# Community Health Needs Assessment

## Southwest Healthcare Services Service Area
## Bowman, North Dakota

# 2022

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# Executive Summary


To help inform future decisions and strategic planning, Southwest Healthcare Services (SWHS) conducted a Community Health Needs Assessment (CHNA) in 2022, the previous CHNA having been conducted in 2019. The Center for Rural Health (CRH) at the University of North Dakota (UND) School of Medicine & Health Sciences (SMHS) facilitated the assessment process, which solicited input from area community members and healthcare professionals as well as analysis of community health-related data.

To gather feedback from the community, residents of the area were given the opportunity to participate in a survey. Fifty-three SWHS service area residents completed the survey. Additional information was collected through five key informant interviews with community members. The input from the residents, who primarily reside in Bowman County, represented the broad interests of the communities in the service area. Together with secondary data gathered from a wide range of sources, the survey presents a snapshot of the health needs and concerns in the community.

With regard to demographics, Bowman County's population from 2020 to 2021 decreased by 3%. The average number of residents younger than age 18 (24.4%) for Bowman County comes in .8 percentage points higher than the North Dakota average (23.6%). The percentage of residents, ages 65 and older, is 6.5% higher for Bowman County (22.2%) than the North Dakota average (15.7%), and the rate of education is slightly lower for Bowman County (89.9%) than the North Dakota average (93.1%). The median household income in Bowman County ($70,521) is higher than the state average for North Dakota ($65,315).

Data, compiled by County Health Rankings, show Bowman County is doing better than North Dakota in health outcomes/factors for 16 categories.

Bowman County, according to County Health Rankings data, is performing poorly, relative to the rest of the state, in 12 outcome/factor categories.

Of 106 potential community and health needs set forth in the survey, the 53 SWHS service area residents who completed the survey indicated the following 10 needs as the most important:

- Availability to retain primary care providers in the community
- Alcohol use and abuse – youth and adult
- Attracting and retaining young families
- Availability of mental health services
- Cost of long-term/nursing home care
- Depression/anxiety – youth and adult
- Having enough child daycare services
- Smoking and tobacco use – youth
- Bullying/cyberbullying

The survey also revealed the biggest barriers to receiving healthcare (as perceived by community members). They included not enough providers (N=11), concerns about confidentiality (N=11), and no evening or weekend hours (N=10).

When asked what the best aspects of the community were, respondents indicated the top community assets were:

- People are friendly, helpful, and supportive
- Quality school system
- Family-friendly
- People who live here are involved in their community
- Safe place to live
- Healthcare

Input from community leaders provided via key informant interviews, and the community focus group echoed many of the concerns raised by survey respondents. Concerns emerging from these sessions were:

- Alcohol use and abuse
- Attracting and retaining young families
- Availability of mental health and substance use disorder treatment services
- Depression/anxiety
- Having enough child daycare services

# Overview and Community Resources

With assistance from the Center for Rural Health (CRH) at the University of North Dakota (UND) School of Medicine & Health Sciences (SMHS), Southwest Healthcare Services (SWHS) completed a Community Health Needs Assessment (CHNA) of the SWHS service area. The hospital identifies its service area as Bowman and Slope Counties in North Dakota, and Harding County in South Dakota. Many community members and stakeholders worked together on the assessment.

SWHS, a licensed Critical Access Hospital, is located in the rural area of southwest North Dakota in the town of Bowman. The facility comprises seven different entities that include a Rural Health Clinic, a 35-bed acute care hospital, emergency department, rehabilitation, laboratory services, and radiology services. SWHS also offers home nursing and ambulatory services.

Bowman sits in Bowman County and is approximately 40 miles from the Montana state border and 20 miles from the South Dakota state border. Its nearest major city is Dickinson, which is approximately 75 miles north of Bowman.

SWHS is the largest employer of Bowman, but the area is also home to a farming and ranching community and features a wide variety of financial institutions, retail businesses, and multiple food service businesses.

Bowman County is approximately 1,167 sq. miles of land and water and, according to the U.S. Census Bureau, is home to 2,903 residents. A majority of the racial makeup of Bowman County is Caucasian, which makes up 95 % of the population. Other race origins include Hispanic, African American, American Indian, Asian, Native Hawaiian/Pacific Islander, and those who are multi-racial.

Other healthcare services of Bowman County include an optometrist, two dental practices, three chiropractors, and multiple massage therapists. There are also numerous social programs, including meal delivery.

Outside of healthcare services, there are numerous amenities in Bowman County that play a vital role in the overall health of the residents. There are three fitness centers, bike paths, and baseball and softball fields. The city of Bowman also has a robust parks and recreation center, and the parks department is currently reconstructing an old retail building into a new, multipurpose facility. The parks and rec manage three public playgrounds and tennis courts. They also organize youth and adult sports leagues and hold open gym hours with a fitness center and a public pool available during the summer months. Bowman also has a public golf course, Sweetwater Golf Course, which is located a few miles south of Bowman city limits.

The city of Bowman also includes cultural amenities, including the Pioneer Trails Regional Museum, dedicated to the history of the region. The movie theater on Main Street also provides a mode of entertainment with weekend showtimes of movies for all ages, young and old.

Bowman County Public Schools offers a comprehensive educational program for grades K-12 and includes students from the town to the west of Bowman and Rhame. The school system also offers a non-public funded pre-k program for children, ages 3-4 years old.

Also available throughout the county are numerous licensed and unlicensed childcare options.

### Figure 1 and 2 illustrates the location of the counties in the SWHS service area

**Figure 1: Bowman and Slope Counties, North Dakota**

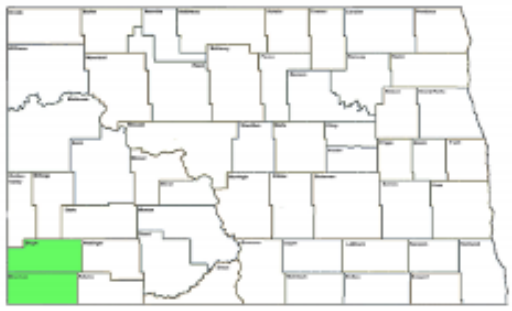

**Figure 2: Harding County, South Dakota**

## Southwest Healthcare Services, SWHS

SWHS is a multi-unit health system, comprised of seven entities. Encompassed within the system is a rural medical clinic, a 35-bed acute care hospital, independent living, assisted living, visiting nursing services, and emergency services. Founded as a faith-based facility, the communities of Bowman and Slope counties began discussing the need for organized health services, and by July 1946, an area in Bowman was designated for a hospital to be built. Through community efforts, with Governor Norman Burnsdale on hand for the ceremonial ribbon cutting, Tri-State Hospital was opened on May 12, 1951. By 1955, this hospital was leased to the Episcopal Church, and the new corporation was named St. Luke's Tri-State Hospital Association. The Critical Access Hospital Profile for SWHS includes a summary of hospital-specific information and is available in Appendix A.

In 1964, a separate facility was built, and the Sunset Nursing Home opened on July 21. The land was again donated with fundraising and grants, supporting the opening of the facility. The rural medical clinic was built in 1990 and opened on Tuesday, September 4. Dr. John Pate and Dr. John Hawronsky were the first two physicians to see patients at Southwest Medical Clinic. The facility, as it stands today, began in January 2001, when the St. Luke's Tri-State Hospital and Sunset Care Corporation (Sunset Nursing Home), along with the Bowman Ambulance, consolidated and formed what is now known as SWHS. SWHS purchased and absorbed Jahner PT & Fitness, Inc. in 2011, creating another facet of services for the patients we serve.

In 2016, the facility embarked on a new chapter of the storied healthcare history and started a multi-million dollar expansion that would bring most of the seven entities under one roof. As it stood, the acute care facility and rural clinic were on a separate campus as the long-term care facility. In May of 2017, the new facility

opened its doors.

SWHS serves multiple counties and multiple communities in the tri-state area of southwest North Dakota, northwest South Dakota, and southeast Montana.

SWHS has a significant economic impact on the region. They directly employ 114.45 FTE employees with an annual payroll of over $7.5 million (including benefits). These employees create an additional 52 jobs and nearly $1.9 million in income, as they interact with other sectors of the local economy. This economy results in a total impact of 166 jobs and more than $9.43 million in income. Additional information is provided in Appendix B.

**Mission**
"Guided by faith, we provide excellent care for those we are privileged to serve."

**Vision**
We will distinguish ourselves as a unified healthcare family commanding excellence from each other in providing personalized care.

We will show:

- Respect for those we care for and work with, creating respectability within our service area.
- Integrity in our work by doing the right thing every time.
- Safety awareness of our surroundings and our work habits.
- Nurturing relationships through humor and kindness.
- Generosity in supporting one another to achieve excellence, our organization's goals and objectives, and our communities by involvement.

SWHS includes a 35-bed Critical Access Hospital (CAH) with various outpatient therapies and services located in Bowman, North Dakota. As a hospital, clinic, and designated Level 4 trauma center, the medical center provides comprehensive care through physicians, physician assistants, nurse practitioners, and consulting/visiting medical providers for a wide range of medical and emergency situations. With approximately 170 staff members, SWHS along with contracted healthcare agencies housed within SWHS is one of the largest employers in the region.

Services offered locally by SWHS include:

### General and Acute Services

- Acne treatment
- Allergy, flu, and pneumonia shots
- Ambulance and Emergency services
- Assisted living
- Blood pressure checks
- Cardiology (visiting physician)
- Cardiac rehab
- Clinic
- Emergency room
- Gynecology (visiting physician)
- Hospital (acute care)
- Independent senior housing
- Mole/wart/skin lesion removal
- Nutrition counseling
- Obstetrics (visiting physician)
- Orthopedics (visiting physician)
- Pharmacy
- Prenatal care up to 32 weeks
- Physicals: annuals, D.O.T., sports, and insurance
- Sports medicine
- Surgical services – biopsies
- Surgical services – outpatient
- Surgical services – upper and lower endoscopy
- Swing bed services
- Telemedicine
- Telepsych services
- Visiting nurse services

### Screening/Therapy Services

- Chronic disease management
- Holter monitoring
- Laboratory services
- Lower extremity circulatory assessment
- Occupational physicals
- Pediatric services
- Physical therapy
- Respiratory care
- Sleep studies
- Social services

### Radiology Services

- Digital mammography
- CT Scans
- Echocardiograms (visiting service)
- EKG
- Mammograms
- MRI (mobile unit)
- General X-ray
- Ultrasound

### Laboratory Services

- Blood bank
- Blood gasses
- Coagulation
- Chemistry
- D.O.T. and Non-D.O.T. drug and breath alcohol testing
- Hematology
- Urinalysis
- Quick kits

### Services offered by OTHER providers/organizations

- Chiropractic services
- Dental services
- Massage therapy
- Optometric/vision services

## Southwestern District Health Unit

Southwestern District Health Unit (SWDHU) provides public health services that include health, nursing services, the WIC (Women, Infants, & Children) program, health screenings, and education services. Each of these programs provides a wide variety of services in order to accomplish the mission of public health, which is to ensure that North Dakota is a healthy place to live, and each person has an equal opportunity to enjoy good health.

**Mission**
The mission of SWDHU is to "Prevent, Promote and Protect for optimal community health." To fulfill this mission, SWDHU uses its core values:

- Collaboration – Working with other facilities/services in the community to promote optimal health
- Respect – Embrace the dignity and diversity of individuals, groups, and communities
- Science – Support and promote evidence-based practices
- Teamwork – Working together to share purpose and a common goal
- Excellence – Achieve the highest quality in what we do
- Innovation – Integrating new ideas and technology into practical processes to improve our effectiveness
- Prevention – Using knowledge to prevent disease and injury and make smart decisions to stay healthy

**Vision**
Our vision at SWDHU is to provide a variety of services and programs that maintain or improve the health status of the general population and environment.

Specific services that SWDHU provides are:

- Flu shots
- Health Tracks (child health screening) (Medicaid eligible)
- Immunizations (includes in school immunizations, and travel vaccines)
- Medication setup – home visits
- Newborn Home Visits
- Nutrition education
- School health – vision, health education, and resource to the schools
- Preschool education programs and screening
- Tobacco Prevention and Control and cessation
- Tuberculosis testing and management
- West Nile program – education
- WIC (Women, Infants, & Children) Program
- Health Maintenance Program
- Dental Health Education

# Assessment Process

The purpose of conducting a Community Health Needs Assessment (CHNA) is to describe the health of local people, identify areas for health improvement, identify use of local healthcare services, determine factors that contribute to health issues, identify and prioritize community needs, and help healthcare leaders identify potential action to address the community's health needs.

A CHNA benefits the community by:

1) Collecting timely input from the local community members, providers, and staff;

2) Providing an analysis of secondary data related to health-related behaviors, conditions, risks, and outcomes;

3) Compiling and organizing information to guide decision making, education, and marketing efforts, and to facilitate the development of a strategic plan;

4) Engaging community members about the future of healthcare; and

5) Allowing the community hospital to meet the federal regulatory requirements of the Affordable Care Act, which requires not-for-profit hospitals to complete a CHNA at least every three years, as well as helping the local public health unit meet accreditation requirements.

This assessment examines health needs and concerns in Bowman and Slope counties in North Dakota and Harding County in South Dakota. Within these three counties, there are several communities, including Amidon, Bowman, Buffalo (SD), Camp Crook (SD), Gascoyne, Ludlow (SD), Marmarth, Rhame, and Scranton.

The Center for Rural Health (CRH), in partnership with Southwest Health Services (SWHS) and Southwestern District Health F, facilitated the CHNA process. Community representatives met regularly in-person, by telephone conference, and email. A CHNA liaison was selected locally, who served as the main point of contact between CRH and SWHS. A steering committee (see Figure 3) was formed that was responsible for planning and implementing the process locally. Representatives from CRH met and corresponded regularly by videoconference and/or via the eToolkit with the CHNA liaison. The community group (described in more detail below) provided in-depth information and informed the assessment process in terms of community perceptions, community resources, community needs, and ideas for improving the health of the population and healthcare services. Nine people, representing a cross section demographically, attended the focus group meeting. The meeting was highly interactive with good participation. SWHS staff and board members were in attendance as well but largely played a role of listening and learning.

### Figure 2: Steering Committee

| | |
|---|---|
| Dennis Goebel | CEO, SWHS |
| Amber Umbreit | Chief Nursing Officer, SWHS |
| Amanda Loughman | CFO, SWHS |
| Mike Reddick | Human Resources, SWHS |
| Cole Benz | Marketing Director, SWHS |
| Charlene Hansen | Quality Assurance, SWHS |
| Danelle Pierce | Social Worker, SWHS |
| Amy Smyle | Home Health Supervisor, SWHS |
| Lisa Knopp | Rural Clinic Manager, SWHS |

The original survey tool was developed and used by CRH. In order to revise the original survey tool to ensure the data gathered met the needs of hospitals and public health, CRH worked with the North Dakota Department of Health's public health liaison. CRH representatives also participated in a series of meetings who garnered input from the state's health officer, local North Dakota public health unit professionals, and representatives from North Dakota State University.

As part of the assessment's overall collaborative process, CRH spearheaded efforts to collect data for the assessment in a variety of ways:

- A survey solicited feedback from area residents
- Community leaders, representing the broad interests of the community, took part in one-on-one key informant interviews
- The community group, comprised of community leaders and area residents, was convened to discuss area health needs and inform the assessment process
- A wide range of secondary sources of data were examined, providing information on a multitude of measures, including demographics, health conditions, indicators, outcomes, rates of preventive measures, rates of disease, and at-risk behavior

CRH is one of the nation's most experienced organizations committed to providing leadership in rural health. Its mission is to connect resources and knowledge to strengthen the health of people in rural communities. CRH is the designated State Office of Rural Health and administers the Medicare Rural Hospital Flexibility (Flex) program, funded by the Federal Office of Rural Health Policy, Health Resources Services Administration, and Department of Health and Human Services. CRH connects the UND SMHS and other necessary resources to rural communities and other healthcare organizations in order to maintain access to quality care for rural residents. In this capacity, CRH works at a national, state, and community level.

Detailed below are the methods undertaken to gather data for this assessment by convening a community group, conducting key informant interviews, soliciting feedback about health needs via a survey, and researching secondary data.

## Community Group

A community group, consisting of 12 community members, was convened and first met on August 31, 2022. During this first community group meeting, group members were introduced to the needs assessment process, reviewed basic demographic information about the community, and served as a focus group. Focus group topics included community assets and challenges, the general health needs of the community, community concerns, and suggestions for improving the community's health.

The community group met again on October 24, 2022 with nine community members in attendance. At this

second meeting, the community group was presented with survey results, findings from key informant interviews and the focus group, and a wide range of secondary data, relating to the general health of the population in Bowman County. The group was then tasked with identifying and prioritizing the community's health needs.

Members of the community group represented the broad interests of the community, served by SWHS and SWDHU. They included representatives of the health community, business community, law enforcement, education, faith community, and social service agencies. Not all members of the group were present at both meetings.

## Interviews

One-on-one interviews with four key informants were conducted in person in Bowman on August 31, 2022. One additional key informant interview was conducted over the phone in October of 2022. A representative from CRH conducted the interviews. Interviews were held with selected members of the community who could provide insights into the community's health needs. Included among the informants were public health professionals with special knowledge in public health acquired through several years of direct experience in the community, including working with medically underserved, low income, and minority populations as well as with populations with chronic diseases.

Topics covered during the interviews included the general health needs of the community, the general health of the community, community concerns, delivery of healthcare by local providers, awareness of health services offered locally, barriers to receiving health services, and suggestions for improving collaboration within the community.

## Survey

A survey was distributed to solicit feedback from the community and was not intended to be a scientific or statistically valid sampling of the population. It was designed to be an additional tool for collecting qualitative data from the community at large – specifically, information related to community-perceived health needs. A copy of the survey instrument is included in Appendix C, and a full listing of direct responses, provided for the questions that included "Other" as an option, are included in Appendix G.

The community member survey was distributed to various residents of Bowman County, which is included in the SWHS service area. The survey tool was designed to:

- Learn of the good things in the community and the community's concerns.
- Understand perceptions and attitudes about the health of the community and hear suggestions for improvement.
- Learn more about how local health services are used by residents.

**Specifically, the survey covered the following topics:**

- Residents' perceptions about community assets
- Broad areas of community and health concerns
- Awareness of local health services
- Barriers to using local healthcare
- Basic demographic information
- Suggestions to improve the delivery of local healthcare

To promote awareness of the assessment process, information was posted at most of the area businesses, and a radio ad was produced. Information was also published on SWHS's website and Facebook page.

Approximately 50 community member surveys were available for distribution directly out of SWHS.

To help ensure anonymity, included with each survey was a postage-paid return envelope to CRH. In addition, to help make the survey as widely available as possible, residents also could request a survey by calling SWHS. The survey period ran from August 1, 2022 to August 31, 2022. One completed paper survey was returned.

Area residents were also given the option of completing an online version of the survey, which was publicized in two community newspapers and posted on the websites and Facebook pages of SWHS. Business cards, available for the taking, were also built and left at area businesses that featured the URL and the QR code for the survey. Fifty-two online surveys were completed. Seven of those online respondents used the QR code to complete the survey. In total, counting both paper and online surveys, the 53 community member surveys were completed, equating to a 5% response rate. This response rate is low for this type of unsolicited survey methodology and indicates an engaged community.

## Secondary Data

Secondary data was collected and analyzed to provide descriptions of: (1) population demographics, (2) general health issues (including any population groups with particular health issues), and (3) contributing causes of community health issues. Data was collected from a variety of sources, including the United States Census Bureau; Robert Wood Johnson Foundation's County Health Rankings, which pulls data from 20 primary data sources (www.countyhealthrankings.org); the National Survey of Children's Health, which touches on multiple intersecting aspects of children's lives (www.childhealthdata.org/learn/NSCH); North Dakota KIDS COUNT, which is a national and state-by-state effort to track the status of children, sponsored by the Annie E. Casey Foundation (www.ndkidscount.org); and Youth Risk Behavior Surveillance System (YRBSS) data, which is published by the Centers for Disease Control and Prevention (https://www.cdc.gov/healthyyouth/data/yrbs/index.htm).

## Social Determinants of Health

According to the World Health Organization, social determinants of health are, *"The circumstances in which people are born, grow up, live, work, and age and the systems put in place to deal with illness. These circumstances are in turn shaped by wider set of forces: economics, social policies and politics. "*

Income-level, educational attainment, race/ethnicity, and health literacy all impact the ability of people to access health services. Basic needs, such as clean air and water and safe and affordable housing, are all essential to staying healthy and are also impacted by the social factors listed previously. The barriers already present in rural areas, such as limited public transportation options and fewer choices to acquire healthy food, can compound the impact of these challenges.

There are numerous models that depict the social determinants of health. While the models may vary slightly in the exact percentages that they attribute to various areas, the discrepancies are often because some models have combined factors when other models have kept them as separate factors.

For Figure 3, data has been derived from the County Health Rankings model (https://www.countyhealthrankings.org/resources/county-health-rankings-model) and it illustrates that healthcare, while vitally important, plays only one small role (approximately 20%) in the overall health of individuals and ultimately of a community. Physical environment, social and economic factors, and health behaviors play a much larger part (80%) in impacting health outcomes. Therefore, as needs or concerns were raised through this Community Health Needs Assessment process, it was imperative to keep in mind how they impact the health of the community and what solutions can be implemented.

## Figure 4: Social Determinants of Health

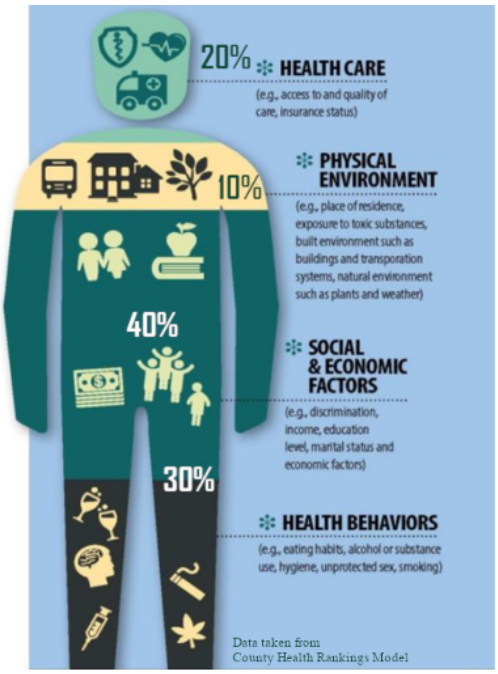


Figure 4 (Henry J. Kaiser Family Foundation, https://www.kff.org/disparities-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/), provides examples of factors that are included in each of the social determinants of health categories that lead to health outcomes.

For more information and resources on social determinants of health, visit the Rural Health Information Hub website, https://www.ruralhealthinfo.org/topics/social-determinants-of-health.

## Figure 5: Social Determinants of Health

| Economic Stability | Neighborhood and Physical Environment | Education | Food | Community and Social Context | Health Care System |
|---|---|---|---|---|---|
| Employment | Housing | Literacy | Hunger | Social integration | Health coverage |
| Income | Transportation | Language | Access to healthy options | Support systems | Provider availability |
| Expenses | Safety | Early childhood education | | Community engagement | Provider linguistic and cultural competency |
| Debt | Parks | Vocational training | | Discrimination | Quality of care |
| Medical bills | Playgrounds | Higher education | | Stress | |
| Support | Walkability | | | | |
| | Zip code / geography | | | | |

**Health Outcomes**
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

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# Demographic Information

**Table 1 summarizes general demographic and geographic data about Bowman County.**

| | Bowman County | North Dakota |
|---|---|---|
| Population (2021) | 2,903 | 774,948 |
| Population change (2020-2021) | -3.0% | -0.5% |
| People per square mile (2010) | 2.7 | 9.7 |
| Persons 65 years or older (2020) | 22.2% | 15.7% |
| Persons younger than 18 years (2020) | 24.4% | 23.6% |
| Median age (2020) | 41.1 | 35.2 |
| White persons (2020) | 95.9% | 86.9% |
| High school graduates (2020) | 89.9% | 93.1% |
| Bachelor's degree or higher (2020) | 19.5% | 30.7% |
| Live below poverty line (2020) | 8.9% | 10.2% |
| Persons without health insurance, younger than 65 years (2019) | 10.0% | 8.1% |
| Households with a broadband internet subscription (2020) | 85.8% | 83.1% |

Source: https://www.census.gov/quickfacts/fact/table/ND,US/INC910216#viewtop and https://data.census.gov/cedsci/profile?g=0400000US38&q=North%20Dakota

While the population of North Dakota has grown in recent years, Bowman County has seen a decrease in population since 2020. The U.S. Census Bureau estimates show that Bowman County's population decreased from 2,986 (2020) to 2,903 (2021).

## County Health Rankings

The Robert Wood Johnson Foundation, in collaboration with the University of Wisconsin Population Health Institute, has developed County Health Rankings to illustrate community health needs and provide guidance for actions toward improved health. In this report, Stark County is compared to North Dakota rates and national benchmarks on various topics, ranging from individual health behaviors to the quality of healthcare.

The data, used in the 2021 County Health Rankings, are pulled from more than 20 data sources and then are compiled to create county rankings. Counties in each of the 50 states are ranked according to summaries of a variety of health measures. Those counties, having high ranks, such as 1 or 2, are considered to be the "healthiest." Counties are ranked on both health outcomes and health factors. The following is a breakdown of the variables that influence a county's rank.

A model of the 2021 County Health Rankings – a flow chart of how a county's rank is determined – may be found in Appendix D. For further information, visit the County Health Rankings website at www.countyhealthrankings.org.

**Health Outcomes**
- Length of life
- Quality of life

**Health Factors**
- Health behavior
  - Smoking
  - Diet and exercise
  - Alcohol and drug use
  - Sexual activity

**Health Factors (continued)**
- Clinical care
  - Access to care
  - Quality of care
- Social and Economic Factors
  - Education
  - Employment
  - Income
  - Family and social support
  - Community safety
- Physical Environment
  - Air and water quality
  - Housing and transit

Table 2 summarizes the pertinent information, gathered by County Health Rankings, as it relates to Bowman County. It is important to note that these statistics describe the population of a county, regardless of where county residents choose to receive their medical care. In other words, all of the following statistics are based on the health behaviors and conditions of the county's residents, not necessarily the patients and clients of SWDHU and SWHS, or of any particular medical facility.

For most of the measures included in the rankings, the County Health Rankings' authors have calculated the "Top U.S. Performers" for 2021. The Top Performer number marks the point at which only 10% of counties in the nation do better, i.e., the 90th percentile or 10th percentile, depending on whether the measure is framed positively (such as high school graduation) or negatively (such as adult smoking).

Bowman County rankings within the state are included in the summary following. For example, Bowman County ranks 31st out of 47 ranked counties in North Dakota on health outcomes and 28th out of 48 on health factors. The measures, marked with a bullet point (•), are those where a county is not measuring up to the state rate/percentage; a square (■) indicates that the county is not meeting the U.S. Top 10% rate on that measure. Measures that are not marked with a colored shape but are marked with a plus sign (+) indicate that the county is doing better than the U.S. Top 10%.

The data from County Health Rankings show that Bowman County is doing better than many counties, compared to the rest of the state on all but two of the outcomes, landing at or above rates for other North Dakota counties.

On health factors, Bowman County performs below the North Dakota average for counties in several areas as well.

Data, compiled by County Health Rankings, show Bowman County is doing better than North Dakota in health outcomes and factors for the following indicators:

- Poor mental health days
- Low birth weight
- Adult obesity
- Food environment index
- Physical inactivity
- Excessive drinking
- Sexually transmitted infections
- Dentists
- Violent crime
- Unemployment rate
- Income inequality
- Children living in single-parent households
- Social associations
- Drinking water violations
- Severe housing problems
- Poor or fair health
- Poor physical health days
- Adult smoking
- Alcohol-impaired driving deaths
- Access to exercise opportunities
- Children in poverty
- Teen birth rate
- Uninsured
- Primary care physicians
- Preventable hospital stays
- Mammography screening (% of Medicare enrollees ages 65-74 receiving screening)
- Flu vaccinations (% of fee-for-service Medicare enrollees receiving vaccination)

## TABLE 2: SELECTED MEASURES FROM COUNTY HEALTH RANKINGS 2022 – BOWMAN COUNTY

● = Not meeting North Dakota average

■ = Not meeting U.S. Top 10% Performers

+ = Meeting or exceeding U.S. Top 10% Performers

*Blank values reflect unreliable or missing data*

| TABLE 2: SELECTED MEASURES FROM *COUNTY HEALTH RANKINGS* 2022 – BOWMAN COUNTY | | | |
|---|---|---|---|
| | **Bowman County** | **U.S. Top 10%** | **North Dakota** |
| **Ranking: Outcomes** | **31st** | | **(of 47)** |
| Premature death | | 5,600 | 7,100 |
| Poor or fair health | 15% ● + | 15% | 13% |
| Poor physical health days (in past 30 days) | 3.3 ● + | 3.4 | 3.1 |
| Poor mental health days (in past 30 days) | 3.5 + | 4.0 | 3.7 |
| Low birth weight | 7% ■ | 6% | 7% |
| **Ranking: Factors** | **28th** | | **(of 48)** |
| *Health Behaviors* | | | |
| Adult smoking | 18% ●■ | 15% | 17% |
| Adult obesity | 36% ■ | 30% | 36% |
| Food environment index (10=best) | 9.8 + | 8.8 | 8.9 |
| Physical inactivity | 28% ■ | 23% | 28% |
| Access to exercise opportunities | 62% ●■ | 86% | 64% |
| Excessive drinking | 24% ■ | 15% | 24% |
| Alcohol-impaired driving deaths | 100% ●■ | 10% | 41% |
| Sexually transmitted infections | 0.0 + | 161.8 | 509.1 |
| Teen birth rate | 24 ●■ | 11 | 18 |
| *Clinical Care* | | | |
| Uninsured | 10% ●■ | 6% | 7% |
| Primary care physicians | 3,020:1 ●■ | 1,010:1 | 1,290:1 |
| Dentists | 600:1 + | 1,210:1 | 1,480:1 |
| Mental health providers | | 250:1 | 470:1 |
| Preventable hospital stays | 4,728 ●■ | 2,233 | 3,553 |
| Mammography screening (% of Medicare enrollees ages 65-74 receiving screening) | 45% ●■ | 52% | 53% |
| Flu vaccinations (% of fee-for-service Medicare enrollees receiving vaccination) | 15% ●■ | 55% | 50% |
| *Social and Economic Factors* | | | |
| Unemployment | 3.4% + | 4.0% | 5.1% |
| Children in poverty | 12% ●■ | 9% | 11% |
| Income inequality | 3.5 + | 3.7 | 4.4 |
| Children in single-parent households | 14% + | 14% | 19% |
| Social associations | 16.5 ■ | 18.1 | 15.9 |
| Violent crime | 108 ■ | 63 | 258 |
| Injury deaths | | 61 | 72 |
| *Physical Environment* | | | |
| Air pollution – particulate matter | 5.2 + | 5.9 | 6.4 |
| Drinking water violations | No | | |
| Severe housing problems | 9% + | 9% | 12% |

ource: http://www.countyhealthrankings.org/app/north-dakota/2022/rankings/outcomes/overall

# Children's Health

The National Survey of Children's Health touches on multiple intersecting aspects of children's lives. Data are not available at the county level; listed below is information about children's health in North Dakota. The full survey includes physical and mental health status, access to quality healthcare, and information on the child's family, neighborhood, and social context. Data are from 2019-20. More information about the survey may be found at www.childhealthdata.org/learn/NSCH.

Key measures of the statewide data are summarized below. The rates, highlighted in red, signify that the state is faring worse on that measure than the national average.

### TABLE 3: SELECTED MEASURES REGARDING CHILDREN'S HEALTH (For children ages 0-17 unless noted otherwise), 2020

| Health Status | North Dakota | National |
|---|---|---|
| Children born premature (3 or more weeks early) | 9.9% | 11.2% |
| Children ages 10-17 overweight or obese | 26.9% | 32.1% |
| Children ages 0-5 who were ever breastfed | 86.1% | 80.8% |
| Children ages 6-17 who missed 11 or more days of school | 2.9% | 3.9% |
| **Healthcare** | | |
| Children currently insured | 93.6% | 93.1% |
| Children who spent less than 10 minutes with the provider at a preventive medical visit | 16.0% | 18.1% |
| Children (1-17 years) who had preventive a dental visit in the past year | 73.7% | 77.5% |
| Children (3-17 years) received mental healthcare | 10.5% | 11.0% |
| Children (3-17 years) with problems requiring treatment did not receive mental healthcare | 2.3% | 2.5% |
| Young children (9-35 mos.) receiving standardized screening for developmental problems | 31.1% | 36.9% |
| **Family Life** | | |
| Children whose families eat meals together four or more times per week | 79.2% | 75.2% |
| Children who live in households where someone smokes | 16.1% | 14.0% |
| **Neighborhood** | | |
| Children who live in neighborhoods with parks or playgrounds | 81.7% | 74.9% |
| Children living in neighborhoods with poorly kept or rundown housing | 9.1% | 13.3% |
| Children living in neighborhood that's usually or always safe | 97.3% | 94.6% |

Source: https://www.childhealthdata.org/browse/survey

The data on children's health and conditions reveal that while North Dakota is doing better than the national averages on a few measures, it is not measuring up to the national averages with respect to:

- Children (1-17 years) who had a preventative dental visit in the past year
- Young children (9-35 mos.) receiving standardized screening for developmental problems
- Children who live in households where someone smokes

Table 4 includes selected county-level measures, regarding children's health in North Dakota. The data come from North Dakota KIDS COUNT, a national and state-by-state effort to track the status of children, sponsored by the Annie E. Casey Foundation. KIDS COUNT data focus on the main components of children's well-being; more information about KIDS COUNT is available at www.ndkidscount.org. The measures, highlighted in blue in the table, are those in which the counties are doing worse than the state average. The year of the most recent data is noted.

The data show Bowman County is performing more poorly than the North Dakota average in two of the measured areas: children enrolled in Healthy Steps (CHIP) and victims of child abuse and neglect requiring services.

### Table 4: Selected County-Level Measures Regarding Children's Health

| | Bowman County | North Dakota |
|---|---|---|
| Child food insecurity, 2019 | 5.6% | 9.3% |
| Medicaid recipient (% of population age 0-20), 2021 | 21.7% | 26.0% |
| Children enrolled in Healthy Steps (CHIP) (% of population age 0-18), 2021 | **2.6** | 1.7% |
| Supplemental Nutrition Assistance Program (SNAP) recipients (% of population age 0-18), 2021 | 10.6% | 17.0% |
| Licensed childcare capacity (# of children), 2022 | 144 | 36,701 |
| Four-year high school cohort graduation rate, 2020/2021 | ≥90% | 87.0% |
| Victims of child abuse and neglect requiring services (rate per 1,000 children ages 0-17), 2020 | **10.87** | 8.89 |

Source: https://datacenter.kidscount.org/data#ND/5/0/char/0

Another means for obtaining data on the youth population is through the Youth Risk Behavior Survey (YRBS). The YRBS was developed in 1990 by the Centers for Disease Control and Prevention (CDC) to monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and adults in the U.S. The YRBS was designed to monitor trends, compare state health risk behaviors to national health risk behaviors, and intended for use to plan, evaluate, and improve school and community programs. North Dakota began participating in the YRBS survey in 1995. Students in grades 7-8 and 9-12 are surveyed in the spring of odd years. The survey is voluntary and completely anonymous.

North Dakota has two survey groups, selected and voluntary. The selected school survey population is chosen, using a scientific sampling procedure, which ensures that the results can be generalized to the state's entire student population. The schools that are part of the voluntary sample, selected without scientific sampling procedures, will only be able to obtain information on the risk behavior percentages for their school and not in comparison to all the schools.

Table 5 depicts some of the YRBS data that have been collected in 2015, 2017, and 2019. They are further broken down by rural and urban percentages. The trend column shows an "=" for statistically insignificant change (no change), "↑" for an increased trend in the data changes from 2017 to 2019, and "↓" for a decreased trend in the data changes from 2017 to 2019. The final column shows the 2019 national average percentage. For a more complete listing of the YRBS data, see Appendix E.

## TABLE 5: Youth Risk Behavior Survey Results

North Dakota High School Survey
Rate Increase ↑, rate decrease ↓, or no statistical change = in rate from 2017-2019.

| | ND 2015 | ND 2017 | ND 2019 | ND Trend ↑, ↓, = | Rural ND Town Average | Urban ND Town Average | National Average 2019 |
|---|---|---|---|---|---|---|---|
| **Injury and Violence** | | | | | | | |
| % of students who rarely or never wore a seat belt (when riding in a car driven by someone else) | 8.5 | 8.1 | 5.9 | = | 8.8 | 5.4 | 6.5 |
| % of students who rode in a vehicle with a driver who had been drinking alcohol (one or more times during the 30 prior to the survey) | 17.7 | 16.5 | 14.2 | = | 17.7 | 12.7 | 16.7 |
| % of students who talked on a cell phone while driving (on at least one day during the 30 days before the survey) | NA | 56.2 | 59.6 | = | 60.7 | 60.7 | NA |
| % of students who texted or e-mailed while driving a car or other vehicle (on at least one day during the 30 days before the survey) | 57.6 | 52.6 | 53.0 | = | 56.5 | 51.8 | 39.0 |
| % of students who were in a physical fight on school property (one or more times during the 12 months before the survey) | 5.4 | 7.2 | 7.1 | = | 7.4 | 6.4 | 8.0 |
| % of students who experienced sexual violence (being forced by anyone to do sexual things [counting such things as kissing, touching, or being physically forced to have sexual intercourse] that they did not want to, one or more times during the 12 months before the survey) | NA | 8.7 | 9.2 | = | 7.1 | 8.0 | 10.8 |
| % of students who were bullied on school property (during the 12 months before the survey) | 24.0 | 24.3 | 19.9 | ↓ | 24.6 | 19.1 | 19.5 |
| % of students who were electronically bullied (includes texting, Instagram, Facebook, or other social media ever during the 12 months before the survey) | 15.9 | 18.8 | 14.7 | ↓ | 16.0 | 15.3 | 15.7 |
| % of students who made a plan about how they would attempt suicide (during the 12 months before the survey) | 13.5 | 14.5 | 15.3 | = | 16.3 | 16.0 | 15.7 |
| **Tobacco, Alcohol, and Other Drug Use** | | | | | | | |
| % of students who currently use an electronic vapor product (e-cigarettes, vape e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens at least one day during the 30 days before the survey) | 22.3 | 20.6 | 33.1 | ↑ | 32.2 | 31.9 | 32.7 |
| % of students who currently used cigarettes, cigars, or smokeless tobacco (on at least one day during the 30 days before the survey) | NA | 18.1 | 12.2 | **NA** | 15.1 | 10.9 | 10.5 |
| % of students who currently were binge drinking (four or more drinks for female students, five or more for male students within a couple of hours on at least one day during the 30 days before the survey) | NA | 16.4 | 15.6 | = | 17.2 | 14.0 | 13.7 |
| % of students who currently used marijuana (one or more times during the 30 days before the survey) | 15.2 | 15.5 | 12.5 | = | 11.4 | 14.1 | 21.7 |
| % of students who ever took prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it (counting drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet, one or more times during their life) | NA | 14.4 | 14.5 | = | 12.8 | 13.3 | 14.3 |
| **Weight Management, Dietary Behaviors, and Physical Activity** | | | | | | | |
| % of students who were overweight (>= 85th percentile but <95$^{th}$ percentile for body mass index) | 14.7 | 16.1 | 16.5 | = | 16.6 | 15.6 | 16.1 |
| % of students who had obesity (>= 95th percentile for body mass index) | 13.9 | 14.9 | 14.0 | = | 17.4 | 14.0 | 15.5 |
| % of students who did not eat fruit or drink 100% fruit juices (during the seven days before the survey) | 3.9 | 4.9 | 6.1 | = | 5.8 | 5.3 | 6.3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| % of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the seven days before the survey) | 4.7 | 5.1 | 6.6 | = | 5.3 | 6.6 | 7.9 |
| % of students who drank a can, bottle, or glass of soda or pop one or more times per day (not including diet soda or diet pop, during the seven days before the survey) | 18.7 | 16.3 | 15.9 | = | 17.4 | 15.1 | 15.1 |
| % of students who did not drink milk (during the seven days before the survey) | 13.9 | 14.9 | 20.5 | ↑ | 14.8 | 20.3 | 30.6 |
| % of students who did not eat breakfast (during the seven days before the survey) | 11.9 | 13.5 | 14.4 | = | 13.3 | 14.1 | 16.7 |
| % of students who most of the time or always went hungry because there was not enough food in their home (during the 30 days before the survey) | NA | 2.7 | 2.8 | = | 2.1 | 2.9 | NA |
| % of students who were physically active at least 60 minutes per day on 5 or more days (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the seven days before the survey) | NA | 51.5 | 49.0 | = | 55.0 | 22.6 | 55.9 |
| % of students who watched television 3 or more hours per day (on an average school day) | 18.9 | 18.8 | 18.8 | = | 18.3 | 18.2 | 19.8 |
| % of students who played video or computer games or used a computer 3 or more hours per day (for something that was not schoolwork on an average school day) | 38.6 | 43.9 | 45.3 | = | 48.3 | 45.9 | 46.1 |
| **Other** | | | | | | | |
| % of students who ever had sexual intercourse | 38.9 | 36.6 | 38.3 | = | 35.4 | 36.1 | 38.4 |
| % of students who had eight or more hours of sleep (on an average school night) | NA | 31.8 | 29.5 | = | 31.8 | 33.1 | NA |
| % of students who brushed their teeth on seven days (during the seven days before the survey) | NA | 69.1 | 66.8 | = | 63.0 | 68.2 | NA |

Sources: https://www.cdc.gov/healthyyouth/data/yrbs/results.htm; https://www.nd.gov/dpi/districtsschools/safety-health/youth-risk-behavior-survey

## Low Income Needs

The North Dakota Community Action Agencies (CAAs), as nonprofit organizations, were originally established under the Economic Opportunity Act of 1964 to fight America's war on poverty. CAAs are required to conduct statewide needs assessments of people who are experiencing poverty. The more recent statewide needs assessment study of low-income people in North Dakota, sponsored by the CAAs, was performed in 2020. The needs assessment study was accomplished through the collaboration of the CAAs and North Dakota State University (NDSU) by means of several kinds of surveys (such as online or paper surveys, etc., depending on the suitability of these survey methods to different respondent groups) to low-income individuals and families across the state of North Dakota. In the study, the survey data were organized and analyzed in a statistical way to find out the priority needs of these people. The survey responses from low-income respondents were separated from the responses from non-low-income participants, which allows the research team to compare them and then identify the similarity, difference, and uniqueness of them in order to ensure the validity and accuracy of the survey study and avoid bias. Additionally, two comparison methods were used in the study, including cross-sectional and longitudinal comparisons. These methods allow the research team not only to identify the top specific needs under the seven need categories, including Employment, Income and Asset-Building, Education, Housing, Health and Social/Behavior Development, Civic Engagement, and Other Supports through the cross-sectional comparison but also to be able to find out the top specific needs, regardless to which categories these needs belong through the longitudinal comparison.

**Top Needs Identified by People Experiencing Poverty Across North Dakota**

| Category | Need |
|---|---|
| **Housing** | Rental Assistance |
| **Income** | Financial Issues |
| **Employment** | Finding a job |
| **Health** | Dental Insurance/Affordable Dental Care |
| **Education** | Cost |

# 2020 North Dakota LOW INCOME COMMUNITY NEEDS

Helping People. Changing Lives. Community Action Partnership — America's Poverty Fighting Network

NDSU North Dakota State University

Assessed by CAPND and NDSU, November 2020

## KEY FINDINGS

1st Priority Need

**Rental Assistance**

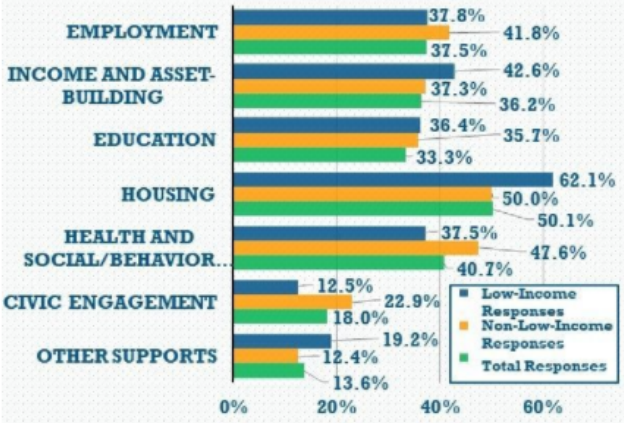
**3,458** Total Survey Responses

- **1,086** Low-Incomes
- **2,084** Non- Low-Incomes
- **288** Others (roles cannot be identified)

"***Rental Assistance***" becomes the 1st priority need of people experiencing poverty across the state under the category of "***Housing***". This need, however, would represent their immediate (short-term) need, which could be partially or significantly affected by the pandemic of COVID-19.

- The 1st priority need for the non-low-income respondents is "***Mental Health Service***".
- For the community (including both low-income and non-low-income people), the 1st priority need is "***Dental Issuance/Affordable Dental***".

## STATEWIDE OVERALL NEEDS




## TOP STATEWIDE SPECIFIC NEEDS

**Low-Incomes**
- **Housing** - Rental Assistance
- **Health and Social/Behavior Development** - Dental Insurance/Affordable Dental
- **Other Needs** - Food

**Non-Low-Incomes**
- **Health and Social/Behavior Development** - Mental Health Service
- **Health and Social/Behavior Development** - Health Insurance/Affordable Health Care
- **Income and Asset-Building** - Budget/Credit/Debit Counseling

**Community** (Low-Income & Non-Low-Income)
- **Health and Social/Behavior Development** - Dental Insurance/Affordable Dental
- **Health and Social/Behavior Development** - Health Insurance/Affordable Health Care
- **Health and Social/Behavior Development** - Mental Health Service

## TOP REGIONAL OVERALL NEEDS FOR LOW-INCOMES

1. Housing
2. Health and Social/Behavior Development
3. Income and Asset - Building

1. Housing
2. Income and Asset - Building
3. Employment

1. Housing
2. Employment
3. Health and Social/Behavior Development

1. Health and Social/Behavior Development
2. Income and Asset - Building
3. Housing


1. Housing
2. Income and Asset - Building
3. Education

1. Housing
2. Education
3. Income and Asset - Building

1. Housing
2. Health and Social/Behavior Development
3. Income and Asset - Building

1. Housing
2. Employment
3. Income and Asset - Building

## ACKNOWLEDGMENTS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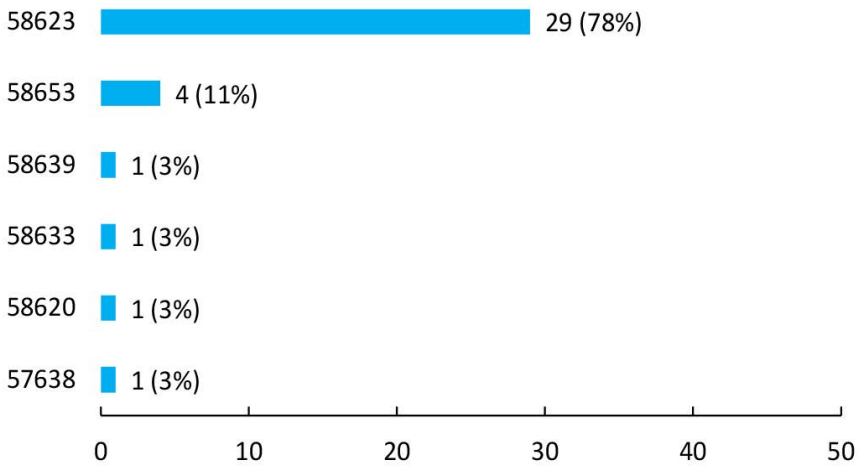
# Survey Results

As noted previously, the 53 community members completed the survey in communities throughout the counties in the Southwest Health Services (SWHS) service area. For all questions that contained an "Other" response, all of those direct responses may be found in Appendix G. In some cases, a summary of those comments is additionally included in the report narrative. The "Total respondents" number under each heading indicates the number of people who responded to that particular question, and the "Total responses" number under the heading depicts the number of responses selected for that question (some questions allow for selection of more than one response).

The survey requested that respondents list their home ZIP code. While not all respondents provided a ZIP code, 37 respondents did, revealing that a large majority of respondents (78%, N=29) lived in Bowman. These results are shown in Figure 6.

### Figure 6: Survey Respondents' Home ZIP Code
### Total respondents: 37




Survey results are reported in six categories: demographics; healthcare access; community assets, challenges; community concerns; delivery of healthcare; and other concerns or suggestions to improve health.

## Survey Demographics

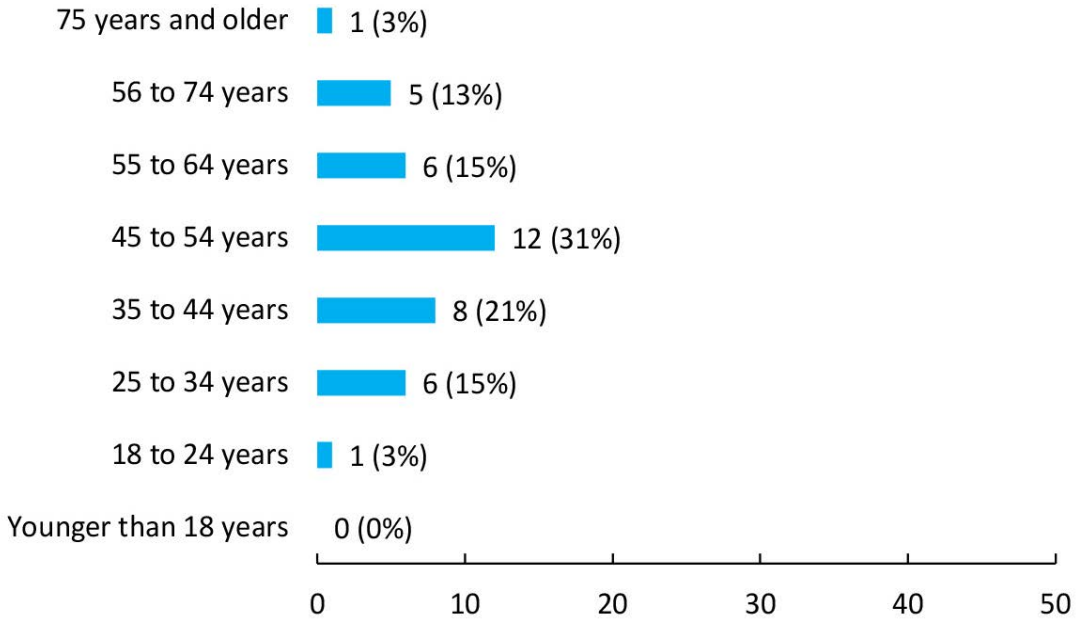
To better understand the perspectives offered by survey respondents, survey-takers were asked a few demographic questions. Throughout this report, numbers (N) instead of just percentages (%) are reported because percentages can be misleading with smaller numbers. Survey respondents were not required to answer all questions.

With respect to demographics of those who chose to complete the survey:

- 31% (N=12) were age 55 or older
- The majority (77%, N=30) were female
- Slightly more than half of the respondents (51%, N=20) had bachelor's degrees or higher
- The number of those working full time (74%, N=29) was more than seven times higher than those who were retired (10%, N=4)
- 100% (N=39) of those who reported their ethnicity/race were White/Caucasian
- 17% of the population (N=6) had household incomes of less than $50,000

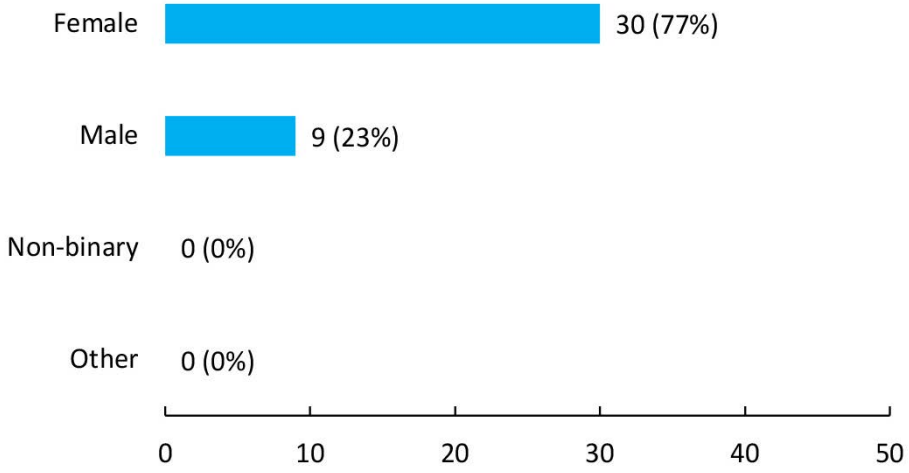
Figures 7 through 13 show these demographic characteristics. It illustrates the range of community members' household incomes and indicates how this assessment took into account input from parties who represent the varied interests of the community served, including a balance of age ranges, those in diverse work situations, and community members with lower incomes.

## Figure 7: Age Demographics of Survey Respondents
## Total respondents = 39

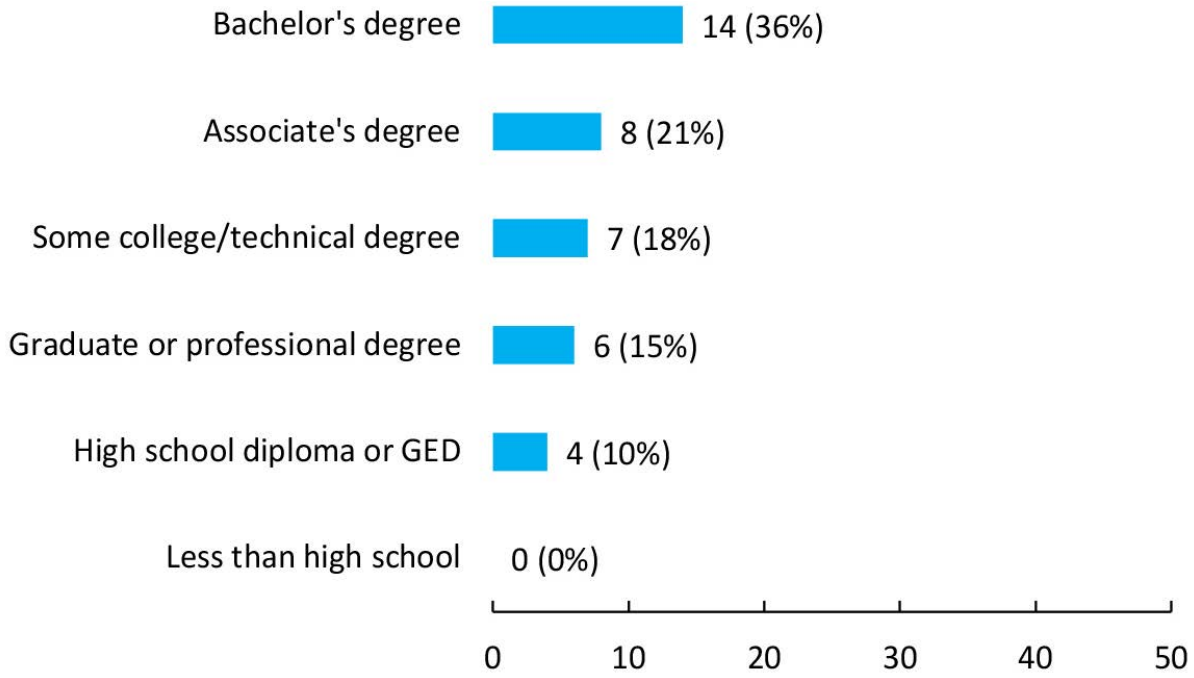



People younger than age 18 are not questioned using this survey method.

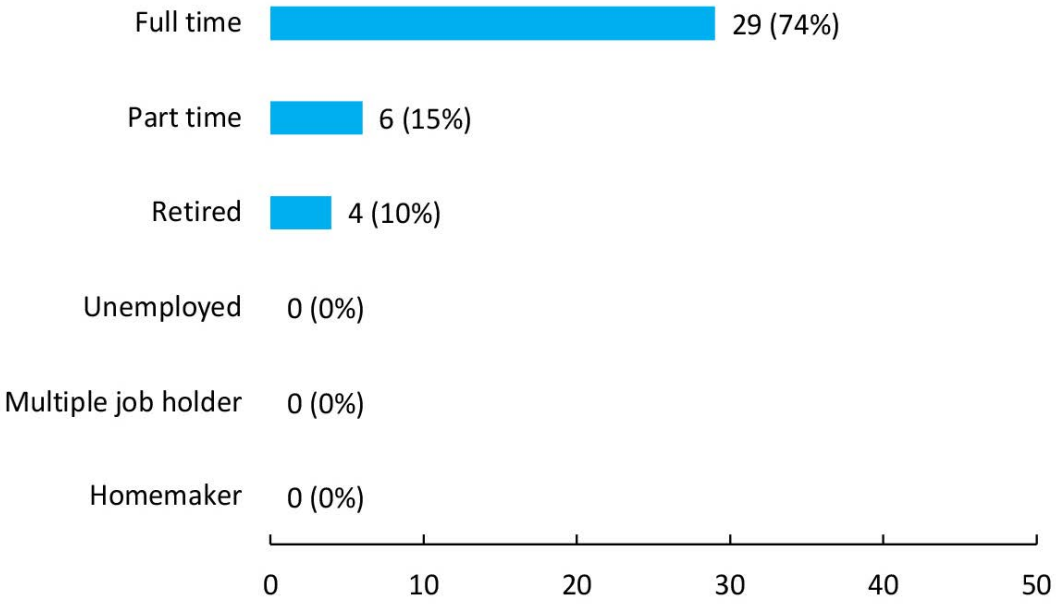
## Figure 8: Gender Demographics of Survey Respondents
## Total respondents = 39



## Figure 9: Educational Level Demographics of Survey Respondents
## Total respondents = 39

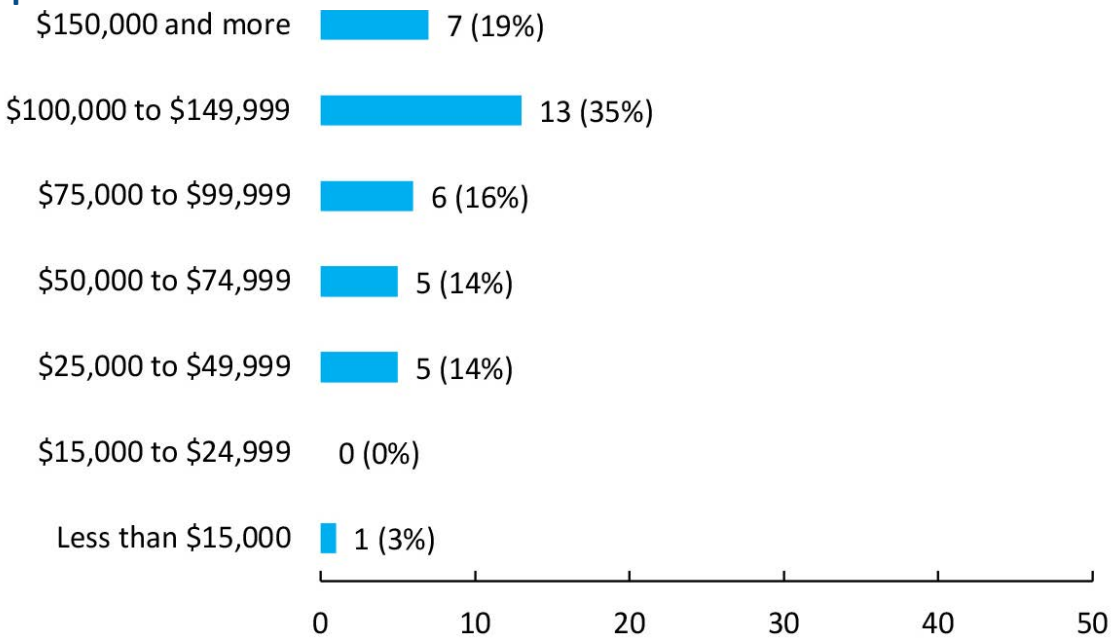



## Figure 10: Employment Status Demographics of Survey Respondents
## Total respondents = 39



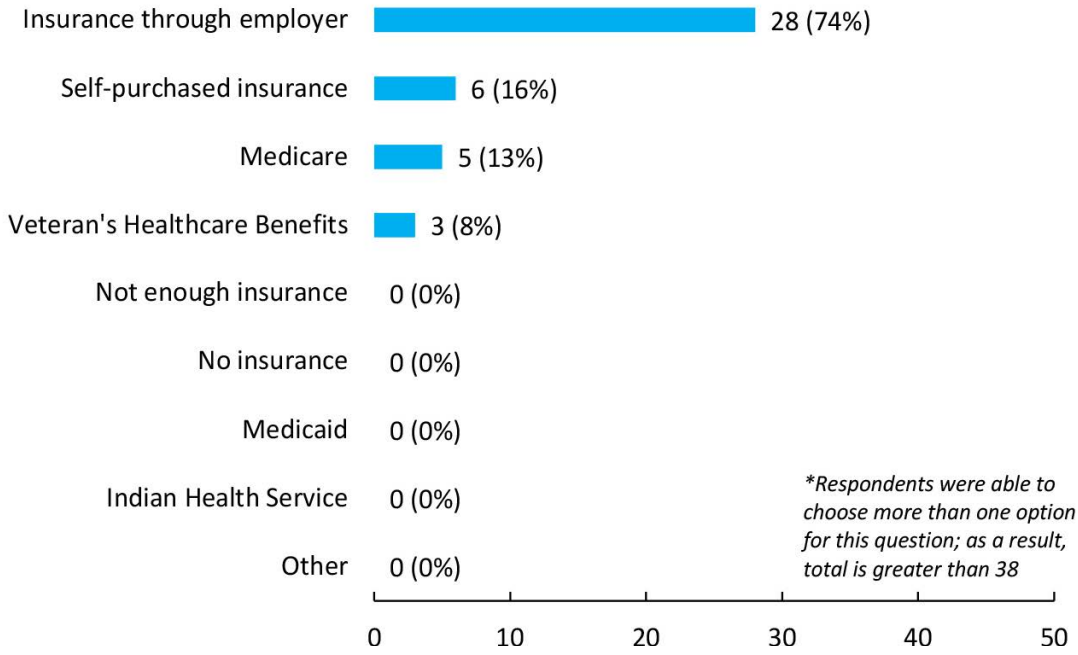
Of those who provided a household income, 3% (N=1) of community members reported a household income of less than $25,000. Fifty-four percent (N=20) indicated a household income of $100,000 or more. This information is shown in Figure 11.

## Figure 11: Household Income Demographics of Survey Respondents
## Total respondents = 37



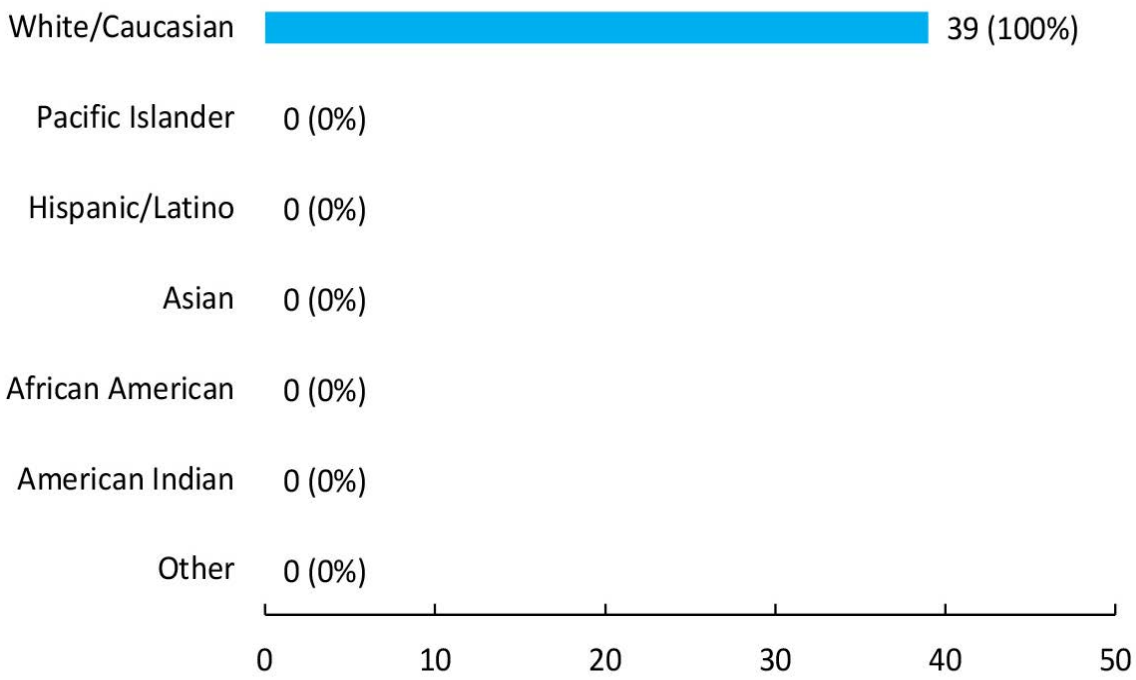

Community members were asked about their health insurance status, which is often associated with whether people have access to healthcare. None of the respondents reported having no health insurance or being under-insured. The most common insurance types were insurance through one's employer (N=28), followed by self-purchased (N=6) and Medicare (N=5).

## Figure 12: Health Insurance Coverage Status of Survey Respondents
## Total respondents = 38*



As shown in Figure 13, all of the respondents were White/Caucasian (100%). This statistic was in-line with the race/ethnicity of the overall population of Bowman County; the U.S. Census indicates that 95.9% of the population is White in Bowman County.

### Figure 13: Race/Ethnicity Demographics of Survey Respondents
### Total respondents = 39



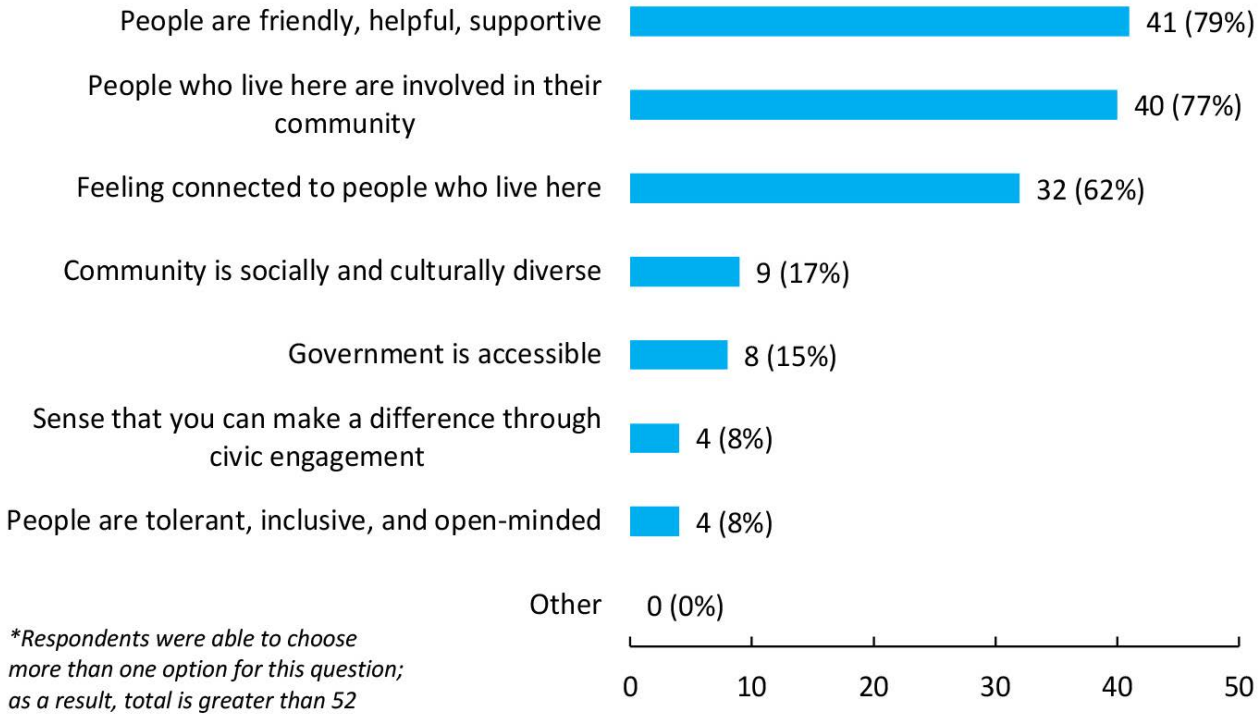

## Community Assets and Challenges

Survey-respondents were asked what they perceived as the best things about their community in four categories: people, services and resources, quality of life, and activities. In each category, respondents were given a list of choices and asked to pick the three best things. Respondents occasionally chose less than three or more than three choices within each category. If more than three choices were selected, their responses were not included. The results indicate there is consensus (with at least 35 respondents agreeing) that community assets include:

- Family-friendly (N=44)
- People are friendly, helpful, supportive (N=41)
- Safe place to live, little/no crime (N=41)
- People who live here are involved in their community (N=40)
- Healthcare (N=35)

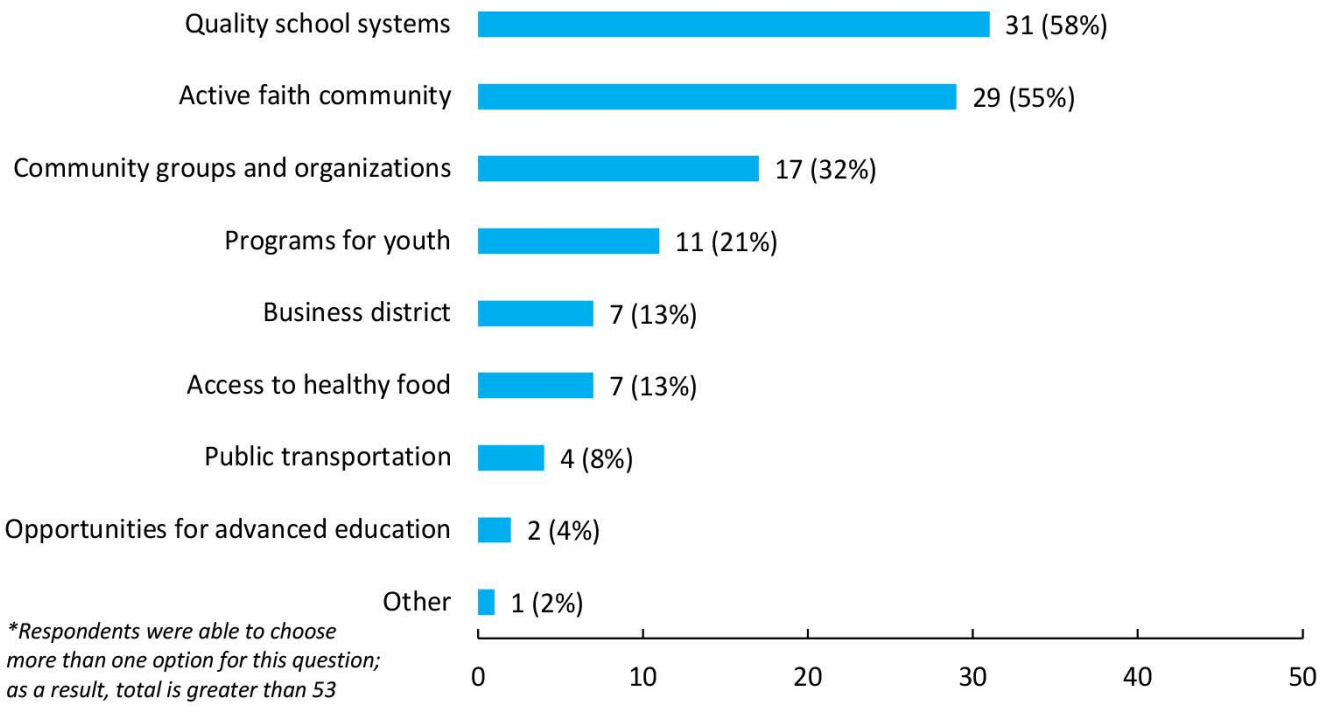
Figures 14 to 17 illustrate the results of these questions.

## Figure 14: Best Things About the PEOPLE in Your Community
## Total responses = 52*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 52*

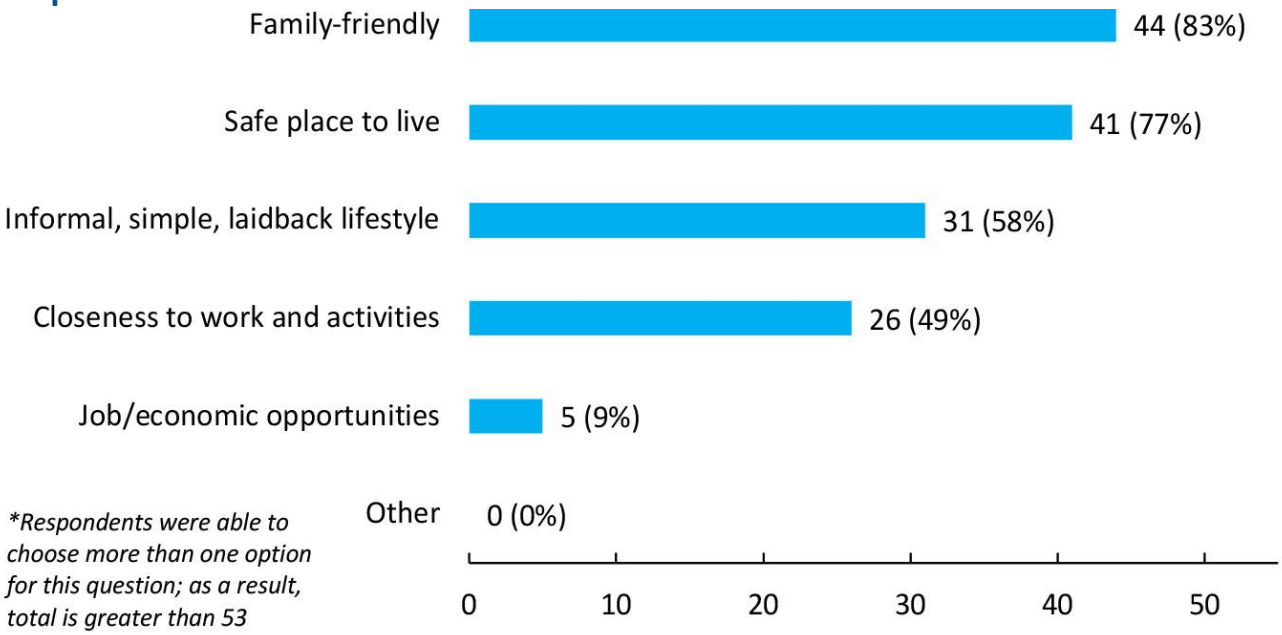
## Figure 15: Best Things About the SERVICES AND RESOURCES in Your Community
## Total responses = 53*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 53*

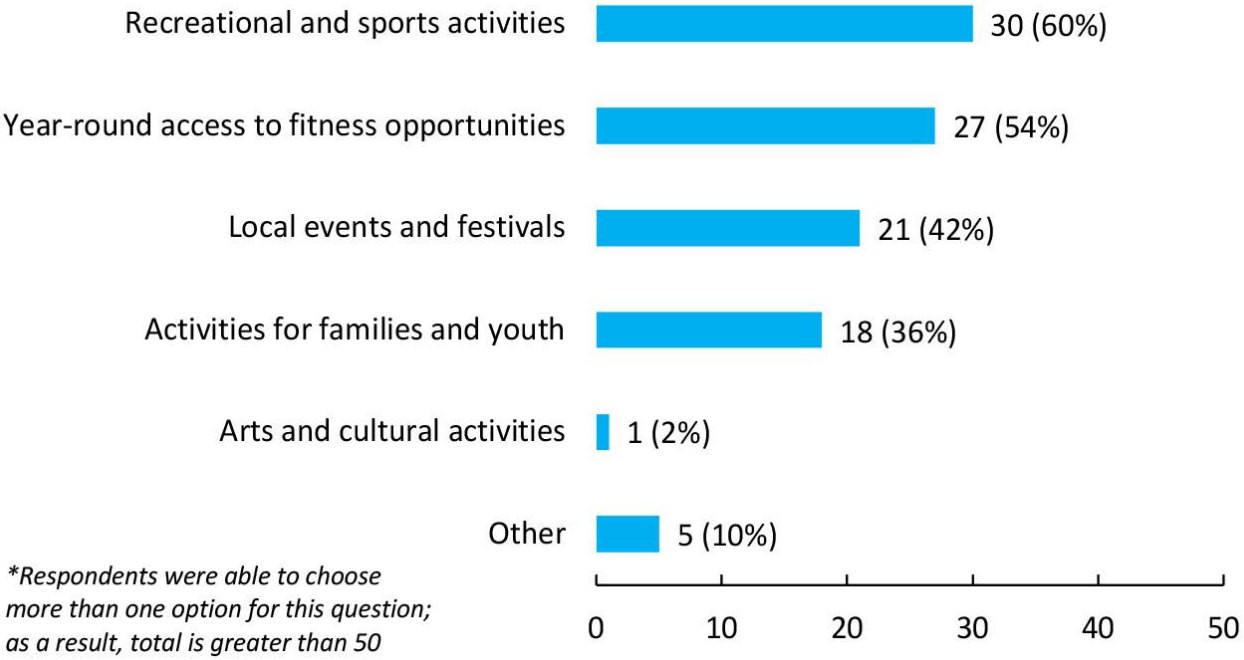
Respondents who selected "Other" specified that the best things included services and resources parks and rec.

## Figure 16: Best Things About the QUALITY OF LIFE in Your Community
## Total responses = 53*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 53*

## Figure 17: Best Thing About the ACTIVITIES in Your Community
## Total responses = 50*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 50*

Respondents who selected "Other" specified that the best things about the activities in the community included the movie theater, hunting and fishing, watching high school sports, and the local library.

## Community Concerns

At the heart of this CHNA was a section on the survey, asking survey respondents to review a wide array of potential community and health concerns in six categories and pick their top three concerns. The six categories of potential concerns were:

- Community/environmental health
- Availability/delivery of health services
- Youth population
- Adult population
- Senior population
- Violence

With regard to responses about community challenges, the most highly voiced concerns (those having at least 20 respondents) were:

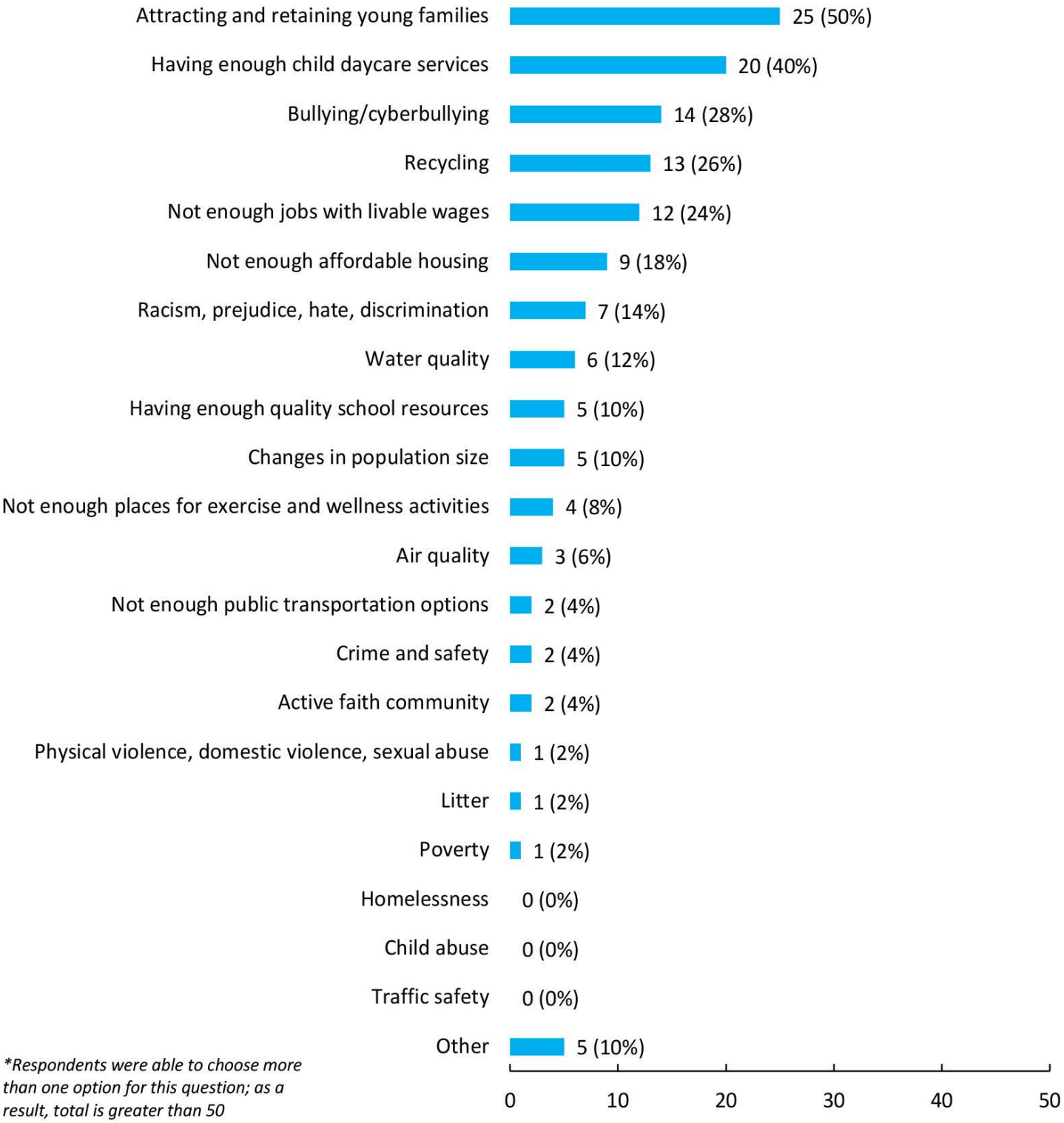
- Bullying/cyberbullying (N=29)
- Depression/anxiety – youth (N=26)
- Attracting and retaining young families (N=25)
- Alcohol use and abuse – youth (N=23)
- Availability of mental health services (N=23)
- Ability to retain primary care providers (MD, DO, NP, PA, nurses) in the community (N=22)
- Depression/anxiety – adult (N=21)
- Having enough child daycare services (N=20)
- Smoking and tobacco use (second-hand smoke) – youth (N= 20)

The other issues that had at least 15 votes included:

- Alcohol use and abuse – adults (N=18)
- Cost of long-term/nursing home care (N=18)
- Stress – adult (N=18)
- Child abuse/neglect (N=17)
- Availability of resources to help the elderly stay in their homes (N=15)
- Cost of health insurance (N=15)
- Cancer – adult (N=15)

Figures 18 through 23 illustrate these results.

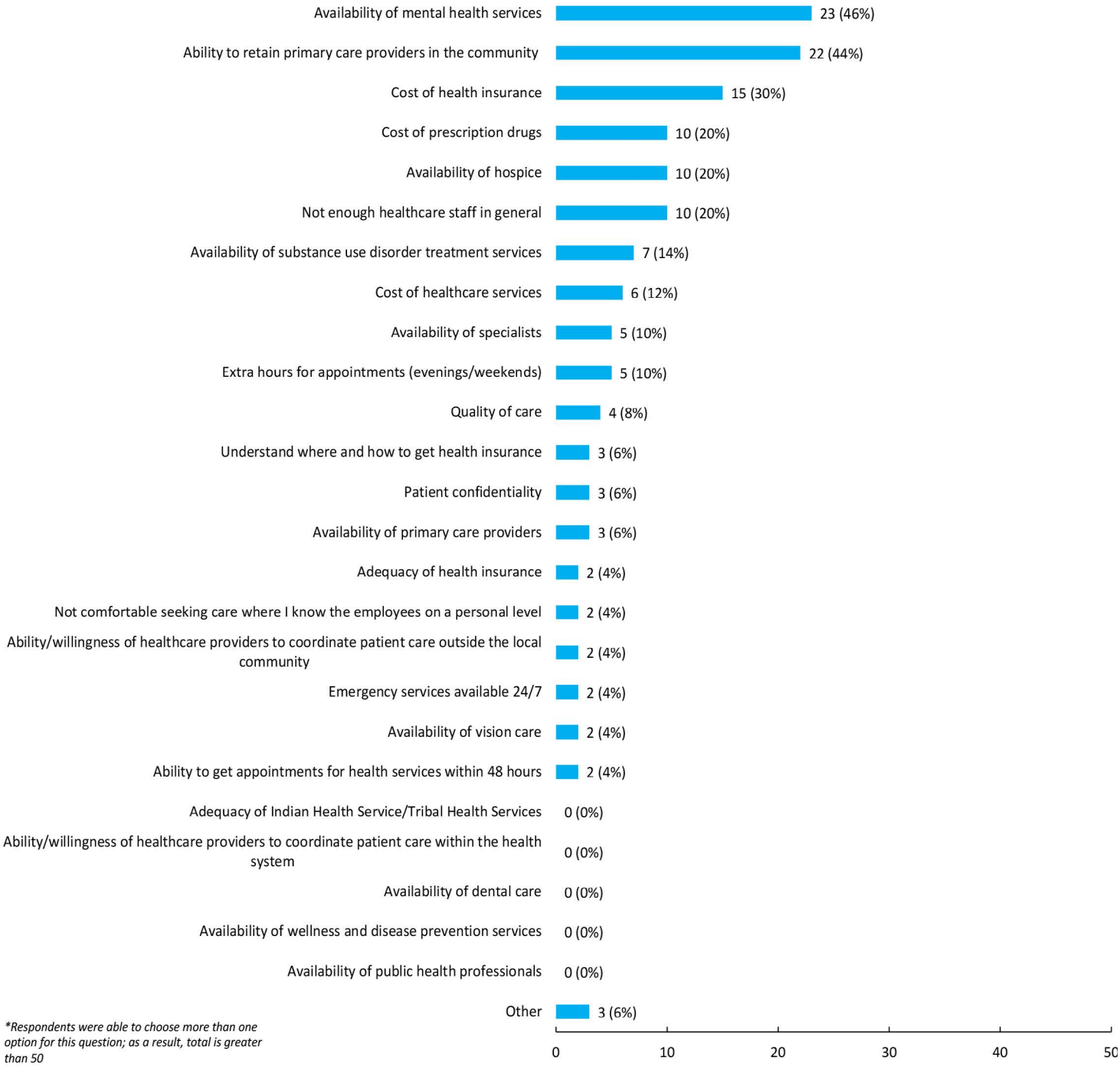
## Figure 18: Community/Environmental Health Concerns
## Total responses = 50*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 50*

In the "Other" category for community and environmental health concerns, the following were listed: drug usage, restaurant diversity, zero fitness and indoor family recreation opportunities in Scranton, equal opportunity for all children in activities due to transportation or bussing, and not enough people needing work to keep stores open.

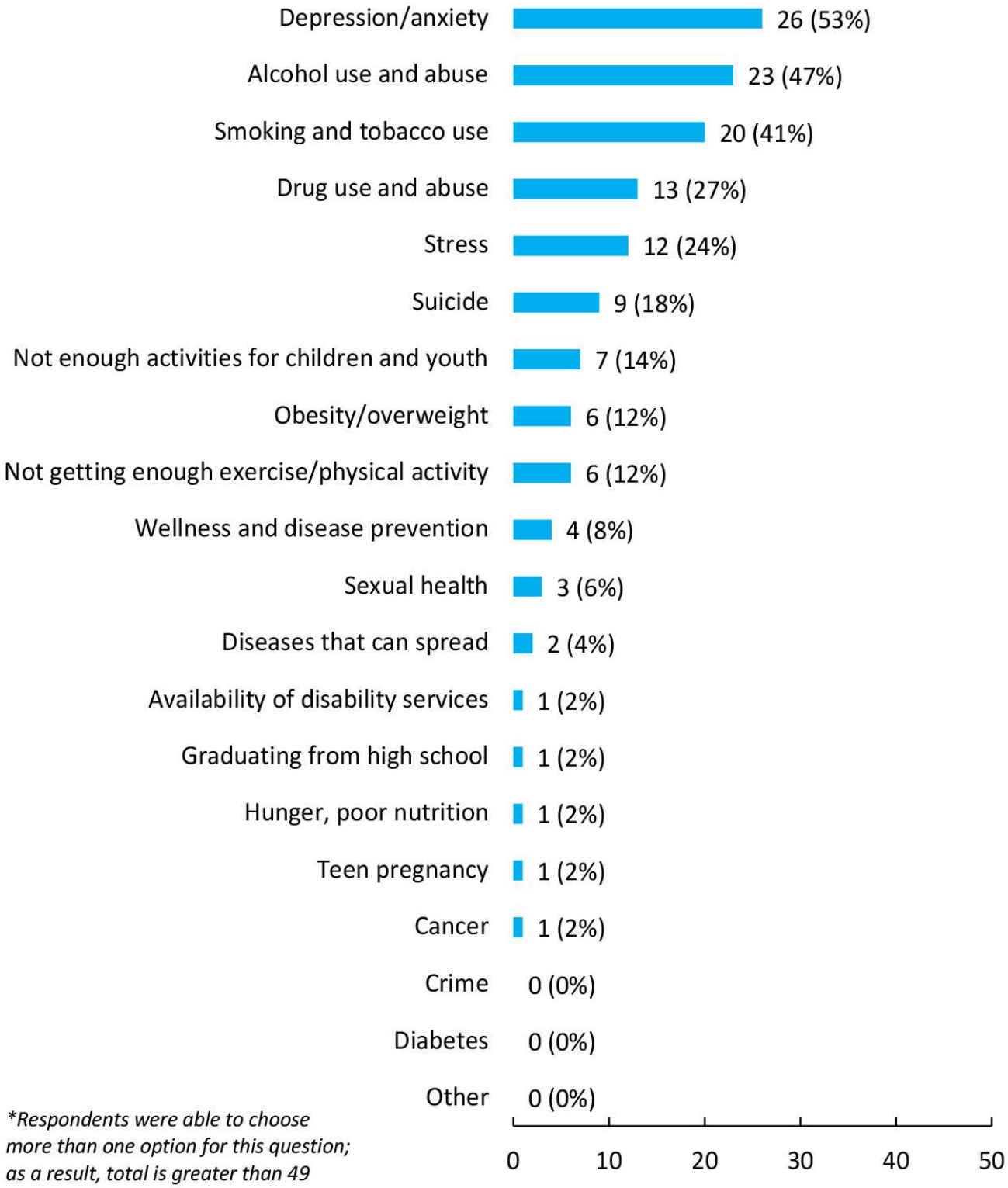
## Figure 19: Availability/Delivery of Health Services Concerns
## Total responses = 50*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 50*

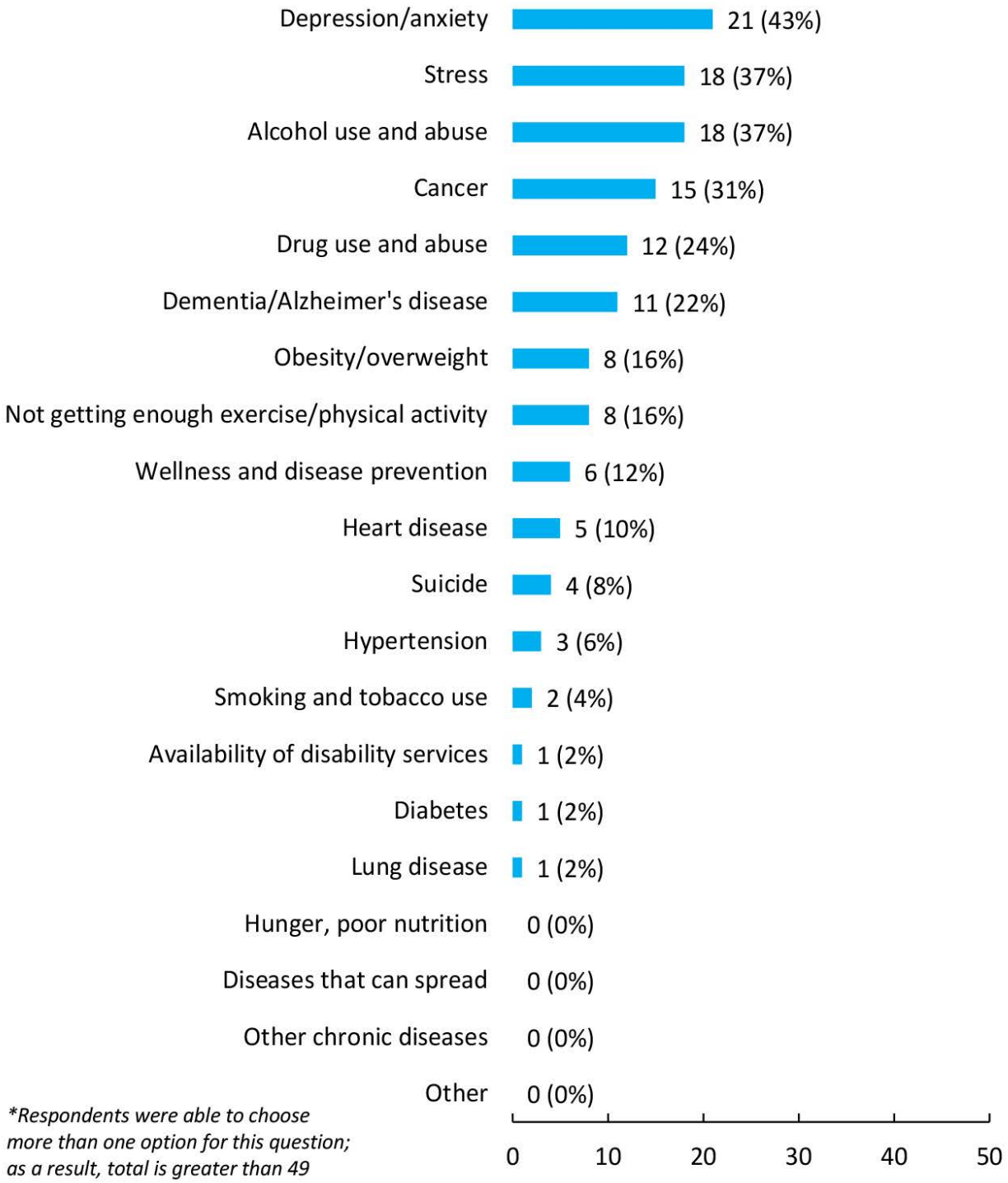
Respondents who selected "Other" identified concerns in the availability/delivery of health services as not enough open beds to allow for acute care admissions, continuing COVID-19 protocols, such as masking, and someone to answer medical questions in a shorter time at the clinic.

## Figure 20: Youth Population Health Concerns
## Total responses = 49*



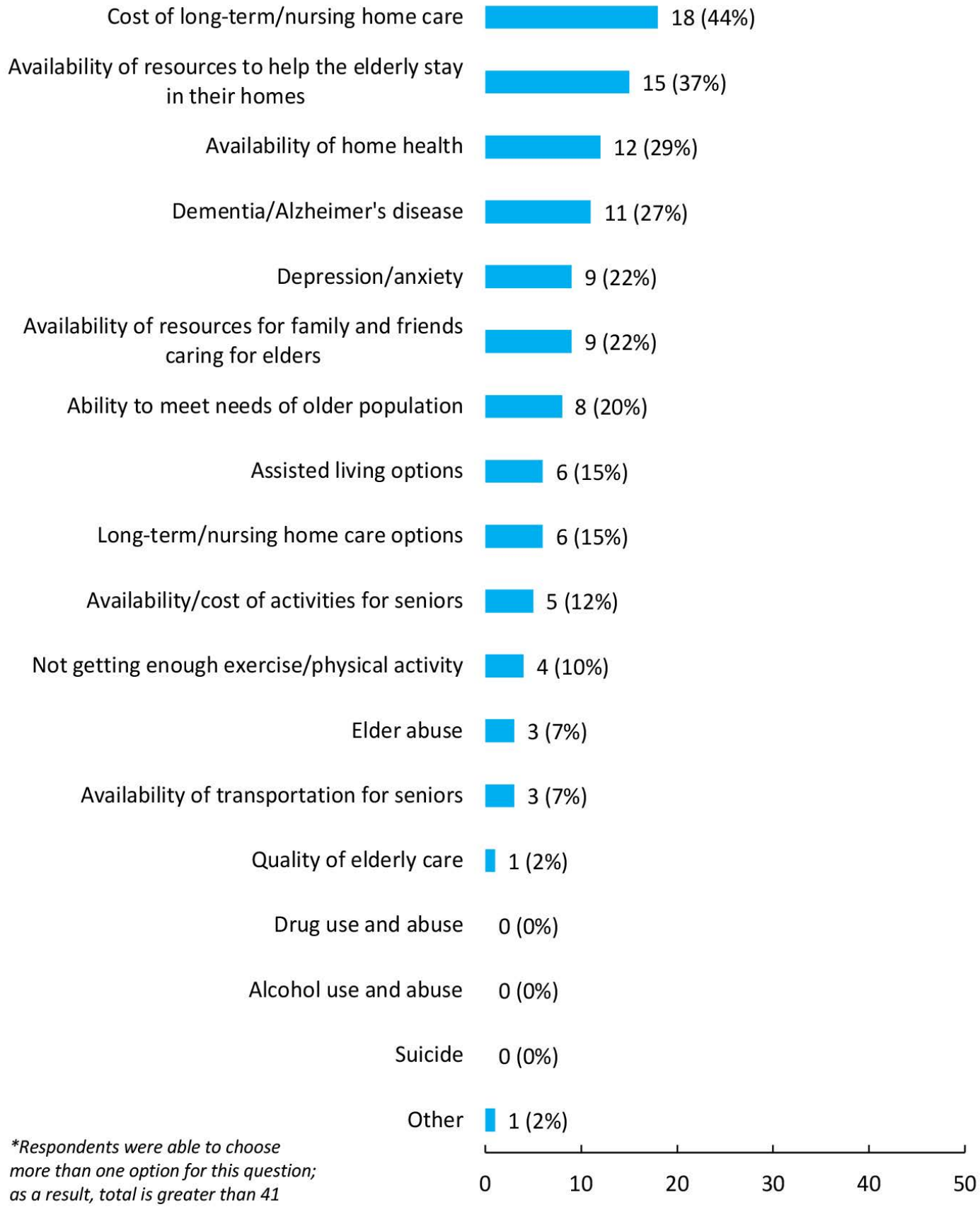

**Respondents were able to choose more than one option for this question; as a result, total is greater than 49*

## Figure 21: Adult Population Concerns
## Total responses = 49*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 49*

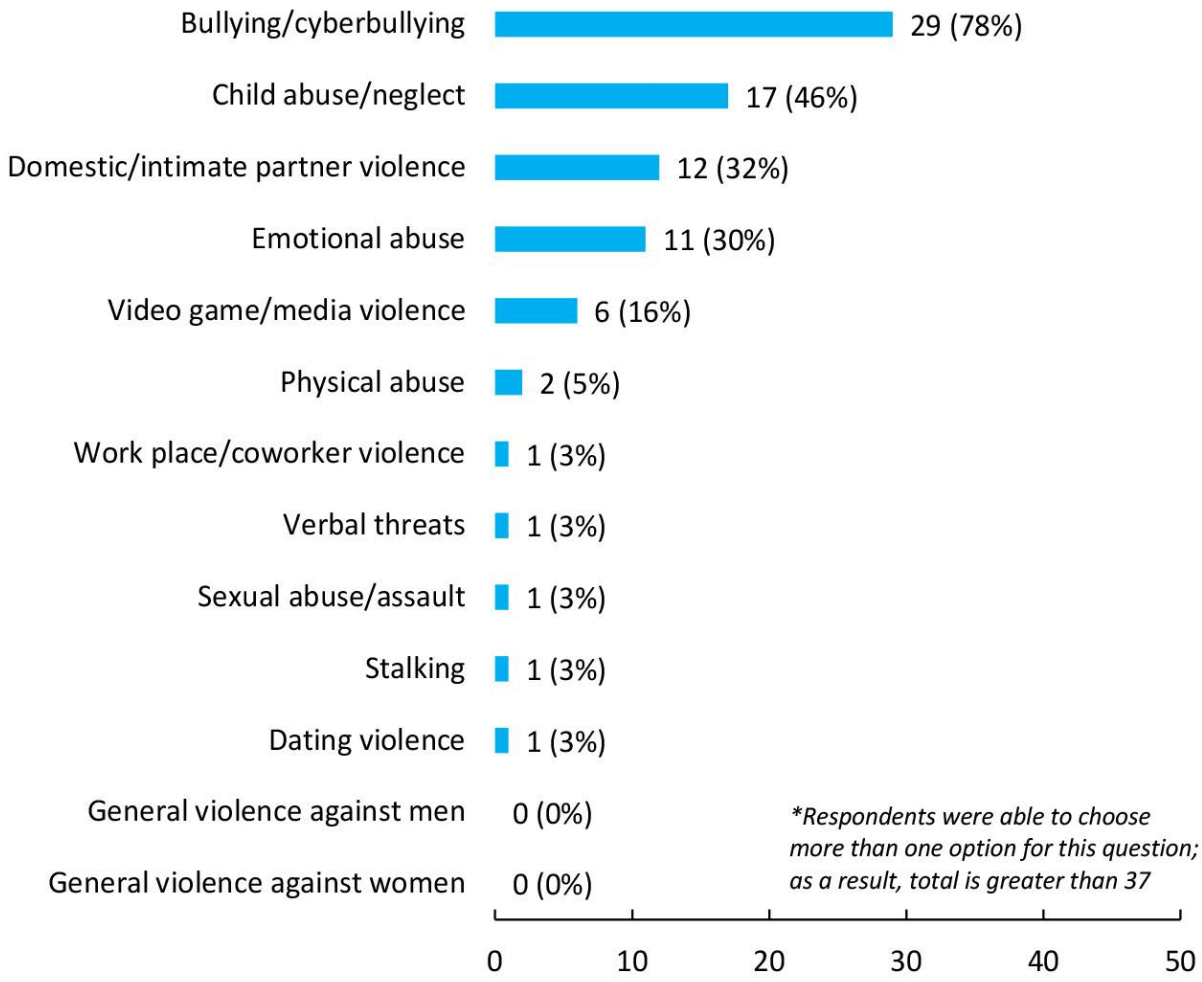
## Figure 22: Senior Population Concerns
## Total responses = 41*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 41*

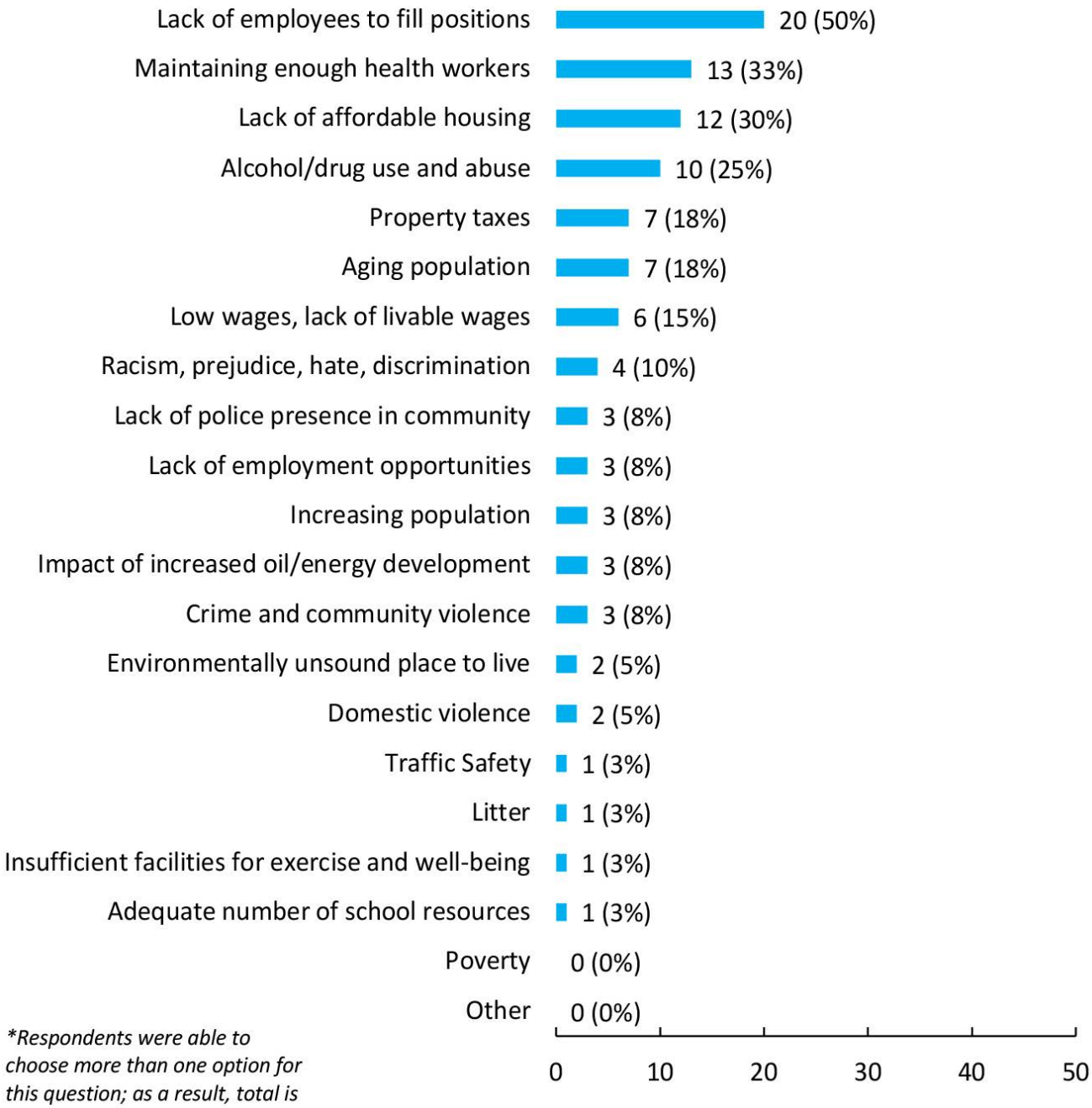
In the "Other" category, the one concern listed was that there is not enough staff to maintain long-term services.

## Figure 23: Violence Concerns
## Total responses = 37*




Bowman County included questions regarding violence concerns and concerns about the impacts of oil development. For concerns about violence, bullying/cyberbullying stand out amongst the others as the highest-ranking concern, with child abuse/neglect a distant second. Lack of employees to fill positions was the top concern, regarding the impacts of oil development.

## Figure 24: Concerns About Impacts of Oil Development
## Total responses = 40*




**Respondents were able to choose more than one option for this question; as a result, total is*

In an open-ended question, respondents were asked what single issue they feel is the biggest challenge facing their community. Two categories emerged above all others as the top concerns:

1. Workforce and economic development
2. Mental health resources

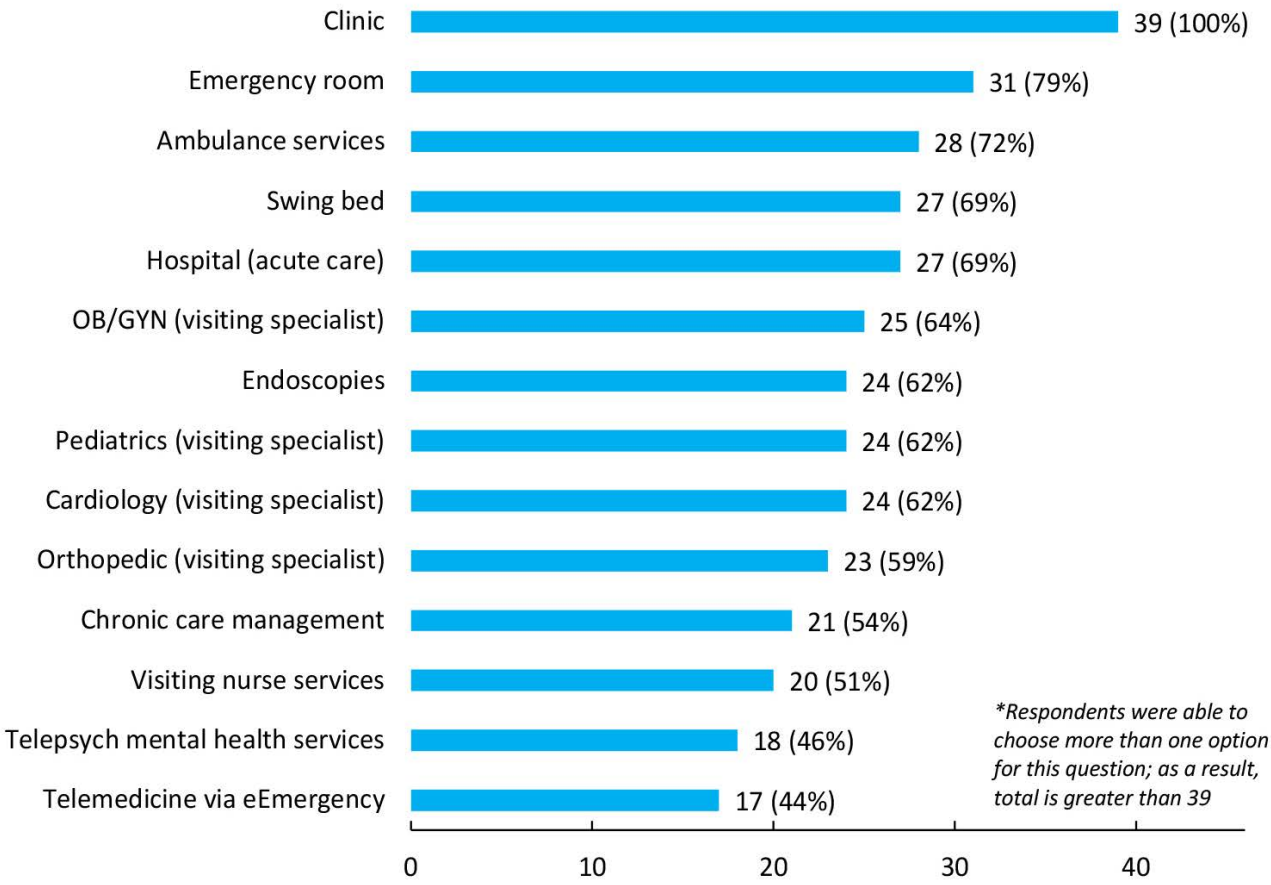
Other biggest challenges that were identified were more healthcare workers, in home care for elderly, inflation, jobs with livable wages, safety and crime, distracted driving, housing, daycare services, and places to eat with healthy options.

# Delivery of Healthcare

Respondents were asked about their knowledge of local services offered in the community. When considering general and acute services, all respondents knew about clinic (N=39), and majority knew about the emergency room services (N=31) and the ambulance services (N=28) that are offered at SWHS.

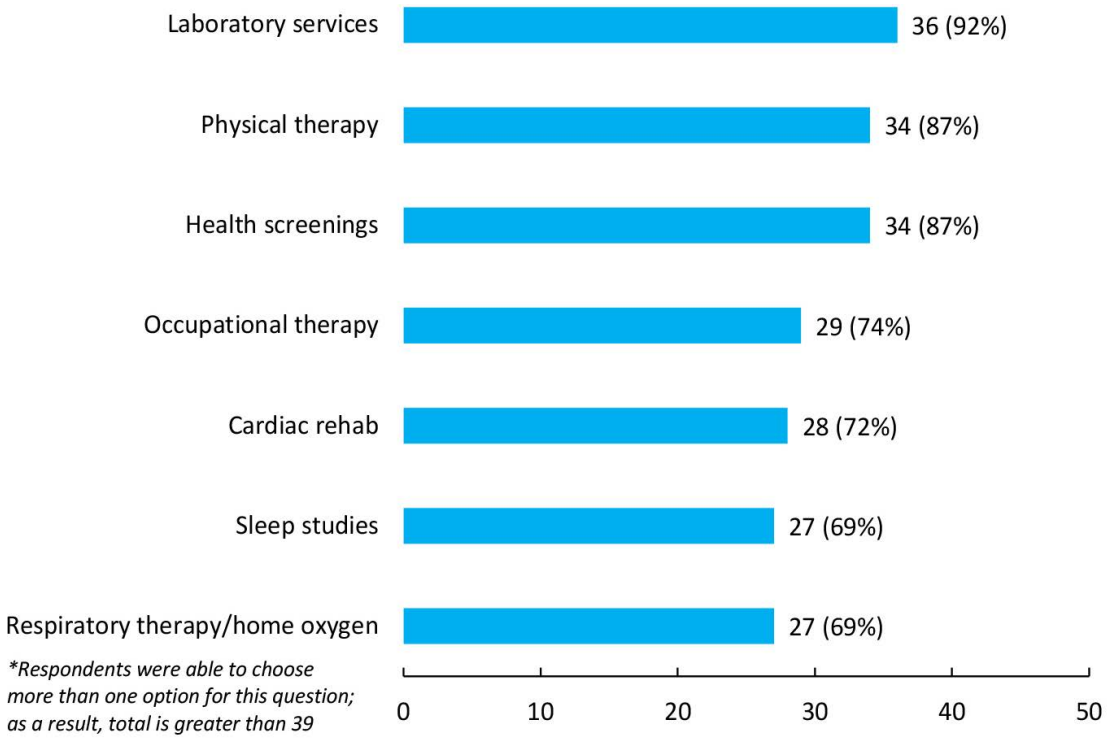
Figure 25 illustrates these results.

## Figure 25: Awareness/Use of General and Acute Services
## Total responses = 39*

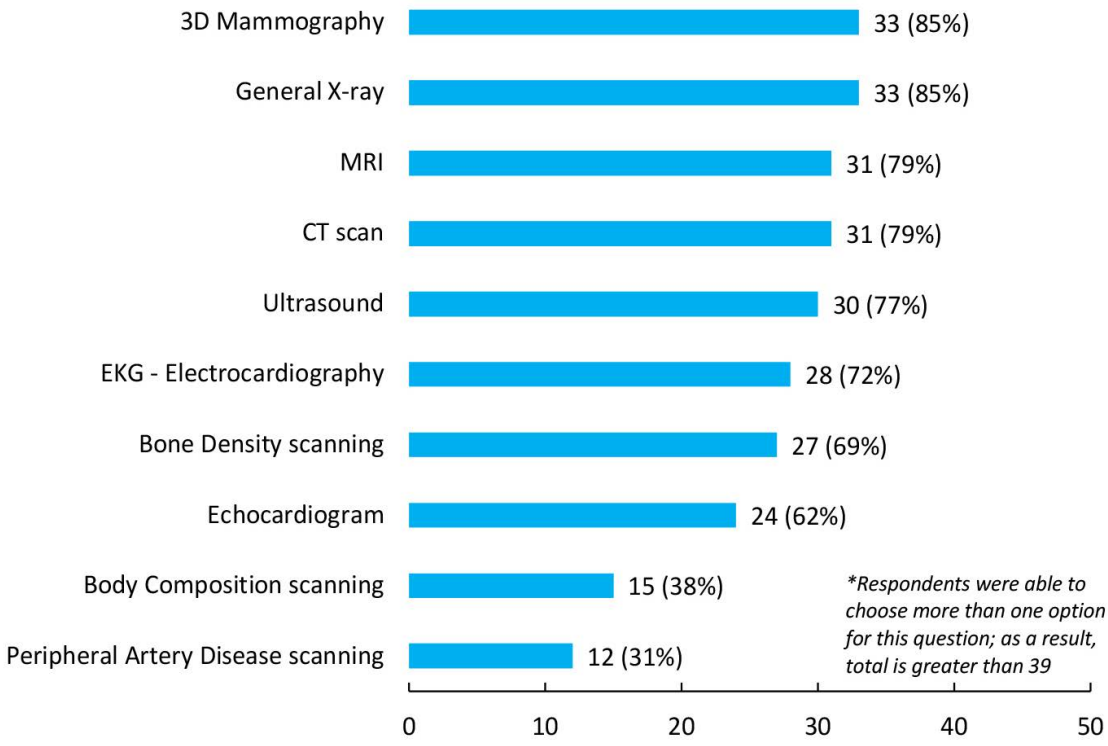



When asked about the awareness and use of screening and therapy services and radiology services, most respondents were aware of these services (see figure 26 and figure 27).

## Figure 26: Awareness/Use of Screening and Therapy Services
## Total responses = 39*

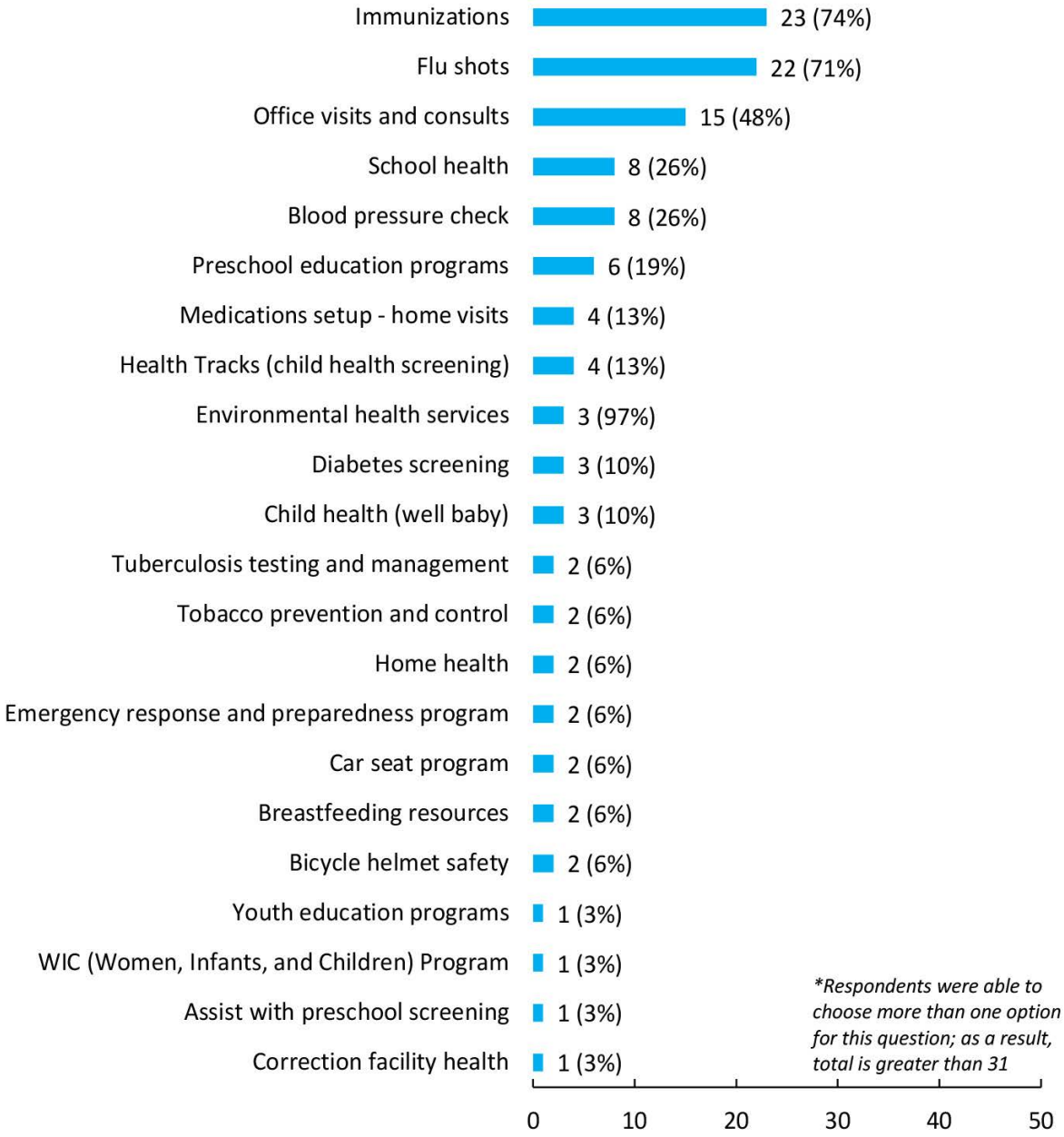



## Figure 27: Awareness/Use of Radiology Services
## Total responses = 39*



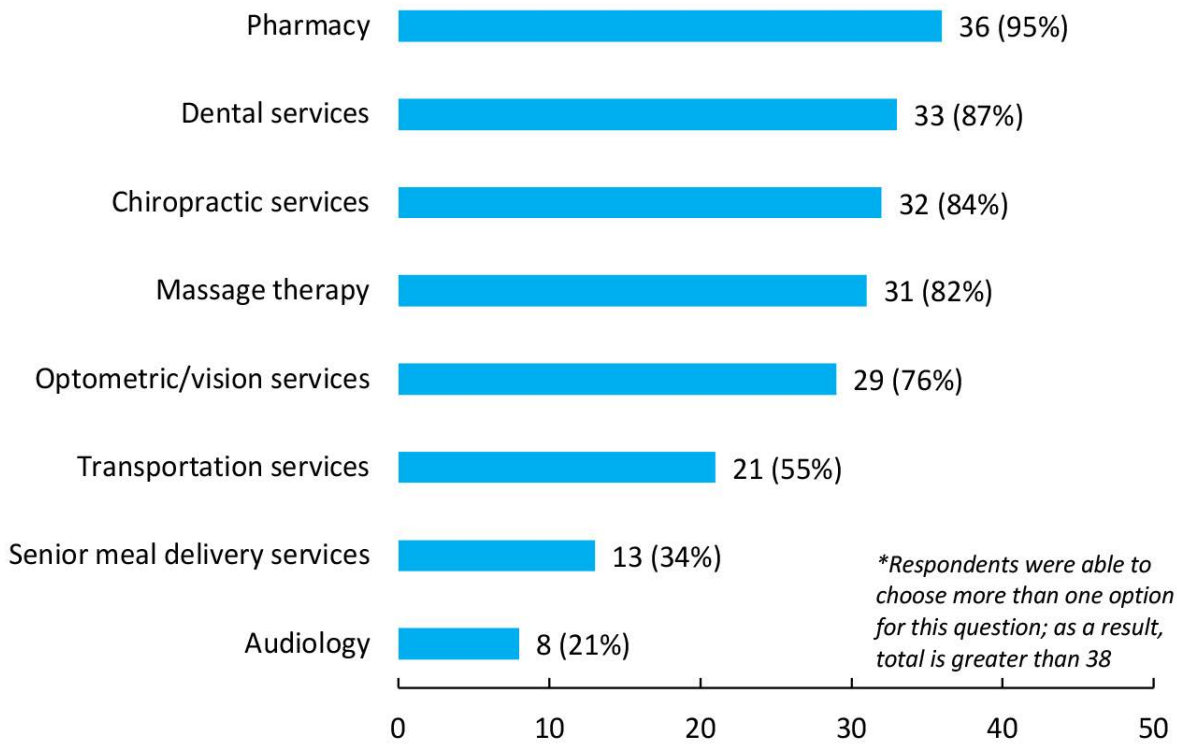
Considering a variety of healthcare services offered by Southwestern Health District Unit (SWHDU), respondents were asked to indicate if they were aware that the healthcare service is offered though SWHDU and to also indicate what, if any, services they or a family member have used at SWHDU, at another public health unit, or both (See Figure 28).

## Figure 28: Use of Southwestern District Health Unit Services
## Total responses = 31*



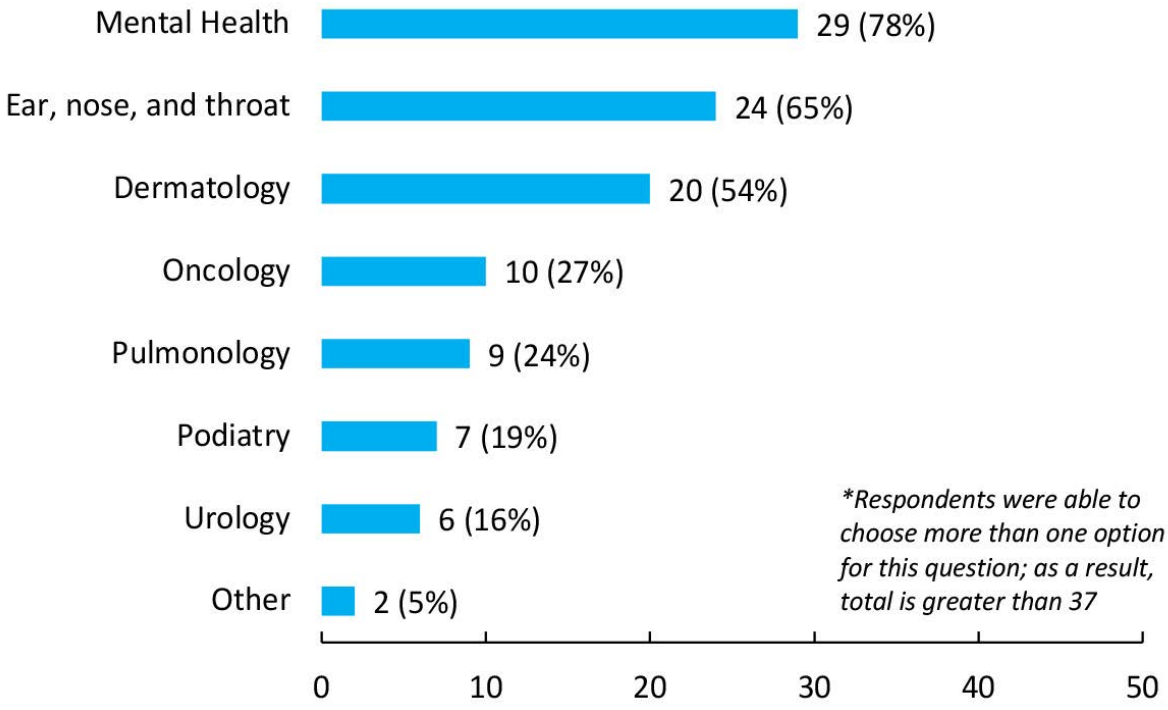

The survey asked respondents if they were aware and used services offered by other providers and organizations. The pharmacy was the number one service selected with 95% response rate (N=36). Figure 29 illustrates the results.

## Figure 29: Services Offered by Other Providers/Organizations
## Total responses = 38*



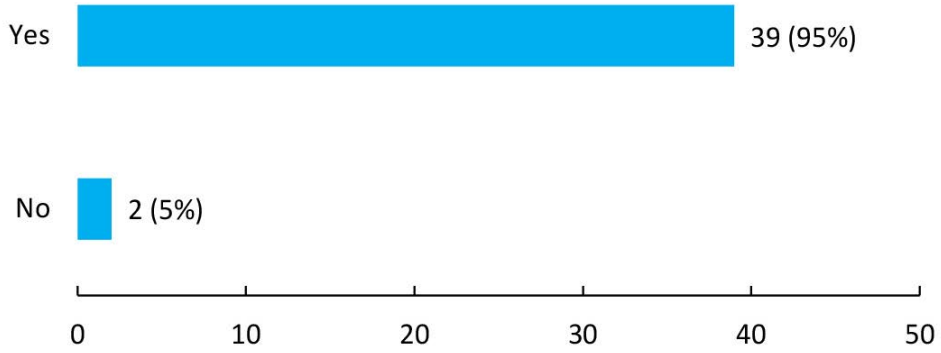

Respondents were asked what specific healthcare services they think should be added locally. The number one desired service to add locally was mental health services. Ears, nose, and throat services was the next highest response, followed by dermatology. Other responses were GYN and functional medicine.

## Figure 30: Services offered by Other Providers/Organizations
## Total responses = 37*



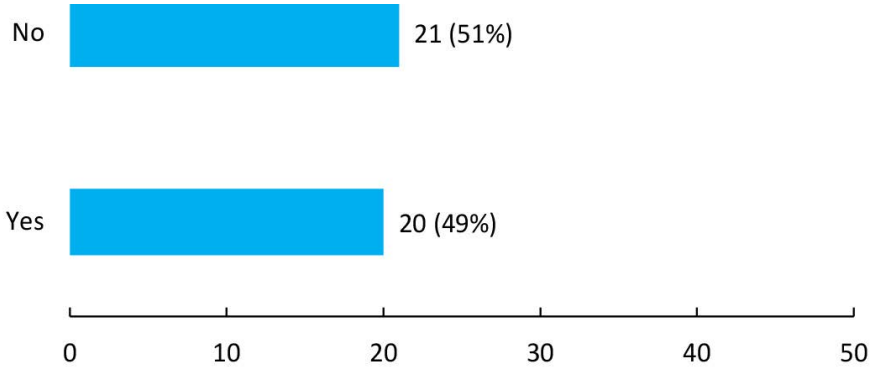
Respondents were asked if they were aware of SWHS's clinic hours (Monday-Friday from 7:30 am – 5:00 pm). Majority were aware the clinic hours.

### Figure 31: Perceptions About Barriers to Care
### Total responses = 41



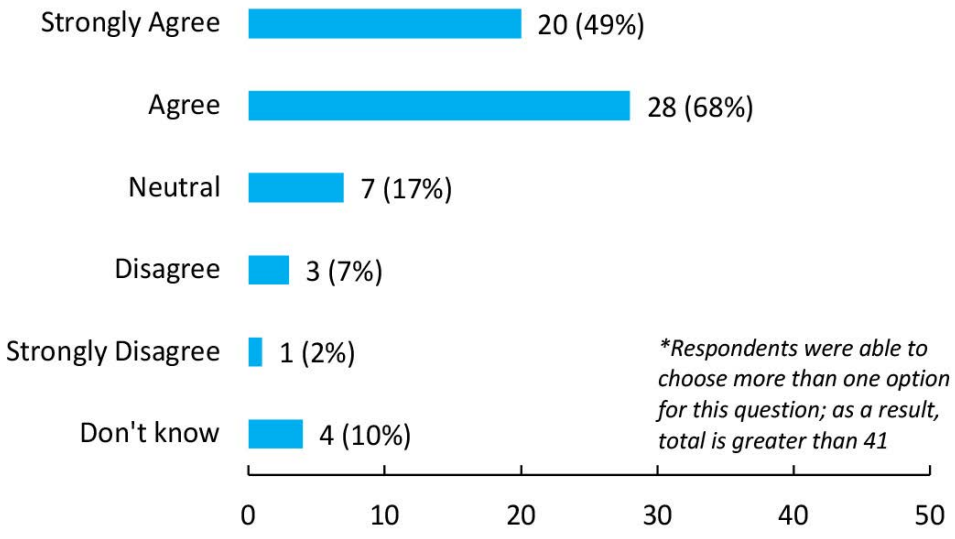

When asked if they would utilize extended hours at SWHS clinic (Monday-Friday from 5:00 pm – 7:00 pm and Saturdays 10:00 am – 12:00 pm), respondents were split.

### Figure 32: Perceptions About Barriers to Care
### Total responses = 41




Respondents were asked how important is was to them that SWHS remains independent. Most respondents agreed that SWHS independence was important. Figure 33 illustrates this below.

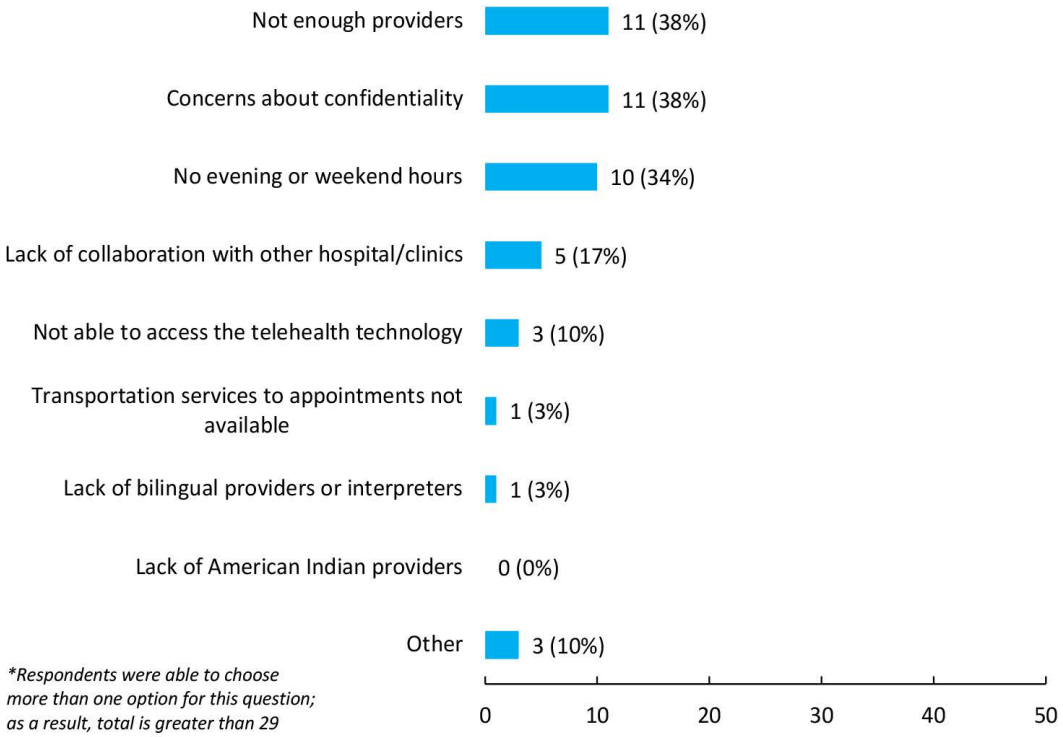
### Figure 33: Important that Southwest Healthcare Services Remains Independent
### Total responses = 41*



The survey asked residents what they see as barriers that prevent them, or other community residents, from receiving healthcare locally. The most prevalent barrier perceived by residents was a tie between not enough providers (MD, DO, NP, PA) (N=11) and concerns about confidentiality (N=11). After these items, the next most commonly identified barriers were no evening or weekend hours (N=10), lack of collaboration with other hospital and clinics (N=5), and not able to access the telehealth technology (N=3). In the "Other" category included not able to see the same provider each time.

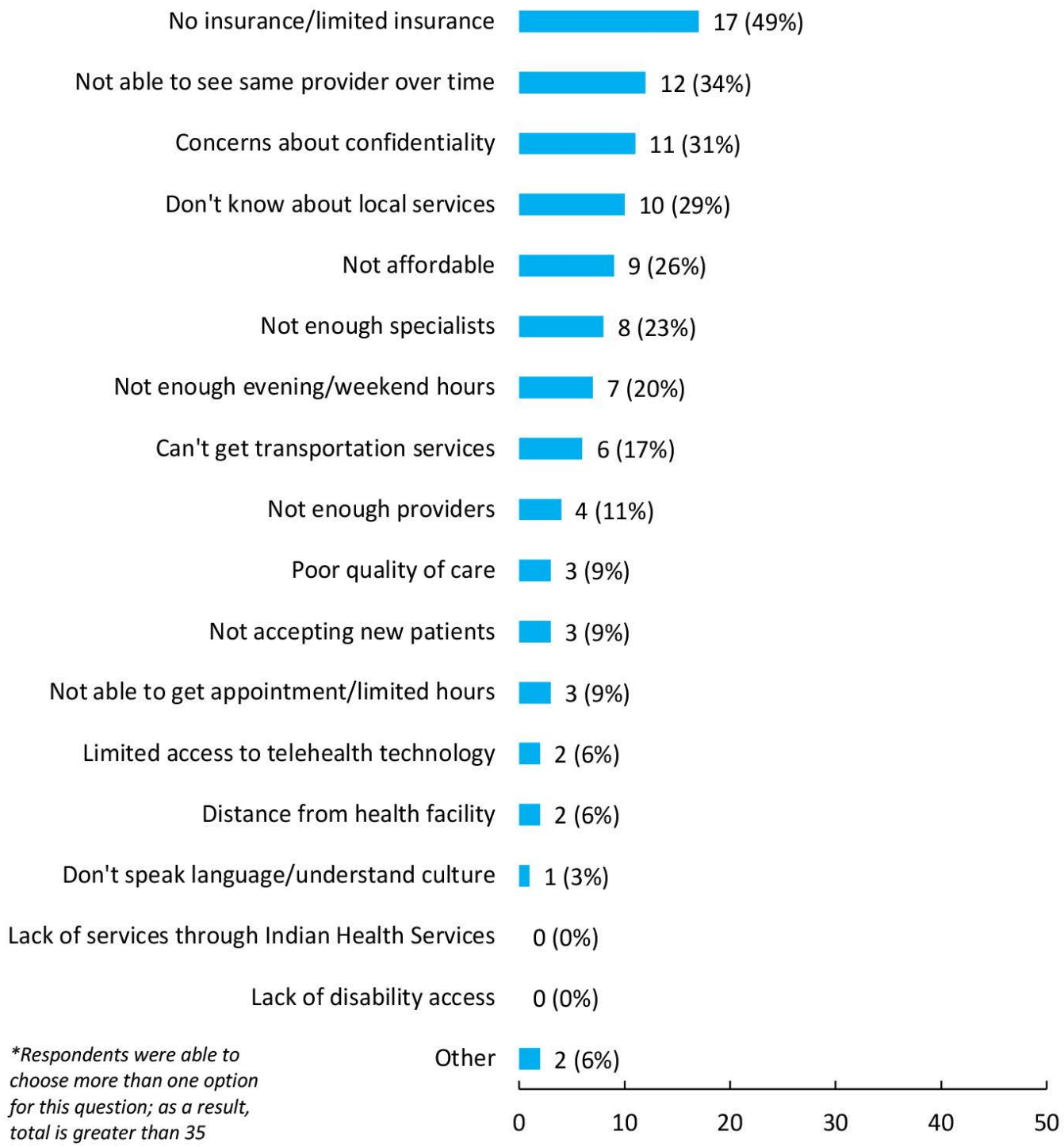
Figure 34 illustrates these results.

## Figure 34: Perceptions About Barriers to Care
## Total responses = 29*




Respondents were also asked, in general, what were some barriers to receiving healthcare services. The number one response was no insurance or limited insurance (N=17), followed by not able to see same provider over time (N=12), and concerns about confidentiality (N=11).

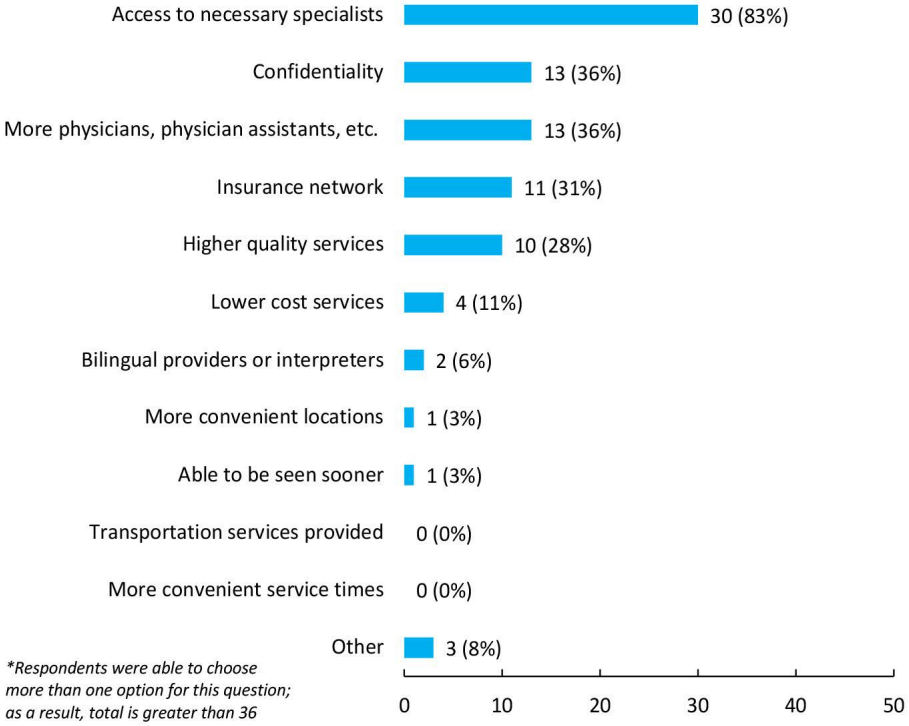
## Figure 35: Barriers to Receiving Healthcare Services
## Total responses = 35*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 35*

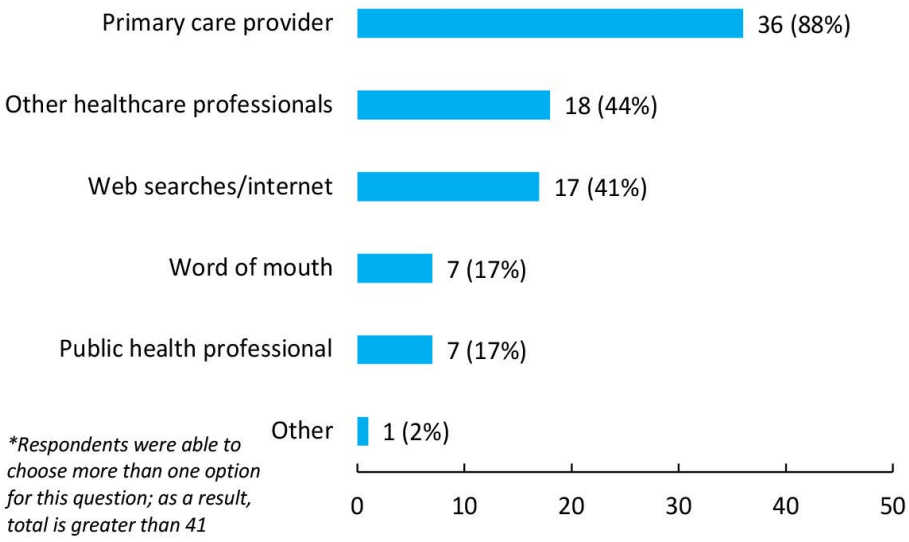
When asked why individuals seek healthcare services outside of the community, the top response was access to necessary specialists (N=30). Confidentiality and more physicians or physician assistants tied for second top reason with 36% of the responses (N=13). In the "Other" response, participants stated not being able to see the same provider over time and provider turnover in Bowman.

## Figure 36: Why Individuals Seek Healthcare Services Outside the Local Community
## Total responses = 36*




*Respondents were able to choose more than one option for this question; as a result, total is greater than 36*

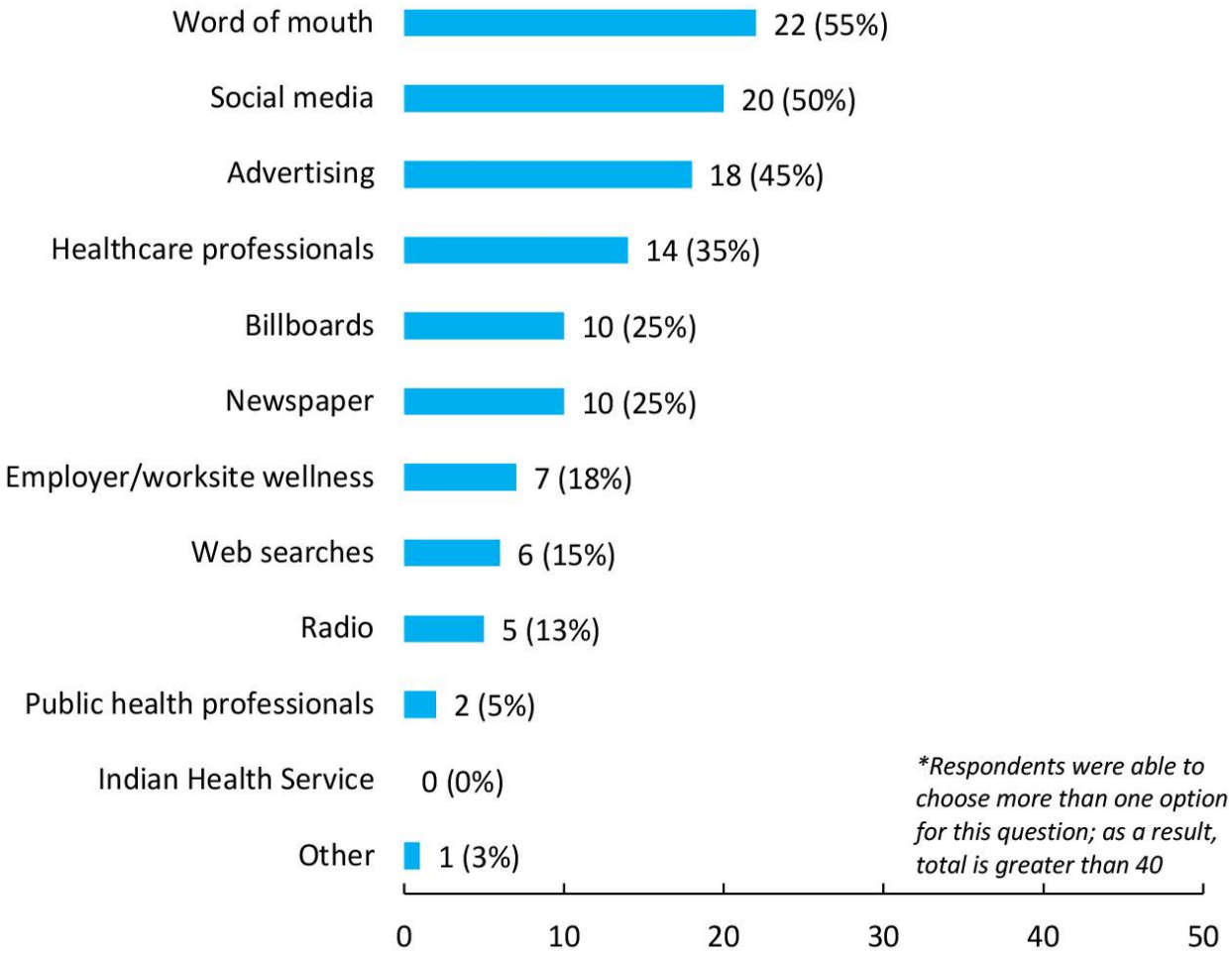
## Figure 37: Sources of Trusted Health Information
## Total responses = 41*



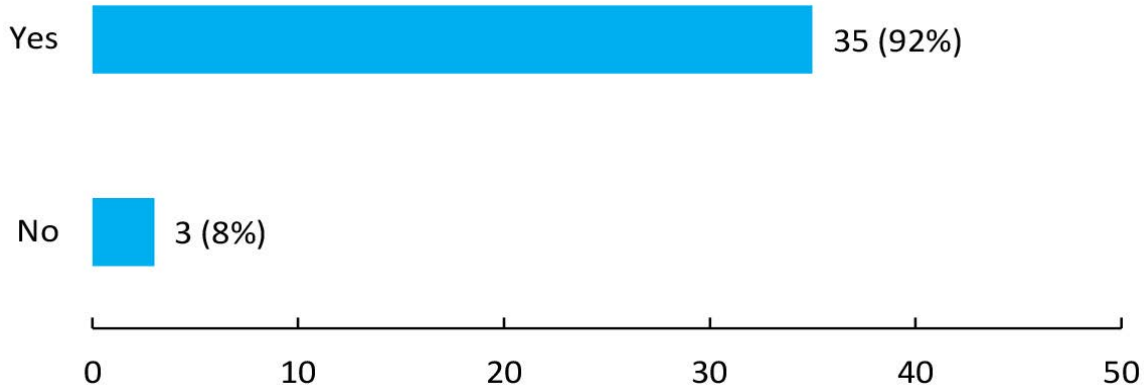

*Respondents were able to choose more than one option for this question; as a result, total is greater than 41*

In the "Other" category, a participant stated they do their own research.

## Figure 38: Sources of Information About Local Health Services
## Total responses = 40*

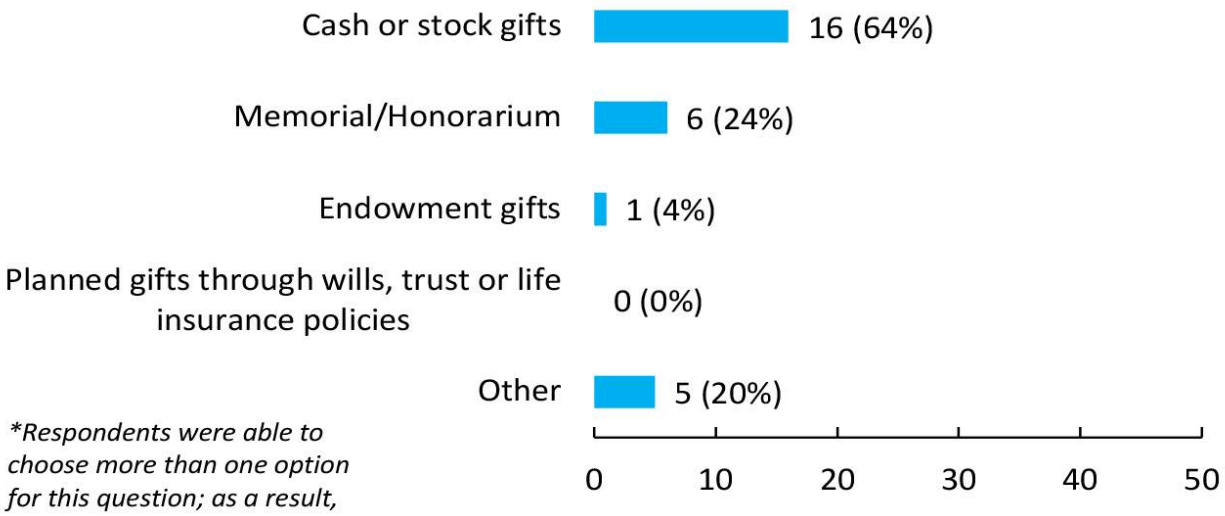



## Figure 39: Awareness of Sunrise Foundation
## Total responses = 38



In an effort to gauge ways that community members would be most likely to financially support facility improvements/new equipment, a question was included asking them to select ways they are most likely to support facility improvements/new equipment at SWHS (see Figure 40). Recommendations in the "Other" category included fundraisers, giving hearts day, and volunteerism.

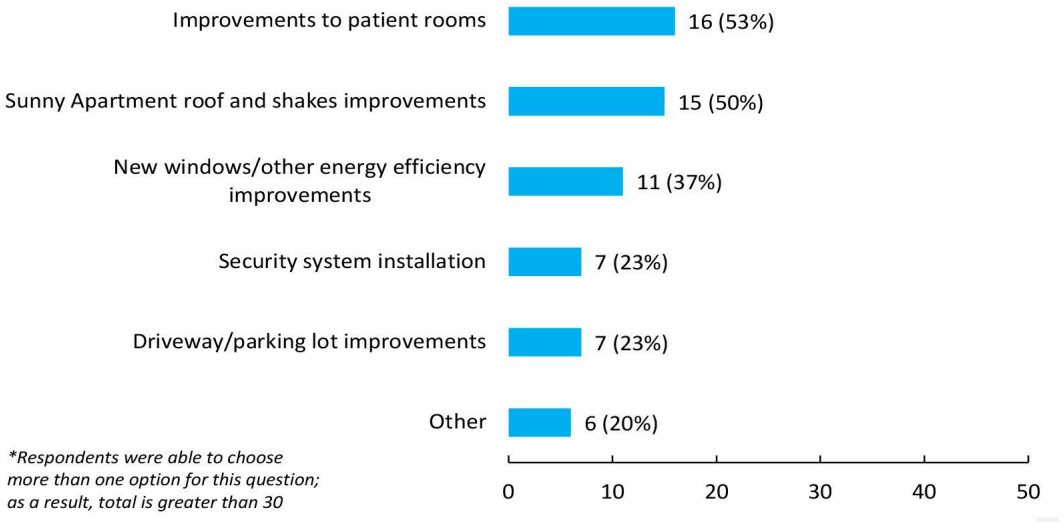
## Figure 40: Forms of Support for the Sunrise Foundation
## Total responses = 25*




**Respondents were able to choose more than one option for this question; as a result,*

In an effort to gauge what capital improvements the community would most likely financially support, respondents were asked to select which improvements they would likely support. Improvement to patient rooms and Sunny Apartment roof and shakes improvements were selected most often. "Other" responses included the adding more rooms for acute care patients, updating long term care area, dining room updates, better phone call follow up, and availability of an OR.

## Figure 41: Capital Improvements that Would be Financially Supported
## Total responses = 30*




**Respondents were able to choose more than one option for this question; as a result, total is greater than 30*

The final question on the survey asked respondents to share concerns and suggestions to improve the delivery of local healthcare. The majority of responses focused on concern with the lack of physicians and physicians, leaving the community to practice elsewhere. Local providers are healthcare drivers in the community. It takes time for providers to build a trusting relationship with their patients. People want to be able to go to the same doctor, where they do not have to start from scratch and reexplain their health problems.

There is concern regarding the quality of providers and other healthcare workers. Due to the shortage in workforce, a number of respondents state they are worried about recruiting and retaining qualified staff. One respondent stated they were concerned that providers and nurses did not take COVID-19 seriously. They stated they do not use the facility any longer because their provider disregarded COVID-19 and the vaccine, adding they dismissed patient concerns.

Mental health services were also listed as a concern for local healthcare. The community is in desperate need for these types of services, and hospital staff are unsure how to handle people who are having a mental health crisis. One respondent stated the hospital needs better follow up after procedures and making sure the online portal is updated and sharing information with all other providers, such as Sanford.

There is a concern over workforce and having enough daycare providers. There are a number of open jobs in the area, and people who do want to work them, however, are unable to work because there is no daycare availability.

# Findings from Key Informant Interviews & the Community Meeting

Questions about the health and well-being of the community, similar to those posed in the survey, were explored during key informant interviews with community leaders and health professionals and also with the community group at the first meeting. The themes that emerged from these sources were wide-ranging; some were directly associated with healthcare, and others were more rooted in broader social and community matters.

Generally, overarching issues that developed during the interviews and community meeting can be grouped into four categories (listed in alphabetical order):

- Alcohol use and abuse
- Attracting and retaining young families
- Availability of mental health and substance use disorder treatment services
- Depression/anxiety
- Having enough child daycare services

To provide context for the identified needs, following are some of the comments made by those interviewed about these issues:

### Alcohol use and abuse

- There is not a lot for people to do that does not involve drinking.
- People go straight to the bar after work and on the weekends.

### Attracting and retaining young families

- It is hard for families to get set up here. There are jobs, but not enough things to keep people from moving.

### Availability of mental health and substance use disorder treatment services

- Mental health services are needed in the area. People are suffering from stress, depression, anxiety, and suicide, which are all related to mental health.

- Behavioral health (mental and substance) struggles everywhere but especially in rural. Affects all ages from young children to the elderly. Lack of resources for behavioral health in community. Still a stigma.

### Depression/anxiety

- Depression and anxiety were a top concern for all ages.

### Having enough child daycare services

- People have to drive to neighboring communities to find daycare for infants.

### Community Engagement and Collaboration

Key informants and focus group participants were asked to weigh in on community engagement and collaboration of various organizations and stakeholders in the community. Specifically, participants were asked, "On a scale of 1 to 5, with 1 being no collaboration/community engagement and 5 being excellent collaboration/community engagement, how would you rate the collaboration/engagement in the community among these various organizations?" This question was not intended to rank services provided. They were presented with a list of 13 organizations or community segments to score. According to these participants, the hospital, pharmacy, public health, and other long-term care (including nursing homes/assisted living) are the most engaged in the community. The averages of these scores (with 5 being "excellent" engagement or collaboration) were:

- Business and industry (4.25)
- Economic development organizations (4.25)
- Emergency services, including ambulance and fire (4.25)
- Hospital (healthcare system) (4.25)
- Faith-based (4.0)
- Human services agencies (3.75)
- Schools (3.75)
- Law enforcement (3.5)
- Long-term care, including nursing homes and assisted living (3.5)
- Other local health providers, such as dentists and chiropractors (3.5)
- Clinics not affiliated with the main health system (3.0)
- Public health (3.0)
- Pharmacy (3.0)
- Social services (3.0)

# Priority of Health Needs

A community group met on October 24, 2022. Nine community members attended the meeting. Representatives from the Center for Rural Health (CRH) presented the group with a summary of this report's findings, including background and explanation about the secondary data, highlights from the survey results (including perceived community assets and concerns, and barriers to care), and findings from the key informant interviews.

Following the presentation of the assessment findings and after considering and discussing the findings, all members of the group were asked to identify what they perceived as the top four community health needs. All of the potential needs were listed on large poster boards, and each member was given four stickers to place next to each of the four needs they considered the most significant.

The results were totaled, and the concerns most often cited were:

- Attracting and retaining young families (6 votes)
- Availability of mental health services (6 votes)
- Depression and anxiety for all ages (5 votes)
- Not enough healthcare staff in general (4 votes)

From those top four priorities, each person put one sticker on the item they felt was the most important. The rankings were:

1. Availability of mental health services (4 votes)
2. Attracting and retaining young families (3 votes)
3. Not enough healthcare staff in general (2 votes)
4. Depression and anxiety for all ages (0 votes)

Following the prioritization process during the second meeting of the community group and key informants, the number one identified need was the availability of mental health services. A summary of this prioritization may be found in Appendix E.

## Comparison of Needs Identified Previously

| Top Needs Identified 2019 CHNA Process | Top Needs Identified 2022 CHNA Process |
|---|---|
| Ability to recruit and retain primary care providers | Availability of mental health services |
| Attracting and retaining young families | Attracting and retaining young families |
| Mental health services | Not enough healthcare staff in general |
| Depression | Depression and anxiety – all ages |

The current process did identify common needs from 2019. Attracting and retaining young families, mental health services, and depression were identified in 2019 as well as in 2022. Ability to recruit and retain primary care providers was not identified in the 2022 CHNA; however, not enough healthcare staff in general is a similar need.

Southwest Healthcare Services (SWHS) invited written comments on the most recent CHNA report and implementation Strategy both in the documents and on the website where they are widely available to the public. No written comments have been received.

Upon adoption of this CHNA report by the SWHS Board vote, a notation will be documented in the board minutes, reflecting the approval; then the report will be widely available to the public on the hospital's website, and a paper copy will be available for inspection upon request at the hospital. Written comments on this report can be submitted to SWHS.

## Hospital and Community Projects and Programs Implemented to Address Needs Identified in 2019

In response to the needs identified in the 2019 CHNA process, the following actions were taken:

Ability to retain primary care providers: Since the last CHNA process, SWHS, with the help of the supporting foundation, was able to recruit and hire two primary care providers. Dr. Tim Adams was hired in the last quarter of 2020 and started January 1, 2021. Shortly after Dr. Adams started, we were able to hire, after a successful recruitment process, Dr. Roy Cordy in August 2021. Along with Dr. Cordy, SWHS also hired Dr. Kurt Datz to fill in scheduling conflicts. So, in summation, SWHS was able to hire three primary care providers since the 2019 CHNA process finished.

Availability of mental health services: SWHS is always trying to find ways to provide a much-needed mental health service arm for our community. Currently, SWHS does offer telehealth mental health services. SWHS contracts with the Rural Psychiatry Associates to provide those services. As it stands, SWHS is exploring all possible avenues that could be used to bring mental health services to Bowman and the surrounding communities.

Attracting and retaining young families: Since the end of the 2019 CHNA process, SWHS has been able to bring on about a half a dozen employees who have brought their families to the community. With sign-on incentives and the work environment that is conducive to empowerment and advancement, SWHS is able to bring on those staff who brought families with them. A few examples include the current social services designee and one of SWHS's radiology technicians. Not only did they bring their families to the community when they accepted a position with SWHS, but both have expanded their families since they started working in Bowman.

The above implementation plan for SWHS is posted on the SWHS website at https://swhealthcare.net/events/chna.html.

# Next Steps – Strategic Implementation Plan

Although a CHNA and strategic implementation plan are required by hospitals and local public health units, considering accreditation, it is important to keep in mind the needs identified, at this point, will be broad community-wide needs along with healthcare system-specific needs. This process is simply a first step to identify needs and determine areas of priority. The second step will be to convene the steering committee, or other community group, to select an agreed upon prioritized need on which to begin working. The strategic planning process will begin with identifying current initiatives, programs, and resources already in place to address the identified community need(s). Additional steps include identifying what is needed and feasible to address (taking community resources into consideration) and what role and responsibility the hospital, clinic, and various community organizations play in developing strategies and implementing specific activities to address the community health need selected. Community engagement is essential for successfully developing a plan and executing the action steps for addressing one or more of the needs identified.

*"If you want to go fast, go alone. If you want to go far, go together." Proverb*

## Community Benefit Report

While not required, CRH strongly encourages a review of the most recent Community Benefit Report to determine how/if it aligns with the needs identified through the CHNA as well as the implementation plan.

The community benefit requirement is a long-standing requirement of nonprofit hospitals and is reported in Part I of the hospital's Form 990. The strategic implementation requirement was added as part of the ACA's CHNA requirement. It is reported on Part V of the 990. Not-for-profit healthcare organizations demonstrate their commitment to community service through organized and sustainable community benefit programs providing:

- Free and discounted care to those unable to afford healthcare
- Care to low-income beneficiaries of Medicaid and other indigent care programs
- Services designed to improve community health and increase access to healthcare

Community benefit is also the basis of the tax-exemption of not-for-profit hospitals. The Internal Revenue Service (IRS), in its Revenue Ruling 69–545, describes the community benefit standard for charitable tax-exempt hospitals. Since 2008, tax-exempt hospitals have been required to report their community benefit and other information, related to tax-exemption on the IRS Form 990 Schedule H.

## What Are Community Benefits?

Community benefits are programs or activities that provide treatment and/or promote health and healing as a response to identified community needs. They increase access to healthcare and improve community health.

A community benefit must respond to an identified community need and meet at least one of the following criteria:

- Improve access to healthcare services
- Enhance health of the community
- Advance medical or health knowledge
- Relieve or reduce the burden of government or other community efforts

A program or activity should not be reported as community benefit if it is:

- Provided for marketing purposes
- Restricted to hospital employees and physicians
- Required of all healthcare providers by rules or standards
- Questionable as to whether it should be reported
- Unrelated to health or the mission of the organization

# Appendix A – Critical Access Hospital Profile


## Critical Access Hospital Profile

## Spotlight on: Bowman, North Dakota

# Southwest Healthcare Services

### Quick Facts

**Administrator:**
Dennis Goebel

**Chief of Medical Staff:**
Dr. Tim Adams

**Board Chair:** Teran Doerr

**City Population:**
1,430 (2021 estimate)[1]

**County Population:**
2,903 (2021 estimate)[1]

**County Median Household Income:**
$70,521 (2021 estimate)[1]

**County Median Age:**
41.1 years (2020 estimate)[1]

**Service Area Population:**
3,280 miles

**Owned by:** Non-Profit

**Hospital Beds:** 35

**Independent Living Apts:** 12

**Assisted Living Apts:** 12

**Trauma Level:** IV

**Critical Access Hospital Designation:** 2001

Economic Impact on the County*

**Employment:**
Primary – 148
Secondary – 98
Total – 294

**Financial Impact:**
Primary – $6.4 million
Secondary – $3.2 million
Total – $9.6 million

** The impact of jobs and expenditures generated by the hospital within the community was estimated using payroll information*

## Mission

Guided by faith, we provide excellent care for those we are priveleged to serve.

**County:** Bowman
**Address:** 802 2nd Street NW
Bowman, ND 58623
**Phone:** (701) 523-3226
**Fax:** (701) 523-4139
**Web:** www.swhealthcare.net

Southwest Healthcare Services is a non-profit organization dedicated to providing quality healthcare for the residents of southwest North Dakota and the northwest corner of South Dakota. Located in Bowman, North Dakota, Southwest Healthcare Services is comprised of six facilities in separate locations which include: a 23-bed Critical Access Hospital, a 40-bed long-term care facility, 12 independent living apartments, a 12-unit assisted living facility, a Rural Health Clinic, and emergency ambulance services.

## Services

Southwest Healthcare Services provides the following services directly:

- 24-hour Emergency Room
- Level IV Trauma
- Radiology
- Physical and occupational therapy
- Acute care
- Swing bed
- Pharmacy
- Respiratory therapy
- Dietetic service
- Laboratory
- Swingbed activities
- Pulmonary rehabilitation
- Cardiac rehabilitation
- Sleep studies
- Social services

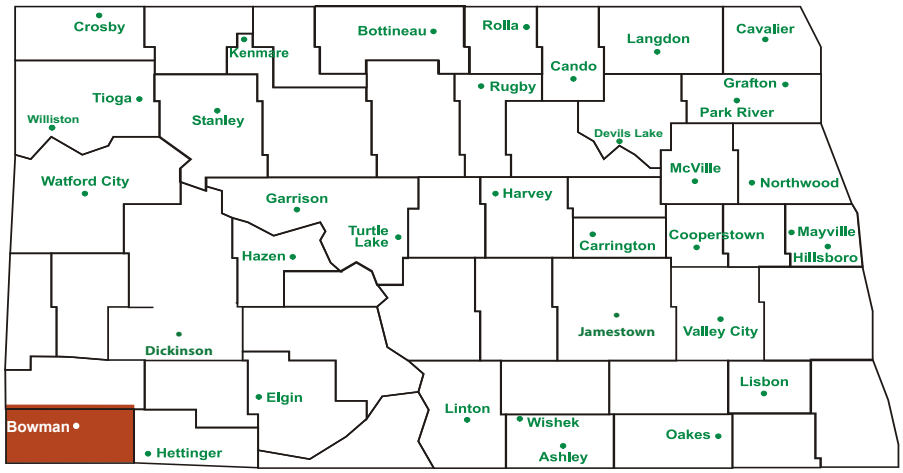
## Staffing

**Physicians:** ..... 2
**Nurse Practitioners:** ..... 1
**PAs:** ..... 1
**RNs & LPNs** ..... 27
**Total Employees:** ..... 140

## Local Sponsors and Grant Funding Sources

- Blue Cross Blue Shield of North Dakota
- Burlington Resources
- Burlington Northern Santa Fe Foundation
- City of Bowman
- Center for Rural Health
  - SHIP Grant (Small Hospital Improvement Program)
  - Flex Grant (Medicare Rural Hospital Flexibility Grant Program)
- County of Bowman
- Dakota West RC & D
- March of Dimes
- Midcontinent Media Foundation
- Nellie J. Svee Grant
- North Dakota Community Foundation
- North Dakota Department of Emergency Services
- North Dakota Department of Health
- North Dakota Department of Human Services
- North Dakota Emergency Management
- North Dakota Oil & Gas Impact Grants
- North Dakota Workforce Safety
- Southwest Regional Grant Program
- State Homeland Security Grant
- Sunrise Foundation North Dakota Chapter

## North Dakota Critical Access Hospitals




## History

In 1945, the communities in Bowman and Slope Counties realized there was a need for organized health services. In July 1946, a city block in the west side of Bowman was donated for the location of a hospital. Area residents rallied together, coming up with innovative fundraising methods to pay for the construction of the hospital and necessary medical equipment.

Through the efforts of many, the dedication ceremony for the opening of the hospital was held on May 12, 1951, with Governor Norman Brunsdale cutting the ribbon and opening the doors for their first patients.

Over the next 55 years, local healthcare has grown from a hospital to an entire healthcare system. Dedicated staff, administration and volunteers have worked diligently to ensure that quality healthcare remains a vital part in Bowman and surrounding communities.

## Recreation

Bowman, located in southwestern North Dakota, is just 80 miles from an urban shopping center. The Bowman school system provides an excellent education for students K-12, offering a comprehensive program for all students including foreign languages, advanced science, math electives, computer education and special education programs. The Black Hills of South Dakota, a popular tourist attraction, is just 100 miles south. This area is not only a popular summer recreation spot, but also provides skiing in the wintertime. Theodore Roosevelt National Park is about an hour and a half to the north. Picnicking, hiking, and several freshwater dams and lakes are within a short distance. Recreational facilities also include a 9-hole grass-greens golf course, Olympic size swimming pool, tennis courts, farming, ranching, rodeos, paleontology, and hunting.

Updated 11/2022

Center for Rural Health
University of North Dakota
School of Medicine & Health Sciences

This project is supported by the Medicare Rural Hospital Flexibility Grant Program at the Center for Rural Health, University of North Dakota School of Medicine & Health Sciences located in Grand Forks, North Dakota.

ruralhealth.und.edu

# Appendix B – Economic Impact Analysis

December 2020

Southwest Healthcare Services
Complete Healthcare Today, For a Better Tomorrow

*Healthcare, especially a hospital, plays a vital role in local economies.*

## Economic Impact

Southwest Healthcare Service is composed of a Critical Access Hospital (CAH), a Rural Health Clinic, a long-term care facility, an assisted living facility, an ambulance service, and a visiting nurse service located in Bowman, North Dakota.

Southwest Healthcare Service directly employs **114.45 FTE employees** with an annual payroll of over **$7.5 million** (including benefits).

- After application of the employment multiplier of 1.45, these employees created an additional **52** jobs.
- The same methodology is applied to derive the income impact. The income multiplier of 1.25 is applied to create over **$1.9 million** in income as they interact with other sectors of the local economy.
- **Total impacts = 166 jobs and more than $9.43 million in income.**

## Healthcare and Your Local Economy

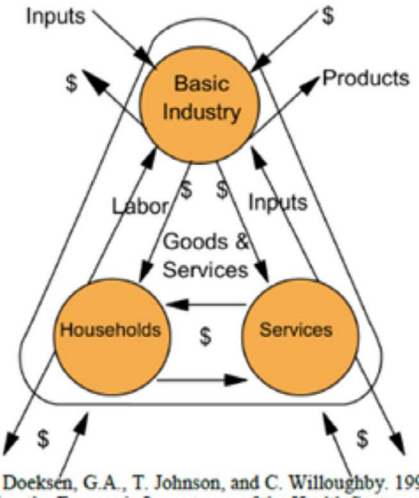
The health sector in a rural community, anchored by a CAH, is responsible for a number of full- and part-time jobs and the resulting wages, salaries, and benefits. Research findings from the National Center for Rural Health Works indicate that rural hospitals typically are one of the top employers in the rural community. The employment and the resulting wages, salaries, and benefits from a CAH are critical to the rural community economy. Figure 1 depicts the interaction between an industry like a healthcare institution and the community, containing other industries and households.

## Key contributions of the health system include

- Attracts retirees and families
- Appeals to businesses looking to establish and/or relocate
- High quality healthcare services and infrastructure foster community development
- Positive impact on retail sales of local economy
- Provides higher-skilled and higher-wage employment
- Increases the local tax base used by local government

Data analysis was completed by the Center for Rural Health at the Oklahoma State University Center for Health Sciences utilizing IMPLAN data.

**Figure 1. An overview of the community economic system.**




Source: Doeksen, G.A., T. Johnson, and C. Willoughby. 1997. Measuring the Economic Importance of the Health Sector on a Local Economy: A Brief Literature Review and Procedures to Measure Local Impacts

*Fact Sheet Author: Kylie Nissen, BBA*

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CENTER FOR RURAL HEALTH
OSU Center for Health Sciences

Center for Rural Health
University of North Dakota
School of Medicine & Health Sciences

*This project is/was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) through the Medicare Rural Hospital Flexibility Grant Program and the State Office of Rural Health Grant.*

# Appendix C – CHNA Survey Instrument

Center for Rural Health
University of North Dakota
School of Medicine & Health Sciences

Southwest Healthcare Services
Complete Healthcare Today. For a Better Tomorrow

Southwestern District Health Unit
Public Health
Prevent. Promote. Protect.

**Bowman Area Health Survey**

Southwest Healthcare Services and Southwestern District Health Unit are interested in hearing from you about community health concerns.

The focus of this effort is to:

- Learn of the good things in your community as well as concerns in the community
- Understand perceptions and attitudes about the health of the community, and hear suggestions for improvement
- Learn more about how local health services are used by you and other residents

If you prefer, you may take the survey online at http://tinyurl.com/CHNABOWMAN2022 or by scanning on the QR Code at the right.

Surveys will be tabulated by the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences. Your responses are anonymous, and you may skip any question you do not want to answer. Your answers will be combined with other responses and reported only in total. If you have questions about the survey, you may contact Holly Long at 701.777.3848.

***Surveys will be accepted through August 31, 2022. Your opinion matters – thank you in advance!***

**Community Assets:** Please tell us about your community by **choosing up to three options** you most agree with in each category below.

1. Considering the **PEOPLE** in your community, the best things are (choose up to THREE):

- ☐ Community is socially and culturally diverse or becoming more diverse
- ☐ Feeling connected to people who live here
- ☐ Government is accessible
- ☐ People are friendly, helpful, supportive
- ☐ People who live here are involved in their community
- ☐ People are tolerant, inclusive, and open-minded
- ☐ Sense that you can make a difference through civic engagement
- ☐ Other (please specify): _____

2. Considering the **SERVICES AND RESOURCES** in your community, the best things are (choose up to THREE):

- ☐ Access to healthy food
- ☐ Active faith community
- ☐ Business district (restaurants, availability of goods)
- ☐ Community groups and organizations
- ☐ Healthcare
- ☐ Opportunities for advanced education
- ☐ Public transportation
- ☐ Programs for youth
- ☐ Quality school systems
- ☐ Other (please specify): _____

3. Considering the **QUALITY OF LIFE** in your community, the best things are (choose up to THREE):

- ☐ Closeness to work and activities
- ☐ Family-friendly; good place to raise kids
- ☐ Informal, simple, laidback lifestyle
- ☐ Job opportunities or economic opportunities
- ☐ Safe place to live, little/no crime
- ☐ Other (please specify): _____

4. Considering the **ACTIVITIES** in your community, the best things are (choose up to THREE):

- ☐ Activities for families and youth
- ☐ Arts and cultural activities
- ☐ Local events and festivals
- ☐ Recreational and sports activities
- ☐ Year-round access to fitness opportunities
- ☐ Other (please specify): _____

**Community Concerns:** Please tell us about your community by choosing up to three options you most agree with in each category.

5. Considering the **COMMUNITY /ENVIRONMENTAL HEALTH** in your community, concerns are (choose up to THREE):

- ☐ Active faith community
- ☐ Attracting and retaining young families
- ☐ Not enough jobs with livable wages, not enough to live on
- ☐ Not enough affordable housing
- ☐ Poverty
- ☐ Changes in population size (increasing or decreasing)
- ☐ Crime and safety, adequate law enforcement personnel
- ☐ Water quality (well water, lakes, streams, rivers)
- ☐ Air quality
- ☐ Litter (amount of litter, adequate garbage collection)
- ☐ Having enough child daycare services
- ☐ Having enough quality school resources
- ☐ Not enough places for exercise and wellness activities
- ☐ Not enough public transportation options, cost of public transportation
- ☐ Racism, prejudice, hate, discrimination
- ☐ Traffic safety, including speeding, road safety, seatbelt use, and drunk/distracted driving
- ☐ Physical violence, domestic violence, sexual abuse
- ☐ Child abuse
- ☐ Bullying/cyber-bullying
- ☐ Recycling
- ☐ Homelessness
- ☐ Other (please specify): _____

6. Considering the **AVAILABILITY/DELIVERY OF HEALTH SERVICES** in your community, concerns are (choose up to THREE):

- ☐ Ability to get appointments for health services within 48 hours.
- ☐ Extra hours for appointments, such as evenings and weekends
- ☐ Availability of primary care providers (MD,DO,NP,PA) and nurses
- ☐ Ability to retain primary care providers (MD,DO,NP,PA) and nurses in the community
- ☐ Availability of public health professionals
- ☐ Availability of specialists
- ☐ Not enough health care staff in general
- ☐ Availability of wellness and disease prevention services
- ☐ Availability of mental health services
- ☐ Availability of substance use disorder treatment services
- ☐ Availability of hospice
- ☐ Availability of dental care
- ☐ Availability of vision care
- ☐ Emergency services (ambulance & 911) available 24/7
- ☐ Ability/willingness of healthcare providers to work together to coordinate patient care within the health system.
- ☐ Ability/willingness of healthcare providers to work together to coordinate patient care outside the local community.
- ☐ Patient confidentiality (inappropriate sharing of personal health information)
- ☐ Not comfortable seeking care where I know the employees at the facility on a personal level
- ☐ Quality of care
- ☐ Cost of health care services
- ☐ Cost of prescription drugs
- ☐ Cost of health insurance
- ☐ Adequacy of health insurance (concerns about out-of-pocket costs)
- ☐ Understand where and how to get health insurance
- ☐ Adequacy of Indian Health Service or Tribal Health Services
- ☐ Other (please specify): _____

7. Considering the **YOUTH POPULATION** in your community, concerns are (choose up to THREE):

- ☐ Alcohol use and abuse
- ☐ Drug use and abuse (including prescription drug abuse)
- ☐ Smoking and tobacco use, exposure to second-hand smoke or vaping (juuling)
- ☐ Cancer
- ☐ Diabetes
- ☐ Depression/anxiety
- ☐ Stress
- ☐ Suicide
- ☐ Not enough activities for children and youth
- ☐ Teen pregnancy
- ☐ Sexual health
- ☐ Diseases that can spread, such as sexually transmitted diseases or AIDS
- ☐ Wellness and disease prevention, including vaccine-preventable diseases
- ☐ Not getting enough exercise/physical activity
- ☐ Obesity/overweight
- ☐ Hunger, poor nutrition
- ☐ Crime
- ☐ Graduating from high school
- ☐ Availability of disability services
- ☐ Other (please specify): _____

8. Considering the **ADULT POPULATION** in your community, concerns are (choose up to THREE):

- ☐ Alcohol use and abuse
- ☐ Drug use and abuse (including prescription drug abuse)
- ☐ Smoking and tobacco use, exposure to second-hand smoke or vaping (juuling)
- ☐ Cancer
- ☐ Lung disease (i.e. emphysema, COPD, asthma)
- ☐ Diabetes
- ☐ Heart disease
- ☐ Hypertension
- ☐ Dementia/Alzheimer's disease
- ☐ Other chronic diseases: _____
- ☐ Depression/anxiety
- ☐ Stress
- ☐ Suicide
- ☐ Diseases that can spread, such as sexually transmitted diseases or AIDS
- ☐ Wellness and disease prevention, including vaccine-preventable diseases
- ☐ Not getting enough exercise/physical activity
- ☐ Obesity/overweight
- ☐ Hunger, poor nutrition
- ☐ Availability of disability services
- ☐ Other (please specify): _____

9. Considering the **ELDERLY POPULATION** in your community, concerns are (choose up to THREE):

- ☐ Ability to meet needs of older population
- ☐ Long-term/nursing home care options
- ☐ Assisted living options
- ☐ Availability of resources to help the elderly stay in their homes
- ☐ Cost of activities for seniors
- ☐ Availability of activities for seniors
- ☐ Availability of resources for family and friends caring for elders
- ☐ Quality of elderly care
- ☐ Cost of long-term/nursing home care
- ☐ Availability of transportation for seniors
- ☐ Availability of home health
- ☐ Not getting enough exercise/physical activity
- ☐ Dementia/Alzheimer's disease
- ☐ Depression/anxiety
- ☐ Suicide
- ☐ Alcohol use and abuse
- ☐ Drug use and abuse (including prescription drug abuse)
- ☐ Elder abuse
- ☐ Other (please specify): _____

10. Regarding various forms of **VIOLENCE** in your community, concerns are (choose up to THREE):

- ☐ Bullying/cyber-bullying
- ☐ Child abuse or neglect
- ☐ Dating violence
- ☐ Domestic/intimate partner violence
- ☐ Emotional abuse (ex. intimidation, isolation, verbal threats, withholding of funds)
- ☐ General violence against women
- ☐ General violence against men
- ☐ Media/video game violence
- ☐ Physical abuse
- ☐ Stalking
- ☐ Sexual abuse/assault
- ☐ Verbal threats
- ☐ Workplace/co-worker violence

11. Regarding impacts from **OIL & GAS DEVELOPMENT** in your community, concerns are (choose up to THREE):

- ☐ Adequate number of school resources
- ☐ Aging population, lack of resources to meet growing needs
- ☐ Alcohol and drug use and abuse
- ☐ Crime and community violence
- ☐ Domestic violence, including child abuse
- ☐ Environmentally unsound (or unfriendly) place to live
- ☐ Impact of increased oil/energy development
- ☐ Increasing population, including residents moving in
- ☐ Insufficient facilities for exercise and well-being
- ☐ Lack of affordable housing
- ☐ Lack of employees to fill positions
- ☐ Lack of employment opportunities
- ☐ Lack of police presence in community
- ☐ Litter
- ☐ Low wages, lack of livable wages
- ☐ Maintaining enough health workers (e.g., medical, dental, wellness)
- ☐ Poverty
- ☐ Property taxes
- ☐ Racism, prejudice, hate, discrimination
- ☐ Traffic safety, including speeding, road safety and drunk driving
- ☐ Other (please specify): _____

12. What single issue do you feel is the biggest challenge facing your community?

_____

_____

## Delivery of Healthcare

13. Considering **GENERAL and ACUTE SERVICES** at Southwest Healthcare Services , which services are you aware of (or have you used in the past year)? (Choose ALL that apply)

- ☐ Cardiology (visiting specialist)
- ☐ Clinic
- ☐ Emergency room
- ☐ Hospital (acute care)
- ☐ Telepsych mental health
- ☐ Orthopedics (visiting specialist)
- ☐ OB/GYN (visiting specialist)
- ☐ Pediatrics (visiting specialist)
- ☐ Ambulance services
- ☐ Endoscopies
- ☐ Swing bed
- ☐ Visiting nurse services
- ☐ Telemedicine via eEmergency
- ☐ Chronic care management

14. Considering **SCREENING/THERAPY SERVICES** at Southwest Healthcare Services, which services are you aware of (or have you used in the past year? (Choose ALL that apply)

- ☐ Health screenings
- ☐ Laboratory services
- ☐ Occupational therapy
- ☐ Physical therapy
- ☐ Respiratory therapy/home oxygen
- ☐ Cardiac rehab
- ☐ Sleep studies

15. Considering **RADIOLOGY SERVICES** at Southwest Healthcare Services, which services are you aware of (or have you used in the past year)? (Choose ALL that apply)

- ☐ EKG—Electrocardiography
- ☐ Bone Density Scanning
- ☐ Body Composition Scanning
- ☐ CT scan
- ☐ Echocardiogram
- ☐ General x-ray
- ☐ 3D Mammography
- ☐ MRI
- ☐ Peripheral Artery Disease Scanning
- ☐ Ultrasound

16. Which of the following **SERVICES** provided by **Southwest District Health Unit** have you or a family member used in the past year? (Choose ALL that apply)

- ☐ Bicycle helmet safety
- ☐ Blood pressure check
- ☐ Breastfeeding resources
- ☐ Car seat program
- ☐ Child health (well baby)
- ☐ Correction facility health
- ☐ Diabetes screening
- ☐ Emergency response & preparedness program
- ☐ Flu shots
- ☐ Environmental health services (water, sewer, health hazard abatement)
- ☐ Health Tracks (child health screening)
- ☐ Home health
- ☐ Immunizations
- ☐ Medications setup—home visits
- ☐ Office visits and consults
- ☐ School health (vision screening, puberty talks, school immunizations)
- ☐ Preschool education programs
- ☐ Assist with preschool screening
- ☐ Tobacco prevention and control
- ☐ Tuberculosis testing and management
- ☐ WIC (Women, Infants & Children) Program
- ☐ Youth education programs (First Aid, Bike Safety)

17. Considering services offered locally by **OTHER PROVIDERS/ORGANIZATIONS** in your community, which services are you aware of (or have you used in the past year)? (Choose ALL that apply)

- ☐ Chiropractic services
- ☐ Dental services
- ☐ Massage therapy
- ☐ Optometric/vision services
- ☐ Pharmacy
- ☐ Audiology
- ☐ Transportation services
- ☐ Senior meal delivery services

18. What other services would you like to be provided in your community?

- ☐ Mental health
- ☐ Podiatry
- ☐ Oncology
- ☐ Urology
- ☐ Pulmonology
- ☐ Dermatology
- ☐ Ears, nose, & throat
- ☐ Other: (please specify) _____

19. Are you aware of Southwest Healthcare Services' clinic hours (Monday – Friday from 7:30 am – 5 pm)?

- ☐ Yes
- ☐ No

20. Would you utilize the clinic at Southwest Healthcare Services during extended hours of Monday – Friday from 5 – 7 pm and Saturdays 10am – 12pm?

- ☐ Yes
- ☐ No

21. It is important that SWHS remains independent?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree
- ☐ Don't Know

22. What **PREVENTS** community residents from receiving healthcare in general? (Choose ALL that apply)

- ☐ Can't get transportation services
- ☐ Concerns about confidentiality
- ☐ Distance from health facility
- ☐ Don't know about local services
- ☐ Don't speak language or understand culture
- ☐ Lack of disability access
- ☐ Lack of services through Indian Health Services
- ☐ Limited access to telehealth technology (patients seen by providers at another facility through a monitor/TV screen)
- ☐ No insurance or limited insurance
- ☐ Not able to get appointment/limited hours
- ☐ Not able to see same provider over time
- ☐ Not accepting new patients
- ☐ Not affordable
- ☐ Not enough providers (MD, DO, NP, PA)
- ☐ Not enough evening or weekend hours
- ☐ Not enough specialists
- ☐ Poor quality of care
- ☐ Other (please specify): _____

23. What **PREVENTS** community residents from receiving healthcare **LOCALLY**? (Choose ALL that apply)

- ☐ Concerns about confidentiality
- ☐ Lack of bilingual providers or interpreters
- ☐ Lack of American Indian providers
- ☐ Lack of collaboration with other hospitals/clinics
- ☐ No evening or weekend hours
- ☐ Not able to access to telehealth technology (patients seen by providers at another facility through a monitor/TV screen)
- ☐ Not enough providers (MD, DO, NP, PA)
- ☐ Transportation services to appointments not available
- ☐ Other (please specify): _____

24. What reasons would patients select healthcare services outside of the local community? (Select ALL that apply)

- ☐ Access to necessary specialists
- ☐ Bilingual providers or interpreters
- ☐ Able to be seen sooner
- ☐ Higher quality services
- ☐ More physicians, physician assistants, etc.
- ☐ Insurance network
- ☐ More convenient service times
- ☐ More convenient locations
- ☐ Lower cost services
- ☐ Confidentiality
- ☐ Transportation services provided
- ☐ Other: (please specify) _____

25. Where do you turn for trusted health information? (Choose ALL that apply)

- ☐ Other healthcare professionals (nurses, chiropractors, dentists, etc.)
- ☐ Primary care provider (doctor, nurse practitioner, physician assistant)
- ☐ Public health professional
- ☐ Web searches/internet (WebMD, Mayo Clinic, Healthline, etc.)
- ☐ Word of mouth, from others (friends, neighbors, co-workers, etc.)
- ☐ Other (please specify): _____

26. Where do you find out about LOCAL HEALTH SERVICES available in your area? (Choose ALL that apply)

- ☐ Advertising
- ☐ Employer/worksite wellness
- ☐ Health care professionals
- ☐ Indian Health Service
- ☐ Newspaper
- ☐ Public health professionals
- ☐ Radio
- ☐ Social media (Facebook, Twitter, etc.)
- ☐ Billboards
- ☐ Web searches
- ☐ Word of mouth
- ☐ Other: (please specify) _____

27. Are you aware of the Sunrise Foundation, which exists to financially support healthcare in your community?

- ☐ Yes
- ☐ No

28. Have you supported the Sunrise Foundation in any o the following ways: (Choose ALL that apply)

- ☐ Cash or stock gift
- ☐ Endowment gifts
- ☐ Memorial/Honorarium
- ☐ Planned gifts through wills, trusts, or life insurance policies
- ☐ Other: (please specify) _____

29. Which of the following would you financially support for capital improvements by Southwest Healthcare Services? (Choose up to 3 options)

- ☐ Driveway/parking lot improvements
- ☐ Security system installation
- ☐ New windows/other energy efficiency improvements
- ☐ Sunny Apartment roofie and shakes improvements
- ☐ Improvements to patient rooms
- ☐ Other (Please specify other capital improvements that you believe the community would financially support): _____

## Demographic Information: Please tell us about yourself.

30. Do you work for the hospital, clinic, or public health unit?

- ☐ Yes
- ☐ No

31. How did you acquire the survey (or survey link) that you are completing?

- ☐ Hospital or public health website
- ☐ Hospital or public health social media page
- ☐ Hospital or public health employee
- ☐ Hospital or public health facility
- ☐ Economic development website or social media
- ☐ Other website or social media page (please specify): _____
- ☐ Newspaper advertisement
- ☐ Newsletter (if so, what one):_____
- ☐ Church bulletin
- ☐ Flyer sent home from school
- ☐ Flyer at local business
- ☐ Flyer in the mail
- ☐ Word of Mouth
- ☐ Direct email (if so, from what organization):_____
- ☐ Other (please specify): _____

32. Health insurance or health coverage status (choose ALL that apply):

- ☐ Indian Health Service (IHS)
- ☐ Insurance through employer (self, spouse, or parent)
- ☐ Self-purchased insurance
- ☐ Medicaid
- ☐ Medicare
- ☐ No insurance
- ☐ Veteran's Healthcare Benefits
- ☐ Other (please specify): _____

33. Age:

- ☐ Less than 18 years
- ☐ 18 to 24 years
- ☐ 25 to 34 years
- ☐ 35 to 44 years
- ☐ 45 to 54 years
- ☐ 55 to 64 years
- ☐ 65 to 74 years
- ☐ 75 years and older

34. Highest level of education:

- ☐ Less than high school
- ☐ High school diploma or GED
- ☐ Some college/technical degree
- ☐ Associate's degree
- ☐ Bachelor's degree
- ☐ Graduate or professional degree

35. Gender:

- ☐ Female
- ☐ Male
- ☐ Non-binary
- ☐ Other (please specify): _____

36. Employment status:

- ☐ Full time
- ☐ Part time
- ☐ Homemaker
- ☐ Multiple job holder
- ☐ Unemployed
- ☐ Retired

37. Your zip code: _____

38. Race/Ethnicity (choose ALL that apply):

- ☐ American Indian
- ☐ African American
- ☐ Asian
- ☐ Hispanic/Latino
- ☐ Pacific Islander
- ☐ White/Caucasian
- ☐ Other: _____

39. Annual household income before taxes:

- ☐ Less than $15,000
- ☐ $15,000 to $24,999
- ☐ $25,000 to $49,999
- ☐ $50,000 to $74,999
- ☐ $75,000 to $99,999
- ☐ $100,000 to $149,999
- ☐ $150,000 and over

40. Overall, please share concerns and suggestions to improve the delivery of local healthcare.

_____

_____

***Thank you for assisting us with this important survey!***

# Appendix D – County Health Rankings Explained

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

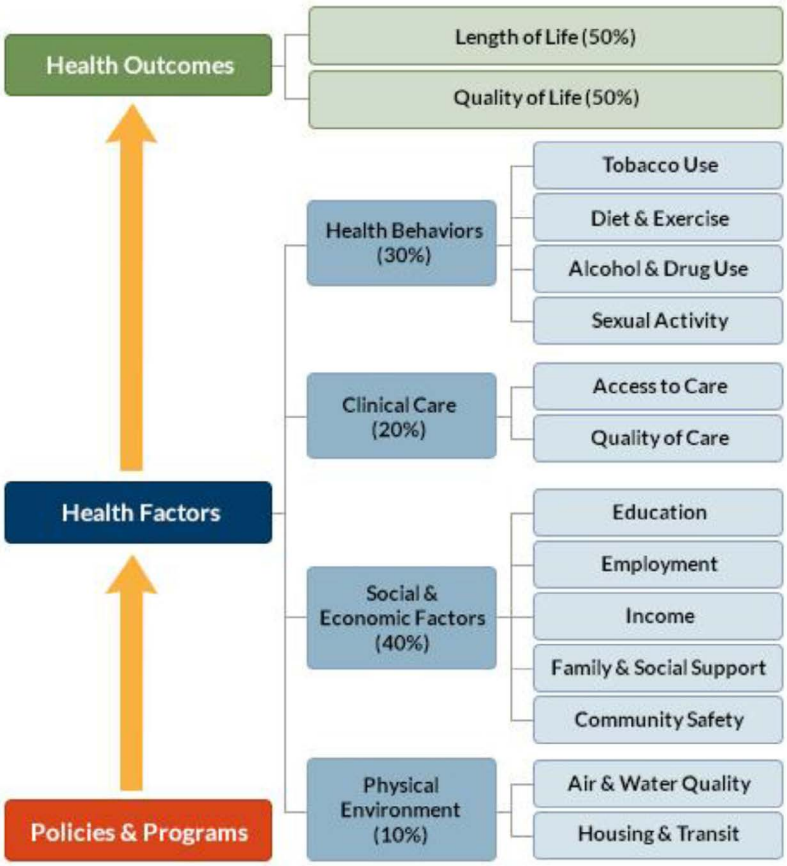
## Methods

The County Health Rankings, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, measure the health of nearly all counties in the nation and rank them within states. The Rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights.

## What is Ranked

The County Health Rankings are based on counties and county equivalents (ranked places). Any entity that has its own Federal Information Processing Standard (FIPS) county code is included in the Rankings. We only rank counties and county equivalents within a state. The major goal of the Rankings is to raise awareness about the many factors that influence health and that health varies from place to place, not to produce a list of the healthiest 10 or 20 counties in the nation and only focus on that.

## Ranking System



The County Health Rankings model (shown above) provides the foundation for the entire ranking process.

Counties in each of the 50 states are ranked according to summaries of a variety of health measures. Those having high ranks, e.g. 1 or 2, are considered to be the "healthiest." Counties are ranked relative to the health of other counties in the same state. We calculate and rank eight summary composite scores:

1. **Overall Health Outcomes**
2. Health Outcomes – **Length of life**
3. Health Outcomes – **Quality of life**
4. **Overall Health Factors**
5. Health Factors – **Health behaviors**
6. Health Factors – **Clinical care**
7. Health Factors – **Social and economic factors**
8. Health Factors – **Physical environment**

## Data Sources and Measures

The County Health Rankings team synthesizes health information from a variety of national data sources to create the Rankings. Most of the data used are public data available at no charge. Measures based on vital statistics, sexually transmitted infections, and Behavioral Risk Factor Surveillance System (BRFSS) survey data were calculated by staff at the National Center for Health Statistics and other units of the Centers for Disease Control and Prevention (CDC). Measures of healthcare quality were calculated by staff at The Dartmouth Institute.

## Data Quality

The County Health Rankings team draws upon the most reliable and valid measures available to compile the Rankings. Where possible, margins of error (95% confidence intervals) are provided for measure values. In many cases, the values of specific measures in different counties are not statistically different from one another; however, when combined using this model, those various measures produce the different rankings.

## Calculating Scores and Ranks

The County Health Rankings are compiled from many different types of data. To calculate the ranks, they first standardize each of the measures. The ranks are then calculated based on weighted sums of the standardized measures within each state. The county with the lowest score (best health) gets a rank of #1 for that state and the county with the highest score (worst health) is assigned a rank corresponding to the number of places we rank in that state.

# Health Outcomes and Factors

Source: http://www.countyhealthrankings.org/explore-health-rankings/what-and-why-we-rank

## Health Outcomes

### Premature Death (YPLL)

Premature death is the years of potential life lost before age 75 (YPLL-75). Every death occurring before the age of 75 contributes to the total number of years of potential life lost. For example, a person dying at age 25 contributes 50 years of life lost, whereas a person who dies at age 65 contributes 10 years of life lost to a county's YPLL. The YPLL measure is presented as a rate per 100,000 population and is age-adjusted to the 2000 US population.

*Reason for Ranking*

Measuring premature mortality, rather than overall mortality, reflects the County Health Rankings' intent to focus attention on deaths that could have been prevented. Measuring YPLL allows communities to target resources to high-risk areas and further investigate the causes of premature death.

### Poor or Fair Health

Self-reported health status is a general measure of health-related quality of life (HRQoL) in a population. This measure is based on survey responses to the question: "In general, would you say that your health is excellent, very good, good, fair, or poor?" The value reported in the County Health Rankings is the percentage of adult respondents who rate their health "fair" or "poor." The measure is modeled and age-adjusted to the 2000 U.S. population. Please note that the methods for calculating this measure changed in the 2016 Rankings.

*Reason for Ranking*

Measuring HRQoL helps characterize the burden of disabilities and chronic diseases in a population. Self-reported health status is a widely used measure of people's health-related quality of life. In addition to measuring how long people live, it is important to also include measures that consider how healthy people are while alive.

### Poor Physical Health Days

Poor physical health days is based on survey responses to the question: "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" The value reported in the County Health Rankings is the average number of days a county's adult respondents report that their physical health was not good. The measure is age-adjusted to the 2000 U.S. population. Please note that the methods for calculating this measure changed in the 2016 Rankings.

*Reason for Ranking*

Measuring health-related quality of life (HRQoL) helps characterize the burden of disabilities and chronic diseases in a population. In addition to measuring how long people live, it is also important to include measures of how healthy people are while alive – and people's reports of days when their physical health was not good are a reliable estimate of their recent health.

### Poor Mental Health Days

Poor mental health days is based on survey responses to the question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" The value reported in the County Health Rankings is the average number of days a county's adult respondents report that their mental health was not good. The measure is age-adjusted to the 2000 U.S. population. Please note that the methods for calculating this measure changed in the 2016 Rankings.

*Reason for Ranking*
Overall health depends on both physical and mental well-being. Measuring the number of days when people report that their mental health was not good, i.e., poor mental health days, represents an important facet of health-related quality of life.

### Low Birth Weight
Birth outcomes are a category of measures that describe health at birth. These outcomes, such as low birthweight (LBW), represent a child's current and future morbidity — or whether a child has a "healthy start" — and serve as a health outcome related to maternal health risk.

*Reason for Ranking*
LBW is unique as a health outcome because it represents multiple factors: infant current and future morbidity, as well as premature mortality risk, and maternal exposure to health risks. The health associations and impacts of LBW are numerous.

In terms of the infant's health outcomes, LBW serves as a predictor of premature mortality and/or morbidity over the life course.[1] LBW children have greater developmental and growth problems, are at higher risk of cardiovascular disease later in life, and have a greater rate of respiratory conditions.[2-4]

From the perspective of maternal health outcomes, LBW indicates maternal exposure to health risks in all categories of health factors, including her health behaviors, access to healthcare, the social and economic environment the mother inhabits, and environmental risks to which she is exposed. Authors have found that modifiable maternal health behaviors, including nutrition and weight gain, smoking, and alcohol and substance use or abuse can result in LBW.[5]

LBW has also been associated with cognitive development problems. Several studies show that LBW children have higher rates of sensorineural impairments, such as cerebral palsy, and visual, auditory, and intellectual impairments.[2,3,6] As a consequence, LBW can "impose a substantial burden on special education and social services, on families and caretakers of the infants, and on society generally."[7]

## Health Factors

### Adult Smoking
Adult smoking is the percentage of the adult population that currently smokes every day or most days and has smoked at least 100 cigarettes in their lifetime. Please note that the methods for calculating this measure changed in the 2016 Rankings.

*Reason for Ranking*
Each year approximately 443,000 premature deaths can be attributed to smoking. Cigarette smoking is identified as a cause of various cancers, cardiovascular disease, and respiratory conditions, as well as low birthweight and other adverse health outcomes. Measuring the prevalence of tobacco use in the population can alert communities to potential adverse health outcomes and can be valuable for assessing the need for cessation programs or the effectiveness of existing programs.

### Adult Obesity
Adult obesity is the percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2.

*Reason for Ranking*
Obesity is often the result of an overall energy imbalance due to poor diet and limited physical activity. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, osteoarthritis, and poor health status.[1,2]

## Food Environment Index

The food environment index ranges from 0 (worst) to 10 (best) and equally weights two indicators of the food environment:

1) Limited access to healthy foods estimates the percentage of the population that is low income and does not live close to a grocery store. Living close to a grocery store is defined differently in rural and nonrural areas; in rural areas, it means living less than 10 miles from a grocery store whereas in nonrural areas, it means less than 1 mile. "Low income" is defined as having an annual family income of less than or equal to 200 percent of the federal poverty threshold for the family size.

2) Food insecurity estimates the percentage of the population who did not have access to a reliable source of food during the past year. A two-stage fixed effects model was created using information from the Community Population Survey, Bureau of Labor Statistics, and American Community Survey.

More information on each of these can be found among the additional measures.

### *Reason for Ranking*

There are many facets to a healthy food environment, such as the cost, distance, and availability of healthy food options. This measure includes access to healthy foods by considering the distance an individual lives from a grocery store or supermarket; there is strong evidence that food deserts are correlated with high prevalence of overweight, obesity, and premature death.[1-3] Supermarkets traditionally provide healthier options than convenience stores or smaller grocery stores.[4]

Additionally, access in regards to a constant source of healthy food due to low income can be another barrier to healthy food access. Food insecurity, the other food environment measure included in the index, attempts to capture the access issue by understanding the barrier of cost. Lacking constant access to food is related to negative health outcomes such as weight-gain and premature mortality.[5,6] In addition to asking about having a constant food supply in the past year, the module also addresses the ability of individuals and families to provide balanced meals further addressing barriers to healthy eating. It is important to have adequate access to a constant food supply, but it may be equally important to have nutritious food available.

## Physical Inactivity

Physical inactivity is the percentage of adults age 20 and over reporting no leisure-time physical activity. Examples of physical activities provided include running, calisthenics, golf, gardening, or walking for exercise.

### *Reason for Ranking*

Decreased physical activity has been related to several disease conditions such as type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity. Inactivity causes 11% of premature mortality in the United States, and caused more than 5.3 million of the 57 million deaths that occurred worldwide in 2008.[1] In addition, physical inactivity at the county level is related to healthcare expenditures for circulatory system diseases.[2]

## Access to Exercise Opportunities

Change in measure calculation in 2018: Access to exercise opportunities measures the percentage of individuals in a county who live reasonably close to a location for physical activity. Locations for physical activity are defined as parks or recreational facilities. Parks include local, state, and national parks. Recreational facilities include YMCAs as well as businesses identified by the following Standard Industry Classification (SIC) codes and include a wide variety of facilities including gyms, community centers, dance studios and pools: 799101, 799102, 799103, 799106, 799107, 799108, 799109, 799110, 799111, 799112, 799201, 799701, 799702, 799703, 799704, 799707, 799711, 799717, 799723, 799901, 799908, 799958, 799969, 799971, 799984, or 799998.

Individuals who:

- reside in a census block within a half mile of a park or
- in urban census blocks: reside within one mile of a recreational facility or

- in rural census blocks: reside within three miles of a recreational facility
- are considered to have adequate access for opportunities for physical activity.

*Reason for Ranking*
Increased physical activity is associated with lower risks of type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity. The role of the built environment is important for encouraging physical activity. Individuals who live closer to sidewalks, parks, and gyms are more likely to exercise.[1-3]

**Excessive Drinking**
Excessive drinking is the percentage of adults that report either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or 2 (men) drinks per day on average. Please note that the methods for calculating this measure changed in the 2011 Rankings and again in the 2016 Rankings.

*Reason for Ranking*
Excessive drinking is a risk factor for a number of adverse health outcomes, such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes. [1] Approximately 80,000 deaths are attributed annually to excessive drinking. Excessive drinking is the third leading lifestyle-related cause of death in the United States.[2]

**Alcohol-Impaired Driving Deaths**
Alcohol-impaired driving deaths is the percentage of motor vehicle crash deaths with alcohol involvement.

*Reason for Ranking*
Approximately 17,000 Americans are killed annually in alcohol-related motor vehicle crashes. Binge/heavy drinkers account for most episodes of alcohol-impaired driving.[1,2]

**Sexually Transmitted Infection Rate**
Sexually transmitted infections (STI) are measured as the chlamydia incidence (number of new cases reported) per 100,000 population.

*Reason for Ranking*
Chlamydia is the most common bacterial STI in North America and is one of the major causes of tubal infertility, ectopic pregnancy, pelvic inflammatory disease, and chronic pelvic pain.[1,2] STIs are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, infertility, and premature death.[3] STIs also have a high economic burden on society. The direct medical costs of managing sexually transmitted infections and their complications in the U.S., for example, was approximately 15.6 billion dollars in 2008.[4]

**Teen Births**
Teen births are the number of births per 1,000 female population, ages 15-19.

*Reason for Ranking*
Evidence suggests teen pregnancy significantly increases the risk of repeat pregnancy and of contracting a STI, both of which can result in adverse health outcomes for mothers, children, families, and communities. A systematic review of the sexual risk among pregnant and mothering teens concludes that pregnancy is a marker for current and future sexual risk behavior and adverse outcomes [1]. Pregnant teens are more likely than older women to receive late or no prenatal care, have eclampsia, puerperal endometritis, systemic infections, low birthweight, preterm delivery, and severe neonatal conditions [2, 3]. Pre-term delivery and low birthweight babies have increased risk of child developmental delay, illness, and mortality [4]. Additionally, there are strong ties between teen birth and poor socioeconomic, behavioral, and mental outcomes. Teenage women who bear a child are much less likely to achieve an education level at or beyond high school, much

more likely to be overweight/obese in adulthood, and more likely to experience depression and psychological distress [5-7].

## Uninsured

Uninsured is the percentage of the population under age 65 that has no health insurance coverage. The Small Area Health Insurance Estimates uses the American Community Survey (ACS) definition of insured: Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans: Insurance through a current or former employer or union, insurance purchased directly from an insurance company, Medicare, Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability, TRICARE or other military healthcare, Indian Health Services, VA or any other type of health insurance or health coverage plan? Please note that the methods for calculating this measure changed in the 2012 Rankings.

### *Reason for Ranking*

Lack of health insurance coverage is a significant barrier to accessing needed healthcare and to maintaining financial security.

The Kaiser Family Foundation released a report in December 2017 that outlines the effects insurance has on access to healthcare and financial independence. One key finding was that "Going without coverage can have serious health consequences for the uninsured because they receive less preventative care, and delayed care often results in serious illness or other health problems. Being uninsured can also have serious financial consequences, with many unable to pay their medical bills, resulting in medical debt."[1]

## Primary Care Physicians

Primary care physicians is the ratio of the population to total primary care physicians. Primary care physicians include non-federal, practicing physicians (M.D.'s and D.O.'s) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics. Please note this measure was modified in the 2011 Rankings and again in the 2013 Rankings.

### *Reason for Ranking*

Access to care requires not only financial coverage, but also access to providers. While high rates of specialist physicians have been shown to be associated with higher (and perhaps unnecessary) utilization, sufficient availability of primary care physicians is essential for preventive and primary care, and, when needed, referrals to appropriate specialty care.[1,2]

## Dentists

Dentists are measured as the ratio of the county population to total dentists in the county.

### *Reason for Ranking*

Untreated dental disease can lead to serious health effects including pain, infection, and tooth loss. Although lack of sufficient providers is only one barrier to accessing oral healthcare, much of the country suffers from shortages. According to the Health Resources and Services Administration, as of December 2012, there were 4,585 Dental Health Professional Shortage Areas (HPSAs), with 45 million people total living in them.[1]

## Mental Health Providers

Mental health providers is the ratio of the county population to the number of mental health providers including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental healthcare. In 2015, marriage and family therapists and mental health providers that treat alcohol and other drug abuse were added to this measure.

### *Reason for Ranking*

Thirty percent of the population lives in a county designated as a Mental Health Professional Shortage Area. As the mental health parity aspects of the Affordable Care Act create increased coverage for mental health services, many anticipate increased workforce shortages.

### Preventable Hospital Stays
Preventable hospital stays is the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 fee-for-service Medicare enrollees. Ambulatory care-sensitive conditions include: convulsions, chronic obstructive pulmonary disease, bacterial pneumonia, asthma, congestive heart failure, hypertension, angina, cellulitis, diabetes, gastroenteritis, kidney/urinary infection, and dehydration. This measure is age-adjusted.

*Reason for Ranking*
Hospitalization for diagnoses treatable in outpatient services suggests that the quality of care provided in the outpatient setting was less than ideal. The measure may also represent a tendency to overuse hospitals as a main source of care.

### Mammography Screening
Mammography screening is the percentage of female fee-for-service Medicare enrollees age 67-69 that had at least one mammogram over a two-year period.

*Reason for Ranking*
Evidence suggests that mammography screening reduces breast cancer mortality, especially among older women.[1] A physician's recommendation or referral—and satisfaction with physicians—are major factors facilitating breast cancer screening. The percent of women ages 40-69 receiving a mammogram is a widely endorsed quality of care measure.

## Flu Vaccinations

Flu vaccinations are Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination.

*Reason for Ranking*
Influenza is a potentially serious disease that can lead to hospitalization and even death. Every year there are millions of influenza infections, hundreds of thousands of flu-related hospitalizations, and thousands of flu-related deaths. An annual flu vaccine is the best way to help protect against influenza and may reduce the risk of flu illness, flu-related hospitalizations, and even flu-related death. It is recommended that everyone 6 months and older get a seasonal flu vaccine each year, and those over 65 are especially encouraged because they are at higher risk of developing serious complications from the flu.

### Unemployment
Unemployment is the percentage of the civilian labor force, age 16 and older, that is unemployed but seeking work.

*Reason for Ranking*
The unemployed population experiences worse health and higher mortality rates than the employed population.[1-4] Unemployment has been shown to lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise, and other health-related behaviors, which in turn can lead to increased risk for disease or mortality, especially suicide.[5] Because employer-sponsored health insurance is the most common source of health insurance coverage, unemployment can also limit access to healthcare.

### Children in Poverty
Children in poverty is the percentage of children under age 18 living in poverty. Poverty status is defined by family; either everyone in the family is in poverty or no one in the family is in poverty. The characteristics of the family used to determine the poverty threshold are: number of people, number of related children under 18, and whether or not the primary householder is over age 65. Family income is then compared to the poverty threshold; if that family's income is below that threshold, the family is in poverty. For more information, please see Poverty Definition and/or Poverty.

In the data table for this measure, we report child poverty rates for black, Hispanic and white children. The rates for race and ethnic groups come from the American Community Survey, which is the major source of data used by the Small Area Income and Poverty Estimates to construct the overall county estimates. However, estimates for race and ethnic groups are created using combined five year estimates from 2012-2016.

*Reason for Ranking*

Poverty can result in an increased risk of mortality, morbidity, depression, and poor health behaviors. A 2011 study found that poverty and other social factors contribute a number of deaths comparable to leading causes of death in the U.S. like heart attacks, strokes, and lung cancer.[1] While repercussions resulting from poverty are present at all ages, children in poverty may experience lasting effects on academic achievement, health, and income into adulthood. Low-income children have an increased risk of injuries from accidents and physical abuse and are susceptible to more frequent and severe chronic conditions and their complications such as asthma, obesity, and diabetes than children living in high income households.[2]

Beginning in early childhood, poverty takes a toll on mental health and brain development, particularly in the areas associated with skills essential for educational success such as cognitive flexibility, sustained focus, and planning. Low income children are more susceptible to mental health conditions like ADHD, behavior disorders, and anxiety which can limit learning opportunities and social competence leading to academic deficits that may persist into adulthood.[2,3] The children in poverty measure is highly correlated with overall poverty rates.

### Income Inequality

Income inequality is the ratio of household income at the 80th percentile to that at the 20th percentile, i.e., when the incomes of all households in a county are listed from highest to lowest, the 80th percentile is the level of income at which only 20% of households have higher incomes, and the 20th percentile is the level of income at which only 20% of households have lower incomes. A higher inequality ratio indicates greater division between the top and bottom ends of the income spectrum. Please note that the methods for calculating this measure changed in the 2015 Rankings.

*Reason for Ranking*

Income inequality within U.S. communities can have broad health impacts, including increased risk of mortality, poor health, and increased cardiovascular disease risks. Inequalities in a community can accentuate differences in social class and status and serve as a social stressor. Communities with greater income inequality can experience a loss of social connectedness, as well as decreases in trust, social support, and a sense of community for all residents.

### Children in Single-Parent Households

Children in single-parent households is the percentage of children in family households where the household is headed by a single parent (male or female head of household with no spouse present). Please note that the methods for calculating this measure changed in the 2011 Rankings.

*Reason for Ranking*

Adults and children in single-parent households are at risk for adverse health outcomes, including mental illness (e.g. substance abuse, depression, suicide) and unhealthy behaviors (e.g. smoking, excessive alcohol use).[1-4] Self-reported health has been shown to be worse among lone parents (male and female) than for parents living as couples, even when controlling for socioeconomic characteristics. Mortality risk is also higher among lone parents.[4,5] Children in single-parent households are at greater risk of severe morbidity and all-cause mortality than their peers in two-parent households.[2,6]

### Violent Crime Rate

Violent crime is the number of violent crimes reported per 100,000 population. Violent crimes are defined as offenses that involve face-to-face confrontation between the victim and the perpetrator, including homicide, rape, robbery, and aggravated assault. Please note that the methods for calculating this measure changed in the 2012 Rankings.

*Reason for Ranking*

High levels of violent crime compromise physical safety and psychological well-being. High crime rates can also deter residents from pursuing healthy behaviors, such as exercising outdoors. Additionally, exposure to crime and violence has been shown to increase stress, which may exacerbate hypertension and other stress-related disorders and may contribute to obesity prevalence.[1] Exposure to chronic stress also contributes to the

increased prevalence of certain illnesses, such as upper respiratory illness, and asthma in neighborhoods with high levels of violence.[2]

### Injury Deaths

Injury deaths is the number of deaths from intentional and unintentional injuries per 100,000 population. Deaths included are those with an underlying cause of injury (ICD-10 codes *U01-*U03, V01-Y36, Y85-Y87, Y89).

*Reason for Ranking*

Injuries are one of the leading causes of death; unintentional injuries were the 4th leading cause, and intentional injuries the 10th leading cause, of US mortality in 2014.[1] The leading causes of death in 2014 among unintentional injuries, respectively, are: poisoning, motor vehicle traffic, and falls. Among intentional injuries, the leading causes of death in 2014, respectively, are: suicide firearm, suicide suffocation, and homicide firearm. Unintentional injuries are a substantial contributor to premature death. Among the following age groups, unintentional injuries were the leading cause of death in 2014: 1-4, 5-9, 10-14, 15-24, 25-34, 35-44.[2] Injuries account for 17% of all emergency department visits, and falls account for over 1/3 of those visits.[3]

### Air Pollution-Particulate matter

Air pollution-particulate Matter is the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) in a county. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air.

*Reason for Ranking*

The relationship between elevated air pollution (especially fine particulate matter and ozone) and compromised health has been well documented.[1,2,3] Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects.[1] Long-term exposure to fine particulate matter increases premature death risk among people age 65 and older, even when exposure is at levels below the National Ambient Air Quality Standards.[3]

### Drinking Water Violations

Change in measure calculation in 2018: Drinking water violations is an indicator of the presence or absence of health-based drinking water violations in counties served by community water systems. Health-based violations include Maximum Contaminant Level, Maximum Residual Disinfectant Level and Treatment Technique violations. A “Yes” indicates that at least one community water system in the county received a violation during the specified time frame, while a “No” indicates that there were no health-based drinking water violations in any community water system in the county. Please note that the methods for calculating this measure changed in the 2016 Rankings.

*Reason for Ranking*

Recent studies estimate that contaminants in drinking water sicken 1.1 million people each year. Ensuring the safety of drinking water is important to prevent illness, birth defects, and death for those with compromised immune systems. A number of other health problems have been associated with contaminated water, including nausea, lung and skin irritation, cancer, kidney, liver, and nervous system damage.

### Severe Housing Problems

Severe housing problems is the percentage of households with at least one or more of the following housing problems:

- housing unit lacks complete kitchen facilities;
- housing unit lacks complete plumbing facilities;
- household is severely overcrowded; or

- household is severely cost burdened.

Severe overcrowding is defined as more than 1.5 persons per room. Severe cost burden is defined as monthly housing costs (including utilities) that exceed 50% of monthly income.

### *Reason for Ranking*

Good health depends on having homes that are safe and free from physical hazards. When adequate housing protects individuals and families from harmful exposures and provides them with a sense of privacy, security, stability and control, it can make important contributions to health. In contrast, poor quality and inadequate housing contributes to health problems such as infectious and chronic diseases, injuries and poor childhood development.

# Appendix E – Youth Risk Behavior Survey Results

Youth Risk Behavioral Survey Results
North Dakota High School Survey
Rate Increase "↑" rate decrease "↓", or no statistical change = in rate from 2017-2019

| | ND 2015 | ND 2017 | ND 2019 | ND Trend ↑, ↓, = | Rural ND Town Average | Urban ND Town Average | National Average 2019 |
|---|---|---|---|---|---|---|---|
| **Injury and Violence** | | | | | | | |
| Percentage of students who rarely or never wore a seat belt (when riding in a car driven by someone else) | 8.5 | 8.1 | 5.9 | = | 8.8 | 5.4 | 6.5 |
| Percentage of students who rode in a vehicle with a driver who had been drinking alcohol (one or more times during the 30 prior to the survey) | 17.7 | 16.5 | 14.2 | = | 17.7 | 12.7 | 16.7 |
| Percentage of students who talked on a cell phone while driving (on at least one day during the 30 days before the survey, among students who drove a car or other vehicle) | NA | 56.2 | 59.6 | = | 60.7 | 60.7 | NA |
| Percentage of students who texted or e-mailed while driving a car or other vehicle (on at least one day during the 30 days before the survey, among students who had driven a car or other vehicle during the 30 days before the survey) | 57.6 | 52.6 | 53.0 | = | 56.5 | 51.8 | 39.0 |
| Percentage of students who never or rarely wore a helmet (during the 12 months before the survey, among students who rode a motorcycle) | NA | 20.6 | NA | **NA** | NA | NA | NA |
| Percentage of students who carried a weapon on school property (such as a gun, knife, or club on at least one day during the 30 days before the survey) | 5.2 | 5.9 | 4.9 | = | 6.2 | 4.2 | 2.8 |
| Percentage of students who were in a physical fight on school property (one or more times during the 12 months before the survey) | 5.4 | 7.2 | 7.1 | = | 7.4 | 6.4 | 8.0 |
| Percentage of students who experienced sexual violence (being forced by anyone to do sexual things [counting such things as kissing, touching, or being physically forced to have sexual intercourse] that they did not want to, one or more times during the 12 months before the survey) | NA | 8.7 | 9.2 | = | 7.1 | 8.0 | 10.8 |
| Percentage of students who experienced physical dating violence (one or more times during the 12 months before the survey, including being hit, slammed into something, or injured with an object or weapon on purpose by someone they were dating or going out with among students who dated or went out with someone during the 12 months before the survey) | 7.6 | NA | NA | **NA** | NA | NA | 8.2 |
| Percentage of students who have been the victim of teasing or name calling because someone thought they were gay, lesbian, or bisexual (during the 12 months before the survey) | NA | 11.4 | 11.6 | = | 12.6 | 11.4 | NA |
| Percentage of students who were bullied on school property (during the 12 months before the survey) | 24.0 | 24.3 | 19.9 | ↓ | 24.6 | 19.1 | 19.5 |
| Percentage of students who were electronically bullied (including being bullied through texting, Instagram, Facebook, or other social media during the 12 months before the survey) | 15.9 | 18.8 | 14.7 | ↓ | 16.0 | 15.3 | 15.7 |
| Percentage of students who felt sad or hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities during the 12 months before the survey) | 27.2 | 28.9 | 30.5 | = | 31.8 | 33.1 | 36.7 |
| Percentage of students who seriously considered attempting suicide (during the 12 months before the survey) | 16.2 | 16.7 | 18.8 | = | 18.6 | 19.7 | 18.8 |

| | ND 2015 | ND 2017 | ND 2019 | ND Trend ↑, ↓, = | Rural ND Town Average | Urban ND Town Average | National Average 2019 |
|---|---|---|---|---|---|---|---|
| Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey) | 13.5 | 14.5 | 15.3 | = | 16.3 | 16.0 | 15.7 |
| Percentage of students who attempted suicide (one or more times during the 12 months before the survey) | 9.4 | 13.5 | 13.0 | = | 12.5 | 11.7 | 8.9 |
| **Tobacco Use** | | | | | | | |
| Percentage of students who ever tried cigarette smoking (even one or two puffs) | 35.1 | 30.5 | 29.3 | = | 32.4 | 23.8 | 24.1 |
| Percentage of students who smoked a whole cigarette before age 13 years (even one or two puffs) | NA | 11.2 | NA | **NA** | NA | NA | NA |
| Percentage of students who currently smoked cigarettes (on at least one day during the 30 days before the survey) | 11.7 | 12.6 | 8.3 | ↓ | 10.9 | 7.3 | 6.0 |
| Percentage of students who currently frequently smoked cigarettes (on 20 or more days during the 30 days before the survey) | 4.3 | 3.8 | 2.1 | ↓ | 2.3 | 1.7 | 1.3 |
| Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey) | 3.2 | 3.0 | 1.4 | ↓ | 1.6 | 1.2 | 1.1 |
| Percentage of students who usually obtained their own cigarettes by buying them in a store or gas station (during the 30 days before the survey among students who currently smoked cigarettes and who were aged <18 years) | NA | 7.5 | 13.2 | = | 9.4 | 10.1 | 8.1 |
| Percentage of students who tried to quit smoking cigarettes (among students who currently smoked cigarettes during the 12 months before the survey) | NA | 50.3 | 54.0 | = | 52.8 | 51.4 | NA |
| Percentage of students who currently use an electronic vapor product (e-cigarettes, vape e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens at least one day during the 30 days before the survey) | 22.3 | 20.6 | 33.1 | ↑ | 32.2 | 31.9 | 32.7 |
| Percentage of students who currently used smokeless tobacco (chewing tobacco, snuff, or dip on at least one day during the 30 days before the survey) | NA | 8.0 | 4.5 | ↓ | 5.7 | 3.8 | 3.8 |
| Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars on at least one day during the 30 days before the survey) | 9.2 | 8.2 | 5.2 | ↓ | 6.3 | 4.3 | 5.7 |
| Percentage of students who currently used cigarettes, cigars, or smokeless tobacco (on at least 1 day during the 30 days before the survey) | NA | 18.1 | 12.2 | NA | 15.1 | 10.9 | 10.5 |
| **Alcohol and Other Drug Use** | | | | | | | |
| Percentage of students who ever drank alcohol (at least one drink of alcohol on at least one day during their life) | 62.1 | 59.2 | 56.6 | = | 60.6 | 54.0 | NA |
| Percentage of students who drank alcohol before age 13 years (for the first time other than a few sips) | 12.4 | 14.5 | 12.9 | = | 16.4 | 13.2 | 15.0 |
| Percentage of students who currently drank alcohol (at least one drink of alcohol on at least one day during the 30 days before the survey) | 30.8 | 29.1 | 27.6 | = | 29.4 | 25.4 | 29.2 |
| Percentage of students who currently were binge drinking (four or more drinks of alcohol in a row for female students, five or more for male students within a couple of hours on at least one day during the 30 days before the survey) | NA | 16.4 | 15.6 | = | 17.2 | 14.0 | 13.7 |
| Percentage of students who usually obtained the alcohol they drank by someone giving it to them (among students who currently drank alcohol) | 41.3 | 37.7 | NA | **NA** | NA | NA | 40.5 |
| Percentage of students who tried marijuana before age 13 years (for the first time) | 5.3 | 5.6 | 5.0 | = | 5.5 | 5.1 | 5.6 |
| Percentage of students who currently used marijuana (one or more times during the 30 days before the survey) | 15.2 | 15.5 | 12.5 | = | 11.4 | 14.1 | 21.7 |

| | ND 2013 | ND 2017 | ND 2019 | ND Trend ↑, ↓, = | Rural ND Town Average | Urban ND Town Average | National Average 2019 |
|---|---|---|---|---|---|---|---|
| Percentage of students who ever took prescription pain medicine without a doctor's prescription or differently than how a doctor told them to use it (counting drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet, one or more times during their life) | NA | 14.4 | 14.5 | = | 12.8 | 13.3 | 14.3 |
| Percentage of students who were offered, sold, or given an illegal drug on school property (during the 12 months before the survey) | 18.2 | 12.1 | NA | NA | NA | NA | 21.8 |
| Percentage of students who attended school under the influence of alcohol or other drugs (on at least one day during the 30 days before the survey) | NA | NA | NA | NA | NA | NA | NA |
| **Sexual Behaviors** | | | | | | | |
| Percentage of students who ever had sexual intercourse | 38.9 | 36.6 | 38.3 | = | 35.4 | 36.1 | 38.4 |
| Percentage of students who had sexual intercourse before age 13 years (for the first time) | 2.6 | 2.8 | NA | NA | NA | NA | 3.0 |
| **Weight Management and Dietary Behaviors** | | | | | | | |
| Percentage of students who were overweight (>= 85th percentile but <95$^{th}$ percentile for body mass index, based on sex and age-specific reference data from the 2000 CDC growth chart) | 14.7 | 16.1 | 16.5 | = | 16.6 | 15.6 | 16.1 |
| Percentage of students who had obesity (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth chart) | 13.9 | 14.9 | 14.0 | = | 17.4 | 14.0 | 15.5 |
| Percentage of students who described themselves as slightly or very overweight | 32.2 | 31.4 | 32.6 | = | 35.7 | 33.0 | 32.4 |
| Percentage of students who were trying to lose weight | NA | 44.5 | 44.7 | = | 46.8 | 45.5 | NA |
| Percentage of students who did not eat fruit or drink 100% fruit juices (during the seven days before the survey) | 3.9 | 4.9 | 6.1 | = | 5.8 | 5.3 | 6.3 |
| Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (during the seven days before the survey) | NA | 61.2 | 54.1 | ↓ | 54.1 | 57.2 | NA |
| Percentage of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the seven days before the survey) | 4.7 | 5.1 | 6.6 | = | 5.3 | 6.6 | 7.9 |
| Percentage of students who ate vegetables one or more times per day (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the seven days before the survey) | NA | 60.9 | 57.1 | ↓ | 58.2 | 59.1 | NA |
| Percentage of students who did not drink a can, bottle, or glass of soda or pop (such as Coke, Pepsi, or Sprite, not including diet soda or diet pop, during the seven days before the survey) | NA | 28.8 | 28.1 | = | 26.4 | 30.5 | NA |
| Percentage of students who drank a can, bottle, or glass of soda or pop one or more times per day (not including diet soda or diet pop, during the seven days before the survey) | 18.7 | 16.3 | 15.9 | = | 17.4 | 15.1 | 15.1 |
| Percentage of students who did not drink milk (during the seven days before the survey) | 13.9 | 14.9 | 20.5 | ↑ | 14.8 | 20.3 | 30.6 |
| Percentage of students who drank two or more glasses per day of milk (during the seven days before the survey) | NA | 33.9 | NA | NA | NA | NA | NA |
| Percentage of students who did not eat breakfast (during the 7 days before the survey) | 11.9 | 13.5 | 14.4 | = | 13.3 | 14.1 | 16.7 |
| Percentage of students who most of the time or always went hungry because there was not enough food in their home (during the 30 days before the survey) | NA | 2.7 | 2.8 | = | 2.1 | 2.9 | NA |
| **Physical Activity** | | | | | | | |
| Percentage of students who were physically active at least 60 minutes per day on 5 or more days (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey) | NA | 51.5 | 49.0 | = | 55.0 | 22.6 | 55.9 |

| | ND 2015 | ND 2017 | ND 2019 | ND Trend ↑, ↓, = | Rural ND Town Average | Urban ND Town Average | National Average 2019 |
|---|---|---|---|---|---|---|---|
| Percentage of students who watched television three or more hours per day (on an average school day) | 18.9 | 18.8 | 18.8 | = | 18.3 | 18.2 | 19.8 |
| Percentage of students who played video or computer games or used a computer three or more hours per day (counting time spent on things such as Xbox, PlayStation, an iPad or other tablet, a smartphone, texting, YouTube, Instagram, Facebook, or other social media, for something that was not school work on an average school day) | 38.6 | 43.9 | 45.3 | = | 48.3 | 45.9 | 46.1 |
| **Other** | | | | | | | |
| Percentage of students who had eight or more hours of sleep (on an average school night) | NA | 31.8 | 29.5 | = | 31.8 | 33.1 | NA |
| Percentage of students who brushed their teeth on seven days (during the 7 days before the survey) | NA | 69.1 | 66.8 | = | 63.0 | 68.2 | NA |
| Percentage of students who most of the time or always wear sunscreen (with an SPF of 15 or higher when they are outside for more than one hour on a sunny day) | NA | 12.8 | NA | NA | NA | NA | NA |
| Percentage of students who used an indoor tanning device (such as a sunlamp, sunbed, or tanning booth [not including getting a spray-on tan] one or more times during the 12 months before the survey) | NA | 8.3 | 7.0 | = | 6.0 | 5.9 | 4.5 |

Sources: https://www.cdc.gov/healthyyouth/data/yrbs/results.htm; https://www.nd.gov/dpi/districtsschools/safety-health/youth-risk-behavior-survey

# Appendix F – Prioritization of Community's Health Needs

**Select your FOUR (4) biggest concerns for your community – ONLY 4**

**Put a "|" in the "Votes" column to indicate a top concern.**

| | Top Concerns | Votes | |
|---|---|---|---|
| **COMMUNITY/ENVIRONMENTAL HEALTH CONCERNS** | | | **2nd round** |
| | Attracting & retaining young families | 6 | 3 |
| | Having enough child daycare services | 3 | |
| | Recycling | | |
| | Not enough affordable housing | | |
| **AVAILABILITY/DELIVERY OF HEALTH SERVICES CONCERNS** | | | |
| | Availability of mental health services | 6 | 4 |
| | Ability to retain primary care providers (MD, DO, NP, PA) and nurses | 1 | |
| | Availability of substance use disorder treatment services | 2 | |
| | Cost of health insurance | 2 | |
| | Cost of prescription drugs | | |
| | Not enough healthcare staff in general | 4 | 2 |
| **YOUTH POPULATION HEALTH CONCERNS** | | | |
| | Drug use and abuse (including prescription drugs) – Youth | | |
| | Smoking and tobacco use, exposure to second-hand smoke, juuling/vaping - Youth | 1 | |
| **ADULT POPULATION HEALTH CONCERNS** | | | |
| | Cancer- Adult | | |
| **SENIOR POPULATION HEALTH CONCERNS** | | | |
| | Cost of long-term/nursing home care | 1 | |
| | Availability of resources to help stay in their homes | 1 | |
| | Dementia/Alzheimer's disease | 1 | |
| | Availability of home health | | |
| **VIOLENCE CONCERNS** | | | |
| | Bullying/cyber-bullying | | |
| | Child abuse/neglect | | |
| **ALL AGES CONCERNS** | | | |
| | Alcohol use and abuse – All ages | 1 | |
| | Depression/anxiety – All ages | 5 | 0 |
| | Stress – All ages | | |

# Appendix G – Survey "Other" Responses

The number in parenthesis () indicates the number of people who indicated that EXACT same answer. All comments below are directly taken from the survey results and have not been summarized.

## Community Assets: Please tell us about your community by choosing up to three options you most agree with in each category below.

2. Considering the SERVICES AND RESOURCES in your community, the best things are: "Other" responses:

- Park and Rec

4. Considering the ACTIVITIES in your community, the best things are: "Other" responses:

- Movie theater
- Hunting and fishing
- Scranton needs more- fitness area, extended walking path
- Watching high school sports
- Local library

5. Considering the COMMUNITY /ENVIRONMENTAL HEALTH in your community, concerns are: "Other" responses

- Drug usage
- Restaurant diversity
- Scranton has zero fitness and indoor family recreation opportunities
- Equal opportunity for all children in activities - due to transportation, bussing, etc. If children live out of town and parents can't take them, it is hard for children to be involved
- Not enough people needing work to keep stores open

6. Considering the AVAILABILITY/DELIVERY OF HEALTH SERVICES in your community, concerns are: "Other" responses

- Not enough open beds to allow for acute care admissions
- Continuing Covid nonsense, like masking
- Someone to answer medical questions within a shorter time when calling clinic

9. Considering the ELDERLY POPULATION in your community, concerns are: "Other" response

- Not enough staff to maintain long-term care services

12. What single issue do you feel is the biggest challenge facing your community.

- Lack of work force…employees
- Jobs, jobs, jobs; housing
- Business development and retaining quality businesses
- Losing businesses
- Keeping healthcare strong. Need more workers
- Lack of economic develop
- Places to eat, with healthy options
- People talking on their cell phone while driving.
- Not enough young child care.
- Lack of employees to fill vacant positions
- Getting employees
- In home care for the elderly.

- It was the Clinic Portal but I see improvements have taken place. I would like better coordination with referred Drs and their hospitals/clinics. Shared procedures and all patient information!
- Limited hours of current restaurants.
- depression within all age groups
- Mental Health
- We do not have enough people that are interested in working and living in the area. Several restaurants have closed and the hospital and nursing home are using so much contract labor it is not sustainable over time.
- Inflation. People in our community are having a hard time making ends meet. Most jobs aren't giving raises to help cushion inflation because they are also struggling with making ends meet. Mental health in not only children but in adults is rising because we are unsure of what the next crisis will bring.
- Racism/hate

18. What other services would you like to be provided in your community: "Other" responses

- GYN
- Functional medicine

22. What PREVENTS community residents from receiving healthcare in general: "Other" responses

- Stubborn
- Rivalry with competing service with patients

23. What PREVENTS community residents from receiving healthcare LOCALLY: "Other" responses

- Access to mental health services
- Need to get rid of West River in town
- Not able to see the same provider each time
- None

24. What reasons would patients select healthcare services outside of the local community: "Other" responses

- Being able to see the same provider each time
- Weekend hours
- Provider turnover in Bowman

25. Where do you turn for trusted health information: "Other" response

- Personal research

26. Where do you find out about local health services available in your area: "Other" response

- Personal research

28. Have you supported the Sunrise Foundation in any of the following ways: "Other" responses

- Fundraising events
- Giving hearts
- Giving hearts day
- Volunteerism
- Fund raisers

29. Which of the following would you financially support for capital improvements by Southwest Healthcare Services: "Other" responses

- The addition of more patient rooms so we have room for acute care patients
- Updating long term care side
- Dining room updates
- Better follow up by phone call
- Availability of an OR
- Solar panels or wind turbine

31. How did you acquire the survey (or survey link) that you are completing: "Other" responses

- Facebook x2

40. Overall, please share concerns and suggestions to improve the delivery of local healthcare.

- Retaining quality healthcare personnel to provide a comfortable experience for returning patients. Have been in the ER and clinic many times with false a diagnosis, which is frustrating. Overall, thankful to have a clinic/hospital in Bowman but very concerned with quality and accuracy of care.
- I'm very concerned with SWHC providers, nurses etc. that were not/re not concerned with Covid-19! I left this facility because of that reason. I don't want to see a provider that doesn't believe in a vaccine that saves lives! Nor do I want to see a provider that dismisses my concerns about Covid-19 or anything else.
- West River needs to move back to Hettinger. Time for new EMR
- Better follow up procedures and updated Portal as well as sharing portal with Sanford, St A's and all other providers
- The government should stay out of healthcare
- "Not enough daycare providers/workers. Not enough qualified workers to fill open job positions. Limited restaurant hours.
- We have patients in the community who desperately need Mental Health services however our hospital staff is unsure how to care for them. We have sent these patients to jail rather than assist them with their mental health needs.
- My concern is over the cost of labor and the need for contract labor. The ability to retain the providers and recruit new providers, nurses and ancillary professionals.
- Too much propaganda news through Cable, and social media and or groups. There needs to be more reputable healthcare news and information coming from the Healthcare Providers that is science backed not politically backed.