Community Health Needs Assessment

2019

Towner County Medical Center Service Area, North Dakota

Kylie J. Nissen, BBA
Senior Project Coordinator

Julie Reiten
Project Coordinator

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

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Executive Summary

To help inform future decisions and strategic planning, Towner County Medical Center (TCMC) conducted a community health needs assessment (CHNA) in 2019, the previous CHNA having been conducted in 2016. The Center for Rural Health (CRH) at the University of North Dakota School of Medicine and Health Sciences (UNDSMHS) 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. Two hundred seven TCMC service-area residents completed the survey. Additional information was collected through six key informant interviews with community members. The input from the residents, who primarily reside in Towner 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, Towner County's population from 2010 to 2017 increased 0.3%. The average number of residents under age 18 (21.2%) for Towner County is slightly lower than the state average (23.3%). The percentage of residents ages 65 and older is about 9% higher for Towner County (23.8%) than the North Dakota average (15.0%), and the rates of education are about equal for Towner County (92.3%) with the North Dakota average (92.0%). The median household income in Towner County ($54,625) is right in line with the state average for North Dakota ($55,322).

Data compiled by County Health Rankings show Towner County is doing better than North Dakota in health outcomes/factors for 13 categories.

Towner County, according to County Health Rankings data, is performing poorly relative to the rest of the state in 14 outcome/factor categories.

Of the 82 potential community and health needs set forth in the survey, the 207 TCMC service area residents who completed the survey indicated the following ten needs as the most important:

- Bullying/cyberbullying
- Alcohol use and abuse – Youth
- Drug use and abuse – Youth
- Child abuse or neglect
- Alcohol use and abuse – Adult
- Drug use and abuse – Adult
- Having enough child daycare services
- Attracting and retaining young families
- Not enough jobs with livable wages
- Availability of resources to help the elderly stay in their homes

The survey also revealed the biggest barriers to receiving healthcare (as perceived by community members). They included not affordable (N=58), no insurance or limited insurance (N=49), and don't know about local services (N=27).

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

- Safe place to live, little/no crime
- Healthcare
- Family-friendly
- People who live here are involved in their community
- People are friendly, helpful, and supportive
- Recreational and sports activities

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/drug use and abuse
- Attracting and retaining young families
- Availability of mental health services
- Availability of resources to help the elderly stay in their homes
- Having enough child daycare services

Overview and Community Resources

With assistance from the CRH at the UNDSMHS, the Towner County Medical Center completed a CHNA of the TCMC service area. The hospital identifies its service area as a 60-mile radius around Cando. Many community members and stakeholders worked together on the assessment.

TCMC is a 20-bed, critical access hospital located in Cando, North Dakota. As a hospital and accredited level V trauma center, TCMC provides comprehensive care for a wide range of medical and emergency situations. TCMC offers many services, including inpatient and outpatient treatment facility, retirement housing, and childcare. With approximately 130 employees, TCMC is one of the largest employers in the region.

Cando, located in northeastern North Dakota, is the county seat of the largest durum wheat-producing county in the world. Access to major cities is within reasonable driving distance of Cando. Winnipeg, Manitoba is less than three hours away. In North Dakota, access to major shopping and medical facilities is within 40 miles. The Cando public school system prepares students for vocational and post-secondary training.

Numerous recreational activities are available for residents of Cando including, city parks, participatory and observational sports, athletic fields, the Audi movie theater, a swimming pool, and nine-hole golf course. Its city parks include facilities for tennis, baseball, volleyball, basketball, and horseshoes. The Cando All Seasons

Arena offers skating and hockey. Some of the state's best fishing may be found within 40 miles, and the area is abundant with waterfowl, geese, and deer.

Healthcare facilities and services in the area (Benson, Ramsey, and Towner counties) include the following:

Basic care facilities

- Cando – 5-bed basic care facility
- Devils Lake – 43-bed, 13-bed, and 7-bed basic care facilities
- Edmore – 15-bed basic care facility
- Maddock – 21-bed basic care facility

Chemical dependency treatment center

- Cando Heartview Foundation

Nursing homes

- Cando – 30-bed nursing home
- Devils Lake – 82-bed and 48-bed nursing homes

Rural health clinics

- Cando
- Maddock

Pharmacies

- Cando – one retail pharmacy in addition to the TCMC pharmacy
- Devils Lake – three retail pharmacies in addition to the hospital and clinic pharmacies
- Maddock – one retail pharmacy

Figure 1 illustrates the location of the county.

Towner County Medical Center, TCMC

The original Towner County Memorial Hospital was a 26-bed hospital built in 1952 with funds raised by the people of Towner County and the Order of the Sisters of St. Francis. The hospital nearly doubled in size in 1968 with an addition that included new patient rooms, an ambulance garage, an emergency room, a new laboratory, and a radiology room. In 1992, the ownership and direction of the hospital changed based on a community initiative, and physical changes to the facility were made in 1995 to ensure handicapped accessibility. Also added were a new medical clinic, dental clinic, emergency room, a drive-through emergency garage, x-ray suite, physical therapy room, nursing station, laboratory, medical records area, and birthing room.

Mission

Towner County Medical Center defines its mission as follows: Towner County Medical Center (TCMC) provides: total quality comprehensive healthcare; caring and compassionate health services for patients, residents, families and healthcare workers; medical care for all life stages delivered by a professional and expert healthcare team; and a commitment to our communities to maintain and ensure the ongoing provision of quality health services.

Services offered locally by TCMC include

General and Acute Services

- Acne treatment
- Allergy, flu and pneumonia shots
- Adult and child vaccinations
- Basic care facility (nursing home)
- Blood pressure checks
- Cardiology (visiting physician)
- Clinic
- Cryotherapy
- Diabetes education
- Emergency room 24 hours per day
- Endocrine services (type I and II diabetes)
- Endoscopy (EGD, colonoscopy)
- Gynecology
- Hospital (acute care)
- Independent senior housing
- Joint injections
- Mole/wart/skin lesion removal
- Nutrition counseling
- Oncology/Hematology
- Ophthalmology evaluation and surgery services
- Orthopedics (visiting physician)
- Pharmacy
- Podiatry evaluation
- Physicals: annuals, DOT, sports and insurance
- Skilled nursing facility (nursing home)
- Sports medicine
- Surgical services – biopsies
- Surgical services – outpatient
- Swing bed services
- Telemedicine

General and Acute Services

- Chiropractic services
- Chronic disease management
- Colonoscopy screening
- Holter monitoring
- Laboratory services
- Lower extremity circulatory assessment

- Massage therapy
- Occupational physicals
- Occupational therapy
- Pediatric services
- Physical therapy
- Respiratory care
- Sleep studies
- Social services
- Cardiac stress testing

Radiology Services

- CT Scan
- Dexa Scans
- Digital mammography
- Echocardiograms
- EKG
- General x-ray
- Nuclear medicine (mobile unit)
- MRI (mobile unit)
- Ultrasound (mobile unit)

In addition to the rural health clinic and the hospital, TCMC also includes senior independent living housing, basic care residential service, and skilled nursing residential service in Cando.

Prairie View Estates is an independent living facility that provides a lifestyle that frees residents from everyday worries and chores, while preserving their privacy and independence. A meal is provided at noon seven days a week, housekeeping and linen services are provided weekly. The spacious two bedroom units include emergency call cord and call light systems monitored 24 hours a day by professionals at TCMC.

The Towner County Living Center (TCLC) is a nationally recognized skilled nursing facility, achieving the highest possible ranking for safety and quality from the Center for Medicare and Medicaid Services (CMS) of five stars. TCLC offers temporary care for those that had an injury or illness and need a few weeks to recuperate, or permanent care should they need a safe and caring place to call home. Large, single occupancy, private rooms are available for the residents. Daily recreational, spiritual, and social activities are provided.

Towner County Public Health District

Towner County Public Health District (TCPHD) provides public health services that include environmental health, nursing services, the WIC (women, infants, and 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 assure that North Dakota is a healthy place to live and each person has an equal opportunity to enjoy good health. To accomplish this mission, TCPHD is committed to the promotion of healthy lifestyles, protection and enhancement of the environment, and provision of quality healthcare services for the people of North Dakota.

Specific services that TCPH provides are:

- Assist with preschool screening
- Bicycle helmet safety education resources
- Blood pressure checks
- Blood sugar testing
- Breastfeeding resources
- Car seat program
- Child health
- Diabetes screening
- Emergency response and preparedness program
- Environmental health services
- Health Tracks (child health screening)
- Home visits
- Immunizations
- Member of child protection team and county interagency team
- Nutrition education
- Office visits and consults
- Preschool education programs
- Radon testing kits
- School health (vision screening, school immunizations)
- Tobacco prevention and control
- Tuberculosis testing and management
- West Nile program—surveillance and education
- WIC (Women, Infants & Children) program
- Worksite wellness
- Youth education programs

Assessment Process

The purpose of conducting a 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.

TCMC serves an area in northeastern North Dakota. Because large portions of the medical center's patients come from the counties of Benson, Ramsey, and Towner, this assessment focuses on data from those counties. In addition to Cando, located in those counties are the communities of Bisbee, Devils Lake, Edmore, Esmond, Leeds, Maddock, Minnewaukan, Rocklake, and Starkweather.

The CRH, in partnership with TCMC and TCPHD, 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 the CRH and Cando. A small steering committee (see Figure 2) was formed that was responsible for planning and implementing the process locally. Representatives from the CRH met and corresponded regularly by teleconference 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. Twenty people, representing a cross section demographically, attended the focus group meeting. The meeting was highly interactive with good participation. TCMC staff and board members were in attendance as well, but largely played a role of listening and learning.

Figure 2: Steering Committee

Ben Bucher	CEO, Towner County Medical Center
Carey Lynn Tyndall	Credentialing Officer/Administrative Secretary, Towner County Medical Center
Chantel Parker	Director of Nursing, Towner County Medical Center
Lee Johnson	Social Worker, Towner County Living Center
Sherry Walters	Administrator, Towner County Public Health District

The original survey tool was developed and used by the CRH. In order to revise the original survey tool to ensure the data gathered met the needs of hospitals and public health, the CRH worked with the North Dakota Department of Health's public health liaison. CRH representatives also participated in a series of meetings that 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, the 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; and
- 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.

The 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. The 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. The CRH connects the UNDSMHS and other necessary resources, to rural communities and their healthcare organizations in order to maintain access to quality care for rural residents. In this capacity, the 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 twenty community members was convened and first met on November 14, 2018. 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 March 25, 2019 with 29 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 Towner 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 TCMC and TCPH. They included representatives of the health community, business community, political bodies, education, and social service agencies. Not all members of the group were present at both meetings.

Interviews

One-on-one interviews with five key informants were conducted in person in Cando on November 14, 2018. One additional key informant interview was conducted over the phone in November of 2018. Representatives from the 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 those interviewed 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 A.

The community member survey was distributed to various residents of Towner County, which is included in the TCMC 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; and
- 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; and
- Suggestions for capital improvements.

To promote awareness of the assessment process, press releases led to published articles in the local newspaper in Towner and Rolette County including in the communities of Bisbee, Cando, Leeds, Minnewauken, Rolla, and Starkweather. The survey was also advertised in their quarterly newsletter reaching 4,000 residents county-wide. Additionally, information was published on TCMC's Facebook page and on its website.

Approximately 100 paper community member surveys were available for distribution in Towner County. The surveys were distributed by community group members and at TCMC, TCPHD, and area businesses.

To help ensure anonymity, included with each paper survey was a postage-paid return envelope to the CRH. In addition, to help make the survey as widely available as possible, residents also could request a survey by calling TCMC or TCPHD. The survey period ran from October 15, 2018 to November 15, 2018. There were 74 completed paper surveys returned.

Area residents also were given the option of completing an online version of the survey, which was publicized in local newspapers and on the websites of both TCMC and TCPHD. There were 133 online surveys completed. Thirteen of those online respondents used the QR code to complete the survey. In total, counting both paper and online surveys, 207 community member surveys were completed, equating to a 29.4% response rate. This response rate is above average (13%) 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 U.S. 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); and 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).

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 they 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.

Healthy People 2020, (https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health) illustrates that health and healthcare, while vitally important, play only one small role (approximately 20%) in the overall health of individuals and ultimately of a community. Social and community context, education, economic stability, neighborhood and built environment play a much larger part (80%) in impacting health outcomes. Therefore, as needs or concerns were raised through this CHNA process, it was imperative

to keep in mind how they impact the health of the community and what solutions can be implemented. See Figure 3.

Figure 3: 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 4: 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	
Medical bills	Playgrounds	Higher education		Stress	Quality of care
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 Towner County.

(From 2010 Census/2017 American Community Survey; more recent estimates used where available)

	Towner County	North Dakota
Population (2017)	2,253	760,077
Population change (2010-2017)	0.3%	12.3%
People per square mile (2010)	2.2	9.7
Persons 65 years or older (2016)	23.8%	15.0%
Persons under 18 years (2016)	21.2%	23.3%
Median age (2016 est.)	47.8	87.5%
White persons (2016)	93.0%	5.6%
Non-English speaking (2016)	1.8%	92.3%
High school graduates (2016)	92.3%	28.9%
Bachelor's degree or higher (2016)	18.6%	10.3%
Live below poverty line (2016)	10.7%	8.8%
Persons without health insurance, under age 65 years (2016)	11.0%	8.1%

Source: https://www.census.gov/quickfacts/fact/table/ND,US/INC910216#viewtop and https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml#

The population of North Dakota has grown in recent years, and Towner County has been no exception, seeing a small increase in population since 2010. The U.S. Census Bureau estimates show that Towner County's population increased from 2,246 (2010) to 2,253 (2017).

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, Towner 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 2019 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 having high ranks, such as 1 or 2, are considered to be the "healthiest." Counties are ranked on both health outcomes and health factors. Following is a breakdown of the variables that influence a county's rank.

A model of the 2019 County Health Rankings – a flow chart of how a county's rank is determined – is found in Appendix B. For further information, visit the County Health Rankings website at www.countyhealthrankings.org.

Table 2 summarizes the pertinent information gathered by County Health Rankings as it relates to Towner 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. The following statistics are based on the health behaviors and conditions of the county's residents, not necessarily the patients and clients of TCPHD and TCMC or of any particular medical facility.

Table 2: County Health Rankings

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

For most of the measures included in the rankings, the County Health Rankings' authors have calculated the "Top U.S. Performers" for 2019. 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).

Towner County rankings within the state are included in the summary following. For example, Towner County ranks 39th out of 49 ranked counties in North Dakota on health outcomes and 32nd on health factors.

The measures marked with a red bullet point (•) are those where a county is not measuring up to the state rate/percentage; a blue square (■) indicates that the county is faring better than the North Dakota average but is not meeting the U.S. Top 10% rate on that measure. Measures that are not marked with a colored checkmark but are marked with a plus (+) indicate that the county is doing better than the U.S. Top 10%.

The data from County Health Rankings shows that Towner 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. However, Towner County, like many North Dakota counties, is doing poor in many areas when it comes to the U.S. Top 10% ratings. One particular outcome where Towner County does not meet the U.S. Top 10% ratings is the percentage of the population with poor or fair health.

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

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

- Adult obesity
- Adult smoking
- Children in single-parent households
- Drinking water violations
- Excessive drinking
- Low birth weight
- Mammography screening (% of Medicare enrollees ages 67-69 receiving screening)
- Mental health providers

- Poor mental health days
- Severe housing problems
- Sexually transmitted infections
- Social associations
- Unemployment

Outcomes and factors in which Towner County was performing poorly relative to the rest of the state include:

- Access to exercise opportunities
- Air pollution – particulate matter
- Alcohol-impaired driving deaths
- Children in poverty
- Food environment index
- Income inequality
- Injury deaths
- Number of dentists
- Physical inactivity
- Poor or fair health
- Poor physical health days
- Preventable hospital stays
- Uninsured

Table 2: Selected Measures from County Health Rankings 2019-Towner 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

	Towner County	U.S. Top 10%	North Dakota
Ranking: Outcomes	**39th**		**(of 49)**
Premature death		5,400	6,700
Poor or fair health	15% ●■	12%	14%
Poor physical health days (in past 30 days)	3.1 ●■	3.0	3.0
Poor mental health days (in past 30 days)	2.9 +	3.1	3.1
Low birth weight	6% +	6%	6%
Ranking: Factors	**32nd**		**(of 49)**
Health Behaviors			
Adult smoking	17% ■	14%	20%
Adult obesity	32% ■	26%	32%
Food environment index (10=best)	8.9 +●	8.7	9.1
Physical inactivity	28% ●■	19%	22%
Access to exercise opportunities	62% ●■	91%	74%
Excessive drinking	19% ■	13%	26%
Alcohol-impaired driving deaths	67% ●■	13%	46%
Sexually transmitted infections	308.1 ■	152.8	456.5
Teen birth rate		14	23
Clinical Care			
Uninsured	11% ●■	6%	8%
Primary care physicians		1,050:1	1,320:1
Dentists	2,250:0 ●■	1,260:1	1,530:1
Mental health providers	380:1 ■	310:1	570:1
Preventable hospital stays	5,091 ●■	2,765	4,452
Mammography screening (% of Medicare enrollees ages 67-69 receiving screening)	71% +	49%	50%
Flu vaccinations (% of fee-for-service Medicare enrollees that had an annual flu vaccination)	18% ●■	52%	47%
Social and Economic Factors			
Unemployment	2.5% +	2.9%	2.6%
Children in poverty	15% ●■	11%	11%
Income inequality	4.5 ●■	3.7	4.4
Children in single-parent households	18% +	20%	27%
Social associations	39.8 +	21.9	16.0
Violent crime		63	258
Injury deaths	88 ●■	57	69
Physical Environment			
Air pollution – particulate matter	5.6 +●	6.1	5.4
Drinking water violations	No		
Severe housing problems	5% +	9%	11%

Source: http://www.countyhealthrankings.org/app/north-dakota/2019/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 is from 2016-17. More information about the survey is 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 aged 0-17 unless noted otherwise)

TABLE 3: SELECTED MEASURES REGARDING CHILDREN'S HEALTH (For children aged 0-17 unless noted otherwise)		
Health Status	**North Dakota**	**National**
Children born premature (3 or more weeks early)	10.8%	11.6%
Children 10-17 overweight or obese	35.8%	31.3%
Children 0-5 who were ever breastfed	79.4%	79.2%
Children 6-17 who missed 11 or more days of school	4.6%	6.2%
Healthcare		
Children currently insured	93.5%	94.5%
Children who had preventive medical visit in past year	78.6%	84.4%
Children who had preventive dental visit in past year	74.6%	77.2%
Young children (10 mos.-5 yrs.) receiving standardized screening for developmental or behavioral problems	20.7%	30.8%
Children aged 2-17 with problems requiring counseling who received needed mental healthcare	86.3%	61.0%
Family Life		
Children whose families eat meals together 4 or more times per week	83.0%	78.4%
Children who live in households where someone smokes	29.8%	24.1%
Neighborhood		
Children who live in neighborhood with a park, sidewalks, a library, and a community center	58.9%	54.1%
Children living in neighborhoods with poorly kept or rundown housing	12.7%	16.2%
Children living in neighborhood that's usually or always safe	94.0%	86.6%

Source: http://childhealthdata.org/browse/data-snapshots/nsch-profiles?geo=1&geo2=36&rpt=16

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:

- Obese or overweight children ages 10-17;
- Children with health insurance;

- Preventive primary care and dentist visits;
- Developmental/behavioral screening for children 10 months to 5 years of age;
- Children who have received needed mental healthcare; and
- Children living in smoking households.

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 focuses 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

The data show that Towner County is performing more poorly than the North Dakota average on all of the examined measures except the percentage of the population who are Supplemental Nutrition Assistance Program (SNAP) recipients. The most marked difference was on the measure of licensed childcare capacity (22.1% lower rate in Towner County).

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

	Towner County	North Dakota
Uninsured children (% of population age 0-18), 2016	12.6%	9.0%
Uninsured children below 200% of poverty (% of population), 2016	48.4%	41.9%
Medicaid recipient (% of population age 0-20), 2017	31.5%	28.3%
Children enrolled in Healthy Steps (% of population age 0-18), 2013	2.9%	2.5%
Supplemental Nutrition Assistance Program (SNAP) recipients (% of population age 0-18), 2017	18.6%	20.1%
Licensed childcare capacity (% of population age 0-13), 2018	19.8%	41.9%
4-Year High School Cohort Graduation Rate, 2017	85.0%	87.0%

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 United States. 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 & 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 has been collected in 2013, 2015, and 2017. At this time, the North Dakota-specific data for 2017 is not available, so data for 2013 and 2015 are shown for North Dakota. They are broken down further by rural and urban percentages. The trend column shows a "=" for statistically insignificant change (no change), "↑" for an increased trend in the data changes from 2013 to 2015, and "↓" for a decreased trend in the data changes from 2013 to 2015. The final column shows the 2017 national average percentage. For a more complete listing of the YRBS data, see Appendix C.

TABLE 5: Youth Behavioral Risk Survey Results - North Dakota High School Survey

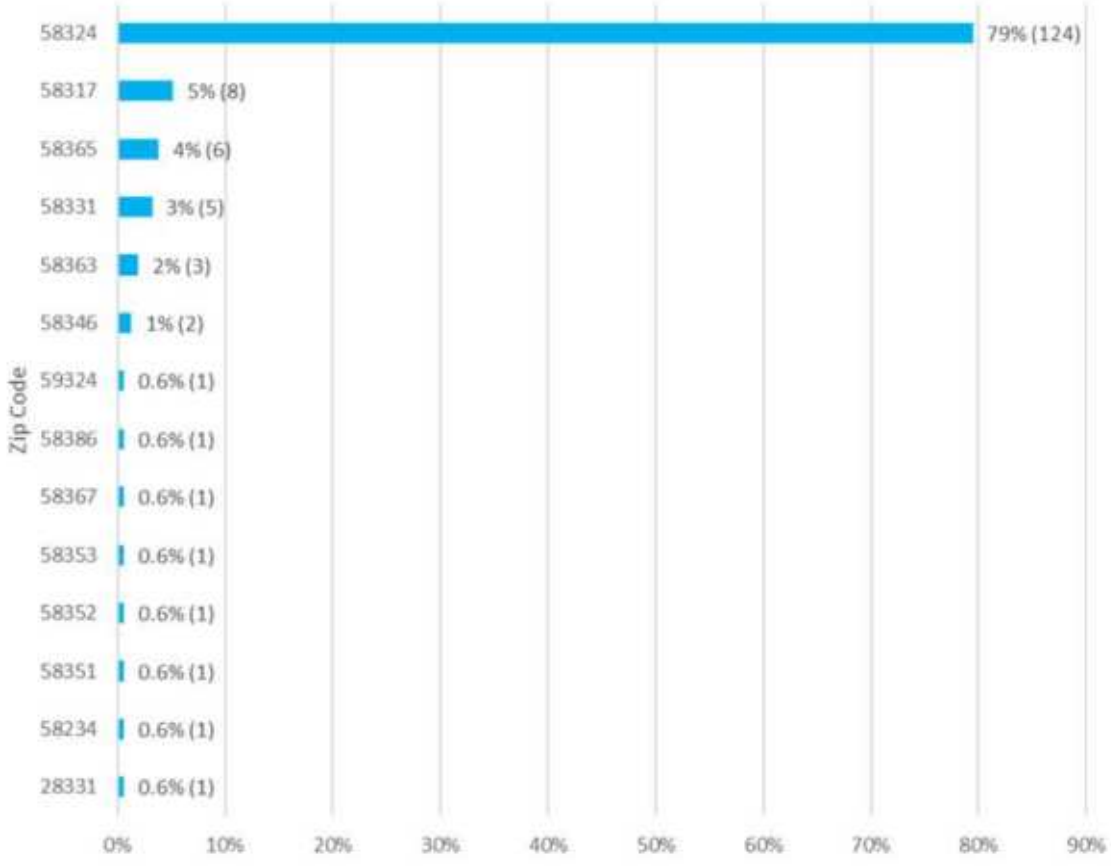
	ND 2013	ND 2015*	ND Trend ↑, ↓, =	Rural ND Town Average	Urban ND Town Average	National Average 2017
Injury and Violence						
% of students who rarely or never wore a seat belt.	11.6	8.5	↓	10.5	7.5	5.9
% of students who rode in a vehicle with a driver who had been drinking alcohol (one or more times during the 30 prior to the survey)	21.9	17.7	↓	21.1	15.2	16.5
% of students who talked on a cell phone while driving (on at least 1 day during the 30 days before the survey)	67.9	61.4	↓	60.7	58.8	NA
% of students who texted or e-mailed while driving a car or other vehicle (on at least 1 day during the 30 days before the survey)	59.3	57.6	=	56.7	54.4	39.2
% of students who were in a physical fight on school property (one or more times during the 12 months before the survey)	8.8	5.4	↓	6.9	6.1	8.5
% of students who were ever physically forced to have sexual intercourse (when they did not want to)	7.7	6.3	=	6.5	7.4	7.4
% of students who were bullied on school property (during the 12 months before the survey)	25.4	24.0	=	27.5	22.4	19.0
% of students who were electronically bullied (includes e-mail, chat rooms, instant messaging, websites, or texting during the 12 months before the survey)	17.1	15.9	=	17.7	15.8	14.9
% of students who made a plan about how they would attempt suicide (during the 12 months before the survey)	13.5	13.5	=	12.8	13.7	13.6
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 1 day during the 30 days before the survey)	NA	22.3	↑	19.7	22.8	13.2
% of students who currently used cigarettes, cigars, or smokeless tobacco (on at least 1 day during the 30 days before the survey)	27.5	20.9	↓	22.9	19.8	14.0
% of students who drank five or more drinks of alcohol in a row (within a couple of hours on at least 1 day during the 30 days before the survey)	21.9	17.6	↓	19.8	17.0	13.5
% of students who currently used marijuana (one or more times during the 30 days before the survey)	15.9	15.2	=	13.2	17.1	19.8
% of students who ever took prescription drugs without a doctor's prescription (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax, one or more times during their life)	17.6	14.5	↓	13.2	16.0	14.0
Weight Management, Dietary Behaviors, and Physical Activity						
% of students who were overweight (>= 85th percentile but <95th percentile for body mass index)	15.1	14.7	=	15.4	14.6	15.6
% of students who were obese (>= 95th percentile for body mass index)	13.5	14.0	=	16.3	12.9	14.8
% of students who did not eat fruit or drink 100% fruit juices (during the 7 days before the survey)	3.4	3.9	=	4.3	4.1	5.6
% of students who did not eat vegetables (green salad, potatoes [excluding French fries, fried potatoes, or potato chips], carrots, or other vegetables, during the 7 days before the survey)	6.0	4.7	=	4.5	5.2	7.2
% 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 7 days before the survey)	23.4	18.7	=	21.4	18.0	18.7
% of students who did not drink milk (during the 7 days before the survey)	11.1	13.9	↑	11.6	13.7	26.7
% of students who did not eat breakfast (during the 7 days before the survey)	10.5	11.9	=	10.7	11.8	14.1

% 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)	3.1	2.2	=	2.4	2.8	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 7 days before the survey)	50.6	51.3	=	51.7	50.1	46.5
% of students who watched television 3 or more hours per day (on an average school day)	21.0	18.9	=	20.7	18.2	20.7
% of students who played video or computer games or used a computer 3 or more hours per day (for something that was not school work on an average school day)	34.4	38.6	↑	39.4	38.0	43.0
Other						
% of students who ever had sexual intercourse	44.9	38.9	↓	39.3	39.1	39.5
% of students who had 8 or more hours of sleep (on an average school night)	30.0	29.5	=	34.5	28.7	25.4
% of students who brushed their teeth on seven days (during the 7 days before the survey)	71.5	71.0	=	67.8	70.1	NA

Survey Results

As noted previously, 207 community members completed the survey in communities throughout the counties in the TCMC service area. The survey requested that respondents list their home zip code. While not all respondents provided a zip code, 158 did, revealing that the large majority of respondents (79%, N=124) lived in Cando. These results are shown in Figure 5. For all questions that contained an "Other" response, all of those direct responses may be found in Appendix E. In some cases, a summary of those comments is additionally included in the report narrative.

Figure 5: Survey Respondents' Home Zip Code
Total respondents: 158



Survey results are reported in seven 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 being 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:

- 47% (N=83) were age 55 or older. Data from youth under age 18 is not collected.
- The majority (71%, N=122) were female.
- Under half of the respondents (41%, N=69) had bachelor's degrees or higher.
- The number of those working full time (64%, N=110) was just greater than four times higher than those who were retired (15%, N=26).
- 95% (N=162) of those who reported their ethnicity/race were white/Caucasian.
- 27% of the population (N=47) had household incomes of less than $50,000.

Figures 6 through 12 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 6: Age Demographics of Survey Respondents
Total respondents = 176

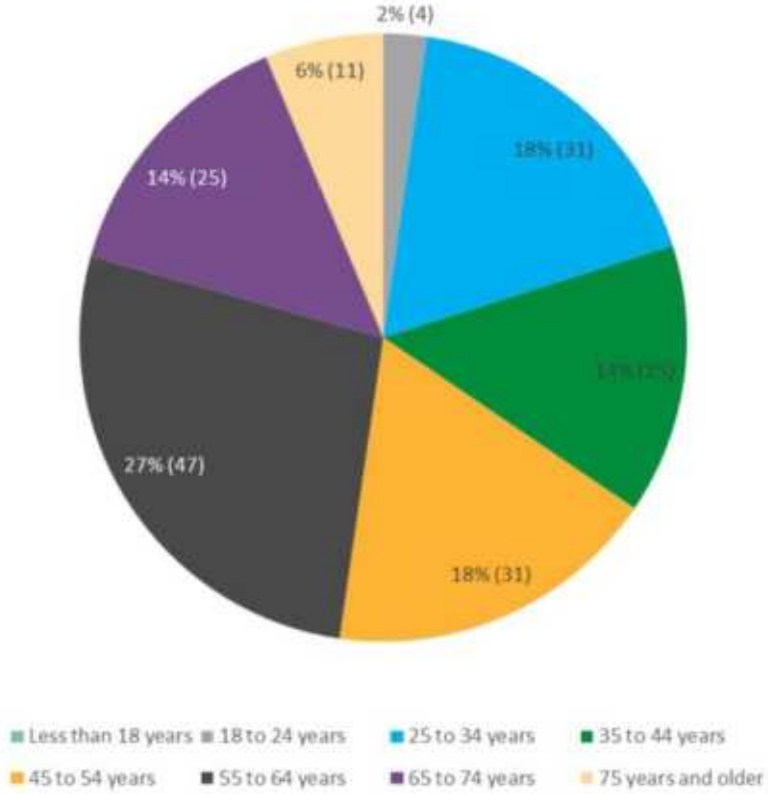


Figure 7: Gender Demographics of Survey Respondents
Total respondents = 174

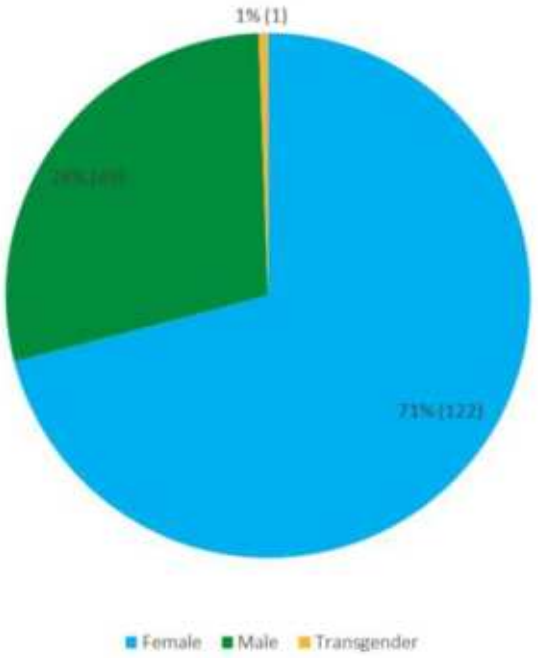


Figure 8: Educational Level Demographics of Survey Respondents
Total respondents = 172

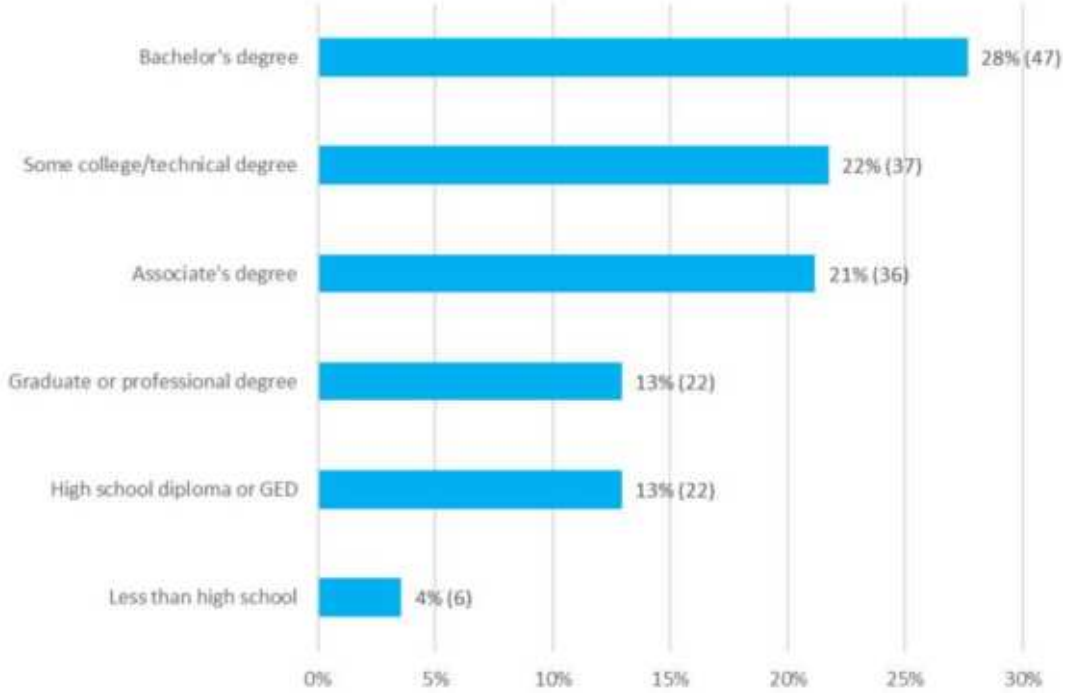
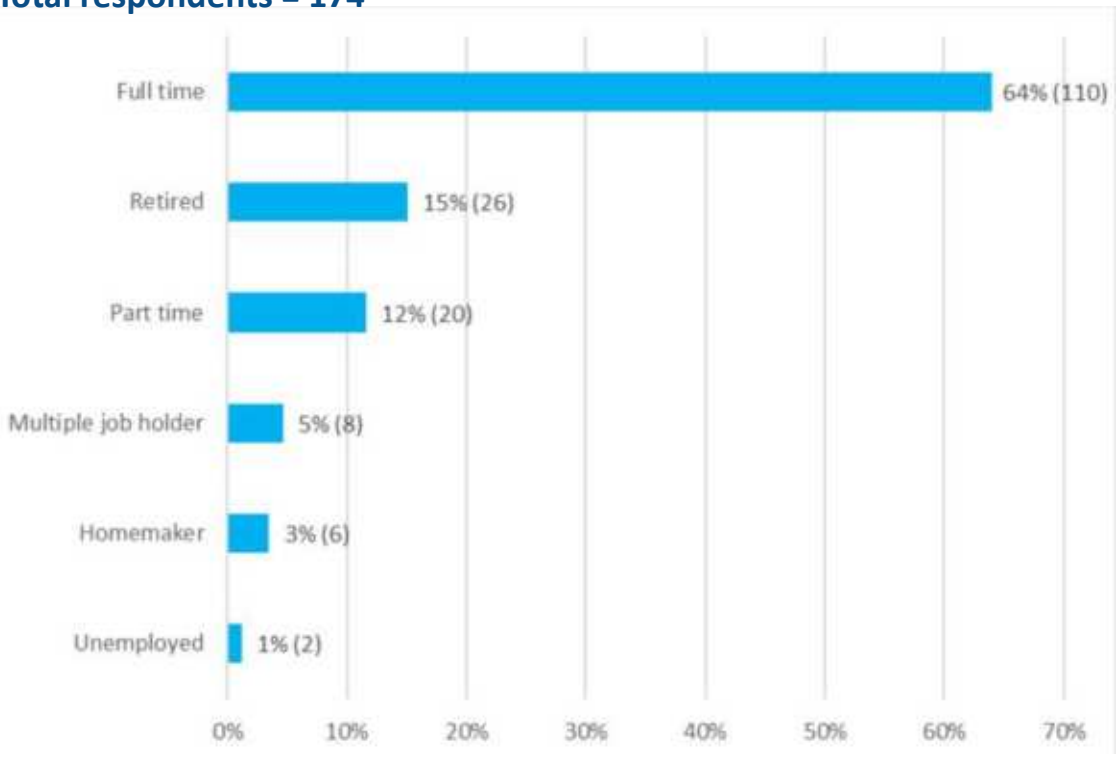
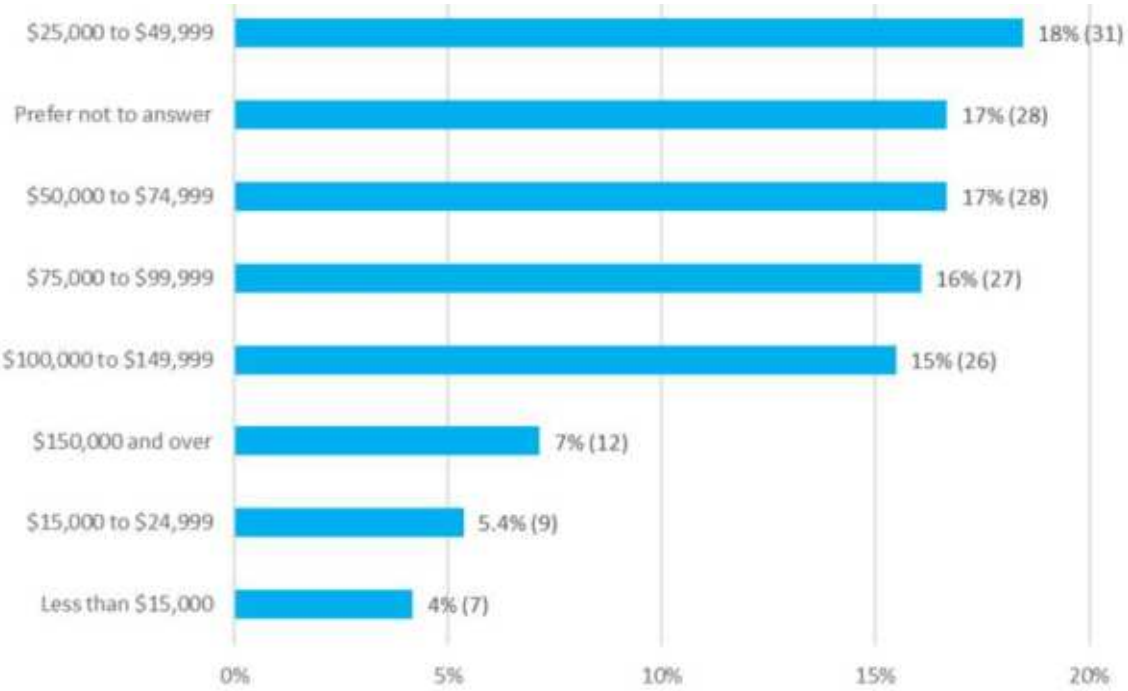


Figure 9: Employment Status Demographics of Survey Respondents
Total respondents = 174



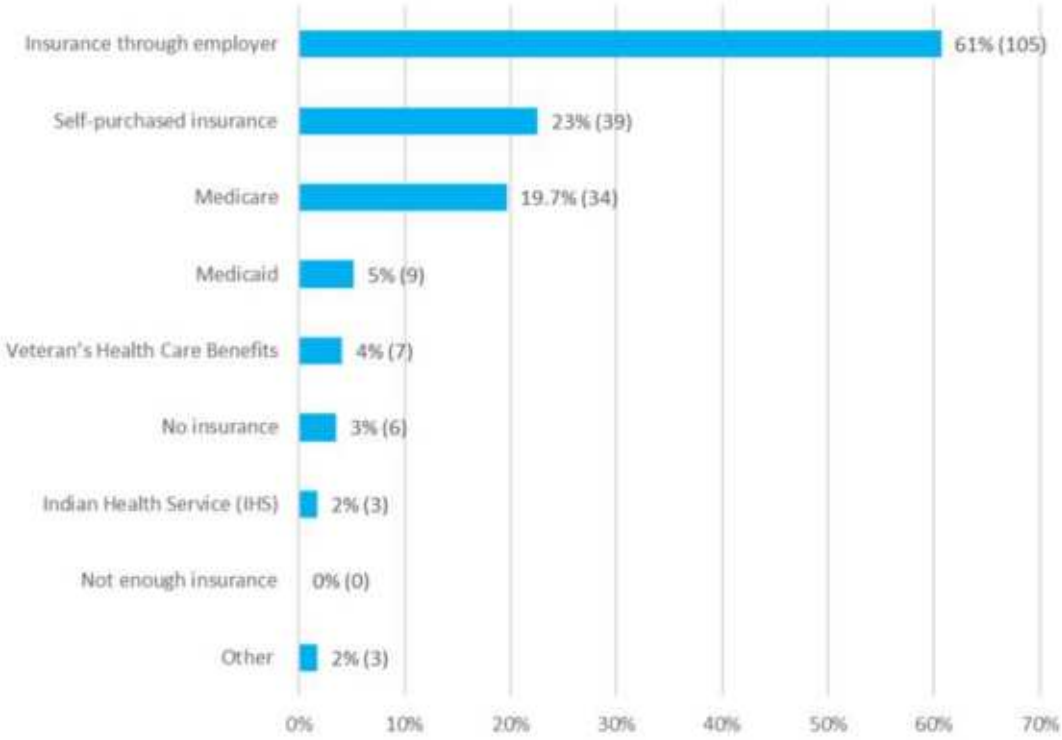
Of those who provided a household income, 9% (N=16) of community members reported a household income of less than $25,000. 22% (N=38) indicated a household income of $100,000 or more. This information is shown in Figure 10.

Figure 10: Employment Status Demographics of Survey Respondents
Total respondents = 295



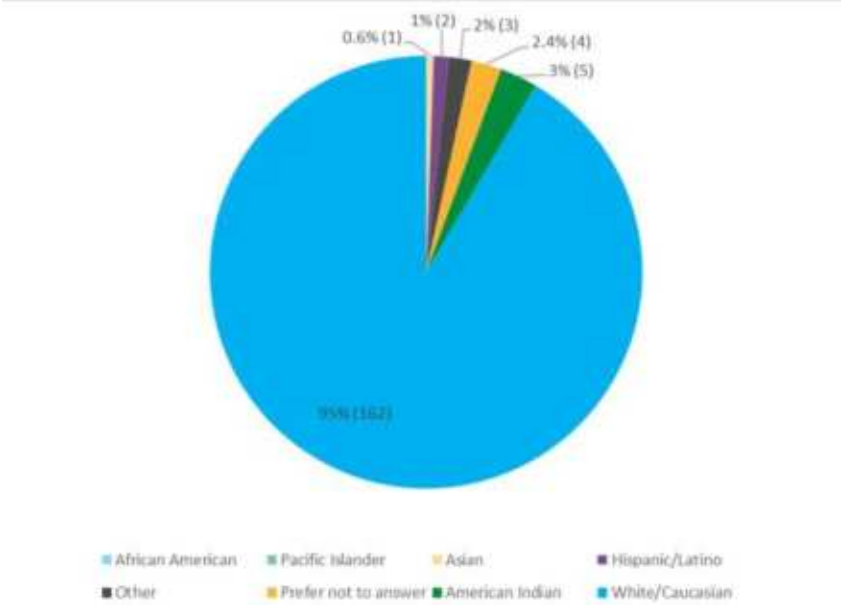
Community members were asked about their health insurance status, which is often associated with whether people have access to healthcare. 3% (N=6) of the respondents reported having no health insurance or being under-insured. The most common insurance types were insurance through one's employer (N=105), followed by self-purchased (N=39), and Medicare (N=34). The "Other" responses included insurance through the spouse's employment and supplement.

Figure 11: Health Insurance Coverage Status of Survey Respondents
Total respondents = 175



As shown in Figure 12, nearly all of the respondents were white/Caucasian (95%). This was in-line with the race/ethnicity of the overall population of Towner County; the U.S. Census indicates that 93% of the population is white in Towner County.

Figure 12: Race/Ethnicity Demographics of Survey Respondents
Total respondents = 173



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 113 respondents agreeing) that community assets include:

- Family-friendly (N=152);
- People are friendly, helpful, supportive (N=152);
- Healthcare (N=135);
- Safe place to live, little/no crime (N=130);
- People who live here are involved in their community (N=116); and
- Recreational and sports activities (N=113).

Figures 13 to 16 illustrate the results of these questions.

Figure 13: Best Things about the PEOPLE in Your Community
Total responses = 193

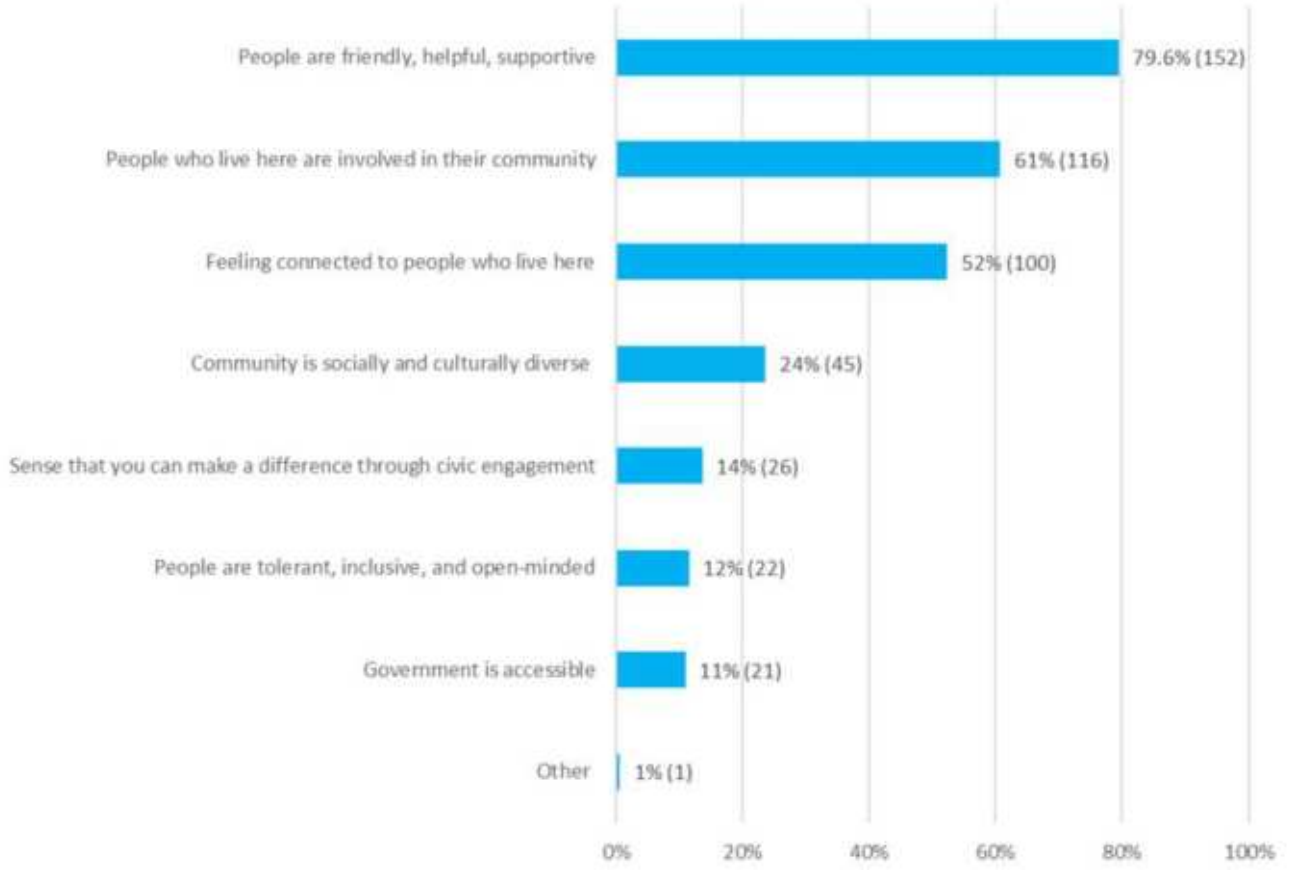


Figure 14: Best Things about the SERVICES AND RESOURCES in Your Community
Total responses = 197

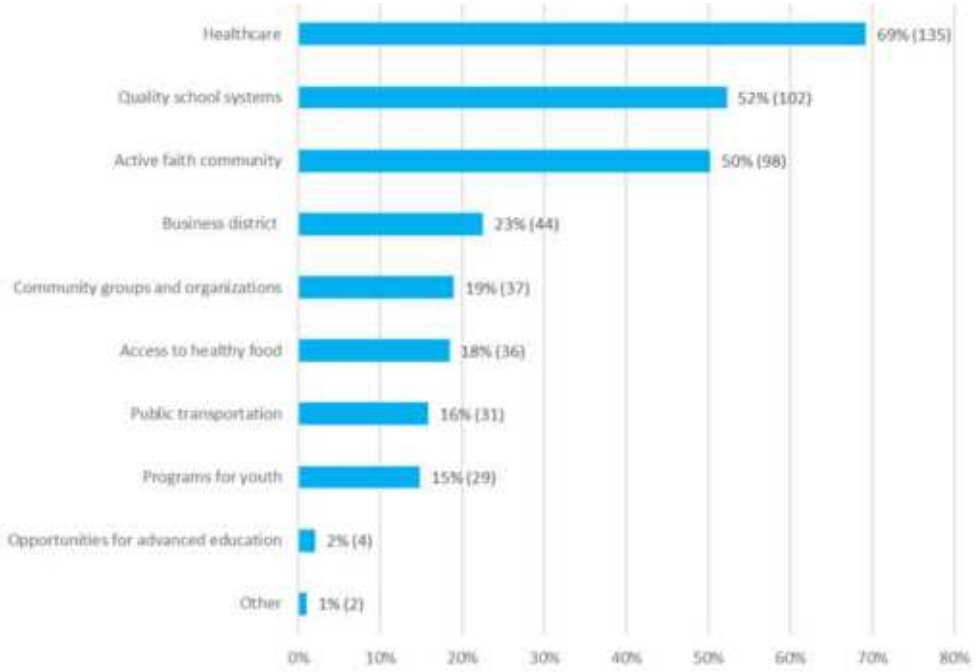


Figure 15: Best Things about the QUALITY OF LIFE in Your Community
Total responses = 197

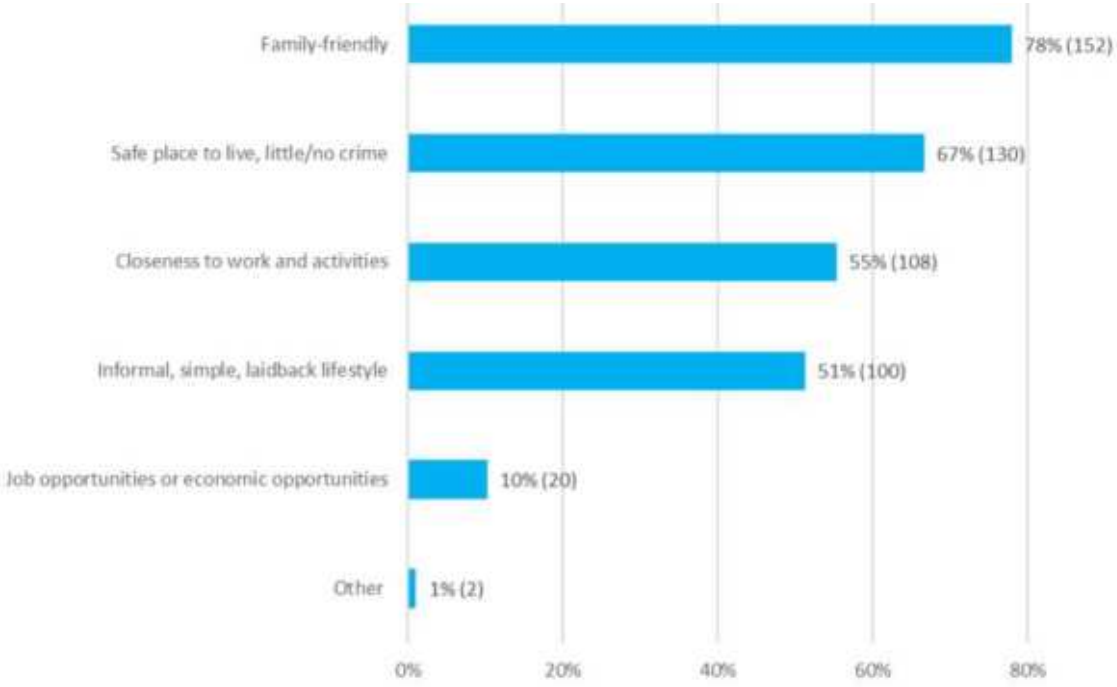
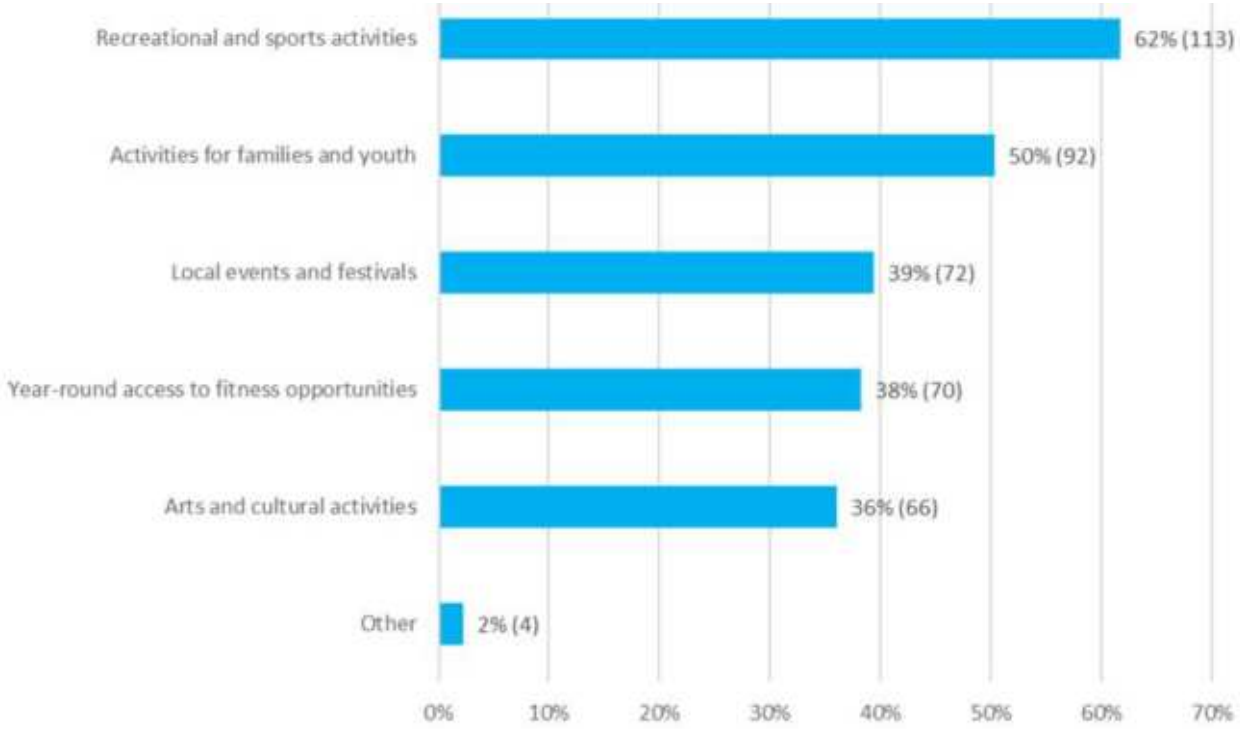


Figure 16: Best Thing about the ACTIVITIES in Your Community
Total responses = 185



Community Concerns

At the heart of this community health assessment 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; and
- Violence.

With regard to responses about community challenges, the most highly voiced concerns (those having at least 78 respondents) were:

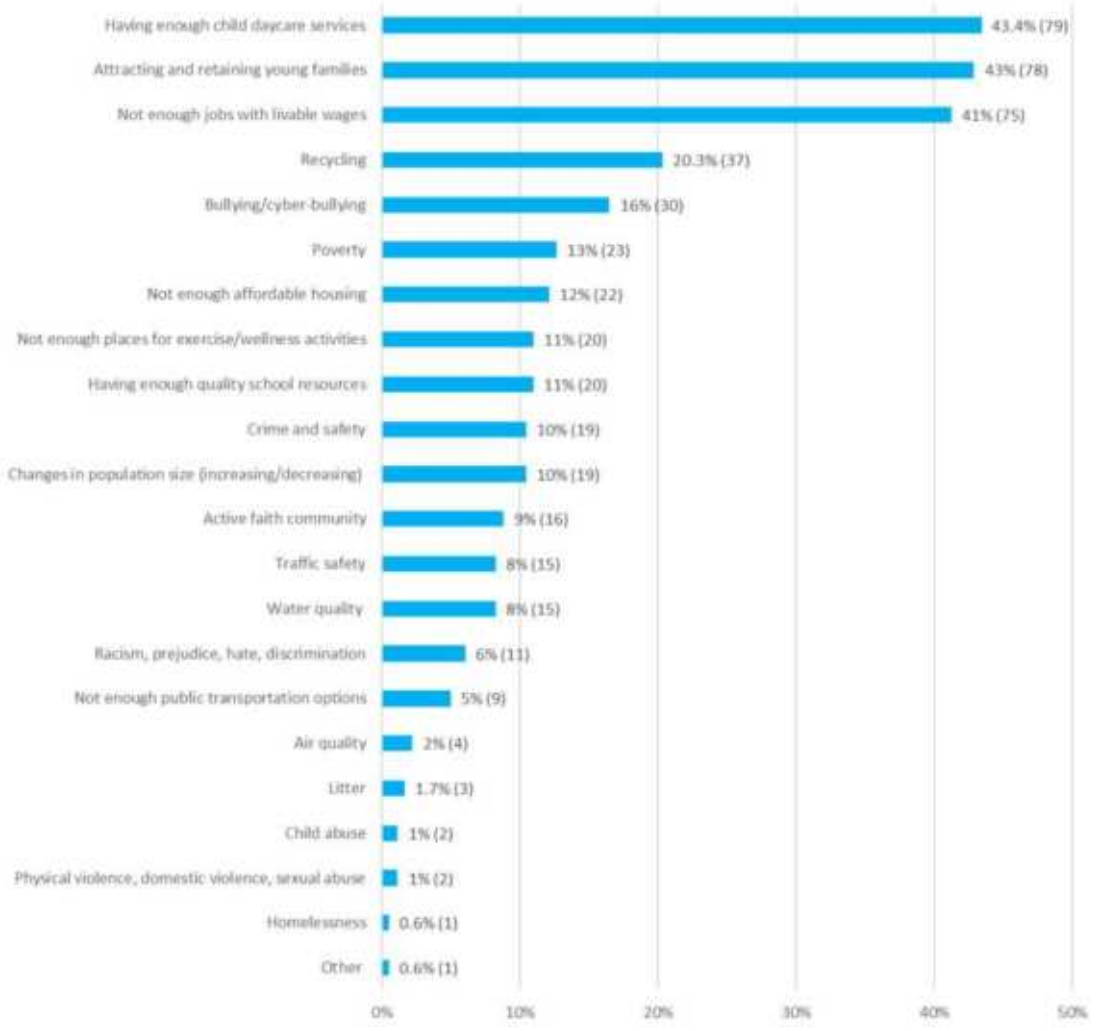
- Bullying/cyber-bullying (N=108);
- Alcohol use and abuse – Youth (N=97);
- Drug use and abuse – Youth (N=94);
- Child abuse or neglect (N=90);
- Alcohol use and abuse – Adults (N=89);
- Drug use and abuse – Adult (N=81);
- Having enough child daycare services (N= 79); and
- Attracting and retaining young families (N=78).

The other issues that had at least 43 votes included:

- Availability of resources to help the elderly stay in their homes (N=75);
- Not enough jobs with livable wages (N=75);
- Cost of long-term/nursing home care (N=70);
- Availability of dental care (N=65);
- Assisted living options (N=55);
- Depression/anxiety – Adult (N=48);
- Depression/anxiety – Youth (N=48);
- Cost of health insurance (N=47);
- Cost of healthcare services (N=44);
- Not getting enough exercise/physical activity (N=44); and
- Availability of mental health services (N=43).

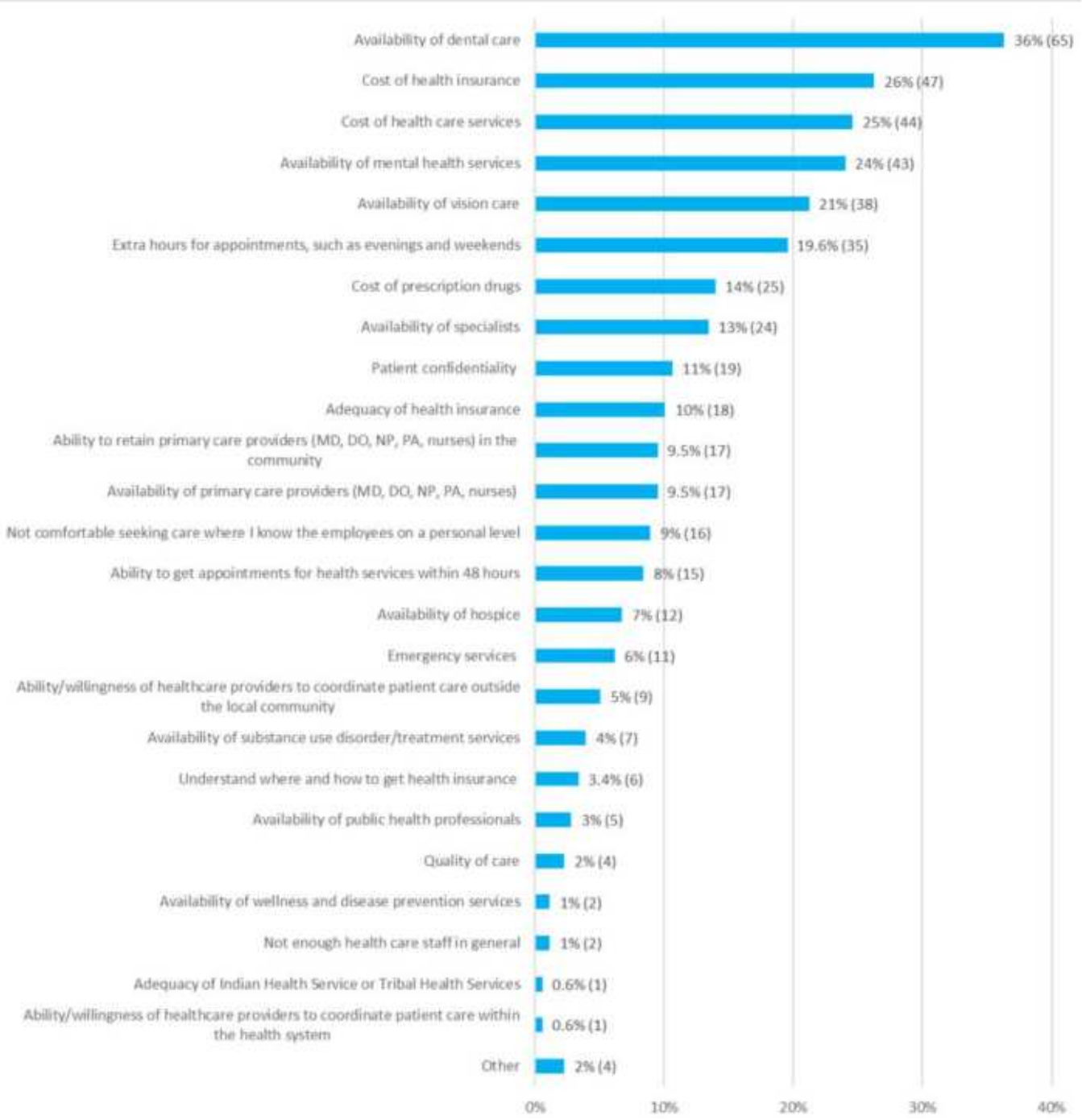
Figures 17 through 22 illustrate these results.

Figure 17: Community/Environmental Health Concerns
Total responses = 184



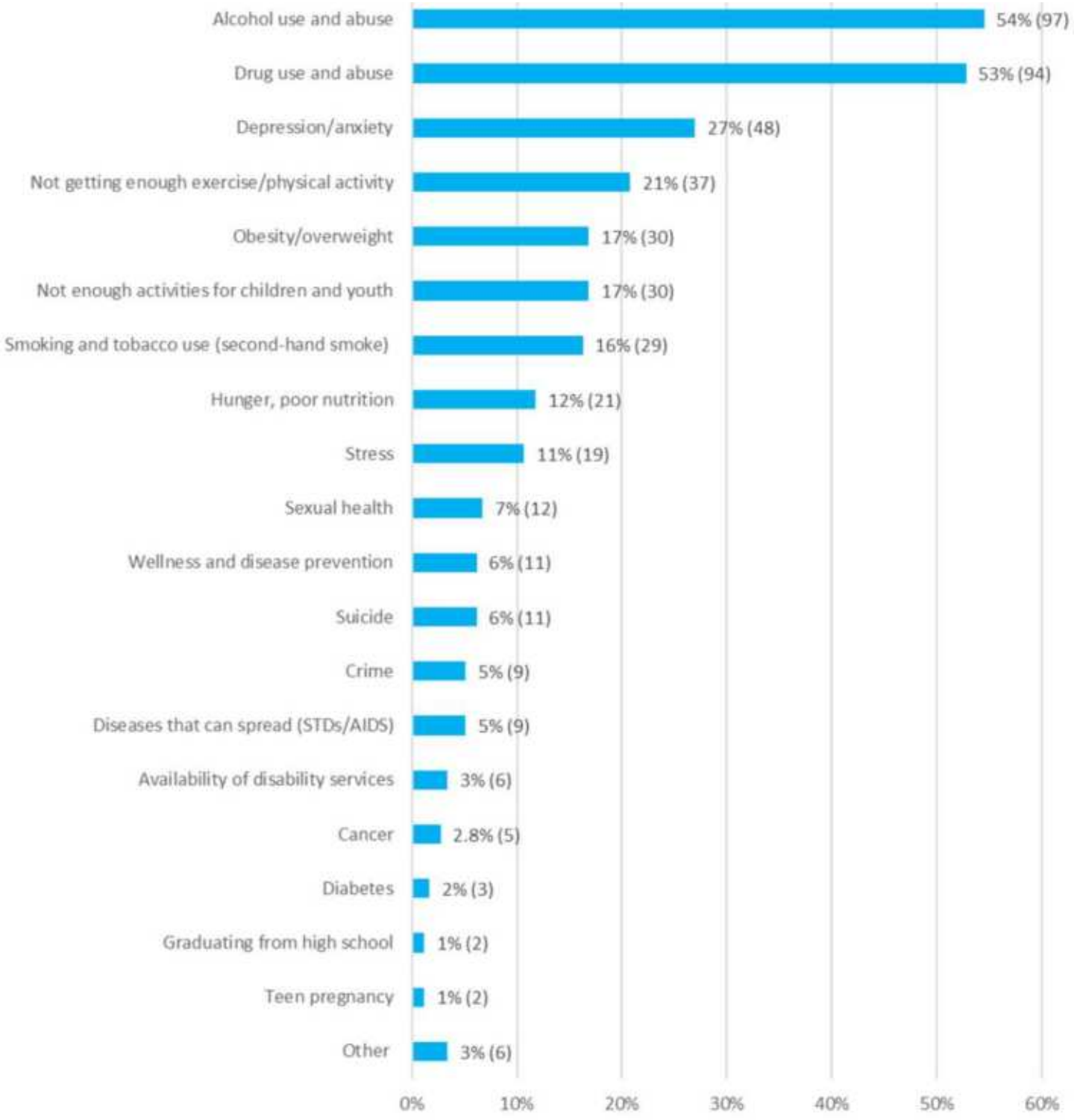
The response to the "Other" selection was in regards to the lack of availability of rural transportation and meals to people that live out of town and are unable or limited in their ability to drive.

Figure 18: Availability/Delivery of Health Services Concerns
Total responses = 181



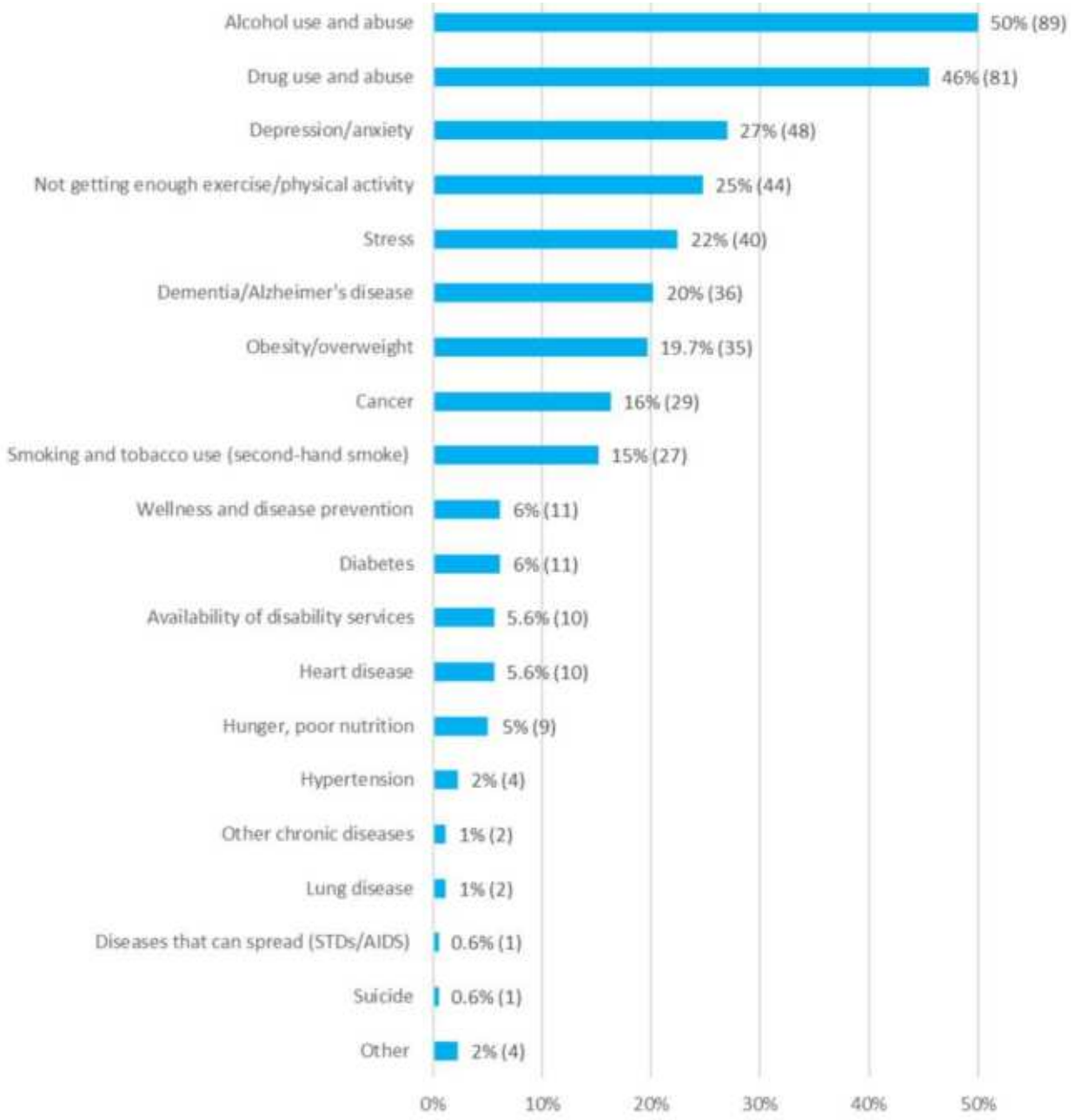
"Other" responses include two concerned about in home healthcare services and one concern regarding accounting/billing.

Figure 19: Youth Population Health Concerns
Total responses = 180



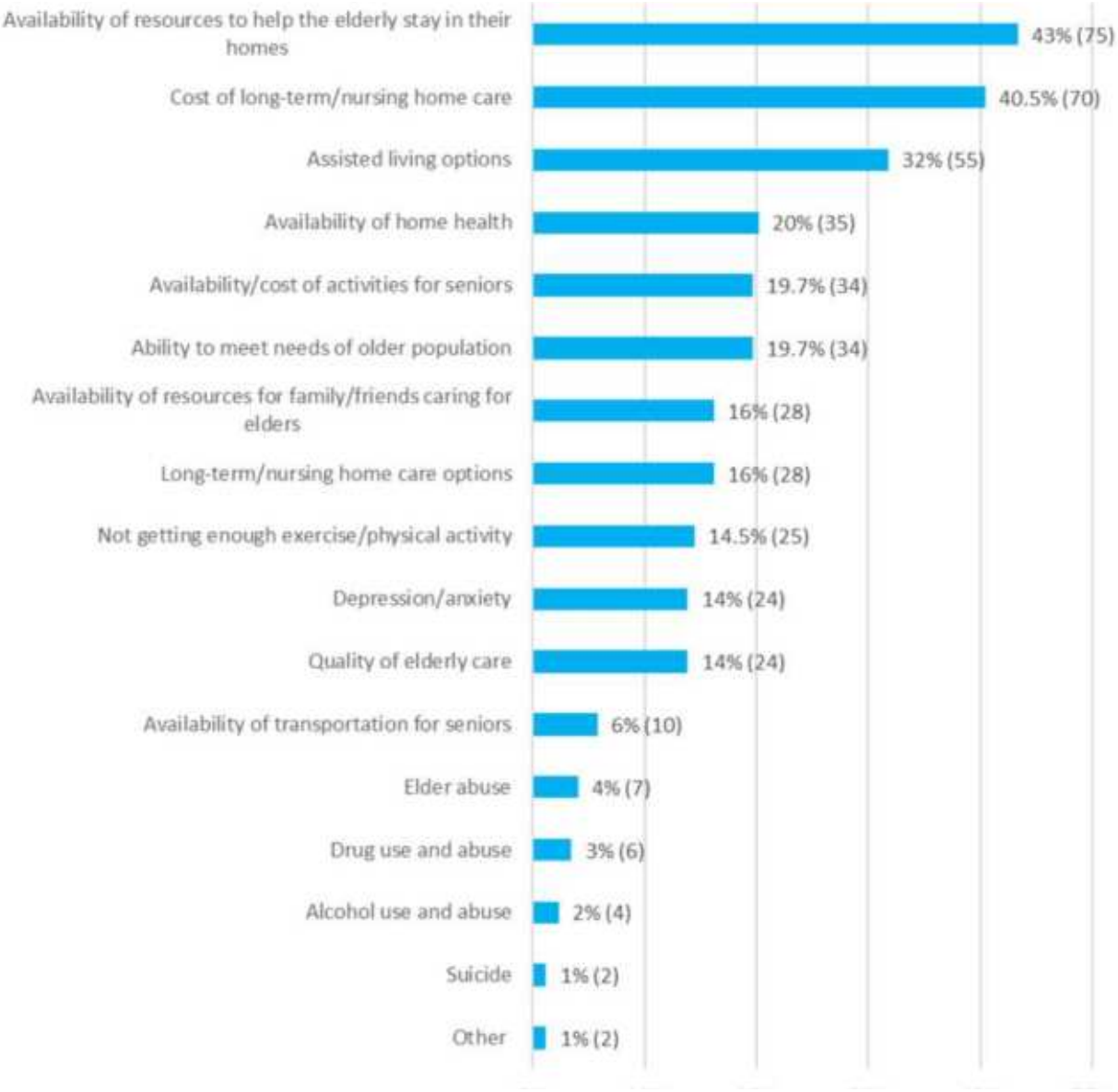
The six "Other" comments included, behavioral problems, the lack of quality parenting, lack of mental health services, concerned about families who can't afford to keep their children warm/fed/clothed, and too much stress on sports resulting in not leaving enough time for other things.

Figure 20: Adult Population Concerns
Total responses = 180



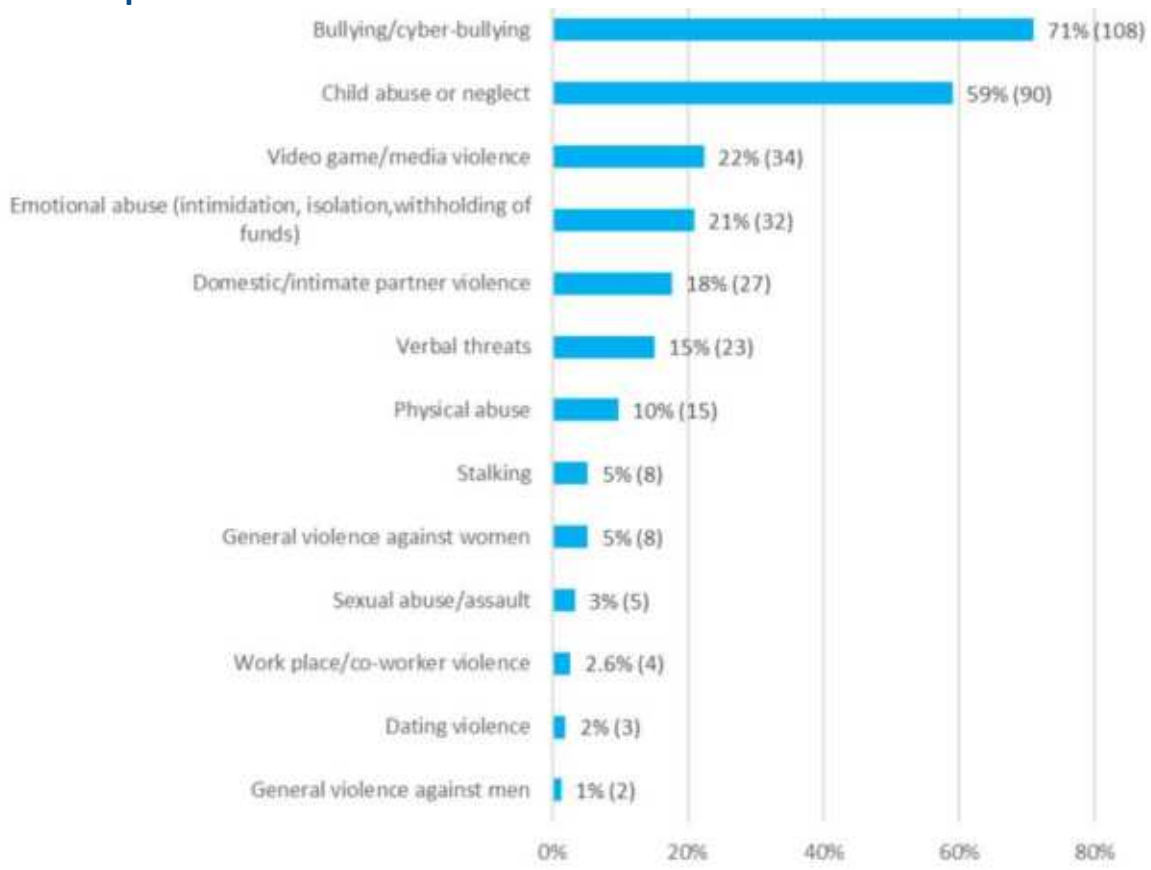
Half of the "Other" comments were concerns about mental health services and the remaining two were employability of the population and cost of long-term care.

Figure 21: Senior Population Concerns
Total responses = 175



Meals-on-Wheels for those living outside of town was cited as an "Other" concern.

Figure 22: Violence Concerns
Total responses = 154



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. Attracting and keeping people and businesses in the community
2. Alcohol and drug abuse.

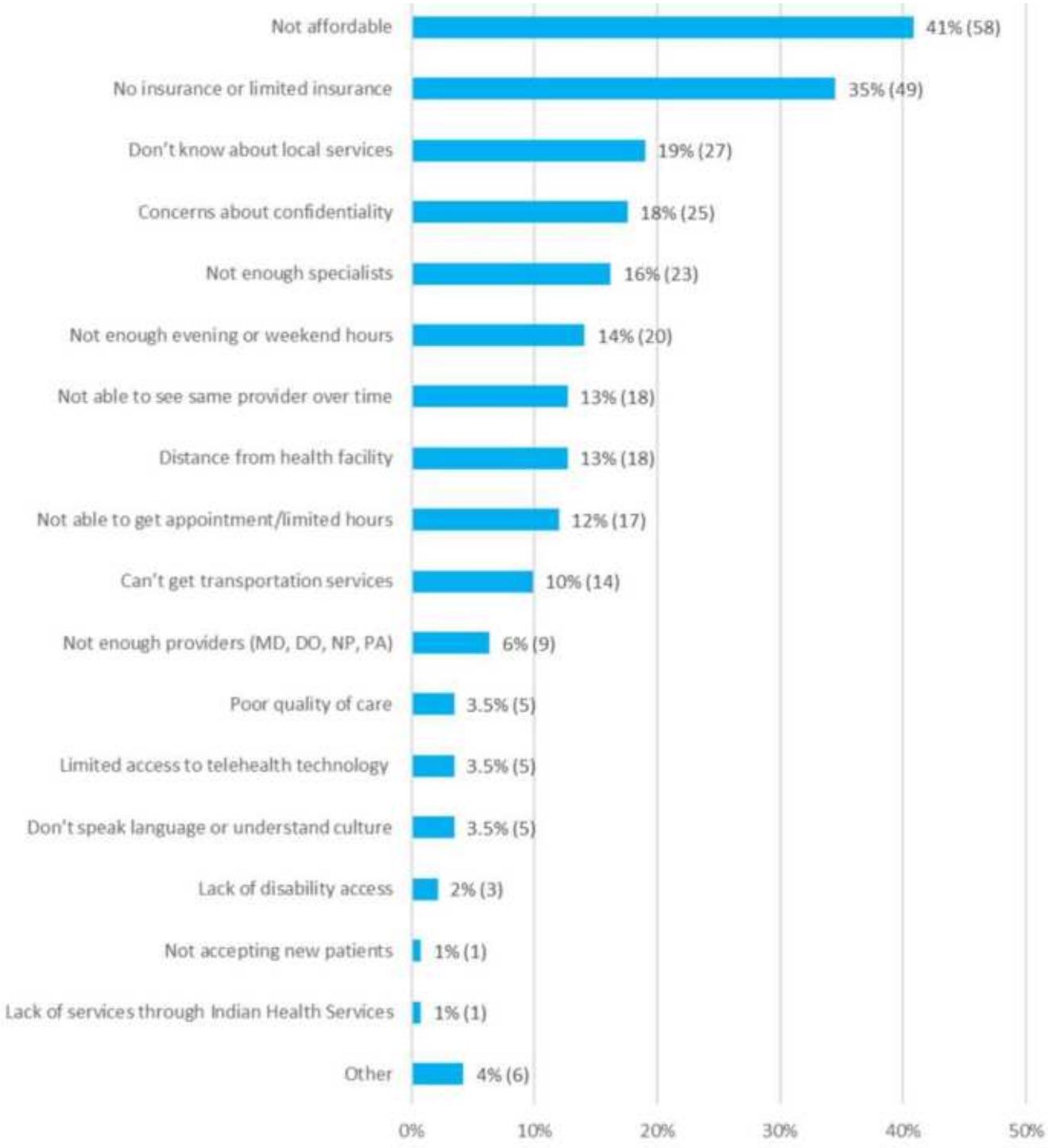
Other biggest challenges that were identified were employment opportunities, aging population concerns, youth mental health, bullying, lack of daycare for children, high cost of healthcare/insurance, the need for more family activities, and population decline.

Delivery of Healthcare

The survey asked residents what they see as barriers that prevent them, or other community residents, from receiving healthcare. The most prevalent barrier perceived by residents was that it is not affordable (N=58), with the next highest being no insurance or limited insurance (N=49). After these, the next most commonly identified barriers were, don't know about local services (N=27), concerns about confidentiality (N=25), and not enough specialists (N=23). The majority of concerns indicated in the "Other" category were in regards to loss or lack of physicians, followed by a couple comments noting the lack of natural/holistic medicine options, and a poor billing system.

Figure 23 illustrates these results.

Figure 23: Perceptions about Barriers to Care
Total responses = 144



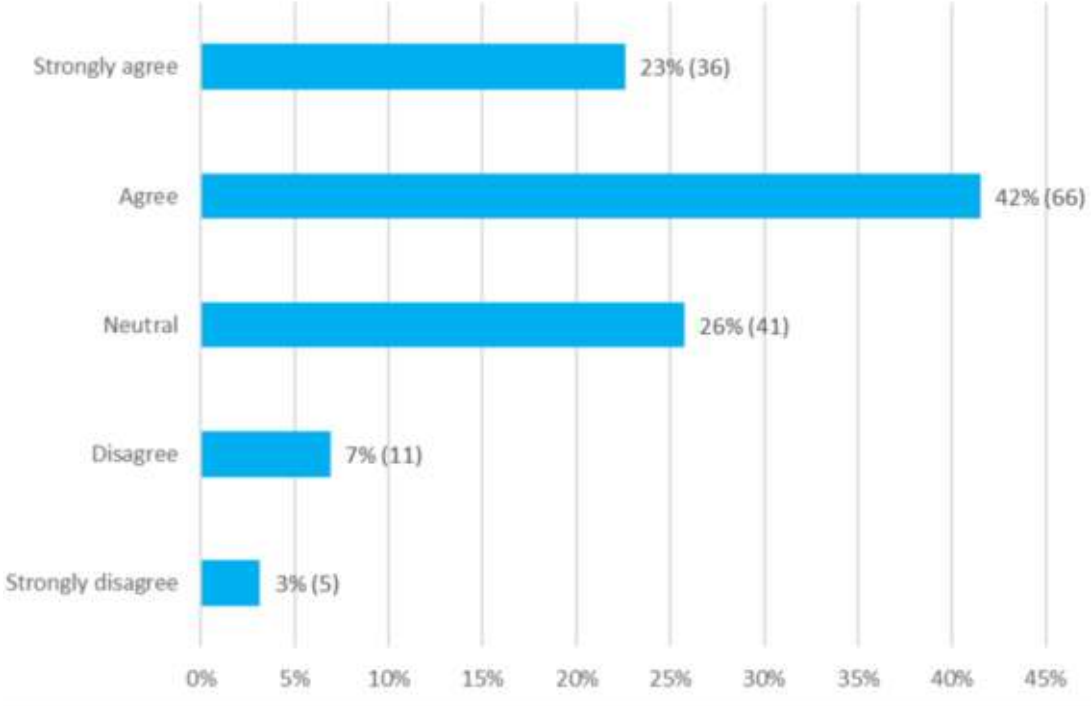
In an open-ended question, respondents were asked what specific healthcare services, if any, they thing should be added locally. The number one desired services to add locally were dental and vision care. Other requested services include:

- Community health RNs for education and prevention services
- Dental services
- Dermatology
- Dialysis
- General surgeon
- Geriatric specialties
- Home care
- Hospice
- Inpatient drug and alcohol treatment
- Mental health services
- More exercise equipment in the gym, larger space
- Podiatry, foot care
- Vision services
- Walk-in clinic with weekend hours
- Weight management
- Wellness/exercise classes for elderly

The key informant and focus group members felt that the community members were aware of some of the health system and public health services. There were a number of services where they felt the hospital should increase marketing efforts; these included the audiologist, sleep studies, the fitness center, and cancer appointment follow-ups. It was also suggested that they host a community event to show off all of the services they have to offer to increase awareness throughout the community. Several members noted that it is harder to find out about services if people aren't as involved in the community, especially community members who have just moved in to town.

Respondents were asked if they thought their workplace is fully prepared to respond to acts of violence either internally or from outside influences. Figure 24 shows the results.

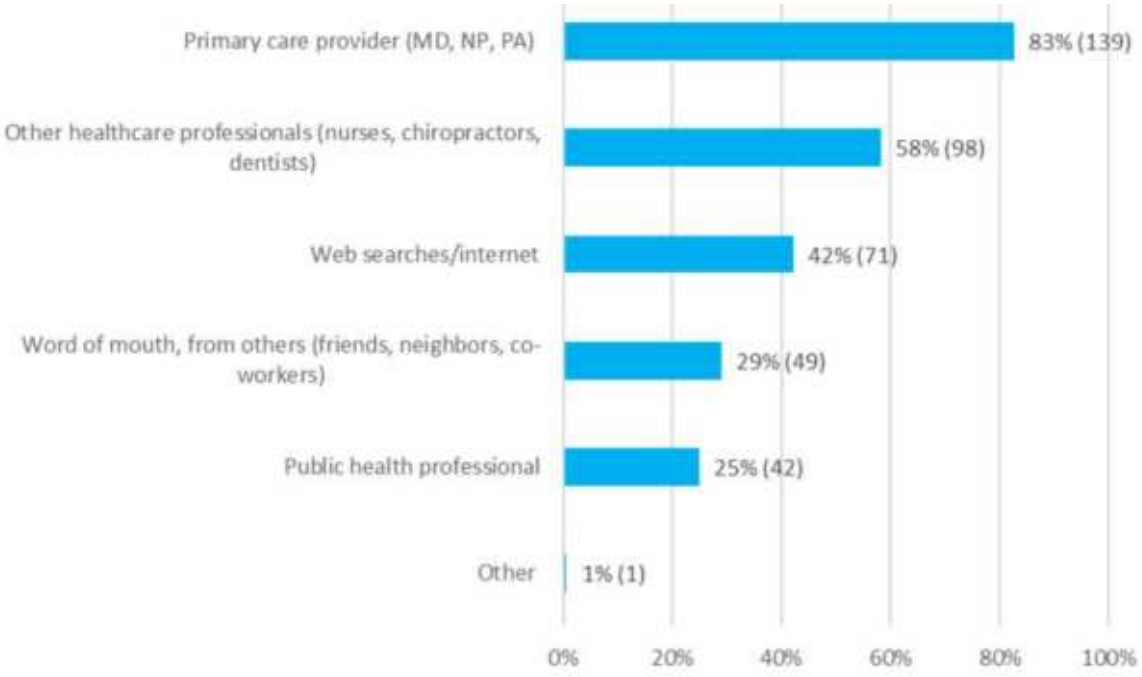
Figure 24: Workplace Violence Preparedness
Total responses = 161



Respondents were asked where they go to for trusted health information. Primary care providers (N=139) received the highest response rate, followed by other healthcare professionals (N=98), and then web/Internet searches (N=71).

Results are shown in Figure 25.

Figure 25: Sources of Trusted Health Information
Total responses = 170



The final question on the survey asked respondents to share concerns and suggestions to improve the delivery of local healthcare. The highest number of responses were praising TCMC and being thankful to have its services in the community. Areas of concern and suggestions have been broken down into categories:

Workforce: There were two people that indicted that they would like to have a doctor on staff. Retaining the current quality staff/administration/providers and hiring supervisors that are professional and qualified was also recommended. It was suggested that there is a need to connect with the patients and provide quality services in a confidential manner. The desire to have more face-to-face time for individual appointments with healthcare providers, especially if multiple health concerns exist, was indicated. A couple people reported that they would like to see an improvement in the quality of nursing home staff. There was a comment from one person that they don't like the change from annual physical to semi-annual physicals to renew their meds because they feel that they can schedule an appointment to see their provider if they are having problems. Another person suggested limiting follow-up visits for lab results and better communication by the provider if they are prescribing controlled substances.

Specialists: A couple people suggested the need for more visiting specialists. Another would like to see a mental health provider visiting TCMC at least twice a month.

Additional Hours: There were a couple comments by people that desired additional clinic hours so that they, or their children, could be seen in the evenings or on weekends without having to utilize the emergency room.

Community: More things to do within the community and more transportation vehicles were suggestions made by respondents. Another would like to see physical activity classes for adults, especially senior citizens. It was also suggested that visits to local workplaces be made to present about what services are available at TCMC and TCPHD. There was a concern over the ability to work with community partners being self-driven and self-absorbed. One person felt that there needs to be work on building trust in the community about confidentiality.

Several comments included being pleased and thankful for the excellent quality of healthcare they have received from Towner Country Medical Center. From the front desk, through the nurses, to the NPs/PAs, and including the billing staff. They were all patient, caring, and supportive. It was felt they are doing good work and having these healthcare services in Cando is an asset.

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, with some directly associated with healthcare and others more rooted in broader social and community matters.

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

- Attracting and retaining young families
- Alcohol/drug use and abuse
- Availability of mental health services
- Availability of resources to help the elderly stay in their homes
- 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/drug use and abuse

- The dynamics of Towner County are changing a lot. New programs are bringing more people and consequently more drugs coming in.
- It is very easy to access drugs in this area.

Attracting and retaining young families

- This community is an older generation community and it is really difficult to attract people here because we are so far away from main hubs.
- The size of the community is decreasing.

Availability of mental health services

- Mental health in the school system is needed for the kids.
- Not enough people available to help as quickly as needed.
- One of the most important concerns.

Availability of resources to help the elderly stay in their homes

- I see many people in a small community who want to stay here because they have friends and family, a home, and they can drive safely. Without these resources, they can't stay in town and live a full life.
- Have a service that makes daily house calls to the homes of the elderly to be sure they have everything they need and get help with daily tasks.

- This is a huge issue right now.
- Not enough providers and the ones we do have can only take up to 5 kids, so we have a serious shortage. People are on waiting lists for 2.5 years until they can get someone.
- We definitely lack enough good, quality childcare in our area.
- I'm hoping something is figured out before I start having kids.

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 was not intended to rank services provided. They were presented with a list of 13 organizations or community segments to rank. 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 rankings (with 5 being "excellent" engagement or collaboration) were:

- Hospital (healthcare system) (4.25)
- Long-term care, including nursing homes and assisted living (4.25)
- Schools (4.25)
- Faith-based (4.0)
- Business and industry (3.75)
- Emergency services, including ambulance and fire (3.75)
- Law enforcement (3.75)
- Public health (3.75)
- Other local health providers, such as dentists and chiropractors (3.25)
- Pharmacy (3.25)
- Social services (3.25)
- Economic development organizations (3.0)
- Human services agencies (3.0)

Priority of Health Needs

A community group met on March 25, 2019. There were 29 community members who attended the meeting. Representatives from the 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:

- Adult drug use and abuse (including prescription drugs) (16 votes)
- Cost of health insurance (15 votes)
- Having enough child daycare services (15 votes)
- Bullying/cyber-bullying (8 votes)
- Attracting and retaining young families (7 votes)

From those five concerns, each person put one sticker on the item they felt was the most important in order to rank them. The rankings were:

1. Cost of health insurance (12 votes)
2. Having enough child day care services (7 votes)
3. Adult drug use and abuse (including prescription drugs) (6 votes)
4. Bullying/cyber-bullying (3 votes)
5. Attracting and retaining young families (0 votes)

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

Comparison of Needs Identified Previously

Top Needs Identified 2016 CHNA Process	Top Needs Identified 2019 CHNA Process
Cost of health insurance	Cost of health insurance
Attracting and retaining young families	Having enough child daycare services
Ability to meet needs of older population	Adult drug use and abuse (including prescription drugs)
Ability to retain doctors and nurses in the area	Bullying/cyberbullying
Adequate childcare services	Attracting and retaining young families

The current process identified three common needs from 2016. Cost of health insurance is still the number one top need, with enough child daycare services, and attracting and retaining young families also being top needs once again.

Hospital and Community Projects and Programs Implemented to Address Needs Identified in 2016

In response to the needs identified in the 2016 CHNA process, the following actions were taken:

Need 1: Cost of health insurance – The board decided not to focus on this area at this time.

Need 2: Attracting and retaining young families – One of the community's greatest concerns was for adequate daycare for young families. Economic Development Corporation is directly involved in assisting businesses

with new or expansion ideas, including licensed daycares. TCMC operates a licensed daycare providing skilled daycare to families. This is an attractive recruiting tool for families with young children. TCPHD remains the only provider of the Vaccines for Children program in Towner County, which provides an economically friendly alternative to families with no insurance or meet the program requirements. TCPHD serves as a bimonthly site for the Lake Region WIC program, which provides nutritional supports to families meeting their income guidelines.

Need 3: Ability to meet needs of older population – Since the last CHNA process, TCPHD and TCMC continued to evaluate the possibility of expanding congregate housing. The fitness center, located in TCMC, continues to improve with equipment that is user friendly for the older population. TCMC received a Year 14 Blue Cross Blue Shield of North Dakota Caring Foundation grant to purchase additional equipment for the fitness center. TCPHD continues to provide foot care services at three locations throughout Towner County as well as doing outreach flu vaccinations at these locations offering high dose influenza vaccine (specifically for those 65 and older). TCMC and TCPHD employees are encouraged to attend continuing education classes for geriatric health. Staff are also trained in elder abuse and serve as mandatory reporters.

Need 4: Ability to retain doctors and nurses in the area – The community was concerned at the turnover rate of providers in the area and the need to use traveling nurse services to care for their patients. TCMC has benefited from offering competitive wages and benefit programs to encourage retention of professional staff. TCMC staff continues to build and expand services of the hospital and clinic to meet the needs of the area residents. Their providers continue to receive ongoing education in order to provide quality services. Some of these include, but are not limited to, stress test, medication assisted therapy, and endometrial biopsy. This has not been a need that has been identified or addressed by TCPHD directly, but through the activities of TCPHD and TCMC, good public health is promoted, which leads to great healthy communities, and that is an environment that providers, nurses, individuals, and families alike will want to live in. Presentations are made annually at the local school(s) on career day in an effort to engage with the student population and encourage them to go into the health profession. The "grow your own" model of recruitment has been proven to work best in rural areas. With the knowledge that even the providers and nurses that TCMC retains will eventually retire and a new workforce is going to need to fill those voids, it is important to begin recuiting early.

Need 5: Adequate childcare services – TCMC operates a licensed daycare providing skilled daycare to 28 children. It remains at full capacity at all times. TCMC applied for and received a Year 12 Blue Cross Blue Shield of North Dakota Caring Foundation wellness grant to purchase playground equipment for the daycare. This aids in keeping the daycare kids active, thus reducing behavioral issues and increasing fitness.

The above implementation plan for Towner County Medical Center is posted on TCMC's website at http://tcmedcenter.org/forms-documents/.

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

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

Community Benefit Report

While not required, the 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 – CHNA Survey Instrument

Towner County Medical Center Area Health Survey

Towner County Medical Center is 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

Scan here to take the survey!

If you prefer, you may take the survey online at http://tinyurl.com/TCMC18 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 Kylie Nissen at 701.777.5380.

Surveys will be accepted through November 15, 2018. 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
- ☐ 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 **SENIOR 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
- ☐ Availability/cost 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
- ☐ Depression/anxiety
- ☐ Suicide
- ☐ Alcohol use and abuse
- ☐ Drug use and abuse (including prescription drug abuse)
- ☐ Availability of activities for seniors
- ☐ 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
- ☐ Physical abuse
- ☐ Stalking
- ☐ Sexual abuse/assault
- ☐ Verbal threats
- ☐ Video game/media violence
- ☐ Work place/co-worker violence

11. I feel that my workplace is fully prepared to respond to acts of violence either internally or from outside influence.

☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

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

_____

_____

Delivery of Healthcare

13. What **PREVENTS** community residents from receiving healthcare? (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) _____

14. What specific healthcare services, if any, do you think should be added locally?

_____

_____

15. 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) _____

Demographic Information: Please tell us about yourself.

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

☐ Yes ☐ No

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

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

☐ 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

19. 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

20. Gender:

☐ Female
☐ Male
☐ Transgender

21. Employment status:

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

22. Your zip code: _____

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

☐ American Indian
☐ African American
☐ Asian
☐ Hispanic/Latino
☐ Pacific Islander
☐ White/Caucasian
☐ Other: _____
☐ Prefer not to answer

24. 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
☐ Prefer not to answer

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

_____

_____

Thank you for assisting us with this important survey!

Appendix B – County Health Rankings Explained

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

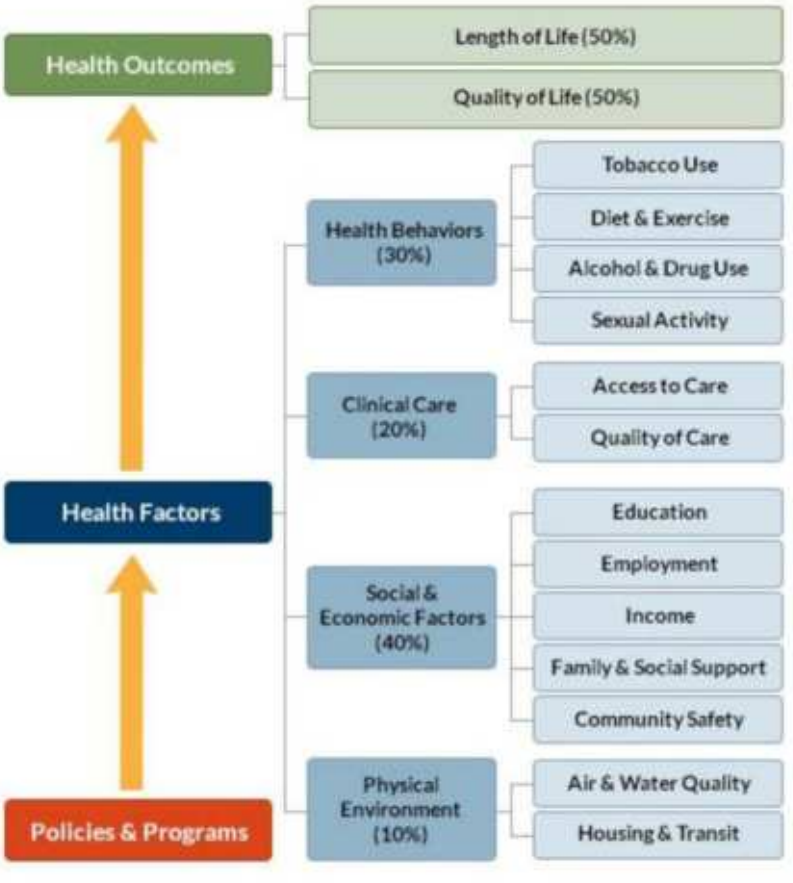
Methods

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 US 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 US 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 US 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 US, 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 sexually transmitted infection (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.

Diabetes Monitoring
Diabetes monitoring is the percentage of diabetic fee-for-service Medicare patients ages 65-75 whose blood sugar control was monitored in the past year using a test of their glycated hemoglobin (HbA1c) levels.

Reason for Ranking
Regular HbA1c monitoring among diabetic patients is considered the standard of care. It helps assess the management of diabetes over the long term by providing an estimate of how well a patient has managed his or her diabetes over the past two to three months. When hyperglycemia is addressed and controlled, complications from diabetes can be delayed or prevented.

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.

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 US 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 US 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 C – Youth Behavioral Risk Survey Results

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North Dakota High School Survey

*2017 YRBS North Dakota Data is not yet available, so the 2015 data was used.

Rate Increase ↑, rate decrease ↓, or no statistical change = in rate.

	ND 2013	ND 2015*	ND Trend ↑, ↓, =	Rural ND Town Average	Urban ND Town Average	National Average 2017
Injury and Violence						
Percentage of students who rarely or never wore a seat belt.	11.6	8.5	↓	10.5	7.5	5.9
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)	21.9	17.7	↓	21.1	15.2	16.5
Percentage of students who talked on a cell phone while driving (on at least 1 day during the 30 days before the survey, among students who drove a car or other vehicle)	67.9	61.4	↓	60.7	58.8	NA
Percentage of students who texted or e-mailed while driving a car or other vehicle (on at least 1 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)	59.3	57.6	=	56.7	54.4	39.2
Percentage of students who never or rarely wore a helmet (during the 12 months before the survey, among students who rode a motorcycle)	29.8	28.7	=	32.8	24.7	NA
Percentage of students who carried a weapon on school property (such as a gun, knife, or club on at least 1 day during the 30 days before the survey)	6.4	5.2	=	6.6	4.5	3.8
Percentage of students who were in a physical fight on school property (one or more times during the 12 months before the survey)	8.8	5.4	↓	6.9	6.1	8.5
Percentage of students who were ever physically forced to have sexual intercourse (when they did not want to)	7.7	6.3	=	6.5	7.4	7.4
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)	9.7	7.6	=	6.9	8.0	8.0
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)	9.6	9.7	=	10.4	9.7	NA
Percentage of students who were bullied on school property (during the 12 months before the survey)	25.4	24.0	=	27.5	22.4	19.0
Percentage of students who were electronically bullied (including being bullied through e-mail, chat rooms, instant messaging, websites, or texting during the 12 months before the survey)	17.1	15.9	=	17.7	15.8	14.9
Percentage of students who felt sad or hopeless (almost every day for 2 or more weeks in a row so that they stopped doing some usual activities during the 12 months before the survey)	25.4	27.2	=	24.9	28.9	31.5
Percentage of students who seriously considered attempting suicide (during the 12 months before the survey)	16.1	16.2	=	15.8	16.7	17.2
Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)	13.5	13.5	=	12.8	13.7	13.6
Percentage of students who attempted suicide (one or more times during the 12 months before the survey)	11.5	9.4	↓	10.3	11.3	7.4

	ND 2013	ND 2015*	ND Trend ↑, ↓, =	Rural ND Town Average	Urban ND Town Average	National Average 2017
Tobacco Use						
Percentage of students who ever tried cigarette smoking (even one or two puffs)	41.4	35.1	↓	37.3	32.5	28.9
Percentage of students who smoked a whole cigarette before age 13 years (for the first time)	7.9	7.2	=	7.3	6.7	9.5
Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)	19.0	11.7	↓	13.2	11.8	8.8
Percentage of students who currently frequently smoked cigarettes (on 20 or more days during the 30 days before the survey)	6.6	4.3	↓	4.3	4.7	2.6
Percentage of students who currently smoked cigarettes daily (on all 30 days during the 30 days before the survey)	3.9	3.2	=	3.2	3.2	2.0
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)	7.8	16.9	↑	0.2	1.0	NA
Percentage of students who tried to quit smoking cigarettes (among students who currently smoked cigarettes during the 12 months before the survey)	55.5	47.4	=	49.1	52.7	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 1 day during the 30 days before the survey)	NA	22.3	↑	19.7	22.8	13.2
Percentage of students who currently used smokeless tobacco (chewing tobacco, snuff, or dip on at least 1 day during the 30 days before the survey)	13.8	10.6	↓	12.6	9.5	5.5
Percentage of students who currently smoked cigars (cigars, cigarillos, or little cigars on at least 1 day during the 30 days before the survey)	11.7	9.2	↓	9.7	9.7	8.0
Percentage of students who currently used cigarettes, cigars, or smokeless tobacco (on at least 1 day during the 30 days before the survey)	27.5	20.9	↓	22.9	19.8	14.0
Alcohol and Other Drug Use						
Percentage of students who ever drank alcohol (at least one drink of alcohol on at least 1 day during their life)	65.8	62.1	=	64.5	59.9	60.4
Percentage of students who drank alcohol before age 13 years (for the first time other than a few sips)	15.2	12.4	=	15.3	12.9	15.5
Percentage of students who currently drank alcohol (at least one drink of alcohol on at least 1 day during the 30 days before the survey)	35.3	30.8	↓	32.8	29.3	29.8
Percentage of students who drank five or more drinks of alcohol in a row (within a couple of hours on at least 1 day during the 30 days before the survey)	21.9	17.6	↓	19.8	17.0	13.5
Percentage of students who usually obtained the alcohol they drank by someone giving it to them (among students who currently drank alcohol)	37.0	41.3	=	41.1	40.4	43.5
Percentage of students who tried marijuana before age 13 years (for the first time)	5.6	6.3	=	5.8	5.8	6.8
Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)	15.9	15.2	=	13.2	17.1	19.8
Percentage of students who ever took prescription drugs without a doctor's prescription (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax, one or more times during their life)	17.6	14.5	↓	13.2	16.0	14.0
Percentage of students who were offered, sold, or given an illegal drug on school property (during the 12 months before the survey)	14.1	18.2	↑	15.9	19.9	19.8

	ND 2013	ND 2015*	ND Trend ↑, ↓, =	Rural ND Town Average	Urban ND Town Average	National Average 2017
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)	9.9	8.6	=	7.9	9.0	NA
Sexual Behaviors						
Percentage of students who ever had sexual intercourse	44.9	38.9	↓	39.3	39.1	39.5
Percentage of students who had sexual intercourse before age 13 years (for the first time)	3.8	2.6	=	3.3	3.3	3.4
Weight Management and Dietary Behaviors						
Percentage of students who were overweight (>= 85th percentile but <95th percentile for body mass index, based on sex and age-specific reference data from the 2000 CDC growth chart)	15.1	14.7	=	15.4	14.6	15.6
Percentage of students who were obese (>= 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth chart)	13.5	14.0	=	16.3	12.9	14.8
Percentage of students who described themselves as slightly or very overweight	32.0	32.2	=	34.2	31.5	31.5
Percentage of students who were trying to lose weight	45.4	44.7	=	45.0	43.0	47.1
Percentage of students who did not eat fruit or drink 100% fruit juices (during the 7 days before the survey)	3.4	3.9	=	4.3	4.1	5.6
Percentage of students who ate fruit or drank 100% fruit juices one or more times per day (during the 7 days before the survey)	64.7	62.5	=	8.5	8.8	60.8
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 7 days before the survey)	6.0	4.7	=	4.5	5.2	7.2
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 7 days before the survey)	62.8	58.5	↓	61.2	60.0	59.4
Percentage of students who did not drink a can, bottle, or glass of soda or pop (not including diet soda or diet pop, during the 7 days before the survey)	25.3	25.6	=	23.5	21.7	27.8
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 7 days before the survey)	23.4	18.7	=	21.4	18.0	18.7
Percentage of students who did not drink milk (during the 7 days before the survey)	11.1	13.9	↑	11.6	13.7	26.7
Percentage of students who drank two or more glasses per day of milk (during the 7 days before the survey)	42.4	35.8	↓	36.6	35.3	17.5
Percentage of students who did not eat breakfast (during the 7 days before the survey)	10.5	11.9	=	10.7	11.8	14.1
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)	3.1	2.2	=	2.4	2.8	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)	50.6	51.3	=	51.7	50.1	46.5
Percentage of students who watched television 3 or more hours per day (on an average school day)	21.0	18.9	=	20.7	18.2	20.7
Percentage of students who played video or computer games or used a computer 3 or more hours per day (for something that was not school work on an average school day)	34.4	38.6	↑	39.4	38.0	43.0

	ND 2013	ND 2015*	ND Trend ↑, ↓, =	Rural ND Town Average	Urban ND Town Average	National Average 2017
Other						
Percentage of students who had 8 or more hours of sleep (on an average school night)	30.0	29.5	=	34.5	28.7	25.4
Percentage of students who brushed their teeth on seven days (during the 7 days before the survey)	71.5	71.0	=	67.8	70.1	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)	11.2	12.5	=	10.3	12.8	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)	19.6	12.2	↓	13.3	12.8	NA

Appendix D – Prioritization of Community's Health Needs

Community Health Needs Assessment
Cando, North Dakota

Ranking of Concerns

The top concerns for each of the seven topic area, based on the community survey results, were listed on flipcharts. The numbers below indicate the total number of votes (dots) by the people in attendance at the second community meeting. The "Priorities" column lists the number of yellow/green/blue dots placed on the concerns indicating which areas are felt to be priorities. Each person was given four dots to place on the items they felt were priorities. The "Most Important" column lists the number of red dots placed on the flipcharts. After the first round of voting, the top five priorities were selected based on the highest number of votes. Each person was given one dot to place on the item they felt was the most important priority of the top five highest ranked priorities.

	Priorities	Most Important
COMMUNITY/ENVIRONMENTAL HEALTH CONCERNS		
Having enough child day care services	15	7
Attracting and retaining young families	7	0
Not enough jobs with livable wages	6	
Recycling		
Not enough affordable housing		
AVAILABILITY/DELIVERY OF HEALTH SERVICES CONCERNS		
Availability of dental care	2	
Cost of health insurance	15	12
Cost of healthcare services		
Availability of mental health services	4	
Adequacy of health insurance (concern about out-of-pocket cost)		
YOUTH POPULATION HEALTH CONCERNS		
Alcohol use and abuse		
Drug use and abuse (including prescription drugs)		
Depression/anxiety		
Not getting enough exercise/physical activity		
Smoking and tobacco use, exposure to second hand smoke		
ADULT POPULATION HEALTH CONCERNS		
Alcohol use and abuse	5	
Drug use and abuse (including prescription drugs)	16	6
Depression/anxiety	5	
Not getting enough exercise/physical activity	4	
Stress		
SENIOR POPULATION HEALTH CONCERNS		
Availability of resources to help elderly stay in their homes	6	
Cost of long-term/nursing home care	6	
Assisted living options	4	
Availability of home health		
VIOLENCE CONCERNS		
Bullying/cyber-bullying	8	3
Child abuse/neglect	5	
Video game/media violence	3	
Emotional abuse (isolation, verbal threats, withholding of funds)	1	

Appendix E – 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.

1. Considering the PEOPLE in your community, the best things are: "Other" responses:
    - People get to be to in other people's business too much.
2. Considering the SERVICES AND RESOURCES in your community, the best things are: "Other" responses:
    - Library
    - Public Health office
3. Considering the QUALITY OF LIFE in your community, the best things are: "Other" responses:
    - Rural
4. Considering the ACTIVITIES in your community, the best things are: "Other" responses:
    - Hunting/fishing/outdoors
    - NA
    - Religious

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: "Other" responses:
    - Rural transportation and meals to limited drivers in the country
6. Considering the AVAILABILITY/DELIVERY OF HEALTH SERVICES in your community, concerns are: "Other" responses:
    - Accounting/billing
    - Home care services
    - In home health care for elderly
    - No complaints
8. Considering the YOUTH POPULATION in your community, concerns are: "Other" responses:
    - Behavioral problems
    - Lack of quality parenting
    - Mental health services
    - Proper parenting
    - Too much stress on sports doesn't leave enough time for school, work, faith, family, etc.
    - Watching children leaving school I observed an elementary boy with no warm clothes. Concerned about families who can't afford to keep their children warm, fed, clothed. Do we, as citizens step in or not? What goes on in some inadequate homes? How much should a concerned citizen interfere? I do not know the extent of drug use here, but of course it's a concern.

9. Considering the ADULT POPULATION in your community, concerns are: "Other" responses:

- Cost of long term care
- Employability of the population
- (2) Mental health services

10. Considering the SENIOR POPULATION in your community, concerns are: "Other" responses:

- I don't have enough knowledge of this area
- Meals on wheels in the country

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

- Age
- Aging population concerns
- Aging population.
- Alcohol and drug abuse
- Alcohol and drugs
- Alcoholism
- Assisted living places
- Available housing for low income.
- Better housing and daycare
- Bullying and depression of our youth
- Care for our senior citizens
- Communication needs improvement. I feel many of us don't know what's going on or have the opportunity to voice our opinions.
- Community involvement. Too many cliques, social strata
- (2) Cost of healthcare
- Creating a community that is enticing to business and young families. Keeping this a viable community.
- Denial about addiction in our population and acceptance of it as a norm with perhaps limited citations for DUIs and give ride home instead.
- Diversity acceptance
- Domestic violence
- Drug and alcohol
- (2) Drug use
- Drugs
- (2) Drugs and alcohol
- Drugs and family/child negligence
- Drugs and poverty
- Employment opportunities
- Everybody realizing that everyone is created equally. Nobody is better or more important than their neighbor or co-worker. Everyone is valuable in their own way and should be treated with the same respect.
- Families in poverty and not seeking work
- Family Activities for ALL ages
- Favoritism
- Finding quality young families/people to replace the aging local workforce. People willing to make Cando a permanent residence.
- Fitting in after there has been lies and negative comments about felons
- For the people who have lived here their whole life to open up and accept new people, rather than treating them like low lives.

- Getting good quality schools, with quality people and kids, starts with at home good parenting.
- Gossip
- Health insurance premium costs.
- High deductibles
- Ignorance
- Individuals hiding the problem and not knowing where to go to get help
- Influx of foreigners
- Job availability
- Job opportunities, job benefits
- Jobs and decent wages
- Jobs with decent wages
- Keeping a younger population with families here.
- Keeping business in town so that in turn we have jobs that pay enough for people who want to stay in Cando
- Keeping our Main Street business here. We are so lucky for our school, hospital, nursing home, etc. I am not appreciative of the Dollar Store addition to our town. There will be no support from them, for instance all our local business contribute to everything that needs donations.
- Keeping physicians and not just having PAs. Would like to have an actual doctor on staff
- Keeping the businesses we have going / also with enough quality workers with wages being low
- Keeping the community safe.
- Keeping young people here
- Lack of day care for people who would like to live here but have small children.
- Lack of daycare and nice, affordable move in ready housing for people joining the community
- Mental health
- More activities to be done, family oriented psychiatric help available.
- Na
- Needing affordable housing options
- None
- Not enough activities for people of all ages
- Not enough community involvement
- Not enough work for all that need it.
- Not having enough help. We can't get enough help now, what will it be like in 5 years!!!!
- Opioid misuse and abuse amongst adolescents and adults along with other illegal controlled substance misuse.
- Our roads in town
- Parenting
- Parenting skills and discipline of children at home. I don't think parents are violent with their children, but more apathetic than anything.
- People
- Population and age
- Population decline is one of the biggest challenges for Towner County.
- Population is growing older in age and how do we get the younger generation to come to Cando and stay
- (2) Poverty
- Public Awareness
- Recruiting and maintaining young people.
- Residents to be more involved in their community and to take pride in their community.
- Retain population

- Retaining good quality jobs
- Retaining young families
- Retaining young people
- Retaining/growing our population and keeping the high quality healthcare that we have.
- Rural crime
- Rural location and lack of specialty services. We have to drive quite a distance for any specialty type services.
- The amount of parents that do not parent their children in this community. There appears to be a lot of drug and alcohol abuse in this community.
- The shape of the downtown, it's a bit run down and I feel there is too many vacancies. It is nice to see dollar general move in town but we need to continue to focus on the rest of the empty tenants and find companies to open a business here in town.
- Verbal abuse - bullying
- Wellness center for community members
- Youth

13. What specific healthcare services, if any, do you think should be added locally?

- A counselor that visits once a month.
- A Medical Doctor fully time into TCMC medical staff.
- At least 2 mental health professionals either counselors or social workers.
- Community health RNs for education and prevention services
- (2) Dental
- Dental - aging population - geriatric specialties
- (3) Dental and vision
- Dental or vision
- Dental, orthopedic
- Dental, vision, mental health services.
- Dentist - eye doctor
- Dentist eye doctor
- (2) Dentist, eye clinic
- Dentist, mental health specialist
- Dermatologist (monthly)
- Dermatology
- Dermatology and more exercise equipment in the gym
- Dermatology and mental health, wellness / exercise classes for elderly
- (2) Dialysis
- Drug and alcohol treatment - inpatient
- Eye clinic
- Foot care
- General surgeon
- Home care
- Hospice
- I have nothing to add here
- Improvements to fitness center. Quality lifting machines and larger workout space.
- Kidney dialysis unit in Cando
- (2) Mental health
- (2) Mental health services
- Mental health services, even if it was just available on a part-time basis of a few days a month.

- Mental health therapist
- More assisted living options
- More specialists
- (3) None
- Optometrist
- Podiatrist
- Podiatry
- Pool
- Quality care and not just plugging a provider into the role.
- Teach patients how to be proactive about their own health. Nutrition education - food as medicine!
- Walk in clinic with weekend hours
- Weight management

16. What PREVENTS community residents from receiving healthcare? "Other" responses:

- Everything is good
- High deductibles so choose not to go
- (2) No complaints
- No on staff doctor
- Schedules that conflict with normal hours

17. Where do you turn for trusted health information? "Other" responses:

- Up to date

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

- Adequate.
- Affordable healthcare.
- Better doctors and services
- Connect with your patients.
- Hire supervisors that have the qualifications to be supervisors and act like supervisors
- I am just thankful that we have the facility we have close by.
- I don't like the change from annual physical to semi-annual physical in order to renew my meds. Annual is sufficient. I see it as a way for the clinic to double their revenue from each of us and not necessary for quality care. I take my blood pressure at home and monitor my health. If I have problems I would schedule an appointment to see a provider. I consider myself to be as intelligent as my provider and am able to monitor my own blood pressure and am intelligent enough to seek help when I know it's needed.
- I feel our health care in Cando is great for the size of our town and county.
- I feel we have a wonderful facility for the size of our community. My issue is with insurance. Our providers help their patients and understand when cost may be an issue.
- I have been very pleased and thankful for the excellent quality of health care I've received from Towner Country Medical Center. From the front desk, through the nurses, to the doctors and including the billing folks everyone is patient, caring and supportive.
- I have had numerous problems where insurance claims for pre-authorization are not submitted or not followed up on - confidentiality, people in community have asked me about medical issues that they shouldn't know about
- I think they have very good quality of care at the hospital, nursing home. Good PA'S, specialists, chiro, nurses, administration, and all other workers. All work together to give the best quality of care.
- Improve quality of care at the nursing home - friendlier staff and more activities
- Improve quality of nursing home staff
- It's great to have TCMC
- Keeping facilities up to date, modernizing with technology and the infrastructure of the facilities. Our facility should look like it is thriving and not dying.

- Keeping our hospital and clinic open, not having a doctor on staff, keeping workers are all concerns.
- Limit follow up visits for lab results, better communication by provider if diagnosing controlled substances
- Local healthcare is doing really good with what they have to work with
- Maintain and improve to be the best in your level of care
- Make insurance affordable and help pay for the expense of healthcare
- Mental health provider should visit TCMC at least 2x a month. Elderly need to be seen by them also.
- More affordable healthcare more in home services for the elderly
- More specialists
- More things to do
- More transportation vehicles
- Most residents of Towner County feel a good Family Practice Medical Doctor added to our medical staff would be a big addition to our local health care.
- Need to make sure we keep our CEO wanting to be here. He understands both how to run a health system and gets the patients and staff's needs. This goes with keeping the younger people wanting to live and work here.
- New hospital building
- Not enough office time (face-to-face) for individual appointments with health care providers, especially if multiple health concerns exist.
- Physical activity classes for adults, especially senior citizens
- Provide quality service in a confidential manner.
- Thankful for our hospital and I have no complaints. I am a healthy retired individual. I think we have adequate health care for our small community. We have specialists coming regularly. Providers send patients on further if necessary.
- Their ability to work with community partners seems to be self-driven and self-absorbed when published.
- To work on building our trust in the community for confidentiality.
- Very happy with TC clinic, makes PMC in Rolla look stupid
- Visit local workplaces and have a presentation about what services are available at TCHCC
- We need something other than ER services on the weekend. It's too costly to go to ER, but sometimes necessary to get medication or been seen sooner than Monday.
- With small children, the need for extended hours to see a local PA or FNP without to the ER would be nice for this community
- Would like to have more specialists come to town