Gundersen Region 21-County Health Indicator Report

emplify HEALTH by Gundersen

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Introduction

Methodology & Data Sources

To identify the health needs of the Gundersen Region's 21-county service area, analysis of publicly available data was completed. Secondary data — including population demographics, mortality, morbidity, health behavior, and clinical care — were used to identify and prioritize significant community health needs in each county. Population characteristics, socioeconomic, and health status data were also examined. Community-level data were compared to the state, nation, and Healthy People 2030 benchmarks, when available, to help identify key health issues in each county. This document informed the 2024 Gundersen Lutheran Medical Center Health Needs Assessment and Community Health Implementation Plan.

Limitations

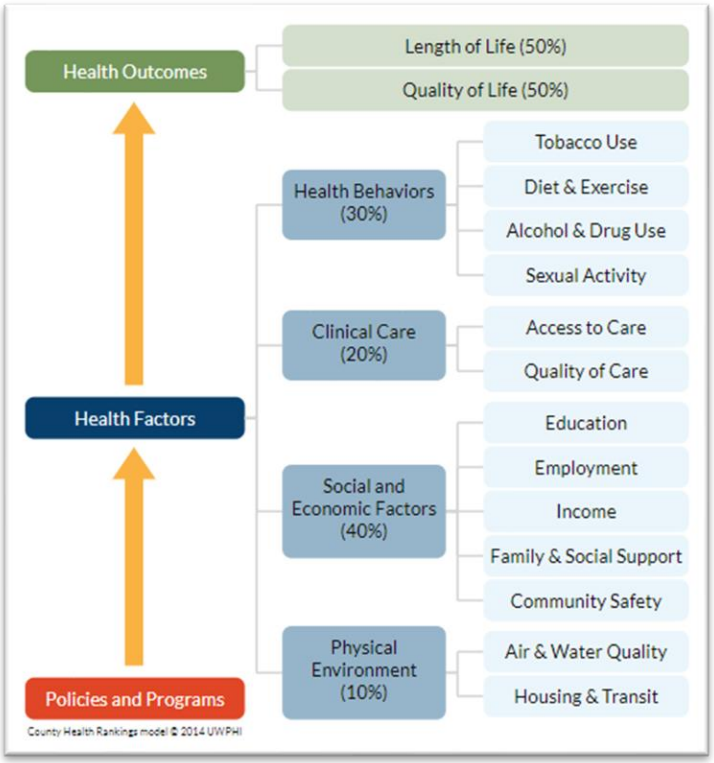
This document is not meant to be an exhaustive list of metrics, but a snapshot of our service area's health. Quantitative analysis included in this report used the most recent data available as of May 1, 2024. Some data are several years old. The data presented in this report may not necessarily represent the current situation in each county yet are the best data available at the time of writing this assessment. Data sources and dates are provided. Where possible, comparisons to national or state-level data are given. Nationally available data is not comparable in all cases due to differences in methodology or definitions. Some measures are compared to a service area weighted average based on population size.

COVID-19 Pandemic

The COVID-19 pandemic disrupted longstanding patterns including those in population-level health and accompanying data collection. The full impact of the pandemic is still unfolding in our daily lives and in the data. Preliminary data suggests that the COVID-19 pandemic exacerbated existing health disparities for people of color and those living with lower socioeconomic status. It is important to keep the impact of the pandemic in mind in this report, especially for the purpose of striving towards health equity.

County Health Rankings Model

In general, our report aligns with the University of Wisconsin Institute of Public Health's County Health Rankings model. The following figure shows this evidence-based model illustrating measures that influence health factors and overall health outcomes.



Source: University of Wisconsin Population Health Institute County Health Rankings and Roadmaps (2024). County Health Rankings Model.

Health outcomes are a measure of community health and are based on a combination of life

expectancy and premature mortality (how long people live), and quality of life (how well people live). Health factors contribute to our community's future health outcomes. Health factors include clinical care, health behaviors, social factors, and the physical environment. While clinical care and health behaviors contribute to 50% of a person's health outcomes, 40% is a result of social factors like education, income, and employment (County Health Rankings and Roadmaps, 2024).

The County Health Rankings & Roadmaps program releases an annual report on these important health factors and health outcomes for each county within our service area. It is important to include these interrelated dimensions of community health when considering the overall health of the 21-county service area and identifying opportunities for health and health equity improvement.

Click here to view a table with metrics of health factors, behaviors, and outcomes for all 21 counties.

Healthy People 2030 Objectives

Healthy People goals and objectives have guided the nation's leading health organizations, health leaders, policymakers, and the public to improve the health and well-being of the United States since 1979. Every 10 years, past objectives are reviewed, progress is evaluated, gaps are determined, and new goals and objectives are developed based on the latest science and research (Office of Disease Prevention and Health Promotion, 2024). If available, Healthy People 2030 objectives are listed for each related health indicator, providing a framework to understand the gaps or progress of the 21-county service area.

Health Outcomes
Length of Life

Life Expectancy

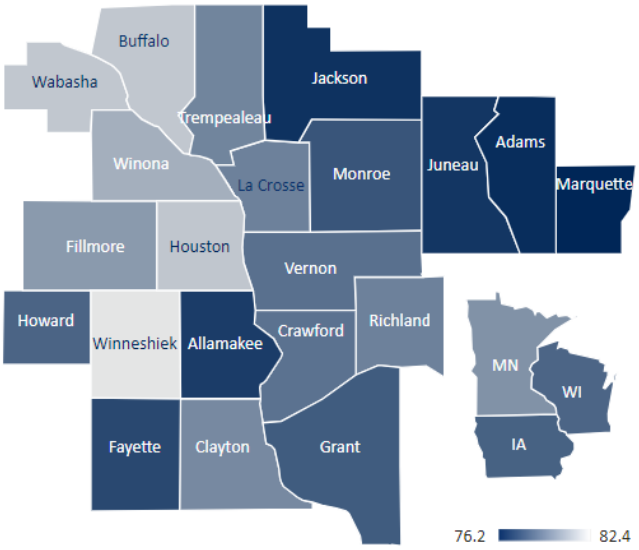
Key takeaways: Life expectancy is defined as an estimate of the average number of years of life remaining for a person at a particular age based on age-specific death rates (Centers for Disease Control and Prevention, 2023). Life expectancy can be determined by race, sex, and Hispanic origin among other characteristics by using age-specific death rates for the population with that characteristic (CDC, 2023).

Some groups experience shorter life expectancies. Social determinants of health likely explain these disparities (Harvard Health,2022). For instance, those with shorter life expectancies tend to live in poverty, experience the most food insecurity, and have inadequate access to affordable and quality healthcare (Harvard Health, 2022). These factors all contribute to life expectancy. Determining the length of life for individuals within a community, coupled with mortality and morbidity information, may provide insight on current and future areas of need.

Life expectancy is the highest in Winneshiek County, IA, and lowest in Marquette County, WI

Statewide life expectancy is 78.2 in Wisconsin, 79.7 in Minnesota, and 78.1 in Iowa, which fall above the national average for life expectancy (77.6 years). About 70% of the 21-county service area meets or exceed the national average. However, approximately 60% of all counties meet or exceed their respective state averages (6 out of 12 counties in WI, 2 out of 5 counties in IA, and all 4 counties in MN). Winneshiek County has the highest life expectancy at 82.4 years, and Marquette County has the lowest life expectancy at 76.2 years (University of Wisconsin Population Health Institute, 2024). Overall, rural, underserved counties experience lower life expectancies in the 21-county service area.

Figure 1. Life expectancy by county in the GHS service area



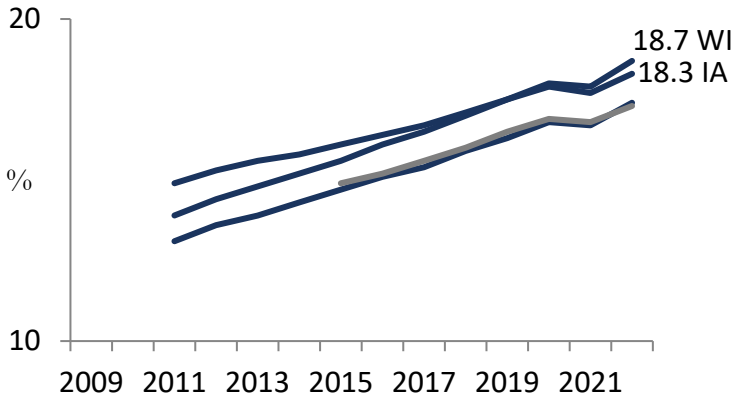
Source: University of Wisconsin Population Health Institute (2024). National Vital Statistics System (NVSS), 2019-21.

Changing Populations

Key takeaways: The United States' population continues to grow in age and in diversity. According to the United States Census Bureau (2023) the United States population age 65 and over grew nearly five times faster than the total population over the past 100 years from 1920-2020 according to the 2020 Census. The number of people aged 65 and older increased from 40.3 million in 2010 to more than 54 million in 2019 and is projected to reach 95 million by 2060 (U.S. Census Bureau, 2021).

The tristate service area reflects this aging trend as well. Growth in the population age 65 and older in Wisconsin, Minnesota, Iowa, and the United States is shown in Figure 2.

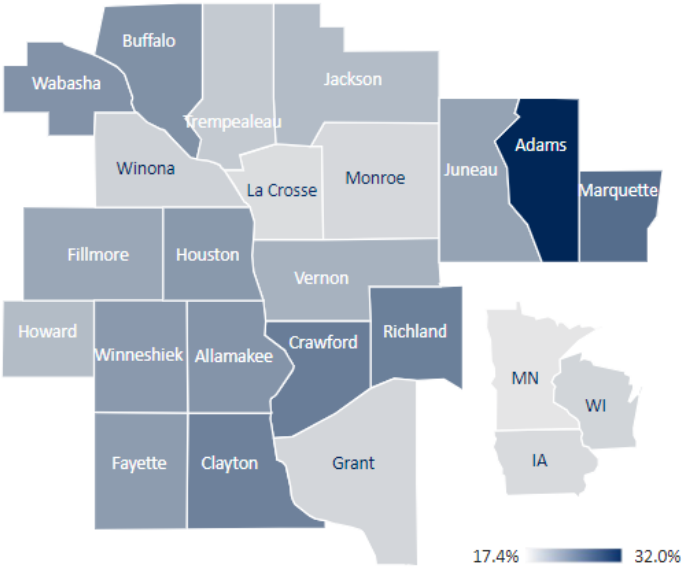
Figure 2. % of population aged 65 and older



Source: U.S. Census Bureau. American Community Survey 5 Year Estimates.

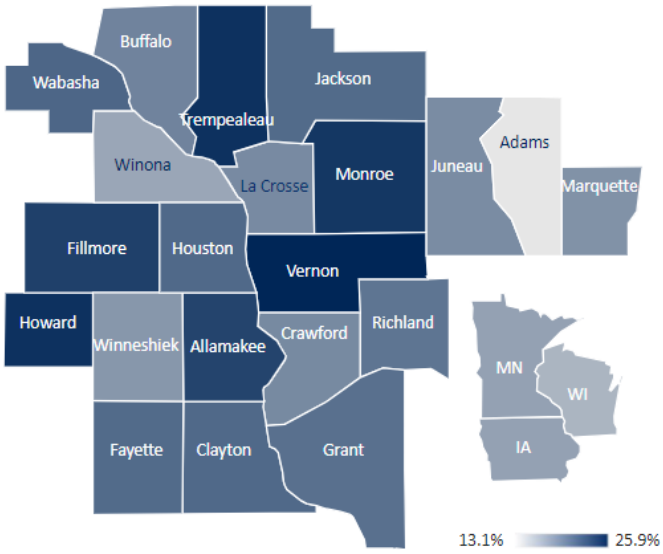
Overall, Iowa, Minnesota and Wisconsin had an older population than the U.S. In the GHS service area, Adams County had the highest percentage of residents aged 65 and older. La Crosse County had the lowest.

Figure 3. % of population aged 65 and older by county



Source: University of Wisconsin Population Health Institute (2024). Percentage 65 and Older, 2022

Figure 4. % of population below 18 years of age



Source: University of Wisconsin Population Health Institute (2024). Below 18 years of age, 2022

Utilizing the United States Census Bureau data again, changes in populations according to race and ethnicity were analyzed. Changes between population estimates for years 2015-2019 and 2018-2022 were not as significant for the 21-county service area compared to the United States. In the United States, there was a 6.6% decrease in the number of people who are Non-Hispanic White, from 72.5% in 2015-2019 to 65.9% in 2018-2022. This was a higher decline comparison compared to the 21-county service area, were this declined by 2.7%. (Refer to Table 1 for further data.) While the 21-county service area has not seen the same amount of growth in diversity, racial/ethnic differences in area health outcomes can be significant. Population demographics, especially race and ethnicity, should be considered when analyzing data and developing implementation plans. Individual county populations by race and ethnicity may not be accurately reflected in the table and should be considered when programmatic planning is completed.

The 21-county service area is aging and less diverse than the US population.

Table 1. Percentage of population by race and ethnicity by entire 21-county region and U.S.

	GHS 21-county region	US
Non-Hispanic White	92.5%	65.9%
Non-Hispanic Black	1.2%	12.5%
American Indian/Alaska Native	0.5%	0.8%
Asian	1.4%	5.8%
Native Hawaiian/Other Pacific Islander	0.0%	0.2%
Other	1.1%	6.0%
2 or more races	3.2%	8.8%
Hispanic or Latino-Any race	3.1%	18.7%
Not Hispanic or Latino	96.9%	81.3%

Source: U.S. Census Bureau. 2018-2022 American Community Survey 5-Year Estimates

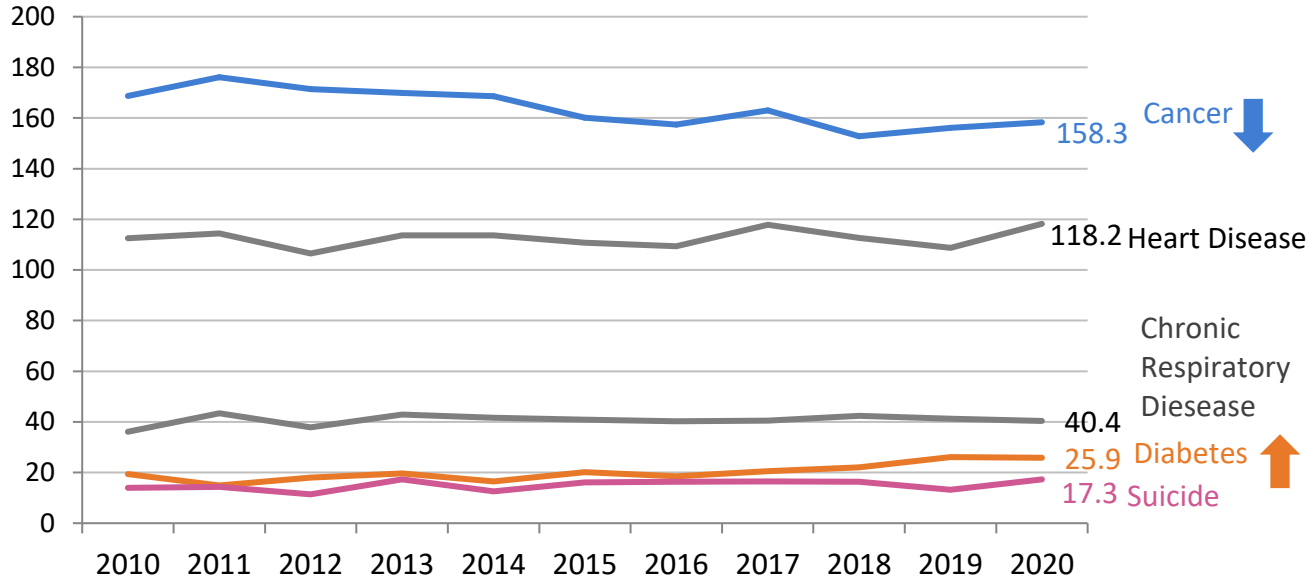
Cause-Specific Morbidity & Mortality

Key takeaways: Mortality (death) rates are an important indicator of the burden of disease within a population. They are a measure of the frequency of occurrence of death in a defined population according to the CDC. These rates, along with morbidity (rate of current disease), may provide insight on program effectiveness and/or need for intervention. The figure below depicts the age-adjusted mortality rates by year for specific causes for the entire 21-county service area. While most mortality rates for the service area have remained consistent over the past 10 years; deaths due heart disease have been increasing. Death by suicide rate has gone up from 13.2 in 2019 to 17.3 in 2022.

Healthy People 2030 Objectives:

+Reduce the rate of all-cause mortality among adults with diagnosed **diabetes** from a baseline of 15.2 deaths per 1,000 person years to 13.7 deaths per 1,000 person years.
+Reduce coronary **heart disease** deaths from 90.9 per 100,000 to 71.1 per 100,000.
+Reduce the overall **cancer** death rate from 149.1 per 100,000 to 122.7 per 100,000.
+Reduce the **suicide** rate from 14.2 per 100,000 to 12.8 per 100,000.

Figure 5. Age adjusted mortality rates per 100k by year for 21-county service area



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2020 on CDC WONDER Online Database, released in 2021

Cancer

Key takeaways: Cancer is one of the leading causes of mortality in the United States and contributed to over 5,000 deaths in the 21-county service area data from 2018 through 2022. The chart below reports the causes of all cancer deaths from 2018 through 2022 in the 21-county service area.

Table 2. # and % of deaths by cancer type in 21-county region

Cancer deaths by type 2018-2022 combined	# of deaths	% of deaths
All cancers	5,540	
Lung	1,270	22.9%
Colorectal	494	8.9%
Breast	310	5.6%
Pancreas	413	7.6%
Prostate	322	5.8%
Non-Hodgkin's Lymphoma	191	3.4%
Esophagus	163	2.9%
Leukemia	244	4.0%
Liver	211	3.8%
Brain/CNS	170	3.1%
Bladder	155	2.8%
Kidney	160	2.9%
Multiple Myeloma and Immunoproliferative neoplasms	118	2.1%
Ovary	91	1.6%
All Other	793	14.3%

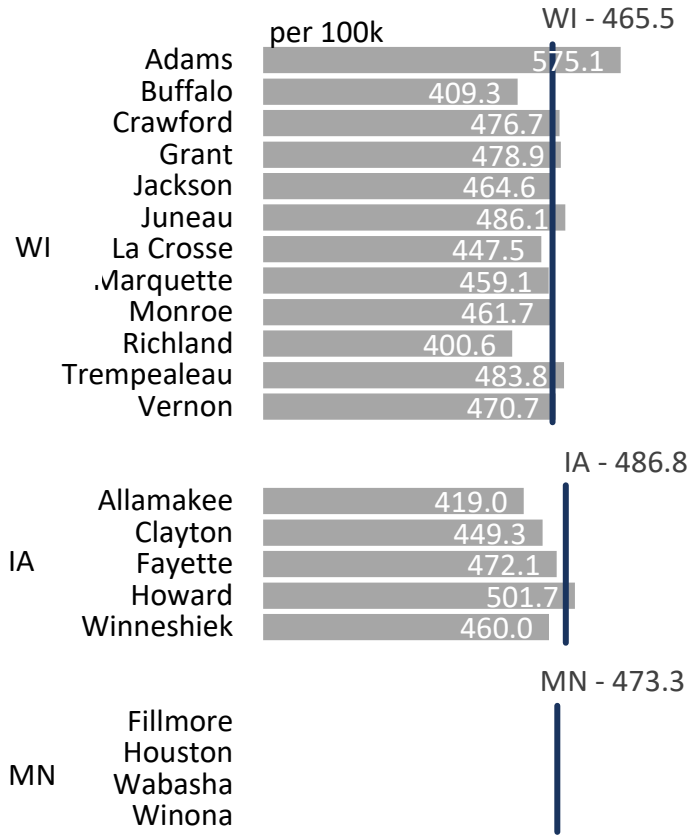
Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 2018 through 2022 on CDC WONDER Online Database.

Lung cancer is the leading cause of cancer deaths in the 21-county service area accounting for 1,270 deaths.

The rate of new cancers in the most recent report of data was showing an improvement compared to the expected trend. The distribution of new cancers across the 21-county service area can be seen in the figure below. The highest rates of new cancers are in Adams, Crawford, Grant, Juneau, and Trempealeau counties in WI and Howard County in IA.

Many of the deaths from lung, colorectal and breast cancer in the 21-county service area are preventable, with a reduction in risk factors (tobacco use, and obesity) or earlier identification (screening) and treatment.

Figure 6. Annual age-adjusted incidence rate of new cancer diagnoses per 100K by county compared to state



Source: National Program of Cancer Registries SEER*Stat Database - United States Department of Health and Human Services, Centers for Disease Control and Prevention

When reviewing the rate of cancer deaths and types of cancer, it is important to consider the possibility of prevention and the relation to other health risk factors. As discussed in the Gundersen Cancer Center Community Needs Assessment (2021), the following table describes cancers that may be identified at an earlier stage with better treatment outcomes, or that could be prevented with risk behavior change. Further discussion on preventable risk factors, as well as strategies to address preventable risk factors and cancers will be considered throughout the remainder of this report.

Table 3. Cancer type with preventable risk factors

Cancer Type	Early Identification by Screening	Preventable	Preventable risk factors
Lung	Yes	Yes – 33% Yes – 70%	Obesity, alcohol use Tobacco use, radon exposure
Colorectal	Yes	Yes – 50%	Obesity, Tobacco use, alcohol use
Cervix	Yes	Yes	Tobacco use, HPV infection
Prostate	Yes	Possibly	Possibly obesity
Skin	Yes	Yes	Sun exposure (tanning - no protection)

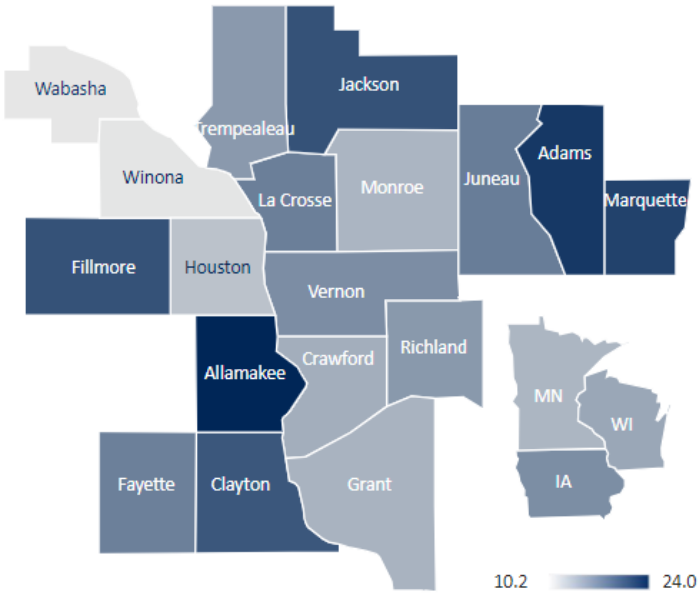
Source: Gundersen Health System Cancer Center Community Needs Assessment. 2021.

Suicide

Key takeaways: Death rates due to suicide are increasing in the 21-county service area. When analyzing the age-adjusted suicide mortality rates from 2017-2021, Iowa had a rate of 17 deaths per 100,000, 14 deaths per 100,000 in Minnesota, and 15 deaths per 100,000 in Wisconsin. During this same period, over half the counties in the 21-county service area had higher rates of suicide compared to their respective state's data. Wabasha County in MN recorded the lowest at 10.2 per 100,000 population and Allamakee County in IA recorded the highest at 24.0 deaths per 100,000 population. Individual county rates of suicide are shown in Figure 7, compared to the three-state average. Of note, only 6 counties had a suicide rate lower than or equal to the Healthy People 2030 goal of 14.2 per 100,000. These included Wabasha, Winona, and Houston Counties in Minnesota, and Crawford, Grant, and Monroe Counties in Wisconsin. The significant rates of suicide within the service area, as well as poor mental health days and access to mental health services should be considered when developing an implementation plan.

Deaths by suicide are higher in Adams and Marquette counties in WI, and Allamakee County in IA.

Figure 7. # of deaths due to suicide (age-adjusted)



Source: University of Wisconsin Population Health Institute (2024). National Vital Statistics System 2017-2021

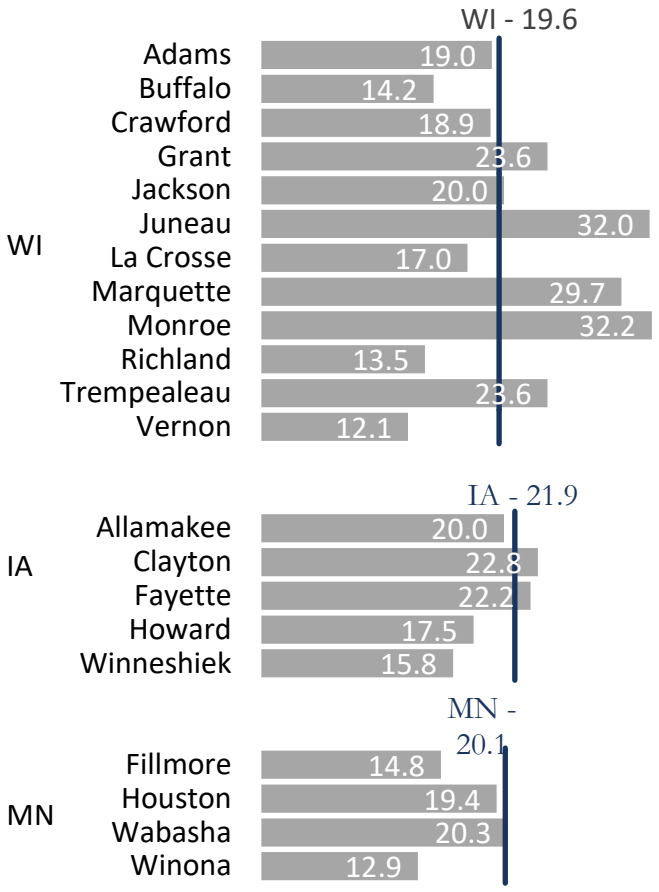
Diabetes

Key takeaways: Across the United States, diabetes affects an estimated 38 million Americans and often goes unreported with a total of 29.7 million people who are currently undiagnosed according to the National Diabetes Statistics Report from the CDC. An individual with diabetes is 2-4 times more likely to develop cardiovascular risk compared to an adult without diabetes. Also, the estimated cost of diabetes in 2022 was $412.9 billion, including $106.3 billion in indirect costs and $306.6 billion in direct medical costs, with diabetes now accounting for one out of every four healthcare dollars being spent in the United States (American Diabetes Association, 2023).

Prevalence of diabetes is increasing and deaths from diabetes has also increased overall. Deaths are the highest in Juneau, Marquette, and Monroe counties in WI.

The age-adjusted mortality rate due to diabetes increased in the 21-county service area from 22.2 in 2018 to 25.9 in 2020. The 2020 rate itself was substantially higher in the 21-county service area compared to Iowa (21.9), Minnesota (20.1) and Wisconsin (19.6) during 2011-2020. At the county level during this same time, Vernon County in Wisconsin recorded 12.1 deaths per 100,000 which was the lowest in the service area. On the other hand, Monroe County had the highest rate (32.2 per 100,000.) Two other counties had a diabetes mortality rate lower than the Healthy People 2030 goal of 13.7 per 100,000. This includes Winona County in Minnesota and Richland County in Wisconsin. Further discussion of rates of diagnosed diabetes, morbidity, and behavioral factors should be considered when developing an implementation plan.

Figure 8. Age-adjusted mortality rates due to diabetes 2011-2020 by county compared to state

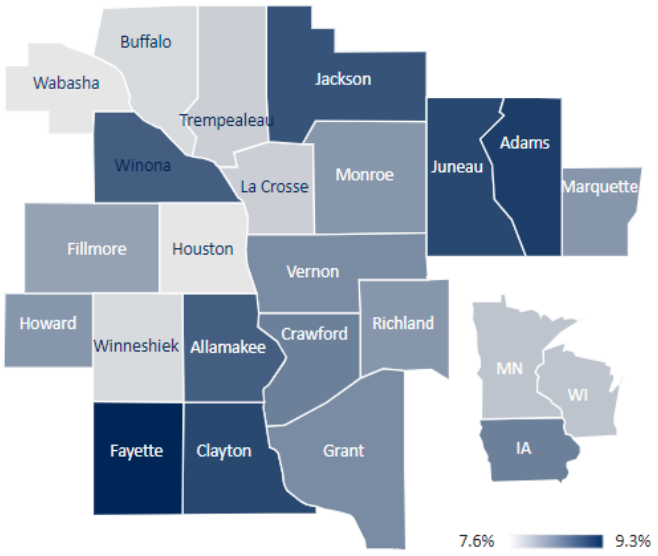


Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2020 on CDC WONDER Online Database, released in 2021.

The prevalence of adults with diagnosed diabetes by county is shown in the following figure. The top 5 counties with the highest rate of diabetes are Adams, Jackson, Juneau (WI), Clayton, and Fayette (IA). Overall, 14 of the 21 counties are at or above their state's average for diabetes. The county with the highest percentage of diabetes is Fayette

County in IA. Of the 7 counties that are below their state's average, Houston and Wabasha Counties in MN have the lowest percentage of diabetes at 7.6%. One of the most important risk factors for diabetes is obesity. Most counties (18 out of 21) have obesity percentages that are greater than their state averages. More than half of the counties in the service area have both obesity and diabetes rates that are higher than their state averages.

Figure 9. % of adults aged 20 and above with diagnosed diabetes (age-adjusted)



Source: University of Wisconsin Population Health Institute (2024). Behavioral Risk Factor Surveillance System 2021

Healthy People 2030 Objectives:

+Reduce the annual number of new cases of diagnosed diabetes in the population from a baseline of 6.5 new cases per 1,000 adults aged 18 to 84 to 5.6 new cases per 1,000.

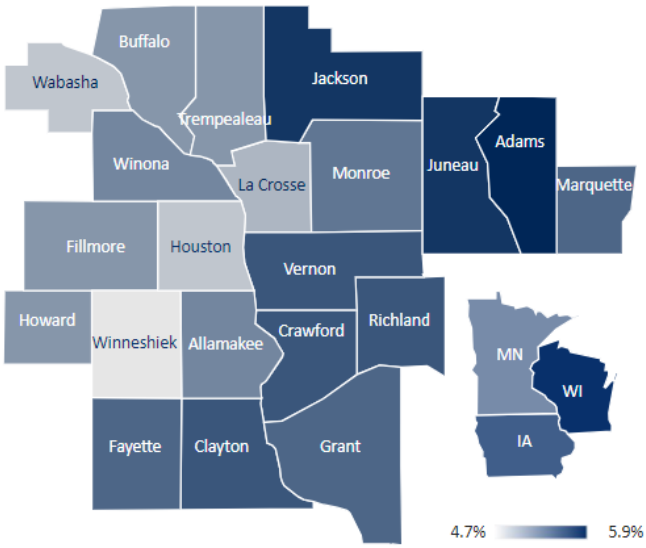
Heart Disease

Key takeaways: There were 1,386 deaths related to heart disease in the 21-county service area in 2018 compared to 1,423 in 2020. The main contributors to heart disease are a combination of tobacco use, obesity, poor diet, lack of physical activity, and genetics. While there was an increase in deaths related to heart disease from 2018-2020, we have seen a dramatic decline over the past few decades due to improved treatment of hypertension and high cholesterol. However, the heart disease mortality rate in our service area is much higher than the Healthy People 2030 goal of 71.1 per 100,000.

Deaths from heart disease in the 21-county service area are declining but are far from HP2030 goals.

The prevalence of heart disease as reported in the County Health Rankings is the percent of adults who have been told by their health care provider that they have heart disease or angina. This may be an under-reporting of the actual prevalence of disease. The percentages for each county in the 21-county service area is shown in Figure 10 for the most recently reported year (2024). Counties with a higher rate of heart disease included Adams, Jackson, and Juneau counties in WI. These counties also have a much higher smoking rate. Significant gains could be achieved with behavior risk reduction and should be considered in implementation plans.

Figure 10. % of population aged 18 years and older with coronary heart disease by county in the GHS service area



Source: PLACES. Centers for Disease Control and Prevention. https://www.cdc.gov/places Behavioral Risk Factor Surveillance System 2021

Overdose & Overdose Deaths

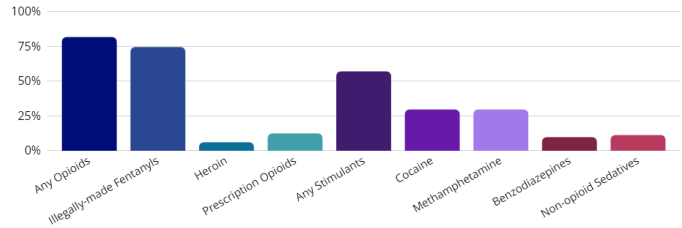
Key takeaways: Overdose rates in the service area are at record highs. The impact of overdoses stretches far beyond tragic individual deaths. Each overdose can tell a story of entangled unmet social needs, Adverse Childhood Experiences, broken connections, suffering health, and costs to the economy. These social costs include the weight of healthy years of life lost due to early onset of disease and premature death. Overdoses greatly contribute to the disparity gap in mortality by disproportionally affecting people of color.

Fatal and Non-Fatal Overdoses

Prescription drug overdose deaths have fallen throughout the region, replaced by the rise in synthetic opioid and heroin overdoses (Iowa State University, 2019). While prescription opioids laid the foundation of the overdose crisis, the current driver of the continuing rise of overdoses is illegally made fentanyl (IMF). IMF is deadly in both its toxicity and its prevalence; up to 80% of injectable street opioids are now indoctrinated with fentanyl which is 50 times stronger than heroin (New York University, 2023; CDC, 2024b). Fentanyl is now involved in 92% of opioid-related deaths and 62% of all overdose deaths in Minnesota and approximately 70% of overdoses nationally (Minnesota Department of Health [MDH], 2024; CDC, 2024b). Stimulants such as methamphetamine and cocaine have also contributed to the continue rise in overdoses (see Figure 11).

> Xylazine is a non-opioid veterinary sedative. 100% of local street opioids contain this new filler. Xylazine overdoses cannot be reversed by naloxone.

Figure 11. Overdose deaths by drug in 30 districts of the United States in 2022 including IA, MN, and WI.



Note: Percentages are not mutually exclusive; multidrug overdoses are attributed to each drug involved.
Source: CDC, 2024-b. Fatal Drug Overdose Data.

Opioid Overdoses

Opioids are highly important to the health of our service area due to their deadliness: the CDC estimates that 81.8% of overdose deaths in 2022 involved at least one opioid. Opioid overdose deaths are entirely preventable. In Iowa and Minnesota the CDC estimates 85% of these overdoses had at least one potential opportunity for life-saving intervention (CDC, 2024b). Some of the progress in slowing the increase of overdose deaths has been due to an increased access in naloxone (Narcan), an overdose-reversing drug. However, naloxone, have been made less effective over the past three years due to the introduction of Xylazine into the drug supply. Naloxone cannot reverse Xylazine overdoses because Xylazine is not an opioid. By making Narcan obsolete, Xylazine makes overdoses more deadly, erasing some of the recent progress in slowing overdose rates (MDH, 2023). As of 2024, local news purports that up to 100% of local street opiates test positive for Xylazine (WXOW, 2024).

Figure 12. Raw number of all drug-related overdose deaths by state, 2014-2022

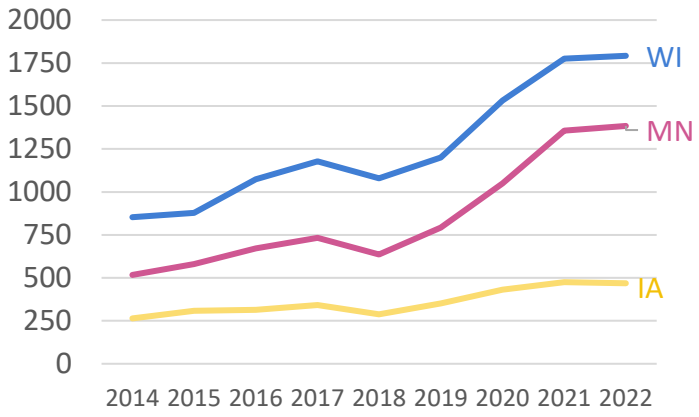
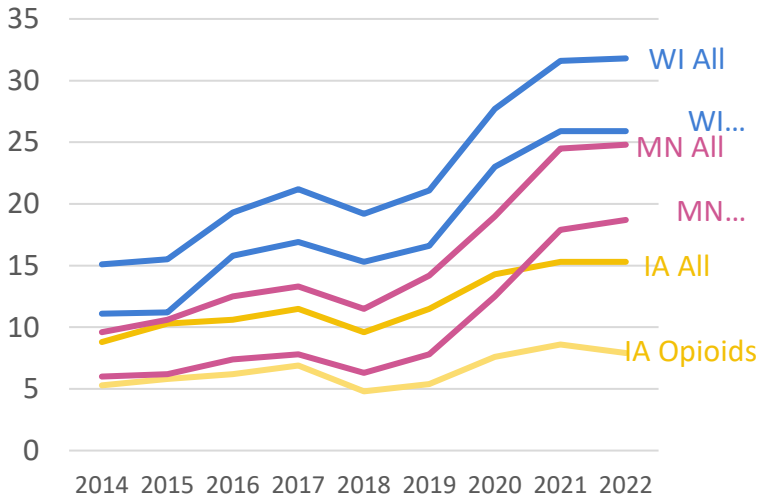


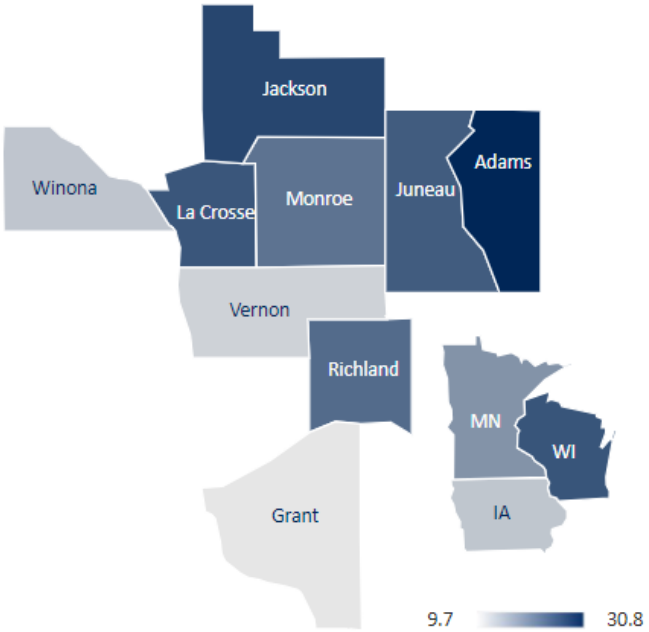
Figure 13. Opioid and all overdose mortality per 100,000 population by State (age-adjusted)



Source: CDC Wonder; Opioid Overdose Death Rates and All Drug Overdose Death Rates per 100,000 Population (Age-Adjusted) | KFF

KFF analysis of Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. Multiple Cause of Death 1999-2022 on CDC WONDER Online Database. Data are from the Multiple Cause of Death Files, 1999-2022, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at http://wonder.cdc.gov/mcd-icd10.html on May 7, 2024.

Figure 14. Age-adjusted drug overdose deaths per 100,000 for known counties



Source: University of Wisconsin Population Health Institute (2024). National Vital Statistics System (NVSS), 2019-21.

Local Overdose Rates

Though county-level data is limited, opioid-related overdoses and all drug-related overdoses are persistently more prevalent in WI than in IA and MN. In Figure 14, Adams County has the highest rate of overdose of 30.8 per 100,000, exceeding the HP2030 objective of maintaining a baseline of 20.7. Some counties, such as Grant, Vernon, and Winona do meet this objective. The variance in overdose rates highlights how severe drug misuse tends to correlate to areas of high unmet social needs, and highlights pockets of health disparity (see Disparities in Opioid Overdoses).

> "In 2021, American Indian Minnesotans **were ten times as likely** to die from a drug overdose than white Minnesotans. Black Minnesotans were more than three times as likely to die from drug overdose than white Minnesotans"

Impact of Overdoses

An overdose is the tip of the iceberg in a long series of events, often beginning in childhood with Adverse Childhood Experiences (see ACE section). Death by overdose is the final, worst outcome for unmet physical, social, and health needs. Therefore, each fatal or non-fatal overdose is a symptom of underlying weaknesses of multiple systems including family, organizational, and governmental. In addition, the reverberations of fatal and non-fatal overdoses contribute to years of healthy life lost and extensive economic cost. For every one fatal overdose in Minnesota in 2022, there were 13 non-fatal overdoses (MDH, 2023). Each overdose tells a long story with innumerable impacts to our families and communities.

The overdose crisis carries a hefty price tag. In Wisconsin, cost per capita is nearly double that of Minnesota, exceeding the national cost per capita of $3,134 per year.

Figure 15. Economic Cost of Opioid Use Disorder and Fatal Overdose by State in 2017

Location	Total Cost	Cost per Capita
Iowa	$6.14 billion	$1,952
Minnesota	$8.41 billion	$1.509
Wisconsin	$18.66 billion	$3,219
United States	$1.02 trillion	$3,134

Source: Iowa Department of Health and Human Services, 2024; Centers for Disease Control and Prevention, 2017.

Overdose Reduction Efforts

Minnesota has invested heavily in reducing the prevalence and impact of substance abuse and resulting overdose. They have enacted measures such as increasing the availability of naloxone. In

addition, they are addressing substance use at the state level through prevention, harm reduction, treatment, and recovery. Reduction efforts have also included expansion of the adoption of medically assisted treatment and peer recovery support systems. These efforts have resulted in the number of overdose deaths remaining steady between 2021-2022 instead of increasing, though this progress is threatened by the rise of Xylazine and illegally made fentanyl (MDH, 2023) as described above.

Disparities in Opioid Overdoses

Many opioid deaths tell stories of inequity. In Minnesota in 2021, American Indian Minnesotans were ten times more likely to die of a drug overdose. Black Minnesotans were three times more likely to die. Nationally, approximately 70% of drug overdose deaths occur in men (MDH, 2024; National Institute on Drug Abuse, 2024).

In addition, there are pockets of high opioid use in rural areas throughout the service area. For example, Iowa State University reported in 2019 that opioid clusters are correlated with economic disadvantages, law enforcement disadvantages, injury-prone employment, and limited social capital such as family and community support (Iowa State University, 2019).

Healthy People 2030 Objectives:

+Maintain the baseline of drug overdose deaths of 20.7 age-adjusted deaths per 100,000.

Health Outcomes: Quality of Life

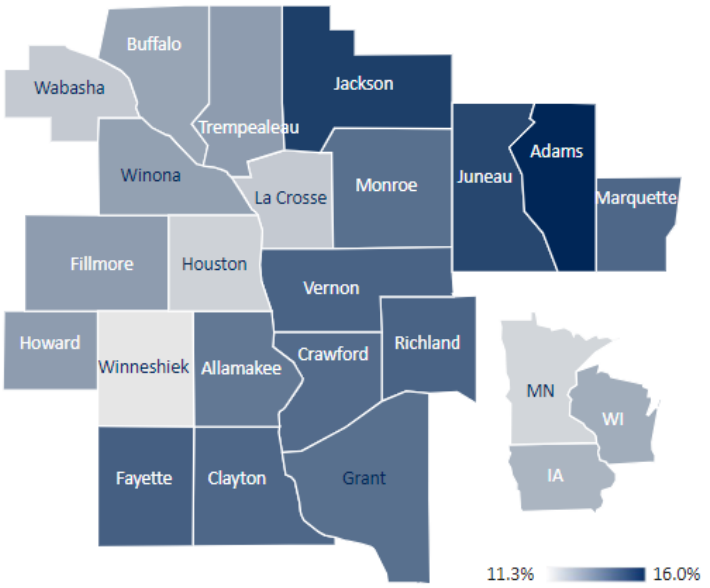
Self-Reported Health Status

Key takeaways: In addition to measuring how long people live, it is important to also include measures that consider how healthy people are while alive; their quality of life. An increased rate of disease within a population impacts the burden upon the individual and the community. Self-reported health status is a general measure of health-related quality of life (University of Wisconsin Population Health Institute, 2024). Health care cost, loss of work time, and risk for other health complications decrease the quality of life within a region.

Most people in the 21-county service area rate their health worse than their respective state averages. This may be partially explained by the age composition of the service area and other ethnic factors.

Quality of life represents the well-being of a community and encompasses the importance of mental, social, emotional, and physical health from birth through adulthood. Along with that, quality of life also tells us about how people perceive their own health and whether they feel healthy and satisfied (University of Wisconsin Population Health Institute, 2024). Individuals reporting their health fair or poor are considered to have a poor quality of life. Healthy People 2030 has not set goals for self-reported health but monitor it as a broad, comprehensive measure that reflects the contributions of the Healthy People 2030 objectives to overall health and well-being.

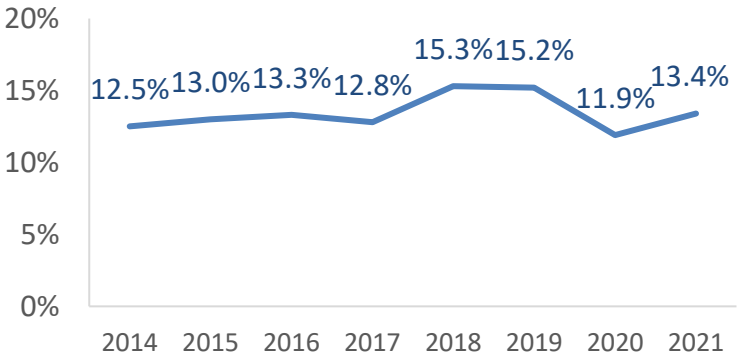
Figure 16. % of adults reporting fair or poor health by county



Source: University of Wisconsin Population Health Institute (2024). Behavioral Risk Factor Surveillance System 2021

Wisconsin and Iowa have a higher (worse) rating of fair or poor health than Minnesota. Adams, Jackson, and Juneau counties all have higher rates of fair or poor health compared to the overall Wisconsin rate. These rates are age-adjusted, so worse self-rated health is not a result of an older population. Self-reported health may also differ by race/ethnicity, in part, because cultural differences in reporting patterns due to different definitions of health may exist. It is important to be aware of these differences when comparing across the Gundersen 21-county service area.

Figure 17. % of adults reporting fair or poor health (age-adjusted) for the Gundersen service area (a weighted average)



Source: University of Wisconsin Population Health Institute (2024).

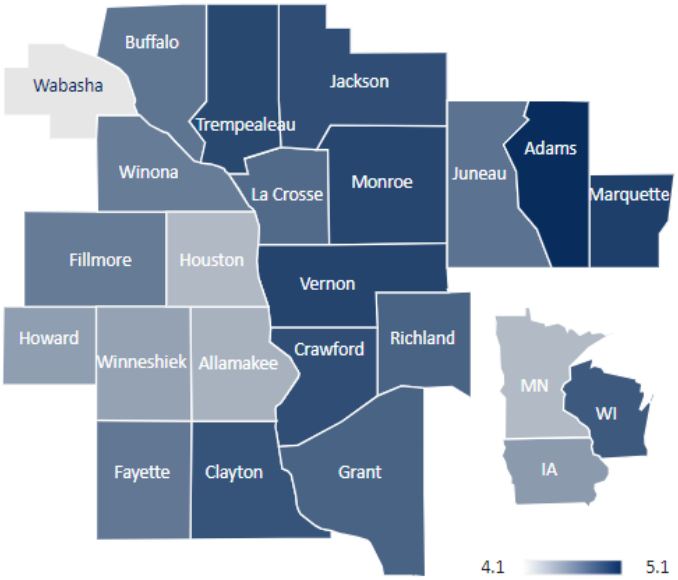
Poor Mental Health Days

Key takeaways: A person's overall health includes their mental well-being. The average poor mental health days for individuals is considered an aspect of the health-related quality of life indicator. Counties with more unhealthy days have higher rates of unemployment, poverty, percentage of adults who did not complete high school, mortality rates, and disability (University of Wisconsin Population Health Institute, 2024). Mental health can be intimately tied to Adverse Childhood Experiences, chronic illness, homelessness, and alcohol/substance abuse, influencing health behaviors and outcomes (ODPHP, 2021).

Overall, the average poor mental health days per month in the 21-county service area range between 4.1-5.1 days. Statewide averages are 4.3 days per month in Minnesota, 4.5 days per month in Iowa, and 4.8 days per month in Wisconsin (University of Wisconsin Population Health Institute, 2024).

Of note, the average poor mental health days per month continue to increase for all 21 counties in the Gundersen service area along with state averages for Minnesota, Iowa, and Wisconsin. In 2021, reported state averages (2018 data collection year) were 3.5 days in Minnesota and Iowa, and 4.0 days in Wisconsin. During the same time, the average poor mental health days per month in the 21-county service area was lower, ranging between 3.5 and 4.5 days per month.

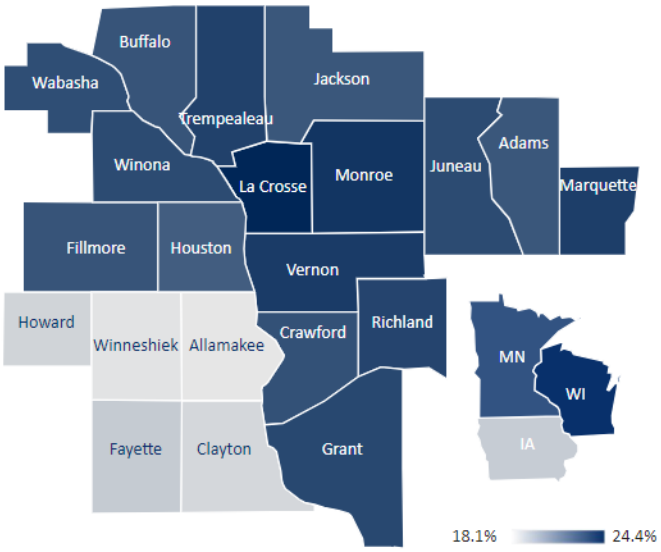
Figure 18. Average # of poor mental health days by county (age-adjusted)



Source: University of Wisconsin Population Health Institute (2024). Behavioral Risk Factor Surveillance System 2021

Across the 21-county service area, the percent of adults reporting being told by a doctor, nurse, or other health professional that they had a depressive disorder range between 18.1% and 24.4% (age-adjusted) (see Figure 19). State averages include 17.1% in IA, 20.4% in WI and 20.5% in MN. All counties across the 21-County Service Area are above their respective state average for percent of adults reporting being told by a doctor, nurse, or other health professional that they had a depressive disorder.

Figure 19. % of adults reporting being told by a doctor, nurse, or other health professional that they had depressive disorder by county (age-adjusted)



Source: PLACES. Centers for Disease Control and Prevention. Accessed May 18, 2024. https://www.cdc.gov/places

Additionally, according to the 2020-2021 Youth Risk Behavior Survey (YRBS), approximately 40% of high school students in WI and approximately 40% in IA, reported feeling sad or hopeless almost every day for two or more weeks in a row, during the past 12 months. According to the 2022 Minnesota Student Survey, (a different survey method than the YRBS), the precent of students reporting feeling down, depressed, or hopeless nearly every day or more than half the days was 19% for 8th grade students, 21% for 9th grade students, and 24% for 11th grade students.

Health Factors: Health Behaviors

Smoking

Key takeaways: Tobacco use is the leading cause of preventable death, disability, and illness in the United States. Each year, more than 16 million Americans suffer from a disease caused by smoking, and smoking-related illnesses lead to over 480,000 deaths (ODPHP, 2024). Furthermore, smoking-related illnesses cost the nation billions of dollars annually in direct medical costs and lost productivity (Centers for Disease Control and Prevention, 2023). Estimates show that as much as 80% to 90% of lung cancer deaths can be linked to cigarette smoking (Division of Cancer Prevention and Control, Centers for Disease Control and Prevention, 2023).

Smoking rates are highest in Adams, Jackson, and Juneau counties in WI, Clayton and Fayette Counties in IA, and Fillmore County in MN. Smoking rates were lowest in La Crosse County in WI and Winneshiek County in IA.

Healthy People 2030 Objectives:

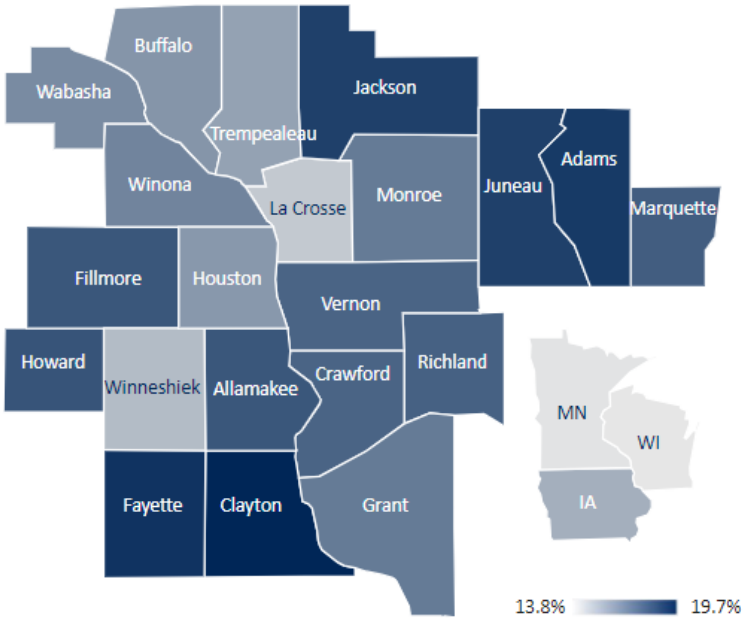
+Reduce cigarette smoking by adults from a baseline of 13.9% of adults aged 18 years and older to 5.0%.
+Reduce the current use of combustible tobacco products among adults aged 18 years and over from a baseline of 16.8% to 5.0%.
+Increase recent smoking cessation success among adult smokers aged 18 years and over from a baseline of 8.3% to 10.2%.
+Increase the proportion of smoke-free homes from a baseline of 86.5% to 92.9%.

The smoking rates in figure 20 are age-adjusted to reflect the age of the population. Smoking rates continue to decline over time. The service area average decreased from 19.8% in our previous report to 17.5%. Overall, county smoking rates range between 14.7% and 19.7% (previously 17%-23%).

Although smoking rates continue to decline, they remain above state averages and Healthy People 2023 objectives. The only county below their respective state average is Winneshiek County (15.1%) in IA (state average 15.5%). Clayton county in IA has the highest percentage of population who smoke (19.7%), La Crosse County has the lowest adult smoking rate at 14.7%. Although La Crosse County has the lowest smoking rate in the 21-county service area, it remains above the WI state average of 13.8% and Healthy People 2030 baseline (13.9%) and goal (5.0%).

Generally, higher smoking rates are seen in the region's rural counties as shown in figure 20. These counties tend to have residents living with lower socio-economic status. Additionally, prior to a methodology change in how this data was reported, the service area weighted average and many of the county rates were lower than their respective state averages. This illustrates the impact of age on the smoking rate.

Figure 20. % of population who smoke (age-adjusted) by county in the GHS service area



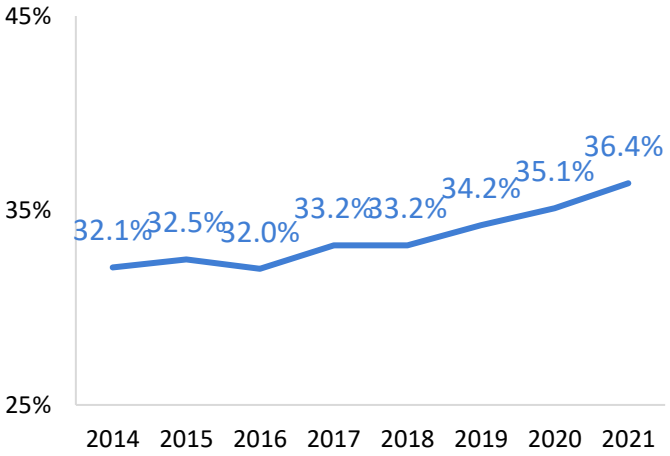
Source: University of Wisconsin Population Health Institute (2024). Behavioral Risk Factor Surveillance System (2021)

Obesity

Key takeaways: Obesity (a body mass index of 30 kg/m^2 or higher) is a complex chronic health condition of adults and children defined as a measure of excess weight (CDC, 2022). It is caused by many risk factors including lifestyle behaviors such as eating patterns, lack of physical activity, and quality sleep, along with other factors like genetics, family history, and social determinants of health (National Health Institute, 2022). Obesity increases the risk for coronary heart disease which is the leading cause of death in the United States and is linked to other diseases including type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems (such as asthma), osteoarthritis, and poor health status (CDC, 2022). Nationally, the rate of obesity has been increasing over the past several decades as well as in the 21-county service area.

Obesity and physical inactivity rates are highest in Fayette County, IA. However, Marquette County, WI, residents feel they are without opportunities for physical activity. Obesity rates are also high in Clayton (IA), Richland (WI) and Vernon (WI) counties, which are mainly rural. A better understanding of opportunities for primary prevention of obesity in rural locations is important to consider.

Figure 21. % of population with obesity for the Gundersen System's service area (a weighted average)



Source: County Health Rankings & Roadmaps - http://www.countyhealthrankings.org

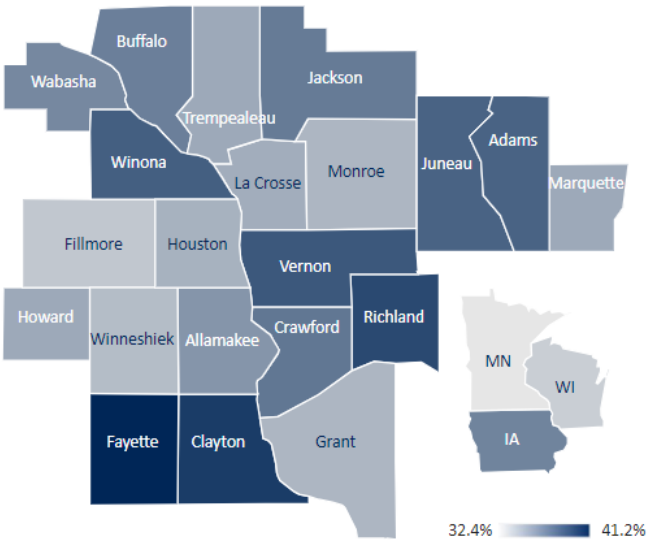
The rate of obesity for the 21-county service area in 2021 was 36.4%, showing a continued upward trend and above the HP2030 goal of 36%.

Healthy People 2030 Objective:

+Reduce the proportion of adults who are obese from 38.6% of persons aged 20 or over to 36.0%.

Overall, county obesity rates range between 34.3% and 41.2%. Most counties are above their state average. Fayette County in IA has the highest obesity rate (41.2%) while Fillmore County in MN has the lowest obesity rate (33.8%). Only 9 of the 21 counties meet the HP2030 goal of less than 36% of the population living with obesity.

Figure 22. % of the adult population that reports a body mass index (BMI) greater than or equal to 30 kg/m2 (age-adjusted) by county in the service area



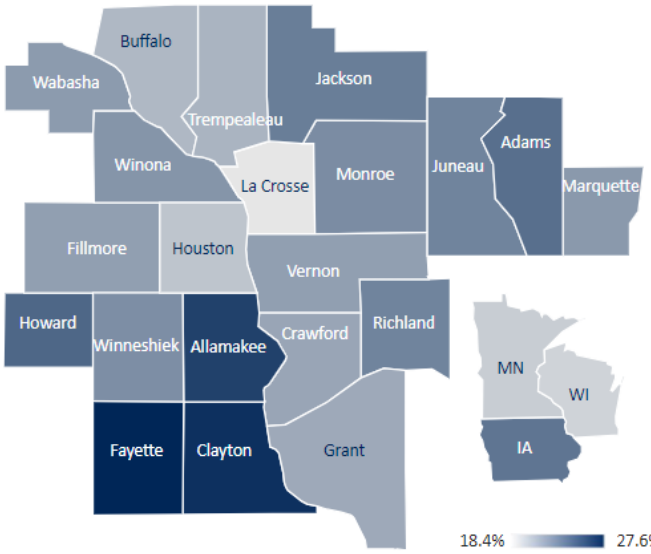
Source: University of Wisconsin Population Health Institute (2024).

Physical Activity & Access to Exercise Opportunities

Key takeaways: One risk factor that can lead to excess weight and obesity is physical inactivity (Centers for Disease Control and Prevention, 2022). It is recommended that adults spend at least 150 minutes per week in moderate intensity activity; however, only about 50% of adults meet this recommendation according to self-reported data (CDC, 2022). Additionally, adolescents are recommended to spend at least 60 minutes a day being active, yet less than one quarter of youth ages 6-17 years old meet this guideline daily (CDC, 2022).

Physical activity is influenced by the environment in which one lives, including such things as safety, presence of natural or built structures like parks, sidewalks, bicycle lanes, and other opportunities such as fitness facilities and municipal swimming pools. Opportunities to be physically active in rural communities may "look" different, where towns are further apart, more of the population live on farms, and occupations tend to be more manual labor.

Figure 23. % of adults aged 20 and over who are inactive

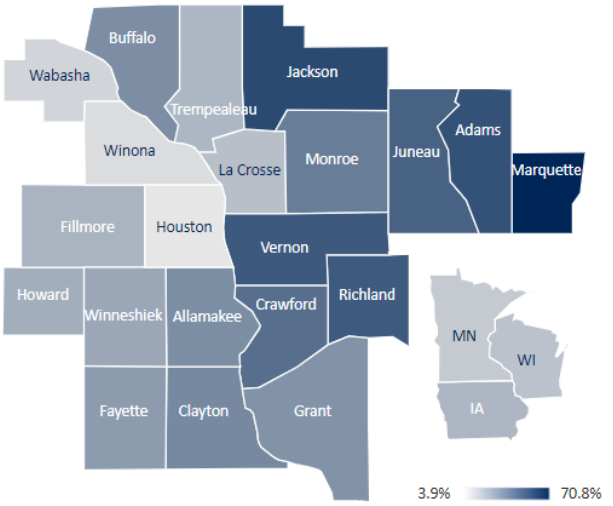


Source: Inactive measure - University of Wisconsin Population Health Institute (2024). Behavioral Risk Factor Surveillance System 2021

Healthy People 2030 Objectives:

+Reduce the proportion of adults 18 and older who engage in no leisure-time physical activity from a baseline of 25.4% to 21.2%.
+Increase the proportion of adolescents who meet the current aerobic physical activity guideline from a baseline of 26.1% of students in grades 9-12 to 30.6%.
+Increase the proportion of adults who meet the current minimum aerobic physical activity guideline needed for substantial health benefits from a baseline of 54.2% to 59.2%.

Figure 24. % of population who without access to exercise opportunities



Sources: Access measure - University of Wisconsin Population Health Institute, (2018). ArcGIS Business Analyst and ArcGIS Online; YMCA; US Census TIGER/Line Shapefiles

Overall, residents of the 21-county region feel they have poorer access to exercise opportunities. Ninety percent of counties (19 of 21) exceed their state averages for physical inactivity. Physical inactivity may be one factor that contributes to obesity rates, as well as other negative health outcomes. Increasing opportunities and providing strategies to increase activity for all residents, regardless of geographic location, race or ethnicity, age, sex, education, or disability should be imperative to addressing chronic illness and other health outcomes.

Excessive Alcohol Use

Key takeaways: Excessive drinking includes binge drinking (4 or more drinks on a single occasion for women, and 5 or more drinks for men), heavy drinking (1+ per day for women, and 2+ per day for men), and any drinking by pregnant women or people younger than age 21 (CDC, 2024a). According to the Behavioral Risk Factor Surveillance System, more than half of US adults report drinking alcohol in the past 30 days. Nationally, nearly 7% of adults report heavy drinking and about 17% of adults binge drink (CDC BRFSS, 2024). Of note, nearly all adults who engage in heavy drinking also binge drink (CDC BRFSS, 2024).

Alcohol and substance abuse are significant risk factors in the 21-county service area. Excessive alcohol use is common. Drug use, especially opioids, has become more common in the service area. Local efforts should seek better data on the extent of the problem and ways to address these issues relative to the resources available in the community.

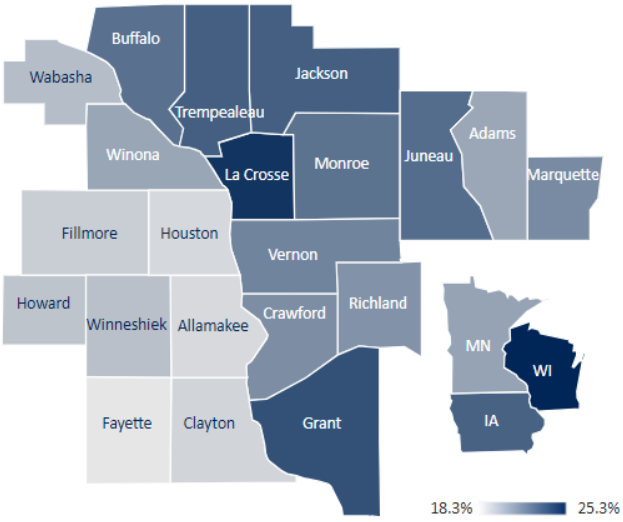
Impact of Excessive Alcohol Use

Excessive alcohol use is a risk factor for several chronic diseases such as high blood pressure, heart disease, stroke, liver disease, and cancer along with other serious problems like alcohol poisoning, suicide, interpersonal violence, and motor vehicle accidents.

According to the Alcohol-Related Disease Impact (ARDI) Application, excessive alcohol use attributed to 178,000 deaths and 4 million years of potential life lost annually on average in 2020-2021 (CDC Alcohol Related Disease Impact Application, 2020-2021). Excessive use also contributes to at least $249 billion in economic costs annually (CDC, 2024a).

Furthermore, excessive alcohol use can lead to alcohol abuse and can be a risk factor in child maltreatment cases and negative mental health outcomes. Excessive alcohol use should be addressed to lessen the impact of these risk factors, as well as to reduce injuries and fatalities due to use.

Figure 25. % of adults reporting binge or heavy drinking (age-adjusted) by county



Source: University of Wisconsin Population Health Institute (2024). Behavioral Risk Factor Surveillance System 2021

Of the 21-county service area, Wisconsin counties have the highest rates of excessive drinking ranging from approximately 20.6-24.8% of the population, followed by Minnesota (18.8-20.6%) and Iowa (18.3-19.7%) counties. La Crosse County in WI has the highest rate (24.8%) while Fayette County in IA has the lowest (18.3%). All counties are below their state average.

Illicit Substance Use & Abuse

Key takeaways: Substance use is a damaging coping mechanism in reaction to adverse life and childhood experiences. Substance use contributes to harmful situations, such as injury and job loss. Further, illicit substance use costs almost $2000 each year per U.S. citizen (SAMSHA, 2023). Substance use in the home is one of ten Adverse Childhood Experiences (ACEs) that can contribute to continuing the adverse experience cycle by damaging development through exposure to uncertainty and stress (CANPB, 2018).

Substance use becomes abuse when use begins to disrupt normal functioning in relationships or work. When dependence is developed, substance abuse graduates to Substance Use Disorder (SUD) (U.S. Department of Health and Human Services [HHS], 2024). Implementing Interventions that lead to the reduction of substance use, abuse, and SUD improves the health of our region directly, by improving the health of individuals, and indirectly, by building thriving communities that can avoid further trauma and adverse experiences of illicit drug use. Nationally, at least one in four, or 70.3M people use illicit drugs each year (SAMHSA, 2023).

Figure 26. U.S. 2022 National Rates of Substance Use by Illicit Substance in People Aged 12 and Older

%	# People Using	Substance
24.9%	70.3M	Any illicit drug
22.0%	61.9M	Marijuana
5.0%	14.2M	Prescription psychotherapeutics (pain relivers, stimulants, tranquilizers, sedatives)
3.2%	8.9M	Opioids
3.0%	8.5M	Hallucinogens
1.9%	5.3M	Cocaine and crack
1.0%	2.7M	Methamphetamine
0.8%	2.3M	Inhalants (solvents, aerosols, gases, nitrites)
0.8%	2.2M	Cough suppressant misuse
0.7%	1.9M	Kratom
0.4%	1.0M	Fentanyl*
0.4%	1.0M	Heroin
0.3%	786K	Synthetic marijuana
0.1%	221K	GHB
0.1%	216K	Synthetic cathinones aka “Bath salts”

*Likely severely underestimated because many users unaware drugs have been adulterated by illegally made fentanyl (IMF)

Source: SAMHSA, 2023

Prescription Drug Misuse

Of the 14.2 million Americans who misused prescription psychotherapeutics in 2022, 8.5 million misused prescription pain relivers. This substance use can be especially dangerous due to the risk of shifting to unregulated street drugs when prescription supply runs out. People who misuse pain relivers generally (67.3%) misuse the substance for relief of their physical pain. 8.4% report using pain relivers to get high, 6.7% to relax, 5.5% to sleep, 4.3% to assist with difficult feelings, 4.0% for "feeling hooked," among other reasons (SAMSHA, 2023).

Most people (44.6%) report gaining the prescription pain relivers from a friend or relative, while 38.6% got the drugs through prescription from a healthcare provider. According to pain reliever misuse initiate estimates, most new users are 26 or older. However, almost 200,000 children ages 12 to 17 also initiated prescription drug misuse in 2022, representing a concerning and continuing trend of younger prescription misuse.

Efforts in awareness of the addictive potential of all opioids, including prescriptions and accompanying policy change between 2017-2022 have resulted in fewer opioid prescriptions dispensed. For example, statewide efforts in Minnesota have reduced the number of opioids prescribed from a high of 3,180,131 prescriptions in 2017 to 2,115,909 in 2022 (Minnesota Department of Health, 2022).

Health Factors: Clinical Care

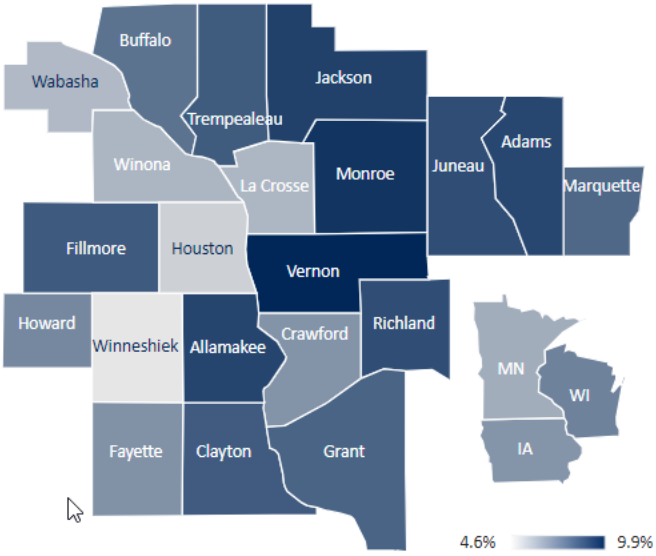
Uninsured

Key takeaways: Lack of health insurance coverage is a significant barrier to accessing needed health care and maintaining financial security. People who lack consistent insurance tend to seek medical care only when they have a serious health problem. Thus, preventive care screenings that could reduce serious illness and death are delayed. Seeking medical care when one is uninsured can also lead to serious financial consequences, with many unable to pay their medical bills, resulting in medical debt. The Affordable Care Act passed in 2010, along with state-wide expansion of Medicaid has greatly decreased the number of people that are uninsured.

> Clinical care is dependent on the availability of providers, the ability to pay for care, and for the quality of care offered. There are also cultural differences in healthcare seeking behavior that should be considered when assuring the population in the 21-county service area have access to the highest quality care. Rural underserved communities are at highest risk of unmet needs.

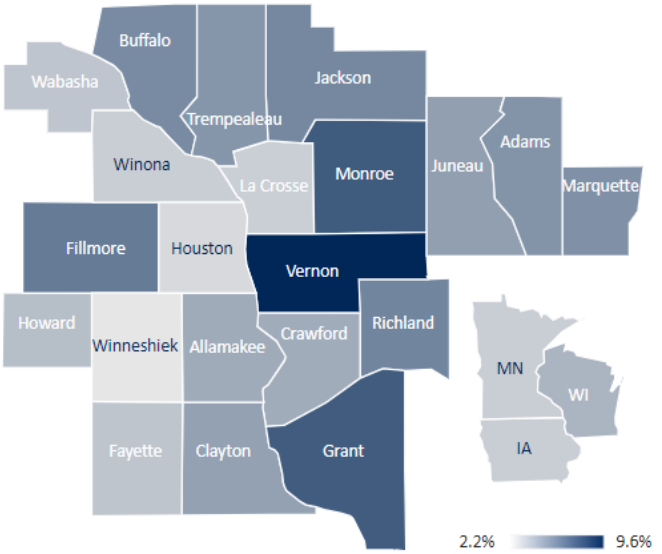
Wisconsin has the highest rate of uninsured persons under age 65 at 7.4% of the population, compared to Iowa (6.9%), and Minnesota (6.2%). Vernon County in WI, has the highest rate of uninsured persons under age 65 (9.9%), followed by Monroe (9.5%) and Jackson (9.2%) counties. Allamakee County in IA, and Fillmore County in MN also have higher rates of uninsured. These counties tend to also have more racial/ethnic diversity (e.g., Amish population in Fillmore and Vernon counties, and Native American population in Jackson County) and may choose non-traditional healthcare. Additionally, the COVID-19 pandemic may have affected the number of people that had access to reliable insurance through their employer.

Figure 27. % of population under age 65 without health insurance by county



Source: University of Wisconsin Population Health Institute (2024). US Census Bureau's Small Area Health Insurance Estimates (SAHIE) (2021)

Figure 28. % of population under age 19 without health insurance by county

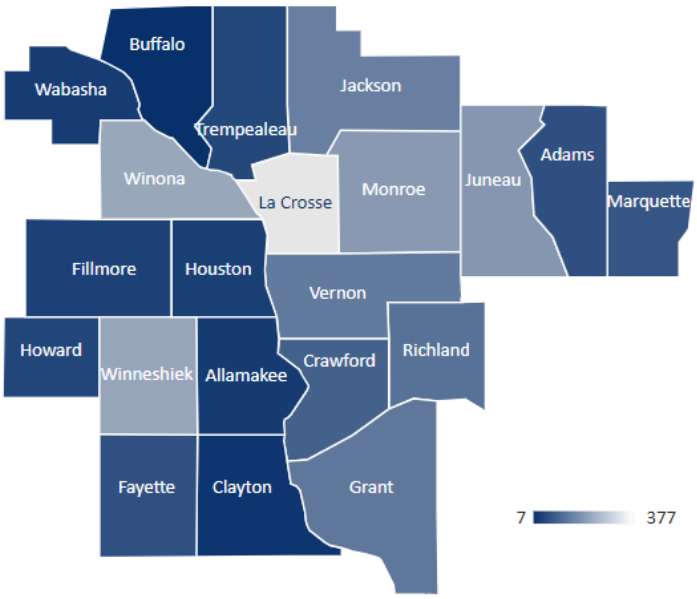


Source: University of Wisconsin Population Health Institute (2024).
US Census Bureau's Small Area Health Insurance Estimates (SAHIE) (2021)

Access to Mental Health

Key takeaways: Clinical care involves access to affordable and quality health care and contributes to both length of life and quality of life (County Health Rankings and Roadmaps, 2024). Lack of adequate access to mental health providers, leads to increased risk for poorer health outcomes and premature mortality (Centers for Disease Control and Prevention, 2023).

Figure 29. # of mental health providers per 100k population



Source: University of Wisconsin Population Health Institute (2024). National Provider Identification (NPI) Registry (2023)

Additionally, mental health can contribute to one's ability to maintain good physical health. Data for access to mental health providers for the 21-county service area and individual counties from the County Health Rankings is shown in figure 29. Only two counties are above their state average for number of mental health providers per 100k population which are La Crosse County in WI (377 per 100k population), followed by Winneshiek County in IA (245 per 100k population). Rural, underserved counties in the 21-county service area have the least access to mental health providers, overall. Though many counties are facing disparities in access to mental health providers, the three counties facing the greatest disparity are Buffalo County in WI and Allamakee and Clayton Counties in IA. Buffalo County in WI has the least access at 7 mental health providers per 100k population.

Healthy People 2030 Objectives:

+Increase the proportion of primary care office visits where persons aged 12 years and older are screened for **depression** from a baseline of 8.5% to 13.5%.

Access to Dental Health

Key takeaways: One aspect of physical health is oral health. Lack of access to a dental health provider contributes to decreased access to preventative care, ultimately resulting in a higher incidence of oral diseases (Centers for Disease Control and Prevention, 2021). Research shows poor oral hygiene is associated with an increased risk of chronic conditions like diabetes and cardiovascular disease (Gou, Shi, Lou, Ding, and He, 2023).

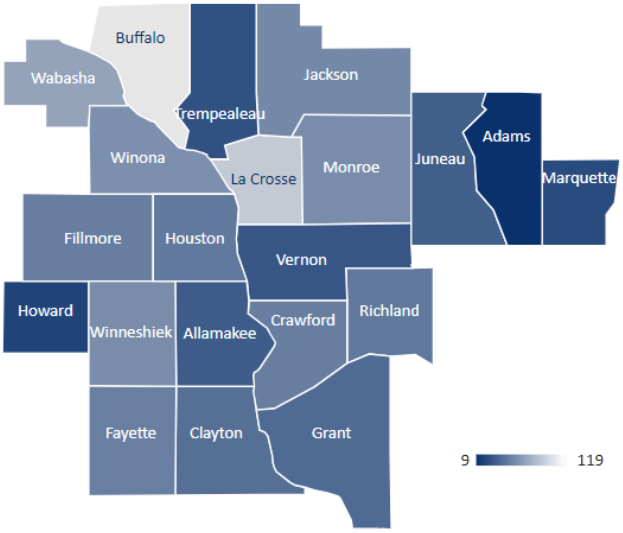
Additionally, children's dental health has been an overlooked component of overall wellbeing. Poor oral hygiene in children is associated with poor social relationships and performance in school, as well as less success and negative health outcomes later in life (Seattle Childrens, 2024).

Buffalo County in WI is above the state average at 119 dentists per 100k population, followed by La Crosse County in WI at 102 dentists per 100k population. The counties facing the greatest disparity in access to dental health providers are rural Adams, Marquette, Trempealeau, Allamakee, and Howard counties. Adams has the lowest access at 9 dental health providers per 100k population.

Healthy People 2030 Objectives:

+Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary **dental care** from a baseline of 4.6% to 4.1%.

Figure 30. # of dentists per 100k population



Source: University of Wisconsin Population Health Institute (2024). National Provider Identification (NPI) Registry (2023)

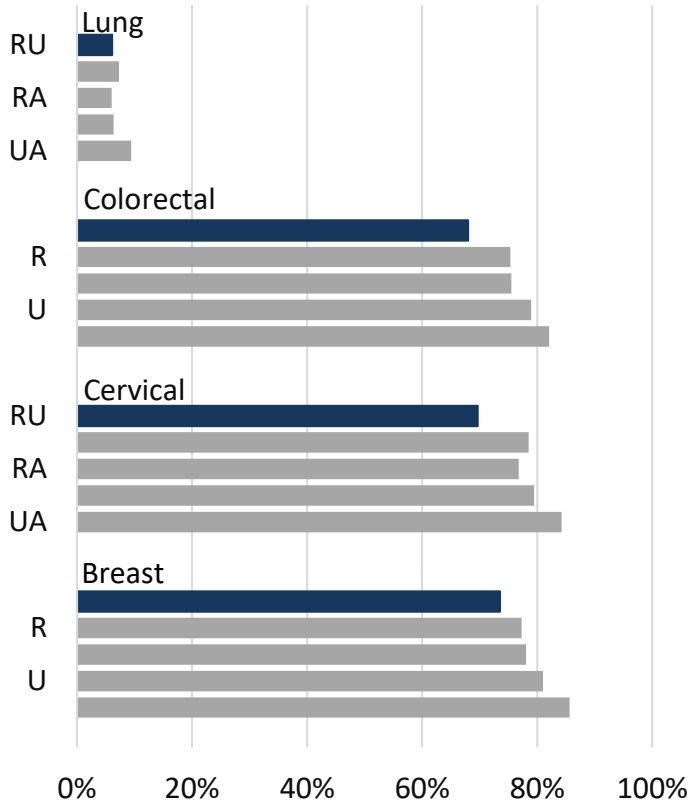
Preventive Care Screening

Key takeaways: Screening for cancer is the best way to identify cancer in an earlier stage which usually results in better prognosis and longer life. Cancer screening compliance can be used as a proxy for overall quality of care metrics.

There are disparities in screening of low-insured, non-white patients, particularly living in rural and underserved communities in the 21-county service area.

In 2019, the Wisconsin Collaborative for Healthcare Quality released a report on quality metrics by race/ethnicity, and ability to pay for care (payer) (Wisconsin Collaborative for Healthcare Quality, 2019). In 2020, they released a similar report on these same quality metrics based on living location. (Wisconsin Collaborative for Healthcare Quality, 2020). Living location was defined by zip code of residence and was categorized into rural versus urban communities. These were then further broken down into underserved, urban, or advantaged communities based on a combination of socioeconomic variables (Health Innovation Program, 2020).

Figure 31. Cancer screening rates by living location

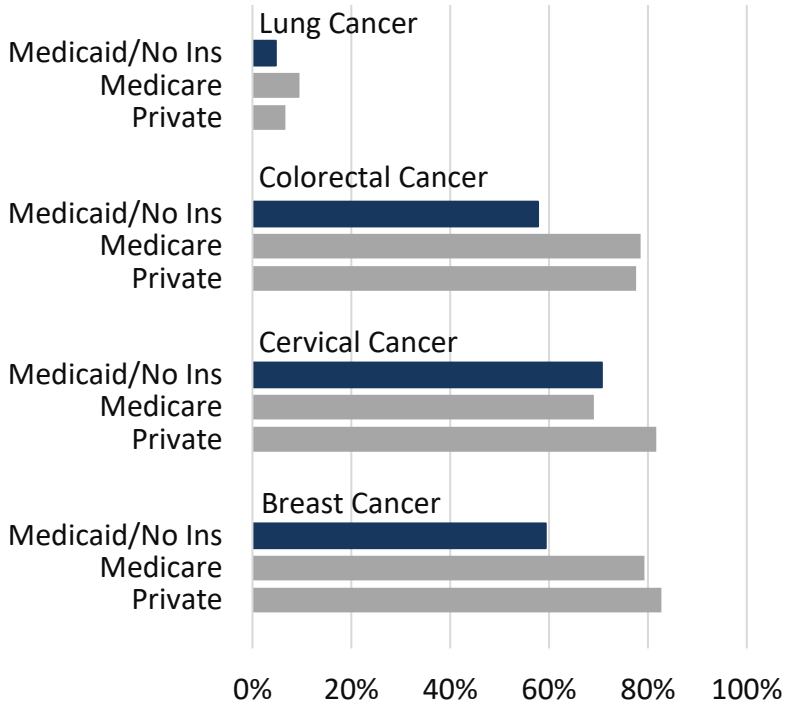


Source: Gundersen Center for Cancer and Blood Disorders Cancer Needs Assessment, released 2021

The 2021 Gundersen Center for Cancer and Blood Disorders Cancer Needs Assessment examined four cancer screening measures for breast, colorectal, cervical, and lung cancer by race, payer, and living location. (Gundersen Center for Cancer and Blood Disorders Cancer Needs Assessment, released 2021). Overall, communities considered to be rural underserved were consistently 1.2 times less likely to be screened than patients in urban advantaged communities.

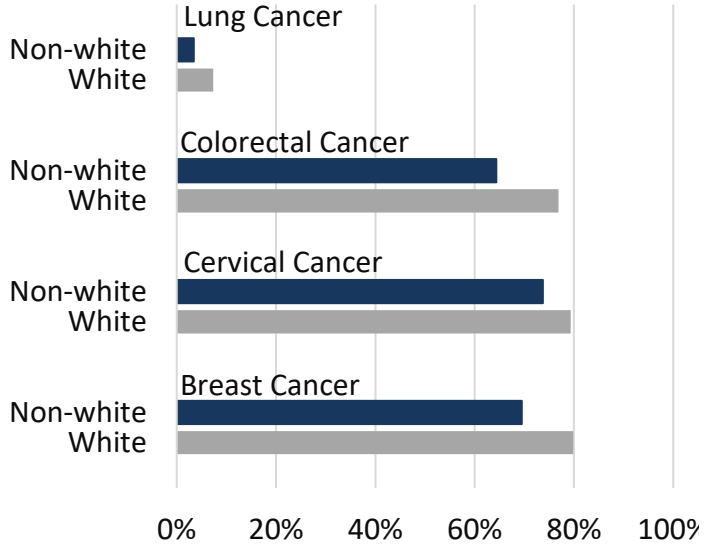
Other findings from this analysis showed significant differences in completion of these tests by payer and race. Patients with Medicaid or that were uninsured were 1.3 to 1.4 times less likely to be screened for breast, cervical, colorectal and lung cancers. Non-white patients were 1.1 to 1.2 times less likely to be screened for these cancers. These findings are worsened when examining race and payer status by living location, where those patients from rural underserved communities with low insurance or that were non-white, were 1.3 to 1.5 times less likely to be screened.

Figure 33. Cancer screening rates by payer



Source: Gundersen Center for Cancer and Blood Disorders Cancer Needs Assessment, released 2021

Figure 32. Cancer screening rates by race



Source: Gundersen Center for Cancer and Blood Disorders Cancer Needs Assessment, released 2021

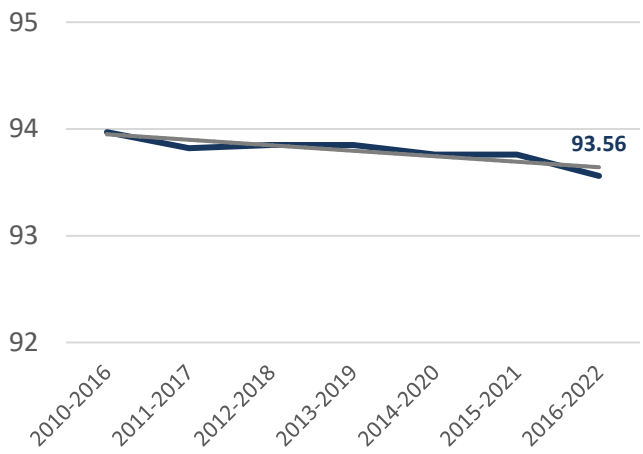
Healthy Pregnancy

Key takeaways: Low birthweight is an important public health indicator that can be used to assess maternal health, nutrition, healthcare delivery, and poverty. Infants born with low birthweight may face long-term adverse health outcomes. Infants who survive may face adverse health outcomes such as decreased growth, lower IQ, impaired language development, and chronic conditions (e.g., obesity, diabetes, cardiovascular disease) during adulthood. (UNICEF, 2023)

The rate of low birthweight deliveries has increased in the service area. Currently, 6.4% of born in our service area from 2016-2022 were <2500g. The IOM estimated the cost of care in the first year of life to be 10 times higher for a low-birthweight infant.

Controllable factors that decrease the likelihood of preterm births include proper nutrition, limiting maternal stress and exposure to substance misuse and tobacco during pregnancy. The best way to mitigate these exposures is to ensure pregnant women have early and adequate prenatal care. Early prenatal care can also be the primary opportunity to refer women to community resources that can address these issues and ensure a healthy pregnancy. These include referral to healthy food, transportation, and social support and stress the importance of Social Determinants of Health Screening in this population.

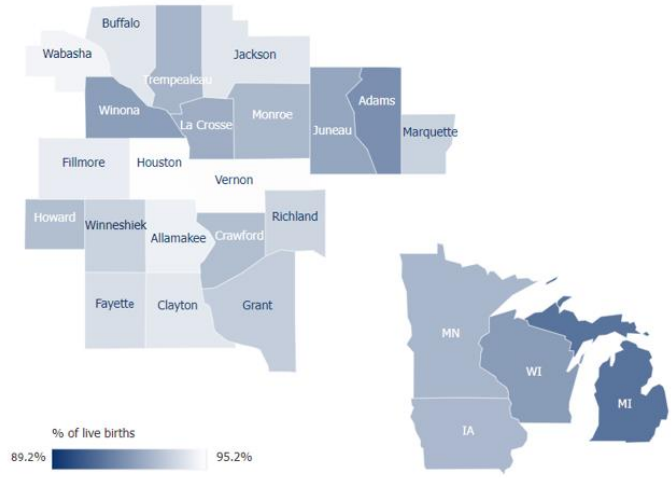
Figure 34. Healthy pregnancy weight by year for 21-county service area



Source: County Health Rankings & Roadmaps - http://www.countyhealthrankings.org

Low birthweight is known to be higher in areas of higher poverty, increased food insecurity, in non-white women, and in areas with limited health care resources. “Maternity care deserts,” counties without a hospital or birth center offering prenatal care and without any obstetric providers, are increasing in rural areas. The March of Dimes reports that 36% of counties in the US are maternity care deserts. (March of Dimes, 2022)

Figure 35. % of live births in the Gundersen Health System that were at or above a healthy birthweight (>2500 grams)



Source: County Health Rankings & Roadmaps - http://www.countyhealthrankings.org

Healthy People 2030 Objectives:

+Reduce preterm births from a baseline of 10.0% to 9.4%
+Increase abstinence from cigarette smoking among pregnant women from a baseline of 93.5% to 95.7%
+Increase the proportion of pregnant women who receive early and adequate prenatal care from 76.4% at baseline to 80.5%
+Increase abstinence from illicit drugs among pregnant women from 93.0% to 95.3%

Health Factors: Social & Economic Factors

Social Determinants of Health

Key takeaways: Social determinants of health are the complex network of conditions in which people live, work, and age that impact health, health equity, and quality of life. People with unmet needs within their social, economic, or physical environment are at an increased risk of poor health outcomes like substance abuse, depression, and chronic disease. These interrelated social and economic factors determine up to 55 percent of health outcomes and are twice as influential as factors related to clinical care (ODPHP, n.d.-XX; WHO, 2024). Finally, unmet social needs also greatly increase the cost of care (American Health Information Management Association [AHIMA], 2023).

> "Hospitals and health systems that prioritize addressing the social determinants of health as well as focusing on medical interventions will better position themselves to achieve the Triple Aim of improved health, improved care and lower costs" (Health Research & Educational Trust, 2017).

The social needs outlined in this section of the report:

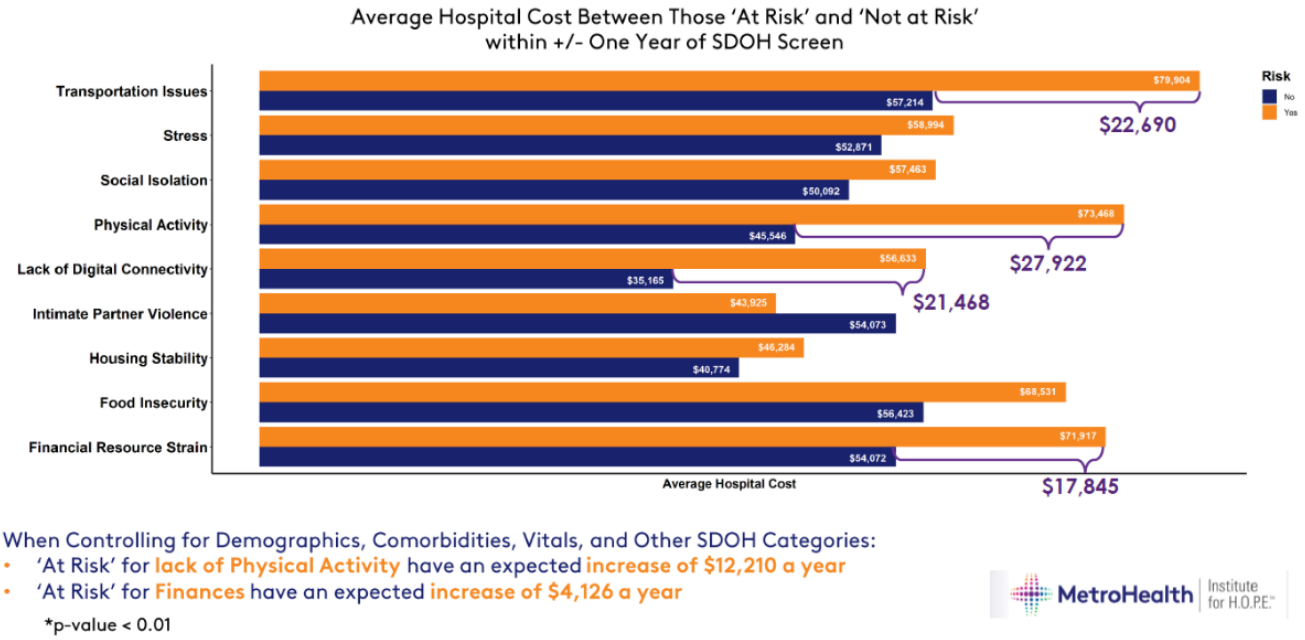
- Adverse Childhood Experiences (ACEs)
- Food insecurity and access to healthy food
- Financial insecurity
- Housing insecurity
- Transportation insecurity

The Institute for H.O.P.E. of MetroHealth in Cleveland Ohio has released research outlining the excess cost of hospital care linked to each unmet social need. The costs outlined above range from

an increase of $4,126 to $27,922 point to *excess* costs associated with each need, not total cost of yearly care (AHIMA, 2023).

Social determinants of health greatly influence health equity (WHO, 2024). Healthcare organizations (HCOs) are now tasked with caring for the whole person including the broad and complex social and economic situations in which our patients live (Health Research & Educational Trust, 2017). The following sections outlines specific ways unmet social needs can overlap with health behaviors, factors, and outcomes.

Figure 36. Average yearly hospital cost as compared by at risk vs. not at risk for 9 SDOH domains



When Controlling for Demographics, Comorbidities, Vitals, and Other SDOH Categories:

- 'At Risk' for lack of Physical Activity have an expected increase of $12,210 a year
- 'At Risk' for Finances have an expected increase of $4,126 a year

*p-value < 0.01

MetroHealth | Institute for H.O.P.E.™

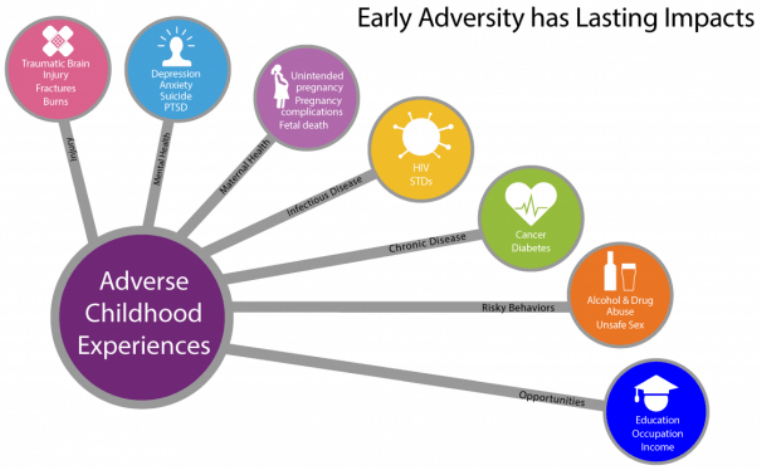
Source: AHIMA, 2023.

Adverse Childhood Experiences & Toxic Stress

Key takeaways: Children and youth who experience traumatic events have a greater chance of developing mental or physical diseases or disabilities that builds with each additional adverse event. These experiences drive disparities, especially in social determinants of health that could provide protective resources (CDC-xx, 2021; Wisconsin Child Abuse and Neglect Prevention Board, 2018).

> Measurable outcomes correlated to ACEs include neurobehavioral changes, social, cognitive, and emotional disorders, health risk behaviors, and ultimately, poor general health and chronic disease (CANPB, 2018).

Childhood experiences have a colossal impact on health and quality of life. Early experiences can shape our health because our foundation for learning, social interaction, and emotional regulation is built during childhood. Adverse experiences can disrupt development and thereby reduce learning capacity, social success and cause emotional dysregulation. Resulting behaviors (such as substance use) or difficult circumstances (such as family instability) surrounding these events can lead to disease, disability, socioeconomic suffering, and social dysfunction. Risk for unfortunate health outcomes compounds with each additional adverse experience (Child Abuse and Neglect Prevention Board [CANPB], 2018). In short, difficult life experiences early in life tend to result in challenging life circumstances that contribute to people living less than thriving lives.



"ACE" refers to specific research which defines an Adverse Childhood Experience as these ten preventable circumstances:

- Parental separation
- Incarceration of a loved one
- Mental health or substance use problems in the household
- Emotional, physical, or sexual abuse
- Emotional or physical neglect
- Witnessing domestic violence (CANPB, 2018).

ACEs are common in the United States and throughout our service area. In Wisconsin, Iowa, Minnesota, and the United States over half of adults consistently report at least one adverse experience during childhood (CANPB, 2018; Iowa ACE report; MN; CDC). The adverse experiences most reported by Wisconsin adults are (1) emotional abuse (2) substance abuse in the household and (3) parental divorce or separation (CANPB, 2018).

Healthy People 2030 Objectives:

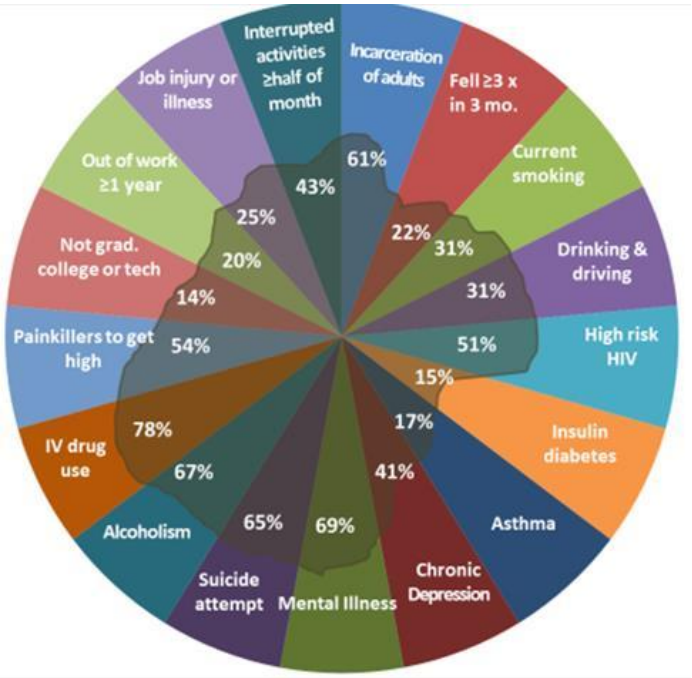
+Reduce the proportion of children aged 17 years and under who have ever experienced a parent or guardian who has served time in jail from a baseline of 7.7% to 5.2%.
+Increase the proportion of children aged 6-17 years who communicate positively with their parents from a baseline of 68.5% to 73.0%.

In Iowa, 63.7% of adults report experiencing at least one ACE, with 16.7% experiencing 4 or more ACEs (Central Iowa ACEs Coalition, Released September 2020). Fifty-five percent of adults in Minnesota report experiencing one or more ACEs, with 9% reporting 4 or more (Minnesota Department of Health, 2019). For Wisconsin, 59% of respondents between 2017-2018 reported at least 1 ACE, with 16% experiencing 4 or more ACEs (Wisconsin Department of Health Services, 2020). Specific county level data is limited. However, based on the cumulative state and national research, it can be assumed that over half of the service area has experienced at least one ACE and that these experiences impact the overall health and well-being of the population.

There are two ways ACEs contribute to poor health outcomes and chronic disease: damaging coping mechanisms and disease caused directly by toxic stress. ACEs can impact an infant's brain development, disrupting a child's ability to think, learn, and develop normally (Central Iowa ACEs Coalition, 2020). ACEs also have a close relationship to adult mental health; for those who have experienced four or more ACEs are three times more likely to be diagnosed with a depressive disorder (CANPB, 2018). Wisconsin adults who report higher ACE scores also report higher rates of many health behaviors and outcomes that contribute to poor health: tobacco use, heavy drinking, physical inactivity, obesity, bad physical health days, bad mental health days, COPD, kidney disease, angina, stroke, cancer, arthritis, diabetes, asthma, and depression. ACEs are the majority contributing factor for many health outcomes, especially IV drug use (78% contribution), mental illness (69%), alcoholism (67%), suicide attempts (65%), and incarceration as an adult (61%) (see Figure 37 – Circle).

"Rates of tobacco use, self-reported "fair or poor" health, number of bad physical health days, number of bad mental health days, arthritis, asthma, and depression appear to be especially sensitive to ACEs" (CANPB, 2018).

Figure 37. Approximate weight of influence of ACEs in the etiology of health behaviors, factors, and outcomes.



Source: Pinetree Institute, 2024.

Research by the Pinetree Institute contests that early adverse experiences are that majority (78%) of contributing factors to IV drug use, 69% of mental illness, 67% of alcoholism, and 65% in suicide attempts.

Financial Security

Key takeaways: Financial security supports a stable, healthy life. Those who experience financial insecurity may strain to pay for food, housing, utilities, childcare, transportation, technology, or health care, and experience much greater baseline stress. Full-time employment no longer guarantees basic needs are met, causing over one in three households in our service area to lack earning enough to live thriving lives. Financial insecurity disproportionally impacts the lives of people of color, those living with disabilities, females, and LGBTQ+ people (United for Alice, 2023; Great Rivers United Way, 2024).

"**ALICE: Asset Limited, Income Constrained, Employed**: Households that earn above the Federal Poverty Level but cannot afford the basic cost of living in their county. Despite struggling to make ends meet, ALICE households often do not qualify for public assistance" (United for Alice, 2023).

According to the United States Census Bureau, 37.9 million people, or 11.5% of the population, lived in poverty in 2022 (United States Census Bureau, 2023). The FPL rate of 11.5% does not include the approximately 36,802,137 other households that lived above the FPL in 2021 but are still unable to pay for basic needs. These households are called ALICE households. (United for Alice, 2023).

ALICE households represent how financial insecurity extends far above the poverty line; stable income no longer guarantees expenses are met (United for ALICE, 2023). ALICE rates are calculated for each county in the U.S. and combine to show a more accurate picture of financial insecurity alongside the FPL.

Table 4. Income Status by Household

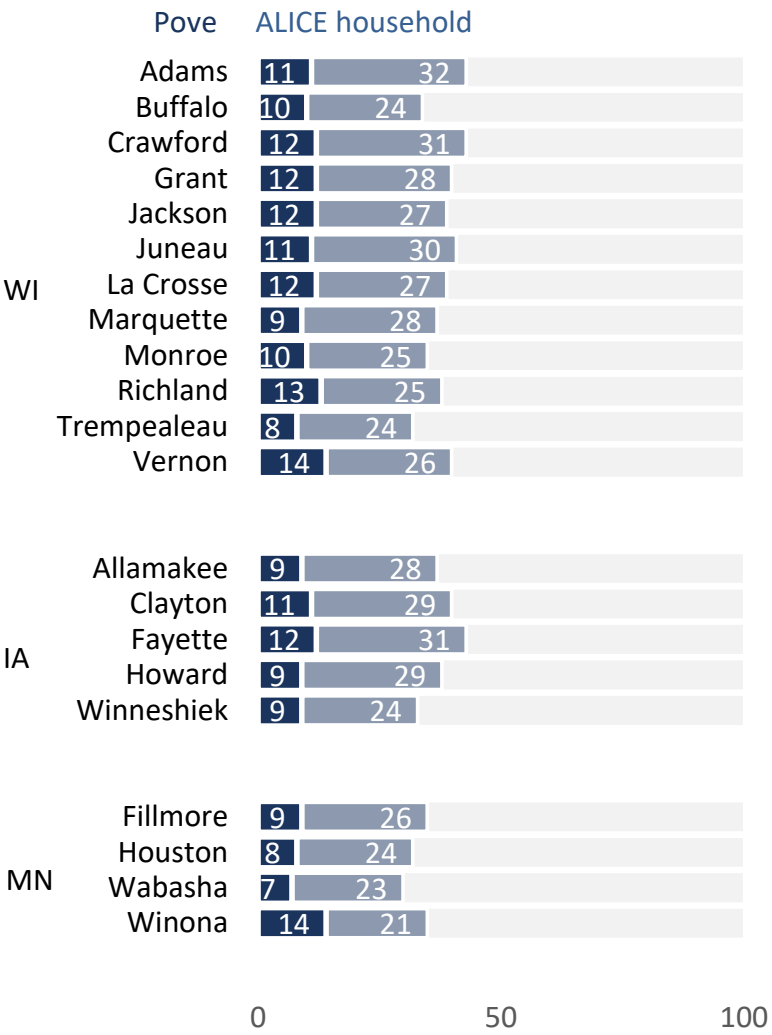
National Comparison: Income Status by Household, 2022

State	Rank	# of Households	% of Households		
			Under FPL	ALICE	Total
IA	9	1,307,751	11%	26%	37%
MN	8	2,303,607	10%	26%	36%
WI	7	2,466,060	11%	24%	35%
USA		130,995,042	13%	29%	42%

#1 Rank = Lowest % below ALICE threshold

In 2022, 42% of American households fell below the ALICE threshold. In some occupations, over half of employees live below this threshold, such as home health aides and janitors. These workers struggle to make ends meet despite full-time employment (United for ALICE, 2023).

Figure 38. Percentage of population living in poverty or an ALICE household



Wisconsin, Minnesota, and Iowa are tightly clustered within the top ten-ranking states for the highest rates of residents living above the ALICE and FPL thresholds. Yet, this still leaves over one-third of residents struggling financially, and therefore struggling to thrive. Financial insecurity disproportionally impacts the lives of people of color, those living with disabilities, females, and LGBTQ+ people (United for Alice, 2023; Great Rivers United Way, 2024).

In 2021, the proportion of households earning beneath the FPL ranges from 7% in Wabasha to 14% in Winona. Wabasha, Houston, and Trempealeau currently meet the HP 2030 goal to reduce poverty to 8% or below. When examining FPL and ALICE threshold combined, rates range from 21% in Winona to 32% in Adams County. Overall, approximately between one in three and one in five households throughout the service area struggles to pay for basic expenses, while still being employed.

Healthy People 2030 Objectives:

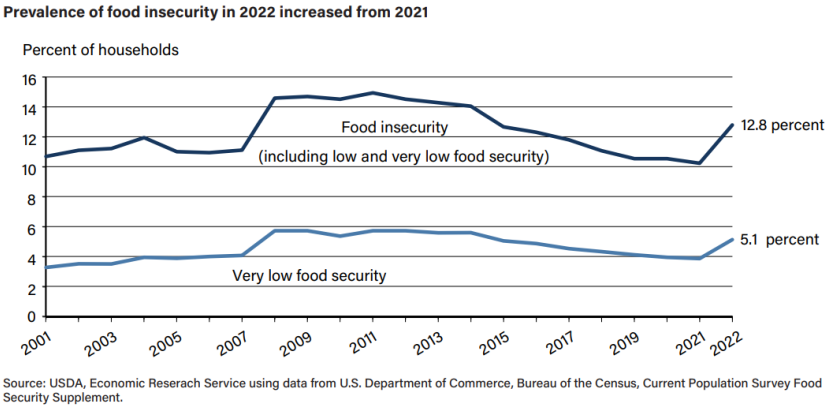
+Reduce the proportion of persons living below the poverty threshold from a baseline of 11.8% to 8.0%.

Food Security

Key takeaways: Secure access to food plays a key role in health. Households are considered food insecure when individuals and families experience trouble acquiring food due to lack of money, time, disability, transportation, or other resources. Food security was increasing until the COVID-19 pandemic. Since 2020, food insecurity is on the rise, especially very low food insecurity, which is defined by going hungry (USDA, 2023a). Food security throughout the service area is higher than the national average, however great disparities exist in our area, especially for people of color, women, LGBTQ+, for the rural underserved, and people living with disabilities (Great Rivers United Way, 2024).

> "Food security means access by all people at all times to enough food for an active, healthy life" (USDA, 2023-xx).

Figure 39. Subgroups with Statistically Significant Higher Prevalence of Very Low Food Security in the United States from 2020-2022, Ranked



Source: USDA, Economic Reserach Service using data from U.S. Department of Commerce, Bureau of the Census, Current Population Survey Food Security Supplement.

17 million households, or 12.8%, were food insecure in 2022. This is a statistically significant increase over 2021 (10.2%) and 2020 (10.5%). The USDA reports that food security decreased between 2021 and 2022 for almost every population including families with children. Prevalence of very low food security also increased from 5.1 million households (3.8%) to 6.8 million households (5.1%) over the same time (USDA 2023c).

The rise in "very low food security" is significant because it is defined by an actual reduction of food intake – truly going hungry. While many factors contribute to food insecurity, income plays the biggest role. The average American family spends $70 per person on food each week (USDA, 2023b).

Rate of Very Low Food Insecurity per Population

National Average = 5.1%

16.7%	Households with incomes below 100% of poverty line
15.6%	Households with incomes below 130% of poverty line
13.5%	Households with incomes below 185% of poverty line
12.6%	Households with children headed by a single female
9.2%	Households with reference persons who are Black, non-Hispanic
7.0%	Households with reference persons who are Hispanic
7.0%	Households with children headed by a single male
6.8%	Women living alone
6.7%	Men living alone
6.1%	Households in principle cities
5.9%	Households in rural areas

USDA, 2023c. *Household food security in the United States in 2022*. U.S. Department of Agriculture, Economic Research Service.

Local Food Security

While still a concern, food security is higher in the American Midwest than average. Iowa, Minnesota, and Wisconsin are among the 17 states with statistically significant higher food security than the national average (USDA, 2023c). However, food security tells a story of inequity (see Figure 38; Great Rivers United Way, 2024). Therefore, pockets of the service area experience much higher rates of food insecurity, such as in rural underserved areas and areas with lower incomes.

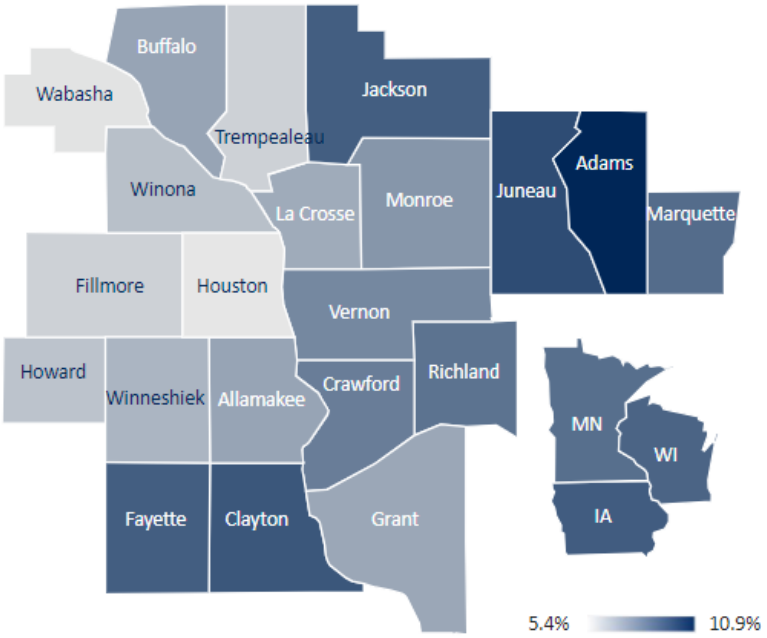
In addition, it is important to note that local characteristics that impact food security can vary greatly from county to county, and even city to city, including housing cost, wages, and local safety nets (USDA, 2023b).

Table 5. Characteristics of Food Security and Access

Food Security	Marginal Food Security	Low Food Security	Very Low Food Security	Lack of Access to Healthy Food
Confidence in ability to get enough food	Limited or uncertain ability to get enough food	Limited or uncertain ability to get enough food	Limited or uncertain ability to get enough food	Limited or uncertain ability to get enough food
No stress that food will run out without the ability to buy more	Increased stress that food will run out without the ability to buy more	Increased stress that food will run out without the ability to buy more	Greatly increased stress that food will run out without the ability to buy more	Increased stress around food and/or increased time or effort spent obtaining food
Sufficient quality, desirability, and variety of diet		Reduced quality, desirability, or variety of diet	Reduced quality, desirability, or variety of diet	Quality and freshness of diet limited by neighborhood and/or location, or income
			Food intake is reduced	Access limited by infrastructure, such as lack of public transportation or safe walking routes
			Normal eating patterns are disrupted	Lack of time and/or ability to prepare health-promoting meals

Local patterns in food security disparity generally align with the national data. Rural underserved areas of our service area, areas with more families and children, areas with more people of color, and those with lower income experience higher rates of food insecurity (Great Rivers United Way, 2024). In addition, these areas tend to have fewer options for stopgap resources, leaving families with the only choice to reduce quality and quantity of food intake, and even go hungry.

Figure 40. % of population who lack adequate access to food by county



Source: University of Wisconsin Population Health Institute (2024). Map the Meal Gap project (2021)

Figure 40 demonstrates a few key elements of food security throughout our service area.

- There is a range of food security throughout the service area. In 2021, between 5.4% and 10.9% of people experienced lack of access to healthy food. Food security ranges from county to county, city to city, and even between neighborhoods.
- Areas of concern (in the dark blue) tend to be on the fringes of the service area in rural underserved communities such as Adams, Clayton, Juneau, and Jackson Counties where the majority (sometimes over 80%) of households are eligible for SNAP. These areas also have fewer charitable food sources.
- Most counties are not meeting the HP 2030 goal to reduce food insecurity below 6%.
- Some counties, such as Grant, are extremely reliant upon SNAP benefits for food security. In 2021, as many as 100% of residents earning less than 200% the FPL in 2021 (the SNAP cutoff line).
- Food security is in flux. While Houston County did surpass this goal with the lowest rate pictured of 5.4% in 2021, the countywide rate of food insecurity nearly doubled in 2022 to 8.4%.
- Food insecurity in the dark blue areas such as Juneau and Adams County, WI are experiencing surging rates of food insecurity, up to 12.8% and 14.1% in 2022, respectively.
- Food insecurity increased between 2021 and 2022. Adams, Clayton, Fayette, Grant, Houston, La Crosse, and Juneau, Counties all report 2-3% increases in food insecurity in the 2022 data. Residents in these counties also increased in income, yet still experienced much greater risk of not having enough food.

Use of Charitable Food Sources

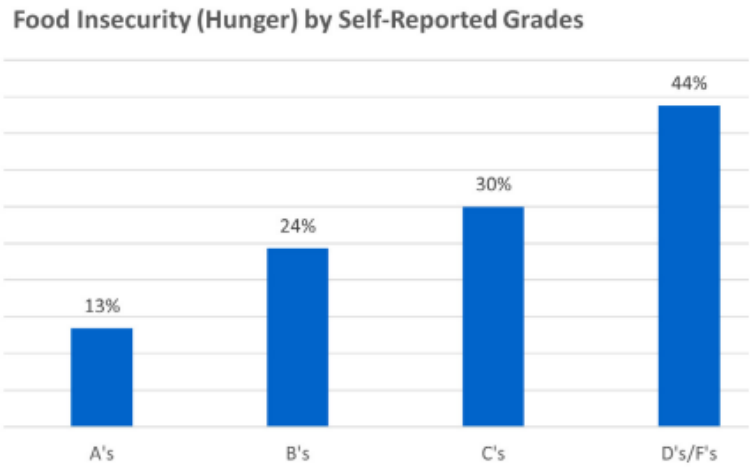
According to 2019-2021 Urban Institute's Well-Being and Basic Needs Survey (WBNS), American families continue to rely upon charitable food sources originally intended as stopgap resources to lessen their food insecurity. One in six Americans relied upon these stopgap resources in 2021. In addition, use of charitable food sources such as food pantries increased during the pandemic. While usage rate has decreased for white Americans, Americans of color are still relying on these alternative food sources for everyday meals to avoid going hungry (Urban Institute, 2022).

"In 2022, food prices increased by 9.9%, faster than any year since 1979." USDA ERS - Summary Findings

Impact of Food Insecurity

Food insecurity causes stress while impacting other key social determinants of health (SDOH). As an example of how social needs interact with many metrics of quality of life, food insecurity is correlated to poor grades for children in high school in the 2011-2015 Wisconsin Youth Risk Behavior data which surveyed highschoolers throughout Wisconsin (see Figure 41). MetroHealth in Cleveland found that patients with low food security are 25% more likely to have used the Emergency Department three times in the past year, and 62% more likely to have used the ED ten times in the past year (AHIMA, 2023).

Figure 41. Wisconsin Youth Risk Behavior Survey Shows Increasing Prevalence of Food Insecurity with Worsening Self-Reported Grades



Source

Healthy People 2030 Objectives:

+Reduce household **food insecurity** from a baseline of 11.1% to 6.0%.

Access to Healthy Food

Concern about food access in the United States is shifting towards the quality of food. Many metrics contribute to a household's access to health-promoting foods such as low- or unprocessed fruits, vegetables, nuts, legumes, seeds, and whole grains. Common metrics include affordability of quality food and locations of quality food delineated by combinations of grocery store availability and neighborhood walkability scores. In addition, food quality is an emerging focus of costly chronic disease management, especially obesity, cardiovascular disease, and diabetes. Relatedly, there are extreme disparities in access to healthy food, especially for people of color and those who live with low income. Therefore, people in these communities who already face elevated health risks due to other disparities experiencing compounded health difficulties when they live in a neighborhood that constantly exposes their family to high-calorie, nutrient deficient food (Ohri-Vachaspati et al., 2019).

Grocery store locations play a big role in access to healthy food. Grocery chains tend to cluster in areas with highest socioeconomic status. These business decisions decimate access for areas that need fresh groceries. Across the service area, an estimated range of 81-100% of the population lives a reasonable distance from a large grocery store. Overall, counties in MN and IA fare better than WI counties in this metric. WI counties where over 6% of households experience limited access to large grocery stores include Crawford, Jackson, Juneau, Monroe, Richland and Vernon Counties. In Richland County, WI, one in five households has limited access to a large grocery store. Howard County, IA, also reports a high rate of one in ten households. Notably, Fillmore, Houston, Wabasha, and Winona, MN Counties all report low rates of only 2 or 3%. Limited access to a large grocery store *and* living in a household with no vehicle is a combination that makes it more likely to experience very low food insecurity (see County Characteristics).

Housing Security

Key takeaways: Good housing is the foundation of good health. Housing insecurity is as high as over 16% in some areas of the service area. In addition, Housing insecurity in IA, MN, and WI disproportionally impacts households with extremely low income, very low income, and low income, people of color, people with disabilities, immigrants, and most other communities with other existing disparities (National Low Income Housing Coalition [NLIHC], 2022; Great Rivers United Way, 2024).

> "Housing instability is an umbrella term for the continuum between homelessness and a totally stable, secure housing situation" (Health Research & Educational Trust, 2017).

Housing insecurity includes but is not limited to complete homelessness; the term also describes conditions in which people live with substandard housing, unstable access to housing, or a financial housing cost burden (ODPHP, 2021a; UWPHI, 2024c)

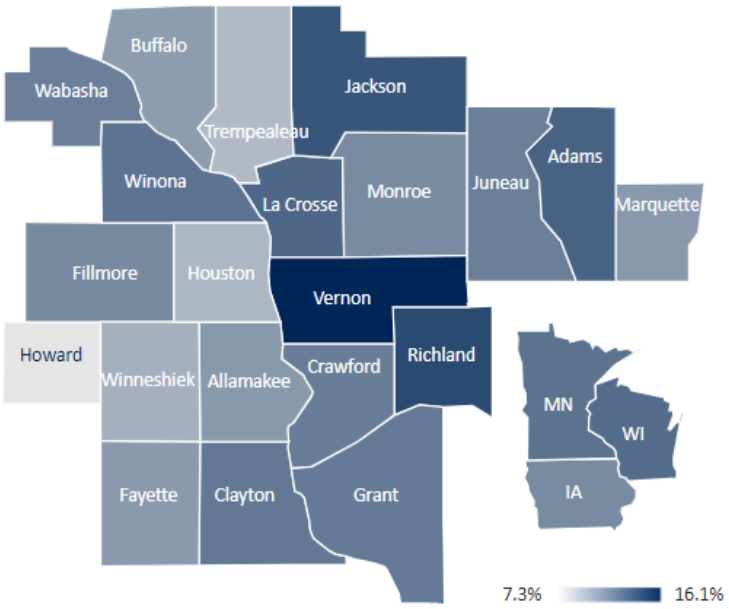
Housing insecurity is driven by financial insecurity paired with soaring cost of living (Heston, 2023). Households facing the inherent challenges of housing instability are also more likely impacted by health repercussions of substandard housing such as mold and inadequate heating systems (ODPHP, 2021a).

Table 6. Characteristics of Housing Insecurity and Instability

Substandard Housing	**Housing Insecurity**	**Severe Housing Problems** (One or more of the following)
Poor sanitation	Unstable Housing	Lack of kitchen facilities
Exposure to mold, allergens, pests, or pollution	Frequent moves (over 3/year)	Lack of plumbing
Inadequate heating or cooling systems	Cost burden *Spending 30% or more of household income on housing.*	Overcrowding
	Severe cost burden *Spending 50% or more of household income on housing.*	Severe cost burden *Spending 50% or more of household income on housing.*

Housing instability drives health outcomes and health disparities; people who are housing insecure health, and to report 14 or more days of poor were more likely than those who are housing secure to delay medical care, report poor or fair mental health days in the past month (Stahre et al., 2015). Severely cost burdened households who rent are more likely than other renters to forego nutritious food and healthcare to pay their monthly rent (NLIHC, 2022).

Figure 42. % of households severe housing problems by county



Source: University of Wisconsin Population Health Institute (2024). U.S. Department of Housing and Urban Development (HUD) (2016-2020)

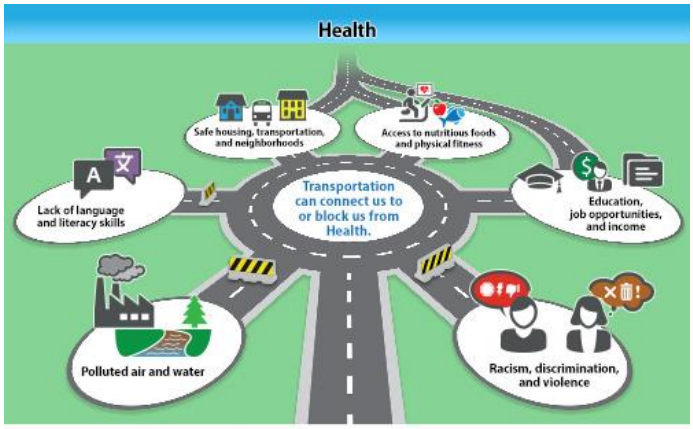
Across the service area, rates of severe housing problems range between 7.3% in Howard, IA to a high of 16.1% in Vernon, WI. The unweighted average housing insecurity rate is 12.1% across 20 counties for 2020 (Buffalo not reporting). The other counties with rates over 12% are Adams, Crawford, Grant, La Crosse, Jackson, Juneau, Richland, Wabasha, Winona, and Clayton (see County Characteristics). For comparison, the average rate in IA is 11%, MN 13%, and 13% WI. The national rate of severe housing problems is 17% (UWPHI, 2024).

An epidemic element of severe housing problems is cost burden. As housing prices continue to climb, cost burden grows along with it. Across the region, over one in ten households are paying over 50% of their income on housing, and this rate is increasing (UWPHI, 2024c).

Healthy People 2030 Objective

+ Reduce the proportion of families that are cost burdened/spend more than 30 percent of income on housing.

Transportation Security



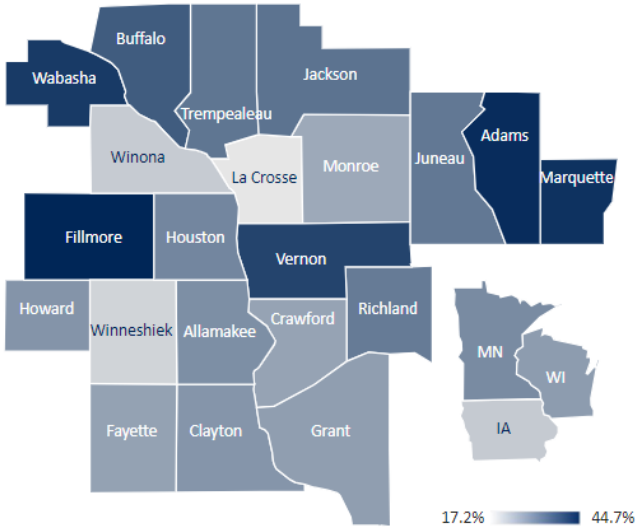
Source: FHWA.

Key takeaways: Transportation plays a key role in health equity and access to care. Transportation also plays an elevated role in rural health, which is important to our service area. Access to a working and reliable transportation is important socioeconomic success in the United States, and even simply connecting to loved ones. Transportation access in the US usually means relying upon an expensive personal vehicle for employment, food access, and to gain medical care, especially in rural areas. Other modes of transportation can also help to secure transportation, such as bicycling and public transit. However, these types of transportation cannot serve all areas and populations. Transportation access tends to disproportionately impact those who already are underserved and are experiencing great health disparities and is therefore key to health equity for our patient population (US Department of Transportation, 2023).

Within our service area, households with no vehicle range from 3.4% in Juneau County to 8.4% in Vernon County. The unweighted average of households with no vehicle is 5% (see County Characteristics).

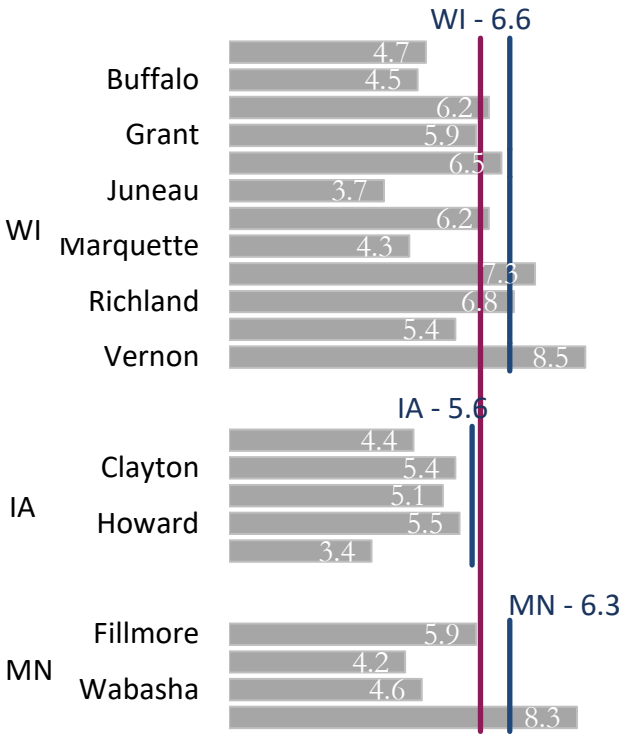
Rates of those in the workforce with long commutes who drive alone range from 17% in La Crosse County to 45% in Fillmore County. Other counties with high rates (above 34%) of long commutes who drive along are Adams, Jackson, Maquette, Vernon, and Wabasha. Iowa fares best on this metric at just 21%, WI 28%, MN 30%, and the US 36%. Long commutes are correlated to high blood pressure, elevated BMI, and lower physical activity (Community Health Rankings and Roadmaps, 2021).

Figure 43. % of workers who have a long commute by county.



Source: University of Wisconsin Population Health Institute (2024)

Figure 44. Percent of households with no vehicle by County.



Source: U.S. Census Bureau. American Community Survey 5 Year Estimates

County Characteristics – unfavorable values are the darkest

Source: County Health Rankings, 2024, UW Population Health Institute

	HS completion %	Children Living in Poverty %	Children living in Single-Parent Household %	Uninsured %	Primary Care Providers per 100K	Mental Health Providers per 100K	Households Spending Over 50% income on housing %	Severe Housing Problems %	Limited Access to Large Grocery Store %	Food Insecurity %	No Broadband access %	Long commute, driving alone %
Adams, WI	88	23	22	8	10	71	13	13	4	11	20	44
Buffalo, WI	92	12	15	7	23	7	10	13	5	7	14	40
Crawford, WI	92	17	20	6	75	106	9	12	8	8	20	27
Grant, WI	92	15	18	8	42	152	10	12	4	7	17	28
Jackson, WI	92	16	17	8	90	168	12	14	12	9	16	34
Juneau, WI	89	18	14	8	75	216	10	12	9	10	19	33
La Crosse, WI	96	11	17	5	139	453	13	13	5	7	12	17
Marquette, WI	92	17	18	7	19	13	9	11	0	9	15	43
Monroe, WI	91	18	17	9	63	102	9	11	7	8	16	26
Richland, WI	91	16	21	8	76	24	10	14	19	9	23	33
Trempealeau, WI	92	11	13	7	26	17	8	9	4	6	16	33
Vernon, WI	90	23	14	10	104	49	10	16	6	8	21	40
Fillmore, MN	92	11	13	8	28	9	8	12	1	7	17	45
Houston, MN	95	7	16	4	59	7	7	10	3	5	13	31
Wabasha, MN	95	8	17	5	17	7	11	12	2	6	15	42
Winona, MN	93	12	12	5	36	249	12	13	3	7	9	21
Allamakee, IA	92	15	10	8	57	29	10	11	3	7	17	30
Clayton, IA	91	13	19	7	41	18	11	12	1	10	19	29
Fayette, IA	93	16	21	6	14	14	11	11	2	9	17	27
Howard, IA	92	11	10	6	53	52	8	7	10	6	18	29
Winneshiek, IA	95	9	15	4	101	245	9	10	2	7	15	20

County Characteristics

The following pages provide a county profile for each of the 21 counties in the Gundersen service area. Each county profile includes metrics on education, poverty, healthcare, housing, food, broadband access, transportation. It also includes where the county ranks among other counties in the service area on a health outcomes score. The health outcomes score is a composite score using both length of life and quality of life metrics.

This data is derived from the County Health Rankings Website 2024 Measures | County Health Rankings & Roadmaps

Click on the county name below to go to county profile page.

Wisconsin

Adams

Buffalo

Crawford

Grant

Jackson

Juneau

La Crosse

Marquette

Monroe

Richland

Trempealeau

Vernon

Minnesota

Fillmore

Houston

Wabasha

Winona

Iowa

Allamakee

Clayton

Fayette

Howard

Winneshiek

Adams, Wisconsin

Adams County has a worse Health Outcomes score compared to the other counties in the Gundersen service area. Its score is about the same as the average county in the nation.

Category	Measure Name	County	State	US
Education	High school completion	88%	93%	89%
Poverty	Children living in poverty	23%	13%	16%
	Children Living in Single Parent Households	22%	22%	25%
Healthcare	Uninsured	8%	6%	10%
	Primary Care Providers per 100k	10	80	75
	Mental Health Providers per 100k	71	250	312
Housing	Households Spending Over 50% of Income on Housing	13%	11%	14%
	Severe Housing Problems	13%	13%	17%
Food	Population with Limited Access to Large Grocery Store	4%	5%	6%
	Food Insecurity	11%	7%	10%
Broadband Access	No Broadband Access	20%	12%	12%
Transportation	Long commute, driving alone	44%	28%	36%
	Households with no vehicle	5.1%	4.7%	6.6%

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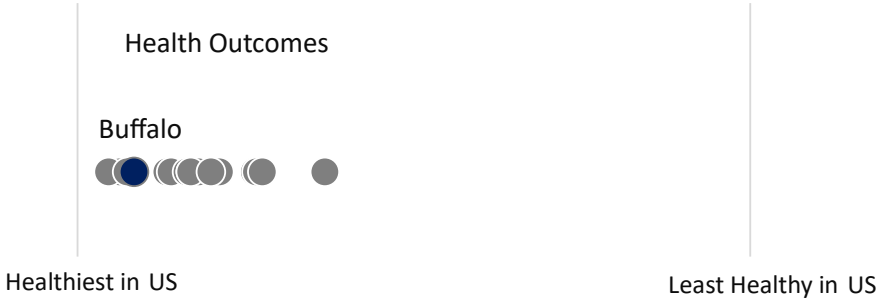
Buffalo, Wisconsin

Buffalo County has a better Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	11%	13%	16%
	Children Living in Single Parent Households	15%	22%	25%
Healthcare	Uninsured	7%	6%	10%
	Primary Care Providers per 100k		80	75
	Mental Health Providers per 100k		250	312
Housing	Households Spending Over 50% of Income on Housing	10%	11%	14%
	Severe Housing Problems	11%	13%	17%
Food	Population with Limited Access to Large Grocery Store	5%	5%	6%
	Food Insecurity	7%	7%	10%
Broadband Access	No Broadband Access	14%	12%	12%
Transportation	Long commute, driving alone	37%	28%	36%
	Households with no vehicle		4.7%	6.6%

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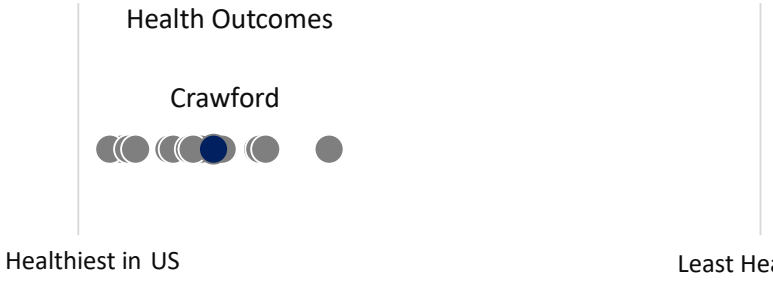
Crawford, Wisconsin

Crawford County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	17%	13%	16%
	Children Living in Single Parent Households	20%	22%	25%
Healthcare	Uninsured	6%	6%	10%
	Primary Care Providers per 100k	75	80	75
	Mental Health Providers per 100k	106	250	312
Housing	Households Spending Over 50% of Income on Housing	9%	11%	14%
	Severe Housing Problems	12%	13%	17%
Food	Population with Limited Access to Large Grocery Store	8%	5%	6%
	Food Insecurity	8%	7%	10%
Broadband Access	No Broadband Access	20%	12%	12%
Transportation	Long commute, driving alone	27%	28%	36%
	Households with no vehicle	6.6%	4.7%	6.6%

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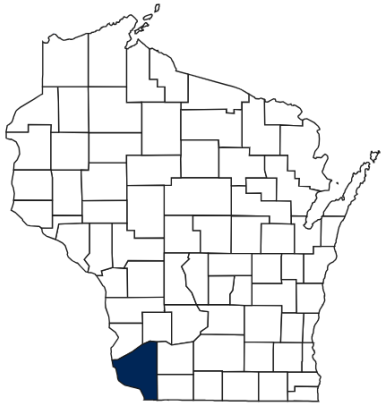
Grant, Wisconsin



Grant County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.

Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	15%	13%	16%
	Children Living in Single Parent Households	18%	22%	25%
Healthcare	Uninsured	8%	6%	10%
	Primary Care Providers per 100k	42	80	75
	Mental Health Providers per 100k	152	250	312
Housing	Households Spending Over 50% of Income on Housing	10%	11%	14%
	Severe Housing Problems	12%	13%	17%
Food	Population with Limited Access to Large Grocery Store	4%	5%	6%
	Food Insecurity	7%	7%	10%
Broadband Access	No Broadband Access	17%	12%	12%
Transportation	Long commute, driving alone	28%	28%	36%
	Households with no vehicle	5%	4.7%	6.6%

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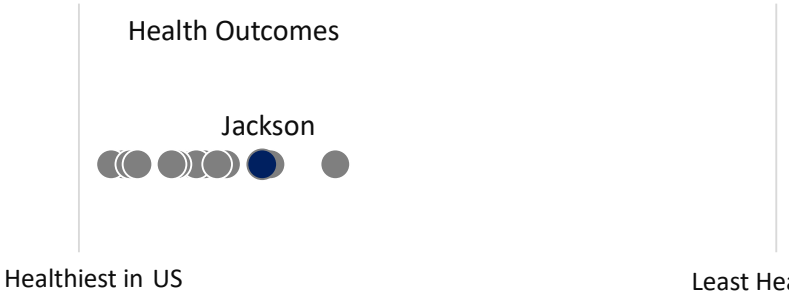
Jackson, Wisconsin

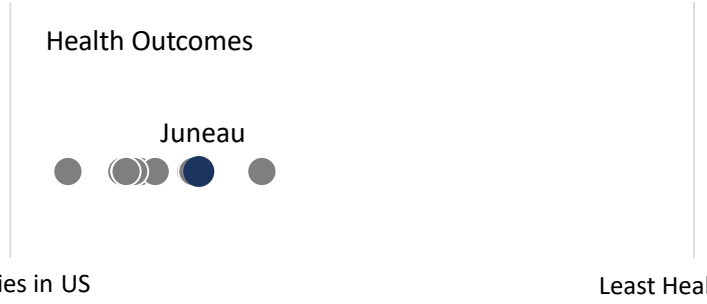
Jackson County has a worse Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	16%	13%	16%
	Children Living in Single Parent Households	17%	22%	25%
Healthcare	Uninsured	8%	6%	10%
	Primary Care Providers per 100k	90	80	75
	Mental Health Providers per 100k	168	250	312
Housing	Households Spending Over 50% of Income on Housing	12%	11%	14%
	Severe Housing Problems	14%	13%	17%
Food	Population with Limited Access to Large Grocery Store	12%	5%	6%
	Food Insecurity	9%	7%	10%
Broadband Access	No Broadband Access	16%	12%	12%
Transportation	Long commute, driving alone	34%	28%	36%

Juneau, Wisconsin

Juneau County has a worse Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	89%	93%	89%
Poverty	Children living in poverty	18%	13%	16%
	Children Living in Single Parent Households	14%	22%	25%
Healthcare	Uninsured	8%	6%	10%
	Primary Care Providers per 100k	75	80	75
	Mental Health Providers per 100k	216	250	312
Housing	Households Spending Over 50% of Income on Housing	10%	11%	14%
	Severe Housing Problems	12%	13%	17%
Food	Population with Limited Access to Large Grocery Store	9%	5%	6%
	Food Insecurity	10%	7%	10%
Broadband Access	No Broadband Access	19%	12%	12%
Transportation	Long commute, driving alone	33%	28%	36%
	Households with no vehicle	3.4%	4.7%	6.6%

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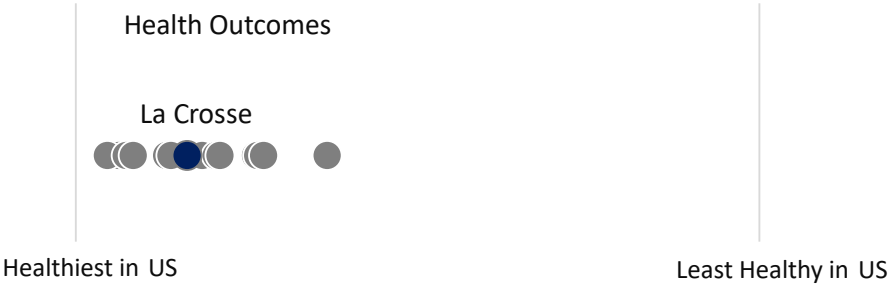
La Crosse, Wisconsin

La Crosse County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	96%	93%	89%
Poverty	Children living in poverty	11%	13%	16%
	Children Living in Single Parent Households	17%	22%	25%
Healthcare	Uninsured	5%	6%	10%
	Primary Care Providers per 100k	139	80	75
	Mental Health Providers per 100k	377	250	312
Housing	Households Spending Over 50% of Income on Housing	13%	11%	14%
	Severe Housing Problems	13%	13%	17%
Food	Population with Limited Access to Large Grocery Store	5%	5%	6%
	Food Insecurity	7%	7%	10%
Broadband Access	No Broadband Access	12%	12%	12%
Transportation	Long commute, driving alone	17%	28%	36%
	Households with no vehicle	7%	4.7%	6.6%

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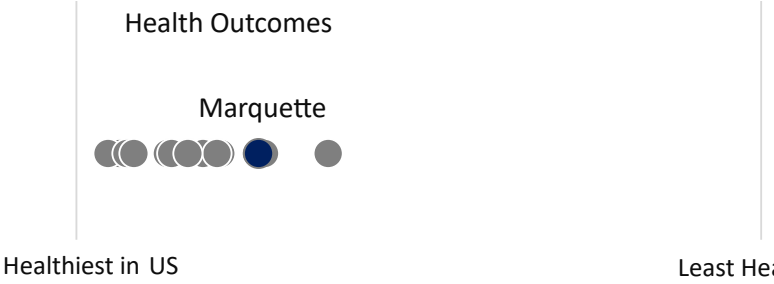
Marquette, Wisconsin

Marquette County has a worse Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	17%	13%	16%
	Children Living in Single Parent Households	18%	22%	25%
Healthcare	Uninsured	7%	6%	10%
	Primary Care Providers per 100k	19	80	75
	Mental Health Providers per 100k	82	250	312
Housing	Households Spending Over 50% of Income on Housing	9%	11%	14%
	Severe Housing Problems	11%	13%	17%
Food	Population with Limited Access to Large Grocery Store	0%	5%	6%
	Food Insecurity	9%	7%	10%
Broadband Access	No Broadband Access	15%	12%	12%
Transportation	Long commute, driving alone	43%	28%	36%
	Households with no vehicle	4.5%	4.7%	6.6%

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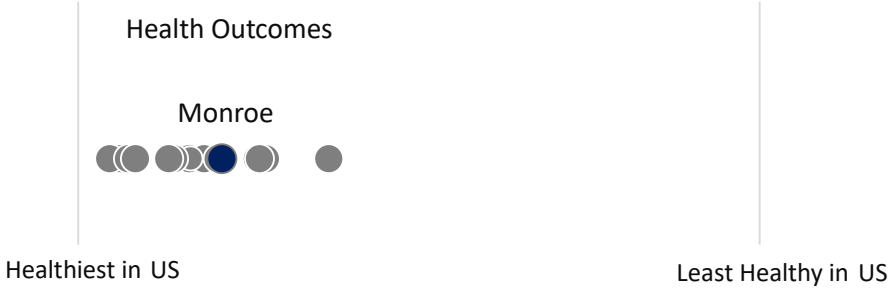
Monroe, Wisconsin

Monroe County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	91%	93%	89%
Poverty	Children living in poverty	18%	13%	16%
	Children Living in Single Parent Households	17%	22%	25%
Healthcare	Uninsured	9%	6%	10%
	Primary Care Providers per 100k	63	80	75
	Mental Health Providers per 100k	221	250	312
Housing	Households Spending Over 50% of Income on Housing	9%	11%	14%
	Severe Housing Problems	11%	13%	17%
Food	Population with Limited Access to Large Grocery Store	7%	5%	6%
	Food Insecurity	8%	7%	10%
Broadband Access	No Broadband Access	16%	12%	12%
Transportation	Long commute, driving alone	26%	28%	36%
	Households with no vehicle	7%	4.7%	6.6%

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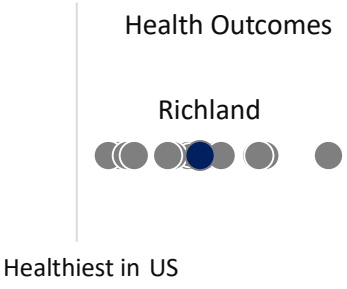
Richland, Wisconsin

Richland County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	91%	93%	89%
Poverty	Children living in poverty	16%	13%	16%
	Children Living in Single Parent Households	21%	22%	25%
Healthcare	Uninsured	8%	6%	10%
	Primary Care Providers per 100k	76	80	75
	Mental Health Providers per 100k	140	250	312
Housing	Households Spending Over 50% of Income on Housing	10%	11%	14%
	Severe Housing Problems	14%	13%	17%
Food	Population with Limited Access to Large Grocery Store	19%	5%	6%
	Food Insecurity	9%	7%	10%
Broadband Access	No Broadband Access	23%	12%	12%
Transportation	Long commute, driving alone	33%	28%	36%
	Households with no vehicle	7.4%	4.7%	6.6%

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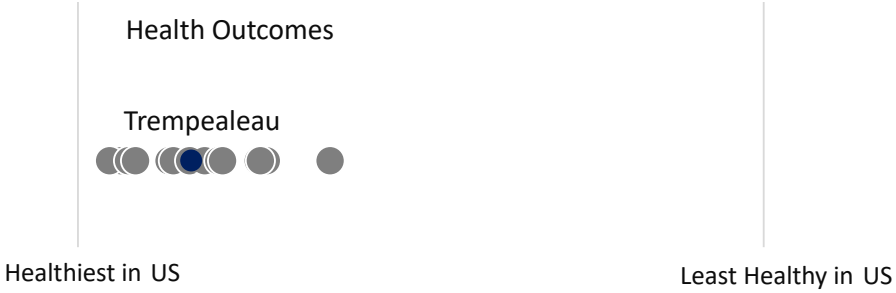
Trempealeau, Wisconsin

Trempealeau County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	9%	93%	89%
Poverty	Children living in poverty	11%	13%	16%
	Children Living in Single Parent Households	13%	22%	25%
Healthcare	Uninsured	7%	6%	10%
	Primary Care Providers per 100k	26	80	75
	Mental Health Providers per 100k	55	250	312
Housing	Households Spending Over 50% of Income on Housing	8%	11%	14%
	Severe Housing Problems	9%	13%	17%
Food	Population with Limited Access to Large Grocery Store	4%	5%	6%
	Food Insecurity	6%	7%	10%
Broadband Access	No Broadband Access	16%	12%	12%
Transportation	Long commute, driving alone	33%	28%	36%
	Households with no vehicle	4.8%	4.7%	6.6%

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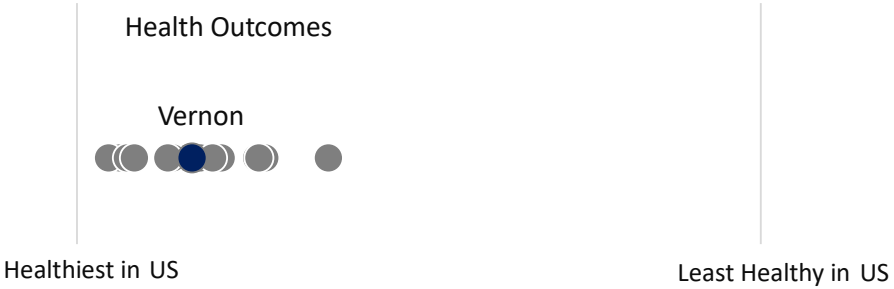
Vernon, Wisconsin

Vernon County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	90%	93%	89%
Poverty	Children living in poverty	23%	13%	16%
	Children Living in Single Parent Households	14%	22%	25%
Healthcare	Uninsured	10%	6%	10%
	Primary Care Providers per 100k	104	80	75
	Mental Health Providers per 100k	158	250	312
Housing	Households Spending Over 50% of Income on Housing	10%	11%	14%
	Severe Housing Problems	16%	13%	17%
Food	Population with Limited Access to Large Grocery Store	6%	5%	6%
	Food Insecurity	8%	7%	10%
Broadband Access	No Broadband Access	21%	12%	12%
Transportation	Long commute, driving alone	40%	28%	36%
	Households with no vehicle	8.4%	4.7%	6.6%

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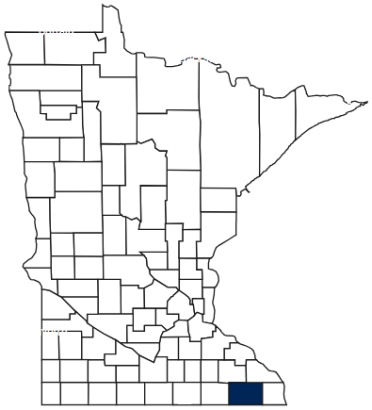
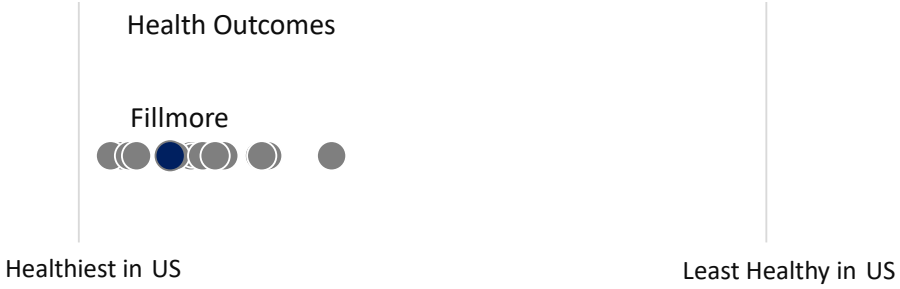
Fillmore, Minnesota



Fillmore County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	11%	13%	16%
	Children Living in Single Parent Households	13%	22%	25%
Healthcare	Uninsured	8%	6%	10%
	Primary Care Providers per 100k	28	80	75
	Mental Health Providers per 100k	42	250	312
Housing	Households Spending Over 50% of Income on Housing	7%	11%	14%
	Severe Housing Problems	10%	13%	17%
Food	Population with Limited Access to Large Grocery Store	3%	5%	6%
	Food Insecurity	5%	7%	10%
Broadband Access	No Broadband Access	17%	12%	12%
Transportation	Long commute, driving alone	45%	28%	36%
	Households with no vehicle	6.2%	4.7%	6.6%

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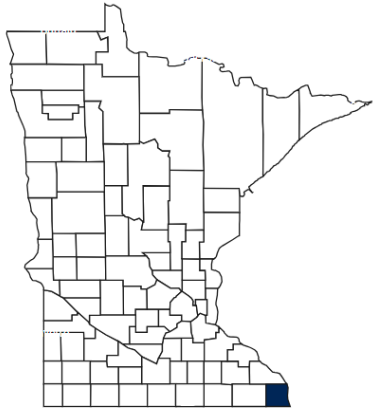
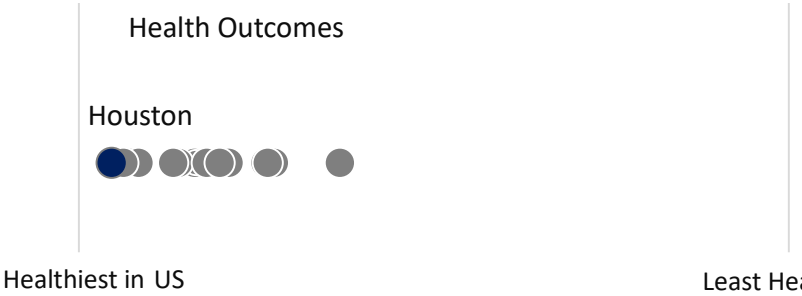
Houston, Minnesota



Houston County has a better Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	95%	93%	89%
Poverty	Children living in poverty	7%	13%	16%
	Children Living in Single Parent Households	16%	22%	25%
Healthcare	Uninsured	4%	6%	10%
	Primary Care Providers per 100k	59	80	75
	Mental Health Providers per 100k	37	250	312
Housing	Households Spending Over 50% of Income on Housing	7%	11%	14%
	Severe Housing Problems	10%	13%	17%
Food	Population with Limited Access to Large Grocery Store	3%	5%	6%
	Food Insecurity	5%	7%	10%
Broadband Access	No Broadband Access	13%	12%	12%
Transportation	Long commute, driving alone	31%	28%	36%
	Households with no vehicle	3.5%	4.7%	6.6%

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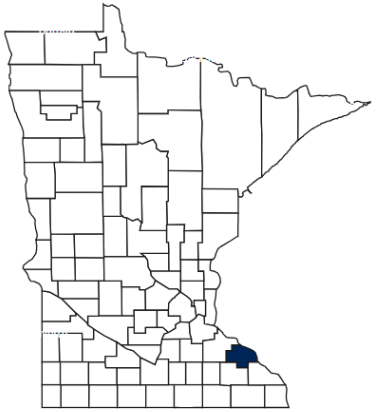
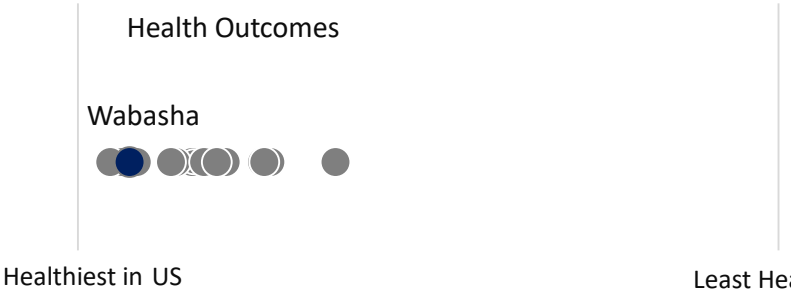
Wabasha, Minnesota



Wabasha County has a better Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	95%	93%	89%
Poverty	Children living in poverty	8%	13%	16%
	Children Living in Single Parent Households	17%	22%	25%
Healthcare	Uninsured	5%	6%	10%
	Primary Care Providers per 100k	79	80	75
	Mental Health Providers per 100k	32	250	312
Housing	Households Spending Over 50% of Income on Housing	11%	11%	14%
	Severe Housing Problems	12%	13%	17%
Food	Population with Limited Access to Large Grocery Store	2%	5%	6%
	Food Insecurity	6%	7%	10%
Broadband Access	No Broadband Access	15%	12%	12%
Transportation	Long commute, driving alone	42%	28%	36%
	Households with no vehicle	4.7%	4.7%	6.6%

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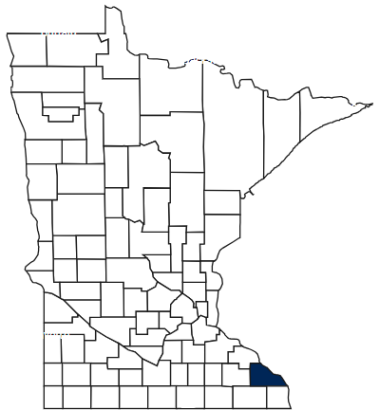
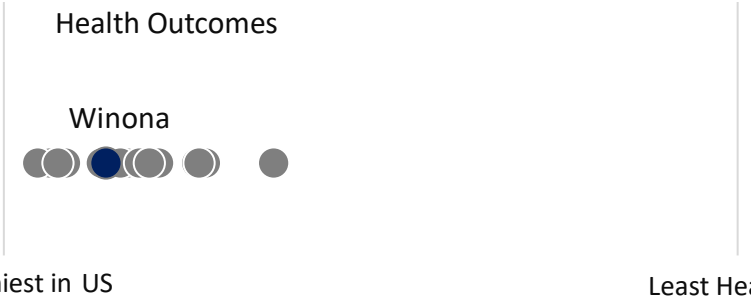
Winona, Minnesota



Winona County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	Value	State	US
Education	High school completion	93%	93%	89%
Poverty	Children living in poverty	12%	13%	16%
	Children Living in Single Parent Households	12%	22%	25%
Healthcare	Uninsured	5%	6%	10%
	Primary Care Providers per 100k	36	80	75
	Mental Health Providers per 100k	249	250	312
Housing	Households Spending Over 50% of Income on Housing	12%	11%	14%
	Severe Housing Problems	13%	13%	17%
Food	Population with Limited Access to Large Grocery Store	3%	5%	6%
	Food Insecurity	7%	7%	10%
Broadband Access	No Broadband Access	9%	12%	12%
Transportation	Long commute, driving alone	21%	28%	36%
	Households with no vehicle	7.3%	4.7%	6.6%

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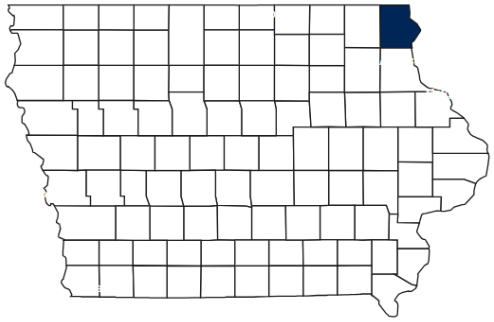
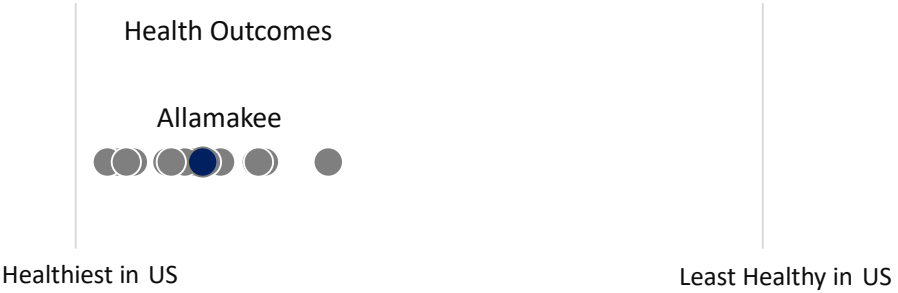
Allamakee, Iowa



Allamakee County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	15%	13%	16%
	Children Living in Single Parent Households	10%	22%	25%
Healthcare	Uninsured	8%	6%	10%
	Primary Care Providers per 100k	57	80	75
	Mental Health Providers per 100k	29	250	312
Housing	Households Spending Over 50% of Income on Housing	29%	11%	14%
	Severe Housing Problems	11%	13%	17%
Food	Population with Limited Access to Large Grocery Store	3%	5%	6%
	Food Insecurity	7%	7%	10%
Broadband Access	No Broadband Access	17%	12%	12%
Transportation	Long commute, driving alone	30%	28%	36%
	Households with no vehicle	4%	4.7%	6.6%

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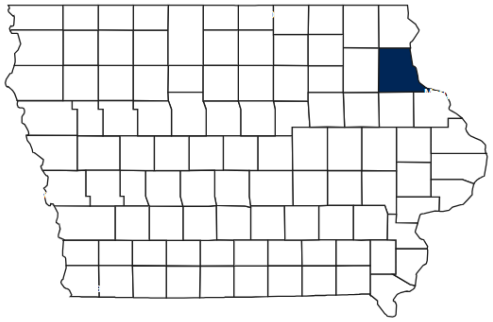
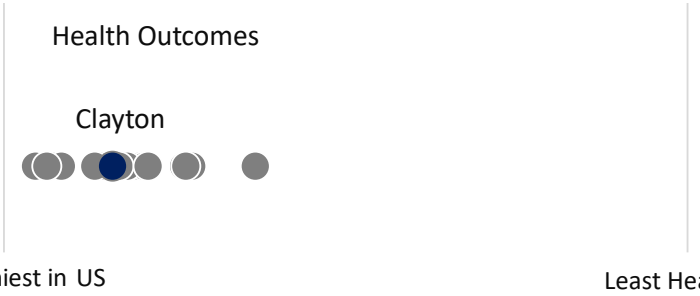
Clayton, Iowa



Clayton County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	91%	93%	89%
Poverty	Children living in poverty	13%	13%	16%
	Children Living in Single Parent Households	19%	22%	25%
Healthcare	Uninsured	7%	6%	10%
	Primary Care Providers per 100k	41	80	75
	Mental Health Providers per 100k	18	250	312
Housing	Households Spending Over 50% of Income on Housing	11%	11%	14%
	Severe Housing Problems	12%	13%	17%
Food	Population with Limited Access to Large Grocery Store	1%	5%	6%
	Food Insecurity	10%	7%	10%
Broadband Access	No Broadband Access	19%	12%	12%
Transportation	Long commute, driving alone	29%	28%	36%
	Households with no vehicle	7.5%	4.7%	6.6%

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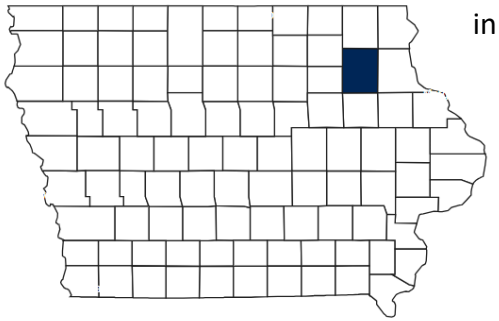
Fayette, Iowa



Fayette County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.

Category	Measure Name	County	State	US
Education	High school completion	93%	93%	89%
Poverty	Children living in poverty	16%	13%	16%
	Children Living in Single Parent Households	21%	22%	25%
Healthcare	Uninsured	6%	6%	10%
	Primary Care Providers per 100k	31	80	75
	Mental Health Providers per 100k	73	250	312
Housing	Households Spending Over 50% of Income on Housing	11%	11%	14%
	Severe Housing Problems	11%	13%	17%
Food	Population with Limited Access to Large Grocery Store	2%	5%	6%
	Food Insecurity	9%	7%	10%
Broadband Access	No Broadband Access	17%	12%	12%
Transportation	Long commute, driving alone	27%	28%	36%
	Households with no vehicle	4.7%	4.7%	6.6%

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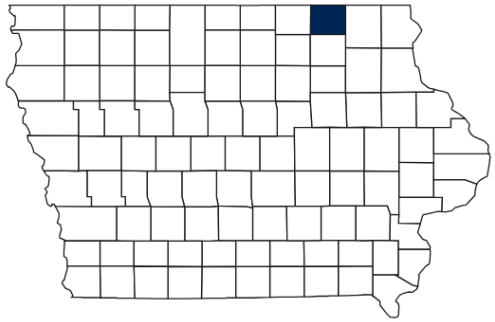
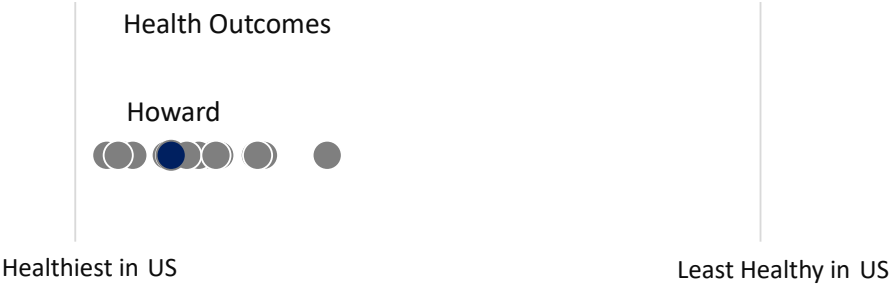
Howard, Iowa



Howard County has about the same Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	92%	93%	89%
Poverty	Children living in poverty	11%	13%	16%
	Children Living in Single Parent Households	10%	22%	25%
Healthcare	Uninsured	6%	6%	10%
	Primary Care Providers per 100k	53	80	75
	Mental Health Providers per 100k	52	250	312
Housing	Households Spending Over 50% of Income on Housing	8%	11%	14%
	Severe Housing Problems	7%	13%	17%
Food	Population with Limited Access to Large Grocery Store	10%	5%	6%
	Food Insecurity	6%	7%	10%
Broadband Access	No Broadband Access	18%	12%	12%
Transportation	Long commute, driving alone	29%	28%	36%
	Households with no vehicle	6.7%	4.7%	6.6%

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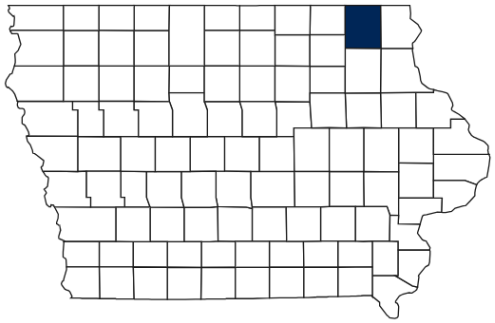
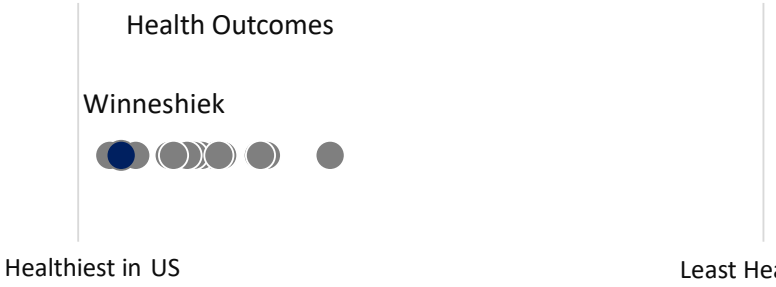
Winneshiek, Iowa



Winneshiek County has a better Health Outcomes score compared to the other counties in the Gundersen service area. Its score is also better than the average county in the nation.



Category	Measure Name	County	State	US
Education	High school completion	95%	93%	89%
Poverty	Children living in poverty	9%	13%	16%
	Children Living in Single Parent Households	15%	22%	25%
Healthcare	Uninsured	4%	6%	10%
	Primary Care Providers per 100k	101	80	75
	Mental Health Providers per 100k	245	250	312
Housing	Households Spending Over 50% of Income on Housing	9%	11%	14%
	Severe Housing Problems	10%	13%	17%
Food	Population with Limited Access to Large Grocery Store	2%	5%	6%
	Food Insecurity	7%	7%	10%
Broadband Access	No Broadband Access	15%	12%	12%
Transportation	Long commute, driving alone	20%	28%	36%
	Households with no vehicle	4.4%	4.7%	6.6%

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