Sanford Medical Center Thief River Falls

Community Health Needs Assessment

2012-2013

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Community Health Needs Assessment 2012-2013

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Purpose

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

Sanford Medical Center Thief River Falls 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.

Sanford Enterprise Steering Group:

- *Enterprise Lead:* Carrie McLeod, MBA, MM, LRD,CDE; Office of Health Care Reform, Community Benefit/Community Health Improvement
- *Sioux Falls Region Co-Lead:* Bruce Viessman, CFO, Sanford Health Network Sioux Falls
- Mike Begeman, Chief of Staff/Vice President of Public Affairs
- Maxine Brinkman, CPA; Director of Financial Decisions and Operations Support
- Michelle Bruhn, CPA; CFO, Health Services Division
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- Kristie Invie, BS, MBA; Vice President for Clinical Performance
- Joy Johnson, Bemidji Region Co-Lead, VP, Business Development and Marketing, Bemidji
- Ashley King, Bemidji Co-Lead, Intern in Bemidji
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- Tiffany Lawrence, CPA; Fargo Region Co-Lead, CFO, Sanford Medical Center Fargo
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Sanford Fargo Region Steering Group:

- *Enterprise Lead:* Carrie McLeod, MBA, MM, LRD, CDE; Office of Health Care Reform, Community Benefit/Community Health Improvement
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Northwest Minnesota Needs Assessment Collaborative Group:

- Rachel Green, Quin CHS Administrator, Quin County Health Services
- Julie Pahlen, Public Health Administrator-Warroad, Life Care Medical Center
- Sue Grafstrom, Development Coordinator, Life Care Medical Center
- Casey Johnson, CFO, Sanford Health – Thief River Falls
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- Betty Younggren, North Valley Health Center Representative, North Valley Health Center
- Garth Kruger, Consultant, Evaluation Group LLC

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."

The following key community stakeholders participated in this assessment work:

- Carol Adair, Social Worker, Pennington County Human Services, Thief River Falls, MN
- Joe Amundson, Thief River Falls Parks & Recreation Director
- Brady Anderson, Mental Health Practitioner, Sanford Thief River Falls, Thief River Falls, MN
- Twyla Asp, Diabetes Nurse Educator, Sanford Thief River Falls, Thief River Falls, MN
- Scott Brekke, Associate Principal, Lincoln High School, Thief River Falls, MN
- Chad Broadwell, Board Member, Sanford Thief River Falls, Thief River Falls, MN
- Anita Cardinal, Public Health Director, Inter County Nursing Service, Thief River Falls, MN
- Sandy Critelli, Mental Health Practitioner, Roseau, MN
- Nancy Demarais, Executive Director, Sanford Clinic, Thief River Falls, MN
- Jenalea Duray, Social Worker, Pennington County Human Services, Thief River Falls, MN
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- Maureen Monson, Social Worker, Thief River Falls, MN
- Ashok Patel, Physician, Sanford Thief River Falls, Thief River Falls, MN
- Neil Peterson, Pennington County Commissioner, St. Hilaire, MN
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- Ken Schmalz, County Recorder/City Council Member, Thief River Falls, MN
- Carmen Stinson, Practical Nursing Instructor, Northland Community & Technical College, Thief River Falls, MN
- Bill Stock, School Counselor, Thief River Falls, MN
- Oliver Swanson, Pennington County Commissioner, Thief River Falls, MN
- Ardis Thompson, Mental Health Practitioner, Sanford Thief River Falls, Thief River Falls, MN
- Mark Thune, President, Thune Insurance Network, Thief River Falls, MN

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- Bonnie Wagner, Registered Nurse, Middle River, MN
- Robert Wayne, Principal, Thief River Falls School District, Thief River Falls, MN
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- Ken Yutrzenka, Human Services Director, Pennington County Human Services, Thief River Falls, MN
- Michele Zblewski, Mental Health Practitioner, Sanford Thief River Falls, Thief River Falls, MN

Sanford Medical Center Thief River Falls
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 our not-for-profit status.

Study Design and Methodology

Sanford Health as a regional enterprise has taken a very consistent approach to this particular study. An assembled steering group specifically designed primary and secondary research tools for each site to utilize in assessing needs of their particular community or communities. In addition, there were suggestions, but not limitations to other potentially meaningful data that may be available for some groups. In various locations, additional analysis of internal volume and quality data was done to gain insight on community needs, and in some cases collaborative groups were formed to conduct regional primary and secondary research studies to supplement the information provided to all members of the system. Once the data specific to Sanford – TRF was gathered, it was analyzed based on a "gap analysis" technique designed to appropriately identify needs of the community that were: truly unmet needs, needs that could be impacted by our facilities, needs that had a high return on investment in terms of health outcomes in our communities.

Data Gathering and Analysis

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.

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 set was studied:

- Thief River Falls Community Health Needs Assessment of Community Leaders

The following quantitative data sets were studied:

- 2011 County Health Profiles for Pennington County
- Aging Profiles for Pennington County
- Diversity Profiles for Pennington County
- NWMN Community Assessment Committee's Regional Health Risk Study

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 Thief River Falls Community Health Needs Assessment Subcommittee 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 by the Sanford Health – TRF Administrative Team.

Key Findings

Findings of the needs assessment were the result of looking at primary research conducted in the community, internal review of utilization statistics, and review of several sources of secondary research. After gathering the data, a gap analysis was done to assess and prioritize the needs of the community as they relate to this particular assessment.

Primary research done for this study includes only the Thief River Falls Community Health Needs Assessment of Community Leaders. In the following paragraphs, each section of survey questions is summarized. For the full and actual results from the survey, refer to Exhibit 1 in the Appendix.

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.

Community Assets/Best Things about the Community

Respondents felt some of the strengths of the community included quality schools, healthy environment, and that the community is a good and healthy place to raise children. Some of the weaknesses appear to be a lack of cultural richness and diversity, as well as a lack of community or cultural events.

General Concerns about the Community

The greatest concerns appear to be the cost of health insurance, availability of employment opportunities, low wages, and substance abuse concerns. Backing this up is secondary data in terms of low wages, lack of medium to high income job opportunities, and substance abuse problems compared to state and national benchmarks.

Health and Wellness Concerns about the Community

The biggest concerns about health and wellness in the community seemed to hit on familiar themes. They included: cost and adequacy of health/dental/ and vision insurances, the cost of health care and prescription drugs in general, drug and alcohol use/abuse, lack of exercise and obesity, chronic diseases, and cancer. Many of these issues deal with both the cost of care, but also conditions and behaviors that are notorious for resulting in very expensive treatment options.

Delivery of Health Care in the Community

Respondents indicated that some of the stronger facets of health care delivery in their community were emergency services, diabetes services, and mental health services. The weak points included services for the obese, cost of health care, and preventative services. It is worth pointing out, however, that there was very little variance from the mean scores of all responses for the best and worst rated aspects of the delivery system.

Secondary research performed includes the following quantitative data sets:

- 2011 County Health Profiles for Pennington County
- Aging Profiles for Pennington County
- Diversity Profiles for Pennington County
- NWMN Community Assessment Committee's Regional Health Risk Study

These data sets were put together by various sources, but were readily available to help the needs of our community by defining and comparing health outcomes and other characteristics of our community. The following sections will summarize the findings from analysis of each of the sources, but the data sets are available in their entirety are located in the Appendix of the report.

2011 County Health Profiles for Pennington County

By most health outcomes metrics provided, Pennington County is below both state and national benchmarks. On a positive note, the physical environment seems to favor the county in general, but unfortunately there are other drivers that seem to correlate more with actual health outcome metrics. In terms of the social and economic environment, Pennington County has a higher rate of single parent families, as well as children living in poverty. Residents have less access to clinical care providers, but, on a positive note, do seem to have a better rate of health screenings based on the metrics given. Health behaviors also play a role, and this point is emphasized by Pennington County's high rate of adult obesity and adult tobacco use. Poor health and poor mental health seem to be the hardest hit health outcome measures, and this research seems to indicate a multitude of drivers that correlate strongly with those metrics.

Aging Profiles for Pennington County and Diversity Profiles for Pennington County

These two data sets represent a deeper dive into some demographic information offered by the County Profiles research, which provides an interesting context to some of the other behavioral and environmental factors. As it may have been predicted, Pennington County has a more elderly population than the state or national benchmarks. Grandparents in the county are more frequently living with and/or responsible legally for their grandchildren. Numbers do seem to indicate, however, a fairly high level of employment among the working aged population. This doesn't appear to have a direct effect on the median income level compared to state and national benchmarks, or the rate of children living in poverty within the county.

NWMN Community Assessment Committee's Regional Health Risk Study

Several hospitals and public health agencies in northwest Minnesota formed an informal committee in order to pool resources to better assess the community's health needs. Sanford Thief River Falls participated in this collaborative effort. As a result, the Evaluation Group, LLC out of Warren, Minnesota was commissioned to provide some research into health factors in the region as a whole.

Findings indicate that youth from the region are significantly (statistically) more overweight, eat fewer servings of fruits and vegetables, and use more tobacco compared to youth from the rest of the state. Over the three-year time span of the administration of the survey analyzed in this study, each of these three measures has grown worse. A fourth indicator, the use of smokeless tobacco, has seen the most dangerous growth. As shown in the study's research, 16% of students (almost exclusively male) used smokeless tobacco in 2007, which grew to 21.4% in 2010. This use is nearly twice that of the state benchmark in 2010 for all youth in Minnesota. These seem to be the most pressing concerns of the region as a whole, as they pertain to actual health outcomes of the residents of northwest Minnesota.

At the end of all of the data gathering and analysis, we determined some drivers of health outcomes that we believe can be influenced positively in our community by Sanford Thief River Falls, and the corresponding areas of need identified were selected for our subsequent implementation strategy. Most concerning to the groups responsible for analyzing the data gathered were concerns about access to clinical care expressed in the primary research done in the community, the health outcomes numbers compared to state benchmarks in general, and the underlying theme of substance abuse evident in several areas of secondary research conducted. As a result, Sanford Thief River Falls will focus on three challenging areas: Access, Care Coordination and Chronic Diseases, and Substance Abuse.

Implementation Strategy

The following unmet needs were identified through a formal community health needs assessment, resource mapping and prioritization process for Sanford Thief River Falls:

- Substance Abuse
- Care Coordination and Chronic Disease Management
- Access

Priority: Substance Abuse Services

- Establish systemic care plan for prescription drug abuse cases including behavioral health, primary care, and medical home departments.
- Establish reliable network for detoxification and inpatient chemical dependency treatment centers.
- Establish coordination of care between chemical dependency and mental health professionals.
- Develop reliable chemical dependency outpatient services for adolescents.
- Improve access to chemical dependency assessments for community.

Priority: Care Coordination and Chronic Disease Management

- Integrate dietician services with dialysis services.
- Establish integrated approach to behavioral health within the function of primary care.
- Implement Integrated EMR platform across clinic and hospital-based services.
- Fully implemented Hospitalist program with established connectivity to outpatient providers.
- Establish comprehensive Pain Management program.
- Refine and promote practices and communications of Medical Home Team: RN Health Coaches, Tobacco Cessation Specialist, Outpatient Social Worker, Cardiac Rehab, Dieticians, etc.
- Connect Long Term Care Facilities to providers and inpatient services.

Priority: Access

- Expand Urology coverage
- Create more complete Oncology outreach program
- Improve access in general to "Primary Care" areas: Family Med/Internal Med/OB GYN/Pediatrics/Psychology/Psychiatry
    - Satellite Employer Clinic Model
    - APP-MD Team Model
- Establish Outreach Dermatology services in TRF
- Establish Neurology Outreach services
- Establish comprehensive Pain Management Clinic

Sanford Medical Center Thief River Falls
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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: *Improving 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 Medical Center Thief River Falls

Sanford Medical Center Thief River Falls is a primary care Critical Access Hospital presently licensed for 25 acute beds, with 10 acute care beds designated for psychiatric patients, and a multi-specialty provider-based clinic.

Sanford Thief River Falls serves people in Pennington and surrounding counties, with high quality, comprehensive health care services. Its goal is to improve the health and well-being of the population within the limits of available resources. Sanford Thief River Falls participates and leads in many health care education and training opportunities offered these communities as well. It is licensed by the State of Minnesota's Department of Health and is a full participant in Medicare and Medicaid programs.

Sanford Thief River Falls provides the following services:

- Inpatient nursing and respite care
- Labor and Delivery services
- Psychiatric inpatient and outpatient services
- Outpatient Psychotherapy services
- Behavioral Health Residential and Work Therapy Services
- Behavioral Health Community Based Services
- Multi-Specialty Outpatient Provider Based Clinic Services
- Emergency Services
- Certified CLIA clinical laboratory
- Cardiac rehabilitation
- Occupational therapy
- Diabetes education
- Physical therapy
- Radiology, CT, MRI, Nuclear Medicine and other imaging services
- Respiratory therapy
- Social Services
- Multi-specialty Surgical Services
- Stress ECHO
- In-house pharmacy
- Optometry and Retail Optical Services
- Chiropractic Services

Sanford Thief River Falls' professional staff is comprised of physicians from Sanford Health who are leased to Sanford Thief River Falls for their services, along with a handful of contracted physicians from outside agencies who staff the Emergency Room, provide inpatient hospitalist services, and provide a portion of the anesthesia services.

Description of the Community Served

Thief River Falls, Minnesota is located in northwest Minnesota, and is one of the largest communities on the Minnesota side of the border in that region, with a population of over 8,000. It serves as a hub of sorts for economic activity for several small rural communities in the area. The major employers in the community are Digikey (manufacturing), Arctic Cat (manufacturing), Sanford Health Thief River Falls (health care), and the local School District (public). There are many jobs available in Thief River Falls and surrounding communities, and the region seems to have been spared from spikes in unemployment in recent economic downturns. That being said, there are still negative variances from state and national benchmarks relating to benchmark income and income disparity among residents of Pennington County.

The community has several options for recreation and physical activity, most prominently the Ralph Englestad Arena, which was made possible in large part due to donations from one of the community's most famous residents: the late Ralph Englestad. In addition to the hockey arena, the community boasts many well-maintained parks and an expanding bike trail system. There are also a handful of viable fitness centers in town. Recently there has been a community focus on an outdoor pool or community recreation center of some sort, but no resources have been committed at this time for a project of this sort.

Thief River Falls also has a variety of educational opportunities offered locally. In addition to a public K-12 system, there is also private K-6 Catholic School and Northland Community and Technical College.

In addition to health resources, described above, available at Sanford Thief River Falls, the community offers additional services as well:

- Multiple Chiropractic Practices
- Multiple Optometry and Retail Optical Practices
- Multiple Dentistry Practices
- Multiple Massage Therapy Practices
- Multiple Retail Pharmacies
- Homecare and Hospice Services
- Public Health Services
- Ambulance and EMT Services
- Multiple Nursing Home/Skilled Nursing Residential Services
- Multiple Assisted Living/Independent Living Facilities

For more information on community assets, refer to Table 3 in the Appendix, which is a listing of community assets, sorted by community need.

Study Design and Methodology

Overview

The basic concept behind the study of this particular community's health needs was rather simple. Take a sampling of indicators from several available databases and complement that information with some more qualitative data in the form of a community stakeholder survey. Explained more specifically below are methods and data gathering and analysis, as well as more thorough definitions of data sets.

Data Gathering and Analysis

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.

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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.

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

Definitions of Data Sets

Thief River Falls Community Health Needs Assessment of Community Leaders

The purpose of the community leader survey was to explore the views of key leaders in the greater Thief River Falls 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 Thief River Falls Community Health Needs Assessment Committee identified the key community leaders for Thief River Falls and the surrounding areas. The key stakeholder survey was loaded onto Survey Monkey and the link to the survey was sent by email to all identified community stakeholders with computer access. Paper surveys were handed out at meetings for those stakeholders who did not have access to a computer, and the completed survey data was entered into the data base by medical center staff.

The community leaders' survey 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.

2011 County Health Profiles

The County Health Profiles are based largely on the County Health Rankings from the Mobilizing Action Toward Community Health (MATCH), 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 Centers 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.

NWMN Community Assessment Committee's Regional Health Risk Study

A wide range of available archival data was reviewed, including those from the Behavioral Risk Factor Surveillance Survey (BRFSS), Kids Count 2010, Minnesota Student Survey, Census 2010 and others. Additionally, qualitative input was gathered from meetings of the NWCAC and key stakeholders in the local health care community.

Limitations

The Thief River Falls Steering Committee attempted to survey key community and county stakeholders for the purpose of determine the needs of the community. There were 75 members of this key stakeholder group who completed the survey.

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

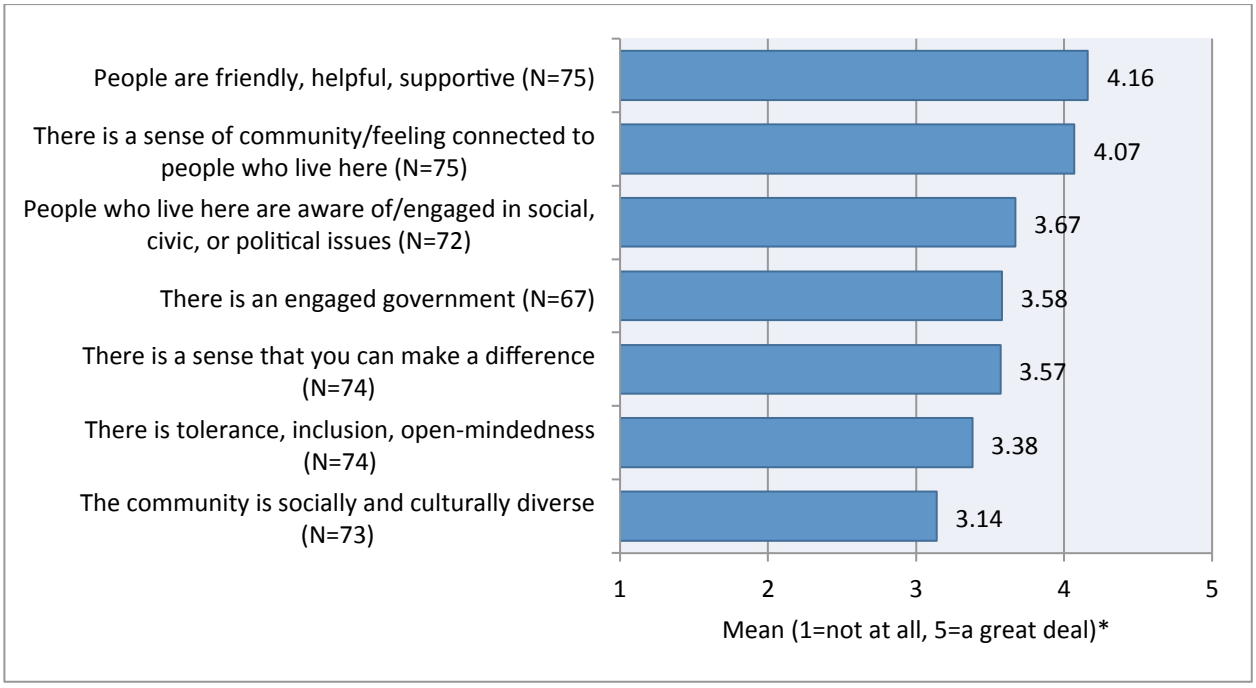
Overview

Primary research done for this study includes only the Thief River Falls Community Health Needs Assessment of Community Leaders. In the following paragraphs, each section of survey questions is summarized. For the full and actual results from the survey, refer to Exhibit 1 in the Appendix.

Community Assets/Best Things about the Community

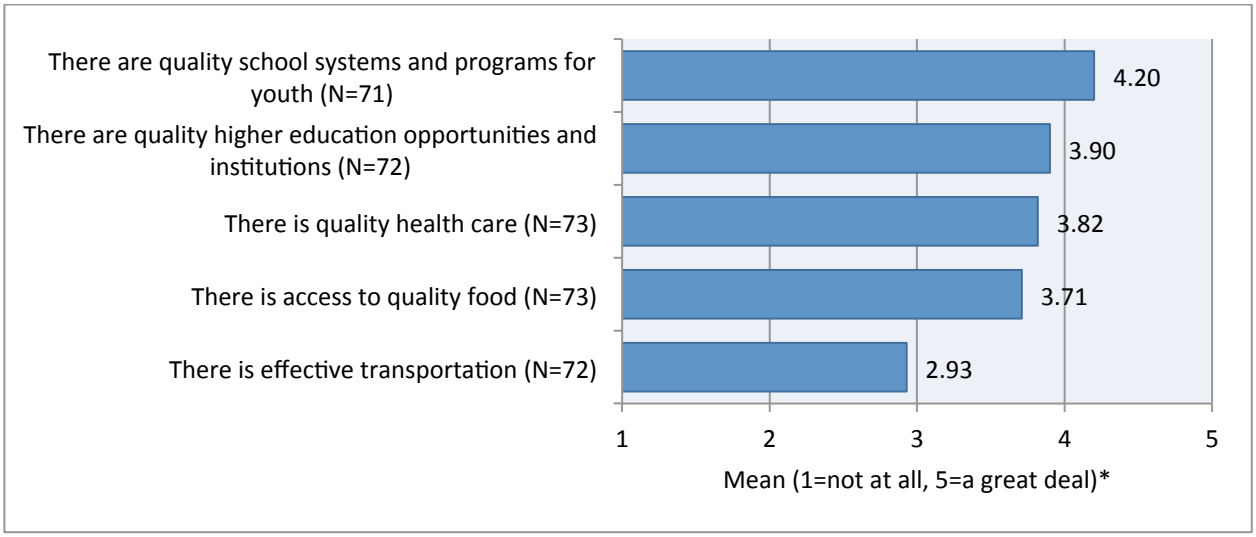
Respondents felt some of the strengths of the community included quality schools, healthy environment, and that the community is a good and healthy place to raise children. Some of the weaknesses appear to be a lack of cultural richness and diversity, as well as a lack of community or cultural events.

Figure 1. Level of agreement with statements about the community regarding PEOPLE



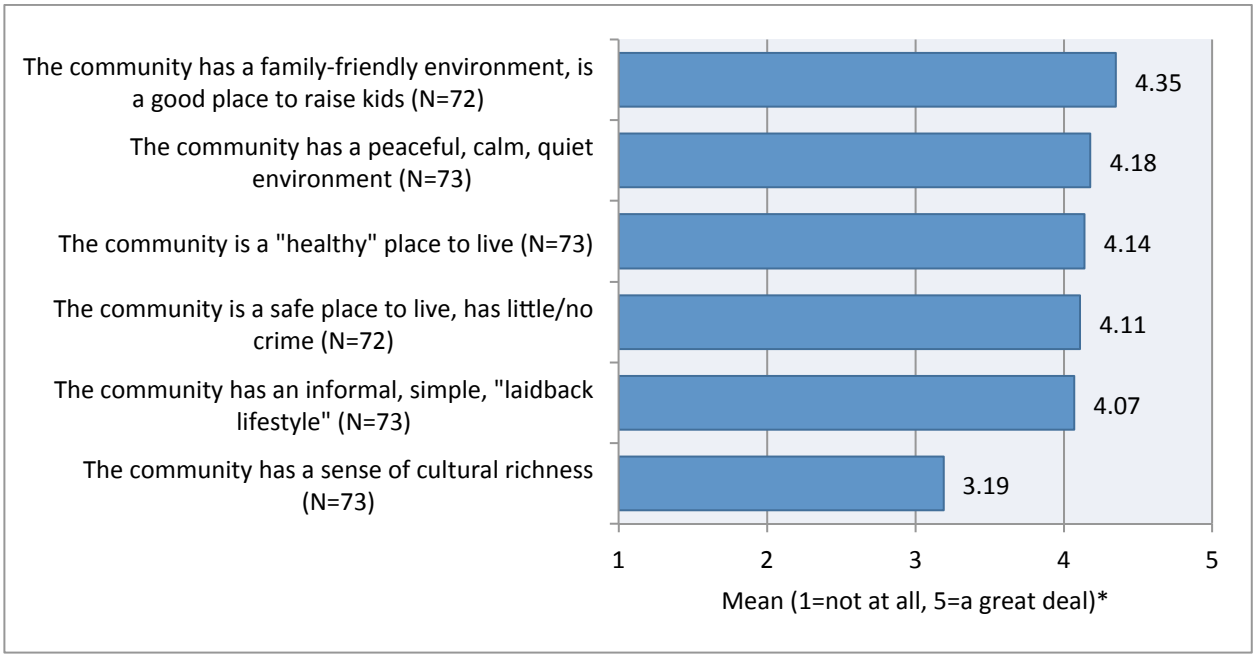
*Means exclude "do not know" responses.

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



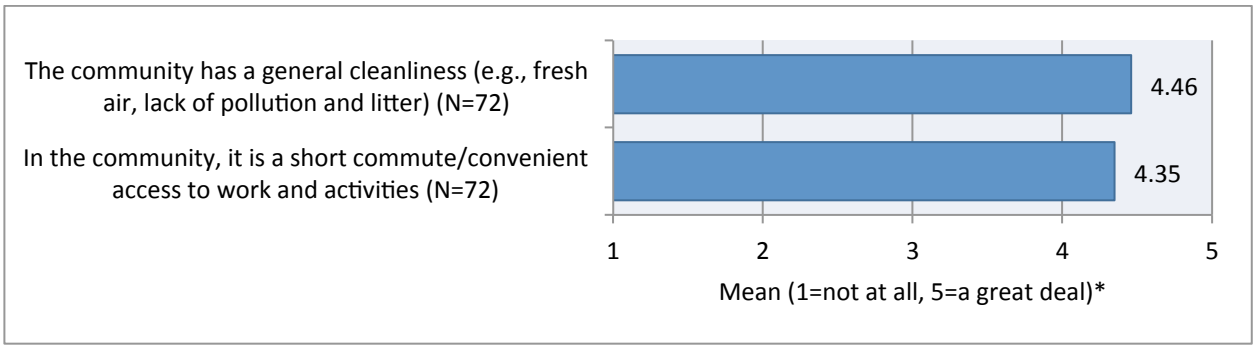
*Means exclude "do not know" responses.

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



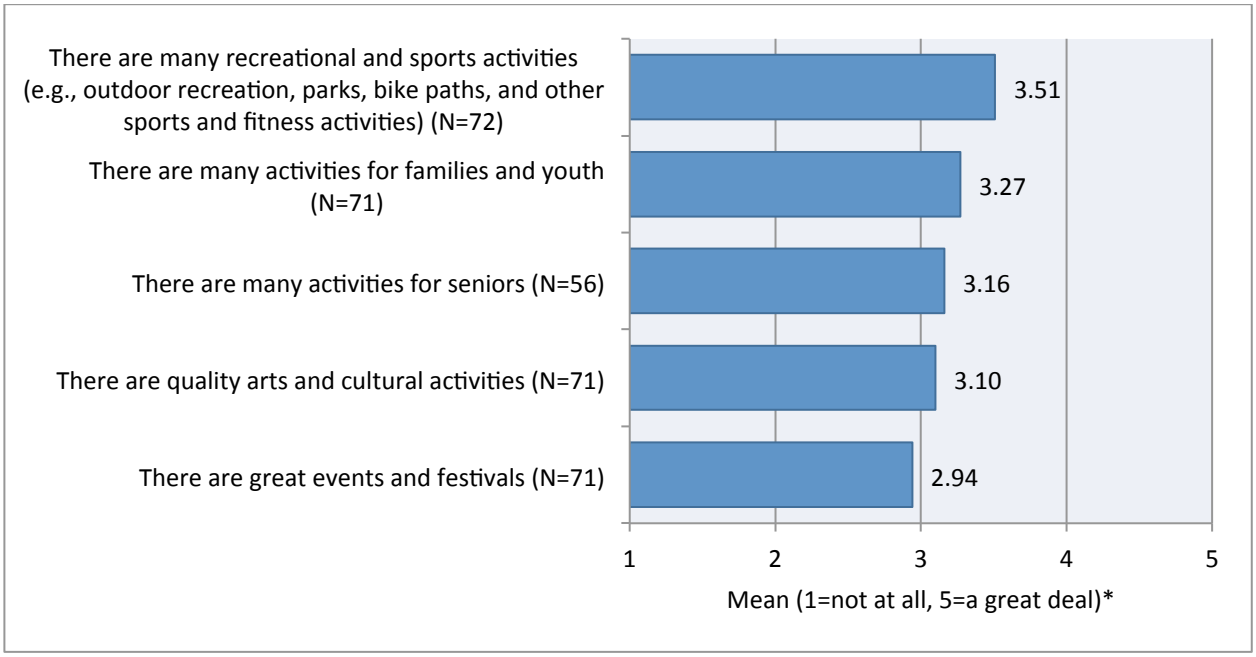
*Means exclude "do not know" responses.

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



*Means exclude "do not know" responses.

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

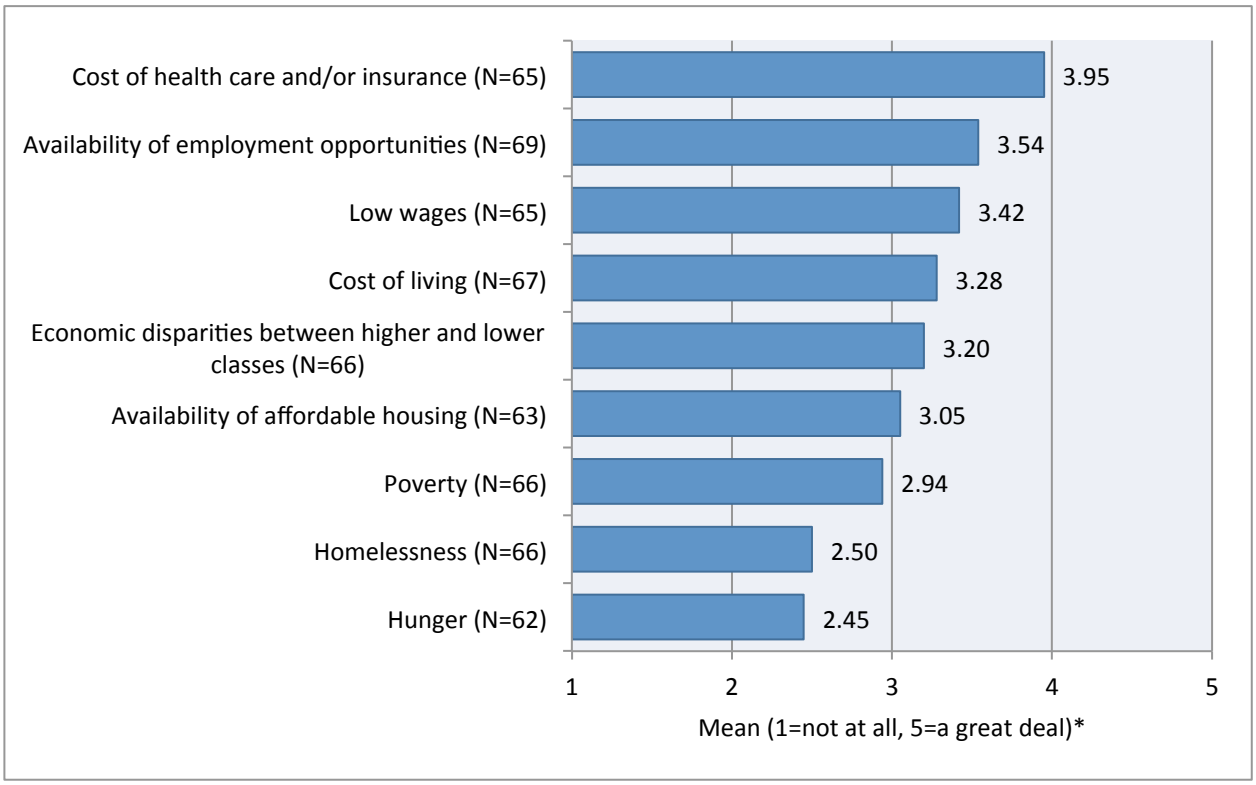


*Means exclude "do not know" responses.

General Concerns about the Community

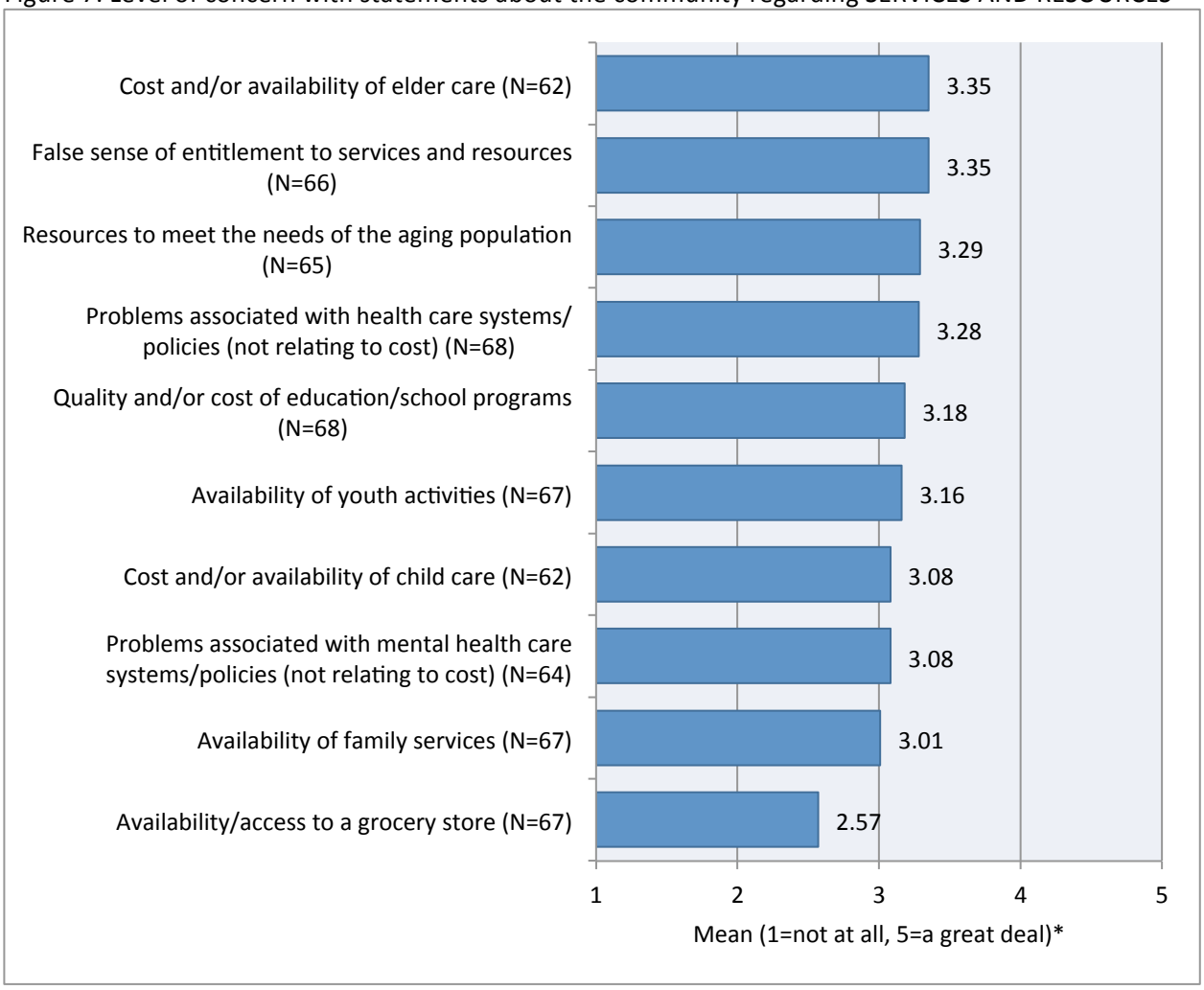
The greatest concerns appear to be the cost of health insurance, availability of employment opportunities, low wages, and substance abuse concerns. Backing this up is secondary data in terms of low wages, lack of medium to high income job opportunities, and substance abuse problems compared to state and national benchmarks.

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



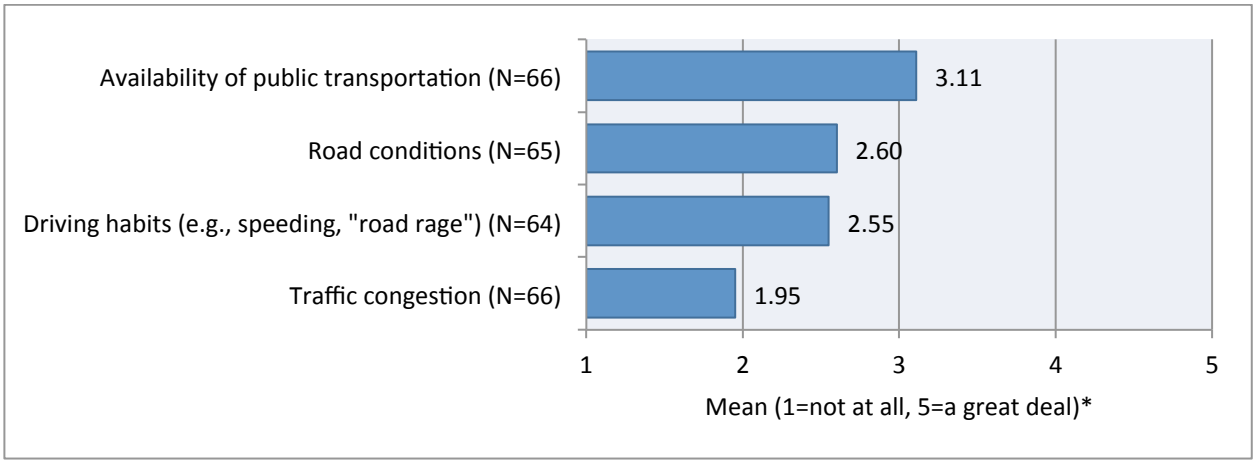
*Means exclude "do not know" responses.

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



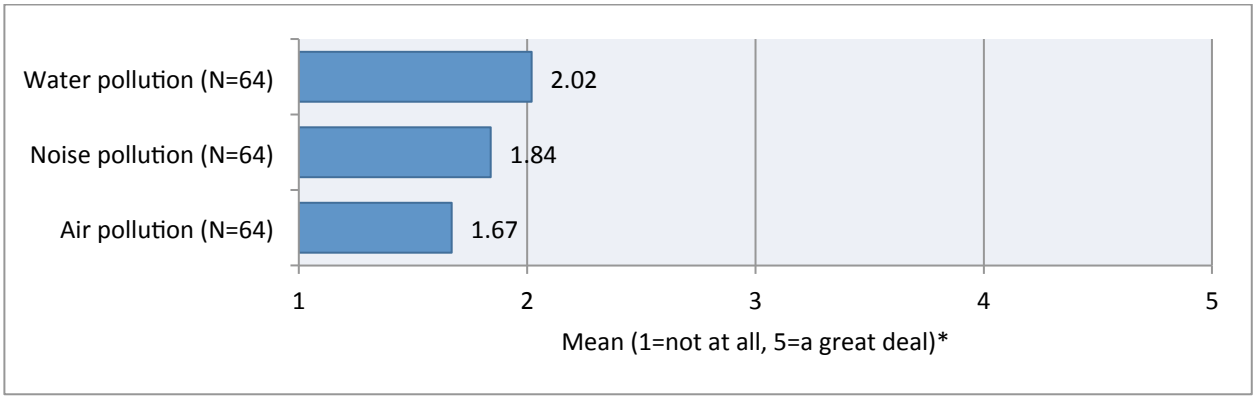
*Means exclude “do not know” responses.

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



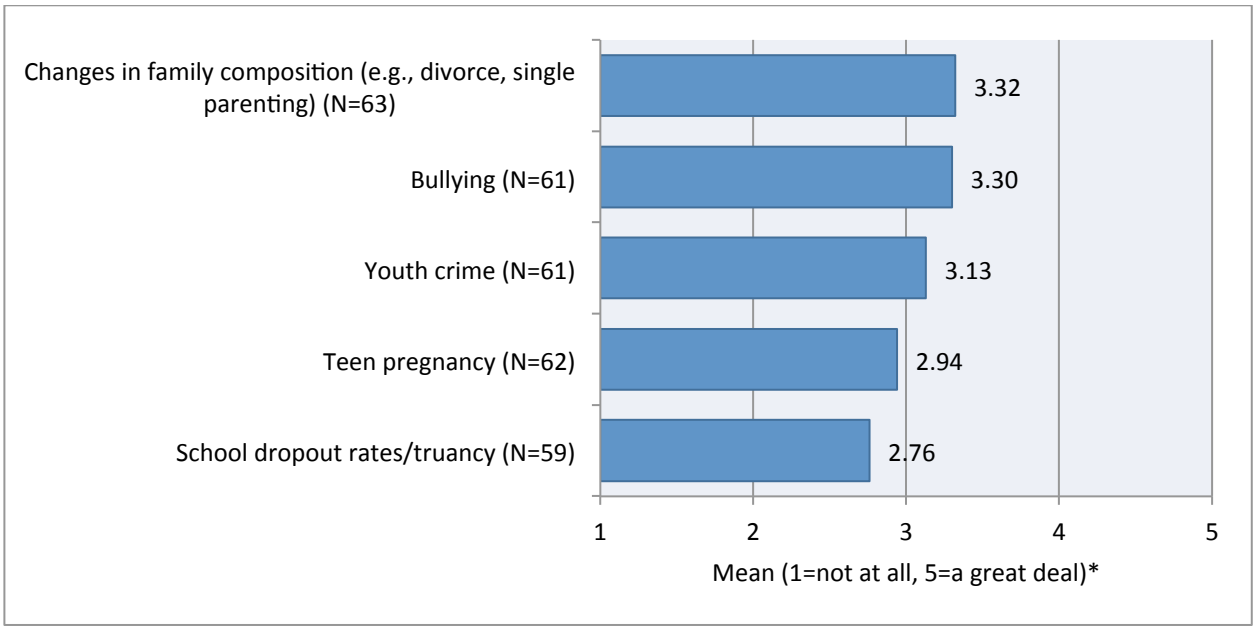
*Means exclude “do not know” responses.

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



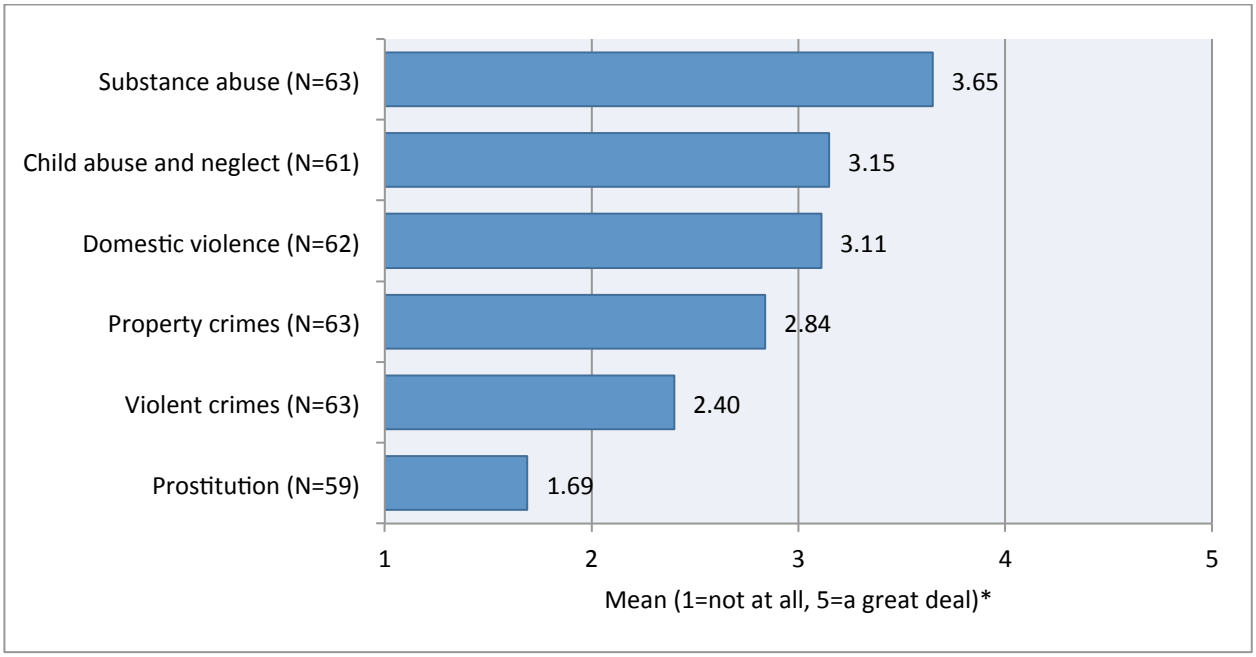
*Means exclude "do not know" responses.

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



*Means exclude "do not know" responses.

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

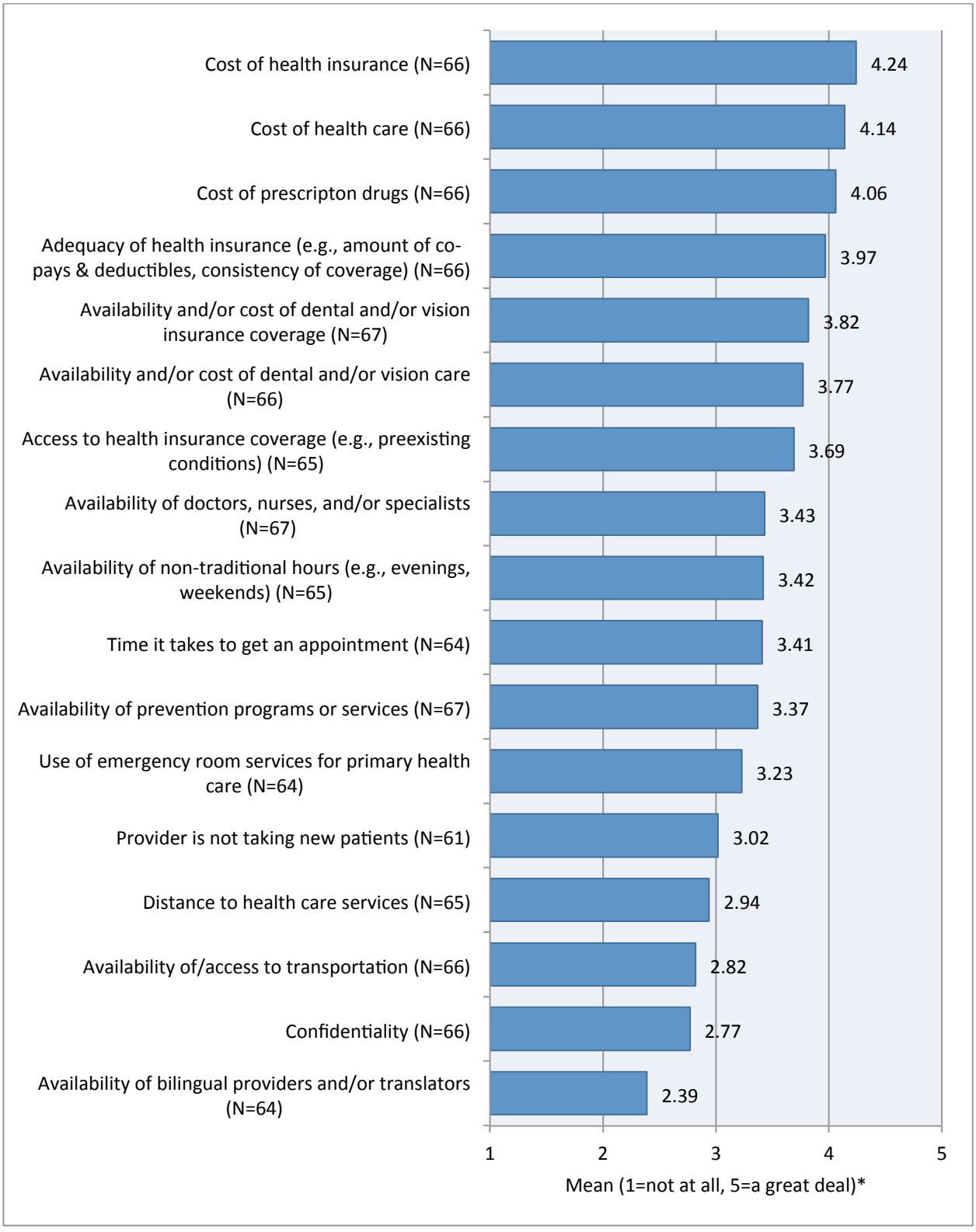


*Means exclude "do not know" responses.

Community Health and Wellness Concerns

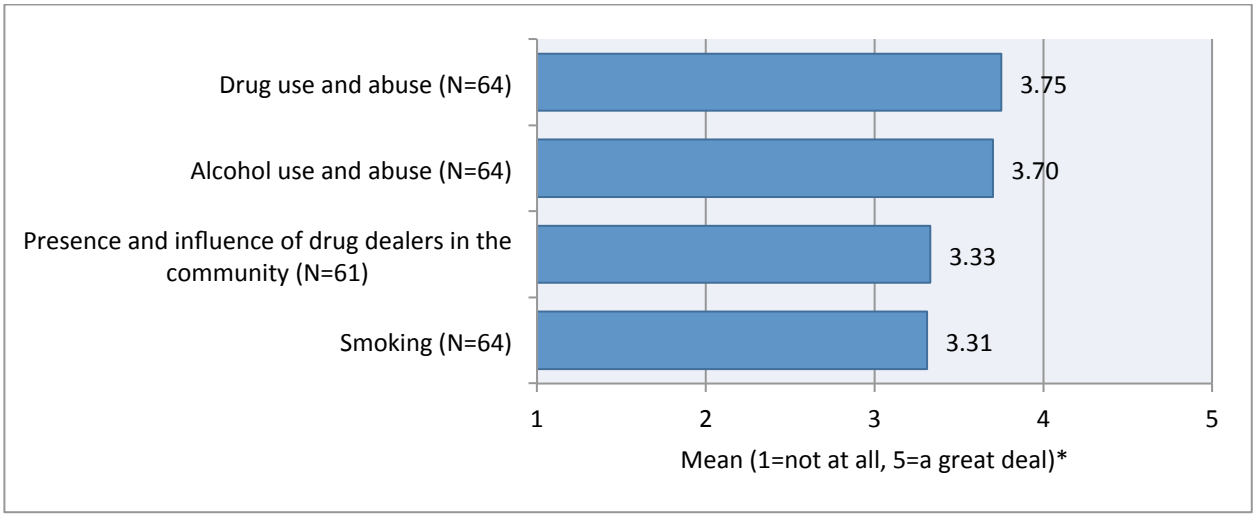
The biggest concerns about health and wellness in the community seemed to hit on familiar themes. They included: cost and adequacy of health/dental/ and vision insurances, the cost of health care and prescription drugs in general, drug and alcohol use/abuse, lack of exercise and obesity, chronic diseases and cancer. Many of these issues deal with not only the cost of care, but also conditions and behaviors that are notorious for resulting in very expensive treatment options.

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



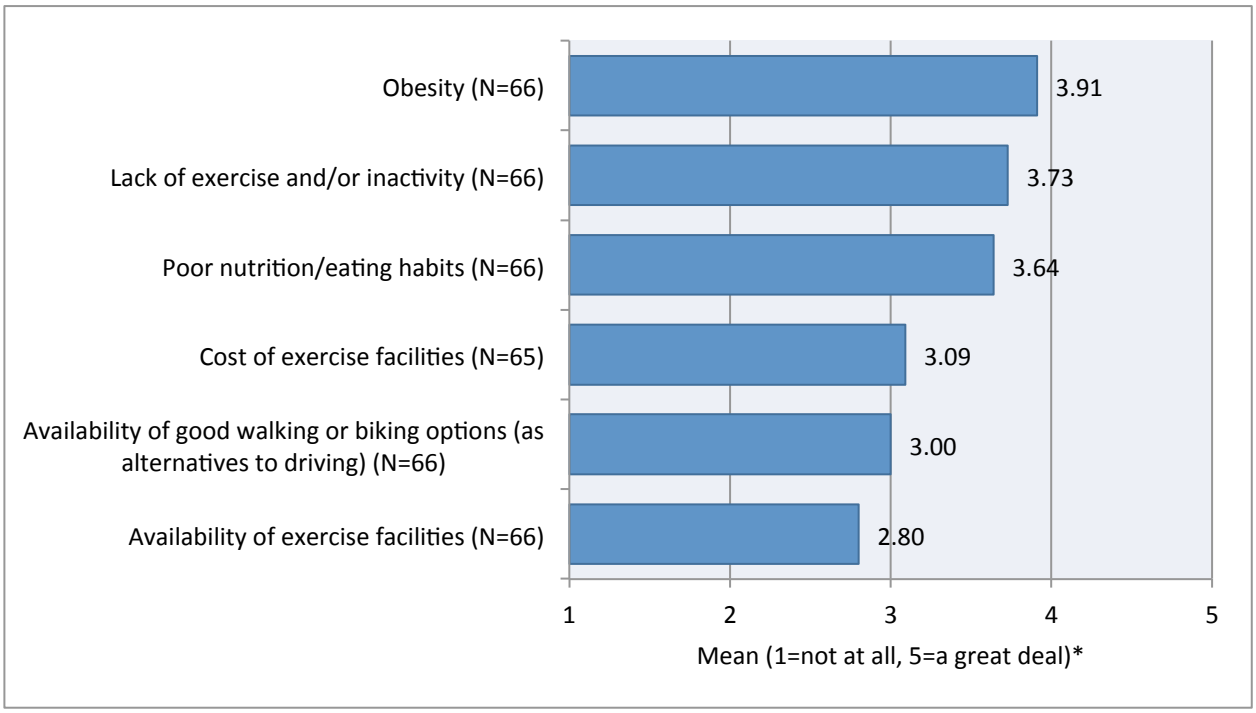
*Means exclude "do not know" responses.

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



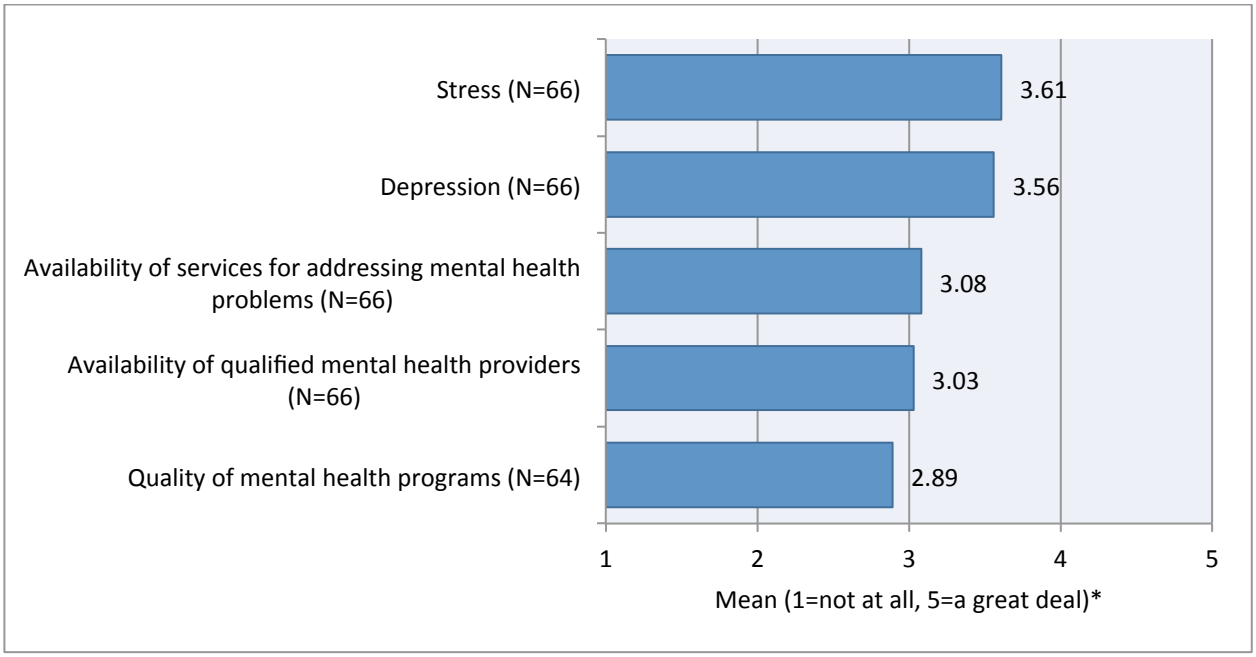
*Means exclude "do not know" responses.

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



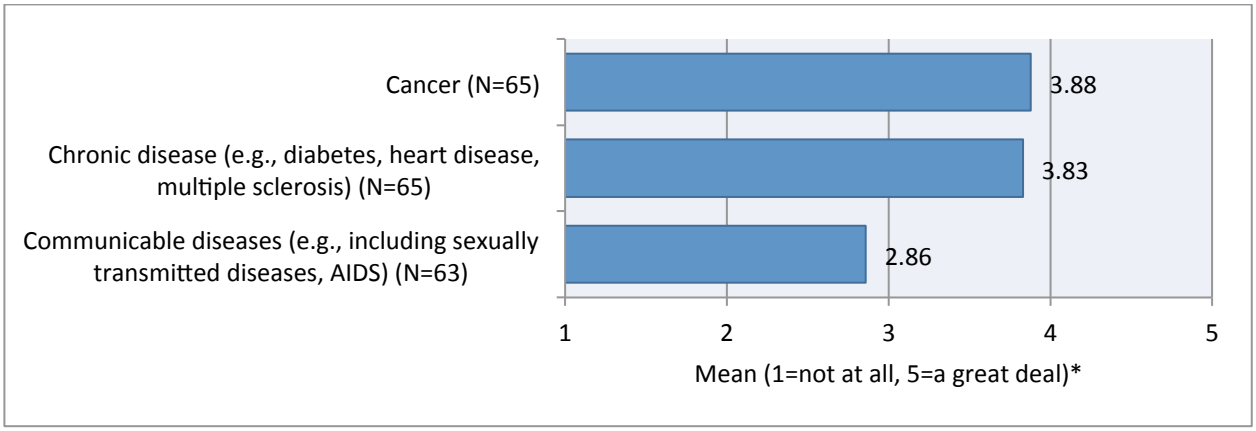
*Means exclude "do not know" responses.

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



*Means exclude "do not know" responses.

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

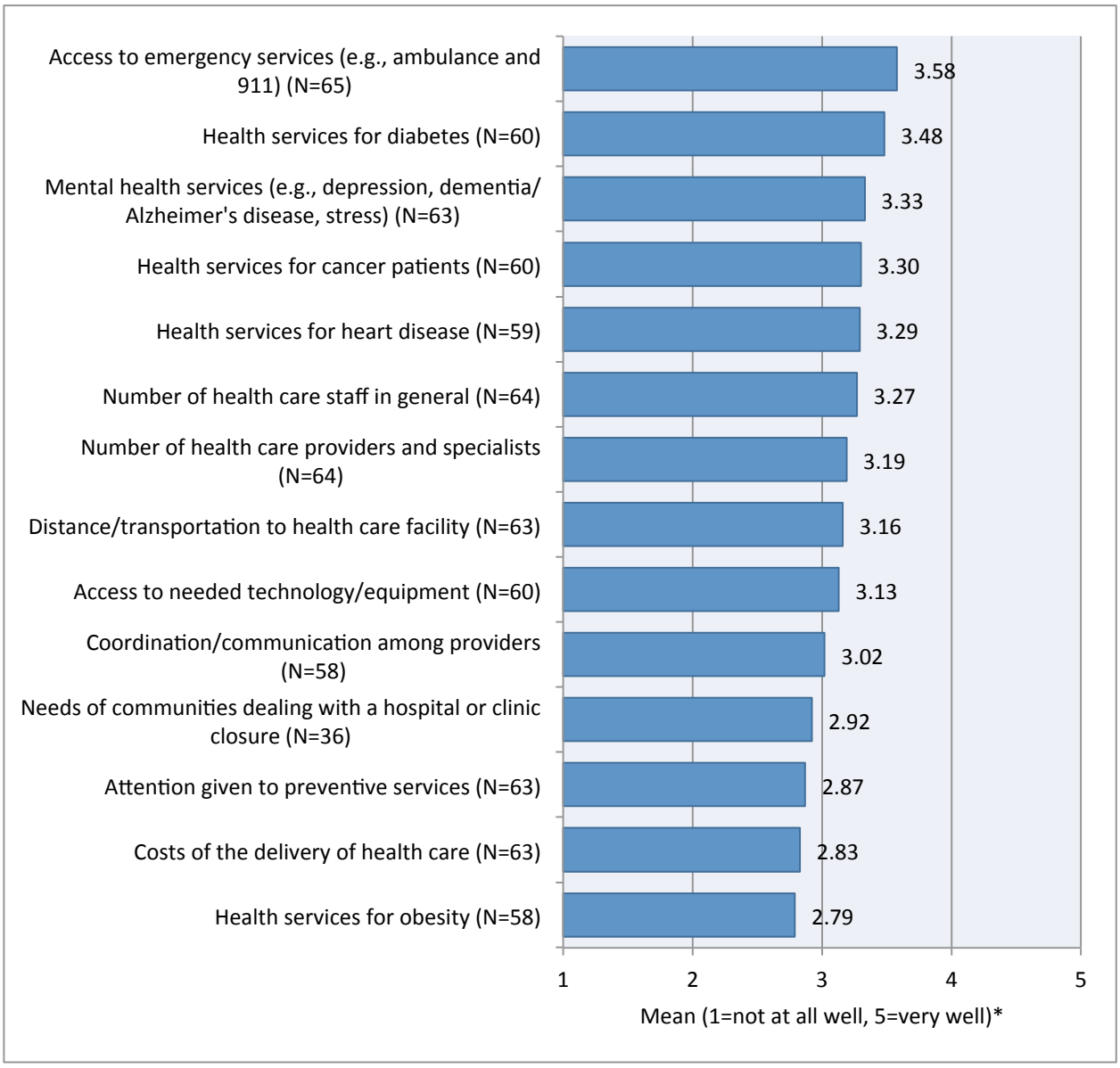


*Means exclude "do not know" responses.

Delivery of Health Care in the Community

Respondents indicated that some of the stronger facets of health care delivery in their community were emergency services, diabetes services, and mental health services. The weak points included services for the obese, cost of health care, and preventative services. It is worth pointing out, however, that there was very little variance from the mean scores of all responses for the best and worst rated aspects of the delivery system.

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



*Means exclude "do not know" responses.

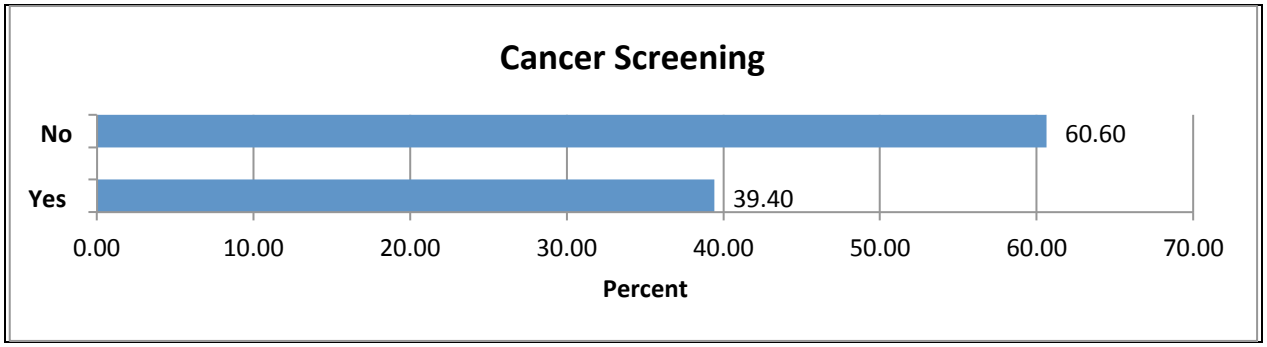
Personal Health Care Information

Cancer Screening

Over 60% of the 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 their doctor had not suggested it. “Not necessary” was also a reason respondents gave.

Fear and cost were the responses least given.

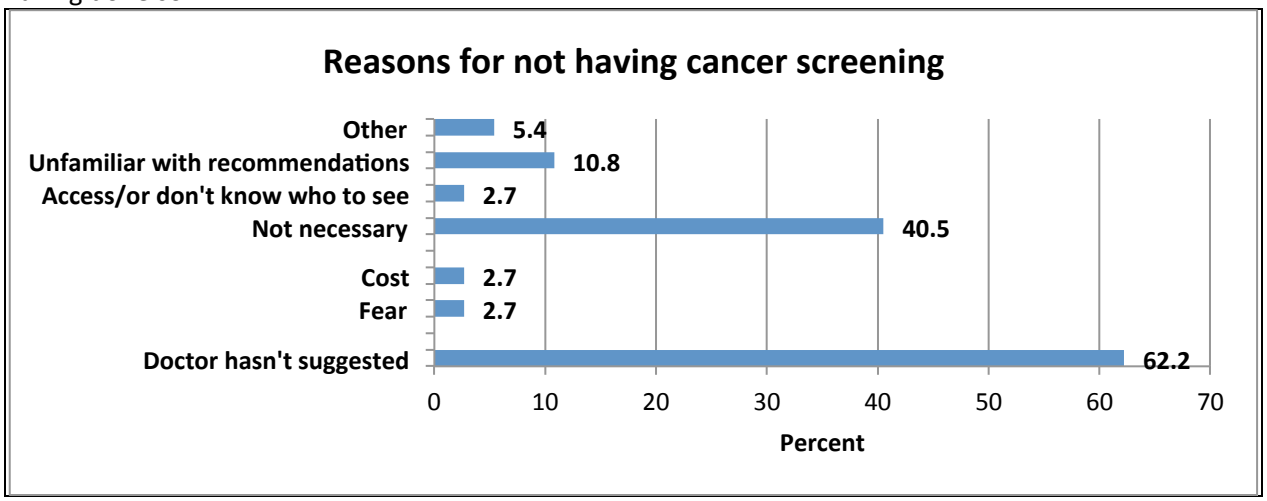
Figure 18. Whether respondents had a cancer screening or cancer care in the past year



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.

Among respondents who had not had a cancer screening or cancer care in the past year, 62.2% said their doctor had not suggested it.

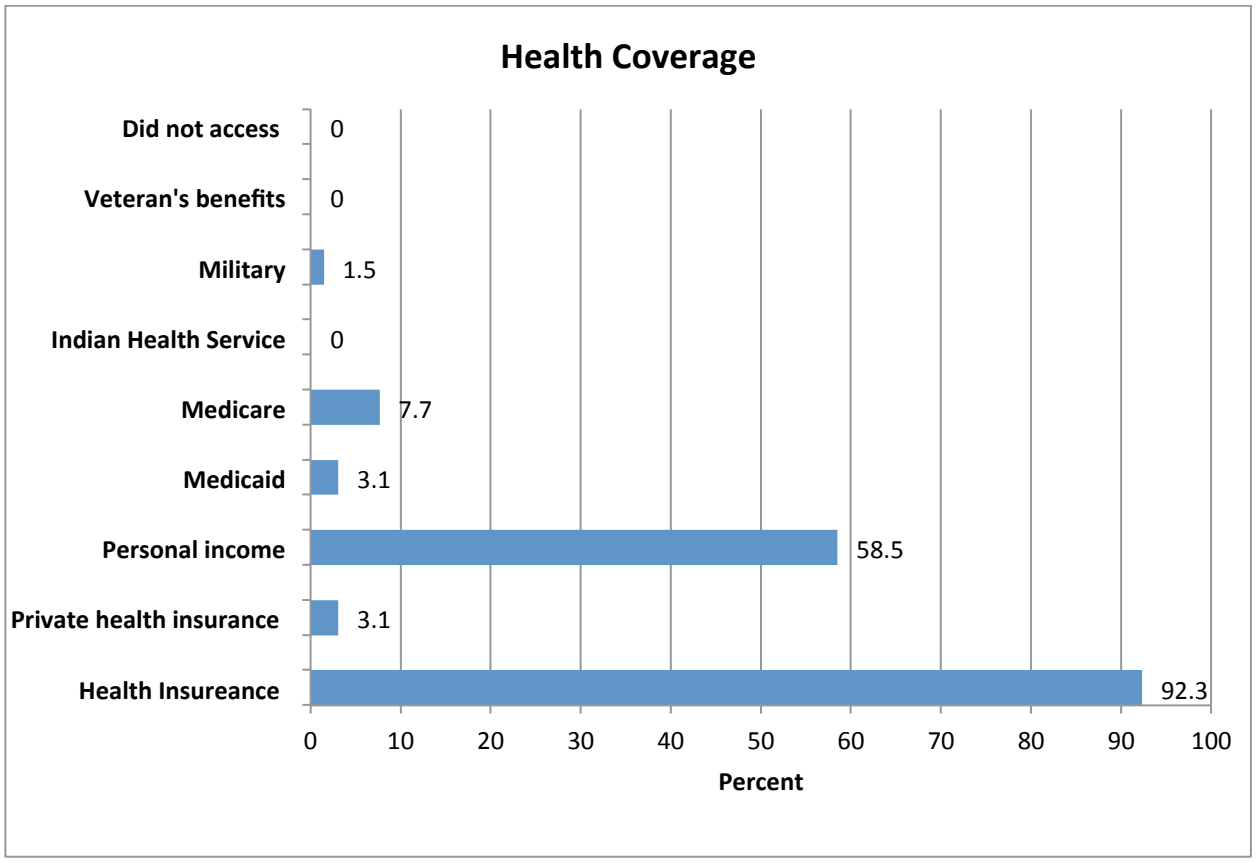
Figure 19. Among respondents who have not had a cancer screening or cancer care in the past year, reasons for not having done so



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. Personal income was also used.

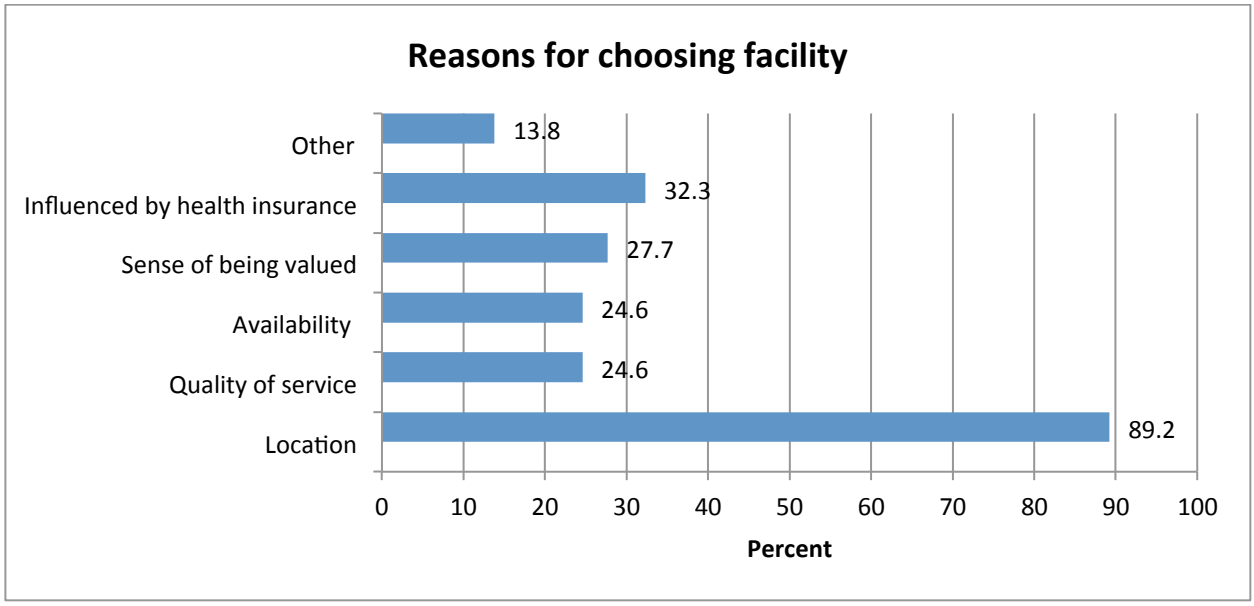
Figure 20. Methods respondents have used to pay for health care costs over the last 12 months



Primary Care Provider

The top reason respondents gave for their choice of primary health care provider was location (*Figure 21)*. Over 30% of respondents said choosing their primary health care provider was influenced by their health insurance.

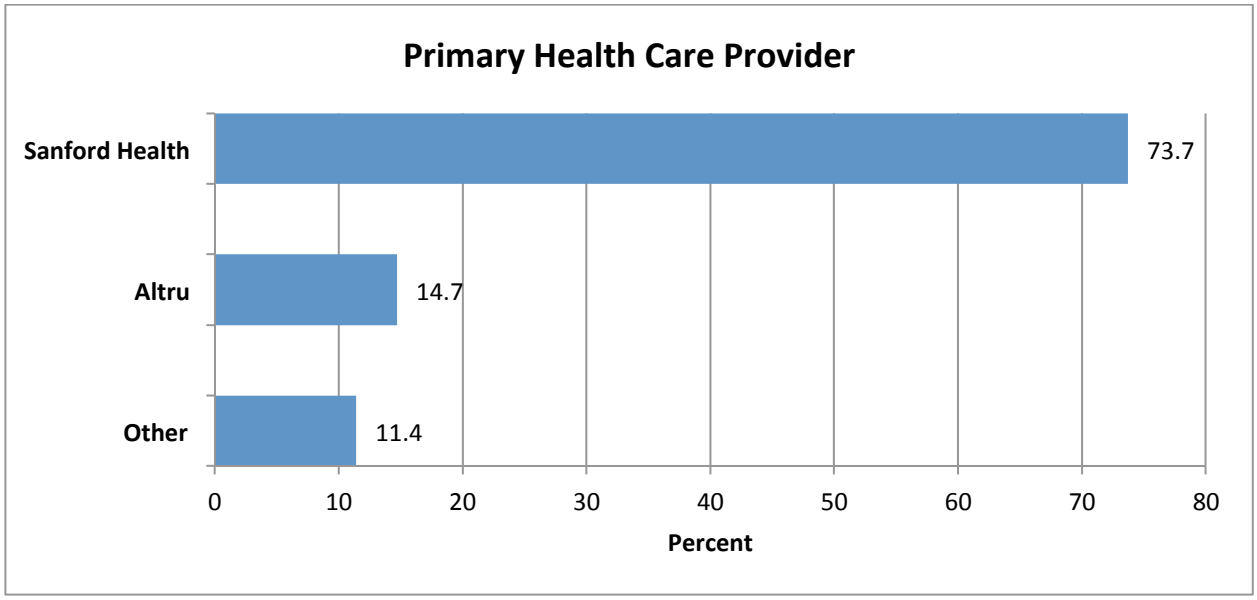
Figure 21. Respondents' reasons for choosing primary health care provider



Respondent's Primary Care Provider

Respondents were asked which provider they used for their primary health care. Over 70% of respondents said they use Sanford Health as their primary care provider.

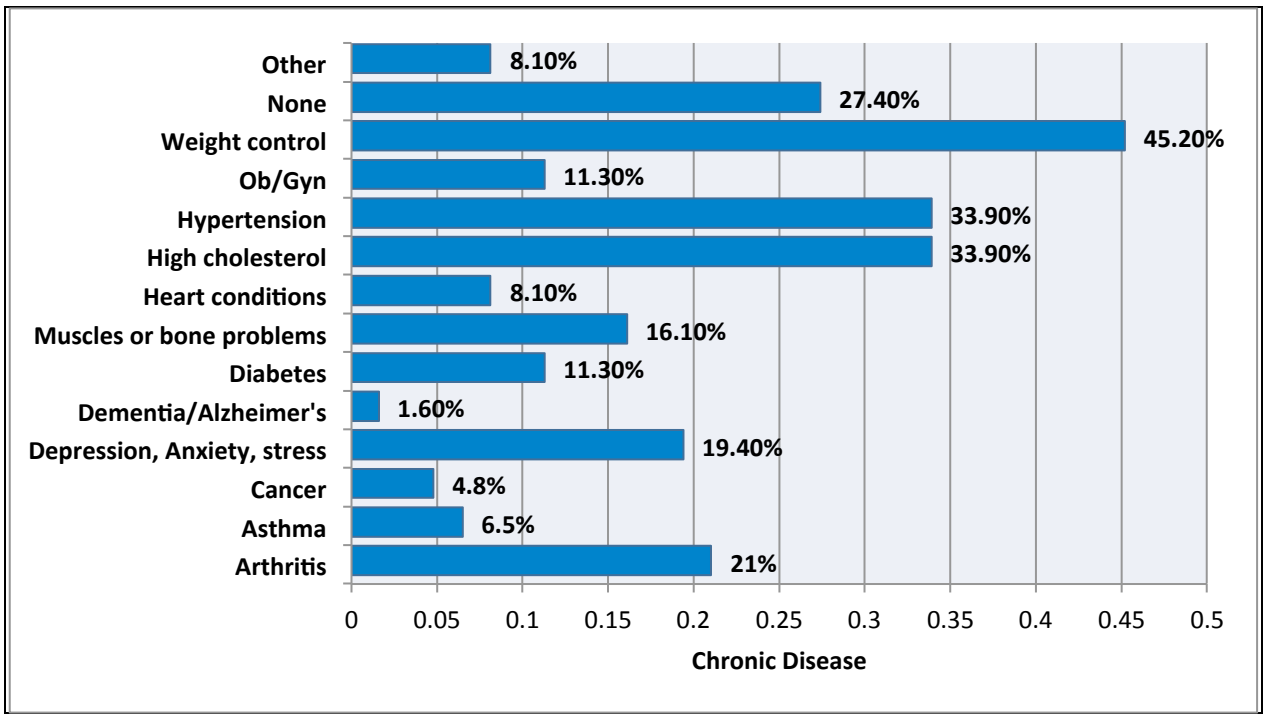
Figure 22. Primary Health Care Provider



Respondents Representing Chronic Disease

Respondents were asked to select their personal general health conditions/diseases. Weight control received the most responses with 45.2% of participants selecting this condition. The chronic diseases found among respondents include arthritis, asthma, cancer, heart disease, diabetes, Alzheimer's, hypertension, hypercholesterolemia and depression. The highest occurrences of these chronic diseases include hypertension, arthritis, hypercholesterolemia, and depression, stress or anxiety (Figure 23).

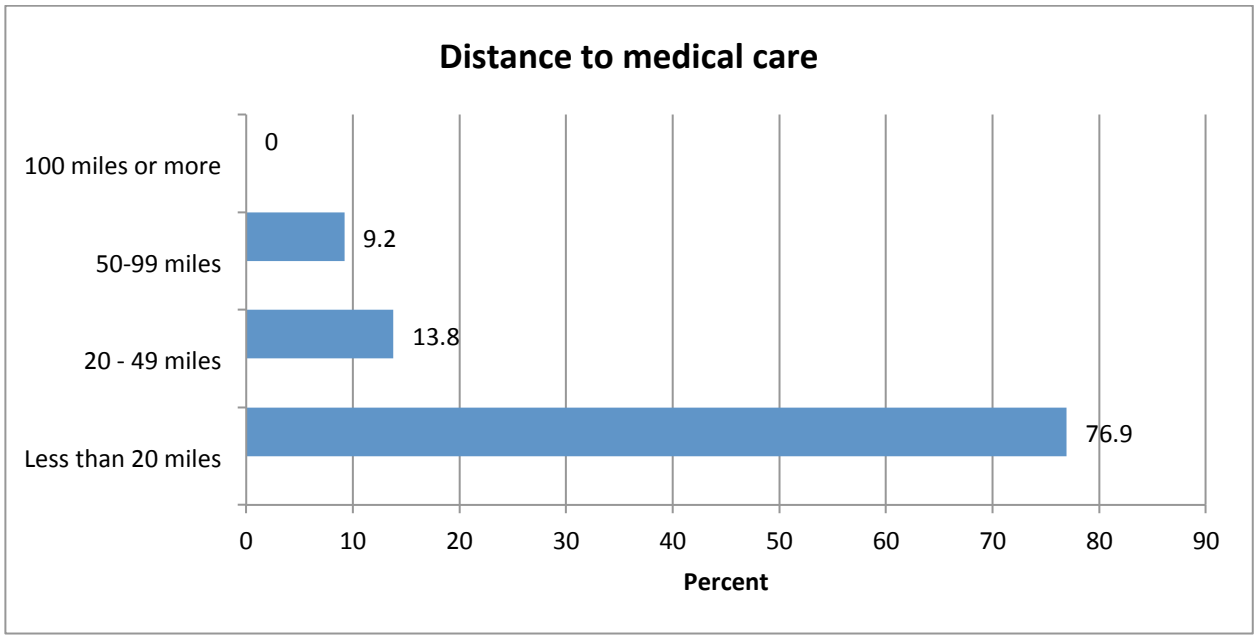
Figure 23. Respondent's health/chronic diseases



Distance to Access Medical Care

Respondents were asked how far they have to drive to access medical care. Over 76% responded that they had less than 20 miles to drive.

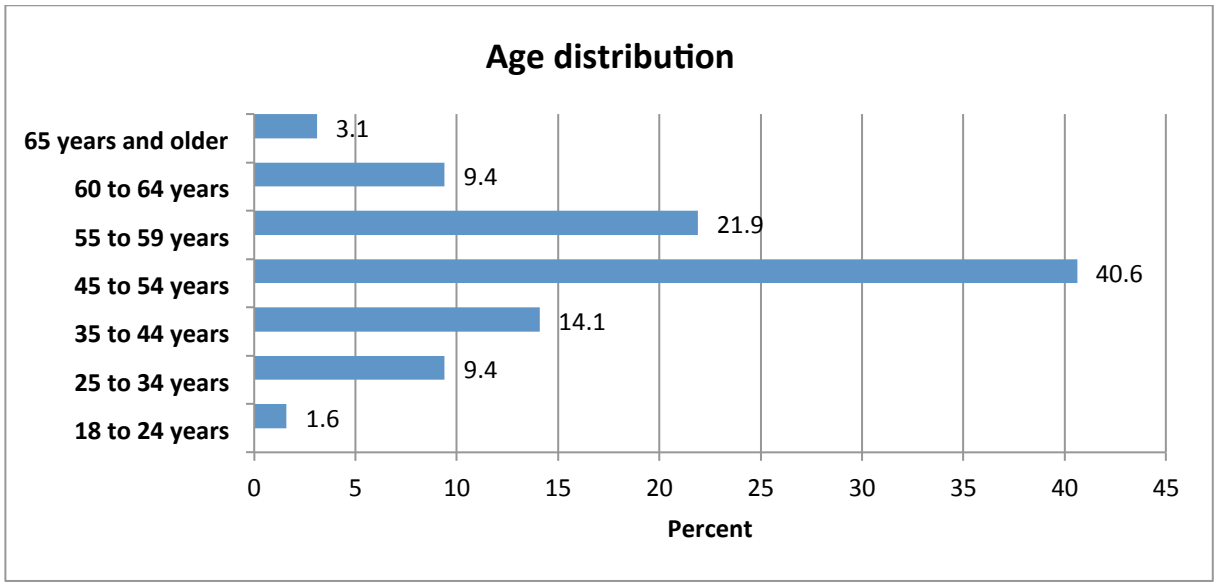
Figure 24. Distance traveled to access health care



Demographic Information

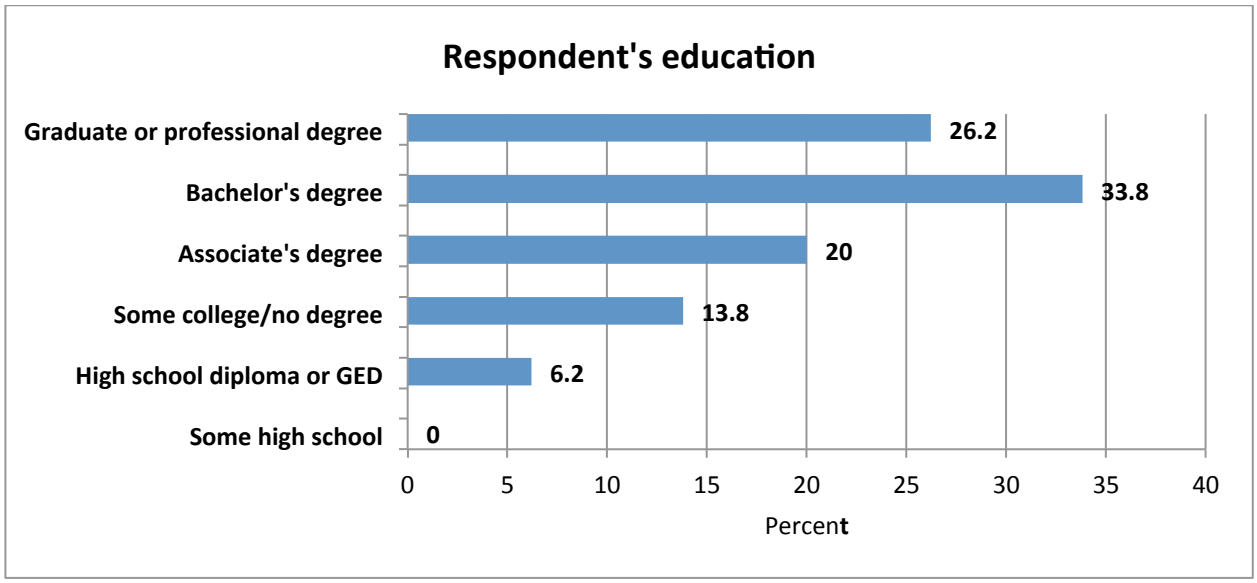
The majority of respondents are between the ages of 45 and 54, with 40.6% falling between 45 and 54 years of age.

Figure 25. Respondents' age distribution.



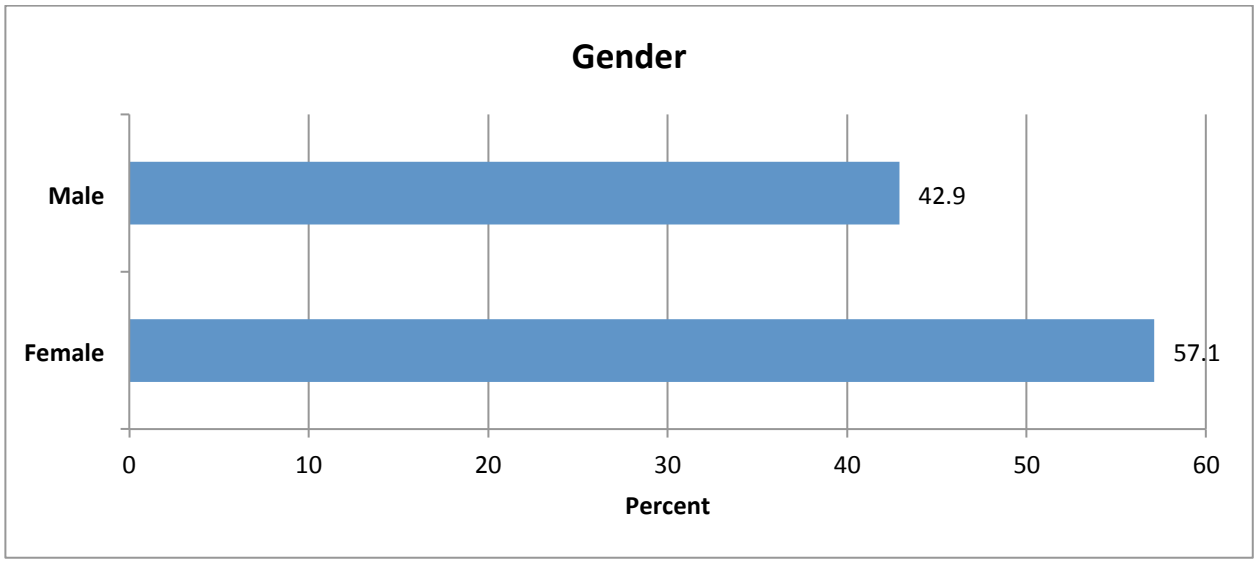
Most respondents (60%) have a Bachelor's degree or higher. A Bachelor's degree was held by 33.8% of respondents and 26.2% have a graduate or professional degree.

Figure 26. Respondent's education



More females responded to the survey than males (42.9% males compared to 57.1% females).

Figure 27. Respondents by gender



Secondary Research

Overview

The secondary research includes the following quantitative data sets:

- 2011 County Health Profiles for Pennington County
- Aging Profiles for Pennington County
- Diversity Profiles for Pennington County
- NWMN Community Assessment Committee's Regional Health Risk Study

These data sets were put together by various sources, but were readily available to help the needs of our community by defining and comparing health outcomes and other characteristics of our community. The following sections will summarize the findings from analysis of each of the sources, but the data sets are available in their entirety in the Appendix of the report.

2011 County Health Profiles for Pennington County

Pennington County is below both state and national benchmarks on the County Profiles. On a positive note, the physical environment seems to favor the county in general, but unfortunately there are other drivers that seem to correlate more with actual health outcome metrics. In terms of the social and economic environment, Pennington County has a higher rate of single parent families, as well as children living in poverty. Residents have less access to clinical care providers, but, on a positive note, do seem to have a better rate of health screenings based on the metrics given. Health behaviors also play a role, and this point is emphasized by Pennington County's high rate of adult obesity and adult tobacco use. Poor health and poor mental health seem to be the hardest hit health outcome measures, and this research seems to indicate a multitude of drivers that correlate strongly with those metrics.

HEALTH OUTCOMES		Pennington	*National Benchmark	Minnesota
Mortality				
Premature death	Years of potential life lost before age 75 per 100,000 population (age-adjusted), 2005-2007	5,825	5,564	5,272
Morbidity				
Poor or fair health	Percent of adults reporting fair or poor health (age-adjusted), 2003-2009	12%	10%	11%
Poor physical health days	Average number of physically unhealthy days reported in past 30 days (age-adjusted), 2003-2009	3.7	2.6	3.1
Poor mental health days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009	3.6	2.3	2.8
Low birthweight	Percent of live births with low birthweight (<2,500 grams), 2001-2007	5.3%	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	22%	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	19%	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	94.6	83.0	276.1
Teen birth rate	Number of teen births per 1,000 females ages 15-19, 2001-2007	28.6	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	6%	7%	6%
Primary care physicians	Ratio of total population to primary care physicians, 2008	689:1	631:1	636:1
Mental health providers	Ratio of total population to mental health providers, 2008	1,723:1	2,242:1	1,306:1
Dentist rate	Number of professionally active dentists per 100,000 population, 2007	36.4	69.0	61.0
Preventable hospital stays	Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007	42.4	52.0	56.5
Diabetic screening	Percent of diabetic Medicare enrollees that receive HbA1c screening, 2006-2007	92%	89%	88%
Mammography screening	Percent of female Medicare enrollees that receive mammography screening, 2006-2007	79%	74%	73%

HEALTH FACTORS (continued)		Pennington	*National Benchmark	Minnesota
Social and Economic Factors				
High school graduation	Percent of ninth-grade cohort in public schools that graduates from high school in four years, 2006-2007	90%	92%	87%
Some college	Percent of adults ages 25-44 with some post-secondary education, 2005-2009	59%	68%	72%
Unemployment	Percent of population ages 16 and older that is unemployed but seeking work, 2009	9.0%	5.3%	8.0%
Child poverty	Percent of children ages 0-17 living below the Federal Poverty Line, 2008	13%	11%	11%
Inadequate social support	Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009	11%	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	29%	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				
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	33%	92%	54%
Access to recreational facilities	Number of recreational facilities per 100,000 population, 2008	15.0	17.0	12.0

Aging and Diversity Profiles for Pennington County

These two data sets represent a deeper dive into some demographic information offered by the County Profiles research, which provides an interesting context to some of the other behavioral and environmental factors. As could have been predicted, Pennington County has a more elderly population than the state or national benchmarks. Grandparents in the county are more frequently living with and/or responsible legally for their grandchildren. Numbers do seem to indicate, however, a fairly high level of employment among the working aged population. It appears this doesn't have a direct effect on the median income level compared to state and national benchmarks, or the rate of children living in poverty within the county.

Demographics		Pennington	United States	Minnesota
Youth	Percent of total population ages 0-17, 2009	23%	24%	24%
Elderly	Percent of total population ages 65 and older, 2009	16%	13%	13%
Rural	Percent of total population living in a rural area, 2000	32%	21%	29%
Not English proficient	Percent of total population that speaks English less than "very well," 2005-2009	2%	9%	4%
Illiteracy	Percent of population ages 16 and older that lacks basic prose literacy skills, 2003	7%	15%	6%

CHARACTERISTICS	Total	AGE	
		Less than 65 Years	Ages 65 and Older
Population[1]			
Total population	13,930	11,718	2,212
Percent ages 65 and older	16%	-	100%
Percent ages 85 and older	3%	-	18%
Percent male	49%	51%	42%
Percent female	51%	49%	58%
Living Arrangements			
Total households (by age of householder)[1]	5,836	4,372	1,464
Percent with family households (i.e., at least two people who are related)	63%	68%	47%
Percent with householder living alone	31%	24%	51%
Grandparents living with their grandchildren*[2]	97	83	14
Percent who are responsible for their grandchildren	44%	52%	0%
Housing[1]			
Percent of occupied housing that is owner-occupied	73%	73%	73%
Percent of occupied housing that is renter-occupied	27%	27%	27%
Economic Security[2]			
Percent of working-age population in labor force	72%	86%	16%
Percent of total population with income less than 100% of poverty	12%	11%	15%
Percent of total population with income less than 200% of poverty	29%	27%	40%
Median household income (by age of householder)	$44,926	$44,549	$24,842
Owner-occupied housing units (by age of householder)	4,431	3,282	1,149
Percent spending 30% or more of income toward housing costs	18%	17%	21%
Renter-occupied housing units (by age of householder)	1,289	942	347
Percent spending 30% or more of income toward housing costs	37%	39%	33%

CHARACTERISTICS	Total	RACE				ETHNICITY
		White alone	Black alone	American Indian alone	Asian alone	Hispanic Origin - of any race
Population [1]						
Total population	13,930	13,067	192	213	87	380
Percent ages 0 to 17	24%	23%	39%	31%	25%	48%
Percent ages 18 to 44	33%	33%	54%	49%	48%	40%
Percent ages 45 to 64	27%	28%	7%	15%	22%	10%
Percent ages 65 and older	16%	17%	1%	4%	5%	2%
Median age (in years)	38.9	40.4	21.1	25.5	32.5	18.8
Living Arrangements						
Total households [1]	5,836	5,596	65	64	29	82
Percent with householder living alone	31%	31%	32%	25%	28%	18%
Percent with families with children ages 0 to 17	28%	28%	40%	41%	48%	57%
Grandparents living with their grandchildren [2]	97	95	0	2	0	0
Percent who are responsible for grandchildren	44%	45%	-	0%	-	-
Housing [1]						
Percent occupied housing that is owner-occupied	73%	75%	8%	44%	55%	35%
Percent occupied housing that is renter-occupied	27%	25%	92%	56%	45%	65%
Educational Attainment [2]						
Percent of persons ages 25 and older with high school degree or higher	87%	87%	100%	100%	99%	85%
Percent of persons ages 25 and older with Bachelor's degree or higher	15%	15%	4%	5%	62%	11%
Economic Security [2]						
Unemployment rate	7%	6%	50%	33%	12%	0%
Median household income	$44,926	$46,067	$12,875	$36,389	$13,929	$25,385
Percent of households with income <$25,000	28%	26%	95%	38%	57%	47%
Percent of persons with income <100% poverty	12%	10%	67%	47%	16%	30%
Percent of children ages 0 to 17 in families with income <100% poverty	13%	11%	77%	0%	0%	3%
Percent of elderly ages 65 and older with income <100% poverty	16%	16%	-	0%	0%	-

NWMN Community Assessment Committee's Regional Health Risk Study

Overview

Several hospitals and public health agencies in northwest Minnesota formed an informal committee in order to pool resources to better assess the community's health needs. Sanford Thief River Falls participated in this collaborative effort. As a result, the Evaluation Group, LLC out of Warren, Minnesota was commissioned to provide some research into health factors in the region as a whole. Below are components of the study provided by the group.

Objectives

Two research questions were addressed: 1) What do archival statistics collected on regional health indicators reveal as problem areas? and 2) What do people in the region think are pressing health concerns?

Methods

A wide range of available archival data was reviewed, including data from the Behavioral Risk Factor Surveillance Survey (BRFSS), Kids Count 2010, Minnesota Student Survey, Census 2010 and others. Additionally, qualitative input was gathered from meetings of the NWCAC and key stakeholders in the local health care community.

Findings

Findings indicate that youth from the region are significantly (statistically) more overweight, eat fewer servings of fruits and vegetables, and use more tobacco compared to youth from the rest of the state. Over the three-year time span of the administration of the survey analyzed in this study, each of these three measures has grown worse. A fourth indicator, the use of smokeless tobacco, has seen the most dangerous growth. As shown in the study's research, 16% of students (almost exclusively male) used smokeless tobacco in 2007 which grew to 21.4% in 2010. This use is nearly twice that of the state benchmark in 2010 for all youth in Minnesota. These seem to be the most pressing concerns of the region as a whole as they pertain to actual health outcomes of the residents of northwest Minnesota.

Health Needs Identified

Community Asset/Prioritization Process

The identified needs from the surveys, review of internal data, and analysis of secondary data indicated several areas of need. The next step was to determine which of these needs provided the most return on investment for our community. We could take on any issue, but we want to make sure it's something that really makes a difference in terms of community health outcomes, and we also want to make sure it's something we can reasonably expect to successfully execute.

In order to do this, we first tried to narrow down these areas of need to more specific issues of concern. In some cases, we could break down the area of need to several more specific areas of concern, which was helpful in analyzing these issues further along in the process.

Next, we mapped our community's assets. We listed resources available in our community, or communities nearby, that currently address some or all of the issues specified within the particular area of concern. This helped us in prioritization because it gave us an idea of who existing partners may be, as well as assisting us in assessing our ability to be successful in having a positive impact. It also gave us a better context from which to conduct a gap analysis on what the truly unmet needs of the community are.

The result of this process can be seen in Table 3 in the Appendix. This document was a foundational source of input from which Sanford Thief River Falls Administration would decide upon which areas of need to focus in the future.

Results of Prioritization

After all the analysis described above was done, the group conducted a multi-step voting process, which is outlined in Table 4 of the Appendix. The three priority areas of need for which we will prepare strategic objectives and implementation plans are:

Care Coordination/ Chronic Conditions	• Too little communication between providers • Need heart disease services • Smoking and smokeless tobacco use well above state benchmarks

Substance Abuse	• Concern about rate of drug abuse in the area • Concern about prescription drug abuse • Alcohol related DWI Arrests 2 times state benchmark per capita rate.

Access	• Limited access to female physicians
	• Hard to get in to see the doctor
	• Limited access to specialists
	  ○ Pediatricians
	  ○ Oncology
	  ○ Rheumatology
	  ○ Urology
	  ○ Dermatology

These three areas are the focus of the implementation strategy document to follow. It is our genuine belief that, among the other worthy areas of need for the community, these are the three that are truly unmet needs, provide the best return on investment for the community in terms of health outcomes, and are areas where we are in the best position to create a positive and long-lasting impact.

IMPLEMENTATION STRATEGY

SANFORD HEALTH

2013 Community Health Needs Assessment
Sanford Thief River Falls Implementation Strategy

The following unmet needs were identified through a formal community health needs assessment, resource mapping and prioritization process for Sanford Thief River Falls:

- Substance Abuse
- Care Coordination and Chronic Disease Management
- Access

Priority: Substance Abuse Services

- Establish systemic care plan for prescription drug abuse cases including behavioral health, primary care, and medical home departments.
- Establish reliable network for detoxification and inpatient chemical dependency treatment centers.
- Establish coordination of care between chemical dependency and mental health professionals.
- Develop reliable chemical dependency outpatient services for adolescents.
- Improve access to chemical dependency assessments for community.

Priority: Care Coordination and Chronic Disease Management

- Integrate dietician services with dialysis services.
- Establish integrated approach to behavioral health within the function of primary care.
- Implement Integrated EMR platform across clinic and hospital-based services.
- Fully implemented Hospitalist program with established connectivity to outpatient providers.
- Establish comprehensive Pain Management program.
- Refine and promote practices and communications of Medical Home Team: RN Health Coaches, Tobacco Cessation Specialist, Outpatient Social Worker, Cardiac Rehab, Dieticians, etc.
- Connect Long Term Care Facilities to providers and inpatient services.

Priority: Access

- Expand Urology coverage
- Create more complete Oncology outreach program
- Improve access in general to "Primary Care" areas: Family Med/Internal Med/OB GYN/Pediatrics/Psychology/Psychiatry
    - Satellite Employer Clinic Model
    - APP-MD Team Model
- Establish Outreach Dermatology services in TRF
- Establish Neurology Outreach services
- Establish comprehensive Pain Management Clinic

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

Exhibit 1

Sanford Thief River Falls Medical Center

Community Health Needs Assessment

Selected Stakeholder Results

June 2012

SANFORD

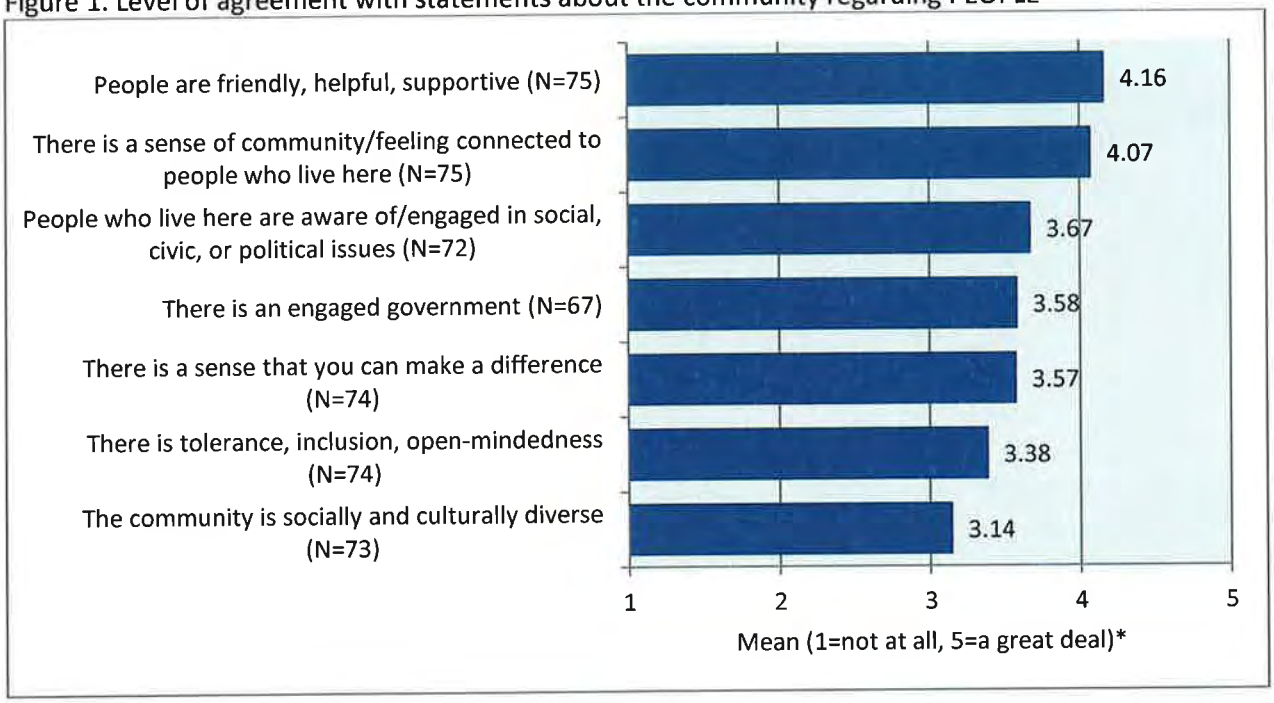
TABLE OF CONTENTS

SELECTED STAKEHOLDER RESULTS

Community Assets/Best Things About the Community

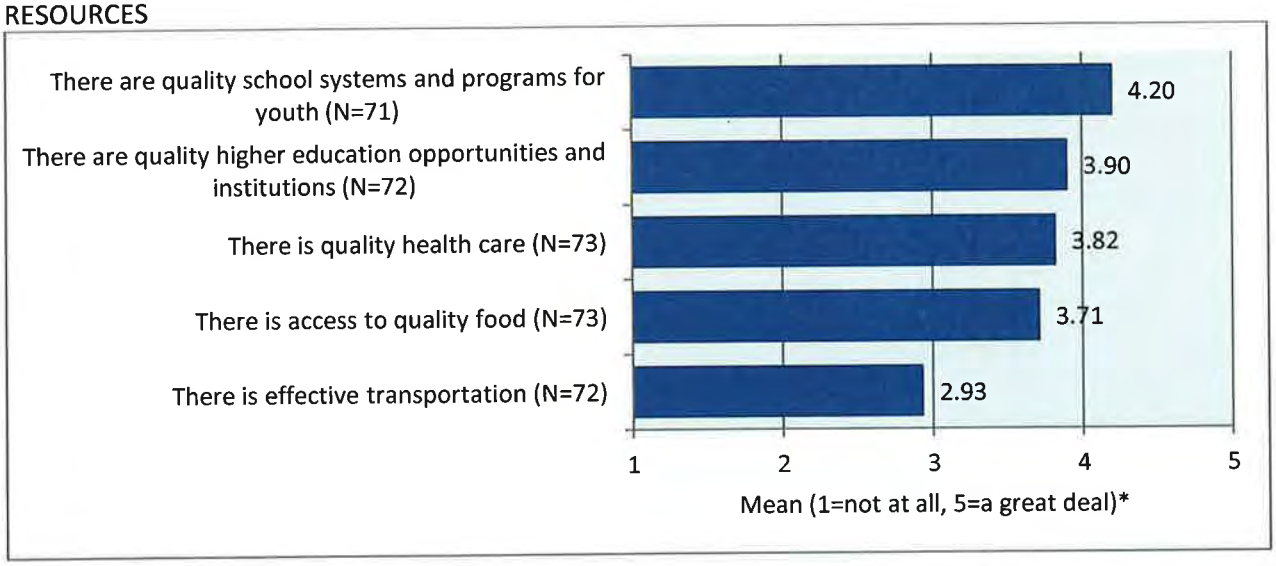
Respondents were asked to rate their level of agreement with various statements regarding PEOPLE, SERVICES AND RESOURCES, QUALITY OF LIFE, GEOGRAPHIC SETTING, and ACTIVITIES in their community.

Figure 1. Level of agreement with statements about the community regarding PEOPLE



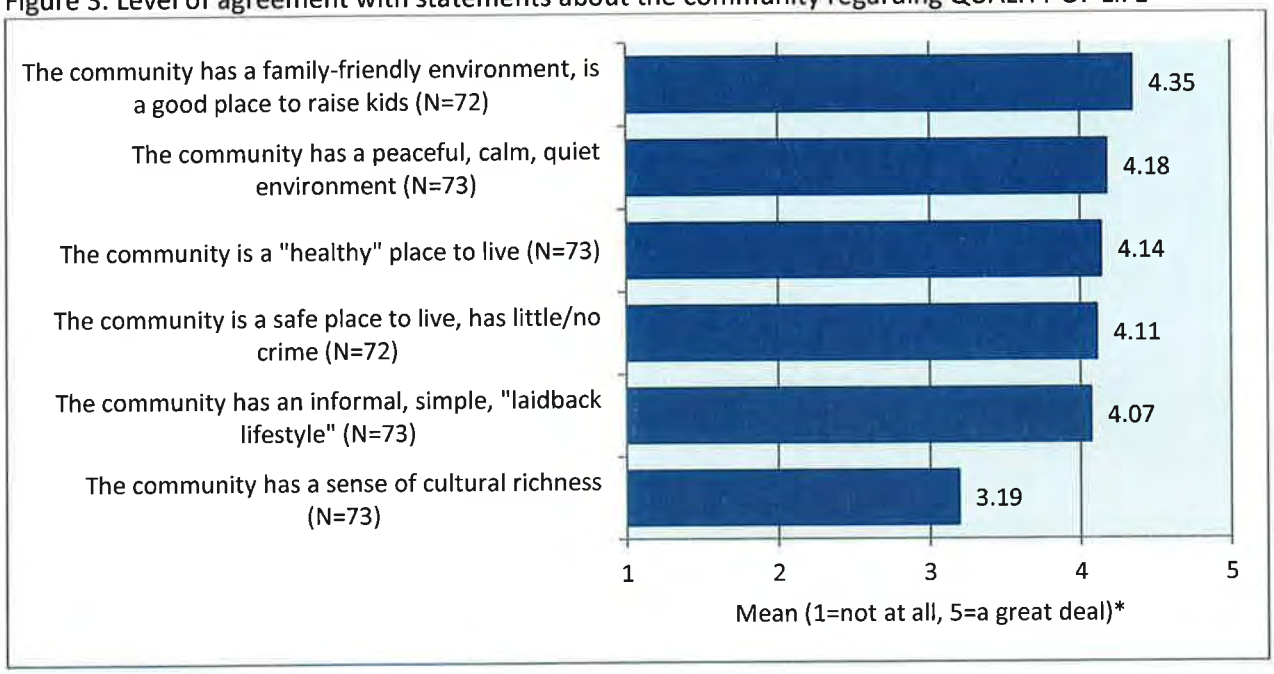
*Means exclude "do not know" responses.

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



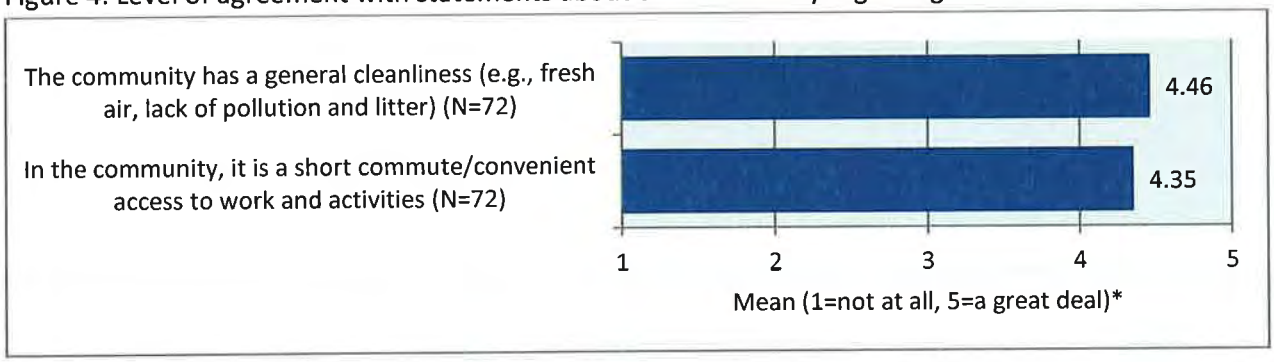
*Means exclude "do not know" responses.

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



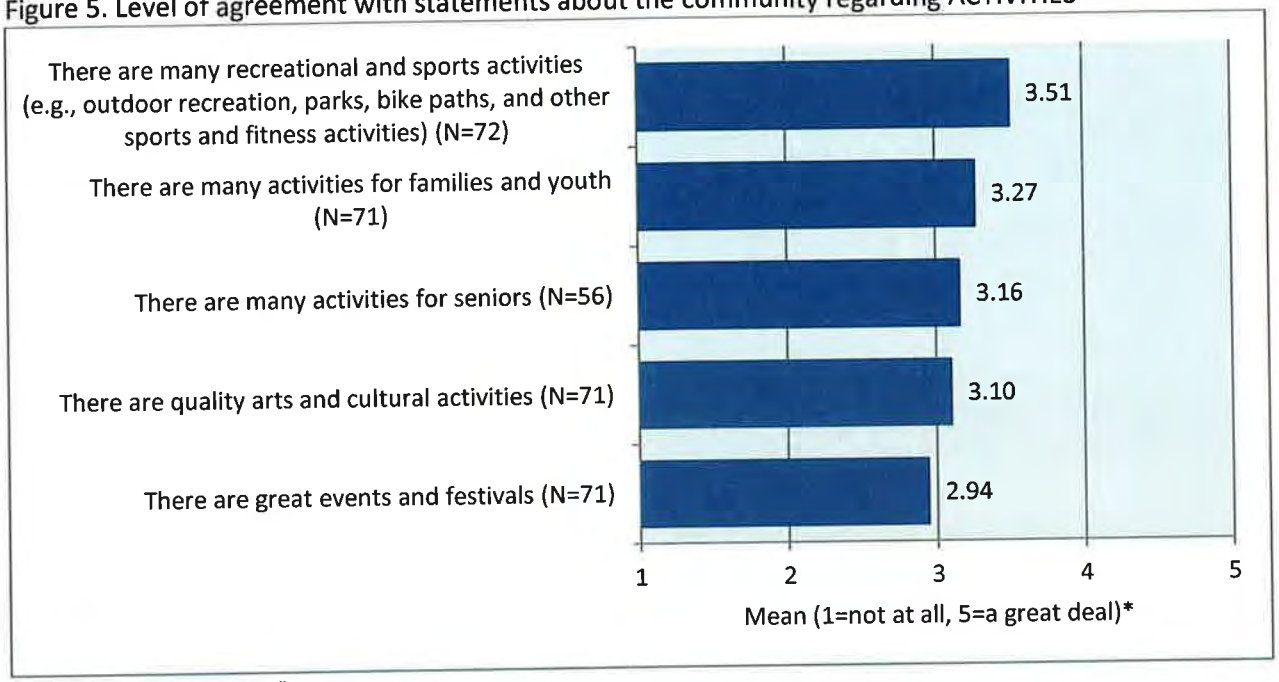
*Means exclude "do not know" responses.

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



*Means exclude "do not know" responses.

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

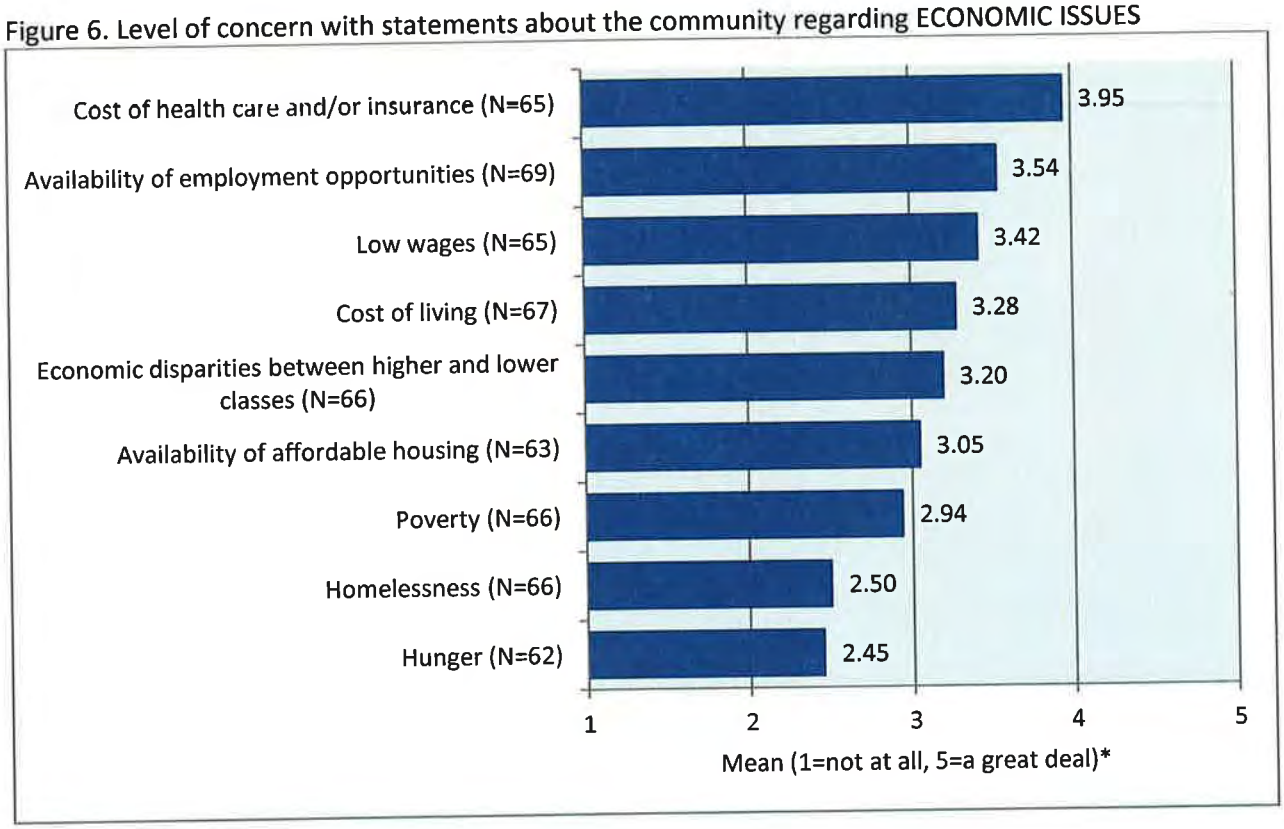


*Means exclude "do not know" responses.

General Concerns About the Community

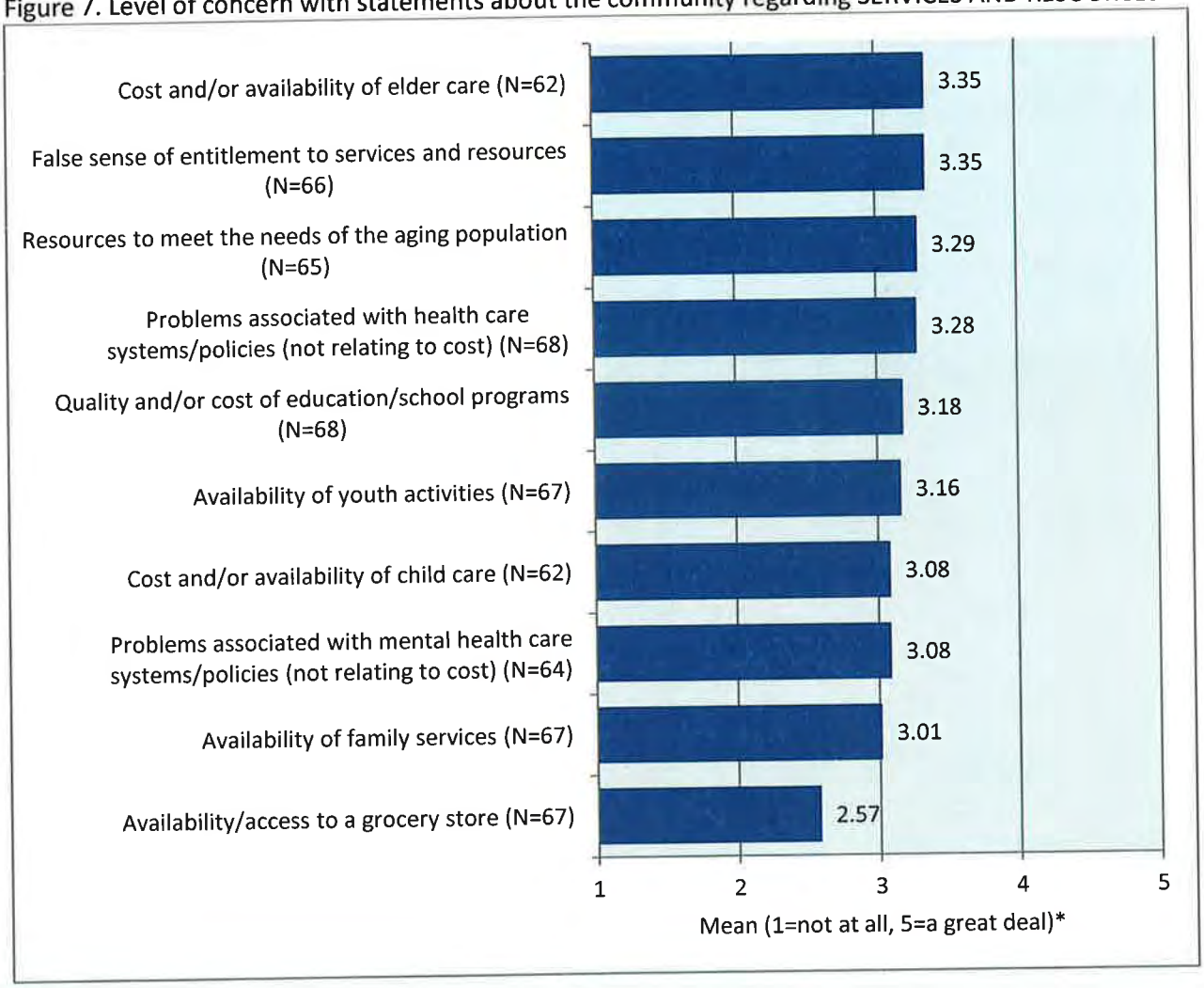
Respondents were asked to rate their level of concern with various statements regarding ECONOMIC ISSUES, SERVICES AND RESOURCES, TRANSPORTATION, ENVIRONMENTAL POLLUTION, YOUTH CONCERNS, and SAFETY CONCERNS in their community.

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



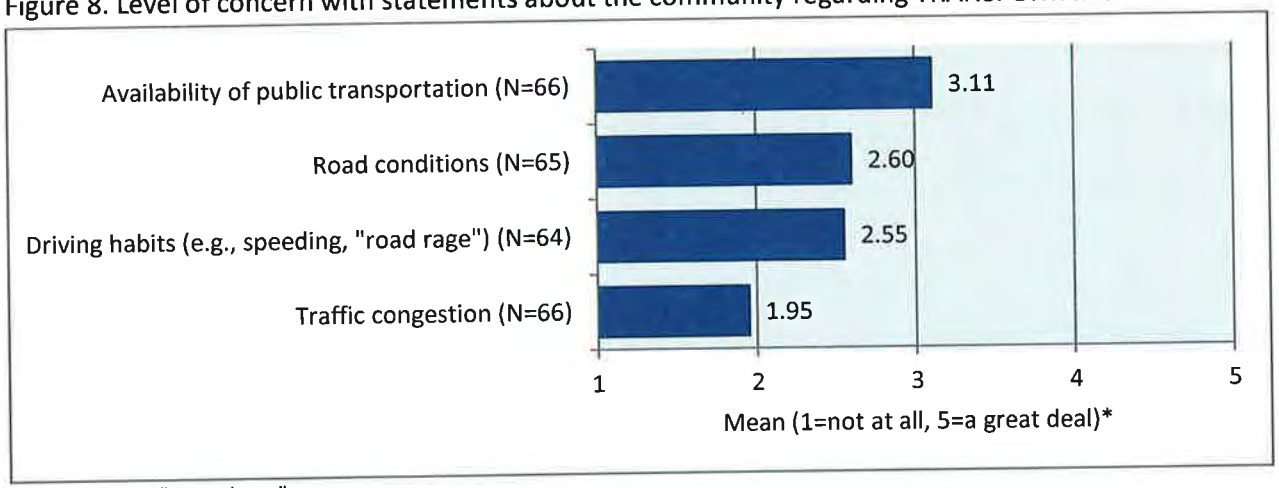
*Means exclude "do not know" responses.

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



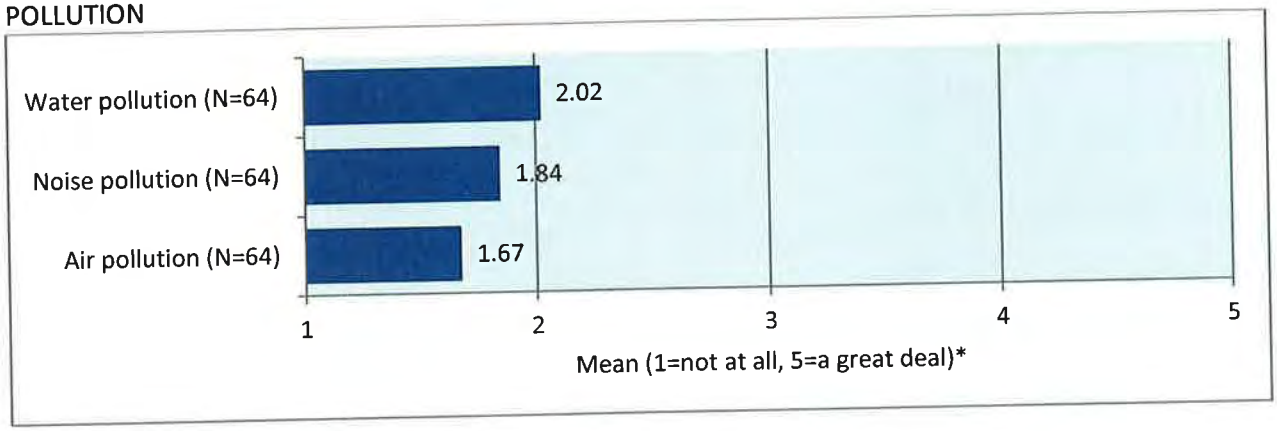
*Means exclude "do not know" responses.

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



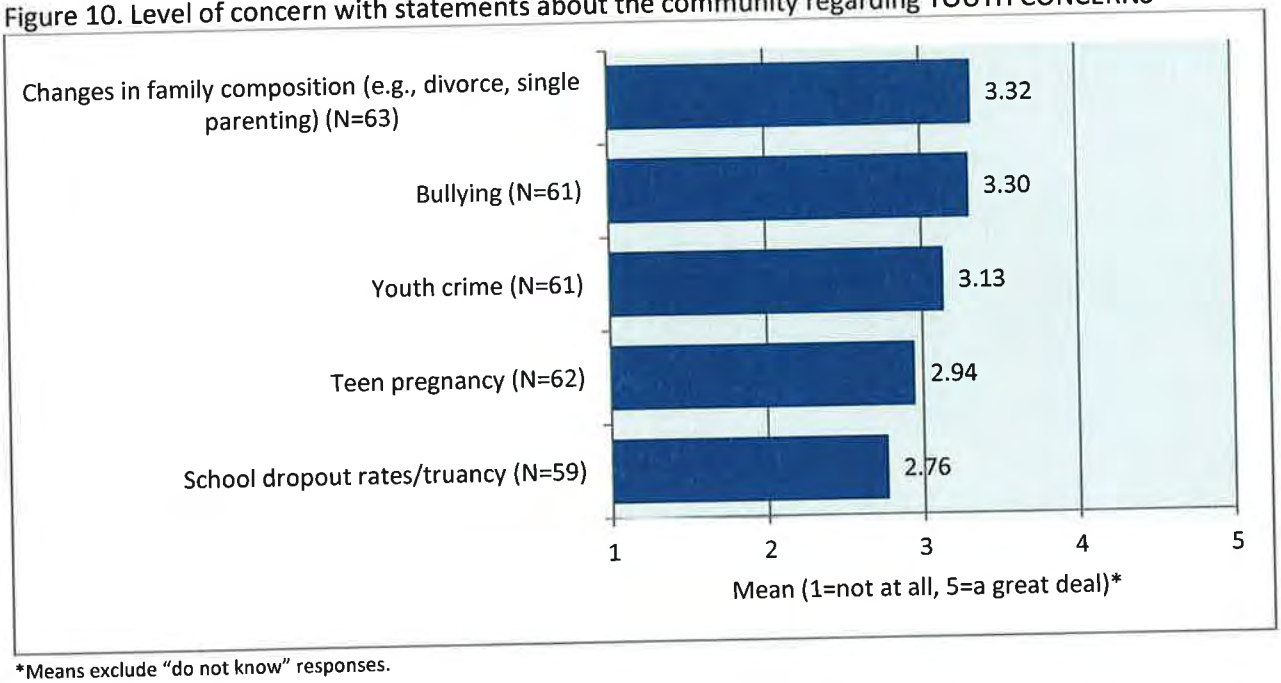
*Means exclude "do not know" responses.

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



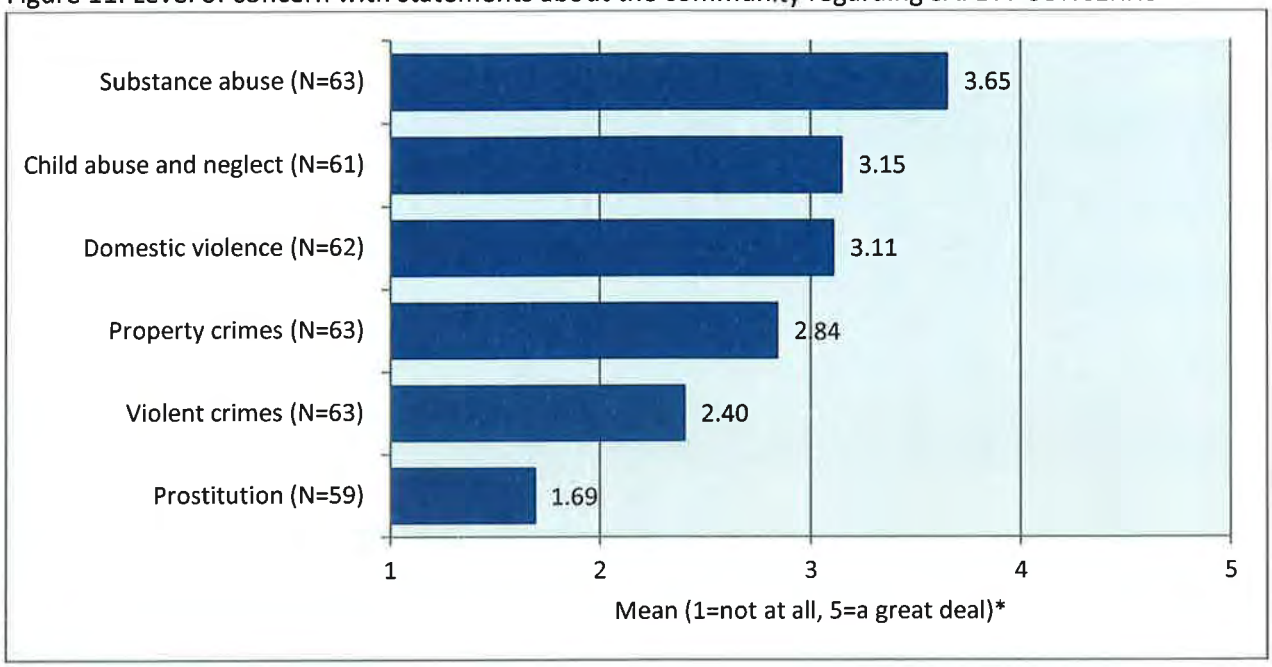
*Means exclude "do not know" responses.

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



*Means exclude "do not know" responses.

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

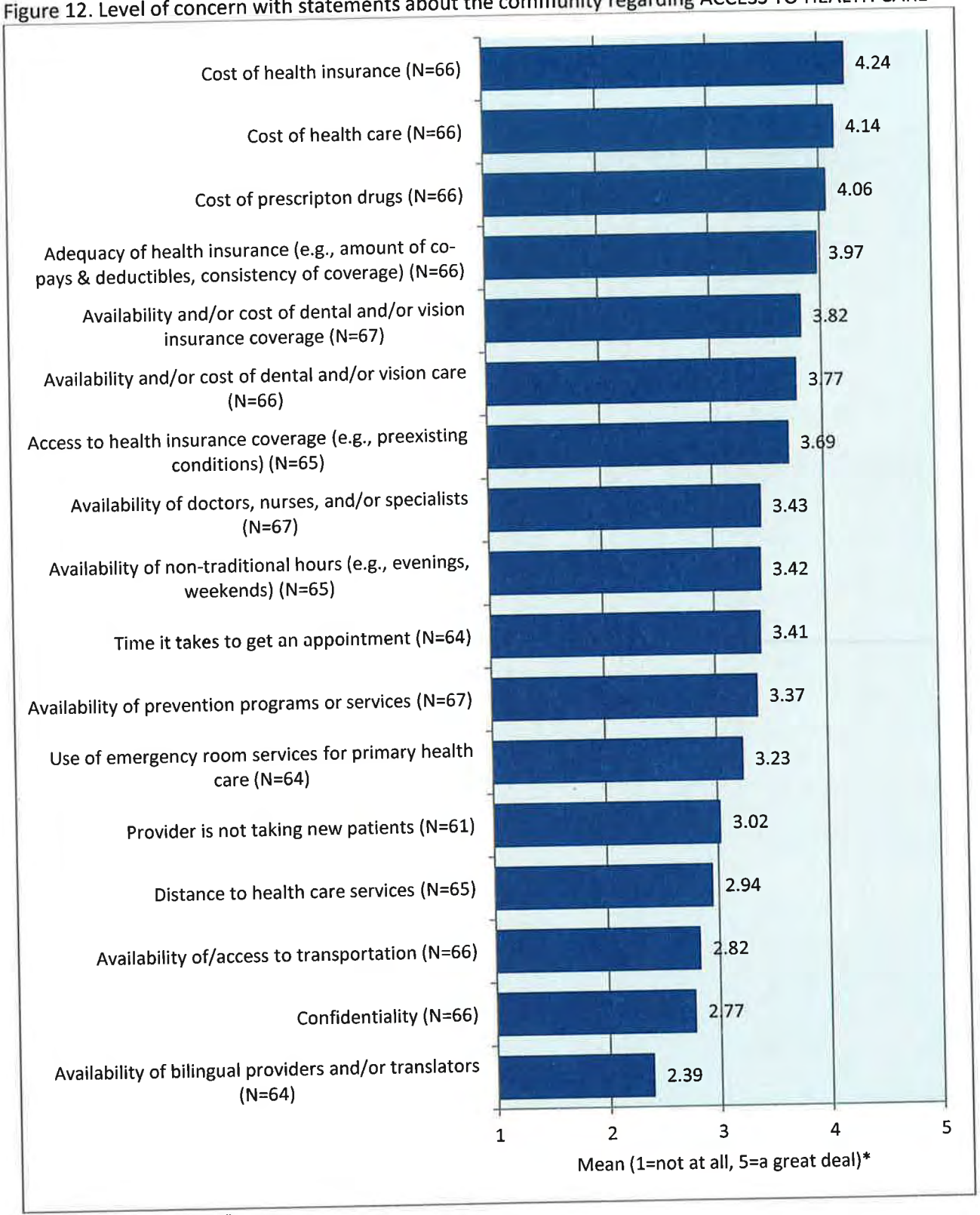


*Means exclude "do not know" responses.

Community Health and Wellness Concerns

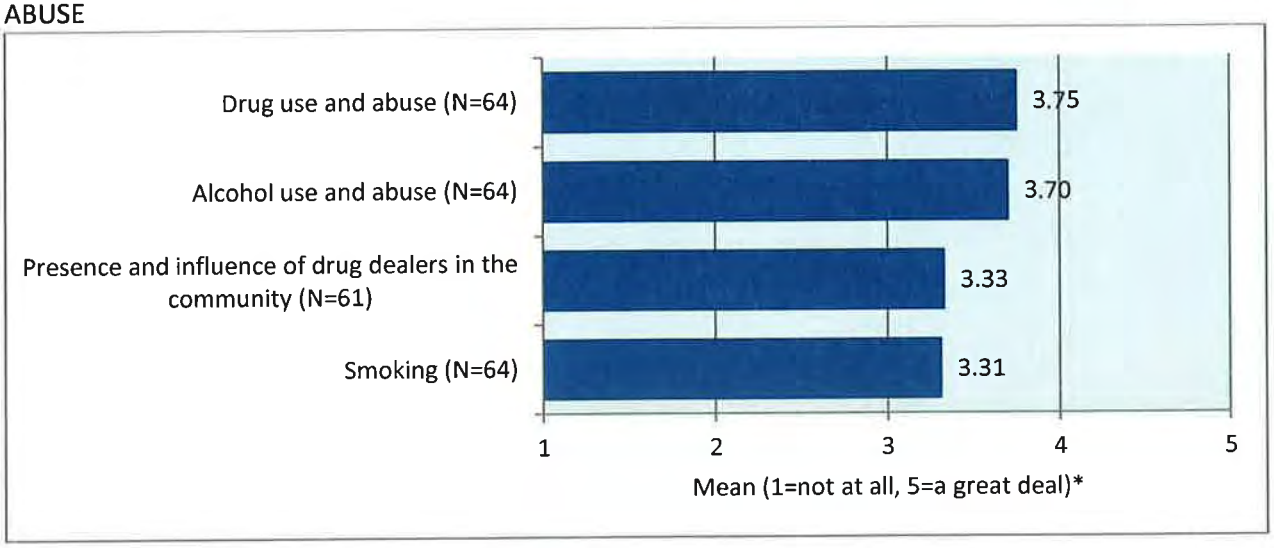
Respondents were asked to rate their level of concern about health and wellness issues in their community regarding ACCESS TO HEALTH CARE, SUBSTANCE USE AND ABUSE, PHYSICAL HEALTH, MENTAL HEALTH, and ILLNESS.

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



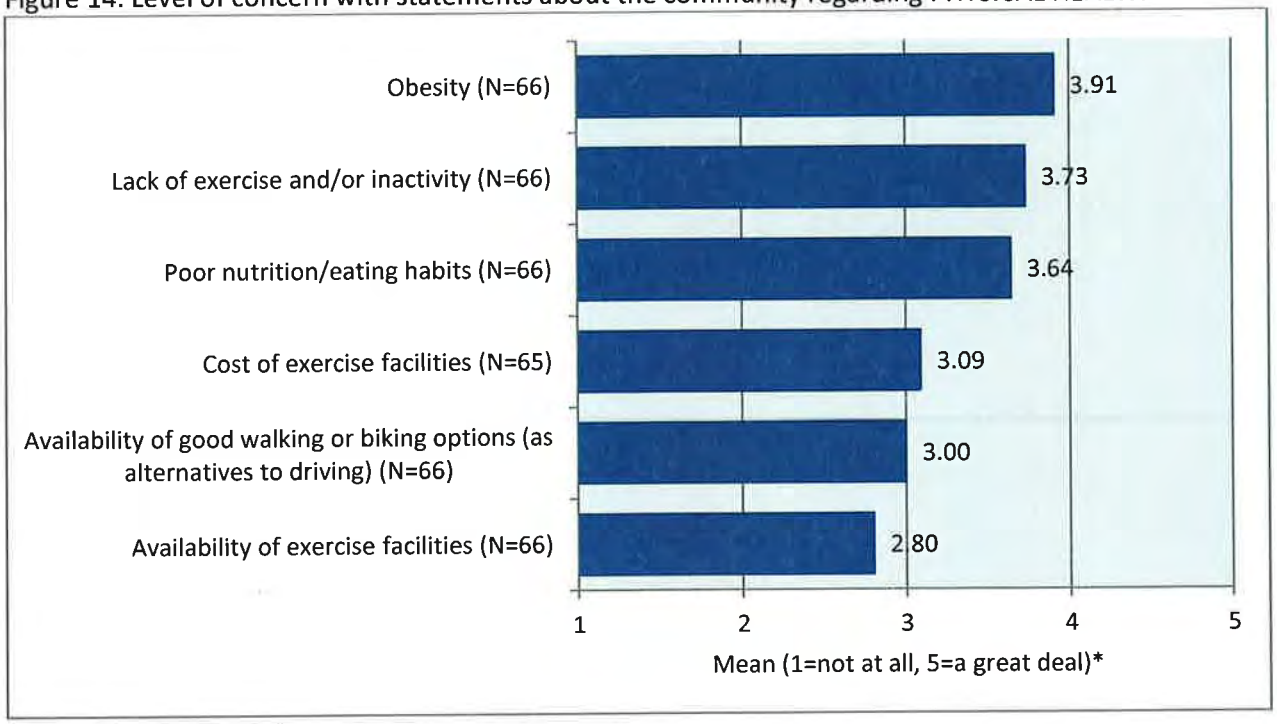
*Means exclude "do not know" responses.

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



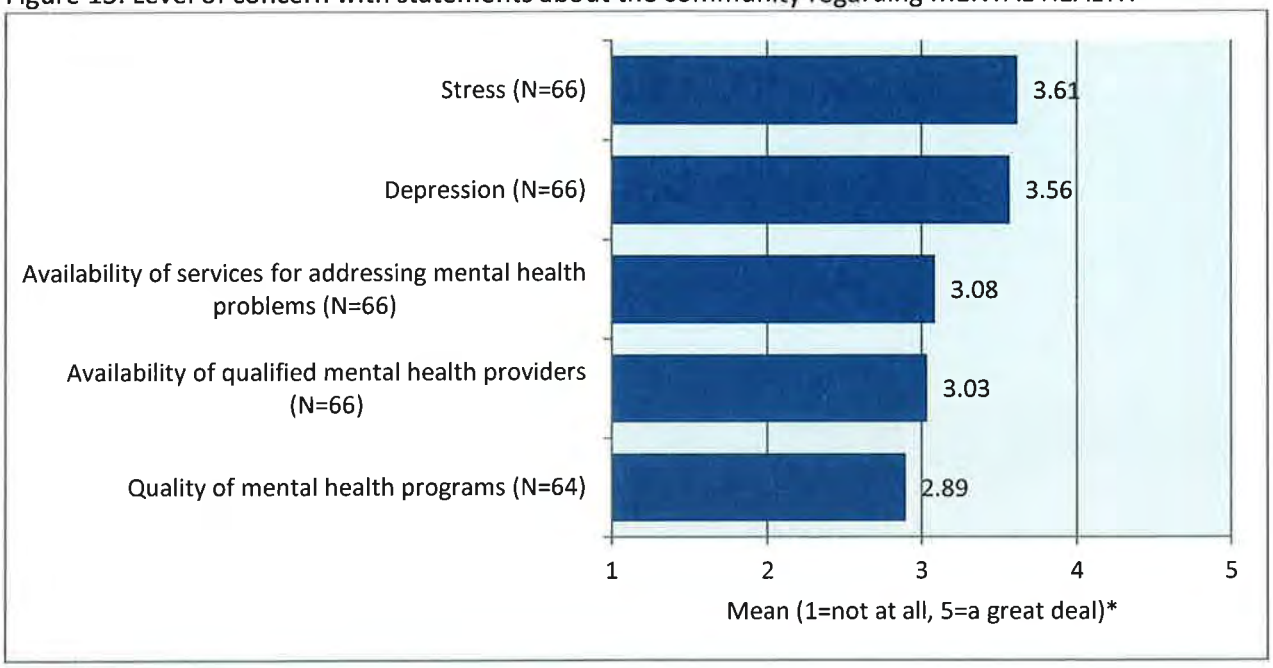
*Means exclude "do not know" responses.

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



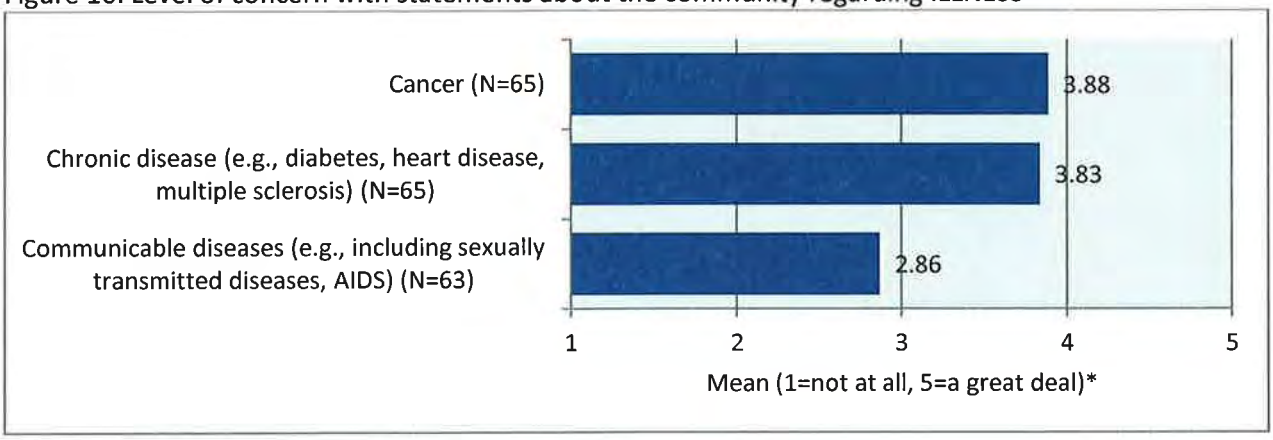
*Means exclude "do not know" responses.

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



*Means exclude "do not know" responses.

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

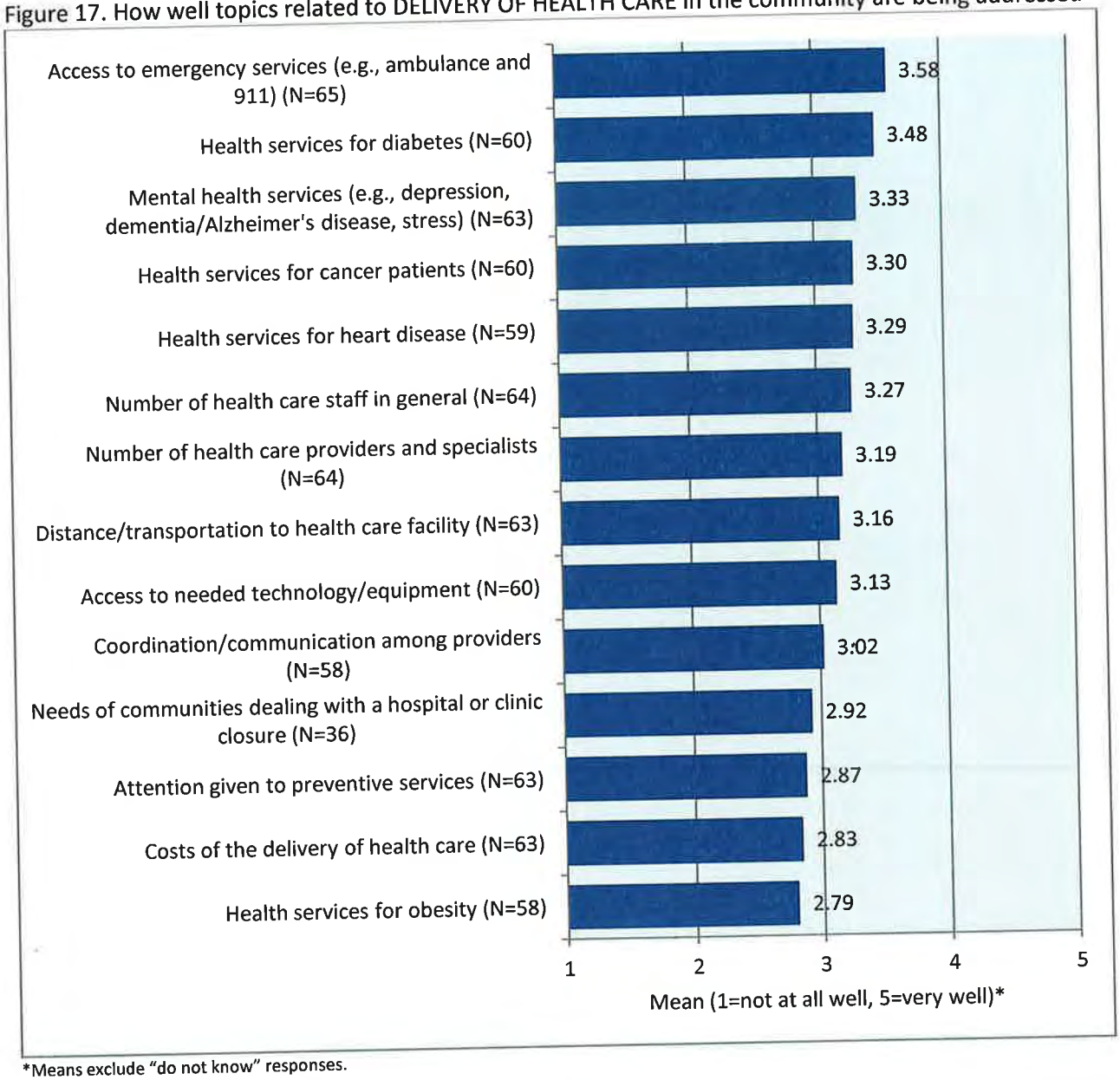


*Means exclude "do not know" responses.

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.

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



*Means exclude "do not know" responses.

Exhibit 2

Diversity Profile

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

Pennington 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	13,930	13,067	192	213	87	380
Percent ages 0 to 17	24%	23%	39%	31%	25%	48%
Percent ages 18 to 44	33%	33%	54%	49%	48%	40%
Percent ages 45 to 64	27%	28%	7%	15%	22%	10%
Percent ages 65 and older	16%	17%	1%	4%	5%	2%
Median age (in years)	38.9	40.4	21.1	25.5	32.5	18.8
Living Arrangements						
Total households [1]	5,836	5,596	65	64	29	82
Percent with householder living alone	31%	31%	32%	25%	28%	18%
Percent with families with children ages 0 to 17	28%	28%	40%	41%	48%	57%
Grandparents living with their grandchildren [2]	97	95	0	2	0	0
Percent who are responsible for grandchildren	44%	45%	-	0%	-	-
Housing [1]						
Percent occupied housing that is owner-occupied	73%	75%	8%	44%	55%	35%
Percent occupied housing that is renter-occupied	27%	25%	92%	56%	45%	65%
Educational Attainment [2]						
Percent of persons ages 25 and older with high school degree or higher	87%	87%	100%	100%	99%	85%
Percent of persons ages 25 and older with Bachelor's degree or higher	15%	15%	4%	5%	62%	11%
Economic Security [2]						
Unemployment rate	7%	6%	50%	33%	12%	0%
Median household income	$44,926	$46,067	$12,875	$36,389	$13,929	$25,385
Percent of households with income <$25,000	28%	26%	95%	38%	57%	47%
Percent of persons with income <100% poverty	12%	10%	67%	47%	16%	30%
Percent of children ages 0 to 17 in families with income <100% poverty	13%	11%	77%	0%	0%	3%
Percent of elderly ages 65 and older with income <100% poverty	16%	16%	-	0%	0%	-

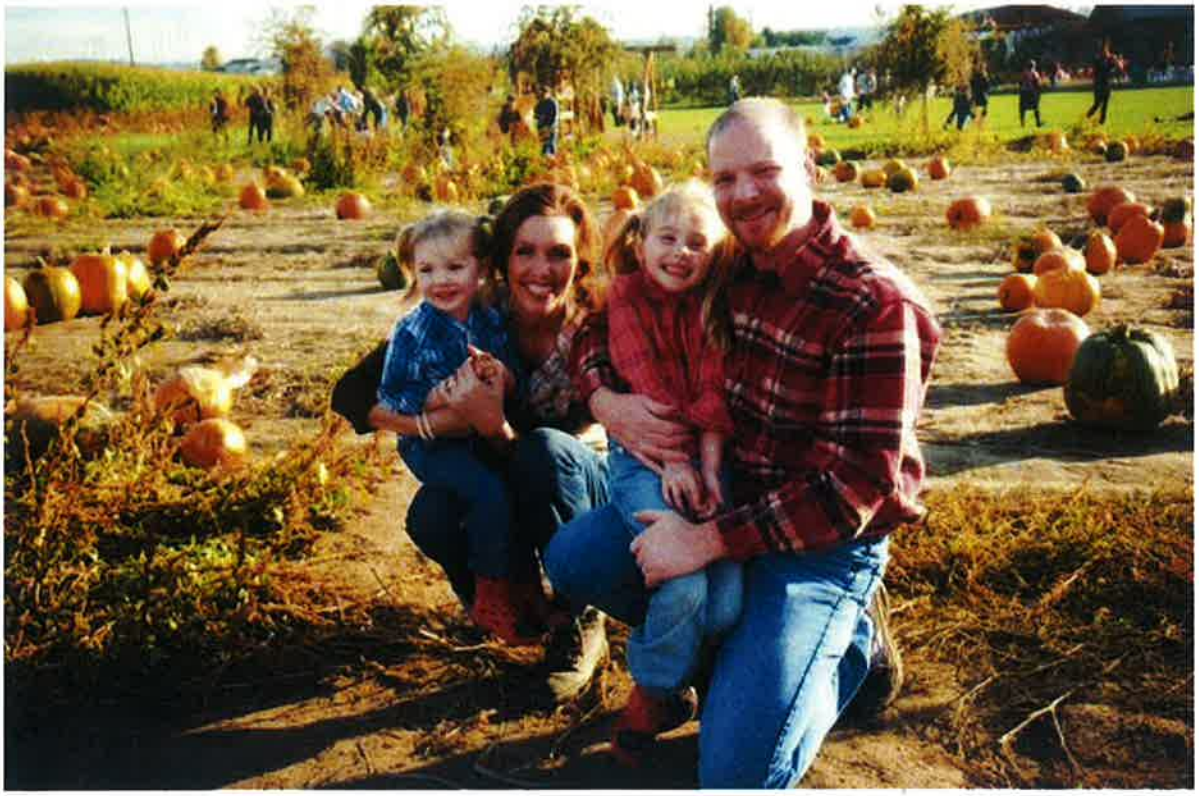
Source: U.S. Census Bureau, [1]2010 Census Summary File 1 and [2]2006-2010 American Community Survey (ACS) 5-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across race and ethnic categories; however, because they are based on sample data, one should 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.

 The Diversity Profile was prepared by researchers at North Dakota State University in Fargo for Sanford Health. May 2012

Exhibit 3

EvaluationGroup, LLC

Northwest Minnesota
Community Assessment Committee



REGIONAL SUMMARY OF
BEHAVIORAL RISK STATISTICS

July
2012

Authored by
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Dmitri Poltavski, Ph.D.
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"*True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information.*"

Winston Churchill

"You work with the ones who want to work with you.
You inspire those few who really want to take part and do it.
They inspire others around them.
And it grows."

EXECUTIVE SUMMARY

Purpose of Study: Two research questions were addressed: 1) What do archival statistics collected on regional health indicators reveal as problem areas? 2) What do people around the region think are pressing health concerns?

Methods: A wide range of available archival data was reviewed, including those from the Behavioral Risk Factor Surveillance Survey (BRFSS), Kids Count 2010, Minnesota Student Survey, Census 2010 and others. Additionally, qualitative input was gathered from meetings of the NWCAC and key stakeholders in the local healthcare community.

Findings:

- ✓ In a word, youth from the region are significantly (statistically) more overweight, eat fewer servings of fruits and vegetables, and use more tobacco compared to youth from the rest of the state. Over the three year time span of the administration of the survey analyzed in this study, each of these three measures have grown worse. A fourth indicator, the use of smokeless tobacco, has seen the most dangerous growth. As shown in the table below, 16 percent of students (almost exclusively male) used smokeless tobacco in 2007 which grew to 21.4% in 2010. This use is nearly twice that of the state average in 2010 for the rest of all youth across Minnesota.

Background

The NWCAC was formed as a result of the requirement for local public health agencies to conduct an assessment and strategic planning process patterned after NAACHO….more here

Participating Individuals/Agencies
Five public health agencies and two hospital administrators representing the counties of Roseau, Kittson, Marshall, Pennington and Red Lake in Northwest Minnesota convened in 2012 to complete a regional assessment of health needs.

Members of the committee were as follows

Name	Title	Agency	County
Rachel Green	Quin CHS Administrator	Quin Community Health Services	5-county region
Julie Pahlen	Public Health Administrator	Life Care Medical Center-Warroad	Roseau
Sue Grafstrom	Development Coordinator		Roseau
Casey Johnson	CEO	Sanford Medical Center-Thief River Falls	Pennington
Kevin Smith	CEO	North Valley Health Center	Marshall
Anita Cardinal	Public Health Administrator		Pennington/Red Lake
Gail Larson	Public Health Administrator	North Valley Health Center	Marshall
Paula Hedlund		Life Care Medical Center-Roseau	Roseau
Betty Younggren	NVHC Representative		
Cindy Urbaniak			
Garth Kruger		EvaluationGroup, LLC	

How many times group met

Purpose

Two research questions were addressed: 1) What do archival statistics collected on regional health indicators reveal as problem areas? 2) What do people around the region think are pressing health concerns?

Methods

Quantitative

A wide range of available archival statistical data was reviewed and analyzed, including those from:

- Behavioral Risk Factor Surveillance Survey (BRFSS) 2004-2010
- Minnesota Student Survey 2010
- Kids Count 2012
- Census 2010
- Minnesota Vital Statistics 2005-2009 Trends

- Minnesota County Health Tables 2011
- Atlas Online 2012
- U.S. Environmental Protection Agency
- Minnesota Public Health Data Access 2000-2008
- Minnesota Department of Health

Data throughout this report will be reported by ZIP code where possible in order to allow the greatest degree of resolution in pinpointing geographic and sociologic disparities. School district data is also used where available and deemed useful. Both these boundaries are presented in the following two figures along with corresponding county boundaries in order to provide a geo-referenced context for the information provided herein.

BRFSS Analysis

This report provides the most recent available state and county data on important behavioral risks including physical activity levels, consumption of fruits and vegetables, excessive alcohol consumption, tobacco use, exposure to second hand smoke, preventive cancer screenings, overweight and obesity levels. The report also provides prevalence rates for debilitating chronic conditions and life threatening events such as heart disease, diabetes and stroke.

All state and county data have been extracted from the Behavioral Risk Factor Surveillance Survey (BRFSS) database (see Appendix 1 for additional methodological details).
Specifically, indices of tobacco use, excessive alcohol consumption, overweight and obesity, chronic conditions and cancer screenings were obtained from the 2010 BRFSS database. Optional modules on physical activity and fruit and vegetable consumption were used in the Minnesota survey in 2009. Thus these statistics were derived from the 2009 BRFSS database. Finally data on secondhand smoke policy refers to the 2004 BRFSS administration when this optional module was last used in Minnesota.

Furthermore out of 5 counties of interest (Kittson, Marshall, Pennington, Roseau and Red Lake) BRFSS data was only available for the first three. No data was available for either Red Lake or Roseau Counties. While the number of individuals surveyed in the remaining counties in the most representative year of 2010 were still fairly low (65 participants in Kittson County, 27 participants in Marshall county and 58 individuals in Pennington county), prevalence estimates for specific risks and conditions in these counties were further adjusted using combined weights derived by the Centers for Disease Control (CDC) during national BRFSS administration.

Specifically the final weights used in statistical estimation on the state and county levels take into consideration the *Stratum weight* (number of records in a stratum divided by the number of records selected), *Raw weighting factor* (number of adults in the household divided by the imputed number of phones), and the *Post-stratification weight* (Population estimate for race/gender/age categories divided by the weighted sample frequency by race/gender/age). Adjustment by the final weight is thus thought to render more accurate estimates of population statistics which are presented in this report with 95% confidence (a range of values that is 95% likely to contain the true population value).

MNSS Analysis

The description of behavioral health risk in youth and young adults for individual MN counties is based on the 2007 and 2010 Minnesota Student Surveys which were conducted by approximately 91% of public operating school disThreects. The Minnesota Student Survey encompasses a number of health risk behaviors including tobacco use, diet, physical activity and prevalence of obesity and is administered to public school students in

Grades 6, 9, and 12. Only responses from 12th-grade students were used in the statistical analysis presented in this report. EvaluationGroup, LLC staff contacted the MN Student Survey administrators and obtained a copy of the raw dataset for further analysis which were used in this report. We are indebted to their generosity for permitting us use of this data in pursuit of the mission of improving health throughout Minnesota.

Qualitative

Additionally, qualitative input was gathered from two meetings of the Northwest Community Assessment Committee (NWCAC). Telephone and in-person interviews were also conducted with 8 individuals from across the region with years of experience in healthcare provision.

Results

Regional Demographics

Demographic results show steady and slow declines in population year over year over the past 6 years, continuing a decades-long trend of population exodus from rural areas. More recent data from 2011 suggests that there may be a leveling-off in population decline.

Indicator #58

Total population 2005-2009						% decrease 2005-09
	2005	2006	2007	2008	2009	
Statewide	5,132,799	5,167,101	5,197,621	5,220,393	5,266,214	
Roseau	16,495	16,201	15,946	15,865	15,911	-4.6%
Pennington	13,608	13,709	13,756	13,747	13,842	+2.0%
Marshall	9,965	9,951	9,618	9,502	9,184	-8.0%
Kittson	4,792	4,691	4,505	4,462	4,374	-7.8%
Red Lake	4,317	4,168	4,118	4,069	4,188	-3.0%

Population statistics per square mile reveal that 2 of the counties in the region (Kittson and Marshall) meet the designation of being a frontier population (that of "six or fewer people per square mile") http://www.frontierus.org/ .

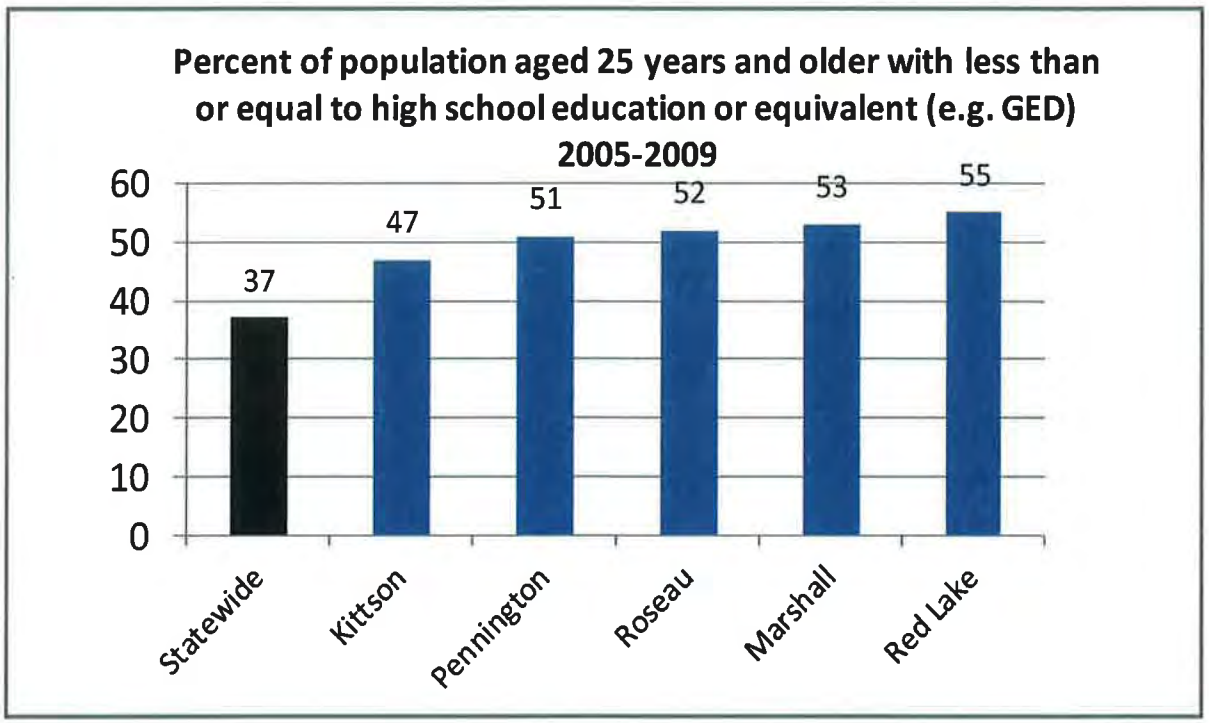
County	Persons per sq. mile	Population 2011
Kittson	4	4,552
Marshall	6	9,481
Norman	8	6,869
Mahnomen	9	5,456
Roseau	9	15,540
Red Lake	10	4,105
Polk	16	31,456
Pennington	23	14,072
Minnesota	65	5.34 million
USA	84	302 million
World	117 (not including water)	7.74 billion

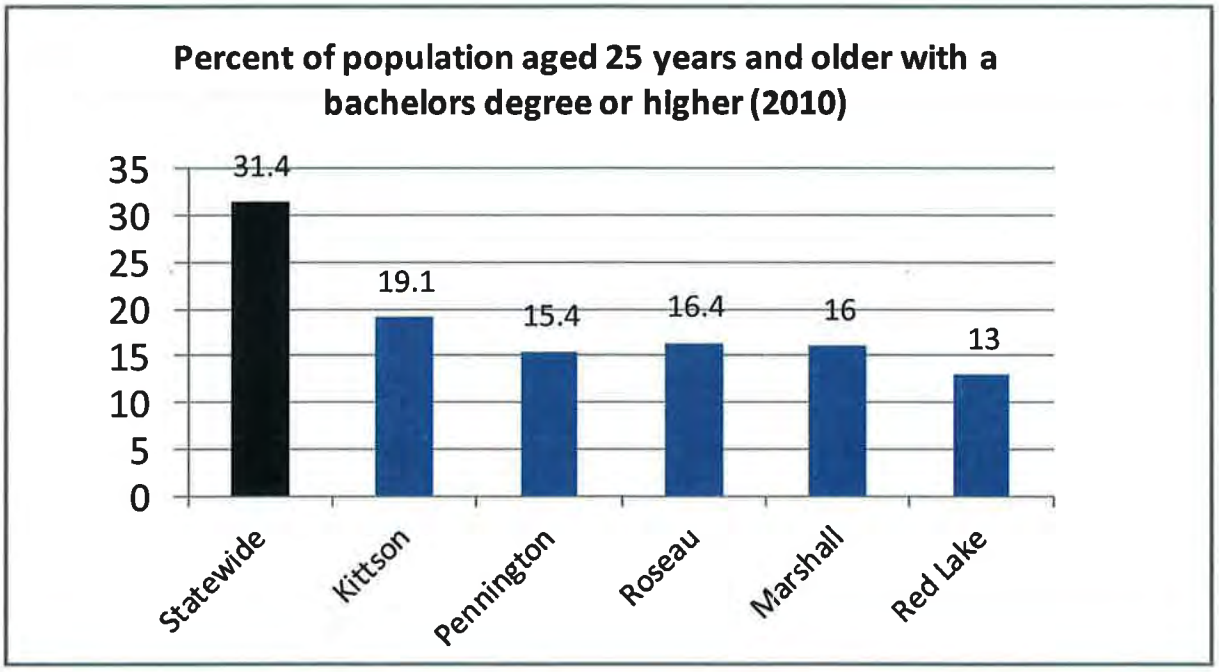
Source: U. S Census Bureau statistics, 2010/11 population estimates

Educational Levels

Educational levels of area residents are substantially lower than in comparison to the rest of the state.

Indicator #8





Unemployment Rate

Year over year, the unemployment rate within the region tends to be higher than the state average. Red Lake and Marshall Counties have endured the worst unemployment in the region the past three years, whereas Kittson and Roseau have fared better.

Indicator #71

Unemployment rate - annual average 2005-2009					
	2005	2006	2007	2008	2009
Statewide	4	4	5	5	8
Kittson	5	6	6	6	7
Roseau	5	6	6	5	8
Pennington	6	6	7	7	9
Red Lake	7	7	8	8	10
Marshall	4	4	8	8	10

Rural-Urban Commuting Areas

RUCA (Rural-Urban Commuting Area Codes), are a classification process that utilizes the standard Bureau of Census Urbanized Area and Urban Cluster definitions in combination with work commuting information to characterize all of the nation's Census tracts and/or ZIP code areas regarding their rural and urban status and relationships. Travel distance information is available for all of the nation's ZIP codes. The travel distances are from the approximate population center of each ZIP code area to the nearest ZIP code area that has a RUCA code of 1.0 or 1.1. Travel distance is defined as the distance between the approximate population center of each ZIP code area and the closest of the types of destinations along the fastest paved road route. The travel distances were provided to the WWAMI Rural Health Research Center by the Center for the Evaluative Clinical Sciences at Dartmouth. http://depts.washington.edu/uwruca/ruca1/ruca-travel-dist11.php . See Appendix E for the complete description of RUCA codes.

An analysis of the RUCA codes reveals 6 distinct RUCA clusters within the region (See Figure 4). These clusters represent general commuting behavioral patterns within those regions. Both Kittson, Pennington and Red Lake counties are defined as their own distinct cluster, whereas Marshall county possesses three clusters and Roseau has two. Residents in both the far eastern and far western halves of Marshall County possess secondary (second largest) work commuting flow destinations to small urban or urbanized areas. In the west residents commute primarily to Crookston/Grand Forks and in the east half Thief River Falls, Warroad and Roseau.

What RUCA tells us

- ✓ The RUCA maps reveal that residents of Kittson, Pennington, Roseau and Red Lake Counties primarily live and work within the borders of their own counties.
- ✓ Residents of Kittson and Red Lake counties are in an isolated small rural census tract with no primary flows over 5% to any census bureau defined urbanized area.
- ✓ Greater than 30% of the population in the middle portion of Marshall County and the middle portion of Roseau County commute to a Census bureau defined urban place.
- ✓ It is important to understand individuals' primary and secondary work commute behavior patterns because it influences where and how to reach your targeted audience. Commuting patterns should be considered in the way health care messages and services are delivered.

Figure 1: RUCA Codes by ZIP code across the NWCAC region

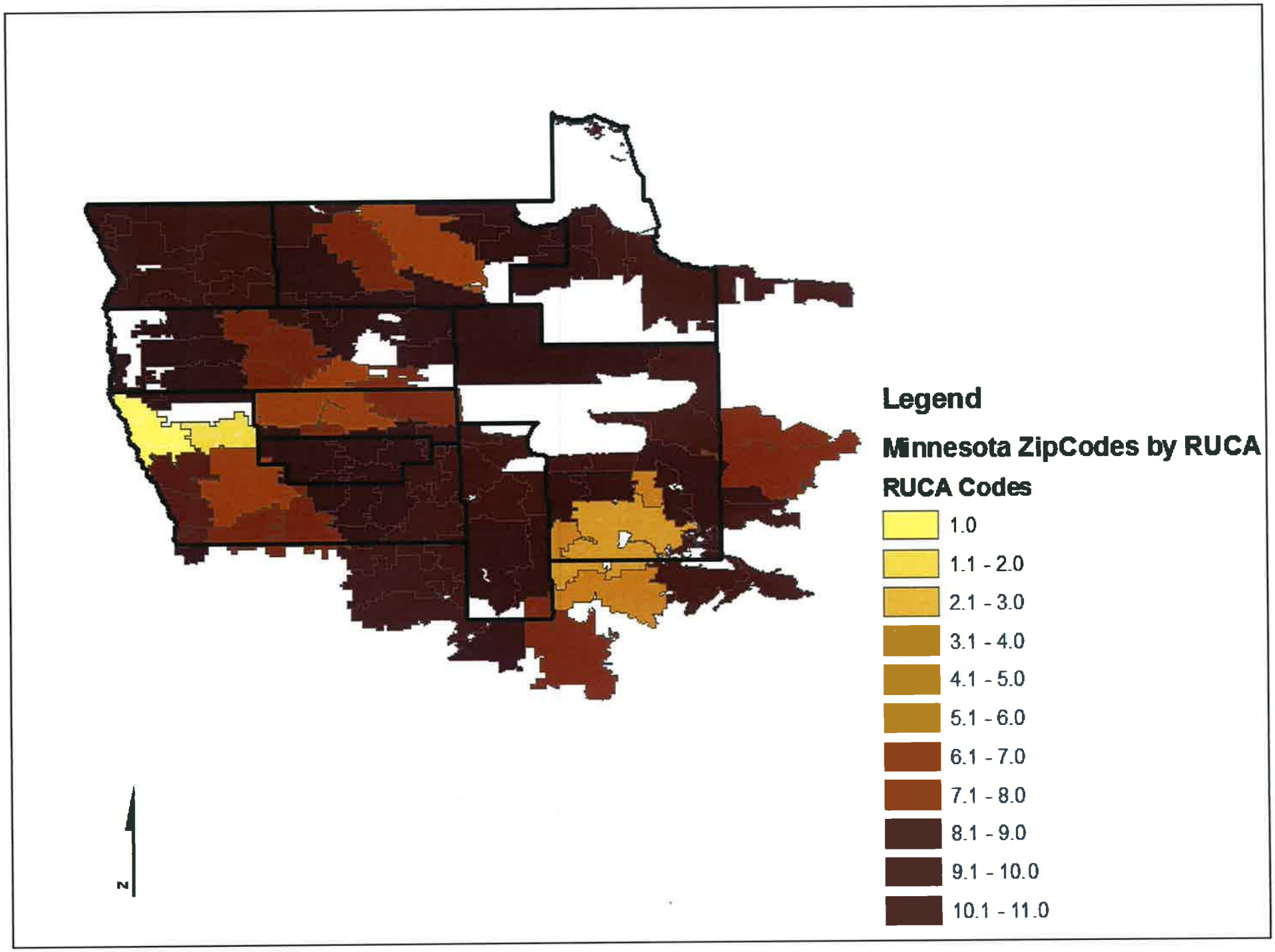


Figure 2: Six distinct RUCA core areas

Figure 3

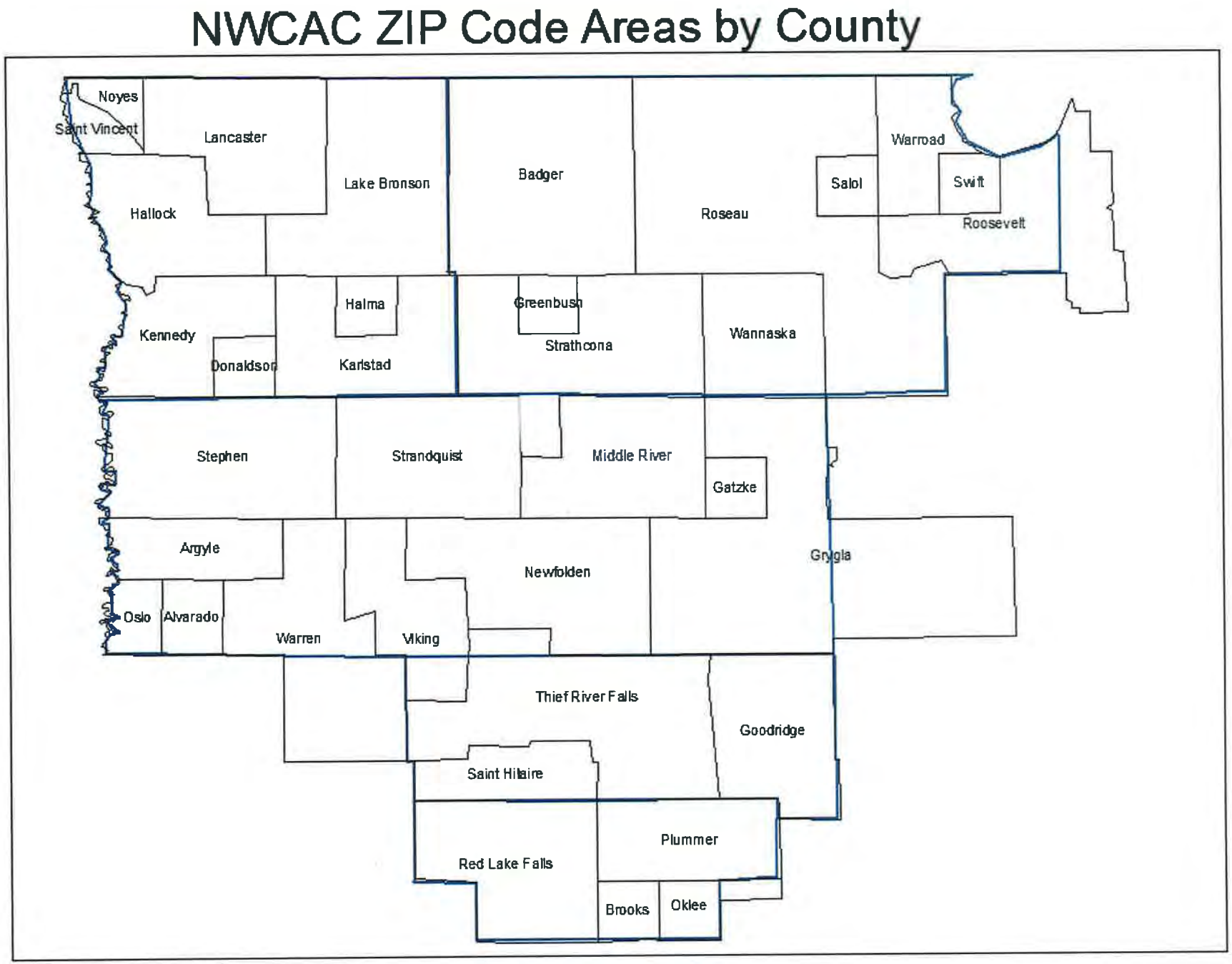
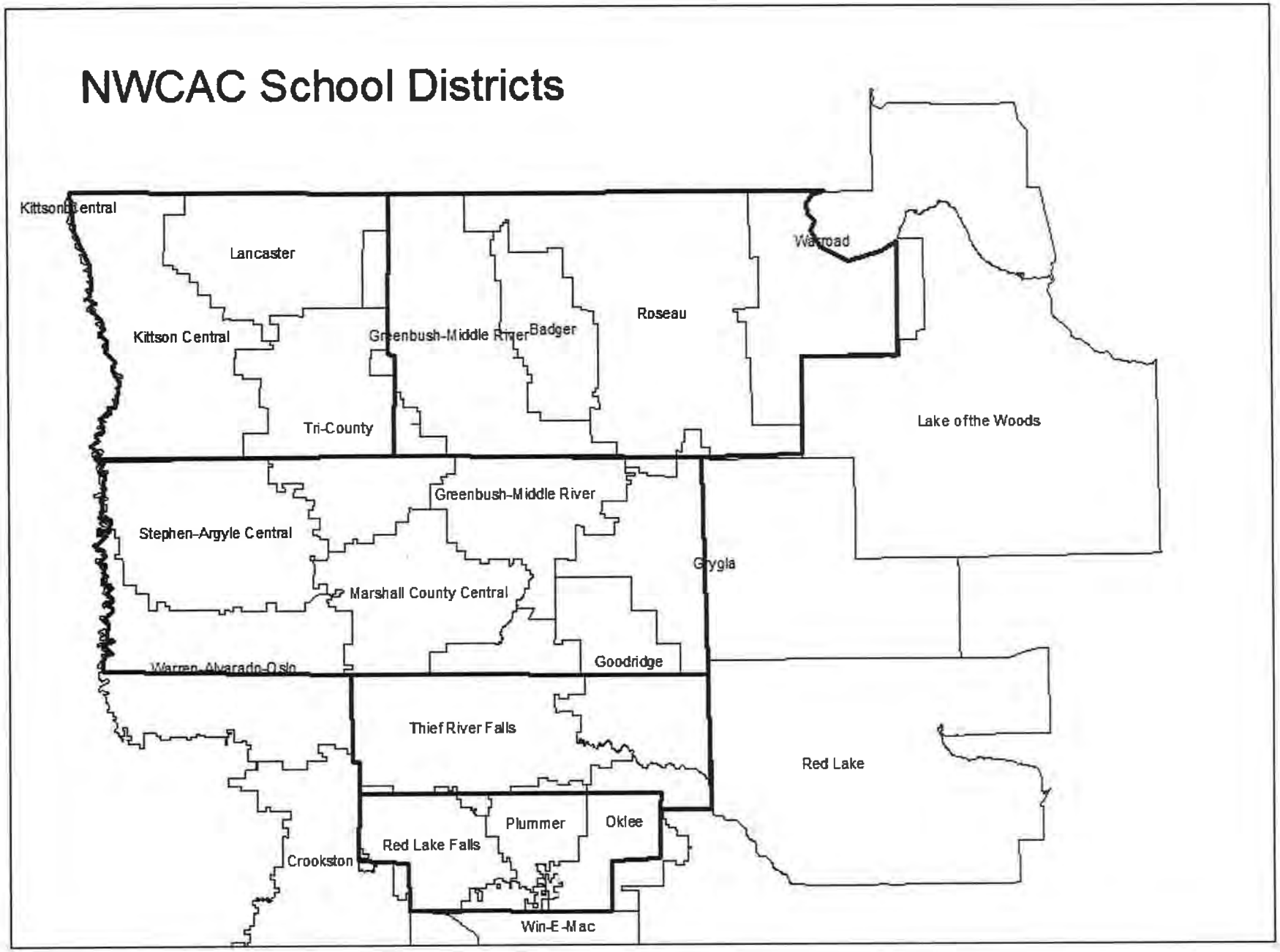

NWCAC ZIP Code Areas by County
Noyes
Saint Vincent
Lancaster
Lake Bronson
Badger
Roseau
Warroad
Salol
Swift
Roosevelt
Hallock
Halma
Greenbush
Strathcona
Wannaska
Kennedy
Donaldson
Karlstad
Stephen
Strandquist
Middle River
Gatzke
Argyle
Newfolden
Grygla
Oslo
Alvarado
Warren
Viking
Thief River Falls
Goodridge
Saint Hilaire
Plummer
Red Lake Falls
Brooks
Oklee

Figure 4


NWCAC School Districts
Kittson Central
Lancaster
Kittson Central
Greenbush-Middle River
Badger
Roseau
Warroad
Tri-County
Lake of the Woods
Greenbush-Middle River
Stephen-Argyle Central
Grygla
Marshall County Central
Warren-Alvarado-Oslo
Goodridge
Thief River Falls
Red Lake
Plummer
Oklee
Red Lake Falls
Crookston
Win-E-Mac

Regional Income and Poverty

Median Income

The U.S. Median income from 2006-2010 was $51,914. In Minnesota during the same time frame it was $57,243 (http://quickfacts.census.gov/qfd/states/27000.html). Statistics show that median income in the NWCAC region ranges between 14-22% lower ($7,843 to $12,317) than the statewide average. Across a working lifetime of 40 years this means that a household in the middle of the income distribution brings home $300,000 to $500,000 less than other households across the state.

County	Median Household Income
Pennington	$44,926
Kittson	$47,568
Red Lake	$47,835
Marshall	$48,565
Roseau	$49,400
Minnesota	$57,243
USA	$51,914
World	$7,000*

***Average income**

Income relative to ZIP code is presented in Figure 5 and shows that the median household income in the NWCAC region is lowest across a large swath of the area spanning from the northwest corner to the southeast, cutting through Kittson, Roseau and Marshall Counties. While the population is this area is generally the most sparse, they may also be considered higher risk given their proportionally lower incomes compared to the rest of the region.

Per Capita Income

Per capita income or income per person is a measure of mean income within an economic aggregate, such as a country, city or county. It is calculated by taking a measure of all sources of income in the aggregate (such as GDP or Gross National Income) and dividing it by the total population. It does not attempt to reflect the distribution of income or wealth. http://en.wikipedia.org/wiki/Per_capita_income
Per capita income has several weaknesses as a measurement of prosperity, including:

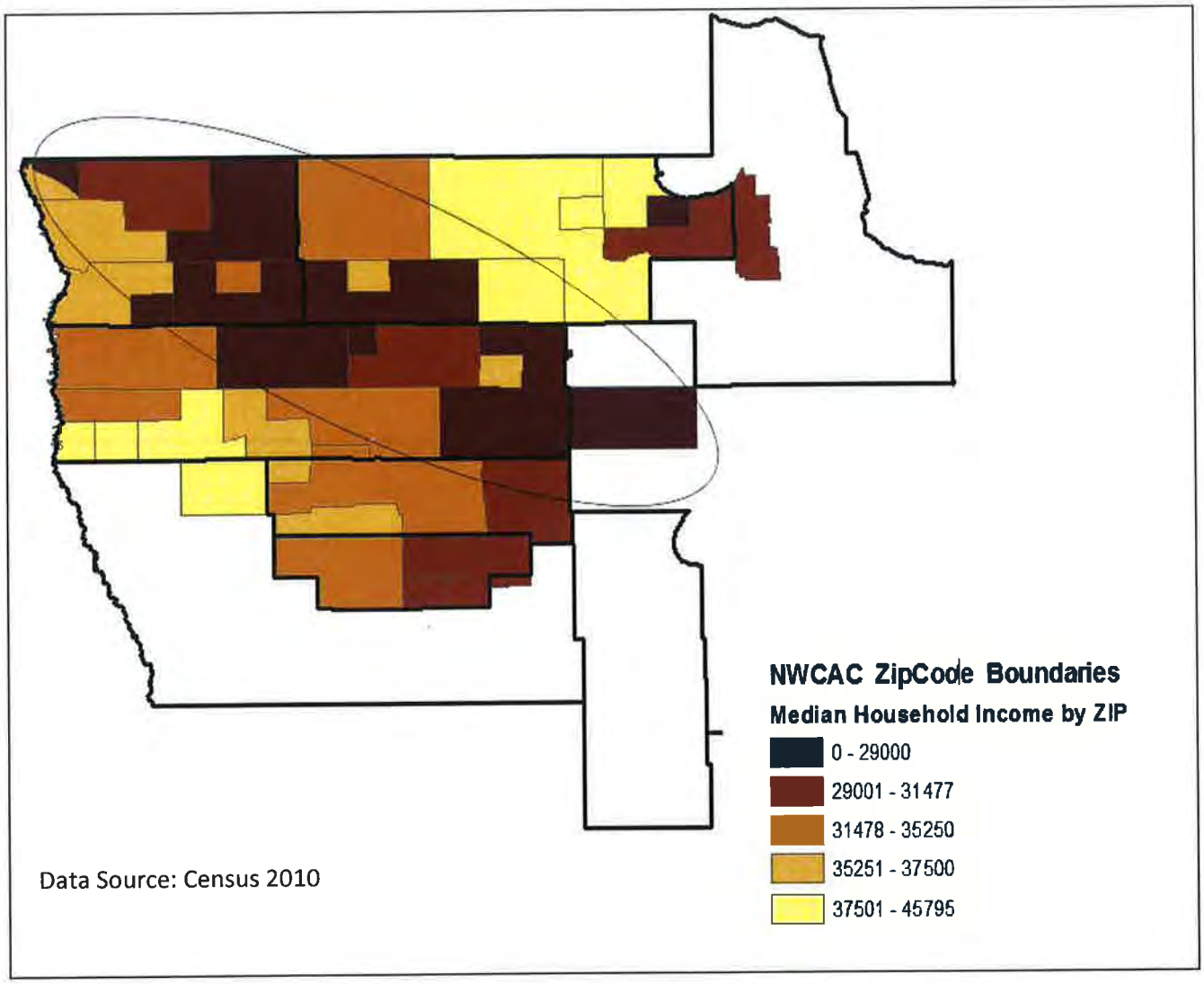
- As it is a mean value, it does not reflect income distribution. If the distribution of income within a country is skewed, a small wealthy class can increase per capita income far above that of the majority of the population. In this respect Median income is a more useful measure of prosperity than per capita income, because it is less influenced by the outliers.

- Economic activity that does not result in monetary income, such as service provided within the family, or for barter, are usually not counted. The importance of these services varies widely among different economies.

Indicator #72

Total per capita income 2004-2008					
	2004	2005	2006	2007	2008
Red Lake	$21,970	$23,698	$24,243	$28,206	$29,707
Pennington	$31,225	$33,671	$33,250	$35,873	$38,607
Roseau	$28,413	$31,495	$32,742	$35,150	$39,434
Marshall	$26,019	$26,894	$28,447	$31,624	$43,631
Kittson	$27,731	$27,766	$28,798	$31,322	$52,127
Statewide	$36,184	$37,290	$38,859	$41,105	$42,953

Figure 5: Median household income for NWCAC region



Current Poverty Guidelines

The current Poverty Guidelines published by the Federal Register are shown in the table below. These figures are not the figures the Census Bureau uses to calculate the number of individuals in poverty. The figures that the Census Bureau uses are the poverty thresholds.

2012 Poverty Guidelines for the 48 Contiguous States and the District of Columbia	
Persons in family/household	**Poverty guideline**
1	$11,170
2	15,130
3	19,090
4	23,050
5	27,010
6	30,970
7	34,930
8	38,890

For families/households with more than 8 persons, add $3,960 for each additional person.
Source: Federal Register, Vol. 77, No. 17, January 26, 2012, p. 4035

A closer examination of poverty across the region used Census 2010 data based on ZIP code to create choropleth maps depicting areas of poverty across the region. It is not surprising to find that areas of poverty mirror closely the same general area of lower median income depicted in Figure 5. ZIP codes with the highest poverty rates in the population over age 18 were Goodridge, Plummer, Karlstad, Donaldson, Lake Bronson, Roosevelt, and Swift.

Census Poverty Thresholds for 2011 by Size of Family and Number of Related Children Under 18 Years

Size of family unit	Related children under 18 years								
	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual).									
Under 65 years.	11,702								
65 years and over	10,788								
Two people.									
Householder < 65 years.	15,063	15,504							
Householder 65 years +.	13,596	15,446							
Three people.	17,595	18,106	18,123						
Four people.	23,201	23,581	22,811	22,891					
Five people.	27,979	28,386	27,517	26,844	26,434				
Six people.	32,181	32,309	31,643	31,005	30,056	29,494			
Seven people	37,029	37,260	36,463	35,907	34,872	33,665	32,340		
Eight people.	41,414	41,779	41,027	40,368	39,433	38,247	37,011	36,697	
Nine people or more.	49,818	50,059	49,393	48,835	47,917	46,654	45,512	45,229	43,487

Source: U.S. Census

The negative consequences of poverty typically has the greatest adverse impact on the elderly and the young. And the NWCAC has a larger than average population of elderly relative to the rest of the state as shown by Indicator #6 below. Compared to the rest of the state the NWCAC region has between 1.1% to 10.1% more of its population aged 65 and older compared to the rest of the state; furthermore it has between 1% to 8.17% more of its elderly population living at home alone. Elderly people living at home are more at-risk for accidents or injuries than those living with others. Living alone may imply greater functional ability, but injuries and outcomes can be worse, especially if the person cannot rise from the ground. Living alone has been shown to be a risk factor for falls, although part of this effect appears to be related to certain types of housing older people may occupy. http://www.euro.who.int/__data/assets/pdf_file/0018/74700/E82552.pdf Figure 6 depicts the geographic distribution of individuals older than age 65 who are living in poverty. Results show that Zip code areas with the greatest percent of population over 65 in poverty included Strathcona, Newfolden, and Plummer as shown in Figure 7. Programs targeting the rural elderly poor should consider conentrating efforts in these areas.

Indicator #6

Number and percent of people aged 65 years and older 2010			
	Population 65+ years		**Percent of households in which the resident is 65 and over and living alone**
	Number	**Percent**	
Roseau	2250	14	10.49
Pennington	2212	16	12.73
Red Lake	701	17	13.35
Marshall	1816	19	13.63
Kittson	1029	23	17.87
Statewide	**683,121**	**12.9**	**9.7**

The dependency ratio is an age-population ratio of those typically not in the labor force (the dependent part) and those typically in the labor force (the productive part). It is used to measure the pressure on the productive population. The elderly dependency ratio in northwest Minnesota is between 2 and 20 points higher than in comparison to the ratio statewide. This means that there is a greater portion of the population within the northwest region dependent upon government resources such as social security and other security net programs compared to the statewide ratio. This population is adversely impacted by cuts to social assistance programs.

Indicator #67

Elderly (65+ years) dependency ratio (per 100 population 15-64) 2005-2009					
	2005	2006	2007	2008	2009
Roseau	18	18	19	19	21
Pennington	23	23	23	23	24
Red Lake	28	27	26	26	29
Marshall	30	30	32	33	30
Kittson	38	38	39	39	39
Statewide	18	18	18	18	19

Figure 6

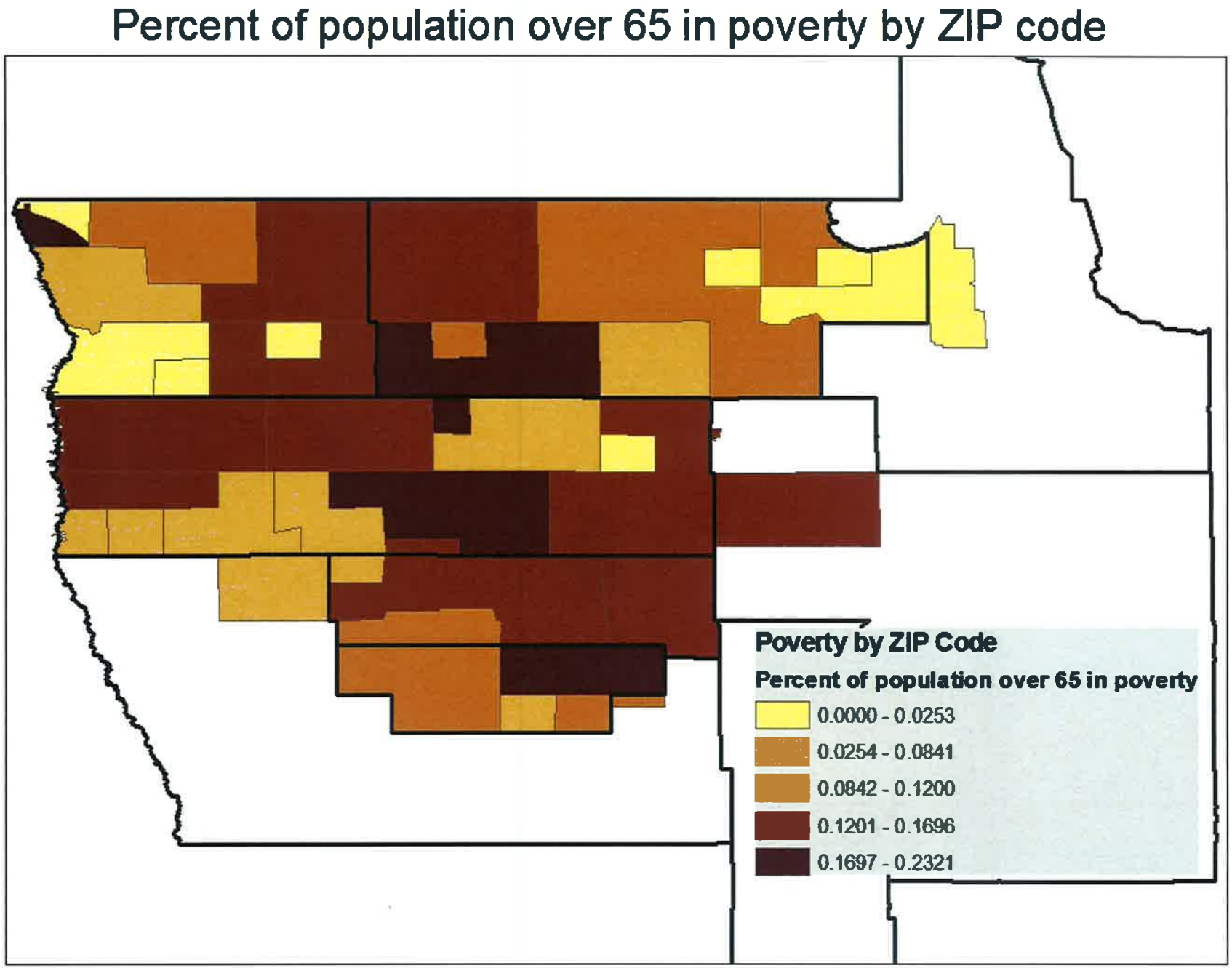
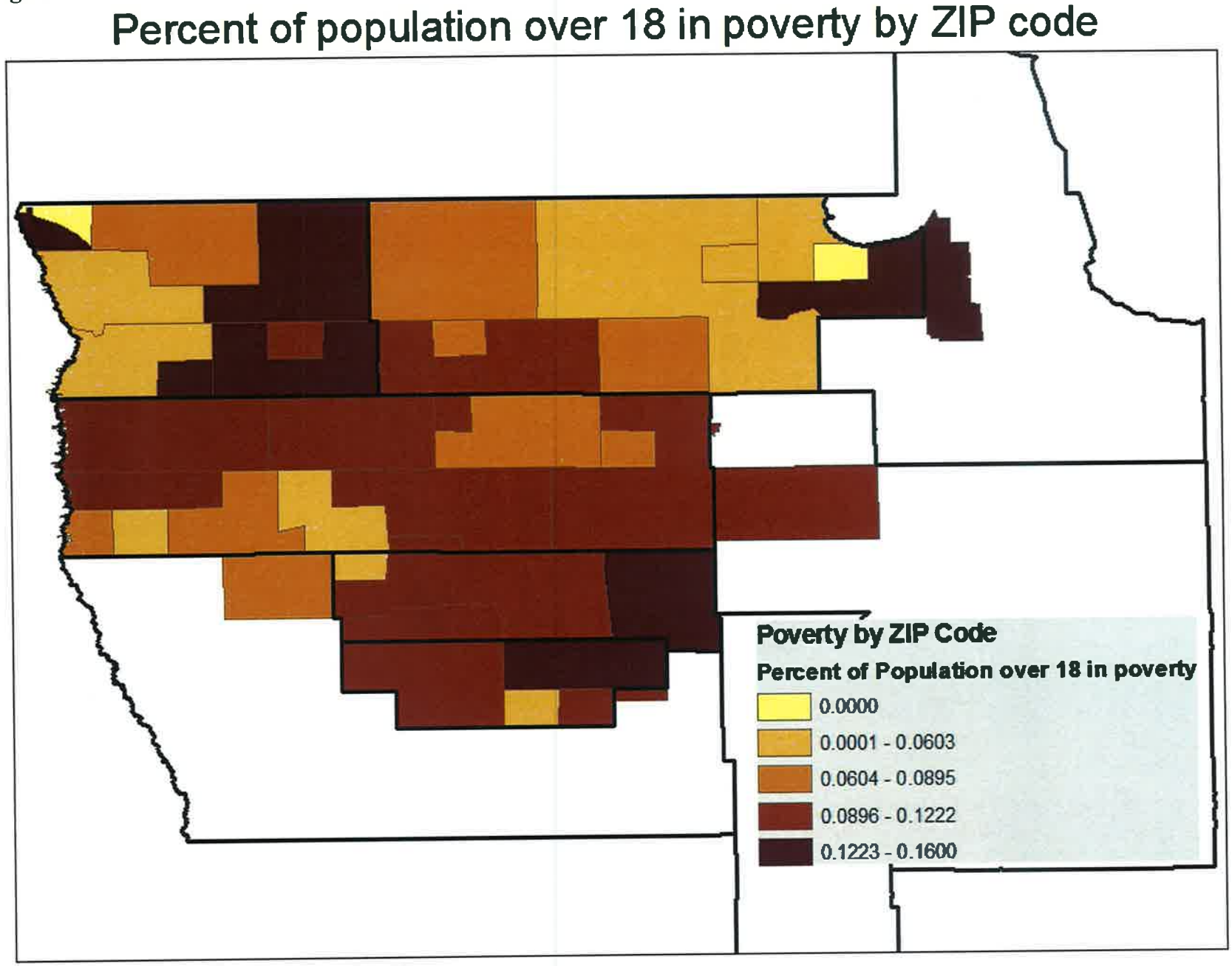

Percent of population over 65 in poverty by ZIP code
Poverty by ZIP Code
Percent of population over 65 in poverty
0.0000 - 0.0253
0.0254 - 0.0841
0.0842 - 0.1200
0.1201 - 0.1696
0.1697 - 0.2321

Figure 7


Percent of population over 18 in poverty by ZIP code
Poverty by ZIP Code
Percent of Population over 18 in poverty
0.0000
0.0001 - 0.0603
0.0604 - 0.0895
0.0896 - 0.1222
0.1223 - 0.1600

Regionally, and from a county level, Red Lake County has the greatest percentage of individuals living at or below 200% of poverty according to the 2011 Minnesota County Health tables

Indicator #9

Percent of people of all ages living at or below 200% of poverty 2005-2009	
	Percent of people of all ages living at or below 200% of poverty
Red Lake	31
Pennington	29
Roseau	29
Marshall	27
Kittson	26
Statewide	**26**

Red Lake and Marshall County have the highest free/reduced priced lunch rate in the NWCAC region, with Roseau being lower than the state average.

Kids Count Indicator C24; Indicator #73

Children Receiving Free/Reduced Price Lunch (Percent) Showing most recent 5 years					
	2007	**2008**	**2009**	**2010**	**2011**
Red Lake	51.9%	50.8%	53.7%	49.9%	49.8%
Marshall	43.1%	44.1%	43.6%	46.2%	45.4%
Kittson	39.7%	38.3%	40.3%	39.7%	38.0%
Pennington	34.8%	34.8%	38.1%	38.7%	38.3%
Roseau	32.6%	31.2%	37.0%	34.1%	34.0%
Statewide	**31.8%**	**32.9%**	**35.6%**	**36.7%**	**37.3%**

- Why is there a 10% lower FRLR in Pennington county compared to Red Lake when they are similar in <200% poverty?
- So why does Marshall county have an elevated FRLR but a high per-capita income and lower median income? I think there are some income skewing ag-related activities going on here. Skewed right.

Kids Count Indicator #25

Children Receiving Supplemental Nutrition Assistance Program (SNAP) (Percent) Showing most recent 5 years; Show All Years					
	2007	**2008**	**2009**	**2010**	**2011**
Roseau	4%	4.4%	7.5%	9.2%	10.8%
Kittson	5%	5.7%	8.6%	9%	10.9%
Marshall	7%	7.3%	9.2%	10.9%	11.6%
Pennington	10%	10.7%	14.9%	16.4%	17.4%
Red Lake	14%	14.2%	18.5%	21.1%	20.4%
Statewide	**10.9%**	**11.3%**	**13.7%**	**15.9%**	**17.6%**

Very few households visited food shelves in Red Lake County even though poverty and income data suggests there is a great need.

Kids Count Indicator #27

Households Who Visited Food Shelves (non-unique) (Number) Showing most recent 5 years; Show All Years					
	2006	**2007**	**2008**	**2009**	**2010**
Kittson	145	131	142	149	185
Red Lake	211	102	271	181	293
Roseau	919	998	1,012	1,457	1,953
Marshall	2,194	0	2,519	2,779	3,067
Pennington	3,338	3,195	3,877	3,902	3,595
Statewide	660,476	673,631	795,076	1,002,392	1,036,856

Food shelves may be one of the best ways to reach this population because clearly there is a good number of people accessing this service.

Are people in Marshall county forgoing SNAP and instead going to the food shelf?

Kids Count Indicator #28

Households with Children Receiving Food Support (Number) Showing most recent 5 years; Show All Years					
	2007	**2008**	**2009**	**2010**	**2011**
Kittson	27	26	33	35	46
Red Lake	57	58	71	85	90
Marshall	70	73	88	109	116
Roseau	81	90	143	167	189
Pennington	172	180	240	274	296
Statewide	62,717	66,363	795,076	1,002,392	1,036,856

Comment from meeting 1

- *People can't or don't come to WIC. They don't have the transportation issues...they can get to WIC.*
  - *Child hunger is a problem*
  -

Kids Count Indicator #29

Mothers and Children Receiving WIC (Special Supplemental Nutrition Program) (Number) Showing most recent 5 years; Show All Years					
	2006	**2007**	**2008**	**2009**	**2010**
Red Lake	212	202	182	181	163
Kittson	323	307	305	281	281
Marshall	488	596	634	603	583
Roseau	923	915	918	894	908
Pennington	1,381	1,395	1,388	1,369	1,317
Statewide	227,376	234,855	228,715	240,041	230,110

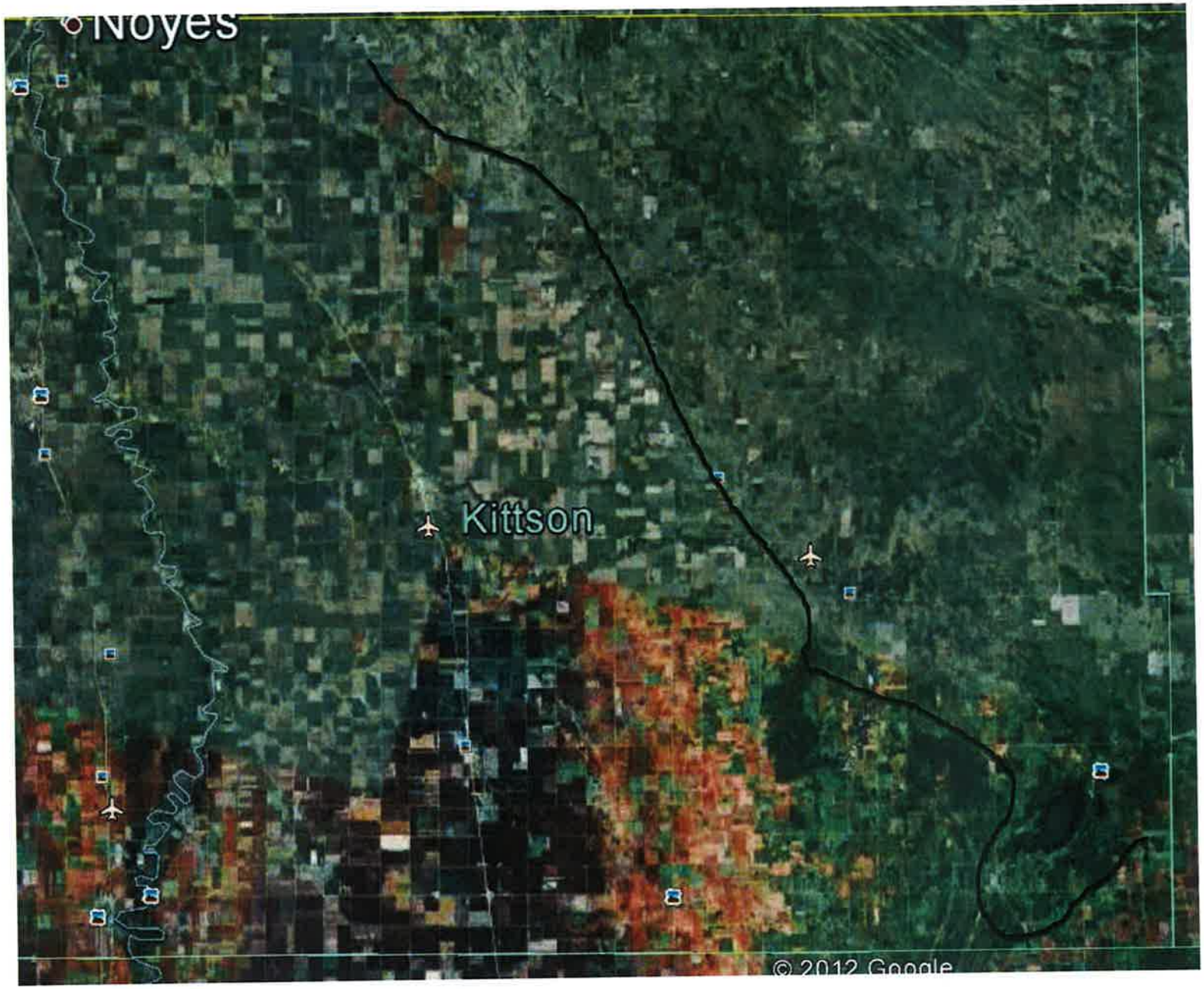
Land Use and its Interaction with Income and other Variables

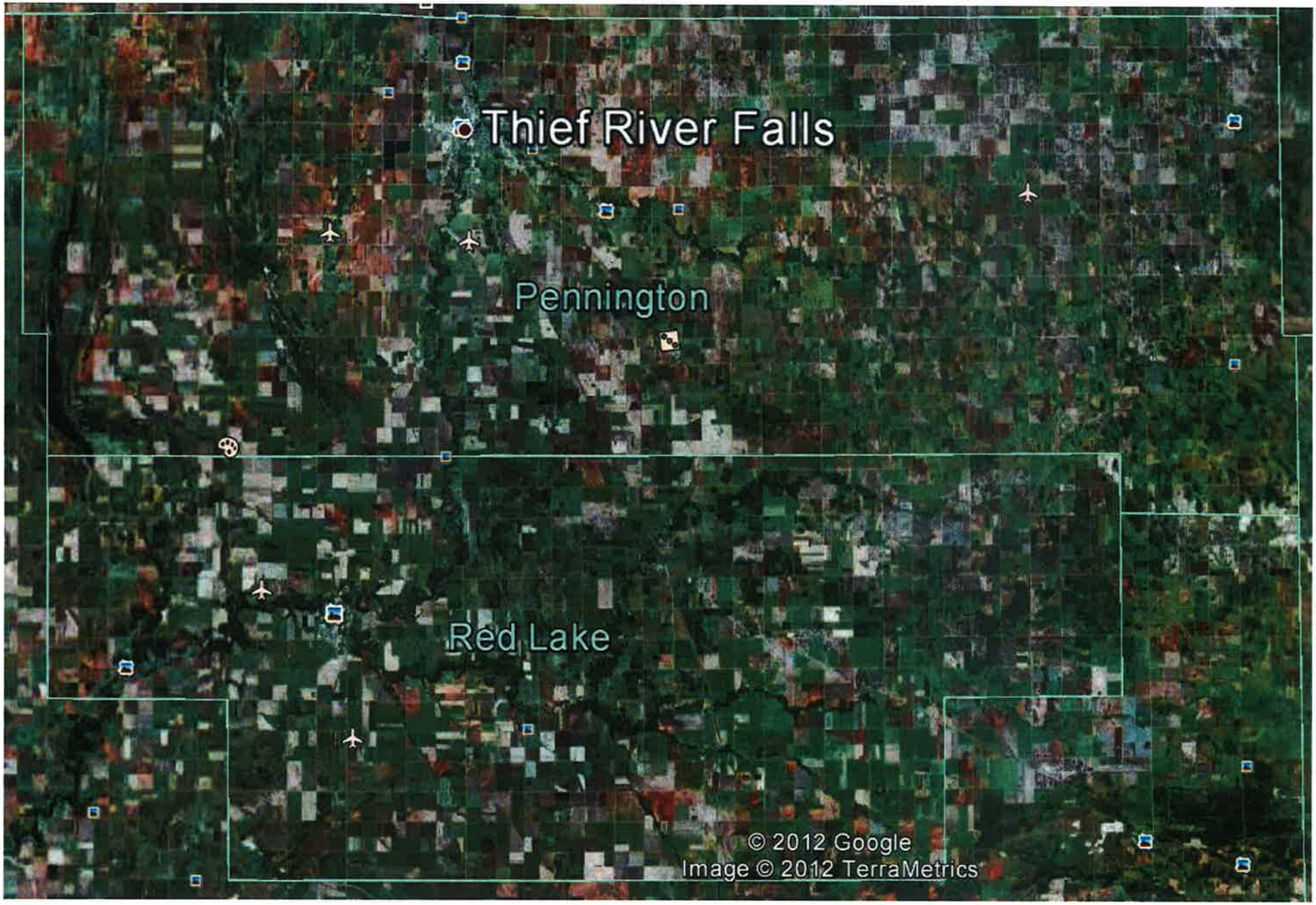
Photo-imagery using Google Earth satellite images have been included in the following pages for use in providing an overview image of how land-use, soil fertility and natural resources play a role in the lives and health of the residents, within the NWCAC region. Marshall, Kittson and Roseau Counties have large areas of bog, sand hills, state forest lands swamps, and fertile farmlands that directly influence those living in those immediate areas. Where soil fertility is lower, farmland tends to give way to ranching or forest lands. On the average these land uses have produced lower income generation per land unit that larger scale agriculture found in the Red River Valley in the Western third of Marshall and Kittson counties.

ROSEAU COUNTY

MARSHALL COUNTY

KITTSON COUNTY




Thief River Falls
Pennington
Red Lake
© 2012 Google
Image © 2012 TerraMetrics

Healthcare Access

There are three different types of Health Professional Shortage Area designations, each with its' own designation requirements:

- Geographic Area
- Population Groups
- Facilities

Geographic Areas must:

- Be a rational area for the delivery of primary medical care services
- Meet one of the following conditions:
    - Have a population to full-time-equivalent primary care physician ratio of at least 3,500:1
    - Have a population to full-time equivalent primary care physician ratio of less than 3,500:1 but greater than 3,000:1 and have unusually high needs for primary care services or insufficient capacity of existing primary care providers
- Demonstrate that primary medical professionals in contiguous areas are overutilized, excessively distant, or inaccessible to the population under consideration.

Population Groups must:

- Reside in an area in that is rational for the delivery of primary medical care services as defined in the Federal code of regulations.
- Have access barriers that prevent the population group from use of the area's primary medical care providers.
- Have a ratio of persons in the population group to number of primary care physicians practicing in the area and serving the population group ratio of at least 3,000:1
- Members of Federally recognized Native American Threebes are automatically designated. Other groups may be designated if the meet the basic criteria described above.

Facilities must:

- Be either Federal and/or State correctional institutions or public and/or non-profit medical facilities
- Be maximum or medium security facilities
- Federal/State Correctional Institutions must have at least 250 inmates and the ratio of the number of internees/year to the number of FTE primary care physicians serving the institution must be at least 1,000:1
- Public and/or non-profit medical Facilities must demonstrate that they provide primary medical care services to an area or population group designated as a primary care HPSA and must have an insufficient capacity to meet the primary care needs of that area or population group.

Primary Medical Care Physicians

- Marshall, Kittson and Roseau counties -geographic HPSA
- Pennington and Red Lake -Low Income HPSA

Dentists

- Marshall County-geographic HPSA
- Pennington, Red Lake and Kittson -Low Income HPSA's
- Roseau County is not a dental HPSA

Mental Health Providers

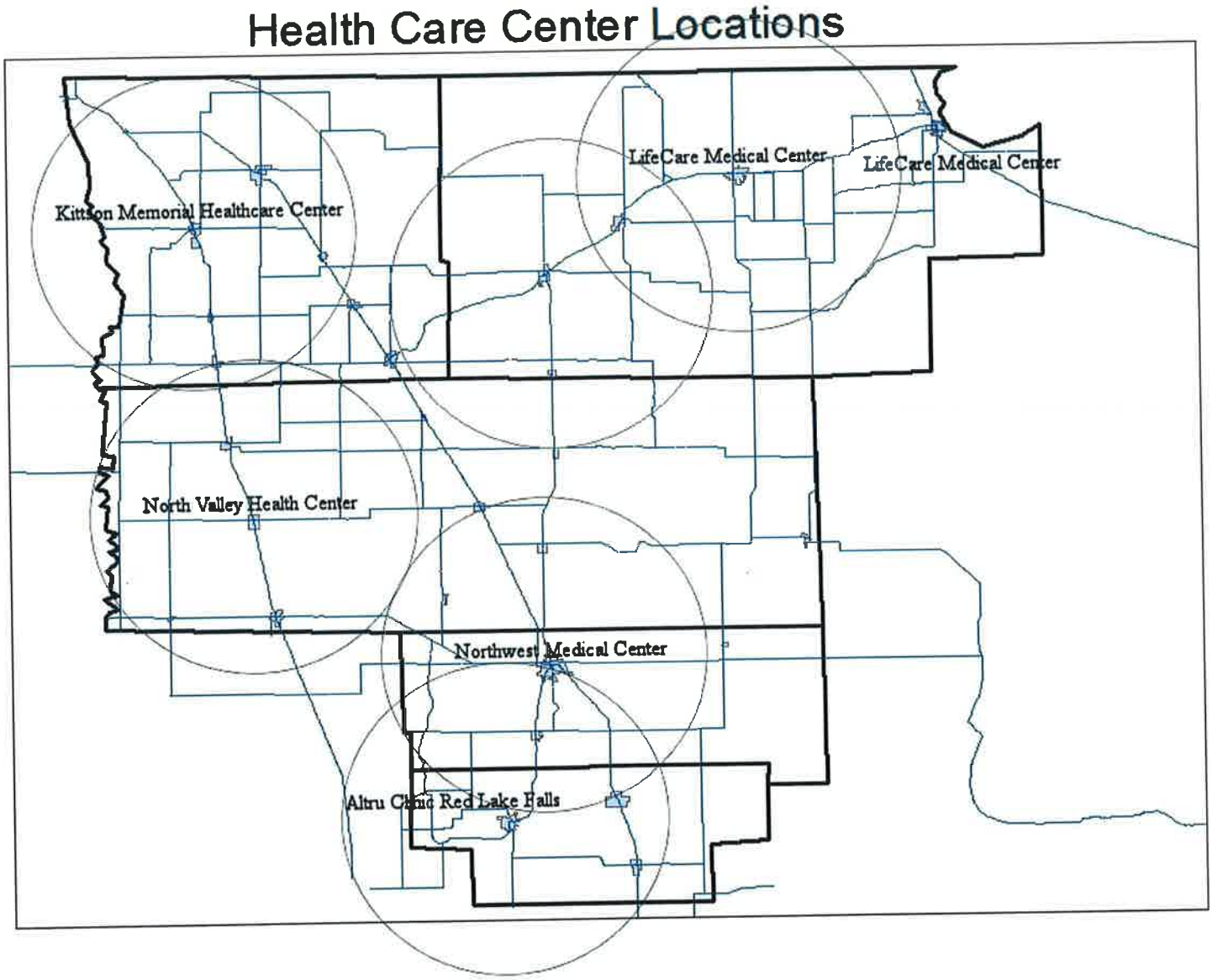
- All 5 counties in the NWCAC region are Mental Health HPSA designated

Indicator #92

Number of dentists per 10,000 population 2011	
	2011
MN	6
USA	6
Pennington	6
Roseau	6
Kittson	3
Marshall	2
Red Lake	1

Health care Center Locations

- Circles depict 1 hour round-trip drive time from centroid to perimeter and back.



Some gaps in emergency medical care may exist north and east of Thief River Falls, and north and east of Hallock.

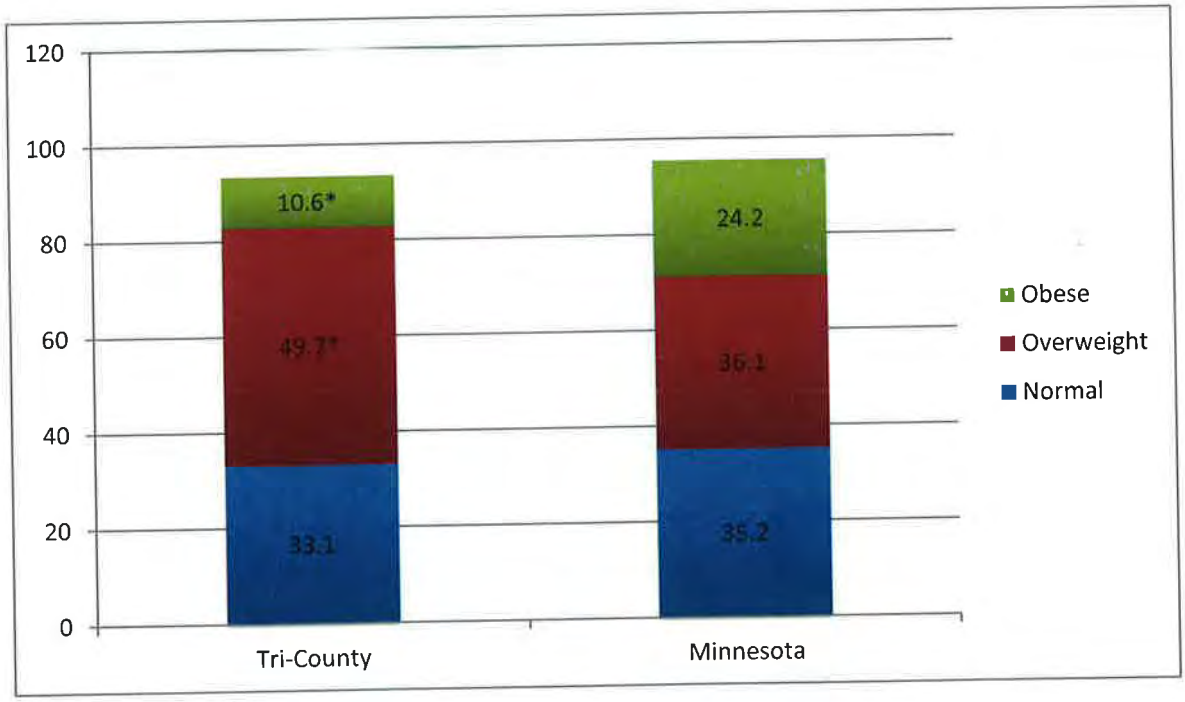
Overweight/Obesity/Physical Activity: Adults

- Adults in the region are less likely to be obese but more likely to be overweight.

	Three County % (95%CI)	Minnesota % (95% CI)
Health Risks and Healthy Behaviors		
2010		
1. Weight Status		
Overweight (25.0<=BMI <30.0)	**49.7 (40.0 – 59.4)***	**36.1 (34.2 -37.9)**
Obese (BMI > 30)	**10.6 (6.1 – 17.8) ***	**24.2 (22.6 – 26.0)**

Comparison of the 95% confidence intervals for the Three-County area with state data showed statistically significant differences in the BMI categories of overweight and obesity. Specifically the obesity rate the Three-County area (10.6%) was significantly lower than the state reported average of 24.2% in 2010. The average rate for overweight in the Three-County area (49.7%) was significantly higher than that for Minnesota (36.1%). Epidemiological research suggests a steady progression from overweight to obesity (Wang et al., 2008). It is likely that within several years a substantial proportion of currently overweight adults in the Three-County area will become obese thus erasing this seemingly difference.

Figure 1. Prevalence rates of overweight and obesity in the Three-County area and Minnesota.



** - significantly different from the corresponding Minnesota rate*

In terms of physical activity, BRFSS data from 2009 indicates that 49.5% (37.8-61.2 CI) of adults in the met physical activity recommendations compared to the state rate of 51.8 (49.9-53.7 CI). Meeting physical activity recommendations are those adults that have reported participating in either moderate physical activity defined as 30 or more minutes per day for 5 or more days per week, or vigorous activity for 20 or more minutes per day on 3 or more days. Regarding insufficient physical activity, 40.5% (29.5-52.6 CI) of adults in the region compared to 38.6% (36.58-40.4) statewide do not engage in enough physical activity. (See Appendix B -BRFSS Analysis for more details).

Overweight/Obesity/Physical Activity: Youth

- MNSS results for area 12th graders indicate that overall, students within the SHIP region are significantly more overweight than other seniors from across the state and furthermore they are significantly more likely to believe they are overweight than other seniors from across the state.

Health Risk Category 2010	MARSHALL (95% CI)	RED LAKE (95% CI)	KITTSON (95% CI)	ROSEAU (95% CI)	SHIP COUNTIES (95% CI)	MN STATE (95% CI)
1. Weight Status[1]						
a. At risk for overweight[2]	**7.9 (3.5 - 16.7)**	**21.2 (10.1 - 39.3)**	**18.4 (8.8 - 34.7)**	**16.1 (11.6 - 22.1)**	**13.0 (10.8 - 15.7)**	**11.9 (11.6 - 12.3)**
b. Overweight[3]	**19.7 (12.1 - 30.5)**	**9.1 (2.8 - 25.8)**	**10.5 (3.8 - 25.8)**	**10.9 (7.2 - 16.2)**	**13.7 (11.4 - 16.5)***	**9.4 (9.1 - 9.8)**
a) Thinks overweight	**21.0 (13.3 - 31.4)**	**28.6 (15.6 - 46.4)**	**22.5 (11.8 - 38.7)**	**25.6 (20.0 - 32.2)**	**27.3 (24.3 - 30.6)***	**23.1 (22.6 - 23.5)**

[1] The CDC growth charts were used to determine weight status according to BMI for participants in the Minnesota Student Survey.
[2] 85th to less than 95th percentile on the CDC growth charts
[3] Equal to or greater than the 95th percentile on the CDC growth charts

- MNSS data in the table below also indicate that a greater percentage of 9th graders from Marshall (22%) and Kittson (22%) Counties are overweight (but not obese) in comparison to the state percentage (13%)
- Great variability exists in the data for Red Lake due to small numbers, making interpretation of data challenging
- All counties (except Pennington) have percentages of obese 9th graders greater than the state average.

Indicator #55 and 56

Percent of 9th graders who are overweight and obese according to BMI 2007-2010

	Number of participants by grade	2007 Overweight	2010 Overweight	2007 Obese	2010 Obese
Red Lake	9th Grade	26	3	10	22
Roseau	9th Grade	16	12	11	11
Marshall	9th Grade	9	22	12	16
Kittson	9th Grade	15	22	9	11
Pennington	9th Grade	17	--	10	--
Statewide	9th Grade	13	13	9	9

See Appendix C: MNSS Data Analysis to find more statistics on the use of cigarettes, exercise, and a healthy diet to control weight.

Physical Activity: Youth

According to MNSS data, 12th graders were similar to statewide averages (at approximately 20-25%) in terms of 'insufficient weekly physical activity'. However in the category of 'no weekly physical activity', statewide averages range from 9.5%-10.5% whereas within the NWCAC region they range between 11 and 15%, with Roseau County differing significantly at 13.6% (9.4-19.1 CI) from the state average in 2010 at 9.4 (9.1-9.7 CI); Red Lake County had the lowest percentage but had a huge range due to small numbers (See Appendix C).

Diabetes-Adults

	2009 Age-Adjusted Estimates of the Percentage of Adults with Diagnosed Diabetes in Minnesota			
	%	Lower 95%CI	Upper 95%CI	SD
State of Minnesota				
Pennington	8.6	6.3	11.4	1.3
Kittson	7.6	5.4	10.1	1.2
Red Lake	7.2	5.3	9.6	1.1
Marshall	6.9	5	9.3	1.1
Roseau	6.7	5	8.9	1

Source: http://apps.nccd.cdc.gov/DDT_STRS2/CountyPrevalenceData.aspx?StateId=27&mode=DBT

Tobacco Use in Adults

The Prevalence rate for current smokers (smoked every day or some days in the past 30 days) in the Three-County Area (21.3%) is notably higher than the corresponding rate for Minnesota (14.9%). Nevertheless, this difference failed to reach statistical significance due to very wide 95% CI's estimated for the Three-County area. Such wide margins indicate statistical uncertainty that the estimated prevalence rates are accurate. This is typically the result of surveying too few participants to reach reliable conclusions even after multiple weight adjustments. BRFSS data is available from 2004 regarding second hand smoke exposure at home and is provided for review in Appendix B.

- Because tobacco use rates are high in the region, smoking during pregnancy was examined. Data show that, the percentage of births to mothers who smoked in Roseau, Red Lake and Pennington counties were twice the state average.

Kids Count Indicator #5

Births to Mothers Who Smoked During Pregnancy (Percent) Showing most recent 5 years; Show All Years					
	2006	**2007**	**2008**	**2009**	**2010**
Kittson	0%	7%	13%	11%	12%
Marshall	0%	13%	13%	15%	15%
Roseau	15%	17%	17%	12%	19%
Red Lake	10%	16%	17%	17%	21%
Pennington	0%	28%	27%	29%	24%
Statewide	9%	10%	10%	10%	10%

- Because low birth weight is often associated with tobacco use, the data is included here. Data on regional low birth weights suggest that while low birth weight does not appear to be a major concern, 1) there is a very small frequency of data (typically less than ten people annually) and 2) regional averages are close to statewide averages if not slightly higher in some counties.

Kids Count Indicator #12

Children Born at Low Birth Weight (percent and raw number) Showing most recent 5 years					
	2006	**2007**	**2008**	**2009**	**2010**
Marshall	6% (5)	6% (7)	3.8% (4)	3.8% (3)	3.2% (3)
Kittson	5% (2)	5% (2)	0% (0)	0% (1)	4.9% (2)
Roseau	4% (8)	4% (8)	5.7% (11)	5.7% (6)	4.4% (9)
Red Lake	3% (1)	7% (4)	5.2% (3)	5.2% (5)	5.9% (3)
Pennington	5% (23)	5% (19)	6.9% (24)	6.9% (15)	3.5% (6)
Statewide	4.9%	5%	4.7%	4.7%	4.8%

Tobacco Use in Youth

With the exception of Roseau County in 2010, cigarette use in youth is at or below state averages. (Roseau County youth cigarette use past 30 days in 2010 was 42.4% (35.7-49.5 CI) and the state average was 21.7% (21.3-22.1 CI).

Of greater concern for the NWCAC region is the frequent use of tobacco products, especially smokeless tobacco. Data indicate that both Kittson and Roseau counties have smokeless tobacco use rates more than double the state average. Red Lake and Marshall Counties also appear to have elevated use but it does not rise to the level of statistical significance.

2010 MNSS	MARSHALL (95% CI)	RED LAKE (95% CI)	KITTSON (95% CI)	ROSEAU (95% CI)	SHIP COUNTIES (95% CI)	MN STATE (95% CI)
a. frequent use of tobacco products (20+ days) in the past 30 days	17.3 (10.4 - 27.3)*	20.6 (9.8 - 38.3)*	9.8 (3.6 - 24.1)	32.8 (26.6-39.7)*	20.6 (17.9-23.7)*	13.0 (12.7-13.4)
6. Used smokeless tobacco in past 30 days	17.3 (10.4-27.3)	14.7 (6.0-31.9)	29.3 (17.0-45.5)*	26.3 (20.6-32.9)*	21.4 (18.6-24.5)*	12.1 (11.8-12.5)

*=significant at p<.05

To learn more about where youth are purchasing tobacco products and the use of other forms of tobacco products, see Appendix C

Alcohol Use in Adults

- BRFSS data suggest that adults for whom data were available in the three-county region binge drank at approximately the same rate as adults from the rest of the state. Similar findings held true for heavy alcohol use.

Health Risks and Healthy Behaviors 2010	Three-County Region % (95%CI)	Minnesota % (95% CI)
2. Excessive Alcohol Consumption		
Binge Drinking (males 5+, women 4+ drinks on a single occasion)	9.2 (5.1 - 15.9)	16.7 (15.2 - 18.4)
Heavy Alcohol Use (males 3+ drinks per day, women 2+ drinks per day)	3.7 (1.4 - 9.5)	4.6 (3.8 - 5.6)

Additional data on adult alcohol use will be included here…

Alcohol Use in Youth

- MNSS data from 9th graders reveals that 9th graders in the region used alcohol during the past 30 days similarly to other 9th graders across the state (approximately 16-24%)
- MNSS data also reveal that between 26% and 41% of 9th graders used alcohol one or more times during the last 12 months.

Indicator #37

Percent of 9th graders who used alcohol one or more times in the 30 days 1998-2010						
	Number of participants by grade	1998	2001	2004	2007	2010
Statewide	9th Grade	37	30	28	24	19
Kittson	9th Grade	51	14	29	9	16
Marshall	9th Grade	36	40	27	24	19
Roseau	9th Grade	39	27	32	27	22
Red Lake	9th Grade	47	34	27	21	24
Pennington	9th Grade	--	--	--	25	--

Indicator #36

Percent of 9th graders who used alcohol one or more times in the last 12 months 1998-2010						
	Number of participants by grade	1998	2001	2004	2007	2010
Statewide	9th Grade	55	48	43	38	32
Roseau	9th Grade	57	48	50	43	41
Marshall	9th Grade	52	55	46	28	30
Red Lake	9th Grade	60	59	43	42	27
Kittson	9th Grade	62	29	51	26	26
Pennington	9th Grade	--	--	--	34	--

Fresh Fruit/Vegetable Consumption

One especially encouraging result from the MNSS student survey was the increase in consumption of five or more servings of fruits and vegetables per day across the eight county SHIP region from 12.0% of students to 13.5%. While the increase was not statistically significant, some evidence for progress with this program does exist. However, students in the region still consume significantly (statistically) less fruits and vegetables than those from across the rest of the state (13.5% compared to 17.3% respectively). This is a trend that has persisted since before 2007.

Percent of youth consuming five or more servings of fruits and vegetables per day

	Year	
County	**2007** *% and 95% CI*	**2010** *% and 95% CI*
RED LAKE COUNTY	14.6 (6.5-29.7)	8.8 (2.7 - 25.2)
MARSHALL COUNTY	13.3 (7.4-22.6)	12.3 (6.7 - 21.7)
ROSEAU COUNTY	14.6 (10.5-19.9)	13.1 (9.0 - 18.6)
KITTSON COUNTY	12.1 (5.7 - 23.7)	20.0 (10.0 - 36.0)
SHIP COUNTIES	12.0 (10.1-14.3)	13.5 (11.2 - 16.1)*
MN STATE	16.1 (15.7 – 16.4)†	17.3 (16.9 - 17.7)

*SHIP County aggregate data for 2010 differs significantly from state data for 2010

Cancer

- Over a 14 year period from 1994-2008, 2,040 individuals were afflicted with some form of cancer within the NWCAC region. Individuals were affected most by breast cancer (574) followed by lunch/bronchus cancer (407) and bladder cancer (183). The numbers of diagnoses by types of cancers can be located below.

Number of individuals afflicted by specific cancer types 1994-2008			
Cancer Type	**N**	**Cancer Type**	**N**
Breast Cancer (female only)	574	Melanoma	62
Lung and Bronchus Cancer	407	Brain and other nervous system cancer	52
Bladder Cancer	183	Esophageal cancer	46
Non-Hodgkin Lymphoma	157	Pancreatic Cancer	41
Leukemia	119	Thyroid Cancer1994-008	41
Oral and Pharyngeal Cancer	127	Acute Myeloid leukemia	30
Kidney Cancer	108	Liver Cancer	24
Chronic lymphocytic leukemia	67	Mesothelioma	2

Breast Cancer
An examination of breast cancer incidence across the region reveals that Kittson County has rates (208 people per 100,0000) that are significantly higher than the state (126 per 100k). Other breast cancer rates for additional years and counties were somewhat elevated but did not rise to the level of a statistically significant difference.

BRFSS Data suggest that 85.8% of area female residents over age 40 have had a mammogram in the past two years compared to 77.6% of females statewide.

Health Risks and Healthy Behaviors 2010	Three-County Region % (95%CI)	Minnesota % (95% CI)
4. Preventive Cancer Screenings		
Women 40+ who have had a mammogram in the past 2 years (breast cancer)	**85.8 (74.2 - 92.7)**	**77.6 (75.8 - 79.2)**
Respondents 50+ who have had a sigmoidoscopy or colonoscopy (colorectal cancer)	**73.6 (62.4 - 82.5)**	**70.8 (69.0 -72.5)**

Non Hodgkin Lymphoma
Data suggest that there could be elevated levels, however due to the very small numbers, it is difficult to make reliable estimates of the incidence rate.

Oral and Pharyngeal Cancer
Given the elevated rates of cigarette and chewing tobacco use, it is no surprise to find significant elevations in rates of this cancer. Marshall County had rates 25 (13.8-41.5 CI) higher than the state rate of 11 (10.8-11.6 CI) $p<.05$; as well as Pennington County 21 (12.2-34.3 CI) $p<.05$

Esophageal cancer
While rates of this cancer were elevated, due to small numbers, the data are considered highly unreliable. Only 46 individual cases were reported over 1994-2008. What minimal data exist suggest that Marshall (10.3) (4.2-22.8 CI) and Red Lake Counties (10.3) (2.1-32.8 CI) could potentially have the highest incidence rates in comparison to the state (5) (4.9-5.5 CI)

Pancreatic Cancer
Data suggest that there could be elevated levels, however due to the very small numbers, it is difficult to make reliable estimates of the incidence rate. See Appendix A for more detail.

Lung and Bronchus Cancer
Between the years of 1999 and 2008, Kittson county experienced the highest incidence rate per 100k in the NWCAC region at 62-64 people per 100k. While this elevation was not a statistically significant difference, it was a consistent elevation with a wide range of variability. Preliminary evidence provides support for the hypothesis that residents of Kittson County may be experiencing rates of Lung and Bronchus cancer higher than the general population.

Cancer Age Adjusted Death Rates
- Overall, cancer age adjusted death rates reveal that 1) there are no data available for Kittson and Marshall counties, 2) Red Lake County appears to have higher overall cancer death rates than the rest of the state and 3) other counties within the region have a cancer death rate lower than the overall state rate.

Cancer Age Adjusted Death Rates					
	2005	2006	2007	2008	2009
State	168	171	170	172	169
Red Lake	152	164	142	190	192
Roseau	*	*	148	173	156
Pennington	197	174	164	165	112
Kittson	*	*	*	*	*
Marshall	*	*	*	*	*

Source: MN Dept of Vital Statistics

Heart Disease

While there were elevated rates in each of the counties depicted below for COPD Hospitalizations, none of them achieved the level of statistical significance at the 95% Confidence Interval level. Other counties not displayed in this table are available in the complete spreadsheet data file that accompanies this report.

COPD Hospitalizations							
Admit Year	County	Sex	Count	Rate (per 10000)	95% Confidence Interval	Age-Adjusted Rate (per 10000)	95% Confidence Interval
2000-2002	Minnesota	All	16803	32.7	(32.2 - 33.2)	33.5	(33.0 - 34.0)
2003-2005	Minnesota	All	17586	32	(31.2 - 32.1)	34	(33.0 - 34.0)
2006-2008	Minnesota	All	18628	31	(30.7 - 31.6)	33	(32.9 - 33.9)
2000-2002	Pennington	All	75	47	(36.9 - 58.8)	43	(33.4 - 53.7)*
2006-2008	Pennington	All	72	42	(32.6 - 52.4)	39	(30.2 - 49.2)
2003-2005	Roseau	All	67	37	(29.0 - 47.6)	39	(29.6 - 49.2)
2006-2008	Red Lake	All	25	43	(27.8 - 63.4)	37	(23.4 - 54.4)
2003-2005	Pennington	All	66	40	(30.7 - 50.5)	37	(28.0 - 46.6)
2000-2002	Red Lake	All	24	43	(27.7 - 64.4)	36	(23.2 - 54.4)
			533				

- BRFSS data available for adults in the region also showed no significant differences between the regional adult population and adults statewide.

Health Risks and Healthy Behaviors 2010	Three-County Region % (95%CI)	Minnesota % (95% CI)
7. Cardiovascular pathologies		
Ever had heart attack	**3.9 (1.7 - 8.6)**	**3.4 (3.0 - 3.9)**
Diagnosed with Angina or Coronary heart Disease	**5.3 (2.5 - 10.9)**	**3.6 (3.1 - 4.1)**
Ever had stroke	**1.9 (0.6 -5.7)**	**1.9 (1.5 - 2.3)**

- According to Minnesota Vital Statistics, age adjusted death rates for heart disease reveals that historically, Kittson County has had a substantially higher rate of heart disease death rates than the state on average.
- With the exception of Marshall County, Age Adjusted Death Rates for Heart Disease in the region were higher than state averages between 2006-2010.

Heart Disease, Age Adjusted Death Rate

	1991-1995	1996-2000	2001-2005	2006-2010
Marshall	249.4	223.8	169.0	124.6
Pennington	221.3	208.4	200.2	143.6
Red Lake	232.1	258.7	180.4	162.7
Roseau	234.8	265.0	203.2	174.6
Kittson	343.6	293.7	224.7	189.7
State	234.2	196.4	154.1	126.6

Green shaded cells indicate county number is higher than state average for that year
*=No data available
Source: http://www.health.state.mn.us/divs/chs/Trends/index.html

Seatbelt Use

Seatbelt use in rural areas has been historically low, and results from the MNSS for 9th graders are no exception. While 66% of 9th graders from across Minnesota report always wearing a seatbelt, only 28% (Kittson) to 52% (Roseau) of 9th graders in the region report seatbelt use. Motor vehicle death and injury is preventable with adequate seatbelt use and enforcement. Lack of seatbelt use coupled with inexperienced drivers on the numbers miles of unimproved (gravel) roads is a recipe for disaster.

Indicator #46

Percent of 9th graders who report always wearing a seatbelt when riding in a car (1998-2010)						
		1998	2001	2004	2007	2010
Statewide	9th Grade	37	41	50	58	66
Roseau	9th Grade	11	20	36	31	52
Red Lake	9th Grade	18	16	25	40	38
Marshall	9th Grade	17	13	17	35	35
Kittson	9th Grade	25	14	35	33	28
Pennington	9th Grade	--	--	--	40	--

- Adult safety equipment use rates by region data show that adults in the northwest portion of Minnesota use safety equipment the least compared to all regions across the state.

SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED OR INJURED, BY REGION OF THE STATE, 2011

EMS Region	Percent Used	Percent Not Used	Percent Unknown	# of People
Metropolitan	83.8	5.1	11.1	15,100
Central	84.6	8.0	7.3	3,717
Northeast	82.6	8.5	8.9	1,552
Northwest	70.8	17.2	12.0	692
South Central	82.8	7.7	9.6	1,201
Southeast	84.4	8.2	7.4	2,354
Southwest	76.2	15.7	8.1	1,440
West Central	78.5	14.4	7.1	1,106
Statewide	82.9	7.3	9.7	27,162

Minnesota Motor Vehicle Crash Facts, 2011 page 58 Department of Public Safety, Office of Traffic Safety
https://dps.mn.gov/divisions/ots/educational-materials/Documents/CRASH-FACTS-2011.pdf

Bullying

- Data suggests that 9th graders in the region experience teasing or harassment at approximately the same levels as other 9th graders from across the state. There are some fluctuations between 2007 and 2010 but nothing that rises to the level of substantive.

Indicator #50

Percent of 9th graders who report that a student(s) have made fun of or teased them in the last 30 days (1998-2010)			
		2007	2010
Statewide	9th Grade	40	38
Roseau	9th Grade	47	35
Kittson	9th Grade	41	43
Red Lake	9th Grade	23	49
Marshall	9th Grade	36	50
Pennington	9th Grade	35	--

Childhood Out of Home Placements (OOHP)

The table below reveals that Kittson and Pennington Counties have a higher rate of out-of-home placements than the statewide average. Results for these two counties suggest that there may be a lack of resources, programs, or higher incidence of familial discord, resulting in higher rates of removing children from their homes. 108 children in the region in 2010 were in OOHP (Pennington=35; Roseau=30; Marshall=20; Kittson=15; Red Lake=8)

Kids Count Indicator #18

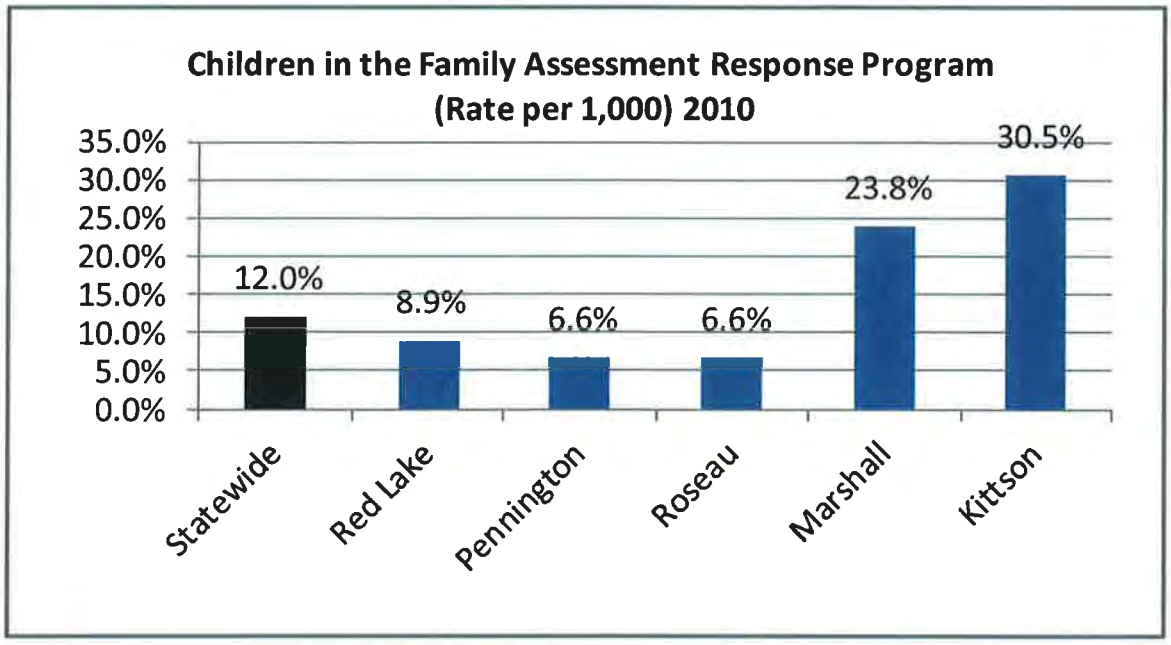
Children in Out-of-Home Placements (Rate) Showing most recent 5 years; Show All Years					
	2006	2007	2008	2009	2010
Roseau	9	8	7.6	6.2	7.3
Red Lake	15	15.5	20.1	8.5	7.9
Marshall	10	10.1	7.7	6.6	9
Pennington	22	21.6	17.6	15.4	10.6
Kittson	12	10.6	9.1	9.5	15.2
Statewide	11.7	11.5	11	9.3	8.7

Family Assessment Response (FAR)

When families lack some of life's basic necessities, such as adequate housing, food, transportation, health care and access to safe and affordable child care, they may not be able to safely care for their children. Through the FAR program, county and tribal social workers examine child safety and maltreatment risks, as well as identify family strengths and needs Some families are in need of services such as counseling to address relationship concerns or child behavior issues, treatment for drug or alcohol problems, or parenting education about topics such as child development and positive discipline. Families under stress and with limited supports are at a

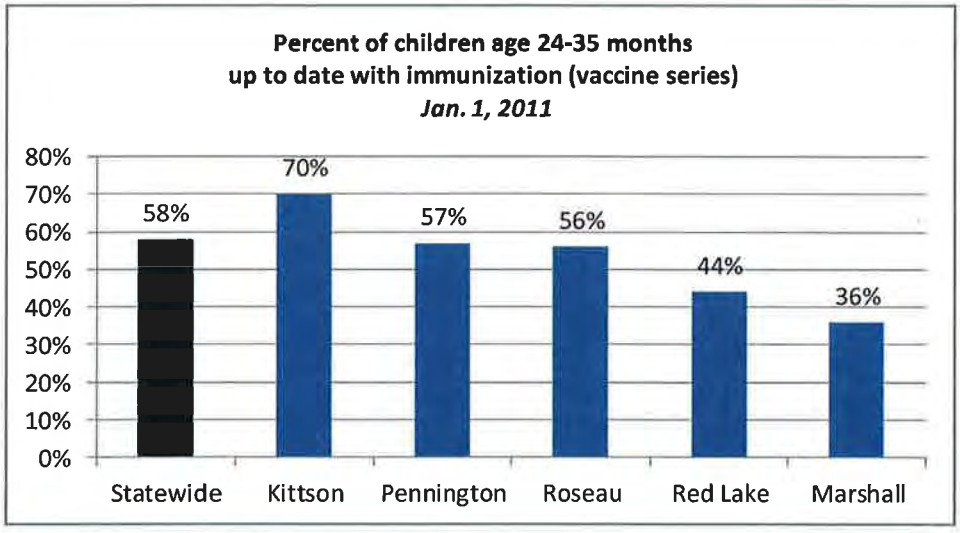
higher risk of child abuse and neglect. FAR social workers connect families with the community resources they need. This holistic approach enables social workers to better support families and refer them to community resources to respond to unmet needs in order to minimize stress and reduce the risk of abuse or neglect to children.

Kids Count Indicator #22



Childhood Vaccinations

Indicator #16



Source: 2011 Minnesota County Health Tables.
http://www.health.state.mn.us/divs/chs/countytables/profiles2011/index.html

Regional Strengths

- Housing occupied by owners across the region exists at far greater percentages than in comparison to individuals around the state.
  - The presents a regional benefit as home-ownership represents both financial strength and a commitment to the area.
  - It may also indicate or suggest a need for more rental unit housing opportunities for those unable to afford a home.

Indicator #10

Percent of housing occupied by owner 2005-2009	
Kittson	87
Red Lake	87
Marshall	87
Roseau	86
Pennington	82
Statewide	**78**

- The child maltreatment rate appears to be higher than state averages for both Marshall and Kittson Counties, whereas it is substantially lower for Roseau and Pennington Counties. Further investigation is warranted.

Indicator #23

Rate of children maltreatment per 1,000 children aged 0-17 (2010)									
	Child	**Total**		**Family Assessment**		**Investigation - Alleged**		**Investigation - Determined**	
	Pop.	**Unique**	**Rate per**	**Unique**	**Rate per**	**Unique**	**Rate per**	**Unique**	**Rate per**
	Age 0-17	**Child**	**1,000**	**Child**	**1,000**	**Child**	**1,000**	**Child**	**1,000**
Minnesota	**1,284,063**	**22,537**	**17.6**	**15,410**	**12.0**	**7,801**	**6.1**	**4,491**	**3.5**
Roseau	4,104	19	4.6	7	1.7	13	3.2	8	1.9
Pennington	3,311	29	8.8	22	6.6	7	2.1	5	1.5
Marshall	2,226	72	32.3	53	23.8	23	10.3	10	4.5
Red Lake	1,007	15	14.9	9	8.9	6	6.0	3	3.0
Kittson	984	30	30.5	30	30.5	0	0.0	0	0.0

- Four year high school graduation rates for the region are higher in all counties than in comparison to the rest of the state

Four year high school graduation rate (Source:MN Kids Count)	
Statewide	77
Pennington	81
Marshall	87
Kittson	92
Roseau	92
Red Lake	93

- Child support collection rates over the past five years have been consistently and substantially higher than those rates of collection statewide. Statewide in 2010 it was 70% and in the NWCAC region it averaged 82.2%.

Kids Count Indicator #6

Child Support Collection (Percent) Showing most recent 5 years; Show All Years					
	2006	2007	2008	2009	2010
Marshall	78%	76%	81%	78%	84%
Kittson	75%	75%	76%	79%	87%
Roseau	73%	72%	73%	72%	82%
Red Lake	79%	76%	77%	79%	85%
Pennington	69%	68%	70%	69%	73%
Statewide	66%	66%	68%	67%	70%

- The percentage of school aged children changing schools was lower in the region than in comparison to the rest of the state every year over the past five years. This means that kids and families are more likely to stay in their schools once they start than compared to youth from across the state.

Kids Count Indicator #16

Children Changing Schools (Percent) Showing most recent 5 years; Show All Years					
	2006	2007	2008	2009	2010
Roseau	11%	9%	9.3%	7.1%	7.7%
Kittson	5.2%	3.5%	4.4%	6.7%	9.0%
Red Lake	10.8%	7.7%	8.1%	9.8%	11.2%
Marshall	10.4%	11.7%	10.8%	10.9%	11.6%
Pennington	10.7%	8.6%	10.9%	10.6%	11.8%
Statewide	14.6%	14.6%	14.5%	13.2%	13.3%

Qualitative Data

NWCAC Meetings

Focus Group

On June 5th, 2012the NWCAC met in Newfolden, MN with 12 people attending. Participants were asked to think broadly about the different recurring needs and concerns of clients and the general population served by them and their organizations. Overall, responses were grouped into the following issue areas below.

- Group thinks that recurring public health needs are the cumulative effects of low socio economics. Little money, lack of knowledge, dental problems, and behavioral issues create a big circular problem that the families cannot get control of.
  - Lots of working poor
  - Financial problems are extreme in our region
  - Money management skills are so low.

- Demise of the family structure –parenting- how does public health address this?
  - Not all parents are interested in fixing a problem if it is pointed out
  - Lots of single head of household.

- Drug problems in school- especially. prescription drugs

- Pull major chronic disease indicators. Especially the big chronic diseases we can do something about.
  - Cardio vascular and diabetes – are these higher in our area than in the rest of the state.

- Hospital ER's see the mental health needs in terms of 72 hour holds, but it's really tough to get people to access the services.
  - Bchavioral health services-people are hanging out in the ER –they need to get to a behavioral health unit but no one wants to transport them. Law enforcement doesn't want them, ambulances don't want them because they won't get paid.
  - Mental health HPSA-we don't have providers. It's a big problem
  - Average psychiatric enrollment days have dropped from 9 to 5 because of the increase in the number of 72 hour holds by law enforcement

- Personal Care Asssistant (PCA) training needs
  - There is a desperate need for training for behavioral health aides. The need training for more effective health interventions. In-home/home based services (PCA's)
  - Expanding behavior health services
  - Some concerns that parents/individuals may be 'gaming' the PCA system.

- Chemical dependency

- People who have diabetes and care about it address the problem. Those who have diabetes and don't care end up costing the system

- Don't look at health insurance rates in Roseau county because there is a high rate of factory workers who are covered by insurance.

- ❖ Transportation is an intermittent problem.

The group was also asked "*Where might there be problems but no data to back it up? In other words, what "hunches" do you have? Have you heard hunches from others?"* Responses to this question included the following:

- There seems to be a LOT of people with Multiple Sclerosis who live in the area. We are aware that as you get farther away from the equator it gets worse, but seems particularly bad around here.
- Rates of Autism also seem to be really high. Is it just that we're diagnosing it more?
- In jail/incarcerated at men who are 20 years old or are 50-60. There are no middle aged men in jail. Why?
- Look at the different cancer rates-Breast cancer esp. Marvin's has recently required more screenings, so it made the cancer numbers look worse because they were catching it more often. Look at survival rates
- Pain management and medication seekers-Casey- thinks there are people trying to circumnavigate the systems to get pain med drugs.
- Testicular cancer/prostate cancer in a very concentrated small area by Strandquist.
- Elderly-depression and falls.

NWCAC Meeting Survey

At the conclusion of the meeting, participants were provided with a lengthy list of public health concerns and then asked to choose what they believed to be 10 of the greatest concerns for the NWCAC region on the list. The top ten issues with the number of votes it received were as follows:

# of votes	Top 10 issues
10	Obesity/overweight
6	Depression
5	Lack of Physical Activity
5	Cardiovascular
5	Diabetes
4	Smoking
4	Low access to Dentists
4	Cancer
3	Chewing tobacco
3	Alcohol/binge drinking

The group was then asked to vote for the top three issues of greatest concern from the list of 10. The top three issues in order of importance were identified as: 1) Obesity/Overweight, 2) Lack of physical activity, 3) two items tied for third: Depression and Cardiovascular.

Statewide Health Improvement Program Interview Notes Analysis

A review analysis of interviews conducted by SHIP staff in the fall of 2010 was conducted by EG staff because many of the interviews had gone unanalyzed due to a lack of time. It was hoped that a review of these interviews would help shed additional and useful information as a part of this study.

Summary

What do we know

- ✓ Region is medically underserved
- ✓ Low population education
- ✓ Lower incomes compared to state

Areas of concern

- ➢ Overweight/obesity
- ➢ High tobacco use in adults and youth
- ➢ Low seatbelt use
- ➢ Low fruit and vegetable intake
  - o OOHP for some counties
- ➢ Heart disease death rate
- ➢ Alcohol use in adults and youth (still working on)
- ➢

What we know we don't know

- ✓ Suicide deaths completely unknown. We have data, but totally unreliable.
- ✓ Multiple Sclerosis virtually unknowable –no system in place for tracking, plus onset is a problem.

What we don't know we don't know

?

Questions yet unanswered

How do we track depression?
How do we get at diabetes #'s?

Recommendations

1. Need to absolutely have a regional data repository
    a. NWRDC
    b. Council of Collaboratives
    c. NWMN Foundation
    d. Public Health
    e. University collaborators (UND, U of M)
    f. EvaluationGroup,LLC
    g. Involves not only data acquisition but also interpretation

2. ***Recommendation***. Out of the five counties of interest behavioral risk data was only available for three. Even the available data was based on an insufficient number of participants to permit accurate and reliable estimation of prevalence rate necessary for health policy guidance in local communities. It is thus advisable to administer surveys similar to the Behavioral Risk Factor Surveillance System questionnaires on the local / regional levels that will allow health officials to conduct better assessments of community needs, which would help shape and implement health policy measures to improve health status of local Minnesotans.
3. *Consider finding alternative ways to gather important data.*
    a. *CAN WE DO AN OBSERVATIONAL STUDY AT THE FAIR REGARDING OBESITY RATE OBSERVATIONS?*

References

Wang, Beydoun, Liang, Caballero and Kumanyika (2008). Will all Americans become overweight or obese? estimating the progression and cost of the US obesity epidemic. *Obesity, 16 (10),* 2323-30.

Appendix A : Cancer Tables

Cancer Incidence: Breast Cancer (female only) 1994-2008				
Year	County	Number of new cancers	Incidence rate (per 100000)	95% Confidence Interval
1994-1998 combined	Minnesota	16049	133	(130.9 - 135.1)
1999-2003 combined	Minnesota	17794	136	(134.3 - 138.4)
2004-2008 combined	Minnesota	17913	126	(124.5 - 128.3)
2004-2008 combined	Kittson	35	208	(141.0 - 299.8)*
1999-2003 combined	Marshall	48	143	(104.5 - 193.6)
1999-2003 combined	Pennington	58	139	(104.6 - 181.6)
1994-1998 combined	Pennington	63	166	(126.5 - 214.3)
1994-1998 combined	Marshall	51	147	(107.8 - 197.1)

*Significant at p<.05

Cancer Incidence: Non-Hodgkin Lymphoma 1994-2008				
Year	County	Number of new cancers	Incidence rate (per 100000)	95% Confidence Interval
1994-1998 combined	Minnesota	4664	21	(20.0 - 21.2)
1999-2003 combined	Minnesota	5188	21	(20.7 - 21.9)
2004-2008 combined	Minnesota	5786	22	(21.4 - 22.5)
2004-2008 combined	Red Lake	7	27.7 (UR)	(10.1 - 60.8)
2004-2008 combined	Kittson	6	23.6 (UR)	(6.9 - 57.6)
1999-2003 combined	Red Lake	8	26.1 (UR)	(11.2 - 54.4)
1994-1998 combined	Marshall	18	26	(15.1 - 42.0)
1994-1998 combined	Kittson	8	23.2 (UR)	(9.2 - 49.0)

UR=Unreliable

Cancer Incidence: Pancreatic Cancer 1994-2008					
Year	County	Sex	Number of new cancers	Incidence rate (per 100000)	95% Confidence Interval
1994-1998 combined	Minnesota	All	1003	8	(7.7 - 8.5)
1999-2003 combined	Minnesota	All	1003	9	(8.7 - 9.4)
2004-2008 combined	Minnesota	All	1003	10	(9.8 - 10.5)
1999-2003 combined	Pennington	All	12	16	(8.3 - 28.2)
1994-1998 combined	Kittson	All	5	14 (UR)	(4.4 - 35.2)
2004-2008 combined	Roseau	All	12	12	(6.3 - 21.9)
1999-2003 combined	Marshall	All	7	11.2 (UR)	(4.5 - 24.0)
			41		

Cancer Incidence: Oral and Pharyngeal Cancer 1994-2008					
Year	County	Sex	Number of new cancers	Incidence rate (per 100000)	95% Confidence Interval
1994-1998 combined	Minnesota	All	1003	11	(10.9 - 11.8)
1999-2003 combined	Minnesota	All	1003	11	(10.3 - 11.1)
2004-2008 combined	Minnesota	All	1003	11	(10.8 - 11.6)
2004-2008 combined	Marshall	All	16	25	(13.8 - 41.5)*
2004-2008 combined	Pennington	All	17	21	(12.2 - 34.3)*
2004-2008 combined	Red Lake	All	7	22.9 (UR)	(9.0 - 50.7)
1999-2003 combined	Roseau	All	15	18	(9.7 - 29.2)
1994-1998 combined	Pennington	All	11	16	(7.9 - 28.9)
1994-1998 combined	Red Lake	All	5	14.9 (UR)	(4.8 - 38.3)
1999-2003 combined	Pennington	All	11	14	(6.9 - 25.3)
1994-1998 combined	Roseau	All	10	14	(6.5 - 25.0)
1994-1998 combined	Kittson	All	4	12.7 (UR)	(3.3 - 34.4)
2004-2008 combined	Roseau	All	9	11.7 (UR)	(5.2 - 22.3)
1994-1998 combined	Marshall	All	8	11.2 (UR)	(4.7 - 23.3)

UR=Unreliable

Cancer Incidence: Esophageal cancer 1994-2008					
Year	County	Sex	Number of new cancers	Incidence rate (per 100000)	95% Confidence Interval
1994-1998 combined	Minnesota	All	928	4	(3.9 - 4.4)
1999-2003 combined	Minnesota	All	1003	5	(4.5 - 5.1)
2004-2008 combined	Minnesota	All	1003	5	(4.9 - 5.5)
2004-2008 combined	Marshall	All	7	10.3 (UR)	(4.2 - 22.8)
1994-1998 combined	Red Lake	All	3	10.3 (UR)	(2.1 - 32.8)
1999-2003 combined	Marshall	All	6	8.3 (UR)	(3.0 - 19.6)
1999-2003 combined	Pennington	All	5	6.8 (UR)	(2.2 - 16.0)
2004-2008 combined	Pennington	All	6	5.9 (UR)	(2.1 - 13.9)
			46		

UR=Unreliable

Cancer Incidence: Lung and Bronchus Cancer 1994-2008							
Year	County	Sex	Age Group	Number of new cancers	Total Population (person-years**)	Incidence rate (per 100000)	95% Confidence Interval
1994-1998 combined	Minnesota	All	All Ages	12345	23560164	56	(54.6 - 56.6)
1999-2003 combined	Minnesota	All	All Ages	13861	24855572	58	(57.2 - 59.2)
2004-2008 combined	Minnesota	All	All Ages	14811	25756023	57	(56.2 - 58.1)
2004-2008 combined	Kittson	All	All Ages	23	23037	64	(40.5 - 100.8)
1999-2003 combined	Kittson	All	All Ages	23	25654	62	(38.7 - 96.4)

Appendix B: BRFSS Analysis

Health Risks and Healthy Behaviors	Three-County Region % (95%CI)	Minnesota % (95% CI)
2010		
1. Weight Status		
Overweight (25.0<=BMI <30.0)	49.7 (40.0 - 59.4)*	36.1 (34.2 -37.9)
Obese (BMI > 30)	10.6 (6.1 - 17.8) *	24.2 (22.6 - 26.0)
2. Excessive Alcohol Consumption		
Binge Drinking (males 5+, women 4+ drinks on a single occasion)	9.2 (5.1 - 15.9)	16.7 (15.2 - 18.4)
Heavy Alcohol Use (males 3+ drinks per day, women 2+ drinks per day)	3.7 (1.4 - 9.5)	4.6 (3.8 - 5.6)
3. Current Smokers (smoked every day or some days in the past 30 days)	21.3 (14.3 - 30.5)	14.9 (13.6 - 16.3)
4. Preventive Cancer Screenings		
Women 40+ who have had a mammogram in the past 2 years (breast cancer)	85.8 (74.2 - 92.7)	77.6 (75.8 - 79.2)
Respondents 50+ who have had a sigmoidoscopy or colonoscopy (colorectal cancer)	73.6 (62.4 - 82.5)	70.8 (69.0 -72.5)
6. Diagnosed with non-gestational Diabetes (Prevalence)	6.7 (3.3 - 13.0)	6.7 (5.9 - 7.5)
7. Cardiovascular pathologies		
Ever had heart attack	3.9 (1.7 - 8.6)	3.4 (3.0 - 3.9)
Diagnosed with Angina or Coronary heart Disease	5.3 (2.5 - 10.9)	3.6 (3.1 - 4.1)
Ever had stroke	1.9 (0.6 -5.7)	1.9 (1.5 - 2.3)
2009		
8. Consumed 5+ servings of fruits and vegetables per day	17.4 (9.7 - 29.1)	21.8 (20.3 - 23.3)
9. Physical Activity		

Meet physical activity recommendations[i]	49.5 (37.8 – 61.2)	51.8 (49.9 – 53.7)
Insufficient physical activity	40.5 (29.5 – 52.6)	38.6 (36.8 – 40.4)
No physical Activity	9.0 (5.0 – 15.8)	7.8 (7.0 – 8.8)
2004		
10. Second Hand Smoke Exposure at home		
Smoking is allowed at some places or at some times	7.5 (2.6 – 19.9)	11.6 (10.5- 12.8)
Smoking is allowed anywhere inside the home	–	2.4 (1.9 – 2.9)
There are no rules about smoking inside the home	13.1 (6.4 – 25.2)	12.3 (11.1 – 13.5)

** - significantly different from Minnesota State data*

Appendix C: Minnesota Student Survey Comparisons: 2007-2010

	MARSHALL COUNTY % (95% CI)		RED LAKE COUNTY % (95% CI)		KITTSON COUNTY % (95% CI)	
Health Risk Category	**2007**	**2010**	**2007**	**2010**	**2007**	**2010**
1. Weight Status[1]						
a. At risk for overweight[2]	7.4 (3.3-15.8)	**7.9 (3.5 - 16.7)**	22.5 (11.8-38.6)	**21.2 (10.1 - 39.3)**	10.9 (4.9 - 22.7)	**18.4 (8.8 - 34.7)**
b. Overweight[3]	13.6 (7.6-23.1)	**19.7 (12.1 - 30.5)**	27.5 (15.5-43.9)	**9.1 (2.8 - 25.8)**	12.7 (6.1 - 24.8)	**10.5 (3.8 - 25.8)**
a) Thinks overweight	23.2 (15.2-33.7)	**21.0 (13.3 - 31.4)**	41.5 (27.0-57.5)	**28.6 (15.6 - 46.4)**	40.4 (28.2 - 53.9)	**22.5 (11.8 - 38.7)**
b) Used cigarettes in the past 12 months to lose /control weight	4.8 (1.8-12.4)	**1.2 (0.2 - 8.6)**	9.5 (3.5-23.6)	**11.4 (4.1 - 27.8)**	20.7 (11.9 - 33.4)	**2.4 (0.3 - 16.6)**
c) used exercise in past 12 months to lose / control weight	34.9 (25.3-45.0)	**39.5 (29.3 - 50.7)**	57.1 (41.3-71.6)	**60.0 (42.4 - 75.3)**	48.3 (35.4 - 61.3)	**43.9 (29.1 - 59.8)**
d) use healthy diet to lose / control weight	39.8 (29.6-50.8)	**39.5 (29.3 - 50.7)**	57.1 (41.3-71.6)	**42.9 (27.1 - 60.3)**	53.4 (40.3 - 66.1)	**46.3 (31.3 - 62.1)**
2. Meet guidelines for weekly PA[4]	62.7 (51.0-73.0)	**60.5 (49.3 - 70.7)***	73.0 (55.9-85.2)	**80.0 (62.6 - 90.5)**	56.1 (42.7 - 68.1)	**78.0 (62.2 - 88.5)**
a. insufficient weekly PA	24.0 (15.5-35.2)	**28.4 (19.5 - 39.4)**	18.9 (9.0-35.5)	**14.3 (5.8 - 31.1)**	29.8 (19.1 - 43.3)	**17.1 (8.1 - 32.5)**
b. No weekly PA	13.3 (7.2-23.3)	**11.1 (5.8 - 20.2)**	8.1 (2.5-23.2)	**5.7 (1.3 - 21.4)**	14.0 (7.0 - 26.1)	**4.9 (1.1 - 18.4)**
3. Five or more servings of fruits and vegetables per day	13.3 (7.4-22.6)	**12.3 (6.7 - 21.7)**	14.6 (6.5-29.7)	**8.8 (2.7 - 25.2)**	12.1 (5.7 - 23.7)	**20.0 (10.0 - 36.0)**
4. Use of tobacco products in the past 30 days	43.4 (34.6-54.4)	**29.6 (20.6 - 40.7)**	38.1 (24.3-54.1)	**35.3 (20.7 -53.3)**	49.1 (36.1 - 62.2)	**46.3 (31.3 - 62.1)***
a. frequent use of tobacco products (20+ days) in the past 30 days	25.3 (17.0-36.0)	**17.3 (10.4 - 27.3)***	26.2 (15.2-42.1)	**20.6 (9.8 - 38.3)***	19.3 (10.8 - 32.0)	**9.8 (3.6 - 24.1)**
5. Cigarette use in the past 30 days	34.9 (26.1-46.0)	**16.3 (9.6 - 26.3)**	23.8 (13.0-39.6)	**23.5 (11.8 - 41.5)**	38.6 (26.6 - 52.1)	**26.8 (15.1 - 43.0)**
a. Frequent cigarette use (20+ days) in the past 30 days	13.3 (7.4-22.6)	**6.3 (2.6 - 14.4)**	14.3 (6.3-29.1)	**14.7 (6.0 - 31.9)**	15.8 (8.3 - 28.1)	**4.9 (1.1 - 18.4)**
b. 10 + cigarettes per day in the past 30 days[5]	29.6 (15.3-49.5)	**23.1 (7.4 - 52.9)**	37.5 (11.9-72.7)	**37.5 (11.7 - 73.0)**	30.0 (13.8 - 53.5)	**20.0 (4.7 - 55.8)**
c. Had a cigarette before age 13	18.1 (11.1-28.1)	**14.8 (8.5 - 24.5)**	16.7 (7.9-31.8)	**11.8 (4.3 - 28.5)**	12.3 (5.8 - 24.0)	**12.2 (5.0 - 26.9)**
6. Used smokeless tobacco in past 30 days	20.5 (13.0-30.7)	**17.3 (10.4 - 27.3)**	26.2 (14.8-42.1)	**14.7 (6.0 - 31.9)**	29.8 (19.1 - 43.3)	**29.3 (17.0 - 45.5)***
7. Smoked cigars, cigarillos or little cigars in past 30 days	21.7 (14.0-32.1)	**11.1 (5.8 - 20.2)**	11.9 (4.9-26.4)	**5.9 (1.4 - 21.9)**	17.5 (9.5 - 30.1)	**9.8 (3.6 - 24.1)**
8. Used smokeless tobacco or had a cigar before age 13	9.6 (4.8-18.3)	**7.4 (3.3 - 15.8)**	11.9 (5.4-26.4)	**5.9 (1.4 - 21.9)**	3.5 (0.8 - 13.5)	**7.3 (2.3 -21.2)**
9. Tobacco Access						
a. bought at gas stations or convenience store	69.4 (52.4-82.4)	**75.0 (53.9 - 88.5)**	56.3 (31.5-78.3)	**66.7 (36.1 - 87.6)**	67.9 (48.2 - 82.7)	**52.6 (30.3 - 74.0)**
b. got it from friends	33.3 (19.8-50.4)	**37.5 (20.5 - 58.3)**	43.8 (21.7-68.5)	**58.3 (29.5 - 82.4)**	42.9 (25.7 - 61.9)	**47.4 (26.0 - 69.7)**
c. got it by having someone else buy it	19.4 (9.4-35.9)	**4.2 (0.6 - 25.2)**	18.8 (5.9-46.1)	**8.3 (1.0 - 43.9)**	28.6 (14.7 - 48.2)	**10.5 (2.5 - 35.2)**

[1] The CDC growth charts were used to determine weight status according to BMI for participants in the Minnesota Student Survey.
[2] 85th to less than 95th percentile on the CDC growth charts
[3] Equal to or greater than the 95th percentile on the CDC growth charts
[4] 12th graders who have reported participating in either vigorous physical activity for 20 or more minutes per day on 3 or more days in the past 7 days or moderate physical activity for 30 or more minutes per day on 5 or more days in the past 7 days.
[5] % of those who reported smoking cigarettes in the past 30 days
* - value in the left column for 2010 is significantly different from a corresponding value in the right column for 2010 (e.g. county -SHIP - STATE)
† - value for 2007 is significantly different from the corresponding value for 2010 within county, SHIP or MN State

	ROSEAU COUNTY % (95% CI)		SHIP COUNTIES % (95% CI)		MN STATE % (95% CI)	
Health Risk Category	**2007**	**2010**	**2007**	**2010**	**2007**	**2010**
1. Weight Status[1]						
a. At risk for overweight[2]	14.0 (9.9-19.3)	**16.1 (11.6 - 22.1)**	**12.7 (10.7-15.1)**	**13.0 (10.8 - 15.7)**	**12.4 (12.0-12.8)**	**11.9 (11.6 –12.3)**
b. Overweight[3]	8.8 (5.7 – 13.5)	**10.9 (7.2 - 16.2)**	**11.9 (9.9-14.3)**	**13.7 (11.4 - 16.5)***	**9.2 (8.9-9.5)**	**9.4 (9.1 - 9.8)**
a) Thinks overweight	29.1 (23.5-35.4)	**25.6 (20.0 - 32.2)**	**28.7 (25.8-31.7)**	**27.3 (24.3 - 30.6)***	**25.2 (24.7-25.6)†**	**23.1 (22.6 - 23.5)**
b) Used cigarettes in the past 12 months to lose /control weight	9.1 (6.0-13.6)	**6.5 (3.8 - 11.0)**	**7.6 (6.0-9.5)**	**6.6 (5.0 -8.6)**	**6.6 (6.3-6.8)†**	**5.5 (5.3 - 5.7)**
c) used exercise in past 12 months to lose / control weight	50.4 (44.0-56.9)	**39.2 (32.6 - 46.2)**	**49.1 (45.8-52.3)**	**44.5 (41.0 - 48.0)**	**47.9 (47.4-48.4)**	**47.2 (46.7 - 47.8)**
d) use healthy diet to lose / control weight	40.4 (34.2-47.0)	**36.2 (29.8 - 43.1)**	**45.8 (42.5-49.0)**	**40.7 (37.2 - 44.2)**	**43.0 (42.5-43.5)†**	**41.9 (41.4-42.4)**
2. Meet guidelines for weekly PA[4]	70.4 (63.7-76.3)	**66.8 (59.9 - 73.1)**	**67.4 (64.1-70.5)**	**64.4 (60.9 - 67.7)**	**68.7 (68.2-69.2)**	**64.7 (64.2 - 65.2)**
a. insufficient weekly PA	14.6 (10.3-20.1)	**19.6 (14.6 - 25.8)**	**19.3 (16.7-22.1)**	**24.5 (21.6 - 27.7)**	**20.8 (20.4-21.2)†**	**25.9 (25.4 - 26.4)**
b. No weekly PA	15.0 (10.9-20.7)	**13.6 (9.4 - 19.1)***	**13.3 (11.2-15.8)**	**11.1 (9.0 -13.5)**	**10.5 (10.1-10.8)†**	**9.4 (9.1 - 9.7)**
3. Five or more servings of fruits and vegetables per day	14.6 (10.5-19.9)	**13.1 (9.0 - 18.6)**	**12.0 (10.1-14.3)**	**13.5 (11.2 - 16.1)***	**16.1 (15.7 – 16.4)†**	**17.3 (16.9 - 17.7)**
4. Use of tobacco products in the past 30 days	43.8 (37.4-50.5)	**42.4 (35.7 - 49.5)***	**37.8 (34.7-41.1)**	**40.6 (37.2 - 44.2)***	**34.0 (33.5-34.5)†**	**31.3 (30.8 - 31.8)**
a. frequent use of tobacco products (20+ days) in the past 30 days	26.9 (21.4-33.3)	**32.8 (26.6 - 39.7)***	**20.8 (18.3-23.6)**	**20.6 (17.9 - 23.7)***	**14.8 (14.4-15.1)†**	**13.0 (12.7 - 13.4)**
5. Cigarette use in the past 30 days	32.1 (26.2-38.6)	**28.8 (22.9 - 35.5)***	**29.2 (26.3-32.3)**	**28.3 (25.2 - 31.7)***	**25.6 (25.1-26.0)†**	**21.7 (21.3 - 22.1)**
a. Frequent cigarette use (20+ days) in the past 30 days	15.6 (11.3-21.1)	**17.7 (12.9 - 23.7)***	**13.6 (11.5-16.1)**	**12.8 (10.6 - 15.4)***	**11.5 (11.2-11.9)†**	**9.3 (9.0 - 9.6)**
b. 10 + cigarettes per day in the past 30 days[5]	30.3 (20.4-42.5)	**32.7 (21.6 - 46.2)**	**27.9 (22.5-34.0)**	**25.5 (20.0 - 31.9)**	**25.6 (24.6-26.5)†**	**23.1 (22.1 - 24.1)**
c. Had a cigarette before age 13	15.1 (10.9-20.5)	**20.7 (15.6 - 27.0)***	**16.9 (14.5-19.5)**	**16.3 (13.8 - 19.1)***	**13.9 (13.6-14.3)†**	**10.3 (10.0 - 10.6)**
6. Used smokeless tobacco in past 30 days	20.5 (15.7-26.5)	**26.3 (20.6 - 32.9)***	**16.0 (13.7-18.6)†**	**21.4 (18.6 - 24.5)***	**10.4 (10.1-10.7)†**	**12.1 (11.8 - 12.5)**
7. Smoked cigars, cigarillos or little cigars in past 30 days	19.2 (14.5-25.0)	**10.1 (6.6 - 15.2)**	**15.7 (13.4-18.2)**	**13.6 (11.3 - 16.2)***	**17.9 (17.5-18.3)**	**17.6 (17.2 - 18.0)**
8. Used smokeless tobacco or had a cigar before age 13	7.8 (4.9-12.2)	**11.1 (7.4 - 16.4)**	**7.2 (5.7-9.1)**	**7.0 (5.4 - 9.1)***	**5.0 (4.8-5.2)†**	**4.4 (4.2 - 4.6)**
9. Tobacco Access						
a. bought at gas stations or convenience store	71.1 (61.3-79.3)	**75.0 (64.6 - 83.2)***	69.1 (64.0-73.9)	**71.1 (65.8 - 75.8)***	63.1 (62.3-64.0)	**62.0 (61.6 - 63.5)**
b. got it from friends	42.3 (32.8-52.4)	41.7 (31.6 - 52.5)	41.8 (36.7-47.2)	41.5 (36.1 - 47.1)	45.6 (44.7-46.5)†	42.6 (41.7 - 43.6%)
c. got it by having someone else buy it	16.5 (10.3-25.3)	25.0 (16.8 - 35.4)	16.9 (13.3-21.3)	13.5 (10.1 - 17.8)	14.6 (14.0-15.3)†	13.2 (12.6 - 13.8)

[1] The CDC growth charts were used to determine weight status according to BMI for participants in the Minnesota Student Survey.
[2] 85th to less than 95th percentile on the CDC growth charts
[3] Equal to or greater than the 95th percentile on the CDC growth charts
[4] 12th graders who have reported participating in either vigorous physical activity for 20 or more minutes per day on 3 or more days in the past 7 days or moderate physical activity for 30 or more minutes per day on 5 or more days in the past 7 days.
[5] % of those who reported smoking cigarettes in the past 30 days
* - value in the left column for 2010 is significantly different from a corresponding value in the right column for 2010 (e.g. county -SHIP - STATE)
† - value for 2007 is significantly different from the corresponding value for 2010 within county, SHIP or MN State

APPENDIX D: BRFSS METHODOLOGY

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. The BRFSS questionnaire is designed by a working group of state coordinators and CDC staff and is administered annually through a random-digit-dialed telephone survey of the U.S. adult (18 and over) non-institutionalized population. The survey includes core questions that are asked by all participating states in a given year, optional modules that a state may use in their survey and state-specific questions. Furthermore core modules consist of fixed-core questions and a rotating core.

While fixed core BRFSS items include questions about *cigarette smoking, leisure time exercise* in the past 30 days as well as height and weight information that allows calculation of indices of obesity such as *body mass index (BMI),* some rotating core modules are only used biannually and include specific questions about weekly levels of *moderate and vigorous physical activity,* as well as *daily consumption of fruits and vegetables.*

Optional BRFSS modules relevant to the present project include questions regarding smokeless tobacco use and smoking policy. Since 2001 the smokeless tobacco module has been expanded to include other tobacco products such as cigar and pipe use. Although in the publicly accessible CDC databases for the past 12 years this module was offered several times including the 2008 BRFSS questionnaire, the state of Minnesota did not use it in any of the years of its availability. However, the 2004 BRFSS administration in Minnesota did include another optional module on secondhand smoke policy.

Methodology used on BRFSS in this Report

This report provides the most recent available state and county data on important behavioral risks including physical activity levels, consumption of fruits and vegetables, excessive alcohol consumption, tobacco use, exposure to second hand smoke, preventive cancer screenings, overweight and obesity levels. The report also provides prevalence rates for debilitating chronic conditions and life threatening events such as heart disease, diabetes and stroke.

All state and county data have been extracted from the Behavioral Risk Factor Surveillance Survey (BRFSS) database. Specifically, indices of tobacco use, excessive alcohol consumption, overweight and obesity, chronic conditions and cancer screenings were obtained from the 2010 BRFSS database. Optional modules on physical activity and fruit and vegetable consumption were used in the Minnesota survey in 2009. Thus these statistics were derived from the 2009 BRFSS database. Finally data on secondhand smoke policy refers to the 2004 BRFSS administration when this optional module was last used in Minnesota.

Furthermore out of 5 counties of interest (Kittson, Marshall, Pennington, Roseau and Red Lake) BRFSS data was only available for the first three. No data was available for either Red Lake or Roseau Counties. While the number of individuals surveyed in the remaining counties in the most representative year of 2010 were still fairly low (65 participants in Kittson County, 27 participants in Marshall county and 58 individuals in Pennington county), prevalence estimates for specific risks and conditions in these counties were further adjusted using combined weights derived by the Centers for Disease Control (CDC) during national BRFSS administration.

Specifically the final weights used in statistical estimation on the state and county levels take into consideration the Stratum weight (number of records in a stratum divided by the number of records selected), Raw weighting factor (number of adults in the household divided by the imputed number of phones), and the Post-stratification

weight (Population estimate for race/gender/age categories divided by the weighted sample frequency by race/gender/age). Adjustment by the final weight is thus thought to render more accurate estimates of population statistics which are presented in this report with 95% confidence (a range of values that is 95% likely to contain the true population value).

Appendix E: RUCA Code definitions

RUCA Code Definitions

1. Urban core Census tract primary flow within Census Bureau defined Urbanized Area (metro>= 50,000)]
    - 1.1 secondary flow (30-50%) to larger urbanized area
    - 1.0 otherwise
2. Census tract strongly tied to urban core primary flow to Census Bureau defined Urbanized Area (>30%)]
    - 2.1 secondary flow (30-50%) to larger urbanized area)
    - 2.2 combined flows to urbanized areas of >30% and greater than primary flow
    - 2.0 otherwise
3. Census tract weakly tied to urban core [primary flow to Census Bureau defined Urbanized Area but 5-30%]
    - 3.0 --
4. Large town Census tract [primary flow within large Census Bureau defined Urban Place (10,000-49,999 & >30%)]
    - 4.1 secondary flow (30-50%) to urbanized area
    - 4.0 otherwise
5. Census tract strongly tied to large town [primary flow to large Census Bureau defined Urban Place (>30%)]
    - 5.1 secondary flow (30-50%) to urbanized area
    - 5.0 otherwise
6. Census tract weakly tied to large town [primary flow to large Census Bureau defined Urban Place (5-30%)]
7. Small town Census tract [primary flow within small Census Bureau defined Urban Place (>= 2,500 & <10,000 & >30%)]
    - 7.1 secondary flow (30-50%) to urbanized area
    - 7.2 secondary flow (30-50%) to large urban place
    - 7.3 secondary flow (5-30%) to urbanized area
    - 7.4 secondary flow (5-30%) to large urban place
    - 7.0 otherwise
8. Census tract strongly tied to small town [primary flow to a small Census Bureau defined Urban Place (>30%)]
    - 8.1 secondary flow (30-50%) to urbanized area
    - 8.2 secondary flow (30-50%) to large urban place
    - 8.3 secondary flow (5-30%) to urbanized area
    - 8.4 secondary flow (5-30%) to large urban place
    - 8.0 otherwise
9. Census tract weakly tied to small town [primary flow to a small Census Bureau defined Urban Place (5-30%)]
    - 9.1 secondary flow (5-30%) to urbanized area
    - 9.2 secondary flow (5-30%) to large urban place
    - 9.0 otherwise
10. Isolated small rural Census tract (remaining rural tracts) [no primary flows over 5% to any Census Bureau defined Urbanized Area (metro), large Urban Place, or small Urban Place]
    - 10.1 secondary flow (30-50%) to urbanized area
    - 10.2 secondary flow (30-50%) to large urban place
    - 10.3 secondary flow (30-50%) to small urban place
    - 10.4 secondary flow (5-30%) to urbanized area
    - 10.5 secondary flow (5-30%) to large urban place
    - 10.0 otherwise

Appendix F: 2010 Census Data Available (by variable name) for the NWCAC region (at the ZIP Code level analysis)

"ZIP"	- Zip Code (e.g. 90210)
"CITY"	- City (e.g. Albany)
"STATE"	- State (e.g. New York)
"STATE_CODE"	- State Abbreviation (e.g. NY for New York)
"LATITUDE"	- Latitude of the Zip Code center
"LONGITUDE"	- Longitude of the Zip Code center
"Total Area"	- Total Area in Quare Meters (Multiply by 0.000000386102159 to get Square
Miles)	
"Land Area"	- Land Area in Quare Meters (Multiply by 0.000000386102159 to get Square
Miles)	
"Water Area"	- Land Area in Quare Meters (Multiply by 0.000000386102159 to get Square
Miles)	
"Elevation"	- Average Elevation of Zip Code
"Time Zone"	- Zip Code Time Zone
"DST"	- "YES" or "NO" indicates whether Daylight Savings Time is observed within
the Zip Code	
"Total population"	- Total Population
"Male"	- Male Population
"Female"	- Demale Population
"Under 5 years"	- Population under 5 years of age
"5 to 9 years"	- Population between 5 and 9 years of age
"10 to 14 years"	- Population between 10 and 14 years of age
"15 to 19 years"	- Population between 15 and 19 years of age
"20 to 24 years"	- Population between 20 and 24 years of age
"25 to 34 years"	- Population between 25 and 34 years of age
"35 to 44 years"	- Population between 35 and 44 years of age
"45 to 54 years"	- Population between 45 and 54 years of age
"55 to 59 years"	- Population between 55 and 59 years of age
"60 to 64 years"	- Population between 60 and 64 years of age
"65 to 74 years"	- Population between 65 and 74 years of age
"75 to 84 years"	- Population between 75 and 84 years of age
"85 years and over"	- Population 85 years of age or older
"Median age (years)"	- Average (Median) population age
"18 years and over"	- Population 18 years of age or older
"Male"	- Male population 18 years of age or older
"Female"	- Female population 18 years of age or odler
"21 years and over"	- Population 21 years of age or older
"62 years and over"	- Population 62 years of age or older
"65 years and over"	- Population 65 years of age or older
"Male"	- Male population 65 years of age or older
"Female"	- Female population 65 years of age or older
"One race"	- Population, identified as single race
"White"	- Number of Whites
"Black or African American"	- Number of blacks or african americans
"American Indian or Native"	- Number of native indians
"Asian"	- Number of Asians (All Races)
"Asian Indian"	- Number of Indians (from India)
"Chinese"	- Number of Chinese
"Filipino"	- Number of Filipinos
"Japanese"	- Number of Japanese
"Korean"	- Number of Koreans
"Vietnamese"	- Number of Vietnamese
"Other Asian "	- Number of Asians (not listed under specific categories)
"Native Hawaiian or Pacific"	- Number of Native Hawaiians or Pacific Islanders
"Native Hawaiian"	- Number of Native Hawaiians
"Guamanian or Chamorro"	- Number of Guamanians or Chamorro
"Samoan"	- Number of Samoans
"Other Pacific Islander"	- Number of Pacific Islanders (not listed under specific categories)
"Some other race"	- Other race
"Two or more races"	- Population, identified as a mix of two or more races
"White"	- Population, identified as a mix of White and one or more races
"Black or African American"	- Population, identified as a mix of Black and one or more races
"American Indian or Native"	- Population, identified as a mix of Native Indian and one or more races
"Asian"	- Population, identified as a mix of Asian and one or more races
"Native Hawaiian or Pacific"	- Population, identified as a mix of Native Hawaiian and one or more races
"Some other race"	- Population, identified as a mix of two or more races (not listed under
specific categories)	
"Total population"	- Total population
"Hispanic or Latino"	- Population, identified as Hispanic or Latino, including:
"Mexican"	- Number of Mexicans

"Puerto Rican"	- Number of Puerto Ricans
"Cuban"	- Number of Cubans
"Other Hispanic or Latino"	- Number of other Hispanics or Latino (not listed under spcific
categories)	
"Not Hispanic or Latino"	- Population, identified as not Latino or Hispanic
"White alone"	- Population, identified as White (No other race, not Latino or Hispanic)
"Total population"	- Total population
"In households"	- Population in households
"Householder"	- Population in households, identified as a householder
"Spouse"	- Population in households, identified as a spouse
"Child"	- Population in households, identified as chiled
"Own child under 18 years"	- Total number of households with children under 18 years of age
"Other relatives"	- Total number of households with other relatives living in the household
"Under 18 years"	- Total number of households with members under 18 years of age
"Nonrelatives"	- Total number of households with non-related members under 18 years of
age	
"Unmarried partner"	- Total number of households with an unmarried partner
"In group quarters"	- Population living in group qaurters
"Institutionalized"	- Institutionalized population
"Noninstitutionalized"	- Noninstitutionalized population
"Total households"	- Total number of households
"Family households (families)"	- Total number of family households
"With own children under 18"	- Total number of family households with children under 18 years of age
"Married-couple family"	- Total number of married-couple households
"With own children under 18"	- Total number of married-couple households with children under 18 years
of age	
"Female householder, no husband"	- Total number of households with a female householder without a husband
"With own children under 18"	- Total number of households with a female household with children uner 18
years of age without a husband	
"Nonfamily households"	- Total number of non-family households
"Householder living alone"	- Total number of households, householder living alone
"Householder 65 years and over"	- Total number of households, householder over 65 years of age
"Households with children < 18"	- Total number of households with children under 18 years of age
"Households with seniors > 65"	- Total number of households with seniors over 65 years of age
"Average household size"	- Average household size
"Average family size"	- Average family size
"Total housing units"	- Total number of housing units
"Occupied housing units"	- Total number of occupied housing units
"Vacant housing units"	- Total number of vacant housing units
"For seasonal or occasional use"	- Total number of vacant housing units for seasonal or occasional use
"Homeowner vacancy rate (%)"	- Homeowner vacancy rate
"Rental vacancy rate (%)"	- Rental vacancy rate
"Occupied housing units"	- Total number of occupied housing units
"Owner-occupied housing units"	- Total number of owner-occupied housing units
"Renter-occupied housing units"	- Total number of renter/tenant occupied housing units
"Avg. household size (owner)"	- Average household size (owner occupied)
"Avg household size (renter)"	- Average household size (renter/tenant occupied)
"Enrolled in school"	- Population enrolled in school
"Nursery school, preschool"	- Population enrolled in nursery school or preschool
"Kindergarten"	- Population enrolled in kindergarten
"Elementary school (grades 1-8)"	- Population enrolled in elementary school (grades 1-8)
"High school (grades 9-12)"	- Population enrolled in high school (grades 9-12)
"College or graduate school"	- Population enrolled in college or graduate school
"Population 25 years and over"	- Population 25 years of age or older
"Less than 9th grade"	- Population 25 years of age or older with education level lower than 9th
grade	
"9th to 12th grade, no diploma"	- Population 25 years of age or older with education level between
9th and 12th grade without a diploma	
"High school graduate"	- Population 25 years of age or older graduated from high school, includin
gequivalency	
"Some college, no degree"	- Population 25 years of age or older having taken college, without degree
"Associate degree"	- Population 25 years of age or older with associate degree
"Bachelor's degree"	- Population 25 years of age or older with bachelor's degree
"Graduate degree"	- Population 25 years of age or older with graduate degree
"High school graduate +"	- Percentage of population 25 years of age or older with high school
diploma or higher	
"Percent bachelor's degree +"	- Percentage of population 25 years of age or older with bachelor's degree
or higher	
"Population 15 years and over"	- Population 15 years of age or older
"Never married"	- Population 15 years of age or older, never married
"Now married, except separated"	- Population 15 years of age or older, not married, not separated
"Separated"	- Population 15 years of age or older, separated
"Widowed"	- Population 15 years of age or older, widowed
"Female"	- Female population 15 years of age or older, widowed
"Divorced"	- Population 15 years of age or older, divorced
"Female"	- Female population 15 years of age or older, divorced

"Grandparent with grandchildren"	- Total number of grandparents with grandchildren
"Grandparent care grandchildren"	- Total number of grandparents providing primary care to grandchildren
"Civilian population 18+"	- Total civilian population 18 years of age or older
"Civilian veterans"	- Total civilian population 18 years of age or older, veterans
"Population 5 to 20 years"	- Total civilian population between 5 and 20 years of age
"With a disability"	- Total civilian population between 5 and 20 years of age with a
disability	
"Population 21 to 64 years"	- Total civilian population between 21 and 64 years of age
"With a disability"	- Total civilian population between 21 and 64 years of age with a
disability	
"Percent employed"	- Percentage of civilian population between 21 and 64 years of age with a
disability, employed	
"No disability"	- Total civilian population between 21 and 64 years of age without
a disability	
"Percent employed"	- Percentage of civilian population between 21 and 64 years of age without
a disability, employed	
"Population 65 years and over"	- Total civilian population between 65 years of age or older
"With a disability"	- Total civilian population between 65 years of age or older with a
disability	
"Population 5 years and over"	- Total civilian population between 5 years of age or older
"Same house in 1995"	- Total civilian population between 5 years of age or older living in the
same house since 1995	
"Same county"	- Total civilian population between 5 years of age or older living in the
same county since 1995	
"Different county"	- Total civilian population between 5 years of age or older living in a
different country since 1995	
"Same state"	- Total civilian population between 5 years of age or older living in the
same state since 1995	
"Different state"	- Total civilian population between 5 years of age or older living in a
different state since 1995	
"Elsewhere in 1995"	- Total civilian population between 5 years of age or older lived
elsewhere in 1995	
"Total population"	- Total population
"Native"	- Total native population
"Born in United States"	- Population born in the Unites States
"State of residence"	- Population born in the state of residence
"Different state"	- Population born in the United States outside the state of residence
"Born outside United States"	- Poulation born outside the United States
"Foreign born"	- Population foreign born
"Entered 1990 to March 2000"	- Population entered United States between 1990 and March 2000
"Naturalized citizen"	- Number of naturalized citizen
"Not a citizen"	- Number of non citizen
"Total (excluding born at sea)"	- Total born outside United States (excuding born at sea)
"Europe"	- Number of persons born in Europe
"Asia"	- Number of persons born in Asia
"Africa"	- Number of persons born in Africa
"Oceania"	- Number of persons born in Oceanie
"Latin America"	- Number of persons born in Latin America
"Northern America"	- Number of persons born in North America
"Population 5 years and over"	- Population 5 years of age or older
"English only"	- Population 5 years of age or older, speak English only
"Language other than English""	- Population 5 years of age or older, speak language other than
English	
Speak English < 'very well'"	- Population 5 years of age or older, speak English less than "very well"
"Total population"	- Total population
"Total ancesThreees reported"	- Total ancesThreees reported
"Arab"	- Number of persons, identified as Arabic
"Czech"	- Number of persons, identified as Czech
"Danish"	- Number of persons, identified as Danish
"Dutch"	- Number of persons, identified as Dutch
"English"	- Number of persons, identified as English
"French (except Basque)"	- Number of persons, identified as French (not inluding Basque)
"French Canadian"	- Number of persons, identified as French Canadian
"German"	- Number of persons, identified as German
"Greek"	- Number of persons, identified as Greek
"Hungarian"	- Number of persons, identified as Hungarian
"Irish"	- Number of persons, identified as Irish
"Italian"	- Number of persons, identified as Italian
"Lithuanian"	- Number of persons, identified as Lithuanian
"Norwegian"	- Number of persons, identified as Norwegian
"Polish"	- Number of persons, identified as Polish
"Portuguese"	- Number of persons, identified as Portugese
"Russian"	- Number of persons, identified as Russian
"Scotch-Irish"	- Number of persons, identified as Scottish-Irish
"Scottish"	- Number of persons, identified as Scottish
"Slovak"	- Number of persons, identified as Slovak

"Subsaharan African"	- Number of persons, identified as Subsaharan African
"Swedish"	- Number of persons, identified as Swedish
"Swiss"	- Number of persons, identified as Swiss
"Ukrainian"	- Number of persons, identified as Ukranian
"United States or American"	- Number of persons, identified as American
"Welsh"	- Number of persons, identified as Welsh
"West Indian (no Hispanic)"	- Number of persons, identified as West Indian (exluding Latino and
Hispanics)	
"Other ancesThreees"	- Number of persons, reported other ancestry
"Population 16 years and over"	- Population 16 years of age or older
"In labor force"	- Population 16 years of age or older, in labor force
"Civilian labor force"	- Population 16 years of age or older, in civilian labor force
"Employed"	- Population 16 years of age or older, employed
"Unemployed"	- Population 16 years of age or older, unemployed
"Percent of civ. labor force"	- Percentage of population 16 years of age or older, unemployed
"Armed Forces"	- Population 16 years of age or older, in armed forces
"Not in labor force"	- Population 16 years of age or older, not in labor force
"Females 16 years and over"	- Female population 16 years of age or older
"In labor force"	- Female population 16 years of age or older, in labor force
"Civilian labor force"	- Female population 16 years of age or older, not in civilian labor force
"Employed"	- Female population 16 years of age or older, not in civilian labor force,
employed	
"Own children under 6 years"	- Population with children under 6 years of age
"All parents in labor force"	- Population with children under 6 years of age, in labor force
"Workers 16 years and over"	- Workers, 16 years of age and older
"Commute - Car drove alone"	- Commute - Car, truck, or van - drove alone
"Commute - Carpooled"	- Commute - Car, truck, or van - carpooled
"Commute - Public transit"	- Commute - Public transportation (including taxicab)
"Walked"	- Commute - Walked
"Other means"	- Commute - Other means
"Worked at home"	- Commute - Worked at home
"Average Commute Time"	- Average (mean) commute time
"Employed civilian population"	- Employed civilian population 16 years and over
"Management, professional"	- Management, professional, and related occupations
"Service occupations"	- Service occupations
"Sales and office occupations"	- Sales and office occupations
"Farming, fishing"	- Farming, fishing, and forestry occupations
"Construction, maintenance"	- Construction, extraction, and maintenance occupations
"Production, transportation"	- Production, transportation, and material moving occupations
"Agriculture, forestry, fishing"	- Population employed in Agriculture, forestry, fishing and hunting, and
mining	
"Construction"	- Population employed in Construction
"Manufacturing"	- Population employed in Manufacturing
"Wholesale trade"	- Population employed in Wholesale trade
"Retail trade"	- Population employed in Retail trade
"Transportation and warehousing"	- Population employed in Transportation and warehousing, and utilities
"Information"	- Population employed in Information
"Finance, insurance, real est."	- Population employed in Finance, insurance, real estate, and
rental and leasing	
"Professional, scientific"	- Population employed in Professional, scientific, management,
administrative, and waste management services	
"Educational, social services"	- Population employed in Educational, health and social services
"Arts, entertainment, food"	- Population employed in Arts, entertainment, recreation, accommodation
and food services	
"Other services"	- Population employed in Other services (except public administration)
"Public administration"	- Population employed in Public administration
"Private wage and salary"	- Private wage and salary workers
"Government workers"	- Government workers
"Self-employed workers"	- Self-employed workers in own not incorporated business
"Unpaid family workers"	- Unpaid family workers
"Households"	- Total number of households
"Less than $10,000"	- Number of households with income less than $10,000
"$10,000 to $14,999"	- Number of households with income between $10,000 to $14,999
"$15,000 to $24,999"	- Number of households with income between $15,000 to $24,999
"$25,000 to $34,999"	- Number of households with income between $25,000 to $34,999
"$35,000 to $49,999"	- Number of households with income between $35,000 to $49,999
"$50,000 to $74,999"	- Number of households with income between $50,000 to $74,999
"$75,000 to $99,999"	- Number of households with income between $75,000 to $99,999
"$100,000 to $149,999"	- Number of households with income between $100,000 to $149,999
"$150,000 to $199,999"	- Number of households with income between $150,000 to $199,999
"$200,000 or more"	- Number of households with income of $200,000 or more
"Median household income ($)"	- Average (median) household income (dollars)
"With earnings"	- Number of households with earnings
"Mean earnings ($)"	- Average (mean) household income with earnings (dollars)
"With Social Security income"	- Number of households with Social Security income
"Mean Social Security income"	- Average (mean) household income with Social Security income

"With Supplemental SS Income"	- Number of households with supplemental Security income
"Mean Supplemental SS Income"	- Average (mean) household incomewith supplemental Security income
"With public assistance income"	- Number of households with public assistance income
"Mean public assistance income"	- Average (mean) household income with public assistance income
"With retirement income"	- Number of households with retirement income
"Mean retirement income"	- Average (mean) household income with retirement income
"Families"	- Total number of families
"Less than $10,000"	- Number of families with income less than $10,000
"$10,000 to $14,999"	- Number of families with income between $10,000 to $14,999
"$15,000 to $24,999"	- Number of families with income between $15,000 to $24,999
"$25,000 to $34,999"	- Number of families with income between $25,000 to $34,999
"$35,000 to $49,999"	- Number of families with income between $35,000 to $49,999
"$50,000 to $74,999"	- Number of families with income between $50,000 to $74,999
"$75,000 to $99,999"	- Number of families with income between $75,000 to $99,999
"$100,000 to $149,999"	- Number of families with income between $100,000 to $149,999
"$150,000 to $199,999"	- Number of families with income between $150,000 to $199,999
"$200,000 or more"	- Number of families with income of $200,000 or more
"Median family income ($)"	- Average (median) family income (dollars)
"Per capita income ($)"	- Per capita income (dollars)
"Male full-time workers"	- Average (median) income of male full-time year-round workers
"Female full-time workers"	- Average (median) income of female full-time year-round workers
"Families"	- Number of families below poverty level
"With related children < 18"	- Number of families with related children under 18 years of age below
poverty level	
"With related children < 5"	- Number of families with related children under 5 years of age below
poverty level	
"Families / no husband present"	- Number of families with no husband present below poverty level
"With related children < 18"	- Number of families with no husband present with related children under
18 years of age below poverty level	
"With related children < 5"	- Number of families with no husband present with related children under 5
years of age below poverty level	
"Individuals"	- Individuals below poverty level
"18 years and over"	- Individuals 18 years of age or oolder below poverty level
"65 years and over"	- Individuals 65 years of age or oolder below poverty level
"Related children < 18"	- Individuals with related children under 18 years of age below
poverty level	
"Related children 5-17 years"	- Individuals with related children between 5 and 17 years of age below
poverty level	
"Unrelated individuals 15+"	- Indivuduals with unrelated individuals 15 years of age or older belowe
poeverty level	
"Total housing units"	- Total housing units
"1-unit, detached"	- Number of structures with 1-unit, detached
"1-unit, attached"	- Number of structures with 1-unit, attached
"2 units"	- Number of structures with 2 units
"3 or 4 units"	- Number of structures with 3 or 4 units
"5 to 9 units"	- Number of structures with 5 to 9 units
"10 to 19 units"	- Number of structures with 10 to 19 units
"20 or more units"	- Number of structures with 20 or more units
"Mobile home"	- Mobile home
"Boat, RV, van, etc."	- Boat, RV, van, etc.
"1999 to March 2000"	- Number of structures built between 1999 to March 2000
"1995 to 1998"	- Number of structures built between 1995 to 1998
"1990 to 1994"	- Number of structures built between 1990 to 1994
"1980 to 1989"	- Number of structures built between 1980 to 1989
"1970 to 1979"	- Number of structures built between 1970 to 1979
"1960 to 1969"	- Number of structures built between 1960 to 1969
"1940 to 1959"	- Number of structures built between 1940 to 1959
"1939 or earlier"	- Number of structures in 1939 or earlier
"1 room"	- Number of housing units with 1 room
"2 rooms"	- Number of housing units with 2 rooms
"3 rooms"	- Number of housing units with 3 rooms
"4 rooms"	- Number of housing units with 4 rooms
"5 rooms"	- Number of housing units with 5 rooms
"6 rooms"	- Number of housing units with 6 rooms
"7 rooms"	- Number of housing units with 7 rooms
"8 rooms"	- Number of housing units with 8 rooms
"9 or more rooms"	- Number of housing units with 9 or more rooms
"Median (rooms)"	- Average (median) number of rooms in a housing unit
"Occupied Housing Units"	- Total number of occupied housing units
"1999 to March 2000"	- Number of occupied housing units, householder moved into unit between
1999 to March 2000	
"1995 to 1998"	- Number of occupied housing units, householder moved into unit between
1995 to 1998	
"1990 to 1994"	- Number of occupied housing units, householder moved into unit between
1990 to 1994	

"1980 to 1989" - Number of occupied housing units, householder moved into unit between
1980 to 1989
"1970 to 1979" - Number of occupied housing units, householder moved into unit between
1970 to 1979
"1969 or earlier" - Number of occupied housing units, householder moved into unit in 1969 or
eralier
"None" - Number of occupied housing units with no vehicles available
"1" - Number of occupied housing units with 1 vehicle available
"2" - Number of occupied housing units with 2 vehicles available
"3 or more" - Number of occupied housing units with 3 or more vehicles available
"Utility gas" - Number of occupied housing units heated by utility gas
"Bottled, tank, or LP gas" - Number of occupied housing units heated by bottled, tank or LP gas
"ElecThreecity" - Number of occupied housing units heated by elecThreecity
"Fuel oil, kerosene, etc." - Number of occupied housing units heated by fuel oil, kerosine, etc.
"Coal or coke" - Number of occupied housing units heated by coal or coke
"Wood" - Number of occupied housing units heated by wood
"Solar energy" - Number of occupied housing units heated by solar
"Other fuel" - Number of occupied housing units heated by some other type of fuel
"No fuel used" - Number of occupied housing units not heated by fuel
"Lacking complete plumbing" - Number of occupied housing units lacking complete plumbing
"Lacking complete kitchen" - Number of occupied housing units lacking complete kitchen
"No telephone service" - Number of occupied housing units lacking telephone service
"Occupied housing units" - Total number of occupied housing units
"1.00 or less" - Number of occupied housing units with 1 or less occupants per room
"1.01 to 1.50" - Number of occupied housing units with 1.01 to 1.5 occupants per room
"1.51 or more" - Number of occupied housing units with 1.51 or more occupants per room
"Owner-occupied units" - Number of owner-occupied housing units
"Less than $50,000" - Number of owner-occupied housing units valued at
"$50,000 to $99,999" - Number of owner-occupied housing units valued between $50,000 to $99,999
"$100,000 to $149,999" - Number of owner-occupied housing units valued between $100,000 to
$149,999
"$150,000 to $199,999" - Number of owner-occupied housing units valued between $150,000 to
$199,999
"$200,000 to $299,999" - Number of owner-occupied housing units valued between $200,000 to
$299,999
"$300,000 to $499,999" - Number of owner-occupied housing units valued between "$300,000 to
$499,999
"$500,000 to $999,999" - Number of owner-occupied housing units valued between $500,000 to
$999,999
"$1,000,000 or more" - Number of owner-occupied housing units valued at $1 million or more
"Median (dollars)" - Average (median) value of a housing unit
"With a mortgage" - Number of owner occupied housing units with a mortgage
"Less than $300" - Number of owner occupied housing units with a mortgage with monthly
owner cost of $300 or less
"$300 to $499" - Number of owner occupied housing units with a mortgage with monthly
owner cost between $300 to $499
"$500 to $699" - Number of owner occupied housing units with a mortgage with monthly
owner cost between $500 to $699
"$700 to $999" - Number of owner occupied housing units with a mortgage with monthly
owner cost between $700 to $999
"$1,000 to $1,499" - Number of owner occupied housing units with a mortgage with monthly
owner cost between $1,000 to $1,499
"$1,500 to $1,999" - Number of owner occupied housing units with a mortgage with monthly
owner cost between $1,500 to $1,999
"$2,000 or more" - Number of owner occupied housing units with a mortgage with monthly
owner cost of $2,000 or more
"Median (dollars)" - Average (median) monthly owner costs of owner occupied housing units
with a mortgage
"Not mortgaged" - Number of housing units without a mortgage
"Median (dollars)" - Average (median) monthly owner costs of owner occupied housing units
without a mortgage
"Less than 15 percent" - Number of owner occupied housing units with owner cost as a percentage
of household income 15% or less
"15 to 19 percent" - Number of owner occupied housing units with owner cost as a percentage
of household income between 15% and 19%
"20 to 24 percent" - Number of owner occupied housing units with owner cost as a percentage
of household income between 20% and 24%
"25 to 29 percent" - Number of owner occupied housing units with owner cost as a percentage
of household income between 25% and 29%
"30 to 34 percent" - Number of owner occupied housing units with owner cost as a percentage
of household income between 30% and 34%
"35 percent or more" - Number of owner occupied housing units with owner cost as a percentage
of household income of 35% or more
"Renter-occupied units" - Number of renter/tenant occupied housing units
"Less than $200" - Number of renter/tenant occupied housing units with rent of $200 or less

"$200 to $299" - Number of renter/tenant occupied housing units with rent between $200 to $299
"$300 to $499" - Number of renter/tenant occupied housing units with rent between $300 to $499
"$500 to $749" - Number of renter/tenant occupied housing units with rent between $500 to $749
"$750 to $999" - Number of renter/tenant occupied housing units with rent between $750 to $999
"$1,000 to $1,499" - Number of renter/tenant occupied housing units with rent between $1,000 to $1,499
"$1,500 or more" - Number of renter/tenant occupied housing units with rent of $1,500 or more
"No cash rent" - Number of renter/tenant occupied housing units without cash rent
"Median (dollars)" - Average (median) rent amount (dollars)
"Less than 15 percent" - Number of renter/tenant occupied housing units with rent as a percentage of household income of 15% or less
"15 to 19 percent" - Number of renter/tenant occupied housing units with rent as a percentage of household income between 15% and 19%
"20 to 24 percent" - Number of renter/tenant occupied housing units with rent as a percentage of household income between 15% and 19%
"25 to 29 percent" - Number of renter/tenant occupied housing units with rent as a percentage of household income between 15% and 19%
"30 to 34 percent" - Number of renter/tenant occupied housing units with rent as a percentage of household income between 15% and 19%
"35 percent or more" - Number of renter/tenant occupied housing units with rent as a percentage of household income of 35% or more

Appendix G: Health Professional Shortage Areas
Taken from http://www.health.state.mn.us/divs/orhpc/shortage/index.html on July 4, 2012

Criteria:

State: Minnesota
County: Kittson County
Marshall County
Pennington County
Red Lake County
Roseau County
ID: All

Discipline: Primary Medical Care
Metro: All
Status: Designated
Type: All

Date of Last Update: All Dates
HPSA Score (lower limit): 0

Results: 53 records found.
(Satellite sites of Comprehensive Health Centers automatically assume the HPSA score of the affiliated grantee. They are not listed separately.)

HPSA Name	ID	Type	FTE	# Short	S
069 - Kittson County					
Kittson Memorial Clinic	12799927F7	Rural Health Clinic		0	
Low Income - Kittson County	12799927KF	Population Group	0	0	
Kittson		Single County			
089 - Marshall County					
Marshall County	127089	Single County	0	3	
Northwest Minnesota Health Clinic-Stephen	12799927G4	Rural Health Clinic		0	
113 - Pennington County					
Low Income - Pennington Rational Service Area#39	12799927B1	Population Group	1	0	
Pennington		Single County			
125 - Red Lake County					
Low Income - Polk/Red Lake	12799927K8	Population Group	2	1	
Red Lake		Single County			
135 - Roseau County					
West Roseau County	12799927I1	Geographical Area	0	0	
Badger City		Minor Civil Division			
Barnett Township		Minor Civil Division			
Barto Township		Minor Civil Division			
Deer Township		Minor Civil Division			
Dewey Township		Minor Civil Division			
Greenbush City		Minor Civil Division			
Hereim Township		Minor Civil Division			
Huss Township		Minor Civil Division			
Lind Township		Minor Civil Division			
Moose Township		Minor Civil Division			
Northwest Roseau Unorganized Territories		Minor Civil Division			
Pohlitz Township		Minor Civil Division			
Polonia Township		Minor Civil Division			
Skagen Township		Minor Civil Division			

Soler Township		Minor Civil Division		
Strathcona City		Minor Civil Division		
East Roseau	12799927J4	Geographical Area	4	0
Beaver Township		Minor Civil Division		
Cedarbend Township		Minor Civil Division		
Dieter Township		Minor Civil Division		
Enstrom Township		Minor Civil Division		
Falun Township		Minor Civil Division		
Golden Valley Township		Minor Civil Division		
Grimstad Township		Minor Civil Division		
Jadis Township		Minor Civil Division		
Lake Township		Minor Civil Division		
Laona Township		Minor Civil Division		
Malung Township		Minor Civil Division		
Mickinock Township		Minor Civil Division		
Moranville Township		Minor Civil Division		
Nereson Township		Minor Civil Division		
North Roseau Unorganized Territories		Minor Civil Division		
Palmville Township		Minor Civil Division		
Poplar Grove Township		Minor Civil Division		
Reine Township		Minor Civil Division		
Roosevelt City		Minor Civil Division		
Roseau City		Minor Civil Division		
Ross Township		Minor Civil Division		
Southeast Roseau Unorganized Territories		Minor Civil Division		
Spruce Township		Minor Civil Division		
Stafford Township		Minor Civil Division		
Stokes Township		Minor Civil Division		
Warroad City		Minor Civil Division		

NOTE: The data on this site reflect the HPSA data as of June 29, 2012. Today this list of designated HPSAs is being updated to reflect the publication of the Federal Register notice on that day. This notice will reflect the status of HPSAs as of April 1, 2012. The main impact of this publication will be to officially withdraw those HPSAs that have been in either "proposed for withdrawal" or "no new data" status since the last federal register notice was published. HPSAs that were designated after April 1, 2012 are considered designated even though they are not on the Federal Register listing; HPSAs that have been placed in "proposed for withdrawal" or no new data" status since April 1, 2012 will remain in that status until the publication of the next Federal Register notice. If there are any questions about the status of a particular HPSA or area, we recommend that you contact the state primary care office in your state; a listing can be obtained at http://bhpr.hrsa.gov/shortage/hpsas/primarycareoffices.html.

Criteria:	
State: Minnesota **County**: Kittson County Marshall County	**Discipline**: Dental **Metro**: All **Status**: Designated

Pennington County Red Lake County Roseau County **ID**: All	**Type**: All
Date of Last Update: All Dates **HPSA Score (lower limit)**: 0	

Results: 8 records found.
(Satellite sites of Comprehensive Health Centers automatically assume the HPSA score of the affiliated grantee. They are not listed separately.)

HPSA Name	ID	Type	FTE	# Short	S
069 - Kittson County					
Low Income - Kittson County	6279992715	Population Group	0	0	
Kittson		Single County			
089 - Marshall County					
Marshall County	6279992738	Population Group	0	1	
Marshall		Single County			
113 - Pennington County					
Low Income - Pennington County	6279992722	Population Group	0	1	
Pennington		Single County			
125 - Red Lake County					
Low Income - Red Lake County	6279992723	Population Group	0	0	
Red Lake		Single County			
135 - Roseau County	No HPSAs in this county.				

NOTE: The data on this site reflect the HPSA data as of June 29, 2012. Today this list of designated HPSAs is being updated to reflect the publication of the Federal Register notice on that day. This notice will reflect the status of HPSAs as of April 1, 2012. The main impact of this publication will be to officially withdraw those HPSAs that have been in either "proposed for withdrawal" or "no new data" status since the last federal register notice was published. HPSAs that were designated after April 1, 2012 are considered designated even though they are not on the Federal Register listing; HPSAs that have been placed in "proposed for withdrawal" or no new data" status since April 1, 2012 will remain in that status until the publication of the next Federal Register notice. If there are any questions about the status of a particular HPSA or area, we recommend that you contact the state primary care office in your state; a listing can be obtained at http://bhpr.hrsa.gov/shortage/hpsas/primarycareoffices.html.

Criteria:	
State: Minnesota **County**: Kittson County Marshall County Pennington County Red Lake County Roseau County **ID**: All	**Discipline**: Mental Health **Metro**: All **Status**: Designated **Type**: All
Date of Last Update: All Dates	

HPSA Score (lower limit): 0

Results: 10 records found.
(Satellite sites of Comprehensive Health Centers automatically assume the HPSA score of the affiliated grantee. They are not listed separately.)

HPSA Name	ID	Type	FTE	# Short	S
069 - Kittson County					
Mental Health Service Area Region 1	7279992754	Geographical Area	0	3	
Kittson		Single County			
089 - Marshall County					
Mental Health Service Area Region 1	7279992754	Geographical Area	0	3	
Marshall		Single County			
113 - Pennington County					
Mental Health Service Area Region 1	7279992754	Geographical Area	0	3	
Pennington		Single County			
125 - Red Lake County					
Mental Health Service Area Region 1	7279992754	Geographical Area	0	3	
Red Lake		Single County			
135 - Roseau County					
Mental Health Service Area Region 1	7279992754	Geographical Area	0	3	
Roseau		Single County			

NOTE: The data on this site reflect the HPSA data as of June 29, 2012. Today this list of designated HPSAs is being updated to reflect the publication of the Federal Register notice on that day. This notice will reflect the status of HPSAs as of April 1, 2012. The main impact of this publication will be to officially withdraw those HPSAs that have been in either "proposed for withdrawal" or "no new data" status since the last federal register notice was published. HPSAs that were designated after April 1, 2012 are considered designated even though they are not on the Federal Register listing; HPSAs that have been placed in "proposed for withdrawal" or no new data" status since April 1, 2012 will remain in that status until the publication of the next Federal Register notice. If there are any questions about the status of a particular HPSA or area, we recommend that you contact the state primary care office in your state; a listing can be obtained at http://bhpr.hrsa.gov/shortage/hpsas/primarycareoffices.html.

Appendix H: Results of Public Health Concerns survey at NWCAC Meeting:

Top 10 issues (with # of votes)

10 – Obesity/overweight
6 – Depression
5- Lack of Physical Activity
5 – Cardiovascular
5 – Diabetes
4 – Smoking
4 – Low access to Dentists
4 – Cancer
3 – Chewing tobacco
3 – alcohol/binge drinking

Top 3 from voting…

1. Obesity/Overweight
2. Lack of physical activity
2 items tied for third: Depression/Cardiovascular

ALL RESPONSES
# of votes | Health Concern

10 – Obesity/overweight
6 – Depression
5- Lack of Physical Activity
5 – Cardiovascular
5 – Diabetes
4 – Smoking
4 – Low access to Dentists
4 – Cancer
3 – Chewing tobacco
3 – alcohol/binge drinking
3 – Dementia
3 – insurance coverage-low or no coverage
3 – child welfare/abuse/neglect
2 – Motor vehicle injury
2 – unintended injury – elderly/falls
2 – influenza
2 – low access to physicians
2 – low access to mental health services
1 – low fruit/vegetable intake
1 – drug use-meth
1 – radon
1 – mold
1 – hazards from industry
1 – disability
1 – dependence- elderly dependence on support
1 – breastfeeding

1 – smoking during pregnancy
1 – births to adolescent parents
1 – (other) parenting skills, family dynamics that affect child welfare
1 – domestic violence
1 – immunization rates - adult
1 – lyme
1 – WIC/SNAP needs
1 – (other) child hunger
1 – lack of transportation
1 – cities/streets unfriendly to pedesThreeans (i.e. Walkability)
0 – secondhand smoke exposure
Drug use – marijuana
Air quality
Water quality
Lead
Arsenic
Asbestos
Hazardous materials
Farm accidents
Public nuisance complaints
Suicide
Stroke
Preterm birth
Caesarean births
Infant death
Prenatal care
Child welfare
Asthma
Birth defects
Low birth weight
Violent Crime
Vaccine preventable
West Nile
STD's
HIV
Sexual activity
Low access to clinics
Low access to hospitals
MA/MN care enrollment
Lack of parks, recreation
Low satisfaction with healthcare system

Exhibit 4

2011 County Health Profile

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

Pennington County
Minnesota

		Pennington	*National Benchmark	Minnesota
HEALTH OUTCOMES				
Mortality				
Premature death	Years of potential life lost before age 75 per 100,000 population (age-adjusted), 2005-2007	5,825	5,564	5,272
Morbidity				
Poor or fair health	Percent of adults reporting fair or poor health (age-adjusted), 2003-2009	12%	10%	11%
Poor physical health days	Average number of physically unhealthy days reported in past 30 days (age-adjusted), 2003-2009	3.7	2.6	3.1
Poor mental health days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009	3.6	2.3	2.8
Low birthweight	Percent of live births with low birthweight (<2,500 grams), 2001-2007	5.3%	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	22%	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	19%	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	12.0
Sexually transmitted infections	Number of chlamydia cases (new cases reported) per 100,000 population, 2008	94.6	83.0	276.1
Teen birth rate	Number of teen births per 1,000 females ages 15-19, 2001-2007	28.6	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	6%	7%	6%
Primary care physicians	Ratio of total population to primary care physicians, 2008	689:1	631:1	636:1
Mental health providers	Ratio of total population to mental health providers, 2008	1,723:1	2,242:1	1,306:1
Dentist rate	Number of professionally active dentists per 100,000 population, 2007	36.4	69.0	61.0
Preventable hospital stays	Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007	42.4	52.0	56.5
Diabetic screening	Percent of diabetic Medicare enrollees that receive HbA1c screening, 2006-2007	92%	89%	88%
Mammography screening	Percent of female Medicare enrollees that receive mammography screening, 2006-2007	79%	74%	73%

2011 County Health Profile (Page 2)

Pennington County
Minnesota

HEALTH FACTORS (continued)

Social and Economic Factors

		Pennington	*National Benchmark	Minnesota
High school graduation	Percent of ninth-grade cohort in public schools that graduates from high school in four years, 2006-2007	90%	92%	87%
Some college	Percent of adults ages 25-44 with some post-secondary education, 2005-2009	59%	68%	72%
Unemployment	Percent of population ages 16 and older that is unemployed but seeking work, 2009	9.0%	5.3%	8.0%
Child poverty	Percent of children ages 0-17 living below the Federal Poverty Line, 2008	13%	11%	11%
Inadequate social support	Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009	11%	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	29%	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

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	33%	92%	54%
Access to recreational facilities	Number of recreational facilities per 100,000 population, 2008	15.0	17.0	12.0

Demographics

		Pennington	United States	Minnesota
Youth	Percent of total population ages 0-17, 2009	23%	24%	24%
Elderly	Percent of total population ages 65 and older, 2009	16%	13%	13%
Rural	Percent of total population living in a rural area, 2000	32%	21%	29%
Not English proficient	Percent of total population that speaks English less than "very well," 2005-2009	2%	9%	4%
Illiteracy	Percent of population ages 16 and older that lacks basic prose literacy skills, 2003	7%	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.

 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

Exhibit 5
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.

Exhibit 6

Aging Profile

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

Pennington County
Minnesota

CHARACTERISTICS	Total	AGE: Less than 65 Years	AGE: Ages 65 and Older
Population[1]			
Total population	13,930	11,718	2,212
Percent ages 65 and older	16%	-	100%
Percent ages 85 and older	3%	-	18%
Percent male	49%	51%	42%
Percent female	51%	49%	58%
Living Arrangements			
Total households (by age of householder)[1]	5,836	4,372	1,464
Percent with family households (i.e., at least two people who are related)	63%	68%	47%
Percent with householder living alone	31%	24%	51%
Grandparents living with their grandchildren*[2]	97	83	14
Percent who are responsible for their grandchildren	44%	52%	0%
Housing[1]			
Percent of occupied housing that is owner-occupied	73%	73%	73%
Percent of occupied housing that is renter-occupied	27%	27%	27%
Economic Security[2]			
Percent of working-age population in labor force	72%	86%	16%
Percent of total population with income less than 100% of poverty	12%	11%	15%
Percent of total population with income less than 200% of poverty	29%	27%	40%
Median household income (by age of householder)	$44,926	$44,549	$24,842
Owner-occupied housing units (by age of householder)	4,431	3,282	1,149
Percent spending 30% or more of income toward housing costs	18%	17%	21%
Renter-occupied housing units (by age of householder)	1,289	942	347
Percent spending 30% or more of income toward housing costs	37%	39%	33%

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

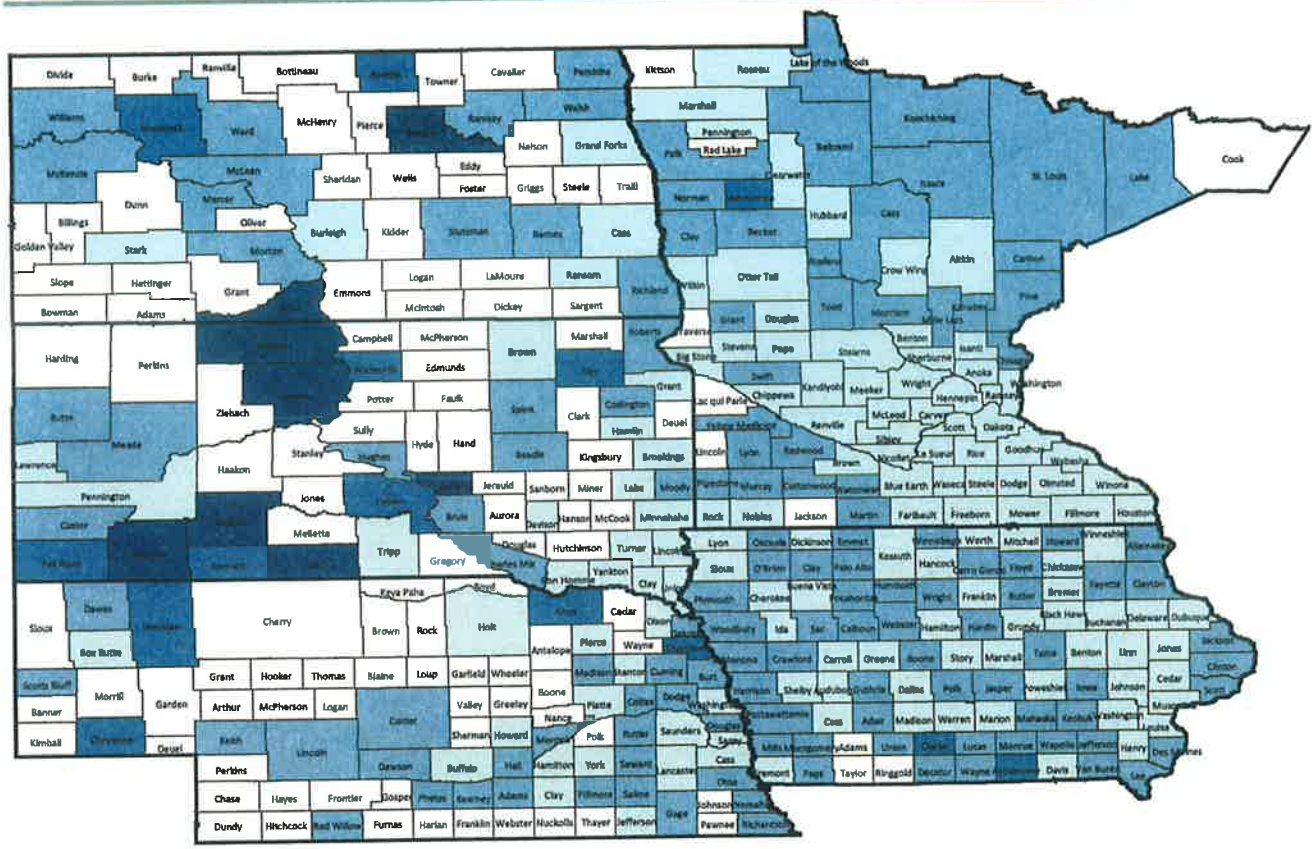
Source: U.S. Census Bureau, [1] 2010 Census Summary File 1 and [2] 2006-2010 American Community Survey 5-Year Estimates (sample data). The estimates presented are meant to give perspective on characteristics across age categories; however, because they are based on sample data, one should use caution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

 The Aging Profile was prepared by researchers at North Dakota State University in Fargo for Sanford Health. May 2012

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.

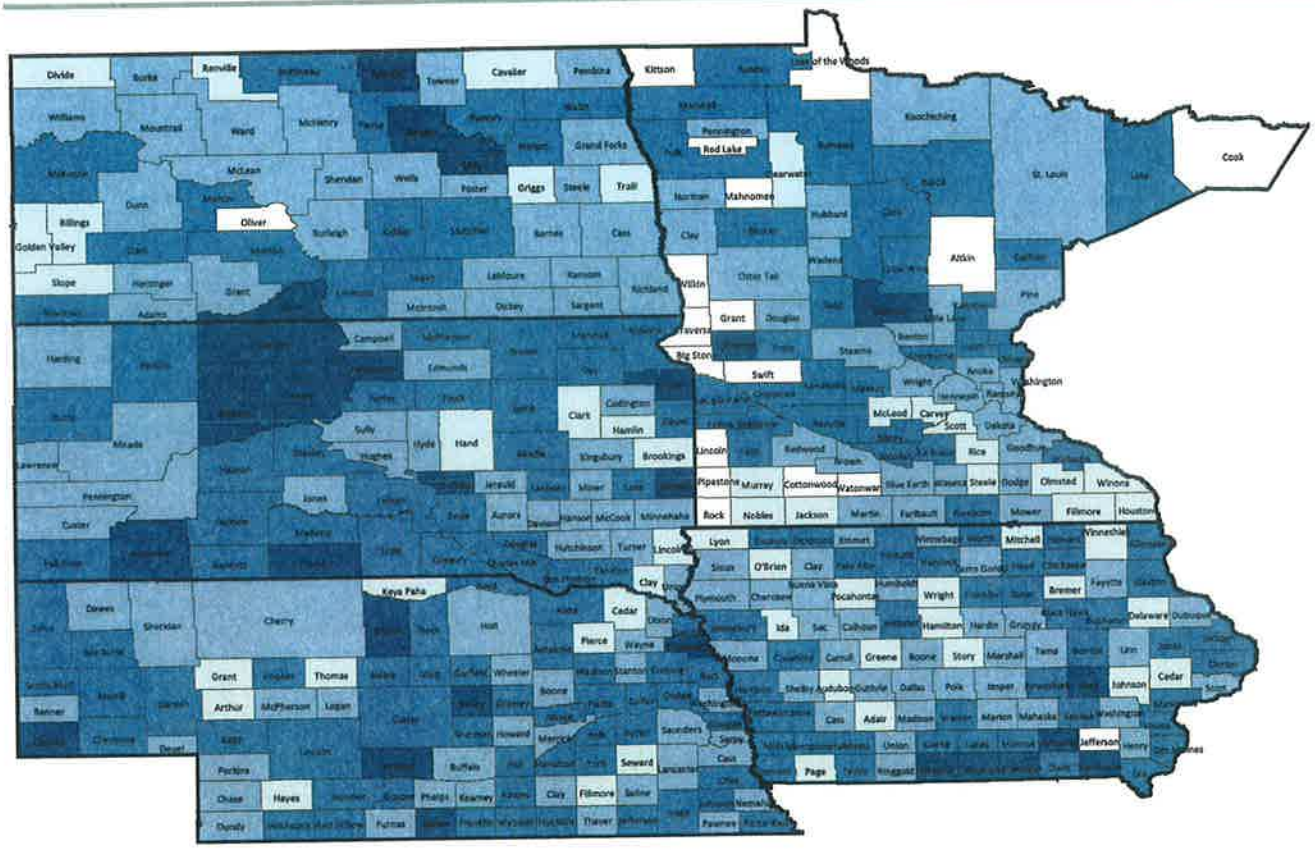
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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.

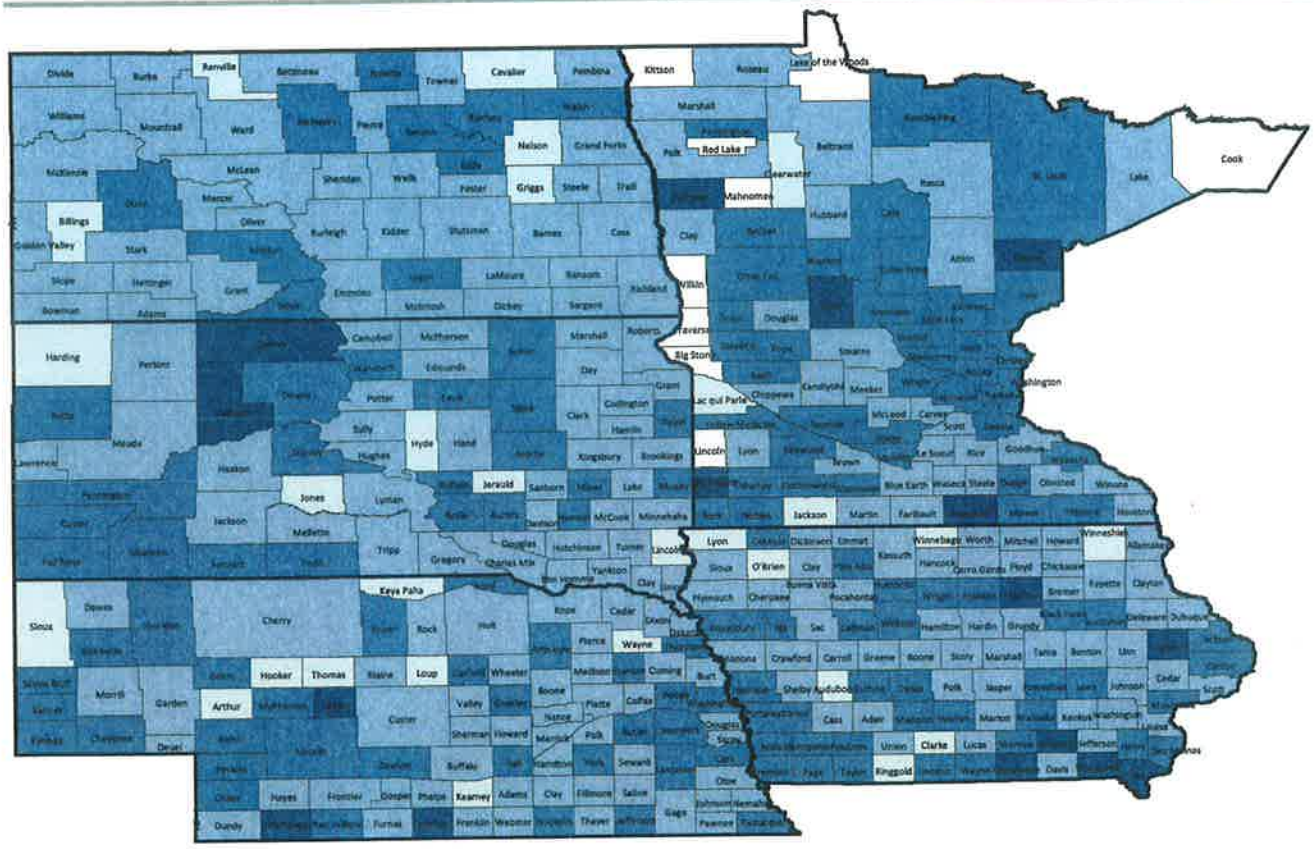
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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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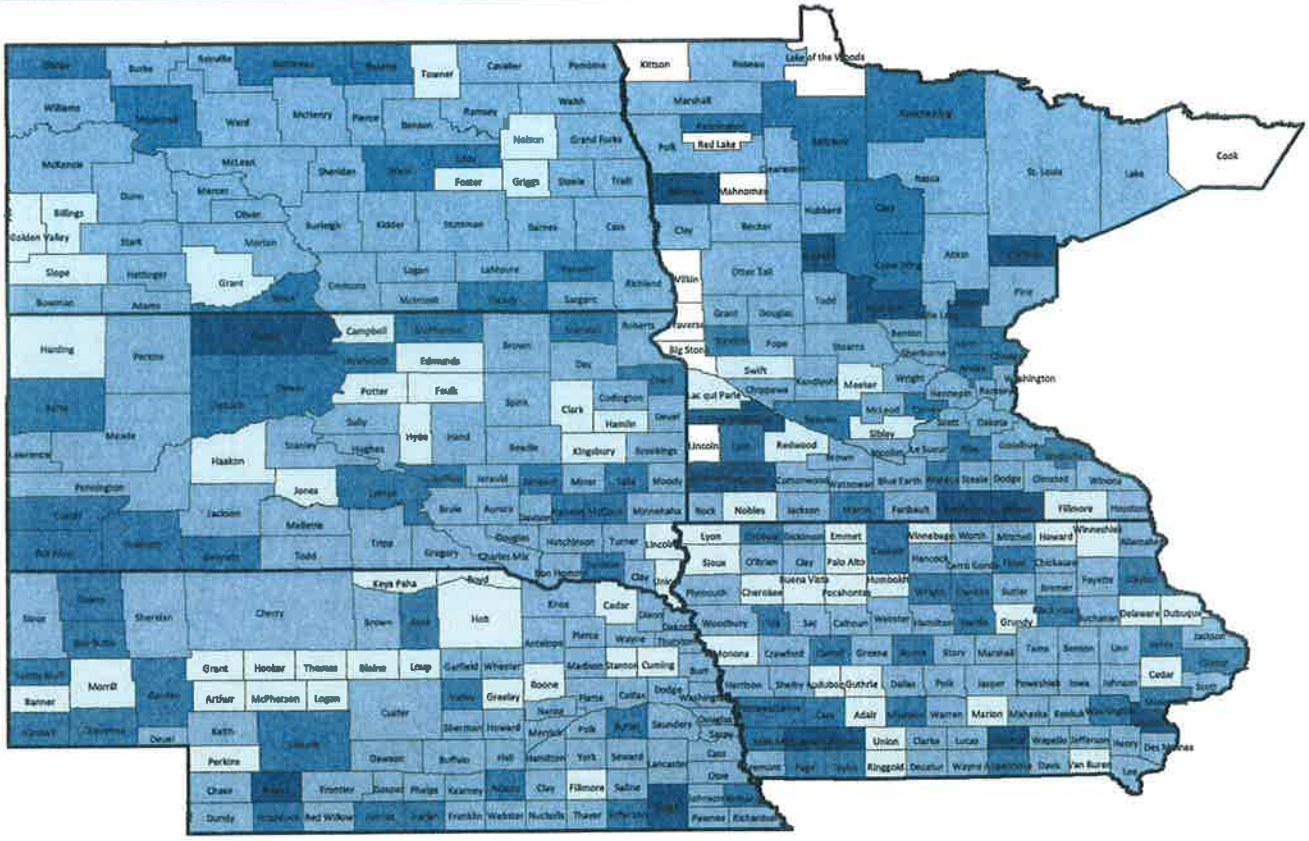
Map 4

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 households 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.

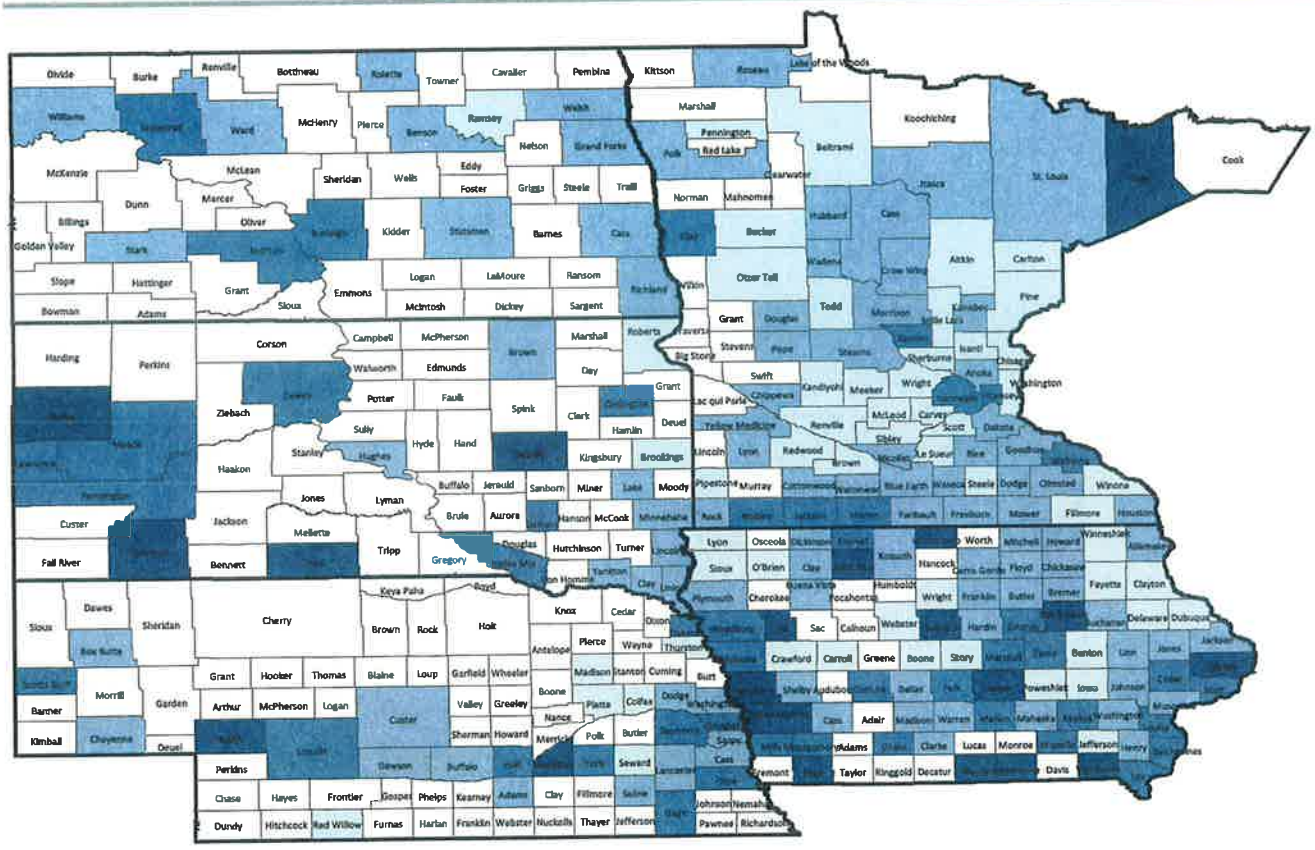
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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.

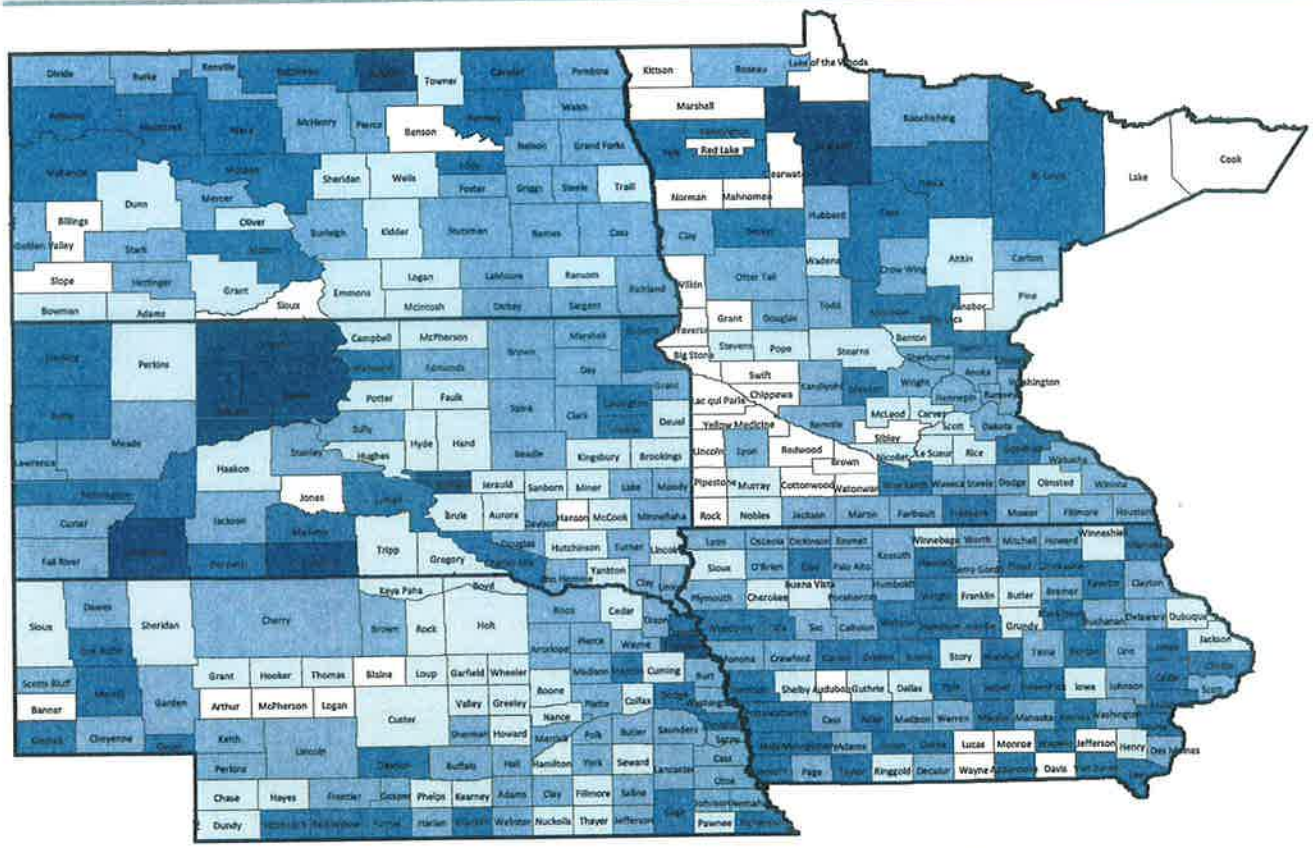
Importance: Low birthweight represents two factors: maternal exposure to health risks and an infant's current and future morbidity, as well as premature mortality risk. The health consequences of low birthweight are numerous.

- 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/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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.

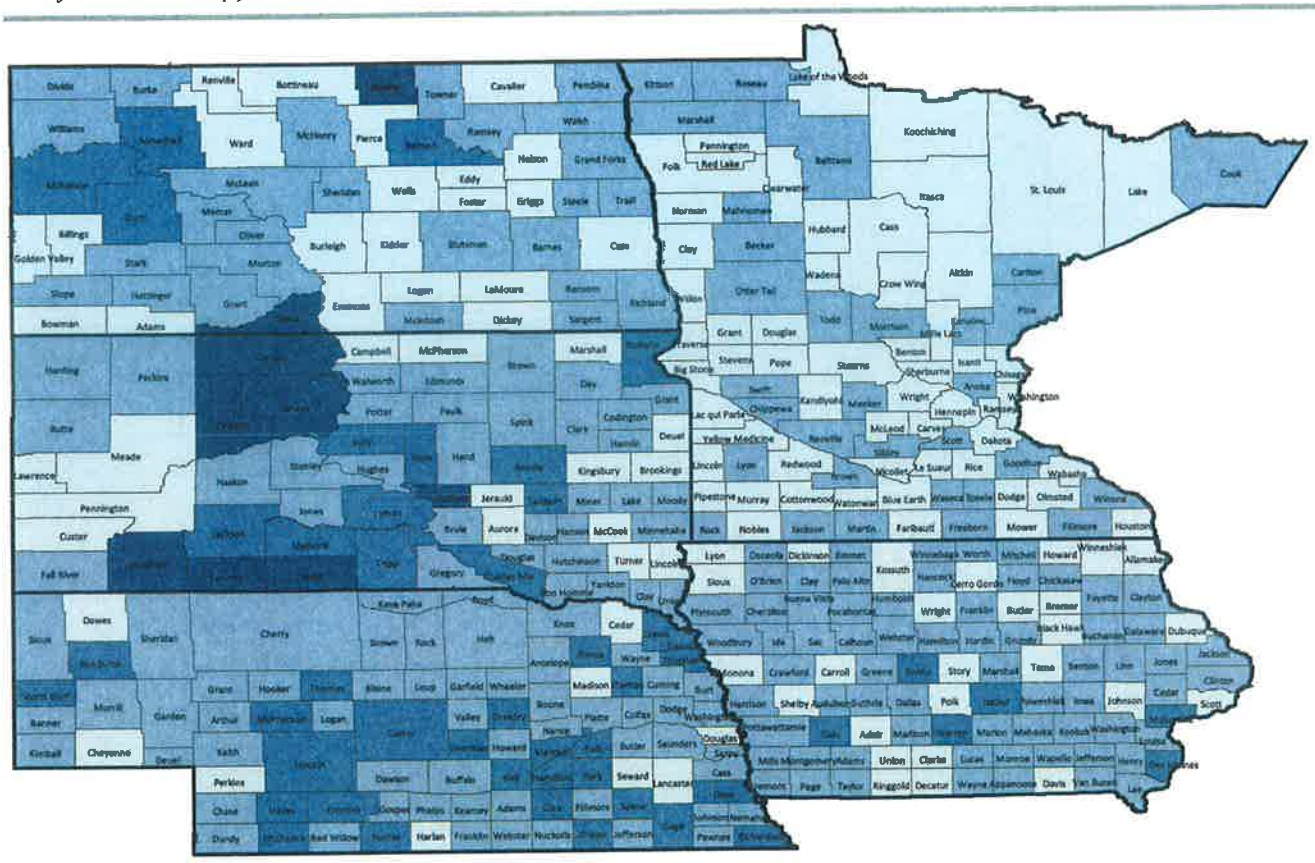
Importance: Each year approximately 443,000 premature deaths occur in the U.S. primarily due to smoking. Cigarette smoking is identified as a cause in multiple diseases including various cancers, cardiovascular disease, respiratory conditions, low birthweight, and other adverse health outcomes. Measuring 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.

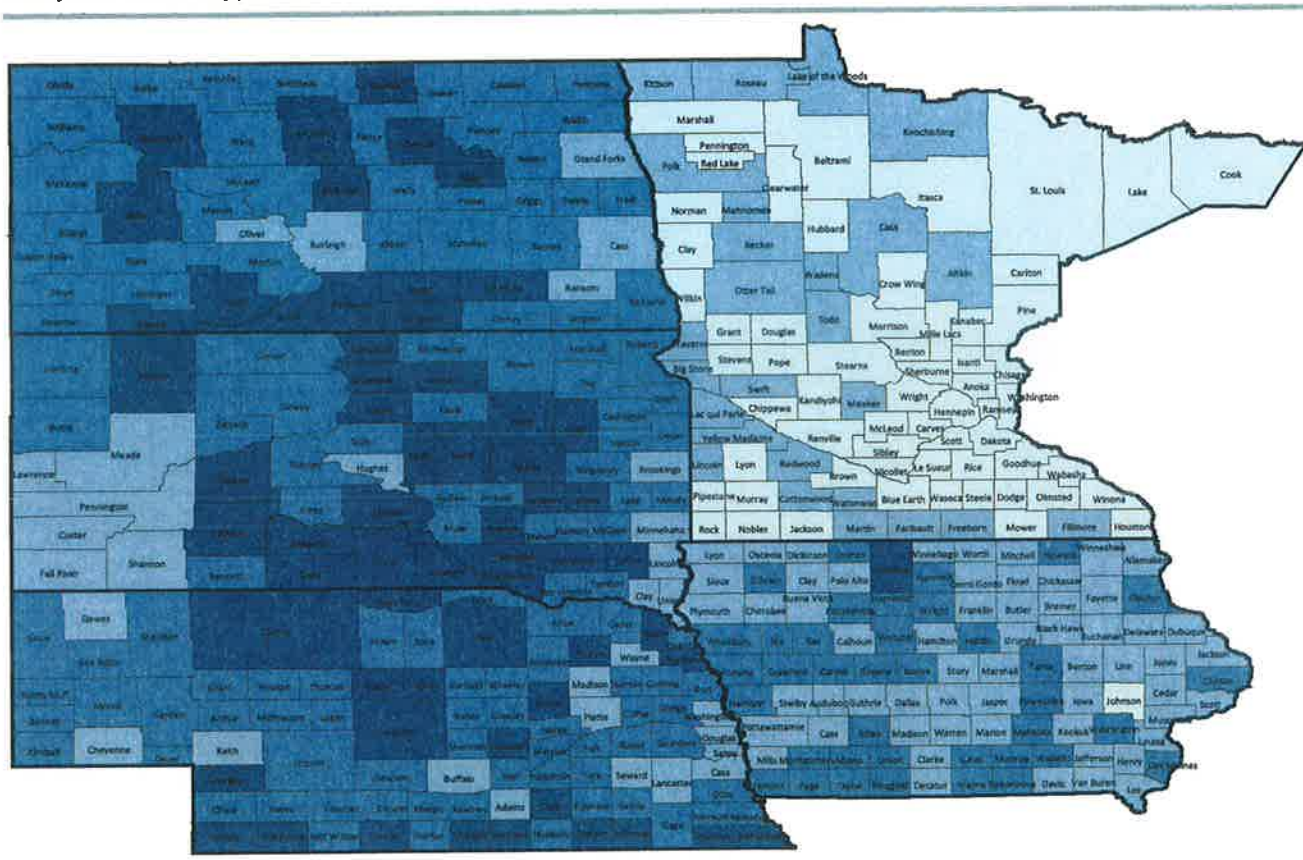
Importance: Obesity is often the end result of an overall energy imbalance due to poor diet and limited physical activity. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep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

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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.

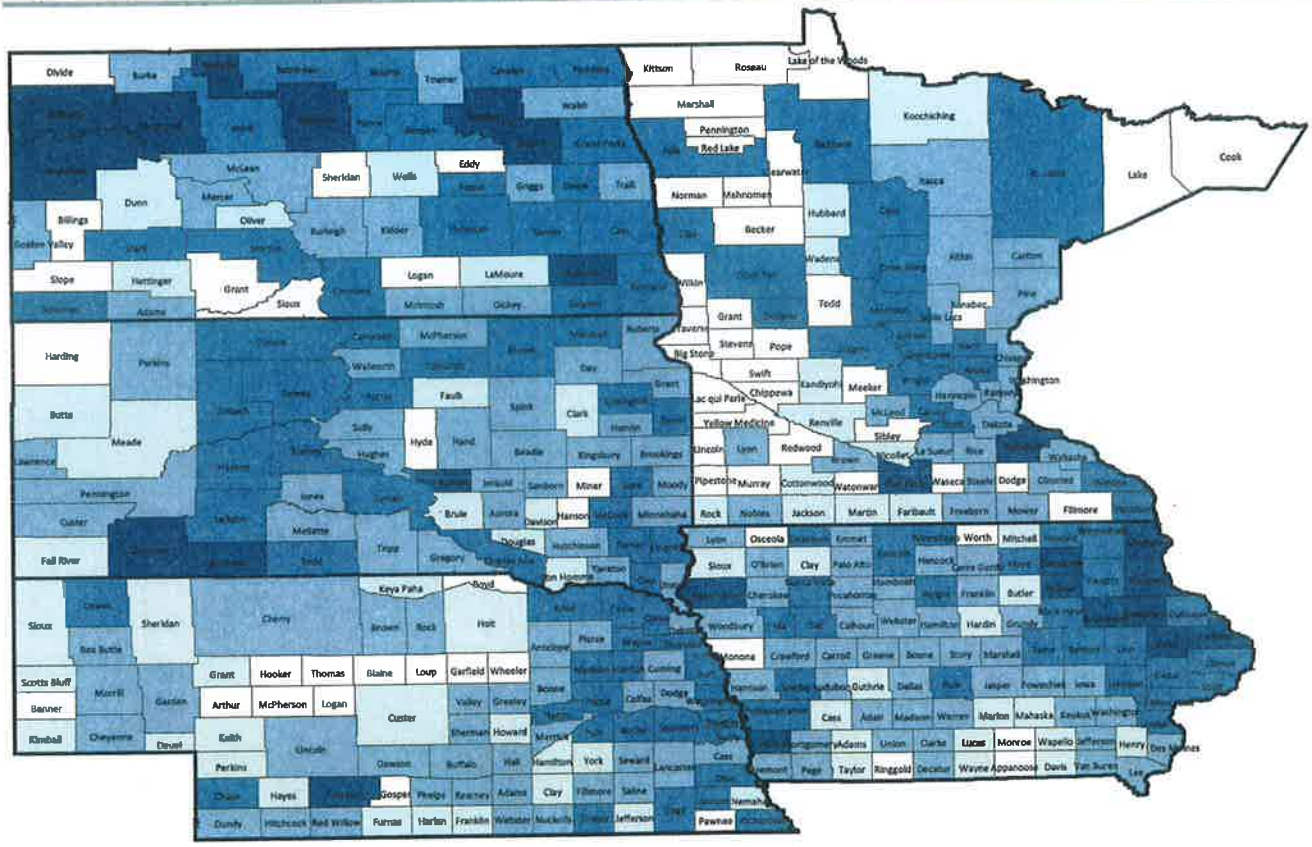
Importance: Regular physical activity is one of the most important things one can do for their health. It can help control weight, reduce risk of cardiovascular disease, reduce risk for type 2 diabetes and metabolic syndrome, reduce risk of some cancers, strengthen bones and muscles, improve mental health 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/.

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.

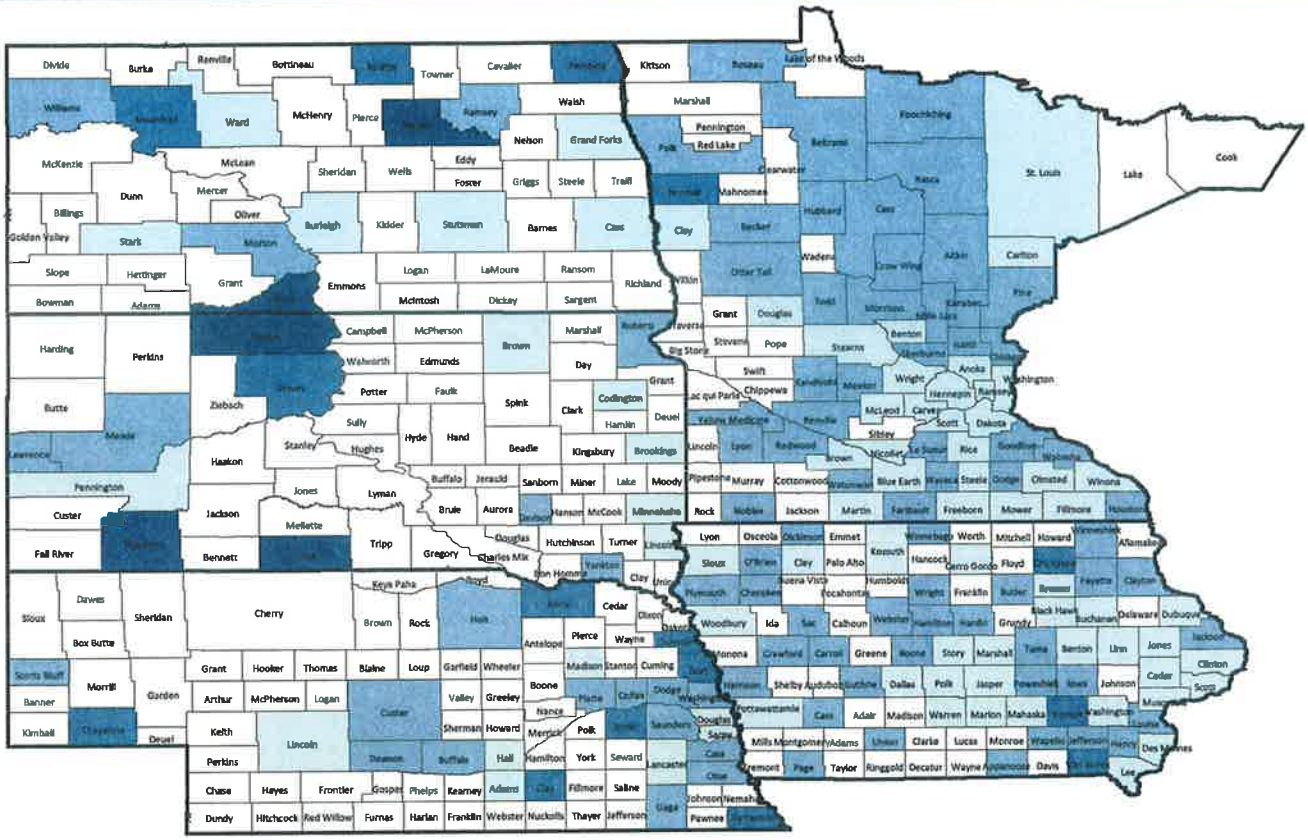
Importance: Excessive drinking is a risk factor for a number of adverse health outcomes such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and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

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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.

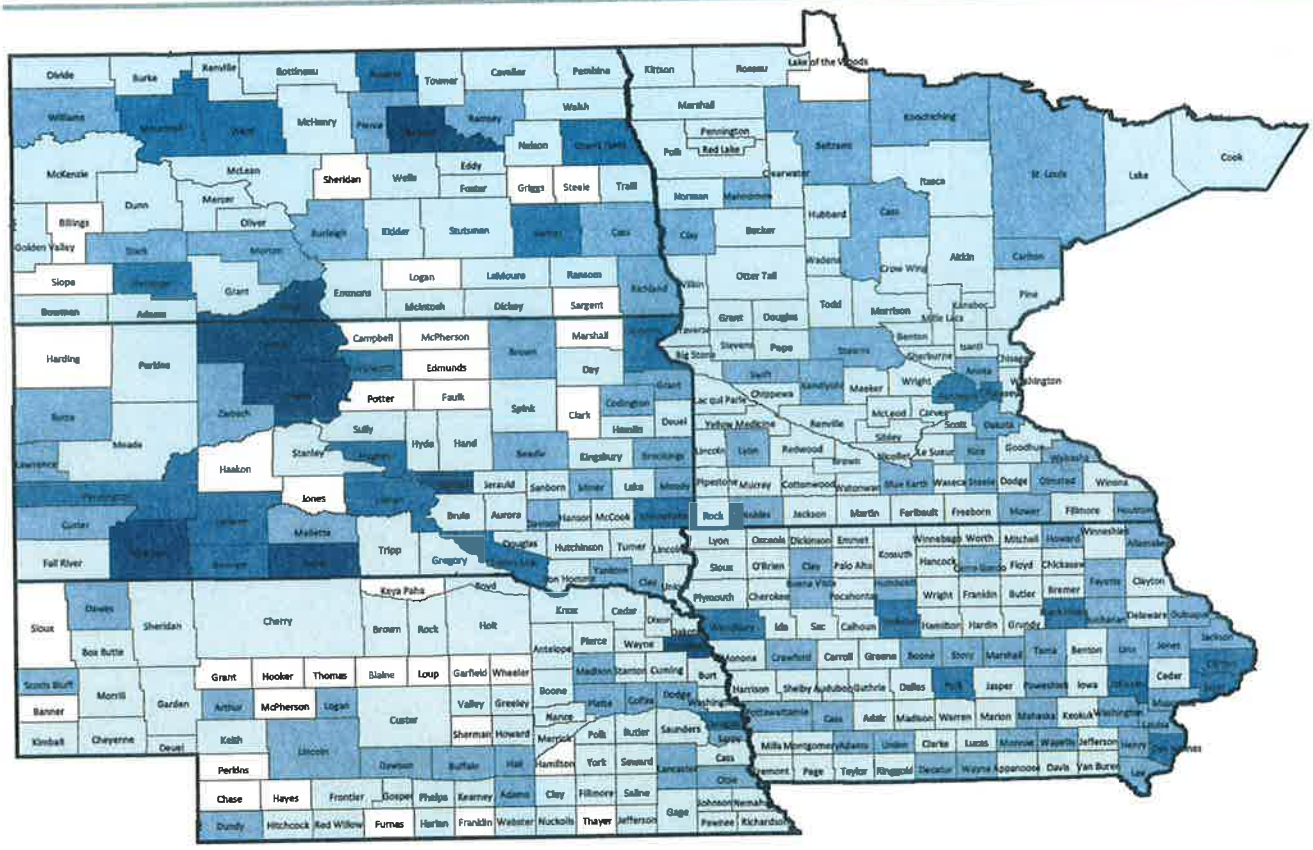
Where It Comes From: These data were calculated by National Center for Health Statistics (NCHS), part of the Centers for Disease Control and Prevention (CDC), based on data reported to the National Vital Statistics System (NVSS). NCHS used data for a seven-year period to create more robust estimates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

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.

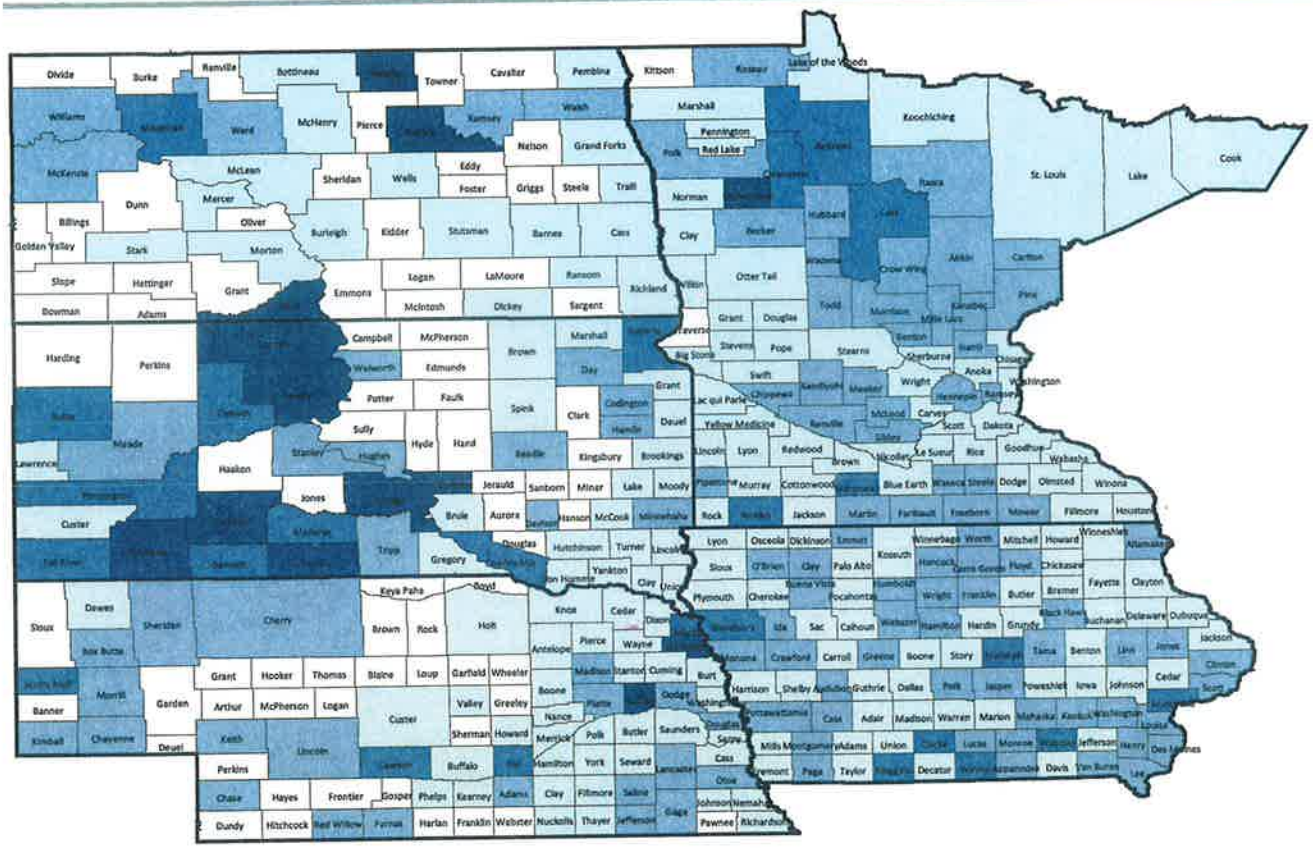
Where It Comes From: The county-level measures were obtained from the CDC's National Center for Hepatitis, HIV, STD, and TB Prevention.

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/.

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.

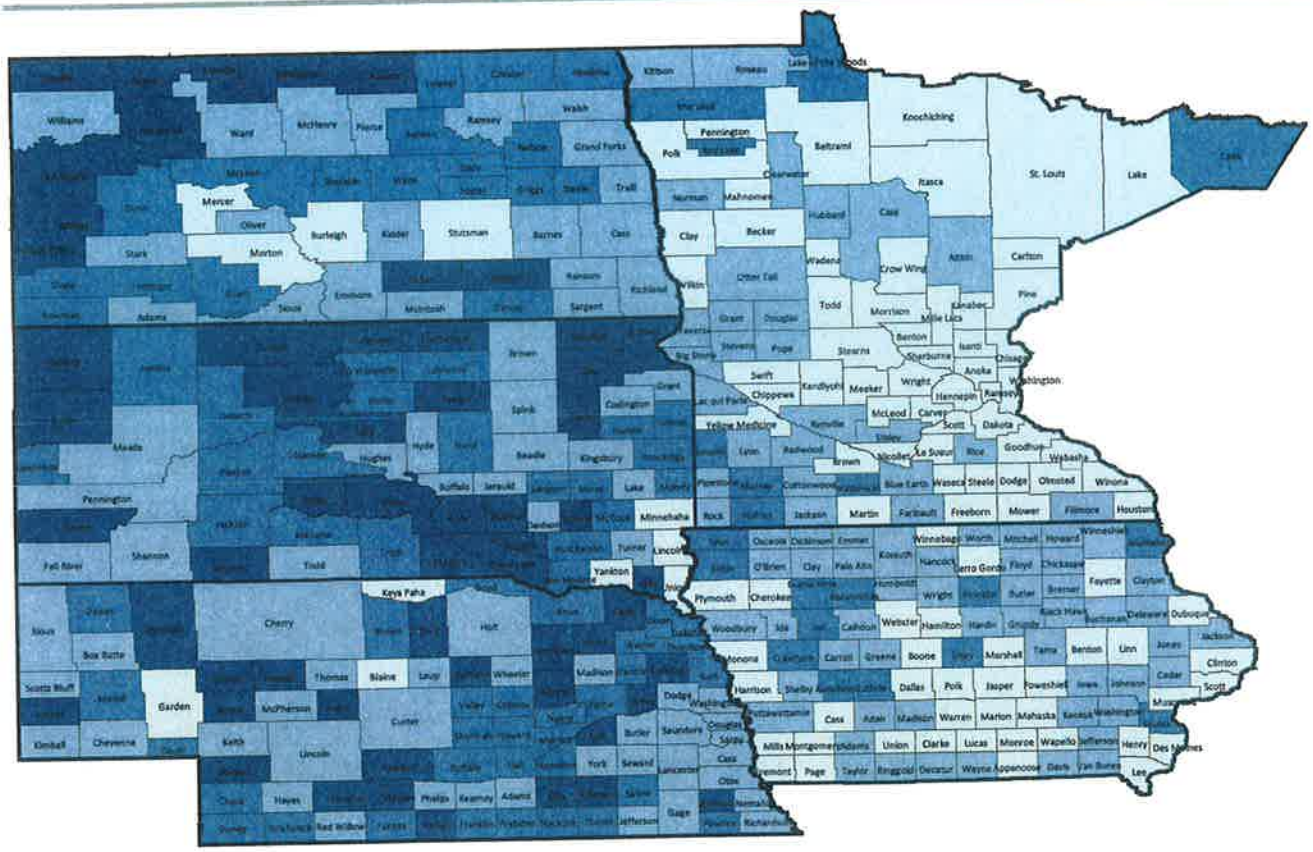
Where It Comes From: Teen birth rates were obtained from the National Vital Statistics System (NVSS) at the National Center for Health Statistics, part of the Centers for Disease Control and Prevention (CDC).

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/.

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.

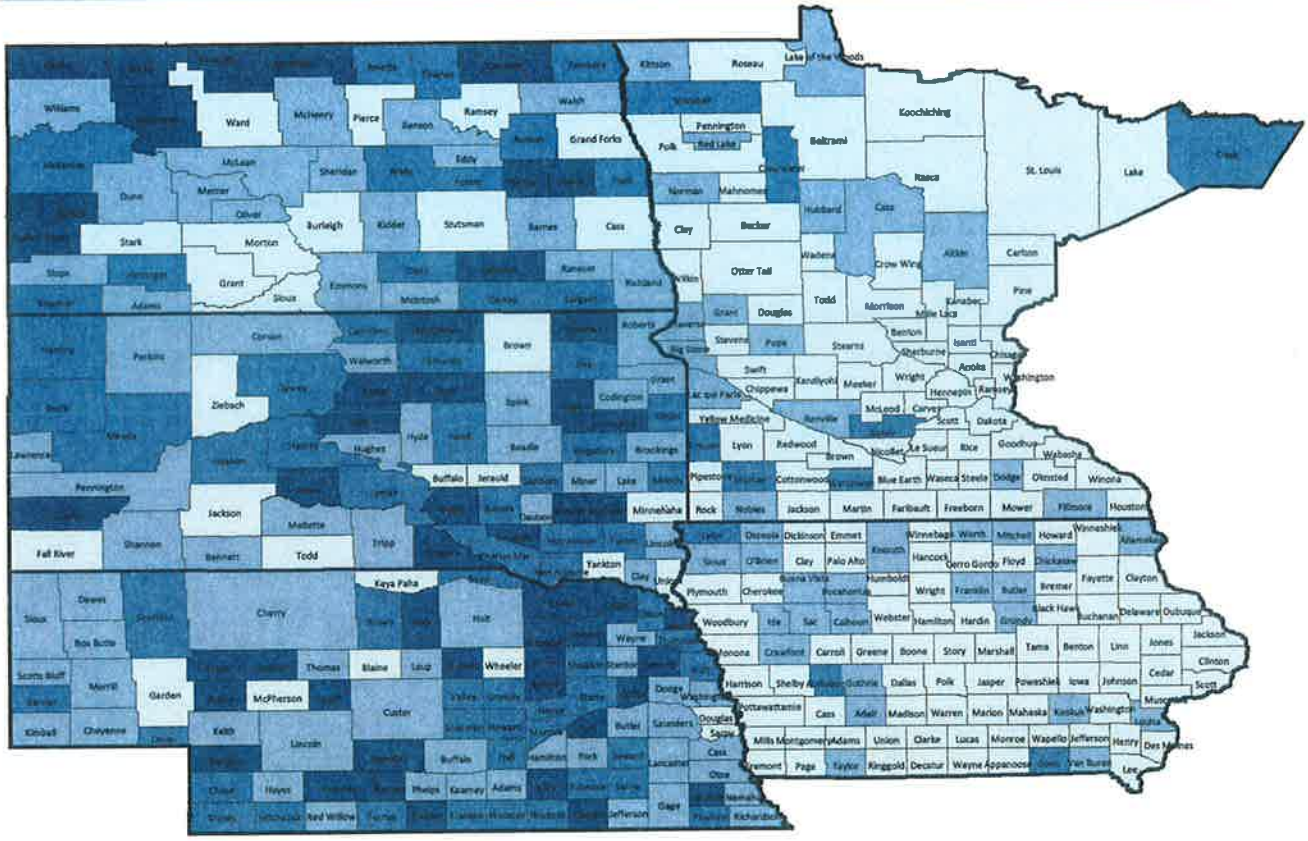
Importance: Lack of health insurance coverage is a significant barrier to accessing needed health care.

- 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/.

Uninsured Youth - A health factor measure focusing on clinical care

Map 14

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)

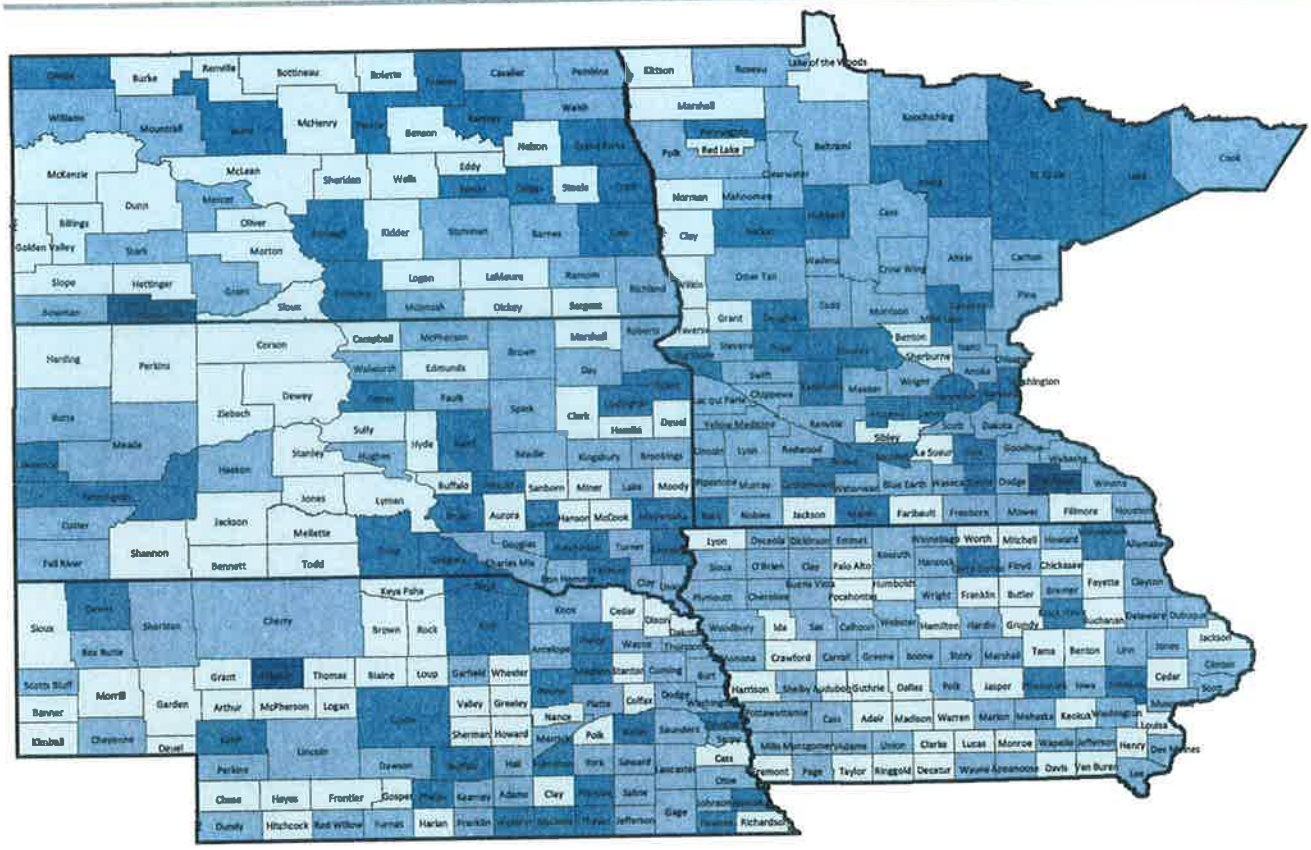
- Data were obtained from the Small Area Health Insurance Estimates (SAHIE), a program of the U.S. Census Bureau, http://www.census.gov/did/www/sahie/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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

Map 15

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.

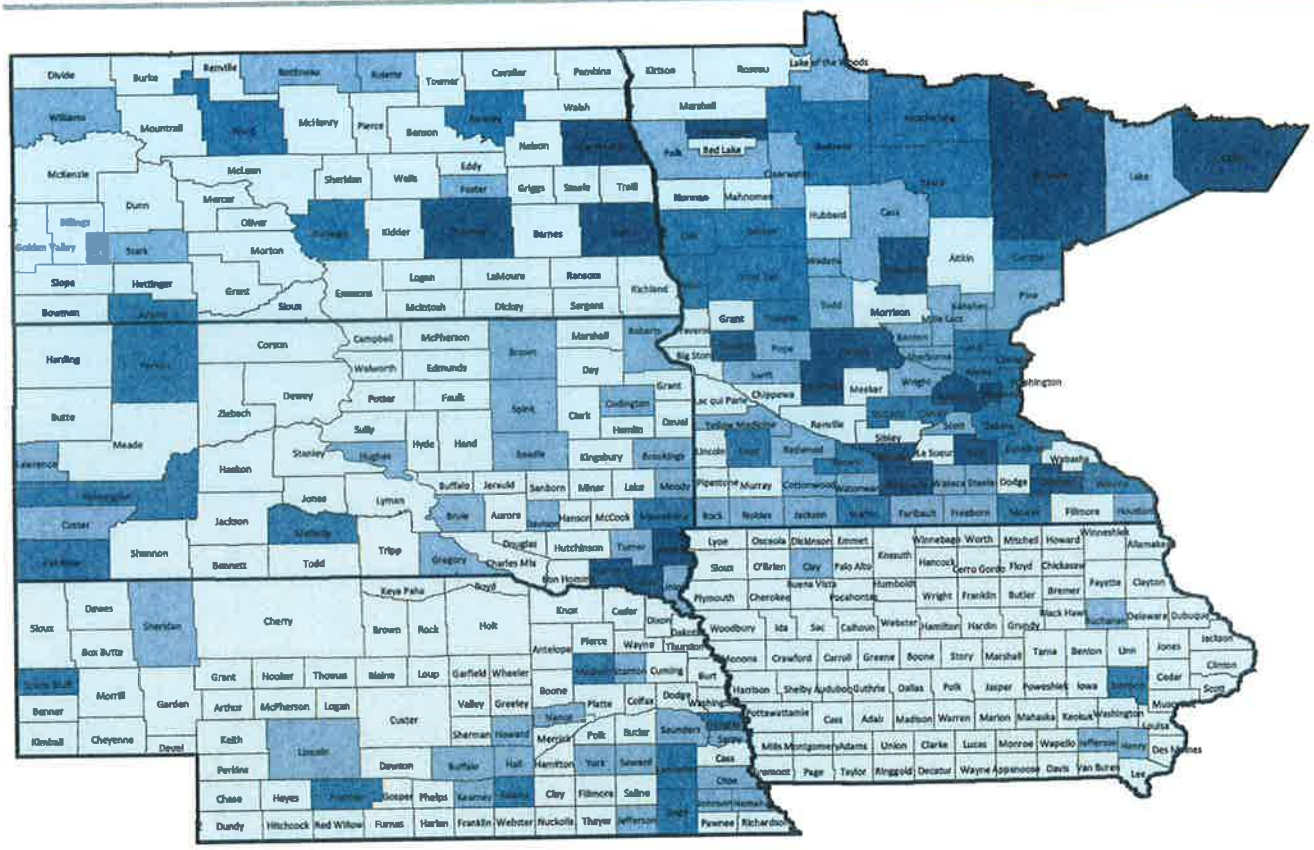
Importance: Having access to care requires not only having financial coverage but also access to providers. While high rates of specialist physicians has been shown to be associated with higher, and perhaps unnecessary, utilization, having sufficient availability of primary care physicians is essential 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).

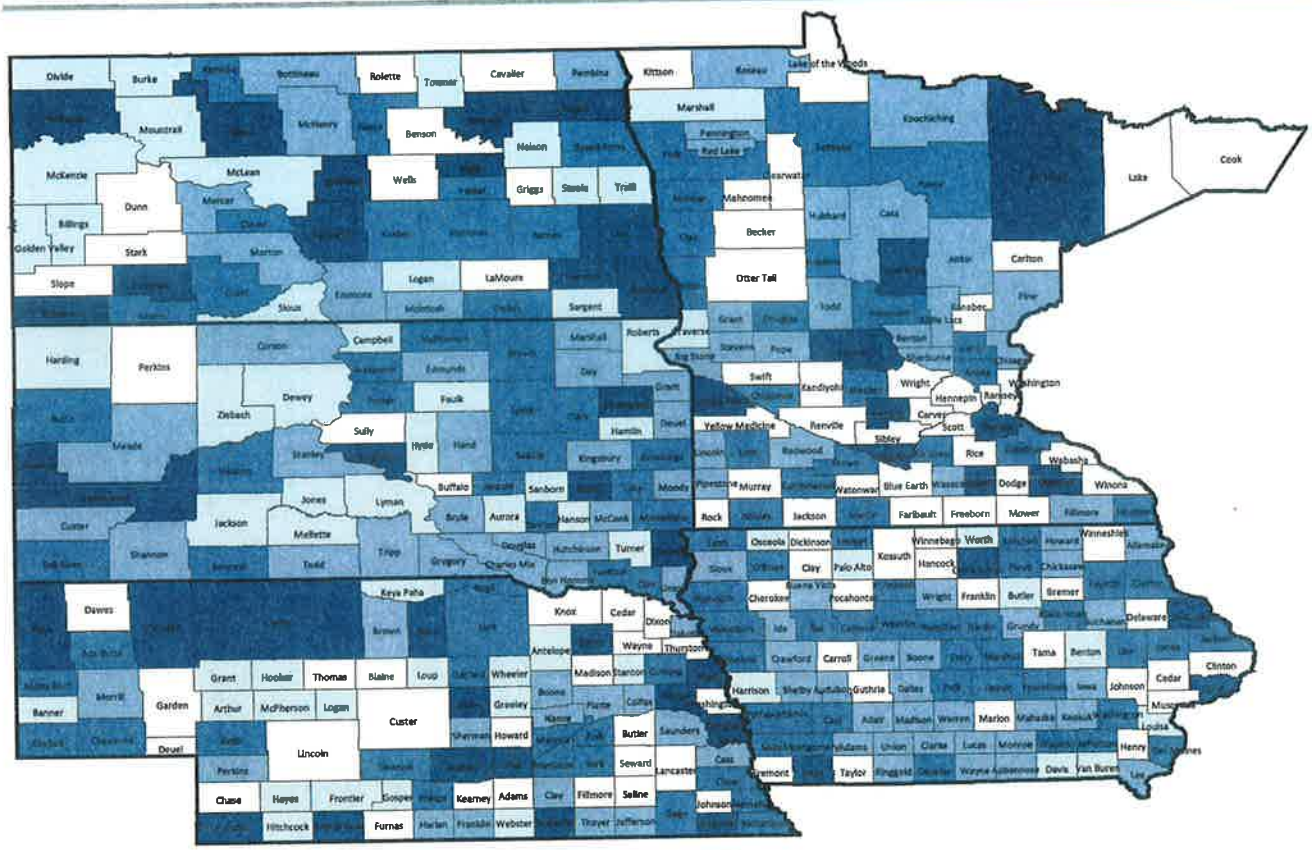
Importance: Even more than other areas of health and medicine, the mental health field is plagued by disparities in the availability of and access to its services. These disparities are viewed readily through the lenses of racial and cultural diversity, age, and gender. A key disparity often hinges on 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 - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

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.

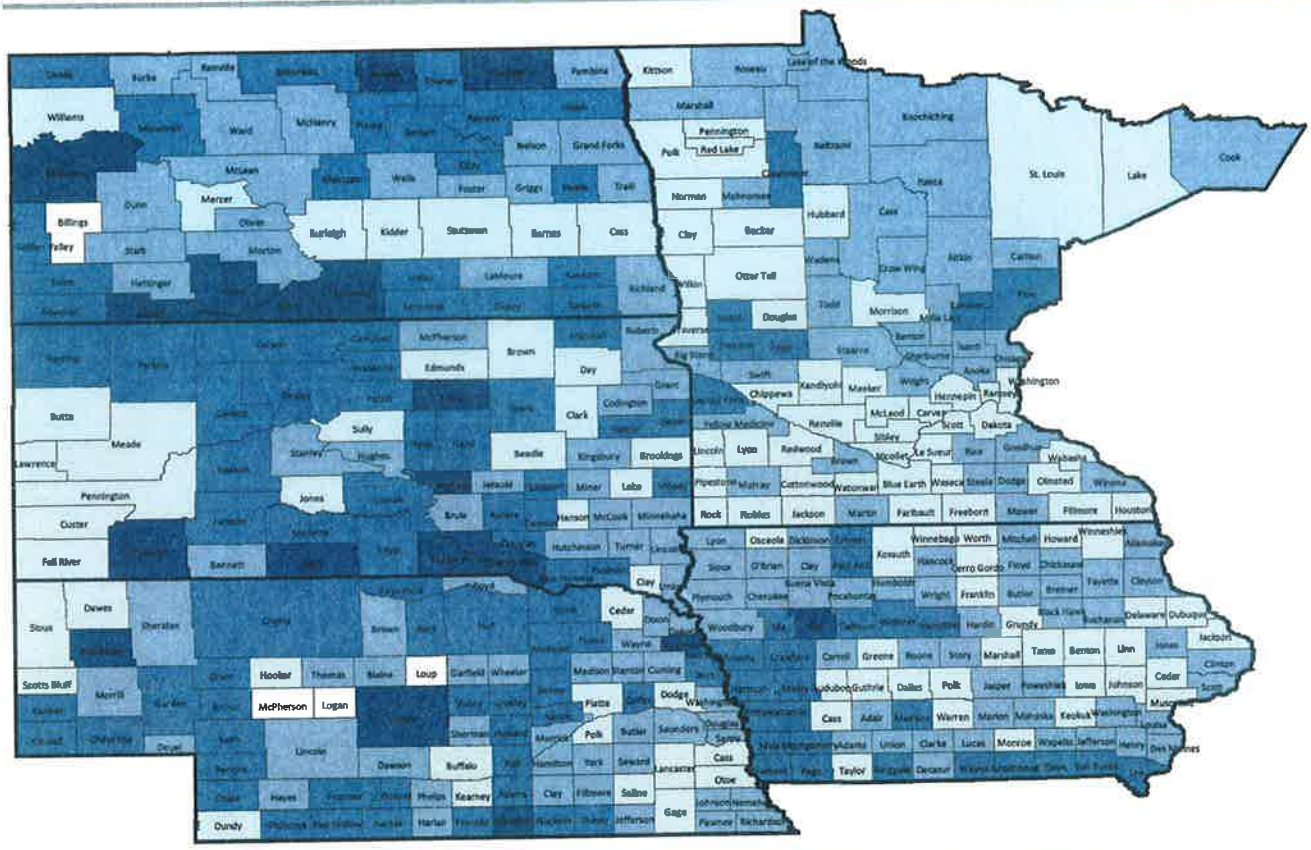
Importance: Today, thanks to fluoride, healthier lifestyles and quality dental care, more people than ever before are keeping their natural teeth throughout their lifetime. Yet for those who live in areas where a dentist is not available or those who cannot afford treatment, getting dental care can be 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.

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.

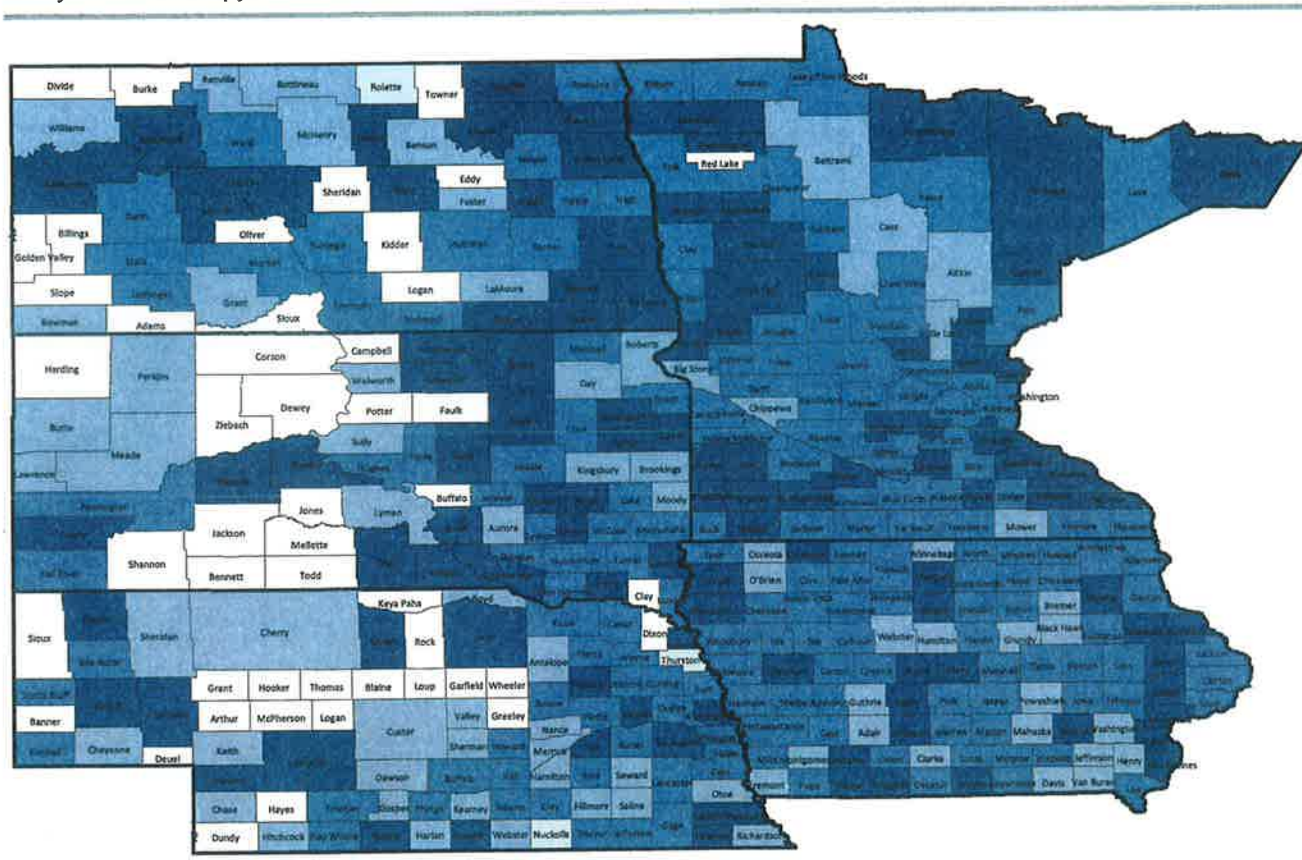
Where It Comes From: Estimates of preventable hospital stays were calculated by the authors of the Dartmouth Atlas of Health Care using Medicare claims data.

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/.

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.

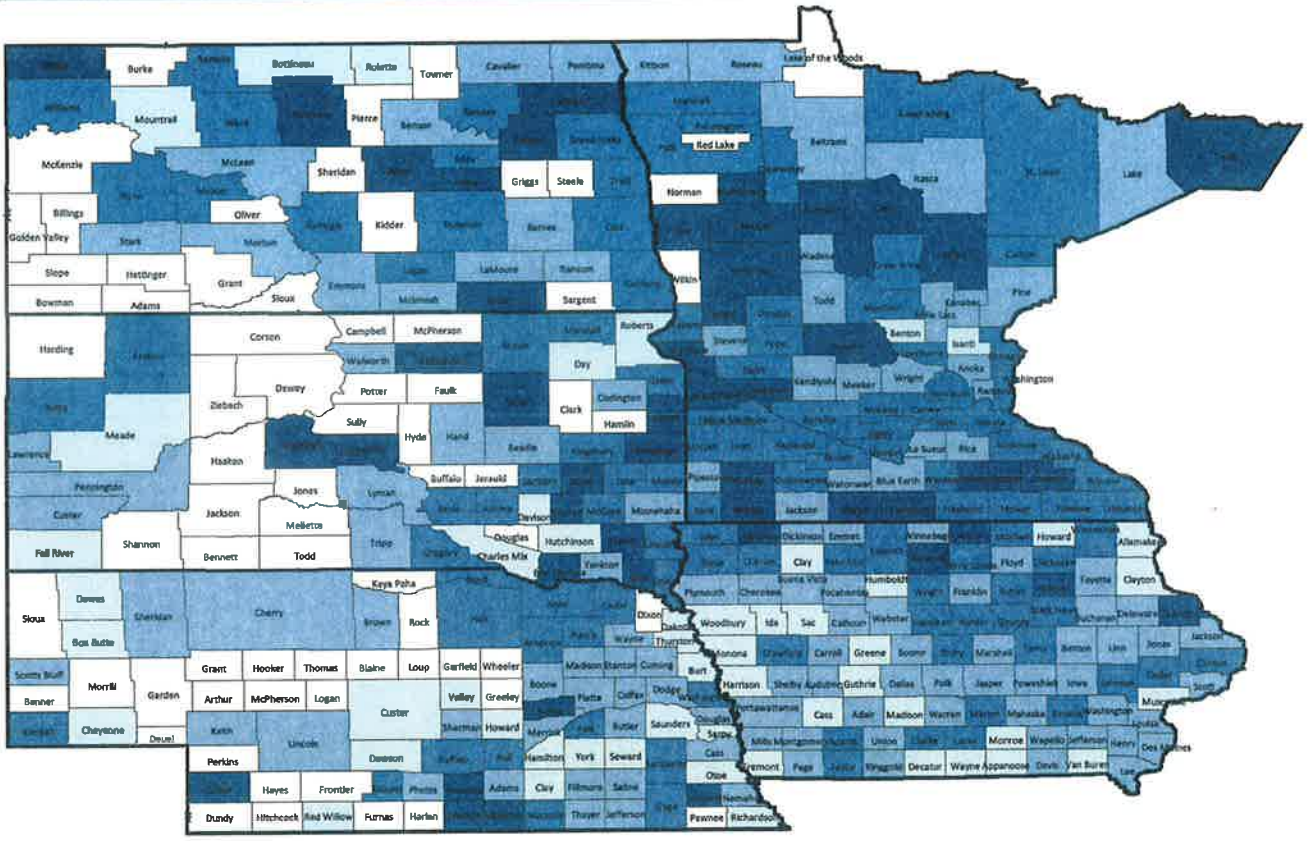
Where It Comes From: Estimates of diabetic screening were calculated by the authors of the Dartmouth Atlas of Health Care using Medicare claims data.

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/.

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.

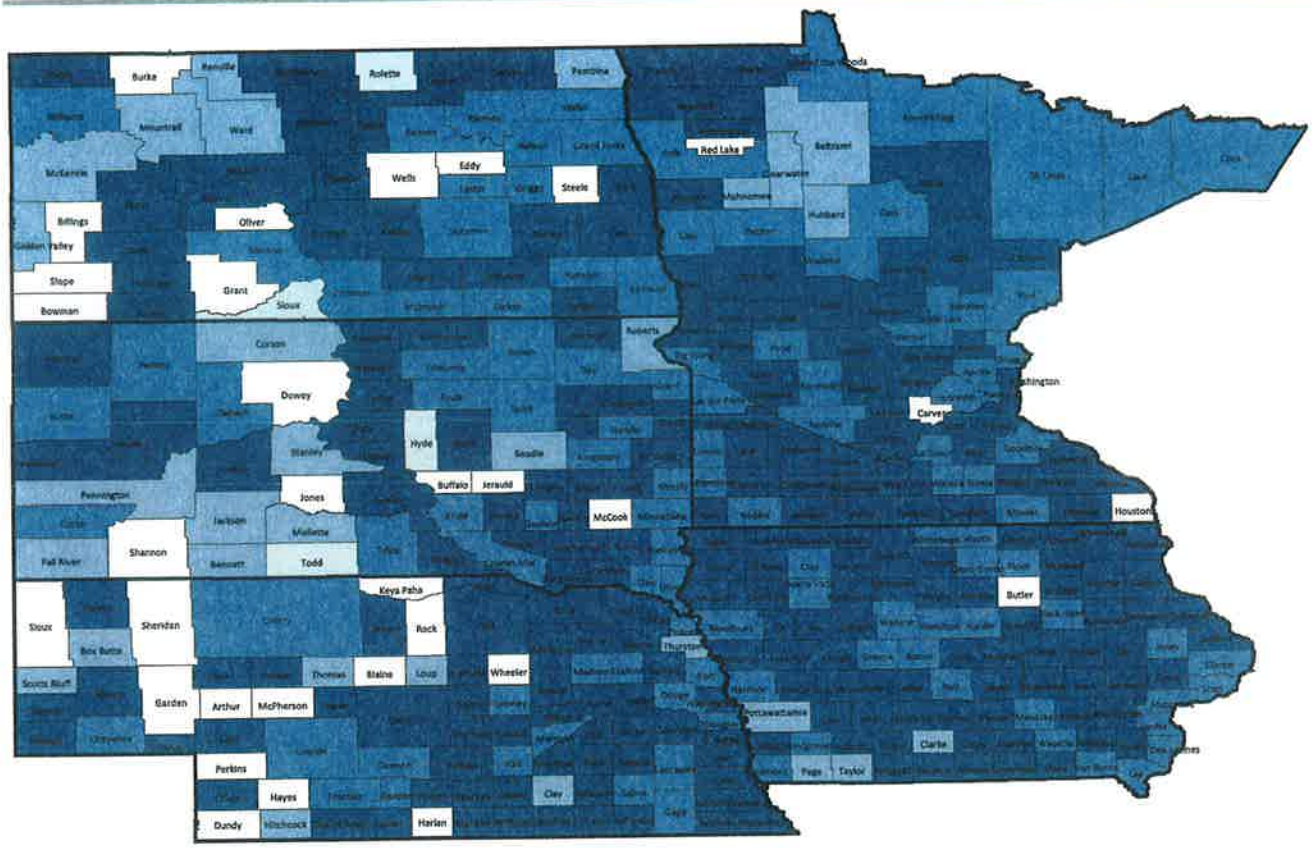
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

High School Graduation - A health factor measure focusing on educaton

Map 21

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.

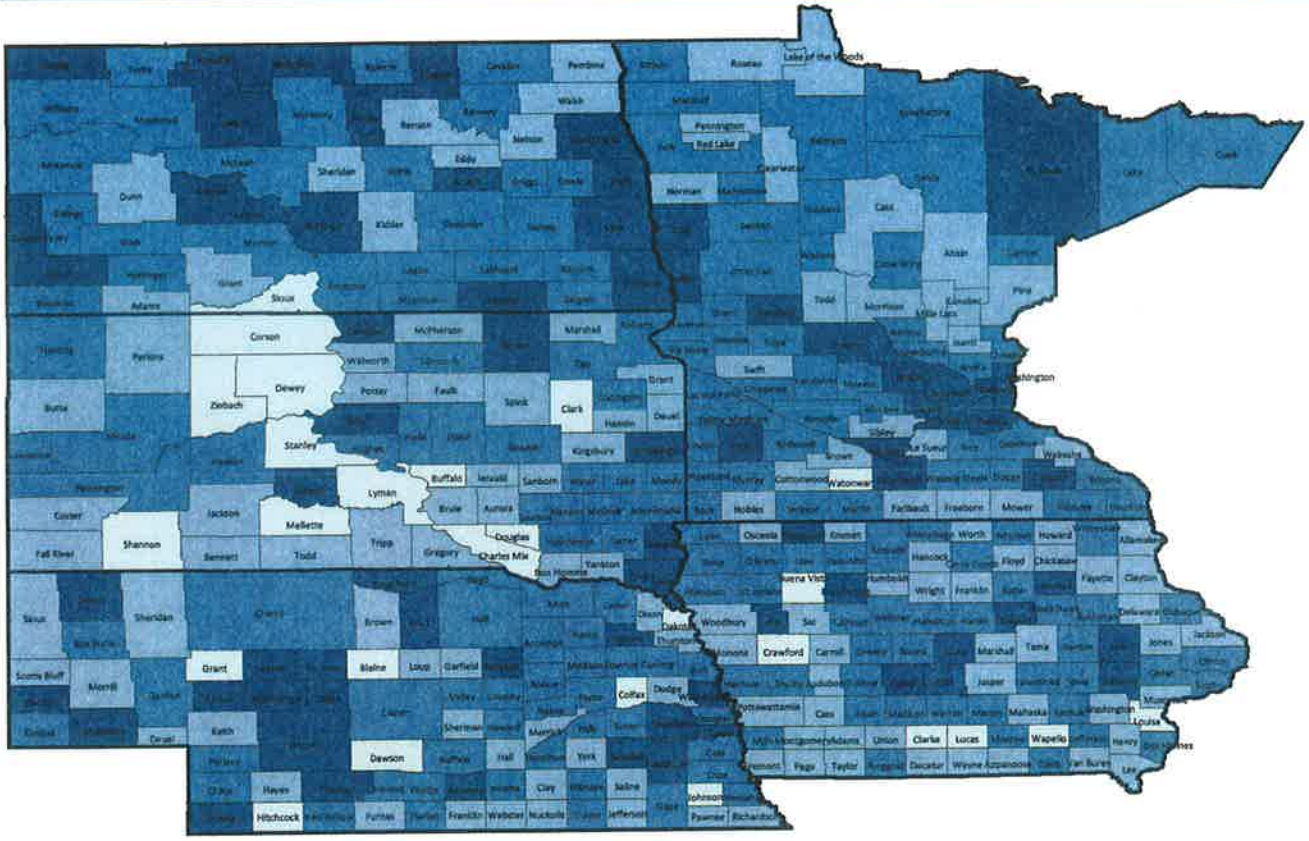
Importance: The relationship between more education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles.

- 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/.

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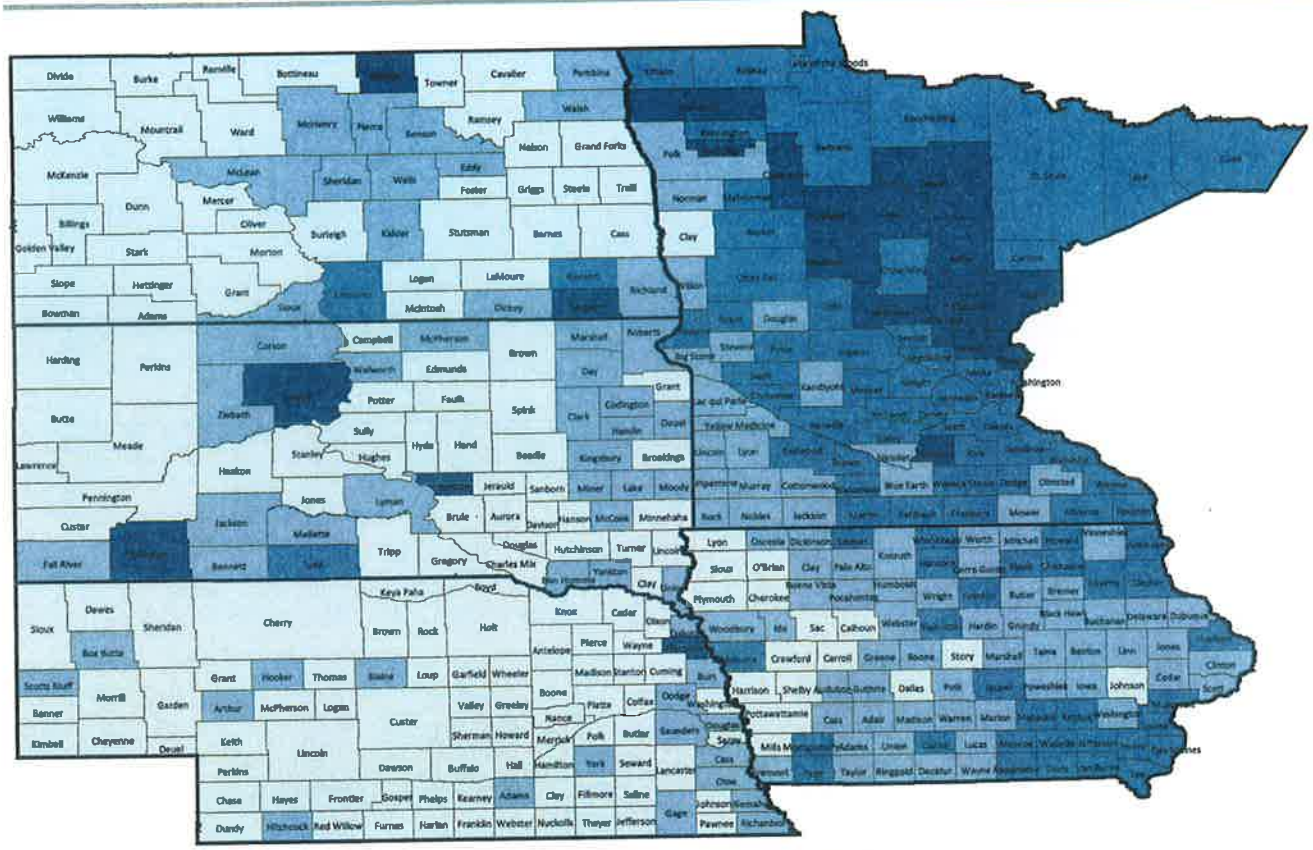
Map 23

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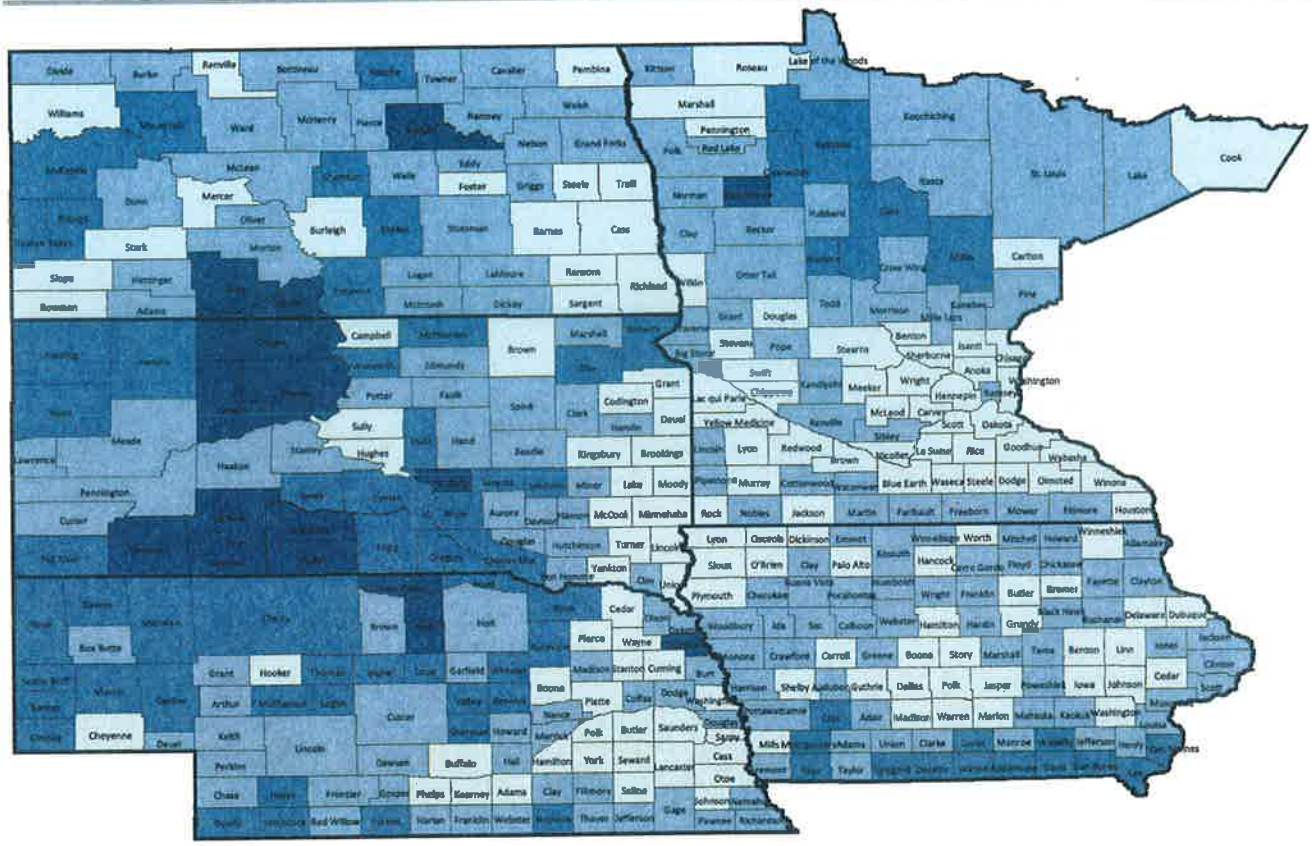
Children in Poverty - A health factor measure focusing on income and poverty

Map 24

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.

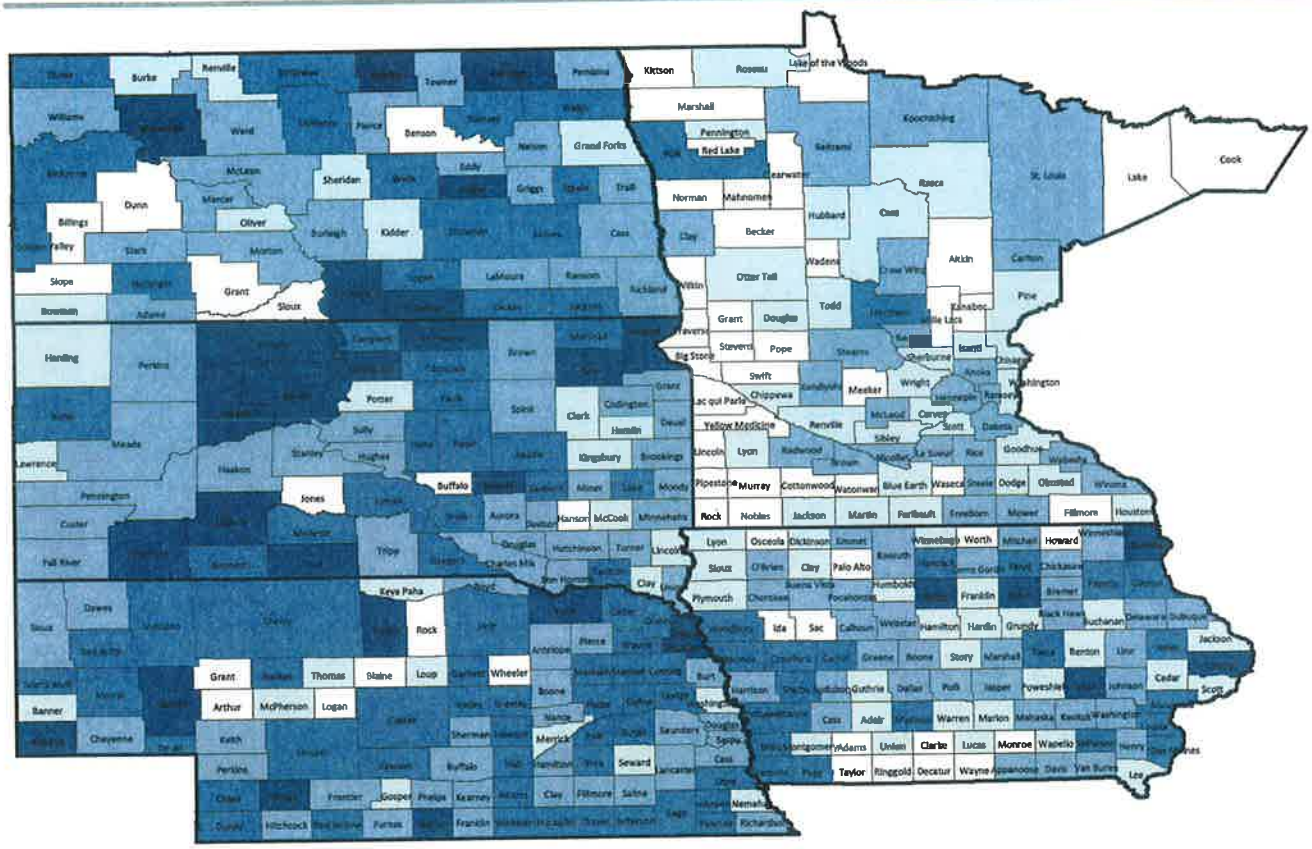
Importance: Poverty can result in negative health consequences, such as increased risk of mortality, increased prevalence of medical conditions and disease incidence, depression, intimate partner violence, and poor health behaviors. While negative health effects resulting from poverty are present at 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/.

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

Map 25

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.

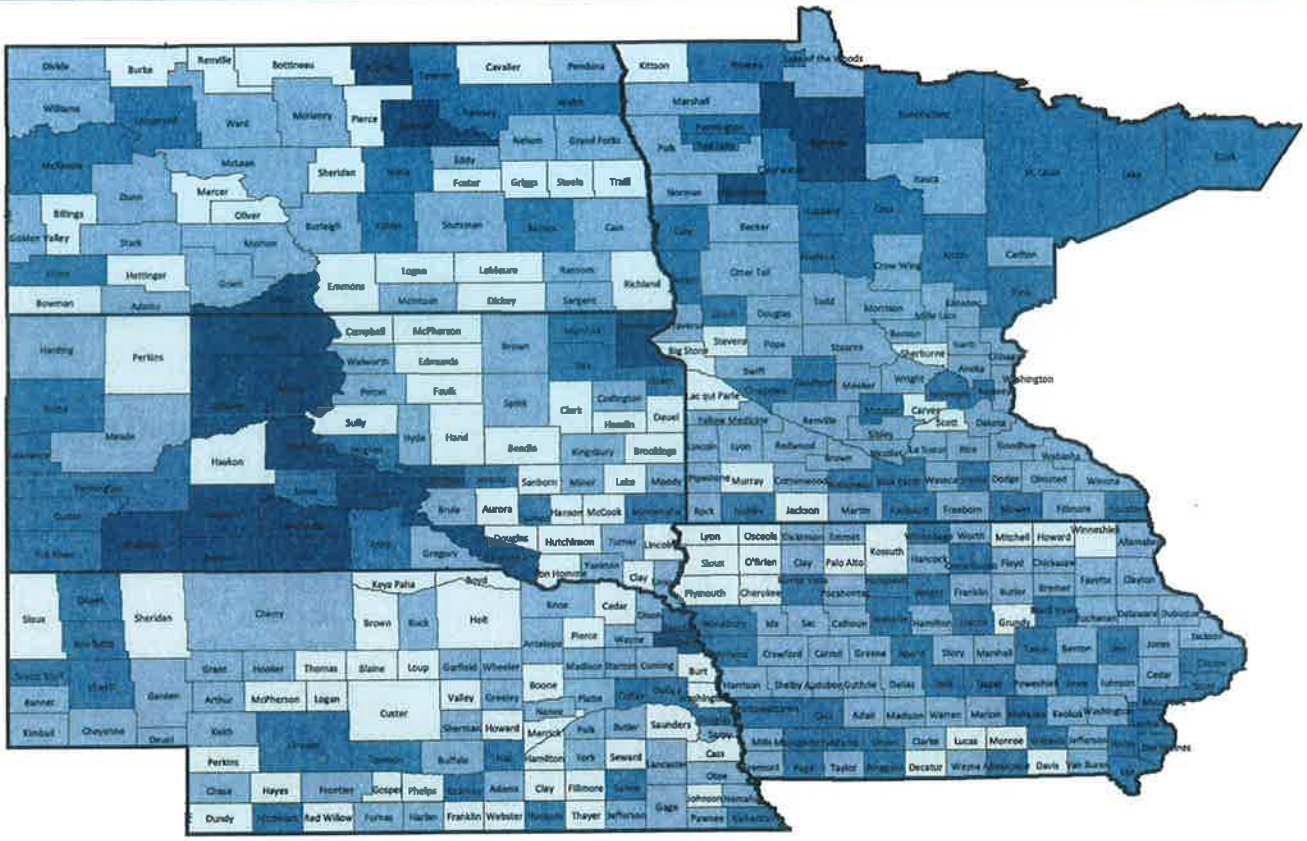
Where It Comes From: This measure was calculated by the National Center for Health Statistics using data obtained from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), a random-digit dial survey. BRFSS data are representative of the total non-institutionalized 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/.

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.

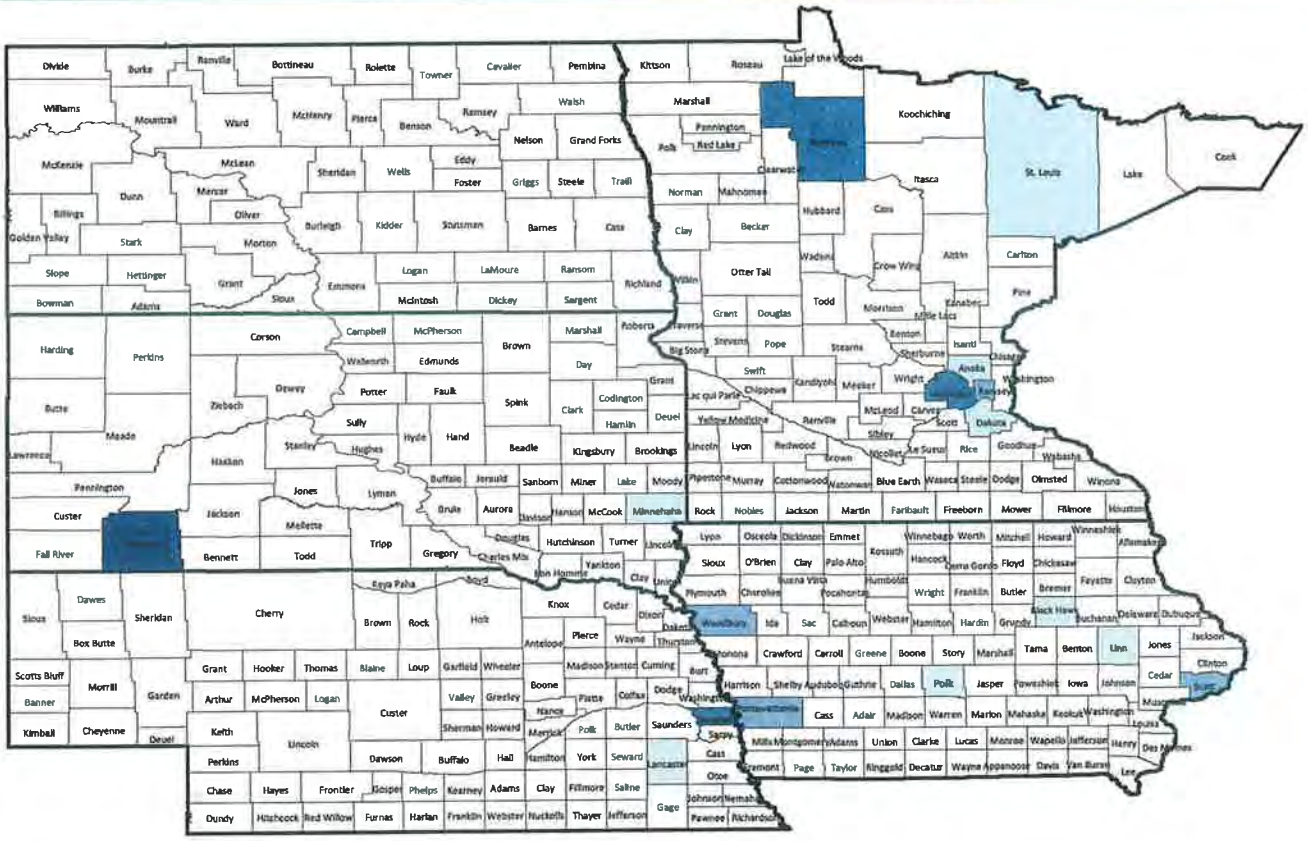
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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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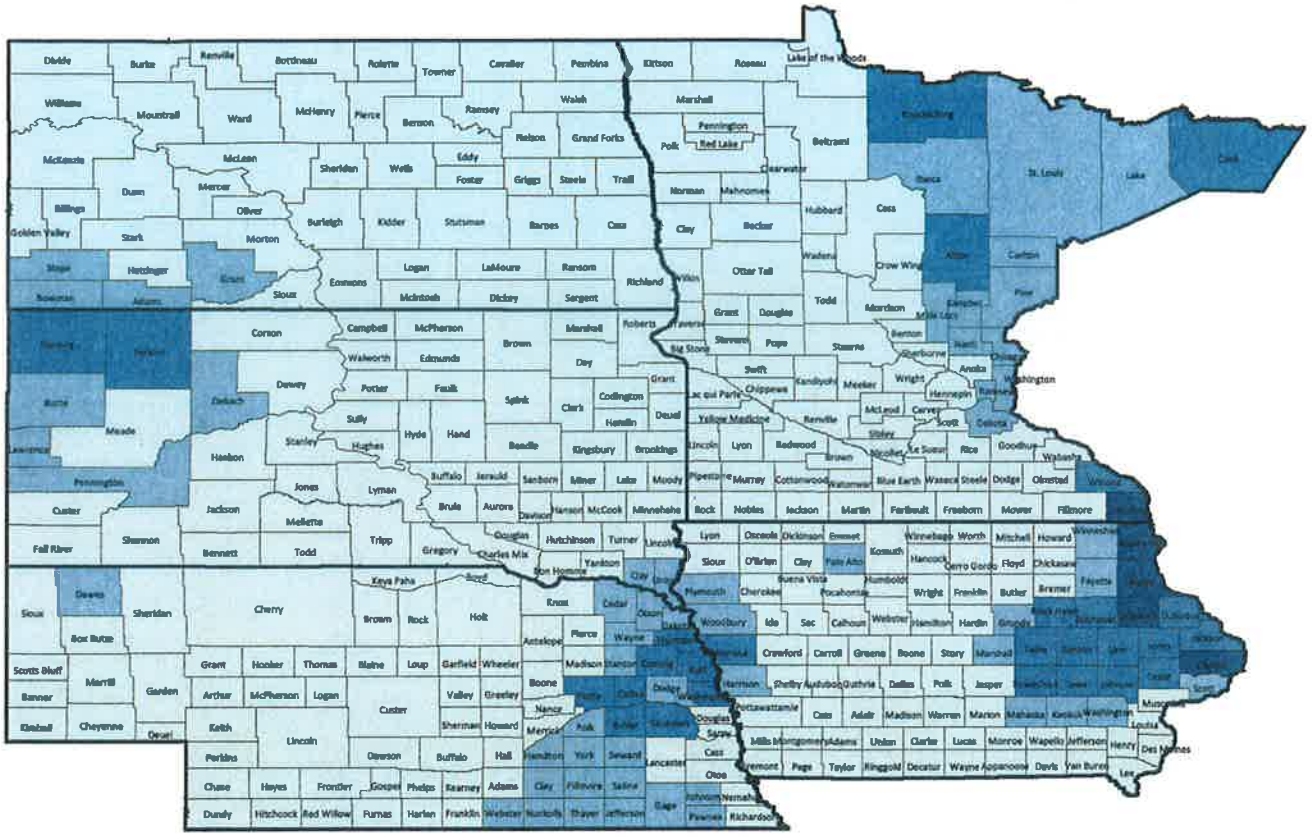
Map 28

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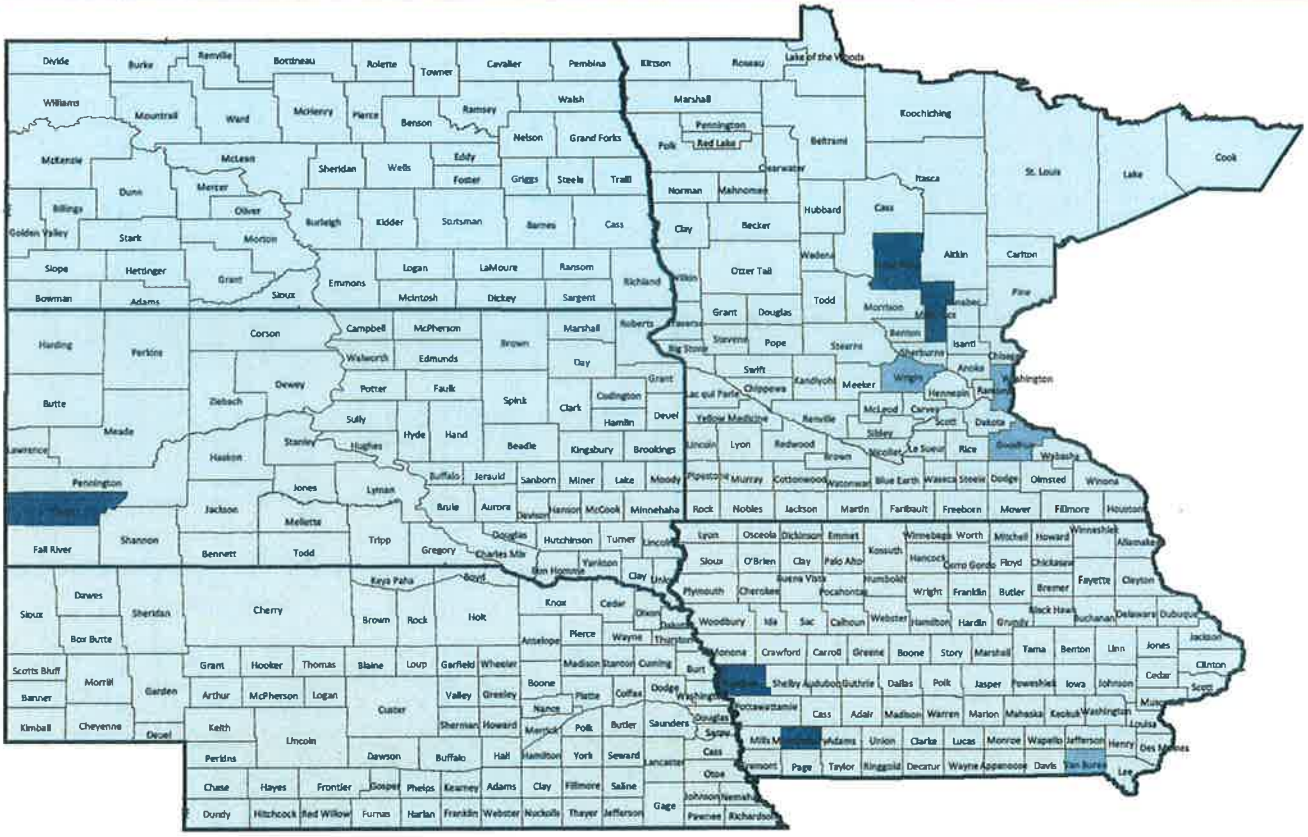
Air Pollution-OzoneDays - A health factor measure focusing on physical environment

Map 29

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/.

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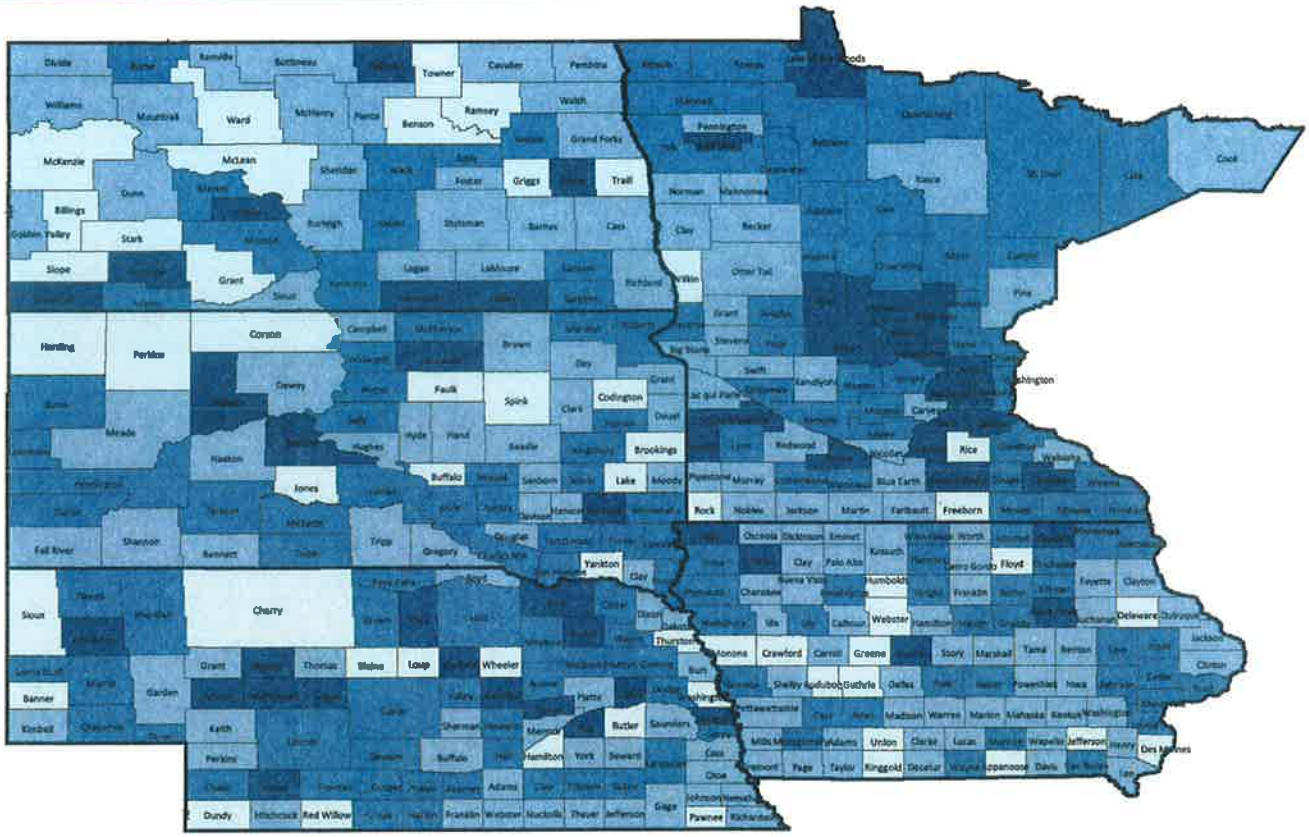
Access to Healthy Foods - A health factor measure focusing on physical environment

Map 30

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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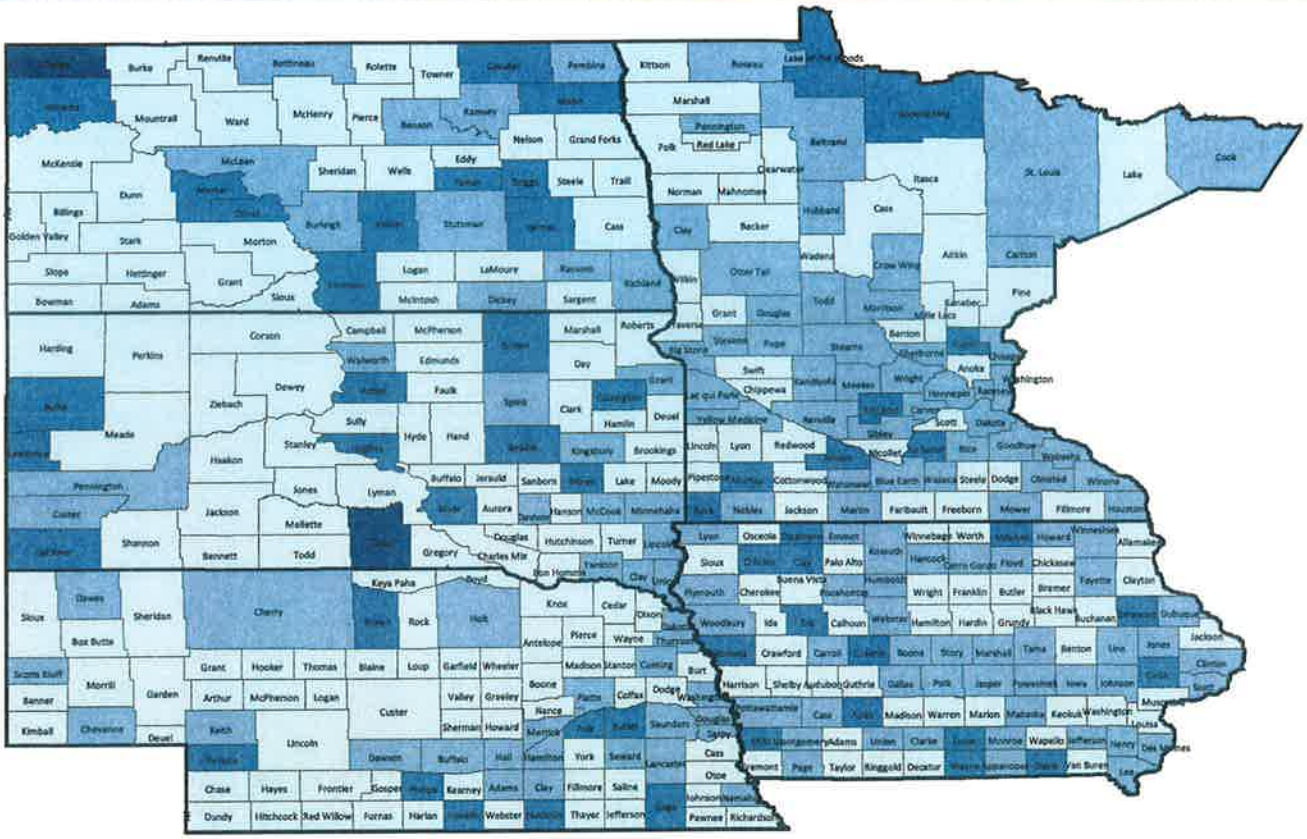
Access to Recreational Facilities - A health factor measure focusing on physical environment

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.

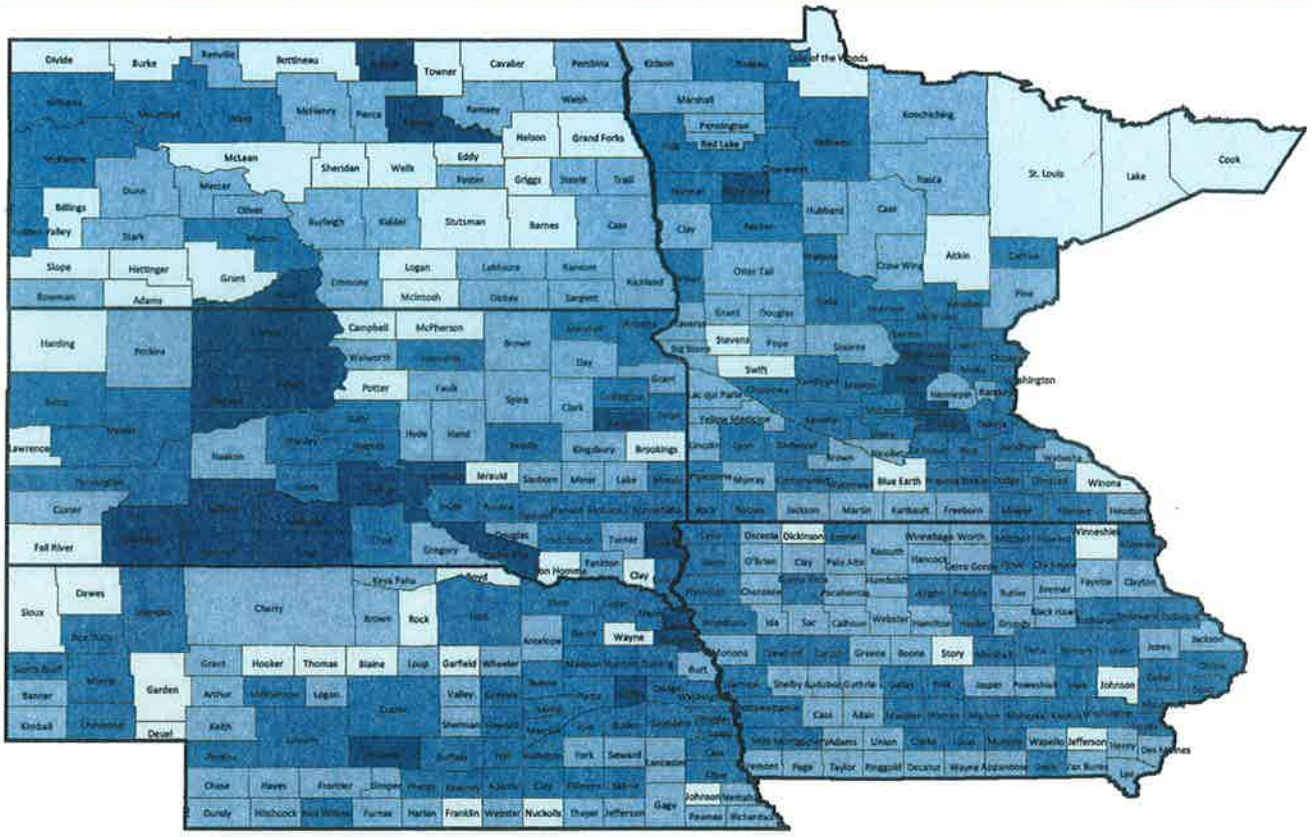
Importance: The availability of recreational facilities can influence individuals' and communities' choices to engage in physical activity. Proximity to places with recreational opportunities is associated with higher physical activity levels, which in turn is associated with lower rates of adverse health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

Youth - A demographic measure

Map 32

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/.

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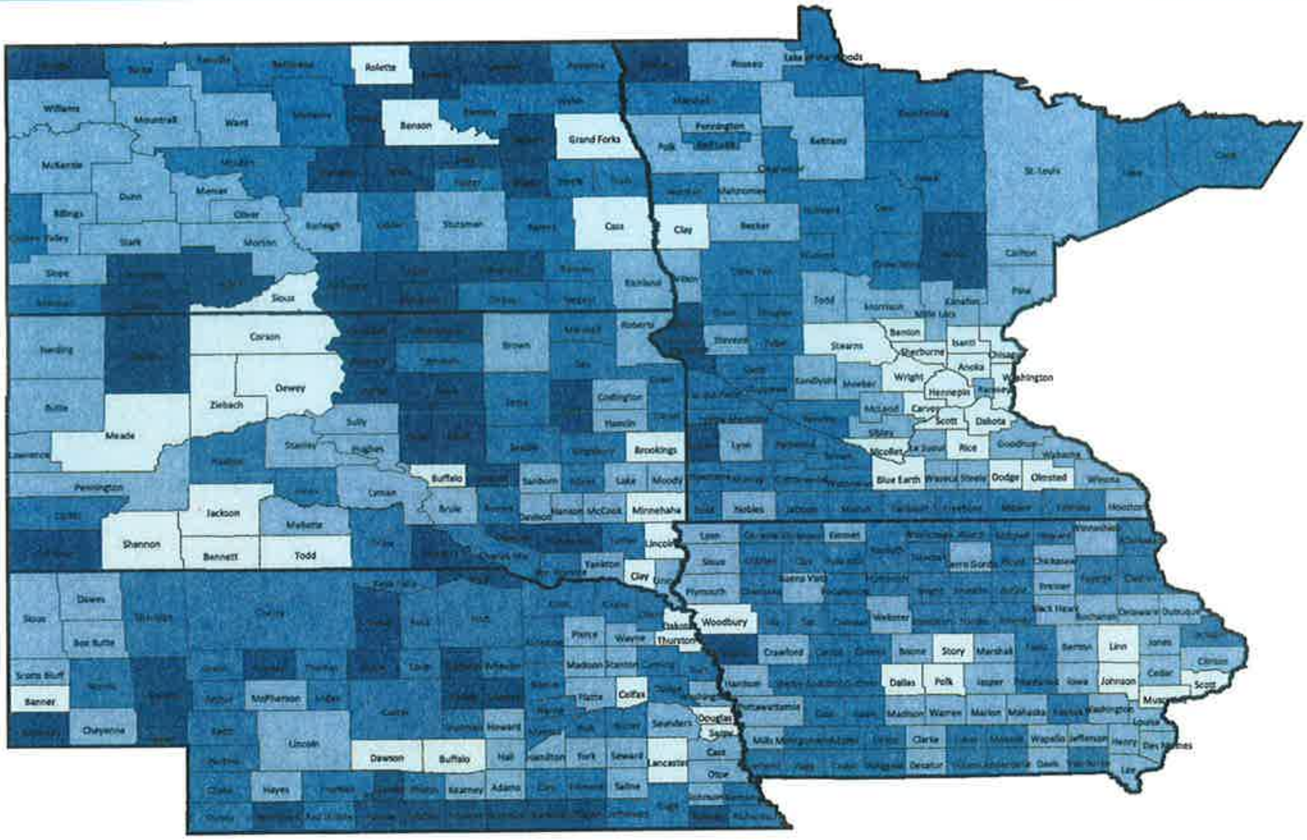
Elderly - A demographic measure

Map 33

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.

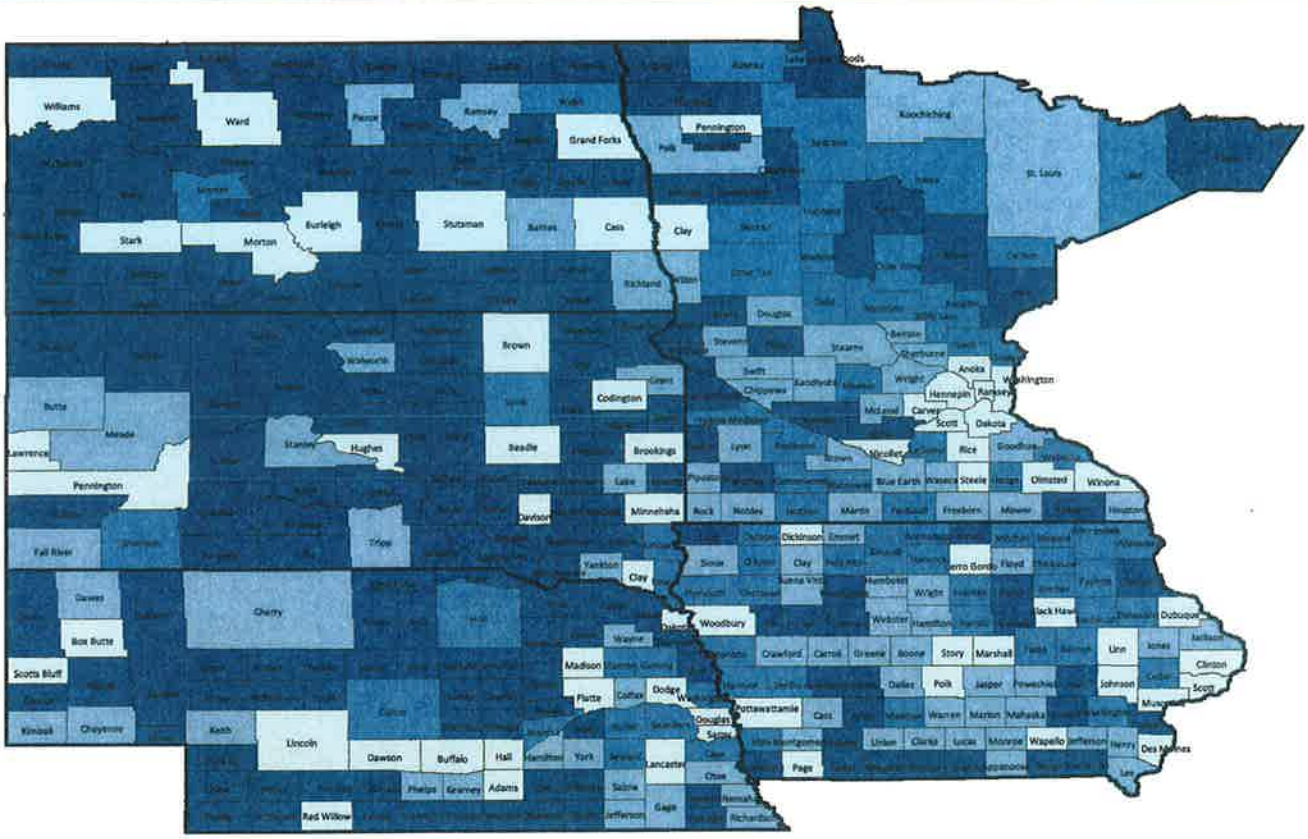
Where It Comes From: County demographic figures come from the U.S. Census Bureau's annual population estimates.

- 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/.

Rural - A demographic measure

Map 34

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.

- 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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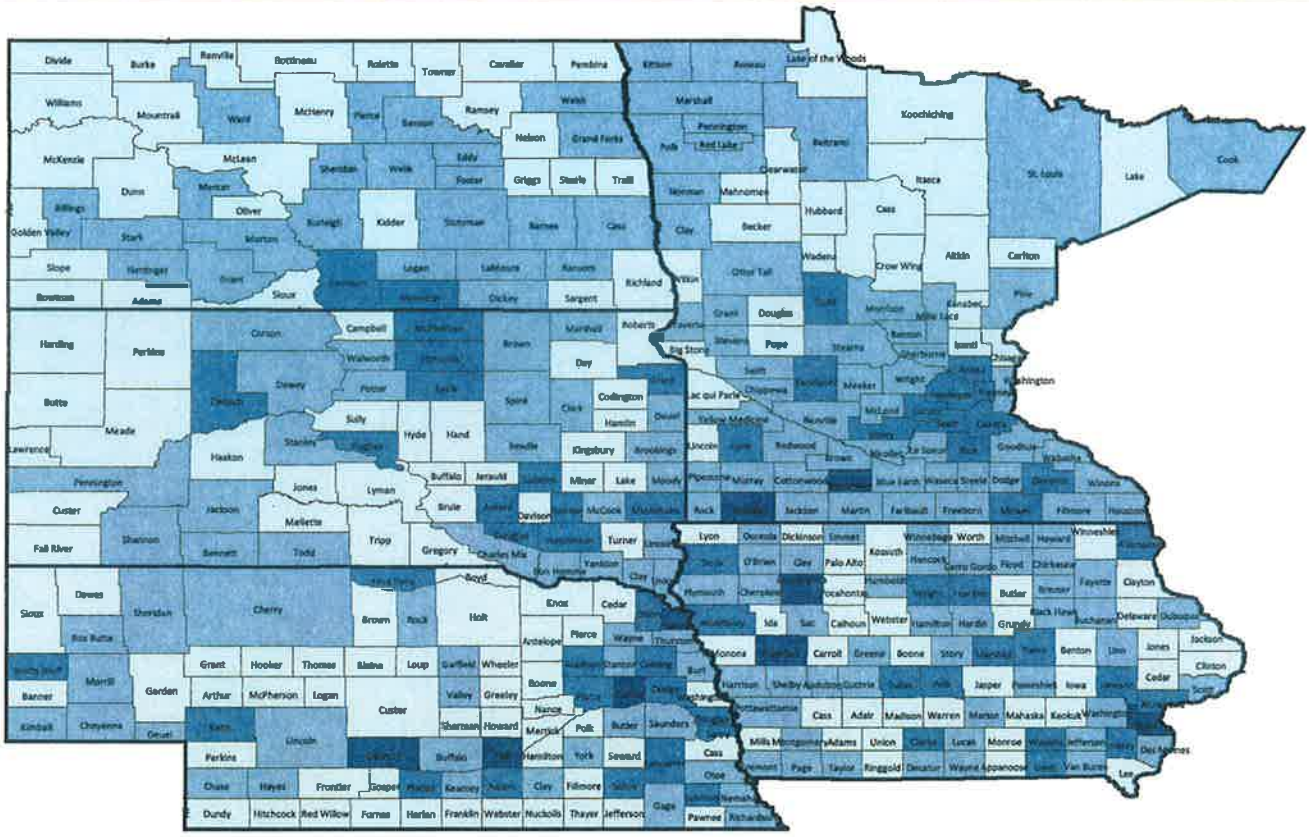
Not English Proficient - A demographic measure

Map 35

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.

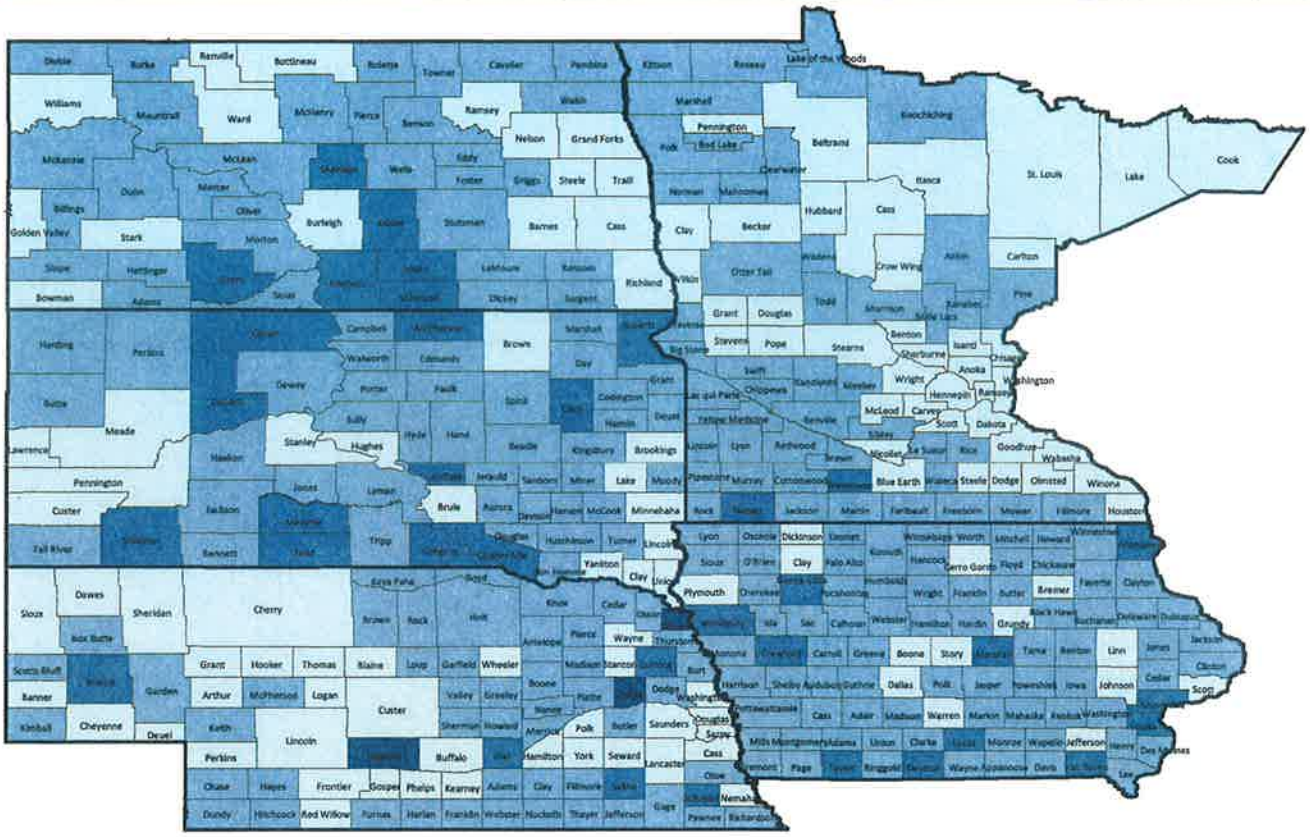
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, http://www.countyhealthrankings.org/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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/.

 This map was prepared by researchers at North Dakota State University in Fargo for the 2011-2013 Fargo-Moorhead Community Health Needs Assessment Collaborative. December 2011

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Table 1
Community Health Needs Assessment Asset Mapping
Thief River Falls Stakeholders

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Unmet need

Access	• Limited access to female physicians
	• Hard to get in to see the doctor
	• Limited access to specialists
	  ○ Pediatricians
	  ○ Oncology
	  ○ Rheumatology
	  ○ Urology
	  ○ Dermatology
		Sanford Health – TRF
		• Provider Based Clinic Providers
		Outreach Providers
		• Pain Clinic/MDA Services, Valley Medical
		• Ophthalmology, Altru
		• Allergist, Altru	

Cancer	• Need more services for cancer patients • Need full spectrum of cancer treatment (chemo, radiation therapy, etc.)	Sanford Cancer Biology Research Center Sanford Roger Maris Cancer Center Fargo • Oncologist Services • Radiation Oncology • Medication Oncology Sanford Health – TRF • Infusion based chemotherapy • Outreach Oncologist Altru Cancer Center • Oncologist Services • Radiation Oncology • Medication Oncology	

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Unmet need
		Sanford Health – Bemidji • Oncologist Services • Medication Oncology	
Care Coordination	• Too little communication between providers	Sanford Health – TRF	
Chronic Conditions	• Need heart disease services • Smoking and smokeless tobacco use well above state averages	Sanford Health – TRF • Certified Medical Home/Chronic Disease Management • Diabetes Educators • Tobacco Cessation Services • Outreach Cardiologist • Cardiac Rehab Services	
Competition	• Concern that Sanford has all the healthcare services in the area – need at least two providers so there is some choice/competition • Concern with having only one mental health provider in town (Sanford)		
Day Care	• Need affordable, high quality child care	Community Church Day Care Center – 218-681-5327 Sullivan Day Care – 218-681-1179 Discovery Place – 218-681-5202 TRF School District Latchkey Program – 218-681-2362 Kourtney's Daycare – 218-416-2049 Pathfinder Children's Center – 218-683-7180 Great Beginnings Infant Center – 218-581-0321 Northwest Area Learning Center – 218-681-8676	
Dental Care	• Need more dentists & orthodontists	Bryce Bray, DDS – 218-681-4344 John Seaverson, DDS – 218-681-4050 Ben Saylor, DDS – 218-681-1700 John Yoon, DDS – 218-681-4506	

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Unmet need
		Martin Duchscher, DDS – 218-681-4506 Lin Christensen, DDS – 218-681-2545 Danell Stromstad, DDS – 218-681-2545 Donna Helmich, DDS – 218-681-4050 Michael Eickman, DDS – 218-681-2545 Thomas Dimich, DDS – 218-681-2545 Orthodontist: ○ Bryce Bray, DDS – 218-681-4344	
Economic Situation/ Business community	• Median income level well below state and national averages • Limited tax base to support community assets, and slow decline of population base in the region. • Plenty of jobs advertised, but most are very low paying • Concern with high taxes • Small businesses having problems staying in business • Poor leadership	Northwest Minnesota Foundation State Funded Development Officer – City of TRF TRForward Small Business Administration Chamber of Commerce Englestad Foundation	
Elderly	• Not enough programming for health & wellness for seniors	Silver Sneakers Type Programs ○ Sanford Health – TRF ○ Anytime Fitness Community Senior Center	
Healthcare Cost/Insurance Cost	• Concern that some cannot retire because they cannot afford health insurance without their employer's share of the cost • Concern about the poor having better access to (or being able to better afford) healthcare than the middle class. (Middle income earners make too much to meet the guidelines for low income healthcare benefits.) • Need healthcare services for children without insurance	Community Care Program (through the Sanford Clinic) - Sanford will provide services at no cost or reduced cost to pts. who qualify – 218-681-4747 Tri-Valley Opportunity Council – may have low cost medical or dental assistance – 218-736-2856 WIC for women and children. Intercounty Nursing/Public Health Services.	

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Unmet need
Housing	• Concern about lack of affordable housing	Inter-County Community Council (loan & grant programs for low income & those facing eviction or foreclosure) – 218-796-5144 HUD NW Multi-County Housing Authority – 218-637-2431 USDA Rural Development – 218-681-2843	
Mental Health	• Not enough mental health services & preventive mental health services for youth • Need preventive mental health services for elementary aged children • Concern with having only one mental health provider in town • Long wait for mental health appointments • Need more crisis care available • Need to publicize mental health options & programs • Shortage of psychiatrists locally (long drive for a short medication monitoring appointment)	Sanford Health – TRF • Mental Health IP • IRTS Residential Facility • Case Management Services • Community Based Behavioral Health Services • Behavioral Health Crisis Response Services • Psychiatrist/Psychologist services • Youth residential treatment center • LICSW services Sanford One Care Family Preservation Project (in-home family counseling) – 218-683-7180 Glenmore Recovery Center – 281-681-8019 Northwest Recovery Center – 218-681-6561	

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Unmet need
Obesity	• Concern about the rate of obesity & its impact	Sanford WebMD Fit Kids Sanford Health – TRF • Fitness Center Anytime Fitness – 281-681-1305 Healthy U Gym – 218-689-4791 Curves – 218-681-2257 Natural Health & Fitness – 218-681-1565 Racquetball Fitness Arts – 218-681-6709 Tae Kwon Do – 218-681-2462	
Physical Activity	• Need bike paths & walking trails o Walking on the road is not a safe option o Concern with safety when riding a bike in the city • Need trails that are for rollerblading & skateboarding • Concern about safety when riding bike in the city • Concern about lack of physical activity in the winter & due to desk jobs • Need a community wellness center • Need a community pool	Sanford WebMD Fit Kids Sanford Health – TRF • Fitness Center Anytime Fitness – 281-681-1305 Healthy U Gym – 218-689-4791 Curves – 218-681-2257 Natural Health & Fitness – 218-681-1565 Racquetball Fitness Arts – 218-681-6709 Tae Kwon Do – 218-681-2462	
Physicians	• Need physicians who speak English • Need physicians who have the same values as their patients	Sanford Health – TRF	
Prevention	• Need preventive mental health services for elementary aged children	Family Preservation Project (in-home family counseling) – 218-683-7180 Glenmore Recovery Center – 281-681-8019 Northwest Recovery Center – 218-681-6561 Sanford Health – TRF • Behavioral Health Crisis Response Services • Psychiatrist/Psychologist services • Youth residential treatment center	

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Unmet need
Substance Abuse	• Concern about rate of drug abuse in the area • Concern about prescription drug abuse • Alcohol related DWI Arrests 2 times state average per capita rate.	Upper Mississippi Mental Health Services Sanford Health – TRF DARE Safe and Sober AA	
Transportation	• Elderly have difficulty with transportation to & from clinic appointments • No transportation available after hours for the elderly & disabled adults • Difficult for seniors to climb the steep steps on city bus • Need bus or train service • Taxi does not operate all night • Airport is small & has limited service	Transportation options: • The Bus – 218-281-0700 / 1-800-201-3432 • Great Plains EMS – 218-681-4084 • Heartland Express – 218-681-6760 • Northland Taxi – 218-681-6666 • TRF Ambulance – 218-681-4084	
Workforce	• Low percentage of college educated workforce by state median measures.	Northland College University of North Dakota University of Minnesota – Crookston Northland College Center for Career Services Occupational Development Center (ODC) TRF Public School District	
Youth	• Alcohol & drug abuse by minors • Need wholesome activities for young people, especially for those not involved in school-sponsored activities • Lack of supervision by parents • Shortage of foster care providers • Lack of resources to assist youth with divorce, family issues, depression; need preventive mental health services for elementary aged children • Concern about obesity in kids • Need a good sex education program that covers all options • Concern about type of food served in school	Big Brother/Big Sister – 218-681-8711 Communities Caring for Children (early & continuous prenatal care) – 218-681-0876 Crisis Intervention (Child Abuse and Maltreatment – 1-800-422-0863 Family Advocacy Program (supportive services for pregnant teens & teen parents) – 218-681-8711 Northwest Recovery Center – 218-681-6561 Occupational Development Center – 218-681-4949 Pathfinders Child Treatment Center – 218-681-7180	

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Unmet need
	• Concern that a soda machine is in the school • Need services to address the health/nutrition/exercise issues of babies, children, teens, young adults	Tri-Valley Child Care Resource & Referral – 1-800-543-7382 Umbrella Tree Safety (supervised visitation & exchanges) – 218-681-5557 Violence Intervention Project – 218-681-5557 DARE Youth Police Officer – City of TRF Sanford WebMD Fit Kids Sanford Health – TRF • Behavioral Health Crisis Response Services • Psychiatrist/Psychologist services • Youth residential treatment center	
Sanford Specific	• Would like Sanford to expand the mental health services they offer • Would like the hospital to become more of a "skilled" medical center – so would not have to send all complicated patients to Grand Forks or Fargo for treatment that could be done in a high functioning ICU/CCU • Need better guest services at the clinic & hospital – attendants to help people find their way from check-in to wherever they need to go, help them in & out of vehicles, push wheelchairs, etc. • OB staff needs to know more about breastfeeding & be more supportive of moms with new babies • Concern with how Sanford TRF treats their employees • Social workers (not nurses) should do discharge planning from the med/surg floor • Concern with Sanford TRF becoming "homogenized" – nurses' uniforms becoming color coded, etc.	Sanford Health – TRF	

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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**
Access	Access	Access	Access
Cancer			
Chronic Disease and Care Coordination	Chronic Disease and Care Coordination	Chronic Disease and Care Coordination	Chronic Disease and Care Coordination
Competition			
Day Care			
Dental Care			
Community Economics	Community Economics		
Elderly			

Health Indicator/Concern *(from asset mapping and gaps analysis worksheet)*	Round 1 Vote	Round 2 Vote	Round 3 Vote
Healthcare Costs	**Healthcare Costs**	**Healthcare Costs**	
Housing	**Housing**	**Housing**	
Health Indicator/Concern *(from asset mapping and gaps analysis worksheet)*	**Round 1 Vote**	**Round 2 Vote**	**Round 3 Vote**
Mental Health Services			
Obesity	**Obesity**		
Physical Activity			
Physicians			
Prevention	**Prevention**		
Substance Abuse	**Substance Abuse**	**Substance Abuse**	**Substance Abuse**
Transportation	**Transportation**	**Transportation**	
Workforce	**Workforce**		
Youth			

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