



Spectrum Health United and Kelsey Hospitals

2021-22 Community Health Needs Assessment



**Spectrum
Health**



Mission

Improve health, instill humanity and inspire hope.

Vision

A future where health is simple, affordable, equitable and exceptional.

Values



Mission

We take action to protect, maintain and improve the health of our community.

Vision

Advancing innovative solutions to achieve healthier outcomes.

Values

1. Innovation: We empower each other (staff) to seek out new ideas (methods) in order to improve health in our communities. We apply the principles of continuous quality improvement to achieve efficiency and quality customer service.

2. Collaboration: We value the diversity and unique contributions of our employees and partners. We develop positive relationships, foster innovative solutions, and strengthen our capacity to accomplish our mission.

3. Accountability: We operate with open communication, transparency, timeliness, and integrity. We are effective and efficient managers of the public trust and public funds, and hold ourselves and others to high standards.

4. Respect: We uphold a standard of conduct that recognizes and values the contributions of all. We create an environment which enhances positive relationships between coworkers and clients.

5. Equity: We value equity as an essential foundation for healthier communities. We foster an environment in which listening to and understanding our differences is encouraged and confidences are protected.



Acknowledgments

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Your feedback on this report or its contents is welcomed.

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Executive Summary

The 2021-2022 Spectrum Health United and Kelsey Hospitals Community Health Needs Assessment was collaboratively planned and developed by the Mid-Michigan District Health Department, Spectrum Health United and Kelsey hospitals, and the Montcalm County community. This assessment is a joint Community Health Needs Assessment for Spectrum Health United Hospital and Spectrum Health Kelsey Hospital.

For this Community Health Needs Assessment, “community” is defined by the county lines where Spectrum Health Kelsey and Spectrum Health United hospitals are located: Montcalm County. The data and information presented in this report will reflect the population living and working in the county.

Community engagement was vital in conducting this Community Health Needs Assessment. Engagement from key stakeholders within Montcalm County increased the quality of the process and findings. Spectrum Health and the Mid-Michigan District Health Department initiated and supported the 2021-2022 Community Health Needs Assessment project. The 2021-2022 Community Health Needs Assessment was the first cycle in which close collaboration occurred between these two partners.

To assess the health status in Montcalm County, demographic, socioeconomic, health behavior and health outcomes information for the Community Health Needs Assessment was obtained from publicly available secondary data sources. To gather feedback directly from the people of Montcalm County, three surveys, two focus group interviews and asset mapping activities were conducted.

In assessing the health status of Montcalm County from secondary data sources, surveys, focus groups, and interviews, five significant health needs were identified. These included:

1. Financial security / Economic stability
2. Healthy lifestyles
3. Mental health
4. Substance use disorder
5. Transportation

Financial security, or economic stability, is defined as the ability of individuals, households or communities to cover their essential needs sustainably and with dignity. In Montcalm County, financial security/economic stability was prioritized as a significant health need. Community members identified subsets of this need as the most important factors that define community health. These factors included good jobs / a healthy economy, affordable housing and financially healthy households. Over half of the community respondents expressed that financial concern is one of the top problems adversely affecting Montcalm County. Furthermore, many respondents communicated that affordability is a barrier preventing residents from living healthier lives. Montcalm County had higher percentages of children in poverty, lower median household income, lower percentages of adults 25 years and older with a bachelor’s degree, and higher unemployment rates than Michigan.

A healthy lifestyle includes having a healthy diet, having a healthy physical activity level, having a healthy body weight, no smoking and having moderate alcohol intake. The community identified healthy lifestyles and access to healthy and nutritious food as the top factors that characterize a healthy community. Acknowledged barriers to living a healthy lifestyle were a lack of energy, not enough time and maintaining the lifestyle being too costly. In Montcalm County, nearly half of the adults are obese, and nearly a quarter of adults reported having poor general health.

Mental health is a state of well-being in which individuals realize their abilities, can cope with the everyday stresses of life, work productivity and can contribute to their community. Provider and community members identified access to mental

health or behavioral health services as a factor defining a healthy community. In Montcalm County, there is one mental health provider for every 477 residents. Nearly a third of the community members surveyed identified mental health problems adversely affecting Montcalm County. Nearly a quarter of adults between 18 and 34 reported not having good mental health.

Substance use disorder, or substance misuse, is defined as the use of illegal drugs and the inappropriate use of legal substances, such as alcohol and tobacco. Substance abuse is strongly associated with poor health outcomes and premature death. Another consequence of substance misuse is an increased incidence of violent crimes and a lack of safety in a community, which affects the health of others who may not use or misuse substances. Nearly three-quarters of the community members surveyed indicated that alcohol and drug issues negatively impact their community. Nearly a third of adults in Montcalm County are current smokers, and over 20% of adults were classified as binge or heavy drinkers.

Motorized vehicle transportation contributes to morbidity and mortality. Increased driving leads to an increased risk of an accident, mental stress, physical inactivity and air pollution, which can be detrimental to people's overall health and well-being. The number of motor vehicle crash deaths per 100,000 population was nearly twice as high in Montcalm County than in Michigan between 2013 and 2019. Between 2015 and 2019, the United States Census Bureau estimated that 83% of the population drove alone to work, with nearly 46% driving alone for more than 30 minutes.

There was an emphasis on using the organization's mission, vision and values as our guiding principles for conducting this Community Health Needs Assessment. Our mission to improve health, instill humanity and inspire hope is an important commitment to the people of Montcalm County. Throughout the Community Health Needs Assessment process, we were driven by our values of compassion, collaboration, clarity, curiosity and courage to understand the health status and needs in Montcalm County. Ultimately, our vision is a future where health is simple, affordable, equitable and exceptional.



Introduction

Two meanings are used to define what health is. The more commonly used definition of health is the absence of disease or illness. The World Health Organization created the other definition of health: “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.”¹ The WHO’s definition views health using a holistic approach, which includes, but is not limited to, an individual’s physical, mental, social, emotional and environmental well-being.

“It has long been recognized that the health of a community has a tremendous impact on the function of its social systems and that the condition of the social and economic systems has a significant impact on the health of all who live in a community.”

— Donald L. Patrick and Thomas M. Wickizer, 1995²

The WHO’s definition can also be applied to the communities where people live, work and play. Communities whose members have excellent physical, mental and psychosocial health also tend to be communities that are vibrant, thriving and cohesive.

The Community Health Needs Assessment takes a systematic approach to better identify, understand and prioritize the community’s health needs in the Spectrum Health service area. This report will define health using the holistic definition.

Regulatory Requirements

This Community Health Needs Assessment focuses on identifying the community needs as they exist during the assessment period (2021-2022), understanding fully that they will be continually changing in the months and years to come. The information contained in this report is current as of the date of the Community Health Needs Assessment, with updates to the assessment anticipated every three years, in accordance with the Patient Protection and Affordable Care Act and Internal Revenue Code 501(r). This Community Health Needs Assessment complies with the requirements of the Internal Revenue Code 501(r) regulations either implicitly or explicitly.

Definition of Community

For this Community Health Needs Assessment, “community” is defined by the county lines where Spectrum Health Kelsey and Spectrum Health United hospitals are located, Montcalm County. The data and information presented in this report will reflect the population living and working in the county.

Montcalm County, a rural county, sits almost in the center of Michigan’s Lower Peninsula. The county spans 721 square miles, of which 705 square miles are strictly land area (Figure 1).⁵ The county has an estimated 63,413 residents (89.9 people per square mile of land), making it the 31st-most-populous county out of the 83 counties in the state.⁶ Montcalm County consists of 20 townships, three cities and six villages.⁷ Greenville is the largest city in Montcalm County, with an estimated population of 8,396.

There are eight K-12 school districts (Figure 2) and one community college in Montcalm County.^{8,9}

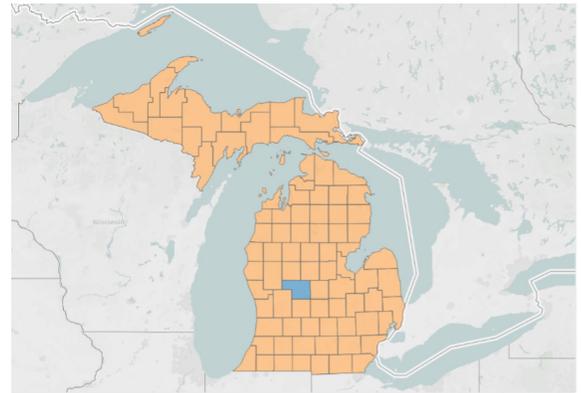


Figure 1: Location of Montcalm County, Michigan

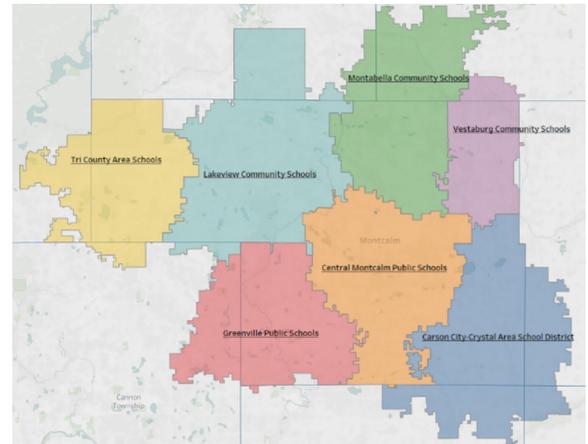


Figure 2: Public School Districts in Montcalm County

Not Shown: Montcalm Area ISD. Montcalm Area ISD covers the entire Montcalm County area.

Partnership

Community engagement was vital in conducting this Community Health Needs Assessment. Engagement from key stakeholders within Montcalm County increased the quality of the process and findings. Spectrum Health and the Mid-Michigan District Health Department initiated and supported the 2021-2022 Community Health Needs Assessment project. The 2021-2022 Community Health Needs Assessment was the first cycle in which close collaboration occurred between these two partners.

Spectrum Health

Spectrum Health is a not-for-profit health system that provides care and coverage, comprising 31,000+ team members, 14 hospitals (including Helen DeVos Children’s Hospital), a robust network of care facilities, teams of nationally recognized doctors and providers, and the nation’s third-largest provider-sponsored health plan, Priority Health, currently serving over 1 million members across the state of Michigan.

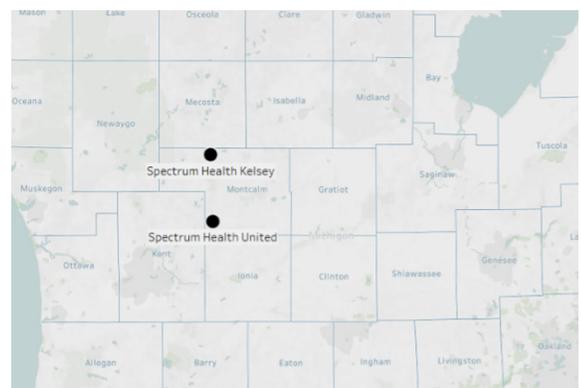


Figure 3: Spectrum Health Hospitals in Montcalm County

People are at the heart of everything we do. Locally governed and headquartered in Grand Rapids, Michigan, we are focused on our mission: to improve health, instill humanity and inspire hope. Spectrum Health has a legacy of strong community partnerships, philanthropy and transparency. Through experience, innovation and collaboration, we are reimagining a better, more equitable model of health and wellness.

Spectrum Health Kelsey

Spectrum Health Kelsey is a federally designated Critical Access Hospital in Lakeview, Michigan, with 12 acute-care beds and 31 skilled nursing-facility beds. Kelsey Hospital is a regional health center for primary and secondary care, serving patients in northwest Montcalm County, southern Mecosta County, and eastern Newaygo County. Kelsey Hospital is accredited by The Joint Commission and participates in Medicare and Medicaid.³

Spectrum Health United

Spectrum Health United is a community hospital in Greenville, Michigan, with 65 acute-care beds and 40 long-term-care beds. We are a regional health care center for Greater Montcalm County. Spectrum Health United provides an array of outpatient services, including obstetrics, orthopedics, wound healing clinics, cancer care, primary health, preventive cardiology and rehab, and pulmonary rehab, as well as a walk-in clinic.⁴

Mid-Michigan District Health Department

Mid-Michigan District Health Department is a district health department composed of Clinton, Gratiot and Montcalm counties. Like other district health departments, it is not within any single county's government structure. It is a quasi-governmental entity overseen by a board of health whose members consist of elected county commissioners from each county. The health department and its board of health are tasked with preventing disease, prolonging life and promoting public health in the three counties.

Demographics

Sex and Age

There were more males in Montcalm County than females (105.8 males per 100 females) compared to Michigan (96.9 males per 100 females) in 2015-2019. The county's population by age group and median age (40.7 years) was similar to the state's estimates (Table 1).⁶

Table 1: Montcalm County and Michigan Demographics – Sex and Age				
	Montcalm County		Michigan	
	#	%	#	%
SEX				
Females	30,820	48.6	5,060,025	50.8
Males	32,593	51.4	4,905,240	49.2
Sex ratio (# males/100 females)	105.8		96.9	
AGE				
Under 5 Years	3,584	5.7	57,1094	5.7
5 to 9 Years	4,105	6.5	591,065	5.9
10 to 14 Years	4,035	6.4	623,334	6.3
15 to 19 Years	3,815	6.0	661,499	6.6
20 to 24 Years	3,760	5.9	704,793	7.1
25 to 34 Years	7,747	12.2	1,267,775	12.7
35 to 44 Years	7,564	11.9	1,165,370	11.7
45 to 54 Years	8,790	13.9	1,317,258	13.2
55 to 59 Years	4,830	7.6	718,008	7.2
60 to 64 Years	4,360	6.9	678,726	6.8
65 to 74 Years	6,327	10.0	975,417	9.8
75 Years and Older	4,496	7.0	690,926	7.0
Median Age (Years)	40.7		39.7	

Source: U.S. Census Bureau: 2019 American Community Survey 5-Year Estimates, Table DP05

Race, Ethnicity, Natality and Language Spoken at Home

Unlike the state, the population of Montcalm County is relatively homogeneous, with Non-Hispanic White people making up approximately 92% of the population.¹⁰ Hispanic and non-Hispanic multiracial people follow at a distance, making up 3.5% and 1.6% of the population, respectively.⁶

Nearly all (98.7%) of the residents of Montcalm County were reported to be native-born United States citizens in 2015-2019. English is the only language spoken at home in most households (96.4%) (Table 2).¹¹

Table 2: Montcalm County and Michigan Race, Ethnicity, Natality and Language Spoken at Home

	Montcalm County		Michigan	
	#	%	#	%
RACE & ETHNICITY				
White	58,184	91.8	7,477,400	75.0
Black or African-American	1,321	2.1	1,358,034	13.6
Hispanic	2,222	3.5	507,353	5.1
Native American or Alaska Native	326	0.5	45,569	0.5
Asian	224	0.4	310,420	3.1
Multiracial	1,046	1.6	250,188	2.5
Native Hawaiian and Other Pacific Islander	---	---	2,649	0.0
NATALITY				
Native-born	62,582	98.7	9,281,068	93.1
Foreign-born	831	1.3	684,197	6.9
LANGUAGE SPOKEN AT HOME				
English Only	57,667	96.4	8,480,376	90.3
Other Language	2,162	3.6	913,795	9.7

Source: U.S. Census Bureau: 2019 American Community Survey 5-Year Estimates, Tables DP02 and DP05

School Enrollment

There are 14,244 children under the age of 18 residing in Montcalm County.⁵ Among children above the age of 3, 11.0% attended preschool or kindergarten, nearly half were estimated to be in primary school and one-quarter were estimated to be in high school in 2015-2019 (Table 3).¹¹

Table 3: Montcalm County and Michigan School Enrollment				
	Montcalm County		Michigan	
	#	%	#	%
SCHOOL ENROLLMENT				
Nursery School, Preschool	883	6.5	143,145	5.8
Kindergarten	612	4.5	119,635	4.9
Elementary and Middle School	6,616	48.4	965,649	39.4
High School	3,418	25.0	529,043	21.6
College, Undergraduate and Graduate	2,147	15.7	693,876	28.3

Source: U.S. Census Bureau: 2019 American Community Survey 5-Year Estimates, Table DP02

Household Income

The median household income in Montcalm County was slightly lower than the state median (\$49,448 and \$57,144, respectively) in 2015-2019.¹² Nevertheless, the percentage of county residents who live below the federal poverty level is equal to that of the state (14.4%) (Table 4).¹³

Table 4: Montcalm County and Michigan Household Income

	Montcalm County		Michigan	
	#	%	#	%
HOUSEHOLD INCOME				
Less Than \$10,000	1,411	5.9	260,286	6.6
\$10,000 to \$14,999	1,278	5.3	172,478	4.4
\$15,000 to \$24,999	2,666	11.1	379,660	9.6
\$25,000 to \$34,999	3,006	12.6	386,973	9.8
\$35,000 to \$49,999	3,771	15.8	531,149	13.5
\$50,000 to \$74,999	4,967	20.8	718,888	18.3
\$75,000 to \$99,999	3,021	12.6	501,245	12.7
\$100,000 to \$149,999	2,525	10.6	556,921	14.2
\$150,000 or More	1,268	5.3	427,441	10.8
MEDIAN HOUSEHOLD INCOME	\$49,448		\$57,144	
PEOPLE LIVING BELOW POVERTY LEVEL	8,706	14.4	1,398,527	13.4

Source: U.S. Census Bureau: 2019 American Community Survey 5-Year Estimates, Tables DP03 and S1701

Labor Force

Just over half of residents ages 16 and older participated in the labor force in 2015-2019.¹² Most residents were employed, and only 2.1% were looking for work. Approximately 22,249 residents above the age of 16 were not working, nor were they looking for work (Table 5).¹²

Two out of five workers in Montcalm County work in the manufacturing, education, health care or social assistance sectors.¹² Even though agriculture is small relative to other sectors, it is vital in Montcalm County. In 2017 there were approximately 962 farms in the county, and the market value of the products sold totaled \$180,469,000.¹⁴

Table 5: Montcalm County and Michigan Labor Force

	Montcalm County		Michigan	
	#	%	#	%
EMPLOYMENT				
Employed	27,378	54.0	4,654,930	57.8
Unemployed	1,079	2.1	293,894	3.7
Armed Forces	---	---	4,179	0.1
Not in Labor Force	22,249	43.9	3,096,766	38.5

Source: U.S. Census Bureau: 2019 American Community Survey 5-Year Estimates, Table DP03

Household/Housing Information

Among the 23,913 households in the county, approximately half are married-couple families.¹² One-quarter of the households were single people living alone. The remaining households consist of multi-person, non-family households and families headed by a single person with no spouse or partner present.¹² The majority of homes in Montcalm County are owned (78.1%) while the rest (21.9%) are rented (Table 6).¹⁵

Table 6: Montcalm County and Michigan Demographics – Household and Housing Information

	Montcalm County		Michigan	
	#	%	#	%
TOTAL HOUSEHOLDS	23,913	-	3,935,041	-
HOUSEHOLD TYPE				
Married-Couple Family	12,656	52.9	1,853,456	47.1
Individual Living Alone	6,072	25.4	1,164,019	29.6
Other Types of Family Household	5,185	21.7	917,566	26.3
Households With One or More People Under 18 Years	7,303	30.5	1,127,499	28.7
Households With One or More People 65 Years and Over	7,512	31.4	1,181,569	30.0
HOUSING TENURE				
Owner-Occupied	18,675	78.1	2,802,699	71.2
Renter-Occupied	5,238	21.9	1,132,342	28.8

Source: U.S. Census Bureau: 2019 American Community Survey 5-Year Estimates, Tables DP03 and DP04

Veteran Status

Montcalm County is home to 3,906 veterans (Table 7).¹¹

	Montcalm County		Michigan	
	#	%	#	%
VETERAN STATUS				
Veteran	3,906	7.9	549,526	7.1
Non-Veteran	45,245	92.1	7,233,701	92.9

Source: U.S. Census Bureau: 2019 American Community Survey 5-Year Estimates, Table DP02

Amish Population

One community with close ties to agriculture is the Amish. Michigan is home to the sixth-largest Amish population in the United States.¹⁶ Most of the Amish population is concentrated in the counties bordering Indiana and Ohio. However, there are Amish settlements in Montcalm County. The Coral/Six Lakes settlement was established in 2011 and had 65 members. The Six Lakes/Greenville settlement was established in 1973 and had 505 members. Finally, the Vestaburg settlement, established in 2007, had 70 members.¹⁶

Births, Deaths, Marriages and Divorces

In 2019 Montcalm County had just over 700 live births and 650 deaths. There were 436 marriages and 263 divorces in 2019 (Table 8).¹⁰

Life Event	Montcalm County		Michigan
	#	Per 1,000 Population	Per 1,000 Population
Births	716	11.2	11.0
Deaths	655	10.2	9.9
Marriages	436	13.6	11.3
Divorces	263	8.2	5.6

Source: Michigan Department of Health and Human Services, Division of Vital Records and Health Statistics: Community Health Information – Montcalm County, 2019

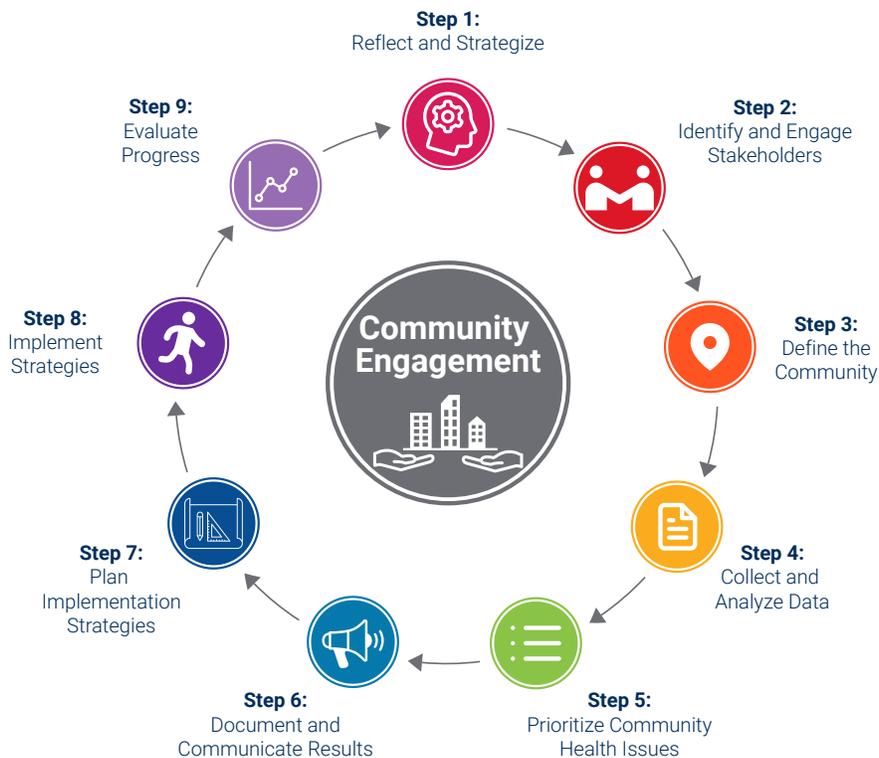
Methodology

Two frameworks governed the development of this Community Health Needs Assessment: the project framework and the data framework.

Project Framework

The project framework used was based on the Community Health Assessment Toolkit (Figure 4) developed by the Association for Community Health Improvement.¹⁷ The toolkit helped guide us in conducting the community health assessment and developing implementation strategies in an organized, methodical and comprehensive process.

Figure 4: Association for Community Health Improvement’s Community Health Assessment Toolkit



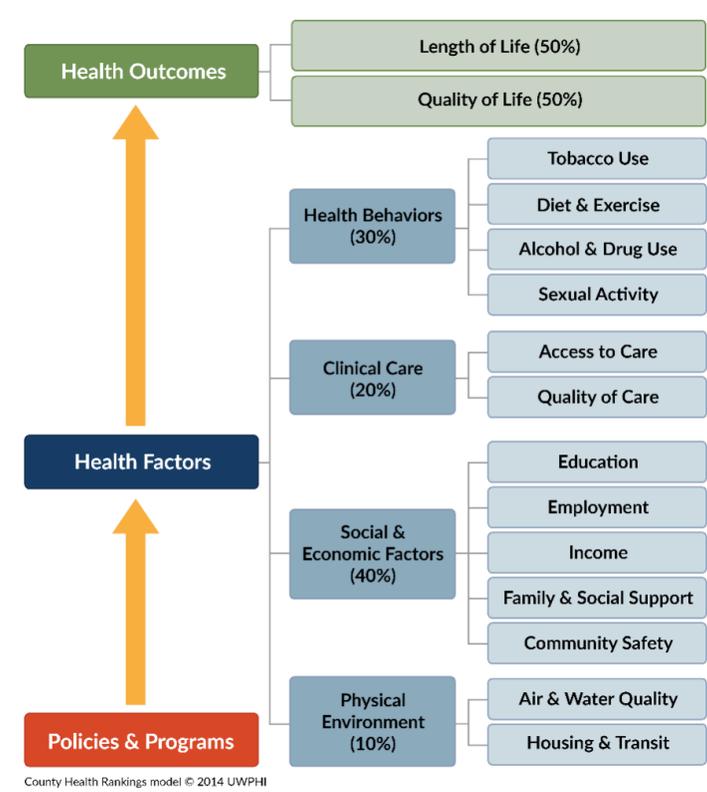
Source: Community Health Assessment Toolkit, www.healthcommunities.org

Data Framework

The purpose of the data framework was to ensure that the variety of data topics used to inform this Community Health Needs Assessment was comprehensive and inclusive of all the factors currently known to affect community health. We used the County Health Rankings model, developed by the Milwaukee Population Health Institute in conjunction with the Robert Wood Johnson Foundation, to inform our report (Figure 5).¹⁸

The County Health Rankings model uses health outcomes and factors, including health behaviors, clinical care, social and economic factors, and physical environment, by quantifying each component's effect on overall community health.

Figure 5: County Health Rankings Model

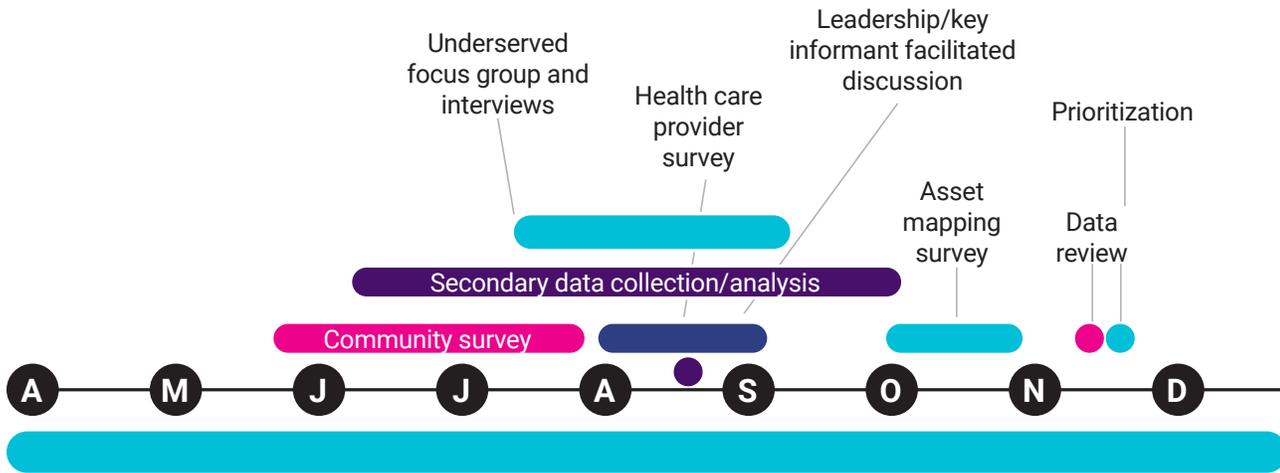


Source: Remington, Patrick L, Bridget B Catlin, and Keith P Gennuso. 2015. "The County Health Rankings: Rationale and Methods." *Population Health Metrics* 13 (11): 1-12.

Data Collection

This assessment’s data collection and analysis occurred between April and October 2021 (Figure 6). The data in this report can be categorized into two types: primary and secondary data. Primary data refers to firsthand data gathered by partnering organizations. Secondary data means that the data was collected by someone else.

Figure 6: Project and Data Collection Timeline



Primary Data Collection

In this assessment, five primary data collection activities were conducted to gather information from the public, individuals with specialized knowledge about the community, public health experts and underserved community members (Table 9). Information from the general public was solicited via a web-based community survey. Information about public meetings, including the data review and the community prioritization meeting, was posted via social media. The information needed for the Community Health Needs Assessment was sought from individuals and groups with specialized community and public health knowledge.

During the assessment and prioritization process, information was periodically sought from underserved community members and the Assessment Advisory Committee. The Assessment Advisory Committee consisted of organizations and key stakeholders with specialized knowledge of the general public. Note: Where possible, statistics specifically for underserved community members were included in this report.

Table 9: Primary Data Collection Activities

Activity	Data Collection Methodology	Target Audience	Audience Type	Number of People Who Completed Activity
Community Survey	Web-Based Survey	Individuals Who Live and Work in Montcalm County	Community Residents	105
Health care Provider Survey	Web-Based Survey	Physicians, Advanced Practice Providers and Other Primary Care Providers Working in Montcalm County	People who Represent the Broad Interests of the Community	58
Asset Mapping Survey	Web-Based Survey	Individuals Who Live and Work in Montcalm County	Residents of Montcalm County and Those With Specialized Understanding of County Resources	30
Underserved Focus Group / Interviews	Focus Groups and In-Depth Interviews	Underserved Residents of Montcalm County	Community Residents (Uninsured People, Low-Income People and Minority Groups)	19
Leadership / Key Stakeholder Focus Group	Facilitated Discussion	Montcalm County Leadership and Stakeholders	People Who Represent the Broad Interests of the Community	12

Community Survey

The Community Survey was a web-based, convenience-sample survey of Montcalm County residents in June and July 2021. The survey collected information on community-identified needs, quality of life, health literacy, and pandemic experience among individuals who work and live in Montcalm County. There were 105 respondents to the Community Survey (Table 9). The Community Survey used for this Community Health Needs Assessment can be found in Appendix D.

Health Care Provider Survey

The Health Care Provider Survey was a web-based survey conducted in August 2021 of primary care physicians and advanced practice providers who work in Montcalm County. There were 58 respondents to this survey (Table 9). Providers from Spectrum Health United and Kelsey hospitals, Sheridan Community Hospital, and Sparrow Carson Hospital were asked about general health needs, barriers experienced by their patients, the social needs of their patient population, and community resources they refer their patients to. The Health Care Provider Survey used for this Community Health Needs Assessment can be found in Appendix E.

Asset Mapping Survey

Between Oct. 1 and Oct. 18, 2021, a short community asset inventory survey was sent out via social media and email to individuals living and working in Montcalm County. This survey aimed to gather information about community assets that may not be easily identifiable to people living outside of the community. There were a total of 30 respondents (Table 9). The Asset Mapping Survey used for this Community Health Needs Assessment can be found in Appendix F.

Underserved Focus Group / Interviews

Between July and October of 2021, three focus groups were conducted for this assessment to gather input from low-income, uninsured and minority populations in Montcalm County. The focus groups were held on July 21, Aug. 17 and Sept. 17, 2021. The third focus group was an abbreviated one and was augmented with information from one-on-one interviews of the participants held after the focus group session. These focus groups utilized purposive sampling in which participants were actively recruited at locations known to serve underserved residents. Nineteen individuals were included in these focus groups and interviews (Table 9). Questions asked during the focus group can be found in Appendix G.

Leadership / Key Stakeholder Focus Group

On Aug. 23, 2021, leaders from various sectors in Montcalm County, including Spectrum Health United, Sparrow Carson Hospital, Sheridan Community Hospital, Montcalm Care Network, Montcalm Community College, Montcalm County Court, Montcalm County Sheriff's Office, Montcalm Substance Use Advisory Council, and the Montcalm Prevention Collaborative met to discuss the health and well-being of the residents of the county. The meeting was held in person and was facilitated by the Mid-Michigan District Health Department. A series of questions were asked to spark discussion around the well-being and potential barriers experienced by the public and underserved community members. A total of 12 individuals participated in the key stakeholder focus group (Table 9). Questions asked during the focus group can be found in Appendix H.

Secondary Data Collection

The indicators and measures used in this report were identified by the Montcalm County Community Health Needs Assessment Workgroup and then reviewed and approved by the Montcalm County Community Health Needs Assessment Steering Committee and the Healthy Montcalm Committee (also the Community Health Needs Assessment Advisory Committee).

Table 10 shows the indicators and measures selected and their relationship to the data framework. Descriptions of all the data sources used in this report can be found in Appendix A.

Table 10: Community Health Needs Assessment Indications and Measures

Health Outcomes	Length of Life	Premature Death
		Life Expectancy
		Infant Mortality
	Quality of Life	Fair/Poor Health
		Fair/Poor Physical Health
		Fair/Poor Mental Health
		Low Birthweight
		Disability
		Diabetes Prevalence
		High Cholesterol
		Hypertension Prevalence
Health Factors	Health Behaviors	Adult Smoking
		Adult Vaping
		Adult Marijuana Use
		Prescription Drug Misuse
		Adult Obesity
		Food Environment Index
		Physical Inactivity
		Access to Exercise Opportunities
		Excessive Drinking
		Alcohol-Impaired Driving Deaths
		Diabetes Management Education
		Sexually Transmitted Infections
		Teen Births
		Drug Overdose Deaths / Deaths Due to Drug-Induced by County of Residence
	Motor Vehicle Crash Deaths / Traffic Fatalities by County	
	Clinical Care	Uninsured
		Primary Care Physicians
		Dentists
		Mental Health Providers
		Preventable Hospital Stays
		Breast Cancer Screening
Colon Cancer Screening		
Adult 65+ Immunization		
Flu Vaccinations		

Health Factors	Social & Economic Factors	High School Completion
		Some College
		Unemployment
		Children in Poverty
		Income Inequality
		Children in Single-Parent Households
		Social Associations
		Violent Crime
		Injury Deaths
		Median Household Income
		Children Eligible for Free or Reduced-Price Lunch
	Physical Environment	Air Pollution – Particulate Matter
		Drinking-Water Violations
		Severe Housing Problems
		Asthma
		Driving Alone to Work
		Long Commute – Driving Alone
Broadband Access		

Community Input

Input from Montcalm County residents, including the underserved, those with a specialized understanding of community resources, and people who represent the broad interest of the community, was essential to the Community Health Needs Assessment process. Information was gathered using multiple surveys (community-based, health care provider and community asset survey) and conducting multiple focus group interviews targeting the underserved population and county leadership and stakeholders of Montcalm County. While this primary data directly identifies the community needs, the prioritization process utilized this information along with secondary data to prioritize the community-identified significant health needs.

Overall Key Findings

- Across all primary care activities, the inability to access or afford health care, including mental and behavioral health care, is a recurring barrier to living a healthy life.
- Another central recurring theme is the difficulty in transportation, which decreases people's ability to find safe and affordable housing, obtain high-quality employment, and access the care and services they need to maintain a healthy life.
- Community members expressed significant concern about the negative effect of the COVID-19 pandemic on stress, anxiety and depression.
- Both health care providers and community members indicated that a lack of motivation and will were significant obstacles in making positive health changes.

Community Survey

The Montcalm County Community Survey was a web-based survey that collected information from Montcalm County residents about various health topics. The survey was distributed via social media by the Mid-Michigan District Health Department, hospitals, and through the traditional networks of the health and human service organizations.

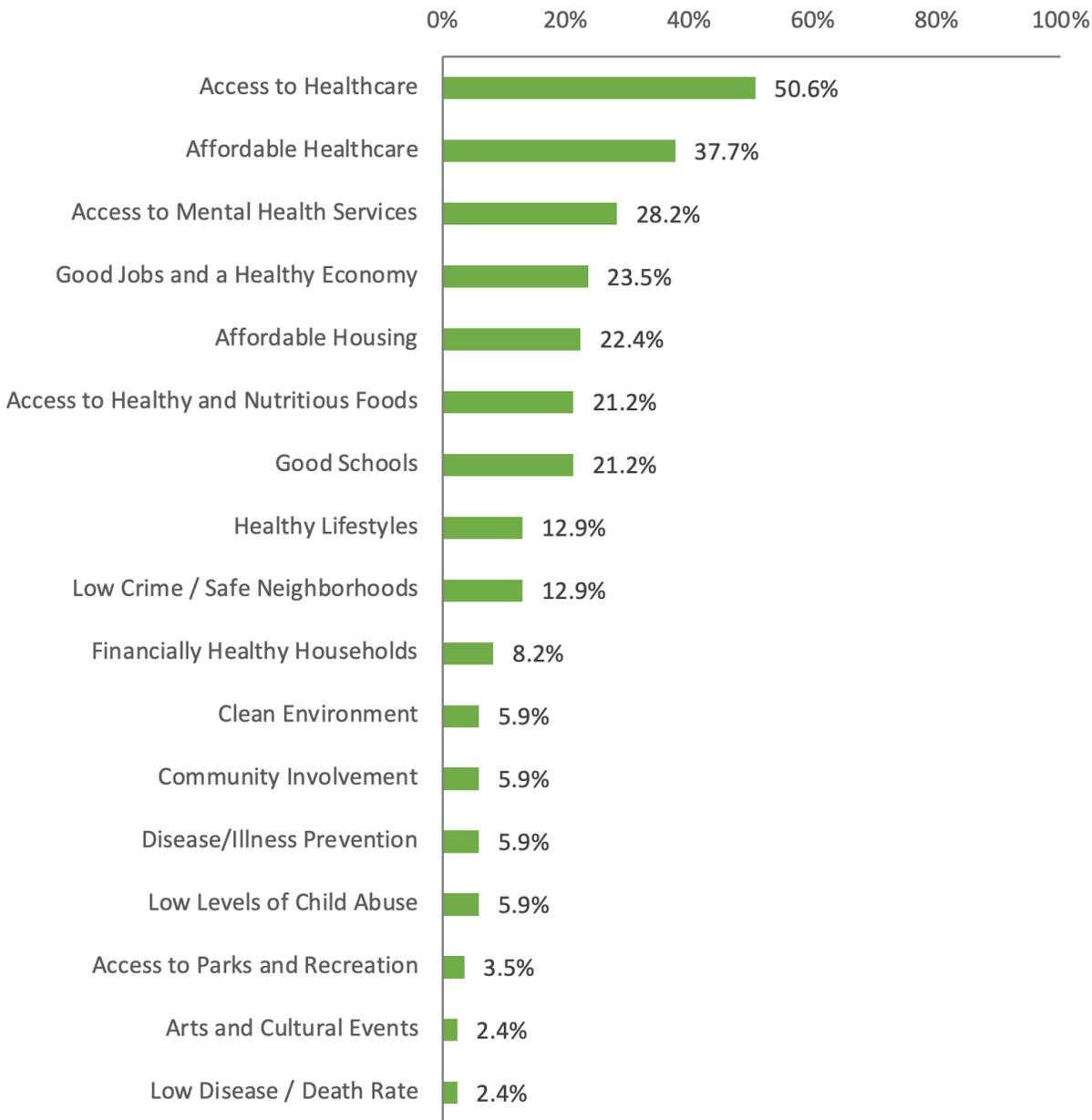
Montcalm County Community Survey Key Findings

- Most community members believe the following characteristics are a hallmark of a healthy community: a strong economy and availability of jobs (that would enable someone to access the resources necessary to live a healthy life) and the availability and affordability of health care services (including mental and behavioral health care).
- Many community members feel that mental health, substance misuse, and financial concerns are problematic in Montcalm County.
- Most community members feel confident in obtaining information about and navigating the health care system.

Community Member-Identified Factors That Define a Healthy Community

Most respondents indicated that accessible and affordable care, including mental health care, is a healthy community hallmark. They also cited safe and affordable housing and a thriving economy with good jobs as other important characteristics of a healthy community (Figure 7).

Figure 7: Community Member-Identified Factors That Define a Healthy Community

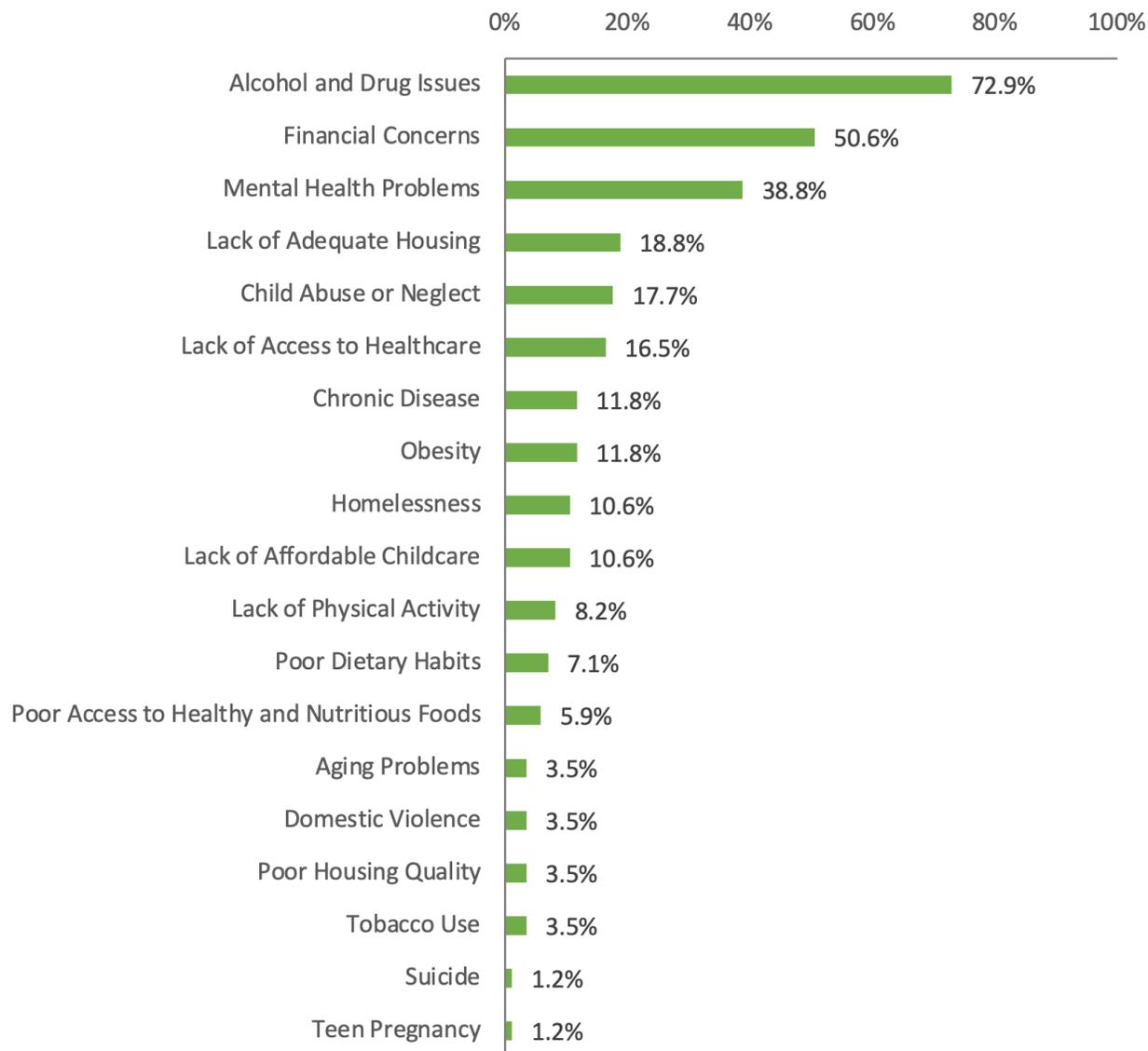


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Community Member-Identified Problems Impacting the Community

When considering the factors that adversely affect the community, the top three problems identified were alcohol and drug issues (72.9%), financial concerns (50.6%), and mental health problems (38.8%) (Figure 8).

Figure 8: Community Member-Identified Problems Impacting the Community

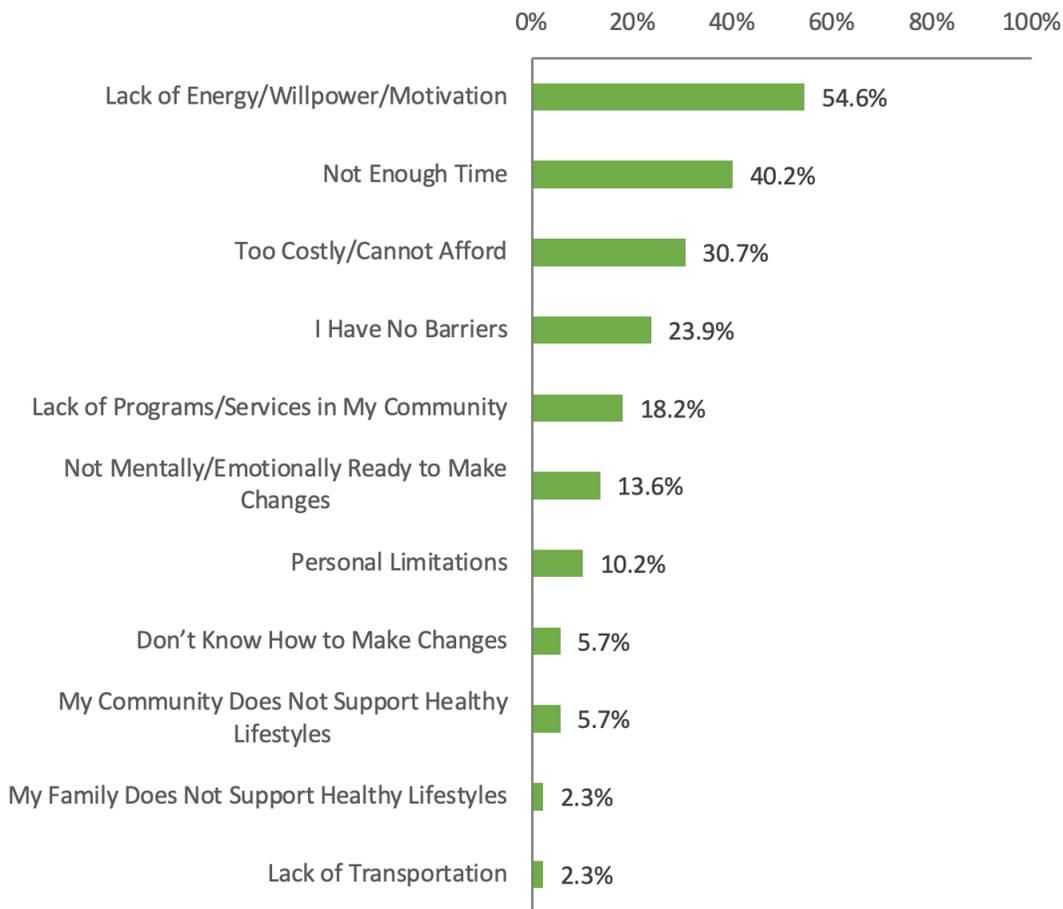


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Community Member-Identified Barriers to Living a Healthier Lifestyle

When respondents were asked what barriers prevented them from living a healthier life, the top three barriers identified were lack of energy, willpower and motivation (54.6%), not having enough time (40.2%) and the lack of affordability (30.7%) (Figure 9).

Figure 9: Community Member-Identified Barriers to Living a Healthier Lifestyle

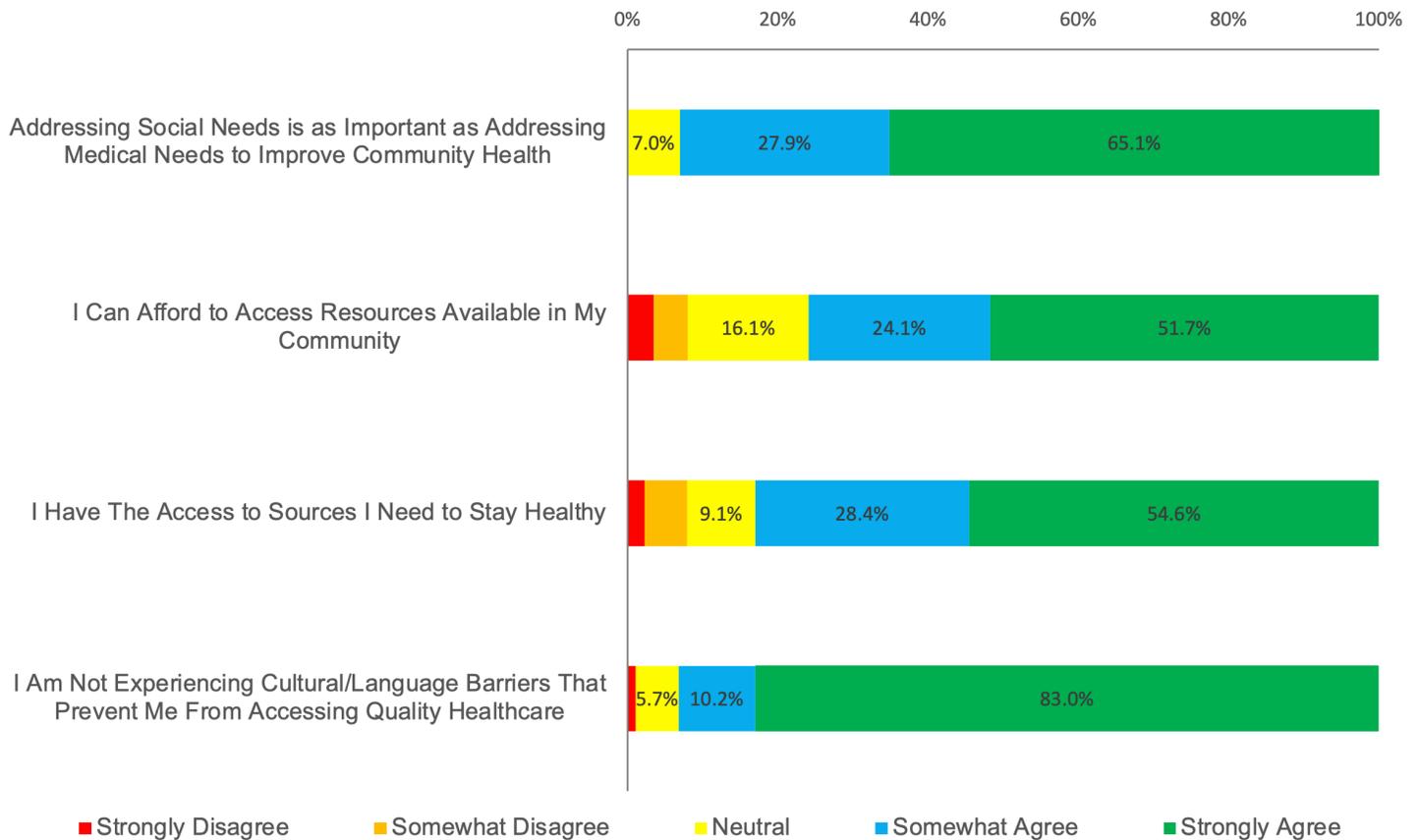


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Community Members' Agreement With Various Health Statements

Most community survey respondents strongly agreed that addressing social needs is as essential as addressing medical needs to improve community health (65.1%), that they can afford to access resources available in their community (51.7%), that they have access to the sources needed to stay healthy (54.6%), and that they were not experiencing cultural/language barriers that prevented them from accessing quality health care (83.0%) (Figure 10).

Figure 10: Community Members' Agreement With Various Health Statements

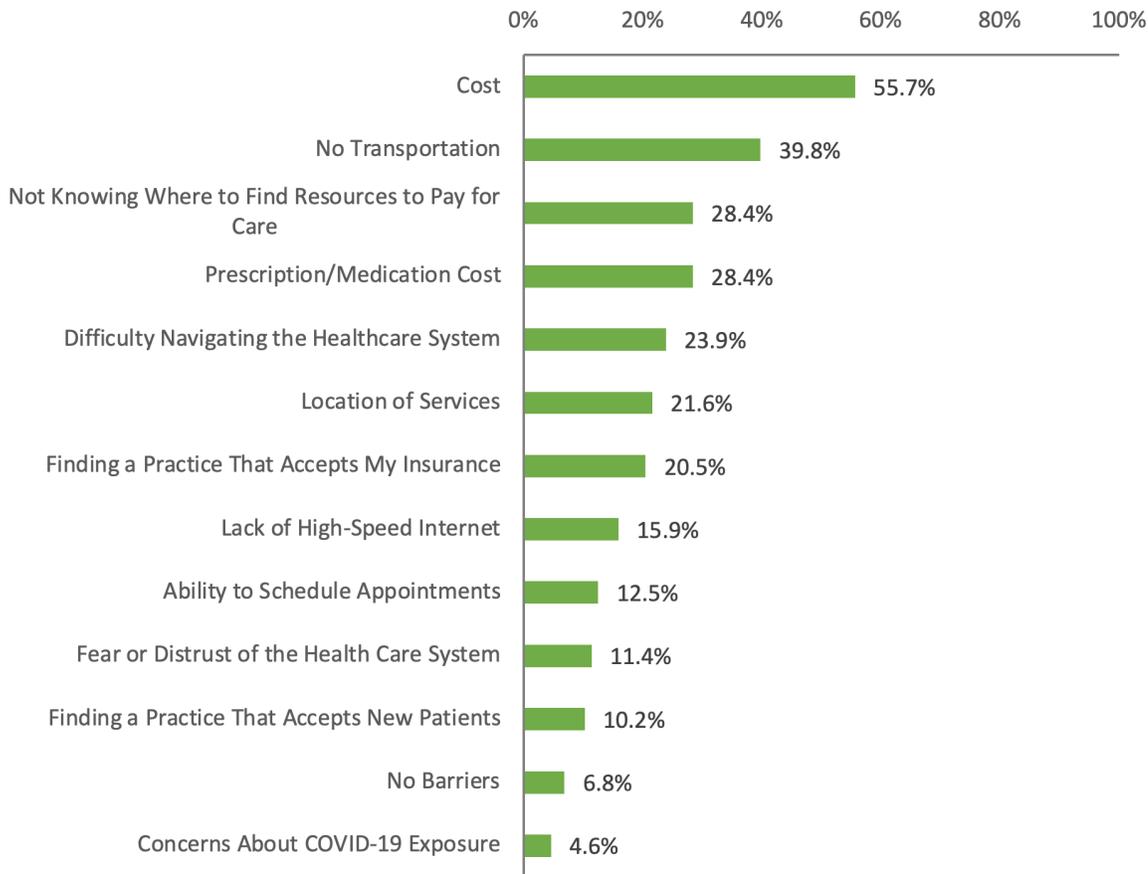


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Community Member-Identified Barriers to Accessing Health and Social Services

Most respondents cited cost (55.7%) and lack of transportation (39.8%) as barriers when accessing health and social services in the county. Of respondents participating in the survey, 6.8% indicated that they did not experience any barriers to accessing health and social services in Montcalm County (Figure 11).

Figure 11: Community Member-Identified Barriers to Accessing Health and Social Services

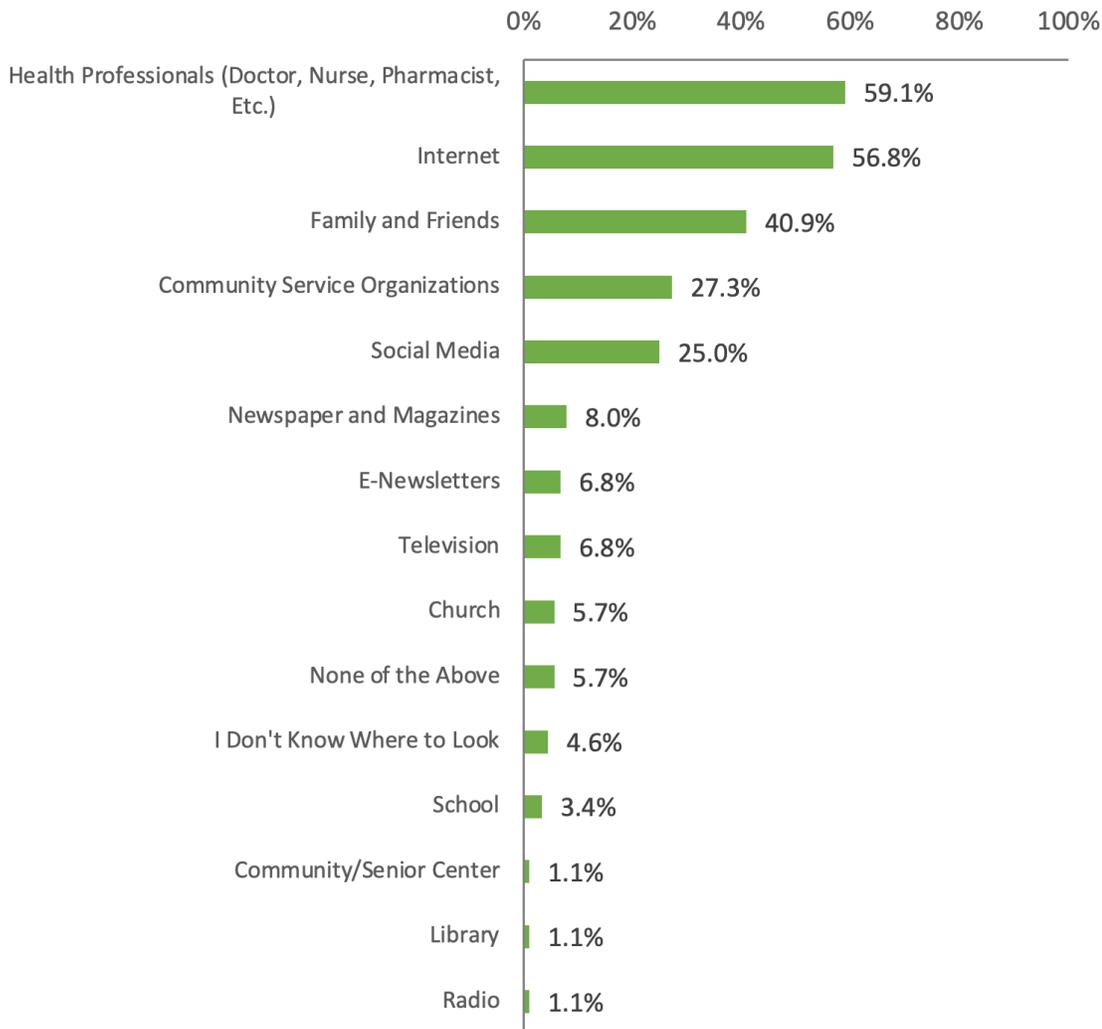


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Where Community Members Get Information About Health Resources

To get information related to health, most respondents turn to health professionals (59.1%), the internet (56.8%), and family and friends (40.9%) as their sources for information about health resources (Figure 12).

Figure 12: Where Community Members Get Information About Health Resources

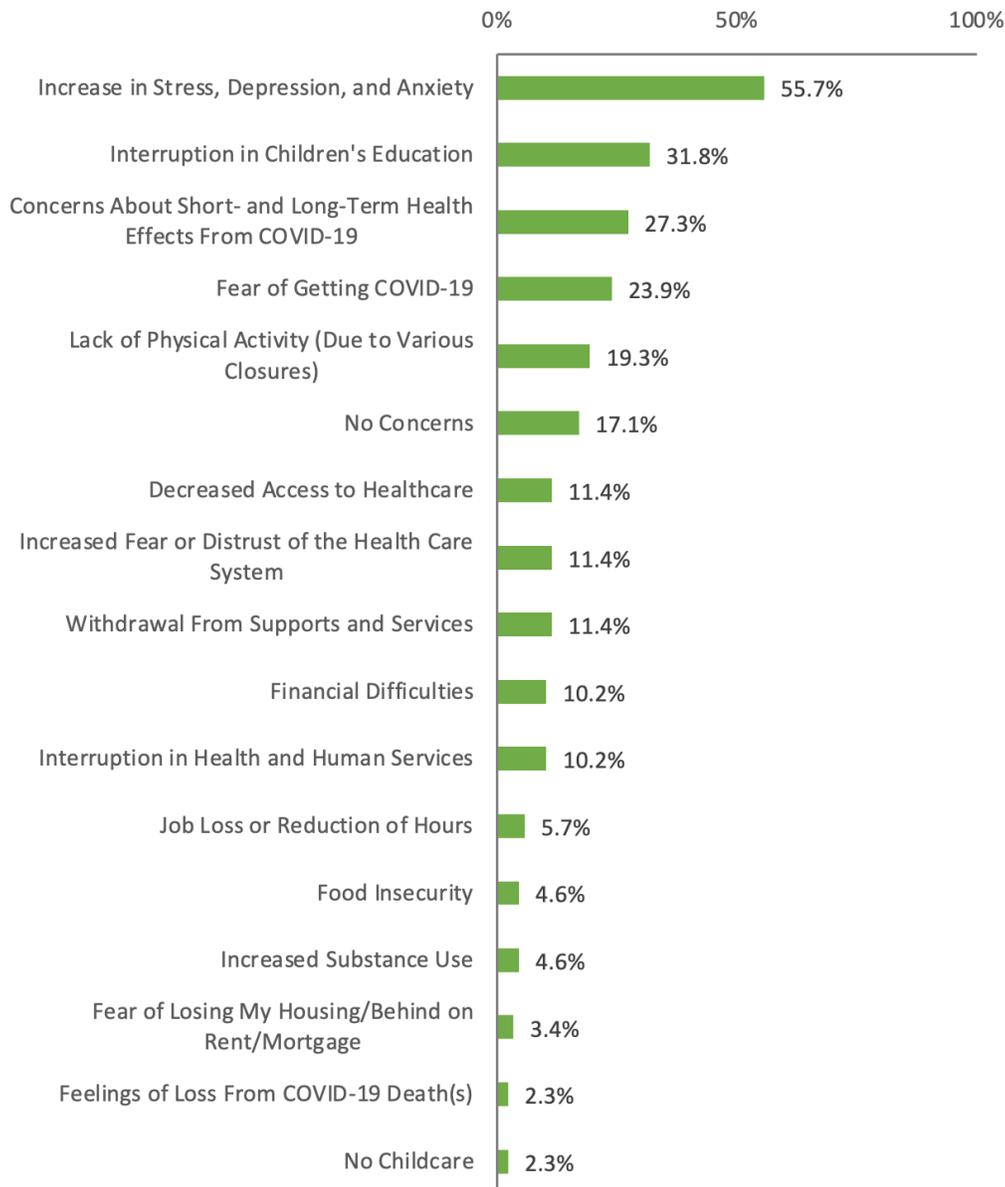


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

COVID-19 Pandemic-Related Concerns Impacting Community Members' Family/Household

More than half of respondents indicated increased stress, depression and anxiety (55.7%) as a concern related to the COVID-19 pandemic. About a third of respondents mentioned interruption in education. A quarter of respondents mentioned the short- and long-term effects of becoming infected with COVID-19 as other pandemic-related concerns (Figure 13).

Figure 13: COVID-19 Pandemic-Related Concerns Impacting Community Members' Family / Household

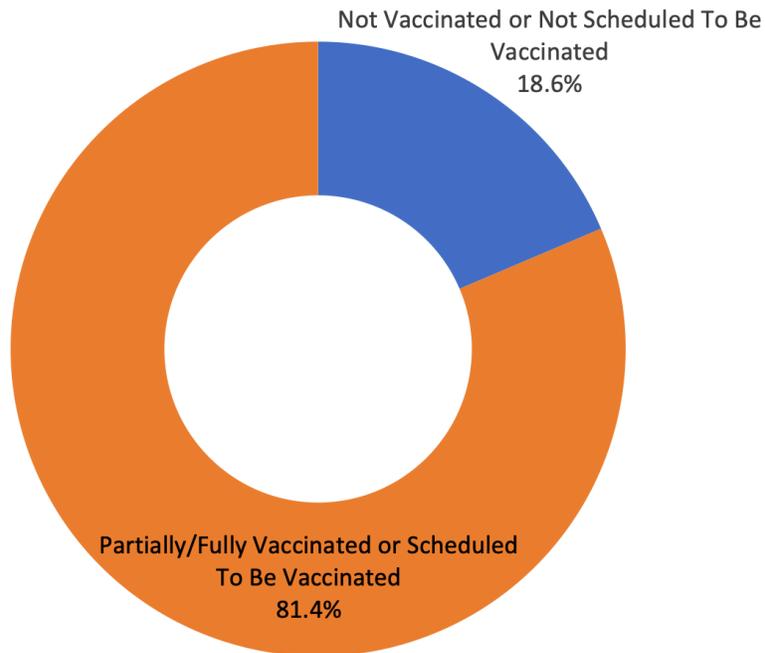


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Community Members' COVID-19 Vaccine Status

When the survey was administered, almost one in five respondents indicated that they were not vaccinated or were not scheduled to be vaccinated by July 2021 (Figure 14).

Figure 14: Community Members' COVID-19 Vaccine Status

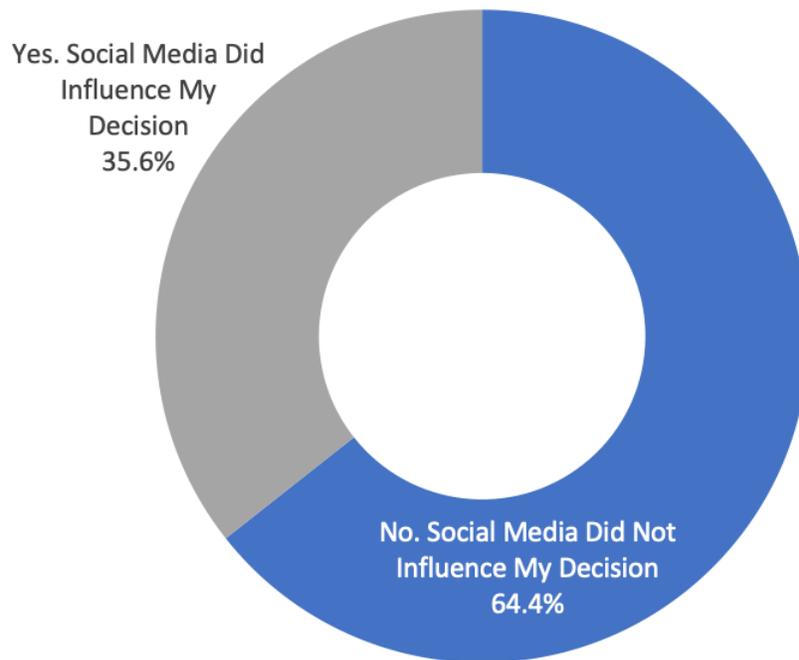


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Social Media's Influence on Community Members' COVID-19 Vaccine Decision

Over a third of respondents indicated that their decision to be vaccinated against COVID-19 was influenced by social media (Figure 15).

Figure 15: Social Media's Influence on Community Members' COVID-19 Vaccine Decision

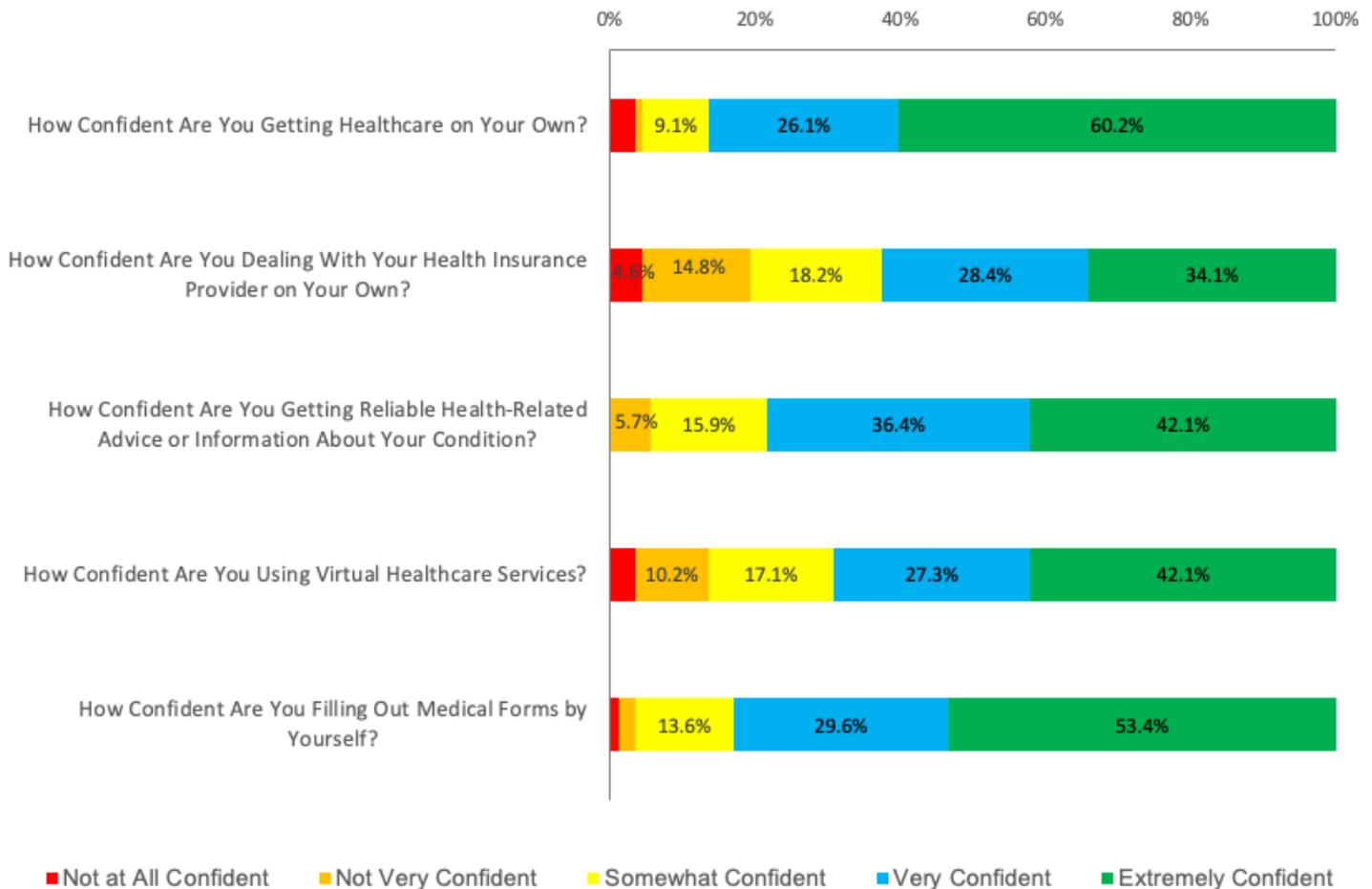


Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Community Members' Confidence With Accessing Health Care

The community survey also asked questions about health literacy and accessing care. Most respondents were extremely or very confident in getting health care on their own (60.2% and 26.1%), dealing with their health insurance provider on their own (34.1% and 28.4%), getting reliable health information about their conditions (42.1% and 36.4%), using virtual health care services (42.1% and 27.3%) and filling out medical forms by themselves (53.4% and 29.6%) (Figure 16).

Figure 16: Community Members' Confidence With Accessing Health Care



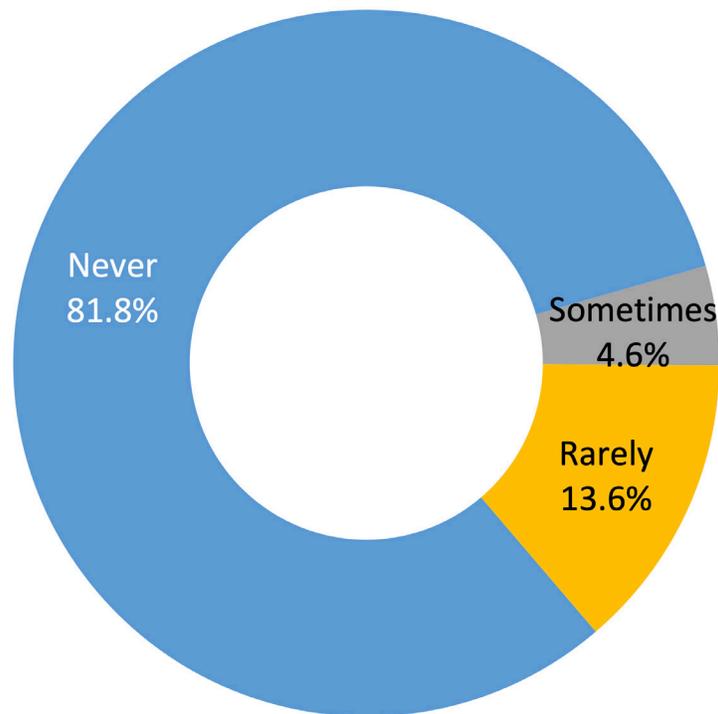
Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Community Members' Need for Assistance Reading Health-Related Instruction or Other Material From Their Provider

Health literacy refers to the ability of a person to understand and use the information they have acquired to make informed decisions about their or another person's health and health care.¹⁴⁹

In Montcalm County, responses from the survey indicated that health literacy is relatively high. 95.4% of respondents indicated that they either never or rarely needed assistance reading health-related instructions or other materials from their health care provider (Figure 17).

Figure 17: Community Members' Need for Assistance Reading Health-Related Instruction or Other Material From Their Provider



Source: 2021 Montcalm County Community Health Needs Assessment Community Survey

Health Care Provider Survey

Another group from which input was sought was health care providers in Montcalm County, including physicians, nurse practitioners and physician assistants. Their role as health care providers whom most individuals interact with gives them specialized knowledge and insight regarding the health of the community members. Representatives from Spectrum Health Kelsey Hospital, Spectrum Health United Hospital, Sheridan Community Hospital, Sparrow Carson Hospital, and Montcalm Area Center-Cherry Health participated in the Health Care Provider Survey. Unless otherwise noted, the charts and graphs reflect the thoughts and opinions of all health care providers active in Montcalm County, regardless of their health system affiliation.

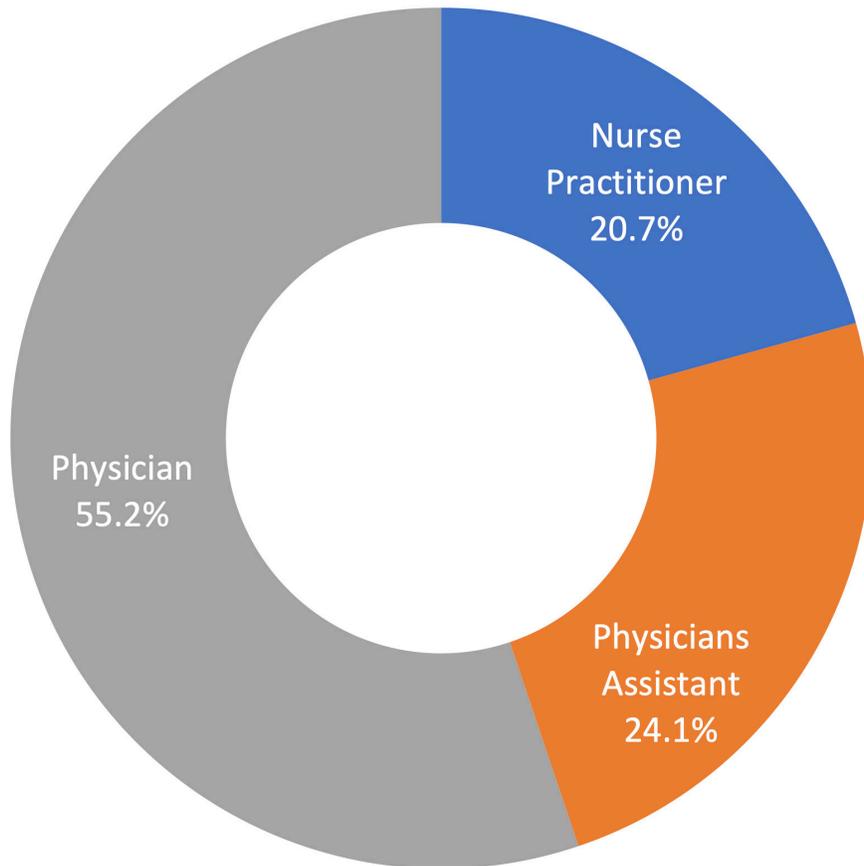
Montcalm County Health Care Provider Survey Key Findings

- Access and affordability to health care, including mental health care, were cited as factors defining a healthy community.
- Health care providers felt that lack of motivation, lack of education and lack of resources were the primary drivers that negatively impacted their patients' health.
- Most providers acknowledged that addressing social factors, which can be a barrier to care, is as important as managing a patient's medical condition.

Health Care Provider Job Title and Affiliation

Survey respondents represented various types of health care providers working in the county. Among those who responded, 55.2% were physicians, 24.1% were physician assistants, and 20.7% of respondents were nurse practitioners (Figure 18).

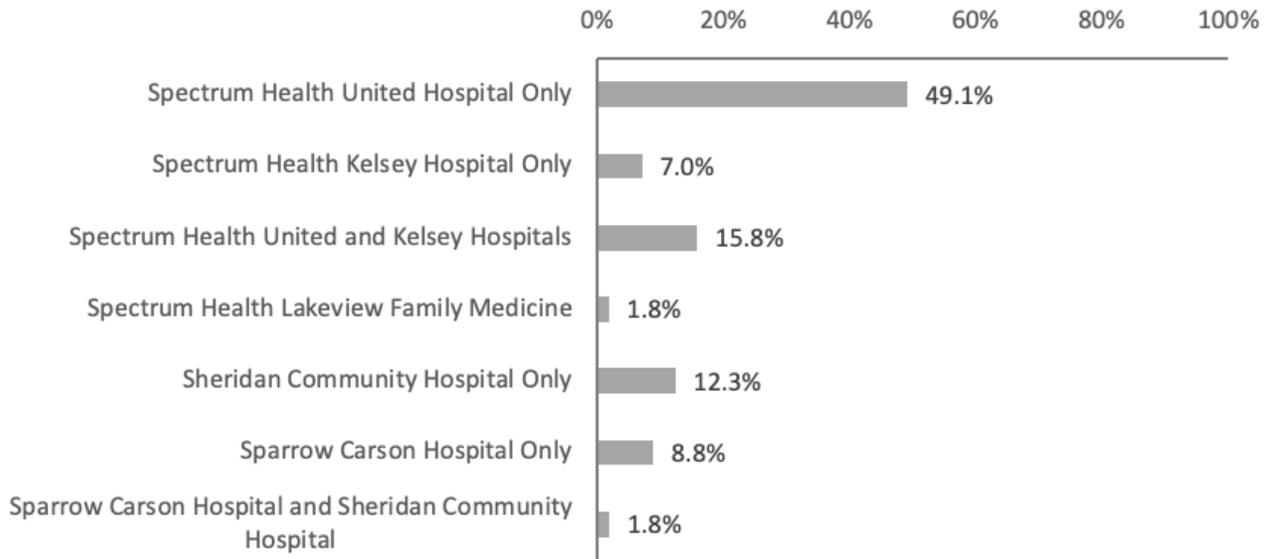
Figure 18: Health Care Provider Job Title



Source: 2021 Montcalm County Community Health Needs Assessment Health Care Provider Survey

Health care providers responding to the survey had a variety of affiliations. The overwhelming majority of respondents, 73.7%, had an affiliation with Spectrum Health United, Spectrum Health Kelsey, or Spectrum Health Lakeview Family Medicine in one way or another. Just over 14% of respondents were health care providers at Sheridan Community Hospital, and about one in 10 had an affiliation with Sparrow Carson Hospital (Figure 19).

Figure 19: Health Care Provider Affiliation

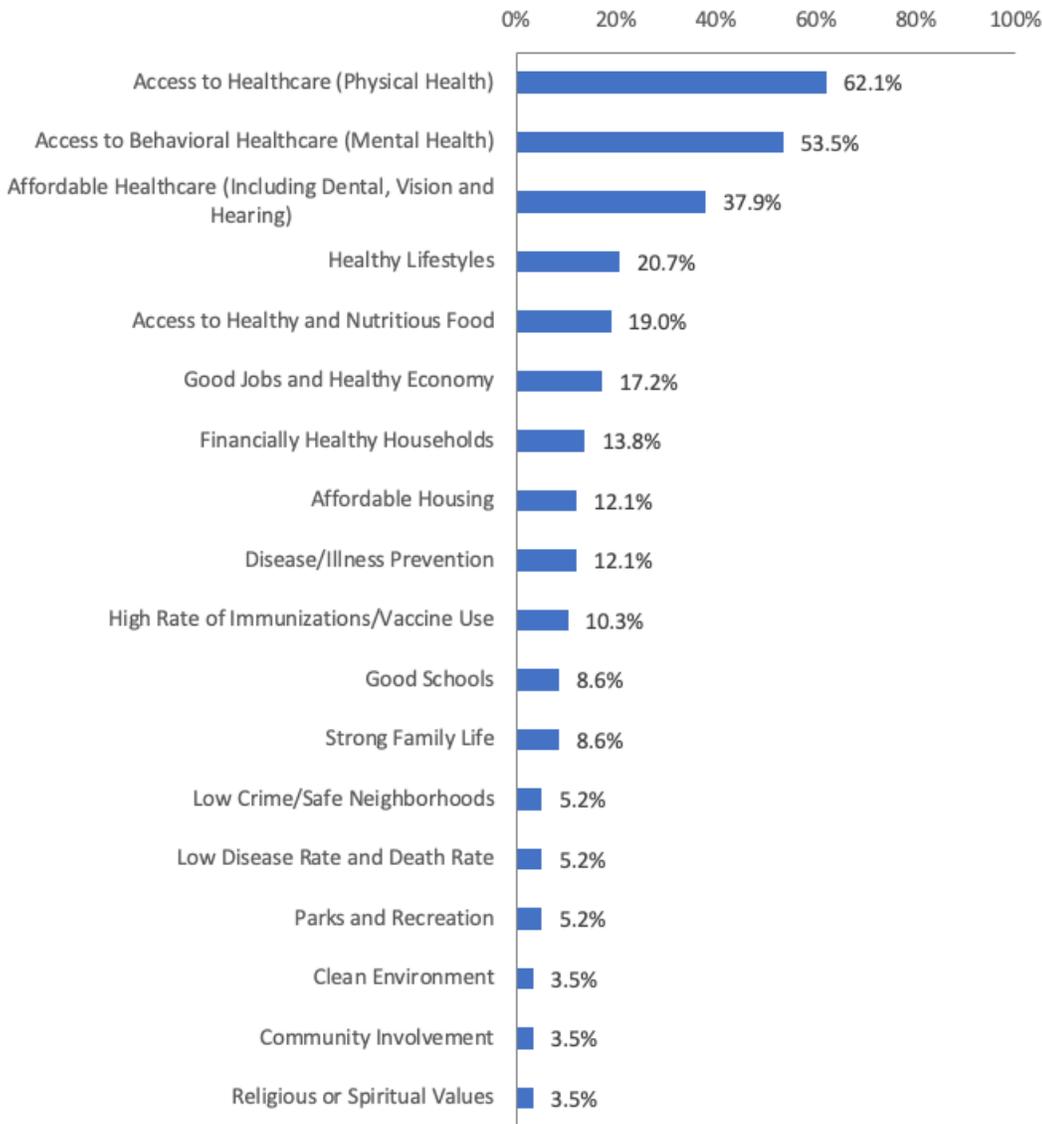


Source: 2021 Montcalm County Community Health Needs Assessment Health Care Provider Survey

Health Care Provider-Identified Factors That Define a Healthy Community

Three of the top five factors that health care providers identified as characteristic of a healthy community are related to the health care system. They are access to health care (62.1%), access to behavioral health care (53.5%) and health care affordability (37.9%). The remaining two were healthy lifestyles (20.7%) and access to healthy, nutritious food (19.0%) (Figure 20).

Figure 20: Health Care Provider-Identified Factors That Define a Healthy Community

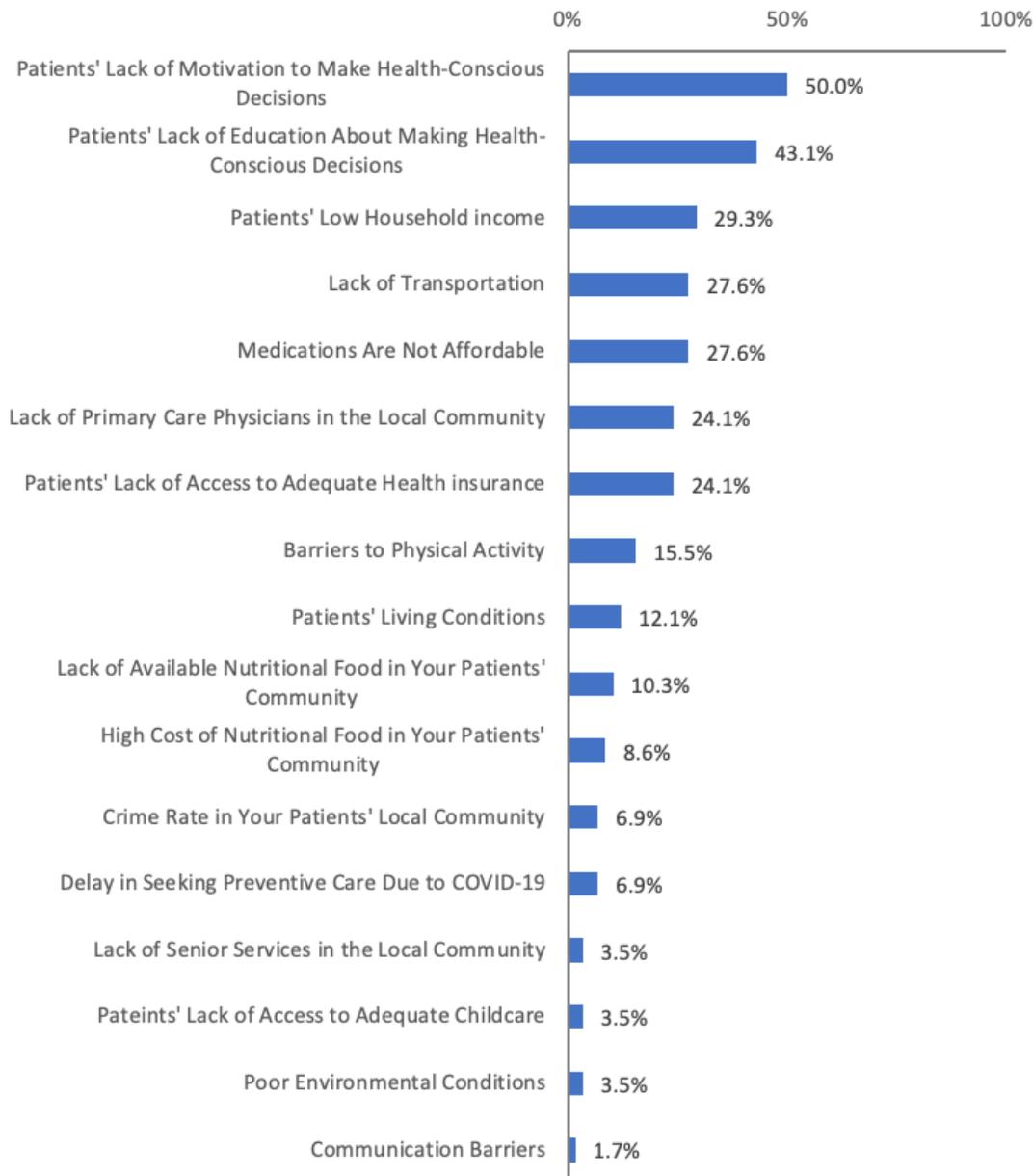


Source: 2021 Montcalm County Community Health Needs Assessment Health Care Provider Survey

Health Care Provider-Identified Factors Negatively Impacting Patient Health

Montcalm County's health care providers identified factors they believe negatively impacted their patients' health. These factors include patients' lack of motivation to make health-conscious decisions (50.0%), patients' lack of education about making health-conscious decisions (43.1%), patients' low household income (29.3%), lack of transportation (27.6%) and lack of affordable medications (27.6%) (Figure 21).

Figure 21: Health Care Provider-Identified Factors Negatively Impacting Patient Health



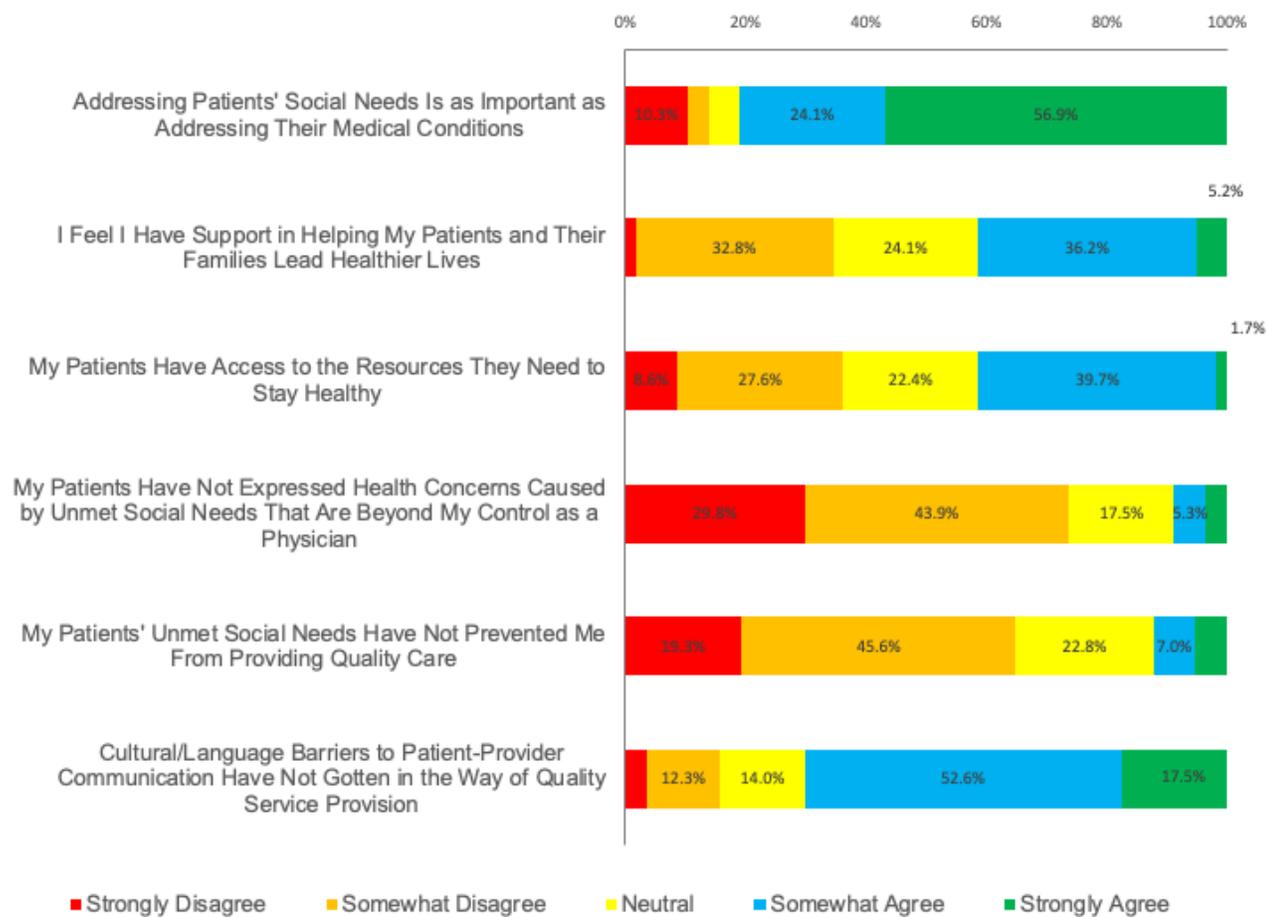
Source: 2021 Montcalm County Community Health Needs Assessment Health Care Provider Survey

Health Care Providers' Agreement With Various Health Statements

The majority of health care providers surveyed somewhat or strongly agreed that addressing patients' social needs are as important as managing their medical conditions (81.0%). Most had somewhat agreed that they felt like they had support in helping their patients and families lead a healthy life (36.2%), that they had access to resources that help their patients stay healthy (39.7%) and that cultural/language barriers have not gotten in the way of providing quality care (52.6%).

Most of the health care providers surveyed somewhat disagreed that their patients have not expressed health concerns caused by unmet social needs that were beyond the physician's control (43.9%) and that their patients' unmet needs did not prevent them from providing quality care (45.6%) (Figure 22).

Figure 22: Health Care Providers' Agreement With Various Health Statements



Source: 2021 Montcalm County Community Health Needs Assessment Health Care Provider Survey

Underserved Population Focus Groups

An essential aspect of this Community Health Needs Assessment is to ensure that all in the community have an opportunity to be heard, especially those whose voices may be hardest to hear. Consequently, one data collection activity targeted more vulnerable community members: low-income, Medicaid-eligible and minority populations.

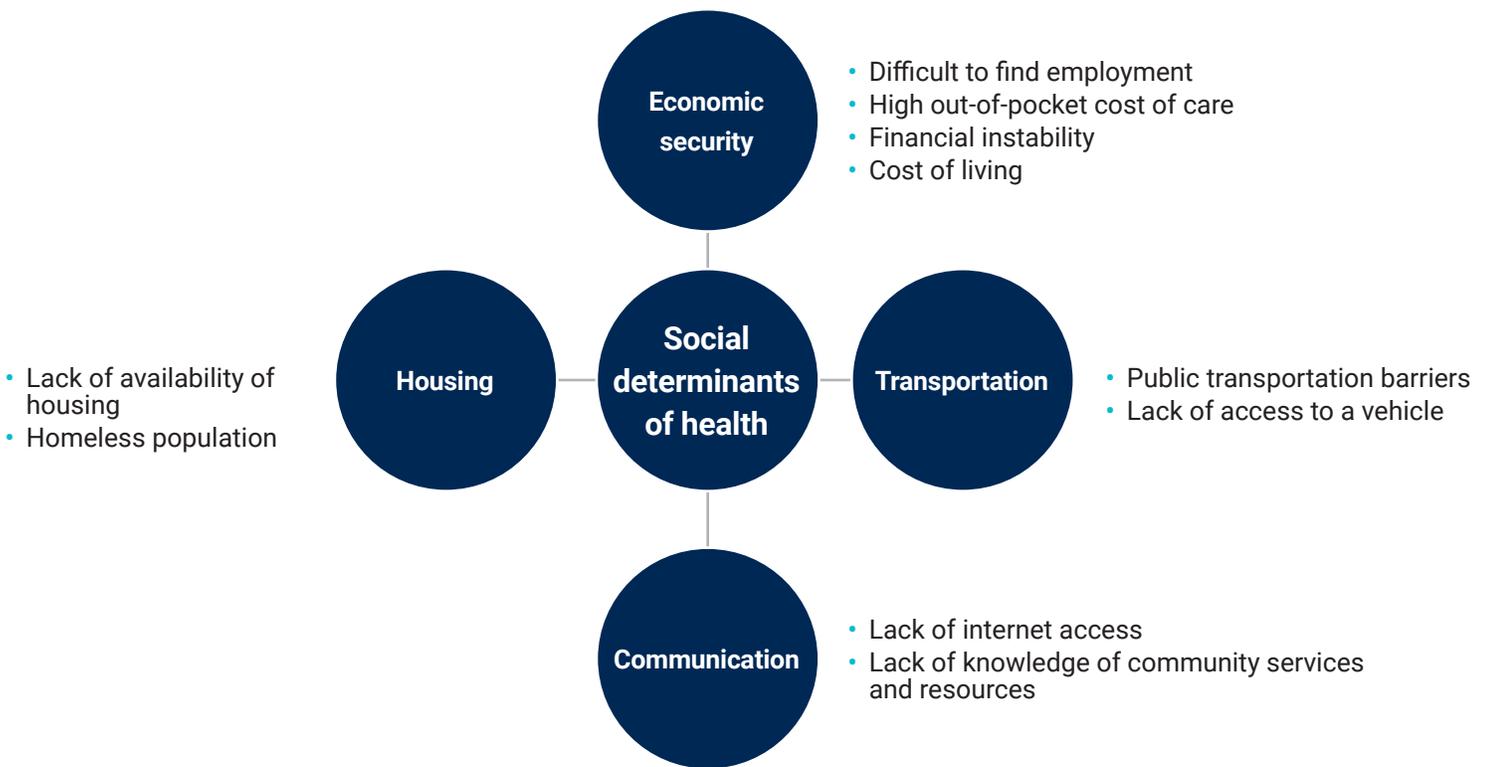
Montcalm County Underserved Population Focus Group Key Findings

- Individuals and families who lack reliable transportation and access to high-speed internet experience difficulties in overcoming barriers to safe and affordable housing, access to care, and high-quality job opportunities.
- Solutions that would ease some of the difficulties underserved populations face involve either bringing the services they need closer to them or assisting them in getting to where their needs can be met.
- Health insurance, including Medicare, is not inclusive of all the services needed to maintain health. Underserved people feel this deficit more acutely than individuals and families with the means to make up the difference for expenses not covered by their insurance.

Focus Group Themes Related to the Social Determinants of Health

Four dominant themes came up when focus group participants discussed the social determinants of health. Economic security, transportation, housing, communication are common concerns for rural communities (Figure 23).

Figure 23: Focus Group Themes Related to the Social Determinants of Health

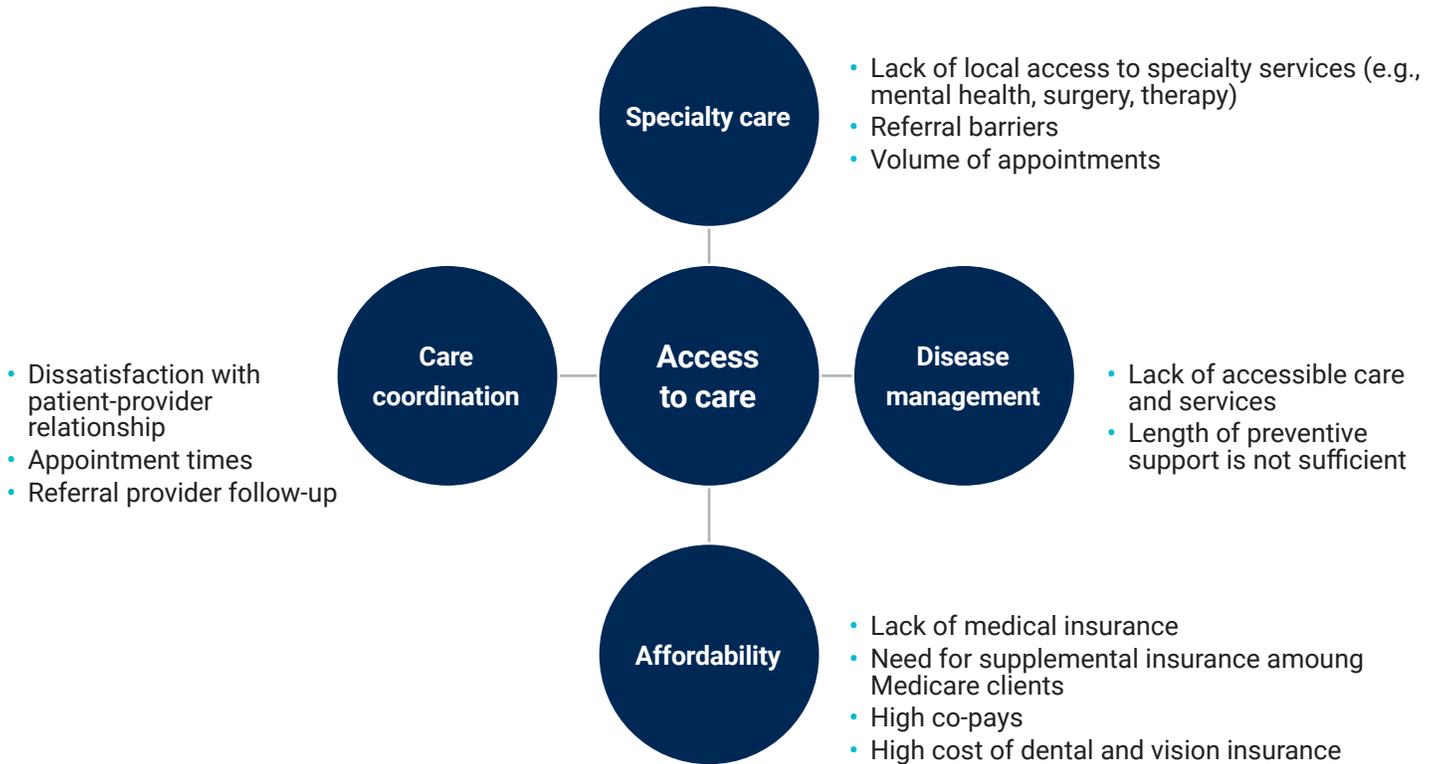


Source: 2021 Montcalm County Community Health Needs Assessment Underserved Focus Group

Focus Group Themes Related to Access to Care

Four themes also arose from the discussion focus group participants had around access to care. Two of these themes, specialty care and disease management, could be related to Montcalm County's rurality. The themes of care coordination and affordability were more related to deficiencies in health insurance coverage and the availability of providers (Figure 24).

Figure 24: Focus Group Themes Related to Access to Care

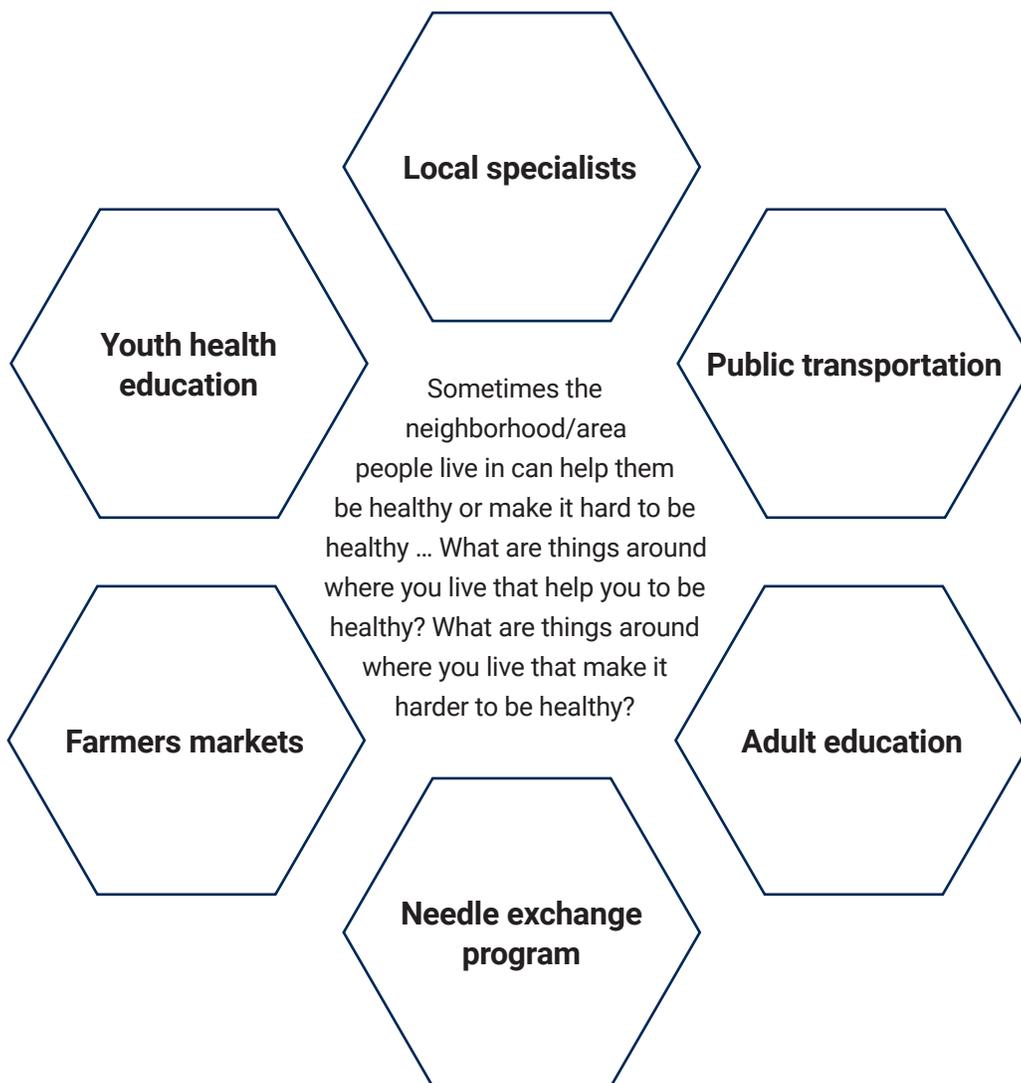


Source: 2021 Montcalm County CHNA Underserved Focus Group

Participant-Identified Solutions for a Healthier Community

Focus group participants were asked about actions or activities that could address the barriers to access to care. Potential solutions identified include having health care specialists available in the community, improvements in education (for adults and youths) and having a more robust public transportation system in the county. Participants also recommended increasing access to healthy, nutritious foods using farmers markets and providing harm reduction resources for those abusing substances (Figure 25).

Figure 25: Participant-Identified Solutions for a Healthier Community



Source: 2021 Montcalm County Community Health Needs Assessment Underserved Focus Group

Leadership / Key Stakeholder Input

On Aug. 23, 2021, leaders from various organizations in Montcalm County, including Spectrum Health United, Sparrow Carson Hospital, Sheridan Community Hospital, Montcalm Care Network, Montcalm Community College, Montcalm County Court, Montcalm County Sheriff's Office, Montcalm Substance Use Advisory Council and the Montcalm Prevention Collaborative, met to discuss the health and well-being of the residents of the county. The Mid-Michigan District Health Department facilitated the in-person meeting. A series of questions were asked to help identify concerns and barriers in the community. A summary of findings with supporting quotations follows.

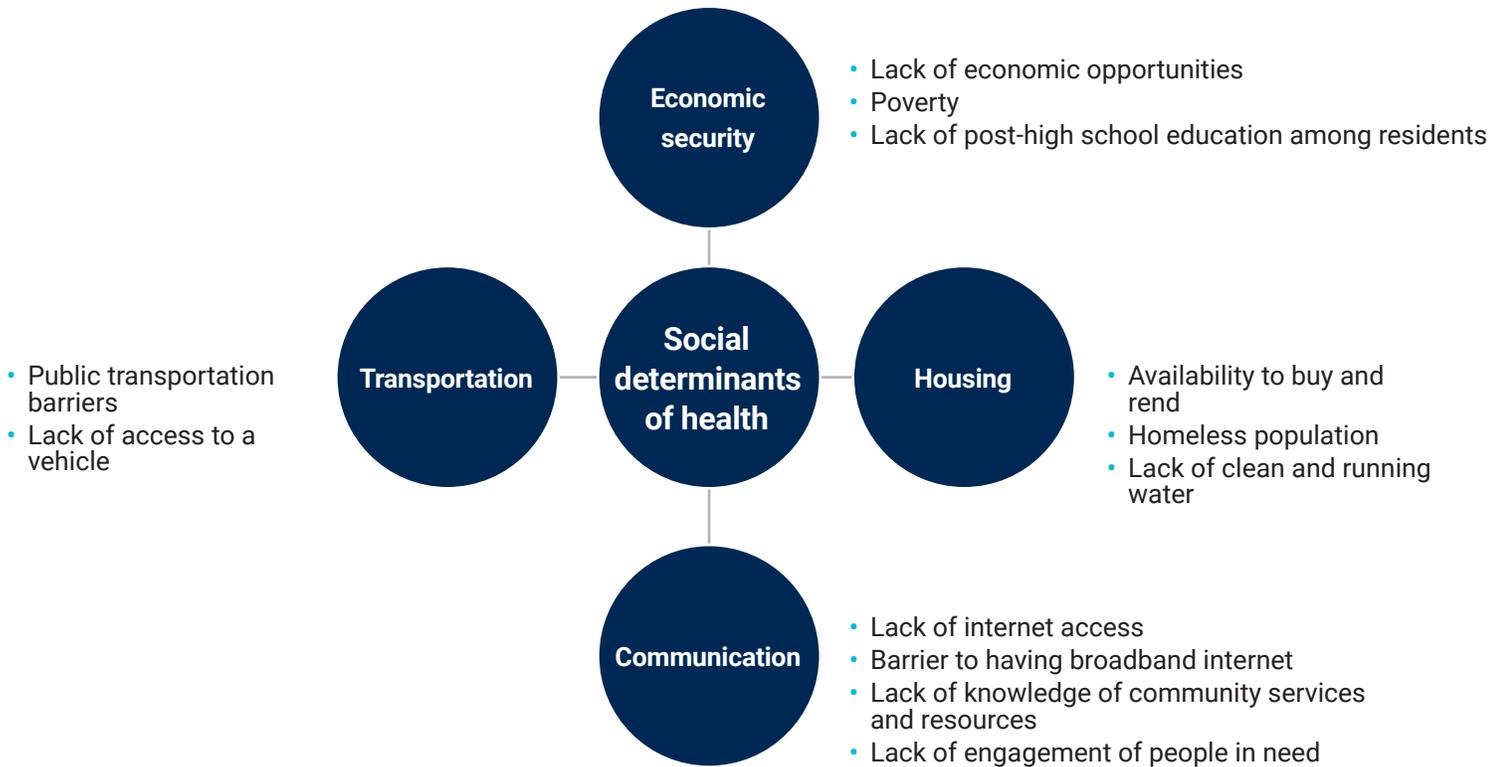
Leadership / Key Stakeholder Focus Groups Key Findings

- Many of the barriers related to access to care and social determinants of health are common in rural communities.
- Coordination and connection were key characteristics of the potential solutions to the problems facing Montcalm County.

Focus Group Themes Related to the Social Determinants of Health

County leaders and key stakeholders also discussed the themes of economic security, transportation, housing and communication. The focus group acknowledged that the difficulties observed in all four of these themes are common in rural communities. When discussing communication, the focus group mentioned a lack of community engagement geared towards underserved populations, the lack of coordination of community services, and difficulties obtaining high-speed internet access (Figure 26).

Figure 26: Focus Group Themes Related to the Social Determinants of Health



Source: 2021 Montcalm County Community Health Needs Assessment County Leadership / Key Stakeholder Discussion

Focus Group Themes Related to Access to Care

When discussing access to care, county leaders and key stakeholders focused on care and treatment for substance use disorder; the affordability of health care; and the availability of services, particularly health and child care services (Figure 27).

Figure 27: Focus Group Themes Related to Access to Care



Source: 2021 Montcalm County Community Health Needs Assessment County Leadership / Key Stakeholder Discussion

Participant-Identified Solutions for Community Health Challenges

When asked about the climate of health in Montcalm County, local leaders and stakeholders mentioned various opportunities for improvement that could foster a culture of health and help to overcome current challenges. Their conversation emphasized care coordination, harm reduction activities (like a needle exchange program), community outreach and engagement, and developing a longer-term strategy for public health in the county (Figure 28).

Figure 28: Participant-Identified Solutions for Community Health Challenges



Source: 2021 Montcalm County Community Health Needs Assessment County Leadership / Key Stakeholder Discussion



Factors Contributing to Health

Access to Care / Care Coordination

According to the National Academies of Sciences, Engineering, and Medicine (formerly known as the Institute of Medicine), access to health care is defined as the “timely use of personal health services to achieve the best possible health outcomes.”¹⁹ Having regular access to a primary care provider and dentist provides better health outcomes. Improving access to health care professionals will “improve quality of care, emphasis on prevention, [and] the identification and early management of conditions,” resulting in better health outcomes and reducing health disparities.²⁰

Indicators

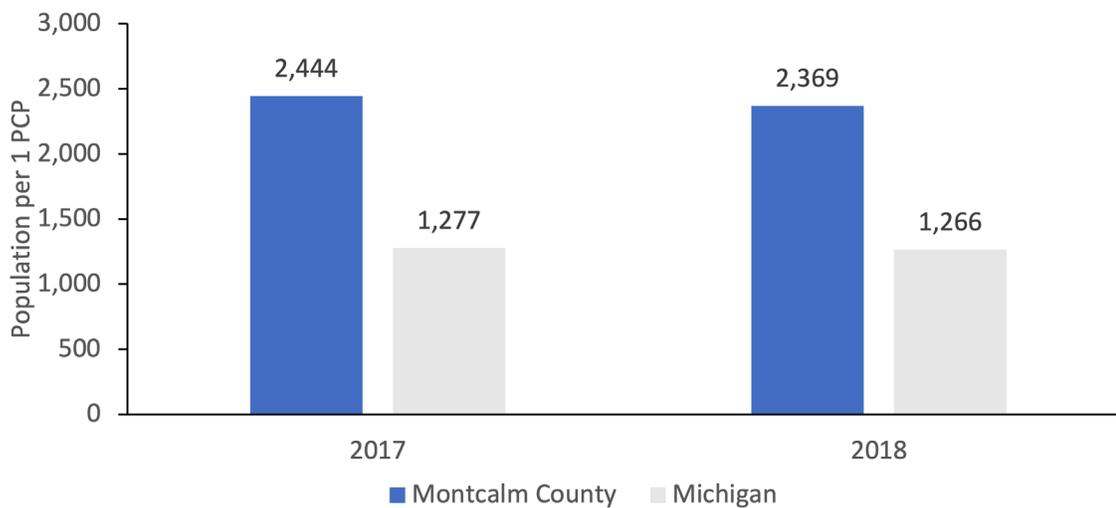
- Population per Primary Care Physician Ratio
- Population per Dentist Ratio
- Ambulatory Care Sensitive Conditions Hospitalizations
- Uninsured Population Under Age 65

Population per Primary Care Physician Ratio

A critical barrier many people experience is limited access to PCPs.²¹ The Robert Graham Center, which specializes in studying family medicine and primary care policies, classified counties as underserved if the population to PCP ratio was greater than 2,000:1.²² Figure 29 shows the number of residents per PCP in Montcalm County and Michigan.

The population per PCP ratio in Montcalm County (2,444:1 in 2017 and 2,369:1 in 2018) was higher than in Michigan (1,277:1 in 2017 and 1,266:1 in 2018) across the two time periods. The ratio for both Montcalm County and Michigan slightly decreased between 2017 and 2018. Montcalm County does not have the ideal population-to-PCP ratio to provide adequate care to the area, while Michigan does.²³

Figure 29: Population per Primary Care Physician Ratio



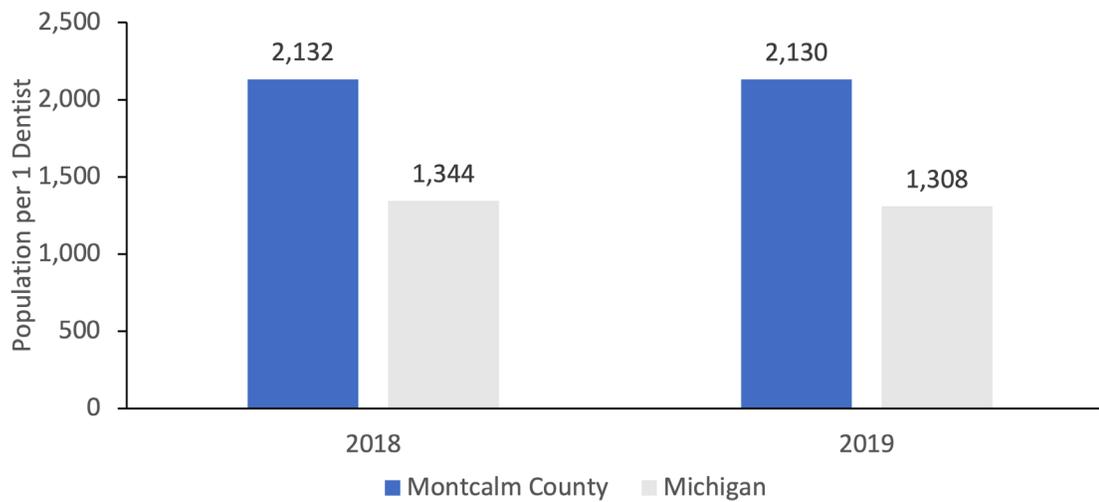
Source: United States Health Resources and Services Administration, Bureau of Health Workforce: Area Health Resources Files Data Downloads | 2020-2021 County Level Data.

Population per Dentist Ratio

One barrier that many people experience is a lack of access to dentists.²⁴ The American Dental Association does not recommend a simple patient-to-dentist ratio²⁵ Figure 30 shows the population to dentist ratio.

The population per dentist ratio in Montcalm County (2,132:1 in 2018 and 2,130:1 in 2019) was higher than in Michigan (1,344:1 in 2018 and 1,308:1 in 2019) across the two time periods. The ratio for both Montcalm County and Michigan was similar between 2018 and 2019.

Figure 30: Population per Dentist Ratio



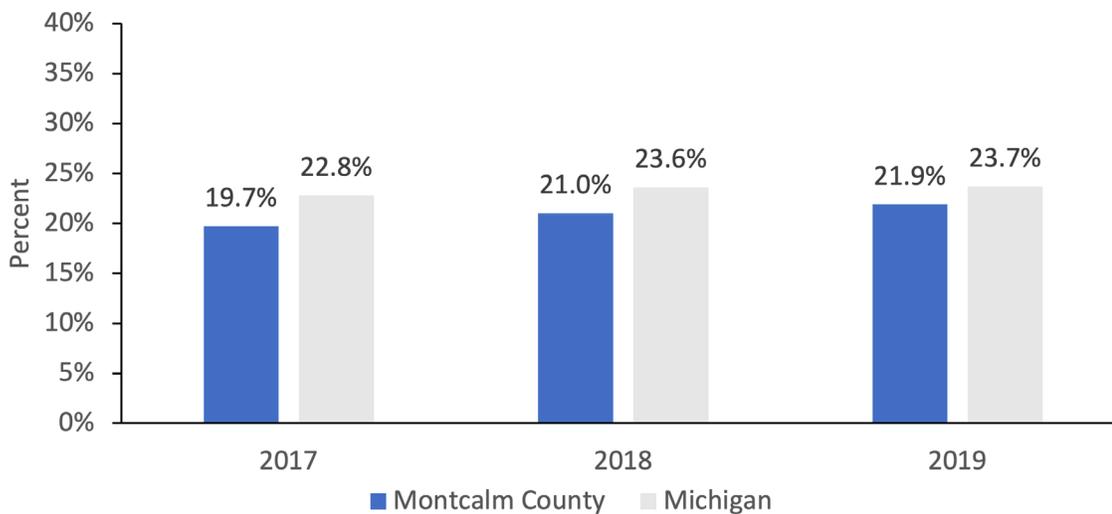
Source: United States Health Resources and Services Administration, Bureau of Health Workforce: Area Health Resources Files Data Downloads | 2020-2021 County Level Data.

Ambulatory Care Sensitive Conditions Hospitalizations

Ambulatory care sensitive conditions are health conditions or diagnoses for which timely and effective ambulatory care can reduce the risks of hospitalizations. ACSCs include, but are not limited to, asthma, diabetes and dehydration.²⁶ High rates of hospitalizations due to ACSCs in a community may be an indicator of the lack or failure of prevention efforts; a primary care resource shortage; poor performance of primary health care delivery systems; or other factors that create barriers to obtaining timely and effective care, resulting in poor health outcomes.

The percentage of ACSCs resulting in hospitalizations was lower in Montcalm County than in Michigan from 2017 to 2019. However, there was an increase in ACSC hospitalizations for Montcalm County (from 19.7% to 21.9%) and Michigan (from 22.8% to 23.7%) from 2017 to 2019 (Figure 31).²⁶

Figure 31: Percentage of All Hospitalizations That Were Ambulatory Care Sensitive Conditions



Source: Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics. Ambulatory Care Sensitive Hospitalizations Trends, Michigan 2003-2019

Montcalm County residents had 236.6 preventable hospitalizations per 10,000 population, which was lower than Michigan's rate of 268.9 per 10,000 hospitalizations. However, Montcalm County residents had a higher preventable hospitalization rate for chronic obstructive pulmonary disease (30.9 per 10,000 population) and congestive heart failure (28.9 per 10,000) than Michigan (25.4 and 20.8 per 10,000 population, respectively) (Table 11).²⁶

Table 11: Preventable Hospitalizations Rates per 10,000 Population for Patients of All Ages by Statewide Leading Diagnoses of Montcalm County Residents, Michigan 2014-2018

Condition	Montcalm County	Michigan
All Ambulatory Care Sensitive Conditions	236.6	268.9
Diabetes	22.3	28.1
Chronic Obstructive Pulmonary	30.9	25.4
Bacterial Pneumonia	26.8	27.7
Congestive Heart Failure	28.9	20.8
Grand Mal & Other Epileptic Conditions	7.9	9.0
Cellulitis	11.6	12.5
Asthma	6.1	8.5
Dehydration	2.9	4.4
Gastroenteritis	2.7	3.9
Kidney/Urinary Infections	4.7	7.6
All Other Ambulatory Care Sensitive Conditions	91.7	121.1

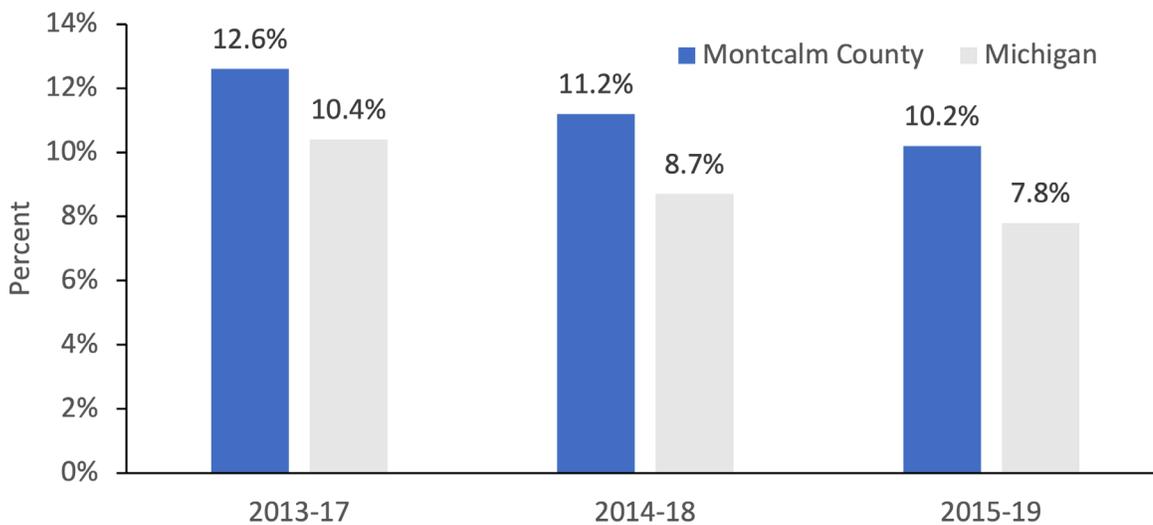
Source: Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics. Ambulatory Care Sensitive Hospitalizations Trends, Michigan 2003-2019

Uninsured Population Under Age 65

Lack of health insurance is one of the most significant barriers to accessing health care in the United States. Uninsured adults are less likely to seek preventive services and are more likely to wait to receive needed care.

The percentage of the uninsured population under age 65 was higher in Montcalm County than in Michigan in 2011-2013 and 2017-2019. This percentage declined from 12.6% to 10.2% in Montcalm County and from 10.4% to 7.8% in Michigan from 2013-2017 to 2015-2019 (Figure 32).^{13,27,28}

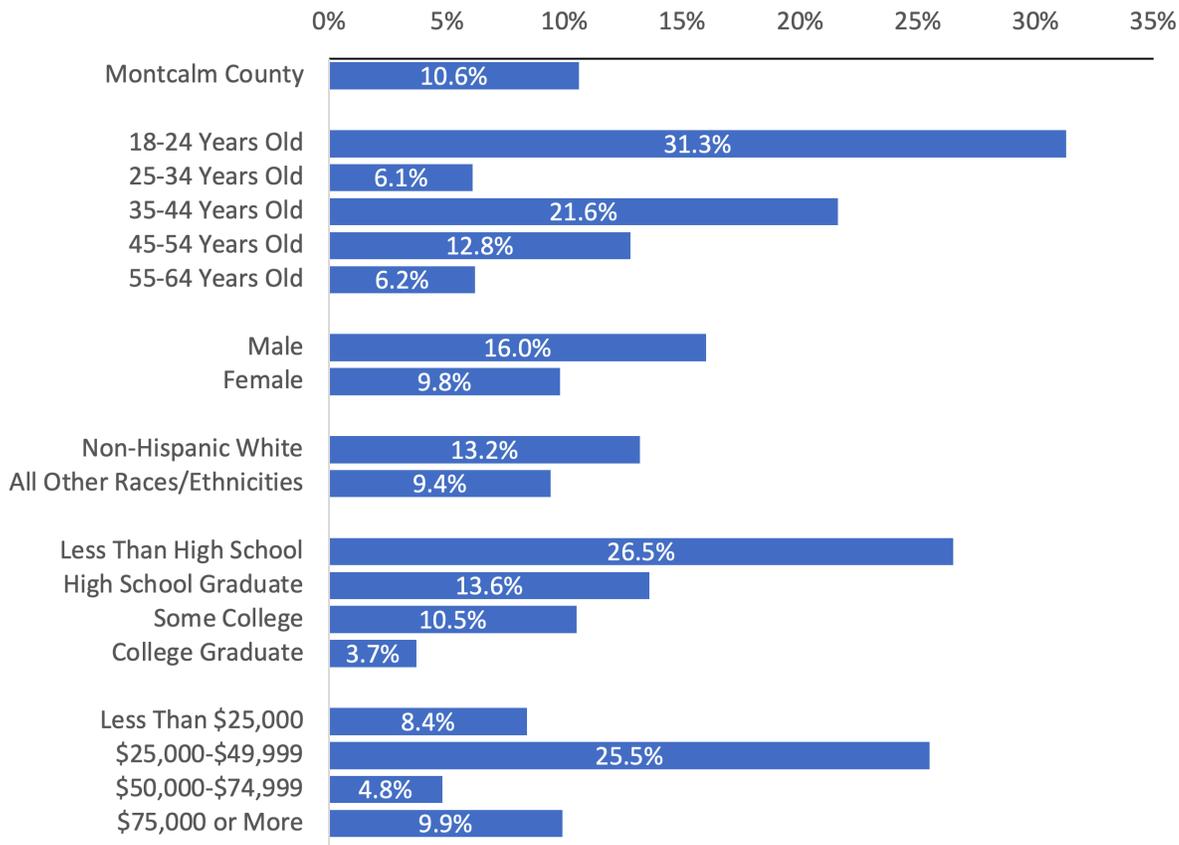
Figure 32: Uninsured Population Under Age 65



Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S2701

As shown in Figure 33, adults ages 18-24 were nearly five times as likely to be uninsured (31.3%) as adults ages 25-34 (6.1%) and 55-64 (6.2%). Males were more likely to be uninsured than females. Adults with less than a high school education were seven times as likely to be uninsured (26.5% vs. 3.7%).

Figure 33: Percentage of Adults Uninsured by Demographic Group Montcalm County Residents, 2017-2019



Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only



Financial Security / Economic Stability

According to the International Committee of the Red Cross, financial security or economic stability is defined as the “ability of individuals, households or communities to cover their essential needs sustainably and with dignity.”²⁹ Income and health have a strong association with each other. Poverty is strongly associated with increased morbidity and mortality. Poor health will likely cause a person to miss work, resulting in a reduced income.³⁰

Indicators

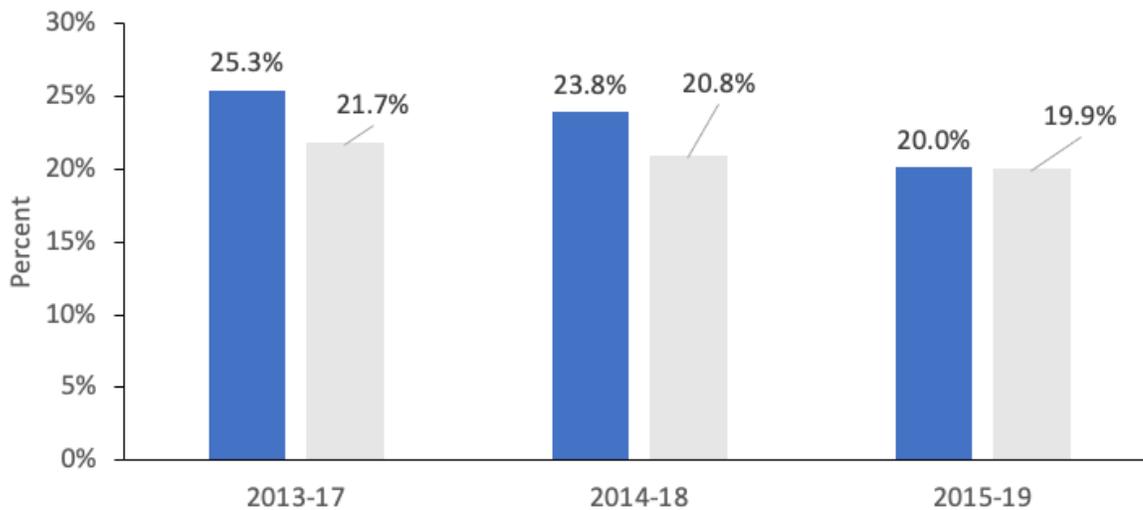
- Children Under Age 18 in Poverty
- Median Household Income
- Unemployment Rate

Children Under Age 18 in Poverty

Children in poverty have an increased risk of experiencing lasting adverse effects on academic achievement, health and income into adulthood.³¹ In Figure 34, children in poverty is defined as the percentage of people under age 18 in poverty.

The percentage of children under age 18 in poverty was higher in Montcalm County (20.0% to 25.3%) than in Michigan (19.9% to 21.7%) over the three four-year periods. The percentage of children under age 18 in poverty declined in both Montcalm County (25.3% to 20.0%) and Michigan (21.7% to 19.9%).^{13,27,28}

Figure 34: Children Under Age 18 in Poverty



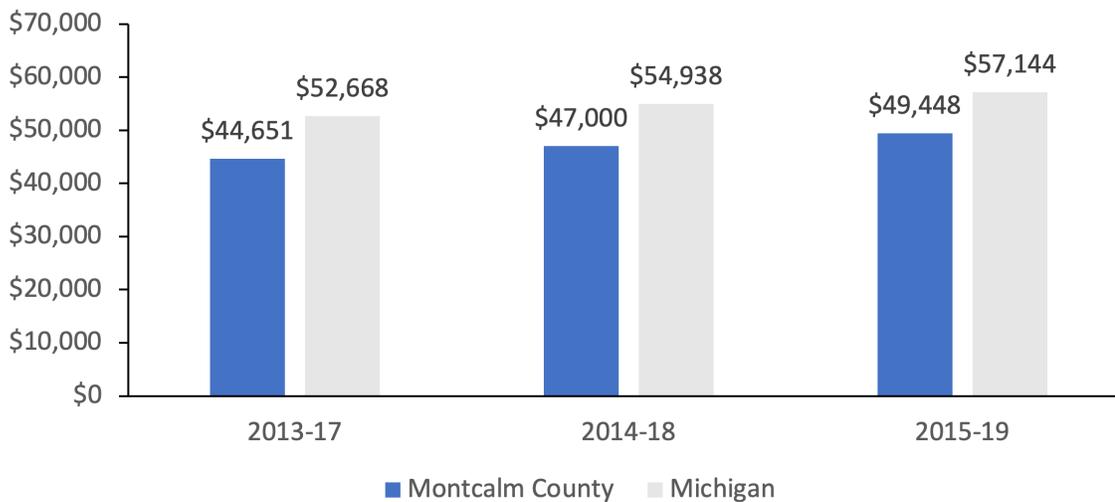
Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S1701

Median Household Income

Income is a strong indicator of poverty and both physical and mental status. As income increases, a person is more likely to have better physical and mental health and live longer.³²

The median household income was lower in Montcalm County (\$44,651-\$49,448) than in Michigan (\$52,668-\$57,144) for each of the three four-year periods. The median household income increased in both Montcalm County and Michigan (Figure 35).³³⁻³⁵

Figure 35: Median Household Income



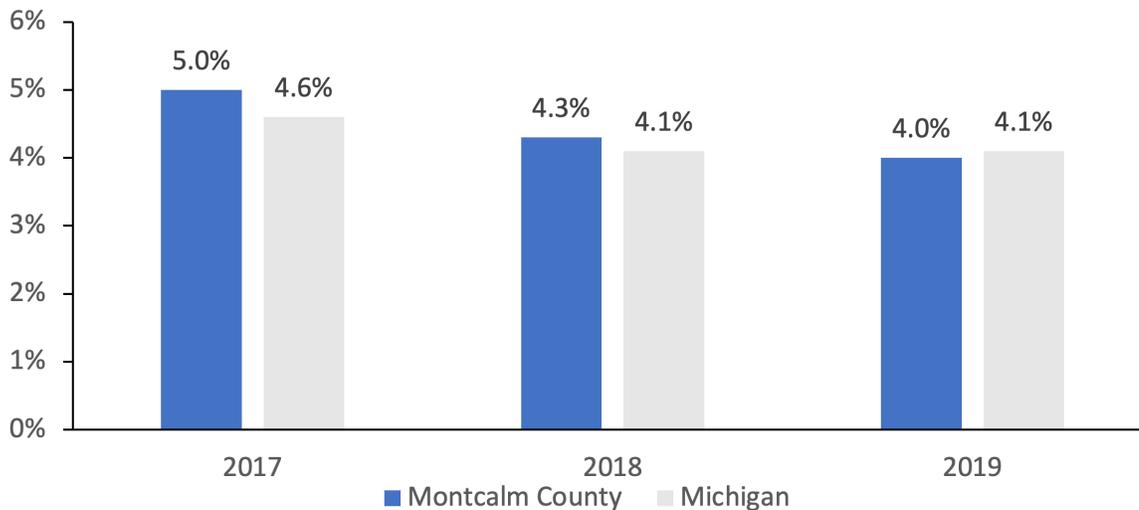
Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S1901

Unemployment Rate

Unemployment and health have a significant direct association with each other. People who are unemployed tend to have higher annual illness rates, lack health insurance and access to health care, and have an increased risk for death.³⁶ Having a well-paying job and stable income also affects a person's neighborhood, quality of education and child care, and access to quality food. In Figure 36, the unemployment rate is defined as the percentage of the population ages 16 and older unemployed but seeking work.

In Montcalm County, the unemployment rate (5.0%) was higher than in Michigan (4.6%) in 2017. However, the unemployment rate remained steady in 2018-2019 in Montcalm County (4.0%-4.3%) and Michigan (4.1%). There was a decrease in the unemployment rate from 2017 to 2018 for Montcalm County and Michigan. The unemployment rate in 2018 and 2019 remained steady for Montcalm County and Michigan.³⁷

Figure 36: Unemployment Rate, 2017-2019



Source: 2017-2019 Local Area Unemployment Statistics – County and State Data



Neighborhood and Built Environment

Safe and affordable housing, neighborhoods and built environments shape lives and affect residents' health. Poor housing conditions, air quality and water quality, and limited access to healthy foods, can lead to injuries, poor health and poor outcomes.³⁸⁻³⁹

Indicators

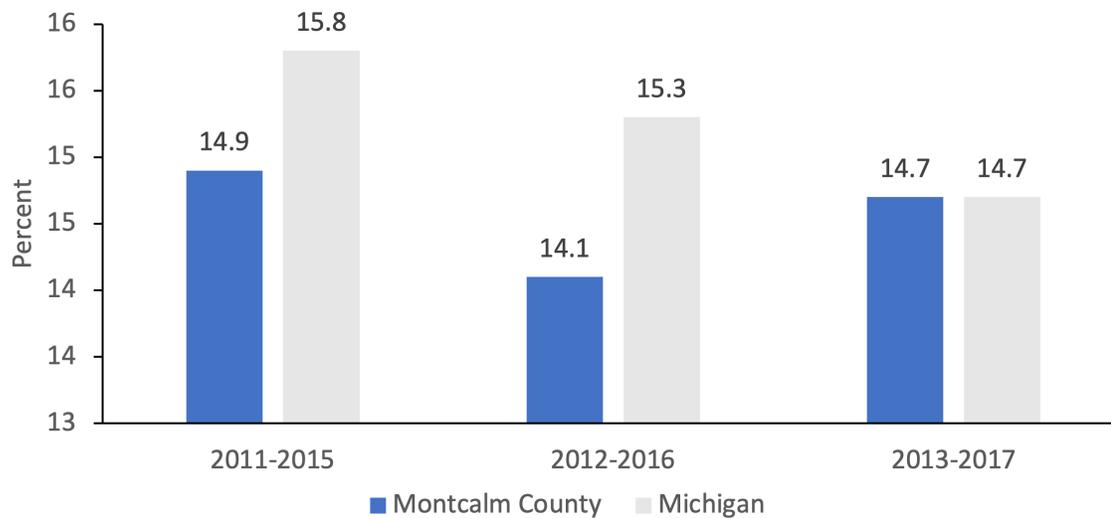
- Households With Severe Housing Problems
- Access to Exercise Opportunities
- Air Pollution – Particulate Matter
- Drinking-Water Violations
- Food Environment Index
- Households With a Broadband Internet Subscription

Households With Severe Housing Problems

Housing affects health, as healthy environments often promote good physical and mental health. Households with severe housing problems contribute to poor health and harmful effects on childhood development.⁴⁰ Figure 37 shows the percentage of households with at least one of four housing problems: overcrowding, high housing costs, lack of kitchen facilities or lack of plumbing facilities.⁴¹

Between 2011-2015 and 2012-2016, Montcalm County had fewer houses with severe problems (14.9% and 14.1%) than Michigan (15.8% and 15.3%). However, in 2013-2017, Montcalm County and Michigan had the same percentage of houses with severe problems (14.7%). Over the three five-year periods, the percentage of houses with severe problems was relatively stable in Montcalm County (roughly 14.7%), while it decreased in Michigan (from 15.8% to 14.7%).⁴²

Figure 37: Percent of Households With a Severe Housing Problem



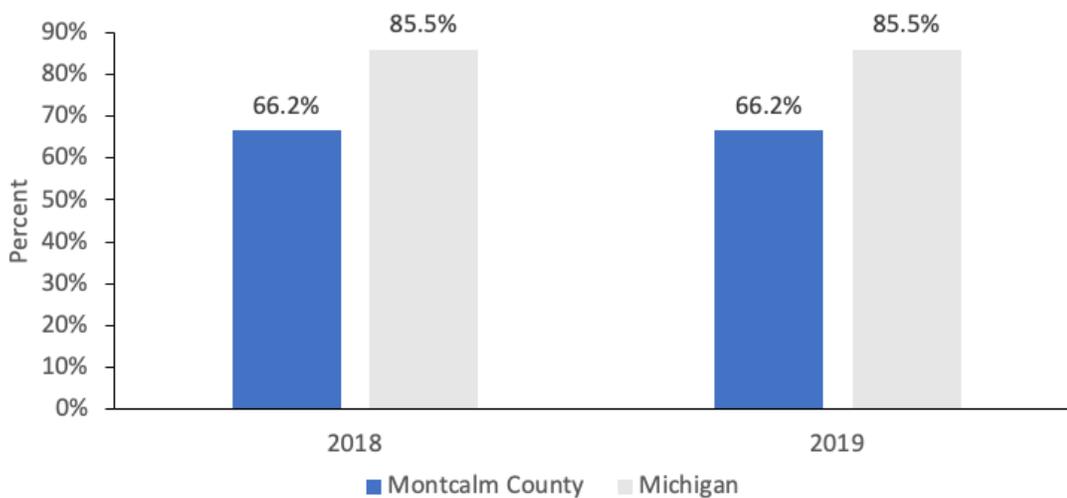
Source: 2011-2015 through 2013-2017 Comprehensive Housing Affordability Strategy Data

Access to Exercise Opportunities

Physical activity and exercise are essential for maintaining and promoting good health. Regular physical activity is shown to reduce depression, decrease the risk of chronic diseases, and reduce and prevent premature death.⁴³ Figure 38 shows the percentage of the population with adequate access to locations for physical activity, which is defined as an individual residing in a census block that is within a half-mile of a park, in an urban census block that is within 1 mile of a recreational facility, or in a rural census block that is within 3 miles of a recreational facility.

It is estimated that the population in Montcalm County had fewer access to exercise opportunities (66.2% to 70.4%) than in Michigan (85.4% to 85.5%) by roughly 15-20 percentage points. The percentage of the population with access to exercise opportunities decreased in Montcalm County from 2015 to 2016 and remained the same in 2017. In Michigan, the percentage of the population with access to exercise opportunities remained the same during the same three-year period.⁴³

Figure 38: Access to Exercise Opportunities



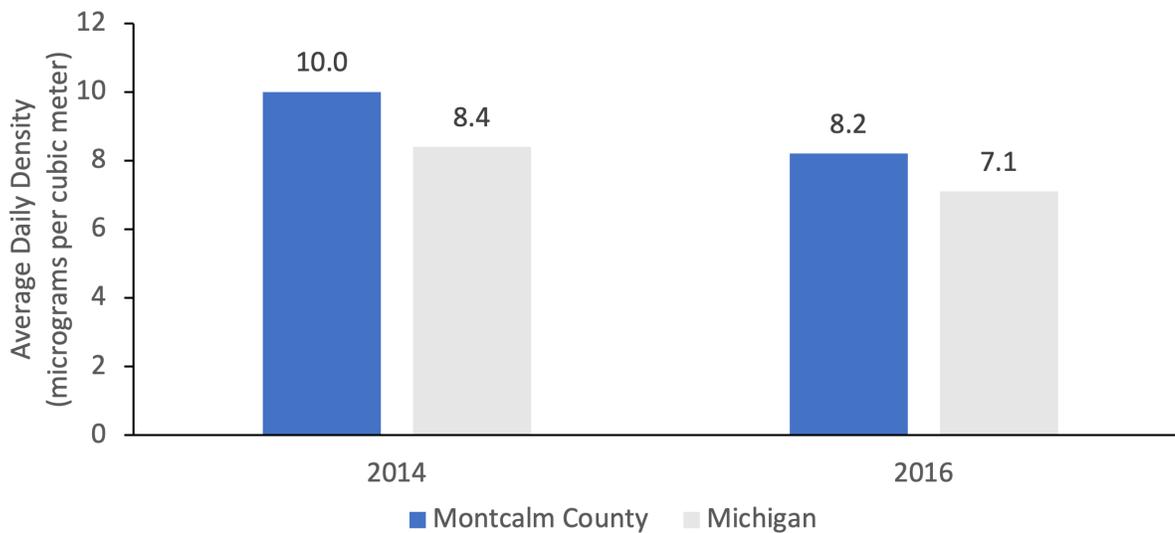
Source: 2020-2021 County Health Rankings

Air Pollution – Particulate Matter

Poor air quality and pollution harm health and cause chronic bronchitis, decreased lung function, asthma and other adverse effects. In Figure 39, air pollution is defined as the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5). PM2.5 can come from a variety of sources—traffic, coal-fired power plants, industry and more—and although some is emitted directly from these sources, much of it forms in the air when chemicals such as sulfates, nitrates and volatile organics react or condense to form fine particles.⁴⁴

Between 2014 and 2016, the average daily density of fine particulate matter in micrograms per cubic meter was higher in Montcalm County (10.0 in 2014 and 8.2 in 2016) than in Michigan (8.4 in 2014 and 7.1 in 2016). However, the average daily density of fine particulate matter has decreased over the same period in Montcalm County and Michigan.⁴⁵

Figure 39: Air Pollution – Particulate Matter



Source: 2014-2016 CDC Tracking Network

Drinking-Water Violations

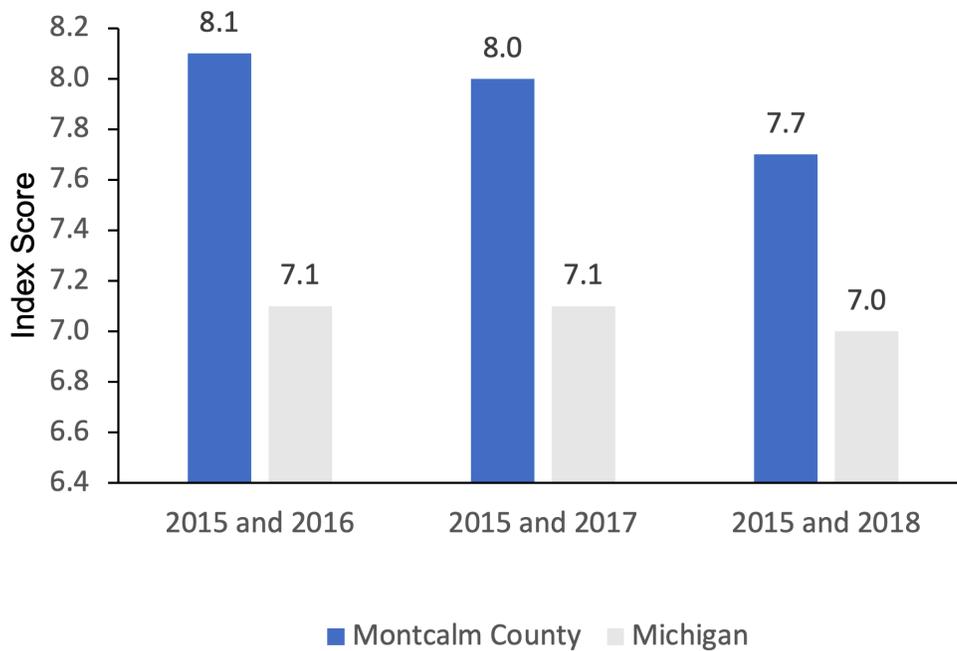
Contaminated drinking water can cause health problems, including nausea, cancer, kidney disease, liver disease, congenital disabilities and death.⁴⁶ There were no drinking-water violations in Montcalm County between 2017 and 2019.⁴⁷

Food Environment Index

Healthy food is vital for overall good health, disease prevention, and growth and development in children. When healthy food is not available, people are more likely to consume foods of lower nutritional value. The Food Environment Index measures access to healthy foods by considering the distance an individual lives from a grocery store or supermarket, locations for healthy food purchases in most communities, and the inability to access healthy food because of cost barriers. The Food Environment Index ranges from 0 (worst) to 10 (best).⁴⁸

In Montcalm County, the Food Environment Index was higher and better than in Michigan. However, there was a slight decrease in the index score between 2015-2016 and 2015-2018 in Montcalm County, while it remained stable for Michigan (Figure 40).⁴⁹

Figure 40: Food Environment Index



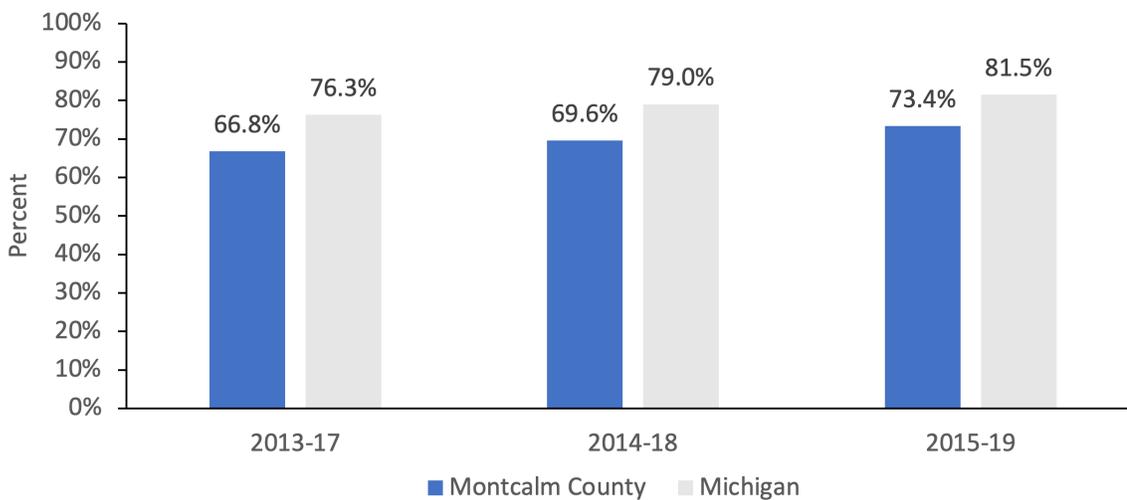
Source: 2016-2018 USDA Food Environment Atlas

Households With a Broadband Internet Subscription

Broadband internet access is a social determinant of health and affects the quality of health of an individual and household. People without broadband internet are likely to have poor health outcomes and lower quality of education. Health care delivery via telemedicine, health literacy and health prevention efforts can be limited without broadband internet.⁵⁰ Studies have shown that students without broadband internet had trouble completing schoolwork.⁵¹ Figure 41 shows the percentage of households with a broadband internet subscription.

The percentage of households with broadband internet was lower in Montcalm County than in Michigan for all three five-year periods. Over the same three time periods, the percentage of households with broadband internet increased in Montcalm County (66.8% to 73.4%) and Michigan (76.3% to 81.5%).⁵²⁻⁵⁴

Figure 41: Households With a Broadband Internet Subscription



Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S2801



Transportation

Motorized vehicle transportation contributes to morbidity and mortality. Increased driving leads to an increased risk of an accident, mental stress, physical inactivity and air pollution, which can be detrimental to overall health and well-being. ¹⁵¹

Indicators

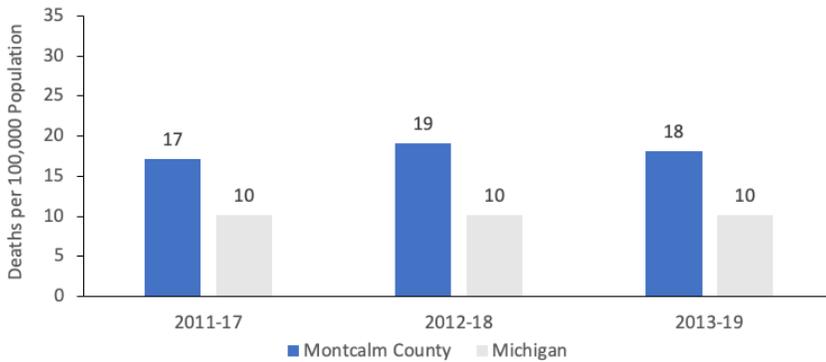
- Motor Vehicle Crash Deaths / Traffic Fatalities
- Alcohol-Impaired Driving Deaths
- Population That Drove Alone to Work
- Population That Drove Alone to Work With Long Commute

Motor Vehicle Crash Deaths / Traffic Fatalities

In Figure 42, the number of motor vehicle crashes resulting in death is defined as the number of motor vehicle crash deaths per 100,000 population.

The number of motor vehicle crash deaths per 100,000 population was higher in Montcalm County (17-19 deaths per 100,000 population) than in Michigan (10 deaths per 100,000 population) over each of the three four-year periods. The number of deaths per 100,000 remained steady during the same periods in Montcalm County and Michigan.⁵⁵

Figure 42: Motor Vehicle Crash Deaths per 100,000 Population



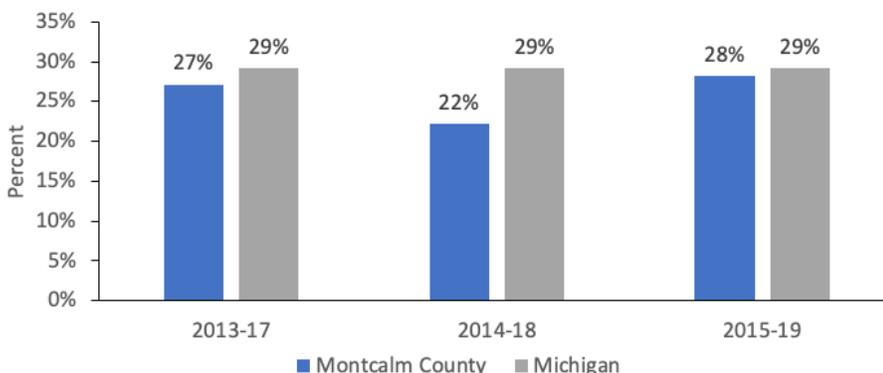
Source: 2011-2017 through 2013-2019 CDC Wonder Data

Driving Deaths With Alcohol Involvement

According to the National Highway Traffic Safety Administration, 28 people die in drunk-driving crashes per day in the United States—that is one death every 52 minutes. In 2019, 10,142 people lost their lives in drunk-driving accidents.⁵⁶ These deaths were preventable. In Figure 43, driving deaths with alcohol involvement is defined as the percentage of driving deaths with alcohol involvement.

Over the three five-year periods, driving deaths with alcohol involvement were 2-7 percentage points lower in Montcalm County than in Michigan from 2013-2017 and 2014-2018 but was almost equal in 2015-2019. The trend in Montcalm County remained flat, with 27%-28% of driving deaths with alcohol involvement in 2013-2017 and 2015-2019. There was a decrease in alcohol-involved driving deaths during 2014-2018 in Montcalm County (22%). During the three four-year periods, Michigan's percentage of driving deaths with alcohol involvement was the same (29%).⁵⁸

Figure 43: Percentage of Driving Deaths With Alcohol Involvement



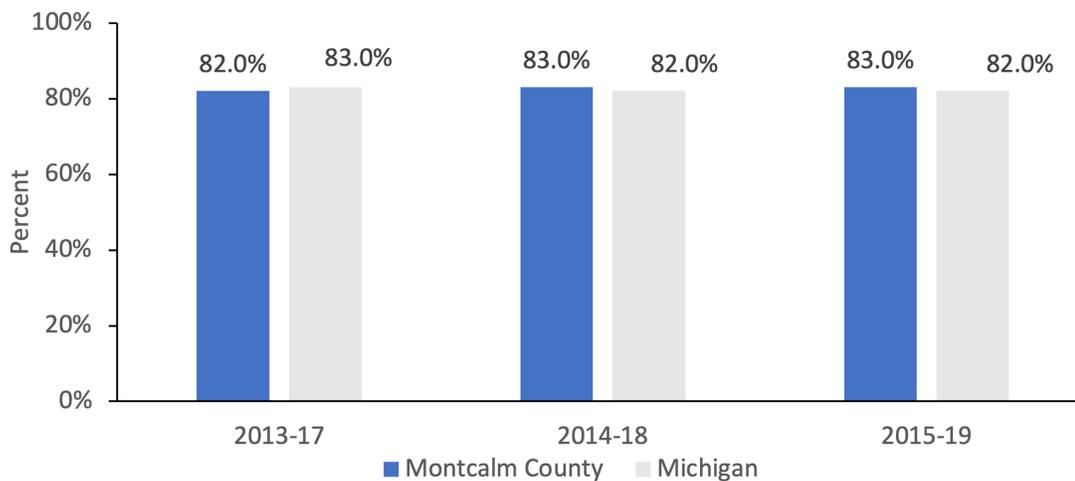
Source: 2013-2017 through 2015-2019 Fatality Analysis Reporting System

Population That Drove Alone to Work

People who commute by vehicle over a long distance are likely to have higher blood pressure and body mass index, be less physically active, and have poorer mental health than people who travel over a shorter distance. Each hour spent in a car per day is associated with a 6% increase in the likelihood of obesity.⁵⁸⁻⁶⁰

In Figure 44, the population that drove alone to work is defined as the percentage of the workforce that drove alone to work. The percentage of the population that drove alone to work in Montcalm County (82%-83%) was similar to Michigan (82%-83%) over the three four-year periods. The percentage of the population that drove alone to work remained steady during the same periods in Montcalm County and Michigan.⁶¹⁻⁶³

Figure 44: Percentage of Population That Drove Alone to Work



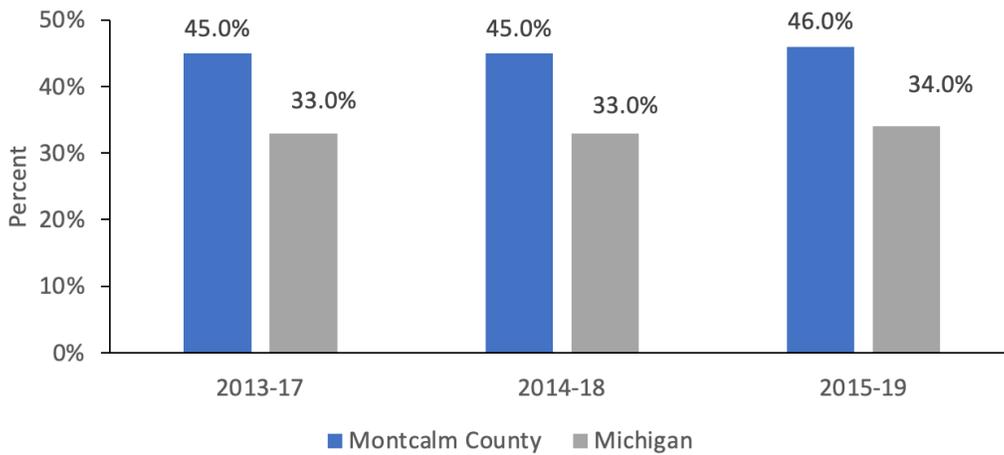
Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S0801

Population That Drove Alone to Work With Long Commute

In Figure 45, driving alone to work with a long commute is defined as the percentage of workers who commute alone for more than 30 minutes.

Over each of the three four-year periods from 2013-2017 to 2015-2019, the population with a long commute that drives alone to work was higher in Montcalm County than in Michigan by 12 percentage points. The trend remained steady in Montcalm County (45%-46%) and Michigan (33%-34%).⁶¹⁻⁶³

Figure 45: Percent of Population That Drove Alone to Work With Long Commute



Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S0801



Education Access and Quality

Education is vital to improving the health of a community. Increased access to quality education and educational attainment helps promote health equity and reduces disparities. Quality education can lead to better opportunities that increase income and improve overall health.

Indicators

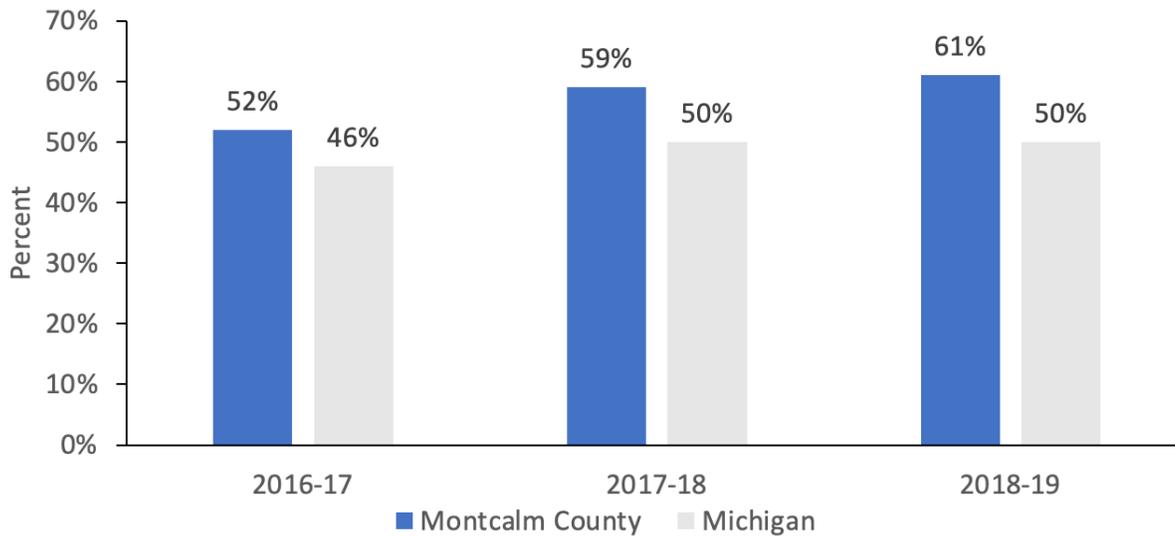
- Students Eligible for Free or Reduced-Price Lunch
- Adults With a High School Diploma or Higher
- Adults With a Bachelor's Degree or Higher

Students Eligible for Free or Reduced-Price Lunch

Food insecurity and lack of access to healthy food can prevent children from learning and reduce growth and development, which is detrimental to long-term economic and health outcomes.⁶⁴ Figure 46 shows the percentage of students eligible for free or reduced-price lunch in Montcalm County and Michigan.

Across the three periods from 2016-2017 to 2018-2019, Montcalm County had a higher percentage of children eligible for free or reduced-price lunch than Michigan. From 2016-2017 to 2018-2019, the percentage of students eligible for free or reduced-price lunches increased for Montcalm County (from 52% to 61%) and Michigan (46% to 50%).⁶⁵

Figure 46: Students Eligible for Free or Reduced-Price Lunch



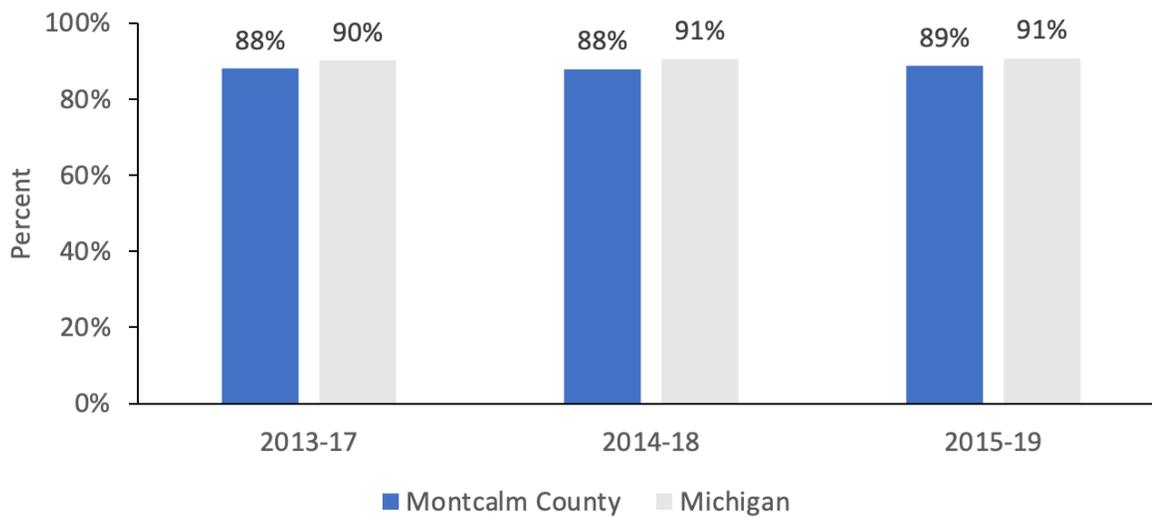
Source: 2016-2017 through 2018-2019 National Center for Education Statistics

Adults With a High School Diploma or Higher

Those who completed high school have better health and economic outcomes than those who did not. Figure 47 shows the percentage of adults 25 years and older with at least a high school diploma.

The percentage of adults age 25 and older who completed high school was lower in Montcalm County than in Michigan over the three five-year periods. However, for both Montcalm County and Michigan, the percentage of adults age 25 and older who completed high school had remained steady over time.⁶⁶⁻⁶⁸

Figure 47: Adults With a High School Diploma or Higher, Age 25+



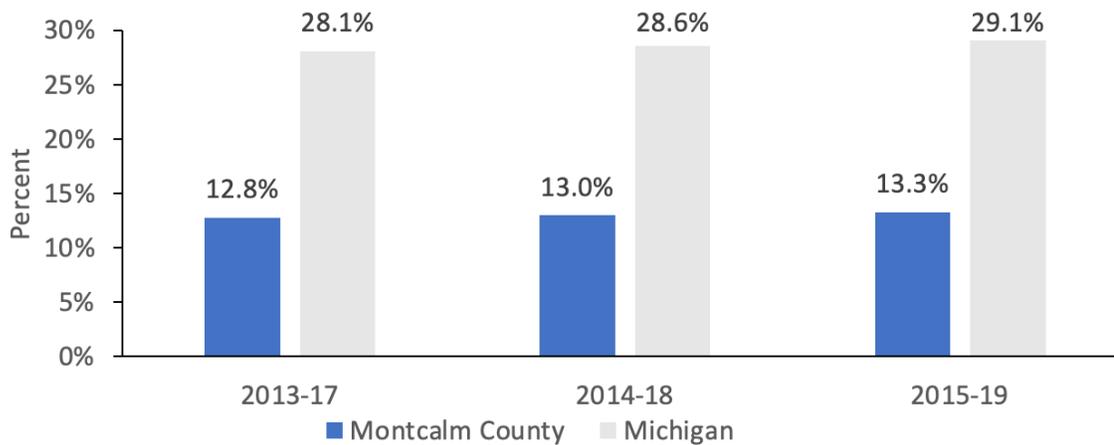
Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S1501

Adults With a Bachelor's Degree or Higher

Those who have attained a bachelor's degree or higher have better health and economic outcomes than those who have completed high school or some college. Figure 48 shows the percentage of adults with a bachelor's degree or higher.

The percentage of adults age 25 and older with a bachelor's degree or higher was significantly lower in Montcalm County (12.8%-13.3%) than in Michigan (28.1%-29.1%) over the three five-year periods. However, for both Montcalm County and Michigan, the percentage of adults age 25 and older with a bachelor's degree or higher remained steady over time.⁶⁶⁻⁶⁸

Figure 48: Adults With a Bachelor's Degree or Higher, Age 25+



Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table S1501



Social and Community Context

Healthy People 2030 defines social and community context as the “connection between characteristics of the contexts within which people live, learn, work, and play and their health and well-being.”⁶⁹ According to the Robert Wood Johnson Foundation, people with an increased “sense of security, belonging, and trust in their community have better health. People who don’t feel connected are less inclined to act in healthy ways or work with others to promote well-being for all.”⁷⁰

Indicators

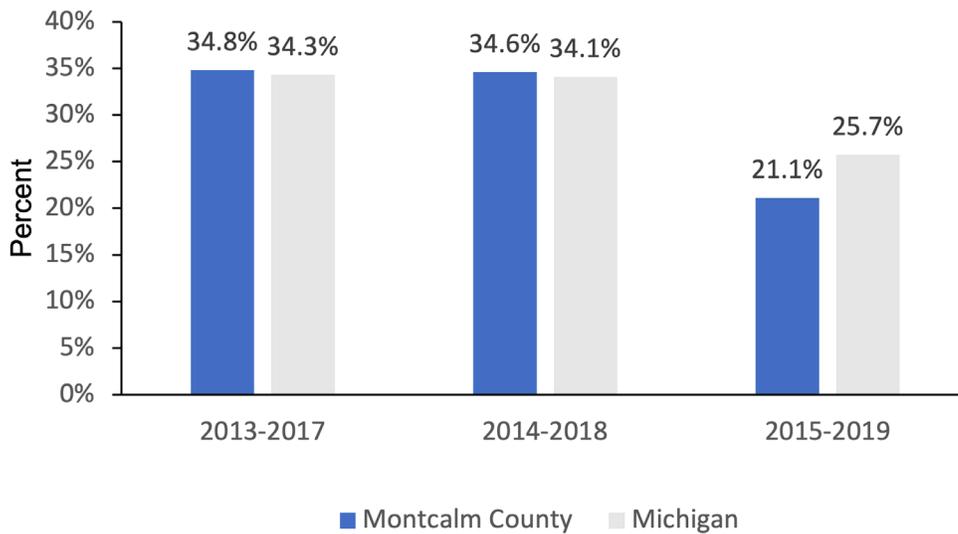
- Children in Single-Parent Households
- Income Inequality
- Number of Social Associations per 10,000 Population
- Number of Violent Crime Offenses per 100,000 Population

Children in Single-Parent Households

Children in single-parent households are at higher risk of having poor health outcomes, economic insecurity and food insecurity.⁷¹ Children in single-parent households are “at greater risk of severe morbidity and all-cause mortality than their peers in two-parent households.”⁷²

The percentage of single-parent households with children under 18 in 2013-2017 and 2014-2018 was similar in Montcalm County (34.8% and 34.6%) and Michigan (34.3% and 34.1%). However, in 2015-2019, the percentage of these households was lower in Montcalm County than in Michigan (21.1% vs. 25.7%) (Figure 49).¹¹

Figure 49: Children Under Age 18 in Single-Parent Households



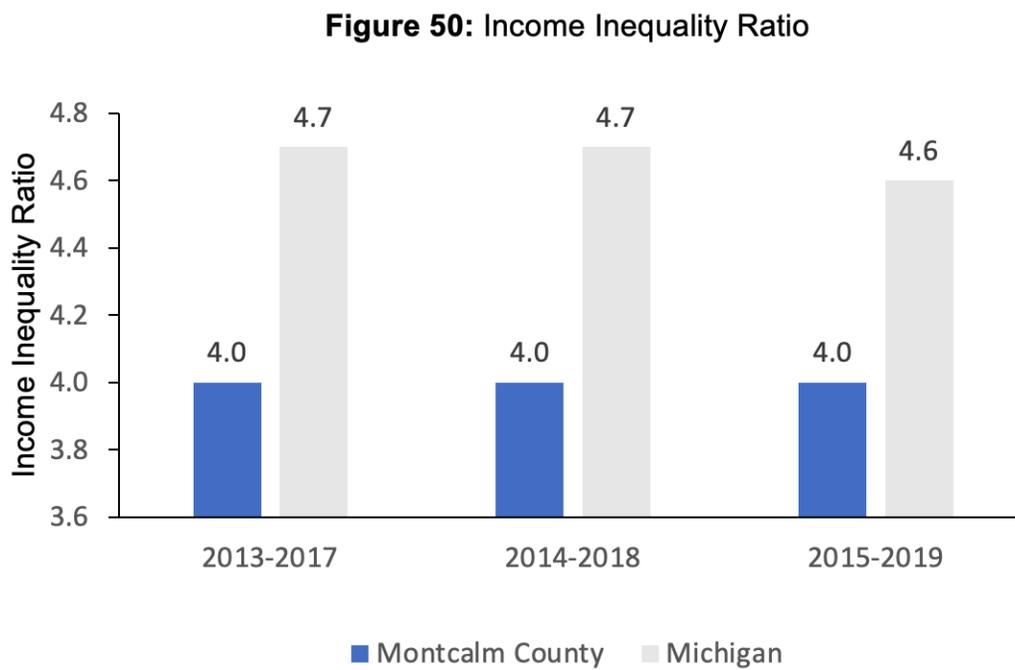
Source: U.S. Census Bureau: 2017-2019 American Community Survey 5-Year Estimates, Table DP02

Income Inequality

Income inequality has been shown to increase the prevalence of poverty, increase stress, reduce the sense of community and harm health.⁷³ In Figure 50, the income inequality ratio is defined as the ratio of household income at the 80th percentile to household income at the 20th percentile.

In Montcalm County, the income inequality ratio was lower (4.0) than in Michigan (4.6-4.7) across all three five-year periods. Across the three periods, the income inequality ratio was stable for Montcalm County and Michigan.⁷⁴

Figure 50: Income Inequality Ratio



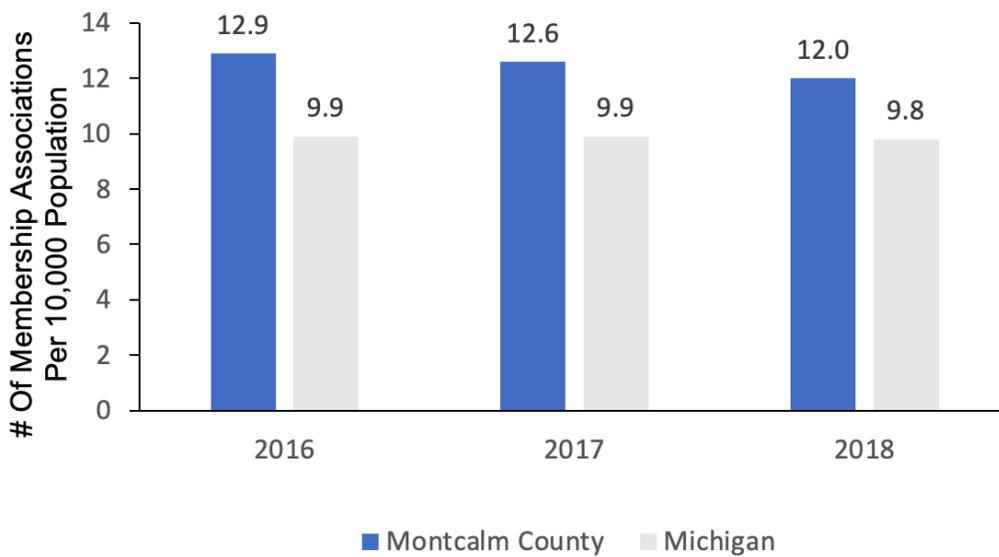
Source: 2019-2021 County Health Rankings

Number of Social Associations per 10,000 Population

Social associations and memberships are strong predictors in assessing the community's overall health. Communities with high membership associations are shown to have an increased sense of community and better community health.⁷⁵ In Figure 51, social associations are defined as the number of membership associations per 10,000 population.

In Montcalm County, the number of social associations per 10,000 population was higher than in Michigan from 2016 to 2018. There was a decrease in memberships from 2016 to 2018 in Montcalm County (from 12.9 to 12.0 memberships per 10,000 population), while the number of memberships in Michigan did not change (9.8-9.9 memberships per 10,000 population).⁷⁶

Figure 51: Number of Social Associations per 10,000 Population



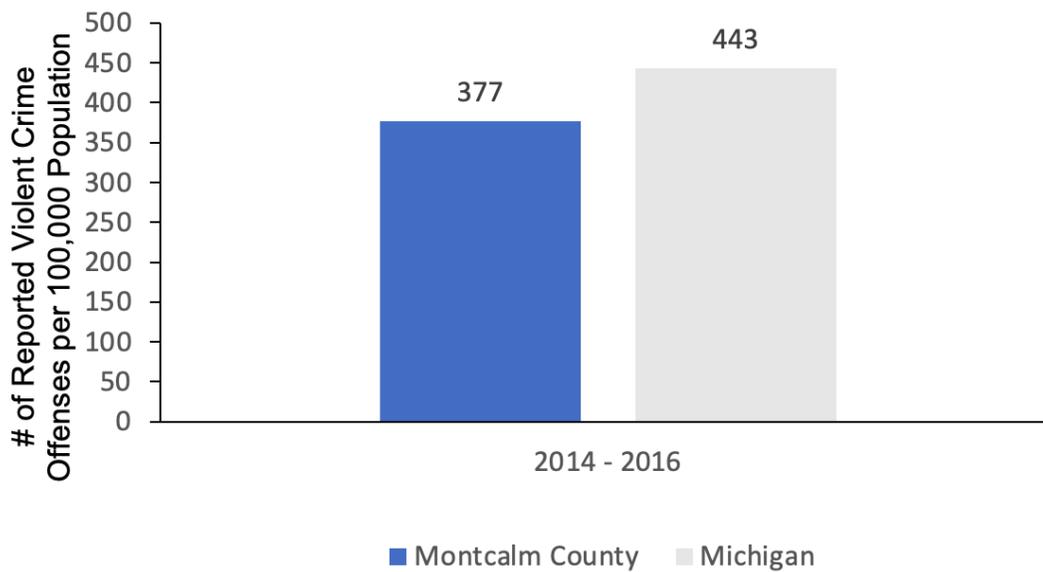
Source: 2016-2018 County Business Patterns

Number of Violent Crime Offenses per 100,000 Population

Violent crimes have a detrimental effect on a community's overall health and well-being. Communities with high rates of violent crimes are likely to have residents who experience increased stress levels and have an increased prevalence of physical inactivity. Also, violent crimes can lead to premature deaths.⁷⁷

The number of reported violent crime offenses per 100,000 population from 2014 to 2016 was lower in Montcalm County (377 per 100,000 population) than in Michigan (443 per 100,000 population) (Figure 52).⁷⁸

Figure 52: Number of Violent Crime Offenses per 100,000 Population



Source: 2014-2016 Uniform Crime Reporting Program



Morbidity and Mortality

Chronic Diseases / Disease Management

Chronic disease is the leading cause of death and disability in the United States. According to the National Center for Chronic Disease Prevention and Health Promotion, chronic diseases are defined as “conditions that last one year or more and require ongoing medical attention or limit activities of daily living or both.” Six in 10 adults in the United States have a chronic disease, and four in 10 adults have two or more chronic diseases.

Indicators

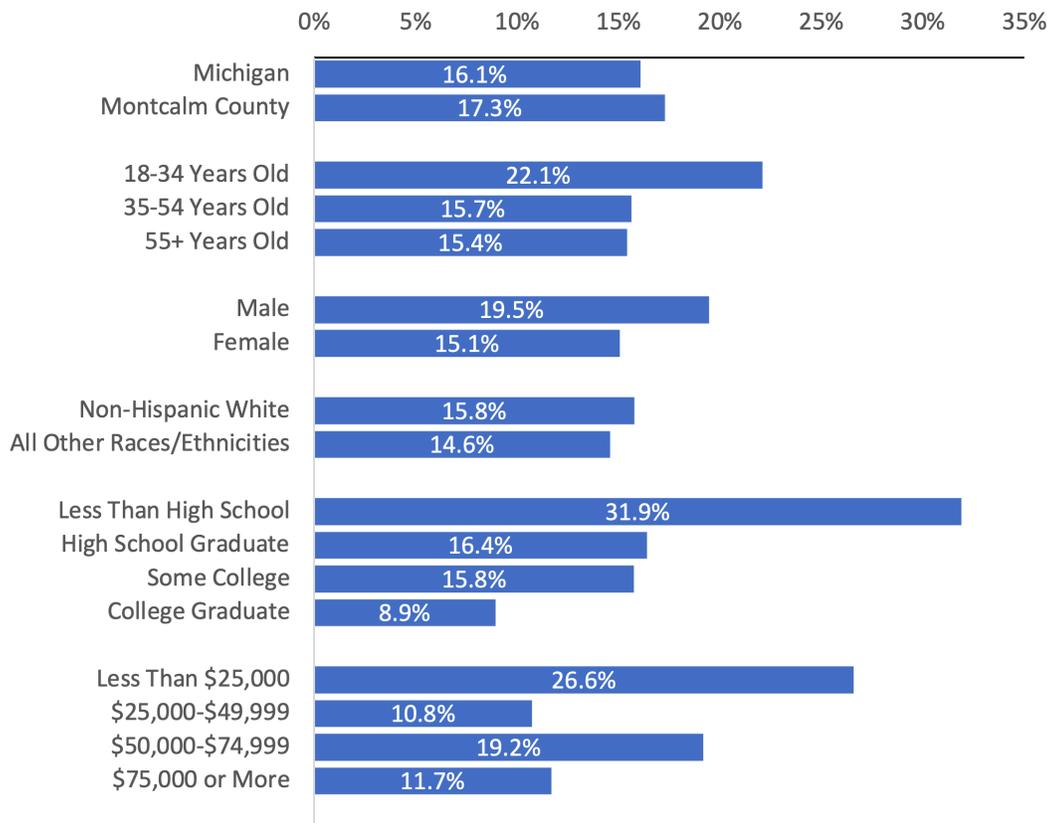
- Prevalence of Asthma
- Prevalence of Diabetes
- Diabetes Management and Education
- Prevalence of Disability
- Prevalence of High Cholesterol
- Prevalence of Hypertension

Prevalence of Asthma

Asthma is a chronic disease of the airways characterized by periods of reversible airflow obstruction resulting in coughing, wheezing, chest tightness and breathing difficulties.⁷⁹ It is estimated that between 2008 and 2013 medical costs related to asthma were \$3,266 and prescription costs were \$18,000 per person per year. Collectively, children with asthma miss approximately two days of school per year, and adults with asthma miss two days of work per year.⁸⁰

As shown in Figure 53, more adults in Montcalm County (17.3%) reported ever having asthma than in Michigan (16.1%). In Montcalm County, a greater percentage of 18- to 34-year-olds (22.1%) have been told that they have asthma compared to the other age groups. Those with a household income of less than \$25,000 were more likely to have been told that they have asthma (26.6%) than the other income levels.^{81,141}

Figure 53: Percentage of Adults Who Were Ever Told That They Have Asthma by Demographic Group, Montcalm County Residents, 2017-2019



Sources:

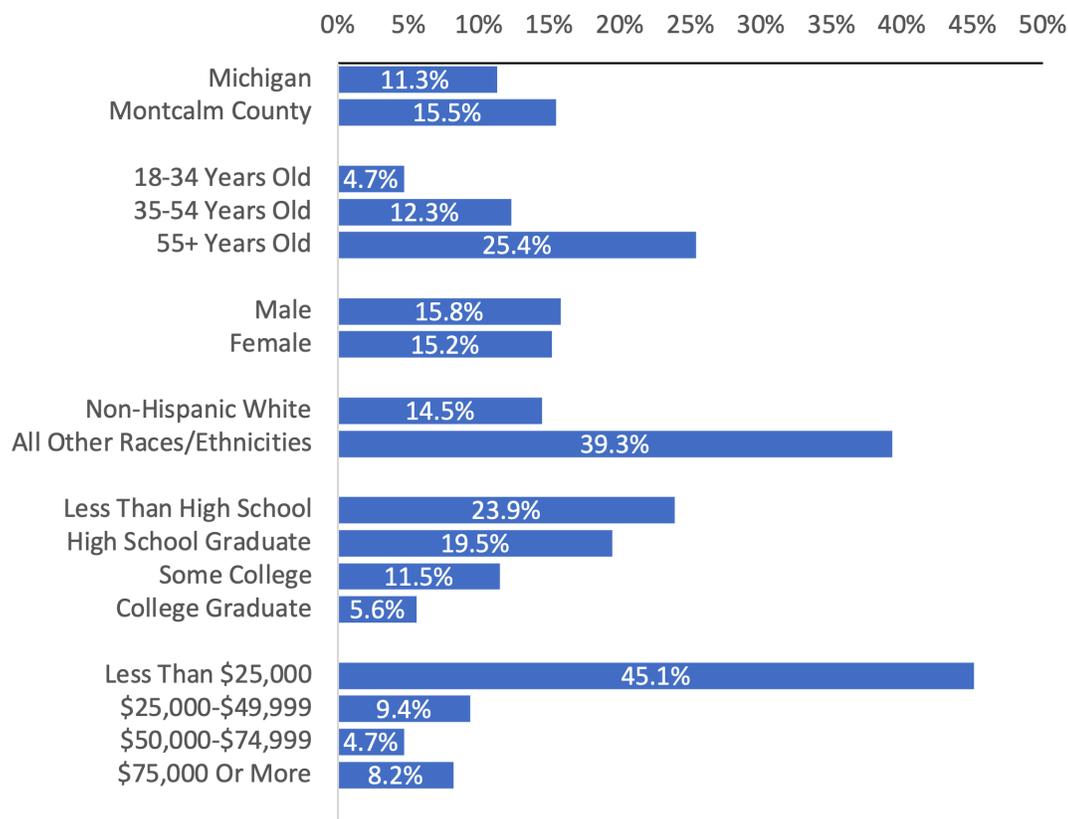
2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only
 2017-2019 MDHHS Behavioral Risk Factor Survey

Prevalence of Diabetes

Diabetes is a chronic disease in which the body's ability to metabolize carbohydrates and sugars is impaired. Complications from diabetes can include stroke, kidney failure, nerve damage, blindness and lower-limb amputations. When accounting for medical costs and loss of productivity, researchers estimated that diabetes cost the United States \$327 billion in 2017.⁸² As the number of overweight and obese individuals increases, diabetes is also expected to increase.

In Figure 54, slightly more adults in Montcalm County reported being diagnosed with diabetes (15.5%) than in Michigan (11.3%). In Montcalm County, the percentage of adults age 55 and older being told they have diabetes was twice as much as the percentage of adults 35-54 years of age.^{81,141}

Figure 54: Percentage of Adults Who Were Ever Told That They Have Diabetes by Demographic Group, Montcalm County Residents, 2017-2019



Sources:

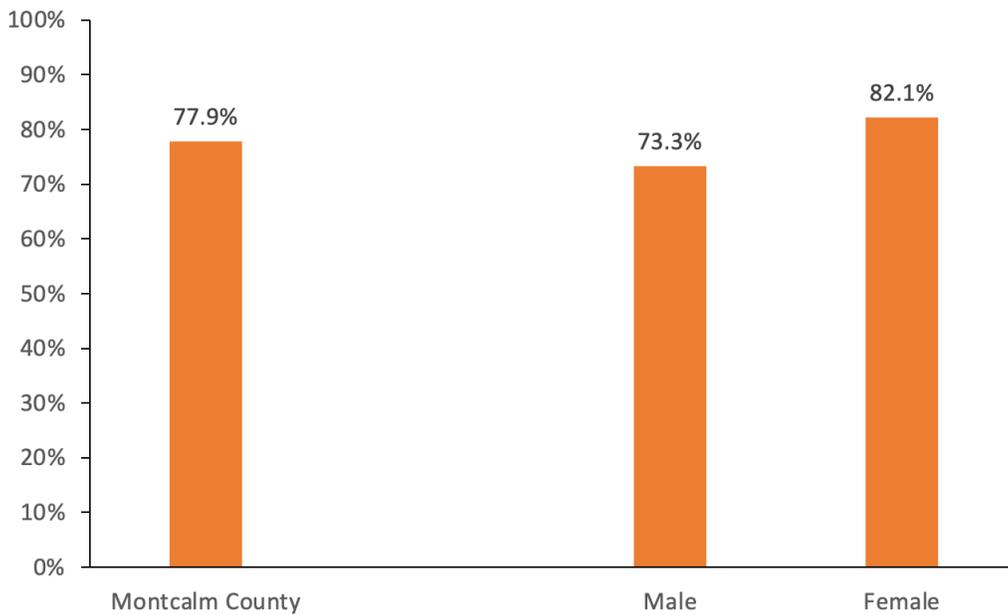
2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only
 2017-2019 MDHHS Behavioral Risk Factor Survey

Diabetes Management and Education

If appropriately controlled, diabetes may not lead to disability, additional medical costs or untimely death. The purpose of diabetes self-management and education is to help people diagnosed with diabetes learn how to monitor their condition and make lifestyle changes necessary to prevent complications.⁸³

Approximately 78% of adults in Montcalm County with diabetes reported attending a diabetes self-management course. A higher percentage of women with diabetes reported taking this class (82.1%) than men (73.3%) (Figure 55).⁸¹

Figure 55: Self-Management Education Among Adults Who Were Ever Told That They Have Diabetes



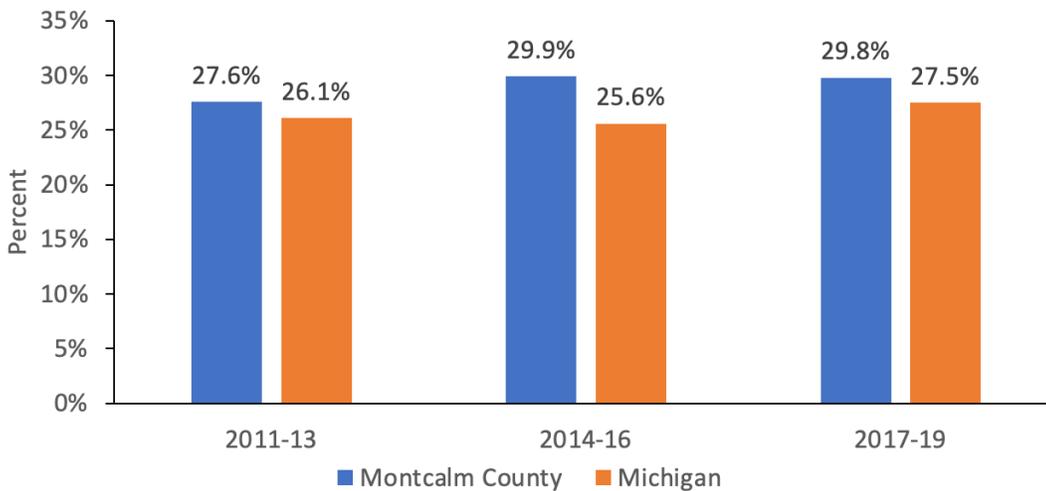
Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

Prevalence of Disability

A disability is an impairment, activity limitation or participation restriction people may experience in their daily life. In the United States, approximately 64 million people live with a disability.^{84,85} People with a disability are less likely to be employed and can affect income received. Households with people with a disability had a median annual household income of about 60% of families who did not have a person with a disability.⁸⁵ In Figure 56, disability is defined as any activity limitations because of a physical, mental or emotional condition.

The prevalence of adults who have a disability in Montcalm County was higher than in Michigan across three three-year periods. From 2011-2013 to 2017-2019, the prevalence of adults who have a disability in Montcalm County and Michigan increased.^{81,141}

Figure 56: Adults With a Disability in Montcalm County and Michigan



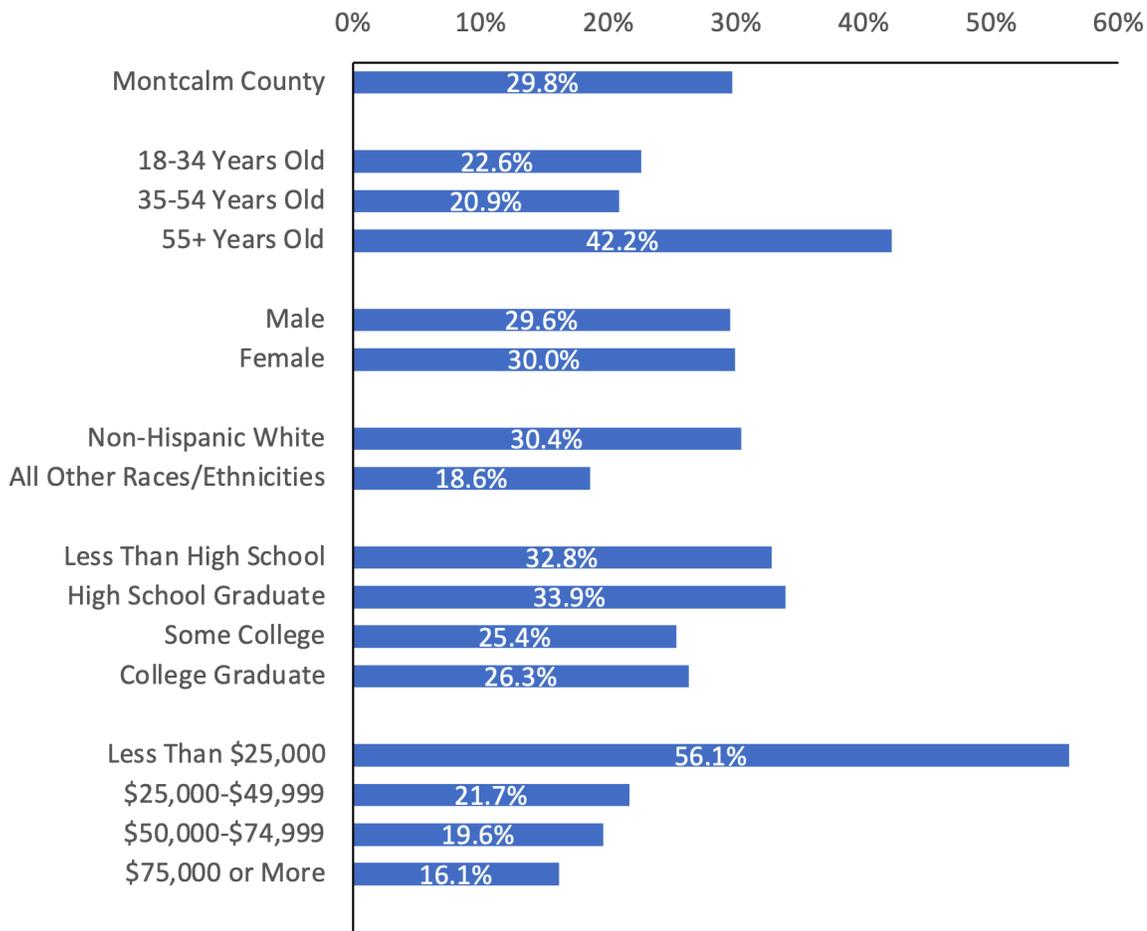
Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

As shown in Figure 57, the percentage of adults who reported an activity limitation due to physical, mental or emotional problems was twice as high in adults age 55 or older compared to the other age groups. Those with household incomes less than \$25,000 were twice as likely to report being told they have a disability compared to the other income groups.⁸¹

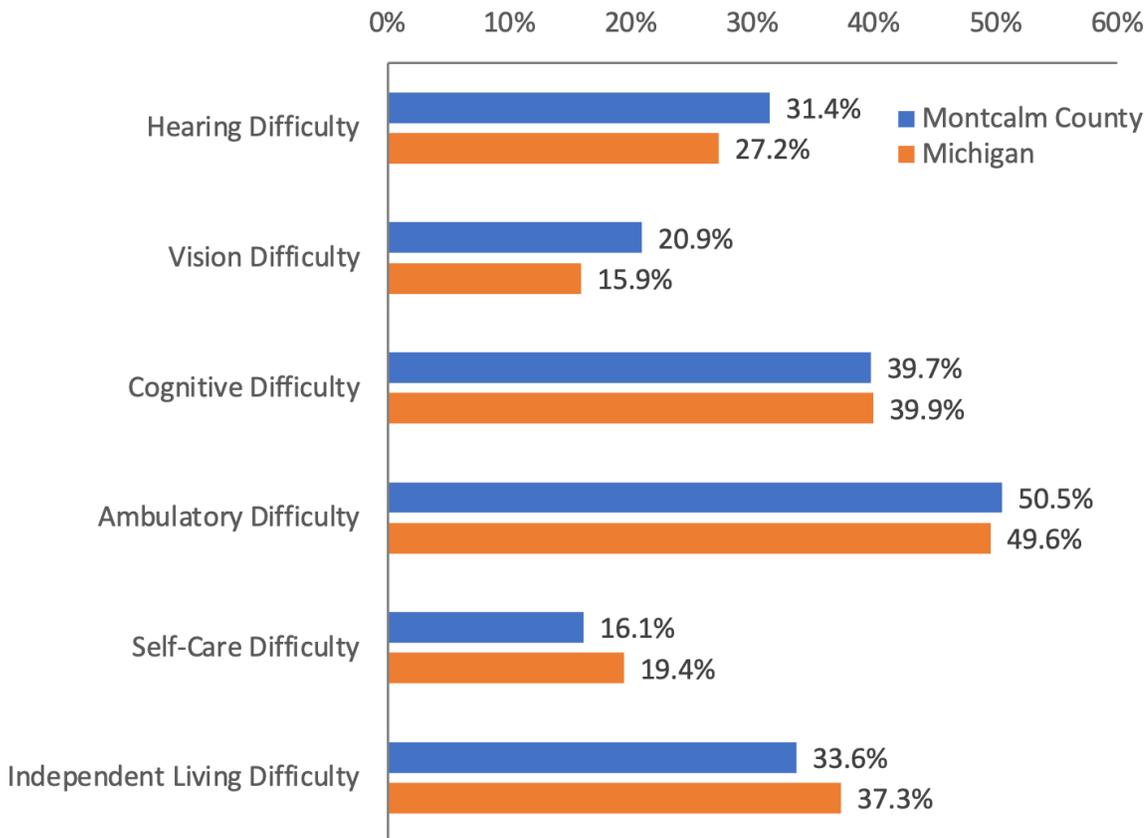
Figure 57: Percentage of Adults Who Experience Activity Limitations Because of Physical, Mental or Emotional Problems by Demographic Group, Montcalm County Residents, 2017-2019



Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

The most common difficulties reported by disabled residents in Montcalm County and Michigan were ambulatory (50.5% and 49.6%, respectively) and cognitive (39.7% vs. 39.9%, respectively) difficulties. Slightly more Montcalm County residents reported experiencing hearing difficulty (31.4% vs. 27.2%) and vision difficulty (20.9% vs. 15.9%) compared to Michigan residents (Figure 58).⁸⁶

Figure 58: Types of Disabilities Among Disabled Residents in Montcalm County and Michigan



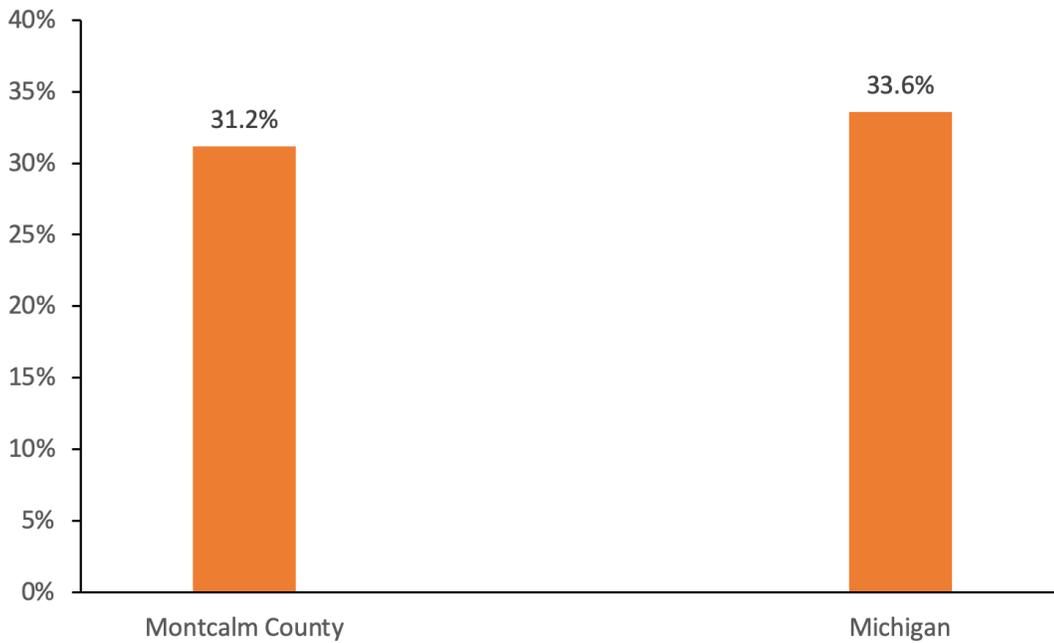
Source: U.S. Census Bureau: 2019 American Community Survey 1-Year Estimates, Table K201803

Prevalence of High Cholesterol

An elevated level of blood cholesterol (total cholesterol >200 mg/dL) is one of the significant risk factors for heart disease, a leading cause of death in Michigan and nationally. In the United States, nearly one-third of adults have high cholesterol.⁸⁷

The percentage of adults being told by their health care provider that they have high cholesterol was slightly lower in Montcalm County (31.2%) than in Michigan (33.6%) between 2017 and 2019 (Figure 59).^{81,141}

Figure 59: Adults Who Were Ever Told They Have High Cholesterol in Montcalm County and Michigan, 2017-2019



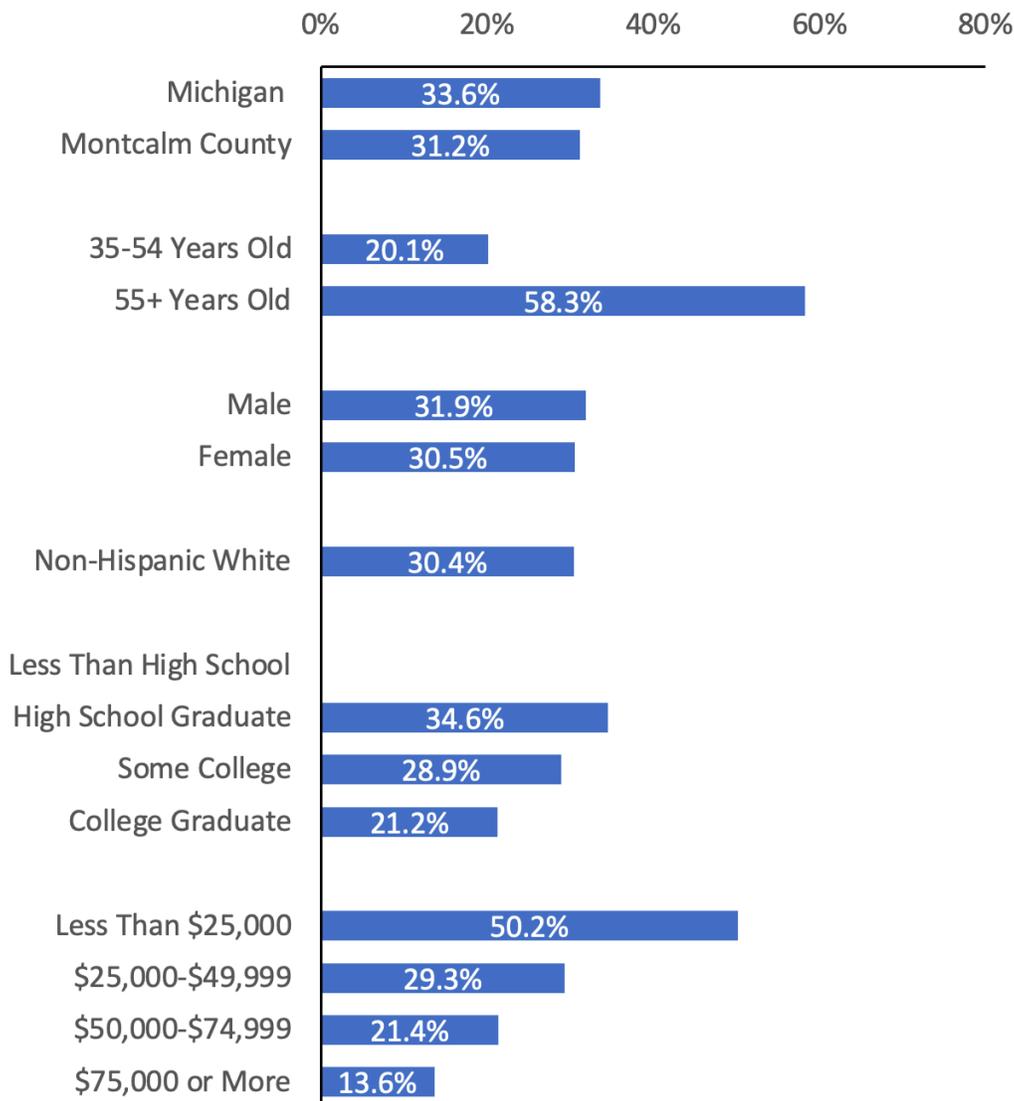
Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

The percentage of adults age 55 or older reporting being told they had high cholesterol was three times higher than the percentage in the 35-54 age group. Adults with incomes less than \$25,000 were twice as likely to report having been told they had high cholesterol compared to the other income levels (Figure 60).^{81,141}

Figure 60: Percentage of Adults Who Were Ever Told That They Have High Cholesterol by Demographic Group, Montcalm County Residents, 2017-2019



Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

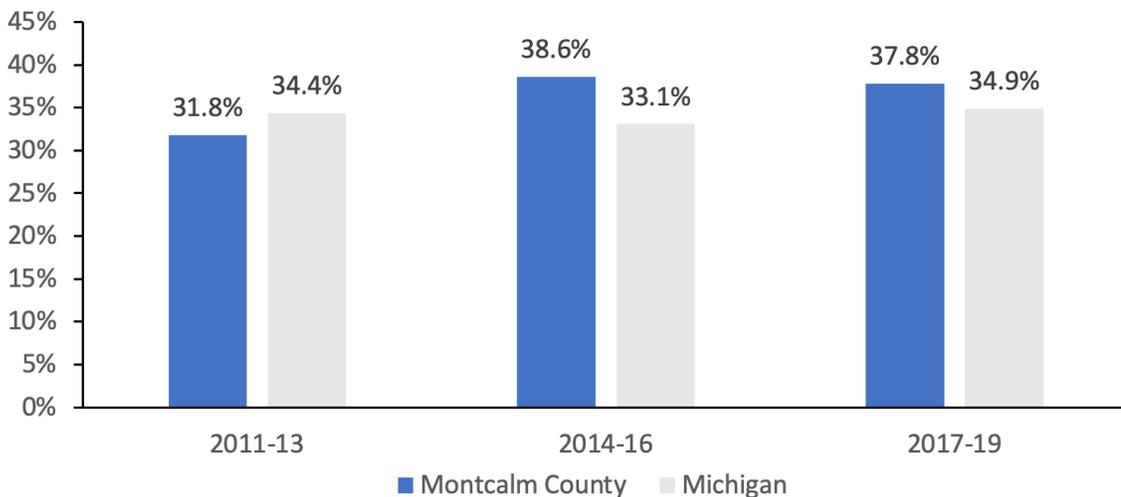
2017-2019 MDHHS Behavioral Risk Factor Survey

Prevalence of Hypertension

Approximately 116 million adults in the United States have hypertension. Hypertension is defined as having a systolic blood pressure at or above 130 mmHg or diastolic blood pressure at or above 80 mmHg. Hypertension increases the risk for heart disease and stroke, which are leading causes of death in the United States.⁸⁸

The percentage of adults being told by their health care provider that they have high blood pressure was lower in Montcalm County than in Michigan in 2011-2013 but higher for 2014-16 and 2017-2019. From 2011-2013 to 2017-2019, the percentage of adults being told by their health care provider that they have high blood pressure increased in Montcalm County (from 31.8% to 37.8%) but remained steady in Michigan (between 33.1% and 34.9%) (Figure 61).^{81,141}

Figure 61: Adults in Montcalm County and Michigan Who Were Ever Told by Their Health Care Provider They Have High Blood Pressure



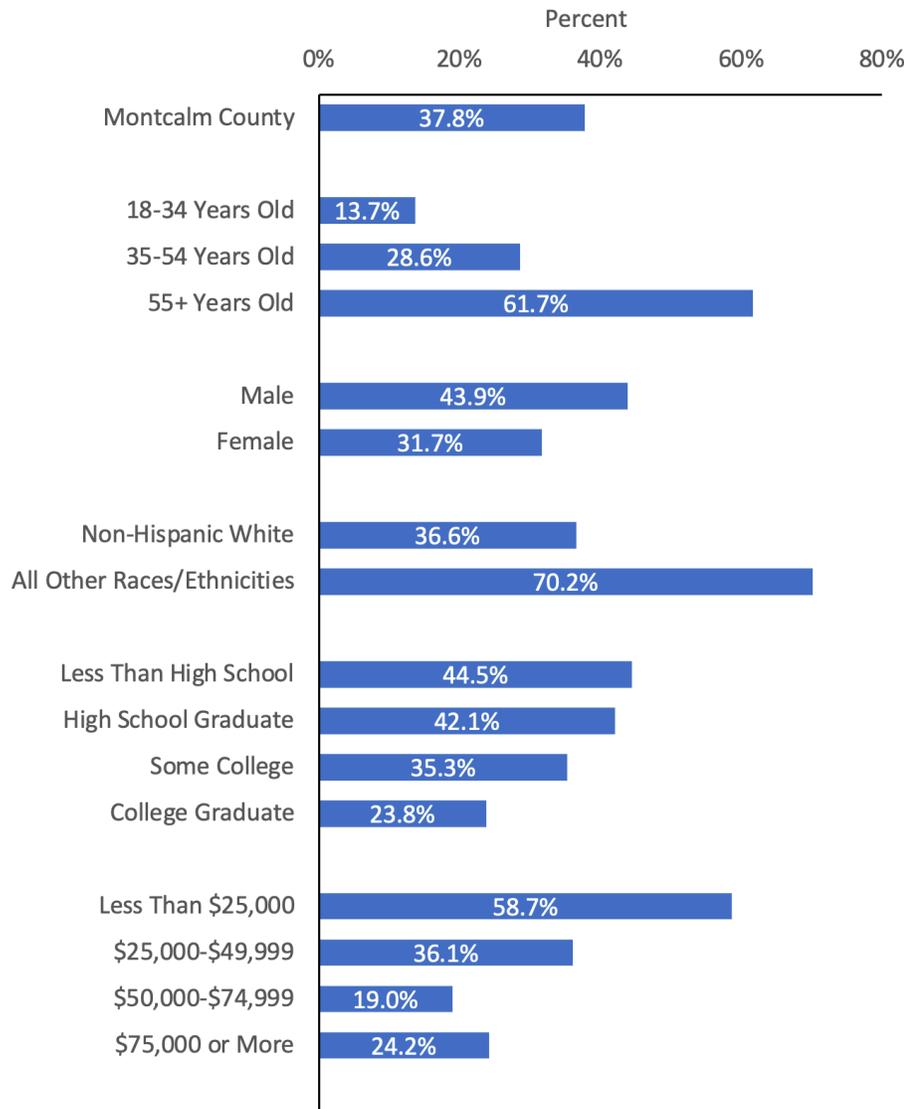
Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

In Montcalm County, adults age 55 and older were twice as likely to report that their provider told them that they have high blood pressure than 35- to 54-year-olds. Males (43.9%) were more likely to report having high blood pressure than females (31.7%). Non-Hispanic White people (36.6%) were half as likely to report having high blood pressure compared to the other races and ethnicities (70.2%). As education levels increased from those with some high school education (44.5%) to college graduates (23.8%), the percentage of adults reporting ever being told they have high blood pressure decreased (Figure 62).⁸¹

Figure 62: Percentage of Adults Who Were Ever Told by Their Health Care Provider That They Have High Blood Pressure by Demographic Group, Montcalm County Residents, 2017-2019



Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only



Healthy Lifestyles

Living a healthy lifestyle has a significant impact on quality of life, reduces the risk of having a chronic disease and may prevent premature death. Five habits that promote a healthy lifestyle are having a healthy diet, having a healthy physical activity level, having a healthy body weight, no smoking and having moderate alcohol intake.⁸⁹

Indicators

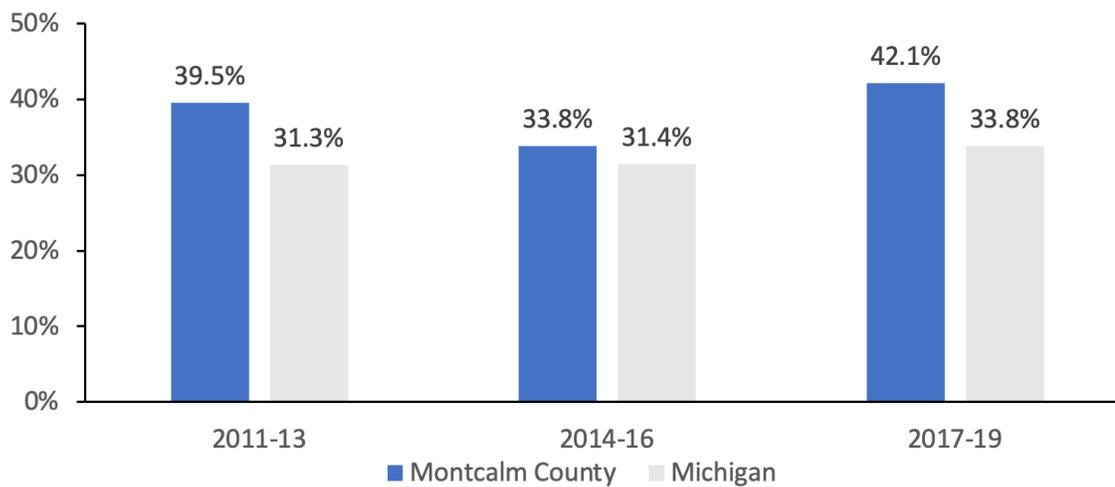
- Adult Obesity
- Physical Inactivity
- Life Expectancy
- Adults Reporting Fair / Poor General Health
- Adults Reporting Not Having Good Physical Health

Adult Obesity

According to the World Health Organization, obesity is defined as “abnormal or excessive fat accumulation that presents a risk to health.” A person with a body mass index (kg/m²) over 30 is considered obese.⁹⁰ From 1999-2000 through 2017-2018, the prevalence of obesity in the United States increased from 30.5% to 42.4%.⁹¹ Obesity is associated with coronary heart disease, high blood pressure, high cholesterol, stroke, low quality of life and mental illness.⁹²

The percentage of obese adults was higher in Montcalm County than in Michigan between 2011-2013 and 2017-2019. Between 2011-2013 and 2017-2019, the percentage of obese adults increased in Montcalm County (from 39.5% to 42.1%) and Michigan (from 31.3% to 33.8%) (Figure 63).^{81,141}

Figure 63: Percentage of Adults With a BMI Greater Than 30 kg/m² (Obese)



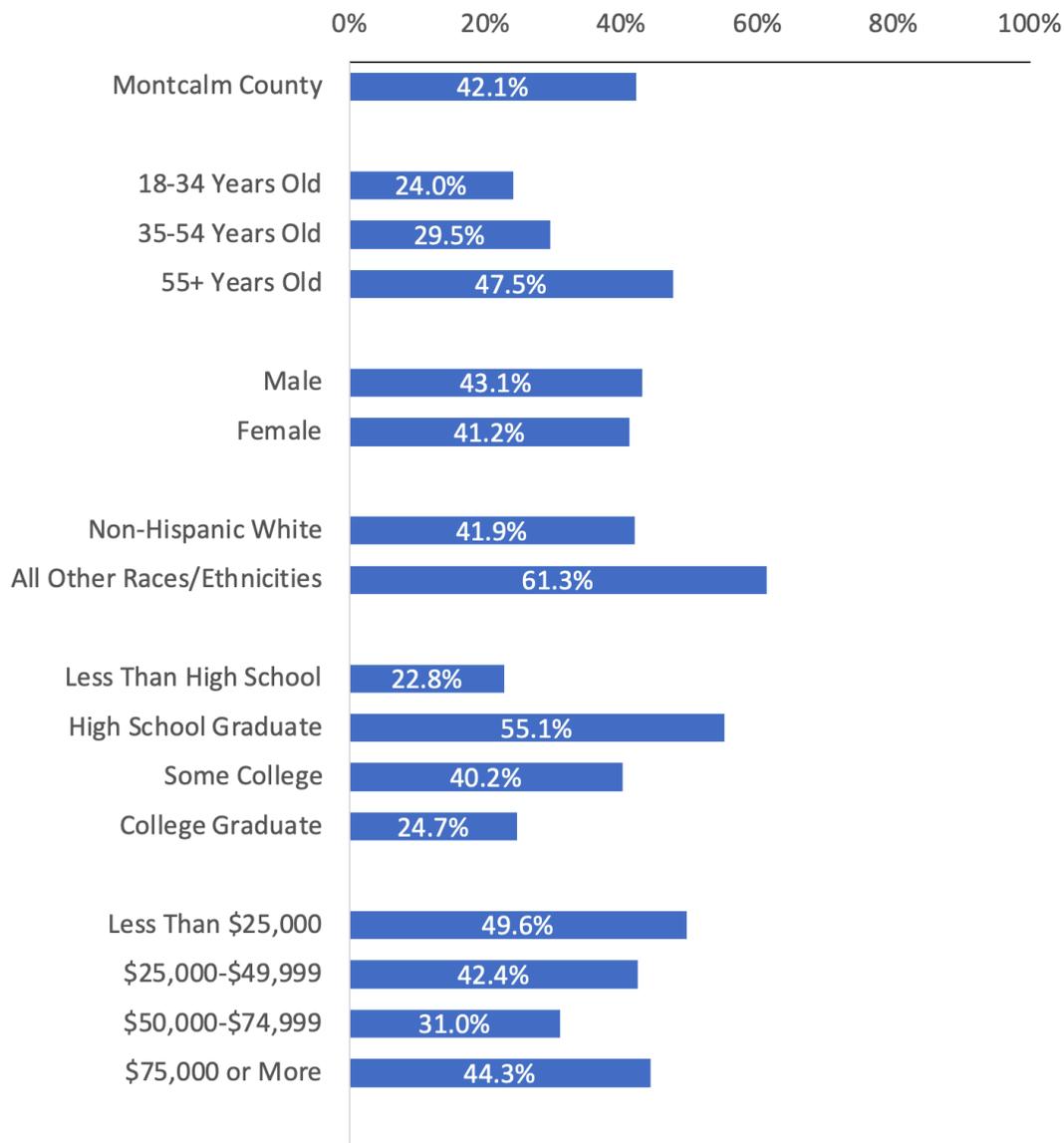
Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

Adults age 55 and older were twice as likely to report being obese than 18-34 and 35- to 54-year-olds. High school graduates were twice as likely to be obese compared to college graduates. Those with an income of \$75,000 or more were as likely to report being obese as those with an income less than \$25,000 (Figure 64).⁸¹

Figure 64: Percentage of Adults Obese by Demographic Group, Montcalm County Residents, 2017-2019



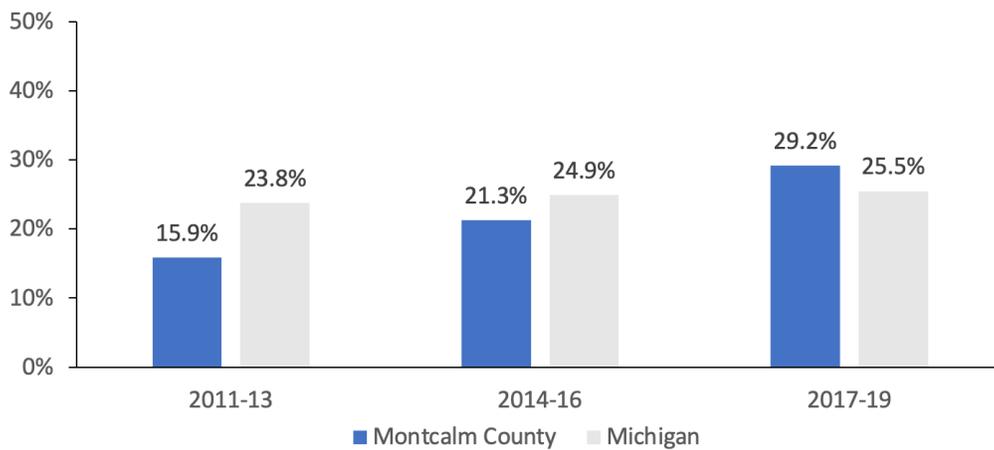
Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

Physical Inactivity

Decreased physical activity is associated with diabetes, hypertension, cardiovascular disease, obesity and premature death.⁹³ In Figure 65, physical inactivity is defined as the percentage of adults reporting no leisure-time physical activity.

The percentage of adults reporting no leisure-time physical activity was lower in Montcalm County than in Michigan in 2011-2013 and 2014-2016 and higher in 2017-2019. Between 2011-2013 and 2017-2019, adults reporting no leisure-time physical activity increased in Montcalm County (from 15.9% to 29.2%) and Michigan (from 23.8% to 25.5%).^{81,141}

Figure 65: Percentage of Adults Reporting No Leisure-Time Physical Activity



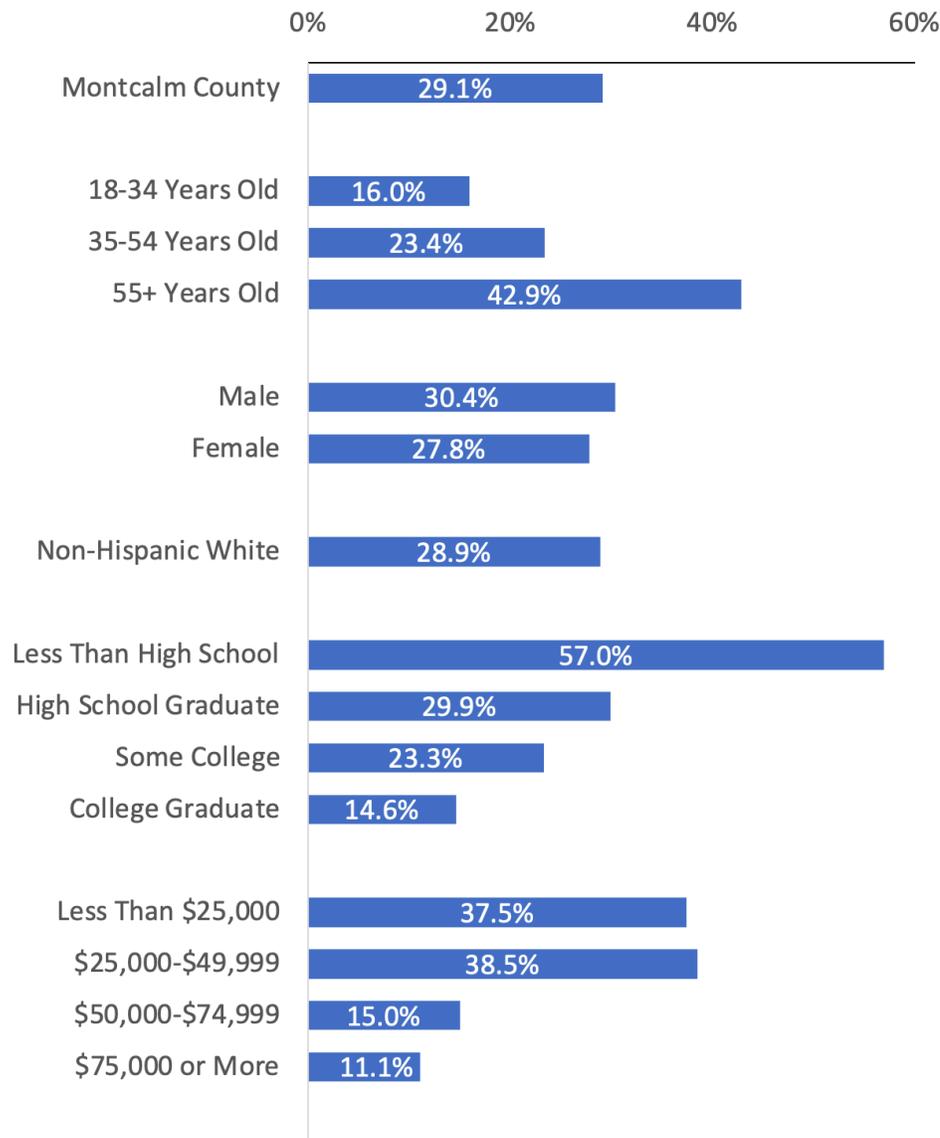
Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

Adults age 55 and older were twice as likely to report participating in no leisure-time physical activity than 18-34 and 35- to 54-year-olds. Those with less than a high school education were twice as likely to not participate in leisure-time physical activity than the other education groups. Those with incomes less than \$50,000 were more than twice as likely to forgo leisure-time physical activity compared to those who made more than \$50,000 (Figure 66).⁸¹

Figure 66: Percentage of Adults Reporting No Leisure-Time Physical Activity by Demographic Group, Montcalm County Residents, 2017-2019

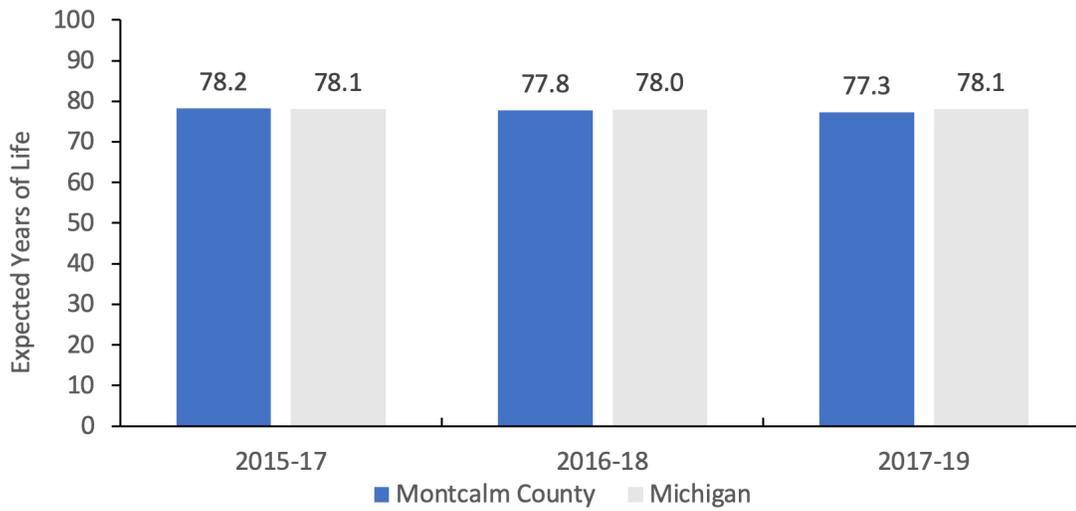


Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

Life Expectancy

Life expectancy is defined as the average amount of time a person is expected to live based on the year of birth. The life expectancy in Montcalm County was similar to Michigan and remained stable between 2015-2017 and 2017-2019 (Figure 67).⁹⁴

Figure 67: Life Expectancy

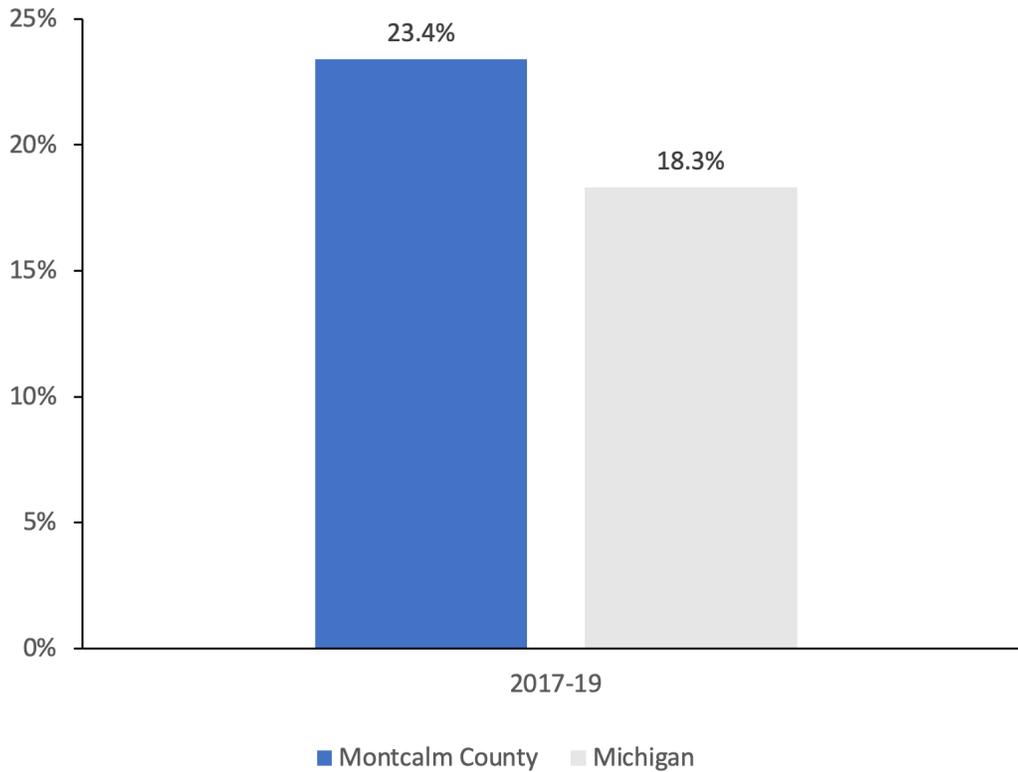


Source: 2015-2017 to 2017-2019 National Center for Health Statistics – Mortality Files

Adults Reporting Having Fair / Poor General Health

In 2017-2019, the percentage of adults reporting having fair / poor general health was higher in Montcalm County (23.4%) than in Michigan (18.3%) (Figure 68).^{81,141}

Figure 68: Percentage of Adults Reporting Having Fair / Poor General Health



Sources:

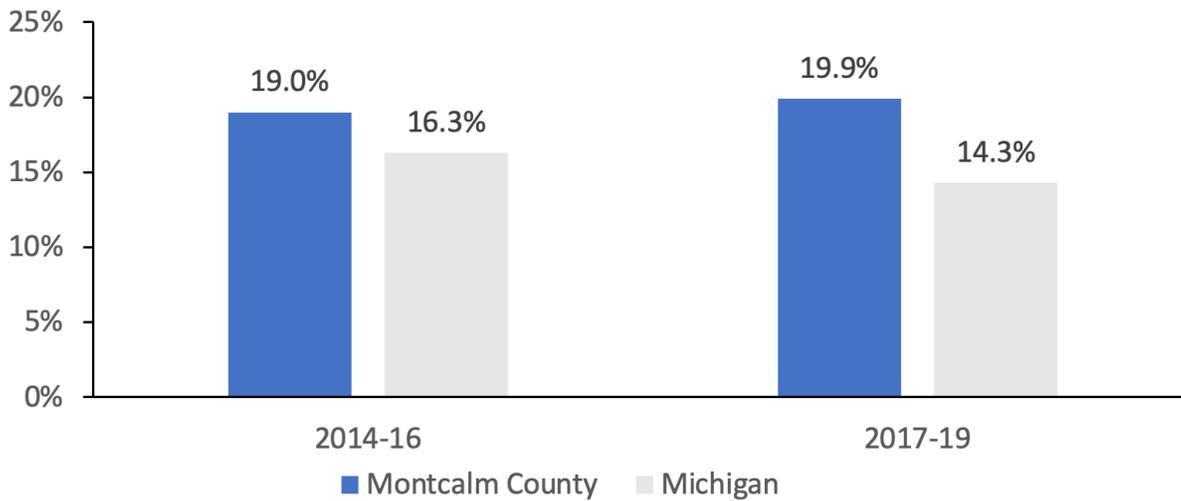
2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

Adults Reporting Not Having Good Physical Health

In 2014-2016 and 2017-2019, the percentage of adults reporting not having good physical health was higher in Montcalm County than in Michigan. From 2014-2016 to 2017-2019, the percentage of adults reporting not having good physical health increased in Montcalm County (19.0% to 19.9%). It declined in Michigan (16.3% to 14.3%) (Figure 69).^{81,141}

Figure 69: Percentage of Adults Reporting Not Having Good Physical Health



Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey



Reproductive, Maternal and Child Health

Poor reproductive, maternal and child health are detrimental to the health of individuals and communities and can have immediate and lasting effects.⁹⁵ Reproductive health is defined as the “condition of male and female reproductive systems during all life stages.”⁹⁶ Maternal and child health refers to the health and well-being of women, infants, children and families.⁹⁷ Indicators used to assess overall well-being include infant mortality, low birthweight births, sexually transmitted infections and teen births.

Indicators

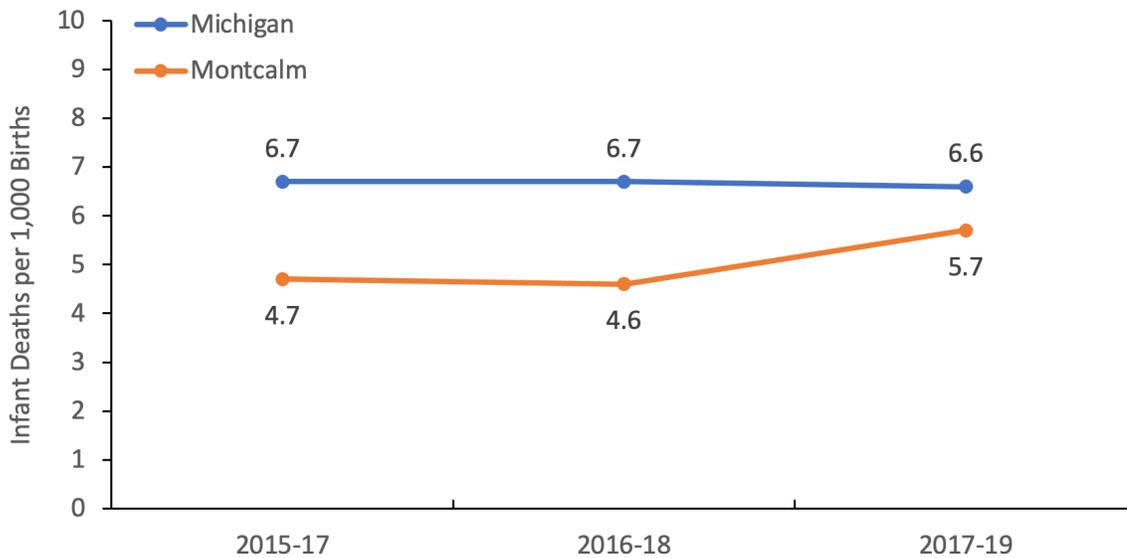
- Infant Mortality
- Low Birthweight Births
- Sexually Transmitted Infections
- Teen Births

Infant Mortality

Infant mortality is defined as the death of an infant before their first birthday.⁹⁸ The infant mortality rate is calculated as the number of infants who died within their first year of life divided by live births. The leading causes of infant deaths include congenital abnormalities, low birthweight, preterm birth, pregnancy complications and unintentional injuries. Maternal risk factors highly associated with infant mortality include maternal age, obesity, diabetes and smoking.

The infant mortality rate was lower in Montcalm County than in Michigan between 2015-2017 and 2017-2019. Between 2015-2017 and 2016-2018, the infant mortality rate was steady in Montcalm County at 4.6-4.7 infant deaths per 1,000 live births. However, in 2017-2019, there was a significant increase to 5.7 infant deaths per 1,000 live births in Montcalm County. In Michigan, the infant mortality rate remained stable between 2015-2017 and 2017-2019 (6.6-6.7 infant deaths per 1,000 live births) (Figure 70).⁹⁹

Figure 70: Three-Year Moving Average Infant Mortality Rate in Montcalm County and Michigan



Sources:

2008-2019 Geocoded Michigan Death Certificate Registries; 2019 Michigan Death Certificate Registry

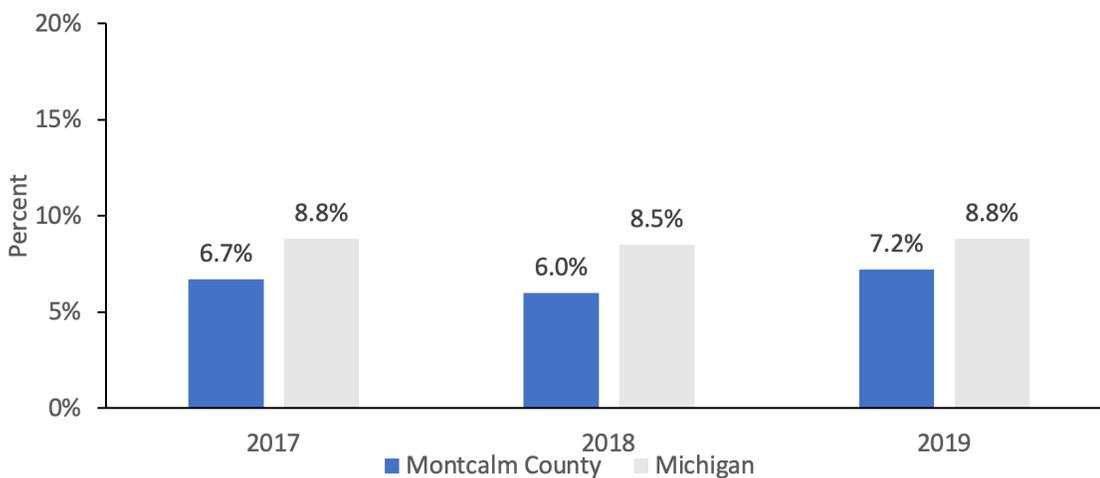
2008-2019 Geocoded Michigan Birth Certificate Registries. Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services

Low Birthweight

Low birthweight birth is defined as a newborn weighing less than 2,500 grams at birth. Adverse outcomes associated with low birthweight births include limited academic success, poor vision, poor motor skills, asthma and other chronic conditions.¹⁰⁰ Maternal risk factors highly associated with infant mortality include maternal age, obesity, diabetes and smoking. Figure 71 presents the percentage of low birthweight births.

The percentage of low birthweight births was lower in Montcalm County than in Michigan between 2017 and 2019. The percentage of low birthweight births in Montcalm County slightly declined from 2017 to 2018 (6.7% to 6.0%) but increased in 2019 (7.2%). In Michigan, the percentage of low birthweight births was stable between 2017 and 2019 (between 8.5% and 8.8%).¹⁰¹

Figure 71: Percentage of Low Birthweight Births

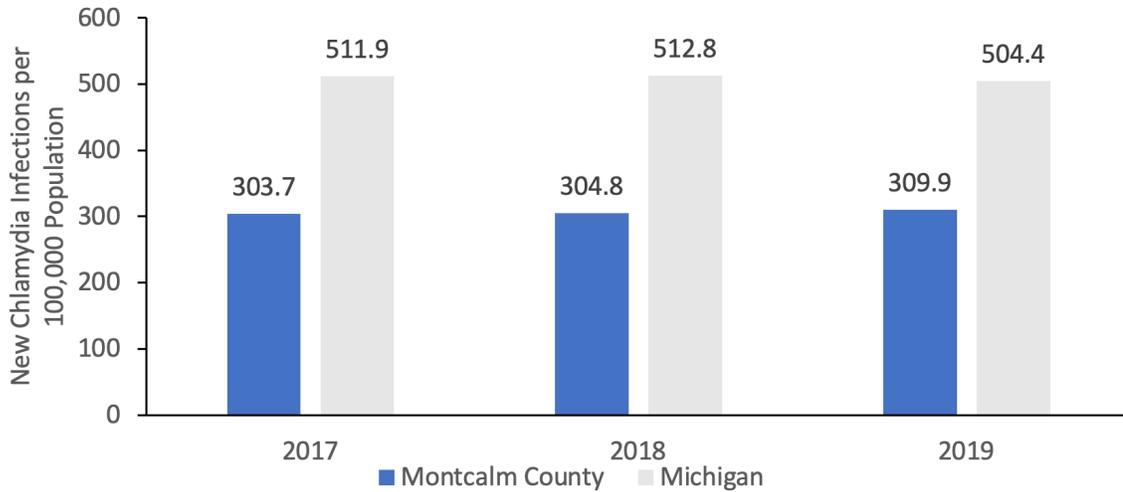


Source: 2017-2019 Geocoded Michigan Birth Certificate Registry, Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services

Sexually Transmitted Infections

The number of new chlamydia infections per 100,000 population was lower in Montcalm County than in Michigan between 2017 and 2019. Between 2017 and 2019, new infections increased from 303.7 to 309.9 per 100,000 population. In Michigan, the number of new infections remained steady between 2017 and 2018 (between 511.9 and 512.8) and declined slightly in 2019 (from 511.9 to 504.4) (Figure 72).¹⁰²

Figure 72: Number of New Chlamydia Infections Per 100,000 Population



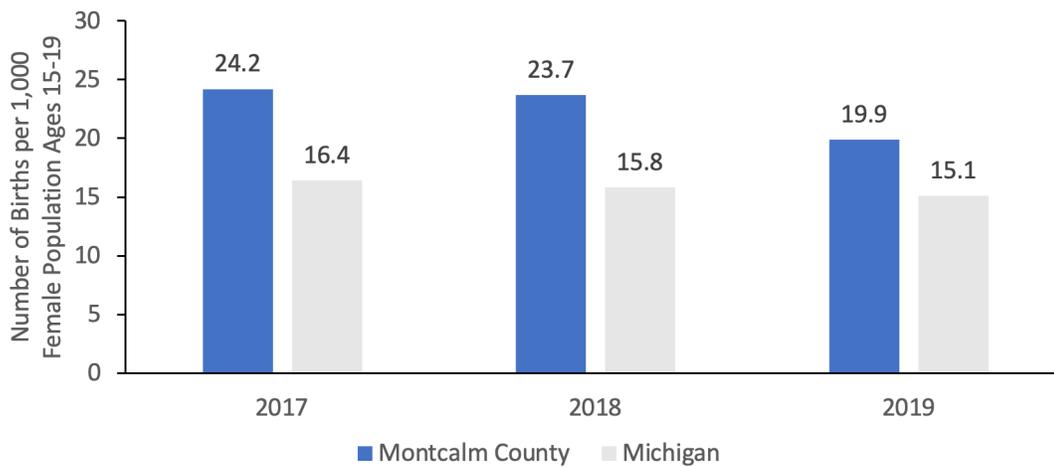
Source: 2017-2019 National Center for HIV, Viral Hepatitis, STD, and TB Prevention

Teen Births

High rates of teen births are a strong indicator of adverse health behaviors in a community. There are strong associations between “poor socioeconomic, behavioral, and mental outcomes.”¹⁰³ Figure 73 shows the number of births per 1,000 females ages 15-19.

The teen birth rate was higher in Montcalm County than in Michigan between 2017 and 2019. Between 2017 and 2019, the teen birth rate declined from 24.2 to 19.9 in Montcalm County and from 16.4 to 15.1 in Michigan per 1,000 female population ages 15-19.¹⁰⁴

Figure 73: Number of Births Per 1,000 Female Population Ages 15-19



Source: Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, *2017-2019 Birth Statistics*



Preventive Care Practices

Preventive care practices, such as screenings and vaccinations, are essential tools and methods to detect diseases early and prevent severe illnesses.¹⁰⁵ Early detection and preventive measures could prevent serious illnesses and reduce premature deaths in the community.

Indicators

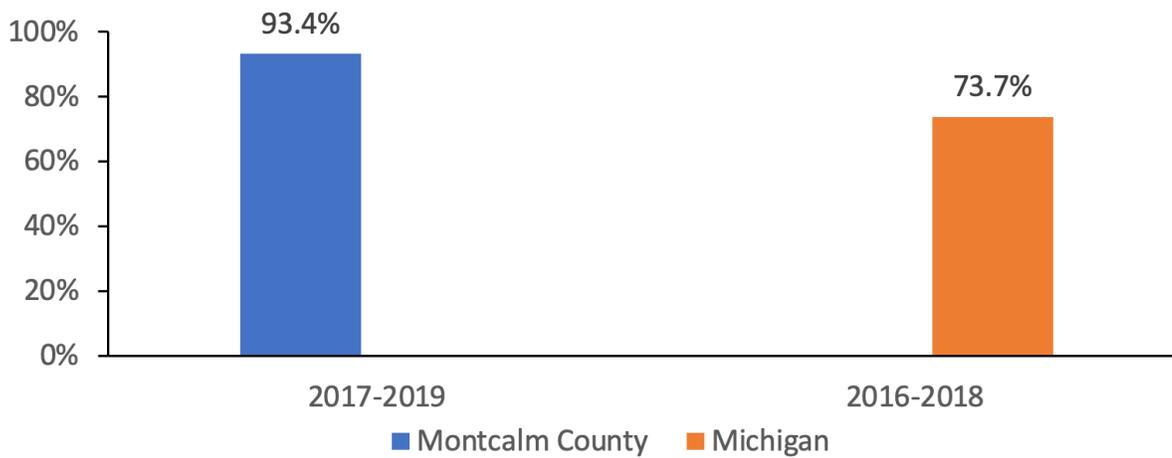
- Breast Cancer Screening Among Women Age 40 and Older
- Colon Cancer Screening Among Adults Age 50 and Older
- Flu Vaccinations
- Pneumococcal Immunizations Among Adults 65 and Older

Breast Cancer Screening Among Women Age 40 and Older

In 2018, breast cancer caused 1,488 deaths among Michigan women. Screenings are essential for the early detection of breast cancer. The CDC recommends that women who do not have a family history of breast cancer or do not have the genes associated with breast cancer begin screening between ages 40 and 49 years.¹⁰⁶

In Montcalm County, 93.4% of women over age 40 reported having a mammography screening. In Michigan, 73.7% of women over age 40 had a screening (Figure 74).^{81,141}

Figure 74: Mammography Screening – Ever Had Mammogram, Age 40+

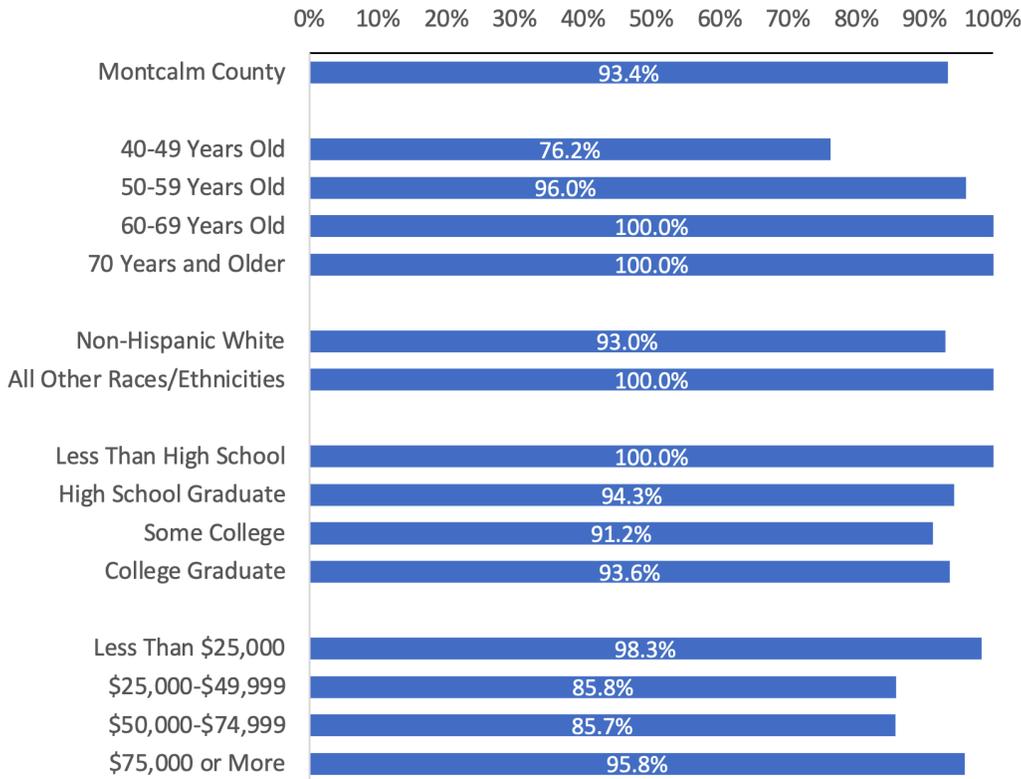


Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only
2017-2019 MDHHS Behavioral Risk Factor Survey

In Montcalm County, fewer women reported ever having a mammogram if they had some college education (91.2%) or completed college (93.6%), compared to high school graduates (94.3%) and those with less than a high school education (100.0%). 85.8% of women with a household income of \$25,000-\$49,999 and 85.7% of women with a household income of \$50,000-\$74,000 reported having a mammogram, compared to women from the other income levels (Figure 75).⁸¹

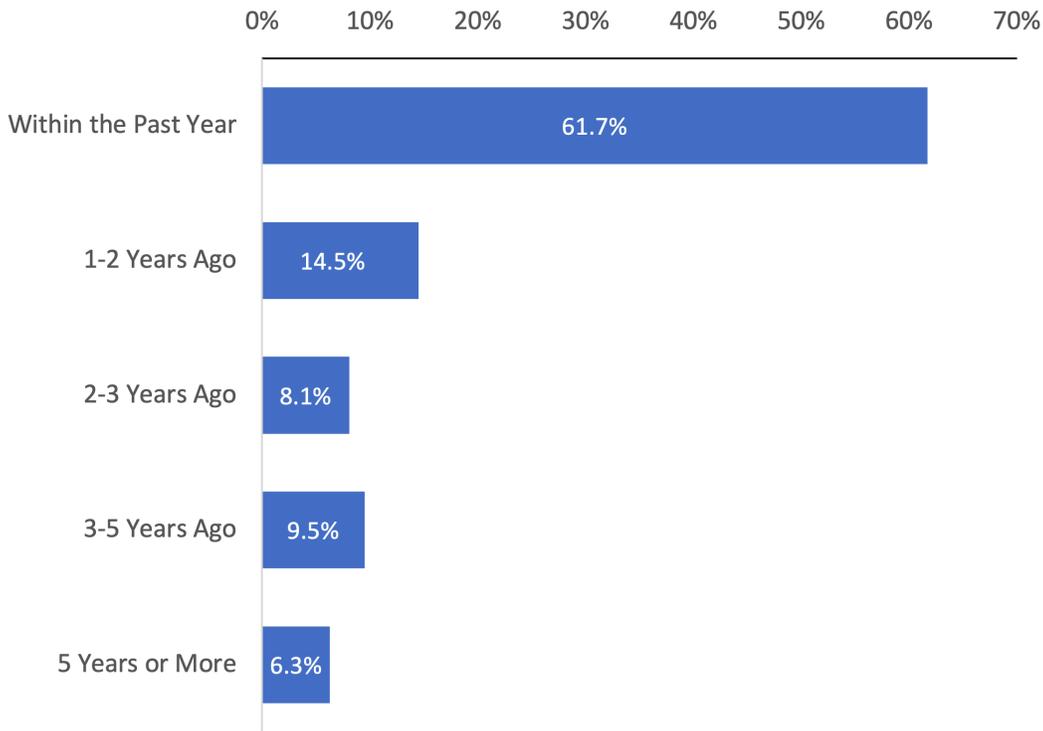
Figure 75: Percentage of Women Age 40 or Older Who Ever Had a Mammogram by Demographic Group, Montcalm County Residents, 2017-2019



Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

Nearly 62% of women age 40 and older reported having their most recent mammogram within the past 12 months. Approximately 9.5% of women had their most recent mammogram between three and five years ago, and 6.3% reported that it had been five years or more since their most recent screening (Figure 76).⁸¹

Figure 76: Percentage of Adults Women Age 40 Years and Older Most Recent Reported Mammogram Screening by Demographic Group, Montcalm County Residents, 2017-2019



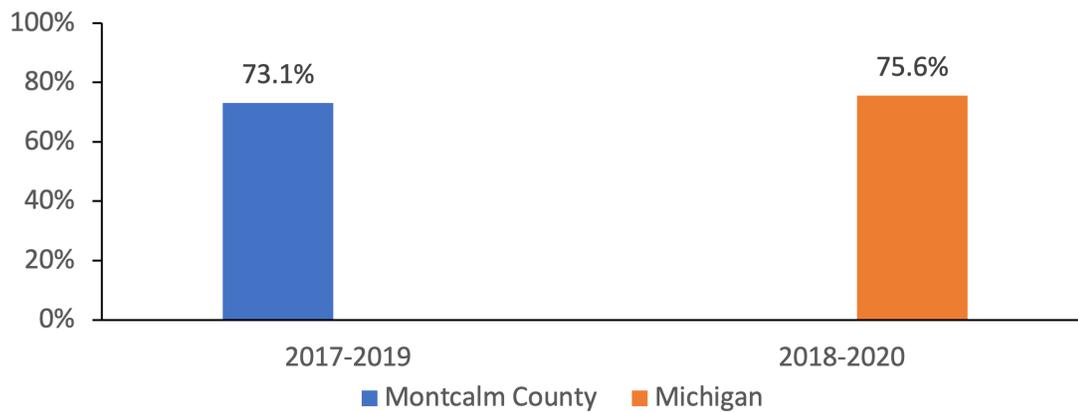
Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

Colon Cancer Screening Among Adults Age 50 and Older

Colorectal cancer is the second-most-common cause of cancer death in the United States. When caught early, colorectal cancer is very treatable. Fortunately, colonoscopies are an effective screening tool to detect and, if possible, remove cancerous cells.¹⁰⁷

The percentage of adults age 50 and older reporting ever having a colonoscopy/sigmoidoscopy was lower in Montcalm County (73.1%) than in Michigan (75.6%) (Figure 77).^{81,141}

Figure 77: Adults Age 50 or Older Who Ever Had a Colonoscopy/Sigmoidoscopy, Montcalm County and Michigan Residents



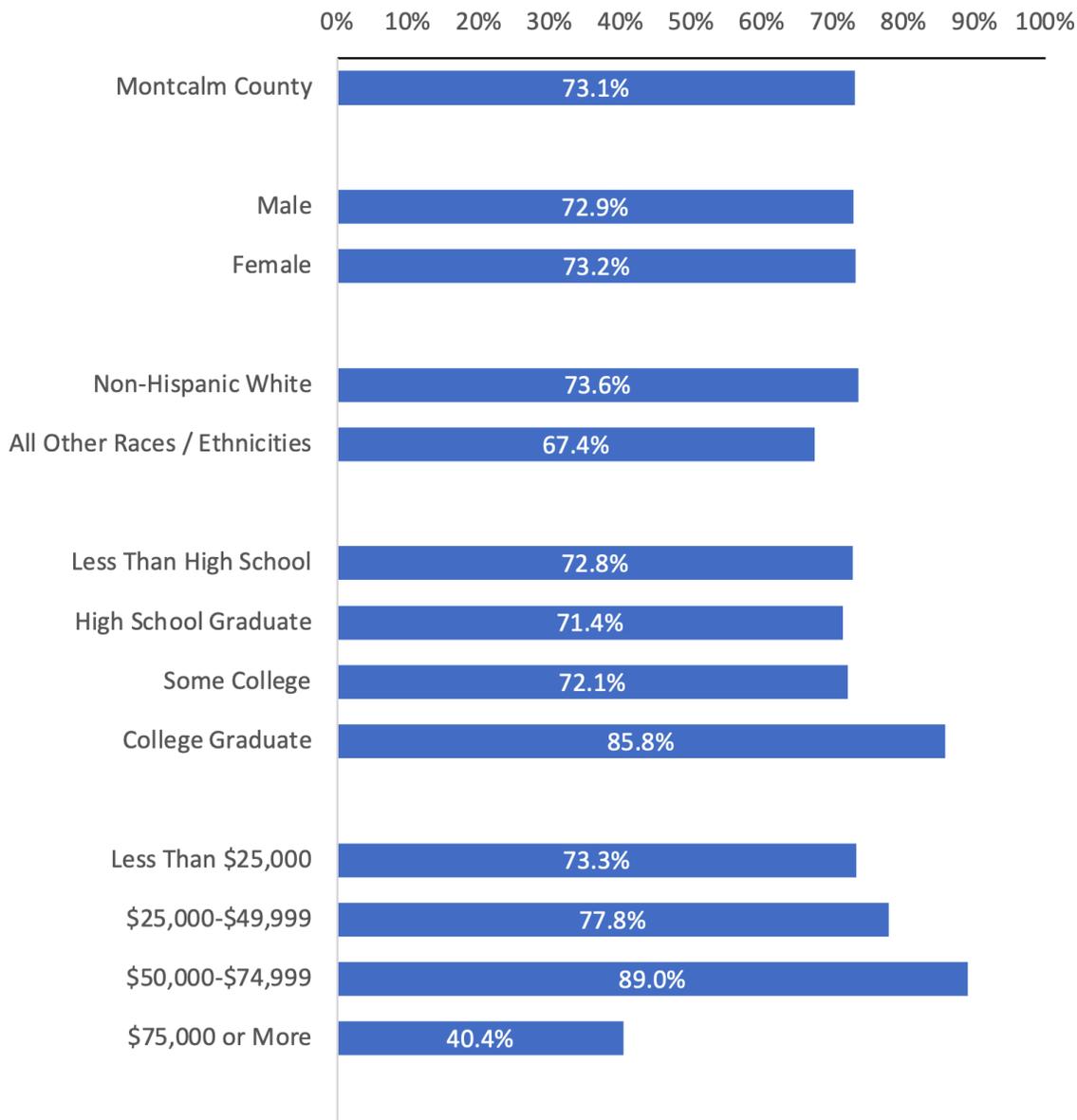
Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

College graduates (85.8%) were more likely to have had a colonoscopy than the other education groups (71.4%-72.8%). The percentage of adults 50 years or older screened for colorectal cancer was the highest in the \$50,000-\$74,999 group (89.0%) and \$25,000-\$49,000 group (77.8%) compared to the groups with income less than \$25,000 (73.3%) and \$75,000 or more (40.4%) (Figure 78).⁸¹

Figure 78: Percentage of Adults 50 Years and Older Who Ever Had a Colonoscopy/Sigmoidoscopy by Demographic Group, Montcalm County Residents, 2017-2019



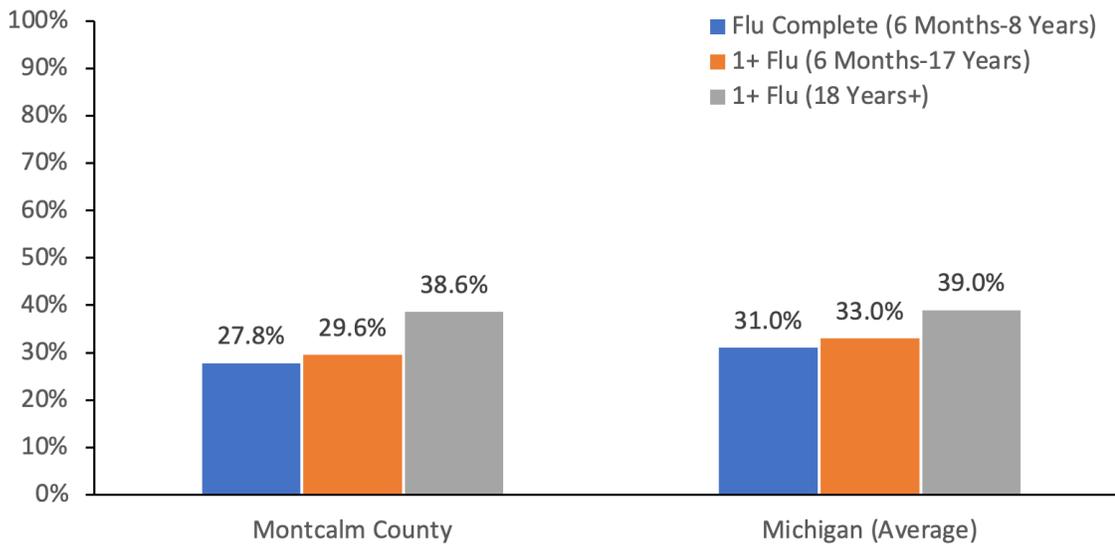
Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

Flu Vaccinations

Influenza is a potentially fatal respiratory infection that typically sweeps through the United States from late fall to early spring every year. The best way to prevent hospitalization and death is to be vaccinated for the flu every year. Individuals 6 months of age and older can be vaccinated for the flu. However, local state and national vaccination rates remain low for various reasons. Figure 79 shows the percentage of individuals vaccinated by age in Montcalm County and Michigan.

The percentage of vaccinated individuals increases as age increases. However, vaccination percentage topped out at 39% (for the state) and 38.6% (for Montcalm County).¹⁰⁸

Figure 79: Flu Vaccinations



Notes:

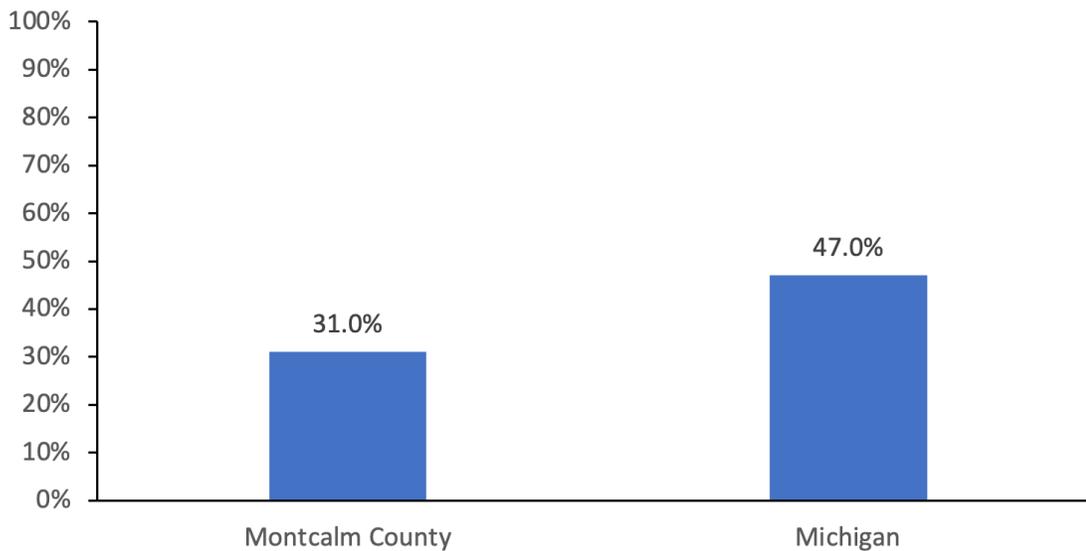
"1+Flu" = 1 or More Doses of Influenza in the Specified Season

Flu Complete = Completed Series of Doses in the Specified Season

Source: Michigan Department of Health and Human Services. Montcalm County Quarterly Immunization Report Card (Data as of September 30, 2021)

Two groups that are typically at an increased risk for hospitalization and death related to influenza are young children and seniors. Figure 80 looks at the percentage of adults who are Fee-for-Service Medicare enrollees who had their annual flu shot in 2018. The percentage of FFS Medicare enrollees in Montcalm County vaccinated for influenza (31.0%) was 16 percentage points lower than in Michigan (47.0%).¹⁰⁹

Figure 80: Influenza Vaccination Fee-for-Service (FFS) Medicare Enrollees in Montcalm County and Michigan

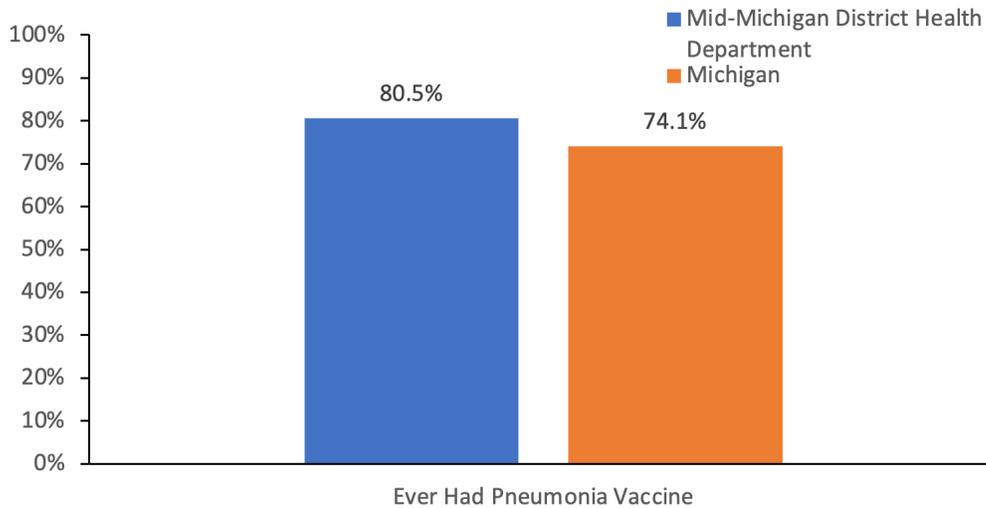


Source: Centers for Medicare & Medicaid Services Office of Minority Health's Mapping Medicare Disparities Tool

Pneumococcal Immunizations Among Adults Age 65 and Older

According to the Michigan Behavioral Risk Factor Survey data, 80.5% of adults age 65 or older in the area served by the Mid-Michigan District Health Department were vaccinated for pneumonia. This percentage is higher in the Mid-Michigan District Health Department service area than in Michigan, where about three-quarters of adults age 65 older were vaccinated for pneumonia (Figure 81).¹¹⁰

Figure 81: Pneumococcal Immunizations Among Adults Age 65 and Older in Montcalm County and Michigan



Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey



Mental Health

According to the World Health Organization, mental health is a “state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.”¹¹¹ Depression, anxiety, bipolar disorder, and anger are some conditions affecting moods and behavior. Access to mental health providers allows people to seek treatment for mental health conditions that are severe enough to be detrimental to one’s health to improve their mental health with the aid of mental health providers.

Indicators

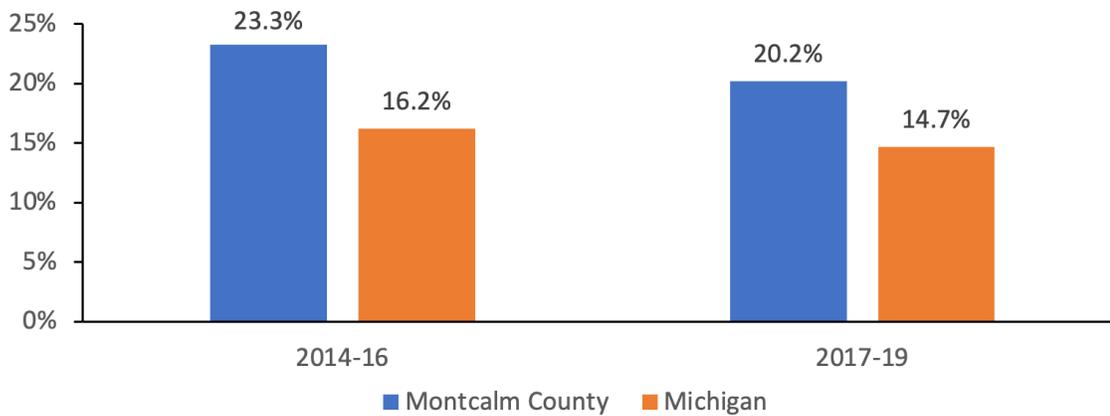
- Frequent Mental Distress / Not Good Mental Health
- Population to Mental Health Providers Ratio

Frequent Mental Distress / Not Good Mental Health

There are a variety of characteristics that are associated with frequent mental distress in adults. These include the experience of trauma or violence, bullying, and having a chronic disease or disability.¹¹² The effect of frequent mental distress can negatively impact activities of daily life and, in the case of those with a disability or chronic condition, the management of their condition.¹¹³ In Figure 82, frequent mental distress or not good mental health is defined as the percentage of adults who reported their mental health as not good for 14 or more days in a month.

The percentage of adults reporting not having good mental health was higher in Montcalm County than in Michigan in 2014-2016 and 2017-2019. Nonetheless, between 2014-2016 and 2017-2019, the percentage of adults reporting not having good mental health declined for both Montcalm County and Michigan.^{81,141}

Figure 82: Adults With Not Good Mental Health in Montcalm County and Michigan



Sources:

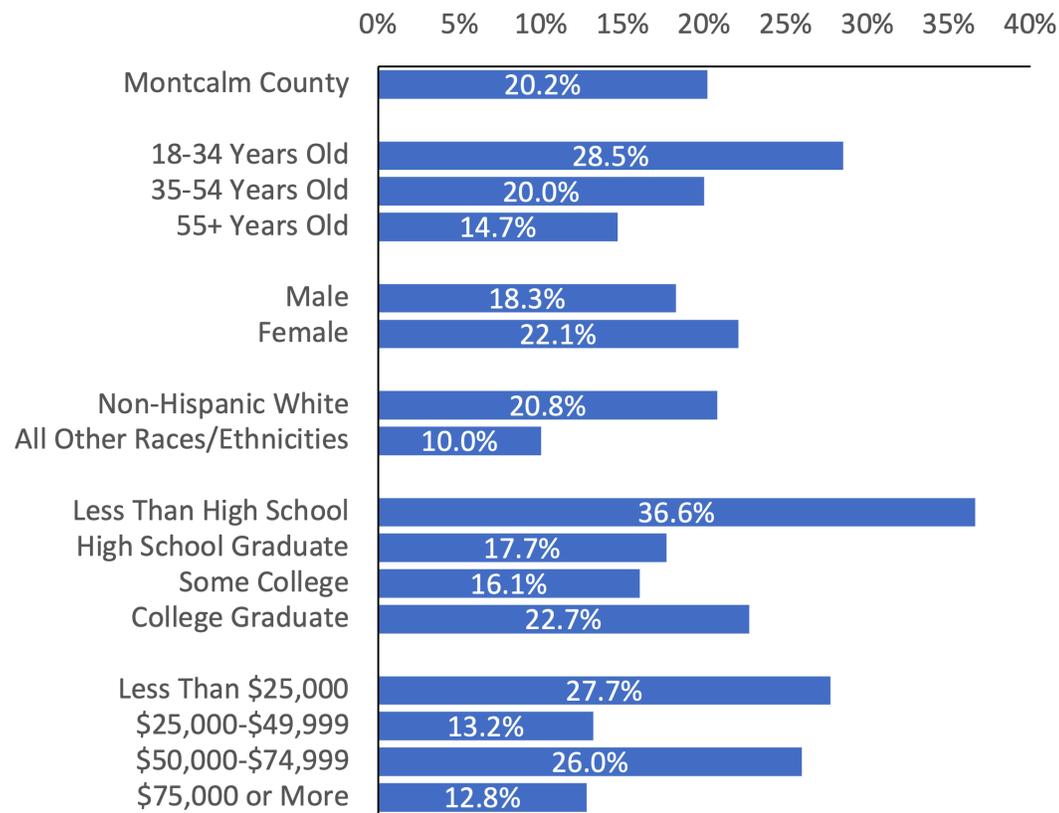
2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

In Montcalm County, the percentage of adults who reported frequent mental distress was twice as high in 18- to 34-year-olds compared to those 55 and older. Those with less than a high school education were more likely to report fair or poor mental health than other education levels.

Those with less than \$25,000 income were as likely to report not having good mental health as those with \$50,000 to \$74,000 income levels. Those groups were twice as likely to report not having good mental health as those making \$25,000 to \$49,000 and \$75,000 or more (Figure 83).⁸¹

Figure 83: Percentage of Adults Reporting Not Having Good Mental Health by Demographic Group, Montcalm County Residents, 2017-2019



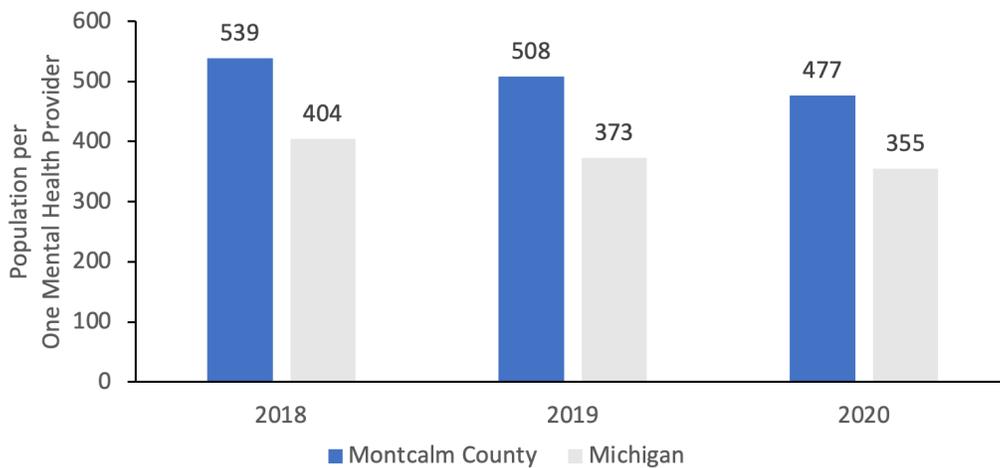
Source: 2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

Population to Mental Health Providers Ratio

In addition to barriers arising from limitations in health coverage and the location of services, an additional barrier is the number of providers available to provide services. Because medication can be a valuable tool in some mental and behavioral health therapies, there is a need for mental and behavioral health providers who can prescribe medication. Additionally, nearly one in five counties in the United States had fewer non-prescribing mental and behavioral health providers than needed in the community.

From 2018 to 2020, the ratio of population per mental health provider was lower in Michigan than in Montcalm County. From 2018 to 2020, the population to one mental health provider ratio declined in Montcalm County (from 539:1 to 477:1) and Michigan (from 404:1 to 355:1) (Figure 84).²³

Figure 84: Ratio of Population to Mental Health Providers in Montcalm County and Michigan



Source: United States Health Resources & Services Administration, Bureau of Health Workforce. Area Health Resources Files Data Downloads | 2020-2021 County Level Data



Substance Misuse (Tobacco, Alcohol and Illicit Substances)

The American Public Health Association defines substance misuse as the “use of illegal drugs and the inappropriate use of legal substances, such as alcohol and tobacco.”¹¹⁴ Substance abuse is strongly associated with poor health outcomes and premature death. Another consequence of substance misuse is an increased incidence of violent crimes and a lack of safety in a community, which affects the health of others who may not use or misuse substances.

Indicators

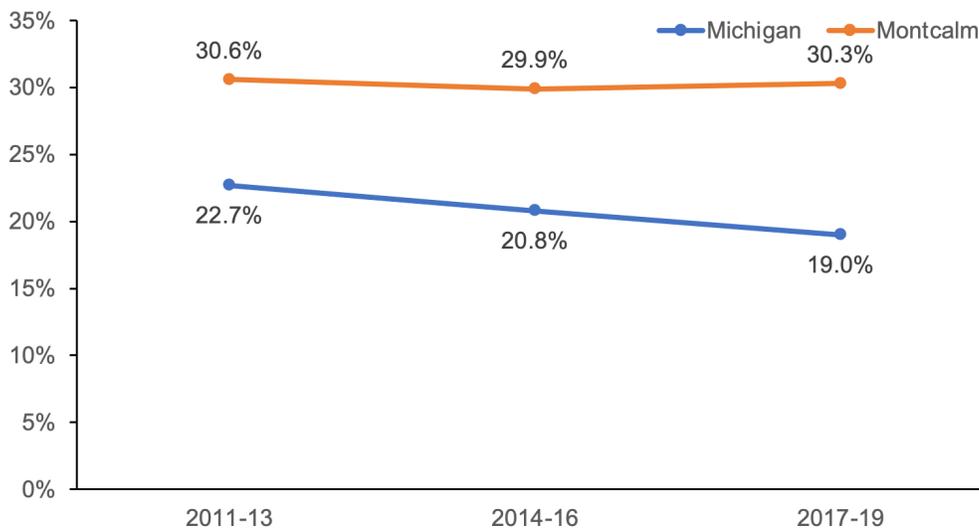
- Adult Smoking
- Adult Vaping
- Adult Marijuana Use
- Drug Overdose Deaths
- Prescription Drug Misuse
- Binge Drinking
- Heavy Drinking
- Excessive Drinking

Adult Smoking

Cigarette smoking contributes to multiple diseases and premature death. Smoking can increase the risk of various cancers, cardiovascular disease, respiratory conditions, low birthweight and other adverse health outcomes. Measuring the prevalence of smoking in the population can alert communities to potential adverse health outcomes and be valuable for assessing the need for cessation programs or the effectiveness of existing programs.¹¹⁵

In Montcalm County, nearly one-third of adults reported being active smokers (30.3%), higher than in Michigan (19.0%) in 2017-2019. In Montcalm County, the percentage of adults who smoke was relatively consistent (from 30.6% to 30.3%) between 2011-2013 and 2017-2019. However, the trend in current smokers in Michigan declined slightly (from 22.7% to 19.0%) over the same period (Figure 85).^{81,141}

Figure 85: Trend in Adult Smokers in Montcalm County and Michigan



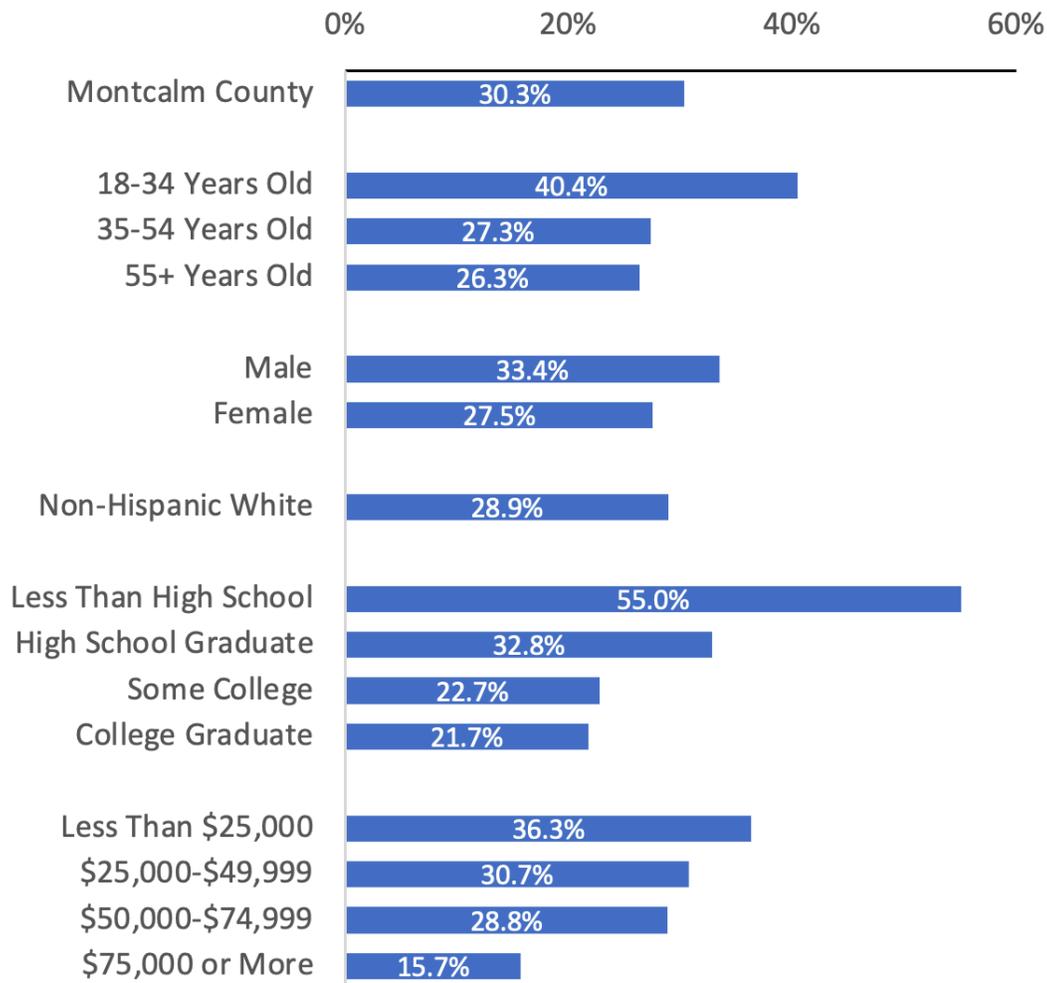
Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

In Montcalm County, 18- to 34-year-olds were more likely to smoke cigarettes than the other age groups. Those with less than a high school education were almost three times more likely to smoke than college graduates. Those with incomes of \$75,000 or more were half as likely to smoke cigarettes than the other income groups (Figure 86).⁸¹

Figure 86: Percentage of Adults Who Currently Smoke by Demographic Group, Montcalm County Residents, 2017-2019



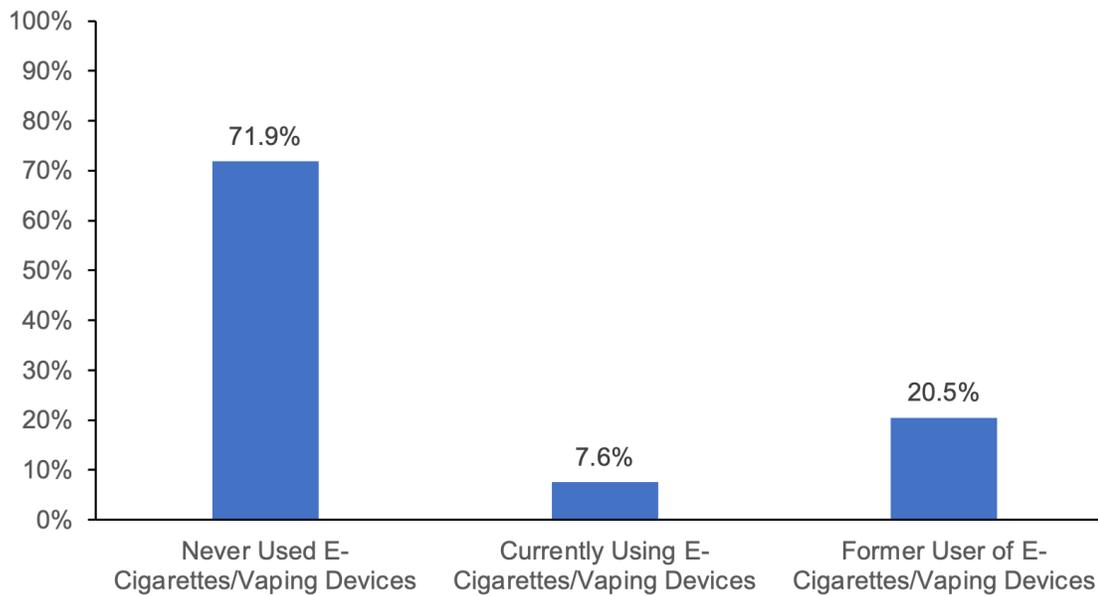
Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

Adult Vaping

A growing trend among tobacco and marijuana users is using e-cigarettes or vaping devices. Smokeless and odorless, these electronic devices resolve some of the complaints associated with traditional smoking.

Adults who smoked in Montcalm County indicated that they never used (71.9%) or formerly used (20.5%) vaping devices (Figure 87).⁸¹

Figure 87: Percentage of Adults Who Reported That They Currently Use E-Cigarettes or Other Electronic Vaping Products

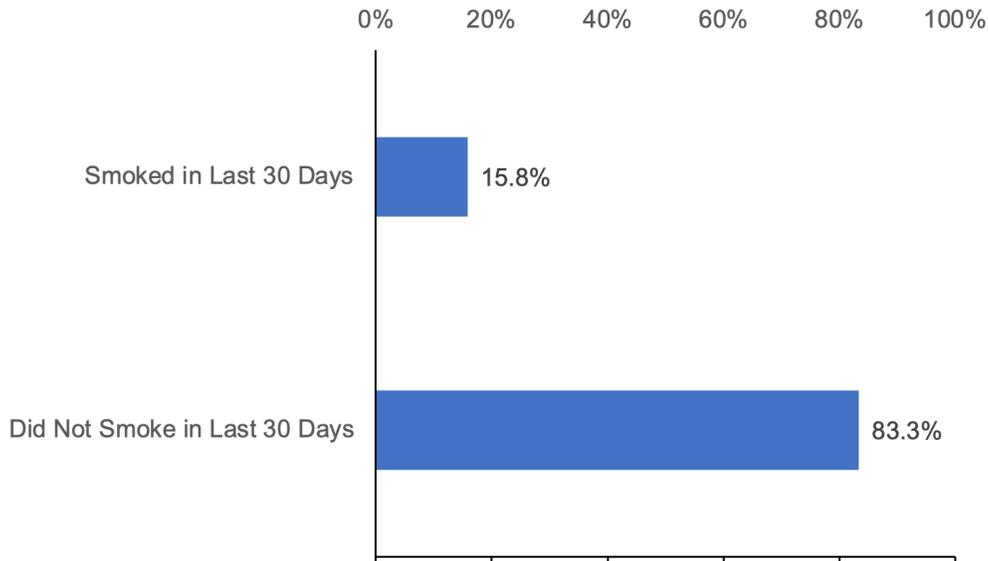


Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

Adult Marijuana Use

Although still illegal in the United States, marijuana use was decriminalized in Michigan for medical use in 2008 and recreational use starting in 2018. According to adults in Montcalm County, 16.7% reported using marijuana in the past 30 days in 2017-2019 (Figure 88).⁸¹

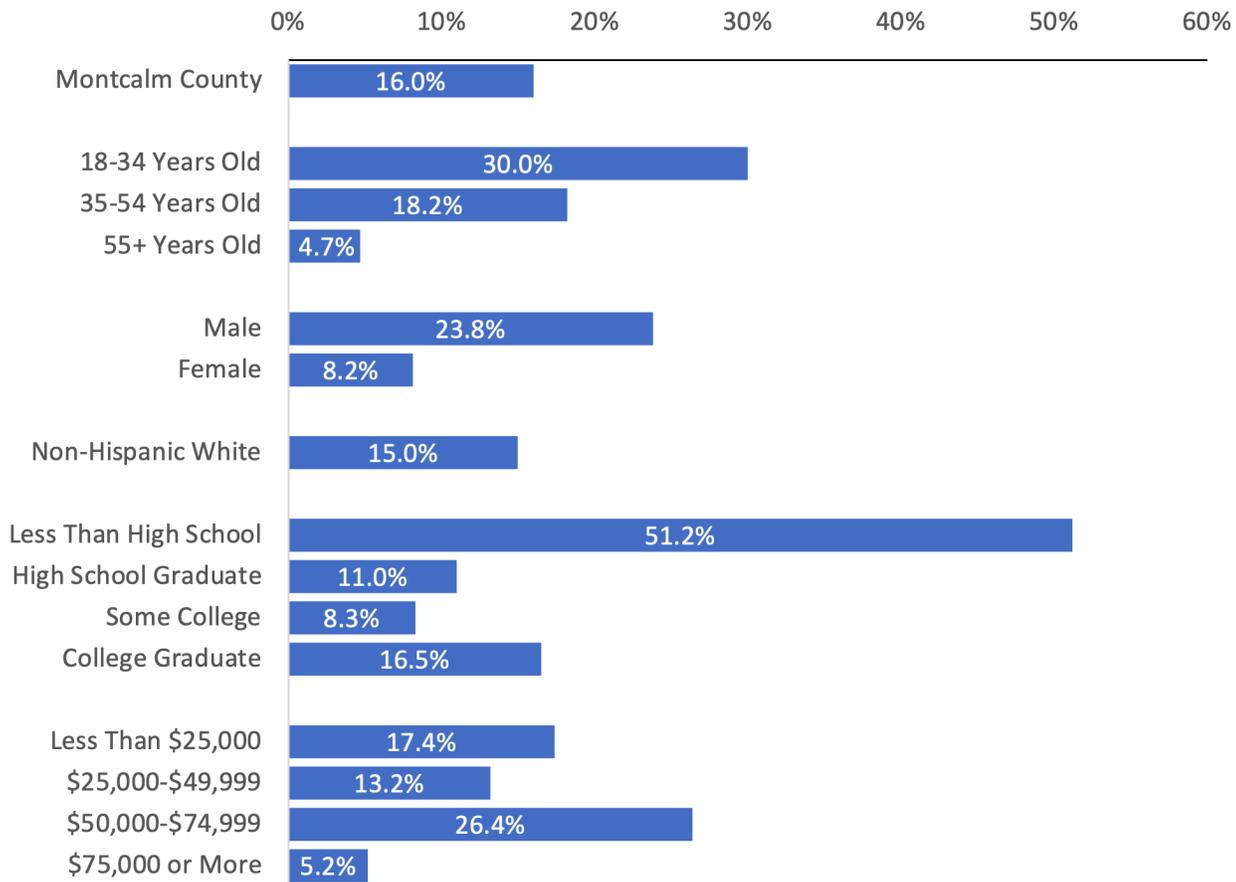
Figure 88: Any Marijuana Use Among Adults in Montcalm County in the Past 30 Days, 2017-2019



Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

The percentage of adults in Montcalm County using marijuana in the past 30 days was highest among the 18-34 age group. Males were three times more likely to use marijuana than females. Those with less than a high school education were between four and five times more likely to be marijuana users compared to the other education groups (Figure 89).⁸¹

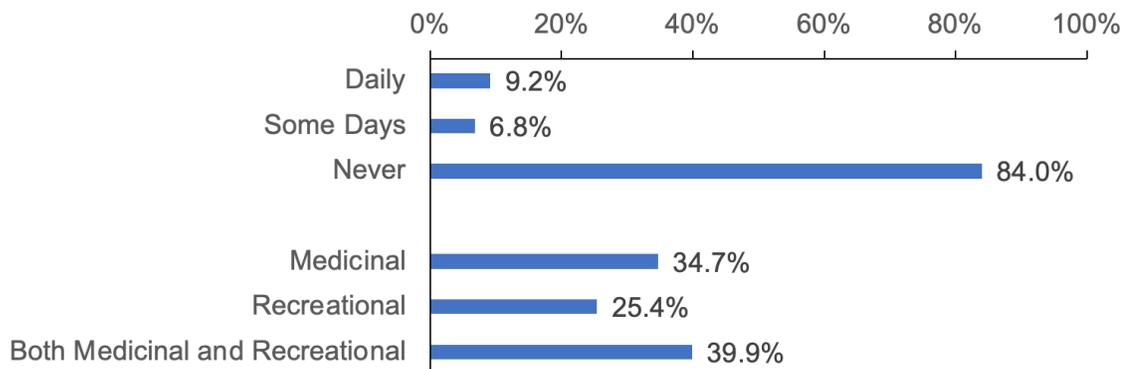
Figure 89: Percentage of Adult Marijuana Use by Demographic Group, Montcalm County Residents, 2017-2019



Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

Nearly one in 10 adults in Montcalm County (9.2%) reported using marijuana daily. When asked about the reason for using marijuana in the past 30 days, 39.9% reported using it medicinally and recreationally, 34.7% used marijuana for only medicinal purposes, and 25.4% used it recreationally (Figure 90).⁸¹

Figure 90: Marijuana Use in the Past 30 Days and Reason for Use Among Montcalm County Adults

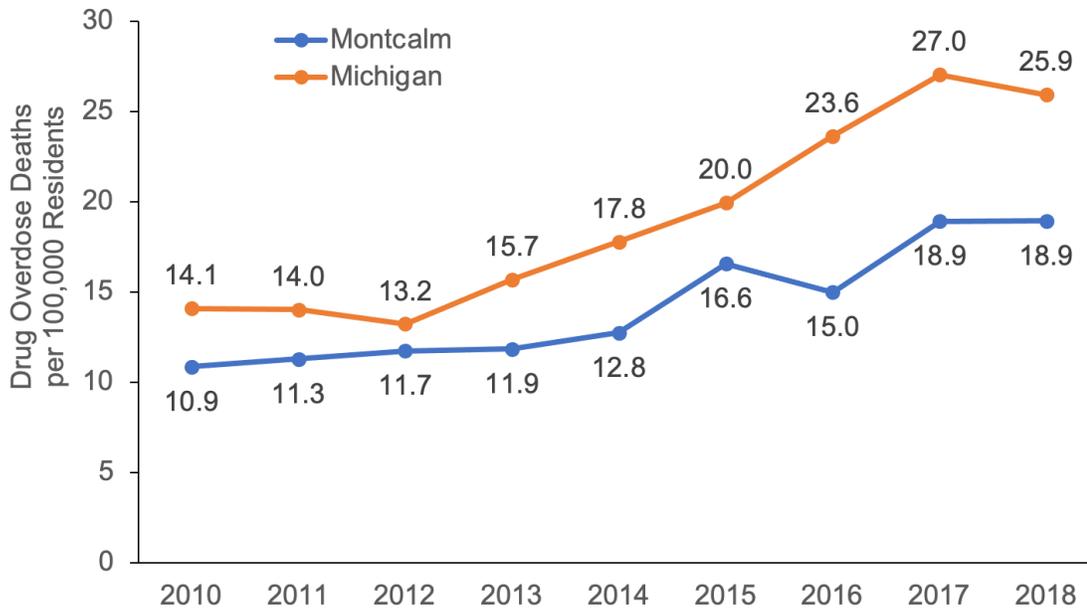


Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

Drug Overdose Deaths

Drug overdose deaths per 100,000 residents were lower in Montcalm County than in Michigan between 2010 and 2018. However, drug overdose deaths per 100,000 residents increased for Montcalm County (10.9 to 18.9) and Michigan (14.1 to 25.9) between 2010 and 2018 (Figure 91).¹¹⁶

Figure 91: Estimated Rate of Deaths From Drug Overdose per 100,000 People in Montcalm County and Michigan



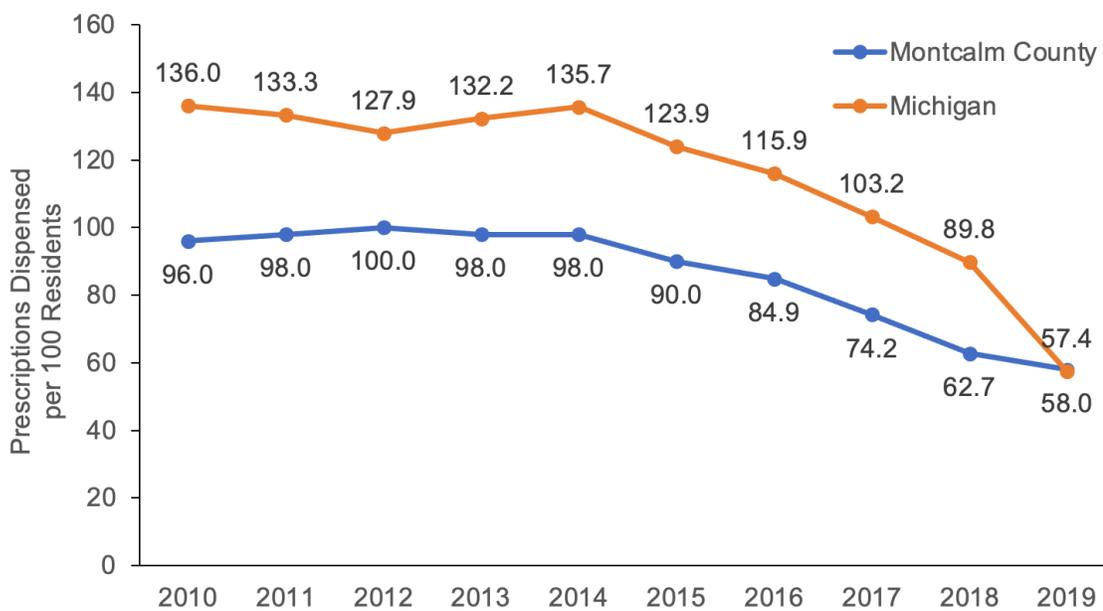
Source: 2010-2018 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control

Prescription Drug Misuse

An excessive number of prescriptions being filled can be a marker of abuse occurring in the community. Figure 92 shows opioid prescriptions per 100 residents from 2010 to 2019 in Montcalm County and Michigan. Since an individual may receive multiple prescriptions in a year, the rate does not necessarily represent the percentage of the population receiving opioid prescriptions and may be greater than 100.

The trend in opioid prescriptions dispensed had been, until recently, higher for the state of Michigan than for Montcalm County. However, at its height in 2012, there were enough prescriptions dispensed in Montcalm County to provide nearly every resident with an opioid prescription.¹¹⁶

Figure 92: Opioid Prescriptions Dispensed per 100 People in Montcalm County and Michigan



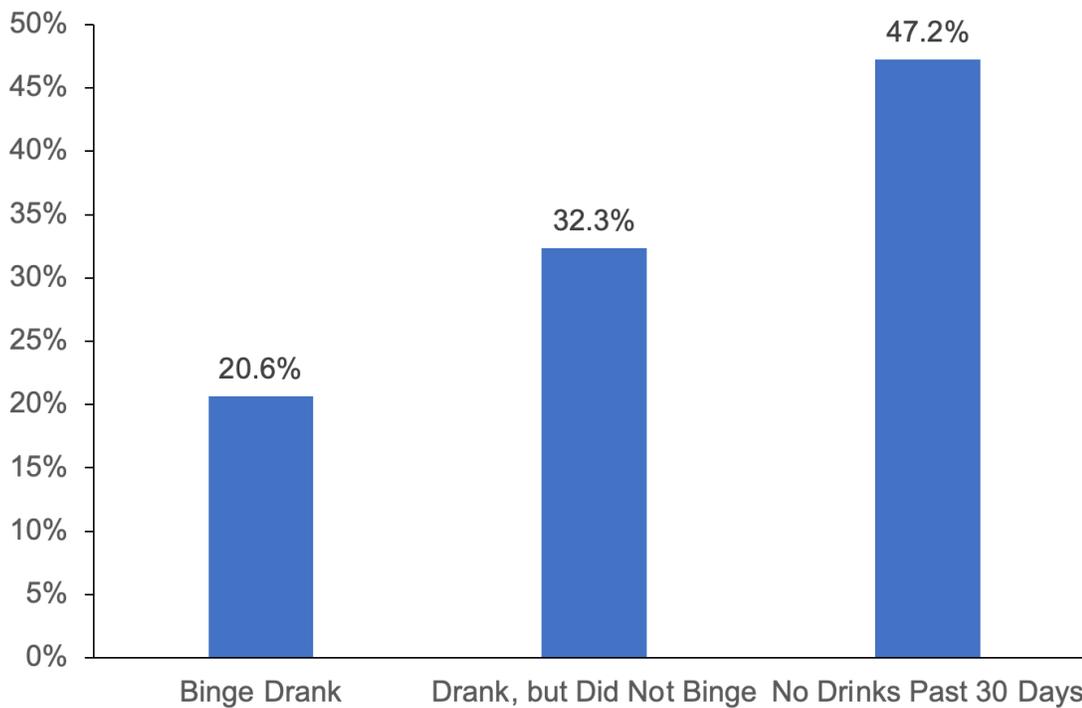
Source: 2010-2018 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control

Binge Drinking

For women, binge drinking is defined as consuming more than four alcoholic beverages on a single occasion; for men, it is defined as more than five alcoholic beverages on a single occasion. Consuming a large quantity of alcohol in a short time can result in alcohol poisoning, which can be fatal.

Nearly 20.6% of adults reported having engaged in binge drinking within the 30 days prior to responding to the survey, while 32.3% drank alcohol but did not binge (Figure 93).⁸¹

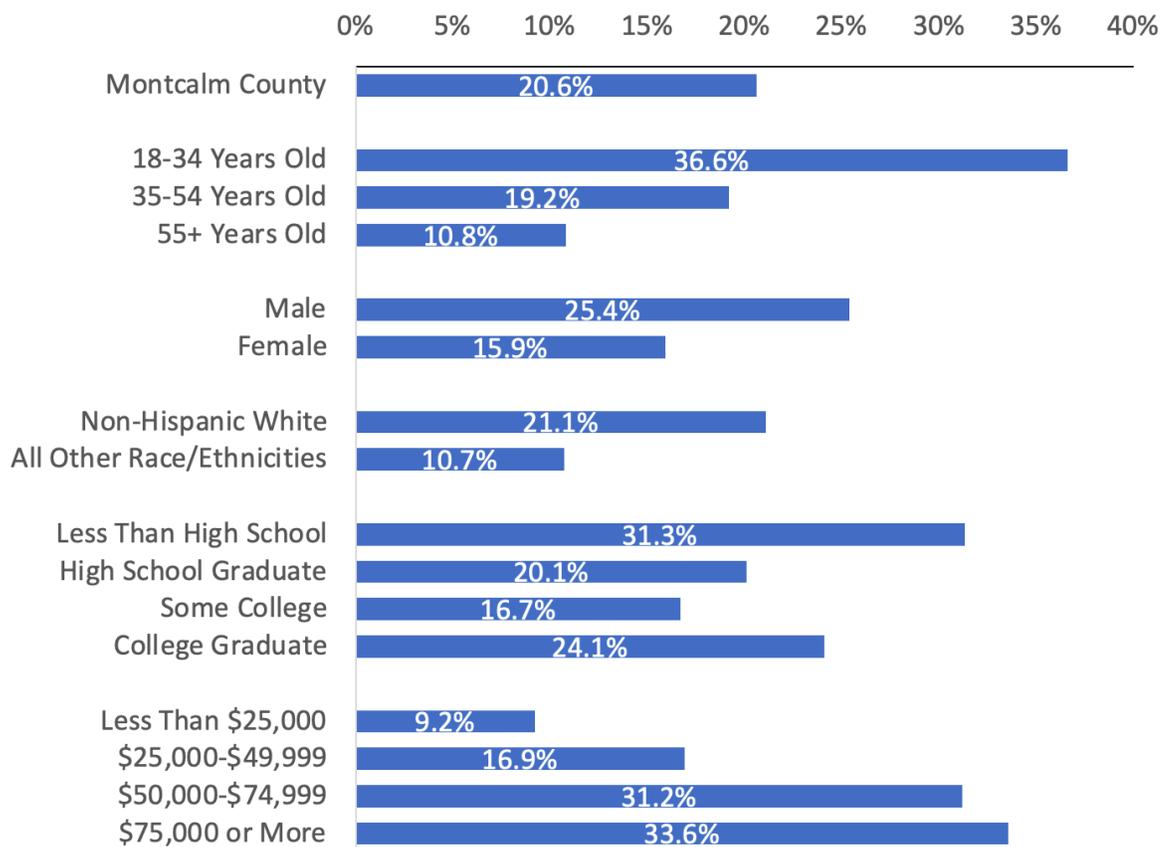
Figure 93: Demographic Characteristics of Binge Drinking Among Adults in Montcalm County



Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

People ages 18-34 (36.6%) were three times more likely to have engaged in binge drinking within the past 30 days than those 55 and older (10.8%). Non-Hispanic White people (21.1%) were twice as likely to report binge drinking than all other races and ethnicities (10.7%). As income levels increased, the percentage of adults in each income level reporting binge drinking increased (Figure 94).⁸¹

Figure 94: Percentage of Adults Reporting Binge Drinking Within the Last 30 Days by Demographic Group, Montcalm County Residents, 2017-2019



Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

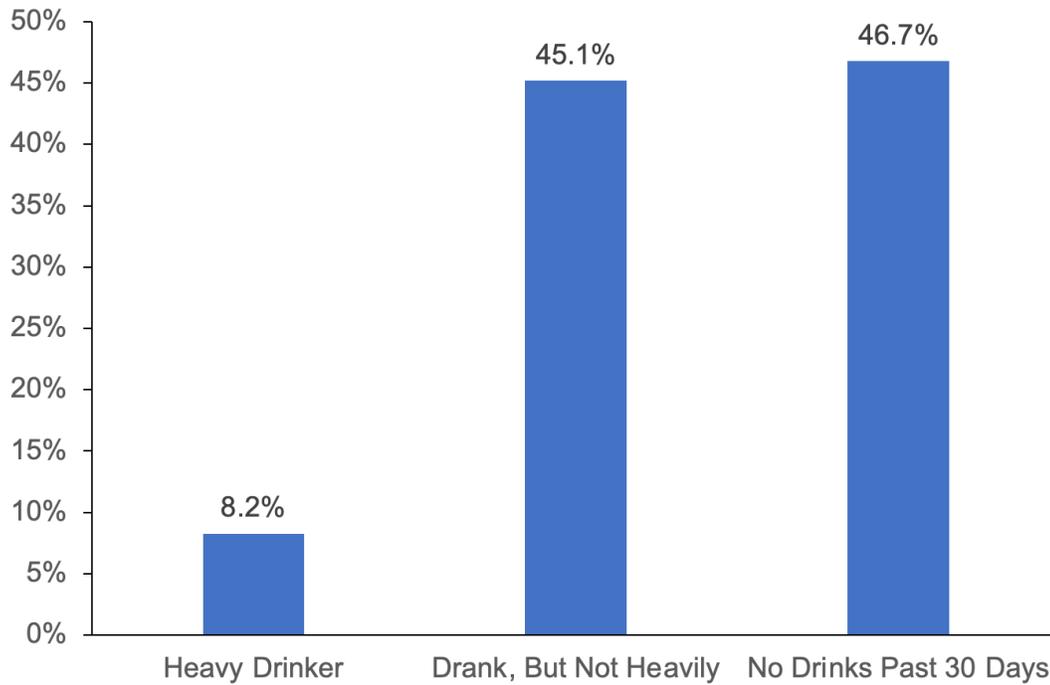
2017-2019 MDHHS Behavioral Risk Factor Survey

Heavy Drinking

For women, heavy drinking is defined as consuming one alcoholic drink per day; for men, it is defined as consuming more than two alcoholic drinks per day.¹¹⁷ Heavy drinking may have some of the immediate consequences of binge drinking and is associated with an increased risk of chronic conditions such as hypertension and cardiac events.¹¹⁷

Only 8.2% of adults in Montcalm County drank heavily within the last 30 days, while 45.1% drank but not heavily (Figure 95).⁸¹

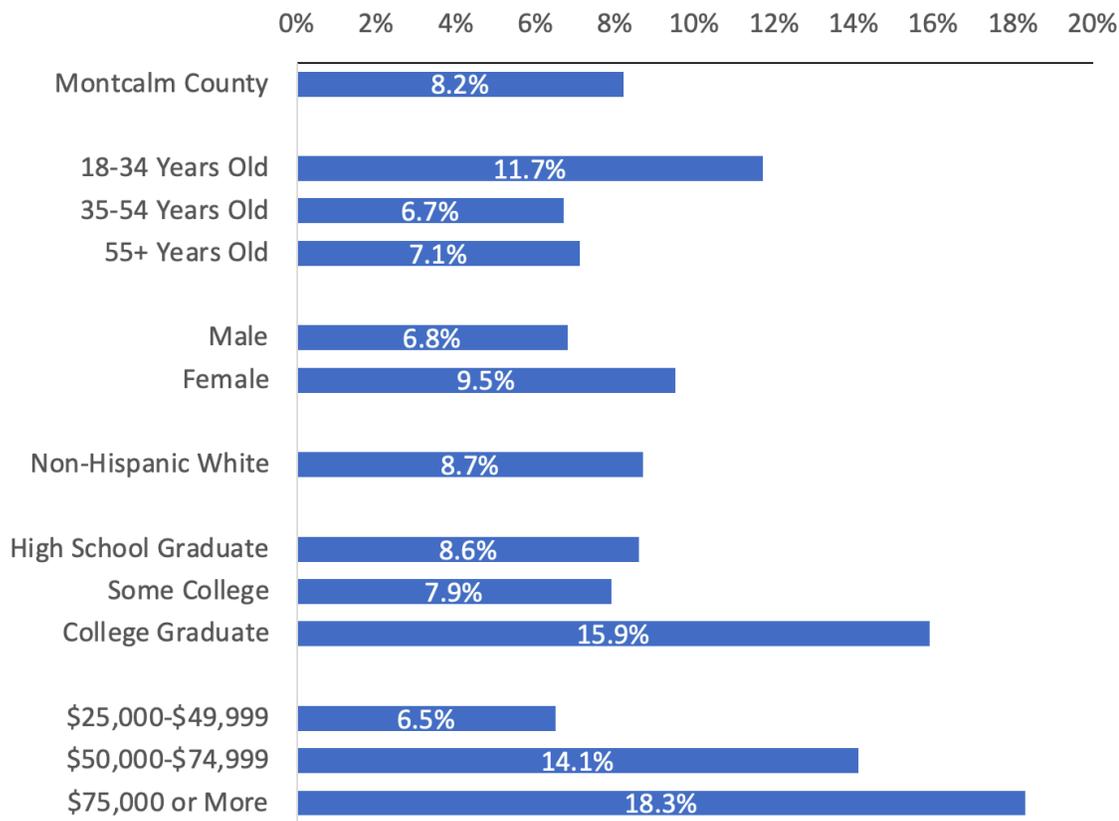
Figure 95: Demographic Characteristics of Heavy Drinking Among Adults in Montcalm County



Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

Almost twice as many 18- to 34-year-olds (11.7%) heavily drank within the last 30 days compared to the other age groups. College graduates (15.9%) were more likely to be heavy drinkers than the other education groups. As income levels increased, the percentage of adults classified as heavy drinkers increased from 6.5% of adults with a household income of \$25,000 to \$49,999 to 18.3% of adults with a household income of \$75,000 or more (Figure 96).⁸¹

Figure 96: Percentage of Adults Who Heavily Drank by Demographic Group, Montcalm County Residents, 2017-2019



Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only

2017-2019 MDHHS Behavioral Risk Factor Survey

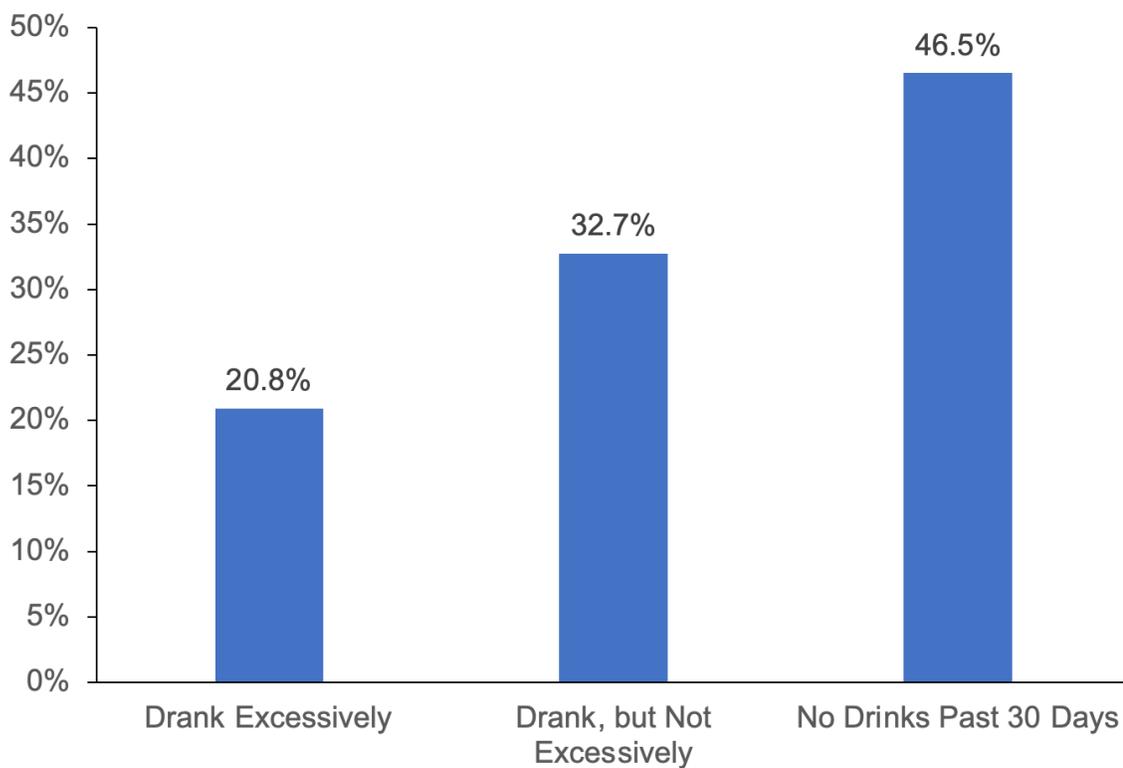
Excessive Drinking

Excessive drinking is when a person is considered a binge or heavy drinker. Heavy drinking is when a person consumes an average of more than two alcoholic drinks per day (if they are a man) or more than one per day (if they are a woman).¹¹⁷

In addition to the potential negative health outcomes caused by binge and heavy drinking, other potential negative consequences of consuming large quantities of alcohol include impaired judgment, which frequently leads to violence, transmission of sexually transmitted infections, unintended pregnancies, and motor vehicle accidents.¹¹⁸

In Montcalm County, 20.8% of adults reported drinking excessively within the past 30 days, 32.7% consumed alcohol but did not do so excessively, and 46.5% reported not consuming alcohol during the past 30 days (Figure 97).⁸¹

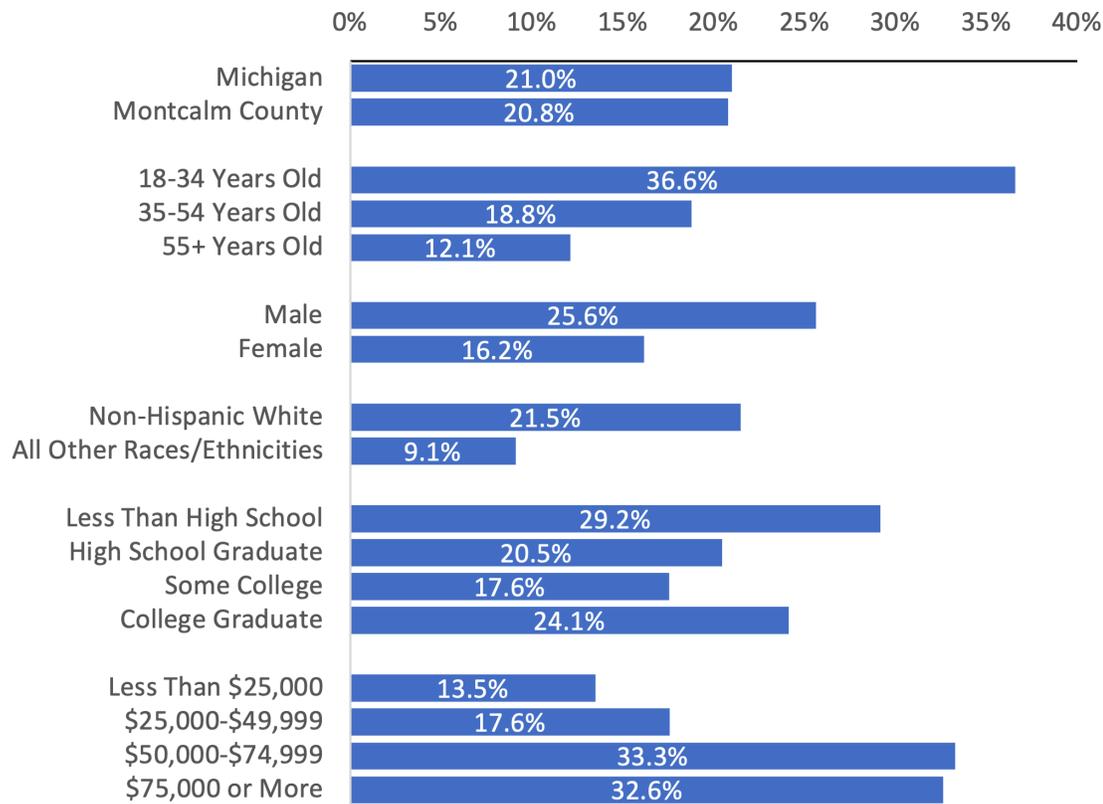
Figure 97: Demographic Characteristics of Excessive Drinking Among Adults in Montcalm County



Source: 2017-2019 Capital Area Behavioral Risk Factor Surveillance System, Montcalm County Only

The percentage of adults who either binged or drank heavily in the last 30 days was similar in Montcalm County and Michigan, 20.8% and 21.0%, respectively. The percentage of adults who drank excessively declined as age increased (from 36.6% of adults 18-34 years old to 12.1% of adults age 55 and older). The percentage of people who reported binge or heavy drinking increased as income increased (from 13.5% of adults with an income less than \$25,000 to 32.6% of adults with an income of \$75,000 or more) (Figure 98).^{81,141}

Figure 98: Percentage of Adults Who Drank Excessively by Demographic Group, Montcalm County Residents, 2017-2019



Sources:

2017-2019 Capital Area Behavioral Risk Factor Survey, Montcalm County Only
 2017-2019 MDHHS Behavioral Risk Factor Survey



Injury Prevention

Injury prevention is vital for the well-being of people in a community. Having a safe community and environment, including workplaces, schools and homes, is important to prevent accidental deaths. Health promotion and positive health behaviors will also help reduce accidental deaths (including deaths due to drug overdose and avoidable illnesses and chronic diseases).

Indicators

- Leading Causes of Death
- Accidental Deaths
- Premature Deaths

Leading Causes of Death

The age-adjusted deaths per 100,000 population for all causes of death was lower in Montcalm County (777.6) than in Michigan (784.0) between 2015-2017 but was higher in the following two three-year periods. The age-adjusted deaths per 100,000 population in Montcalm County increased from 777.6 to 817.7 per 100,000 population over the three three-year periods and remained relatively steady in Michigan, between 780.3 and 785.3 deaths per 100,000 population, over the same period.

The most common cause of death in Montcalm County (between 184.5 and 195.8 deaths per 10,000 population) and Michigan (between 195.0 and 198.0 deaths per 100,000 population) was heart disease. The second-most-common cause of death for both Montcalm County (between 156.0 and 171.1 deaths per 100,000 population) and Michigan (159.7 and 164.9 deaths per 100,000 population) was cancer-related (Table 12).¹⁵⁰

Causes of Death	Montcalm County			Michigan		
	2015-2017	2016-2018	2017-2019	2015-2017	2016-2018	2017-2019
All Causes of Death	777.6	802.7	817.7	784.0	785.3	780.3
Heart Disease	195.8	185.3	184.5	198.0	197.4	195.0
Cancer	156.0	161.3	171.1	164.9	163.1	159.7
Chronic Lower Respiratory Diseases	53.7	57.7	53.2	45.4	44.4	44.0
Unintentional Injuries	55.9	61.1	63.6	49.4	52.3	51.8
Stroke	38.7	38.5	41.1	38.5	39.5	39.5
Alzheimer's Disease	33.7	38.8	36.7	32.8	34.3	34.3
Diabetes Mellitus	27.2	33.2	31.9	22.0	21.9	22.1
Kidney Disease	12.0	12.1	8.4	14.9	14.7	14.6
Pneumonia and Influenza	16.7	18.5	19.9	14.3	14.1	13.8
Intentional Self-harm (Suicide)	17.8	20.4	23.4	13.5	14.0	14.3
Chronic Liver Disease and Cirrhosis	13.7	13.6	13.7	10.6	10.6	11.1

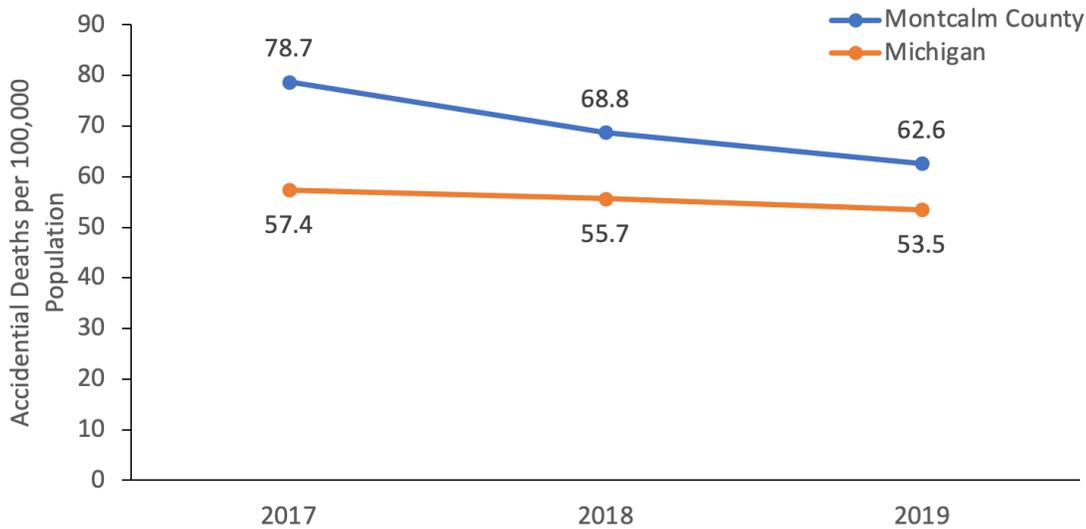
Source: Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics: 2017-2019 Community Health Information - Mortality

Accidental Deaths

Unintentional or accidental deaths are the leading cause of death in the United States for people between 1 and 44 years of age. Accidental deaths include drug overdoses, poisoning, motor vehicle crashes, and unintentional falls. Figure 99 shows the number of accidental deaths per 100,000 population.

Accidental deaths per 100,000 population were higher in Montcalm County than in Michigan in 2017-2019. The number of accidental deaths per 100,000 population declined for Montcalm County (78.7 to 62.6 deaths per 100,000 population) and Michigan (57.4 to 53.5 deaths per 100,000 population) between 2017 and 2019.⁹⁴

Figure 99: Rate of Deaths From Accidents per 100,000 Individuals in Montcalm County and Michigan



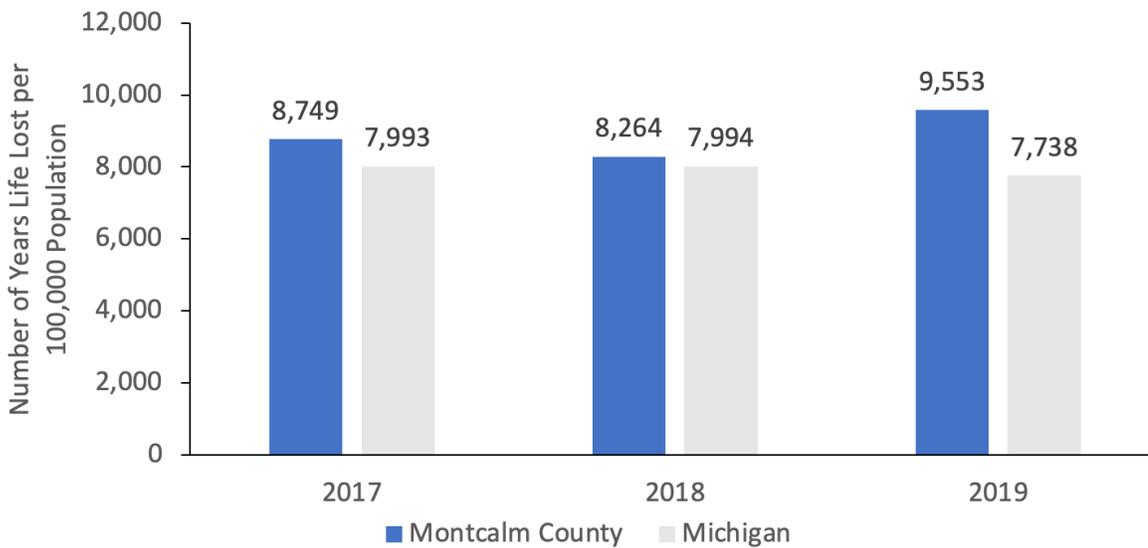
Source: 2017-2019 National Center for Health Statistics – Mortality Files

Premature Deaths

One of the ways to assess premature death is to consider Years of Potential Life Lost (YPLL). YPLL assumes that a person's life expectancy is 75 years. A person who dies at 70 years old has lost five years of potential life. When calculating the years of potential life lost for a community, all of the potential life years lost over a year are summed. In order to calculate the YPLL rate per 100,000 population, the sum is then divided by the total population under 75 years and then multiplied by 100,000.¹¹⁹

The total number of YPLLs lost was higher in Montcalm County than in Michigan in 2017-2019. From 2017 to 2019, the total YPLLs increased in Montcalm County (from 8,749 to 9,553) and declined slightly in Michigan (from 7,993 to 7,738) (Figure 100).¹²⁰

Figure 100: Years of Potential Life Lost per 100,000 Population



Source: Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics. 2017-2019 Rates of Years of Potential Life Lost below Age 75 by Sex and Race, Montcalm County

The average years of potential life lost was higher in Montcalm County than in Michigan across the three three-year periods. From 2015-2017 to 2017-2019, the years of potential life lost increased from 8,047.8 to 8,859.2 in Montcalm County, while it remained relatively steady in Michigan (between 7,907.6 and 8,002.0).

The causes of deaths with the highest years of potential life lost were related to malignant neoplasms, accidents and diseases of the heart for Montcalm County and Michigan across the three periods. However, the years of potential life lost from intentional self-harm or suicide was much higher in Montcalm County (between 576.8 and 732.8) than in Michigan (between 429.4 and 454.6) across the three periods (Table 13).¹²⁰

Table 13: Three-Year Average Rates of Years of Potential Life Lost Below Age 75 by Leading Conditions

Cause of Death	Montcalm County			Michigan		
	2015-2017	2016-2018	2017-2019	2015-2017	2016-2018	2017-2019
All Causes	8,047.8	8,225.7	8,859.2	7,918.6	8,002.0	7,907.6
Malignant Neoplasms	1,557.1	1,637.2	1,765.4	1,601.9	1,579.6	1,549.7
Accidents	1,483.2	1,597.1	1,654.4	1,311.6	1,386.4	1,347.7
Diseases of Heart	1340.5	1,271.9	1,307.1	1312.0	1,317.7	1,282.7
Intentional Self-Harm (Suicide)	576.8	658.8	732.8	429.4	447.1	454.6
Chronic Lower Respiratory Diseases	247.2	220.6	256.5	251.7	252.5	253.7
Chronic Liver Disease and Cirrhosis	278.5	257.3	284.7	206.0	204.2	216.1
Diabetes Mellitus	305.2	322.4	374.8	208.7	205.3	213.0
Cerebrovascular Diseases	187.5	200.8	214.2	180.8	182.5	180.2
Influenza and Pneumonia	169.9	163.4	219.3	93.3	98.9	100.2
Nephritis, Nephrotic Syndrome and Nephrosis	71.0	53.7	45.1	84.2	85.2	89.0
All Other Causes	1,408.7	1,481.1	1,577.7	1,383.4	1,390.0	1,390.2

Source: Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics. 2017-2020 Rates of Years of Potential Life Lost below Age 75 by Sex and Race, Montcalm County

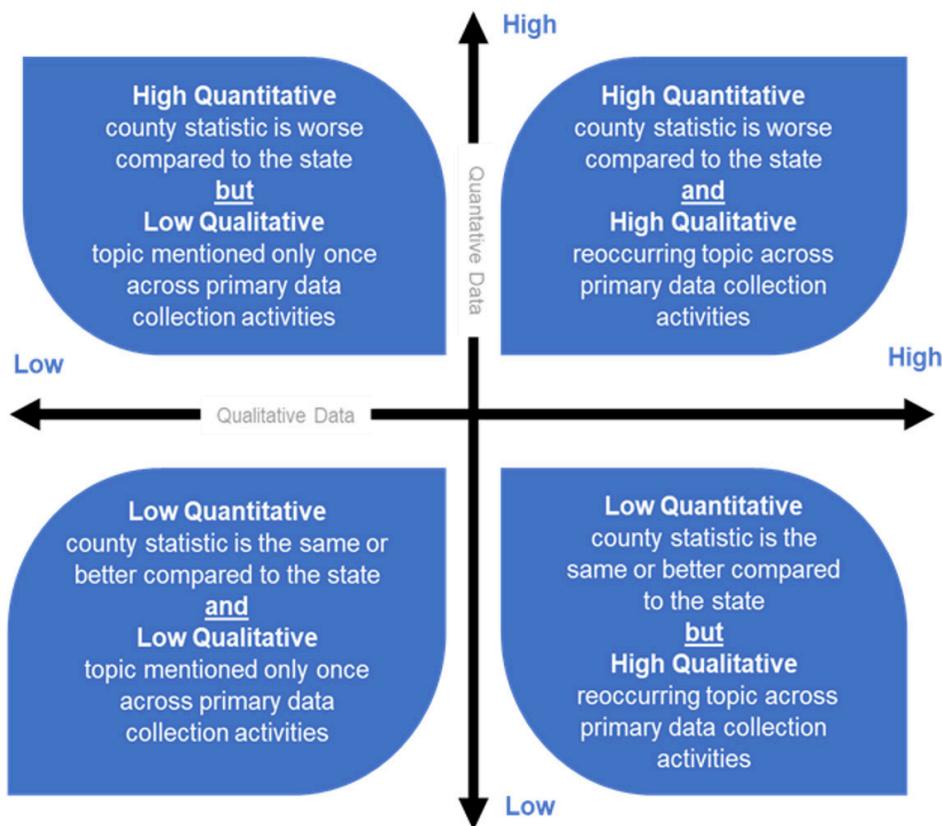
Prioritization

Montcalm County's significant health needs prioritization occurred through a best-practice, community-engaged approach. This approach organized the various themes and indicators from data collection into a matrix, followed by prioritization of matrix categories and thematic identification of like indicators.

Methodology

Prioritization was achieved via a two-step process. In the first step, a prioritization matrix (Figure 101) was used to evaluate the data collected from the assessment activities. Based on the characteristics of the quantitative data or the frequency of health themes that occurred in the qualitative data, the health needs matrix groups the data into one of four categories: High Quantitative/High Qualitative, High Quantitative/Low Qualitative, Low Quantitative/Low Qualitative, and Low Quantitative/High Qualitative.¹²¹ Once the measures and themes were grouped, participants were asked to pick the quadrant(s) prioritized in the second step.

Figure 101: Health Needs Matrix



Source: Truven Health Analytics & Beaumont Health

The second step of the prioritization process employed the modified RICE scoring model. RICE is an acronym for reach, impact, confidence and effort

- Reach – How severe is the problem compared to state statistics or a national benchmark?
- Impact on inequity – What disparity would be improved if this need was addressed?
- Confidence – How confident are we that we can address this need?
- Effort – What resources and other organizations or initiatives in the community currently address a particular need?

A RICE score is calculated using the following formula (Figure 102):

Figure 102: Rice Scoring Model

$$\frac{(\text{Reach} * \text{Impact} * \text{Confidence})}{\text{Effort}}$$

Source: McBride – RICE: Simple Prioritization for Product Managers, 2021

All participants were given a worksheet to fill out during the prioritization event. In that worksheet, they selected an answer option for each of the components of the RICE formula for each health-related topic (Figure 103).

Figure 103: RICE Answer Options

Reach	Impact on Inequity	Confidence	Effort
A = very severe (10,000)	Low (1)	5 = very confident	E = a lot of time and resources (7)
B = somewhat severe (1,000)	Medium (5)	3 = somewhat confident	F = limited time, but lots of resources (5)
C = no difference (100)	High (10)	1 = not confident	G = a lot of time, but limited resources (2)
D = not severe (10)	Critical (20)		H = limited time and resources (1)

Source: McBride – RICE: Simple Prioritization for Product Managers, 2021

After the event, the information from these worksheets was put into a prepared Microsoft Excel worksheet. The worksheet calculated the RICE score for each health-related topic. The RICE score for every health issue from every participant was summed to calculate a total score for each health-related topic and was compared. The five health-related topics with the highest scores were identified as community priority issues for Montcalm County for this Community Health Needs Assessment cycle.

Identifying and Prioritizing Health Needs

The Healthy Montcalm Collaborative designed a prioritization process that consisted of two events.

First Event – Nov. 3, 2021

The first event, held on Nov. 3, 2021, was a data review. The event coincided with the Montcalm Human Services Coalition meeting for November. The meeting was attended by members of the Montcalm Human Services Coalition and representatives from the health department, local hospital systems, and the Montcalm Intermediate School District. Participants could attend the event at the Montcalm Community College Shelby Campus or virtually via Zoom (Table C1 in Appendix C).

During the meeting, staff from the Mid-Michigan District Health Department and Spectrum Health Healthier Communities presented the information gathered during the assessment process. After the data was discussed, participants were given all the measures and themes from the assessment grouped into four categories based on the Health Needs Matrix (Figure 101).

Meeting participants were asked to select which categories should be prioritized at the next event. Three of the four matrix categories from the Health Needs Matrix were identified to be prioritized at the next session. Between the data review and the prioritization meeting, members of the Mid-Michigan District Health Department and Spectrum Health Healthier Communities combined the measures and themes arising from the assessment into 16 health-related topics (Figure 104).

Figure 104: Montcalm County Health-Related Topics for Prioritization

Substance abuse <ul style="list-style-type: none"> Alcohol misuse Marijuana Overdose mortality Prescription drug misuse Substance use disorder treatment Smoking Vaping 	Transportation <ul style="list-style-type: none"> Alcohol-related traffic fatalities Long commute Traffic fatalities Work commute 	Financial security/ economic stability <ul style="list-style-type: none"> Child poverty Economic security Median income Unemployment 	Communication / internet access <ul style="list-style-type: none"> Communication Information about services or resources in the community Internet service 	Chronic diseases/disease management <ul style="list-style-type: none"> Diabetes Disability High cholesterol Hypertension Disease management 	
Housing <ul style="list-style-type: none"> Housing 	Mental health <ul style="list-style-type: none"> Mental health provider availability Fair/poor mental health 	Health insurance <ul style="list-style-type: none"> Uninsured Medical insurance and cost of care Specialty care 	Access to care/care coordination <ul style="list-style-type: none"> Care coordination Mental health provider availability Primary care provider availability Dentist availability Ambulatory care sensitive conditions 	Preventive care practices <ul style="list-style-type: none"> Colon cancer screening Mammography Flu vaccination 	
Neighborhood and built environment <ul style="list-style-type: none"> Physical activity environment Air quality Food environment Water quality 	Injury prevention <ul style="list-style-type: none"> Injury deaths Years of potential life lost 	Education access and quality <ul style="list-style-type: none"> Free/reduced lunch Educational attainment Higher education attainment 	Social and community context <ul style="list-style-type: none"> Violent crime Social connection Single-parent households Income inequity 	Reproductive, maternal and child health <ul style="list-style-type: none"> Infant mortality Low birthweight Sexually transmitted infections Teen births 	Healthy lifestyles <ul style="list-style-type: none"> Overweight/obesity Physical activity Life expectancy Fair/poor general health Fair/poor physical health

Second Event – Nov. 10, 2021

The second event was held virtually and in person at the Montcalm Community College Shelby Campus on Nov. 10, 2021. A list of attendees can be found in Table C2 in Appendix C. Data from the community asset inventory survey that identified available county assets was discussed during the second event. More information about the data presented can be found in the Community Resources section of this report, which begins on the next page.

After discussing the community assets, participants were asked to prioritize the 16 health-related topics using a worksheet that was distributed virtually and in person. Once all the worksheets were collected, the information was inserted into a prepared Microsoft Excel file. The data collected was used to calculate individual RICE scores for every worksheet and the group's total RICE score for each topic. The five health-related topics with the highest scores were formally accepted as the most significant health needs:

- Financial security / Economic stability
- Healthy lifestyles
- Mental health
- Substance use disorder
- Transportation

Community Resources

Description of the Health System

For this Community Health Needs Assessment Report, the term “health system” is defined using the World Health Organization’s definition from their report *Everybody’s Business: Strengthening Health Systems to Improve Health Outcomes*, which includes organizations that provide or support medical care. A comprehensive list of health care facilities available to Montcalm County can be found in Table B1 in Appendix B.

“All organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities.”

– World Health Organization, definition of health system, 2007¹²³

Hospitals in Montcalm County

Four hospital facilities serve Montcalm County: Spectrum Health Kelsey Hospital, Spectrum Health United Hospital, Sheridan Community Hospital and Sparrow Carson Hospital (Figure 105). Spectrum Health Kelsey Hospital and Sheridan Community Hospital have Critical Access Hospital designation, which is given to eligible rural hospitals to reduce financial vulnerability and improve access to care.

In Lakeview, Spectrum Health Kelsey, with 16 acute care beds and 31 long-term beds, provides emergency care, laboratory, inpatient and outpatient rehabilitation services.³

Spectrum Health United has 49 acute care beds and 39 long-term care beds and is located in Greenville. It provides an array of outpatient services, including obstetrics, orthopedics, wound healing clinics, cancer care, primary health, preventive cardiology and rehab, and pulmonary rehab, as well as a walk-in clinic.⁴

In the centrally located village of Sheridan is Sheridan Community Hospital. It is a 22-bed independent hospital providing medical services, including a subacute care unit, physical rehabilitation services, outpatient specialty and surgical services, an emergency department, a primary care practice and laboratory services.¹²⁴

In Carson City, Sparrow Carson Hospital is part of the Sparrow Health System and has 61 licensed beds. Sparrow Carson Hospital offers a wide array of services, including inpatient and outpatient physical rehabilitation, in-house laboratory services, primary care practices, specialty services, outpatient surgery and an emergency department with a Level IV trauma capacity.¹²⁵

Figure 105: Hospitals in Montcalm County



Federally Qualified Health Centers

There is one Federally Qualified Health Center in Montcalm County: Cherry Health’s Montcalm Area Health Center. Cherry Health is the largest FQHC in Michigan, serving six counties. Cherry Health has approximately 800 employees and a network of over 70 physicians and advanced practice providers specializing in primary care/family medicine, pediatrics, obstetrics/gynecology, optometry, oral health, behavioral health and psychiatry.¹²⁶

Montcalm County is a Governor-Designated Secretary-Certified Shortage Areas for Rural Health Clinic, permitting FQHCs to operate. FQHCs are an essential feature of the social safety net. These centers provide an array of health services (i.e., primary care, chronic disease management, and mental and behavioral health services) to anyone, regardless of their ability to pay.

Government Entities

The protection of the entire population’s health as outlined in the Michigan Constitution is delegated to local governing entities. These governing entities are required to investigate the causes of disease, especially during times of epidemics; provide care for individuals with severe communicable disease or infection; mitigate environmental or disease-related health hazards; and routinely inspect facilities with a high likelihood of impacting public health (i.e., food service facilities, public pools, public and private wells, and septic systems).

In Montcalm County, these and other services are provided by the Mid-Michigan District Health Department. Mid-Michigan is not a department of the Montcalm County government or of the governmental structure of the other counties served by the department (Gratiot and Clinton counties); instead, it is a quasi-governmental entity. It is overseen by a board of health consisting of elected officials from all three counties.

Health Care Providers in Montcalm County

People in rural communities often lack access to health care due to the low number of providers operating there. In Montcalm County, the ratio of providers to population is lower. There is one primary care provider for every 2,370 residents and one dentist for every 2,130 residents in Montcalm County. In comparison, there are 1,270 residents for every primary care physician in Michigan and 1,310 residents for every dentist.¹²⁷ A comprehensive list of the number of health care providers by specialty in Montcalm County can be found in Tables B2 and B3 in Appendix B.

Mental Health Providers in Montcalm County

There are two mental health systems in Michigan: public and private systems. The Montcalm Care Network administers the public system in Montcalm County. It provides specialized behavioral health services to support individuals and families with severe and persistent mental illness, serious emotional disturbances, developmental disabilities and/or intellectual disabilities, and co-occurring substance use disorders.

Access to mental health providers in Montcalm County is challenging. The private system includes all mental and behavioral health providers who take commercial insurance or cash payments. In Montcalm County, there is one mental health provider for every 480 residents. In contrast, there is one mental health provider for every 360 residents in Michigan.¹²⁷ A comprehensive list of the number of mental health providers in Montcalm County can be found in Tables B2 and B3 in Appendix B.

Existing Resources in the Community

Every community has assets or resources that can be mobilized in community work. Based on previous research, we have categorized seven types of assets or resources in a community.¹²⁸⁻¹²⁹ Table 14 shows the assets in Montcalm County grouped into those seven categories.

Table 14: Montcalm Community Assets by Asset Type		
Asset Type	Asset Description	Montcalm County-Specific Assets
Human Assets	The skills and abilities of each individual within a community	<ul style="list-style-type: none"> • Toby Bresnahan • Luke Gitchel • Mark Lavengood • Laura Pentecost
Social Assets	Networks, organizations and institutions, including norms of reciprocity and the mutual trust that exist among and within groups and communities	<ul style="list-style-type: none"> • American Legion • Blue Star Mothers Chapter #188 • Coalition of Greater Greenville • Disabled American Veterans • Education Foundation of Greenville • Family Assistance Center – Grand Valley Armory • Great Start Collaborative - Montcalm • Greenville Federation of Women’s Clubs <ul style="list-style-type: none"> • Have Mercy • Ionia/Montcalm Families Against Narcotics (IMFAN) <ul style="list-style-type: none"> • Montcalm Care Network • Montcalm Mental Health Foundation • Montcalm Prevention Collaborative <ul style="list-style-type: none"> • Randy’s House • Montcalm County Recovery & Integrated Services of Care (RISC) <ul style="list-style-type: none"> • United Way of Montcalm and Ionia Counties <ul style="list-style-type: none"> • Women’s Action Network • YOUTHINK Montcalm
Political Assets	Ability of a group to influence the distribution of resources, financial and otherwise	<ul style="list-style-type: none"> • Ionia Montcalm Continuum of Care (For Housing and Homelessness) <ul style="list-style-type: none"> • Montcalm County Democratic Party • Montcalm County Republicans • Montcalm Human Services Coalition • Oral Health Coalition of Montcalm County
Financial Assets	Money or other investments that can be used for wealth accumulation	<ul style="list-style-type: none"> • Central Montcalm Community Foundation <ul style="list-style-type: none"> • Edmore Chamber of Commerce • Glenn D. And Nita Curtis Foundation • Greenville Area Chamber of Commerce • Greenville Area Community Foundation • Heart of Montcalm Chamber of Commerce <ul style="list-style-type: none"> • Lakeview Area Community Fund • Montcalm Community College Foundation <ul style="list-style-type: none"> • Montcalm Panhandle Community Fund • Spectrum Health United Memorial Foundation <ul style="list-style-type: none"> • Veterans Workforce Investment Program

Table 14: Montcalm Community Assets by Asset Type

Asset Type	Asset Description	Montcalm County-Specific Assets
Cultural Assets	The values and approaches to life that have both economic and non-economic benefits	<ul style="list-style-type: none"> • Central Michigan Sportsman’s Club <ul style="list-style-type: none"> • Crystal Arts Council • Danish Brotherhood Society #70 <ul style="list-style-type: none"> • Danish Sisterhood Society • Flat River Conservation Club • Montcalm Area Art Association
Built Assets	Anything physically made by humans; includes housing, factories, schools, roads, community centers, power systems, water and sewer systems, telecommunications infrastructure, recreation facilities, transportation systems	<ul style="list-style-type: none"> • Flat River Historical Society and Museum • Friends of the Fred Meijer Heartland Trail <ul style="list-style-type: none"> • Friends of the White Pine Trail
Natural Assets	Includes landscape, air, water, wind, soil, and biodiversity of plants and animals	<ul style="list-style-type: none"> • Big Rapids Farmers’ Market • Camp Wah-Wah-Tay-See • Carson Farmers Market • Edmore Farmers Market • USDA Farm Service Agency Service Center <ul style="list-style-type: none"> • Greenville Farmer’s Market • Greenville Garden Club • Lakeview Farmers’ Market • Montcalm Area Master Gardeners Association <ul style="list-style-type: none"> • Montcalm Conservation District • Montcalm County 4-H Fair Association <ul style="list-style-type: none"> • Montcalm County Farm Bureau • Stanton Community Garden Project

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Appendix A: Secondary Data Collection Descriptions

American Community Survey, United States Census Bureau

The U.S. Census Bureau's American Community Survey, formerly the decennial's 'long form', is a nationwide population-based survey that collects and produces information on social, economic, housing, and demographic characteristics about our nation's population every year.¹³⁰

Area Health Resource File/American Medical Association

The Area Health Resources Files are released annually by the Health Resources & Services Administration's Bureau of Health Workforce. The Area Health Resource File includes data on health care professions, health facilities, population characteristics, economics, health professions training, hospital utilization, hospital expenditures, and environment for various geographies in the United States.¹³¹

Behavioral Risk Factor Survey, Capital Area

The Capital Area Behavioral Risk Factor Survey (BRFS) is a random digit-dialed landline and mobile telephone health survey of adults administered by the Capital Area United Way on behalf of Barry-Eaton District Health Department, Ingham County Health Department, and Mid-Michigan District Health Department. This survey project collects information on health behaviors, preventive health practices, health care access, social cohesion, and interactions from six counties.¹³² It is modeled after Michigan's (BRFS) and the national Behavioral Risk Factor Surveillance System.

Behavioral Risk Factor Surveillance System, Michigan

The Michigan Behavioral Risk Factor Surveillance System (BRFSS) comprises annual, state-level landline and mobile telephone surveys of Michigan residents aged 18 years and older. These annual, state-level surveys, also known as Michigan Behavioral Risk Factor Surveys, act as the only source of state-specific, population-based estimates of the prevalence of various behaviors, medical conditions, and preventive health care practices among Michigan adults.

The BRFSS is supported by the Centers for Disease Control and Prevention through a cooperative agreement with the Michigan Department of Health and Human Services. The Michigan surveys follow the Centers for Disease Control and Prevention's telephone survey protocol for the BRFSS annual standardized core questionnaire.¹³³

Centers for Medicare & Medicaid Services Office of Minority Health's Mapping Medicare Disparities

The Centers for Medicare & Medicaid Services Office of Minority Health has designed the Mapping Medicare Disparities Tool, an interactive map first launched in 2016, to identify areas of disparities between subgroups of Medicare beneficiaries (e.g., racial and ethnic groups) in health outcomes, utilization, and spending. Focused initially on the prevalence of chronic conditions, the tool currently contains additional measures across multiple health domains, including costs, service utilization, quality of care, and health outcomes.¹³⁴

Comprehensive Housing Affordability Strategy United States Department of Housing and Urban Development / U.S. Census Bureau

The Comprehensive Housing Affordability Strategy consists of "custom tabulations" of U.S. Census Bureau data that are generally not publicly available. This data is used to determine the number of households needing housing assistance.¹³⁵

National Environmental Public Health Tracking Network, Centers for Disease Control and Prevention

In collaboration with national, state, and local partners, the Environmental Public Health Tracking Network uses data and expertise to identify and address environmental public health needs, particularly air quality, and improve public health capacity across the United States.¹³⁶

Fatality Analysis Reporting System, National Center for Statistics and Analysis, National Highway Traffic Safety Administration

The Fatality Analysis Reporting System, which became operational in 1975, contains data on a census of fatal traffic crashes for every state, the District of Columbia, and Puerto Rico. To be included in Fatality Analysis Reporting System, a crash must involve a motor vehicle traveling on a traffic way customarily open to the public and must result in the death of an occupant of a vehicle or a non-occupant within 30 days (720 hours) of the crash.¹³⁷

Food Environment Atlas, Economic Research Service / United States Department of Agriculture

There is a complex interaction between the local food environment (i.e., store/restaurant proximity, food prices, food and nutrition assistance programs, and community characteristics) and individual food choices. These factors must be observed with each other to understand these complex interactions. The United States Department of Agriculture's Food Environment Atlas was designed as a tool to facilitate that understanding.¹³⁸

Local Area Unemployment Statistics, Michigan Department of Technology, Management & Budget

The Local Area Unemployment Statistics program, housed in the Michigan Department of Technology, Management & Budget (DTMB), provides a monthly estimate of the state's labor force, employment, unemployment, and unemployment rate. Data is taken from surveys and unemployment claims recorded during the monthly reference week, usually the week including the 12th day of each month. Statistics are an estimate of people by place of residence.¹³⁹

Map the Meal Gap, Feeding America

Map the Meal Gap is an annual study of food cost and food insecurity conducted by Feeding America. Feeding America is a nationwide network of food banks and the nation's largest domestic hunger-relief organization. Information collected by Map the Meal Gap includes food insecurity rates and numbers, food budget shortfall, cost-of-food index, and national average meal cost. The study uses the Current Population Survey information, a population-based survey of the country's labor force project, supported jointly by the United States Census Bureau and the United States Bureau of Labor Statistics.¹⁴⁰

Michigan Disease Surveillance System, Michigan Department of Health and Human Services

Michigan Disease Surveillance System is a public health surveillance system administered by the Michigan Department of Health and Human Services that monitors individual cases of reportable conditions for the state.¹⁴¹

Michigan Center for Educational Performance and Information

The Michigan Center for Educational Performance and Information is a clearinghouse of information collected from schools and colleges in the state. It coordinates, collections, connections, and reports education data in Michigan. The data is then used to help inform parents, educators, and policymakers' policy, programs, and other decisions to improve state and local educational outcomes.¹⁴²

Michigan Incident Crime Reporting, Michigan State Police

Information about 95 specific criminal offenses (ranging from arson to homicide to weapon offenses) is collected by Michigan State Police from all law enforcement agencies. This information is used to populate the Michigan State Police's incident-based reporting system: Michigan Incident Crime Reporting. Some of the information captured in Michigan Incident Crime Reporting include administrative, offense, victim, property, offender, and arrestee information for each incident known to police. The Michigan State Police also forward this information to the Federal Bureau of Investigation's National Incident-Based Reporting System.¹⁴³

Michigan Health & Hospital Association Data

Michigan Health & Hospital Association is the advocacy organization representing all community hospitals in the state. It owns and administers a proprietary database of hospitalizations of Michigan residents, all short-stay hospitals (including

Veterans Administration hospitals but excluding military hospitals) in Michigan and surrounding states. MHA shares a portion of the information it collects with the Michigan Department of Health and Human Services.¹⁴⁴

National Vital Statistics System – Mortality Files, National Center for Health Statistics

Data on deaths and births were provided by National Center for Health Statistics and drawn from the National Vital Statistics System. These data are submitted to the NVSS by the vital registration systems operated in the jurisdictions legally responsible for registering vital events (i.e., births, deaths, marriages, divorces, and fetal deaths). In prior years of the Rankings, Premature Death was calculated by the National Center for Health Statistics. However, this year, the Mortality-All County (micro-data) file was requested, allowing Premature Death and Life Expectancy to be calculated.¹⁴⁵

National Provider Identifier Registry/National Plan and Provider Enumeration System, Centers for Medicare and Medicaid

The National Plan and Provider Enumeration System developed by the Centers for Medicare and Medicaid documents the National Provider Identifier, a unique intelligence-free identification number for covered health care providers. Covered health care providers and all health plans and health care clearinghouses must use the National Provider Identifier in the administrative and financial transactions adopted under Health Insurance Portability and Accountability Act. The National Provider Identifier Registry is a query-only database updated daily to enable users to query the NPPES (e.g., search by National Provider Identifier, provider name, etc.) and retrieve the Freedom of Information Act-disclosable data from the search results.¹⁴⁶

Safe Drinking Water Information System, Environmental Protection Agency

The Safe Drinking Water Act requires states to report drinking water information periodically to the United States Environmental Protection Agency. Some of the information states include in their report are basic information about each public water system, characteristics of the system's source(s) of water, violation information for each public water system, and enforcement information (including actions states or the Environmental Protection Agency have taken to ensure that a public water system returns to compliance if it is in violation).¹⁴⁷

Uniform Crime Reporting – Federal Bureau of Investigation

Uniform Crime Reporting Program generates reliable statistics for use in law enforcement. It also provides information for students of criminal justice, researchers, the media, and the public. The program has been providing crime statistics since 1930. The Uniform Crime Reporting Program includes data from more than 18,000 cities, universities and colleges, county, state, tribal, and federal law enforcement agencies. Agencies voluntarily participate and submit their crime data either through a state Uniform Crime Reporting program or directly to the Federal Bureau of Investigation's Uniform Crime Reporting Program.¹⁴⁸

Vital Records & Health Statistics, Michigan Department of Health & Human Services

While the primary purpose for collecting vital records is to record information on vital events (i.e., births, deaths, marriages, and divorces) for legal purposes, these records also serve as an essential source for statistical information. The Michigan Department of Health & Human Services' Division for Vital Records & Health Statistics calculates counts, rates, and percentages for various demographic groups and geographies within Michigan.¹⁰

Appendix B: Health Care Resource Availability

Table B1: Number of Health Care Facilities in Montcalm County and Michigan

Indicator	Year	Measure	Montcalm County	Michigan
Non-Hospital Facilities				
Community Health Centers	2020	Total Number	1	385
Community Mental Health Centers	2020	Total Number	0	2
Federally Qualified Health Centers	2020	Total Number	1	267
Home Health Agencies	2020	Total Number	1	464
Hospices	2020	Total Number	0	141
Rural Health Clinics	2020	Total Number	12	192
Skilled Nursing Facilities	2020	Total Number	4	432
Hospital Facilities				
Hospitals	2020	Total Number	3	165
Community Hospitals	2020	Total Number	3	126
Critical Access Hospitals	2020	Total Number	1*	36
General Hospitals	2020	Total Number	3	127
Non-General Hospitals	2020	Total Number	0	34
Acute Long-Term Care Hospitals	2020	Total Number	0	0
Psychiatric Hospitals	2020	Total Number	0	13
Rehabilitation Hospitals	2020	Total Number	0	2
Veterans Administration (VA) Hospitals	2020	Total Number	0	5

Source: 2021 County Level Data – Area Health Resource File

Table B2: Number of Health Care Professionals in Montcalm County and Michigan

Indicator	Year	Measure	Montcalm County	Michigan
Short-Term Hospitals / General Hospitals				
Registered Nurses	2019	Total Number	167	45,187
Advanced Practice Nurses	2019	Total Number	42	11,503
Licensed Practical Nurses / Licensed Vocational Nurses	2019	Total Number	24	1,245
Nursing Assistive Persons	2019	Total Number	95	11,601
Laboratory Technicians	2019	Total Number	45	3,734
Pharmacists	2019	Total Number	9	1,901
Pharmacy Technicians	2019	Total Number	13	1,994
Radiology Technicians	2019	Total Number	52	5,297
Respiratory Therapist	2019	Total Number	17	2,457
Short-Term Non-General / Long-Term Hospital Facilities				
Registered Nurses	2019	Total Number	0	2,873
Licensed Practical Nurses / Licensed Vocational Nurses	2019	Total Number	0	341
Nursing Assistive Persons	2019	Total Number	0	1,640
Laboratory Technicians	2019	Total Number	0	82
Pharmacists	2019	Total Number	0	152
Pharmacy Technicians	2019	Total Number	0	114
Radiology Technicians	2019	Total Number	0	119
Respiratory Therapist	2019	Total Number	0	201

Source: 2021 County Level Data – Area Health Resource File

Table B3: Number of Medical and Nursing Specialties in Montcalm County and Michigan

Indicator	Year	Measure	Montcalm County	Michigan
Medical Specialties				
MD Medical Doctors (Allopathic Medicine)				
Allergy & Immunology	2019	Total Number, Non-Federal	0	147
Anesthesiology	2019	Total Number, Non-Federal	1	1,171
Cardiovascular Disease Specialty	2019	Total Number, Non-Federal	0	620
Child Psychology	2019	Total Number, Non-Federal	0	209
Colorectal Surgery	2019	Total Number, Non-Federal	0	77
Dermatology	2019	Total Number, Non-Federal	1	338
Diagnostic Radiology	2019	Total Number, Non-Federal	0	782
Emergency Medicine	2019	Total Number, Non-Federal	1	1,603
General Family Medicine	2019	Total Number, Non-Federal	7	2,920
Forensic Pathology	2019	Total Number, Non-Federal	0	18
Gastroenterology	2019	Total Number, Non-Federal	0	378
General Practice	2019	Total Number, Non-Federal	8	102
Preventive Medicine	2019	Total Number, Non-Federal	0	35
General Surgery	2019	Total Number, Non-Federal	1	1,255
General Internal Medicine	2019	Total Number, Non-Federal	3	3,737
Neurological Surgery	2019	Total Number, Non-Federal	0	187
Neurology	2019	Total Number, Non-Federal	0	566
Obstetrics / Gynecology	2019	Total Number, Non-Federal	3	1,245
Occupational Medicine	2019	Total Number, Non-Federal	0	56
Otolaryngology	2019	Total Number, Non-Federal	0	263
Pathology	2019	Total Number, Non-Federal	0	524
General Pediatrics	2019	Total Number, Non-Federal	2	1,543
Pediatric Cardiology	2019	Total Number, Non-Federal	0	123
Physical / Medical Rehabilitation	2019	Total Number, Non-Federal	0	448
Plastic Surgery	2019	Total Number, Non-Federal	0	229
Psychiatry	2019	Total Number, Non-Federal	0	948
Pulmonary Disease Specialist	2019	Total Number, Non-Federal	0	399
Radiation Oncology	2019	Total Number, Non-Federal	0	193
Radiology	2019	Total Number, Non-Federal	0	383
Thoracic Surgery	2019	Total Number, Non-Federal	0	133
Urology	2019	Total Number, Non-Federal	0	313

Table B3: Number of Medical and Nursing Specialties in Montcalm County and Michigan

Indicator	Year	Measure	Montcalm County	Michigan
DO Doctor Of Osteopathic Medicine				
Anesthesiology	2019	Total Number, Non-Federal	2	227
Emergency Medicine	2019	Total Number, Non-Federal	1	567
General Family Medicine	2019	Total Number, Non-Federal	6	1,070
General Practice	2019	Total Number, Non-Federal	2	176
General Surgery	2019	Total Number, Non-Federal	1	150
General Internal Medicine	2019	Total Number, Non-Federal	5	408
Obstetrics / Gynecology	2019	Total Number, Non-Federal	2	212
Orthopedic Surgery	2019	Total Number, Non-Federal	1	183
General Pediatrics	2019	Total Number, Non-Federal	0	156
Physical/Medical Rehabilitation	2019	Total Number, Non-Federal	0	94
Psychiatry	2019	Total Number, Non-Federal	0	108
Nursing Specialties				
Nurse Practitioners (NPI)	2020	Total Number	34	8,433
Advanced Practice Nurse Midwives (NPI)	2020	Total Number	1	301
Advanced Practice Registered Nurses (NPI)	2020	Total Number	42	11,503
Certified Registered Nurse Anesthetists (NPI)	2020	Total Number	5	2,658
Certified Nurse Midwives (NPI)	2013	Total Number	1	321
Clinical Nurse Specialist (NPI)	2020	Total Number	2	111

Note: NPI - National Provider Identifier Number

Source: 2021 County Level Data – Area Health Resource File

Appendix C: Prioritization Participants

Table C1: Prioritization Event 1 Attendees

Attendee	Affiliation
Lori Johnson	EightCAP, Inc
Alison Barberi	Greenville Area Community Foundation
Kristen Kohn	Greenville Area Community Foundation
Kiley Johnson	Ionia Montcalm Secure and Friendly Environment Child Advocacy Center
Lori Kirkoff	Ionia Montcalm Secure and Friendly Environment Child Advocacy Center
Michelle Seigo	Michigan Department of Health and Human Services - Montcalm and Ionia
Jodie Faber	Mid-Michigan District Health Department
John Kroneck	Mid-Michigan District Health Department
Liz Braddock	Mid-Michigan District Health Department
Rex Hoyt	Mid-Michigan District Health Department
Cari O'Connor	Montcalm Area ISD
Esther Combs	Montcalm Area ISD
John Johansen	Montcalm Care Network
Melissa MacLaren	Montcalm Care Network
Tammy Warner	Montcalm Care Network
Roger Coles	Montcalm Community College
Ryan Dreyer	Montcalm County Commission on Aging
Andy Doezema	Montcalm County Sheriff's Office
Jeff Wilhelm	Mt. Calvary Church
Kim Christensen	Sheridan Community Hospital
Monte Malek	Sparrow Carson Hospital
Andrea Leslie	Spectrum Health
Beth Jabin	Spectrum Health
Cassie Larrieux	Spectrum Health
Danielle Gritters	Spectrum Health
Jon Ashford	Spectrum Health
Scott Lombard	Spectrum Health
Audrey Fleming	United Way Montcalm-Ionia
Terri Legg	United Way Montcalm-Ionia
Abigail Stalker	West Michigan Works!

Table C2: Prioritization Event 2 Attendees

Attendee	Affiliation
Jessica Higley	Michigan Department of Health and Human Services - Montcalm and Ionia
Jodie Faber	Mid-Michigan District Health Department
John Kroneck	Mid-Michigan District Health Department
Liz Braddock	Mid-Michigan District Health Department
Randi Schafer	Mid-Michigan District Health Department
Rex Hoyt	Mid-Michigan District Health Department
Esther Combs	Montcalm Area ISD
John Johansen	Montcalm Care Network
Melissa MacLaren	Montcalm Care Network
Tammy Warner	Montcalm Care Network
Jeff Wilhelm	Mt. Calvary Church
Kim Christensen	Sheridan Community Hospital
Monte Malek	Sparrow Carson Hospital
Cassie Larrieux	Spectrum Health
Scott Lombard	Spectrum Health

Appendix D: Montcalm County Community Survey

Thank you for agreeing to participate in the Montcalm County Community Health Survey. The purpose of this is to get input from you about your experiences and beliefs about health [insert clarification here], social services, and community health ideas for Montcalm County. The information gathered will be used by the local human service agencies in Montcalm to plan and/or make decisions on community health activities. This survey is:

- Anonymous,
- Voluntary, and
- Confidential.

The results of your survey will be combined with other survey takers in Montcalm County, summarized into statistics, and included in the 2022 community health needs assessment (CHNA) report for Montcalm County. By continuing you agree to participate in this survey. If you have any questions about this survey, the names and contact information of someone.

Rex Hoyt

Mid-Michigan District Health Department
Email: rhoyt@mmdhd.org
Phone: 989.831.3627

Cassie Larrieux

Spectrum Health Healthier Communities
Email: cassandre.larrieux@spectrumhealth.org
Phone: 616.267.1646

Qualifying Questions

1. Do you live or work in Montcalm County?
 - Yes (go to a and b)
 - No (*End of survey. Thank you for participating.*)
 - a. What county in Michigan do you live in?
 - Montcalm
 - Other:
 - b. What county in Michigan do you work in?
 - Montcalm
 - Other: _____
2. What is your age in years?
 - Under 18 years old (*End of survey. Thank you for participating.*)
 - 18-20 years old
 - 21-30 years old
 - 31-44 years old
 - 45-64 years old
 - 65-79 years old
 - 80 years or older

Demographics

3. What is the highest level of education you have completed?
 - Never attended school or only attended Kindergarten
 - Grades 1 through 8 (Elementary School)
 - Grades 9 through 11 (Some High School)
 - High school diploma or GED (High School Graduate)

- 1 to 3 years of college (Some college or technical school)
- 4 or more years of college (College Graduate)

4. What is your race? Do you consider yourself to be...? Choose only one

- Black or African American
- White
- Asian
- Native Hawaiian or Pacific Islander
- American Indian or Alaskan Native
- More than one race
- Other: _____

5. Are you Hispanic, Latinx (Latino/Latina), or of Spanish origin?

- Yes
- No

6. How would you identify your gender?

- Female
- Male
- Other: _____

7. Do you rent or own your home?

- Rent
- Own, paying mortgage
- Own, no mortgage
- Living with friend or family and not paying rent
- Homeless

8. How many children under the age of 18 years old live in the household?

- None
- 1
- 2
- 3
- 4 or more

9. Are you currently...? Mark only one.

- Employed full-time
- Employed part-time
- Self-employed
- On disability and cannot work
- Unemployed and looking for work
- Unemployed and not looking for work
- A homemaker or stay at home parent
- A student
- Retired

10. What is your annual household income (from all sources)? Mark only one.
- Less than \$20,000
 - Between \$20,000 and \$29,999
 - Between \$30,000 and \$39,999
 - Between \$40,000 and \$49,999
 - Between \$50,000 and \$64,999
 - Between \$65,000 and \$74,999
 - Between \$75,000 and \$94,999
 - Over \$95,000
11. Do you have any kind of health care coverage, including health insurance, or prepaid plans (such as HMOs, or government plans such as Medicare, Medicaid, or a County Health Plan)? Mark only one.
- Yes (go to 1.a)
 - No (go to question 12)
 - I pay the provider or hospital directly for full cost of care (go to question 12)
- a. What type of health care coverage do you use to pay for most of your medical care? Mark only one.
- A plan through an employer or union (includes plans purchased through another person's employer)
 - A plan you, or someone else, buys for you (i.e. Obamacare exchange)
 - Medicare (including any Medicare supplemental insurance)
 - Medicaid
 - Healthy Michigan Plan (expanded Medicaid)
 - Military (CHAMPUS, TRICARE or VA)
 - Indian Health Service or Alaska Native Health Service
 - Other: _____
12. What is your sexual orientation? Do you identify as...?
- Heterosexual or Straight
 - Homosexual or Lesbian/Gay
 - Bisexual
 - Other: _____

Healthy Community

13. Pick the TOP three factors you think define a healthy community? Choose only THREE.
- Access to health care
 - Access to healthy and nutritious food
 - Access to mental health services
 - Affordable health care (including dental, vision, and hearing)
 - Affordable housing
 - Arts and cultural events
 - Clean environment
 - Community involvement
 - Disease/illness prevention
 - Financially healthy households
 - Good jobs and healthy economy
 - Good schools

- Healthy lifestyles
- Access to immunizations
- Low crime/safe neighborhoods
- Low disease rate and death rate
- Low levels of child abuse
- Access to Parks and recreation
- Religious or spiritual values
- Strong family life
- Tolerance for diversity
- Other: _____

14. Pick the TOP three problems you think are impacting the health of Montcalm County? Choose only THREE.

- Aging problems
- Alcohol and other drug issues
- Child abuse and neglect
- Chronic disease
- Domestic violence
- Homelessness
- Homicides
- Lack of adequate housing
- Poor housing quality
- Infectious disease
- Lack of access to health care (including dental, vision and hearing)
- Lack of physical activity
- Mental health problems
- Motor vehicle crashes
- Financial concerns (i.e. not being able to make ends meet, low paying jobs)
- Lack of affordable childcare or before/after school program)
- Obesity
- Poor access to healthy and nutritious food (i.e. too expensive or store is too far away)
- Poor dietary habits
- Rape / sexual assault
- Sexually transmitted infections
- Suicide
- Teen pregnancy
- Tobacco use
- Other: _____

15. Please indicate your level of agreement with the following statements (check all that apply):

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Addressing social needs is as important as addressing medical needs to improve community health	<input type="checkbox"/>				
I can afford to access resources available in my community	<input type="checkbox"/>				
I have the access to the resources I need to stay healthy	<input type="checkbox"/>				
I experience cultural / language barriers that prevent me from accessing quality health care	<input type="checkbox"/>				

16. Pick the TOP three barriers to getting health and social services in Montcalm County. Choose only THREE.

- Ability to schedule appointments
- Cost
- Concerns about COVID-19 exposure
- Difficulty navigating the health care system
- Fear or distrust of the health care system
- Finding a practice that accepts my insurance
- Finding a practice that accepts new patients
- No transportation
- Location of services
- Not knowing where to find resources to pay for care
- Lack of high-speed internet
- Prescription / Medication cost
- No Barriers

17. Where do you get information about the health resources available in Montcalm County? Check all the apply.

- Church
- Community Service Organizations
- Community / Senior Center
- E-newsletters
- Family and friends
- Health professionals (doctor, nurse, pharmacist, etc.)
- I don't know where to look
- Internet
- Library
- Newspaper and magazines
- Radio
- School
- Social media
- TV
- None of the above

18. In your community, do you have the health-related programs, services, or classes to support a healthy lifestyle?

- Yes (go to a)
- No (go to 19)

a. What health-related programs, services, or classes are lacking in your community?

COVID-19

19. Pick the TOP three concerns impacting your household/family because of the COVID-19 pandemic? Choose only THREE.

- Concerns about short/long term health effects from COVID-19
- Decreased access to health care
- Feelings of loss from COVID-19 death(s)
- Financial difficulties
- Food insecurity
- Increase in stress, depression & anxiety
- Increased fear or distrust of the health care system
- Increased substance use
- Increased domestic violence
- Limited access to COVID-19 vaccinations
- Lack of physical activity (due to various closures)
- Withdrawal from supports and services
- Interruption in health and human services
- Interruption in children's education
- Fear of losing my housing/behind on rent/mortgage
- No childcare
- Job loss or reduction of hours
- Fear of getting COVID-19
- None

20. Have you been partially or fully vaccinated, scheduled to be vaccinated, or planning to be vaccinated for COVID-19?

- Yes (Go to 21)
- No (go to 1.a)

a. What is the main reason why you would not get a vaccine for coronavirus?

- I had COVID-19 and should be immune
- The vaccine could give me COVID-19
- COVID-19 is not a serious illness
- I am not a member of any group that is at high risk for COVID-19
- I plan to use masks/other precautions instead
- I plan to wait and see if it is safe and may get it later
- I am concerned that the vaccine is being developed too quickly

- I am concerned about the side effects and safety of the vaccine
- I don't like vaccines
- I am concerned about the costs associated with the vaccine (such as office visit costs or vaccine administration fees)
- I don't like what is in the vaccine
- Other: _____

21. Have reports you heard/read in the media/on social media influenced your decision to be vaccinated?

- Yes
- No

Health Care Navigation

22. How confident are you...

	Not at All Confident	Not Very Confident	Somewhat Confident	Very Confident	Extremely Confident
...getting health care on your own? (for example, scheduling and attending appointments, finding a provider, filling a prescription, and knowing where to go for services)	<input type="checkbox"/>				
...dealing with your health insurance provider on your own?	<input type="checkbox"/>				
(for example, understanding your coverage, understanding the statements they send to you, or disputing a claim)	<input type="checkbox"/>				
...getting reliable health-related advice or information about your condition?	<input type="checkbox"/>				
...using virtual health care services? (for example, scheduling and attending appointments, sending, and receiving messages from your provider, or navigating apps/patient portals)	<input type="checkbox"/>				
...filling out medical forms by yourself? (for example, insurance forms, questionnaires, and doctor's office forms)	<input type="checkbox"/>				

23. How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your provider?

- Never
- Rarely
- Sometimes
- Often
- Always

24. In the past 12 months, were you offered the opportunity of a virtual office visit with a health service provider?

- Yes (go to a)
- No (go to b)

a. On a scale from 1 (very easy) to 10 (very difficult) rate how easy it was to...

	1 Very easy	2	3	4	5 Very difficult	NA
...use the website (i.e. Zoom/patient portal/app.	<input type="checkbox"/>					
...send or receive messages from your provider.	<input type="checkbox"/>					

b. Why didn't you choose to have a virtual office visit?

- I do not have a computer
- My computer or smartphone is too old
- I do not have a smartphone
- My provider does not offer virtual visits
- I could not download the software/app
- I do not have internet access at home
- My internet is too slow
- I don't like computers
- I could not understand the directions to the software/patient portal/app
- I had trouble logging into the software because of my password
- Other:

25. What are some of the barriers you face personally when trying to live a healthier lifestyle? [add 3 to select]

- I have no barriers
- Don't know how to make changes
- Lack of energy/will power/motivation
- Lack of programs/services in my community
- My community does not support healthy lifestyles
- My family does not support healthy lifestyles
- Not mentally/emotionally ready to make changes
- Not enough time
- Too costly/cannot afford
- Personal limitations
- Lack of transportation
- Other

Appendix E: Montcalm County Health Care Provider Survey

Provider Survey

1. Do you practice in Montcalm County?
 - Yes
 - No

2. What level of provider are you? (check only one)
 - Nurse Practitioner
 - Physician's Assistant
 - Physician
 - Dentist

3. What Montcalm County health facilities (hospital or FQHC) are you affiliated with? (check all that apply)
 - Montcalm Area Health Center (Cherry Health)
 - Sheridan Community Hospital
 - Sparrow Carson Hospital
 - Spectrum Health United Hospital
 - Spectrum Health Kelsey Hospital
 - Other: _____

4. What do you think are the THREE most significant factors that define a "healthy community"?
 - Access to health care (physical health)
 - Access to behavioral health care (mental health)
 - Access to healthy and nutritious food
 - Affordable health care (including dental, vision, and hearing)
 - Affordable housing
 - Arts and cultural events
 - Clean environment
 - Community involvement
 - Disease/illness prevention
 - Financially healthy households
 - Good jobs and healthy economy
 - Good schools
 - Healthy lifestyles
 - High rate of Immunizations / Vaccine use
 - Low crime/safe neighborhoods
 - Low disease rate and death rate
 - Low levels of child abuse
 - Parks and recreation
 - Religious or spiritual values
 - Strong family life
 - Tolerance for Diversity
 - Other: _____

5. What do you believe are the top THREE factors that negatively impact your patients' health?

- Barriers to physical activity
- Communication barriers
- Crime rate in your patients' local community
- Delay in seeking preventative care due to COVID-19
- High cost of nutritional food in your patients' community
- Lack of available nutritional food in your patients' community
- Lack of primary care physicians in the local community
- Lack of senior services in the local community
- Lack of transportation
- Medications are not affordable
- Patients' lack of access to adequate childcare
- Patients' lack of access to adequate health insurance
- Patients' lack of education about making health-conscious decisions
- Patients' lack of motivation to make health-conscious decisions
- Patients' living conditions
- Patients' low household income
- Poor environmental conditions (e.g. air and water pollution)
- Other: _____

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Addressing patients' social needs is as important as addressing their medical conditions	<input type="checkbox"/>				
Besides my own staff and colleagues, I feel I have little to no support in helping my patients and their families lead healthier lives	<input type="checkbox"/>				
My patients have access to the resources they need to stay healthy	<input type="checkbox"/>				
My patients frequently express health concerns caused by unmet social needs that are beyond my control as a physician	<input type="checkbox"/>				
My patients' unmet social needs often prevent me from providing quality care					
Cultural / language barriers to patient-provider communication often get in the way of quality service provision					

Appendix F: Montcalm County Asset Inventory Survey

Survey Introduction

A community is defined, not only by its problems, but by its assets. We want to know what assets make your community unique and special. Below is a list of community assets. Check the box by each asset that exists in your community then indicate if that asset is primarily focused on a particular population. Finally, in the space provided, list the name of the organization or place that comes to mind.

Survey Questions

1. Check the box next to each asset you know is in your community. Check all that apply.

SOCIAL SERVICE

- Community Center
- Domestic Violence Shelters
- Emergency Housing Shelters
- Food Pantry / Kitchens
- Halfway Houses
- Housing Organizations

SOCIAL/GRASSROOT ORGANIZATIONS

- Amateur Sports Leagues
- Cultural Organizations
- Environmental Advocacy Groups
- Hunting/Sportsman Leagues
- Seniors' Group
- Special Interest Group

EDUCATION

- Before-/After-School Program
- Colleges or Universities
- Junior/Community College
- Vocational/Technical Education Programs

HEALTH INSTITUTIONS

- Advocacy Groups for Substance abuse
- Health Care Clinic
- Hospital
- Substance Abuse Clinics

PUBLIC SERVICE

- Emergency Medical Services

COMMUNITY-BASED ORGANIZATIONS

- Community or Philanthropic Foundation
- Political Organizations
- United Way

INFRASTRUCTURE

- Community Gardens
- Farmers' Markets
- Public Pools
- Vacant Private Building or Lot

NOTEWORTHY PERSON/GROUP

- Celebrity or Influential Figure
- Community Leader
- Local Artists/Musicians

2. Some of the assets you selected may be geared to a special population. Can you tell us the target population for the assets you identified?

	EVERYONE	SENIORS	CHILDREN	REFUGEES/ IMMIGRANTS	LOW INCOME	WOMEN & CHILDREN
SOCIAL SERVICE						
Community Center						
Domestic Violence Shelters						
Emergency Housing Shelters						
Food Pantry / Kitchens						
Halfway Houses						
Housing Organizations						
SOCIAL/GRASSROOT ORGANIZATIONS						
Amateur Sports Leagues						
Cultural Organizations						
Environmental Advocacy Groups						
Hunting/Sportsman Leagues						
Seniors' Group						
Special Interest Group						
EDUCATION						
Before-/After-School Program						
Colleges or Universities						
Junior/Community College						
Vocational/Technical Education Programs						
HEALTH INSTITUTIONS						
Advocacy Groups for Substance abuse						
Health Care Clinic						
Hospital						
Substance Abuse Clinics						

PUBLIC SERVICE						
Emergency Medical Services						
Fire Department						
Library						
Police Department						
COMMUNITY-BASED ORGANIZATIONS						
Community or Philanthropic Foundation						
Political Organizations						
Religious Organizations						
United Way						
INFRASTRUCTURE						
Community Gardens						
Farmers' Markets						
Parks						
Public Lake or Coastline						
Public Pools						
Vacant Private Building or Lot						
NOTEWORTHY PERSON/GROUP						
Celebrity or Influential Figure						
Community Leader						
Local Artists/Musicians						

Can you tell us the name and city of the organization you selected in question 1?

SOCIAL SERVICE

Community Center _____

Domestic Violence Shelters _____

Emergency Housing Shelters _____

Food Pantry / Kitchens _____

Halfway Houses _____

Housing Organizations _____

SOCIAL/GRASSROOT ORGANIZATIONS

Amateur Sports Leagues _____

Cultural Organizations _____

Environmental Advocacy Groups _____

Hunting/Sportsman Leagues _____

Seniors' Group _____

Special Interest Group _____

EDUCATION

Before-/After-School Program _____

Colleges or Universities _____

Junior/Community College _____

Vocational/Technical Education Programs _____

HEALTH INSTITUTIONS

Advocacy Groups for Substance abuse _____

Health Care Clinic _____

Hospital _____

Substance Abuse Clinics _____

PUBLIC SERVICE

Emergency Medical Services _____

COMMUNITY-BASED ORGANIZATIONS

Community or Philanthropic Foundation _____

Political Organizations _____

United Way _____

INFRASTRUCTURE

Community Gardens _____

Farmers' Markets _____

Parks _____

Public Lake or Coastline _____

Public Pools _____

Vacant Private Building or Lot _____

NOTEWORTHY PERSON/GROUP

Celebrity or Influential Figure _____

Community Leader _____

Local Artists/Musicians _____

Appendix G: Underserved Population Focus Group / Interview Questions

Consent to Participate

We are asking you to take part in a focus group as a part of the Montcalm County Community Health Needs Assessment (Montcalm CHNA). Before you decide to participate in this group, it is important that you understand why it is being done and what it will involve. This form is designed to give you the information about your potential role on the Montcalm CHNA, so you can decide whether to participate in this focus group or not. Please take the time to read the following information carefully. Please ask the focus group facilitators if there is anything that is not clear or if you need more information. When all your questions have been answered, you can decide if you want to be in the focus group or not by signing this form. This process is called “informed consent.” A copy of this form will be given to you.

Principal Investigators:

Rex Hoyt
Mid-Michigan District Health Department
Email: rhoyt@mmdhd.org
Phone: 989.831.3627

Purpose of the Investigation

The Montcalm County Community Health Needs Assessment is conducted once every three years to collect information about your community’s needs, assets, and resources. This information will then be used by the local hospitals, the health department, and other human service organizations to plan their community health policies and activities

Investigation Procedures

If you agree to participate, you will be asked to participate in a 2-hour focus group with other community members. This focus group will ask you about the available needs and resources in your community.

Risks

- We do not anticipate any risks from participating in this group.
- Your name or identifying information will not be used in any reports or study documents.

Benefits

- By participating in this group, you will help us learn valuable information about your community, including the resources that are currently available and areas where the community may need more assistance.

Audio/Video Recording & Privacy/Confidentiality

Focus groups will be recorded for the purpose of making sure that we collect all important information that is shared. The facilitators will listen to these recordings and make notes based on the information you provide. Your name will not appear on any of the notes created from the recordings. The recordings will be stored on the Mid-Michigan District Health Department network server. No one will have access to these recordings other than persons working on the Montcalm CHA. Identifiable information will not be released to anyone else without your written consent unless required by law.

Taking part is voluntary

Your participation in this focus group is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. If you decide to stop or withdraw from the group, the information/data collected from or about you up to the point of your withdrawal will be kept as part of the data and may continue to be analyzed.

If you have questions

Please ask the facilitators any questions you have now. If you have questions later, you may contact:

Rex Hoyt
Mid-Michigan District Health Department
Email: rhoyt@mmdhd.org

Subject's Consent to Participate in Focus Group:

I have read or had read to me this consent form. I voluntarily agree to take part in this focus group. All that questions that I have as of now has been answered to my satisfaction.

Participant Name (print): _____

Participant Signature: _____

Date: _____

Witness Name (print): _____

Witness Signature: _____

Date: _____

Facilitation Guide Table

Duration (minutes)	Activity	Purpose	Presenter	Other Roles/Responsibilities
5 minutes	Welcome & Introduction of Facilitators and Notetaker	Introduce the participants to the facilitators and what each person will be doing.	Facilitator	Note taker (write detailed notes for facilitators) Group Scribe (write topics brought up by the group for the group)
10 minutes	Ice Breaker & Introduction of Participants	Get participants to relax with each other and answer questions	Facilitator	
5 minutes	About CHNA	Explain the purpose of Montcalm CHA	Facilitator	
5 minutes	Purpose of Focus Group	Explain the purpose of the focus group within the CHA process	Facilitator	
10 minutes	What are the most significant problems related to health in your community? What ages are affected by the issue?		Facilitator	
5 minutes	What recourses are available in their community to address these issues?		Facilitator	
10 minutes	What are the barriers (if any) to accessing these resources?		Facilitator	
10 minutes	What are the most significant problems affecting families in your community (e.g., families able to provide parenting, economic security and a healthy environment)? What ages are affected by the issue?		Facilitator	
5 minutes	What recourses are available in their community to address these issues?		Facilitator	
10 minutes	What are the barriers (if any) to accessing these resources?		Facilitator	

10 minutes	What other problems or concerns significantly affect members of your community? What ages are affected?			
5 minutes	What recourses are available in their community to address these issues?		Facilitator	
10 minutes	What are the barriers (if any) to accessing these resources?		Facilitator	
10 minutes	What actions, programs, strategies do they think would make the biggest difference in their community?		Facilitator	
5 minutes	Closing & Opportunities to continue engagement			

Appendix H: County Leadership/Key Stakeholders Focus Group/ Interview Questions

Consent to Participate

We are asking you to take part in a focus group as a part of the Montcalm County Community Health Needs Assessment (Montcalm CHNA). Before you decide to participate in this group, it is important that you understand why it is being done and what it will involve. This form is designed to give you the information about your potential role on the Montcalm CHNA, so you can decide whether to participate in this focus group or not. Please take the time to read the following information carefully.

Principal Investigators:

Rex Hoyt

Mid-Michigan District Health Department

Email: rhoyt@mmdhd.org

Phone: 989.831.3627

Purpose of the Investigation

The Montcalm County Community Health Needs Assessment is conducted once every three years to collect information about your community's needs, assets, and resources. This information will then be used by the local hospitals, the health department, and other human service organizations to plan their community health policies and activities

Investigation Procedures

If you agree to participate, you will participate in a facilitated discussion with other community leaders.

Risks

- We do not anticipate any risks from participating in this group.
- Your name or identifying information will not be used in any reports or study documents.

Benefits

- By participating in this group, you will help us learn valuable information about your community, including the resources that are currently available and areas where the community may need more assistance.

Audio/Video Recording & Privacy/Confidentiality

The facilitated discussion will be recorded for the purpose of making sure that we collect all important information that is shared. Your name will not appear on any of the notes created from the recordings. The recordings will be stored on the Mid-Michigan District Health Department network server. No one will have access to these recordings other than persons working on the Montcalm CHA. Identifiable information will not be released to anyone else without your written consent unless required by law.

Taking part is voluntary

Your participation in this focus group is voluntary, and you may choose to stop at any time without penalty. If you decide to stop or withdraw from the group, the information/data collected from or about you up to the point of your withdrawal will be kept as part of the data and may continue to be analyzed.

By continuing to participate in this meeting you are consenting to participate and your de-identified comments included in the analysis of the data collected and in subsequent reports.

Duration (minutes)	Activity	Purpose	Presenter	Other Roles/ Responsibilities
5 minutes	Welcome & Introduction of Facilitators and Notetaker	Introduce the participants to the facilitators and what each person will be doing.	Facilitator	Note taker (write detailed notes for facilitators)
10 minutes	Ice Breaker & Introduction of Participants	Get participants to relax with each other and answer questions	Facilitator	
5 minutes	About CHNA	Explain the purpose of Montcalm CHA	Facilitator	
5 minutes	Purpose of Focus Group	Explain the purpose of the focus group within the CHA process	Facilitator	
60 minutes	What makes a community healthy?	Solicit information about community health needs and barriers.	Facilitator	
	What are we getting right in Montcalm County?		Facilitator	
	What do you believe are the 2-3 most important issues that must be addressed to improve health and quality of life in your community?		Facilitator	
	Are these new issues? If not, why have they not been resolved?		Facilitator	
	What resources are available in the community to address these issues?		Facilitator	
	What health or social issues were 'uncovered' by the pandemic in Montcalm?			
	What resources do we need that we do not have?		Facilitator	
	Taking everything into account, including health conditions, health behaviors, health care availability, and health care access, how satisfied are you overall with the health climate in your community? Why do you say that?		Facilitator	
	What do you know now about the community and the systems operating in it, that you did not know before the pandemic?		Facilitator	
5 minutes	Closing & Opportunities to continue engagement			Facilitator

Appendix I: Prioritization Tools

The RICE model is an acronym including 4 components: Reach, Impact, Confidence, and Effort. A RICE Score is calculated using the following formula:

$$\frac{(\text{Reach} * \text{Impact} * \text{Confidence})}{\text{Effort}}$$

Where:

Reach = How severe is the need in our community compared to the state or to a national benchmark?

Impact = What would the impact of addressing this need would be on improving the health of the residents of Montcalm County.

Confidence = How confident are we that we can have a measurable impact in this area.

Effort = The resources and other organizations or initiatives in the community currently addressing the need.

Step 1: Familiarize yourself with the answer options for each equation component

Reach	Impact	Confidence	Effort
A = very severe	Low	5 = very confident	E = a lot of time and resources
B = severe	Medium	3 = somewhat confident	F = limited time and lots of resources
C = somewhat severe	High	1 = not confident	G = a lot of time and limited resources
D = not severe	Critical		H = limited time and resources

Step 2: For each topic below, insert an answer option for each equation component.

	Reach	Impact	Confidence	Effort
<i>EXAMPLE: Urban Planning</i>	<i>B</i>	<i>High</i>	<i>3</i>	<i>G</i>
Access to Care/ Care Coordination				
Chronic Diseases/Disease management				
Communication/Internet Access				
Education Access and Quality				
Financial Security/ Economic Stability				
Health Insurance				
Healthy Lifestyles				
Housing				
Injury Prevention				
Mental Health				
Neighborhood and Built Environment				
Preventive Care Practices				
Reproductive, Maternal, and Child Health				
Social and Community Context				
Substance abuse (tobacco, alcohol, illicit substances)				
Transportation				



**Spectrum
Health**

Spectrum Health complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex.
[81 FR 31465, May 16, 2016; 81 FR 46613, July 18, 2016]

ATENCIÓN: Si usted habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1.844.359.1607 (TTY: 711).

إذا كنت تتحدث اللغة العربية، فيمكنك الحصول على المساعدة اللغوية المتاحة مجاناً. اتصل على الرقم 1.844.359.1607 (TTY: 711).

Appendix J

Spectrum Health
United and Kelsey Hospitals
2021-22 Implementation Strategy Impact Report



**Spectrum
Health**

Spectrum Health United and Kelsey Hospitals

Previous Implementation Strategy Impact

This report identifies the impact of actions to address the significant health needs addressed in the 2021-2022 Spectrum Health United and Kelsey Hospital Implementation Strategy created from results of the 2020 Community Health Needs Assessment. The Implementation Strategy was shortened from the traditional three-year coverage to two-year, beginning Jan. 1, 2021 and ending Dec. 31, 2022. This change was necessary because a change in year-end by the organization, from a fiscal year to a calendar year, would have caused a gap in compliance if no action was taken until the organization resumed assessment activities with other community partners in a collaborative community health needs assessment the following year.

The two-year implementation strategy reporting period was narrowed further for this document and only covers Jan. 1, 2021 to March 31, 2022. This is to ensure the governing board approved at the needed time to stay in compliance with IRS regulations. Regardless of the shortened reporting period, all goals set for Dec. 31, 2022 are expected to be met. Monitoring of all the 2021-2022 Spectrum Health United and Kelsey Hospital's Implementation Strategies will continue in accordance with the identified action date and the organization will use all resources committed towards these goals to accomplish the desired impacts.

Health Care Access

Maternal Infant Health Program

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Obstetrics & Gynecology provider offices and Spectrum Health United and Kelsey Hospitals Labor & Delivery Department will increase annual referrals to the Maternal Infant Health Program (MIHP) from 100 to 130

Measurable Impact

At least 130 referrals per year into the Maternal Infant Health Program by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health United and Kelsey Hospitals Obstetrics & Gynecology made 294 referrals to the Maternal Infant Health Program. In the calendar year 2021, the referrals increased from a baseline of 100 to 225.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health, will increase annual Maternal Infant Health Program (MIHP) enrollment rates from 27% to 35%.

Measurable Impact

Increase the Maternal Infant Health program enrollment rate to 35% annually by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health increased the Maternal Infant Health Program enrollment rates from a baseline of 27% to 40.8% (266/652). In calendar year 2021, the referral rate increased from a baseline of 133 enrollments to 652.

Core Health Program

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals providers will increase annual referrals to the Core Health Program from 84 to 126.

Measurable Impact

Increase annual referrals to the Core Health program from Spectrum Health United and Kelsey providers from 84 to 126 by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, there has been progress in increasing annual referrals to the Core Health program. The annual goal for the calendar year 2021 was surpassed with 141 referrals. Calendar year 2022 for the first quarter there have been 33 referrals and is on pace to surpass the goal.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will improve the successful discharge rate of Core Health participants to 59%.

Measurable Impact

Increase successful discharge rate of Core Health participants to 59% by Dec. 31, 2022.

Impact of Strategy

The cumulative discharge rate from Jan. 1, 2021, to March 31, 2022 was 44.9%. There has not been significant progress in increasing the successful discharge rate of Core Health participants. The identified action and associated measurable impact were not achievable as originally anticipated. A high rate of participants electing to not finish the program has caused a lower than anticipated successful discharge rate.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will improve Quality of Life measures of Core Health participants from a score of 52.6% to a score of 58%.

Measurable Impact

Improve Quality of Life measures of Core Health participants to a score of 58% by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health increased the percent of participants with an improved Quality of Life measure from a baseline of 52.6% to 78.3%.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will maintain Core Health program's social determinants of health risk reduction score at 80%.

Measurable Impact

In the Core Health Program, maintain the social determinants of health risk reduction score at 80% through Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, the social determinants of health risk reduction score was 68.5%. The identified action and associated measurable impact were not achievable as originally anticipated. Participants who elect to end the program before completion of their Social Determinates of Health Risk Score cannot be fully assessed—resulting in a lower than anticipated risk score.

Advocacy Efforts

Action

By Dec. 31, 2022, Spectrum Health will increase community ability to access information and services via virtual technology. This will be accomplished by

successfully advocating for public policy and resource allocation to provide individuals and families living in the Spectrum Health United and Kelsey service area with reliable, affordable access to information and services delivered via virtual technology. Partners include local decision-makers, and regional decision-makers.

Measurable Impact

Involvement in advocacy efforts at the regional hospital level by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health has supported the nearly \$1 billion Build Back Better Act effort by Congress to expand broadband affordability and accessibility, which includes funding for committees and awareness efforts. Spectrum Health also supported the Biden Administration's Internet for All initiative, which is a \$45 billion initiative to provide affordable high-speed broadband access to all Americans by 2029. Spectrum Health has supported Governor Whitmer's announcement of a project to utilize \$5.2 million in CARES Act funding to identify gaps in broadband coverage across the state. Lastly, Spectrum Health supported Congressman Moolenaar's efforts to support two acts: The BOOST Act, which is a rural broadband legislation that allows rural homeowners and primary lessees to receive tax credits for purchasing mobile hotspot, and the Gigabit Opportunity Act, which creates opportunity zone in low-income rural and urban areas that lack the federal minimum broadband service.

COVID-19

Action

By Dec. 31, 2022, Spectrum Health will contribute to reducing the number of COVID-19 infections within the community by providing employers, school administrators, and general community with accurate and timely information on preventing the spread of COVID-19.

Measurable Impact

Spectrum Health releases timely and accurate information about COVID-19 and its prevention, targeted to a variety of sectors and population by Dec. 31, 2022. This is measured by community emails sent, the number of community virtual conversations, and number of website/social media updates.

Impact of Strategy

As of March 31, 2022, Spectrum Health United and Kelsey Hospitals released 42 community emails about COVID-19 and prevention, had 17 community virtual conversations, and 142 website and or social media updates.

Action

By Dec. 31, 2022, Spectrum Health will contribute to reducing COVID-19 infections within the community by providing community-based screening and appropriate testing.

Measurable Impact

Spectrum Health provides opportunities for COVID-19 testing that is convenient and meets the needs of the community by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health United and Kelsey Hospitals had two COVID-19 testing sites, defined as the location in which the COVID-19 sample is tested (i.e., lab site). At these sites, there have been 13,697 COVID-19 tests administered during the coverage period.

Mental Health

School-Based Behavioral Health Clinic

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals will collaborate with Montcalm County public schools and Spectrum Health Virtual Health to expand school-based Behavioral Health clinics from three to five.

Measurable Impact

Implementation of two school-based Behavioral Health clinics in Montcalm County public schools by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, there have been four public schools in which Behavioral Health clinics were implemented. Four public schools, which include Greenville Public Schools, Montabella Public School, Vestaburg Public Schools and Tri County Public Schools have Behavioral Health Clinics. A fifth public school for program onboarding is planned for 2022 quarter two and sixth public school for program onboarding is planned for 2022 quarter three.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals in collaboration with Spectrum Health Virtual Health will serve an average of 16 students at each School-Based Behavioral Health Clinic in Montcalm County.

Measurable Impact

Serve an average of 16 students per week at each School-Based Behavioral Health clinic in Montcalm County by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, the identified action and associated measurable impact were not achievable as originally anticipated. The measurable impact, as written,

required full-time behavioral health programs at each of the schools. Due to school size and demand, the number of days in which the programs were available was adjusted. As a result, Greenville Public Schools served eight students per week, Montabella Public Schools served six students per week, Tri-County Public Schools served nine students per week, and Vestaburg Public Schools served three students per week. However, as the programs have developed by the first quarter of 2022, collectively seven students were served through each of these clinics weekly, on average.

Action

By Dec. 31, 2022, 50% of students participating in School-Based Behavioral Health clinics will successfully complete their therapy programs.

Measurable Impact

Individual completion of the School-Based Behavioral Health Clinic therapy program by 50% of high school students served by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, the identified action and associated measurable impact were not achievable as originally anticipated. The team had challenges in tracking this data. However, a new software program has been implemented that allows for tracking of this data starting in quarter two of 2022.

Virtual Consultative Services

Action

By Dec. 31, 2022, expand psychiatry consultative services for adult patients within Spectrum Health United and Kelsey Hospitals through utilization of 24/7 inpatient consultative services.

Measurable Impact

By Dec. 31, 2021, expand psychiatry consultative services for adult patients within Spectrum Health United and Kelsey Hospitals through utilization of 24/7 inpatient consultative services.

Impact of Strategy

As of March 31, 2022, expansion of psychiatry consultative services for adult patients within Spectrum Health United and Kelsey through utilization of 24/7 inpatient consultative services was complete. The implementation of these services was effective on March 1, 2022.

Substance Use Disorder

National Take Back Events

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health collaborate with local law enforcement to expand the number of permanent locations for needle take back events from three to five collecting 250 sharps containers and 750 pounds of needles.

Measurable Impact

Increase the number of permanent locations for needle take back events from three to five by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health has added one permanent needle take back location at Spectrum Health United Lifestyles, for a total of four locations. While they are not permanent locations, there are plans to add two virtual/home programs. These programs would contribute to the intent of the action, which is to provide more safe needle disposal access to the community. In total, 180 sharp containers and 706 pounds of needle have been collected.

Project Assert

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals will expand the Project Assert Program from the Emergency Department to the Obstetrics & Gynecology office and Convenient Care site.

Measurable Impact

Expand the Project Assert Program by two sites by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, the Project Assert Program in partnership with Wedgwood Christian Services expanded to the Spectrum Health United Hospital OB/GYN practice. This is on track to be completed by the end of 2022 as it is anticipated the program will be expanded to the Convenient Care site at both Spectrum Health United and Kelsey Hospitals by the end of 2022.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will increase the number of patients being referred annually to Project Assert from 50 to 100 patients.

Measurable Impact

Increase referrals made to Project Assert by 50 patients by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health United and Kelsey Hospitals Project Assert Program made 132 referrals, surpassing the goal. In the calendar year 2021, the referrals increased from a baseline of 50 to 95.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will increase the total number of annual referrals related to substance misuse services from 100 to 200. External partners include Wedgewood Christian Services.

Measurable Impact

Increase total number of annual referrals related to substance misuse services from 100 to 200 by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Project Assert staff at Spectrum Health United and Kelsey made 217 referrals for substance misuse treatment.

Tobacco/Nicotine Cessation Program

Action

By Dec. 31, 2022, as a result of referral by Spectrum Health United and Kelsey Hospitals providers, 20 women will enroll in the Smoking Cessation and Reduction in Pregnancy Treatment (SCRIPT) program.

Measurable Impact

Referrals by Spectrum Health United/Kelsey providers resulting in 20 pregnant women enrolling in the SCRIPT program by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, referrals by Spectrum Health providers resulted in 35 pregnant women enrolling in the Smoking Cessation and Reduction in Pregnancy Treatment (SCRIPT) program. This objective was surpassed through staff education and process improvement activities such as tobacco and nicotine screening for all patients.

Action

By Dec. 31, 2022, 5 women referred to the Smoking Cessation and Reduction in Pregnancy Treatment program will report a reduction in use of tobacco and/or nicotine products during their pregnancy.

Measurable Impact

Reduction of reported tobacco and/or nicotine products among 5 pregnant women participating in the SCRIPT program by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, 15 women participating in the Smoking Cessation and Reduction in Pregnancy

Treatment (SCRIPT) program reporting a reduction in the use of tobacco and/or nicotine products.

Action

By Dec. 31, 2022, as a result of referral from Spectrum Health United and Kelsey Hospitals providers, 20 individuals will enroll in a tobacco/nicotine cessation program.

Measurable Impact

Referrals by Spectrum Health United/Kelsey providers resulting in 20 individuals enrolling in a tobacco nicotine cessation program by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, as a result of referrals from Spectrum Health United and Kelsey providers, 15 individuals enrolled in a tobacco/nicotine cessation program. To date, the program has not been successful in receiving referrals from Spectrum Health United and Kelsey providers. New tactics have been developed to increase community referrals. These tactics consist of social media posts and program flier distribution to community agencies, local employers and local Spectrum Health providers, all of which will be implemented in 2022 quarter two.

Action

By Dec. 31, 2022, 25% of participants in the tobacco/nicotine cessation program will report a reduction in the use of tobacco/nicotine products.

Measurable Impact

Reduction of reported tobacco and/or nicotine products among 25% of individuals participating in the tobacco/nicotine cessation program by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, 22 out of 50 (44%) tobacco/nicotine cessation program participants have reported a reduction of tobacco and/or nicotine products.

Action

By Dec. 31, 2022, 5% of individuals enrolled in the tobacco/nicotine cessation program will report being tobacco and/or nicotine free at the end of the program.

Measurable Impact

5% of individuals reporting being tobacco and/or nicotine free at the end of the program by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, 7 out of 50 (14%) tobacco/nicotine cessation program participants have reported being tobacco and/or nicotine free at the end of the program.

Marijuana Misuse Prevention

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals will provide marijuana use prevention education to 9th grade students in seven Montcalm County Public Schools.

Measurable Impact

Marijuana use prevention education to 9th grade students in seven public schools by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, the identified action and associated measurable impact were not achievable as originally anticipated. Public school leadership did not accept the offer to provide education. Despite this, new tactics were deployed: A "Marijuana Driving Simulation Education" program was deployed at a neighboring Intermediate School District Career Tech Center. A total of eight public schools were in attendance—three of which were from the United and Kelsey service area. In addition, an opportunity to attend a virtual anti-vaping seminar for parents of teenagers was offered to all the public schools in the service area. The prospect of distributing educational materials is being considered for the remainder of 2022.

Opioid Prescribing Guidelines

Action

By Dec. 31, 2022, Spectrum Health Medical Group will implement opioid prescribing guidelines that are procedurally/conditionally based.

Measurable Impact

Implementation of opioid prescribing guidelines by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Spectrum Health Medical Group has completed Safe Opioid Prescribing (SOP) education to all offices and are now monitoring every quarter to ensure that high risk patients are individually handled. Continuation of provision of supportive measures and resources for all prescribing providers.

Action

By Dec. 31, 2022, Spectrum Health Medical Group will monitor provider scorecards related to prescribing guidelines for opioids on a monthly basis and report findings/recommendations to the appropriate leadership.

Measurable Impact

Continuously monitor opioid prescribing provider scorecards by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, an opioid dashboard is live in Epic, the electronic medical records system. The next steps are to educate system providers regarding its availability through the Safe Opiate Prescribing project.

Go Team

Action

By Dec. 31, 2022, the “Go team” will be activated and provide coaching and mentoring to requested Spectrum Health locations 90% of the time.

Measurable Impact

The “Go team” will provide coaching and mentoring to requested Spectrum Health locations 90% of the time by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, the “Go team” is support and in-place. During the reporting period, there were zero requests for the “Go team” by Spectrum Health United and Kelsey.

Substance Use Disorder Screening

Action

By Dec. 31, 2022, Spectrum Health Medical Group Obstetrics and Gynecology will utilize substance use disorders screening to screen 100% of pregnant patients for substance use disorders and refer them to treatment.

Measurable Impact

100% of Spectrum Health Medical Group Obstetrics and Gynecology pregnant patients screened for substance use disorder by Dec. 31, 2022.

100% of Spectrum Health Medical Group Obstetrics and Gynecology pregnancy patients with substance use disorder referred for treatment by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, there have been data reporting challenges for both of these measurable impacts. Currently, if pregnant patients are given a blood draw instead of a Point-of-Care Urinary Drug Screening (POC UDS), there is no data available for this measure. Referred patients could get sent to a methadone clinic, GREAT

MOM's program, or Center for Integrative Medicine. Determining the data collection process for referred patients is in progress.

Obesity

Weight Management Program

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will add 30 new participants in the Weight Management Program

Measurable Impact

30 new participants in the Weight Management Program by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, there were 19 new participants in the Weight Management Program. Additional classes are planned throughout 2022 that will result in meeting the goal of 30.

Action

By Dec. 31, 2022, 50% of participants in the Spectrum Health United and Kelsey Hospitals Weight Management Program will report achieving their predetermined health and/or lifestyle goals.

Measurable Impact

50% of participants in the Weight Management Program reporting their goal was achieved (e.g., weight, lifestyle goals) by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, 66.7% of participants in the Weight Management Program reported their goal was achieved. The program has been impactful for individuals meeting their goals. Participants have decreased their blood pressure, waist circumference, body fat percentage and weight. Participants also reported increases in their physical activity and fruit and vegetable intake.

Coordinated Approach to Child Health (CATCH)

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will increase Montcalm public schools participating in the CATCH program from two to three.

Measurable Impact

Increase CATCH program in Montcalm public schools from two to three by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, both elementary schools for Tri-County Public Schools: Lakeview Elementary School and Lakeview Middle School are implementing the Coordinated Approach to Child Health Program.

Action

By Dec. 31, 2022, 70% of teachers in participating schools will report observing positive changes in student behavior related to nutrition and physical activity.

Measurable Impact

Of schools participating in CATCH, 70% of teachers reported positive change in student behavior related to nutrition and physical activity by Dec. 31, 2022.

Impact of Strategy

As of March 21, 2022, there is no data to report. Surveys will be distributed during quarter two and results will be analyzed by June 2022.

Action

By Dec. 31, 2022, 90% of teachers in participating schools will report that by utilizing CATCH materials they feel that they are making a positive contribution to the overall culture of health within the school.

Measurable Impact

Of schools participating in CATCH, 90% of teachers reporting perception of positive contribution to the overall culture of health within the school by Dec. 31, 2022.

Impact of Strategy

As of March 21, 2022, there is no data to report. Surveys will be distributed during quarter two and results will be analyzed by June 2022.

Action

By Dec. 31, 2022, 90% of teachers in participating schools will utilize a virtual CATCH option to further supplement health education for students in grades K-5th.

Measurable Impact

Of schools participating in CATCH, 90% of teachers will utilize a virtual CATCH option by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, 96.5% of teachers have utilized a virtual CATCH option (110/114), completing the objective.

Action

By Dec. 31, 2022, each school participating in Coordinated Approach to Child Health will implement at least one policy or environmental support designed to improve student nutrition and/or increase physical activity during the school day.

Measurable Impact

Of schools participating in CATCH, implementation of at least one policy or environmental support by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, there has not been a policy or environmental support implemented. However, the Triennial assessment is due during quarter two and information from the assessment will be analyzed and action plans will be created during the remainder of 2022.

Prescription for Health Program

Action

By Dec. 31, 2022, participants in the Prescription for Health will redeem 1,000 health vouchers at farmers markets in Montcalm County.

Measurable Impact

Prescription for Health vouchers utilized by 1,000 community members by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, Prescription for Health vouchers for fruits and vegetables were utilized by 70 community members. The farmers market season will begin quarter two of 2022. In addition, partnerships with five grocery stores in which vouchers can be redeemed have been established.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will establish Prescription for Health vouchers program at three farmers markets in Montcalm County.

Measurable Impact

Establishment of Prescription for Health vouchers program at three farmers markets in Montcalm County by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, a total of two farmers markets were accepting Prescription for Health vouchers. Due to lack of established farmers markets in the service area, five grocery stores were utilized instead, bringing the total number of sites participating in the program to seven.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will provide 2,000 community members nutritional education through a virtual format.

Measurable Impact

Virtual nutrition education provided to 2,000 community members by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, virtual nutrition education was provided to 3,046 community members. The virtual education offerings were made available through social media.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will provide 1,500 community members fresh produce via the YMCA Veggie Van.

Measurable Impact

Fresh produce provided to 1,500 community members via the YMCA mobile Veggie Van by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, 800 community members received fresh produce via the YMCA Veggie Van. Additional food distribution events are planned for the remainder of 2022.

Action

By Dec. 31, 2022, Spectrum Health United and Kelsey Hospitals Community Health will provide technical assistance to at least one municipality to implement a policy related to increasing opportunities for residents to be more physically active.

Measurable Impact

Implementation of one policy by one municipality that aims to increase opportunities for residents to be more physically active by Dec. 31, 2022.

Impact of Strategy

As of March 31, 2022, implementation of one policy by one municipality aiming to increase opportunities for residents to be more physically active did not occur. Suggestions for policy/environmental change were brought forward to a local municipality and were not supported. Discussions are planned to continue.



**Spectrum
Health**

Spectrum Health complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex.
[81 FR 31465, May 16, 2016; 81 FR 46613, July 18, 2016]

ATENCIÓN: Si usted habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1.844.359.1607 (TTY: 711).

إذا كنت تتحدث اللغة العربية، فيمكنك الحصول على المساعدة اللغوية المتاحة مجاناً. اتصل على الرقم 1.844.359.1607 (TTY: 711).

FINANCIAL SECURITY | ECONOMIC STABILITY

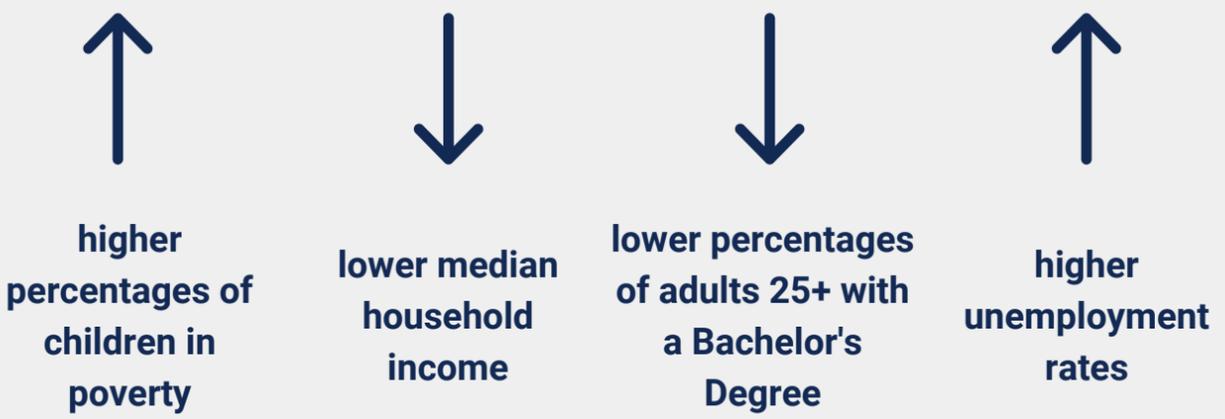


According to the International Committee of the Red Cross, financial security or economic stability is defined as the ability of individuals, households or communities to cover their essential needs sustainably and with dignity

INDICATORS

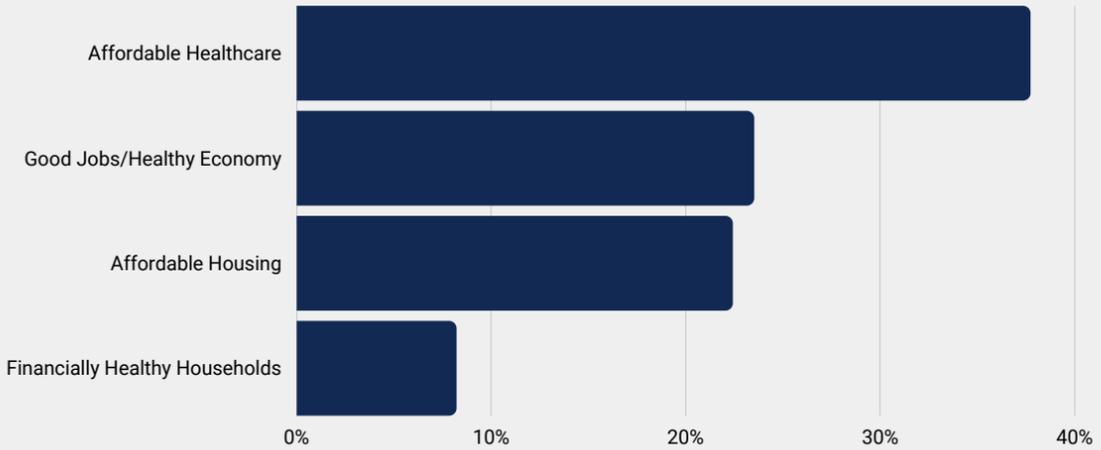
- Children Under Age 18 Years In Poverty ●
- Median Household Income ●
- Unemployment Rate ●

Compared to the State of Michigan, Montcalm County historically has



All of these factors have long lasting adverse effects on overall health and increase rates of morbidity and mortality

COMMUNITY-IDENTIFIED FACTORS THAT DEFINE A HEALTHY COMMUNITY



Many Montcalm County respondents indicated that **affordable** care and housing alongside a **thriving economy** with **good jobs** help define a healthy community

COMMUNITY-IDENTIFIED PROBLEMS IMPACTING THE COMMUNITY

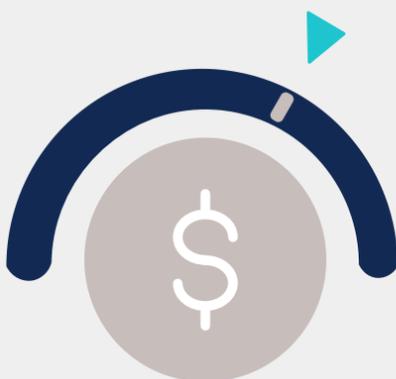


Over **50%** of respondents expressed that **Financial Concerns** was the 2nd largest problem that adversely affected Montcalm County

"There's no jobs listed in the local newspaper. Maybe the pandemic has something to do with it. I'm not working but I need a job. I still have my CDL. I don't have internet so I don't know what's out there"

COMMUNITY-IDENTIFIED BARRIERS TO LIVING A HEALTHIER LIFESTYLE

"Just the cost of everything makes it hard to be healthy"



More than **30%** respondents shared that **affordability** was a barrier that prevented them from living a healthier life

HEALTHY LIFESTYLES

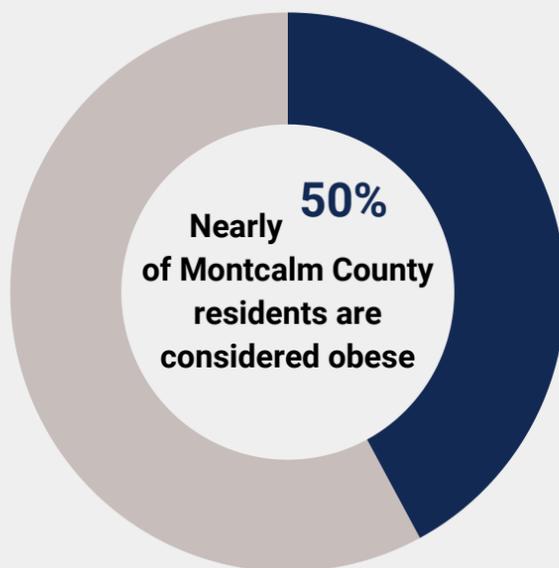


Five habits that promote healthy lifestyles include having a healthy diet, healthy physical activity level, healthy body weight, no smoking, and moderate alcohol intake

INDICATORS

- Adult Obesity
- Physical Inactivity
- Life Expectancy
- Adults Reporting Not Having Good General Health
- Adults Reporting Not Having Good Physical Health

29% of Montcalm County Adults have **poor general health**



PROVIDER AND COMMUNITY-IDENTIFIED FACTORS THAT DEFINE A HEALTHY COMMUNITY



Healthy Lifestyles

+

Access to Healthy and Nutritious Food

were identified by healthcare providers as **2** of the **Top 5** factors that characterize a healthy community

The same factors alongside **Access to Parks & Recreation** were also important to community members of Montcalm County



COMMUNITY MEMBER-IDENTIFIED BARRIERS TO LIVING A HEALTHIER LIFESTYLE

When respondents were asked about what barriers prevented them from living a healthier life, the **Top 3 barriers** identified were:

Lack of Energy



"I wouldn't walk by myself on one of those walking trails now because if I fell and got hurt, nobody would know."

Not Enough Time



"Nowadays, the internet is where people do a lot of their searching for information. I don't have the internet - I don't even have one of those smart phone types. That's money I don't have."

Too Costly



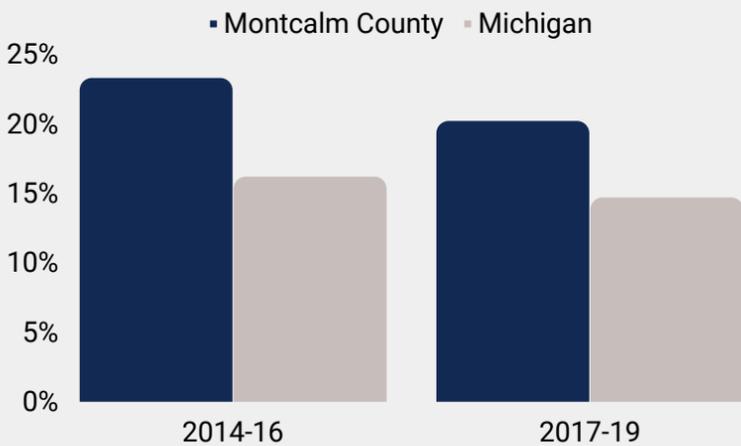
MENTAL HEALTH



According to the World Health Organization, mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community

INDICATORS

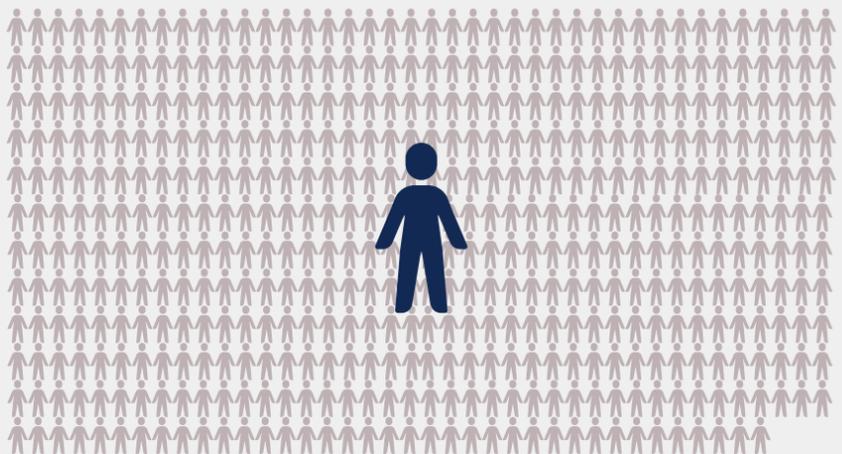
Frequent Mental Distress / Not Good Mental Health



Among 18-34 year-olds, **28.5%** reported frequent mental stress

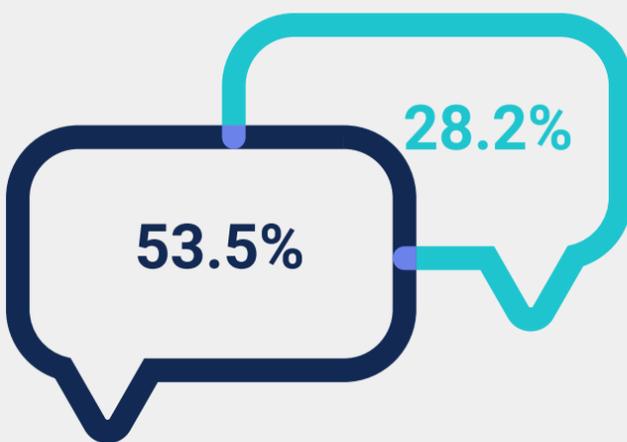
Population to Mental Health Providers Ratio

For every **477** Montcalm County community members **There is 1** Mental Health Provider



PROVIDER AND COMMUNITY MEMBER-IDENTIFIED FACTORS THAT DEFINE A HEALTHY COMMUNITY

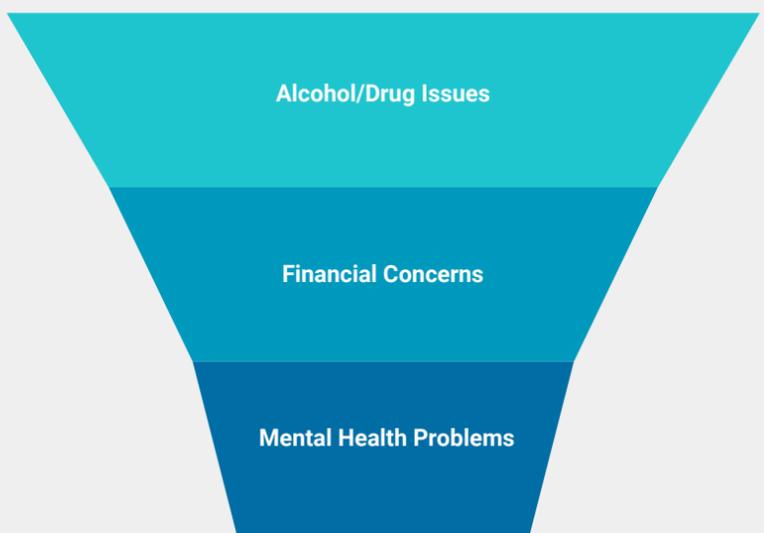
Over half of provider respondents indicated that **Access to Behavioral Healthcare** helps identify a healthy community



Many community respondents also believe that **Access to Mental Health Services** helps define a healthy community

COMMUNITY MEMBER-IDENTIFIED PROBLEMS IMPACTING THE COMMUNITY

Community members identified the **Top 3** problems that adversely affect Montcalm County



“There’s a lot of people out there with mental health issues that also have substance abuse issues, and a lot of people don’t have insurance to get into mental health services, and without those mental health services they’re never going to stop using, they’re never going to get better. So I think there should be more services for people like that.”

SUBSTANCE USE DISORDER



According to Mayo Clinic, Substance Use Disorder is a disease that affects a person's brain and behavior and leads to an inability to control the use of a legal or illegal drug or medication. When you're addicted, you may continue using the drug despite the harm it causes

INDICATORS

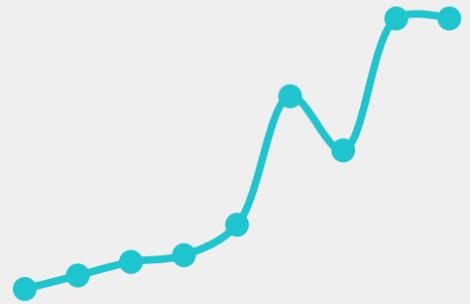
- Adult Smoking
- Adult Vaping
- Adult Marijuana Use
- Drug Overdose Deaths
- Prescription Drug Misuse
- Binge Drinking
- Heavy Drinking
- Excessive Drinking

Compared to any other age group,

18-34 year olds

were more likely to:

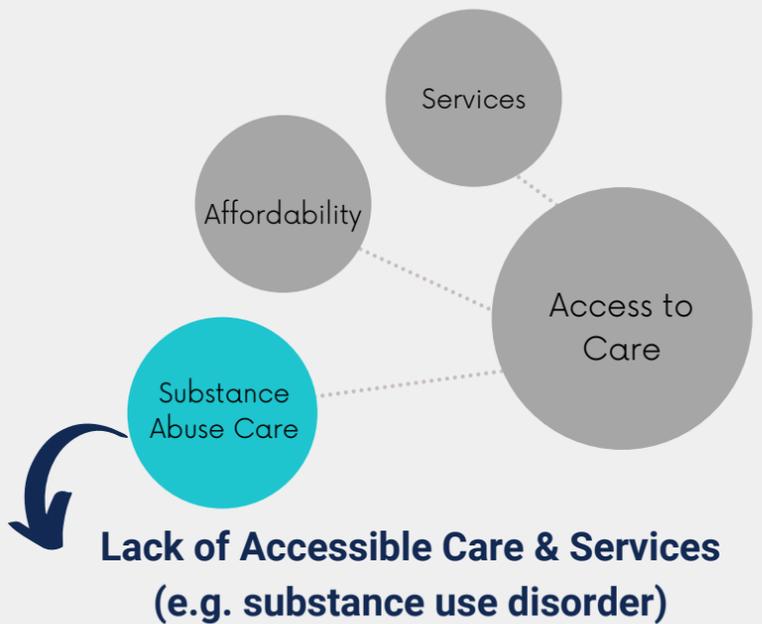
- (40.4%) smoke cigarettes
- (30%) use marijuana
- (36.6%) binge drink
- (11.7%) heavily drink
- (36.6%) excessively drink



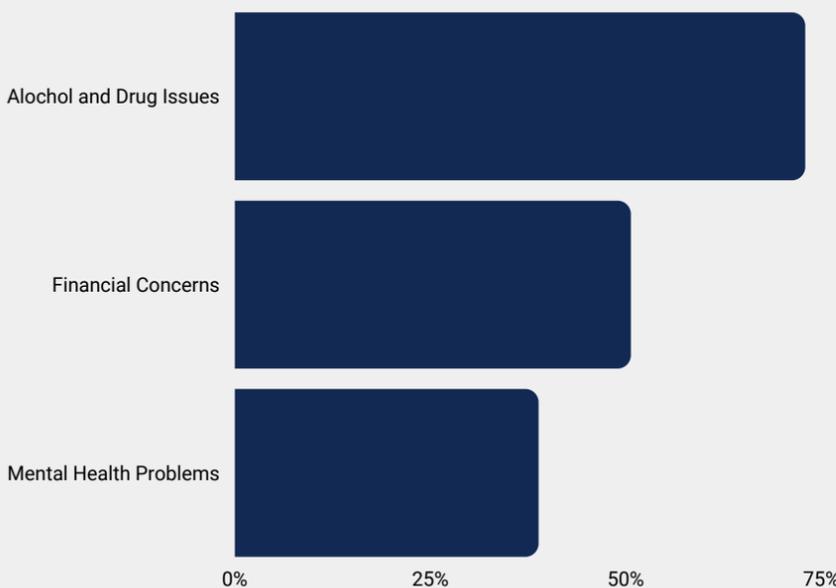
Drug overdose deaths have **increased** from **10.9 to 18.9 deaths** per 100K residents for Montcalm County from 2010-2018

FOCUS GROUP THEMES RELATED TO ACCESS TO CARE

"When I didn't have insurance, I couldn't get any help, mental health or substance use. They wouldn't help me either way. So I said, I'm an addict having mental problems, and you're going to turn me away. And when you do turn me away, I'm going to go out there and end up using and I'm going to relapse and I'll right down the same hole again."



COMMUNITY-IDENTIFIED PROBLEMS IMPACTING THE COMMUNITY



Community members identified **Alcohol and Drug Issues** as the #1 factor that adversely affected Montcalm County

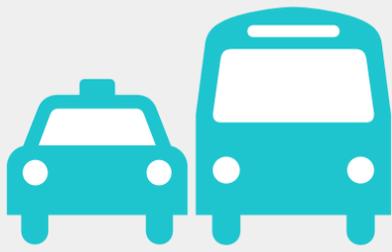
PARTICIPANT-IDENTIFIED SOLUTIONS FOR A HEALTHIER COMMUNITY



*"I worked at (**needle exchange center**) down south and that's something they should have here. They just come in and bring their dirty needles and we give them clean ones - there's no names exchanged or anything. That way the needles aren't left in the toilets or the kids parks or just laying around."*



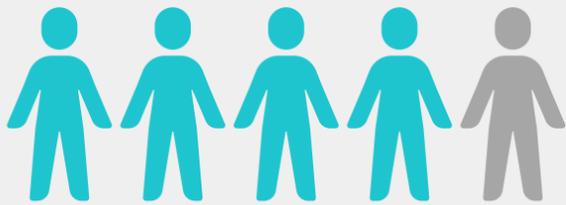
TRANSPORTATION



Increased driving leads to an increased risk of an accident, mental stress, physical inactivity and air pollution, which can be detrimental to people's overall health and well-being (Litman, 2013)

INDICATORS

- Motor Vehicle Crash Deaths / Traffic Fatalities
- Alcohol-Impaired Driving Deaths
- Population That Drove Alone to Work
- Population That Drove Alone to Work with Long Commute



4/5 Montcalm County Residents Drive Alone to Work

46% of those residents Commute for 30+ Minutes

Over the past 10 years, Montcalm county has seen

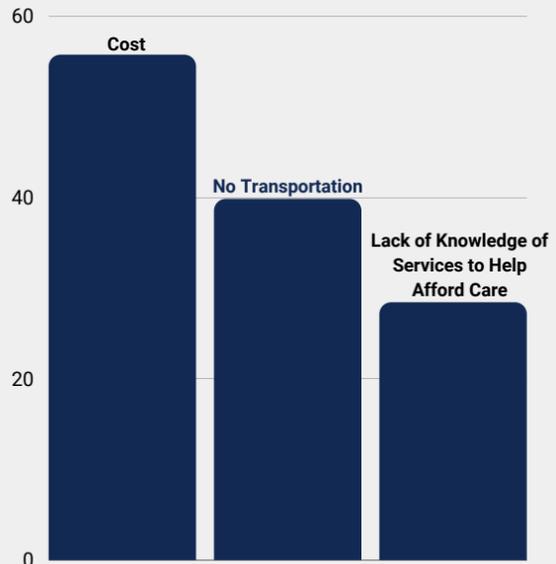
50+ motor vehicle crash deaths per 100,000 people



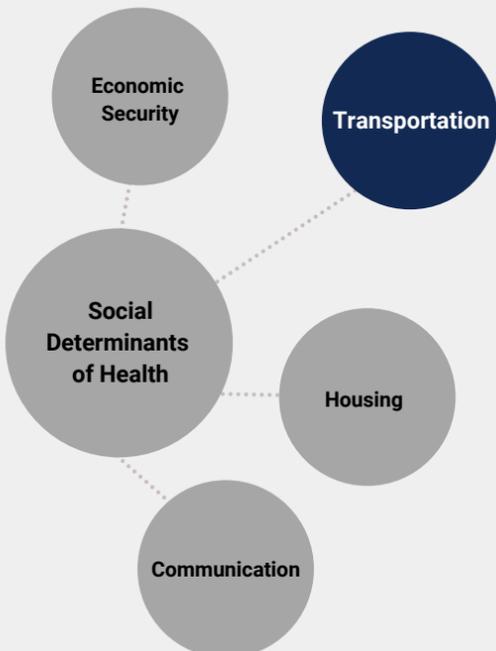
25% of which involved alcohol

COMMUNITY-IDENTIFIED BARRIERS TO ACCESSING HEALTH AND SOCIAL SERVICES

Nearly 40 percent of Community members ranked **No Transportation** as the **second largest barrier** to accessing appropriate health and social services for their needs



FOCUS GROUP THEMES RELATED TO THE SOCIAL DETERMINANTS OF HEALTH



- Public Transportation Barriers
- Lack of Access to a Vehicle

"We have the Greenville Transit, but its not very good during COVID-19 because it only runs for a time in the morning until 3pm, and not available on the weekends."

"I don't mind the transit because it takes you exactly where you want to go, especially in the winter, but it costs a lot."

PARTICIPANT-IDENTIFIED SOLUTIONS FOR A HEALTHIER COMMUNITY

"Would be nice if there was a public bus system that covered the county...I know it operates in Greenville where you can call and get a ride, but it's not on this side of the county."

