Sanford Medical Center Mayville
2016 Community Health Needs Assessment

SANFORD® HEALTH

Sanford Mayville Medical Center

Community Health Needs Assessment 2016

Dear Community Members,

Sanford Mayville is pleased to present the 2016 Community Health Needs Assessment.

Part of the comprehensive assessment work is to formally identify unmet health needs in the community. Community stakeholders helped to prioritize the unmet needs for further implementation strategy development. We are grateful to all the public health and community members who joined us in this important work.

During 2015 members of the community were asked to complete a survey to help identify unmet health needs. Researchers at the Center for Social Research at North Dakota State University analyzed the survey data. Sanford further analyzed the data, identified unmet needs, and partnered with key community stakeholders to develop a list of resources and assets that were available to address each need. A gap analysis and prioritization exercise was also conducted to identify the most significant health needs and to further address these needs through the implementation strategies that are included in this document.

Sanford Mayville has set strategy to address the following community health needs:
- Physical Health
- Mental Health Services

The report focuses on community assets as well as community health needs. The asset map/resource list is included in this document along with the action steps that will be taken to address each identified need.

At Sanford Mayville, patient care extends beyond our bricks and mortar. As a not-for-profit organization, ensuring that the benefits of healthcare reach the broad needs of communities is at the core of who we are. Through our work with communities, we can bring health and healing to the people who live and work across our communities. Together, we can fulfill this mission.

Sincerely,

Roger Baier
Chief Executive Officer
Sanford Medical Center Mayville

Sanford Mayville Medical Center

Community Health Needs Assessment 2016

EXECUTIVE SUMMARY

Sanford Mayville Medical Center

Community Health Needs Assessment
2016

Purpose

A community health needs assessment is critical to a vital community benefit program that builds on community assets, promotes collaboration, improves community health, and promotes innovation and research. A community health needs assessment helps the community build capacity to support policy, systems, environmental changes, and community health improvement. A community health needs assessment also serves to validate progress made toward organizational strategies and provides further evidence for retaining not-for-profit status.

The purpose of this community health needs assessment is to develop a global view of the population's health and the prevalence of disease and health issues within our community. Findings from the assessment serve as a catalyst to align expertise and to develop a community benefit plan of action. There is great intrinsic value in a community health needs assessment when it serves to validate, justify and defend not-for-profit status and create opportunity to identify and address public health issues from a broad perspective.

Study Design and Methodology

1. **Non-Generalizable Survey**

   A non-generalizable survey was conducted on-line through a partnership between the Greater Fargo-Moorhead Community Health Collaborative and the Center for Social Research (CSR) at North Dakota State University. The CSR developed and maintained links to the on-line survey tool. The website address for the survey instrument was distributed via e-mail to various agencies, at times using a snowball approach. Data collection occurred throughout the month of June 2015 and a total of 51 respondents participated in the on-line survey.

   The purpose of this non-generalizable survey of community leaders was to learn about the perceptions of area community leaders regarding community health, their personal health, preventive health, and the prevalence of disease. This group included community leaders, legislators, and agency leaders representing chronic disease and disparity.

   A Likert scale was developed to determine the respondent's highest concerns, with 1 as not at all and 5 meaning a great deal. Needs ranking 3.5 and above were included in the needs to be addressed and prioritized. Many of the identified needs that ranked below 3.5 are being addressed by Sanford and community partners. However, 3.5 and above was used as a focus for the purpose of the required prioritization.

2. **Community Stakeholder Meeting**

   Community stakeholders were invited to a meeting to review the early findings from the survey and to discuss the top health issues or health-related issues facing the community. The attendees at the September 2015 community stakeholder meeting helped to determine key priorities for the community.

3. **Community Asset Mapping**

   Asset mapping was conducted by reviewing the data and identifying the unmet needs from the various surveys and data sets. Each unmet need was researched to determine what resources were available in the community to address the needs. Once gaps were determined the group proceeded to the prioritization process. The multi-voting methodology was implemented to determine what top priorities would be further developed into implementation strategies.

4. **Secondary Research**

   The secondary data includes community health profiles from the North Dakota Department (DOH) of Health for Traill and Steele Counties, North Dakota and the Robert Wood Johnson County Health Rankings. The (DOH) indicators that were reviewed for this assessment include: population data, vital statistics, adult behavioral risk factors, crime and child risk.

Key Findings – Primary Research

The key findings are based on the generalizable and the non-generalizable survey data. Key indicators were ranked on a 1-5 Likert scale, with 5 being the highest concern ranking. Survey results that rank 3.5 or higher are considered to be high ranking concerns the survey.

1. **Aging**: The number one ranking concern among respondents overall is the cost of long term care. The availability of memory care and the availability of long term care also rank as top concerns for the aging.

2. **Children and Youth**: When considering children and youth, the availability and cost of activities for youth, availability and cost of quality childcare, bullying, the availability and cost of quality infant care, and the availability and cost of services for at-risk youth are also ranked as high concerns.

3. **Safety**: The presence of street drugs and alcohol and drug dealers in the community, child abuse and neglect, and domestic violence are the highest safety concerns of the respondents.

4. **Healthcare**: The healthcare indicator showed that access to affordable health insurance, access to affordable healthcare, the cost of affordable dental insurance, the cost of affordable vision insurance, timely access to substance abuse providers and mental health providers, and affordable prescription drug coverage are the highest concerns among the respondents.

5. **Physical Health:** Cancer, chronic disease, inactivity and lack of exercise, obesity, and poor nutrition and eating habits are the highest physical health concerns.

6. **Mental Health/Behavioral Health**: Depression, stress, underage drug use and abuse and drinking, drug use and abuse, smoking, and tobacco and alcohol use and abuse are the highest concerns for mental health/behavioral health.

Key Findings – Secondary Research Based on the 2015 County Health Rankings

Health Outcomes

Premature death: The premature death indicator is defined as years of potential life lost before age 75 per 100,000 population. The mortality health outcomes indicate that North Dakota as a state has more premature deaths (307.1 per 100,000) than Minnesota (2.62.6 per 100,000).

Traill County, North Dakota was ranked best in the state as #1 out of 47 counties for length of life. The premature deaths in Traill County (4,400) rate much lower than the state of North Dakota (6,388).

Poor or fair health: 13% of adults in Traill County and 12% in Steele County report poor or fair health compared to 10% for the nation, 12% in North Dakota, and 11% in Minnesota.

The average number of days reported in the last 30 as unhealthy mental health days is 2.2 in Traill County and 2.3 in Steele County. The state of North Dakota reports 2.4 days, and Minnesota reports 2.6 days.

The percent of live births with low birth weight (less than 2,500 grams) is 4.2% in Traill County and there is not enough data to rank for Steele County. Both North Dakota and Minnesota report 6.5%.

Health Factors

The percent of adults who are currently smoking is 13% in Traill County and 12% in Steele County. The state of North Dakota reports 18% of adults are current smokers and in Minnesota the percent of current adult smokers is 16%.

36% of the adult population in Traill County, and 32% in Steele County are considered obese with a BMI over 30. This compares with North Dakota at 30% and Minnesota at 26%.

The percent of adults reporting excessive or binge drinking is 16% in Traill County and 26% in Steele County. North Dakota reports 22% statewide and Minnesota reports 19%.

Driving deaths that have alcohol involvement are 33% in Traill County and 50% in Steele County. North Dakota as a whole is at 46% and Minnesota is at 31%.

Sexually transmitted infections rank substantially higher than the national benchmark (138) for North Dakota (416), Minnesota (336), and Traill (161); however, Steele County is not ranked.

The teen birth rate is higher in North Dakota (28) and Minnesota (24) than the national benchmark (20), but is lower in Traill (15) and slightly higher in Steele County (21).

The clinical care outcomes indicate that North Dakota and Steele County (12%) have a higher percentage of uninsured adults, and Traill County is at the same rate and the national benchmark.

The ratio of population to primary care physicians is 1,279:1 in North Dakota and 1,113:1 in Minnesota. Traill County's ratio is 4,036:1, while Steele County's ratio is more favorable at 1,989:1.

The ratio of population to mental health providers is 638:1 in North Dakota and 529:1 in Minnesota. Traill and Steele Counties are not ranked.

The number of professionally active dentists is 1,710:1 in North Dakota, 4,123:1 in Traill County, and Steele County is not ranked.

Preventable hospital stays in Traill County are at 55; and in North Dakota, 56.

Diabetic screening is at 92% in Traill County and 86% in North Dakota. Steele County is slightly lower at 87%.

Mammography screening is at 74.3% in Traill County and 78.9% in Steele County compared to 68% in North Dakota.

The social and economic factor outcomes indicate that North Dakota has a high school graduation rate of 85%. The high school graduation rate is not available for Traill and Steele counties.

Post-secondary education (some post-secondary education) is at 76.4% in Traill County, 72.3% in Steele County, and 74.4% in North Dakota.

The unemployment rate is 2.9% in North Dakota, 3.1% in Traill County, and 2.2% in Steele County.

The percentage of child poverty is 12% in North Dakota and 9% in Traill County. The child poverty rate is 12% in Steele County.

Social associations are defined as the number of membership associations per 10,000 population and are ranked higher in Traill County at 32.2 than in North Dakota at 17.3. Steele County is lower at 10.1.

The percentage of children in single parent households is 15% in Steele County, 20% in Traill County, and 26% in North Dakota.

Violent crime is lower in Traill County at 48 per 100,000 population than in North Dakota at 240 per 100,000 population. Steele County is at 25 per 100,000 population.

Youth account for 22% of the population in Traill County and 21.5% of the population in Steele County. Elderly account for 18.6% of the population in Traill County and 19% of the population in Steele County.

The following needs were brought forward for prioritization:
- Aging
- Children and Youth
- Safety
- Healthcare Access
- Physical Health
- Mental Health

Members of the community stakeholder group determined that physical health and mental health services are the top unmet needs and priorities.

Sanford has determined the 2016-2019 implementation strategies for the following needs:
- Physical Health
- Mental Health Services

Implementation Strategies

Priority 1: Physical Health in the Community

- Obesity and inactivity are closely linked. Keeping active can help people stay at a healthy weight or lose weight. It can also lower the risk of heart disease, diabetes, stroke, high blood pressure, osteoporosis, and certain cancers, as well as reduce stress and boost mood. Inactive (sedentary) lifestyles do just the opposite.

- The World Health Organization, the U.S. Dept. of Health and Human Services, and other authorities recommend that for good health, adults should get the equivalent of two and a half hours of moderate-to-vigorous physical activity each week. Children should get even more, at least one hour a day.

- Sanford has prioritized physical health and has set measurable outcomes as a baseline for weight and periodic measurement, education session participation and exercise participation.   The Sanford Health *fit* program is available to all classroom teachers and includes four areas of focus; nutrition, activity, behavioral health and sleep. The program is available to promote healthy lifestyles in homes, schools and daycares.

Priority 2: Depression

- Depression is a common but serious illness that can interfere with daily life. Many people with a depressive illness never seek treatment. But the majority, even those with the most severe depression, can get better with treatment. The North Dakota Department of Health reports that 14% of residents in Traill and Steele counties have reported fair or poor mental health days.

- Sanford has prioritized depression as a top priority and has set strategy to perform assessments for depression in the primary care setting and to improve PHQ-9 scores for patients who are diagnosed with depression. The goal is to improve PHQ-9 scores for patients with depression. The measurable outcome is the percentage of patients with major depression or dysthymia and an initial PHQ-9 score greater than nine whose six-month PHQ-9 score is less than five. Sanford Health will continue to provide a directory of services for community members.

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2016

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Purpose of the Community Health Needs Assessment

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The purpose of this community health needs assessment is to develop a global view of the population's health and the prevalence of disease and health issues within our community. Findings from the assessment serve as a catalyst to align expertise and to develop a community benefit plan of action. There is great intrinsic value in a community health needs assessment when it serves to validate, justify and defend not-for-profit status and create opportunity to identify and address public health issues from a broad perspective.

Our Guiding Principles:
- All health care is a community asset
- Care should be delivered as close to home as possible
- Access to health care must be provided regionally
- Integrated care delivers the best quality and efficiency
- Community involvement and support is essential to success
- Sanford Health is invited into the communities we serve

Acknowledgements

Sanford Health would like to acknowledge and thank the steering committees for their assistance and expertise while performing the assessment and analysis of the community health data. The assessment provides support for the future direction of our work.

Sanford Enterprise Steering Group:
- JoAnn Kunkel, CFO, Sanford Enterprise
- Michelle Bruhn, CFO, Health Services Division
- Tiffany Lawrence, CPA, Fargo Region Co-Lead, CFO, Sanford Medical Center Fargo
- Bruce Viessman, Sioux Falls Region Co-Lead, CFO, Sanford Health Network
- Martha Leclerc, MS, Vice President, Revenue Management
- Randy Bury, CAO, Health Services Division
- Steve Goetsch, CFO, Sioux Falls Region
- Jane Heilmann, Senior Corporate Communications Strategist
- Joy Johnson, COO Bemidji Region
- Kirk Christy, CFO, Bismarck Region
- Carrie McLeod, MBA, MS, LRD, CDE, Enterprise Lead, Community Health/Community Benefit

Sanford Mayville/Hillsboro Steering Group:
- Carrie McLeod, MBA, MS, LRD, CDE, Enterprise Lead, Community Health/Community Benefit
- Roger Baier, CEO, Sanford Mayville Medical Center
- Jac McTaggart, CEO, Sanford Hillsboro Medical Center

We express our gratitude to the following community collaborative members from across the enterprise footprint for their expertise with the planning, development and analysis of the community health needs assessment.
- Alicia Collura, Sioux Falls Public Health
- Anita Cardinal, Pennington County Public Health
- Ann Malmberg, Essentia Health
- Becky Secore, Beltrami Public Health
- Brenda Stallman, Traill County Public Health
- Brie Taralson, Essentia Health
- Brittany Ness, Steele County Public Health
- Caitlin Hurley, Avera Health
- Carrie McLeod, Sanford Health
- Dan Heinemann, MD, CMO, Sanford Health Network, Sioux Falls Region
- Gina Nolte, Partnership4Health, Clay County
- Hannah Shirkey, Sanford Health
- Jac McTaggart, Sanford Health
- Jessica Spaeth, City of Halstad
- Joy Johnson, Sanford Health
- Julie Jeske, CHI-St. Alexius Health
- Julie Miller, South Dakota Department of Health
- Julie Ward, Avera Health
- Kathy McKay, Clay County Public Health
- Katie Olson, South Dakota State University
- Kay Schwarzwalter, Center for Social Research, North Dakota State University
- Kim Jacobson, Traill County Public Health
- Kip Littau, South Dakota State University
- Marnie Walth, Sanford Health
- Mary Michaels, Sioux Falls Public Health
- Nancy Fahrenwald, South Dakota State University
- Renae Moch, Burleigh County Public Health
- Roger Baier, Sanford Health
- Ruth Bachmeier, Fargo Cass Public Health
- Sandra Melstad, Public Health Consultant, South Dakota Department of Health
- Stan Kogan, Sioux Falls Public Health
- Stephen Pickard, PhD, North Dakota Department of Health
- Susan Kahler, Burleigh County Public Health
- Teresa Miller, Avera Health

We extend special thanks to the representatives for the mentally and physically disabled, social services, non-profit organizations, and public health officers for their participation in this work. Together we are

reaching our vision "to improve the human condition through exceptional care, innovation and discovery".

The following Mayville-Hillsboro-Halstad, Traill and Steele County key community stakeholders participated in community discussions and helped to formulate the priorities for future work:

- Jill Borth, Steele County Board of Health
- Deanna Kyllo, Mayville State University CDP Health
- Brittany Ness, Steele County Public Health
- Bonnie Overby, Mayville State University
- Casandra Garza, Mayville State University
- Brenda Stallman, Traill District Health
- Jessica Speath, Community of Halstad
- Ernie Strube, MayPort Economic Development Corporation
- Bill Krivarchka, Eastern North Dakopta AHEC
- Jeff McInnes, Board Member, Sanford Hillsoboro Medical Center
- Jac McTaggart, Sanford Hillsboro Medical Center
- Roger Baier, Sanford Medical Center

Description of Sanford Mayville Medical Center

Sanford Mayville Medical Center – Mayville, ND

Sanford Mayville is a 25-bed Critical Access Hospital serving Traill and Steele counties with 10 acute care beds designated for swing bed (short-term) patients. The medical center employs 77 people, including two physicians practicing in the areas of family medicine, internal medicine and pediatrics, and two nurse practitioners.

The medical center provides emergency medicine, adult trauma and surgery, including eye, general, urologic and endoscopic procedures. Other services include lab, cardiac rehab, physical therapy, OT, radiology, respiratory therapy, pharmacy, EKG, speech therapy, sleep studies and psychiatry.

Description of the Community Served

Mayville is located in northeast North Dakota. It is the largest community in Traill County, with a population over 1,900. More than 200 businesses are located in Mayville, including information technology, manufacturing, processing, retail, service, healthcare, banks, credit union, national financial investment groups, and insurance companies.

The Mayville community is home to a fitness center, golf course, three parks, community-wide walking/biking trails, a water park and a hockey rink. The educational system includes Mayville State University, the nation's first university to integrate tablet PC technology into the student experience. The university offers bachelor's degrees to more than 900 students. Mayville and the neighboring communities of Portland, Clifford and Galesburg, ND have partnered in K-12 education in a school district with 620 students and 70 faculty and staff.

Study Design and Methodology

1. **Non-Generalizable Survey**

   A non-generalizable on-line survey was conducted through a partnership between the Sanford Hillsboro/Mayville/Halstad/Traill and Steel County Collaborative and the Center for Social Research (CSR) at North Dakota State University. The CSR developed and maintained links to the on-line survey tool. The website address for the survey instrument was distributed via e-mail to various agencies, at times using a snowball approach. Data collection occurred throughout the month of April 2015 and a total of 54 respondents participated in the on-line survey.

   The purpose of this non-generalizable survey of community leaders was to learn about the perceptions of area community leaders regarding community health, their personal health, preventive health, and the prevalence of disease. This group included community leaders, legislators, and agency leaders representing chronic disease and disparity.

   A Likert scale was developed to determine the respondent's highest concerns. Needs ranking 3.5 and above were included in the needs to be addressed and prioritized. As stated in the generalizable survey methodology, many of the identified needs that ranked below 3.5 are being addressed by Sanford. However, 3.5 and above was used as a focus for the purpose of the required prioritization.

2. **Community Stakeholder Meeting**

   Community stakeholders were invited to a meeting to review the early findings from the generalizable survey and to discuss the top health issues or health-related issues facing the community. Community stakeholders helped to determine key priorities for the community, and these priorities are the implementation strategies for 2017-2019.

3. **Community Asset Mapping**

   Asset mapping was conducted by reviewing the data and identifying the unmet needs from the various surveys and data sets. The process implemented in this work was based on the McKnight Foundation model - Mapping Community Capacity by John L. McKnight and John P. Kretzmann, Institute for Policy Research at Northwestern University.

   Each unmet need was researched to determine what resources were available in the community to address the needs. The community stakeholder group conducted an informal gap analysis to determine what needs remained after resources were thoroughly researched. Once gaps were determined the group proceeded to the prioritization process. The multi-voting methodology was implemented to determine what top priorities would be further developed into implementation strategies.

4. **Secondary Research**

   The secondary data includes community health profiles from the North Dakota Department of Health for Traill and Steele County, North Dakota. The Robert Wood Johnson County Health Rankings were also researched for Traill and Steel County.

Limitations of the Study

The findings in this study provide an overall snapshot of behaviors, attitudes and perceptions of residents living in Traill and Steele Counties in North Dakota and the area of Halstad, Minnesota. However, when comparing certain demographic characteristics (i.e., age, income, minority status) with the current population estimates from the U.S. Census Bureau, it was evident that white, more highly educated, and higher income earners were overrepresented. Overrepresentation of this nature is typical in health needs assessments.

A good faith effort was made to secure input from a broad base of the community. Invitations were extended to county and community leaders, organizations and agencies representing diverse populations and disparities.

The Internal Revenue Code 501 (r) statute requires that a broad base of key community stakeholders have input into the needs of the community. Those community members specified in the statute include: persons who represent the broad interests of the community served by the hospital facility including those with special expertise in public health; Federal, tribal, regional, state and or local health or other

departments or agencies with information relevant to the health needs of the community served; leaders, representatives, or members of medically underserved, low-income, and minority populations.

Sanford extended a good faith effort to engage all of the aforementioned community representatives in the survey process. In some cases there were surveys that were submitted without names or without a specified area of expertise or affiliation. We worked closely with public health experts throughout the assessment process.

Public comments and response to the community health needs assessment and the implementations strategies are welcome on the Sanford website under "About Sanford" in the Community Health Needs Assessment section.
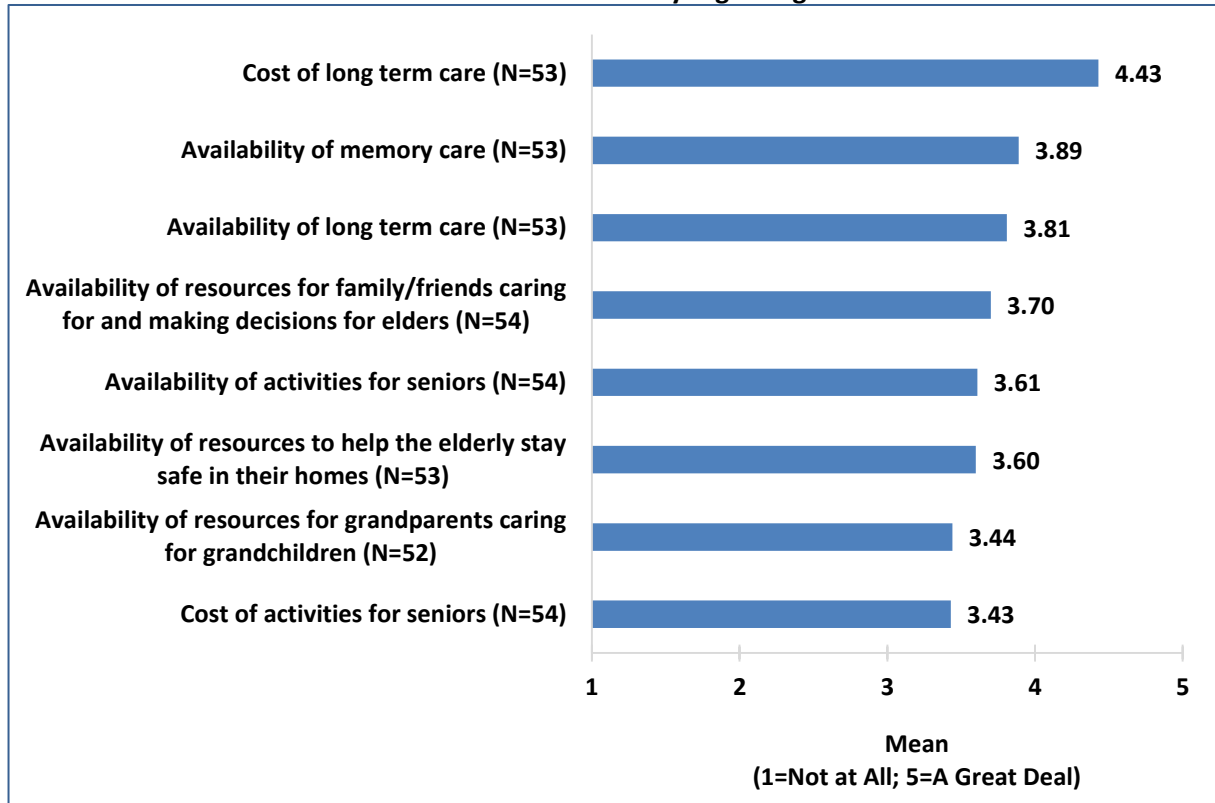
Key Findings

Community Health Concerns

Aging Population

The greatest area of concern among respondents is for the aging population, including the cost of long term care and the availability of memory care. Secondary research finds that 58.4% of the population in Traill County and 49.5% of the population in Steele County are over 65 years of age.

Level of concern with statements about the community regarding the AGING POPULATION

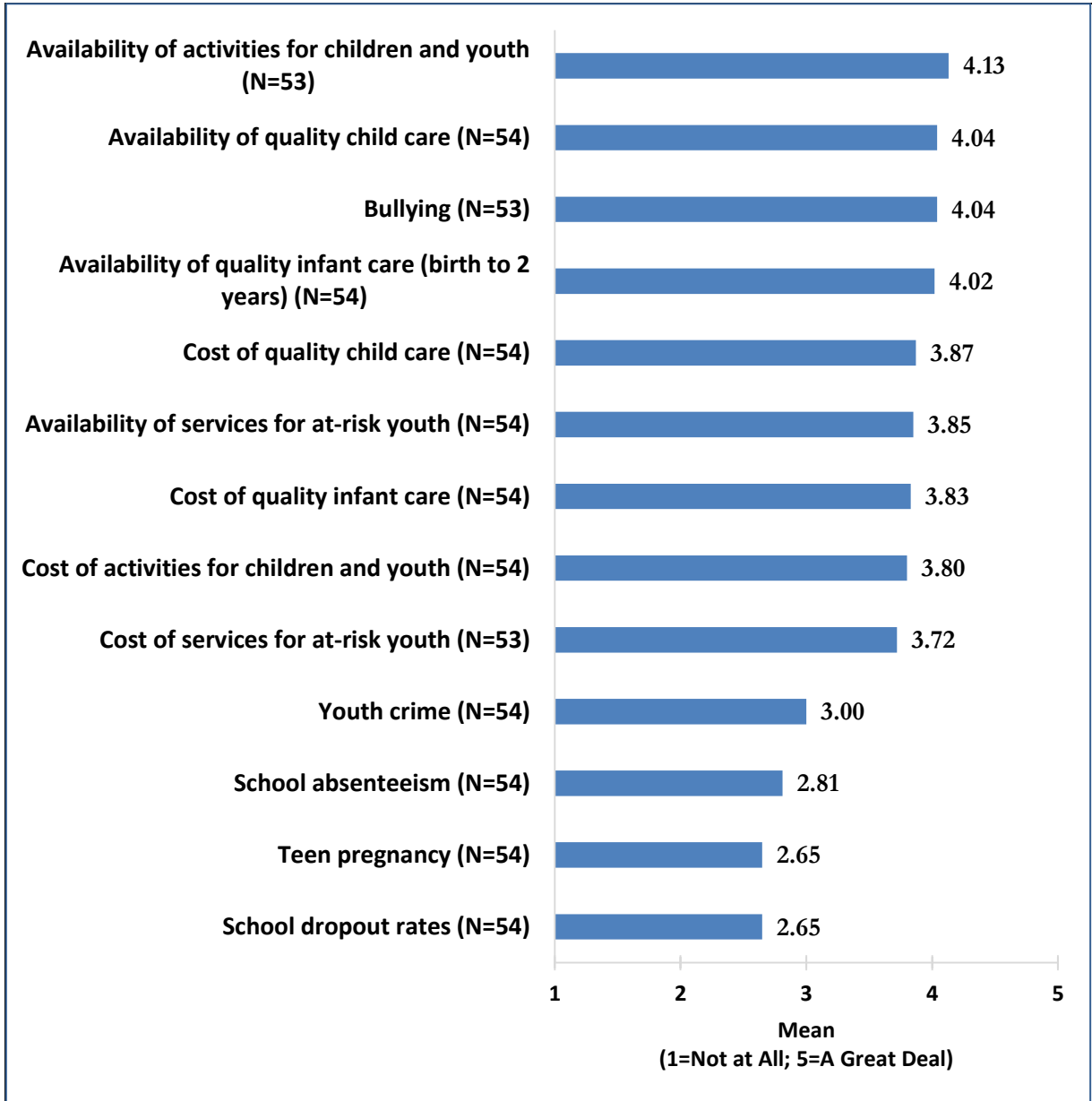| Statement	Mean
Cost of long term care (N=53)	4.43
Availability of memory care (N=53)	3.89
Availability of long term care (N=53)	3.81
Availability of resources for family/friends caring for and making decisions for elders (N=54)	3.70
Availability of activities for seniors (N=54)	3.61
Availability of resources to help the elderly stay safe in their homes (N=53)	3.60
Availability of resources for grandparents caring for grandchildren (N=52)	3.44
Cost of activities for seniors (N=54)	3.43

Mean
(1=Not at All; 5=A Great Deal)

The North Dakota Long Term Care Association states that a primary reason for the concern about the cost of long term care is because people are not purchasing long term care insurance. When long term care services are required it may be a surprise to learn the true cost of the service.

Resources for family/friends and resources for the elderly to help them stay in their homes are becoming widely available through programs such as the North Dakota State University Extension Office and the Sanford Faith Community Nurse Program.

Children and Youth

The survey respondents have very high concerns for the children and youth of the community. The availability and cost of activities for children and youth, the availability and cost of quality infant and child care, bullying, and the availability and cost of services for at-risk youth are high concerns.

Level of concern with statements about the community regarding CHILDREN AND YOUTH
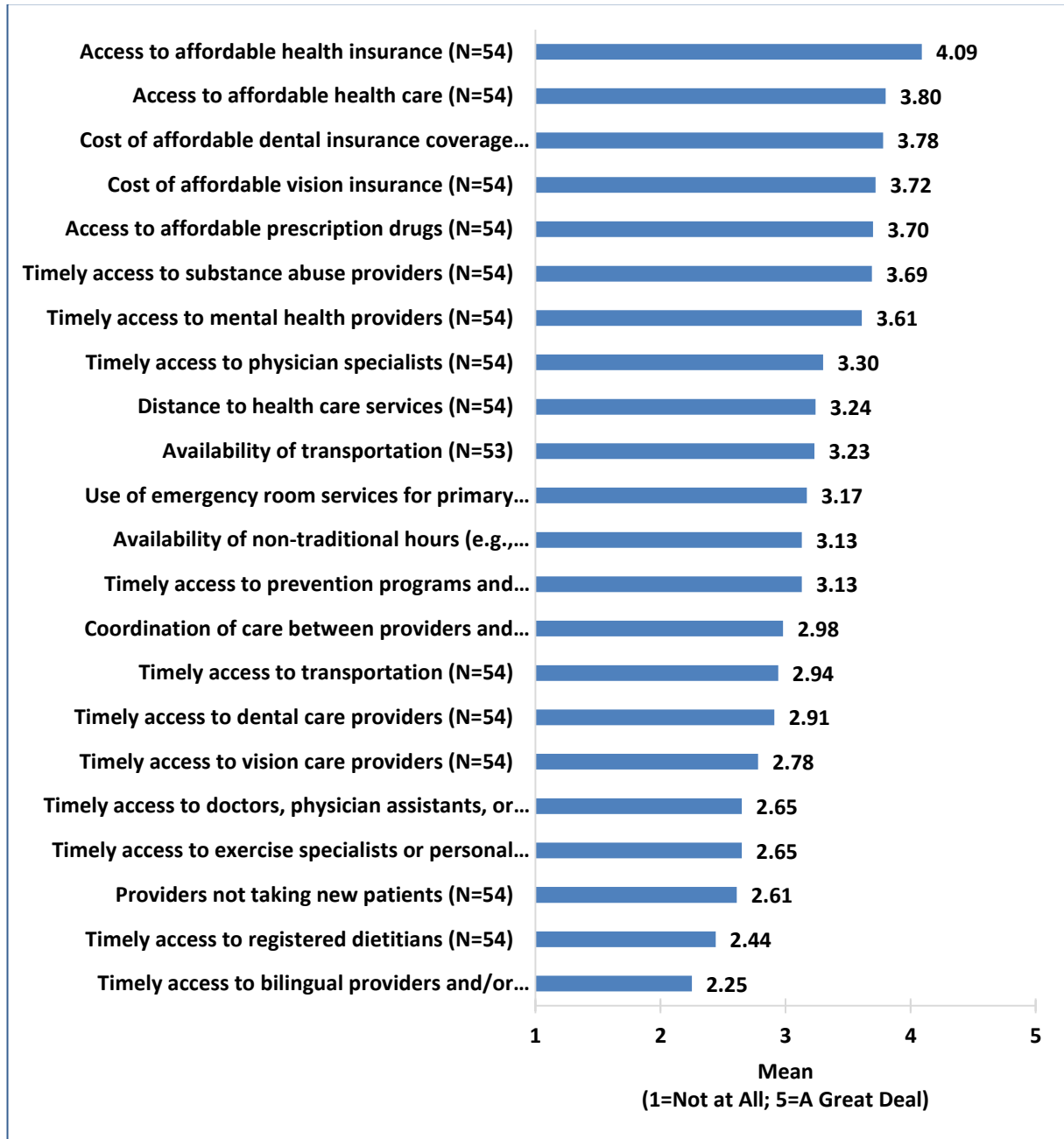
Statement	Mean
Availability of activities for children and youth (N=53)	4.13
Availability of quality child care (N=54)	4.04
Bullying (N=53)	4.04
Availability of quality infant care (birth to 2 years) (N=54)	4.02
Cost of quality child care (N=54)	3.87
Availability of services for at-risk youth (N=54)	3.85
Cost of quality infant care (N=54)	3.83
Cost of activities for children and youth (N=54)	3.80
Cost of services for at-risk youth (N=53)	3.72
Youth crime (N=54)	3.00
School absenteeism (N=54)	2.81
Teen pregnancy (N=54)	2.65
School dropout rates (N=54)	2.65

Mean
(1=Not at All; 5=A Great Deal)

The Mayville Portland High School has implemented a program to address bullying. Additionally, the Physical Education and Recreation Department at Mayville State University engages the students in community activities for children and youth.

Healthcare Access and Cost

Top priorities among survey respondents are access to affordable health insurance, the cost of affordable vision insurance, access to affordable prescription drug insurance, and the cost of affordable dental insurance.

Level of concern with statements about the community regarding HEALTHCARE

Statement	Mean
Access to affordable health insurance (N=54)	4.09
Access to affordable health care (N=54)	3.80
Cost of affordable dental insurance coverage…	3.78
Cost of affordable vision insurance (N=54)	3.72
Access to affordable prescription drugs (N=54)	3.70
Timely access to substance abuse providers (N=54)	3.69
Timely access to mental health providers (N=54)	3.61
Timely access to physician specialists (N=54)	3.30
Distance to health care services (N=54)	3.24
Availability of transportation (N=53)	3.23
Use of emergency room services for primary…	3.17
Availability of non-traditional hours (e.g.,…	3.13
Timely access to prevention programs and…	3.13
Coordination of care between providers and…	2.98
Timely access to transportation (N=54)	2.94
Timely access to dental care providers (N=54)	2.91
Timely access to vision care providers (N=54)	2.78
Timely access to doctors, physician assistants, or…	2.65
Timely access to exercise specialists or personal…	2.65
Providers not taking new patients (N=54)	2.61
Timely access to registered dietitians (N=54)	2.44
Timely access to bilingual providers and/or…	2.25

Mean
(1=Not at All; 5=A Great Deal)

Access to care includes the ability to gain entry into a health system or provider service. Access can include the availability of healthcare providers and a workforce available to address the needs. Limited access can challenge the ability to receive appropriate levels of care and may pave the way to the utilization of higher cost entry points into the system through the emergency room.

The cost of care may influence the health of individuals. A Dartmouth study finds that North Dakota is considered a high quality state for healthcare in comparison to other states. North Dakota is also considered to deliver healthcare at a low cost in comparison to other states.

Sanford provides a community care program and financial assistance policy to address assistance to all who qualify for charity care. During fiscal year 2014 Sanford contributed over $51 million for charity care for our patient population that required care without the ability to pay for services. Sanford has financial counselors available at all clinic and medical center facilities to assist patients with applications for assistance and access needs.

One example of a community resource that is addressing the access needs of patients is Sanford's My Sanford Nurse program (formerly called Ask-A-Nurse). My Sanford Nurse served 324,295 individuals from throughout the footprint and nation during fiscal year 2014 and provided a community benefit of over $1.8M with more than 45,965 nursing staff hours. There is no fee for this service.

Timely access for mental health and behavioral health providers continues to remain a concern across the community. Workforce gaps among mental health and behavioral health providers remains a challenge. Sanford has an aggressive recruiting program and continues to recruit these experts to our community. The North Dakota Human Services Behavioral Health Interim Committee is also focused on developing the behavioral health workforce for the state in the areas of adult psychiatry, child and adolescent psychiatry, and substance abuse providers. Sanford leaders are serving on the stakeholder group with this interim committee, along with other community providers.

Physical and Mental Health

Survey respondents have high levels of concern for physical and mental health issues. The top concerns are cancer and chronic disease. Additional high ranking concerns include inactivity and lack of exercise, obesity, and poor nutrition. Stress and depression rank the highest concerns for mental health.

Secondary research through the 2015 County Health Rankings find that the average number of self-reported mentally unhealthy days reported in the last 30 days is at 2.2 days in Traill County and 2.3 days in Steele County.

Percent of Traill County residents reporting poor or fair health is 13% and Traill County is at 12%. Traill County residents reporting that they are obese are 36%; Traill County is at 32%. Traill County residents who report being physically inactive is at 27%; 30% of the residents in Steele County report being physically inactive. (See Appendix)

The North Dakota Department of Health reports that 9% of Traill and Steele County residents have been told by their health provider that they have cancer (excluding skin cancer). (See Appendix)

Level of concern with statements about the community regarding PHYSICAL AND MENTAL

Statement	Mean
Cancer (N=54)	4.11
Chronic disease (e.g., diabetes, heart disease, multiple sclerosis) (N=54)	3.98
Stress (N=53)	3.98
Inactivity and lack of exercise (N=54)	3.81
Depression (N=54)	3.81
Poor nutrition and eating habits (N=54)	3.70
Obesity (N=54)	3.65
Dementia and Alzheimer's disease (N=54)	3.43
Suicide (N=53)	3.34
Other psychiatric diagnosis (N=54)	3.19
Infectious diseases such as the flu (N=54)	3.11
Sexually transmitted diseases (e.g., AIDS, HIV, chlamydia) (N=53)	2.79

Mean
(1=Not at All; 5=A Great Deal)

Concerns about cancer: The prevalence of cancer among community members is on the minds of our residents. The Roger Maris Cancer Center in Fargo, North Dakota is located in close proximity to Mayville.

Cancer is the second leading cause of death in the United States for the adult population. According to the UND School of Medicine and Health Sciences 2015 Biennial Report, digestive system cancer is the most commonly diagnosed cancer in our state, followed by breast cancer. The study finds that the risk of cancer in North Dakota is higher than in the rest of the nation.

Sanford is committed to serving the cancer needs of our community through the Roger Maris Cancer Center and the 13 medical oncologists/hematologists, 5 radiation oncologists, 2 pediatric oncologists/hematologists, 7 palliative care board certified physicians, 1 oncology clinical psychologist, 1 medical geneticist, 3 genetic counselors, 1 doctor of nursing practice, 2 physician assistants, 2 nurse practitioners, 7 pharmacists, 4 radiation oncology medical physicists, and several hundred nurses.

Sanford's Roger Maris Cancer Center holds a number of accreditations including Joint Commission Accreditation, the American College of Surgeons Commission on Cancer – Silver Commendation, the National Accreditation Program for Breast Cancer through the American College of Surgeons, Accreditation by the American College of Radiology – Radiation Oncology, Edith Sanford Breast Health Comprehensive Center recognized as a Certified Quality Breast Center of Excellence through the National Consortium of Breast Centers, Breast Imaging Center of Excellence through the American College of Radiology, Certification by the Quality Oncology Practice Initiative through the American Society of Clinical Oncology, and the Advanced Care Certification by The Joint Commission for Palliative Care Services.

The Sanford Roger Maris Cancer Center desires to detect cancer at earlier stages when there is a better chance for cure. One example of the Center's focus on early detection is colorectal screenings.   Colorectal cancer screenings can detect precancerous colorectal polys which, if removed, can prevent colorectal cancer and reduce an individual's colorectal cancer risk by 50%.

In 2014 at Sanford Roger Maris Cancer Center there were 158 colorectal cancer cases, 74 (47%) of which were more advanced (stage 3 or 4). Treatment results compared favorably with other cancer centers in the region and nationally. North Dakota is at the bottom third of the country for colorectal cancer screenings, which leads to later detection and more advanced colorectal cancer stages.

Having one of the familial cancer syndromes increases the likelihood of developing cancer. The Roger Maris Cancer Center has a familial cancer syndrome clinic, where the team assists in coordinating care and helping individuals with an increased risk of cancer to plan for future screenings, and customizes the patient's treatment plan. Genetic risk assessment is an important component of the care at the Sanford Roger Maris Cancer Center.

Concerns about other chronic diseases: The top chronic diseases among respondents include hypercholesterolemia, hypertension, arthritis, and diabetes. Respondents were also concerned about comorbidities such as obesity, poor nutrition and lack of physical activity.

The North Dakota Department of Health reports that 24.2% of Traill and Steele County residents have been diagnosed with arthritis. The state health data also reports that 76.2% of Traill and Steele County residents are overweight or obese, which makes it more uncomfortable when dealing with arthritis. Traill and Steele County residents who report that they have been told by their provider that they have hypertension is 24%, and 40.3% report the same for high cholesterol. (See Appendix)

Whether respondents have any of the following chronic diseases

Chronic Disease	Percent*
Hypertension	22.2
High cholesterol	13.0
Arthritis	11.1
Diabetes	11.1
Cancer	5.6
Congestive Heart Failure	1.9
Stroke	1.9
Asthma	0.0
COPD	0.0
Alzheimer's	0.0
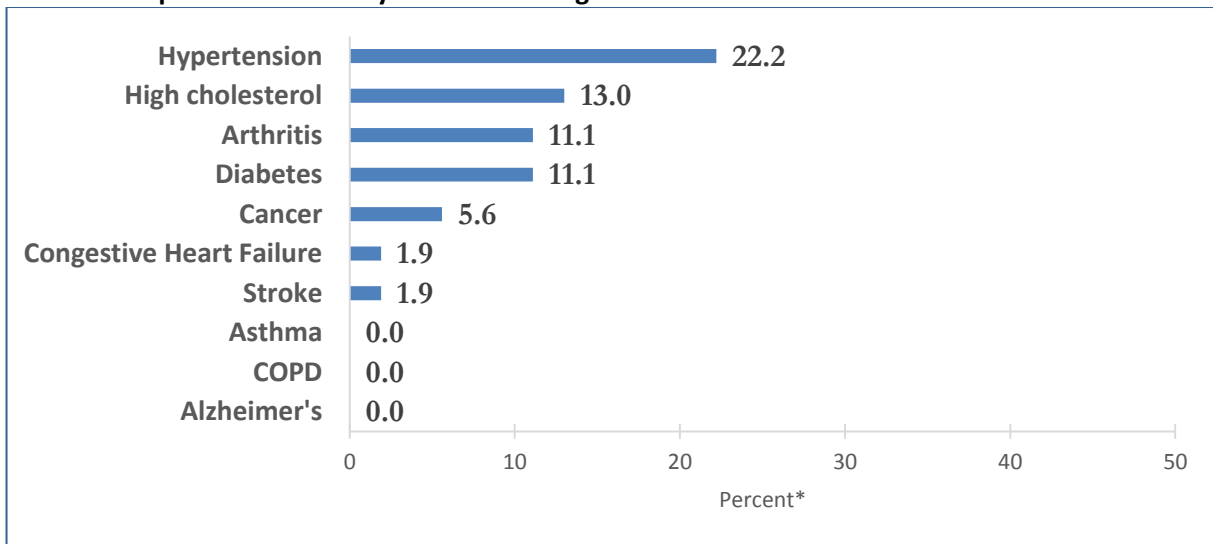
Concerns about hypertension: Hypertension is addressed at Sanford through a standardized protocol, frequent blood pressure monitoring, and referral throughout all departments. Continued improvement has been realized since the implementation of the standardized protocol.

Concerns about hypercholesterolemia: Sanford providers address hypercholesterolemia through evidence-based guidelines. Patients are closely monitored to assure a reduction in heart disease risk.

Concerns about diabetes: Sanford offers a comprehensive diabetes education program. Sanford diabetes clinics and centers are dedicated to empowering people with diabetes to feel better and prevent long-term complications. Sanford offers assessment and personalized education care to give patients and their families the tools they need to manage diabetes while living well. Endocrinologists, certified diabetes nurses and certified diabetes dieticians provide diagnosis, assessment, one-on-one education, and instruction.

The chronic disease self-management program, Better Choices, Better Health, is offered free of charge to community members. Better Choices, Better Health is modeled after Stanford University's chronic disease self-management program. The workshops are 2½ hours long and meet weekly for 6 weeks. The program is facilitated by two trained lay leaders and one or both have a chronic condition. Research has found that after participating in the program individuals are better able to manage their symptoms, communicate more easily with their doctors, are less limited by the disease, and generally feel better.

Concerns about obesity, poor nutrition and lack of physical activity: Sanford enterprise chose obesity as an implementation strategy for the 2013 CHNA. Strategies included an annual obesity symposium for providers and monthly education programs for community members. The Sanford obesity symposiums were attended by more than 400 registrants during April 2013 and March 2015. The symposium will be held again during March 2016. The symposium is evidence-based. Sanford providers and national experts serve as faculty for the symposium.

The Sanford Health *fit* initiative, http://sanfordfit.org/ a childhood obesity prevention initiative, continues to grow and mature as we work to refine the offerings and enable broad replication and meaningful use. Supported by the clinical experts of Sanford Health, *fit* educates, empowers and motivates families to live a healthy lifestyle through a comprehensive suite of resources for children, parents, teachers and clinicians. *fit* is the only initiative focusing equally on the four key contributing factors to childhood obesity: Food (nutrition), Move (activity), Mood (behavioral health), and Recharge (sleep). Sanford's *fit* Initiative has come a long way since its inception in 2010. Through *fit* we are actively working to promote healthy lifestyles in homes, schools, daycares, our clinical settings, and throughout the community by way of technology, engaging programs, and utilizing key role models in a child's life.

- The *fit* website for juniors, kids and teens creates an entertaining and interactive on-line environment where they can play games, watch videos and take daily challenges. Parents benefit from their own set of resources where they can find tips and tools on becoming healthy role models and raising *fit* kids. To date, the children's and parent's sites have received more than 7.5 million visitors. Over 700 pieces of content have been added to the sites including videos, slide shows, games, articles, and even *fit* songs.

- In addition to the web, *fit* is developing meaningful school resources to bring value and fun into the primary education setting. We are doing this by integrating *fit* points into science and math components to provide health promotion, an avenue into the classroom without taking valuable time away from those critical subjects.

- *fit*4Schools – *fit*4Schools includes unique *fit*-based lessons integrated into daily classroom activities*. fit*4schools.sanfordfit.org is an on-line school resource that incorporates topics into math and science curriculum. To date the program has 14 STEM (integrating science, technology, engineering, and math) unit plans that can be downloaded for classroom use. To date it has:
    - Reached 50,000 schools
    - 180,000 page views from educators across the country
    - 12,000 lesson plan downloads, representing 600,000+ students

- We are also reaching thousands of students through several pilot school programs.
    - *fit*4Schools – *fit*4Schools, which includes unique *fit*-based lessons integrated into daily classroom activities, is in its final phase of development. It is being piloted in seven elementary schools in the Sanford region.

- Community
  - The *fit* friends, Denny, Abby, Sam, Alex and Marty, along with the *fit* team, have been making a variety of appearances at events across the Sanford footprint. *fit* has been at over 2 dozen events interacting with more than 15,000 children and parents to spread the word about the *fit* platform and resources.
  - Smartphone Apps – Through a series of fun and engaging apps, *fit* will continue to activate kids at the touch of a fingertip to live a fit and healthy lifestyle related to Mood, Recharge, Food and Move.
  - MOVE2Draw is a simple and fun way for kids to move and create their own unique drawings. Once a drawing is completed, it can be stored on the MOVE2Draw website.
  - eMOODicam is a photo application that allows the user to enhance a photo and bring the mood to life and share with others.

- Looking Forward
  - *fit* is continuing to look to the future for ways to continue to make a meaningful impact on children and families both on-line and off-line. Other exciting expansions that are in the works include:
    - Clinical Setting – Resources for the clinical setting to spur actionable and understandable discussions between healthcare providers and families.
    - Health Coaches – Exploring meaningful ways for health coaches to promote healthy choices with children and adults.
    - Engage Key Role Models – Firefighters and youth sport coaches are role models and have a big influence on children so that's why *fit* is developing resources for them to teach the principles of *fit* along with sports fundamentals and other outreach efforts.
    - *fit*Club 4 Boys – 10-week after school program for boys, ages 8-12, to develop knowledge of *fit* principles and healthy behavior choices.
    - *fit* Parent/child – Class for parents and children to understand healthy choices and the benefits of living a healthy lifestyle.

Concerns about mental/behavioral health: During the 2013 CHNA process, Sanford Health developed an implementation strategy to fully integrate behavioral health services or access to behavioral health outreach in all regional clinic sites in the Fargo, Sioux Falls, Bismarck and Bemidji regions.

A key implementation strategy for Sanford Health is to fully integrate behavioral health services into all primary care clinics. Sanford One Care is addressing behavioral health in primary and specialty care clinics and medical centers. Sanford One Care uses technology to conduct behavioral health screenings in order to identify behavioral health concerns as early as possible. Through deployment of Medical Home with fully integrated behavioral healthcare services, Sanford is providing patient-centered care collaborative teams to meet the needs of Sanford patients.

During 2015 Sanford hosted a behavioral health symposium. The symposium was designed to enhance the competence of healthcare professionals in the identification, treatment and management of behavioral health issues impacting specialty and primary care.

Sanford behavioral health experts are serving on the North Dakota Behavioral Health Stakeholders Advisory to the Department of Human Services Legislative Interim Committee to shape policy. The North Dakota Behavioral Health Stakeholders group works to address unmet needs in behavioral health in North Dakota. Using a Substance Abuse and Mental Health Services Administration (SAMHSA) template of the components of a comprehensive system of behavioral healthcare, the group has identified needs in North Dakota and is working on solutions to meet those needs. Types of behavioral health services addressed by this group include adult mental health, children's mental health, substance abuse, and workforce development.

Concerns about substance use and abuse: Survey respondents have a high level of concern about alcohol use and abuse in the community and about underage drinking and use of drugs. Additionally, smoking and tobacco use and drug use and abuse among adults are high concerns.

Level of concern with statements about the community regarding SUBSTANCE USE AND ABUSE

Statement	Mean
Alcohol use and abuse (N=54)	3.98
Underage drinking (N=54)	3.83
Underage drug use and abuse (N=54)	3.78
Smoking and tobacco use (N=54)	3.74
Drug use and abuse (N=54)	3.69
Exposure to second-hand smoke (N=54)	3.44

Mean
(1=Not at All; 5=A Great Deal)
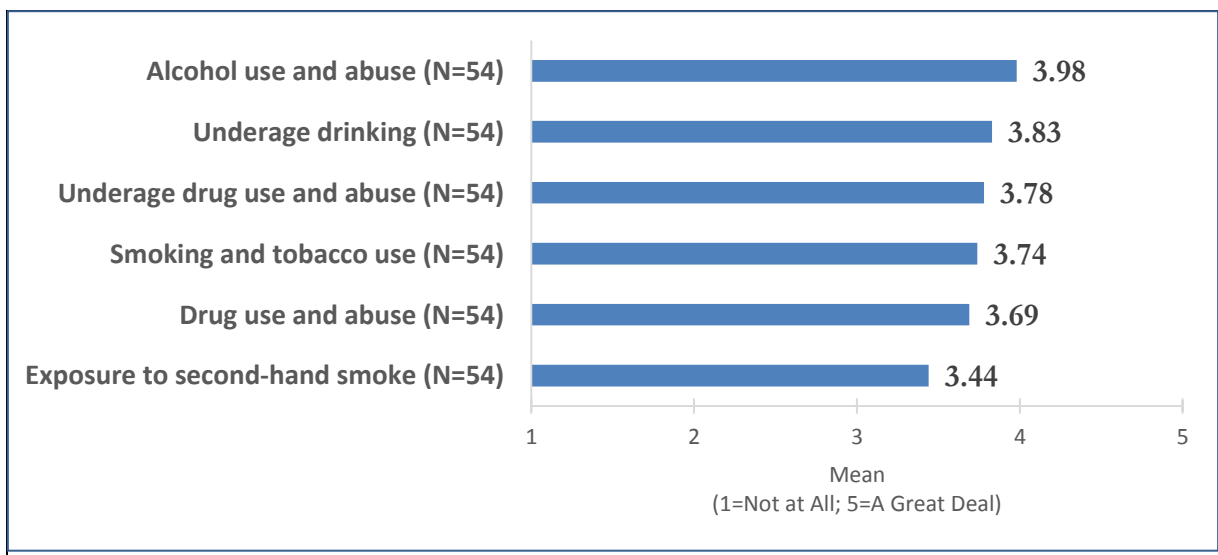
<u>Safety</u>

The highest concerns for survey respondents in the safety category are the presence of drugs and alcohol in the community, child abuse and neglect, and domestic abuse.

Secondary research finds that alcohol-impaired driving deaths have reached 33% in Traill County and 50% in Steele County. (See Appendix)

Level of concern with statements about the community regarding SAFETY
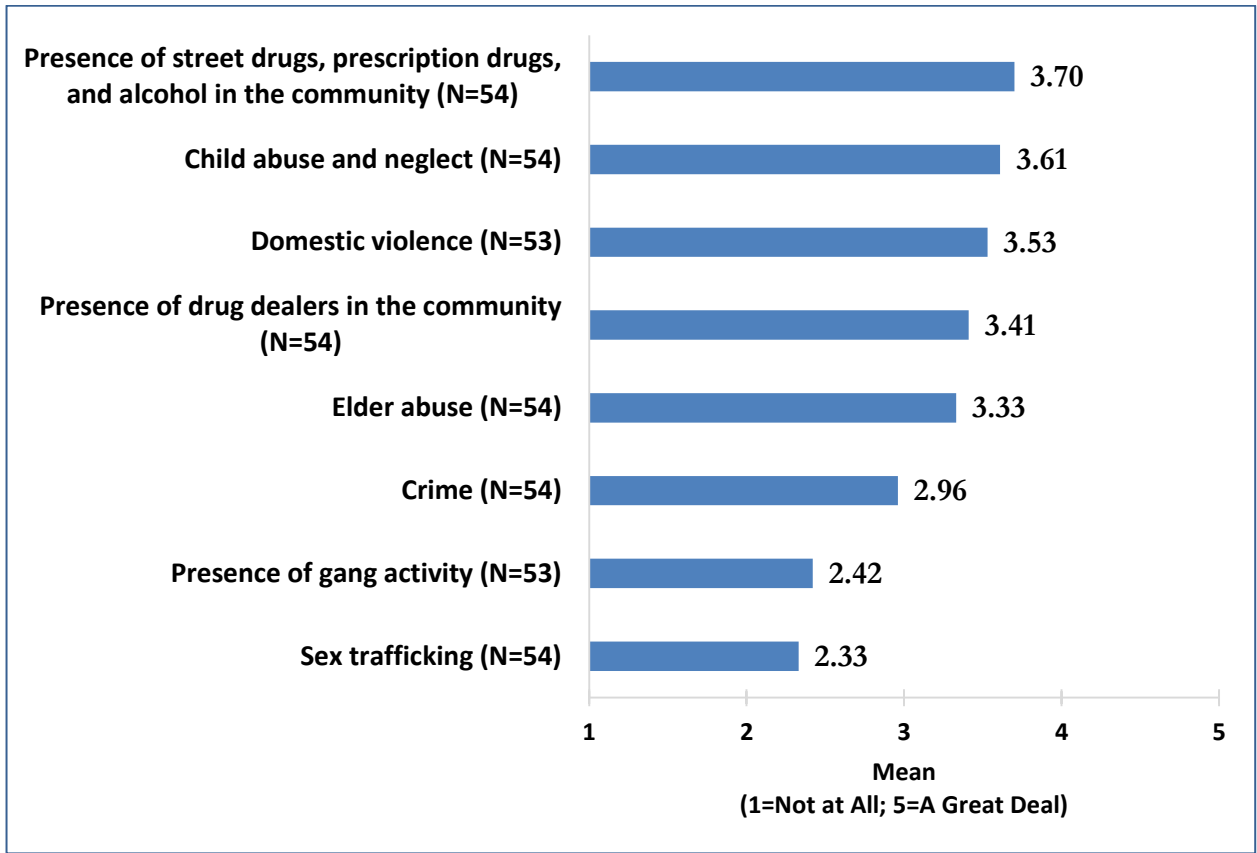
Sanford is participating in the North Dakota "Reducing Pharmaceutical Narcotics in Our Communities - Through Education and Awareness" committee. The committee has a four-pillar approach including: education and awareness, prescription drug take-back program, law enforcement, pharmacy partnership, and the prescription drug monitoring program.

Personal Health Concerns

Respondents' Personal Health Status

The study results suggest possible discrepancies between respondents' perceived personal health and their actual health status as determined by objective measures. For example, using the Body Mass Index (BMI) which calculates weight status using an individual's weight and height, the majority of respondents are overweight or obese. However, the vast majority of community respondents rate their own health as excellent, very good or good.

Respondents' rating of their health in general

Rating	Percent
Excellent	9.4
Very Good	47.2
Good	32.1
Fair	11.3
Poor	0.0
Don't know	0.0
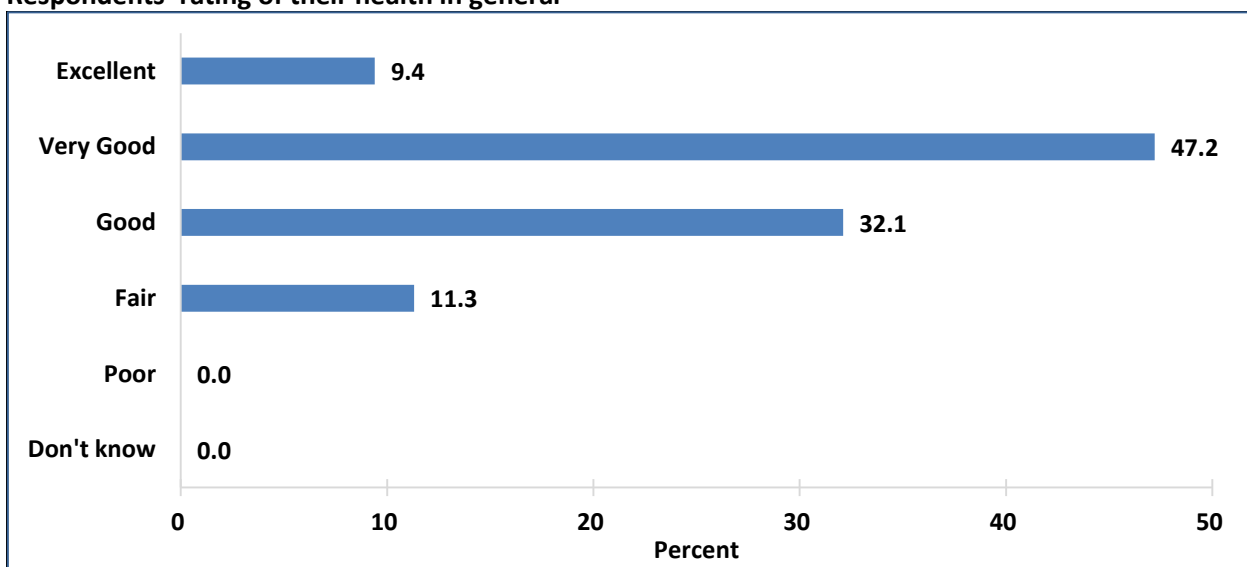
- *88.7% of the respondents rate their health as good or better*

Respondents' weight status based on the Body Mass Index (BMI) scale

Category	Percent
Underweight (BMI less than 18.5)	0.0
Normal weight (BMI from 18.5 to 24.9)	34.7
Overweight (BMI from 25.0 to 29.9)	28.6
Obese (BMI of 30.0 or greater)	36.7
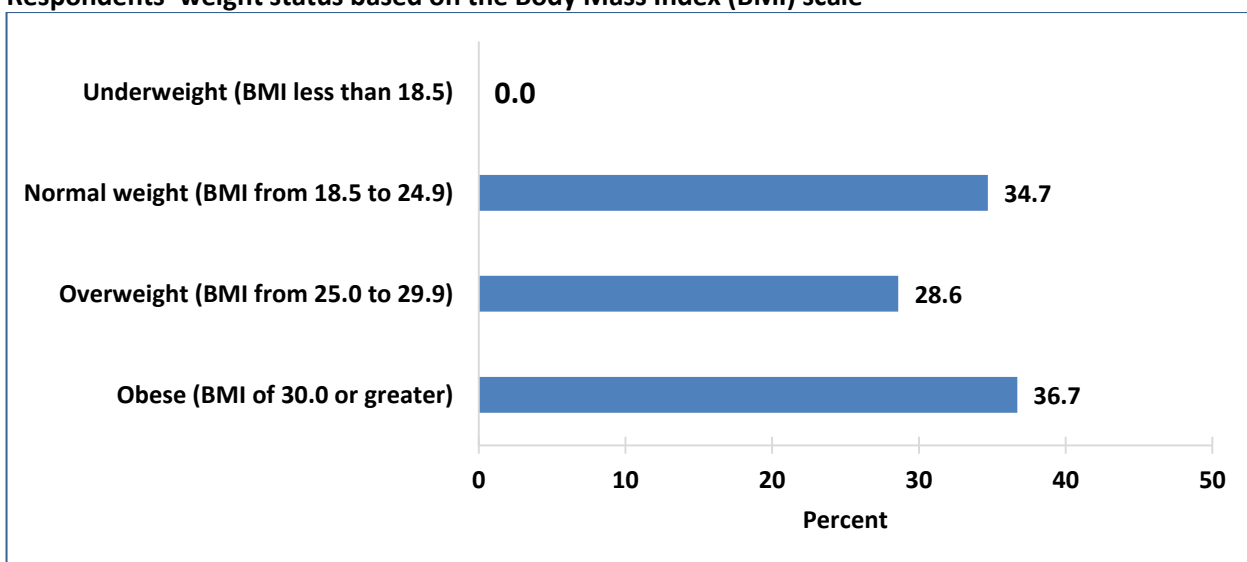
- *65.3% of respondents report a BMI that is overweight or obese*

Length of time since respondents last visited a doctor or healthcare provider for a routine physical exam and length of time since they last visited a dentist or dental clinic for any reason
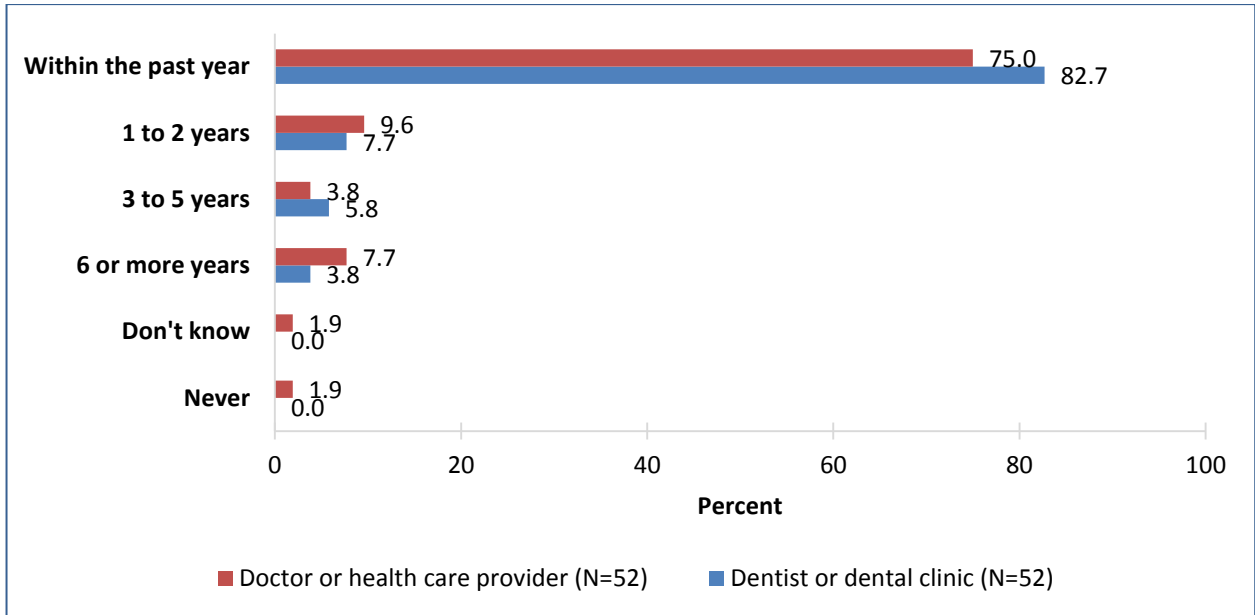
- 21% of respondents have waited longer than a year to visit a doctor or healthcare provider
- 17.3 % of respondents have waited more than a year to see a dentist

Preventive Health

Preventive healthcare promotes the detection and prevention of illness and disease and is another important component of good health and well-being. Community results indicate that within the past year, the majority of respondents had a blood pressure screening, blood sugar screening, cholesterol screening, dental screening, flu shot, pelvic exam (females), breast cancer screening (females), and cervical cancer screening (females). However, there are many screenings and tests that a majority of respondents did not receive (i.e., bone density test, cardio screening, glaucoma test, hearing screening, immunizations, STD test, vascular screening, colorectal cancer screening, prostate cancer screening {males}, and skin cancer screening) in the past year. Many tests and screenings may be conditional upon guidelines, which can be age sensitive/appropriate.

Whether or not respondents have had preventive screenings in the past year, by type of screening

Type of screening	Yes	No
GENERAL SCREENINGS		
Blood pressure screening (N=380)	86.5	13.5
Blood sugar screening (N=379)	64.7	35.3
Bone density test (N=367)	6.0	94.0
Cardiovascular screening (N=373)	24.0	76.,0
Cholesterol screening (N=378)	67.3	32.7
Dental screening and X-rays (N=378)	82.7	17.3
Flu shot (N=380)	76.9	23.1
Glaucoma test (N=374)	50	50
Hearing screening (N=377)	6.1	93.9
Immunizations (tetanus, hepatitis A or B) (N=374)	22	78
Pelvic exam (N=189 Females)	60	40
STD (N=369)	12	88
Vascular screening (N=368)	11.8	88.2
CANCER SCREENINGS		
Breast cancer screening (N= 189 Females)	75.6	24.4
Cervical cancer screening (N=185 Females)	60	40
Colorectal cancer screening (N=368)	18	82
Prostate cancer screening (N=182 Males)	0	100
Skin cancer screening (N=365)	14.3	85.7

- *For most types of screenings, the most common reasons for not getting the test or procedure are that it is not necessary and the doctor has not suggested one*
- *For the flu shot screening, most respondents cite other reasons for not getting the shot*
- *44% of the survey respondents were under 45 years of age*

Screenings

Breast cancer screening: According to the Center for Disease Control (CDC), a mammogram is an x-ray of the breast. Mammograms are the best way to find breast cancer early, when it is easier to treat and before it is big enough to feel or cause symptoms. Having regular mammograms can lower the risk of dying from breast cancer. The United States Preventive Services Task Force recommends that if you are 50 to 74 years old, be sure to have a screening mammogram every two years. If you are 40 to 49 years old, talk to your doctor about when to start and how often to get a screening mammogram.

<u>Cervical cancer screening</u>: Cervical cancer is the easiest gynecologic cancer to prevent, with regular screening tests and follow-up. Two screening tests can help prevent cervical cancer or find it early:

- The Pap test (or Pap smear) looks for *pre-cancers,* cell changes on the cervix that might become cervical cancer if they are not treated appropriately.
- The HPV test looks for the virus that can cause these cell changes (human papillomavirus) (http://www.cdc.gov/cancer/hpv/basic_info/)
- The Pap test is recommended for all women between the ages of 21 and 65 years old, and can be done in a doctor's office or clinic.

<u>Colorectal cancer screening</u>: Colorectal cancer almost always develops from *precancerous polyps* (abnormal growths) in the colon or rectum. Screening tests can also find colorectal cancer early, when treatment works best. Regular screening, beginning at age 50, is the key to preventing colorectal cancer. The U.S. Preventive Services Task Force (USPSTF) recommends screening for colorectal cancer using high-sensitivity fecal occult blood testing, sigmoidoscopy, or colonoscopy beginning at age 50 and continuing until age 75.

<u>Prostate cancer screening</u>: The American Cancer Society (ACS) recommends that men have a chance to make an informed decision with their healthcare provider about whether to be screened for prostate cancer. The decision should be made after getting information about the uncertainties, risks, and potential benefits of prostate cancer screening. Men should not be screened unless they have received this information. The discussion about screening should take place at:

- Age 50 for men who are at average risk of prostate cancer and are expected to live at least 10 more years.
- Age 45 for men at high risk of developing prostate cancer. This includes African Americans and men who have a first-degree relative (father, brother or son) diagnosed with prostate cancer at an early age (younger than age 65).
- Age 40 for men at even higher risk (those with more than one first-degree relative who had prostate cancer at an early age).

After this discussion, those men who want to be screened should be tested with the prostate-specific antigen (PSA) blood test. The digital rectal exam (DRE) may also be done as a part of screening.

If, after this discussion, a man is unable to decide if testing is right for him, the screening decision can be made by the healthcare provider, who should take into account the patient's general health preferences and values.

Assuming no prostate cancer is found as a result of screening, the time between future screenings depends on the results of the PSA blood test:

- Men who choose to be tested who have a PSA of less than 2.5 ng/mL may only need to be retested every 2 years.
- Screening should be done yearly for men whose PSA level is 2.5 ng/mL or higher.

Because prostate cancer often grows slowly, men without symptoms of prostate cancer who do not have a 10-year life expectancy should not be offered testing since they are not likely to benefit. Overall health status, and not age alone, is important when making decisions about screening.

Even after a decision about testing has been made, the discussion about the pros and cons of testing should be repeated as new information about the benefits and risks of testing becomes available. Further discussions are also needed to take into account changes in the patient's health, values and preferences.

Skin cancer screening: The U.S. Preventive Services Task Force (USPSTF) has concluded there is not enough evidence to recommend for or against routine screening (total body examination by a doctor) to find skin cancers early. The USPSTF recommends that doctors:
- Be aware that fair-skinned men and women aged 65 and older, and people with atypical moles or more than 50 moles, are at greater risk for melanoma.
- Look for skin abnormalities when performing physical examinations for other reasons.

Flu Vaccines

The Center for Disease Control's Advisory Committee on Immunization Practices (ACIP) recommends that everyone six months and older receive a flu vaccine annually. Findings from the generalizable survey indicate that 37% of respondents did not have a flu shot last year.

The Center for Disease Control states that influenza is a serious disease that can lead to hospitalization and sometimes even death. Even healthy people can get sick from the flu and spread it to others. Flu vaccines cause antibodies to develop in the body about two weeks after vaccination. These antibodies provide protection against infection with the viruses that are in the vaccine.

Fruit and Vegetable Intake

The study results suggest that the majority of respondents do not meet vegetable and fruit recommended dietary guidelines. Only 28.4 % of respondents reported having 3 or more servings of vegetables the prior day, and 17% of the group reported having 3 or more servings of fruits the prior day.

According to the U.S. Department of Health and Human Services, U.S. Department of Agriculture Dietary Guidelines for Americans, it is recommended that individuals consume 3 to 5 servings of vegetables per day and 2 to 4 servings of fruit per day depending on age. A diet high in fruits and vegetables is associated with decreased risk for chronic diseases. In addition, because fruits and vegetables have low energy density (i.e., few calories relative to volume), eating them as part of a reduced-calorie diet can be beneficial for weight management.

Secondary research provided by the North Dakota Department of Health finds that 84.4% of residents in Traill and Steele County report not getting 5 fruits and vegetables each day. (See Appendix)

Number of servings of vegetables, fruit, and fruit juice that respondents had yesterday

Number of servings (y-axis)
Percent* (x-axis)

- None: Vegetables 3.8, Fruit 24.5, (blue) 73.6
- 1: Vegetables 25.0, Fruit 22.6, (blue) 15.1
- 2: Vegetables 32.7, Fruit 35.8, (blue) 9.4
- 3: Vegetables 23.1, Fruit 11.3, (blue) 1.9
- 4: Vegetables 11.5, Fruit 5.7, (blue) 0.0
- 5 or more: Vegetables 3.8, Fruit 0.0, (blue) 0.0

Vegetables (N=52)   Fruit (N=53)
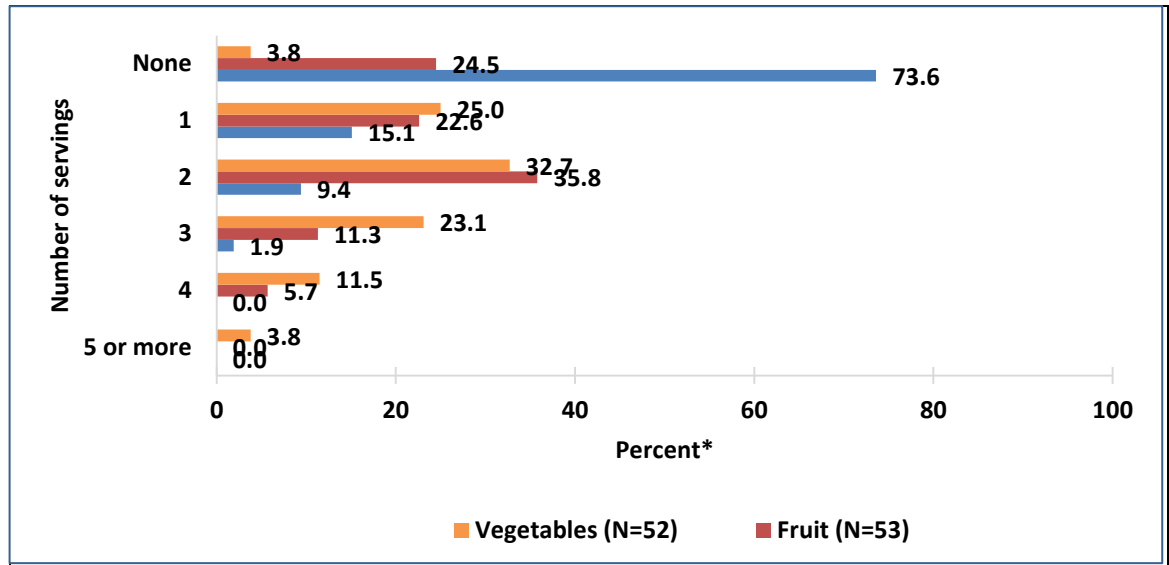
Physical Activity Levels

Study results suggest that the majority of respondents do not meet physical activity guidelines. 39.3% of respondents engage in moderate activity 3 or more times per week and 17% engage in vigorous activity 3 or more times per week.

Guidelines from the Centers for Disease Control and Prevention recommend that individuals participate in 150 minutes of moderate physical activity per week or 75 minutes of vigorous physical activity per week to help sustain and improve health.

Number of days in an average week respondents engage in MODERATE and VIGOROUS activity

- None: MODERATE 11.8, VIGOROUS 49.1
- 1 to 2 days: MODERATE 49.0, VIGOROUS 34.0
- 3 to 4 days: MODERATE 27.5, VIGOROUS 11.3
- 5 or more days: MODERATE 11.8, VIGOROUS 5.7

MODERATE activity (N=51)   VIGOROUS activity (N=53)
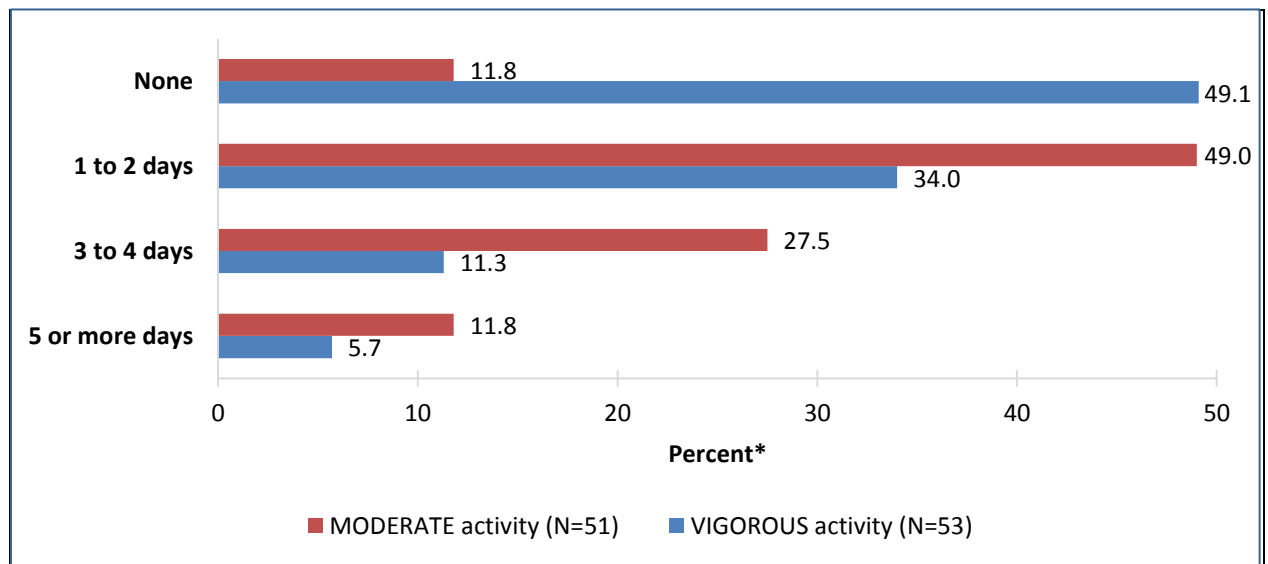
Tobacco Use

Study results indicate that the vast majority of community respondents are not currently tobacco users. However, over 37% of respondents have smoked at least 100 cigarettes in their lifetime, which indicates former smoker status according to the Centers for Disease Control and Prevention.

Secondary research through the 2015 County Health Rankings finds that 13% of Traill County residents and 12% of Steele County residents are current smokers.

Whether respondents have smoked at least 100 cigarettes in their entire life
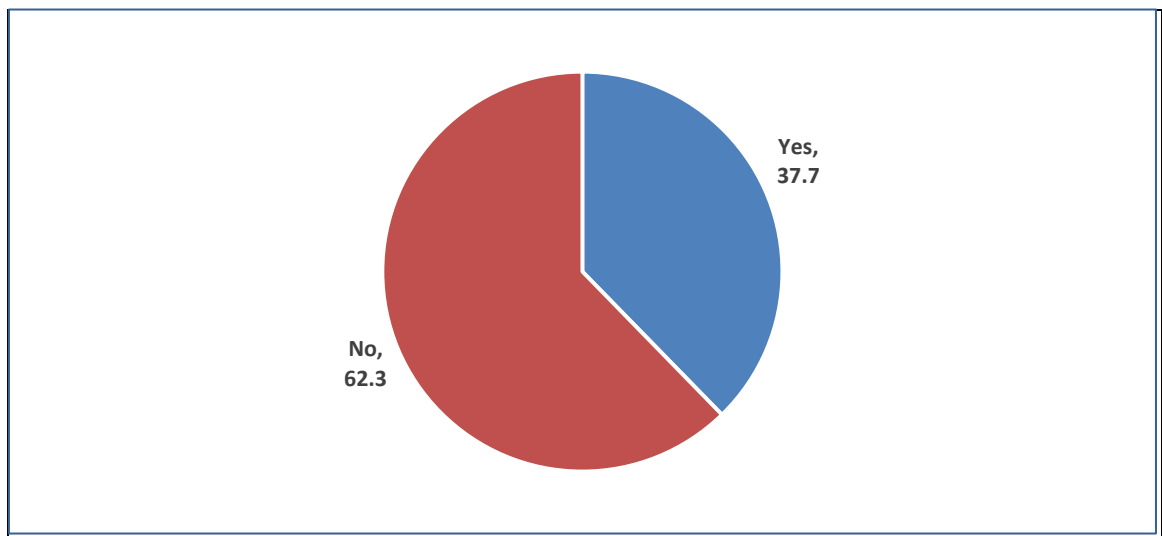
Yes, 37.7

No, 62.3

How often respondents currently smoke cigarettes and use chewing tobacco or snuff

Every day — 5.8 / 0.0

Some days — 0.0 / 1.9

Not at all — 94.2 / 98.1

Percent

■ Smoke cigarettes (N=52)   ■ Use chewing tobacco or snuff (N=53)
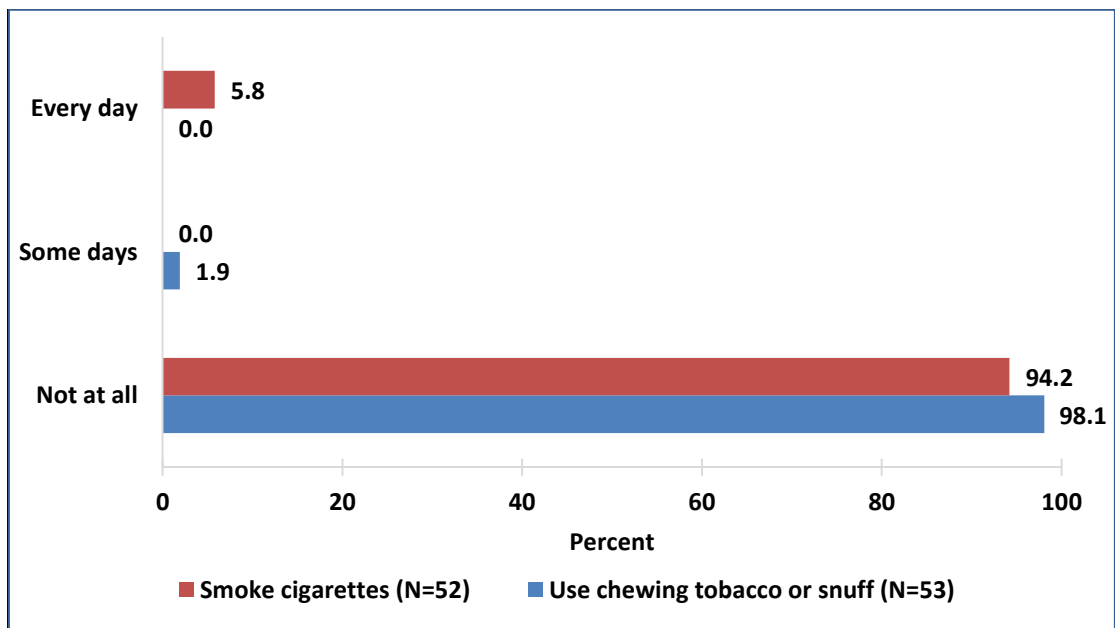
Mental Health

Mental health is an important component of well-being at every stage of life and impacts how we think, act and feel. Mental health influences our physical health, how we handle stress, how we make choices, and how we relate to others. Among survey respondents, mental health is a moderately high area of concern, particularly depression and stress. 37% of respondents have been told or diagnosed by a doctor or health professional that they have anxiety or stress and 31.5% have been told they have depression. In addition, more than half of respondents self-report that in the last month, there were days when their mental health was not good. 55.8% of the respondents reported days in the past month when their mental health was not good.

Percentage of respondents who have been told by a doctor or health professional that they have a mental health issue, by type of mental health issue
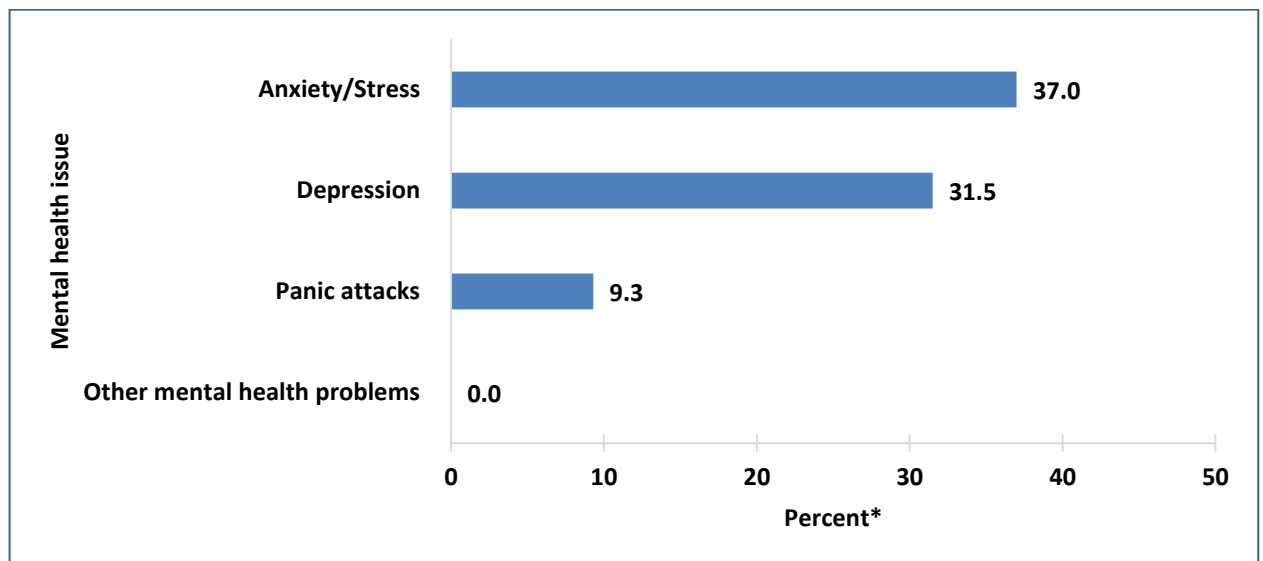
Number of days in the last month that respondents' mental health was not good
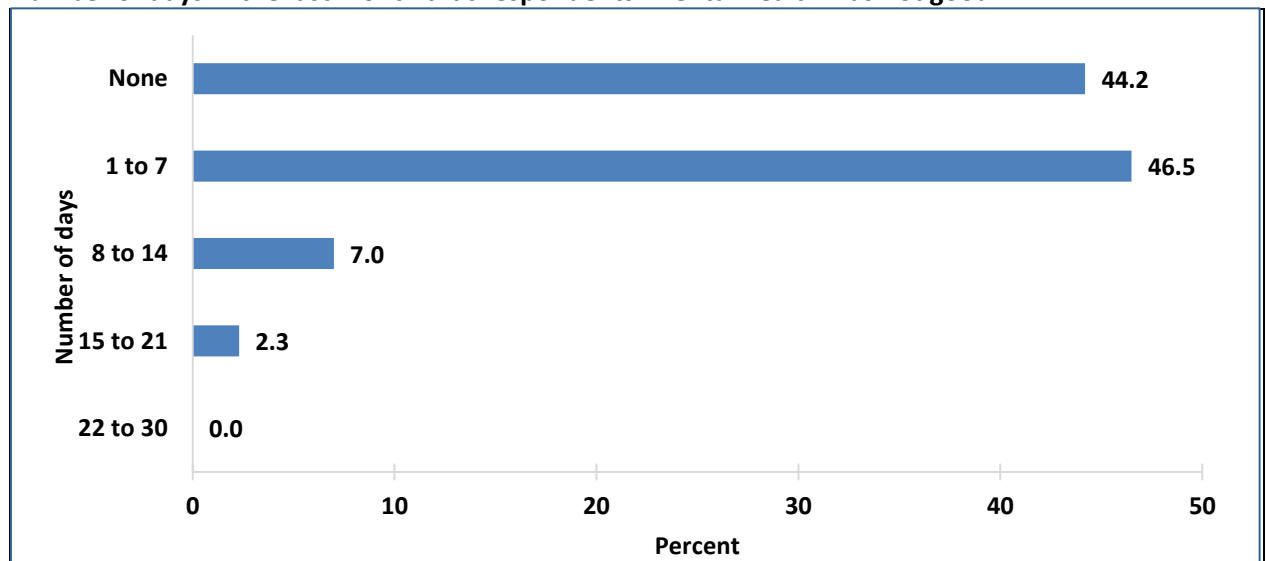
Substance abuse is also a mental health disorder, as defined by the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV), and can stem from mental health concerns. In the community, 74% of respondents drank alcoholic beverages on at least one day in the last month. On days they drank, 29.7% of respondents drank an average of three or more drinks per day. In regards to binge drinking, 26.5% of respondents report binge drinking at least once per month.

Secondary research through the 2015 County Health Rankings indicates that 16% of Traill County and 26% of Steele County residents report binge drinking. (See Appendix)

Number of times during the past month that respondents consumed at least 4 or 5 alcoholic drinks (Binge drinking is defined by the CDC as 4 drinks for females, 5 drinks for males) on the same occasion

Category	Percent*
Almost every day	0.0
2 to 3 times a week	1.9
Once a week	3.8
Once a month	20.8
Never	73.6
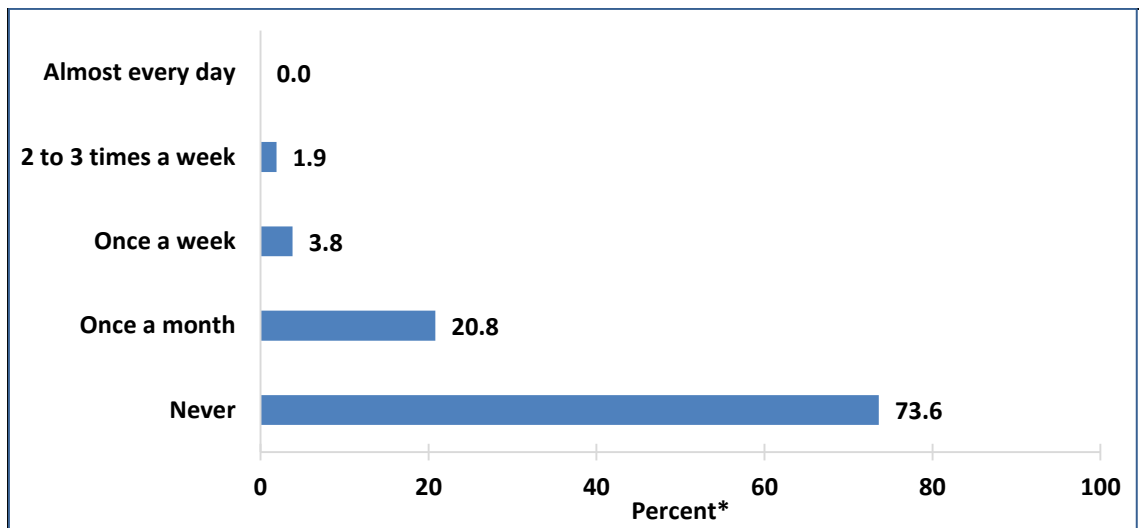
Whether respondents have ever had a problem with alcohol use or prescription or non-prescription drug abuse
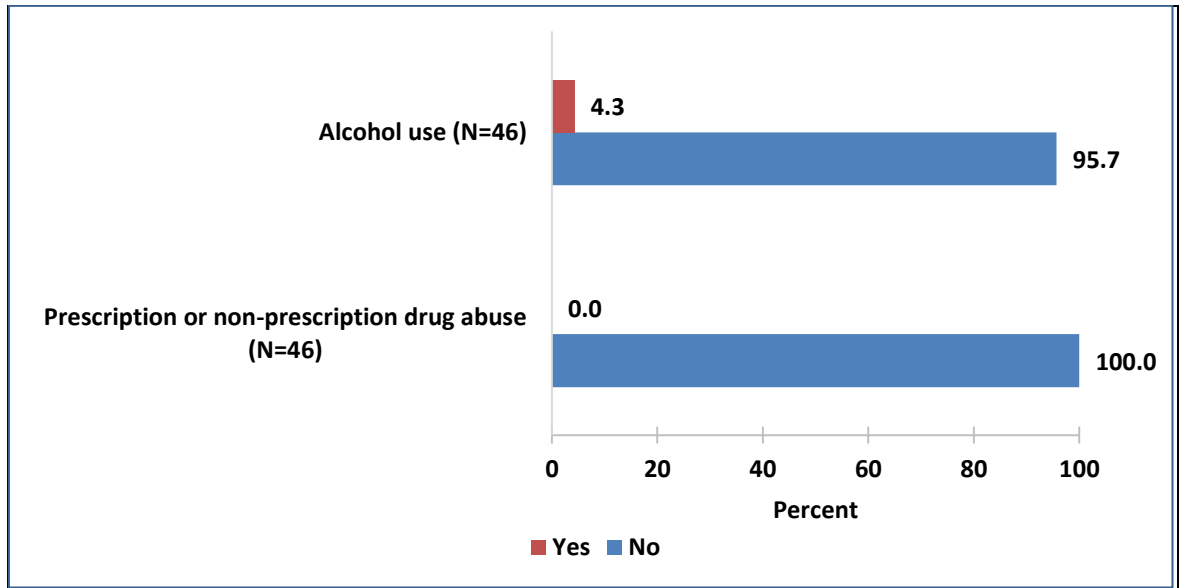
Less than 5% of respondents reported having a problem with alcohol although earlier reporting indicated a higher level of binge drinking. Overall, 32.7% of respondents report alcohol use has had harmful effects on themselves or a family member.

Other forms of substance abuse include the use of prescription or non-prescription drugs. No respondents reported having had a problem with prescription or non-prescription drug abuse. However, 15.4% of respondents say prescription or non-prescription drug abuse has had harmful effects on themselves or a family member.

Whether alcohol use or prescription or non-prescription drug abuse has had harmful effects on respondents or a family member over the past two years
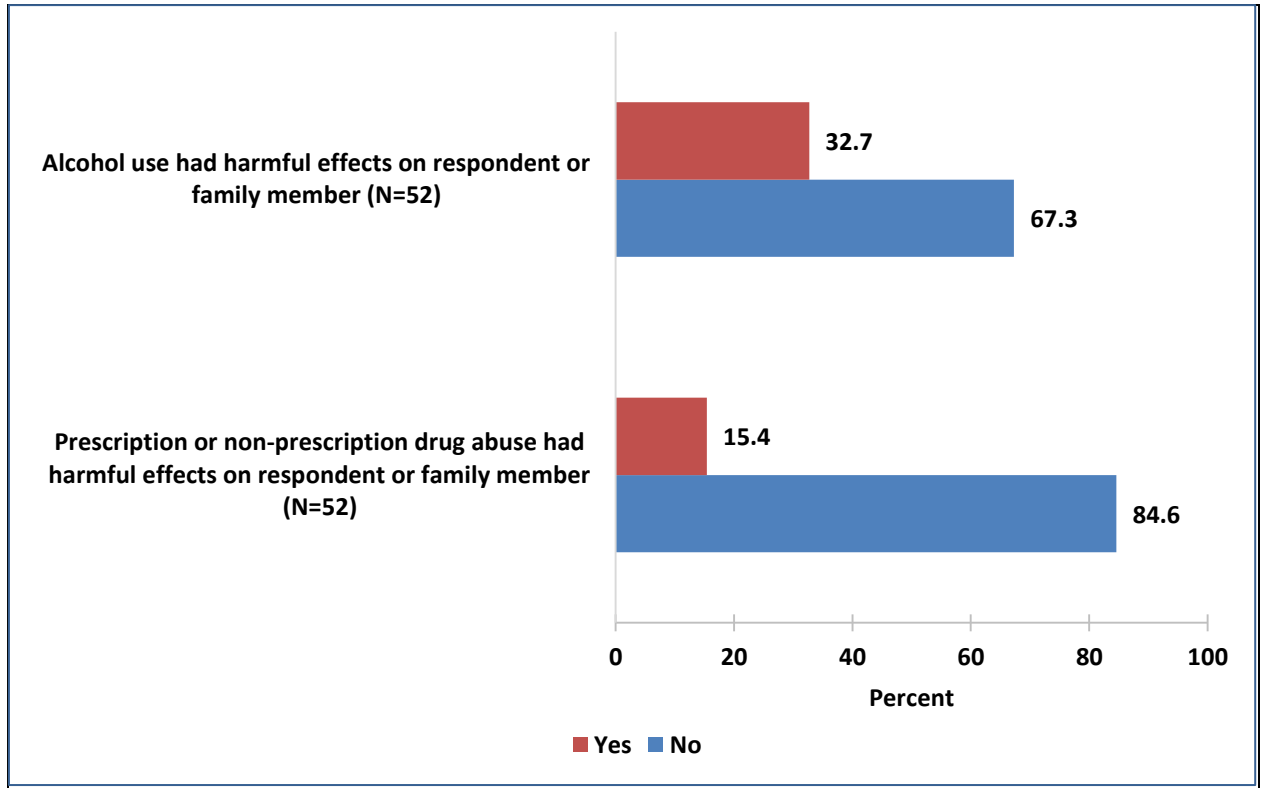
Demographics

Total Population – 2010 U.S. Census Bureau

- Traill County: 8,121
- Steele County: 1,975

Population by Age and Gender

	Number	Percent	Males	Percent	Females	Percent
<5 years	Traill: 510 Steele: 101	Traill: 6.3 Steele: 5.1	Traill: 256 Steele: 45	Traill: 3.2 Steele:2.3	Traill: 254 Steele: 56	Traill: 3.1 Steele: 2.8
5-9	Traill: 465 Steele: 94	Traill: 5.7 Steele: 4.8	Traill: 238 Steele: 46	Traill: 2.9 Steele: 2.3	Traill: 227 Steele: 48	Traill: 2.8 Steele: 2.4
10-14	Traill: 504 Steele: 134	Traill: 6.2 Steele: 6.8	Traill: 268 Steele: 58	Traill: 3.3 Steele: 2.9	Traill: 236 Steele: 76	Traill: 2.9 Steele: 3.8
15-19	Traill: 604 Steele: 121	Traill: 7.4 Steele: 6.1	Traill: 330 Steele: 60	Traill: 4.1 Steele: 3.0	Traill: 274 Steele:61	Traill: 3.4 Steele: 3.1
20-24	Traill: 528 Steele: 62	Traill: 6.5 Steele: 3.1	Traill: 286 Steele: 31	Traill: 3.5 Steele: 1.6	Traill: 242 Steele: 31	Traill: 3.0 Steele: 1.6
25-29	Traill: 385 Steele: 95	Traill: 4.7 Steele: 4.8	Traill: 204 Steele: 57	Traill: 2.5 Steele: 2.9	Traill: 181 Steele: 38	Traill: 2.2 Steele: 1.9
30-34	Traill: 401 Steele: 90	Traill: 4.9 Steele: 4.6	Traill: 207 Steele: 52	Traill: 2.5 Steele: 2.6	Traill: 194 Steele: 38	Traill: 2.4 Steele: 1.9
35-39	Traill: 428 Steele: 86	Traill: 5.3 Steele: 4.4	Traill: 214 Steele: 41	Traill: 2.6 Steele: 2.1	Traill: 214 Steele: 45	Traill: 2.6 Steele: 2.3
40-44	Traill: 482 Steele: 118	Traill: 5.9 Steele: 6.0	Traill: 232 Steele: 70	Traill: 2.9 Steele: 3.5	Traill: 250 Steele: 48	Traill: 3.1 Steele: 2.4
45-49	Traill: 594 Steele: 178	Traill: 7.3 Steele: 9.0	Traill: 328 Steele: 85	Traill: 4.0 Steele: 4.3	Traill: 266 Steele: 93	Traill: 3.3 Steele: 4.7
50-54	Traill: 643 Steele: 157	Traill: 7.9 Steele: 7.9	Traill: 321 Steele: 88	Traill: 4.0 Steele: 4.5	Traill: 322 Steele: 69	Traill: 4.0 Steele: 3.5
55-59	Traill: 604 Steele: 165	Traill: 7.4 Steele: 8.4	Traill: 321 Steele: 89	Traill: 4.0 Steele:4.5	Traill: 283 Steele: 76	Traill: 3.5 Steele: 3.8
60-64	Traill: 452 Steele: 133	Traill: 5.6 Steele: 6.7	Traill: 234 Steele: 80	Traill: 2.9 Steele: 4.1	Traill: 218 Steele: 53	Traill: 2.7 Steele: 2.7
65-69	Traill: 380 Steele: 113	Traill: 4.7 Steele: 5.7	Traill: 170 Steele: 58	Traill: 2.1 Steele: 2.9	Traill: 210 Steele:55	Traill: 2.6 Steele: 2.8
70-74	Traill: 282 Steele: 104	Traill: 3.5 Steele: 5.3	Traill: 135 Steele: 47	Traill: 1.7 Steele: 2.4	Traill: 147 Steele:57	Traill: 1.8 Steele:2.9
75-79	Traill: 260 Steele: 105	Traill: 3.2 Steele: 5.3	Traill: 103 Steele:48	Traill: 1.3 Steele: 2.4	Traill: 157 Steele:57	Traill: 1.9 Steele: 2.9
80-84	Traill: 279 Steele: 58	Traill: 3.4 Steele: 2.9	Traill: 124 Steele: 23	Traill: 1.5 Steele: 1.2	Traill: 155 Steele: 35	Traill: 1.9 Steele: 1.8
85 and over	Traill: 320 Steele: 61	Traill: 3.9 Steele: 3.1	Traill: 96 Steele:31	Traill: 1.2 Steele:1.6	Traill: 224 Steele:30	Traill: 2.8 Steele: 1.5
Median age	Traill: 42.6 Steele: 47.7		Traill: 40.9 Steele: 48		Traill: 44.3 Steele: 47.3	

Population by Race

	Traill	Percent	Steele	Percent
White	7,809	96.2	1.927	92.7
Black or African American	42	0.5	3	0.2
American Indian or Alaska Native	64	0.8	23	1.2
Asian	21	0.3	2	0.1
Native Hawaiian or other Pacific Islander	1	0.0	0	0.0
Hispanic or Latino	214	2.6	20	1.0

The per capita personal income in Traill County, North Dakota is $27,096. The per capita personal income in Steele County is $31,455. Those living below the poverty level are 10.7% in Traill County and 6.2% in Steele County. The unemployment rate in Traill County is 3.1% and the unemployment level in Steele County is 2.2%.

Health Needs and Community Resources Identified

One of the requirements for a community health needs assessment is to identify the resources that are available in the community to address unmet needs. Asset mapping was conducted by reviewing the primary and secondary research and identifying the unmet needs from the various surveys and data sets. Each unmet need was researched to determine what resources were available in the community to address the needs.

The key community stakeholders from Mayville, Portland, Hillsboro, Halstad, and Traill and Steel counties participated in the asset mapping and reviewed the research findings. The group conducted an informal gap analysis to determine what needs remained after resources were thoroughly researched. Once gaps were determined the group proceeded to the prioritization process. The multi-voting methodology was implemented to determine what top priorities would be further developed into implementation strategies.

The process implemented in this work was based on the McKnight Foundation model - Mapping Community Capacity by John L. McKnight and John P. Kretzmann, Institute for Policy Research at Northwestern University.

The asset map includes identified needs from the following:
- Identified needs from the non-generalizable survey
- Concerns expressed by the key stakeholder group
- Secondary research data
- Community resources that are available to address the need(s)

The Asset Map can be found in the Appendix.

Prioritization

The following needs were brought forward for prioritization:
- Aging
- Children and Youth
- Safety
- Healthcare Access
- Physical Health
- Mental Health
- Preventive Health

Sanford is addressing all of the assessed needs that fall within our scope of work. In some cases the need is one where we do not have the expertise to adequately address the need; however, Sanford leaders will communicate these findings to community leaders and experts who can best focus on a solution to the concern.

A document that shares what Sanford is doing to address the need or defends why Sanford is not addressing the need can be found in the Appendix.

Members of the community stakeholder group determined that mental health and physical health are the top unmet needs.

Sanford has determined the 2016-2019 implementation strategies for the following needs:
- Physical Health
- Depression

Addressing the Needs

Identified Concerns	How Sanford Mayville is Addressing the Needs
Aging • Cost of long term care • Availability of memory care	Defer to local nursing home as they do cost analysis. They do have an Alzheimer's unit, so meets need if there are openings in unit. Local nursing home has directory of other units available.
Children and Youth • Bullying • Availability of activities for children and youth • Cost of activities for children and youth	MPCG High School has a program for bullying. As part of Physical Health, will be working with high school and local university in determining where child activities are happening. Due to small community, costs can range from free to $60/ month. Will visit with local university to see if those students who are majoring in Health can help with activities to defray costs.
Safety • Seat belt usage • Presence of street drugs and alcohol in the community	City Council and the County Sheriff's Office are working on promotion of seat belt usage and the Sheriff's Office is also monitoring illegal drugs and alcohol consumption.
Healthcare • Access to affordable health insurance • Cost of affordable vision insurance • Access to affordable prescription drugs • Cost of affordable dental insurance coverage	Have and will continue to have community forums on these topics presented by various health plans. We are only participants as we are not in the business of selling insurance.
Physical Health • Cancer • Poor nutrition and eating habits • Inactivity and lack of exercise • Obesity • Chronic disease • BMI – overweight or obese 67.3% • Only 25.9% of respondents have 3 or more vegetables/day and 25.4 % have 3 or more fruits/day • Only 45.5% have 3 or more days each week of moderate activity and 20 % report 3 or more days of vigorous activity each week • 30.9% have smoked at least 100 cigarettes in their life • 20.3% of respondents reported hypertension • 16.9% reported high cholesterol • 10.2% reported diabetes	Patients with cancer are referred to the Roger Maris Cancer Center in Fargo. Patients with chronic disease work with their provider, health coach and dietitian. We continue to promote wellness. In summary, we are working on establishing walking trails of various lengths to cover both Mayville and Portland, utilizing high school and local university students. Have secured a small grant to go to 9 senior citizen centers in area to talk about physical exercise (includes diet) and chronic disease. We hope to have a health fair also to educate the public.
Mental Health • Stress • Depression • Dementia and Alzheimer's • 22% of respondents report that they have been told by a doctor that they have anxiety or stress, and 15.3% report being told that they have depression • 59.1% reported 1 or more days in the last month when their mental health was not good. • 11.9% of respondents reported 3 or more drinks /d on average • 26% reported 4 or 5 drinks (binge) on the same occasion over the past month • No one reported having a problem with alcohol use or drug use, however 24.1% reported that alcohol use had harmful effects on the respondent or a family member	Continuing to update a directory for available resources in county and nearby MSAs.
Preventive Health • Flu shots and immunizations	Have done flu blitzes and when patients come into clinic, we promote immunizations also.

2016-2019

Implementation

Strategies

Implementation Strategies

Priority 1: Physical Health in the Community

- Obesity and inactivity are closely linked. Keeping active can help people stay at a healthy weight or lose weight. It can also lower the risk of heart disease, diabetes, stroke, high blood pressure, osteoporosis, and certain cancers, as well as reduce stress and boost mood. Inactive (sedentary) lifestyles do just the opposite.

- The World Health Organization, the U.S. Dept. of Health and Human Services, and other authorities recommend that for good health, adults should get the equivalent of two and a half hours of moderate-to-vigorous physical activity each week. Children should get even more, at least one hour a day.

- Sanford has prioritized physical health and has set measurable outcomes as a baseline for weight and periodic measurement, education session participation and exercise participation. The Sanford Health *fit* program is available to all classroom teachers and includes four areas of focus; nutrition, activity, behavioral health and sleep. The program is available to promote healthy lifestyles in homes, schools and daycares.

Priority 2: Depression

- Depression is a common but serious illness that can interfere with daily life. Many people with a depressive illness never seek treatment. But the majority, even those with the most severe depression, can get better with treatment. The North Dakota Department of Health reports that 14% of residents in Traill and Steele counties have reported fair or poor mental health days.

- Sanford has prioritized depression as a top priority and has set strategy to perform assessments for depression in the primary care setting and to improve PHQ-9 scores for patients who are diagnosed with depression. The goal is to improve PHQ-9 scores for patients with depression. The measurable outcome is the percentage of patients with major depression or dysthymia and an initial PHQ-9 score greater than nine whose six-month PHQ-9 score is less than five.

- Sanford Health will continue to provide a directory of services for community members.

Community Health Needs Assessment – Implementation Strategy

Sanford Mayville Medical Center

FY 2017-2019 Action Plan

Priority 1: Physical Health

Projected Impact: Nutrition and Physical activity program are available for community members

Goal 1: Improve the availability of programs for nutrition education and

Actions/Tactics	Measureable Outcomes	Dedicated Resources	Leadership	Note any community partnerships and collaborations (if applicable)
Work with local city government, public schools and university to develop city-wide walking trails	• Baseline measurement for weight is established and evaluated quarterly • Participation in the exercise programs, walking logs, etc.	City facilities such as sidewalks, school track, University health education class, etc.	Sanford nutrition, exercise staff, MSU, public health, schools and city leadership	Public schools Mayville State University City of Mayville and Portland Traill Health District
Establish nutrition education materials and create a nutrition education program	• Number of participants in the nutrition program • Number of participants in the exercise program	Sanford dietitians	Sanford leadership	Public Schools Steele/Traill Health Districts Senior Citizen Centers

Goal 2: Improve the availability for exercise across the community

Actions/Tactics	Measureable Outcomes	Resources	Leadership	Note any community partnerships and collaborations - if applicable
Develop exercise programs for the community (walking clubs, biking clubs, fitness challenges)	• Program is consistent with Hillsboro and offered county-wide • Number of participants	Sanford exercise and wellness staff	Sanford leadership	Public Health Mayville State University Local schools City leadership
Provide Sanford *fit* program to the local schools	Sanford *fit* is available to all students and families in the area through classroom and fit website	Sanford *fit* leadership Classroom teachers	Sanford leadership	Local schools Child care leaders

Priority 2: Mental Health Services

Projected Impact: Reduction in the severity of depression

Goal 1: Improve PHQ-9 scores for patients with depression

Actions/Tactics	Measureable Outcomes	Resources	Leadership	Note any community partnerships and collaborations - if applicable
Develop Sanford My Chart capabilities for depression assessment	Percentage of patients with major depression or dysthymia and an initial PHQ-9 score greater than nine whose six-month PHQ-9 score was less than five	Clinic Leadership	Dr. Tweet	First Link
Provide education on workflow to all health coaches and panel specialists to standardize workflow	All health coaches in primary care receive education on workflow	Clinic Leadership	Dr. Tweet	

Goal 2: Provide for improved access to Mental Health/Behavioral Health services

Actions/Tactics	Measureable Outcomes	Resources	Leadership	Note any community partnerships and collaborations - if applicable
Distribute the directory of available resources	An updated directory is available for community members	Sanford Mayville Traill Health District Steele Health District	Sanford Leadership	Traill Health District Steele Health District

2013 Implementation Strategy Impact

2013 Implementation Strategy: Mental Health Services
- Define services currently available
- Define mechanisms to educate service area
- Define education process and secure outside resources
- Develop directory with resources and outsource information
- Distribute directory to various groups, entities and secure email addresses and updates
- Participate in Sanford One Mind as determined by the enterprise three-year plan

2013 Implementation Strategy: Services for the Elderly
- Update directory of available services
- Print/distribute

2013 Implementation Strategy: Dental
- Determine specific needs through collaboration with county agencies
- Request assistance from AHEC to determine directory availability
- Determine how to market the needs among various organizations
- Distribute finished directory product
- Ongoing process - monitoring the needs and services

The 2013 implementation strategies have served a broad base of our community and region. The impact has been positive and the work will continue into the future through new or continued programming and services.

Impact of the Strategy to Address Mental Health Services

Sanford Health completed an inventory of services that are available in the area to address mental health needs. A directory was developed for the purpose of making the information available to the members of the community. The directory was updated in 2015 and will be updated again in 2016.

Revised copies of the mental health resource directory have been made available to public health and community members can obtain a copy at the hospital. Copies will also be distributed to area senior centers during 2016 and at the health fair/education blitz.

Impact of the Strategy to Address Services for the Elderly

Sanford Health completed an inventory of services that are available to meet the needs of seniors in the community and rural areas. A directory was developed for the purpose of making the information available to the members of the community. The directory was updated in 2015, and was added to the mental health services directory.

Revised copies of the mental health and services for the elderly resource directory have been made available to public health and community members can obtain a copy at the hospital. Copies will also be distributed to area senior centers during 2016 and at the health fair/education blitz.

Impact of the Strategy to Address Community Collaboration

Sanford Health works in collaboration with AHEC to implement Scrubs camps and allow job shadowing of students who are planning to attend college for healthcare careers. The Scrubs camp is held at Sanford Mayville Medical Center and the program has full attendance each year.

Sanford Health leadership worked with the City Council to discuss key issues that were discovered through the 2013 CHNA survey process. As a result of the discussion with city leaders, Sanford has expanded tele-medicine services for psych and sleep medicine. Additionally, cardiac rehab has expanded to congestive heart failure services and a cancer survivorship program was added. Podiatry service is a new outreach in the clinic.

Community Feedback

from the 2013

Community Health Needs

Assessment

Sanford Health is prepared to accept feedback on our 2013 community health needs assessment and has provided on-line comment fields for ease of access on our website. There have been no comments to date aside from a question asked about the service area for this report. A reader wanted to know if a separate report was developed for the Lisbon, North Dakota area. Since there is no hospital in Lisbon, a community health needs assessment was not conducted solely for that community.

APPENDIX

Primary Research

Mayville/Hillsboro 2016 CHNA Asset Map

Identified concern	Key stakeholder Survey	Secondary data	Specific areas of concern	Community resources that are available to address the need	Gap?
Aging population	4.43 – 3.60		• Cost of long term care • Availability of memory care • Availability of long term care • Availability of resources for family/friends caring for and making decisions for elders • Availability of activities for seniors • Availability of resources to help the elderly stay safe in their homes	Sanford Home Care – 701-788-4400 Sanford Faith Community Nursing – 701-234-5818	X
Children and Youth	4.13 – 3.72		• Availability of activities for children and youth • Availability of quality childcare • Bullying • Availability of quality infant care • Cost of quality child care • Availability of services for at-risk youth • Cost of quality infant care • Cost of activities for children and youth • Cost of services for at-risk youth	NE Human Service Center – 701-795-3000 Teen Line – 1-877-419-7233 (24-hr. counselor line)	X
Safety	3.70 – 3.53		• Presence of street drugs, and alcohol in the community • Child abuse and neglect • Domestic violence		X
Healthcare	4.09 – 3.61		• Access to affordable health insurance • Access to affordable healthcare • Cost of affordable dental insurance coverage • Cost of affordable vision insurance • Access to affordable prescription drugs • Timely access to substance abuse providers • Timely access to mental health providers	Sanford Community Care Program Financial assistance/counselors in business office?	X

Identified concern	Key stakeholder Survey	Secondary data	Specific areas of concern	Community resources that are available to address the need	Gap?
Physical Health	4.11 – 3.65	• Reporting poor or fair health – 12% in Steele and 13% in Traill • The obesity rate is 36% in Traill County and 32% in Steele County • The inactivity rate is 27% in Traill County and 30% in Steele County – with a 64% access to exercise opportunities in Traill County and a 27% access in Steel County.	• Cancer • Chronic Disease (hypertension, high cholesterol, arthritis, diabetes) • Inactivity and lack of exercise (39% have moderate exercise 3 or more times/week, and 17% have vigorous activity 3 or more times/week • Poor nutrition and eating habits (Only 28% have 3 or more vegetables/d, and only 17% have 3 or more fruits/d) • Obesity (65.3% have BMI of overweight or obese)	Sanford Cancer Biology Research Center in SF Roger Maris Cancer Center Sanford Medical Home RN Health Coach American Cancer Society Sanford Dietitians Better Choices/Better Health American Heart Association Sanford Clinic – 701-788-4500 American Diabetes Association Diabetes Support Group	X
Mental Health/Behavioral Health (Substance Abuse)	3.98 – 3.69	• Excessive drinking is at 16% in Trail County and 26% in Steele County • 33% of traffic deaths were	• Stress (37% report Anxiety/stress) • Alcohol use and abuse (29.7% report consuming 3 or more drinks/d and 26.5% have binge level drinking at least 1time/mos.) • Underage drinking • Depression (31.5% report depression – 55.8% have 1 or more days/mos. when their mental health was not good)	Sanford Clinic – 701-788-4500 NE Human Service Center – 701-795-3000	X

Identified concern	Key stakeholder Survey	Secondary data	Specific areas of concern	Community resources that are available to address the need	Gap ?
		alcohol impaired in Traill County and 50% were alcohol impaired in Steele County • 13% of adults smoke in Traill County and 12% in Steel County	• Under age drug use and abuse • Smoking and tobacco use • Drug use and abuse		
Preventive Health			• Flus shots (77% of respondents have had a flu shot and report that 53.8% of children age 6 month or older have had a flu shot) • Immunizations (22% of respondents report having immunizations in the past year, and respondents repot that 88% of their children are current on their immunizations) • 21% have not seen a healthcare provider in the past year • 17% have not seen a dentist in the past year		

Mayville 2016 Community Health Needs Assessment
Prioritization Worksheet

Criteria to Identify Priority Problem

- Cost and/or return on investment
- Availability of solutions
- Impact of problem
- Availability of resources (staff, time, money, equipment) to solve problem
- Urgency of solving problem (H1N1 or air pollution)
- Size of problem (e.g. # of individuals affected)

Criteria to Identify Intervention for Problem

- Expertise to implement solution
- Return on investment
- Effectiveness of solution
- Ease of implementation/maintenance
- Potential negative consequences
- Legal considerations
- Impact on systems or health
- Feasibility of intervention

Health Indicator/Concern	Round 1 Vote	Round 2 Vote	Round 3 Vote
Aging • Cost of long term care 4.43 • Availability of memory care 3.89 • Availability of LTC 3.81 • Availability of resources for caregivers 3.70 • Availability of activities for seniors 3.61 • Availability of resources to help seniors stay in the homes 3.60	X		
Children and Youth • Availability of activities for children and youth 4.13 • Cost and Availability of quality childcare 4.04 and 3.87 • Bullying 4.04 • Cost and Availability of quality infant care 4.02 and 3.83 • Cost and availability of services for at-risk youth 3.85 and 3.72 • Cost of activities for children and youth 3.80	X		
Safety • Seat belt usage • Presence of street drugs and alcohol in the community 3.70 • Child abuse and neglect 3.61 • Domestic violence 3.53			
Health care • Access to affordable health insurance 4.09 • Access to affordable health care 3.80 • Cost of affordable dental insurance coverage 3.78 • Cost of affordable vision insurance 3.72 • Access to affordable prescription drugs 3.70 • Timely access to substance abuse providers 3.69 • Timely access to mental health providers 3.61	XX		
Physical Health • Cancer 4.11 • Chronic disease 3.98 • Inactivity and lack of exercise 3.81 • Poor nutrition and eating habits 3.70 • Obesity 3.65 • BMI – overweight or obese 65.3% • Only 28.4% of respondents have 3 or more vegetables/day and 17 % have 3 or more fruits/day • Only 39% have 3 or more days each week of moderate activity and 17 % report 3 or more days of vigorous activity each week • 37.7% have smoked at least 100 cigarettes in their life • 22.2% of respondents reported hypertension • 13% reported high cholesterol • 11.1% reported diabetes • *Preventive Health – Flu shots and immunizations*	XXXXX #2 priority		

Health Indicator/Concern	Round 1 Vote	Round 2 Vote	Round 3 Vote
Mental Health • Stress 3.98 • Depression 3.81 • 37% of respondents report that they have been told by a doctor that they have anxiety or stress, and 31.5% report being told that they have depression • 55.8% reported 1 or more days in the last month when their mental health was not good. • 29.7% of respondents reported 3 or more drinks /d on average • 26.5% reported 4 or 5 drinks (binge) on the same occasion over the past month • 4.3%reported having a problem with alcohol use, however 32.7% reported that alcohol use had harmful effects on the respondent or a family member	XXXXXX #1 priority		

Present: Jill Borth, Steele County Board of Health, DeAnna Kyllo, Mayville State University – COP Health, Brittany Ness, Steele County Public Health, Bonnie Overby, Mayville State University, Cassandra Garza, Brenda Stallman, Traill District Health, Jessica Speath, Community of Halstad, Ernie Strube, MayPort EDC, Bill Krivarchka, Eastern ND AHEC, Jac McTaggart, CEO Sanford Hillsboro Medical Center, Jeff McInnes, Sanford Hillsboro Board of Directors, Roger Baier, CEO Sanford Mayville Medical Center

Sanford Hillsboro/Mayville/Halstad/Traill/Steele Medical Center

Community Health Needs Assessment
Results from an April 2015 Non-generalizable
Online Survey

August 2015

STUDY DESIGN STUDY DESIGN and METHODOLOGY

The following report includes non-generalizable survey results from an April 2015 on-line survey conducted through a partnership between the Community Health Collaborative and the Center for Social Research (CSR) at North Dakota State University. The CSR developed and maintained links to the on-line survey tool. Members of the Community Health Collaborative invited viewers to access the on-line survey by distributing the survey link via e-mail to various agencies, at times using a snowball approach**. Therefore, it is important to note that the data in this report are not generalizable to the community.** Data collection occurred throughout the month of April 2015 and a total of 54 respondents participated in the on-line survey.

TABLE OF CONTENTS

SURVEY RESULTS

General Health and Wellness Concerns about the Community

Using a 1 to 5 scale, with 1 being "not at all" and 5 being "a great deal," respondents were asked to rate their level of concern with various statements regarding ECONOMICS, TRANSPORTATION, the ENVIRONMENT, CHILDREN AND YOUTH, the AGING POPULATION, SAFETY, HEALTHCARE, PHYSICAL AND MENTAL HEALTH, and SUBSTANCE USE AND ABUSE.

Figure 1. Level of concern with statements about the community regarding ECONOMICS
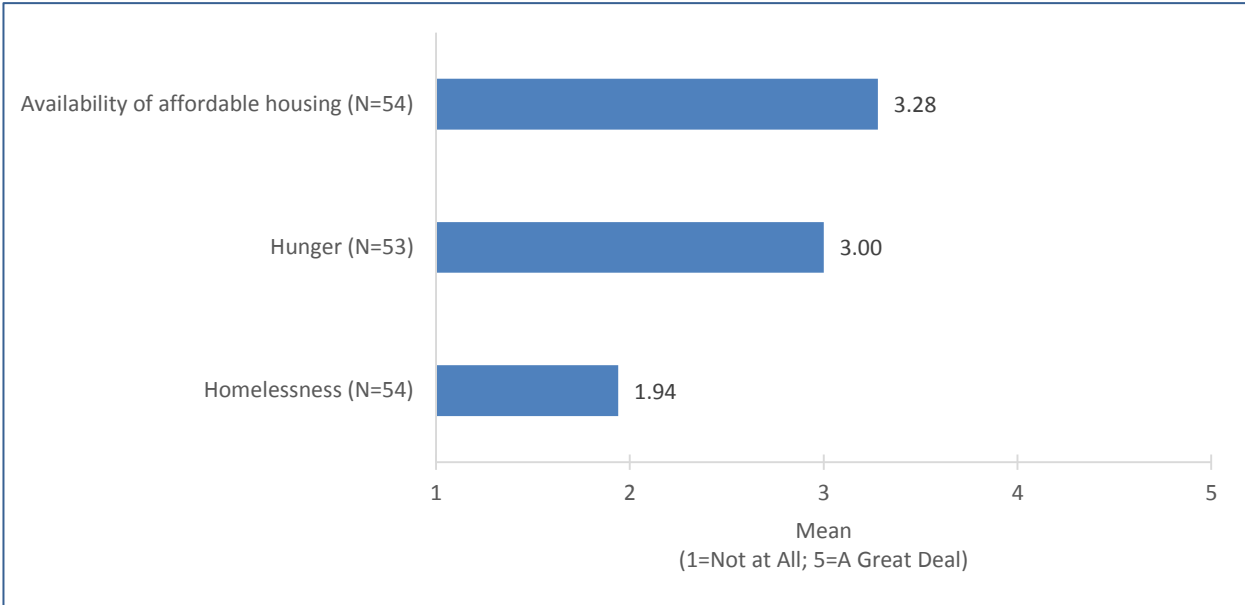
Figure 2. Level of concern with statements about the community regarding TRANSPORTATION
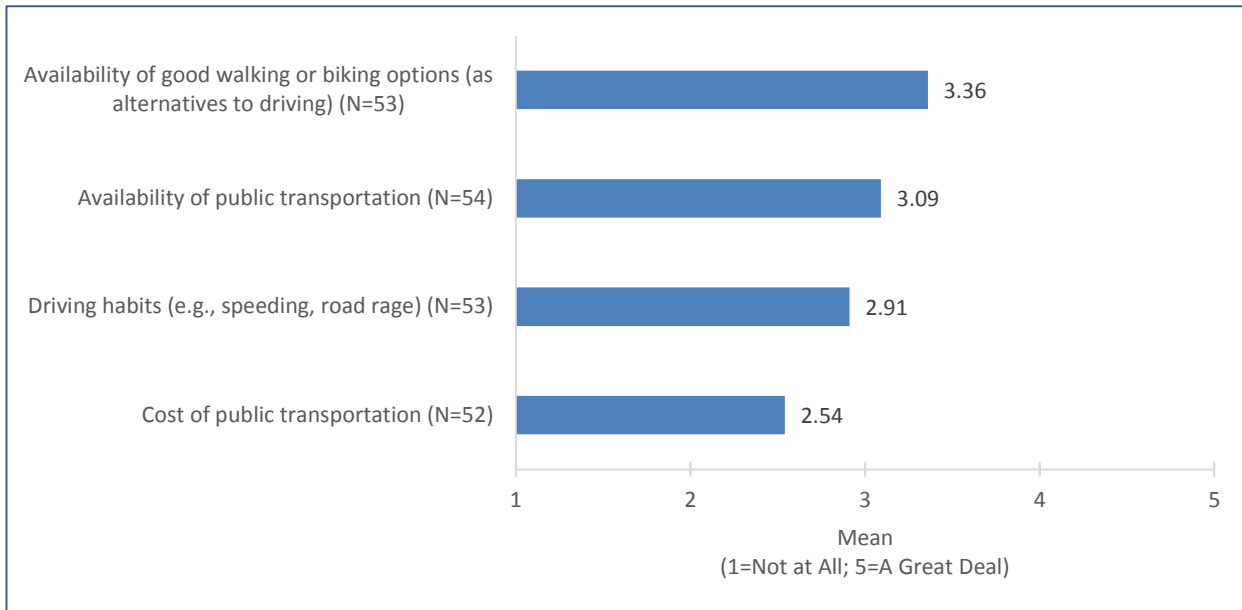

Figure 3. Level of concern with statements about the community regarding the ENVIRONMENT
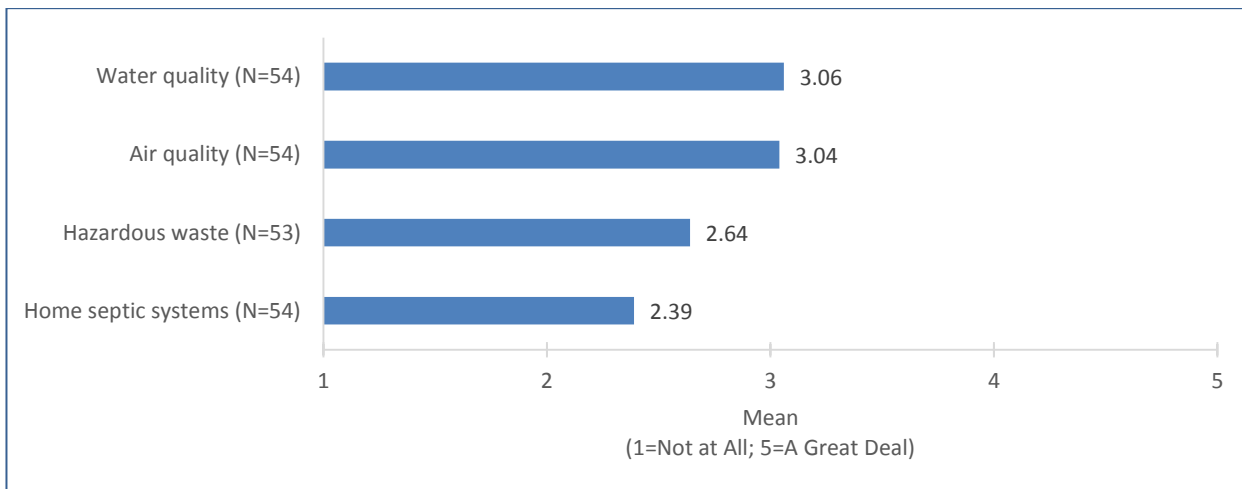
Figure 4. Level of concern with statements about the community regarding CHILDREN AND YOUTH
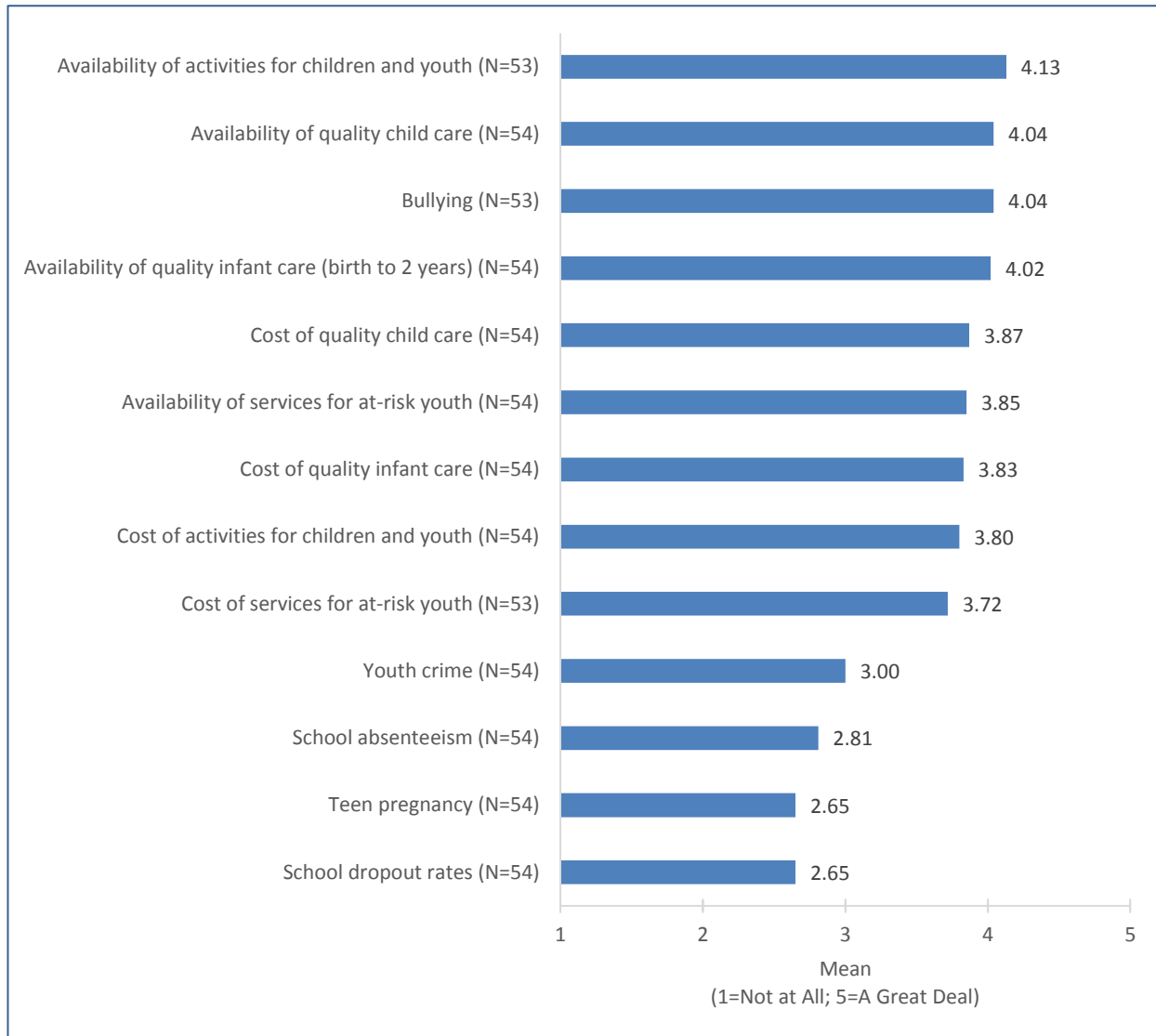
Figure 5. Level of concern with statements about the community regarding the AGING POPULATION

Statement	Mean
Cost of long term care (N=53)	4.43
Availability of memory care (N=53)	3.89
Availability of long term care (N=53)	3.81
Availability of resources for family/friends caring for and making decisions for elders (N=54)	3.70
Availability of activities for seniors (N=54)	3.61
Availability of resources to help the elderly stay safe in their homes (N=53)	3.60
Availability of resources for grandparents caring for grandchildren (N=52)	3.44
Cost of activities for seniors (N=54)	3.43

Mean
(1=Not at All; 5=A Great Deal)

Figure 6. Level of concern with statements about the community regarding SAFETY

Statement	Mean
Presence of street drugs, prescription drugs, and alcohol in the community (N=54)	3.70
Child abuse and neglect (N=54)	3.61
Domestic violence (N=53)	3.53
Presence of drug dealers in the community (N=54)	3.41
Elder abuse (N=54)	3.33
Crime (N=54)	2.96
Presence of gang activity (N=53)	2.42
Sex trafficking (N=54)	2.33

Mean
(1=Not at All; 5=A Great Deal)

Figure 7. Level of concern with statements about the community regarding HEALTHCARE

Access to affordable health insurance (N=54) — 4.09
Access to affordable health care (N=54) — 3.80
Cost of affordable dental insurance coverage (N=54) — 3.78
Cost of affordable vision insurance (N=54) — 3.72
Access to affordable prescription drugs (N=54) — 3.70
Timely access to substance abuse providers (N=54) — 3.69
Timely access to mental health providers (N=54) — 3.61
Timely access to physician specialists (N=54) — 3.30
Distance to health care services (N=54) — 3.24
Availability of transportation (N=53) — 3.23
Use of emergency room services for primary health care (N=54) — 3.17
Availability of non-traditional hours (e.g., evenings, weekends) (N=53) — 3.13
Timely access to prevention programs and services (N=54) — 3.13
Coordination of care between providers and services (N=53) — 2.98
Timely access to transportation (N=54) — 2.94
Timely access to dental care providers (N=54) — 2.91
Timely access to vision care providers (N=54) — 2.78
Timely access to doctors, physician assistants, or nurse practitioners (N=54) — 2.65
Timely access to exercise specialists or personal trainers (N=54) — 2.65
Providers not taking new patients (N=54) — 2.61
Timely access to registered dietitians (N=54) — 2.44
Timely access to bilingual providers and/or translators (N=53) — 2.25

Mean
(1=Not at All; 5=A Great Deal)

Figure 8. Level of concern with statements about the community regarding PHYSICAL AND MENTAL HEALTH

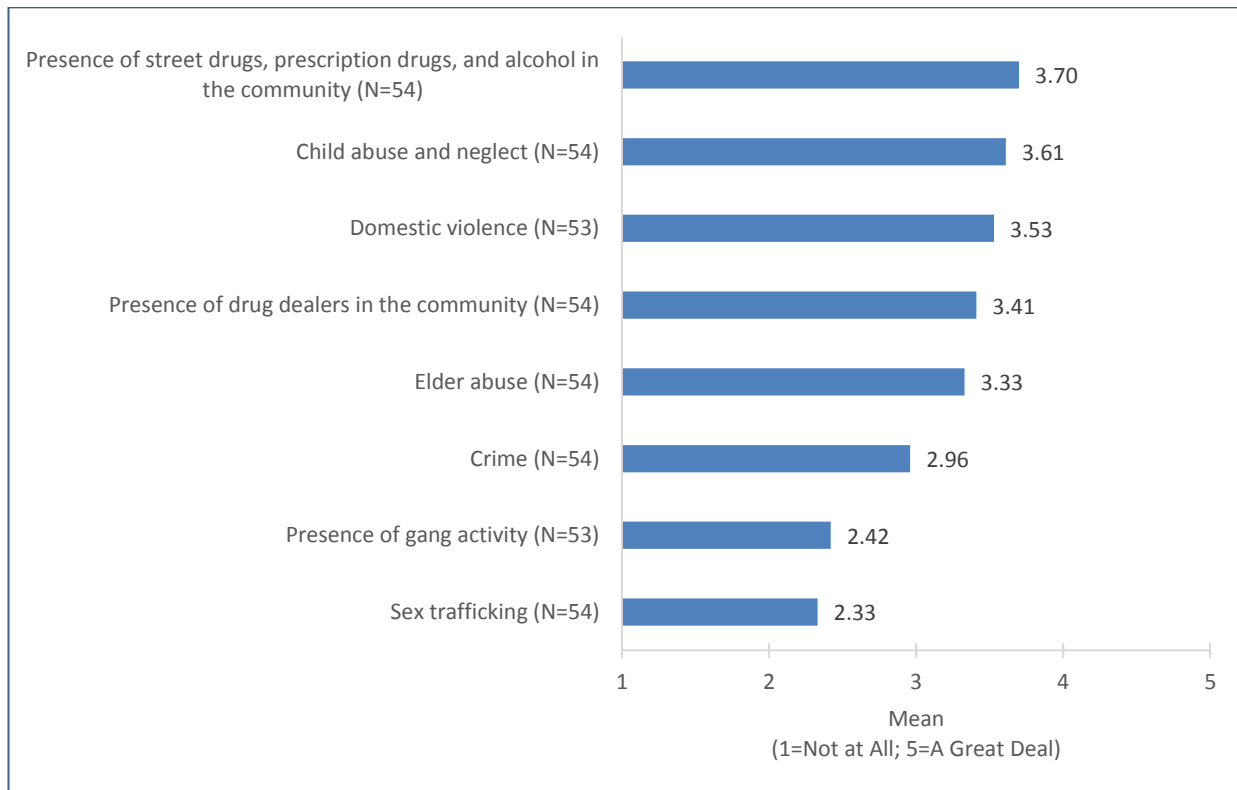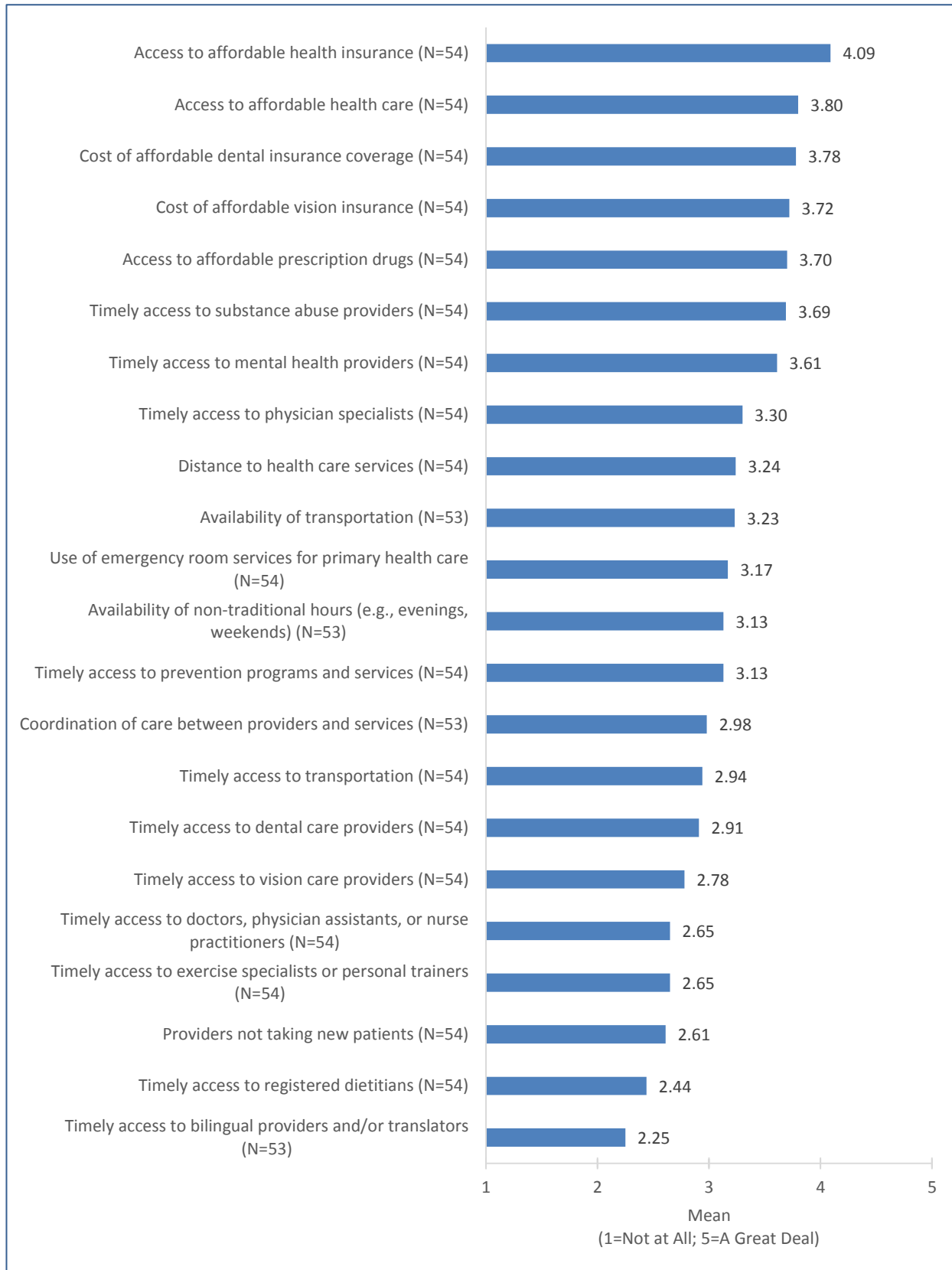Figure 9. Level of concern with statements about the community regarding SUBSTANCE USE AND ABUSE

Alcohol use and abuse (N=54) 3.98
Underage drinking (N=54) 3.83
Underage drug use and abuse (N=54) 3.78
Smoking and tobacco use (N=54) 3.74
Drug use and abuse (N=54) 3.69
Exposure to second-hand smoke (N=54) 3.44

Mean
(1=Not at All; 5=A Great Deal)

General Health

Figure 10. Respondents' rating of their health in general

Excellent 9.4
Very Good 47.2
Good 32.1
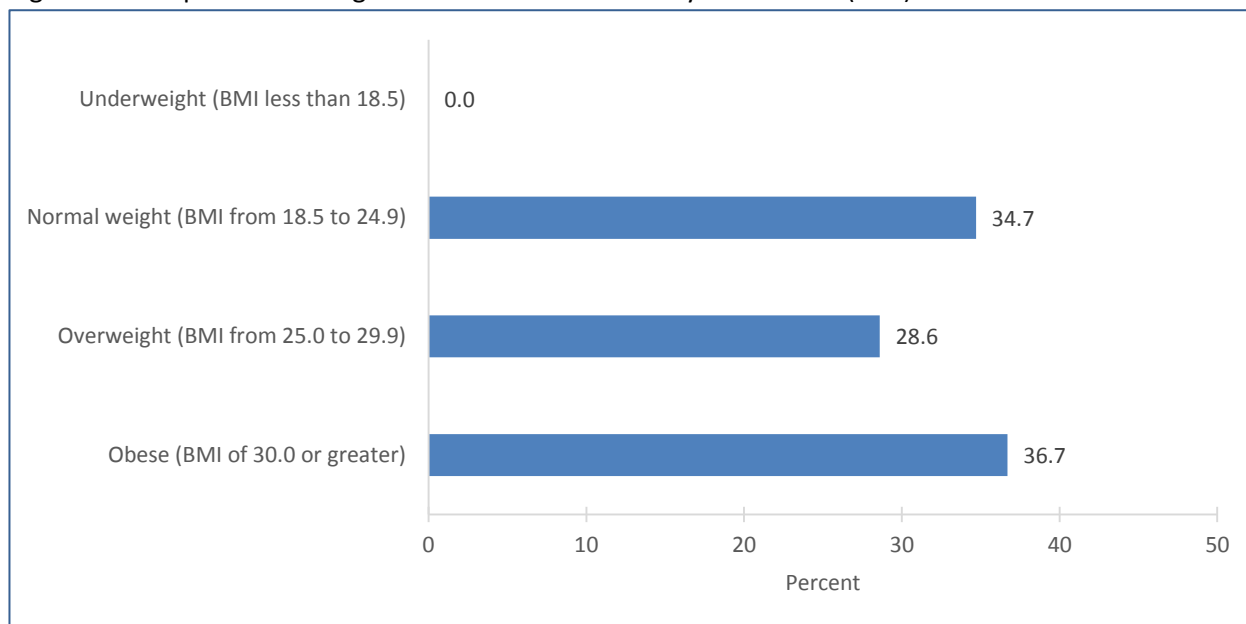Fair 11.3
Poor 0.0
Don't know 0.0

Percent

N=53

Figure 11. Respondents' weight status based on the Body Mass Index (BMI)* scale

N=49

 *For information about the BMI, visit the Centers for Disease Control and Prevention, *About BMI for Adults*, http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/.

Figure 12. Number of servings of vegetables, fruit, and fruit juice that respondents had yesterday
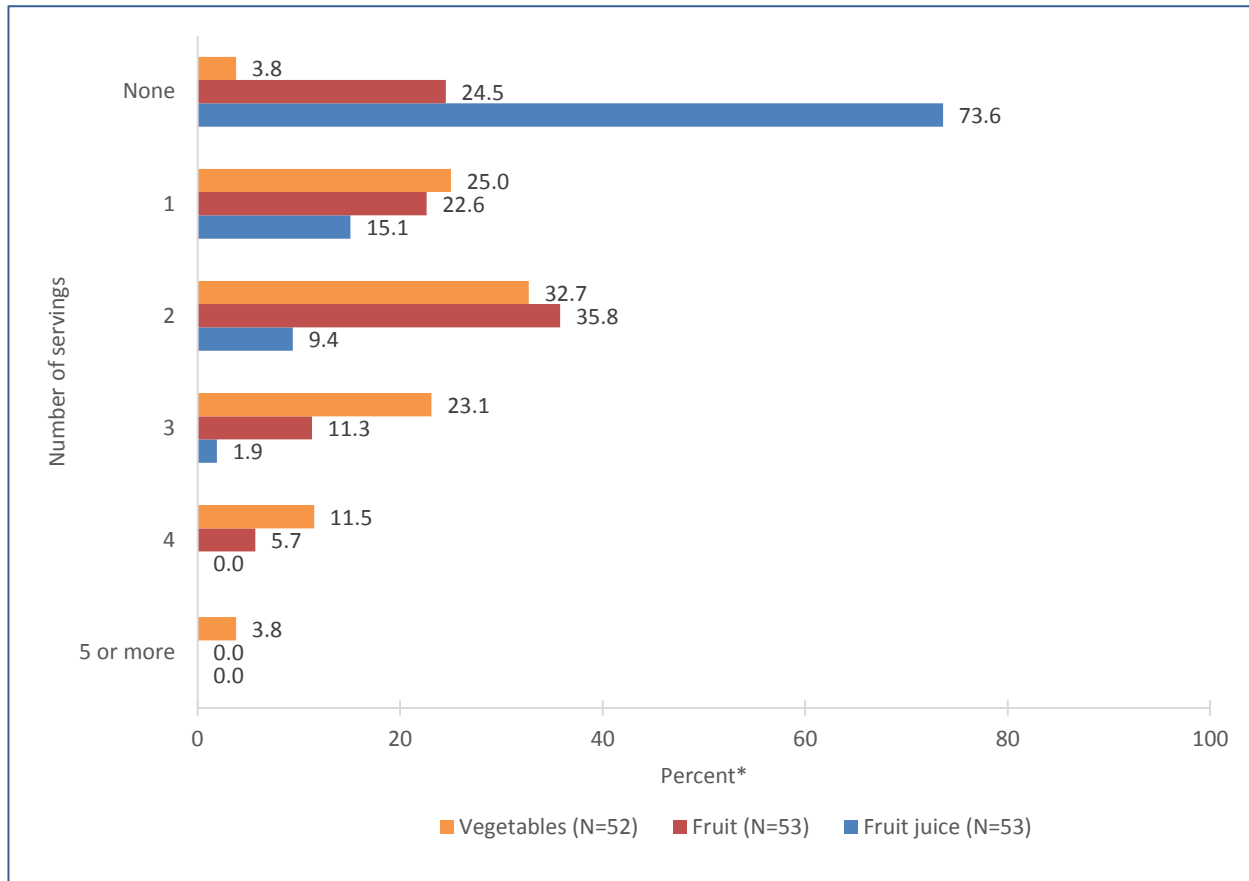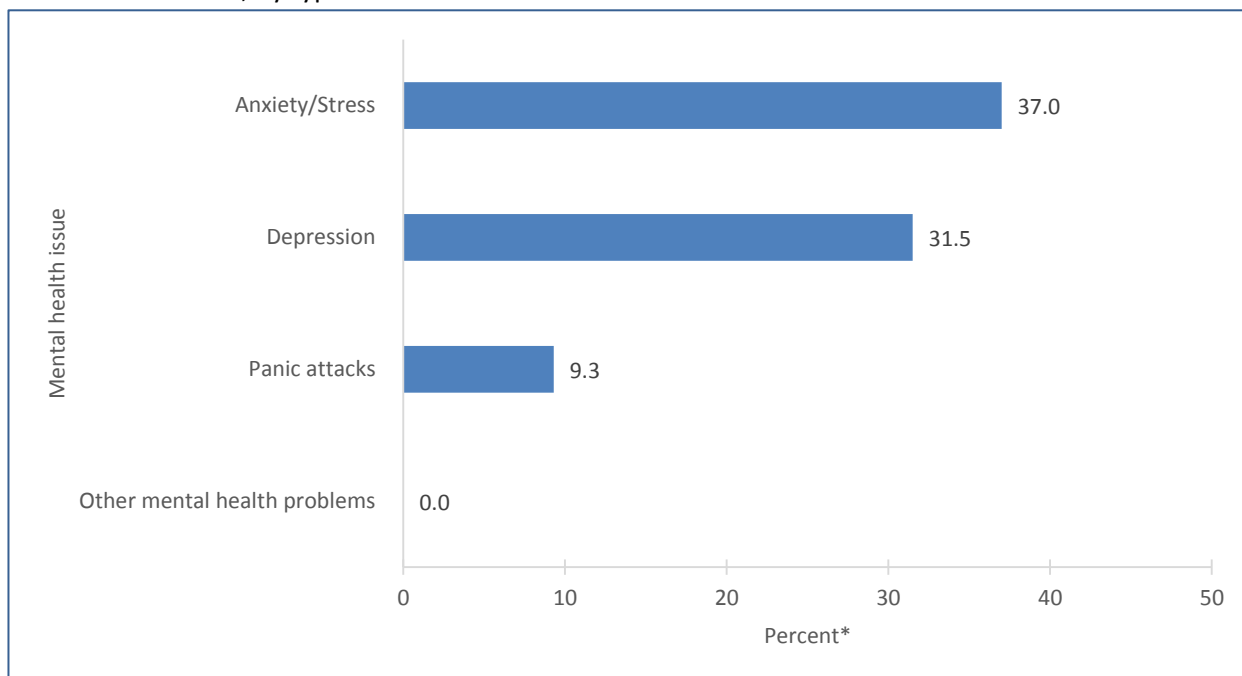

*Percentages may not total 100.0 due to rounding.

Figure 13. Number of days in an average week respondents engage in MODERATE and VIGOROUS activity
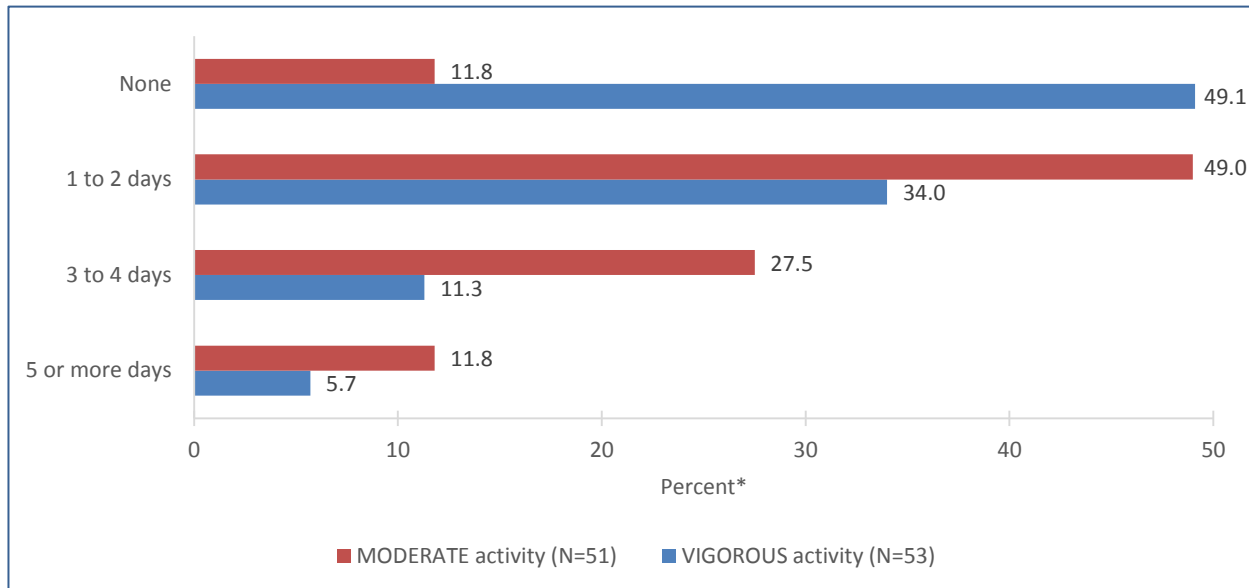
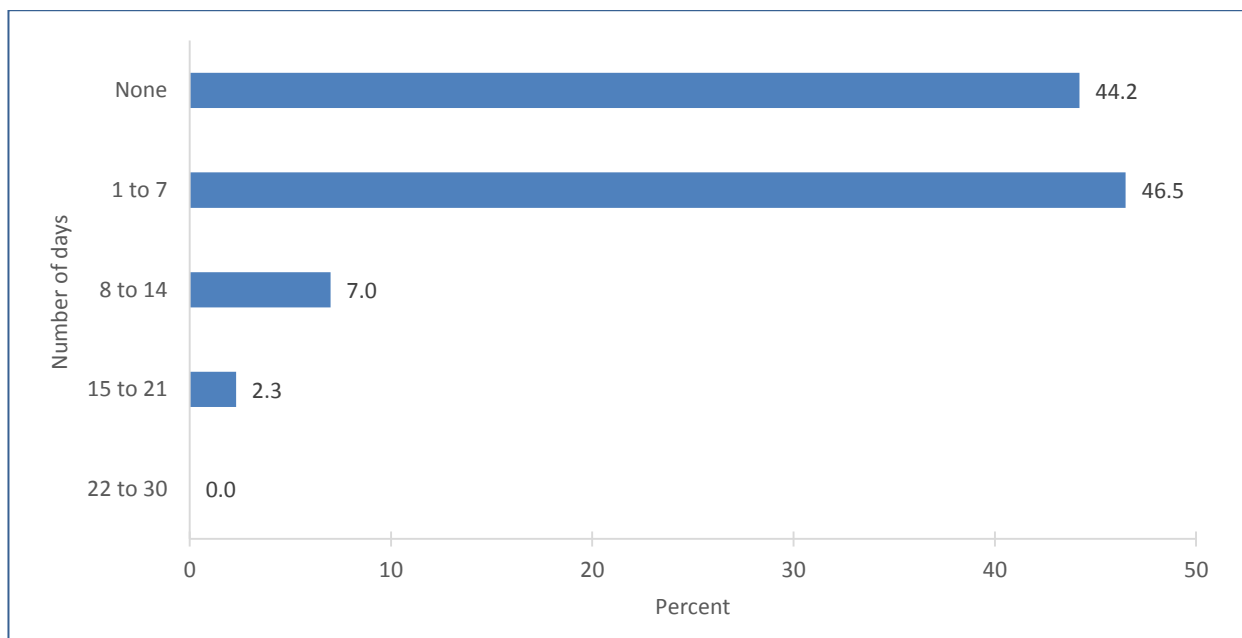*Percentages do not total 100.0 due to rounding.

Mental Health

Figure 14. Percentage of respondents who have been told by a doctor or health professional that they have a mental health issue, by type of mental health issue

N=54   *Percentages do not total 100.0 due to multiple responses.
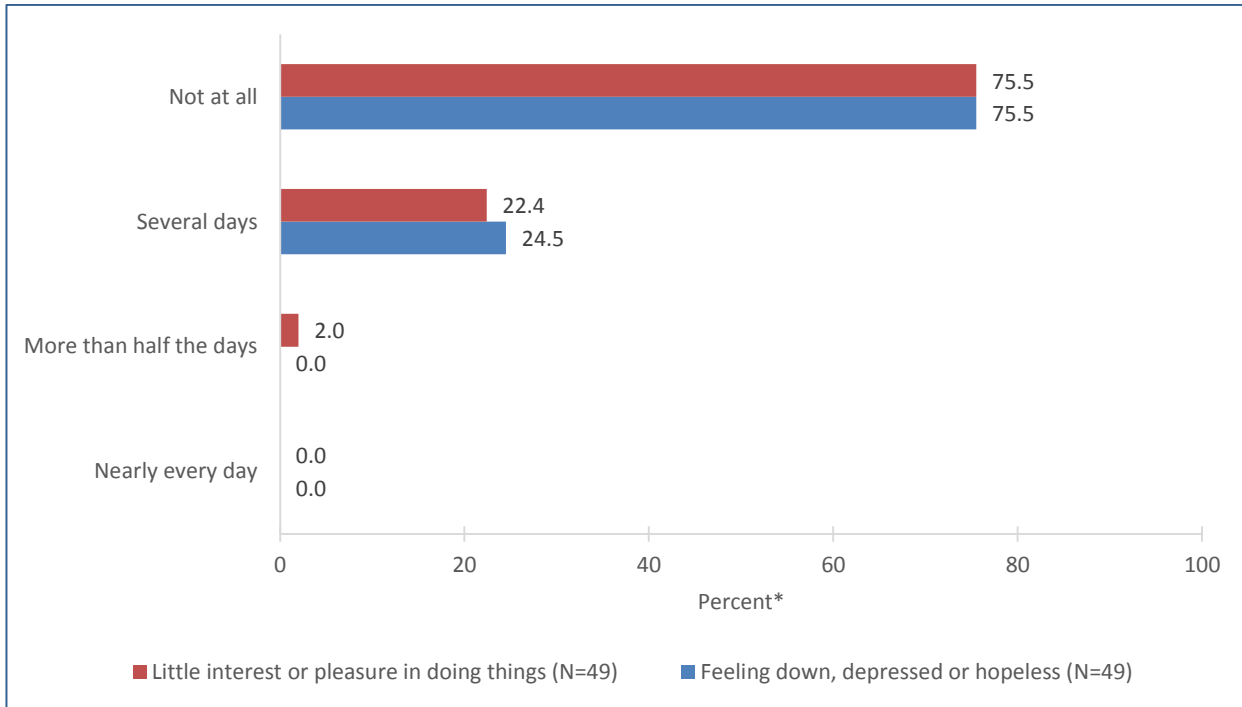
Figure 15. Number of days in the last month that respondents' mental health was not good

N=43

Figure 16. How often, over the past two weeks, respondents have been bothered by mental health issues

*Percentages may not total 100.0 due to rounding.

Tobacco Use

Figure 17. Whether respondents have smoked at least 100 cigarettes in their entire life
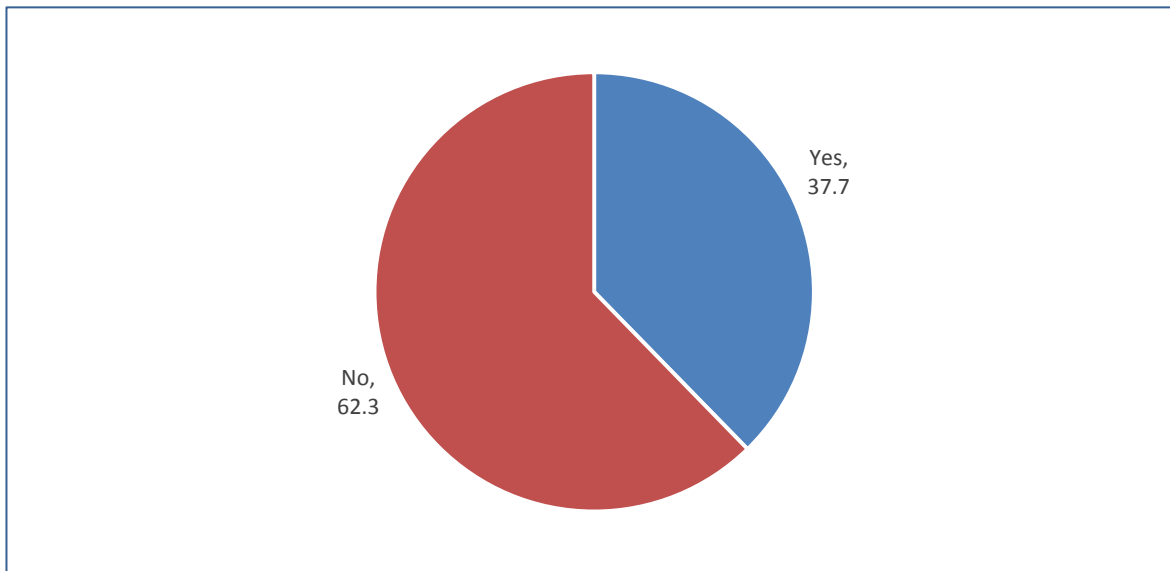
N=53

Figure 18. How often respondents currently smoke cigarettes and use chewing tobacco or snuff
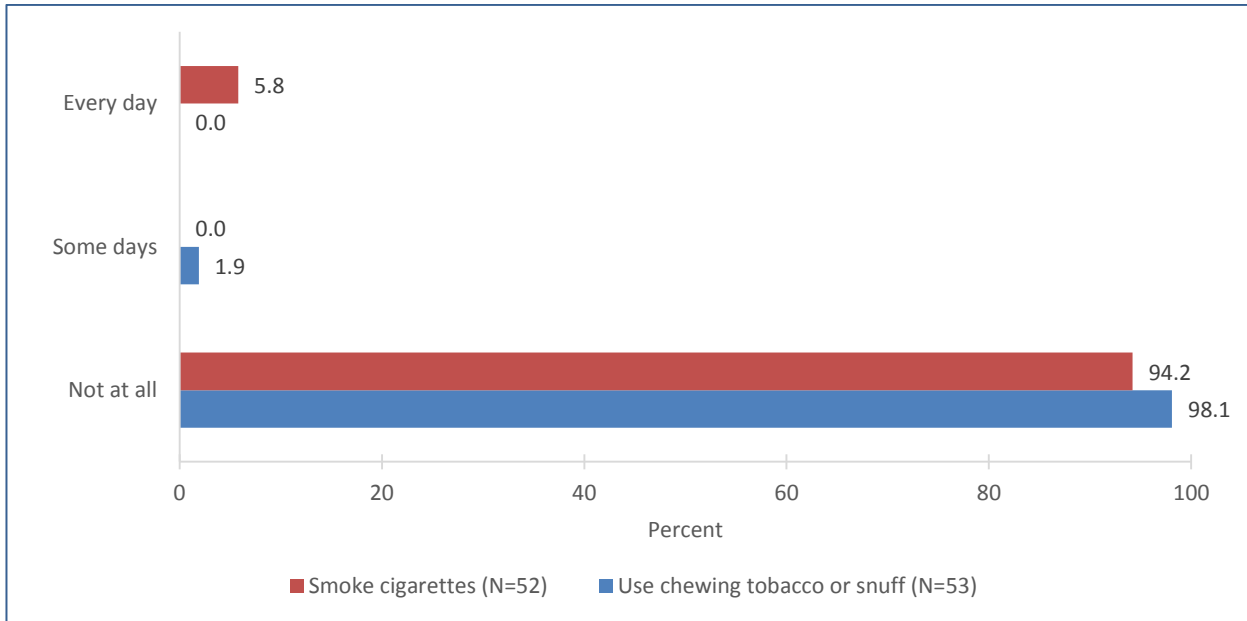
Figure 19. Location respondents would first go if they wanted help to quit using tobacco
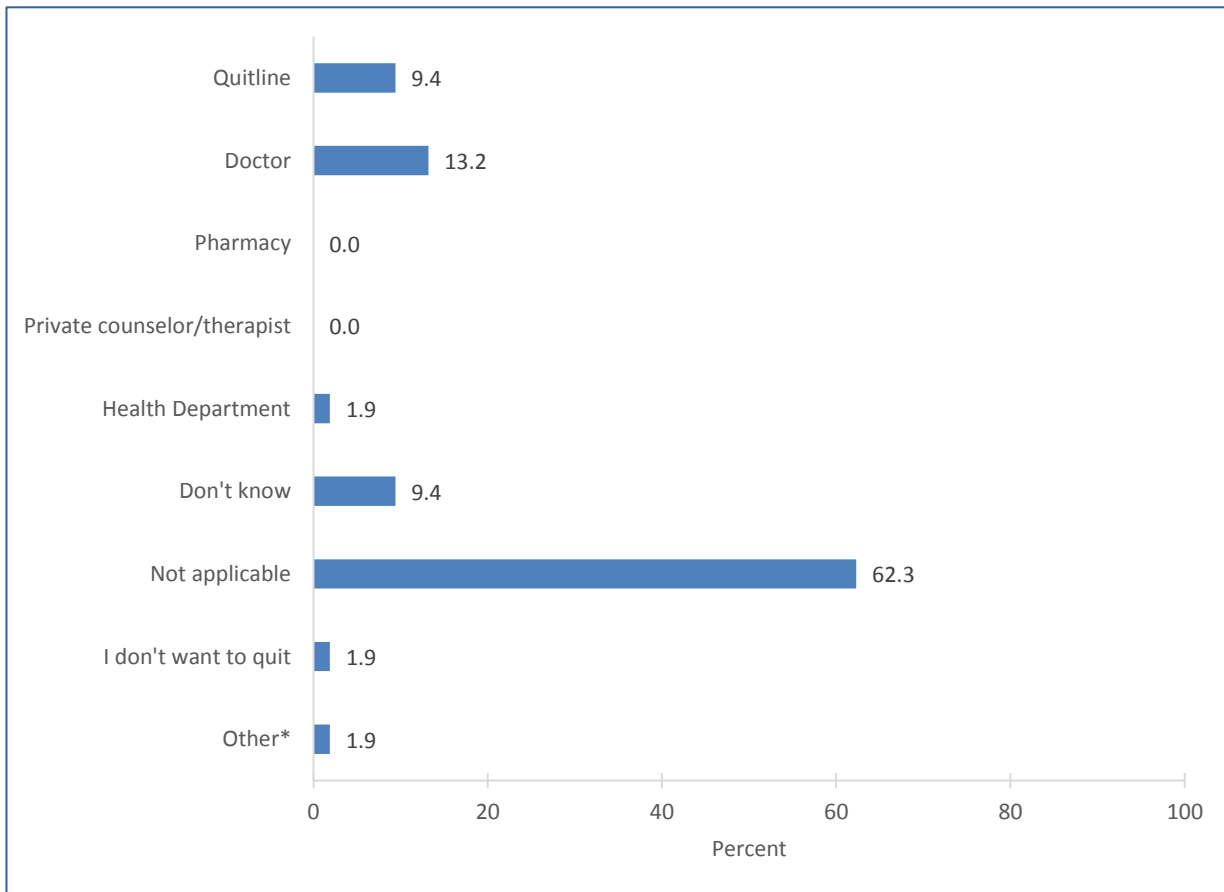
N=53   *Other response is "medical center".

Alcohol Use and Prescription Drug/Non-prescription Drug Abuse

Figure 20. Number of days during the past month that respondents had at least one drink of any alcoholic beverage
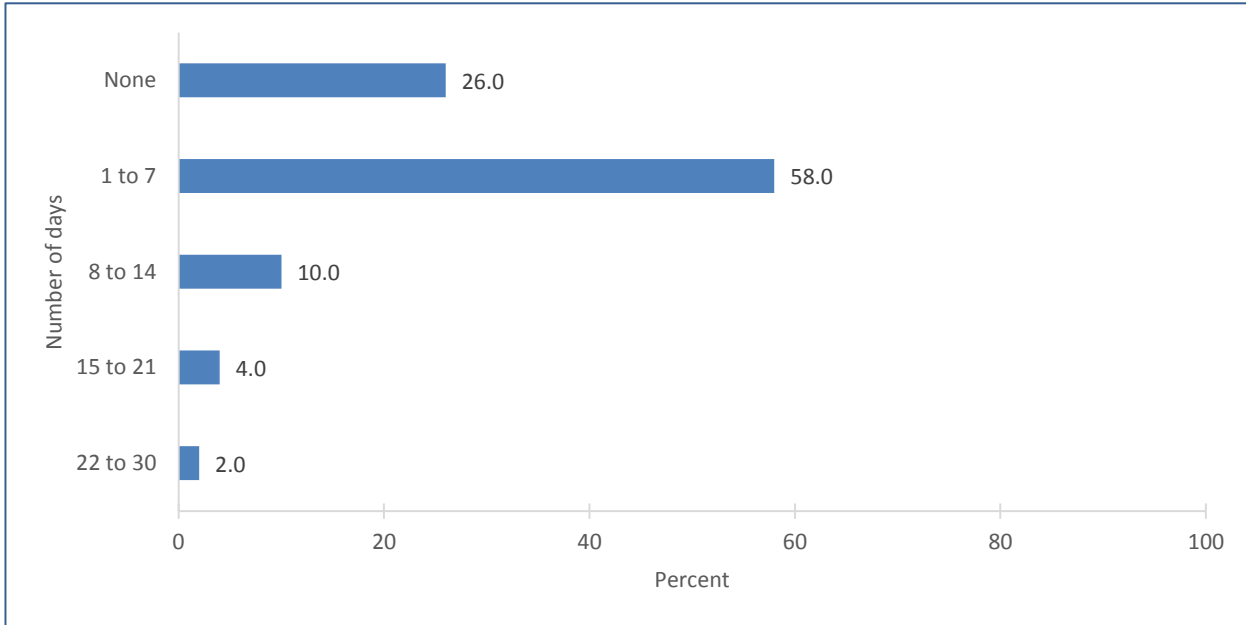
N=50

Figure 21. During the past month on days that respondents drank, average number of drinks per day respondents consumed
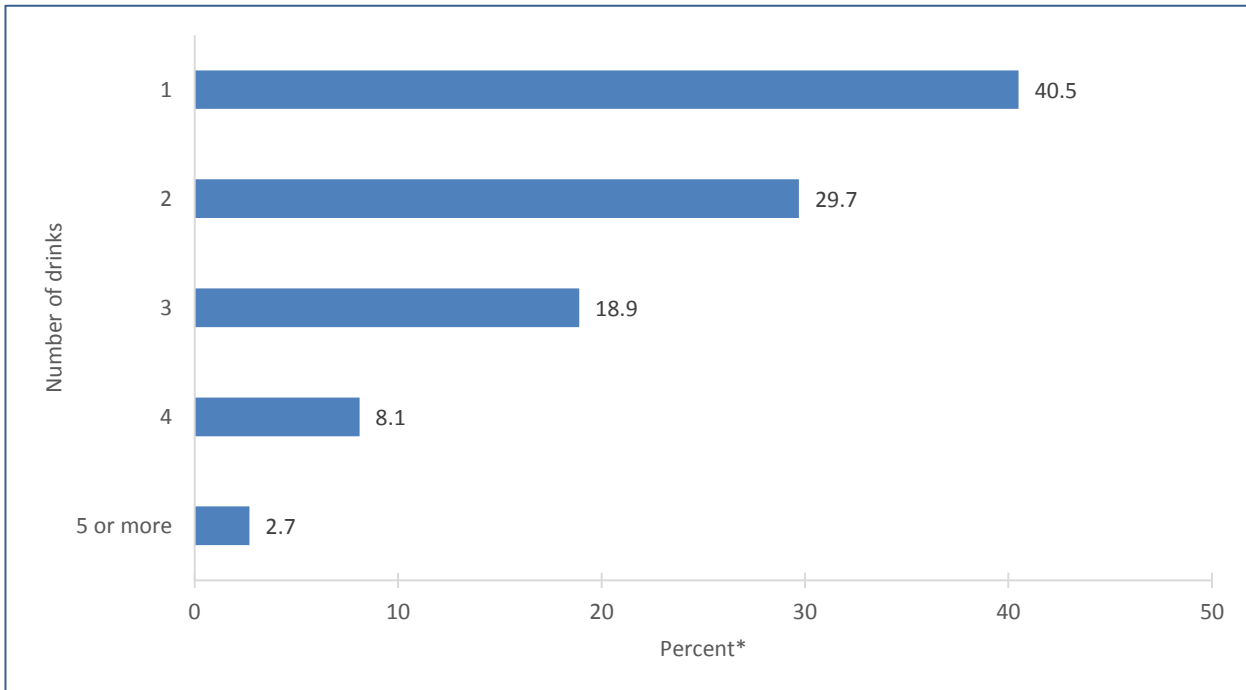
N=37   *Percentages do not total 100.0 due to rounding.

Figure 22. Number of times during the past month that respondents consumed at least 4 or 5 alcoholic drinks (4 for females, 5 for males) on the same occasion
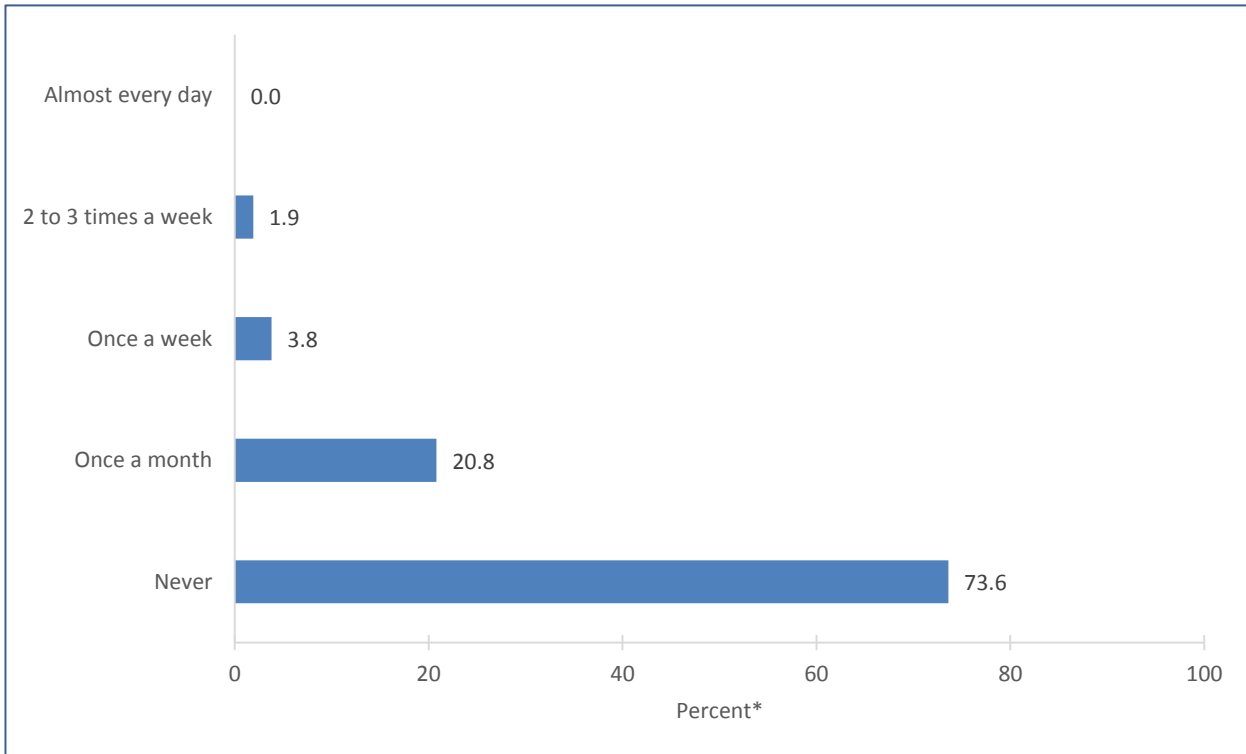
N=53

*Percentages do not total 100.0 due to rounding.

Figure 23. Whether respondents ever had a problem with alcohol use or prescription or non-prescription drug abuse
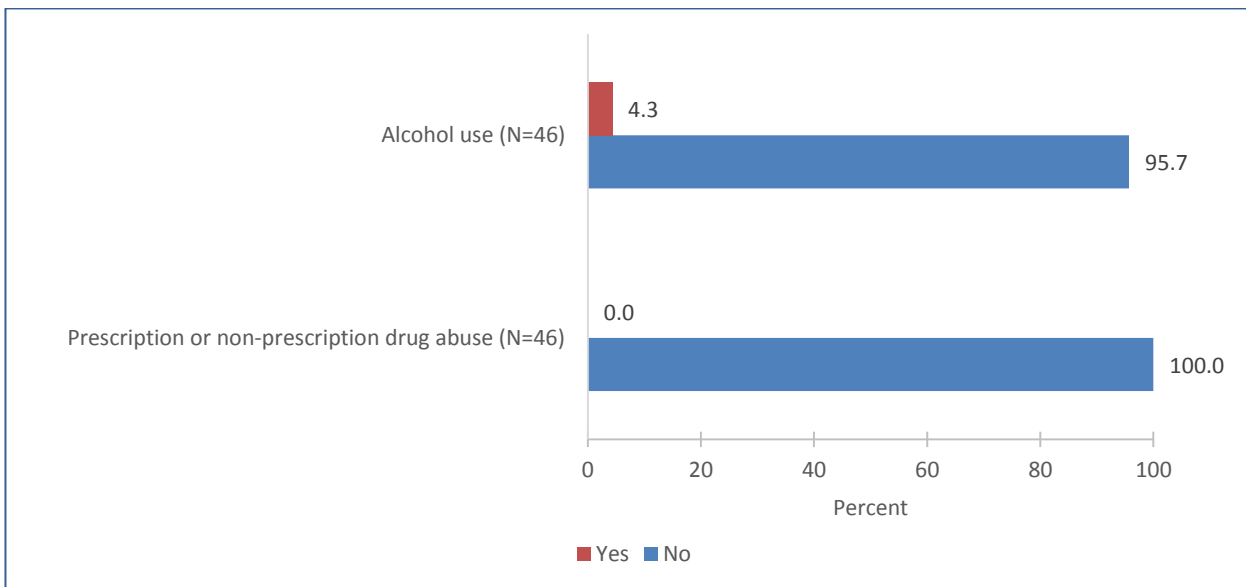
Figure 24. Of respondents who ever had a problem with alcohol use or prescription or non-prescription drug abuse, whether respondents got the help they needed

Alcohol use (N=2)
- 0.0
- 50.0
- 50.0

Prescription or non-prescription drug abuse (N=0)
- 0.0
- 0.0
- 0.0

Percent

■ Yes ■ No ■ Didn't need help

Figure 25. Whether alcohol use or prescription or non-prescription drug abuse has had harmful effects on respondents or a family member over the past two years

Alcohol use had harmful effects on respondent or family member (N=52)
- 32.7
- 67.3

Prescription or non-prescription drug abuse had harmful effects on respondent or family member (N=52)
- 15.4
- 84.6
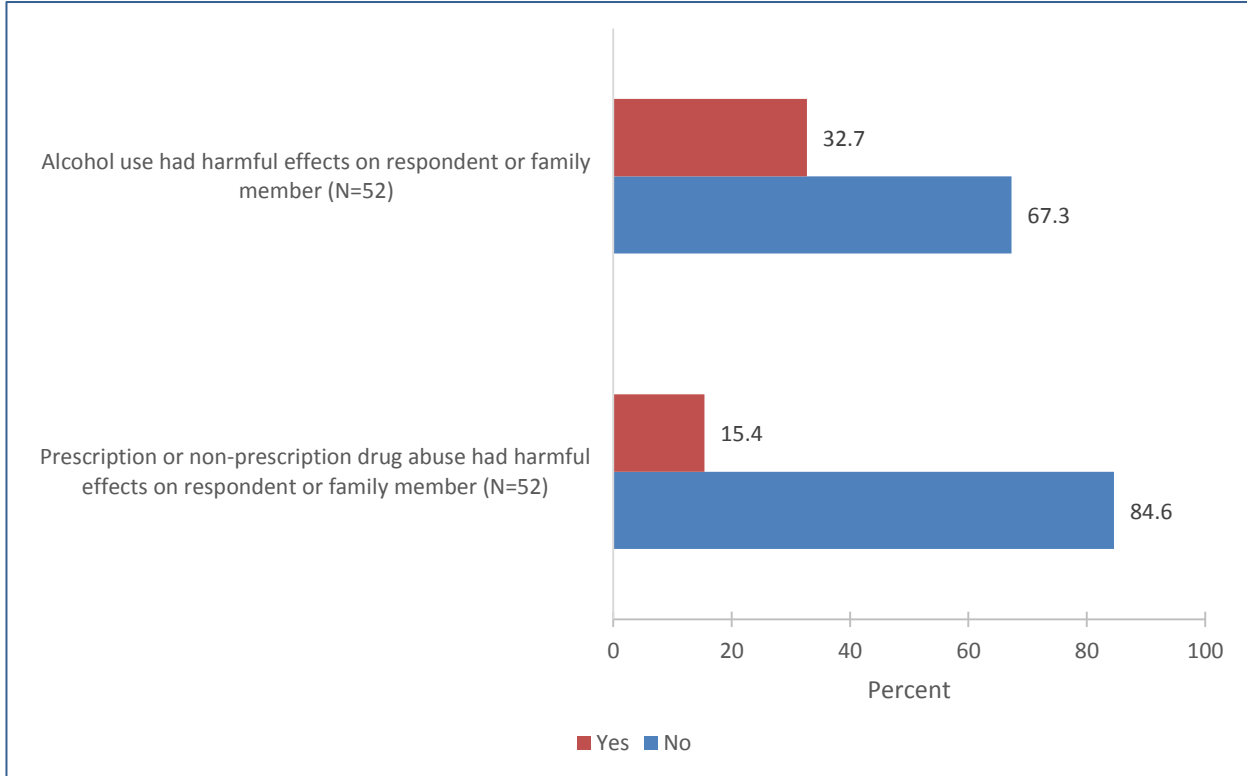
Percent

■ Yes ■ No

Preventive Health

Table 1. Whether or not respondents had preventive screenings in the past year, by type of screening

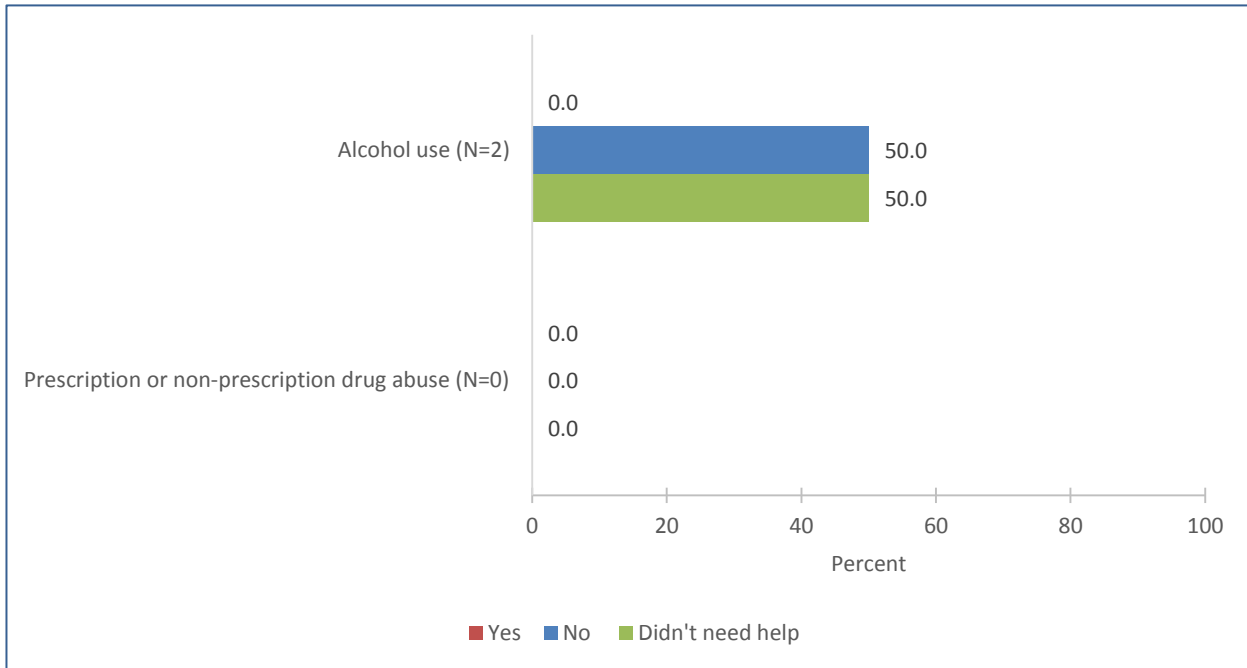| Type of screening	Percent of respondents		
	Yes	No	Total
GENERAL SCREENINGS			
Blood pressure screening (N=52)	86.5	13.5	100.0
Blood sugar screening (N=51)	64.7	35.3	100.0
Bone density test (N=50)	6.0	94.0	100.0
Cardiovascular screening (N=50)	24.0	76.0	100.0
Cholesterol screening (N=52)	67.3	32.7	100.0
Dental screening and X-rays (N=52)	82.7	17.3	100.0
Flu shot (N=52)	76.9	23.1	100.0
Glaucoma test (N=52)	50.0	50.0	100.0
Hearing screening (N=49)	6.1	93.9	100.0
Immunizations (N=50)	22.0	78.0	100.0
Pelvic exam (N=45 Females)	60.0	40.0	100.0
STD (N=50)	12.0	88.0	100.0
Vascular screening (N=51)	11.8	88.2	100.0
CANCER SCREENINGS			
Breast cancer screening (N=45 Females)	75.6	24.4	100.0
Cervical cancer screening (N=45 Females)	60.0	40.0	100.0
Colorectal cancer screening (N=50)	18.0	82.0	100.0
Prostate cancer screening (N=5 Males)	0.0	100.0	100.0
Skin cancer screening (N=49)	14.3	85.7	100.0

Table 2. Of respondents who have not had preventive screenings in the past year, reasons why they have not, by type of screening

Type of screening	Percentage of respondents*						
	Not necessary	Doctor hasn't suggested	Cost	Fear of procedure	Fear of results	Unable to access care	Other reason
GENERAL SCREENINGS							
Blood pressure screening (N=7)	71.4	28.6	0.0	0.0	0.0	14.3	0.0
Blood sugar screening (N=18)	61.1	33.3	11.1	0.0	0.0	0.0	0.0
Bone density test (N=47)	55.3	31.9	8.5	0.0	0.0	0.0	0.0
Cardiovascular screening (N=38)	52.6	36.8	7.9	0.0	0.0	2.6	0.0
Cholesterol screening (N=17)	64.7	41.2	5.9	0.0	0.0	0.0	0.0
Dental screening and (X-rays (N=9)	22.2	22.2	66.7	22.2	0.0	11.1	11.1
Flu shot (N=12)	41.7	8.3	8.3	0.0	0.0	0.0	50.0
Glaucoma test (N=26)	65.4	23.1	7.7	0.0	0.0	3.8	0.0
Hearing screening (N=46)	60.9	28.3	6.5	0.0	0.0	2.2	2.2
Immunizations (N=39)	74.4	17.9	2.6	0.0	0.0	0.0	2.6
Pelvic exam (N=18 Females)	66.7	27.8	0.0	0.0	0.0	0.0	11.1
STD (N=44)	79.5	15.9	2.3	2.3	0.0	0.0	0.0
Vascular screening (N=45)	57.8	28.9	8.9	0.0	2.2	4.4	0.0
CANCER SCREENINGS							
Breast cancer screening (N=11 Females)	63.6	36.4	9.1	0.0	0.0	0.0	0.0
Cervical cancer screening (N=18 Females)	61.1	16.7	5.6	0.0	0.0	0.0	5.6
Colorectal cancer screening (N=41)	53.7	22.0	4.9	12.2	0.0	2.4	4.9
Prostate cancer screening (N=5 Males)	40.0	20.0	20.0	20.0	0.0	20.0	20.0
Skin cancer screening (N=42)	47.6	38.1	7.1	2.4	0.0	2.4	4.8

*Percentages may not total 100.0 due to multiple responses.

Figure 26. Whether respondents have any of the following chronic diseases

Disease	Percent*
Hypertension	22.2
High cholesterol	13.0
Arthritis	11.1
Diabetes	11.1
Cancer	5.6
Congestive Heart Failure	1.9
Stroke	1.9
Asthma	0.0
COPD	0.0
Alzheimer's	0.0
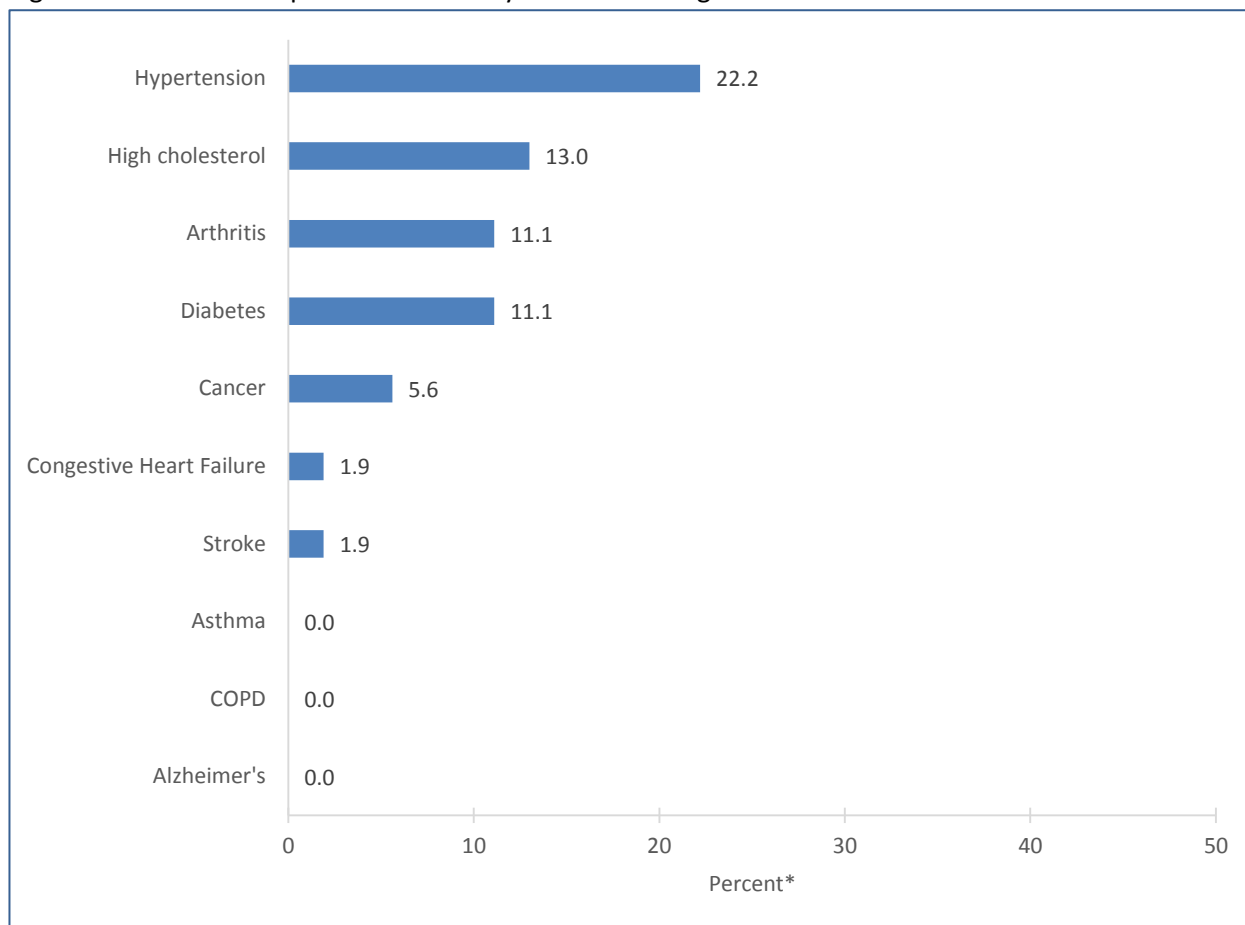
N=54   *Percentages do not total 100.0 due to multiple responses.

Figure 27. Length of time since respondents last visited a doctor or healthcare provider for a routine physical exam and length of time since they last visited a dentist or dental clinic for any reason

Within the past year: Doctor or health care provider 75.0, Dentist or dental clinic 82.7
1 to 2 years: Doctor or health care provider 9.6, Dentist or dental clinic 7.7
3 to 5 years: Doctor or health care provider 3.8, Dentist or dental clinic 5.8
6 or more years: Doctor or health care provider 7.7, Dentist or dental clinic 3.8
Don't know: Doctor or health care provider 1.9, Dentist or dental clinic 0.0
Never: Doctor or health care provider 1.9, Dentist or dental clinic 0.0

Percent

■ Doctor or health care provider (N=52)   ■ Dentist or dental clinic (N=52)
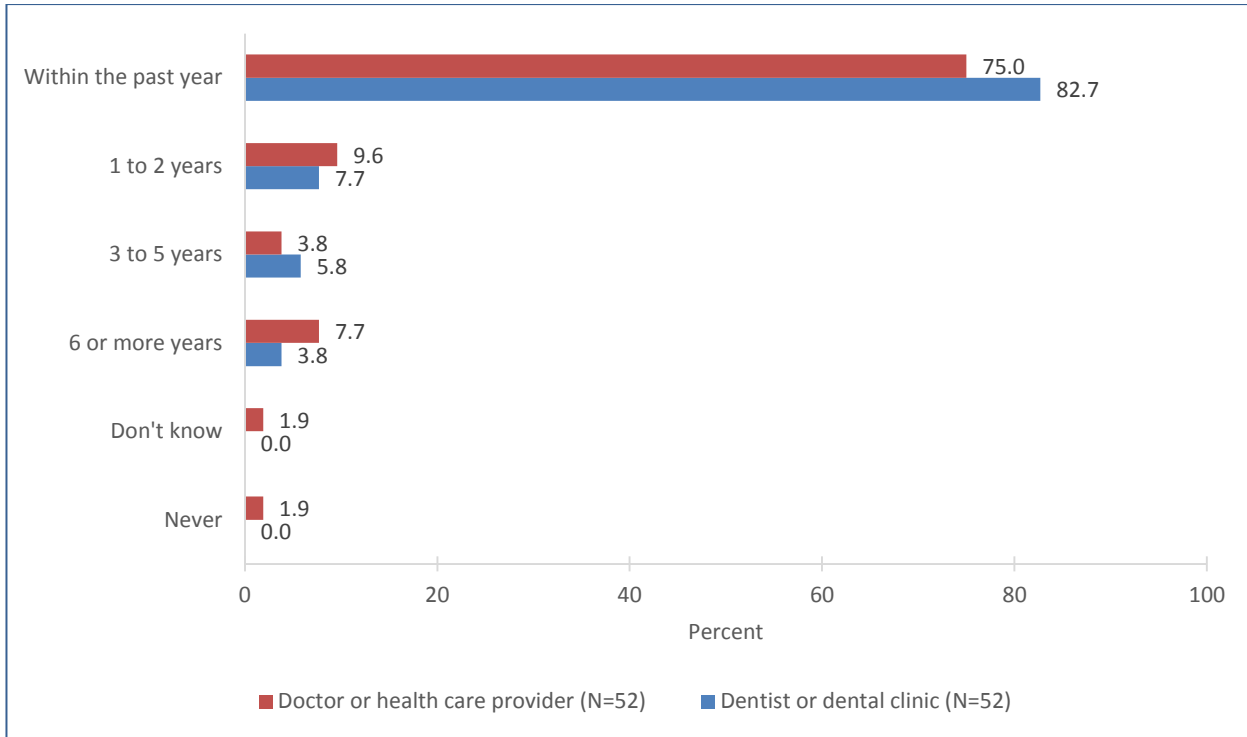
*Percentages may not total 100.0 due to rounding.

Figure 28. Where respondents get most of their health information

Medical professional 81.5
Family or friends 25.9
Non-government websites (i.e., WebMD) 22.2
Government websites (i.e., local public health, CDC) 18.5
Magazine, newspapers, or books 14.8
Television 11.1
Alternative health specialist 3.7
Health Helpline (telephone) 3.7
Other** 5.6

Percent*

N=54   *Percentages do not total 100.0 due to multiple responses. **Other responses include "by working in healthcare", "co-workers", and "the internet".
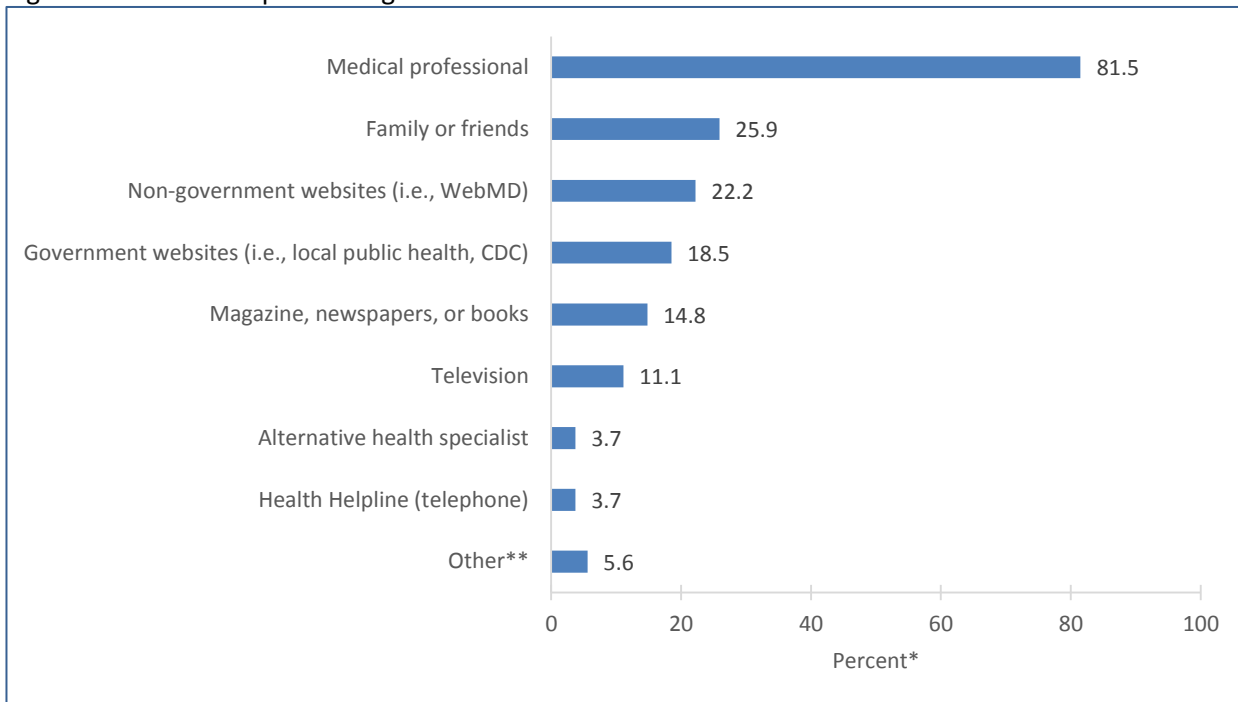
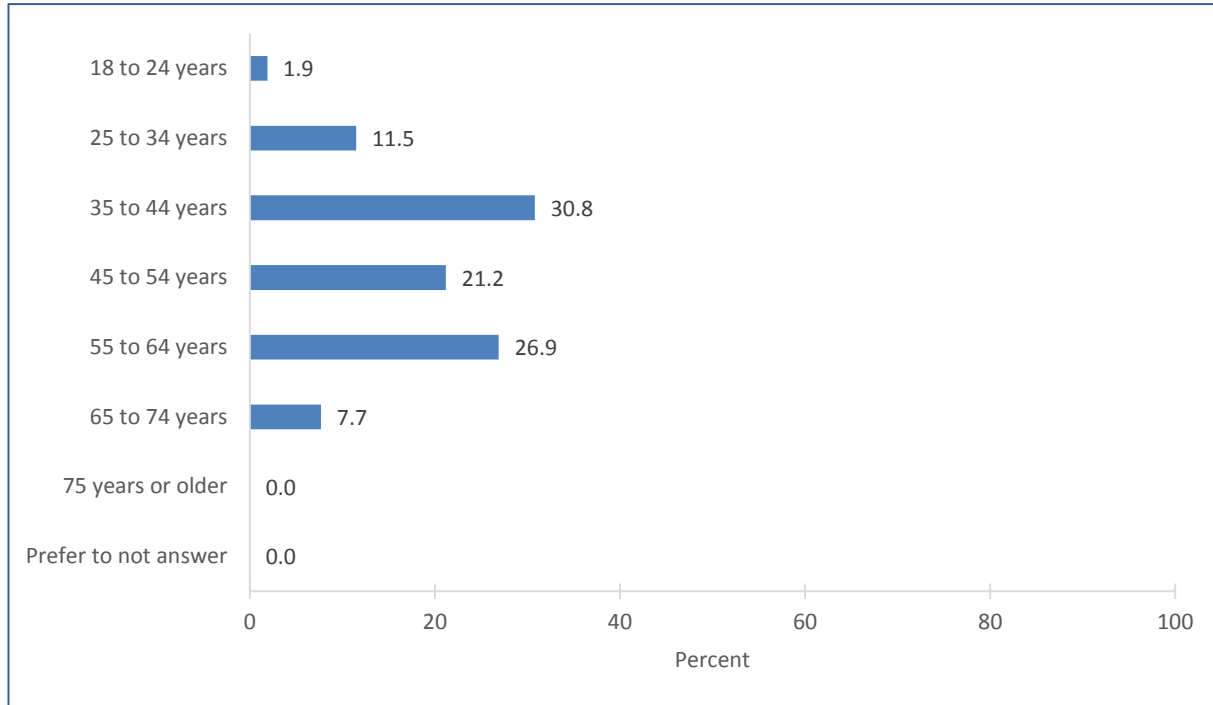Figure 29. Best way for respondents to access technology for health information
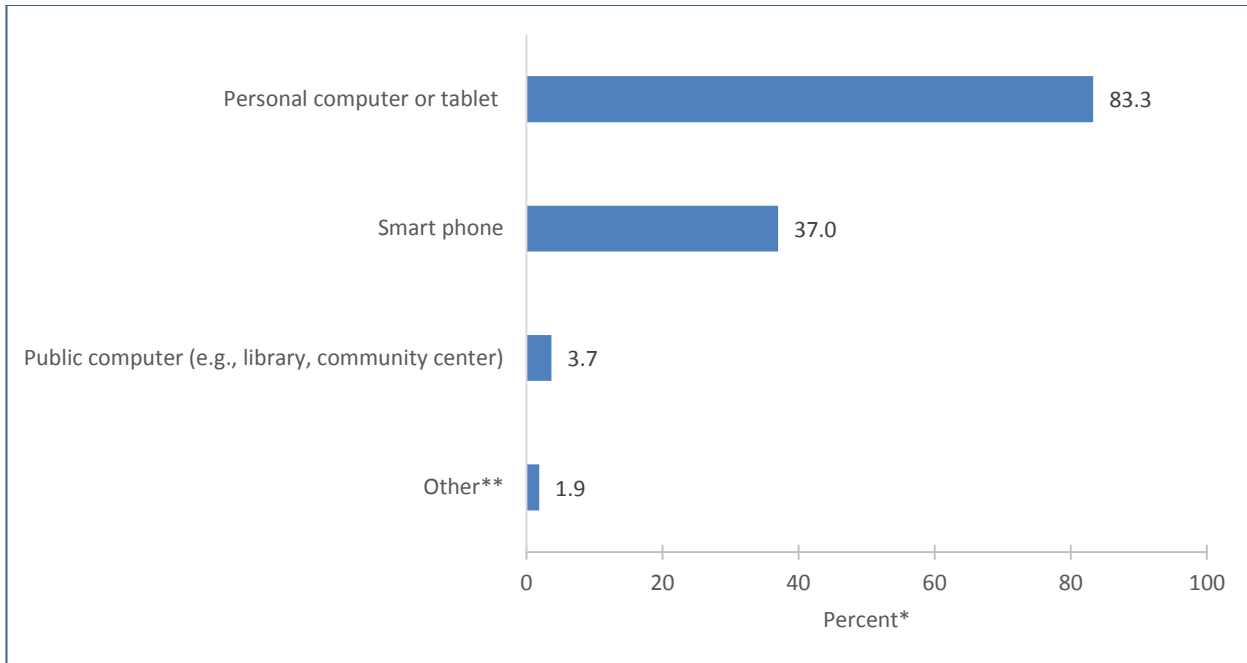
N=54 *Percentages do not total 100.0 due to multiple responses. ** Other response is "provider's ofc."

Demographic Information
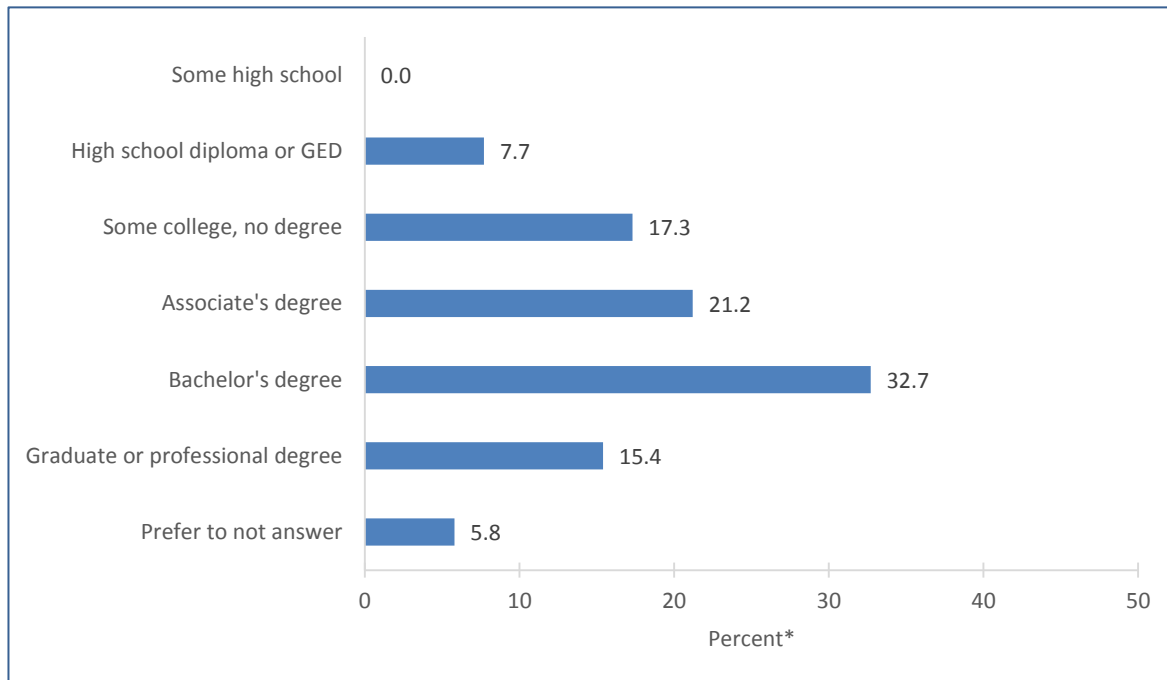
Figure 30. Age of respondents

N=52

Figure 31. Highest level of education of respondents

N=52   *Percentages do not total 100.0 due to rounding.

Figure 32. Gender of respondents
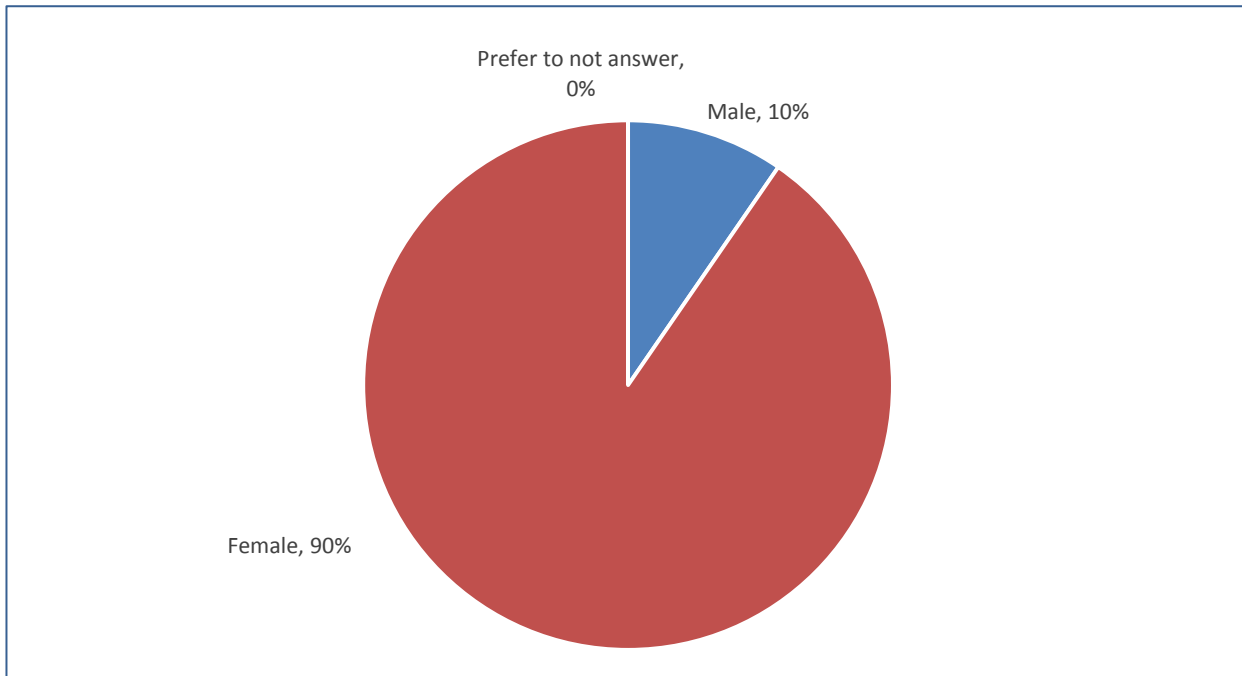
N=52

Figure 33. Race and ethnicity of respondents
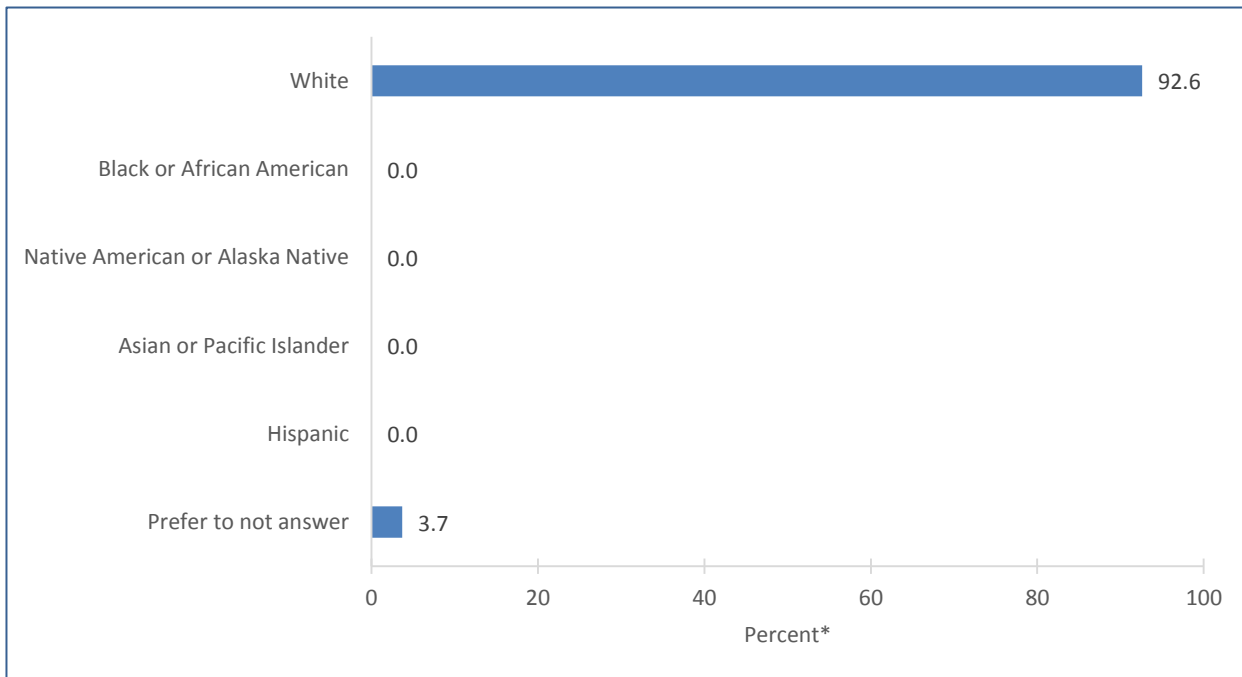
N=54   *Percentages do not total 100.0 due to multiple responses

Figure 34. Annual household income of respondents
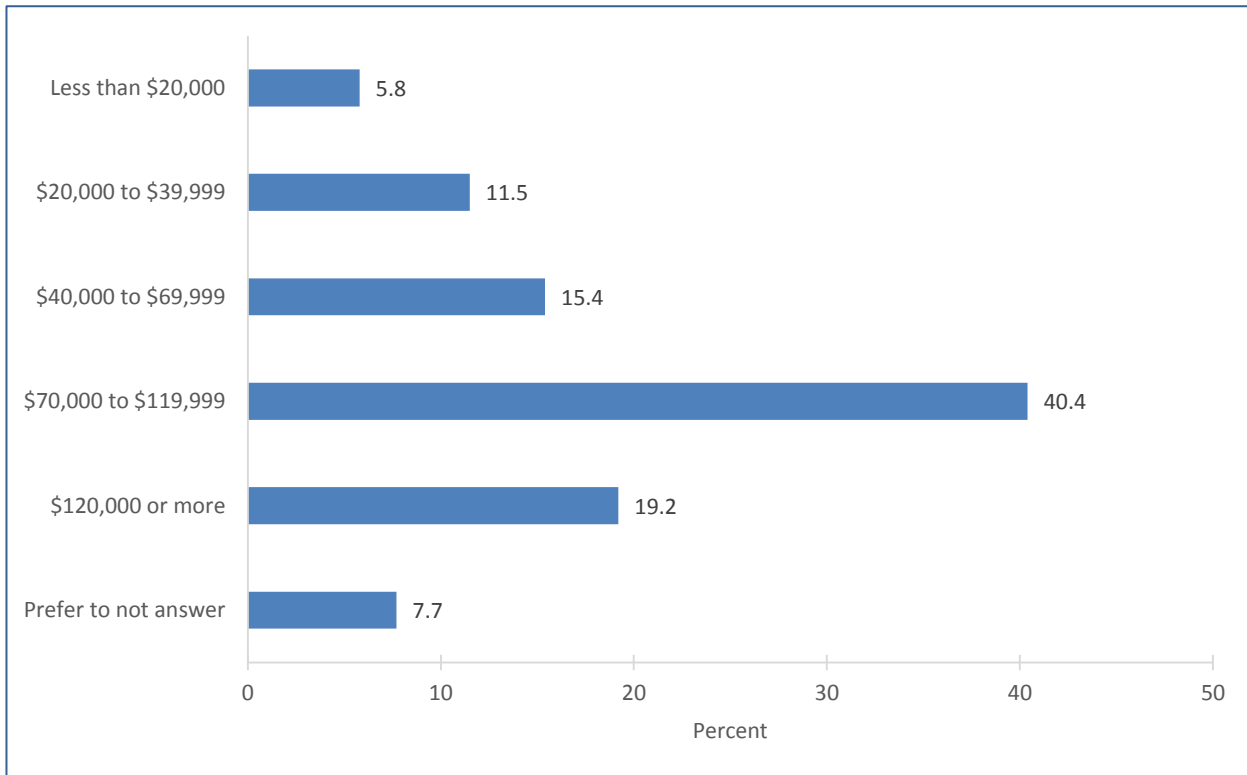
N=52

Figure 35. Employment status of respondents
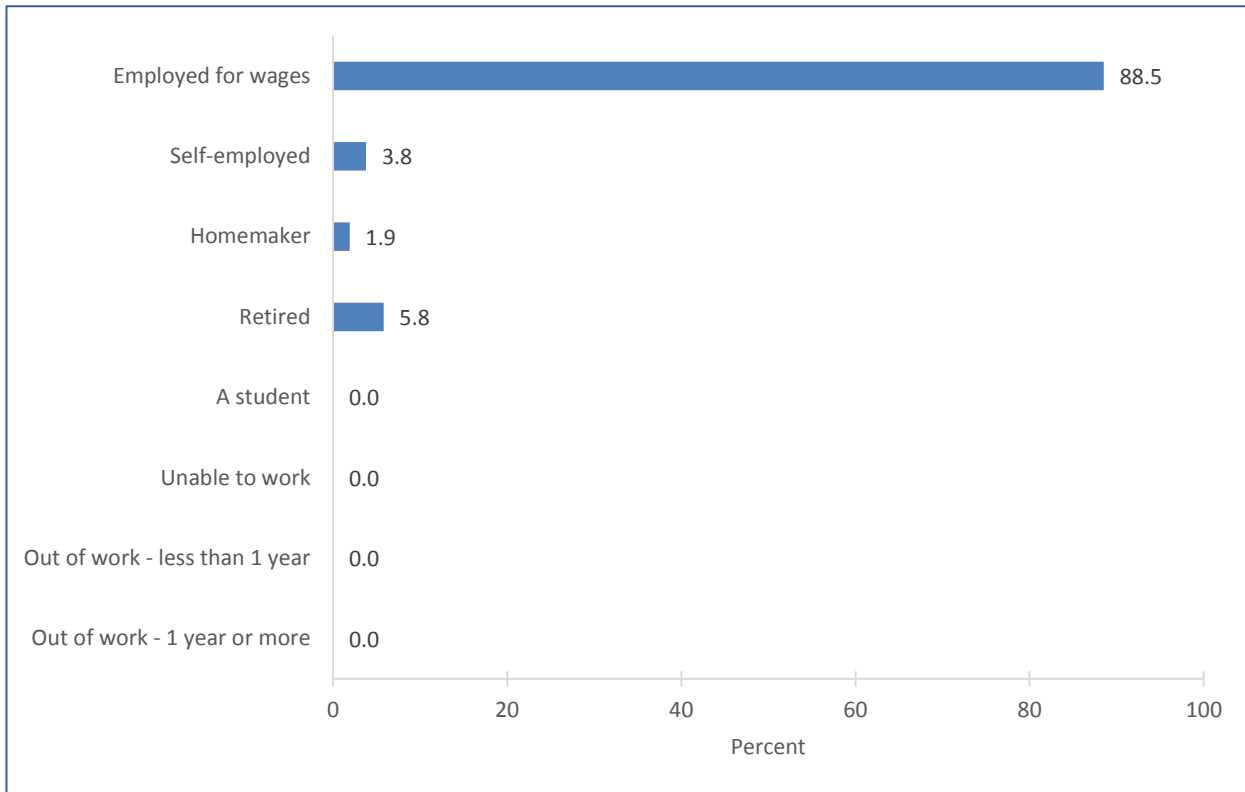
N=52

Figure 36. Length of time respondents have lived in their community
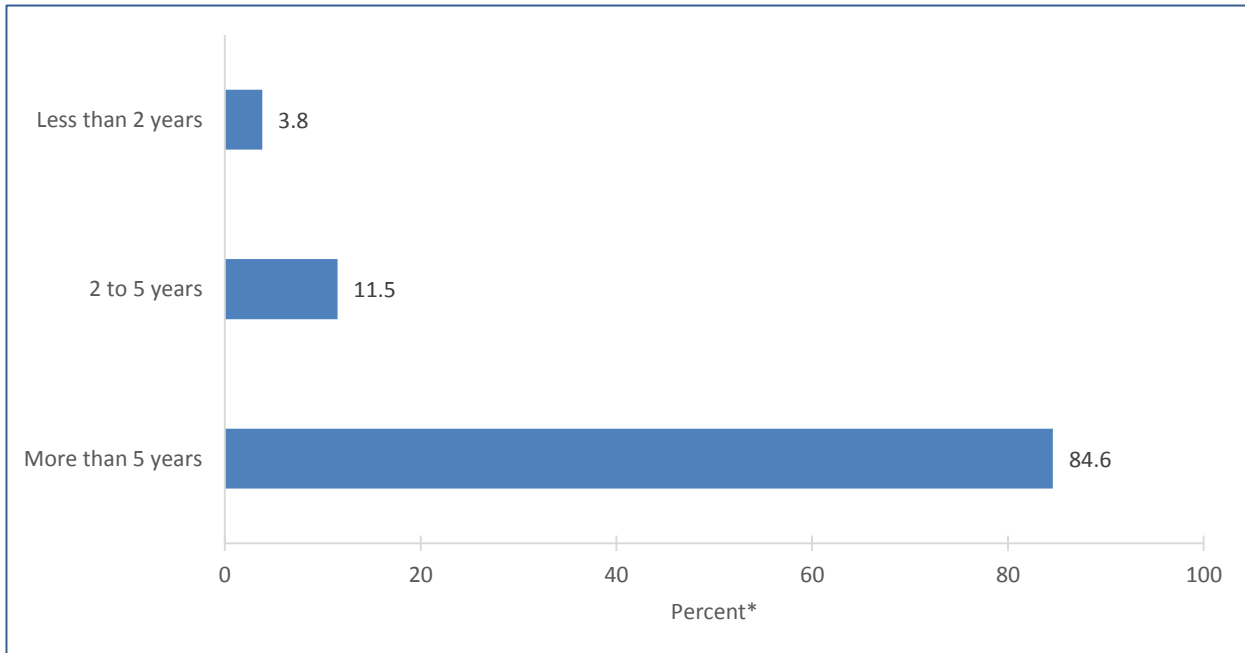
N=52   *Percentages do not total 100.0 due to rounding.

Figure 37. Whether respondents own or rent their home
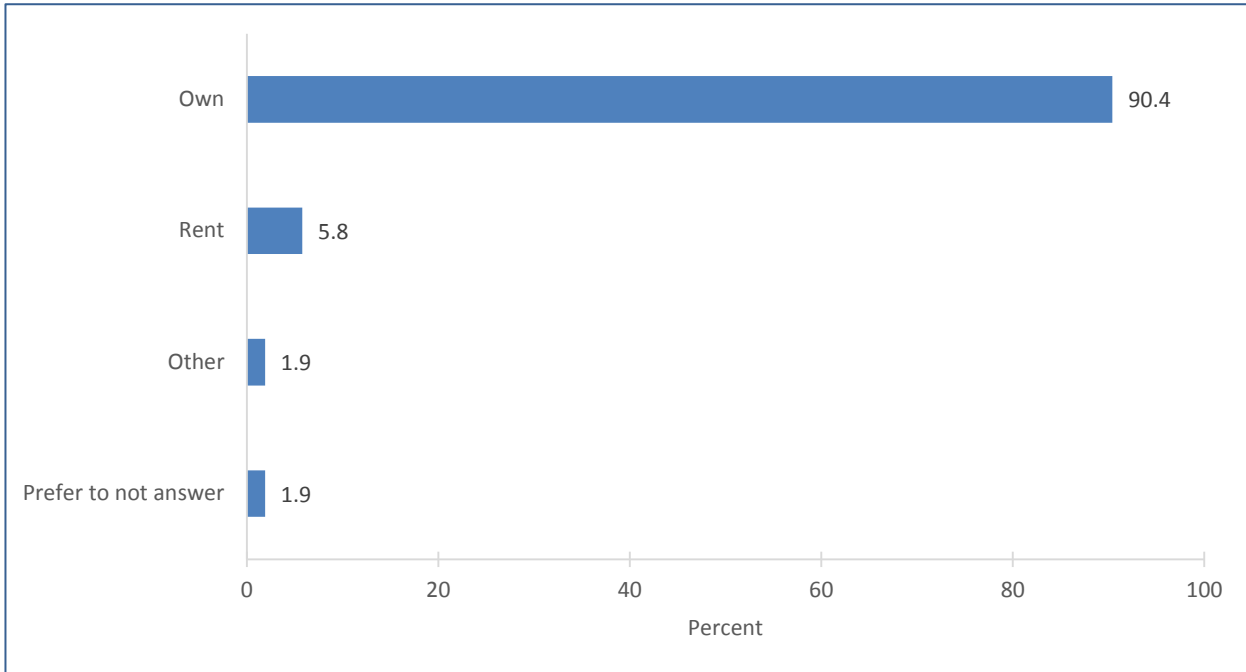
N=52

Figure 38. Whether respondents have health insurance (private, public, or governmental) and oral health or dental care insurance coverage
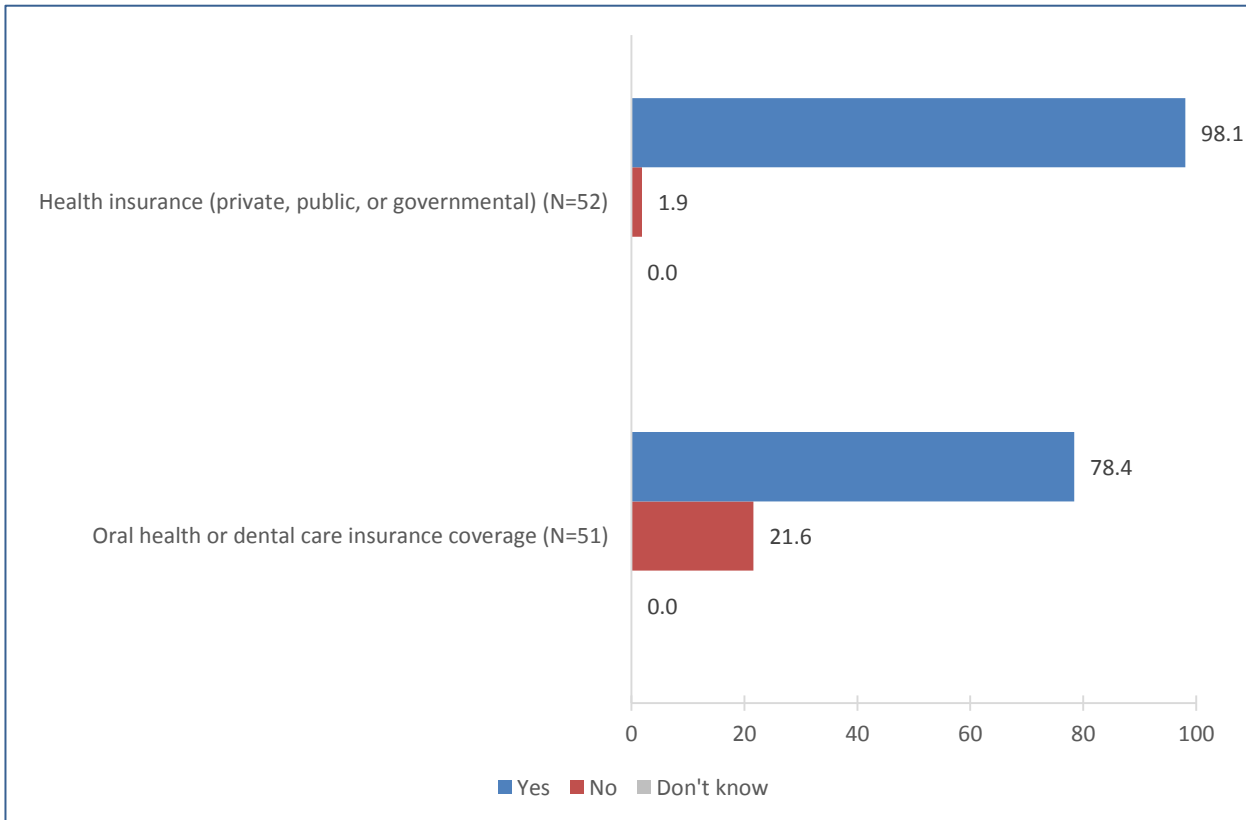
Figure 39. Whether respondents have one person who they think of as their personal doctor or healthcare provider
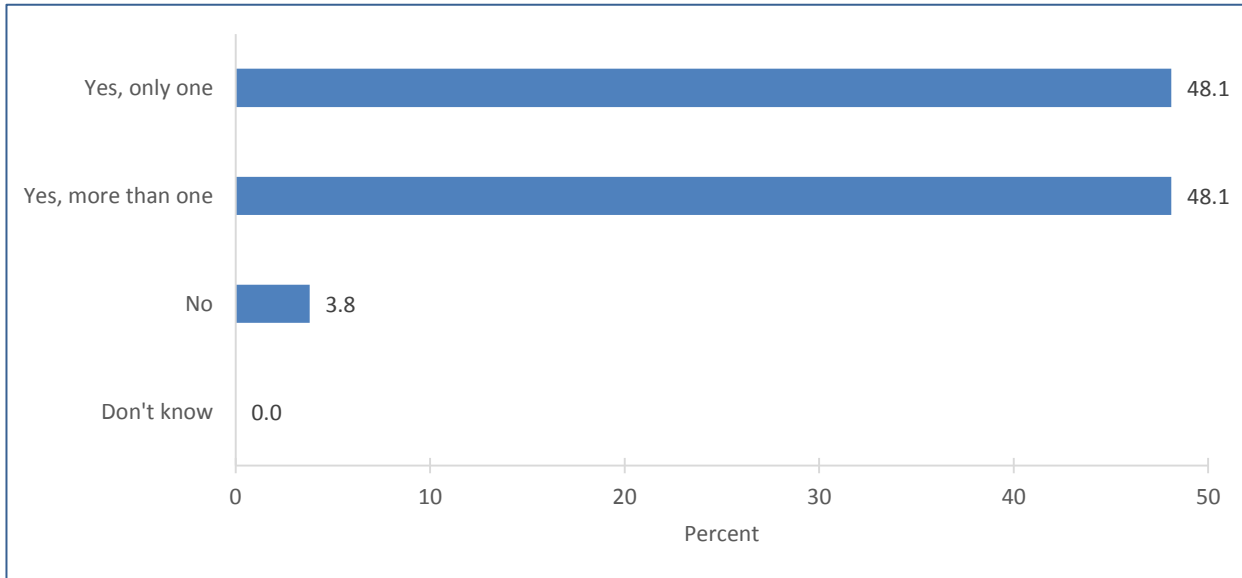
N=52

Fig. 40. Facilities that respondents go to most often when sick & take their children when they are sick
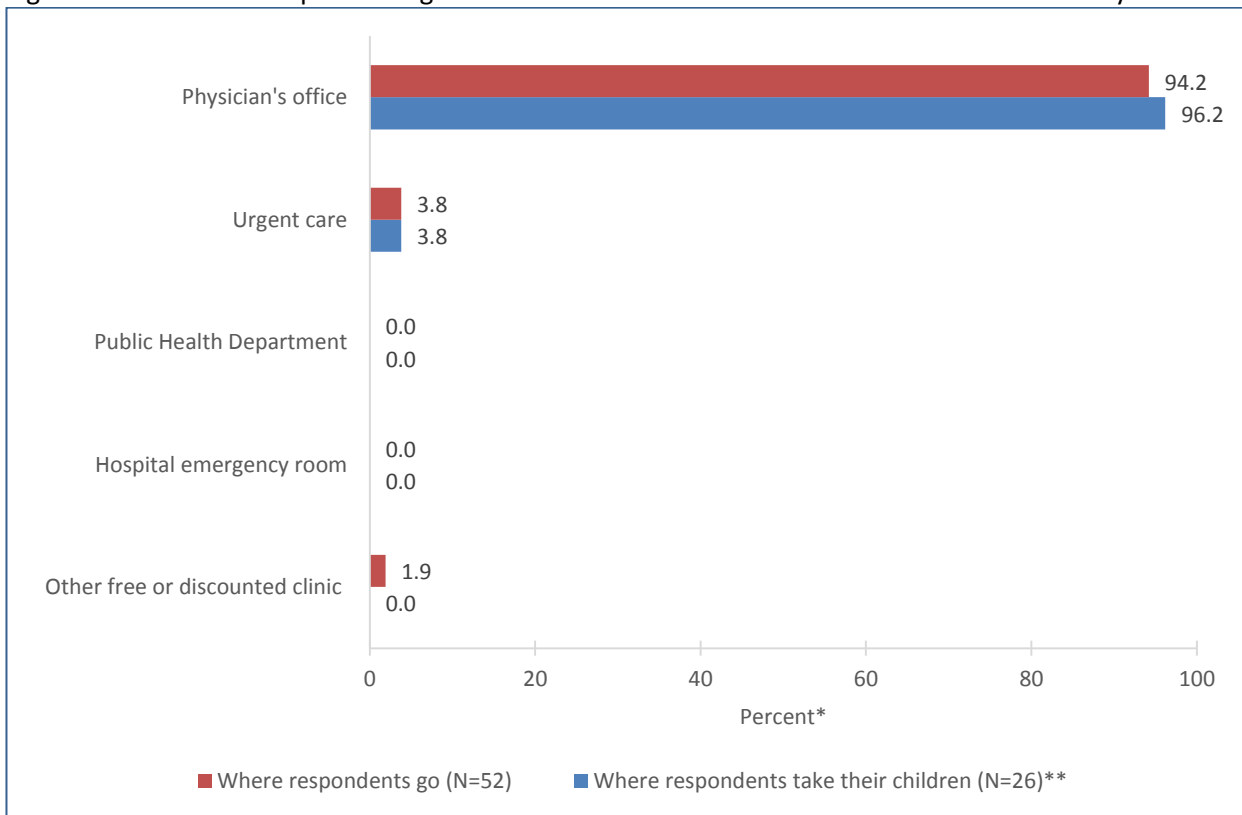
*Percentages may not total 100.0 due to rounding.

**Of respondents who have children younger than 18 years living in their household.

Figure 41. Number of children younger than 18 and number of adults age 65 or older living in respondents' household
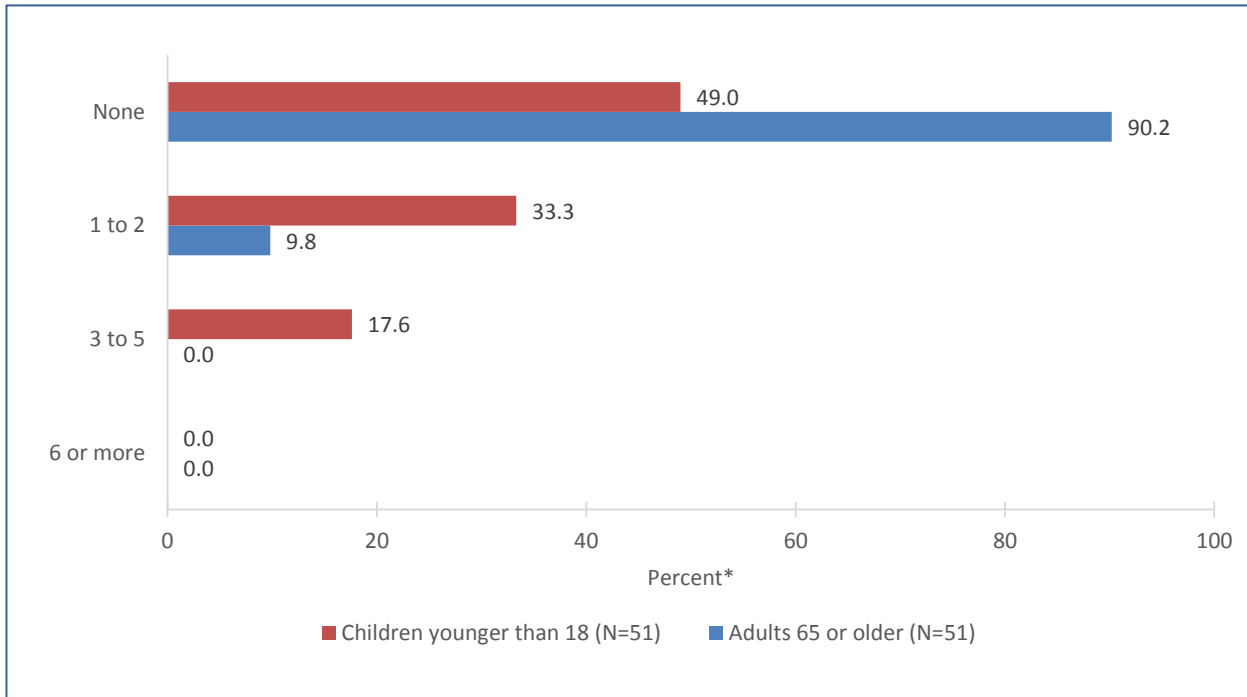
*Percentages may not total 100.0 due to rounding.

Figure 42. Whether all children in home are current on their immunizations and all children age 6 months or older get a flu shot or flu mist each year*
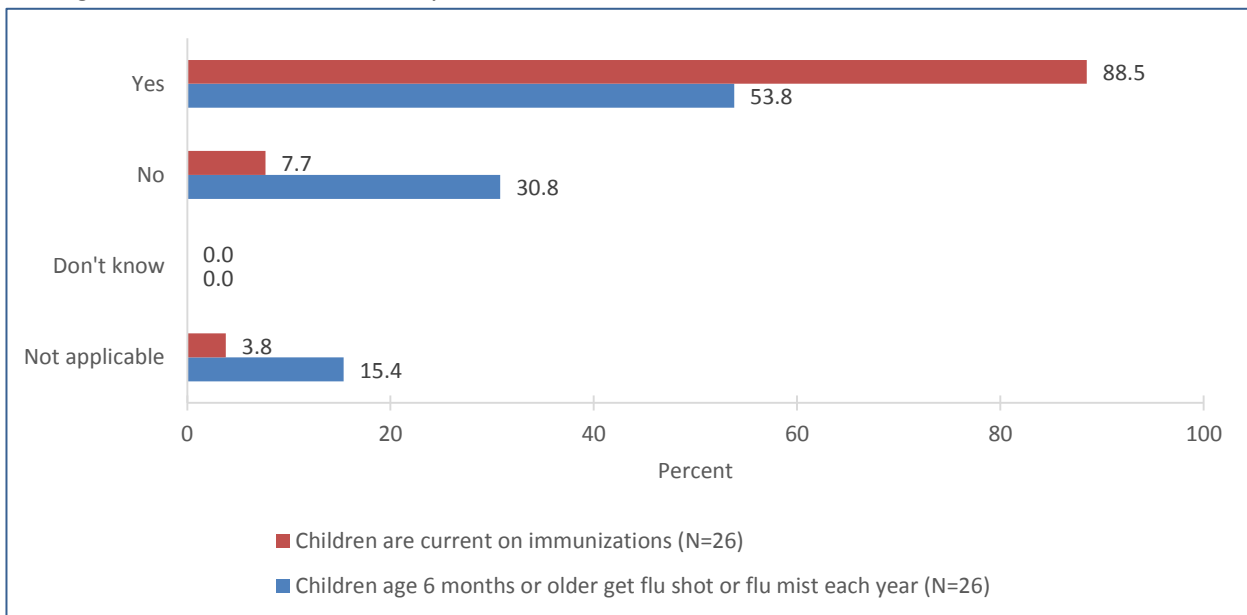
*Of respondents who have children younger than 18 years living in their household

Table 3. Zip code of respondents

Zip Code	Number of respondents
58257	13
58230	9
58274	6
58045	5
58240	4
56548	3
58016	3
58218	3
55060	1
58035	1
58038	1
58046	1
58103	1

N=51

Secondary Research

Traill County Community Health Profile

April 13, 2015

Stephen Pickard, MD
North Dakota Department of Health

TABLE OF CONTENTS

1

Population by Age Group, 2009-2013 ACS Estimates				
	Traill County		North Dakota	
Age Group	Number	Percent	Number	Percent
0-9	963	11.9%	91,871	12.7%
10-19	1,075	13.2%	93,318	12.9%
20-29	973	12.0%	124,424	17.2%
30-39	852	10.5%	91,148	12.6%
40-49	1,001	12.3%	79,573	11.0%
50-59	1,197	14.7%	101,998	14.1%
60-69	909	11.2%	69,446	9.6%
70-79	576	7.1%	41,233	5.7%
80+	579	7.1%	31,829	4.4%
Total	8,125	100.0%	724,840	100.0%
0-17	1,786	22.0%	161,317	22.3%
65+	1,511	18.6%	102,722	14.2%

The Demographic Section of this report comes from the US Census Bureau (www.census.gov). Most tables are derived either from the Census estimates for 2013 or from the Community Population Survey aggregated over a several year period. The table header describes the specific years from which the data is derived. The table showing percent population change uses census data from 2000 also. Tables present number of persons and percentages which in almost all circumstances represent the category specific percentage of all persons referenced by the table (e.g., percentage of persons age 15 and older who are married). Age specific poverty rates represent the percentage of each age group which is in poverty (e.g., percentage of children under five years in poverty).

2

Age Group As Percentage of Total

■ Traill County 2010   □ Traill County 2000

3

Female Population and Percentage Female by Age, 2009-2013 ACS Estimates				
	Traill County		North Dakota	
Age Group	Number	Percent	Number	Percent
0-9	453	47.0%	45,342	49.4%
10-19	534	49.7%	44,988	48.2%
20-29	449	46.1%	55,615	44.7%
30-39	425	49.9%	41,092	45.1%
40-49	478	47.8%	39,675	49.9%
50-59	557	46.5%	50,656	49.7%
60-69	477	52.5%	34,361	49.5%
70-79	301	52.3%	21,254	51.5%
80+	381	65.8%	20,546	64.5%
Total	4,055	49.9%	353,530	48.8%
0-17	865	48.4%	78,484	48.7%
65+	882	58.4%	50,201	48.9%

4

Decennial Population Change, 1990 to 2000, 2000 to 2010				
Census	Traill County	10 Year Change (%)	North Dakota	10 Year Change (%)
1990	8,752		638,800	
2000	8,477	-3.1%	642,200	0.5%
2010	8,121	-4.2%	672,591	4.7%

9

Persons with Disabilty, 2009-2013 ACS Estimates				
	Traill County		North Dakota	
Group	Number	Percent	Number	Percent
Total	7,984	100.0%	688,158	100.0%
Any Disability	855	10.7%	72,762	10.6%
No Disability	7,129	89.3%	615,396	89.4%
Self Care Disability	156	2.0%	11,274	1.6%
0-17 with any disability	66	3.7%	4,677	2.9%
18-64 with any disabilty	402	8.3%	35,931	7.8%
65+ with any disability	387	28.1%	32,154	31.3%

10

Income and Poverty Status by Age Group, 2009-2013 ACS Estimates				
	Traill County		North Dakota	
Median Household Income	$48,767		$54,920	
Per Capita Income	$27,096		$30,436	
	Number	Percent	Number	Percent
Below Poverty Level	828	10.7%	80,644	11.9%
Under 5 years	21	17.4%	7,714	16.9%
5 to 11 years	125	17.4%	7,944	13.2%
12 to 17 years	48	8.3%	5,776	11.8%
18 to 64 years	427	9.2%	49,568	11.6%
65 to 74 years	52	7.6%	3,448	7.0%
75 years and over	110	15.8%	6,194	13.7%
Total Known Children in Poverty	194	10.9%	21,434	13.3%
Total Known Age 65+ in Poverty	162	10.7%	9,642	9.4%

11

Family Poverty, 2009-2013 ACS Estimates				
	Traill County		North Dakota	
	Number	Percent*	Number	Percent*
Total Families	1,964	100.0%	176,378	100.0%
Families in Poverty	132	6.7%	13,052	7.4%
Families with Own Children	842	42.9%	80,964	45.9%
Families with Own Children in Poverty	103	5.2%	10,121	5.7%
Families with Own Children and Female Parent Only	144	7.3%	16,716	9.5%
Families with Own Children and Female Parent Only in Poverty	80	4.1%	6,452	3.7%

12

Age of Housing, 2009-2013 ACS Estimates				
	Traill County		North Dakota	
	Number	Percent	Number	Percent
Housing units: Total	3,778	100.0%	329,970	100.0%
1980 and Later	815	21.6%	128,111	38.8%
1970 to 1979	748	19.8%	66,396	20.1%
Prior to 1970	2,215	58.6%	135,463	41.1%

Vital Statistics Data

BIRTHS AND DEATHS DEFINITIONS

Vital Statistics Data comes from the birth and death records collected by the State of North Dakota aggregated over a five year period. All births and deaths represent the county of residence not the county of occurrence. The number of events is blocked if fewer than five. Formulas for calculating rates and ratios are as follows:

Birth Rate = Resident live births divided by the total resident population x 1000.

Pregnancies = Live births + Fetal deaths + Induced termination of pregnancy.

Pregnancy Rate = Total pregnancies divided b the total resident population x 1000.

Fertility Rate = Resident live births divided by female population (age 15-44) x 1000.

Teenage Birth Rate = Teenage births (age <20) divided by female teen population x 1000.

Teenage Pregnancy Rate =
Teenage pregnancies (age<20) divided by female teen population x 1000.

Out of Wedlock Live Birth Ratio =
Resident OOW live births divided by total resident live births x 1000.

Out of Wedlock Pregnancy Ratio =
Resident OOW pregnancies divided by total pregnancies x 1000.

Low Weight Ratio =
Low weight births (birth weight < 2500 grams) divided by total resident live births x 1000.

Infant Death Ratio = Number of infant deaths divided by the total resident live births x 1000.

Childhood & Adolescent Deaths = Deaths to individuals 1 - 19 years of age.

Childhood and Adolescent Death Rate =
Number of resident deaths (age 1 - 19) divided by population (age 1 - 19) x 100,000.

Crude Death Rate = Death events divided by population x 100,000.

Age-Adjusted Death Rate = Death events with age specific adjustments x 100,000 population.

Vital Statistics Data

BIRTHS AND DEATHS

Births, 2009-2013	Traill County		North Dakota	
	Number	Rate or Ratio	Number	Rate or Ratio
Live Births and Rate	474	12	47,959	14
Pregnancies and Rate	502	12	52,505	15
Fertility Rate		70		72
Teen Births and Rate	23	11	2,118	12
Teen Pregnancies and Rate	29	14	3,725	21
Out of Wedlock Births and Ratio	131	276	15,686	327
Out of Wedlock Preg and Ratio	156	311	19436	370
Low Birth Weight Birth and Ratio	8	17	3,078	64

Child Deaths, 2009-2013	Traill County		North Dakota	
	Number	Rate or Ratio	Number	Rate or Ratio
Infant Deaths and Ratio	*	NA	286	6
Child and Adolescent Deaths and Rate	*	NA	270	32
Total Deaths and Crude Rate	448	1,103	29,616	866

Deaths and Age Adjusted Death Rate by Cause, 2009-2013	Traill County Number (Adj. Rate)	North Dakota Number (Adj. Rate)
All Causes	448 (661)	29,581 (702)
Heart Disease	133 (169)	6,762 (154)
Cancer	89 (154)	6,315 (156)
Stroke	36 (44)	1,664 (37)
Alzheimers Disease	31 (37)	2,189 (45)
COPD	24 (36)	1,707 (41)
Unintentional Injury	17 (34)	1,625 (44)
Diabetes Mellitus	9 (13)	1,022 (24)
Pneumonia and Influenza	9 (13)	682 (15)
Cirrhosis	*	394 (11)
Suicide	*	551 (16)

Vital Statistics Data

BIRTHS AND DEATHS

Leading Causes of Death by Age Group for Traill County, 2009-2013		
Age	**1**	**2**	**3**

Age	1	2	3
0-4	Congenital Anomaly		
5-14			
15-24	Unintentional Injury		
25-34	Unintentional Injury		
35-44	Cancer	Suicide	Unintentional Injury / Cirrhosis
45-54	Cancer 6	Heart	Unintentional Injury
55-64	Cancer 10	Heart 7	COPD
65-74	Cancer 19	Heart 12	Stroke 5
75-84	Cancer 32	Heart 31	COPD 11
85+	Heart 81	Stroke 24	Alzheimer's Dz 21

Leading Causes of Death by Age Group for North Dakota, 2006-2010		
Age	1	2	3
0-4	Congenital Anomaly 69	Prematurity 44	SIDS 40
5-14	Unintentional Injury 26	Cancer 10	Congenital Anomaly 6
15-24	Unintentional Injury 184	Suicide 109	Cancer 20
25-34	Unintentional Injury 166	Suicide 91	Heart 32
35-44	Unintentional Injury 173	Heart 94	Cancer 88
45-54	Cancer 493	Heart 335	Unintentional Injury 194
55-64	Cancer 1001	Heart 579	Unintentional Injury 137
65-74	Cancer 1562	Heart 843	COPD 313
75-84	Cancer 1992	Heart 1797	COPD 626
85+	Heart 3421	Alzheimer's Dz 1391	Cancer 1352

The following three pages represent data received from the Adult Behavioral Risk Factor Surveillance Survey. The Adult Behavioral Risk Factor data are derived from aggregated data (the number of years specified is in the table) continuously collected by telephone survey from persons 18 years and older. All data is self-reported data. Numbers given are point estimate percentages followed by 95% confidence intervals. Statistical significance can be determined by comparing confidence intervals between two geographic areas. To be statistically significant, confidence intervals may not overlap. For example the confidence intervals 9.3 (8.3-10.2) and 10.8 (10.0-11.6) overlap (see picture below) so the difference between the two numbers is not statistically significant. That means that substantial uncertainty remains whether the apparent difference is due to chance alone (due to sampling variation) rather than representing a true difference in the prevalence of the condition in the two populations. The less they overlap, the more likely it is that the point estimates represent truly different prevalences in the two populations.

8....9....10....11....12....

ALCOHOL		Traill and Steele 2011-2013	Traill, Steele. Sargent, Ransom 2011-2013	North Dakota 2011-2013
Binge Drinking	Respondents who reported binge drinking (5 drinks for men, 4 drinks for women) one or more times in the past 30 days.	20.3 (12.4-28.3)	24.3 (18.8-29.9)	24.2 (23.2-25.1)
Heavy Drinking	Respondents who reported heavy drinking (more than 2 drinks per day for men, more than 1 drink per day for women) during the past 30 days	NA	7.5 (4.3-10.7)	6.8 (6.2-7.4)
Drunk Driving	Respondents who reported driving when they had too much to drink one or more times during the past 30 days	NA	NA	1.9 (1.5-2.4)
ARTHRITIS				
Doctor Diagnosed Arthritis	Respondents who reported ever have been told by a doctor or other health professional that they had some form or arthritis.	24.2 (18.5-29.9)	28.8 (24.4-33.3)	25.1 (24.3-25.9)
Activity Limitation Due to Arthritis	Respondents who reported being limited in any usual activities because of arthritis or joint symptoms.	NA	9.5 (6.6-12.4)	8.3 (7.8-8.8)
ASTHMA				
Ever Asthma	Respondents who reported ever having been told by a doctor, nurse or other health professional that they had asthma.	10.0 (5.3-14.7)	10.6 (7.1-14.2)	11.5 (10.7-12.2)
Current Asthma	Respondents who reported ever having been told by a doctor, nurse or other health professional that they had asthma and who still have asthma.	NA	8.2 (4.9-11.6)	8.1 (7.5-8.7)
BODY WEIGHT				
Overweight But Not Obese	Respondents with a body mass index greater than or equal to 25 but less than 30 (overweight)	39.0 (30.2-47.9)	37.8 (32.0-43.7)	36.7 (35.7-37.7)
Obese	Respondents with a body mass index greater than or equal to 30 (obese)	37.2 (28.1-46.2)	33.8 (28.1-39.5)	29.4 (28.5-30.4)
Overweight or Obese	Respondents with a body mass index greater than or equal to 25 (overweight or obese)	76.2 (68.2-84.2)	71.6 (65.9-77.3)	66.1 (65.1-67.2)
CANCER				
Ever Cancer	Respondents who reported ever having been told by a doctor, nurse or other health professional that they had cancer (excluding skin cancer).	9.0 (5.3-12.7)	7.5 (5.2- 9.9)	6.4 (6.0-6.8)

ADULT BEHAVIORAL RISK FACTORS, 2011-2013

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	GENERAL HEALTH	Traill and Steele 2011-2013	Traill, Steele. Sargent, Ransom 2011-2013	North Dakota 2011-2013
Fair or Poor Health	Respondents who reported that their general health was fair or poor	14.0 (8.8-19.2)	11.8 (8.6-14.9)	14.0 (13.3-14.7)
Poor physical Health	Respondents who reported they had 8 or more days in the last 30 when their physical health was not good	10.5 (5.6-15.4)	9.1 (5.8-12.4)	11.6 (11.0-12.3)
Poor Mental Health	Respondents who reported they had 8 or more days in the last 30 when their mental health was not good	11.2 (4.9-17.4)	10.3 (6.2-14.4)	10.8 (10.2-11.5)
Activity Limitation Due to Poor Health	Respondents who reported they had 8 or more days in the last 30 when poor physical or mental health kept them from doing their usual activities.	NA	NA	7.1 (6.6-7.6)
Any Activity Limitation	Respondents who reported being limited in any way due to physical, mental or emotional problem.	17.3 (11.7-22.9)	15.2 (11.7-18.7)	17.9 (17.2-18.7)
HEALTH CARE ACCESS				
Health Insurance	Respondents who reported not having any form or health care coverage	NA	9.0 (5.5-12.4)	12.4 (11.6-13.1)
Access Limited by Cost	Respondents who reported needing to see a doctor during the past 12 months but could not due to cost.	NA	NA	8.1 (7.4-8.7)
No Personal Provider	Respondents who reported that they did not have one person they consider to be their personal doctor or health care provider.	20.7 (12.8-28.6)	20.4 (15.5-25.4)	26.0 (25.0-26.9)
HYPERTENSION				
High Blood Pressure	Respondents who reported ever having been told by a doctor, nurse or other health professional that they had high blood pressure.	24.0 (16.7-31.2)	28.9 (23.5-34.3)	29.5 (28.6-30.6)
IMMUNIZATION				
Influenza Vaccine	Respondents age 65 and older who reported that they did not have a flu shot in the past year	24.2 (14.5-33.9)	32.5 (24.2-40.9)	40.3 38.6-42.0)
Pneumococcal Vaccine	Respondents age 65 or older who reported never having had a pneumonia shot.	NA	28.2 (19.6-36.8)	29.4 (27.8-31.0)
INJURY				
Fall	Respondents 45 years and older who reported that they had fallen in the past 12 months	NA	28.2 (19.0-37.5)	27.8 (25.9-29.6)
Seat Belt	Respondents who reported not always wearing their seatbelt	45.7 (37.1-54.3)	47.8 (41.9-53.7)	32.6 (31.6-33.6)

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ORAL HEALTH		Traill and Steele 2011-2013	Traill, Steele. Sargent, Ransom 2011-2013	North Dakota 2011-2013
Dental Visit	Respondents who reported that they have not had a dental visit in the past year	NA	NA	32.8 (31.0-34.7)
Tooth Loss	Respondents who reported they ever had a permanent tooth extracted.	NA	NA	43.2 (41.4-45.0)
PHYSICAL ACTIVITY				
Recommend Physical Activity	Respondents who reported that they did not get the recommended amount of physical activity	NA	51.7 (44.6-58.8)	53.8 (52.6-55.1)
Inactive	Respondents reporting little or no physical activity	24.8 (15.8-33.9)	29.7 (23.4-36.0)	30.4 (29.3-31.6)
TOBACCO				
Current Smoking	Respondents who reported that they smoked every day or some days	17.4 (10.4-24.5)	18.0 (13.4-22.5)	21.6 (20.6-22.5)
WOMEN'S HEALTH				
Pap Smear	Women 18 and older who reported that they have not had a pap smear in the past three years	NA	NA	23.7 (20.9-26.5)
Mammogram Age 40+	Women 40 and older who reported that they have not had a mammogram in the past two years	NA	NA	26.4 (24.0-28.9)

Steele County Community Health Profile

April 13, 2015

Stephen Pickard, MD
North Dakota Department of Health

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Population by Age Group, 2009-2013 ACS Estimates

Age Group	Steele County Number	Steele County Percent	North Dakota Number	North Dakota Percent
0-9	203	10.3%	91,871	12.7%
10-19	254	12.9%	93,318	12.9%
20-29	166	8.4%	124,424	17.2%
30-39	208	10.5%	91,148	12.6%
40-49	261	13.2%	79,573	11.0%
50-59	375	19.0%	101,998	14.1%
60-69	223	11.3%	69,446	9.6%
70-79	174	8.8%	41,233	5.7%
80+	112	5.7%	31,829	4.4%
Total	1,976	100.0%	724,840	100.0%
0-17	424	21.5%	161,317	22.3%
65+	376	19.0%	102,722	14.2%

The Demographic Section of this report comes from the US Census Bureau (www.census.gov). Most tables are derived either from the Census estimates for 2013 or from the Community Population Survey aggregated over a several year period. The table header describes the specific years from which the data is derived. The table showing percent population change uses census data from 2000 also. Tables present number of persons and percentages which in almost all circumstances represent the category specific percentage of all persons referenced by the table (e.g., percentage of persons age 15 and older who are married). Age specific poverty rates represent the percentage of each age group which is in poverty (e.g., percentage of children under five years in poverty).

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Age Group As Percentage of Total

■ Steele County 2010   □ Steele County 2000

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Female Population and Percentage Female by Age, 2009-2013 ACS Estimates

Age Group	Steele County Number	Steele County Percent	North Dakota Number	North Dakota Percent
0-9	98	48.3%	45,342	49.4%
10-19	125	49.2%	44,988	48.2%
20-29	71	42.8%	55,615	44.7%
30-39	90	43.3%	41,092	45.1%
40-49	139	53.3%	39,675	49.9%
50-59	166	44.3%	50,656	49.7%
60-69	113	50.7%	34,361	49.5%
70-79	97	55.7%	21,254	51.5%
80+	51	45.5%	20,546	64.5%
Total	950	48.1%	353,530	48.8%
0-17	112	26.4%	78,484	48.7%
65+	186	49.5%	50,201	48.9%

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Decennial Population Change, 1990 to 2000, 2000 to 2010

Census	Steele County	10 Year Change (%)	North Dakota	10 Year Change (%)
1990	2,420		638,800	
2000	2,258	-6.7%	642,200	0.5%
2010	1,975	-12.5%	672,591	4.7%

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Race, 2009-2013 ACS Estimates				
	Steele County		North Dakota	
Race	Number	Percentage	Number	Percentage
Total	1,976	100.0%	723,393	100.0%
White	1,944	98.4%	643,478	89.0%
Black	0	0.0%	10,827	1.5%
Am.Indian	0	0.0%	40,214	5.6%
Asian	0	0.0%	9,096	1.3%
Pac. Islander	0	0.0%	371	0.1%
Other	32	1.6%	4,620	0.6%
Multirace	0	0.0%	29,574	4.1%

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Household Populations, 2011-2013 ACS Three Year Estimates				
	Steele County		North Dakota	
	Number	Percent	Number	Percent
Total	1,976	100.0%	703,203	100.0%
In Family Households	1,618	81.9%	530,615	75.5%
In Non-Family Households	358	18.1%	146,330	20.8%
Total In Households	1,976	100.0%	676,945	96.3%
Institutionalized*	0	0.0%	9,675	1.4%
Non-institutionalized*	0	0.0%	16,583	2.4%
Total in Group Quarters	0	0.0%	26,258	3.7%

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Marital Status of Persons Age 15 and Older, 2009-2013 ACS Estimates				
	Steele County		North Dakota	
Marital Status	Number	Percent	Number	Percent
Total Age 15+	1,631	100.0%	561,346	100.0%
Never Married	287	17.6%	177,385	31.6%
Now Married	1,073	65.8%	291,900	52.0%
Separated	7	0.4%	5,052	0.9%
Widowed	101	6.2%	33,681	6.0%
Divorced	161	9.9%	53,328	9.5%

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Educational Attainment Among Persons 25+, 2009-2013 ACS Estimates				
	Steele County		North Dakota	
Education	Number	Percent	Number	Percent
Total	1,421	100.0%	457,771	100.0%
Less than 9th Grade	53	3.7%	19,226	4.2%
Some High School	63	4.4%	21,057	4.6%
High school or GRE	441	31.0%	125,429	27.4%
Some College / Asso. Degree	580	40.8%	168,002	36.7%
Bachelor's degree	217	15.3%	89,723	19.6%
Post Graduate Degree	70	4.9%	34,791	7.6%

POPULATION DATA

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Persons with Disabilty, 2009-2013 ACS Estimates

Group	Steele County Number	Steele County Percent	North Dakota Number	North Dakota Percent
Total	1,976	100.0%	688,158	100.0%
Any Disability	204	10.3%	72,762	10.6%
No Disability	1,772	89.7%	615,396	89.4%
Self Care Disability	22	1.2%	11,274	1.6%
0-17 with any disability	6	1.4%	4,677	2.9%
18-64 with any disabilty	97	8.2%	35,931	7.8%
65+ with any disability	101	26.9%	32,154	31.3%

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Income and Poverty Status by Age Group, 2009-2013 ACS Estimates

	Steele County	North Dakota
Median Household Income	$55,735	$54,920
Per Capita Income	$31,455	$30,436

	Number	Percent	Number	Percent
Below Poverty Level	121	6.2%	80,644	11.9%
Under 5 years	9	9.8%	7,714	16.9%
5 to 11 years	7	4.9%	7,944	13.2%
12 to 17 years	4	2.5%	5,776	11.8%
18 to 64 years	47	4.0%	49,568	11.6%
65 to 74 years	20	11.3%	3,448	7.0%
75 years and over	34	17.1%	6,194	13.7%
Total Known Children in Poverty	20	4.7%	21,434	13.3%
Total Known Age 65+ in Poverty	54	14.4%	9,642	9.4%

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Family Poverty and Childhood and Elderly Poverty, 2009-2013 ACS Estimates

	Steele County Number	Steele County Percent*	North Dakota Number	North Dakota Percent*
Total Families	595	100.0%	176,378	100.0%
Families in Poverty	24	4.0%	13,052	7.4%
Families with Own Children	210	35.3%	80,964	45.9%
Families with Own Children in Poverty	19	3.2%	10,121	5.7%
Families with Own Children and Female Parent Only	38	6.4%	16,716	9.5%
Families with Own Children and Female Parent Only in Poverty	15	2.5%	6,452	3.7%

* Percent family poverty is percent of total families

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Age of Housing ,2009-2013 ACS Estimates

	Steele County Number	Steele County Percent	North Dakota Number	North Dakota Percent
Housing units: Total	1,152	100.0%	329,970	100.0%
1980 and Later	243	21.1%	128,111	38.8%
1970 to 1979	179	15.5%	66,396	20.1%
Prior to 1970	730	63.4%	135,463	41.1%

Vital Statistics Data

BIRTHS AND DEATHS DEFINITIONS

Vital Statistics Data comes from the birth and death records collected by the State of North Dakota aggregated over a five year period. All births and deaths represent the county of residence not the county of occurrence. The number of events is blocked if fewer than five. Formulas for calculating rates and ratios are as follows:

Birth Rate = Resident live births divided by the total resident population x 1000.

Pregnancies = Live births + Fetal deaths + Induced termination of pregnancy.

Pregnancy Rate = Total pregnancies divided b the total resident population x 1000.

Fertility Rate = Resident live births divided by female population (age 15-44) x 1000.

Teenage Birth Rate = Teenage births (age <20) divided by female teen population x 1000.

Teenage Pregnancy Rate =
Teenage pregnancies (age<20) divided by female teen population x 1000.

Out of Wedlock Live Birth Ratio =
Resident OOW live births divided by total resident live births x 1000.

Out of Wedlock Pregnancy Ratio =
Resident OOW pregnancies divided by total pregnancies x 1000.

Low Weight Ratio =
Low weight births (birth weight < 2500 grams) divided by total resident live births x 1000.

Infant Death Ratio = Number of infant deaths divided by the total resident live births x 1000.

Childhood & Adolescent Deaths = Deaths to individuals 1 - 19 years of age.

Childhood and Adolescent Death Rate =
Number of resident deaths (age 1 - 19) divided by population (age 1 - 19) x 100,000.

Crude Death Rate = Death events divided by population x 100,000.

Age-Adjusted Death Rate = Death events with age specific adjustments x 100,000 population.

Vital Statistics Data

BIRTHS AND DEATHS

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Births, 2009-2013	Steele County		North Dakota	
	Number	Rate or Ratio	Number	Rate or Ratio
Live Births and Rate	92	9	47,959	14
Pregnancies and Rate	96	10	52,505	15
Fertility Rate		67		72
Teen Births and Rate	6	13	2,118	12
Teen Pregnancies and Rate	7	15	3,725	21
Out of Wedlock Births and Ratio	24	261	15,686	327
Out of Wedlock Preg and Ratio	26	271	19436	370
Low Birth Weight Birth and Ratio	*	NA	3,078	64

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Child Deaths, 2009-2013	Steele County		North Dakota	
	Number	Rate or Ratio	Number	Rate or Ratio
Infant Deaths and Ratio	0	0	286	6
Child and Adolescent Deaths and Rate	*	NA	270	32
Total Deaths and Crude Rate	84	850	29,616	866

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Deaths and Age Adjusted Death Rate by Cause, 2009-2013	Steele County Number (Adj. Rate)	North Dakota Number (Adj. Rate)
All Causes	84 (587)	29,581 (702)
Heart Disease	20 (129)	6,762 (154)
Cancer	20 (137)	6,315 (156)
Stroke	6 (36)	1,664 (37)
Alzheimers Disease	6 (33)	2,189 (45)
COPD	5 (31)	1,707 (41)
Unintentional Injury	8 (90)	1,625 (44)
Diabetes Mellitus	*	1,022 (24)
Pneumonia and Influenza	0	682 (15)
Cirrhosis	0	394 (11)
Suicide	*	551 (16)

BIRTHS AND DEATHS

Leading Causes of Death by Age Group for Steele County, 2009-2013

Age	1	2	3
0-4			
5-14	Cancer		
15-24	Unintentional Injury		
25-34	Unintentional Injury		
35-44	Suicide		
45-54	Heart	Cancer	Unintentional Injury
55-64	Cancer		
65-74	Cancer 5	Heart	
75-84	Cancer 7 / Heart 7	COPD / Stroke	Unintentional Injury
85+	Heart 7	Alzheimer's Dz 5	Cancer / Stroke

Leading Causes of Death by Age Group for North Dakota, 2006-2010

Age	1	2	3
0-4	Congenital Anomaly 69	Prematurity 44	SIDS 40
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ADULT BEHAVIORAL RISK FACTORS DEFINITION

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CARDIOVASCULAR		Traill and Steele 2011-2013	Traill, Steele. Sargent, Ransom 2011-2013	North Dakota 2011-2013
Heart Attack	Respondents who reported ever having been told by a doctor, nurse or other health care professional that they had a heart attack.	NA	4.0 (2.5- 5.5)	4.3 (3.9-4.6)
Angina	Respondents who reported ever having been told by a doctor, nurse or other health care professional that they had angina.	NA	3.3 (1.9- 4.7)	4.1 (3.7-4.4)
Stroke	Respondents who reported ever having been told by a doctor, nurse or other health care professional that they had a stroke.	NA	NA	2.3 (2.0-2.5)
Cardiovascular Disease	Respondents who reported ever having been told by a doctor, nurse or other health care professional that they had any of the following: heart attack, angina or stroke.	6.2 (3.3- 9.1)	6.5 (4.5- 8.4)	7.6 (7.1-8.0)
CHOLESTEROL				
Never Cholesterol Test	Respondents who reported never having a cholesterol test	NA	19.0 (12.6-25.4)	22.3 (21.1-23.4)
No Cholesterol Test in Past 5 Years	Respondents who reported never having a cholesterol test in the past five years	NA	24.6 (18.0-31.1)	26.7 (25.5-27.9)
High Cholesterol	Respondents who reported that they had ever been told by a doctor, nurse or other health professional that they had high cholesterol.	40.3 (30.2-50.4)	40.3 (33.8-46.9)	36.6 (35.4-37.8)
CHRONIC LUNG DISEASE				
COPD	Respondents who have ever been told by a doctor, nurse or other health professional ever told you that they have COPD (chronic obstructive pulmonary disease), emphysema, or chronic bronchitis?	NA	5.7 (3.6- 7.9)	4.6 (4.2-5.0)
COLORECTAL CANCER				
Fecal Occult Blood	Respondents age 50 and older who reported not having a fecal occult blood test in the past two years.	90.0 (81.6-98.4)	81.5 (73.2-89.9)	86.2 (84.8-87.6)
Never Sigmoidoscopy	Respondents age 50 and older who reported never having had a sigmoidoscopy or colonoscopy	NA	45.2 (33.4-56.9)	38.0 (35.9-40.2)
Up to date for Colorectal Screening	Respondents age 50 and older who are up to date according to recommended screening guidelines for colorectal screening	NA	53.8 (42.1-65.4)	59.1 (56.9-61.3)
DIABETES				
Diabetes Diagnosis	Respondents who reported ever having been told by a doctor that they had diabetes.	10.5 (6.1-14.8)	9.9 (7.0-12.8)	8.5 (8.0-9.0)
FRUITS AND VEGETABLES				
Five Fruits and Vegetables	Respondents who reported that they do not usually eat 5 fruits and vegetables per day	84.4 (76.2-92.7)	87.5 (82.8-92.2)	85.9 (85.0-86.7)

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ADULT BEHAVIORAL RISK FACTORS, 2011-2013

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GENERAL HEALTH		Traill and Steele 2011-2013	Traill, Steele. Sargent, Ransom 2011-2013	North Dakota 2011-2013
Fair or Poor Health	Respondents who reported that their general health was fair or poor	14.0 (8.8-19.2)	11.8 (8.6-14.9)	14.0 (13.3-14.7)
Poor physical Health	Respondents who reported they had 8 or more days in the last 30 when their physical health was not good	10.5 (5.6-15.4)	9.1 (5.8-12.4)	11.6 (11.0-12.3)
Poor Mental Health	Respondents who reported they had 8 or more days in the last 30 when their mental health was not good	11.2 (4.9-17.4)	10.3 (6.2-14.4)	10.8 (10.2-11.5)
Activity Limitation Due to Poor Health	Respondents who reported they had 8 or more days in the last 30 when poor physical or mental health kept them from doing their usual activities.	NA	NA	7.1 (6.6-7.6)
Any Activity Limitation	Respondents who reported being limited in any way due to physical, mental or emotional problem.	17.3 (11.7-22.9)	15.2 (11.7-18.7)	17.9 (17.2-18.7)
HEALTH CARE ACCESS				
Health Insurance	Respondents who reported not having any form or health care coverage	NA	9.0 (5.5-12.4)	12.4 (11.6-13.1)
Access Limited by Cost	Respondents who reported needing to see a doctor during the past 12 months but could not due to cost.	NA	NA	8.1 (7.4-8.7)
No Personal Provider	Respondents who reported that they did not have one person they consider to be their personal doctor or health care provider.	20.7 (12.8-28.6)	20.4 (15.5-25.4)	26.0 (25.0-26.9)
HYPERTENSION				
High Blood Pressure	Respondents who reported ever having been told by a doctor, nurse or other health professional that they had high blood pressure.	24.0 (16.7-31.2)	28.9 (23.5-34.3)	29.5 (28.6-30.6)
IMMUNIZATION				
Influenza Vaccine	Respondents age 65 and older who reported that they did not have a flu shot in the past year	24.2 (14.5-33.9)	32.5 (24.2-40.9)	40.3 38.6-42.0)
Pneumococcal Vaccine	Respondents age 65 or older who reported never having had a pneumonia shot.	NA	28.2 (19.6-36.8)	29.4 (27.8-31.0)
INJURY				
Fall	Respondents 45 years and older who reported that they had fallen in the past 12 months	NA	28.2 (19.0-37.5)	27.8 (25.9-29.6)
Seat Belt	Respondents who reported not always wearing their seatbelt	45.7 (37.1-54.3)	47.8 (41.9-53.7)	32.6 (31.6-33.6)

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CRIME

Steele County

	2009	2010	2011	2012	2013	4 year	4-Year Rate
Murder	NA	0	0	0	0	0	0.0
Rape		0	0	1	0	1	12.5
Robbery		0	0	0	0	0	0.0
Aggrev. Assualt		1	0	0	2	3	37.5
Violent crime		1	0	1	2	4	50.0
Burglary		0	3	5	1	9	112.5
Larceny		1	2	1	1	5	62.5
Motor vehicle theft		0	1	1	1	3	37.5
Property crime		1	6	7	3	17	212.5
Total		2	6	8	5	21	262.5

North Dakota

	2009	2010	2011	2012	2013	5 year	5-Year Rate
Murder	15	11	15	20	14	75	2.2
Rape	206	222	207	243	237	1,115	32.6
Robbery	102	85	91	117	151	546	16.0
Aggrev. Assualt	795	847	1,040	1,071	1,156	4,909	143.6
Violent crime	1,118	1,165	1,353	1,451	1,558	6,645	194.3
Burglary	2,180	1,826	2,227	2,200	2,656	11,089	324.3
Larceny	8,699	8,673	9,344	10,184	10,243	47,143	1378.6
Motor vehicle theft	854	825	763	854	1,228	4,524	132.3
Property crime	11,733	11,324	12,334	13,238	14,127	62,756	1835.2
Total	12,851	12,489	13,687	14,689	15,685	69,401	2029.5

Definitions of Key Indicators

A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute
This Excel file contains the ranks and scores for each county in your state and the underlying data details for the measures used in calculating the 2015 *County Health Rankings*. In addition, the file contains additional measures that are reported on the *County Health Rankings* web site for your state.

For additional information about how the *County Health Rankings* are calculated, please visit www.countyhealthrankings.org

Contents:

Outcomes & Factors Rankings

Outcomes & Factors Sub Rankings

Ranked Measures Data (including measure values, confidence intervals* and z-scores**)

Additional Measures Data (including measure values and confidence intervals*)

Ranked Measure Sources and Years

Additional Measure Sources and Years

*   95% confidence intervals are provided where applicable and available.

** Z-scores are "adjusted" z-scores (e.g., multiplied by -1 if a positively framed measure, set to zero for missing and unreliable values for ranked counties, and truncated at -3 or +3 if county population is less than 20,000).

Measure	Data Elements	Description
Geographic identifiers	**FIPS**	Federal Information Processing Standard
	State	
	County	
Premature death	# Deaths	Number of deaths under age 75
	Years of Potential Life Lost Rate	Age-adjusted YPLL rate per 100,000
	95% CI – Low	95% confidence interval reported by National Center for Health Statistics
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Poor or fair health	Sample Size	Number of respondents
	% Fair/Poor	Percent of adults that report fair or poor health
	95% CI - Low	95% confidence interval reported by BRFSS
	95% CI - High	

Measure	Data Elements	Description
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Poor physical health days	Sample Size	Number of respondents
	Physically Unhealthy Days	Average number of reported physically unhealthy days per month
	95% CI - Low	95% confidence interval reported by BRFSS
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Poor mental health days	Sample Size	Number of respondents
	Mentally Unhealthy Days	Average number of reported mentally unhealthy days per month
	95% CI - Low	95% confidence interval reported by BRFSS
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Low birthweight	Unreliable	Value reported but considered unreliable since based on counts of twenty or less.
	# Low Birthweight Births	Number of low birthweight births
	# Live births	Number of live births
	% LBW	Percentage of births with low birth weight (<2500g)
	95% CI - Low	95% confidence interval reported by National Center for Health Statistics
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Adult smoking	Sample Size	Number of respondents
	% Smokers	Percentage of adults that reported currently smoking
	95% CI - Low	95% confidence interval reported by BRFSS
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Adult obesity	**% Obese**	Percentage of adults that report BMI >= 30
	95% CI - Low	95% confidence interval reported by BRFSS
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Food environment index	**Food Environment Index**	Indicator of access to healthy foods - 0 is worst, 10 is best
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Physical inactivity	**% Physically Inactive**	Percentage of adults that report no leisure-time physical activity
	95% CI - Low	95% confidence interval
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Access to exercise opportunities	# With Access	Number of people with access to exercise opportunities
	% With Access	Percentage of the population with access to places for physical activity
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Excessive drinking	Sample Size	Number of respondents

Measure	Data Elements	Description
	% Excessive Drinking	Percentage of adults that report excessive drinking
	95% CI - Low	95% confidence interval reported by BRFSS
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Alcohol-impaired driving deaths	# Alcohol-Impaired Driving Deaths	Number of alcohol-impaired motor vehicle deaths
	# Driving Deaths	Number of motor vehicle deaths
	% Alcohol-Impaired	Percentage of driving deaths with alcohol involvement
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Sexually transmitted infections	# Chlamydia Cases	Number of chlamydia cases
	Chlamydia Rate	Chlamydia cases / Population * 100,000
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Teen births	Teen Births	Teen birth count, ages 15-19
	Teen Population	Female population, ages 15-19
	Teen Birth Rate	Teen births / females ages 15-19 * 1,000
	95% CI - Low	95% confidence interval reported by National Center for Health Statistics
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Uninsured	# Uninsured	Number of people under age 65 without insurance
	% Uninsured	Percentage of people under age 65 without insurance
	95% CI - Low	95% confidence interval reported by SAHIE
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Primary care physicians	# Primary Care Physicians	Number of primary care physicians (PCP) in patient care
	PCP Rate	(Number of PCP/population)*100,000
	PCP Ratio	Population to Primary Care Physicians ratio
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Dentists	# Dentists	Number of dentists
	Dentist Rate	(Number of dentists/population)*100,000
	Dentist Ratio	Population to Dentists ratio
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Mental health providers	# Mental Health Providers	Number of mental health providers (MHP)
	MHP Rate	(Number of MHP/population)*100,000
	MHP Ratio	Population to Mental Health Providers ratio
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Preventable hospital stays	# Medicare Enrollees	Number of Medicare enrollees
	Preventable Hosp. Rate	Discharges for Ambulatory Care Sensitive Conditions/Medicare Enrollees * 1,000
	95% CI - Low	95% confidence interval reported by Dartmouth Institute
	95% CI - High	

Measure	Data Elements	Description
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Diabetic monitoring	# Diabetics	Number of diabetic Medicare enrollees
	% Receiving HbA1c	Percentage of diabetic Medicare enrollees receiving HbA1c test
	95% CI - Low	95% confidence interval reported by Dartmouth Institute
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Mammography screening	# Medicare Enrollees	Number of female Medicare enrollees age 67-69
	% Mammography	Percentage of female Medicare enrollees having at least 1 mammogram in 2 yrs (age 67-69)
	95% CI - Low	95% confidence interval reported by Dartmouth Institute
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
High school graduation	Cohort Size	Number of students expected to graduate
	Graduation Rate	Graduation rate
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Some college	# Some College	Adults age 25-44 with some post-secondary education
	Population	Adults age 25-44
	% Some College	Percentage of adults age 25-44 with some post-secondary education
	95% CI - Low	95% confidence interval
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Unemployment	# Unemployed	Number of people ages 16+ unemployed and looking for work
	Labor Force	Size of the labor force
	% Unemployed	Percentage of population ages 16+ unemployed and looking for work
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Children in poverty	# Children in Poverty	Number of children (under age 18) living in poverty
	% Children in Poverty	Percentage of children (under age 18) living in poverty
	95% CI - Low	95% confidence interval reported by SAIPE
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Income inequality	80th Percentile Income	80th percentile of median household income
	20th Percentile Income	20th percentile of median household income
	Income Ratio	Ratio of household income at the 80th percentile to income at the 20th percentile
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Children in single-parent households	# Single-Parent Households	Number of children that live in single-parent households
	# Households	Number of children in households
	% Single-Parent Households	Percentage of children that live in single-parent households
	95% CI - Low	95% confidence interval
	95% CI - High	

Measure	Data Elements	Description
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Social associations	# Associations	Number of associations
	Association Rate	Associations / Population * 10,000
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Violent crime	# Violent Crimes	Number of violent crimes
	Violent Crime Rate	Violent crimes/population * 100,000
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Injury deaths	# Injury Deaths	Number of injury deaths
	Injury Death Rate	Injury mortality rate per 100,000
	95% CI - Low	95% confidence interval as reported by the National Center for Health Statistics
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Air pollution - particulate matter	**Average Daily PM2.5**	Average daily amount of fine particulate matter in micrograms per cubic meter
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Drinking water violations	Pop. In Viol	Average annual population affected by a water violation
	% Pop in Viol	Population affected by a water violation/Total population with public water
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Severe housing problems	# Households with Severe Problems	Number of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities
	% Severe Housing Problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities
	95% CI - Low	95% confidence interval
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Driving alone to work	# Drive Alone	Number of people who drive alone to work
	# Workers	Number of workers in labor force
	% Drive Alone	Percentage of workers who drive alone to work
	95% CI - Low	95% confidence interval
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)
Long commute - driving alone	# Workers who Drive Alone	Number of workers who commute in their car, truck or van alone
	% Long Commute - Drives Alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes
	95% CI - Low	95% confidence interval
	95% CI - High	
	Z-Score	(Measure - Average of state counties)/(Standard Deviation)

Traill County

	Traill County	Trend(Click for info)	Error Margin		Top U.S. Performers*	North Dakota	Rank (of 47)
Health Outcomes							1
Length of Life							1
Premature death	4,400	⬜	3,403-5,598		5,200	6,388	
Quality of Life							7
Poor or fair health	13%		9-18%		10%	12%	
Poor physical health days	2.7		1.8-3.5		2.5	2.7	
Poor mental health days	2.2		1.2-3.2		2.3	2.4	
Low birthweight	4.2%		2.7-5.7%		5.9%	6.5%	
Health Factors							7
Health Behaviors							13
Adult smoking	13%		9-18%		14%	18%	
Adult obesity	36%	⬜	30-42%		25%	30%	
Food environment index	8.9				8.4	8.5	
Physical inactivity	27%	⬜	22-32%		20%	25%	
Access to exercise opportunities	64%				92%	68%	
Excessive drinking	16%		12-21%		10%	22%	
Alcohol-impaired driving deaths	33%				14%	46%	
Sexually transmitted infections	161		⬜		138	416	
Teen births	15			10-21	20	28	
Clinical Care							11
Uninsured	11%		⬜	10-13%	11%	12%	

	Traill County	Trend(Click for info)	Error Margin		Top U.S. Performers*	North Dakota	Rank (of 47)
Primary care physicians	4,036:1				1,045:1	1,279:1	
Dentists	4,123:1				1,377:1	1,710:1	
Mental health providers					386:1	638:1	
Preventable hospital stays	55	～	43-66		41	56	
Diabetic monitoring	92%	～	74-100%		90%	86%	
Mammography screening	74.3%	～	57.8-90.8%		70.7%	68.0%	
Social & Economic Factors							3
High school graduation						85%	
Some college	76.4%		67.6-85.1%		71.0%	74.4%	
Unemployment	3.1%	～			4.0%	2.9%	
Children in poverty	9%	～	6-12%		13%	12%	
Income inequality	4.3		3.7-5.0		3.7	4.4	
Children in single-parent households	20%		14-27%		20%	26%	
Social associations	32.2				22.0	17.3	
Violent crime	48	～			59	240	
Injury deaths	44		26-70		50	64	
Physical Environment							42
Air pollution - particulate matter	11.1	～			9.5	10.0	
Drinking water violations	0%				0%	3%	
Severe housing problems	7%		4-9%		9%	11%	
Driving alone to work	78%		75-82%		71%	79%	

	Traill County	Trend(Click for info)	Error Margin	Top U.S. Performers*		North Dakota	Rank (of 47)
Long commute - driving alone	29%			24-33%	15%	13%	

* 90th percentile, i.e., only 10% are better. Note: Blank values reflect unreliable or missing data	2015

2015

Steele County

	Steele County	Trend(Click for info)	Error Margin	Top U.S. Performers*	North Dakota	Rank (of 47)
Health Outcomes						NR
Length of Life						NR
Premature death				5,200	6,388	
Quality of Life						NR
Poor or fair health	12%		7-21%	10%	12%	
Poor physical health days	1.9		1.1-2.7	2.5	2.7	
Poor mental health days	2.3		1.2-3.5	2.3	2.4	
Low birthweight				5.9%	6.5%	
Health Factors						NR
Health Behaviors						NR
Adult smoking	12%		7-20%	14%	18%	
Adult obesity	32%	⌇	25-39%	25%	30%	
Food environment index	7.2			8.4	8.5	
Physical inactivity	30%	⌇	23-38%	20%	25%	
Access to exercise opportunities	27%			92%	68%	
Excessive drinking	26%		16-39%	10%	22%	
Alcohol-impaired driving deaths	50%			14%	46%	
Sexually transmitted infections				138	416	
Teen births	21			20	28	
Clinical Care						NR
Uninsured	12%	⌇	11-14%	11%	12%	
Primary care physicians	1,989:0			1,045:1	1,279:1	
Dentists	1,960:0			1,377:1	1,710:1	
Mental health providers				386:1	638:1	

	Steele County	Trend(Click for info)	Error Margin	Top U.S. Performers*	North Dakota	Rank (of 47)
Preventable hospital stays				41	56	
Diabetic monitoring	87%	∿	54-100%	90%	86%	
Mammography screening	78.9%	∿	39.0-100.0%	70.7%	68.0%	
Social & Economic Factors						NR
High school graduation					85%	
Some college	72.3%		58.4-86.2%	71.0%	74.4%	
Unemployment	2.2%	∿		4.0%	2.9%	
Children in poverty	12%	∿	8-15%	13%	12%	
Income inequality	3.8		3.1-4.6	3.7	4.4	
Children in single-parent households	15%		6-25%	20%	26%	
Social associations	10.1			22.0	17.3	
Violent crime	25			59	240	
Injury deaths				50	64	
Physical Environment						NR
Air pollution - particulate matter	10.7	∿		9.5	10.0	
Drinking water violations	0%			0%	3%	
Severe housing problems	6%		2-10%	9%	11%	
Driving alone to work	75%		69-81%	71%	79%	
Long commute - driving alone	24%		17-31%	15%	13%	

* 90th percentile, i.e., only 10% are better.

Note: Blank values reflect unreliable or missing data.

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