that Model Standard, Essential Service scores are an average of the Model Standard scores within that Essential Service and the overall assessment score is the average of the Essential Service scores. The responses to the questions within the assessment are based upon processes that utilize input from diverse system participants with different experiences and perspectives. The gathering of these inputs and the development of a response for each question incorporates an element of subjectivity, which may be minimized through the use of particular assessment methods. Additionally, while certain assessment methods are recommended, processes differ among sites. The assessment methods are not fully standardized and these differences in administration of the self-assessment may introduce an element of measurement error. In addition, there are differences in knowledge about the public health system among assessment participants. This may lead to some interpretation differences and issues for some questions, potentially introducing a degree of random non-sampling error.

Summit Evaluation

To analyze the results of the summit evaluation, PHD also used the SurveyMonkey summary report. For the first question, respondents were asked to rate their level of level of satisfaction with a variety of factors on a scale of 1 to 4 with 1 being very dissatisfied and 4 being very satisfied. This question was optional. Of the 36 survey respondents, 21 answered this question. The results displayed the proportion of respondents who were somewhat or very satisfied with each factor. The results also contain the weighted average score based on the 1 to 4 scale.

Similarly, respondents were asked to rate their level of agreement with a number of statements. A scale of 1 to 4 was also used for this question, with a 1 being strongly disagree and 4 being strongly agree. The results included the proportion of respondents who somewhat or strongly agreed with the statements. For this question, 21 survey respondents answered the question.

Finally, three open-ended questions were used to better understand what participants in the summit found most and least useful, and in what ways they thought the summit could be improved. The results are a summary of responses in each category.

Limitations

The NPHPS Assessment Instrument acknowledges data limitations associated with the capacity assessment. Specifically, the instrument contains the following statements.

Furthermore, PHD acknowledges some additional factors that may act as limitations. First, WDH staff comprised a majority of participants, thus limiting external and local-level perspectives represented in the discussion and voting process. As a result of the uneven distribution, some participants noted that the concept of a "public health system" was harder to grasp or that perhaps the "system" did not yet fully exist in Wyoming. Secondly, participants acknowledged fatigue during the second half of the day, which may have led to decreased discussion and less informed voting. Finally, three facilitators and three recorders were involved in the implementation of the event. To ensure consistency, PHD trained the facilitators and recorders together to ensure a shared understanding of roles and responsibilities; however, due to individual styles, the facilitation and note-taking tasks undoubtedly involved some variation.

Appendix B – Community Perceptions

Wyoming Department of Health Results

During the community engagement process, PHD engaged WDH staff in the process as well. A copy of the survey was sent to every employee via email. This allowed us to assess any major differences between community perceptions and WDH perceptions on community health issues and solutions. WDH responses were not dissimilar to the community responses. Therefore, this section only reports the overall WDH findings and does not include a subset of responses.

Responses represented the following areas within the agency:

- Aging Division
- Behavioral Health Division
- Director's Office
- Family Services
- Healthcare Financing Division
- Public Health Division

The themes are ordered by the overarching category (e.g., health conditions) and then the top related issues that respondents shared (e.g., obesity) within that category. For the primary results, not all categories or issues are presented and therefore, percentages will not equal 100 percent. However, the corresponding image shows all categories. The bubble size depicts to how frequently an issue was identified.

Question 1: What are the biggest health problems?

Health Conditions (33 percent of responses)

- Obesity
- Mental Health
- Diabetes
- Addiction

Health Behaviors (29.1 percent of responses)

- Drug Use
- Alcohol Use
- Smoking/Tobacco Use

Access (25.7 percent of responses)

- Affordability of Insurance/Care
- Access to Care

Source: WDH Respondents
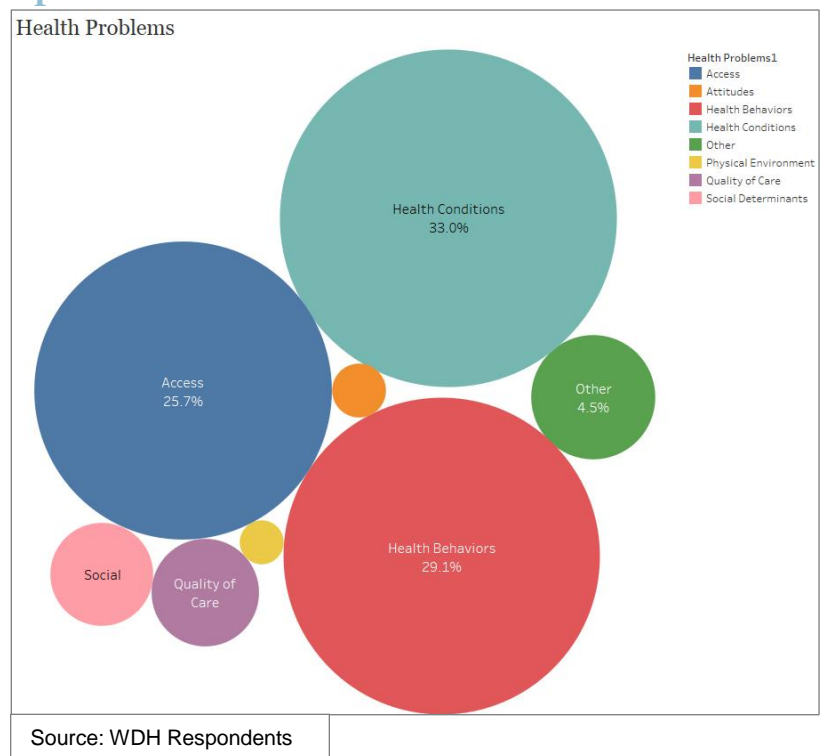
Question 2: What are the barriers to health?

Access (70 percent of responses)

- Affordability of Insurance/Care

- Access to Care

Other (7.8 percent of responses)

- Public Funding

Barriers to Health

Barriers1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other
7.8%

Access
70.0%

Attitudes
5.8%

Quality of Care
7.4%

Social
Determinants
5.8%

Source: WDH Respondents
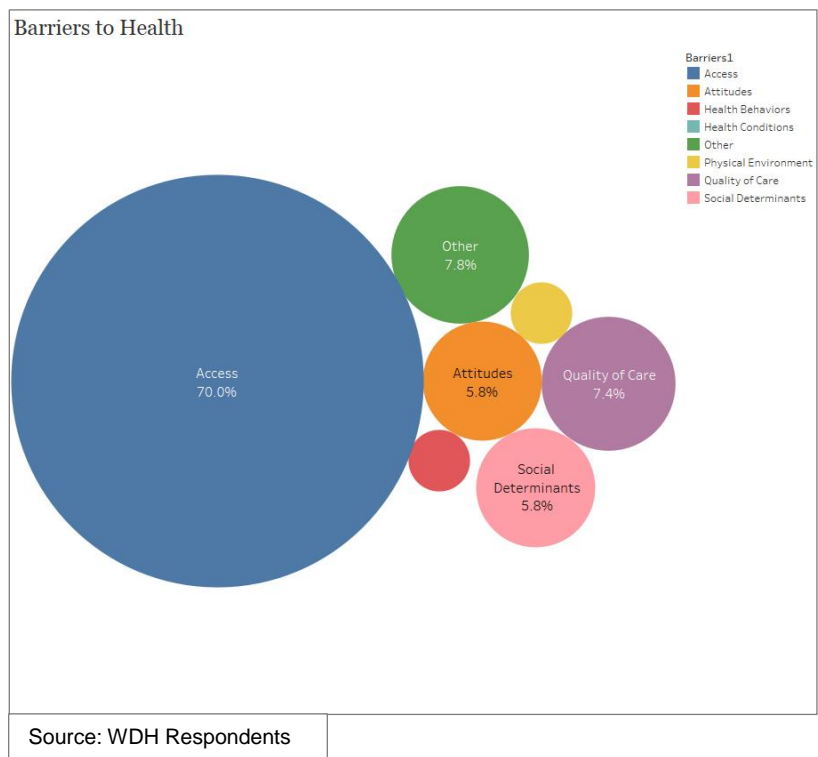
Question 3: What does the community do well when it comes to health?

Access (49.7 percent of responses)

- Access to Care

- Access to Recreation

- Access to Vaccines

Other (29.1 percent of responses)

- Public Health

- Health Fairs

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other
29.1%

Access
49.7%

Health Behaviors
5.7%

Physical
Environment
5.7%

Quality of Care
8.6%

Source: WDH Respondents

Question 4: What are possible solutions to health problems?

Access (49.3 percent of responses)

Affordability of Insurance/Care

- Access to Information
- Access to Care

Other (31.7 percent of responses)

- Public Funding
- Public Health

Solutions

Solutions1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other 31.7%

Access 49.3%

Attitudes 6.3%

Quality of Care 5.4%

Health Behaviors

Social

Source: WDH Respondents
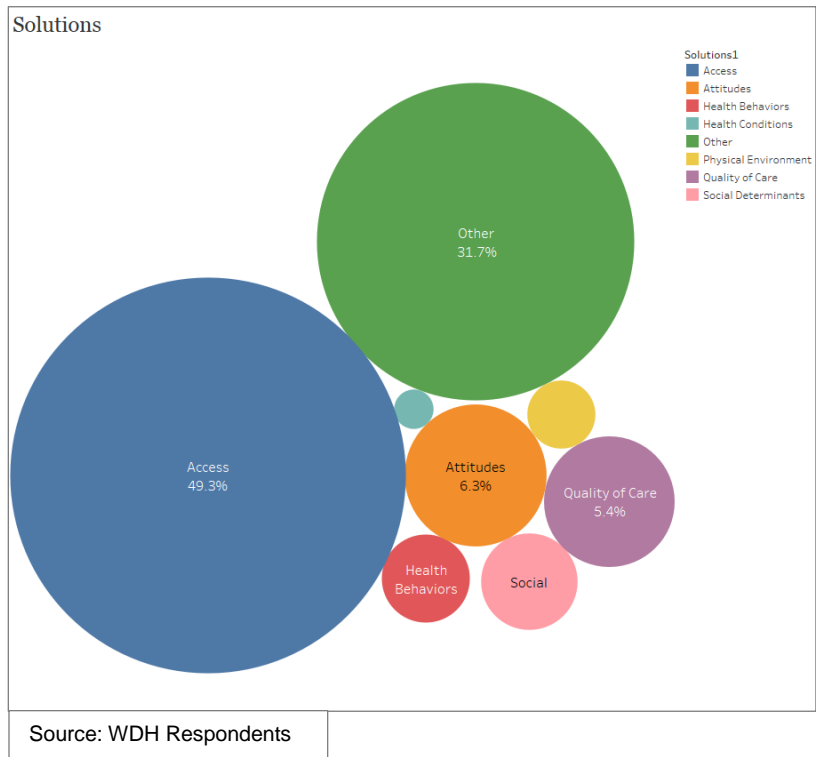
Priority Issues

The WDH respondents also received a list of previously identified health priorities and were asked to rate the importance of each issue (from high to low, or the staff member could indicate they did not know if the issue was important). Across all WDH responses, the top five issues that had a high proportion of "high importance" rating were the same as the community responses:

- Health Insurance
- Access to Primary Care Providers
- Mental Health
- Drug Abuse/Overdose
- Suicide

Also similar to community members, WDH staff were more likely to cite they did not know if infant deaths, premature births, substance use during pregnancy, childhood immunizations, and sexually transmitted infections were important issues as compared to all other issues rated. The image on the next page illustrates the WDH responses overall to the priority issues.

Priority Issues - WDH Perceptions of Importance
By Importance

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Health Insurance	81.4%	14.2%	2.5%	2.0%
Access to Primary Care Providers	78.5%	17.0%	2.5%	2.0%
Mental Health	76.2%	16.1%	4.7%	3.0%
Drug Abuse/Overdose	74.7%	17.8%	3.5%	4.0%
Suicide	73.5%	17.0%	4.8%	4.7%
Alcohol Abuse	72.8%	19.3%	5.0%	3.0%
Health Services for Senior Citizens	64.2%	24.5%	5.5%	5.9%
Substance Use During Pregnancy	56.8%	25.0%	5.9%	12.3%
Tobacco Use	56.1%	30.8%	9.1%	4.1%
Obesity	55.2%	29.7%	11.2%	3.9%
Access to Exercise/Recreation Opp..	54.8%	27.2%	14.5%	3.4%
Access to Healthy Food	53.7%	27.7%	14.2%	4.4%
Cancer Screening	49.2%	35.8%	7.5%	7.6%
Childhood Immunizations	49.0%	30.0%	10.5%	10.5%
Sexually Transmitted Infections	46.7%	33.9%	7.7%	11.7%
Infant Deaths	38.9%	22.6%	15.6%	23.0%
Injury	38.7%	37.9%	14.3%	9.2%
Premature Births	37.6%	28.8%	11.0%	22.6%

Percent of Responses | Percent of Responses | Percent of Responses | Percent of Responses

Source: WDH Respondents

Appendix C – County Snapshots

County Snapshots – Executive Summary

The following snapshots represent the analysis of county-level responses for the counties visited by PHD in September and October of 2017.

Responses from each county are a combination of those received during the community engagement sessions and those received online through the survey, where the respondent identified their county. Online survey responses were received through mid-November of 2017.

The analysis provides the primary themes related to how the community identified health issues and solutions. The themes are ordered by the overarching category (e.g., health conditions) and then the top related issues that respondents shared (e.g., obesity) within that category. For the primary results, not all categories or issues are presented and therefore, percentages will not equal 100 percent. However, the corresponding image shows all categories, with the bubble size corresponding to how frequently an issue was identified. The analysis also includes a subset of responses to illustrate the type of feedback received.

It is important to note that due to the small number of responses, the results cannot be used to generalize the perceptions of the county as a whole. Within each snapshot, the number of unique responses that were used in the analysis is included for further reference.

Campbell County

A total of 74 unique responses were included in the Campbell County analysis. The key themes found for Campbell County are detailed below.

Question 1: What are the biggest health problems?

Access (40.5 percent of responses)

- Access to Mental Healthcare
- Access to Dental Care
- Access to Care
- Affordability of Insurance/Care

Health Behaviors (19 percent of responses)

- Drug Use
- Alcohol Use

Health Conditions (18.1 percent of responses)

- Mental Health
- Obesity
- Diabetes

Source: Campbell County Respondents
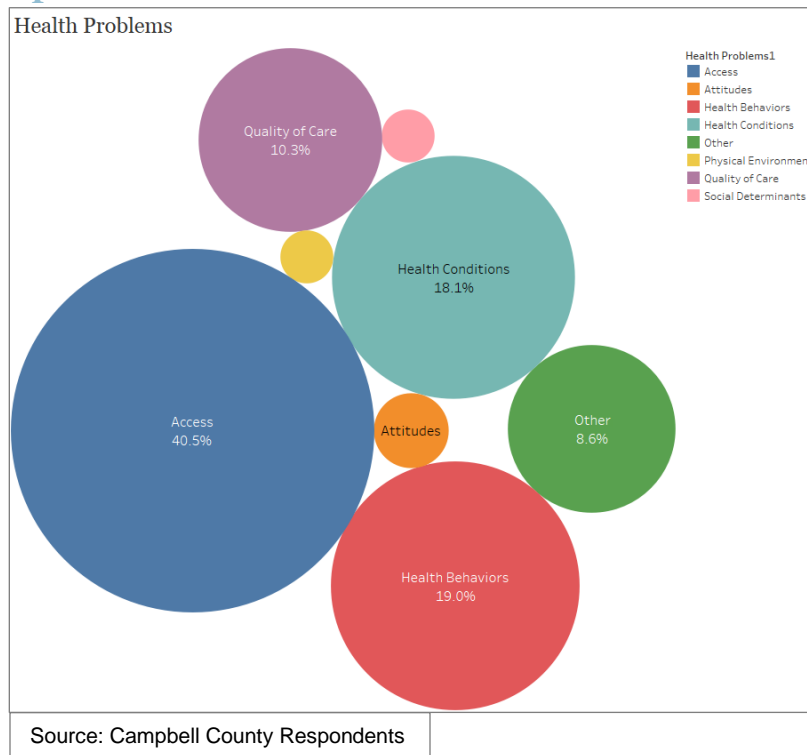
In the context of health problems, Campbell County identified access to care was a significant health problem. Some of the responses include:

- "Acute pediatric mental health care is nonexistent."
- "Lack of mental health services and dental services that take Medicaid."
- "We have limited access to mental health services. Especially in-patient and supervised out-patient."
- "Nursing shortage."
- "[Lack of] access to dental care for those on Kids Care or uninsured."
- "[Lack of] access to affordable healthcare."

Both drug (prescription and illicit) and alcohol (underage drinking and general alcohol abuse) use were frequently cited as health problems in the community as well. Finally, residents noted mental health, obesity, and diabetes health conditions were concerning.

Question 2: What are the barriers to health?

Access (83.5 percent of responses)

- Affordability of Insurance/Care

- Access to Care

- Access to Mental Healthcare

Barriers to Health

Barriers1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Access
83.5%

Other
4.7%

Quality of Care
8.2%

Source: Campbell County Respondents
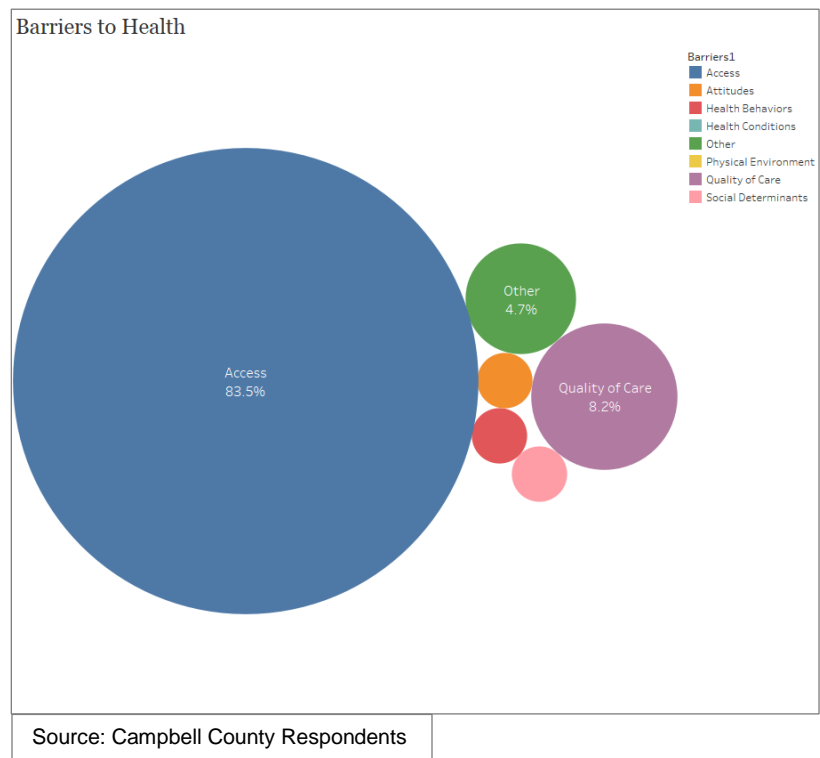
Related to barriers, access was the most frequently cited barrier by Campbell County residents. Some sample responses include:

- "It is extremely hard to access specialists who are willing to look at the individual person and their needs."

- "Lack of insurance coverage, high deductibles."

- "Access to specialists, cost, constant change in insurance."

- "Ability to pay. When our economy is on the downswing, people avoid getting the healthcare they need for themselves and their loved ones due to inability to pay. This is especially true for families with no insurance or families with high co-pays. The fear of wages being garnished is all too real in our community."

- "Not enough providers and they are all cost-prohibitive."

- "Lack of CNAs and poor pay. Lack of home health agency."

- "Lack of access to primary care and mental health professionals."

- "Quality doctors/nurses not wanting to practice in our remote area."

- "Very difficult with access to mental health specialists."

- "Holds on suicide crisis hotline (national), lack of after-hours care."

Question 3: What does the community do well when it comes to health?

Access (51.5 percent of responses)

- Access to Vaccines
- Access to Recreation
- Access to Care
- Access to Specialized Care

Other (35.3 percent of responses)

- Public Health
- Coalitions/Partnerships

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
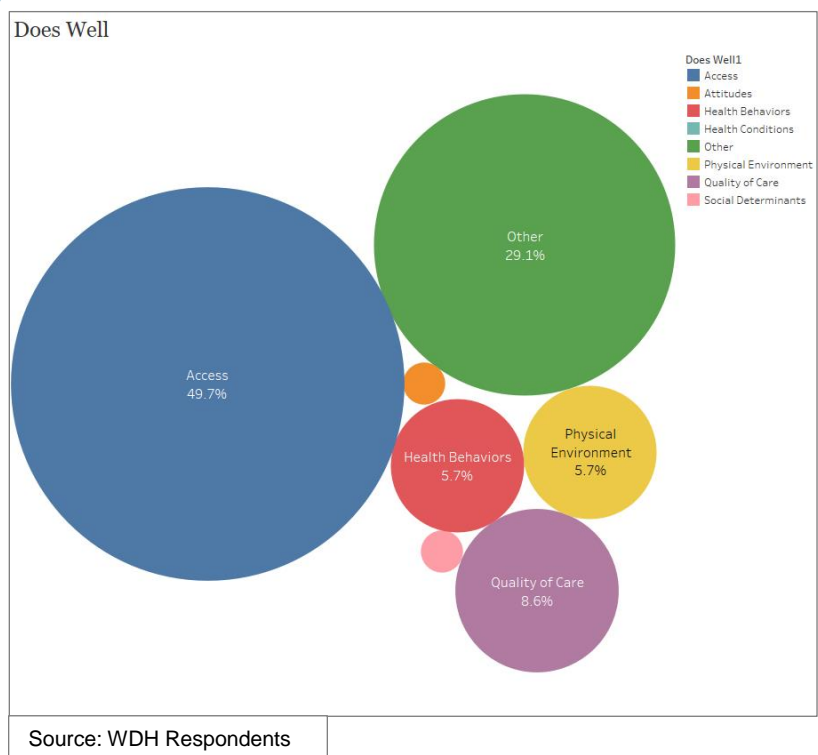- Other
- Physical Environment
- Quality of Care
- Social Determinants

Quality of Care
8.8%

Access
51.5%

Health
Behaviors

Other
35.3%

Source: Campbell County Respondents
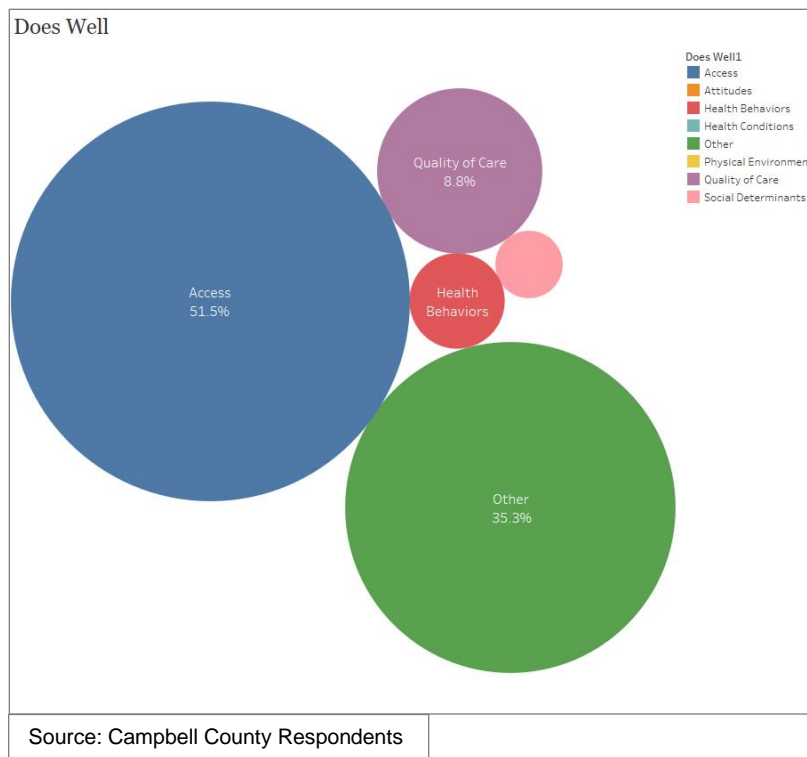
When asked what their community does well when it comes to health, Campbell County residents recognized the efforts their community is making toward increasing access to healthcare services or the services that were available to them, despite the access concerns identified. For example, Campbell County residents shared:

- "Flu shots, vaccines."
- "Immunization clinics."
- "Immunization program is wonderful at [Public Health]."
- "School flu clinics, vaccinations."
- "Access to rec centers with organized programs."
- "Free rec center passes for seniors."
- "Many offerings of runs/walks."
- "Walk-in clinic for use when we can't get [in to] our regular doctors."
- "Variety of services at the hospital, including psychiatric."
- "Amazing care with all [of] the pediatric offices."
- "We have a lot of specialists for a community this size."
- "[There are a] number of family practice[s], pediatricians, obstetricians, and specialty physicians."

Campbell County residents also noted that public health education and services, as well as coalitions and partnerships, are done well. Here are some key example responses:

- "Suicide awareness."
- "Public education campaigns."
- "Awareness of effects of smoking."
- "Trying to spread the word on prevention medicine."

- "Suicide prevention coalition."
- "Coalition clinic (coal mines, city, county collaborative), in-house pharmacy, lower costs."
- "Campbell County Prevention Coalition."
- "Partnerships with and among law enforcement to address alcohol issues."

Question 4: What are possible solutions to health problems?

Access (52.9%)

- Affordability of Insurance/Care
- Access to Mental Healthcare
- Access to Care

Other (27.9%)

- Public Funding
- Public Health
- Coalitions/Partnerships

Source: Campbell County Respondents
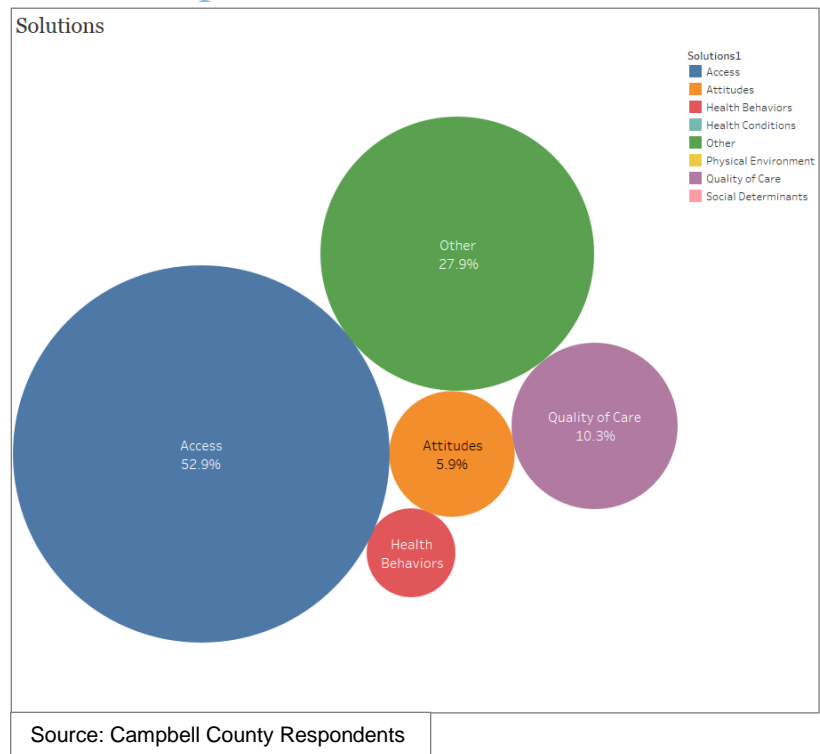
When asked about solutions, Campbell County residents offered potential solutions to address the access to care issues identified as concerns. Some examples include:

- "Make insurance affordable."
- "We could start by setting up a sliding fee scale for all patients through the county hospital."
- "Affordable clinics and insurance options."
- "We need more low-cost mental health service providers."
- "Better recruitment of mental health providers."
- "Adolescent mental health services – co-locate with Public Health."

Additionally, many community members suggested solutions related to increasing public funding, public health education and services, and coalitions and partnerships. Here are some related responses:

- "Expansion of Medicaid, public assistance programs."
- "Have grant monies available to seniors on Medicare and/or Medicaid to cover eye exams, glasses, or eye surgeries plus any dental cleanings or procedures."
- "Nutrition education classes."
- "Education early in school system."
- "Early intervention/prevention programs."

- "Have committees and funds to increase awareness."
- "Collaborations between healthcare professionals and law enforcement for more comprehensive treatment of offenders."
- "[Develop] nontraditional partnerships (e.g., PTO, Domino's Pizza) for information dissemination."

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicated they did not know if the issue was important). Across all Campbell County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Suicide
- Access to Primary Care Providers
- Health Insurance
- Mental Health
- Drug Abuse/Overdose

Notably, community members were more likely to cite they did not know if premature births, infant deaths, sexually transmitted infections, cancer screening, or immunizations were important issues as compared to all other issues rated. The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Campbell County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Suicide	98.0%	0.0%	0.0%	2.0%
Access to Primary Care Providers	88.0%	8.0%	2.0%	2.0%
Health Insurance	86.0%	14.0%	0.0%	0.0%
Mental Health	86.0%	10.0%	0.0%	4.0%
Drug Abuse/Overdose	84.0%	12.0%	2.0%	2.0%
Alcohol Abuse	72.0%	26.0%	2.0%	0.0%
Health Services for Senior Citizens	62.0%	17.0%	2.0%	8.0%
Substance Use During Pregnancy	50.0%	40.0%	2.0%	8.0%
Tobacco Use	46.0%	42.0%	8.0%	4.0%
Obesity	44.0%	40.0%	14.0%	2.0%
Sexually Transmitted Infections	44.0%	36.0%	6.0%	14.0%
Access to Exercise/Recreation Opp..	40.0%	40.0%	20.0%	0.0%
Access to Healthy Food	34.0%	40.0%	18.0%	8.0%
Cancer Screening	30.0%	56.0%	2.0%	12.0%
Childhood Immunizations	30.0%	46.0%	12.0%	12.0%
Injury	30.0%	44.0%	16.0%	10.0%
Premature Births	26.0%	34.0%	14.0%	26.0%
Infant Deaths	24.5%	32.7%	16.3%	24.5%

Source: Campbell County Respondents

Carbon County

A total of 107 unique responses were included in the Carbon County analysis. The key themes found for Carbon County are detailed below.

Question 1: What are the biggest health problems?

**Health Conditions (30.8 percent of responses)**

- Diabetes
- Heart Disease
- Obesity
- Chronic Disease

Access (26.3 percent of responses)

- Access to Care

Health Behaviors (26.3 percent of responses)

- Drug Use
- Alcohol Use

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Health Conditions 30.8%
Access 26.3%
Other 4.5%
Social Determinants
Quality of Care 7.7%
Health Behaviors 26.3%

Source: Carbon County Respondents
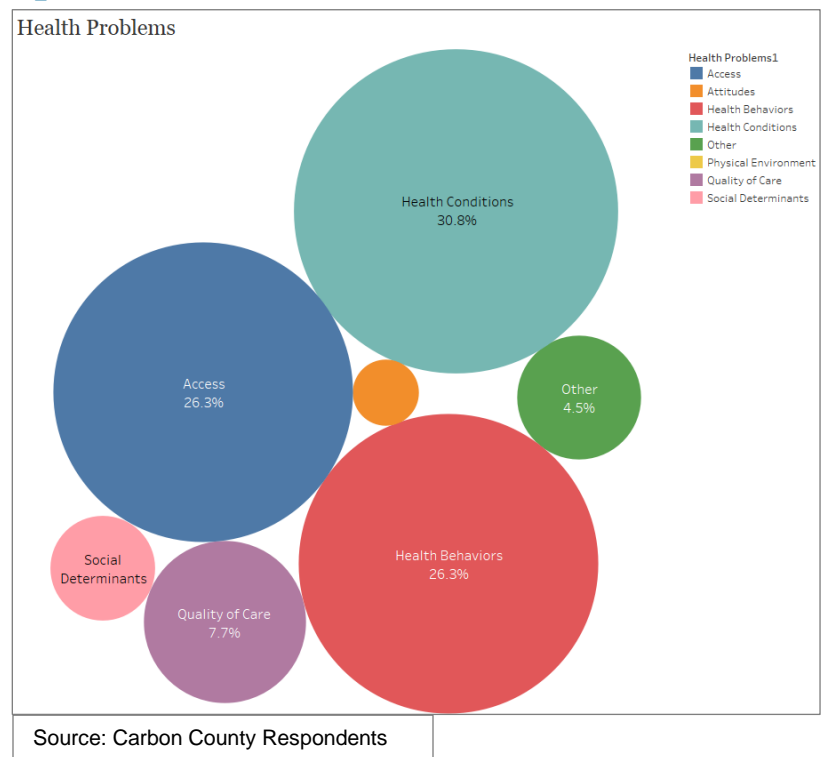
In the context of health problems, Carbon County residents identified health conditions, primarily chronic conditions, as a significant health problem.

Additionally, Carbon County residents noted access to care as another major health problem. Some sample responses include:

- "Lack of healthcare providers."
- "We do not have enough primary care provider choices in our community."
- "Shortage of medical doctors."
- "Access to primary care doctor."
- "Difficulty recruiting and retaining providers."
- "Not enough physicians or ones that will stay."

Finally, both drug (prescription and illicit) and alcohol use were frequently cited as health problems in the community.

Question 2: What are the barriers to health?

Access (64.4 percent of responses)

- Access to Care

- Geography

- Affordability of Insurance/Care

Other (11.4 percent of responses)

- Community Connection

Barriers to Health

Barriers1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Access 64.4%
Other 11.4%
Attitudes 5.3%
Quality of Care 9.1%
Social Determinants 6.8%

Source: Carbon County Respondents
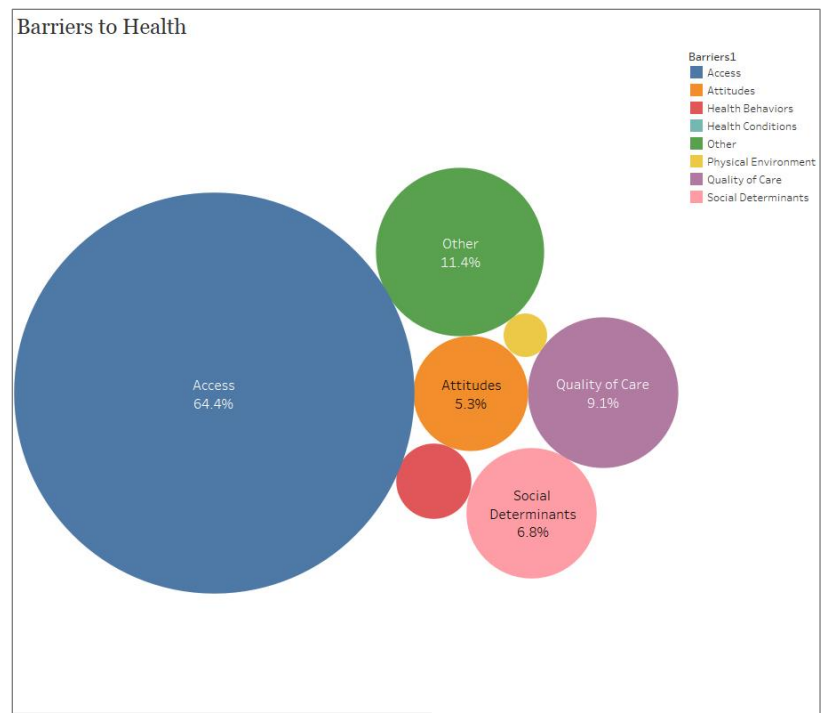
Related to barriers, access was a frequently cited concern for Carbon County residents. Some sample responses include:

- "Access to primary care has always been an issue."

- "Attracting medical personnel to invest in our community."

- "Lack of quality medical care."

- "[Lack of] access to patient-centered care."

- "We could use some more doctors in our community who are willing to stay longer than just a few months."

- "Inability to travel to see specialists."

- "Low-income transportation is a barrier."

- "We always have to go out of town to get good care."

- "Traveling is probably one of the biggest challenges in our aging community."

- "It is very rural and most physicians and/or their significant others find it rather isolated."

- "Long distances [in] between medical facilities."

- "Remote location."

- "A big [barrier] would be the insurance coverage. Our premiums are outrageous."

- "Hard-to-afford insurance."

Additionally, Carbon County residents noted community connection as a barrier to health. Here are some example responses:

- "Lack of doctors who feel rooted in our community."

- "There is nothing here to keep people."

Question 3: What does the community do well when it comes to health?

Access (47.1 percent of responses)

- Access to Emergency Care

- Access to Care

- Access to Recreation

Other (40.4 percent of responses)

- Public Health

- Health Fairs

Does Well

Does Well1
- ■ Access
- ■ Attitudes
- ■ Health Behaviors
- ■ Health Conditions
- ■ Other
- ■ Physical Environment
- ■ Quality of Care
- ■ Social Determinants

Access 47.1%

Other 40.4%

Quality of Care 6.7%

Source: Carbon County Respondents
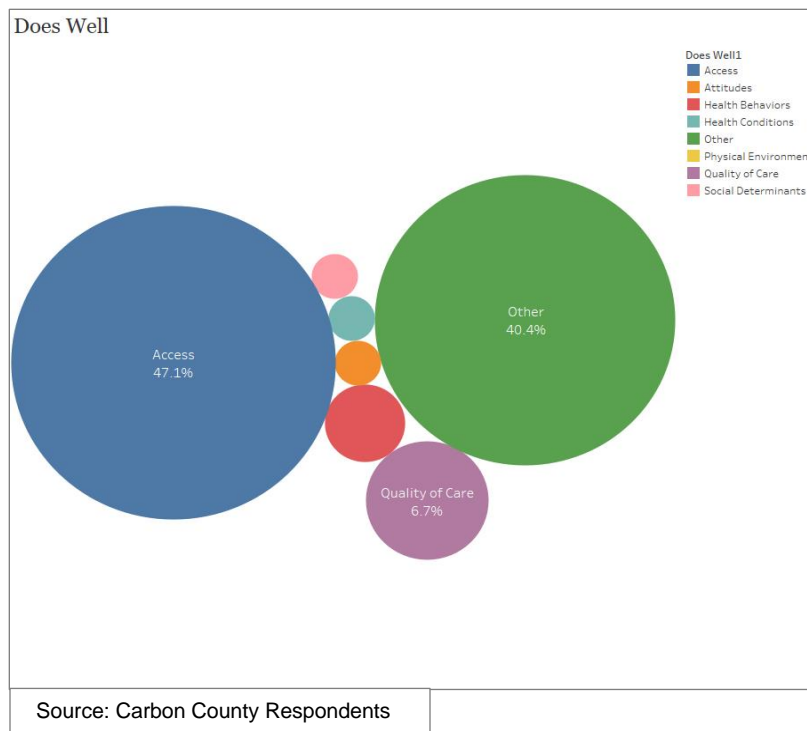
When asked what their community does well when it comes to health, Carbon County residents recognized the efforts their community is making toward increasing access to healthcare services or the services available to them, despite the access concerns they identified. For example, Carbon County residents shared:

- "Emergency medicine is good."

- "EMS care is excellent."

- "Our emergency services are top grade. Both ambulance service and the emergency room."

- "Trauma care in the ER."

- "Resources and availability of a county nurse."

- "We have a great hospital and clinics."

- "We have a clinic that is funded by private donations, which assist[s] the local physician in operating his practices so he can stay in the area and make a living. We also fund after-hours call[s] by donation in order to have this service."

- "[The community] promotes a few 5k walk[s]/runs throughout the year."

- "Good physical activity options at the rec center and dance studios."

- "Offers fun exercise events."

Carbon County residents also noted that public health education and services and health fairs are done well. Here are some key example responses:

- "Preventive health programs."

- "Promoting opportunity to attend educational events, providing numerous programs. Working with schools to help the children on healthier habits and choices."

- "A great public health department."

- "Health awareness on different issues and a willingness to reach out to the public."

- "Wellness programs through public health (they encourage participation from the entire community)."

- "Public health fair and blood draw."

- "Health fairs are wonderful outlets for tracking annual changes in health."

- "The yearly health fair is well planned out and useful for the community."

- "Our hospital puts on a Health Fair annually and it brings in an abundance of different healthcare providers, businesses, billing company, etc. to speak about what services are offered throughout town and even the state. This is a great resource for the public to see the different services we have in our community and surrounding communities."

Question 4: What are possible solutions to health problems?

Access (49.2 percent of responses)

- Access to Care

Other (22.5 percent of responses)

- Public Health

- Public Funding

- Coalitions/Partnerships

- Community Connection

Quality of Care (13.3 percent of responses)

- Real or Perceived Quality of Care

Source: Carbon County Respondents
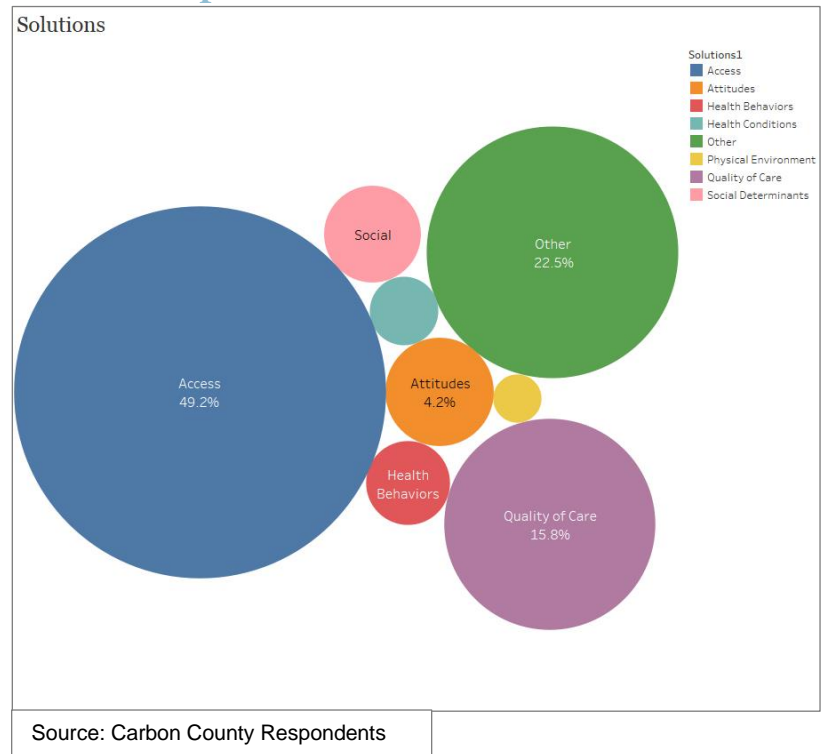
When asked about solutions, Carbon County residents offered potential solutions to address the access to care issues identified as concerns. Some examples include:

- "Affordable home health or a nurse to check on folks post-surgery."

- "Recruit and retain doctors in our community."

- "Doctors' offices need to have better office hours with availability."

- "Recruiting rural providers [who] would like to live locally."

Additionally, many community members suggested solutions related to public health education and services, public funding, coalitions and partnerships, and community connection. Here are some related responses:

- "With tobacco use, prevention at an early age (middle school and high school)."

- "More public education about health and healthy living."

- "[Raise] awareness about how bad the problem really is."

- "More public service ads, TV, billboards, radio, internet, and app ads, locally directed."

- "More federal/state funding."

- "Assist hospitals with grants to increase the level of salary for healthcare providers."

- "Grant funds."
- "Communication across all disciplines like social work, psychology, etc. so there is a team approach to helping people."
- "Working together on a regional or statewide basis to provide service may be an option to look into."
- "Public participation."

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Carbon County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Access to Primary Care Providers
- Drug Abuse/Overdose
- Mental Health
- Health Insurance
- Health Services for Senior Citizens

Notably, community members were more likely to cite they did not know if infant deaths and premature births were important issues as compared to all other issues rated. The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Carbon County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Access to Primary Care Providers	81.3%	17.7%	1.0%	0.0%
Drug Abuse/Overdose	72.5%	16.3%	9.2%	2.0%
Mental Health	65.3%	22.5%	10.2%	2.0%
Health Insurance	64.3%	26.5%	6.1%	3.1%
Health Services for Senior Citizens	63.3%	21.4%	7.1%	8.2%
Alcohol Abuse	62.2%	26.5%	10.2%	1.0%
Substance Use During Pregnancy	58.2%	26.5%	9.2%	6.1%
Suicide	58.2%	26.5%	10.2%	5.1%
Childhood Immunizations	44.9%	29.6%	16.3%	9.2%
Access to Exercise/Recreation Opp..	44.3%	37.1%	14.4%	4.1%
Cancer Screening	44.3%	40.2%	9.3%	6.2%
Obesity	44.3%	40.2%	13.4%	2.1%
Tobacco Use	44.3%	38.1%	14.4%	3.1%
Access to Healthy Food	41.8%	34.7%	18.4%	5.1%
Sexually Transmitted Infections	41.2%	43.3%	8.3%	7.2%
Injury	34.0%	39.2%	20.6%	6.2%
Premature Births	31.3%	36.5%	19.8%	12.5%
Infant Deaths	30.2%	31.3%	21.9%	16.7%

Source: Carbon County Respondents

Fremont County

A total of 89 unique responses were included in the Fremont County analysis. The key themes found for Fremont County are detailed below.

Question 1: What are the biggest health problems?

Health Behaviors (39.8 percent of responses)

- Alcohol Use

- Drug Use

Health Conditions (27.1 percent of responses)

- Diabetes

- Mental Health

- Addiction

Access (17.8 percent of responses)

- Affordability of Insurance/Care

- Access to Care

- Access to Insurance

- Access to Specialized Care

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Health Conditions 27.1%

Access 17.8%

Other 9.3%

Quality of Care

Health Behaviors 39.8%

Source: Fremont County Respondents

In the context of health problems, Fremont County residents identified health behaviors like alcohol and drug use as concerns. Health conditions, such as diabetes, mental health, and addiction, were also noted as significant problems.

Additionally, Fremont County residents noted access to care as another major health problem. Some sample responses include:

- "[Lack of] access to affordable health care."

- "Lack of AFFORDABLE INSURANCE! Lack of choices of facilities. [There is] no talk about the cost of services before [the] visit, just a big bill later."

- "Lack of affordable insurance without high deductibles."

- "Lack of home health for children."

- "Lack of choices of facilities."

- "[Lack of] access to specialty care."

Question 2: What are the barriers to health?

Access (60.3 percent of responses)

- Affordability of Insurance/Care

Other (13.2 percent of responses)

- Nutrition Assistance

Related to barriers, access, as it relates to affordability, was a frequently cited concern for Fremont County residents. Some sample responses include:

- "High health insurance deductibles."

- "Insurance and hospital being for-profit."

- "High cost of healthcare."

- "Medical transportation (air) cost."

- "Insurance affordability."
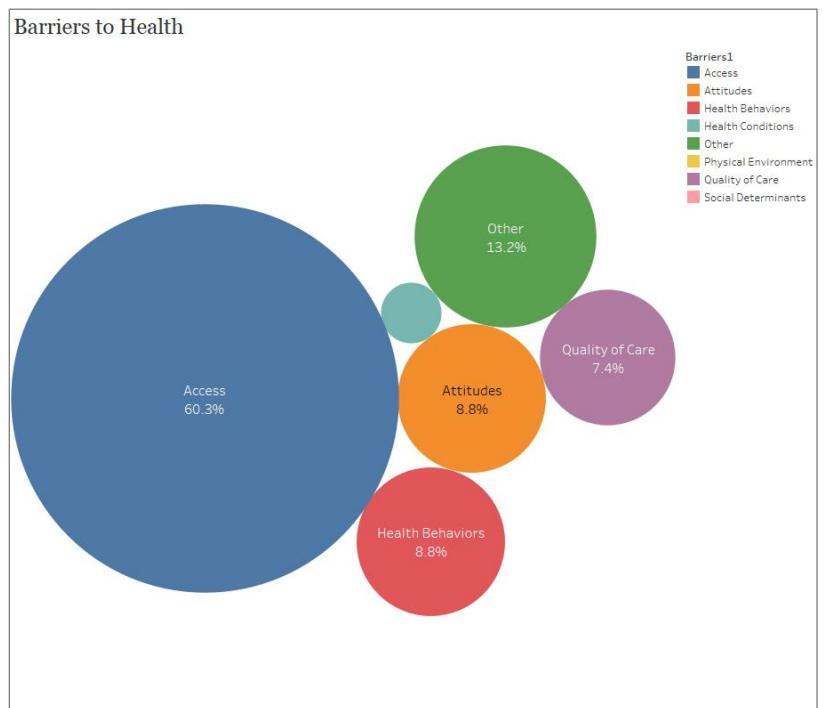
Barriers to Health

Source: Fremont County Respondents

Additionally, Fremont County residents noted nutrition assistance/education (or lack thereof) as a barrier to health.

Question 3: What does the community do well when it comes to health?

Access (44.9 percent of responses)

- Access to Recreation

Other (20.5 percent of responses)

- Public Health

- Health Fairs

Health Behaviors (14.3 percent of responses)
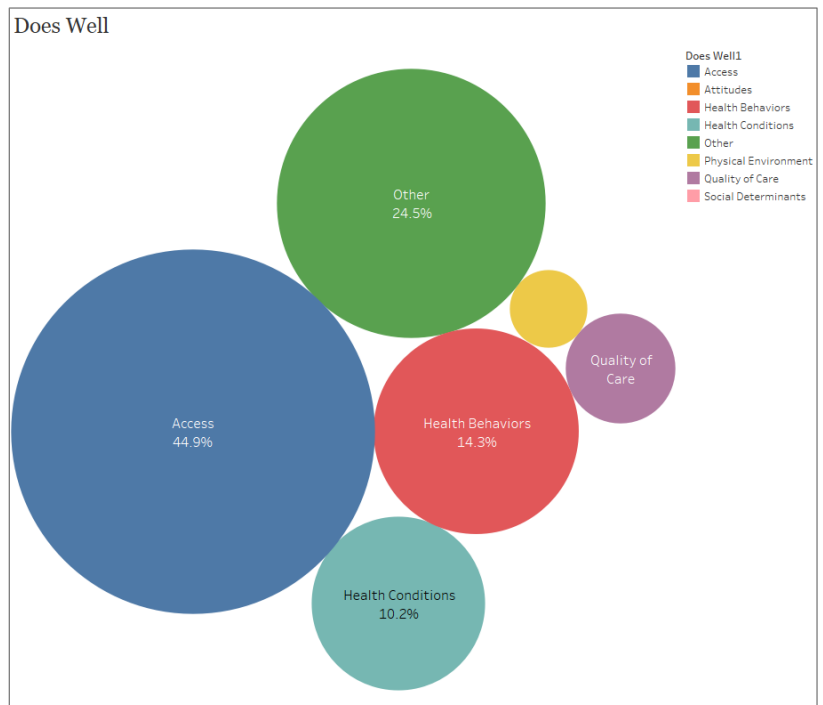
- Exercise

Does Well

Source: Fremont County Respondents

When asked what their community does well when it comes to health, Fremont County residents cited access to recreation. Some sample responses include:

- "[The community] promotes many healthy activities."
- "Outdoor activities."
- "Provide a free gym at GPH."
- "Have walks, runs, and have CrossFit and gyms."
- "Intramural basketball."

Fremont County residents also noted that public health education and services and health fairs are done well. Here are some key example responses:

- "Public Health."
- "Bring awareness to families and communities about health."
- "Health fairs/education."
- "Having health fairs."

Finally, Fremont County residents noted exercise as something their community does well in that there are recreation resources that residents take advantage of for physical activity purposes.

Question 4: What are possible solutions to health problems?

Other (35.7 percent of responses)

- Public Health

Access (30.4 percent of responses)

- Affordability of Insurance/Care

Health Behaviors (17.9 percent of responses)

- Exercise

Source: Fremont County Respondents
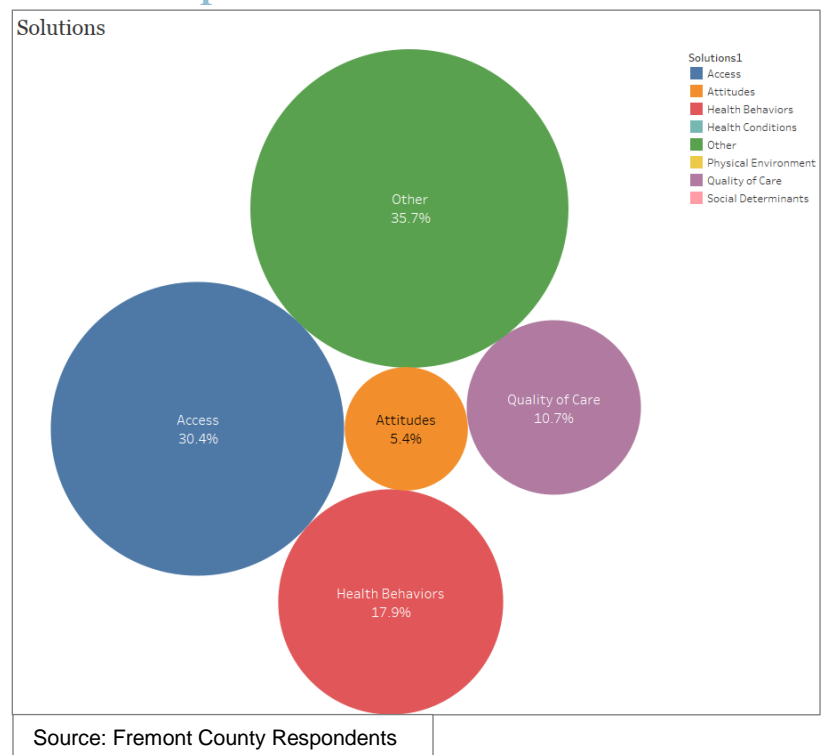
When asked about solutions, Fremont County residents offered potential solutions related to public health education and services. Some examples include:

- "Better health insurance in Wyoming."
- "A specific urgent care center for the uninsured where costs and payment can be discussed up front in a real sense."
- "More insurance competition and holding hospitals accountable for extremely high costs."

- "Offer free clinic for those without insurance."

Finally, continued and encouraged exercise was another noted solution.

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Fremont County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Alcohol Abuse

- Drug Abuse/Overdose

- Suicide

- Mental Health

- Access to Primary Care Providers

Notably, community members were more likely to cite they did not know if infant deaths and premature births were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Fremont County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Alcohol Abuse	90.2%	1.0%	3.9%	4.9%
Drug Abuse/Overdose	87.4%	5.8%	2.9%	3.9%
Suicide	84.5%	7.8%	4.9%	2.9%
Mental Health	77.2%	14.9%	5.9%	2.0%
Access to Primary Care Providers	76.7%	17.5%	4.9%	1.0%
Health Insurance	76.5%	15.7%	4.9%	2.9%
Substance Use During Pregnancy	75.7%	11.7%	3.9%	8.7%
Tobacco Use	70.3%	19.8%	6.9%	3.0%
Access to Exercise/Recreation Opp..	68.9%	16.5%	9.7%	4.9%
Obesity	67.3%	22.8%	5.9%	4.0%
Access to Healthy Food	66.0%	17.5%	12.6%	3.9%
Health Services for Senior Citizens	63.7%	24.5%	6.9%	4.9%
Infant Deaths	60.8%	15.7%	8.8%	14.7%
Sexually Transmitted Infections	60.2%	26.2%	6.8%	6.8%
Cancer Screening	56.9%	24.5%	12.8%	5.9%
Premature Births	56.0%	22.0%	8.0%	14.0%
Childhood Immunizations	55.9%	24.5%	12.8%	6.9%
Injury	53.9%	34.3%	7.8%	3.9%

Source: Fremont County Respondents

Laramie County

A total of 70 unique responses were included in the Laramie County analysis. The key themes found for Laramie County are detailed below.

Question 1: What are the biggest health problems?
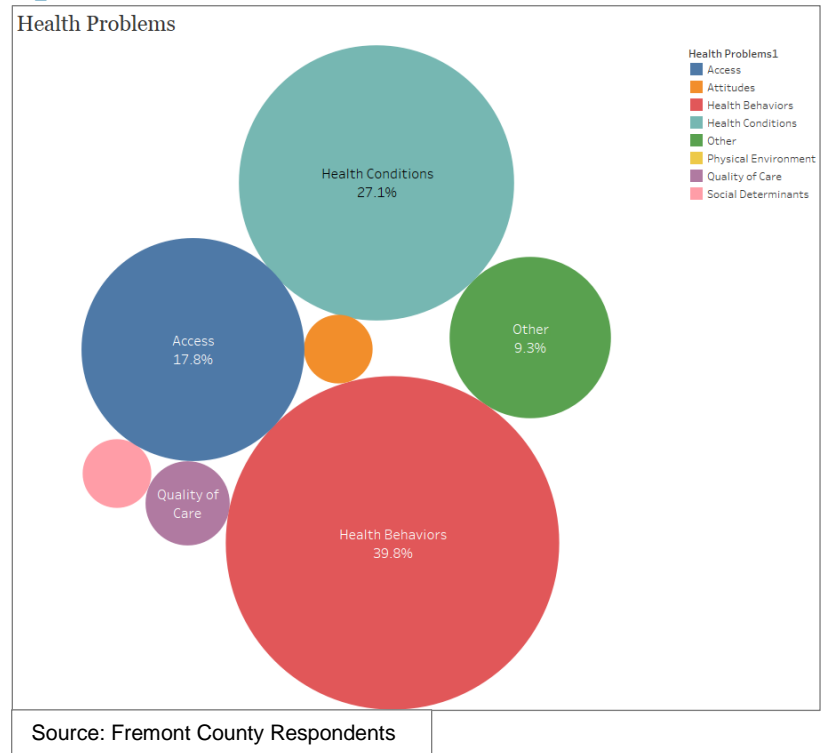
Health Conditions (32.2 percent of responses)

- Obesity
- Chronic Disease

Access (31.1 percent of responses)

- Access to Care
- Access to Mental Healthcare

Health Behaviors (20 percent of responses)

- Alcohol Use
- Drug Use

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Health Conditions 32.2%
Access 31.1%
Attitudes 2.2%
Other 5.6%
Social
Quality of Care 5.6%
Health Behaviors 20.0%

Source: Laramie County Respondents
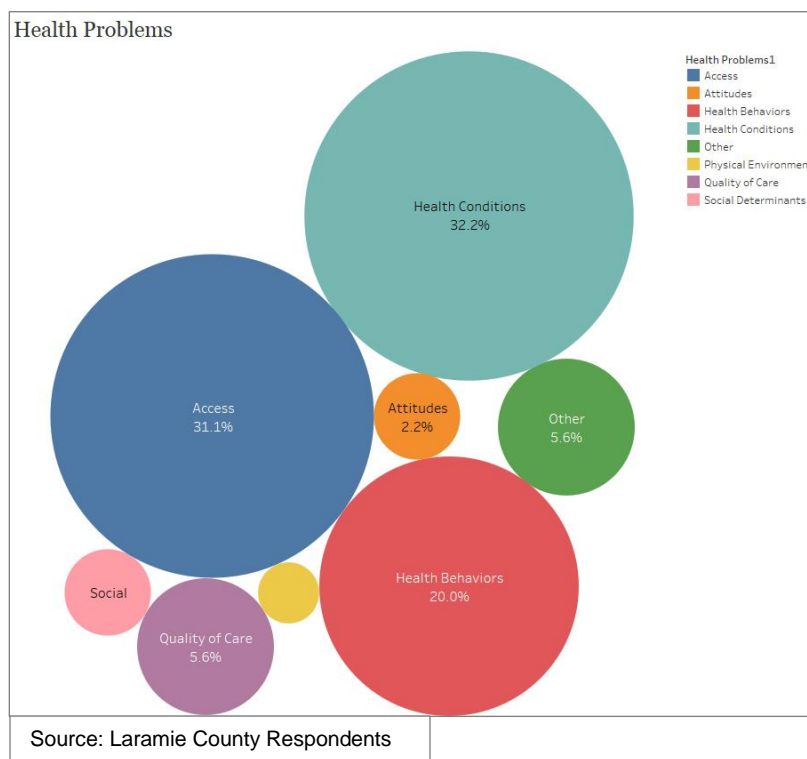
In the context of health problems, Laramie County residents noted health conditions like obesity and chronic disease (lifestyle-induced and left undiagnosed or untreated) as major health problems for the community.

Additionally, Laramie County residents identified access to care as another issue. Some sample responses include:

- "Access to quality care."
- "Lack of quality, competent healthcare providers/facilities."
- "[Lack of] healthcare for underserved communities."
- "Access to care; gap between Medicaid/ACA."
- "Lack of access to adequate mental healthcare."
- "[Lack of] access to mental health services."

Finally, alcohol and drug use were also noted as health behaviors that pose health problems.

Question 2: What are the barriers to health?

Access (50 percent of responses)

- Access to Care

- Access to Insurance

- Affordability of Insurance/Care

Other (16.7 percent of responses)

- Public Funding

Quality of Care (15.4 percent of responses)

- Real or Perceived Quality of Care

Attitudes (10.3 percent of responses)

- Attitude about Individual Responsibility

Barriers to Health

Source: Laramie County Respondents
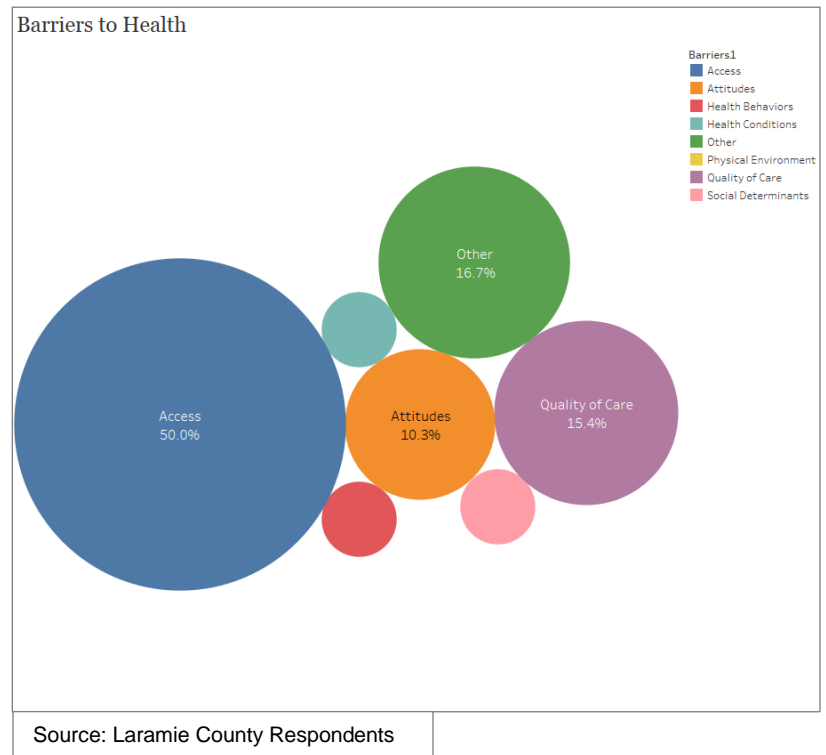
Related to barriers, access was most frequently cited by Laramie County residents. Additionally, quality of available care was concerning to Laramie County residents. Some sample responses include:

- "Not enough options."

- "Low wage earners not receiving quality healthcare."

- "Keeping doctors in Cheyenne."

- "Access to care."

- "If you change jobs, lag in health insurance."

- "Lack of insurance providers."

- "Finding adult health care coverage (insurance)."

- "Cost of insurance and health services."

- "Increased costs for those who can afford insurance. Unaffordable costs for those who do not have employer-provided insurance."

- "Lack of affordable health insurance options."

- "No trust in the local health system and hospital."

- "Lack of oversight to ensure that providers are administering quality services to their patients."

- "Long wait lists to access quality general practitioners, lack of team-centered care, lack of follow-up care after hospitalization."

- "[It is] too easy for folks to drive an hour south and receive better care."

Finally, Laramie County residents noted attitudes about individual responsibility as another barrier. Here are some examples:

- "Lack of individuals taking ownership of their lifestyle/health."

- "Live-and-let-live attitude."
- "Stereotypical American unhealthy culture/community, prevention isn't a priority."
- "[Lack of] personal motivation."

Question 3: What does the community do well when it comes to health?

Access (44.8 percent of responses)

- Access to Care
- Access to Recreation

Other (22.4 percent of responses)

- Public Health
- Public Funding
- Health Fairs
- Community Connection

Physical Environment (10.3 percent of responses)

- Walking-Friendly Environment

Quality of Care (10.3 percent of responses)

- Real or Perceived Quality of Care

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other 22.4%

Access 44.8%

Attitudes 5.2%

Physical Environment 10.3%

Health Behaviors 6.9%

Quality of Care 10.3%

Source: Laramie County Respondents
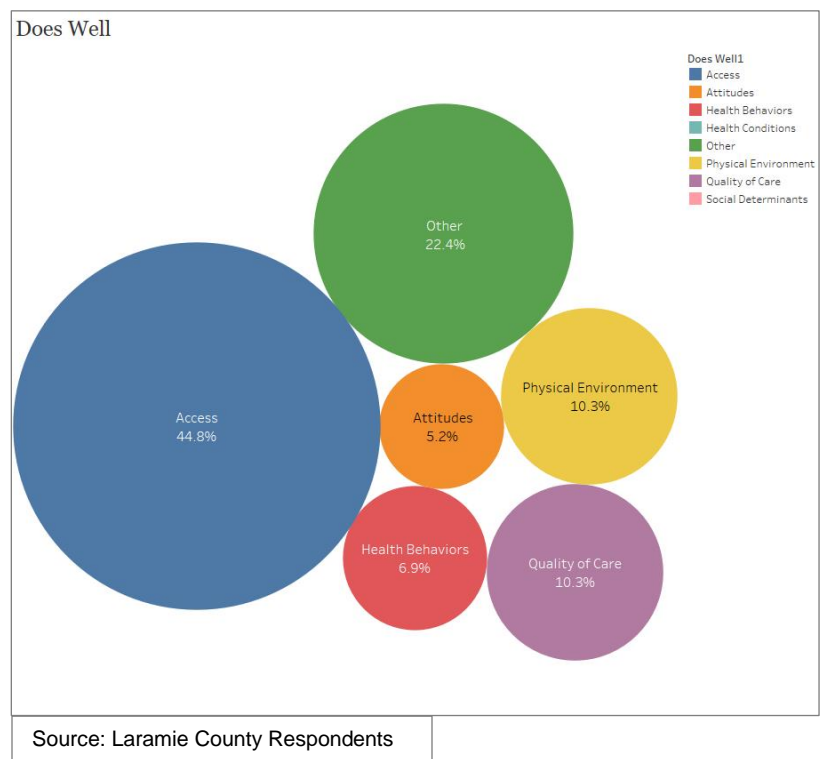
When asked what their community does well when it comes to health, Laramie County residents cited access to care and to recreation. Some sample responses include:

- "Good effort to make services available for most conditions and for underserved populations."
- "Variety of providers."
- "Low-income opportunities for healthcare."
- "Clinics accessible, open, can go when needed."
- "Outdoor recreation opportunities (Greenway, bike lanes, parks, charity races)."
- "Opportunities for exercise both indoors and out."
- "Many options for wellness/fitness."

Laramie County also noted that public health education and services, public funding, health fairs, and community connection as areas where the community does well. Here are some key example responses:

- "Local health events."
- "Raising awareness about health concerns."
- "Fundraising and promotion."
- "Sliding scale."
- "Health fair screenings."
- "Strong sense of community."

Laramie County residents also identified the community was walking-friendly. Notably, the community was cited as having an accessible greenway, as well as a number of parks, playgrounds, and exercise paths.

Finally, Laramie County residents noted quality of care as something the community does well, notwithstanding some quality of care concerns. Some examples include:

- "Follows-up on patient care."

- "Nursing quality."

- "Smaller size allows for word of mouth about positive healthcare experiences."

Question 4: What are possible solutions to health problems?

Access (30.4 percent of responses)

- Access to Care

- Access to Recreation

- Access to Healthy Food

Other (28.1 percent of responses)

- Public Funding

- Public Health

When asked about solutions, Laramie County residents offered potential solutions related to public funding and public health education and services. Some examples include:

- "Increase funding for Medicaid and mental health services; public health care."

- "Single-payer federal health system."

- "Restructure budget to include the recovery model and the services that are utilized to educate on the recovery model both for mental health and substance abuse. Or fund the CARA and PARITY act that was passed."

- "Expand Medicaid."

- "Better funding and support for mental health services."

- "Improve public education on healthcare services, access, options, and policies. Increased education on follow-up needs and services following discharge."

- "Promote a healthy culture."

- "Educate the public more – community education; health topics addressed at the library; competitions; advertising. Make it fun/exciting."

- "More healthy food options."

- "Community gardens."

- "Increase quality of food at grocery store."
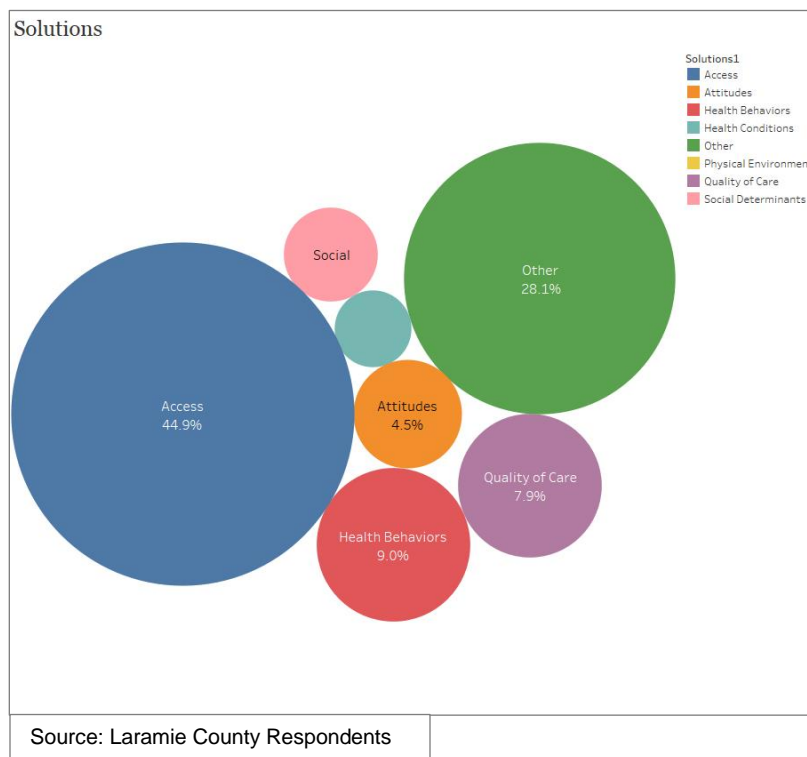
Solutions

Solutions1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Social

Other
28.1%

Access
44.9%

Attitudes
4.5%

Quality of Care
7.9%

Health Behaviors
9.0%

Source: Laramie County Respondents

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Laramie County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Health Insurance
- Access to Primary Care Providers
- Alcohol Abuse
- Drug Abuse/Overdose
- Mental Health

Notably, community members were more likely to cite they did not know if infant deaths, premature births, substance use during pregnancy, childhood immunizations, sexually transmitted infections, and injury were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Laramie County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Health Insurance	86.3%	5.9%	5.9%	2.0%
Access to Primary Care Providers	72.6%	17.7%	3.9%	5.9%
Alcohol Abuse	72.6%	23.5%	2.0%	2.0%
Drug Abuse/Overdose	72.6%	23.5%	2.0%	2.0%
Mental Health	72.6%	19.6%	3.9%	3.9%
Access to Exercise/Recreation Opp..	66.7%	17.7%	11.8%	3.9%
Suicide	62.8%	19.6%	11.8%	5.9%
Access to Healthy Food	60.8%	21.6%	13.7%	3.9%
Health Services for Senior Citizens	60.8%	27.5%	5.9%	5.9%
Tobacco Use	60.8%	25.5%	7.8%	5.9%
Obesity	56.9%	21.6%	13.7%	7.8%
Cancer Screening	54.9%	23.5%	15.7%	5.9%
Childhood Immunizations	49.0%	19.6%	11.8%	19.6%
Sexually Transmitted Infections	43.1%	27.5%	11.8%	17.7%
Substance Use During Pregnancy	41.2%	31.4%	5.9%	21.6%
Injury	35.3%	27.5%	19.6%	17.7%
Premature Births	33.3%	27.5%	7.8%	31.4%
Infant Deaths	31.4%	27.5%	9.8%	31.4%

Source: Laramie County Respondents

Natrona County

A total of 35 unique responses were included in the Natrona County analysis. The key themes found for Natrona County are detailed below.

Question 1: What are the biggest health problems?

Access (32 percent of responses)

- Access to Care

- Affordability of Insurance/Care

- Access to Aging Care

- Access to Mental Healthcare

Health Conditions (26.7 percent of responses)

- Mental Health

- Obesity

- Chronic Disease

Health Behaviors (20 percent of responses)

- Drug Use

Source: Natrona County Respondents
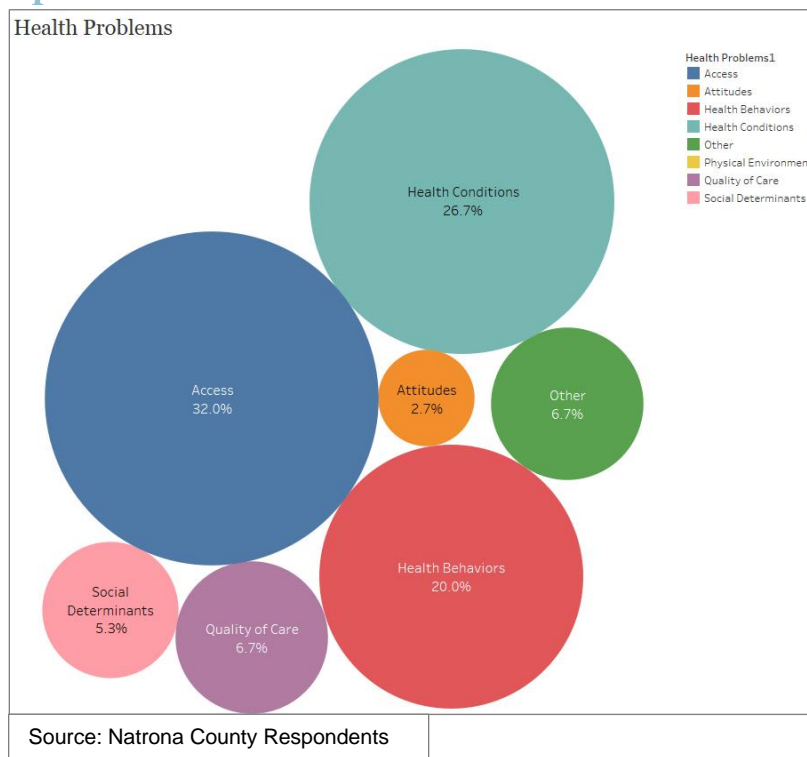
In the context of health problems, Natrona County residents identified access was a significant problem. Some responses include:

- "There isn't adequate healthcare."

- "We have no free or sponsored clinics."

- "Poor and homeless people lack availability [of] healthcare and prescriptions."

- "Minimal healthcare plans AND even fewer in-network care options for those plans."

- "Unable to afford healthcare, let alone health insurance."

- "The very high cost of healthcare."

- "Cost associated with managing chronic diseases."

- "Lack of adequately trained [and] licensed healthcare staff to care for the elderly, especially elderly with dementia."

- "Elder care – access to care centers; cost."

Additionally, Natrona County residents noted mental health, obesity, chronic disease, and drug use as problematic health conditions and behaviors.

Question 2: What are the barriers to health?

Access (52.9 percent of responses)

- Affordability of Insurance/Care

Other (13.7 percent of responses)

- Prioritizing the Health of Children
- Public Funding
- Stigma

Barriers to Health

Barriers1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Source: Natrona County Respondents
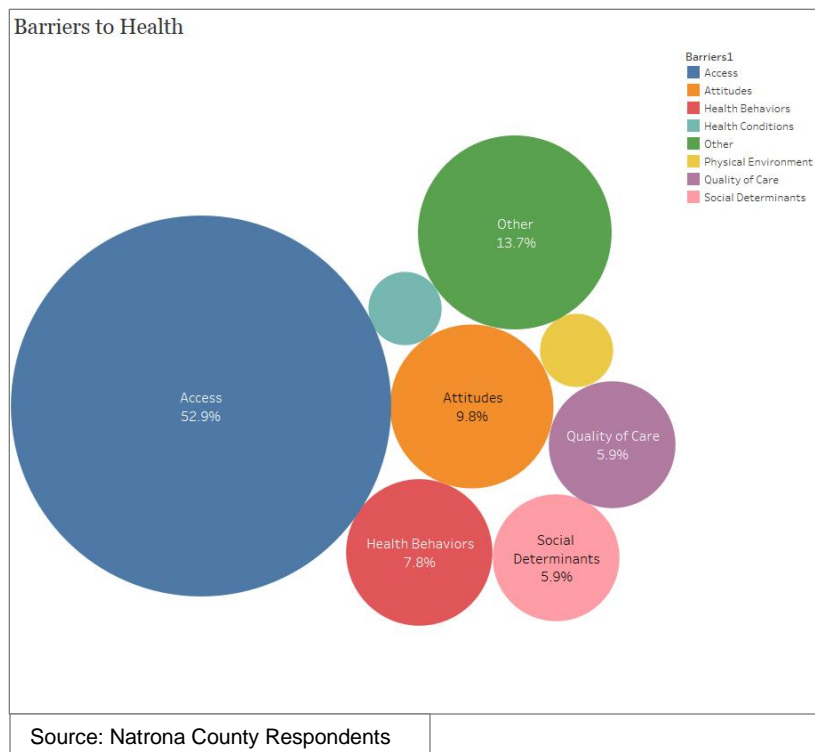
Related to barriers, access, primarily as it relates to affordability, was frequently cited by Natrona County residents. Some sample responses include:

- "Lack of affordable prevention services."
- "Lack of awareness and affordability."
- "Lack of insurance/financial aid for those truly in need."
- "Very high cost of healthcare."
- "Cannot afford health coverage and cannot afford to pay an ER bill."
- "Lack of access to affordable healthcare plans or alternative ways to help with the cost of medical care."
- "Insurance coverage limits and costs of deductibles."

Finally, Natrona County residents identified a handful of additional barriers. Here are some examples:

- "Lack of care for children."
- "No Medicaid expansion."
- "Financial distributions by government."
- "Stigma."

Question 3: What does the community do well when it comes to health?

Access (51.3 percent of responses)

- Access to Care
- Access to Recreation

Other (23.1 percent of responses)

- Community Connection

Physical Environment (12.8 percent of responses)

- Walking Friendly-Environment

Quality of Care (10.3 percent of responses)

- Real or Perceived Quality of Care

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Physical Environment 12.8%

Access 51.3%

Health Conditions

Quality of Care 10.3%

Other 23.1%

Source: Natrona County Respondents
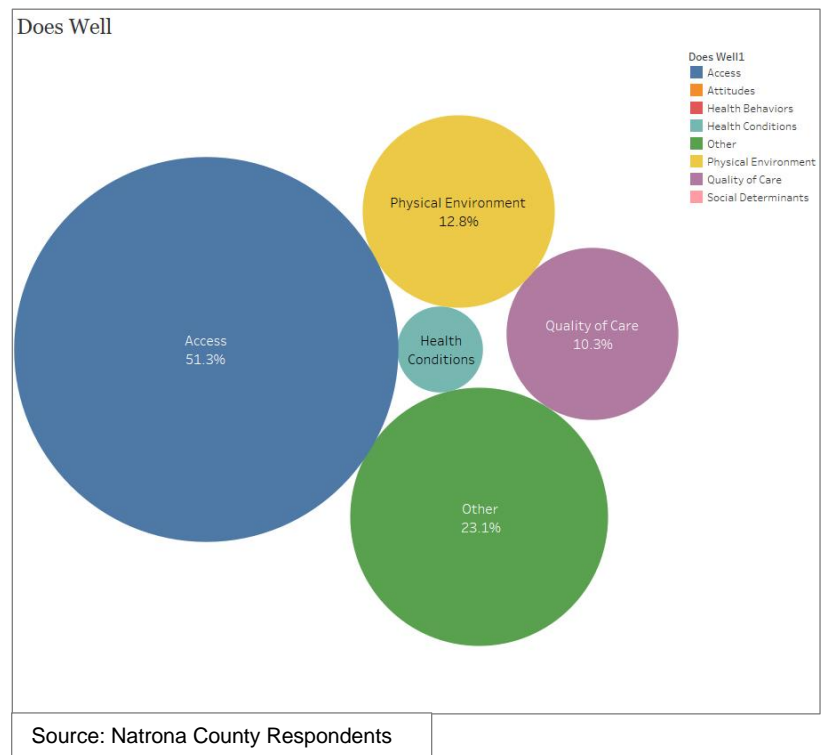
When asked what their community does well when it comes to health, Natrona County residents cited access to and quality care. Some sample responses include:

- "There are now some one-stop facilities that have multiple services."
- "We have quite a few good doctors."
- "Improvement in the availability in clinics and other short-term/non-emergency care options."
- "Doctors [who] truly care about their patients' needs regardless of situation."
- "The Community Health Center of Central Wyoming. It's world-class."

Natrona County residents also identified access to recreation and a walking-friendly environment as areas where the community does well. Some example responses include:

- "Casper has developed a good trail system along the river for exercise. Casper Mountain has many recreational opportunities such as skiing and hiking."
- "Casper has a variety of recreational facilities: city parks, rec centers, [and] private gyms."
- "Opportunities to participate in an array of indoor and outdoor activities. Numerous local gyms, skiing, snowshoeing, hiking, biking, and walking opportunities.
- "Development of city walking paths."

Finally, Natrona County community members also noted community connection as a strength. Here are some key example responses:

- "Resource and network within the community to get those needing services connected with the right people."
- "We have great people who truly care to help in family and social support."
- "Sense of community."
- "People will come together when community is in crisis."

Question 4: What are possible solutions to health problems?

Other (44.2 percent of responses)

- Public Funding

- Public Health

- Politics

Access (41.9 percent of responses)

- Affordability of Insurance/Care

When asked about solutions, Natrona County residents offered potential solutions related to public funding, public health education and services, and political involvement. Some examples include:

- "Expanded Medicaid coverage."

- "A single-payer healthcare system for all could help!"

- "FREE CLINIC."

- "Provide more funding to the Community Health Center of Central Wyoming."

- "Continued education of young people regarding substance abuse, suicide, and healthy eating."

- "Better education for young parents."

- "Acceptance of federal money."

- "The community [should be] active in legislative healthcare bill that will directly affect them."

- "Legislative discussions that are honest, forthcoming, and focus on needs."
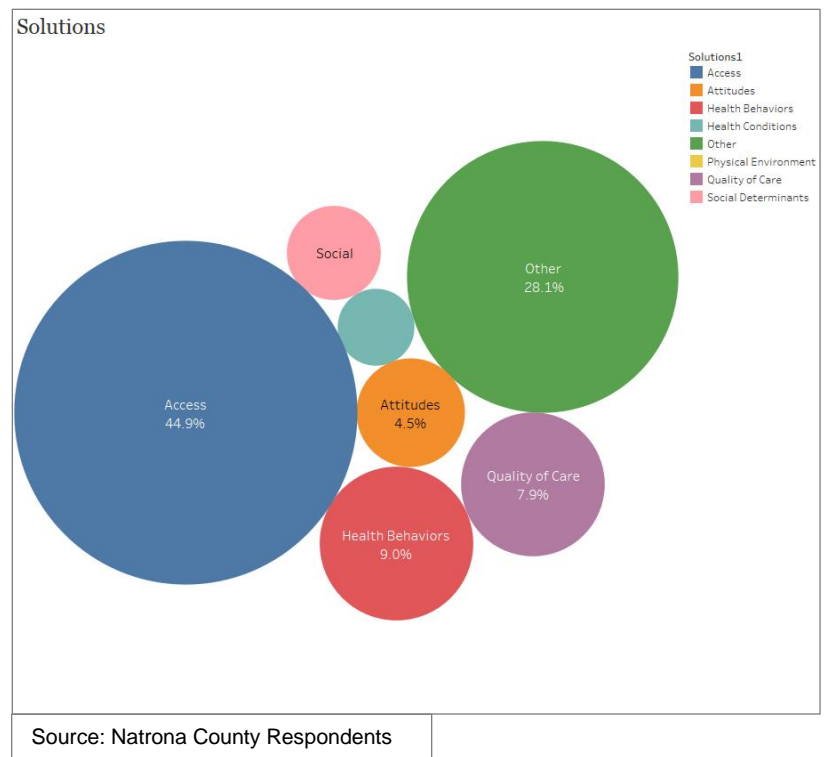
Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Natrona County community responses, the top six issues that had a high proportion of "high importance" (the last three were equally rated as important with 80.8 percent of respondents citing it) ratings were:

- Health Insurance

- Mental Health

- Suicide

- Access to Primary Care Providers

- Alcohol Abuse

- Drug Abuse/Overdose

Notably, community members were more likely to cite they did not know if infant deaths and premature births were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Source: Natrona County Respondents

Priority Issues - Community Perceptions of Importance
By Importance
Natrona County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Health Insurance	88.5%	11.5%	0.0%	0.0%
Mental Health	88.5%	7.7%	3.9%	0.0%
Suicide	84.0%	12.0%	0.0%	4.0%
Access to Primary Care Providers	80.8%	7.7%	3.9%	7.7%
Alcohol Abuse	80.8%	15.4%	3.9%	0.0%
Drug Abuse/Overdose	80.8%	11.5%	0.0%	7.7%
Obesity	76.9%	19.2%	3.9%	0.0%
Substance Use During Pregnancy	76.0%	12.0%	8.0%	4.0%
Health Services for Senior Citizens	70.4%	22.2%	3.7%	3.7%
Tobacco Use	68.0%	24.0%	8.0%	0.0%
Access to Healthy Food	65.4%	15.4%	11.5%	7.7%
Access to Exercise/Recreation Opp..	61.5%	19.2%	19.2%	0.0%
Sexually Transmitted Infections	61.5%	23.1%	7.7%	7.7%
Premature Births	53.9%	19.2%	7.7%	19.2%
Childhood Immunizations	44.0%	40.0%	12.0%	4.0%
Cancer Screening	38.5%	46.2%	7.7%	7.7%
Injury	34.6%	46.2%	11.5%	7.7%
Infant Deaths	26.9%	42.3%	11.5%	19.2%

Percent of Responses

Source: Natrona County Respondents

Park County

A total of 54 unique responses were included in the Park County analysis. The key themes found for Park County are detailed below.

Question 1: What are the biggest health problems?

Access (32.2 percent of responses)

- Affordability of Insurance/Care
- Access to Care
- Access to Mental Healthcare
- Access to Dental Care

Health Behaviors (21.8 percent of responses)

- Drug Use
- Alcohol Use

Health Conditions (19.5 percent of responses)

- Mental Health
- Addiction

Other (16.1 percent of responses)

- Safety
- Suicide

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other 16.1%
Access 32.2%
Health Behaviors 21.8%
Social Determinants 5.8%
Health Conditions 19.5%

Source: Park County Respondents
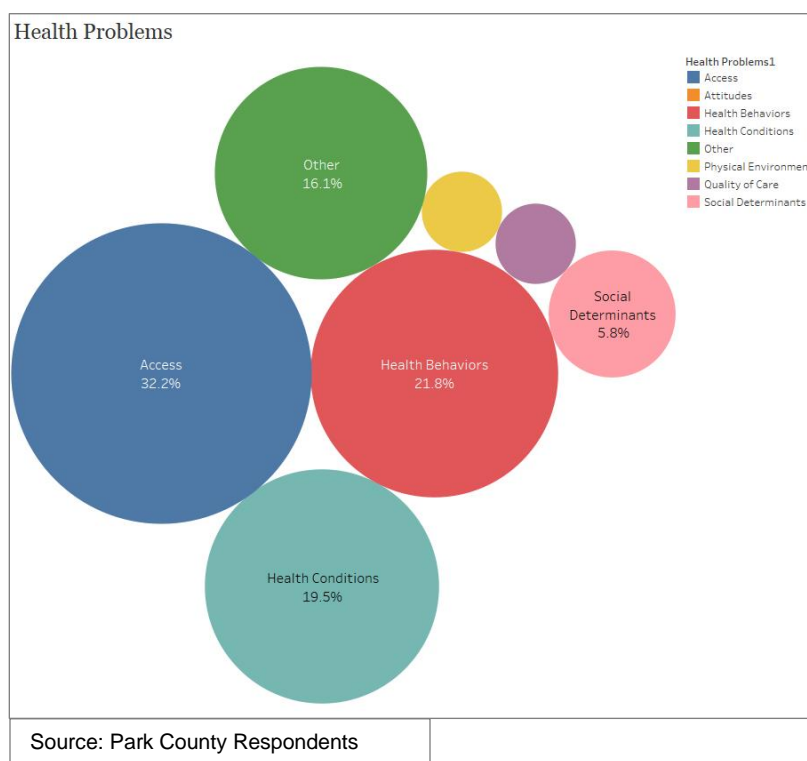
In the context of health problems, Park County residents identified access as a significant problem. Some responses include:

- "Costs of healthcare."
- "Cost even with insurance: premium + deductibles + copay = too much."
- "Prescription drug costs."
- "Cost of diabetic supplies."
- "High and increasing health insurance costs."
- "Lack of options for healthcare providers."
- "Need more access to mental health-related issues."
- "Access to mental, dental, and health services."
- "Lack of dental care."

Additionally, Park County residents noted drug and alcohol use as concerning health behaviors, and mental health and addiction as problematic health conditions.

Finally, safety and suicide were other issues identified by Park County residents. Example responses include:

- "Child abuse."
- "Sexual abuse."

- "Domestic abuse."
- "Suicide."

Question 2: What are the barriers to health?

Access (53.6 percent of responses)

- Affordability of Insurance/Care
- Geography
- Access to Care

Other (23.2 percent of responses)

- Public Funding

Social Determinants (12.5 percent of responses)

- Wages

Related to barriers, access was frequently cited by Park County residents. Some sample responses include:

- "Access to medical providers and cost."
- "Cost of private insurance."
- "Money to go to medical appointments."
- "Location and ability for some to travel to larger area for more specialized care and availability for this specialized care to be closer to our area."
- "Size of town."
- "[Lack of] access to providers."
- "Turnover of available doctors."
- "Primary care provider shortage."
- "[Services] not covered by insurance."

Additionally, Park County residents identified barriers related to public funding and workers' wages. Here are some examples:

- "Restricted number of state-funded beds available for substance abuse treatment."
- "Not enough funding."
- "WY state funding as designed by the legislature is painfully skewed toward relying on the success of the mineral industry. We need tax structure change."
- "Low-income seasonal jobs."
- "Static wages."
- "Low wages and high cost of living."
- "If WY had a better minimum wage law it might have better health as families could afford visits, medication, hospital."

Question 3: What does the community do well when it comes to health?

Access (53.3 percent of responses)

- Access to Care
- Access to Recreation

Other (24.4 percent of responses)

- Public Health
- Coalitions/Partnerships

When asked what their community does well when it comes to health, Park County residents cited access to care and access to recreation. Some sample responses include:

- "We have an amazing array of doctors, nurses, practitioners in town."
- "Free clinic."
- "Terrific hospital (West Park) and lots of available medical services."
- "Doctors are recruited from all over."
- "Great doctors and hospital with excellent services; very responsive to healthcare needs."
- "Access to multiple sources of care."
- "Lots of outdoor activities."
- "Rec center, outdoor activities."
- "Cody has very good physical exercise options and a myriad of rec opportunities."

Park County also noted that their community does well with providing public health education and services, as well as establishing coalitions/partnerships. Here are some key example responses:

- "Health and fitness articles in the paper."
- "Breast and prostate cancer awareness."
- "Public Health does a great job offering many flu shot clinics and assisting new parents."
- "Public Health works very well with community organizations."
- "Having partnership with larger hospital and clinics – Billings and St. Vincent."

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Access 53.3%

Quality of Care 17.8%

Other 24.4%

Source: Park County Respondents
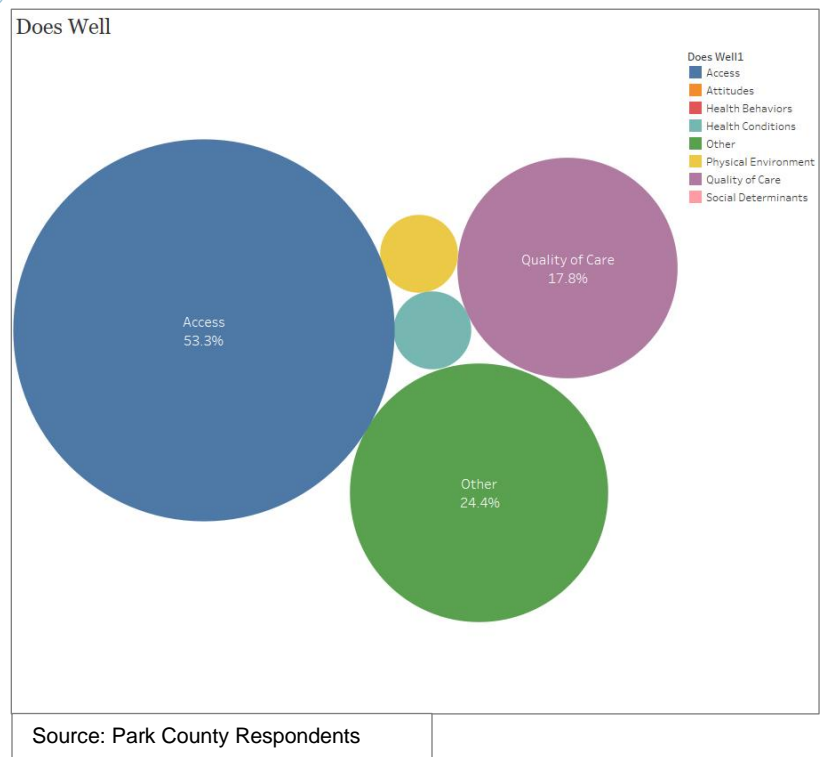
Question 4: What are possible solutions to health problems?

Access (37.7 percent of responses)

- Affordability of Insurance/Care

- Access to Care

Other (37.7 percent of responses)
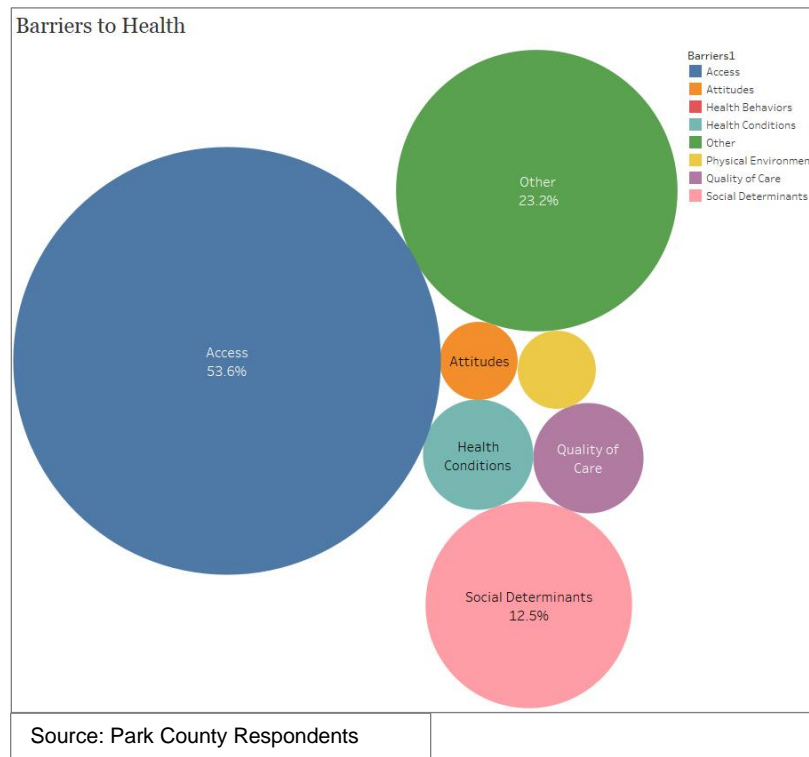
- Public Funding

- Public Health

When asked about solutions, Park County residents offered potential solutions related to public funding and public health education and services. Some examples include:

Source: Park County Respondents

- "Allowing people with disabilities to have Medicaid regardless of income, as long as they can prove they have a need for it. Maybe even setting up a system where if that person made above the limit, they could buy into the program."

- "Universal, single-payer system. People should not go bankrupt trying to pay for healthcare."

- "Getting some community leaders on board with the significance of suicide in our community, as well as mental health issues, plus funding."

- "Grant money."

- "We need Medicaid expansion in WY."

- "Education on addiction of any kind."

- "More focus on prevention."

- "Public education on the importance of children's mental health."

- "Focus on prevention to ease the need for prescription and treatment."
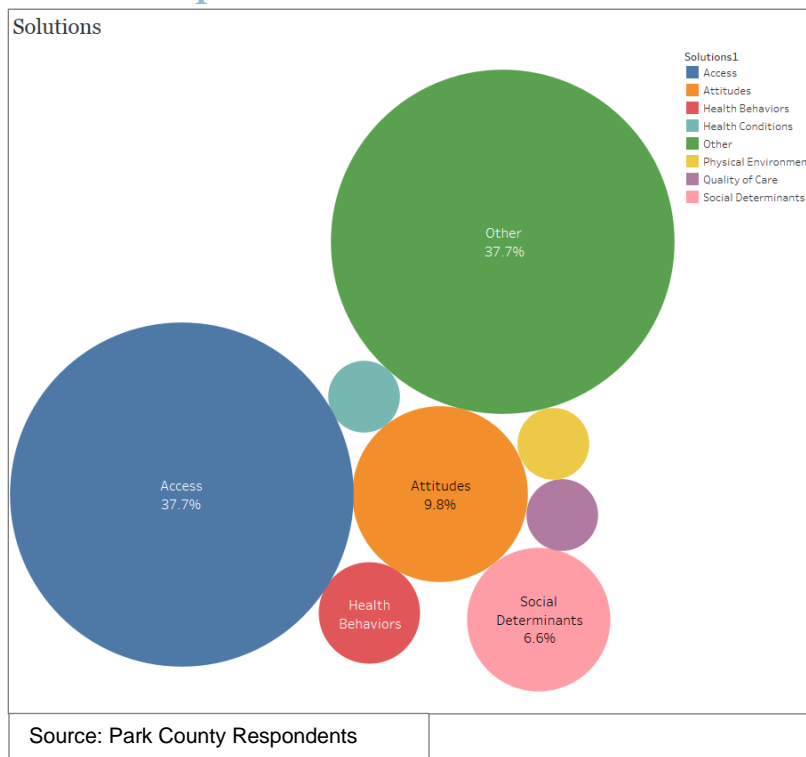
Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Park County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Health Insurance

- Mental Health

- Access to Primary Care Providers

- Drug Abuse/Overdose

- Suicide

Notably, community members were more likely to cite they did not know if infant deaths, premature births, health services for seniors, substance use during pregnancy, and injury were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Park County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Health Insurance	96.4%	3.6%	0.0%	0.0%
Mental Health	82.1%	14.3%	0.0%	3.6%
Access to Primary Care Providers	78.6%	21.4%	0.0%	0.0%
Drug Abuse/Overdose	75.0%	17.9%	3.6%	3.6%
Suicide	75.0%	17.9%	3.6%	3.6%
Cancer Screening	60.7%	14.3%	14.3%	10.7%
Health Services for Senior Citizens	60.7%	21.4%	7.1%	10.7%
Access to Exercise/Recreation Opp..	57.1%	17.9%	25.0%	0.0%
Alcohol Abuse	53.6%	35.7%	3.6%	7.1%
Substance Use During Pregnancy	53.6%	28.6%	3.6%	14.3%
Access to Healthy Food	50.0%	32.1%	17.9%	0.0%
Tobacco Use	50.0%	39.3%	3.6%	7.1%
Obesity	42.9%	39.3%	10.7%	7.1%
Childhood Immunizations	39.3%	32.1%	14.3%	14.3%
Sexually Transmitted Infections	35.7%	42.9%	10.7%	10.7%
Injury	28.6%	42.9%	14.3%	14.3%
Infant Deaths	25.0%	25.0%	21.4%	28.6%
Premature Births	25.0%	28.6%	17.9%	28.6%

Percent of Responses

Source: Park County Respondents

Sheridan County

A total of 35 unique responses were included in the Sheridan County analysis. The key themes found for Sheridan County are detailed below.

Question 1: What are the biggest health problems?

Health Behaviors (31.4 percent of responses)

- Alcohol Use
- Drug Use

Health Conditions (29.4 percent of responses)

- Mental Health
- Obesity

Access (19.6 percent of responses)

- Affordability of Insurance/Care

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Social Determinants 7.8%
Access 19.6%
Health Behaviors 31.4%
Other 9.8%
Health Conditions 29.4%

Source: Sheridan County Respondents
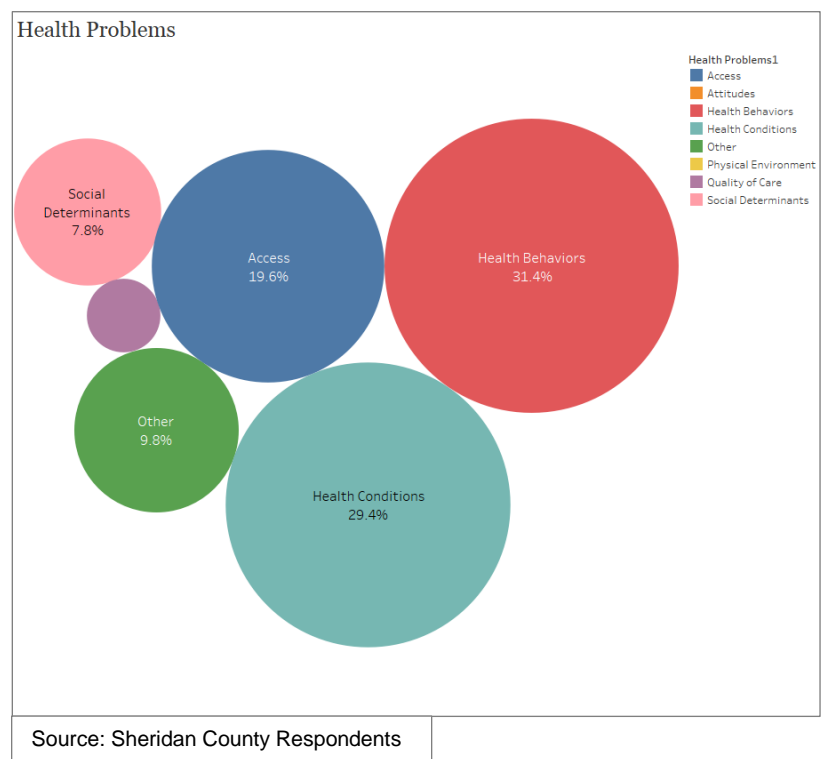
In the context of health problems, Sheridan County residents identified alcohol (underage drinking and general alcohol abuse) and drug use (prescription and illicit) as significant health problems. Additionally, residents noted mental health and obesity as problematic health conditions.

Finally, access, especially as it relates to affordability, was identified as an issue. Some responses include:

- "Not being able to afford health insurance."
- "Access to care, financially."
- "The extreme high cost of all healthcare and pharmaceuticals."
- "People do not go to the doctor because they do not have the money or insurance."
- "Due to high deductibles, people are not going to the doctor when they are ill."

Question 2: What are the barriers to health?

Access (63 percent of responses)

- Affordability of Insurance/Care
- Access to Care

Other (14.8 percent of responses)

- Public Funding

Social Determinants (14.8 percent of responses)

- Affordability of Housing

Barriers to Health

Source: Sheridan County Respondents
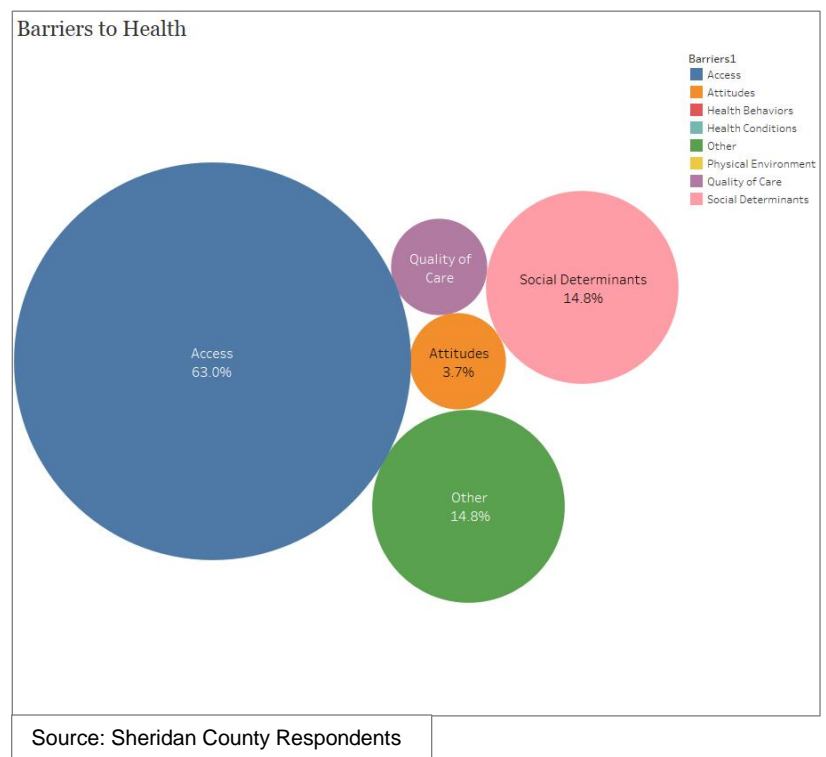
Related to barriers, access was identified most frequently by Sheridan County residents. Some sample responses include:

- "Low-income citizens are unable to seek medical attention for fear of the crushing debt that will follow. Even with health insurance, a family is still hesitant to take a child or themselves in to the doctor because the remaining portion of the bill is often more than they can pay."
- "Inability to pay out-of-pocket for care, no insurance for low-income."
- "Lack of insurance, inability to private pay for care."
- "[Lack of] affordable insurance and limited insurance companies."
- "Long wait times for doctor appointments."
- "Too few health providers."
- "[Due to] low population, [it is] hard to recruit doctors [who] stick around."

Additionally, Sheridan County residents identified barriers related to public funding and affordability of housing. Here are some examples:

- "Decreased funding across all service providers."
- "State-level funding."
- "Lack of affordable housing."
- "[Lack of] access to affordable housing."

Question 3: What does the community do well when it comes to health?

Access (40 percent of responses)

- Access to Recreation

Other (25.7 percent of responses)

- Community Connection

Health Behaviors (11.4 percent of responses)

- Alcohol Use

When asked what their community does well when it comes to health, Sheridan County residents cited access to recreation. Some sample responses include:

- "Encourage leisure activities and healthy activities for people who can afford them."

- "YMCA scholarships, rec center activities."

- "Trail/park system."

- "Home to Big Mountain Trail Run and MS Bike Ride ([community] celebrates and embraces outdoor sports)."

- "Runs/walks [are] regular."

- "Cross-country ski club."

Sheridan County also noted community connection and willingness to address alcohol use issues as community strengths as well. Here are some key example responses:

- "Support groups (variety of health/well-being issues)."

- "Connections to resources (community connections – experts and follow-up)."

- "City council/county commissioners supportive of health."

- "Will and resources to deal with community issues (and champions)."

- "Responsible beverage server training is now mandatory (to address alcohol)."

- "Special events checklist to support events with [responsible] alcohol service."

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other
25.7%

Physical Environment
5.7%

Access
40.0%

Health Behaviors
17.1%

Quality of Care
8.6%

Health Conditions

Source: Sheridan County Respondents
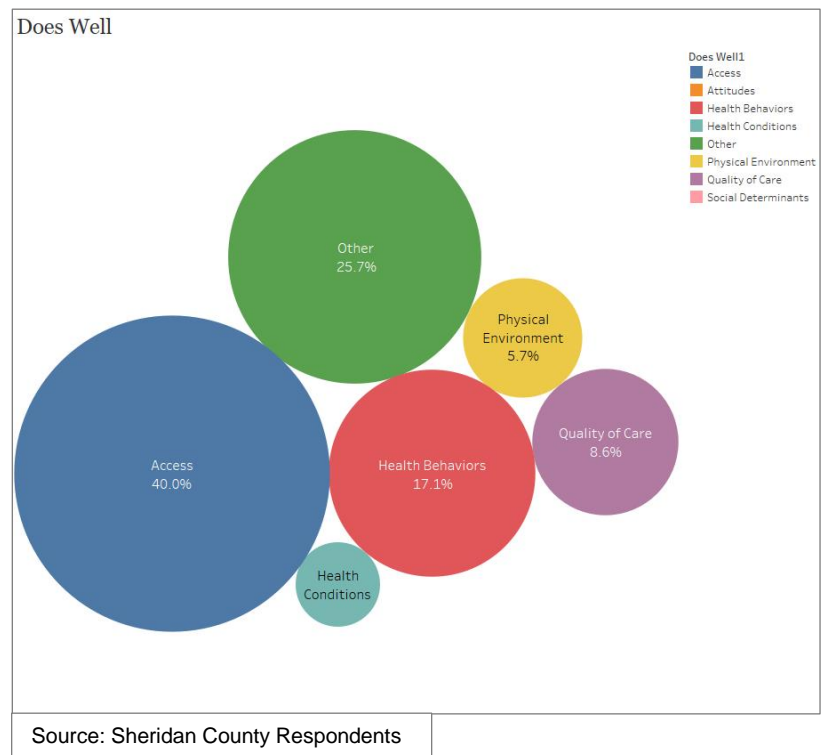
Question 4: What are possible solutions to health problems?

Access (38.5 percent of responses)

- Affordability of Insurance/Care
- Access to Care

Other (38.5 percent of responses)

- Public Funding

Social Determinants (11.5 percent of responses)

- Affordability of Housing

Source: Sheridan County Respondents

When asked about solutions, Sheridan County noted possible access to care solutions, such as:

- "Medical coverage for everyone."
- "[We] need affordable coverage that all can afford."
- "Train more medical personnel in breastfeeding [practices]."
- "Get a breastfeeding-friendly hospital."

Additionally, residents offered potential solutions related to public funding and affordability of housing. Some examples include:

- "Expand Medicaid."
- "State subsidies [that are] easy for clinicians to access."
- "Fund adult dental again."
- "Zoning that supports affordable housing."
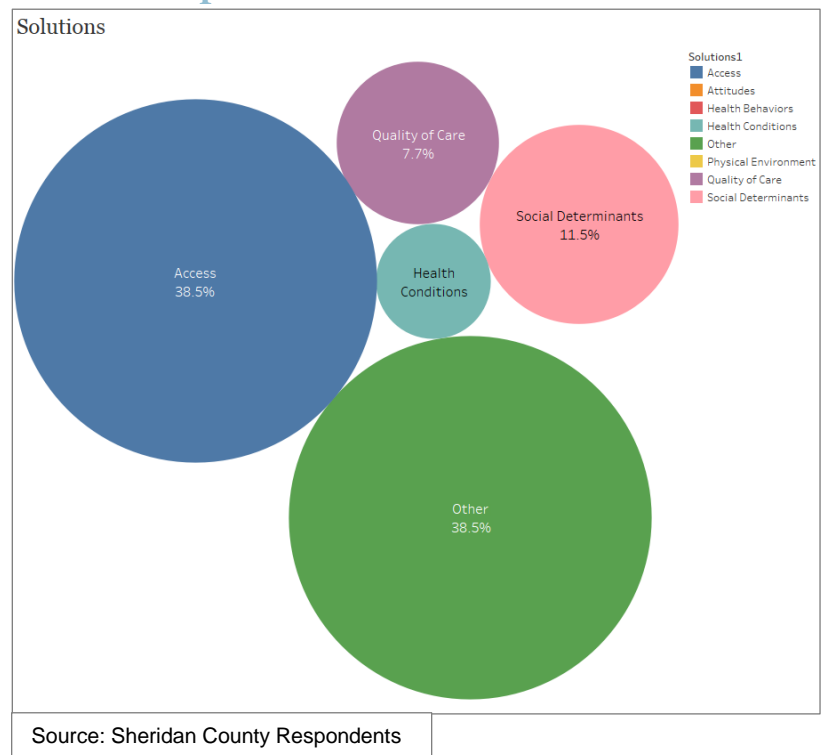
Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Sheridan County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Mental Health
- Health Insurance
- Suicide
- Access to Primary Care Providers
- Alcohol Abuse

Notably, community members were more likely to cite they did not know if infant deaths, premature births, and substance use during pregnancy were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Sheridan County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Mental Health	89.5%	5.3%	5.3%	0.0%
Health Insurance	79.0%	21.1%	0.0%	0.0%
Suicide	79.0%	15.8%	5.3%	0.0%
Access to Primary Care Providers	73.7%	26.3%	0.0%	0.0%
Alcohol Abuse	68.4%	31.6%	0.0%	0.0%
Health Services for Senior Citizens	68.4%	21.1%	5.3%	5.3%
Drug Abuse/Overdose	63.2%	31.6%	0.0%	5.3%
Substance Use During Pregnancy	63.2%	21.1%	0.0%	15.8%
Access to Healthy Food	57.9%	42.1%	0.0%	0.0%
Obesity	57.9%	42.1%	0.0%	0.0%
Sexually Transmitted Infections	57.9%	31.6%	0.0%	10.5%
Tobacco Use	57.9%	36.8%	5.3%	0.0%
Access to Exercise/Recreation Opp..	52.6%	36.8%	10.5%	0.0%
Cancer Screening	52.6%	36.8%	5.3%	5.3%
Infant Deaths	47.1%	23.5%	0.0%	29.4%
Childhood Immunizations	42.1%	42.1%	5.3%	10.5%
Premature Births	35.3%	35.3%	0.0%	29.4%
Injury	31.6%	36.8%	21.1%	10.5%

Percent of Responses · Percent of Responses · Percent of Responses · Percent of Responses

Source: Sheridan County Respondents

Sweetwater County

A total of 30 unique responses were included in the Sweetwater County analysis. The key themes found for Sweetwater County are detailed below.

Question 1: What are the biggest health problems?

Health Behaviors (41.8 percent of responses)

- Drug Use
- Alcohol Use

Health Conditions (29.9 percent of responses)

- Mental Health
- Addiction
- Cancer

Access (16.4 percent of responses)

- Affordability of Insurance/Care
- Access to Care
- Access to Mental Healthcare

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Quality of Care 7.5%
Access 16.4%
Health Behaviors 41.8%
Other 4.5%
Health Conditions 29.9%

Source: Sweetwater County Respondents
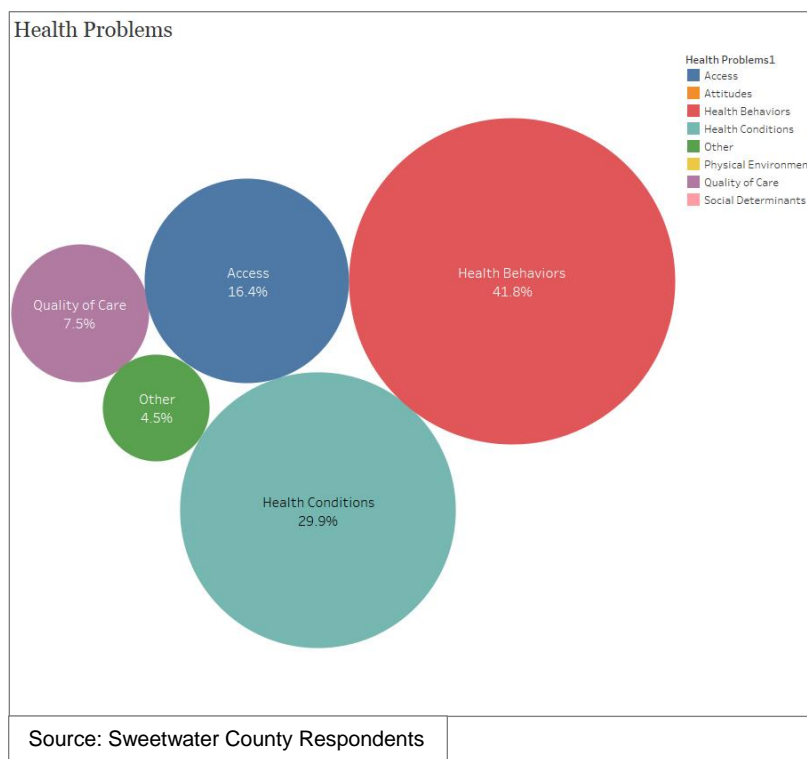
In the context of health problems, Sweetwater County residents identified alcohol and drug use (prescription and illicit) as significant health problems. Additionally, residents noted mental health, addiction, and cancer as problematic health conditions.

Finally, access was identified as an issue. Some responses include:

- "[Lack of] affordable healthcare for all ages!"
- "[Lack of] healthcare for low-income families."
- "Not enough doctors."
- "[Lack of] access to mental/behavioral health practitioners."

Question 2: What are the barriers to health?

Access (60.4 percent of responses)

- Access to Care

- Affordability of Insurance/Care
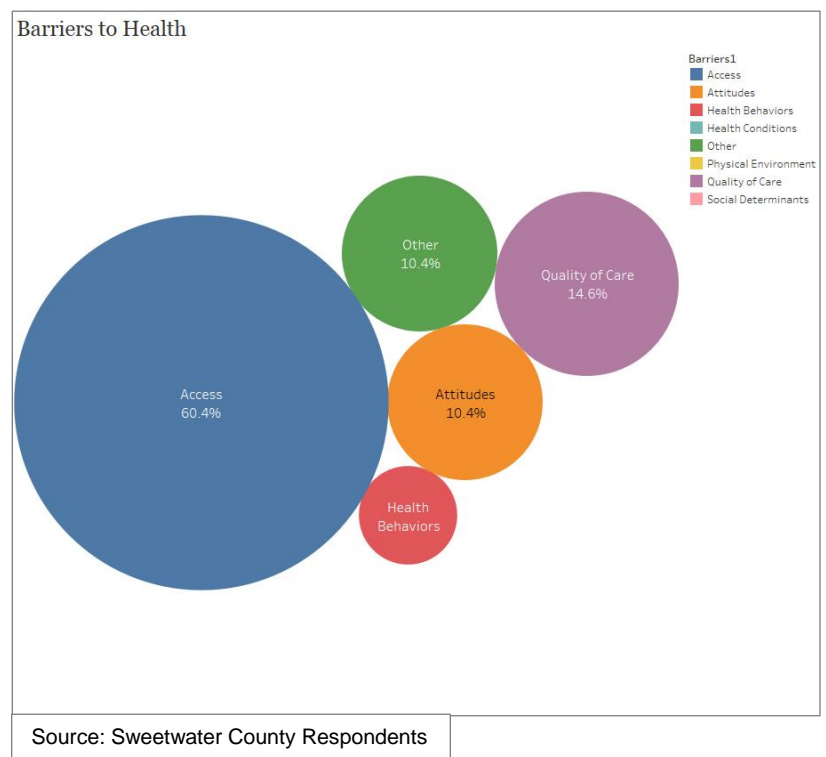
Quality of Care (14.6 percent of responses)

- Real or Perceived Quality of Care

Other (10.4 percent of responses)

- Public Funding

Attitudes (10.4 percent of responses)

- Attitude about Individual Responsibility

Source: Sweetwater County Respondents

Related to barriers, access to and quality of care were frequently cited concerns for Sweetwater County residents. Some sample responses include:

- "Lack of providers."

- "Options for treatment are limited at Memorial Hospital of Sweetwater County."

- "Healthcare providers don't seem to make and keep roots in the community. They come and go, which makes it difficult to establish trust and long-term annual care with a doctor."

- "Very few healthcare providers!"

- "Misuse of ER for non-emergent needs due to lack of income/sliding fee scale clinics."

- "Cost/insurance coverage."

- "Inability for those without insurance to get inexpensive healthcare."

- "Lack of confidence in local healthcare providers."

- "Lack of competent and compassionate providers."

Additionally, Sweetwater County residents identified barriers related to public funding and attitudes about individual responsibility. Here are some examples:

- "Budget cuts to many of the services that help our community resources."

- "Lack of coverage – zero Medicaid expansion."

- "Maybe the issue is lack of motivation."

Question 3: What does the community do well when it comes to health?

Access (54.8 percent of responses)

- Access to Care
- Access to Specialized Care

Other (25.8 percent of responses)

- Health Fairs
- Public Health

### Quality of Care (12.9 percent of responses)

- Real or Perceived Quality of Care

When asked what their community does well when it comes to health, Sweetwater County residents cited access and quality of care, notwithstanding the concerns they also presented. Some sample responses include:

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Access 54.8%
Physical
Quality of Care 12.9%
Health Behaviors
Other 25.8%

Source: Sweetwater County Respondents

- "Wellness checks and WWCC."
- "Good local hospital with excellent ties to regional healthcare options (e.g., University of Utah)."
- "Family practice physicians are available as are some specialty clinics ([orthopedics], OB-GYN, urology)."
- "We have a wealth of providers and choice[s] in this area."
- "Establishment of Huntsman-connected cancer treatment center."
- "Our local clinic, Castle Rock Medical Center, has caring doctors and staff and they service the community's needs as long as you are happy with 100% western medicine."
- "Good doctors, nurses."

Sweetwater County noted health fairs and public health education and services as community strengths as well. Here are some key example responses:

- "Blood drives through the Wyoming Health Fairs."
- "College offers wellness classes and wellness fairs."
- "Services for children, such as parents as teachers CDC and Best Beginnings, as well as WIC."
- "Preparing for flu season and raising awareness [on] staying healthy."
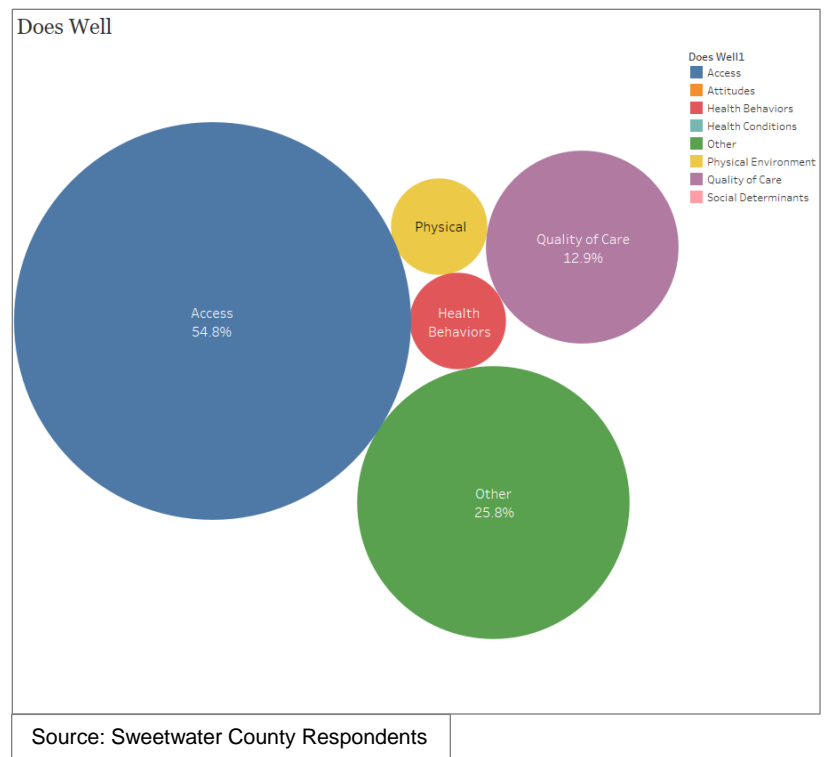
Question 4: What are possible solutions to health problems?

Access (51.5 percent of responses)

- Access to Care
- Access to Specialized Care
- Access to Mental Healthcare

Other (36.4 percent of responses)

- Public Health

When asked about solutions, Sweetwater County noted possible access to care solutions, such as:

- "Clinics that will help people without stigma being attached to them."
- "Get qualified physicians and attempt to keep them here long-term."
- "A dedicated effort to recruit and retain A+ physicians."
- "More doctors/specialists."
- "We could use easier access to some specialists."
- "More mental health facilities/resources."
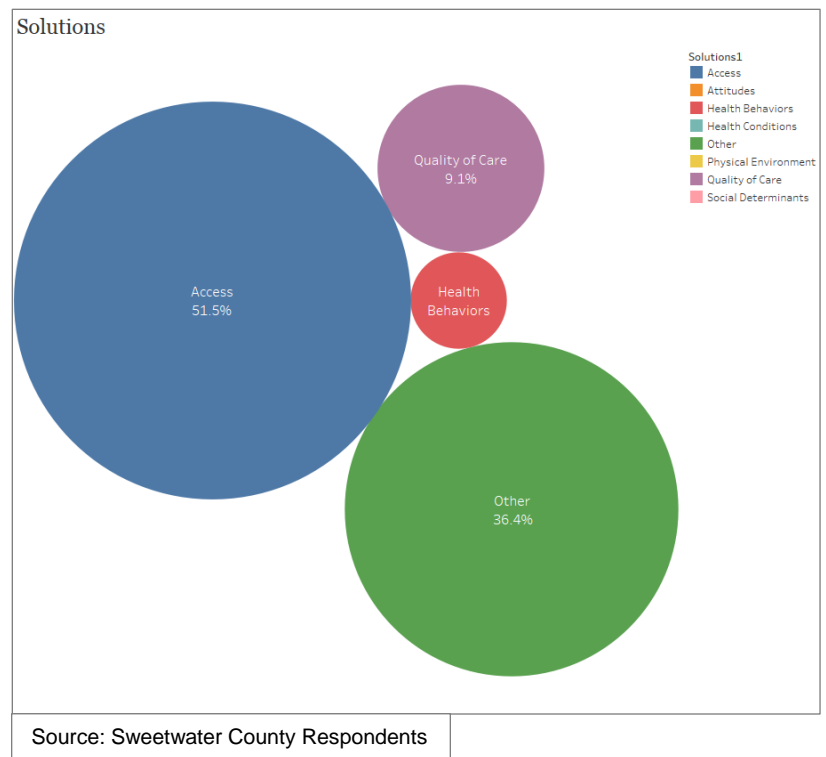- "More priority for mental health resources."

Additionally, residents offered potential solutions related to public health. Some examples include:

- "Education for the population about preventive care and distribution of information on what is available."
- "Social awareness of a healthier lifestyle is a positive thing."
- "Nutrition education."
- "More community education."
- "Offer free education programs on diabetes."

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Sweetwater County community responses, the top seven issues that had a high proportion of "high importance" (the last four were equally rated as important with 80.8 percent of respondents citing it) ratings were:

- Drug Abuse/Overdose
- Alcohol Abuse
- Suicide
- Access to Primary Care Providers
- Health Insurance

Solutions

Legend — Solutions1:
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Quality of Care 9.1%
Access 51.5%
Health Behaviors
Other 36.4%

Source: Sweetwater County Respondents

- Health Services for Senior Citizens
- Substance Use During Pregnancy

Notably, community members were more likely to cite they did not know if premature births, infant deaths, sexually transmitted infections, and childhood immunizations were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Sweetwater County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Drug Abuse/Overdose	76.7%	13.3%	3.3%	6.7%
Alcohol Abuse	73.3%	6.7%	13.3%	6.7%
Suicide	70.0%	13.3%	3.3%	13.3%
Access to Primary Care Providers	66.7%	23.3%	3.3%	6.7%
Health Insurance	66.7%	23.3%	6.7%	3.3%
Health Services for Senior Citizens	66.7%	20.0%	3.3%	10.0%
Substance Use During Pregnancy	66.7%	16.7%	3.3%	13.3%
Mental Health	65.5%	10.3%	10.3%	13.8%
Tobacco Use	62.1%	20.7%	10.3%	6.9%
Sexually Transmitted Infections	57.1%	21.4%	3.6%	17.9%
Access to Healthy Food	53.3%	26.7%	16.7%	3.3%
Obesity	53.3%	13.3%	26.7%	6.7%
Childhood Immunizations	48.2%	33.3%	3.7%	14.8%
Infant Deaths	46.7%	66.7%	13.3%	33.3%
Access to Exercise/Recreation Opp..	43.3%	43.3%	6.7%	6.7%
Cancer Screening	43.3%	40.0%	6.7%	10.0%
Premature Births	37.9%	20.7%	3.5%	37.9%
Injury	36.7%	43.3%	6.7%	13.3%

Percent of Responses

Source: Sweetwater County Respondents

Teton County

A total of 58 unique responses were included in the Teton County analysis. The key themes found for Teton County are detailed below.

Question 1: What are the biggest health problems?
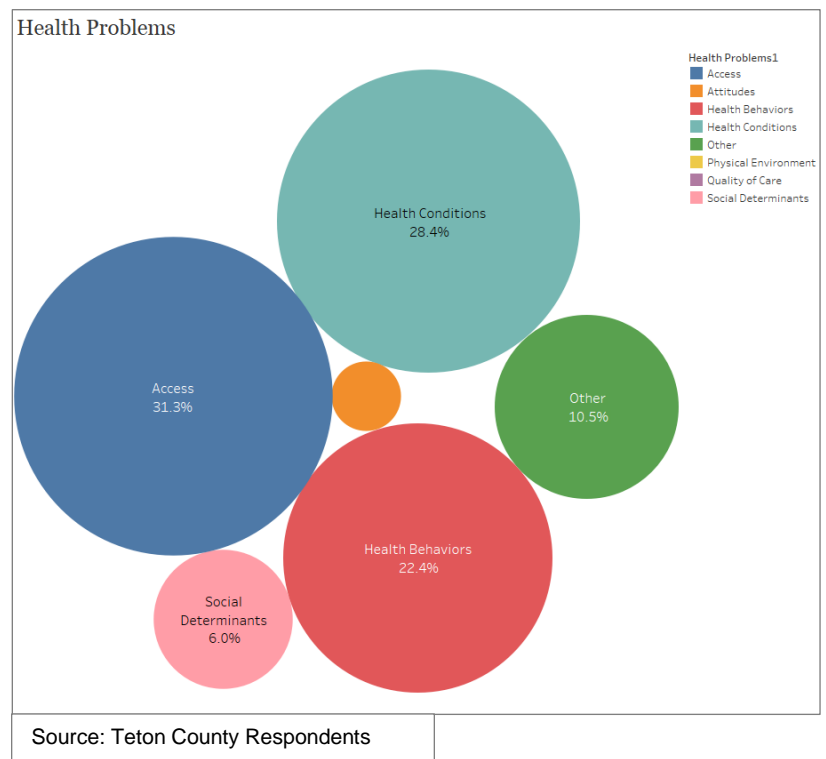
Access (31.3 percent of responses)

- Affordability of Insurance/Care
- Access to Mental Healthcare

Health Conditions (29.9 percent of responses)

- Cancer
- Diabetes
- Injury

Health Behaviors (22.4 percent of responses)

- Alcohol Use
- Drug Use

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Health Conditions 28.4%

Access 31.3%

Other 10.5%

Health Behaviors 22.4%

Social Determinants 6.0%

Source: Teton County Respondents

In the context of health problems, Teton County residents identified access to care as a significant issue. Some responses include:

- "Cost of healthcare and medical insurance and medications is very, very high."
- "Cost is the single largest barrier to healthcare in Teton County."
- "High cost of healthcare and no insurance choice for hard-to-insure people."
- "Lack of affordable healthcare services."
- "[Inability to get] affordable health insurance with good coverage."
- "Not enough help for the mentally ill community and statewide."
- "[Lack of] access to mental healthcare."
- "Lack of mental health professionals."
- "Lack of emergency mental health[care]."

Additionally, residents noted cancer, diabetes, and injury (mostly those acquired through outdoor recreational activities) as problematic health conditions. Finally, alcohol and drug use were identified as health problems in the community.

Question 2: What are the barriers to health?

Access (60.4 percent of responses)

- Affordability of Insurance/Care
- Access to Insurance
- Access to Care

Other (18.9 percent of responses)

- Culturally-Appropriate Services
- Public Funding
- Stigma

Social Determinants (15.1 percent of responses)

- Cost of Living

Related to barriers, access was frequently cited by Teton County residents. Some sample responses include:

Source: Teton County Respondents

- "Many people don't have insurance so they don't access healthcare because they cannot afford it."
- "High cost of care."
- "The cost of healthcare and medical insurance and medications is beyond the reach of many people."
- "Cost. Even with insurance, the deductible and out-of-pocket costs can be crushing for many in our community."
- "Lack of affordable healthcare services."
- "Seasonal employees lack access to State health/employment health insurance."
- "Lack of adequate/any insurance."
- "Few providers."
- "Uninsured/underinsured. Not knowing how to access care. Doctors [only] being available to patients M-F from 8-5 (limited office hours for physicians)."

Additionally, Teton County residents identified barriers related to receiving culturally-appropriate services, public funding, stigma, and cost of living. Here are some example responses.

- "Language barriers."
- "Language access."
- "Assign more economic resources for the community."
- "[Lack of] state-funded healthcare."
- "Stigma."
- "Fear surrounding immigration status."
- "High cost of living."
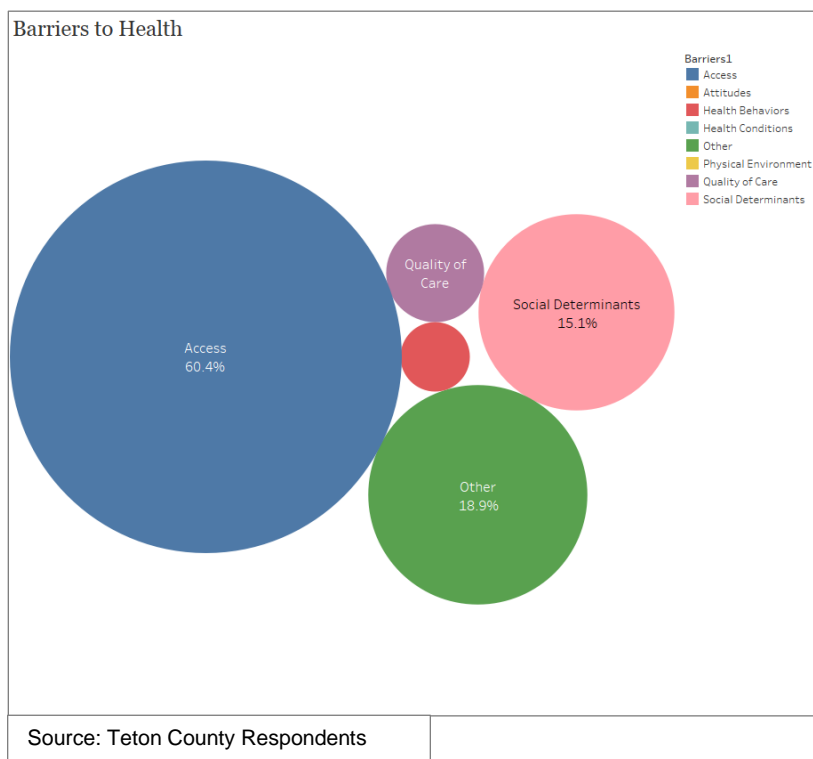
Question 3: What does the community do well when it comes to health?
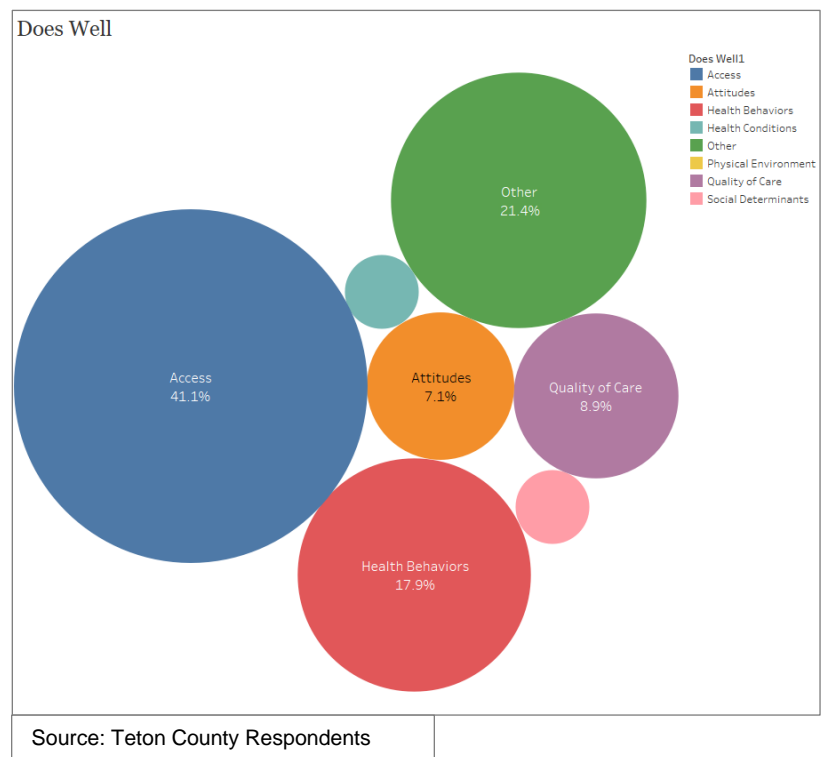
Access (41.1 percent of responses)

- Access to Recreation
- Access to Care

Other (21.4 percent of responses)

- Health Fairs
- Public Health
- Coalitions/Partnerships

Health Behaviors (14.3 percent of responses)

- Exercise

Does Well

Does Well1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Other 21.4%
Access 41.1%
Attitudes 7.1%
Quality of Care 8.9%
Health Behaviors 17.9%

Source: Teton County Respondents

When asked what their community does well when it comes to health, Teton County residents cited access to recreation and care, notwithstanding the concerns they also presented about access to care. Some sample responses include:

- "Active recreational lifestyles."
- "Bike path opportunities."
- "Opportunities for exercise."
- "Access to recreation options."
- "Jackson Hole community is generally pretty health-conscious and outdoor-activity oriented."
- "Senior center activities."
- "Free clinic (it is great, but they can't do everything that is needed). We have a wonderful hospital that will take people when they don't have insurance, but this is still a problem for people with no money."
- "Free walk-in clinic one night a week."
- "Good access to medical practitioners and good community resources."

Teton County noted health fairs, public health education and services, and coalitions/partnerships as community strengths as well. Here are some key example responses:

- "Health fairs."
- "Health fair labs."
- "Public Health offers many great services that meet so many needs."
- "Our hospital, library, senior center, and other businesses/agencies have free medical information presentations, wellness education (including nutrition and exercise), and some free services."
- "Integration of services – there is a closely knit network."

- "Hospital involved in community health."

Question 4: What are possible solutions to health problems?
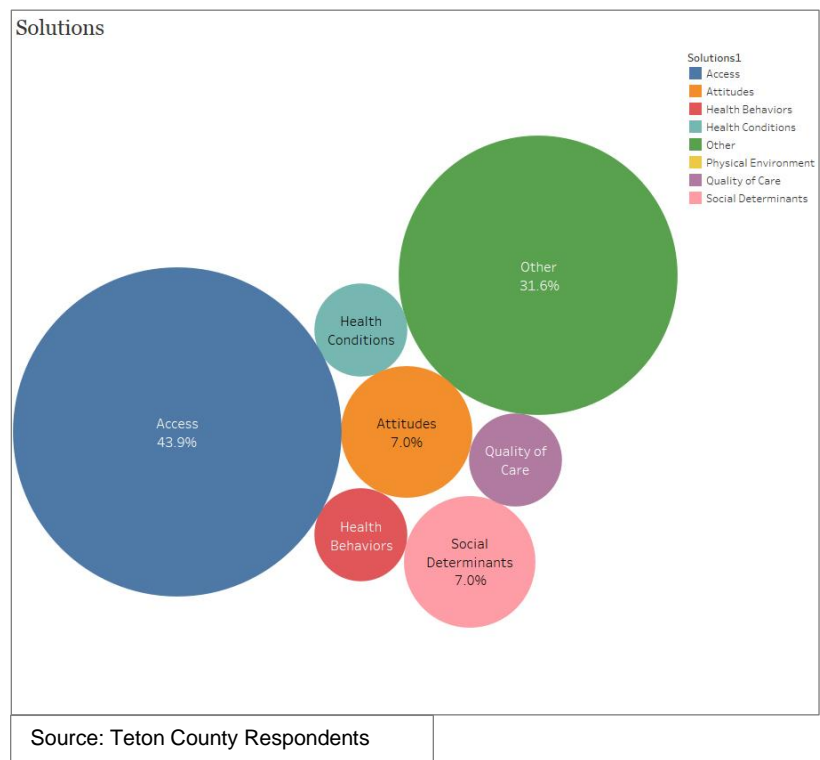
Access (43.9 percent of responses)

- Affordability of Insurance/Care
- Access to Mental Healthcare

Other (31.6 percent of responses)

- Public Funding

When asked about solutions, Teton County noted possible access to care solutions, such as:

- "Universal healthcare."
- "Expand Medicaid."
- "Lower premiums."
- "Hiring psychiatrists for our community."

Source: Teton County Respondents

Finally, residents offered potential solutions related to public funding. Some examples include:

- "Reliable state funding for mental healthcare and substance abuse."
- "We must have a national healthcare plan that promotes wellness, healthy living practices, and provides healthcare to all."
- "Single-payer or some sort of universal coverage that does not allow anyone to fall through the gaps due to financial or social status."
- "Bigger budget for Medicaid."
- "State-funded healthcare."
- "Tax part-time residents and tourists to help pay year-round for healthcare and insurance."
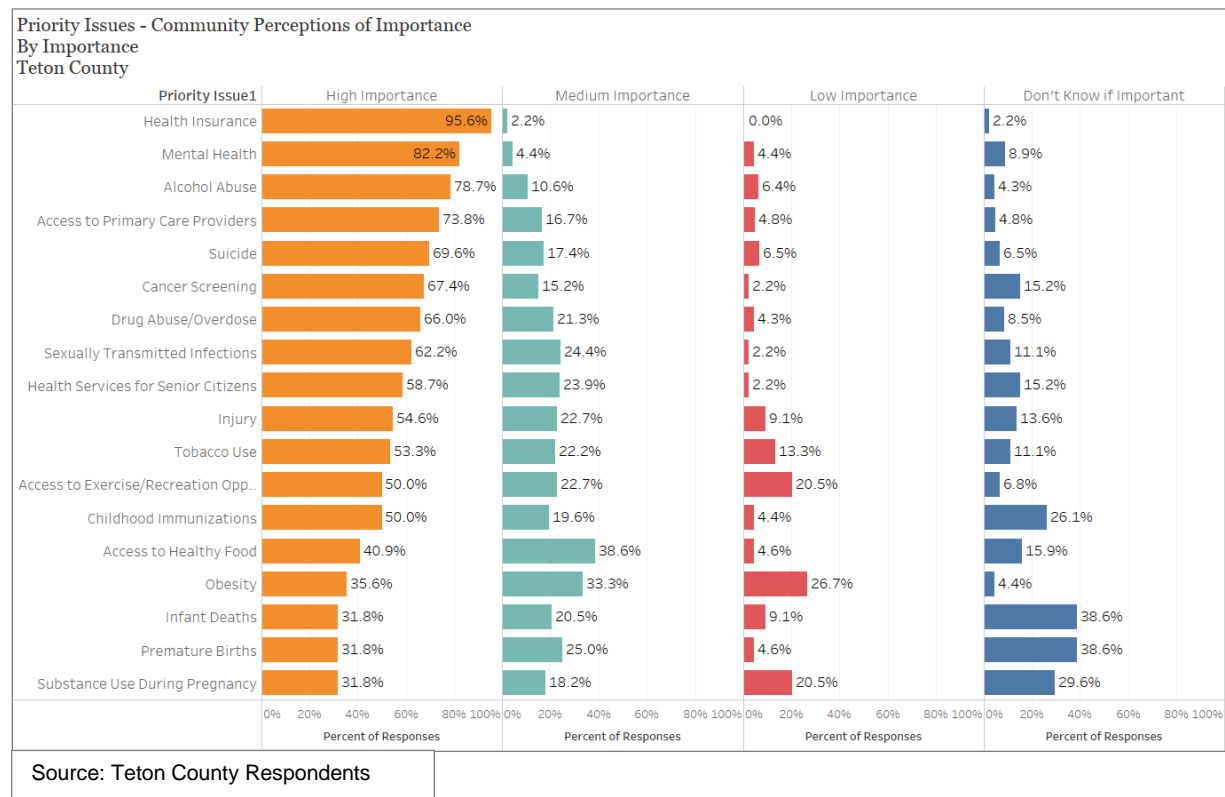- "Free clinic/sliding scales."

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Teton County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Health Insurance
- Mental Health
- Alcohol Abuse
- Access to Primary Care Providers
- Suicide

Notably, community members were more likely to cite they did not know if infant deaths, premature births, substance use during pregnancy, childhood immunizations, and access to healthy food were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Teton County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Health Insurance	95.6%	2.2%	0.0%	2.2%
Mental Health	82.2%	4.4%	4.4%	8.9%
Alcohol Abuse	78.7%	10.6%	6.4%	4.3%
Access to Primary Care Providers	73.8%	16.7%	4.8%	4.8%
Suicide	69.6%	17.4%	6.5%	6.5%
Cancer Screening	67.4%	15.2%	2.2%	15.2%
Drug Abuse/Overdose	66.0%	21.3%	4.3%	8.5%
Sexually Transmitted Infections	62.2%	24.4%	2.2%	11.1%
Health Services for Senior Citizens	58.7%	23.9%	2.2%	15.2%
Injury	54.6%	22.7%	9.1%	13.6%
Tobacco Use	53.3%	22.2%	13.3%	11.1%
Access to Exercise/Recreation Opp..	50.0%	22.7%	20.5%	6.8%
Childhood Immunizations	50.0%	19.6%	4.4%	26.1%
Access to Healthy Food	40.9%	38.6%	4.6%	15.9%
Obesity	35.6%	33.3%	26.7%	4.4%
Infant Deaths	31.8%	20.5%	9.1%	38.6%
Premature Births	31.8%	25.0%	4.6%	38.6%
Substance Use During Pregnancy	31.8%	18.2%	20.5%	29.6%

Source: Teton County Respondents

Uinta County

A total of 55 unique responses were included in the Uinta County analysis. The key themes found for Uinta County are detailed below.

Question 1: What are the biggest health problems?

Health Conditions (34.6 percent of responses)
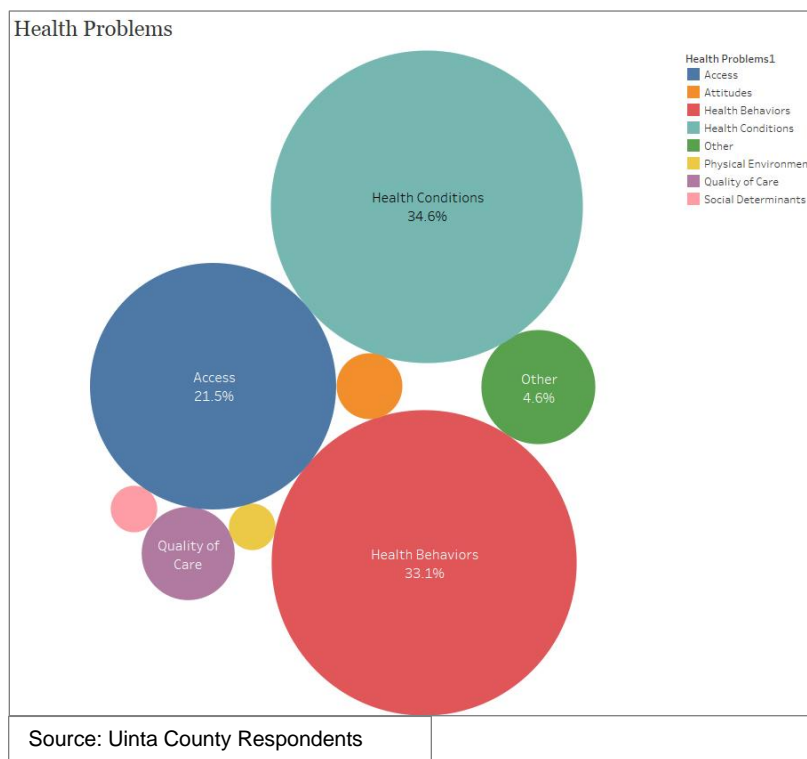
- Obesity
- Mental Health

Health Behaviors (33.1 percent of responses)

- Drug Use
- Alcohol Use

Access (21.5 percent of responses)

- Affordability of Insurance/Care
- Access to Care

Health Problems

Health Problems1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Health Conditions 34.6%
Access 21.5%
Other 4.6%
Quality of Care
Health Behaviors 33.1%

Source: Uinta County Respondents

In the context of health problems, Uinta County residents identified obesity and mental health as concerning health conditions. Additionally, they frequently cited drug and alcohol use as problems in the community.

Finally, Uinta County residents noted access to care as health problem. Some responses include:

- "Cost of services."
- "[Lack of] access to an AFFORDABLE healthcare facility."
- "Cost of receiving healthcare is preventing people from receiving it."
- "Costs/expenses of local services. It is much more economical to take a day off work, go to Salt Lake City, Utah, for tests, procedures, and labs, than to go to local agencies/entities."
- "Lack of funds to pay for medical and mental health treatment."
- "Lack of providers who are 'in-network.'"
- "[Lack of] access to care, especially for those [who are] uninsured."
- "We have quite a turnover of doctors. The hospital is for-profit and does not allow for people who cannot immediately pay."

Question 2: What are the barriers to health?

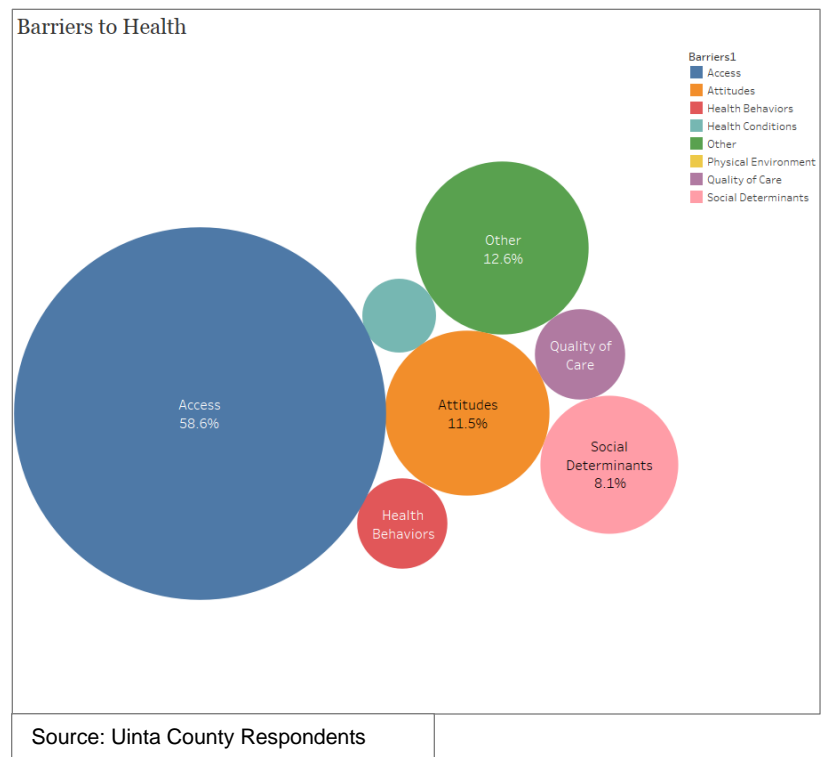**Access (58.6 percent of responses)**

- Affordability of Insurance/Care
- Access to Care
- Access to Insurance

Other (12.6 percent of responses)

- Public Health
- Community Connection

Attitudes (11.5 percent of responses)

- Attitude about Individual Responsibility

Barriers to Health

Barriers1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Source: Uinta County Respondents

Related to barriers, access was frequently cited by Uinta County residents. Some sample responses include:

- "Cost of insurance."
- "Cost of services."
- "Expense of services. ER and testing are very costly."
- "Hospital is quite expensive."
- "Lack of providers."
- "Doctors come and go, which makes it hard to create relationships."
- "Limited resources (healthcare personnel)."
- "Lack of readily accessible healthcare."
- "Lack of medical insurance."
- "Inadequate opportunities for insurance."

Additionally, Uinta County residents identified barriers related to public health education, community connection, and attitudes about individual responsibility. Here are some example responses:

- "Poor community communications regarding things like: Health Fair, Flu Clinics, etc."
- "Lack of community-wide knowledge of programs."
- [Lack of] affordable or free access and education on exercise and nutrition."
- "Cliques – closed social groups."
- "It seems everyone is so concerned about one group instead [of] the community as a whole. There are several facets to our community."
- "People don't seek out good information."
- "Lack of motivation."

Question 3: What does the community do well when it comes to health?

Access (52.1 percent of responses)

- Access to Care
- Access to Recreation

Other (32.4 percent of responses)

- Health Fairs
- Public Health

When asked what their community does well when it comes to health, Uinta County residents cited access to care and recreation, notwithstanding the concerns they also presented about access to care. Some sample responses include:

- "There seem to be ample doctors and medical assistance."

- "Access to health providers."

- "A lot of health-related resources, like FQHC."

- "Very active Public Health Department."

- "Great doctors."

- "Public Health accomplishes much and they have a real concern for people in our county. They hold flu clinics [and] community baby showers, and are in the PATCH organization (planned approach to community health)."

- "Both schools have an evening program each week night [so] the community can use their facilities to get exercise."

- "We have a nice rec center."

- "Outside activities."

- "We have a lot of parks!"

- "[We have] an awesome recreation center, myriad of recreational activities, [and] many different types of health-related options (i.e., yoga, aerobics, chiropractic services, wellness services, fitness centers, etc.)."

Uinta County also noted health fairs and public health as community strengths. Here are some key example responses:

- "Community health fairs."

- "Health fairs and information."

- "Public health services (and attempts at advertising and education)."

- "We reach out to parents of the very young and to the elderly – and everyone in between, informing the community of resources, opportunities, and education, regarding healthcare."

- "Public Health Department."
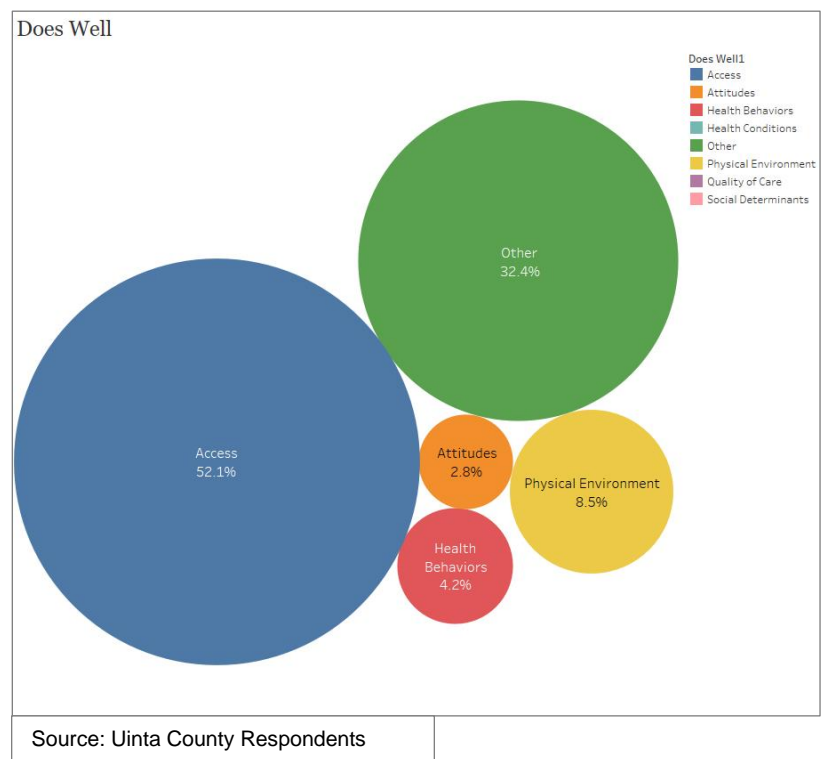
Question 4: What are possible solutions to health problems?

Other (43.3 percent of responses)

- Public Health

Access (41.7 percent of responses)

- Affordability of Insurance/Care
- Access to Care
- Access to Information

When asked about solutions, Uinta County noted possible solutions related to public health education and services. Some responses include:

- "Education on healthy foods/wellness."
- "More advertising, more notice for clinics/fairs."
- "Advertising, education, motivating community to be active and eat healthy."
- "Drug/alcohol awareness campaign."
- "Public awareness [related] to over-eating."

Additionally, residents noted access to care solutions, such as:

- "Insurance companies could help by not requiring someone who is 'in-network.' The local hospital could help by only ordering tests that are required or needed for diagnosis."
- "Low-cost insurance [for those] who can't afford it."
- "Medical coverage available to low-income adults."
- "Walk-in clinic that accepts Medicare, Medicaid, and insurances, and doesn't automatically send everyone to the Emergency Room."
- "[Have] public forums."
- "Have trained individuals who can guide citizens through marketplace applications and dissemination of how to access those services."

Solutions

Solutions1
- Access
- Attitudes
- Health Behaviors
- Health Conditions
- Other
- Physical Environment
- Quality of Care
- Social Determinants

Quality of Care 8.3%

Access 41.7%

Health Behaviors 5.0%

Other 43.3%

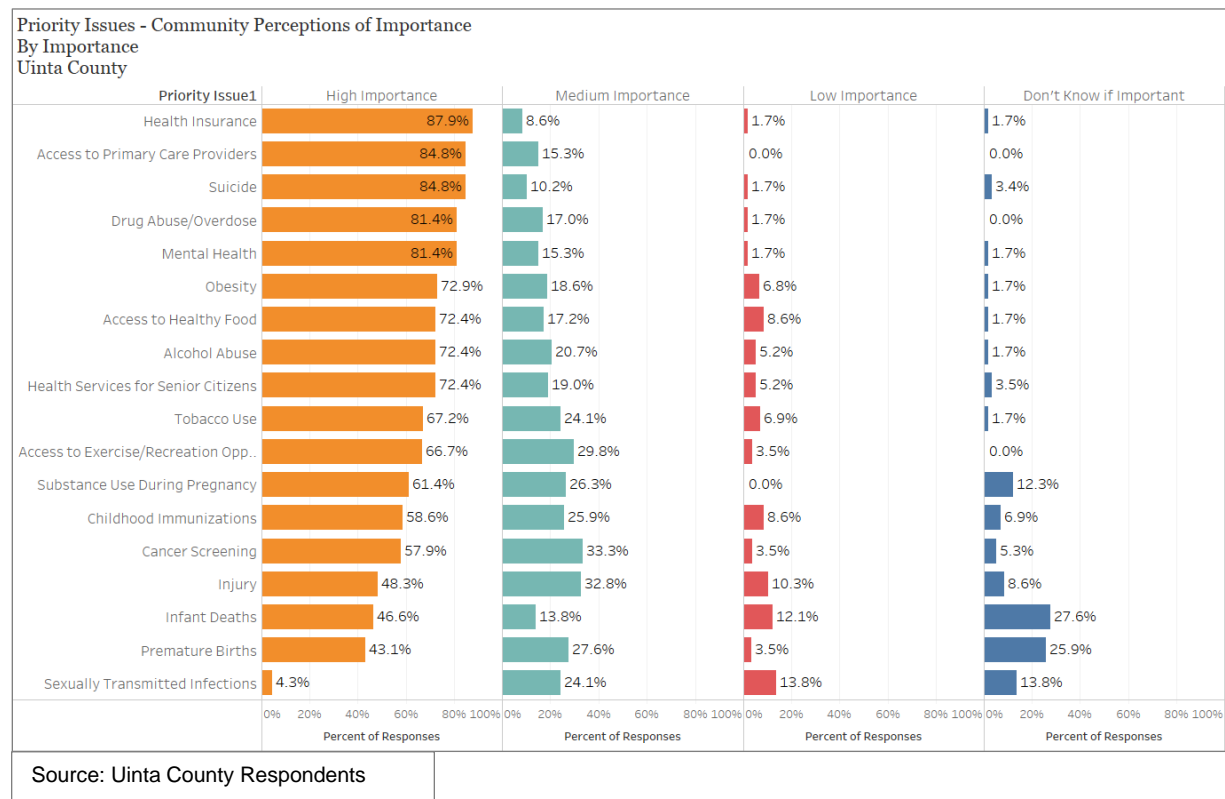Source: Uinta County Respondents

Priority Issues

PHD shared a list of previously identified health priorities with community members and asked them to rate the importance of each issue (from high to low, or the community member could indicate they did not know if the issue was important). Across all Uinta County community responses, the top five issues that had a high proportion of "high importance" ratings were:

- Health Insurance
- Access to Primary Care Providers
- Suicide
- Drug Abuse/Overdose
- Mental Health
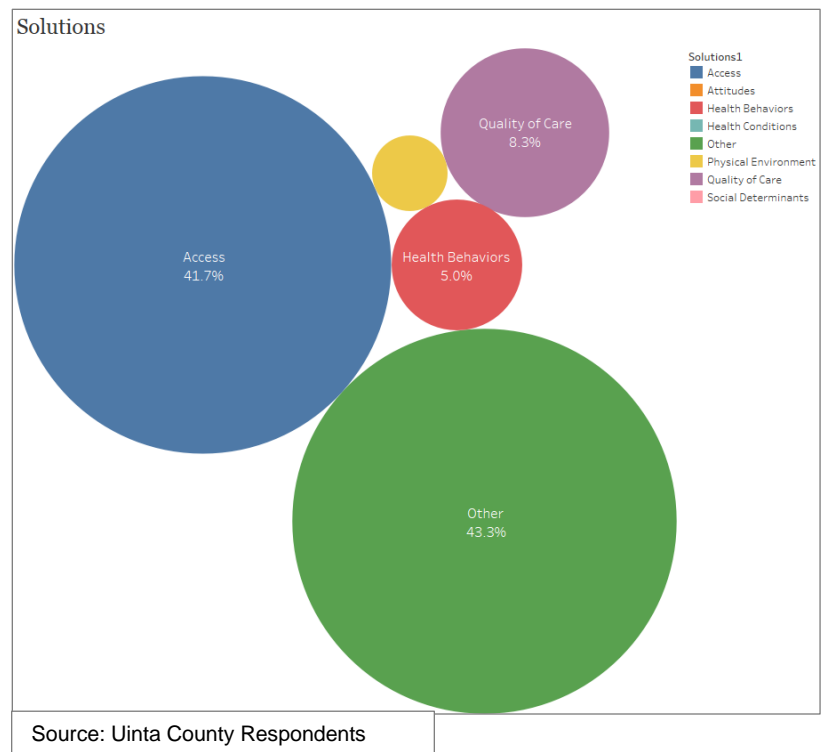
Notably, community members were more likely to cite they did not know if infant deaths, premature births, sexually transmitted infections, and substance use during pregnancy were important issues as compared to all other issues rated.

The image below illustrates the community responses overall to the priority issues.

Priority Issues - Community Perceptions of Importance
By Importance
Uinta County

Priority Issue1	High Importance	Medium Importance	Low Importance	Don't Know if Important
Health Insurance	87.9%	8.6%	1.7%	1.7%
Access to Primary Care Providers	84.8%	15.3%	0.0%	0.0%
Suicide	84.8%	10.2%	1.7%	3.4%
Drug Abuse/Overdose	81.4%	17.0%	1.7%	0.0%
Mental Health	81.4%	15.3%	1.7%	1.7%
Obesity	72.9%	18.6%	6.8%	1.7%
Access to Healthy Food	72.4%	17.2%	8.6%	1.7%
Alcohol Abuse	72.4%	20.7%	5.2%	1.7%
Health Services for Senior Citizens	72.4%	19.0%	5.2%	3.5%
Tobacco Use	67.2%	24.1%	6.9%	1.7%
Access to Exercise/Recreation Opp..	66.7%	29.8%	3.5%	0.0%
Substance Use During Pregnancy	61.4%	26.3%	0.0%	12.3%
Childhood Immunizations	58.6%	25.9%	8.6%	6.9%
Cancer Screening	57.9%	33.3%	3.5%	5.3%
Injury	48.3%	32.8%	10.3%	8.6%
Infant Deaths	46.6%	13.8%	12.1%	27.6%
Premature Births	43.1%	27.6%	3.5%	25.9%
Sexually Transmitted Infections	4.3%	24.1%	13.8%	13.8%

Percent of Responses

Source: Uinta County Respondents

Appendix D – Public Health System Capacity Summit Detailed Results

Background

PHD hosted Wyoming's first-ever Public Health System Capacity Summit (summit) on April 10, 2018. The summit was planned and coordinated by a SHA Steering Committee subcommittee.

One hundred thirty-one internal and external system partners were invited to participate. Invitees represented a variety of system partners, including but not limited to:

- Epidemiology Professionals
- Vital Records Professionals
- Performance Management and Quality Improvement Councils
- Workforce Development Professionals
- Medical Community Members
- Hospitals and Healthcare Organizations and Associations
- Mental Health and Substance Abuse Treatment Providers
- Public Health Programs
- Local Health Departments
- Tribal Health Organizations
- Public Health Emergency Preparedness Professionals
- Emergency Medical Services Professionals
- Public Health Lab Professionals
- Healthcare Regulatory Agencies

- Health Insurers
- Academic Institutions
- Research and Evaluation Professionals
- Education Professionals
- Public, Private, and Voluntary Organizations
- Coalition and Stakeholder Organizations
- Government Agencies
- Legislators
- Health and/or Crisis Communication Professionals
- Business Leaders
- Housing Authorities
- Transportation Professionals
- Community Development Organizations
- Planning Organizations
- Faith Community Members
- Law Enforcement Professionals

Of those invited, 73 participants registered or informed PHD of their intent to attend. Due to various circumstances, several registered participants were unable to participate. Therefore, a total of 57 system partners attended and participated in the assessment process.

The invitation list was comprised of 50 WDH staff (38 percent) and 81 external system partners (62 percent). Actual attendance at the summit, however, was 63 percent WDH and 37 percent external partners.

Assessment Tool

PHD used the National Public Health Performance Standards (NPHPS) 3.0 assessment guidance and instrument to conduct the assessment in Wyoming. The NPHPS tool is the only validated tool of its kind and is considered the gold standard. The standards have been determined to be highly valid measures of public health system performance.[137] The assessment process included participants assessing the 10 Essential Public Health Services (EPHS) against four model standards using five voting options, as depicted in the image on the next page. Additionally, participants discussed strengths, weaknesses, and opportunities, which were captured by note-takers. An analysis of the discussion data is presented in the *Results* section below.

10 Essential Public Health Services
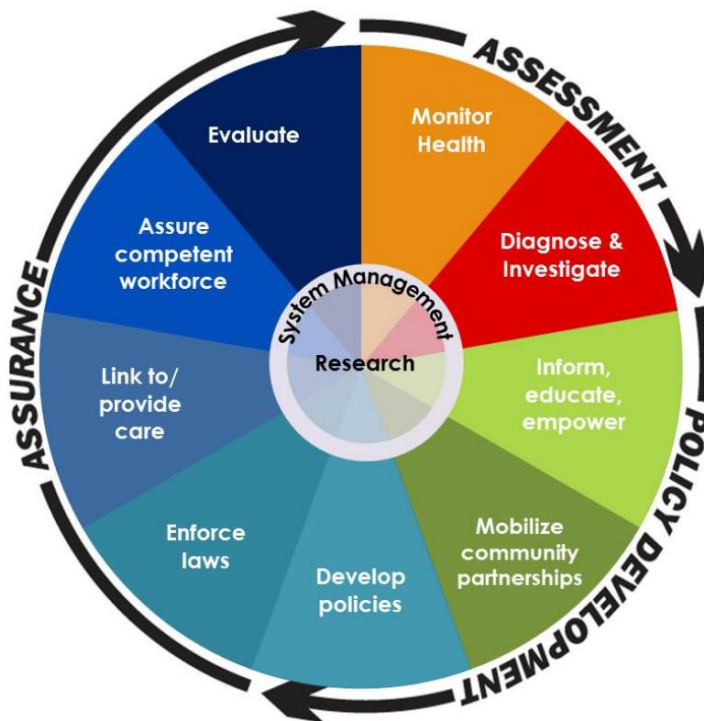
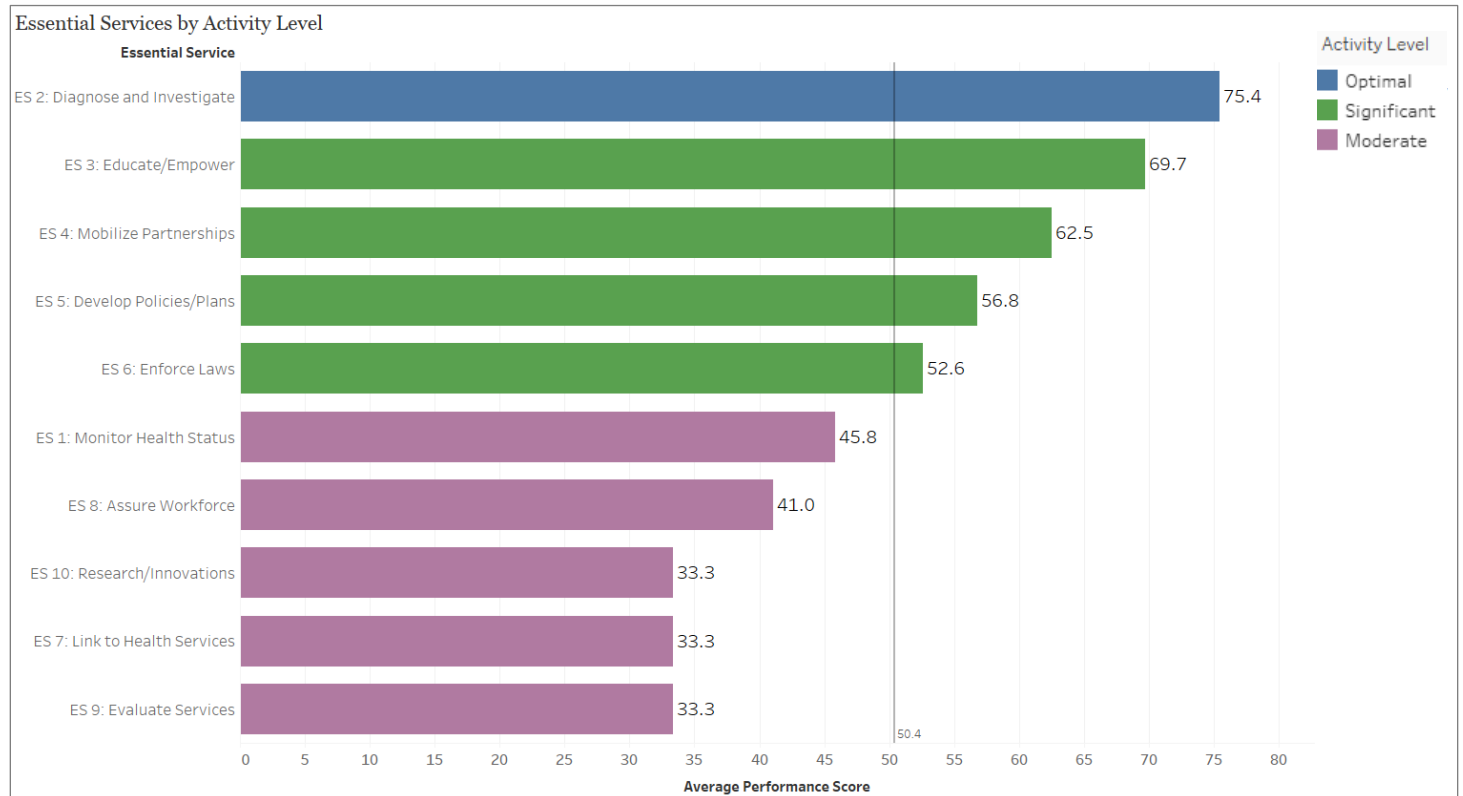| Model Standards	
1. Planning & Implementation	
2. State-Local Relationships	
3. Performance Management & Quality Improvement	
4. PH Capacity & Resources	

Optimal	> 75% activity met
Significant	50% < activities met < 75%
Moderate	25% < activities met < 50%
Minimal	0% < activities met < 25%
No/None	0% or absolutely no activity

What is going on in our state?

Results

Essential Services

Across all 10 EPHS, Wyoming scored an average of 50.4. This equates to a significant level of public health system service delivery (albeit on the low end of the significant range).

Essential Services by Activity Level

Essential Service	Average Performance Score	Activity Level
ES 2: Diagnose and Investigate	75.4	Optimal
ES 3: Educate/Empower	69.7	Significant
ES 4: Mobilize Partnerships	62.5	Significant
ES 5: Develop Policies/Plans	56.8	Significant
ES 6: Enforce Laws	52.6	Significant
ES 1: Monitor Health Status	45.8	Moderate
ES 8: Assure Workforce	41.0	Moderate
ES 10: Research/Innovations	33.3	Moderate
ES 7: Link to Health Services	33.3	Moderate
ES 9: Evaluate Services	33.3	Moderate

Source: WY Public Health System Capacity Assessment

The assessment revealed five services that were above average, which indicate services that the Wyoming system is relatively stronger in delivering, though there is still room for improvement. Those services, in order of average scores from highest to lowest, include:

- Diagnosing and investigating health problems and health hazards (75.4 or optimal service delivery)

- Informing, educating, and empowering people about health issues (69.7 or significant service delivery)

- Mobilizing community partnerships and action to identify and solve health problems (62.5 or significant service delivery)

- Developing policies and plans that support individual and community health efforts (56.8 or significant service delivery)

- Enforcing laws and regulations that protect health and ensure safety (52.6 or significant service delivery)

Wyoming is strongest in Essential Services 2, 3, and 4, which involve investigating health problems, educating the community, and mobilizing community partnerships. Participants' primary challenges in these areas are funding and staff capacity, feeling that there are not enough resources, and not enough people to address these areas. Participants pointed out several specific areas that do not receive state funding as health equity issues. While collaboration was cited as a strength, participants also felt that they could benefit from introducing new partners and partnerships, particularly where it could improve local capacity and coordination between the state and local, and local to local levels. They also stated a need for a stronger informatics programs, which could make data more accessible to partners and the public, as well as stronger community education programs. Lastly, Wyoming's public health infrastructure is strong, with a good regulatory framework and coverage in every community and county.

Conversely, there were five services below the average that indicate significant opportunities for improvement. Those services, in order of average scores from lowest to highest, include:

- Monitoring health status to identify and solve community health problems (45.8 or moderate service delivery)

- Assuring a competent public and personal healthcare workforce (41.0 or moderate service delivery)

- Linking people to needed personal health services and assure the provision of healthcare when otherwise unavailable (33.3 or moderate service delivery)

- Evaluating effectiveness, accessibility, and quality of personal and population-based health services (33.3 or moderate service delivery)

- Researching for new insights and innovative solutions to health problems (33.3 or moderate service delivery)

Wyoming is weakest in Essential Services 7, 9, and 10, which are concerned with access to care, evaluation, and research. Wyoming has a strong capacity for data collection and rich archive of data to draw on in future analyses. While evaluation activities need improvement, there is general support and desire for evaluation amongst health professionals. Wyoming's health system partners are good collaborators, with efficient and effective communication strategies. There are many opportunities for continuing education, both on the state and community level.

Short-term and long-term opportunities for improvement were identified by participants. Those opportunities are summarized in the following table.
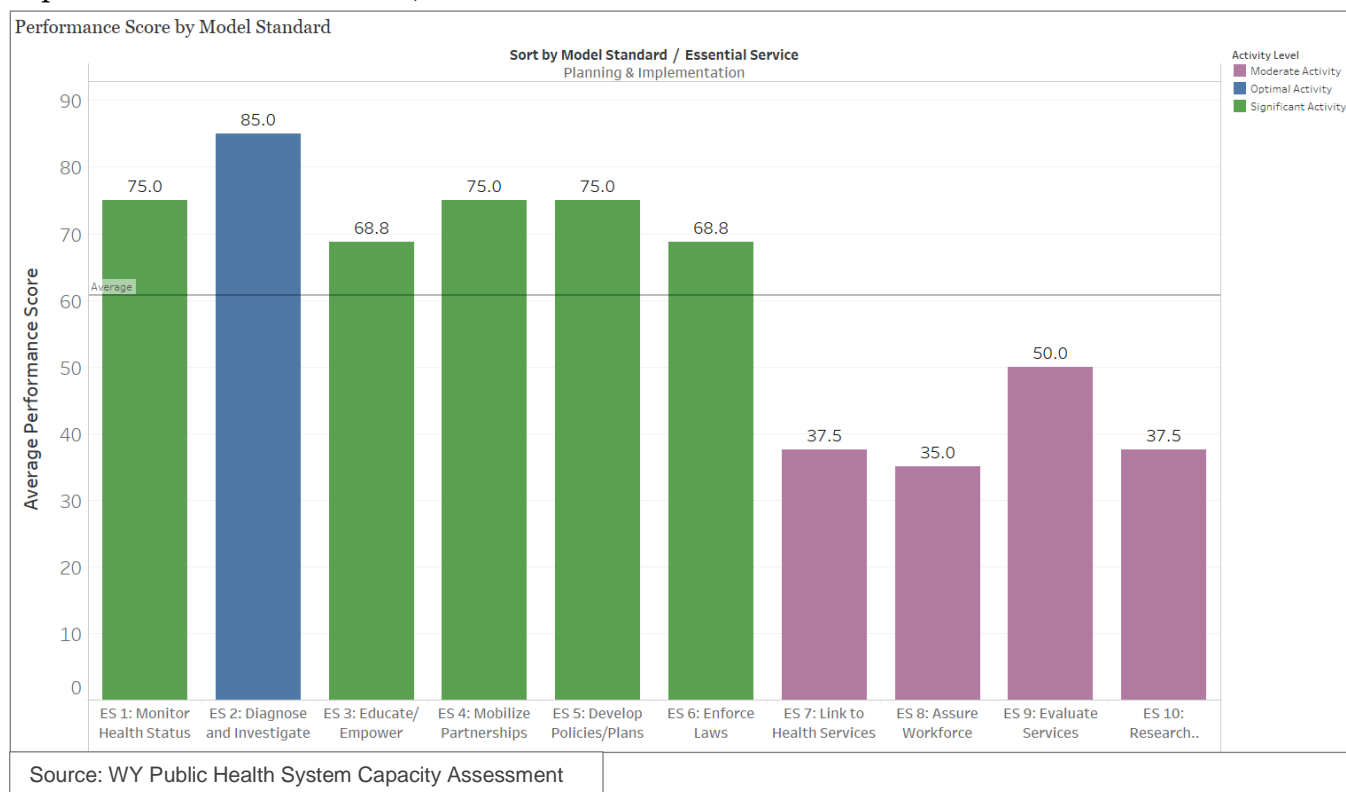
Short-Term Opportunities	Long-Term Opportunities
• Greater alignment of priorities and data across partners • Improving partner communication • Diversifying partnerships, especially among academic and tribal health partners • Improving access to data • Expanding public health workforce	• Creating new ideology of systems-level thinking (decision-making should be driven by system-level, data-driven planning and health impacts of all policies assessed) • Reducing/removing programmatic silos • Coordinating evaluation services • Developing state health improvement plan

Model Standards

In this section, the average performance scores are presented by model standard. This view identifies how each model standard is performed across each EPHS.

Model Standard 1: Planning & Implementation

This model standard refers to the public health system's ability to *plan for and implement* key activities related to the essential services. The Wyoming system demonstrates significant ability to carry out planning and implementation across services, with an overall score of 60.8.

Performance Score by Model Standard

Sort by Model Standard / Essential Service
Planning & Implementation

Activity Level
■ Moderate Activity
■ Optimal Activity
■ Significant Activity

ES 1: Monitor Health Status — 75.0
ES 2: Diagnose and Investigate — 85.0
ES 3: Educate/Empower — 68.8
ES 4: Mobilize Partnerships — 75.0
ES 5: Develop Policies/Plans — 75.0
ES 6: Enforce Laws — 68.8
ES 7: Link to Health Services — 37.5
ES 8: Assure Workforce — 35.0
ES 9: Evaluate Services — 50.0
ES 10: Research.. — 37.5

Source: WY Public Health System Capacity Assessment

The graph on the next page highlights that Wyoming's system is strong in planning and implementation for the following services:

• Monitoring health status to identify and solve community health problems (75.0)

• Diagnosing and investigating health problems and health hazards (85.0)

- Informing, educating, and empowering people about health issues (68.8)
- Mobilizing community partnerships and action to identify and solve health problems (75.0)
- Developing policies and plans that support individual and community health efforts (75.0)
- Enforcing laws and regulations that protect health and ensure safety (68.8)

However, the system also demonstrates opportunity to improve planning and implementation for the remainder of services:

- Linking people to needed personal health services and assure the provision of healthcare when otherwise unavailable (37.5)
- Evaluating effectiveness, accessibility, and quality of personal and population-based health services (35.0)
- Researching for new insights and innovative solutions to health problems (50.0)
- Assuring a competent public and personal healthcare workforce (37.5)

Model Standard 2: State-Local Relationships

This model standard refers to the public health system's ability to work with local public health systems to provide assistance, build capacity, and offer resources related to the delivery of the essential services. The Wyoming system works with local public health systems at a significant level of activity (on the low end of the significant range), with an overall score of 50.4.

The graph below shows that Wyoming's system has relatively strong state-local relationships for the following services:

Source: WY Public Health System Capacity Assessment
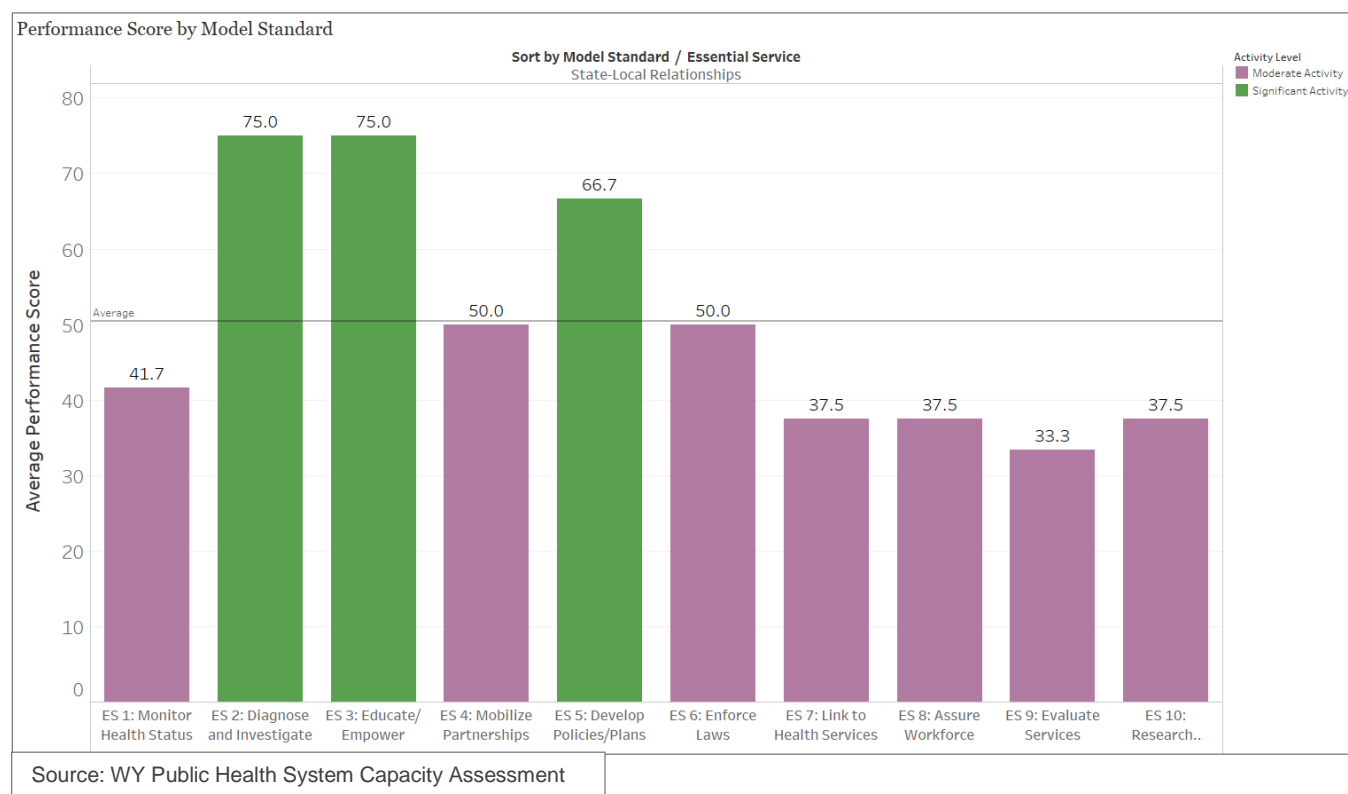
- Diagnosing and investigating health problems and health hazards (75.0)
- Informing, educating, and empowering people about health issues (75.0)

- Developing policies and plans that support individual and community health efforts (66.7)

There are a number of services, on the other hand, where the state public health system has opportunity to enhance the assistance and capacity-building support it offers to local public health systems. Those services include:

- Monitoring health status to identify and solve community health problems (41.7)

- Mobilizing community partnerships and action to identify and solve health problems (50.0)

- Enforcing laws and regulations that protect health and ensure safety (50.0)

- Linking people to needed personal health services and assure the provision of healthcare when otherwise unavailable (37.5)

- Evaluating effectiveness, accessibility, and quality of personal and population-based health services (37.5)

- Researching for new insights and innovative solutions to health problems (33.3)

- Assuring a competent public and personal healthcare workforce (37.5)

Model Standard 3: Performance Management (PM) & Quality Improvement (QI)

This model standard refers to the public health system's ability to review the effectiveness of their service delivery and actively use the review information to continuously improve the quality of their efforts. Overall, the Wyoming system demonstrates a moderate level of activity (on the lower end of the moderate range) as it relates to PM and QI, with an overall score of 38.5.

Source: WY Public Health System Capacity Assessment
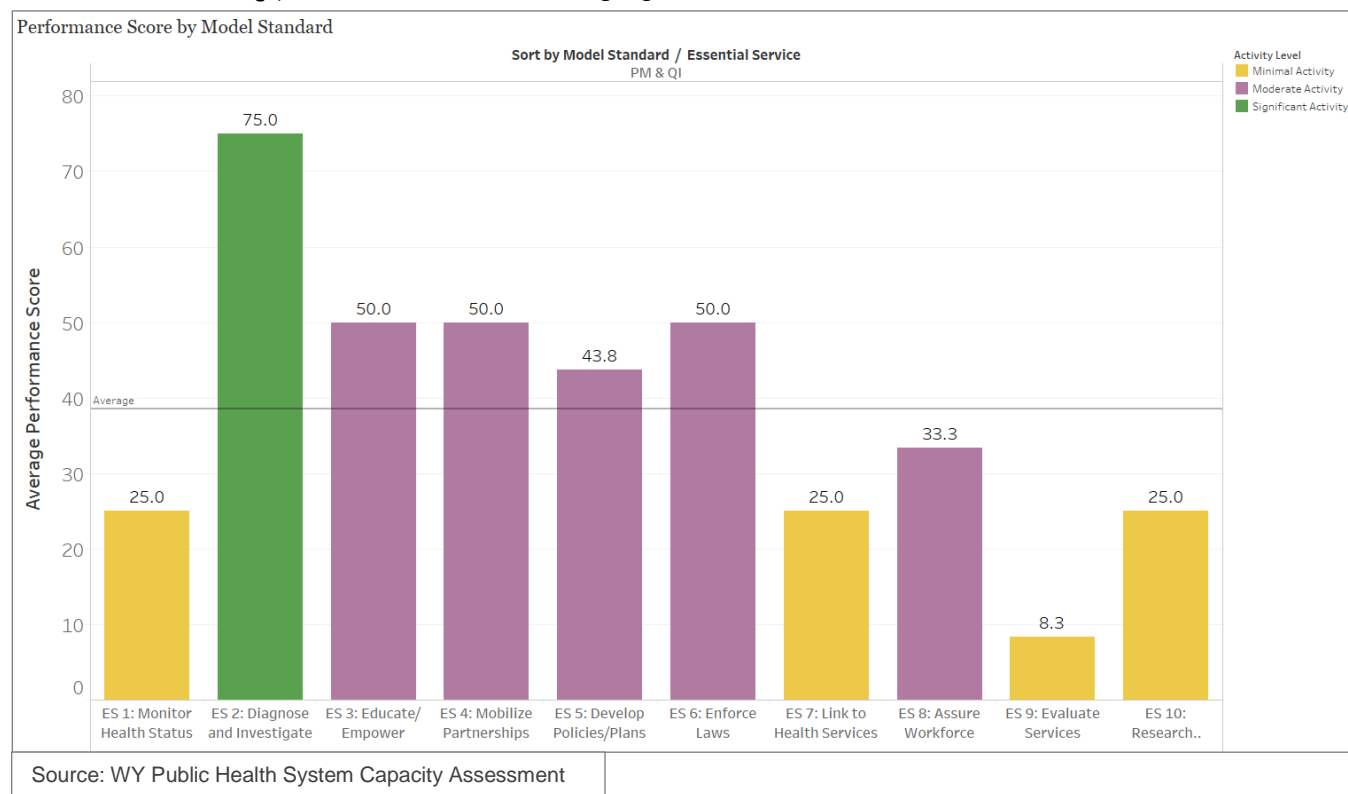
The graph on the next page indicates that Wyoming's system demonstrates significant ability to review and improve efforts for the following service:

- Diagnosing and investigating health problems and health hazards (75.0)

The remaining nine services indicate lower levels of activity and thus provide opportunities for improvement:

- Monitoring health status to identify and solve community health problems (25.0)

- Informing, educating, and empowering people about health issues (50.0)

- Mobilizing community partnerships and action to identify and solve health problems (50.0)

- Developing policies and plans that support individual and community health efforts (43.8)

- Enforcing laws and regulations that protect health and ensure safety (50.0)

- Linking people to needed personal health services and assure the provision of healthcare when otherwise unavailable (25.0)

- Evaluating effectiveness, accessibility, and quality of personal and population-based health services (33.3)

- Researching for new insights and innovative solutions to health problems (8.3)

- Assuring a competent public and personal healthcare workforce (25.0)

Model Standard 4: Capacity & Resources

This model standard refers to the public health system's investment in and use of human, information, technology, organizational, and financial resources to carry out the essential services. Overall, the Wyoming system demonstrates a significant level of activity (on the low end of the significant range), with an overall score of 51.8.

Source: WY Public Health System Capacity Assessment
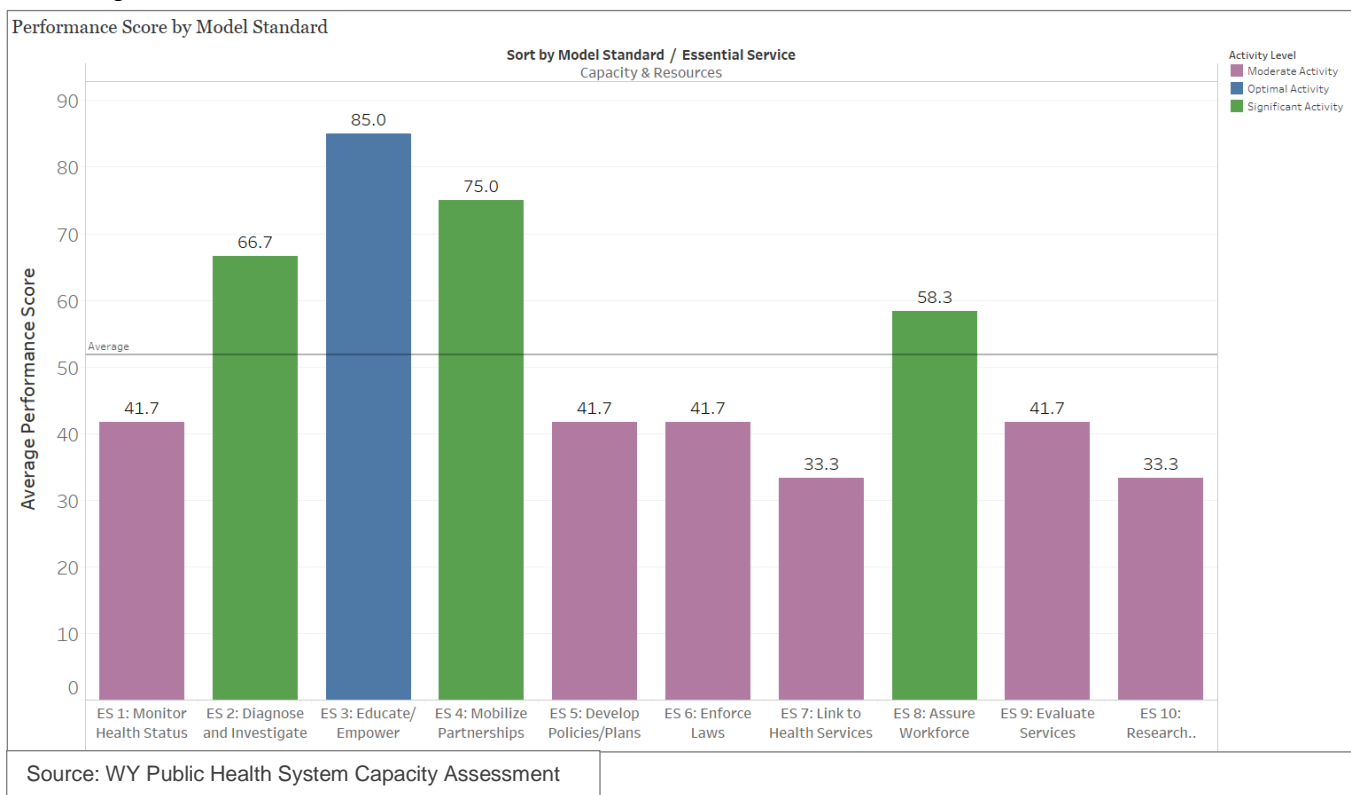
The graph above indicates that Wyoming's system demonstrates an optimal level of investment for the following service:

- Informing, educating, and empowering people about health issues (85.0)

Further, there is significant investment in capacity and resources for these services:

- Diagnosing and investigating health problems and health hazards (66.7)

- Mobilizing community partnerships and action to identify and solve health problems (75.0)

- Assuring a competent public and personal healthcare workforce (58.3)

On the other hand, the remaining services (below) indicate only moderate capacity and resources, which may signal opportunities for improvement.

- Monitoring health status to identify and solve community health problems (41.7)

- Developing policies and plans that support individual and community health efforts (41.7)

- Enforcing laws and regulations that protect health and ensure safety (41.7)

- Linking people to needed personal health services and assure the provision of healthcare when otherwise unavailable (33.3)

- Evaluating effectiveness, accessibility, and quality of personal and population-based health services (41.7)

- Researching for new insights and innovative solutions to health problems (33.3)

Strengths, Weakness, and Opportunities

Based on the discussion and voting that occurred during the summit, PHD was able to capture key insights as to what the strengths, weaknesses, and opportunities are as it relates to each EPHS. In this section, those results are presented with a more in-depth look at each EPHS and its corresponding model standards performance scores.

Essential Service 1: Monitor Health Status

Source: WY Public Health System Capacity Assessment
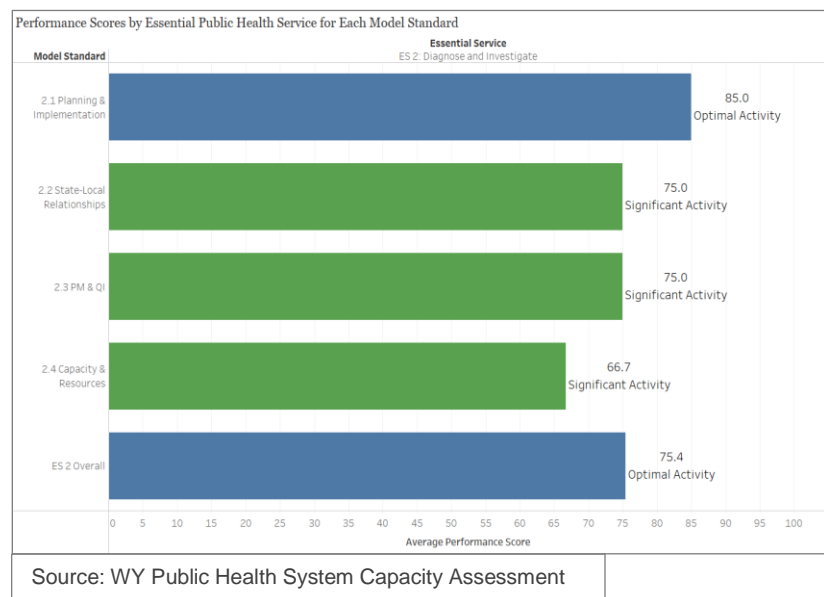
Planning and implementation was acknowledged as an overall strength within Essential Public Health Service 1. Assessment participants noted that Wyoming does a good job maintaining data collection and monitoring programs, and that system partner organization are particularly good at working together to maintain a data reporting system designed to identify potential public health threats. In addition, participants commented that Wyoming has a strong ability to collect and assess data comprehensively, in part because the state's population is relatively small. Participants also noted that Wyoming has strong population health registries with a wide range of data.

While Wyoming's data collection is strong, there is room for improvement in collaborative activities and partnerships. Participants commented that it is not always clear where certain kinds of data can be accessed, particularly for local partners, who do not know which departments at the state level they should to reach out to for data access. In addition, data is not always available in forms that are useful to local partners because of the datasets can be too small, because not all data is available at the county level, and because of gaps in the data. While participants noted that a quality improvement process was underway for data reporting, they also noted that these efforts were mostly focused on the program level instead of the system level.
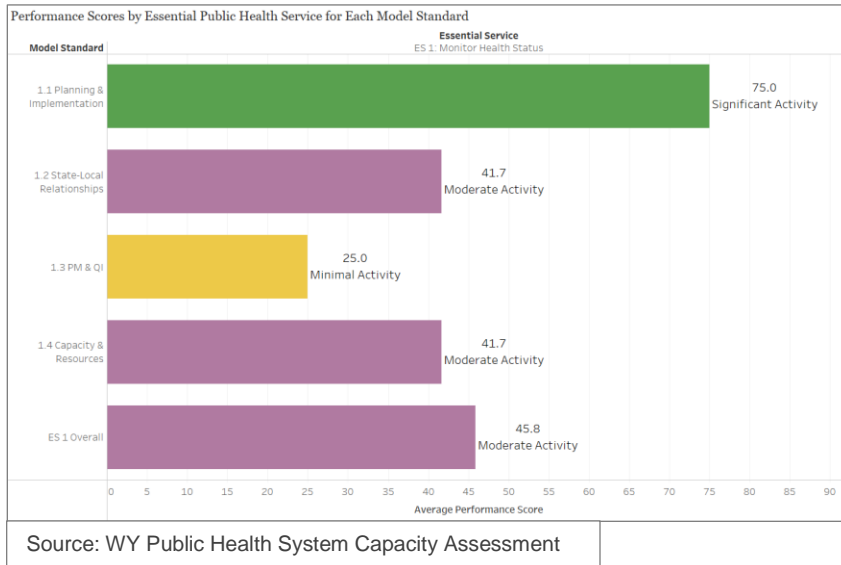
Several opportunities to improve data capacity were identified. These opportunities for improvement include:

- Addressing health literacy through improved data interpretation

- Promoting available data through the creation of a centralized data library, such as Medicaid's data warehouse

- Build upon current electronic data exchange systems

- Build partnerships to facilitate data exchange and use and encourage bottom-up communication to determine what data is needed at the local level
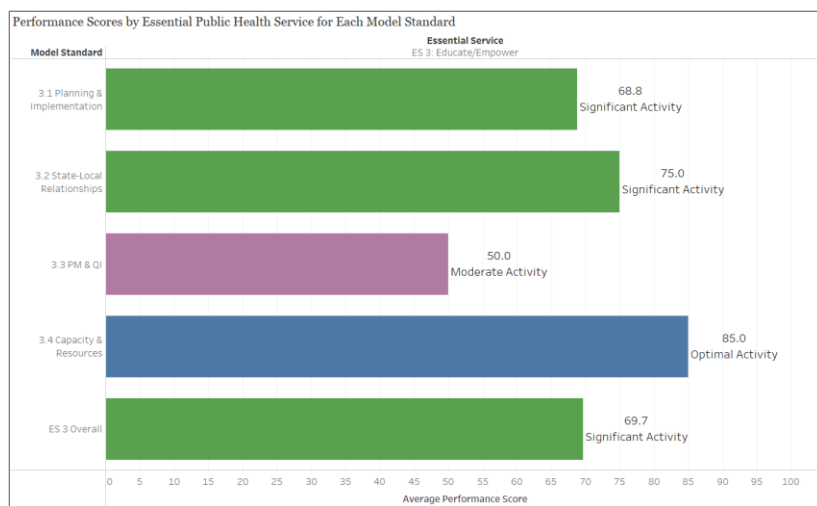
Essential Service 2: Diagnose & Investigate

Performance Scores by Essential Public Health Service for Each Model Standard

Essential Service
ES 1: Monitor Health Status

Model Standard	Score
1.1 Planning & Implementation	75.0 Significant Activity
1.2 State-Local Relationships	41.7 Moderate Activity
1.3 PM & QI	25.0 Minimal Activity
1.4 Capacity & Resources	41.7 Moderate Activity
ES 1 Overall	45.8 Moderate Activity

Source: WY Public Health System Capacity Assessment

Participants responded positively about Wyoming's capacity to diagnose and investigate health problems and health hazards in the community across all the model standards. Some key strengths include the capabilities of state laboratories, their organization, reporting standards, response networks, and partnerships specifically. Response capacity and partnerships were also key strengths, especially the capability to rapidly initiate enhanced surveillance for statewide/regional health threats, to work together to respond to public health threats, and the state's capacity to support local level responses.

While laboratories, public health response, and partnerships were all strengths of this essential service, there were a few areas where participants identified a need for improvement. Participants noted that there are national surveillance systems that Wyoming could start participating in, such as the birth defects reporting system, and the National Violent Death Reporting System (NVDRS). There are also certain kinds of testing in which Wyoming could improve its capacity, including gonorrhea susceptibility testing, antimicrobial resistance testing, soil and water testing, and newborn screening. Injury prevention is one area where Wyoming could extend more support for surveillance. Participants also pointed out that while collecting reports from labs is very strong, the state is less strong in collecting reports from local physicians and healthcare providers.

Several opportunities to improve diagnosis and investigation of health problems and health hazards in the community were identified. These opportunities for improvement include:

- Provide training for non-lab-based results/reporters

- Collaboration between partners on establishing occupational/environmental investigation capacity

- Industry-specific training (e.g., outbreaks in nursing homes).

- Leverage the partnership between Wyoming Medicaid and public health

Essential Service 3: Educate/Empower

Performance Scores by Essential Public Health Service for Each Model Standard

Essential Service
ES 3: Educate/Empower

Model Standard	Average Performance Score
3.1 Planning & Implementation	68.8 — Significant Activity
3.2 State-Local Relationships	75.0 — Significant Activity
3.3 PM & QI	50.0 — Moderate Activity
3.4 Capacity & Resources	85.0 — Optimal Activity
ES 3 Overall	69.7 — Significant Activity

Source: WY Public Health System Capacity Assessment

Essential Service 3 was rated highly across most model standards. Participants highly rate system partner organizations' capacity to implement health education programs and services designed to promote healthy behaviors, maintain a crisis communications plan, provide technical support and assistance to local public health systems, and support local public health systems in developing effective emergency communication capabilities. Other specific examples of strengths provided by participants include the number of programs with a statewide reach, skilled experts leading programs, the strength of grass-roots organization, and Wyoming's emergency or crisis communication.

While the four model standards of Essential Service 3 were all highly rated, participants also were able to cite many weaknesses. Some of these are systemic, such as scant resources for reaching disparate populations, overburdened local partners, a weak emphasis on the social determinants of health, a weak emphasis on childhood mental health within schools and within the Maternal and Child Health Unit, and a low capacity for suicide prevention and mental health, STD prevention, and dental health programs. Other weaknesses are simply gaps that need to be filled such as state health performance objectives, culturally competent mass communications for Native American and Hispanic communities, and a system tool for QI.

Several opportunities to improve Wyoming's capacity to inform, educate, and empower people about health issues were identified. These opportunities for improvement include:

- Align activities and facilitate collaboration between organizations using health performance objectives
- Conduct local-level needs assessments
- Improve consistency and utility of media materials for target populations through process evaluation
- Provide more technical assistance for QI at the local level
- Increase collaboration across the mental health practice community
- Pursue more effective collaboration with Native American communities
- Incorporate social determinants of health into discussion and decision-making at higher levels
- Explore the use of health impact assessments for legislation under consideration

Essential Service 4: Mobilize Partnerships

Performance Scores by Essential Public Health Service for Each Model Standard

Essential Service
ES 4: Mobilize Partnerships

Model Standard	Score	
4.1 Planning & Implementation	75.0	Significant Activity
4.2 State-Local Relationships	50.0	Moderate Activity
4.3 PM & QI	50.0	Moderate Activity
4.4 Capacity & Resources	75.0	Significant Activity
ES 4 Overall	62.5	Significant Activity

Source: WY Public Health System Capacity Assessment

Essential Service 4 was ranked highly in the first and fourth model standards. Participants identified system partners' capacities to mobilize task forces and organize formal sustained partnerships as strengths. The participants pointed out that several collaborations are already occurring in Wyoming. In addition, participants also highly ranked system partners' expertise and their capacity to align efforts and commit financial resources to sustained projects. Participants pointed out that State staff are good at finding federal resources, leveraging them, and getting those resources into the field. In turn, field staff are good at utilizing these resources.

Participants also pointed out key weaknesses in this Essential Service, particularly in state-local relationships. Many participants felt that there is a lack of understanding at the state level about how to build strong partnerships, with the quantity of these collaborations being valued over the quality of partnerships. Participants also pointed out the difficulty of aligning goals, as well as restrictions created by siloed funding, and low levels of volunteering.

Several opportunities to improve Wyoming's capacity to mobilize community partnerships and action to identify and solve health problems were identified. These opportunities for improvement include:

- Use surveys to explore current and potential partnerships
- Expand ideas for potential partners to include faith-based and non-health programs and departments
- Identify shared goals to use resources more efficiently and avoid duplicating efforts
- Improve collaboration with tribal public health leadership

Essential Service 5: Develop Policies & Plans

Performance Scores by Essential Public Health Service for Each Model Standard

Essential Service
ES 5: Develop Policies/Plans

Model Standard	Score	
5.1 Planning & Implementation	75.0	Significant Activity
5.2 State-Local Relationships	66.7	Significant Activity
5.3 PM & QI	43.8	Moderate Activity
5.4 Capacity & Resources	41.7	Moderate Activity
ES 5 Overall	56.8	Significant Activity

Source: WY Public Health System Capacity Assessment

Essential Service 5 was rated highly in the first two model standards, but only moderately well in the second two. System partners' all-hazards preparedness plan were rated as optimal, with one participant noting that several condition-specific state plans exist in Wyoming, along with an established all-hazards plan and a strong practice of preparedness drills and exercises. Participants also noted that system partner organizations do a good job of providing technical assistance in the development of local all-hazards preparedness plans, and for local health policy development. Participants added that state-level technical assistance is also available for developing health improvement plans at the community level.

Several weaknesses in this service were also identified. Participants felt that system partner organizations needed to improve in their capacity to review progress towards accomplishing health improvement across the state, and that they are not doing a good job of using a health-in-all-policies impact assessment approach. Participants noted that Wyoming does not have a state health improvement plan, and that while local organizations may have a strong understanding of best practices for policy, they are not so consistent with enforcing those policies. Participants also pointed out weaknesses with partners' capacity to align and coordinate their efforts to implement health planning and policy development. They pointed out that tribal health is often excluded from information-sharing activities.

Several opportunities to improve Wyoming's capacity to develop policies and plans that support individual and community health efforts were identified. These opportunities for improvement include:

- Increase efficiency of data use
- Set priorities using community needs assessments
- Implement clear definitions of local and state authority for local all-hazard preparedness plans
- Continue working towards a state health improvement plan
- Implement and practice lessons learned in preparedness drill
- Bridge communication with health partners and legislators

Essential Service 6: Enforce Laws

Performance Scores by Essential Public Health Service for Each Model Standard
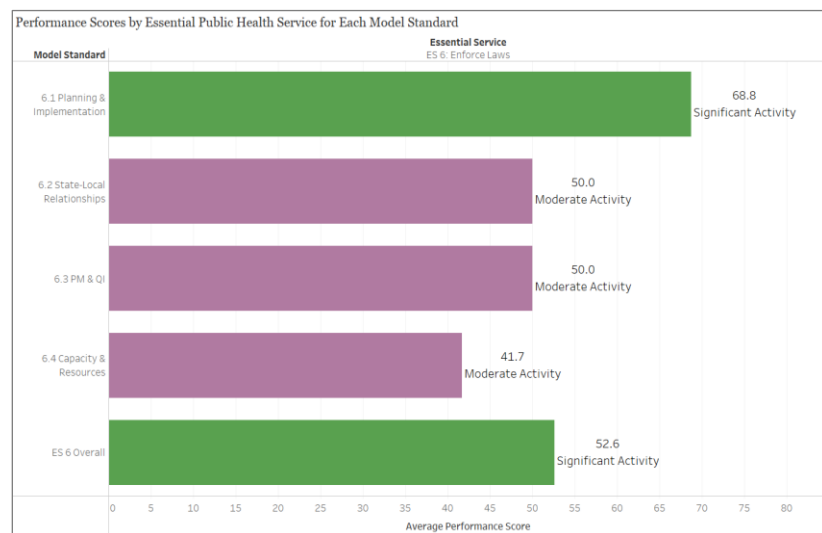
Source: WY Public Health System Capacity Assessment

Participants identified many strengths regarding Essential Service 6, particularly in Model Standard 1 – planning and implementation. Participants believe that system partner organizations are performing optimally to establish cooperative relationships between PHD and hospitals. Participants commented that medical service boards meet regularly and that there is good communication among licensing boards. Partners are also doing a good job assuring that laws give authorities the power to prevent and manage emergency health threats. Participants noted that Wyoming has good laws around critical incidents, and state regulations are easy to follow. Technical assistance and training to local public health systems is also a strength.

However, participants also identified several areas in need of improvement. They indicated that systems partners have minimal capacity to assist local governing bodies in incorporating current scientific knowledge and best practices into local laws. They identified a lack of resources for training staff and a lack of influence with legislators. Committing financial resources to public health law enforcement was also a weakness. Participants felt that system partners fail to collaborate with other agencies, and that there was a lack of funding for implementing new policies and best practices. They also pointed out that roles and responsibility were unclear as to who enforces certain policies, and the challenges of implementing policies in tribal jurisdictions.

Several opportunities to improve Wyoming's capacity to enforce laws and regulations that protect health and ensure safety were identified. These opportunities for improvement include:

- Learn more about best practices and lessons learned in other states

- Seek out partnerships with law enforcement

- Enhance communication with local agencies
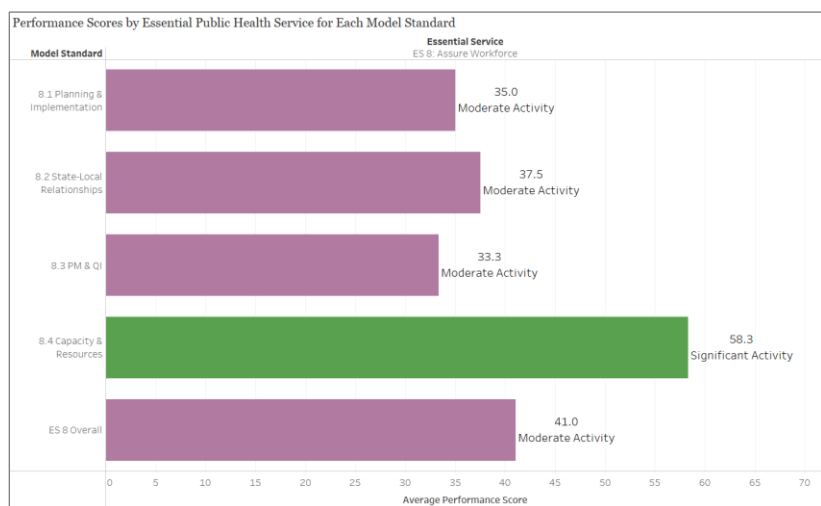
Essential Service 7: Link to Health Services

Performance Scores by Essential Public Health Service for Each Model Standard

Model Standard	Essential Service ES 7: Link to Health Services
7.1 Planning & Implementation	37.5 Moderate Activity
7.2 State-Local Relationships	37.5 Moderate Activity
7.3 PM & QI	25.0 Minimal Activity
7.4 Capacity & Resources	33.3 Moderate Activity
ES 7 Overall	33.3 Moderate Activity

Average Performance Score

Source: WY Public Health System Capacity Assessment

Participants gave an overall low score to Essential Service 7. Participants identified some strengths in this area, including some key resources, and capabilities of providers and PHD. Participants pointed out the availability of telehealth to improve care, the Language Access Plan, patient-centered medical homes, and the WIC program, which refers people to other resources and coordination where applicable. Dedicated and self-reliant providers were also identified as a strength, as were the State compacts with nurses, EMS, and doctors, and the Federally Qualified Health Centers in Wyoming. The Quality Improvement Council and the Health Equity Assessment in PHD were also mentioned.

However, several weaknesses were also identified. Participants felt that partners do not work well together to establish and maintain a statewide health insurance exchange. Participants noted shortages in mental health, primary care, and specialty care providers, and not enough collaboration between agencies to meet these gaps. Participants felt that partners do not effectively mobilize their assets, noting a general lack of funding, lack of providers, and lack of facilities, especially facilities for senior care and inpatient mental healthcare. Participants felt that partners were putting minimal efforts towards reviewing changes in barriers to personal healthcare. Participants cited several areas of healthcare disparity that affect Wyoming, including transportation, insurance, knowledge of resources, and other barriers. Participants also advocated for the need to address resistance to new technologies, such as telehealth, and the spread of false information about insurance access and coverage.

Several opportunities to improve Wyoming's capacity to link people to needed personal health services and assure the provision of healthcare when otherwise unavailable were identified. These opportunities for improvement include:

- Increase engagement with telehealth and Project ECHO

- Review resource databases and education for cultural relevance

- Look at health access through social determinants of health

- Collaborate with other agencies to help with access

- Share best practices to mitigate health disparities throughout the state

Essential Service 8: Assure Competent Workforce

Performance Scores by Essential Public Health Service for Each Model Standard

Essential Service
ES 8: Assure Workforce

Model Standard	
8.1 Planning & Implementation	35.0 Moderate Activity
8.2 State-Local Relationships	37.5 Moderate Activity
8.3 PM & QI	33.3 Moderate Activity
8.4 Capacity & Resources	58.3 Significant Activity
ES 8 Overall	41.0 Moderate Activity

Source: WY Public Health System Capacity Assessment

Participants identified several strengths in Essential Service 8, with the strongest area for this essential service being Model Standard 4: Capacity and Resources. Participants identified significant capacity for partner's coordination to effectively conduct workforce development activities. They cited relationships with the executive directors at medical leadership programs, community colleges, health department training assessments, WYTRAIN, and other states. Participants also noted that partners do a good job of pooling their financial resources.

Many areas of weakness were also identified. Participants thought that that there was an overall lack of coordination and collaboration, which led to their low assessment of partners' capacity to work together to develop statewide workforce plans that deliver either essential services or effective personal healthcare services. Participants also had much to say about Wyoming's capacity to ensure that the healthcare workforce achieves the highest level of professional practice. Participants felt that this work was not strongly incentivized, citing high staff turnover and the challenge of recruiting quality applicants. There is also a need for more training opportunities, and more compensation for advanced education.

Several opportunities to improve Wyoming's capacity to assure a competent public and personal healthcare workforce were identified. These opportunities for improvement include:

- Provide more public health training through partnerships with community colleges, the University of Wyoming, or outside educators
- Promote community development

Essential Service 9: Evaluate Services

Performance Scores by Essential Public Health Service for Each Model Standard

Essential Service
ES 9: Evaluate Services

Model Standard	
9.1 Planning & Implementation	50.0 Moderate Activity
9.2 State-Local Relationships	33.3 Moderate Activity
9.3 PM & QI	8.3 Minimal Activity
9.4 Capacity & Resources	41.7 Moderate Activity
ES 9 Overall	33.3 Moderate Activity
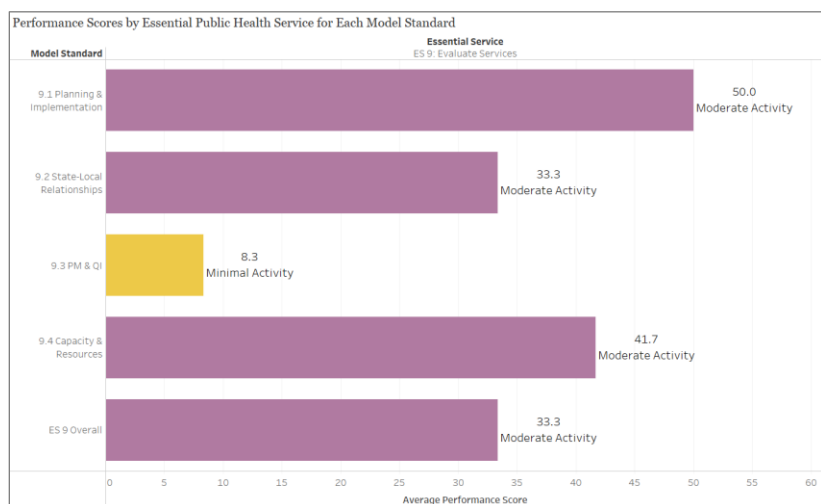
Source: WY Public Health System Capacity Assessment

Evaluation is a challenge for many health departments and partner organizations. However, participants identified a few strengths regarding this essential service. Participants pointed out that system partners have significant capacity to routinely evaluate population-based health services in the state. They pointed out several key partnerships that have incorporated evaluation and added that PHD does a good job of recommending evidence-based practices to providers and provides several trainings on evaluation and population-based health services to local communities. In addition, the state health assessment is underway for the public health system overall.

Participants identified several areas in need of attention. They reported that system partners are not sharing results of state-level performance evaluations with local public health systems, adding that sharing

performance evaluation results between partners is also a general weakness. System partners are also putting no activity towards actively managing and improving their collective performance in evaluation activities. Participants reported political hurdles to making programmatic changes based on evaluation data. They also shared that local partners have difficulty accessing knowledge and resources for evaluation and some partners, such as healthcare providers, are not receptive to evaluation-based advice from public health practitioners. Participants reported no activity from system partners towards promoting systematic quality improvement in the state public health system. They pointed toward short funding cycles and changing workplans that detract from continuous quality improvement initiatives. Participants reported minimal activity towards evaluating the performance of the state public health system. They observed a lack of administrative support and infrastructure for evaluation.

Several opportunities to improve Wyoming's capacity to evaluate effectiveness, accessibility, and quality of personal and population-based health services were identified. These opportunities include:

- Increase partnerships between public health and healthcare facilities in measuring and monitoring performance benchmarks and discussing the results

- Institutionalize federal funding for evaluation

- Operationalize existing capacity in the Director's Unit for Policy, Research, and Evaluation (DUPRE)

- Establish partnerships with healthcare for QI and monitoring the efficacy of healthcare service

Essential Service 10: Research

Source: WY Public Health System Capacity Assessment
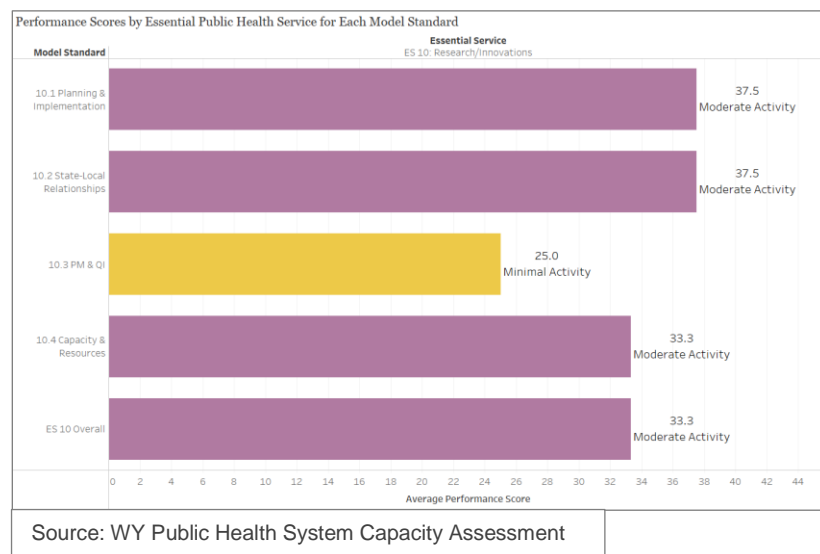
Participants gave a low overall score for Wyoming's capacity to provide Essential Service 10. Some strengths in this area include the health department's Institutional Review Board (IRB), and the availability of contractors for research. There is also access to academic research institutions and their resource databases. Wyoming is a participant in several national studies, and the administration is supportive of research overall. Participants pointed out that Wyoming is very focused on finding evidence-based practices and bringing them to Wyoming, but there is low capacity for conducting research in Wyoming with Wyoming's resources.

Participants identified several areas where Wyoming could improve in this capacity. Direct challenges to conducting research include finding time and money. Participants report that system partners put minimal effort towards pooling their financial resources for research, and while there are financial resources available for evaluation, it is harder to fund new research. Participants felt that system partners do not work well together to conduct or review research. They identified weaknesses in research collaborations, the dissemination of findings, and the lack of an overall statewide research agenda.

Several opportunities to improve Wyoming's capacity to conduct research for new insights and innovative solutions to health problems were identified. These opportunities for improvement include:

- Build partnership with the University of Wyoming for resources on evaluation, data analysis, and publication of research

- Employ staff to analyze, review, and implement existing data

- Expand use of Wyoming Survey and Analysis Center (WYSAC) services

- Engage partners to develop and conduct research studies

- Actively seek out what is best for rural and frontier areas, making grassroots programs evidence-based

- Create collaboratives (e.g., perinatal quality improvement collaborative) that involve research and QI across the state

- Seek out additional resources that are not limited by small populations

Supplemental Follow-Up

During the summit, participants were informed that a supplemental survey would be shared with them following the event. The supplemental survey was administered via SurveyMonkey and contained:

- Questions related to the priority participants would place on the model standards (in connection to the essential services they participated in assessing [based on the supplemental priority questions in the NPHPS guidance]);

- Questions related to WDH's contribution to the achievement of those model standards (based on the supplemental agency contribution questions in the NPHPS guidance);

- Questions about events, trends, and factors that can influence our system (forces of change); and

- Questions about the participants' experience at the event to help PHD evaluate how well the event went and what could be improved.

Of the 57 summit participants, 36 responded to the survey, equating to a 63 percent response rate. The majority (64 percent) of respondents represented the government sector (e.g., elected or appointed officials; state, county, or city government representative/employee). The next largest group of respondents (25 percent) represented the healthcare/medical sector (e.g., medical professionals; hospital; EMS; primary or mental health provider; tribal health; healthcare navigators).

Respondents were asked to select the set of services they helped assess during the summit, which directed them to

Services	Respondents % and #	
Essential Services 1, 2, 9, and 10 (monitoring health status; diagnosing and investigating; evaluating effectiveness; research)	36%	13
Essential Services 3, 4, 5, and 10 (informing, educating, empowering; mobilizing partnerships; developing policies and plans; research)	39%	14
Essential Services 6, 7, 8, and 10 (enforcing laws and regulations; linking people to healthcare; assuring a competent workforce; research)	25%	9

the priority and WDH contribution questions related only to the services they assessed. The table above illustrates that the percentage of respondents that represented each set of services.

Priority Model Standards

The priority model standards questions were used to further identify the priority participants would place on the model standards related to the services they helped assess. Survey respondents were instructed to use a scale of 1 to 10 (with 1 being lowest and 10 being highest) to indicate how important it was to improve our system performance for each model standard, by EPHS. For the purpose of this report, PHD has listed the proportion of responses that were 7 or higher for each service and the related model standards. The overall number represents the cumulative, rounded percentage, while each individual, rounded percentage corresponds with ratings of 7, 8, 9, and 10.

Across all EPHS, Model Standard 4 (capacity and resources) was most consistently rated a high priority among those who responded. Unsurprisingly, Essential Service 2 (diagnosing and investigating) did not rate as high as

other services for all four model standards. Given that this service was most rated one of the best-performing services across the Wyoming system, it makes sense that less respondents would have placed a high priority on the model standards for that service. Also notable, is the high priority across all model standards for Essential Service 10 (research).

Service	ES 1		ES 2		ES 3		ES 4		ES 5		ES 6		ES 7		ES 8		ES 9		ES 10
Respondents	9		9		9		9		9		6		5		6		9		20
Model Standard 1: Planning and Implementation Average: 65.5%	67	22	33	11	67	0	67	22	67	0	83	50	80	40	50	17	56	33	85	15
		22		0		33		22		22		17		40		0		0		20
		0		0		11		0		11		17		0		17		0		20
		22		22		22		22		33		0		0		17		22		30
Model Standard 2: State-Local Relationships Average 66.2%	78	0	44	0	78	0	78	0	67	0	33	0	60	0	67	17	67	0	90	10
		11		0		33		11		11		0		20		17		0		25
		33		22		22		22		33		17		20		17		44		25
		33		22		22		44		22		17		20		17		22		30
Model Standard 3: Performance Management & Quality Improvement Average 71.7%	67	11	56	22	67	11	67	11	78	22	83	33	80	0	67	0	67	22	85	15
		11		11		22		22		11		33		60		33		0		25
		22		0		22		11		22		0		20		17		11		15
		22		22		11		22		22		17		0		17		33		30
Model Standard 4: Capacity & Resources Average 85.9%	78	11	56	11	100	0	100	11	89	0	83	17	80	0	100	17	78	22	95	10
		22		0		33		22		11		0		40		0		0		25
		11		22		44		33		33		17		20		33		11		15
		33		22		22		33		44		50		20		50		44		45

WDH Contribution

The WDH contribution questions were used to further understand participants' views on WDH's contribution to achieving each model standard for the services they helped assess. Survey respondents were instructed to use the below scale to rate how much of each model standard was achieved through the direct contribution of WDH:

- 0 for no contribution to the model standard
- 25 for WDH contribution of 0-25%
- 50 for WDH contribution of 26-50%
- 75 for WDH contribution of 51-75%
- 100 for agency contribution of 76-100%

For the purpose of this report, PHD has listed the proportion of responses at a 75 or higher for each service and the related model standards. The overall number represents the cumulative, rounded percentage, while each individual, rounded percentage corresponds with ratings of 75 and 100.

Service	ES 1		ES 2		ES 3		ES 4		ES 5		ES 6		ES 7		ES 8		ES 9		ES 10	
Respondents	9		9		9		9		9		5		4		4		9		20	
Model Standard 1: Planning and Implementation Average: 41.8%	56	11 / 44	89	44 / 44	44	33 / 11	33	33 / 0	22	22 / 0	20	20 / 0	50	50 / 0	50	50 / 0	44	33 / 11	10	5 / 5
Model Standard 2: State-Local Relationships Average: 31.0%	33	22 / 11	56	22 / 33	44	44 / 0	33	22 / 11	33	22 / 11	60	60 / 0	25	25 / 0	0	0 / 0	11	0 / 11	15	5 / 10
Model Standard 3: Performance Management & Quality Improvement Average: 38.3%	22	11 / 11	56	22 / 33	25	25 / 0	22	22 / 0	11	11 / 0	80	60 / 20	75	75 / 0	50	50 / 0	22	11 / 11	20	15 / 5
Model Standard 4: Capacity & Resources Average: 49.2%	44	33 / 11	78	22 / 56	44	33 / 11	44	33 / 11	44	33 / 11	80	60 / 20	75	50 / 25	25	25 / 0	33	22 / 11	25	15 / 10

Across all model standards, WDH contribution was highly rated for Essential Service 2 (diagnosing and investigating), meaning the department significantly contributes to activities that support investigation and diagnosis of health issues and hazards. Additionally, WDH was rated highly for its contribution to the achievement of Model Standard 4 (capacity and resources) across several services. However, not as many respondents identified WDH contribution to the model standards at higher levels for Essential Service 10 (research). Nor did participants identify significant WDH contribution to the achievement of Model Standard 2 (state-local relationships).

Forces of Change

Survey respondents were asked to respond to a series of questions relating to *trends*, *events*, and *factors* that can impact the public health system in Wyoming and/or its ability to carry out services. For the purpose of the survey the following definitions were provided:

- Trends are patterns over time, such as migration in and out of a community or a growing disillusionment with government.

- Factors are discrete elements, such as a community's large ethnic population, an urban setting, or a jurisdiction's proximity to a major waterway.

- Events are one-time occurrences, such as a hospital closure, a natural disaster, or a passage of new legislation.

Respondents were also made aware that forces of change can be realized in several ways, including but not limited to:

- Social

- Economic

- Political

- Technological

- Environmental

- Scientific

- Legal

- Ethical

Respondents were asked to identify *positive* and *negative* forces that have occurred recently or may occur in the future. They were also asked to identify characteristics of the state that may pose *opportunities* or *threats*.

The responses have been summarized in the following respective tables.

Forces of Change									
	Positive			Negative			Future		
	Events	*Factors*	*Trends*	*Events*	*Factors*	*Trends*	*Events*	*Factors*	*Trends*
Economic			Economy improving			Economic downturn and uncertainty Financial hardship on families Budget and staff cuts		Smaller working age population	Downward economic trends
Environmental									Climate change
Legal/Political	Some increases in government funding Legislative dollars being designated for public health		National emphasis and political will to address opioid epidemic		Political climate at the local, state, and national levels	Lack of Medicaid expansion in Wyoming Federal and state funding reductions Political pressure Limited legislative will to engage in public health policy (e.g., tobacco and alcohol taxes, or syringe service programs)	Potential legalization of marijuana Potential or emerging changes in federal healthcare programs and marketplace funding New Wyoming governor and appointed State agency officials Additional legislative budget cuts		Possible policy changes or strategies implemented over time Government funding may continue to decrease at federal and state levels Potential for health impact reviews for legislation
Social		State's rural culture and the people who live here							
Technological/ Scientific			Technological advances to connect providers and public health system personnel Electronic health records and telehealth Increased media focus on			Media coverage of catastrophic crises as opposed to chronic, evolving public health issues			

Other	Capacity Summit State Health Assessment New MPH program at Casper College 2017 Solar Eclipse		health issues to raise public awareness Enroll Wyoming supporting enrollment in marketplace plans More focus on quality improvement Reduced teen pregnancies Prevention education in communities		Aging population			Continued growth of aging population	Reliance on nonprofit and private sector partners may increase Resident migration out of Wyoming

Opportunities and Threats					
Opportunities Created			Threats Posed		
Events	*Factors*	*Trends*	*Events*	*Factors*	*Trends*
Upcoming state-level elections Opportunity to create a Wyoming public health foundation and develop opportunities through the Wyoming Public Health Association	Small state allows for involvement Hardworking, ethical workforce Excellent professionals desire to work together to solve problems	Research opportunities Communities want better outcomes and are working together to address issues More use of technology to advance collaboration Interest in diversifying Wyoming economy		Rural nature and distance limits access and provider options Independent mindset Counties' varying challenges and levels of support Conservative nature of the state	Loss in education funding Expectation of immediate results and resistance to funding prevention Lack of policies/laws to promote public health Not assessing the public health impact of legislation

Summit Evaluation

Finally, survey respondents were asked to rate their experience at the summit for QI purposes. First, PHD asked respondents to rate their level of satisfaction with a variety of factors on a scale of 1 to 4 with 1 being very dissatisfied and 4 being very satisfied. This question was optional. Of the 36 survey respondents, 21 answered this question. The table below highlights the rounded percentage of respondents who were somewhat or very satisfied with each factor. The table also contains the weighted average score based on the 1 to 4 scale.

Factor	% Somewhat or Very Satisfied and Weighted Average	
Relevance of summit to your work	86%	3.14
Organization of the summit	90%	3.62
Sensitivity of the facilitators to the participants	95%	3.57
Facilitators' effectiveness in guiding participants through the assessment	90%	3.33
Opportunity for questions/discussion	100%	3.57
Handouts or materials	95%	3.43

Overall participants were somewhat or very satisfied with the summit as it relates to each factor. The factor with the most room for growth in the future is connecting the relevance of the summit to the work of the participants.

Next, respondents were asked to rate their level of agreement with a number of statements. A scale of 1 to 4 was also used for this question, with a 1 being strongly disagree and 4 being strongly agree. The table to the left provides the results pertaining to those who somewhat or strongly agreed with the statements. For this question 21 survey respondents answered the question.

Statement	% Somewhat or Strongly Agreed and Weighted Average	
As a result of participating, I learned more about the interconnectedness of the public health system.	76%	3.10
As a result of participating, I was able to connect or network with other system partners.	76%	3.10
As a result of participating, I would like to be involved in future efforts to strengthen the public health system and its impact in Wyoming.	95%	3.45

Encouragingly, almost all respondents indicated a desire to be involved in future efforts to strengthen the public health system in Wyoming. However, there are opportunities to further educate on the interconnectedness of the public health system, and in the future, support more opportunities for system partners to connect and network.

Finally, respondents were asked open-ended questions about what was most and least useful about the summit, and what could be improved. A response summary is provided in the next table. A total of 18 respondents answered the three questions comprising the results presented in the table.

Most Useful	Least Useful	Improvement Opportunities
- Networking, connecting with other partners - Learning about others' efforts, priorities, and perspectives - Getting out of and/or removing silos - Understanding where other stakeholders and partners are in their struggles and successes - Sharing ideas and robust discussion about the issues - Breadth of experience among partners	- A lot to cover in a short period of time; it was overwhelming, tiring - Assessment questions seemed repetitive and further clarification and explanation would have been useful - Lack of focused discussion at times among participants - Not enough diversity of partners - Difficulty with the concept of the public health system and how partners relate to it	- Have more non-WDH participants and representation - More time and explanation - Consider more small groups or extending the length of the event - Include more time for discussion outside of the prescribed questions - Provide follow-up via online platforms

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