



NORTHERN MICHIGAN
COMMUNITY
HEALTH
INNOVATION
REGION



2019 Community Health Assessment

Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, and Wexford Counties

A comprehensive assessment of needs in Northwest Michigan communities





Table of Contents

Executive Summary	4
Introduction	5
Northern Michigan Community Health Innovation Region.....	5
MiThrive Partnership.....	5
Regional Population Demographics	6
Geography and Population.....	6
Education and Income.....	6
Strategic Issues Identified in 2019	7
Additional Strategic Issues Identified.....	7
Improving the Planning Process.....	7
Health Equity	8
Priority Issue: Address basic needs of living to create resiliency.....	9
and promote equity	
Priority Issue: Ensure a community that provides preventive and.....	12
accessible mental health and substance use disorder services	
Additional Strategic Issue: Improve access to comprehensive.....	16
healthcare for all	
Additional Strategic Issue: Improve prevention and reduce health....	19
risks for leading causes of death	
Improving our Planning Process: Strengthen collaboration.....	22
across multiple sectors to more effectively improve	
our communities	
Improving our Planning Process: Empower more residents and.....	23
community stakeholders to be involved in community	
decision-making	
Community Health Assessment Methods	24
PHASE 1: Organize for Success.....	24
PHASE 2: Visioning.....	24
PHASE 3: The Assessments.....	24
Community Health Status Assessment.....	25
Local Community Health System Assessment.....	25
Forces of Change Assessment.....	25
PHASE 4: Identify and Prioritize Strategic Issues.....	26
Next Steps	26
Appendix A: Organizations Represented during Assessment.....	27
Process Steering Committee	
Appendix B: Assessment Data Tables.....	31
Appendix C: Healthcare Providers Survey.....	50
Appendix D: Community Survey.....	54

Executive Summary



We are pleased to
present our findings

I am pleased to present the findings from our 2019 Community Health Assessment. The Northern Michigan Community Health Innovation Region (NMCHIR) aligned with MiThrive to complete a comprehensive assessment of needs in Northern Michigan communities. In this report, we wanted to pinpoint the most pressing health issues in our communities and describe what more can be done to improve the well-being and health equity in the 10-county region.

We were part of a regional assessment that encompassed 31 counties, and over 150 organizations participated in some aspect of the Community Health Assessment process. We collected data by gathering existing statistics, listening to residents, learning from groups of community organizations, and surveying healthcare providers. A cross-sector group of community partners identified two major priorities

for our region: Mental Health/Substance Use Disorders and Basic Needs of Living. Additionally, they identified three other Strategic Issues and two significant goals for our planning process. These additional Strategic Issues include Access to Healthcare, Sense of Community, and Risks for Leading Causes of Death. The goals for the planning process include Cross-Sector Collaboration and Community Voice.

- **Jane K. Sundmacher**, Executive Director





Introduction

Many factors combine to determine the health of a community. In addition to disease, community health is affected by substance use, education levels, economic status, environmental issues, and the personal choices we all make. No one individual, community group, hospital, agency, or governmental

body can be entirely responsible for the health of the community. No organization can address the multitude of issues alone. However, working together, we can understand the issues and create a plan to address them.



Where we live, learn, work, and play powerfully influences our health and well-being

The Northern Michigan CHIR's continuing commitment to working together with our partners is reflected in our Community Health Assessment, as well as in the work we do each day to better understand and address the health needs of our community. For the 2019 Community Health Assessment, this commitment is evident in our partnership in MiThrive, a regional, collaborative project designed to bring together hundreds of organizations across 31 counties of Northern Michigan to identify local needs and work together to improve our communities. Where we live, learn, work, and play powerfully influences our health;

therefore, improving community health requires a broad focus and coordination among diverse agencies and stakeholders.

Our goal is to continue to build new partnerships and gather input from more organizations and residents. Our Community Health Assessment represents a collaborative, community-based approach to identify, assess, and prioritize the most important health issues affecting our region. The process is also the foundation that health care providers and the community use to collaboratively plan, develop, and foster programs to effectively address those needs in our community.

The **Northern Michigan Community Health Innovation Region** is made up of ten counties including Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, and Wexford.

The Northern Michigan CHIR falls within the **Northern Michigan Public Health Alliance**, a partnership of local health departments in 31 northern Lower Peninsula.

Regional Population Demographics

Geography and Population

The ten counties of Northern Michigan CHIR covers a total of 4,722 square miles of land. The region is classified as “rural” by the US Census Bureau with Traverse City defined as a micropolitan area. In general, rural locations experience significant health disparities, such as higher incidence of disease and disability, increased mortality rates and lower life expectancy. Rural residents are more likely to have a number of chronic conditions and are less likely to receive recommended preventive services, in part due to lack of access to physicians and health care delivery sites and/or adequate transportation options.

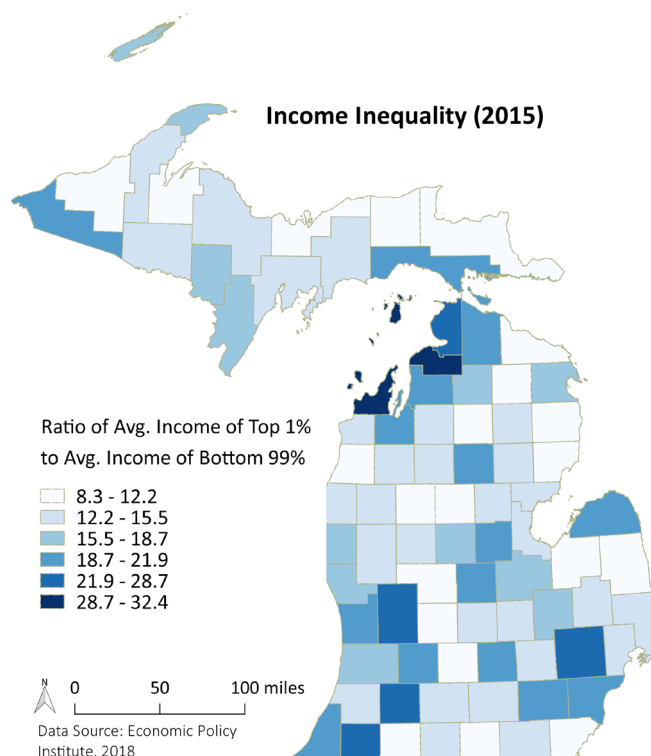
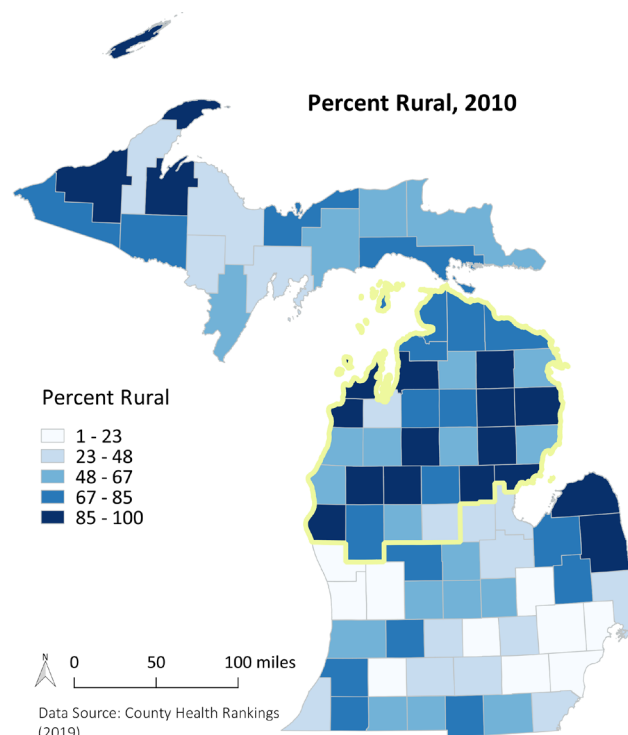
Of the 303,820 people who live in the 10-county region, nearly a third (92,084) live in Grand Traverse County. The population of the region is predominantly white (93%); Hispanic/Latinos, at 2%, and Native Americans, at 2%, are the largest minority groups. The proportion of adults over 65 years old is considerably larger in the region (21%) than the State (16%). In addition, the proportion of older adults is expected to continue increasing across Northern Michigan at a much faster rate than the state average.

Education and Income

Education, employment, and health are intrinsically linked. Without a good education, prospects for a stable and rewarding job with good earnings decrease. Education is associated with living longer and experiencing better health, as well as practicing health promoting behaviors such as exercising regularly, refraining from smoking, and obtaining timely health checkups and screenings.

Regarding educational attainment, all Northwest Michigan counties have a high school graduation rate the same or higher compared to the state rate (87%). College attainment is more limited, however. Only half of the ten counties exceed the state’s rate of 27%, ranging from 13% (Missaukee) to 41% (Leelanau).

Median household income in Michigan is \$52,668. Grand Traverse, Benzie, and Leelanau counties are above the state average; the other seven counties are below. In addition, within these counties, stark income inequality exists. Leelanau County has the most drastic income inequality in the state: the average income of the top 1% of earners is 32 times the average income of all other earners in the county.



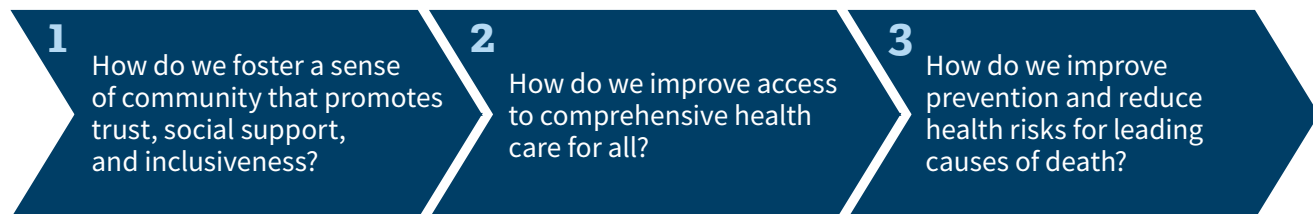
Strategic Issues Identified in 2019

The Northern Michigan CHIR identified Strategic Issues through a community-driven process. Strategic Issues are broader than individual health conditions and represent underlying challenges that need to be addressed to create long-term improvement in population health. Each Strategic Issue impacts more than one health condition.

PRIORITY ISSUES:

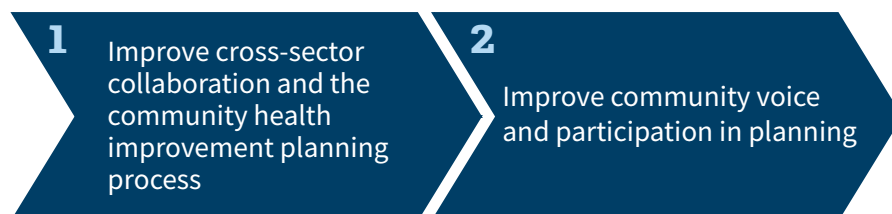


ADDITIONAL STRATEGIC ISSUES:



In addition to the Strategic Issues, we identified two major areas for improvement in how we go about addressing these issues and planning interventions:

PLANNING PROCESS IMPROVEMENT:

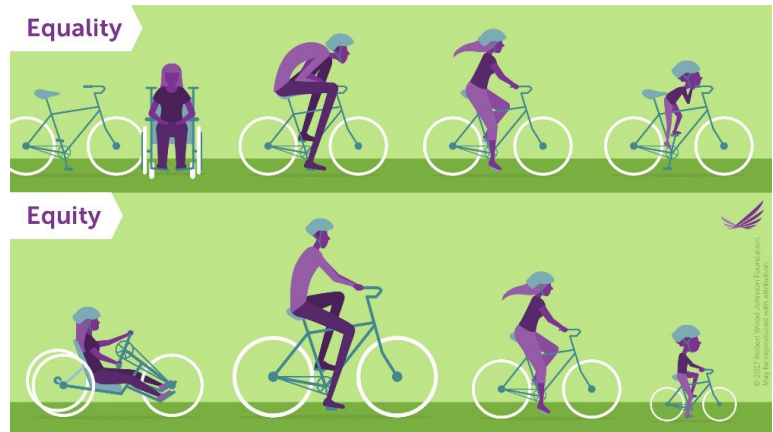


Health Equity

Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care. For the purposes of measurement, health equity means reducing and ultimately eliminating disparities in health and its determinants that adversely affect excluded or marginalized groups.

And when it comes to expanding opportunities for health, thinking the same approach will work universally is like expecting everyone to be able to ride the same bike.

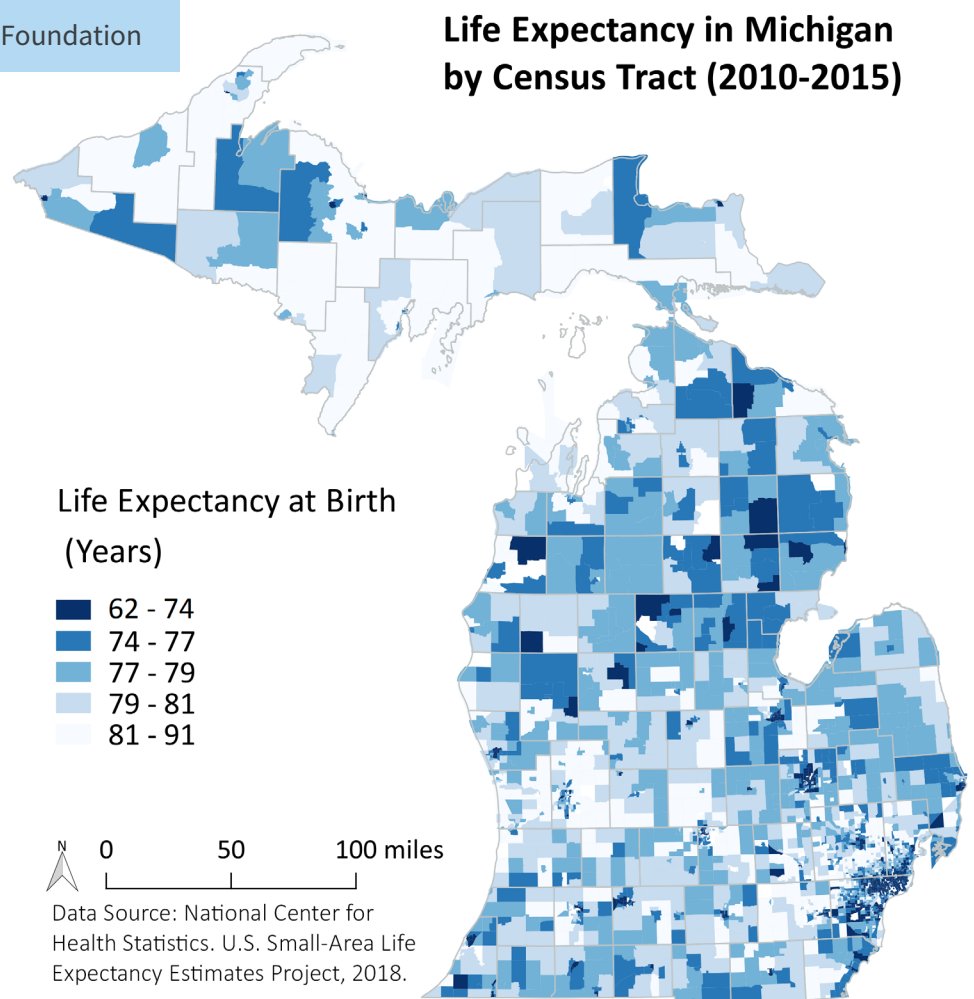
- Robert Wood Johnson Foundation



Source: Robert Wood Johnson Foundation, Visualizing Health Equity: One Size Does Not Fit All, 2017

One way to examine the importance of focusing on health equity is to look at how life expectancy varies by community. Even in neighboring Census Tracts, the difference in life expectancy can be 10 years or more. This is a sign that further investigation is needed to understand the root causes driving the disparity - especially the differences in the conditions where people in these communities live, work, learn, worship, play, and age.

In the following sections, we examine the impact of these issues on health and health equity, the extent of the challenge in our counties, and opportunities to improve them. Additional data tables related to these issues can be found in Appendix B.



PRIORITY ISSUE 1:

How do we address basic needs of living to create resiliency and promote equity?

Health Impact

Addressing Basic Needs of Living is crucial to improving community conditions where people are born, live, learn, work, play, worship, and age. Conditions in the physical and socioeconomic environment have an impact on a wide range of health, function, and quality-of-life outcomes and risks. A few examples of how these basic needs are linked to important health outcomes:

- Nutrition education only leads to improved diet and weight for families in food secure households
- Living in housing with physical problems (e.g. need for updated appliances, roof, or heating systems) is associated with poor self-assessed health, increased limitations to activities for daily living, and chronic disease. Faulty appliances and inadequate heating may increase exposure to hazardous chemicals like nitrogen dioxide. Plumbing leaks, roof leaks, and inadequate ventilation increases mold, which are associated with higher rates of asthma
- Communities and housing that are not designed for senior accessibility can increase risk of falls, social isolation, loss of independence, and many other problems
- Physical activity levels increase in crime-free neighborhoods with safe sidewalks and streetlights, reducing risk of overweight and obesity

Healthy Equity

These kinds of basic needs are the root cause of many serious inequities in health outcomes. Needs like food insecurity and inadequate housing affect low-income and other vulnerable residents the most, disproportionately putting them at high risk of many poor health outcomes. Improving these root-causes would make a much longer-term impact on health equity than program interventions like health education classes. Similarly, older adults are disproportionately harmed by these issues. Creating communities that are safe and healthy for them improves conditions for other populations.



Challenges

In most Northwest Michigan counties, about two in five households struggle to afford basic household necessities. The percentage of children living in households below the poverty level ranges from 12% in Grand Traverse County to 24% in Kalkaska, Manistee, and Wexford counties. In the 10-county region, one in seven kids do not have consistent access to enough food. More than a third of all home renters in the 10-county region spend 35% or more of their household income on rent - putting them at higher risk of housing insecurity and homelessness. All these factors weaken the ability of families and communities to endure challenges.

Community Voice

Residents said when it came to supporting their health, they want and value:

- Services to meet basic needs
- Clean natural environment
- Access to healthy food
- Outdoor and indoor opportunities for physical activity (especially low-cost)
- More transportation options
- Improved community infrastructure (e.g. sidewalks, community gardens, tobacco-free policies, playgrounds, handicap accessibility, etc.)

80% of resident respondents agreed that many people in their community struggle to meet basic needs of living.

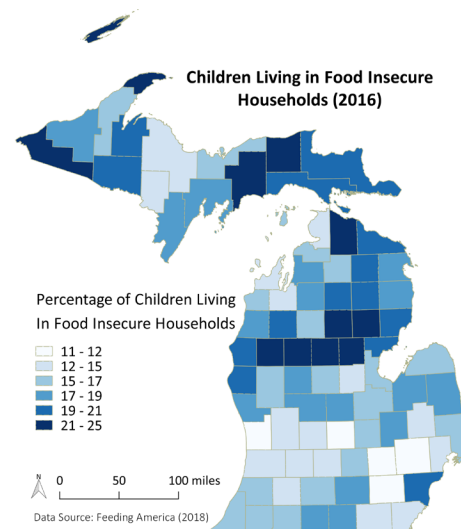
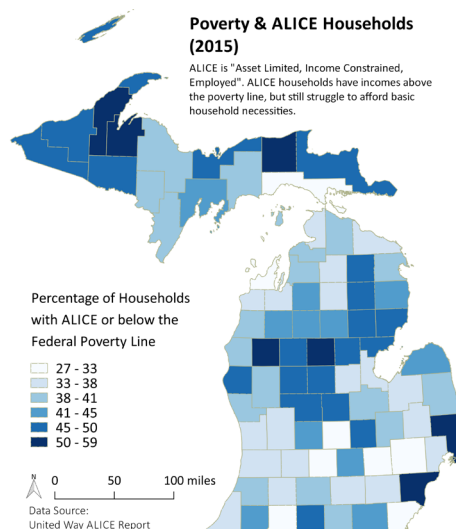
“I think there are elderly, mentally ill and disabled people who are falling through the cracks.” - Antrim County resident

“Everyone is struggling and one or two paychecks away from being homeless” - Grand Traverse County resident

“Young people cannot live in Northern Michigan because there is nowhere to work or live.” - Charlevoix County resident

Community Organizations cited the following as significant, growing threats in Northern Michigan:

- Poor quality housing
- No regional plan to set up communities to meet the needs of the aging population
- Threats to water and air quality



Assets, Resources, and Opportunities

Many organizations in the area are addressing basic needs of living. These issues are complex and multi-dimensional, so as new collaborations form and expand, their total impact multipliers. The Northern Michigan CHIR gathered over 90 organizations to address issues related to food access, transportation, affordable housing, and opportunities for active living. Some additional examples of current work in this area include the Northwest Michigan Coalition to End Homelessness, the Fruit and Vegetable Prescription Program through Shape Up North, and human services collaborative bodies. With new community-wide collaboration and innovative solutions, local improvements in basic needs are possible in the next three to five years.

Prioritization

Improving Basic Needs of Living is highly valued in the Northern Michigan CHIR: 96% of residents agreed in a survey that it is important. Large proportions of households struggle to meet at least some of these basic needs. For those who can't, the impact on health and quality of life can be severe. On the other hand, if we are able to improve this issue, it would improve the root cause of many health inequities in our counties. Groups saw this issue as an ideal area for diverse partners to come together to share resources and strategies and collaborate toward tangible community improvement. For these reasons, Basic Needs of Living was identified as a top priority.

PRIORITY ISSUE 2:

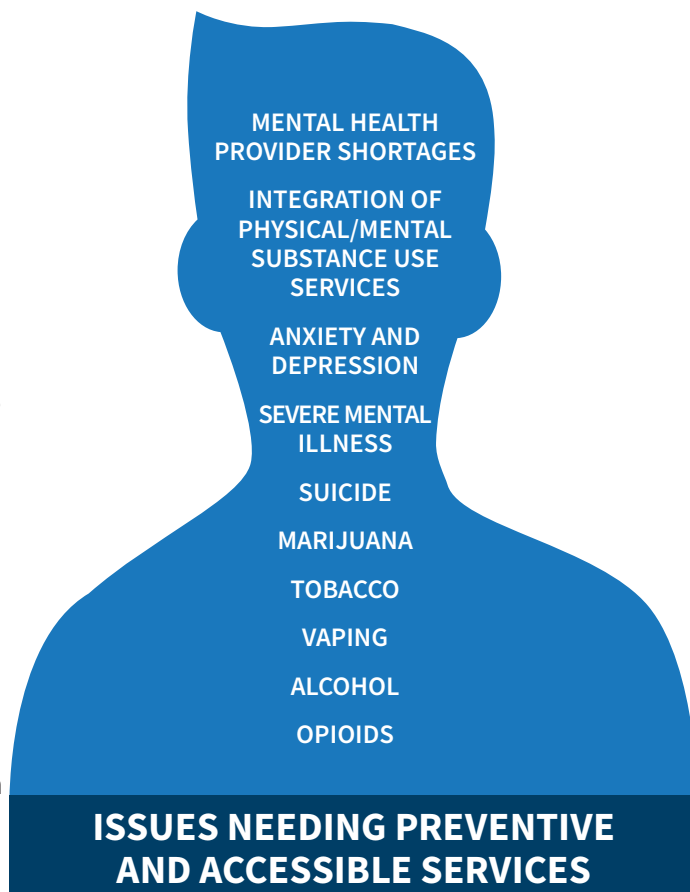
How do we ensure a community that provides preventive and accessible mental health and substance use disorder services?

Health Impact

Mental illness and substance use disorders can have negative impacts on length and quality of life for individuals, as well as significantly affecting families and communities. For individuals, mental illness and substance use disorders can disrupt every area of life, including relationships, work, and health. Individuals facing these conditions are at higher risk for a number of physical illnesses and have an increased risk of premature death. For families, mental illness and substance use disorders can disrupt family ties and social connections, making it more difficult to meet basic needs, and creating additional stress for family members. For communities, mental illness and substance use disorders can disrupt community cohesion, present extra burdens on law enforcement, and create risks for the community like drunk driving and second-hand smoke.

Healthy Equity

Disparities in mental health and substance use treatment continue in diverse segments of the population, including racial and ethnic groups; lesbian, gay, bisexual, transgender, and questioning populations; people with disabilities; transition-age youth; and young adults. In addition, certain segments of the population, such as individuals facing poverty, childhood trauma, domestic violence, and foster care, have historically had less access to services, low utilization of services, and even poorer behavioral health outcomes. Provider shortages, lack of inpatient treatment beds, and limited culturally competent services all contribute to persistent disparities in mental health and substance use treatment, especially in rural areas. Rural areas have also been the hardest hit by growing rates of opioid abuse and overdose. In addition, as our population of older adults continues to grow, so do the distinct risks and needs for that population.



Challenges

With suicide rates above the national average and high rates of depressive episodes among teens, mental health is significant concern in Northwest Michigan. Similarly, abuse of alcohol, tobacco, and drugs need to be addressed. Rates of binge drinking range from 12% (Wexford County) to 23% (Grand Traverse County), and about one in five residents of Northwest Michigan smokes, including during pregnancy. Hepatitis C rates, which are strongly associated with injection drug use, are spiking among young adults. In most Northwest Michigan counties, at least one in four teens vapes and at least one in seven used marijuana in the past month. Contributing to these problems are ongoing shortages of mental health providers and substance use treatment options.

Community Voice

Residents said when it came to supporting their health, they want better:

- Access to mental health providers
- Access to substance use treatment
- Response to the opioid crisis and other drugs
- Anti-tobacco policies
- Response to drunk driving

When surveyed, residents ranked behavioral health as the second most urgent of all the Strategic Issues identified. Almost 90% of resident survey respondents agreed that many people in their community need better access to mental health and substance abuse services/prevention.

“Suicidal deaths and drug overdoses seem disproportionately high in Charlevoix and surrounding areas. Need more mental health providers because wait time is cause of death.”

- Charlevoix County resident

“Too many in our community are suffering and dying from a lack of services. Mental health illnesses are more likely to impact people across the lifespan than any other disease. Please help.”

- Grand Traverse County resident

“A member of my family needs mental health services which are difficult to access due to transportation and financial limitations, as well as a shortage of psychiatrists in our region.”

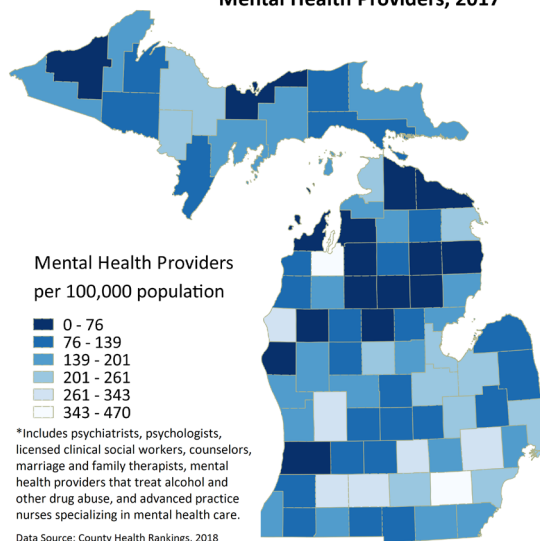
- Benzie County resident

Community Organizations

cited the following as significant, growing threats in Northern Michigan:

- Legalization of marijuana
- Opioid crisis/drugs/vaping
- Mental illness

Mental Health Providers*, 2017



Assets, Resources, and Opportunities

More organizations and coalitions are working on mental health/substance use than ever before. Some examples of these efforts include the Northern Michigan CHIR's Community Connections program; Grand Traverse County Drug-Free Coalition; Northern Michigan Opioid Response Consortium; and local health departments. With increased coordination among groups, the potential for significant impact is growing.

Prioritization

Organizations participating in MiThrive saw behavioral health as an important area to address at both local and regional levels. To significantly improve access to treatment, system changes are needed on a regional and state-wide scale, and MiThrive will provide a platform for more effectively advocating for these changes. In addition, many more groups are working on these issues now than have been in the past, so this is an ideal time to begin to bridge efforts and promote collaboration.

Looking at criteria including values, severity, impact, and magnitude, mental illness/substance use scores as a high priority. Mental illness and substance use issues are growing quickly, and all segments of the population are affected. The burden falls most heavily, however, on the most vulnerable populations, making these issues important to address to achieve health equity. For those facing these issues, the impact on health and quality of life can be severe. Improving prevention and access to care for mental health and substance use is highly valued by the community: 96% of residents agreed in a survey that it is important to meet the basic needs of people in our community. For these reasons, mental health and substance use was identified as a top priority in the Northwest Michigan region.

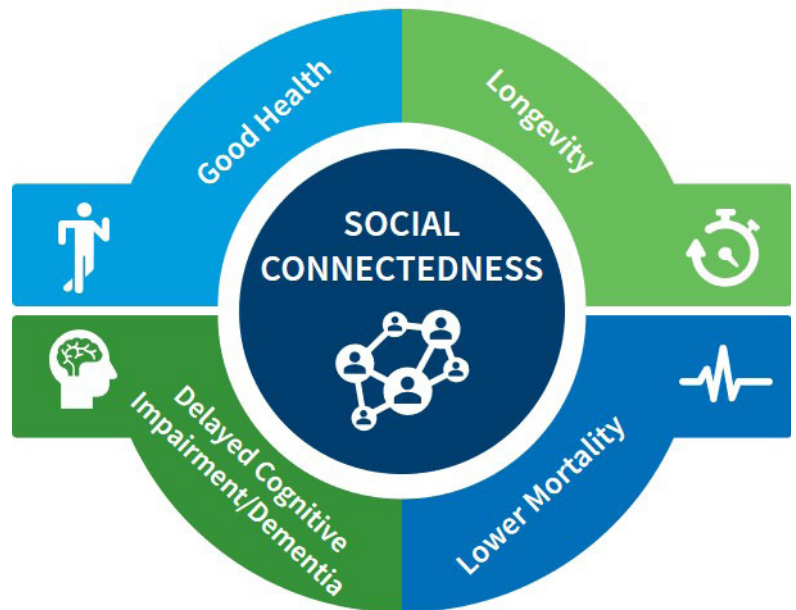
ADDITIONAL STRATEGIC ISSUE 1:

How do we foster a sense of community that promotes trust, social support, and inclusiveness?

Health Impact

A growing body of research shows that social connectedness creates resilience which protects health. In contrast, community problems like social isolation, discrimination, and sexual harassment/assault create vulnerabilities which can have a devastating impact on individual health.

Social isolation and social disconnectedness have a significant negative association with physical health (e.g. blood pressure and mortality), mental health (e.g. depression and suicide), drug use, and poor quality of life. In contrast, positive human relations and social interaction are predictors of good health, longevity, lower mortality, and delayed onset of cognitive impairment and dementia.



Healthy Equity

Certain populations are at significantly higher risk for social isolation, including racial and religious minorities; older adults who live alone; and the approximately 10% of Northwest Michigan teens who identify as lesbian, gay, or bisexual. In the US overall, four in ten LGBT+ youth say the community in which they live is not accepting of LGBT+ people, and they are twice as likely as peers to report being physically assaulted. Girls and women are also at increased risk of violence, especially from an intimate partner. Older adults are at increased risk of social isolation because of limited mobility, decreasing social networks due to death of a partner and peers, and changes in their social roles due to retirement and loss of income.

Social support can also be the difference between stability and instability within a family. Family instability can harm children's health and contributes to health disparities. In addition, limited social networks can reduce access to resources to meet basic needs and further exacerbate inequities.

Challenges

In Northwest Michigan, about half of teens say they know an adult in their neighborhood they could talk to about something important, and two in five teens have experienced at least two Adverse Childhood Experiences. These are both risk factors for serious health conditions later in life. In Grand Traverse County, one in five teen girls has been forced to do sexual things they did not want to do by someone they were dating in the past twelve months. Among householders over age 65, 44% live alone in Grand Traverse County.

Community Voice

Residents said when it came to supporting their health, they highly value support from family, friends, and community. In addition, they want to see more community connectedness and more opportunities for social support. When surveyed, residents most strongly agreed that improving sense of community, support, and inclusion would improve their families' quality of life - more than any of the other Strategic Issues. Over 90% of survey respondents agreed that it is important to build a sense of community where they live.

"Large social and income gaps in this community, little diversity, and very unwelcoming toward diverse populations." - Wexford County resident

"Rural broadband access should be a top priority. The disconnect from society alone is detrimental and nobody should be left behind anymore."
- Missaukee County resident

"People need to feel included. That's a basic need. I'm not sure what the solutions are." - Leelanau County resident

"I believe that church communities can help facilitate this. They just need direction and ideas."
- Antrim County resident

"[We] have to ensure the inclusion truly is inclusive; while there ARE community building events/activities, they seem quite elitist/exclusive toward some."
- Grand Traverse County resident

"I believe we have more stigma associated with the elderly... for this reason they are often overlooked."
- Leelanau County resident

Community Organizations cited social isolation, increasing discrimination and harassment, and distrust of information and institutions as significant, growing threats in Northern Michigan. These organizations said that improving community connectedness would build resilience for families, and would improve resilience and advocacy for older adults, especially against various forms of abuse or exploitation.



Assets, Resources, and Opportunities

Many groups throughout the ten counties are working to build community. Senior centers and Meals on Wheels work to connect older adults. Some schools and libraries are working toward becoming community centers. Faith-based groups and non-profits create ways to engage and volunteer. YMCA and other recreation opportunities bring people together. Up North Pride is working to provide an inclusive environment for LGBT+ residents. Various clubs and 4-H provide other ways to engage in community. There is also movement within some organizations and businesses to prioritize a sense of community among their employees. Through the activities of Trauma and Resilience Unified Support Teams and Northwest Michigan Adverse Childhood Experiences Initiative, communities are coming together to discuss collaboration in reducing adversities and improving outcomes for multiple generations.

Prioritization

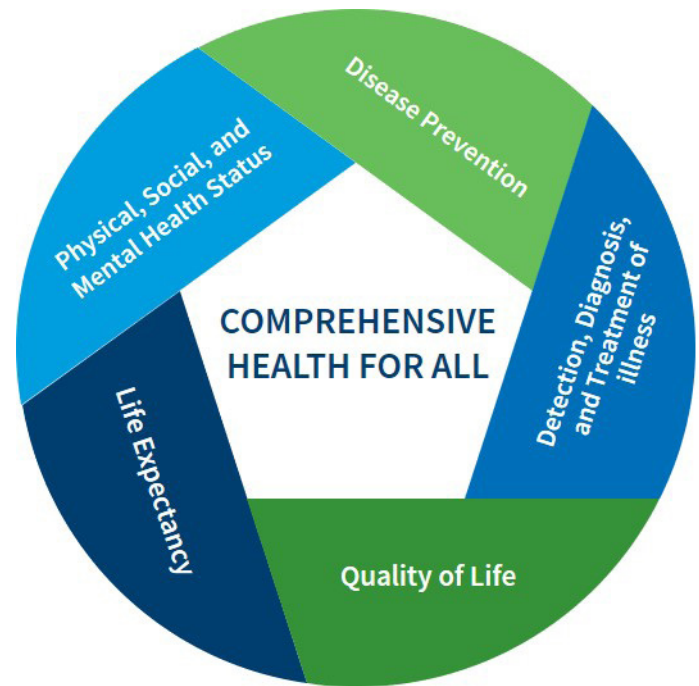
Sense of community was not chosen as a top priority, in part because it does not have as severe, immediate impact on health as some of the other issues. However, the need to bring people together can potentially help inform the way we address the other priorities we have chosen.

ADDITIONAL STRATEGIC ISSUE 2:

How do we improve access to comprehensive health care for all?

Health Impact

According to Healthy People 2020, access to healthcare is important for overall physical, social, and mental health status; disease prevention; detection, diagnosis, and treatment of illness; quality of life; and life expectancy.



Healthy Equity

One example of inequities in access to care are the significant disparities in insurance coverage among different races/ethnicities. In Northwest Michigan, this mostly impacts Native American and Hispanic populations. For example, a Native American resident living in Leelanau County is three times more likely to be uninsured compared to a white resident. Hispanic residents throughout the region are about twice as likely to be uninsured compared to white residents.

Low-income people and people living in rural areas also have more challenges accessing healthcare, including additional challenges related to transportation, cost of care, distance to providers, inflexibility of work schedules, and child care.

Challenges

Residents of Northwest Michigan experience a variety of barriers to accessing healthcare, including problems with transportation, appointment availability, and certain provider shortages. In addition, about one in eight non-elderly adults in the region are uninsured, and between 8% and 18% of adults said high cost of care prevented them from seeing a doctor when they needed to in the past year.

Community Voice

Residents said when it came to supporting their health, they want:

- Better access to primary, dental, and specialist care
- More convenient doctor appointments and appointment availability
- More affordable healthcare and accessible insurance

When surveyed, half of residents said improving access to healthcare would improve quality of life for their family, while 87% said better access would improve quality of life for their community.

“I find that there are few physicians and they rotate through various cities which is inconvenient. The hours they keep are not conducive to people who work. There should be late hours and even Saturday hours. I would like to see a bigger surgical center where I live instead of going to Traverse City, an hour away, and other specialties like female services.”

- Charlevoix County resident

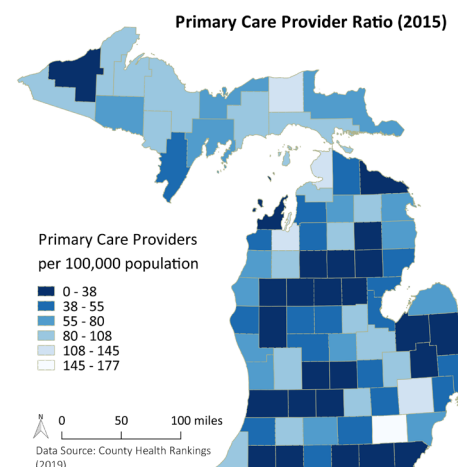
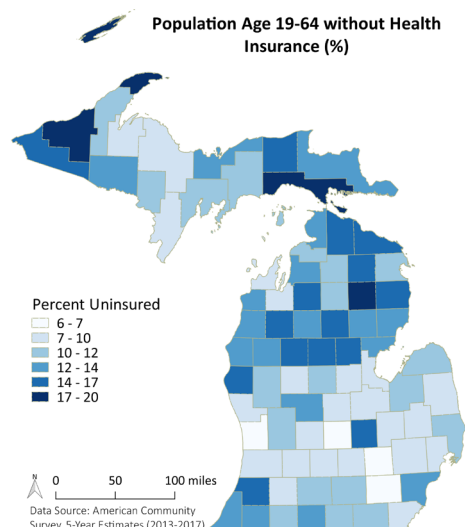
“I can’t find a dental or healthcare office in this town where I feel welcome and feel I fit in. They all charge too much.”

- Wexford County resident

“People struggle to find well-paying jobs and childcare, so taking time off to go to appointments in [Traverse City] is very challenging. Another major challenge is insurance coverage, since we have a large seasonal workforce that doesn’t have the option.” - Benzie County resident

“Access needs to include affordability. It does no good to add facilities that our citizens cannot afford to utilize.”

- Antrim County resident



Prioritization

Access to care was not chosen as one of the top issues because barriers will be relieved in some way through addressing basic needs of living and mental health/substance use. In addition, barriers to care are not the root cause of poor health, and a more upstream approach is needed to be most effective at improving population health in the long term.

ADDITIONAL STRATEGIC ISSUE 3:

How do we improve prevention and reduce health risks for leading causes of death?

Leading Causes of Death (with age-adjusted death rate per 100,00 population)

Rank	Cause Of Death	Mi	Antrim	Benzie	Charlevoix	Emmet	Grand Traverse	Kalkaska	Leelanau	Manistee	Missaukee	Wexford
1	Heart Disease	199	166	132	172	163	135	235	103	172	190	194
2	Cancer	170	168	154	166	159	150	187	130	181	174	196
3	Chronic Lower Respiratory Diseases	45	43	43	54	55	41	60	27	51	66	63
4	Unintentional Injuries	42	42	59	36	36	44	58	36	54	46	54
5	Stroke	37	31	32	36	40	41	47	27	29	35	43
6	Alzheimer's Disease	28	51	32	41	54	50	35	34	30	43	40
7	Diabetes Mellitus	22	18	35	11	13	15	48	12	32	26	19

Source: 2012-2016 Geocoded Michigan Death Certificate Registries, Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services.

Healthy Equity

Compared to the non-Hispanic white population, American Indians in Michigan face a significantly higher death rate from every one of the seven leading causes of death except Alzheimer's Disease. Among Hispanic residents, death rates from diabetes are higher compared to white residents.

Cause of Death Mortality Rate per 100,000	American Indian/ Alaska Native Rate	Hispanic/ Latino Rate	White Rate
Heart Disease	224.6	138.9	191.3
Cancer	188.4	118.2	171.8
Chronic Lower Respiratory Diseases	72.7	23.4	48.2
Unintentional Injuries	55.9	32.9	38.5
Stroke	30	33.9	35.8
Diabetes	52.8	33.9	21.8

Source: Michigan Health Equity Data Reference Tables. Lansing, MI: Michigan Department of Health and Human Services Health Disparities Reduction and Minority Health Section and Lifecourse Epidemiology and Genomics Division; 2016. Data from 2011-13.

Challenges

Heart disease and cancer are by far the leading causes of death across Northwest Michigan. Among the leading causes of death, chronic lower respiratory diseases, unintentional injuries and Alzheimer's stand out, as most counties in Northwest Michigan have mortality rates higher than the state average. Death rates in Kalkaska County are higher than the state average for all of the seven leading causes of death.

Preventing leading causes of death requires lowering the obesity rate, addressing risks of car crashes and falls, decreasing tobacco use, and improving vaccination rates. The obesity rate is high: about one in three adults is obese in Antrim, Benzie, Kalkaska, Missaukee, and Wexford counties. In Charlevoix, Emmet, Grand Traverse, Leelanau, and Manistee counties, about 1 in 4 adults is obese. Vaccination rates also need to improve. For example, between 55% (Charlevoix and Leelanau) and 69% (Kalkaska & Missaukee) of residents did not get a flu shot in the past year, leaving vulnerable residents like small children and the elderly at increased risk of serious illness and death.

Community Voice

Residents said when it came to supporting their health, they value and want health knowledge, like additional education on healthy living. When surveyed, 83% of residents agreed that improving this issue would improve quality of life for the community; 61% said it would improve their family's quality of life. Over 95% of survey respondents agreed that it is important to prevent and reduce leading health risks.

“Make information up to date and complete. Chronic disease is difficult to manage.”

- Wexford County resident

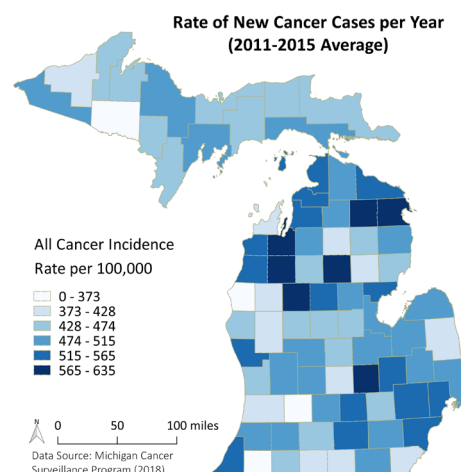
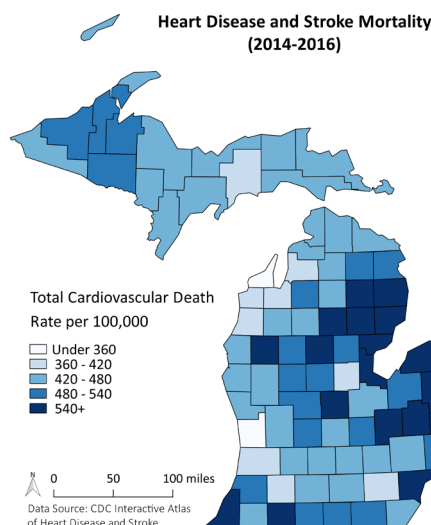
“I think part of this has to do with informing the community about what is currently available and how to access it.”

- Grand Traverse County resident

“Winter up north is very limiting for physical activity. People hole up and all the exercise places charge way too much to take advantage of and they are few and far between... Everything is geared around seniors from 8-4pm and nothing is offered after work hours!”

- Charlevoix County resident

Community Organizations cited our aging population as one of the most significant trends.



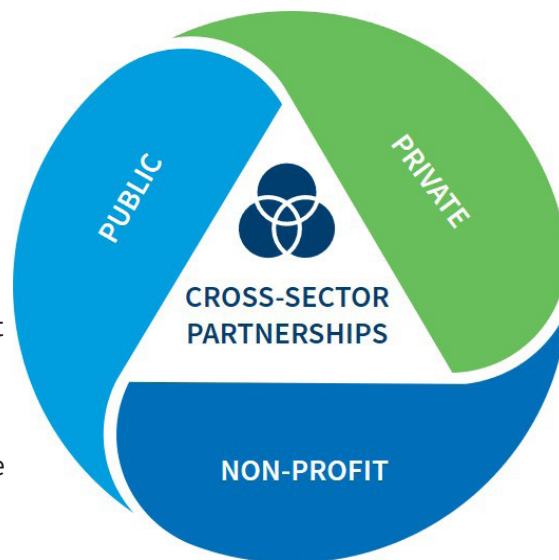
Prioritization

Reducing risks for leading causes of death was not chosen as a priority because the most significant factors are included in the other issue areas described. This is especially true for the chronic diseases, which are most impacted by upstream approaches through addressing issues like basic needs.

PLANNING PROCESS IMPROVEMENT 1:

Improve cross-sector collaboration and the community health improvement planning process

Locally and across Northern Michigan, there is growing recognition that developing partnerships across the public, private, and non-profit sectors creates unprecedented opportunities for improving quality of life in our communities. Local organizations serving the community said significant, sustainable changes will require a more collaborative, comprehensive approach to community improvement planning. As we move forward and design plans to address the priority issues we have identified, a cross-sector approach is crucial for success.



Community Voice

Residents, when surveyed, nearly three in five said improving coordination across different kinds of organizations would improve quality of life for their family, while 84% said better coordination would improve quality of life for their community. Over 90% said they believe it is important for local organizations to work together better.

“This is already in the works, but needs to be supported.” - Manistee County resident

“Our community works well together however it appears that community leaders may get caught up in meeting requirements of efforts and not invested personally. They can present info on poverty but some can’t empathize, stuck in middle class values.” - Missaukee County resident

“I feel this happens some of the time. Mostly with schools being disconnected from community organizations and parents.” - Wexford County resident

“We have several organizations in Benzie County that partner with multiple other groups to try to reach as many people as possible.” - Benzie County resident

“Many organizations have the same goals and, without communication, compete for the same funds...” - Grand Traverse County resident

“No one has time for meetings or more committees. Perhaps businesses and leaders should invest in people already passionate and leading the way to further many of these goals.” - Leelanau County resident

“I truly believe that the health organizations need to partner industrial, commercial businesses and especially schools to create a more positive outlook for the youth of our communities. Increased mental health screening and care at school, job training and skills for those not going on to college, identifying and addressing risky behaviors early will help create a brighter future for people of all ages within our community.” - Charlevoix County resident

Community organizations said to achieve significant, sustainable community improvement, we need to:

- Use a coordinated, comprehensive approach to planning
 - Improve process for community improvement planning
 - Align goals, strategies, and vision
 - Maximize limited resources
 - Improve data sharing and communication

PLANNING PROCESS IMPROVEMENT 2:



Local organizations reported this as an important step in making significant, sustainable changes in the community to improve quality of life. They emphasized a need to include “authentic voices” in decision making, ensuring those most affected by the issues are part of designing the solutions. Including authentic voice in decision-making is also necessary in the pursuit of health equity. As we move forward in the planning process, we will need to ensure residents and diverse community stakeholders are at the table when decisions affecting the community are being made. In addition, we need to work on improving communication among organizations, to the community, and from the community.

Community Voice

Residents, when surveyed, over half said more representation in decision-making would improve quality of life for their family, while 77% said more representation would improve quality of life for their community. Over 90% said they believe it is important for local organizations to work together better.

“I feel the people of our community have no say in what we need here.” - Wexford County resident

“We have several organizations in Benzie County that partner with multiple other groups to try to reach as many people as possible.” - Benzie County resident

“[We need to] involve community members in decision making by way of community meetings, public announcements, social media, mailings etc.” - Benzie County resident

“Better high-speed internet across the region would help promote the community involvement, improve outreach, and make more critical information available.” - Wexford County resident

Community organizations said to achieve significant, sustainable community improvement, we need to

- Include more partners at the table
- Include more residents at the table
- Create a system to better capture constituent voice
- Improve communication to community
- Improve communication with partners

Community Health Assessment Methods

We used the Mobilizing for Action through Planning and Partnerships (MAPP) framework to guide the community health assessment process. MAPP, developed by the National Association for County and City Health Officials and the US Centers for Disease Control and Prevention, is considered the “gold standard” for community health assessment and improvement planning. It is a community-driven planning tool that applies strategic thinking to priority issues and identifies resources to address them.

The Community Health Assessment portion of the MAPP process includes four phases:



PHASE 1

Organize for Success

In spring 2018, we began the process of bringing partners together to lay the foundations of the MiThrive project. We organized a Steering Committee with representation from local hospitals, local health departments, federally-qualified health centers, community mental health agencies, and other community partners. From the beginning, we laid plans for reaching out to new partners in other sectors to join MiThrive.



PHASE 2

Visioning

The Steering Committee together set the vision of the project for the community: A vibrant, diverse, and caring community in which regional collaboration allows all people the ability to achieve optimum physical, mental, cultural, social, spiritual, and economic health and well-being.



PHASE 3

The Assessments

Community Themes and Strengths Assessment

This assessment gathered input from community members to find out how they perceive their quality of life, see assets and problems in their communities, and define what is important to them. We used community input boards and pulse interviews for this assessment.



PHASE 3

The Assessments *continued*

Community Input Boards

The purpose of community input boards was to gather feedback from the general public on how their community context impacts health. At large community events from July to October 2018, community members answer two questions on a sticky note and posting it to the question board.

1. What in your community helps you live a healthy life?
2. What can be done in your community to improve health and quality of life?

We collected data using Community Input Boards from July-October 2018.

Pulse Interviews

The purpose of the pulse Interviews was to gather input from specific vulnerable populations through partnering with organizations who specialize in working with these populations.

Our questions focused on barriers to accessing health care:

1. In the past year, what challenges have you or your family had trying to get health care you needed?
2. What kind of healthcare did you have trouble getting?
3. What would make it easier to get care?

Community Health Status Assessment

This purpose of this assessment was to collect quantitative, secondary data about the health, wellness, and social determinants of health of all residents in the ten county region. This involved gathering statistics from sources like the Michigan Department of Health and Human Services, the Center for Medicare and Medicaid Services, the Centers for Disease Control and Prevention, County Health Rankings, the Census Bureau, and other established sources.

Local Community Health System Assessment

The purpose of this assessment was to gather input for a system perspective on work being done in the community. Facilitators guided discussions at Human Services Coordinating Bodies and other groups. Discussions focused on different aspects of how all community organizations and entities work together as a unified system to serve the communities.

Forces of Change Assessment

The purpose of this assessment was to identify forces – trends, factors, and events – that influence or will likely influence the health and quality of life or that impact the work of the local community health system. This assessment provides critical information about the larger context influencing the potential success of the strategies we develop. It was conducted at cross-sector events. The discussion focused on seven types of forces affecting the community: economic, environmental, ethical, social/cultural, tech/science/education, political/legislative. After identifying forces at work, we looked at threats and opportunities presented by these forces. “Aging Population” was identified as one of the most powerful forces in our Northern Michigan communities.

How we sought input from medically underserved, minority, and low-income populations:

- Through pulse interviews, we reached out to medically underserved and low-income populations to learn about barriers they face accessing care.
- Community input boards were conducted at events serving low-income populations
- Representatives from local tribes and other organizations serving minorities at Steering Committee meetings, the Forces of Change Assessment, and prioritization process.
- Survey of health care providers that serve Medicaid patients
- Participation from organizations representing medically underserved and low-income populations in the Local Community Health System Assessment, the Forces of Change Assessment, and the prioritization process.



PHASE 4

Identify and Prioritize Strategic Issues

Through a facilitated process supported by the Michigan Public Health Institute, we reviewed all the key findings from the four MAPP assessments and looked for the underlying challenges that are preventing us from achieving our shared vision. Regular attendees of MiThrive Steering Committee meetings attended, as well as additional interested MiThrive partners (a full list is provided in Appendix A). Through combining the data from the four assessments and looking at the community from a holistic perspective, we identified the seven Strategic Issues described in this report.

Next, we needed to prioritize these issues to decide which two Strategic Issues we were going to focus on for our collaborative Community Health Improvement Plan. We began by getting input from the community and healthcare providers through surveys. The surveys were designed around the identified Strategic Issues, and asked questions to inform the prioritization process. Community members were asked about urgency, importance, commitment, and impact on the quality of life for their families and communities. Providers were similarly asked questions about their perspective on these issues' urgency, importance, and impact on quality of life for their patients, as well as whether they had resources available to address the issues and whether they were already working to address them. Community surveys were mainly distributed online through the hospitals and partner organizations, primarily through posting on organization websites and through social media. Paper surveys were available in some places. Healthcare provider surveys were distributed through all the major Northern Michigan hospital systems to their affiliated providers. (The results of these surveys are included in the appendices.)

Next, we held a meeting to look at needs and conditions across the entire 31-county Northern Michigan region. The meeting used a facilitated process, guided by an evidence-based prioritization matrix to ensure our decisions were data-driven and objective. The criteria considered through the prioritization matrix included community values, severity, magnitude, impact of intervention, achievability, and sustainability. The data we used included all the information we gathered previously, including statistics, input from community and partner organizations, and results from the surveys. Through this facilitated process, we collaboratively identified a top issue to approach collectively on a large regional scale. We then held meetings around Northern Michigan to identify additional priorities for smaller groups of counties, based on local data, conditions, and experience.

Next Steps

The next step is to create a **Community Health Improvement Plan**. This involves gathering diverse partners and representation from the community to identify specific goals and objectives related to our priority issues. Because MiThrive and NMCHIR are focused on collaborative solutions, the plan will include room for organizations from every sector to play a role contributing towards the goals we identify. Through collaboration and continued monitoring and evaluation, we will be able to address these important issue and improve health and well-being in our region.



Appendix A

Organizations Represented during the MAPP Assessment Process

Steering Committee

Throughout the community health assessment process, MiThrive prioritized inclusiveness and kept meetings open to any organization interested in attending. Therefore, the Steering Committee did not have an official membership list. The list below includes organizations that attended at least two Steering Committee meetings in 2018.

- Benzie-Leelanau District Health Department
- Central Michigan District Health Department
- District Health Department #2
- District Health Department #4
- District Health Department #10
- Grand Traverse County Health Department
- Health Department of Northwest Michigan
- McLaren Central Michigan
- McLaren Northern Michigan
- MidMichigan Health - Alpena
- MidMichigan Health - Clare Gladwin
- Munson Healthcare
- Munson Healthcare Otsego Memorial Hospital
- Munson Healthcare - Cadillac Hospital
- Munson Healthcare - Grayling Hospital
- Munson Medical Center
- Northeast Michigan Community Service Agency
- North Country Community Mental Health
- Northern Michigan Community Health Innovation Region
- Spectrum Health
- Traverse Health Clinic

Forces of Change Assessment

- 1North
- Alcona Health Centers
- Alliance for Senior Housing
- AmeriCorps VISTA
- Area Agency on Aging of Northwest Michigan
- AuSable Valley Community Mental Health
- Benzie Senior Resources
- Benzie-Leelanau District Health Department
- Catholic Human Services
- Central Michigan District Health Department
- Char-Em United Way
- Crawford County Commission on Aging
- District Health Department #2
- District Health Department #4
- District Health Department #10
- Family Health Care - White Cloud
- Father Fred Foundation
- Ferris State University Public Health Programs
- Free Clinic
- Goodwill Northern Michigan
- Grand Traverse County Commission on Aging
- Grand Traverse County Health Department
- Grand Traverse County Probate Court
- Grand Traverse County Prosecuting Attorney's Office
- Grand Traverse County Senior Center
- Grand Traverse Pavilions
- Grow Benzie
- Habitat for Humanity Grand Traverse Region
- Harbor Care Associates
- Health Department of Northwest Michigan
- Health Project
- Hope Shores Alliance
- Hospice of Northwest Michigan
- Housing Consulting Services
- Kalkaska County Commission on Aging
- Lake City Area Chamber of Commerce &
- Lake County Habitat for Humanity
- Leelanau County Senior Services
- McLaren Northern Michigan
- Meridian Health Plan
- Michigan Department of Health and Human Services

Forces of Change Assessment *continued*

- Michigan State Police
- Michigan State University Extension
- Mid Michigan Community Action Agency
- MidMichigan Health
- MidMichigan Medical Center-West Branch
- Monarch Home Health
- MSU Extension
- Munson Healthcare
- Munson Healthcare - Cadillac Hospital
- Munson Healthcare - Manistee Hospital
- Munson Medical Center
- Newaygo County Commission on Aging
- North Country Community Mental Health
- Northern Lakes Community Mental Health Authority
- Northern Michigan Community Health Innovation Region
- Northeast Michigan Community Service Agency
- Northern Michigan Children's Assessment Center
- Northwest Michigan Community Action Agency
- Northwest Michigan Health Services
- Parkinson's Network North
- Presbyterian Villages of Michigan
- Region 9 Area Agency on Aging
- Regional Community Foundation
- River House, Inc.
- Real Life Living Services
- Senior Volunteer Programs
- ShareCare of Leelanau
- Spectrum Health
- United Way of Northwest Michigan
- United Way of Wexford Missaukee Counties
- Walkerville Thrives
- Wexford County Prosecutor
- Wexford-Missaukee Intermediate School District
- Women's Resource Center of Northern Michigan

Local Community Health System Assessment

- Area Agency on Aging of Northwest Michigan
- Area Agency on Aging of Southwest Michigan
- Alcona Health Centers
- AuSable Valley Community Mental Health Authority
- Baker College
- Bureau for Blind Persons
- Catholic Human Services
- Community Hope
- Court Juvenile Advocate
- Dental Clinics North
- District Health Department #2
- District Health Department #4
- District Health Department #10
- Michigan Department of Health and Human Services
- Disability Network of Northern Michigan
- Emmet County Friendship Center
- Family Health Care
- Ferris State University
- Friend of the Court
- Grand Traverse County Commission on Aging
- Grand Traverse County Health Department
- Grand Traverse Regional Community Foundation
- Munson Healthcare - Grayling Hospital
- Great Start Collaborative
- Grand Traverse Court Family Division
- Grand Traverse County Drug Free Coalition
- Health Department of Northwest Michigan
- Human Trafficking Community Group
- Indigo Hospitalists
- Manna Food Project
- McLaren Northern Michigan - Cheboygan
- Michigan Human Trafficking Task Force
- Michigan Veterans Affairs Agency
- Michigan Works
- Mecosta-Osceola Intermediate School District
- MSU Extension
- Munson Family Practice
- Northeast Michigan Community Service Agency
- Northern Michigan Children Assessment Center
- Northern Michigan Community Health Innovation Region
- Newaygo County Great Start Collaborative
- Newaygo County Regional Education Service Agency
- Newaygo County Community Foundation
- National Center for Policy Analysis
- Ogemaw County Commissioner
- Oasis
- Oscoda County Sheriff's Office
- Physicians Hospital Organization

Local Community Health System Assessment *continued*

- Project Starburst
- Public Schools
- Retired & Senior Volunteer Program
- Riverhouse
- Salvation Army
- Spectrum Health
- STEP Program
- Traverse Bay Area Intermediate School District
- Tellurex (local business)
- Ten16
- Thunder Bay
- Traverse Bay Children's Advocacy
- True North Community Services
- United Way
- VISTA Americorps CHIR
- WISE
- Women's Resource Center

Identifying Strategic Issues

- Alcona Health Centers
- Area Agency on Aging of Northwest Michigan
- AuSable Valley Community Mental Health
- Benzie-Leelanau District Health Department
- Central Michigan District Health Department
- Char-Em United Way
- Crawford County Commission on Aging
- District Health Dept. #2
- District Health Dept. #4
- District Health Dept. #10
- Grand Traverse County Health Department
- Groundwork Center for Resilient Communities
- Health Department of Northwest Michigan
- McLaren Central Michigan
- McLaren Northern Michigan
- Michigan Department of Health and Human Services
- MidMichigan Health
- MidMichigan Area Health Education Center
- MSU-Extension
- Munson Healthcare
- Munson Healthcare - Otsego Memorial Hospital
- Munson Healthcare - Cadillac Hospital
- Munson Healthcare - Grayling Hospital
- Munson Healthcare - Manistee Hospital
- Munson Healthcare - Munson Medical Center
- Munson Healthcare - Paul Oliver Memorial Hospital
- North Country Community Mental Health
- Northern Michigan Community Health Innovation Region

Prioritizing Strategic Issues

- Alcona Health Centers
- Area Agency on Aging of Northwest Michigan
- AuSable Valley Community Mental Health
- Benzie-Leelanau District Health Department
- Catholic Human Services
- Central Michigan District Health Department
- District Health Dept. #2
- District Health Dept. #4
- District Health Dept. #10
- Food Bank of Eastern Michigan
- Grand Traverse County Commission on Aging
- Grand Traverse County Health Department
- Grand Traverse County Senior Center
- Grand Traverse Pavilions
- Groundwork Center for Resilient Communities
- Health Department of Northwest Michigan
- Kalkaska County Commission on Aging
- McLaren Central Michigan
- McLaren Northern Michigan
- MidMichigan Health - Alpena
- MidMichigan Health - Clare Gladwin
- MSU-Extension
- Munson Healthcare
- Munson Healthcare - Cadillac Hospital
- Munson Healthcare - Charlevoix Hospital
- Munson Healthcare - Grayling Hospital
- Munson Healthcare - Manistee Hospital
- Munson Healthcare - Munson Medical Center
- North Country Community Mental Health
- Spectrum Health
- Wexford County Council on Aging

Grand Traverse Bay 5-County Region (Antrim, Benzie, Leelanau, Grand Traverse, Kalkaska Counties)

- Area Agency on Aging of Northwest Michigan
- Grand Traverse Regional Community Foundation
- Catholic Human Services
- Comfort Keepers
- Grand Traverse County Commission on Aging
- Grand Traverse County Health Department
- Grand Traverse County Parks and Recreation
- Grand Traverse County Senior Center
- Grand Traverse Pavilions
- Groundwork Center for Resilient Communities
- Kalkaska County Commission on Aging
- Leelanau County Senior Services
- MSU - Extension
- Monarch Home Health
- Munson Healthcare
- Munson Healthcare - Cadillac
- Munson Healthcare - Manistee Hospital
- Munson Healthcare - Munson Medical Center
- Munson Healthcare - Paul Oliver Memorial Hospital
- Norte
- TART Trails
- Traverse Bay Area Intermediate School District
- Traverse City Area Public Schools
- Traverse Health Clinic
- United Way of Northwest Michigan

“Tip of the Mitt” 7-County region (Alpena, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, Presque Isle Counties)

- Alcona Health Centers
- Alpena-Montmorency-Alcona Educational Service District - Great Start Collaborative
- Area Agency on Aging Region 9
- District Health Department #4
- Food Bank of Eastern Michigan
- Health Department of Northwest Michigan
- McLaren Hospice Alpena
- McLaren Northern Michigan
- Michigan Department of Health and Human Services
- Michigan Works!
- MidMichigan Health
- Munson Healthcare - Charlevoix Hospital
- Munson Healthcare - Otsego Memorial Hospital
- North Country Community Mental Health
- Northeast Michigan Community Service Agency
- Northern Care Center
- Petoskey District Library
- Salvation Army
- Up North Prevention/Catholic Human Services
- Women’s Resource Center of Northern Michigan
- YMCA of Northern Michigan

Manistee, Missaukee, Wexford Region

- Baker College
- Cadillac Area Community Foundation
- Cadillac Area Ministerial Association
- Cadillac Area Public Schools
- Cadillac Area YMCA
- Cadillac News
- Child Protection Council
- District Health Department #10
- Flourishing Families Michigan
- Lake City Area Chamber of Commerce
- Manistee County Council on Aging
- Manistee County Human Services Collaborative Body
- Michigan Department of Corrections
- Missaukee County
- Munson Healthcare
- Munson Healthcare - Cadillac Hospital
- Munson Healthcare - Manistee Hospital
- Networks Northwest
- Northwest Michigan Works
- OASIS
- Samaritas
- United Way of Wexford and Missaukee Counties
- Wexford County Council on Aging
- Wexford County Probate Court
- Wexford-Missaukee Intermediate School District

Appendix B

Assessment Data Tables

Community Themes and Strengths Assessment

In most cases, residents stated similar themes as both positives that help them be healthy, and as areas they would like to see improved in their community.

Residents want:	Examples
Clean natural environment	Helped by natural physical environment - beaches, lakes, woods, rivers Need cleaner natural environment - clean water, chemical free food, litter clean up, lead testing etc.
Access to healthy food	Helped by farmers markets, Project Fresh, food pantries, etc. Need more options for healthy food, less expensive, healthy food in schools, year-round access to fresh fruits and veggies, etc.
Services to meet basic needs	Helped by non-profits, Community Connections, health department programs, MDHHS, senior services, etc. Need more help meeting basic needs like food assistance, single parent assistance, home repair, etc.
Community connectedness	Helped by family support, community events, faith-based/church support, acceptance of difference, etc. Need more diversity and acceptance, more support, community events/community center, support groups, mentoring programs, etc.
Opportunities for physical activity	Helped by trails, parks, yoga, rec centers, YMCA, etc. Need more free/low-cost opportunities, year-round opportunities, pools, classes, bike share program, etc.
Health knowledge	Helped by knowledge about healthy behaviors, nutrition classes, healthy eating, etc. Need easy to understand information, health education, disease management classes, in-home education, cooking classes, sex education, focus on youth, fitness classes, drug control workshops, etc.
Better access to primary, dental, and specialist care	Helped by access to clinics, doctors, other healthcare. Need better access to primary care, specialists, dental - including free clinics, school clinics, etc.
More affordable healthcare and accessible insurance	Helped by Medicaid navigation. Need better coverage, including dental and vision; lower premiums and co-pays; help to prevent falling through the cracks; insurance resources and information; affordable medications and medical equipment; free clinics
More available providers	Need providers in closer proximity; more providers (address shortage); reduce provider turnover; appointments not scheduled so far out
More convenient appointment times	Need extended hours, appointment availability, more flexibility
Improved transportation	Need better transportation to doctor (especially elderly or people with disabilities); gas cards; Uber; better public transit, car repair
Improved community infrastructure	Helped by sidewalks, transit, walkability, community gardens, tobacco-free ordinances. Need more community gardens, walking/biking trails, bike lanes, safe playgrounds, safe pedestrian crossings, wheelchair/handicap accessibility, Health in All Policies

Forces of Change Assessment

Type of Force	Forces of Change	Threats & Opportunities
National Trend	Aging Population	<p>Threats: More people living on fixed income; loss of generational support; burden on medical costs/healthcare; not enough caregiver support; no community plan to set up area to prepare for needs; increased institutionalization; high incidence chronic disease; risk of elder abuse/fraud; caregiver burnout</p> <p>Opportunities: Multi-generational home to support each other; create wholistic plan to meet needs; use retiree wisdom to shape our community; improve quality of life for everyone; more business opportunity to care for older adults - bring skilled workers to region; more need for community health workers; change the model to pay for elder care; “Adopt a Grandparent” programs; elder abuse prevention activities; Advanced Directives</p>
National Trend	Discrimination/ Harassment/ Hate	<p>Threats: Harms wellbeing of women, people of color, LGBTQ, families, communities; decreased access to resources and services; increasing hate crimes, violence; risk of arrests related to profiling; lack of diversity in communities; challenges recruiting/retaining workers; lack of understanding among youth in homogenous communities; social isolation; eroding trust in institutions; residual fear of reporting harassment/abuse; growing white nationalism; survivors attacked for coming forward</p> <p>Opportunities: Training to bring awareness; Need new opportunities for engagement and inclusion; more thoughtfulness about who might be missing from the table; cultural shift toward believing assault survivors; opportunities to support each other; new platforms available; #MeToo creating new opportunities for dialogue; support groups; community social events</p>
National Trend	Distrust of Information/ News/ Science	<p>Threats: People will disengage, bad self-interest will prevail; lose common ground for thoughtful discussion; distrust of vaccines; opposed to things that could protect the community</p> <p>Opportunities: More grassroots movements; focus on building relationships with local community</p>
National Trend	Government Dysfunction	<p>Threats: Quickly diminishing trust in government; people opt out of process; people don’t access needed services; legislation based on special interest groups; less representation from minorities</p> <p>Opportunities: Regulatory reform; build trust directly with community; educate and advocate</p>
Local Factor	Insufficient Wages	<p>Threats: Families can’t afford housing; increasing homelessness; make only enough money to lose benefits; moving out of the region; businesses struggling</p> <p>Opportunities: Engage retired community to leverage knowledge and expertise; open doors to convicted felons for “second chance”; increased bartered labor programs; increasing collaborative effort from businesses - working together to fix crisis; opportunity to place workers in training programs; non-traditional employment</p>
Local/ State Event	Legalization of Marijuana	<p>Threats: Increasing use among kids, pregnant women; healthcare costs; misinformation; diminishing workforce due to drug screening; threat to workplace safety; impaired driving, higher auto-insurance costs; increase in second hand smoke; costs associated with regulation</p> <p>Opportunities: Research medical uses, risks; more tourism; decriminalizing related offences; use harm reduction measures; pain management, less stigma to use for medical; revenue for growers/sellers; bring people back to Michigan; local ordinances; less alcohol-related violence</p>

Forces of Change Assessment *continued*

Type of Force	Forces of Change	Threats & Opportunities
National Trend	Mass Shootings	<p>Threats: Increased fear; new worries at school; divisiveness (gun control debate)</p> <p>Opportunities: Start viewing gun violence as public health threat; more comfortable speaking about gun violence; re-start funding of National Institutes of Health research</p>
National Trend	Mental Illness	<p>Threats: Broken homes/families; suicide; homelessness; substance use; stigma; insufficient access/affordability of care</p> <p>Opportunities: Telemedicine/counseling; residential care facilities; increased education/awareness; mental health training for professionals; change in Medicaid policy and licensing requirements</p>
National Trend	Opioid Crisis/ Drugs/ Vaping	<p>Threats: High mortality rate; crime; car crashes; harder to find workers who can pass drug tests; unknown health effects of vaping; increase risk of Hepatitis B and HIV; risk of self-harm/suicide; economic loss; decreased property value; homelessness; incarceration; normalization; doctors afraid to prescribe needed pain medication - harder for chronic pain patients/hospice</p> <p>Opportunities: Coordinated response; increase access to treatment; drug take-back events; responsible prescribing and storage of prescriptions; education at a younger age; social activities for young adults; new MI opioid legislation should help cut back on pill abuse, less “doctor shopping”</p>
Local/ State Factor	Rural/Urban Divide	<p>Threats: Education varies greatly; barriers to resources; limited healthcare; transportation issues; feeling that “it doesn’t happen here” because it’s hidden (child abuse, drugs, etc.); Northern Michigan ignored by state politicians; big legislative districts means legislators can’t be everywhere at once</p> <p>Opportunities: More space for farming and agriculture; connectivity to nature; slower pace; grant funding for rural communities; maximizing resources through collaboration; easier to have your political voice heard locally; more local control/independence from state government</p>
National Trend	Social Isolation/ Insufficient Coping Skills and Resilience	<p>Threats: Isolation leads to increase risk of substance use, depression, other health issues, lack of support; increase risk of elder abuse/fraud; decreased resilience to adverse events</p> <p>Opportunities: Growing awareness of mindfulness, Adverse Childhood Events training; trauma-informed care trainings; mentorship, “Handle with Care”</p>
Local/ State Trend	Threats to Water Quality	<p>Threats: Fear in communities; health risks; threat to agriculture; economic threat; contributes to inequities; distrust of government; requires resources, surface and groundwater contamination; remediation is costly; failing septic systems, aging infrastructure; creates conflicts with tribes</p> <p>Opportunities: Motivation to support testing - pressure from public; increasing funding for this issue; Line 5 motivating citizens to engage politically; do more with safe drug disposal; more aware of water quality and chemicals we’re using; new laws or ordinances (e.g. point of sale ordinances); strong conservancy infrastructure and water protection groups</p>

Local Community Health System Assessment

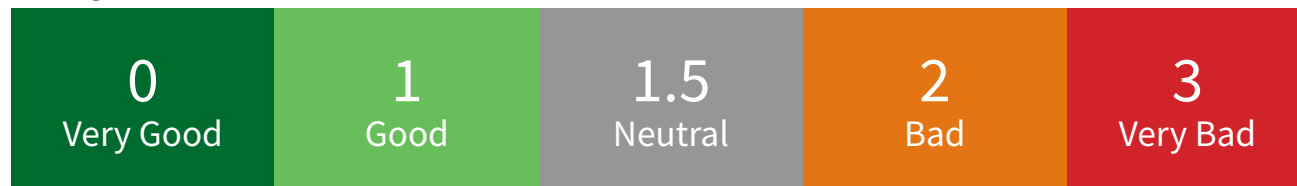
Residents want:	Examples
Improve Process for Community Improvement Planning	<p>System Strengths: Some counties have diverse and action-oriented collaborative bodies in place; ongoing work from the Northern Michigan Community Health Improvement Plan and the Northern Michigan Community Health Innovation Region</p> <p>System Weaknesses: Collaboration barriers - no structure/process in place for system-wide planning</p>
Improve Data Sharing & Communication	<p>System Strengths: Some partners know how to access Community Health Assessment results</p> <p>System Weaknesses: not communicating to all audiences, or meaning/context of the data</p>
Align Goals, Strategies, & Vision	<p>System Strengths: Strong interest in improved/expanded collaboration</p> <p>System Weaknesses: Collaboration barriers - unaligned priorities and vision</p>
Use Coordinated, Comprehensive Approach to Planning	<p>System Strengths: Strong interest in expanded collaboration for community health improvement planning; experience collaborating on specific issues</p> <p>System Weaknesses: Working in silos; some disillusionment from past efforts without visible progress; don't know how to start</p>
More Partners at the Table	<p>System Strengths: Some counties have diverse and action-oriented collaborative bodies</p> <p>System Weaknesses: Most counties are missing key partners at planning table (e.g. private sector, tribes)</p>
More Residents at the Table	<p>System Strengths: Some counties have identified local champions and volunteers around specific issues</p> <p>System Weaknesses: Residents rarely invited to take an active role in community improvement planning process</p>
Improve Communication to Community	<p>System Strengths: Efforts at consistent messaging to public; desire to communicate work and successes in community</p> <p>System Weaknesses: Often lacking services directory; hard to reach special populations; challenges with risk communications</p>
Create System to Better Capture Constituent Voice	<p>System Strengths: Feel in touch with the community and committed to the community</p> <p>System Weaknesses: Past efforts have been resource-intensive and intermittent</p>
Improve Communication with Partners	<p>System Strengths: Good communication in working together to meet a client's needs</p> <p>System Weaknesses: Difficulties staying updated</p>
System Challenge: Limited/ Strained Agency Resources	Never seems to be enough time, staff, or funding

Community Health Status Assessment

Secondary Data Analysis Methodology

To determine which statistics represented the worst or most concerning outcomes for the counties, we used a standardized scoring process to compare different kinds of indicators. Scoring is based on making comparisons to other counties, to state and national averages, and to previous years, depending on what comparisons are available.

Scoring Scale:



Scoring is done in four stages:

1. For each indicator for each county, we made all available comparisons to determine the standardized score (e.g. How much better or worse is Kalkaska's smoking rate than the state average? How much better or worse is it than five years ago?). For each indicator, between one and six comparisons are made. The standardized score will be between 0 and 3 (e.g. Kalkaska County score for "Smoking Rate" is 3.0).
2. Summarize indicator scores by averaging all the indicator scores within each topic area (e.g. Kalkaska County score for Substance Use is 2.1).
3. Summarize topic area scores for the region by averaging the scores of the counties in the region for each topic area (e.g. The regional score for Substance Use is 1.8).

All Topic Areas - Alphabetical Order												
# Scored Indicators Within Topic Area	Topic Area	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score	10-county Region Score
16	Access to Care	1.7	1.9	0.9	1.0	1.0	2.3	1.3	1.5	1.9	1.7	1.5
8	Cancer	1.3	1.6	1.1	1.5	1.6	1.6	0.7	1.7	1.3	1.9	1.4
2	Crime & Violence	1.5	1.0	0.0	0.0	1.5	2.0	0.0	1.3	1.8	2.3	1.1
4	Diabetes	1.1	1.6	0.8	0.1	0.4	2.5	0.9	1.2	1.8	1.4	1.2
5	Education	1.3	1.7	0.8	0.6	0.9	2.2	1.1	2.0	1.6	1.8	1.4
1	Employment	0.3	0.5	0.5	0.3	0.0	2.3	0.5	1.8	1.0	1.3	0.8
10	Food Access	0.5	1.3	0.6	1.0	1.5	1.0	0.4	0.9	1.4	1.6	1.0
5	Heart Disease & Stroke	0.3	0.8	0.5	0.6	0.9	2.5	0.8	0.3	1.6	1.4	1.0
3	Housing Instability	0.6	0.3	0.1	1.4	0.3	0.3	0.1	0.8	0.9	0.6	0.5
1	Housing Quality	2.5	0.5	0.5	1.0	1.5	2.5	2.0	0.5	1.5	2.0	1.5
3	Immunization	2.3	1.8	1.8	1.8	1.5	2.1	2.3	2.2	2.2	1.8	2.0
3	Infectious Disease	1.1	1.6	0.8	0.4	0.3	1.8	0.8	1.2	0.4	1.0	0.9
6	Injury	2.5	2.3	1.0	1.3	1.6	2.8	0.8	2.5	1.8	2.5	1.9
8	Maternal Health	1.0	1.1	1.1	0.9	1.1	1.7	1.4	1.6	1.5	1.3	1.2
6	Mental Health	1.9	1.2	1.9	2.2	2.1	2.1	2.1	1.8	1.9	2.3	2.0
2	Neighborhood	1.0	1.0	1.0	0.5	1.5	1.0	0.5	1.5	0.5	1.5	1.0
3	Obesity	2.4	2.1	1.5	1.3	1.3	2.4	1.3	1.4	1.8	1.5	1.7
4	Oral Health	0.8	0.8	0.0	0.0	0.3	0.8	0.9	0.6	1.3	0.8	0.6
17	Other Chronic Diseases	1.9	1.9	1.7	1.4	1.2	2.4	1.6	1.7	2.6	2.1	1.8
8	Overall Health	0.7	1.0	0.3	0.3	0.1	2.5	0.0	1.1	1.2	2.5	1.0
4	Physical Activity	2.0	1.5	0.6	0.6	0.8	2.0	1.0	1.0	1.3	1.1	1.2
11	Poverty & Food Insecurity	1.2	0.8	0.7	0.6	0.3	2.4	0.1	1.7	2.1	2.2	1.2
3	Sexual Health	2.1	1.8	1.5	2.0	2.2	2.1	2.0	1.7	1.7	2.2	1.9
6	Social & Community Context	2.2	2.2	2.1	1.7	1.6	2.3	1.9	2.7	1.9	2.3	2.1
14	Substance Use	1.7	2.3	1.7	1.4	1.7	2.2	1.0	1.9	2.1	2.0	1.8
3	Transportation	1.7	2.3	1.3	1.2	1.3	1.7	1.0	1.6	1.3	1.4	1.5

Additional Data Tables - Selected Indicators

DEMOGRAPHICS

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2016	Population ¹	9,928,300	23,144	17,572	26,174	33,182	92,084	17,263	21,765	24,373	15,102	33,163
2016	% Female ¹	50.8	50.3	50.6	50.6	50.5	50.6	48.8	50.9	48.0	49.1	50.2
2016	% < 18 ¹	22.1	18.3	18.5	19.8	19.8	20.5	21.4	16.3	17.4	23.2	23.5
2016	% 65 and over ¹	16.2	26.3	25.2	22.5	21.4	18.3	19.4	29.9	24.4	20.0	18.3
2016	% American Indian/ Alaskan Native ¹	0.7	1.1	1.7	1.7	3.8	1.3	0.9	3.7	2.3	0.9	0.7
2016	% Hispanic ¹	5.0	2.1	2.5	1.8	1.6	2.8	1.9	4.0	2.9	2.7	1.8
2016	% Non-Hispanic White ¹	75.4	95.0	93.8	93.9	91.4	92.5	94.5	90.5	89.2	94.1	94.7
2010	% Rural ¹	25	100	100	70.4	74.9	48.0	84.4	91.3	61.2	100.0	64.3
2018	% students who identify as gay, lesbian, or bisexual ²	*	13	*	*	8	11	13	4	0	*	10

¹ County Health Rankings; ² Michigan Profile for Healthy Youth; *Data not available

OVERALL HEALTH

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2014-2016	Years Potential Life Lost per 100,000 ¹	7,293	6,519	7,635	6,168	5,161	4,861	8,457	5,904	6,888	6,879	8,655
2018	Health Outcome Rank (Out of 83) ¹	*	17	38	11	6	2	62	7	32	23	67
2018	Health Factors Rank (Out of 83) ¹	*	27	22	11	9	5	72	7	60	32	53
2017	Self-Reported General Health Assessment: Poor or Fair (%) ³	18	17	11	16.1	16	11.1	24.8	14.6	14.8	16.9	17

¹ County Health Rankings; ² Michigan Profile for Healthy Youth; ³ Michigan Behavioral Risk Factor Surveillance Survey; *Data not available

BASIC NEEDS

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2014 - 2016	Households with severe housing quality problems (%) ¹	16	17	14	14	15	15	17	16	14	15	16
2018	Access to Exercise Opportunities (%) ¹	86	73	82	91	88	87	72	64	88	64	79
2018	Work outside County of Residence (%) ⁴	29	48	49	31.4	11.6	9.6	52.3	42	23.9	47.2	25.2
2017	Unemployment rate (%) ⁴	7	6	7	6	6	5	9	6	8	7	7
2013-2017	Below the poverty level (% of population) ⁴	16	13	10	12	11	10	19	8	15	16	17
2016	Children 0-12 Eligible for Subsidized Care (%) ⁵	3	2	2	3	2	3	4	2	3	2	4
2016	Children 0-12 Receiving Subsidized Care (%) ⁵	2	1	1	1	2	1	2	1	1	1	3
2016	Food Insecurity Rate (%) ⁶	14	12	11	11	12	10	13	9	13	12	14
2015	Low access to grocery store (% of population) ⁷	*	0	*	5.5	11.6	18.6	6.1	2.3	10.0	4.5	10.0
2014	Students eligible for free lunch (%) ⁷	*	42	45	34.3	29.6	26.9	50.2	32.3	46.4	47.5	48.9
2014	Students eligible for reduced-price lunch (%) ⁷	*	10.2	7.5	8.7	7.8	7.0	6.3	5.7	7.2	10.1	7.7

¹ County Health Rankings; ² Michigan Profile for Healthy Youth; ³ Michigan Behavioral Risk Factor Surveillance Survey; ⁴ American Community Survey; ⁵ Kids Count Data Center; ⁶ Feeding America; ⁷ USDA Food Environment Atlas; *Data not available

MENTAL HEALTH

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2017	Mental Health Providers per 100,000 population ¹	232	35	102	153	253	384	41	41	123	20	196
2017/2018	Teens: symptoms of a major depressive episode (%) ²	*	41	*	80	36	43	34	30	16	n/a	33
2017	Adults: Poor Mental Health on at Least 14 Days in the Past Month (%) ³	*	10	*	7.8	10.4	9.2	*	*	17.5	*	9.6
2012-2016 5yr avg	Intentional Self-harm (suicide) (mortality rate per 100,000 population) ⁸	13	17	*	17	15	14	*	*	21	*	18
2015	Adults 65+: Depression (%) ⁹	15	12	13	14.9	15.7	17.8	14.3	14.5	13.5	13.3	15.6

¹ County Health Rankings; ² Michigan Profile for Healthy Youth; ³ Michigan Behavioral Risk Factor Surveillance Survey; ⁴ American Community Survey; ⁵ Kids Count Data Center; ⁶ Feeding America;

⁷ USDA Food Environment Atlas; ⁸ MDHHS Vital Records; ⁹ Center for Medicare and Medicaid Services; *Data not available

SUBSTANCE USE

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2012-2016	% of motor vehicle deaths alcohol-impaired ¹	29	40	33	67	35	15	24	25	23	13	26
2017/2018	Teens: used marijuana during the past 30 days (%) ²	*	16	23	16	11	22	15	7	17	*	13
2017/2018	Teens: at least one drink of alcohol during the past 30 days (%) ²	*	17	24	25	12	26	16	12	19	*	18
2017/2018	Teens: smoked cigarettes during the past 30 days (%) ²	*	7	12	8	7	8	13	1	8	*	7
2017/2018	Teen: vaping past 30 days (%) ²	*	24	24	35	25	39	24	16	31	*	12
2017/2018	Teens: took a prescription drug not prescribed to them, including painkillers, during the past 30 days (%) ²	*	4	9	5	3	7	7	4	6	*	6
2017	Adult: Binge Drinking (%) ³	19	17	18	14.9	17.4	22.7	*	16.1	18.1	23	12.2
2017	Adult: Current Smoker (%) ³	19	18	19	20	20	17	31	11	22	23	28
2012-2016	Smoked while pregnant (%) ⁸	18	28	29	26	24	20	35	14	34	23	30
2014	Drug Use Mortality (per 100,000 population) ¹⁰	13	11	11	8	7	9	12	7	14	9	14
2017	Heroin Treatment Admission Rate (per 100,000 population) ¹¹	252	151	131	110.8	120.55	177.01	301.22	45.95	77.96	66.22	274.4

¹ County Health Rankings; ² Michigan Profile for Healthy Youth; ³ Michigan Behavioral Risk Factor Surveillance Survey; ⁴ American Community Survey; ⁵ Kids Count Data Center; ⁶ Feeding America;

⁷ USDA Food Environment Atlas; ⁸ MDHHS Vital Records; ⁹ Center for Medicare and Medicaid Services; ¹⁰ Institute for Health Metrics and Evaluation; ¹¹ MDHHS, Vital Hepatitis Surveillance and Prevention Unit; *Data not available

ACCESS TO CARE

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2015	Preventable Hospital Stays (per 1000 Medicare enrollees) ¹	55	35	32	45	41	45	52	28	59	45	53
2018	Clinical Care Rank (out of 83 counties) ¹	*	35	33	14	5	3	55	28	34	54	17
2016	Dentists per 100,000 population ¹	72	26	40	138	96	93	29	41	66	13	66
2015	Primary Care Providers per 100,000 population ¹	80	52	40	88	127	139	41	32	65	27	103
2017/2018	Teens: routine check-up in the past year (%) ²	*	70	70	73	75	69	61	81	74	*	69
2017	Adults: no personal health care provider (%) ³	15.2	10.9	*	12	15.1	14.7	*	12.1	17.7	19.8	17.7
2017	Adults: Needed to see doctor, cost prevented care (%) ³	11	13	15	9	18	11	*	8	16	12	16
2013-2017	Adults 19-64: Uninsured (%) ⁴	10	13	13	11	13	10	16	9	13	14	15
2016	Children 0-18: Insured by MiChild (%) ⁵	42	48	46	40	37	34	56	28	48	51	54

¹ County Health Rankings; ² Michigan Profile for Healthy Youth; ³ Michigan Behavioral Risk Factor Surveillance Survey; ⁴ American Community Survey; ⁵ Kids Count Data Center; ⁶ Feeding America; ⁷ USDA Food Environment Atlas; ⁸ MDHHS Vital Records; ⁹ Center for Medicare and Medicaid Services; *Data not available

SENSE OF COMMUNITY

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2012-2016	Children living in single-parent households (%) ¹	34	31	33	31	28	27	31	24	38	28	36
2018	Social & Economic Factors Ranking (out of 83 counties) ¹	*	39	38	19	10	9	72	13	77	31	51
2017/2018	Teens: 2 or more ACEs (Adverse Childhood Experiences) (%) ²	*	40	*	40	38	40	43	30	39	*	*
2017/2018	Teens: know adults in the neighborhood they could talk to about something important (%) ²	*	56	55	52	49	49	52	54	42	*	56
2017/2018	Teens: Sexual Intimate Partner Violence against Females (%) ²	*	16	15	24	11	22	9	*	18		14
2013-2017	Households with broadband internet (%) ⁴	81	76	83	80	81	86	72	86	78	74	72
2013-2017	Householders living alone (over 65) (%) ⁴	44	*	*	44	*	*	*	*	*	*	*

¹ County Health Rankings; ² Michigan Profile for Healthy Youth; ³ Michigan Behavioral Risk Factor Surveillance Survey; ⁴ American Community Survey; ⁵ Kids Count Data Center; ⁶ Feeding America; ⁷ USDA Food Environment Atlas; ⁸ MDHHS Vital Records; ⁹ Center for Medicare and Medicaid Services; *Data not available

LEADING HEALTH RISKS

Date Year	Indicator	MI	Antrim Score	Benzie Score	Charlevoix Score	Emmet Score	Grand Traverse Score	Kalkaska Score	Leelanau Score	Manistee Score	Missaukee Score	Wexford Score
2010-2016	% of motor vehicle deaths alcohol-impaired ¹	10	16	19	8	13	10	23	10	15	18	21
2012-2016	Firearm Fatalities Rate per 100,000 ¹	12	15	*	14	11	7	14	*	11	*	*
2017/2018	Teens: current asthma (%) ²	*	56	56	56	49	50	50	54	68	*	62
2017/2018	Obese teens (%) ²	*	18	17	15	15	13	19	13	16	*	19
2017/2018	Overweight teens (%) ²	*	19	16	15	14	16	18	13	20	*	19
2017	Adults who are Obese (%) ³	32	35	33	25	27	25	36	28	28	32	32
2017	Adults who are Overweight (%) ³	35	37	41	36.6	35.9	39.8	35	39.8	34.8	31.1	31.3
2017	Adult: Ever told Diabetes (%) ³	11	13	12	11.1	7.5	7.5	*	12	9.3	10.2	14.4
2017	Adult: Cardiovascular Disease (%) ³	*	10	11	11.6	10.6	7.9	10.2	14.1	11.3	13.3	10.4
2011-2015	All Cancer Incidence Rate (per 100,000 population) ¹²	518	530	540	526.6	547.1	635.0	502.8	392.3	524.9	459.0	595.2
2011-2015	Prostate Cancer Incidence Rate (per 100,000 population) ¹²	118	110	114	94.7	116.8	154.7	83.6	86.5	105.1	102.9	112.8
2011-2015	Breast Cancer Incidence Rate (per 100,000 population) ¹²	83	78	77	79.3	80.7	110.2	54.9	82.6	79.4	64.9	83.4
2015	Adults 65+: COPD (%) ⁹	14	11	9	10.6	9.9	10.8	14.0	8.4	12.6	14.0	15.7

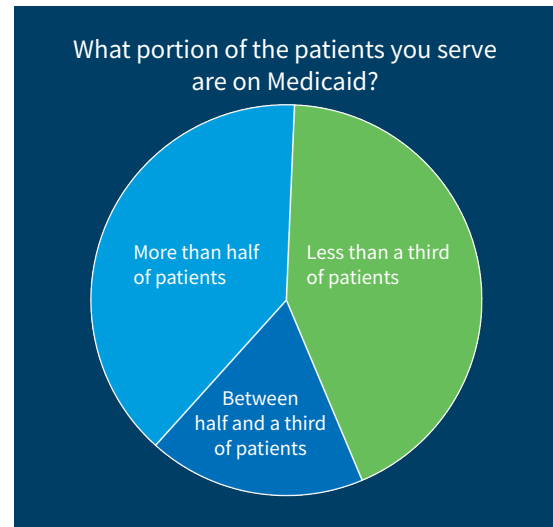
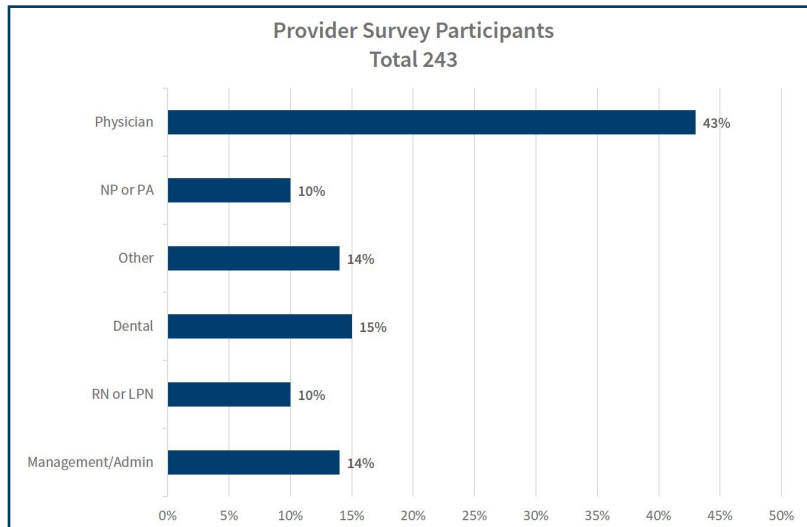
¹ County Health Rankings; ² Michigan Profile for Healthy Youth; ³ Michigan Behavioral Risk Factor Surveillance Survey; ⁴ American Community Survey; ⁵ Kids Count Data Center; ⁶ Feeding America; ⁷ USDA Food Environment Atlas; ⁸ MDHHS Vital Records; ⁹ Center for Medicare and Medicaid Services; ¹⁰ Institute for Health Metrics and Evaluation; ¹¹ MDHHS, Vital Hepatitis Surveillance and Prevention Unit; ¹² Michigan Cancer Surveillance Program; *Data not available

Secondary Data Limitations

- Since scores are based on comparisons, low scores can result even from very serious issues, if there are similarly high rates across the state and/or US.
- We can only work with the data we have, which can be limited at the local level in Northern Michigan. Much of the data we have has wide confidence intervals, making many of these data points inexact. For example, the smoking rate for Kalkaska County is recorded as 31% of adults. In reality, we can only say with confidence that the actual smoking rate is somewhere between 20% and 47%. While this leaves a great deal of uncertainty regarding the true smoking rate in Kalkaska County, it is enough to know smoking is an issue, since even the best-case scenario is worse than Michigan's average (19%).
- Some data is missing for some counties. As a result, the "regional average" may not include all counties in the region.
- Some topic areas had only one or a few indicators included in it; access to other relevant indicators may shift the score and paint a different picture. For example, only one indicator was available for housing quality. Indicators representing other aspects of housing quality may have changed the final score for the Topic Area. In contrast, substance use included 18 indicators; therefore, we have more confidence that a high score in this Topic Area is meaningful.
- Secondary data tells only part of the story. If we did not have indicators related to a certain topic, it will not show up as a priority in this part. Environmental data, for example, is significantly lacking. Viewing all the assessment holistically is therefore necessary.

Appendix C

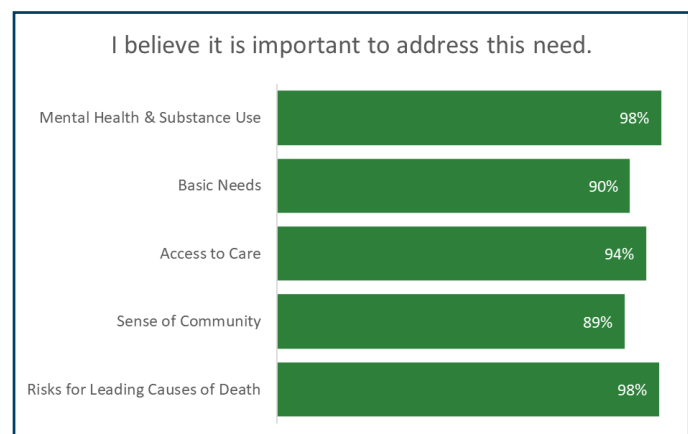
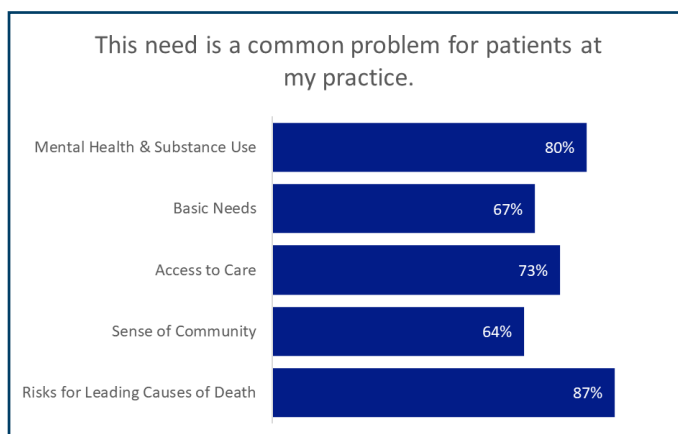
Healthcare Providers Survey Results for Northern Michigan CHIR 10-County Region



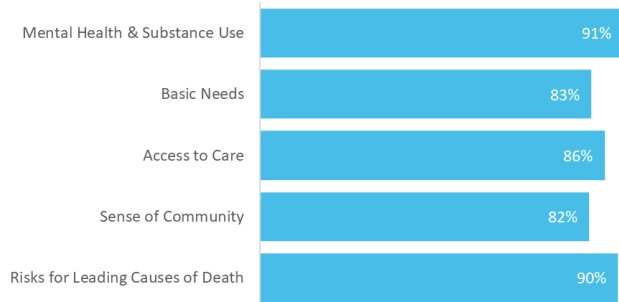
Strategic Issues ranked from 1 (Need to address first, most urgent) to 5 (Least urgent).

1. Improve prevention and access for mental health and substance abuse services (e.g. mental illness, alcohol, tobacco, drugs, vaping, etc.)
2. Improve access to comprehensive healthcare for all (e.g. provider shortages, appointment availability, insurance, etc.)
3. Address basic needs of living and promote equity (e.g. housing, food, transportation, safe water, etc.)
4. Improve prevention and reduce health risks for leading causes of death (e.g. heart disease, obesity, cancer, respiratory diseases, injury)
5. Foster a sense of community that promotes trust and inclusion (e.g. social isolation, discrimination, distrust of information, etc.)

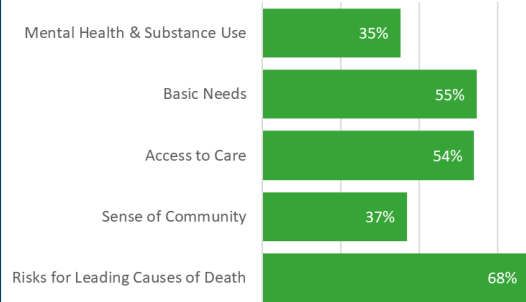
The following graphs show the percentage of respondents who **agreed or strongly agreed** with each statement.



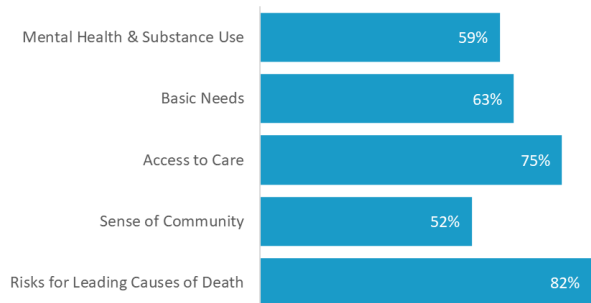
If this issue were better addressed, my patients' quality of life would improve.



Resources are available to help patients address this need.



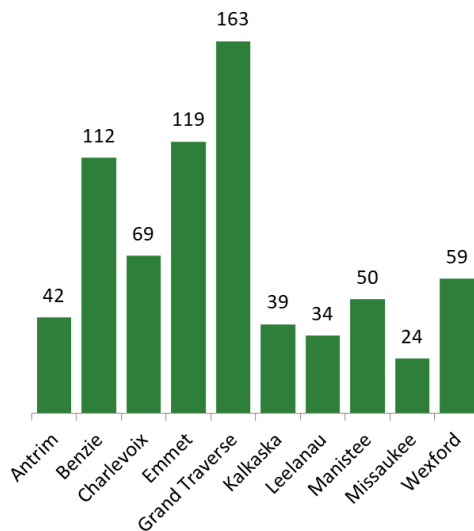
My practice is currently working to help patients address this need.



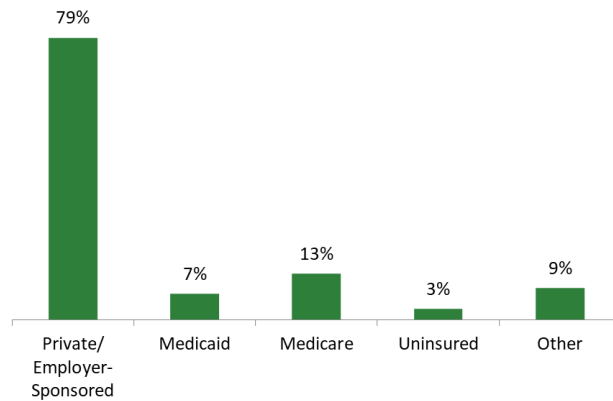
Appendix D

Community Survey Results for Northern Michigan CHIR 10-County Region

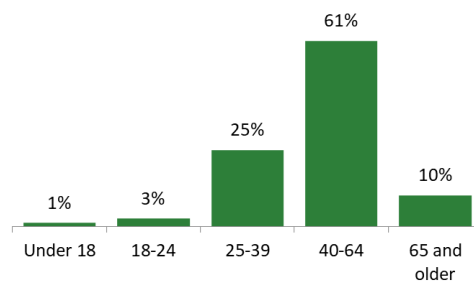
Which county do you live in?
(Total Respondents: 711)



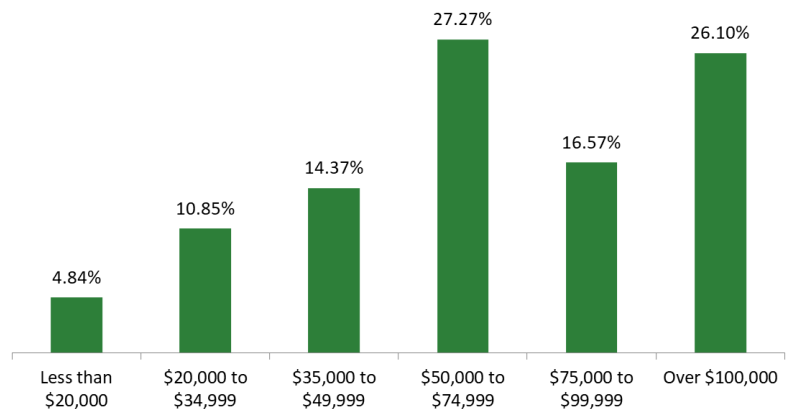
What kind of health insurance do you have?



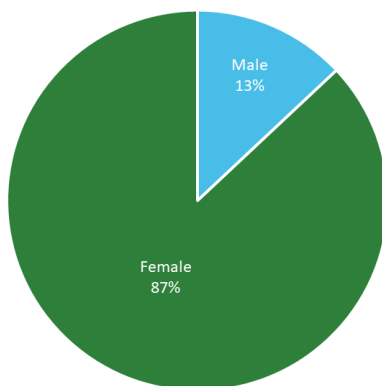
How old are you?



What is your yearly household income?



Gender



Strategic Issues ranked from 1 (Need to address first, most urgent) to 5 (Least urgent).

1. Make sure everyone can meet basic needs, like food, housing, safe water, transportation, etc.
2. Make it easier to get help for mental health and substance use, including better prevention (e.g. mental illness, alcohol, tobacco, drugs, vaping, etc.)
3. Make it easier for people to get the healthcare they need (e.g. more doctors, more appointment options, insurance, etc.)
4. Work on reducing risks for the leading causes of death, including heart disease, obesity, cancer, lung diseases, injury, etc.
5. Help build a sense of community so people feel more supported, included, and connected

The following graphs show the percentage of respondents who **agreed or strongly agreed** with each statement.

