

# The Health of Stearns County

2014 Stearns County Health Assessment



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## 2014 County Health Assessment

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# Introduction

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Set against a backdrop of rolling hills, woodlands, and scenic lakes, Stearns County is the best of both city and country. Stearns County is considered a commercial and tourism gateway because of its strategic position in central Minnesota along Interstate-94, a major travel corridor. We are a thriving area whose vibrant communities are always changing and whose government continues to provide services to its growing population.

Stearns County is home to 30 cities and 34 townships. The city of St. Cloud is the County Seat. In recent years, Stearns County has experienced an influx of new residents and steady population growth is expected for decades to come. We have a flourishing economy, friendly communities, an affordable cost of living, and quality health care. Stearns County is also home to several universities, colleges, and business schools.

Agriculture, especially dairy production, has always been a principal industry and important source of economic activity. Stearns County leads the state in agriculture and is known as Minnesota's organic farming capital. Other industries have grown in the county's economy including: health care, tourism, retail, service, and manufacturing- especially granite production. Our location in central Minnesota provides accessibility and affordable land and labor for businesses.

Stearns County has ample year-round recreational, cultural, and social opportunities in both urban and rural areas. The numerous lakes and rivers in Stearns County support a prosperous tourist trade. The Stearns County Parks system is a point of pride, offering opportunities for hiking, biking, boating, fishing, swimming, rock climbing, as well as SCUBA diving.

Taking into account all aspects of Stearns County, this document presents an assessment of health in Stearns County, in the broadest sense of that concept. Health is defined by the World Health Organization as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>1</sup> This kind of health is not just about individuals, but includes families, communities and systems, and is a result of the interaction of complex networks of conditions and factors. This kind of health starts long before illness is manifest: it begins in homes and schools, in jobs and workplaces, and in communities. Ultimately, it reflects the 1988 Institute of Medicine mission of public health, “fulfill[ing] society's interest in *assuring the conditions* in which people can be healthy [emphasis added].”<sup>2</sup>

To reflect this understanding of health, *The Health of Stearns County* discusses a wide array of indicators and information about the conditions and factors affecting health, as well as indicators of health status. The assessment is presented in two parts: **Part One** provides information about physical, social, and behavioral *factors* for health in Stearns County; **Part Two** presents data on health *outcomes* related to disease and injury.

We would like to thank the Minnesota Department of Health for their guidance in developing this assessment and for their permission in following the format they created for the statewide health assessment. *The Health of Stearns County* will follow the structure of the statewide documents, *The Health of Minnesota*, which can be found on the Internet at:

<http://www.health.state.mn.us/healthymnpartnership/sha/>

## The Healthy Minnesota Partnership

Minnesota's statewide health assessment was prepared under the auspices of the Healthy Minnesota Partnership, a multi-sector group of community leaders.\* The Partnership is charged with developing innovative public health priorities, goals, objectives and strategies to improve the health of all Minnesotans, and to ensure ownership of these priorities and strategies in communities across the state. *The Health of Minnesota* is the first step toward fulfilling this charge, and provides the basis for creating a *Healthy Minnesota 2020* statewide health plan. The Partnership hopes that assessing and addressing a broad array of health-related conditions and factors will change the conversation around health, energize the public, private and nonprofit sectors, and create a groundswell of community efforts to improve health in every Minnesota community.

## Public Input

A draft of *The Health of Minnesota* was made available for review and feedback online during January and February 2012. The Healthy Minnesota Partnership was instrumental in encouraging their constituencies to review the document. Over 100 responses were collected through the online survey, making thoughtful and helpful suggestions for improving the document. In addition, the Healthy Minnesota Partnership received several letters from constituent groups offering additional analysis and identifying issues of their particular concern. The comments and suggestions received were incorporated into *The Health of Minnesota* wherever possible.

More public input came from the Central Minnesota Community Health Assessment that was conducted in February of 2013. Five counties in central Minnesota (Benton, Chisago, MileLacs, Sherburne and Stearns) in association with Wilder Research and community partners developed and distributed 12,000 paper based surveys through the mail to households at random in the five county area. This survey was developed with the purpose of getting a better understanding of the overall health and lifestyles of central Minnesota residents. Survey results were then weighted to account for demographics in each respective county to give as accurate reports as possible.

## Limitations

While this Stearns County health assessment presents many important issues and topics, it does not present every possible health-related issue. The issues and indicators chosen are intended to reveal the scope and complexity of population health, but space does not allow for each of them to be thoroughly documented. Therefore, the assessment should not be considered a formal study or research document investigating the causes of each issue raised or providing a detailed analysis of the data. Volumes have been written on many of these issues, and references are provided throughout to enable access to additional information.

In some cases, the kinds of information that could greatly inform a community health assessment are simply not available. This may be because data are not available at the county level, or data are not stratified by race/ethnicity, income, sexual orientation, etc. In other cases, especially when it comes to understanding the interactions of the many factors that contribute to health, data are lacking in part because the theoretical models are still being developed.

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\* Partners range from state agencies to communities of color, local public health, elected officials, nonprofits, health care providers and the community. Please visit the Appendix for a list of Healthy Minnesota Partnership members.

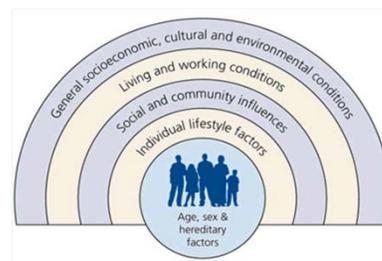
The assessment also does not include the many programs, services, and strategies that are currently (or could be) implemented to address these health-related issues, either by Stearns County Human Services, the Minnesota Department of Health, or by other stakeholders and partners. The community health assessment is not, in other words, Stearns County's health plan. The Stearns County Health Plan document is a separate document and process that utilizes and relies on this document and the data contained herein.

## A Framework for Assessing Health

Health is a product of many conditions and factors. Nationally and internationally, a growing body of research is showing how living conditions and social and economic opportunity determine health outcomes.<sup>3</sup>

It can be difficult to visualize the broad factors that influence health. Dahlgren and Whitehead<sup>4</sup> propose the model at right, in which the individual with unique biological characteristics is surrounded by community, place, and system-based conditions and factors. A similar model, called the ecological or social ecology model, is used in a variety of academic and practice fields in order to better understand the larger forces that impact individuals.<sup>5</sup>

### Conditions and factors for health



Source: Dahlgren, G., & Whitehead, M. (1991).

**Health starts long before illness is manifest: it begins in homes and schools, in jobs and workplaces, and in communities.**

The movement from an understanding of health focusing on the individual to one focused on communities and systems health also is evident in the development of *Healthy People*, the national agenda for health developed by the U.S. Department of Health and Human Services.

#### Healthy People 2020 Overarching Goals

- Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death
- Achieve health equity, eliminate disparities, and improve the health of all groups
- Create social and physical environments that promote good health for all
- Promote quality of life, healthy development, and healthy behaviors across all life stages<sup>6</sup>

The U.S. Department of Health and Human Services describes similar factors that influence the development of a healthy community:

*"[A healthy community is] one that continuously creates and improves both its physical and social environments, helping people to support one another in aspects of daily life and to develop to their fullest potential. Healthy places are those designed and built to improve the quality of life for all people who live, work, worship, learn, and play within their borders—where every person is free to make choices amid a variety of healthy, available, accessible, and affordable options."*<sup>7</sup>

Clearly, a number of complex and subtle interrelationships among many conditions and factors affect health. For example, an individual's level of education is associated with the likelihood that s/he smokes, and a higher risk of cancer is correlated with smoking. However, it is also important to acknowledge the role other factors play on a person's likelihood of becoming and staying a smoker: level of education influences his/her occupation, which influences his/her overall stress level, which influences his/her interpersonal relationships, which influences his/her likelihood of smoking. Many factors circle around themselves in this way, influencing an individual's health in cyclical manners.

Childhood experiences seem to particularly influence a person's health in the immediate and distant future. Beneficial and harmful events in those early years, especially positive or negative interactions with adults, affect the biology of the body, and a person's entire life.<sup>8</sup>

Greater opportunities for health, beginning in childhood and continuing throughout life, lead to healthier living, which leads to better lifetime health.

It is both important and challenging to incorporate community, environment, and system factors into a statewide health assessment. Without recognizing the relationship among many factors, organizations cannot develop effective strategies to improve health, but integrating all relevant factors into a strategy can be challenging, time-consuming, and difficult to measure.

## Organization

*The Health of Stearns County* highlights a variety of factors and conditions. The structure of the document developed from conversations within the Healthy Minnesota Partnership for development of the Health of MN document, in which the Partnership agreed that Minnesotans, including Stearns county residents, require the following to be healthy:

- A healthy start in life
- Supportive families, friends and communities
- Safe and welcoming places to live, learn, work, play, and worship
- Knowledge, with the freedom, capacity, and desire to act on that knowledge
- Fair employment and a living wage
- Access to systems designed to meet their needs (health care, public health, social safety net, transportation, and more)

*Part One* of this county health assessment reflects this broad way of thinking about health, and is organized around three major themes that reflect *conditions* and *factors* that assure health:

- **Stearns County: People and Place:** Who we are and our natural environment; the people of the county; and the air, water and land that surround them
- **The Opportunity for Health in Stearns County:** The social, economic, and community factors that have a potent influence on our health
- **Healthy Living in Stearns County:** The ways in which individuals and communities act to protect and improve health

*Part Two* of this assessment focuses on *outcomes* of health, including the diseases, conditions, and injuries that health-related strategies, programs, and services hope to prevent.

## General Health Status for the County

The Minnesota County Health Rankings report has ranked every county in the state based on a multitude of health factors. When compared to the rest of the counties, Stearns County has ranked among the top third in Health Outcomes for the last 4 years, and even better in the category of Health Factors. While the Mortality rate of the county ranks eighth amongst all Minnesota counties, the very poor 59<sup>th</sup> ranking in regards to Morbidity and poor overall health have caused the overall ranking to drop dramatically.

According to the 2013 County Health Rankings report, Stearns County's strengths include:

- Mortality (Rank: 8)
- Clinical Care (Rank: 21)
- Health Behaviors (Rank: 24)

Challenges identified by the report include:

- Physical Environment (Rank: 41)
- Morbidity (Rank: 59)

### County Health Rankings compared to peer counties: 2013

	Health Outcomes	Health Factors
Anoka	47	51
Dakota	15	6
Hennepin	55	25
Olmsted	17	3
Ramsey	65	69
St. Louis	14	59
Stearns	24	17
Washington	10	1
Wright	13	7

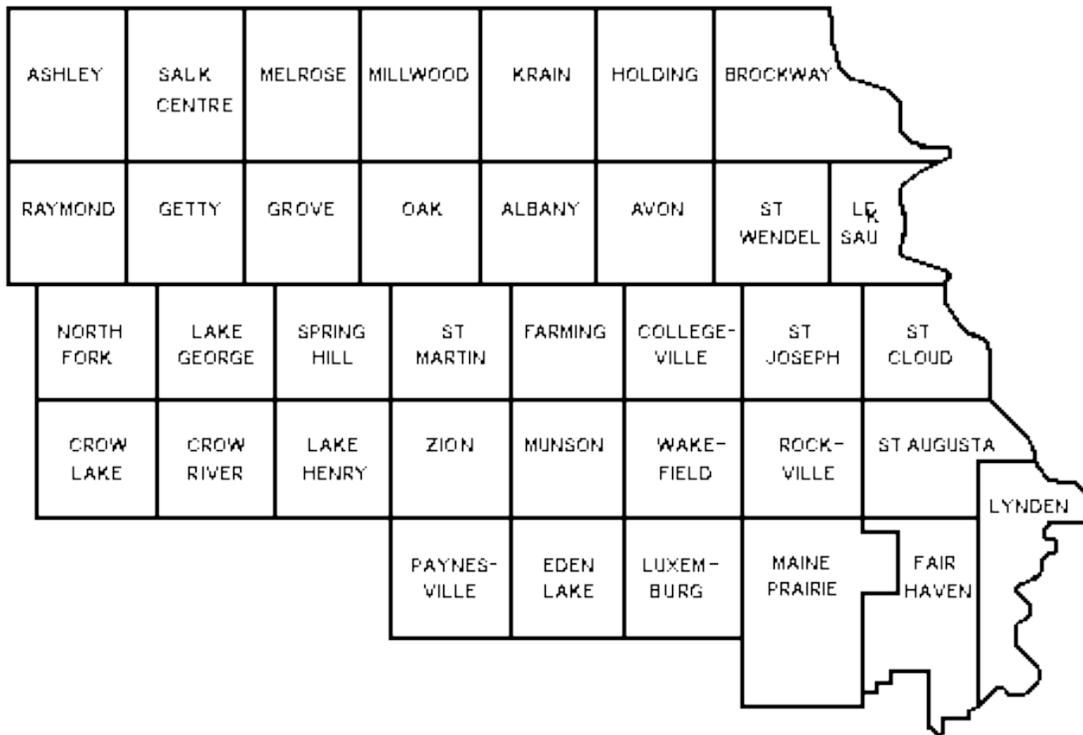
*Source: Robert Wood Johnson Foundation – County Health Rankings. (2013)<sup>1</sup>*

# Stearns County: People and Place

Thanks in part to its location in the state, along with the multitude of colleges and universities; Stearns County is a melting pot of races and countries of origin. Because of the large student populations, the population of the county tends to be younger than the rest of the state. With these accredited establishments, comes a chance for our communities to expand culturally while still maintaining its own identity in the state. Many of the county's smaller cities are located near recreational lakes.

Stearns County residents share an appreciation for the beauty of their county and the resourcefulness of their communities. This section, *Stearns County: People and Place*, discusses urban and rural population trends; immigration and the increasing diversity of the county's population; the county's changing age profile; Stearns County water, weather and air; and the roads, bridges and walkways that connect the county together.

## Urban and Rural Population Trends

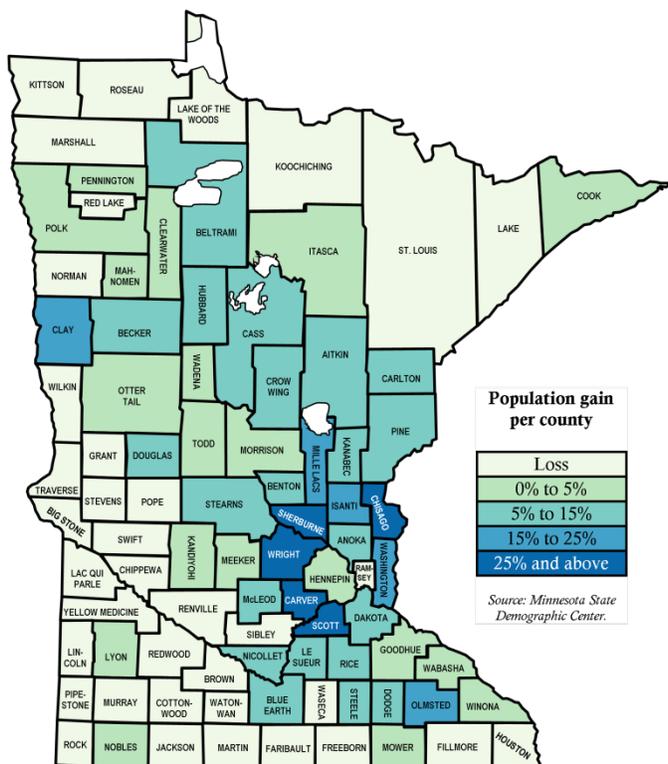


Map of Stearns County Townships

Geographically, a large majority of the county is rural land. More than half of the county's population, however, resides in the St. Cloud metropolitan area along the eastern border of the county. There are 30 cities located in Stearns County with the smallest being St. Rosa, and the largest city in the county being St. Cloud.

- Stearns County has a population of approximately 151,343 as of July 2011.
- The top five cities in terms of population in the county are St. Cloud (65,842 – 33.3%), Sartell (15,876 – 9%), Waite Park (6,715 – 4.4%), St. Joseph (6,534 – 4.3%) and Sauk Centre (4,317 – 2.9%). It should be noted that portions of the populations of St. Cloud and Sartell are located in Benton County, with the percentages included showing only the amount of population within Stearns County in relation to total population of the county.

### Population change in Minnesota by county: 2000-2010



Much about Minnesota is changing. Once very demographically homogenous, Minnesota's racial and ethnic diversity is increasing rapidly in some areas. People throughout Minnesota are developing a new and expanded sense of what it means to be Minnesotan. As the state's population ages, communities will be confronted with challenges and opportunities in meeting the unique needs of older Minnesotans.

Stearns County grew at a rate of 14% from 2000 (133,166) to 2011 (151,343). This rate is almost double the growth rate of Minnesota as a whole (7.8%) as well as surrounding states. This rate is in high contrast when compared to most other rural counties in the state, where population has been slightly declining.

## Immigration and Growing Diversity

While Stearns County is still far from the most diverse county in the Minnesota, this is gradually changing. In 2000, the population of African-Americans in Stearns County represented just over .8 percent of the total population. In 2010 that number had grown to almost 3 percent. The Hispanic population grew by 119 percent during that time, and the American Indian population grew by 44 percent. St. Cloud, the largest city in the county, has an overall population of color of 15%.

The county's diversity is increasing primarily through immigration. Stearns County attracts a wide range of immigrants to the county from other parts of the U.S., the state and from other countries, who move here to attend school, start businesses, work in Stearns County industries, and join family members.

**Populations of color as a proportion of Stearns County total population: 2000-2010**

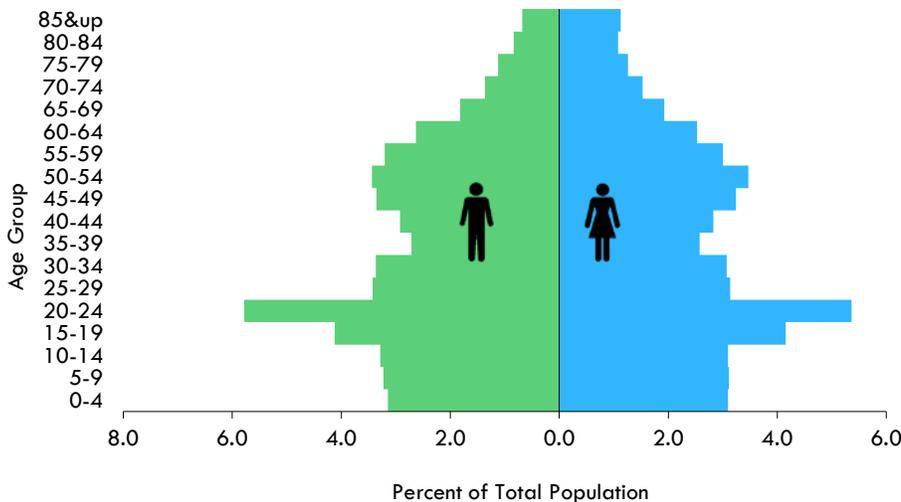
**Populations of color in Stearns County have grown more rapidly in the past 10 years than the state's white population.**

Percentage of Total Stearns County Population			
Race/Ethnicity	In 2000	In 2010	Percent Growth of Population
White	96%	92.4%	+8.0%
African-American	.8%	2.9%	+288%
American Indian	.3%	.3%	+44%
Asian	1.6%	2%	+43%
Hispanic	1.3%	2.4%	+119%

Source: U.S. Census Bureau. (2011)<sup>2</sup>

Population trends over the last 5 years have shown an aging community across Stearns County. Over 40% of the population falls within the age range of 25-54. The percentage of the population in this age group can partially be attributed to the vicinity of many different colleges and universities. The higher number of residents between the ages of 35-54 show that some of those residents choose to remain in the community for many years afterward as well as people in that age group moving into the county. As these population groups begin to age, a greater focus on necessary measures to keep our community healthy will be of importance moving forward.

**Population distribution in Stearns County by age and gender 2012**



Source: Minnesota Department of Health – County Health Tables (2014)<sup>3</sup>

## Water, Weather, and the Air

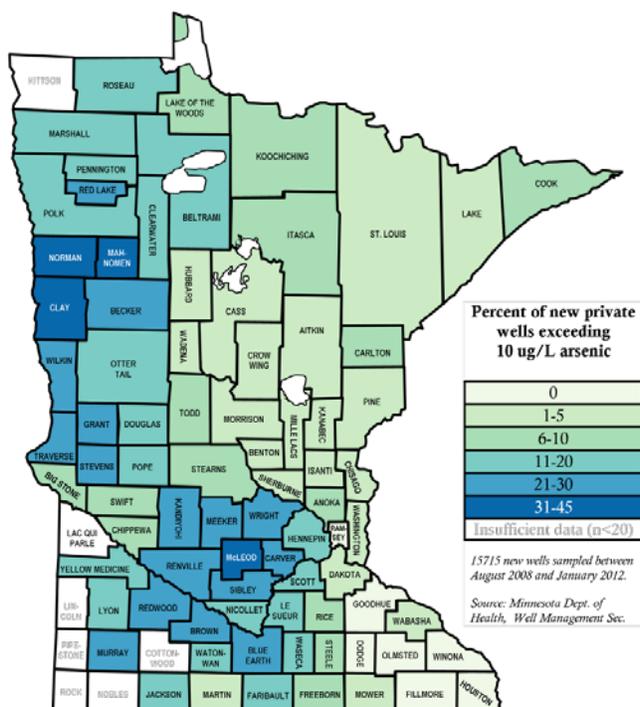
Stearns County is a beautiful and geographically diverse county.

- The total land area of Stearns County is 1,345 square miles, with an additional water area of 45.4 square miles.
- Stearns County currently has 14 county parks with a variety of activities available from shelters and picnic areas to hiking trails and camp sites.
- The state's seasons include mild, wet springs; dry autumns; humid summers; and cold, snowy winters—with a great deal of variation within each of these

### Water

In the language of the state's indigenous Dakota, *minne* means water, and *Minnesota* means water that reflects the sky. Minnesota is rich in water resources, and Stearns County is no different. Stearns County has 294 lakes and 189 rivers available for fishing, swimming, boating and other various water activities.

#### High Arsenic and Private Wells in Minnesota: 2008-2012



The health of the water and that of the people of Minnesota are closely linked. Monitoring water quality for health involves protection of the natural environment as a source of drinking water, and regulation of the built environment that delivers water to Minnesota residents and creates potential sources of contamination.

Drinking water comes from either a surface source (i.e., water found above ground in rivers, lakes, and streams) or a groundwater source (i.e., water found in underground aquifers, in the pores between sand, clay, and rock formations). Approximately 70 percent of all Minnesotans rely on groundwater as their primary source of drinking water, and 1 million Minnesotans rely on private wells. While most of the state has access to abundant groundwater, the geology of southwestern and northeastern Minnesota limits the amount of groundwater available for domestic use and economic development.

Drinking water can be contaminated by man-made chemicals or by natural sources like heavy metals in rock and soil. While existing in nature, water contains impurities and most are harmless; however, at certain levels, some bacteria, minerals, and man-made chemicals can make drinking water harmful to health. Primary groundwater quality concerns in Minnesota include naturally occurring arsenic and radium, and human-influenced pesticides, fuel oils, industrial chemicals, and sources of nitrate (e.g., fertilizers, animal wastes, human sewage).

Based on existing monitoring data, it is now estimated that approximately 10 percent of all private wells in Stearns County have arsenic levels of 10 µg/L or more.

## Weather and Climate

Residents of Stearns County are no strangers to the strong variation in climate that living in this region of the country displays. Winters can become extremely cold and just a few short months later, the temperature can climb exponentially and with it comes Minnesota’s very humid summers. Temperature extremes can create health challenges, especially for elderly residents and for those with special health concerns. Stearns County has a yearly average temperature of 43.4 degrees, which holds very close to the state average, but is over 10 degrees cooler than the national average.

### Precipitation and temperature in Stearns County: As of 2012

Measure	Amount
Average annual precipitation	29.09 inches
Average annual snowfall	46.48 inches
Average spring high temperature	54 degrees F
Average summer high temperature	79 degrees F
Average fall high temperature	54 degrees F
Average winter high temperature	22 degrees F
Record Low	-43 degrees F (Jan)
Record High	107 degrees F (July)

Source: St. Cloud Regional Airport Climate Data. (2013)<sup>4</sup>.

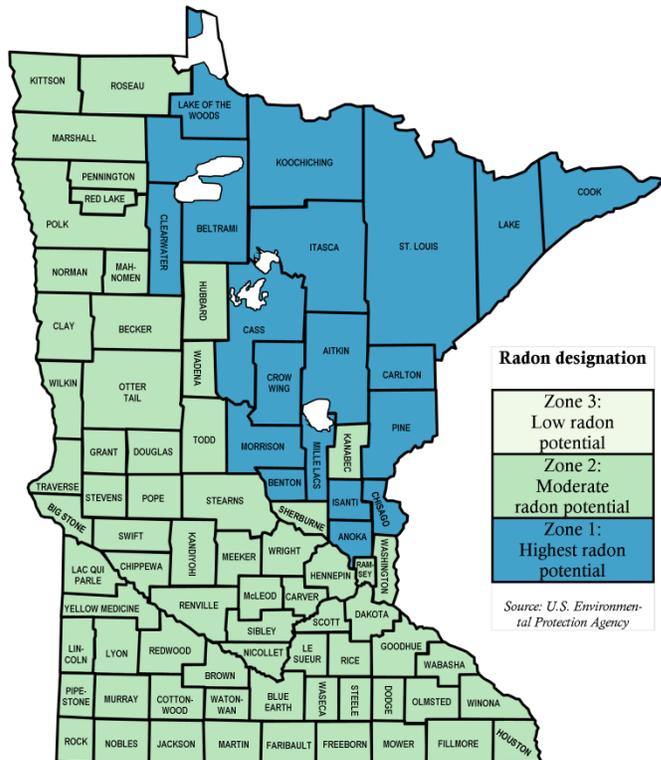
### Radon zones in Minnesota: 2011

## Air Quality

### Radon

Radon is the most critical air quality issue in Minnesota, especially in homes and living spaces. It is a colorless, odorless gas that occurs naturally in the environment, and is the leading cause of lung cancer among non-smokers. There is no safe level of radon for humans. The risk for lung cancer increases with more concentrated levels of radon gas and increased exposure.

Radon seeps from the earth and enters homes in a variety of ways, such as through cracks in floors and walls, construction joints, or gaps around service pipes. In Minnesota, one of every three homes has radon levels at levels that pose a significant health threat (over 4 pCi/L). Stearns County falls in Zone 2, signifying that there is Moderate potential for radon found in an individual’s home.



## Air Pollution

Air pollutants can affect health, the environment, and individuals' quality of life. Fossil fuel-based power plants, motor vehicles, lawn and garden equipment, paints and solvents, and fires are all common sources of air pollution. Elevated levels of air pollutants may cause respiratory diseases or cancer, and can affect health in other ways.

The U.S. Environmental Protection Agency (EPA) sets National Ambient Air Quality Standards (NAAQS) to protect the public from the harmful effects of air pollutants, including PM<sub>2.5</sub>. The current short-term (daily 24-hour) standard is 35 micrograms per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ), and the annual standard is  $12\mu\text{g}/\text{m}^3$ .

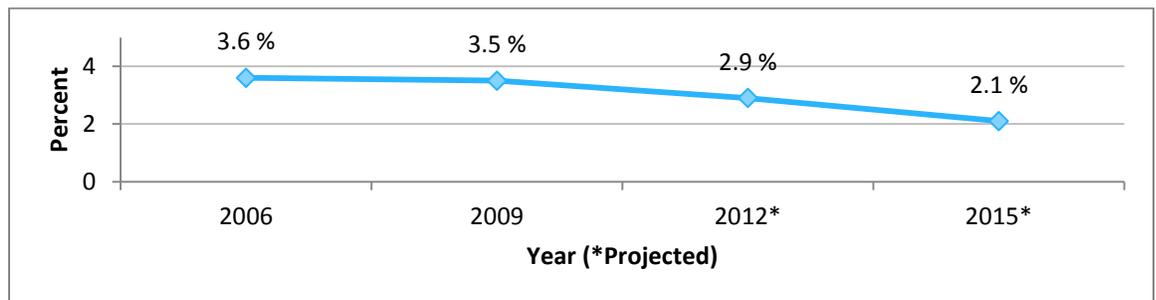
According to the Minnesota Department of Health, in 2011, it was found that Stearns County had an average concentration of only  $8.9\mu\text{g}/\text{m}^3$  of air pollution. This is well below the annual standard, and on a downward trend from  $9.2\mu\text{g}/\text{m}^3$  back in 2002 that mirrors other counties in the state whose air quality is also improving as their concentrations decline.

## Roads, Highways, and Bridges

Stearns County's residents come into contact with the infrastructure of the county on a daily basis. A combination of interstates, state highways, county roads (both paved and gravel), bridges and paths span across the entire landscape and pave the way for the residents of the county to connect with each other and explore the county they call home.

The unfortunate collapse of the I-35W Bridge in Minneapolis that spanned across the vast Mississippi River, brought to focus the importance of proper bridge maintenance and safety checks. This led to two main bridges in St. Cloud to be completely demolished and rebuilt. The main bridge of the city, now called The Granite City Crossing connects Division St. to Highway 23 as it continues east across the state, and the second connecting the south side of the city with Saint Cloud State University's campus.

### State bridges in Minnesota in poor condition, historical and projected: 2006-2015



*Denotes state principle arterial bridges in poor condition by principle arterial square footage.  
Source: Minnesota Department of Transportation. (2011)<sup>5</sup>.*

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# The Opportunity for Health in Stearns

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Opportunities for health among Stearns County residents begin within their families, neighborhoods, workplaces, and schools, where county residents live, love, worship, play, work, and learn. A growing body of research shows that entire communities benefit when that community's members invest together in the opportunity to be healthy.

Stearns County residents often do not share the same opportunities for health, however, depending on their race, ethnicity, income, and geography, among other factors. For example, Stearns County residents of color and American Indians have more limited access to the kinds of opportunities for health discussed in this section: a high school education, employment, housing and home ownership, healthy outdoor and indoor environments, social connectedness, community and personal safety, and access to health care and public health.

## Education and Employment

### Education

There are many that say health can be very closely related to education. The more opportunities a person has to learn about a healthy lifestyle through education or other activities, the likelier they are to follow those practices and avoid the consequences of an unhealthy lifestyle. Stearns County currently holds 57 schools that span 16 different school districts across the county and give over 22,000 students a place to better their education. It is also home to 7 colleges and universities, giving residents and people from all over the country many options to further their education after high school while experiencing everything the county has to offer.

When looking at residents of Stearns County aged 18 and older, graduation rates were particularly high. All but one of the 16 school districts in the county reported having a graduation rate of 96% or higher. Post-secondary education was slightly lower than the Minnesota average however. While 61.8% of residents responded that they attended college or some form of higher education, this falls just short of the state average of 62.3%. The number of adults who obtained a college degree on the other hand, is significantly lower. The percentage of adults with college degrees in Stearns County (19.4%) is almost 9 percentage points lower than the state average.

Health affects learning at all ages, from early childhood through adolescence, to adulthood. Early reading and literacy stimulate brain development in young learners, help develop their analytical and communication skills, and influence their intellect and behavioral patterns. These in turn shape future opportunities and achievement.

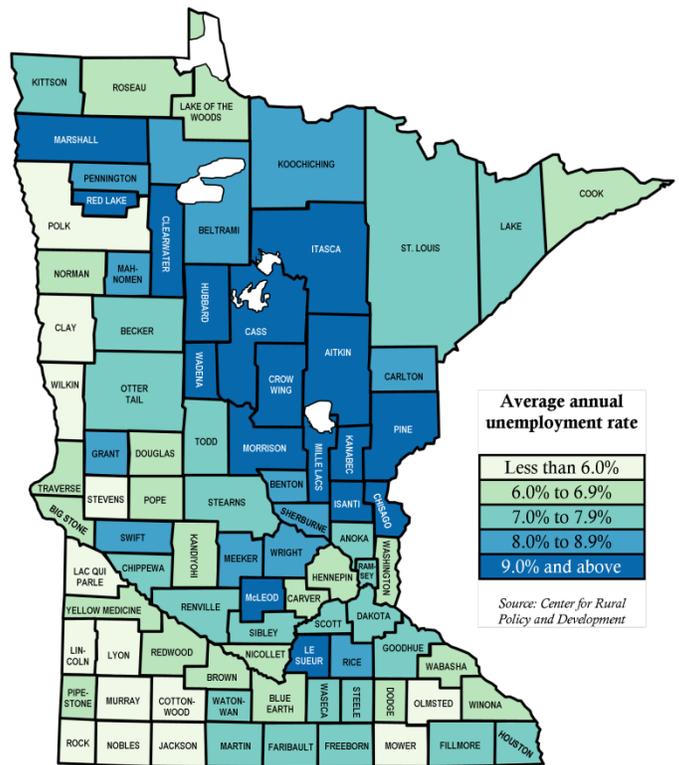
Certain health behaviors, too, are strongly associated with education. For example, 23 percent of Stearns County residents who do not have a high school degree smoke, compared with 14 percent of high school graduates, 15 percent of those with some post-secondary education, and 3 percent of college graduates.<sup>9</sup>

## Employment

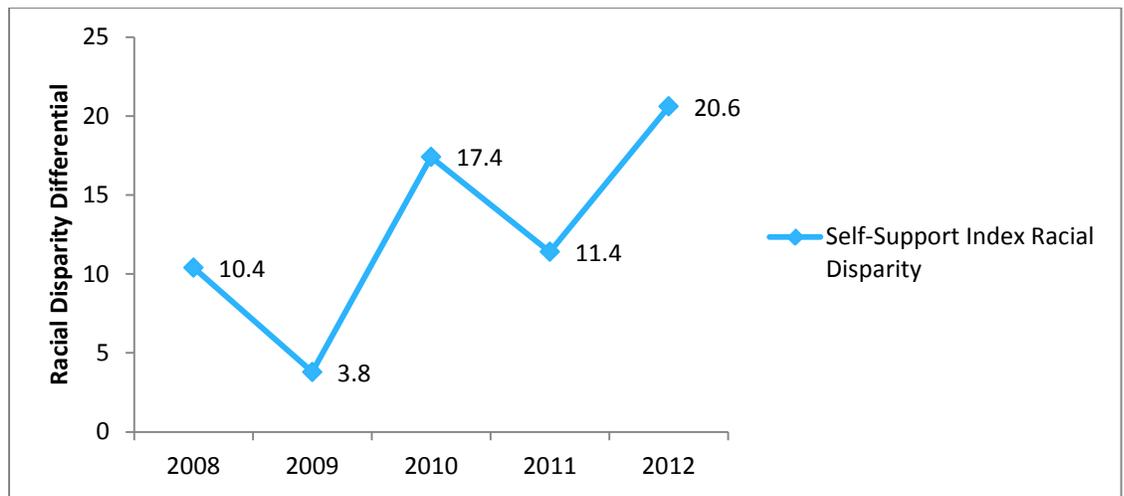
### Unemployment and Racial Disparities

One indicator we can look at to determine racial disparity among unemployment is our Self-Support Index. What this measure indicates is whether or not eligible adults are working an average of 30 or more hours per week or no longer receiving Minnesota Family Investment Program or DWP cash assistance during the quarter three years from a baseline quarter. A county wants to hold a racial disparity differential of under 5% between white unemployed individuals and unemployed individuals of color. Stearns County has had a problem with this, with 2009 being the only time in many years that it has fallen under 5%.

Average annual unemployment in Minnesota: 2010



### Unemployment racial disparities in U.S. metropolitan areas



Source: Performance Trend of Racial/Ethnic and Immigrant Groups 2012<sup>6</sup>

## Stearns County adults in the labor force: 2010

	16-64 in Labor Force*	16-64 Working	Percent Working
Population	85,726	79,820	93.1%

\* For civilian population only. Labor force is defined as those employed and unemployed.

Source: U.S. Census Bureau, American Community Survey. (2011)<sup>7</sup>.

Stearns County's population and economic growth over the past 20 years has paved the way for multiple jobs to be created, and for the county as a whole to hold a very respectable 7% unemployment rate as 2010. As Stearns County strives to better its communities and the standard of living of its residents, opportunities remain plentiful to hold employment. While unemployment rates jumped in 2008 on account of the financial collapse and recession that proceeded, Stearns County has been working its way towards maintaining steady unemployment rates below state levels.

According to the Minnesota Department of Employment and Economic Development (DEED), Local Area Unemployment Statistics (LAUS) monthly data (using an average of non-seasonally adjusted numbers to obtain annual rates), in 2006, Stearns County and Minnesota had the same annual unemployment average rate of 4.1% and the nation was at 4.6%. In 2007 Stearns County and Minnesota again had the same rate, but at 4.6%, which also aligned with the nation. In 2008 the rates of all three areas raised, but the nation at a faster pace to 5.8%, and Stearns County and the state to 5.5%. 2009 saw a large increase; Stearns County and MN rose to 8.1% and the nation leapt to 9.3%. In 2010, the nation continued to rise to 9.6%, while MN fell to 7.3% and Stearns to 7.2%. Over the past two years, Stearns County has trended at approximately the same decline in unemployment rates as the state and the nation. Stearns County finished 2012 with an annual average of 5.5% unemployment rate, compared to 8.1% at the county level, almost 2.5 percentage points higher.

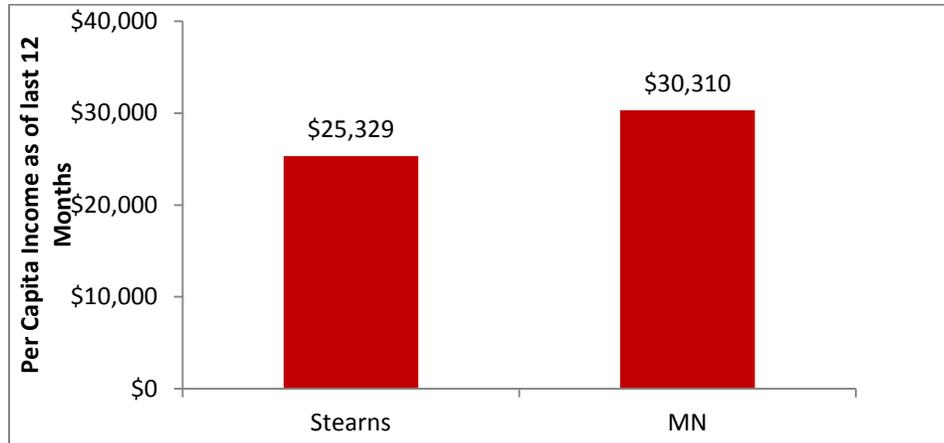
As of June 2013 the reported unemployment rate in Stearns County made by the MN DEED was at 5.1%

## Income and Poverty

### Income

Employment is important, yet income involves more than money earned from a job. It also includes assets (like a bank account or equity in an owned home) and access to a variety of economic resources. Income influences the opportunity people have to choose where to live, to purchase nutritious food, to participate in a wide variety of physical activities, especially those that require fees or special equipment, and to have leisure time. Jobs and job-related income, however, remains a steady marker of one aspect of a household's wealth. Stearns County's large rural landscape is one key factor that brings per capita income across the county approximately \$5,000 lower than the state average. Another major influence is the large student population across the county that sees many of its students age 18-24 either unemployed during their undergraduate career, or working under part-time employment to focus on their academics.

## Average Per capita income in Stearns County and Minnesota: 2007-2011



Source: U.S. Census Bureau, American FactFinder. (2011).<sup>8</sup>

## Poverty

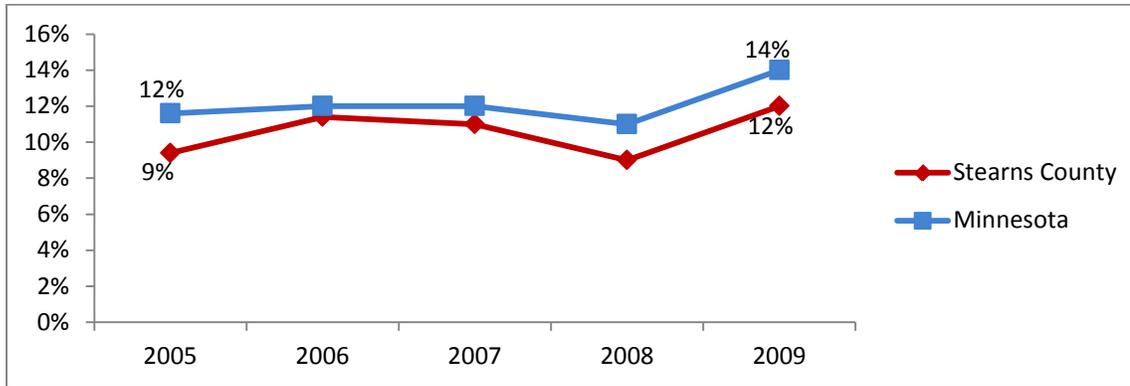
Poverty, often resulting from limited income or a lack of income, is linked to health in many ways. Poverty limits choices: in education, in employment, and in living conditions, among others. Poverty limits access to safe places to live, work, and play, and places to buy healthy food. Poverty can foster obesity by forcing people and families to rely on cheap sources of food, which tend to be plentiful but high in calories and low in nutritional value.

## Children in Poverty

A growing body of research is demonstrating that children who are raised in families experiencing chronic stress created by long-term poverty (<100% of the Federal Poverty Level) are at much greater risk of significant and long-term deficits in health. The percent of people under 18 years of age living in poverty has followed the volatility of the state trends, fluctuating across the five years reported and then ultimately increasing during the year of the financial collapse of 2009 that left many in the nation struggling to maintain income.

While poverty levels for children under 18 years has fluctuated over the past 5 years documented, Stearns County has maintained a level below the rates found across Minnesota, with the most recent finding to be at approximately 12% of youth living in poverty, 2 percentage points below the Minnesota average.

## Percent of People under 18 years living in Poverty



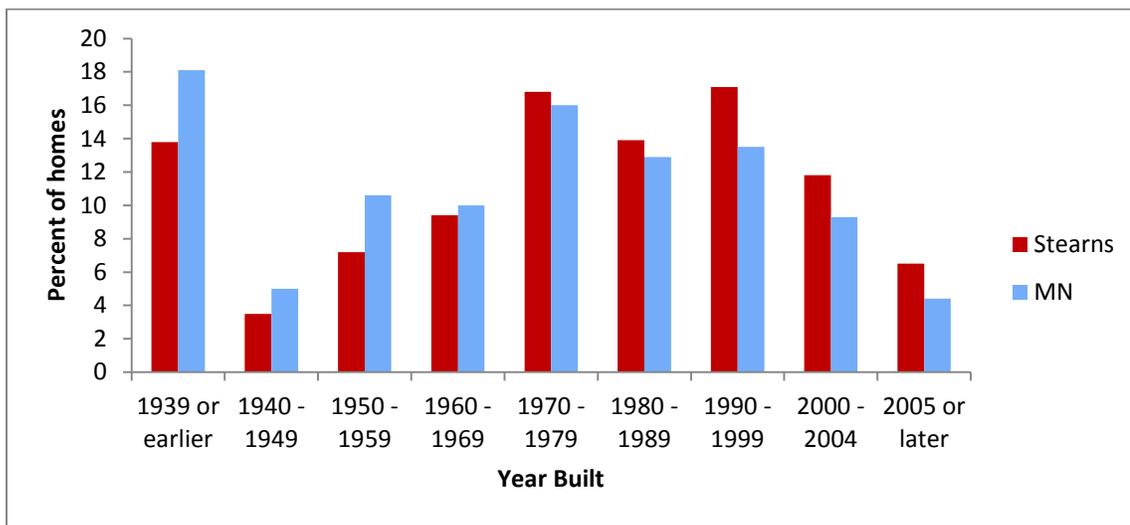
Source: *Vital Statistics Trend Report – MDH, Center for Health Statistics*<sup>9</sup>

## Housing and Home Ownership

As part of the built environment, housing is a key factor for health. Older housing in particular can present multiple threats to health, including lead-based paint, lead solder in plumbing and in the soil, mold, and asbestos. Minnesota’s low-income families can often be found in older homes, as older homes are frequently more affordable.

Home ownership gives the occupants more control over their living environment, and can be a source of financial stability as an asset (home equity) that can be called on in a time of need. Home ownership also confers benefits on the community. Homeowners participate more in the civic and social life of their communities, help prevent and report crime, are more environmentally aware, and are more empowered to address environmental concerns in their homes and neighborhoods. Children benefit from residential stability when living in a permanent home, perform better in school, and have better health outcomes.

### Home ownership in Stearns County Minnesota



Source: *Advameg, Inc. City Data Forum (2010)*<sup>10</sup>

The households built in Stearns County range in age from under a year old, to almost 100 years old. A majority of homes in Stearns County, as well as the state, were built between 1970 and 1999, at almost 50% in that span of time. There is also a historic side of the county that is displayed, through the almost 14% of homes in the county that have been built prior to 1940, with these numbers still less than the state, who hold a number of homes built prior to 1940 of over 18%. In looking at the county and the state as a whole, homes in Stearns County are on average much younger than those of the state.

According to the Minnesota Housing Partnership's annual county reports, in 2014, approximately 72% of households in Stearns County own a home. For white, non-Hispanic households, that ownership rate is 74%, which is a significant difference from the 31% ownership rate for households of color.

## Outdoor and Indoor Environments

Natural and man-made (or built) environments contribute to health in a variety of ways. For example, everyone needs clean water to drink and air that is safe to breathe, but people also need schools, workplaces, and homes that do not expose them to physical or chemical hazards, and places to walk and play outdoors that are clean and free of debris.

In some communities, the built environment can be overtly hazardous, such as living near a toxic waste dump. Because income affects housing choice and more polluted areas are less desirable, families with lower income may have no choice but to live in housing with indoor hazards like foundation cracks allowing radon seepage, lead paint, and asbestos in the building materials. Outdoor hazards affecting health can include dilapidated sidewalks or no sidewalks at all, which is often the case in rural areas, making it difficult and dangerous for residents to walk or children to ride bikes. Many areas do not have ready access to public transportation; air pollution can pose a hazard high near major roadways and thoroughfares; and a lack of parks and playgrounds will prevent children from playing safely and instead encourage sedentary activities indoors.

### Parks and Playgrounds

Living near a park or playground is associated with higher levels of park use and physical activity among a variety of populations, especially youth. Similarly, having more parks and more park area (e.g., acreage) within a community is also associated with higher physical activity levels.

Lower-income populations and some racial and ethnic populations often have limited access to parks and recreational facilities in their neighborhoods, resulting in lower physical activity levels. If parks are not pleasant or if they feel unsafe, neighborhood residents are also less likely to use them.<sup>10</sup>

### Lead, Mold, and Asbestos

Some of the most common hazardous substances in outdoor or indoor environments are lead, asbestos, and mold, as well as less common elements in radiation and carbon monoxide.

## Lead

Minnesotans are exposed to lead in homes and in certain occupations, such as home remodelers, painters, and workers in smelters or battery plants. Lead poisoning can cause learning, behavior and health problems in young children. Lead can cause high blood pressure and kidney damage in adults.

Lead-based paint for household use was phased out of use beginning in the 1950s, and fully banned by 1978. Younger children (those less than six years of age) who spend time in homes with chipping or peeling paint built before 1978 are at the greatest risk of lead poisoning, for several reasons: their bodies absorb lead more easily, their brains are still developing, and they frequently put their hands and other objects into their mouths. As of 2000, approximately 17% of all homes in Stearns County were built before 1940, which is around 3 percentage points lower than the State of Minnesota.

## Mold

Mold is a concern and a health hazard in many Minnesota homes, especially those damaged by flooding, disasters, or disrepair. While most of Stearns County is not near a flood plain, heavy and unexpected snowfall can often lead to flooding in the spring time after the snow has melted. Left unchecked, mold can cause respiratory problems, exacerbate asthma, and damage property.

## Asbestos

Significant exposure to any type of asbestos in the home or workplace can increase the risk of lung cancer, mesothelioma, and nonmalignant lung and pleural disorders, including asbestosis, pleural plaques, pleural thickening, and pleural effusions. Asbestos can be found in older homes and buildings where it was used as insulation and building materials.<sup>11</sup>

## Social Connectedness

People at all stages of life need social connection for optimum health. Those who have strong social connectedness and healthy relationships with family, friends, and neighborhoods, and with their culture and heritage have higher quality lives and contribute to better functioning, more vibrant communities. Healthy social environments promote individual as well as environmental health, as communities come together to protect and enhance the quality of their surroundings. Likewise, a healthy physical environment supports the development of strong social connections.<sup>12</sup>

## Single-Parent Families

As has been the trend for the last ten years, the percentage of births to unmarried women has steadily increased in Stearns County. According to the Minnesota Department of Health, births to unmarried women have increased by one percentage point every year for the last five years, peaking at 31.3% in 2012, which was the last data set available. This statistic is still approximately 2 percentage points lower than the state rates. This is a public issue for the county because of the serious consequences to both children and mothers it carries. Some common links with children who have grown up in single parent households include: experiencing instability in living arrangements, lower educations, engaging in sexual intercourse at a younger age, growing up in poverty, and tend to have lower income employment. For the single parents of these

children, they are more likely to: have more disadvantages than married couples, have lower income, have lower education attainment, have less access to resources, be more dependent on county assistance and an overall exhaustion that is a result of assuming all parenting responsibilities.

## Growing Older

As generations begin to age, the possibility of social connectedness tends to decline. Through the death of partners and disconnect from family members, the number of seniors experiencing loneliness or have thoughts that no one will provide care if they were to become sick or disabled increases greatly. As medicine continues to improve and healthcare for seniors makes even bigger strides, Stearns County's elderly population continues to grow as life expectancy continues to climb.

Stearns County offers nine nursing homes with numerous other options for seniors that need additional care at an older age. It should be noted, none of these nursing homes are within St. Cloud city limits. These establishments give the people who reside there a sense of community that they may otherwise lack should they live on their own. It also gives them access to the care they may require, as well as a staff that will make sure they are not in any danger because of their declining health. Stearns County also offers many other options for senior care including: in-home care, memory care facilities, end of life and hospice care, adult daycare services and assisted living facilities.

Stearns County elderly population has been steadily growing, and that trend does not appear to be slowing down. In a profile of Stearns County published by the Central MN Council on Aging, by 2030, it is estimated that the population of residents who are 65+ will almost double, going from 16,460 up to 31,000 residents. If these projections are accurate, a strong emphasis will need to be placed in the coming years on available care to be ready when the population needs it.

### Elderly Dependency Ratio in Stearns County

Calendar Year	65+ County Population	15-64 County Population	County Dependency Ratio	State Dependency Ratio
2000	14,661	90,835	16.14	18.53
2010	16,460	103,960	15.83	13.37
2030	31,000	113,800	27.24	33.84

*Source: Central MN Council on Aging – Transform 2010 County Profiles – Stearns<sup>11</sup>*

## School Mobility

Through various factors, families must move into a new residence, potentially forcing their children to transfer schools in the middle of the year. According to the Minnesota Student Survey conducted across the state in 2013, 4% of 11<sup>th</sup> grade students in Stearns County reported having

changed schools one or more times since the beginning of the school year. This number is much lower than the 13% of 5<sup>th</sup> graders who reported the same thing. Continuity plays a strong factor in a child's academic success, and when a child has to come into a new school in the middle of the year, they have a much tougher time adjusting to the new schedule. A lapse in lesson plans from school to school and a brand new environment for the child to learn poses many problems that can often be hard to overcome in the first year at a new school.

**Continuity plays a strong factor in a child's academic success.**

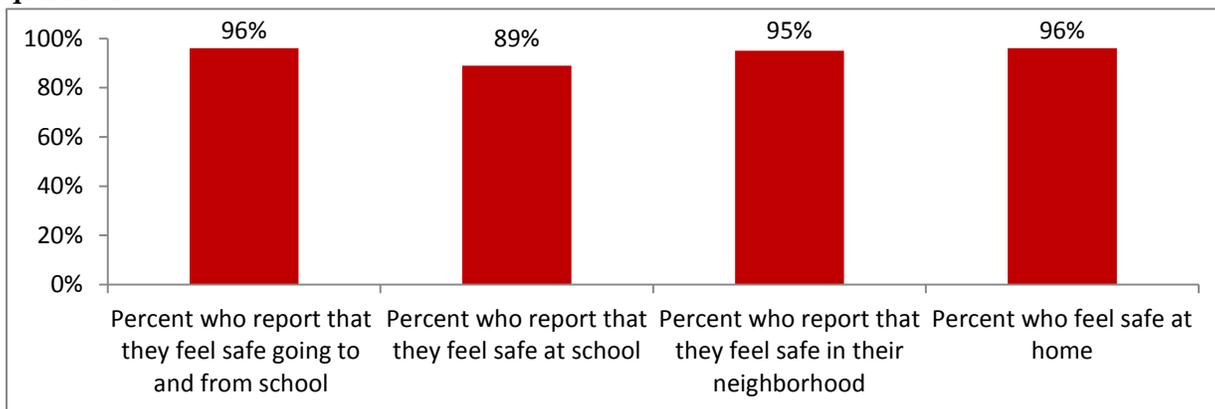
Transferring schools also can have a negative effect on social connectedness. When a student comes into a new school in the middle of the year, it can often be more difficult to make new friends and feel as though they fit compared to a student that starts a new year with the rest of the class. This can lead to the student feeling as though they don't belong and feel disconnected with the rest of their classmates, making it more difficult to want to try new things and engage in social situations.

## Community and Personal Safety

While crime rates across Stearns County are not particularly high, violence and personal safety can still greatly affect a community. When residents don't feel safe in a community, it leads to a strong decline in social connectedness. People will tend to stay inside if they do not feel safe, leading to an inability to connect with their community and their neighbors. In the Minnesota Student Survey, four questions were centered on a student's feeling of safety in and around their school.

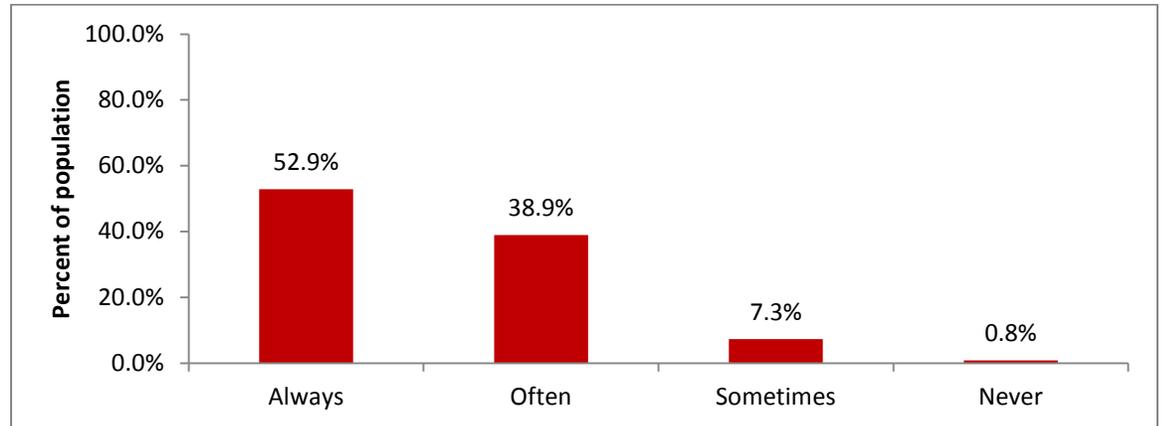
In a survey conducted of students all across Minnesota, responses from students in Stearns County were highlighted and examined. In terms of safety, a very high majority of students either strongly agreed or agreed with a variety of statements about their safety in and around their school, with only their safety at school garnering a positive response rate under 90%.

### Percent of Stearns County 9<sup>th</sup> graders who answered strongly agree or agree to the following questions



Source: Minnesota Student Survey. (2013)<sup>12</sup>

## How often do Stearns County residents feel safe in their community?



Source: Central Minnesota Community Health Survey (February 2013)<sup>13</sup>

## Access to Health Care

A number of the factors that shape the opportunity for health in Stearns County—education, employment, and transportation, for instance—also affect access to health care. In addition, the health care workforce and the ability to acquire health care insurance also have an effect on the ability to receive health care.

### Health Care Workforce

Over one-third of Minnesota’s counties have fewer than eight physicians per 10,000 residents, especially in the most rural areas of the state. Over 25 counties in Minnesota have fewer than four dentists per 10,000 residents.

Stearns County has considerably higher rates than those counties previously mentioned. With the size and scope of health systems in the county such as CentraCare Health, which includes the St. Cloud, Melrose, and Sauk Centre Hospitals as well as CentraCare clinics in the surrounding areas, as of 2011, Stearns County had 33 physicians per 10,000 residents. This allows for more patients to be seen on a timely basis and more specialized physicians to be available.

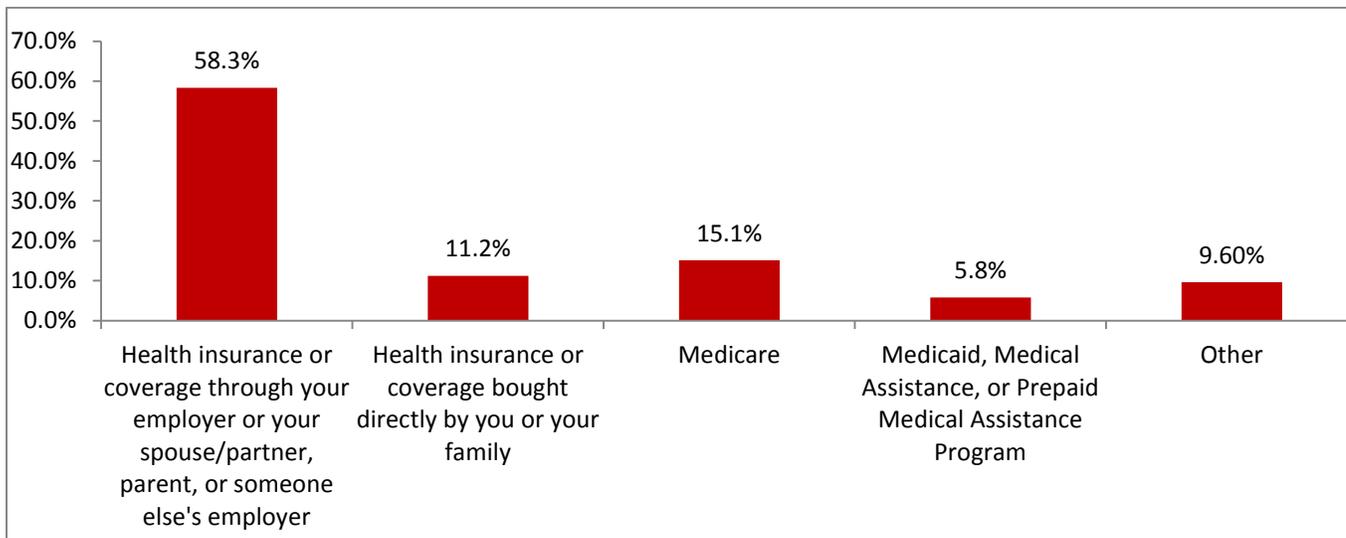
Along with the high number of physicians in the area, Stearns County has approximately 5 dentists employed in the county per 10,000 people, a rate that falls in line with much of the state, with that being said, many of the dentists in Stearns County do not accept new clients who utilize Medical Assistance or Prepaid Medical Assistance Plan policies. As a result, these clients are not able to easily find a dentist and the suggestions from the health plans are to communities such as Maple Grove and Litchfield – 45 to 80 minute drives from their home community.

To make sure that patients get to the proper physicians, Stearns County currently holds 53 EMS agencies, including 6 ambulance, 23 Fire and Rescue and 12 Law centers. These EMS agencies work with the 6 hospitals currently operating in Stearns County to ensure the health and safety of the population of the county.

## Insurance Coverage

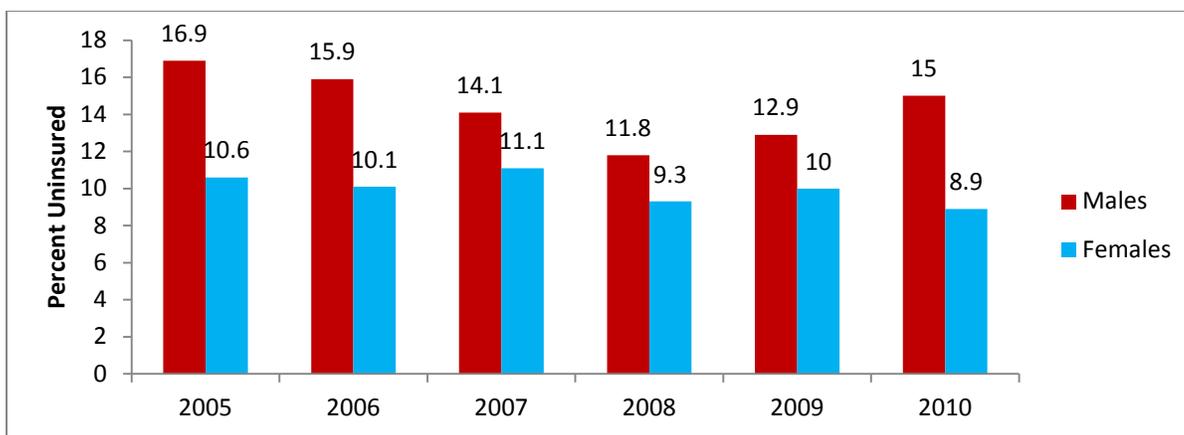
People who are uninsured or underinsured (that is, their insurance does not cover all necessary procedures) receive less medical care than their insured counterparts. When they do receive care, it has often been significantly delayed (often due to concerns about cost), and their condition and final outcome is frequently worse than if they had received care right away. In this way, the lack of health insurance creates a financial risk and a burden when care is received. Hospital-based charity care helps uninsured and underinsured Minnesotans, but does not compensate for gaps in health insurance coverage.

### Health insurance sources in Stearns County: 2013



Source: Central Minnesota Community Health Survey (2013).<sup>13</sup>

### Uninsured rates in Stearns County by gender aged 18-64: 2005-2010



Source: Minnesota Department of Health – Minnesota Public Health Data Access<sup>14</sup>

Over the past 6 years documented by the Minnesota Department of Health, males in Stearns County have had a much higher uninsured rate than females, with the difference being over 6 percentage points between the two in both 2005 and 2010. Uninsured rates declined in a very

promising direction until 2008, but have increased every year after. While uninsured rates among females have actually declined over the past 6 years, they have stayed fairly consistent. This is in contrast to rates males have experienced, fluctuating from 16.9% in 2005, down to 11.8% in 2008, but then climbing back up to 15% by 2010.

## Public Health Infrastructure

Public health departments across Minnesota work together with and within their communities to protect and improve health. Local public health departments and community health boards provide essential public health services for communities of all sizes, including monitoring population health, informing and educating people about health issues, mobilizing community partnerships to address local health problems, developing policies and plans, enforcing regulations, and assuring that people get health care.

Within the last decade, state, local, and tribal health departments have started the process of establishing consistent standards for public health, in order to ensure their capability to effectively carry out their mission. In 2011, the Public Health Accreditation Board released national voluntary public health accreditation standards for state, local, and tribal health departments.

Those departments began applying for accreditation in 2012. Stearns County Community Health Board is one of over three fourths that are taking steps to prepare for accreditation. The state's health department, the Minnesota Department of Health, also prepared to apply for national voluntary public health accreditation, and was approved in 2014

## Emergency Preparedness

Stearns County Human Services Public Health Division collaborates with Stearns County Emergency Management for county wide emergency preparedness. Stearns County has adopted an All-hazard Mitigation Plan which contains three sections: community profile, hazard profile, and mitigation strategies. The mitigation strategies offer ways to overcome or lessen the vulnerabilities identified in the community and hazard profiles.

In the Central Minnesota Community Health Assessment<sup>13</sup>, residents were asked whether or not they had an emergency preparedness plan in place for their household. Only 24% of residents claimed to have one in place. When asked in regards to how much of a problem their county's lack of preparation for disaster, outbreak or terroristic event, only 16.5% of residents felt this was a moderate or serious problem, and almost 35% had no opinion on the matter.

All-hazard mitigation plans are an important part of a county's arsenal in preparing for emergencies. In 2008, 36 percent of Minnesota counties had adopted all-hazard mitigation plans; by February 2011, 92 percent of counties had adopted or approved plans

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# Healthy Living in Stearns County

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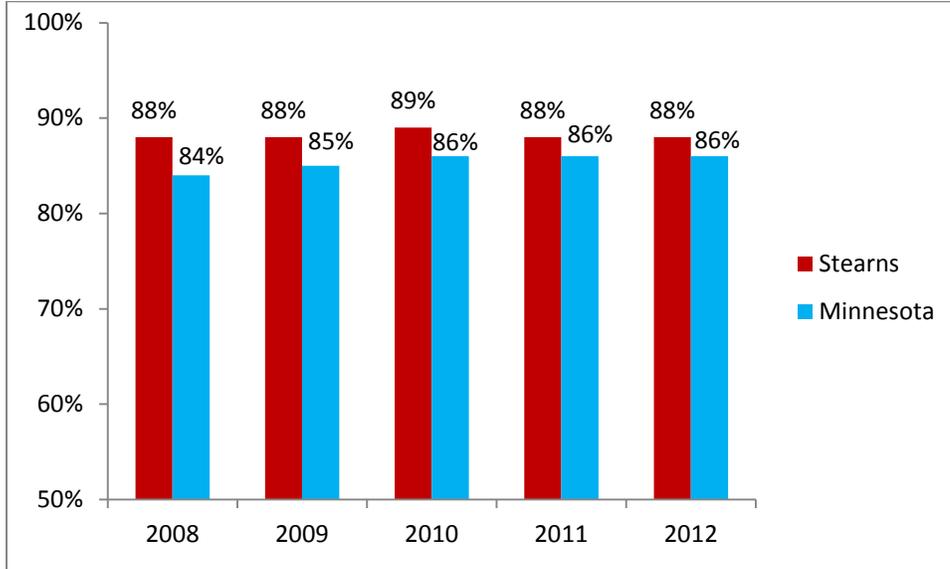
The issues described in this section include not only what are typically considered healthy behaviors for an individual (such as engaging in physical activity, having healthy eating habits, and appropriate use of alcohol, tobacco and prescription drugs), but also ways in which people protect and promote health for others: assuring a healthy start for children; preventing and managing chronic conditions; preventing disease and injury; and promoting mental health.

## A Healthy Start for Children

### Prenatal Care and Healthy Pregnancies

Women who access prenatal care receive some of the most important components of care to assure a healthy pregnancy, and prevent prematurity or low birth weight, both of which are significant contributors to infant mortality and high costs of care. Prenatal care encompasses a multitude of measures, including discussing a mother's healthy choices and body changes; prenatal testing and counseling; treating medical complications like gestational hypertension, diabetes, and anemia; promoting optimal weight gain; testing for sexually transmitted infections; oral health assessment and treatment; and maternal mental health and substance abuse screening.

#### Percent of mothers receiving prenatal care within 1<sup>st</sup> Trimester of Pregnancy



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2011).<sup>15</sup>

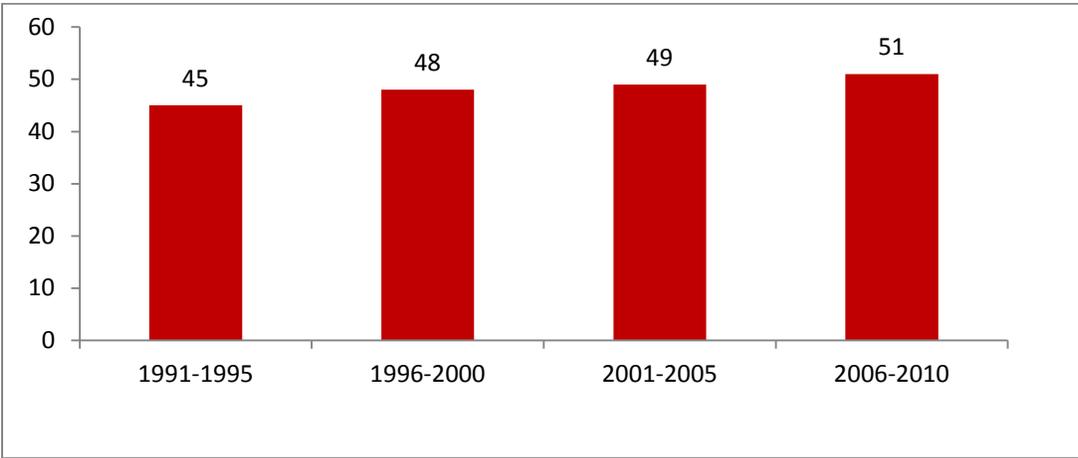
While percentages of mothers receiving prenatal care in Stearns County has fluctuated over the five years documented, it is worth noting that when compared to the state percentages, Stearns County was consistently higher than the state by up to 4 percentage points.

Another factor in a child's ability to achieve a healthy lifestyle as they are growing up is their home environment and the availability of healthy, nutritional meals. Among children participating in the Minnesota WIC program, the prevalence of obesity amongst the children in homes that participate in this program is higher than expected. In 2010, among children enrolled in WIC, 12% of them were considered to be obese, having a Body Mass Index (BMI) above the acceptable levels for good health.

Minnesota consistently ranks among the states with the lowest infant mortality rates. In fact, infant mortality rates have declined for all racial and ethnic populations in Minnesota over the last 20 years. Nonetheless, significant disparities persist in the mortality rates of African-American and American Indians infants, compared to all other population groups.

The causes of infant mortality vary by population: sleep-related causes, such as SIDS (sudden infant death syndrome), are a primary source of infant deaths in the American Indian community, while prematurity is the leading cause of death among African-Americans. Birth defects are the main source of infant deaths in the Asian, Hispanic, and white populations. Chronic stress, poverty, substance abuse, a lack of prenatal care, and lack of access to health care all contribute to infant mortality.

**Infant deaths in Stearns County for children born from 1991 to 2010**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2011).<sup>16</sup>

## Smoking and Alcohol Use during Pregnancy

While it is under complete control of the mother carrying the child, smoking during pregnancy is the most preventable cause of infant illness and death. An increased risk of stillbirth, low birth weight, sudden infant death syndrome, preterm birth and respiratory problems are just a few of the diagnoses that are a product of mothers smoking during pregnancy. Children exposed to tobacco use in utero are also twice as likely to become smokers as

they grow older compared to children who weren't. The rates of births to mothers reporting smoking during pregnancy has remained almost constant over the past 5 years of available data. Continued research and distribution of findings should hopefully continue to lower this rate as more pregnant mothers better understand the risk of this behavior.

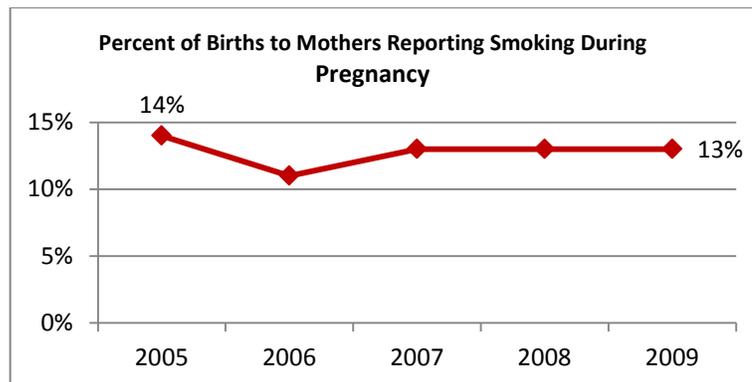
Rates of smoking during pregnancy are significantly higher in some populations, however, such as among American Indian women, younger women (under 25), women with a high school education or less, and women who are poor or unmarried.

Rates of alcohol use vary widely by race, income, and education. In 2008, white mothers, mothers with more than a high school education, and mothers with more than \$50,000 annual income were two and three times more likely to have had alcoholic drinks during the three months before pregnancy than Hispanic mothers, mothers with less than 12 years of education, and mothers with less than \$10,000 annual income.

## Childhood and Youth Experience

It is impossible to overestimate the importance of childhood<sup>†</sup> health on the rest of an individual's life. The importance of childhood experience for health cannot be overestimated. Positive experiences in childhood (such as breastfeeding, for example) have important implications for lifelong health, as do negative experiences. The number of adverse childhood experiences an individual has increases his or her risk for alcoholism, depression, heart disease, liver disease, intimate partner violence, sexually transmitted infection, smoking, and suicide. These adverse events include emotional, physical, and sexual abuse and neglect, and various types of household dysfunctions (such as violence against mothers, substance abuse, mental illness, parental separation or divorce, or an incarcerated household member).<sup>14</sup>

### Smoking during pregnancy in Stearns County: 2005-2009



Source: Minnesota Department of Human Services – Substance Use in Minnesota Data.<sup>17</sup>

<sup>†</sup> For the purpose of this assessment, “child” refers to individuals between 0 and 18 years old.

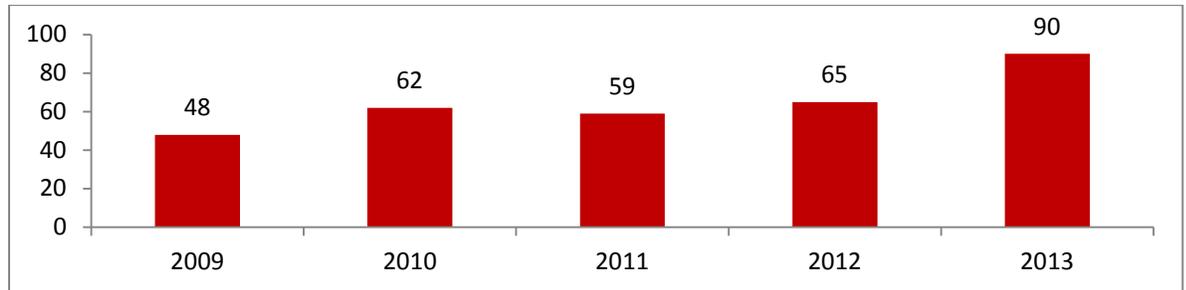
## Violence against Children and Teens

### Child Abuse

In 2009, nearly five thousand Minnesota children were abused or neglected. Of those, 44 children suffered life-threatening injuries and 21 died from maltreatment. The median age of abuse victims was six years old. Three-fourths of all alleged abusers are the victims' birth parents. Some children were victims of more than one offender, and some suffered more than one form of abuse and neglect.

At least 1/5<sup>th</sup> of students in Stearns county reported some form of physical abuse since 1998

#### Number of Child Maltreatment Determinations made by Stearns County 2009-2013



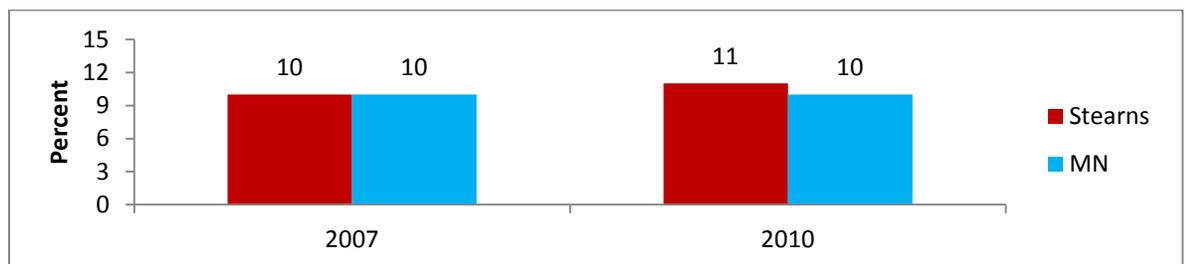
Source: Stearns County Human Services Internal Report (2014)<sup>18</sup>

Children who have been physically or sexually abused are much more likely to engage in destructive behavior, such as substance use, fighting, and early sexual activity in adolescence. Research also links abuse during childhood to health risks that may emerge later, such as obesity, chronic pain and heart disease.<sup>15</sup>

### Sexual and Relationship Violence

Ten percent of ninth-graders and 15 percent of 12<sup>th</sup>-graders in Minnesota report experiencing some form of date violence. The highest rates were reported by American Indian and Hispanic students. Nearly one-fourth of American Indian 12<sup>th</sup>-graders reported physical or sexual violence by someone they were dating.

#### Stearns County 9<sup>th</sup> graders who report that someone they were going out with has ever hit, hurt, threatened or forced them to have sex. 2007-2010



Source: Minnesota Student Survey. (2011).<sup>19</sup>

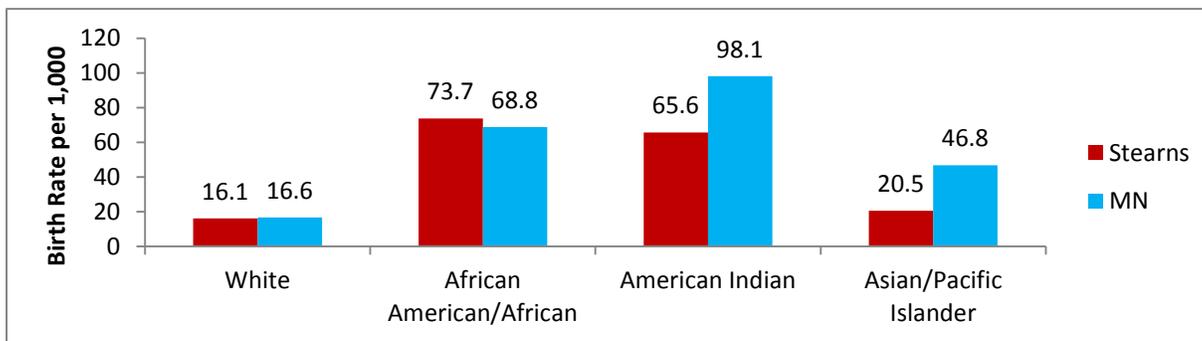
## Teen Parenting

While many of the teen birth rates fall in line with the rest of the state, there are a few significant differences. Teen parents and their children face a number of unique challenges. Girls who become parents are less likely to graduate from high school, and are more likely to remain unmarried, live in poverty, have large families, and receive government assistance than women who become parents after adolescence. Teen mothers are also less likely to receive timely and consistent prenatal care.<sup>16</sup>

Children of teen parents are more likely to be born at a low weight, perform poorly on cognitive and behavioral tests, be reported as abused or neglected, and be placed in foster care. They tend to perform more poorly in school than children of older parents. Daughters of teen parents have an increased risk of becoming teen parents themselves, and sons of teen parents are more likely to become incarcerated.<sup>17</sup>

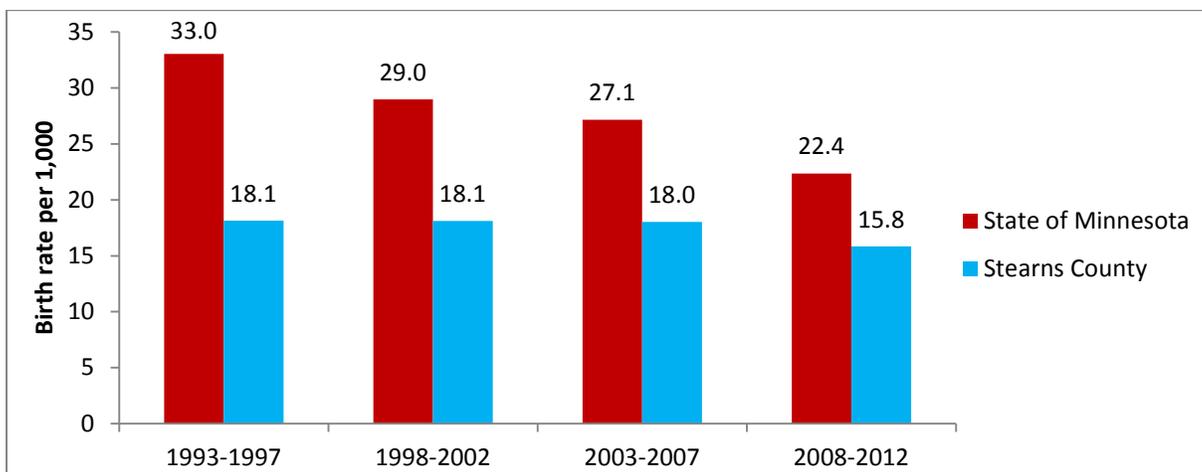
**The teen birth rate in Minnesota remains highest among American Indian and Hispanic teens.**

### Birth rate per 1,000 females age 15-19: 2010



Source: Minnesota Department of Health, Center for Health Statistics. (2011)<sup>20</sup>

### Teen Birth Rate per 1,000 15-19 year old females 1993-2012



Source: Minnesota Center for Health Statistics, Vital Statistics Report 2013<sup>21</sup>

## Physical Activity and Eating Habits

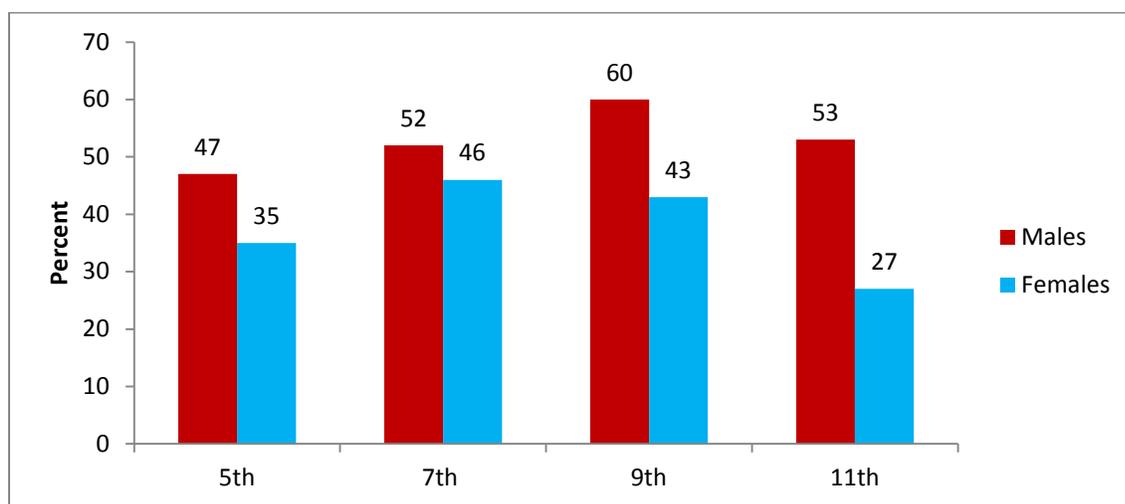
### Physical Activity

**About half of Stearns County 9<sup>th</sup> graders reported being moderately physically active at least five days per week.**

Regular physical activity helps improve overall health and wellness, reduces risk for obesity, and lessens the likelihood of developing many chronic diseases like cancer and heart disease.<sup>‡</sup> The national physical activity guidelines recommend that children engage in at least 60 minutes of physical activity each day, including aerobic, muscle strengthening, and bone strengthening activity. Adults need at least two hours of moderate to vigorous-level activity every week, and muscle-strengthening activities on two or more days a week.<sup>18</sup>

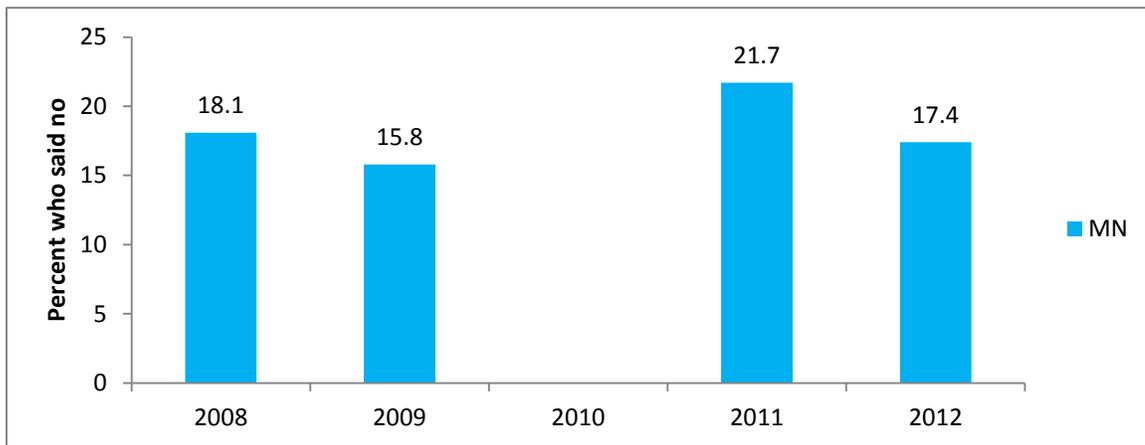
The Minnesota Student Survey asked students in all grades who participated to report on how many days they were physically active for at *least* 60 minutes per day. The graph below shows the percent of students, separated by gender, who reported that they got at least 60 minutes on five or more days in the previous week. The largest difference between male and female students was among 11<sup>th</sup> graders. Here we see a 26 percentage point difference between genders.

**Stearns County physical activity of 5<sup>th</sup> – 11<sup>th</sup> graders\* in 2013**



\* Percent of students who were physically active for 60 minutes or more at least five of the last seven days  
Source: Minnesota Student Survey. (2013)<sup>22</sup>.

**Percent of Adults in Minnesota reporting that they had NO moderate physical activity in five of the last seven days**



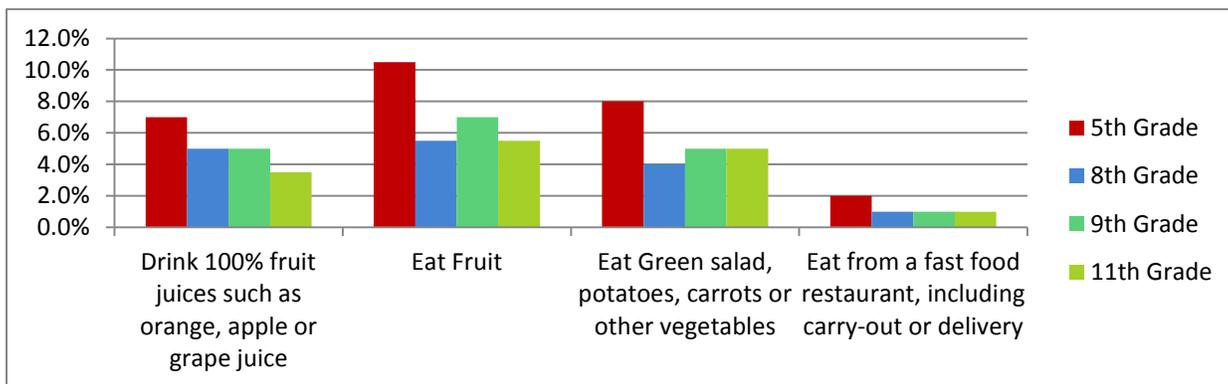
*\* Moderate physical activity defined as 30+ minutes of moderate physical activity (or 20+ minutes of vigorous physical activity) five or more days per week  
Source: Minnesota County Health Tables (2013)<sup>23</sup>*

As recently as 2012, almost one in six adults surveyed reported that they participated in no moderate physical activity in five of the last seven days across the state. Other than a spike in 2011 and data presently unavailable for 2010, this falls in line with the rates around Minnesota for the last few years.

**Eating Habits**

Food has a direct effect on a person’s health, growth, and feeling of well-being. Eating a balanced diet is essential: different nutrients play different roles, so it is important for people to eat a variety of foods, particularly fruits and vegetables. Despite this need, about three-fourths of Minnesotans do not eat the recommended amounts of fruits and vegetables.

**Percent of 9<sup>th</sup> graders who ate 4 or more servings of the following yesterday**



*\*No data available for Stearns County in 1998 or 2001 Source: Minnesota Student Survey. (2013)<sup>24</sup>*

Poor eating habits at every age, especially those that result in too many calories, too much saturated fat and sodium, and too few nutrients (e.g., sugary drinks and a lack of whole grains) increase the risk for disease and disability. The consequences of poor nutrition include obesity, diabetes, heart disease, stroke, tooth decay, and some cancers.

## Use of Alcohol, Tobacco, and Prescription Drugs

Alcohol can be consumed appropriately and responsibly, as can prescription medications. Problems occur when these substances are over-consumed, used inappropriately, or combined with other substances or with risky activities (like driving while impaired or engaging in unsafe sexual activity).

Smoking cigarettes and using other tobacco products can lead to nicotine addiction and multiple health risks, including cancer. The occasional use of tobacco, however, in the context of a cultural celebration (e.g., the use of a pipe in some American Indian ceremonies) does not necessarily carry these risks.

### Alcohol Use and Binge Drinking

Alcohol is consumed by more people than any other drug, including tobacco. Alcohol use contributes to injury, unplanned pregnancy, poor birth outcomes and childhood development, violence, infectious disease, and chronic disease.

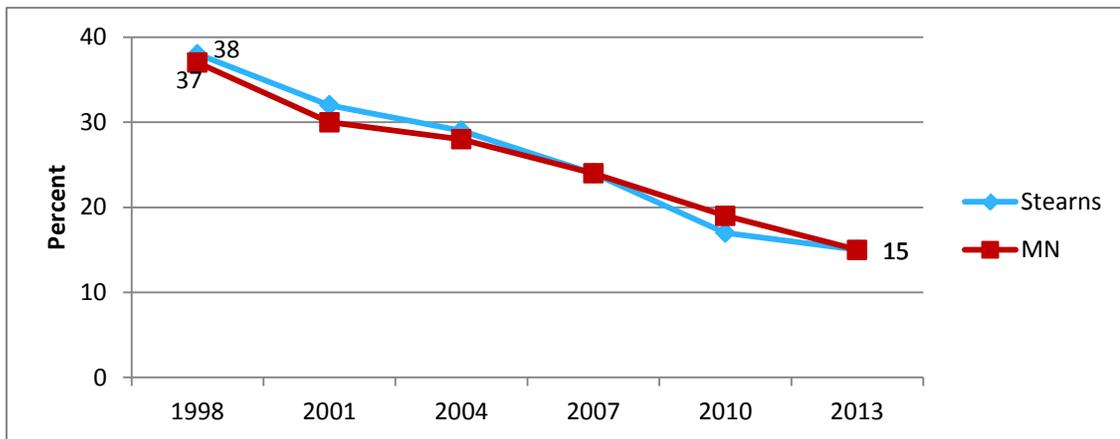
The younger a person begins drinking regularly, the greater the chance that person will develop a clinically defined alcohol disorder like alcoholism. Youth who start drinking before age 15, compared to those who start at 21, are far more likely to be injured while under the influence of alcohol, to be in a motor vehicle crash after drinking, or to become involved in a physical fight after drinking.<sup>19</sup>

Binge drinking, in which a person consumes a great deal of alcohol in a short period of time, is associated with the same serious health problems as other forms of alcohol abuse. (Binge drinking can be defined as five or more drinks at one time for men, and four or more drinks at one time for women.)

Binge drinkers are 14 times more likely to report engaging in alcohol-impaired driving than non-binge drinkers. When looking at the difference between rural and urban areas of Stearns County, we see a slight difference between the percentages of the population that binge drink. Approximately 29% of the population in the St. Cloud metro area claim to be binge drinkers based on their reported habits as opposed to the 33% of rural residents who reported the same behavior. About 90 percent of the alcohol consumed by those under 21 occurs via binge drinking.<sup>20</sup>

Binge drinking is a particular public health concern in Minnesota, and is a major reason for Minnesota's drop in the United Health Foundation's *America's Health Rankings*.<sup>21</sup> Minnesota's rate of binge drinking is higher than in most of the rest of the U.S., although it remains lower than the rates in the surrounding states of South Dakota, North Dakota, and Wisconsin. Binge drinking in Minnesota continues to be more prevalent in men than women.

## Percent of 9<sup>th</sup> Graders who reported using alcohol on one or more days in the last 30 days: 1998-2010



Source: Minnesota Student Survey. (2013)<sup>25</sup>

Youth in Stearns County is showing a very positive trend in terms of underage alcohol consumption. With increasing amounts of information and programs to keep youth from consumption of alcohol, the percent of 9<sup>th</sup> grade students who reported using alcohol within the last 30 days have dropped to under half of what it was in 1999. This is a very positive trend, leading towards eliminating underage drinking in the county and the state as much as possible.

## Tobacco Use and Exposure to Secondhand Smoke

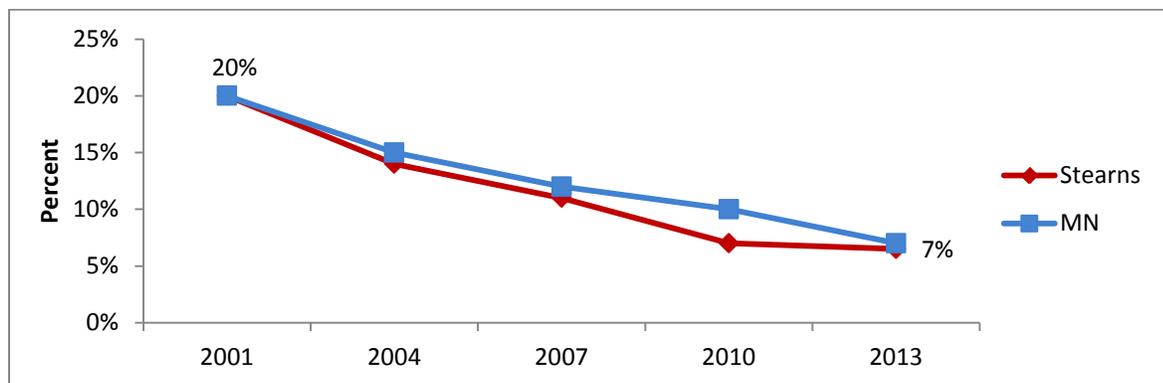
Fewer Minnesotans smoke now than in recent history, and the remaining smokers consume fewer cigarettes per day. The proportion of adult heavy smokers in Minnesota (who consume 25 or more cigarettes per day) has shrunk from about 10 percent in 2007 to just over 6 percent in 2010.<sup>22</sup> Stearns County has also seen a decline in adult smokers. In 2013 a community health survey found that approximately 9% of Stearns County residents were active smokers.

### Current Minnesota smokers: 2005-2012



Source: Minnesota County Health Tables. (2012)<sup>26</sup> (Data unavailable for 2010)

### Percent of 9<sup>th</sup> graders who smoked cigarettes on one or more days in the last 30 day 2001-2010



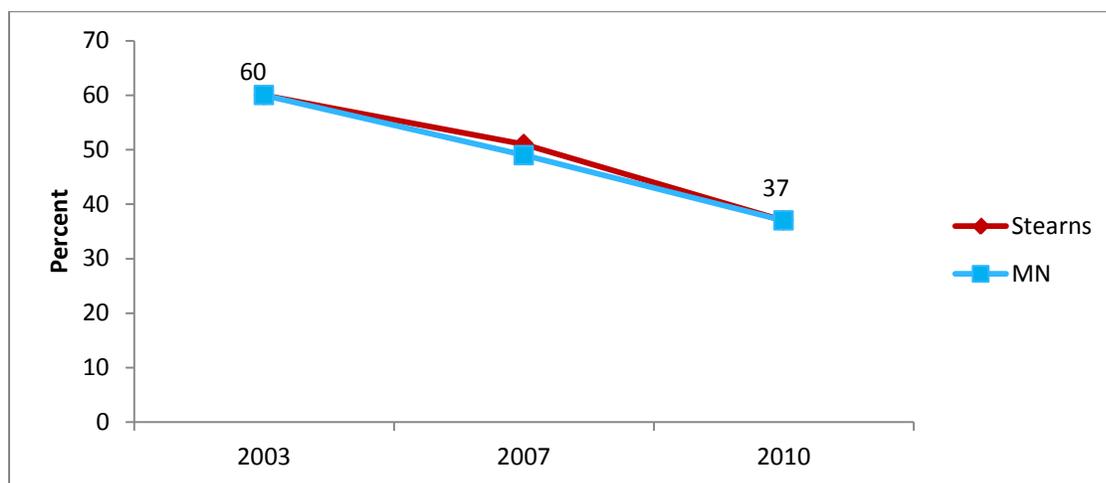
Source: Minnesota Student Survey. (2013)<sup>27</sup>

Secondhand smoke is a mixture of the smoke given off by the burning end of a cigarette, pipe, or cigar, and the smoke exhaled by smokers. Even brief exposure to secondhand smoke puts nonsmokers' health at risk, because of the thousands of chemicals being released into the air.<sup>23</sup>

With the implementation of the Freedom to Breathe Act in 2007, Stearns County residents, as well as all Minnesotans, have been able to enjoy smoke free, public settings where they are able to remove themselves and their children from the harmful effects of secondhand smoke. Because of this act, a smaller proportion of Stearns County adults report being exposed to secondhand smoke in 2010 than in 2003.

### Percent of adults who was exposed to second-hand smoke in the past week in any location 2003-2010

A smaller proportion of Stearns County adults report being exposed to secondhand smoke in 2010 than in 2003.

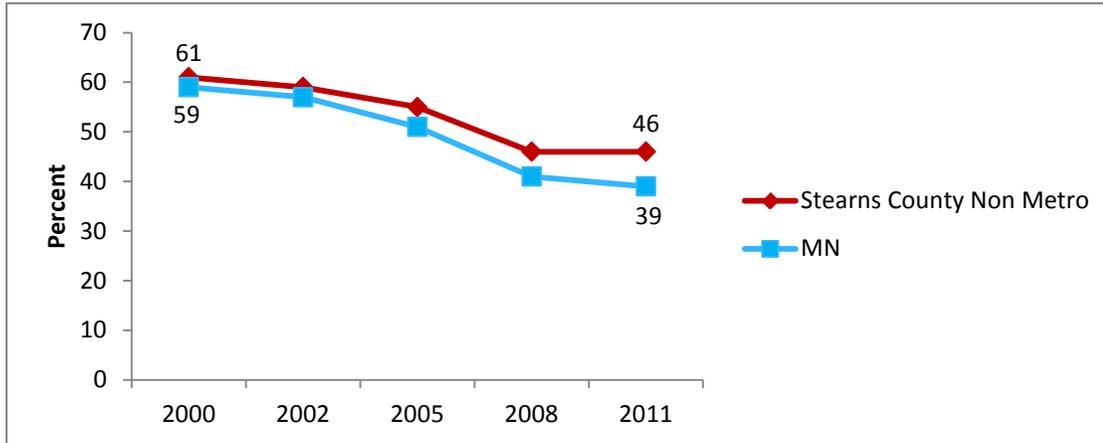


Source: Minnesota Public Health Data Access – ETS Exposure Data-Adult (2010)<sup>28</sup>

Secondhand smoke exposure among nonsmoking adults has steadily decreased over time since 2003. The percentage of adults who have been exposed to second-hand smoke in the past week in any location has dropped by over 20 percentage points, from 60% down to 37% in 2010.

Secondhand smoke exposure from 2000 to 2011 also declined among youth in middle and high school, although nonsmoking youth in high school (grades 9-12) are more likely to be exposed to secondhand smoke than nonsmoking youth in middle school.

### Minnesota students and secondhand smoke: 2000-2011



Source: Minnesota Public Health Data Access – ETS Exposure Data Youth<sup>29</sup>

Trends over the last 12 years both in Stearns County, as well as the state of Minnesota, have been very positive. According to the Minnesota Student Survey from 1998, 28% of 9<sup>th</sup> graders in the county reported smoking cigarettes within the last 30 days, since then, that number has gone down by 75% and as of 2010 only 7% of Stearns County 9<sup>th</sup> graders reported as to having smoked within the last thirty days.

Another question in the Minnesota Student Survey, asked about the use of smokeless tobacco products including chewing tobacco or snuff, a very small percentage of 9<sup>th</sup> grade students in Stearns County (4%) reported using the products, which is below the state numbers (5%).

### Prescription Drug Use

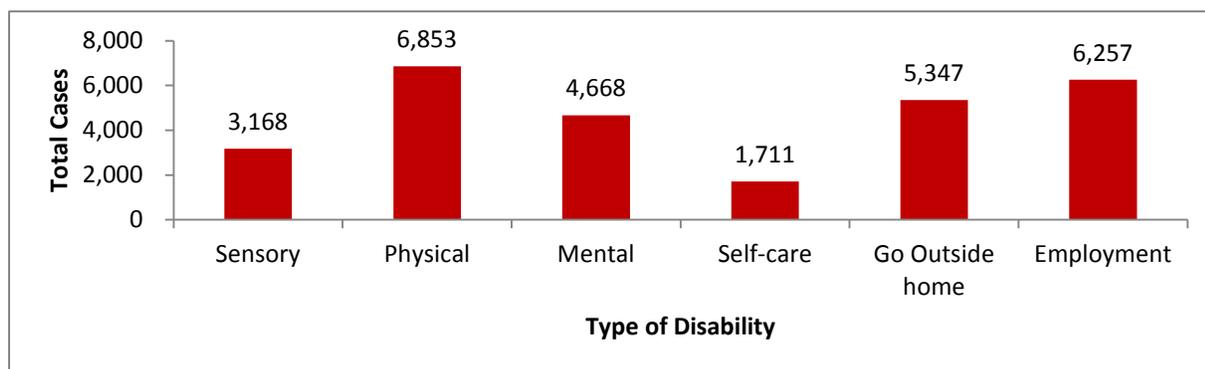
Public health officials in Minnesota and nationwide are growing increasingly concerned about rising rates of improper prescription drug use, and the consequent rise in deaths from accidental overdose of prescription drugs and painkillers. Two million people nationwide reported using prescription painkillers in 2010 non-medically for the first time, and data on injury death<sup>8</sup> show a marked increase in poisoning deaths attributable to the rise in prescription drug abuse.<sup>24</sup>

## Preventing and Managing Chronic Conditions

### Living with a Disability

Disability can encompass a wide range of factors, including those that involve vision, hearing, movement, ambulation (or the ability to walk), and cognition. This inherent diversity makes estimates of the prevalence of disability in Minnesota vary widely, as organizations count some sorts of disability but not others. According to the U.S. Census Bureau American Community Survey, \*\* nearly 10 percent of the state’s population—or almost 514,000 Minnesotans—live with one or more disabilities.<sup>25</sup>

#### Disabilities in Stearns County by type: 2010



Source: U.S. Census Bureau. (2011).<sup>30</sup>

It is important to note that disability is not automatically an indicator of poor health. However, individuals with disabilities sometimes find it more challenging to become and remain healthy, due to barriers in their physical and social environments. A disability can also lead to social isolation, which can have a negative impact on mental and physical health. Finally, individuals with disabilities are at a much greater risk for abuse, both in the home and in short- and long-term care settings. These challenges make it evident that all Minnesotans, regardless of ability or disability, need to live in conditions that support a healthy life.

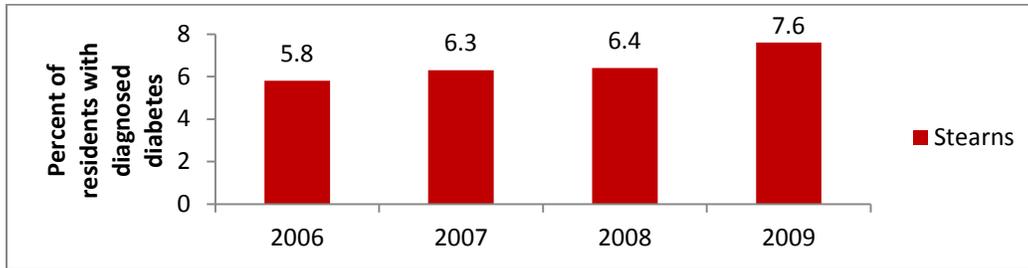
### Preventing Diabetes

Over the last 4 years of recorded data for diabetes in Stearns County, the percent of the population with diagnosed diabetes has slowly increased. This mirrors the trend of obesity and elevated BMI’s that have taken over the county as well as the state. There have been many links with obesity and an increased risk of diabetes forming.

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\*\* The American Community Survey (ACS) defines disability as a restriction in participation that results from a lack of fit between the individual’s functional limitations and the characteristics of the physical and social environment. The ACS specifically identifies difficulties in four basic areas of functioning: vision, hearing, ambulation, and cognition.

## Diabetes Prevalence 2006-2009



Source: Centers for Disease Control and Prevention<sup>31</sup>

A variety of activities can help prevent the development of diabetes, and delay the onset of diabetes for those who are pre-diabetic. Oral medications for those with pre-diabetes can also help, but medications are neither as effective nor as safe as being active, making healthy eating choices, and achieving moderate weight loss. Among Minnesotans with pre-diabetes, over three-fourths are overweight or obese.

## Preventing Disease and Injury

### Immunizations

Immunizing individuals, especially children, helps protect the health of the entire community. Immunization is especially important in protecting those who cannot be immunized, such as children too young to be vaccinated, children and adults who cannot be vaccinated for medical reasons, and those who cannot make an adequate response to vaccination. It also protects those who have received a vaccine, but who have not developed immunity to the disease.

Immunization also slows and halts disease outbreaks, and lessens the exposure of children and adults to disease germs passed by the unvaccinated. In about half of Minnesota counties, less than 60 percent of children are up-to-date on immunizations; in the majority of Minnesota counties, less than 90 percent of children are up-to-date.<sup>††</sup> Statewide, about 58 percent of children have received the entire recommended series of vaccines. Stearns County level data is presently unavailable.<sup>‡‡ 26</sup>

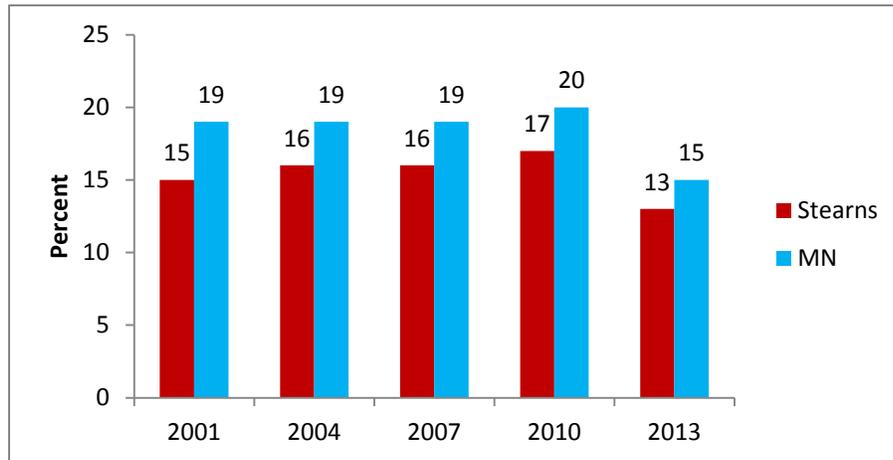
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<sup>††</sup> Childhood immunization rates are measured annually through the Minnesota Immunization Information Connection (MIIC) immunization registry. At least 80 percent of providers participate in MIIC in most counties.

<sup>‡‡</sup> Series of recommended vaccines for children between 24 and 35 months old: 4+ DTaP (Diphtheria, tetanus and acellular pertussis), 3+ polio, 1+ MMR (Measles, mumps and rubella), Completed Hib (Haemophilus influenzae type b), 3+ Hep B (Hepatitis B), 1+ varicella (chickenpox), Completed Prevnar (Pneumococcal conjugate vaccine by brand name).

## Preventing Sexually Transmitted Infections

### Percent of 9<sup>th</sup> graders who have ever had sexual intercourse: 1998-2010



Source: Minnesota Student Survey. (2013)<sup>32</sup>

**The proportion of ninth-graders reporting engaging in sexual activity in Stearns County has remained consistent for over a decade**

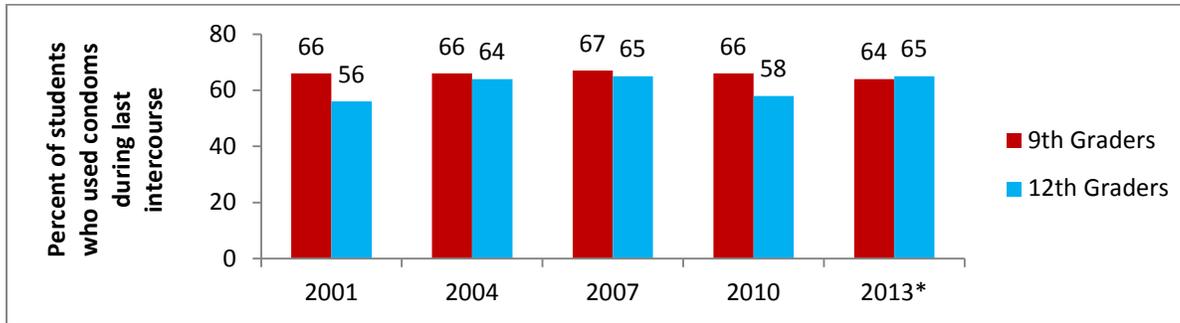
#### Delay of Sexual Activity

The most effective way to avoid transmission of STI's, as well as unplanned pregnancy is to teach the youth of the county to practice abstinence with their partner. While other forms of protection are effective, none have been proven to be 100% effective. In the Minnesota Student Survey, 13% of 9<sup>th</sup> graders in Stearns County reported having sexual intercourse at least once in their lives. The proportion of 9<sup>th</sup> graders reporting engaging in sexual activity in Stearns County has remained consistent for over a decade, while falling below the state averages over that time span.

#### Condom Use

Consistent condom use is also an effective way to prevent STIs, and failure to use condoms consistently makes sexually active youth much more vulnerable to STIs as well as the potential for unwanted pregnancy. Among sexually active ninth-graders, consistently over the past 15 years, roughly two-thirds of Stearns County 9<sup>th</sup> graders used condoms during the last time they had intercourse. This has been on average, lower than the almost 70% average of the state. As students age, by the time they reach 11<sup>th</sup> grade, Stearns County students who were using condoms during intercourse fell by almost 10 percentage points through most of the last decade.

## Stearns County 9<sup>th</sup> and 12<sup>th</sup> graders and birth control



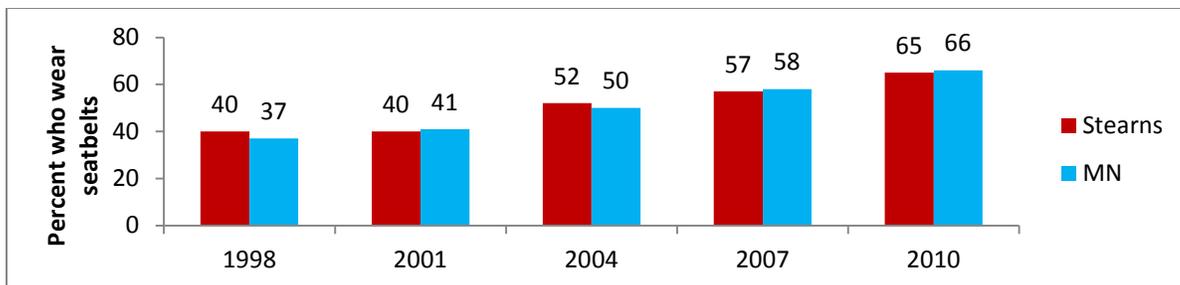
Source: Minnesota Student Survey. (2013)<sup>33</sup> \*In 2013, survey was given to 11<sup>th</sup> graders

## Safety Belts and Booster Seats

Safety belts and booster seats are highly effective in reducing injury and death from motor vehicle crashes. Minnesota reached a statewide seatbelt use rate of 93 percent in 2011, the highest in the state's history. According to 2013 survey data, 95 percent of Stearns County residents reported consistently wearing their seatbelts when they drive or ride in a car or other vehicle. Rates of use had been steadily increasing since 2003, and increased even more with passage of the state's Primary Seat Belt Law in 2009. The lowest rates of safety belt use can be found among young people, particularly males driving pickup trucks.

**Stearns County residents' use of safety belts has steadily increased since 2001.**

### Percent of 9<sup>th</sup> graders who reported always wearing a seatbelt when riding in a car 1998-2010



Source: Minnesota Student Survey. (2011)<sup>34</sup>

## Promoting Mental Health

When a person experiences mental or emotional health issues, it can affect his or her everyday functioning. Mental and emotional health struggles can place significant strains on relationships, affect the ability to work, and lead to self-harm. Depression and anxiety can affect a person's ability to participate in health-promoting activities, such as physical activity, and can also disrupt connections to helpful social supports.

Physical or medical conditions can also lead to mental health struggles. Physical pain and depression are strongly associated: More than 65 percent of adults with a mental disorder

reported also having at least one general medical disorder. The connections between mental and physical health are complex and move in both directions. Socioeconomic factors, such as low income and poor educational attainment, are associated with both mental disorders and medical conditions.<sup>27</sup>

When adolescents experience emotional distress, it can affect their ability to develop, to learn, and to make sound decisions about their behavior. This distress can also lead to immediate physical dangers in adolescents, like cutting and other forms of self-harm, as well as suicide and attempts at suicide. Minnesota’s American Indian and Hispanic students report experiencing higher levels of stress than their peers, and female students report higher rates of emotional stress than males across all races and ethnic groups.

Protective factors like the involvement of caring friends and adults moderate the effects of negative life experiences, and improve the opportunity for positive health outcomes and overall well-being in adolescents.<sup>28</sup> Even one caring adult can make a significant difference in the emotional health of an adolescent.

One factor that research has been shown to affect a young person’s mental health focuses around the amount of trauma they experience in their life. Using what is called an ACES score, with a seven point scale, they can determine the number of traumatic events they have witnessed or dealt with in their life. These instances include events such as their parents or guardians being in jail or prison, drug abuse, alcohol abuse, verbal abuse or physical abuse by someone they live with, witnessing domestic violence or experiencing sexual abuse. These events can trigger feelings of fear, terror, helplessness, hopelessness or a combination of them all. It has been found that high stress levels can interrupt brain and nervous system development, as well as develop unhealthy outlets for their stress either internally or externally. The results of this study can be found on the Minnesota Department of Health’s BRFSS site with more in-depth details on things such as thoughts of suicide, drug and alcohol use, and sexual behaviors and the adverse effect trauma can have on them.

**Stearns County 9<sup>th</sup> graders who feel that people care about them “very much” or “quite a bit”**

“How much do you feel _____ cares about you?”	2001	2004	2007	2010	2013
Other adult relatives	80%	78%	85%	85%	83%
Teachers/other adults	30%	35%	41%	42%	41%
Religious or spiritual leaders	44%	43%	49%	49%	N/A
Other adults in the community	27%	29%	39%	40%	38%
Friends	73%	71%	76%	74%	76%

*Source: Minnesota Student Survey (2011)<sup>35</sup>*

When looking at the numbers, 9<sup>th</sup> graders overall feeling that people care about them “very much” or “quite a bit”, trends have been increasing at least 3 percentage points in every question, and as high as 11. The only group that saw a slight variation from year to year was “Friends”, which has fluctuated since 1998.

# Stearns Community Health Assessment

## Part 2: Disease and Injury

### Leading Causes of Death in Stearns County

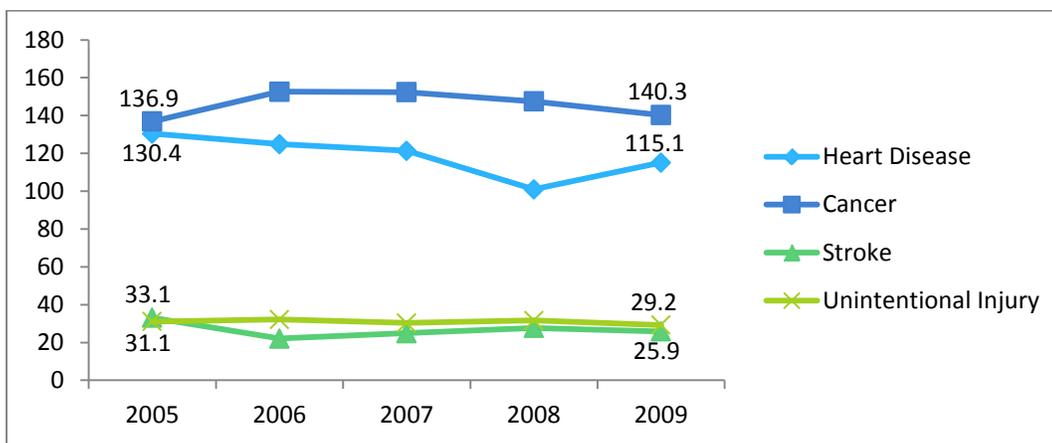
Cancer, heart disease, and stroke are the leading causes of death in Minnesota, although the mortality rate for all three diseases has declined over the past ten years. These three diseases have been the leading causes of death in Minnesota for decades; in 2000, cancer eclipsed heart disease as the leading cause of death in Minnesota.<sup>29</sup> As we can see in the table and chart below, Stearns County follows the same rankings of these top two causes as the rest of the state. In 2010, chronic lower respiratory disease surpassed unintentional injury as the fourth highest cause of death in Stearns County. Unintentional Injury caused 42 deaths in 2010.

#### Leading causes of death in Stearns County: 2010

Cause of Death	Count
Cancer	241
Heart Disease	174
Stroke	49
Chronic Lower Respiratory Disease	46

\* Rate per 100,000. Source: Minnesota Department of Health, Center for Health Statistics. (2012)<sup>36</sup>

#### Leading causes of death in Stearns County by adjusted age rate: 2005-2009



*Rate per 100,000. Source: Minnesota Department of Health, Center for Health Statistics. (2012)*<sup>37</sup>

While Cancer remains the leading cause of death in Stearns County over the last 5 years documented, it has grown to hold an even higher space between its rate per 100,000 people and Heart Disease, a slight change has occurred between the next two highest categories. In 2005, Stroke was the third most leading cause of death, coming in at 33.1 deaths per 100,000, but is now below the rate of Unintentional Injury, and in 2009 had dropped almost 7 deaths per 100,000 in that time.

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## Chronic Diseases and Conditions

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Chronic diseases and chronic conditions persist over a long period of time, from months to years. Chronic diseases are among the leading causes of death and years of potential life lost in Minnesota. Chronic disease and conditions also contribute significantly to long-term disability and poor quality of life.<sup>30</sup>

### Alzheimer's Disease

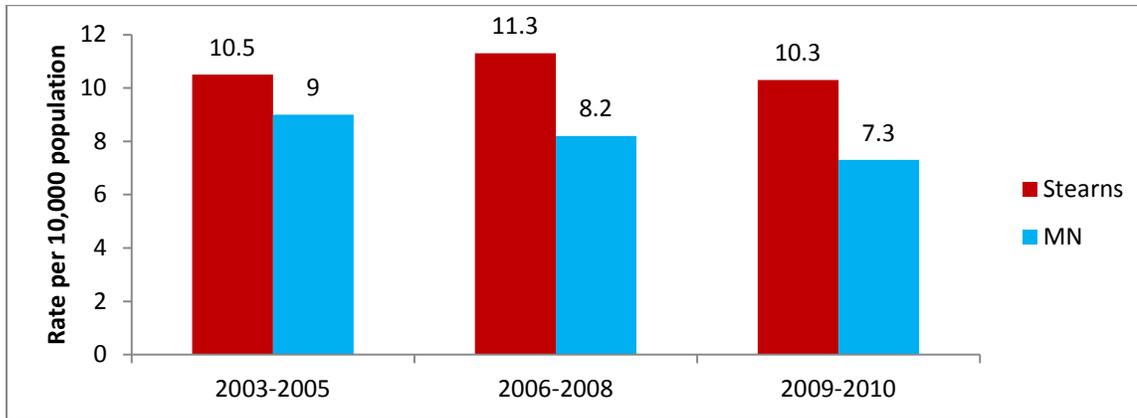
Alzheimer's disease is the most common form of dementia among older adults. It affects a person's ability to think, remember, and make decisions. Adults younger than 65 may get Alzheimer's disease, but it is much less common than among adults over 65; the risk for developing Alzheimer's in any population goes up with age, doubling every five years beyond age 65. About 5 percent of men and women ages 65 to 74 have Alzheimer's disease and it is estimated that nearly half of those age 85 and older may have the disease. Stearns County has seen a consistently lower percentage of the population that has been diagnosed with Alzheimer's on average .8 percentage points lower than the state.

### Asthma

Asthma is a chronic disease that includes broncho-constriction (tightening of the muscles around the airways) and inflammation (swelling) of the bronchial tubes. When a person is experiencing normal breathing, air flows without restriction in and out of the lungs. During an asthma episode on the other hand, the lining of the lungs swell, muscles around the airways tighten and mucus clogs the tiny airways in the lungs, making breathing very difficult. Asthma is one of the most

common chronic diseases in the state and the nation. Stearns County has consistently been above the rates across the state by as many as 3 hospitalizations per 10,000 population.

### Asthma hospitalizations in Stearns County 2003-2010



**Minnesota's youngest children are hospitalized for asthma at a higher rate than other age groups.**

Source: Minnesota Department of Health. (2011)<sup>38</sup>

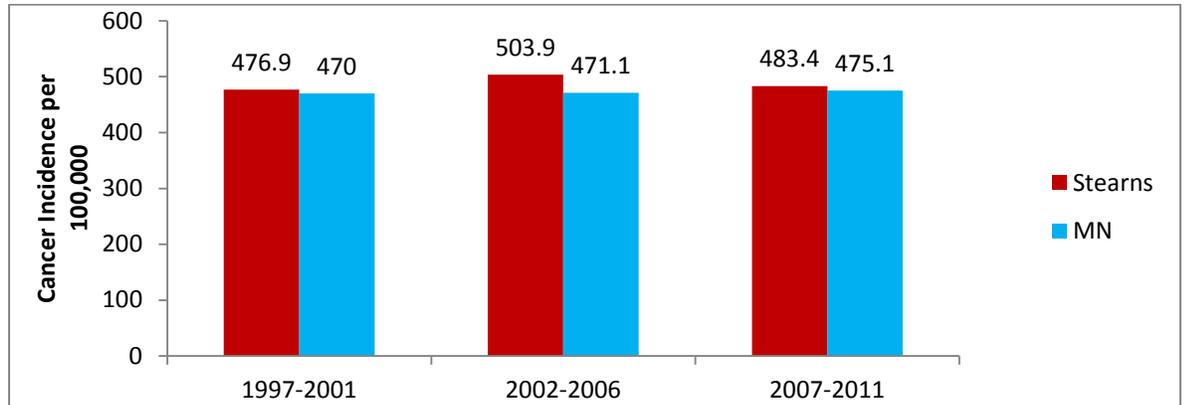
The majority of problems associated with asthma are preventable, including hospitalization. Asthma attacks can be triggered by viral infections, pollen, dust mites, secondhand smoke, mold, air pollution, and stress. Asthma prevention includes control of exposure to factors that trigger exacerbation, appropriate medication use, continual monitoring of the disease, and patient education in asthma care. Hospitalizations due to asthma are an indicator both of the severity of the disease and of barriers to regular asthma care (e.g., lack of health insurance).

## Cancer

Cancer is currently the leading cause of death in Minnesota. The American Cancer Society estimates that there were over 25,000 new cases of cancer in 2010 and 9,200 deaths. About half of Minnesota's men and 40 percent of the state's women will be diagnosed with a potentially serious form of cancer during their lifetimes. The lifetime risk of developing cancer is somewhat higher in Minnesota because life expectancy in the state is higher, and therefore more people live to develop cancer. The most commonly diagnosed cancers in Minnesota include lung cancer, colorectal, breast and prostate cancer.<sup>31</sup>

Other than a rise in Stearns County between 2002 and 2006, rates have remained at approximately 480 cancer incidences per 100,000 people, which is in line with rates across the state.

## All cancer types combined-age adjusted per 100,000 - 1994-2008



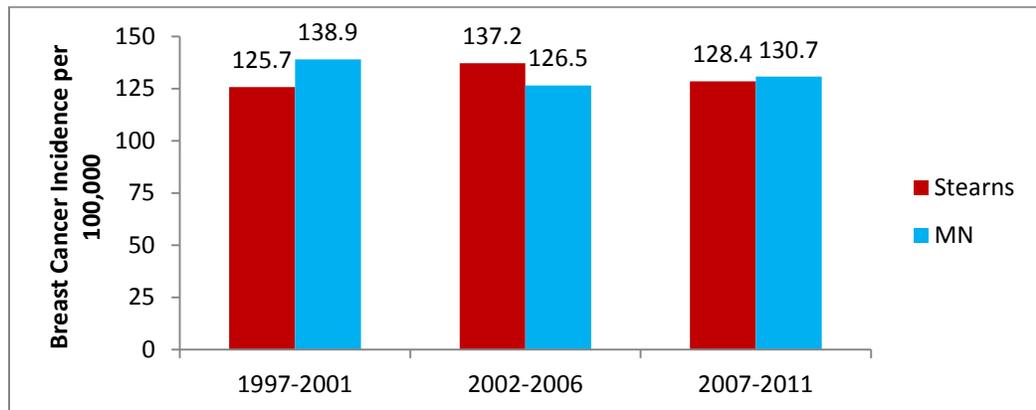
Source: Minnesota Cancer Surveillance System (MCSS)<sup>39</sup>

## Breast Cancer

Breast cancer is the most common form of cancer and the second leading cause of cancer deaths among Minnesota women. Surviving breast cancer is directly related to the stage of the disease at the time of diagnosis.<sup>32</sup> African-American and Hispanic women in Minnesota are more likely to be diagnosed with later-stage breast cancer.

As in the rest of the U.S., Minnesota's women of color are slightly less likely than white women to be diagnosed with breast cancer, but African-American women are at the greatest risk of dying from the disease. In fact, breast cancer mortality among African-American women is 24 percent higher than white women, despite the incidence of breast cancer among African-American women being 18 percent lower.<sup>33</sup> This population's higher rate of mortality can be partially attributed to later stage diagnosis.<sup>34</sup>

## Breast Cancer (Female only) – age adjusted



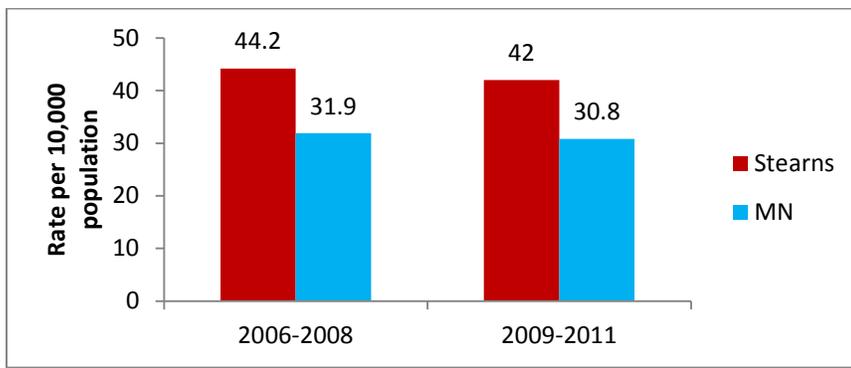
Source: Minnesota Cancer Surveillance System (MCSS)<sup>40</sup>

In looking at the number of Breast Cancer incidence per 100,000 people, Stearns County on average has had a slightly lower rate than the state, with the only time period in the 14 years of data collected, coming between 2002 and 2006, where Stearns County was on average 11 incidences higher than the state average.

## Chronic Obstructive Pulmonary Disease

Chronic obstructive pulmonary disease, or COPD, is a group of slowly progressive lung diseases (such as emphysema and chronic bronchitis) characterized by obstruction to air flow that interferes with normal breathing. The most common cause of COPD is exposure to tobacco smoke, but not all smokers develop COPD. In Stearns County, rates have historically been higher than the state averages.

### Rate of diagnosis for Chronic Obstructive Pulmonary Disease per 100,000 population:



Source: *Minnesota Public Health Data Access*<sup>41</sup>

COPD may be exacerbated by certain environmental exposures, such as tobacco smoke and smoke from wood-burning stoves, dust mites and mold, and dirty furnace air filters. Because of sensitivity to these environmental factors, hospitalization for COPD varies by time of year. Admissions are highest during the fall and winter months, when people are indoors, and lower in the summer.

## Heart Disease and Stroke

### Heart Disease

Heart disease currently is the second leading cause of death in Minnesota. Minnesota consistently has one of the lowest rates of heart disease mortality in the nation—about 30 percent lower than the national average.

Between 1996 and 2010 the mortality rate for heart disease declined in all race/ethnicity groups, for both men and women. Heart disease death rates are higher in men than in women, for all racial and ethnic groups. Heart disease rates also vary by geography; Minnesota's rural residents experience higher rates of heart disease-related mortality.

## Heart disease-related death in Stearns County and Minnesota: 2008-2012

Year	Stearns	MN
2008	157	7453
2009	182	7565
2010	177	7506
2011	185	7234
2012	176	7471

Source: Minnesota Department of Health, County Health Tables<sup>42</sup>

## Stroke

Stroke is a major cause of death in Minnesota. In 2010, approximately 1.9 percent of adults in the state reported ever having had a stroke in their lifetime—a total of over 75,000 people.<sup>35</sup>

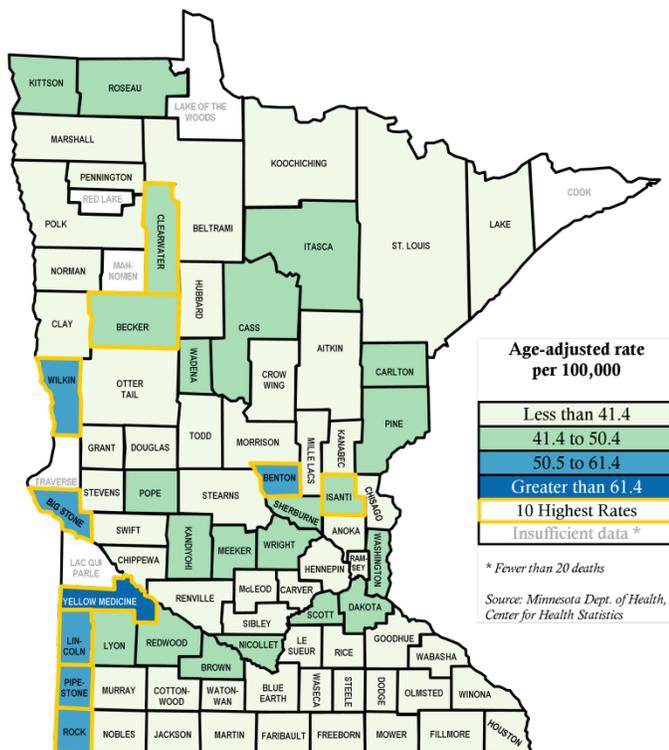
Strokes kill more women than men, and are disproportionately fatal for individuals over the age of 75. Compared to the non-Hispanic white population, mortality due to stroke is significantly higher for the African-American, American Indian and Asian populations in Minnesota. As with heart disease, stroke mortality rates are higher in the rural areas of Minnesota.

## Stroke prevalence in Stearns County and Minnesota: 2006-2010

	Stearns	MN
2006	32	2215
2007	38	2081
2008	43	2087
2009	43	2029
2010	49	2154

Source: Minnesota Department of Health, Center for Health Statistics. (2011)<sup>43</sup>

## Stroke mortality in Minnesota: 2005-2009

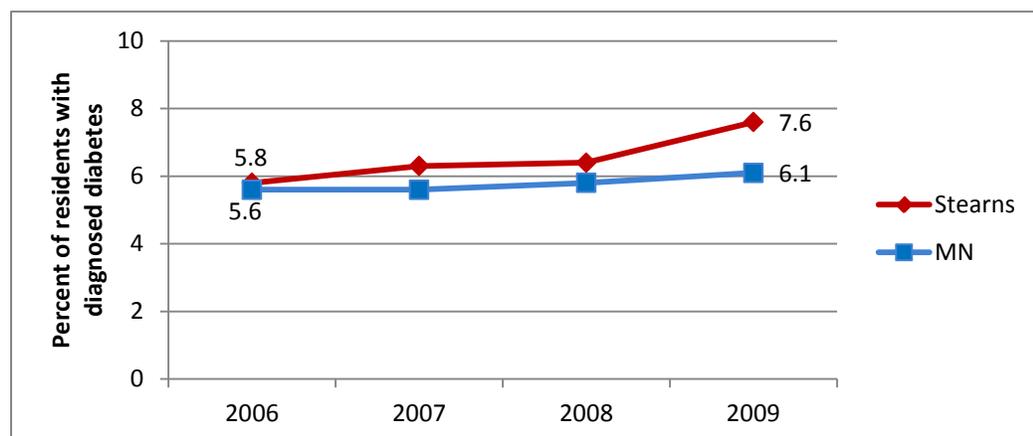


## Diabetes

Diabetes is a leading cause of death in Minnesota, and is on the rise. It is the leading cause of blindness in adult Minnesotans, the leading cause of chronic kidney disease among the same group, and the leading complication among mothers giving birth in the state. Diabetes limits daily activities, increases the incidence of heart disease and stroke, and contributes to depression.<sup>36</sup>

Diabetes prevalence in Stearns County has been trending upward in recent years. While the state as a whole only increased a half of a percentage point between 2006 and 2009, Stearns County has increased by almost 2 percentage points over that same time frame, with current statistics suggesting that diabetes prevalence in Stearns County has climbed even higher to 8%. Another key factor in the overall increase in diabetes prevalence is the aging population of the county. As people age, and modern medicine increases in effectiveness in lengthening life expectancy, chances of diabetes begin to increase along with it.

## Diabetes prevalence amongst Stearns County residents and Minnesotans: 2006-2009



Source: Centers for Disease Control and Prevention (CDC) <sup>44</sup>

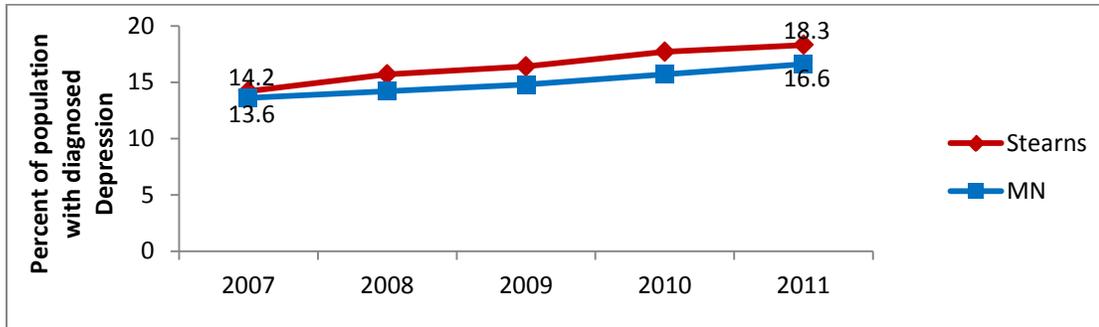
**On average, Minnesotans with serious mental illness do not live past an average age of 58, while those without mental illness live to an average age of 82.**

## Mental Illness

Serious mental illness, such as schizophrenia, schizoaffective disorder, and bipolar affective disorder, can significantly increase mortality. Individuals with serious mental illness die an average of 25 years earlier than those without.<sup>37</sup> This holds true in Minnesota, as well: a study of Minnesotans receiving services through Minnesota Health Care Programs found that Minnesotans with serious mental illness do not live past an average age of 58, while those without mental illness live to an average age of 82.<sup>38</sup>

Depression is something that many do not consider to traditionally be a mental illness, but is affecting more and more people every year. Between 2007 and 2011, the percentage of people with diagnosed depression rose from over fourteen percent to just over eighteen percent. Depression can seriously affect an individual's health along with the people in their lives. Depression can cause a lack of motivation to maintain one's physical health and lifestyle.

## Depression in Stearns County and Minnesota population: 2007-2011



Source: Robert Wood Johnson Foundation – County Health Rankings<sup>45</sup>

Serious mental illness has other important influences on health: individuals with serious mental illnesses are more likely to experience homelessness, becoming uninsured and a lack of social support. The difficulty of changing behaviors such as smoking or alcohol use in persons with serious mental illnesses is compounded by their mental status and these life circumstances. Over 8 percent of Minnesota’s adult population—or about 350,000 Minnesotans—experienced significant depressive symptoms in 2011; and 3 percent (about 125,000) had symptoms of suggestive or serious psychological distress (although these groups are not mutually exclusive).<sup>39</sup>

As the stigma around mental illness begins to decrease, people are becoming more willing to seek help for their internal struggles, which could lead to these numbers being artificially inflated. When people were less willing to admit they potentially had a problem, less people would go talk to a professional to get a diagnosis, which may have resulted in lower professionally diagnosed cases.

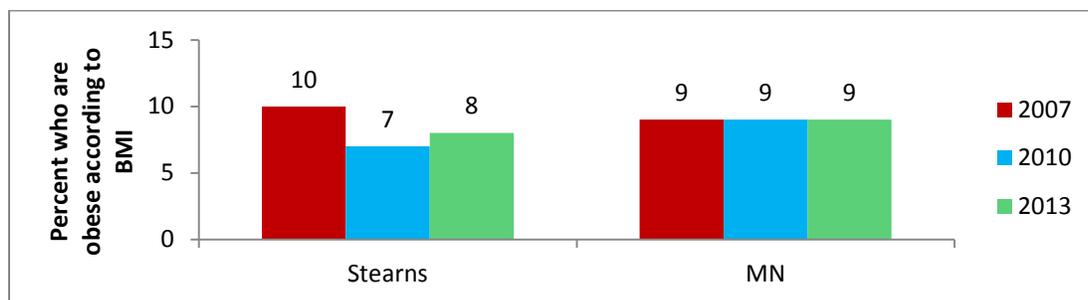
## Obesity

The rate of obesity continues to rise in every racial and ethnic population in Minnesota, as well as among children, adolescents, and adults, and among both males and females. Minnesota is neither the most obese state in the nation nor is it the slimmest. Minnesota is ranked the 32<sup>nd</sup> most obese state in the nation.<sup>40</sup>

Obesity puts people at much greater risk for the development and early onset of a wide variety of chronic diseases and health conditions, including hypertension, diabetes, coronary heart disease and stroke, gallbladder disease, depression, osteoarthritis, sleep apnea, and some cancers.<sup>41</sup> Obesity often has social consequences, as well: children and adolescents who are overweight or obese may be teased or ostracized, and obese adults can face discrimination in the workplace.

According to height and weight data collected from the Central Minnesota Community Health Survey, only 41 percent of Stearns County residents are considered “Not Overweight” according to their BMI.

### Stearns County and Minnesota 9<sup>th</sup> graders who are obese: 2007-2010



Source: Minnesota Student Survey (2011)<sup>46</sup>

## Infectious Disease

Infectious diseases are a significant cause of illness, disability, and death in Minnesota. Infectious diseases are illnesses caused by organisms such as bacteria, viruses, fungi, or parasites. Some infectious diseases can be passed from person to person, some are transmitted via bites from insects or animals, and others are acquired by ingesting contaminated food or water or other exposures in the environment.

### HIV and AIDS

The number of persons assumed to be living with HIV (human immunodeficiency virus) and AIDS (acquired immune deficiency syndrome) in Minnesota has been steadily increasing during the past 30 years. As of 2010, almost 7,000 persons were known to be living with HIV/AIDS in Minnesota, a 4 percent increase from the year prior.

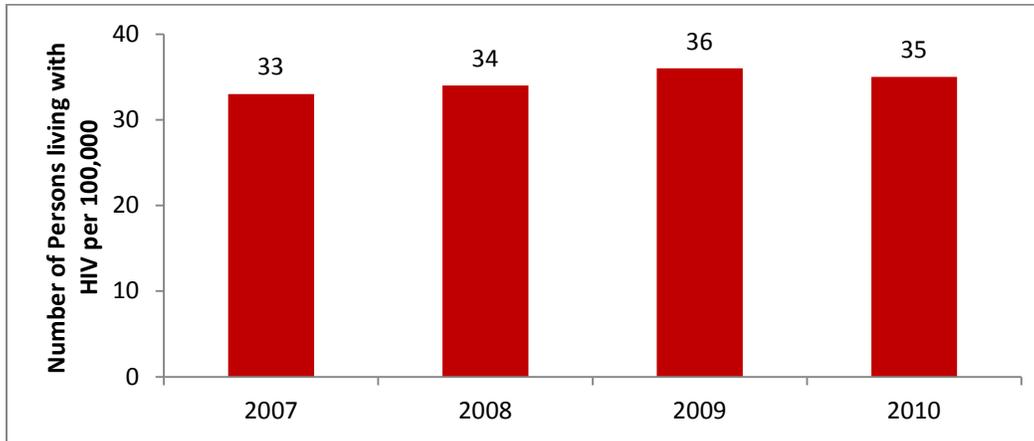
Both the number of newly-diagnosed AIDS cases and the number of deaths among AIDS cases declined between 1996 and 2000. These decreases were primarily due to the success of new

treatments introduced in 1995 (protease inhibitors) and 1996 (highly active antiretroviral therapy). These treatments do not cure AIDS, but can delay progression of the disease and improve survival.

Three-fourths of the cases of HIV/AIDS in Minnesota occur among males. Of those diagnosed with HIV/AIDS, nearly two-thirds are white. Only about one-fourth of Minnesota women with HIV/AIDS, however, are white; nearly 30 percent are African-American and 30 percent are African-born.

**Two-thirds of Minnesota men living with HIV/AIDS are white, while two-thirds of Minnesota women living with HIV/AIDS are African-American or African-born.**

## Stearns County HIV prevalence: 2007-2010



Source: Robert Wood Johnson Foundation – County Health Rankings (2013) <sup>47</sup>

## Sexually Transmitted Infections

Sexually transmitted infections (STIs), also known as sexually transmitted diseases, are the most commonly reported communicable diseases in Minnesota, and account for nearly 70 percent of all notifiable diseases reported to the Minnesota Department of Health. In 2010, the number of reported bacterial STIs increased to nearly 18,000 cases, a 5 percent increase from the previous year. The majority of those (over 15,000) are cases of chlamydia. Much like the state data shows, Chlamydia is the STI with the most prevalence in Stearns County. Approximately 350-400 Chlamydia cases are diagnosed each year in Stearns County, with over 65 percent of confirmed cases being in females.

Youth and young adults between 15 and 24 are much more likely to contract both chlamydia and gonorrhea: they comprise 69 percent of all chlamydia cases and 65 percent of all gonorrhea cases reported in 2010. Three-fourths of these cases are young women.

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## Injury and Violence

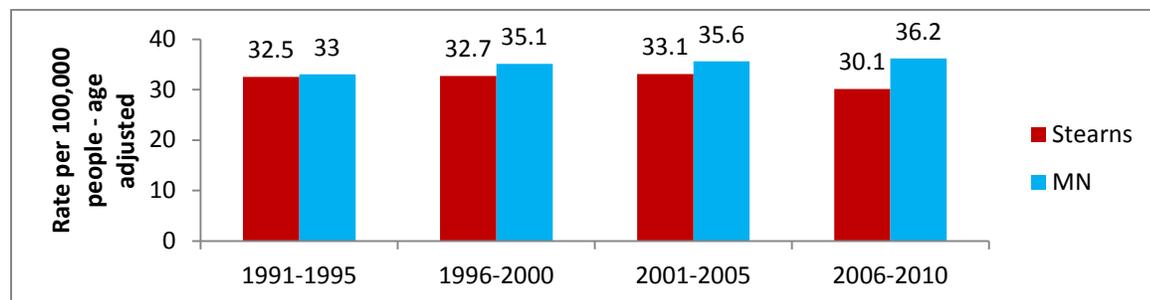
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Injury is the leading cause of death for children and young adults in Minnesota, but deaths are a small proportion of the impact of injury. For every one injury death, there are three severe traumas (including brain and spinal cord injuries), ten other hospitalized injuries, and 100 injuries that result in emergency department treatment only.

Injuries may be intentional (the result of violence) or unintentional. The leading causes of unintentional injury-related deaths in Minnesota between 2000 and 2009 were falls, motor

vehicle crashes and poisoning. When all intent is factored into injury, then self-inflicted firearm injuries rank third and self-inflicted poisoning ranks sixth in overall injury-related mortality.<sup>42</sup> As the graph below shows, Stearns County consistently falls below the states age-adjusted rates per 100,000 people.

### Unintentional injury deaths in Stearns County and Minnesota: 1991-2010



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2011)<sup>48</sup>

## Motor Vehicle Injury

In Minnesota, motor vehicle related injuries are the leading cause of injury related death for individuals up to the age of 44, and for adults between 55 and 64.<sup>43</sup> While these rates are declining, teenagers and young adults still pay the heaviest price in terms of both deaths and injuries, including traumatic brain injuries and spinal cord injuries.

On an average day in 2011, at least one person died on Minnesota highways and at least three were seriously injured. Serious injuries prevent walking, driving or continuing other activities of daily life, creating both significant economic costs and a decline in the quality of life.

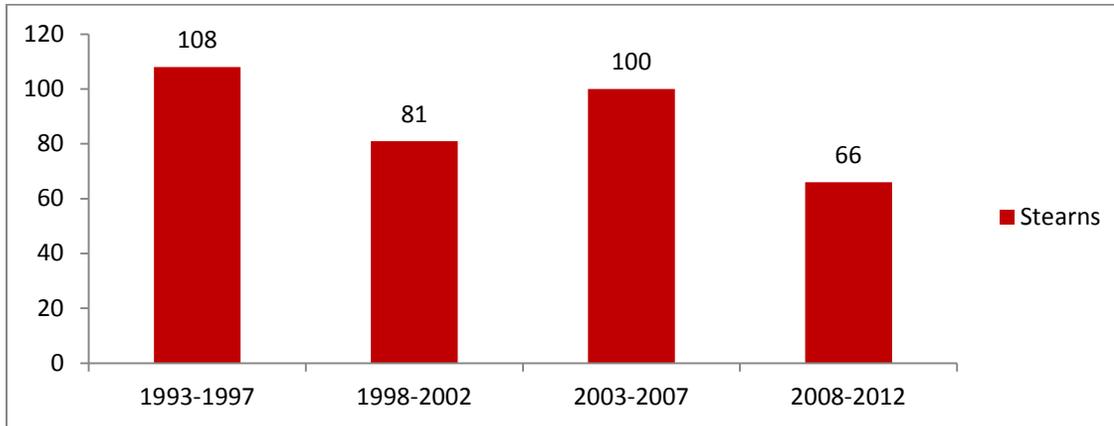
Those at greatest risk of injury from traffic crashes are 20- to 24-year-old drivers, elderly drivers, male drivers, unbelted occupants, and unrestrained children. Pedestrian injuries are among the most expensive in terms of hospital charges, and elderly Minnesotans are particularly vulnerable.<sup>44</sup>

The numbers of teen-involved traffic crashes have decreased in recent years. In 2004, 23 percent of all traffic crashes in Minnesota were teen-related. In 2010, that percentage dropped to 18 percent. Consequently, teen (ages 13-19) fatalities and teen injuries have both decreased. In 2004, 16 percent of all traffic fatalities and 18 percent of all traffic injuries in Minnesota were among teens. In 2010, those percentages dropped to 11 and 15 percent, respectively.<sup>45</sup>

The number of fatalities from motor vehicles in Stearns County has fluctuated over the past 5 years, but overall, are lower in 2010 than they were in 2006. With increased emphasis on seat-belt use and advances in automobile safety mechanisms, that number can hopefully continue to go down over the next 5 years.

**Motor vehicle crash-related mortality is highest among young adults and the elderly.**

## Motor vehicle death in Stearns County: 1993-2012



Source: Minnesota Department of Health, Minnesota County Health Tables (2013)<sup>49</sup>

## Suicide

In 2010, nearly six hundred Minnesotans died by suicide, an average rate of 11.3 per 100,000. Suicide rates are higher for males than for females, and the suicide rate among the American Indian population (18.3 per 100,000 for 2006-2010) is nearly double the rate in the state's white population (10.9 per 100,000).

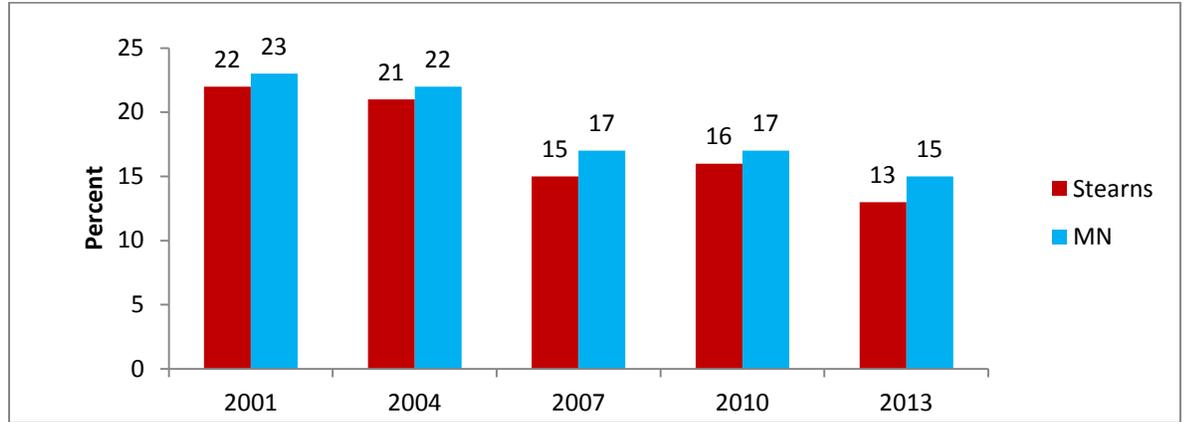
- The number of people who died by suicide (599) in Minnesota in 2010 was more than five times higher than the number of homicide victims (111).
- Stearns County's suicide numbers have steadily increased over the past 5 years, and the disparity between males and females has remained extremely high.
- While many people assume that suicide rates are highest among teenagers, males over the age of 35 actually have the highest rates of suicide.

Among adolescents, girls are much more likely to have thought about killing themselves than boys, and students of color are more likely to report both thinking about suicide and attempting suicide. American Indian students have the highest rate of attempted suicide among ninth-graders and the highest rate of death by suicide in Minnesota among all age groups.<sup>46</sup> While any statistics in this category are negative to see, Stearns County 9<sup>th</sup> graders have statistically been less likely to think about suicide than those across the state.

**The rate of suicide among the state's males is much higher than that of females.**

### Percent of Stearns County ninth-graders thinking about suicide

Minnesota's teen girls report thinking about suicide more than the state's teen boys.



Source: Minnesota Student Survey. (2013)<sup>50</sup>

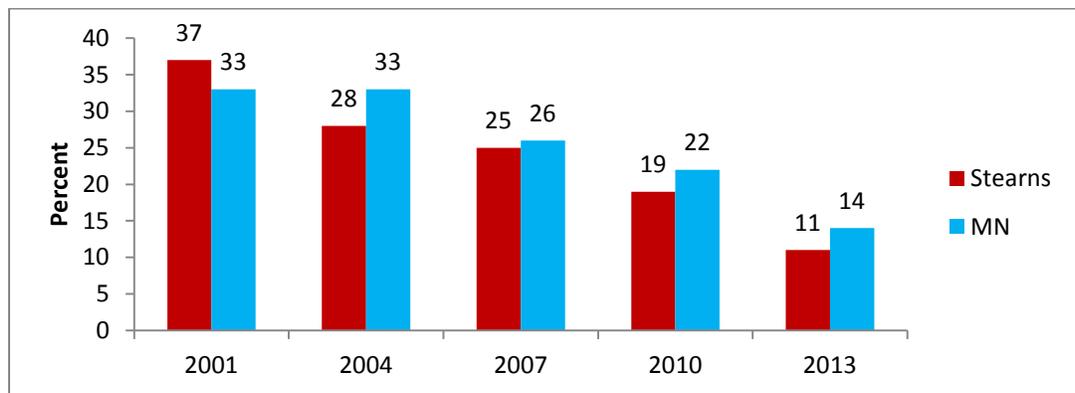
### Youth Violence

Among Minnesota students, younger students are more likely to engage in hitting or beating up another person. Reports of hitting or beating up another person are more common in sixth and ninth grade than in 12<sup>th</sup> grade. In all three grades, African-American, American Indian, and Hispanic students are more likely than other students to report that they had hit or beat up someone.

With the prevalence of cyber bullying compared to 2001, the decline of physical bullying is encouraging, but may come with an asterisk. The 2013 version of the student survey includes a

new section based around reasons behind students feeling like they were being harassed or bullied, so future surveys will be able to properly assess the reasons behind bullying rather than strictly the act of physical bullying occurring.

### Minnesota ninth-graders who reported having hit or beat up another person one or more times in the last 12 months: 2001-2013



Source: Minnesota Student Survey. (2013)<sup>51</sup>

## Conclusion

Minnesota statutes Chapter 145A require the completion of a comprehensive Community Health Assessment (CHA) which then will be used as the basis for the development of a comprehensive community health plan. The data noted in this document is a summary of that comprehensive assessment; with an even further review of the data having been done with the members of the Public Health Task Force of Stearns County Human Services. Other specific Stearns County data can be found on the Stearns County website as well as in the County Health Summary section of the Minnesota Department of Health's data summary website.

This Community Health Assessment has been the driver in the development of the 2015-2019 Community Health Improvement Plan (CHIP). This plan prioritizes the top 10 Community Health priorities based on this review of the data, the data review by the Public Health Task Force and using extensive community input.

Questions about this Community Health Assessment or of other related data can be directed to the Public Health Division Director, Renee Frauendienst or to the Human Services Data Analyst, Derrek Helmin at Stearns County Human Services.

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# References and Resources

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## **Stearns County Public Health Data Access**

<http://www.co.stearns.mn.us/Government/CountyDepartments/HumanServices/PublicHealthData>)

Here, links can be found to data resources such as Central MN Community Health Survey Data Books for Stearns County

## **Stearns County Public Health Community Health Improvement Plan**

<http://www.co.stearns.mn.us/Government/CountyDepartments/HumanServices/CHIPPlanning>)

Community input and ownership is critical in the development of the statutorily required 5 year Community Health Improvement Plan (CHIP) for Stearns County. This document is a resource for all residents and agencies, whether public, private or non-profit, in Stearns County. It is a comprehensive planning tool to move health forward within the County.

## **The Health of Minnesota, Part Two** (<http://www.health.state.mn.us/statewidehealthassessment>)

*Part Two of The Health of Minnesota* provides information chronic diseases and conditions, infectious disease, and injury and violence.

## **Minnesota Center for Health Statistics** (<http://www.health.state.mn.us/divs/chs/>)

The Minnesota Center for Health Statistics coordinates, collects and analyses a wide range of Minnesota health-related data, including data from the U.S. Census Bureau, the Centers for Disease Control and Prevention (CDC), the Minnesota Student Survey, and other programs within the Minnesota Department of Health.

## **Behavioral Risk Factor Surveillance System** (<http://www.cdc.gov/brfss/>)

The Behavioral Risk Factor Surveillance System, administered by the Centers for Disease Control and Prevention (CDC) is the world's largest ongoing telephone health survey system, and has tracked health conditions and risk behaviors in the United States yearly since 1984. Currently, data are collected monthly in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam.

## **Minnesota Student Survey** (<http://www.health.state.mn.us/divs/chs/mss/>)

The Minnesota Student Survey is the result of collaboration between Minnesota schools and the Minnesota Departments of Education, Employment and Economic Development, Health, Human Services and Public Safety. The survey is administered every three years to sixth, ninth, and 12<sup>th</sup>-grade students.

## **Atlas of Minnesota Online** (<http://www.ruralmn.org/atlas-outline/>)

The Atlas of Minnesota Online is administered by the Center for Rural Policy and Development, and provides data in map form for a number of social and economic characteristics of Minnesota.

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