



Community Memorial Hospital  
Community Health Needs Assessment  
2013





**Community Memorial Hospital  
Burke, SD**

**Community Health Needs Assessment  
2013**

**11/25/13**

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## Community Memorial Hospital, Burke, SD Community Health Needs Assessment 2013

### **Purpose**

Community Memorial Hospital, Inc. (CMH) is a 16-bed Critical Access Hospital located in Burke, South Dakota, providing a full range of diagnostic and therapeutic services for the community. In addition to inpatient, skilled swing bed and 24-hour emergency services, CMH operates two Provider Based Rural Health Clinics located in Burke and Bonesteel, SD. Community Memorial Hospital, Inc. was incorporated in 1945 and first opened its doors in 1948 and has operated as a community hospital ever since. Community Memorial Hospital is the largest employer in the community, employing 62 individuals with a payroll exceeding \$2,000,000.

Community Memorial Hospital in Burke, SD 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.

Community Memorial Hospital 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.

The first required needs assessment falls within the fiscal year January 1, 2013 through December 31, 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 the community. Findings from the assessment serve as a catalyst to align expertise and develop a Community Investment/Community Benefit plan of action. There is great intrinsic value in a community health needs assessment when it serves to validate, justify and defend not-for-profit status and create opportunity to identify and address public health issues from a broad perspective.

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

## Acknowledgements

Community Memorial Hospital would like to acknowledge and thank the Steering Committee 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 area's leading health care provider.

### **Community Memorial Hospital Steering Group:**

- *Lead:* Jim Frank, CPA, MBA, CHFP, Administrator, Community Memorial Hospital
- *Co-Lead:* Tyler Frank, Burke High School Senior
- Tom Glover, Board Chair, Community Memorial Hospital
- Amy Juracek, CNP, Community Memorial Hospital
- Teri Schoenefeld, BSN, RN, Community Health Nurse
- Billie Rae Person, Clinic Manager, Burke Medical Clinic
- Tami Hotz, RN, President, Burke Volunteer Ambulance Service

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

We extend special thanks to the mayor, city council members, physicians, advanced practice providers, nurses, school superintendents and school staff members, and employees of Gregory County. We are undertaking this project "Because We Care".

### **Our Guiding Principles:**

- All health care is a community asset
- Care should be delivered as close to home as possible
- Integrated care delivers the best quality and efficiency
- Community involvement and support is essential to success

### **The following key community stakeholders participated in this assessment work:**

- Tamara Bull, Computer Coordinator/Librarian, Burke Public School, Burke, SD
- Peggy Cassidy, Paraprofessional, Burke Public School, Burke, SD
- Ron Determan, Teacher, Burke High School, Burke, SD
- Rich Dobesh, Small Business Owner, Hospital Board Member, Burke, SD
- Vickie Dobesh, Burke, SD
- Jon L. Dyer, Retired Military, Hospital Board Member, Naper, NE
- Dave Engelmeyer, Florist, Burke, SD
- Claude J. Fahrenbacher, Newspaper Editor, Burke, SD
- Kathy Fairbanks, Special Ed Teacher, Burke Public School, Burke, SD
- Jim Frank, CEO, Community Memorial Hospital, Burke, SD
- Tyler Frank, Student, Burke High School, Burke, SD
- Tom Glover, Hospital Board Chairman, Burke, SD
- Nicole Green, Registrar/Admin Assistant, Burke High School, Burke, SD
- Sara Grim, Gregory County Treasurer, Burke, SD
- Billie Jo Indahl, Teacher, Burke Public School, Burke, SD
- Deb Indahl, Business Manager, Burke School District 26-2, Burke, SD
- Joel Johnson, General Manager, Johnson Implement, Burke, SD
- Amy Juracek, Nurse Practitioner, Community Memorial Hospital and Clinic, Burke, SD
- Michael Karbo, Owner/Manager, Clausen Funeral Home, Burke, SD
- George Kenzy, President, First Fidelity Bank, Burke, SD
- Deb Leibel, Nurse Practitioner, Community Memorial Hospital and Clinic, Burke, SD

- Matt Lindholm, Teacher, Burke Public School, Burke, SD
- Leigh Lyon, Physician's Assistant, Community Memorial Hospital and Clinic, Burke, SD
- James Moore, Teacher, Burke Public School, Burke, SD
- Anthony Opbroek, Manager, Southern Dakota Insurance, Burke, SD
- Mark Otten, Principal, Burke Public School, Burke, SD
- Stacy Otten, Business Teacher, Burke Public School, Burke, SD
- Katherine Petersen, Deputy County Auditor, Burke, SD
- Mary Prouty, Teacher, Burke Public School, Burke, SD
- Linda Purvis, English Teacher, Burke Public School, Burke, SD
- Gaile Sachtjen, Teacher, Burke Public School 26-2, Burke, SD
- Randy Sachtjen, COO, First Fidelity Bank, Burke, SD
- Teri Schoenefeld, Community Health Nurse, SD Department of Health, Burke, SD
- Amy Sebern, Teacher, Burke Public School, Burke, SD
- Mike Sebern, Teacher/Coach, Burke Public School, Burke, SD
- Janice Smith, Math Paraprofessional, Burke Public School, Burke SD
- Clayton Steele, Social Studies Teacher/Coach, Burke High School, Burke, SD
- AJ Steffen, Farmer, Hospital Board Member, Burke, SD
- Bonnie Stiner, Retired, Burke, SD
- Renee Sutton, Pharmacist, Burke Community Pharmacy, Burke, SD
- Virginia Tolsted, Retired Educator, Burke, SD
- Tyler VanMetre, Pharmacist, Burke Community Pharmacy, Burke, SD
- Clara Waterbury, Business Manager, South Central School District, Bonesteel, SD
- Jim Waterbury, Gregory County Auditor, Bonesteel, SD
- Melissa Wonnemberg, Music Teacher, Burke Public School, Burke, SD
- Jody Young, Insurance Agency Manager, First Fidelity Bank, Burke, SD





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

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

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

The following qualitative data sets were studied:

- Burke Community Health Needs Assessment of Community Leaders

The following quantitative data sets were studied:

- 2011 County Health Profile for Gregory County
- Aging Profile for Gregory County
- Diversity Profile for Gregory County

The following primary research was conducted within the Sanford Quality and Decision Support teams and the data sets will be discussed in this report:

- Quality data

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

Each unmet need was researched to determine what resources were available in the community to address the needs. The Community Memorial Hospital leadership team 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.

### **Key Findings – Primary Research**

Community Memorial Hospital electronically distributed the Community Health Needs Assessment survey tool that was developed by the Greater Fargo-Moorhead Community Health Needs Assessment Collaborative to key stakeholder groups as a method of gathering input from a broad cross section of the community. The findings discussed in this section are a result of the analysis of the qualitative survey data.

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.

Community Memorial Hospital extended a good faith effort to engage all of the aforementioned community representatives in the survey process. The list of individuals who agreed to take the survey and also submit their names are included in the acknowledgement section of this report. In some cases there were surveys that were submitted without names or without a specified area of expertise or affiliation. We worked closely with public health experts throughout the assessment process. Public comments and response to the community health needs assessment and the implementations strategies are welcome on the Sanford website under “About Sanford” in the Community Health Needs Assessment section.

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

Respondents indicated the top five community assets or best things about the community were: The community is a good place to raise kids, the community is a safe place to live, the community has a general cleanliness, people are friendly, helpful and supportive, and there is a sense of community/feeling connected to people who live here. Respondents also had a very high level of agreement that there are quality school systems and

programs for youth as well as quality health care. Respondents had moderately high levels of agreement that there are many recreational and sports activities, activities for seniors, families and youth.

Respondents had a high level of concern about the cost of health insurance, low wages and the availability of employment opportunities. Respondents were the least concerned with hunger and homelessness. Regarding services and resources, the respondents had the greatest level of concern for cost and/or availability of elder care and the availability of youth activities. Respondents were the least concerned with problems associated with health care systems and availability/access to a grocery store.

Regarding children and youth, respondents were most concerned with bullying and changes in family composition. Respondents were least concerned with school dropout rate/truancy. Regarding safety issues, respondents were most concerned with substance abuse.

The top six health and wellness concerns among the community respondents were:

- Cancer
- Cost of health insurance
- Alcohol use and abuse
- Quality of mental health programs
- Chronic disease
- Availability of qualified mental health providers

Respondents had high levels of concern with respect to costs associated with health and wellness in their community and obesity, lack of exercise, and poor nutrition/eating habits were the top concerns.

Respondents were asked to rate how well the delivery of health care in the community is being addressed. The lowest health care topics (meaning the least well addressed) include:

- Health services for obesity
- Mental health services
- Attention given to preventive services
- Cost of the delivery of health care
- Health services for diabetes
- Number of health care providers and specialists

More than 53% of respondents reported having a cancer screening within the last year. The most common reason cited for not having a screening was that the doctor had not suggested it. Fear of having a screening was not a concern.

The majority of respondents (76%) said they had paid for health care costs over the last six months by health insurance through an employer. Personal income was also cited by 63% of respondents and 30% of respondents said they used private insurance.

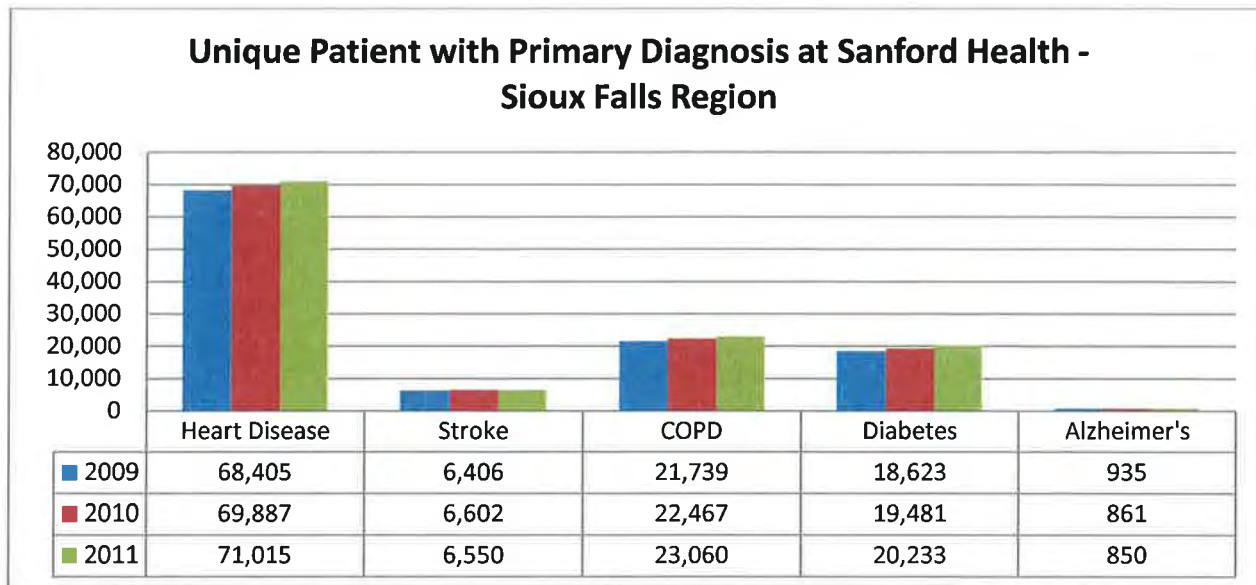
Respondents were asked which provider they used for their primary care. Community Memorial Hospital was the choice for 94% of respondents.

## Quality Data

### Center for Disease Control – Measures of Health and Leading Causes of Death by State

The Center for Disease Control has determined the leading causes of death in South Dakota to be heart disease, chronic lower respiratory disease, stroke, Alzheimer’s disease, and diabetes. Chronic disease is among the most common and most costly health problems. The figure below demonstrates the prevalence of the top chronic diseases among Sanford patients as a unique primary diagnosis.

### Unique Patients with Primary Diagnosis at Sanford Health – Sioux Falls Region



## Key Findings – Secondary Research

### HEALTH OUTCOMES

The mortality health outcomes indicate that South Dakota as a state has more premature deaths than the national benchmark, and the morbidity health outcomes indicate that South Dakota citizens report more days of poor health than the national benchmark. Gregory County reports a higher percentage (14% vs. 10%) compared to the national benchmark.

Gregory County reports more poor physical health days (2.8) than the national benchmark (2.6). South Dakota (2.6) reports more mentally unhealthy days than the national benchmark, while Gregory County reports better mental health days (2.2). South Dakota has a higher percentage of low birth weight than the national benchmark.

### HEALTH FACTORS

The health behavior outcomes indicate that South Dakota has a higher percentage of adult smokers (20%) than the national benchmark; however, Gregory County sits at the national benchmark (15%).

Adult obesity is also higher in the state of South Dakota (29%) and Gregory County (30%), while the national benchmark is 25%. South Dakota (26%) and Gregory County (36%) have a higher percentage of physical inactivity than the national benchmark (20%).

South Dakota (19%) and Gregory County (16%) have a higher percentage of binge drinking reports than the national benchmark (8%).

Motor vehicle crash death rates are nearly double the national benchmark (12/100,000) in South Dakota (23.7). Sexually transmitted infections rank substantially higher than the national benchmark for South Dakota at 371.3/100,000 vs. the national benchmark of 83.0, and at Gregory County with 146.9/100,000. The teen birth rate is higher in South Dakota (38.7/100,000) and Gregory County (23) than the national benchmark (22).

The clinical care outcomes indicate that South Dakota has a higher percentage of uninsured adults (16%) than the national benchmark (13%). In Gregory County, 27% of the adult population is uninsured. The percentage of uninsured youth in Gregory County is higher (15%) than the national benchmark (7%). The uninsured youth population for South Dakota is 9%.

The ratio of population to primary care physicians is higher in South Dakota (769:1) than the national benchmark (631:1); however, Gregory County has a better ratio at 402:1.

The ratio of population to mental health providers is much higher in South Dakota (35,441:1) and Gregory County (4,022:1) than the national benchmark (2,242:1). The number of professionally active dentists is lower than the national benchmark (69) in South Dakota (50) and Gregory County (24.5).

Preventable hospital stays are higher than the national benchmark (52) in both South Dakota (68.6) and Gregory County (148.2). Diabetes screening in South Dakota (83%) is slightly lower than the national benchmark (89%), but is slightly higher than the national benchmark in Gregory County at 91%. Mammography screening in Gregory County matches the national benchmark at 74%; however, the state of South Dakota has a lower rate at 68%.

The social and economic factor outcomes indicate that South Dakota (83%) and Gregory County (90%) have lower high school graduation rates than the national benchmark (92%). South Dakota (64%) has a lower percentage of post secondary education than the national benchmark (68%), while Gregory County sits at the benchmark (68%).

The unemployment rate was lower in South Dakota (4.8%) and Gregory County (4.1%) than the national benchmark (5.3%). The percentage of child poverty is substantially higher in South Dakota (18%) than the national benchmark (11%); however, Gregory County is much higher (27%) than the national benchmark for child poverty.

Inadequate social support is higher in South Dakota (17%) and Gregory County (21%) than the national benchmark (14%). The percentage of children in single parent households is higher than the national benchmark (20%) in South Dakota (29%) and Gregory County (21%). The number of homicide deaths in South Dakota (2.5) is higher than the national benchmark (1.0).

The physical environment outcomes indicate that there is no air pollution or ozone pollution in this area. Access to healthy food is ranked far below the national benchmark (92%) in South Dakota (42%) and Gregory County (43%). There can be a far distance to travel to grocery stores, and there are food deserts in some communities where only a gas station convenience store is close to home. Access to recreational facilities ranks lower than the national benchmark (17) for South Dakota (13) and Gregory County (0).

Youth account for 21% of the population in Gregory County. Elderly account for 25% of the population in Gregory County. One hundred percent (100%) of Gregory County is rural compared to 48% of South Dakota and 21% as the national benchmark.

Only 2% of South Dakotans and 0% of the Gregory County population is not proficient in English compared to the national benchmark of 9%. South Dakota's illiteracy rate is 7%, while Gregory County is at 9%, compared to the national benchmark of 15%.

The population by age for this area is 5% in Gregory County older than 85 years of age, and 24% older than 65 years of age. Fourteen percent (14%) of South Dakotans are older than 65 years of age and only 2% are older than 85.

The gender distribution is 50-50 in these counties and 50-50 for the state of South Dakota.

The majority of individuals in these counties own their homes. Both the state of South Dakota and the population of Gregory County are at 74% for home ownership.

According to the 2010 Census Data, the population of working age in the labor force is 63% in Gregory County and 69% in the state of South Dakota, compared to 65% as the national benchmark. The percentage of those who are living at less than 100% of the poverty level is 14% in South Dakota and 16% in Gregory County. In South Dakota, 33% are at less than 200% of the poverty level and in Gregory County there are 41% living at less than 200% of the poverty level. The median annual household income in South Dakota is \$46,369 while Gregory County is at \$33,940.

The population distribution by race demonstrates that South Dakota is predominantly white, followed by American Indian alone, then Hispanic origin of any race, and Black alone. The Asian population ranks fifth in South Dakota.

In Gregory County the ranking is White, American Indian Hispanic origin, Asian and Black.

### **Health Needs Identified**

The identified needs from the community stakeholder surveys and the secondary data indicate the following community health needs:

- Cancer Awareness/Prevention
- Economic Issues – Cost of Health Insurance
- Substance Use and Abuse
- Mental Health
- Chronic Disease Management
- Obesity and Physical Inactivity
- American Indian Health

### **Implementation Strategy**

The priorities were determined through a formal community health needs assessment, resource mapping exercise, and a multi-voting prioritization process for Community Memorial Hospital and the following unmet needs were identified as priorities:

- Cancer Awareness and Prevention
- Chronic Disease Management
- Obesity

## **Description of Community Memorial Hospital, Burke, South Dakota**

Community Memorial Hospital, Inc. (CMH) is a 16-bed Critical Access Hospital located in Burke, South Dakota, providing a full range of diagnostic and therapeutic services for the community. In addition to inpatient, skilled swing bed and 24-hour emergency services, CMH operates two Provider Based Rural Health Clinics located in Burke and Bonesteel, SD. Community Memorial Hospital, Inc. was incorporated in 1945 and first opened its doors in 1948 and has operated as a community hospital ever since. Community Memorial Hospital is the largest employer in the community, employing 62 individuals with a payroll exceeding \$2,000,000.

## **Description of the Community Served**

Burke is the county seat of Gregory County and is a rural farming and ranching community located in south-central South Dakota. The economy is primarily agricultural based and includes business to service and support agriculture producers. Education and health services account for the largest non-agriculture industries in Burke.

The area also serves as a recreational destination for many neighboring counties and states with world class hunting, fishing and recreational activities on the Missouri River.

## **Study Design and Methodology**

Community Memorial Hospital is part of the Sanford Health and has implemented the standardized methodology and toolkit that was developed developed by Sanford for the purpose of standardization for the enterprise.

In May 2011 Sanford Health 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 sub group of this collaborative met with researchers from the North Dakota State University Center for Social Research to develop a survey tool for our key stakeholder groups. The survey tool incorporated the University of North Dakota's Center for Rural Health community health needs assessment tool and the Fletcher Allen community health needs assessment tool. North Dakota State University and the University of North Dakota Center for Rural Health worked together to develop additional questions and to ensure that scientific methodology was incorporated in the design.

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

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

The following qualitative data sets were studied:

- Survey of Burke, SD Key Stakeholders and Residents

The following quantitative data sets were studied:

- 2011 County Health Profiles for Gregory County
- Aging Profiles for Gregory County
- Diversity Profiles for Gregory County

The following primary research was conducted within the Sanford Quality and Decision Support teams and the data sets will be discussed in this report:

- Quality data
- Top diagnoses for all inpatients and the top cost of care by diagnosis

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 Health Steering Committee 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.

### **Burke SD Health Needs Assessment of Community Leaders**

The purpose of the community leader survey was to explore the views of key leaders in the greater Burke and Gregory County area (e.g., health professionals, social workers, educators, elected leadership, and non-profit leaders) regarding the resident population's health and the prevalence of disease and health issues within the community.

The community leaders' survey included a set of questions at the end relating to the respondent's 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 Patient Protection and Affordable Care Act signed into law on March 23, 2010.

A total of 56 surveys were completed through a Survey Monkey link. The purpose of this survey was to learn about the perceptions of area key stakeholders regarding the prevalence of disease and health issues in their community.

### **Quality Data**

The Center for Disease Control has determined the leading causes of death in South Dakota to be heart disease, chronic lower respiratory disease, stroke, Alzheimer's disease, and diabetes. Chronic disease is among the most common and most costly health problems. Figure 25 demonstrates the prevalence of the top chronic diseases among Sanford patients as a unique primary diagnosis.

### **Limitations**

The Community Memorial Hospital Community Health Needs Assessment Steering Group attempted to survey key community groups and leaders and stakeholders for the purpose of determining the needs of the community. There were many in the community who were contacted and asked to complete the survey but a low response



was received. Community Memorial diligently worked in a good faith effort to include as many community leaders and residents in the survey as possible.

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.

## **2011 County Health Profiles**

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

### **Top Diagnosis**

Primary research was conducted to determine the top DRGs among patients who received care at Community Memorial Hospital. The inpatient data was further studied to determine the top volume by DRG, the top DRG by the benchmark direct cost, and the top DRG for Community Care delivered by volume and cost.

## **Primary Research Results**

### **Summary of the Survey Results**

#### ***Community Assets/Best Things about the Community***

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

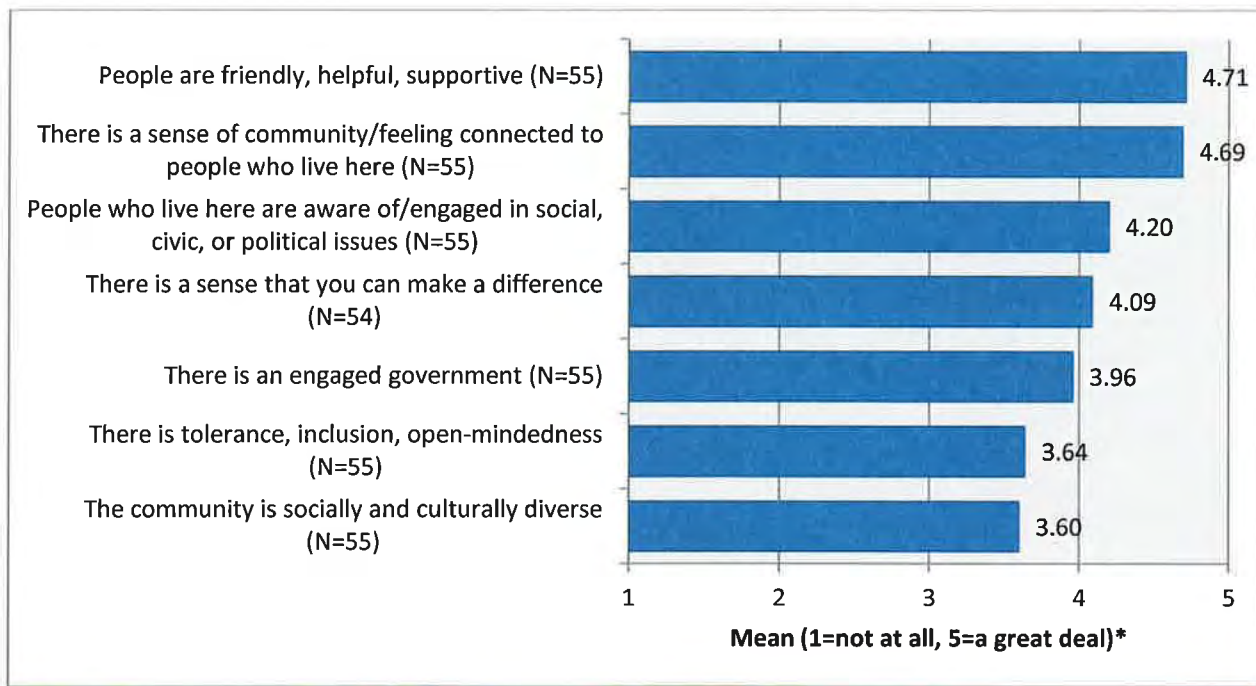
Respondents had very high levels of agreement that their community has people who are friendly, helpful and supportive, the community is a good place to raise kids, the community is a safe place to live, the community has a general cleanliness, and there is a sense of community/feeling connected to people who live here.

## People

Overall, respondents had moderately high levels of agreement regarding positive statements that reflect the people in their community (Figure 1).

- On average, respondents agreed the most that people in their community are friendly, helpful and supportive.
- Respondents also had a high level of agreement that there is a sense of community /feeling connected to people who live here.
- Respondents also had a fairly high level of agreement that people who live here are aware of/engaged in social, civic or political issues.

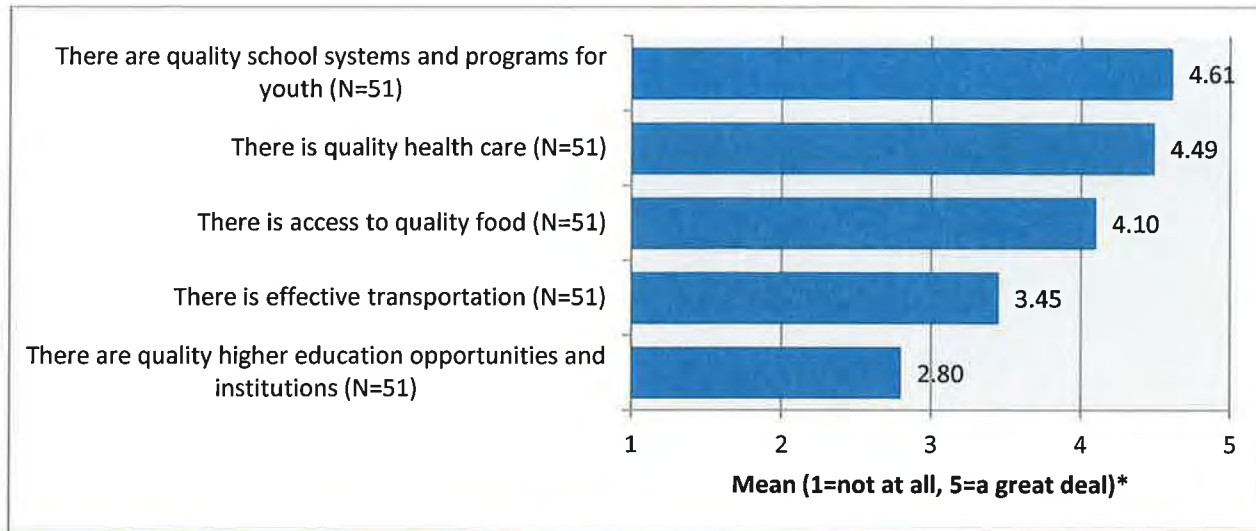
Figure 1. Level of agreement with statements about the community regarding PEOPLE



## Services and Resources

Respondents had very high levels of agreement that there are quality school systems and programs for youth, there is quality health care, and there is access to quality food.

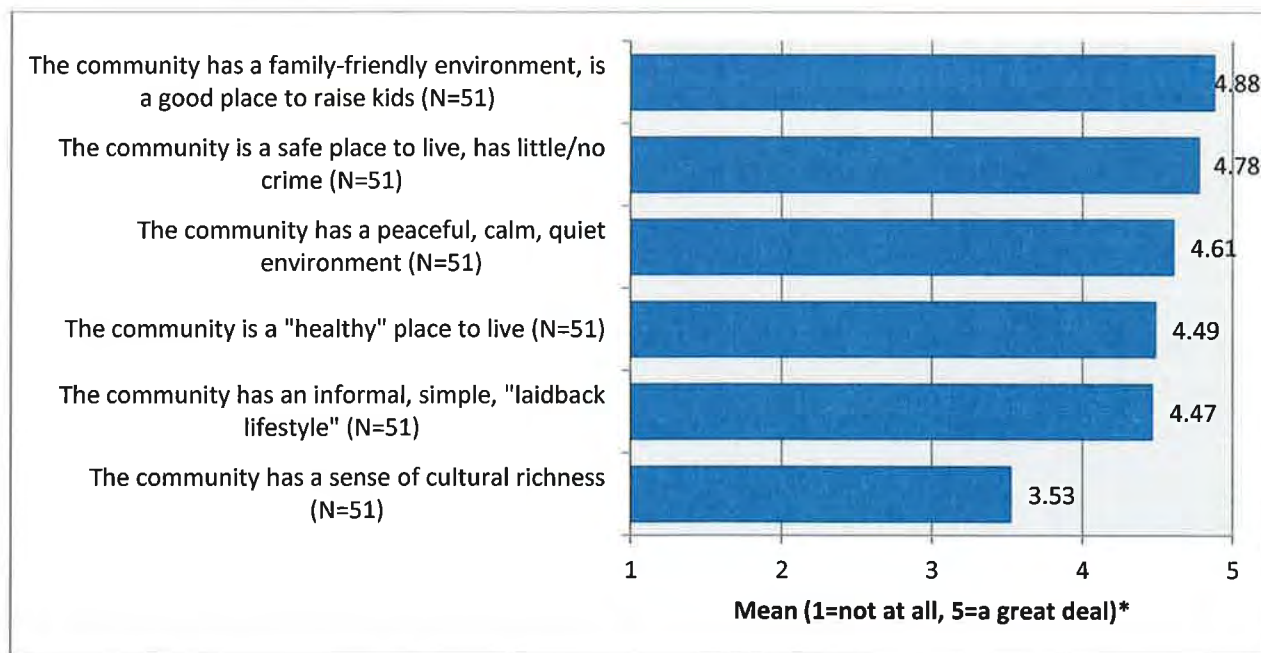
Figure 2. Respondents' level of agreement with statements about their community regarding SERVICES AND RESOURCES



## Quality of Life

Respondents had very high levels of agreement that the community is a safe place to raise kids, is a safe place to live, is peaceful, calm and quiet, is a healthy place to live, and has an informal, simple "laidback lifestyle".

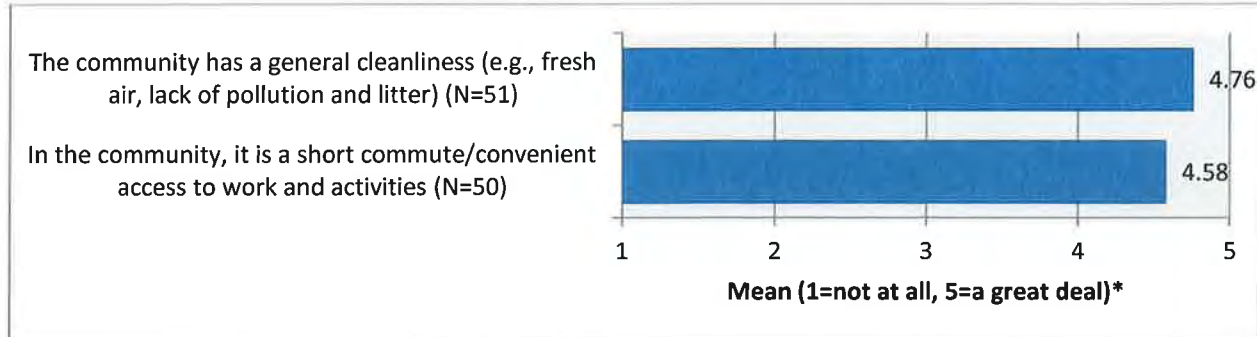
Figure 3. Respondents' level of agreement with statements about their community regarding QUALITY OF LIFE



## Geographic Setting

Respondents had very high levels of agreement that the community has a general cleanliness and it is a short commute/convenient access to work and activities.

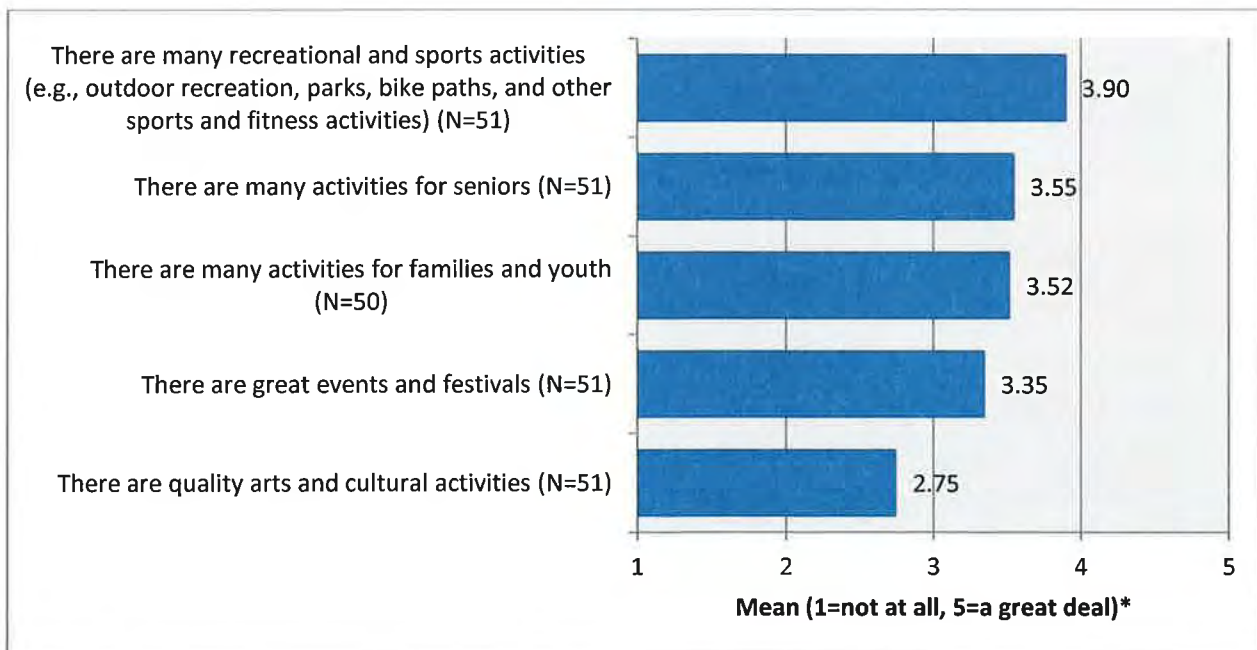
Figure 4. Respondents' level of agreement with statements about their community regarding GEOGRAPHIC SETTING



## Activities

Respondents had moderately high levels of agreement that there are many recreational and sports activities, there are many activities for seniors, and there are many activities for families and youth.

Figure 5. Respondents' level of agreement with statements about their community regarding ACTIVITIES



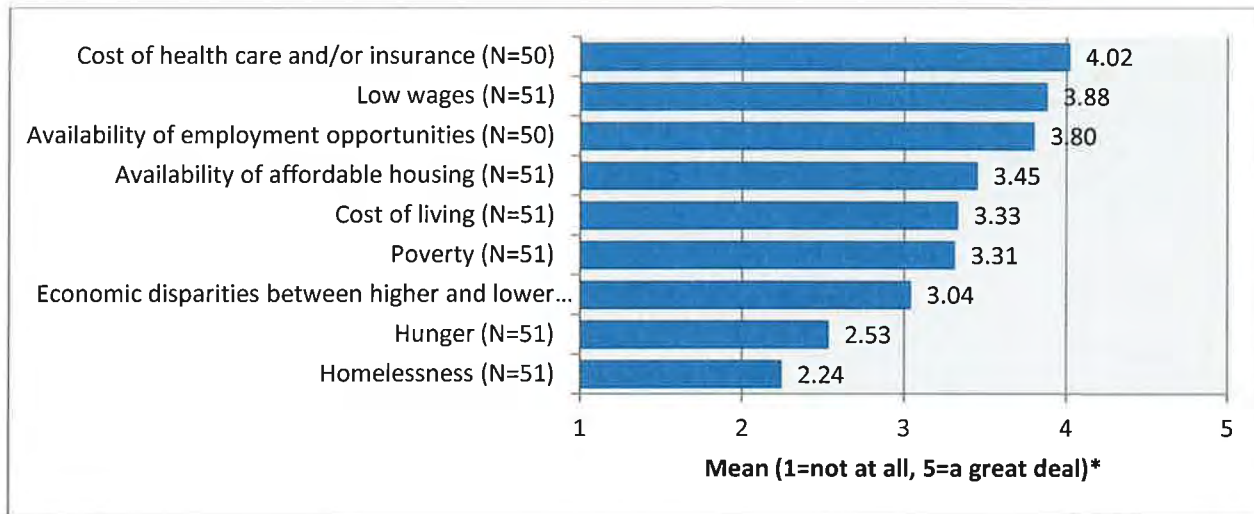
## General Concern about the Community

### Economic Issues

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

Respondents had high levels of concern about the cost of health insurance, low wages, and the availability of employment opportunities. Respondents were least concerned with hunger and homelessness.

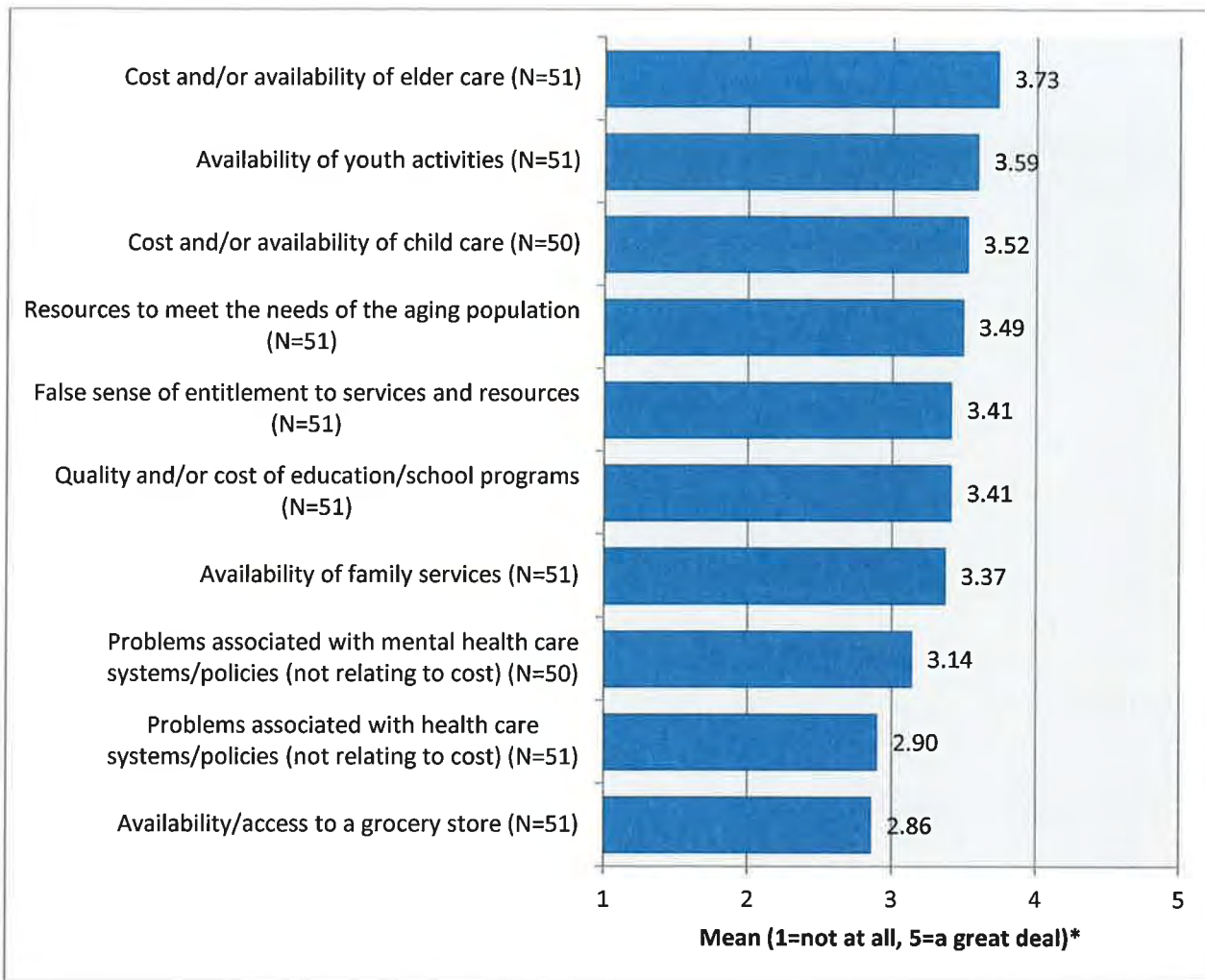
Figure 6. Respondents' level of concern with statements about their community regarding ECONOMIC ISSUES



## Services and Resources

Overall, respondents had a moderately high level of concern with services and resources with the greatest level of concern for cost and/or availability of elder care and the availability of youth activities. Respondents had the least concern with problems associated with health care systems and availability/access to a grocery store.

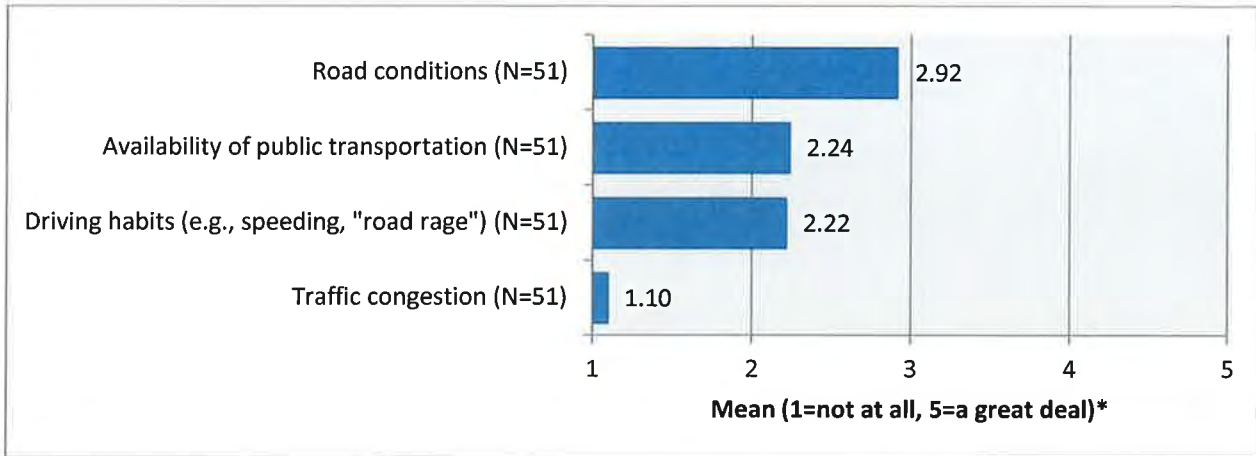
Figure 7. Level of concern with statements about the community regarding SERVICES AND RESOURCES



Transportation

Respondents had low levels of concern regarding transportation. The level of greatest concern was with road conditions and the level of least concern was traffic congestion.

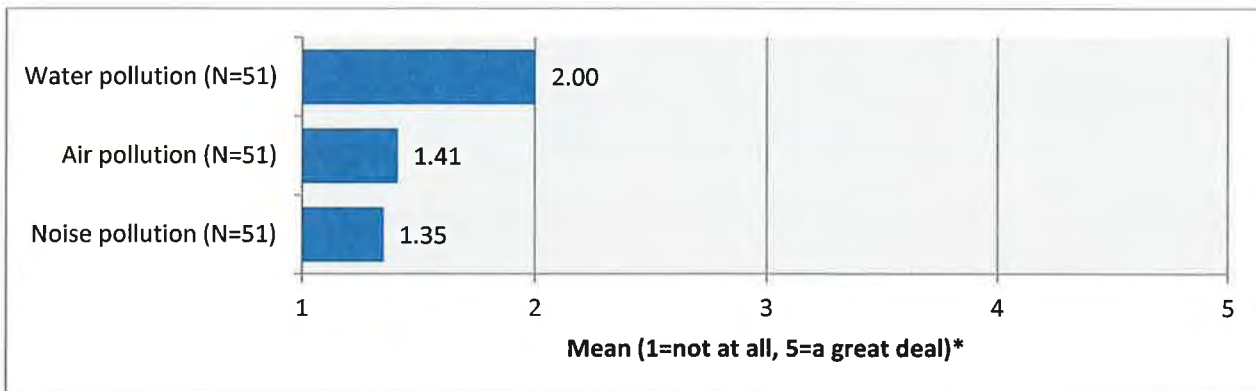
Figure 8. Respondents' level of concern with statements about their community regarding TRANSPORTATION



Environment

Respondents had low levels regarding the environment. The greatest level of concern was water pollution.

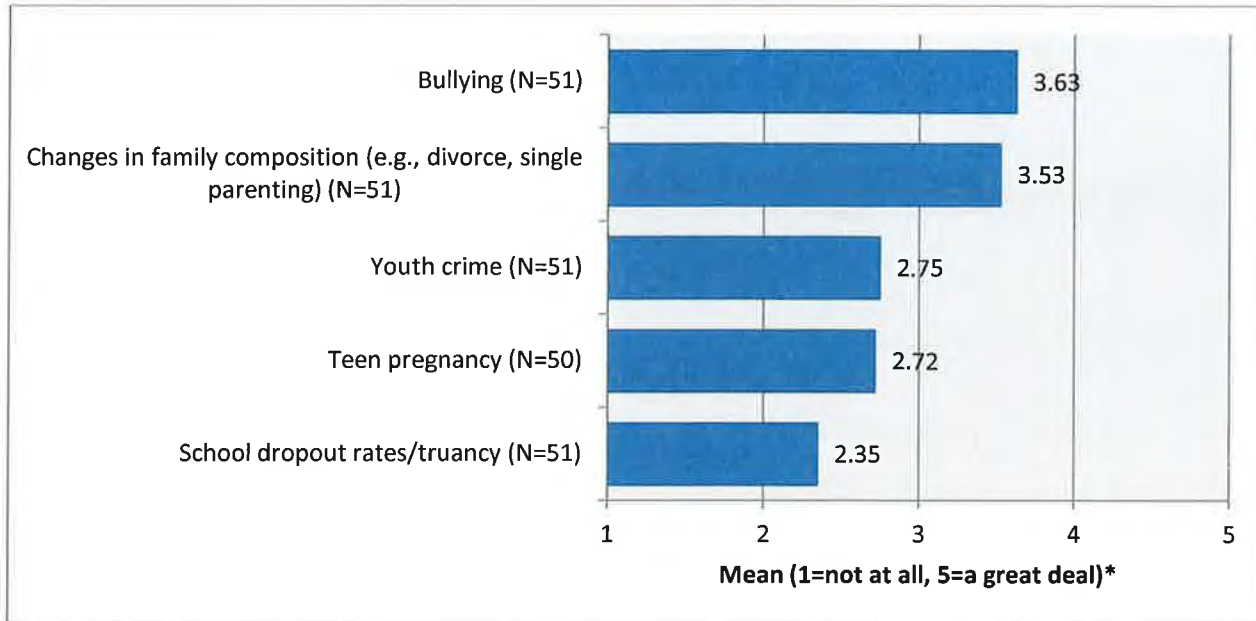
Figure 9. Respondents' level of concern with statements about their community regarding ENVIRONMENT



## Children and Youth

Regarding children and youth, respondents were most concerned with the bullying and changes in family composition. Respondents were least concerned with school dropout rate/truancy.

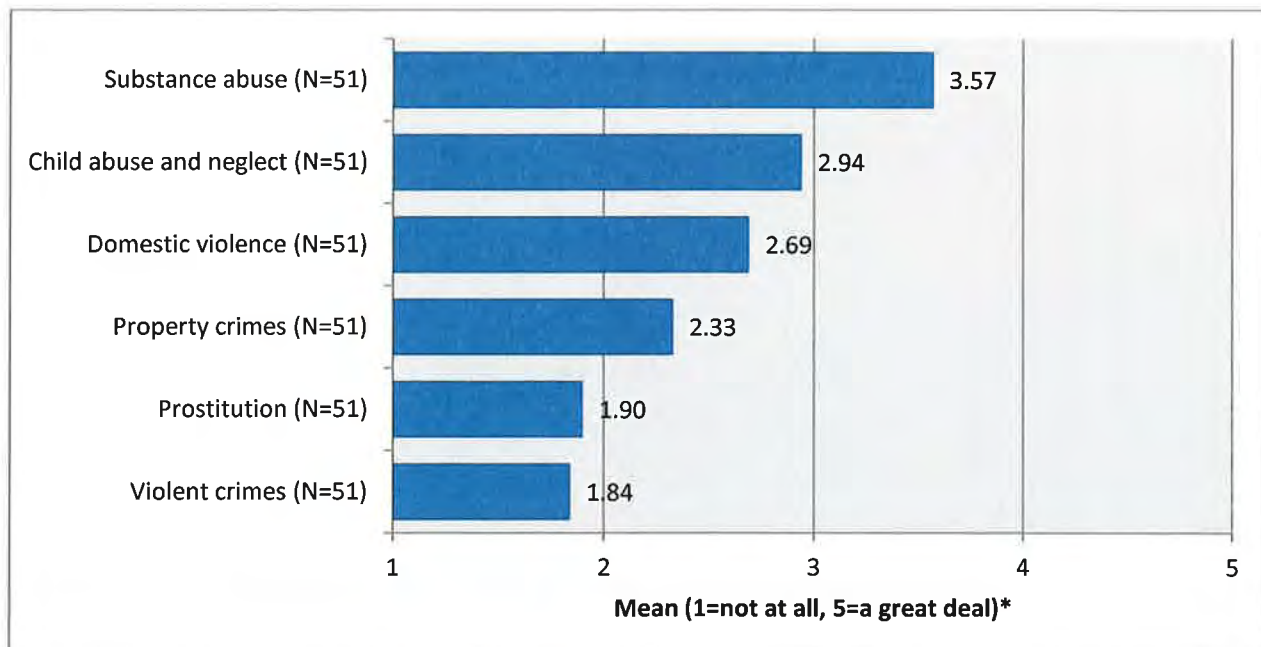
Figure 10. Level of concern with statements about the community regarding YOUTH CONCERNS



## Safety

Regarding safety, respondents were most concerned with substance abuse. Respondents were least concerned with prostitution and violent crimes.

Figure 11. Respondents' level of concern with statements about their community regarding SAFETY





## *Community Health and Wellness Concerns*

Respondents were asked to rank 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.

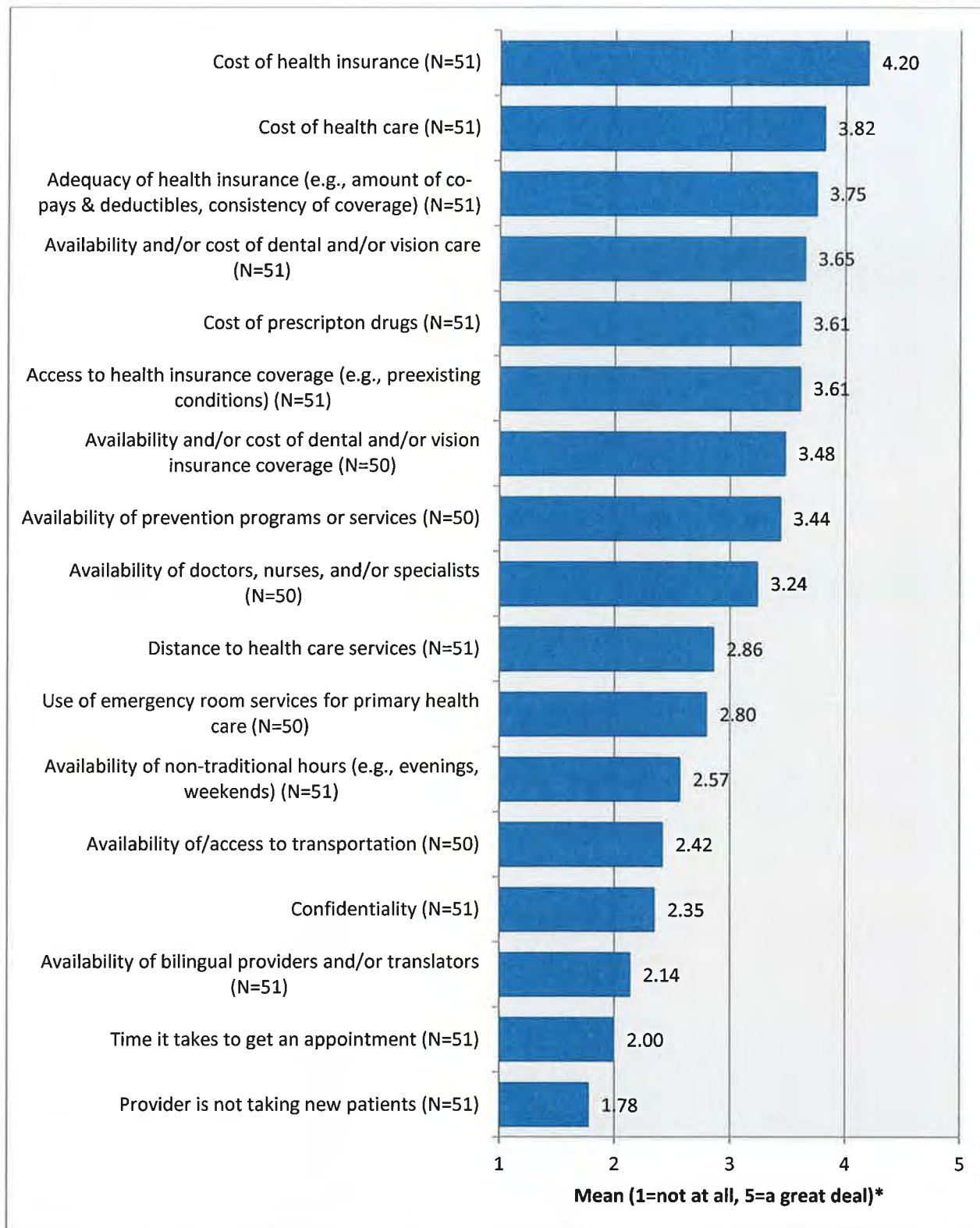
The top six health and wellness concerns among community leaders were:

- Cancer
- Cost of Health Insurance
- Alcohol Use and Abuse
- Quality of Mental Health Programs
- Chronic Disease (e.g., diabetes, heart disease, multiple sclerosis)
- Availability of Qualified Mental Health Providers

### Access to Health Care

Respondents had high levels of concern with respect to costs associated with health and wellness in their community. Cost of health insurance, cost of health care, and adequacy of health insurance were the top three concerns.

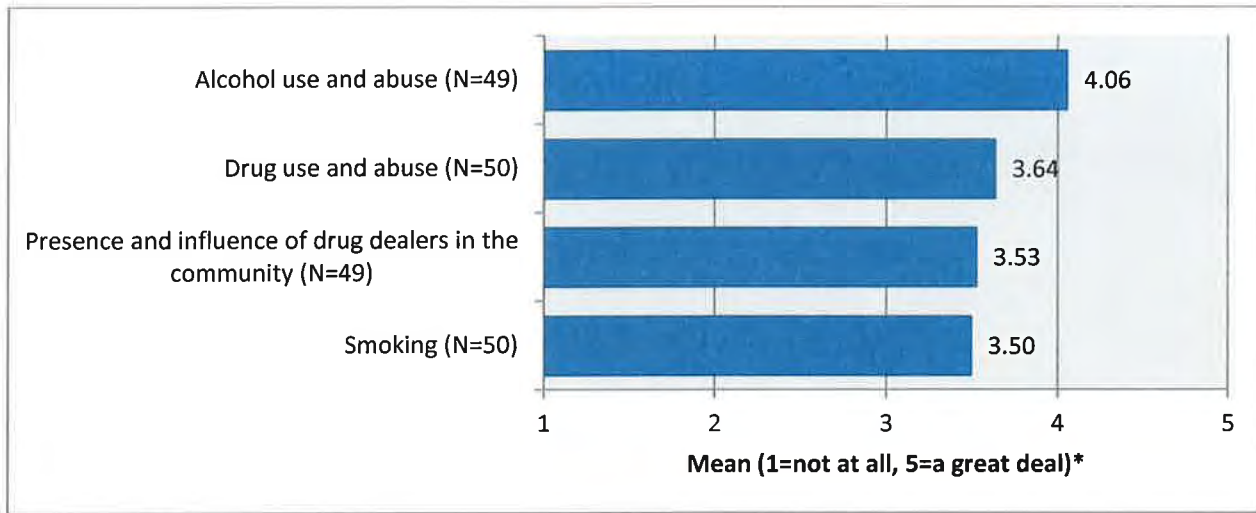
Figure 12. Respondents' level of concern with statements about their community regarding ACCESS TO HEALTH CARE



## Substance Use

The level of concern among respondents regarding substance use and abuse issues in their community was fairly high. Respondents were most concerned about alcohol use and abuse followed closely by drug use and abuse, presence and influence of drug dealers in the community, and smoking.

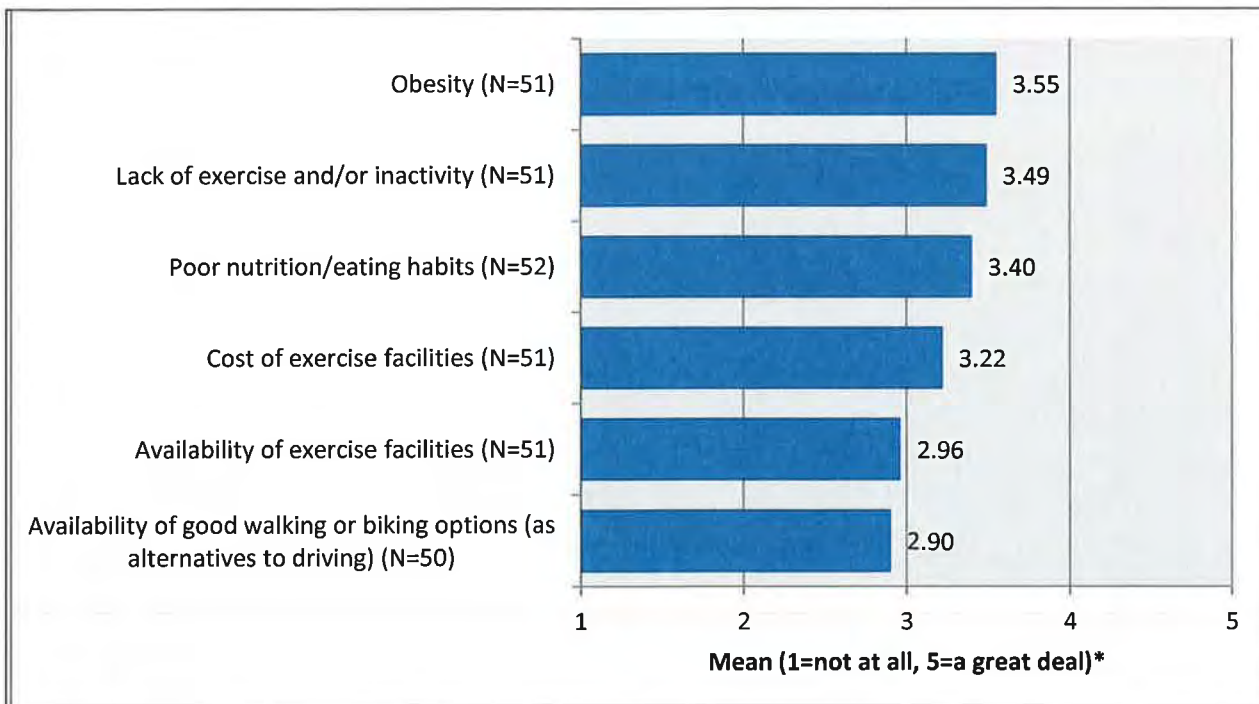
Figure 13. Level of concern with statements about the community regarding SUBSTANCE USE AND ABUSE



## Physical Health

Regarding physical health issues, respondents had the highest levels of concern with respect to obesity, lack of exercise and/or inactivity and poor nutrition/eating habits. Respondents were least concerned with availability of exercise facilities and good walking or biking options.

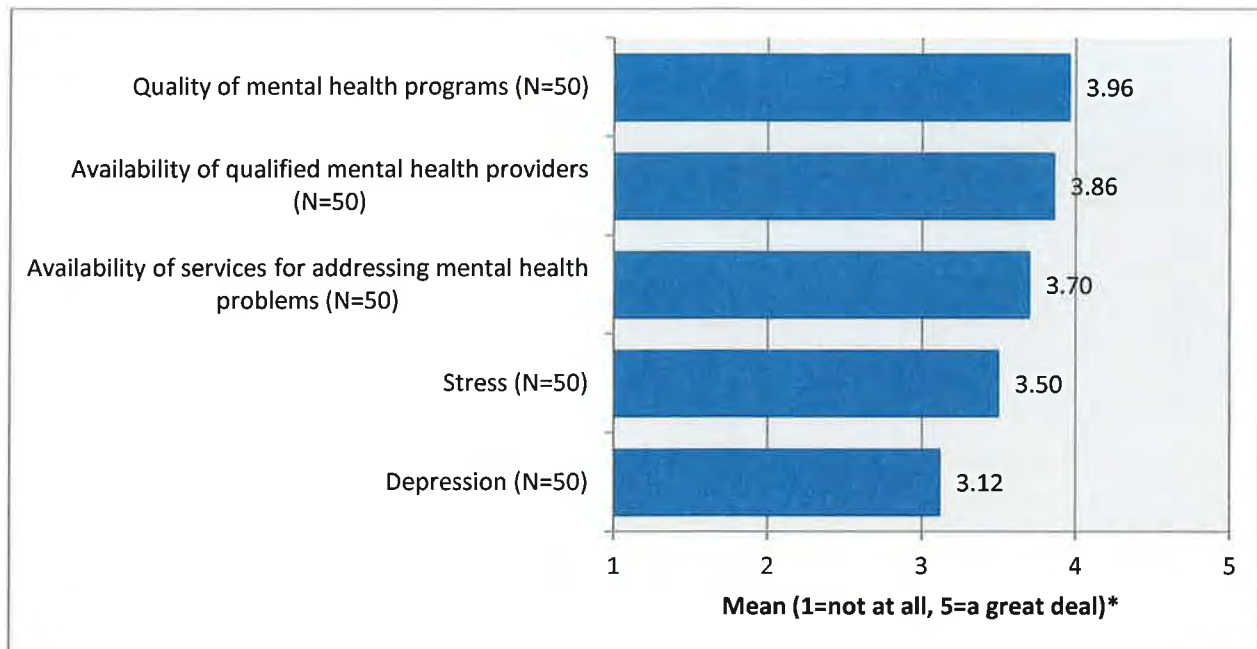
Figure 14. Respondents' level of concern with statements about their community regarding PHYSICAL HEALTH



## Mental Health

Regarding mental health issues, respondents had the highest levels of concern with respect to quality of mental health programs and availability of qualified mental health providers. Respondents were least concerned with depression.

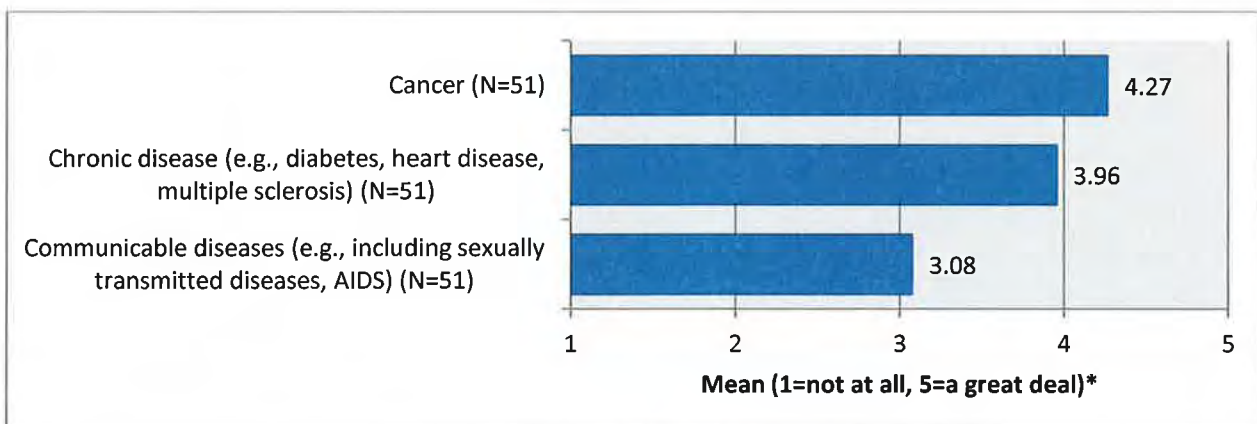
Figure 15. Respondents' level of concern with statements about their community regarding MENTAL HEALTH



## Illness

The level of concern among respondents regarding illness issues in their community was high. Respondents were most concerned about cancer and chronic disease.

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



## ***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.

Using a 1 to 5 scale, with 1 being “not at all” and 5 being “very well,” respondents were asked to rate how well delivery of health care in the community is being addressed.

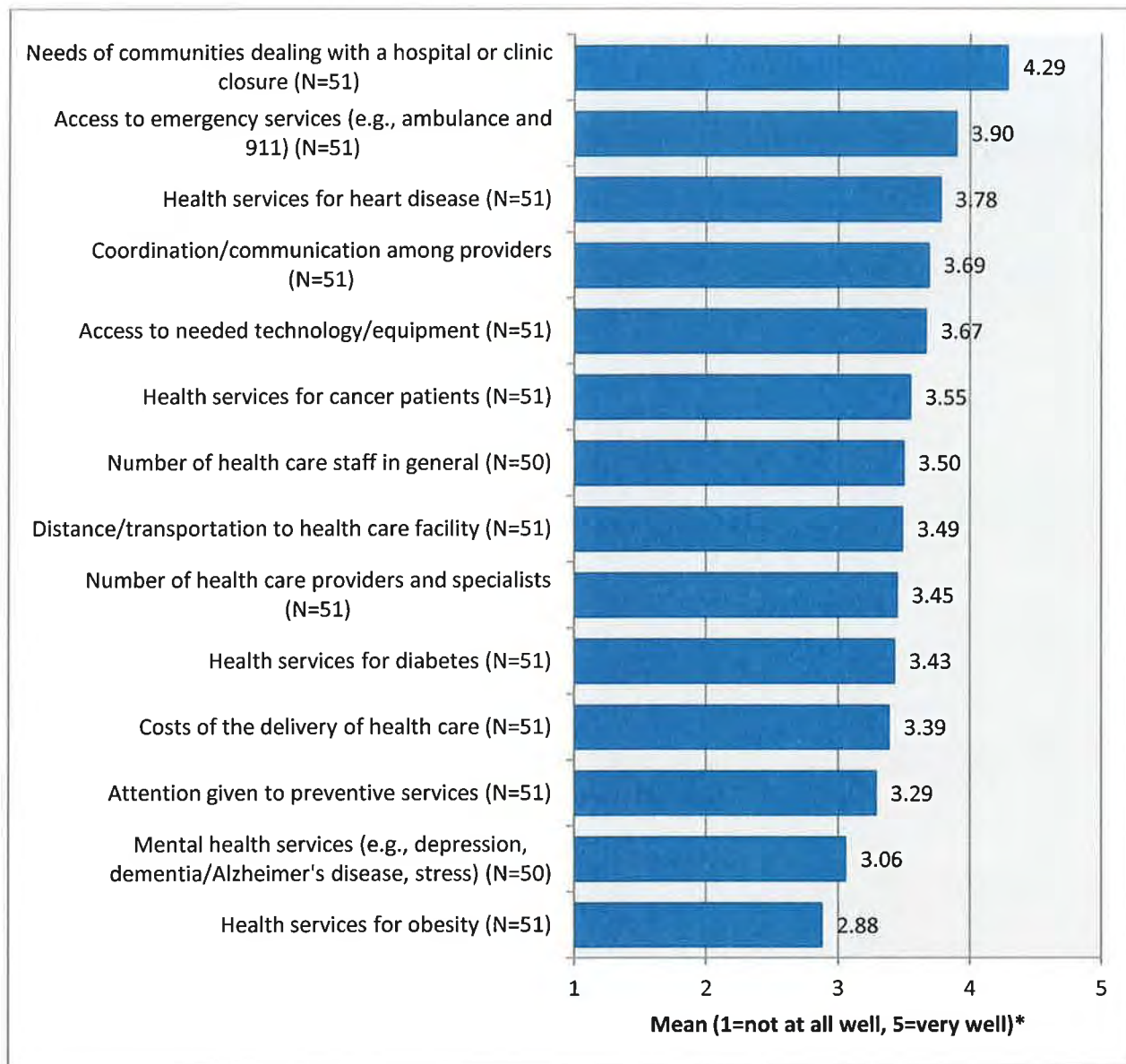
The lowest six delivery of health care topics among community leaders were:

- Health service for obesity
- Mental health services
- Attention given to preventive services
- Cost of the delivery of health care
- Health services for diabetes
- Number of health care providers and specialist

## Delivery of Health Care

Respondents scored the lowest rankings for health services and obesity.

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



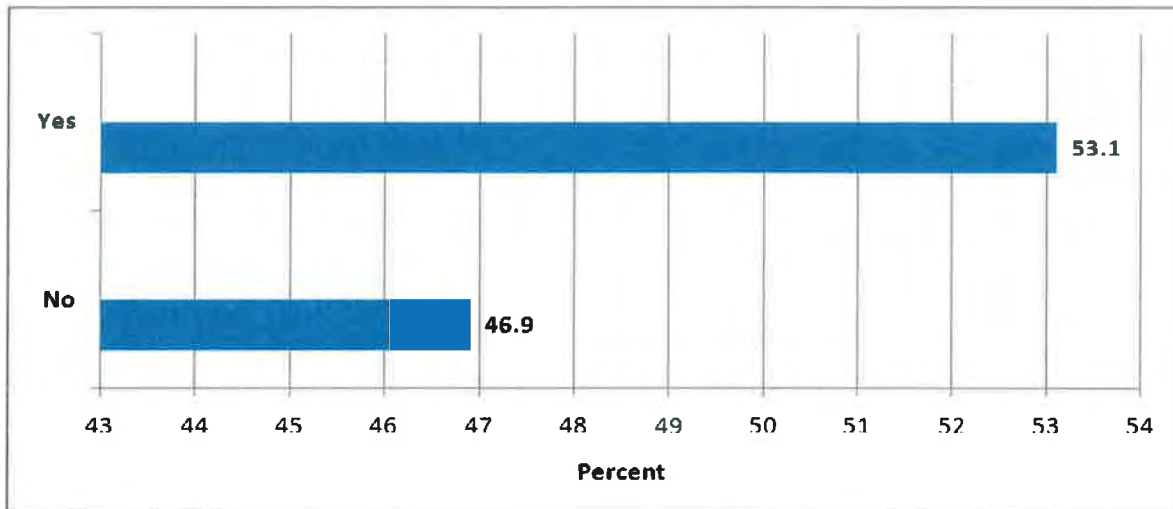
## Personal Health Care Information

### Cancer Screening

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.

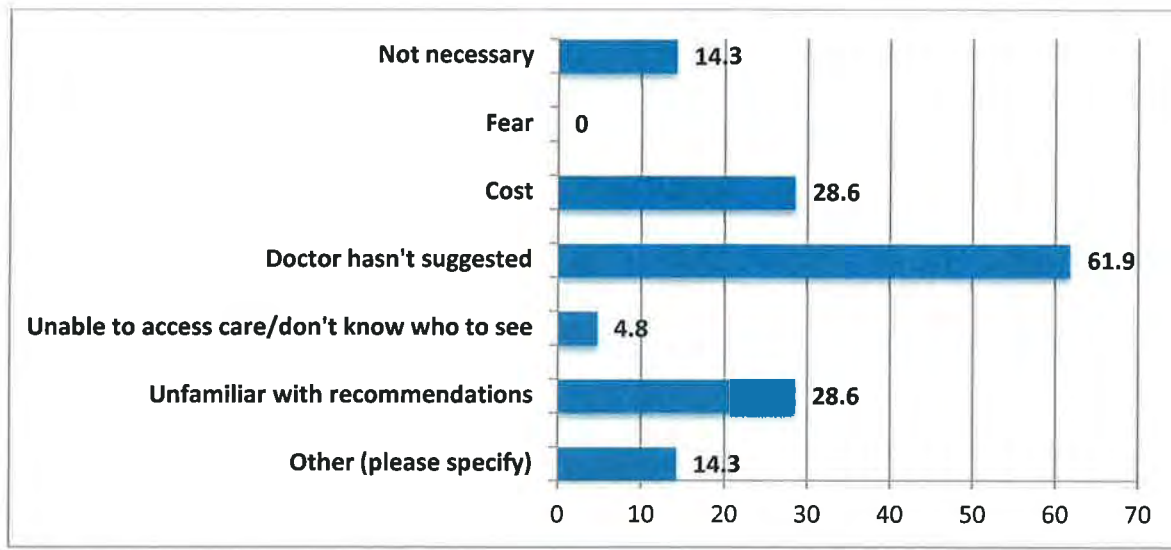
- 46.9% of respondents said they had not had a cancer screening or cancer care in the past year.

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



Among respondents who had not had a cancer screening or cancer care in the past year, six in ten said they had not done so because their doctor had not suggested it. Cost and being unfamiliar with recommendations were also reasons for some respondents.

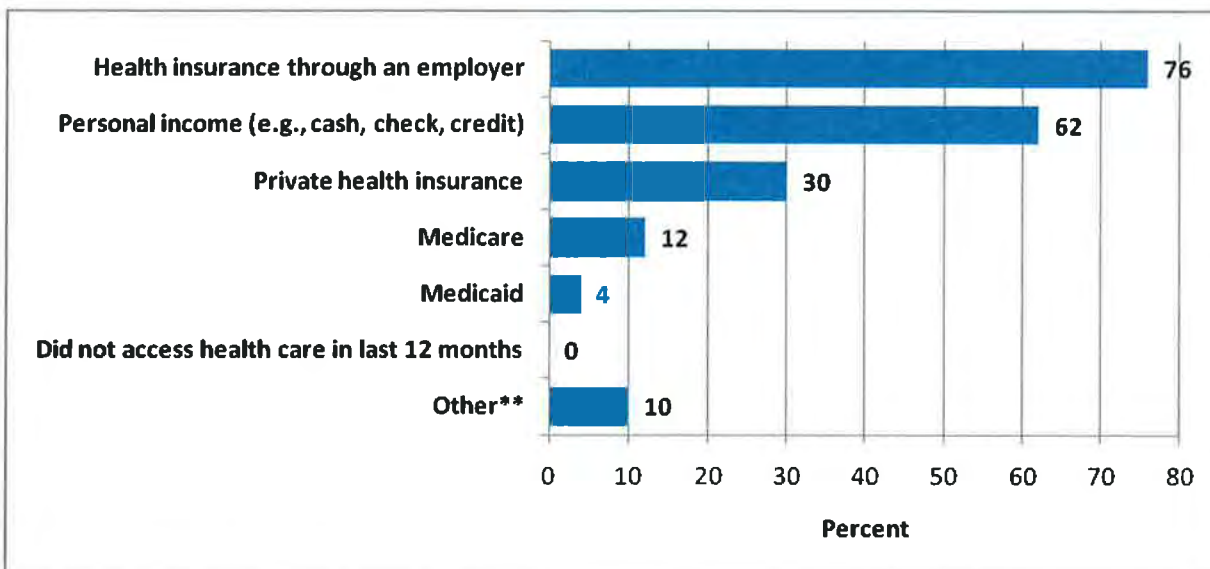
Figure 19. Among respondents who have not had a cancer screening or cancer care in the past year, reasons for not having done so



### Health Care Coverage

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

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

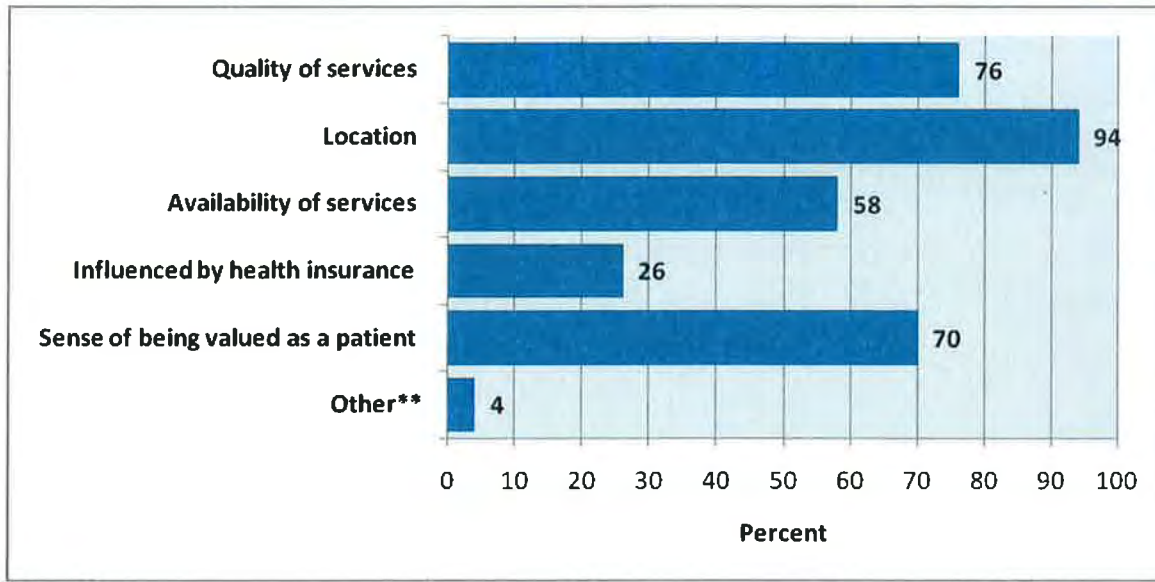




### Primary Care Provider

The top three reasons respondents gave for their choice of primary health care provider were location, quality of services, and a sense of being valued as a patient. Also, six in ten respondents said choosing their primary health care provider was influenced by the availability of services.

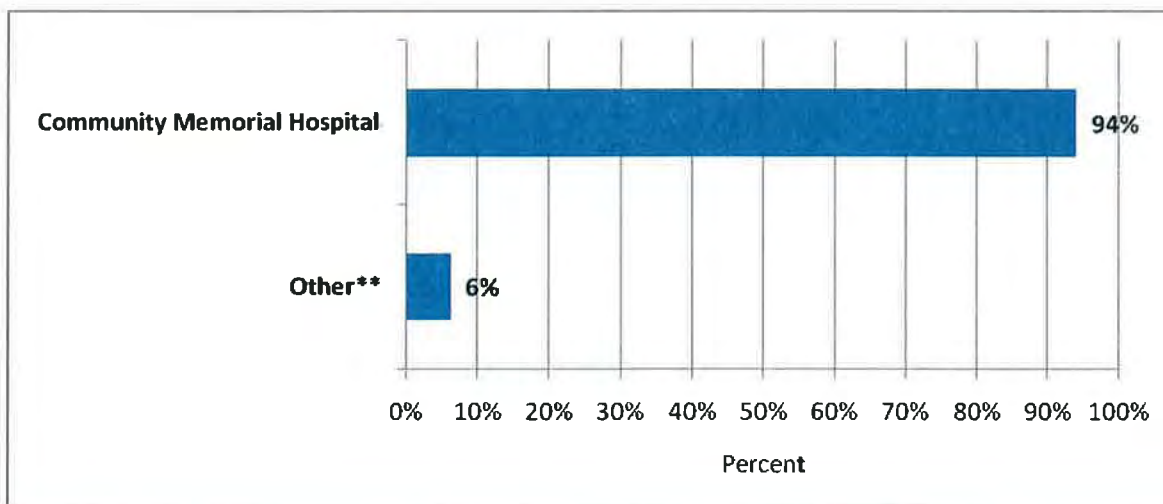
Figure 21. Respondents' reasons for choosing primary health care provider



### Respondent's Primary Health Care Provider

Respondents were asked which provider they used for their primary health care. Ninety-four percent (94%) of respondents said they use Community Memorial Hospital as their primary health care provider.

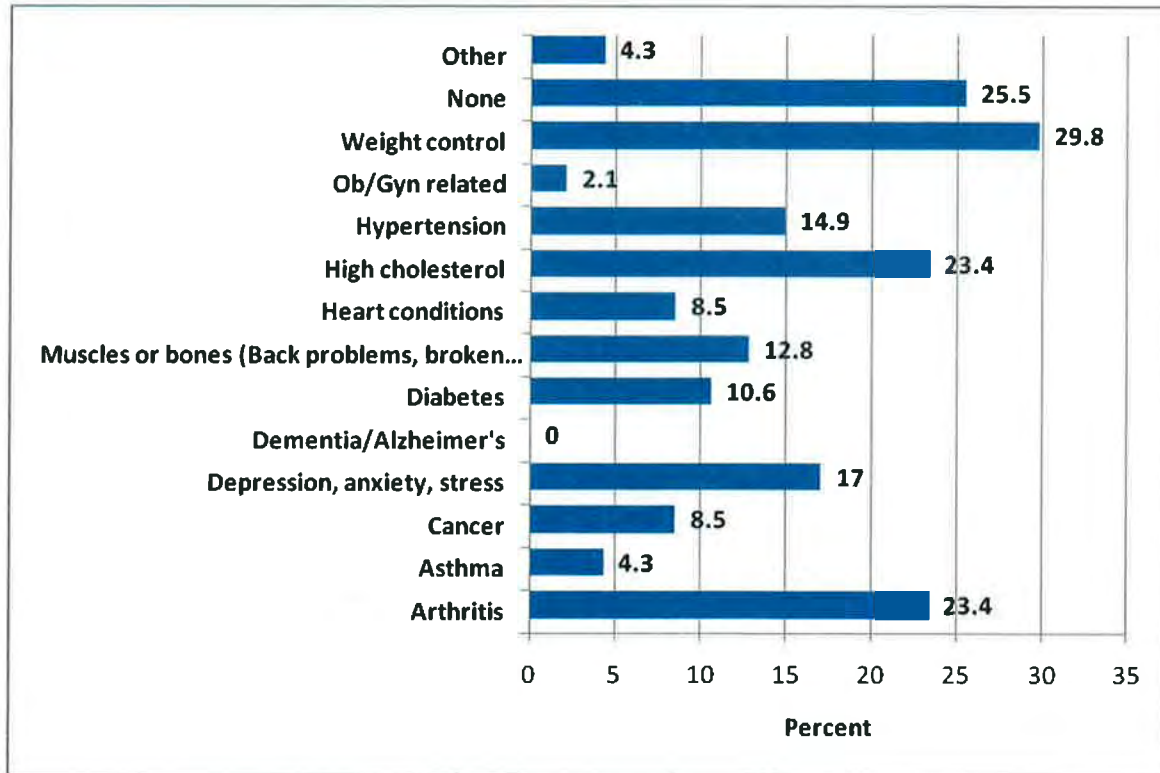
Figure 22. Respondent's primary health care provider



### Respondents Representing Chronic Disease

Respondents were asked to select their personal general health conditions/diseases. Weight control, high cholesterol and arthritis were the top three diseases cited followed closely by depression and hypertension.

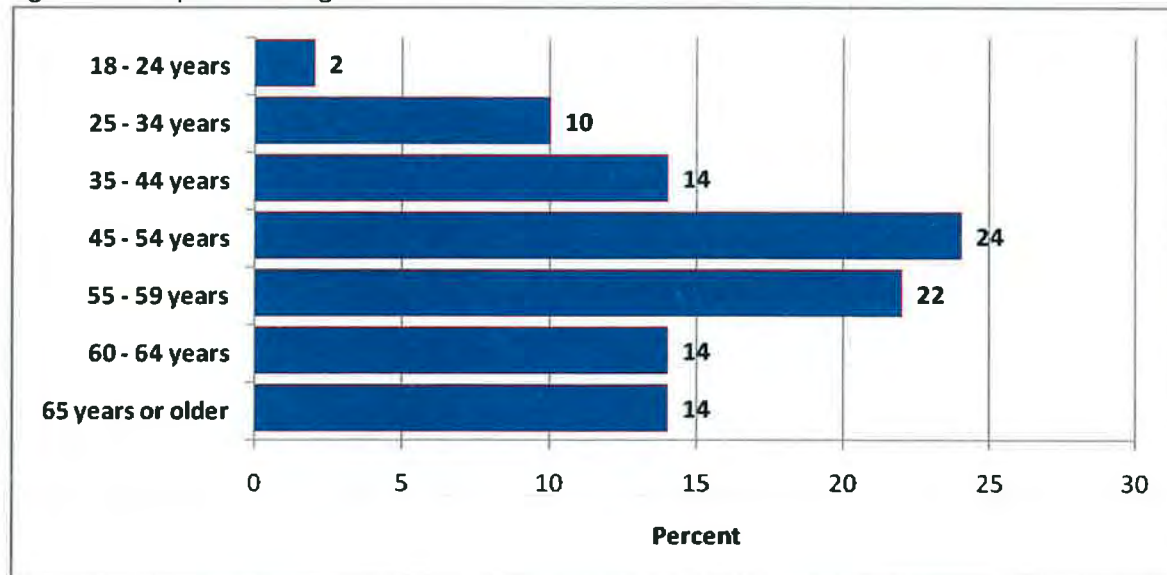
Figure 23. Respondent's health/chronic disease



### *Demographic Information*

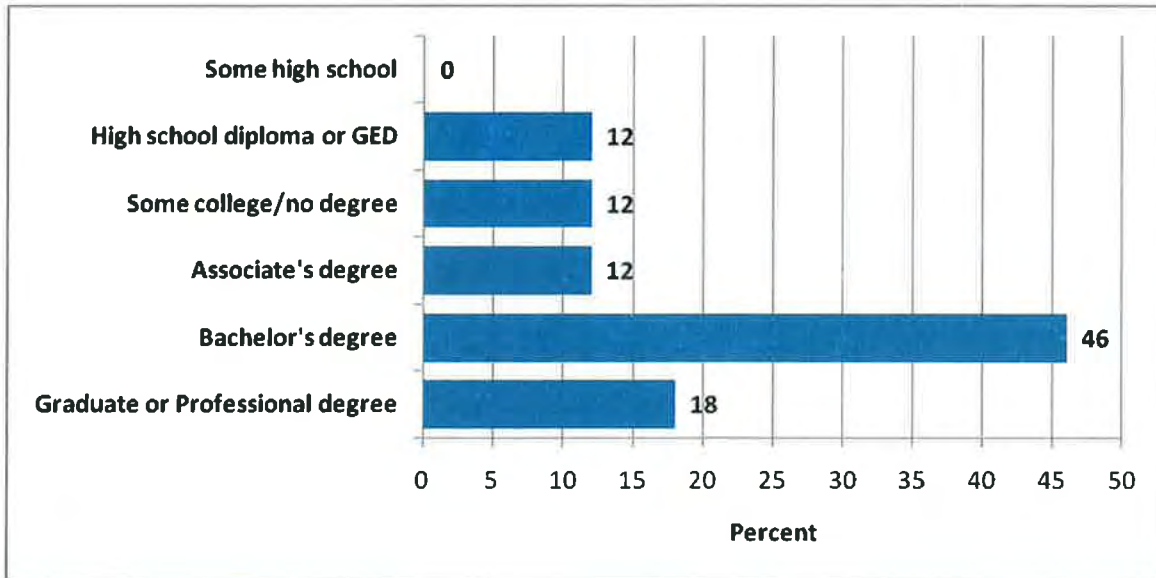
The majority of the respondents were 45 to 60 years old.

Figure 24. Respondents' age distribution



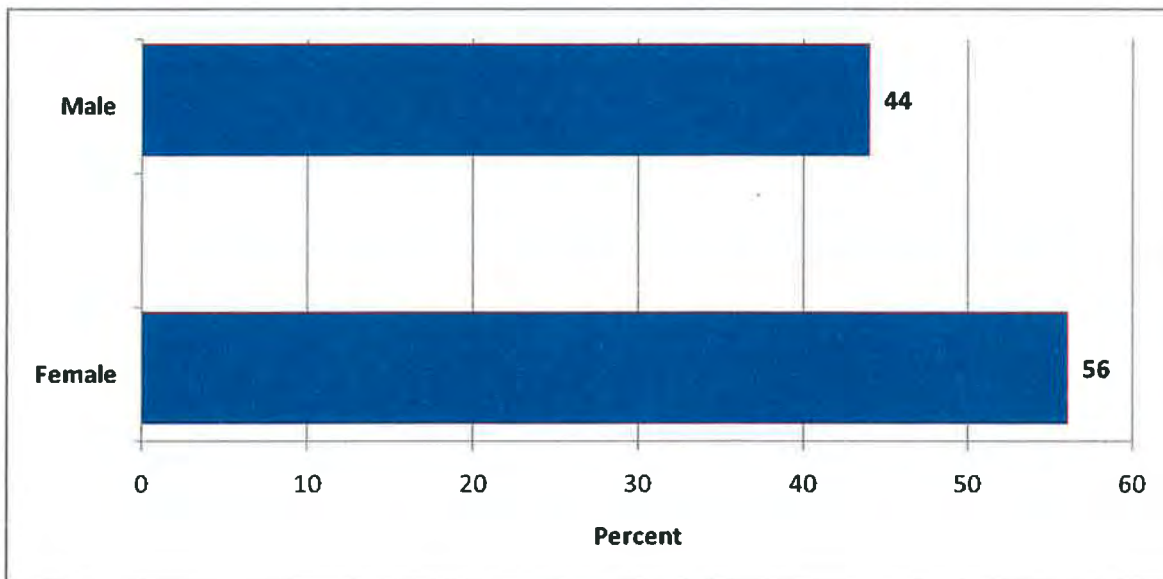
Most respondents had a Bachelor's degree or higher, including a high percent who have a graduate or professional degree.

Figure 25. Respondents' education



The majority of respondents are female.

Figure 26. Respondents' gender distribution

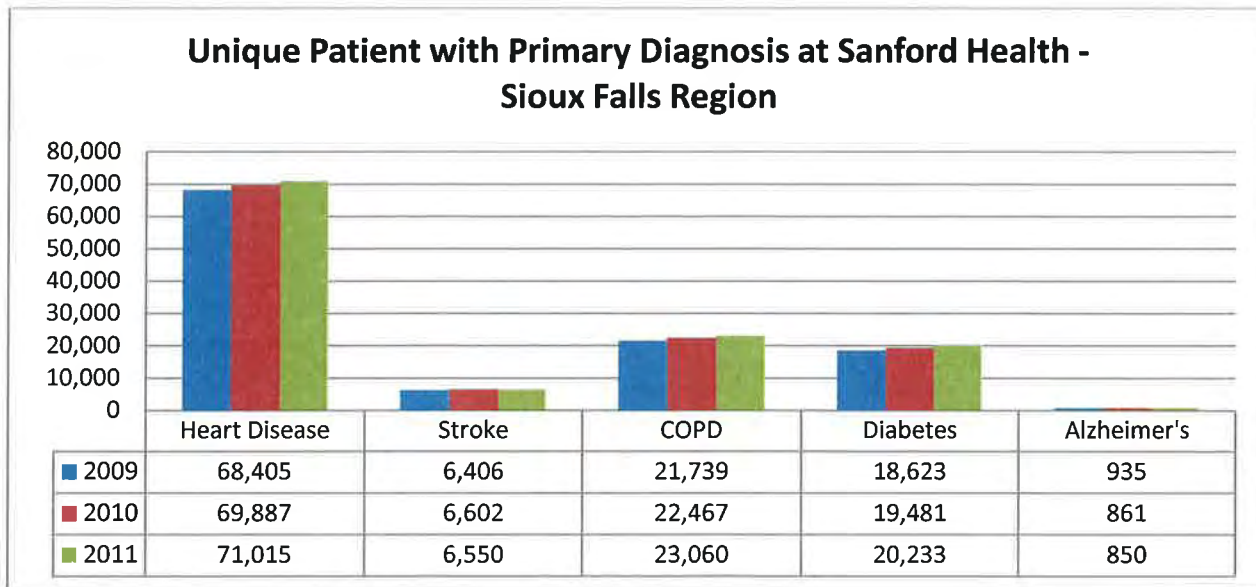


## Quality Data

### Center for Disease Control – Measures of Health and Leading Causes of Death by State

The Center for Disease Control has determined the leading causes of death in South Dakota to be heart disease, chronic lower respiratory disease, stroke, Alzheimer’s disease, and diabetes. Chronic disease is among the most common and most costly health problems. Figure 29 demonstrates the prevalence of the top chronic diseases among Sanford patients as a unique primary diagnosis.

Figure 27. Unique Patient with Primary Diagnosis at Sanford Health – Sioux Falls Region



## Inpatient Diagnosis by Volume and by Cost

The top diagnosis codes within the Community Memorial Hospital inpatient setting were analyzed to determine the highest utilization by volume and the highest cost diagnosis. The highest utilization for 2009, 2010 and 2011 include the #1 diagnosis code 401.9 Unspecified Essential Hypertension. Congestive Heart Failure was #2 in 2009, #3 in 2010 and #4 in 2011.

Diabetes W/O Complications was #3 in 2009, #4 in 2010 and #5 in 2011. Other and Unspecified Hyperlipidemia was #5 in 2009 and #2 in 2010 and 2011.

**Table 1. Top Diagnosis by Volume for 2011, 2010 and 2009**

<b>MS DRG Description - 2011</b>	<b>MS DRG Description – 2010</b>	<b>MS DRG Description - 2009</b>
Unspecified Essential Hypertension	Unspecified Essential Hypertension	Unspecified Essential Hypertension
Other and Unspecified Hyperlipidemia	Other and Unspecified Hyperlipidemia	Congestive Heart Failure
Osteoarthritis	Congestive Heart Failure	Diabetes W/O Comp Type II
Congestive Heart Failure	Diabetes W/O Comp Type II	Other Malaise and Fatigue
Diabetes W/O Comp Type II	Atrial Fibrillation	Other and Unspecified Hyperlipidemia
Other Malaise and Fatigue	Osteoarthritis	Chronic Airway Obstruction
Atrial Fibrillation	Other Malaise and Fatigue	Unspecified Hypothyroidism
Unspecified Hypothyroidism	Unspecified Hypothyroidism	Osteoarthritis
Encounter - LT Use of Anticoagulants	Encounter - LT Use of Anticoagulants	Atrial Fibrillation
Pneumonia, Organism Unspecified	Hyposmolality and/or Hyponatremia	Postsurgical Aortocoronary Bypass

The top diagnosis for 2011, 2010 and 2009 by charges was Diagnosis 401.9 Unspecified Essential Hypertension.

Diagnosis 428.0 Congestive Heart Failure unspecified ranked second in 2009, third in 2010 and fifth in 2011.

Diagnosis 250.00 Diabetes W/O Comp Type II ranked third in 2009 and 2011 and fifth in 2010.

Diagnosis 272.4 Other and Unspecified Hyperlipidemia ranked fourth in 2009 and second in 2010 and 2011.

**Table 2. Top DRG by Direct Cost for 2011, 2010 and 2009**

<b>MS DRG Description - 2011</b>	<b>MS DRG Description - 2010</b>	<b>MS DRG Description - 2009</b>
Unspecified Essential Hypertension	Unspecified Essential Hypertension	Unspecified Essential Hypertension
Other and Unspecified Hyperlipidemia	Other and Unspecified Hyperlipidemia	Congestive Heart Failure
Diabetes W/O Comp Type II	Congestive Heart Failure	Diabetes W/O Comp Type II
Osteoarthritis	Atrial Fibrillation	Other and Unspecified Hyperlipidemia
Congestive Heart Failure	Diabetes W/O Comp Type II	Other Malaise and Fatigue
Other Malaise and Fatigue	Osteoarthritis	Chronic Airway Obstruction
Pneumonia, Organism Unspecified	Other Malaise and Fatigue	Unspecified Hypothyroidism
Atrial Fibrillation	Unspecified Hypothyroidism	Atrial Fibrillation
Unspecified Hypothyroidism	Hyposmolality and/or Hyponatremia	Osteoarthritis
Encounter - LT Use of Anticoagulants	Encounter - LT Use of Anticoagulants	Postsurgical Aortocoronary Bypass

Table 1 in the Appendix provides the top 20 DRGs by volume for 2009, 2010, and 2011.

Table 2 in the Appendix provides the top 20 DRGs by cost.

## Secondary Research

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

### HEALTH OUTCOMES

#### Mortality

Community Memorial Hospital analyzed the 2011 County Profiles for Gregory County and secured benchmarking data for the state of South Dakota and for the United States as a whole. The 2011 County Profiles are based largely on the County Health Rankings from the Mobilizing Action Toward Community Health (MATCH), a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. State and national benchmarking required additional data sources, including the U.S. Census Bureau, Small Area Health Insurance Estimates, and the Centers for Disease Control and Prevention’s National Center for Health Statistics – the Health Indicators Warehouse.

The Mortality health outcomes indicate that South Dakota as a state has more premature deaths than the national benchmark. Mortality data was not available for Gregory County. Map 1 in the Appendix provides a county view of the premature deaths within the five-state region.

		National Benchmark	South Dakota	Gregory County
Premature death	Years of potential life lost before age 75 per 100,000 (age-adjusted), 2005-2007	5,564	6,815	-

#### Morbidity

The Morbidity health outcomes indicate that South Dakota citizens report more days of poor or fair health (self-reported) than the national benchmark. Gregory County is above the national and state benchmark and reports slightly more poor or fair health days.

South Dakota and Gregory County report more physically unhealthy days than the national benchmark.

South Dakota reports more mentally unhealthy days (self-reported) than the national benchmark. Gregory County is at the national benchmark for mentally unhealthy days.

South Dakota has a higher percentage of low birth weight than the national benchmark. Data was not available for Gregory County. Maps 2-5 in the Appendix provide county views of the morbidity indicators within the five-state region.

		National Benchmark	South Dakota	Gregory County
Poor or fair health	Percent of adults reporting fair or poor health (age-adjusted), 2003-2009	10%	12%	14%
Poor physical health days	Average number of physical unhealthy days reported in past 30 days (age-adjusted), 2003-2009	2.6	2.8	2.8
Poor mental health days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009	2.3	2.6	2.2
Low birth weight	Percent of live births with low birth weight (<2,500 grams), 2001-2007	6.0%	6.8%	-

## HEALTH FACTORS

### Health Behaviors

The Health Behavior outcomes indicate that South Dakota has a higher percentage of adult smokers (equal to or greater than 100 cigarettes) than the national average, while Gregory County is at the national average. Adult obesity (greater than or equal to 30 BMI) is also higher in South Dakota and Gregory County. South Dakota and Gregory County have a higher percentage of physical inactivity than the national benchmark.

South Dakota (19%) and Gregory County (16%) both have a much higher percentage of binge drinking reports (more than 4 drinks on one occasion for women and more than 5 for men) than the national benchmark (8%).

Motor vehicle crash death rates are higher in South Dakota (23.7) than the national benchmark (12). Data is not available for Gregory County.

Sexually transmitted infections rank substantially higher than the national average (83) for South Dakota (371.3) and Gregory County (146.9).

The teen birth rate is higher in South Dakota (38.7) and Gregory County (23.0) than the national benchmark (22). Maps 6-12 in the Appendix provide county views of the Health Behavior indicators within the five-state region.

		National Benchmark	South Dakota	Gregory County
Adult smoking	Percent of adults who currently smoke and have smoked at least 100 cigarettes in their lifetime, 2003-2009	15%	20%	15%
Adult obesity	Percent of adults that report a body mass index (BMI) of at least 30 kg/m <sup>2</sup> , 2008	25%	29%	30%
Physical inactivity	Percent of adults reporting no leisure physical activity, 2008	20%	26%	36%
Excessive drinking	Percent of adults reporting binge drinking and heavy drinking, ( consuming >4 for women and >5 for men on a single occasion ) 2003-2009	8%	19%	16%
Motor vehicle crash death rate	Motor vehicle crash deaths per 100,000 population, 2001-2007	12.0	23.7	-
Sexually transmitted infections	Number of Chlamydia cases (new cases reported) per 100,000 population 2008	83.0	371.3	146.9
Teen birth rate	Number of teen births per 100,000 females ages 15-19, 2001-2007	22.0	38.7	23.0

## Clinical Care

The Clinical Care outcomes indicate that South Dakota and has a higher percentage of uninsured adults than the national benchmark while Gregory County has substantially more uninsured adults. The percentage of uninsured youth in Gregory County and in South Dakota as a whole is slightly higher than the national benchmark.

The ratio of population to primary care physicians is less positive in South Dakota than the national benchmark; however, Gregory County has a more positive ratio.

The ratio of population to mental health providers is less positive in South Dakota and Gregory County than the national benchmark.

The number of professionally active dentists is lower in South Dakota than the national benchmark. Gregory County has a significantly lower dentist rate than the national and state averages.

Preventable hospital stays are higher than the national benchmark in South Dakota, and the Gregory County rate is significantly higher.

Diabetic screening in South Dakota is lower than the national benchmark. The rate of diabetic screening is higher in Gregory County than the national benchmark.

South Dakota ranks lower than the national benchmark for mammography screenings, while Gregory County is at the national benchmark.

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

		National Benchmark	South Dakota	Gregory County
Uninsured adults	Percent of adult population ages 18-64 without health insurance, 2007	13%	16%	27%
Uninsured youth	Percent of youth ages 0-18 without health insurance.	7%	9%	15%
Primary Care Physicians	Ratio of population to primary care physicians, 2008	631:1	769:1	402:1
Mental Health Providers	Ratio of total population to mental health providers, 2008	2,242:1	3,544:1	4022:1
Dentist rate	Number of professionally active dentists per 100,000 population, 2007	69.0	50.0	24.5
Preventable hospital stays	Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007	52.0	68.6	148.2
Diabetic screening	Percent of diabetic Medicare enrollees that receive HbA1c screening, 2006-2007	89%	83%	91%
Mammography screening	Percent of female Medicare enrollees that receive mammography screening, 2006-2007	74%	68%	74%



## Social and Economic Factors

The Social and Economic Factors outcomes indicate that South Dakota and Gregory County have lower high school graduation averages than the national benchmark. South Dakota has a lower percentage of post secondary education than the national average, while Gregory County is at the national average.

The unemployment rate was lower in South Dakota than the national benchmark during 2009, and was also lower in Gregory County.

The percentage of child poverty is higher in South Dakota and Gregory County than the national benchmark. Gregory County is substantially higher.

Inadequate social support is higher in South Dakota and Gregory County than the national benchmark.

The percentage of children in single parent households is higher than the national benchmark in South Dakota and Gregory County.

The number of homicide deaths in South Dakota is higher than the national benchmark. There was no data for homicide deaths in Gregory County.

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

		National Benchmark	South Dakota	Gregory County
High school graduation	Percent of ninth-grade cohort in public schools that graduates from high school in four years 2006-2007	92%	83%	90%
Some college	Percent of adults ages 25-44 with some post-secondary education, 2005-2009	68%	64%	68%
Unemployment	Percent of population ages 16 and older that is unemployed but seeking work 2009	5.3%	4.8%	4.1%
Child poverty	Percent of children ages 0-17 living below the Federal Poverty Line, 2008	11%	18%	27%
Inadequate social support	Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009	14%	17%	21%
Children in single parent households	Percent of children in families that live in a household headed by a parent with no spouse present, 2005-2009	20%	29%	21%
Homicide rates	Number of deaths due to murder or non-negligent manslaughter per 100,000 population, 2001-2007	1.0	2.5	-

**Physical Environment**

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

Access to recreational facilities ranks lower than the national benchmark for South Dakota and Gregory.

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

		National Benchmark	South Dakota	Gregory County
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	92%	42%	43%
Access to recreational facilities	Number of recreational facilities per 100,000 population 2008	17.0	13.0	0.0

**Demographics**

Youth account for 21% of the population in Gregory County. Elderly account for 25% of the population in Gregory County.

Gregory County is 100% rural compared to 48% of South Dakota and 21% as the national benchmark.

Only 2% of South Dakotans are not proficient in English compared to the national benchmark, which is 9%. Gregory has zero non-English proficient population.

South Dakota (7%) and Gregory County (9%) have lower illiteracy rates compared to the national benchmark of 15%.

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

		National Benchmark	South Dakota	Gregory County
Youth	Percent of total population ages 0-17, 2009	24%	25%	21%
Elderly	Percent of total population ages 65 and older, 2009	13%	14%	25%
Rural	Percent of total population living in rural area, 2000	21%	48%	100%
Not English Proficient	Percent of total population that speaks English less than "very well". 2005-2009	9%	2%	0%
Illiteracy	Percent of population ages 16 and older that lacks basic prose literacy skills, 2003	15%	7%	9%

### **Population by Age**

The population for this area is relatively elderly with 29% older than 65 years of age compared to 16% for South Dakota and 15% for the national average.

The gender distribution is 50-50 % across South Dakota and Gregory County.

	National Benchmark	South Dakota	Gregory County
Total population	308,745,538	814,180	4,271
Percent ages 65 and older	13%	14%	24%
Percent 85 and older	2%	2%	5%
Percent male	49%	50%	50%
Percent female	51%	50%	50%

*Based on 2010 Census data*

### **Housing**

The majority of individuals in this region own their home with South Dakota and Gregory County rates both greater than the national benchmark.

	National Benchmark	South Dakota	Gregory County
Percent of occupied housing that is owner-occupied	65%	74%	74%
Percent of occupied housing that is renter-occupied	35%	26%	26%

*Based on 2010 Census data*

## **Economic Security**

According to the 2010 Census Data, the population of working age in the labor force is 69% in South Dakota. The percentage of those in South Dakota who are living at less than 100% of the federal poverty level is 14%, and 33% are at the less than 200% of the federal poverty level. The median household annual income is \$46,369 in South Dakota. Gregory County is less favorable in each of the preceding categories.

	National Benchmark	South Dakota	Gregory County
Percent of working age population in the labor force	65%	69%	63%
Percent of total population with income less than 100% of poverty	14%	14%	16%
Percent of total population with income less than 200% of poverty	32%	33%	41%
Median household income	\$51,914	\$46,369	\$33,940
Owner occupied housing units	76,089,650	217,250	1,528
Percent spending 30% or more income toward housing costs	30%	20%	19%
Renter occupied housing units	38,146,346	98,218	445
Percent renters spending 30% or more of income toward housing costs	47%	35%	28%

## **Diversity Profile**

The population distribution by race demonstrates that South Dakota is predominantly white, followed by American Indian, Hispanic, Black, and Asian.

	National Benchmark	South Dakota	Gregory County
Total population	308,745,538	814,180	4,271
White alone	223,553,265	699,392	3,862
Asian alone	14,674,252	7,610	13
Black alone	38,929,319	10,207	9
Hispanic origin – of any race	50,477,594	22,119	43
American Indian	2,932,248	71,817	316

## Health Needs Identified

The identified needs from the surveys and analysis of secondary data indicated the following:

- Access to Health Care
- Economic Issues
- Substance Use and Abuse
- Mental Health
- Delivery of Health Care
- Chronic Disease Management
- Dental Care
- Services for the Elderly
- Obesity and Physical Inactivity
- Children and Youth

### *Community Asset Mapping to Identify Resources*

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

- Cancer Awareness and Prevention
- Chronic Disease Management
- Obesity

## Community Health Needs Assessment Addressing the Needs - Community Memorial Hospital

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Addressing the need
<b>Cancer Awareness/ Prevention</b>	<ul style="list-style-type: none"> <li>• Concern about lack of health services for cancer patients – too many patients need to travel out of the community for care</li> </ul>	<ul style="list-style-type: none"> <li>• Women’s Health Clinic</li> <li>• Men’s Health Screening</li> <li>• Skin Clinic</li> </ul>	<ul style="list-style-type: none"> <li>• Community Memorial Hospital has dedicated resources for implementing screening programs for breast and lung cancer which contribute to early detection and improved survival.</li> <li>• Community Memorial Hospital is a partner of Sanford Health. Sanford has invested in cancer research including a focus on personalized medicine to address the role of genetics in various cancers.</li> <li>• Community Memorial Hospital has selected cancer prevention and awareness as an implementation priority and has developed a strategy to address this need.</li> </ul>
<b>Cost of Health Insurance</b>	<ul style="list-style-type: none"> <li>• Concern about cost of health care/insurance</li> </ul>		Community Memorial Hospital is addressing this need by offering financial assistance to patients who qualify.
<b>Chronic Disease Management</b>	<ul style="list-style-type: none"> <li>• Need more weight loss programs to help prevent diabetes and heart problems</li> </ul>	<ul style="list-style-type: none"> <li>• Diabetic Clinic &amp; Support Group</li> <li>• Free Community A1c Testing</li> <li>• Free Glucose Screening</li> <li>• Discount Vascular Screening</li> <li>• Discount Cardiac Screening Annually</li> <li>• CSHS – Health KICC program, SD Dept. of Health – 605-773-3737 – financial assistance &amp; care coordination for children with chronic medical conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Community Memorial Hospital as a partner with Sanford Health has executed new programs to improve care coordination, including the Health Coach and Medical Home Program for the purpose of impacting chronic disease.</li> <li>• Sanford is committed to finding a cure for Type I Diabetes.</li> <li>• The Better Choices/Better Health is a program that addresses chronic disease self-management and is</li> </ul>

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Addressing the need
			<p>available free of charge to all patients with a chronic disease.</p> <ul style="list-style-type: none"> <li>• Additionally, obesity is a co-morbidity of many chronic diseases and is a priority for Sanford Enterprise. The enterprise implementation strategy will address obesity.</li> <li>• Community Memorial Hospital has selected chronic disease management as an implementation priority and has developed a strategy to address this need.</li> </ul>
<b>Drug &amp; Alcohol Abuse</b>	<ul style="list-style-type: none"> <li>• Concern about substance abuse in the community</li> <li>• Need to work with the parents to inform them of the dangers and to correct the attitude that it is OK for teens to drink</li> </ul>	<ul style="list-style-type: none"> <li>• Alcoholics Anonymous, Mitchell – 605-996-8264</li> <li>• Carroll Institute – 605-336-2556</li> <li>• Sioux Valley Counseling Center – 1-800-992-0772</li> <li>• Keystone Treatment Center – 1-800-831-2273</li> <li>• Lewis &amp; Clark Mental Health – 605-333-6514</li> <li>• River Park alcohol &amp; Drug Counseling – 605-339-4433</li> <li>• Sioux Valley Dependency Treatment Program – 605-333-6514</li> <li>• Wellspring Holistic Center, Freeman – 605-925-4219</li> <li>• Southern Plains Behavioral Health Service, Winner – 605-842-1465</li> </ul>	<p>Community Memorial Hospital will address this need by referring patients to the appropriate providers for care. Community Memorial Hospital will work with Sanford Health where the organization has prioritized mental health as an enterprise implementation strategy for 2013-2016</p>
<b>Mental Health</b>	<ul style="list-style-type: none"> <li>• Think that churches should be more involved with mental health needs in the community</li> <li>• Concern about youth suicide</li> </ul>	<ul style="list-style-type: none"> <li>• Southern Plains Behavioral Health Services, Winner, SD - 605-842-1465</li> <li>• Southern Plains Behavioral Health Services, Gregory, SD –</li> </ul>	<ul style="list-style-type: none"> <li>• Community Memorial Hospital will address this need by making appropriate referrals to mental health providers.</li> <li>• Additionally, Community Memorial Hospital works</li> </ul>

Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Addressing the need
	<ul style="list-style-type: none"> <li>• Concern about mental health issues with the youth in the community</li> <li>• Concern about lack of mental health services in the community – people must travel for these services</li> <li>• Think that mental health issue are mostly ignored in the community</li> </ul>	<p>605-835-8505</p> <ul style="list-style-type: none"> <li>• Avera Mental Health Services – 1-800-696-4336</li> </ul>	<p>in partnership with Sanford Health.</p>
<b>Native American Health</b>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Community Health Services, Gregory Co. Dept. of Health, Burke – 605-775-2634 – education, referral, immunizations, communicable disease testing, vision/hearing screenings, blood pressure, blood sugar, hemoglobin testing, developmental screenings</li> <li>• SD Dept. of Health, Pierre – 605-773-3737 – coordinates infection disease prevention &amp; control programs</li> <li>• Health Promotion – 1-800-738-2301 – coordinates programs to promote health &amp; prevent disease</li> <li>• HIV Counseling &amp; Testing – 1-800-592-1861</li> <li>• Indian Health Service, Wagner SD - 605-384-3621</li> </ul>	<p>Community Memorial will address this need by sharing this information with Indian Health Service</p>
<b>Obesity</b>	<ul style="list-style-type: none"> <li>• Concern about youth not being involved in sports &amp; healthy physical activities; lack of exercise; poor diet; overeating</li> </ul>	<ul style="list-style-type: none"> <li>• Partnership with Fitness on Main to offer community exercise classes</li> <li>• Weight Loss Challenge</li> <li>• Community nutrition classes</li> </ul>	<ul style="list-style-type: none"> <li>• Community Memorial Hospital is addressing this need through numerous athletic and wellness programs. Dietitians are available for individual appointments and</li> </ul>



Identified Concerns	Specific concerns	Alignment with Sanford resources or other community resource partners	Addressing the need
	<ul style="list-style-type: none"> <li>• Need more weight loss programs to help prevent diabetes and heart problems</li> </ul>		<p>community presentations.</p> <ul style="list-style-type: none"> <li>• Community Memorial Hospital has chosen obesity as a priority and has developed an implementation strategy to address this need.</li> </ul>

***Prioritization Process***

Table 3 in the Appendix displays the unmet needs that were determined after the asset mapping exercise and the prioritized list of remaining needs.

# **IMPLEMENTATION STRATEGY**



## Community Memorial Hospital, Burke, SD

### Implementation Strategy Action Plan FY 2014-2016

#### **Priority 1: Cancer Awareness and Prevention**

Goals	Measureable Outcomes	Resources	Leadership	Quarterly Status Update
Provide an annual Women's Health Clinic	Conducted annually 2014 – 2016	CMH Clinic Providers	Clinic Director	2 <sup>nd</sup> Qtr 2014 - 2016
Provide an annual Men's Health Screening	Conducted annually 2014 – 2016	CMH Clinic Providers	Clinic Director	4th Qtr 2014 - 2016
Provide an annual Skin Clinic	Conducted annually 2014 – 2016	CMH Clinic Providers	Clinic Director	3rd Qtr 2014 - 2016
Provide an annual Lung Cancer Screening	Conducted annually 2014 – 2016	Sanford Screening	Outpatient Services Director	Schedule to be determined
Provide Monthly Breast Cancer Screenings	Conducted monthly 2014 – 2016	Avera mobile services	Radiology Director	Number of screening reported annually

#### **Priority 2: Chronic Disease Management**

Goals	Measureable Outcomes	Resources	Leadership	Quarterly Status Update
Offer an annual Discounted Cardiac and Vascular Screening	Conducted Annually 2014 – 2016	Sanford screening	Outpatient Services Director	Schedule to be determined
Offer Free Glucose Testing	Conducted Semi-Annually 2014 – 2016	CMH Lab Staff	Lab Director	May and October each year
Provide A1c screening for Community Members	Conducted Annually 2014 – 2016	CMH Lab Staff	Lab Director	Schedule to be determined
Start Diabetic Clinic and Diabetic Support Group		Unknown	Unknown	Unknown

### **Priority 3: Obesity**

<b>Goals</b>	<b>Measureable Outcomes</b>	<b>Resources</b>	<b>Leadership</b>	<b>Quarterly Status Update</b>
Partner with Fitness Center to offer free community exercise classes	Program to begin January 2014	\$5,000	Administration	Participation numbers to be reported annually
Feature an annual community Weight Loss Challenge	Program to begin January 2014	Fitness Center Staff	Administration	Participation numbers to be reported annually
Develop Community Nutrition Classes	A program is developed and ready to schedule	Staff Dietitian	Staff Dietician	Participation numbers to be reported annually

# APPENDIX

**Table 1****Top 10 DRGs by Volume for 2011 – 2010 - 2009  
Community Memorial Hospital, Burke, SD**

Year	Rank	DRG	Diagnosis Description
2011	1	401.9	Unspecified Essential Hypertension
	2	272.4	Other & Unspecified Hyperlipidemia
	3	715.90	Osteoarthros Unspec Whether Gen/Loc Unspec Site
	4	428.0	Congestive Heart Failure Unspecified
	5	250.0	Diab W/O Comp Type II/Uns Not Stated Uncntrl
	6	780.79	Other Malaise and Fatigue
	7	427.31	Atrial Fibrillation
	8	244.9	Unspecified Hypothyroidism
	9	V58.61	Encounter for Long-Term Use of Anticoagulants
	10	486	Pneumonia, Organism Unspecified

Year	Rank	DRG	Diagnosis Description
2010	1	401.9	Unspecified Essential Hypertension
	2	272.4	Other & Unspecified Hyperlipidemia
	3	428.0	Congestive Heart Failure Unspecified
	4	250.0	Diab W/O Comp Type II/Uns Not Stated Uncntrl
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	6	715.90	Osteoarthros Unspec Whether Gen/Loc Unspec Site
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	10	276.1	Hyposmolality and/or Hyponatremia

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	2	428.0	Congestive Heart Failure Unspecified
	3	250.0	Diab W/O Comp Type II/Uns Not Stated Uncntrl
	4	780.79	Other Malaise and Fatigue
	5	272.4	Other & Unspecified Hyperlipidemia
	6	496	Chronic Airway Obstruction NEC
	7	244.9	Unspecified Hypothyroidism
	8	715.90	Osteoarthros Unspec Whether Gen/Loc Unspec Site
	9	427.31	Atrial Fibrillation
	10	V45.81	Postsurgical Aortocoronary Bypass Status

**Table 2****Top 10 DRGs by Direct Cost for 2011 – 2010 - 2009  
Community Memorial Hospital, Burke, SD**

Year	Rank	DRG	Diagnosis Description
2011	1	401.9	Unspecified Essential Hypertension
	2	272.4	Other & Unspecified Hyperlipidemia
	3	250.0	Diab W/O Comp Type II/Uns Not Stated Uncntrl
	4	715.90	Osteoarthros Unspec Whether Gen/Loc Unspec Site
	5	428.0	Congestive Heart Failure Unspecified
	6	780.79	Other Malaise and Fatigue
	7	486	Pneumonia, Organism Unspecified
	8	427.31	Atrial Fibrillation
	9	244.9	Unspecified Hypothyroidism
	10	V58.61	Encounter for Long-Term Use of Anticoagulants

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	4	272.4	Other & Unspecified Hyperlipidemia
	5	780.79	Other Malaise and Fatigue
	6	496	Chronic Airway Obstruction NEC
	7	244.9	Unspecified Hypothyroidism
	8	715.90	Osteoarthros Unspec Whether Gen/Loc Unspec Site
	9	427.31	Atrial Fibrillation
	10	V45.81	Postsurgical Aortocoronary Bypass Status

# 2011 County Health Profile

Gregory County

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

South Dakota

HEALTH OUTCOMES		Gregory	*National Benchmark	South Dakota
<i>Mortality</i>				
Premature death	Years of potential life lost before age 75 per 100,000 population (age-adjusted), 2005-2007	-	5,564	6,815
<i>Morbidity</i>				
Poor or fair health	Percent of adults reporting fair or poor health (age-adjusted), 2003-2009	14%	10%	12%
Poor physical health days	Average number of physically unhealthy days reported in past 30 days (age-adjusted), 2003-2009	2.8	2.6	2.8
Poor mental health days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted), 2003-2009	2.2	2.3	2.6
Low birthweight	Percent of live births with low birthweight (<2,500 grams), 2001-2007	-	6.0%	6.8%
<b>HEALTH FACTORS</b>				
<i>Health Behaviors</i>				
Adult smoking	Percent of adults that currently smoke and have smoked at least 100 cigarettes in their lifetime, 2003-2009	15%	15%	20%
Adult obesity	Percent of adults that report a body mass index (BMI) of at least 30 kg/m <sup>2</sup> , 2008	30%	25%	29%
Physical inactivity	Percent of adults reporting no leisure time physical activity, 2008	36%	20%	26%
Excessive drinking	Percent of adults reporting binge drinking and heavy drinking**, 2003-2009	16%	8%	19%
Motor vehicle crash death rate	Motor vehicle crash deaths per 100,000 population, 2001-2007	-	12.0	23.7
Sexually transmitted infections	Number of chlamydia cases (new cases reported) per 100,000 population, 2008	146.9	83.0	371.3
Teen birth rate	Number of teen births per 1,000 females ages 15-19, 2001-2007	23.0	22.0	38.7
<i>Clinical Care</i>				
Uninsured adults	Percent of adult population ages 18-64 without health insurance, 2007	27%	13%	16%
Uninsured youth	Percent of youth ages 0-18 without health insurance, 2007	15%	7%	9%
Primary care physicians	Ratio of total population to primary care physicians, 2008	402:1	631:1	769:1
Mental health providers	Ratio of total population to mental health providers, 2008	4,022:1	2,242:1	3,544:1
Dentist rate	Number of professionally active dentists per 100,000 population, 2007	24.5	69.0	50.0
Preventable hospital stays	Hospitalization discharges for ambulatory care-sensitive conditions per 1,000 Medicare enrollees, 2006-2007	148.2	52.0	68.6
Diabetic screening	Percent of diabetic Medicare enrollees that receive HbA1c screening, 2006-2007	91%	89%	83%
Mammography screening	Percent of female Medicare enrollees that receive mammography screening, 2006-2007	74%	74%	68%



**HEALTH FACTORS (continued)** **Gregory** **\*National Benchmark** **South Dakota**

*Social and Economic Factors*

<b>High school graduation</b>	Percent of ninth-grade cohort in public schools that graduates from high school in four years, 2006-2007	90%	92%	83%
<b>Some college</b>	Percent of adults ages 25-44 with some post-secondary education, 2005-2009	60%	68%	64%
<b>Unemployment</b>	Percent of population ages 16 and older that is unemployed but seeking work, 2009	4.1%	5.3%	4.8%
<b>Child poverty</b>	Percent of children ages 0-17 living below the Federal Poverty Line, 2008	27%	11%	18%
<b>Inadequate social support</b>	Percent of adults that never, rarely, or sometimes get the social and emotional support they need, 2003-2009	21%	14%	17%
<b>Children in single-parent households</b>	Percent of children in families that live in a household headed by a parent with no spouse present, 2005-2009	21%	20%	29%
<b>Homicide rate</b>	Number of deaths due to murder or non-negligent manslaughter per 100,000 population, 2001-2007	-	1.0	2.5

*Physical Environment*

<b>Air pollution-particulate matter</b>	Number of days air quality was unhealthy for sensitive populations due to fine particulate matter, 2006	0	0	0
<b>Air pollution-ozone</b>	Number of days air quality was unhealthy for sensitive populations due to ozone levels, 2006	0	0	0
<b>Access to healthy foods</b>	Percent of zip codes with a healthy food outlet (i.e., grocery store or produce stand/farmers' market), 2008	43%	92%	42%
<b>Access to recreational facilities</b>	Number of recreational facilities per 100,000 population, 2008	0.0	17.0	13.0

*Demographics*

		<b>Gregory</b>	<b>United States</b>	<b>South Dakota</b>
<b>Youth</b>	Percent of total population ages 0-17, 2009	21%	24%	25%
<b>Elderly</b>	Percent of total population ages 65 and older, 2009	25%	13%	14%
<b>Rural</b>	Percent of total population living in a rural area, 2000	100%	21%	48%
<b>Not English proficient</b>	Percent of total population that speaks English less than "very well," 2005-2009	0%	9%	2%
<b>Illiteracy</b>	Percent of population ages 16 and older that lacks basic prose literacy skills, 2003	9%	15%	7%

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

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

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

## Definitions of Health Variables

<b>Definitions of Health Variables from the County Health Rankings 2011 Report Variable</b>	<b>Definition</b>
<b>Poor or Fair Health</b>	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?"
<b>Poor Physical Health Days (in past 30 days)</b>	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?"
<b>Poor Mental Health Days (in past 30 days)</b>	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?"
<b>Adult Smoking</b>	Percent of adults that report smoking equal to, or greater than, 100 cigarettes and are currently a smoker
<b>Adult Obesity</b>	Percent of adults that report a BMI greater than, or equal to, 30
<b>Excessive Drinking</b>	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
<b>Sexually Transmitted Infections</b>	Chlamydia rate per 100,000 population
<b>Teen Birth Rate</b>	Birth rate per 1,000 female population, ages 15-19
<b>Uninsured Adults</b>	Percent of population under age 65 without health insurance
<b>Preventable Hospital Stays</b>	Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees
<b>Mammography Screening</b>	Percent of female Medicare enrollees that receive mammography screening
<b>Access to Healthy Foods</b>	Healthy food outlets include grocery stores and produce stands/farmers' markets
<b>Access to Recreational Facilities</b>	Rate of recreational facilities per 100,000 population
<b>Physical Inactivity</b>	Percent of adults aged 20 and over that report no leisure time physical activity
<b>Primary Care Provider Ratio</b>	Ratio of population to primary care providers
<b>Mental Health Care Provider Ratio</b>	Ratio of population to mental health care providers
<b>Diabetes Screening</b>	Percent of Medicare enrollees with diabetes that receive HbA1c screening
<b>Binge Drinking</b>	Percent of adults that report binge drinking in the last 30 days. Binge drinking is consuming more than 4 (women) or 5 (men) alcoholic drinks on one occasion.

# Aging Profile

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

Gregory County

South Dakota

CHARACTERISTICS	Total	AGE	
		Less than 65 Years	Ages 65 and Older
<i>Population</i> <sup>1</sup>			
Total population	4,271	3,258	1,013
Percent ages 65 and older	24%	-	100%
Percent ages 85 and older	5%	-	21%
Percent male	50%	53%	42%
Percent female	50%	47%	58%
<i>Living Arrangements</i>			
Total households (by age of householder) <sup>1</sup>	1,936	1,236	700
Percent with family households (i.e., at least two people who are related)	61%	69%	46%
Percent with householder living alone	37%	27%	54%
Grandparents living with their grandchildren* <sup>2</sup>	42	10	32
Percent who are responsible for their grandchildren	48%	0%	63%
<i>Housing</i> <sup>1</sup>			
Percent of occupied housing that is owner-occupied	74%	74%	74%
Percent of occupied housing that is renter-occupied	26%	26%	26%
<i>Economic Security</i> <sup>2</sup>			
Percent of working-age population in labor force	63%	81%	21%
Percent of total population with income less than 100% of poverty	16%	15%	19%
Percent of total population with income less than 200% of poverty	41%	37%	52%
Median household income (by age of householder)	\$33,940	\$39,987	\$21,356
Owner-occupied housing units (by age of householder)	1,528	1,007	521
Percent spending 30% or more of income toward housing costs	19%	15%	27%
Renter-occupied housing units (by age of householder)	445	275	170
Percent spending 30% or more of income toward housing costs	28%	28%	28%

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

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

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# Diversity Profile

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

Gregory County

South Dakota

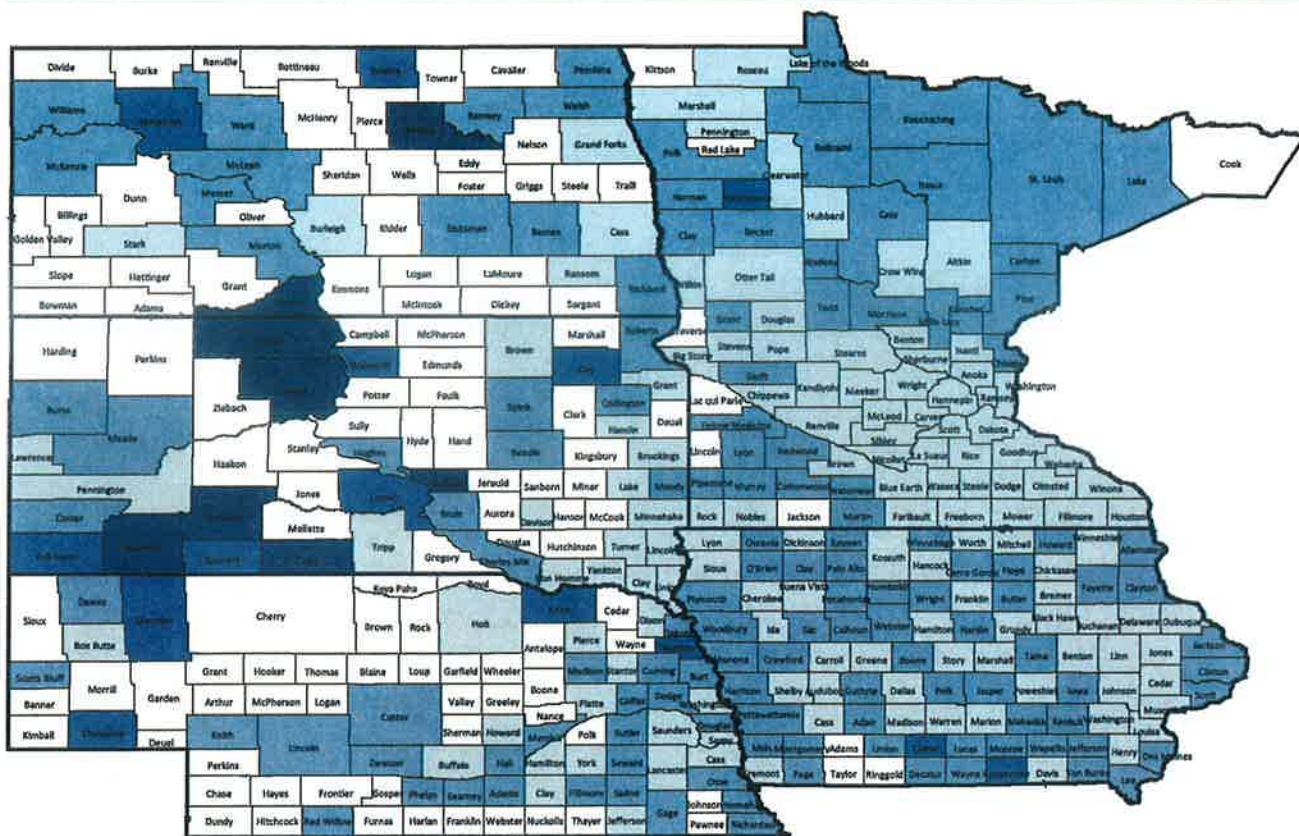
CHARACTERISTICS	Total	RACE				ETHNICITY
		White alone	Black alone	American Indian alone	Asian alone	Hispanic Origin - of any race
<i>Population</i> <sup>1</sup>						
Total population	4,271	3,828	7	320	11	38
Percent ages 0 to 17	23%	20%	57%	40%	36%	34%
Percent ages 18 to 44	23%	23%	0%	31%	27%	26%
Percent ages 45 to 64	30%	31%	43%	22%	36%	34%
Percent ages 65 and older	24%	26%	0%	7%	0%	5%
Median age (in years)	48.2	50.1	12.8	26.3	34.5	29.0
<i>Living Arrangements</i>						
Total households <sup>1</sup>	1,936	1,814	2	93	3	13
Percent with householder living alone	37%	38%	50%	19%	0%	15%
Percent with families with children ages 0 to 17	22%	20%	0%	42%	33%	31%
Grandparents living with their grandchildren <sup>2</sup>	42	39	0	3	0	0
Percent who are responsible for grandchildren	48%	51%	-	0%	-	-
<i>Housing</i> <sup>1</sup>						
Percent occupied housing that is owner-occupied	74%	75%	50%	49%	100%	54%
Percent occupied housing that is renter-occupied	26%	25%	50%	51%	0%	46%
<i>Educational Attainment</i> <sup>2</sup>						
Percent of persons ages 25 and older with high school degree or higher	86%	86%	100%	79%	0%	81%
Percent of persons ages 25 and older with Bachelor's degree or higher	15%	14%	0%	31%	0%	0%
<i>Economic Security</i> <sup>2</sup>						
Unemployment rate	5%	2%	0%	24%	0%	24%
Median household income	\$33,940	\$34,966	-	\$28,750	-	\$31,458
Percent of households with income <\$25,000	36%	34%	100%	47%	0%	27%
Percent of persons with income <100% poverty	16%	13%	100%	49%	0%	49%
Percent of children ages 0 to 17 in families with income <100% poverty	27%	21%	-	61%	-	71%
Percent of elderly ages 65 and older with income <100% poverty	19%	18%	-	82%	-	0%

Source: U.S. Census Bureau, <sup>1</sup>2010 Census Summary File 1 and <sup>2</sup>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.

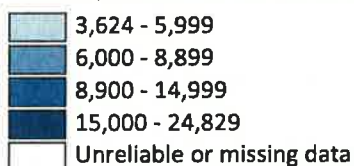
Disclaimer: The data displayed are from the source indicated; we do not vouch for the accuracy of the data or ensure they are the most recent available. The information is intended for personal, non-commercial use. It can be shared freely if it is not used for profit and appropriate acknowledgments are given. The Diversity Profile was prepared by researchers at North Dakota State University in Fargo for Sanford Health. May 2012

# 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



## CONTEXT

**What It Is:** Premature death is represented by the years of potential life lost before age 75 (YPLL-75). Every death occurring before the age of 75 contributes to the total number of years of potential life lost. For example, a person who dies at age 25 contributes 50 years of life lost, whereas a person who dies at age 65 contributes 10 years of life lost to a county's YPLL. The YPLL measure is presented as a rate per 100,000 population and is age-adjusted to the 2000 U.S. population.

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

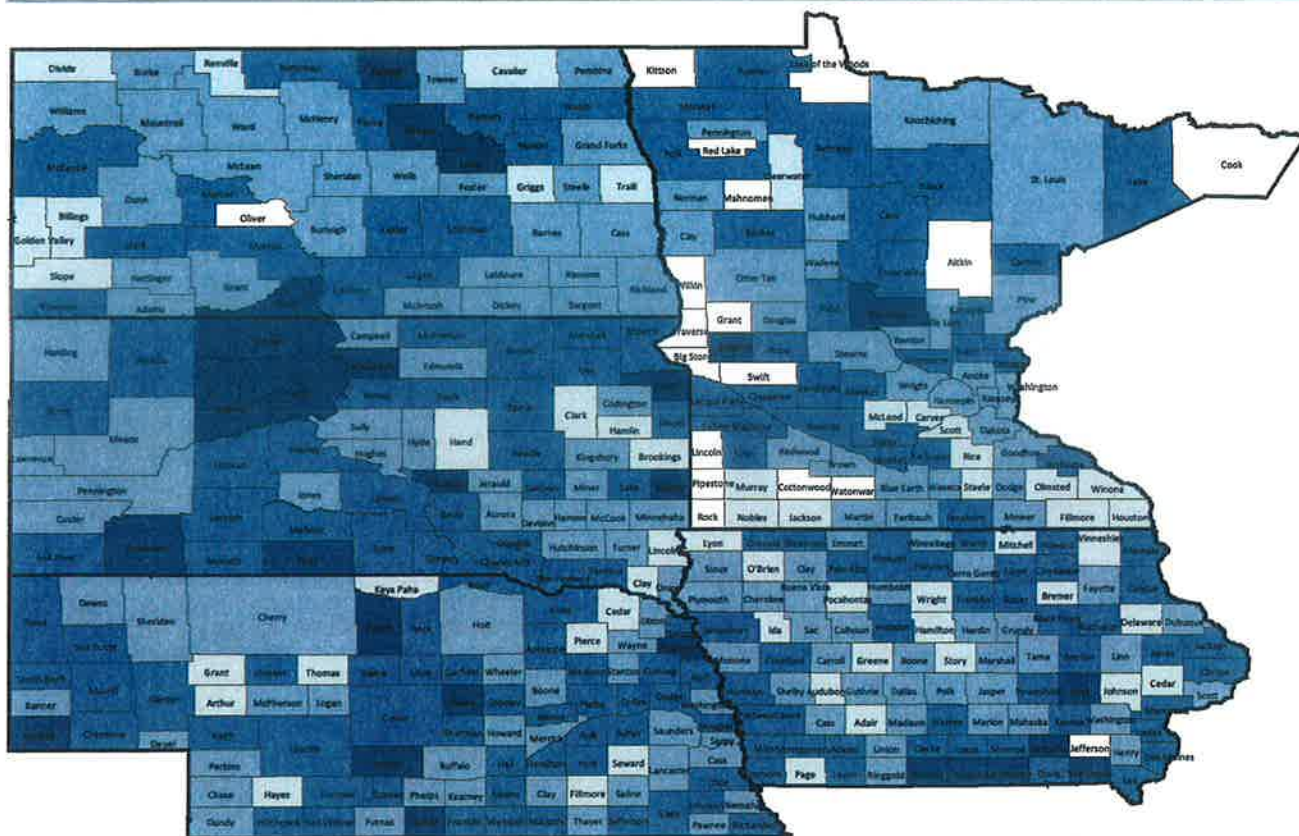
**Importance:** Age-adjusted YPLL-75 rates are commonly used to represent the frequency and distribution of premature deaths. Measuring YPLL allows communities to target resources to high-risk areas and further investigate the causes of death.

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

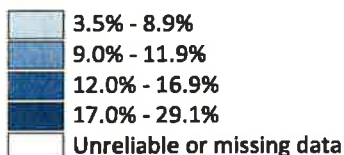
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# Poor or Fair Health - A health outcome measure focusing on morbidity

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



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



## CONTEXT

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

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

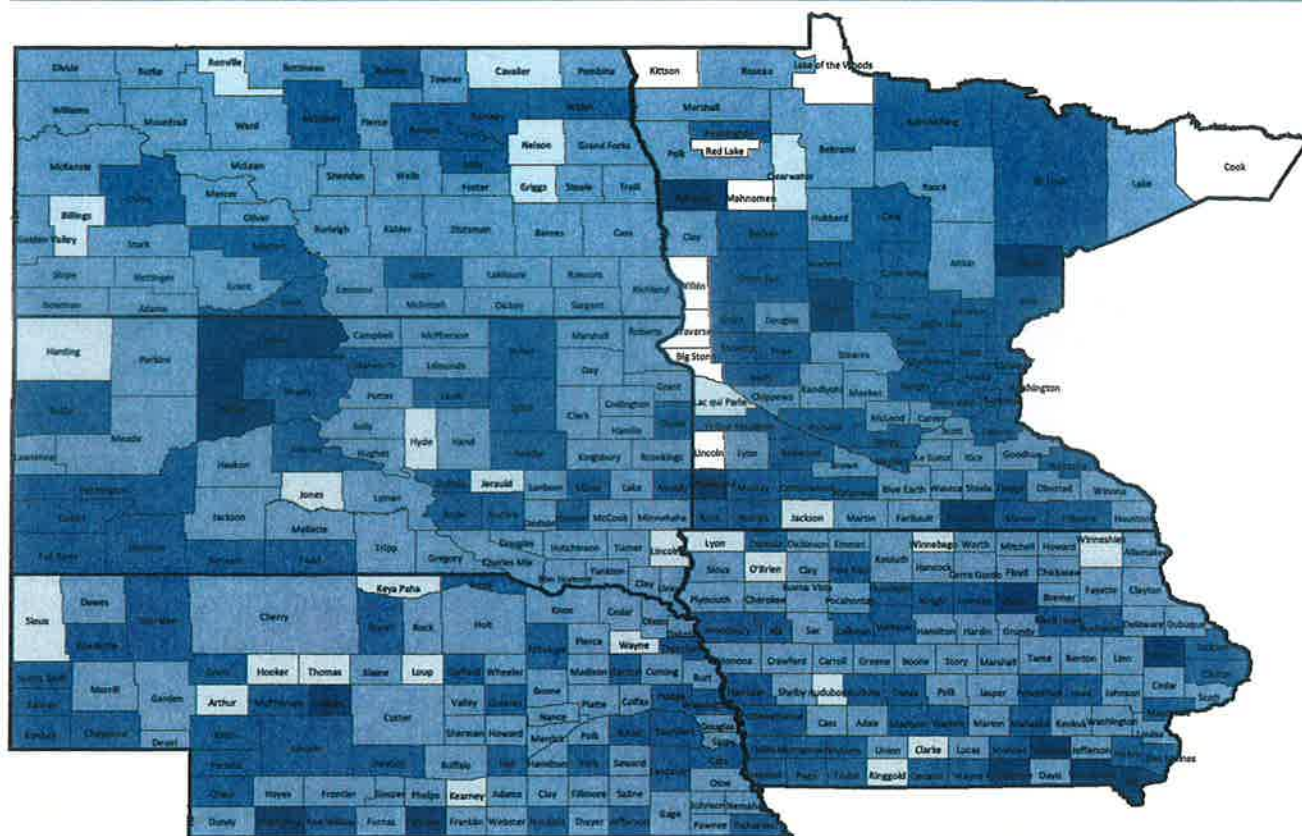
**Importance:** Self-reported health status is a widely used measure of people’s health-related quality of life. In addition to measuring how long people live, it is important to also include measures of how healthy people are while alive – self-reported health status has been shown to be a very reliable measure of current health.

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

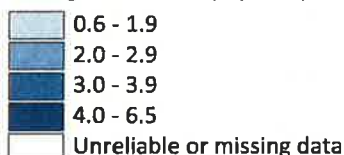
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# Poor Physical Health Days - A health outcome measure focusing on morbidity

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



## 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.

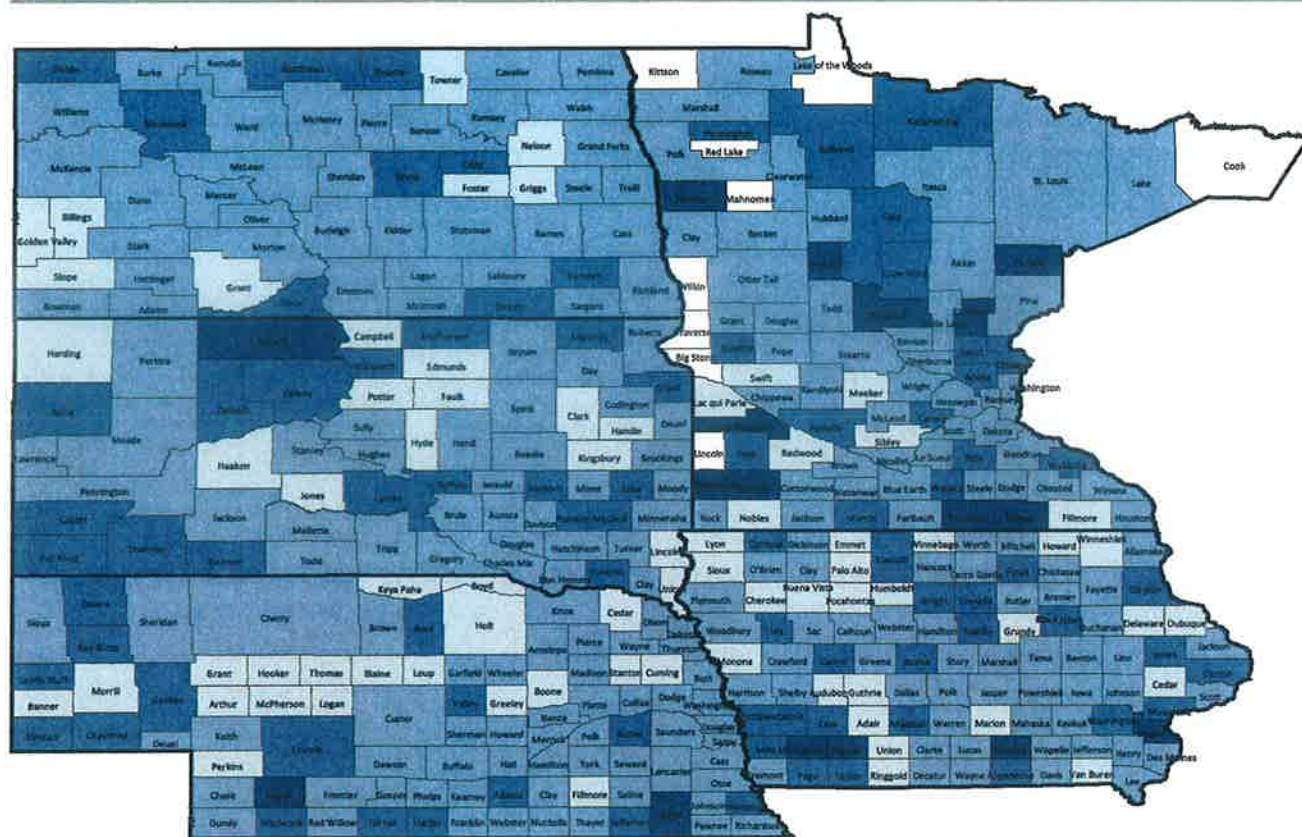
**Importance:** In addition to measuring how long people live, it is also important to include measures of how healthy people are while alive – people's reports of days when their physical health was not good are a reliable estimate of their recent health.

- 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/>.

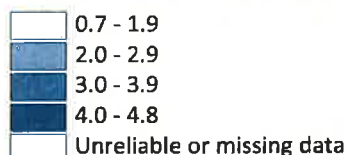
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# Poor Mental Health Days - A health outcome measure focusing on morbidity

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



## 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.

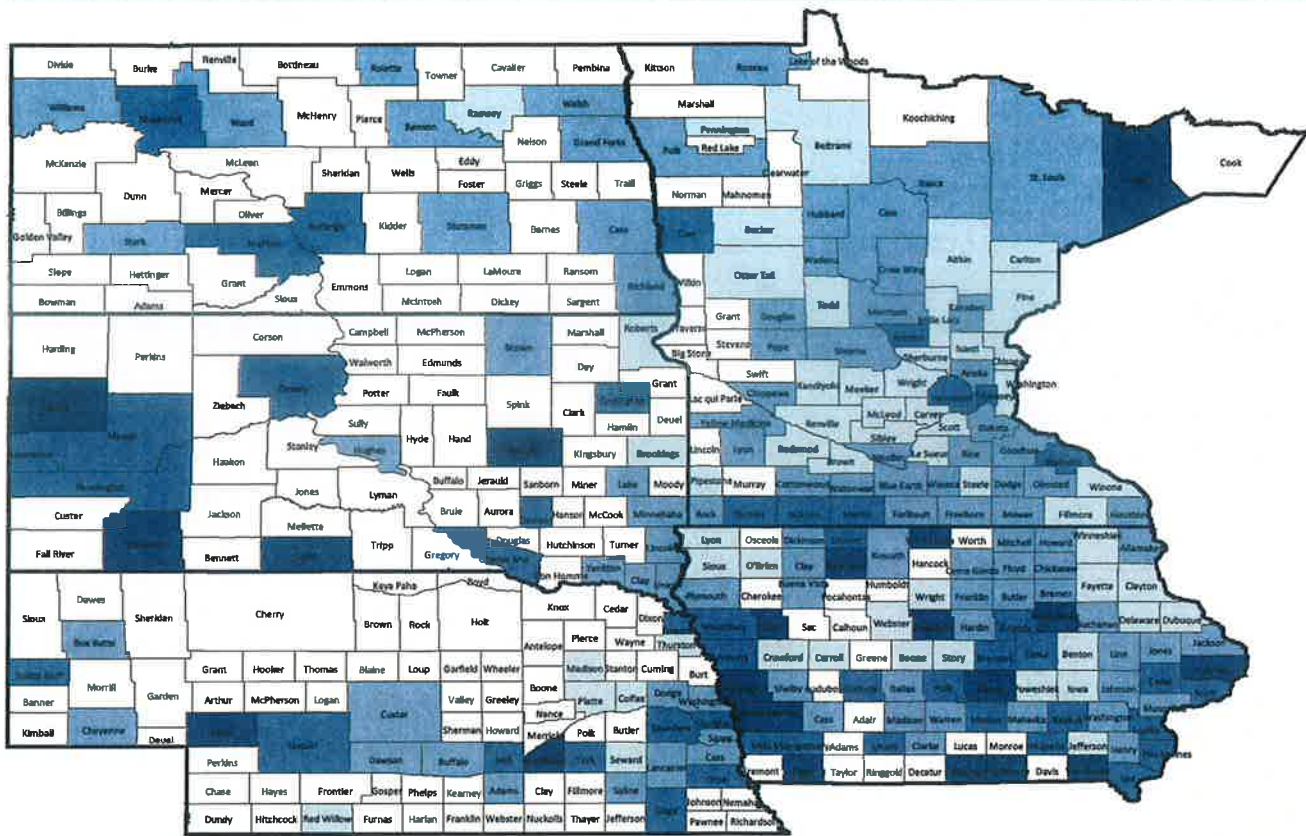
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, <http://www.countyhealthrankings.org/>.

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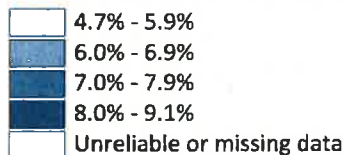


# Low Birthweight - A health outcome measure focusing on morbidity

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



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



## 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.

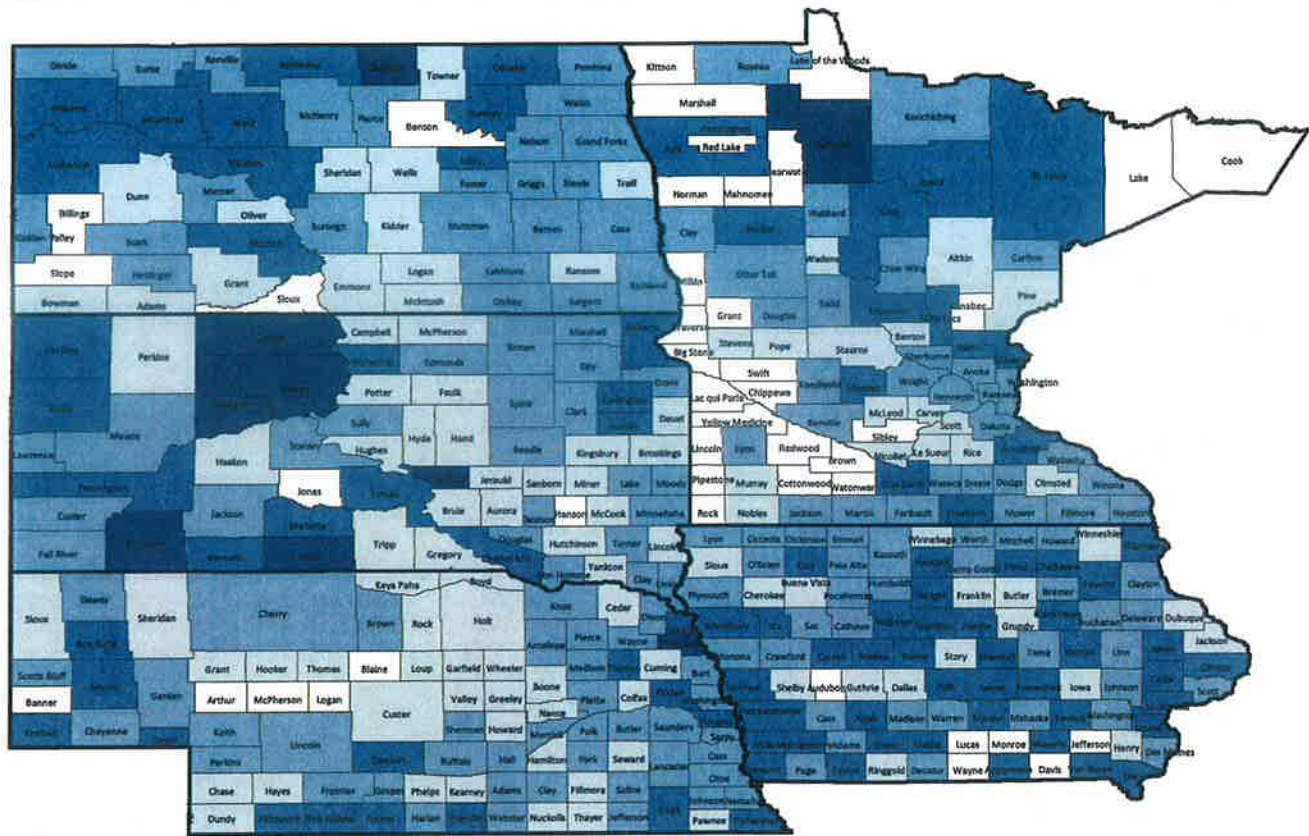
**Importance:** Low birthweight represents two factors: maternal exposure to health risks and an infant’s current and future morbidity, as well as premature mortality risk. The health consequences of low birthweight are numerous.

- 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/>.

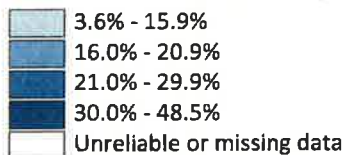
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# Adult Smoking - A health factor measure focusing on health behaviors

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



## 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.

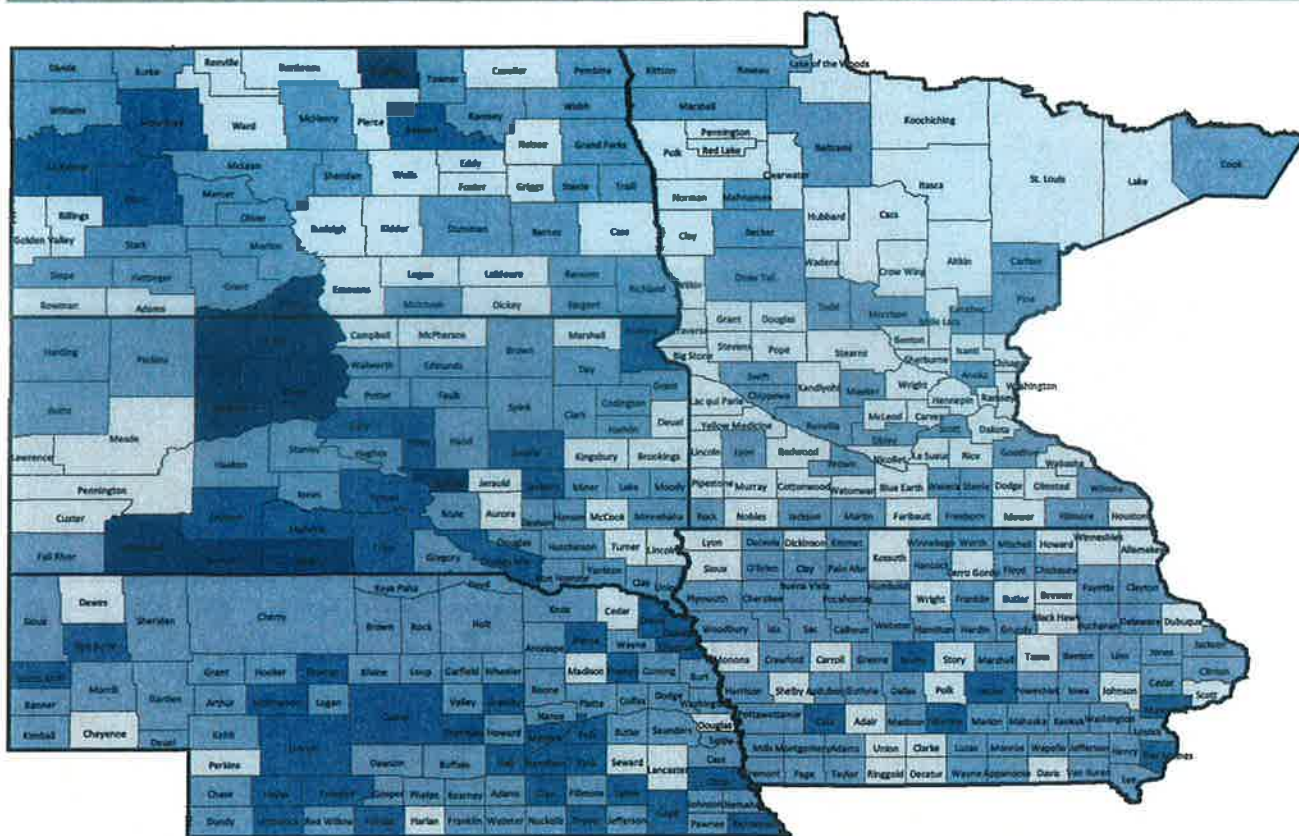
**Importance:** Each year approximately 443,000 premature deaths occur in the U.S. primarily due to smoking. Cigarette smoking is identified as a cause in multiple diseases including various cancers, cardiovascular disease, respiratory conditions, low birthweight, and other adverse health outcomes. Measuring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

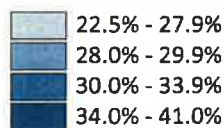
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# Adult Obesity - A health factor measure focusing on health behaviors

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/m<sup>2</sup>, 2008



## 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/m<sup>2</sup>.

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

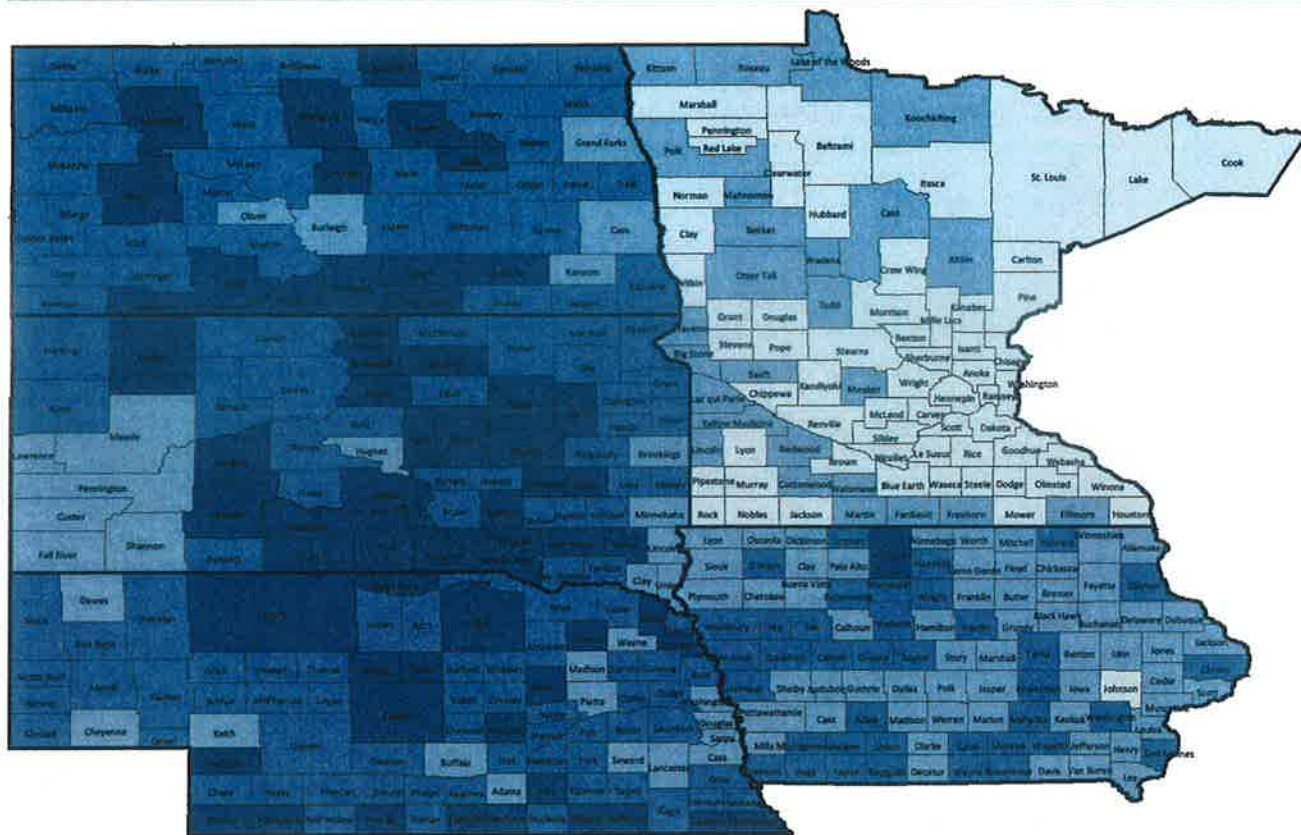
**Importance:** Obesity is often the end result of an overall energy imbalance due to poor diet and limited physical activity. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep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

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

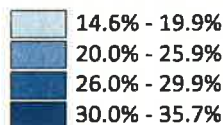
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# Physical Inactivity - A health factor measure focusing on health behaviors

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



Percent of adults reporting no leisure time physical activity, 2008



## CONTEXT

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

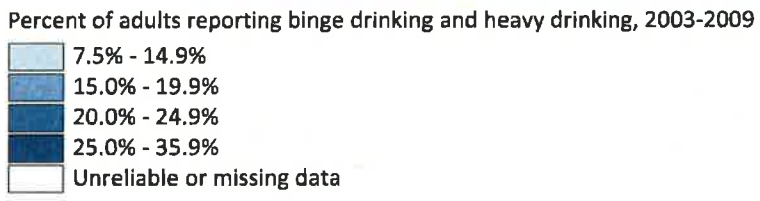
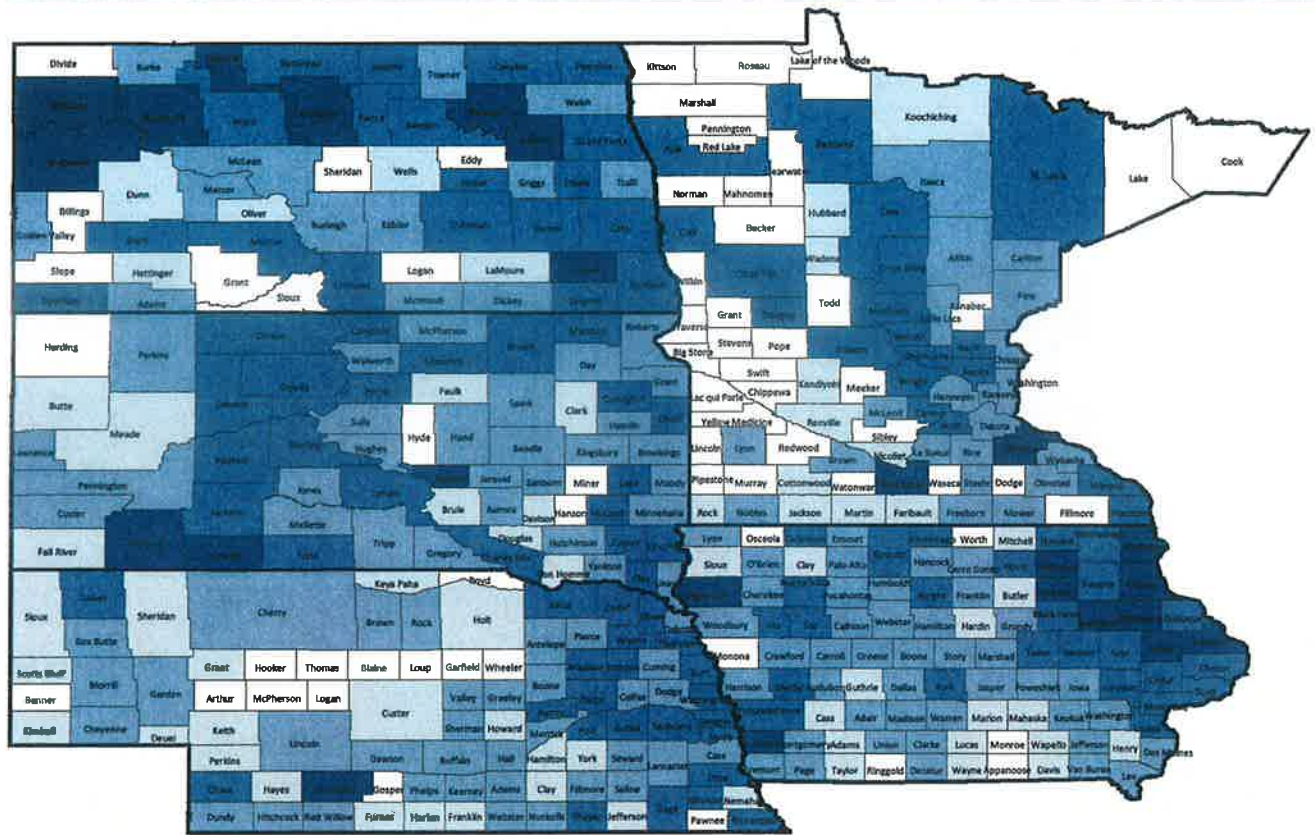
**Where It Comes From:** Estimates of physical inactivity by county were calculated by the CDC's National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation, using multiple years of Behavioral Risk Factor Surveillance System (BRFSS) data. BRFSS data are representative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

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

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

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



**CONTEXT**

**What It Is:** The excessive drinking measure reflects the percent of the adult population that reports either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than 1 (women) or 2 (men) drinks per day on average.

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

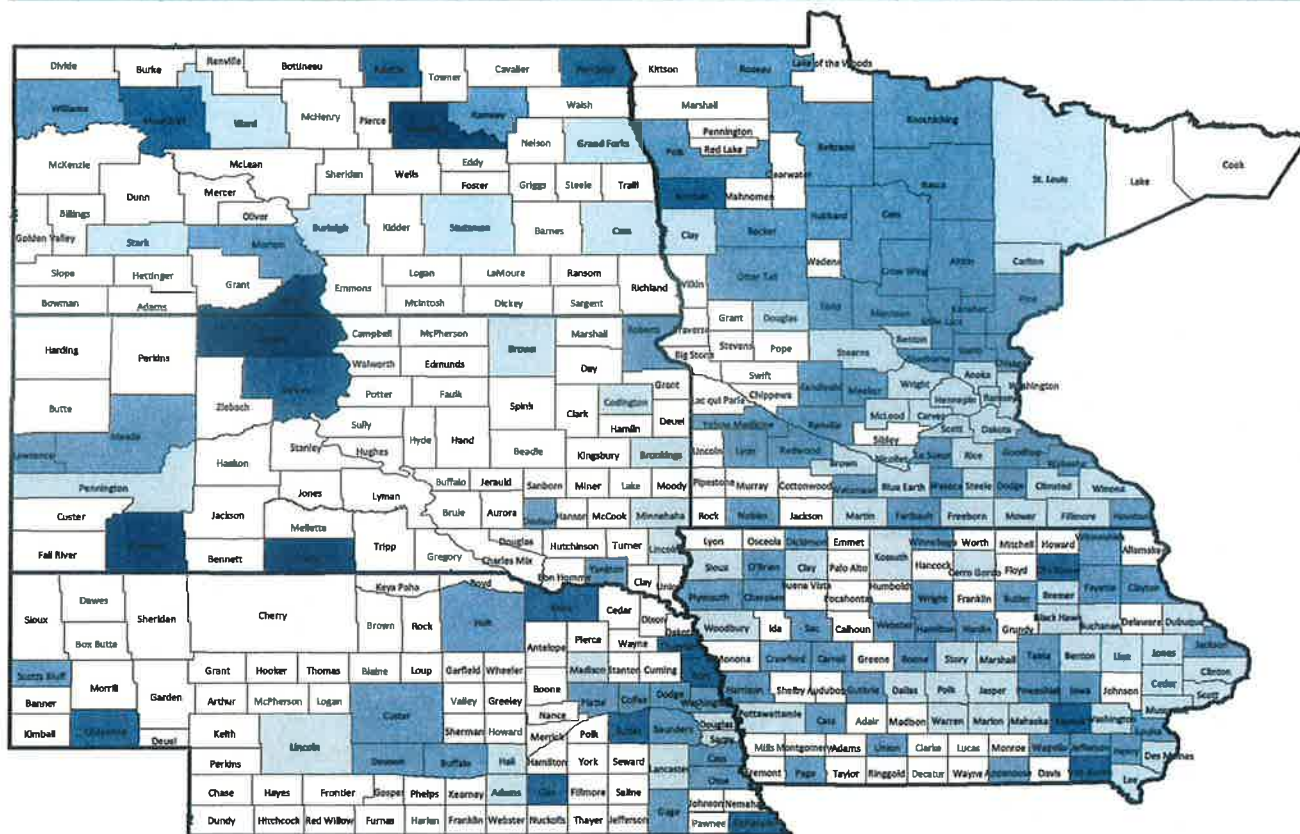
**Importance:** Excessive drinking is a risk factor for a number of adverse health outcomes such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence,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

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

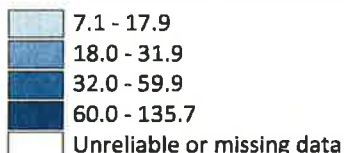
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# Motor Vehicle Crash Death Rate - A health factor measure focusing on health behaviors

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



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



## 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.

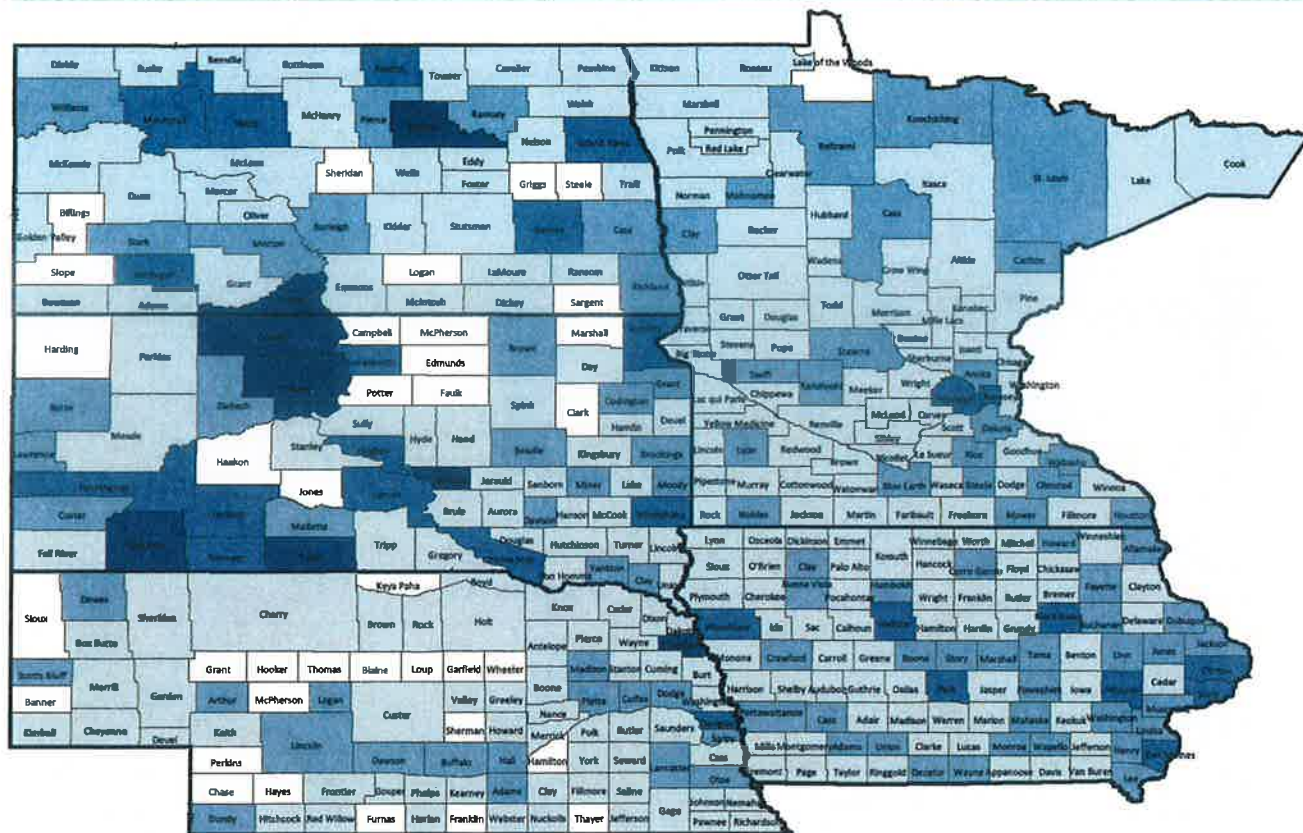
**Importance:** A strong association has been demonstrated between excessive drinking and alcohol-impaired driving, with approximately 17,000 Americans killed annually in alcohol-related motor vehicle crashes.

- 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/>.

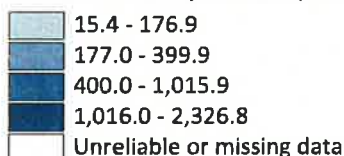
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# Sexually Transmitted Infections - A health factor measure focusing on health behaviors

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



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



## 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.

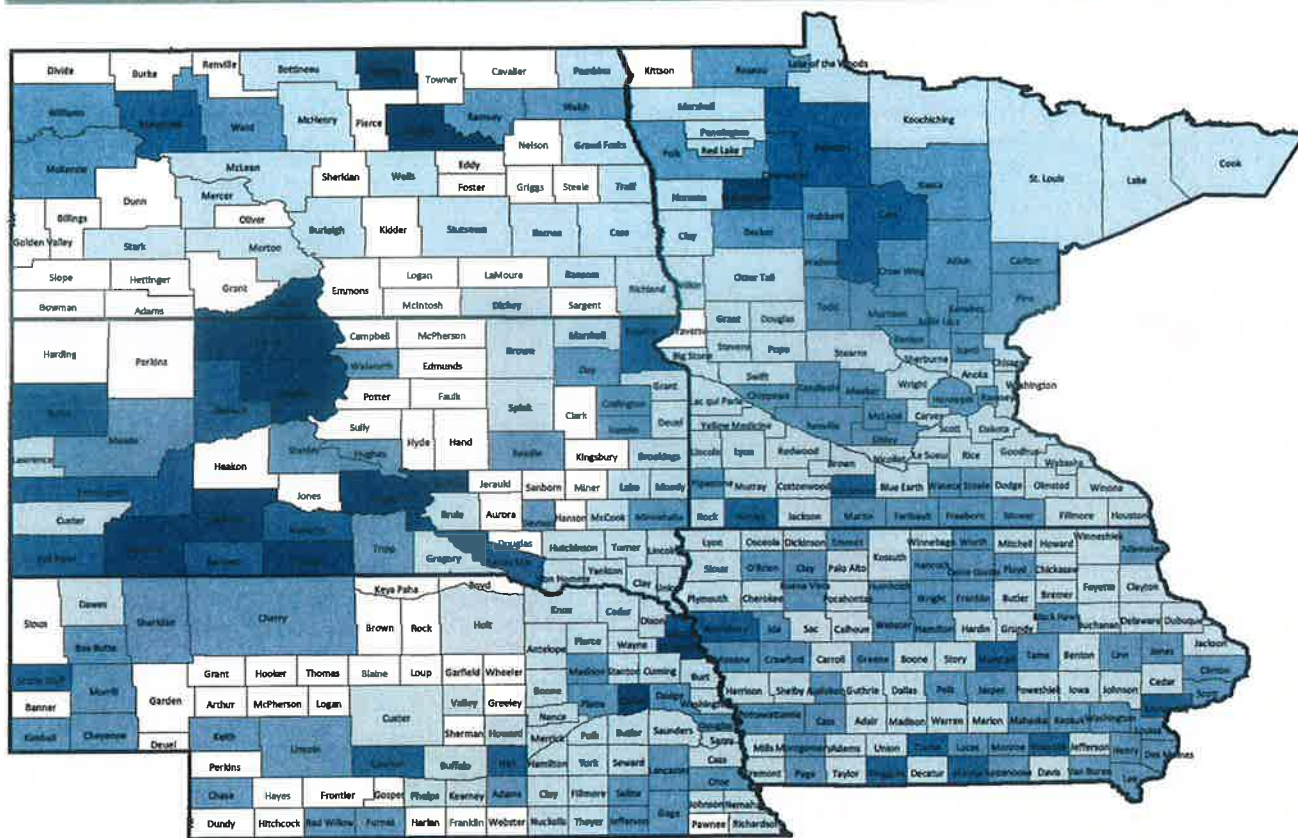
**Importance:** Chlamydia is the most common bacterial STI in North America and is one of the major causes of tubal infertility, ectopic pregnancy, pelvic inflammatory disease, and chronic pelvic pain. STIs in general are associated with a significantly increased risk of morbidity and mortality, including 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/>.

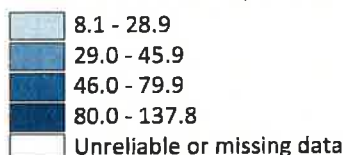
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# Teen Birth Rate - A health factor measure focusing on health behaviors

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



Number of teen births per 1,000 females ages 15 through 19, 2001-2007



## 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.

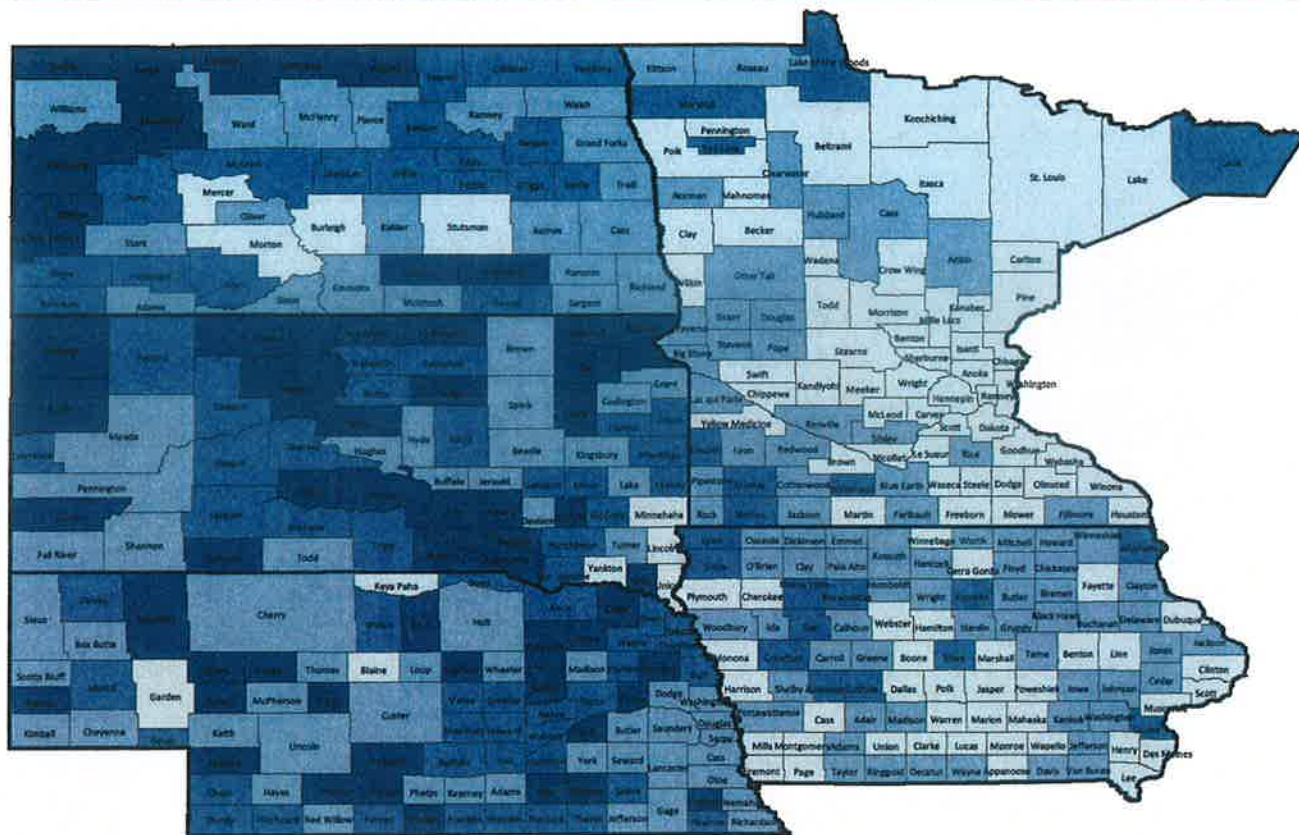
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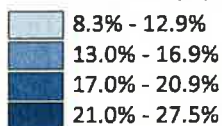


# Uninsured Adults - A health factor measure focusing on clinical care

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



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



## 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.

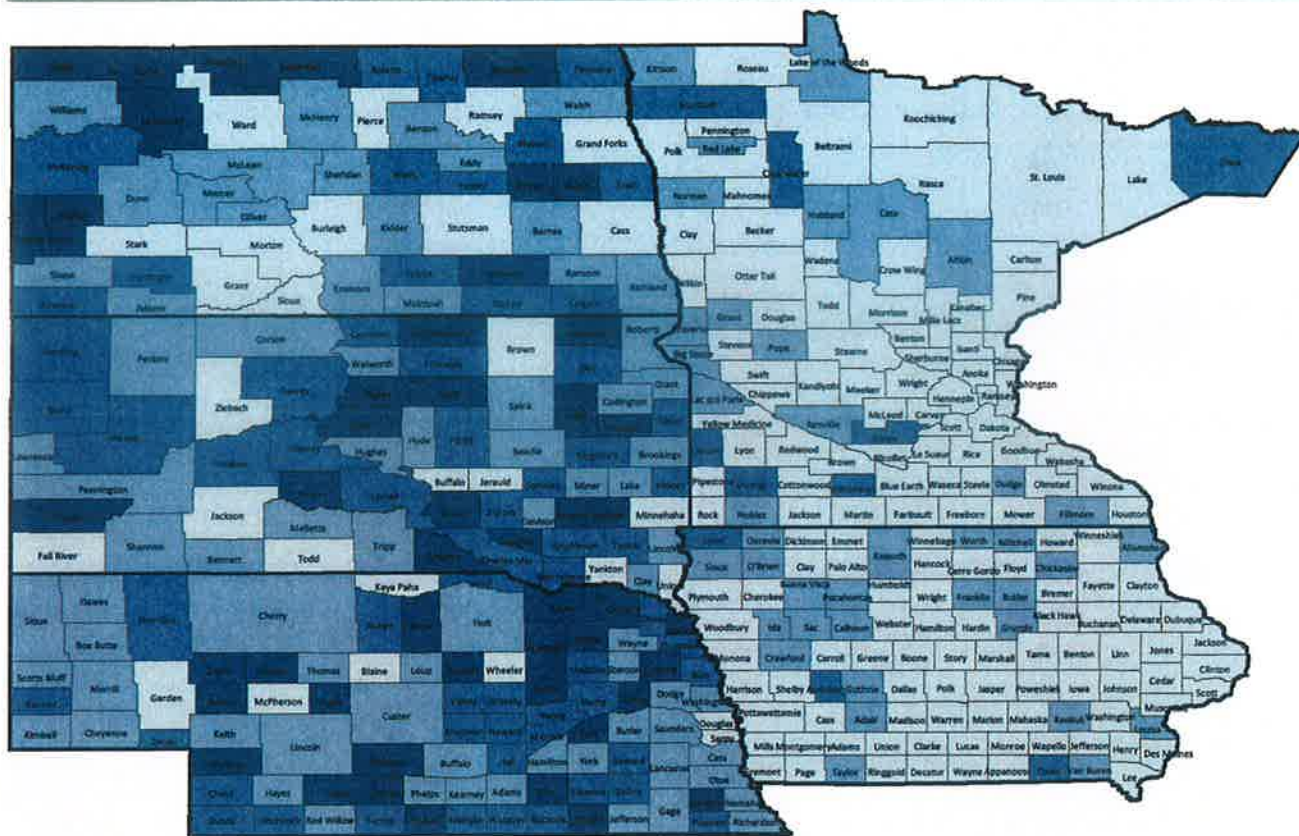
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# Uninsured Youth - A health factor measure focusing on clinical care

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

Map 14



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



## 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.

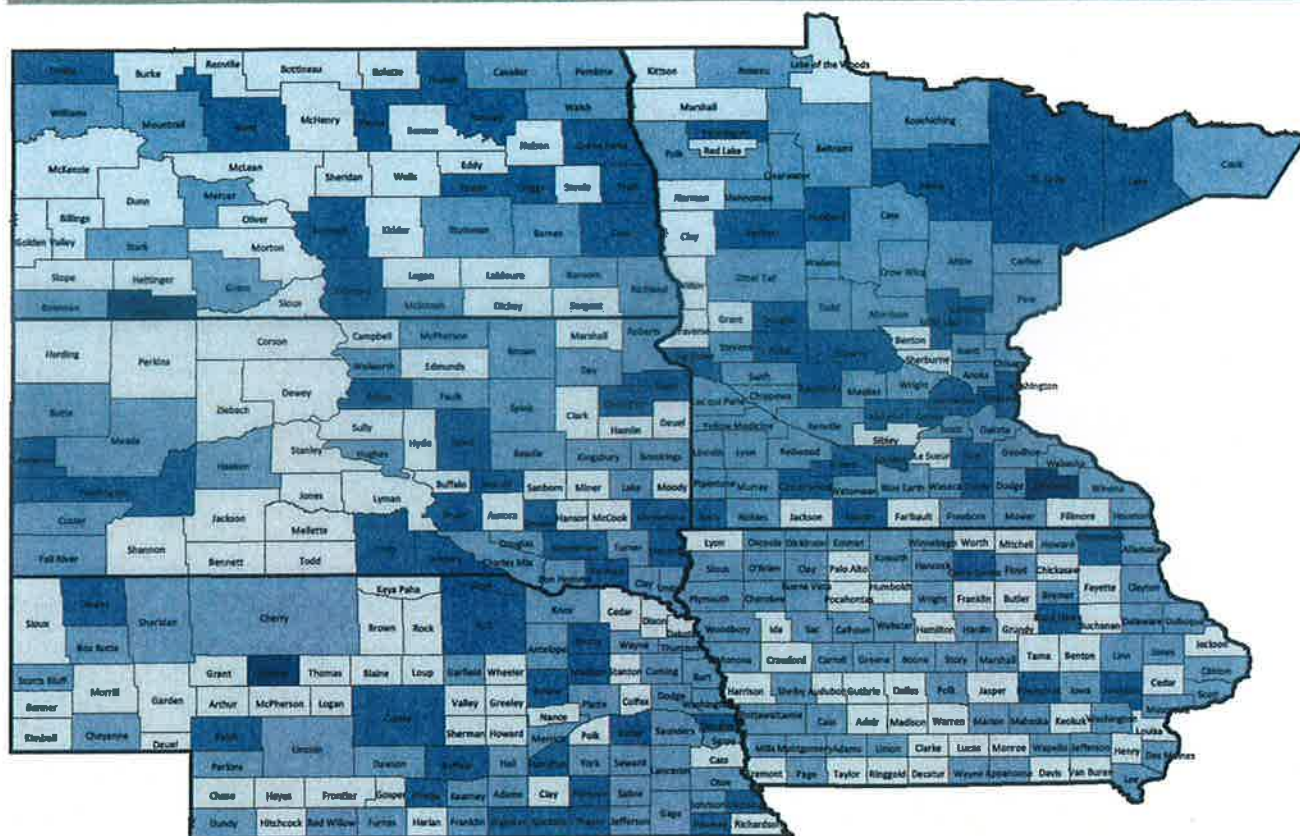
**Importance:** Children without health insurance are more likely than others to receive late or no care for health problems, putting them at greater risk for hospitalization. In addition to resulting in reduced access to health care, a lack of health insurance can also negatively influence children's 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/>.

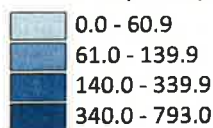
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# Primary Care Physicians - A health factor measure focusing on clinical care

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



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



## 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.

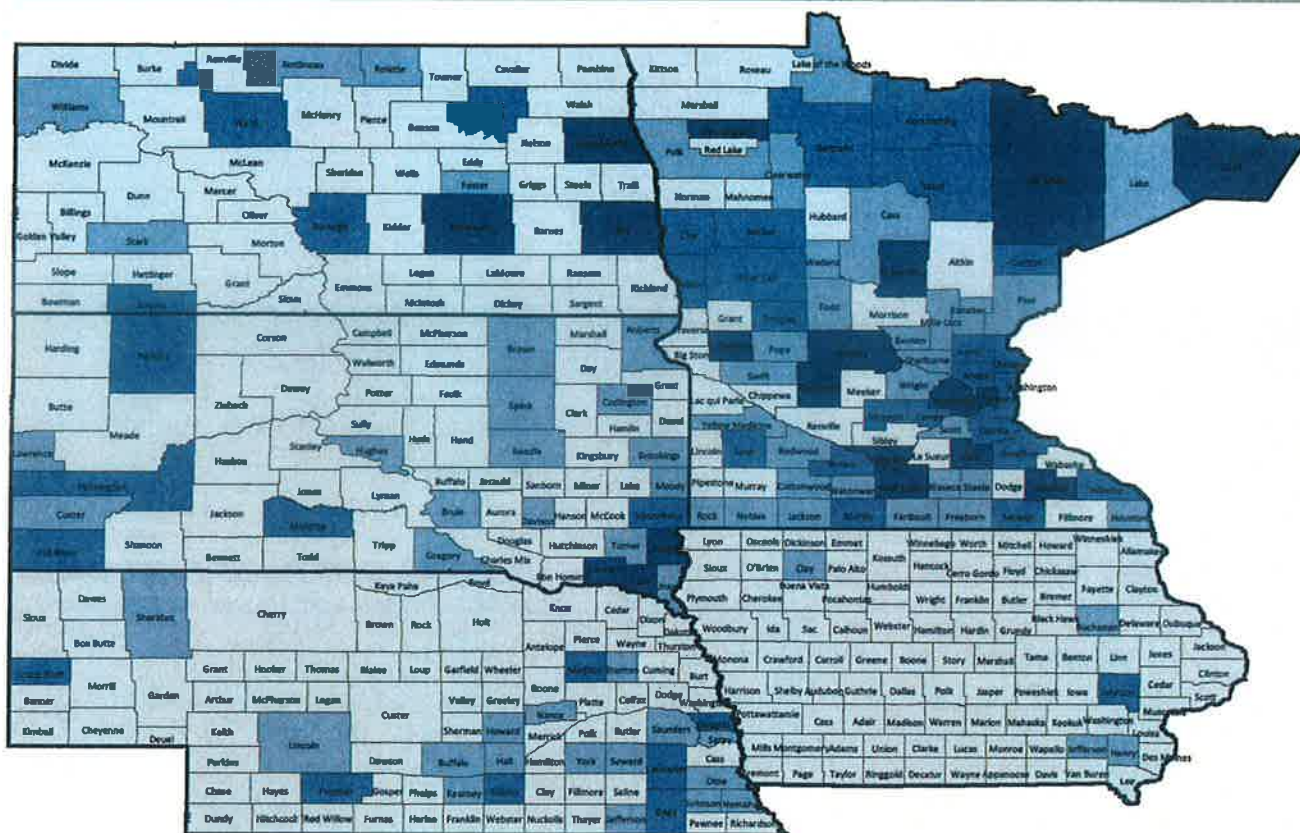
**Importance:** Having access to care requires not only having financial coverage but also access to providers. While high rates of specialist physicians has been shown to be associated with higher, and perhaps unnecessary, utilization, having sufficient availability of primary care physicians is essential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

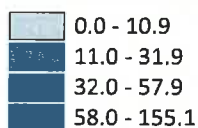
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# Mental Health Providers - A health factor measure focusing on clinical care

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



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



## 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.

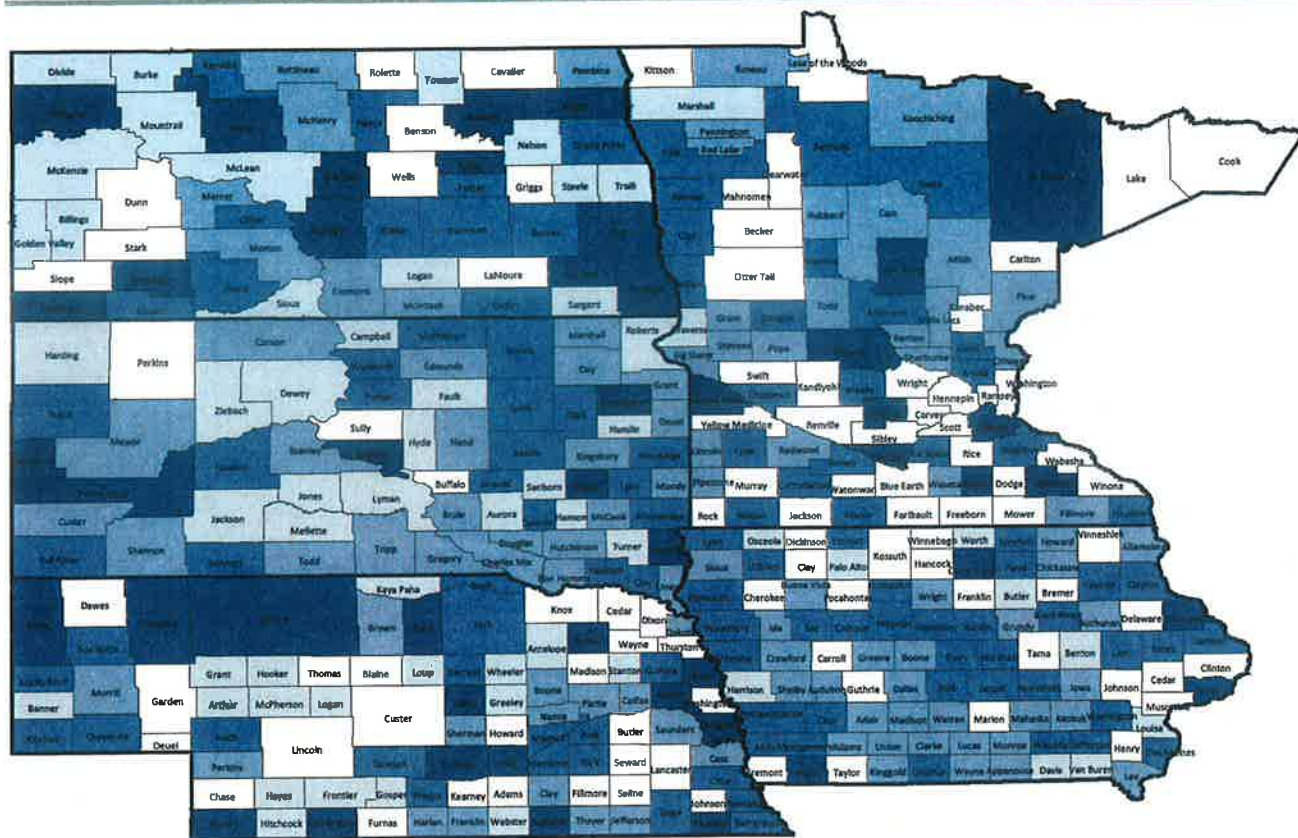
**Where It Comes From:** Data on mental health providers were obtained from the Health Resources and Services Administration's (HRSA) Area Resource File (ARF).

**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>)

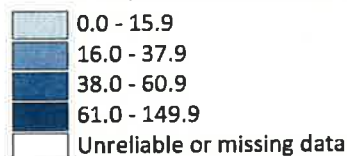
- Data were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, <http://www.countyhealthrankings.org/>.

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**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



**CONTEXT**

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

**Where It Comes From:** Data on the number of dentists are tracked by the American Dental Association (ADA) and the American Medical Association (AMA). County-level data are housed in the Health Resources and Services Administration's Area Resource File (ARF) and made available through the Health Indicators Warehouse developed by the National Center for Health Statistics.

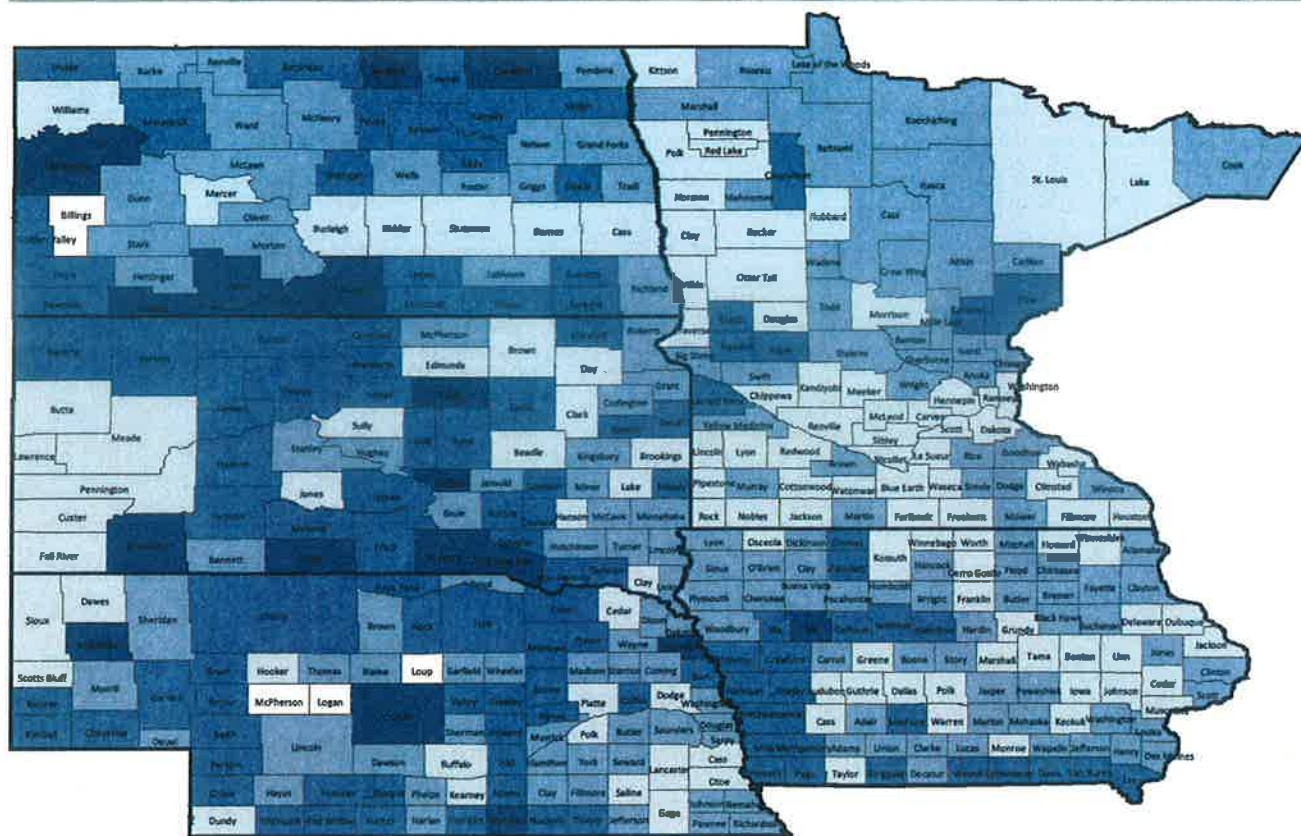
**Importance:** Today, thanks to fluoride, healthier lifestyles and quality dental care, more people than ever before are keeping their natural teeth throughout their lifetime. Yet for those who live in areas where a dentist is not available or those who cannot afford treatment, getting dental care can be difficult (American Dental Association, <http://www.ada.org>).

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

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# 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.

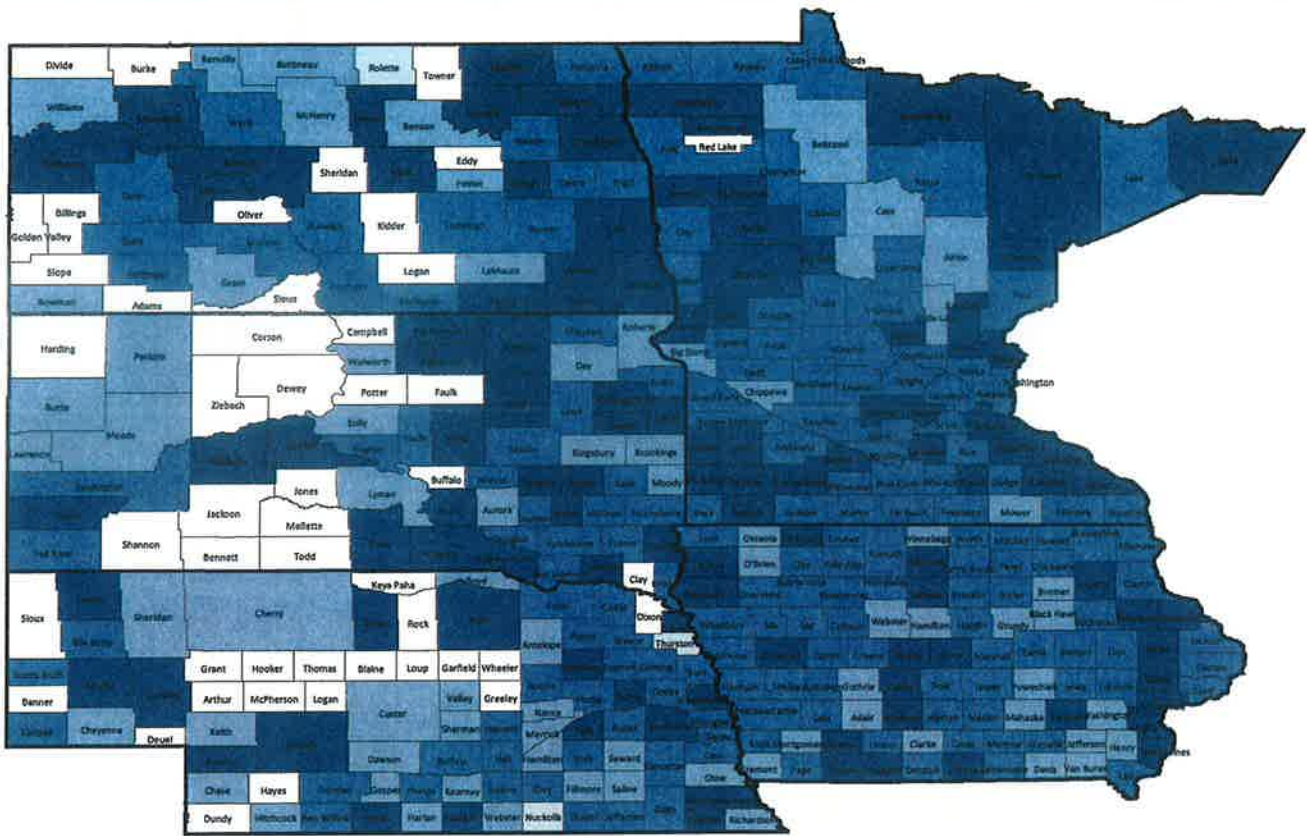
**Importance:** Hospitalization for diagnoses amenable to outpatient services suggests that the quality of care provided in the outpatient setting was less than ideal. The measure may also represent the population's tendency to overuse the hospital as a main source of care.

- 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/>.

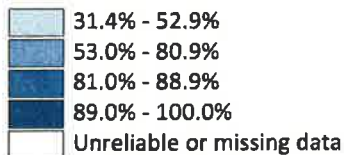
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# Diabetic Screening - A health factor measure focusing on clinical care

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



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



## CONTEXT

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

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

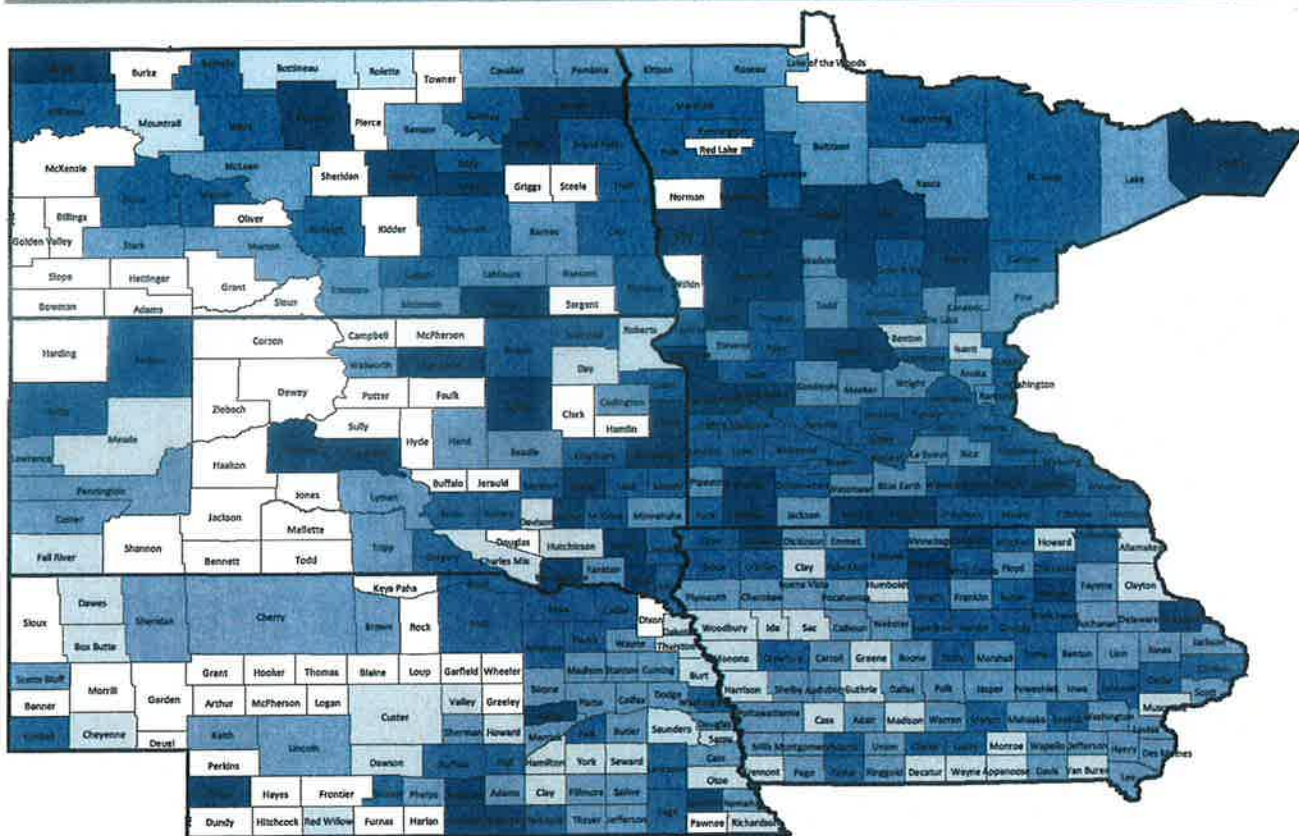
**Importance:** Regular HbA1c screening among diabetic patients is considered the standard of care. It helps assess the management of diabetes over the long term by providing an estimate of how well a patient has managed his or her diabetes over the past two to three months. When hyperglycemia is addressed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

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

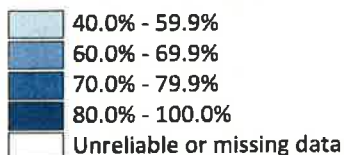
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# Mammography Screening - A health factor measure focusing on clinical care

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



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



## 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.

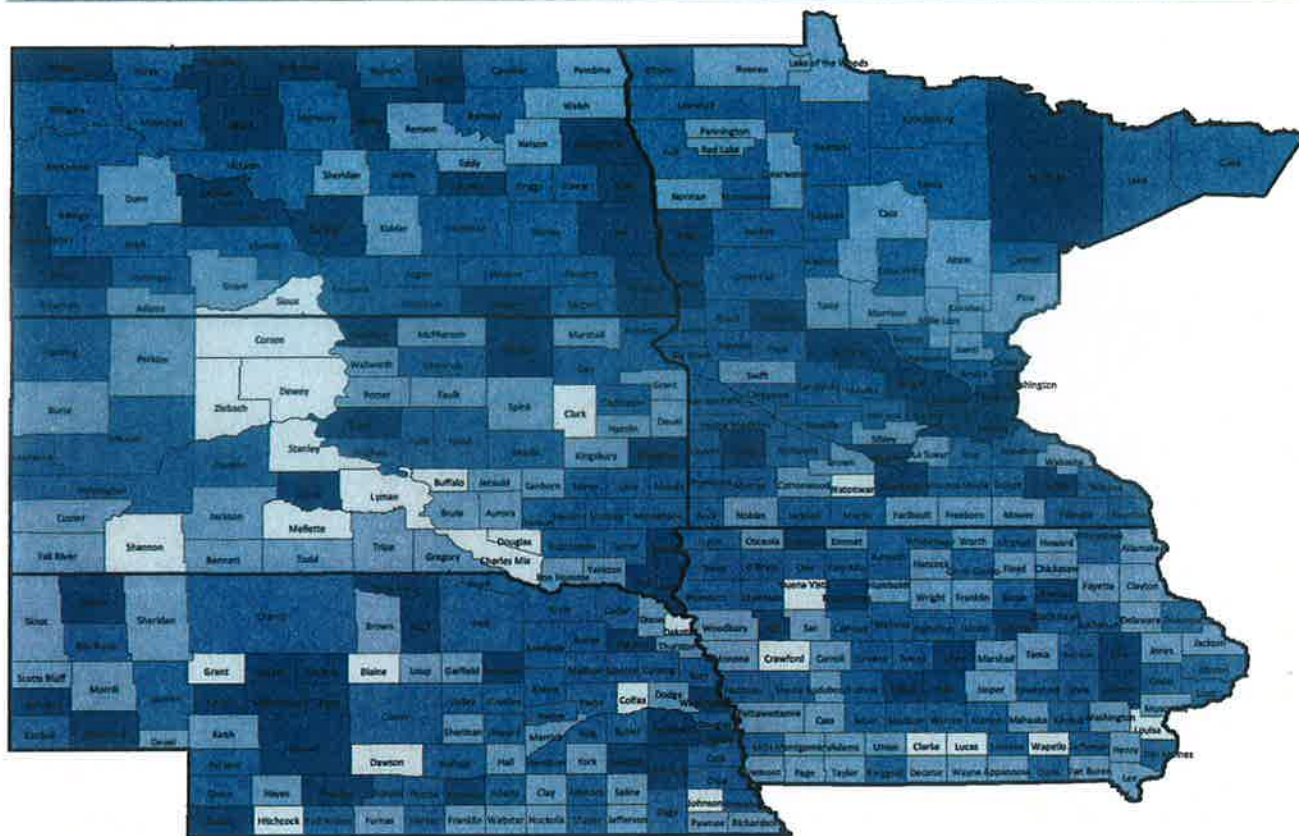
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**Some College** - A health factor measure focusing on education  
 County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota



Percent of adults ages 25 through 44 with some post-secondary education, 2005-2009



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).

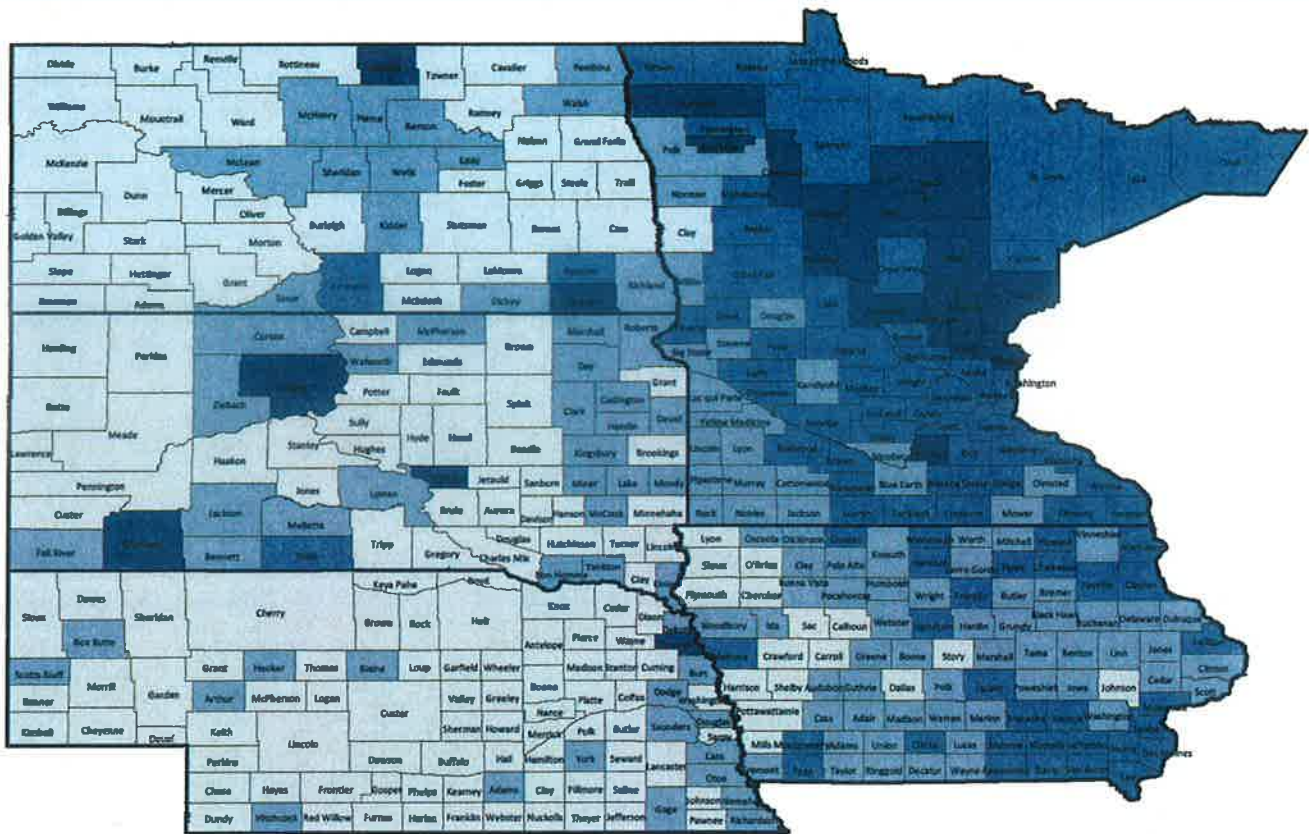
**Importance:** The relationship between higher education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles.

- 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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# 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



## 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).

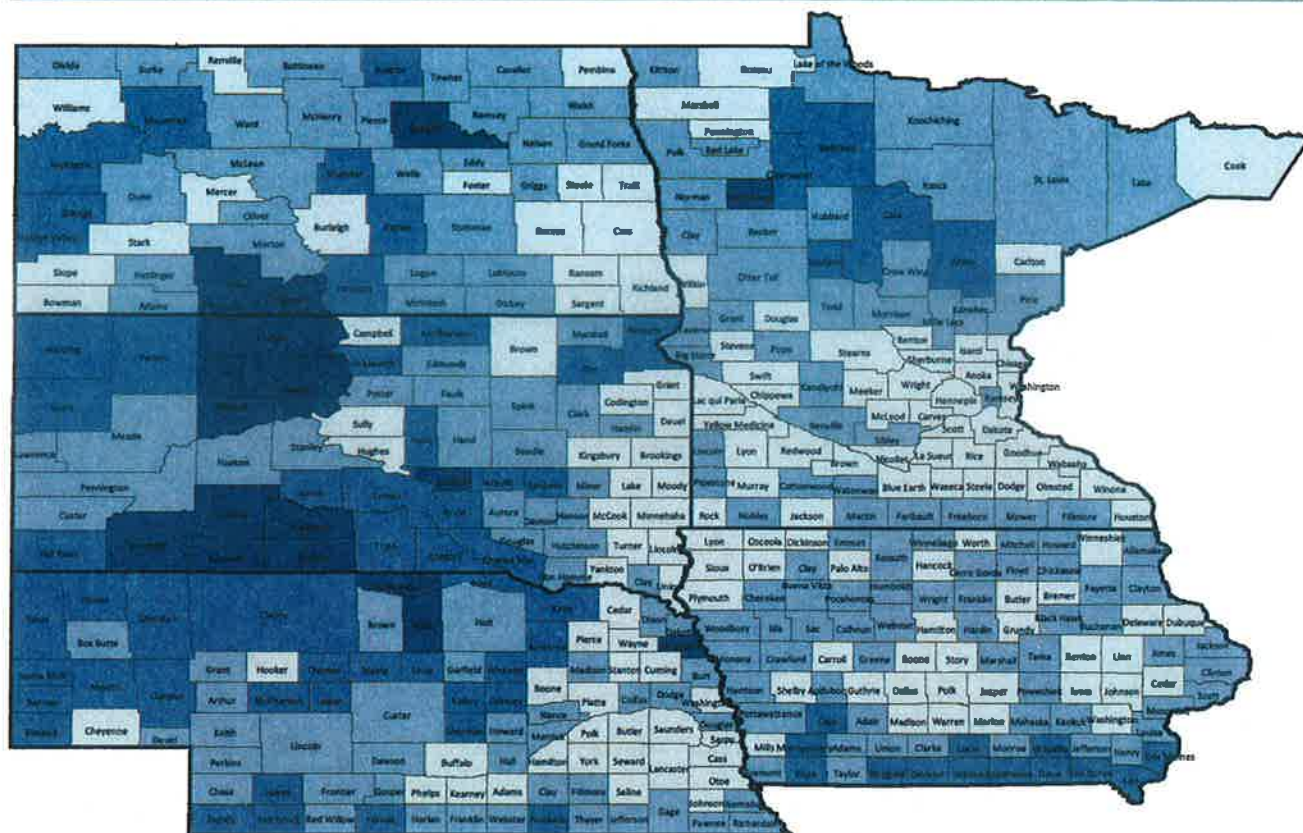
**Importance:** Unemployment may lead to physical health responses ranging from self-reported physical illness to mortality, especially suicide. It has also been shown to lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise, and other health-related behaviors, 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/>.

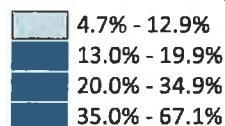
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# Children in Poverty - A health factor measure focusing on income and poverty

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



## 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.

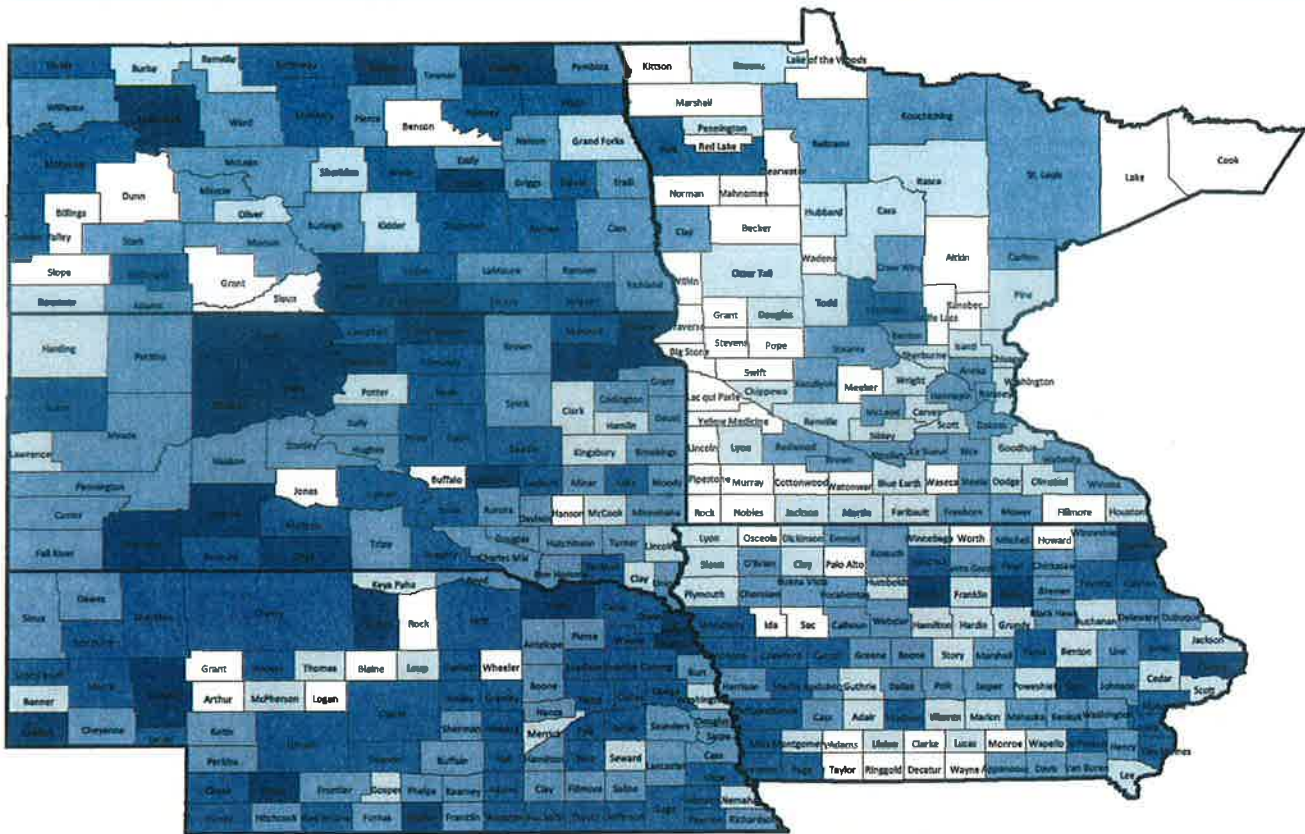
**Importance:** Poverty can result in negative health consequences, such as increased risk of mortality, increased prevalence of medical conditions and disease incidence, depression, intimate partner violence, and poor health behaviors. While negative health effects resulting from poverty are present 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 achievement associated with poverty. The children in poverty measure is highly correlated with overall poverty rates.

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

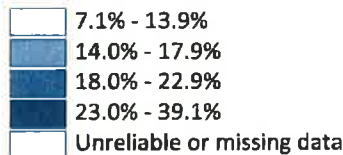
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# Inadequate Social Support - A health factor measure focusing on social networks

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



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



## 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.

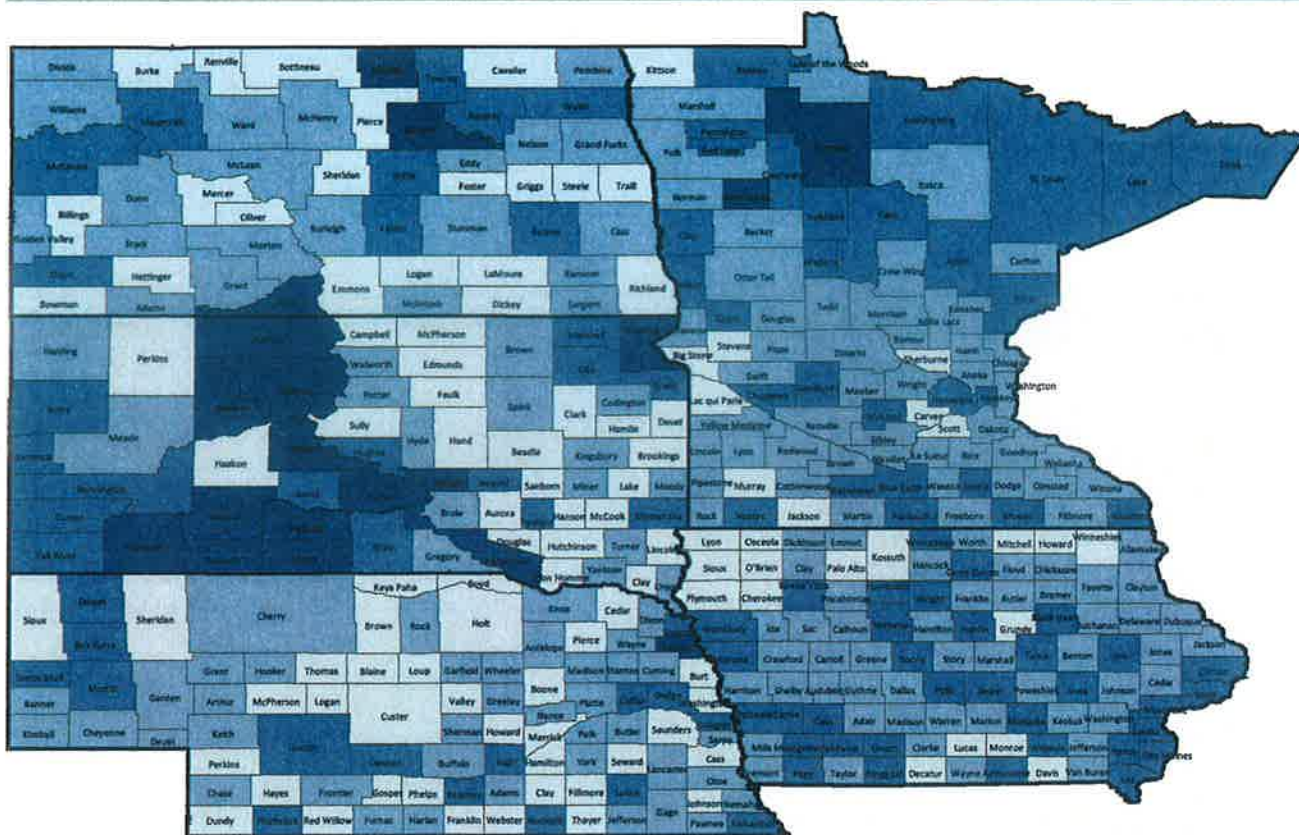
**Importance:** Poor family support, minimal contact with others, and limited involvement in community life are associated with increased morbidity and early mortality. Furthermore, social support networks have been identified as powerful predictors of health behaviors, suggesting that individuals without 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/>.

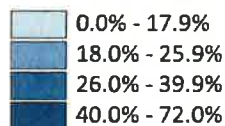
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# Children in Single-Parent Households - A health factor measure focusing on families

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



## CONTEXT

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

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

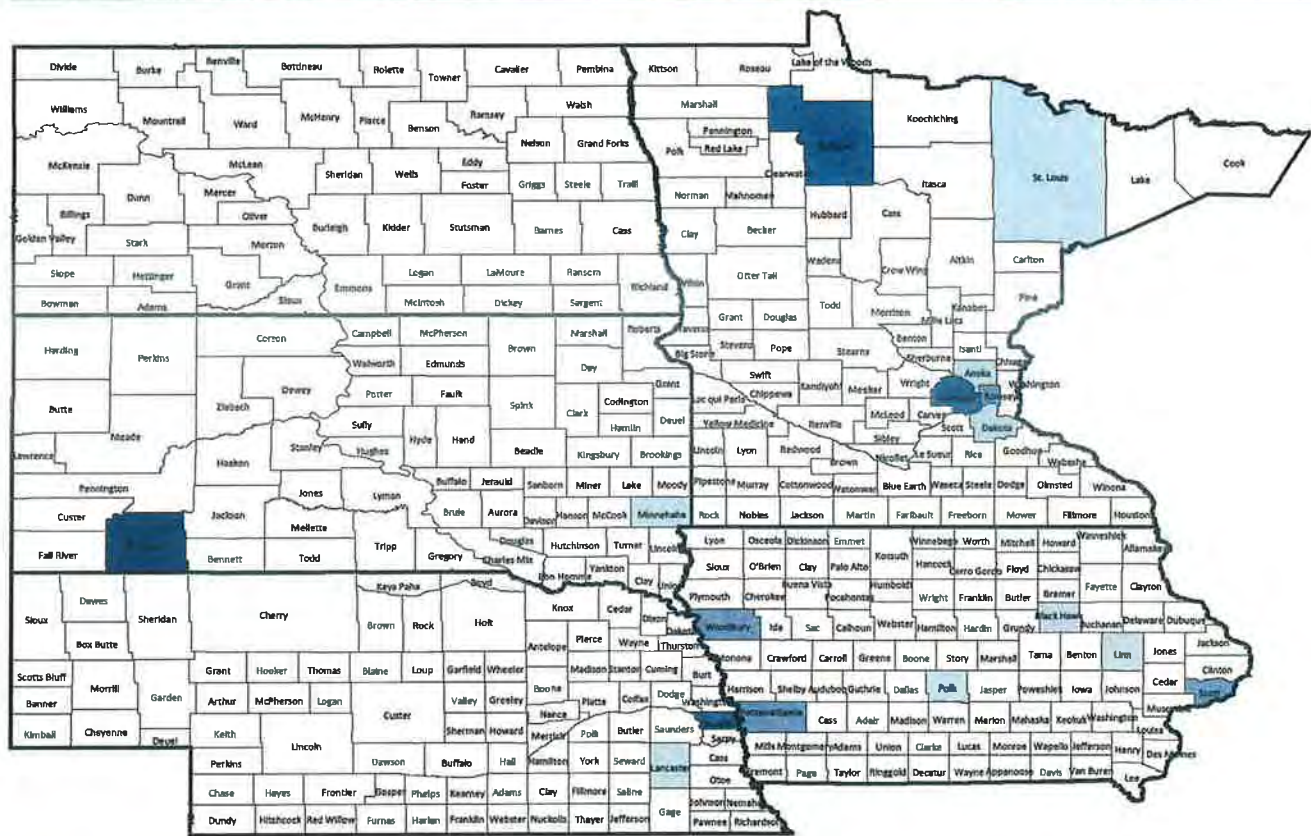
**Importance:** Adults and children in single-parent households are both at risk for adverse health outcomes such as mental health problems (including substance abuse, depression, and suicide) and unhealthy behaviors such as smoking and excessive alcohol use.

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

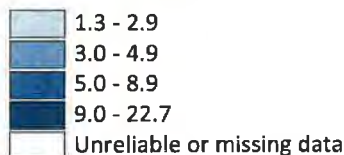
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# Homicide Rate - A health factor measure focusing on violent crime

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



## CONTEXT

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

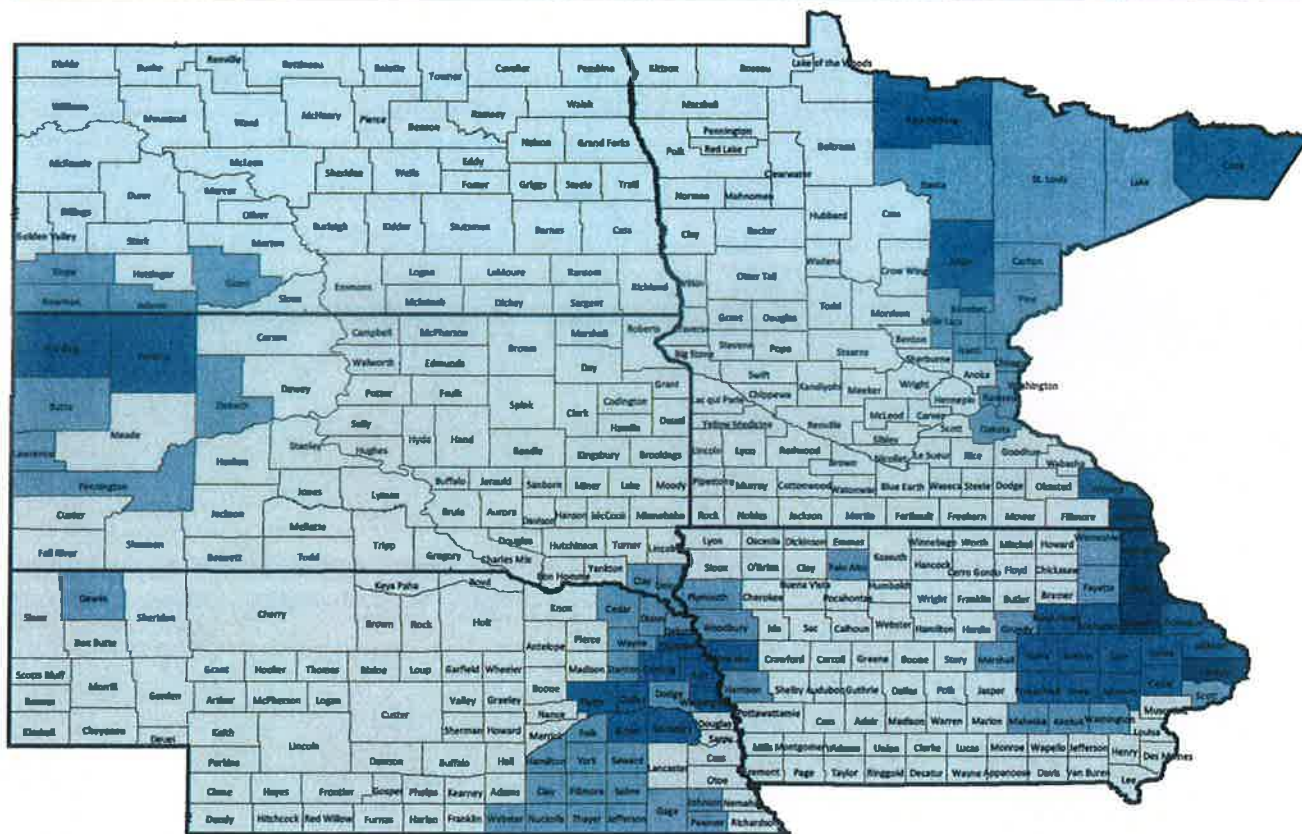
**Where It Comes From:** These data were calculated by National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC) using data from the National Vital Statistics System (NVSS). NCHS used data for a seven-year period to create more robust estimates of cause-specific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

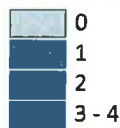
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**Air Pollution-Particulate Matter Days** - A health factor measure focusing on physical environment  
 County distribution map for Iowa, Minnesota, Nebraska, North Dakota, and South Dakota



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



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.

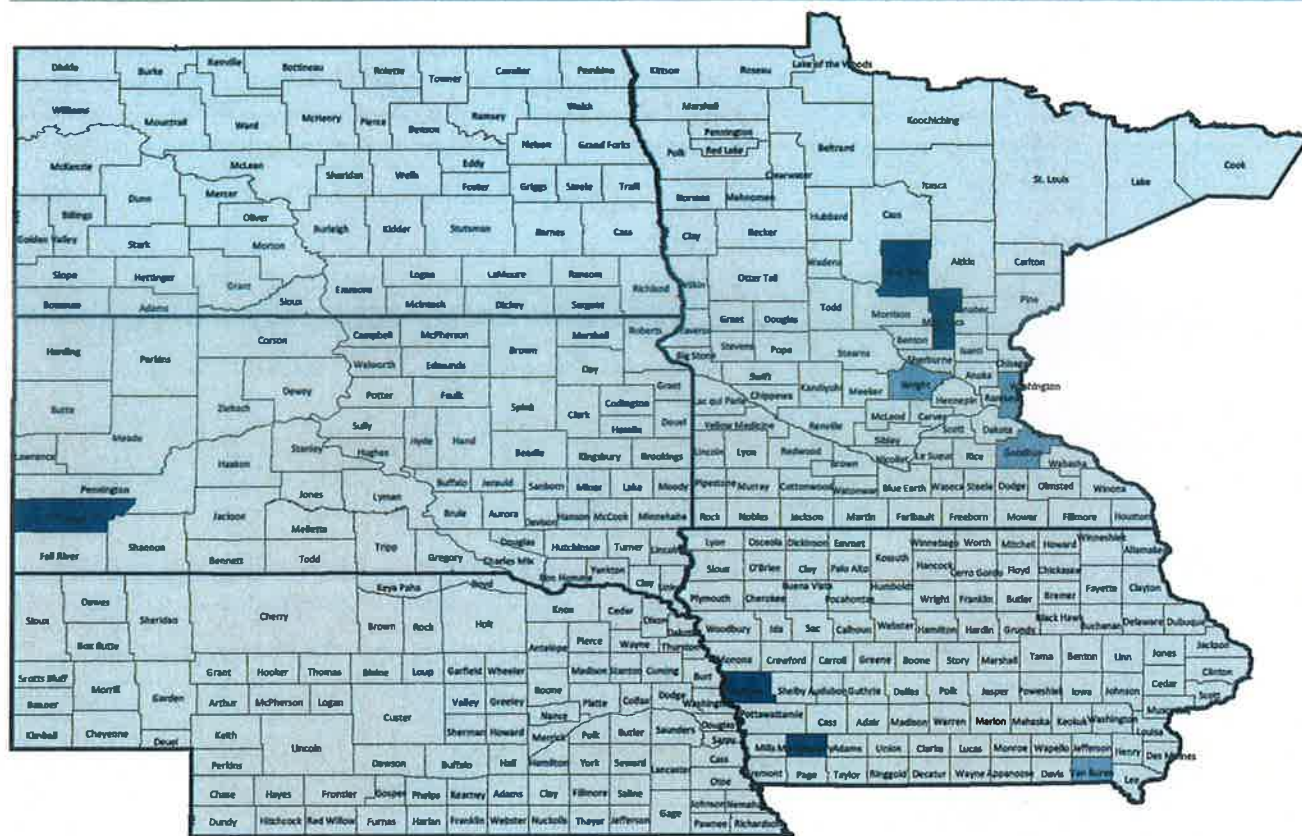
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# Air Pollution-OzoneDays - A health factor measure focusing on physical environment

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



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



## 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.

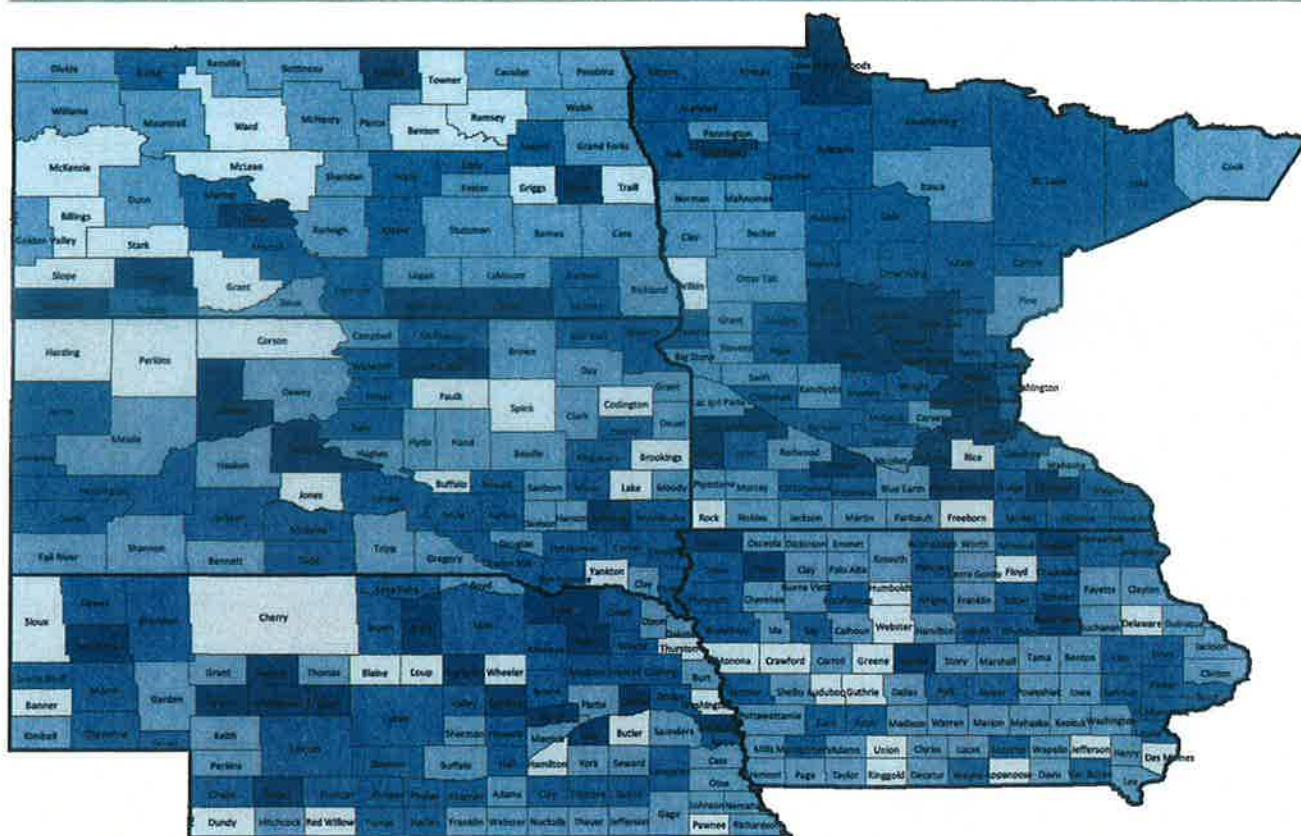
**Importance:** The relationship between elevated air pollution—particularly fine particulate matter and ozone—and compromised health has been well documented. The negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects.

- 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/>.

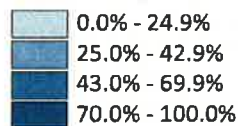
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# Access to Healthy Foods - A health factor measure focusing on physical environment

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



## 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.

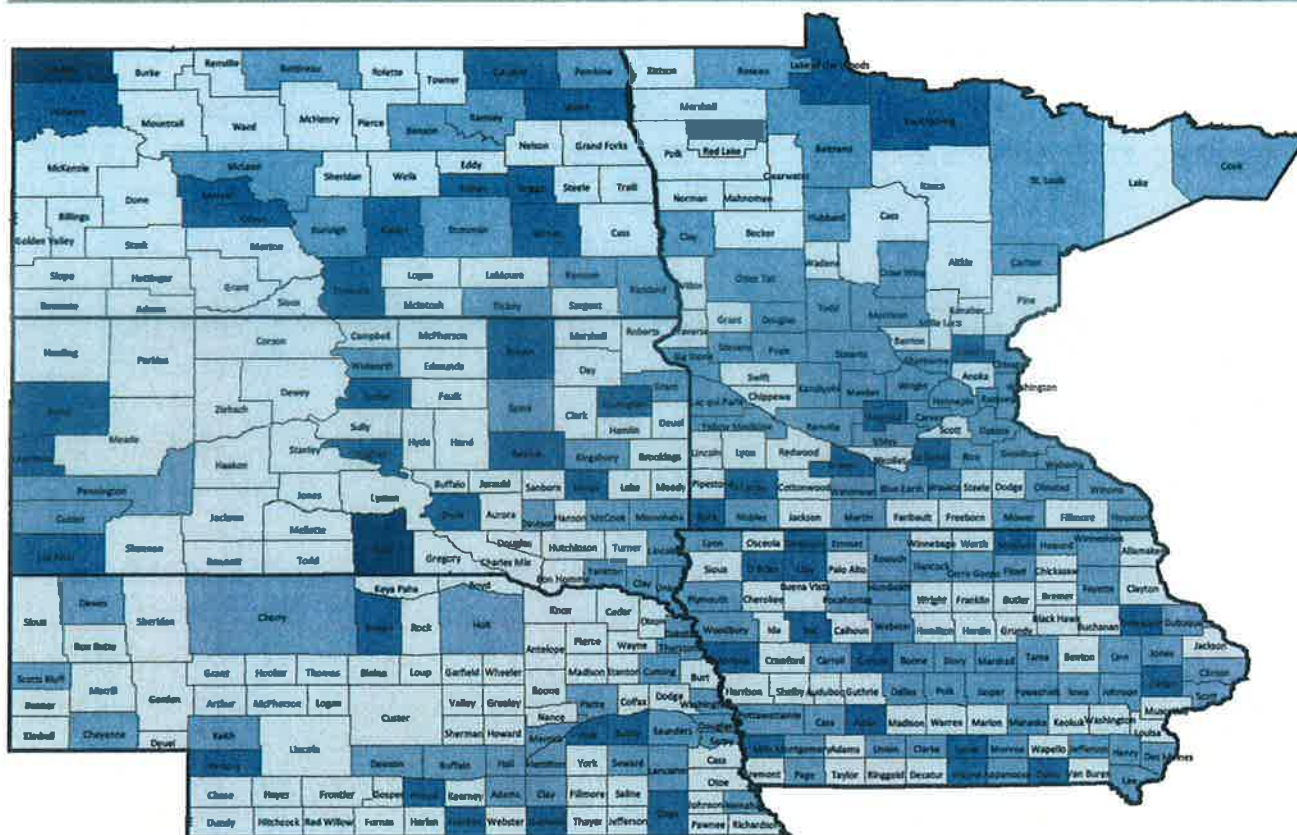
**Importance:** Studies have linked the food environment to consumption of healthy food and overall health outcomes.

- 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/>.

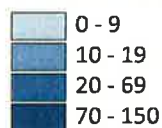
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# Access to Recreational Facilities - A health factor measure focusing on physical environment

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



Number of recreational facilities per 100,000 population, 2008



## 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.

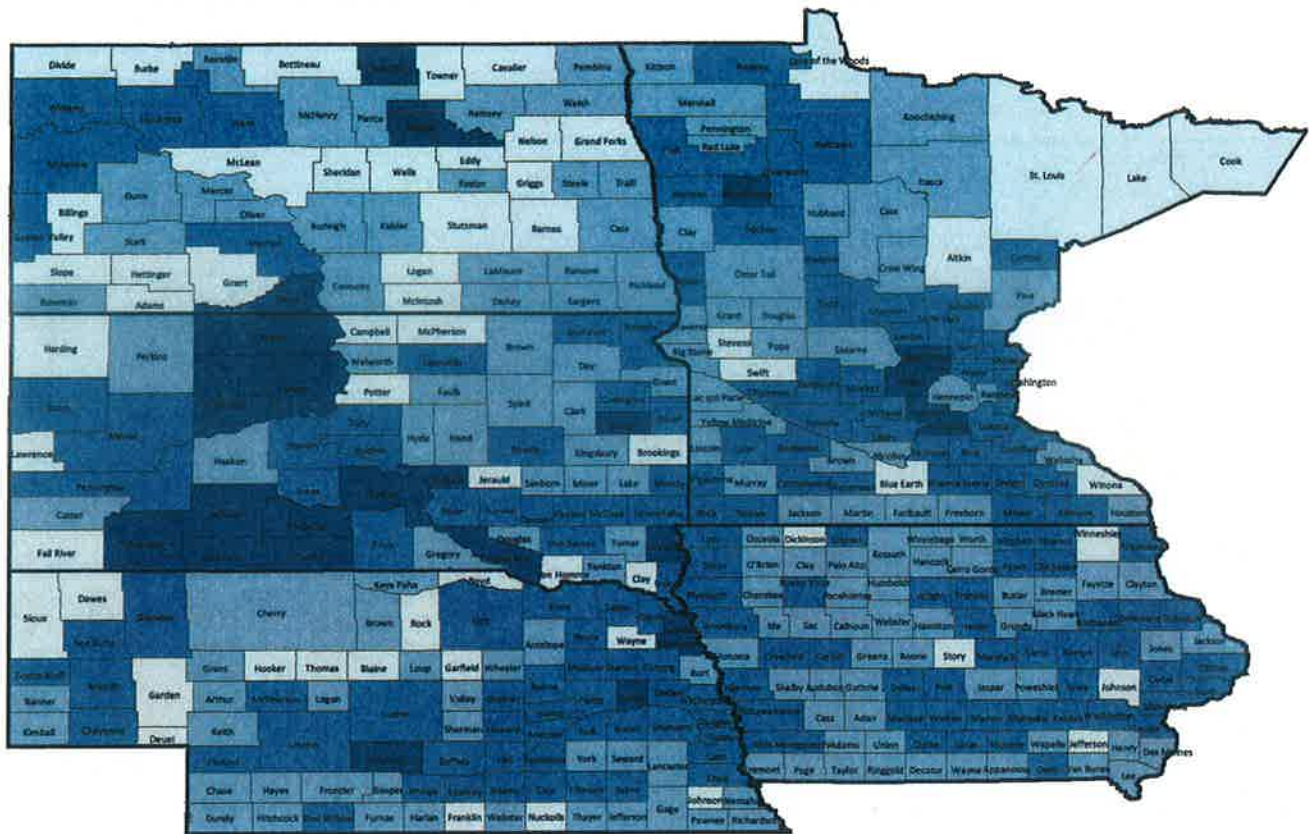
**Importance:** The availability of recreational facilities can influence individuals' and communities' choices to engage in physical activity. Proximity to places with recreational opportunities is associated with higher physical activity levels, which in turn is associated with lower rates of adverse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

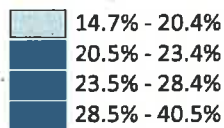
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Youth - A demographic measure

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



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



CONTEXT

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

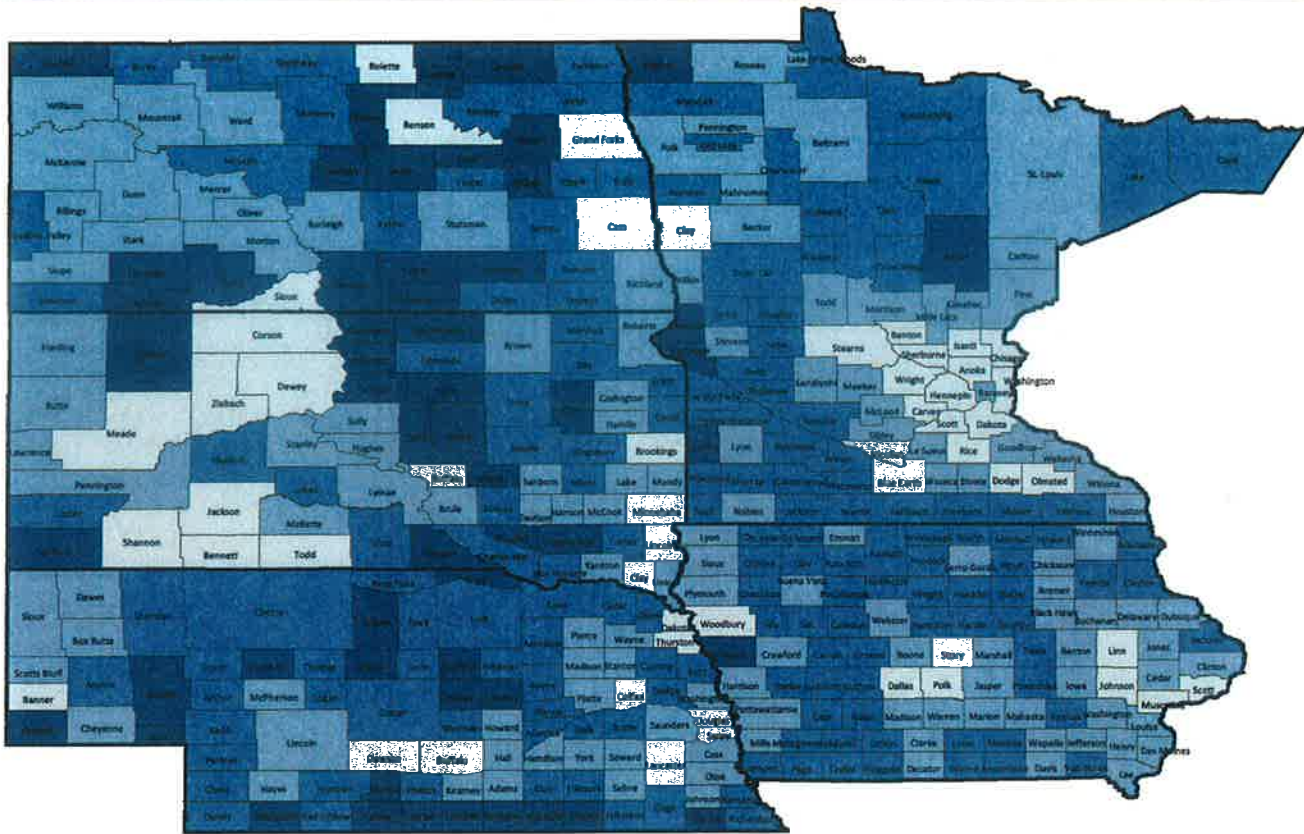
**Where It Comes From:** County demographic figures come from the U.S. Census Bureau’s annual population estimates.

- 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/>.

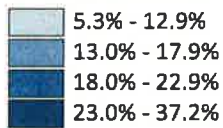
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# Elderly - A demographic measure

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



### 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.

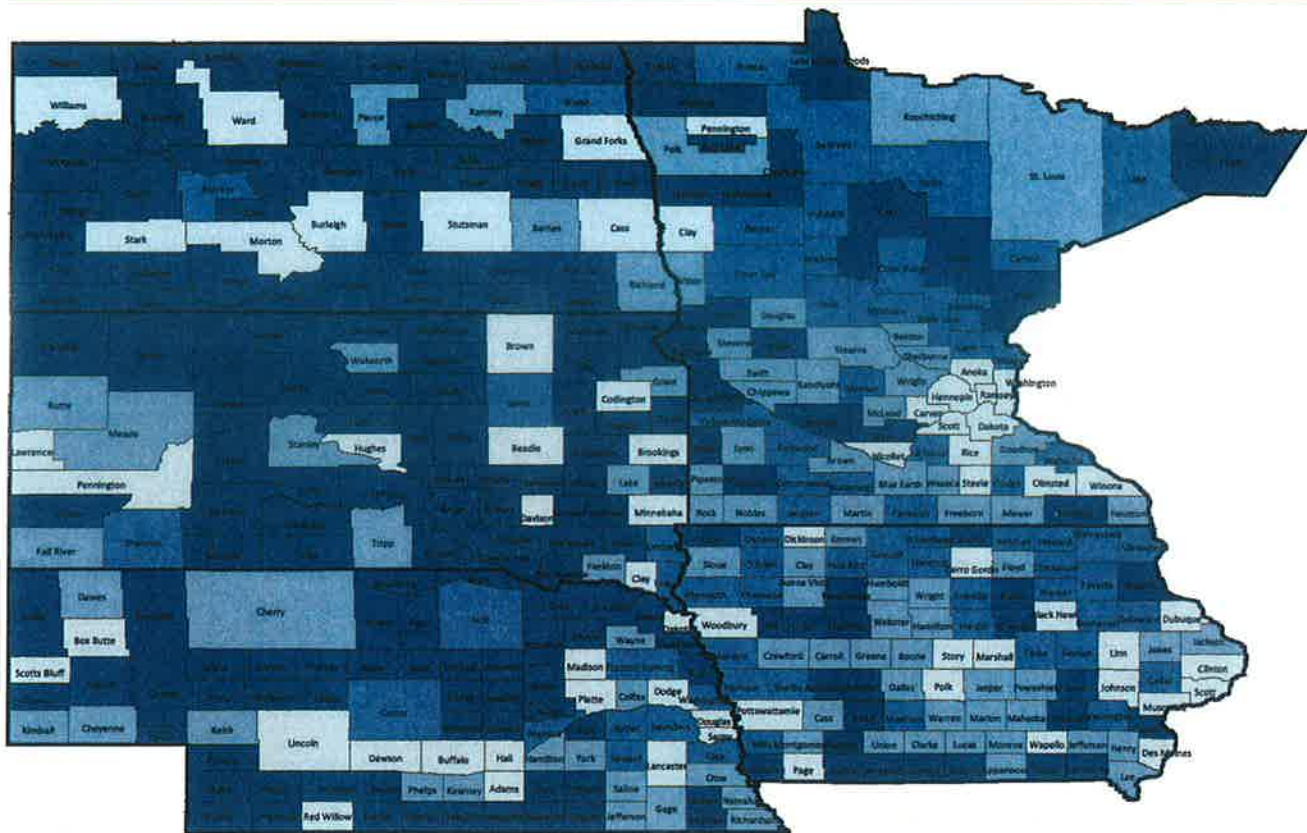
- Data and associated context were obtained from County Health Rankings, a key component of the Mobilizing Action Toward Community Health (MATCH) project - a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, <http://www.countyhealthrankings.org/>.

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# 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.

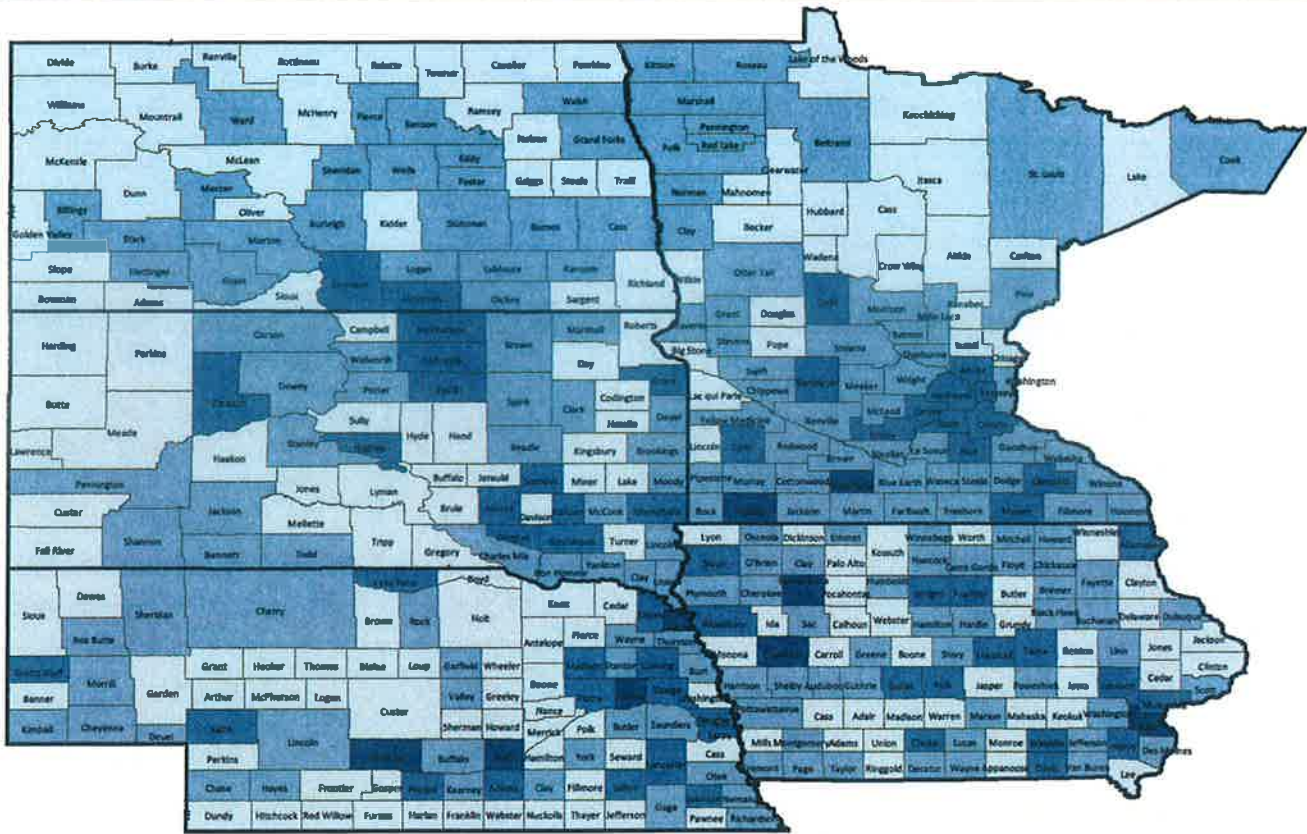
**Where It Comes From:** This measure is calculated by the U.S. Census Bureau using data from 2000.

- 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/>.

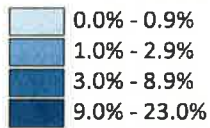
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# Not English Proficient - A demographic measure

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



## CONTEXT

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

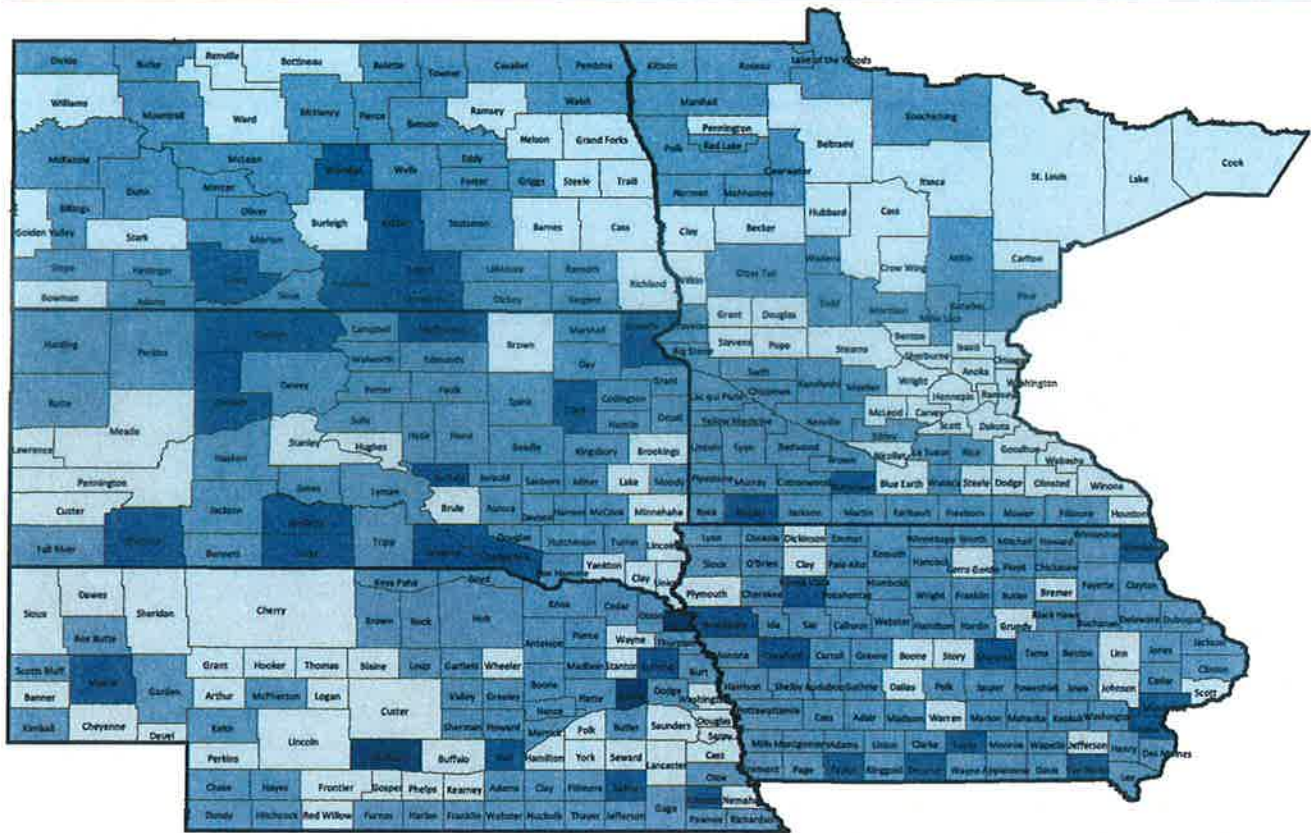
**Where It Comes From:** Data on spoken English proficiency come from the U.S. Census Bureau's American Community Survey 5-year estimates.

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

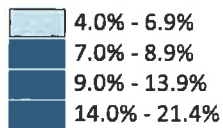
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# Illiteracy - A demographic measure

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



## CONTEXT

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

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

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

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**Table 3**

**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

<b>Health Indicator/Concern</b> <i>(from asset mapping and gaps analysis worksheet)</i>	<b>Round 1 Vote</b>	<b>Round 2 Vote</b>	<b>Round 3 Vote</b>
Cancer Awareness and Prevention	X X X X	X X X X	
Chronic Disease Management	X X X X	X X X X	
Obesity	X X X X	X X X X	
Cost of Health Insurance	X		
Drug and Alcohol Abuse	X X		
Mental Health	X X X X	X X	
Native American Health	X X		

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