

**Partnership4Health**  
**Community Health Board**  
**Community Health Assessment**

**Becker, Clay, Otter Tail, and Wilkin Counties**



**2018-2024**



## 2018 Partnership4Health COMMUNITY HEALTH ASSESSMENT

### FOREWARD

Partnership4Health Community Health Board (P4H CHB) is a joint entity comprised of the public health departments in Becker, Clay, Otter Tail, and Wilkin counties located in west central Minnesota. The combined population in the four counties is 161,052.

When we consider CHB averages, the P4H CHB area compares to the state of Minnesota quite well overall for health, economic opportunity, civic engagement, and more. We see some positive trends in the last five years—teen pregnancies are down in every population and high school graduation rates are up, however we also see some major challenges. Substance use overdoses and suicide rates are rising. Inequities—in everything from infant mortality and educational achievement, to employment, rates of home ownership and incarceration—stubbornly persist.

As public health officials we cannot be content with averages that mask the real health of many people—including people with disabilities, American Indians, African- Americans, Somali, people of Latino heritage, the LGBTQ community, elders, women, and children. The numbers of diverse populations groups are small within our geographic area which can lead to challenges to obtain and analyze data. The greatest inequity common across the four counties is the impact of poverty on a person's health status.

The 2018 P4H CHB Community Health Assessment is a critical step in identifying the areas' strengths and challenges and setting the stage for change. Together our strengths can equip us to meet the challenges of today and tomorrow head on—provided we make room at the table for all. Our growing racial and ethnic diversity is deepening our knowledge and broadening our vision of how to live in a way that helps all of us thrive.

P4H CHB will partner with the community to use these findings to channel our shared passion and commitment to ensure a healthy community for everyone.

For additional information regarding this community health assessment please contact the public health directors:

Becker County Public Health	Kris Bausman	<a href="mailto:kristin.bausman@co.becker.mn.us">kristin.bausman@co.becker.mn.us</a>
Clay County Public Health	Kathy McKay	<a href="mailto:Kathy.McKay@co.clay.mn.us">Kathy.McKay@co.clay.mn.us</a>
Otter Tail County Public Health	Jody Lien	<a href="mailto:jlien@co.ottertail.mn.us">jlien@co.ottertail.mn.us</a>
Wilkin County Public Health	Debra Jacobs	<a href="mailto:djacobs@co.wilkin.mn.us">djacobs@co.wilkin.mn.us</a>

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## INTRODUCTION

### WHAT IS HEALTH?

The World Health Organization defines health as, “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” Everything in our lives — our families, homes, neighborhoods, jobs, schools, the land, water, and air impact our health.

If we are healthy, we can engage with our family and friends, attend school, go to work, play, and be an active participant in society.

### WHAT CREATES HEALTH?

For many years, public health has been concerned with individual behavior change as the means of improving health. We are familiar with the advice to eat right and exercise. Studies show that the circumstances of our lives — where we live — play a large role in our health. Where we live determines our options and influences our choices.

Decades of study on the social determinants of health show that the policies and processes that shape the daily circumstances of our lives are what really create health.

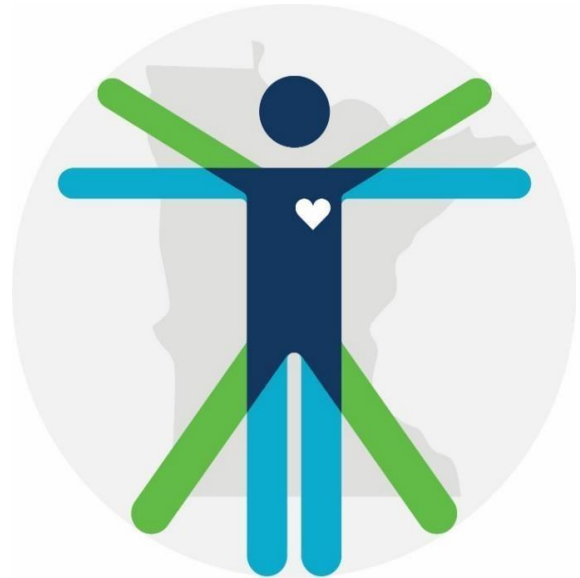
### WHAT IS HEALTH EQUITY?

Health equity is a state where everyone has what they need to be healthy and no one is prevented from being healthy by unjust or unfair social policies and practices.

### 2018 Partnership4Health COMMUNITY HEALTH BOARD COMMUNITY HEALTH ASSESSMENT

Every five years with the guidance of the Minnesota Department of Health (MDH) the Partnership4Health Community Health Board (P4H CHB) assesses the health of their communities. The **2018 P4H CHB Community Health Assessment** tells the story of our health today and how it has been shaped over time by opportunities, belonging, and interactions with nature. In each section of this assessment we link data on social, economic and environmental conditions with rates of disease or individual health behaviors to strengthen our understanding of what creates health and health equity. The assessment sets the stage which will guide our collective efforts to assure that we achieve the mission of the P4H CHB:

***To Protect, Promote, and Preserve the Health of the Public.***



The **2018 P4H CHB Community Health Assessment** has four sections:

**People:** Our health is influenced by who we are, where we've come from, and our real and perceived differences.

**Opportunity:** Our health is related to our opportunities for education, access to health care, nutrition, employment, income, housing and transportation.

Data exposes the persistent inequities in social and economic opportunity that continue to oppress many people.

**Environment:** Our health is shaped by our connection to and interactions with the natural environment – including the impact our actions have on the air, water, and soil. The environment can be impacted by where we live, learn, work, and play.

**Mental Well Being:** Our health is impacted by inclusion in the community and our connections with each other from early childhood through our later years.

The 2018 Community Health Assessment was driven by the public health departments located in Becker, Clay, Otter Tail, and Wilkin counties. Quantitative and qualitative data from multiple sources were reviewed and analyzed to identify issues that impact health and the health outcomes within our population.

The public health departments partnered with the following hospitals within the four counties to collect information from community stakeholders and the general population utilizing surveys distributed via email:

- Essentia Health in Detroit Lakes and Fargo
- Lake Region Healthcare in Fergus Falls
- Perham Health in Perham
- St. Francis Healthcare in Breckenridge
- Sanford Health in Fargo

The hospitals also analyzed aggregate data from their electronic health records. Perham Health and Lake Region Healthcare examined aggregate data received through the Integrated Health Programs serving low income families enrolled in Minnesota Medical Assistance.

The four public health departments also utilized a randomized mailed household survey to collect additional information related to nutrition, physical activity, tobacco use, mental health, and breastfeeding support as required by specific grant programs. Local Public Health collected and analyzed aggregated Omaha System electronic data including Omaha System Problems and their associated signs and symptoms for public health clients.

Meetings with community organizations and partners provided qualitative information regarding health factors occurring in our community. These partners were able to provide current situational information not yet found in the traditional data sources. Focus Groups were conducted in Becker, Clay, Otter Tail and Wilkin counties.

In Wilkin County along with stakeholder meetings, three focus groups were held with 19 participants that provided input representing a cross-section of providers. Three questions were asked: 1) Top three issues your clients face, 2) Obstacles that prevent resolution of issues, 3) Ways to resolve issues.

In Becker County along with stakeholder meetings, eight focus groups were held with 354 participants. They were asked to brainstorm on unmet needs in our community. They also rated these needs on leverage, feasibility, specificity and value following the results-based accountability model.

In Clay County the stakeholder group reviewed the community needs assessment and broke into eight facilitated discussion groups to consider the biggest needs as indicated in the needs assessment and possible solutions/resources

to address the needs. Clay County also had the New Americans Consortium and Family Health Care work with diverse populations groups to complete the community survey.

Otter Tail County was very similar to Clay county in that stand-alone focus groups were not held. Rather, they participated in key stakeholder meetings to hear feedback and participate in discussion around community needs that were identified amongst the larger groups. Large group review of the data, along with smaller tabletop discussions, drove the group to identify priority needs.

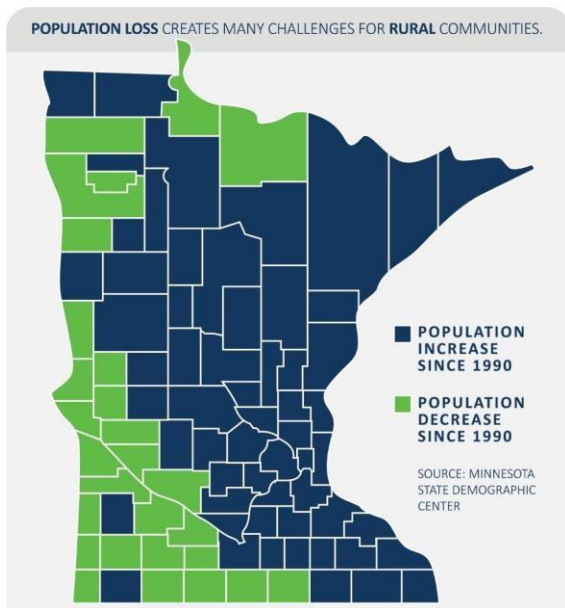
Each public health department also participated in meetings with community stakeholder groups including:

- Becker County Energize and Family Services Collaborative, Senior Networking Committee
- Clay County ReThink Mental Health and Family Services Collaborative
- Otter Tail County Family Services Collaborative, Live Well Fergus Falls, Senior Services Network, and County Sponsored Long Range Planning Focus Groups
- Wilkin County We Care Coalition, Family Services Collaborative, Lakes & Prairie, Wilkin Richland Community Health Assessment Steering Committee, and Active Living Committee
- Moorhead and Pelican Rapids: New American Consortium for Wellness and Empowerment
- PartnerSHIP 4 Health (PS4H) Statewide Health Improvement Partnership (SHIP) Community Leadership Team and partners



## DIFFERENT GEOGRAPHIES: ONE COMMUNITY HEALTH BOARD

Where we grow up, where we live, work, and play all deeply influence our identities, values, opportunities, and ultimately our health.



The population in Becker, Clay and Otter Tail counties has increased since 2000, but has declined in Wilkin County (Map 1 and Table 1). The estimated population in the four county P4H CHB is 161,052.

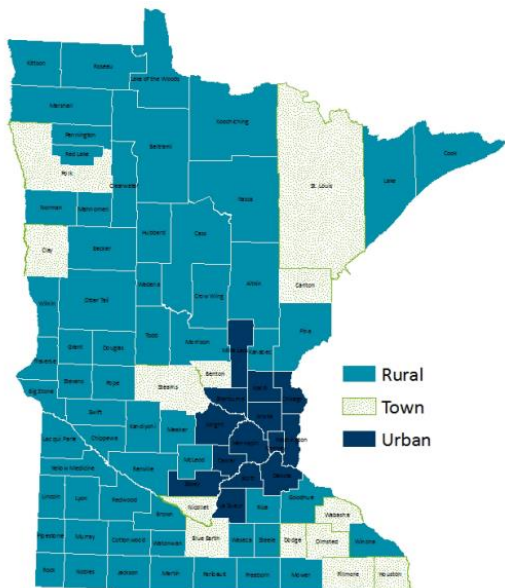
**Table 1: P4H CHB Population Estimates, 2017**

County	Number
Becker	34,103
Clay	63,789
Otter Tail	58,329
Wilkin	6,343

Source: Minnesota State Demographic Center. (n.d.). *Our estimates*. Retrieved November 7, 2018 from <https://mn.gov/admin/demography/data-by-topic/population-data/our-estimates/>.

Map 1: Population Increase and Decrease

Rural Americans are a population group that experiences significant health disparities. Higher rates of chronic illness and poor overall health are found in rural communities when compared to urban populations<sup>1</sup>. According to the National Center for Health Statistics Urban-Rural Classification Scheme for Counties, Becker, Otter Tail, and Wilkin counties are considered rural, and Clay County is considered town (Map 2).



While communities across the P4H CHB are unique, there are common concerns:

- Our young children face a growing rate of poverty.
- Aging populations challenge capacity to adapt to the growing needs of the elderly.
- Increasing racial and ethnic diversity.
- Increasing number of families struggle to make ends meet.
- Scarcity of affordable housing limits the ability of young families and new immigrants to establish themselves and provide a healthy living environment for their children.

Map 2: National Center for Health Statistics Urban-Rural Classification

Source: NCHS Urban Rural Classification Scheme for Counties. Retrieved from <https://www.health.state.mn.us/facilities/ruralhealth/pubs/docs/2017snapshot.pdf> (p. 31).

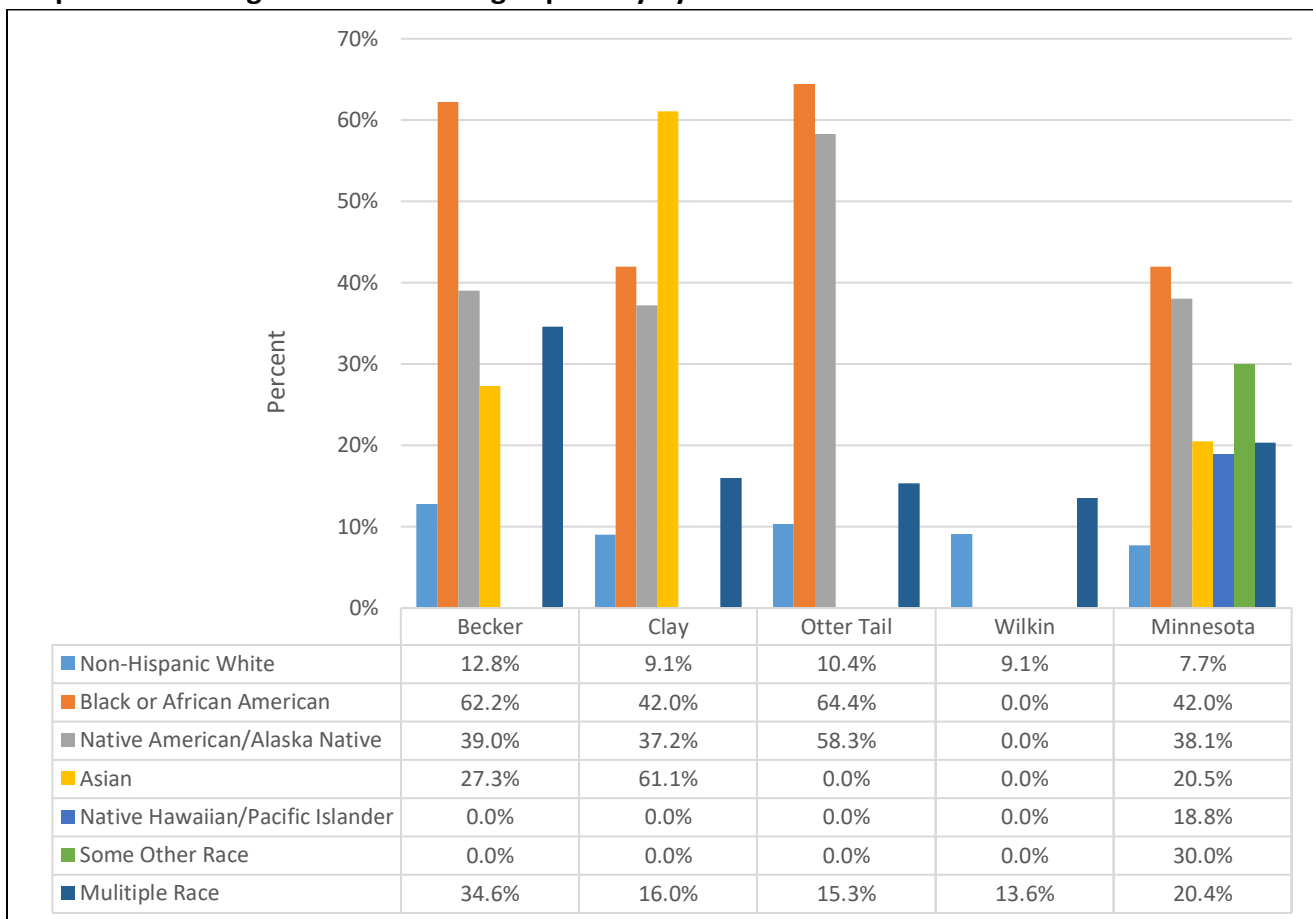
## PEOPLE

### Children

Children and youth living in poverty face multiple challenges. In 2018, 21,437 or 13.3% of the P4H CHB population were enrolled in the medical assistance program.

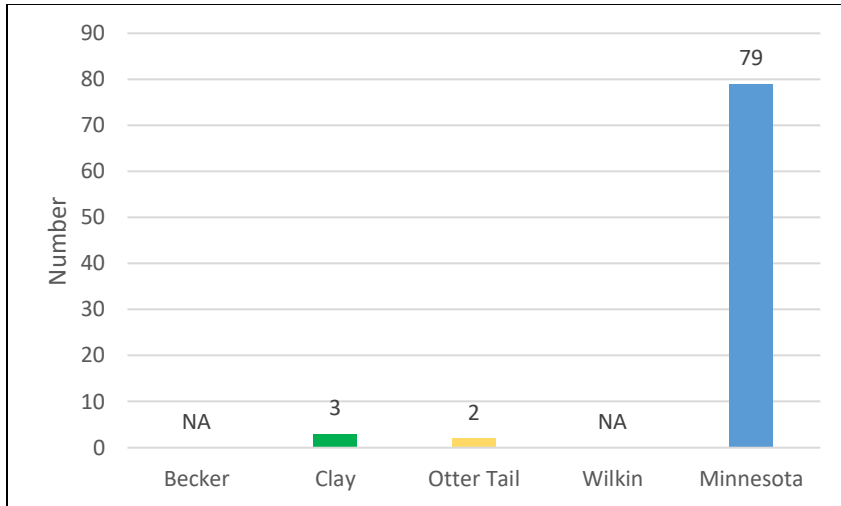
In the CHB area, a higher rate of children in poverty exists among whites, blacks, Native Americans, Asians and Multi-racial compared to statewide averages. The overall rate of children living in poverty in Wilkin County is 8.8%, Clay County 14.2%, Otter Tail County is 14.6% and Becker County is 18.5%. Minnesota's overall poverty rate is 14.8%<sup>2</sup>. Wilkin County shows a less diverse population than the other counties.

**Graph 1: Percentage of children living in poverty by race alone**



Source: Community Commons. (n.d.). *Community health needs assessment*. Retrieved November 7, 2018 from <https://www.communitycommons.org/board/story/2019/03/04/chna/?page=1&id=725&reporttype=libraryCHNA>.

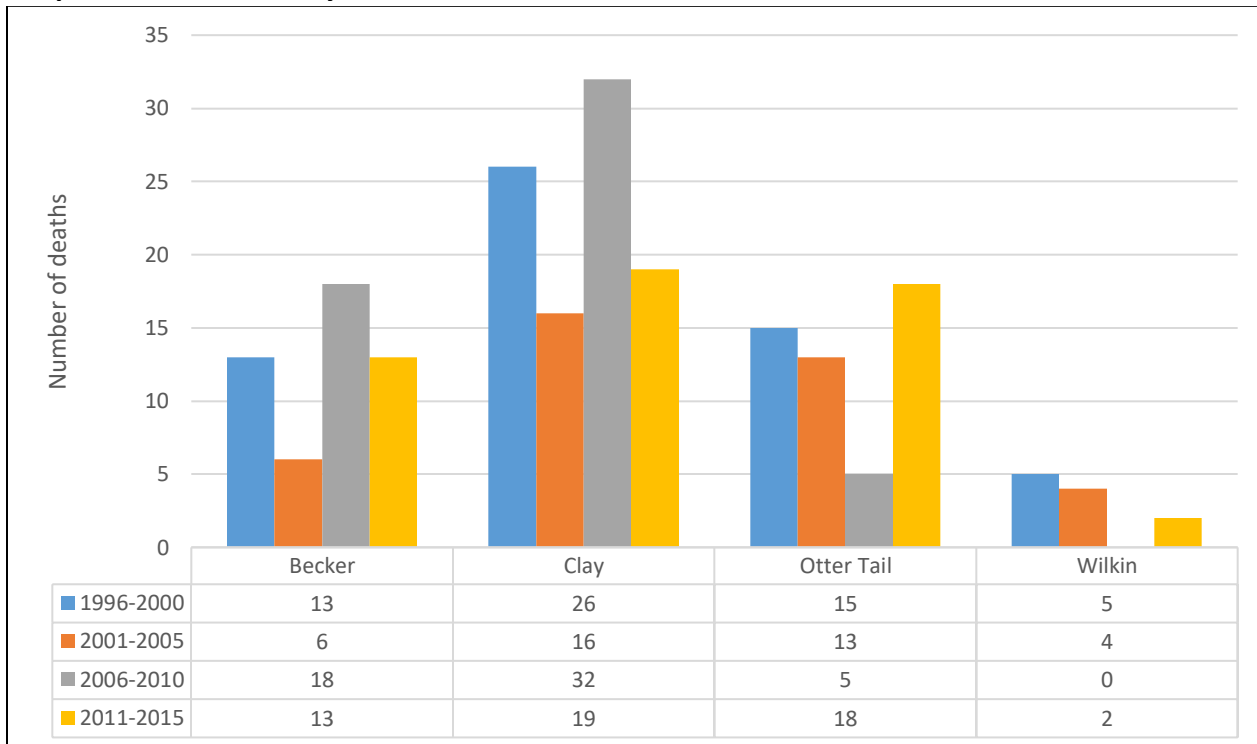
**Graph 2: Children who died from unintentional injuries, 2015**



Source: KIDS COUNT. (2019). *KIDS COUNT indicators*. Retrieved November 8, 2018 from <https://datacenter.kidscount.org/data/customreports/3829,3840,3882,3910/1782,1784,1801-1802,1841,1843>.

The P4H CHB area has a significantly lower rate of children dying from unintentional injuries than the state of Minnesota.

**Graph 3: Infant mortality, 1996-2015**



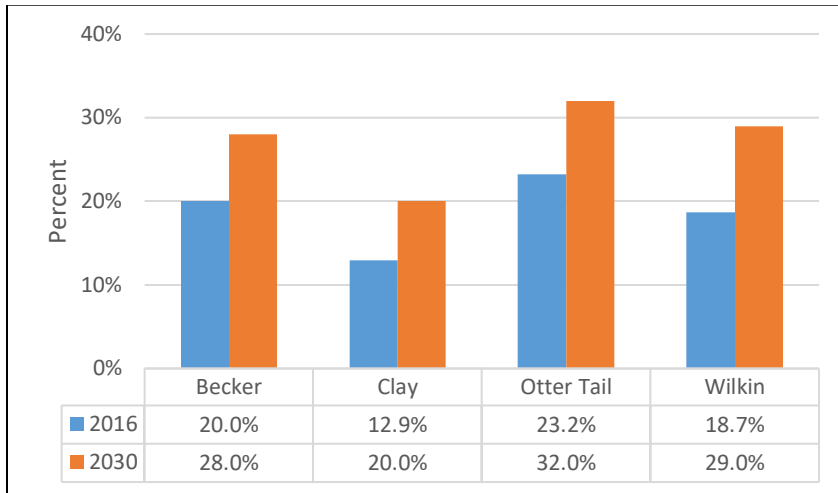
Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (n.d.). *Minnesota County-level Indicators for Community Health Assessment*. Retrieved November 7, 2018, from <https://www.health.state.mn.us/data/mchs/genstats/trends/index.html>.

Clay County has a consistently higher rate of infant mortality. The rate in Clay County dropped in 2011-2015 but went up significantly in Otter Tail County 2011-2015.

## The Aging of Minnesota

The Minnesota State Demographer expects the number of persons age 65 and over to double between 2010 and 2030.

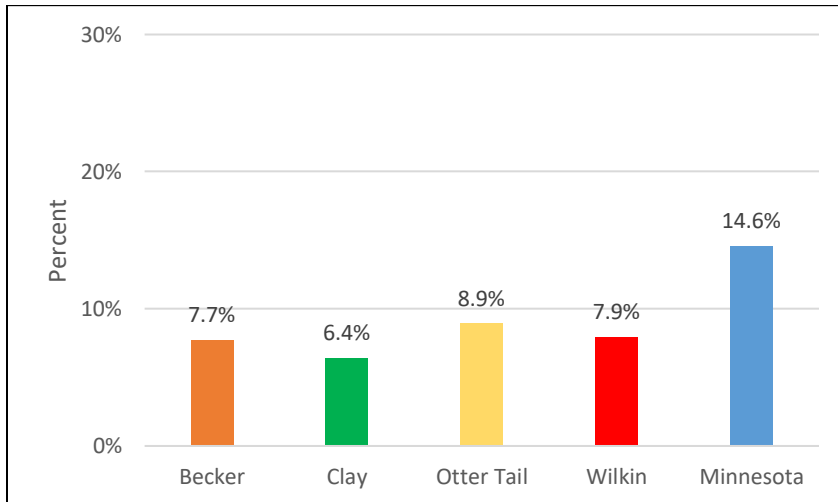
**Graph 4: Population that is over 65, 2016 and 2030**



Source: Minnesota State Demographic Center. (n.d.). *Aging*. Retrieved April 13, 2017, from <https://mn.gov/admin/demography/data-by-topic/aging/>.

About one-third (32 percent) of people in the urban areas of Minnesota are age 50 or above; this rate rises for large towns (38 percent), small towns (41 percent), and rural areas (44 percent). The P4H CHB geographic area is primarily comprised of large and small towns and rural areas. The city of Moorhead in Clay County is considered urban.

**Graph 5: People age 65 years and over whose income in the past 12 months is below the poverty level, 2017**



Source: United States Census Bureau. (n.d.). 2013-2017 American Community Survey 5-Year Estimates. *Selected economic characteristics, Becker, Clay, Otter Tail and Wilkin counties, Minnesota*.

The P4H CHB geographic area has a high percentage of population over the age of 65. This population group requires access to multiple types of health care services and are impacted by changes in the delivery systems.

Rural health care providers have a greater share of their revenues from Medicare and Medical Assistance. Changing reimbursement system for health care is impacting the provider delivery systems that provide the care for persons over the age of 65. Otter Tail County Providers are participating in Integrated Health Partnerships for persons enrolled in Medical Assistance and Accountable Care Organizations for Medicare.

Otter Tail County has seen the closure of three nursing homes. Clay County must access hospital care from North Dakota. Wilkin County must access clinic services in North Dakota or neighboring counties.

Health care provider shortages, from aides, technicians, professionals, and practitioners compound the ability to address care needs as well. Nursing homes are restricting admissions based upon their ability to adequately staff the care needs of residents. Wilkin County has lost 46 nursing home beds.

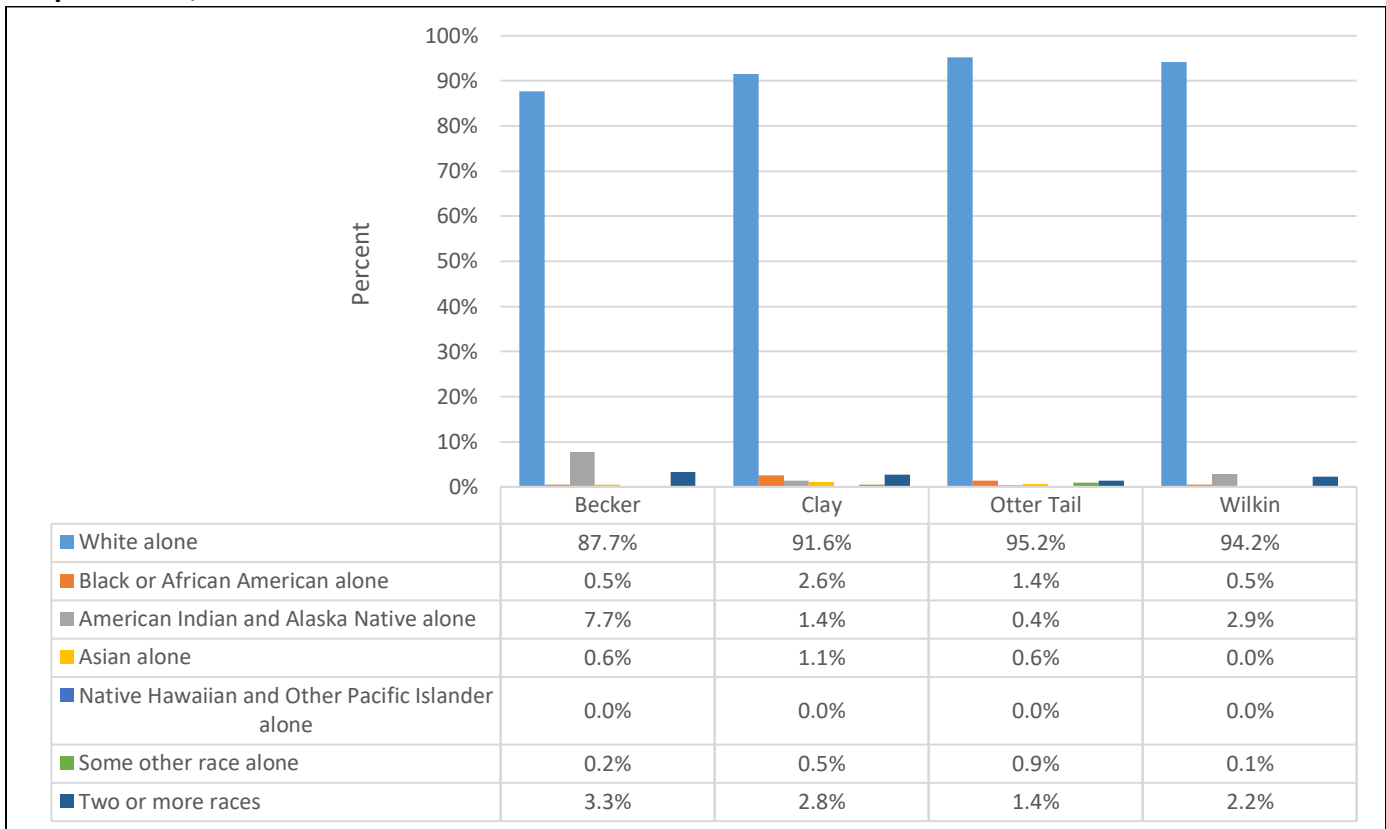
The closing of the wing of nursing home beds at St. Francis Medical Center in Breckenridge provided the opportunity to open a walk-in-clinic.

### Race and Ethnicity

In large urban areas, 79 percent of residents are white non-Hispanic; in most small towns and rural areas, more than 90 percent are white non-Hispanic.

About three-fourths of all residents in rural, small town, or large town areas were born in Minnesota, compared to two-thirds of urban residents.

**Graph 6: Race, 2017**



Source: United States Census Bureau. (n.d.). 2013-2017 American Community Survey 5-Year Estimates. *Race, Becker, Clay, Otter Tail and Wilkin counties, Minnesota.*

### American Indian

Anishinaabe (Chippewa, Ojibwe) tribes in P4H CHB have a unique relationship with local, state, and federal entities, because by treaty with the U.S. government they are sovereign nations. The White Earth Anishinaabe tribe and their ancestors have called this area home for thousands of years. The White Earth reservation is located within a portion of

Becker County. American Indians comprise almost 3 percent of the total population in the P4H CHB geographic area, the greatest number residing in Becker County.<sup>3</sup>



Source: Minnesota Department of Health. (n.d.). Retrieved from <https://www.health.state.mn.us/>.

## Immigration

Refugees are people forced to leave their home countries, often because of war, disaster, or oppression. Refugees face unique challenges, including the trauma and upheaval of the refugee experience and challenging conditions in refugee camps.

According to the Minnesota Department of Health Refugee Health statistics, Clay and Otter Tail counties receive both primary and secondary refugees.<sup>14</sup> Primary refugees are refugees who are initially resettled in Minnesota. Secondary refugees are refugees who originally resettled to another state in the United States before moving to Minnesota. The 2017 MDH Refugee health statistics data shows primary refugees arrived from Somalia and Afghanistan, and secondary refugees arrived originated from Iraq, Somalia and Ethiopia in these two counties.

## Languages

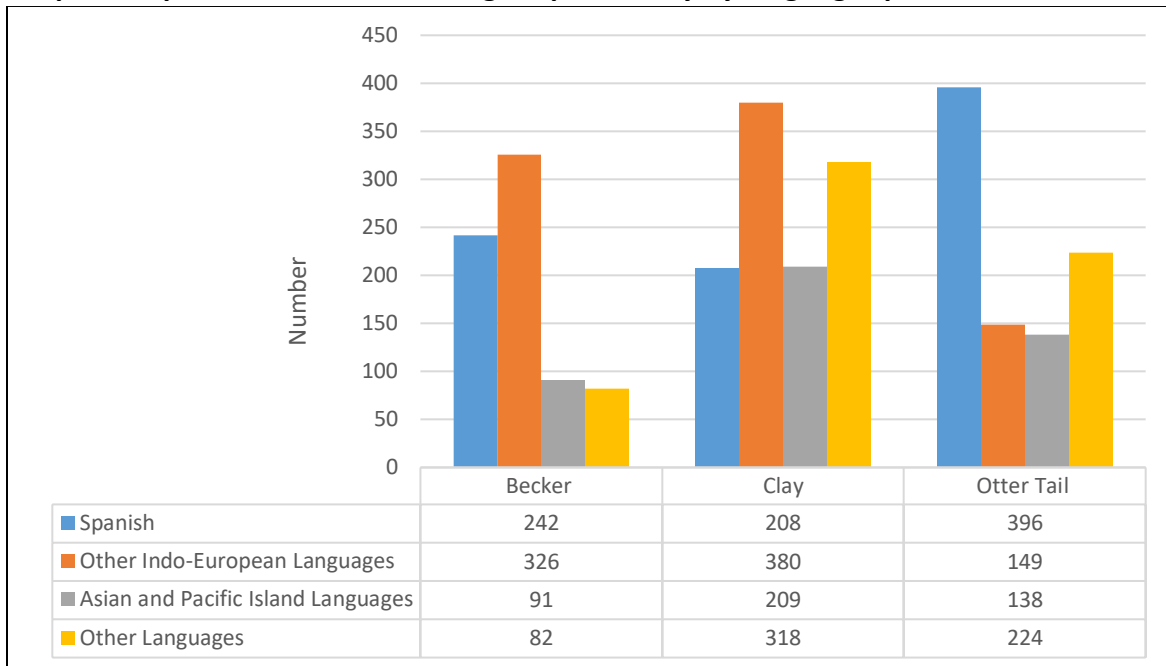
The most common foreign languages in Becker County, MN are German (299 speakers), Spanish (242 speakers), and Other Native North American (129 speakers), but compared to other places, Becker County, MN has a relative high number of other Native North American (129 speakers), other (82 speakers), and Hungarian (27 speakers).

The most common foreign languages in Clay County, MN are Spanish (1,077 speakers), Other Indo-European (540 speakers), and Arabic (232 speakers), but compared to other places, Clay County, MN has a relative high number of Scandinavian (152 speakers), Other Indo-European (540 speakers), and German (231 speakers).

The most common foreign languages in Otter Tail County, MN are Spanish (1,197 speakers), German (321 speakers), and African Languages (237 speakers), but compared to other places, Otter Tail County, MN has a relative high number of Scandinavian (110 speakers), other (121 speakers), and Laotian (66 speakers).

The most common foreign languages in Wilkin County, MN are Spanish (59 speakers), German (20 speakers), and Vietnamese (15 speakers), but compared to other places, Wilkin County, MN has a relative high number of Scandinavian (8 speakers), Other Indo-European (14 speakers), and Other Native North American (4 speakers).

**Graph 7: Population with limited English proficiency by language spoken at home**



Source: Community Commons. (n.d.). *Community Health Needs Assessment*. Retrieved June 1, 2017, from <https://www.communitycommons.org/board/story/2019/03/04/chna/?page=1&id=725&reporttype=libraryCHNA>.

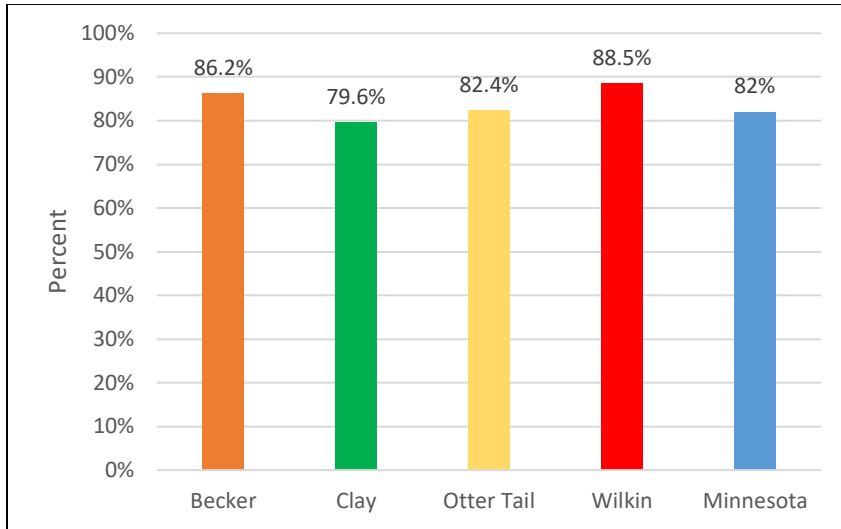
## OPPORTUNITY

### Education

Health is related to opportunities for education, income, nutrition, employment, health care, housing and transportation.

Education is one of the clearest and strongest predictors of lifelong health. With more education people are more likely to live longer, healthier lives. Success in school leads to higher earnings, and this improves living conditions. Education allows people to find better-paying jobs, with healthier working conditions and benefits including health insurance and paid leave. Children are more likely to be healthy, too.<sup>4</sup>

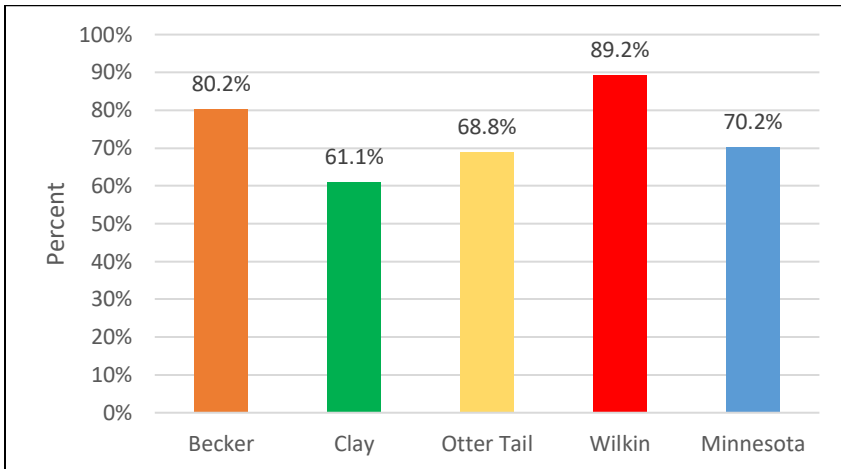
**Graph 8: On-time graduation rates, 2018**



Source: Minnesota Compass. (2019). *High school graduation*. Retrieved January 29, 2019, from <https://www.mncompass.org/education/high-school-graduation#1-6081-g>.

The on-time graduation rates for P4H CHB are higher than the state rate with the exception of Clay County.

**Graph 9: Graduation rates by students who are eligible for free/reduced priced meals, 2017-2018**

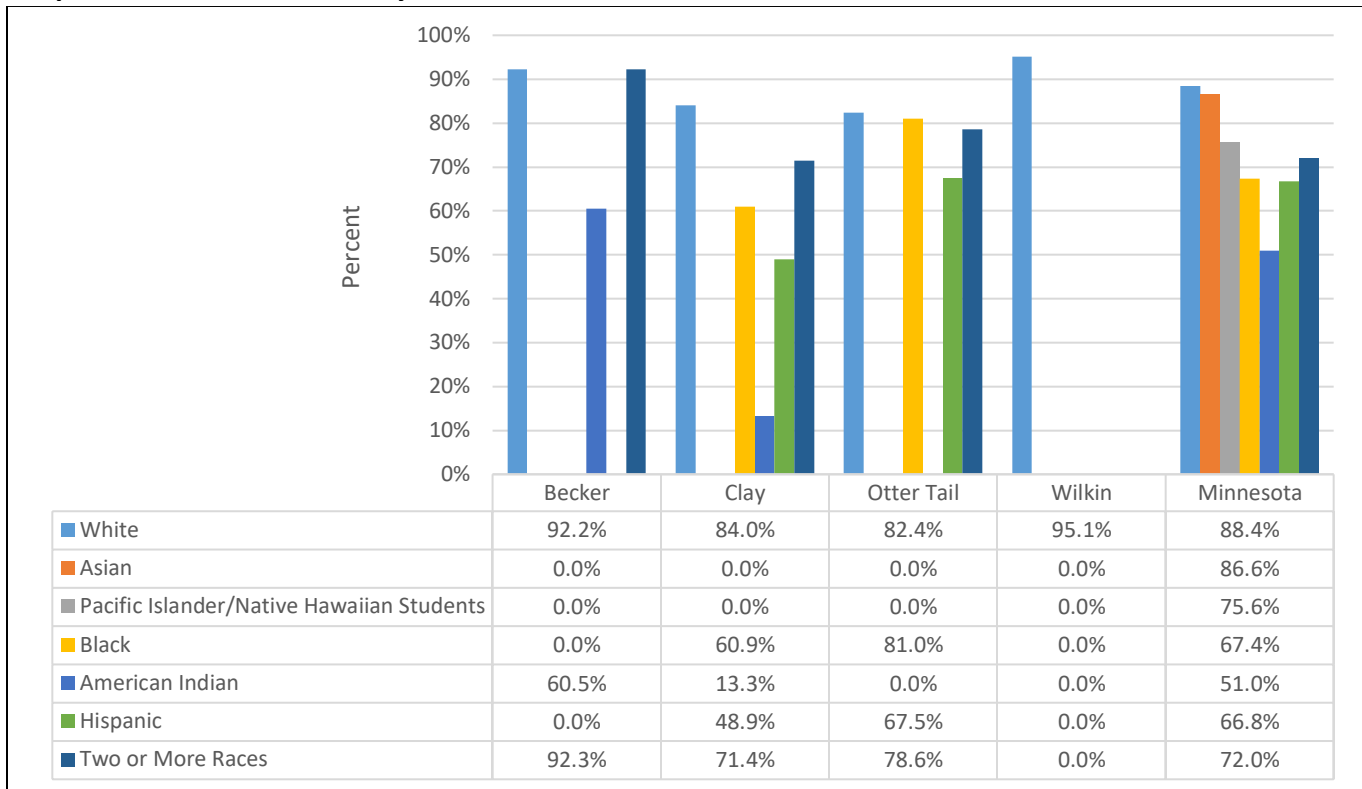


Source: Minnesota Department of Education, Data Reports and Analytics. Retrieved May 1, 2019, from <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=2>.

Clay and Otter Tail Counties' graduation rates (61.1% and 68.8% respectively) for students receiving free and reduced priced meals is below the state average. Wilkin County has the highest graduation rates of students who were eligible for free and reduced priced meals (89.2%).



**Graph 10: Graduation rates by race, 2017-2018**

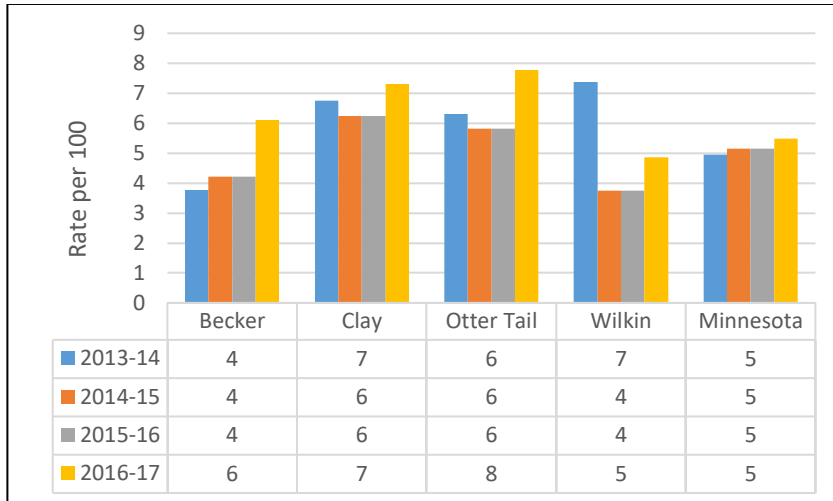


Source: Minnesota Department of Education, Data Reports and Analytics. Retrieved May 1, 2019, from <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=2>.

In the P4H CHB, white students had the highest graduation rate with Wilkin County being the highest at 95.1%. In Clay County, American Indian students had the lowest graduation rate at 13.3%. In Clay County, less than 50.0% of Hispanic students (48.9%) and 67.5% of Hispanic students in Otter Tail County graduated.

Education impacts incarceration rates, aggression, stress, feelings of alienation, income potential, most income assistance is spent on persons who do not complete high school.

**Graph 11: High school dropout rate, 2013-2017**



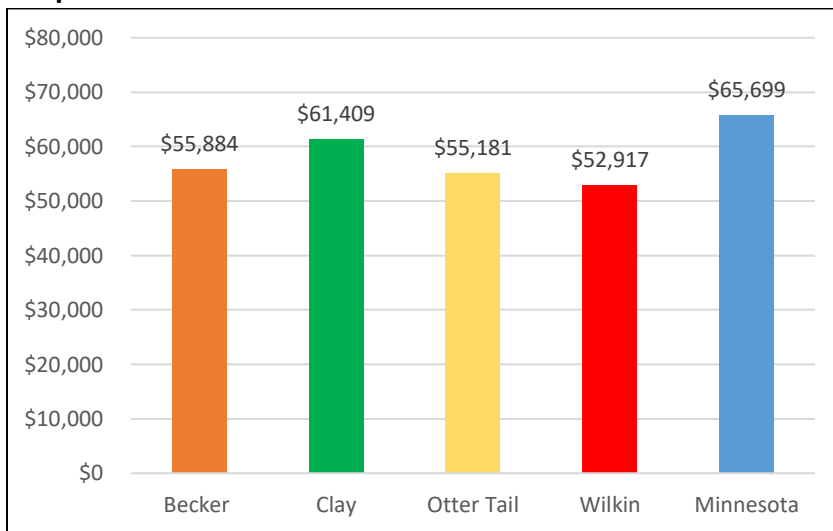
Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (n.d.). *Minnesota County-level Indicators for Community Health Assessment*. Retrieved November 7, 2018, from <https://www.health.state.mn.us/data/mchs/genstats/trends/index.html>.

The dropout rates for the CHB and the state of Minnesota rose in the 2016-2017 school year. The dropout rate for Clay and Otter Tail Counties are consistently higher than the state rate.

### Income

Income shapes many areas of our lives: where we live and the stability of our living arrangements, the condition of our home, what schools we attend, what kinds of recreation we can take part in, what kinds of food we eat, and more. On average, if we make more money, our overall health is better.

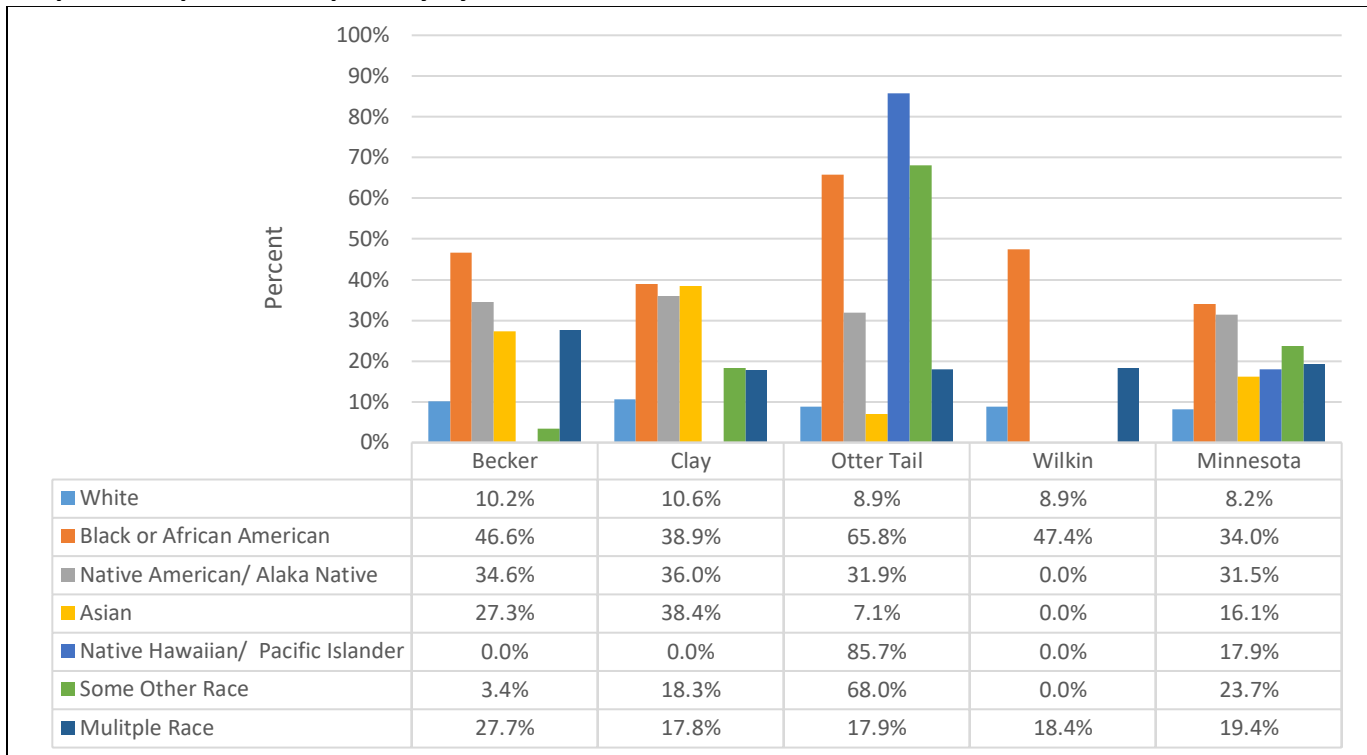
**Graph 12: Median income**



Source: United States Census Bureau. (n.d.). 2013-2017 American Community Survey 5-Year Estimates. *Income, Becker, Clay, Otter Tail and Wilkin counties, Minnesota*.

The P4H CHB's annual income is less than the state average with Wilkin County with the lowest (\$52,917).

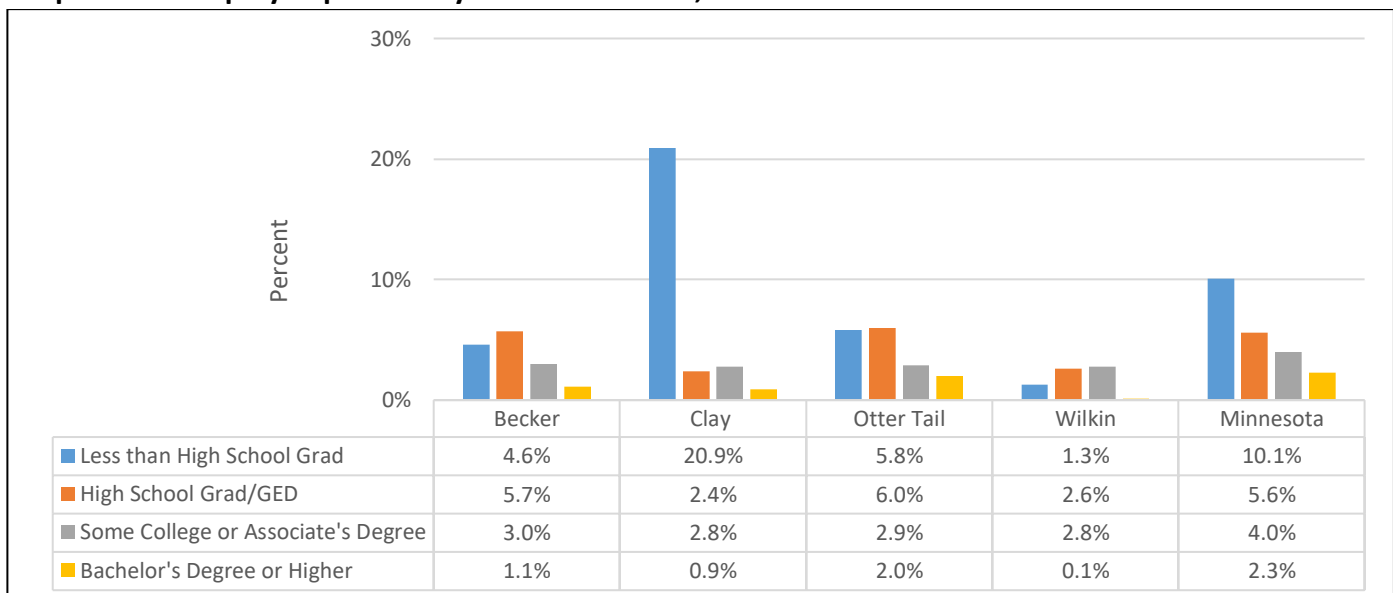
**Graph 13: Population in poverty by race**



Source: Community Commons. (n.d.). *Community health needs assessment*. Retrieved November 7, 2018 from <https://www.communitycommons.org/board/story/2019/03/04/chna/?page=2&id=779&reporttype=libraryCHNA>.

Otter Tail County shows the highest rate of Black/African Americans, Native Hawaiian/Pacific Islanders and other races living in poverty. Becker and Wilkin Counties, followed by Clay County, have a high rate of Black or African Americans living in poverty.

**Graph 14: Unemployed persons by education status, 2012-2016**



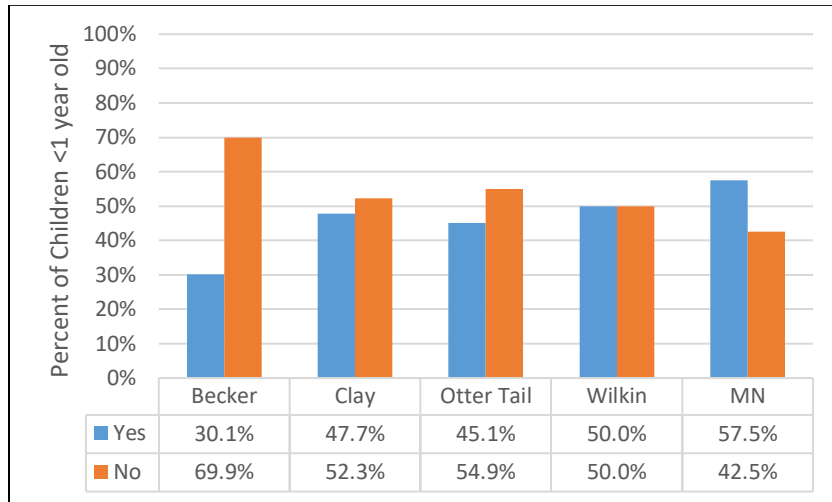
Source: United States Census Bureau. (n.d.). 2012-2016 American Community Survey 5-Year Estimates. *Unemployment by education status, Becker, Clay, Otter Tail and Wilkin counties, Minnesota*.

Clay County has a higher rate of unemployment among those who are not high school graduates than Becker, Otter Tail, and Wilkin Counties and the state.

## Nutrition

Breastfeeding provides the ideal first nutrition for infants. Despite progress, gaps in the rate of breastfeeding persist.

**Graph 15: WIC clients who have ever breastfed and are currently breastfeeding past 3 months of age, 2018**



Source: Minnesota Department of Health, WIC Program. (2018). *Breastfeeding in October 2018* [data set].

Wilkin County has the highest rate of WIC clients (50.0%) who have ever breastfed and are currently breastfeeding past 3 months of age. All four counties have lower rates than the state.

The randomized 2018 P4H CHB Community Survey sought to learn more about breastfeeding practices and supports within the geographic area:

**Table 2: Breastfeeding in the P4H CHB, 2018**

Breastfeeding	Becker	Clay	Otter Tail	Wilkin	P4H CHB
How likely are you to breastfeed exclusively	33.1%	42.9%	63.1%	15.1%	45.8%
Family encouragement to breastfeed	56.0%	64.0%	48.1%	54.6%	57.8%
Friend encouragement to breastfeed	52.6%	54.5%	48.1%	24.9%	51.5%
Provider encouragement to breastfeed	42.3%	57.3%	32.3%	37.6%	52.9%

Source: Partnership 4 Health, Community Health Board. (2018). *Community Health Assessment Survey*.

Women in Otter Tail County (63.1%) are more likely to exclusively breastfeed and less likely in Wilkin County (15.1%).

Lack of access to adequate nutrition also affects older children:

- Ninth-graders who report having to skip meals (an indicator of poverty) fare more poorly than all other groups on nearly every measure of concern in the Minnesota Student Survey, including all racial/ethnic groups and LGB students. In addition to not eating enough, they get less sleep, are bullied more often, are more likely to bully others, and are much more likely to attempt suicide.<sup>5</sup>

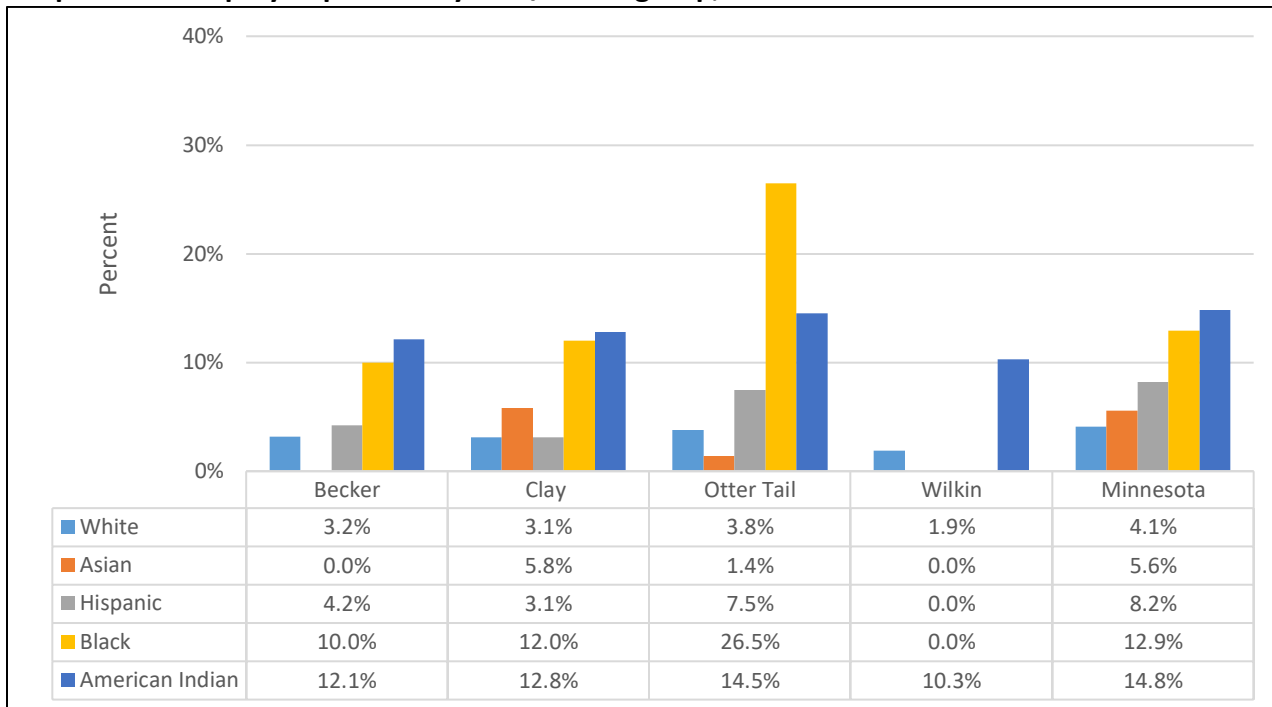
Worrying about being able to access food is a source of stress for families in the communities:

- According to the randomized 2018 P4H CHB Community Survey, 10.2% of persons reported they worry about food running out or not lasting

### Employment and Benefits

Paid work provides a source of income and connects us to people who may be a source of support, while offering a sense of purpose, meaning and belonging in the community. Employment provides people with opportunities for success and is the main way most people in Minnesota access health insurance.

**Graph 16: Unemployed persons by race/ethnic group, 2012-2016**



Source: United States Census Bureau. (n.d.). 2012-2016 American Community Survey 5-Year Estimates. *Unemployment by race/ethnic group, Becker, Clay, Otter Tail and Wilkin counties, Minnesota.*

American Indian people have a higher rate of unemployment in all four counties. Otter Tail County has a higher amount of unemployed African Americans (26.5%) compared to the other three counties and the state.

### Health Insurance and Access to Care

When people have health and dental insurance, they are more likely to access preventive care, including immunizations, cancer screenings, prenatal care, and dental care. Even with insurance, some do not seek care related to the expense, limited access to providers that accept their insurance plan, transportation barriers, or personal beliefs.

Of those who responded to the 2018 convenience sample survey, 37-40% of respondents identified health care costs as the most important issue facing their community and family.

In the P4H CHB, children and youth enrolled in Minnesota Medical Assistance and Minnesota Care are eligible for the Child & Teen Checkup program for preventive exams. Participation rates vary across the counties:

**Table 3: Eligible for Child and Teen Checkup Program, 2017**

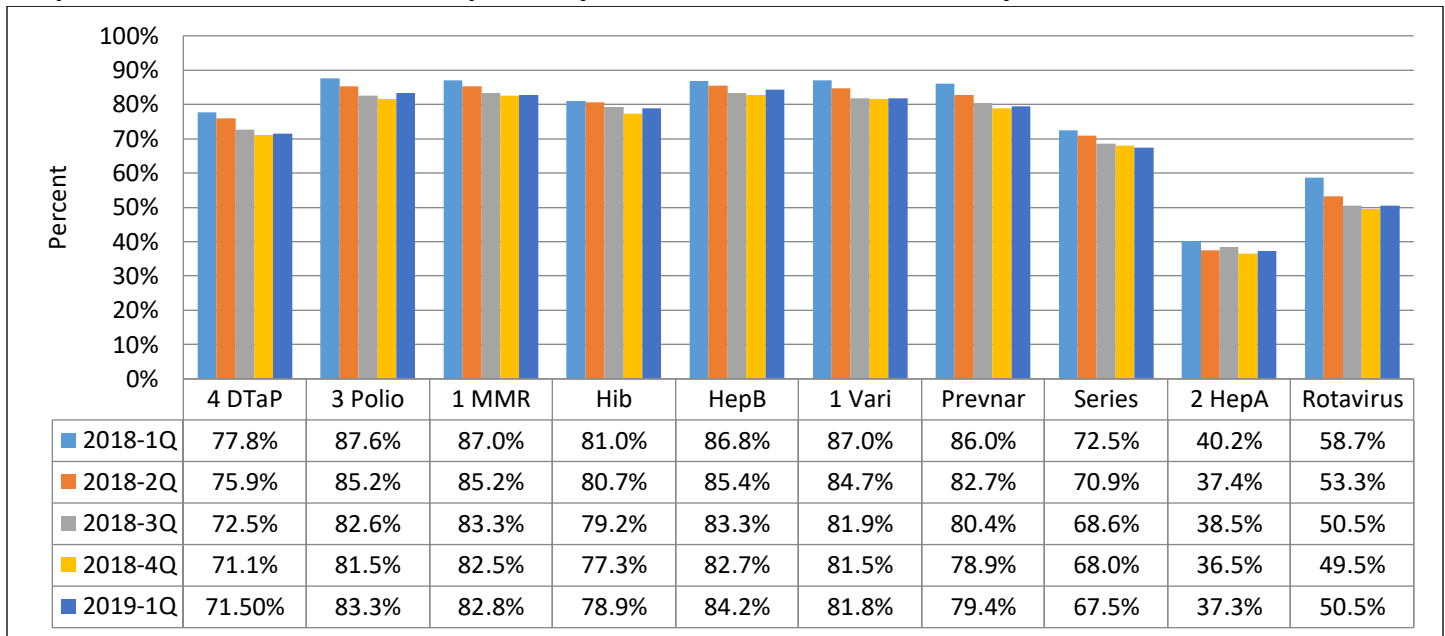
County	Number eligible	Participation rate
Becker	4,555	68.0%
Clay	8,240	75.0%
Otter Tail	7,580	63.0%
Wilkin	852	56.0%

Source: Minnesota Department of Health, Child and Teen Checkup Program. (n.d.). 2017 Child and Teen Checkup Program [dataset].

### Childhood Immunizations

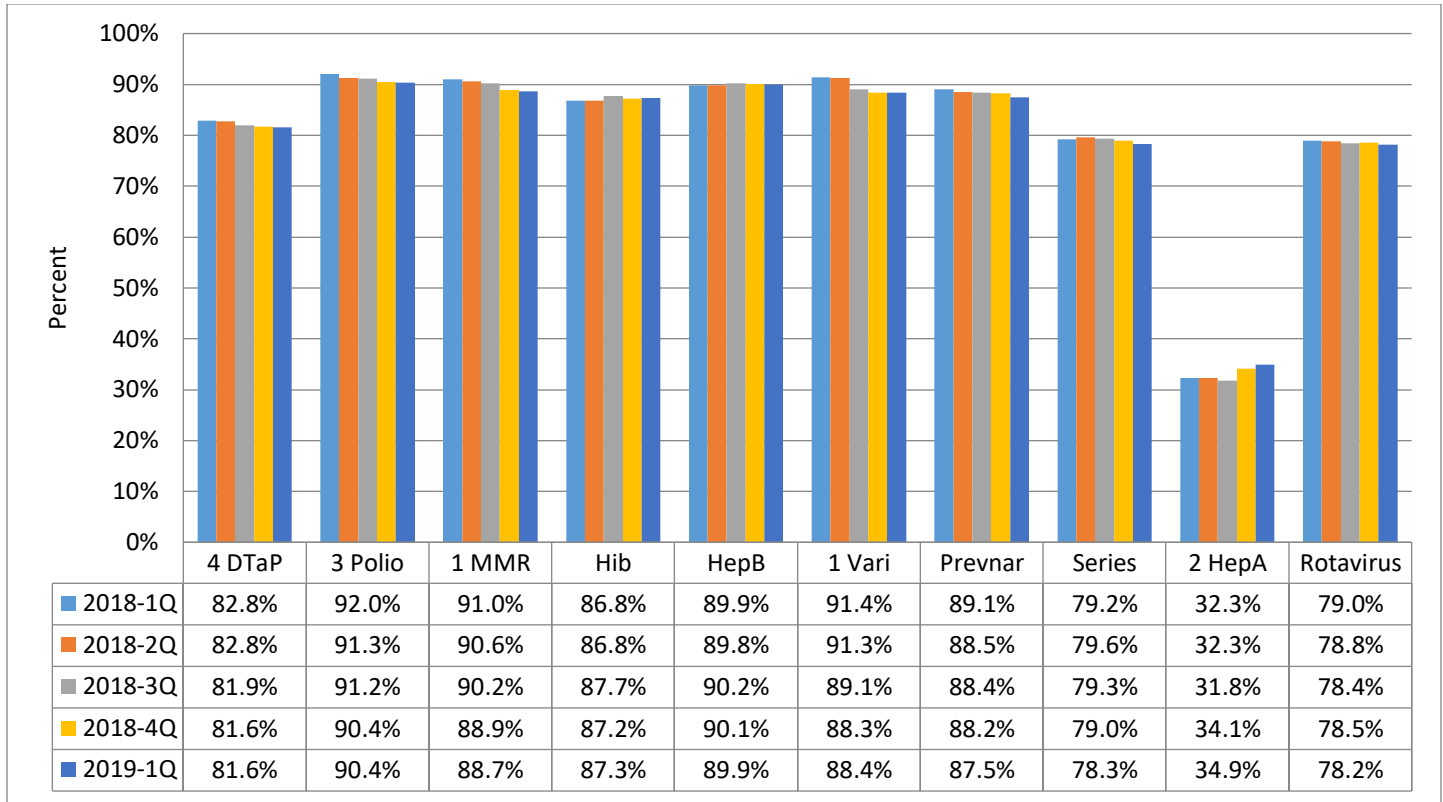
Vaccines prevent many infectious diseases, including chickenpox, measles, diphtheria, hepatitis, influenza, polio, pneumonia, and tetanus. Most vaccines are provided through private insurance. Minnesota Vaccines for Children Program covers children in the state who meet financial requirements.

**Graph 17: Immunization rates completed by 24-35 months in Becker County, 2018-2019**



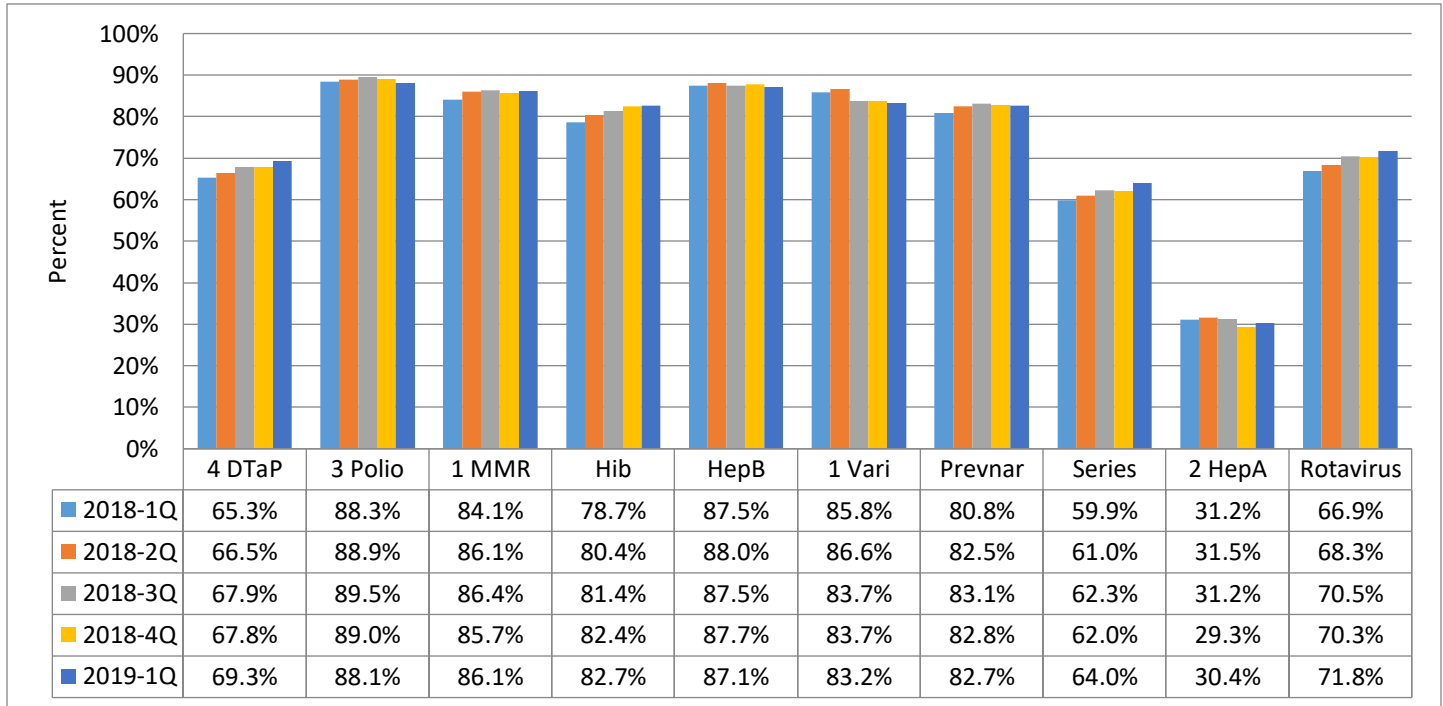
Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

**Graph 18: Immunization rates completed by 24-35 months in Clay County, 2018-2019**



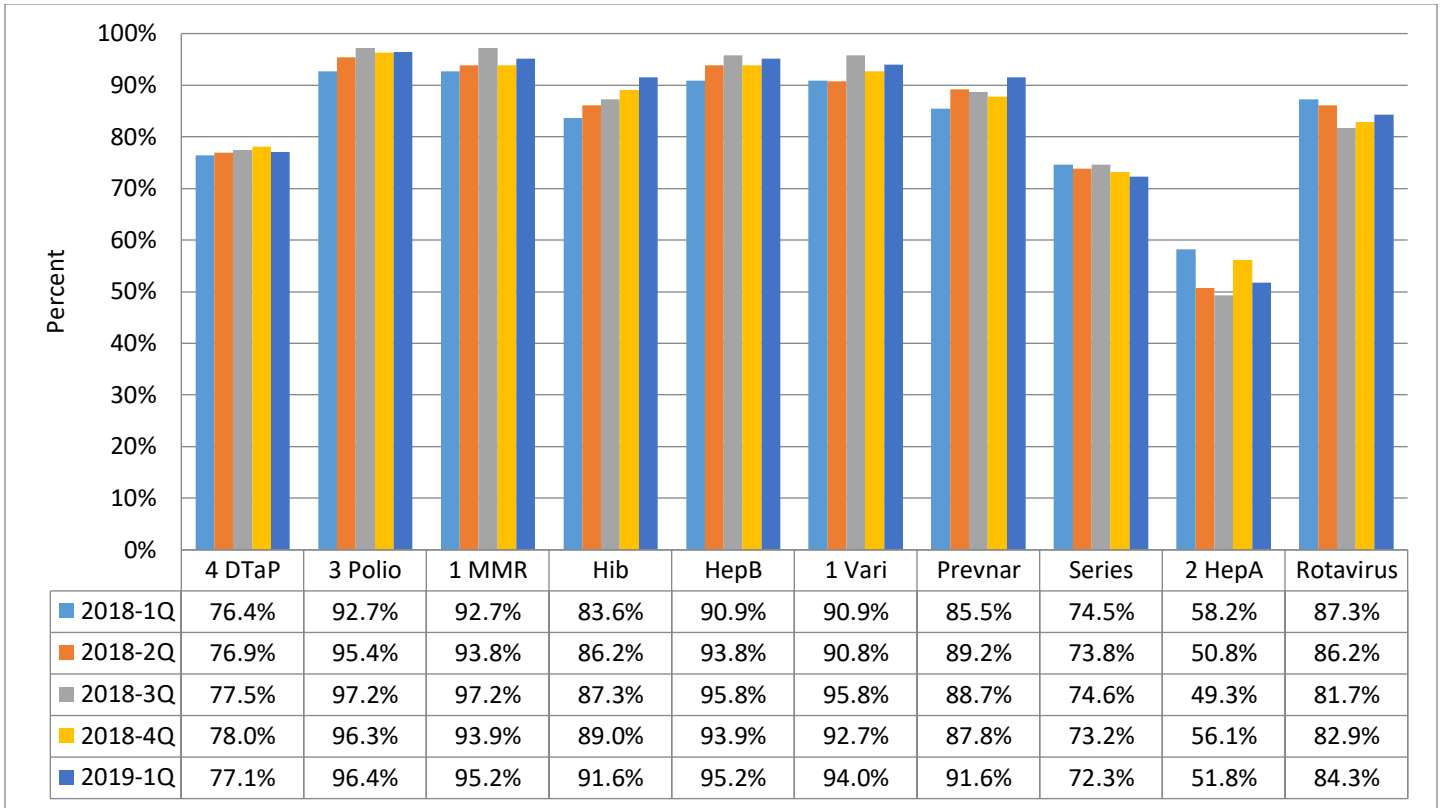
Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

**Graph 19: Immunization rates completed by 24-35 months in Otter Tail County, 2018-2019**



Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

**Graph 20: Immunization rates completed by 24-35 months in Wilkin County, 2018-2019**

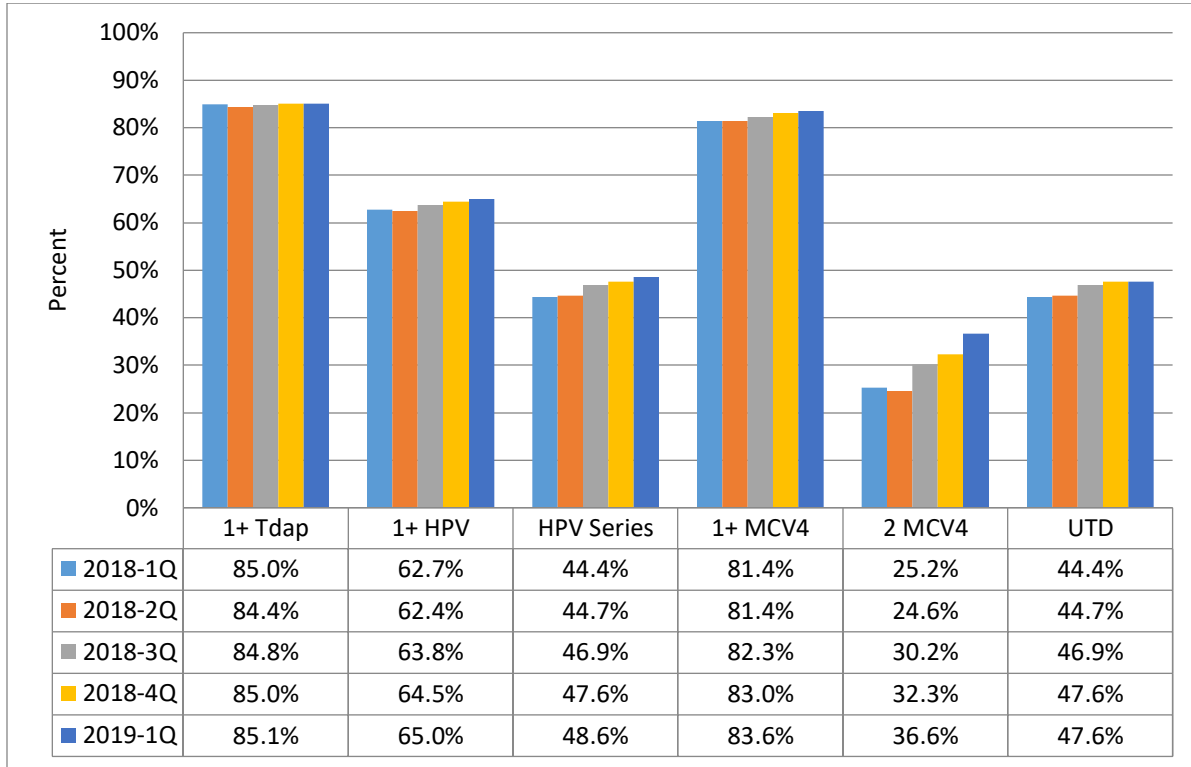


Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

Becker, Clay and Wilkin Counties' rate of children receiving the full series of vaccination by 24-35 months is higher than the state rate. Otter Tail County's rate (61.0%) is lower than the state rate.

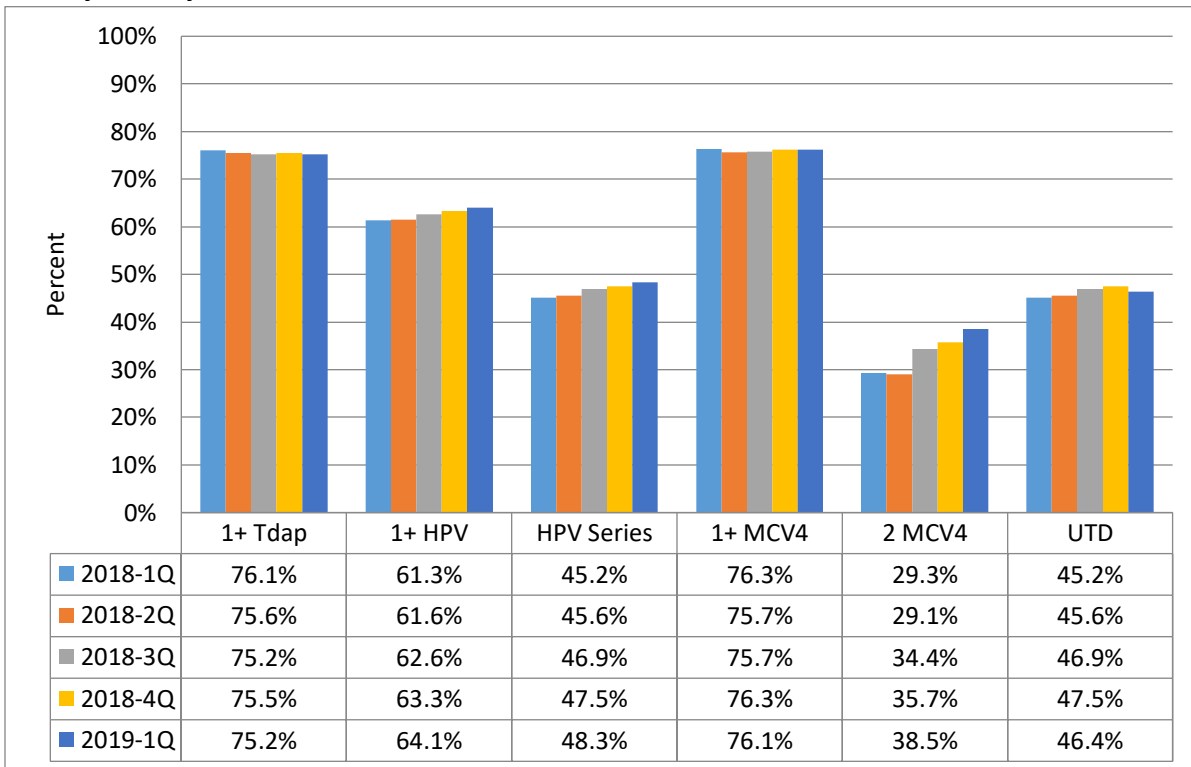


**Graph 21: Adolescents ages 13-17 who have received the recommended immunization series for age cohort in Becker County, 2018-2019**



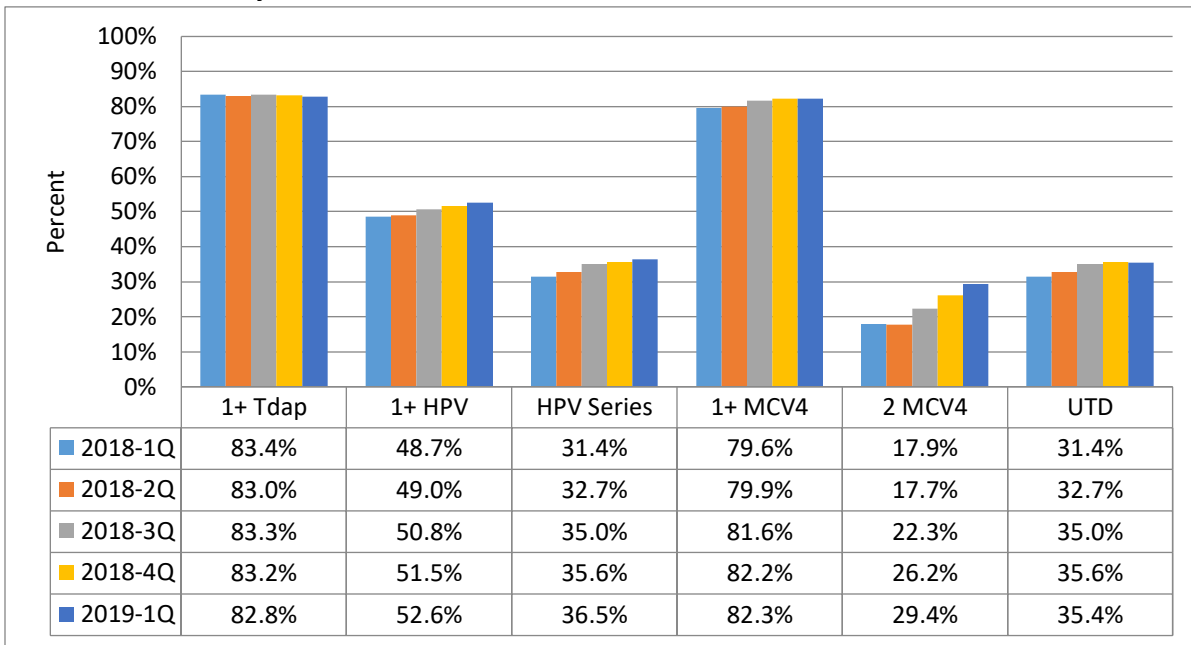
Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

**Graph 22: Adolescents ages 13-17 who have received the recommended immunization series for age cohort in Clay County, 2018-2019**



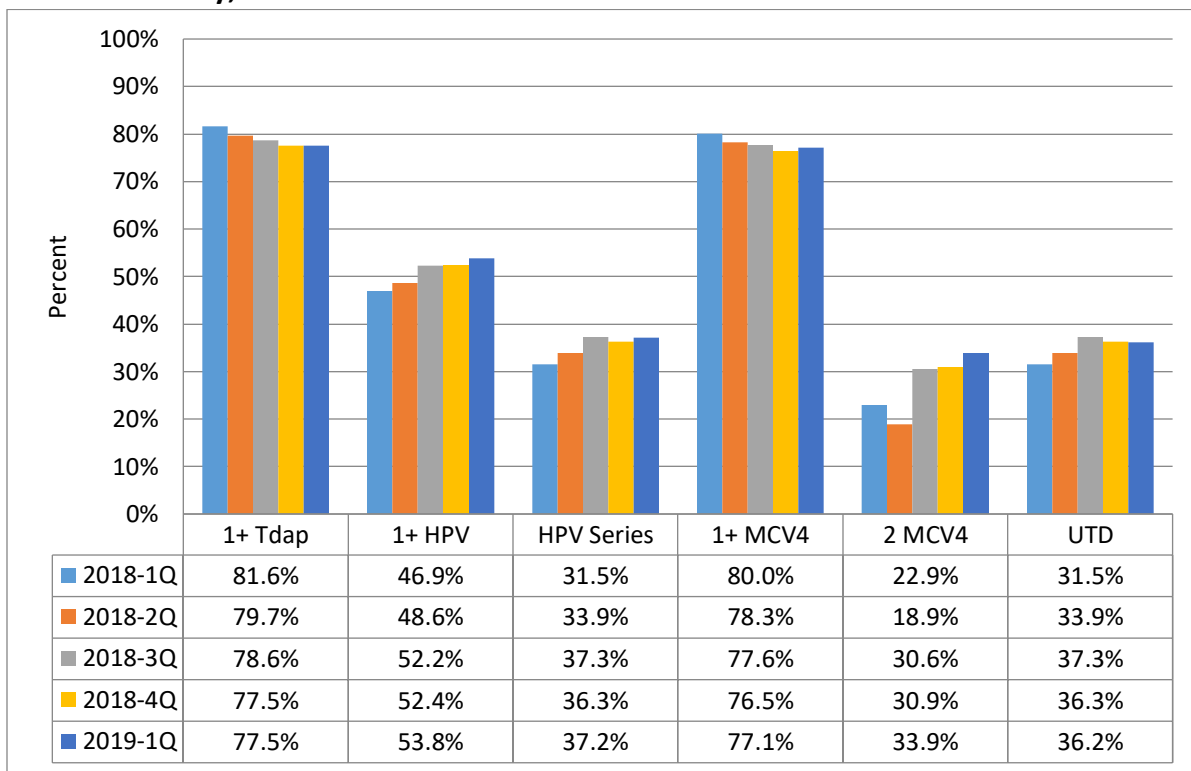
Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

**Graph 23: Adolescents ages 13-17 who have received the recommended immunization series for age cohort in Otter Tail County, 2018-2019**



Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

**Graph 24: Adolescents ages 13-17 who have received the recommended immunization series for age cohort in Wilkin County, 2018-2019**



Source: Southwest MIIC. (n.d.). 2018-2019 Immunizations [dataset].

Becker and Clay Counties have a higher than state rate for adolescents completing the recommended series of vaccinations. Otter Tail and Wilkin Counties are lower than the state rate for the series completion.

Of growing concern is the percentage of students that are not receiving immunizations:

**Table 4: Kindergarteners who are not vaccinated, 2017-2018**

Non-medical exemption					
Geographic area	DTap	Polio	MMR	Hep B	Varicella
Becker	4.7%	4.7%	4.7%	2.6%	3.2%
Clay	2.1%	2.0%	2.0%	2.1%	2.1%
Otter Tail	4.4%	3.9%	4.4%	4.5%	5.0%
Wilkin	0.0%	0.0%	0.0%	0.0%	0.0%
Minnesota	3.1%	3.1%	3.3%	2.8%	3.3%
Medical exemption					
Geographic area	DTap	Polio	MMR	Hep B	Varicella
Becker	0.0%	0.0%	0.0%	0.0%	0.0%
Clay	0.0%	0.0%	0.0%	0.0%	0.0%
Otter Tail	0.2%	0.2%	0.0%	0.2%	0.0%
Wilkin	0.0%	0.0%	0.0%	0.0%	0.0%
Minnesota	0.1%	0.1%	0.2%	0.1%	0.2%

Source: Minnesota Department of Health. (n.d.) *School Immunization Data*. Retrieved June 5, 2019 from <https://www.health.state.mn.us/people/immunize/stats/school/index.html#vaxexempt>.

Becker and Otter Tail Counties' rates of kindergarteners who are not vaccinated are higher than the state rate.

**Table 5: Seventh graders who are not vaccinated, 2017-2018**

Non-medical exemption							
Geographic area	DTap	Polio	MMR	Hep B	Varicella	Tdap	Meningococcal
Becker	0.8%	0.8%	1.5%	1.0%	1.7%	2.2%	2.2%
Clay	1.0%	1.3%	1.0%	0.9%	1.3%	1.2%	1.3%
Otter Tail	2.2%	2.2%	2.5%	2.7%	3.5%	2.2%	2.4%
Wilkin	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Minnesota	1.8%	1.8%	2.0%	1.7%	2.4%	2.3%	2.5%
Medical exemption							
Geographic area	DTap	Polio	MMR	Hep B	Varicella	Tdap	Meningococcal
Becker	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Clay	0.0%	0.0%	0.1%	0.5%	0.1%	0.1%	0.1%
Otter Tail	0.0%	0.0%	0.2%	0.2%	0.2%	0.2%	0.2%
Wilkin	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Minnesota	0.1%	0.1%	0.1%	0.1%	0.3%	0.1%	0.1%

Source: Minnesota Department of Health. (n.d.) *School Immunization Data*. Retrieved June 5, 2019 from <https://www.health.state.mn.us/people/immunize/stats/school/index.html#vaxexempt>.

Otter Tail County has a higher rate of seventh graders who are not vaccinated than state rates.

Human papillomavirus (HPV) vaccination is a preventive measure for HPV-associated cancers. This vaccine is provided to adolescents.

**Table 6: HPV series completed**

County	Percent
Becker	24.0%
Clay	33.0%
Otter Tail	17.5%
Wilkin	19.8%
Minnesota	20.8%

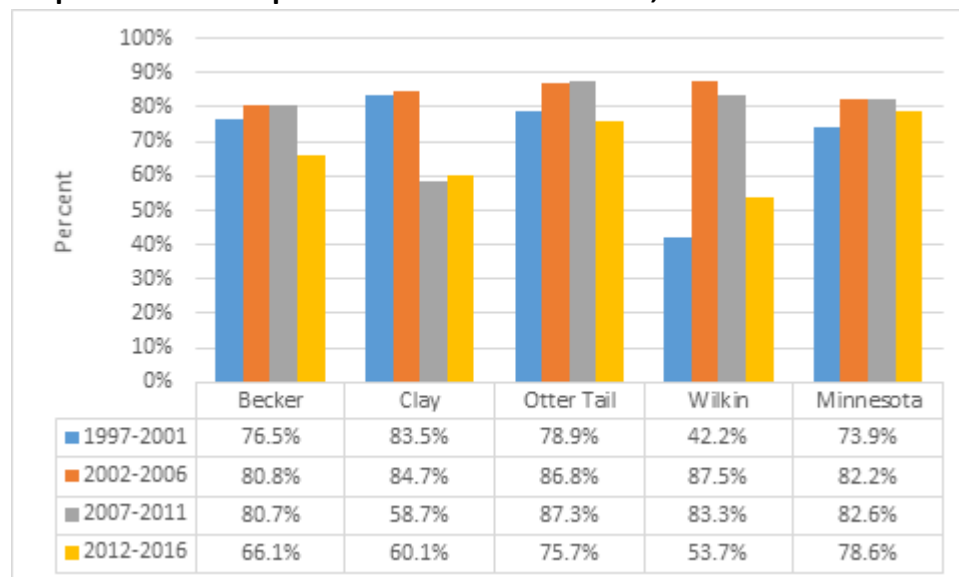
Source: Minnesota Department of Health, Minnesota Public Health Data Access. (n.d.). *Adolescent Immunizations*. Retrieved June 5, 2019 from <https://mndatamaps.web.health.state.mn.us/interactive/adolescentimmunizations.html>.

Becker and Clay Counties have higher rates of HPV series completion than the state. Otter Tail and Wilkin Counties' rates are lower than the state.

### Access to Prenatal Care

Prenatal visits help keep both pregnant women and their babies healthy. Prenatal care reduces the risk of pregnancy related complications for babies, such as anemia, preterm birth, and low birth weight. For mothers, these visits reduce the risk of complications like preeclampsia, diabetes, and hypertension. Mothers who do not receive adequate prenatal care are also less likely to receive information about breastfeeding.

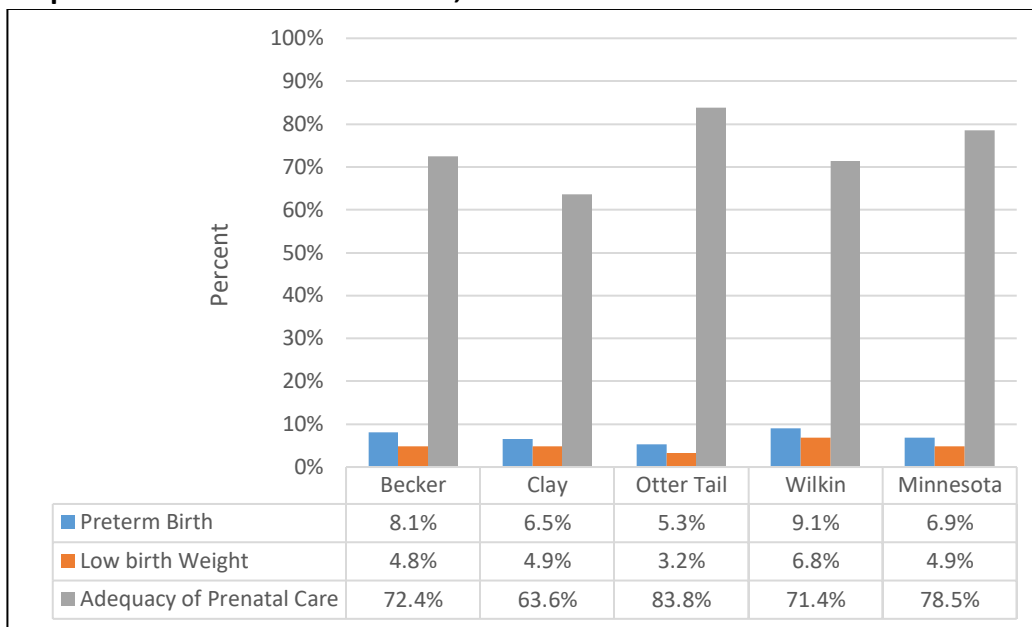
**Graph 25: Received prenatal care in 1<sup>st</sup> trimester, 1997-2016**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (n.d.). *Minnesota County-level Indicators for Community Health Assessment*. Retrieved November 7, 2018, from <https://www.health.state.mn.us/data/mchs/genstats/trends/index.html>.

In the 2012-2016 time period all counties in P4H CHB fall below the state average for women receiving prenatal care in the 1<sup>st</sup> trimester of pregnancy.

**Graph 26: Prenatal care outcomes, 2016**



Source: Minnesota Department of Health, Minnesota State, County, and Community Health Board Vital Statistics Trend Report. (n.d.). *1997-2016 Vital Statistics Trend Report*. Retrieved November 7, 2018 from <https://www.health.state.mn.us/data/mchs/genstats/trends/index.html>.

Otter Tail County has the lowest rates of preterm and low birth weights, resulting in better prenatal outcomes. Wilkin County has the highest rates of preterm and low birth weights, followed by Becker County.

### Access to Dental Care

For children, untreated tooth decay can cause pain and infections that may lead to problems with eating, speaking, playing, and learning.<sup>7</sup>

There is a lack of dental service available to residents on Medical Assistance, especially those that are disabled and elderly. According to county waiver case managers, local access providers are not taking new patients. For existing clients there can be a considerable wait time, often 3-6 months. Families and adults are referred out to other areas in the region. This can add the additional barrier of transportation needs.

The Early Childhood Dental Network in West Central Minnesota has been addressing access to dental care for young children. This community collaborative comprised of schools, head start, community action, and public health agencies have been instrumental in the creation of the Apple Tree Dental Clinic based in Fergus Falls and Hawley; Caring Hands Dental Clinic in Alexandria and Children’s Dental Services Clinics. These clinics provide portable dental clinics in Detroit Lakes, Moorhead, New York Mills, Pelican Rapids, and Breckenridge.

The Dental Outreach Clinics sponsored by the Early Childhood Dental Network are specifically designed to provide dental services to children between the ages of 1 and 12 years of age. Dental health staff will be available to provide all dental services for children covered by Minnesota Health Care Programs.

Children’s Dental Services (CDS) are also available in Clay County and Breckenridge. CDS serves children from birth to 26 years old (up to 21 without insurance) and pregnant woman of all ages, regardless of family income. They accept all insurance and MA. They have staff members available to speak to clients in 20 different languages.

Persons completing the non-generalizable email survey conducted in the four counties in 2018 identified lack of access to dental insurance as a major barrier to seeking dental care.

**Table 7: Child and Teen Checkup children receiving any type of dental or oral health care, 2017**

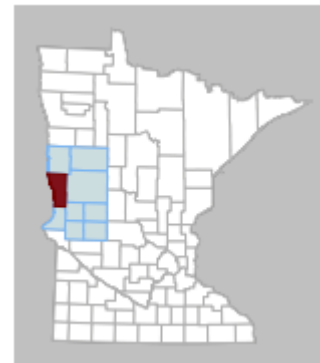
County	Percent
Becker	45.0%
Clay	38.0%
Otter Tail	43.0%
Wilkin	35.0%

Source: Minnesota Department of Health, Child and Teen Checkup Program. (n.d.). *2017 Child and Teen Checkup Program* [dataset].

## Housing

We all need a safe place to live that is not so expensive that we cannot afford other necessities. Stable housing provides a critical foundation for daily living and health. When such housing is out of reach, we may end up living in places that are overcrowded or do not meet basic health and safety standards.

According to Wilder Research (Minnesota Homeless Study, 2015), West Central Minnesota had 269 people who identified as homeless on October 22, 2015. Of those who identified as homeless, 194 individuals were in shelters and 75 individuals in non-shelter locations.



**HOMELESSNESS:** Across the state, homelessness has declined since 2012, but too many families, seniors and children in the West Central region are still suffering the devastating consequences of having no place to call home.

# of homeless on given night in 2015

**269**

% change in homelessness 2012-2015

**-14%**



Number of homeless CHILDREN

**99**

homeless SENIORS

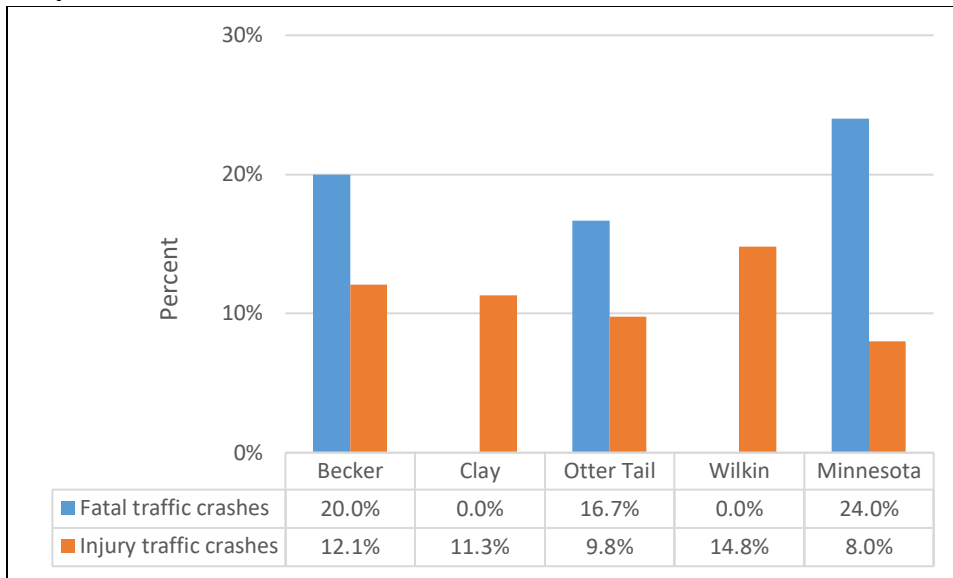
**20**

## Transportation

Transportation is key to daily activities, including access to food, health care, and connections to family, friends, and faith communities.

- Otter Tail County ranks in the top “Deadly 13” Counties for traffic crashes.
- Most driving-related deaths were caused by alcohol-impaired driving, driving too fast (unsafe speed), and driver distraction/inattention

**Graph 27: Alcohol related traffic crashes, 2017**



Source: Minnesota Department of Public Safety, Office of Traffic Safety. (2019). *Minnesota impaired driving facts, 2017*. Retrieved November 7, 2018 from <https://dps.mn.gov/divisions/ots/reports-statistics/Documents/2017%20IDF.pdf>.

In the P4H CHB, traffic related fatalities are lower than the state rate, but traffic crashes resulting in injuries are higher than the state rate.

Rural areas have limited access to sources of public transportation. Public transportation is only available in Moorhead, Fergus Falls, Perham, Breckenridge and Detroit Lakes. Volunteer driver systems, family, and friends provide transportation for persons living in smaller communities and townships. Health plans that offer transportation assistance require up to 3-day prior notification to authorize a ride. This creates a barrier for persons needing a same day appointment due to the onset of an acute illness.

At a Becker County focus group of consumers with mental health diagnoses, after hours transportation came up as a community need. They especially stated that hours after the typical working day are especially difficult. This limits their ability to find jobs that require evening or weekend hours. They also shared it is difficult to participate in any activities that are in the evenings or on weekends.

Focus group participants from Richland and Wilkin County, which included social workers, nurses and other professionals, indicated transportation was an issue for their cliental of all ages. Most of the cliental are on MA or a MN health plan. When the cliental were surveyed very few identify transportation as an issue.

Clay County staff report clients state the bus route does not work for them because it does not go far enough south to their homes, the distance to the bus stop is too far to walk in cold icy conditions and it does not run at night, or on weekends and holidays. Rural residents find it hard to find rides for appointments and shopping.

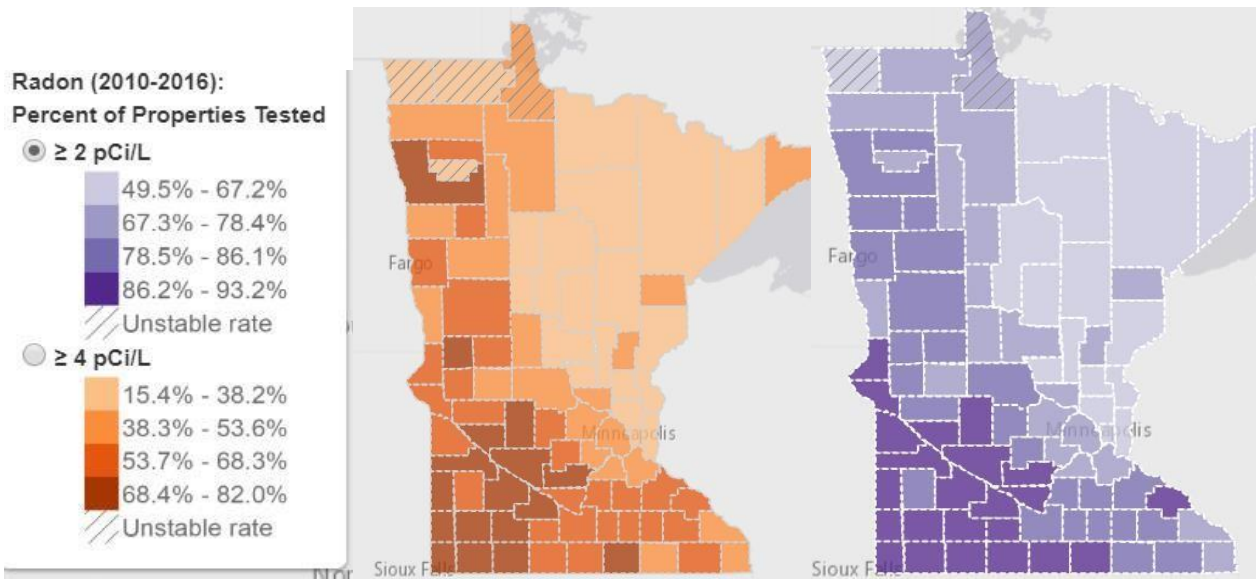
Otter Tail County public transportation is requested to be scheduled in advance. This can be a limiting factor for access. In addition, routes and hours are limited. Rural residents in Otter Tail County also find it hard to access rides for appointments and shopping.

Response time for emergency services is challenging in rural areas due to the geographic areas covered by an ambulance service. Advanced Life Support Services are based in Moorhead, Detroit Lake, Perham, Fergus Falls, Pelican Rapids, and Breckenridge. Basic Life Support Services are based in Henning, and Parkers Prairie. First

Responder units through fire departments are deployed to provide services, however they cannot transport patients.

## ENVIRONMENT (nature)

Radon is a colorless, odorless radioactive gas that naturally comes from the soil. About 40 percent of Minnesota homes have elevated levels of radon. In winter, heating systems tend to draw in radon gas from the soil, increasing radon levels inside our homes, schools, and other buildings.

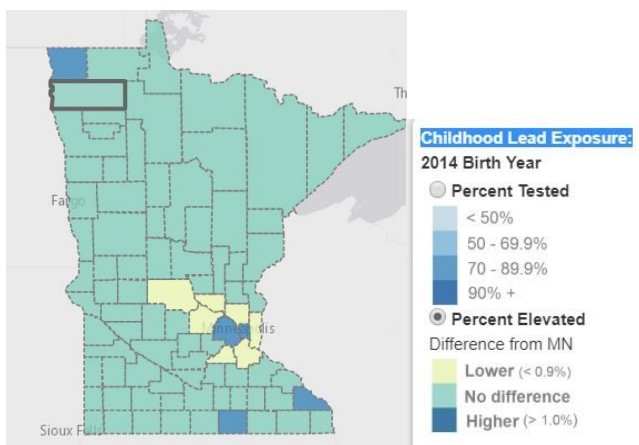


Map 3 and 4: Radon

Source: Minnesota Department of Health (n.d.) *Radon in Minnesota*. MDH Indoor Air Unit fact sheet.

<https://sosradon.org/files/sosradon/MN%20Radon%20Facts.pdf>.

Lead-based paint was banned in 1978. When children under age six ingest lead (usually through the dust from lead paint), they can develop problems with brain function and behavior that last a lifetime. Older housing, especially housing built before 1950, is a risk factor for childhood lead exposure.



Map 5: Lead exposure

Source: Minnesota Department of Health, Minnesota Public Health Data Access. (n.d.). *Childhood lead exposure*. Retrieved November 13, 2018, from

<https://data.web.health.state.mn.us/lead>.



**Table 8: Childhood lead exposure, 2014**

County	Children tested	With elevated levels
Becker	324	1
Clay	711	5
Otter Tail	459	3
Wilkin	58	2
Minnesota	56,312	564

Source: Minnesota Department of Health, Minnesota Public Health Data Access. (n.d.). *Childhood lead exposure*. Retrieved November 13, 2018, from <https://data.web.health.state.mn.us/lead>.

In the P4H CHB, children with elevated lead levels are lower than state levels.

Nitrate in groundwater and surface water is closely tied to land use practices. Over half of Minnesota’s land is used for agriculture.

**Table 9: Nitrate levels in private wells**

County	# of wells tested	# of wells over the health standard	Final/initial results year
Becker	200	2	2016, initial
Clay	1159	0	2017, initial
Otter Tail	2, 276	1	2015-2017, final
Wilkin	Not tested	Not tested	Not tested

Source: Minnesota Department of Agriculture. (2018). *Township testing program: Background on nitrate-nitrogen*. Retrieved November 13, 2018 from <http://www.mda.state.mn.us/township-testing-program#Results>.

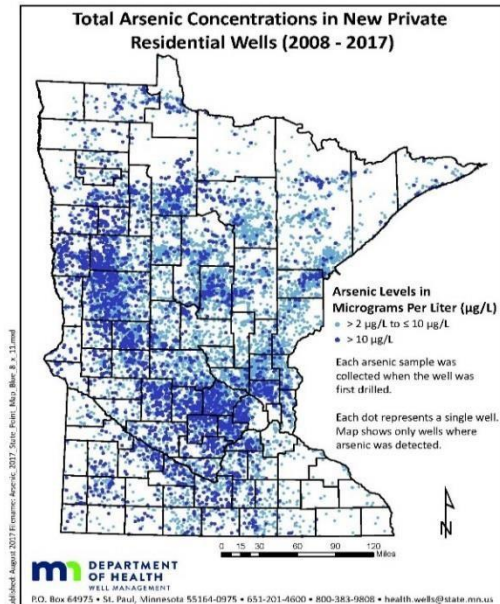
Arsenic occurs naturally in Minnesota water, mostly as a result of glacial deposits; levels differ due to

geography. Some counties have more arsenic because of how the sediment was deposited and where conditions are right to release arsenic into the water. Arsenic is very expensive to remove from water.

Since 2008, all new private wells in Minnesota must be tested for arsenic. In October 2001, EPA established a standard of 10 micrograms (µg) per liter for arsenic in drinking water; anything above this level is deemed to increase risk to the public’s health.

Public water supplies are monitored and treated for arsenic. Private well owners may be at higher risk for exposure to arsenic, because they are personally responsible for testing and treating their own drinking water.

Becker and Otter Tail Counties have more wells with high levels of arsenic, followed by Clay and Wilkin.



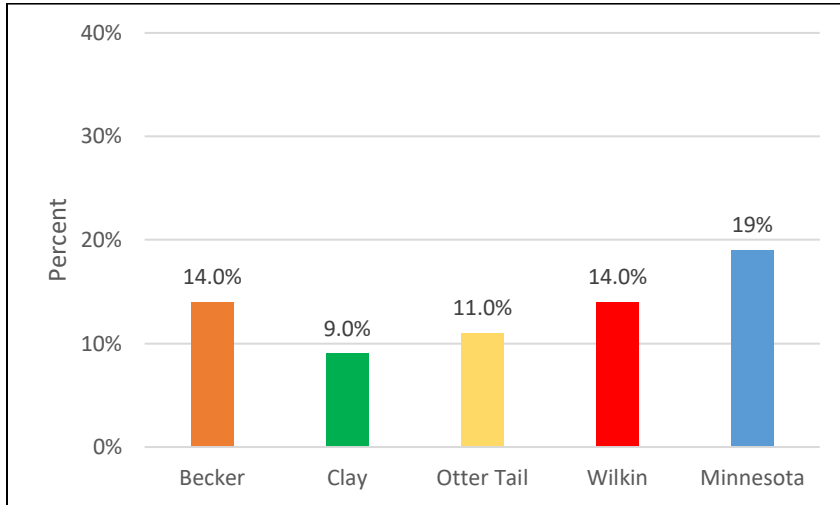
Map 6: Arsenic Source: <https://mndatamaps.web.health.state.mn.us/interactive/wells.html>

## Food

A healthy eating pattern including nutrient-rich foods like fruits and vegetables that is low in added sugars, saturated fat, and sodium reduces the risk for heart disease, diabetes, stroke, and some cancers, and helps manage body weight. An individual's income and life circumstances make healthy food choices difficult. Less than half of the ninth graders eat fruit more than one a day,<sup>8</sup> even less eat a green salad or other vegetables daily.

There are food deserts, areas in which it is difficult to buy affordable good-quality fresh food, especially in rural areas. The absence of nearby stores affects what people eat. Wilkin County has one grocery store in the entire county.

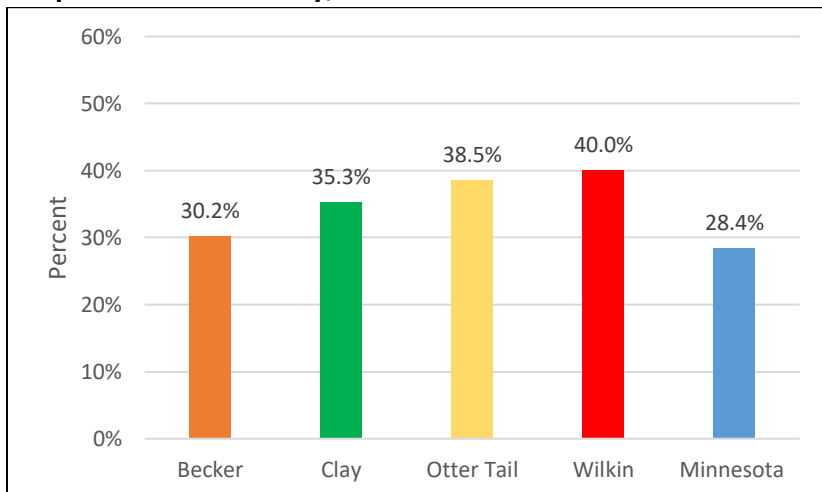
**Graph 28: 9<sup>th</sup> graders who are obese according to BMI, 2016**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

In the P4H CHB, 9<sup>th</sup> graders are below the state average in obesity according to BMI.

**Graph 29: Adult Obesity, 2018**



Source: Partnership 4 Health, Community Health Board. (2018). *Community Health Assessment Survey (mailed/randomized)*.

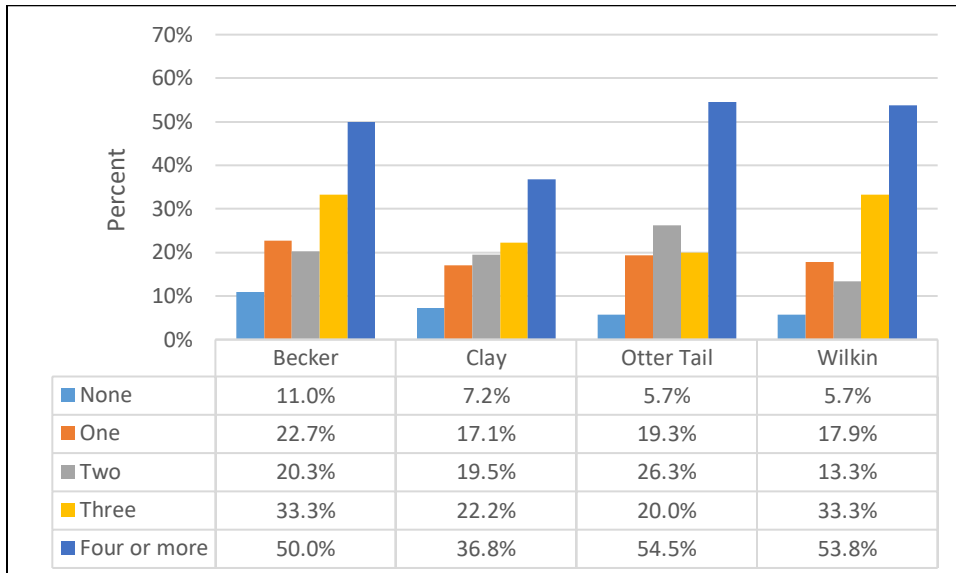
In the P4H CHB, the adult population's obesity rates are higher than state rates. Wilkin and Otter Tail Counties have the highest obesity rates (40.0% and 38.5% respectively).

## Tobacco

Otter Tail County was the first county in the state to pass a T21 ordinance with a unanimous vote 4-0. The phase in process started on January 1, 2019. Wilkin County passed a T21 ordinance that will go into effect September 1, 2019. Even though they are experienced in childhood, Adverse Childhood Events (ACEs) have a powerful effect on our entire lives. This is especially true for smoking.

- Between 2013 and 2016, the smoking rate of 11<sup>th</sup> graders declined by over 30%.<sup>9</sup> Significant disparities in smoking rates remain, however, when adverse childhood experiences are considered.

**Graph 30: Students who reported 30-day use of any tobacco product, including E-cigs by ACEs score, 2016**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

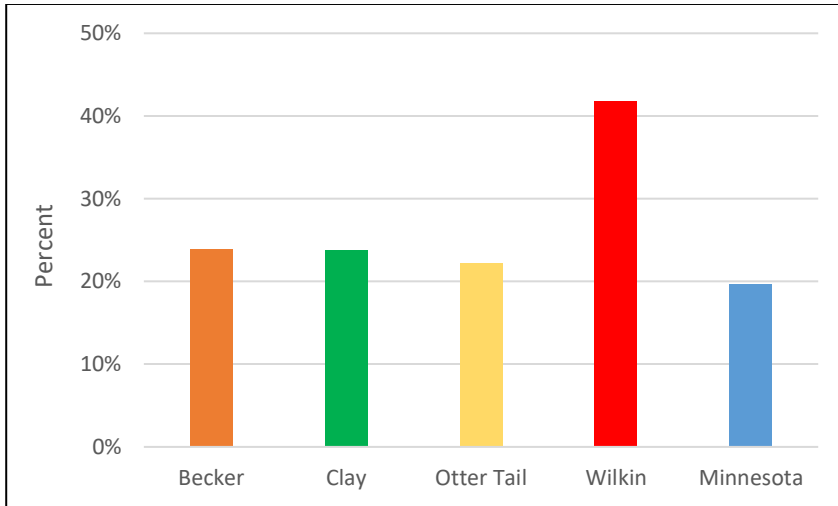
Students in Becker, Clay, Otter Tail and Wilkin Counties with four or more ACEs are 5 times more likely to use tobacco products.

## Binge Drinking

People binge drink for many reasons. For men, binge drinking is generally defined as having five or more drinks in a short amount of time; for women it is defined as having four or more drinks in the same short time period.<sup>10</sup> Binge drinking is associated with many health problems, including injuries, suicide, sexual assault, domestic violence, liver disease, poor control of diabetes, and cardiovascular disease. Problematic drinking or alcoholism of a household member is itself an adverse experience for children.<sup>11</sup>

According to the 2017 Minnesota Crash Statistics by County from the Minnesota Department of Public Safety, DWI's issued in Becker county were 235, Clay county 407, Otter Tail 305 and Wilkin 38.<sup>15</sup> The Breckenridge Chief of Police reported 27 DWI's in 2018, up from 26 DWI's in 2017.

**Graph 31: Adults who drink excessively**



Source: Community Commons. (n.d.). *Community health needs assessment*. Retrieved November 7, 2018 from <https://assessment.communitycommons.org/CHNA/report?page=1&id=725&reporttype=libraryCHNA>.

In the P4H CHB, Wilkin County has the highest rate of adults drinking excessively (41.8%). All four counties are higher than the state rate.

### **Incarceration**

Incarceration disrupts belonging and creates trauma for families and children. When a parent is in prison or jail, children are more likely to experience economic hardship, unpredictable family relationships, difficulty with school, mental and physical health issues, risky behaviors such as drinking alcohol, and stigma.<sup>12</sup>

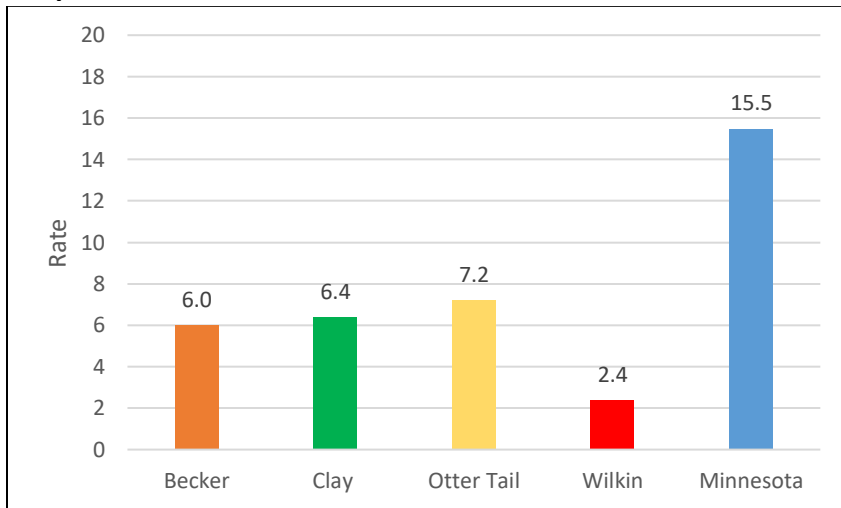
**Graph 32: Major criminal filings, 2017**



Source: Minnesota Judicial Branch (n.d.). *Data dashboard*. Retrieved November 14, 2018 <http://www.mncourts.gov/Help-Topics/Data-Requests/Dashboards.aspx>.

Overall, Clay County has more major criminal filings than the other counties. Clay County has a high level of gross misdemeanor DWI's followed by Otter Tail County. Drug filings are also high in Clay and Otter Tail Counties.

**Graph 33: Children arrested for a serious crime, 2011**



Source: KIDS COUNT. (2019). *KIDS COUNT indicators*. Retrieved November 8, 2018 from <https://datacenter.kidscount.org/data/customreports/3829,3840,3882,3910/1782,1784,1801-1802,1841,1843>.

Serious crimes are defined as Part I crimes: murder, rape, robbery, aggravated assault, burglary, larceny, vehicle theft and arson. In the P4H CHB, all counties are below state rates.

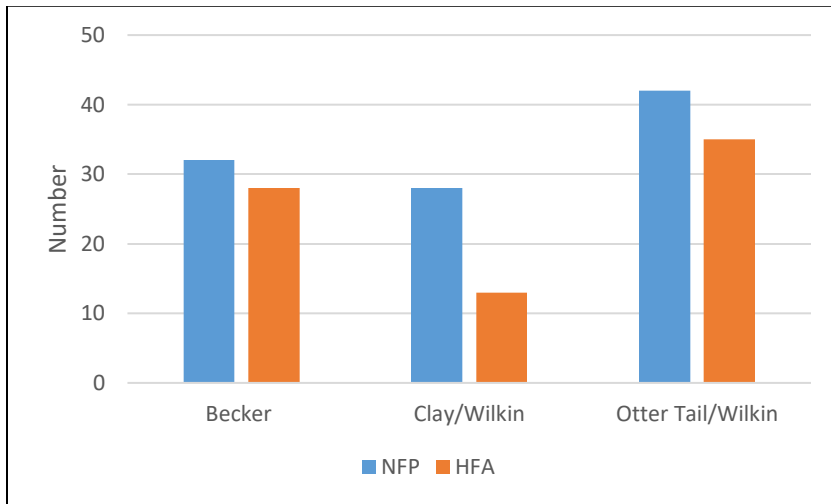
## MENTAL WELLBEING

### Adverse Childhood Experiences

Childhood experiences, both positive negative, have a tremendous impact on their future. Adverse childhood experiences (ACEs) have been linked to risky health behaviors, chronic health conditions, low life potential, and early death.

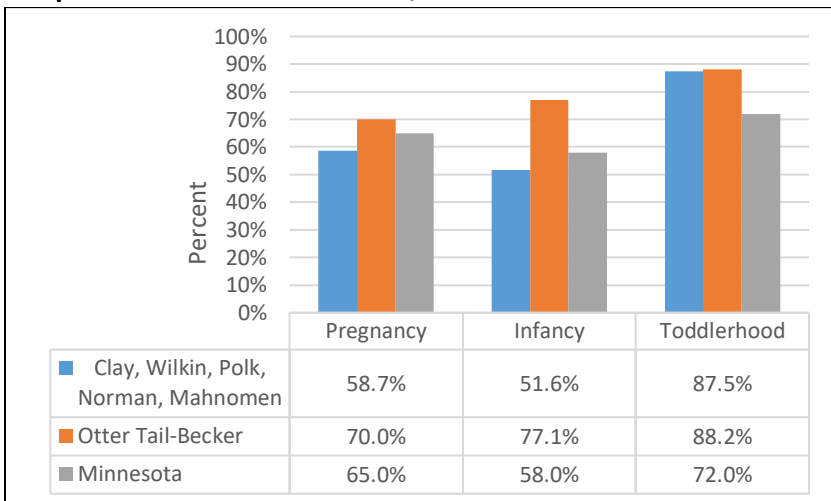
Home visiting programs such as the Nurse Family Partnership (NFP) and Healthy Families America (HFA) for pregnant women and families with newborns have demonstrated a positive impact to prevent ACEs before they happen. Other strategies to address the needs of children and their families include parenting training programs, intimate partner violence prevention, social supports for parents, parent support programs for teens and teen pregnancy prevention programs, mental illness and substance abuse treatment, high quality childcare, and sufficient income support for lower income families. Public health agencies are partnering with their local Family Services Collaborative to address the impacts of trauma on our children.

**Graph 34: NFP/HFA families that were served, 2017**



Source: Kristi Wentworth, Family Health Supervisor, Otter Tail County and Jamie Hennen, Director of Nursing, Clay County.

**Graph 35: NFP client retention, 2017**

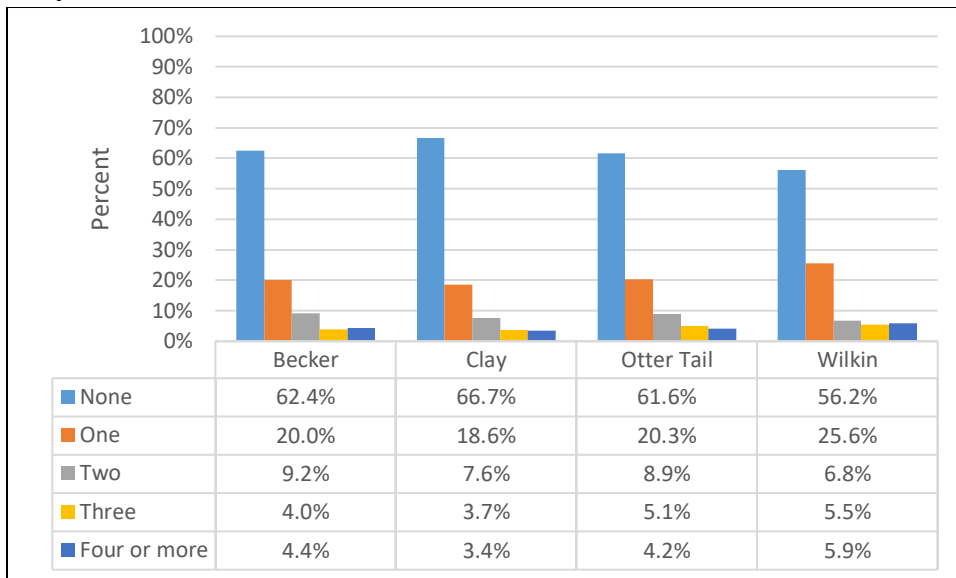


Source: Kristi Wentworth, RN, BSN, PHN Family Health Supervisor, Otter Tail County, and Elizabeth Bjur, RN, BSN, PHN, Clay County.

In 2017, P4H CHB served 76 families with HFA. Otter Tail, Becker, Clay, Wilkin, Polk, Norman, and Mahnomen counties served 99 families with NFP.

Negative experiences, especially adverse childhood experiences, or ACEs, also shape lifelong health. ACEs are traumatic events in life occurring before a child turns 18. Nine different types of ACE have been studied: physical abuse, sexual abuse, verbal abuse, mental illness of a household member, problematic drinking or alcoholism of a household member, illegal street or prescription drug use by a household member, divorce or separation of a parent, witnessing domestic violence towards a parent, and incarceration of a household member.

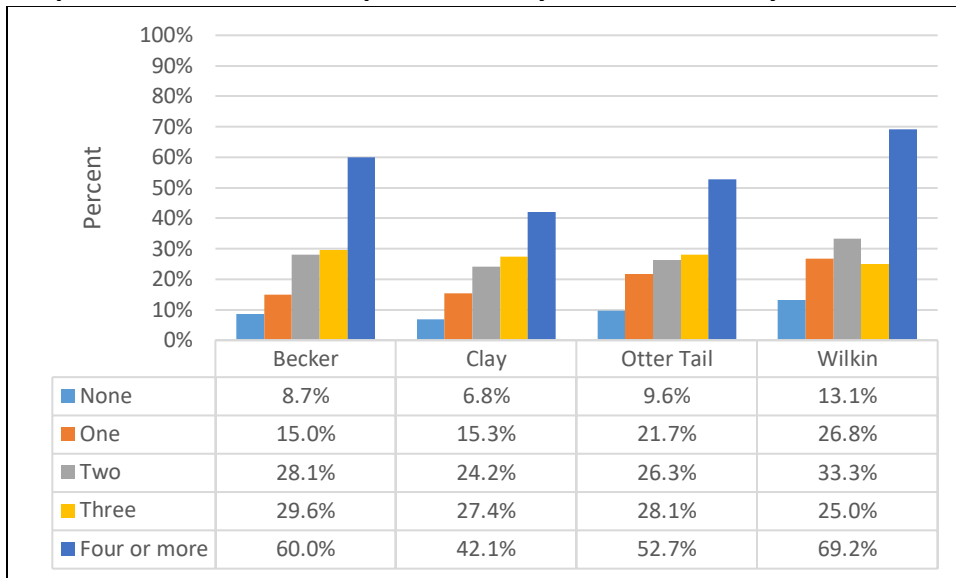
**Graph 36: Student ACEs score, 2016**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

The more ACEs we experience, the more likely we are to have health problems later in life. In the P4H CHB, Becker (62.4%), Clay (66.7%), and Otter Tail (61.6%) Counties have over 60% of students with zero ACEs and Wilkin County is at 56.2%.

**Graph 37: Students who reported 30-day use of alcohol by ACEs score, 2016**

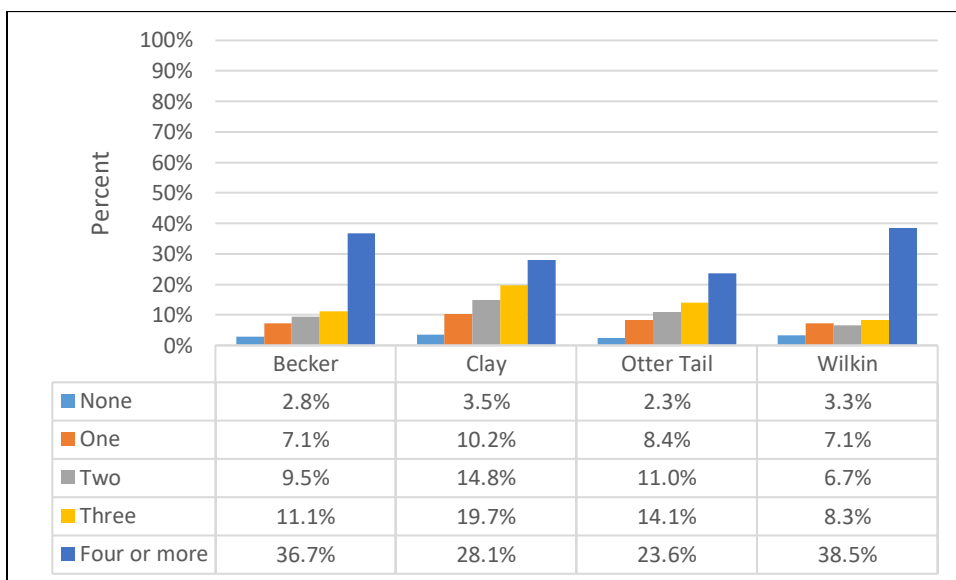


Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

Students in the P4H CHB with four or more aces have a higher rate of 30-day use of alcohol. Wilkin (69.2%) and Becker (60.0%) Counties have 60% or more students (with four or more ACEs) who report using alcohol in the last 30 days.

The Chief of Police in Breckenridge reported calls for underage drinking went from 29 in 2017 to 25 in 2018.

**Graph 38: Students who reported 30-day use of marijuana by ACEs score, 2016**

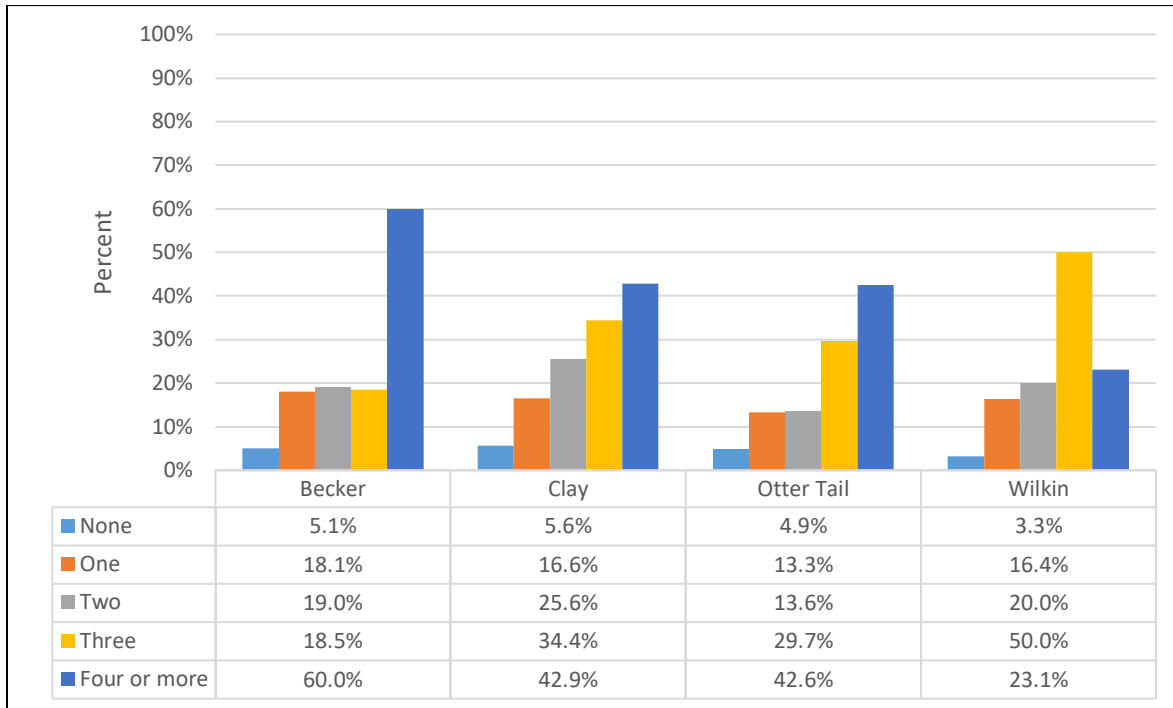


Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

Students in the P4H CHB with four or more aces have a higher rate of 30-day use of marijuana. Wilkin (38.5%) and Becker (36.7%) Counties have more students (with four or more ACEs) who report using marijuana in the last 30 days.



**Graph 39: Students who reported any other drug use except marijuana in past 12 months by ACEs score, 2016**



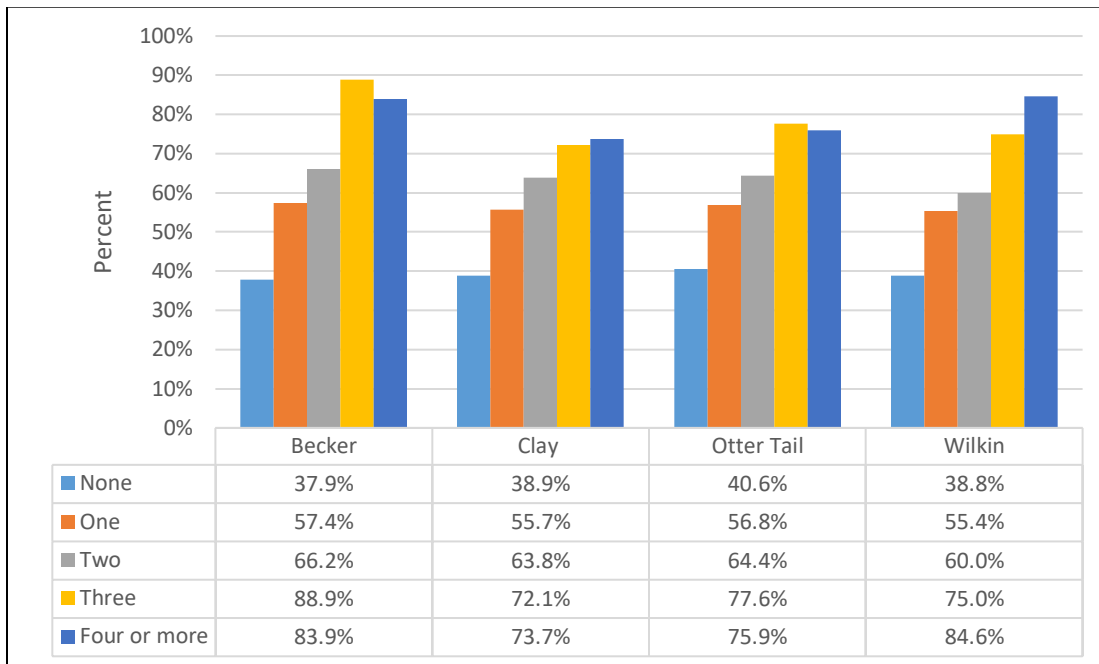
Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

Students in the P4H CHB with four or more aces have a higher rate of 12 month use of any other drug except marijuana. Becker (60.0%) County have more students (with four or more ACEs) who report using any other drug except marijuana in the last 12 months. As the number of ACEs increases, the risk for health problems increases in areas such as alcohol and substance abuse, depression, anxiety and smoking.

Belonging and inclusion determine how we interact with each other individually, in our families, in the community, and in society. Belonging improves the nature of relationships, expands access to resources, improves resilience, and increases opportunities for educational and economic success. We are social creatures, and belonging creates meaning, purpose, and hope for the future.

Forming relationships and learning to be part of families and communities are critical in early childhood. Children find their own place in society through their experiences and relationships in their families and communities. Pregnant mothers, babies and children experience stress and trauma when they or their families are marginalized. Children in these circumstances may struggle to connect with others and are at greater risk of experiencing alienation and depression in adolescence and adulthood.<sup>13</sup>

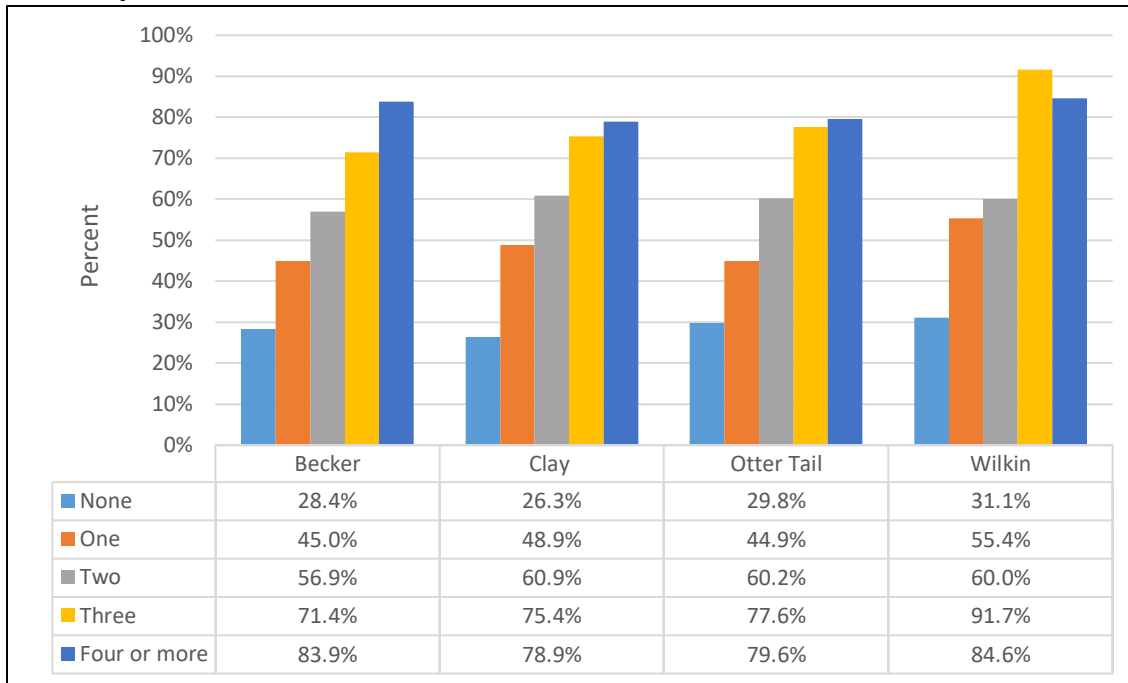
**Graph 40: Students who show little interest/pleasure in doing things for several days or more in the past 2 weeks by ACEs score, 2016**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

In the P4H CHB, students with three or more ACEs report little interest/pleasure in doing things for several days or more in the past 2 weeks. Wilkin (84.6%) and Becker (83.9%) Counties have the highest rate.

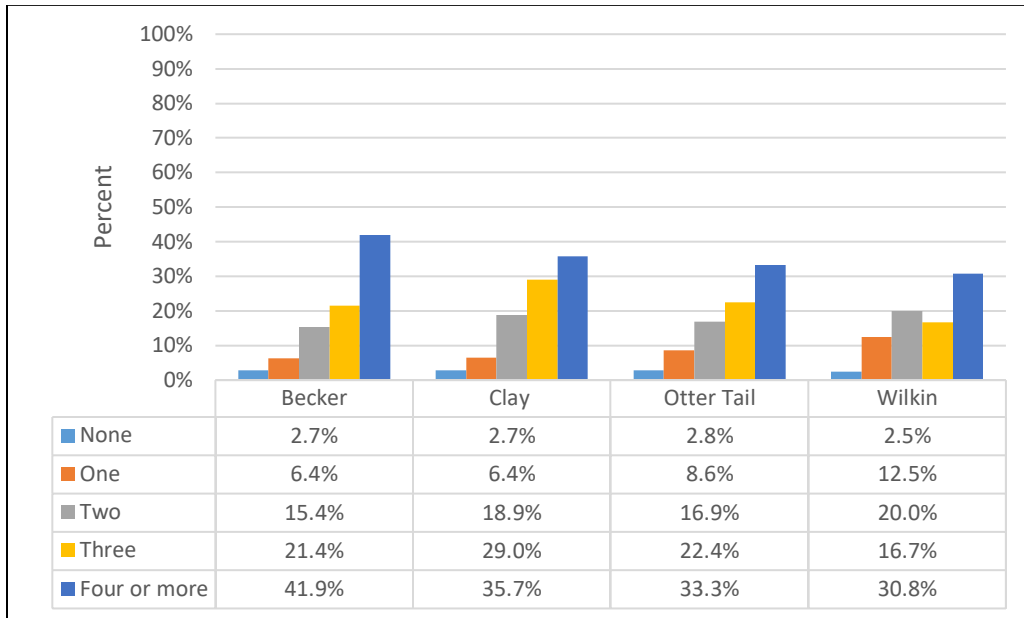
**Graph 41: Students who reported feeling down/depressed/hopeless for several days or more in the past 2 weeks by ACEs score, 2016**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

Students in the CHB with 3 or more ACEs who report feeling down/depressed/hopeless for several days or more in the past 2 weeks is much higher than the students reporting no aces. Over 90% of the students in Wilkin County with 3 ACEs report feeling down/depressed or hopeless for several days in the past two weeks.

**Graph 42: Students who attempted suicide by ACEs score, 2016**



Source: Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.

In Becker County, of the students with four or more ACEs, 41.9% attempted suicide.

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- <sup>2</sup>Minnesota Department of Health, Minnesota Public Health Data Access. (n.d.). *Poverty*. Retrieved from [https://data.web.health.state.mn.us/web/mndata/poverty\\_basic](https://data.web.health.state.mn.us/web/mndata/poverty_basic).
- <sup>3</sup>Personal communication, Minnesota Department of Health, Director of American Indian Health.
- <sup>4</sup>Robert Wood Johnson Foundation. (2013, March). *Why does education matter so much to health?*
- <sup>5</sup>Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.
- <sup>6</sup>Partnership 4 Health, Community Health Board. (2018). *Community Health Assessment Survey*.
- <sup>7</sup>Centers for Disease Control and Prevention. (n.d.). *Children's oral health*. Retrieved June 28, 2017 from [https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Foralhealth%2Fchildren\\_adults%2Fchild.htm](https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Foralhealth%2Fchildren_adults%2Fchild.htm).
- <sup>8</sup>Minnesota Department of Health, Minnesota Center for Health Statistics. (2016). *Minnesota Student Survey*. Available from <https://www.health.state.mn.us/data/mchs/surveys/mss/index.html>.
- <sup>9</sup> Minnesota Department of Health. (n.d.) *Tobacco prevention and control*. Retrieved July 1, 2017 from <https://www.health.state.mn.us/tobacco/>.
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- <sup>11</sup>Minnesota Department of Health. (n.d.). *Definition: What is an ACE?* Retrieved November 8, 2018 from <https://www.health.state.mn.us/communities/ace/definition.html>.
- <sup>12</sup>Amherst H. Wilder Foundation. (n.d.). *MN strengthening families affected by incarceration collaborative*. Retrieved June 28, 2017 from <https://www.wilder.org/wilder-research>.
- <sup>13</sup>Minnesota Department of Health. (2011). *Adverse childhood experiences in Minnesota: Findings & recommendations based on the 2011 Minnesota Behavioral Risk Factor Surveillance System*.
- <sup>14</sup> Minnesota Department of Health. (n.d.) *Refugee Health Statistics*. Retrieved July 3, 2019 from <https://www.health.state.mn.us/communities/rih/stats/index.html>
- <sup>15</sup> 2017 Minnesota Crash Statistics by County Source: Minnesota Department of Public Safety, November 2018

