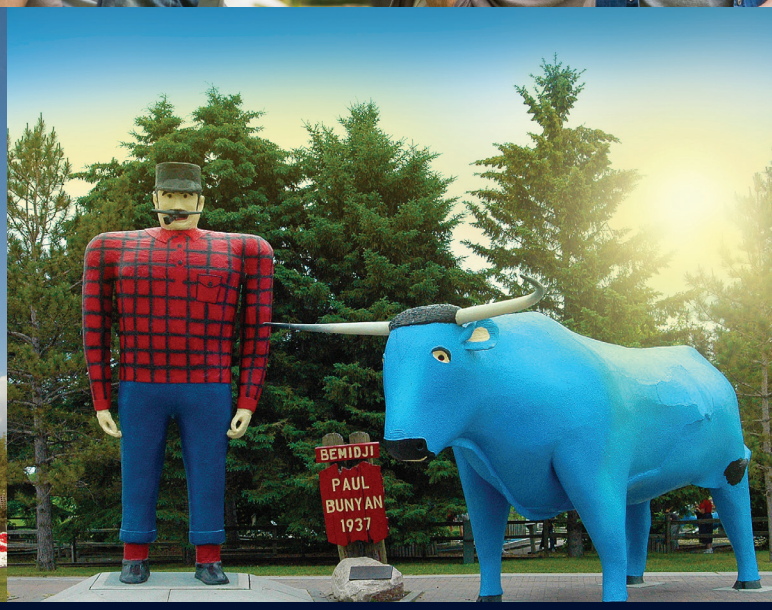

Sanford Bismarck

2016 Community Health Needs Assessment

SANFORD HEALTH

dba Sanford Bismarck Medical Center EIN # 45-0226700

SANFORD HEALTH

Sanford Health Bismarck
Community Health Needs Assessment
2016

Dear Community Members,

Sanford Health Bismarck is pleased to present the 2016 Community Health Needs Assessment, a report critical to a community benefit program that builds on community assets, promotes collaboration, improves community health, and promotes innovation and research. Furthermore, a needs assessment helps the community build capacity to support policy, systems, environmental changes and community health improvement.

To assess community needs, Sanford Health Bismarck partnered with Bismarck-Burleigh Public Health and CHI St. Alexius. Together we created a plan to survey community members and bring together community leaders and stakeholders for focused discussion on initial findings. We are grateful to all the community members who joined us in this important work.

In the generalizable survey, community members were asked to identify health-related concerns and unmet needs. An additional, separate survey targeted Bismarck and Burleigh County community stakeholders. Researchers at the Center for Social Research at North Dakota State University analyzed the survey data. Sanford Health 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 included in this document.

Sanford Health Bismarck has a strong history of partnering with community stakeholders to better meet community members' health and wellness needs. Among key health care-related needs identified in this document, Sanford Health has included strategy overviews to address access to affordable care, wellness initiatives and substance abuse.

The report focuses on community assets as well as community health needs. The asset map and resource list is included in this document along with action steps to address identified needs.

Through our work with community leaders and our health care partners, we can bring affordable, high-quality care and services to the people who live and work in the communities we serve.

Sincerely,

Craig Lambrecht, M.D.
President
Sanford Health Bismarck

SANFORD HEALTH

Sanford Health Bismarck
2016 Community Health Needs Assessment

Executive Summary

Purpose

The purpose of a community health needs assessment is to develop a global view of the population's health and the prevalence of disease and health issues within the communities served. Findings from the assessment serve as a catalyst to align expertise and develop a community investment/community benefit plan of action. The assessment is critical to a community benefit program that builds on community assets, promotes collaboration, improves community health, and promotes innovation and research. Furthermore, a needs assessment helps the community build capacity to support policy, systems, environmental changes and community health improvement.

Sanford Health Bismarck Overview

Sanford Health Bismarck is a non-profit, multi-specialty tertiary medical center that integrates clinic, hospital and long-term care. Based in Bismarck, Sanford Health Bismarck consists of a 217-bed hospital, a level II trauma center, seven primary care clinics, four multi-specialty clinics, three walk-in clinics, three occupational health clinics, a home health agency, three kidney dialysis centers, three long-term care facilities, one independent living center, and a college of nursing. Sanford Bismarck employs more than 3,600 people including 260 physicians and advanced practice providers.

Description of the Community Served

Sanford Health Bismarck is based in Bismarck, N.D., a diverse, dynamic, family-oriented community in central North Dakota. The community is experiencing fast-paced growth as a direct result of oil development throughout western North Dakota. The U.S. Census named it as one of the 50 fasting growing metro areas in the country. Bismarck is the second-largest city in the state with 68,896 residents and the adjoining city of Mandan has 20,820 residents (source: U.S. Census Bureau).

Study Design and Methodology

Generalizable Survey (Primary Research)

A generalizable survey was conducted of residents in Bismarck and Mandan as well as Burleigh and Morton counties. The purpose of the generalizable survey of residents in the greater Bismarck area was to learn about residents' health and wellness concerns and their perceptions of unmet needs in the Burleigh-Morton metro community.

The survey, developed in collaboration with the North Dakota State University Center for Social Research and the Community Health Needs Assessment Collaborative (Sanford Health, CHI St. Alexius Health and Bismarck-Burleigh Public Health), contained 55 multi-part questions. Elements of informed consent were included in the letter ensuring the NDSU Institutional Review Board requirements were met and the protection of human subjects maintained.

The sample was a stratified random sample, drawn through a qualified vendor. A total of 1,500 records with names, addresses and demographic indicators were included in the sample. A total of 397 surveys were completed (26 percent response rate) providing a generalizable sample with a confidence level of 95 percent and an error rate of plus or minus 5.2 percentage points.

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 3.6 and above were included in the needs to be addressed and prioritized.

Non-Generalizable Survey
An on-line non-generalizable survey was also conducted. The NDSU Center for Social Research developed and maintained links to the on-line survey tool. The Community Health Collaborative held a news conference April 1, 2015 inviting community members to access the on-line survey through the City of Bismarck's website. 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; 502 respondents participated in the on-line survey.

Community Stakeholder Meeting
Community stakeholders were invited to a June 11, 2015 meeting to review the findings from assessment research and to discuss the top health issues facing the community. Community stakeholders discussed the findings and helped to determine key priorities for the community. Those priorities will be addressed in the implementation strategies for 2017-2019.

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. A multi-voting methodology was implemented to determine what top priorities would be further developed into implementation strategies.

Secondary Research
The secondary data includes the 2015 County Health Rankings for Burleigh County. County Health Rankings are based upon a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. State and national benchmarking data sources include the U.S. Census Bureau, Small Area Health Insurance Estimates, and the Centers for Disease Control and Prevention's National Center for Health Statistics—the Health Indicators Warehouse.

Key Findings
Research indicates that optimal health and well-being is much more than merely physical health. Optimal health is an integrated and interconnected state where all components of health, such as physical, mental, social, spiritual, emotional, environmental, intellectual, and occupational health are balanced to contribute to an individual's quality of life.

The *Greater Bismarck-Mandan Community Health Needs Assessment* indicated a number of possible health challenges within the metropolitan area.

Community Health Concerns

The greatest areas of concern among respondents are for the aging population, including the cost of long-term care; safety issues (including the presence of street drugs, prescription drugs, and alcohol in the community; crime; presence of drug dealers in the community; sex trafficking; and domestic violence); physical health, including cancer; health care (including access to affordable health insurance, affordable prescription drugs, and affordable health care); and issues relating to substance use and abuse (including underage drug use and abuse).

Respondents have moderately high levels of concern with respect to issues relating to children and youth (i.e., bullying) as well as other physical health issues (i.e., chronic disease, inactivity and lack of exercise, and obesity). Other moderately high concerns relate to substance use and abuse issues (i.e., drug use and abuse), health care issues (i.e., cost of affordable dental insurance coverage and the cost of affordable vision insurance coverage), aging issues, (i.e., the availability of memory care and the availability of long term care), and the safety issue of child abuse and neglect.

Regarding economic issues, respondents have a moderately high concern regarding the availability of affordable housing. However, with respect to homelessness and hunger, respondents are moderately concerned. Regarding transportation issues, respondents have moderate concerns about driving habits and less concern regarding the availability of good walking or biking options and the cost and availability of public transportation. Overall, respondents are only moderately concerned about the environment (i.e., water quality, air quality, hazardous waste, home septic systems).

Personal Health Concerns

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 in the metro area are overweight or obese. However, the vast majority of community respondents rate their own health as excellent, very good, or good. With good overall health habits in mind, it is important to note that within the past year, three in four respondents visited a doctor or health care provider for a routine physical and four in five respondents visited a dentist or dental clinic.

Preventive health care 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, glaucoma test, 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, 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. With that in mind, a number of screenings and tests were analyzed more closely based on age. With respect to the bone density test, older respondents are twice as likely as respondents overall to get tested. Regarding the colorectal cancer screening, older respondents are more likely than respondents overall to get tested/screened. Pertaining to the prostate cancer screening, older male respondents are nearly two times more likely than male respondents overall to get screened. Among respondents not screened, reasons cited most often are that the screening was not necessary or the doctor hadn't suggested it.

As the majority of community respondents are overweight or obese, it is important to consider that obesity is related to many chronic diseases and conditions, such as heart disease, stroke, type 2 diabetes, and certain types of cancer - many of which are leading causes of preventable death. When compared to the prevalence of chronic diseases in the U.S. overall, a slightly smaller proportion of metro area respondents report having high cholesterol (one in four respondents), a smaller proportion report having hypertension (one in five respondents), a smaller proportion report having arthritis (one in seven respondents), and a much smaller proportion report having diabetes (one in 17 respondents).

According to the Office of Disease Prevention and Health Promotion, 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. Study results suggest that the majority of respondents do not meet vegetable recommended dietary guidelines. Specifically, less than one in three respondents eat the daily recommended serving size of vegetables. Just over half of respondents eat the daily recommended serving size of fruit.

Other healthy behavior recommendations are related to physical activity levels. 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. Study results suggest that the majority of respondents do not meet physical activity guidelines. Specifically, in an average week, one in four respondents reach the weekly recommended moderate physical activity level (5 or more days of at least 30 minutes of moderate physical activity). An additional one in four respondents reach the weekly recommended vigorous activity level (3 or more days of at least 30 minutes of vigorous physical activity).

Other lifestyle choices individuals make about how they live have a significant impact on their overall health. Study results indicate that the vast majority of community respondents are not currently tobacco users. However, 3 in 10 respondents have smoked at least 100 cigarettes in their lifetime, which indicates a former smoker status according to the Centers for Disease Control and Prevention.

Beyond physical 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 relate to others. Among Bismarck-Mandan respondents, mental health is a moderately high area of concern, particularly stress, depression, dementia and Alzheimer's disease. One in six respondents have been told or diagnosed by a doctor or health professional that they have anxiety or stress and a similar proportion have been told they have depression. In addition, two in five respondents self-report that in the last month, there were days when their mental health was not good. One in eight respondents say their mental health was not good for at least eight of the last 30 days. Furthermore, when asked specifically about particular mental health issues, one in five respondents reported little interest or pleasure in doing things for several days or more in the last two weeks and one in six respondents say that for at least several days in the last two weeks they were feeling down, depressed, or hopeless.

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 Bismarck-Mandan community, one in five respondents drank alcoholic beverages on at least half of the days in the last month. On days they drank, nearly one in ten respondents drank an average of four or more drinks per day. In regards to binge drinking, one in four respondents report binge drinking at least once per month. Specifically, 3 percent binge drink 2 to 3 times a week.

When asked if they have ever had a problem with alcohol use, one in 15 respondents say they have. Among those who had a problem, two-thirds received the help they needed. Overall, one in six respondents say alcohol use has had harmful effects on themselves or a family member.

Other forms of substance abuse include the abuse of prescription or non-prescription drugs; 5 percent of respondents say prescription or non-prescription drug abuse has had harmful effects on themselves or a family member.

Table of Contents

Sanford Health Bismarck
Community Health Needs Assessment
2016

Purpose

Sanford Health Bismarck is part of Sanford Health, an integrated health system with headquarters in North Dakota and South Dakota. Sanford Health is the largest, rural, not-for-profit health care system in the nation with locations in 126 communities in eight states.

Sanford Health Bismarck has undertaken a community health needs assessment as required by the Patient Protection and Affordable Care Act (PPACA), and as part of the IRS 990 requirement for a not-for-profit health system to address issues that have been assessed as unmet needs in the community.

The purpose of a community health needs assessment is to develop a global view of the population's health and the prevalence of disease and health issues within the communities served. Findings from the assessment serve as a catalyst to align expertise and develop a community investment/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.

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.

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 Bismarck would like to acknowledge and thank the following groups for the expertise and leadership they committed to this assessment report, work that will support Sanford Health's future direction in caring for the communities it serves.

Sanford Enterprise Steering Group:

- Carrie McLeod, MBA, MM, LRD,CDE, Enterprise Lead, Enterprise Community Health/Community Benefit
- 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 Sioux Falls
- 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 Cristy, CFO, Bismarck Region

Sanford Bismarck Steering Group:

- Carrie McLeod, MBA, MS, LRD, CDE - Enterprise Lead, Office of Health Care Reform, Community Benefit/Community Health Improvement
- Marnie Walth, MBA, Director of Strategic Planning/Public Policy

Community Health Needs Assessment Collaborative

- Julie Jeske, CHI St. Alexius
- Sue Kahler, Bismarck-Burleigh Public Health
- Renae Mock, Bismarck-Burleigh Public Health
- Carrie McLeod, Sanford Health
- Marnie Walth, Sanford Health

We express our gratitude to the following community collaborative members for their expertise with the planning, development and analysis of the community health needs assessment:

- Pat Aune, United Tribes Technical College
- Bill Bauman, YMCA
- Jeff Beauchamp, CHI St. Alexius Health
- Cassie Beise, Lutheran Social Services
- Chris Block, United Way
- Larrie Cherrey, Military Outreach SW Region
- Kirk Christy, Sanford Health
- Gloria David, City of Bismarck
- Dick Dever, State Legislator
- Sr. Mariah Dietz, CHI St. Alexius Health
- Dan Donlin, Bismarck Police Department
- Karen Ehrens, Go! Bismarck Mandan

- Joan Enderle, American Heart Association
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- Julie Jeske, CHI St. Alexius Health
- Katie Johnke, Bismarck-Burleigh Public Health
- Kathleen Jones, Burleigh County Commission
- Sue Kahler, Bismarck-Burleigh Public Health
- Jan Kamphuis, Sanford Health
- Kevin Klipfel, Bismarck Parks & Recreation
- Sister JoAnn Krebsbach, University of Mary
- Brenda Larsen, Sanford Health
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- Renae Moch, Bismarck-Burleigh Public Health
- Kelly Nagel, ND Department of Health
- Sharon Nelson, NDSU School of Nursing
- Peggy Netzer, NDSU Extension Service Burleigh County
- Erin Oban, State Legislator
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- Tammy Renner, Rasmussen College
- John Rieke, Sanford Health
- Jodi Roller, University of Mary
- Jim Schaefer, CHI St. Alexius Health
- Randi Schaeffer, Sanford Health
- Dewey Schlittenhard, CHI St. Alexius Health
- Rosanne Schmidt, CHI St. Alexius Health

- Theresa Schmidt, Bismarck-Burleigh Public Health
- Mike Seminary, City of Bismarck
- Guy Tangedahl, MD, UND Center for Family Medicine
- Sandy Tschosik, CHI St. Alexius Health
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- Arlan Vanbeek, City of Mandan
- Sister Gerard Wald, University of Mary
- Marnie Walth, Sanford Health
- Sister Thomas Welder, University of Mary
- Kalee Werner, University of North Dakota
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- Bill Wocken, City of Bismarck
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- Sister Rosanne Zastoupil, University of Mary Annunciation Monastery
- Shaundra Ziemann, NDSU Extension Service Burleigh County

We extend special thanks to the City Mayors, City Commission members, physicians, nurses, school superintendents and school board members, parish nurses, representatives from the Native American community, Faith Community leaders, as well as legal services, mentally and physically disabled, social services, non-profit organizations, and financial services 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 Key Community Stakeholders participated in community discussions and helped to formulate the priorities for future work.

Sanford Health Bismarck Board of Directors

- Wes Engbrecht, Communications Director, Capital Electric Cooperative
- Dave Goodin, President/CEO, MDU Resources Group, Inc.
- Dick Hedahl, Owner/CEO, Hedahl’s Auto Plus, Inc.
- Claire Anne Holmberg, Retired broadcast media director
- Ellen Huber, Business Development Director, Mandan Business Development
- Pete Jahner, President, Kirkwood Bank and Trust
- Lowell Jensen, Retired Bismarck Public Schools Superintendent
- Dr. Marshall Jones, Chief of Staff, Sanford Bismarck
- Dr. Pete Klemin OB/GYN physician, Sanford Bismarck
- James Laducer, President/CEO, Laducer Information Management
- Dr. Craig Lambrecht, President, Sanford Bismarck
- Sister Paula Larson, Prioress, Sacred Heart Monastery
- Susan Lundberg, Executive Director, Sleepy Hollow Summer Theatre
- Robert Schulte, Former Army Brigadier General, N.D. National Guard; Retired Cloverdale Vice President
- Dr. Larry Skoken, President, Bismarck State College
- DuWayne Ternes, Owner, CCC Properties
- Jim Volk, Raymond James Financial Services; Sanford Health Bismarck Foundation Vice Chair

- Irene Wentz, Sanford Health Bismarck Auxiliary President
- Jerry Willer, CEO, Kirkwood Bank and Trust
- Dr. Matt Zimny, Emergency and Trauma physician, Sanford Bismarck

Sanford Health Bismarck

Community Health Needs Assessment
2016

Sanford Health Bismarck Overview

Sanford Health Bismarck is a non-profit, multi-specialty tertiary medical center that integrates clinic, hospital and long-term care. Based in Bismarck, Sanford Health Bismarck consists of a 217-bed hospital, a level II trauma center, seven primary care clinics, four multi-specialty clinics, three walk-in clinics, three occupational health clinics, a home health agency, three kidney dialysis centers, three long-term care facilities, one independent living center and a college of nursing.

Sanford Health Bismarck serves as a regional hub for AirMed air ambulance services; as a tertiary care center Sanford Bismarck supports 12 regional critical access hospitals in central and western North Dakota by providing critical specialized care including include cancer care, heart, women's and children's specialties, OccMed services, orthopedics and sports medicine.

Sanford Health Bismarck began operation in 1902 when two renowned physicians, Drs. Eric P. Quain and Niles O. Ramstad, opened Q&R Clinic with a vision of providing outstanding, comprehensive patient care in one convenient location. Q&R Clinic was the second multi-specialty clinic in the nation, second only to Mayo Clinic in Rochester, Minn. In 1908, Bismarck Evangelical Hospital, now Sanford Health Bismarck, opened at the urging of Dr. Ramstad.

Sanford Bismarck employs more than 3,600 people including 260 physicians and advanced practice providers.

Key accreditations include The Joint Commission, verified by American College of Surgeons as a level II trauma center (highest level in North Dakota), Center for Medicare and Medicaid Services (CMS) long-term care accreditation, Commission on Collegiate Nursing Education (CCNE), The Magnet Recognition Program® and Commission on Accreditation of Rehabilitation Facilities (CARF).

Sanford Health Bismarck uses a group practice model, where doctors are associates of Sanford Health and are not in private practice. Culture, values, governance, expectations, efficiency, teamwork and continuity of care are maximized through this model. Sanford Health associates practice evidence-based medicine integrating clinical expertise, application of predictable outcomes and patient communication.

Community involvement and education have played an important role in Sanford Health's mission for more than 100 years. Beyond providing medical care, Sanford Health supports and partners with local and national

organizations that know and support the communities Sanford Health serves. These partnerships provide the foundation for health care awareness, education, prevention and research for the health care issues that matter most to the communities Sanford Health serves.

Description of the Community Served

Sanford Health Bismarck is based in Bismarck, N.D., a diverse, dynamic, family-oriented community in central North Dakota. The community is experiencing fast-paced growth as a direct result of oil development throughout western North Dakota. The U.S. Census named it as one of the 50 fasting growing metro areas in the country.

Bismarck is the second-largest city in the state with 68,896 residents and the adjoining city of Mandan has 20,820 residents (source: U.S. Census Bureau). Bismarck is the state capital and also serves as home to Bismarck State College, the University of Mary and several of the state's top businesses. The community offers quality schools, excellent medical care, plentiful recreation possibilities, community involvement opportunities, and neighborhood support. Bismarck was designated an All-American City in 1997, and the Bismarck MSA has been named a "Five Star Community" by *Expansion Management* magazine multiple times.

Health Care: In addition to Sanford Health, Bismarck and surrounding areas feature several other high-quality health care providers including St. Alexius Medical Center, a 306-bed, full-service, acute care medical center offering inpatient and outpatient medical services**;** Bismarck Cancer Center, a state-of-the-art radiation therapy center; UND Center for Family Medicine, a University of North Dakota family physician residency program; more than 20 independently-owned clinics; and Bismarck-Burleigh Public Health Unit. Collectively the community features more than 350 physicians and more than 7,000 total health care professionals.

Elementary and Secondary Education: The Bismarck Public School System features 3 high schools, 3 middle schools and 16 elementary schools. Community members in 2012 voted overwhelmingly in support of a tax measure to add four new schools to the community. The community is also home to two private school systems that feature classes for children in grades K though 12. Other school districts in Burleigh County include Apple Creek, Hazelton-Moffit-Braddock, Kidder County, Manning, McClusky, Menoken, Naughton, Sterling, Wilton and Wing.

Higher Education: Bismarck is home to five higher learning institutions. The Sanford NDSU College of Nursing is an accredited (Commission on Collegiate Nursing Education) upper-division. The College of Nursing offers an evidence/theory-based curriculum which correlates with current nursing knowledge and technology and prepares the practitioner for professional nursing practice in the 21st century. Other schools include: University of Mary, a four-year private college; Bismarck State College, a two-year state college; Rasmussen College, a two-year degree college; and United Tribes Technical College, a technical institution operated by the five Native American tribes in North Dakota. Sanford Health Bismarck partners with Bismarck State College for its nursing programs and its radiology program.

Recreation, History and Performing Arts

Bismarck Parks and Recreation District facilities and programming, recognized as a "Sports Illustrated Sportstown," features more than 50 miles of paved bike trails and recreation facilities throughout the community including parks, tennis courts, skate parks, soccer fields, golf courses, baseball fields and campgrounds. Bismarck's park system accounts for 17.5 percent of the total city area. The community

includes three public swimming pools and two indoor pools (Bismarck Aquatic Center and Missouri Valley YMCA).

Bismarck rests on the Missouri River so community members have access to various water-based activities including fishing, boating and water-front recreation. Bismarck's riverfront location is an important part of its rich history of exploration and adventure—the community and nearby areas are part of the Lewis and Clark Trail and home to several Native American historical sites and Fort Abraham State Park.

Burleigh County recreation sites include Steckel Burnt Boat/Kniefel Landing (Wilton), Kimball Bottoms and McLean Bottom/Rifle Range Boat Ramp Areas (south of Bismarck); and Swenson Park, Driscoll Sibley and Mitchell Lake (Wing).

Performing arts organizations include the Bismarck-Mandan Symphony, Northern Plains Ballet, Shade Tree Players, Dakota State Unlimited and Sleepy Hollow Theater. Combined with performances provided by University of Mary and BSC theater departments, the performing arts community offers several options for residents to view each year.

Employment: North Dakota's unemployment rate has hovered between 2.0 and 3.5 percent for the last three years. Unemployment dipped as low as 1.2 percent in 2015 creating a challenging environment for businesses working to keep pace with the growing community's increased demand for goods and services. Major employers in Bismarck include state government (4,600 employees), Sanford Health (3,500 employees), St. Alexius Medical Center (2,400 employees), Bismarck Public School District (2,100), the U.S. Government (1,200 employees), and the City of Bismarck (925 employees). Top business industry employers include MDU Resources (850 employees), Aetna (600 employees), and Basin Electric Power Cooperative (460 employees).

Workforce and Labor: Bismarck-Mandan workers are among the most productive and dependable in the nation. According to the Bismarck-Mandan 2009 Labor Availability and Business Needs Survey, 78 percent of employers reported low turnover (less than 10 percent) and 89.9 percent reported low absenteeism (less than 6 percent).

Study Design and Methodology

Generalizable Survey

A generalizable survey was conducted of residents in Bismarck and Mandan as well as Burleigh and Morton counties. The purpose of the generalizable survey of residents in the greater Bismarck area was to learn about residents' health and wellness concerns and their perceptions of unmet needs in the Burleigh-Morton metro community.

The survey, developed in collaboration with the North Dakota State University Center for Social Research and the Community Health Needs Assessment Collaborative, contained 55 multi-part questions. Questions focused on general concerns about the community, community health and wellness concerns, personal health care, preventive health information and demographics. Elements of informed consent were included in the letter ensuring that the NDSU Institutional Review Board requirements were met and the protection of human subjects maintained.

The sample was a stratified random sample, drawn through a qualified vendor, to ensure that appropriate proportions from each of the two counties were included. A total of 1,500 records with names, addresses, and a few demographic indicators were included in the sample. A total of 397 surveys were completed (response rate of 26 percent). Respondents who did not enter a gender and age response were eliminated from the analyses. A total of 378 surveys were analyzed, providing a generalizable sample with a confidence level of 95 percent and an error rate of plus or minus 5 percentage points.

Residents listed in the sample were first mailed an introductory postcard briefly explaining the project and notifying them that a survey packet would be arriving in their mail. Surveys packets, which contained the scannable survey instrument and a return envelope, were mailed three days after the introductory postcards; two percent of the packets were returned as undeliverable. A reminder postcard, containing a link to an on-line version of the survey, was mailed to non-responders approximately 10 days after the initial survey was mailed.

A total of 392 paper surveys were returned for scanning and an additional 5 surveys were completed on-line for a total of 397. It was apparent that elderly and male respondents were overrepresented in the scanned results. Therefore, post-stratification weights were used to ensure proper representation of the population with respect to age and gender. Respondents who did not enter a gender and age response were eliminated from the analyses. A total of 378 surveys were analyzed providing a generalizable sample with a confidence level of 95 percent and an error rate of plus or minus 5.2 percentage points.

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.

Non-Generalizable Survey
An on-line non-generalizable survey was conducted through a partnership between the Community Health Collaborative (Sanford Health, CHI St. Alexius Health and Bismarck-Burleigh Public Health) and the Center for Social Research (CSR) tool. The CSR developed and maintained links to the on-line survey tool. Members of the Community Health Collaborative held a press conference on April 1, 2015 and invited viewers to access the on-line survey through the City of Bismarck's website. 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 months of April 2015 and a total of 502 respondents participated in the on-line survey.

The purpose of this non-generalizable survey of community leaders in the greater Bismarck area 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.

Community Stakeholder Meeting
Community stakeholders were invited to a meeting to review the findings from assessment research and to discuss the top health issues facing the community. Community stakeholders discussed the findings and helped to determine key priorities for the community. Those priorities will be addressed in the implementation strategies for 2017-2019.

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. A multi-voting methodology was implemented to determine what top priorities would be further developed into implementation strategies.

Secondary Research
The secondary data includes the 2015 County Health Rankings for Burleigh County. County Health Rankings are based upon a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. State and national benchmarking data sources include the U.S. Census Bureau, Small Area Health Insurance Estimates, and the Centers for Disease Control and Prevention's National Center for Health Statistics—the Health Indicators Warehouse.

Limitations of the Study

The findings in this study provide an overall snapshot of behaviors, attitudes and perceptions of residents living in Bismarck and Burleigh County. 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 older, white, more highly educated, and higher income earners were overrepresented. Overrepresentation of this nature is typical in health needs assessments.

Literature reviews indicate that there are non-response rate issues among younger respondents. In particular, response rates to health care and community health needs assessment surveys have often been

found to be higher for older respondents. Studies have also shown lower response rates for socially disadvantaged groups, e.g. socially, culturally or financially.

A good faith effort was made to secure input from a broad base of the community. The generalizable survey was mailed to a representative group of the area to assure input from all demographics. Additionally, invitations were extended to county and community leaders, organizations and agencies representing diverse populations and disparities. When comparing demographic characteristics of the sample with the current population estimates from the U.S. Census Bureau, it was apparent the sample was skewed toward elderly residents. Communication devices (i.e. cell phones vs. land line telephones) are becoming increasing problematic when trying to reach younger populations. Literature reviews indicate that there are nonresponse and coverage issues among younger respondents. In particular, response rates to health care and community health needs assessment surveys have often been found to be higher for older respondents, especially for mail surveys.

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.

Additional data was reviewed through secondary research.

Primary Research:
2015 Burleigh and Morton County Health Needs Generalizable Survey

The Bismarck Community Health Needs Collaborative developed a generalizable survey to learn about residents' health and wellness concerns and their perceptions of unmet needs in the Burleigh-Morton metro community. Questions focused on general concerns about the community, community health and wellness concerns, personal health care, preventive health information and demographics.

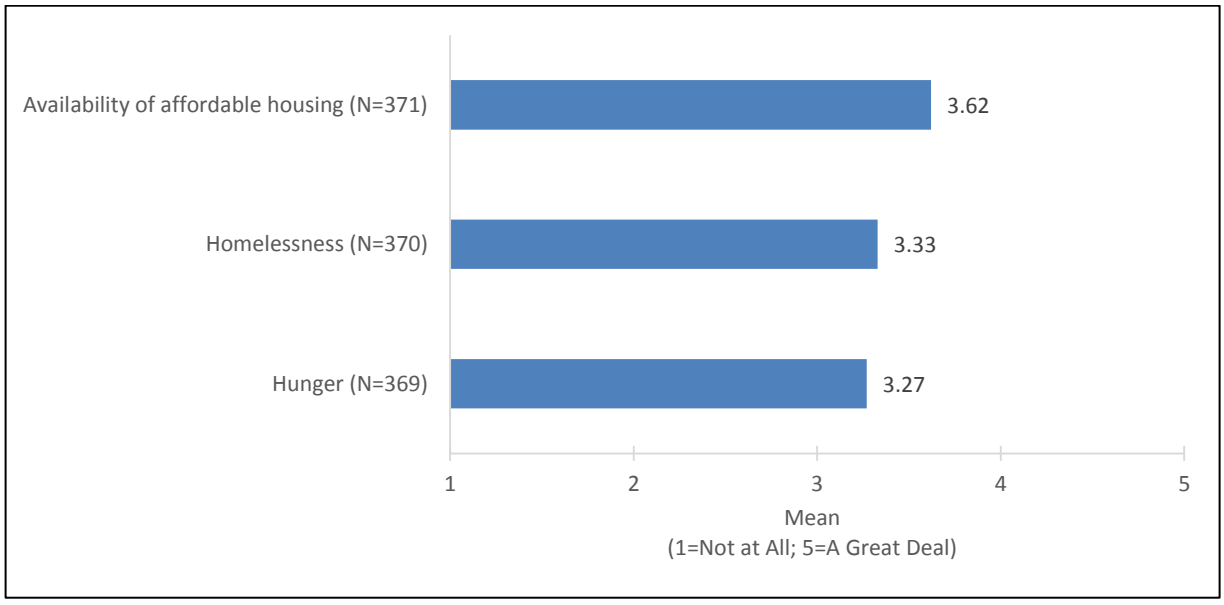
Using a 1 to 5 scale, with 1 being "not at all and 5 being "a great deal," respondents were asked to rate their level of concern with various statements regarding economics, transportation, environment, youth, aging population, safety, health care, physical and mental health and substance use and abuse.

The Collaborative also developed a non-generalizable survey targeting community leaders to better understand stakeholders' concerns. Leaders and the general public were invited to access the survey on-line. The results provide a unique perspective into community needs, but are not generalizable to the community. The information reported below is collected from the generalizable study unless otherwise indicated.

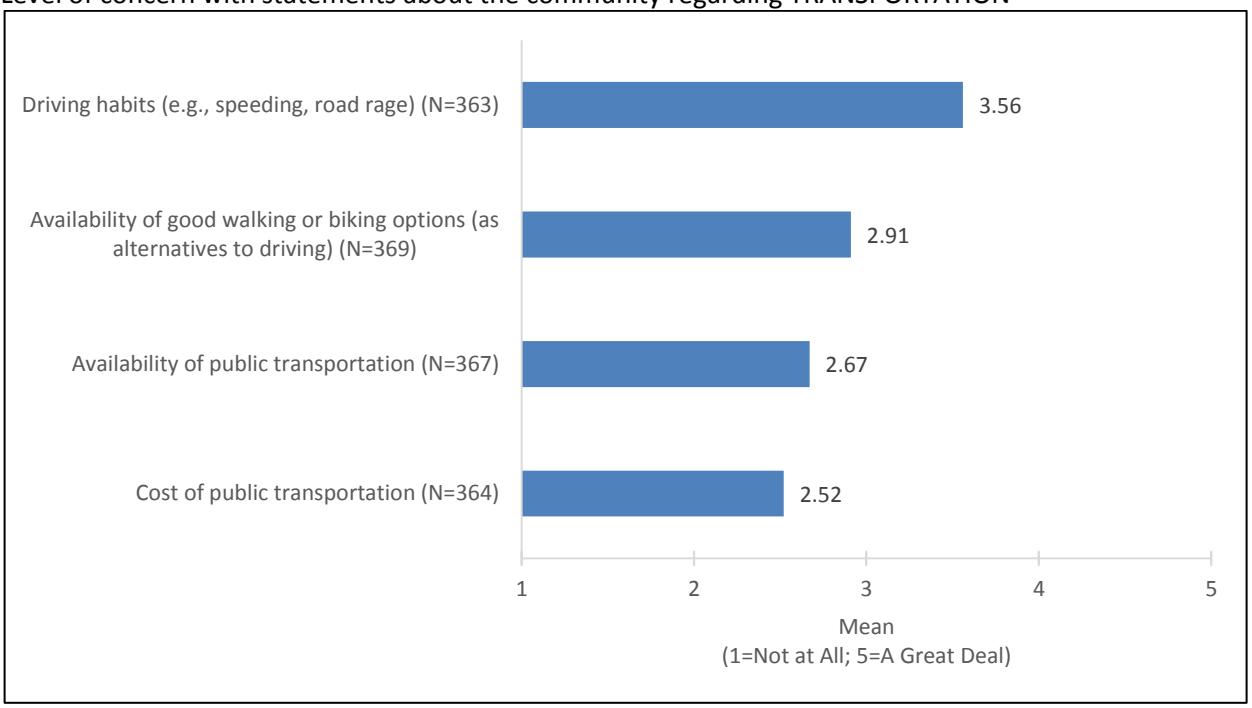
General Health and Wellness Concerns about the Community

Economics, Transportation and Environment: Community members were asked to rate their level of concern regarding affordable housing, homelessness and hunger. Availability of affordable housing was the top concern (3.73) followed by homelessness (3.54) and hunger (3.40). In the non-generalizable survey, concern regarding affordable housing and homelessness was slightly higher, 4.07 and 3.61 respectively. When asked about transportation and environmental issues, community members' concern levels are relatively low.

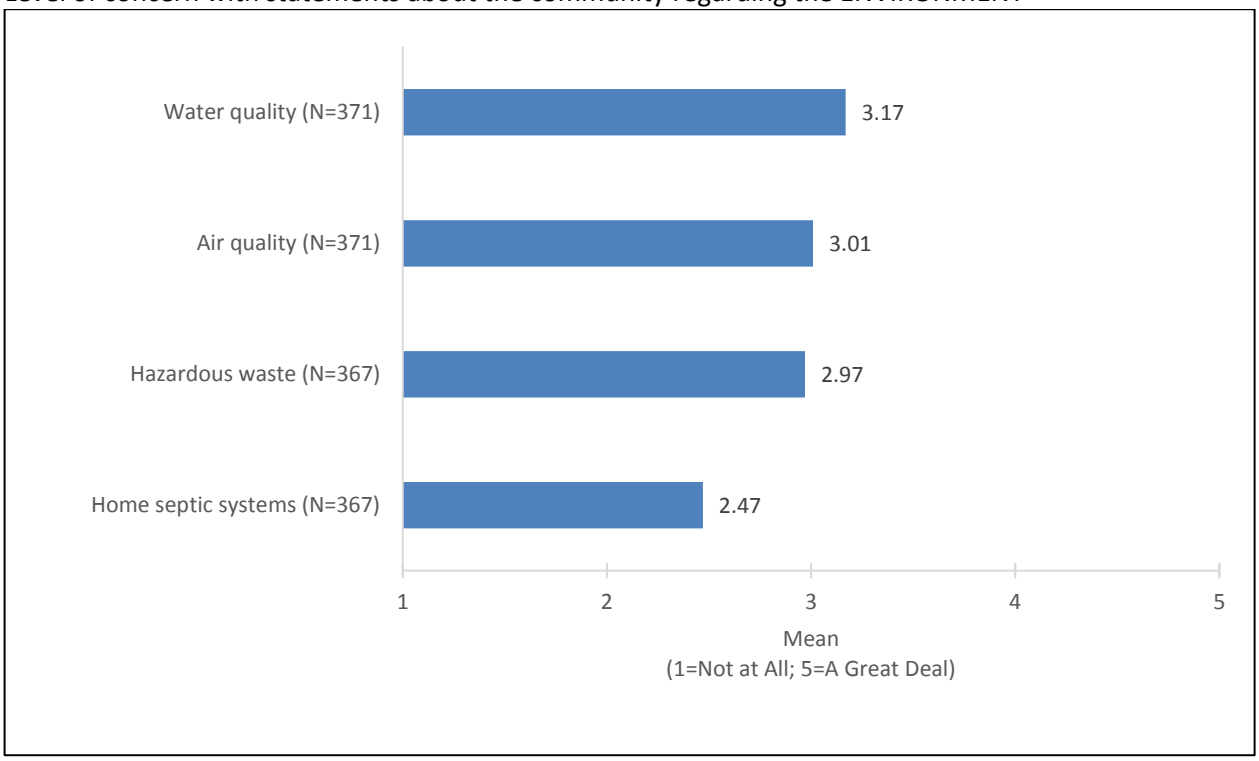
Level of concern with statements about the community regarding ECONOMICS



Level of concern with statements about the community regarding TRANSPORTATION



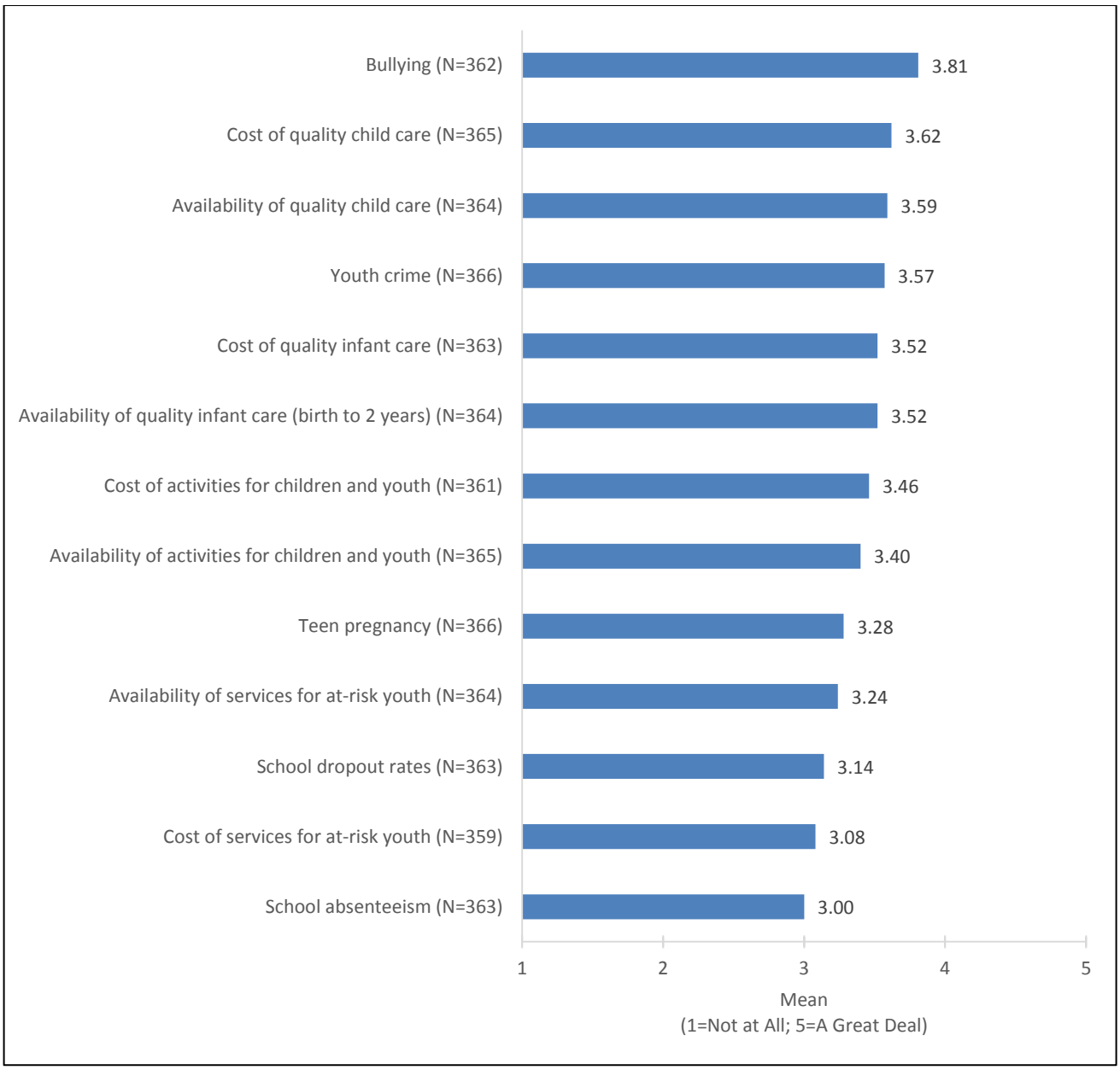
Level of concern with statements about the community regarding the ENVIRONMENT



Children and Youth: The survey respondents have high concerns for the children and youth of the community. Bullying, youth crime and availability and cost of child/infant care all rank above the 3.60 threshold. On average, respondents are most concerned about bullying (mean=3.81); 32.8 percent are concerned a great deal. On average, respondents have a moderately high level of concern about youth crime and issues relating to quality infant and child care:

- Cost of quality child care (mean=3.62); 29.7 percent are concerned a great deal.
- Availability of quality child care (mean=3.59); 30.6 percent are concerned a great deal.
- Youth crime (mean=3.57); 21.4 percent are concerned a great deal.
- The cost of quality infant care (mean=3.52); 27.9 percent are concerned a great deal.
- The availability of quality infant care (mean=3.52); 31.1 percent are concerned a great deal.

Level of concern with statements about the community regarding CHILDREN AND YOUTH

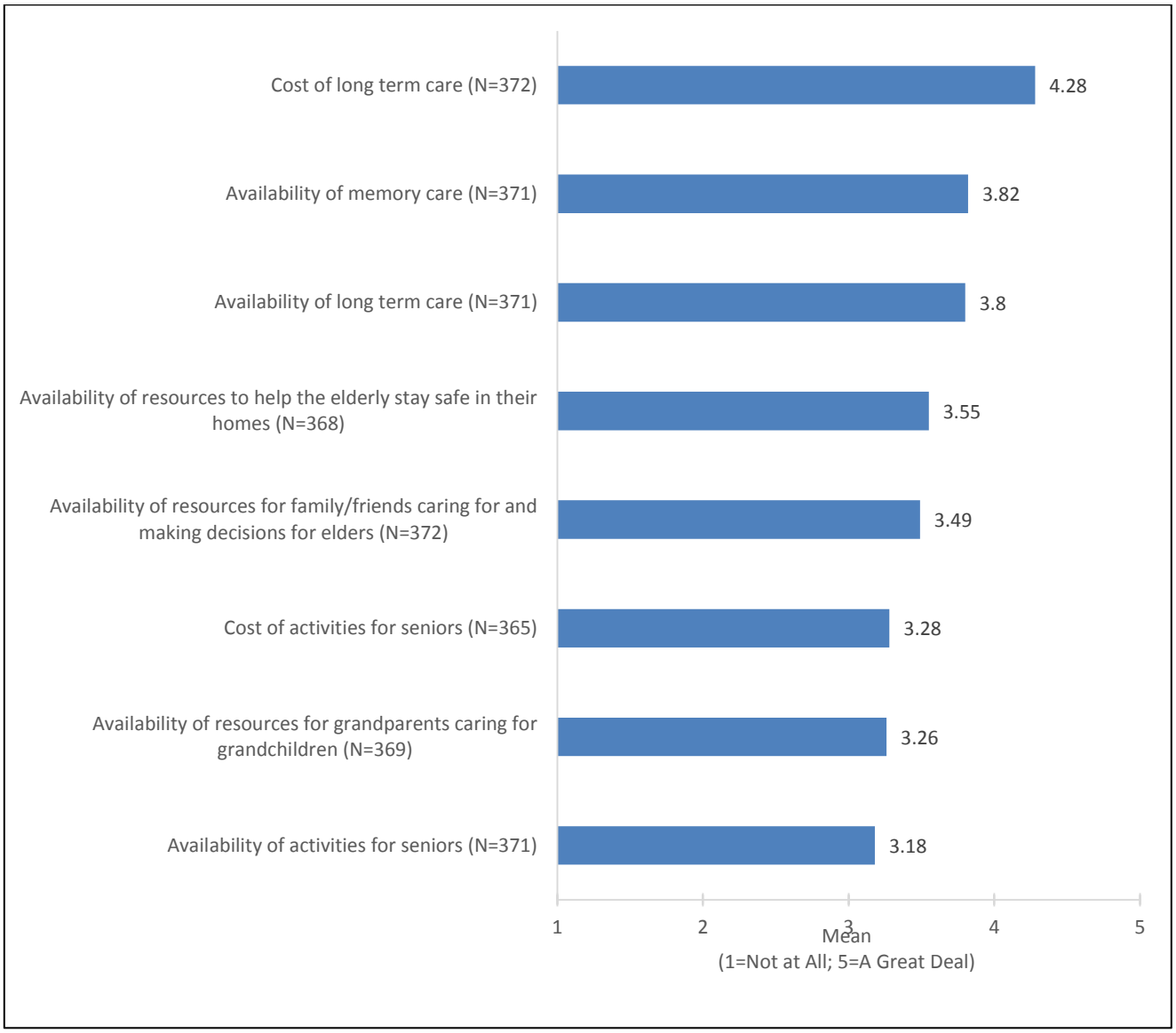


Aging Population: The cost of long-term care is among the highest-ranked concerns in this report (4.28). Also ranking high: availability of long term care, availability of memory care, availability of resources to help the elderly stay safely in their homes, and availability of resources for family/friends caring for and making decisions for elders.

Sanford Health is working collaboratively with the area aging service providers to coordinate care for the aging population. Social workers, case managers, and discharge planners coordinate with area service providers to ensure safe discharge, and when appropriate, to assist in transitions from levels of care.

Resources to help elderly individuals stay in their homes are available through programs such as the North Dakota State University Extension Office and the Sanford Faith Community Nurse Program.

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

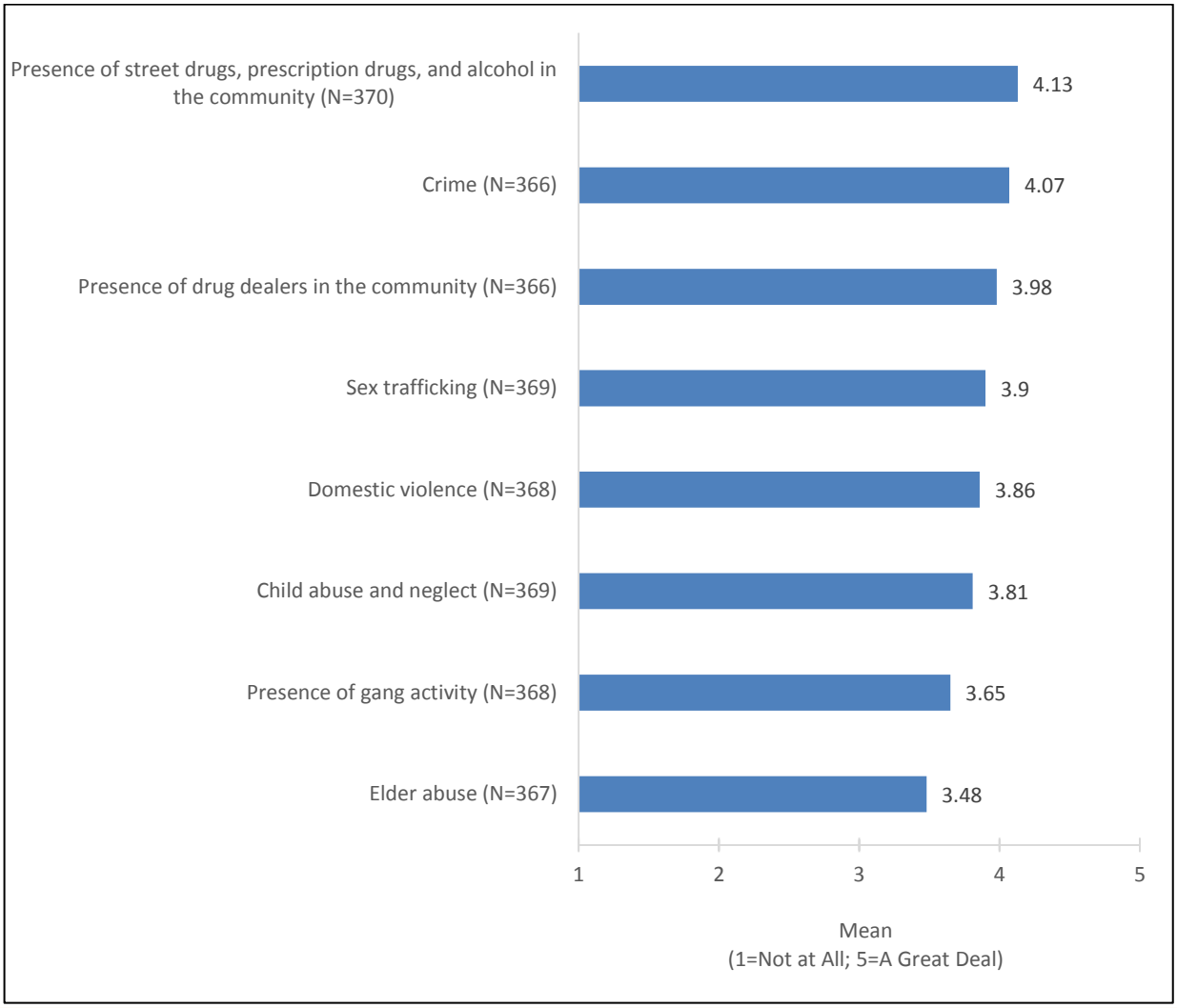


Safety: Overall, respondents have moderately high levels of concern with several safety issues in their community. On average, respondents are most concerned about:

- The presence of street drugs, prescription drugs, and alcohol in the community (mean=4.13); 45.9 percent have a great deal of concern.
- Crime (mean=4.07); 44.9 percent have a great deal of concern.
- The presence of drug dealers in the community (mean=3.98); 44.2 percent have a great deal of concern.
- Sex trafficking (mean=3.90); 39.7 percent have a great deal of concern.
- Domestic violence (mean=3.86); 31.7 percent have a great deal of concern.
- Child abuse and neglect (mean=3.81); 33.8 percent have a great deal of concern.

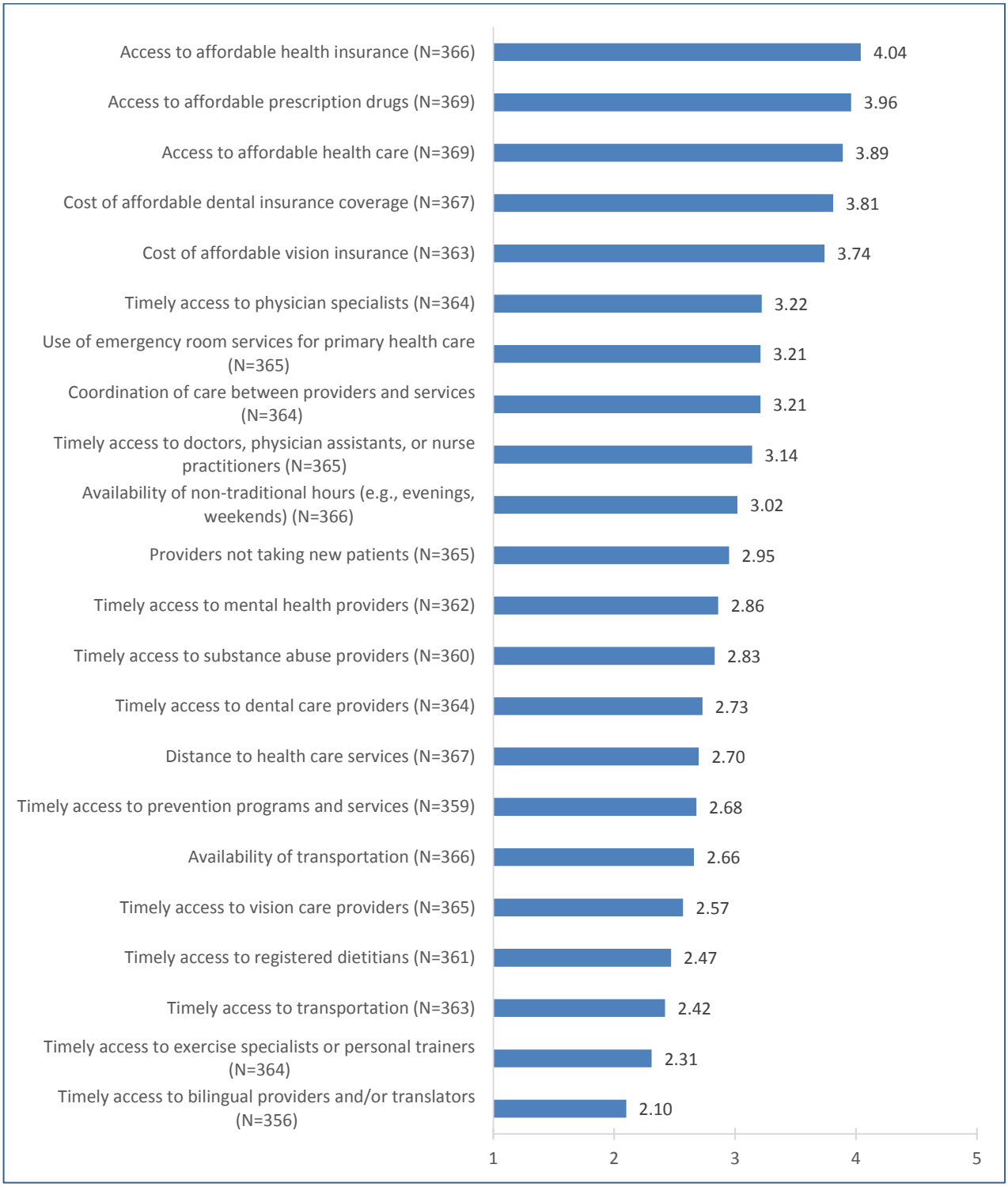
Sanford Health's security team collaborates with the community, providing free safety training space and training seminars; provides in-kind support to community-based addiction management solutions; and subsidizes Sanford Health Children's Advocacy Center, a comprehensive multidisciplinary team approach to investigating child abuse.

Level of concern with statements about the community regarding SAFETY



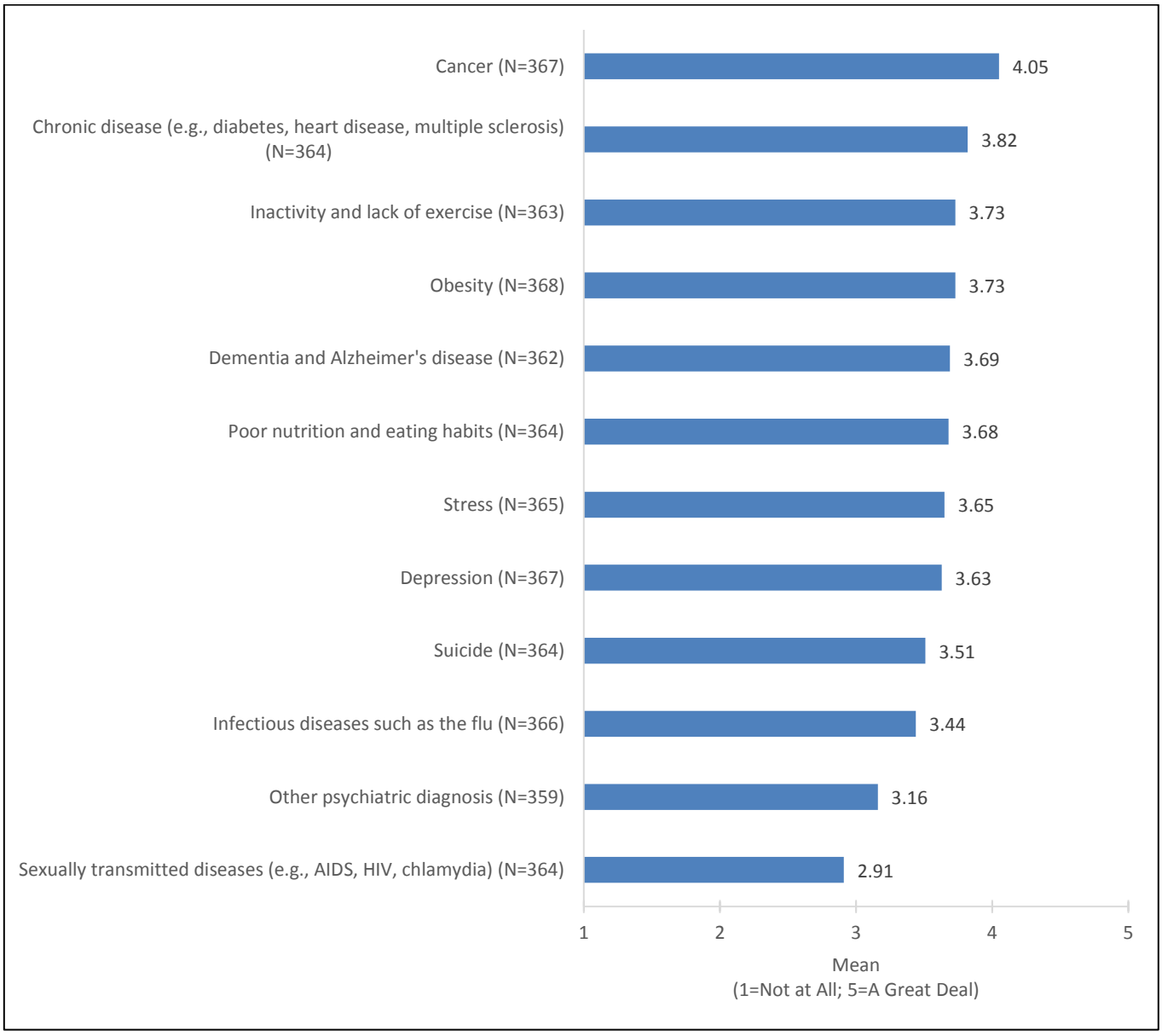
Health Care: Overall, respondents are moderately concerned about health care issues and primarily about affordability. The top concerns: access to affordable health insurance (4.04), access to affordable prescription drugs (3.96), access to affordable health care (3.89), and cost of affordable dental insurance coverage (3.81).

Level of concern with statements about the community regarding HEALTH CARE



Physical Health: When asked about 12 physical and mental health topics all but 3 topped the 3.60 threshold of concern. Cancer (4.04), inactivity (3.93), chronic disease (3.95) and obesity (3.95) were the highest-rank concerns. The non-generalized survey responses mirrored this result.

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

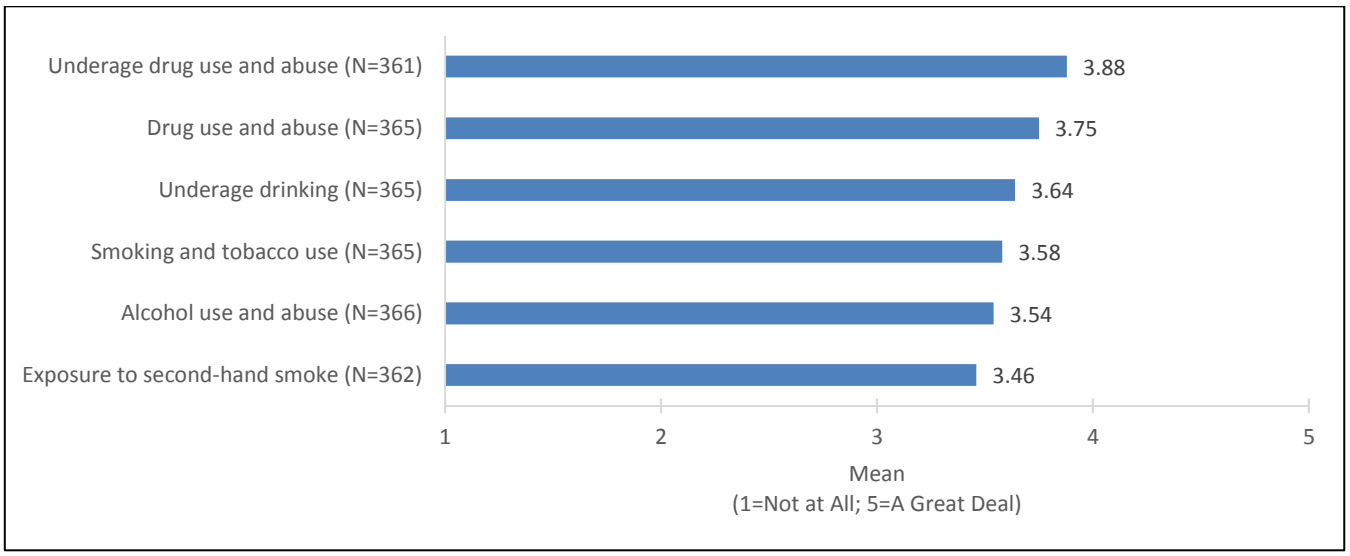


Substance Use and Abuse: Respondents were asked to rate their concern on 6 substance use and abuse topics; all topics were rated above the 3.60 threshold of concern. On average, respondents are most concerned about:

- Underage drug use and abuse (mean=3.88); 40.8 percent of respondents are greatly concerned.
- Drug use and abuse (mean=3.75); 36.2 percent are greatly concerned.
- Underage drinking (mean=3.64); 32.0 percent are greatly concerned.
- Smoking and tobacco use (mean=3.58); 32.5 percent are greatly concerned.
- Alcohol use and abuse (mean=3.54); 30.3 percent of respondents have a great deal of concern.

Community awareness regarding addiction and its impact on community members, families and businesses is gaining awareness. With the approval of an expanded county jail to accommodate the growing drug-related prison population, community leaders and stakeholders are taking notice and researching solutions. Face It TOGETHER, a community addiction management organization, is being created by a community board that includes Sanford Health, CHI St. Alexius, Heartview Foundation, state leaders, city leaders and representatives of the community's strongest business industries.

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

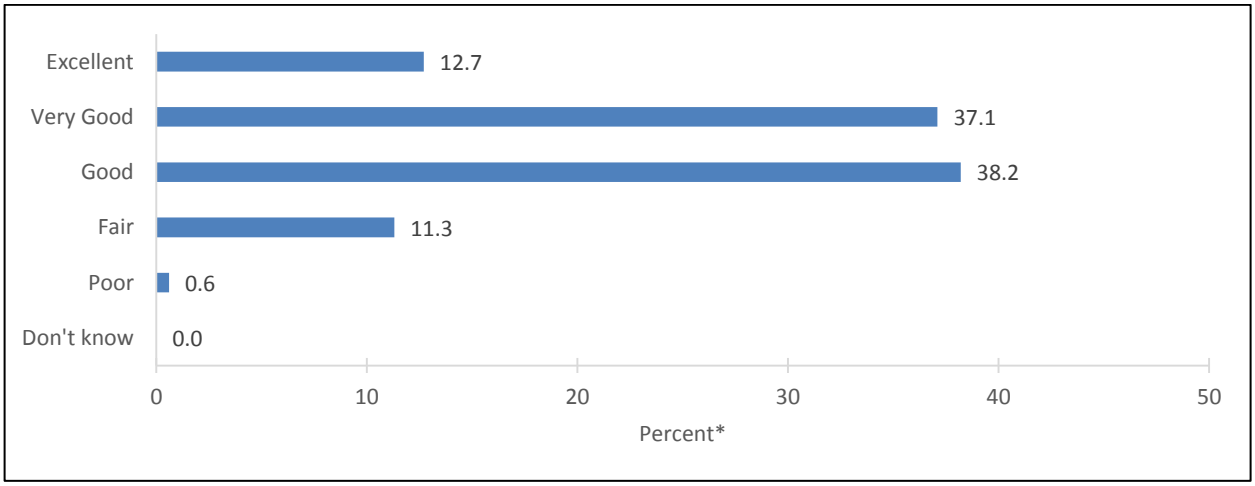


Personal Health Concerns

General Health

When asked about one's health in general, half of respondents say their health is very good or excellent (49.8 percent); 0.6 percent said their health is poor. Comparatively, half of the respondents reported they do not meet the recommended guidelines for fruit and vegetable consumption; three in four do not meet the recommended exercise guidelines and 72.3 percent are overweight or obese.

Respondents' rating of their health in general

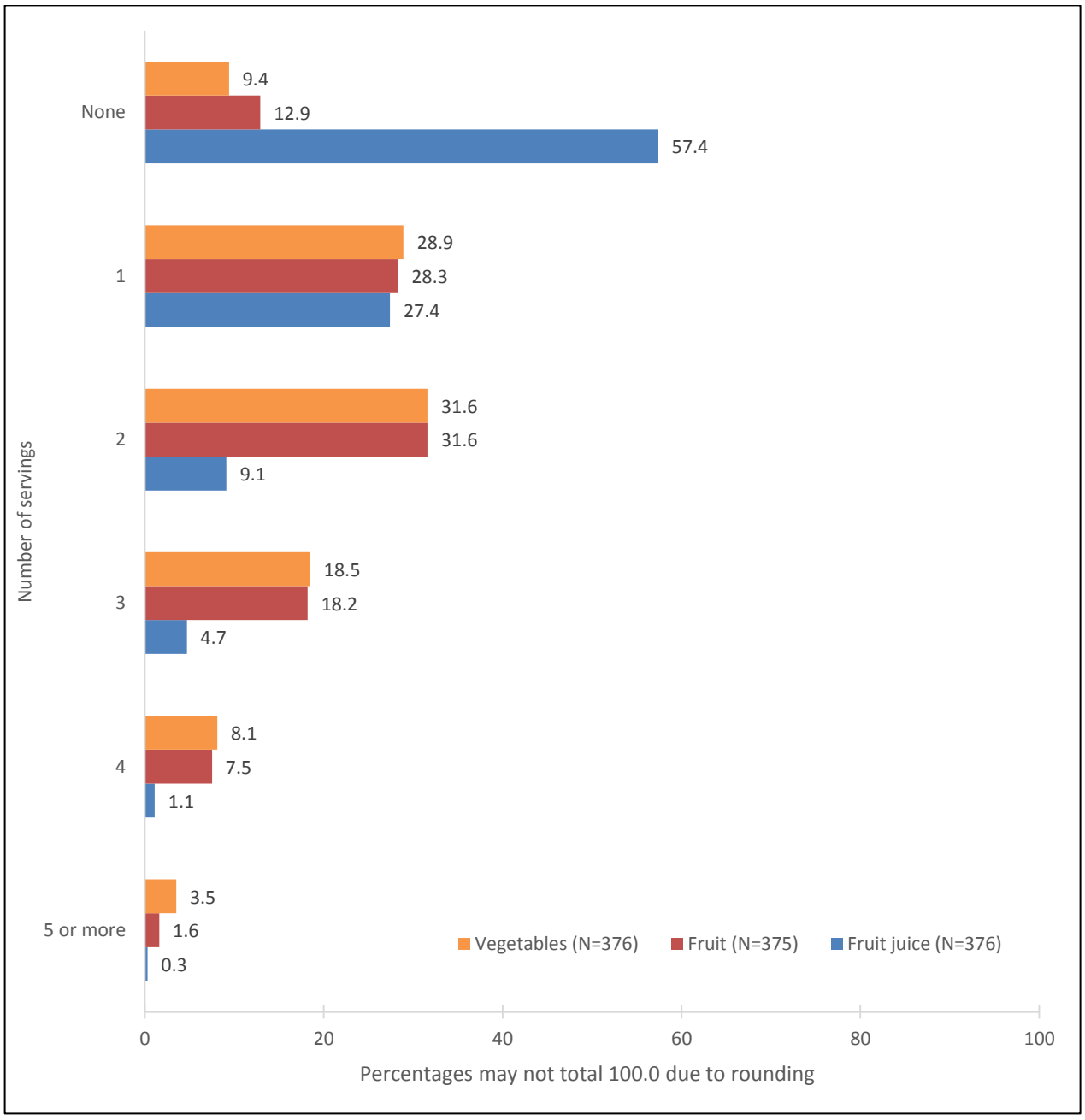


*Percentages do not total 100.0 due to rounding.

Fruit and vegetable consumption: Respondents were asked to report the number of vegetables, fruit, and fruit juice servings they had yesterday. Three in 10 respondents (30.1 percent) ate the recommended serving size of vegetables (3 to 5 per day) yesterday; three in five respondents (57.3 percent) ate the recommended servings of fruit (2 to 4 per day) yesterday.

According to the U.S. Department of Health and Human Services, U.S. Department of Agriculture's Dietary Guidelines for Americans, a meal plan high in fruits and vegetables is associated with decreased risk for chronic diseases. In addition, because fruits and vegetables have few calories relative to volume, eating them as part of a reduced-calorie meal plan can be beneficial for weight management.

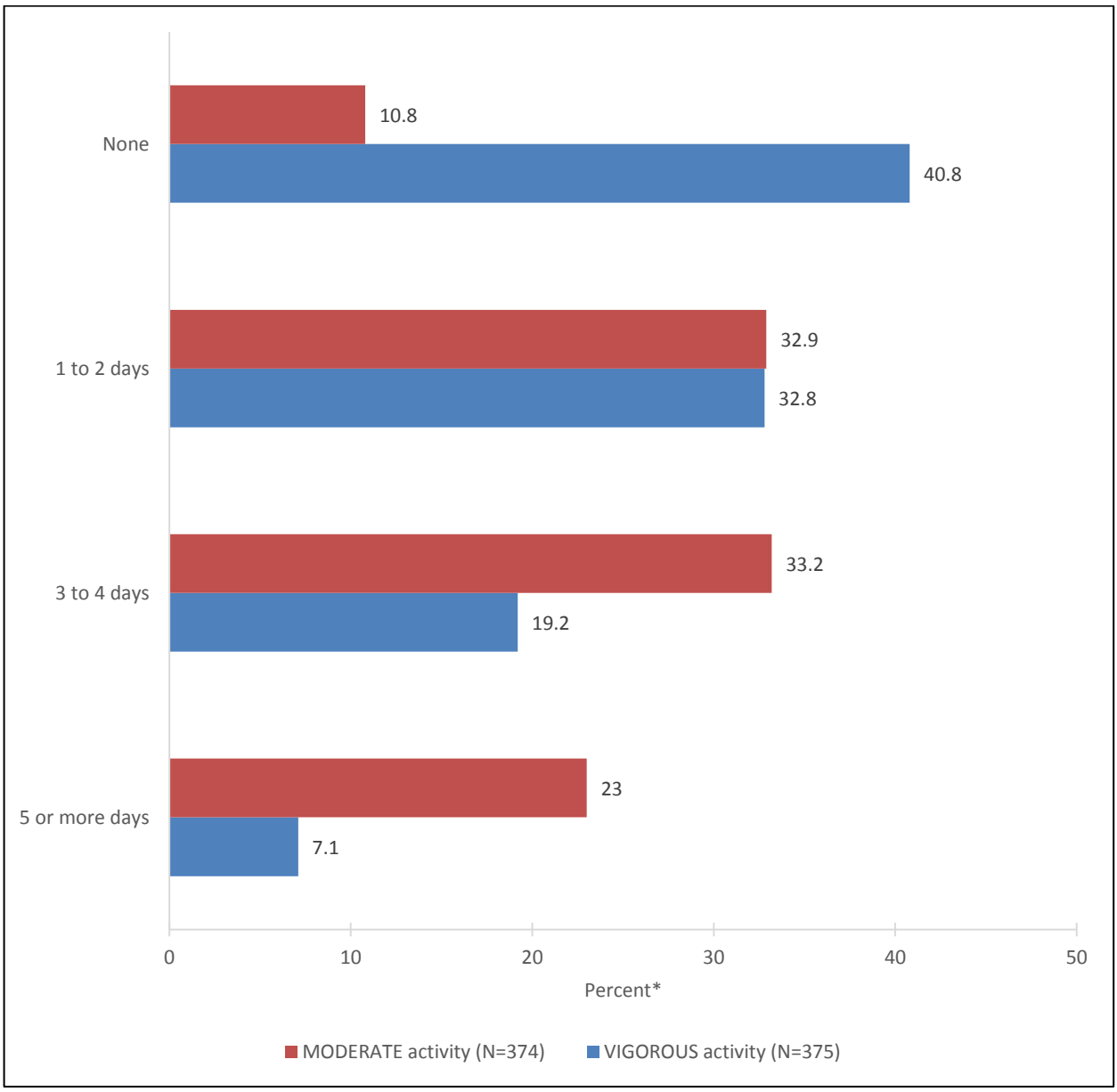
Number of servings of vegetables, fruit, and fruit juice that respondents had yesterday



Activity level: Respondents were asked to report the number of days, in an average week, in which they get at least 30 minutes of moderate activity and 30 minutes of vigorous activity.

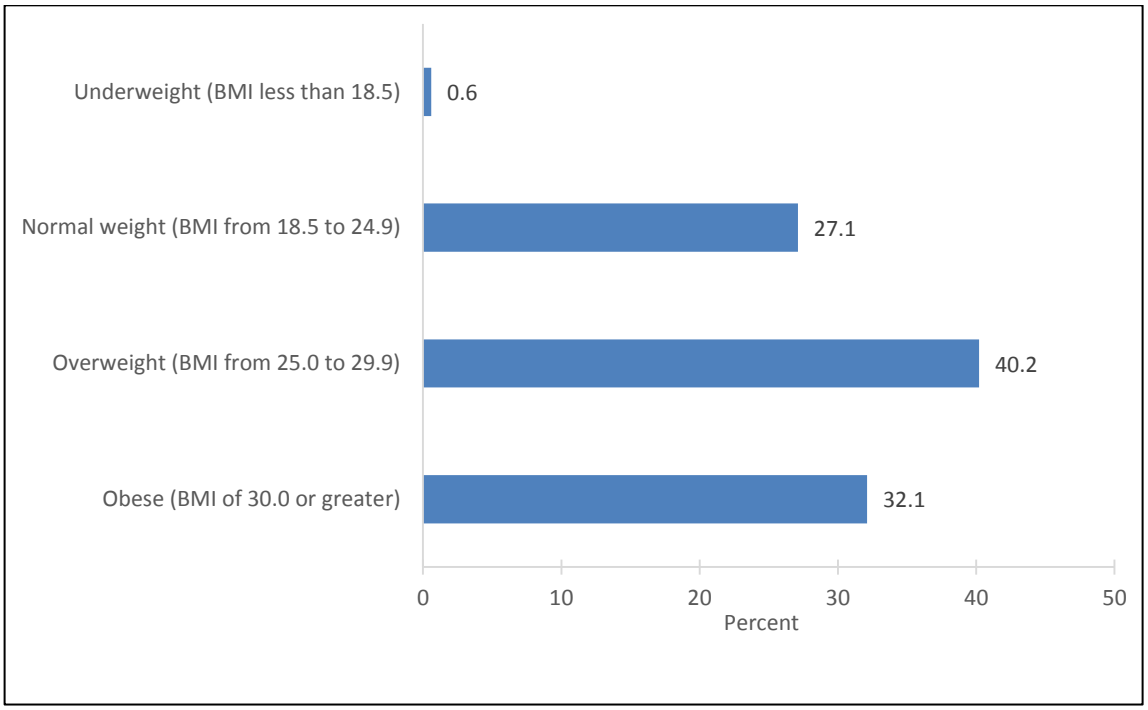
- Approximately 1 in 4 respondents get the recommended level of moderate activity in an average week (5 or more days of at least 30 minutes per day) (23.0 percent); 32.9 percent say they get 30 minutes of moderate activity one to two days a week. One in 10 respondents (10.8 percent) does not get 30 minutes of moderate activity in an average week.
- One in four respondents get the recommended level of 30 minutes of vigorous activity three or more days a week (26.3 percent); 32.8 percent get vigorous exercise one to two days a week. Two in five respondents (40.8 percent) do not engage in vigorous physical activity for 30 minutes in an average week.

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



*Percentages do not total 100.0 due to rounding.

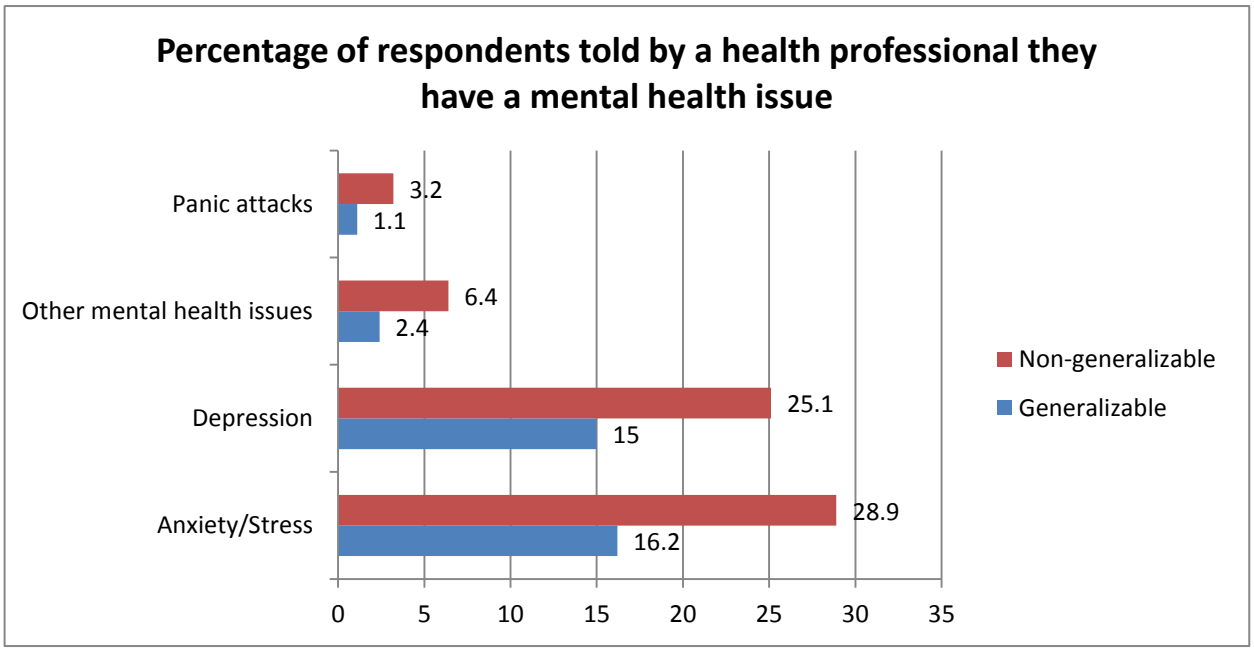
Respondents' weight status based on the Body Mass Index (BMI) scale



Mental Health

Respondents were asked if they have been told by a health professional that they have a mental health issue. One in six respondents report being told they have anxiety/stress (16.2 percent); 15 percent were told they suffer depression. Comparatively, in the non-generalized survey, 54 percent reported the same diagnoses.

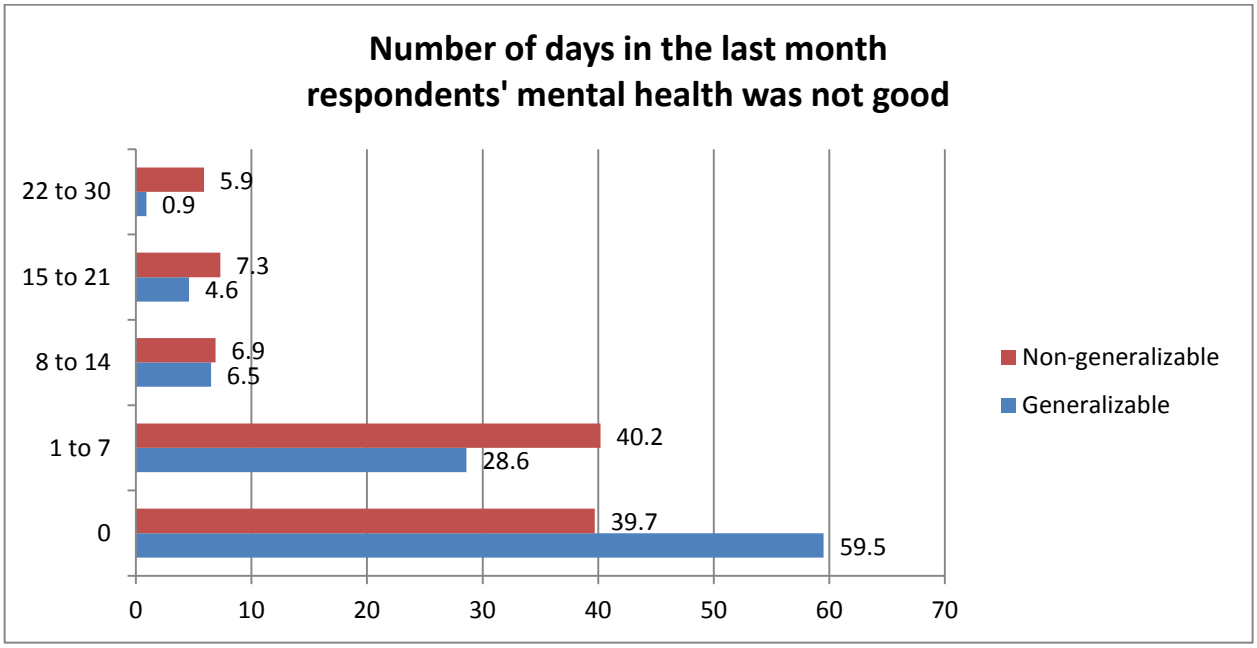
Percentage of respondents told they have a mental health issue, by type of mental health issue



Respondents were asked to report how often over the last two weeks they had been bothered by two specific mental health issues. In the generalized study, one in five respondents say that for several days in the last two weeks they had little interest or pleasure in doing things (18.8 percent); 1.0 percent say they had little interest or pleasure in doing things nearly every day. One in six respondents say that for several days in the last two weeks they were feeling down, depressed or hopeless (15.8 percent); 1.0 percent say they feel that way nearly every day.

Respondents in the non-generalized study reported a lower incidence of poor mental health days with nearly 59.5 percent reporting zero poor mental health days.

Number of days in the last month that respondents' mental health was not good

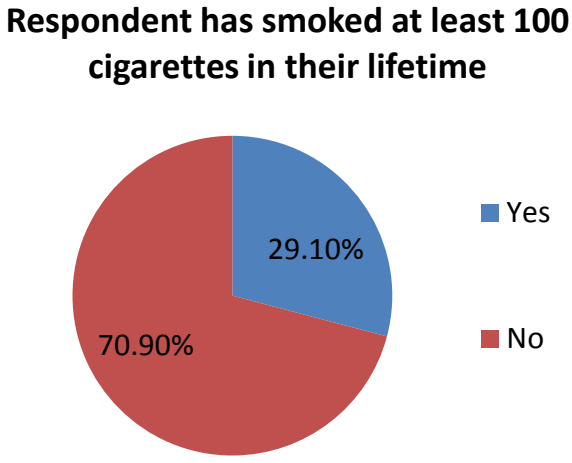


Tobacco Use

Respondents were asked whether they have smoked at least 100 cigarettes in their entire life. Three in 10 respondents indicated they have smoked at least 100 cigarettes in their entire life (29.1 percent).

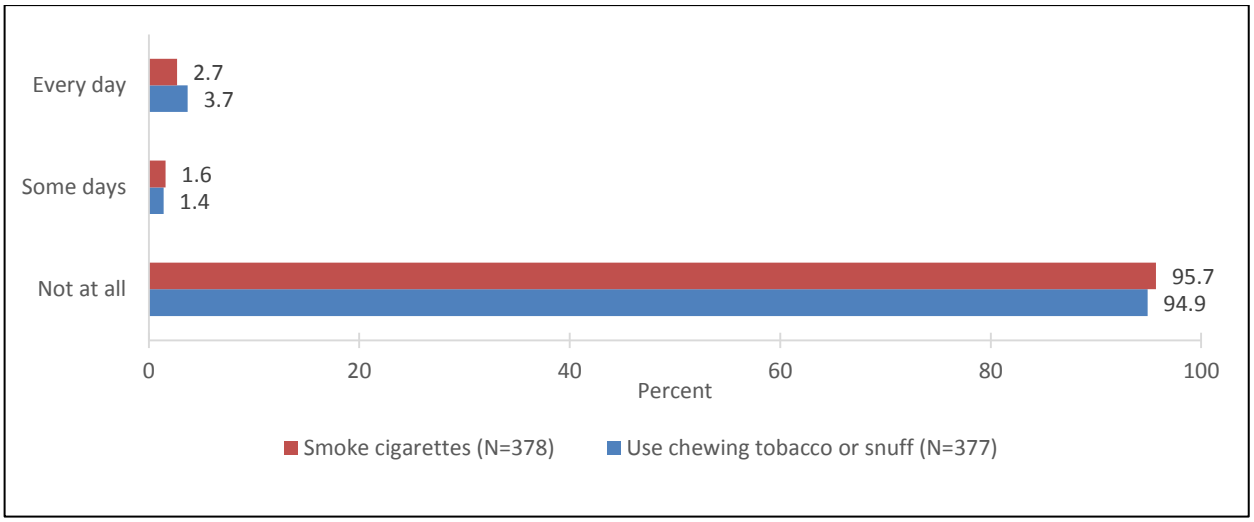
The Burleigh County Health Rankings reports 15 percent of residents use tobacco, about 50 percent more people than the CHNA survey results. It is noteworthy that Sioux County immediately south of Morton County has a 40 percent smoking rate.

Tobacco use is the leading cause of preventable death in the United States (CDC *Smoking & tobacco use*, December 2015). It affects not only those who choose to use tobacco, but also people who live and work around tobacco. Each year approximately 443,000 premature deaths can be attributed to smoking. Cigarette smoking is identified as a cause of

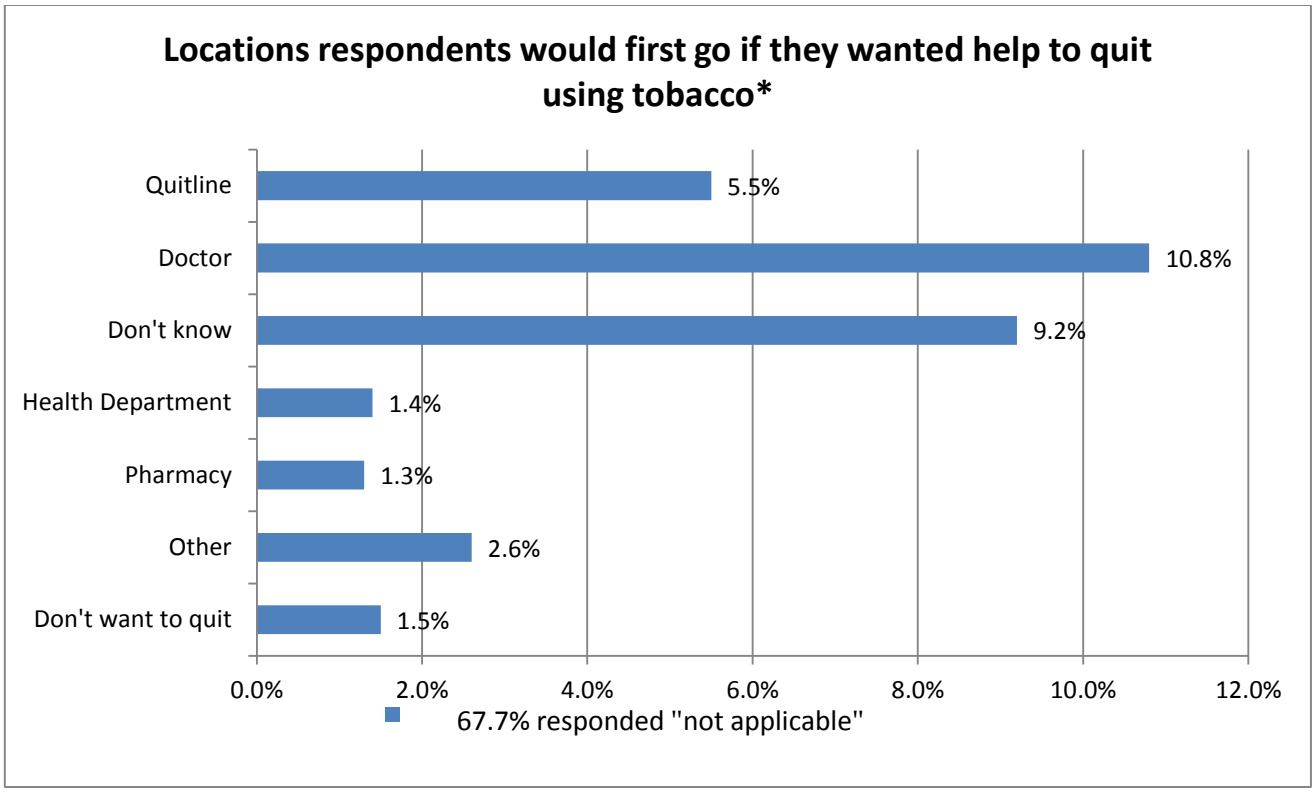


various cancers, cardiovascular disease and respiratory conditions, as well as low birth weight and other adverse health outcomes.

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



When asked where they would go to seek help quitting tobacco use, 67.7 percent responded “not applicable.” Of the remaining 22.3 percent, most said they would first go to their doctor if they wanted to quit using tobacco (10.8 percent); 5.5 percent say they would use Quitline.The North Dakota Tobacco Quitline is a free telephone-based service available to help North Dakota smokers and spit-tobacco users quit using tobacco.



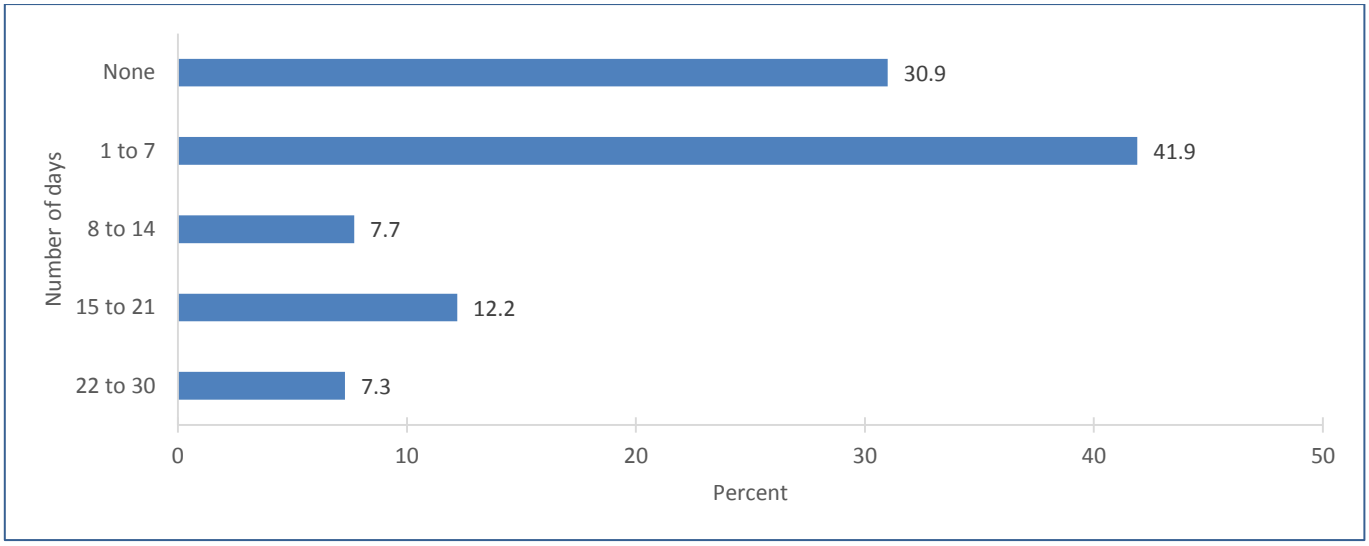
Alcohol abuse

Excessive drinking is a risk factor for a number of adverse health outcomes including alcohol poisoning, hypertension, heart disease, sexually transmitted infections, fetal alcohol syndrome, sudden infant death syndrome, suicide and motor vehicle crashes. Approximately 80,000 deaths are attributed annually to excessive drinking. Excessive drinking is the third leading lifestyle-related cause of death in the United States (*American Journal of Epidemiology*, 2014).

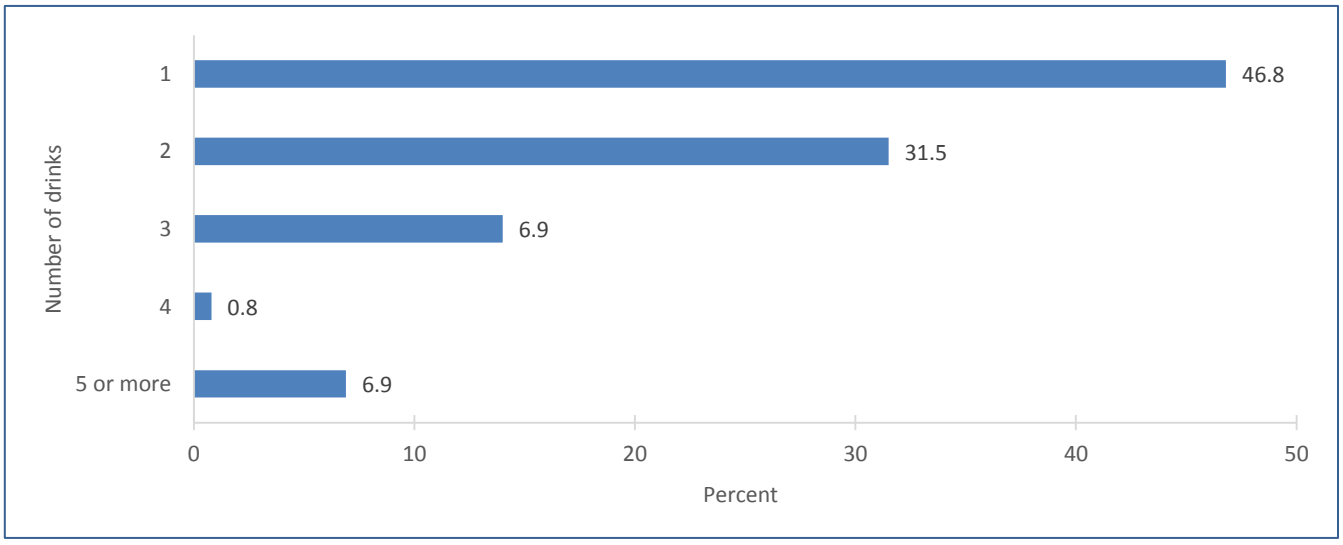
Excessive drinking is defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than 1 (women) or 2 (men) drinks per day on average.

In Burleigh County, 4.6 percent of respondents reported drinking an average of more than 4 drinks per day on each day they drank in the last month. When asked how many days respondents consumed at least 4 or 5 (4 for women, 5 for men) on one occasion, 15.5 percent reported they did so at least once in the last month. In the non-generalizable survey, 27.6 percent reported drinking more than 4 or 5 drinks in the last month.

Number of days during the past month that respondents had at least one drink of any alcoholic beverage

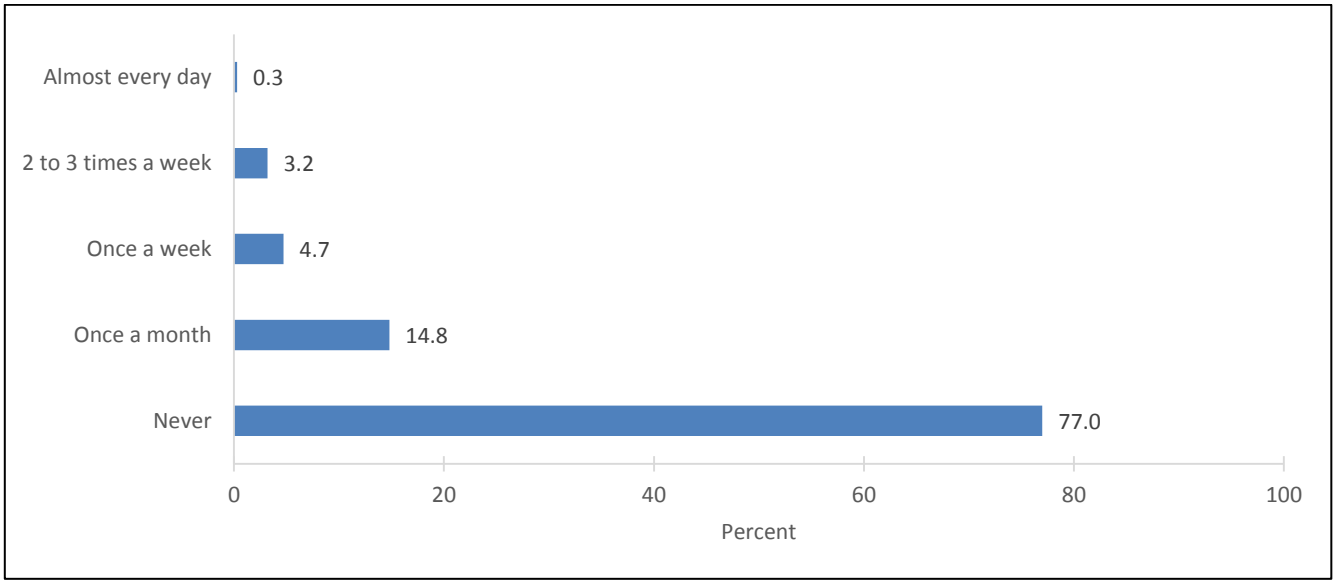


During the past month on days that respondents drank, average number of drinks per day respondents consumed



Respondents were asked how many times they consumed at least 4 or 5 alcoholic drinks on the same occasion, also defined as binge drinking*. Nearly 1 in 10 respondents report binge drinking at least once a week (8.2 percent), including 3.2 percent who binge drink 2 to 3 times a week.

Binge drinking episodes during last 30 days



*For information about binge drinking, visit the National Institute on Alcohol Abuse and Alcoholism, *Drinking Levels Defined* http://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking.

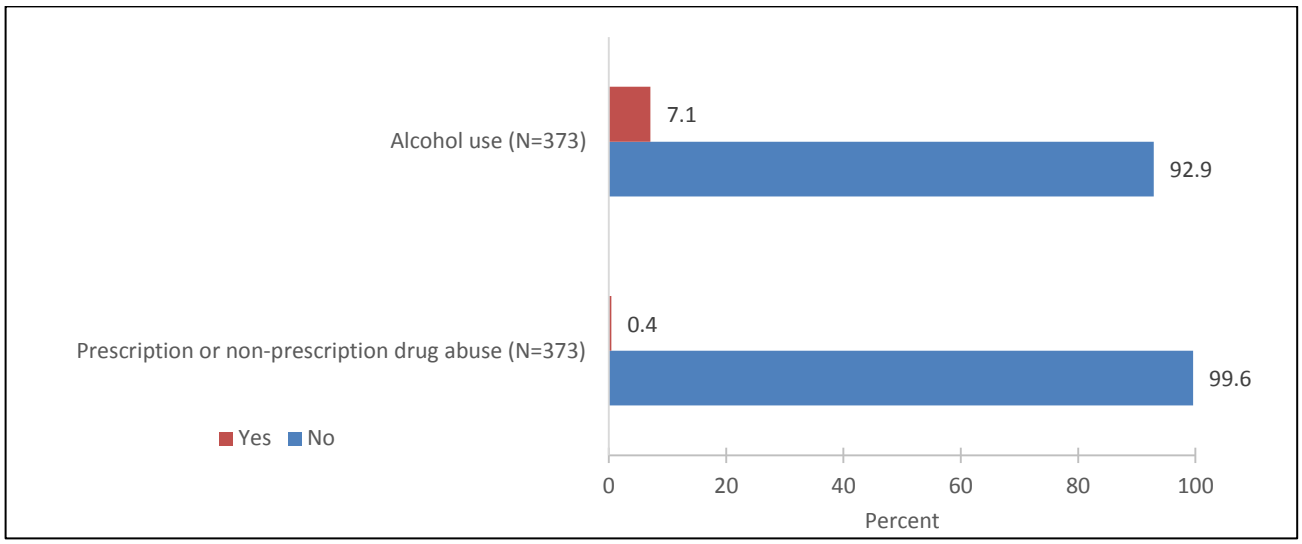
Drug and Alcohol Addiction

The disease of addiction to drugs and alcohol substance abuse is a mental health disorder, as defined by the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV).

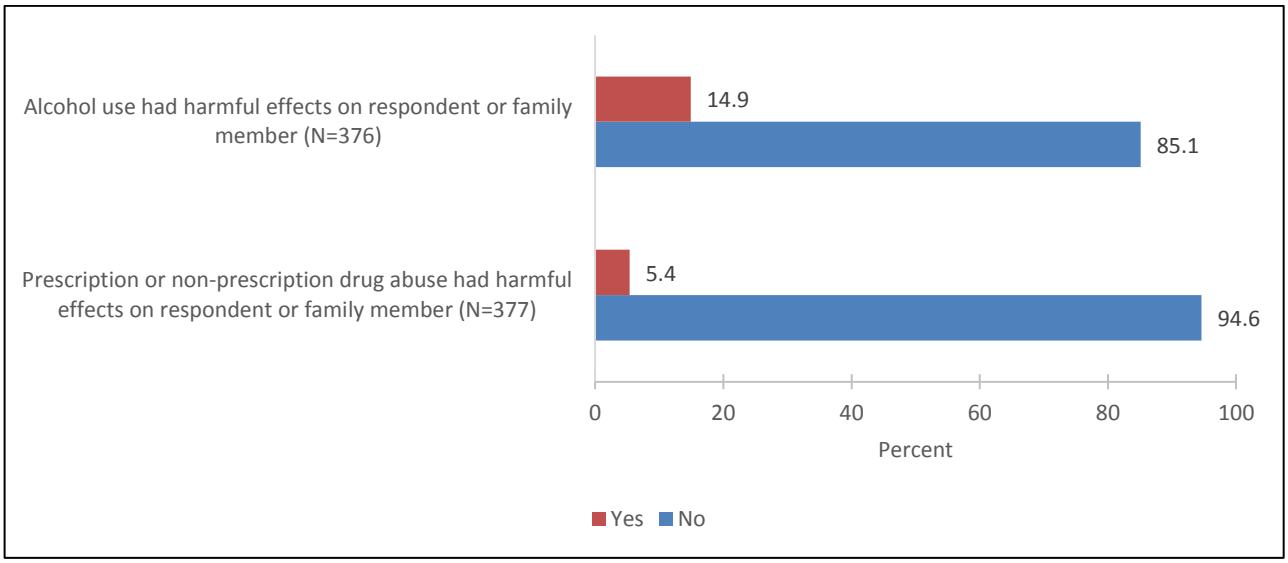
Addiction rates in North Dakota have escalated significantly in recent years, overwhelming community hospitals, treatment centers, legal systems and detention centers. A recent Mental Health America study indicates the disease affects 10.2 percent of adults living in North Dakota, slightly higher than the national average.

Like other chronic diseases, addiction requires a long-term approach to treatment and recovery.

Whether respondents have ever had a problem with alcohol use or prescription or non-prescription drug abuse



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



Preventive Health

Preventive health care 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, a majority of respondents had a blood pressure screening, blood sugar screening, cholesterol screening, dental screening, flu shot, glaucoma test, and pelvic exam (females), breast cancer screening (females), and cervical cancer screening (females).

Screenings: According to the Center for Disease Control (CDC), 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. Completing regular mammograms can lower the risk of dying from breast cancer. Likewise, cervical cancer is the easiest gynecologic cancer to prevent, with regular screening tests and follow-up.

Colorectal cancer screening tests can also find colorectal cancer early, when treatment works best. 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 years and continuing until age 75 years.

Vaccinations: The CDC recommends vaccinations from birth through adulthood to provide a lifetime of immunity. But while childhood vaccination rates are relatively high, most adults are not vaccinated as recommended, leaving them needlessly vulnerable to illness, long-term suffering, and even death.

While death is the most extreme consequence of infections that vaccines can prevent, there are also hundreds of thousands of hospitalizations each year because of these diseases. Millions more Americans get sick and miss work, cannot care for their children or elderly parents, and risk passing their infections on to others.

Recommended vaccinations for adults include influenza and combination tetanus, diphtheria and pertussis (Tdap). Pneumococcal vaccine is recommended for adults 65 and older and younger adults who smoke or have other risk factors, like asthma. The shingles vaccine is for everyone 60 and older. Human papillomavirus (HPV) is for women 19 to 26 and men up to age 21. Hepatitis B vaccine is recommended for adults up to age 59 with diabetes, sexually active adults who are not in a long-term mutually monogamous relationship, and many others based on risk conditions or behaviors.

Whether or not respondents have 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=376)	87.8	12.2	100.0
Blood sugar screening (N=372)	64.8	35.2	100.0
Bone density test (N=370)	13.2	86.8	100.0
Cardiovascular screening (N=370)	31.4	68.6	100.0
Cholesterol screening (N=374)	69.2	30.8	100.0
Dental screening and X-rays (N=375)	80.3	19.7	100.0
Flu shot (N=376)	62.4	37.6	100.0
Glaucoma test (N=371)	59.2	40.8	100.0
Hearing screening (N=372)	17.4	82.6	100.0
Immunizations (tetanus, hepatitis A or B) (N=366)	20.3	79.7	100.0
Pelvic exam (N=187 Females)	73.0	27.0	100.0
STD (N=358)	4.0	96.0	100.0
Vascular screening (N=359)	10.7	89.3	100.0
CANCER SCREENINGS			
Breast cancer screening (N=189 Females)	79.0	21.0	100.0
Cervical cancer screening (N=186 Females)	66.8	33.2	100.0
Colorectal cancer screening (N=366)	39.7	60.3	100.0
Prostate cancer screening (N=181 Males)	44.9	55.1	100.0
Skin cancer screening (N=369)	29.5	70.5	100.0

Respondents who did not get preventive screenings were asked to specify the reasons why they did not. 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.

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

Type of screening	Percent 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=46)	56.9	15.9	7.0	0.0	1.6	1.3	16.7
Blood sugar screening (N=131)	50.3	36.0	5.1	0.0	0.0	0.5	9.1
Bone density test (N=321)	43.2	42.7	2.9	0.0	0.0	0.2	8.6
Cardiovascular screening (N=254)	36.1	50.5	2.9	0.0	0.2	0.2	5.9
Cholesterol screening (N=115)	32.5	34.2	8.8	0.0	0.5	0.5	15.7
Dental screening and X-rays (N=74)	34.7	9.9	18.6	0.8	0.0	6.3	23.7
Flu shot (N=141)	44.6	2.0	4.9	2.9	9.8	0.0	30.7
Glaucoma test (N=151)	49.5	29.4	7.1	0.0	0.0	0.4	11.6
Hearing screening (N=307)	59.5	24.4	4.6	0.0	1.0	0.2	6.0
Immunizations (N=292)	72.5	14.5	2.3	0.0	0.2	0.0	5.8
Pelvic exam (N=51 Females)	48.8	25.0	0.0	0.0	0.0	0.0	19.8
STD (N=344)	81.4	8.2	0.1	0.0	0.0	0.0	1.8
Vascular screening (N=321)	48.5	38.7	2.3	0.3	0.0	0.2	4.4
Breast cancer screening (N=40 Females)	43.2	12.9	0.0	1.9	0.0	0.0	38.1
Cervical cancer screening (N=62 Females)	65.0	17.3	0.0	0.0	0.0	0.0	12.7
Colorectal cancer screening (N=221)	47.0	28.5	6.5	2.3	0.0	0.3	10.7
Prostate cancer screening (N=100 Males)	23.9	49.9	9.6	3.8	0.0	0.6	10.5
Skin cancer screening (N=260)	41.1	36.8	3.7	0.0	1.5	0.0	6.3

*Percentages may not total 100.0 due to multiple responses.

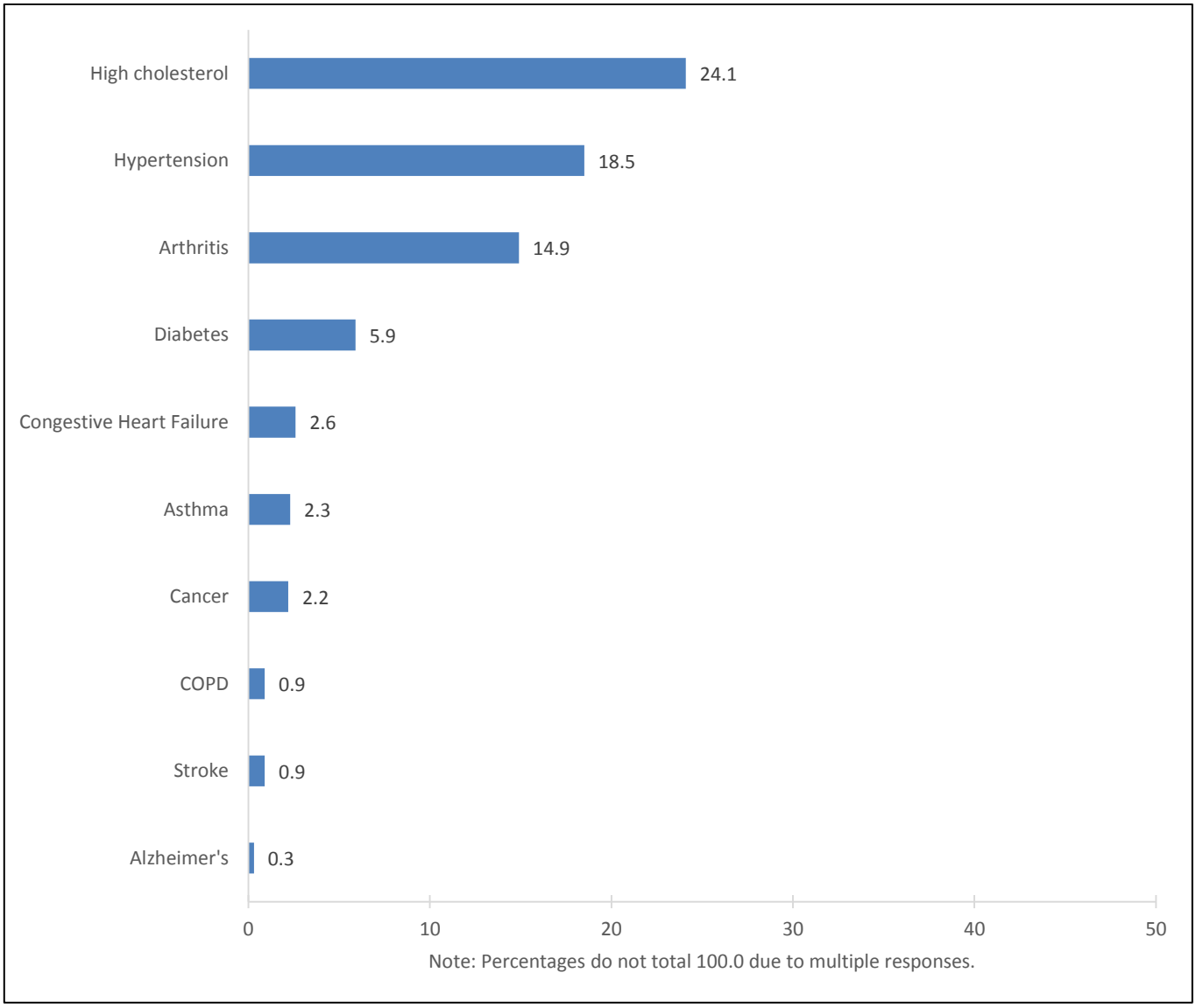
Chronic disease: More than 70 percent of the deaths each year in the United States are attributed to chronic disease—obesity, diabetes heart disease, cancer and stroke. Half of all U.S. adults have at least one chronic illness:

- Rates of obesity are increasing, with more than 1 in 3 adults fitting the clinical definition of obese, and almost 1 in every 5 children being categorized as obese.
- Diabetes rates are also on the rise. If current trends continue, 1 out of every 3 babies born today will suffer from diabetes at some point in their life.

Rates of chronic disease among racial and ethnic minorities and among lower-income Americans, are higher than the national average. American Indian families experience higher rates of heart disease, stroke, cancer, obesity and diabetes.

Chronic disease impacts not only the health of the individual and their families, but it has a broader impact on our communities and the economy. Chronic disease is responsible for more than 75 percent of the more than $2.5 trillion spent annually on health care. With employer-based health insurance covering almost 160 million workers under age 65, preventing disease and improving health outcomes is a financial imperative for many businesses.

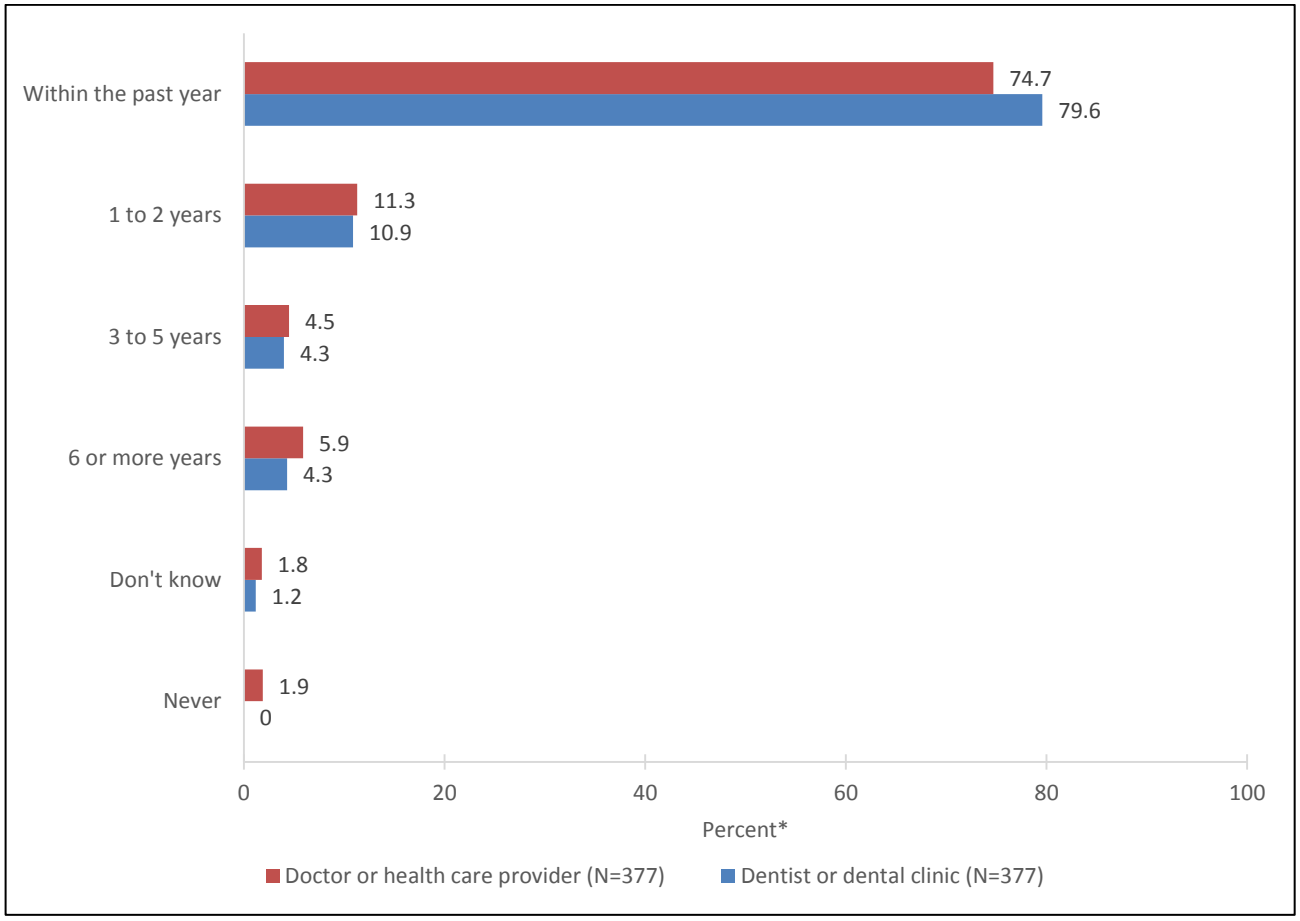
Whether respondents have any of the following chronic diseases



Routine physical examinations: Respondents were asked how long it had been since they last visited a doctor or health care provider for a routine physical exam and how long it had been since they last visited a dentist or dental clinic for any reason.

- Three in four respondents say they have visited a doctor or health care provider within the past year (74.7 percent); 11.3 percent say it has been, at most, 2 years and 5.9 percent say it has been 6 or more years since they have visited a doctor or health care provider for routine physical exam. Approximately two percent (1.9 percent) have never visited a doctor or health care provider for a routine physical exam.
- Four in five respondents say they have visited a dentist or dental clinic within the past year (79.6 percent); 10.9 percent say it has been, at most, 2 years and 4.3 percent say it has been 6 or more years since they last visited a dentist or dental clinic.

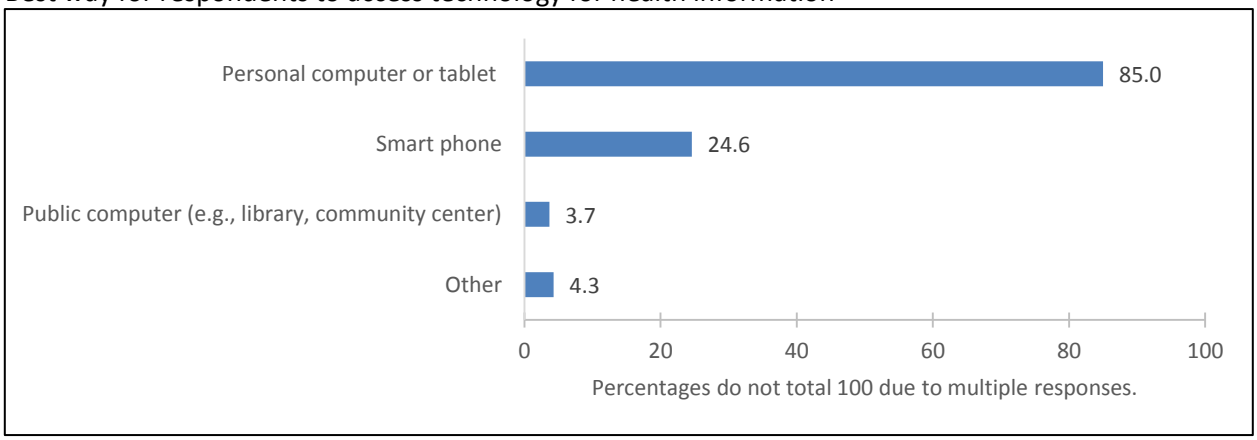
Length of time since respondents last visited a doctor or health care provider/dentist for a routine exam



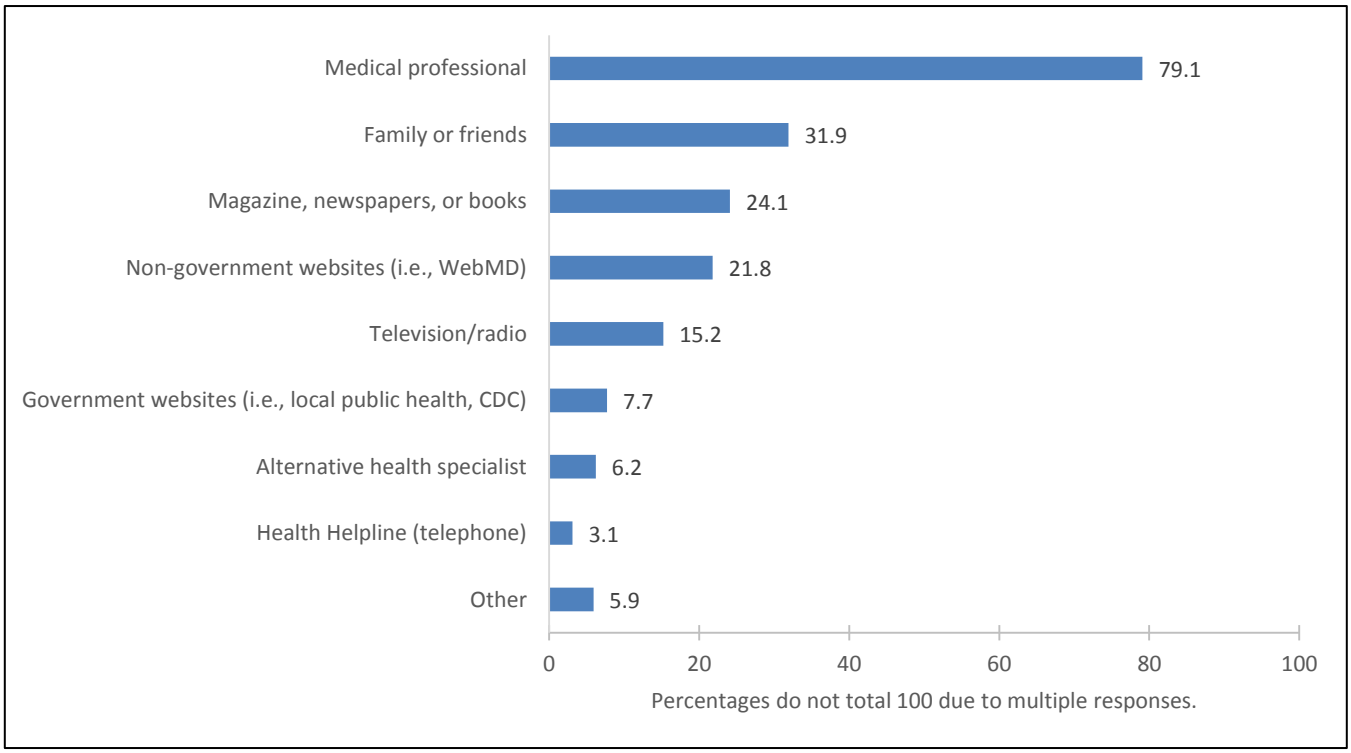
*Percentages may not total 100.0 due to rounding.

Best way to access electronic health information: Respondents were asked what the best way was for them to access technology for health information. Four in five respondents say that a personal computer or tablet is the best way to access technology for health information (85.0 percent); 24.6 percent say a smart phone and 3.7 percent say a public computer is best for them.

Best way for respondents to access technology for health information

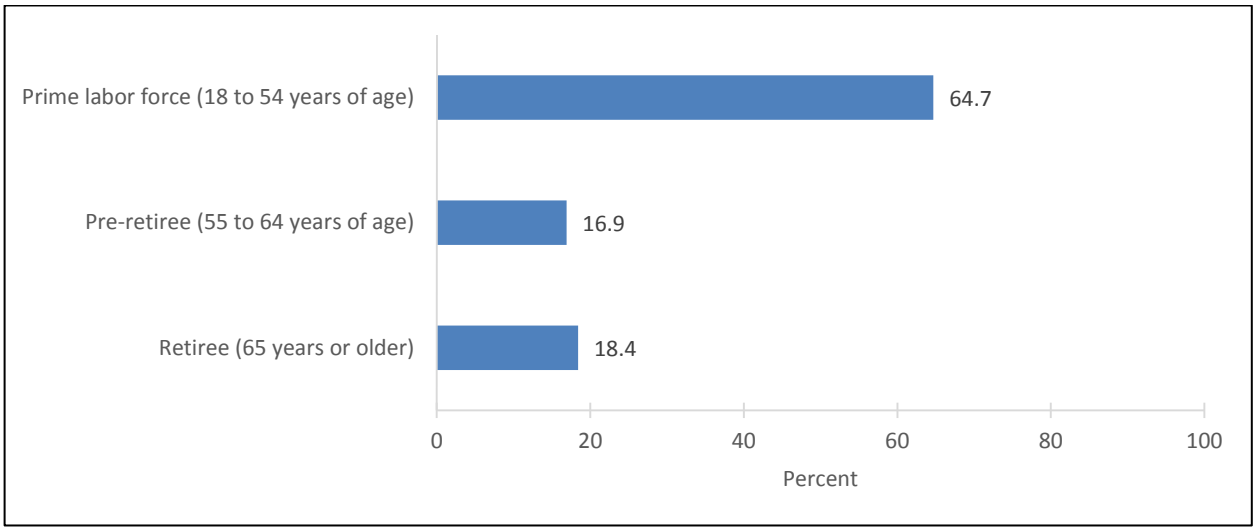


Health information source: Respondents were asked where they get most of their health information. Four in five respondents say that they get most of their health information from a medical professional (79.1 percent); 31.9 percent get their health information from family or friends; 24.1 percent from a magazine, newspapers, or books; and 21.8 percent from non-government websites.

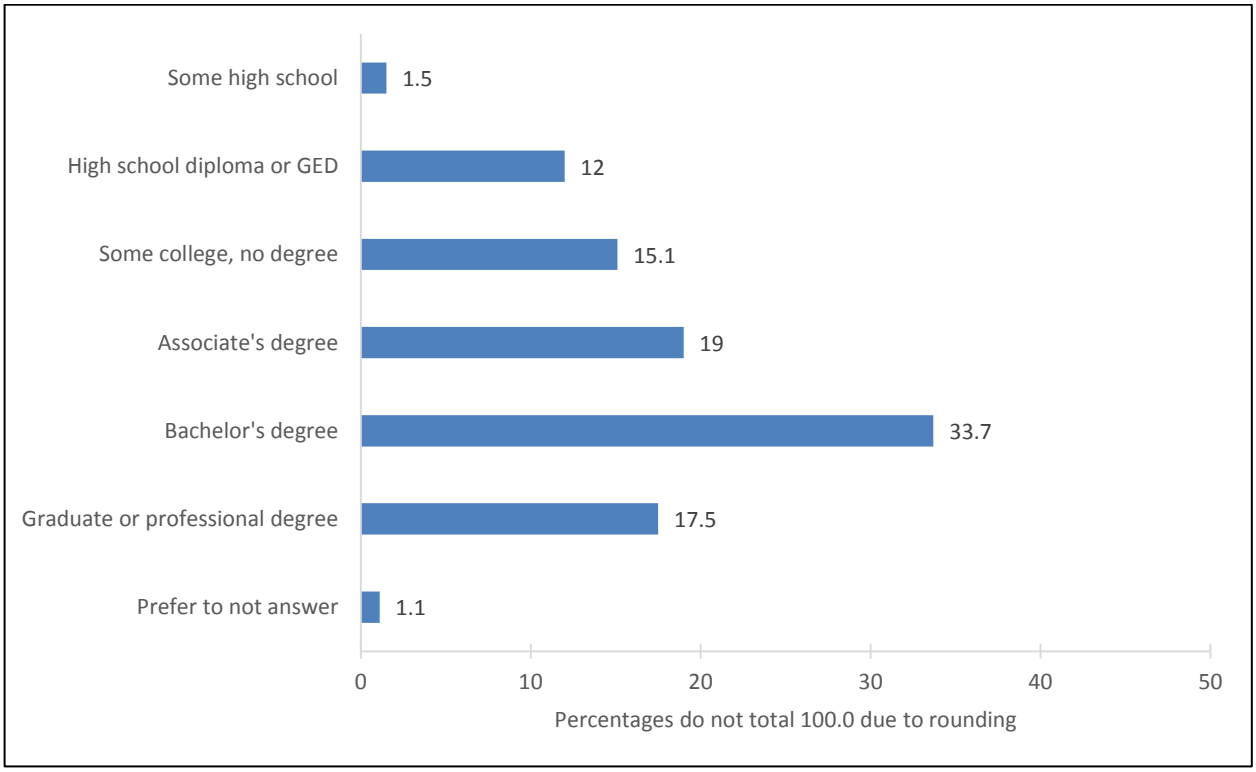


Demographic Information

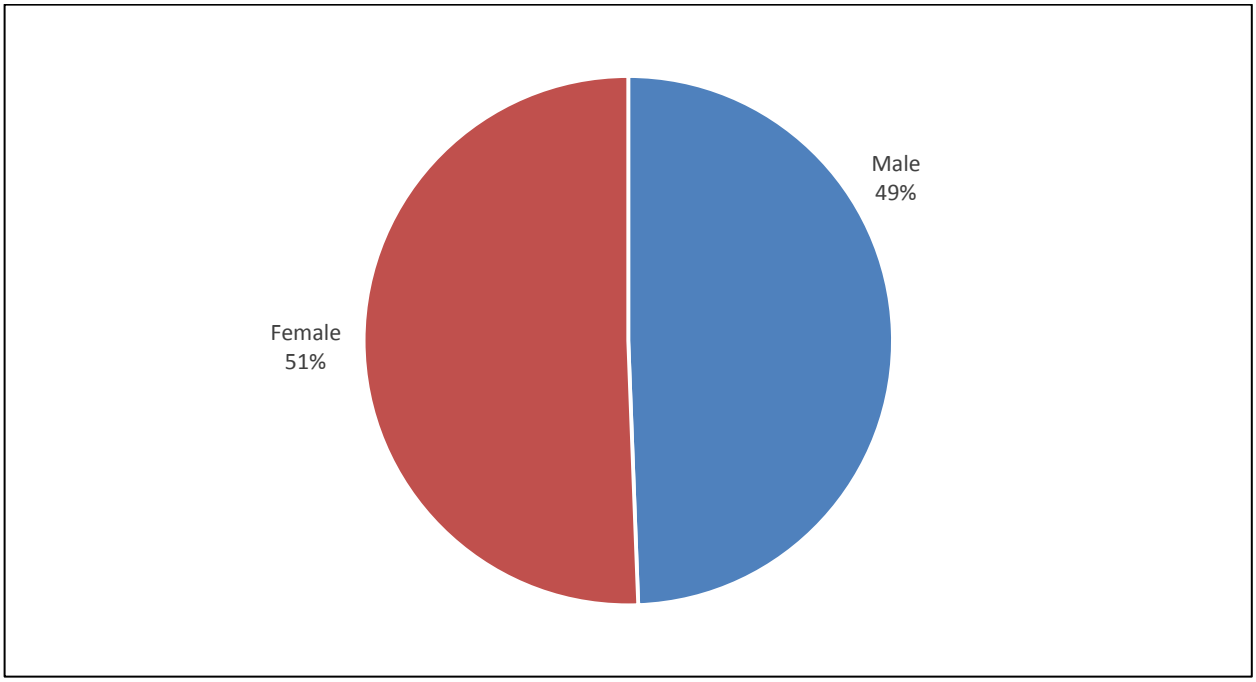
Age of respondents



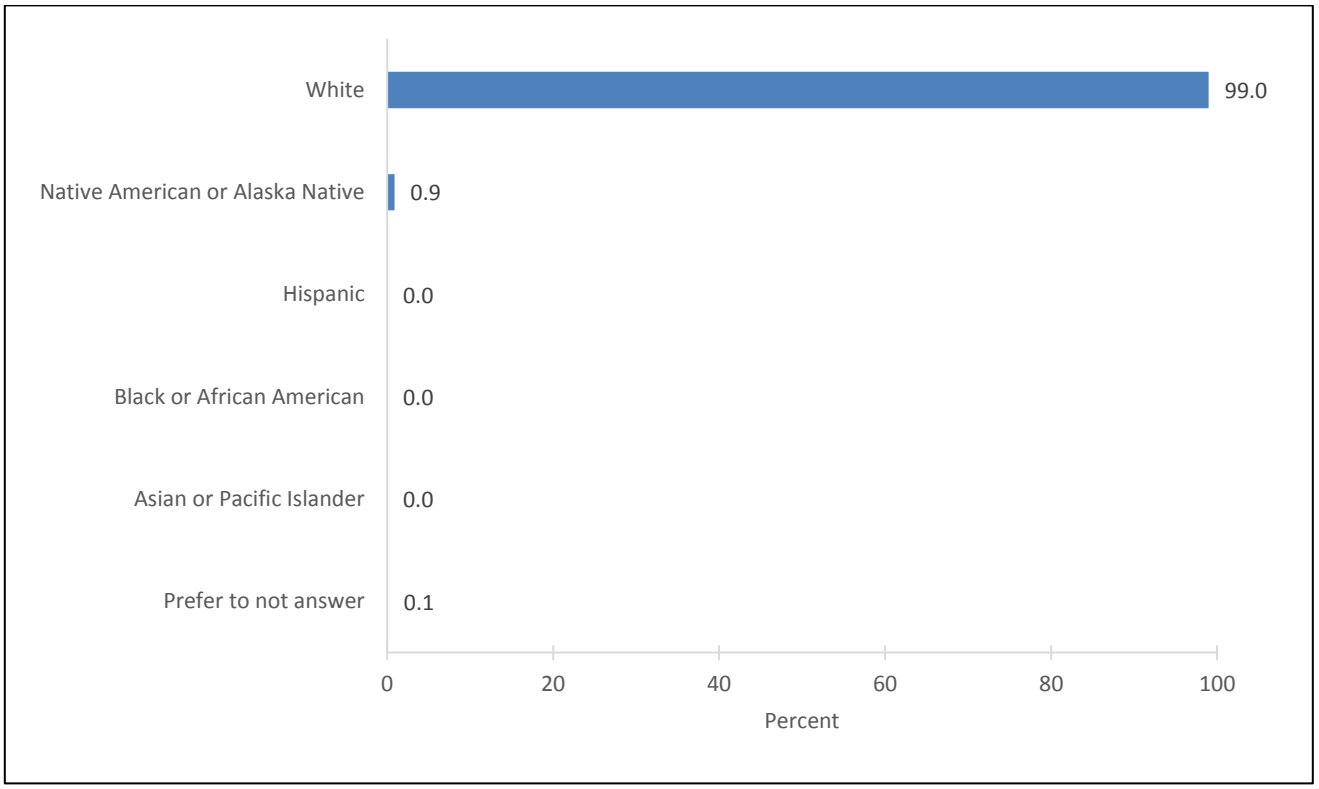
Highest level of education of respondents



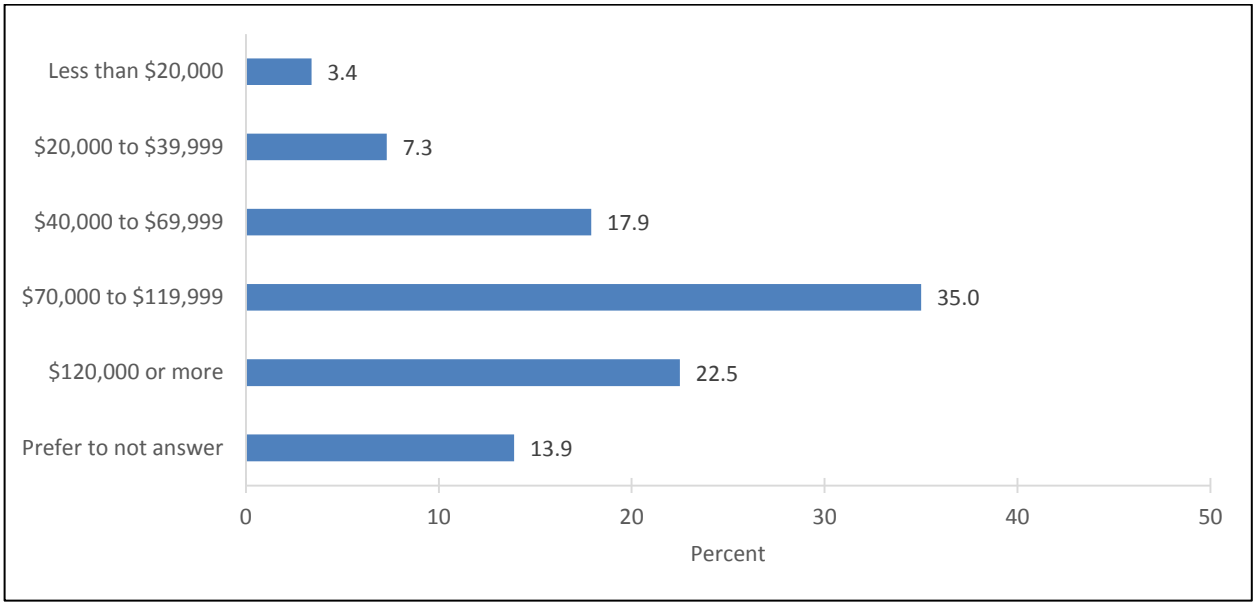
Gender of respondents



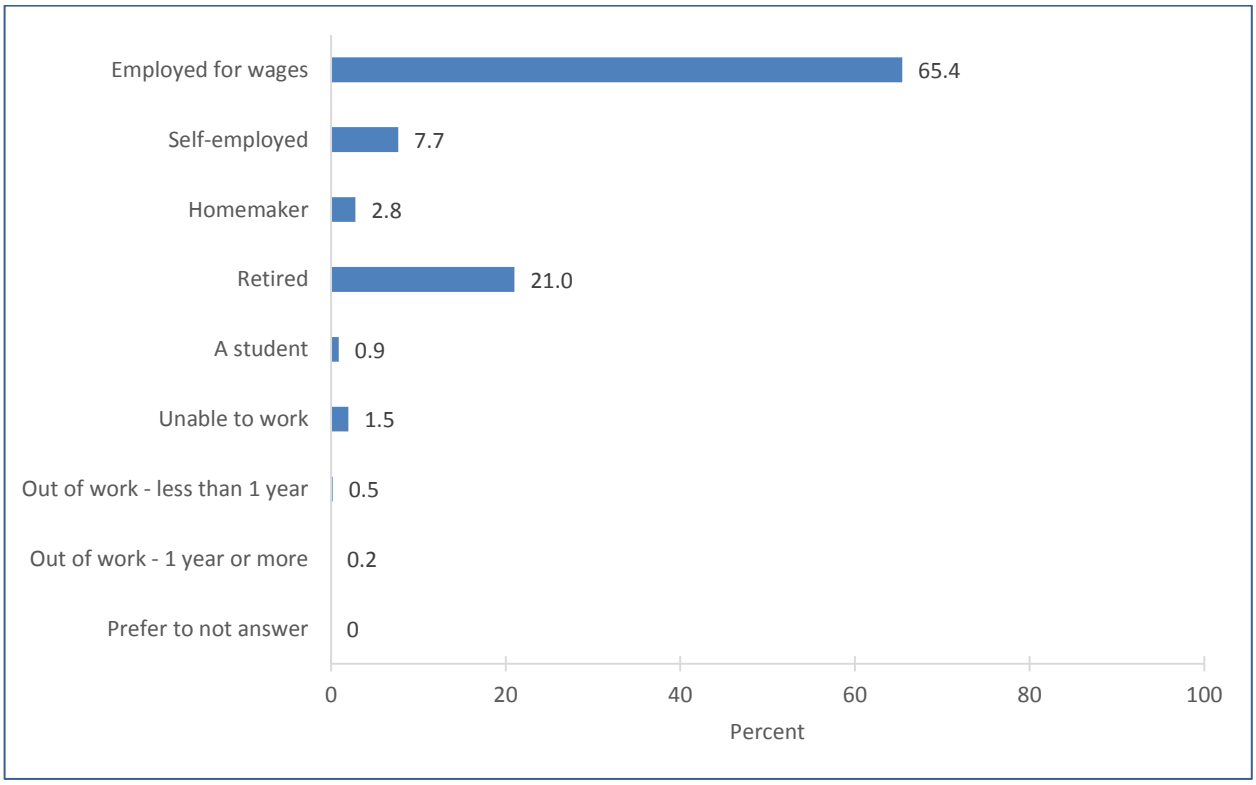
Race and ethnicity of respondents



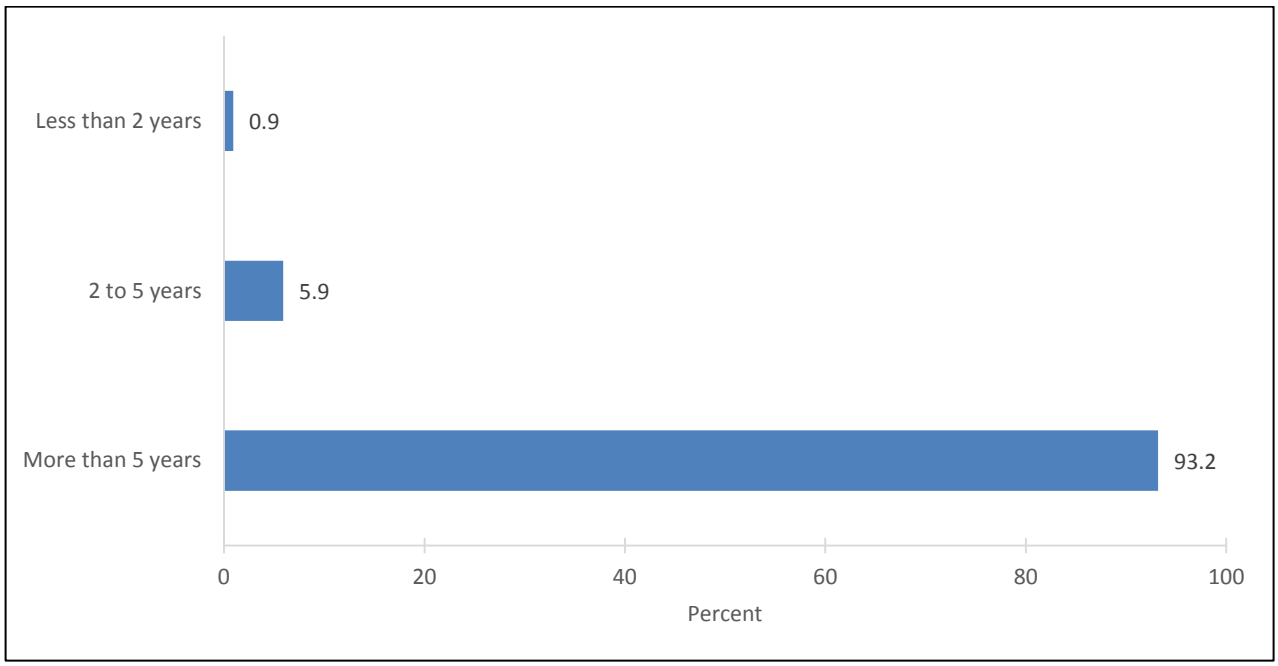
Annual household income of respondents



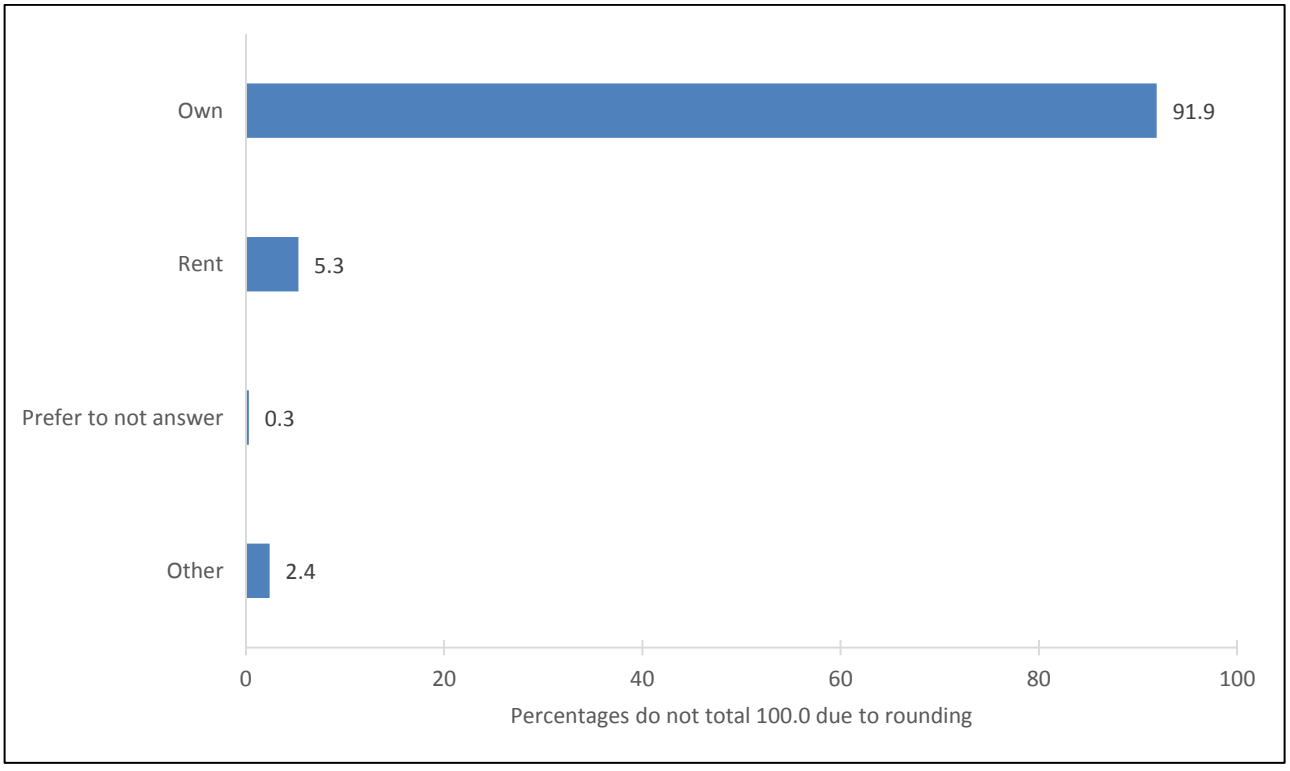
Employment status of respondents



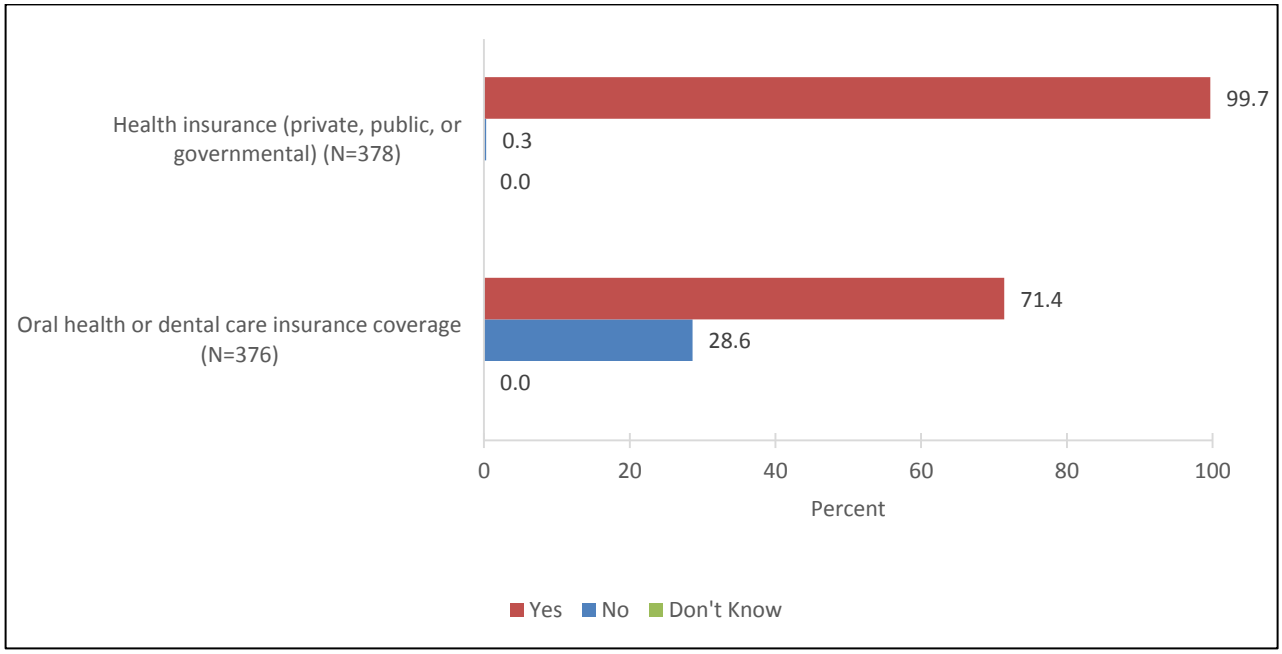
Length of time respondents have lived in their community



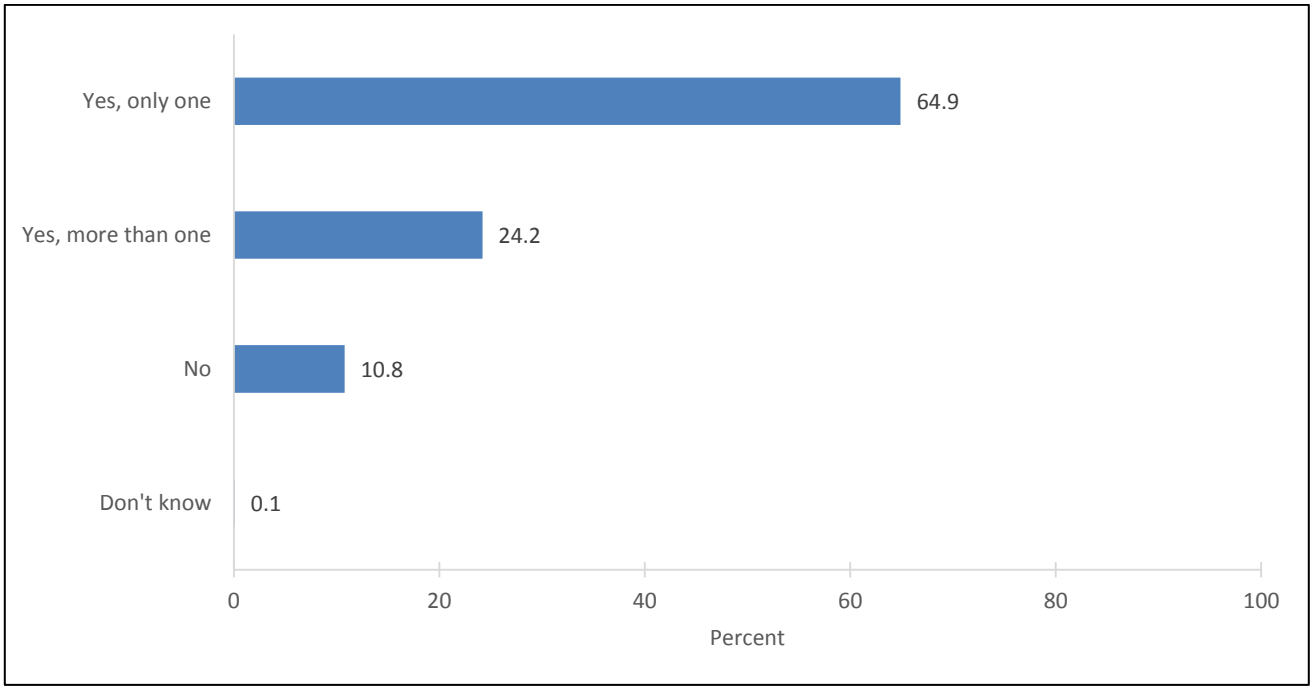
Whether respondents own or rent their home



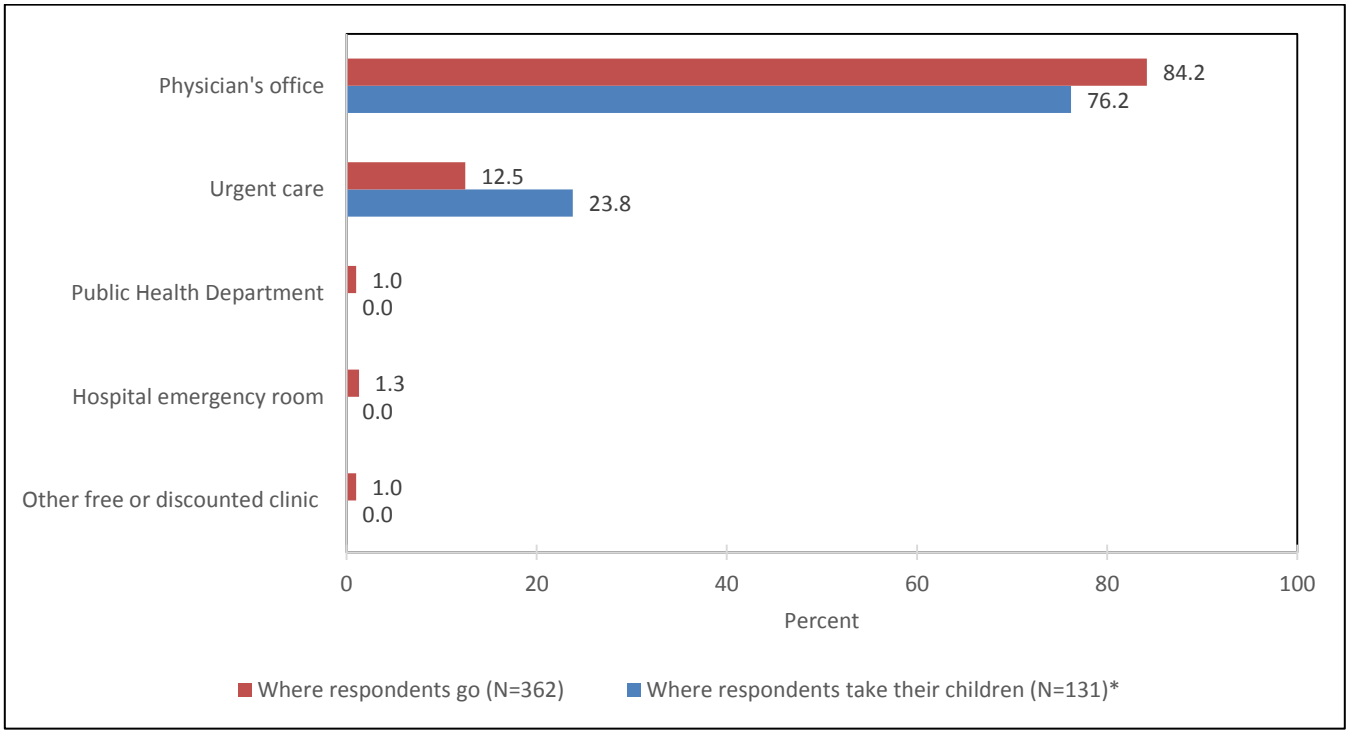
Whether respondents have health insurance (private, public, or governmental) and oral health or dental care insurance coverage



Whether respondents have one person who they think of as their personal doctor or health care provider

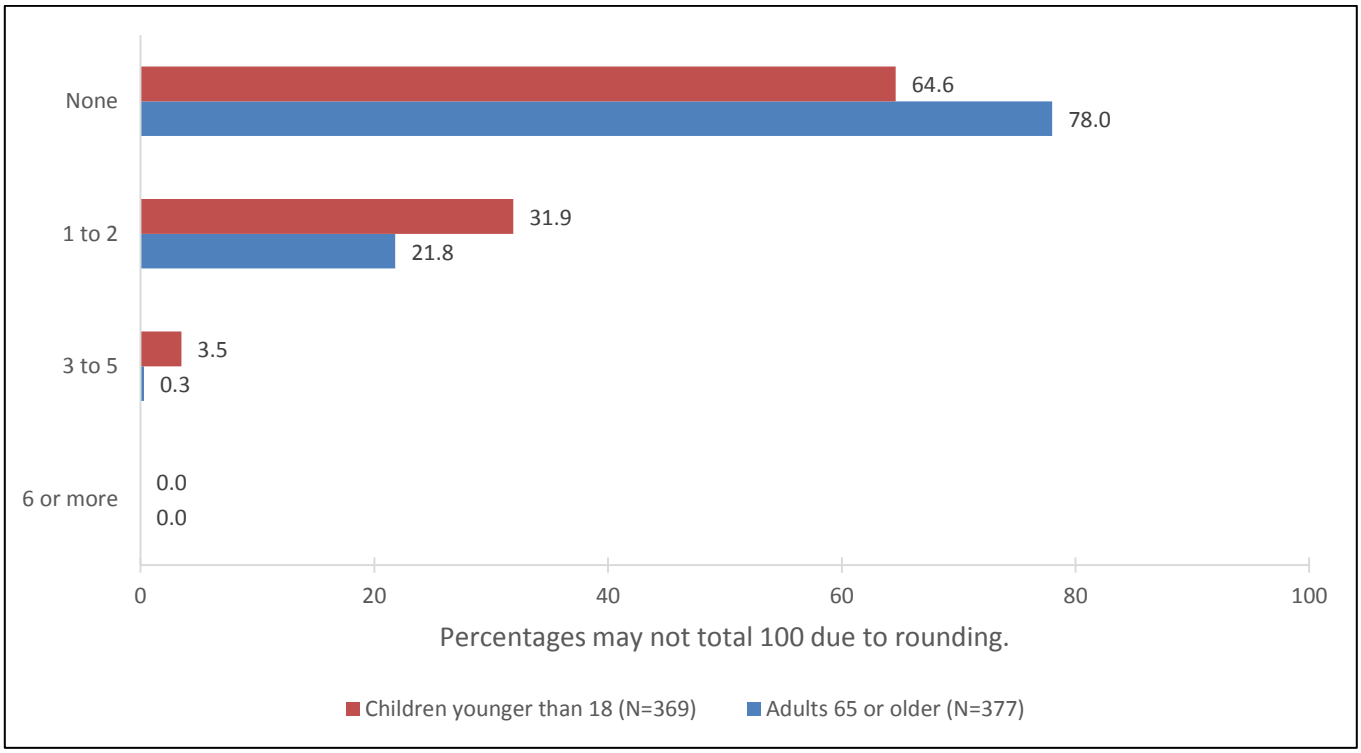


Facilities that respondents go to most often when sick and take their children when they are sick



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

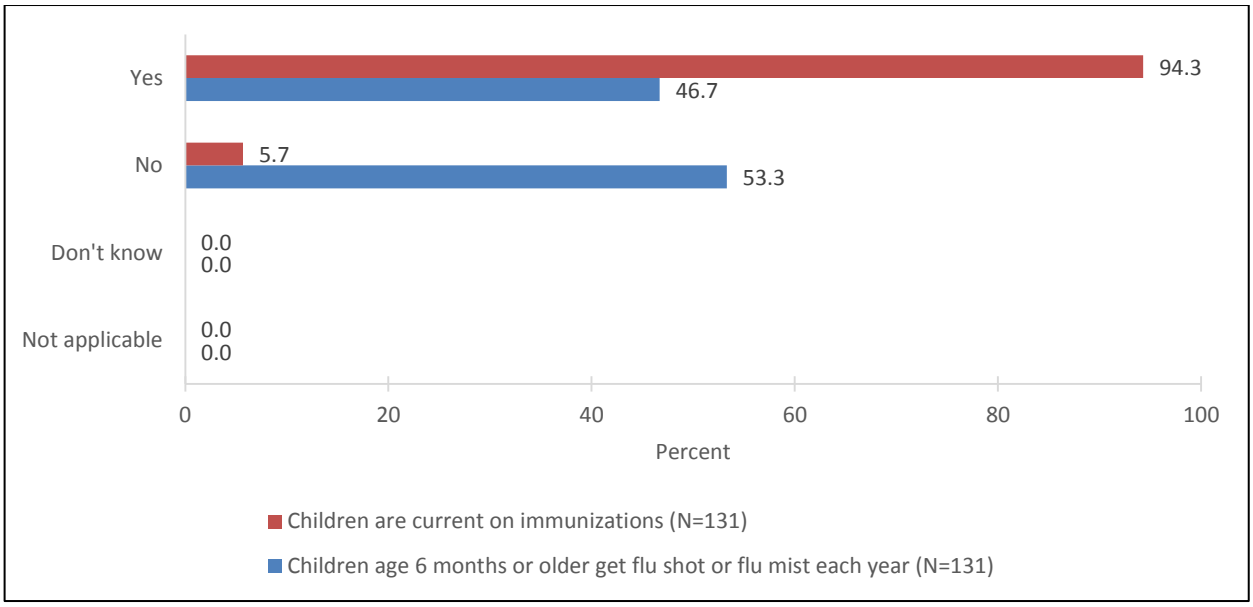
Number of children younger than 18, number of adults age 65 or older living in respondents' household



Immunizations: Respondents who have children younger than 18 years living in their household were asked whether all children in their home are current on their immunizations and whether all children age 6 months or older get a flu shot or flu mist each year (Figure 42, Appendix Table 34).

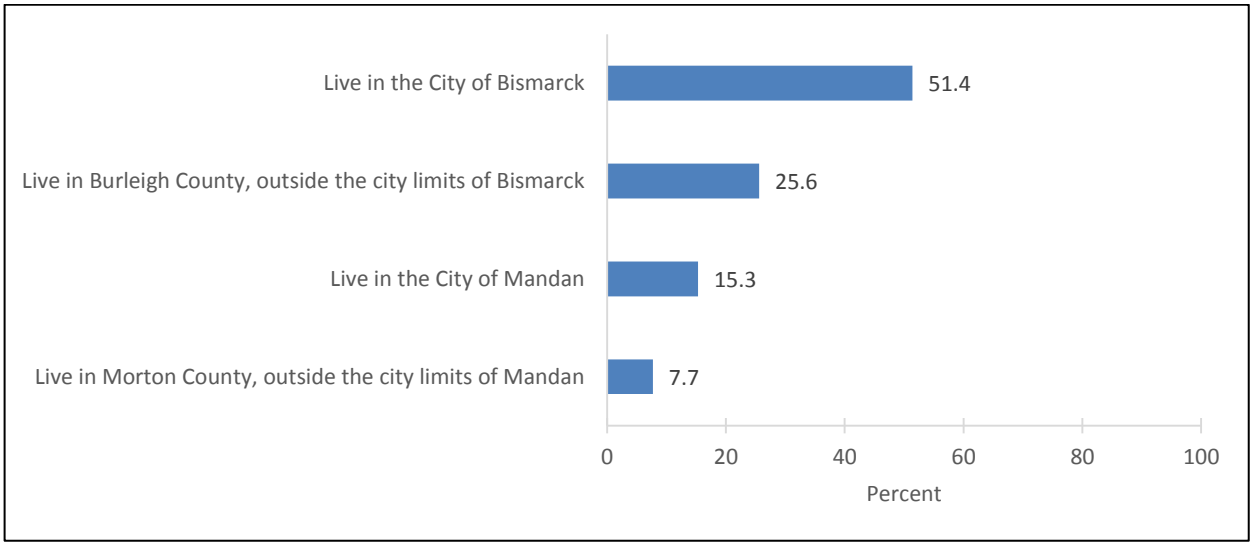
- Almost all the respondents with children in their home say all children younger than 18 years are current on immunizations (94.3 percent).
- Nearly half of respondents with children say all children age 6 months or older get a flu shot or flu mist each year each year (46.7 percent); 53.3 percent say the children do not get a flu shot or flu mist each year.

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 age 18 living in their household.

Where respondents live



Location of respondents based on zip code

	Percent of respondents
Burleigh County	**72.6%**
Bismarck	69.5%
Rural	3.1%
Morton County	**22.8%**
Mandan	20.1%
Rural	2.7%
Unknown or missing	4.6%

Secondary Research:
County Health Rankings and Roadmap for Burleigh County

The annual *County Health Rankings* measure vital health factors, including obesity, smoking, unemployment, access to healthy foods, the quality of air and water, income, and teen births in nearly every county in America. The information is compared to other counties within North Dakota and compared to national benchmark data.

The annual *Rankings* provide a revealing snapshot of how health is influenced by where we live, learn, work and play. They provide a starting point for change in communities. The *Rankings* are based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play.

Health Outcomes
Two types of outcomes are measured: mortality—how long people live; and morbidity—how healthy the population is in regard to incidence of disease. While measuring length of life is an important indicator of a community's health, it is also valuable to include measures of how healthy people are while alive. To that end, self-reported health status has been shown to be a reliable measure of current health. The source for the following information, unless otherwise indicated, is *County Health Rankings and Road Maps* (countyhealthrankings.org).

Health factors include two main categories—health behaviors and clinical care. Both have significant impact on a community's health and wellbeing.

Health Outcomes: Length of Life and Quality of Life Measures

	Burleigh County	Error Margin	Top U.S. Performers^	North Dakota
Health Outcomes				
Length of Life				
Premature death	5,600	5,000-6,200	5,200	6,600
Quality of Life				
Poor or fair health**	11%	10-11%	12%	14%
Poor physical health days**	2.3	2.2-2.4	2.9	2.9
Poor mental health days**	2.5	2.3-2.6	2.8	2.9
Low birthweight	7%	6-7%	6%	6%

Data sources: *National Center for Health Statistics using data from the CDC/BRFSS and National Vital Statistics System (NVSS).*

Premature Death
Premature Death is the years of potential life lost before age 75 (YPLL-75). Every death occurring before the age of 75 contributes to the total number of years of potential life lost. For example, a person dying at age 50 contributes 25 years of life lost. The YYPLL measure is presented as a rate per 100,000 population.

Measuring YPLL allows communities to target resources to high-risk areas and further investigate the causes of premature death. For the study years, 2011-2013, Burleigh County's YPLL per 100,000 people was 5,600 years, or about 5.6 years per person. The state averaged 6.6 years person.

Poor or Fair Health/Poor Physical Health Days
Self-reported health status is a measure of people's health-related quality of life. Self-reported health status is a general measure of health-related quality of life. The measures are based on responses to the questions: "Would you say that your health is excellent, very good, good, fair or poor?" and "Thinking about your health … for how many days during the past 30 days was your physical health not good?"

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

This measure is based on survey responses to the question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" The value reported is the average number of days a county's adult respondents report that their mental health was not good.

Low Birth Weight
Low birth weight is the percentage of live births where the infant weighed less than 2,500 grams, approximately 5 lbs., 8 oz. The measurement represents two factors:

- Indicates maternal exposure to health risks including the mom's health behaviors, access to care, the social and economic environment she inhabits and environmental risks to which she is exposed.
- Serves as a predictor of premature mortality and/or morbidity over the life course and for potential cognitive development problems.

Health Behaviors
The health behaviors included here—smoking, obesity, physical inactivity and excessive drinking—are behavioral risk factors because they increase one's risk for chronic diseases including heart disease, stroke, cancer and diabetes. Heart disease/stroke and cancer account for 26 percent and 23 percent, respectively, of all deaths in North Dakota.

	Burleigh County	Error Margin	Top U.S. Performers^	North Dakota
Health Outcomes				
Health Factors				
Health Behaviors				
Adult smoking**	15%	15-16%	14%	20%
Adult obesity	29%	27-32%	25%	30%
Food environment index	9.1		8.3	8.4
Physical inactivity	21%	19-23%	20%	25%
Access to exercise opportunities	79%		91%	66%
Excessive drinking**	23%	23-24%	12%	25%
Alcohol-impaired driving deaths	45%	35-55%	14%	47%
Sexually transmitted infections	430.2		134.1	419.1
Teen births	24	22-26	19	28

Data sources: *National Center for Health Statistics using data from the CDC/BRFSS; CDC National Center for Health Statistics (NCHS); National Vital Statistics System (NVSS) and CDC National Center for Hepatitis, HIV, STD, and TB Prevention.*

Smoking

Adult smoking prevalence is the estimated percent of the adult population that currently smokes every day or "most days" and has smoked at least 100 cigarettes in their lifetime. Burleigh County residents' smoking rate is 15 percent; the North Dakota rate is 20 percent.

Each year approximately 443,000 premature deaths occur primarily due to smoking (CDC, 2015). Cigarette smoking is identified as a cause in multiple diseases including various cancers, cardiovascular disease, respiratory conditions and low birth weight. Measuring the prevalence of tobacco use in the population can alert communities to potential adverse health outcomes and can be valuable for assessing the need for cessation programs or the effectiveness of existing programs.

In North Dakota, tobacco use is the leading preventable cause of death, disease and disability (*Saving Lives – Saving Money: North Dakota's Comprehensive State Plan to Prevent and Reduce Tobacco Use 2009 – 2014*). Each year 877 North Dakota adults die prematurely from illnesses caused by smoking and approximately 11,000 North Dakota youth younger than 18 are projected to die prematurely due to smoking.

Obesity

The adult obesity measure represents the percent of the adult population (age 20 and older) that has a body mass index (BMI) greater than or equal to 30 kg/m2.

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

Burleigh County's adult obesity rate rose from 25 percent in 2013 to 29 percent in 2015.

North Dakota's rate of obesity in children, as in the rest of the nation, is increasing at alarming rates. N.D. Dept. of Health (NDDH) reports that 23.7 percent of North Dakota's high school students are overweight or obese and 31.4 percent of children ages 2 through 5 enrolled in the WIC program are overweight or obese.

One strategy to combat the state's obesity program is Healthy North Dakota, a statewide partnership of more than 400 stakeholders committed to working together to find solutions to healthier living in North Dakota. Initiated by the NDDH, Healthy North Dakota targets four main areas—healthy eating, physical activity, healthy living and worksite wellness.

Physical Inactivity

Physical inactivity is the estimated percent of adults aged 20 and over reporting no leisure time physical activity. In Burleigh County, 21 percent of adults report having no leisure time activity.

Decreased physical activity is related to several disease conditions including type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease and premature mortality, independent of obesity. In addition, physical inactivity at the county level is related to health care expenditures of circulatory system diseases.

The N.D. Dept. of Health's Healthy North Dakota initiative aims to increase physical activity levels throughout the state with the ultimate goal of creating healthy residents and healthy communities. Sanford Health supports athletic events and activities throughout the year and offers two workout facilities for community members—Women's Health Center and 7th and Thayer Clinic. In 2017, Sanford Health will partner with Missouri Valley YMCA to create a Sanford Family Wellness Center for Bismarck-Mandan community members, adding a much-needed addition to the community's family-based wellness facilities.

Excessive Drinking

The excessive drinking measure reflects the percent of the adult who report either binge drinking—defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days—or heavy drinking, defined as drinking more than 1 (women) or 2 (men) drinks per day on average.

Excessive drinking is a risk factor for adverse health outcomes including alcohol poisoning, hypertension, heart attacks, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence and motor vehicle crashes.

Compared to other states, North Dakota is consistently ranked high in binge use of alcohol among both adults and high school students. North Dakota's state average—24.9 percent—is the highest in the nation (cdc.gov/alcohol/data-stats.htm); Burleigh County's binge drinking rate is 23 percent, well above the national average.

State agencies including the Attorney General's Office and Department of Human Services have targeted anti-binge drinking campaigns at underage drinkers and their patients.

Motor Vehicle Accidents

Motor vehicle crash deaths are measured as the mortality rate per 100,000 population due to on- or off-road accidents involving a motor vehicle. Motor vehicle deaths include traffic and non-traffic accidents involving cars, vans, trucks, buses, motorcycles, three-wheel motor vehicles and ATVs. Also included are industrial, agricultural and construction vehicles as well as bikes and pedestrians when colliding with any of the vehicles mentioned.

A strong association has also been demonstrated between excessive drinking and alcohol-impaired driving, with approximately 17,000 Americans killed annually in alcohol-related motor vehicle crashes. North

Dakota's and Burleigh County's rate of alcohol-impaired driving deaths, 47 percent and 45 percent, respectively, are both significantly higher than the national average—30 percent.

The N.D. Strategic Highway Safety Plan (SHSP), developed by the N.D. Department of Transportation through coordination with a broad spectrum of stakeholders, launched an initiative called Towards Zero Deaths aimed at reducing the number of annual deaths to zero. The plan's interim goals call for reducing deaths to 110 by the year 2020.

Sexually Transmitted Infections

The Sexually Transmitted Infection (STI) rate is measured as chlamydia incidence (the number of new cases reported) per 100,000 population. Chlamydia is the most common bacterial STI in North America and is one of the major causes of tubal infertility, ectopic pregnancy, pelvic inflammatory disease and chronic pelvic pain. STIs in general are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, involuntary infertility and premature death. However, increases in reported chlamydia infections may reflect the expansion of chlamydia screening, use of increasingly sensitive diagnostic tests, an increased emphasis on case reporting from providers and laboratories, improvements in the information systems for reporting, as well as true increases in disease. Burleigh County's STI rate is increasing.

Teen Birth Rates

Teen pregnancy is associated with poor prenatal care and preterm delivery. Pregnant teens are more likely than older women to receive late or no prenatal care, more likely to have gestational hypertension and more likely to develop anemia and achieve poor maternal weight gain. They are also more likely to have a preterm delivery and low birth weight, increasing the risk of child developmental delay, illness, and mortality.

North Dakota's rate of teen pregnancy—measured as the number of births per 10,000 females ages 15-19—is 28, which is more than 27 percent higher than the national benchmark of 22. Burleigh County's teen birth rate is 24, 10 percent higher than the national benchmark.

Clinical Care

	Burleigh County	Error Margin	Top U.S. Performers^	North Dakota
Health Outcomes				
Clinical Care				
Uninsured	10%	9-11%	11%	12%
Primary care physicians	880:1		1,040:1	1,260:1
Dentists	1,240:1		1,340:1	1,690:1
Mental health providers	450:1		370:1	610:1
Preventable hospital stays	36	33-40	38	51
Diabetic monitoring	90%	84-97%	90%	86%
Mammography screening	71%	65-77%	71%	68%

Data sources: *U.S. Census Bureau Small Area Health Insurance Estimates; Dartmouth Atlas of Health Care using Medicare claims data; Health Resources and Services Administration's Area Resource File.*

Uninsured Adults and Children
Uninsured is the percentage of the population under age 65 that has no health insurance coverage (includes insurance through a current or former employer or union, insurance purchased directly from an insurance company, Medicare, Medicaid, Medical Assistance, military health care, VA and Indian Health Services).

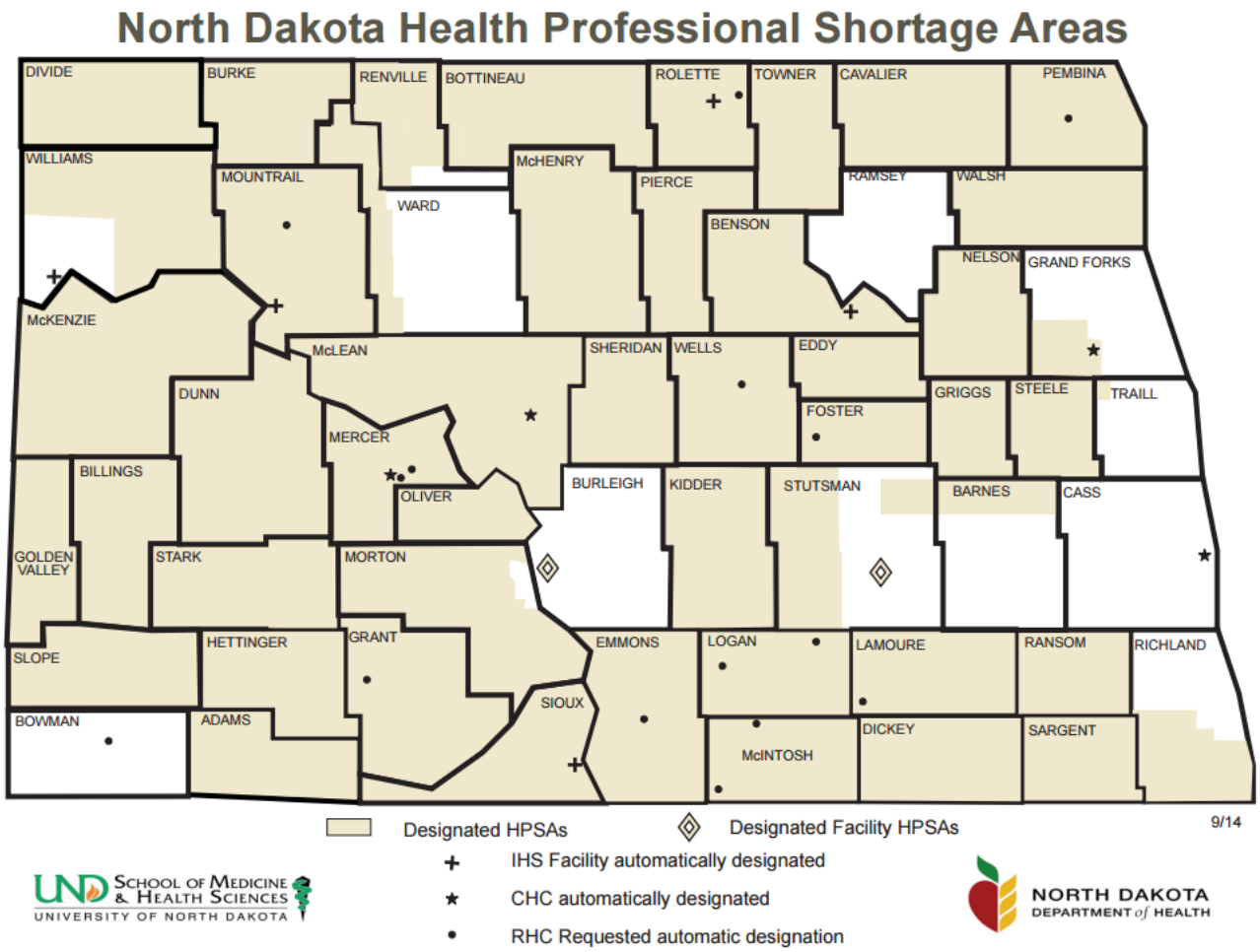
Lack of health insurance coverage is a significant barrier to accessing needed health care. Uninsured people are far more likely than those with insurance to report problems getting needed medical care: 27 percent of adults without coverage say that they went without care in the past year because of cost, compared to 5 percent of adults with private coverage and 10 percent of adults with public coverage (Kaiser Commission on Medicaid and the Uninsured. *The Uninsured: A Primer—Key Facts about Health Insurance and the Uninsured in the Era of Health Reform*. November, 2015).

The Kaiser Family Foundation estimates 61,900 adults ages 18-64 and 12,500 children ages 0-17 in North Dakota did not have health insurance in 2014, the most current data available (www.statehealthfacts.org, 2015). With 20,000 North Dakotans newly covered by Medicaid Expansion, the state's uninsured rate may be lower.

Primary Care Physicians
Primary care physicians is the ratio of the population to total primary care physicians. Primary care physicians include non-federal, practicing physicians (MDs and DOs) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics.

Access to health care requires not only having financial coverage but also access to providers. Sufficient availability of primary care providers is critical to ensure quality and timely preventive and primary care. Burleigh County enjoys an 880:1 ratio in comparison to the state average and national benchmark, 1:260 and 1:040, respectively.

Access to primary care in less populated areas of the state is strained. The National Health Service Corps reports North Dakota has 81 health professional shortage areas (HPSAs)—geographic areas that have been federally designated as having a shortage of health care providers. Of North Dakota's 53 counties, 49 contain PHSAs (www.hrsa.gov, 2012); Burleigh, Cass, Ramsey and Bowman counties do not.



Map source: Center for Rural Health (http://www.med.und.edu/family-medicine/hpsa.pdf)

North Dakota, like the rest of the United States, is facing a major health care delivery challenge—how to meet the current and rising future demand for health care services with a limited panel of physician and other providers. The problem is particularly acute in rural regions of North Dakota, where there has been a chronic shortage especially of primary care providers dating back four decades. The problem is due in part to an inadequate number of providers statewide and maldistribution of providers who are disproportionately located in the urbanized areas of the state.

Dentists

The oral health of Americans has improved in recent years, yet considerable gaps in the provision of dental care remain perhaps most notably for low-income families. Untreated dental disease can lead to serious health effects including pain, infection and tooth loss. According to the Health Resources and Services Administration, as of December 2012, there were 4,585 Dental Health Professional Shortage Areas (HPSAs) with 45 million people living in them.

More than half of children in North Dakota have had tooth decay and one in five have untreated decay. Untreated dental problems can result in pain and infection and difficulty eating and may interfere with learning (Ronald McDonald House, 2015).

Burleigh County's ratio of dentists is 1,240:1; the state average and national benchmark: 1,690:1 and 1,3401, respectively.

Mental Health Providers
Mental health providers is the ratio of the county population to the number of mental health providers including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, and advanced practice nurses specializing in mental health care.

Thirty percent of the U.S. population lives in a county designated as a Mental Health Professional Shortage Area. Access to mental health providers is increasingly bottle-necked, particularly in rural states like North Dakota. Burleigh County has one provider per 450 people and the state has one provider per 610 people.

Preventable Hospital Stays
A preventable hospital stay is one that involves a condition that could have been cared for in an outpatient setting. For example, hypertension is a condition that can be treated outside of a hospital. With proper medication and management of care, most people should not need to be hospitalized for hypertension. Preventable hospital stays are measured as the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 Medicare enrollees.

Burleigh County's preventable hospital stay rate (36:1000) is lower than the national benchmark (38:1000) and the state average (51:1000).

Diabetic Screening
Diabetic screening is calculated as the percent of diabetic Medicare patients whose blood sugar control was screened in the past year by testing glycated hemoglobin (HbA1c) levels. Screening rates in Burleigh County match the national benchmark—90 percent.

Burleigh County's diabetes prevalence is 8.0 percent and continues to rise. The North Dakota prevalence is 8.5 percent (N.D. Dept. of Health State Health Profiles, 2015). A person with diabetes uses about 2.4 times as much in health care resources as a person without diabetes (American Diabetes Association).

Mammography Screening
County Health Rankings and Roadmaps measure of mammography screening represents the percent of female Medicare enrollees age 67-69 that had at least one mammogram over a two-year period.

Mammography screening guidelines vary among medical groups. The American College of Radiology recommends women complete screening mammograms once each year after age 40. The American Cancer Society recommends beginning at age 45, or at 40 if the woman chooses to do so.

Social and Economic Factors

	Burleigh County	Error Margin	Top U.S. Performers^	North Dakota
Health Outcomes				
Social & Economic Factors				
High school graduation	89%		93%	86%
Some college	77%	73-81%	72%	74%
Unemployment	2.5%		3.5%	2.8%
Children in poverty	9%	7-11%	13%	14%
Income inequality	4.0	3.7-4.3	3.7	4.4
Children in single-parent households	25%	21-28%	21%	27%
Social associations	17.9		22.1	16.6
Violent crime	259		59	240
Injury deaths	49	43-56	51	63

Data sources: *National Center for Education Statistics, U.S. Census Bureau American Community Survey and Small Area Income and Poverty Estimates, Bureau of Labor Statistics, National Center for Health Statistics, CDC/BRFSS and Uniform Crime Reporting/Interuniversity Consortium for Political and Social Research National Archives of Criminal Justice Data.*

Education

High school graduation is reported as the percent of a county's ninth grade cohort in public schools that graduates from high school in four years. The college measure represents the percent of the population age 25-44 with some post-secondary education, such as enrollment at vocational/technical schools, junior colleges or four-year colleges. It includes individuals who pursued education following high school but did not receive a degree.

The positive correlation between education and improved health outcomes is well known; years of formal education are strongly correlated with improved employment opportunities, reduced stress and healthier lifestyle choices.

Unemployment

Unemployment is measured as the percent of the civilian labor force, age 16 and older, that is unemployed but seeking work.

Unemployed persons tend to experience poorer health and higher mortality rates than employed persons. Unemployment is also correlated to increased unhealthy behaviors including alcohol and drug use and poor diet and exercise patterns which in turn can lead to increased risk for chronic disease and suicide.

Children in Poverty

Children in poverty is the percent of children under age 18 living in households below the Federal Poverty Level (FPL). Poverty can increase risk of mortality, depression, poor health behaviors and chronic disease.

Poverty can result in negative health consequences, such as increased risk of mortality, increased prevalence of medical conditions and disease incidence, depression and poor health behaviors. While negative health effects resulting from poverty are present at all ages, children in poverty suffer greater morbidity and mortality due to increased risk of accidental injury and poor access to health care.

Burleigh County's children in poverty rate is 9 percent; the state rate and national benchmark are 14 and 13 percent, respectively.

Income Inequality

Income Inequality is the ratio of household income at the 80th percentile to that at the 20th percentile, i.e., when the incomes of all households in a county are listed from highest to lowest, the 80th percentile is the level of income at which only 20 percent of households have higher incomes, and the 20th percentile is the level of income at which only 20 percent of households have lower incomes.

Income inequality can lead to increased risk for heart disease and serve as a social stressor. The greater the inequality, the greater the risk of losing social connections and decreasing residents' sense of community and social support.

Burleigh County ranks high in this category—4.0 in comparison to the national benchmark 3.7.

Children in Single-Parent Households

Adults and children in single-parent households are at increased risk for adverse health outcomes such as mental health problems (including substance abuse, depression, and suicide) and unhealthy behaviors such as smoking and excessive alcohol use. Burleigh County's rate of single-parent households is 9 percent. The state rate is 14 percent.

Social Associations

Measured as the number of associations per 10,000 people, social associations are positively correlated to decreased morbidity. Associations include civic organizations, bowling and golf clubs, fitness centers, sports organizations, religious and political organizations, business and professional organizations, and labor organizations.

Social support networks can be powerful predictors of health behaviors, suggesting that individuals without a strong social network are less likely to make healthy lifestyle choices than individuals with a strong network. Burleigh County's association membership rate is 17.9; the state rate and national benchmark are 16.6 and 22.1, respectively.

Violent Crime Rate

High levels of violent crime compromise physical safety and psychological well-being. High crime rates can also deter community members from pursuing healthy behaviors such as outdoor exercise. Additionally, exposure to crime and violence increases risk for stress-related medical concerns including high blood pressure and obesity.

Violent crime is represented as an annual rate per 100,000 people. Violent crimes are those that involve face-to-face confrontation between the victim and the perpetrator, including homicide, forcible rape, robbery and aggravated assault.

The N.D. Office of Attorney General in 2014 reported 8,645 statewide crimes, a 1.6 percent decrease from the 2013 total of 8,788 crimes reported. In 2012, 8,602 crimes were reported.

Injury Deaths

Injuries are one of the leading causes of death in the U.S.; unintentional injuries were the 5th leading cause and intentional injuries the 10th leading cause of mortality in 2010. The leading causes of death among

unintentional injuries respectively are: motor vehicle, poisoning and falls. Among intentional injuries the leading causes of death respectively are: suicide firearm, homicide firearm and suicide suffocation.

Injury deaths are measured as deaths from intentional and unintentional injuries per 100,000 population.

Physical Environment

	Burleigh County	Error Margin	Top U.S. Performers^	North Dakota
Health Outcomes				
Physical Environment				
Air pollution - particulate matter	9.8		9.5	10.0
Drinking water violations	No		No	
Severe housing problems	10%	9-11%	9%	11%
Driving alone to work	81%	80-83%	71%	80%
Long commute - driving alone	9%	8-10%	15%	13%

Air Pollution
The air pollution-particulate matter measure is the average daily density of fine particulate matter in micrograms per cubic meter in a county. Fine particulate matter can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air.

Elevated air pollution can increase risk of chronic bronchitis, asthma and other adverse pulmonary effects.

Drinking Water Violations
Drinking water violations is an indicator of the presence or absence of health-based drinking water violations in counties served by community water systems. Recent studies estimate that contaminants in drinking water sicken 1.1 million people each year. Ensuring the safety of drinking water is important to prevent illness, birth defects, and death for those with compromised immune systems.

Burleigh County had no drinking water violations.

Severe Housing Problems
Severe housing problems is the percentage of households with one or more of the following housing problems: housing unit lacks complete kitchen facilities; housing unit lacks complete plumbing facilities; household is severely overcrowded (more than 1.5 persons per room); household is severely cost burdened (monthly housing cost that exceeds 50 percent of monthly income).

Adequate housing protects individuals and families from harmful exposures and provides them with a sense of privacy, security, stability and control. Poor housing situations contribute to health problems including infectious and chronic diseases, injuries and poor childhood development.

Driving to Work Alone

The transportation choices that communities and individuals make have important impacts on health through active living, air quality and traffic injuries. The choices for commuting to work can include walking, biking, public transit, carpooling or commuting alone. The latter is the most damaging to community health.

Long Commute—Driving Alone

Driving alone is the percentage of those who commute to work alone in a vehicle that drive longer than 30 minutes to work each day. A study in found that the farther people commute by vehicle, the higher their blood pressure and body mass index (*Journal of American Journal of Preventive Medicine*, 2012). Each additional hour spent in a car per day is associated with a six percent increase in the likelihood of obesity.

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 Community Health Needs Assessment Collaborative 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 asset map includes identified needs from the following:

- Identified needs from the generalizable survey
- 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)

Prioritization

The needs assessment and stakeholder discussions covered numerous needs areas ranging from the cost of long-term care to affordable infant care. When grouped into categories, the needs fell into the following categories of need:

- Access to Affordable Health Care—Includes cost of care services, cost of insurance and cost of medications
- Addiction Management—Prevention, education, intervention and recovery services
- Aging Services—Cost and availability of long term care, availability of memory care and access to affordable home-based services
- Housing—Homelessness and access to affordable housing
- Mental Health—Depression, stress, substance abuse
- Physical Health—Chronic disease, obesity, poor nutrition and inactivity
- Underage drinking and substance abuse

Sanford is addressing the assessed needs that fall within the health care system's scope of work. In some cases the need is one where the system does not employ the applicable expertise to adequately address the need; however, Sanford leaders will communicate these findings with community leaders and experts who can best focus on a solution to the concern.

2016 Community Health Needs Assessment
Sanford Bismarck Medical Center

Identified Concerns	How Sanford Bismarck is Addressing the Needs
Aging Population • Cost of LTC • Availability of memory care • Availability of resources to help the elderly stay in their homes	• Sanford Bismarck is working collaboratively with other area aging service providers, e.g. skilled nursing facilities and assisted living centers, to coordinate care for the aging population and assist in transitions from levels of care. • Social workers, case managers and discharge planners work collaboratively with area service providers to identify appropriate resources and to ensure safe discharges. In addition to its hospital setting, Sanford Health has placed care planners in each of its long-term living facilities to assist in transitions of care. • Resources to help elderly individuals stay in their homes are available through programs such as the North Dakota State University Extension Office and the Sanford Faith Community Nurse Program.
Access • Access to affordable care • Coordination of care between providers and services	• Sanford Health Bismarck offers financial assistance for emergency and other medically necessary services provided and billed through our centralized Patient Financial Services. This assistance, ranging from a reduction in the amount of the balance outstanding up to complete forgiveness of the balance outstanding, is provided to patients demonstrating financial need. • Additionally, SHB offers financial advocacy help to uninsured and underinsured patients and their families. • SHB case managers and health coaches coordinate care between medical providers and applicable services within and outside the health care system.
Children and Youth • Cost and availability of quality child care • Bullying	• Sanford Health Bismarck is partnering with Missouri Valley YMCA, Basin Electric and CHI St. Alexius to establish a new community daycare center to add daycare services for an additional 240 children. • Bismarck public schools have passed bullying policies. • Community-based organizations such as Missouri Valley United Way offer community education services to increase awareness and prevention of bullying in the community.
Crime/Safety • Presence of street drugs, prescription drugs, and alcohol • Presence of drug dealers in the community • Sex trafficking • Child abuse and neglect	• Sanford Health Bismarck is partnering with Face It TOGETHER, a non-profit addiction management organization to help provide substance abuse awareness, education and recovery resources. • 4her North Dakota works to educate, advocate and eradicate sex trafficking via free education and training events. • The Sanford Health Dakota Children's Advocacy Center provides prevention, education and community awareness presentations on relevant and vital child safety issues. Trained facilitators offer these

Identified Concerns	How Sanford Bismarck is Addressing the Needs
• Elder abuse • Domestic violence • Presence of gang activity • Crime	trainings to professional, parents and youth serving organizations. • Prevent Child Abuse North Dakota and Sanford Health Bismarck provide community education and awareness events and sponsors a running team tasked with raising awareness and helping children at risk. • Vulnerable Adult Protective Services addresses the safety of vulnerable adults who are at-risk of harm due to the presence or threat of abuse, neglect, or exploitation. Sanford Health Bismarck helped support legislative policy that requires medical professionals to report suspected abuse. • Bismarck Police Department and Burleigh County Sherriff's Department have assigned officers and resources to provide community education/prevention presentations and conduct security surveys of homes and businesses.
Cost of Health Care • Affordable health insurance • Cost of dental insurance • Cost of vision insurance	• Sanford Health Bismarck provides free, on-site financial advocacy staff to help patients and their families apply for financial assistance and/or affordable health care coverage. • Sanford Health Bismarck provides care for dental-related problems regardless of patients' ability to pay; additionally, SHB advocates access to affordable care by engaging policy makers at the local and state level.
Economics • Affordable housing	• The cities of Bismarck and Mandan commandeered an affordable housing study to guide community-specific policy and affordable housing strategies. Sanford Health Bismarck has and will continue to participate in focus group meetings as identified by city leaders.
Physical Health • Chronic disease • Cancer • Obesity • Inactivity • Poor nutrition	• Sanford Bismarck provides in-kind human resources and sponsorship funding to support more than 100 community groups and events each year—investments targeting increased wellness-related awareness and education. By sharing information about the importance of healthy lifestyles, e.g. good food choices and consistent physical activity, Sanford Bismarck leaders and medical providers aim to increase prevention and control of chronic disease and some forms of cancer. • Sanford Bismarck helped create a youth running group targeting pediatric health and is partnering with Missouri Valley YMCA to provide a Family Wellness Center. The community-owned facility will provide much-needed access to year-round fitness opportunities necessary to help combat chronic illnesses including diabetes, obesity and heart disease. • Sanford Bismarck provides year-round comprehensive programming for patients newly diagnosed with pre-diabetes as well free one-hour community sessions during the months of September through May. Sanford Bismarck medical providers completed more than 750 free blood sugar screenings at various community wellness events in 2013, 2014 and 2015; each at-risk person was provided education materials and encouraged to visit with their primary care doctor. In 2015 Sanford Health partnered with the N.D. Diabetes Coalition to create a statewide pre-diabetes awareness and screening strategy. Planning is underway.
Mental Health/Substance abuse • Binge drinking • Underage drug abuse • Adult drug abuse	• Sanford Health Bismarck is partnering with Face It TOGETHER, a non-profit addiction management organization to help provide substance abuse awareness, education and recovery resources.

Identified Concerns	How Sanford Bismarck is Addressing the Needs
• Underage drinking • Alcohol use and abuse • Smoking and tobacco use • Depression • Stress • Suicide • Dementia	• SHB is a smoke-free campus and provides education and counseling to patients and their families regarding the health hazards of tobacco use and support to quit. Sanford Bismarck offers a smoking cessation program for community members and partners with Burleigh County Public Health and N.D. Department of Health tobacco prevention and control programs. • Sanford Health Bismarck works collaboratively with private providers and treatment centers, Burleigh County Public Health, and West Central Human Service Centers to provide coordinated mental health and behavioral health services to community members. • Sanford Health has partnered with law enforcement, social services providers, and other community care providers to develop a community-wide continuum of care to meet the behavioral health needs of the county. • Sanford Bismarck helped create a community-based youth running group targeting pediatric health including self-esteem, self-confidence and physical fitness. • Sanford Bismarck's partnership in the in-development Family Wellness Center is a key investment in the community's wellness—increased social connectivity and access to community programming increase positive outlook and helps reduce depression and stress.
Transportation • Safe driving habits • Safe transportation	• Non-profit organization Bis-Man Transit Board provides transit to the communities of Bismarck, Mandan and Lincoln. The CAT (Capital Area Transit) is the fixed-route bus system serving Bismarck and Mandan with 12 routes. Bis-Man Transit is partnered with Taxi 9000 to provide public and personal transit throughout the three cities, and is partnered with Jefferson Lines to provide transit to communities throughout North Dakota. • Texting while driving: To enforce the state law prohibiting texting while driving, law enforcement agencies in Burleigh and Morton counties use traditional and innovative methods to detect and cite texting drivers: In addition to uniformed and non-uniformed monitoring, enforcement teams participate in national high-visibility enforcement campaigns. • Pedestrian and bike routes: Bismarck has a well-developed bicycle and pedestrian network. The network—which includes nearly 50 miles of bike trails—facilitates safe travel throughout the city, offers protected travel across major roadways and the Missouri River and access to recreation areas through Bismarck and Mandan. Additionally, the City of Bismarck has incorporated on-street bicycle facilities, which include a combination of bicycle lane and "Share the Road" signage and pavement markings. Solid white lines, signs, and painted bike symbols denote protected bike lanes and indicate the correct riding direction. The City of Bismarck has an ordinance requiring the installation of sidewalks as adjacent development occurs. Additionally, the City of Bismarck has a program, which annually focuses on specific parts of the community, to fill "gaps" in the existing sidewalk network.

2016-2019 Implementation Strategies

Priority 1: Access to Affordable Care
Many factors impact access to affordable care—lifestyle choices, health insurance coverage, proper utilization of health care services and access to medical providers.

Lifestyle choices—nutrition, tobacco use and activity levels—arguably have the greatest impact on health care costs. Smoking and obesity, in particular, increase one's risk for chronic disease. More than 80 percent of health care costs in 2014 were for people with one or more chronic medical conditions.

Twenty-nine percent of Burleigh County residents have a BMI greater than 30. Obesity increases the risk for health conditions such as heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, osteoarthritis, sleep apnea and respiratory problems. Heart disease/stroke and cancer account for 26 percent and 23 percent, respectively, of all deaths in North Dakota.

Health coverage: Predictably, having no health insurance coverage hampers access to care and, most notably, access to preventive care. Uninsured women, as an example, are half as likely to seek mammograms as insured women. Net health care savings from preventive care are difficult to measure quantitatively, but qualitative measurement is readily available. Health insurance coverage is also key to proper utilization of health care services.

Access to providers is increasingly difficult as North Dakota experiences rapid population growth. Perhaps most notable is poor access to behavioral health services. A 2015 North Dakota behavioral health report characterized the state's shortage of services as being in crisis mode.

Priority 2: Substance Abuse
Addiction rates in North Dakota have escalated significantly in recent years, overwhelming community hospitals, treatment centers, legal systems and detention centers. As an example, a new Burleigh/Morton country detention center is being built to accommodate the overload directly attributed to substance abuse. Nearly half of the 2015 inmate population was held for drug- and alcohol-related offenses with a 69 percent recidivism rate. The N.D. State Penitentiary estimates more than 70 percent of its inmate population suffers from addiction.

A recent Mental Health America study indicates the disease of addiction affects 10.2 percent of adults living in North Dakota, slightly higher than the national average. In the Burleigh County community health needs assessment, 8.8 percent of the respondents reported an alcohol use problem and 0.9 percent reported an addiction to prescription medications. Of the respondents who reported ever having a substance abuse problem, nine said they got the help they needed, six did not.

Excessive drinking—more than four drinks for women and five for men—increases one's risk for alcohol poisoning, hypertension, heart disease, sexually transmitted infections, fetal alcohol syndrome, sudden

infant death syndrome, suicide and motor vehicle crashes. Excessive drinking is the third leading lifestyle-related cause of death in the United States (*American Journal of Epidemiology*, 2014).

In Burleigh County, 4.6 percent of respondents reported drinking an average of more than 4 drinks per day on each day they drank in the last month. When asked how many days respondents consumed at least 4 or 5 (4 for women, 5 for men) on one occasion, 15.5 percent reported they did so at least once in the last month. The 2015 *County Health Rankings* indicates that 23 percent of Burleigh County residents report excessive drinking.

When asked if substance abuse has had harmful effects on the respondent or a family member, 13.1 percent reported alcohol has had a harmful effect and 8.1 percent say prescription and/or non-prescription drugs have had a harmful effect.

Priority 1: Access to Affordable Care

Projected Impact: Increase percent of community members accessing preventive and acute care in appropriate setting

Goal 1: Increase access to healthy lifestyle improvement opportunities

Actions/Tactics	Measureable Outcomes	Dedicated Resources	Leadership	Note any community partnerships and collaborations (if applicable)
• Establish Family Wellness Center to provide year-round physical fitness opportunities to community residents. • Support and lead community-wide education initiatives.	Increase percent of residents participating in physical fitness most days of the week.	Sanford Health Bismarck therapy teams	Kirk Cristy, Melanie Carvell and Fred Fridley	Missouri Valley YMCA

Goal 2: Patients are aware of the best coverage options

Actions/Tactics	Measureable Outcomes	Dedicated Resources	Leadership	Note any community partnerships and collaborations (if applicable)
• Extend supportive services to help patients navigate through coverage options • Support "no wrong door" policy to help community members secure health coverage and/or financial	Increase percent of residents with health care coverage.	Sanford Health financial advocacy team	Lori Blees and Kirk Cristy	Burleigh County Social Services, North Dakota Navigator Project, N.D. Bureau of Indian Affairs

Actions/Tactics	Measureable Outcomes	Dedicated Resources	Leadership	Note any community partnerships and collaborations (if applicable)
assistance through the Sanford Health Financial Assistance Program. • Provide connectivity to financial advocacy help to uninsured and underinsured patients and their families. • Provide education and support needed to redirect people using emergency department care for non-emergent services. • Conduct outreach and educational activities to promote access to affordable health care opportunities for minorities, underserved, and vulnerable populations.				

Priority 2: Substance Abuse

Projected Impact: Improve community's substance abuse continuum of care

Goal: Substance abuse services are provided across the full continuum of care

Actions/Tactics	Measureable Outcomes	Resources	Leadership	Note any community partnerships and collaborations - if applicable
• Partner with community stakeholders to identify gaps in continuum of care • Increase community members' awareness of the disease of addiction • Improve access to care	Increased awareness regarding substance abuse	Health coaches, public policy team, human resources	Al Hurley Marnie Walth	Bismarck/Burleigh County Public Health, Burleigh County Social Services, Face It TOGETHER, Burleigh County Sherriff's Office, Bismarck Police Department, N.D.

Actions/Tactics	Measureable Outcomes	Resources	Leadership	Note any community partnerships and collaborations - if applicable
				Department of Human Resources, Reducing Pharmaceutical Narcotics in our Communities, Justice and Mental Health Planning Committee

2013-2016 Implementation Strategies

Implementation Strategy: Diabetes
Three Year Plan (July 2013 – June 2016)

- Increase pre-diabetes education and outreach activities:
    - Partner with N.D. Diabetes Control Project to initiate comprehensive pre-diabetes behavior modification class.
    - Offer weekly "Diabetes 101" classes to improve JIT diabetes education for newly diagnosed patients.
    - Increase pre-diabetes awareness via health fairs, Doc Talk education series and newspaper articles.
- Actively participate with community wellness, fitness and healthy living entities to promote and support fitness and active living by sponsoring walking, screening and educational programs.
- Partner with mental health services to offer depression screenings and support services to patients with diabetes.
- Offer monthly diabetes education classes to community members diagnosed with diabetes.
- Launch *fit*, a partnership that unites Sanford's medical expertise and WebMD's prominence as an on-line medical resource. Together, the groups will work to prevent type 2 diabetes and confront the growing obesity epidemic. The initial stage of *fit* will provide a series of on-line resources that combine information and education with motivation to take action.

Impact

Pre-diabetes and education outreach: Implemented the "Preventing Diabetes Program" for community members newly diagnosed with pre-diabetes. The 16-week course is followed with six monthly check-in and education presentations. Three sessions were completed in 2014-2015. Participants achieved significant health gains during the 16-week portion of the program. As an example, participants needing to lose weight did so during the 16-week portion of the course and maintained the weight loss through the six-month follow-up sessions.

Sanford Health medical providers completed more than 750 free blood sugar screenings at various community wellness events in 2013, 2014 and 2015. Approximately four percent of the screenings indicated high risk for diabetes. Each at-risk person was encouraged to follow up with their primary care doctor, given pre-diabetes education materials, and invited to participate in community education programs.

Sanford Health provided free one-hour community education sessions during the months of September through May in each of the last three years. The combined participant total was 810. Attendees received education on a variety of topics and then were given the opportunity to participate in a question-and-answer session with a medical provider.

Depression screenings were incorporated into all primary care and internal medicine visits. Sanford Health diabetes care givers completed in-service training to better care for patients suffering from or at risk for depression.

Community partnerships: In 2015 Sanford Health partnered with the N.D. Diabetes Coalition to create a statewide pre-diabetes awareness and screening strategy. Planning is underway.

Sanford Bismarck in 2015 partnered with Missouri Valley YMCA and Mandan Parks and Recreation to begin work on a Family Wellness Center. The facility will provide much-needed access to year round fitness opportunities necessary to help combat chronic illnesses including diabetes, obesity and heart disease.

***fit* Kids and Medscape:** These electronic education offerings were not launched; resources were instead directed to other prevention and education activities.

Implementation Strategy: Diabetes

Three Year Plan (July 2013 – June 2016)

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Implementation Strategy: Pediatric Obesity

Three year Plan (July 2013 – June 2016)

- Actively participate with community wellness, fitness and healthy living entities to promote and support fitness and active living by sponsoring walking, screening and educational programs.
    - Increase physician awareness of these programs and encourage increased referrals.
    - Initiate youth-specific running program.
    - Pursue establishing a Girls on the Run chapter for community members.
- Partner with community efforts to address pediatric obesity including, but not limited to, YMCA Fit Kids, Go! Bismarck/Mandan and Bismarck-Burleigh Public Health's BodyWorks and Healthy Kids/Healthy Weight programs.
- Offer healthy eating and active living classes via Sanford Bismarck's Doc Talk education series.
- Launch *fit*, a partnership that unites Sanford's medical expertise and WebMD's prominence as an on-line medical resource. Together the groups are working to prevent type 2 diabetes and confront our nation's childhood obesity epidemic. The initial stage of *fit* will provide a series of on-line resources that combine education with motivation to take action. *fit* is designed to reach, educate and support three audiences through the following platforms:
    - *fit* Kids: Translating on-line learning to off-line healthy living, this fun and interactive site is designed to engage and motivate children and teens.
    - Raising *fit* Kids: This platform for parents and families offers tools and resources to become healthy role models while promoting a child's use of *fit* Kids. The site also includes a portal where parents can discuss questions and topics with others like them as well as receive expert insights from Sanford Health professionals.
    - Medscape: Sanford Health is steering the content of digital CME programming on WebMD's Medscape site, ensuring health care professionals across the globe are positioned to promote *fit*'s healthy living outcomes with children and parents.
- Work with Sanford WebMD *fit* program to leverage this program to parents and children through the local school system.

Impact

Community Wellness: Sanford Health Bismarck sponsored more than 200 wellness-related events throughout Bismarck and Mandan touching more than 20,000 parents and children with fitness-related and active living opportunities and wellness education. By providing opportunities to learn about and practice healthy habits, Sanford Bismarck helped families make healthier eating and activity choices in their own homes. In addition to walk/run events, Sanford health care providers participated in and presented at education-based forums targeting families and children wellness.

Sanford Bismarck providers presented more than 20 free education seminars to parent organizations and youth-based groups. Presentations included targeted, call-to-action messages. As an example, a presentation encouraging whole and natural foods included specific recommendations regarding energy drinks; participants later reported decreased consumption of high-sugar, caffeinated beverages.

Youth Running Program: Sanford Bismarck partnered with community organizations (Bismarck Public Schools, Bismarck Parks and Recreation, CHI St. Alexius, Basin Electric, Dakota Girls and Boys Ranch and Missouri Valley YMCA) to establish a free, community-based youth running program. Established in February 2014, the program has mentored more than 200 at-risk children who have collectively trained for and run more than 100 five-kilometer races. The majority of the participants represent underserved youth populations, children who might not otherwise be targeted for healthy lifestyle choice education.

The program teaches youth healthy lifestyle habits via a structured running program and guest speakers who share healthy eating, fitness and personal wellness information. Participants who complete the program learn to adopt running into their daily routine and experience improved outlook and mood, reduced stress, stronger muscles and bones, reduced risk for obesity and obesity-related diseases and friendship connections.

Community Partnerships: In addition to the community-based running program, Sanford Bismarck in 2015 partnered with Missouri Valley YMCA and Mandan Parks and Recreation to begin work on a Family Wellness Center. The facility will provide much-needed access to children's activities to continue the community's goal of reducing pediatric obesity.

***fit* Kids and Medscape:** These electronic education offerings were not launched; resources were instead directed to the Family Wellness Center to impact both adults and children.

Provider Education: A Sanford obesity symposium held in 2014 and 2015 provided education for medical providers and community leaders. More than 400 health care professionals from the region and beyond registered for the 2014 and the 2015 symposiums. The symposium is designed to enhance the knowledge and competence of participants by providing the latest research associated with the prevention, treatment and management of obesity. The target audience includes primary care physicians, pediatricians and specialty care providers, advanced practice providers, licensed registered dietitians, nurses and other interested health care professionals.

The symposium is an opportunity to provide prevention and treatment practice guidelines for the adult and pediatric population. The planning committee includes several published providers who are sought after nationally and internationally for their expertise.

Sanford is taking a comprehensive and multi-faceted approach to obesity prevention and treatment. The impact is demonstrated through the lives of our community members who have had positive outcomes because of our programs and services.

Health Needs and Community Resources Identified: Resources Summary

To identify resources available to address unmet health needs, the Bismarck Burleigh Community Health Needs Assessment Collaborative completed an informal gap analysis. After categorizing identified needs and before identifying gaps, community resources available to address needs were summarized.

AGING POPULATION	Community Resources Available to Address the Need
• Cost of long term care • Availability of memory care • Availability of long-term care • Availability of resources to help elderly stay in their homes • Availability of resources for family/friends caring/making decisions for elders	AARP, West Central Human Service Center (mental health services, substance abuse treatment services, disability services, aging services) Burleigh County Social Services, Catholic Charities of North Dakota, Easter Seals Goodwill of North Dakota, Good Samaritan Society Home Care, Gracefully Aging (Pride, Inc.), Guardian and Protective Services, Inc., N.D. Long Term Care Association, Lutheran Social Services, N.D. Aging and Disabilities Resource, Northland PACE Senior Care Services, Sanford Help at Home, Sanford Home Health, Sanford Meals on Wheels, Spectrum, CHI St. Alexius Home Health and Hospice, Support Systems, Inc., Visiting Angels, Missouri Slope Lutheran Care Center, Enable, Inc., Volunteer Caregiver Exchange, Baptist Health Care Center, Brandon Heights Village, Crescent Manor, Edgewood Vista, Good Samaritan Society, Maple View East, Maple View North, Sanford Health Marillac Manor, Patterson Place (assisted living), Primrose Retirement Community, Sanford Health St. Vincent's Care Center, Sanford Health Sunset Drive Continuing Care Center, Sanford Health Continuing Care Center Off Collins, St. Gabriel's Community, The Terrace, Touchmark, Valley View Heights, BBPH Home Health Program, CHI St. Alexius Health Palliative Care
CHILDREN & YOUTH	**Community Resources Available to Address the Need**
• Cost of quality child care • Availability of quality child care • Cost of quality infant care • Availability of quality infant care • Bullying • Youth crime	Bismarck Parks and Recreation, Mandan Parks and Recreation, Bismarck Police Youth Bureau, MHA Nation, Native American Development Center, Aquastorm Swim Team, Arc of Bismarck, Bis-Man Tennis Association, Bismarck Midget Football, Bismarck Soccer League, Bismarck Youth Baseball/Fast-pitch Softball, BLAST after school program, Bobcats Youth Hockey, Boy Scouts, Catholic Family Services, Central Dakota Cyclists, Central Dakota Diving Club, Charles Hall Youth Services, Child Care Aware of North Dakota, Dakota Boys & Girls Ranch, Dakota Family Services, Dakota United Soccer Club, Dakota Zoo, Gateway to Science, Girl Scouts, Great Plains Track and Field, Head Start, Missouri Valley YMCA, Mountain Plains Youth Services, Open Door Community Center, Shade Tree Players, Sleepy Hollow Theater & Arts Park, Special Olympics, The Village, Theo Art School, Youth Works, Team Kaizen, United Way

HEALTH CARE (ACCESS/COST)	Community Resources Available to Address the Need
• Access to affordable health insurance • Access to affordable health care • Access to affordable prescription drugs • Cost of affordable dental insurance • Cost of affordable vision insurance • Timely access to mental health providers • Timely access to physician specialists • Coordination of care between providers and services	**Access:** Burleigh County Social Services, Morton County Social Services, patient financial services at local hospitals, ND. Navigator Project, Patient Advocacy, ND Dept. of Human Services, access points in the area for mental health needs, CHI St. A's Partial Hospitalization Program, Archway Mental Health Service, Employee Assistance Program, Inpatient Behavioral Health **Cost:** Patient Navigators in ND, Custer Family Planning, Joanne's Clinic, UND Center for Family Medicine, First Choice Clinic, Blue Cross Member Advocate Program, Caring for Children, Community Care Programs (Sanford/CHI St. A's), ND Department of Insurance, medical assistance programming (Burleigh County Social Services), Missouri Valley Region Coalition for Homeless People, Medical Home Program, Sanford Health case managers and social workers, Sanford Health parish nurses, CHI St. Alexius case managers and social workers, Prime Care Select CIN, Bridging the Dental Gap, Ronald McDonald Care Mobile, Bismarck Burleigh Public Health, Custer Health, Aid, Inc., Burleigh County Senior Adults, Burleigh Veterans Services, Prescription Connection, Salvation Army, Hear-O-Program (donated hearing aids)
CRIME/SAFETY	**Community Resources Available to Address the Need**
• Presence of street drugs, prescription drugs & alcohol • Crime • Presence of drug dealers in the community • Child abuse & neglect • Sex trafficking • Domestic violence • Presence of gang activity • Elder abuse	Pam's House and Hope House (Abused Adult Resource Center), Ruth Meiers Hospitality House, West Central Human Service Center, Bismarck Police Department, Mandan Police Department, God's Child Project, Vulnerable Adults Aging Services, Sanford Victims of Sexual Abuse, Bismarck Burleigh Public Health, N.D. Dept. of Health injury prevention programs, Central Dakota SANE Program, Sanford Health Dakota Children's Advocacy Center
ECONOMICS	**Community Resources Available to Address the Need**
• Availability of affordable housing • Homelessness • Hunger	Bismarck Public Schools, Carrie's Kids, United Way, Great Plains Food Bank, Trinity Lutheran Banquet, Spirit of Life Church Food Pantry, Ministry on the Margins, Burleigh County Housing Authority, Burleigh County Social Services, Legal Services of North Dakota, thrift shops, Sanford Health Community Care Program, CHI St. Alexius Community Care Program, All Nations Assembly of God, Bismarck Emergency Food Pantry, Community Action Program, Corpus Christi Church, Crystal River Ministry Center, Faith Center, Helping Hand Food Pantry, Salvation Army, Stone Soup Kitchen/Ruth Meiers Hospitality House, Missouri Valley Coalition for Homeless People

PHYSICAL HEALTH	Community Resources Available to Address the Need
• Chronic Disease • Inactivity/lack of exercise • Poor nutrition • Obesity	Bismarck Parks and Recreation, City of Bismarck bike and pedestrian trail and roadway transportation systems, Sanford Women's Health Center, Go! Bismarck-Mandan, Let's Move! (N.D. Dept. of Health), Missouri Valley YMCA, Bismarck Public Schools programs and activities, Bismarck Burleigh Public Health (nursing, dietician services and immunization services) and Women's Way Support groups: Stroke, celiac, Alzheimer's Disease, dementia and memory loss care givers, lupus, congenital heart defect support group, mastectomy education, diabetes, Parkinson's Disease, breast cancer, cancer caregivers support group, cancer caregivers support group for men, gluten intolerance, ostomy, surgical weight loss, autism, Compassionate Friends (for bereaved parents who have lost a child), Healthy Steps, Hepatitis B and C support groups, American Cancer Society Look Good/Feel Better (for women undergoing cancer treatment), Look Out for Lymphedema Lord of Life Lutheran Church Cancer Support Group, Multiple sclerosis, A.W.A.K.E. (sleep support group), multiple sclerosis, Us Too! Prostate Cancer Support Group and spondylitis
DIVERSITY	**Community Resources Available to Address the Need**
• Access to translators/bilingual providers	Lutheran Social Services, United Tribes Technical College Wellness Center Native American Development Center, Sanford Health patient support services
MENTAL HEALTH	**Community Resources Available to Address the Need**
• Depression • Stress • Suicide • Other psychiatric diagnosis • Dementia and Alzheimer's Disease	Burleigh County Social Services, Dakota Boys and Girls Ranch, CHI St. Alexius Health Employee Assistance Program, West Central Human Services Center, regional mental and behavioral health providers, Mental Health America of North Dakota, Partnerships Program for Children's Mental Health (N.D. Dept. of Human Services), Pride, Inc., Sanford Health (medical providers, therapists and case workers), CHI St. Alexius Health (medical providers, therapists, case workers), Village Family Service Center, West Central Human Services Center, N.D. Department of Veterans Affairs, Soul Survivor Counseling Services, North Dakota Federation of Families, Kids Therapy Center, NuVation Health Services and CHI St. Alexius Archway Mental Health Services

SUBSTANCE USE & ABUSE	Community Resources Available to Address the Need
• Underage substance abuse • Adult substance abuse • Addiction • Underage drinking • Binge drinking • Tobacco use • Exposure to secondhand smoke	ACS Crisis Residential, ADAPT, Inc., Alcoholics Anonymous, Heartview Foundation, Lutheran Social Services, New Freedom Center, Pathways to Freedom, Sanford Health, CHI St. Alexius Health Archway Mental Health and Employee Assistance Program, Village Family Services, CHI St. Alexius Health Partial Hospitalization (emotional and behavioral health therapy), West Central Human Service Center (mental health services, substance abuse and addiction treatment services), Whole Person Recovery Center, Bismarck Burleigh Public Health, Tobacco Prevention and Control Program (N.D. Dept. of Health), First Link, Teen Challenge, Hope Manor (sober living), Runners Against Destructive Decisions (RADD)
TRANSPORTATION	**Community Resources Available to Address the Need**
• Driving habits • Availability of good walking or biking options	Bis-Man Transit, Burleigh County Veterans Affairs transit services, CAT (Capital Area Transit) bus service, N.D. Safety Council, Students Against Drunk Drivers (SADD), Bismarck Public Schools, City of Bismarck Engineering Department, Bismarck Parks and Recreation, Burleigh County Parks and Recreation
ENVIRONMENT	**Community Resources Available to Address the Need**
• Hazardous waste • Water quality • Air quality • Home septic systems	Bismarck Environmental Health Services, Custer Health, Burleigh County Building Inspections, City of Bismarck Inspections Department, N.D. Department of Health

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