# Quin County
Community Health Services

2023-2025 PRELIMINARY COMMUNITY HEALTH ASSESSMENT

Last Updated: 2025-02-14

Quin County Community Health Services

Kittson · Marshall · Pennington · Red Lake · Roseau

Public Health Is Our Priority

FOR IMPLEMENTATION IN 2026-2030

Preliminary Preliminary.

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Welcome

Introduction

The Quin County Community Health Board (Quin CHB), governed by five members, is a multi-county community health services (CHS) entity responsible for providing local governmental public health services. Through delegation and sharing agreements, all powers and duties are delegated to the health departments of Kittson County Public Health, Marshall County Public Health, Pennington-Red Lake County Public Health, and Roseau County Public Health. We are pleased to share the 2023-2025 preliminary Community Health Assessment (CHA) to gain deeper insights into the health challenges affecting these communities..

Quin CHB is going to utilized an adapted version of the Community Health Improvement Framework, "Mobilizing Action for Planning and Partnership" (MAPP), to collect information and create a Community Health Assessment (CHA) that highlights the most critical health needs within the service area. The data collection process faced limitations due to the availability of county-level data, community input, survey responses, and time constraints. This framework facilitated structured and focused discussions, incorporating data analysis, participant feedback, potential solutions, and agreed-upon future strategies among community health partners.

The CHA findings are instrumental in pinpointing, developing, and targeting strategies to address health challenges within the community. Guided by public health leaders and strategists, this framework, combined with Results Based Accountability, enables communities to apply strategic thinking to prioritize public health issues and identify community-driven solutions and resources for collective action. The Community Health Assessment is designed to be a living document, updated as new data becomes available. We encourage using this assessment as a foundation for understanding our communities' health, enhancing well-being, and planning for the future.

Adopted from the seven Population and Performance Accountability questions found in *Trying Hard Is Not Good Enough.*
Source: Clear Impact

Use this graphic, or create your own, to share the steps of the MAPP 2.0 process with your community.

Acknowlegements

We extend our heartfelt gratitude to all the individuals, organizations, and partners who have contributed to the health assessment and planning process. A special acknowledgment goes to Patrick Olson, Data Analyst, for his invaluable assistance in gathering data from various state and national sources. His efforts have been crucial in developing a comprehensive CHA that meets public health accreditation standards and measures, enhances our Assessment and Surveillance Foundational Public Health capability, and informs meaningful local action.

We also thank the community members and partners from Kittson, Marshall, Pennington, Red Lake, and Roseau counties for their participation in the community health surveys and conversations.

Disclaimer

The information in this report is for general purposes only. We are not the primary data stewards for most of the data used in this report, which is why we cannot warrant the completeness, reliability, or suitability of the information. However, we will do our best to ensure its accuracy. If you have any concerns with this report, please let us know, and we will work with the primary data stewards to address your concerns.

Contact

Your continued feedback and engagement are greatly appreciated. For any comments or questions regarding this report, please contact Jodi Flaagan, Quin County CHS Administrator, at 218-653-1210.

Understanding Our CHA

Rationale Behind Our Choices

In today's world, we can easily experience information overload. The Census Bureau alone provides millions of data points available for public use. If we use all the available Census Bureau data, our Community Health Assessment (CHA) would not be meaningful because we would be overwhelmed with data. Additionally, relying solely on one data source like the Census Bureau would cause us to miss important details provided by other high-quality sources.

The art of data involves reducing noise (achieving consistency or understanding the reasons for inconsistencies among different data sources). By reducing noise, we can better identify high-quality sources that provide the essential components for a comprehensive CHA. We aimed to select outcomes of interest that provide trend data (evaluated over multiple years) to track our historical performance and improvements in key areas. However, some outcomes are only shown for one year because they may be projected outcomes (based on statistical models) or the outcome definition changed over time, making it inappropriate/unreliable to display them over multiple years.

We used the most up-to-date publicly available data for the following reasons:

- **Reproducibility**: While some data for our CHA required a data request, most of the report relies on publicly available data. This allows other community health boards and researchers to reproduce our work if they wish, aiding in fact-checking.
- **Transparency**: Using publicly available data allows us to be as transparent as possible.
- **Efficiency**: By using publicly available data, we can save time and resources for our federal and state data stewards.

An important note for our CHA is that, due to the small populations in our five counties, we can't always examine multiple factors at the same time. We know that health is affected by many things, but we don't always have detailed information or enough people to break down the data in many ways. For example, if we wanted to study lung cancer and compare it between men and women, we might not have enough data to do this accurately because there aren't enough people. While we might have enough data to look at rates of lung cancer for each county, we might not be able to analyze lung cancer rates by birth sex.

Public Health NW8 Hub

The Public Health NW8 Hub is a collaborative consortium involving the Community Health Boards (CHBs) of Quin and Polk-Norman-Mahnomen. This consortium is working on intergovernmental agreements to pilot an innovative shared service delivery model, known as the regional "Hub." The Hub offers coordinated foundational public health resources to its members, providing content expertise to support regional initiatives and local professionals. A Data Analyst collected secondary quantitative data from various national, state, and local sources, including the U.S. Census, Centers for Disease Control and Prevention (CDC), the Behavioral Risk Factor Surveillance System (BRFSS), the Minnesota Student Survey, and County Health Rankings.

We are starting the planning phase for gathering local data and the top 10 priorities have not been identified yet.

Top 10 Priority Health Issues:

Data Interpretation

When we look at data, it's easy to think that one thing causes another. For example, a rooster crowing doesn't make the sun rise; they just happen at the same time. This is similar to health risk factors and medical conditions. Just because two things happen together doesn't mean one causes the other.

In health, many things can affect conditions. High rates of a health problem don't mean one specific thing is the cause. It could be a mix of lifestyle, environment, and genetics. By looking at different risk factors and the health problem together, we can understand better and make good health choices for our community.

Just like the rooster and the sun, health risk factors might be linked to certain conditions, but they don't directly cause them. Knowing these links helps us create better health plans with our communities. By looking at our community's health using different types of data, we can understand the factors, find opportunities, and make strategies that fit our local needs. The following terms should help you understand the report better.

Data Terms/Definitions

Count

- A count represents the value of an observation. Counts are useful for assessing the economic impact of a community and determining if statistical analysis is reliable. According to (Centers for Disease Control and Prevention 2024b), counts less than 16 are considered unstable, meaning the results should be interpreted with caution. However, counts below 16 are still important because they provide us with a sense of how a community is currently doing. Counts shouldn't be compared among different communities, but they can be used to assess the community.

Proportion

- A proportion is a type of ratio that compares a part to the whole. It is expressed as a fraction or percentage and helps us understand the relative size of a subset within a larger population. For example, if 20 out of 100 people in a community have a certain health condition, the proportion is 20%.

Crude vs. Age-Adjusted Prevalence

- Crude Prevalence: Shows the overall condition in the general population but can be misleading if age distribution varies between communities. For example, an aging population may have a higher crude prevalence of heart disease simply because older adults can be more prone to this condition.
- Age-Adjusted Prevalence: Use this for comparing different communities as it accounts for age differences. It's like comparing apples to apples instead of apples to oranges. By adjusting for age, we ensure a fair comparison between communities.

Importance of Age-Adjusted Prevalence

Age-adjusted prevalence allows fair comparisons by considering age differences in populations.

Confidence Intervals (CI)

CIs can be interpreted in two main ways.

1. When looking at only one community.

    - If a community had a 95% CI of 5%-8%, this would mean we are 95% sure that the true number is as low as 5% and as high as 8% or somewhere in between.

2. When comparing two communities.

    - If a community has a 95% CI of 5%-8% and another community has a 95% CI of 6%-9% for the same topic, these two communities are similar, and we cannot say one is definitely higher or lower than the other because the values overlap (6% falls between 5%-8%)
    - If a community has a 95% CI of 5%-8% and another community has a 95% CI of 10%-15%, these two communities would be significantly different because the values don't overlap (5%-8% and 10%-15%) so we can say with 95% confidence that these values are different.

CHA Layout

The CHA is organized into several sections: (**Introduction, Understanding Our CHA, Local Input, Demographics, Factors Influencing Health, Health Status, Health Behaviors, Health Conditions, Mental Health, Environmental Health References, and Together We Can Build A Better Future**)

Local Assessments

Preliminary

Quin County Community Health Services is gearing up to start our community health assessment for 2025. As we focus on our internal priorities, we have decided to share the data we've gathered from publicly available sources. This document will be updated with new information as it becomes available throughout the upcoming year.

Minnesota Student Survey

The Minnesota Student Survey (MSS) is a vital tool for gathering insights into the health, well-being, safety, and academic success of Minnesota's youth. Conducted every three years, this anonymous and confidential survey targets students in grades 5, 8, 9, and 11 across the state. It covers a broad range of topics, including physical activity, nutrition, substance use, mental health, school safety, relationships, sexual activity, and positive behaviors, as well as connections to family, school, and community.

   Most school districts in Minnesota participate in the MSS. Although there was a drop in participation statewide in 2022 and some schools or specific grades in Kittson, Marshall, Pennington, Red Lake, and Roseau Counties did not take part in the 2022 survey. We strongly encourage all schools in these counties to join the upcoming 2025 MSS.
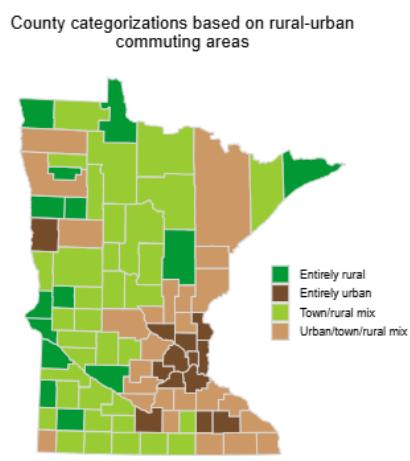
   The results of the MSS are crucial for incorporating the perspectives of young people into policy-making, program development, and service provision for students. Your participation helps ensure that the voices of our youth are heard and considered in decisions that affect their lives.

Demographics

The state of Minnesota has a total land area of 79,631.54 per square (sq) mile. Quin County Community Health Services (CHS) area covers 5,594.73 sq miles, with Marshall county having the largest land area (1,775.06 sq miles) followed by Roseau county (1,671.74 sq miles), Kittson county (1,099.00 sq miles) Pennington county (616.52 sq miles), and Red Lake county (432.41 sq miles). Minnesota has an average of 71.5 people living in each sq mile. In comparison, the Quin County CHS area has only 8.3 people per sq mile (Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program 2022).

- Pennington has 22.7 people per sq mile
- Roseau has 9.1 people per sq mile
- Red Lake has 9.0 people per sq mile
- Marshall has 5.1 people per sq mile
- Kittson has 3.8 people per sq mile

In these five counties, people are significantly more dispersed compared to the state average. Population density, which measures the number of people per square mile, gives us an idea of how rural an area is, though it's not the sole indicator. As shown on the following maps, Marshall County has two Census Tracts that prevent it from being entirely rural. However, it still meets a key criterion of a frontier area, with a population density of at least six or fewer people per square mile (Rural Health Information Hub 2024).
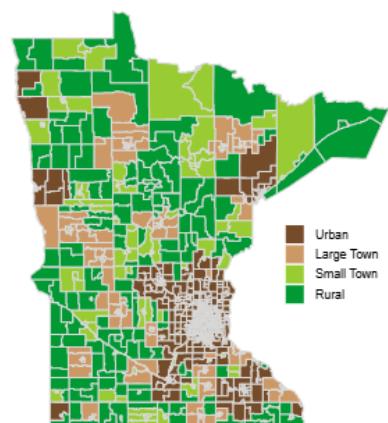
Figure 1: Please click on either map above for the detailed rural report.

Population Size

The state of Minnesota had a population of 5,706,494 people. Quin County CHS area had a total residential population of 46,505. This makes up 0.81% of Minnesota's population (46,505/5,706,494) (U.S. Census Bureau 2020).

- Roseau county 15,331 residents (32.97% of Quin County CHS, 0.27% of Minnesota)
- Pennington county 13,992 residents (30.09% of Quin County CHS, 0.25% of Minnesota)
- Marshall county 9,040 residents (19.44% of Quin County CHS, 0.16% of Minnesota)
- Kittson county 4,207 residents (9.05% of Quin County CHS, 0.07% of Minnesota)
- Red Lake county 3,935 residents (8.46% of Quin County CHS, 0.07% of Minnesota)

Age Distribution
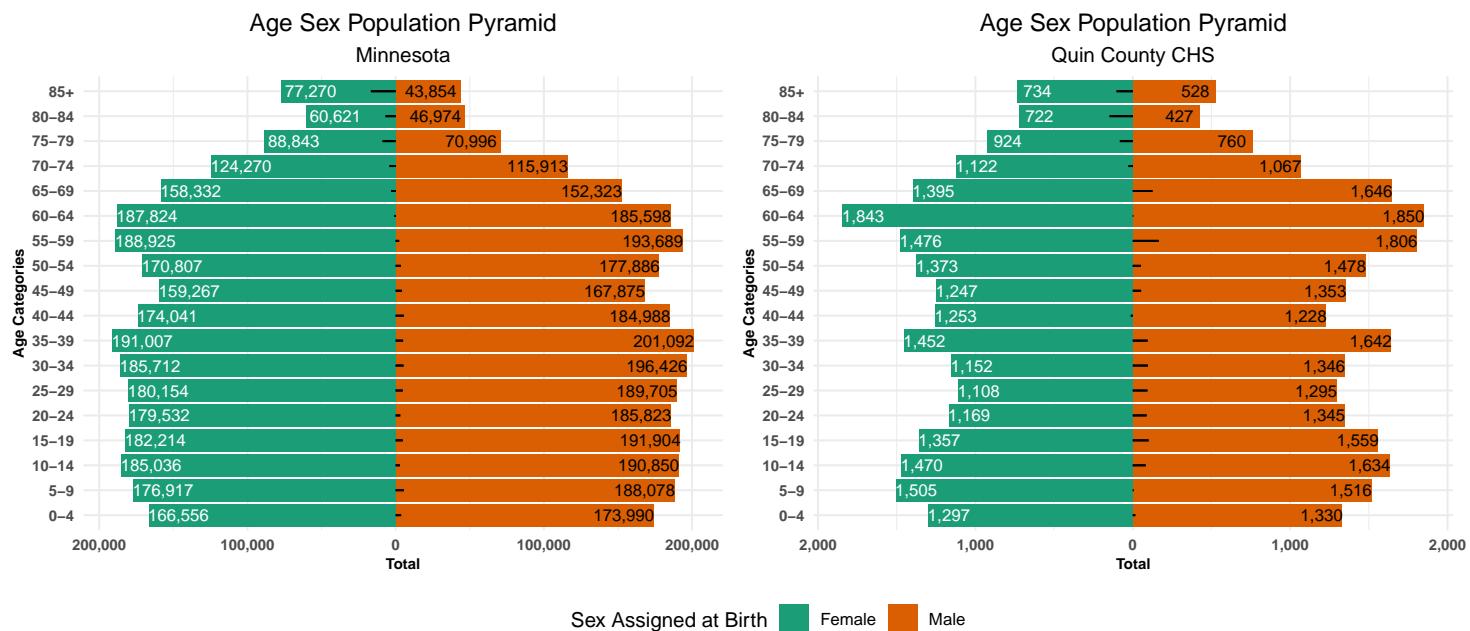
Over the next decade, the number of individuals aged 65 and older is projected to increase. This demographic shift could result in shortages in the workforce, long-term care housing, and supportive services. The median age in the Quin County CHS area provides further insight into the aging population. Kittson county has the highest median age at 48 years, followed by Red Lake

county at 42.9 years, Marshall county at 42.8 years, Roseau county at 42.1 years and Pennington county at 39.8 years. For comparison, the median age for the state of Minnesota was 38.5 years. The combined median age for Quin County CHS area was 42.1 years, though this figure should be interpreted with caution as it wasn't calculated from the raw data (U.S. Census Bureau 2022)

Median age is used instead of the average age because it gives a clearer picture of the community's age. The median age is the middle point, so it isn't skewed by very young or very old individuals. This way, we get a better idea of the typical age in the community.
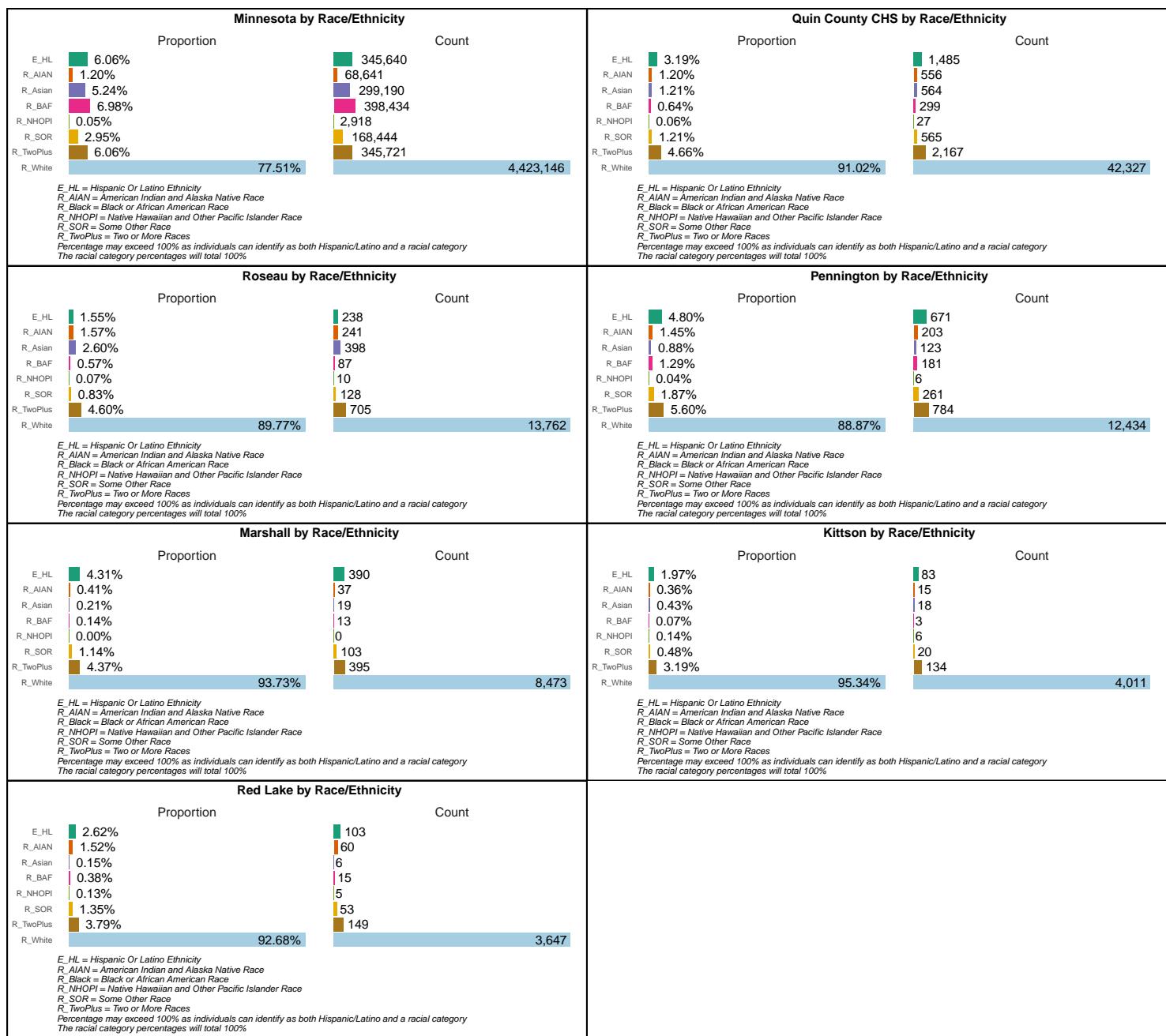
Sex Distribution

The Age Sex Population Pyramids below illustrate a generally balanced distribution of males and females across most age groups. You can determine the balance by examining the horizontal solid black midpoint line: a longer line indicates a greater difference between the male and female populations within that age group. The Age Sex Population Pyramids are based on the U.S. Census Bureau (2022) estimates. While there is a lot to examine, comparing Minnesota to the Quin County CHS area reveals that the midpoint line is similar, except for the age groups 65-69.
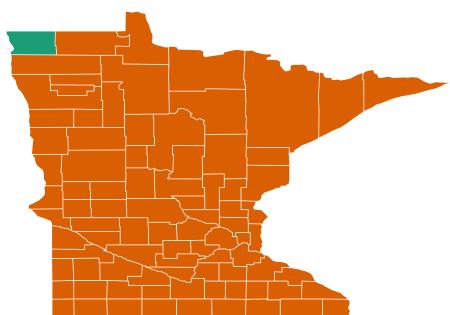
Race/Ethnicity

Based on the U.S. Census Bureau (2020) data, the White population represents the highest percentage in both Minnesota and the Quin County CHS area. Quin County CHS has more than 10% percentage of residents identifying as white compared to the state of Minnesota. Quin County CHS has relatively low ethnic and racial diversity. Although the area has relatively low ethnic and racial diversity, it still possesses a diverse community with a variety of backgrounds and experiences that enrich the local culture.

Minnesota by Race/Ethnicity

	Proportion	Count
E_HL	6.06%	345,640
R_AIAN	1.20%	68,641
R_Asian	5.24%	299,190
R_BAF	6.98%	398,434
R_NHOPI	0.05%	2,918
R_SOR	2.95%	168,444
R_TwoPlus	6.06%	345,721
R_White	77.51%	4,423,146

E_HL = Hispanic Or Latino Ethnicity
R_AIAN = American Indian and Alaska Native Race
R_Black = Black or African American Race
R_NHOPI = Native Hawaiian and Other Pacific Islander Race
R_SOR = Some Other Race
R_TwoPlus = Two or More Races
Percentage may exceed 100% as individuals can identify as both Hispanic/Latino and a racial category
The racial category percentages will total 100%

Quin County CHS by Race/Ethnicity

	Proportion	Count
E_HL	3.19%	1,485
R_AIAN	1.20%	556
R_Asian	1.21%	564
R_BAF	0.64%	299
R_NHOPI	0.06%	27
R_SOR	1.21%	565
R_TwoPlus	4.66%	2,167
R_White	91.02%	42,327

E_HL = Hispanic Or Latino Ethnicity
R_AIAN = American Indian and Alaska Native Race
R_Black = Black or African American Race
R_NHOPI = Native Hawaiian and Other Pacific Islander Race
R_SOR = Some Other Race
R_TwoPlus = Two or More Races
Percentage may exceed 100% as individuals can identify as both Hispanic/Latino and a racial category
The racial category percentages will total 100%

Roseau by Race/Ethnicity

	Proportion	Count
E_HL	1.55%	238
R_AIAN	1.57%	241
R_Asian	2.60%	398
R_BAF	0.57%	87
R_NHOPI	0.07%	10
R_SOR	0.83%	128
R_TwoPlus	4.60%	705
R_White	89.77%	13,762

E_HL = Hispanic Or Latino Ethnicity
R_AIAN = American Indian and Alaska Native Race
R_Black = Black or African American Race
R_NHOPI = Native Hawaiian and Other Pacific Islander Race
R_SOR = Some Other Race
R_TwoPlus = Two or More Races
Percentage may exceed 100% as individuals can identify as both Hispanic/Latino and a racial category
The racial category percentages will total 100%

Pennington by Race/Ethnicity

	Proportion	Count
E_HL	4.80%	671
R_AIAN	1.45%	203
R_Asian	0.88%	123
R_BAF	1.29%	181
R_NHOPI	0.04%	6
R_SOR	1.87%	261
R_TwoPlus	5.60%	784
R_White	88.87%	12,434

E_HL = Hispanic Or Latino Ethnicity
R_AIAN = American Indian and Alaska Native Race
R_Black = Black or African American Race
R_NHOPI = Native Hawaiian and Other Pacific Islander Race
R_SOR = Some Other Race
R_TwoPlus = Two or More Races
Percentage may exceed 100% as individuals can identify as both Hispanic/Latino and a racial category
The racial category percentages will total 100%

Marshall by Race/Ethnicity

	Proportion	Count
E_HL	4.31%	390
R_AIAN	0.41%	37
R_Asian	0.21%	19
R_BAF	0.14%	13
R_NHOPI	0.00%	0
R_SOR	1.14%	103
R_TwoPlus	4.37%	395
R_White	93.73%	8,473

E_HL = Hispanic Or Latino Ethnicity
R_AIAN = American Indian and Alaska Native Race
R_Black = Black or African American Race
R_NHOPI = Native Hawaiian and Other Pacific Islander Race
R_SOR = Some Other Race
R_TwoPlus = Two or More Races
Percentage may exceed 100% as individuals can identify as both Hispanic/Latino and a racial category
The racial category percentages will total 100%

Kittson by Race/Ethnicity

	Proportion	Count
E_HL	1.97%	83
R_AIAN	0.36%	15
R_Asian	0.43%	18
R_BAF	0.07%	3
R_NHOPI	0.14%	6
R_SOR	0.48%	20
R_TwoPlus	3.19%	134
R_White	95.34%	4,011

E_HL = Hispanic Or Latino Ethnicity
R_AIAN = American Indian and Alaska Native Race
R_Black = Black or African American Race
R_NHOPI = Native Hawaiian and Other Pacific Islander Race
R_SOR = Some Other Race
R_TwoPlus = Two or More Races
Percentage may exceed 100% as individuals can identify as both Hispanic/Latino and a racial category
The racial category percentages will total 100%

Red Lake by Race/Ethnicity

	Proportion	Count
E_HL	2.62%	103
R_AIAN	1.52%	60
R_Asian	0.15%	6
R_BAF	0.38%	15
R_NHOPI	0.13%	5
R_SOR	1.35%	53
R_TwoPlus	3.79%	149
R_White	92.68%	3,647

E_HL = Hispanic Or Latino Ethnicity
R_AIAN = American Indian and Alaska Native Race
R_Black = Black or African American Race
R_NHOPI = Native Hawaiian and Other Pacific Islander Race
R_SOR = Some Other Race
R_TwoPlus = Two or More Races
Percentage may exceed 100% as individuals can identify as both Hispanic/Latino and a racial category
The racial category percentages will total 100%

County Demographic Profiles (More information)

Kittson County

Marshall County

Pennington County

### Red Lake County

Roseau County

Figure 2: Please click on the corresponding map above for more detailed demographic information.

Factors Influencing Health

Health is influenced by various factors, including the quality of our education, workplace safety, and the cleanliness of our water, food, and air. Social interactions and relationships also play a crucial role. Health begins in our homes, schools, workplaces, neighborhoods, and communities. Taking care of ourselves involves dedication and making smart lifestyle choices. Access to social and economic opportunities, as well as the resources and support available in our environments, significantly impacts our health, well-being, and quality of life. It's essential for everyone in the community to have equal opportunities to make choices that promote good health.

Social Vulnerability Index (SVI)

Social vulnerability describes the potential adverse effects on communities from external stresses on human health, such as natural or human-made disasters and disease outbreaks. Mitigating social vulnerability can reduce both human suffering and economic losses. The CDC's Social Vulnerability Index (SVI) organizes fifteen census-derived factors into four themes to measure an area's social vulnerability. These factors include economic data, education, family characteristics, housing, language proficiency, ethnicity, and vehicle access. The SVI scale ranges from 0 to 1, with 1 representing the highest vulnerability. The Healthy People 2030 initiative focuses on enhancing social and community support. By working together, partners can ideally offer services and resources that help achieve a low vulnerability status.

Kittson County has approximately 690 individuals below poverty line. Among occupied housing units with an annual income of less than $75,000, around 226 are considered cost-burdened, spending more than 30% on their income on housing costs. Additionally, an estimated 118 residents aged 25 and older do not have a high school diploma. Kittson County has about 177 uninsured individuals within the total civilian noninstitutionalized population. There are approximately 1,101 residents aged 65 and older. Lastly, around 26 households have more people than rooms available.

Table 1: Kittson County's SVI Scores

Category	Score
Overall SVI	0.1512
Socioeconomic Status	0.1047
Household Characteristics	0.0465
Racial and Ethnic Minority Status	0.1163
Housing Type/Transportation	0.6279

Kittson County Interpretation: Kittson County's high score in the Housing Type and Transportation category suggests that these are significant areas of concern. Despite the overall low social vulnerability score, the high index in this category highlights the need for targeted interventions to improve housing conditions and transportation access. Addressing these issues can help reduce the overall vulnerability of the community and improve residents' quality of life.

Marshall County has approximately 1,361 individuals below the poverty line. Among occupied housing units with an annual income of less than $75,000, around 621 are considered cost-burdened, spending more than 30% on their income on housing costs. Additionally, an estimated 467 residents aged 25 and older do not have a high school diploma. Marshall County also has about 365 uninsured individuals within the total civilian noninstitutionalized population. There are approximately 2,003 residents aged 65 and older. Lastly, around 43 households have more people than rooms available.

Table 2: Marshall County's SVI Scores

Category	Score
Overall SVI	0.2209
Socioeconomic Status	0.2326
Household Characteristics	0.6512
Racial and Ethnic Minority Status	0.2209
Housing Type/Transportation	0.2093

Marshall County Interpretation: Marshall County has an overall low social vulnerability index, but there are significant concerns regarding household characteristics. The high score in household characteristics indicates that many residents face chal-

lenges related to family structure, disability, and single-parent households. Addressing these issues is crucial for improving the overall well-being of the community.

Pennington County approximately has 2,178 individuals below the poverty line. Among occupied housing units with an annual income of less than $75,000, around 1,306 are considered cost-burdened, spending more than 30% on their income on housing costs. Additionally, an estimated456 residents aged 25 and older do not have a high school diploma. Pennington County also has about 436 uninsured individuals within the total civilian noninstitutionalized population. There are approximately 2,581 residents aged 65 and older. Lastly, around 68 households have more people than rooms available.

Table 3: Pennington County's SVI Scores

Category	Score
Overall SVI	0.3488
Socioeconomic Status	0.1395
Household Characteristics	0.4419
Racial and Ethnic Minority Status	0.4651
Housing Type/Transportation	0.6512

Pennington County Interpretation: Pennington County has a low to medium overall social vulnerability, with the highest score in the housing type and transportation category. This high score underscores the need for focused interventions in this area. By addressing these specific vulnerabilities, Pennington County can work towards enhancing the well-being and resilience of its residents.

Red Lake County has approximately 670 individuals below the poverty line. Among occupied housing units with an annual income of less than $75,000, around 296 are considered cost-burdened, spending more than 30% on their income on housing costs. Additionally, an estimated136 residents aged 25 and older do not have a high school diploma. Red Lake County also has about 108 uninsured individuals within the total civilian noninstitutionalized population. There are approximately 852 residents aged 65 and older. Lastly, around 33 households have more people than rooms available.

Table 4: Red Lake County's SVI Scores

Category	Score
Overall SVI	0.1163
Socioeconomic Status	0.0581
Household Characteristics	0.4186
Racial and Ethnic Minority Status	0.2907
Housing Type/Transportation	0.3372

Red Lake County Interpretation: Red Lake County exhibits low overall social vulnerability, with the highest score in the household characteristics category. This indicates a need for targeted interventions in this area. By addressing these specific vulnerabilities, Red Lake County can improve the well-being and resilience of its residents.

Roseau County has approximately 2,365 individuals below the poverty line. Among occupied housing units with an annual income of less than $75,000, around 1,179 are considered cost-burdened, spending more than 30% on their income on housing costs. Additionally, an estimated742 residents aged 25 and older do not have a high school diploma. Roseau County also has about 728uninsured individuals within the total civilian noninstitutionalized population. There are approximately 2,788 residents aged 65 and older. Lastly, around 62 households have more people than rooms available.

Table 5: Roseau County's SVI Scores

Category	Score
Overall SVI	0.5349
Socioeconomic Status	0.5116
Household Characteristics	0.5465
Racial and Ethnic Minority Status	0.4302

Category	Score
Housing Type/Transportation	0.5465

Roseau County Interpretation: Roseau County exhibits medium to high overall social vulnerability, with all categories except racial and ethnic minority status falling into the medium to high-risk range. The scores for socioeconomic status, household characteristics, and housing type/transportation highlight areas that could benefit from focused efforts. These aspects emphasize the value of targeted interventions to enhance the well-being and resilience of Roseau County's residents. By addressing these specific challenges, the county can work towards creating a more supportive and sustainable community.
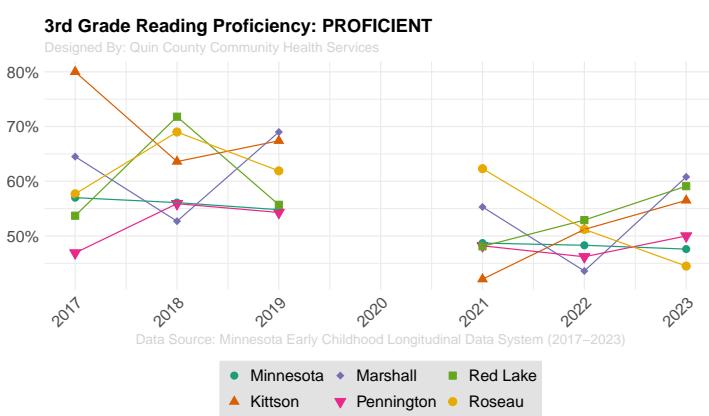
The SVI project is an excellent starting point for identifying areas to invest in related to socioeconomic factors (Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program 2022). However, it is not the only area we explored.

Education

Education is a key predictor of lifelong health. Graduating from high school is a significant personal achievement and crucial for an individual's social and economic progress. Poverty can increase the risk of developing chronic diseases, which may further reduce income. A Healthy People 2030 goal is to increase educational opportunities and support children and adolescents in excelling at school. Higher educational attainment is linked to higher incomes, better employment options, increased social support, and more opportunities for healthier choices—all of which can improve health outcomes and extend life expectancy. Conversely, lower education levels are associated with low health literacy and higher levels of risky behaviors.

From 2022 to 2023, Minnesota and Roseau saw a decline in reading proficiency among third graders. In contrast, Marshall County experienced the largest gain in reading proficiency during this period. Red Lake, Kittson, and Pennington also showed notable improvements in reading proficiency. Regarding math proficiency, Roseau had a slight decline, while Minnesota, Kittson, Marshall, Pennington, and Red Lake all demonstrated positive improvements from 2022 to 2023. Red Lake had the largest increase, followed closely by Kittson. Each county has unique needs, and even small positive improvements are encouraging (Minnesota Early Childhood Longitudinal Data System 2017-2023).
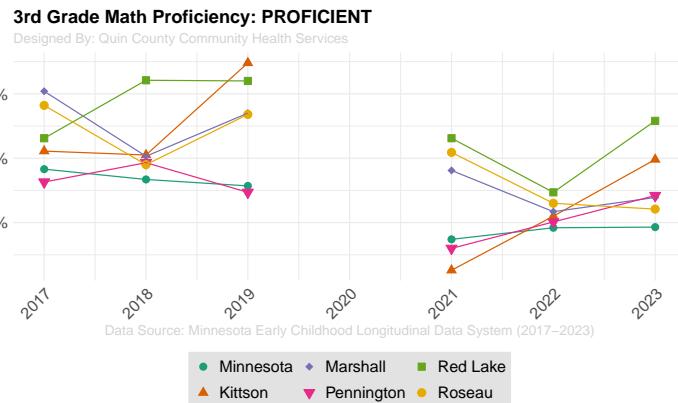
All five Quin counties had higher graduation rates than the state of Minnesota. Kittson, Marshall, and Red Lake counties achieved graduation rates of 90% or more in both 2021 and 2022. Pennington County reached a graduation rate of 92.2% in 2022. Although Roseau County experienced a slight decline from 2021 to 2022, its graduation rate remained relatively high. High graduation rates are crucial because they demonstrate how well the education system prepares students for future success. Completing high school provides more opportunities for higher education and employment, which can lead to greater economic stability and an improved quality of life. Conversely, lower graduation rates indicate areas where additional support and resources may be necessary to help students thrive.

Year	Location	Reading Proficiency	% Change
2022	Minnesota	48.30%	
2023	Minnesota	47.60%	-0.70%
2022	Kittson	51.20%	
2023	Kittson	56.50%	5.30%
2022	Marshall	43.60%	
2023	Marshall	60.80%	17.20%
2022	Pennington	46.20%	
2023	Pennington	50.00%	3.80%
2022	Red Lake	52.90%	
2023	Red Lake	59.10%	6.20%
2022	Roseau	51.20%	
2023	Roseau	44.50%	-6.70%

Data Source: Minnesota Early Childhood Longitudinal Data System (2017-2023)

Figure 1: 3rd Grade Reading Proficiency: PROFICIENT

3rd Grade Math Proficiency: PROFICIENT
Designed By: Quin County Community Health Services

Data Source: Minnesota Early Childhood Longitudinal Data System (2017–2023)

Legend: Minnesota, Marshall, Red Lake, Kittson, Pennington, Roseau

Year	Location	Math Proficiency	% Change
2022	Minnesota	59.20%	
2023	Minnesota	59.30%	0.10%
2022	Kittson	61.00%	
2023	Kittson	69.80%	8.80%
2022	Marshall	61.70%	
2023	Marshall	63.90%	2.20%
2022	Pennington	60.10%	
2023	Pennington	64.20%	4.10%
2022	Red Lake	64.70%	
2023	Red Lake	75.80%	11.10%
2022	Roseau	63.00%	
2023	Roseau	62.10%	-0.90%

Data Source: Minnesota Early Childhood Longitudinal Data System (2017-2023)

Figure 2: 3rd Grade Math Proficiency: PROFICIENT

Table 6: Graduation Rate

| Location	2021	2022
Minnesota	83.3%	83.6%
Kittson	93.6%	95.1%
Marshall	94.4%	92.5%
Pennington	89.7%	92.2%
Red Lake	100%	92.9%
Roseau	86.6%	85.4%
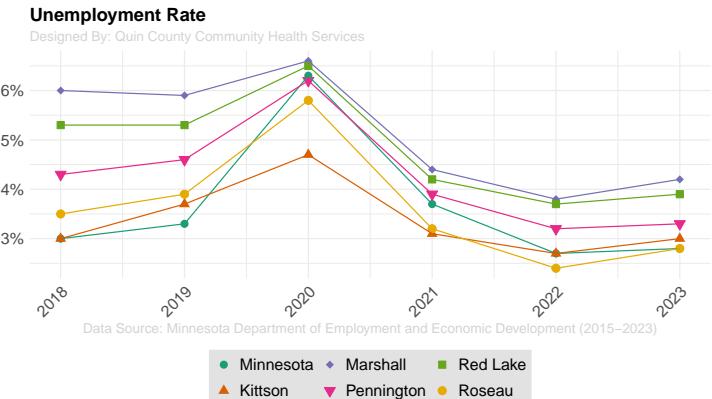
The Annie E. Casey Foundation, KIDS COUNT Data Center (2023)

Economic Stability

According to U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion (2024), individuals with stable employment tend to be healthier. However, many people face challenges in finding and maintaining jobs. Those with disabilities, injuries, or physical conditions may find it particularly difficult to work. Additionally, even those with steady employment often do not earn enough to afford essential items for maintaining their health. Income influences various aspects of our lives, including our living conditions, the stability of our housing, the quality of our homes, the schools we attend, the recreational activities we engage in, and the types of food we consume.

The unemployment rates between 2022 and 2023 have shown minimal changes. Marshall and Roseau counties experienced increases of 0.4%, Kittson County rose by 0.3%, Red Lake increased by 0.2%, and both Pennington County and Minnesota saw a 0.1% increase (Minnesota Department of Employment and Economic Development 2015-2023). These values indicate a relatively stable job market for the five Quin counties. However, four out of five Quin counties (Marshall 4.2%, Kittson 3.0%, Red Lake 3.9%, and Pennington 3.3%) have higher unemployment rates compared to the state of Minnesota (2.8%) in 2023. This suggests that while the rates over time are more stable, there is still room for improvement.

In 2020, unemployment rates saw a significant rise, likely due to the economic fallout from the COVID-19 pandemic. The pandemic triggered widespread job losses and economic disruptions, resulting in higher unemployment rates across many regions. Since then, the job market has been on a gradual path to recovery, as reflected in the relatively stable rates observed in recent years.

Unemployment Rate
Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Employment and Economic Development (2015–2023)

Legend: Minnesota, Marshall, Red Lake, Kittson, Pennington, Roseau

Year	Location	Unemployment Rate	% Change
2022	Minnesota	2.70%	
2023	Minnesota	2.80%	0.10%
2022	Kittson	2.70%	
2023	Kittson	3.00%	0.30%
2022	Marshall	3.80%	
2023	Marshall	4.20%	0.40%
2022	Pennington	3.20%	
2023	Pennington	3.30%	0.10%
2022	Red Lake	3.70%	
2023	Red Lake	3.90%	0.20%
2022	Roseau	2.40%	
2023	Roseau	2.80%	0.40%

Data Source: Minnesota Department of Employment and Economic Development (2015-2023)

Figure 3: Unemployment Rate

Child Care

High-quality child care is crucial for building thriving communities and supporting children's growth. It ensures that our most vulnerable children receive a strong start in life while allowing parents and guardians to maintain their employment. Community discussions have identified significant gaps in child care access, availability, and affordability. The Minnesota Department of Employment and Economic Development (DEED) has a detailed report outlining these gaps. For further details, refer to figures 4 and 5 on page 3 and tables 3 and 4 on page 4 in the MN DEED report.

County Profiles (More Information)

DEED provides a detailed analysis of data on population, education, labor force, income and cost of living, industry employment, and commuting patterns. These profiles offer valuable insights into the economic landscape of Quin's five-county jurisdiction, aiding in effective planning. According to the profiles, the entire region is projected to experience a decline in labor force from 2025 to 2035 (Minnesota Department of Employment and Economic Development 2024).

Kittson County

Marshall County

Pennington County

Red Lake County

Roseau County
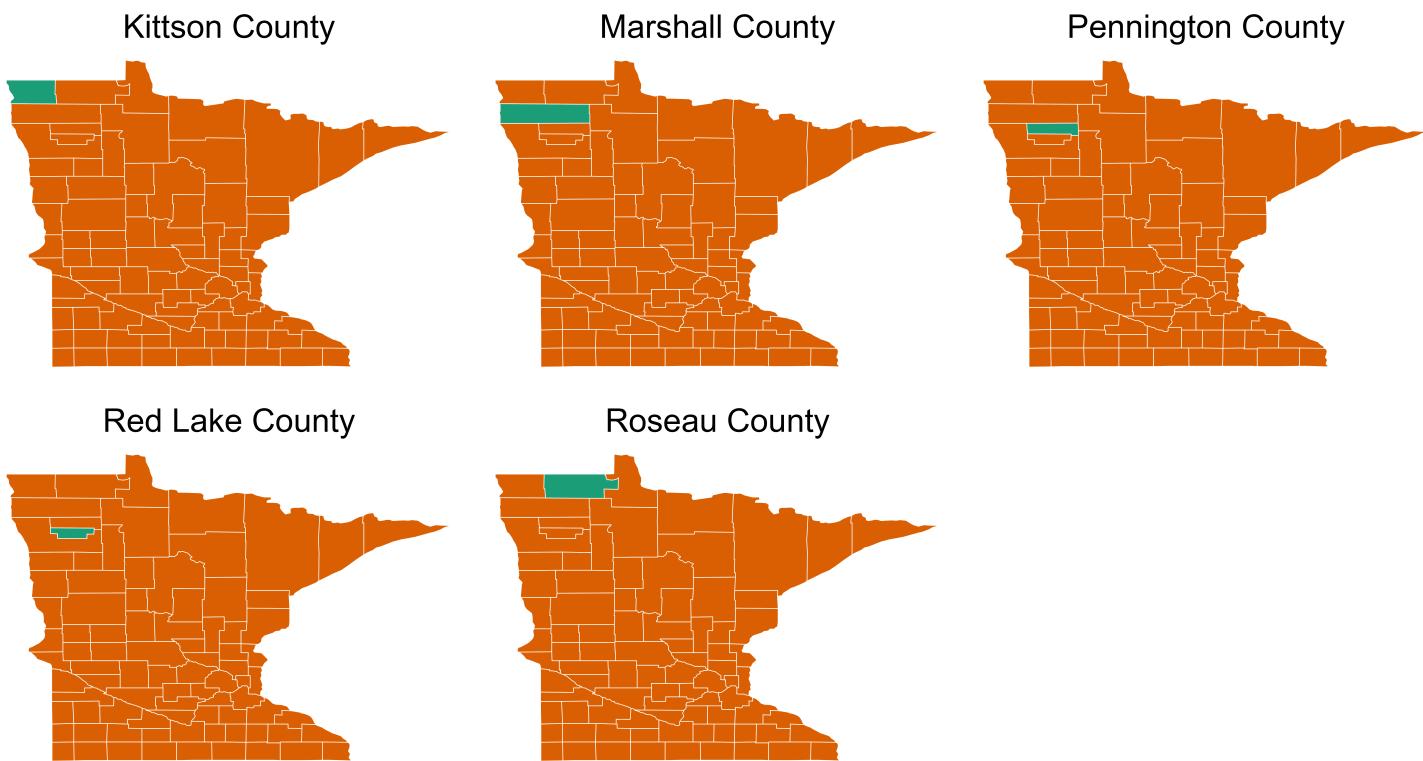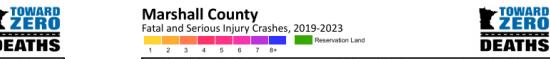
Figure 4: For detailed county profiles, please click on the corresponding map above.

Transportation and Crashes

Over a five-year period, none of the five Quin counties showed red, purple, or blue on the maps developed by (Toward Zero Deaths 2023), which is a positive indicator. The absence of these colors suggests that there have been no areas with extremely high crash rates or severe injuries, reflecting effective traffic safety measures and safer roads. Marshall and Pennington counties are the only counties among the five that recorded three deaths or serious injuries (dark orange) within their borders; Pennington County had this occur in multiple locations. Minnesota Toward Zero Deaths (TZD) is the state's leading traffic safety program, using an interdisciplinary approach to reduce traffic crashes, injuries, and fatalities on Minnesota roads. The Office of Traffic Safety, part of the Minnesota Department of Public Safety, publishes MN Motor Vehicle Crash Facts. Identifying potential high-crash areas in our counties is crucial.

Figure 5: For additional resources, simply click on any of the maps
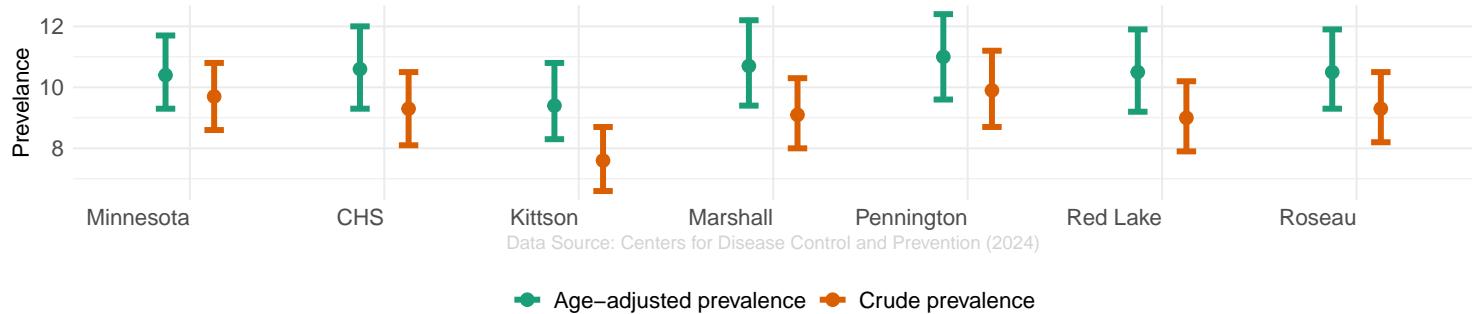
Housing Insecurity

Housing instability is a pressing issue that affects countless individuals and families. It includes a spectrum of challenges such as struggling to pay rent, living in overcrowded conditions, frequent relocations, and the looming threat of eviction. These hardships can deeply impact physical and mental health, educational success, and overall well-being. Tackling housing insecurity is vital for fostering stable, healthy communities and ensuring everyone has a safe, affordable place to call home.

The age-adjusted prevalence of housing insecurity reveals some variations across our counties and the state of Minnesota. In Minnesota, the prevalence is 10.4% (CI: 9.3-11.7%), while the Quin CHS region has a slightly higher rate at 10.6% (CI: 9.3-12.0%). Among the counties, Kittson has a prevalence of 9.4% (CI: 8.3-10.8%), Marshall stands at 10.7% (CI: 9.4-12.2%), Pennington at 11.0% (CI: 9.6-12.4%), Red Lake at 10.5% (CI: 9.2-11.9%), and Roseau at 10.5% (CI: 9.3-11.9%). While these figures show some differences, the overlapping confidence intervals suggest that these variations are not statistically significant. This indicates that housing insecurity rates are relatively similar across the counties and the state of Minnesota.

Housing insecurity in the past 12 months among adults 2022

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	8.6	9.7	10.8
Crude	CHS	8.1	9.3	10.5
Crude	Kittson	6.6	7.6	8.7
Crude	Marshall	8.0	9.1	10.3
Crude	Pennington	8.7	9.9	11.2
Crude	Red Lake	7.9	9.0	10.2
Crude	Roseau	8.2	9.3	10.5

Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	9.3	10.4	11.7
Age-Adjusted	CHS	9.3	10.6	12.0
Age-Adjusted	Kittson	8.3	9.4	10.8
Age-Adjusted	Marshall	9.4	10.7	12.2
Age-Adjusted	Pennington	9.6	11.0	12.4
Age-Adjusted	Red Lake	9.2	10.5	11.9
Age-Adjusted	Roseau	9.3	10.5	11.9

Data Source: Centers for Disease Control and Prevention (2024a)
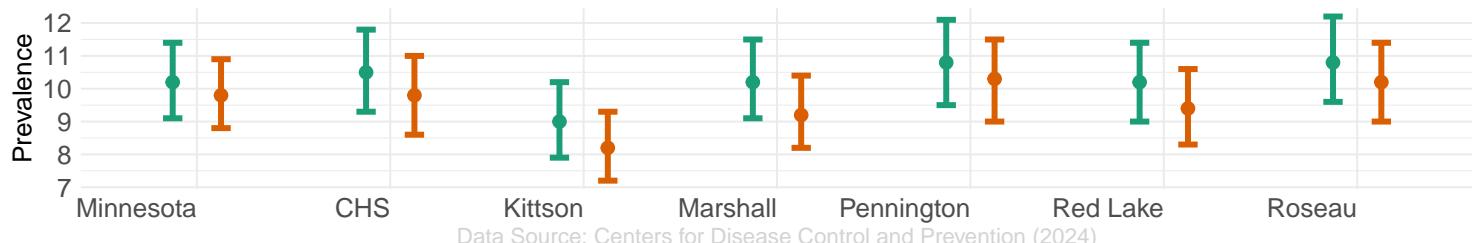
Figure 6: Housing insecurity in the past 12 months among adults 2022

Food Access

Ensuring access to nutritious food is essential for physical and mental health, academic performance, and overall quality of life. It involves making healthy food available and affordable for everyone, regardless of socioeconomic status. However, many communities face barriers like food deserts, economic constraints, and limited transportation. Addressing these challenges is crucial to promote equity and enable everyone to lead a healthy, fulfilling life. The five Quin counties have statstically similar levels of food insecurity and food stamp usage as the rest of Minnesota.

Food insecurity in the past 12 months among adults 2022

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	8.8	9.8	10.9
Crude	CHS	8.6	9.8	11.0
Crude	Kittson	7.2	8.2	9.3
Crude	Marshall	8.2	9.2	10.4
Crude	Pennington	9.0	10.3	11.5
Crude	Red Lake	8.3	9.4	10.6
Crude	Roseau	9.0	10.2	11.4
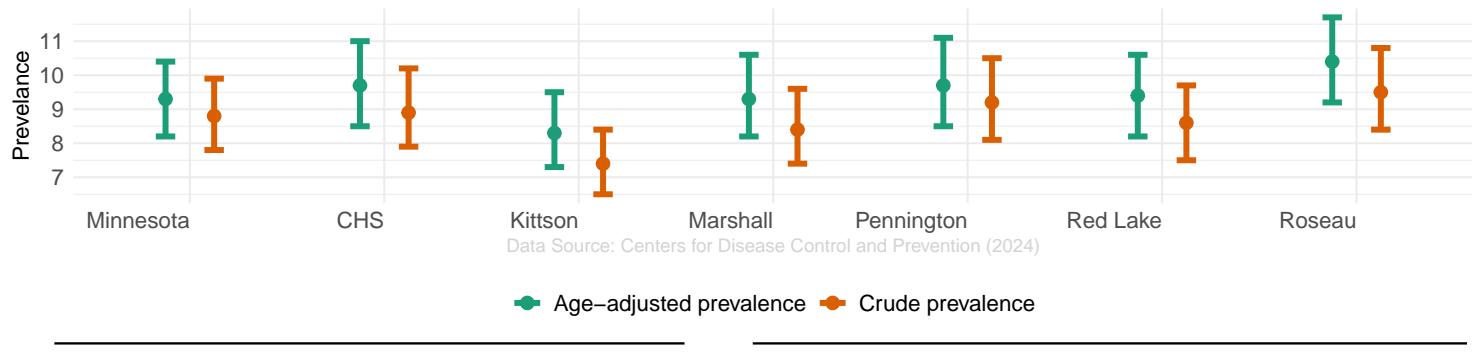
Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	9.1	10.2	11.4
Age-Adjusted	CHS	9.3	10.5	11.8
Age-Adjusted	Kittson	7.9	9.0	10.2
Age-Adjusted	Marshall	9.1	10.2	11.5
Age-Adjusted	Pennington	9.5	10.8	12.1
Age-Adjusted	Red Lake	9.0	10.2	11.4
Age-Adjusted	Roseau	9.6	10.8	12.2

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 7: Food insecurity in the past 12 months among adults 2022

Received food stamps in the past 12 months among adults 2022

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	7.8	8.8	9.9
Crude	CHS	7.9	8.9	10.2
Crude	Kittson	6.5	7.4	8.4
Crude	Marshall	7.4	8.4	9.6
Crude	Pennington	8.1	9.2	10.5
Crude	Red Lake	7.5	8.6	9.7
Crude	Roseau	8.4	9.5	10.8

| Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	8.2	9.3	10.4
Age-Adjusted	CHS	8.5	9.7	11.0
Age-Adjusted	Kittson	7.3	8.3	9.5
Age-Adjusted	Marshall	8.2	9.3	10.6
Age-Adjusted	Pennington	8.5	9.7	11.1
Age-Adjusted	Red Lake	8.2	9.4	10.6
Age-Adjusted	Roseau	9.2	10.4	11.7

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 8: Received food stamps in the past 12 months among adults 2022

Healthcare and Dental Access

Access to comprehensive health care, including primary and dental care, is crucial for overall well-being. Primary care providers detect, prevent, and manage health conditions through check-ups, immunizations, chronic disease management, and specialist coordination. Dental services are essential for preventing and treating oral health issues, which affect overall health. Regular check-ups and cleanings prevent cavities and gum disease, while dentists educate on good oral hygiene. Improving access to these services can lead to better health outcomes for our communities. Efforts to increase the availability of primary care providers and dentists, especially in underserved regions, are crucial. This includes initiatives to attract and retain healthcare professionals in rural areas, expanding telehealth services, and ensuring affordable care for all residents. Increasing access to comprehensive, high-quality health care is a Healthy People 2030 Goal.

Population per Primary Care Provider (2022) - Minnesota: 1,133 people per primary care provider.

- Kittson County: Data not available (NA)
- Marshall County: 8,988 people per primary care provider
- Pennington County: 1,252 people per primary care provider
- Red Lake County: Data not available (NA)
- Roseau County: 1,907 people per primary care provider
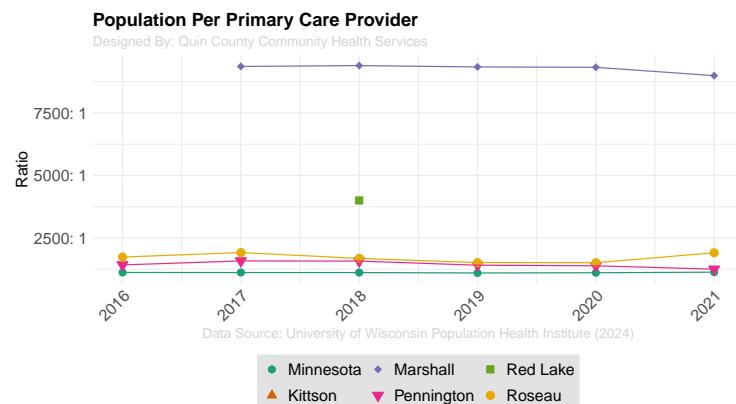
Pennington County has the closest average to the state of Minnesota, with 1,252 people per primary care provider compared to the state average of 1,133 people per provider. Roseau County has a higher ratio of 1,907 people per provider, indicating less access than the state average. Marshall County has the highest ratio among the counties with available data, with 8,988 people per provider, suggesting significantly less access to primary care services. Data for Kittson and Red Lake counties was not available.

Population per Dentist (2022) - Minnesota: 1,287 people per dentist

- Kittson County: 2,029 people per dentist
- Marshall County: 4,430 people per dentist
- Pennington County: 1,730 people per dentist
- Red Lake County: Data not available (NA)
- Roseau County: 1,699 people per dentist

Roseau County has the closest average to the state of Minnesota, with 1,699 people per dentist compared to the state average of 1,287 people per dentist, indicating relatively good access. Pennington County has a higher ratio of 1,730 people per dentist, indicating less access to dental care and Kittson County shows even less acess to dental care with 2,029 people per dentist. Marshall County has the highest ratio among the counties with available data, with 4,430 people per dentist, suggesting significantly less access to dental services. Data for Red Lake County is not available.
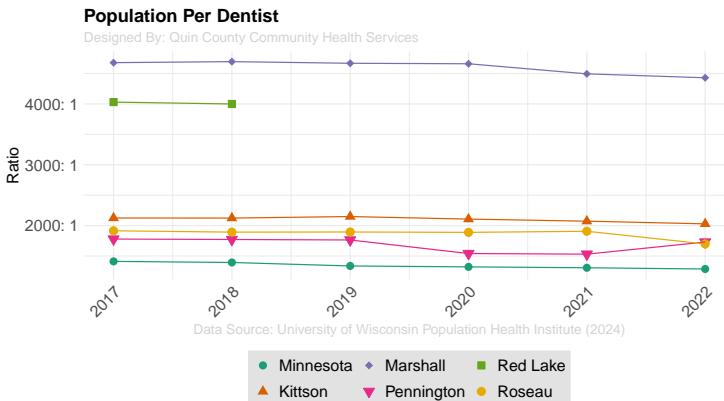
Despite potentially less access to primary care providers, the estimated rate of routine checkups is similar to the Minnesota state average, with about 3 out of 4 people predicted to get their checkups. However, Medicaid beneficiaries show less consistency in receiving dental services. Assessing current performance is difficult due to lagging and fluctuating data.

Year	Location	Ratio
2021	Minnesota	1133: 1
2021	Kittson	–
2021	Marshall	8988: 1
2021	Pennington	1252: 1
2021	Red Lake	–
2021	Roseau	1907: 1

Data Source: University of Wisconsin Population Health Institute (2024)
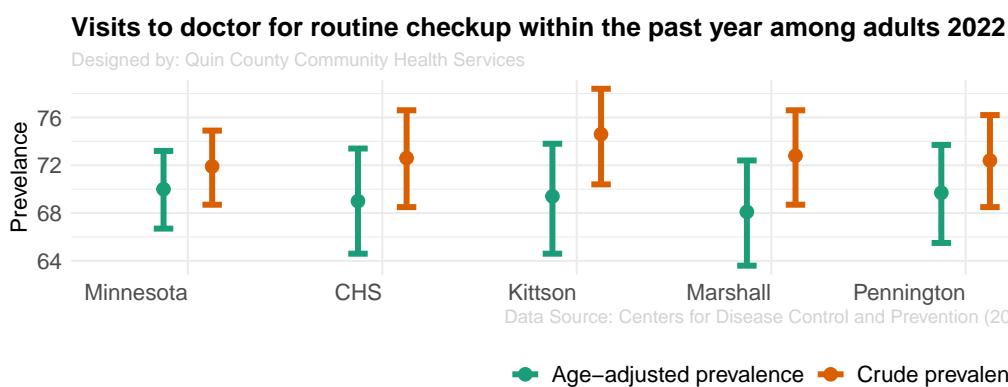
Figure 9: Population Per Primary Care Provider

Population Per Dentist
Designed By: Quin County Community Health Services

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

Year	Location	Ratio
2022	Minnesota	1287: 1
2022	Kittson	2029: 1
2022	Marshall	4430: 1
2022	Pennington	1730: 1
2022	Red Lake	–
2022	Roseau	1699: 1

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

Figure 10: Population Per Dentist

Visits to doctor for routine checkup within the past year among adults 2022
Designed by: Quin County Community Health Services

Data Source: Centers for Disease Control and Prevention (2024)
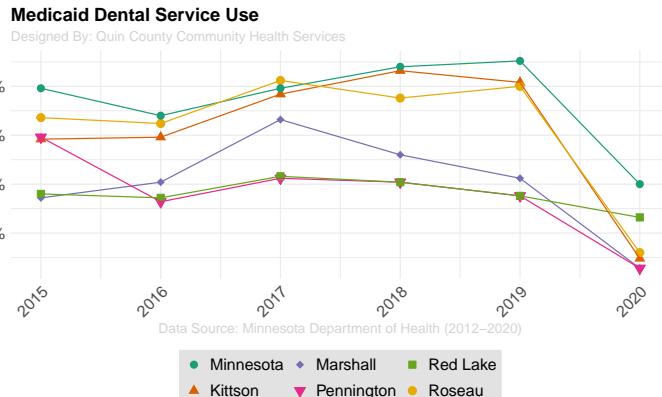
Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	68.7	71.9	74.9
Crude	CHS	68.5	72.6	76.6
Crude	Kittson	70.4	74.6	78.4
Crude	Marshall	68.7	72.8	76.6
Crude	Pennington	68.5	72.4	76.2
Crude	Red Lake	68.8	73.2	77.0
Crude	Roseau	67.8	72.0	76.3

Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	66.7	70.0	73.2
Age-Adjusted	CHS	64.6	69.0	73.4
Age-Adjusted	Kittson	64.6	69.4	73.8
Age-Adjusted	Marshall	63.6	68.1	72.4
Age-Adjusted	Pennington	65.5	69.7	73.7
Age-Adjusted	Red Lake	64.0	68.8	73.2
Age-Adjusted	Roseau	64.4	68.9	73.5

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 11: Visits to doctor for routine checkup within the past year among adults 2022

Medicaid Dental Service Use
Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2012–2020)
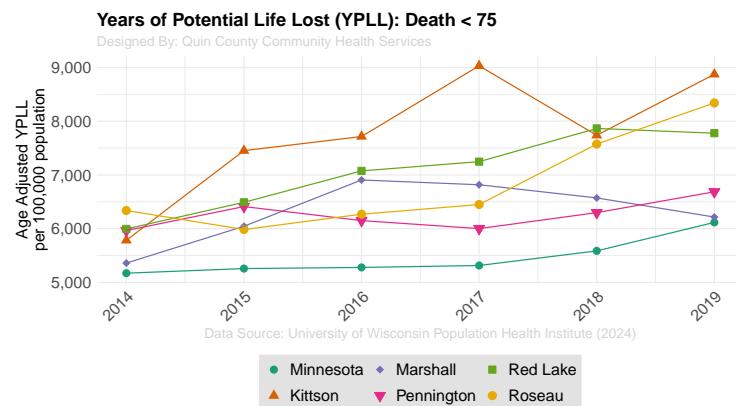
Year	Location	Medicaid Beneficiaries	% Change
2019	Minnesota	33.80%	
2020	Minnesota	27.50%	-6.30%
2019	Kittson	32.70%	
2020	Kittson	23.70%	-9.00%
2019	Marshall	27.80%	
2020	Marshall	23.20%	-4.60%
2019	Pennington	26.90%	
2020	Pennington	23.20%	-3.70%
2019	Red Lake	26.90%	
2020	Red Lake	25.80%	-1.10%
2019	Roseau	32.50%	
2020	Roseau	24.00%	-8.50%

Data Source: Minnesota Department of Health (2012-2020)

Figure 12: Medicaid Dental Service Use

Years of Potential Lost

Years of potential life lost (YPLL) is a key measure of community health, indicating premature deaths before age 75. Roseau County has a significantly higher YPLL compared to Minnesota, unlike Kittson County, which, despite a higher prevalence, isn't significantly above the state average. Reducing YPLL and enhancing residents' quality of life necessitates collaboration among local governments, healthcare providers, and community organizations. By prioritizing preventive measures, early detection, effective treatment of chronic conditions, promoting healthy lifestyles, and addressing social determinants of health, these goals can be achieved easier together.

Years of Potential Life Lost (YPLL): Death < 75
Designed By: Quin County Community Health Services

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

Date Range	Location	Lower CI	YPLL	Higher CI
2019-2021	Minnesota	6,042	6,116	6,191
2019-2021	Kittson	5,343	8,873	13,858
2019-2021	Marshall	4,345	6,216	8,089
2019-2021	Pennington	5,082	6,686	8,292
2019-2021	Red Lake	4,874	7,777	11,775
2019-2021	Roseau	6,575	8,340	10,106

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

Figure 13: Years of Potential Life Lost (YPLL): Death < 75

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) are preventable, potentially traumatic events occurring in childhood (0-17 years), such as neglect, witnessing violence, or having a family member attempt or die by suicide. They also include environmental factors that undermine a child's sense of safety, stability, and bonding, like living with substance abuse, mental health issues, or experiencing parental separation or incarceration. ACEs can increase the risk of chronic stress, adverse coping mechanisms, and lifelong illnesses such as depression, heart disease, obesity, and substance abuse [@cdcAces].

Data on ACEs was obtained from the Minnesota Student Survey Reports (2013-2022) by the Minnesota Department of Education. The survey included questions such as:

1. Do you live with anyone who drinks too much alcohol? See Table 7.
2. Do you live with anyone who is depressed or has any other mental health issues? See Table 8.
3. Do you live with anyone who uses illegal drugs or abuses prescription drugs? See Table 9.
4. Does a parent or other adult in your home regularly swear at you, insult you or put you down? See Table 10.
5. Has a parent or other adult in your home ever hit, beat, kicked or physically hurt you in any way? See Table 11.
6. Has any relative/family member ever pressured, tricked, or forced you to do something sexual or done something sexual to you? See Table 12.
7. Has anyone who was not a relative/family member ever pressured, tricked, or forced you to do something sexual or done something sexual to you against your wishes? Table 13
8. Have your parents or other adults in your home ever slapped, hit, kicked, punched or beat each other up? See Table 14.

Table 7: Percent Who Lives with Anyone Who Drinks too much Alcohol

Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	12.9%*	0.0%	7.4%*
Kittson County	2022	__	__	__
Marshall County	2019	__	12.9%*	__
Marshall County	2022	11.8%*	19.0%*	0.0%
Pennington County	2019	6.2%*	13.7%	12.4%*
Pennington County	2022	14.0%*	16.8%	16.0%
Red Lake County	2019	7.5%*	14.5%*	4.7%*
Red Lake County	2022	12.9%*	3.8%*	7.1%*
Roseau County	2019	12.3%	13.0%	11.7%*
Roseau County	2022	16.7%*	8.2%*	12.2%*

*Count < 16 __ No data available

Table 8: Percent Living with Someone with Mental Health Issues

Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	19.4%*	20.8%*	29.6%*
Kittson County	2022	__	__	__
Marshall County	2019	__	22.6%*	__
Marshall County	2022	21.2%*	47.6%*	33.3%*
Pennington County	2019	31.0%	30.8%	33.3%
Pennington County	2022	35.2%	36.6%	42.5%
Red Lake County	2019	13.2%*	18.2%*	16.7%*
Red Lake County	2022	12.9%*	32.0%*	14.3%*
Roseau County	2019	21.7%	24.1%	27.9%
Roseau County	2022	23.6%	26.2%	33.3%

*Count < 16 __ No data available

Table 9: Percent Who Lives with Anyone Using Illegal /Abusing Prescription Drugs

Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	6.5%*	0.0%	3.7%*
Kittson County	2022	__	__	__
Marshall County	2019	__	3.2%*	__
Marshall County	2022	2.9%*	9.5%*	4.2%*
Pennington County	2019	3.4%*	8.3%*	6.7%*

Location	Year	8th Grade	9th Grade	11th Grade
Pennington County	2022	3.7%*	3.1%*	6.6%*
Red Lake County	2019	0.0%	7.3%*	4.8%*
Red Lake County	2022	3.2%*	3.8%*	7.1%*
Roseau County	2019	5.0%*	4.1%*	6.4%*
Roseau County	2022	2.8%*	1.6%	10.2%*

*Count < 16 __ No data available

Table 10: Percent with Verbally Abusive Adults at Home

Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	9.7%*	4.2%*	14.8%*
Kittson County	2022	__	__	__
Marshall County	2019	__	25.8%*	__
Marshall County	2022	23.5%*	23.8%*	25.0%*
Pennington County	2019	15.8%	19.5%	16.2%
Pennington County	2022	25.2%	24.4%	21.7%
Red Lake County	2019	7.5%*	20.4%*	11.9%*
Red Lake County	2022	12.9%*	11.5%*	3.6%*
Roseau County	2019	15.6%	14.5%	18.8%
Roseau County	2022	13.9%*	23.3%*	18.4%*

*Count < 16 __ No data available

Table 11: Percent Physically Hurt by Household Adults

Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	9.7%*	8.7%*	22.2%*
Kittson County	2022	__	__	__
Marshall County	2019	__	12.9%*	__
Marshall County	2022	11.8%*	4.8%*	8.3%*
Pennington County	2019	11.0%	16.0%	9.5%*
Pennington County	2022	15.7%	14.5%	17.9%
Red Lake County	2019	13.2%*	9.1%*	4.7%*
Red Lake County	2022	3.2%*	0.0%	10.7%*
Roseau County	2019	10.8%*	15.8%	9.2%*
Roseau County	2022	6.9%*	13.3%*	6.3%*

*Count < 16 __ No data available

Table 12: Percent With Family Member Who Pressured or Forced Sexual Activity

Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	6.5%*	4.2%*	0.0%
Kittson County	2022	__	__	__
Marshall County	2019	__	6.5%*	__
Marshall County	2022	0.0%	10.0%*	8.3%*
Pennington County	2019	0.7%*	3.1%*	1.9%*
Pennington County	2022	6.5%*	6.9%*	4.7%*
Red Lake County	2019	0.0%	7.3%*	0.0%

Location	Year	8th Grade	9th Grade	11th Grade
Red Lake County	2022	12.9%*	3.8%*	3.6%*
Roseau County	2019	3.6%*	1.4%*	1.8%*
Roseau County	2022	4.2%*	1.6%*	8.3%*

*Count < 16 __ No data available

Table 13: Percent With Non-Relative Who Pressured or Forced Sexual Activity.

Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	3.2%*	0.0%	14.8%*
Kittson County	2022	__	__	__
Marshall County	2019	__	6.5%*	__
Marshall County	2022	0.0%	14.3%*	8.3%*
Pennington County	2019	4.1%*	3.9%*	6.8%*
Pennington County	2022	4.7%*	4.6%*	8.4%*
Red Lake County	2019	0.0%	5.5%*	4.7%*
Red Lake County	2022	3.2%*	0.0%	0.0%
Roseau County	2019	6.5%*	4.1%*	6.3%*
Roseau County	2022	6.9%*	6.6%*	16.7%*

*Count < 16 __ No data available

Table 14: Percent with Parents/Adults in Home Who Physically Fought

| Location	Year	8th Grade	9th Grade	11th Grade
Kittson County	2019	12.9%*	0.0%	7.4%*
Kittson County	2022	__	__	__
Marshall County	2019	__	9.7%*	__
Marshall County	2022	5.9%*	4.8%*	4.2%*
Pennington County	2019	8.9%*	10.9%*	7.6%*
Pennington County	2022	11.2%*	14.5%	12.3%*
Red Lake County	2019	5.8%*	5.5%*	2.3%*
Red Lake County	2022	9.7%*	0.0%	7.1%*
Roseau County	2019	7.2%*	8.8%*	7.1%*
Roseau County	2022	6.9%*	3.3%*	6.1%*

*Count < 16 __ No data available
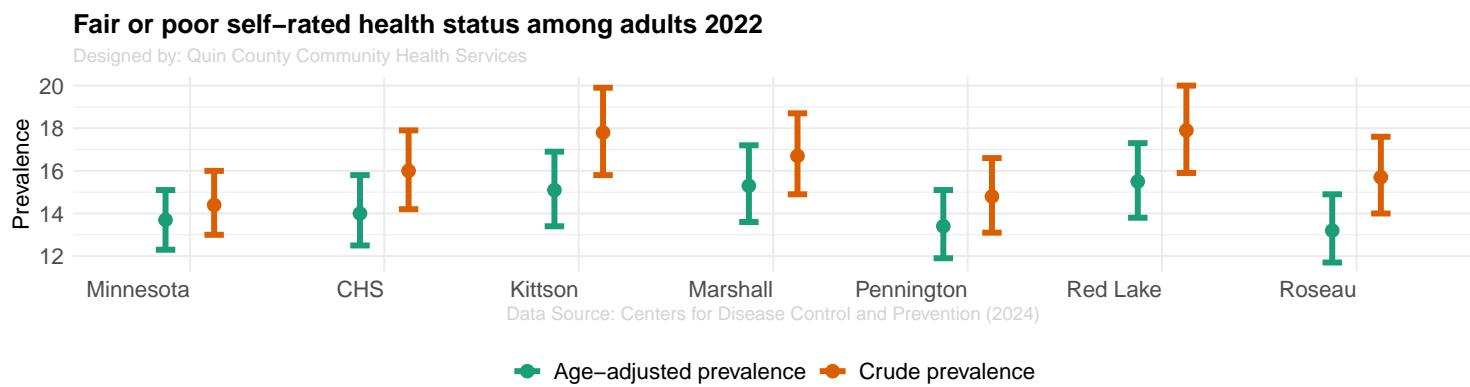
Health Status

Identifying health challenges and developing targeted interventions to improve community health outcomes is crucial. Health status, which measures a community's overall well-being, includes various indicators of physical and mental health. Key factors are the rate of natural increase, Prescription Drug Monitoring Program (PDMP) prescription rates, child and teen checkups, prenatal care, and child immunizations.

- Rate of natural increase: Reflects population growth and healthcare needs.
- PDMP prescription rates: helps identify misuse, monitor prescribing, and ensure safe medication use.
- Child and teen checkups: Essential for early detection and prevention of health issues.
- Prenatal care: Crucial for reducing pregnancy and childbirth complications.
- Child immunizations: Vital for preventing infectious diseases and protecting public health.

General, Physical and Mental Distress

Red Lake County had the highest estimated crude and age-adjusted prevalence rates for fair or poor self-rated health status. Kittson County had the highest estimated crude and age-adjusted prevalence rates for physical distress. Marshall and Pennington counties had the highest estimated crude prevalence rates, while Kittson and Marshall had the highest estimated age-adjusted prevalence rates. However, these rates were not significantly different from the state average or other counties. There were significant differences for Minnesota and all five Quin counties regarding age-adjusted rates for general health and mental distress when compared to physical distress. These were results were significantly higher which suggests that focusing on improving general health and mental well-being in these areas would be beneficial for these communities.

Fair or poor self–rated health status among adults 2022

Designed by: Quin County Community Health Services

Data Source: Centers for Disease Control and Prevention (2024)

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	13.0	14.4	16.0
Crude	CHS	14.2	16.0	17.9
Crude	Kittson	15.8	17.8	19.9
Crude	Marshall	14.9	16.7	18.7
Crude	Pennington	13.1	14.8	16.6
Crude	Red Lake	15.9	17.9	20.0
Crude	Roseau	14.0	15.7	17.6
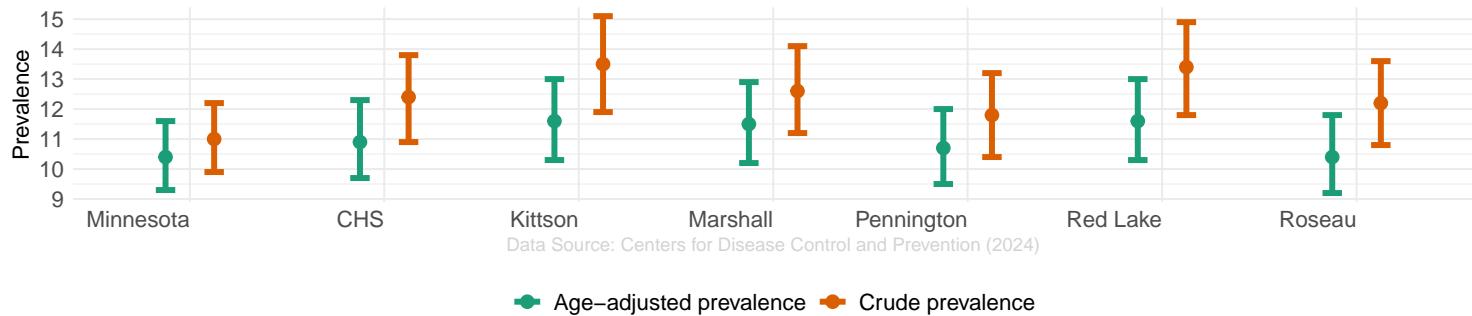
| Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	12.3	13.7	15.1
Age-Adjusted	CHS	12.5	14.0	15.8
Age-Adjusted	Kittson	13.4	15.1	16.9
Age-Adjusted	Marshall	13.6	15.3	17.2
Age-Adjusted	Pennington	11.9	13.4	15.1
Age-Adjusted	Red Lake	13.8	15.5	17.3
Age-Adjusted	Roseau	11.7	13.2	14.9

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 1: Fair or poor self-rated health status among adults 2022

Frequent physical distress among adults 2022

Designed by: Quin County Community Health Services

Data Source: Centers for Disease Control and Prevention (2024)

● Age–adjusted prevalence ● Crude prevalence

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	9.9	11.0	12.2
Crude	CHS	10.9	12.4	13.8
Crude	Kittson	11.9	13.5	15.1
Crude	Marshall	11.2	12.6	14.1
Crude	Pennington	10.4	11.8	13.2
Crude	Red Lake	11.8	13.4	14.9
Crude	Roseau	10.8	12.2	13.6
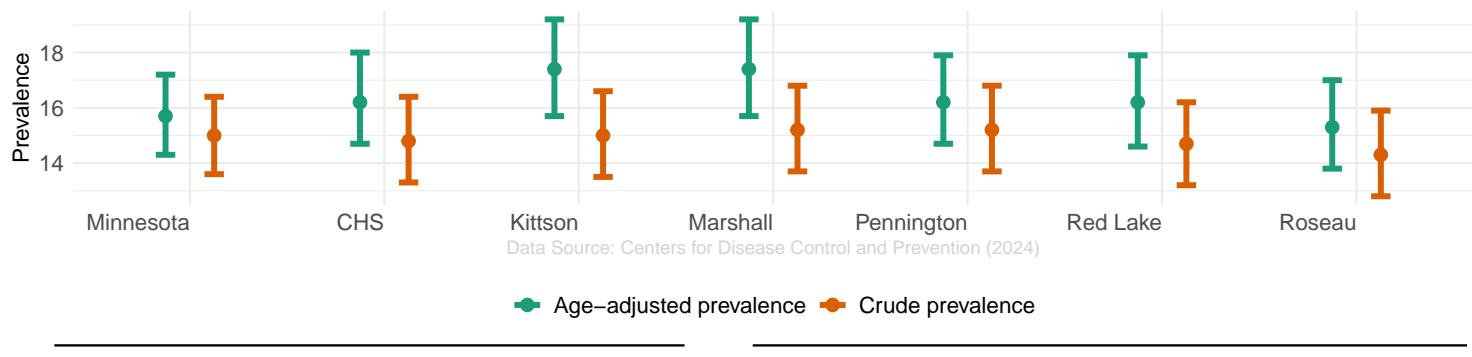
Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	9.3	10.4	11.6
Age-Adjusted	CHS	9.7	10.9	12.3
Age-Adjusted	Kittson	10.3	11.6	13.0
Age-Adjusted	Marshall	10.2	11.5	12.9
Age-Adjusted	Pennington	9.5	10.7	12.0
Age-Adjusted	Red Lake	10.3	11.6	13.0
Age-Adjusted	Roseau	9.2	10.4	11.8

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 2: Frequent physical distress among adults 2022

Frequent mental distress among adults 2022

Designed by: Quin County Community Health Services

Data Source: Centers for Disease Control and Prevention (2024)

● Age–adjusted prevalence ● Crude prevalence

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	13.6	15.0	16.4
Crude	CHS	13.3	14.8	16.4
Crude	Kittson	13.5	15.0	16.6
Crude	Marshall	13.7	15.2	16.8
Crude	Pennington	13.7	15.2	16.8
Crude	Red Lake	13.2	14.7	16.2
Crude	Roseau	12.8	14.3	15.9

Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	14.3	15.7	17.2
Age-Adjusted	CHS	14.7	16.2	18.0
Age-Adjusted	Kittson	15.7	17.4	19.2
Age-Adjusted	Marshall	15.7	17.4	19.2
Age-Adjusted	Pennington	14.7	16.2	17.9
Age-Adjusted	Red Lake	14.6	16.2	17.9
Age-Adjusted	Roseau	13.8	15.3	17.0

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 3: Frequent mental distress among adults 2022

Rate of Natural Increase

The birth rate and death rate are fundamental demographic indicators that provide insights into the population dynamics of a region. The birth rate measures the number of live births per 1,000 people in a given year, while the death rate measures the number of deaths per 1,000 people in the same period. The difference between these two rates is known as the natural increase (or decrease, if deaths exceed births), which indicates the growth or decline of a population excluding migration.

Natural increase is a crucial component of population change, but it does not account for the movement of people into or out of a region. Migration can significantly impact population size and composition, often overshadowing natural increase. For instance, a region with a high birth rate and low death rate might still experience population decline if a large number of people move away. Conversely, areas with low natural increase might grow rapidly due to high levels of immigration.

In 2020, four out of the five Quin counties experienced a natural decrease, likely due to the impact of COVID-19. The pandemic significantly influenced both birth and death rates, with increased mortality and potential delays in births due to economic and health uncertainties. Kittson County saw the most notable natural decrease, with a rate of -13.1, the highest among the Quin counties. Roseau County had the second largest natural decrease, with a rate of -3.8, marking a significant shift from previous years. Marshall County and Pennington County both experienced a natural decrease of -1.2, a change from the generally positive natural increase observed in previous years. Red Lake County was the only Quin county to have a natural increase in 2020, with a rate of 3.2, continuing the trend of positive natural increase seen in prior years (Minnesota Department of Health 2015-2020).

Looking ahead,

With the significant impact COVID-19 had on communities and the lag in this data (new data should be available in Q1 2025), it is challenging to predict the lasting effects of the pandemic. It will be crucial to monitor these trends and implement measures to mitigate the long-term impacts. Public health initiatives, economic support, and healthcare improvements could help stabilize and improve the natural increase rates in these counties. Prior to the COVID-19, Kittson County has seen a natural decrease, highlighting the need for targeted public health interventions and policies to support population growth and health in Kittson County.

Table 1: Kittson County Natural Rate of Increase

Birth Rate	Death Rate	Natural Increase	Year
8.8	12.9	-4.1	2015
8.1	12.9	-4.8	2016
15.1	18.1	-3.1	2017
12.5	13.4	-0.9	2018
10.5	14	-3.5	2019
7.6	20.6	-13.1	2020

Table 2: Marshall County Natural Rate of Increase

Birth Rate	Death Rate	Natural Increase	Year
13.3	9.7	3.6	2015
11.4	9.7	1.7	2016
14	8.9	5.1	2017
14.5	10.5	4	2018
8.6	8.7	-0.1	2019
10.4	11.6	-1.2	2020

Table 3: Pennington County Natural Rate of Increase

Birth Rate	Death Rate	Natural Increase	Year
13.3	8.7	4.6	2015
11.9	8.7	3.2	2016
11.9	9.9	2	2017

Birth Rate	Death Rate	Natural Increase	Year
11.8	9.9	1.9	2018
10.6	10.2	0.4	2019
8.9	10.1	-1.2	2020

Table 4: Red Lake County Natural Rate of Increase

Birth Rate	Death Rate	Natural Increase	Year
11.6	6.2	5.4	2015
10.5	6.2	4.3	2016
10.2	7.9	2.2	2017
10.8	9.8	1	2018
11.3	8.9	2.5	2019
10.9	7.7	3.2	2020
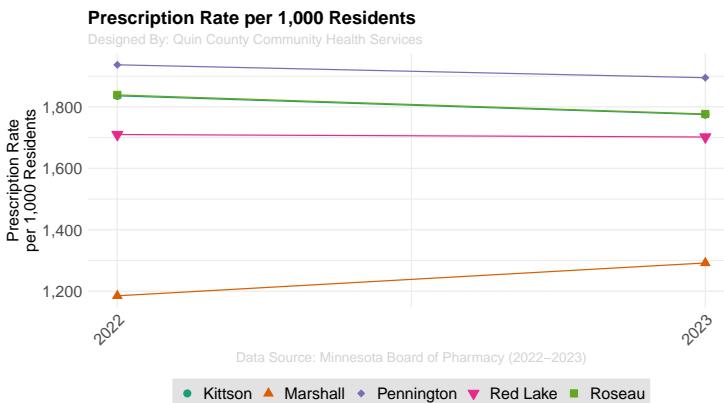
Table 5: Roseau County Natural Rate of Increase

Birth Rate	Death Rate	Natural Increase	Year
11.6	8.8	2.9	2015
11.5	8.8	2.8	2016
11.5	9.3	2.3	2017
11.4	8.3	3.1	2018
10.7	10	0.7	2019
9.1	13	-3.8	2020

Prescription Rate

Kittson, Marshall, Pennington, Red Lake, and Roseau counties did not experience large changes in prescription rates per 1,000 residents from 2022 to 2023, according to the Minnesota Board of Pharmacy (2022-2023). Prescription rates allow for comparisons between counties. Among the five counties, Marshall County was the only one to see a slight increase in the prescription rate per 1,000 residents during this period.

Several factors can influence changes in prescription rates and why one county may have higher rates than another. These factors include population demographics (such as older populations with higher chronic pain conditions), access to healthcare, variations in healthcare provider prescribing practices, and public health initiatives. A high prescription rate in a county is not necessarily a bad thing; rather, it provides an opportunity to communicate with our local partners to further understand if the prescription rates accurately reflect the needs of the population.

Prescription Rate per 1,000 Residents
Designed By: Quin County Community Health Services

Year	Location	Prescription Rate
2022	Kittson	1,836
2023	Kittson	1,775
2022	Marshall	1,185
2023	Marshall	1,292
2022	Pennington	1,937
2023	Pennington	1,895
2022	Red Lake	1,710
2023	Red Lake	1,702
2022	Roseau	1,839
2023	Roseau	1,777

Data Source: Minnesota Board of Pharmacy (2022-2023)

Figure 4: Prescription Rate per 1,000 Residents

Child and Teen Checkup Outreach
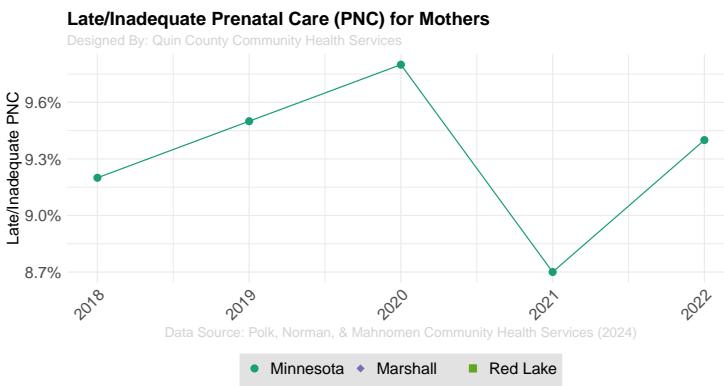
Potential Topic

Prenatal Care

Prenatal care is essential for ensuring the health and well-being of both mothers and their babies. Adequate prenatal care helps to monitor the progress of the pregnancy, identify and manage potential health issues, and provide important health education to expectant mothers.

Data should be available in Q1 2025 (The Annie E. Casey Foundation, KIDS COUNT Data Center 2024b).

Ensuring that all expectant mothers receive timely and adequate prenatal care is crucial for the health of both mothers and their babies. Continued efforts to improve access to and the quality of prenatal care will help further reduce these rates and improve health outcomes across our communities.

Late/Inadequate Prenatal Care (PNC) for Mothers
Designed By: Quin County Community Health Services

Data Source: Polk, Norman, & Mahnomen Community Health Services (2024)

Year	Location	Late/Inadequate PNC	% Change
2021	Minnesota	8.70%	
2022	Minnesota	9.40%	0.70%
2021	Kittson	NA	
2022	Kittson	NA	–
2021	Marshall	NA	
2022	Marshall	NA	–
2021	Pennington	NA	
2022	Pennington	NA	–
2021	Red Lake	NA	
2022	Red Lake	NA	–
2021	Roseau	NA	
2022	Roseau	NA	–

Data Source: The Annie E. Casey Foundation, KIDS COUNT Data Center (2024b)

Figure 5: Late/Inadequate Prenatal Care (PNC) for Mothers

Childhood Immunizations

Teaching people about the importance of vaccines, sending vaccination reminders, and making it easier to get vaccines can help increase vaccination rates in children, adolescents, and adults. According to Minnesota Department of Health, childhood and adolescent vaccination rates decreased during the COVID-19 pandemic and a Healthy People (HP) 2030 goal is to increase vaccination rates. Infants and children need to get vaccinated to prevent diseases like hepatitis, measles, and pertussis.

Kittson County: In 2023, Kittson County had higher immunization rates than the Minnesota state averages for DTaP, Hep A, Hep B, Hib, MMR, PCV, Polio, Rotavirus, and Varicella. The county saw improvements across all vaccines, with the highest increases in DTaP (+10.10%), MMR (+10.40%), and PCV (+15.10%).

Marshall County: In 2023, Marshall County had higher immunization rates than the Minnesota state averages for DTaP, Hep A, Hib, MMR, PCV, Polio, Rotavirus, and Varicella. Marshall County was lower for Hep B. The county saw the highest declines in Hep B (-7.20%), MMR (-5.40%), Polio (-5.40%), and Varicella (-6.30%).

Pennington County: In 2023, Pennington County had higher immunization rates than the Minnesota state averages for Hep A, Hep B, MMR, PCV, Polio, Rotavirus, and Varicella. Pennington County was lower for DTaP and Hib. The county saw its largest declines in DTaP (-12.00%), Hep A (-13.50%), and Hib (-7.90%).
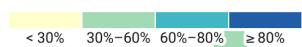
Red Lake County: In 2023, Red Lake County had higher immunization rates than the Minnesota state averages for DTaP, Hep B, MMR, PCV, Polio, Rotavirus, and Varicella. Red Lake County was lower for Hep A, and Hib. The county saw an increase in Rotavirus (+8.10%) but experienced the largest declines in DTaP (-13.10%), Hep A (-13.80%), and Hib (-12.70%).
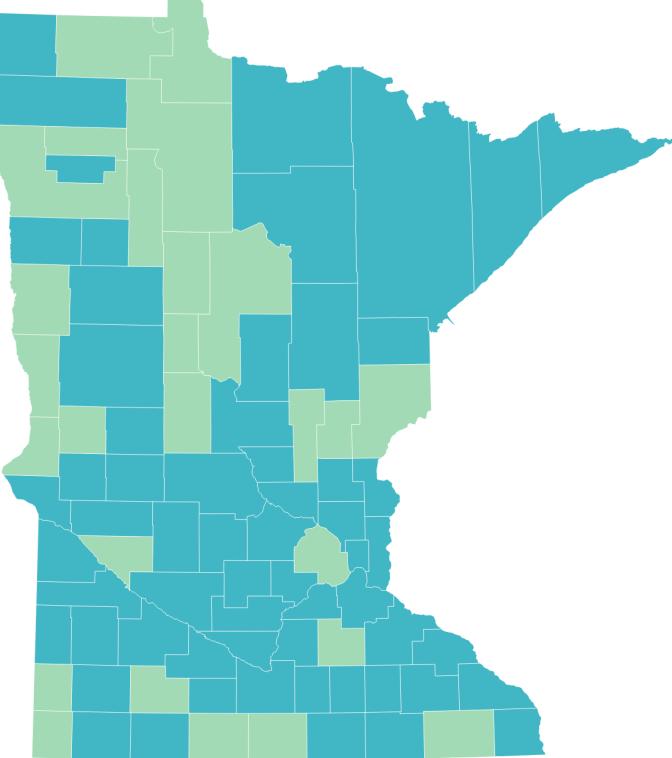
Roseau County: In 2023, Roseau County had higher immunization rate than the Minnesota state average for Hep A. However, Roseau County was not only lower than the state average but also had the lowest immunization rates compared to its Quin partners for DTaP, Hep B, Hib, MMR, PCV, Polio, Rotavirus, and Varicella. The county's largest declines were for Hib (-6.60%), PCV (-6.30%), and Varicella (-5.60%).

Percent of children with complete childhood immunization series in 2023

Roll over map for more information

Minnesota: 63.0%


< 30%   30%−60%   60%−80%   ≥ 80%

Series includes: diphtheria, tetanus, pertussis (DTaP); polio; measles, mumps, rubella (MMR); haemophilus influenzae type b (Hib); hepatitis B (Hep B); varicella (chickenpox); and pneumococcal conjugate vaccine (PCV).
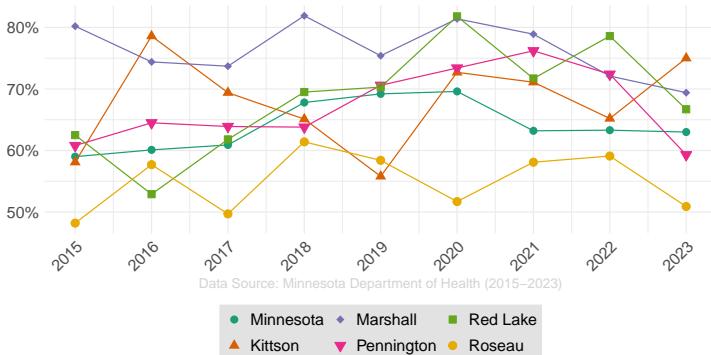
Data are Minnesota Immunization Information Connection (MIIC) rates for children ages 24-35 months.

Vaccination coverage among children ages 24-35 months in MIIC. Includes children born July 2020 through June 2021 who were up to date at 24 months. Analyzed as of July 2023.

Source: Minnesota Department of Health • Created with Datawrapper

Percentage of Children Ages 24–35 Months for the Seven–Vaccine Series

Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2015–2023)

● Minnesota   ◆ Marshall   ■ Red Lake
▲ Kittson   ▼ Pennington   ● Roseau
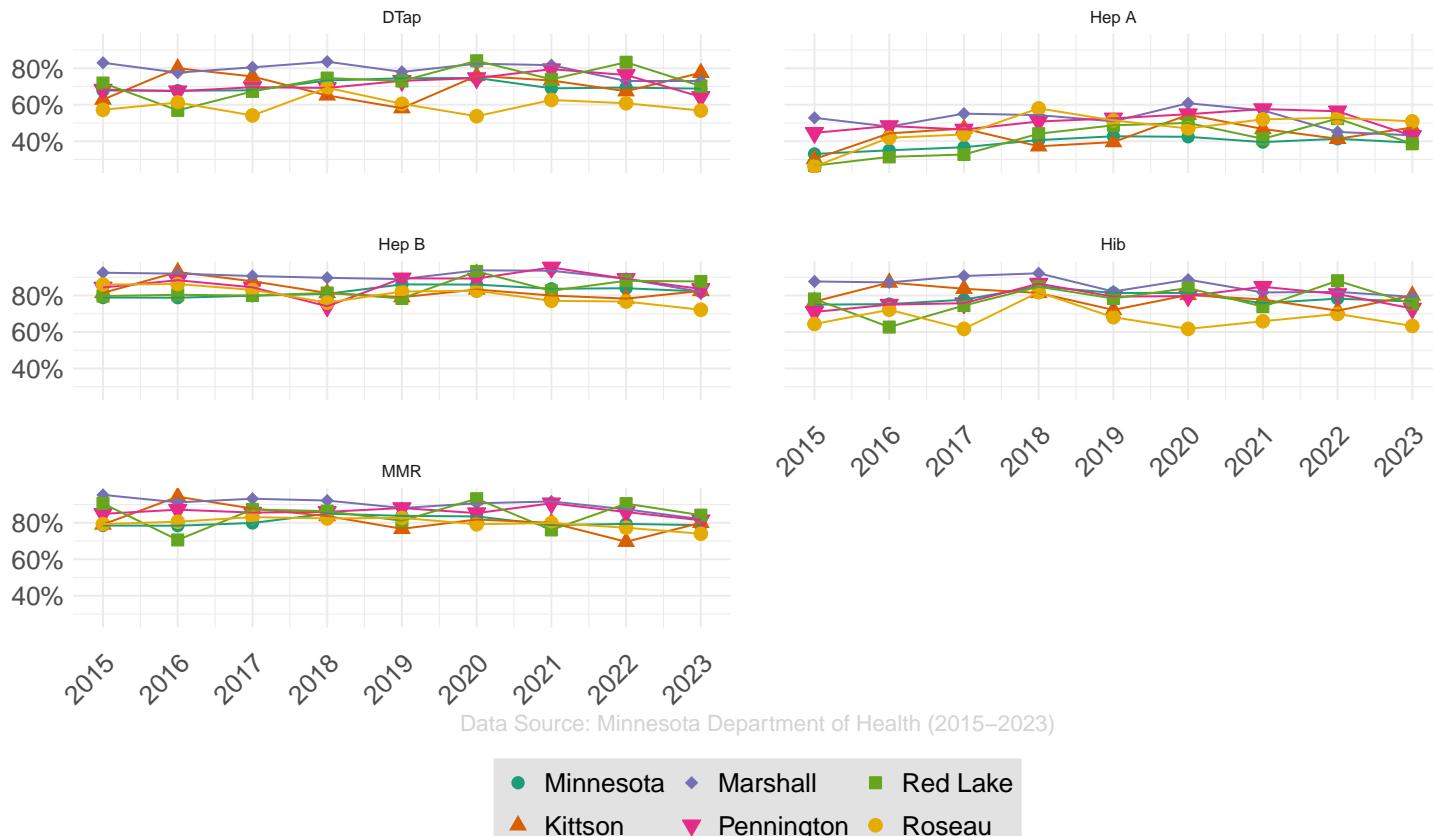
Year	Location	Percentage	% Change
2022	Minnesota	63.30%	
2023	Minnesota	63.00%	-0.30%
2022	Kittson	65.20%	
2023	Kittson	75.00%	9.80%
2022	Marshall	72.10%	
2023	Marshall	69.40%	-2.70%
2022	Pennington	72.40%	
2023	Pennington	59.30%	-13.10%
2022	Red Lake	78.60%	
2023	Red Lake	66.70%	-11.90%
2022	Roseau	59.10%	
2023	Roseau	50.90%	-8.20%

Data Source: Minnesota Department of Health (2015−2023)

Figure 6: Percentage of Children Ages 24−35 Months for the Seven-Vaccine Series

Percentage of Children Ages 24–35 Months for DTap, Hep A, Hep B, Hib, & MMR

Data Source: Minnesota Department of Health (2015–2023)

Legend: Minnesota, Marshall, Red Lake, Kittson, Pennington, Roseau
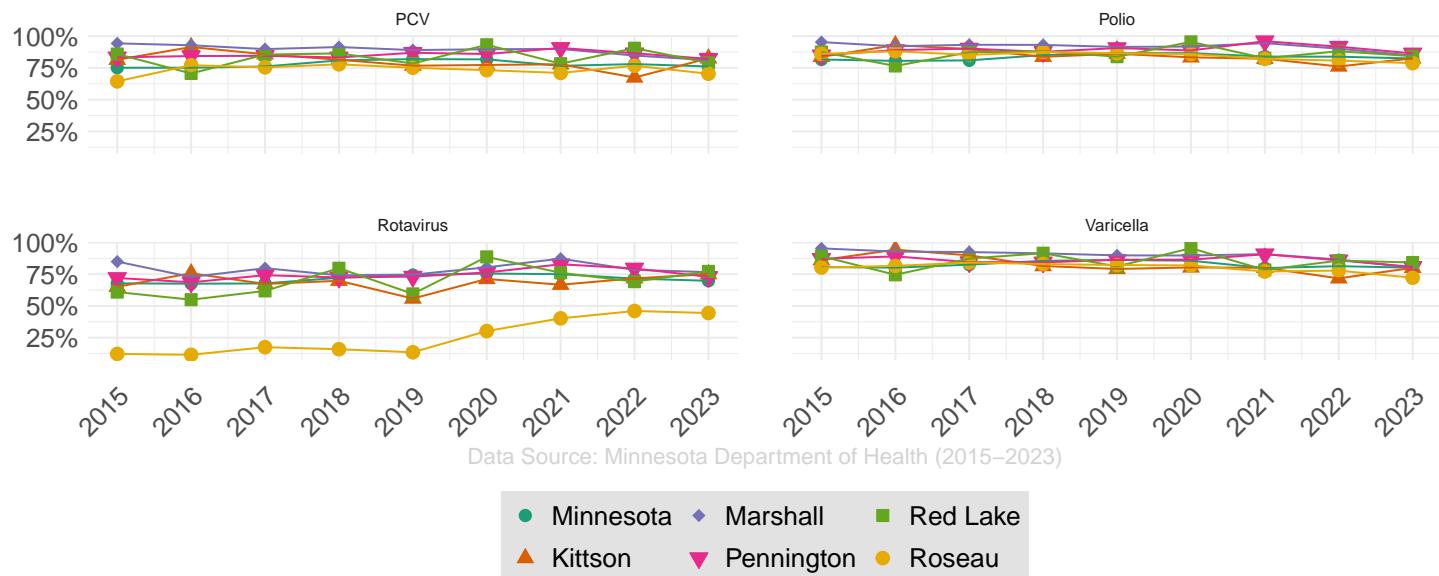
Year	Location	Vaccine	Percentage	% Change
2022	Minnesota	DTap	69.40%	
2023	Minnesota	DTap	68.80%	-0.60%
2022	Minnesota	Hep A	41.30%	
2023	Minnesota	Hep A	39.20%	-2.10%
2022	Minnesota	Hep B	84.00%	
2023	Minnesota	Hep B	82.20%	-1.80%
2022	Minnesota	Hib	78.30%	
2023	Minnesota	Hib	76.70%	-1.60%
2022	Minnesota	MMR	79.40%	
2023	Minnesota	MMR	78.70%	-0.70%
2022	Kittson	DTap	67.40%	
2023	Kittson	DTap	77.50%	10.10%
2022	Kittson	Hep A	41.30%	
2023	Kittson	Hep A	47.50%	6.20%
2022	Kittson	Hep B	78.30%	
2023	Kittson	Hep B	82.50%	4.20%
2022	Kittson	Hib	71.70%	
2023	Kittson	Hib	80.00%	8.30%
2022	Kittson	MMR	69.60%	
2023	Kittson	MMR	80.00%	10.40%
2022	Marshall	DTap	73.00%	
2023	Marshall	DTap	73.00%	0.00%
2022	Marshall	Hep A	45.10%	
2023	Marshall	Hep A	43.20%	-1.90%
2022	Marshall	Hep B	89.20%	
2023	Marshall	Hep B	82.00%	-7.20%
2022	Marshall	Hib	82.00%	
2023	Marshall	Hib	79.30%	-2.70%
2022	Marshall	MMR	87.40%	
2023	Marshall	MMR	82.00%	-5.40%

Year	Location	Vaccine	Percentage	% Change
2022	Pennington	DTap	76.30%	
2023	Pennington	DTap	64.30%	-12.00%
2022	Pennington	Hep A	56.40%	
2023	Pennington	Hep A	42.90%	-13.50%
2022	Pennington	Hep B	89.10%	
2023	Pennington	Hep B	83.60%	-5.50%
2022	Pennington	Hib	80.80%	
2023	Pennington	Hib	72.90%	-7.90%
2022	Pennington	MMR	85.90%	
2023	Pennington	MMR	81.40%	-4.50%
2022	Red Lake	DTap	83.30%	
2023	Red Lake	DTap	70.20%	-13.10%
2022	Red Lake	Hep A	52.40%	
2023	Red Lake	Hep A	38.60%	-13.80%
2022	Red Lake	Hep B	88.10%	
2023	Red Lake	Hep B	87.70%	-0.40%
2022	Red Lake	Hib	88.10%	
2023	Red Lake	Hib	75.40%	-12.70%
2022	Red Lake	MMR	90.50%	
2023	Red Lake	MMR	84.20%	-6.30%
2022	Roseau	DTap	60.80%	
2023	Roseau	DTap	56.80%	-4.00%
2022	Roseau	Hep A	52.80%	
2023	Roseau	Hep A	50.90%	-1.90%
2022	Roseau	Hep B	76.70%	
2023	Roseau	Hep B	72.20%	-4.50%
2022	Roseau	Hib	69.90%	
2023	Roseau	Hib	63.30%	-6.60%
2022	Roseau	MMR	77.30%	
2023	Roseau	MMR	74.00%	-3.30%

Percentage of Children Ages 24–35 Months for PCV, Polio, Rotavirus, & Varicella

Data Source: Minnesota Department of Health (2015–2023)

Legend: Minnesota, Marshall, Red Lake, Kittson, Pennington, Roseau

Year	Location	Vaccine	Percentage	% Change	Year	Location	Vaccine	Percentage	% Change
2022	Minnesota	PCV	78.00%		2022	Pennington	PCV	86.50%	
2023	Minnesota	PCV	76.10%	-1.90%	2023	Pennington	PCV	82.10%	-4.40%
2022	Minnesota	Polio	83.80%		2022	Pennington	Polio	91.70%	
2023	Minnesota	Polio	82.40%	-1.40%	2023	Pennington	Polio	86.40%	-5.30%
2022	Minnesota	Rotavirus	71.50%		2022	Pennington	Rotavirus	79.50%	
2023	Minnesota	Rotavirus	69.80%	-1.70%	2023	Pennington	Rotavirus	72.90%	-6.60%
2022	Minnesota	Varicella	81.30%		2022	Pennington	Varicella	85.90%	
2023	Minnesota	Varicella	80.10%	-1.20%	2023	Pennington	Varicella	80.70%	-5.20%
2022	Kittson	PCV	67.40%		2022	Red Lake	PCV	90.50%	
2023	Kittson	PCV	82.50%	15.10%	2023	Red Lake	PCV	79.00%	-11.50%
2022	Kittson	Polio	76.10%		2022	Red Lake	Polio	88.10%	
2023	Kittson	Polio	82.50%	6.40%	2023	Red Lake	Polio	84.20%	-3.90%
2022	Kittson	Rotavirus	71.70%		2022	Red Lake	Rotavirus	69.10%	
2023	Kittson	Rotavirus	75.00%	3.30%	2023	Red Lake	Rotavirus	77.20%	8.10%
2022	Kittson	Varicella	71.70%		2022	Red Lake	Varicella	85.70%	
2023	Kittson	Varicella	80.00%	8.30%	2023	Red Lake	Varicella	84.20%	-1.50%
2022	Marshall	PCV	84.70%		2022	Roseau	PCV	76.70%	
2023	Marshall	PCV	81.10%	-3.60%	2023	Roseau	PCV	70.40%	-6.30%
2022	Marshall	Polio	90.10%		2022	Roseau	Polio	80.70%	
2023	Marshall	Polio	84.70%	-5.40%	2023	Roseau	Polio	78.70%	-2.00%
2022	Marshall	Rotavirus	78.40%		2022	Roseau	Rotavirus	46.00%	
2023	Marshall	Rotavirus	76.60%	-1.80%	2023	Roseau	Rotavirus	44.40%	-1.60%
2022	Marshall	Varicella	86.50%		2022	Roseau	Varicella	77.80%	
2023	Marshall	Varicella	80.20%	-6.30%	2023	Roseau	Varicella	72.20%	-5.60%

Data Source: Minnesota Department of Health (2015−2023)

Figure 8: Percentage of Children Ages 24−35 Months for PCV, Polio, Rotavirus, & Varicella

Health Behaviors
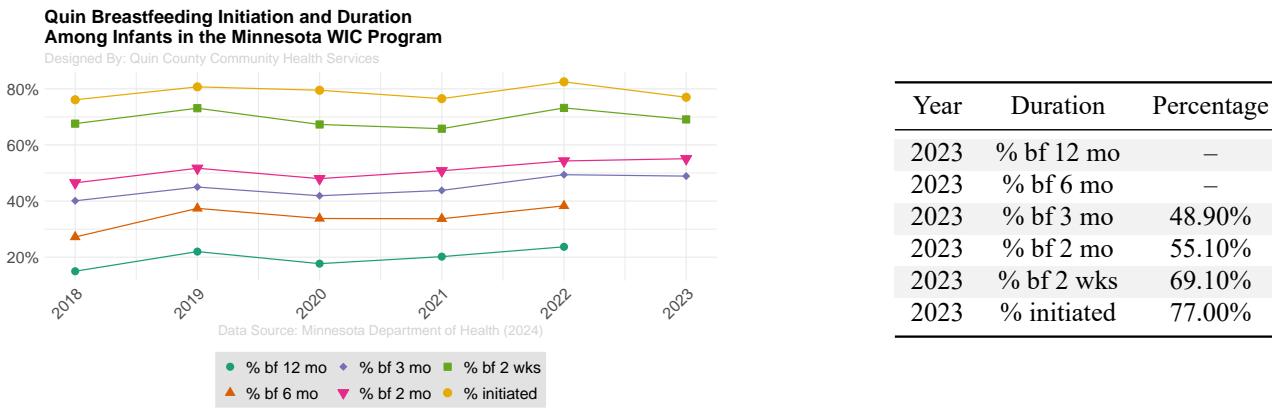
Behavioral factors significantly impact community health and well-being. Key factors include:

- Binge Drinking Among Adults: Leads to liver disease, cardiovascular issues, and increased accident risks. Understanding its prevalence helps address public health impacts.

- Percentage of Mothers Who Smoke: Smoking during pregnancy risks low birth weight, preterm birth, and developmental issues. Monitoring rates promotes healthier pregnancies.

- Current Cigarette Smoking Among Adults: A leading cause of preventable diseases and deaths. Examining rates helps target interventions to reduce smoking-related health problems.

- STI/HIV: Prevalence is a critical concern. Effective prevention, testing, and treatment strategies are essential to control spread and improve health.

Analyzing these factors provides insights into community health challenges and helps develop strategies to promote healthier behaviors and improve outcomes.

Breastfeeding

The Special Supplemental Nutrition Program for Women, Infants & Children (WIC) program provides essential nutritional and breastfeeding support, including education, counseling, healthy foods, and referrals to health and social services, for eligible pregnant women, new mothers, infants, and young children. Breastmilk is incredibly beneficial for infants as it provides essential nutrients, boosts immunity, and fosters healthy development, but breastfeeding can be challenging for mothers due to factors like physical discomfort, time constraints, and lack of support. Although WIC mothers in Quin's five counties for 2023 initially have a high rate of breastfeeding initiation at 77.00%, their participation starts to decline over time, with only 55.10% breastfeeding at 2 months and 48.90% at 3 months. This decline mirrors breastfeeding patterns observed before, during, and after COVID-19.

Year	Duration	Percentage
2023	% bf 12 mo	–
2023	% bf 6 mo	–
2023	% bf 3 mo	48.90%
2023	% bf 2 mo	55.10%
2023	% bf 2 wks	69.10%
2023	% initiated	77.00%

Data Source: Minnesota Department of Health (2024e)
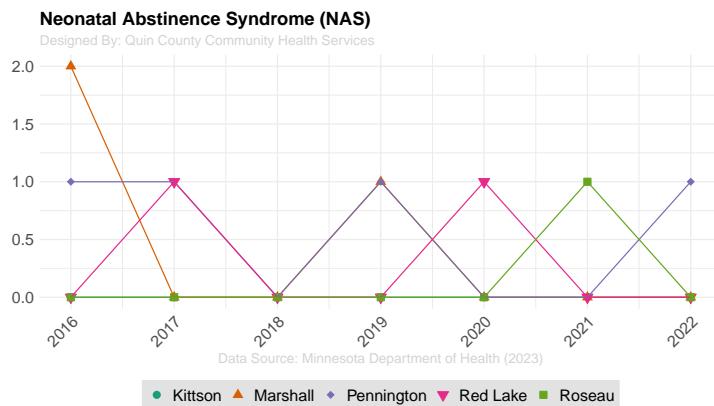
Figure 1: Quin Breastfeeding Initiation and Duration Among Infants in the Minnesota WIC Program

Substance Use and Misuse

Exploring the critical issues of neonatal abstinence syndrome (NAS), nonfatal drug overdoses, and fatal drug overdoses reveals the urgent need to tackle substance abuse disorders and addictions, highlighting their profound impact on public health and the lives of countless individuals.

Among the five Quin counties, the neonatal abstinence syndrome (NAS) rates are unstable (value under 16). However, this instability over five years reflects the positive impact of our community's efforts to prevent NAS and educate about the effects of substance use on newborns.
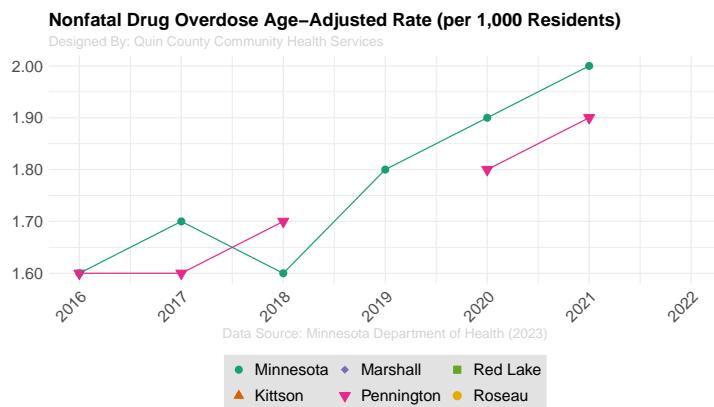
Comparing fatal drug overdose data across counties is challenging due to raw counts and low numbers. The community should consider the profound impact each loss has on its members. Over seven years, Minnesota lost 8,991 individuals to drug overdoses, including 33 from the five Quin counties. These numbers highlight the importance of continued efforts to promote positive change in our communities.

Neonatal Abstinence Syndrome (NAS)
Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2023)

Location	NAS Total 2016-2022	NAS Rate 2016-2022
Minnesota	2,791	6.20
Kittson	0	0.00
Marshall	2	6.70
Pennington	4	4.10
Red Lake	2	7.70
Roseau	1	0.90

Data Source: Minnesota Department of Health (2023b)

Figure 2: Neonatal Abstinence Syndrome (NAS)

Nonfatal Drug Overdose Age−Adjusted Rate (per 1,000 Residents)
Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2023)
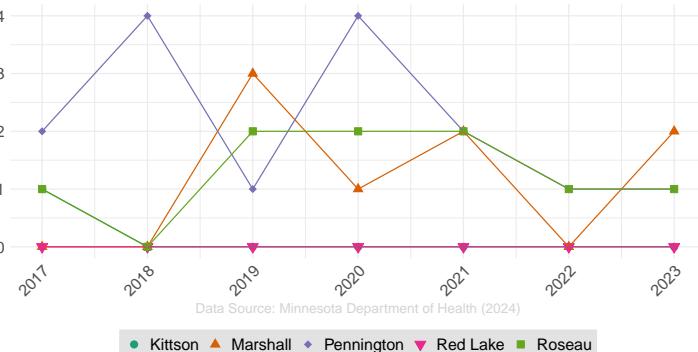
Year	Location	Count	Age-Adjusted Rate
2022	Minnesota	8,359	NA
2021	Minnesota	11,506	2.00
2022	Kittson	NA	NA
2021	Kittson	NA	NA
2022	Marshall	NA	NA
2021	Marshall	11	NA
2022	Pennington	11	NA
2021	Pennington	25	1.90
2022	Red Lake	NA	NA
2021	Red Lake	NA	NA
2022	Roseau	6	NA
2021	Roseau	15	NA

Data Source: Minnesota Department of Health (2023c)

Figure 3: Nonfatal Drug Overdose Age−Adjusted Rate (per 1,000 Residents)

Number of Fatal Drug Overdoses by County of Residence
Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2024)

Legend: Kittson ● | Marshall ▲ | Pennington ◆ | Red Lake ▼ | Roseau ■

Time Range	Location	Total Count
2017-2023	Minnesota	7,217
2017-2023	Kittson	1
2017-2023	Marshall	8
2017-2023	Pennington	15
2017-2023	Red Lake	0
2017-2023	Roseau	9

Data Source: Minnesota Department of Health (2024b)
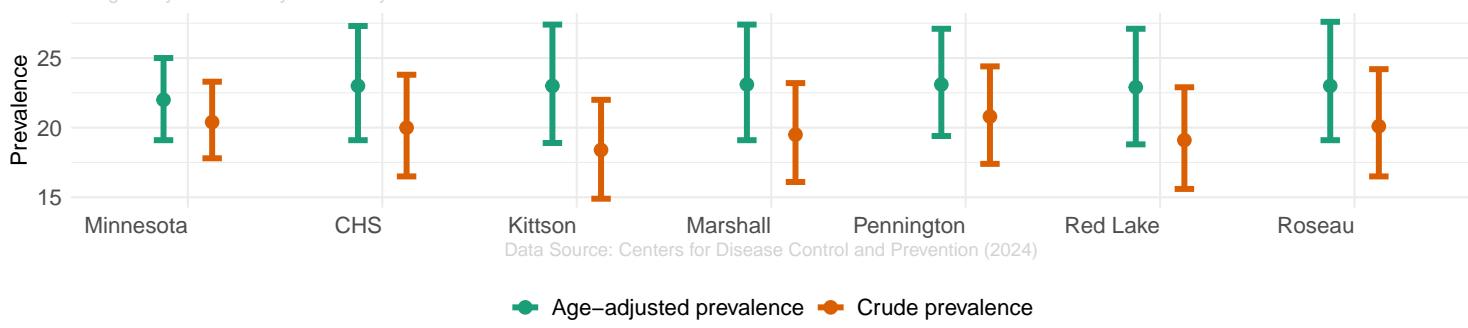
Figure 4: Number of Fatal Drug Overdoses by County of Residence

Alcohol

The five Quin counties and Minnesota have a similar rate of binge drinking with about 1 in 5 people doing it. This behavior can cause health problems like alcohol poisoning, injuries, and diseases. It also leads to risky behaviors like unsafe sex and impaired driving, endangering people and communities.

Binge drinking among adults 2022
Designed by: Quin County Community Health Services

Data Source: Centers for Disease Control and Prevention (2024)

Legend: Age–adjusted prevalence | Crude prevalence

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	17.8	20.4	23.3
Crude	CHS	16.5	20.0	23.8
Crude	Kittson	14.9	18.4	22.0
Crude	Marshall	16.1	19.5	23.2
Crude	Pennington	17.4	20.8	24.4
Crude	Red Lake	15.6	19.1	22.9
Crude	Roseau	16.5	20.1	24.2

Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	19.1	22.0	25.0
Age-Adjusted	CHS	19.1	23.0	27.3
Age-Adjusted	Kittson	18.9	23.0	27.4
Age-Adjusted	Marshall	19.1	23.1	27.4
Age-Adjusted	Pennington	19.4	23.1	27.1
Age-Adjusted	Red Lake	18.8	22.9	27.1
Age-Adjusted	Roseau	19.1	23.0	27.6

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 5: Binge drinking among adults 2022

Smoking
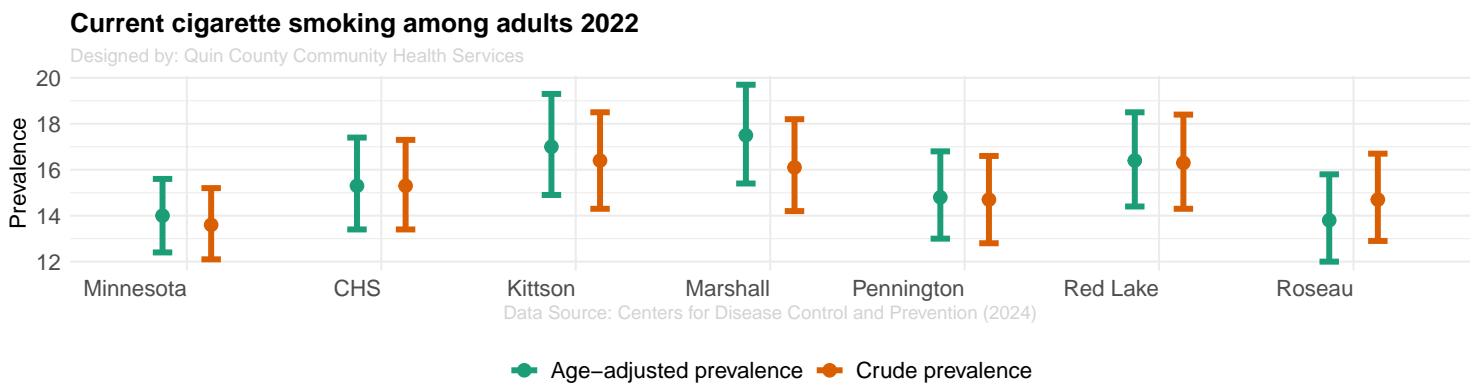
Smoking remains a critical public health issue for local communities, affecting overall health and well-being. Although much of the data for the five Quin counties is suppressed, available data shows that the percentage of Quin mothers who smoked during pregnancy was higher than the state average. Recently, Roseau County reported a higher percentage of mothers who smoke

compared to Minnesota. While the prevalence of mothers who smoked during pregnancy in the Quin counties was higher than the state average, the estimated prevalence of adult cigarette smokers is similar to Minnesota's average, based on overlapping 95% confidence intervals.

Year	Location	Mothers Who Smoked	% Change
2021	Minnesota	5.60%	
2022	Minnesota	4.40%	-1.20%
2021	Kittson	NA	
2022	Kittson	NA	–
2021	Marshall	NA	
2022	Marshall	NA	–
2021	Pennington	NA	
2022	Pennington	NA	–
2021	Red Lake	NA	
2022	Red Lake	NA	–
2021	Roseau	11.10%	
2022	Roseau	11.70%	0.60%

Data Source: The Annie E. Casey Foundation, KIDS COUNT Data Center (2024a)

Figure 6: Percentage of Mothers Who Smoked During Pregnancy

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	12.1	13.6	15.2
Crude	CHS	13.4	15.3	17.3
Crude	Kittson	14.3	16.4	18.5
Crude	Marshall	14.2	16.1	18.2
Crude	Pennington	12.8	14.7	16.6
Crude	Red Lake	14.3	16.3	18.4
Crude	Roseau	12.9	14.7	16.7

Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	12.4	14.0	15.6
Age-Adjusted	CHS	13.4	15.3	17.4
Age-Adjusted	Kittson	14.9	17.0	19.3
Age-Adjusted	Marshall	15.4	17.5	19.7
Age-Adjusted	Pennington	13.0	14.8	16.8
Age-Adjusted	Red Lake	14.4	16.4	18.5
Age-Adjusted	Roseau	12.0	13.8	15.8
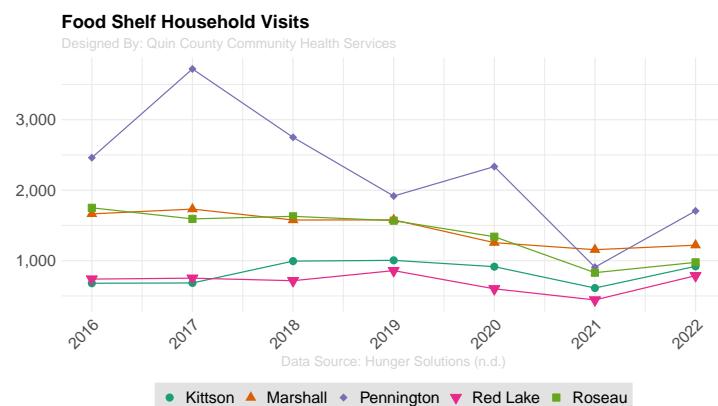
Data Source: Centers for Disease Control and Prevention (2024a)

Figure 7: Current cigarette smoking among adults 2022

Food Shelf Household Visits

In 2022, food shelf visits in Kittson, Marshall, Pennington, Red Lake, and Roseau counties reflected a need for food assistance. The most notable increases were in Pennington County (87.89%) and Red Lake County (77.65%), suggesting that economic challenges and food insecurity have intensified in these areas. Kittson County also saw a substantial rise in household visits, with an increase of 50.33%. Roseau County experienced a 17.59% increase, while Marshall County had a smaller but still

notable rise of 5.54%. This trend underscores the importance of continued support and resources to address food insecurity in these communities and aligns with the broader state data, which saw a record high of 5.5 million food shelf visits in Minnesota, driven by rising food prices and increased demand from seniors, adults, and children (Hunger Solutions 2022).


Year	Location	Household Visits	% Difference
2021	Kittson	612	–
2022	Kittson	920	50.33%
2021	Marshall	1,156	–
2022	Marshall	1,220	5.54%
2021	Pennington	908	–
2022	Pennington	1,706	87.89%
2021	Red Lake	443	–
2022	Red Lake	787	77.65%
2021	Roseau	830	–
2022	Roseau	976	17.59%
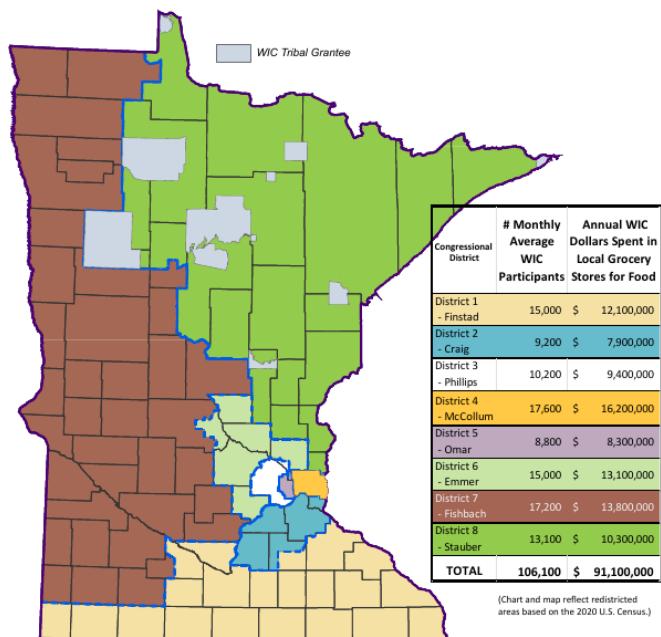
Data Source: Hunger Solutions (n.d.)

Figure 8: Food Shelf Household Visits

Farmer's Markets

Farmers markets offer programs like Market Bucks and the WIC Farmers Market Nutrition Program to make fresh produce accessible and support healthy eating. Local initiatives like the Power of Produce (PoP) program encourage children and seniors to engage with farmers markets, promoting lifelong healthy habits. These efforts benefit individual health, community ties, and local economies.

Health Conditions

Addressing chronic health conditions is vital for community well-being. Heart disease, cancer, STIs (including HIV), obesity, and diabetes are major health challenges, impacting individuals and burdening healthcare systems. Heart disease and cancer are the leading causes of death in Minnesota, highlighting the need for early detection and treatment. Obesity contributes to diabetes and heart disease, while effective management of diabetes is crucial to prevent complications. Focusing on these conditions can lead to targeted interventions and improved health outcomes, enhancing community quality of life.

Heart Disease

Heart disease is a critical health concern affecting communities, with significant variations in age-adjusted death rates per 100,000 residents from 2019 to 2023. Roseau County stands out with the highest rate at 175 deaths per 100,000 residents, far exceeding the Minnesota state average of 121. Pennington County also surpasses the state average, highlighting a pressing issue. Although Kittson, Marshall, and Red Lake counties are not statistically higher, their age-adjusted prevalence rates still exceed the state average, underscoring the widespread impact of heart disease in these areas.

Table 1: Age Adjusted Number of Deaths per 100,000 due to Heart Disease (2019-2023)

Location	Heart Disease	Confidence Interval
Minnesota	120	119-121
Kittson	138	102-173
Marshall	137	110-163
Pennington	158	134-182
Red Lake	144	103-185
Roseau	175	150-200

Minnesota Department of Health (2024c)

Cancer

Cancer remains a significant public health challenge, affecting many individuals and communities. As of January 1, 2021, 316,110 Minnesota residents (5.5% of the population) were living with a history of malignant cancer. Quin counties have even higher prevalence rates: Kittson (7.4%), Marshall (7.9%), Pennington (6.0%), Red Lake (7.4%), and Roseau (5.6%). These statistics underscore the widespread impact of cancer and the critical need for ongoing support and resources. Additionally, specific cancers like lung and breast cancer further illustrate this burden, with Kittson County having the highest lung cancer rate at 68.3 per 100,000 people, and Roseau County having the highest breast cancer rate at 144.3 per 100,000 people. Addressing these challenges requires targeted interventions and continuous support for those affected.

Table 2: Persons living with a history of of cancer by Location

Location	Number of Persons Living with a History of of Cancer	Percent of Population Living with a History of Cancer
Minnesota	3,16,110	5.5%
Kittson	310	7.4%
Marshall	710	7.9%
Pennington	830	6.0%
Red Lake	290	7.4%
Roseau	860	5.6%

Minnesota Department of Health (2024a)

Table 3: Cancer Age Adjusted Rate per 100,000 people 2015-2019

Location	Lung Cancer	Breast Cancer
Minnesota	55.6	135.7
Kittson	68.3	120.9
Marshall	66.8	133.7
Pennington	58.1	137.3
Red Lake	53.3	141.6
Roseau	58.8	144.3

Minnesota Department of Health (2023a)

Dementia

Dementia is a growing concern, especially among older adults. In Minnesota, 11.9% of Medicare beneficiaries have dementia. This rate is slightly lower in Kittson (10.0%), Marshall (10.2%), and Pennington (10.3%) counties, with even lower rates in Red Lake (9.5%) and Roseau (7.6%) counties. While these rates are lower than the state average, they still pose a concern due to potential limited access to resources in these areas. Early detection, effective management, and community resources are crucial for support and reducing the burden of dementia.

Table 4: Prevalence of Dementia

Location	Percent of Beneficiaries with Dementia
Minnesota	11.9%
Kittson	10.0%
Marshall	10.2%
Pennington	10.3%
Red Lake	9.5%
Roseau	7.6%
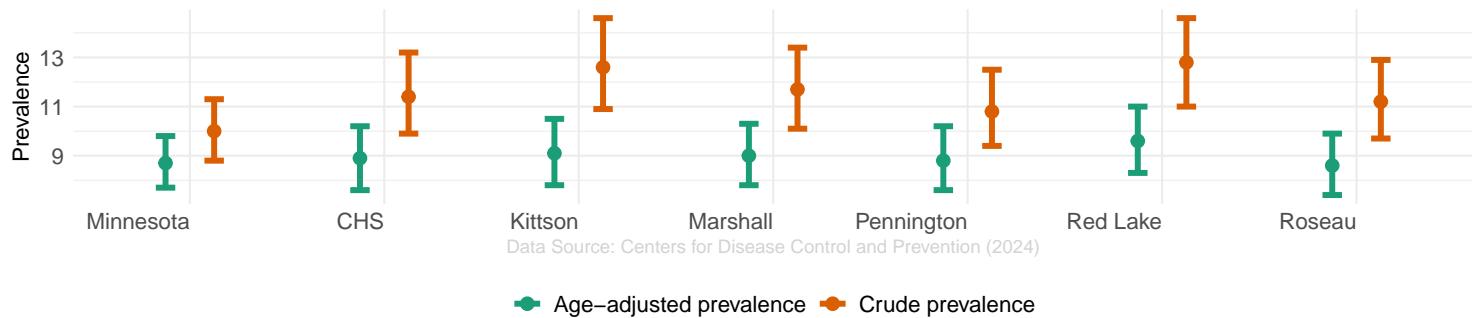
NORC at the University of Chicago (2024)

Diabetes

The age-adjusted prevalence of diabetes is similar between Minnesota and the five Quin counties. However, Kittson, Marshall, Red Lake, and Roseau counties have lower rates of optimal diabetic care compared to the state. Optimal care includes controlling blood pressure, maintaining HbA1c levels, taking statins if tolerated, avoiding tobacco, and using daily aspirin for those with ischemic vascular disease (Minnesota Department of Health 2018-2022). This care is intended for patients aged 18-75. While the prevalence of a disease like diabetes cannot be fully-controlled and the reasons for lower optimal care rates in these counties remain unclear, improving community outreach programs could promote better prevention and care outcomes, which can be influenced by local efforts.

Diagnosed diabetes among adults 2022

Designed by: Quin County Community Health Services

Data Source: Centers for Disease Control and Prevention (2024)

● Age−adjusted prevalence ● Crude prevalence

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	8.8	10.0	11.3
Crude	CHS	9.9	11.4	13.2
Crude	Kittson	10.9	12.6	14.6
Crude	Marshall	10.1	11.7	13.4
Crude	Pennington	9.4	10.8	12.5
Crude	Red Lake	11.0	12.8	14.6
Crude	Roseau	9.7	11.2	12.9
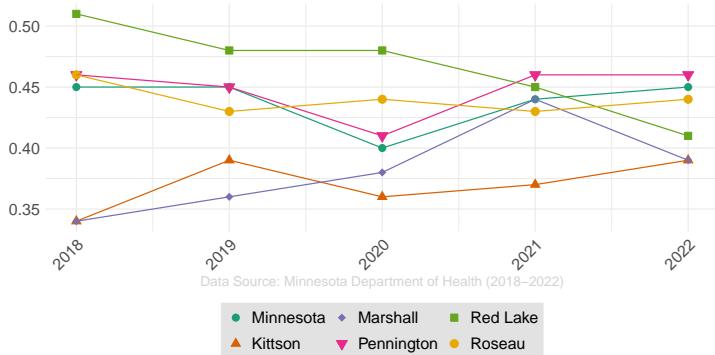
Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	7.7	8.7	9.8
Age-Adjusted	CHS	7.6	8.9	10.2
Age-Adjusted	Kittson	7.8	9.1	10.5
Age-Adjusted	Marshall	7.8	9.0	10.3
Age-Adjusted	Pennington	7.6	8.8	10.2
Age-Adjusted	Red Lake	8.3	9.6	11.0
Age-Adjusted	Roseau	7.4	8.6	9.9

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 1: Diagnosed diabetes among adults 2022

Optimal Diabetic Care

Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2018–2022)

● Minnesota ◆ Marshall ■ Red Lake
▲ Kittson ▼ Pennington ● Roseau

Year	Location	Optimal Care Rate
2022	Minnesota	0.45
2022	Kittson	0.39
2022	Marshall	0.39
2022	Pennington	0.46
2022	Red Lake	0.41
2022	Roseau	0.44

Data Source: Minnesota Department of Health (2018-2022)
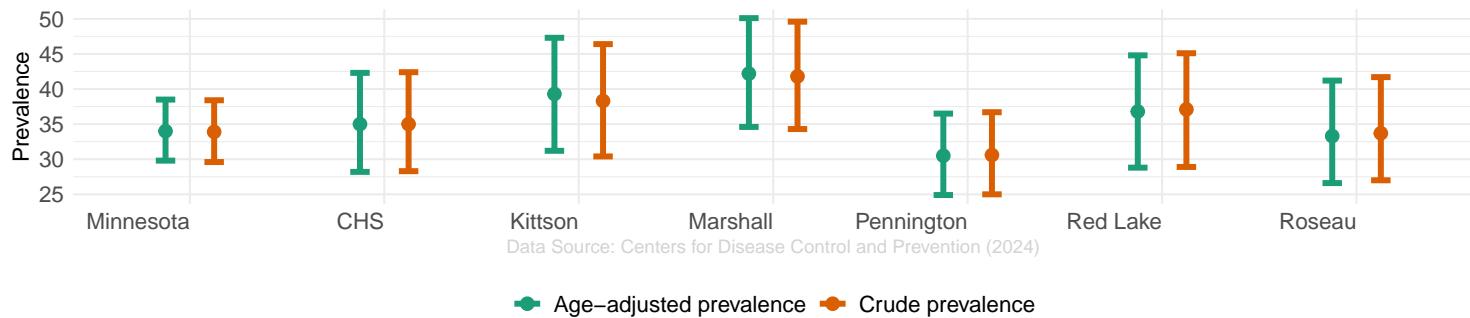
Figure 2: Optimal Diabetic Care

Obesity

Examining obesity is crucial due to its link to chronic diseases like heart disease, diabetes, and certain cancers. While Minnesota and the five Quin counties have statistically similar obesity rates, Kittson and Marshall counties' higher prevalence rates indicate a possible need for targeted interventions, and Pennington County's lower prevalence rate suggests effective strategies that should continue.

Obesity among adults 2022

Designed by: Quin County Community Health Services

Data Source: Centers for Disease Control and Prevention (2024)

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	29.6	33.9	38.4
Crude	CHS	28.3	35.0	42.4
Crude	Kittson	30.4	38.3	46.4
Crude	Marshall	34.3	41.8	49.6
Crude	Pennington	25.0	30.6	36.7
Crude	Red Lake	28.9	37.1	45.1
Crude	Roseau	27.0	33.7	41.7

Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	29.8	34.0	38.5
Age-Adjusted	CHS	28.2	35.0	42.3
Age-Adjusted	Kittson	31.2	39.3	47.3
Age-Adjusted	Marshall	34.6	42.2	50.1
Age-Adjusted	Pennington	24.9	30.5	36.5
Age-Adjusted	Red Lake	28.8	36.8	44.8
Age-Adjusted	Roseau	26.6	33.3	41.2

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 3: Obesity among adults 2022

Influenza
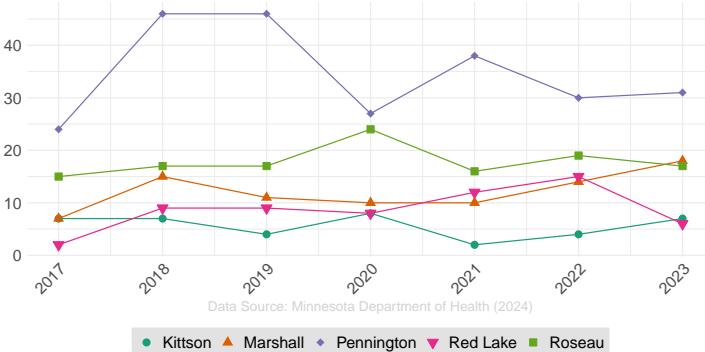
Minnesota uses several influenza surveillance methods, summarizing data by influenza season (October – April), rather than calendar year. Please refer to page 2 Hospital Influenza Cases by Season and page 4 Deaths associated with influenza by season in this MDH Summery report.

STI/HIV

Addressing behavioral factors is crucial, but it's equally important to focus on STIs and HIV, which require effective prevention, testing, and treatment strategies. Chlamydia, Gonorrhea, and Syphilis data in this report should be compared within the same county for the same year since the data values are counts and do not factor in population change. In 2023, Kittson reported 7 Chlamydia cases, Marshall 18, Pennington 31, Red Lake 6, and Roseau 17. Gonorrhea cases were minimal, with Kittson, Marshall, and Red Lake reporting zero cases, Pennington 6, and Roseau 2. Syphilis cases were also low, with Kittson reporting zero, Marshall 1, Pennington 2, Red Lake 2, and Roseau zero. These counts must be interpreted carefully, but low counts provide knowledge that community efforts are being effective. While individuals can contract HIV/AIDS through various means, the low counts in the five Quin counties also point to effective community efforts in education about safe sex and prevention.

Chlamydia Cases
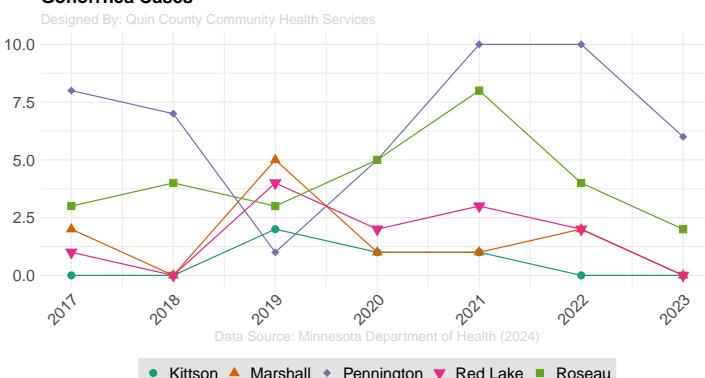
Year	Location	Chlamydia Cases Count
2023	Kittson	7.00
2023	Marshall	18.00
2023	Pennington	31.00
2023	Red Lake	6.00
2023	Roseau	17.00

Data Source: Minnesota Department of Health (2024d)

Figure 4: Chlamydia Cases

Gonorrhea Cases
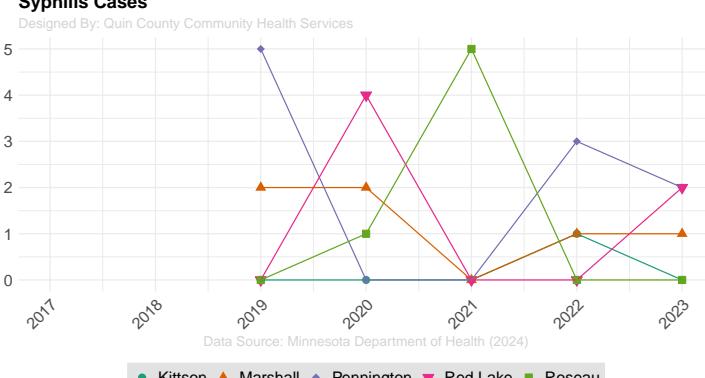
Year	Location	Gonorrhea Cases Count
2023	Kittson	0.00
2023	Marshall	0.00
2023	Pennington	6.00
2023	Red Lake	0.00
2023	Roseau	2.00

Data Source: Minnesota Department of Health (2024d)

Figure 5: Gonorrhea Cases

Syphilis Cases
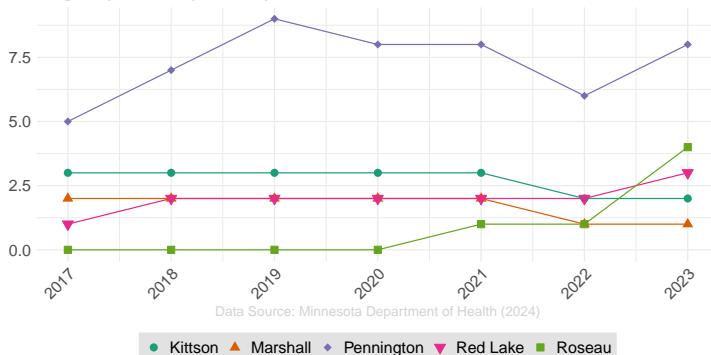
Year	Location	Syphilis Cases Count
2023	Kittson	0.00
2023	Marshall	1.00
2023	Pennington	2.00
2023	Red Lake	2.00
2023	Roseau	0.00

Data Source: Minnesota Department of Health (2024d)

Figure 6: Syphilis Cases

HIV & Aids Cases
Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2024)

● Kittson ▲ Marshall ◆ Pennington ▼ Red Lake ■ Roseau

Year	Location	HIV & Aids Cases Count
2023	Kittson	2.00
2023	Marshall	1.00
2023	Pennington	8.00
2023	Red Lake	3.00
2023	Roseau	4.00

Data Source: Minnesota Department of Health (2024d)

Figure 7: HIV & Aids Cases

Asthma

Asthma is a chronic disease that causes inflammation and narrowing of the airways, making breathing difficult. During an asthma attack, the airway lining swells, muscles tighten, and thick mucus clogs the airways. Asthma can affect people of all ages but often starts in childhood. With people spending up to 90% of their time indoors, the home environment is crucial for reducing asthma triggers. Common indoor triggers include pet dander, mold, pests, scented cleaning products, and secondhand smoke (Minnesota Department of Health 2022). All Quin counties had a lower age-adjusted asthma emergency visit prevalence per 10,000 residents for 2019-2021 compared to Minnesota, with Roseau County being the closest at 26.7.

Table 5: Asthma ED Visit Age-Adjusted Rates for 2019-2021 by County (per 10,000 Residents)

Location	Age-Adjusted
Minnesota	29.8
Kittson	8.2*
Marshall	23.4
Pennington	18.4
Red Lake	21.7
Roseau	26.7

• Unstable Rate Data Source: Minnesota Department of Health (2019-2021)

Mental Health

Depression/ Optimal Care for Depression/ Feeling Socially Isolated

Kittson, Marshall, Pennington, Red Lake, and Roseau counties, along with the state of Minnesota, show that roughly 1 in every 3 to 5 people were projected to experience depression. This high ratio is also reflected in the Minnesota Student Survey responses from 9th grade students, with about 1 in every 3 to 5 reporting feeling down, depressed, or hopeless over the past two weeks for Marshall, Pennington, Red Lake, and Roseau. The most recent available data for Kittson County is 2019 and the results are about 1 in every 3 students feeling depressed. In 2022, Red Lake County had the highest percentage of 9th graders responding 'yes' to this question, with a significant increase from 18.5% in 2019 to 32.0% in 2022. Conversely, Pennington County saw a decrease in this sentiment, from 25.0% in 2019 to 20.8% in 2022.
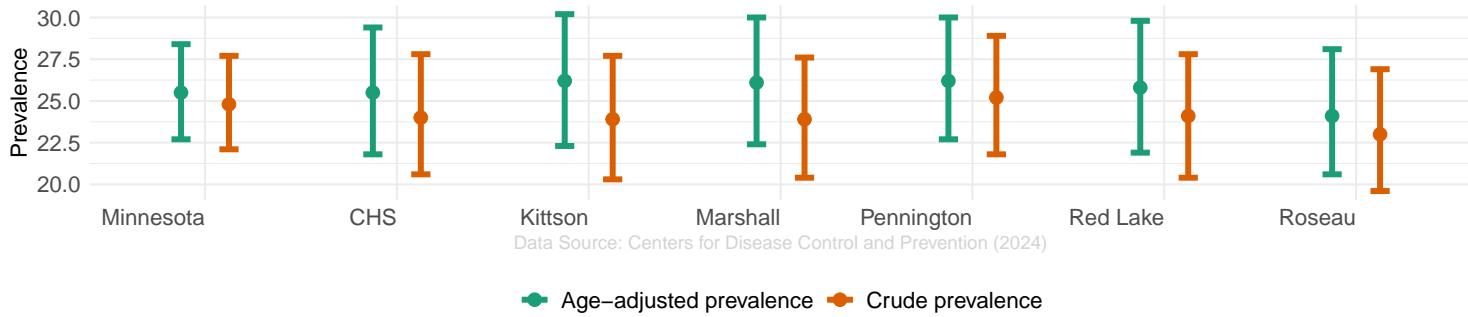
Recent data highlights a concerning trend in the well-being of our youth, underscoring the urgent need for enhanced support and access to services. In Marshall and Red Lake counties, there has been a notable decline in the percentage of 9th graders who felt their community cared about them "quite a bit" or "very much" from 2019 to 2022. This decline in perceived community support is alarming, as it is a crucial factor in the overall mental health and well-being of young people. Additionally, Kittson, Marshall, Pennington, and Roseau counties lag significantly behind the state of Minnesota in early screening rates for mental health and depression in patients aged 12-17. Early screening plays a vital role in identifying and addressing mental health issues promptly, leading to better outcomes for youth. The consistency between the decline in community support and the low rates of early mental health screening suggests a broader issue: our youth need more comprehensive support systems. A very encouraging sign is even with not feeling supported by the local community and not being screened early, the youth in Marshall, Pennington, Red Lake, and Roseau have similar percetages with respect to their county in students self-reporting not using alcohol, marijuana, or drugs within the last year.

Recent data highlights a concerning trend in the well-being of our youth, underscoring the urgent need for enhanced support and access to services. In Marshall and Red Lake counties, there was a notable decline in the percentage of 9th graders who felt their community cared about them "quite a bit" or "very much" from 2019 to 2022. This decline in perceived community support is alarming, as it is a crucial factor in the overall mental health and well-being of young people.

Additionally, Kittson, Marshall, Pennington, and Roseau counties lag significantly behind the state of Minnesota in early screening rates for mental health and depression in patients aged 12-17. Early screening plays a vital role in identifying and addressing mental health issues promptly, leading to better outcomes for youth. The consistency between the decline in community support and the low rates of early mental health screening suggests a broader issue: our youth need more comprehensive support systems. Encouragingly, despite feeling unsupported by their local community and not being screened early, youth in Marshall, Pennington, Red Lake, and Roseau counties report similar percentages of not using alcohol, marijuana, or drugs within the last year compared to their peers statewide.

Depression among adults 2022

Age–adjusted prevalence ● Crude prevalence

Type	Location	Low CI	Prevalence	High CI
Crude	Minnesota	22.1	24.8	27.7
Crude	CHS	20.6	24.0	27.8
Crude	Kittson	20.3	23.9	27.7
Crude	Marshall	20.4	23.9	27.6
Crude	Pennington	21.8	25.2	28.9
Crude	Red Lake	20.4	24.1	27.8
Crude	Roseau	19.6	23.0	26.9
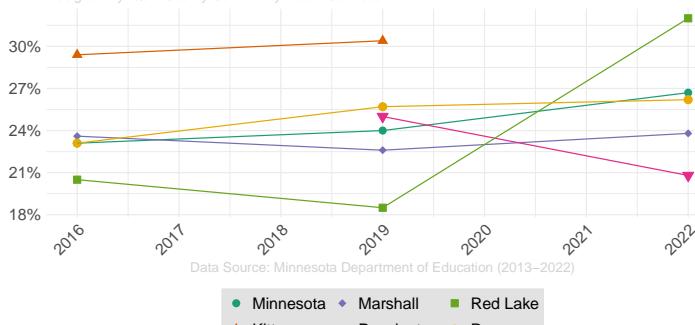
Type	Location	Low CI	Prevalence	High CI
Age-Adjusted	Minnesota	22.7	25.5	28.4
Age-Adjusted	CHS	21.8	25.5	29.4
Age-Adjusted	Kittson	22.3	26.2	30.2
Age-Adjusted	Marshall	22.4	26.1	30.0
Age-Adjusted	Pennington	22.7	26.2	30.0
Age-Adjusted	Red Lake	21.9	25.8	29.8
Age-Adjusted	Roseau	20.6	24.1	28.1

Data Source: Centers for Disease Control and Prevention (2024a)

Figure 1: Depression among adults 2022

Percentage of 9th graders reporting over the past two weeks, how often have you been bothered, feeling down, depressed or hopeless several days (MSS)

| Year	Location	9th Graders Feeling Depressed	% Change
2019	Minnesota	24.00%	
2022	Minnesota	26.70%	2.70%
2019	Kittson	30.40%	
2022	Kittson	NA	–
2019	Marshall	22.60%	
2022	Marshall	23.80%	1.20%
2019	Pennington	25.00%	
2022	Pennington	20.80%	-4.20%
2019	Red Lake	18.50%	
2022	Red Lake	32.00%	13.50%
2019	Roseau	25.70%	
2022	Roseau	26.20%	0.50%

Data Source: Minnesota Department of Education (2013-2022)

Figure 2: Percentage of 9th graders reporting over the past two weeks, how often have you been bothered, feeling down, depressed or hopeless several days (MSS)

Percentage of 9th graders who reported that the community cared about them "quite a bit" or "very much" (MSS)

Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Education (2013–2022)

Legend: Minnesota, Marshall, Red Lake, Kittson, Pennington, Roseau

Year	Location	9th Graders Community Cared	% Change
2019	Minnesota	38.00%	
2022	Minnesota	27.70%	-10.30%
2019	Kittson	44.40%	
2022	Kittson	NA	–
2019	Marshall	32.20%	
2022	Marshall	13.60%	-18.60%
2019	Pennington	24.40%	
2022	Pennington	25.20%	0.80%
2019	Red Lake	40.00%	
2022	Red Lake	15.40%	-24.60%
2019	Roseau	40.80%	
2022	Roseau	26.50%	-14.30%

Data Source: Minnesota Department of Education (2013-2022)

Figure 3: Percentage of 9th graders who reported that the community cared about them "quite a bit" or "very much" (MSS)

Adolescent Mental Health and/or Depression Screening

Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Health (2018–2022)

Legend: Minnesota, Marshall, Red Lake, Kittson, Pennington, Roseau

Year	Location	Optimal Care Rate
2022	Minnesota	0.93
2022	Kittson	0.62
2022	Marshall	0.48
2022	Pennington	0.75
2022	Red Lake	0.89
2022	Roseau	0.53

Data Source: Minnesota Department of Health (2018-2022)

Figure 4: Adolescent Mental Health and/or Depression Screening

Percentage of 11th graders who have not used alcohol, marijuana, and/or drugs in the past year (MSS)

Designed By: Quin County Community Health Services

Data Source: Minnesota Department of Education (2013–2022)

Legend: Minnesota, Marshall, Red Lake, Kittson, Pennington, Roseau

Year	Location	11th Graders No Substance Use	% Change
2022	Minnesota	62.60%	0.00%
2022	Kittson	NA	–
2022	Marshall	59.10%	0.00%
2022	Pennington	58.10%	0.00%
2022	Red Lake	57.10%	0.00%
2022	Roseau	63.40%	0.00%

Data Source: Minnesota Department of Education (2013-2022)

Figure 5: Percentage of 11th graders who have not used alcohol, marijuana, and/or drugs in the past year (MSS)

Suicide

Suicide is a complex issue with no single cause, but prevention efforts show that most suicides are preventable, mental illness is treatable, and recovery is possible. In 2022, 860 Minnesotans died by suicide, the highest total ever, with preliminary data indicating 815 deaths in 2023. This translates to age-adjusted rates of 14.8 and 14.1 per 100,000, respectively. Males had higher suicide rates than females, and American Indian or Alaska Natives had higher rates than other racial or ethnic groups. In 2023, 47% of suicide deaths involved firearms, and rural areas continued to have higher rates than urban areas Suicide 2021 data brief.

More data coming soon.

Environmental Health

Certain environments can impact people's health, and they may be unaware of the risks in their homes, workplaces, schools, or communities. This lack of awareness can be detrimental. The following environmental indicators aim to educate about potential risks, helping individuals become more informed and proactive.

Tickborne Disease Risk

Kittson, Marshall, Pennington, and Red Lake counties are high-risk areas for tickborne diseases like Lyme disease. Roseau County is medium risk. During tick season, tick repellents should be encouraged and regular tick checks to reduce infection risk should be performed. Awareness and proactive health practices are crucial. Early detection and prompt removal of ticks can lower disease transmission chances.
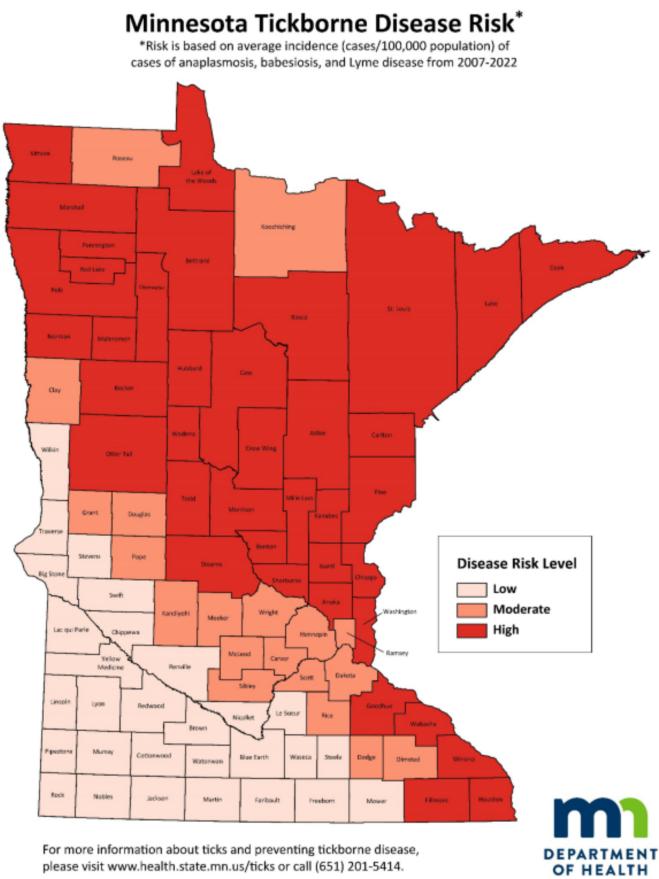
Figure 1: For more resources, please click anywhere on the map

Arsenic

Arsenic can be found in drinking water. Testing is vital in learning if your water has arsenic. The MDH recommendation is to test a private well at least once for arsenic. Chronic arsenic exposure has shown to be a risk factor for some cancers and also can impact a child's development. in both arsenic concentration categories (> 2 µg/L and > 10 µg/L), Pennington County was the only QUin county that had lower percentages of wells with arsenic compared to the state average for Minnesota.

Table 1: Private Wells Tested 2008-2021

Location	Percentage of Wells > 2 µg/L	Percentage of Wells > 10 µg/L
Minnesota	48.6% (34,920 / 71,831)	11.5% (8,264 / 71,831)
Kittson	44.1% (15 / 34)	14.7% (5 / 34)
Marshall	43.4% (98 / 226)	14.2% (32 / 226)

Location	Percentage of Wells > 2 µg/L	Percentage of Wells > 10 µg/L
Pennington	35.5% (102 / 287)	11.1% (32 / 287)
Red Lake	52.8% (67 / 127)	14.2% (18 / 127)
Roseua	55.8% (300 / 538)	16.0% (86 / 538)

Minnesota Department of Health (2008-2021)
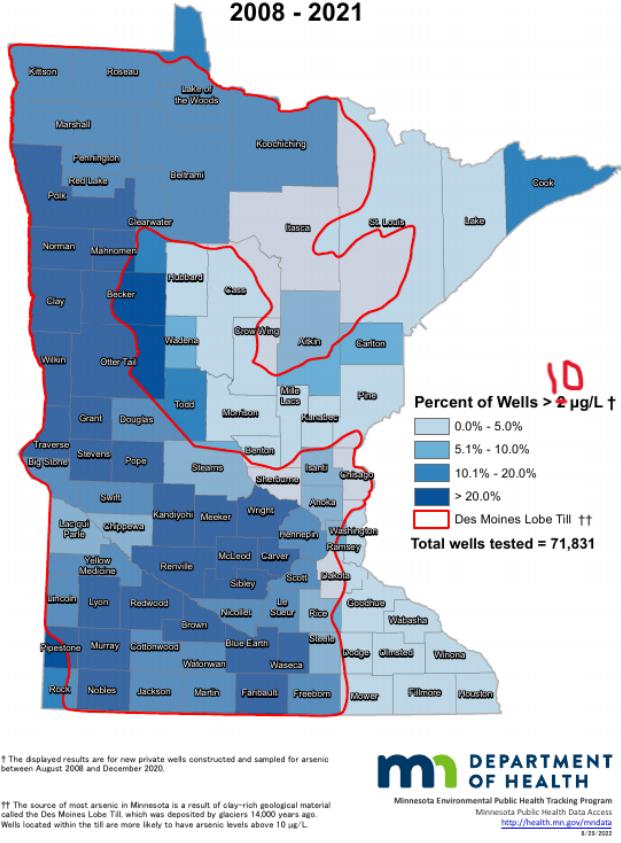
Figure 2: For more resources, please click anywhere on the map

Radon

Radon levels are measured in picocuries per liter (pCi/L), and there is no safe level of exposure. The EPA estimates that at 4 pCi/L, the lifetime risk of lung cancer death is 7 per 1,000 for never-smokers and 62 per 1,000 for current smokers. Testing is the only way to know if you have a radon problem. All five Quin counties had lower property radon testing rates than the state of Minnesota. However, Marshall, Pennington, and Red Lake counties had higher percentages of properties with radon concentrations above 2 pCi/L and 4 pCi/L compared to the state average.

Table 2: Property Tested for Radon 2010-2020

Location	Properties Tested per 10,000 Properties	% of Properties Tested with > 2 pCi/L	% of Properties Tested with > 4 pCi/L
Minnesota	93.5	71.2%	40.3%
Kittson	18.5	60.4%	27.1%*
Marshall	37.3	76.3%	53.3%
Pennington	27.5	80.0%	58.8%
Red Lake	32.4	72.0%	42.0%
Roseua	13.5	64.4%	29.7%

Location	Properties Tested per 10,000 Properties	% of Properties Tested with > 2 pCi/L	% of Properties Tested with > 4 pCi/L

* Unstable Rate @mdhRadon
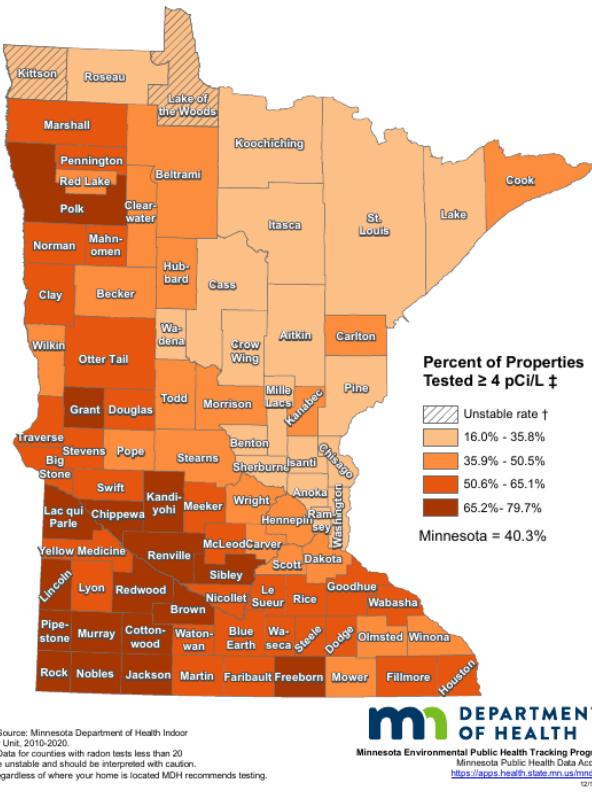
Figure 3: For more resources, please click anywhere on the map

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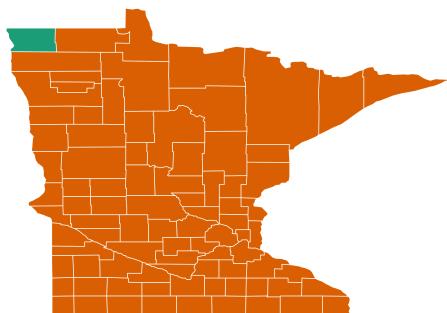
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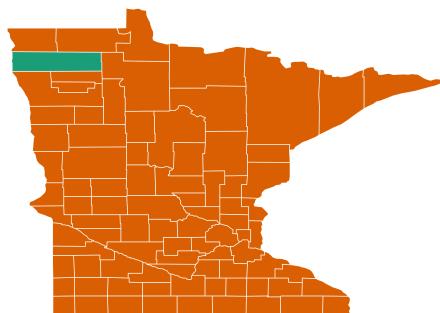
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Please reach out if you have any questions. Below are some extra community resources.
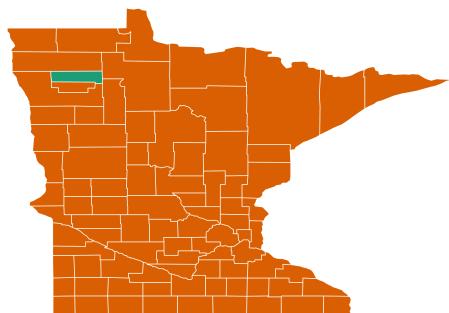
Kittson County
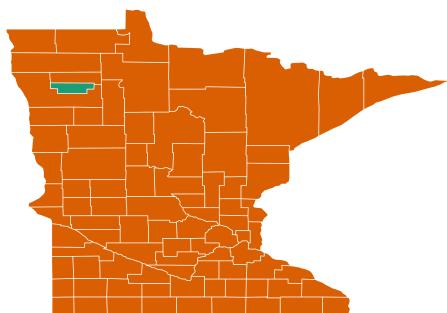
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Pennington County



Red Lake County

Roseau County
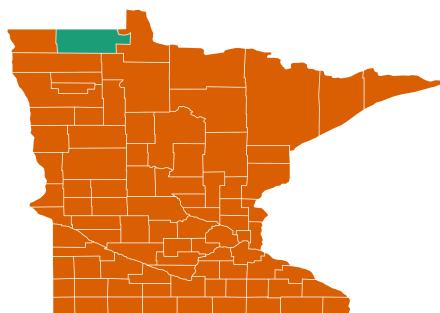
Figure 1: Please click anywhere on the county map to go to a resource page regarding the following topics.
- Housing Instability
- Food Insecurities
- Transportation
- Utility Needs
- Interpersonal Safety