Sanford Health of Northern Minnesota
**Community Health Needs Assessment**
2012-2013

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HEALTH

# Sanford Bemidji Medical Center

# Community Health Needs Assessment
# 2012-2013

**rev. 6/14/13**

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# Sanford Bemidji
# Community Health Needs Assessment
# 2012-2013

## Purpose

Sanford Bemidji is part of Sanford Health, an integrated health system headquartered in the Dakotas and Minnesota, the largest rural not-for-profit health care system in the nation with locations in 126 communities in eight states.

Sanford Bemidji Medical Center has undertaken a Community Health Needs Assessment as required by the Patient Protection and Affordable Care Act, 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.

PPACA requires that each hospital must have: (1) conducted a community health needs assessment in the applicable taxable year; (2) adopted an implementation strategy for meeting the community health needs identified in the assessment; and (3) created transparency by making the information widely available. For tax-exempt hospital organizations that own and operate more than one hospital facility, as within Sanford Health, the new tax-exemption requirements will apply to each individual hospital. The first required needs assessment falls within the fiscal year July 1, 2012 through June 30, 2013.

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 our community. 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 Investment/Community Benefit Program that builds on community assets, promotes collaboration, improves community health, and promotes innovation and research. A community health needs assessment also serves to validate progress made toward organizational strategies and provides further evidence for retaining not-for-profit status.

# Acknowledgements

Sanford Health would like to acknowledge and thank the Steering Committees and the Greater Fargo Moorhead Community Health Needs Assessment Collaborative for their expertise while performing the assessment and analysis of the community health data. The assessment provides support for the future directions of our work as the region's leading health care system.

**We express our gratitude to the following individuals and groups for their participation in this study.**

We extend special thanks to the city mayors, city council/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."

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

The following key community stakeholders participated in this assessment work:
- Bonnie Anderson, Business Services Director, Sanford Bemidji, Bemidji, MN
- Peter Aube, Board Member, Sanford Bemidji, Bemidji, MN
- Dennis Barrett, Surgical Nurse, Sanford Bemidji, Bemidji, MN
- Melissa Barrus, Medical Social Worker, Sanford Bemidji, Bemidji, MN
- James Benson, President Emeritus, Bemidji State University, Bemidji, MN
- Theresa Bentler, Oncology Nurse, Sanford Bemidji, Bemidji, MN
- Craig Boyer, CFO, Sanford Bemidji, Bemidji, MN
- John O. Boyle, Retired Professor, Bemidji, MN
- Kathy Burger, Bemidji, MN
- Eileen Campbell, Secretary, Community Ed, Bemidji Area Schools, Bemidji, MN
- Curtis Crist, Heart & Vascular Supervisor, Sanford Bemidji, Bemidji, MN
- Leslie Darmofal, Nursing Faculty Member, Northwest Technical College, Bemidji, MN
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- Mark Dwyer, Physician, Sanford Bemidji, Bemidji, MN
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- Marilyn Heltzer, Retired, Bemidji, MN
- Steven Hostetter, President, Oak Hills Christian College, Bemidji, MN
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- Ken Howe, President, Northland Connect Broadband, Bemidji, MN
- Tom Hruby, Registered Financial Representative, Hruby-Wilde Financial Group, Bemidji, MN
- Rose Huckins, Senior Executive Assistant, Sanford Bemidji, Bemidji, MN
- Jeanne Edevold Larson, Executive Director, Northern Dental Access, Bemidji, MN
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- Patricia Kelly, Retired Hospital Foundation Board Member, Bemidji, MN
- Warren Larson, Director of Public Affairs, Sanford Bemidji, Bemidji, MN
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- Glen Lindseth, CPA, Miller McDonald, Inc., Bemidji, MN
- Kell Lovell, Dentist, Bemidji, MN
- Sara Lusignan, Director of Finance, Sanford Bemidji, Bemidji, MN
- Betty J. Magnan, Educator, Bemidji, MN

- Mary Marchel, Director, Beltrami County Health & Human Services, Bemidji, MN
- Sally Marushka, Director of Physician Services, Sanford Bemidji, Bemidji, MN
- Michael Mastin, Chief of Police, Bemidji Police Department, Bemidji, MN
- Bruce Meade, Senior Vice President, Ultima Bank Minnesota, Blackduck, MN
- Mary Miller, Director, Sanford Bemidji, Bemidji, MN
- Brad Neis, Director of Rehab Services, Sanford Bemidji, Bemidji, MN
- John Ostrem, Retired Community Volunteer, Bemidji, MN
- Wendy Otness, Clinical Supervisor, Sanford Bemidji, Bemidji, MN
- Ron Otterstad, Small Business Owner, Bemidji, MN
- Donna Palivec, Professor, Bemidji State University, Bemidji, MN
- Ron Porter, Retired Educator, Bemidji, MN
- Wendy Potrarz, Doctoral Student, Bemidji, MN
- John Reff, Manager, Slumberland, Bemidji, MN
- Judy Roy, Redby, MN
- Barry Royce, Cardiology Nurse, Sanford Bemidji, Bemidji, MN
- Lois Rydeen, Director of Patient Care, Sanford Bemidji, Bemidji, MN
- Jennifer Sanford, Office Administrator, United Way, Bemidji, MN
- Janna Schiltz, Administrative Assistant, P & C Insurance, Bemidji, MN
- Carrie Scott, HIM Manager, Sanford Bemidji, Bemidji, MN
- Susan Shelquist, Coordinator of School Age Child Care, Bemidji School District, Bemidji, MN
- Dianne Sizer, Retired Teacher, Bemidji, MN
- Rebecca Snyder, Educational Success Coord., Beltrami Area Service Collaborative, Bemidji, MN
- Chris St. Peter, Radiology Department, Sanford Bemidji, Bemidji, MN
- Dean Thompson, Owner, Ken K. Thompson Jewelry, Bemidji, MN
- Barb Treat, Account Executive, Minnesota Public Radio, Bemidji, MN
- Scott Turn, VP, Security Bank USA, Bemidji, MN
- Joe Vene, Beltrami County Commissioner, Bemidji, MN
- Michelle Walker, Hydrologist, Minnesota DNR, Bemidji, MN
- Anthony Walzer, Natural Resource Specialist, DNR, Bemidji, MN
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- Ted Will, Retired Physician, Bemidji, MN
- Linda Yourczek, Beltrami County Public Health Director, Bemidji, MN
- Dennis Zeto, Securities Salesman, Nations Financial Group, Bemidji, MN
- Allen Zutz, Financial Associate, Thrivent, Bemidji, MN

# Sanford Bemidji Medical Center

# Community Health Needs Assessment
## 2012-2013

## 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 community. 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 Investment/Community Benefit Program that builds on community assets, promotes collaboration, improves community health, and promotes innovation and research. A community health needs assessment also serves to validate progress made toward organizational strategies and provides further evidence for retaining not-for-profit status.

### Study Design and Methodology

Sanford Health Fargo convened key health care leaders and other not-for-profit leaders in the Fargo Moorhead community to establish a Fargo Moorhead Community Health Needs Assessment Collaborative. A primary goal of this collaborative is to craft standardized tools, indicators and methodology that can be used by all group members when conducting assessments and also be used by all of the Sanford medical centers across the enterprise. After much discussion, it was determined that the Robert Wood Johnson Framework for county profiles would be our secondary data model.

A subgroup of this collaborative met with researchers from the North Dakota State University Center for Social Research to develop a survey tool for our key stakeholder groups. The survey tool incorporated the University of North Dakota's Center for Rural Health community health needs assessment tool and the Fletcher Allen community health needs assessment tool. North Dakota State University and the University of North Dakota Center for Rural Health worked together to develop additional questions and to ensure that scientific methodology was incorporated in the design.

This community health needs assessment was conducted during FY 2012 and FY 2013. The main model for our work is the Association for Community Health Improvement's (ACHI) Community Health Needs Assessment toolkit.

The following qualitative data set was studied:
- Community Health Needs Assessment of Community Leaders

The following quantitative data sets were studied:
- 2011 County Health Profiles for Beltrami and Clearwater Counties
- Aging Profiles for Beltrami and Clearwater Counties
- Diversity Profiles for Beltrami and Clearwater Counties

Secondary research was conducted through a review of the 2012 Community Health Needs Assessment – Beltrami County, MN. The assessment was conducted by the Mississippi Headwaters Area Dental Health Center through the BPHC Community Health Center Planning Grant. (See Appendix)

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

Each unmet need was researched to determine what resources were available in the community to address the needs. The Sanford Bemidji CHNA Steering Group performed the resource identification and asset mapping exercise to determine the availability of key services within the community that can address the unmet needs. The group conducted an informal gap analysis to determine what needs remained after resources were thoroughly researched. Once gaps were determined the group proceeded to the prioritization process. The multi-voting methodology was implemented to determine what top priorities would be further developed into implementation strategies.

**Key Findings – Primary Research**

Sanford Bemidji distributed the community health needs assessment survey tool that was developed by the Greater Fargo-Moorhead Community Health Needs Assessment Collaborative to key stakeholder groups as a method of gathering input from a broad cross section of the community.

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. The list of individuals who agreed to take the survey and also submit their names are included in the acknowledgement section of this report. 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.

The findings discussed in this section are a result of the analysis of the survey qualitative data.

Respondents had very high levels of agreement that their community has educational opportunities and programs; there is quality health care; they enjoy an informal, simple, "laidback" lifestyle; and the community is a good place to raise kids. However, respondents agreed the least that there is tolerance, inclusion, and open-mindedness in their community.

Respondents were most concerned about substance abuse, child abuse and neglect and domestic violence, and issues regarding the false sense of entitlement, mental health care and the cost and availability of services for the elderly. Respondents were also concerned with issues regarding youth (e.g. teen pregnancy, bullying, truancy). Environmental issues regarding garbage and litter, water quality, air quality, and noise levels were not a large concern.

Among health and wellness concerns, respondents were most concerned about the costs associated with health insurance, health care, use of emergency services for primary care, adequacy of health insurance (e.g., amount of co-pays and deductibles, consistency of coverage), and the cost of prescription drugs. Respondents were also concerned about physical health issues, particularly obesity, poor nutrition and eating habits, and inactivity or lack of exercise, as well as chronic disease (e.g., diabetes, health disease, multiple sclerosis), cancer and depression were also among the top health and wellness concerns among respondents. Respondents were least concerned about availability of bilingual providers and/or translators, patient confidentiality, and distance to health care services.

Respondents had fairly high levels of agreement that people in their community are friendly, helpful, and supportive and that there is a sense of community or feeling connected to people who live here. Respondents said that cost of living and affordable housing was another asset within the community.

Respondents had a high level of concern with economic issues related to poverty, low wages, and the cost of health care and or insurance. Respondents had moderate levels of concern with homelessness, hunger and the availability of employment opportunities, economic disparities between higher and lower classes. Respondents were least concerned with the availability of affordable housing and the cost of living.

Respondents were most concerned with availability of good walking or biking options. Respondents were least concerned with traffic congestion.

Respondents were not very concerned with environmental issues in their community. Garbage and litter concerns were more of a concern than water, noise and air quality.

The levels of concern among respondents regarding substance use and abuse issues in their community were fairly high. Respondents were most concerned about drug and alcohol use and abuse. Although still ranking high, respondents were least concerned about smoking.

The top three reasons respondents gave for their choice of primary health care provider were location, availability of services, and quality of services.

Two in five respondents said they had not had a cancer screening or cancer care in the past year. The most common reason for not having done so was because it was not necessary or that the doctor had not recommended it. Fear, cost, and inability to access care were not considered primary concerns.

A majority of respondents said they had paid for health care costs over the last 12 months by health insurance through an employer. Medicare, personal income, and private health insurance were also used.

Respondents were asked which provider they used for their primary health care. Ninety-five percent (95%) of respondents said they use Sanford Health as their primary health care provider. Five percent (5%) said they use other providers.

**Key Findings – Secondary Research**

### HEALTH OUTCOMES

The Mortality health outcomes indicate that the state of Minnesota and Clearwater County have fewer premature deaths than the national benchmark. Beltrami County, Minnesota has a much higher rate than the national benchmark.

The Morbidity health outcomes indicate that Minnesota and Beltrami County citizens report more days of poor health than the national benchmark; however, Clearwater County reports better health days. Minnesota, Beltrami County and Clearwater County report more physically unhealthy days than the national benchmark.

Minnesota, Beltrami County, and Clearwater County report more mentally unhealthy days than the national benchmark.

Minnesota has a higher percentage of low birth weight than the national benchmark; however, Beltrami County has a lower percentage of low birth weight than the national benchmark. Clearwater County data was not available for birth weight.

### HEALTH FACTORS

The Health Behavior outcomes indicate that the state of Minnesota and Beltrami County have higher percentages of adult smokers than the national benchmark. Adult obesity is also higher in the state of Minnesota and in Beltrami and Clearwater Counties. Beltrami County and the state of Minnesota have a lower percentage of physical inactivity than the national benchmark, while Clearwater County sits at the same level as the national benchmark.

Minnesota and Beltrami County have a substantially higher percentage (20% in MN and 22% in Beltrami County vs. the national rate at 8%) of binge drinking reports than the national benchmark. The state of Minnesota and is near the national benchmark for motor vehicle deaths; however, Beltrami County has

more than twice the national benchmark. There was no data available for Clearwater County regarding the motor vehicle crash death rate.

Sexually transmitted infections rank substantially higher than the national benchmark for Minnesota, Beltrami and Clearwater counties. The teen birth rate is also substantially higher in Minnesota, Beltrami County and Clearwater County than the national benchmark.

The Clinical Care outcomes indicate that Minnesota and Beltrami County have a lower percentage of uninsured adults, while Clearwater County has a slightly higher percentage. The percentage of uninsured youth is the same in Beltrami County as the national benchmark, but is higher in Clearwater County and lower in Minnesota as a whole.

The ratio of population to primary care physicians is near the same in Minnesota as the national benchmark. The Beltrami County and Clearwater County ratios are substantially higher than the national benchmark. The ratio of population to mental health providers is much more favorable in Minnesota and in Beltrami County than the national benchmark; however, it is significantly less favorable in Clearwater County. The number of professionally active dentists is lower than the national benchmark in Minnesota and in Beltrami County. There is no data available for Clearwater County. Preventable hospital stays are higher than the national benchmark in Minnesota, Beltrami and Clearwater Counties.

Diabetes screening in Minnesota is slightly lower than the national benchmark and is significantly lower than the national benchmark in Beltrami and Clearwater counties. Clearwater County ranks higher than the national benchmark for mammography screenings, while both Minnesota is slightly under the national benchmark and Beltrami County is significantly lower.

The Social and Economic Factor outcomes indicate that Minnesota, and Beltrami and Clearwater counties all have a lower high school graduation benchmark than the national benchmark; however, Minnesota has a higher percentage of post-secondary education. Both Beltrami and Clearwater counties have a lower benchmark of post-secondary education than the national benchmark and the state as a whole. The unemployment rate was substantially higher in Minnesota, Beltrami and Clearwater counties than the national benchmark. The percentage of child poverty is substantially higher in Beltrami and Clearwater counties than the national benchmark; however, Minnesota as a state is sitting at the same benchmark as the nation for childhood poverty.

Inadequate social support in Beltrami County is slightly higher than the national benchmark; however, Minnesota as a state is at the national benchmark.
The percentage of children in single parent households is higher than the national benchmark in Minnesota, Beltrami and Clearwater counties. The number of homicide deaths in Minnesota is higher than the national benchmark and in Beltrami County the rate is nearly nine times higher than the national benchmark.

The Physical Environment outcomes indicate that there is no air pollution or ozone pollution in this area. Access to healthy food is ranked far below the national benchmark. In this rural area there can be a far distance to travel to grocery stores, and there are food deserts in some communities where only a gas station convenience store is close to home. Access to recreational facilities ranks lower than the national benchmark for Minnesota, Beltrami and Clearwater counties.

Youth account for 25% of the population in Beltrami County and 24% of the population in Clearwater County. Elderly account for 13% of the population in Beltrami County and 19% of the population in Clearwater County. Sixty-nine percent (69%) of Beltrami County is rural compared to 29% of Minnesota and 21% as the national benchmark. Clearwater County is 100% rural.

Only 4% of Minnesotans and 1% of the Beltrami and Clearwater County population is not proficient in English compared to the national benchmark, which is 9%. Minnesota at 6%, and Beltrami and Clearwater Counties at 6% and 8% respectively have a low illiteracy rate compared to the national benchmark of 15%.

The population for this area is relatively young with only 2-3% older than 85 years of age. In Beltrami County only 13 % are older than 65 years of age. In Clearwater County 19% are older than 65 years of age.

The gender distribution is 50-50 in Beltrami and Clearwater counties. Minnesota as a state is 45% male and 55% female.

The majority of individuals in this region own their homes with ownership in Minnesota at 73%, Beltrami County 70%, and Clearwater County 80%.

According to the 2010 Census Data, the population of working age in the labor force ranges from 69-77% in Minnesota. In Beltrami 66% and in Clearwater County 65% of the working-age population is in the labor force. The percentage of those who are living at less than 100% of the poverty level is 20% in Beltrami County and 16% in Clearwater County. In Beltrami County 41% and in Clearwater County 42 % are at less than 200% of the poverty level.

The median annual household income in Minnesota is $57,243 and in Beltrami County the annual income is $43,394. Clearwater County has an annual income of $39,310.

The population distribution from the 2010 U.S. Census Summary by race demonstrates Minnesota, Beltrami County and Clearwater County are predominantly white followed by American Indian with a population of 9,004 in Beltrami County and 782 in Clearwater County. Hispanic origin is the third leading population. Asian origin is fourth in Beltrami and there are slightly more black Americans in Clearwater County than Asian Americans. American Indians rank fifth in Minnesota (60,916 total population) as the leading race by population.


**Implementation Strategy**

The following unmet needs were identified through a formal community health needs assessment, resource mapping and prioritization process:
- Mental Health Services
- Obesity

Implementation Strategy:  Mental Health Services
Two-Year Plan
- Completion of full integration of Behavioral Health services or access to Behavioral Health outreach in all regional clinic sites in the Bemidji Region

- Complete presentation of outcomes of first three years of integrated Behavioral Health services
- Implement Integrated Behavioral Health into new clinics
- Completion of American Indian Behavioral Health Service serving the Bemidji Region
- Develop Behavioral Health programming for hospital patients, particularly in the emergency, medical and intensive care units, in collaboration with existing community-based Behavioral Health providers

<u>Implementation Strategy:  Obesity</u>

Two-Year Plan
- Develop a comprehensive weight management program within the Bemidji Region using an interdisciplinary team inclusive of medical, nutrition, Behavioral Health and fitness professionals, as well as weight loss surgery services
- Implement Sanford Frontiers weight management program within the Bemidji Region
- 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

# Sanford Bemidji
# Community Health Needs Assessment
# 2012-2013

Sanford Health, long been dedicated to excellence in patient care, is on a journey of growth and momentum with vast geography, cutting edge medicine, sophisticated research, advanced education and a health plan. Through relationships built on trust, successful performance, and a vision to improve the human condition, Sanford seeks to make a significant impact on health and healing. We are proud to be from the Midwest and to impact the world. The name Sanford Health honors the legacy of Denny Sanford's transformational gifts and vision.

**Our Mission:** *Dedicated to the Work of Health and Healing*
We provide the best care possible for patients at every stage of life, and support healing and wholeness in body, mind and spirit.

**Our Vision:** *To improve the Human Condition through Exceptional Care, Innovation and Discovery*
We strive to provide exceptional care that exceeds our patients' expectations. We encourage diversity in thought and ideas that lead to better care, service and advanced expertise.

**Our Values:**
- **Courage**: *Strength to persevere, to use our voice and take action*
- **Passion:** *Enthusiasm for patients and work, commitment to the organization*
- **Resolve:** *Adherence to systems that align actions to achieve excellence, efficiency and purpose*
- **Advancement:** *Pursuit of individual and organizational growth and development*
- **Family:** *Connection and commitment to each other*

**Our Promise:** *Deliver a flawless experience that inspires*
We promise that every individual's experience at Sanford—whether patient, visitor or referring physician—will result in a positive impact, and for every person to benefit from a flawless experience that inspires.

**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*

## Description of Sanford Bemidji Medical Center

Sanford Bemidji Medical Center in Bemidji, MN, originally founded in 1898, is built on a tradition of transforming health care with a commitment to ensuring that every community member has access to the highest quality care close to home.

With 118 beds, Sanford Bemidji is the region's largest hospital, with over 6,500 admissions, over 262,000 outpatient visits, and over 1,000 births per year. As a regional hub, the Emergency Department, a level IV trauma center, treats over 27,000 patients a year. As a provider of specialized services, Sanford Bemidji also offers expanded services in areas of cancer, cardiology, orthopedics and women's health.

Sanford Health of Northern Minnesota, inclusive of Sanford Bemidji, is an integrated health care system built from mergers in 2009 and 2011, and has more than 1,500 employees, 123 physicians/advanced practice providers, and 143 acute care beds. The region includes hospitals in Bemidji and Bagley, eight clinics with locations in Bagley, Baudette, Bemidji, Blackduck, Cass Lake, Clearbrook, Kelliher and Walker, MN, and senior services that include behavioral health, subsidized apartment living, skilled nursing care, assisted living, home care and hospice.

As caregivers, neighbors and friends, Sanford Bemidji employees are dedicated to improving the health and wellness of the region's people. Beyond providing medical care, Sanford supports and partners with local and national organizations that know and serve the communities across our region. Together, we work to provide health care awareness, education, prevention, fundraising and research for the health care issues that matter most to our communities.

## Description of the Community Served

Bemidji, the first city on the Mississippi River, offers a relaxed, small town atmosphere with the amenities of a big city. Located in north central Minnesota, Bemidji is situated at the intersection of US Highway 71 and US Highway 2, approximately 230 miles northwest of the Minneapolis/St. Paul metropolitan area. Bemidji is the county seat of Beltrami County, with an estimated 250,000 residents living within 75 miles of the community. Bemidji is the regional hub for educational services, health care, retail shopping, transportation, finance and governmental services. It is also serves as the central hub for the Red Lake, White Earth and the Leech Lake Indian Reservations.

Bemidji is located near many popular recreational destinations, including Itasca State Park, Lake Bemidji State Park, state forest areas, and the Chippewa National Forest. There are 400 fishing lakes within 25 miles of the city, and over 500 miles of snowmobile trails and 160 kilometers of cross-country ski trails are located in and around Bemidji. During the summer, more than 25,000 visitors per month stop to take photographs at the iconic statues of Paul Bunyan and Babe the Blue Ox. In Bemidji you can enjoy limitless year round outdoor recreation, making it one of Outdoor Living Magazines "Top Towns."

## Study Design and Methodology

In May 2011 Sanford Health Fargo convened key health care leaders and other not-for-profit leaders in the Fargo Moorhead community to establish a Fargo Moorhead Community Health Needs Assessment Collaborative. A primary goal of this collaborative is to craft standardized tools, indicators and methodology that can be used by all group members when conducting assessments and also be used by

all of the Sanford medical centers across the enterprise. After much discussion it was determined that the Robert Wood Johnson Framework for county profiles would be our secondary data model.

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. The list of individuals who agreed to take the survey and also submit their names are included in the acknowledgement section of this report. 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.

A subgroup of this collaborative met with researchers from the North Dakota State University Center for Social Research to develop a survey tool for our key stakeholder groups. The survey tool incorporated the University of North Dakota's Center for Rural Health community health needs assessment tool and the Fletcher Allen community health needs assessment tool. North Dakota State University and the University of North Dakota Center for Rural Health worked together to develop additional questions and to assure that scientific methodology was incorporated in the design.

Finally, it was the desire of the collaborative that the data would be shared broadly with others and that if possible it would be hosted on a web site where there could be access for a broad base of community, state and regional individuals and groups.

This community health needs assessment was conducted during FY 2012 and FY 2013. The main model for our work is the Association for Community Health Improvement's (ACHI) Community Health Needs Assessment toolkit.

The following qualitative data sets were studied:
- Community Health Needs Assessment Survey of Bemidji Community Leaders

The following quantitative data sets were studied:
- 2011 County Health Profiles for Beltrami and Clearwater counties
- Aging Profiles for Beltrami and Clearwater counties
- Diversity Profiles for Beltrami and Clearwater counties

Secondary research was conducted through a review of the 2012 Community Health Needs Assessment – Beltrami County, MN. The assessment was conducted by the Mississippi Headwaters Area Dental Health Center through the BPHC Community Health Center Planning Grant. (See Appendix)

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

Each unmet need was researched to determine what resources were available in the community to address the needs. The Sanford Bemidji Community Health Needs Assessment Steering Group performed the asset mapping and reviewed the findings. The group conducted an informal gap analysis to determine what need remained after resources were thoroughly researched. Once gaps were determined the group proceeded to the prioritization process. The multi-voting methodology was implemented to determine what top priorities would be further developed into implementation strategies.

**Bemidji Community Health Needs Assessment Survey of Community Leaders**

The purpose of the community leader survey was to explore the views of key leaders in the greater Bemidji/Bagley area (e.g., health professionals, social workers, educators, elected leadership, and nonprofit leaders) regarding the resident population's health and the prevalence of disease and health issues within the community.

The survey instrument was developed in collaboration with the FMCHNAC and used to survey the residents of the Bemidji, Beltrami and Clearwater counties. Thirty questions were included in the survey focusing on community assets, general concerns about communities, community health and wellness concerns, and demographic information.

The community leaders' survey also included a set of questions at the end relating to the respondents' name, title, affiliation, area of expertise, city/town, and state. These questions were included to fulfill the current interpretation of IRS requirements for non-profit hospitals conducting community health needs assessments as part of the new compliance requirements imposed by the PPACA law on March 23, 2010. The community leaders who chose to include their names are included in the acknowledgement section of this report. Data was collected through mid-June. A total of 100 surveys were completed.

**2011 County Health Profiles**

The County Health Profiles are based largely on the County Health Rankings from the Mobilizing Action Toward Community Health (MATCH), a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. State and national benchmarking required additional data sources including the U.S. Census Bureau, Small Area Health Insurance Estimates, and the Center for Disease Control and Prevention's National Center for Health Statistics – the Health Indicators Warehouse.

**Aging Profiles**

The Aging Profiles are based on data from the U.S. Census Bureau, 2010 Census Summary File 1, and 2006-2010 American Community Survey Five-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across age categories; however, because they are based on

sample data, one should use caution when interpreting small numbers. Blank values reflect data that is missing or not available.

**Diversity Profiles**

The Diversity Profiles are based on data from the U.S. Census Bureau, 2010 Census Summary File 1, and 2006-2010 American Community Survey Five-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across race and ethnic categories; however, because they are based on sample data, one should use caution when interpreting small numbers. Blank values reflect data that is missing or not available. Racial categories not represented include Native Hawaiian and Other Pacific Islander alone, Some Other Race alone, and Two or More races.

**Limitations**

At the time of this community health needs assessment there were multiple assessments being conducted in the community. While there is great collaboration within the community partnerships there was not one tool selected for the assessment due to the timing of each respective survey launch. In the future there is great opportunity to build the survey tools together and to collaborate to determine critical data needs.

The survey asked for individual perceptions of community health issues and is subjective to individual experiences which may or may not be the current status of the community.

# Primary Research

**Summary of the Survey Results**

Respondents had very high levels of agreement that their community has educational opportunities and programs, the community is a good place to raise kids, and there is quality health care. However, respondents agreed the least that there is tolerance, inclusion and open-mindedness in their community.

Respondents were most concerned about domestic violence and issues regarding the aging population (e.g. availability and cost of long-term care, availability of resources to help elderly stay in their homes, and availability of resources for family and friends caring for elders). Respondents were also concerned with issues regarding children and youth (e.g. availability and cost of quality child care, bullying, availability and cost of services for at-risk youth, and child abuse and neglect). Environmental issues regarding garbage and litter, water quality, air quality, and noise levels were not a large concern.

Among health and wellness concerns, respondents were most concerned about the costs associated with health insurance, health care, and prescription drugs. Respondents were also concerned about physical health issues, particularly obesity, poor nutrition and eating habits, and inactivity or lack of exercise. The adequacy of health insurance (e.g. amount of co-pays and deductibles) and access to health insurance coverage (e.g. pre-existing conditions), as well as chronic disease (e.g., diabetes, health disease, multiple sclerosis), and depression were also among the top health and wellness concerns

among respondents. Respondents were least concerned about patient confidentiality and distance to health care services.

*Community Assets/Best Things about the Community*

Using a 1 to 5 scale, with 1 being "not at all" and 5 being "a great deal," respondents were asked to rate their level of agreement with various statements about their community regarding people, services and resources, and quality of life.

**People (Figure 1)**

- Respondents indicated the top five community assets or best things about the community were: people are friendly, helpful, and supportive, the community is socially and culturally diverse, and there is a sense of community or feeling connected to people who live here.
- Although still a moderate level of agreement, respondents agreed the least that there is tolerance, inclusion, and open-mindedness in their community.

Figure 1. Level of agreement with statements about the community regarding PEOPLE
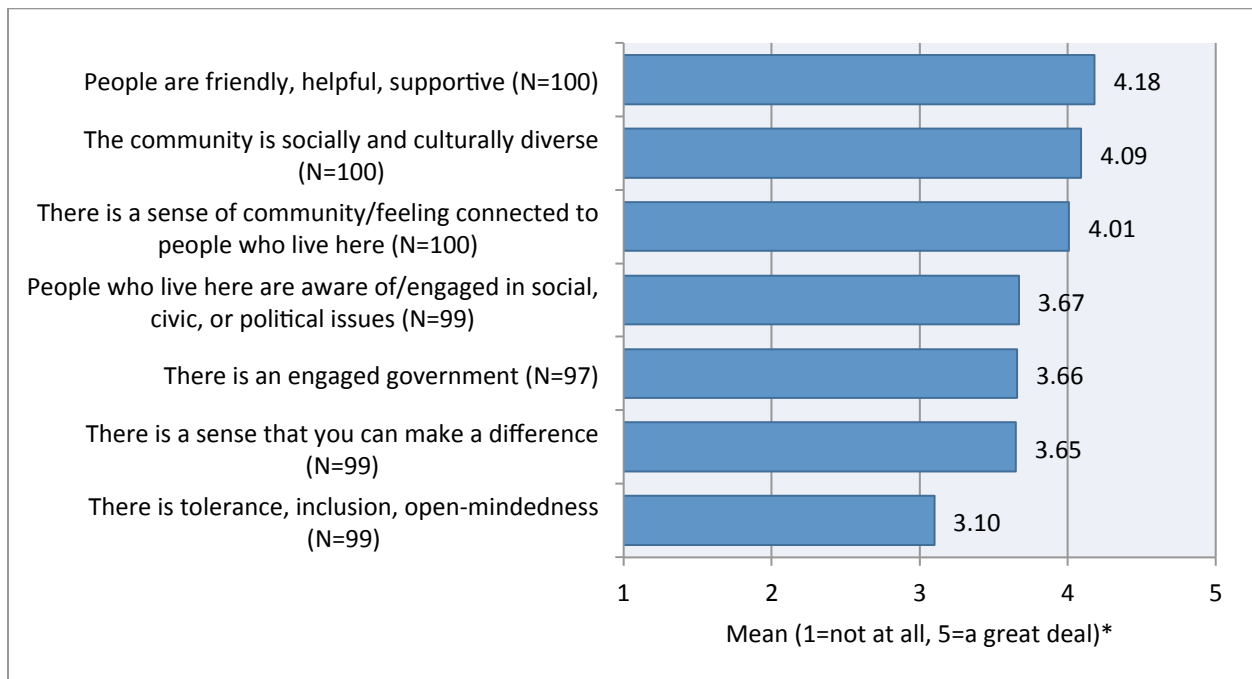
**Services and Resources (Figure 2)**

- Respondents had a high level of agreement that there are quality higher education opportunities and institutions in their community and there are quality school systems and programs for youth.
- Respondents agreed the least that there is effective transportation.

Figure 2. Level of agreement with statements about the community regarding SERVICES AND RESOURCES
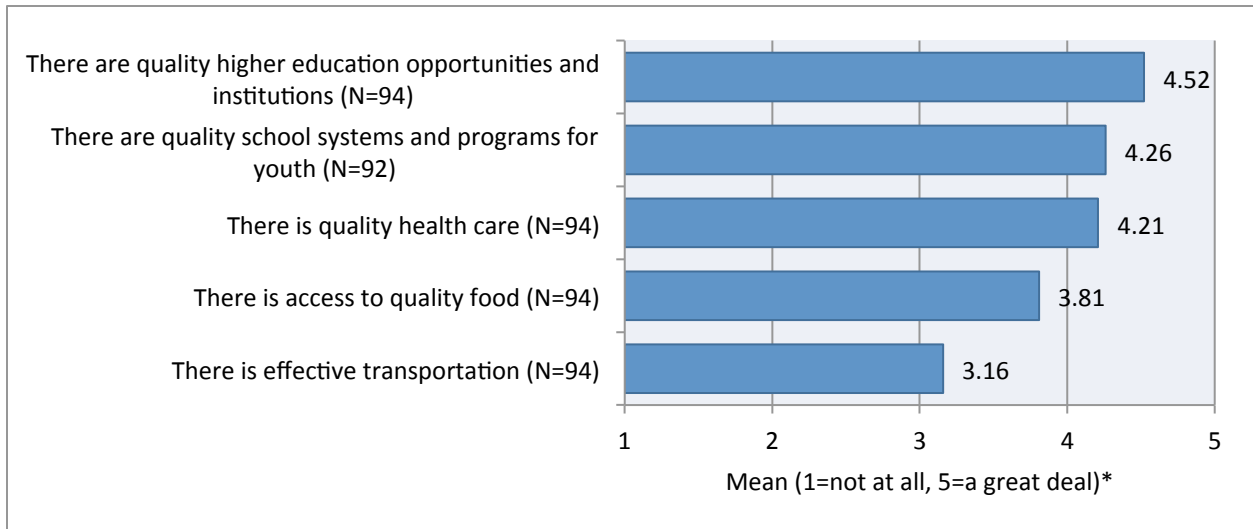


*Means exclude "do not know" responses.

**Quality of Life (Figure 3)**

- Respondents had high agreement with  the community has an informal, simple, "laidback lifestyle", has a family friendly environment and is a good place to raise kids, is a healthy place to live, has peaceful, calm, quiet environment and sense of cultural richness.
- Respondents agreed the least that the community is a safe place to live with little or no crime.

Figure 3. Level of agreement with statements about the community regarding QUALITY OF LIFE
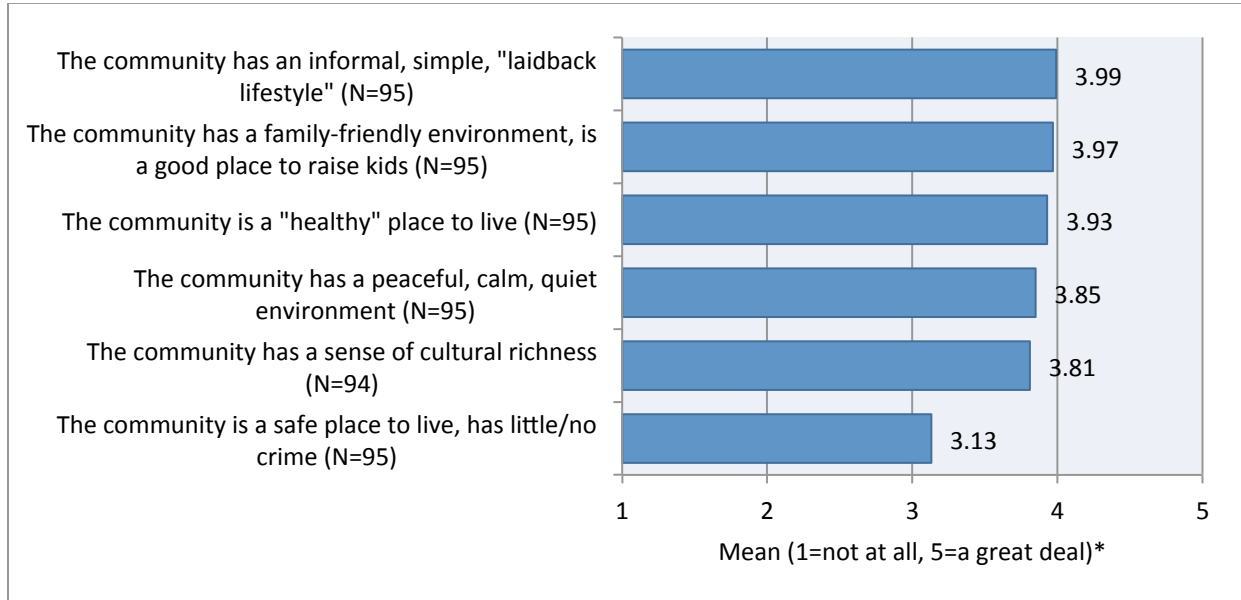


*Means exclude "do not know" responses.

**Geographic Setting (Figure 4)**

- Respondents agreed that there is a short commute to work and the community has a general cleanliness.

Figure 4. Level of agreement with statements about the community regarding the GEOGRAPHIC SETTING
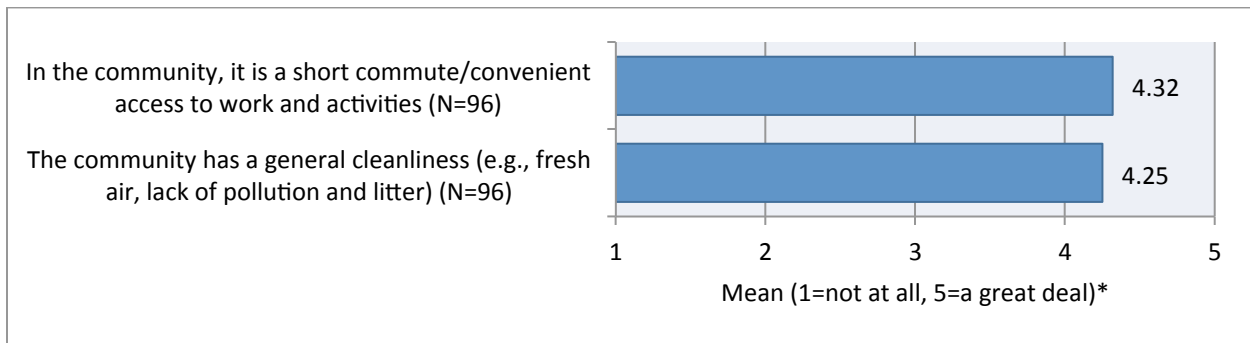


*Means exclude "do not know" responses.

**Activities (Figure 5)**

- Respondents agreed the most that there are many recreational sports activities.
- Although moderate agreement, respondents agreed the least that there many activities for seniors.

Figure 5. Level of agreement with statements about the community regarding ACTIVITIES
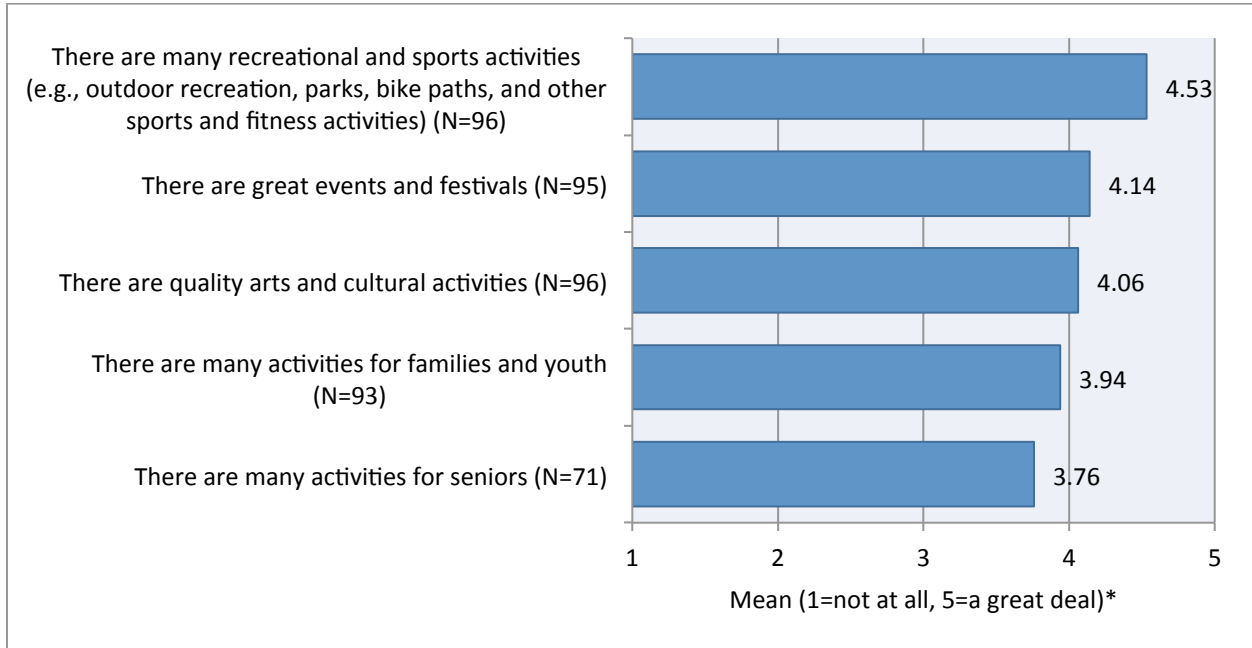


*Means exclude "do not know" responses.

*General Concerns about the Community*

Respondents were asked to rate their level of concern with various statements regarding ECONOMIC ISSUES, SERVICES AND RESOURCES, TRANSPORTATION, ENVIRONMENTAL POLLUTION, YOUTH CONCERNS, and SAFETY CONCERNS in their community.

**Economic Issues (Figure 6)**

- Respondents were most concerned about poverty, cost of health care and/or insurance, and low wages.
- Although there was moderate concern, the respondents were the least concerned about available affordable housing and the cost of living.

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



Poverty (N=91) — 4.24
Cost of health care and/or insurance (N=91) — 4.07
Low wages (N=92) — 4.07
Economic disparities between higher and lower classes (N=93) — 3.85
Homelessness (N=90) — 3.80
Availability of employment opportunities (N=94) — 3.73
Hunger (N=89) — 3.73
Cost of living (N=94) — 3.56
Availability of affordable housing (N=90) — 3.41

Mean (1=not at all, 5=a great deal)*
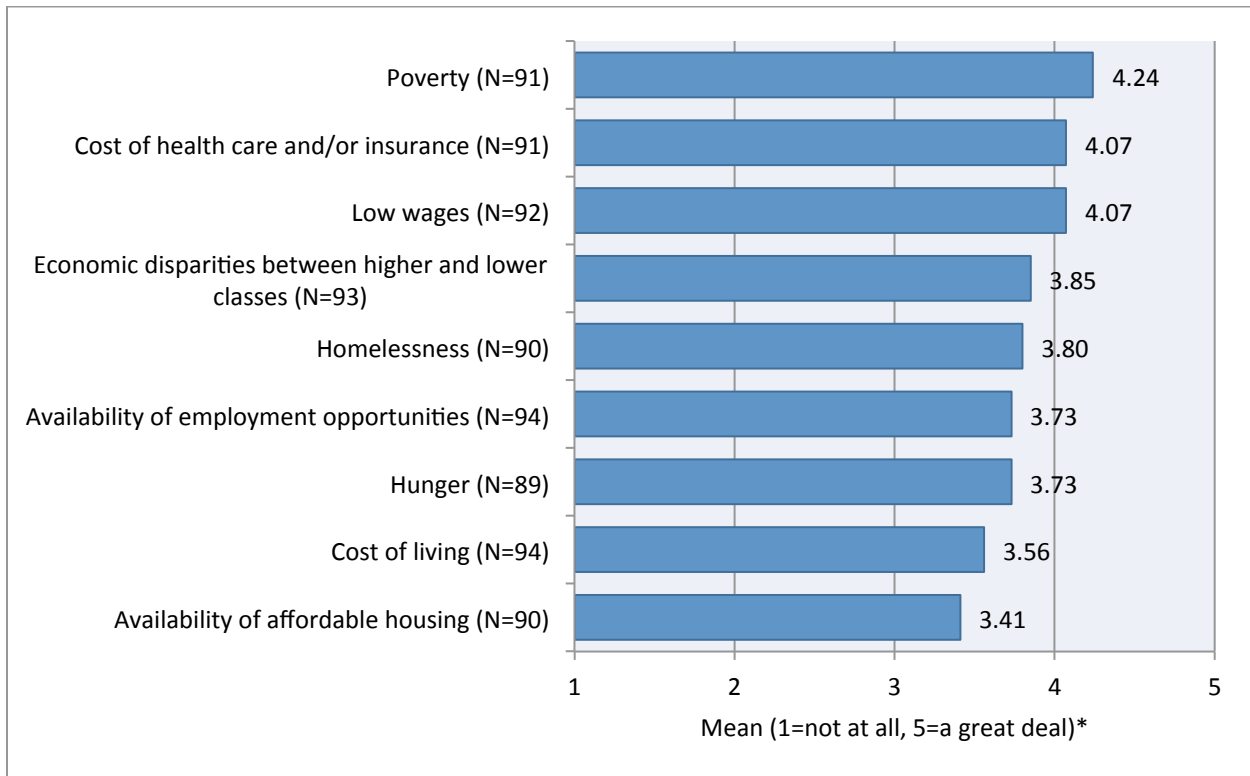
*Means exclude "do not know" responses.

**Services and Resources (Figure 7)**

- Respondents were most concerned that there is a false sense of entitlement to services and resources, and that there are problems associated with mental health care systems/policies.
- Although a moderate concern, respondents were the least concerned with the availability or access to a grocery store and the availability of youth activities.

Figure 7. Level of concern with statements about the community regarding SERVICES AND RESOURCES

False sense of entitlement to services and resources (N=85) — 3.85

Problems associated with mental health care systems/policies (not relating to cost) (N=87) — 3.77

Cost and/or availability of elder care (N=82) — 3.54

Resources to meet the needs of the aging population (N=84) — 3.49

Quality and/or cost of education/school programs (N=93) — 3.30

Problems associated with health care systems/policies (not relating to cost) (N=91) — 3.21

Availability of family services (N=87) — 3.17

Cost and/or availability of child care (N=79) — 3.11

Availability of youth activities (N=90) — 2.86

Availability/access to a grocery store (N=91) — 2.59

Mean (1=not at all, 5=a great deal)*

*Means exclude "do not know" responses.

**Transportation (Figure 8)**

- Respondents were moderately concerned over the availability of public transportation.
- Respondents were the least concerned about traffic congestion.

Figure 8. Level of concern with statements about the community regarding TRANSPORTATION
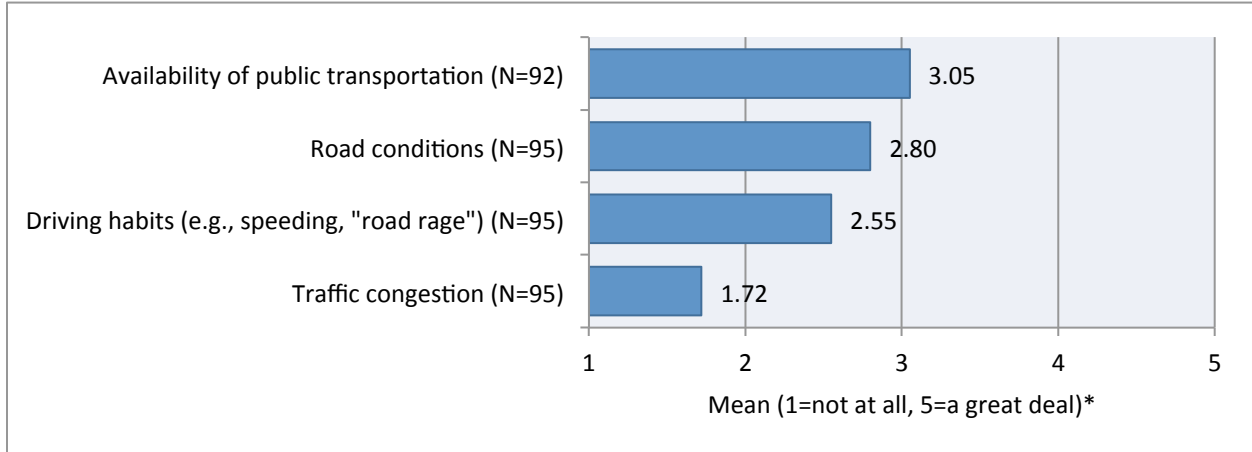


*Means exclude "do not know" responses.

**Environmental Pollution (Figure 9)**

- Respondents had a low level of concern regarding water pollution and air pollution.
- Respondents were the least concerned over noise pollution.

Figure 9. Level of concern with statements about the community regarding ENVIRONMENTAL POLLUTION



*Means exclude "do not know" responses.

**Youth Concerns (Figure 10)**

Level of concern regarding youth concerns (Figure 10)

- Respondents had concern for teen pregnancy, changes in family composition, bullying, school dropout rates and truancy.
- Although still a moderate concern, respondents were the least concerned about youth crime.

Figure 10. Level of concern with statements about the community regarding YOUTH CONCERNS
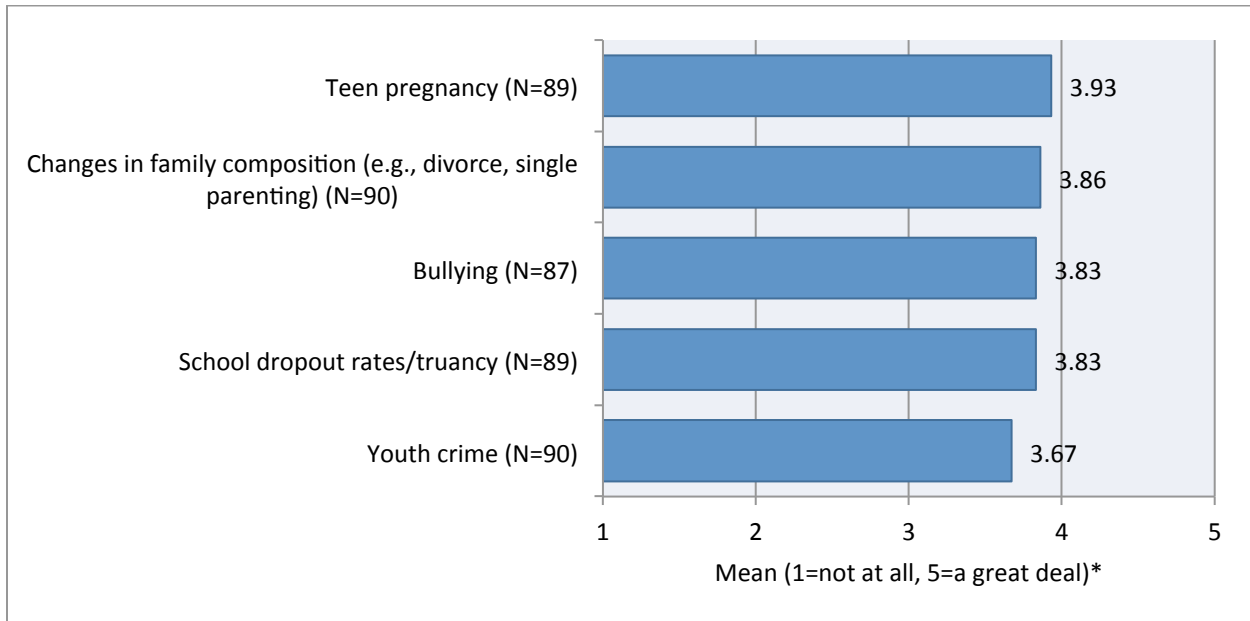


*Means exclude "do not know" responses.
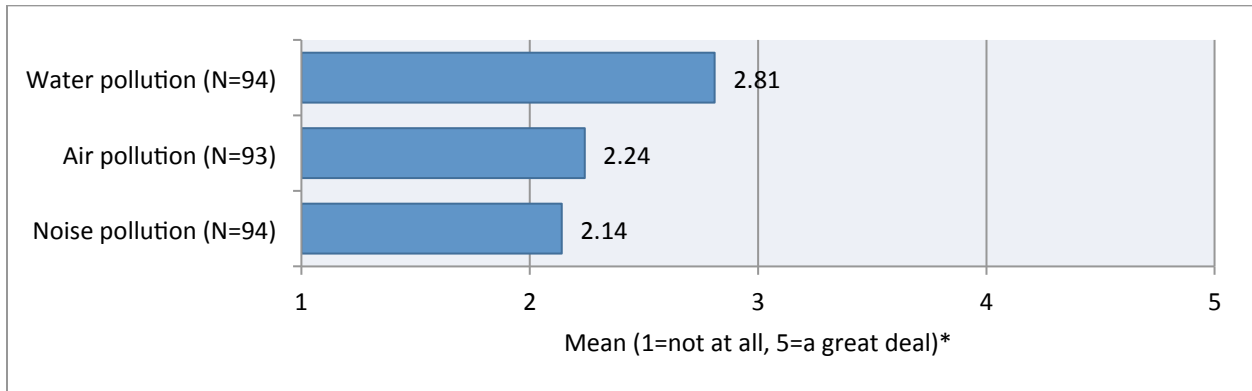
**Safety Concerns (Figure 11)**

- Respondents had a high amount of concern regarding substance abuse and child abuse and neglect.
- Respondents had a moderate amount of concern regarding domestic violence, property crimes and violent crimes.
- Respondents were the least concerned with prostitution in the community.

Figure 11. Level of concern with statements about the community regarding SAFETY CONCERNS



*Means exclude "do not know" responses.

*Community Health and Wellness Concerns*

Respondents were asked to rate their level of concern about health and wellness issues in their community regarding ACCESS TO HEALTH CARE, SUBSTANCE USE AND ABUSE, PHYSICAL HEALTH, MENTAL HEALTH, and ILLNESS.

**Access to Health Care (Figure 12)**

- Respondents were the most concerned with the cost of health insurance and the cost of health care
- There was also concern over the use of emergency room services for primary care, adequacy of health insurance, cost of prescription drugs, availability of prevention programs, availability/cost of dental/vision programs, access to health insurance for preexisting conditions, availability of providers, and non-traditional hours.
- Respondents were the least concerned about the availability of translators and confidentiality

Figure 12. Level of concern with statements about the community regarding ACCESS TO HEALTH CARE



Cost of health insurance (N=95) — 4.27
Cost of health care (N=95) — 4.14
Use of emergency room services for primary health care (N=92) — 4.08
Adequacy of health insurance (e.g., amount of co-pays & deductibles, consistency of coverage) (N=94) — 4.01
Cost of prescripton drugs (N=94) — 3.99
Availability of prevention programs or services (N=93) — 3.82
Availability and/or cost of dental and/or vision insurance coverage (N=95) — 3.74
Access to health insurance coverage (e.g., preexisting conditions) (N=94) — 3.74
Availability and/or cost of dental and/or vision care (N=94) — 3.70
Availability of doctors, nurses, and/or specialists (N=95) — 3.56
Availability of non-traditional hours (e.g., evenings, weekends) (N=93) — 3.54
Time it takes to get an appointment (N=94) — 3.39
Provider is not taking new patients (N=91) — 3.34
Availability of/access to transportation (N=92) — 3.01
Distance to health care services (N=93) — 2.83
Confidentiality (N=94) — 2.50
Availability of bilingual providers and/or translators (N=87) — 2.30

Mean (1=not at all, 5=a great deal)*

*Means exclude "do not know" responses.

**Substance Abuse and Abuse (Figure 13)**

- Respondents reported a high concern about drug use and abuse and alcohol use and abuse.
- Although still moderately concerned, respondents were the least concerned over smoking.

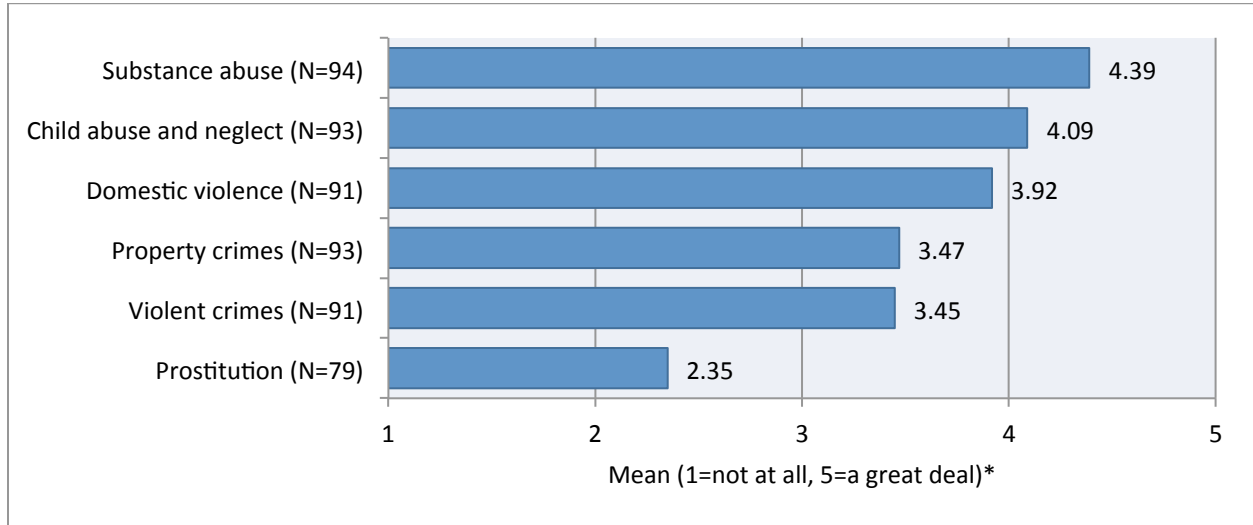Figure 13. Level of concern with statements about the community regarding SUBSTANCE USE AND ABUSE
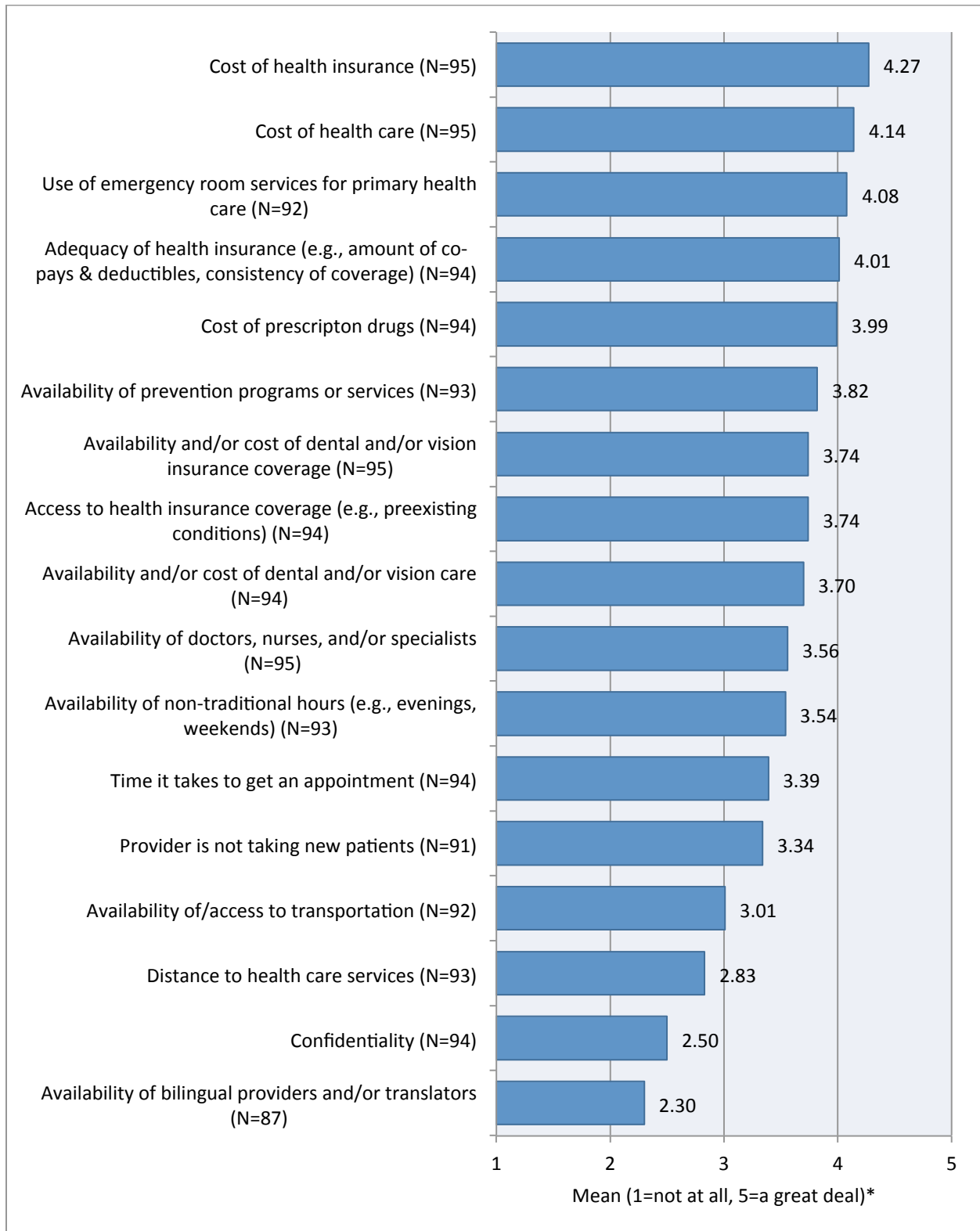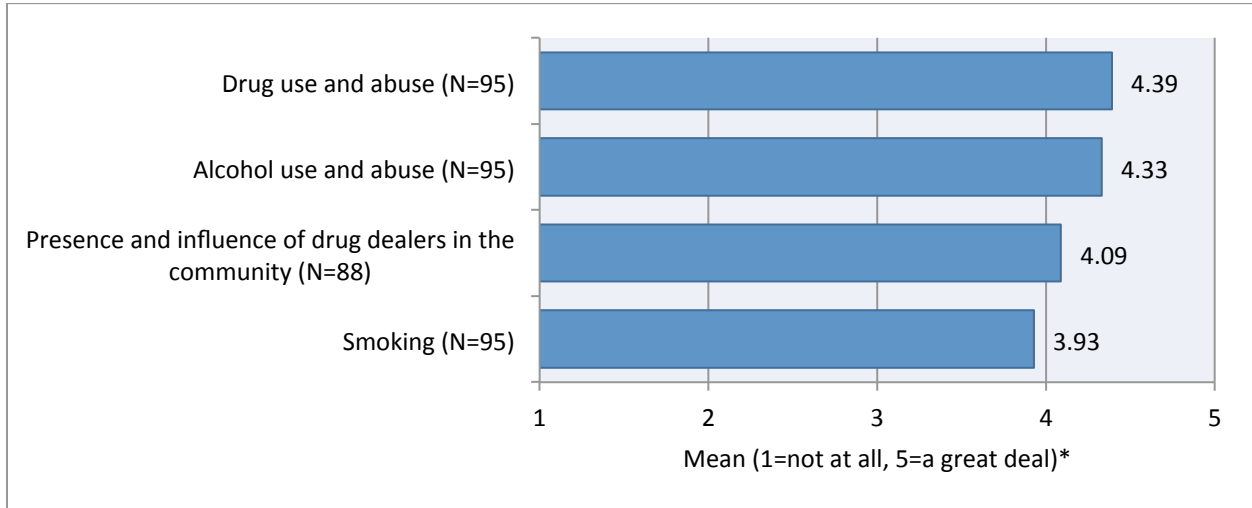


*Means exclude "do not know" responses.
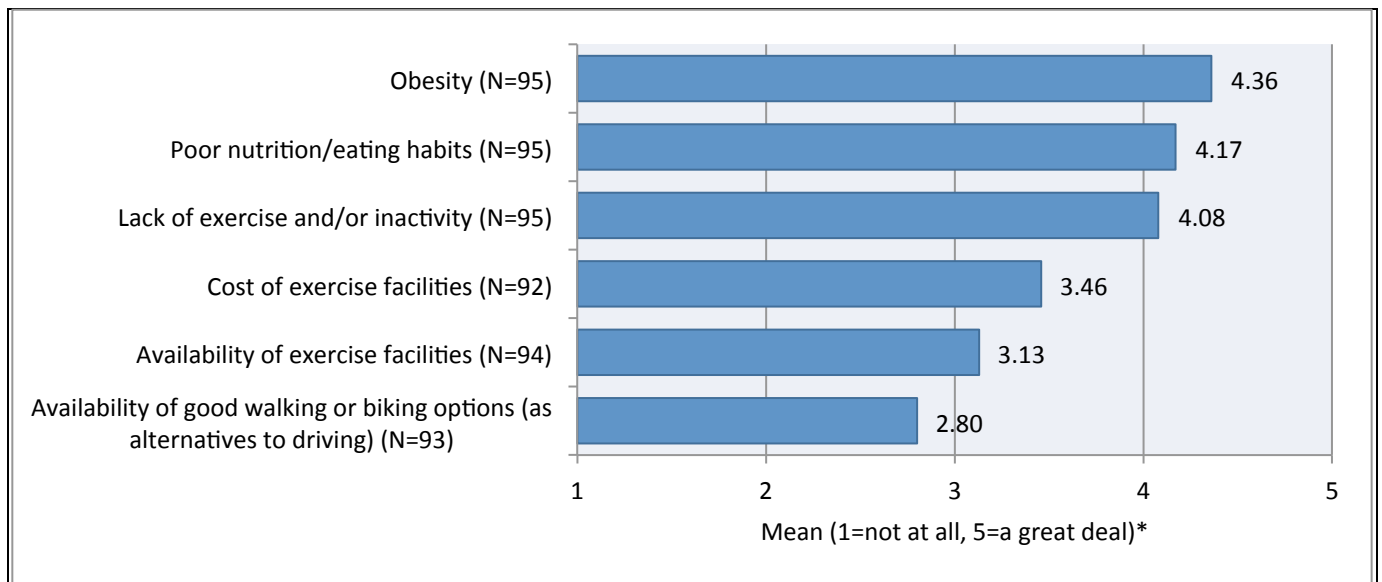
**Physical Health (Figure 14)**

- Respondents were the most concerned with obesity, poor nutrition and eating habits, and lack of physical exercise.
- Respondents were the least concerned about the availability of good walking or biking options

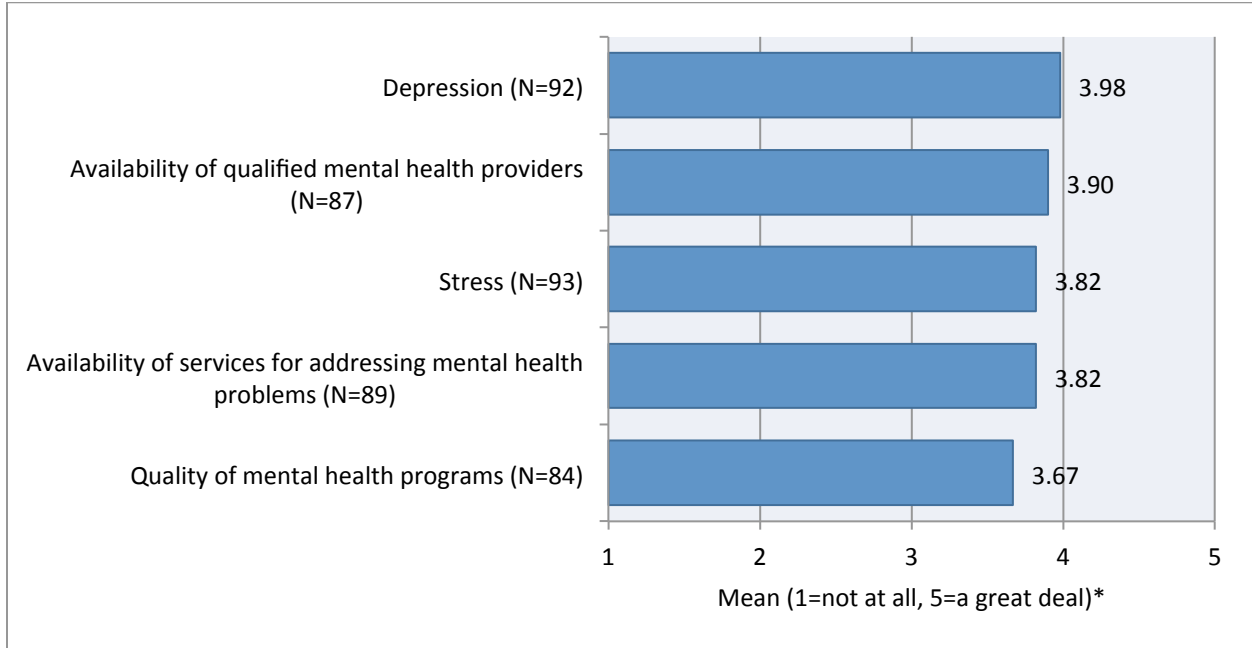Figure 14. Level of concern with statements about the community regarding PHYSICAL HEALTH



*Means exclude "do not know" responses.

**Mental Health (Figure 15)**

- Respondents were moderately concerned about depression, the availability of qualified mental health providers, stress, availability and quality of services for mental health

Figure 15. Level of concern with statements about the community regarding MENTAL HEALTH

| Statement | Mean |
| --- | --- |
| Depression (N=92) | 3.98 |
| Availability of qualified mental health providers (N=87) | 3.90 |
| Stress (N=93) | 3.82 |
| Availability of services for addressing mental health problems (N=89) | 3.82 |
| Quality of mental health programs (N=84) | 3.67 |

Mean (1=not at all, 5=a great deal)*

*Means exclude "do not know" responses.

**Illness (Figure 16)**

- Respondents were the most concerned about chronic disease and cancer.
- Respondents were the least concerned about communicable disease.

Figure 16. Level of concern with statements about the community regarding ILLNESS

| Statement | Mean |
| --- | --- |
| Chronic disease (e.g., diabetes, heart disease, multiple sclerosis) (N=92) | 4.14 |
| Cancer (N=91) | 3.93 |
| Communicable diseases (e.g., including sexually transmitted diseases, AIDS) (N=87) | 3.23 |

Mean (1=not at all, 5=a great deal)*
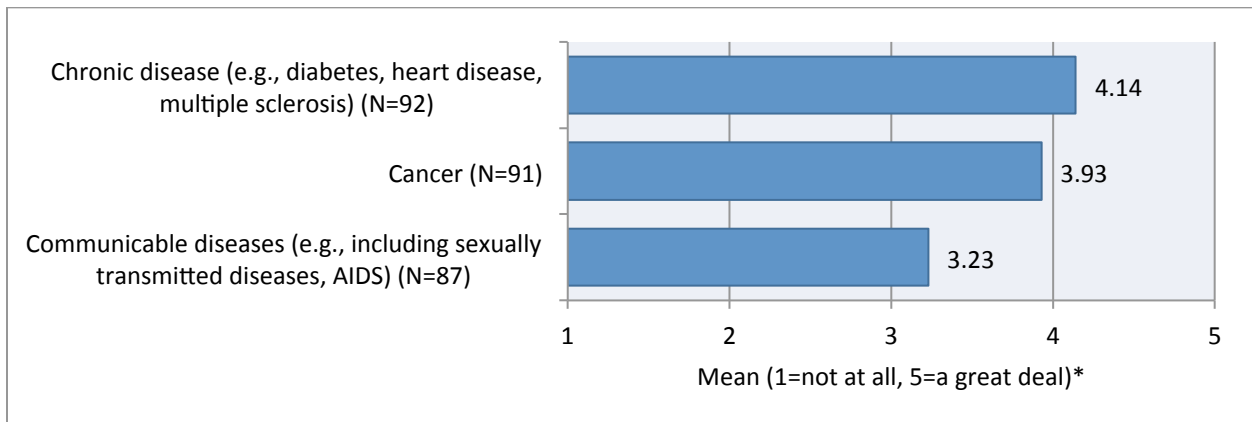
*Means exclude "do not know" responses.

## *Delivery of Health Care in the Community*

Respondents were asked to rate how well DELIVERY OF HEALTH CARE topics are being addressed in their community.

**Delivery of Health Care (Figure 17)**

- Respondents ranked access to emergency services as very well delivered for the community.
- Respondents were also very positive about health services for cancer patients and patients with heart disease.
- Respondents were the most concerned about health services for obesity.

Figure 17. How well topics related to DELIVERY OF HEALTH CARE in the community are being addressed
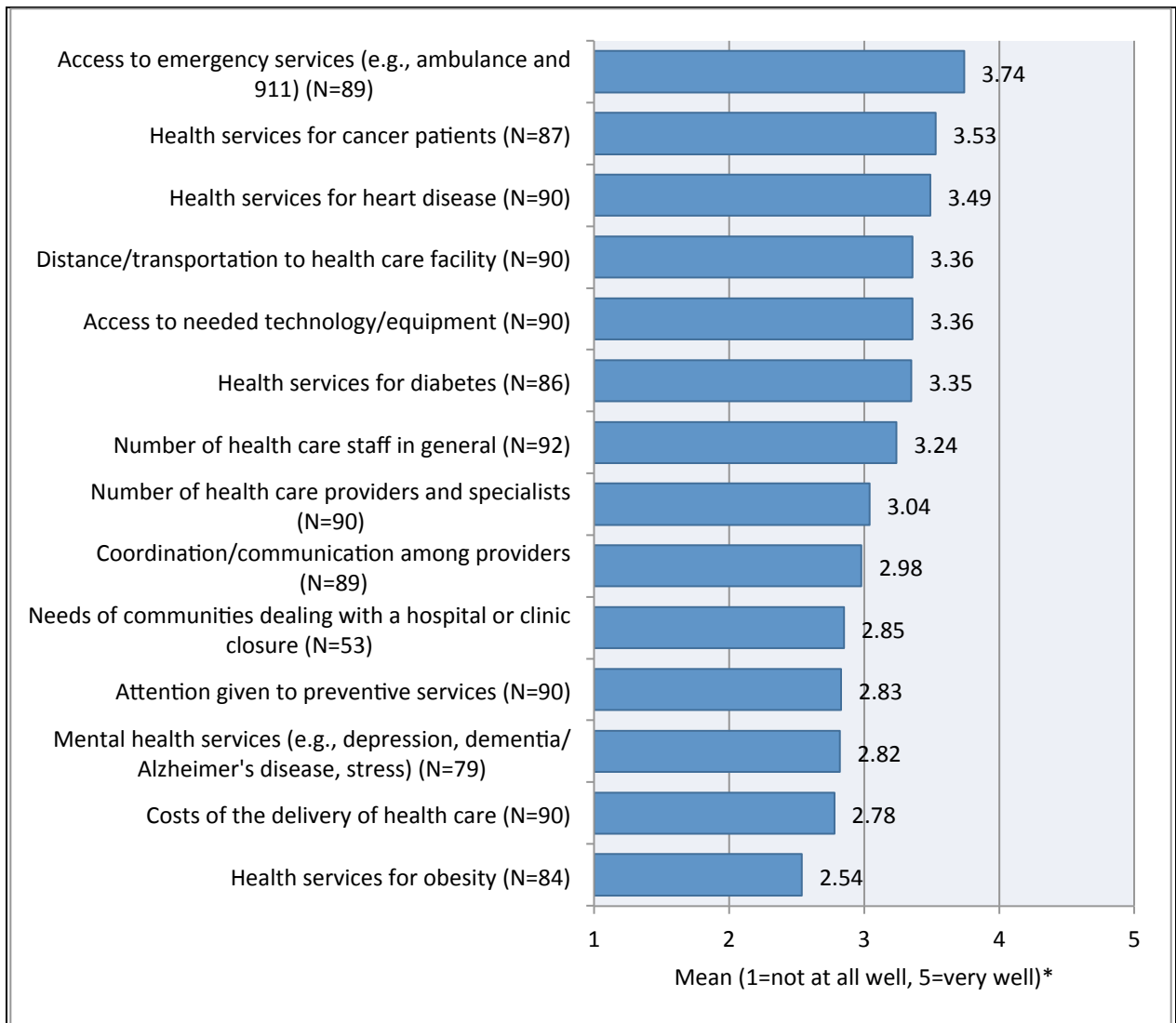


*Means exclude "do not know" responses.

*Personal Health Care Information*

Over 40 percent of respondents said they had not had a cancer screening or cancer care in the past year. The most common reasons for not having done so were because the doctor had not recommended it and that the respondent stated that it was unnecessary. Fear, cost, unfamiliarity with recommendations, and not knowing who to see were not considered to be the main reasons respondents gave.

Respondents were asked whether they had a cancer screening or cancer care in the past year, and if they had not, reasons for not having done so.
- Over 40 percent said they had not had a cancer screening or cancer care in the past year.

Figure 18.  Whether respondents had a cancer screening or cancer care in the past year
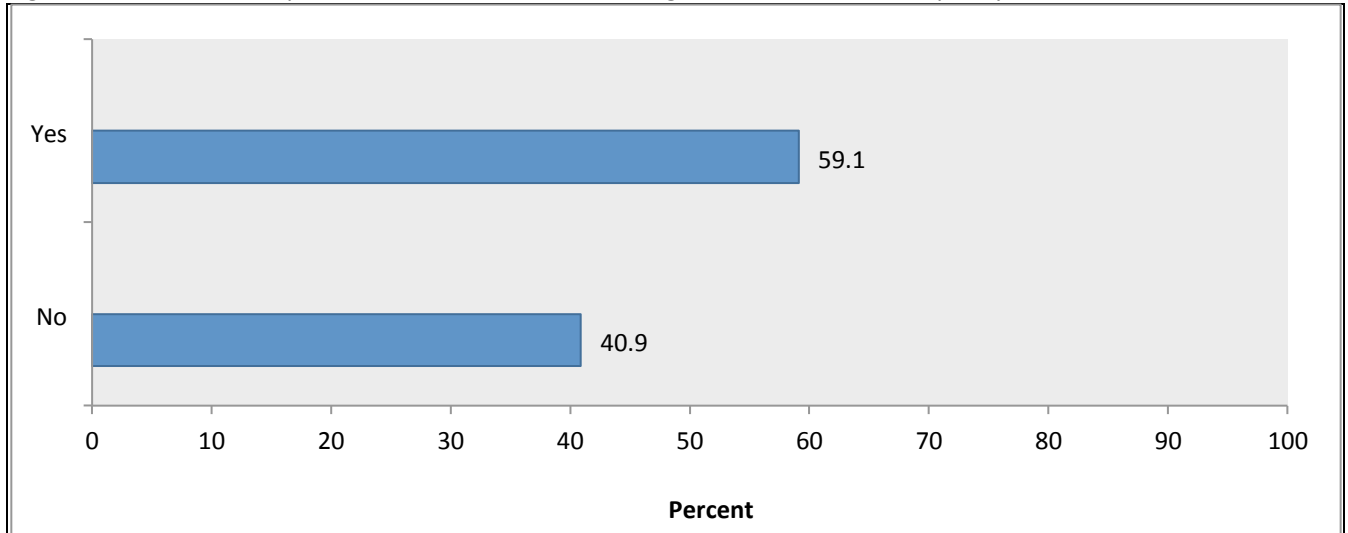
Cancer Screening

Among respondents who had not had a cancer screening or cancer care in the past year, 47% percent said they had not done so because their doctor had not suggested it and 47% said that they thought it was unnecessary.
- Only 2.9% stated that cost was a factor.
- Fear was not considered a reason for respondents to not have the screening.  (Figure 19).

Figure 19.  Reasons among respondents who have not had a cancer screening or cancer care in the past year.
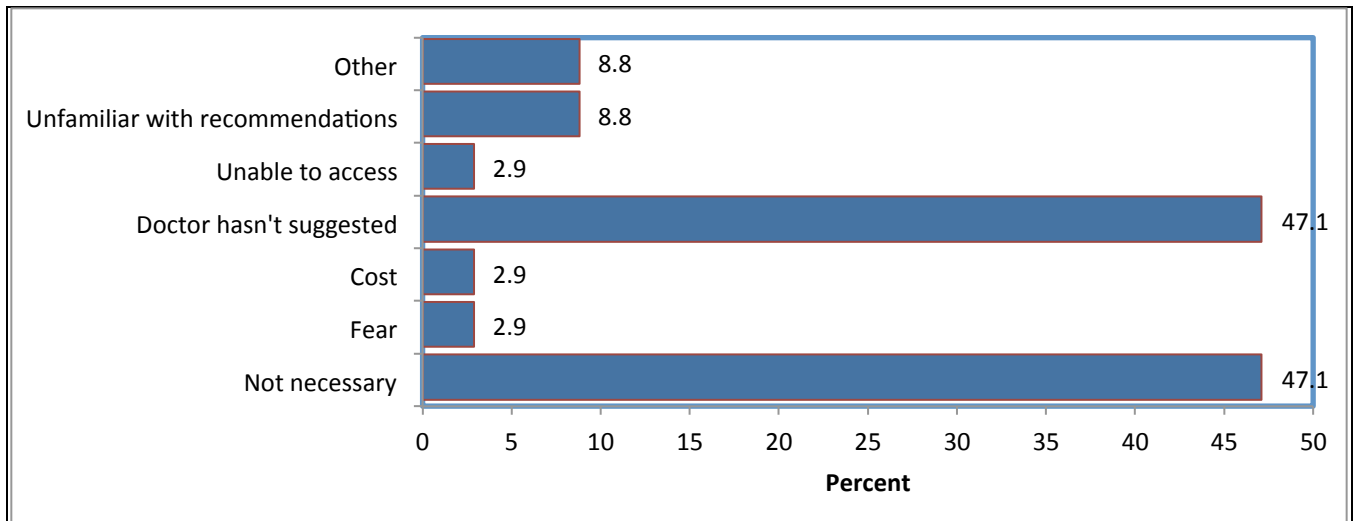


Percentages do not equal 100.0 due to multiple responses.

## Health Care Coverage

Respondents were asked how they had paid for health care costs, for themselves or family members, over the last 12 months. A majority of respondents said they had paid for health care costs over the last 12 months by health insurance through an employer. Personal income and private health insurance were also used.

Figure 20. Methods respondents have used to pay for health care costs over the last 12 months
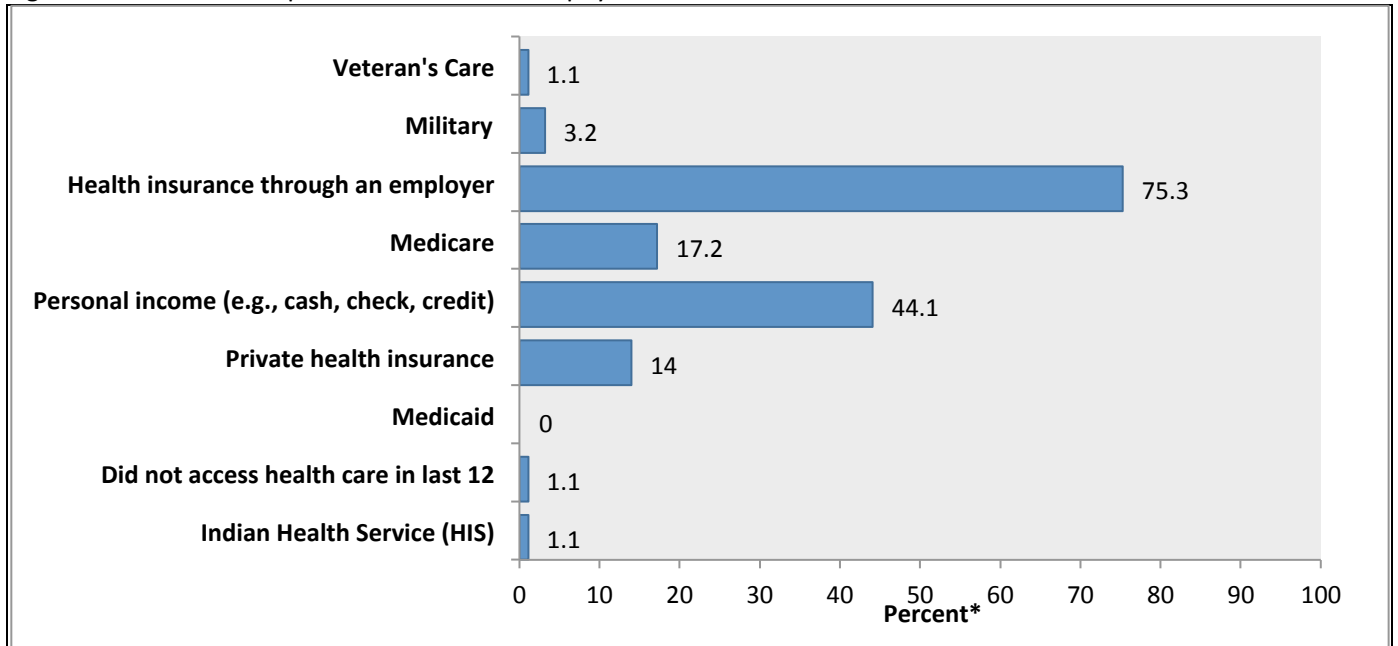


## Primary Care Provider

The top three reasons respondents gave for their choice of primary health care provider were location, availability of services and quality of services. (*Figure 21)*

Figure 21. Respondents' reasons for choosing primary health care provider

## Respondent's Primary Health Care Provider

Respondents were asked which provider they used for their primary health care. Over 94% of respondents said they use Sanford Health as their primary health care provider. Many respondents stated 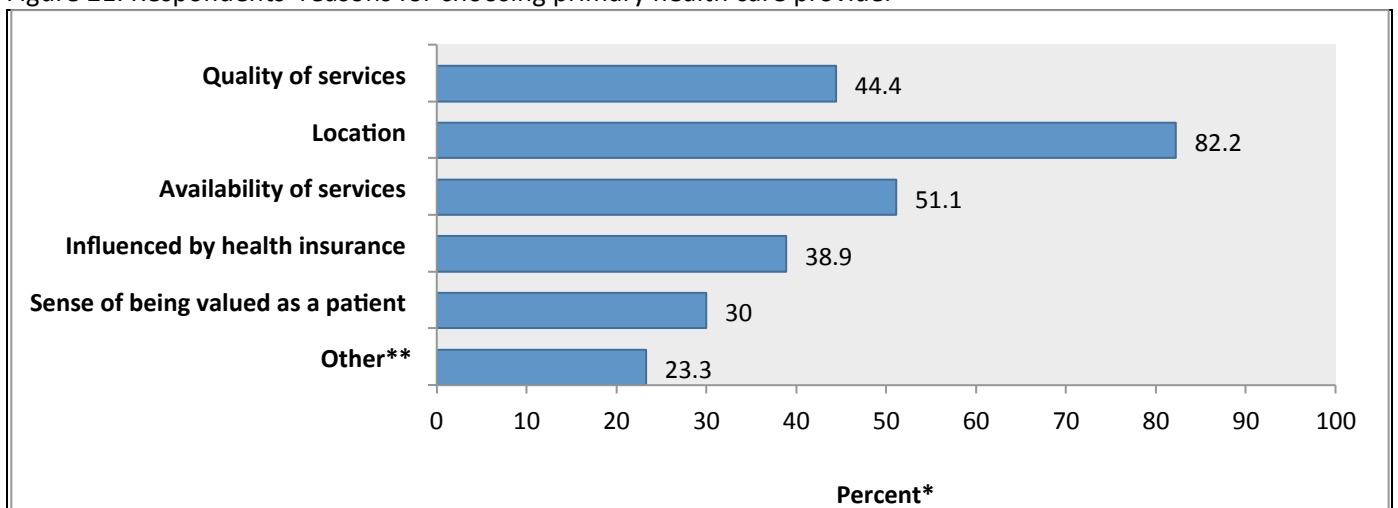multiple Sanford sites as their primary health care provider. Only 5% of respondents listed other health care providers as their primary health care provider. (*Figure 22*)

Figure 22.  Respondent's primary health care provider
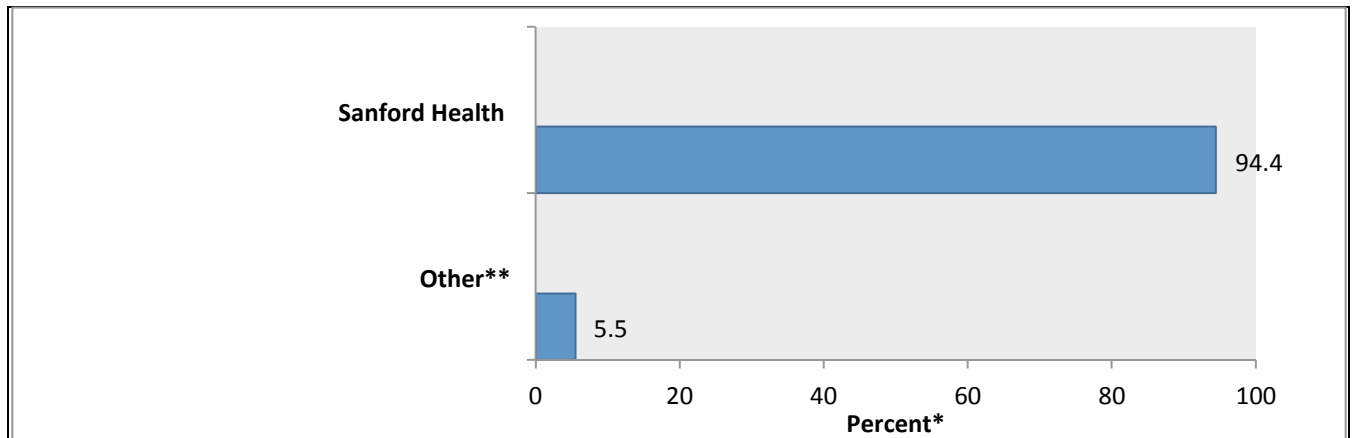


**\*respondents answering this question did not equal 100%**

## Respondents Representing Chronic Disease

Respondents were asked to select their personal general health conditions/diseases. Weight control received the most responses with 31.4% of participants selecting this condition. The chronic diseases found among respondents include high cholesterol, hypertension and depression. (Figure 26)

Figure 23. Respondent's health/chronic diseases.
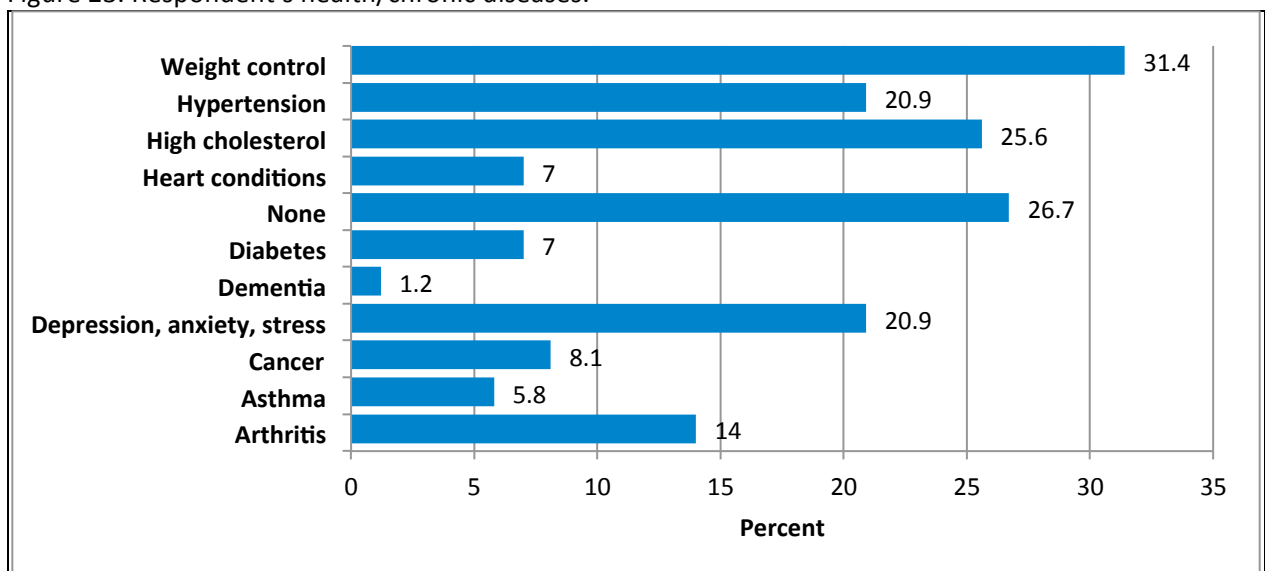
*Demographic Information*

The majority of respondents are 35 to 54 years old.

Figure 24. Respondents' age distribution
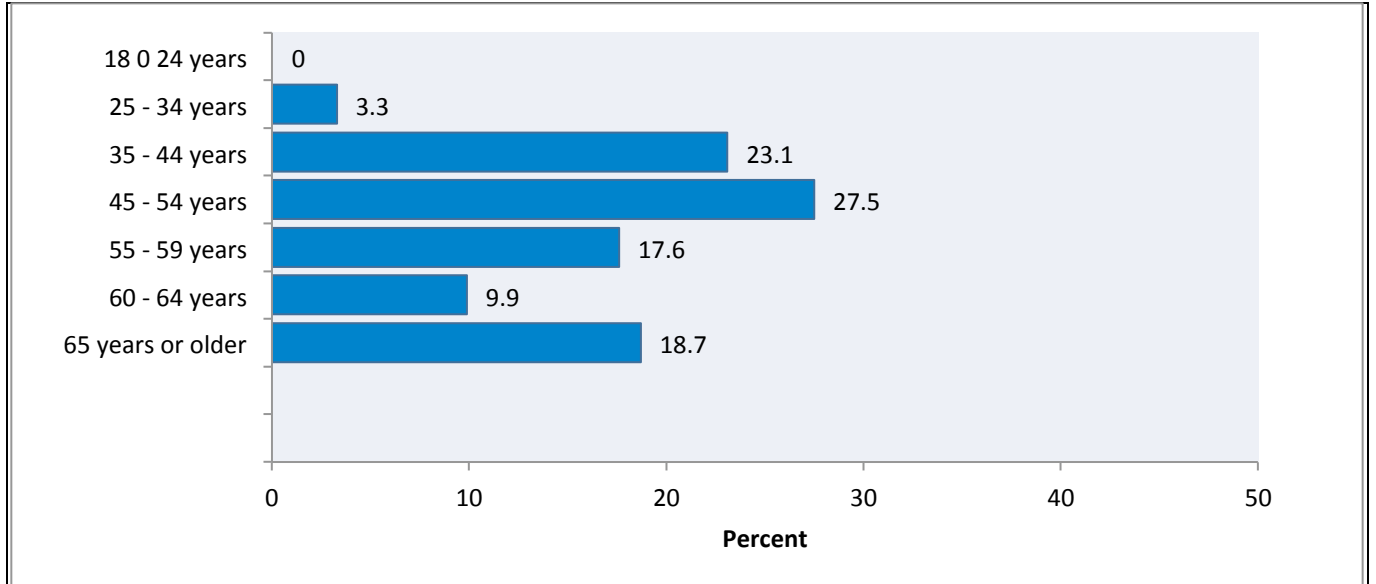


Most respondents have a Bachelor's degree or higher, including 44% who have a graduate or professional degree.

Figure 25.  Respondents' education
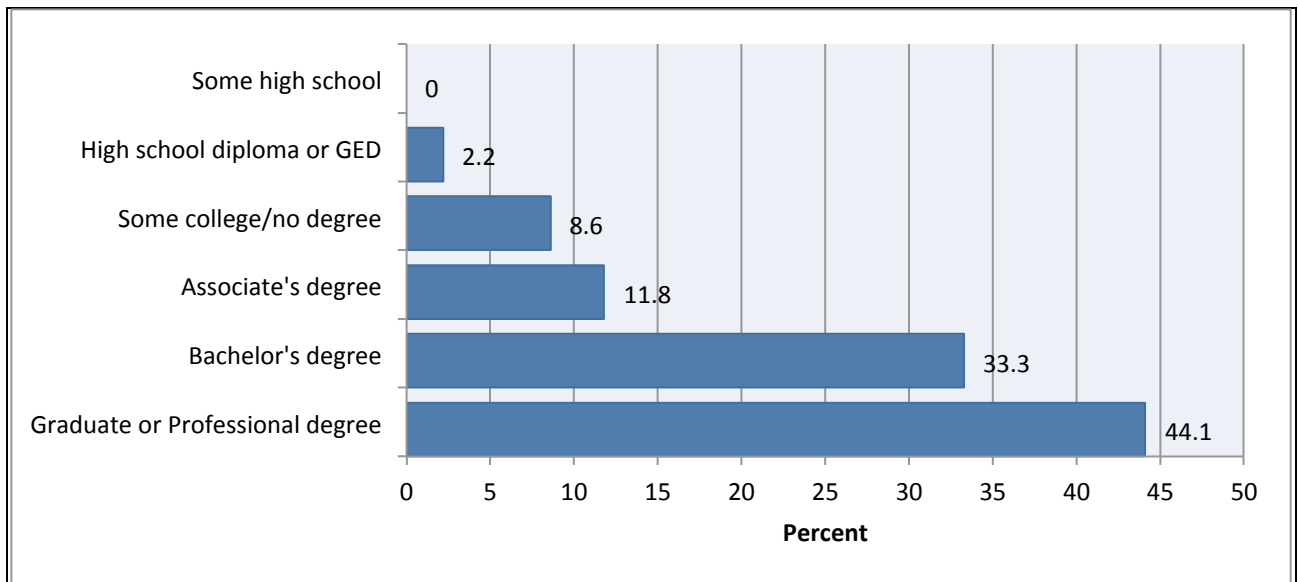
Figure 26.  Respondents' gender distribution
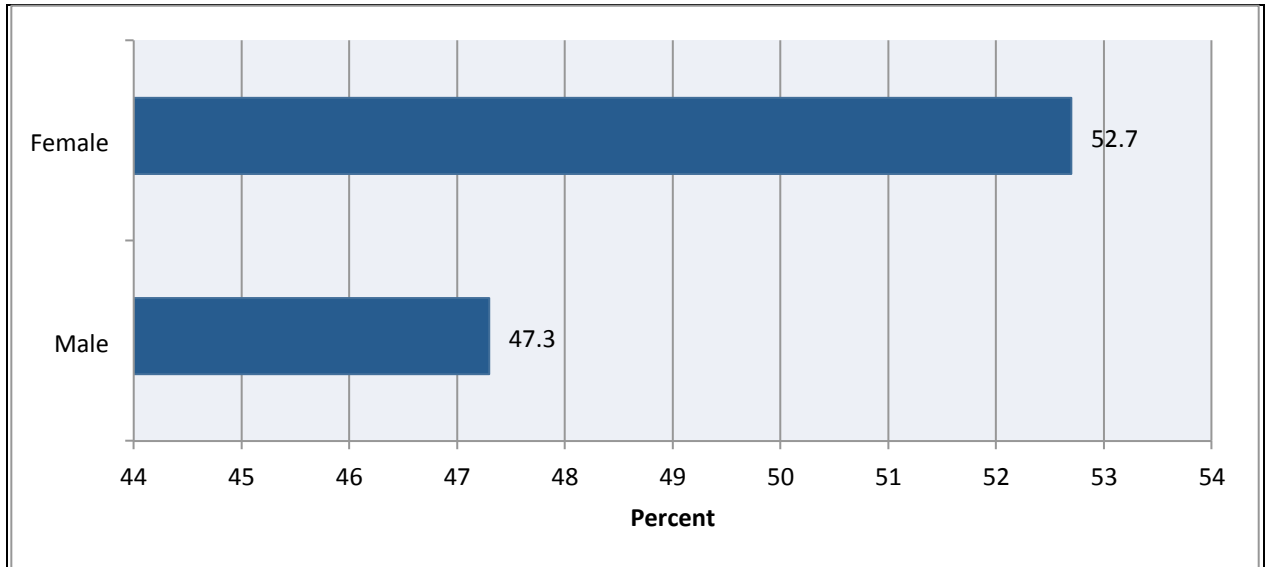


## Secondary Research

The 2011 County Profiles are based largely on the County Health Rankings from the Mobilizing Action Toward Community Health (MATCH), a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. State and National Benchmarking required additional data sources including the U.S. Census Bureau, Small Area Health Insurance Estimates, and the Center for Disease Control and Prevention's National Center for Health Statistics – the Health Indicators Warehouse. The County Profile Data is included in the Appendix.

### *Health Outcomes*

The Mortality health outcomes indicate that the state of Minnesota and Clearwater County have fewer premature deaths than the national benchmark. Beltrami County has a much higher rate than the national benchmark.

Map 1 in the Appendix provides a county view of the premature deaths within the five-state region.

**Mortality**

| | | National Benchmark | MN | Beltrami County | Clearwater County |
|---|---|---|---|---|---|
| Premature death | Years of potential life lost before age 75 per 100,000 (age-adjusted), 2005-2007 | 5,564 | 5,272 | 8,741 | 5,016 |

The Morbidity health outcomes indicate that Minnesota and Beltrami County citizens report more days of poor health than the national benchmark; however, Clearwater County reports better health days. Minnesota, Beltrami County and Clearwater County report more physically unhealthy days than the national benchmark.

Minnesota, Beltrami County, and Clearwater County report more mentally unhealthy days than the national benchmark.

Minnesota has a higher percentage of low birth weight than the national benchmark; however, Beltrami County has a lower percentage of low birth weight than the national benchmark. Clearwater County data was not available for birth weight.

Maps 2 – 5 in the Appendix provide county views of morbidity indicators within the five-state region.

**Morbidity**

| | | National Benchmark | MN | Beltrami County | Clearwater County |
|---|---|---|---|---|---|
| Poor or fair health | Percent of adults reporting fair or poor health (age-adjusted), 2003-2009 | 10% | 11% | 14% | 8% |
| Poor physical health days | Average number of physical unhealthy days reported in past 30 days (age-adjusted), 2003-2009 | 2.6 | 3.1 | 2.9 | 1.8% |
| Poor mental health days | Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009 | 2.3 | 2.8 | 3.0 | 1.8 |
| Low birth weight | Percent of live births with low birth weight (<2,500 grams), 2001-2007 | 6.0% | 6.5% | 5.7% | N/A |

*Health Factors*

The Health Behavior outcomes indicate that the state of Minnesota and Beltrami County have higher percentages of adult smokers than the national benchmark. Adult obesity is also higher in the state of Minnesota and in Beltrami and Clearwater counties. Beltrami County and the state of Minnesota have a lower percentage of physical inactivity than the national benchmark, while Clearwater County sits at the same level as the national benchmark.

Minnesota and Beltrami County have a substantially higher percentage (20% in MN and 22% in Beltrami County vs. the national rate at 8%) of binge drinking reports than the national benchmark. The state of Minnesota is near the national benchmark for motor vehicle deaths; however, Beltrami County has

more than twice the national benchmark. There was no data available for Clearwater County regarding the motor vehicle crash death rate.

Sexually transmitted infections rank substantially higher than the national benchmark for Minnesota, Beltrami and Clearwater counties. The teen birth rate is also substantially higher in Minnesota, Beltrami County and Clearwater County than the national benchmark.

Maps 6 – 12 in the Appendix provide county views of the Health Behavior indicators within the five-state region.

**Health Behaviors**

| | | National Benchmark | MN | Beltrami County MN | Clearwater County MN |
|---|---|---|---|---|---|
| **Adult smoking** | Percent of adults who currently smoke and have smoked at least 100 cigarettes in their lifetime, 2003-2009 | 15% | 19% | 32% | N/A |
| **Adult obesity** | Percent of adults that report a body mass index (BMI) of at least 30 kg/m2, 2008 | 25% | 26% | 29% | 28% |
| **Physical inactivity** | Percent of adults reporting no leisure physical activity, 2008 | 20% | 17% | 19% | 20% |
| **Excessive drinking** | Percent of adults reporting binge drinking and heavy drinking, ( consuming >4 for women and  >5 for men on a single occasion ) 2003-2009 | 8% | 20% | 22% | N/A |
| **Motor vehicle crash death rate** | Motor vehicle crash deaths per 100,000 population, 2001-2007 | 12.0 | 12.9 | 29.2 | N/A |
| **Sexually transmitted infections** | Number of Chlamydia cases (new cases reported) per 100,000 population 2008 | 83.0 | 276.1 | 344.5 | 157.6 |
| **Teen birth rate** | Number of teen births per 100,000 females ages 15-19, 2001-2007 | 22.0 | 27.5 | 51.0 | 46.1 |

The Clinical Care outcomes indicate that Minnesota and Beltrami County have a lower percentage of uninsured adults while Clearwater County has a slightly higher percentage. The percentage of uninsured youth is the same in Beltrami County as the national benchmark, but is higher in Clearwater County and lower in Minnesota as a whole.

The ratio of population to primary care physicians is nearly the same in Minnesota as the national benchmark. The Beltrami County and Clearwater County ratios are substantially higher than the national benchmark. The ratio of population to mental health providers is much more favorable in Minnesota and in Beltrami County than the national benchmark; however, it is significantly less favorable in Clearwater County. The number of professionally active dentists is lower than the national benchmark in

Minnesota and Beltrami County. There is no data available for Clearwater County. Preventable hospital stays are higher than the national benchmark in Minnesota, Beltrami and Clearwater counties.

Diabetes screening in Minnesota is slightly lower than the national benchmark and is significantly lower than the national benchmark in Beltrami and Clearwater counties. Clearwater County ranks higher than the national benchmark for mammography screenings, while both Minnesota is slightly under the national benchmark and Beltrami County is significantly lower.

Maps 13 – 20 in the Appendix provide county views of the Clinical Care indicators within the five-state region.

**Clinical Care**

| | | National Benchmark | MN | Beltrami County | Clearwater County |
|---|---|---|---|---|---|
| **Uninsured adults** | Percent of adult population ages 18-64 without health insurance, 2007 | 13% | 11% | 12% | 15% |
| **Uninsured youth** | Percent of youth ages 0-18 without health insurance. | 7% | 6% | 7% | 12% |
| **Primary Care Physicians** | Ratio of population to primary care physicians, 2008 | 631:1 | 636:1 | 742:1 | 1,178:1 |
| **Mental Health Providers** | Ratio of total population to mental health providers, 2008 | 2,242:1 | 1,306:1 | 1,824:1 | 8,246:1 |
| **Dentist rate** | Number of professionally active dentists per 100,000 population, 2007 | 69.0 | 61.0 | 54.8 | N/A |
| **Preventable hospital stays** | Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007 | 52.0 | 56.5 | 67.3 | 95.2 |
| **Diabetes screening** | Percent of Medicare enrollees with diabetes that receive HbA1c screening, 2006-2007 | 89% | 88% | 71% | 82% |
| **Mammography screening** | Percent of female Medicare enrollees that receive mammography screening, 2006-2007 | 74% | 73% | 66% | 76% |

The Social and Economic Factor outcomes indicate that Minnesota and Beltrami and Clearwater counties all have a lower high school graduation benchmark than the national benchmark; however, Minnesota has a higher percentage of post-secondary education than the national benchmark. The unemployment rate was substantially higher in Minnesota than the national benchmark, and Beltrami and Clearwater Counties have a much greater unemployment benchmark than the national benchmark. The unemployment rate in 2012 was substantially better than the national benchmark for Minnesota and Beltrami County; however, Clearwater County has a much greater amount of unemployment. The

percentage of child poverty is much greater in Beltrami and Clearwater counties than the national benchmark; however, Minnesota is at the national benchmark.

Inadequate social support in the same in Minnesota as the national benchmark, and is only slightly higher in Beltrami County.

The percentage of children in single parent households is higher than the national benchmark in Minnesota, Beltrami and Clearwater counties.

The number of homicide deaths in Minnesota is higher than the national benchmark and much higher in Beltrami County than the state and national benchmark.

Maps 21 – 27 in the Appendix provide county views of the Social and Economic indicators within the five-state region.

## Social and Economic Factors

|  |  | National Benchmark | MN | Beltrami County | Clearwater County |
|---|---|---|---|---|---|
| **High school graduation** | Percent of ninth-grade cohort in public schools that graduates from high school in four years 2006-2007 | 92% | 87% | 70% | 70% |
| **Some college** | Percent of adults ages 25-44 with some post-secondary education, 2005-2009 | 68% | 72% | 65% | 57% |
| **Unemployment** | Percent of population ages 16 and older that is unemployed but seeking work 2009 | 5.3% | 8.0% | 8.9% | 15.1% |
|  | November of 2012 | 7.9% | 5.2% | 6.5% | 9.2% |
| **Child poverty** | Percent of children ages 0-17 living below the Federal Poverty Line, 2008 | 11% | 11% | 25% | 23% |
| **Inadequate social support** | Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009 | 14% | 14% | 15% | N/A |
| **Children in single parent households** | Percent of children in families that live in a household headed by a parent with no spouse present, 2005-2009 | 20% | 25% | 41% | 33% |
| **Homicide rates** | Number of deaths due to murder or non-negligent manslaughter per 100,000 population, 2001-2007 | 1.0 | 2.5 | 8.8 | NA |

The Physical Environment outcomes indicate that there is no air pollution or ozone pollution in this area. Access to healthy food is ranked far below the national benchmark. In this rural area there can be a far distance to travel to grocery stores, and there are food deserts in some communities where only a gas station convenience store is close to home. Access to recreational facilities ranks lower than the national benchmark for Minnesota, Beltrami and Clearwater County.

Maps 28 – 31 in the Appendix provide county views of the Physical Environment indicators within the five-state region.

## Physical Environment

| | | National Benchmark | MN | Beltrami County MN | Clearwater County MN |
|---|---|---|---|---|---|
| **Air pollution-particulate matter** | Number of days air quality was unhealthy for sensitive populations due to fine particulate matter, 2006 | 0 | 0 | 0 | 0 |
| **Air pollution-ozone** | Number of days air quality was unhealthy for sensitive populations due to ozone levels, 2006 | 0 | 0 | 0 | 0 |
| **Access to healthy foods** | Percent of zip codes with a healthy food outlet (i.e. grocery store or produce stand/farmers market), 2008 | 92% | 54% | 29% | 33% |
| **Access to recreational facilities** | Number of recreational facilities per 100,000 population 2008 | 17.0 | 12.0 | 9.0 | 11.0 |

Youth account for 25% of the population in Beltrami County and 24% of the population in Clearwater County. Elderly account for 13% of the population in Beltrami County and 19% of the population in Clearwater County.  Sixty-nine percent (69%) of Beltrami County is rural compared to 29% of Minnesota and 21% as the national benchmark. One hundred percent (100%)of Clearwater County is rural compared to 29% of Minnesota.

Only 4% of Minnesotans and 1% of the Beltrami and Clearwater County population is not proficient in English compared to the national benchmark, which is 9%. Minnesota and Beltrami County (6%) and Clearwater County (8%) have low illiteracy rates compared to the national benchmark of 15%.

Maps 32 –36 in the Appendix provide county views of the demographics within the five-state region.

## Demographics

| | | National Benchmark | MN | Beltrami County MN | Clearwater County MN |
|---|---|---|---|---|---|
| **Youth** | Percent of total population ages 0-17, 2009 | 24% | 24% | 25% | 24% |
| **Elderly** | Percent of total population ages 65 and older, 2009 | 13% | 13% | 13% | 19% |
| **Rural** | Percent of total population living in rural area, 2000 | 21% | 29% | 69% | 100% |
| **Not English Proficient** | Percent of total population that speaks English less than "very well". 2005-2009 | 9% | 4% | 1% | 1% |
| **Illiteracy** | Percent of population ages 16 and older that lacks basic prose literacy skills, 2003 | 15% | 6% | 6% | 8% |

The population for this area is relatively young with only 2-3% older than 85 years of age and only 13-19% older than 65 years of age.

The gender distribution is 50-50 in the area.

## Population by Age

| | National Benchmark | Beltrami County MN | Clearwater County MN |
|---|---|---|---|
| Total population | 308,745,538 | 44,442 | 8,695 |
| Percent ages 65 and older | 13% | 13% | 19% |
| Percent 85 and older | 2% | 2% | 3% |
| Percent male | 49% | 50% | 50% |
| Percent female | 51% | 50% | 50% |

*Based on 2010 Census data*

The majority of individuals in this region own their homes with the largest percentage of home ownership in Clearwater County (80%).

## Housing

| | National Benchmark | Beltrami County MN | Clearwater County MN |
|---|---|---|---|
| Percent of occupied housing that is owner-occupied | 65% | 70% | 80% |
| Percent of occupied housing that is renter-occupied | 35% | 30% | 20% |

*Based on 2010 Census data*

According to the 2010 Census Data, the population of working age in the labor force ranges from 64-66% in Beltrami and Clearwater County. The percentage of those who are living at less than 100% of the poverty level ranges between 16-20%, with 41-42% living at less than the 200% of the poverty level.

The median household income is lower than the national benchmark for both counties.

## Economic Security

| | National Benchmark | Beltrami County MN | Clearwater County MN |
|---|---|---|---|
| Percent of working age population in the labor force | 65% | 66% | 64% |
| Percent of total population with income less than 100% of poverty | 14% | 20% | 16% |
| Percent of total population with income less than 200% of poverty | 32% | 41% | 42% |
| Median household income | $51,914 | $43,384 | $39,310 |
| Owner occupied housing units | 76,089,650 | 12,175 | 2,871 |
| Percent spending 30% or more income toward housing costs | 30% | 27% | 28% |
| Renter occupied housing units | 38,146,346 | 4,584 | 827 |
| Percent renters spending 30% or more of income toward housing costs | 47% | 434 | 41% |

The population distribution from the 2010 U.S. Census Summary by race demonstrates that Minnesota is predominantly white followed by black alone. In Beltrami County the second leading group is the American Indian population followed by the Hispanic origin of any race.

Clearwater County, Minnesota is also mostly white. The second largest group is the American Indian and the Hispanic origin is the third leading population.

## Diversity Profile

| | Minnesota State Benchmark | Beltrami County MN | Clearwater County MN |
|---|---|---|---|
| Total population | 5,303,925 | 44,442 | 8,695 |
| White alone | 4,524,062 | 33,359 | 7,579 |
| Asian alone | 214,234 | 309 | 21 |
| Black alone | 274,412 | 262 | 30 |
| Hispanic origin – of any race | 250,258 | 676 | 120 |
| American Indian | 60,916 | 9,004 | 782 |

## Health Needs Identified

The surveys and analysis of secondary data indicated the following needs:
- Elderly
- Mental Health including suicide, depression and substance abuse
- Native Americans
- Obesity
- Safety
- Prenatal Care

**Community Assets/Prioritization Process**

A review of the primary and secondary research concerns was conducted followed by an asset mapping exercise to determine what resources were available to address the needs. An informal gap analysis was conducted at the conclusion of the asset mapping work.

Table 1 in the Appendix displays the concerns and assessed needs that were determined by the assessment and includes the assets in the community that address the needs.

The priorities that remain include:
- Obesity specific to poor nutrition, inactivity and chronic disease and care coordination for these services
- Mental health and care coordination for mental health services

Sanford Bemidji will specifically address obesity and mental health and execute the implementation strategy. These findings are supported by the 2012 Community Health Needs Assessment – Beltrami County, MN that also found obesity and mental health to be areas of need for Beltrami County.

Table 2 in the Appendix displays the unmet needs that were determined after the asset mapping exercise and the prioritized list of remaining needs.

# IMPLEMENTATION STRATEGY

# 2013 Community Health Needs Assessment
## Sanford Bemidji Implementation Strategy

The following unmet needs were identified through a formal community health needs assessment, resource mapping and prioritization process:
- Mental Health Services
- Obesity

**Implementation Strategy:  Mental Health Services**
- Completion of full integration of Behavioral Health services or access to Behavioral Health outreach in all regional clinic sites in the Bemidji Region
- Complete presentation of outcomes of first three years of integrated Behavioral Health services
- Implement Integrated Behavioral Health into new clinics
- Completion of American Indian Behavioral Health Service serving the Bemidji Region
- Develop Behavioral Health programming for hospital patients, particularly in the emergency, medical and intensive care units, in collaboration with existing community-based Behavioral Health providers

**Implementation Strategy:  Obesity**
- Develop a comprehensive weight management program within the Bemidji Region using an interdisciplinary team inclusive of medical, nutrition, Behavioral Health and fitness professionals, as well as weight loss surgery services
- Implement Sanford Frontiers weight management program within the Bemidji Region
- 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

# 2013 Community Health Needs Assessment
## Enterprise Implementation Strategy

The following unmet needs were identified through a formal community health needs assessment, resource mapping and prioritization process:
- Mental Health Services
- Obesity

Implementation Strategy: Mental Health Services - Sanford One Mind
- Completion (to the extent resources allow) of full integration of Behavioral Health services in all primary care clinics in Fargo and Sioux Falls
- Completion (to the extent resources allow) of full integration of Behavioral Health services or access to Behavioral Health outreach in all regional clinic sites in the North, South and Bemidji regions
- Complete presentation of outcomes of first three years of integrated Behavioral Health services
- Implementation of integrated Behavioral Health into clinics in new regions
- Design Team for Inpatient Psychiatric Unit, Partial Hospitalization and Clinic Space for Fargo presents recommendations for design of new spaces
- Design Team for Sioux Falls Inpatient Psychiatric Units and Partial Hospitalization

Implementation Strategy: Obesity
- Medical Management for Obesity
  - Develop CME curriculum for providers and interdisciplinary teams across the enterprise inclusive of medical, nutrition, nursing, and Behavioral Health professionals
- Develop community education programming
  - Include the following program options in the curriculum to create awareness of existing resources:
    - Family Wellness Center
    - Honor Your Health Program
    - WebMD Fit Program
    - Bariatric Services
    - Eating Disorder Institute
    - Mental Health/Behavioral Health
    - Profile
- Actively participate in community initiatives to address wellness, fitness and healthy living

# APPENDIX

## 2011 County Health Profile

An adaptation of the County Health Rankings Project for the Fargo-Moorhead
Community Health Needs Assessment Collaborative

**Beltrami County**

Minnesota

| HEALTH OUTCOMES | | Beltrami | *National Benchmark | Minnesota |
|---|---|---|---|---|
| *Mortality* | | | | |
| **Premature death** | Years of potential life lost before age 75 per 100,000 population (age-adjusted), 2005-2007 | 8,741 | 5,564 | 5,272 |
| *Morbidity* | | | | |
| **Poor or fair health** | Percent of adults reporting fair or poor health (age-adjusted), 2003-2009 | 14% | 10% | 11% |
| **Poor physical health days** | Average number of physically unhealthy days reported in past 30 days (age-adjusted), 2003-2009 | 2.9 | 2.6 | 3.1 |
| **Poor mental health days** | Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009 | 3.0 | 2.3 | 2.8 |
| **Low birthweight** | Percent of live births with low birthweight (<2,500 grams), 2001-2007 | 5.7% | 6.0% | 6.5% |

### HEALTH FACTORS

| | | Beltrami | *National Benchmark | Minnesota |
|---|---|---|---|---|
| *Health Behaviors* | | | | |
| **Adult smoking** | Percent of adults that currently smoke and have smoked at least 100 cigarettes in their lifetime, 2003-2009 | 32% | 15% | 19% |
| **Adult obesity** | Percent of adults that report a body mass index (BMI) of at least 30 kg/m2, 2008 | 29% | 25% | 26% |
| **Physical inactivity** | Percent of adults reporting no leisure time physical activity, 2008 | 19% | 20% | 17% |
| **Excessive drinking** | Percent of adults reporting binge drinking and heavy drinking**, 2003-2009 | 22% | 8% | 20% |
| **Motor vehicle crash death rate** | Motor vehicle crash deaths per 100,000 population, 2001-2007 | 29.2 | 12.0 | 12.9 |
| **Sexually transmitted infections** | Number of chlamydia cases (new cases reported) per 100,000 population, 2008 | 344.5 | 83.0 | 276.1 |
| **Teen birth rate** | Number of teen births per 1,000 females ages 15-19, 2001-2007 | 51.0 | 22.0 | 27.5 |
| *Clinical Care* | | | | |
| **Uninsured adults** | Percent of adult population ages 18-64 without health insurance, 2007 | 12% | 13% | 11% |
| **Uninsured youth** | Percent of youth ages 0-18 without health insurance, 2007 | 7% | 7% | 6% |
| **Primary care physicians** | Ratio of total population to primary care physicians, 2008 | 742:1 | 631:1 | 636:1 |
| **Mental health providers** | Ratio of total population to mental health providers, 2008 | 1,824:1 | 2,242:1 | 1,306:1 |
| **Dentist rate** | Number of professionally active dentists per 100,000 population, 2007 | 54.8 | 69.0 | 61.0 |
| **Preventable hospital stays** | Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007 | 67.3 | 52.0 | 56.5 |
| **Diabetic screening** | Percent of diabetic Medicare enrollees that receive HbA1c screening, 2006-2007 | 71% | 89% | 88% |
| **Mammography screening** | Percent of female Medicare enrollees that receive mammography screening, 2006-2007 | 66% | 74% | 73% |

| **HEALTH FACTORS (continued)** | | **Beltrami** | ***National Benchmark** | **Minnesota** |
|---|---|---|---|---|

*Social and Economic Factors*

| | | Beltrami | *National Benchmark | Minnesota |
|---|---|---|---|---|
| **High school graduation** | Percent of ninth-grade cohort in public schools that graduates from high school in four years, 2006-2007 | 70% | 92% | 87% |
| **Some college** | Percent of adults ages 25-44 with some post-secondary education, 2005-2009 | 65% | 68% | 72% |
| **Unemployment** | Percent of population ages 16 and older that is unemployed but seeking work, 2009 | 8.9% | 5.3% | 8.0% |
| **Child poverty** | Percent of children ages 0-17 living below the Federal Poverty Line, 2008 | 25% | 11% | 11% |
| **Inadequate social support** | Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009 | 15% | 14% | 14% |
| **Children in single-parent households** | Percent of children in families that live in a household headed by a parent with no spouse present, 2005-2009 | 41% | 20% | 25% |
| **Homicide rate** | Number of deaths due to murder or non-negligent manslaughter per 100,000 population, 2001-2007 | 8.8 | 1.0 | 2.5 |

*Physical Environment*

| | | Beltrami | *National Benchmark | Minnesota |
|---|---|---|---|---|
| **Air pollution-particulate matter** | Number of days air quality was unhealthy for sensitive populations due to fine particulate matter, 2006 | 0 | 0 | 0 |
| **Air pollution-ozone** | Number of days air quality was unhealthy for sensitive populations due to ozone levels, 2006 | 0 | 0 | 0 |
| **Access to healthy foods** | Percent of zip codes with a healthy food outlet (i.e., grocery store or produce stand/farmers' market), 2008 | 44% | 92% | 54% |
| **Access to recreational facilities** | Number of recreational facilities per 100,000 population, 2008 | 11.0 | 17.0 | 12.0 |

| *Demographics* | | **Beltrami** | **United States** | **Minnesota** |
|---|---|---|---|---|
| **Youth** | Percent of total population ages 0-17, 2009 | 25% | 24% | 24% |
| **Elderly** | Percent of total population ages 65 and older, 2009 | 13% | 13% | 13% |
| **Rural** | Percent of total population living in a rural area, 2000 | 69% | 21% | 29% |
| **Not English proficient** | Percent of total population that speaks English less than "very well," 2005-2009 | 1% | 9% | 4% |
| **Illiteracy** | Percent of population ages 16 and older that lacks basic prose literacy skills, 2003 | 6% | 15% | 6% |

*The national benchmark is the 90th percentile (i.e., 10% of counties nationwide ranked better). **Binge drinking is defined as consuming more than 4 (for women) or 5 (for men) alcoholic beverages on a single occasion in the past 30 days. Heavy drinking is defined as drinking more than 1 (for women) or 2 (for men) alcoholic beverages per day on average. - Blank values reflect unreliable or missing data.

Source: The overall format and content of the County Health Profiles is based largely on County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/. Additional data sources include the U.S. Census Bureau, Small Area Health Insurance Estimates, http://www.census.gov/sahie/ and the Centers for Disease Control and Prevention's National Center for Health Statistics - the Health Indicators Warehouse, http://healthindicators.gov and "Health, United States, 2010," Table 109, http://www.cdc.gov/nchs/hus.htm.

Disclaimer: The data displayed are from the source indicated; we do not vouch for the accuracy of the data or ensure they are the most recent available. The information is intended for personal, non-commercial use. It can be shared freely if it is not used for profit and appropriate acknowledgments are given. The 2011 County Health Profile was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

# 2011 County Health Profile

An adaptation of the County Health Rankings Project for the Fargo-Moorhead
Community Health Needs Assessment Collaborative

**Clearwater County**

Minnesota

| HEALTH OUTCOMES | | Clearwater | *National Benchmark | Minnesota |
|---|---|---|---|---|
| *Mortality* | | | | |
| **Premature death** | Years of potential life lost before age 75 per 100,000 population (age-adjusted), 2005-2007 | 5,016 | 5,564 | 5,272 |
| *Morbidity* | | | | |
| **Poor or fair health** | Percent of adults reporting fair or poor health (age-adjusted), 2003-2009 | 8% | 10% | 11% |
| **Poor physical health days** | Average number of physically unhealthy days reported in past 30 days (age-adjusted), 2003-2009 | 1.8 | 2.6 | 3.1 |
| **Poor mental health days** | Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009 | 2.9 | 2.3 | 2.8 |
| **Low birthweight** | Percent of live births with low birthweight (<2,500 grams), 2001-2007 | - | 6.0% | 6.5% |

## HEALTH FACTORS

| | | | | |
|---|---|---|---|---|
| *Health Behaviors* | | | | |
| **Adult smoking** | Percent of adults that currently smoke and have smoked at least 100 cigarettes in their lifetime, 2003-2009 | - | 15% | 19% |
| **Adult obesity** | Percent of adults that report a body mass index (BMI) of at least 30 kg/m2, 2008 | 28% | 25% | 26% |
| **Physical inactivity** | Percent of adults reporting no leisure time physical activity, 2008 | 20% | 20% | 17% |
| **Excessive drinking** | Percent of adults reporting binge drinking and heavy drinking**, 2003-2009 | - | 8% | 20% |
| **Motor vehicle crash death rate** | Motor vehicle crash deaths per 100,000 population, 2001-2007 | - | 12.0 | 12.9 |
| **Sexually transmitted infections** | Number of chlamydia cases (new cases reported) per 100,000 population, 2008 | 157.6 | 83.0 | 276.1 |
| **Teen birth rate** | Number of teen births per 1,000 females ages 15-19, 2001-2007 | 46.1 | 22.0 | 27.5 |
| *Clinical Care* | | | | |
| **Uninsured adults** | Percent of adult population ages 18-64 without health insurance, 2007 | 15% | 13% | 11% |
| **Uninsured youth** | Percent of youth ages 0-18 without health insurance, 2007 | 12% | 7% | 6% |
| **Primary care physicians** | Ratio of total population to primary care physicians, 2008 | 1,178:1 | 631:1 | 636:1 |
| **Mental health providers** | Ratio of total population to mental health providers, 2008 | 8,246:1 | 2,242:1 | 1,306:1 |
| **Dentist rate** | Number of professionally active dentists per 100,000 population, 2007 | - | 69.0 | 61.0 |
| **Preventable hospital stays** | Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007 | 95.2 | 52.0 | 56.5 |
| **Diabetic screening** | Percent of diabetic Medicare enrollees that receive HbA1c screening, 2006-2007 | 82% | 89% | 88% |
| **Mammography screening** | Percent of female Medicare enrollees that receive mammography screening, 2006-2007 | 76% | 74% | 73% |

## HEALTH FACTORS (continued)

| | | Clearwater | *National Benchmark | Minnesota |
|---|---|---|---|---|

### Social and Economic Factors

| | | Clearwater | *National Benchmark | Minnesota |
|---|---|---|---|---|
| **High school graduation** | Percent of ninth-grade cohort in public schools that graduates from high school in four years, 2006-2007 | 70% | 92% | 87% |
| **Some college** | Percent of adults ages 25-44 with some post-secondary education, 2005-2009 | 57% | 68% | 72% |
| **Unemployment** | Percent of population ages 16 and older that is unemployed but seeking work, 2009 | 15.1% | 5.3% | 8.0% |
| **Child poverty** | Percent of children ages 0-17 living below the Federal Poverty Line, 2008 | 23% | 11% | 11% |
| **Inadequate social support** | Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009 | - | 14% | 14% |
| **Children in single-parent households** | Percent of children in families that live in a household headed by a parent with no spouse present, 2005-2009 | 33% | 20% | 25% |
| **Homicide rate** | Number of deaths due to murder or non-negligent manslaughter per 100,000 population, 2001-2007 | - | 1.0 | 2.5 |

### Physical Environment

| | | Clearwater | *National Benchmark | Minnesota |
|---|---|---|---|---|
| **Air pollution-particulate matter** | Number of days air quality was unhealthy for sensitive populations due to fine particulate matter, 2006 | 0 | 0 | 0 |
| **Air pollution-ozone** | Number of days air quality was unhealthy for sensitive populations due to ozone levels, 2006 | 0 | 0 | 0 |
| **Access to healthy foods** | Percent of zip codes with a healthy food outlet (i.e., grocery store or produce stand/farmers' market), 2008 | 60% | 92% | 54% |
| **Access to recreational facilities** | Number of recreational facilities per 100,000 population, 2008 | 0.0 | 17.0 | 12.0 |

### Demographics

| | | Clearwater | United States | Minnesota |
|---|---|---|---|---|
| **Youth** | Percent of total population ages 0-17, 2009 | 24% | 24% | 24% |
| **Elderly** | Percent of total population ages 65 and older, 2009 | 19% | 13% | 13% |
| **Rural** | Percent of total population living in a rural area, 2000 | 100% | 21% | 29% |
| **Not English proficient** | Percent of total population that speaks English less than "very well," 2005-2009 | 1% | 9% | 4% |
| **Illiteracy** | Percent of population ages 16 and older that lacks basic prose literacy skills, 2003 | 8% | 15% | 6% |

*The national benchmark is the 90th percentile (i.e., 10% of counties nationwide ranked better). **Binge drinking is defined as consuming more than 4 (for women) or 5 (for men) alcoholic beverages on a single occasion in the past 30 days. Heavy drinking is defined as drinking more than 1 (for women) or 2 (for men) alcoholic beverages per day on average. - Blank values reflect unreliable or missing data.

Source: The overall format and content of the County Health Profiles is based largely on County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/. Additional data sources include the U.S. Census Bureau, Small Area Health Insurance Estimates, http://www.census.gov/sahie/ and the Centers for Disease Control and Prevention's National Center for Health Statistics - the Health Indicators Warehouse, http://healthindicators.gov and "Health, United States, 2010," Table 109, http://www.cdc.gov/nchs/hus.htm.

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# Definitions of Health Variables

| Definitions of Health Variables from the *County Health Rankings 2011 Report* Variable | Definition |
|---|---|
| **Poor or Fair Health** | Self-reported health status based on survey responses to the question: "In general, would you say that your health is excellent, very good, good, fair, or poor?" |
| **Poor Physical Health Days (in past 30 days)** | Estimate based on responses to the question: "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" |
| **Poor Mental Health Days (in past 30 days)** | Estimate based on 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?" |
| **Adult Smoking** | Percent of adults that report smoking equal to, or greater than, 100 cigarettes and are currently a smoker |
| **Adult Obesity** | Percent of adults that report a BMI greater than, or equal to, 30 |
| **Excessive Drinking** | Percent of as individuals that report binge drinking in the past 30 days (more than 4 drinks on one occasion for women, more than 5 for men) or heavy drinking (defined as more than 1 (women) or 2 (men) drinks per day on average |
| **Sexually Transmitted Infections** | Chlamydia rate per 100,000 population |
| **Teen Birth Rate** | Birth rate per 1,000 female population, ages 15-19 |
| **Uninsured Adults** | Percent of population under age 65 without health insurance |
| **Preventable Hospital Stays** | Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees |
| **Mammography Screening** | Percent of female Medicare enrollees that receive mammography screening |
| **Access to Healthy Foods** | Healthy food outlets include grocery stores and produce stands/farmers' markets |
| **Access to Recreational Facilities** | Rate of recreational facilities per 100,000 population |
| **Physical Inactivity** | Percent of adults aged 20 and over that report no leisure time physical activity |
| **Primary Care Provider Ratio** | Ratio of population to primary care providers |
| **Mental Health Care Provider Ratio** | Ratio of population to mental health care providers |
| **Diabetes Screening** | Percent of Medicare enrollees with diabetes that receive HbA1c screening |
| **Binge Drinking** | Percent of adults that report binge drinking in the last 30 days. Binge drinking is consuming more than 4 (women) or 5 (men) alcoholic drinks on one occasion. |

# Aging Profile

## 2010 Demographic and Socio-Economic Profile
## for the Aging Population Ages 65 and Older

**Beltrami County**

Minnesota

| CHARACTERISTICS | Total | AGE | |
| --- | --- | --- | --- |
| | | Less than 65 Years | Ages 65 and Older |
| **Population[1]** | | | |
| **Total population** | 44,442 | 38,688 | 5,754 |
| Percent ages 65 and older | 13% | - | 100% |
| Percent ages 85 and older | 2% | - | 16% |
| Percent male | 50% | 51% | 45% |
| Percent female | 50% | 49% | 55% |
| *Living Arrangements* | | | |
| **Total households (by age of householder)[1]** | 16,846 | 13,013 | 3,833 |
| Percent with family households (i.e., at least two people who are related) | 64% | 67% | 52% |
| Percent with householder living alone | 28% | 23% | 46% |
| **Grandparents living with their grandchildren*[2]** | 725 | 555 | 170 |
| Percent who are responsible for their grandchildren | 66% | 68% | 58% |
| *Housing* [1] | | | |
| Percent of occupied housing that is owner-occupied | 70% | 69% | 75% |
| Percent of occupied housing that is renter-occupied | 30% | 31% | 25% |
| *Economic Security* [2] | | | |
| Percent of working-age population in labor force | 66% | 76% | 14% |
| Percent of total population with income less than 100% of poverty | 20% | 22% | 9% |
| Percent of total population with income less than 200% of poverty | 41% | 42% | 38% |
| Median household income (by age of householder) | $43,394 | $41,641 | $29,498 |
| Owner-occupied housing units (by age of householder) | 12,175 | 9,358 | 2,817 |
| Percent spending 30% or more of income toward housing costs | 27% | 28% | 25% |
| Renter-occupied housing units (by age of householder) | 4,584 | 3,762 | 822 |
| Percent spending 30% or more of income toward housing costs | 44% | 46% | 34% |

Note: *The age categories for this indicator are grandparents ages 35 to 59 and grandparents ages 60 and older.

Source: U.S. Census Bureau, [1] 2010 Census Summary File 1 and [2] 2006-2010 American Community Survey 5-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across age categories; however, because they are based on sample data, one should use caution when interpreting small numbers. - Blank values reflect data that are missing or not applicable.

# Aging Profile

2010 Demographic and Socio-Economic Profile
for the Aging Population Ages 65 and Older

**Clearwater County**

Minnesota

| CHARACTERISTICS | Total | AGE | |
| --- | --- | --- | --- |
| | | Less than 65 Years | Ages 65 and Older |
| *Population* [1] | | | |
| **Total population** | 8,695 | 7,074 | 1,621 |
| Percent ages 65 and older | 19% | - | 100% |
| Percent ages 85 and older | 3% | - | 15% |
| Percent male | 50% | 51% | 46% |
| Percent female | 50% | 49% | 54% |
| *Living Arrangements* | | | |
| **Total households (by age of householder)** [1] | 3,527 | 2,471 | 1,056 |
| Percent with family households (i.e., at least two people who are related) | 67% | 73% | 54% |
| Percent with householder living alone | 29% | 22% | 44% |
| **Grandparents living with their grandchildren*** [2] | 71 | 34 | 37 |
| Percent who are responsible for their grandchildren | 59% | 56% | 62% |
| *Housing* [1] | | | |
| **Percent of occupied housing that is owner-occupied** | 80% | 82% | 76% |
| **Percent of occupied housing that is renter-occupied** | 20% | 18% | 24% |
| *Economic Security* [2] | | | |
| **Percent of working-age population in labor force** | 64% | 79% | 14% |
| **Percent of total population with income less than 100% of poverty** | 16% | 16% | 14% |
| **Percent of total population with income less than 200% of poverty** | 42% | 41% | 48% |
| **Median household income (by age of householder)** | $39,310 | $39,730 | $22,703 |
| **Owner-occupied housing units (by age of householder)** | 2,871 | 2,154 | 717 |
| Percent spending 30% or more of income toward housing costs | 28% | 29% | 24% |
| **Renter-occupied housing units (by age of householder)** | 827 | 607 | 220 |
| Percent spending 30% or more of income toward housing costs | 41% | 43% | 37% |

Note: *The age categories for this indicator are grandparents ages 35 to 59 and grandparents ages 60 and older.

Source: U.S. Census Bureau, [1] 2010 Census Summary File 1 and [2] 2006-2010 American Community Survey 5-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across age categories; however, because they are based on sample data, one should use caution when interpreting small numbers. - Blank values reflect data that are missing or not applicable.

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# Diversity Profile

## 2010 Demographic and Socio-Economic Profile for Racial and Ethnic Populations

## Beltrami County
### Minnesota

| CHARACTERISTICS | Total | RACE | | | | ETHNICITY |
| --- | --- | --- | --- | --- | --- | --- |
| | | White alone | Black alone | American Indian alone | Asian alone | Hispanic Origin - of any race |
| *Population* [1] | | | | | | |
| **Total population** | 44,442 | 33,359 | 262 | 9,004 | 309 | 676 |
| Percent ages 0 to 17 | 25% | 20% | 34% | 38% | 20% | 49% |
| Percent ages 18 to 44 | 37% | 37% | 53% | 37% | 66% | 39% |
| Percent ages 45 to 64 | 25% | 28% | 10% | 19% | 12% | 10% |
| Percent ages 65 and older | 13% | 15% | 3% | 6% | 2% | 2% |
| Median age (in years) | 33.2 | 38.3 | 22.3 | 23.9 | 23.8 | 18.3 |
| *Living Arrangements* | | | | | | |
| **Total households** [1] | 16,846 | 13,722 | 70 | 2,643 | 73 | 146 |
| Percent with householder living alone | 28% | 29% | 37% | 24% | 22% | 17% |
| Percent with families with children ages 0 to 17 | 28% | 25% | 36% | 38% | 26% | 51% |
| Grandparents living with their grandchildren [2] | 725 | 202 | 4 | 498 | 0 | 0 |
| Percent who are responsible for grandchildren | 66% | 51% | 100% | 71% | - | - |
| *Housing* [1] | | | | | | |
| Percent occupied housing that is owner-occupied | 70% | 74% | 29% | 56% | 44% | 43% |
| Percent occupied housing that is renter-occupied | 30% | 26% | 71% | 44% | 56% | 57% |
| *Educational Attainment* [2] | | | | | | |
| Percent of persons ages 25 and older with high school degree or higher | 89% | 91% | 100% | 76% | 97% | 90% |
| Percent of persons ages 25 and older with Bachelor's degree or higher | 29% | 32% | 2% | 11% | 51% | 23% |
| *Economic Security* [2] | | | | | | |
| Unemployment rate | 9% | 7% | 2% | 19% | 7% | 18% |
| Median household income | $43,394 | $47,526 | $36,103 | $25,373 | $43,990 | $45,096 |
| Percent of households with income <$25,000 | 31% | 27% | 23% | 49% | 21% | 37% |
| Percent of persons with income <100% poverty | 20% | 12% | 26% | 50% | 15% | 29% |
| Percent of children ages 0 to 17 in families with income <100% poverty | 28% | 13% | 27% | 59% | 19% | 30% |
| Percent of elderly ages 65 and older with income <100% poverty | 10% | 9% | - | 31% | 50% | 0% |

Source: U.S. Census Bureau, [1]2010 Census Summary File 1 and [2]2006-2010 American Community Survey (ACS) 5-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across race and ethnic categories; however, because they are based on sample data, one should use caution when interpreting small numbers. - Blank values reflect data that are missing or not applicable. Racial categories not represented include Native Hawaiian and Other Pacific Islander alone, Some Other Race alone, and Two or More races.

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# Diversity Profile

## 2010 Demographic and Socio-Economic Profile for Racial and Ethnic Populations

### Clearwater County
### Minnesota

| CHARACTERISTICS | Total | RACE White alone | RACE Black alone | RACE American Indian alone | RACE Asian alone | ETHNICITY Hispanic Origin - of any race |
|---|---|---|---|---|---|---|
| *Population* [1] | | | | | | |
| **Total population** | 8,695 | 7,579 | 30 | 782 | 21 | 120 |
| **Percent ages 0 to 17** | 25% | 22% | 70% | 37% | 57% | 61% |
| **Percent ages 18 to 44** | 28% | 28% | 23% | 30% | 38% | 23% |
| **Percent ages 45 to 64** | 28% | 29% | 0% | 25% | 5% | 13% |
| **Percent ages 65 and older** | 19% | 20% | 7% | 8% | 0% | 3% |
| **Median age (in years)** | 41.9 | 44.5 | 15.0 | 29.7 | 16.5 | 14.6 |
| *Living Arrangements* | | | | | | |
| **Total households** [1] | 3,527 | 3,208 | 5 | 247 | 3 | 16 |
| **Percent with householder living alone** | 29% | 29% | 0% | 27% | 0% | 13% |
| **Percent with families with children ages 0 to 17** | 27% | 26% | 80% | 40% | 67% | 38% |
| **Grandparents living with their grandchildren** [2] | 71 | 40 | 0 | 31 | 0 | 0 |
| **Percent who are responsible for grandchildren** | 59% | 50% | - | 71% | - | - |
| *Housing* [1] | | | | | | |
| **Percent occupied housing that is owner-occupied** | 80% | 82% | 20% | 57% | 33% | 75% |
| **Percent occupied housing that is renter-occupied** | 20% | 18% | 80% | 43% | 67% | 25% |
| *Educational Attainment* [2] | | | | | | |
| **Percent of persons ages 25 and older with high school degree or higher** | 84% | 85% | 100% | 70% | 60% | 77% |
| **Percent of persons ages 25 and older with Bachelor's degree or higher** | 15% | 16% | 9% | 1% | 0% | 27% |
| *Economic Security* [2] | | | | | | |
| **Unemployment rate** | 11% | 10% | 13% | 29% | 41% | 0% |
| **Median household income** | $39,310 | $42,118 | $35,268 | $23,583 | $71,042 | $23,250 |
| **Percent of households with income <$25,000** | 31% | 29% | 46% | 53% | 33% | 100% |
| **Percent of persons with income <100% poverty** | 16% | 13% | 51% | 38% | 0% | 0% |
| **Percent of children ages 0 to 17 in families with income <100% poverty** | 21% | 19% | 0% | 36% | 0% | 0% |
| **Percent of elderly ages 65 and older with income <100% poverty** | 15% | 14% | - | 28% | 0% | 0% |

Source: U.S. Census Bureau, [1]2010 Census Summary File 1 and [2]2006-2010 American Community Survey (ACS) 5-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across race and ethnic categories; however, because they are based on sample data, one should use caution when interpreting small numbers. - Blank values reflect data that are missing or not applicable. Racial categories not represented include Native Hawaiian and Other Pacific Islander alone, Some Other Race alone, and Two or More races.
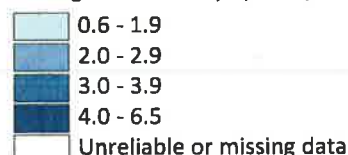
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**Map 1**

# Premature Death - A health outcome measure focusing on mortality
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
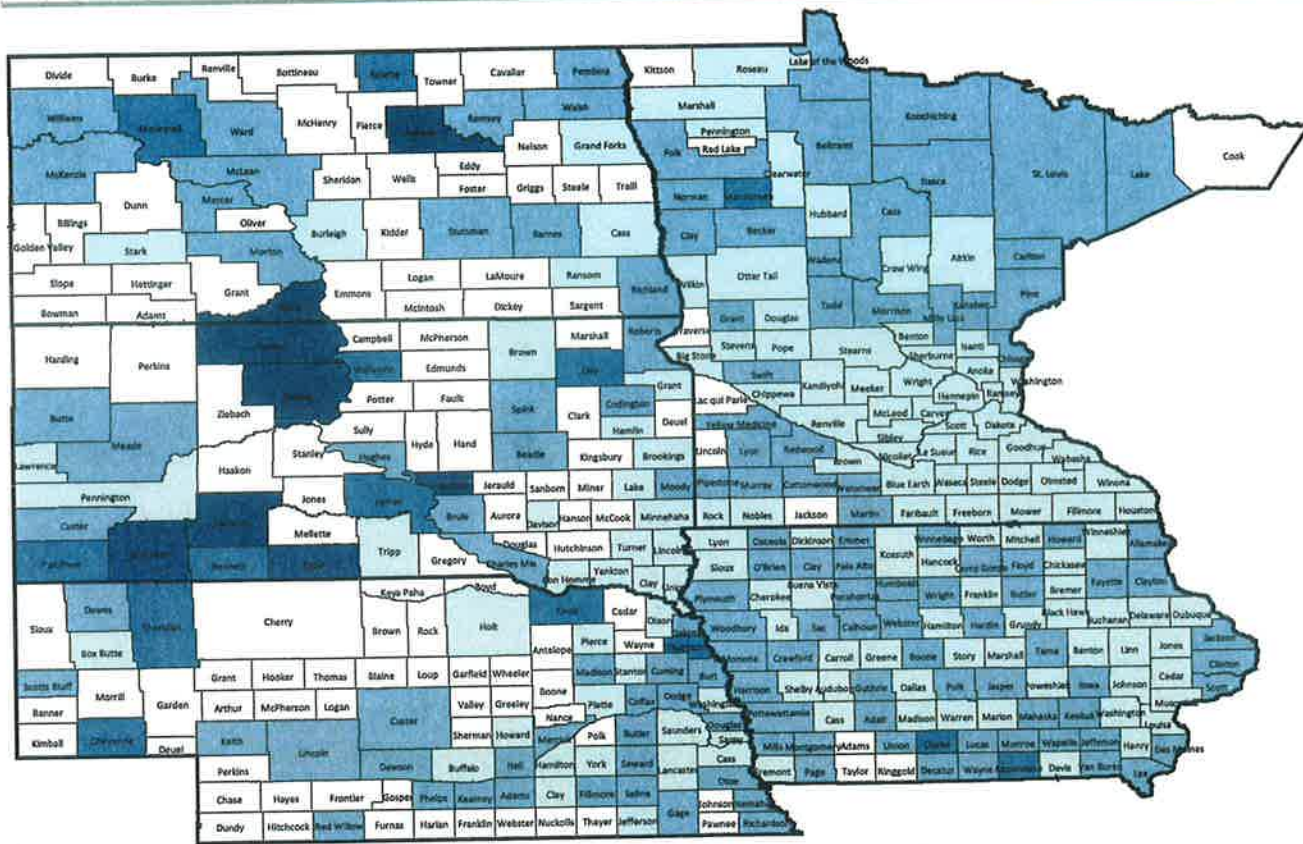


Years of potential life lost before age 75 per 100,000 population (age-adjusted), 2005-2007

- 3,624 - 5,999
- 6,000 - 8,899
- 8,900 - 14,999
- 15,000 - 24,829
- Unreliable or missing data
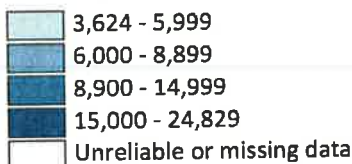
## CONTEXT

**What It Is:** Premature death is represented by 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 who dies at age 25 contributes 50 years of life lost, whereas a person who dies at age 65 contributes 10 years of life lost to a county's YPLL. The YPLL measure is presented as a rate per 100,000 population and is age-adjusted to the 2000 U.S. population.

**Where It Comes From:** Data on deaths, including age at death, are based on death certificates and are routinely reported to the National Vital Statistics System (NVSS) at the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC). NVSS calculates age-adjusted YPLL rates based on three-year averages to create more robust estimates of mortality, particularly for counties with smaller populations.

**Importance:** Age-adjusted YPLL-75 rates are commonly used to represent the frequency and distribution of premature deaths. Measuring YPLL allows communities to target resources to high-risk areas and further investigate the causes of death.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.
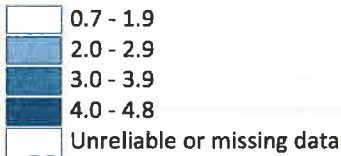
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**Map 2**

# Poor or Fair Health - A health outcome measure focusing on morbidity
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



**Percent of adults reporting fair or poor health (age-adjusted), 2003-2009**

- 3.5% - 8.9%
- 9.0% - 11.9%
- 12.0% - 16.9%
- 17.0% - 29.1%
- Unreliable or missing data
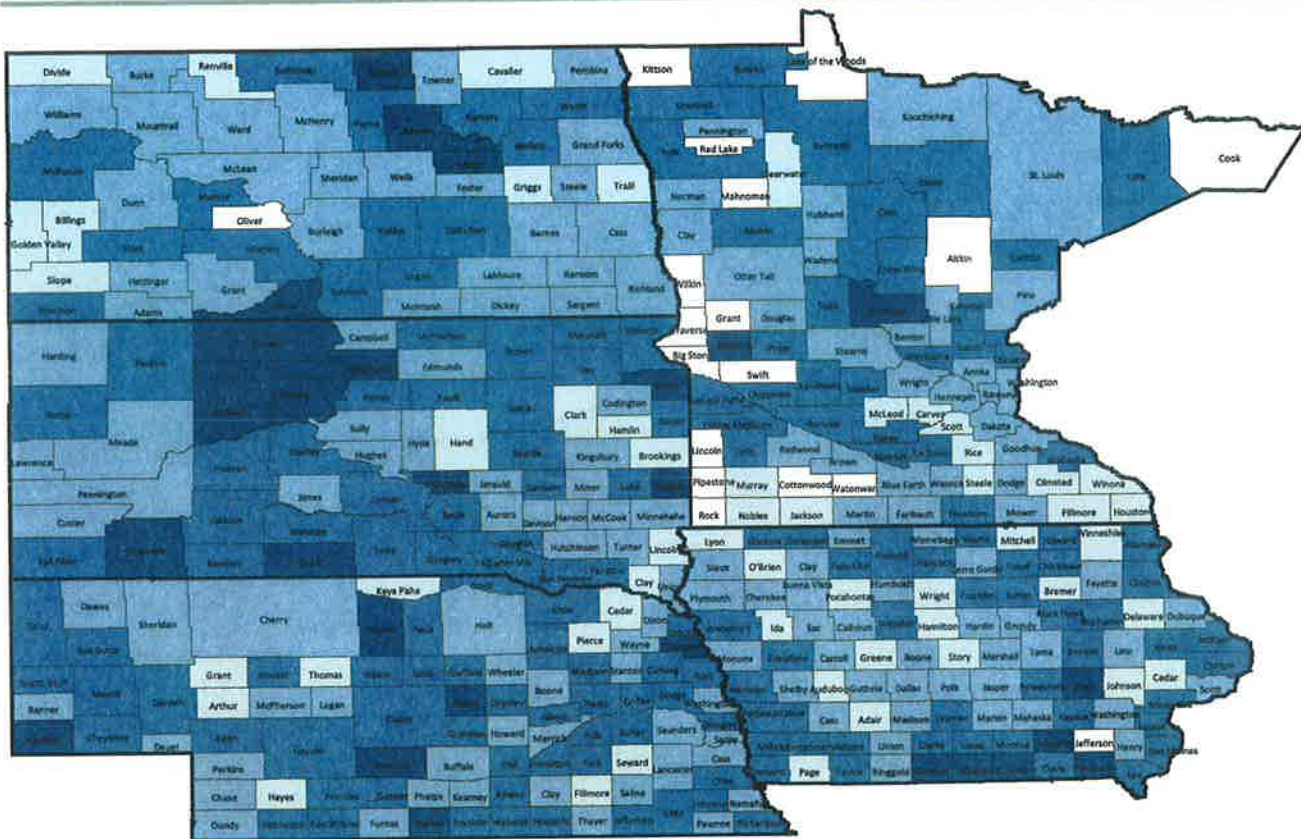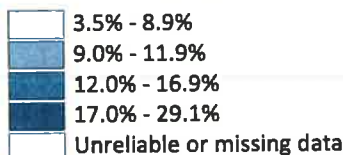
## CONTEXT

**What It Is:** Self-reported health status is a general measure of health-related quality of life in a population. This measure is based on survey responses to the question: "In general, would you say that your health is excellent, very good, good, fair, or poor?" The value reported is the percent of adult respondents who rate their health "fair" or "poor." The measure is age-adjusted to the 2000 U.S. population.

**Where It Comes From:** This measure was calculated by the National Center for Health Statistics using data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), a random-digit dial survey. BRFSS data are representative of the total non-institutionalized U.S. population ages 18 and older living in households with a land-line telephone. Seven years of data are used to generate more stable estimates of self-reported health status.
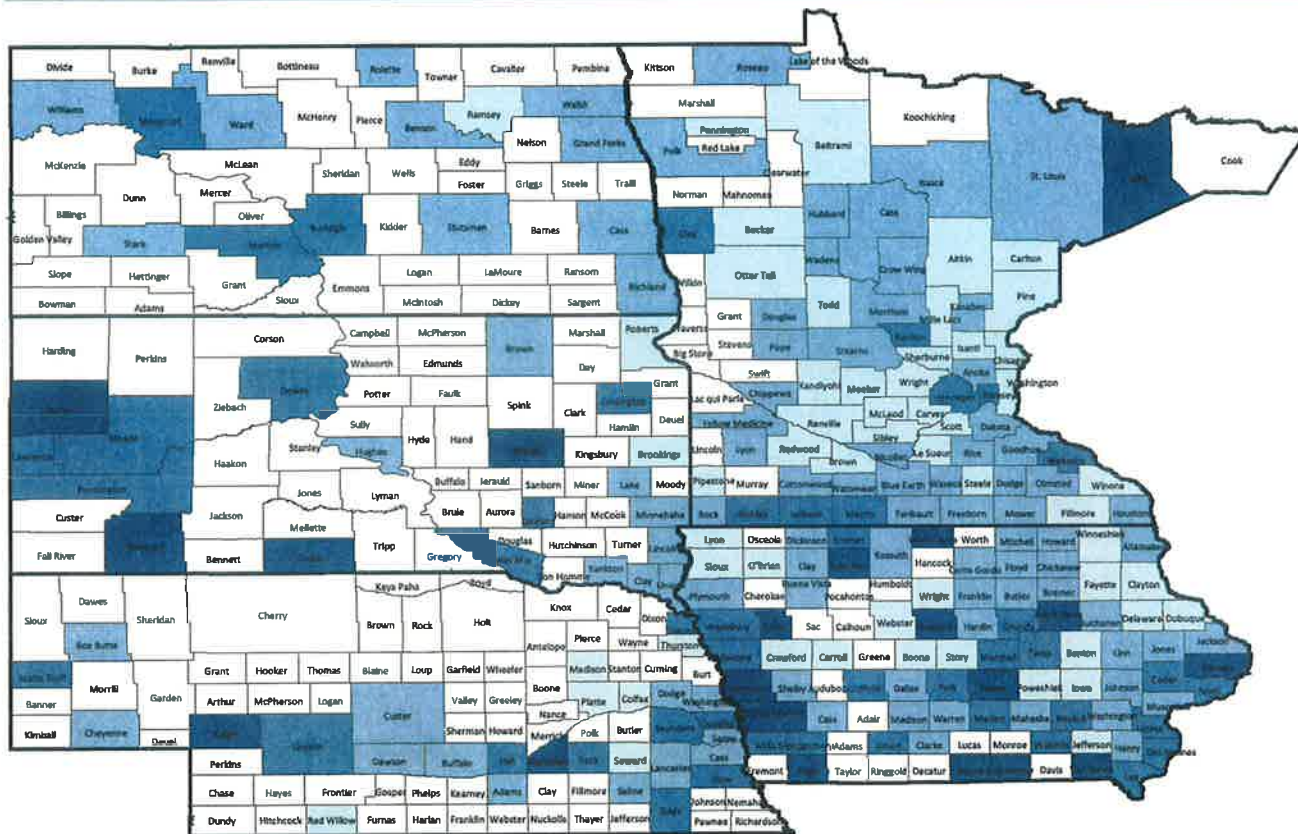
**Importance:** Self-reported health status is a widely used measure of people's health-related quality of life. In addition to measuring how long people live, it is important to also include measures of how healthy people are while alive – self-reported health status has been shown to be a very reliable measure of current health.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 3**

# Poor Physical Health Days - A health outcome measure focusing on morbidity

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Average number of physically unhealthy days reported in past 30 days (age-adjusted), 2003-2009

- 0.6 - 1.9
- 2.0 - 2.9
- 3.0 - 3.9
- 4.0 - 6.5
- Unreliable or missing data

## CONTEXT

**What It Is:** The poor physical health days measure is based on responses to the question: "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" Presented is the average number of days a county's adult respondents report that their physical health was not good. The measure is age-adjusted to the 2000 U.S. population.

**Where It Comes From:** This measure was calculated by the National Center for Health Statistics using data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), a random-digit dial survey. BRFSS data are representative of the total non-institutionalized U.S. population ages 18 and older living in households with a land-line telephone. Seven years of data are used to generate more stable estimates of poor physical health days.

**Importance:** In addition to measuring how long people live, it is also important to include measures of how healthy people are while alive – people's reports of days when their physical health was not good are a reliable estimate of their recent health.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 4**

# Poor Mental Health Days - A health outcome measure focusing on morbidity

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009

- 0.7 - 1.9
- 2.0 - 2.9
- 3.0 - 3.9
- 4.0 - 4.8
- Unreliable or missing data

## CONTEXT

**What It Is:** The poor mental health days measure is based on 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?" Presented is the average number of days a county's adult respondents report that their mental health was not good. The measure is age-adjusted to the 2000 U.S. population.

**Where It Comes From:** This measure was calculated by the National Center for Health Statistics using data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), a random-digit dial survey. BRFSS data are representative of the total non-institutionalized U.S. population ages 18 and older living in househol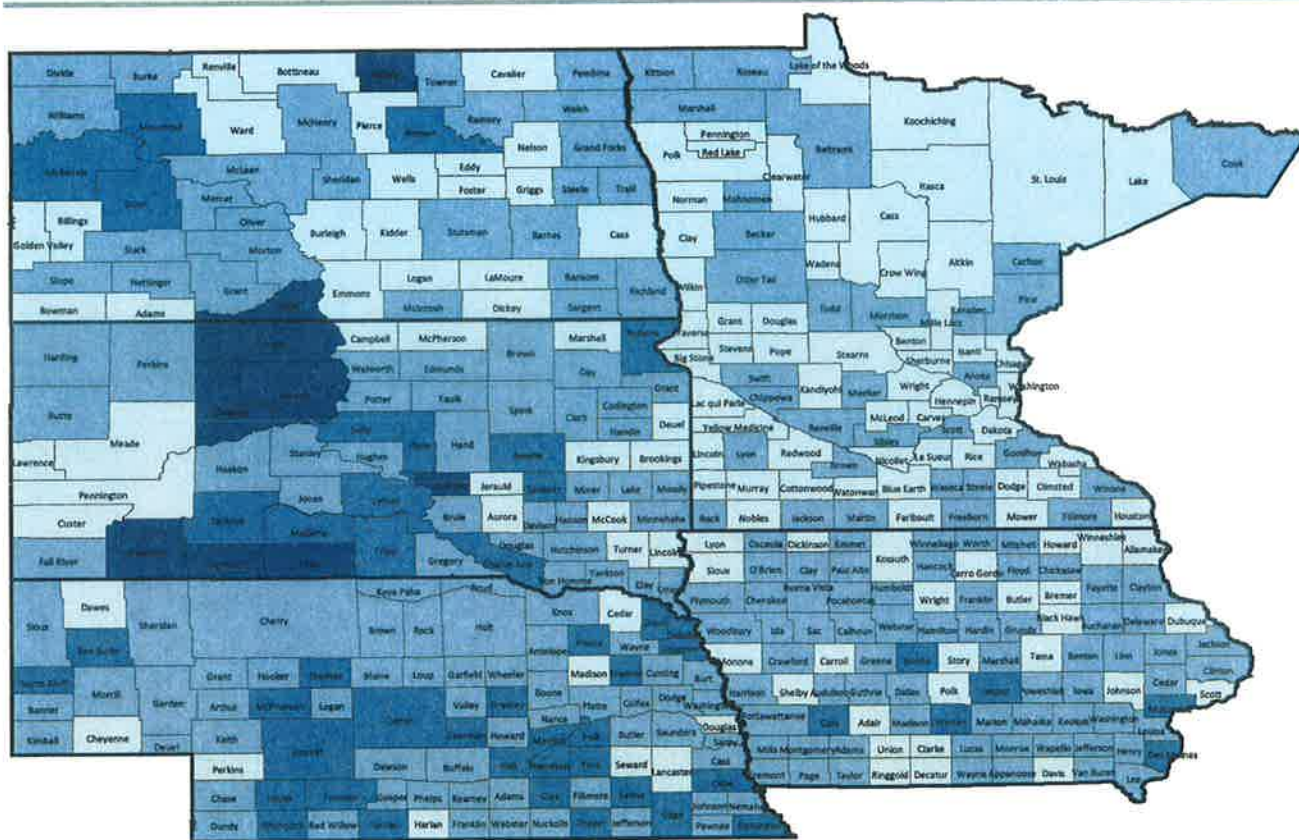ds with a land-line telephone. NCHS used seven years of data to generate more stable estimates of poor mental health days.

**Importance:** 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, represent an important facet of health-related quality of life. The County Health Rankings considers health-related quality of life to be an important health outcome.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 5**

# Low Birthweight - A health outcome measure focusing on morbidity
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



**Percent of live births with low birthweight (<2,500 grams), 2001-2007**

- 4.7% - 5.9%
- 6.0% - 6.9%
- 7.0% - 7.9%
- 8.0% - 9.1%
- Unreliable or missing data
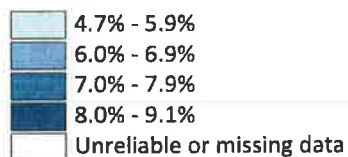
## CONTEXT

**What It Is:** Low birthweight is the percent of live births for which the infant weighed less than 2,500 grams (approximately 5 lbs., 8 oz.).

**Where It Comes From:** Data on births, including weight at birth, are based on birth certificates and are routinely reported to the National Vital Statistics System (NVSS) at the National Center for Health Statistics (NCHS), part at the Centers for Disease Control and Prevention (CDC). NCHS provides this measure based on the percent of live births with low birthweight for a seven-year period. They use seven-year averages to create more robust estimates, particularly for counties with smaller populations.

**Importance:** Low birthweight represents two factors: maternal exposure to health risks and an infant's current and future morbidity, as well as premature mortality risk. The health consequences of low birthweight are numerous.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 6**

# Adult Smoking - A health factor measure focusing on health behaviors

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
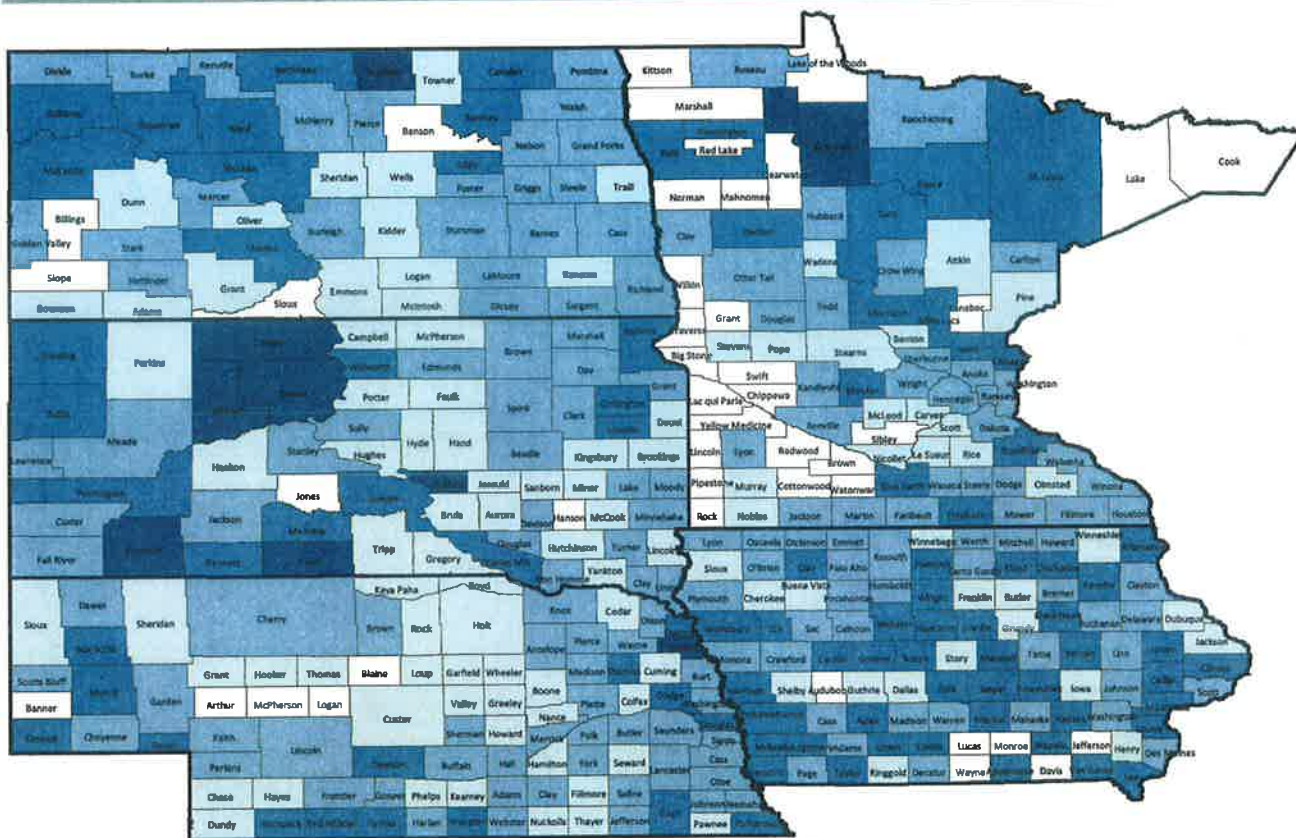


Percent of adults that currently smoke and have smoked at least 100 cigarettes in lifetime, 2003-2009

- 3.6% - 15.9%
- 16.0% - 20.9%
- 21.0% - 29.9%
- 30.0% - 48.5%
- Unreliable or missing data
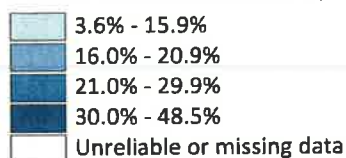
## CONTEXT

**What It Is:** 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.

**Where It Comes From:** This measure was calculated by the National Center for Health Statistics using data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), a random-digit dial survey. BRFSS data are representative of the total non-institutionalized U.S. population ages 18 and older living in households with a land-line telephone. The estimates are based on seven years of data.
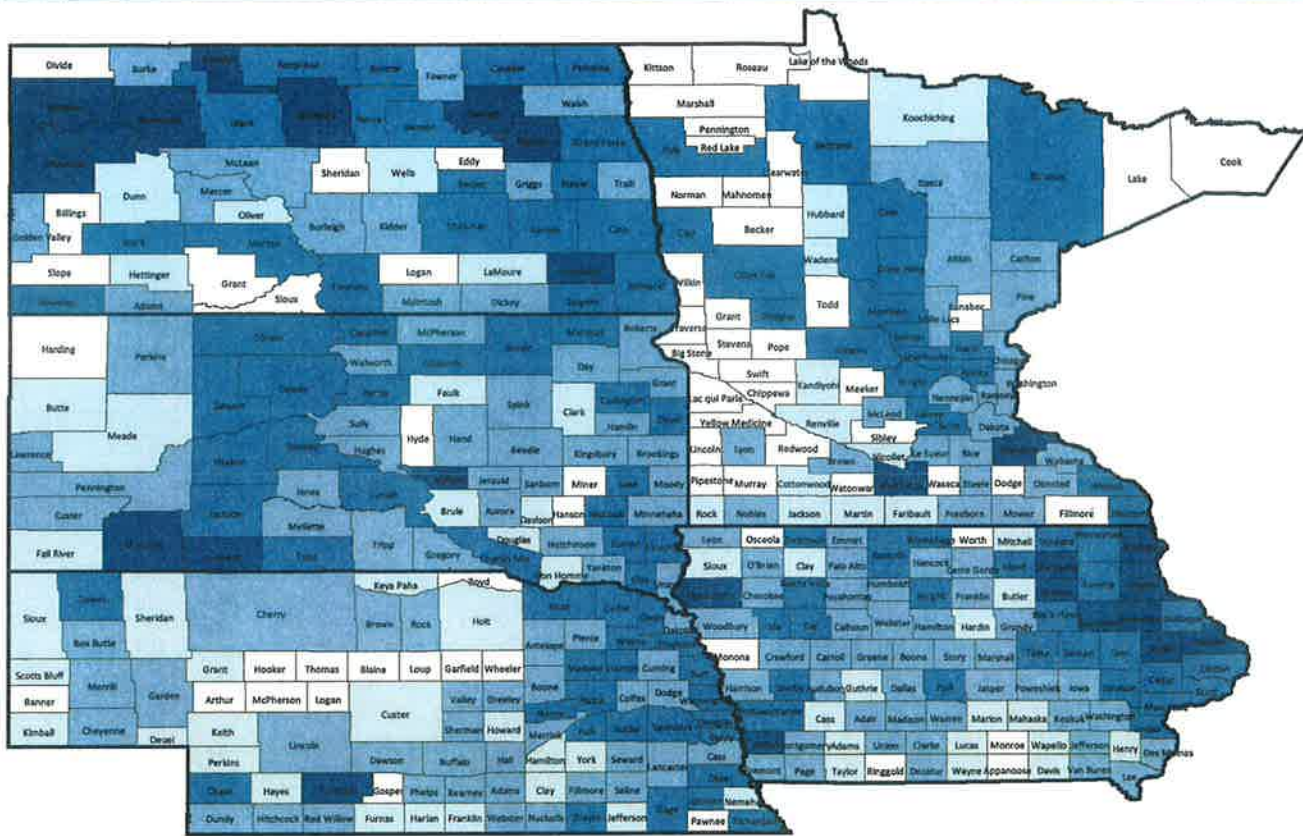
**Importance:** Each year approximately 443,000 premature deaths occur in the U.S. primarily due to smoking. Cigarette smoking is identified as a cause in multiple diseases including various cancers, cardiovascular disease, respiratory conditions, low birthweight, and other adverse health outcomes. Measuring the prevalence of tobacco use in the population can alert communities to potential adverse health outcomes and can be valuable for assessing the need for cessation programs or the effectiveness of existing programs.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 7**

# Adult Obesity - A health factor measure focusing on health behaviors
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Percent of adults that report a body mass index (BMI) of at least 30 kg/m2, 2008

- 22.5% - 27.9%
- 28.0% - 29.9%
- 30.0% - 33.9%
- 34.0% - 41.0%
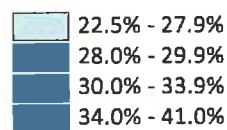
## CONTEXT

**What It Is:** 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.

**Where It Comes From:** Estimates of obesity prevalence by county were calculated by the CDC's National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation, using multiple years of Behavioral Risk Factor Surveillance System (BRFSS) data. BRFSS data are representative of the total non-institutionalized U.S. population ages 18 and older living in households with a land-line telephone.

**Importance:** 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 coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, and osteoarthritis.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 8**

## Physical Inactivity - A health factor measure focusing on health behaviors
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



**Percent of adults reporting no leisure time physical activity, 2008**

- 14.6% - 19.9%
- 20.0% - 25.9%
- 26.0% - 29.9%
- 30.0% - 35.7%
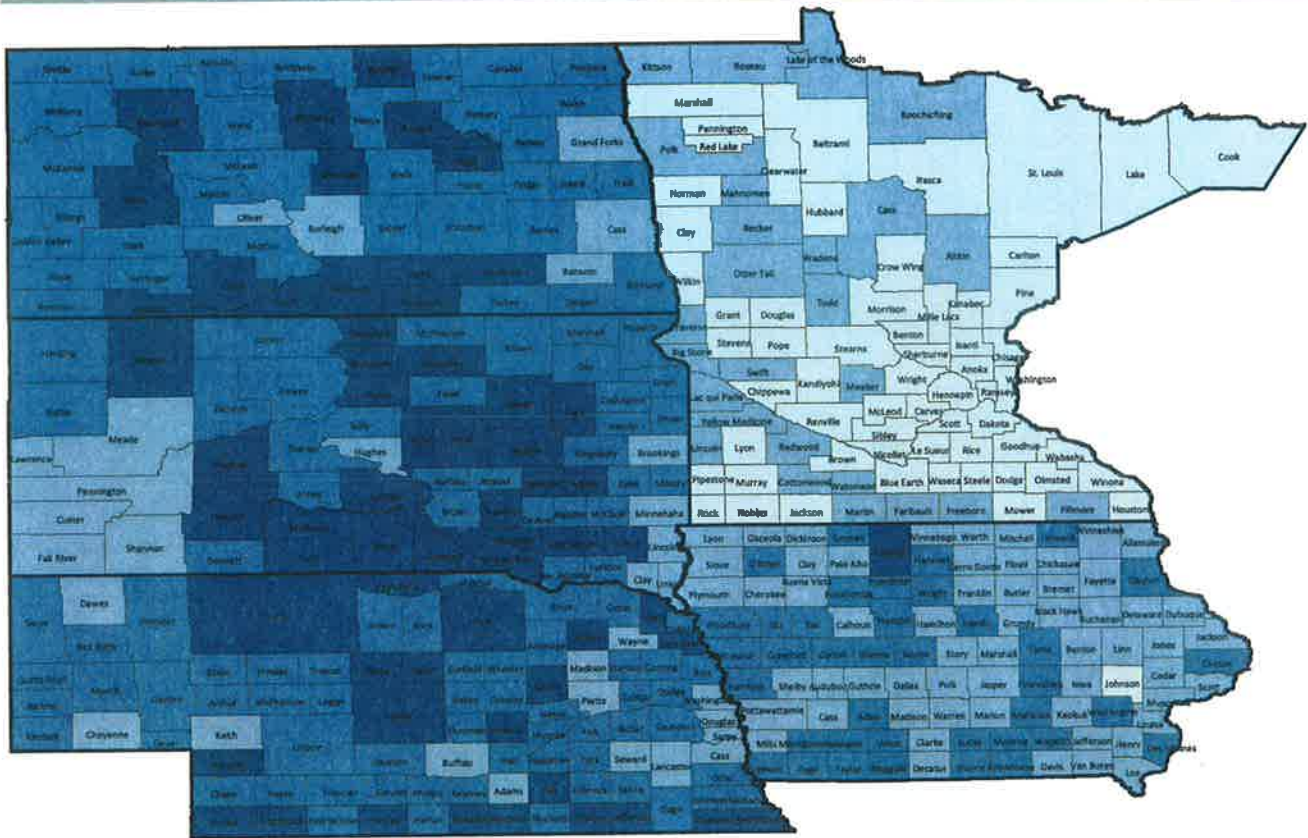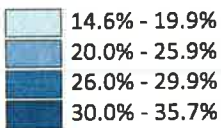
### CONTEXT

**What It Is:** Physical inactivity is the estimated percent of adults ages 20 and older reporting no leisure time physical activity.

**Where It Comes From:** Estimates of physical inactivity by county were calculated by the CDC's National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation, using multiple years of Behavioral Risk Factor Surveillance System (BRFSS) data. BRFSS data are representative of the total non-institutionalized U.S. population ages 18 and older living in households with a land-line telephone.

**Importance:** Regular physical activity is one of the most important things one can do for their health. It can help control weight, reduce risk of cardiovascular disease, reduce risk for type 2 diabetes and metabolic syndrome, reduce risk of some cancers, strengthen bones and muscles, improve mental health and mood, improve ability to do daily activities and prevent falls in older adults, and increase chances of living longer (Centers for Disease Control and Prevention, http://www.cdc.gov/physicalactivity/everyone/health/index.html).

- Data were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project
- a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 9**

# Excessive Drinking - A health factor measure focusing on health behaviors
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Percent of adults reporting binge drinking and heavy drinking, 2003-2009

- 7.5% - 14.9%
- 15.0% - 19.9%
- 20.0% - 24.9%
- 25.0% - 35.9%
- Unreliable or missing data
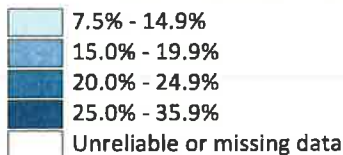
## CONTEXT

**What It Is:** The excessive drinking measure reflects the percent of the adult population that reports 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.

**Where It Comes From:** This measure was calculated by the National Center for Health Statistics using data obtained from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), a random-digit dial survey. BRFSS data are representative of the total non-institutionalized U.S. population ages 18 and older living in households with a land-line telephone. The estimates are based on seven years of data.

**Importance:** Excessive drinking is a risk factor for a number of adverse health outcomes such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 10**

# Motor Vehicle Crash Death Rate - A health factor measure focusing on health behaviors

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



**Motor vehicle crash deaths per 100,000 population, 2001-2007**

- 7.1 - 17.9
- 18.0 - 31.9
- 32.0 - 59.9
- 60.0 - 135.7
- Unreliable or missing data
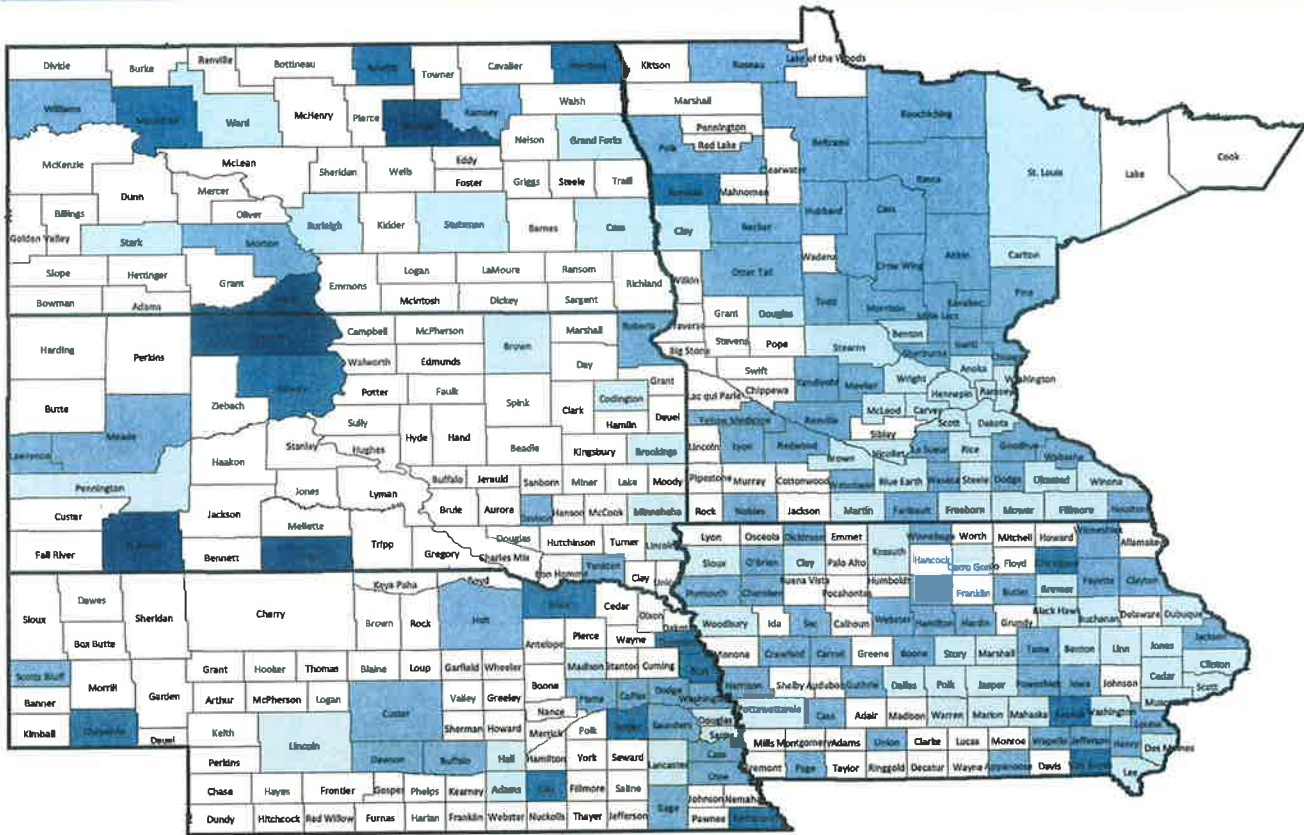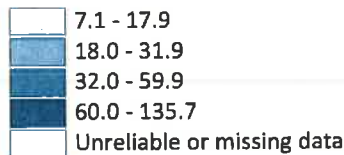
## CONTEXT

**What It Is:** Motor vehicle crash deaths are measured as the crude mortality rate per 100,000 population due to on- or off-road accidents involving a motor vehicle. Motor vehicle deaths includes traffic and non-traffic accidents involving motorcycles and 3-wheel motor vehicles; cars; vans; trucks; buses; street cars; ATVs; industrial, agricultural, and construction vehicles; and bikes and pedestrians when colliding with any of the vehicles mentioned. Deaths due to boating accidents and airline crashes are not included in this measure.

**Where It Comes From:** These data were calculated by National Center for Health Statistics (NCHS), part of the Centers for Disease Control and Prevention (CDC), based on data reported to the National Vital Statistics System (NVSS). NCHS used data for a seven-year period to create more robust estimates of cause-specific mortality, particularly for counties with smaller populations.

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

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 11**

# Sexually Transmitted Infections - A health factor measure focusing on health behaviors

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Number of chlamydia cases (new cases reported) per 100,000 population, 2008

- 15.4 - 176.9
- 177.0 - 399.9
- 400.0 - 1,015.9
- 1,016.0 - 2,326.8
- Unreliable or missing data
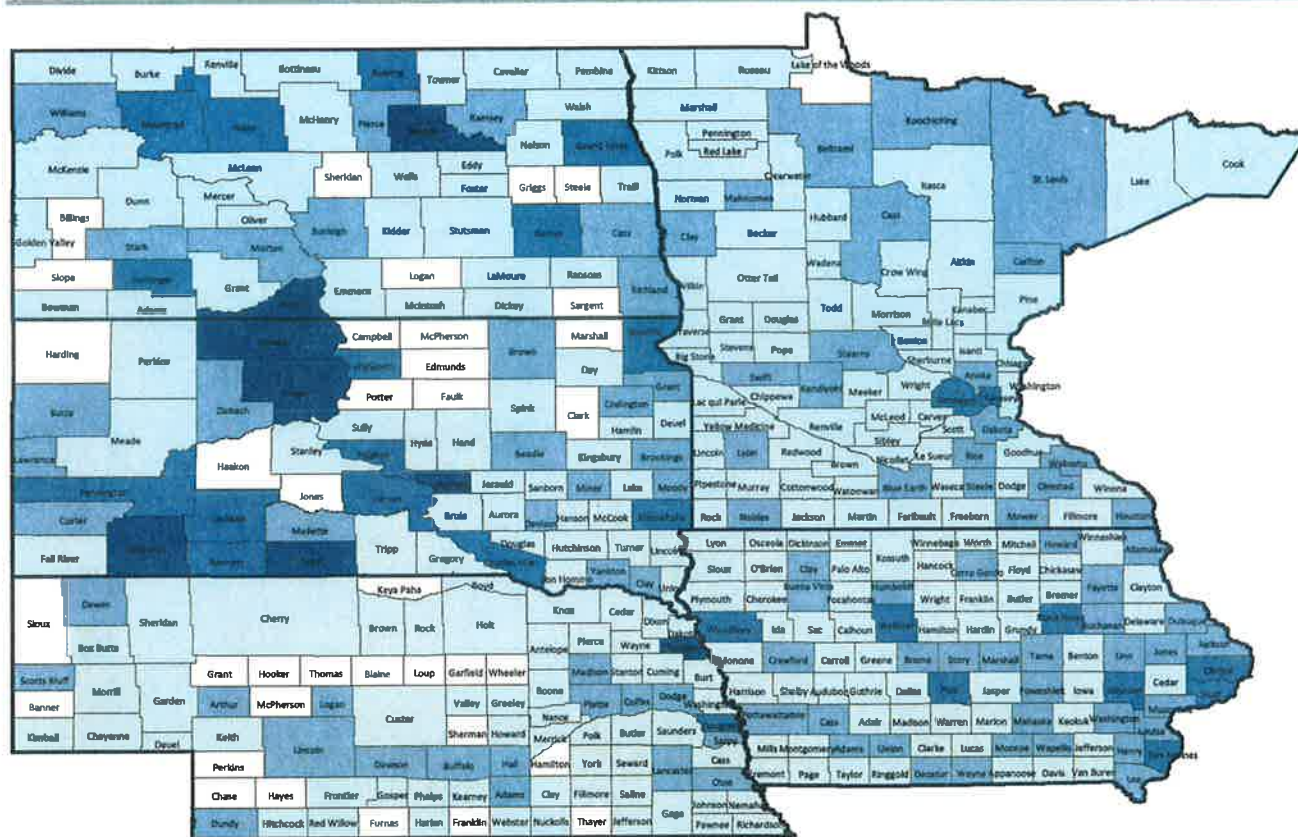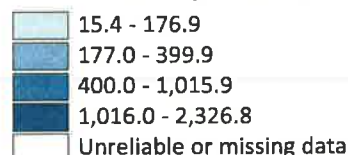
## CONTEXT

**What It Is:** The Sexually Transmitted Infection (STI) rate is measured as chlamydia incidence (the number of new cases reported) per 100,000 population.

**Where It Comes From:** The county-level measures were obtained from the CDC's National Center for Hepatitis, HIV, STD, and TB Prevention.

**Importance:** 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.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 12**

# Teen Birth Rate - A health factor measure focusing on health behaviors
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
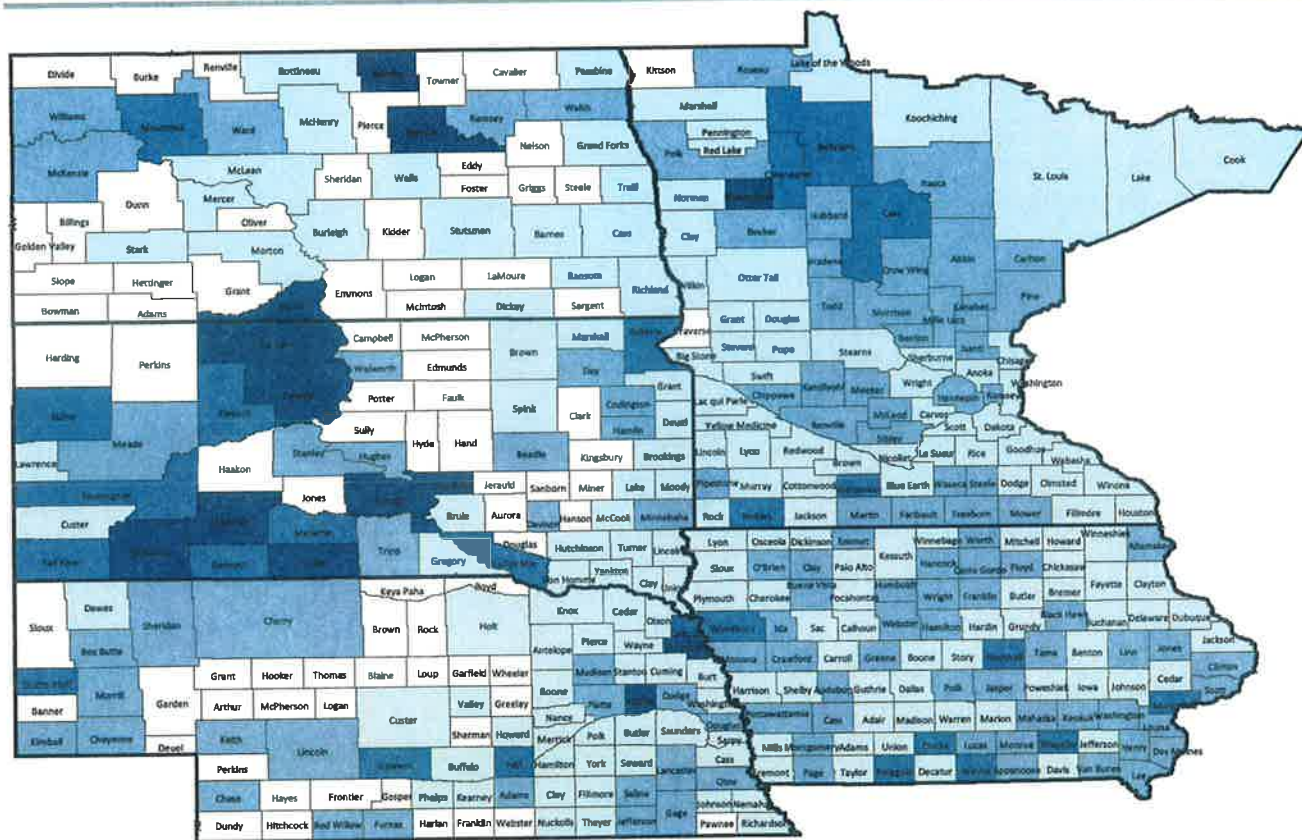


Number of teen births per 1,000 females ages 15 through 19, 2001-1007

- 8.1 - 28.9
- 29.0 - 45.9
- 46.0 - 79.9
- 80.0 - 137.8
- Unreliable or missing data
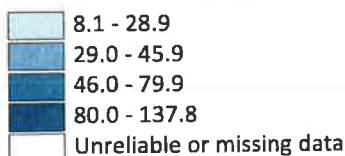
## CONTEXT

**What It Is:** Teen births are reported as the number of births per 1,000 female population ages 15 through 19.

**Where It Comes From:** Teen birth rates were obtained from the National Vital Statistics System (NVSS) at the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC).

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

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 13**

# Uninsured Adults - A health factor measure focusing on clinical care

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
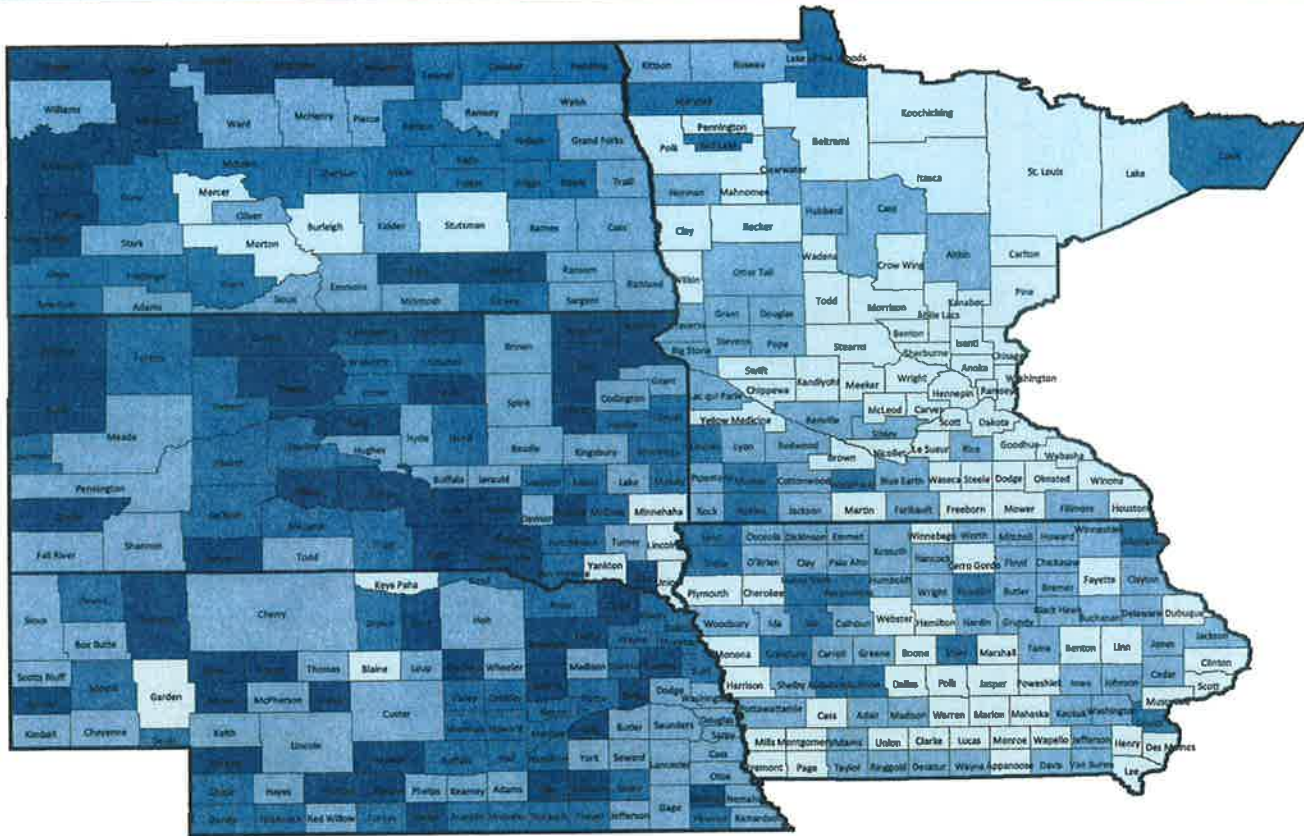


Percent of adult population ages 18 through 64 without health insurance, 2007

- 8.3% - 12.9%
- 13.0% - 16.9%
- 17.0% - 20.9%
- 21.0% - 27.5%
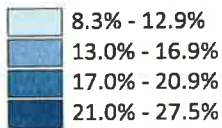
## CONTEXT

**What It Is:** The uninsured adults measure represents the estimated percent of the adult population under age 65 that has no health insurance coverage.

**Where It Comes From:** The Small Area Health Insurance Estimates from the U.S. Census Bureau provide annual estimates of the population without health insurance coverage for all U.S. states and their counties. The estimates used are for the most recent year for which reliable county-level estimates are available.

**Importance:** Lack of health insurance coverage is a significant barrier to accessing needed health care.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 14**

# Uninsured Youth - A health factor measure focusing on clinical care

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
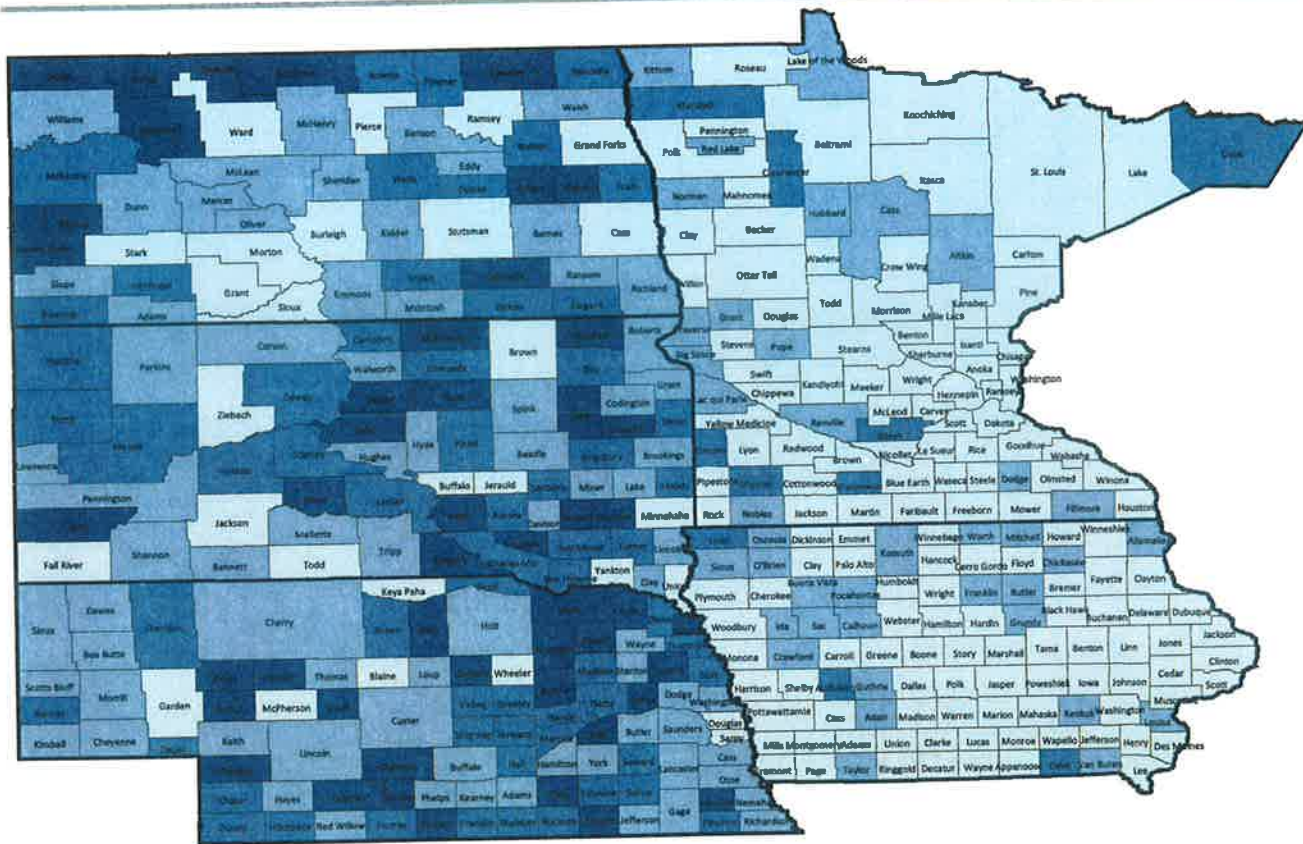


**Percent of youth ages 0 through 18 without health insurance, 2007**

| | |
|---|---|
| | 4.1% - 7.9% |
| | 8.0% - 10.9% |
| | 11.0% - 13.9% |
| | 14.0% - 20.5% |
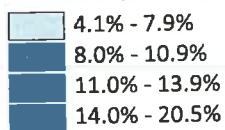
## CONTEXT

**What It Is:** The uninsured youth measure represents the estimated percent of the children ages birth through 18 that has no health insurance coverage.

**Where It Comes From:** The Small Area Health Insurance Estimates from the U.S. Census Bureau provide annual estimates of the population without health insurance coverage for all U.S. states and their counties. The estimates used are for the most recent year for which reliable county-level estimates are available.

**Importance:** Children without health insurance are more likely than others to receive late or no care for health problems, putting them at greater risk for hospitalization. In addition to resulting in reduced access to health care, a lack of health insurance can also negatively influence children's school attendance and participation in extracurricular activities, and increase parental financial and emotional stress. (Child Trends DataBank, http://www.childtrendsdatabank. org/?q=node/297)

- Data were obtained from the Small Area Health Insurance Estimates (SAHIE), a program of the U.S. Census Bureau, http://www.census.gov/ did/www/sahie/.
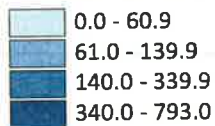
**Map 15**

# Primary Care Physicians - A health factor measure focusing on clinical care

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
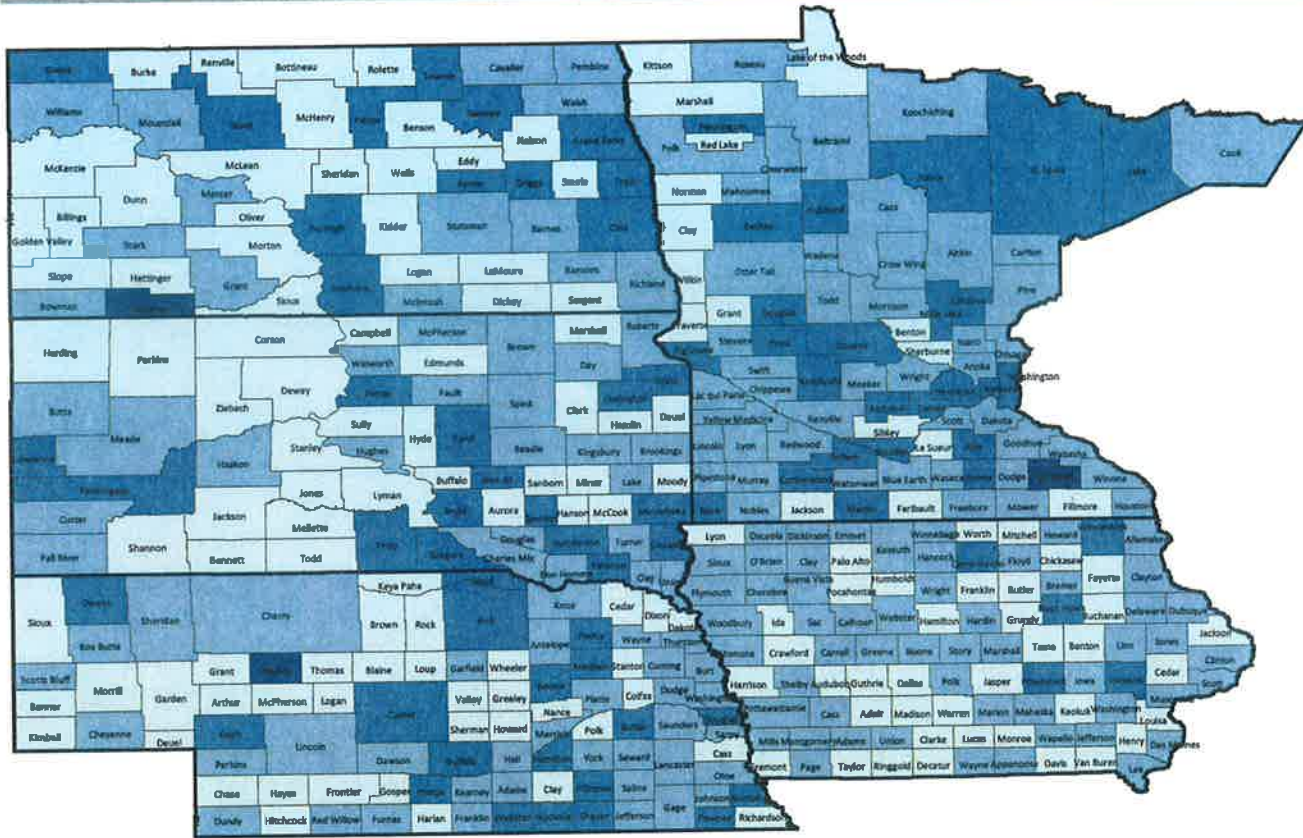


Number of primary care physicians per 100,000 population, 2008

- 0.0 - 60.9
- 61.0 - 139.9
- 140.0 - 339.9
- 340.0 - 793.0

## CONTEXT

**What It Is:** Primary care physicians include practicing physicians specializing in general practice medicine, family medicine, internal medicine, pediatrics, and obstetrics/gynecology. The measure represents the number of providers per 100,000 population.

**Where It Comes From:** The data on primary care physicians were obtained from the Health Resources and Services Administration's Area Resource File (ARF). The ARF data on practicing physicians come from the AMA Master File (2008), and the population estimates are from the U.S. Census Bureau's 2008 population estimates.

**Importance:** Having access to care requires not only having financial coverage but also access to providers. While high rates of specialist physicians has been shown to be associated with higher, and perhaps unnecessary, utilization, having sufficient availability of primary care physicians is essential so that people can get preventive and primary care, and when needed, referrals to appropriate specialty care.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.
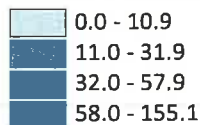
**Map 16**

# Mental Health Providers - A health factor measure focusing on clinical care
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Number of mental health providers per 100,000 population, 2008

- 0.0 - 10.9
- 11.0 - 31.9
- 32.0 - 57.9
- 58.0 - 155.1
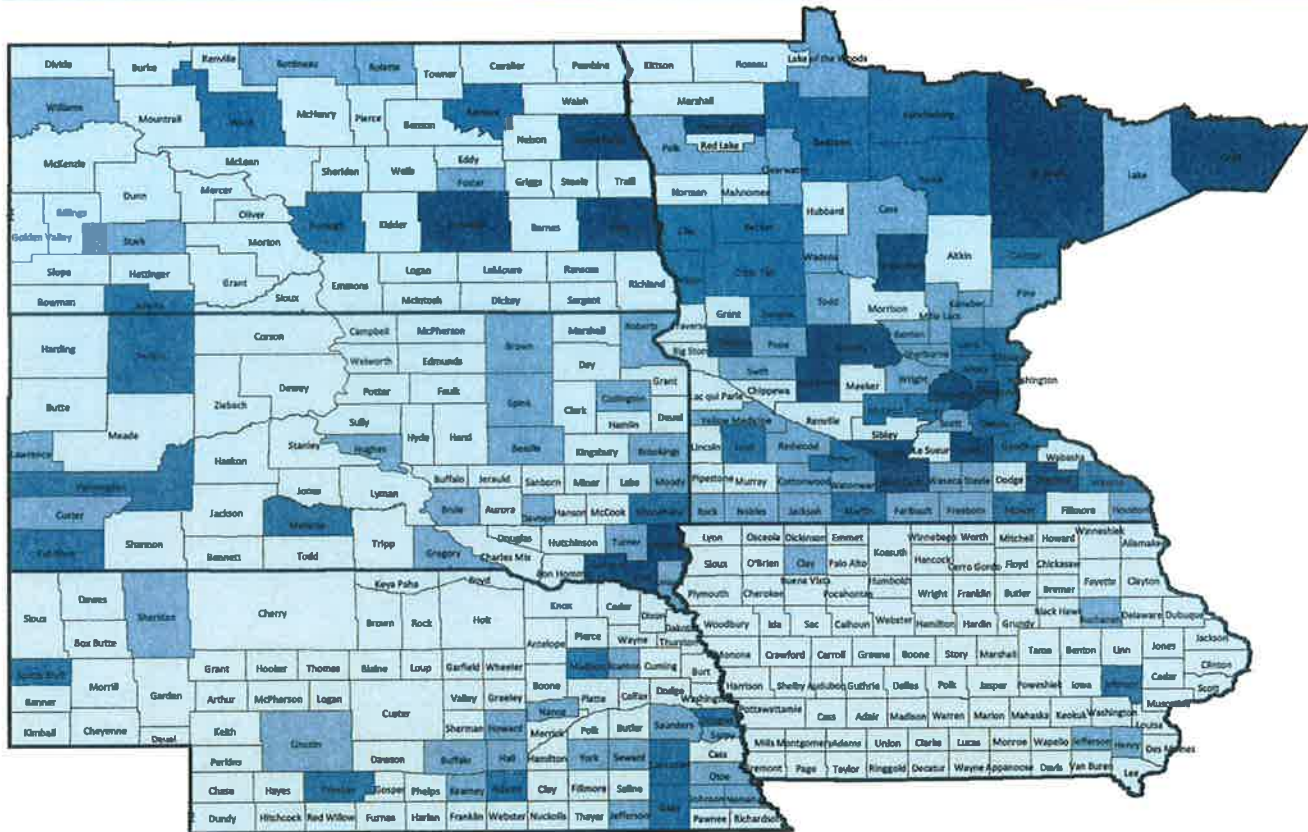
## CONTEXT

**What It Is:** Mental health providers include psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists who meet certain qualifications and certifications. This measure represents the number of mental health providers per 100,000 population.

**Where It Comes From:** Data on mental health providers were obtained from the Health Resources and Services Administration's (HRSA) Area Resource File (ARF).
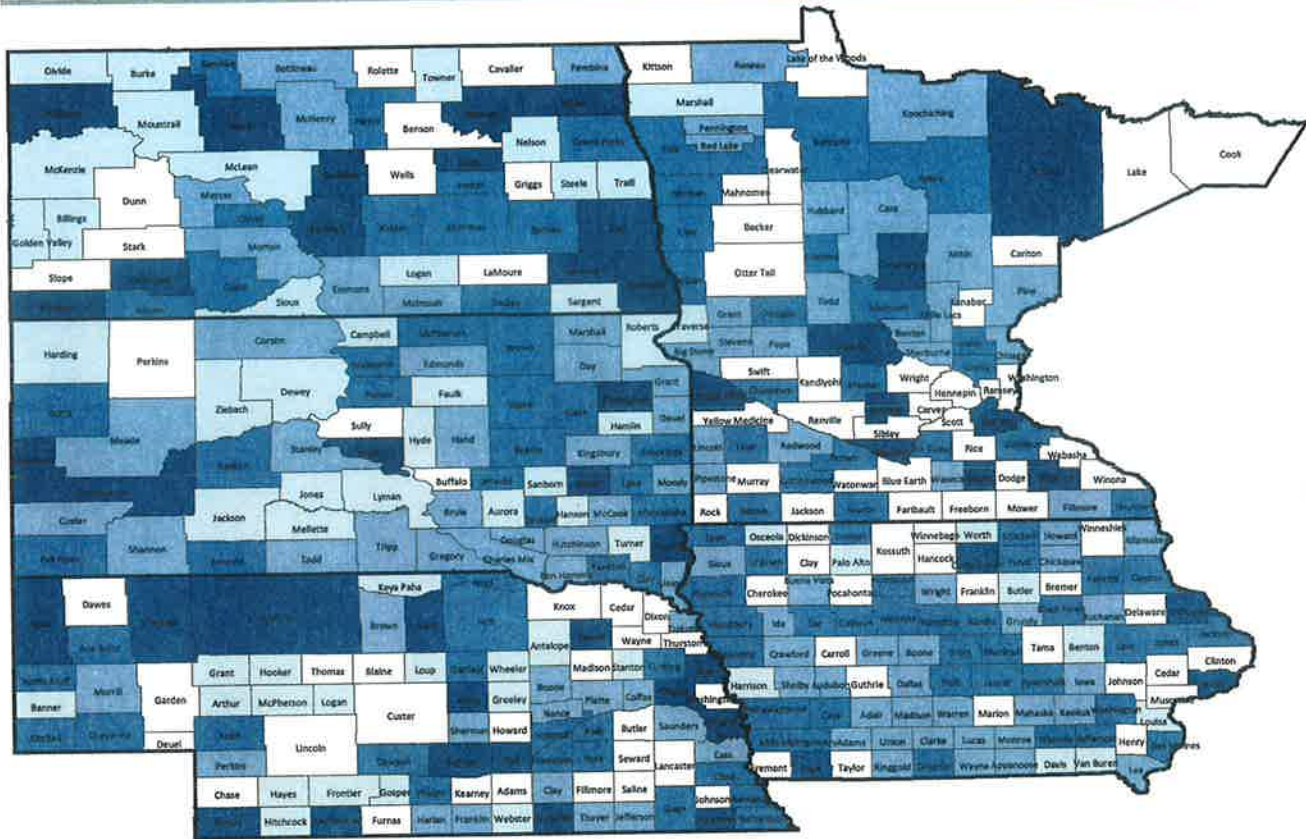
**Importance:** Even more than other areas of health and medicine, the mental health field is plagued by disparities in the availability of and access to its services. These disparities are viewed readily through the lenses of racial and cultural diversity, age, and gender. A key disparity often hinges on a person's financial status; formidable financial barriers block off needed mental health care from too many people regardless of whether one has health insurance with inadequate mental health benefits, or is one of the 44 million Americans who lack any insurance. (David Satcher, M.D., Ph.D., Surgeon General, http://www.surgeongeneral.gov/library/mentalhealth/home.html)

- Data were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project
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**Map 17**

# Dentist Rate - A health factor measure focusing on clinical care

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



**Number of professionally active dentists per 100,000 population, 2007**

- 0.0 - 15.9
- 16.0 - 37.9
- 38.0 - 60.9
- 61.0 - 149.9
- Unreliable or missing data
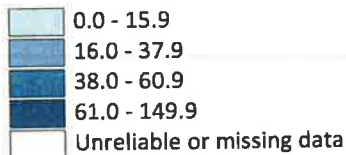
## CONTEXT

**What It Is:** The dentist rate is defined as the number of professionally active dentists per 100,000 population. Professionally active dentist occupation categories include active practitioners; dental school faculty or staff; armed forces dentists; government-employed dentists at the federal, state, or local levels; interns and residents; and other health or dental organization staff members.

**Where It Comes From:** Data on the number of dentists are tracked by the American Dental Association (ADA) and the American Medical Association (AMA). County-level data are housed in the Health Resources and Services Administration's Area Resource File (ARF) and made available through the Health Indicators Warehouse developed by the National Center for Health Statistics.
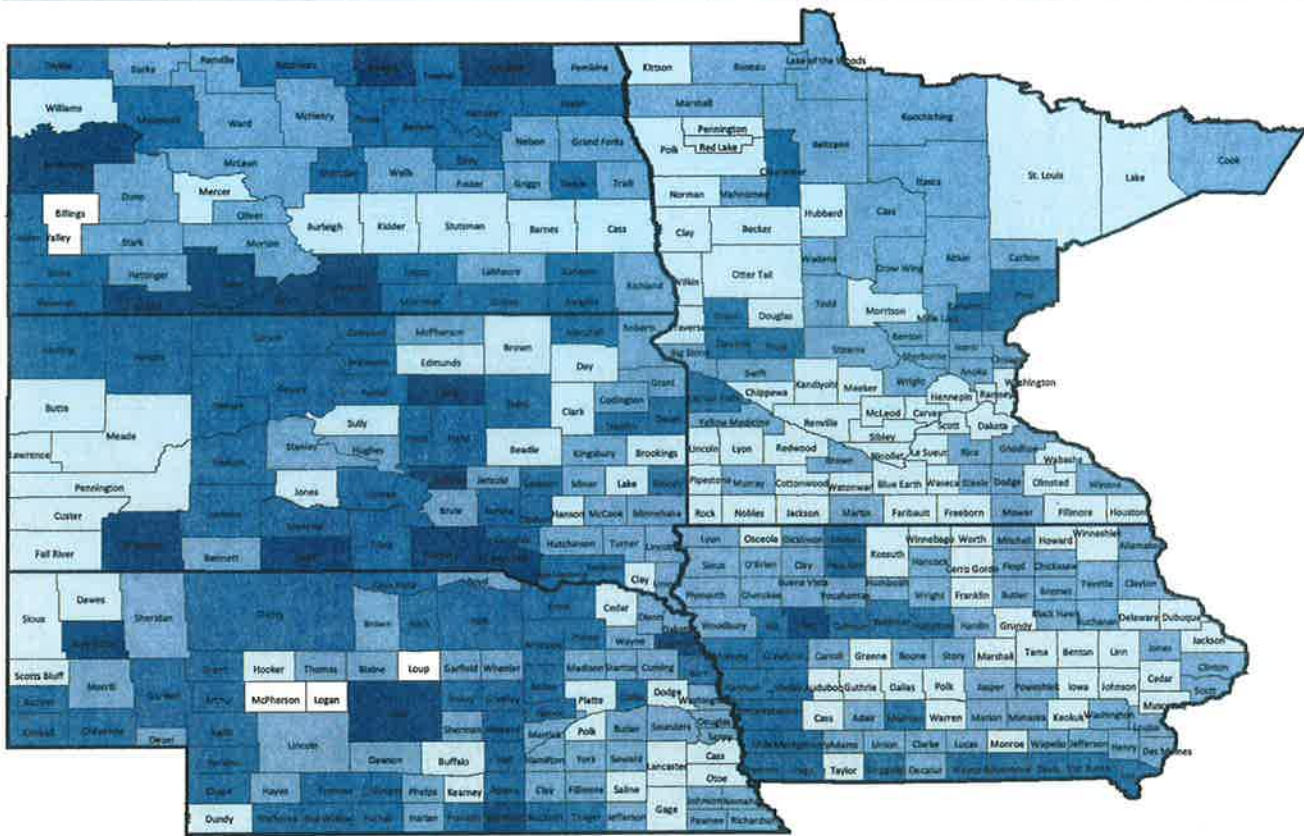
**Importance:** Today, thanks to fluoride, healthier lifestyles and quality dental care, more people than ever before are keeping their natural teeth throughout their lifetime. Yet for those who live in areas where a dentist is not available or those who cannot afford treatment, getting dental care can be difficult (American Dental Association, http://www.ada.org).

- Data were obtained from the Health Indicators Warehouse at http://healthindicators.gov/ which is maintained by the Centers for Disease Control and Prevention's National Center for Health Statistics.

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**Map 18**

# Preventable Hospital Stays - A health factor measure focusing on clinical care
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007

- 28.9 - 60.9
- 61.0 - 79.9
- 80.0 - 116.9
- 117.0 - 205.8
- Unreliable or missing data
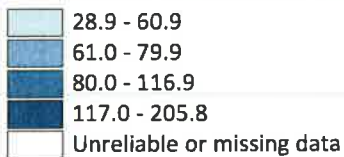
## CONTEXT

**What It Is:** Preventable hospital stays are measured as the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 Medicare enrollees.

**Where It Comes From:** Estimates of preventable hospital stays were calculated by the authors of the Dartmouth Atlas of Health Care using Medicare claims data.
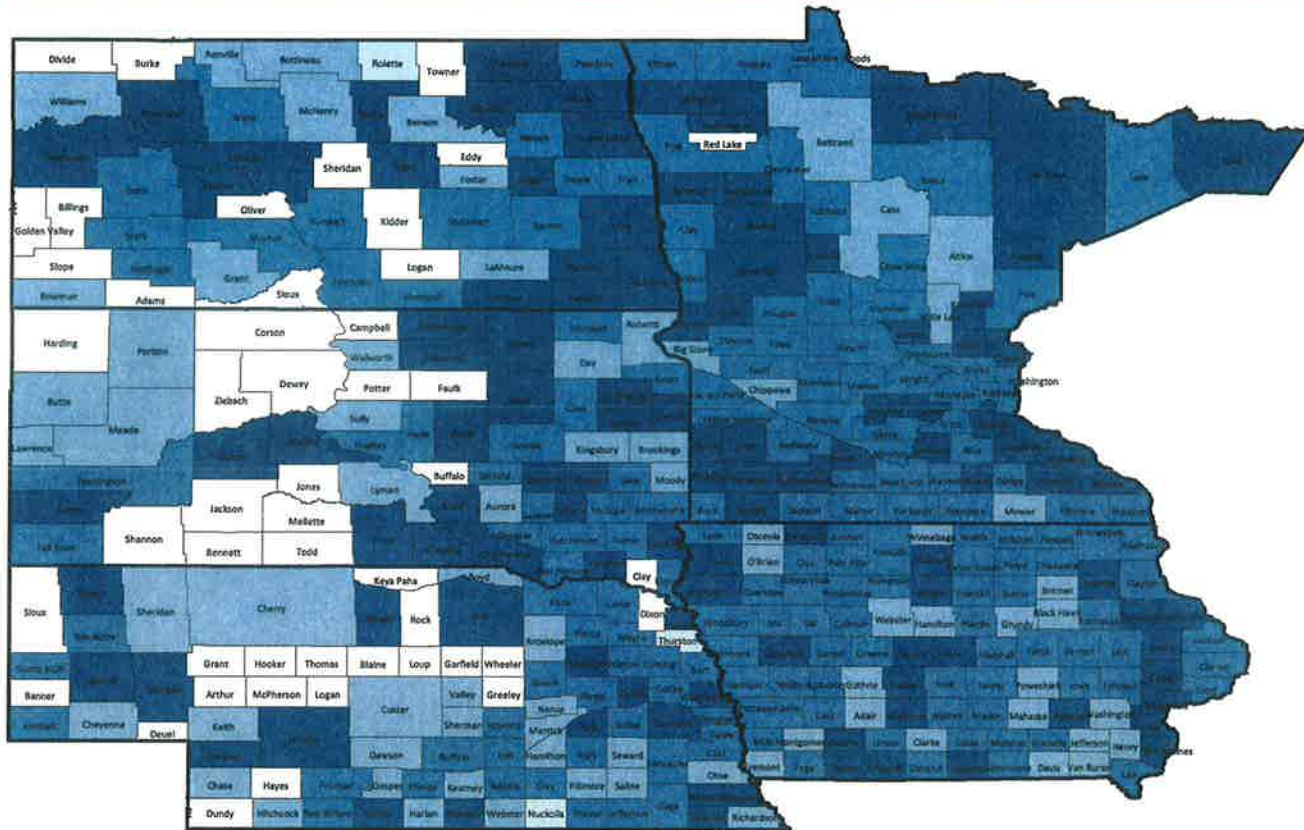
**Importance:** Hospitalization for diagnoses amenable to outpatient services suggests that the quality of care provided in the outpatient setting was less than ideal. The measure may also represent the population's tendency to overuse the hospital as a main source of care.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 19**

# Diabetic Screening - A health factor measure focusing on clinical care
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Percent of diabetic Medicare enrollees that receive HbA1c screening, 2006-2007

- 31.4% - 52.9%
- 53.0% - 80.9%
- 81.0% - 88.9%
- 89.0% - 100.0%
- Unreliable or missing data
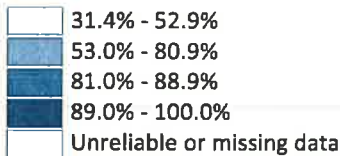
## CONTEXT

**What It Is:** Diabetic screening is calculated as the percent of diabetic Medicare patients whose blood sugar control was screened in the past year using a test of their glycated hemoglobin (HbA1c) levels.

**Where It Comes From:** Estimates of diabetic screening were calculated by the authors of the Dartmouth Atlas of Health Care using Medicare claims data.

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

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.
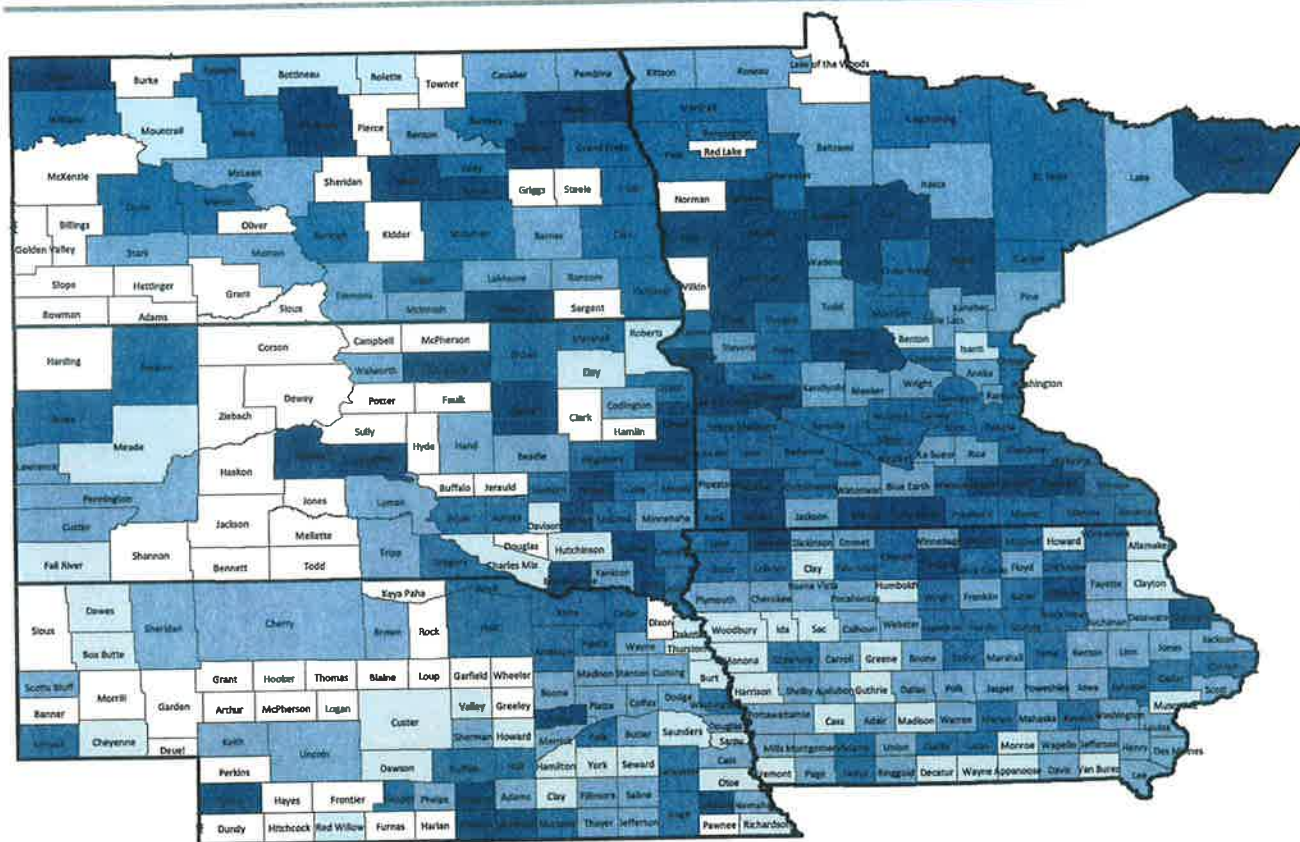
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**Map 20**

# Mammography Screening - A health factor measure focusing on clinical care

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Percent of female Medicare enrollees that receive mammography screening, 2006-2007

- 40.0% - 59.9%
- 60.0% - 69.9%
- 70.0% - 79.9%
- 80.0% - 100.0%
- Unreliable or missing data
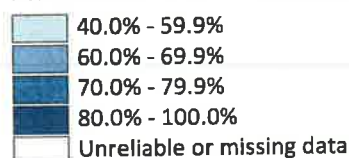
## CONTEXT

**What It Is:** This measure represents the percent of female Medicare enrollees ages 40 through 69 that had at least one mammogram over a two-year period.

**Where It Comes From:** Estimates were calculated by the authors of the Dartmouth Atlas of Health Care using Medicare claims data.

**Importance:** Evidence suggests that mammography screening reduces breast cancer mortality, especially among older women. A physician's recommendation or referral—and satisfaction with physicians—are major facilitating factors among women who obtain breast cancer screening. The percent of women ages 40 through 69 receiving a mammogram is a widely endorsed quality of care measure.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.
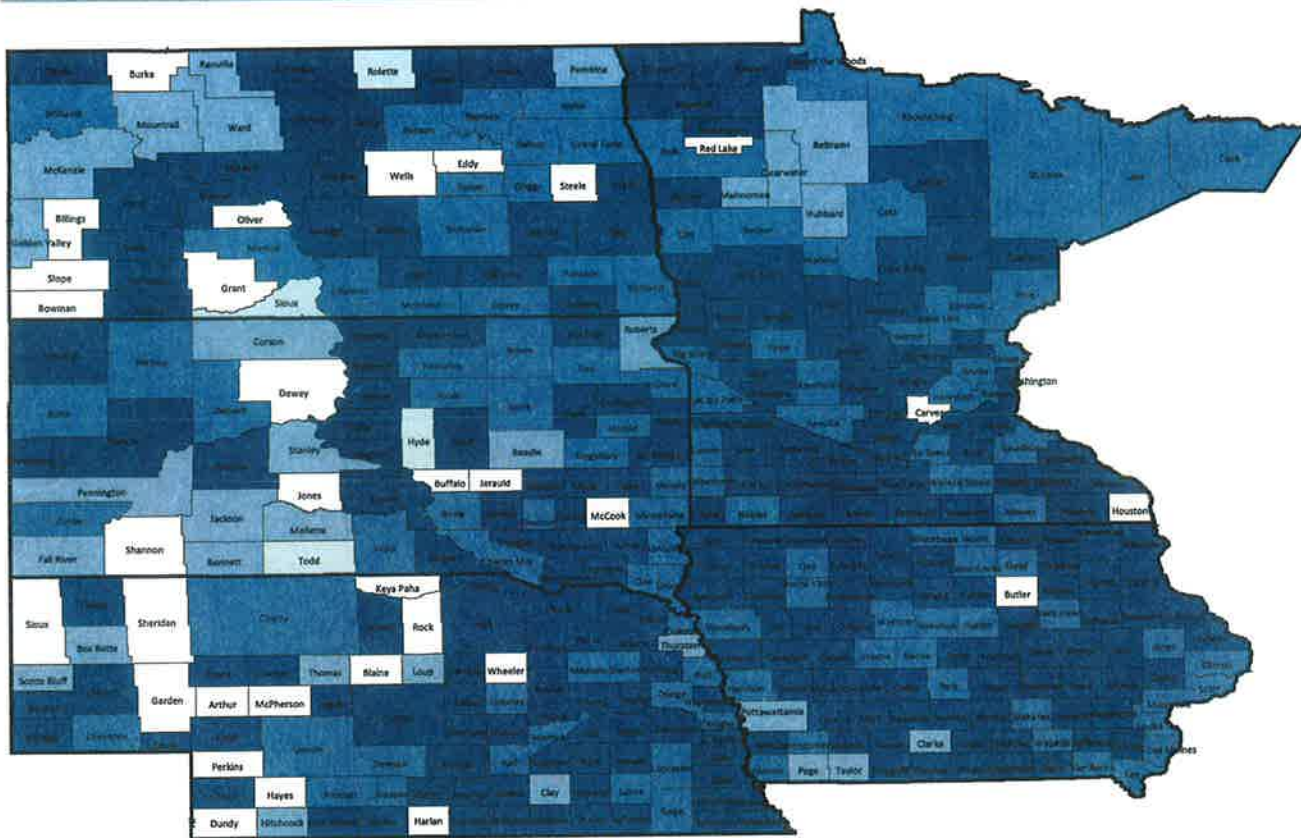
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**Map 21**

# High School Graduation - A health factor measure focusing on educaton

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Percent of ninth-grade cohort in public schools that graduates from high school in four years, 2006-2007

- 40.0% - 59.0%
- 60.0% - 79.0%
- 80.0% - 89.0%
- 90.0% - 100.0%
- Unreliable or missing data
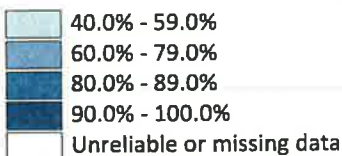
## CONTEXT

**What It Is:** High school graduation, commonly referred to as the averaged freshman graduation rate, is reported as the percent of a county's ninth-grade cohort in public schools that graduates from high school in four years.

**Where It Comes From:** Estimates of high school graduation are based on the restricted-use versions of the LEA Universe Survey Dropout and Completion data and the Public Elementary/Secondary School Universe Survey data. These data were requested from NCES for the school year 2006-07.

**Importance:** The relationship between more education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 22**

# Some College - A health factor measure focusing on education
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
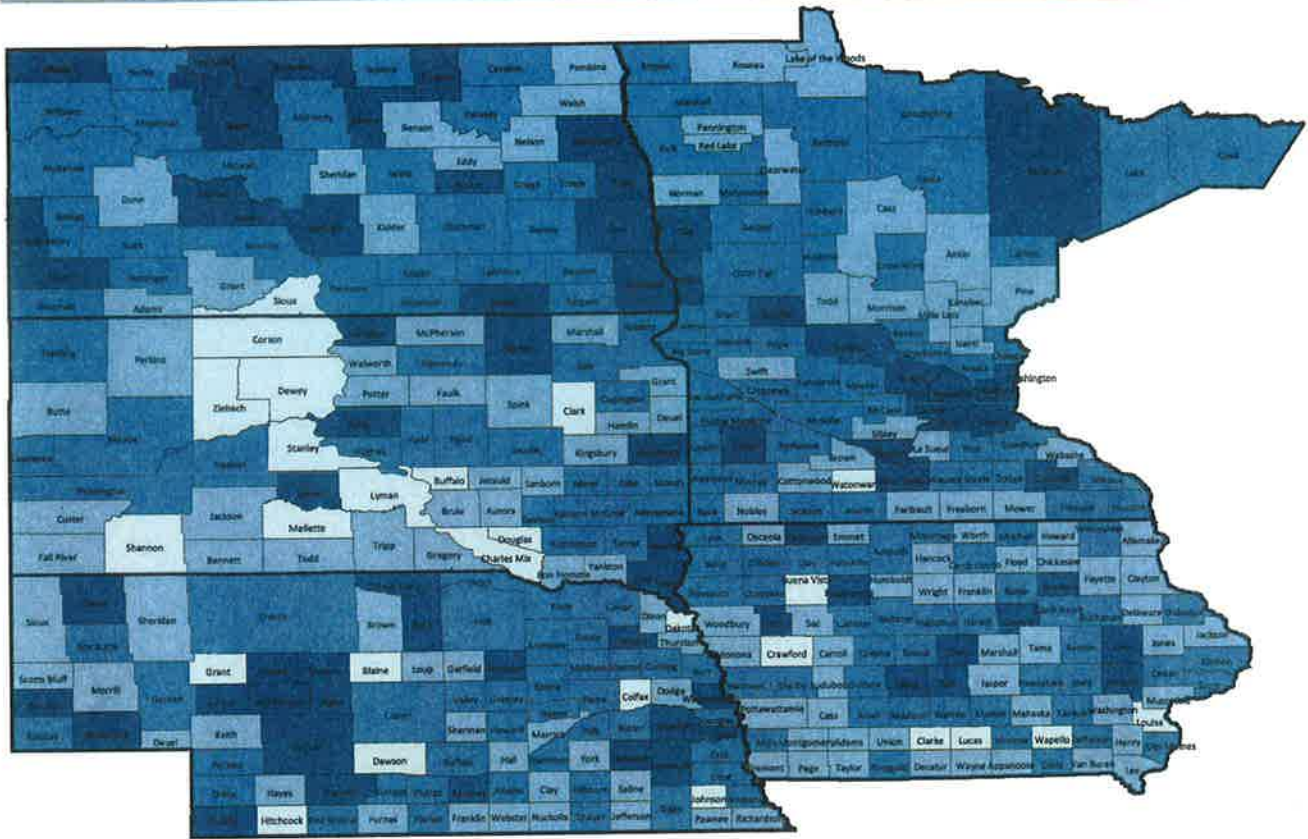


Percent of adults ages 25 through 44 with some post-secondary education, 2005-2009
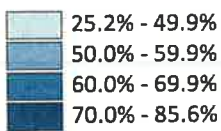
- 25.2% - 49.9%
- 50.0% - 59.9%
- 60.0% - 69.9%
- 70.0% - 85.6%

## CONTEXT

**What It Is:** This measure represents the percent of the population ages 25 through 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.

**Where It Comes From:** Estimates of the population ages 25 through 44 with some post-secondary education were calculated using the 5-year estimates from the U.S. Census Bureau's American Community Survey (ACS).

**Importance:** The relationship between higher education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 23**

# Unemployment - A health factor measure focusing on labor
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
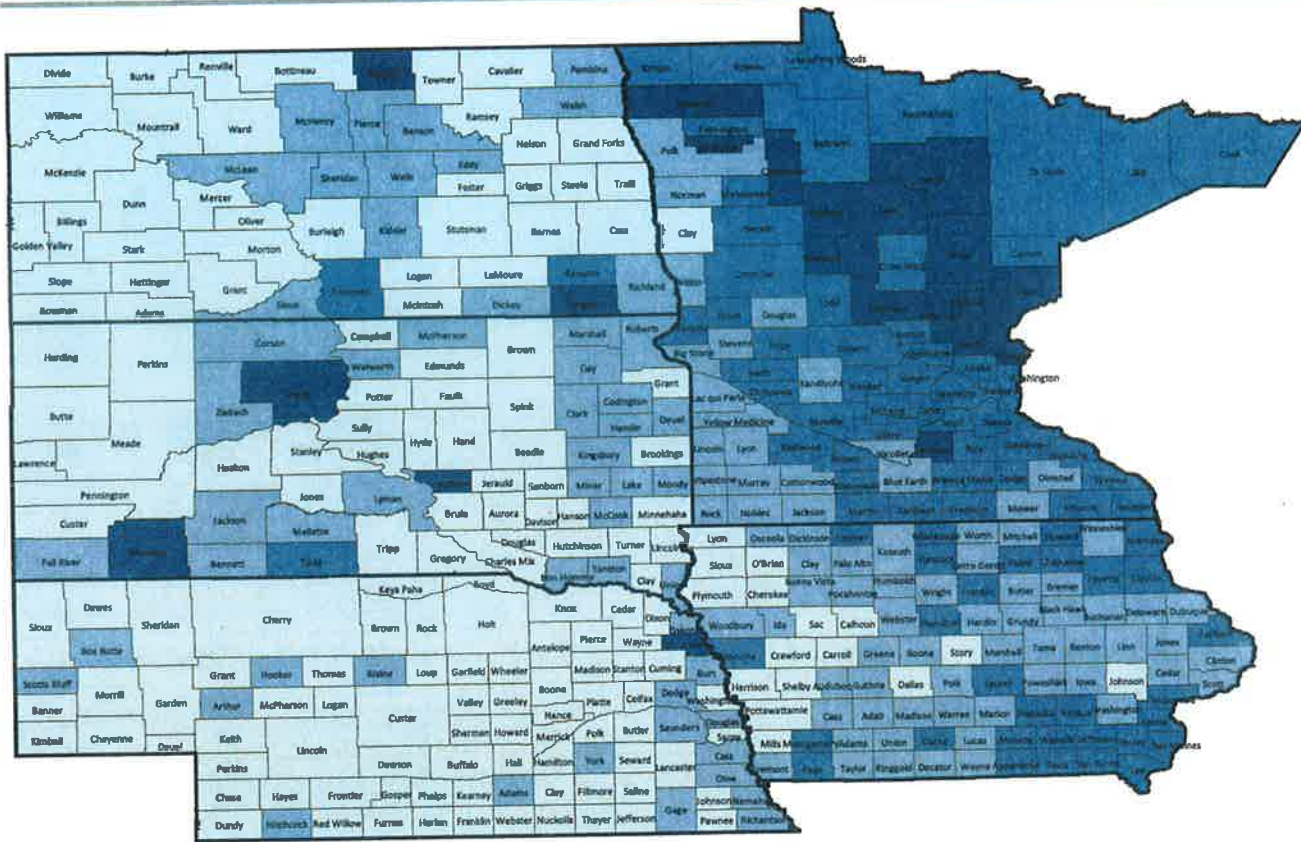


Percent of population ages 16 and older that is unemployed but seeking work, 2009

| | |
|---|---|
| | 2.4% - 4.9% |
| | 5.0% - 6.9% |
| | 7.0% - 9.9% |
| | 10.0% - 15.1% |
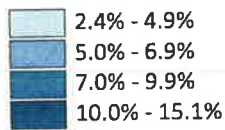
## CONTEXT

**What It Is:** Unemployment is measured as the percent of the civilian labor force ages 16 and older that is unemployed but seeking work.

**Where It Comes From:** Data on unemployment is obtained from the Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS).

**Importance:** Unemployment may lead to physical health responses ranging from self-reported physical illness to mortality, especially suicide. It has also been shown to lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise, and other health-related behaviors, which in turn can lead to increased risk for disease or mortality. Because employee-sponsored health insurance is the most common source of health insurance coverage, unemployment can also limit access to health care.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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Map 24

# Children in Poverty - A health factor measure focusing on income and poverty

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
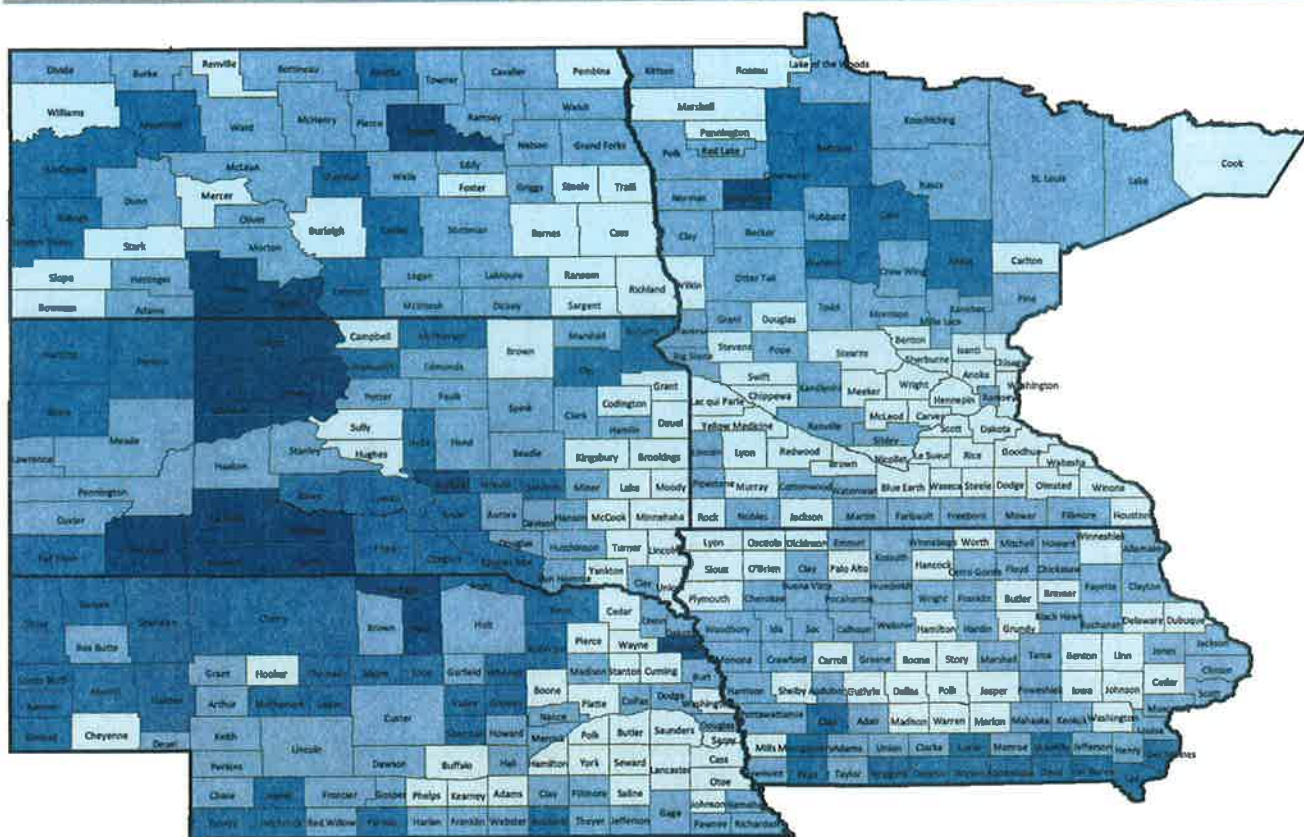


**Percent of children ages 0 through 17 living below the Federal Poverty Line, 2008**

- 4.7% - 12.9%
- 13.0% - 19.9%
- 20.0% - 34.9%
- 35.0% - 67.1%
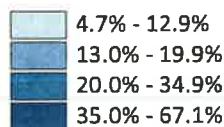
## CONTEXT

**What It Is:** Children in poverty is the percent of children under age 18 living below the Federal Poverty Line (FPL).

**Where It Comes From:** Children in poverty estimates are provided by the Small Area Income and Poverty Estimates (SAIPE) program through the U.S. Census Bureau.

**Importance:** Poverty can result in negative health consequences, such as increased risk of mortality, increased prevalence of medical conditions and disease incidence, depression, intimate partner violence, and poor health behaviors. While negative health effects resulting from poverty are present at all ages, children in poverty experience greater morbidity and mortality due to an increased risk of accidental injury and lack of health care access. Children's risk of poor health and premature mortality may also be increased due to the poor educational acheivement associated with poverty. The children in poverty measure is highly correlated with overall poverty rates.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 25**

# Inadequate Social Support - A health factor measure focusing on social networks

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
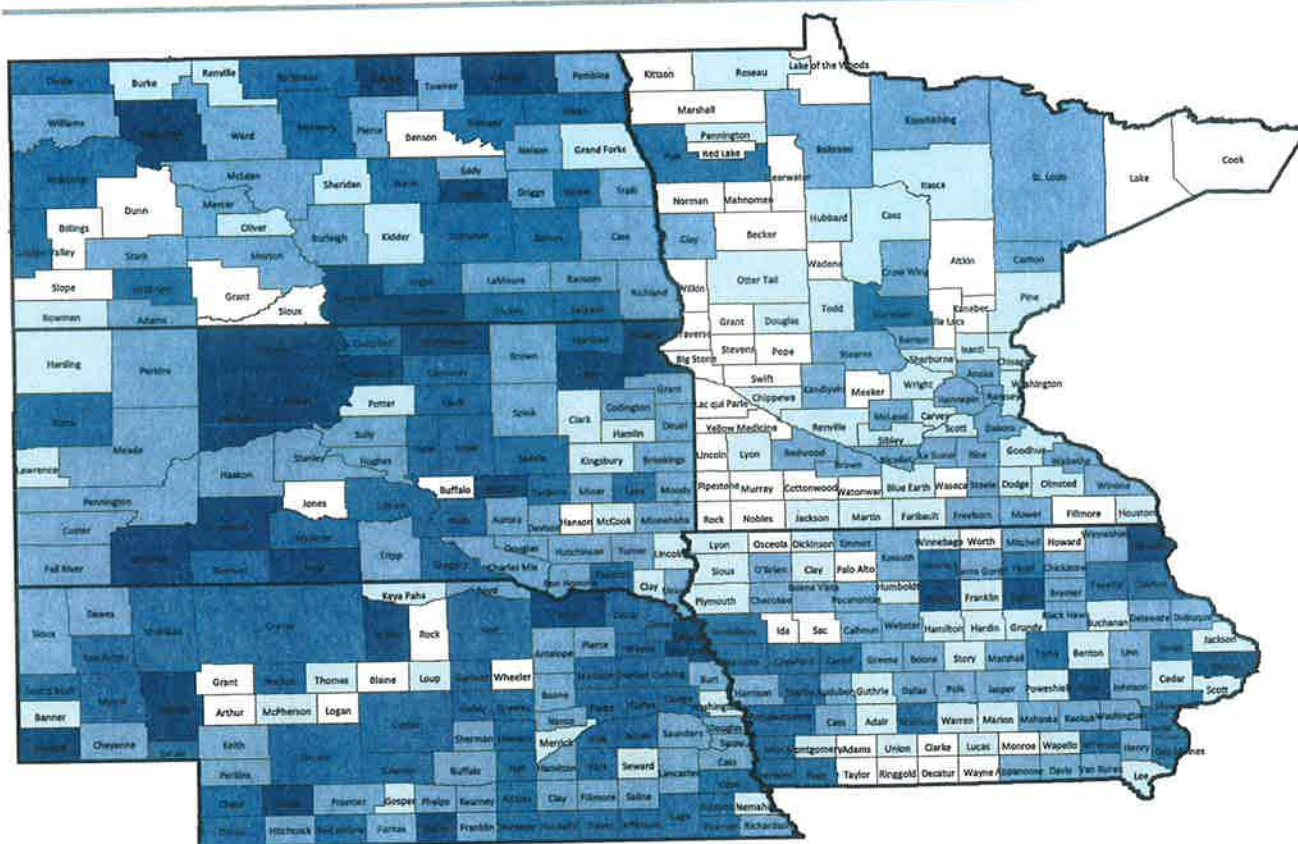


Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009

- 7.1% - 13.9%
- 14.0% - 17.9%
- 18.0% - 22.9%
- 23.0% - 39.1%
- Unreliable or missing data
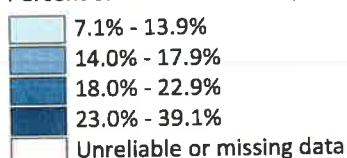
## CONTEXT

**What It Is:** The social and emotional support measure is based on responses to the question: "How often do you get the social and emotional support you need?" The value presented is the percent of the adult population that responds that they "never," "rarely," or "sometimes" get the support they need.

**Where It Comes From:** This measure was calculated by the National Center for Health Statistics using data obtained from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), a random-digit dial survey. BRFSS data are representative of the total non-institutionalized U.S. population over 18 years of age living in households with a land-line telephone. The estimates are based on seven years of data.

**Importance:** Poor family support, minimal contact with others, and limited involvement in community life are associated with increased morbidity and early mortality. Furthermore, social support networks have been identified as powerful predictors of health behaviors, suggesting that individuals without a strong social network are less likely to participate in healthy lifestyle choices.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 26**

# Children in Single-Parent Households - A health factor measure focusing on families

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
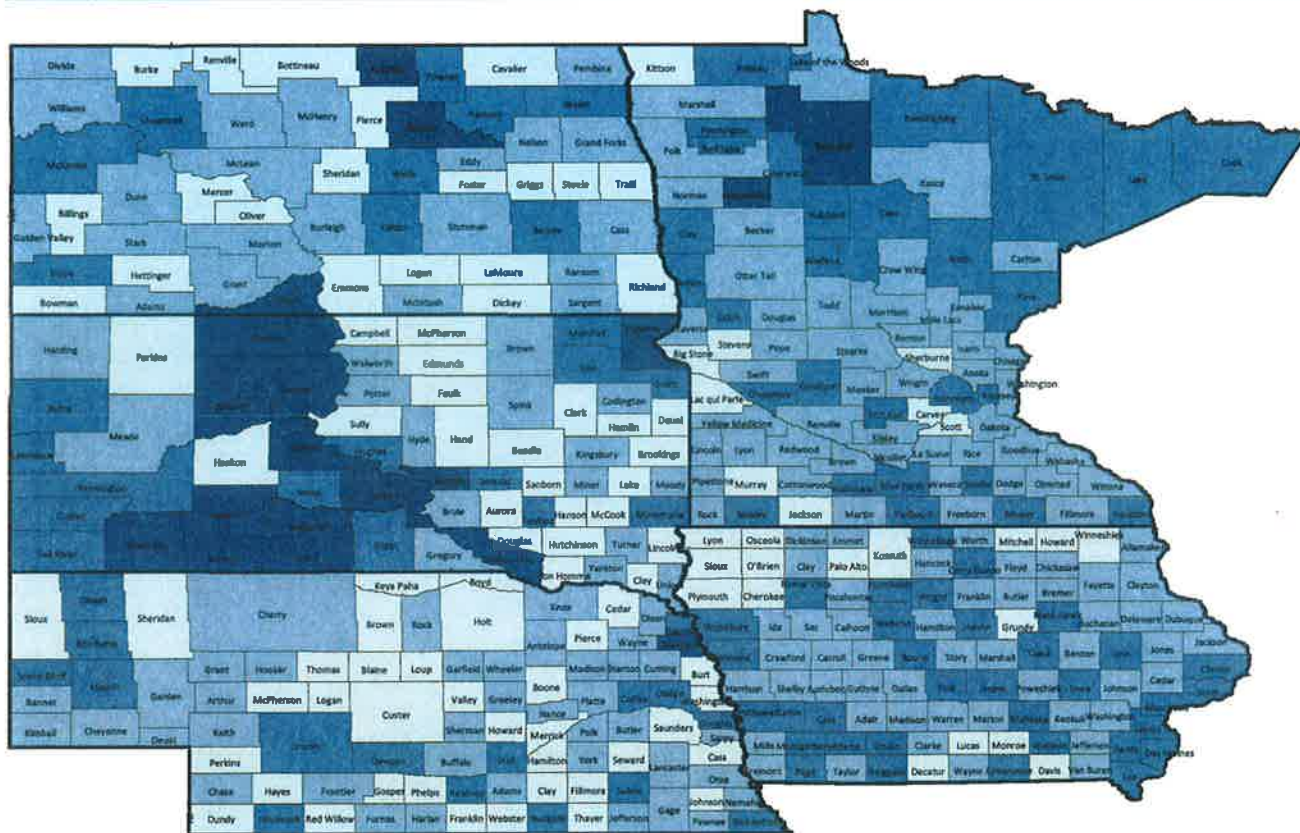


Percent of children in families that live in a household headed by a parent with no spouse present, 2005-2009

| | |
|---|---|
| | 0.0% - 17.9% |
| | 18.0% - 25.9% |
| | 26.0% - 39.9% |
| | 40.0% - 72.0% |
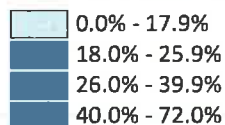
## CONTEXT

**What It Is:** The single-parent household measure is the percent of all children in family households that live in a household headed by a single parent (male or female householder with no spouse present).

**Where It Comes From:** Estimates of the percent of children in single-parent households were calculated using data from the U.S. Census Bureau's American Community Survey (ACS) 5-year estimates.

**Importance:** Adults and children in single-parent households are both at 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.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 27**

# Homicide Rate - A health factor measure focusing on violent crime
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
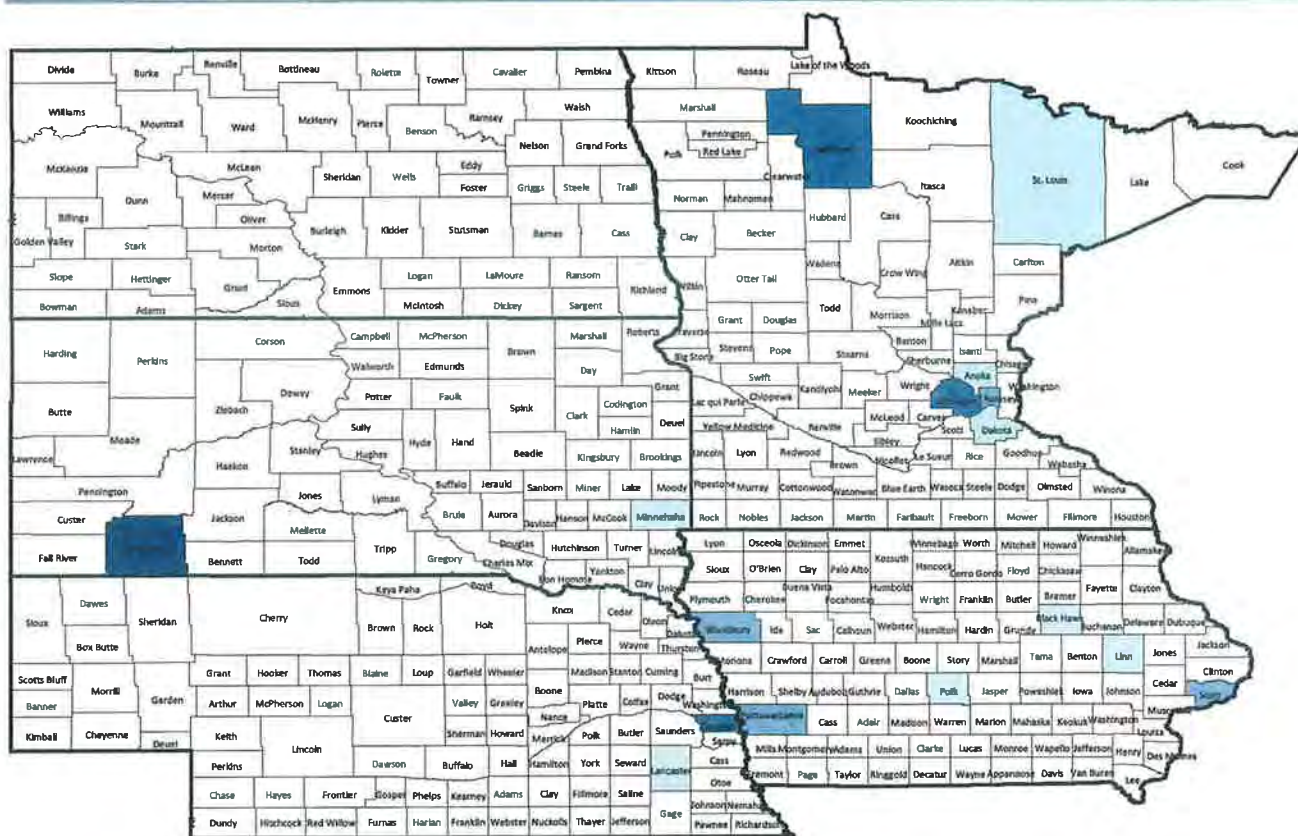


Number of deaths due to murder or non-negligent manslaughter per 100,000 population, 2001-2007

- 1.3 - 2.9
- 3.0 - 4.9
- 5.0 - 8.9
- 9.0 - 22.7
- Unreliable or missing data
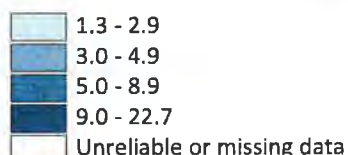
## CONTEXT

**What It Is:** Homicide is represented as a crude death rate due to murder or non-negligent manslaughter per 100,000 population.

**Where It Comes From:** These data were calculated by National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC) using data from the National Vital Statistics System (NVSS). NCHS used data for a seven-year period to create more robust estimates of cause-specific mortality, particularly for counties with smaller populations.

**Importance:** Because homicide is one of the five offenses that comprise violent crime, a homicide rate is used as a proxy when violent crime data are not available.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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# Map 28

# Air Pollution-Particulate Matter Days - A health factor measure focusing on physical environment

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Number of days air quality was unhealthy for sensitive populations due to fine particulate matter, 2006

- 0
- 1
- 2
- 3 - 4
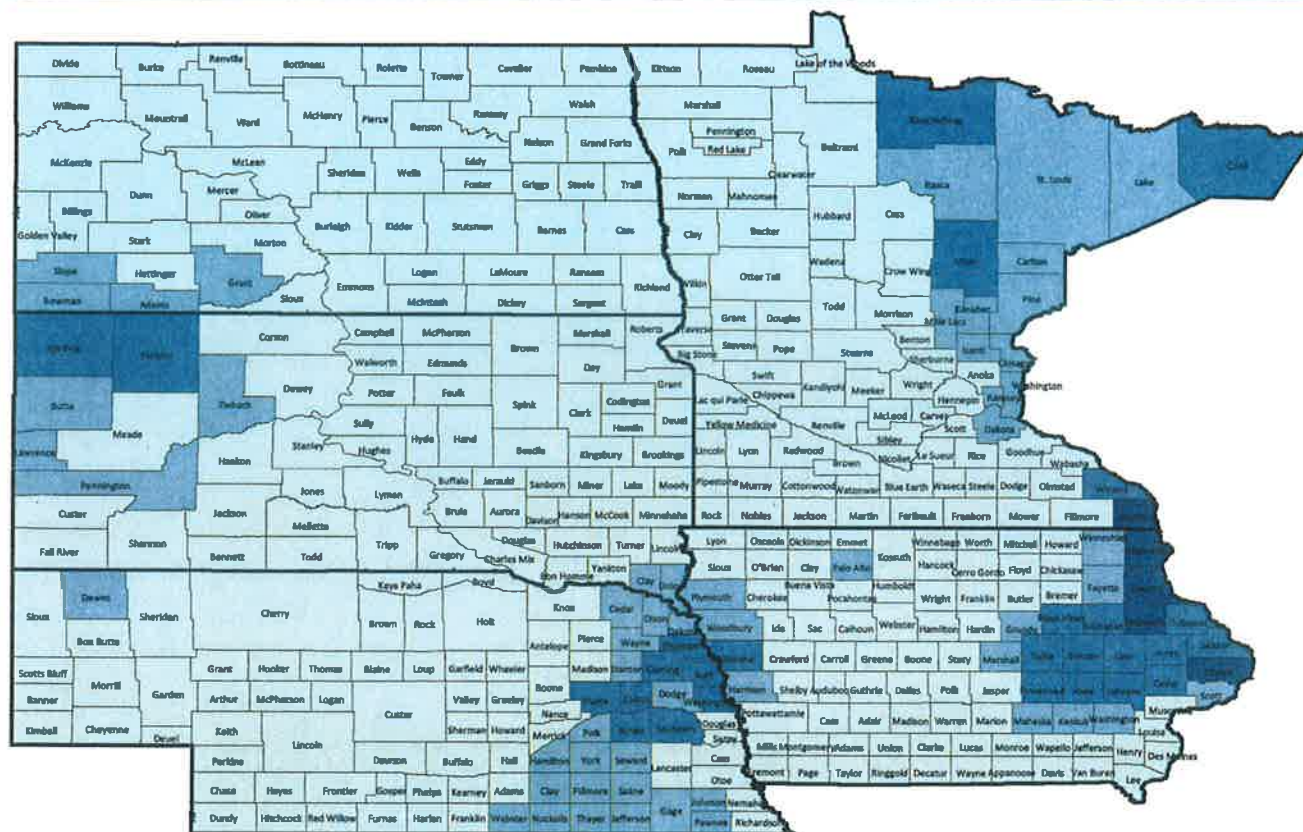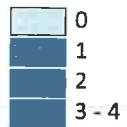
## CONTEXT

**What It Is:** The air pollution—particulate matter measure represents the annual number of days that air quality was unhealthy for sensitive populations due to fine particulate matter (FPM, < 2.5 μm in diameter).

**Where It Comes From:** The Public Health Air Surveillance Evaluation (PHASE) project, a collaborative effort between the Centers for Disease Control and Prevention (CDC) and the EPA, used Community Multi-Scale Air Quality Model (CMAQ) output and air quality monitor data to create a spatial-temporal model that estimated fine particulate matter concentrations throughout the year. The PHASE estimates were used to calculate the number of days per year that air quality in a county was unhealthy for sensitive populations due to FPM.

**Importance:** The relationship between elevated air pollution—particularly fine particulate matter and ozone—and compromised health has been well documented. The negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 29**

# Air Pollution-OzoneDays - A health factor measure focusing on physical environment

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Number of days air quality was unhealthy for sensitive populations due to ozone levels, 2006

- 0
- 1
- 2
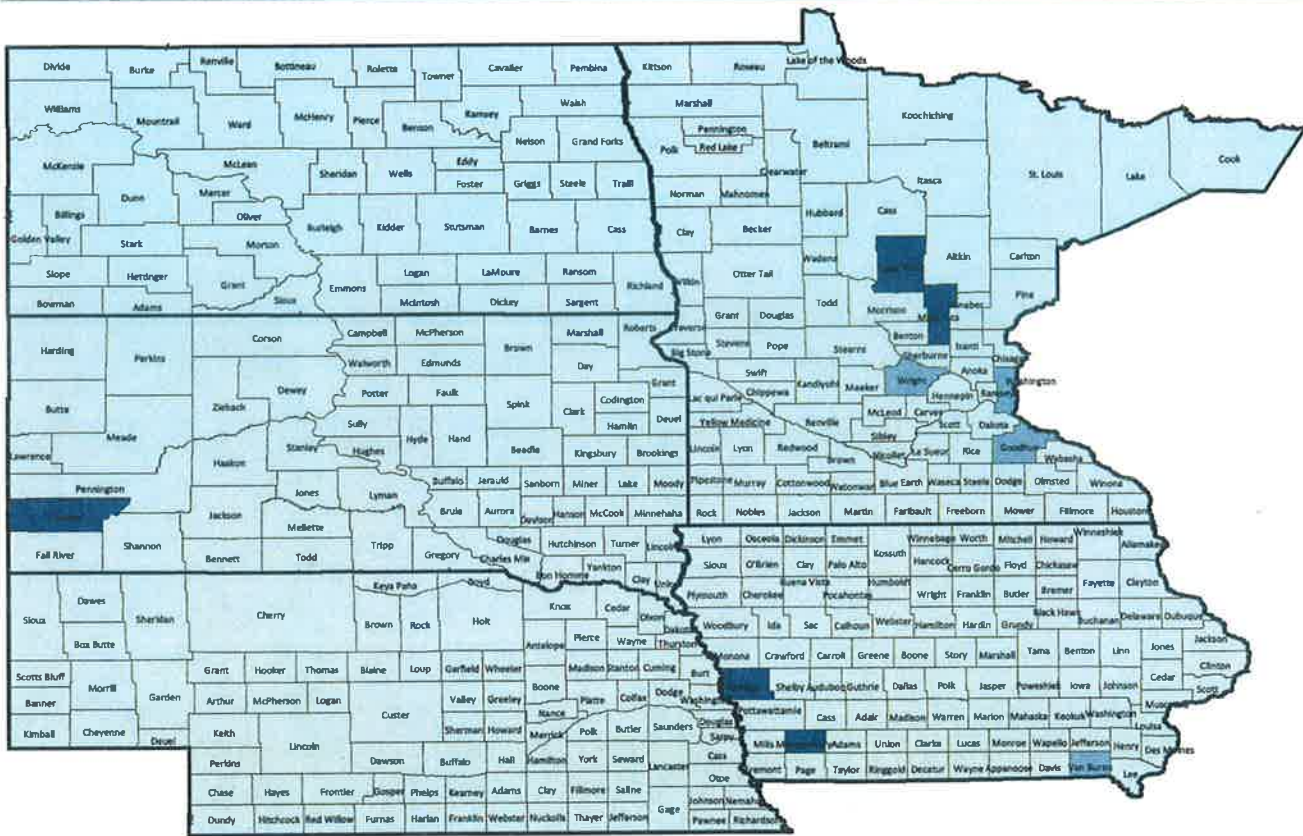
## CONTEXT

**What It Is:** The air pollution—ozone measure represents the annual number of days that air quality was unhealthy for sensitive populations due to ozone levels.

**Where It Comes From:** The Public Health Air Surveillance Evaluation (PHASE) project, a collaborative effort between the Centers for Disease Control and Prevention (CDC) and the EPA, used Community Multi-Scale Air Quality Model (CMAQ) output and air quality monitor data to create a spatial-temporal model that estimated daily ozone concentrations throughout the year. The PHASE estimates were used to calculate the number of days per year that air quality in a county was unhealthy for sensitive populations due to ozone.

**Importance:** The relationship between elevated air pollution—particularly fine particulate matter and ozone—and compromised health has been well documented. The negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 30**

# Access to Healthy Foods - A health factor measure focusing on physical environment

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
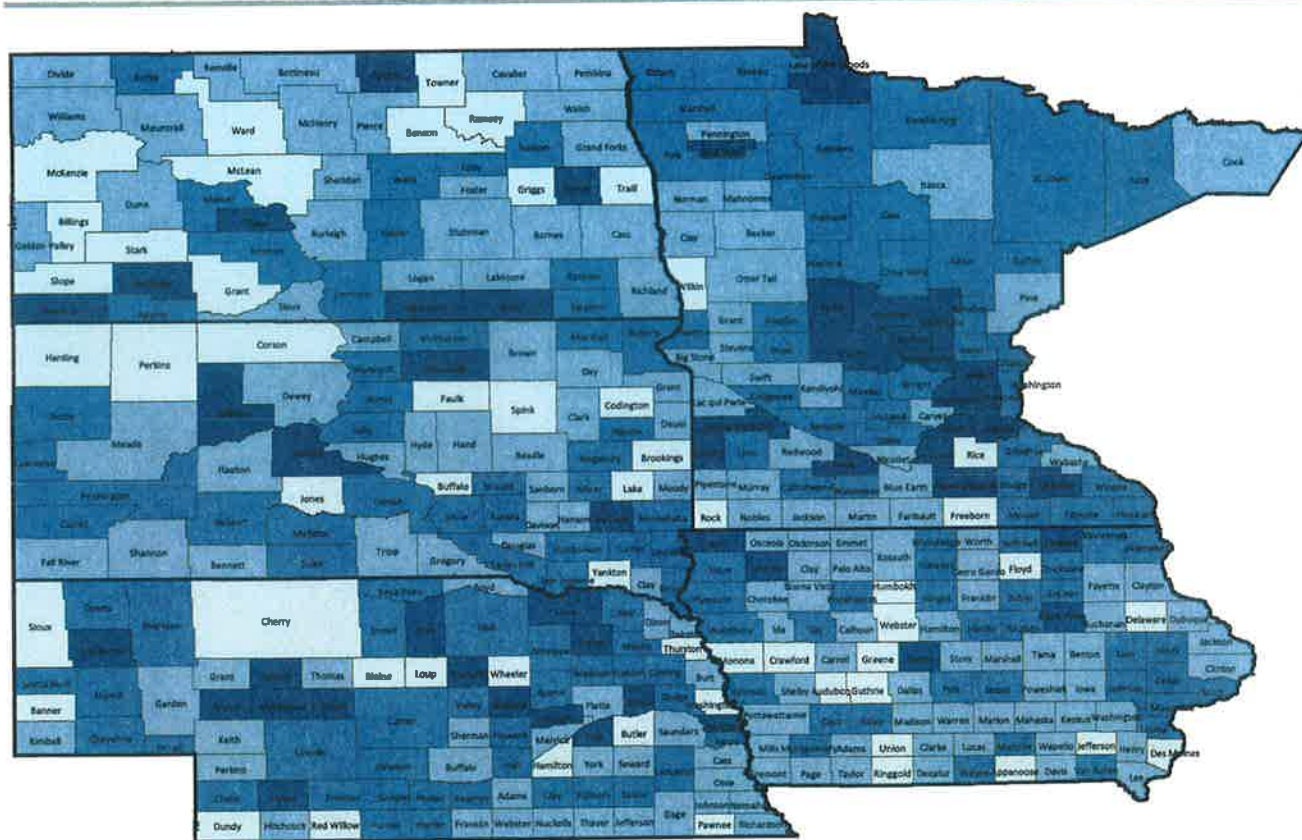


Percent of zip codes with healthy food outlets (i.e., grocery store or produce stand/farmers' market), 2008

- 0.0% - 24.9%
- 25.0% - 42.9%
- 43.0% - 69.9%
- 70.0% - 100.0%
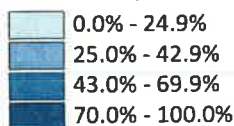
## CONTEXT

**What It Is:** Access to healthy foods is measured as the percent of zip codes in a county with a healthy food outlet, defined as a grocery store or produce stand/farmers' market.

**Where It Comes From:** The measure is based on data from the U.S. Census Bureau's Zip Code Business Patterns. Healthy food outlets include grocery stores and produce/farmers' markets, as defined by their North American Industrial Classification System (NAICS) codes.

**Importance:** Studies have linked the food environment to consumption of healthy food and overall health outcomes.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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**Map 31**

## Access to Recreational Facilities - A health factor measure focusing on physical environment
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Number of recreational facilities per 100,000 population, 2008

- 0 - 9
- 10 - 19
- 20 - 69
- 70 - 150
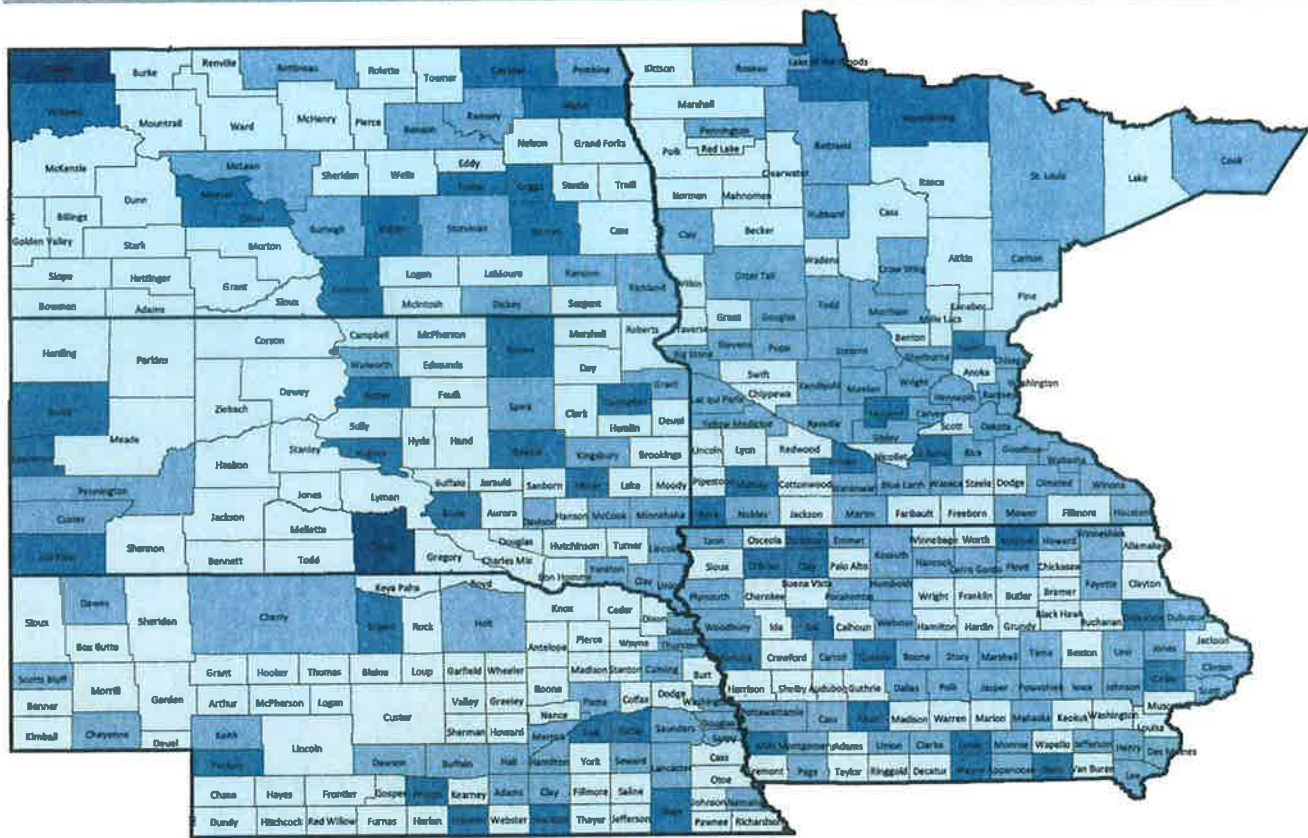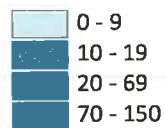
## CONTEXT

**What It Is:** This measure represents the number of recreational facilities per 100,000 population in a given county. Recreational facilities are defined as establishments primarily engaged in operating fitness and recreational sports facilities, featuring exercise and other active physical fitness conditioning or recreational sports activities such as swimming, skating, or racquet sports.

**Where It Comes From:** This measure is based on a measure from United States Department of Agriculture (USDA) Food Environment Atlas, and is calculated using the most current County Business Patterns data set. Recreational facilities are identified by North American Industrial Classification System (NAICS) code 713940.

**Importance:** The availability of recreational facilities can influence individuals' and communities' choices to engage in physical activity. Proximity to places with recreational opportunities is associated with higher physical activity levels, which in turn is associated with lower rates of adverse health outcomes associated with poor diet, lack of physical activity, and obesity.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 32**

# Youth - A demographic measure

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Persons ages 0 through 17 as a percent of the total population, 2009

- 14.7% - 20.4%
- 20.5% - 23.4%
- 23.5% - 28.4%
- 28.5% - 40.5%

## CONTEXT

**What It Is:** This measure represents the percent of a county's population that is less than 18 years of age.

**Where It Comes From:** County demographic figures come from the U.S. Census Bureau's annual population estimates.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 33**

# Elderly - A demographic measure
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*
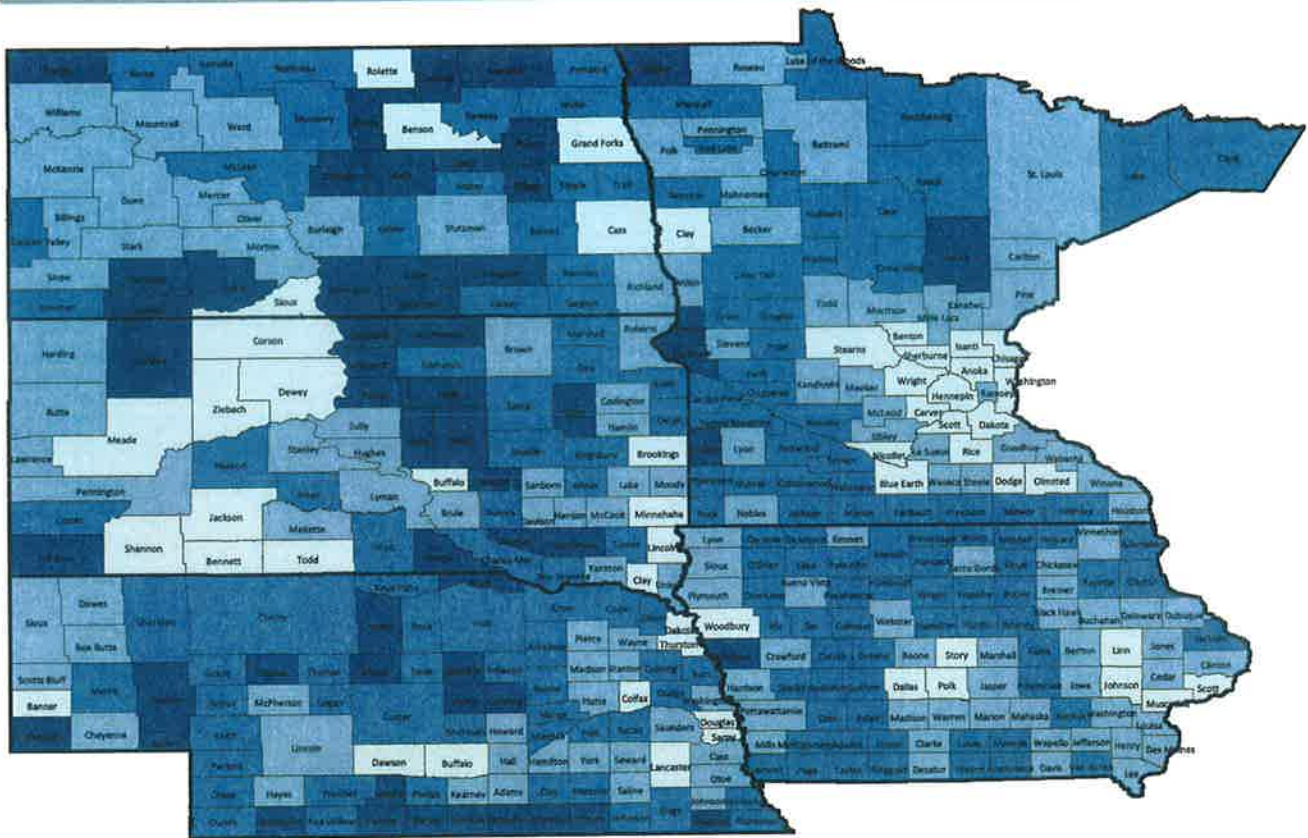


Persons ages 65 and older as a percent of the total population, 2009

| | |
|---|---|
| | 5.3% - 12.9% |
| | 13.0% - 17.9% |
| | 18.0% - 22.9% |
| | 23.0% - 37.2% |
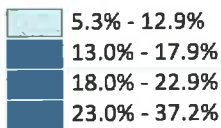
## CONTEXT

**What It Is:** This measure represents the percent of a county's population that is 65 years of age and older.

**Where It Comes From:** County demographic figures come from the U.S. Census Bureau's annual population estimates.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

**Map 34**

# Rural - A demographic measure
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



Percent of total population living in a rural area, 2000

- 0.1% - 35.9%
- 36.0% - 58.9%
- 59.0% - 83.9%
- 84.0% - 100.0%

## CONTEXT

**What It Is:** This measure represents the percent of a county's population that lives in a rural area, which the U.S. Census Bureau defines as all territory located outside of urbanized areas and urban clusters. Urbanized areas and urban clusters are geographic areas with a core population density of at least 1,000 people per square mile that are surrounded by areas with an overall population density of at least 500 people per square mile.

**Where It Comes From:** This measure is calculated by the U.S. Census Bureau using data from 2000.

**Map 35**

# Not English Proficient - A demographic measure

*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



**Percent of total population that speaks English less than "very well", 2005-2009**

- 0.0% - 0.9%
- 1.0% - 2.9%
- 3.0% - 8.9%
- 9.0% - 23.0%
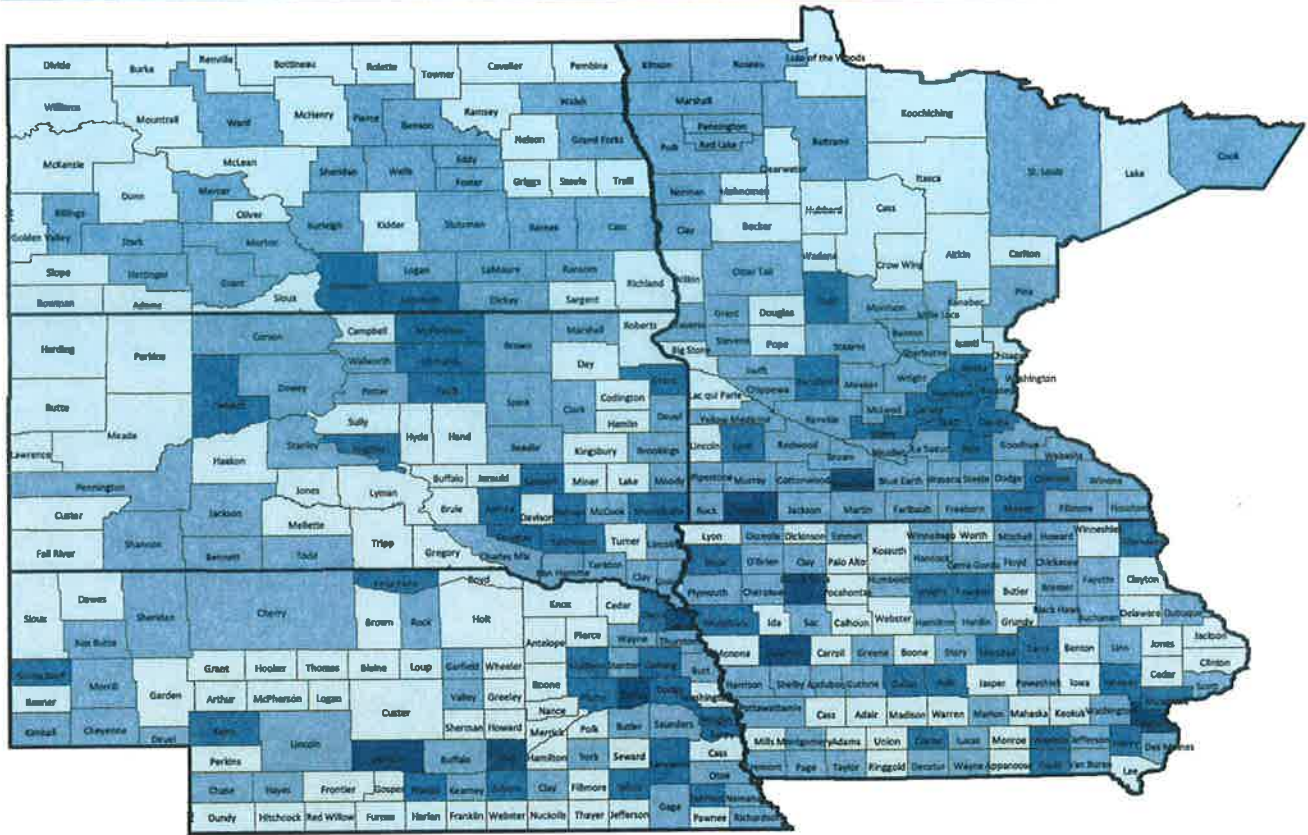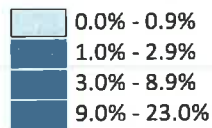
## CONTEXT

**What It Is:** This measure represents the percent of the total population that reports speaking English less than "very well."

**Where It Comes From:** Data on spoken English proficiency come from the U.S. Census Bureau's American Community Survey 5-year estimates.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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# Map 36

## Illiteracy - A demographic measure
*County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota*



**Percent of population ages 16 and older that lacks basic prose literacy skills, 2003**

- 4.0% - 6.9%
- 7.0% - 8.9%
- 9.0% - 13.9%
- 14.0% - 21.4%
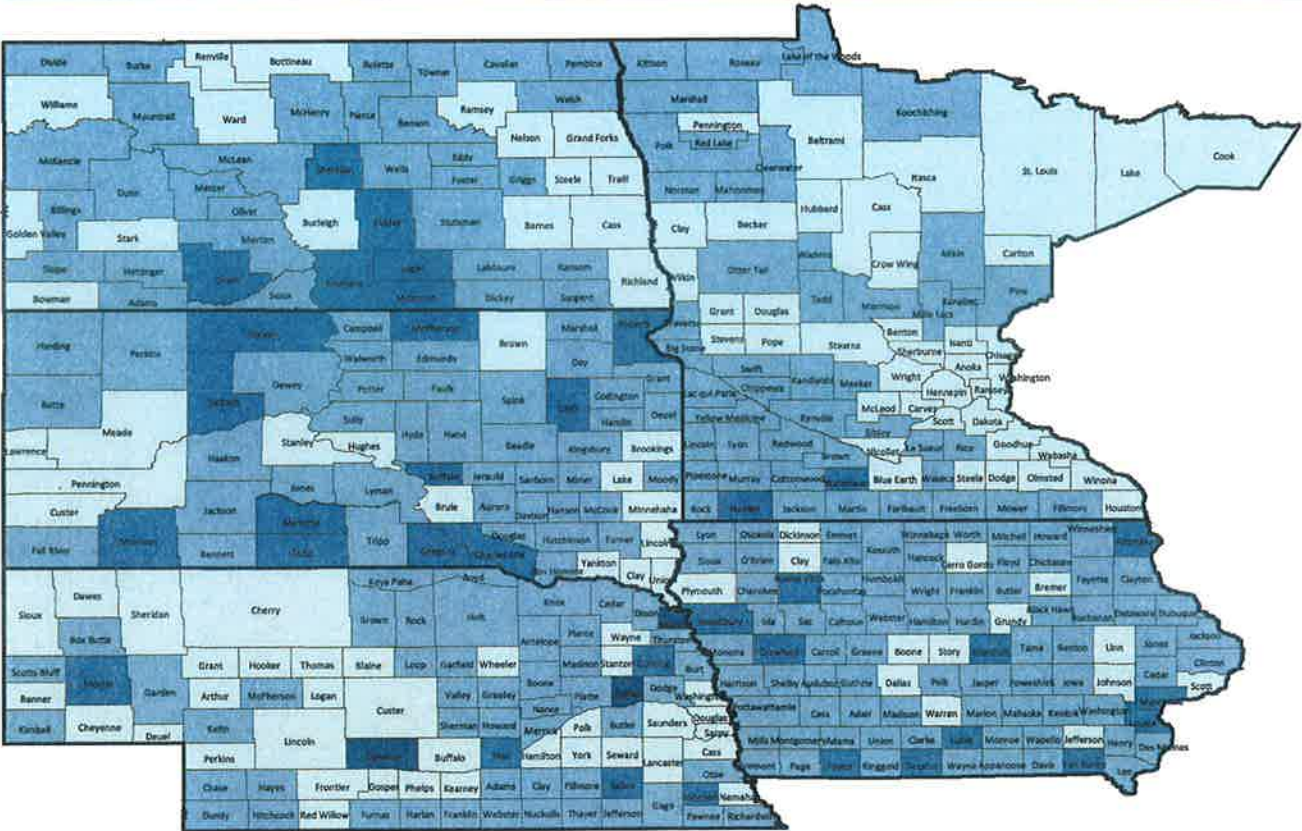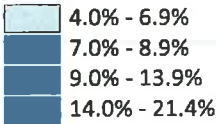
## CONTEXT

**What It Is:** This measure reflects the percent of the population ages 16 and older that lacks basic prose literacy skills.

**Where It Comes From:** This measure is obtained from the National Center for Education Statistics and is based on the 2003 National Assessment of Adult Literacy.

- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.
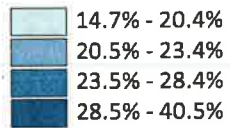
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# SANFORD HEALTH

## Table 1
## Community Health Needs Assessment Asset Mapping
## Bemidji Stakeholders

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| **Access** | • Difficult to get primary care appointments<br>• Need more female physicians<br>• Wait to see an OB/GYN is too long<br>• Need more midlevel providers to free up the internists & specialists<br>• Need life coaches<br>• Need more specialized services<br>   ○ Kidney services<br>   ○ Services for those with osteoporosis<br>   ○ Women's health<br>   ○ Cardiac health<br>   ○ Orthopedics<br>   ○ Peripheral vascular disease<br>   ○ Pediatricians<br>   ○ Oncologists<br>   ○ Endocrinologist<br>   ○ Gastric bypass surgeon<br>   ○ Geriatrics<br>   ○ Urology<br>   ○ Neonatal care<br>   ○ Dermatology | Sanford Health Clinic – 218-333-5000 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| Alternative Medicine | • Need for alternative therapies / holistic health practices / naturopathic medicine | Itasca Naturopathic Clinic – 218-444-5868<br>Dr. Thomas Hanson (chiropractor) – 218-751-9533<br>First Impressions (massage therapy) – 218-751-8270<br>Bemidji Health & Wellness Center – 218-444-8727<br>Chiropractic Sport & Spinal – 218-444-2117<br>Center for Optimum Health – 218-751-3173<br>Explore Chiropractic – 218-333-8811<br>Dr. Robert Johnson (Chiropractor) – 218-751-5145 | |
| Cancer | • Need more oncologists & support/services for cancer survivors<br>• Physicians & nurses need to be trained in caring for cancer survivors<br>• Need support for cancer caregivers | Sanford's Embrace Cancer Survivorship Program – contact Jenna Linder - 701-234-7463<br><br>Sanford Cancer Biology Research Center | |
| Chronic Conditions | • Inability of patients to manage complex health issues<br>• Services for autism including OT, speech, parental education<br>• Need diabetic educators/dieticians | Sanford Medical Home<br>Sanford Health Clinic – 218-333-5000 | |
| City Infrastructure | • Sidewalks not cleared adequately in the winter<br>• City is lacking sidewalks | | |
| Dental Care | • Need more local dental services for children | Bemidji Dental Clinic – 218-751-4460<br>Great River Dentistry – 218-751-4216<br>Division Dental Studio – 218-333-8832<br>Northern Dental Access Center – 218-444-9646<br>Headwaters Dental – 218-333-6515<br>Hazelton Family Dentistry – 218-333-8668<br>Polly Scotland, DDS – 218-751-8325<br>North Country Dental – 218-751-1111 | |
| Economic Situation/ Business community | • Lack of awareness about severity of economic issues<br>• Need more good jobs – those that provide a living wage<br>• Need employment opportunities for those with higher education<br>• Concern with dilapidated buildings downtown | MN Workforce Center – 218-333-8200 (help with finding jobs in Bemidji) | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | • Concern about the separation economically & culturally between whites & Native Americans<br>• Concern about the neglect of the area outside the southern tier of townships | | |
| Elderly | • Concern about elder abuse & neglect<br>• Need services for Alzheimer's & other forms of dementia | Services for elder abuse/neglect:<br>Office of Ombudsman for Long Term Care – 1-800-657-3591 / 651-431-2555<br>ARC Headwaters – 218-759-0097 / 1-800-450-7338<br>MN Attorney General's Consumer Protection Office (for consumer complaints) – 1-800-657-5797<br>Family Advocacy Center – 218-333-6011<br>House of Hospitality – 218-751-0722<br>Nokomagiisis – 218-444-0735<br>Northwoods Coalition for Battered Women – 218-444-1395 / 1-800-588-6229<br>Sexual Assault Program – 218-444-9524<br><br>Adult Day Care:<br>Adult Day Care Services – 218-444-5324<br>Friendship Center – 218-751-1324<br><br>Adult Foster Care:<br>Country Chalet – 218-751-2198<br>Eagles Wings homes – 218-759-7225<br>Sprucewoods IAFC – 218-444-9758<br>Sprucewoods East & West – 218-444-9757<br><br>Alzheimer's Care:<br>Adult Day Services – 218-751-1324<br>A Touch of Home – 218-444-2775<br>Autumn Hills – 218-333-3854<br>Havenwood – 218-444-1745 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | | Beltrami County PHNS – 218-759-4169 <br> North Country Nursing/Rehab – 218-751-0220 <br> Sanford Home Care/Hospice – 218-759-5665 <br> Trilium – 218-333-6514 <br> Woodsedge – 218-333-6211 <br> Woodsedge Windsong – 218-751-0220 <br><br> Nursing Homes: <br> Beltrami Co. Nursing Home – 855-638-4685 <br> Burk Candace & Cottage Garden –866-661-1794 <br> Garden Lane – 218-751-0583 <br> GoldPine Home – 218-444-4346 <br> Havenwood Care Center – 218-444-1745 <br> Nielson Place – 218-751-0220 <br> North Country Nursing – 888-786-2513 | |
| Emergency Care | • Need access to trauma care & emergency services | Sanford Bemidji ER – 218-333-5000 <br> Sanford Ask-A-Nurse – 701-234-5000 / 1-800-821-5167 | |
| Healthcare Cost/Insurance Cost | • Concerned about cost of healthcare & insurance <br> • Concerned about the different levels of healthcare costs – MA vs. private pay <br> • High cost of some insurances makes anything (dental, eye) other than basic care not affordable <br> • We need one payer system | Community Care Program (Sanford Clinic) – Sanford will provide services at cost/reduced price to patients who quality – 218-333-5827 | |
| Healthy Nutrition | • Concern about lack of knowledge of nutrition & the results of unhealthy diet | Beltrami Co. Extension Service – 218-444-5722 <br> Nutrition Education for the Elderly – 218-547-3300 | |
| Housing | • Housing stock is old | | |
| Mental Health | • Concern about the wait time to see mental health providers <br> • Concern about lack of mental health providers <br> • Low priority placed on funding or supporting mental health services | Sanford One Care <br> Mental Health providers: <br> AA – 218-444-2525 <br> Archdeacon Gifillilan Center – 218-751-6553 <br> Center for Psychiatric Care – 1-877-732-2511 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | • Need mental health services for adolescents | Community Behavioral Health – 218-308-2400<br>Counseling & Assessment Services – 218-444-5771<br>Edith Hatch Evaluation Center – 218-751-6553<br>Episcopal Community Services – 218-751-6553<br>Health Ministries Network of MN – 218-463-2500<br>Hope House – 218-444-6748<br>Indian Health Services – 218-444-0450<br>McNair Recovery Center – 218-751-6553<br>Northern Lakes Clinic – 218-755-5170<br>Northern Psychological Services – 218-759-2825<br>Northwest Recovery Center – 218-751-2012<br>Occupational Development Center – 218-751-6001<br>Relay for Life – 218-444-0824<br>REM – North Star of Bemidji – 218-444-5876<br>Sanford Behavioral Health Services – 218-333-5000<br>Senior Behavioral Health Unit – 218-751-5430<br>Upper Mississippi Mental Health Ctr – 218-751-3280<br>Veterans Health Office -218-444-4178 | |
| **Native American issues** | • Racial prejudice & discrimination against Native Americans<br>• Need culturally competent healthcare<br>• Concern about the separation economically & culturally between whites & Native Americans<br>• Need to recognize Native healers & facilitate access for Native people | | |
| **Obesity** | • Concern over food addiction (which leads to obesity, diabetes)<br>• Need an obesity clinic | Sanford WebMD Fit Kids<br>Sanford Health Clinic – 218-333-5000<br><br>Exercise opportunities:<br>Anytime Fitness – 218-444-5529<br>Fusion Dance & Fitness Center – 218-209-6597<br>Gillett Recreation Fitness Center – 218-755-4135 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | | Home Quest for Women – 218-444-1434<br>Knockout Fit Club – 218-444-3897<br>MedSave In Charge Fitness Center – 218-444-8138<br>Northern Fitness – 218-766-2228<br>Snap Fitness – 218-444-9163 | |
| Pollution/ Environment | • Noisy vehicles (loud mufflers & sound systems)<br>• Overdeveloped lake shore (especially Lake Bemidji)<br>• Littering<br>• Water quality/water conservation | | |
| Poverty | • Lack of awareness of issues for those in poverty<br>• False sense of entitlement leads to other problems such as poverty, crime, homelessness, alcohol abuse<br>• People who are economically disadvantaged don't have the same opportunities when trying to use the legal system<br>• People in poverty are treated insensitively by the "system"<br>• Lack of low cost youth & family activities<br>• Difficulty in navigating the services that may be available for families<br>• Too many children in poverty<br>• Lack of consistent participation of low income children in prevention services (health, mental health)<br>• Need healthcare for the homeless | Clothing:<br>American Red Cross – 218-444-9490<br>7th Day Adventist Clothing Center – 218-751-1985<br>Twice But Nice – 218-751-4251<br>United Way – 218-444-8929<br><br>Furniture:<br>Community Resource Connections – 218-333-8260 (free furniture for the homeless)<br><br>Food:<br>Community Soup Kitchen – 218-751-2810 (Mt. Zion Church) or 218-751-3503 (United Methodist)<br>Food Shelf – 218-444-6580<br>Headwaters Regional Development Commission – 218-444-4732<br>Hope House – 218-444-6478<br>NAPS (free monthly food commodities for those over age 60) – 218-333-8266<br>Nutrition Education for the Elderly – 218-547-3300<br>Ours to Serve House of Hospitality – 218-759-0699<br>People's Church (free noon lunches) – 218-444-8240 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | | Senior Citizen's Center – 218-751-8836<br>Senior Nutrition – 218-444-3987<br><br>Housing/Shelters:<br>Beltrami Co. Dept. of Human Service (emergency shelter ) – 218-333-8300<br>Bi-County Community Action (emergency shelter, transitional housing, motel vouchers) – 218-751-4630<br>Churches United – 218-444-1380<br>House of Hospitality (services for women/children) – 218-751-0722<br>Northwoods Coalition for Family  Safety (emergency shelter for battered women) – 1-800-588-6229<br>Northwoods Habitat for Humanity – 218-751-4649<br>NW Indian Opportunities Industrialization Center (Native Amer. housing program) – 218-759-2022<br>Ours to Serve House (temporary housing for the homeless) -218-751-0722<br>People's Church (homeless housing) – 218-444-8240<br>Rural Development (assists low income individuals purchase homes/do repairs) – 218-751-1942 ext. 4<br>SOS (temporary housing for the homeless through local churches) – 218-759-0902<br>USDA Rural Development – 218-751-1942 ext. 193<br><br>Child Care for working low income (based on income):<br>Beltrami Co. Health & Human Serv. – 218-333-8300 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | | Healthcare: Community Care Program (Sanford Clinic) – Sanford will provide services at cost/reduced price to patients who quality – 218-333-5827 | |
| Prevention | • Need to promote preventive activities<br>• Collaboration in prevention with schools & universities<br>• More preventive services covered by insurance<br>• Need Community Health Workers to provide follow-up & help with prevention | | |
| Safety | • Concern about animal cruelty & neglect<br>• Need more parent education on safety issues<br>• Concern about gangs<br>• Concern about elder abuse & neglect<br>• Concerned with roads being used as running tracks | | |
| Schools | • Concern about adequate funding for public schools, lack of youth activities in high school for those who are not highly skilled or competitive<br>• Need more Master's programs at the local college level<br>• Concern with schools getting larger & more crowded<br>• Need school curriculum focusing on benefits of good nutrition & preventive healthcare<br>• School lunch seems to have mostly fast food options<br>• Inadequate family support for education, beginning at a young age<br>• Need phy ed classes in the school system | | |
| Social Issues | • Too many single mothers<br>• Domestic abuse<br>• Dysfunctional families<br>• No stable adult role model in the home | | |
| Substance Abuse | • Amount of drunk driving in the community<br>• Concern with prescription drug abuse | | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | • Concern about alcohol & drug use during pregnancy<br>• Need more public awareness of alcohol & drug abuse services for abusers & their families<br>• Need better chemical dependency services | | |
| Traffic | • Noisy vehicles (loud mufflers & sound systems)<br>• Concern with design of new roadways & intersections<br>• Concern with dangerous intersection at Anne & Hannah and Hannah & PB Drive<br>• Concern with poor ramp design from Washington Ave. to US Hwy. 2 West<br>• Concern with amount of drunk driving in the community | | |
| Transportation | • Cost of transportation<br>• Need convenient, reliable public transportation (in Bemidji & to & from neighboring communities)<br>• Need multimodal transportation (share the road)<br>• Concerns with roads being used as running tracks | Transportation services:<br>Bemidji Ambulance – 218-444-3328<br>Bemidji Bus Lines – 218-751-5311<br>Bemidji Cab – 218-751-5311<br>Bemidji Medi-Van – 218-751-8912<br>First City Taxi & Safe Ride – 218-444-8294<br>Hertz Rental – 218-751-0063<br>North Air Care – 218-333-6925<br>Northwoods Faith Caregivers – 1-888-534-4432<br>Paul Bunyan Transit – 218-751-8765<br>Soaring Eagles Transportation – 218-751-7000<br>Sparrow Transport Services – 218-444-5265<br>Touching Hearts at Home – 218-333-8509 | |
| Veterans | • Need services for veterans | Veterans Service Office – 218-333-4177 | |
| Wellness | • Concern about inactivity (which leads to obesity & diabetes)<br>• Community needs a walking club & biking club<br>• Need a facility that has activities for kids while parents exercise | Exercise opportunities:<br>Anytime Fitness – 218-444-5529<br>Fusion Dance & Fitness Center – 218-209-6597<br>Gillett Recreation Fitness Center – 218-755-4135<br>Home Quest for Women – 218-444-1434 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | • Community needs a YMCA | Knockout Fit Club – 218-444-3897<br>MedSave In Charge Fitness Center – 218-444-8138<br>Northern Fitness – 218-766-2228<br>Snap Fitness – 218-444-9163 | |
| **Youth** | • Access to children's activities – many offered, but not all accessible<br>• Need low cost youth & family activities<br>• Concern with suicide rates, depression, child abuse, mental health issues<br>• Concern about tobacco, alcohol & drug abuse<br>• Concern about lack of values & what is being taught or not taught at home; no stable adult role model in the home<br>• Concern about cultural role models, poor lifestyle choices<br>• Concern about lack of supervision by parents<br>• Concern about sexual assault, sexual abuse, neglect<br>• Concern about premarital sex & teen pregnancy<br>• Concern about gang activity<br>• Concern about obesity, diabetes risk, lack of phy ed<br>• Concern about connection to technology rather than connection to other people<br>• Too many children in poverty<br>• Concern about too many children being given ADD medications<br>• Concern about autism & parental education about autism | Youth services:<br>All About Abstinence (faith-based program) – 218-444-7773 / 412-558-0059<br>BASIC (Beltrami Area Serv. Collab.) – 218-333-8190<br>Beltrami Co. Extension Service – 218-444-5722<br>Birthright – 218-751-9237<br>Boys & Girls Clubs – 218-444-4171<br>Campus Child Care (thru BSU) – 218-755-3133<br>Early Head Start – 218-333-3119<br>Evergreen Youth Crisis Shelter – 218-751-4332<br>Evergreen Youth Housing Program – 218-751-8223<br>Girl Scouts – 218-751-4886<br>Headwaters Intervention Center – 218-732-7413<br>Headwaters Parent Connection – 218-759-0097<br>Healthy Community Healthy Kids – 218-333-8989<br>Kids & Co. (after school care) – 218-333-3279<br>Lutheran Social Services (for pregnancy/adoption) – 218-751-7880<br>MN Thrive Initiative – 218-759-2057<br>Native Youth Crisis Hotline – 1-877-209-1266<br>North Homes (foster care, in-home counseling, adoption services) – 218-751-0282<br>Northwood Interfaith Caregivers (services include children's respite) – 1-888-534-4432<br>PATH (Professional Assn. of Treatment Homes) – 218-333-8000 (therapeutic foster care & adoption services)<br>Stelher Human Services – 218-444-2845 | |

| Identified Concerns | Specific concerns | Alignment with Sanford resources or other community resource partners | Unmet need |
|---|---|---|---|
| | | Timber Bay House – 218-751-9783<br>Tribal Family Support Services – 218-444-1395<br>United Way (Christmas toy distrib.) – 218-444-8929<br>Upper Mississippi Mental Health – 218-751-3280<br>Youth Recovery House (halfway house for males age 14-19) – 218-751-2466 | |
| **Sanford Specific** | • Need competent medical staff (missed diagnosis, colonoscopies gone wrong)<br>• Need cooperation between clinic healthcare and Public Health<br>• Need collaboration among providers – willingness to allow access to specialists who may not be located in Bemidji<br>• Don't feel safe at healthcare system in Bemidji so choose to go to Minneapolis<br>• Some specialists do not speak very good English & don't seem up-to-date (neurologist)<br>• Concerned about "snippy" know-it-all physicians who will not listen to the patient<br>• Concern with doctor/patient ratio<br>• Concern with understaffing of nurses<br>• Prep time too short<br>• Need space held open in the daily schedules of FPs for sick patient visits<br>• Concerns with patient billing system at clinic | | |

rev. 8/1/12

## Table 2
## Prioritization Worksheet

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

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

| Health Indicator/Concern *(from asset mapping and gaps analysis worksheet)* | Round 1 Vote | Round 2 Vote | Round 3 Vote |
|---|---|---|---|
| Elderly | | | |
| Mental Health/Substance Abuse (suicide, depression) | √ | √ | √ |
| Native Americans | | | |
| Obesity | √ | √ | √ |
| Safety - Abuse | | | |
| Social Issues – Prenatal Care | √ | √ | |
| | | | |
| | | | |

# 2012
## Community Health
## Needs Assessment
### Beltrami County, MN

Mississippi Headwaters Area Dental Health Center
BPHC Community Health Center Planning Grant
HRSA 11-021

# Introduction

The area in and around Beltrami County, Minnesota has been noted as lacking in adequate community health center care for low-income populations. To determine whether the pursuit of such a project makes sense for the region, it is necessary to assess the current health condition of the target population, along with existing health care services.

The purpose of this community health needs assessment is to accurately portray the current health situation and to inform the possible design of a health center project that meets the identified needs. This assessment reflects the process and format recommended by the U.S. Department of Health, Health Resources and Services Administration (HRSA), which would be the primary administrator of any funding resources available for a community health center. HRSA provided funding for this assessment through a one-time grant to support community health center planning.

The findings presented in this document will comprise the needs assessment section for any future grant proposals to support a community health center concept.

# Methodology

An independent consultant with professional experience in community assessment was identified to oversee the assessment process. Involvement and input from the community was a key goal in the assessment plan. A well-attended community forum officially launched the process. A community health needs assessment advisory team was established through a publicized call for volunteers and by direct recruitment to ensure broad representation within the group. This 30-member team provided ongoing guidance, insight and support in creating and carrying out the assessment plan. Key informants were identified by the assessment team and over 140 individuals were interviewed. Input from those interviews was recorded and analyzed. A health needs and barriers survey was created and tested with the target population. Over 300 surveys were completed and responses were analyzed along with qualitative data (input) gained through target population interviews. A literature review was conducted and relevant data was gathered from reliable sources following guidelines established by HRSA.

# Acknowledgements

# Community Health Needs Assessment

## I.  Service Area

The focus of this community health needs assessment is Beltrami County in rural, northwestern Minnesota. Located 100 miles south of the Canadian border and about four hours northwest of Minneapolis/St. Paul, Beltrami County is noted for its remote location, abundantly beautiful natural resources and harsh winters. More than 275 lakes and extensive wetlands dot the county map and several streams and rivers meander through, including the Mississippi River. Much of the county's land is forested. Along the 2,000 miles of roads and highways, Beltrami County's topography varies, with rolling hills in the southern townships gradually giving way to flatter, low-lying areas in the north. Northwest Minnesota is subject to extreme weather conditions with long, frigid winters where air temperatures and wind chill drop well below zero, sometimes causing school closings as a precaution. Average annual snowfall is 37 inches, with snowstorms making travel treacherous at times, especially for those who live in outlying, remote areas. In the summer, temperatures hover around the high 70s, but can hit the 90s.[1]

### Placing Focus on Beltrami County

The community partners who submitted the HRSA planning grant to fund this assessment decided to focus on Beltrami County as the service area, as this is where most of the potential patients of a Community Health Center project would reside.

In this remote, sparsely populated region, a Community Health Center service area could *eventually* include a massive 75 to 100-mile radius around the Beltrami County's largest community, Bemidji, crossing into several counties. In general, surrounding counties have similar demographics to Beltrami County.

Beyond the challenging climate and notable natural beauty of the area lies another distinct characteristic of Beltrami County—a persistent, high concentration of poverty. Year after year, the county consistently ranks as the 1st, 2nd or 3rd poorest in the state. In 2010, the poverty rate was 20.8%[2] and the low income rate was 39.1%.[3] Beltrami County's median household income of $43,394 is 24% lower than that of the state of

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[1] National Climatic Data Center, NOAA Satellite and Information Service
[2] U.S. Census Bureau, 2010 Small Area Income and Poverty Estimates, http://www.census.gov/hhes/www/saipe.html
[3] UDS Mapper, 2010. http://www.udsmapper.org

Minnesota ($57,243).[4] In 2011, the annual average unemployment rate for the county was 8%, while the rate for Minnesota was 6.4%.[5]



Minnesota's fourth largest county, Beltrami County covers 2,500 square miles and shares a border with eight other Minnesota counties. Some of those counties also share similar poverty demographics and all face challenges due to their remote location. Red Lake Indian Reservation is located almost entirely within Beltrami County, while a small portion of Leech Lake Indian Reservation extends into the southeast portion of the county.

According to the 2010 U.S. Census, the county's population is 44,442, an increase of 12.1% when compared to the 2000 Census data, outpacing the 7.6% increase in Minnesota's population. During that same period, the racial and age distribution of the population remained stable. Note that Hispanics account for 1.5% of the county population and in the table below are included in the White population. When compared to the state's racial distribution, Beltrami County is actually more diverse, with American Indians making up over 1/5 of the population.

**Table 1: Racial Distribution of Population**

|  | Beltrami County % | Beltrami County # | Minnesota % |
|---|---|---|---|
| White | 75.1% | 33,359 | 85.3% |
| American Indian | 20.3% | 9,004 | 1.1% |
| Asian | 0.7% | 309 | 4.0% |
| Black or African American | 0.6% | 262 | 5.2% |
| Native Hawaiian or other Pacific Islander | 0% | 18 | 0% |
| Two or More Races | 3.1% | 1,377 | 2.4% |

*Source: U.S. Census Bureau, 2010*

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[4] U.S. Census Bureau, 2010
[5] Bureau of Labor Statistics, Local Area Unemployment Statistics, December 2010–January 2012 (not seasonally adjusted)

Table 2: Age Distribution

| | Beltrami County % | Beltrami County # | Minnesota |
|---|---|---|---|
| Persons Under 5 years | 7.6% | 3,378 | 6.7% |
| Persons Under 18 years | 17.4% | 7,733 | 24.2% |
| Persons 18-64 years | 62.1% | 27,598 | 56.2% |
| Persons 65 years and over | 12.9% | 5,733 | 12.9% |

*Source: U.S. Census Bureau, 2010.*

Beltrami County is sparsely populated with 17.7 people per square mile, while the state of Minnesota averages 66.6 per square mile.[6] A significant concentration of the population lies within a 10 to 15-mile radius of the city of Bemidji, located in the southern part of the county. Bemidji serves as the Beltrami County Seat and a regional center for health care, retail, education, finance and employment. Within Bemidji's city limits the population is only 13,431,[7] but retailers such as Walmart, Target and Home Depot draw in consumers from an area with a population over 40,000.[8] Bemidji Public School District enrolls more than 5,100 students drawn from a district area that is almost the geographical size of Rhode Island. Northwest Technical College, Bemidji State University and Oak Hills Christian College are also located in Bemidji.

Seven other incorporated "cities" lie within Beltrami County, but would be more fittingly referred to as small towns or villages. Blackduck (population 785) and Kelliher (population 262)[9] each have their respective K-12 public school systems enrolling students from a larger, sparsely populated area, a small main street district, a modest grocery store, and limited employment options. Funkley, Solway, Tenstrike, Turtle River and Wilton each consist of not much more than a cluster of homes, a church, a convenience store and one or two small businesses.

Red Lake Indian Reservation's population is 5,896, which accounts for just under 2/3 of Beltrami County's American Indian population.[10] Its southern border lies 25 miles north of Bemidji. The Red Lake Nation is unique in that it is a "closed" reservation, where land is held in common by Band members. Red Lake's people strive to honor their Anishinaabe traditions, culture and language and maintain their sovereignty. Communities



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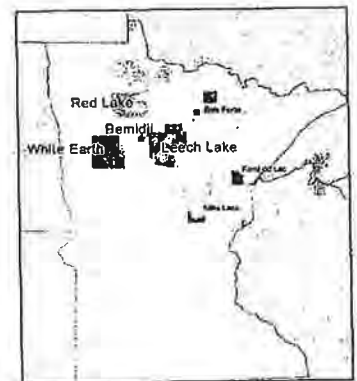
[6] U.S. Census Bureau, 2010
[7] Ibid
[8] Greater Bemidji Joint Economic Development Commission at http://www.bemidjiusa.com/index.htm
[9] U.S. Census Bureau, 2010
[10] Ibid

on the Reservation include Red Lake and Redby, both located on the south shore of Lower Red Lake; Little Rock; and Ponemah, a community tucked between Lower and Upper Red Lake more than an hour's drive from Bemidji (when road and weather conditions are good). The Reservation's education options include a K-12 public school system and Red Lake Nation Tribal College. An Indian Health Service hospital/clinic and tribal health services are also found there. Employment options are quite limited, as is access to retail goods including groceries. The Reservation population must travel to Bemidji for their county service needs. They are governed by an elected Tribal Government and currently represented on the Beltrami County Board of Commissioners by an enrolled Red Lake tribal member.

**Federal Designations**

Beltrami County holds several designations related to health care access issues, including: 1) Medically Underserved Area; 2) Mental Health Care Health Professional Shortage Area (HPSA); 3) Dental Health HPSA; 4) Primary Care HPSA (for northern and eastern portions of Beltrami County).[11]

There are no Federally Qualified Health Centers in Beltrami County. Less than 1% of the county's low-income population is served by an existing FQHC, the nearest of which is Scenic Rivers Health Services in Itasca County.[12] Within the Scenic Rivers system, the closest access point is located in the small town of Northome, Minnesota, more than 40 miles northeast of Bemidji (50 minutes when roads conditions are good). Services there are limited to medical only. Dental and behavioral health services through Scenic Rivers are located even farther away in Floodwood or Bigfork, Minnesota, about 75 miles from Bemidji. Beyond the barriers presented by these long distances, Beltrami County residents very rarely travel in the direction of Scenic Rivers access points. Rather, they converge at the regional center of Bemidji to access retail, employment, health care, education and government services.

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[11] HRSA, Shortage Designation: Health Professional Shortage Areas & Medically Underserved Areas/Populations, http://bhpr.hrsa.gov/shortage/
[12] UDS Mapper, http://www.udsmapper.org. Accessed Dec.27, 2011

## II.  Target Population

This snapshot of need is focused on the low-income population living in the service area. Estimates show that more than 17,300 residents of Beltrami County are low income (below 200% poverty)[13] and over 8,300 residents live below the poverty level (below 100% poverty).[14]

In 2009, the uninsured rate for Beltrami County citizens under age 65 was 14.4% and the rate for Minnesota was 10.2%. Among low-income Beltrami County residents under age 65, the uninsured rate was 17.3%. Over 1/5 of the county's uninsured, low-income population was under age 19.[15]

One phenomenon unaccounted for in uninsured data is the large number of *underinsured*, particularly in remote geographical areas like Beltrami County. A study funded by the federal Office of Rural Health Policy found that "individuals living in rural counties not adjacent to an urban area are almost twice as likely as urban residents to be underinsured."[16] Throughout this assessment process, both members of the target population and key informants who work with this population repeatedly expressed concern about high insurance deductibles, high co-pays, and health insurance with very limited coverage. As a result of having such costly and limited plans, underinsured households report making tough decisions about when to access care based the burden it will place on their already stretched budget. Referencing the underinsured, low-income population, one stakeholder noted, "Is health care really accessible if they can't pay for it?"

**Medical Assistance (MA)** is Minnesota's expanded Medicaid program for children and adults in poverty. **MinnesotaCare** is a publicly subsidized program for Minnesota residents who do not have access to affordable health care coverage and meet low-income guidelines and asset limits. Enrollees pay a monthly fee (with a few exceptions) based on a sliding fee determined by family size and income. A household is not eligible if their current employer offers health insurance and pays half or more of the monthly cost of insurance. **General Assistance Medical Care** ended in February 2011 and enrollees (single adults without children) were automatically moved to Medical Assistance (MA), Minnesota's Medicaid program. Please see Table 3 for enrollment data.

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[13] U.S. Census, American Community Survey 2006–2010, "Poverty Status in the Past 12 Months" (Table S1701)
[14] U.S. Census Bureau, American Community Survey 2006–2010 "Selected Characteristics of People in Poverty" (Table S1703)
[15] U.S. Census Bureau, Small Area Health Insurance Estimates for Counties and States, 2009
http://www.census.gov/did/www/sahie/data/2009/tables.html. Released Oct. 2011
[16] University of Southern Maine, Muskie School of Public Service, "Rural Residents More Likely to Be Underinsured," 2006

## Table 3: Public Insurance Enrollment

| | Beltrami County |
|---|---|
| Medical Assistance or MA | 12,482 |
| MinnesotaCare | 2,500 |
| General Assistance Medical Care | 1,286 |
| Medicare | 7,278 |

*Source:* MN Department of Human Services, Reports and Forecasts Division. "Medical Assistance, General Assistance and Minnesota Care Eligible Persons in Calendar Year 2010." May 26, 2011. http://www.dhs.state.mn.us
*Source:* Center for Medicare and Medicaid Services, "Medicare Aged and Disabled by State and County," July 2010. https://www.cms.gov/MedicareEnrpts/

### Poverty/Low-Income Status and Race

The preponderance of poverty and low-income status is homogeneous in the region, affecting both the Caucasian and American Indian populations. This is evident in the data displayed in Tables 4 and 5.

## Table 4: Racial Distribution of Population in Poverty (Below 100%)

| | Beltrami County | | Minnesota |
|---|---|---|---|
| | Racial Distribution of Population in Poverty | # in Poverty | Racial Distribution of Population in Poverty |
| White | 45% | 3,739 | 67% |
| American Indian | 48% | 3,985 | 4% |
| Two or More Races | 5% | 487 | 5% |
| Asian | 1% | 84 | 6% |
| Black or African American | <1% | 69 | 16% |
| Other | <1% | 19 | 3% |
| Native Hawaiian or Pac. Isl. | 0% | 0 | <1% |

*Source:* U.S. Census Bureau, American Community Survey, "Selected Characteristics of People at Specified Levels of Poverty," 2006–2010. Note: Population for whom poverty status was determined for Beltrami County was 42,043.

Note: **Hispanic/Latino** is included in "White" data in the table above.
- In Beltrami County, White/Hispanics account for 1.7% of the population in poverty.
- In Minnesota, White/Hispanics account for 10% of the population in poverty.

**Table 5: Racial Distribution of Low-Income Population (Below 200% Poverty)**

| | Beltrami County | |
| --- | --- | --- |
| | Racial Distribution of Low-Income Population | # Low Income |
| White | 57% | 9,903 |
| American Indian | 34% | 5,843 |
| Two or More Races | 6% | 951 |
| Asian | 2% | 187 |

*Source: U.S. Census Bureau, American Community Survey, "Selected Characteristics of People at Specified Levels of Poverty," 2006–2010. Note: Population for whom poverty status was determined for Beltrami County was 42,043.*

**Note: Hispanic/Latino** is included in "White" data in the table above.

As noted, both the Caucasians and American Indians are represented within the poor and low-income populations of Beltrami County. However, the high incidence of poverty within the American Indian population is striking. Consider that:

- **50%** of American Indians in Beltrami County live below the poverty line, while only **12%** of Caucasians (Whites) in the county live below the poverty line.[17]
- Only **26%** of American Indians in Beltrami County are above 200% poverty (not in poverty or low income), while **68%** of Caucasians (Whites) in the county are above 200% poverty.[18]

## III. Health Determinants

"The context of people's lives determines their health," states the World Health Organization.[19] Biological, social, economic, and environmental factors—and their interrelationships—influence the ability of individuals and communities to make progress on health outcomes.[20] In the

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[17] US Census Bureau, American Community Survey 2006–2010

[18] US Census Bureau, American Community Survey, "Selected Characteristics of People at Specified Levels of Poverty," 2006–2010. Special data request. Received April 6, 2012

[19] World Health Organization, "Health Impact Assessment: The determinants of health," http://www.who.int/hia/evidence/doh/en/ Accessed Nov. 22, 2011

[20] http://www.healthypeople.gov/2020/about Accessed April 17, 2012

following section, health determinants that impact the service area's target population are explored.

## Poverty and lack of education

As noted, Beltrami County has a high concentration of poverty, a factor inextricably linked to poorer health. Daily struggles for those in poverty are many-layered and the personal resources available to address those struggles are limited. As a result, target population members develop a keen focus on the present as a means to survive the challenges that life presents.

The impact of poverty begins at a young age. Nearly one in three Beltrami County children under age 5 live in poverty and 28% of those under 18 are living in poverty.[21] 60.5% of Beltrami County children and teens are enrolled in the Free and Reduced Lunch program. This is the third highest rate in the state. When children live in poverty, their education is in jeopardy; without a solid education their prospects for climbing out of poverty diminish.

- Four-year graduation rate: Beltrami County's is the lowest in the state at 58.4%.
- Student Mobility: Beltrami County ranks 4th among Minnesota counties for the rate at which students transfer from school to school during the academic year. This greatly impacts learning and development.
- Special Education rate: 16.3% of Beltrami County's students are enrolled in Special Education in Beltrami County. Out of Minnesota's 87 counties, Beltrami has the 15th highest Special Education rate.[22]
- Educational attainment: On average, people in poverty have a much lower level of educational attainment than the general population. This affects whether one can climb out of poverty, and, in turn, affects health and health care access in multiple ways. Sixty-one percent of those in poverty in Beltrami County either do not have a high school diploma or their education ended when they received a high school diploma (or equivalent).[23]

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[21] U.S. Census Bureau, American Community Survey 2006–2010
[22] Minnesota Department of Education, 2010
[23] US Census Bureau, American Community Survey 2006–2010

## Employment and housing

As noted, poverty is linked to poor health status. Climbing *out* of poverty is far from easy in this region. Economic challenges include a lack of living wage jobs and a shortage of affordable housing.

The top industries for employment in Beltrami County are Education and Health Services (32% of jobs); Trade, Transportation and Utilities (22%); Leisure and Hospitality (11%); Public Administration (9.5%); Construction (6.4%); and Manufacturing (5.7%).[24] The logging industry played a significant role in the settlement of the area, but since then, its role has diminished. The area suffered the loss of 150 jobs in 2009 when a wood products manufacturer closed its doors.

Although Bemidji is considered a region of economic growth, the rewards of that growth are not seen by all. In particular, the availability of living wage jobs for less skilled workers is quite limited. A recent study of wages and cost of living in the Headwaters Region (which includes Beltrami and four neighboring counties) calculated that "the annual cost of basic needs for a single person with one child is $31,500—more than twice the federal poverty guideline. To cover these costs, a person must earn $15.14 per hour." In the Headwaters Region, 61% of jobs pay less than that. In fact, 29% of jobs pay less than $9.95 per hour.[25] In calculating the cost of "basic needs," the study makes no allowance for items such as education or training beyond high school; debt payments; life insurance; retirement and other savings; down payments for a home mortgage; vacations, pets, movies, gifts, and restaurant meals; or big ticket items such as washers, dryers or refrigerators.

For those without living wage jobs, finding affordable housing is also a challenge. Of the county's households who rent, 42% spent more than 30% of their income on housing, and are technically considered "housing burdened." Twenty percent of households who rent spend more than 50% of their income on housing, and are considered "extremely housing burdened."[26] Local housing assistance providers report a high rate of substandard housing and difficulty in finding units that will pass inspection for participation in rental subsidy programs. The Housing and

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[24] MN Department of Employment and Economic Development, *Quarterly Census of Employment and Wages,* 2010, http://www.positivelyminnesota.com/Data_Publications/Data/All_Data_Tools/Quarterly_Census_of_Employment_Wages_QCEW)_2.aspx.

[25] Jobs Now Coalition, "Key Region 2 Findings and Analysis," March 2010

[26] Minnesota Housing Partnership, "Housing Affordability in Beltrami County 2011"

Redevelopment Authority of Bemidji (HRA) reports an approximate 9-month wait for Section 8 rental assistance housing.

Wilder Research of St. Paul has documented that northwest Minnesota has a high rate of "doubling up" or "couch hopping," where people are taken in by friends or family when they cannot afford their own permanent housing. Conditions for those who are doubled up are often unstable, more likely to be sub-standard, overcrowded, lacking in privacy, and ripe for spreading communicable disease.[27]

Homelessness is more prevalent than one might imagine in this remote, rural area. During the annual Northwest Minnesota Point in Time Homeless Count, 301 adults and children were identified as homeless on the night of January 25, 2012.[28] This figure does not include those who were doubled up. The limited inventory of available Emergency Shelter includes a 10-bed youth shelter and two Emergency Shelters (one on Red Lake Reservation for families and individuals and the other in Bemidji for families only) with a total of only 44 beds. A seasonal emergency shelter program operating at various churches on a rotating basis provides beds for up to 20 individuals during frigid winter months. Every year, hundreds of homeless households are turned away from Emergency Shelters in Beltrami County due to capacity issues. In 2011, Bemidji's shelter reported turning away families that included 717 children (unduplicated count).

## Family composition and births to teenage mothers

According to the Robert Wood Johnson Foundation, single parent homes are "susceptible to chronic stress due to economic factors, social isolation and stigma." More than half (57%) of the children born in Beltrami County are born to unmarried mothers, and for nearly 1/5 of those births no father is listed on the birth certificate. In Minnesota, single people are almost twice as likely to be uninsured.[29]

An alarming 15% of all births in Beltrami County are to teen mothers (ages 15–19), the second highest rate for Minnesota counties. Beltrami County's rate of births to teen mothers per 1,000 is *triple* the statewide rate.[30] Given the extreme financial and emotional pressures of parenting, these young mothers struggle to complete their basic education. Over 15% of all

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[27] Northwest Minnesota Continuum of Care, "Heading Home Northwest Minnesota," November 2008.

[28] Northwest Minnesota Continuum of Care, Point in Time Summary for MN-506, January 25, 2012.

[29] Minnesota Department of Health, "Health Insurance Coverage in Minnesota," January 2011

[30] Minnesota Department of Health, MN County Health Tables 2010

county births in 2010 were to mothers with a low Maternal Education Status,[31] a statistically noted setback to the health and development of children.

## Nutrition

Throughout the assessment process, community members expressed concern about the area's high rate of obesity (28.9% for adults[32]) brought on by a lack of physical activity and poor nutrition. For some households, financial stressors put healthy foods out of reach. For others living in remote areas of the county, getting access to groceries that include healthy options requires money for transportation. Only 44% of the Beltrami County population has easy access to healthy foods.[33] A frozen pizza at the nearby convenience store might be the answer. Meanwhile, the demand on local food shelves is ever-increasing as household incomes are stretched in the current economic downturn. Not surprisingly, Bemidji School's District Health Nurse reported that children return to school hungry after the weekend.

## Mental health

People in poverty are often managing daily crises brought about directly or indirectly by their socio-economic status and lack of power in the larger community. A profound shortage of resources creates high levels of stress that can lead to depression, anxiety, a cycle of poor health behaviors, violence, and substance use.

- Beltrami County consistently has one of the highest rates of suicide in the state.
- MN Department of Health youth survey results for Beltrami County:[34]
    o 28% of ninth grade girls and 17% of ninth grade boys reported that in the last 30 days they are often unhappy, depressed or tearful (Minnesota rates=22% and 14%)
    o 21% of ninth grade girls and 12% of ninth grade boys reported feeling so discouraged or hopeless that they wondered if anything was worthwhile

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[31] Minnesota Department of Health, MN County Health Tables 2010. Note: Definition of Maternal Education Status takes into account the age of mother as a variable
[32] CDC National Diabetes Surveillance System, 2008
[33] University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation, County Health Rankings 2011, www.countyhealthrankings.org
[34] Minnesota Department of Health, "Minnesota Student Survey: Beltrami County," 2010

extremely often or quite a bit in the last 30 days (Minnesota rates=16% and 11%)

- o 41% of ninth grade girls and 17% of ninth grade boys reported thinking about killing themselves (Minnesota rates=29% and 18%)
- o 18% of ninth grade girls and 8% of ninth grade boys reported having tried to kill themselves (Minnesota rates=8% and 5%)

## Substance use

### Smoking in Beltrami County:

- **17%** are current smokers.[35] This rate is likely far higher for the target population, as smoking is more prevalent for those in poverty.
- **61%** of Northern Dental Access patients (target population) report that they are smokers.[36]
- **30.6%** of women smoked during pregnancy (4th highest rate in the state)[37]

### Alcohol use:

- Acute Drinking: **20.2%** of the county population over age 18 consumed five or more drink on an occasion, one or more times in the last month.[38]
- Youth Survey: **17%** of Beltrami County ninth graders reported that alcohol use by a family member has *repeatedly caused* family, health, job or legal problems.[39]
- Medical and behavioral health professionals express concern over the high incidence of Fetal Alcohol Syndrome in the service area.

### Illegal Substance Use:

- Recent drug users (within the past month): 3,293 Beltrami County residents[40]
- Youth Survey: **13%** of Beltrami County ninth graders reported that drug use by a family member has *repeatedly caused* family, health, job or legal problems.[41]

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[35] Minnesota Department of Health, MN County Health Tables 2010 (MDH synthetic estimate of 2009 BRFSS data by age and gender)
[36] Northern Dental Access Center Survey
[37] Ibid
[38] Ibid
[39] Minnesota Department of Health, "Minnesota Student Survey: Beltrami County," 2010
[40] U.S. Department of Health and Human Services, Community Health Status Indicators, 2008
[41] Ibid

- Medical and behavioral health professionals express concern over prescription drug abuse in the service area. Both Red Lake and White Earth Reservations have declared public health emergencies with respect to abuse of prescription medication.

Noting the epidemic of untreated substance abuse in the region, an Emergency Room physician remarked that substance abuse leads to poor judgment, violence, and unplanned pregnancy.

## Out of Home placements

Beltrami County has one of the highest rates of out-of-home placement of any county in Minnesota at 18.6 per 1,000 compared to the state rate of 9.3 per 1,000.[42] Traumatic and sometimes violent events can occur before a child is removed from the home and can have a lasting impact on the child's wellbeing. On the 2010 Minnesota Student Survey, 17% of Beltrami County ninth grade girls reported "being hit so hard or so often by an adult in their home that they had marks on their body or were afraid of that person." This compares to 12% of 9th grade girls statewide.[43]

## Crime and perceptions of safety

Among all Minnesota counties, Beltrami County has the fourth highest Serious Crime Rate at 3,731 per 100,000 residents.[44] The implications of this in daily life are different depending on one's socioeconomic status. County residents whose incomes are below $60,000 were three times more likely to report that they "feel it is unsafe to walk on their street after dark." They were also more likely to be a victim of violent crime in the last 12 months (2.6% for those below $60,000 compared to 0.3% for those making over $60,000 per year).[45] Obviously, violent crime affects health in that it involves bodily injury and sometimes death. Beyond that, when people feel unsafe in their neighborhood, anxiety levels are heightened, social connection and support is impeded, and the ability to be physically active is limited.

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[42] The Annie E. Casey Foundation, KIDS COUNT Data Center, 2009, datacenter.kidscount.org
[43] Minnesota Department of Health, "Minnesota Student Survey: Beltrami County," 2010
[44] Minnesota Department of Safety, 2010
[45] MNCompass, Minnesota State Survey, 2009

## Occupational and environmental hazards

A portion of the target population has been exposed to pesticides and other chemicals through agricultural labor. Others are employed in sectors such as logging that require hard physical labor in harsh climate conditions that tax the body and can compromise health. A federal Super Fund site is located in nearby Cass Lake, Minnesota on the Leech Lake Indian Reservation. Wood-preserving activities from decades ago contaminated the site with arsenic and dioxin.

## Veteran disparities

The county's estimated Veteran population is 3,548 or 11.2% of the adult civilian population,[46] slightly higher than the state of Minnesota. The age distribution of this group shifts somewhat with the aging of World War II and Korean Vets and ongoing conflict deployments.

During the community assessment process, a local Veterans group shared a deep concern about the unmet needs for behavioral health services for both substance abuse and mental health issues within this population. They noted that the social stigma around mental health issues is particularly strong and that Veterans fear career repercussions that might occur if they are labeled with Post-Traumatic Stress Disorder.

A Veteran's Administration (VA) Outpatient Clinic located in Bemidji provides primary care services for Veterans in the area, including behavioral health. Veterans indicated that the wait time is long for an appointment and that they dislike the mental health tele-medicine option, referring to it as impersonal and noting technology glitches that can interrupt sessions. Another barrier to effective mental health services noted by Veterans is that some therapists do not have military experience. When that "culture" and experience is not held in common, Veterans noted that it leaves a gap in the connection between client and counselor. In addition, they also indicated that transportation and getting time off from work is a barrier, as they must travel more than 2½ hours to Fargo, North Dakota for VA specialty care.

## American Indian disparities

Research recently published by the Minnesota Department of Health revealed health disparities for racial and ethnic groups in the state. According to the report, **Minnesota's American Indian population faces a disparity for all 16 of the indicators** that the study measured and was the

[46] U.S. Census Bureau, American Community Survey, 2006-2010

only population without at least one indicator for which they ranked best in the state. The indicators included (in order of the degree of disparity for American Indians ranked highest to lowest): homicide, prenatal care initiated at 3rd trimester or none, teen births, gonorrhea incidence, diabetes mortality, suicide, motor vehicle mortality, unintentional injury mortality, Chlamydia incidence, heart disease mortality, Chronic Lower Respiratory Disease mortality, infant mortality, cancer mortality, stroke mortality, low birth weight, and preterm births. The level of these disparities is striking. Consider the following examples. In Minnesota, American Indians are approximately 4 times more likely to die from diabetes, 4½ times more likely to die by suicide, and greater than 3 times more likely to die from heart disease than those in the state's White population.[47] Nationally, about 1 in 5 (18%) American Indian individuals have two or more chronic conditions, making regular access to care even more critical.[48]

These alarming disparities are a result of complex, inter-related social determinants that American Indians have faced for generations. Along with a persistently high poverty rate and all of the barriers associated with that significant variable, this population has experienced historical trauma that continues to negatively affect their health outcomes and increase their barriers to health care.

Research shows that experiencing discrimination can increase blood pressure, heart rate, and stress, as well as undermine self-esteem and self-efficacy.[49] Far beyond scattered incidents of discrimination, American Indians have endured a succession of traumatic events over generations.

Researcher Maria Yellow Horse Braveheart provides a concise explanation of historical trauma and its impact: "Historical trauma (HT) is cumulative emotional and psychological wounding over the lifespan and across generations, emanating from massive group trauma experiences; the historical trauma response (HTR) is the constellation of features in reaction to this trauma. The HTR often includes depression, self-destructive behavior, suicidal thoughts and gestures, anxiety, low self-esteem, anger, and difficulty recognizing and expressing emotions. It

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[47] Minnesota Department of Health, "Health Disparities by Racial/Ethnic Populations in Minnesota," December 2009
[48] Kaiser Family Foundation, "A Profile of American Indians and Alaska Natives the Their Health Coverage," September 2009
[49] U.S. Department of Health and Human Services Office of the Surgeon General, National Prevention Council National Prevention Strategy 2011

may include substance abuse, often an attempt to avoid painful feelings through self-medication."[50]

## IV.  Health Indicators/Outcomes

Health outcomes underscore the disparities faced in this high poverty county. Below is list of outcomes, most of which are required by the Health Resources and Services Administration (HRSA), the federal agency that provided funding for this assessment. For many of the health indicator categories, Beltrami County outcomes are considered worse than the national benchmark set by HRSA, and are, in some cases, worse than the "severe" benchmark set by HRSA.[51]  Where HRSA benchmarks are established, they are noted below.

**Health Indicator Categories:**

**Prenatal and perinatal health**

**Late entry into prenatal care (after first trimester as a percent of all births)** [52]
| | |
|---|---|
| Beltrami County | **28.1%** did not initiate care in the 1st trimester |
| Minnesota statewide | **14%** did not initiate care in the 1st trimester |
| HRSA "severe" benchmark | Anything over **20%** |

**Adequacy of prenatal care**
| | |
|---|---|
| Beltrami County | **67.8%** received adequate or better care |
| Minnesota statewide | **80%** received adequate or better care |

**Infant Mortality Rate**
| | |
|---|---|
| Beltrami County | **7.7** per 1,000 births[53] |
| Minnesota statewide | **5.3** per 1,000 births[54] |
| HRSA benchmark | Anything over **6.9** per 1,000 births |

**Pre-term births**[55]
| | |
|---|---|
| Beltrami County | **10%** |
| Minnesota statewide | **8.1%** |

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[50] Yellow Horse Braveheart, Maria, "The Historical Trauma Response among Natives and Its Relationship with Substance Abuse," Sept 7, 2011.  Available at http://www.tandfonline.com/doi/abs/10.1080/02791072.2003.10399988

[51] HRSA, "Required Indicators Service Area Competition Funding FY 2011"

[52] Minnesota Department of Health, Center for Health Statistics, "Natality Beltrami," 2006–2010

[53] Minnesota Department of Health, Center for Health Statistics, 2005–2009

[54] Kaiser Family Foundation, 2000–2005, Statehealthfacts.org

[55] Minnesota Department of Health, Center for Health Statistics, 2005–2009

**Births to teenage mothers**[56]
Beltrami County                  **15%** of all births
HRSA "severe" benchmark          **9.2%** of all births


**Cigarette use during pregnancy**[57]
Beltrami County                  **30.6%** of all births
HRSA "severe" benchmark          **14.3%** of all births


**Suicide rate**
Beltrami County                  **18.0** per 100,000[58]
Minnesota statewide              **10.7** per 100,000
HRSA "severe" benchmark          Anything over **16** per 100,000


For the period 2000–2009, Beltrami County had the 2nd highest suicide rate among Minnesota counties.


**Unintentional injury deaths**
Beltrami County                  **54.3** per 100,000[59]
Minnesota statewide              **36.0** per 100,000
HRSA benchmark                   Anything over **35** per 100,000 (no "severe" benchmark established)


**Diabetes**

**Adult prevalence of obesity**[60]
Beltrami County                  **28.9%**
HRSA "severe" benchmark          Anything above **24.5%**


**Percentage of Adults with diagnosed diabetes**[61]
Beltrami County                  **7%**
County Rank in MN                **83rd** out of 87 counties
HRSA benchmark                   Anything over **6.5%**

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[56] Minnesota Department of Health, MN County Health Tables 2010
[57] Ibid

[58] Minnesota Department of Health, MN County Health Tables 2010
[59] Minnesota Department of Health Center for Health Statistics, Minnesota Vital Statistics Interactive Queries, 2005-2009 (age-adjusted)
[60] CDC National Diabetes Surveillance System, 2008
[61] Centers for Disease Control and Prevention: National Diabetes Surveillance System, http://apps.nccd.cdc.gov/DDTSTRS/default.aspx (age-adjusted rate; adult= 20 years and older)

## Cancer

**Percent of women 18 and older with No Pap test in past 3 years**[62]
Beltrami County          21.7% NO pap test in past 3 years
Minnesota statewide     17.2% NO pap test in past 3 years
HRSA "severe" benchmark   Anything above **16%**

**Percent of women 40 and older with NO Mammogram in past 2 years**[63]
Beltrami County          34.7% NO mammogram in past 2 years
Minnesota statewide     27.1% NO mammogram in past 2 years
HRSA "severe" benchmark is established for **3 year period**

## Age-Adjusted Death Rates [64]

| | |
|---|---|
| Beltrami County 2006-2010 | **765** per 100,000 |
| Beltrami County American Indian 2006-2010 | **1,529** per 100,000 |
| MN statewide 2006-2010 | **663** per 100,000 |
| HRSA benchmark (no "severe" benchmark) | **870** per 100,000 |

## Sexually Transmitted Diseases[65]

**Gonorrhea**
Beltrami County     **61** per 100,000

Only Hennepin and Ramsey Counties (Minneapolis/St. Paul metro area) had a higher Gonorrhea rate per 100,000.

**Chlamydia**
Beltrami County     **361** per 100,000

Only Hennepin, Ramsey and Blue Earth Counties had a higher Chlamydia rate per 100,000.

## Three Year Average Pneumonia Death Rate

Beltrami County     **12.7** per 100,000 (**1.27 per 10,000**) [66]
HRSA benchmark   Anything over **1 per 10,000**

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[62] State Cancer Profiles 2000–2003, www. statecancerprofiles.cancer.gov (Bias-adjusted Modeled Estimate Combining Behavioral Risk Factor Surveillance System and National Health Interview Survey)
[63] Ibid
[64] Minnesota Department of Health, Center for Health Statistics. MN Vital Statistics Interactive Queries and Vital Statistics Summary
[65] MN Department of Health, 2010 MN Sexually Transmitted Disease Statistics
[66] Minnesota Department of Health, Center for Health Statistics, 2008-10. (Data analysis by Kim Edelman. March 8, 2012)

## Child Health

**Percent of children not receiving recommended immunizations (*4-3-1-3-3)** [67]
4-3-1-3-3 = 4 DTaP, 3 polio, 1 MMR, 3 Hib, 3 hepatitis B

Beltrami County    **30.5%** of children 24-36 months NOT complete for (4-3-1-3-3)
HRSA "severe" benchmark        Anything over **21.4%**

**Cases of vaccine preventable disease morbidity, 2009** [68]
30 cases of Pertussis in Beltrami County
Only 8 other MN counties had a higher incidence

## Preventable Hospitalization Rates [69]

**Diabetes Short-Term Complication Potentially Preventable Hospitalization Rate**
Beltrami County    **61** per 100,000
MN Statewide       **34** per 100,000
HRSA benchmark **46.7** per 100,000

**Bacterial Pneumonia Potentially Preventable Hospitalization Rate**
Beltrami County    **408** per 100,000
MN Statewide       **291** per 100,000

## V.    Service Area Providers

As referenced earlier in the assessment, Beltrami County is a Medically Underserved Area, designated as a Health Professional Shortage Area countywide in Mental Health, Dental Health and in Primary Care (north and east parts of the county). There are no Federally Qualified Health Centers in the county.

By far the largest provider of health care in Beltrami County is Sanford Health, a nonprofit system. Within the last two years, Sanford Health acquired the Bemidji-based clinic system (formerly part of MeritCare), and the regional hospital (formerly known as North Country Health Services). "Three quarters of the hospital's patients reside in Beltrami County, the hospital's primary service area. An additional 10 percent reside in northern Cass County,

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[67] Minnesota Department of Health Data (Data analysis by Epidemiologist Karen E. White, MPH. March 9, 2012)
[68] Minnesota Department of Health, County Health Tables 2010
[69] Minnesota Department of Health, Health Economics Program, "Rates of Potentially Preventable Hospitalizations by County, 2007"

Hubbard, Clearwater, Itasca, Koochiching, and Polk counties. The population of the primary and secondary service area approaches 100,000."[70]

Sanford Bemidji Medical Center and Sanford Health patient care services include: acute inpatient rehabilitation, apartment living for seniors, cardiac rehabilitation, catered living apartments for seniors, chaplaincy and spiritual care, Diabetes Resource Center, emergency services, food and dining services, general and vascular surgeries, home care and hospice, hospitalist program, imaging/radiology, intensive care, laboratory, medical equipment and supplies, medical nutritional therapy, medical-surgical, memory care, nursing home, obstetrics, gynecology, nursery, pediatrics, pharmacy, quality care and social services, rehabilitation: physical and occupational therapies, and speech pathology, respiratory therapy, Senior Behavioral Health Unit, sleep medicine, and urology.[71] Beyond services in Bemidji, Sanford has one other location within Beltrami County—a small satellite clinic in Blackduck. According to Sanford administration, there are 26.6 Primary Care Physician FTEs for direct patient care and follow-up of primary care in inpatient settings (hospital and nursing homes). Just over 19% of the patients cared for by these primary care physicians are on Medicaid.[72]

Physicians Clinic of Minnesota is a small private provider in Bemidji with one .75 FTE Primary Care physician on staff.[73]

Indian Health Services and Tribal Health Comprehensive Services are located on Red Lake Reservation. Services available include: behavioral health, dental, optometry, physical therapy, radiology, nutrition therapy, diabetes education, outpatient department, and Emergency Department. The Emergency Department is a Level IV Trauma Center.[74] Leech Lake Reservation Tribal Health Services operates a small clinic in Bemidji.

In addition to the behavioral health options provided through IHS and Tribal Health, mental health service provider organizations in Beltrami County include Upper Mississippi Mental Health Center; a private non-profit, Rule 29, community mental health center; and three private mental health clinics.

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[70] http://www.nchs.com/history Accessed April 16, 2012
[71] http://www.nchs.com/services Accessed March 25, 2012
[72] Sanford Bemidji, "Physician FTE Survey," submitted February 9, 2012
[73] Physician's Clinic, Administrative manager, phone interview on March 20, 2012
[74] http://www.ihs.gov/bemidji/index.cfm?module=bmi_health_facs_fdsp_redlake on March 25, 2012

Several years ago, the community spearheaded a project to address the dental professional shortage in our area. While private dentists in the area accept patients on Medicaid, the availability of appointments for this high need population is quite limited. Northern Dental Access Center opened three years ago and serves 10,000 patients per year from a 100-mile radius of Bemidji. Patients are either enrolled in a Minnesota Health Care Plan (Medicaid) or access a discounted rate for services based on income levels. An integrated and collaborative approach to care combines dental care with patient advocacy and other health services available on site. The clinic's unique and culturally competent approach has led to numerous state and national awards.

Beltrami County Health and Human Services provides programs aimed at improving overall health outcomes in the community. Health services are provided at the Community Service Center in Bemidji, the Blackduck Resource Center, and in Kelliher (northern Beltrami County), and include: car seat inspections, child and teen checkups, health education, health screenings, home care, immunizations, maternal and child health services, basic health in the jail, and nutritional support through WIC.

A number of community nonprofit agencies exist to serve low-income individuals and families, and their work certainly impacts the health of the target population. Examples of these agencies include: Bi-County Community Action Program for Head Start, housing, heat assistance, and case management; Adult Day Services for seniors; Day Activity Center and Occupational Development Center for developmentally disabled adults; Red Lake and Bemidji Boys & Girls Clubs; Evergreen Youth and Family Services; Hope House for adult mental health support; Planned Parenthood; and Village of Hope for homeless families. While these agencies provide helpful services, it is difficult for those in poverty to determine which agencies might meet their needs and to get information about how to access these programs.

## VII. Health Care Barriers

As a part of the assessment process, a 30-member community health needs assessment advisory team was assembled, more than 140 key informants were interviewed, and the target population was surveyed to gain insight on a variety of topics. Among the many topics covered in interviews, forums and the survey was a very basic but important question–"What prevents the target population [you] from receiving the health care that they [you] need?" In other words, what are the barriers?

The following section summarizes findings related to health care barriers for the target population in the service area. Beneath each heading is an explanation of how the barrier impacts the target population. Barriers are listed in the order that allows the "story" to unfold without redundancy.

- **Cost of care**

The target population resoundingly reported that they cannot afford to pay for needed health care services—whether it's due to high deductibles, a lack of insurance, or a need for services that are not covered. Many reported that this is causing them to ration their family's care. Some target population members said that they were trying to pay off large medical bills and could not seek care for new health issues. This factor cannot be underestimated as a major barrier to the target population's health.

- **Issues with health care coverage**

The complexity of getting on and staying on Medicaid is a major barrier to care. College-degreed professionals who assist clients with completing Medicaid enrollment forms and navigating the application process attest to the complexity. With that said, it is not surprising that members of the target population express extreme frustration, confusion and hopelessness with the enrollment process. The illiteracy rate of Beltrami County is 6.4%,[75] the level of educational attainment for the target population is low, and many who are Medicaid-eligible suffer from mental illness or substance abuse issues that impact their ability to process information. With such high needs, there is simply not enough assistance available to guide them successfully through the enrollment process.

When people go on and off Medicaid or other health coverage, it leads to inconsistent access, which impacts health. During lapses in health care coverage, necessary prescriptions are not re-filled and chronic illnesses are not well managed. Preventive care visits become an unaffordable luxury.

- **Shortage of dental health services**

In Beltrami County, private dental clinics accept a limited number of Medicaid patients, but appointments for this high needs population are extremely limited. Prior to 2009, this region experienced significant dental access challenges for low-income families, so much so that for seven years, a broad community coalition worked tirelessly to plan, design, fund and launch

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[75] U.S. Department of Education, Institute of Education Sciences, 2003 National Assessment of Adult Literacy

a nonprofit community access dental clinic—Northern Dental Access Center. In 2011, Northern Dental Access Center served over 9,900 patients with excellent outcomes.

Even with the addition of Northern Dental to the service area, target population members indicate that they have difficulty accessing the oral health services that they need. After serving more than 15,000 people in three years at the new Northern Dental Access Center, wait times for dental appointments still amount to 4-6 weeks for routine or preventive care, with 15-20 new patients registered every day.

When people face barriers to accessing dental health, the pain they experience leads to absences from work and school, self-medication using alcohol and illegal substances to relieve pain, and expensive visits to Emergency Departments. As the American Dental Association states, "Untreated dental disease can lead to serious health problems: infection, damage to bone or nerve, and tooth loss. Infection from tooth disease can spread to other parts of the body and may even lead to death. Clearly, oral health is just as important as the health of the rest of your body."[76]

- **Shortage of mental health services**

Resoundingly, this assessment process revealed a shortage of mental health service professionals as a barrier to care, given the target population's high incidence of mental health issues. The service area's mental health system was described as "inundated and overwhelmed" by what one local physician characterized as a "preponderance of mental health issues." Although region has highly competent mental health agencies and professionals, it is challenging to recruit enough mental health providers in this remote location where salaries rarely reach market levels. In particular, more psychiatrists are needed, and more specifically, *child psychiatrists* with a strong developmental background. Primary care providers noted that they do not have adequate time to address the growing demand for mental health medication, nor do they feel adequately trained to do so in some cases.

Behavioral health providers face an extreme challenge in that Medicaid reimbursements are low and the target population needs are high—a difficult equation to effectively solve in a way that keeps the provider's doors open and client outcomes met.

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[76] American Dental Association, "Access to Dental Care/Oral Health Care," http://www.ada.org/2961.aspx

The result of this mental health professional shortage is a long wait time for appointments, especially for diagnostic assessments and medication management. During that wait, the client's urgency for help may temporarily subside, leading them to cancel or miss their appointment only to have the unaddressed issue re-emerge at another time. To alleviate some of this need, Upper Mississippi Mental Health Center recently added an Open Access Clinic where clients can be seen on the same day with no appointment. Through this program, clients can receive a diagnostic assessment or crisis therapy. Chronic no-show clients can also use the Open Access Clinic for their therapy needs, although this would not be an ideal practice over the long term.

- **Complexity of behavioral health and primary care systems**

Health care and supportive service providers reported that the behavioral health system is complex to navigate. The mix of private, government, tribal and faith-based providers along with layers of requirements and parameters for various programs confuse the potential client. Stakeholders note that it is difficult for the target population to find the "front door" and to advocate for what is needed, especially considering the state of hopelessness and anxiety that target population members are experiencing in these circumstances.

Senior citizens surveyed reported that their most significant barrier to medical care was that "the health care system is confusing," with one survey respondent commenting that there are "too many locations."

- **Wait times for primary care**

Some target population members and providers noted that long wait times for appointments are a barrier to receiving adequate primary care. Scheduling a preventive care appointment with some physicians can mean a 3-month wait. A few physicians in the Sanford system are no longer accepting new patients. Some households reported having a difficult time scheduling an appointment to see a primary care provider in a timely manner, which led to usage of the Walk-In Clinic and ER (although overuse of the ER is a many-layered issue). With the recent entry of Sanford Health into our community, a renewed surge of provider recruitment may alleviate wait times to some degree.

- **Navigating supportive services**

Living in poverty often means moving through crisis after crisis. A barrage of barriers emerges, each directly or indirectly linked to one's lack of resources. Although existing

supportive service programs could alleviate some of these stressors, accessing these programs can be a complex process that would be more easily navigated with assistance from an advocate who can match their needs to existing programs.

- **Transportation**

Resoundingly, transportation was noted as one of the most significant barriers to health care. Getting to appointments is extremely difficult for the target population due to long distances to care providers, a lack of affordable/reliable vehicles, the high cost of gasoline, a lack of public transportation outside the city of Bemidji, and four to five months of extreme winter weather conditions. The senior citizen population noted that transportation was a barrier to health care for their age group. They expressed dissatisfaction with the minimal public transportation available and dismay about the cost of taxi fare and Medi-Van.

- **Work obligations and child care**

Target population members report that their jobs do not allow them to take time off work for personal and family appointments. Those with young children expressed difficulty finding childcare. Health care providers reported that patient/clients sometimes bring young children along for appointments, which can interfere with the level of quality care that can be provided in some cases.

- **Missed appointments**

Providers noted the high rate of missed appointments by the target population. In some cases, patients exceed a maximum number of missed appointments and can no longer receive care at that provider. A mental health therapist noted that given the complex, chaotic world of poverty "a thousand things could have kept them from getting there that day."

- **Illiteracy and low level of educational attainment**

A segment of the target population lacks the literacy skills and education needed to understand instructions presented to them by their care providers. A Registered Nurse in family practice recalled a 27-year-old who was struggling with paperwork. Fortunately, she realized that this was a literacy issue and guided him. The literacy barrier is challenging for educated health care providers to keep in mind and detect, and time-consuming (but important) to address. The formal education of nearly 1/3 of Beltrami County's adult population living in poverty stopped before they received a high school diploma (or the

equivalent).[77] Thus, even if they are not technically considered illiterate, members of the target population struggle with the complex jargon of medical care, and this can impede their ability to comprehend their diagnosis, instructions about use of prescription medicines and follow-up care—all of which impacts their health. Care coordination at Northern Dental Access Clinic has helped alleviate this barrier for their patients.

- **Health literacy issues**

It is clear that the target population is not receiving adequate levels of preventive care, screenings, prenatal care, dental care, mental health care and uninterrupted access to necessary prescription medicines. Many do not have a primary care provider and some have not visited a dentist in many years. Some part of this is due to a lack of health literacy, but it is difficult to parse out how much education and public awareness campaigns would change behavior given the magnitude of other barriers to health care that they face. It is certainly a part of the equation.

Health literacy topics that surfaced during the assessment process included but were not limited to: the need for preventive care, the importance of oral health, the need for and definition of adequate perinatal care, risk behaviors and their consequences during pregnancy, family planning/pregnancy prevention, STD prevention, nutrition, reducing the stigma surrounding mental health and understanding how to utilize the service area's health care systems.

- **Challenge of self-advocacy**

For a variety of reasons, people in poverty are uncomfortable and unaccustomed to advocating for their health care needs. Their experience is that of having little control or power in the wider community. Target population members expressed that they don't know what to ask for and one forum participant shared that he did not believe that he deserved quality care.

- **Feeling judged or sensing prejudice**

Target population members reported feeling judged by care providers and support staff at times, which was intimidating for them. Some American Indians within the target population shared that they have experienced cultural insensitivity and prejudice when getting care.

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[77] U.S. Census Bureau, American Community Survey 2006–2010, "Selected Characteristics of People at Specified Levels of Poverty"

- **Mental health stigma**

Segments of the target population are stymied by the stigma surrounding mental health, frozen in their fear of being labeled. More public awareness is needed to build acceptance around getting care for depression, anxiety and other mental health diagnoses.

- **Untreated mental health issues**

The high rate of untreated mental health issues in Beltrami County is, in itself, a barrier to accessing other health care. Mental illness "may prevent or diminish self-advocacy due to such symptoms as limited insight, low motivation, disorganized thinking, poor judgment, inadequate finances, lack of transportation, and other unmet psychosocial factors. Patients often exhibit disorganization in daily affairs and lack of follow-through—creating a significant barrier to attention to primary and secondary preventive measures or chronic care management."[78]

According to assessment interviews, untreated chronic mental health issues are resulting in visits to the Emergency Room (ER)—hardly the most effective or cost-efficient way to treat these needs. Cases range from mild depression to suicidal ideation. Emergency Room medical staff expressed concern over how young some of these patients in need of mental health services are. Due to this surge of ER patients with mental health issues, a 24-hour Mobile Crisis Team is now available to the Sanford Medical Center Emergency Room. ER staff can call in this team of therapists who evaluate patients with mental health issues to determine whether they are safe to return home. If so, a safe plan is developed and if not, arrangements are made for in-patient placement. Patients also receive assistance in finding ongoing mental health care. Even with this and other efforts in place, the need is still great and the barriers to receiving care are resulting in visits to the ER.

- **Unrecognized or undiagnosed mental health issues**

Target population members are sometimes unaware that they have a need for mental health services. "I didn't know that I had a problem," commented one survey respondent. Families in this region have experienced generations of persistent mental health issues, and this "way of being" becomes the norm. They have become accustomed to the feelings and thoughts that

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[78] Dickerson, Faith, "Health Status of Individuals with Serious Mental Illness," http://schizophreniabulletin.oxfordjournals.org/content/32/3/584.full.pdf+html

they are living with; or, as parents, they become conditioned to their child's depressed, angry or anxious demeanor.

- **Substance abuse**

Like persistent mental health issues, untreated substance abuse is a barrier to accessing health care. In some cases, patients feared that if they revealed their substance abuse issues they would face harsh judgment or denigration from health care providers. During the assessment process, supportive service and health care providers repeatedly noted their belief that some pregnant mothers avoid prenatal care when they have a substance use issue. In this circumstance, the pregnant mothers may fear the loss of their infant or other children or a myriad of other consequences if they bring their addictions to light.

The reported high rate of substance abuse is linked to a shortage of mental health care access. Some members of the target population self-medicate with alcohol, prescription drugs and illegal substances.

- **Mistrust of the system**

An element of mistrust toward the health care system pervades segments of the target population. This plays out in several ways. Some find contemporary health care impersonal and high-volume; they always feel rushed and unable to make a connection with the provider. Others expressed a sense of doubt about whether they or their families were getting proper screenings, medications and care—wondering if being on Medicaid was adversely affecting the type of care they were offered and questioning whether it also affected the attitude and effort put forth by the provider. These perceptions may make the target population less likely to return for follow-up care.

- **Desire for holistic and traditional treatment options**

Some target population members expressed an aversion to medication as treatment for health issues and noted that they thought providers "pushed pills." Some preferred more holistic methods or Anishinaabe (Ojibwe) traditional ways of healing. Upper Mississippi Mental Health recently received a grant that will allow more integration of Anishinaabe culture as an optional element in the care that clients receive. Other providers noted that they are constantly working on building trust and cultural competence, as this is widely recognized as vital to reducing barriers to health care.

- **Underfunding of Indian Health Service**

Although treaties and laws established that the federal government is responsible for American Indian health care through the Indian Health Service, a myriad of issues including chronic underfunding and bureaucratic processes have hindered and limited the scope and effectiveness of IHS. Of the 12 IHS areas in the nation, the Bemidji Indian Health Service Area is historically the most underfunded. "The Bemidji Area was funded at only 45% of need in 2009. In comparison, the average funding of IHS nationwide was only 55.2% of what was necessary to provide parity in healthcare." Federal prisoners receive twice as much per capita for health care than Indian Health Service does.[79] Also grossly underfunded is the Contract Health Service Program that is designed to cover costs for IHS patient referrals to other providers. As a result, appropriations run out before the end of the fiscal year and patients have to wait for care they need.

- **Emergency Room use**

The reasons why the target population may seek Emergency Room care for non-emergency issues are many. According to Sanford Bemidji, 11% of ER visits at their facility are Level I and II, which is non-urgent care. In 2007, the nationwide rate of non-urgent visits to Emergency Rooms was approximately 8%.[80] When patients access care for non-emergency issues in the ER setting, the cost is seven times more than that for a community health center visit.[81] The cost to their personal health is also notable. It is unlikely that these patients are receiving preventive care with a primary care physician who could better direct their care.

Patients with chronic illnesses who cannot access ongoing health care experience a degradation of their condition or disease. When their symptoms reach a crisis level, the Emergency Room treats their complications, but cannot provide the necessary long-term, ongoing care that is needed for improved chronic disease management.

- **Continuity of care and fragmentation of care**

During the assessment, key stakeholders noted the need to focus on continuity of care and efforts to reduce fragmentation of care for the target population. These phenomena are

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[79] Great Lakes Inter-Tribal Epidemiology Center, "Community Health Data Profile: Michigan, Minnesota and Wisconsin Tribal Communities," 2010

[80] Government Accountability Office, "Hospital Emergency Departments: Health Center Strategies That May Help Reduce Their Use." April 11, 2011

[81] Ibid

pervasive in the U.S. health care system, especially for poor and low-income underserved populations.

"Better **continuity of care** is a hallmark and primary objective of family medicine and is consistent with quality patient care. The continuity of care inherent in family medicine helps family physicians gain their patients' confidence and enables family physicians to be more effective patient advocates. It also facilitates the family physician's role as a cost-effective coordinator of the patient's health services by making early recognition of problems possible. Continuity of care is rooted in a long-term patient-physician partnership in which the physician knows the patient's history from experience and can integrate new information and decisions from a whole-patient perspective efficiently without extensive investigation or record review."[82]

"**Fragmentation** means having multiple decision makers making a set of health care decisions that would be better made through unified decision making. When individuals are only responsible for one fragment of a relevant set of health care decisions, they may fail to understand the full picture, may lack the power to take all the appropriate actions given what they know, or may even have affirmative incentives to shift costs onto others."[83]

When the target population does get care in our service area, they move in and out of different systems (IHS, tribal health, Sanford Health, substance abuse treatment programs, mental health providers, different pharmaceutical providers, jail, public health) and in and out of various parts of any one system (Urgent Care, family practice, ER department, chronic disease management). Communication between and within systems is critical to the target population's health outcomes, especially given the health disparities they face. Having a regular, primary care provider guide their care is ideal—someone who the patient trusts and who knows their health history.

Sanford Health only recently established its presence in the service area, and they are working on several initiatives related to these issues. Of note, the relatively new hospitalist program at Sanford Medical is reducing fragmentation for patients through better communication between systems.

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[82] American Academy of Family Physicians, "Continuity of Care"
http://www.aafp.org/online/en/home/policy/policies/c/continuityofcaredefinition.html
[83] Elhuage, Einer. *Why We Should Care about Health Care Fragmentation and How to Fix It.* 2010