

Northern Michigan Community Health Assessment and Improvement Initiative



2015

Community Health Assessment

Alpena • Antrim • Charlevoix • Cheboygan • Emmet • Montmorency • Otsego • Presque Isle



**Northern
Health
Plan**



A Note to the Community

March 2016

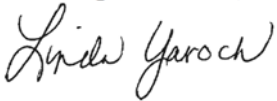
We are proud to present the 2015 Community Health Assessment Report, facilitated by the Health Department of Northwest Michigan with funding from the Northern Health Plan. It is a comprehensive collection and analysis of health status and needs in Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego and Presque Isle counties. We've learned too many of our residents, especially low-income residents:

- Are overweight or obese and don't spend adequate time engaged in physical activity;
- Lack access to healthy food and recreational facilities in their communities;
- Experience a variety of barriers to health care, including mental health services and substance use treatment; and
- Abuse alcohol, tobacco and other drugs.

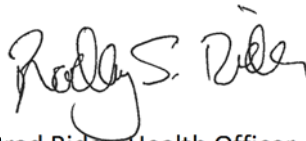
One stark fact about the health of our communities is clear: even the strongest partnership among hospitals, health care providers, and health departments cannot impact community health alone. High school graduation rates, community planning and design, access to healthy foods and recreational activities, and air and water quality have as much—or greater—impact on health than seeing a doctor or nurse when we are sick.

Gathering a wealth of information, analyzing data, and setting priorities lays the foundation to a Community Health Improvement Plan that address the top needs in the region. On behalf of the Community Health Assessment & Improvement Initiative, we invite you to join us as we work together to improve health and quality of life for all Northern Michigan residents. To get involved, please contact Jane Sundmacher, Community Health Planner, at 231-347-5041 or jane.sundmacher@nwhealth.org.

Yours in good health,



Linda Yaroch, Health Officer
Health Department of Northwest Michigan



Brad Rider, Health Officer
District Health Department #4

America leads the world in medical research and medical care, and for all we spend on health care, we should be the healthiest people on Earth. Yet, for some of the most important indicators, like how long we live, we're not even in the top 25, behind countries like Bosnia and Jordan. It's time for America to lead again on health and that means taking three steps:

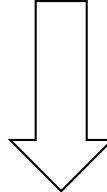
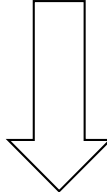
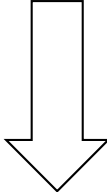
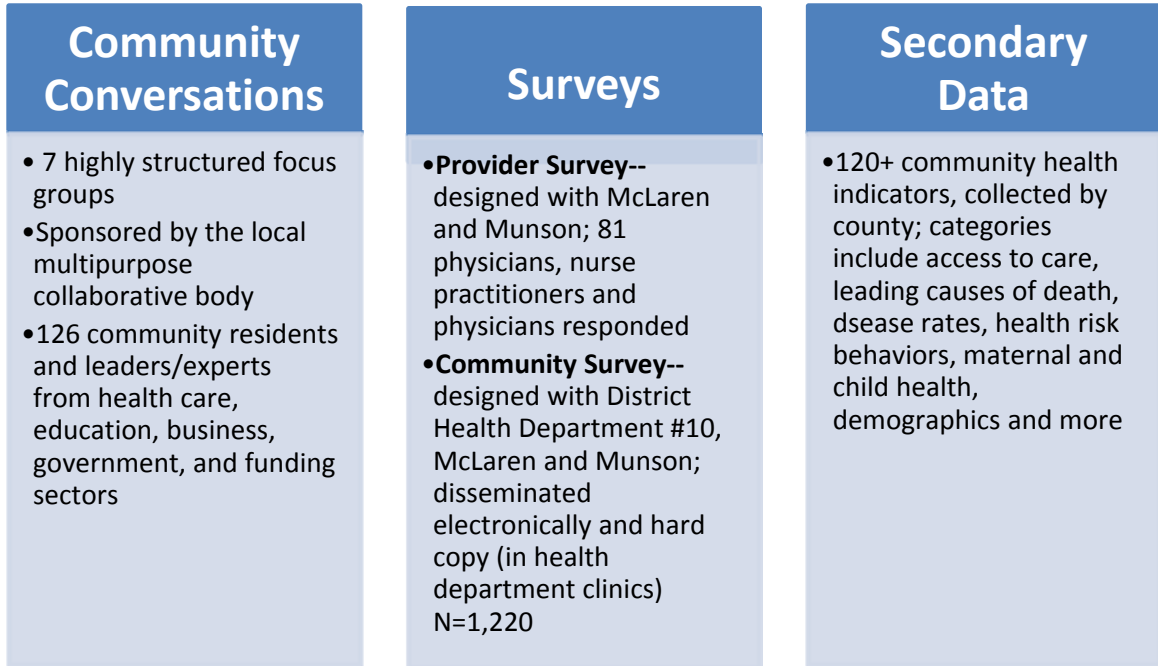
1. Ensure everyone can see a doctor when they are sick
2. Build preventive care into every health care plan and make it available to people who won't or can't go in for it
3. Stop thinking about health as something we get in the doctor's office.

Health is something that starts in our families, our schools, and our workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink. The more you see the problem of health this way, the more opportunities you have to improve it. Scientists have found that the conditions in which we live and work have an enormous impact on our health, long before we ever see a doctor. It's time to expand the way we think about health to include how to keep it, not just how to get it back.

A New Way to Talk About the Social Determinants of Health
The Robert Wood Johnson Foundation

NORTHERN MICHIGAN COMMUNITY HEALTH ASSESSMENT & IMPROVEMENT INITIATIVE
Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego and Presque Isle Counties

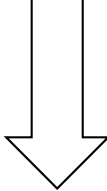
OVERVIEW



Data Review and Priority Ranking

Following review of the data collected in the community health assessment, 40 stakeholders ranked community health issues utilizing a Decision Matrix with the following criteria: severity, magnitude, impact, available resources and potential for success

- #1 Access to health care**, including behavioral, maternal/child, and oral health care
- #2 Chronic disease prevention**
- #3 Substance use**



Community Health Improvement Plan for 2016-2018			
Access to Care	Chronic Disease Prevention		Substance Use
Developed by leaders and experts from health departments, hospitals, FQHCs, Northern Michigan Regional Entity, CMH agencies and MSU School of Human Medicine	Developed by leaders and experts from health departments, hospitals, FQHCs, early childhood programs, MSU-Extension, MSU School of Medicine		Developed by leaders and experts from health departments, hospitals, Northern Michigan Regional Entity, CMH agencies, substance use prevention agencies, substance use treatment facilities and law enforcement
	Policy Systems Environmental Change	Community Linkages	Health Systems Change

EXECUTIVE SUMMARY

How healthy is Northern Michigan? How do we prevent disease, save lives, and save dollars? How do we work together so all residents can make healthy choices? These questions drove a comprehensive 6-month exploration utilizing a collaborative process in Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego and Presque Isle counties.

The Northern Michigan Community Health Assessment & Improvement Initiative is a remarkable collaboration of two health departments and three hospitals with funding from the Northern Health Plan. Leaders from each organization provided oversight to the project, led by the Health Department of Northwest Michigan.

Both primary data (Community Themes & Strengths Assessment) and secondary data (Community Health Status Assessment) were collected for the Community Health Assessment.

- **Community Themes & Strengths Assessment**

Nearly 1,400 residents of the 8-county region participated in the Community Themes & Strengths Assessment, which consisted of Community Conversations (a type of structured focus group), and two types of surveys (What Matters to You? Community Survey and Health Care Provider Survey).

- **Community Conversations**

126 residents and stakeholders participated in seven Community Conversation sponsored by the local multipurpose collaborative body in September and October 2015. Collectively, their response to the question, “What can we do to move closer to our vision of a healthy community?” is:

1. Assure and increase access to primary care, behavioral health, and substance use services
2. Increase awareness, utilization and provision of community resources
3. Provide health and wellness education across the lifespan
4. Engage residents in the community
5. Promote healthy lifestyles and increase access to healthy eating and physical activity
6. Develop economic opportunities
7. Offer community events for all age groups and abilities
8. Protect the environment
9. Enhance infrastructure for information technology

- **What Matters To You? Community Survey**

1,220 community residents completed the What Matters to You? Survey, which was designed by the Northern Michigan Health Network, hospitals and health departments. Questions and responses to key items from are below:

What are the most important factors for a healthy community?

- 1-Access to health care
- 2-Good jobs/healthy economy
- 3-Access to affordable healthy food
- 4-Good schools/high value on education
- 5-Affordable housing

What are the most important community health problems in your county?

- 1-Substance use
- 2-Overweight/obesity
- 3-Chronic disease
- 4-Mental health issues
- 5-Lack of affordable housing

- **Health Care Provider Survey**

81 physicians, nurse practitioners, and physician assistants completed the 2015 Health Care Provider Survey. Questions and responses to key items from the survey are below:

What are the most important factors for a healthy community?

- 1-Access to health care
- 2-Good jobs/healthy economy
- 3-Access to affordable healthy food
- 4-Good schools/high value on education
- 5-Affordable housing

What are the most important community health problems in your county?

- 1-Obesity/overweight
- 2-Mental health issues
- 3-Lack of access to health care
- 4-Tobacco use
- 5-Substance use

- **Community Health Status Assessment**

120+ demographic, health, and social/economic indicators were collected by county for the 8-county region. A spreadsheet, with description, source and year of data and Michigan statistics for comparison can be viewed at www.nwhealth.org.

Overall, the Community Health Status Assessment reveals a more homogeneous, less educated and poorer population than the State as a whole. Residents engage in health risk behaviors at greater rates than their peers elsewhere in Michigan, driving higher rates of chronic disease. There are many barriers to accessing health care in the rural region, including geography, lack of transportation options, and shortages of primary care and behavioral health providers.

Priority Ranking

40 stakeholders from across the region convened on December 4, 2015 to review and discuss primary and secondary data collected during the 2015 Community Health Assessment. Utilizing a Decision Matrix, they ranked priorities for the 8-county region as follows:

- #1 Access to health care, including behavioral health, maternal and child health, and oral health care
- #2 Chronic disease prevention
- #3 Substance use
- #4 Mental health
- #5 Health disparities

Community Health Improvement Plan

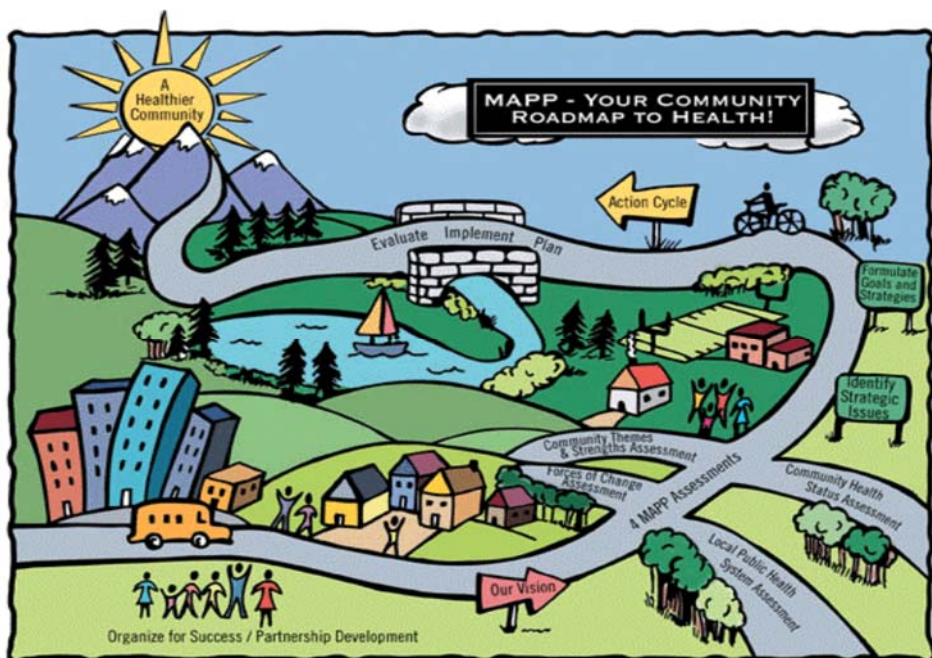
A regional Community Health Improvement Plan is available as a companion document to the Community Health Assessment. Developed by leaders and experts for top-ranked community health priorities, the Community Health Improvement Plan includes goals and objectives in alignment with Healthy People 2020, evidence-based strategies to implement, and identifies lead community partners for each strategy.

2015 Community Health Assessment

Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego and Presque Isle counties



The Northern Michigan Community Health Assessment & Improvement Initiative adapted the Mobilizing for Action through Planning & Partnerships (MAPP) framework for conducting the 2015 Community Health Assessment. Considered the “gold standard”, MAPP was developed by the National Association for County & City Health Officials with the US Centers for Disease Control & Prevention. It is not an agency-focused assessment instrument; instead, it is a community-driven planning tool that applies strategic thinking to priority issues and identifies resources to address them.



Three of the four MAPP assessments were utilized for the 2015 Community Health Assessment:

- Community Themes and Strengths Assessment
- Community Health Status Assessment
- Forces of Change Assessment

PHASE 1: Organizing for Success

The first phase of MAPP involves organizing the processes for collecting data for the community health assessment, prioritizing issues as indicated in the assessment, and developing a community health improvement plan to address each of those issues. The purpose of this phase is to build commitment, engage partners as active participants, and use partners’ time well. It results in a plan that can be realistically implemented. No one individual or organization can improve community health by themselves. MAPP is based on the premise that just about everyone has a stake in health, safety and well-being.

The Executive Committee of the Northern Michigan Community Health Assessment & Improvement Initiative is made up of leaders from two local health departments, three hospitals, and the county health plan. Early on, they decided on a combination of primary and secondary data collection methods that would not only provide an updated picture of health and quality of life in the eight-county region, but meet hospitals’ Community Benefit requirements and health departments’ Public Health Accreditation Board requirements. With funding from the Northern Health Plan (county health plan for the eight-county region), the Health Department of Northwest Michigan agreed to facilitate the project.

**Northern Michigan Community Health Assessment & Improvement Initiative
Executive Committee**

Linda Yaroch, Chair

Health Officer
Health Department of Northwest Michigan

Kathy Jacobsen

Director of Community Health Education
Munson Healthcare Charlevoix Hospital

John Bruning

Health Officer
District Health Department #4

Bruce Miller

Executive Director
Northern Health Plan

Therese Green

Director of Wellness Services and Community Relations
McLaren Northern Michigan

Christie Perdue

Director of Foundation and Marketing
Otsego Memorial Hospital

PHASE 2: Visioning

Visioning, the second phase of MAPP, provides focus, purpose, and direction to the MAPP process so that participants collectively achieve a shared vision of the future. It provides an overarching goal for the community:

Healthy people in healthy communities

PHASE 3: Conduct the assessments

Three MAPP assessments were facilitated in the eight-county region. Each one yields important information for improving community health, but their value is multiplied by considering the findings as a whole. Together, the assessments provide a complete view of the community.

Community Themes & Strengths Assessment

What issues are the most important to health and quality of life in our community?

The Community Themes & Strengths Assessment is a vital part of the community health improvement process. During this phase, community members' thoughts, opinions, concerns, and solutions are gathered. As a result, these individuals become more vested in the process, with a sense of ownership and responsibility for the outcome. A variety of methods may be used; the Initiative's Executive Committee selected a combination of surveys and a type of focus group to quantify community input.

Community Conversations

Seven Community Conversations were facilitated using the Technology of Participation's Consensus Workshop Method. A type of highly structured focus group, the Consensus Workshop Method utilizes a collective integrated thinking process and consists of individual brainstorming, small group discussion, and full group discussion. Sponsored by local multi-purpose collaborative bodies, Community Conversations were convened across the region in September and October 2015.

Special thanks to multipurpose collaborative body coordinators for assistance in sponsoring a Community Conversation:

Alpena County Human Services Coordinating Council

Barbara Porrett, Coordinator of Marketing
Alcona Health Centers

Antrim County Community Collaborative

Kate Kerr, Coordinator of Community Impact and Engagement
United Way of Northwest Michigan

Charlevoix-Emmet Human Services Coordinating Body

Marcia Campbell, Program Manager of Great Start Readiness Program
Charlevoix-Emmet Intermediate School District

Cheboygan Human Services Coordinating Body

Tracy Torrence, Executive Director
Cheboygan County United Way

Montmorency County Family Coordinating Council

Donna Hardies, Prevention Specialist
Catholic Human Services

Otsego Human Services Network

Laurie Andrews, RSVP Volunteer Coordinator
Otsego County United Way

Presque Isle County Human Services Coordinating Council

Mary Schalk, 4-H Youth Development Program Associate
Michigan State University Extension

126 residents and stakeholders participated in seven Community Conversations. They included representatives from health departments, hospitals, federally qualified health centers, home care and hospice agencies; community mental health and behavioral health providers; social service agencies, including those who serve older adults and disabled residents and/or provide housing, utility, or transportation assistance; colleges, MSU Extension, schools, and early childhood education programs; Chambers of Commerce and businesses; government, courts, and law enforcement, faith-based organizations; and United Way and foundations.

Collectively, their response to the question, “What can we do to move closer to our vision of a healthy community?” is:

1. Assure and increase access to primary care, behavioral health, and substance use services
2. Increase awareness, utilization and provision of community resources
3. Provide health and wellness education across the lifespan
4. Engage residents in the community
5. Promote healthy lifestyles and increase access to healthy eating and physical activity
6. Develop economic opportunities
7. Offer community events for all age groups and abilities
8. Protect the environment
9. Enhance infrastructure for information technology

For county or bi-county Community Conversation Reports, please see Attachment A.

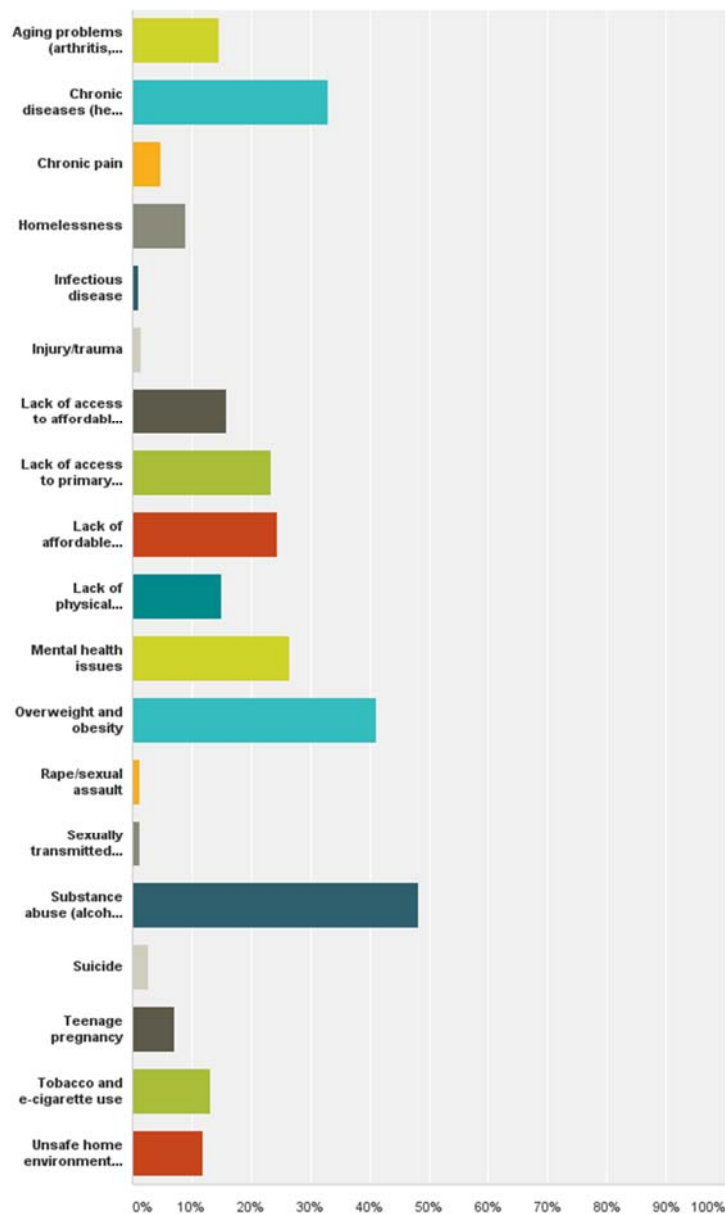
What Matters to You? Community Survey

The What Matters to You? Community Survey was designed for wide distribution across Northern Michigan in partnership with the Northern Michigan Health Network. In the eight tip of the mitt counties, it was disseminated through a Survey Monkey link to community partners via email. In addition, hard copies with a sub-set of survey questions were distributed to clients at local health department clinics to assure input from the low-income population. In all, 1,220 community residents completed the survey (See Attachment B).

Respondents from across the tip of the mitt region identified access to health care, good jobs/healthy economy, access to affordable healthy food, good schools/high value on education and affordable housing as the most important factors that define a healthy community. They identified substance use, obesity/overweight, chronic disease, mental health issues and lack of affordable housing as the top community health problems in their county.

Q2: Please check the THREE most important community health problems in your county.

Answered: 1,215 Skipped: 5



When asked which disease or conditions they had been diagnosed with, responses were, in rank order, obesity/overweight, high blood pressure, high cholesterol, asthma, and dental problems.

Top barriers to seeking health care are high deductibles and copays (adults, older adults and children); limited health insurance coverage (adults, older adults and children); inability to afford office visits (adults and older adults); difficult to set appointments (adults and children); and Emergency Room waiting time (older adults and children). In addition, adults also indicated their insurance does not cover dental services and older adults indicated their insurance does not cover medications. Finding a behavioral health provider is a barrier for children.

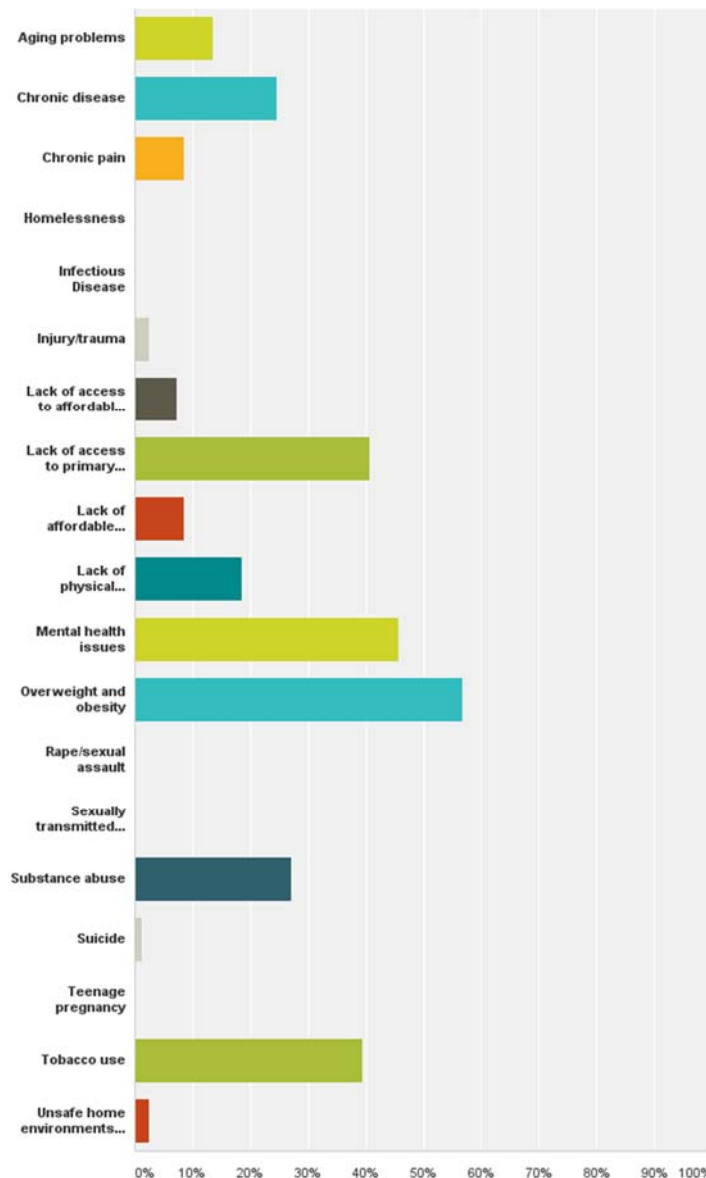
Health Care Provider Survey

Similarly to the What Matters to You? Community Survey, the Health Care Provider Survey was developed for wide distribution in partnership with hospitals. They disseminated the survey to 81 physicians, nurse practitioners, and physician assistants from McLaren Northern Michigan, Munson Healthcare Charlevoix Hospital and Otsego Memorial Hospital. (Please see Attachment C).

They ranked the following as the most important factors for a healthy community: access to health care, good jobs/ healthy economy, access to affordable, healthy food, good schools/high value on education and affordable housing. The identified obesity/overweight, mental health issues, lack of access to health care, and tobacco use and substance use as the top community health problems in the communities.

Q2: Check the three most important community health problems in the county you live in.

Answered: 81 Skipped: 0

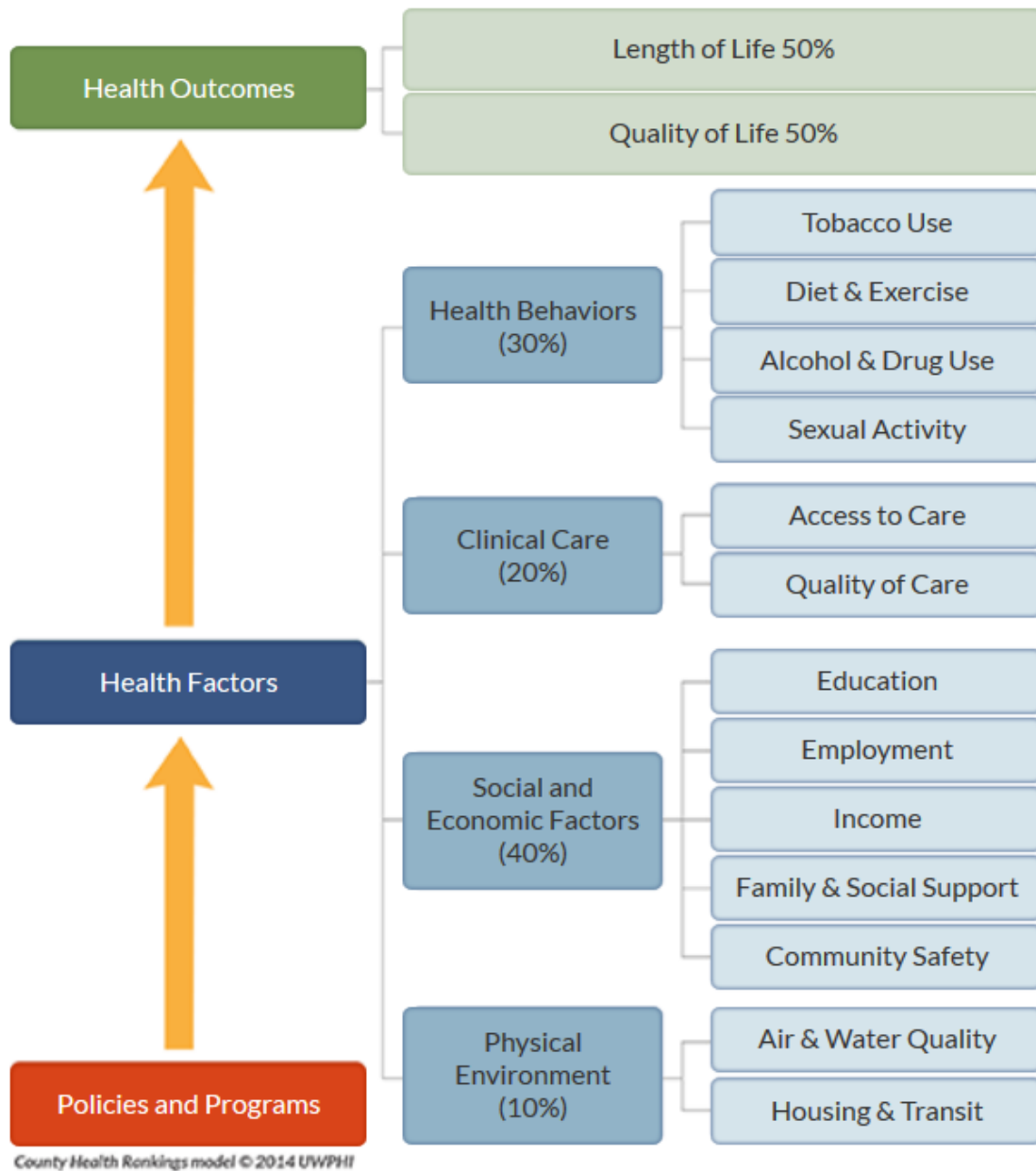


Community Health Status Assessment

Over 120 community health indicators were collected, organized and analyzed for each of the eight counties in the region, including statistics aligned with the Governor's Health & Wellness Dashboard. In addition, the Community Health Status Assessment includes social determinants of health and other statistics reported annually in the County Health Rankings. The County Health Rankings model for population health emphasizes inter-related factors that, if improved, can help make communities healthier places to live, work and play.

This database provides a wealth of information that can be accessed easily by the entire community for strategic planning, grant writing, and other data-driven activities. Many indicators are summarized below. For full descriptions of indicators, as well as source/year of data, comparisons to State rates and Healthy People 2020 Objectives (where applicable), visit www.nwhealth.org or partner hospital websites.

County Health Rankings Model

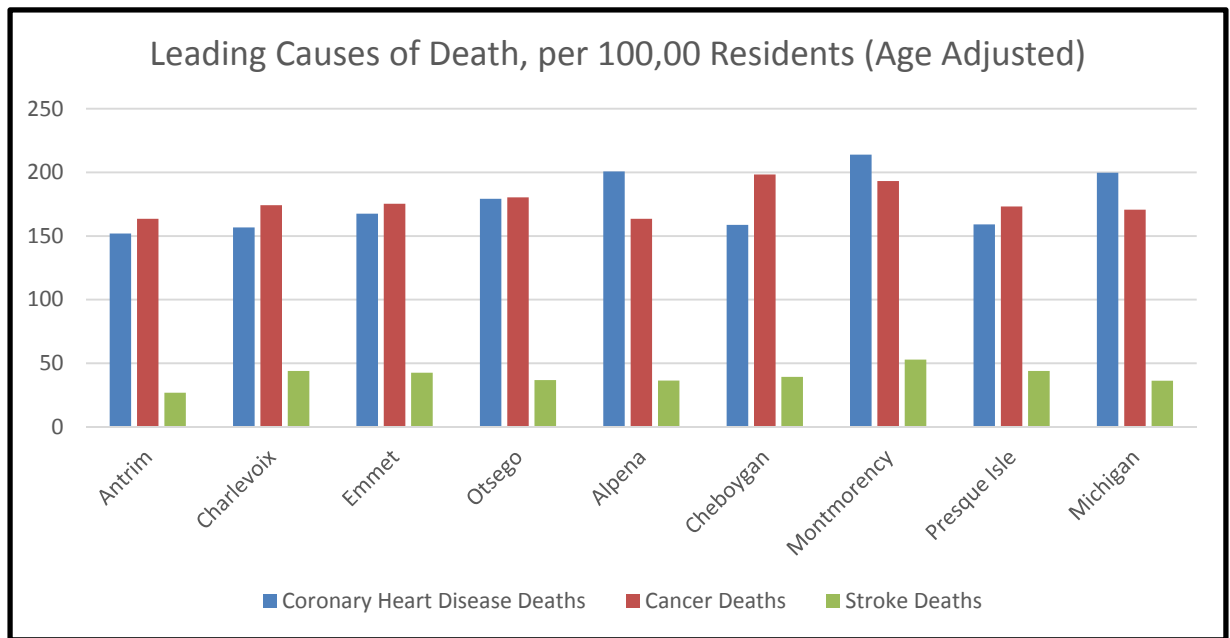


Health Outcomes

- **Premature death**

The County Health Rankings quantifies and compares health status of county populations by measuring the burden of premature deaths, an important measure of a population. Premature deaths are deaths that occur before a person reaches the age of 75. Many of these deaths are considered to be preventable. By examining premature mortality rates across communities and investigating the underlying causes of high rates of premature death, resources can be targeted toward strategies that will extend years of life.

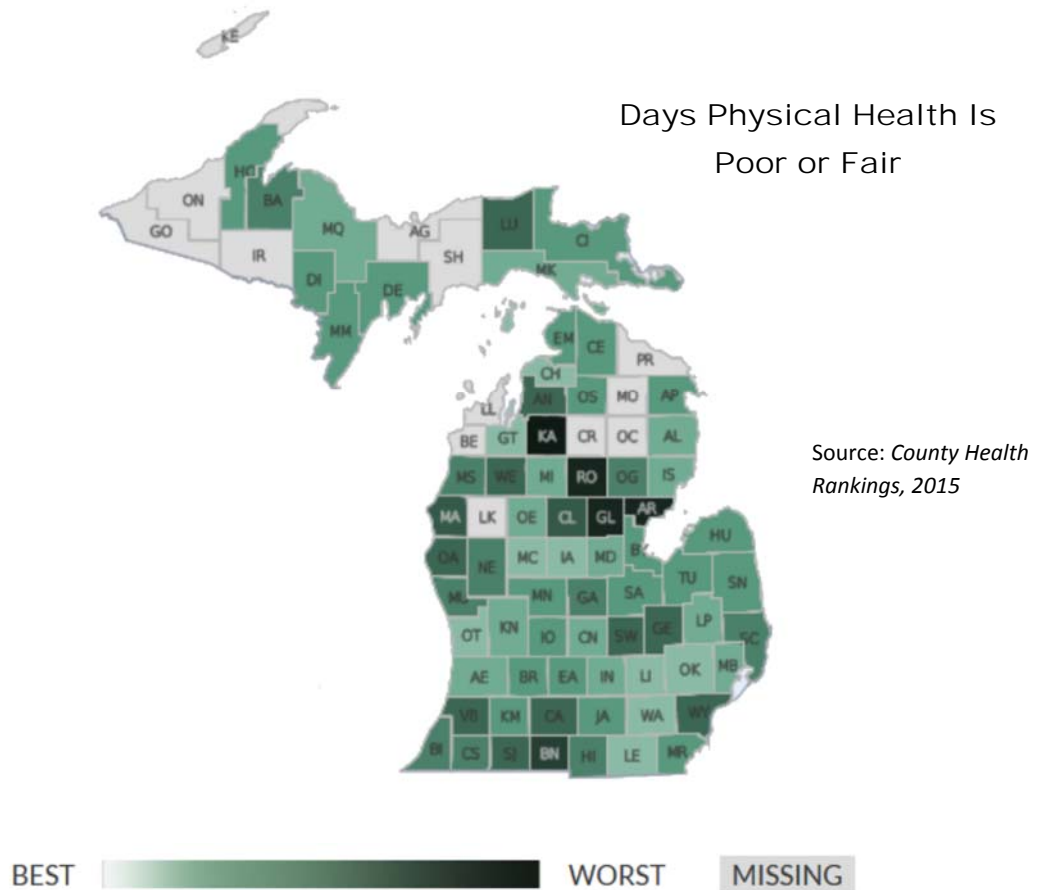
As a nation, more than 75% of health care spending is on people with chronic conditions, such as heart disease, cancer, stroke and diabetes. These persistent conditions—the nation’s leading causes of death and disability—leave in their wake deaths that could be prevented, lifelong disability, compromised quality of life, and burgeoning health care cost



Michigan Department of Health and Human Services, 2011-13
National Cancer Institute, 2008-2013

- **Health-Related Quality of life**

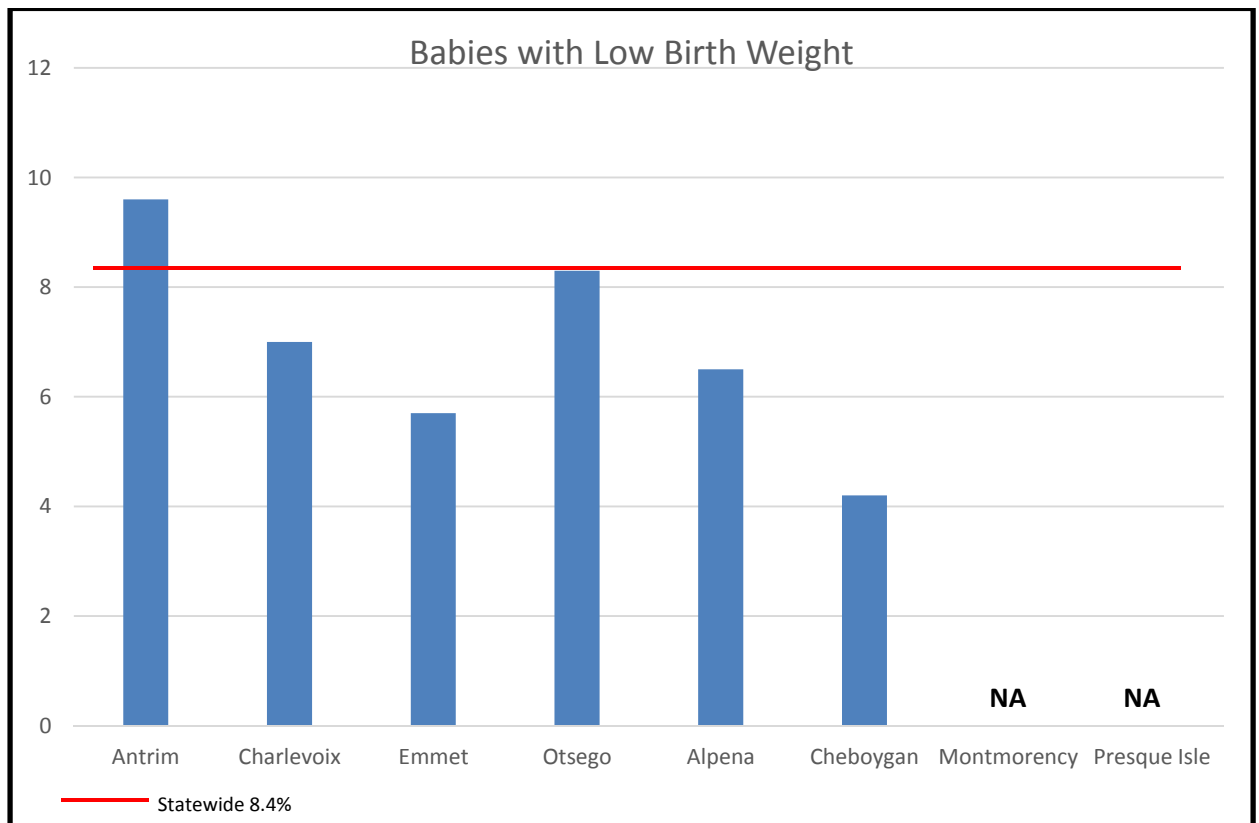
In addition to measuring how long people live, it is also important to study measures of how healthy people are while they are alive. Their reports of days when their physical health is poor or fair is a reliable estimate of health.



Mental and emotional wellbeing is also essential to overall health. Positive mental health allows people to realize their full potential, cope with the stresses of life, work productively, and make meaningful contributions to their communities. Anxiety, mood and impulse control disorders are associated with a higher probability of risk behaviors (tobacco, alcohol and other drug use), intimate partner and family violence, many other chronic and acute conditions (obesity, diabetes, cardiovascular disease, HIV/sexually transmitted infections) and premature death.

- **Low birthweight infants**

Improving the wellbeing of mothers, infants, and children is an important goal for the U.S. Low birth weight, which is when an infant weighs less than 2,500 grams (approximately 5 lbs, 8 oz) at birth, is a critical measure because it represents both maternal and infant health factors. Smoking, drug and alcohol use, lack of weight gain during pregnancy, and another pregnancy within six months are factors that contribute to low birth weight. Infants born to teenage mothers have a higher risk of low birthweight infants and may be more at risk for many health problems. Some babies become sick in the first six days of life or develop infections. Other babies may even suffer from longer-term problems, such as delayed motor and social development or learning disabilities.



Michigan Department of Health and Human Services, 2013

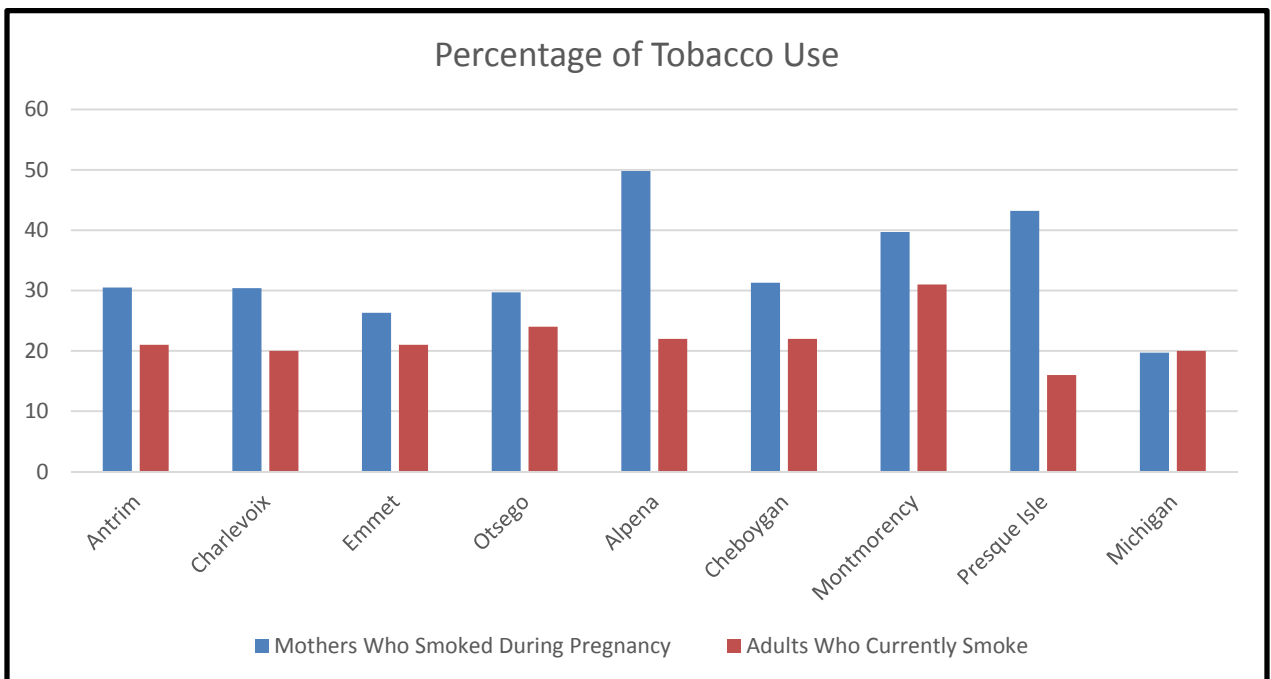
Health Factors

Health Behaviors

- **Tobacco use**

Tobacco use is the leading cause of disease, disability and death in the US. Living tobacco-free reduces risks of developing heart disease, various cancers, chronic obstructive pulmonary disease, periodontal disease, asthma, and other diseases. Tobacco-free living means avoiding use of all types of tobacco, including cigarettes, cigars, smokeless tobacco, pipes, and e-cigarettes—and also living free from secondhand smoke.

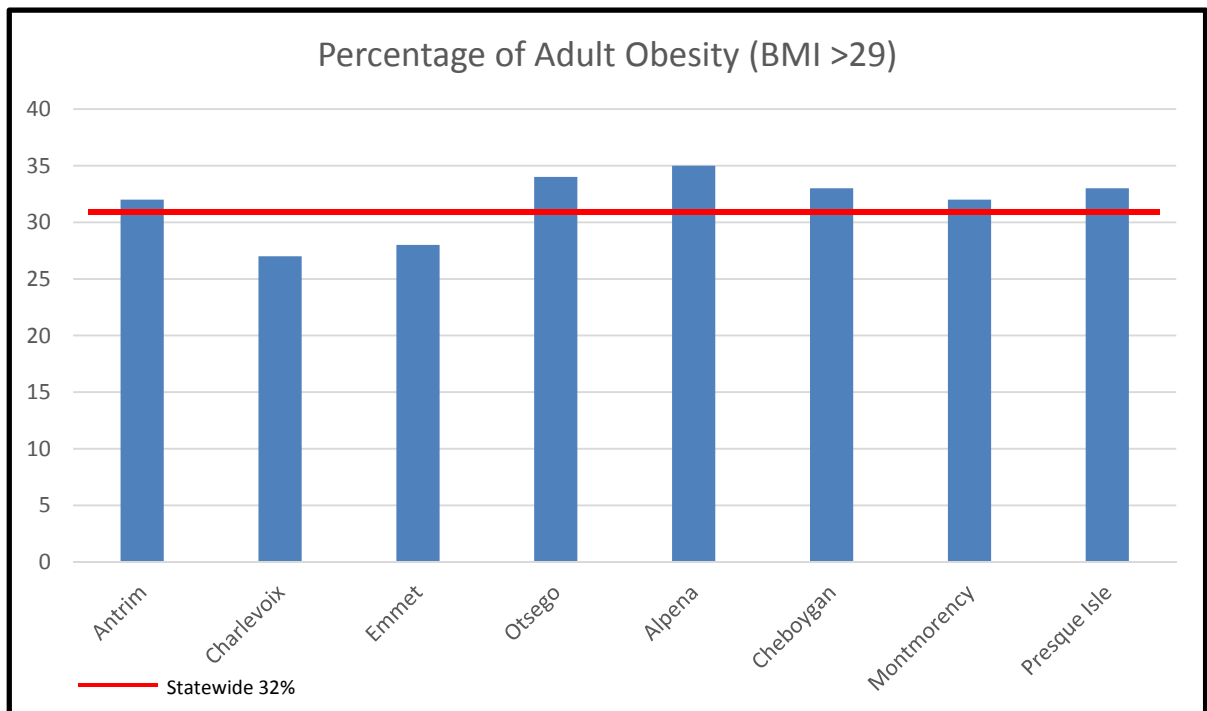
Adult smoking rates in the 8-county region exceed the State rate of 20%, and there is a strong correlation between tobacco use and income. In addition, maternal smoking rates are very high, ranging from 26% in Emmet County up to 50% in Alpena County and are even higher among low-income pregnant women.



County Health Rankings, 2015
Michigan Department of Health and Human Services, 2013

- **Obesity**

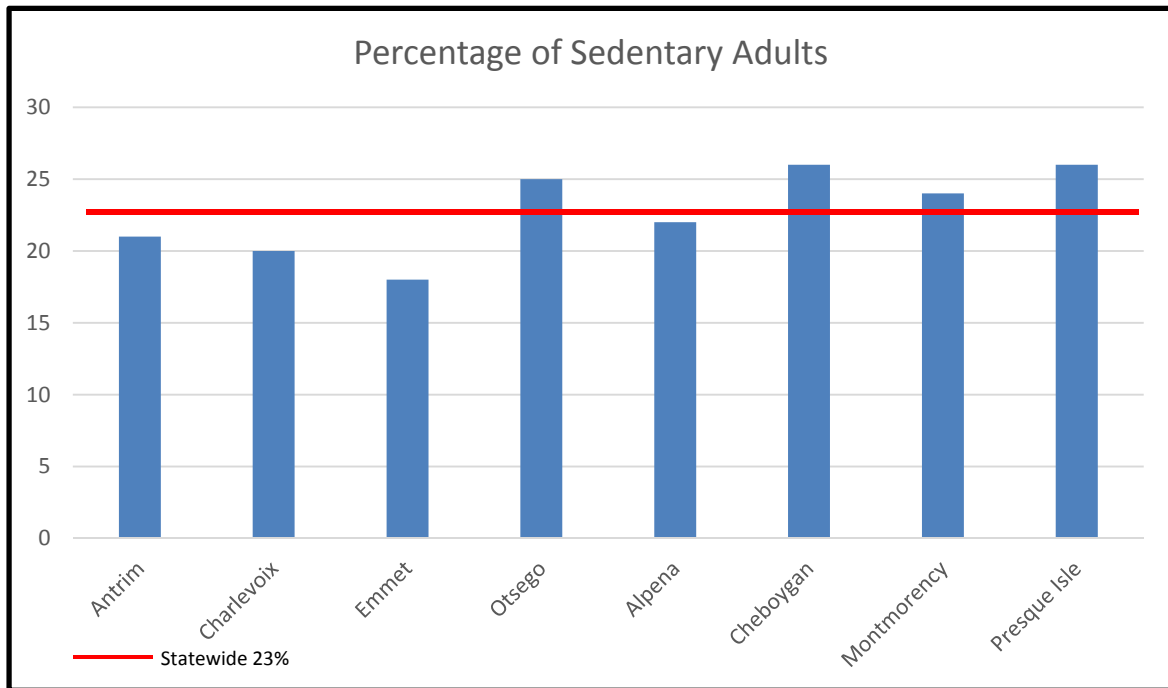
Obesity is often the end result of an overall energy imbalance due to poor diet and limited physical activity. It is common and serious, increasing the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, and osteoarthritis. The medical costs of obesity are staggering.



County Health Rankings, 2015

- **Physical activity**

Physical activity is one of the most important factors in improving one’s health. It strengthens bones and muscles, reduces stress and depression, and makes it easier to maintain a healthy body weight. Even people who do not lose weight from physical activity get substantive benefits from regular physical activity, including lower incidence of high blood pressure, diabetes, and cancer. Healthy physical activity includes aerobic exercise, muscle strengthening activities and activities to increase balance and flexibility. As described by the *Physical Activity Guidelines for Americans*, adults should engage in at least 150 minutes of moderate-intensity activity each week, and children and teenagers should engage in at least one hour per day.

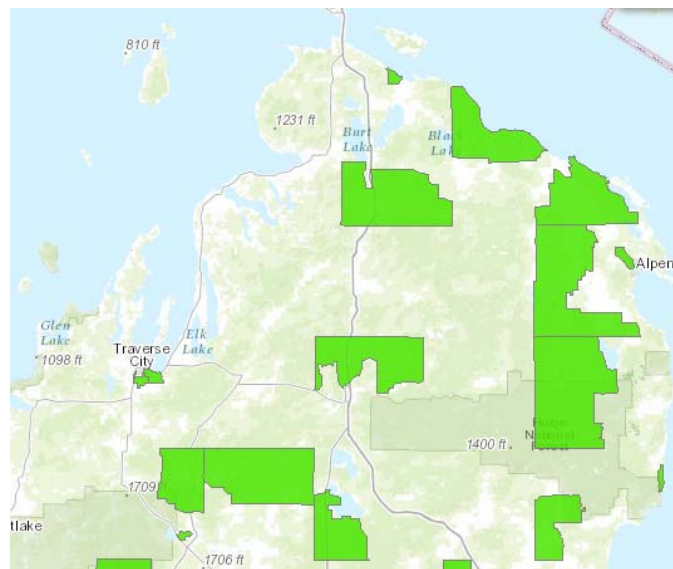


US Centers for Disease Control and Prevention, 2011

- **Healthy eating**

Though research on the food environment is still in its early stages, there is strong evidence that access to fast food restaurants and residing in food desert correlate with a high prevalence of overweight, obesity, and premature death. Supermarkets traditionally provide healthier options than convenience or smaller grocery stores. Not having access to fresh fruits and vegetables is an important barrier to consumption and is related to premature mortality.

Food Deserts



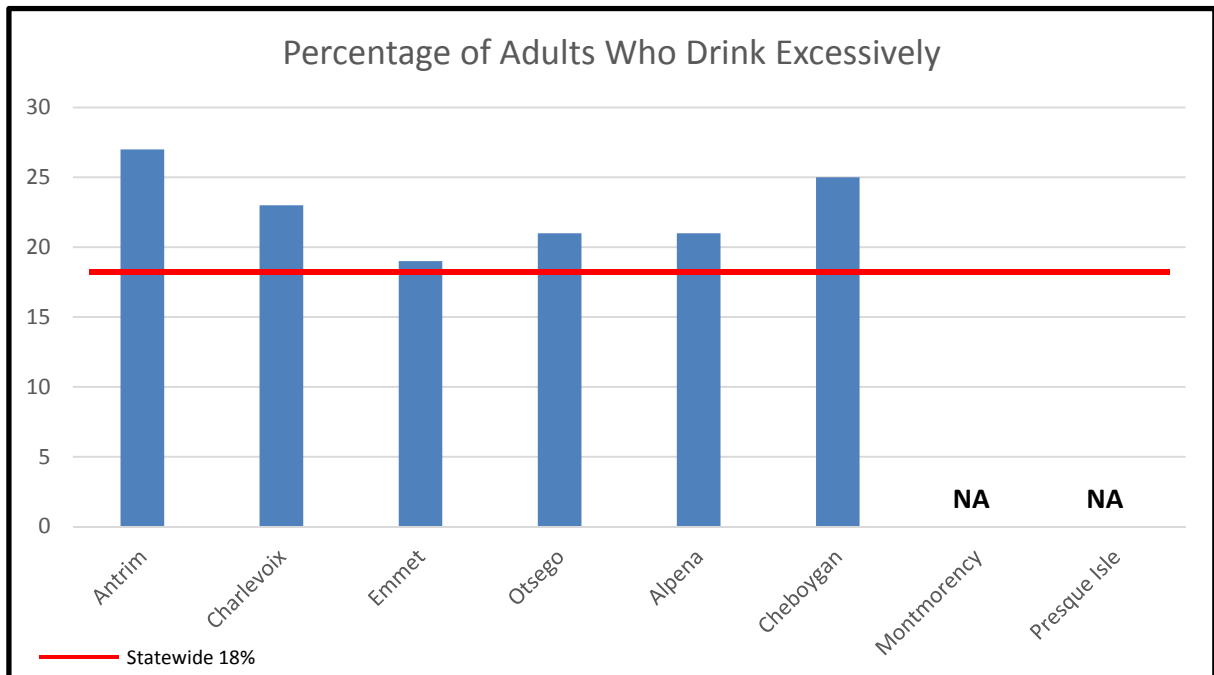
US Department of Agriculture, 2016

Access to healthy food can help reduce people’s risk for heart disease, high blood pressure, diabetes, osteoporosis, and several types of cancer, as well as help them maintain a healthy body weight. As described in *Dietary Guidelines for Americans*, eating healthy means consuming a variety of nutritious foods and beverages, especially vegetables, fruits, low and fat-free dairy products and whole grains; limiting intake of saturated fats, added sugars and sodium; keeping transfat intake as low as possible; and balancing caloric intake with calories burned to manage body weight.

- **Drug and alcohol use**

Preventing drug abuse and excessive alcohol use improves quality of life; academic performance, workplace productivity and military preparedness; reduces crime and criminal justice expenses; reduces motor vehicle crashes and fatalities; and lowers health care costs acute and chronic conditions. Alcohol and drug use can also impede judgment and lead to harmful risk-taking behavior.

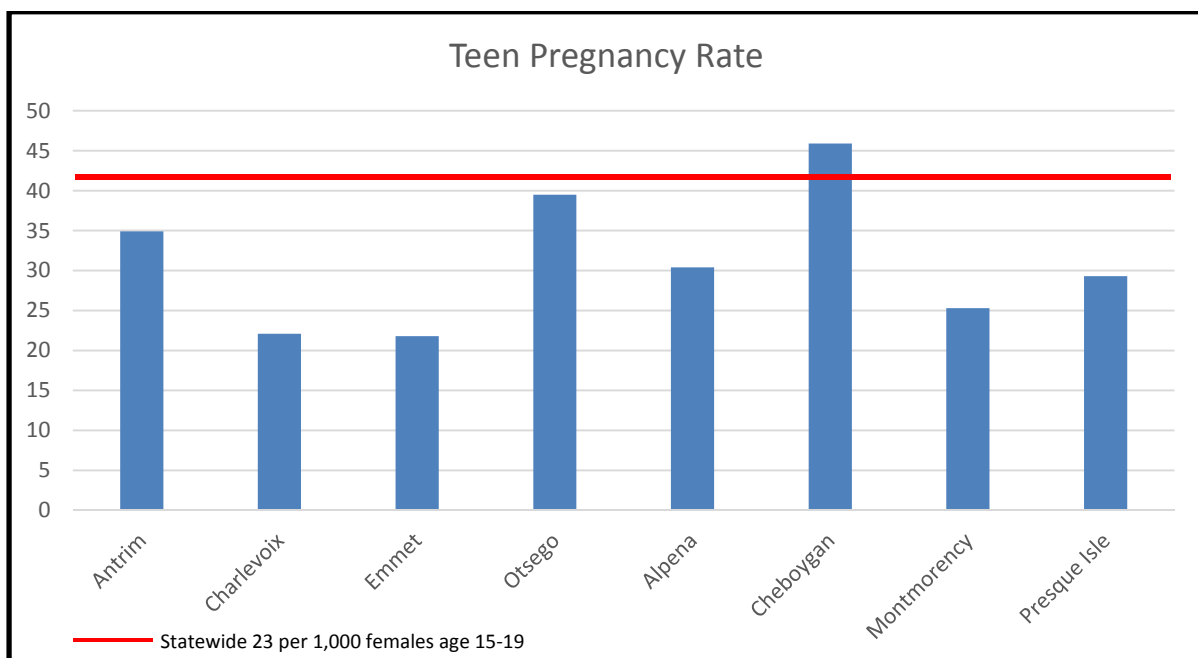
Excessive alcohol use includes binge drinking, underage drinking, drinking while pregnant, and alcohol-impaired driving. It is a risk factor for a number of adverse health outcomes, such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, and interpersonal violence.



County Health Rankings, 2015

- **Teen Pregnancy**

Teen pregnancy is associated with poor prenatal care and pre-term delivery. Pregnant teens are more likely than older women to receive late or no prenatal care, have gestational hypertension and anemia, and achieve poor maternal weight gain. They are also more likely to have a pre-term delivery and low birth weight, increasing the risk of child developmental delays, illness and death. Nearly 80% of teenage mothers will access government-supported programs. Their children are more likely to be incarcerated, drop out of high school, have more chronic health problems, and become teen parents themselves.



Michigan Department of Health and Human Services, 2013

Clinical Care

- **Access to health care**

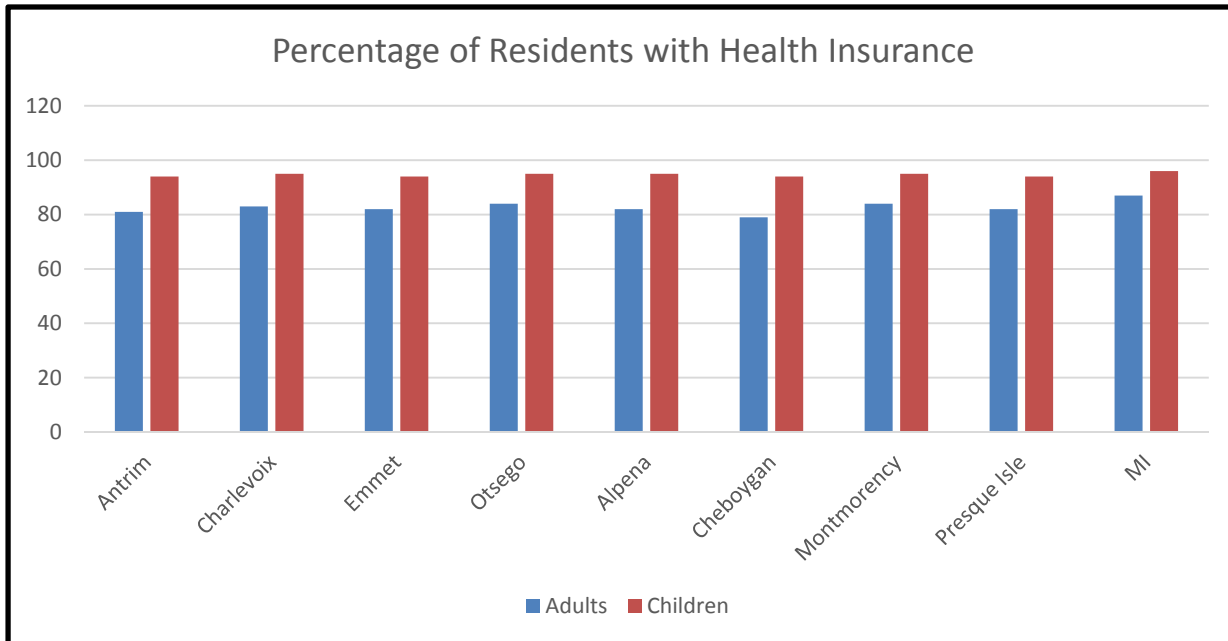
Access to health care measures accessibility to needed primary care, health care specialists, and emergency treatment. While having health insurance is a crucial step toward accessing the different aspects of the health care system, health insurance by itself does not ensure access. It is also necessary to have comprehensive coverage, providers that accept the individual's health insurance, relatively close proximity of providers to patients, and primary care providers in the community.

There are additional barriers to access in some populations due to lack of transportation to doctors' offices, lack of knowledge of about preventive care, long waits to get an appointment, low health literacy, and inability to pay the high-deductible of many insurance plans and/or co-pays for receiving treatment.

Lack of health insurance

Employment-based coverage is the largest source of health coverage in the US, and many unskilled, low paying and part-time jobs do not offer health coverage benefits. In general, employment status is the most important predictor of health care coverage in the US. Evidence shows that uninsured individuals experience more adverse outcomes—physically, mentally, and financially—compared to insured individuals. The uninsured are less likely to receive preventive and diagnostic health care services, are more often diagnosed at a later disease stage and, on average, receive less treatment for their condition compared to those with insurance. The Institute of Medicine reports that the uninsured population has a 25% higher mortality rate than the insured population.

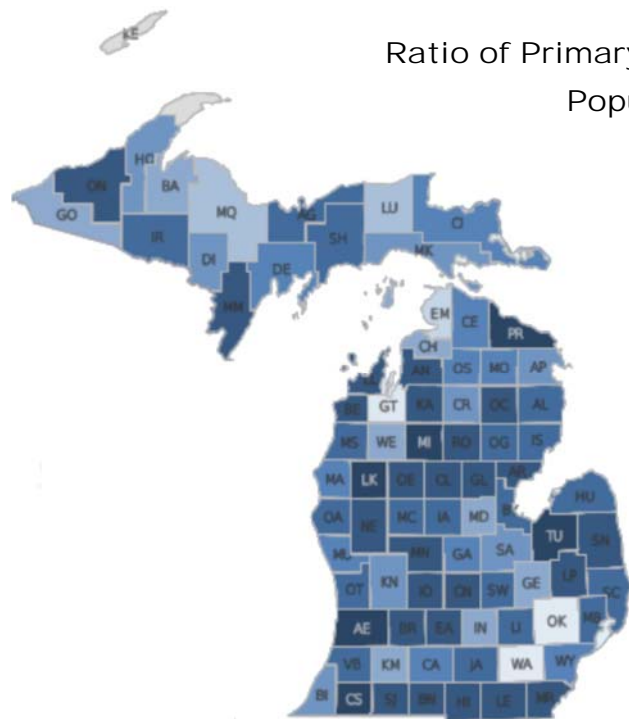
Overall the proportion of uninsured in Northern Michigan is higher than the State as a whole. However, with the enactment of the Affordable Care Act, and an intense outreach, education and enrollment effort in the eight-county region, the proportion of uninsured among the low-income population has declined precipitously.



County Health Rankings, 2015

Health care provider supply

Having access to care requires not only financial coverage, but also access to providers. Sufficient availability of primary care physicians is essential so that people can get preventive and primary care and, when needed, referrals to specialty care.



Ratio of Primary Care Providers to Population

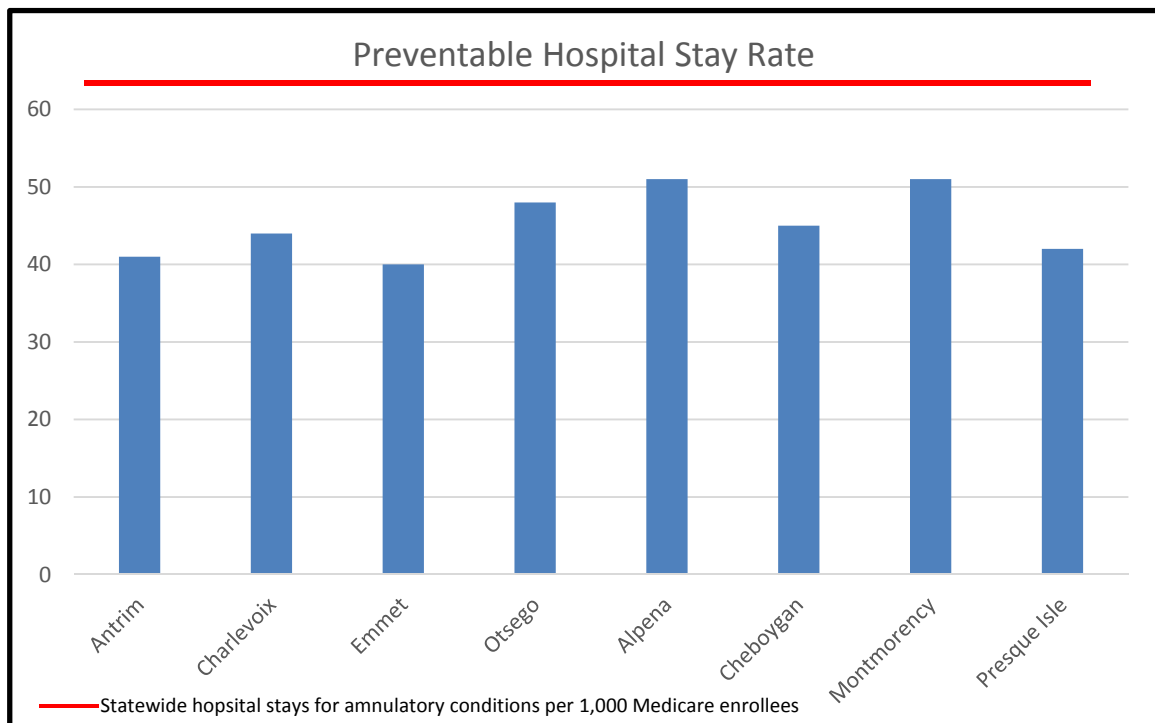
Source: County Health Rankings, 2015



- **Quality of care**

Quality of care can be explained as the *right care for the right person at the right time*. The Institute of Medicine (IOM) further defines the quality of health care as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with professional knowledge. The IOM lists six characteristics of quality health care: safe, timely, effective, efficient, equitable and patient-centered.

There are hundreds of potential quality measures with no consensus yet on the best set of measures. County Health Rankings uses three measures of quality health care: preventable hospitalizations, screening for breast cancer, and screening for diabetes. These indicators were selected because they provide the greatest benefit to patient outcomes, help to bridge gaps seen among different populations, and can be implemented in a safe, efficient and cost-effective way.



County Health Rankings, 2015

The Social Determinants of Health

The Social Determinants of Health are the circumstances in which people grow up, live, work, and age, and the systems put in place to deal with illness. These circumstances are, in turn, shaped by a wider set of forces: economic, social policies and politics.

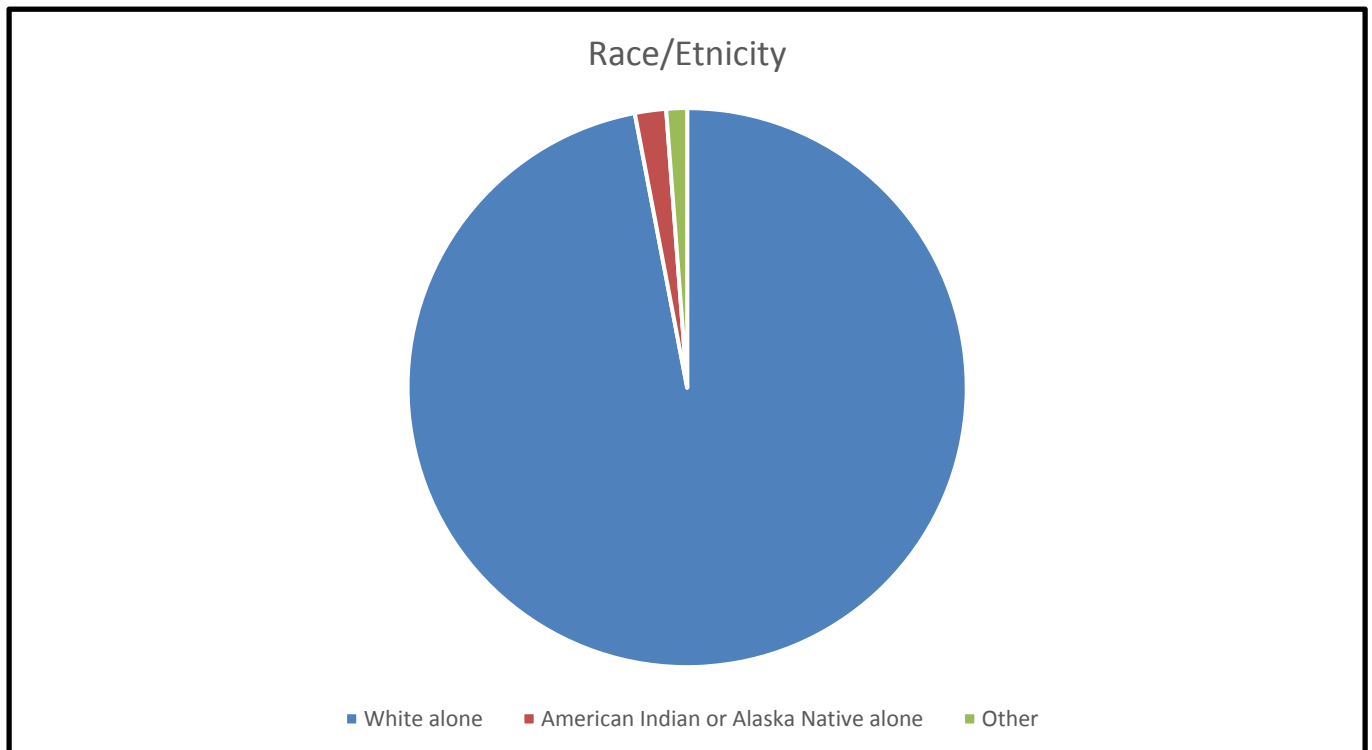
Key Concepts in the Social Determinants of Health

World Health Organization

Social and Economic Indicators

- **Population characteristics**

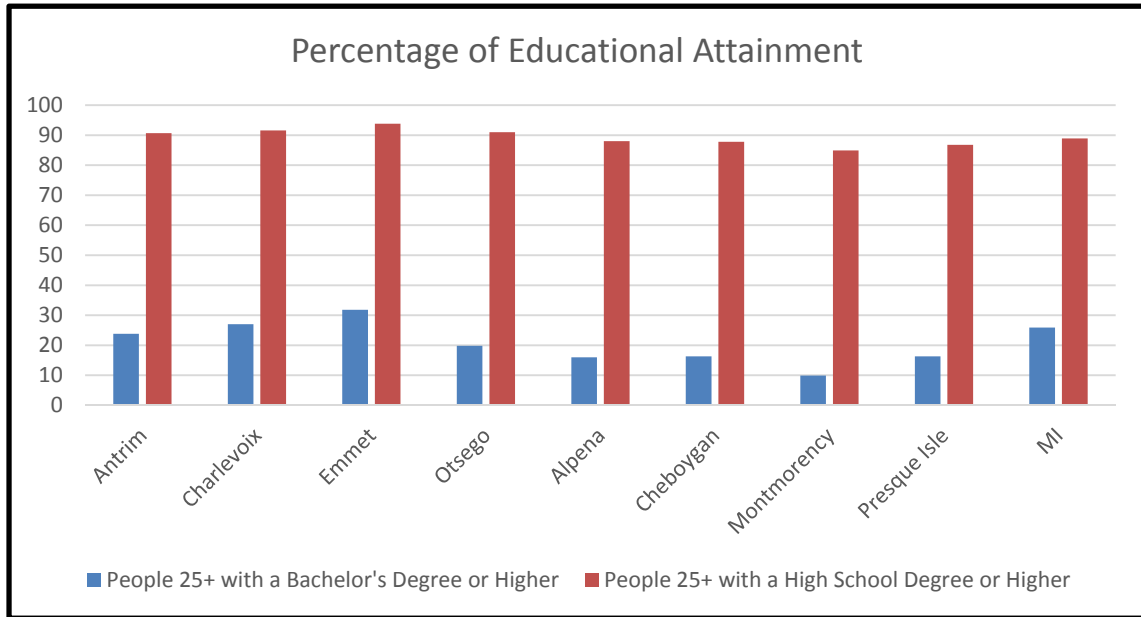
According to the US Census, 180,717 live in the 8-county region. The population is predominantly white, with Native Americans at about 2%, representing the largest minority group.



US Census Bureau, 2014

- **Education and income**

The relationship between higher education and income and improved health outcomes is well-known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles. The proportion of the population with at least a Bachelor’s degree lags behind the State in every county in the region with the exception of Emmet County.

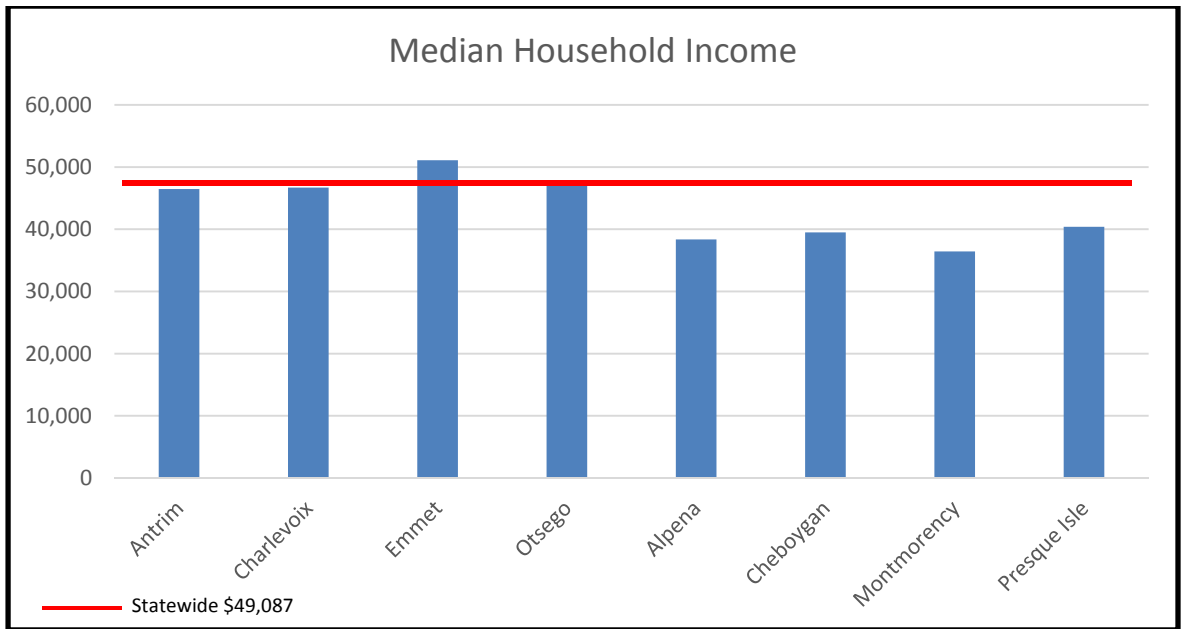


American Community Survey, 2009-2013

Higher levels of education result in higher incomes, on average. Access to health care is a particularly important resource that is often linked to jobs requiring a certain level of education attainment. Even when income and health insurance are controlled, the magnitude of education’s effect on health outcomes remains substantive and statistically significant.

- **Income**

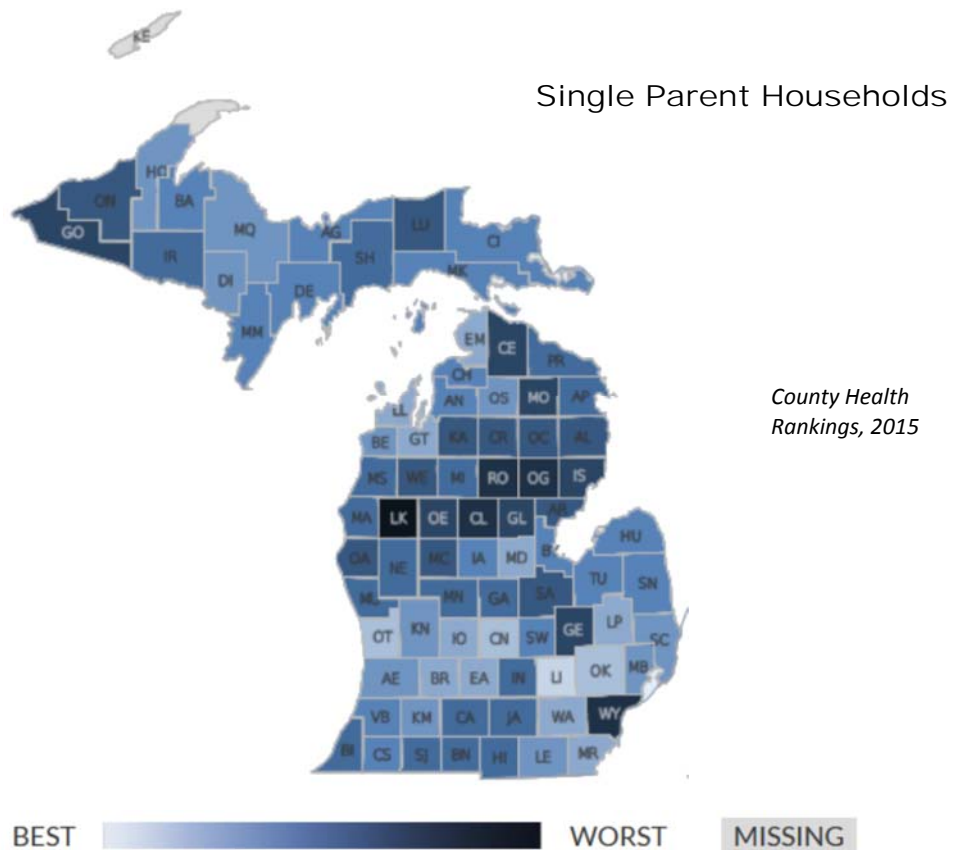
With lower educational levels across the region, it is not surprising that incomes fall below Michigan’s median income (\$49,087) as well, except in Emmet County, where it reaches \$51,113. These county-level data cannot accurately describe the large disparities that exist between the lowest and highest incomes in the region, particularly in the Northwest counties. By drilling down to Census Tract, stark differences become evident.



American Community Survey, 2012-2014

The proportion of single-parent households—a crude predictor for low-income—falls above State rate of 17.2% in all counties in the region. Adults and children in single-parent households are at risk for adverse health outcomes such as mental health and substance use problems.

Children’s risk of poor health and premature mortality may also be increased due to poor educational attainments associated with poverty. The children in poverty measure is highly correlated with overall poverty rates.



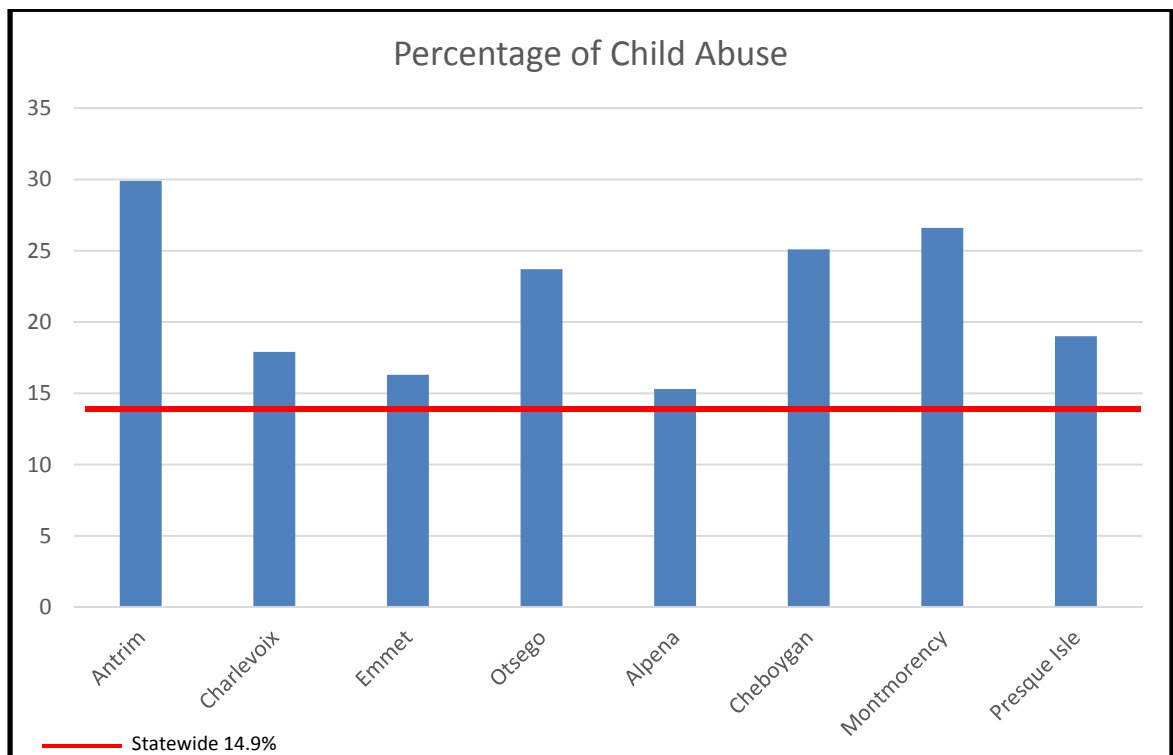
- **Social and emotional support**

The County Health Rankings measure social isolation because the link between socially-isolated individuals and poor health has been well established in the literature. Socially-isolated individuals typically have limited access to the types of support provided by positive relationships. One study found the magnitude of risk associated with social isolation is similar to the risk of cigarette smoking for adverse health outcomes.

Understanding the proportion of socially-isolated individuals in a community may provide a more complete perspective on a community’s collective health profile. This is because socially-isolated individuals are more likely to be concentrated in communities with poorer community networks.

Poor family support, minimal contact with others, and limited involvement in community life are associated with increase morbidity and mortality. Furthermore, social support networks are powerful predictors of health behaviors.

A large proportion of adults in Northern Michigan do not have adequate social and emotional support. As poverty and poor social connections are among risk factors for child abuse and neglect, these statistics may explain, in part, why child abuse is grotesquely over-represented in the eight-county region.



KidsCount Data Center, 2013

Narrative adapted from Healthy People 2020 and National Prevention Strategy

PHASE 4: Strategic Directions

Through review and analysis of the three MAPP assessments, six Strategic Directions in the 8-county region were identified. Data collected during the community health assessment was summarized in a series of Issue Briefs (Please see Attachment D).

On December 4, 2015, 40 stakeholders were convened to review data collected in the Community Health Assessment. The meeting was facilitated utilizing a ToP Environmental Scanning Method called Cooperative Review of Quantitative Data. In small groups, participants reviewed, discussed, and presented an Issue Brief for one Strategic Direction. As presentations to the full group were completed, participants considered the severity, magnitude, impact, resources available and potential for improvement. These data were organized in a Decision Matrix, ranking Strategic Directions as follows:

PHASE 5: Formulate Goals and Strategies

The next step of the community health assessment and improvement cycle is to develop a regional Community Health Improvement Plan.

For each of the three top-ranked priorities, Action Teams identified goals and objectives in alignment with *Healthy People 2020*. For baselines, evidence base, and strategies and interventions, please see the Community Health Improvement Plan for 2016-2018.

Priority #1: Access to Care, including primary care, behavioral health, maternal and child health and oral health care

Developed by leaders/experts from health departments, hospitals, federally qualified health centers, community mental health agencies and the county health plan for the region

- Objective 1: Increase access to primary care, behavioral health, maternal and child health and oral health care, including use of alternate delivery models
- Objective 2: Increase the proportion of persons under age 65 with medical insurance
- Objective 3: Increase the proportion of eligible persons enrolled in the Healthy Michigan Plan
- Objective 4: Increase the number of practicing primary care providers

Priority #2: Chronic Disease

Developed by leaders/experts from health departments, hospitals, MSU-Extension

Goal: Promote health and reduce chronic disease through the consumption of healthy foods and achievement and maintenance of healthy body weight

- Objective 1: Increase variety and consumption of vegetables in the diets of the population age 2+
- Objective 2: Reduce consumption of solid fats and added sugars in the diets of the population age 2+

Goal: Improve health, fitness and quality of life through daily physical activity

Objective 1: Increase the proportion of adults who meet current federal guidelines for aerobic and muscle-strengthening activities

Objective 2: Increase the proportion of adolescents who meet current federal guidelines for aerobic and muscle-strengthening activities

Objective 3: Increase legislative policies for the built environment to enhance access to or availability of physical activity opportunities

Goal: By 2016, reduce illness, disability and death-related tobacco use and secondhand smoke

Objective 1: Reduce tobacco initiation use among adolescents

Objective 2: Increase smoking cessation in pregnancy

Priority #3: Substance Use

Developed by leaders and experts from health departments, hospitals, substance use prevention agencies, substance use treatment facilities, and law enforcement

Goal: Reduce substance abuse to protect the health, safety, and quality of life for all, especially children

Objective 1: Increase the proportion of adolescents who perceive great or moderate risk associated with drinking alcohol regularly

Objective 2: Increase the proportion of persons who are referred for follow-up care for alcohol and/or drug problems after diagnosis or treatment

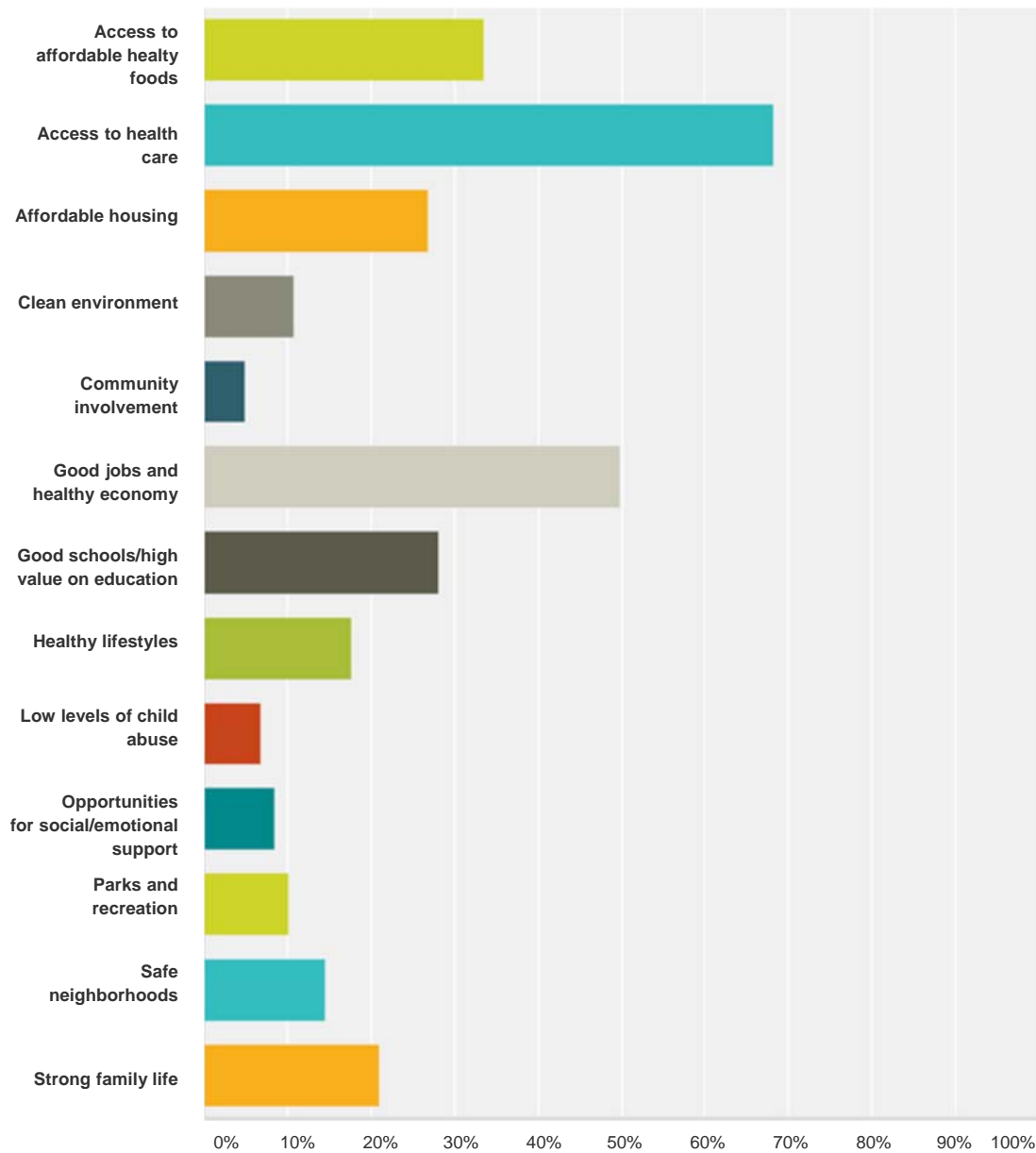
Objective 3: Reduce nonmedical use of prescription drugs

Objective 4: Reduce the number of deaths attributable to alcohol and drugs

WHAT MATTERS TO YOU? COMMUNITY SURVEY REPORT

Q1 Please check the THREE most important factors needed for a healthy community.

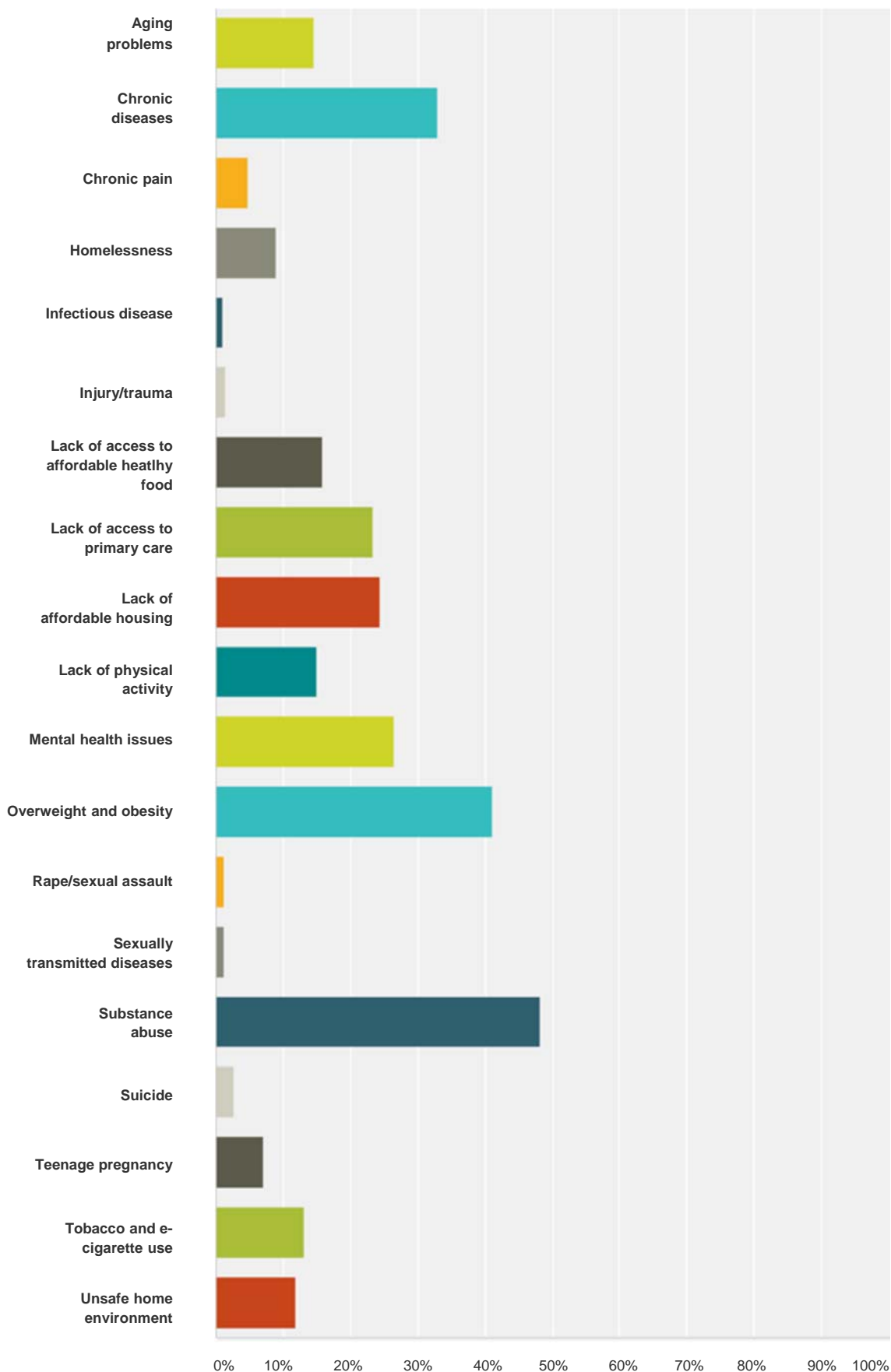
Answered: 1,217 Skipped: 3



Answer Choices	Responses
Access to affordable healthy foods	33.61% 409
Access to health care, including primary care, specialty care, behavioral health services and dental care	68.28% 831
Affordable housing	27.03% 329
Clean environment	10.93% 133
Community involvement	5.01% 61
Good jobs and healthy economy	49.79% 606
Good schools/high value on education	28.18% 343
Healthy lifestyles	17.83% 217
Low levels of child abuse	6.98% 85
Opportunities for social and/or emotional support	8.55% 104
Parks and recreation/access to physical activity	10.27% 125
Safe neighborhoods	14.71% 179
Strong family life	21.04% 256
Total Respondents: 1,217	

Q2 Please check the THREE most important community health problems in your county.

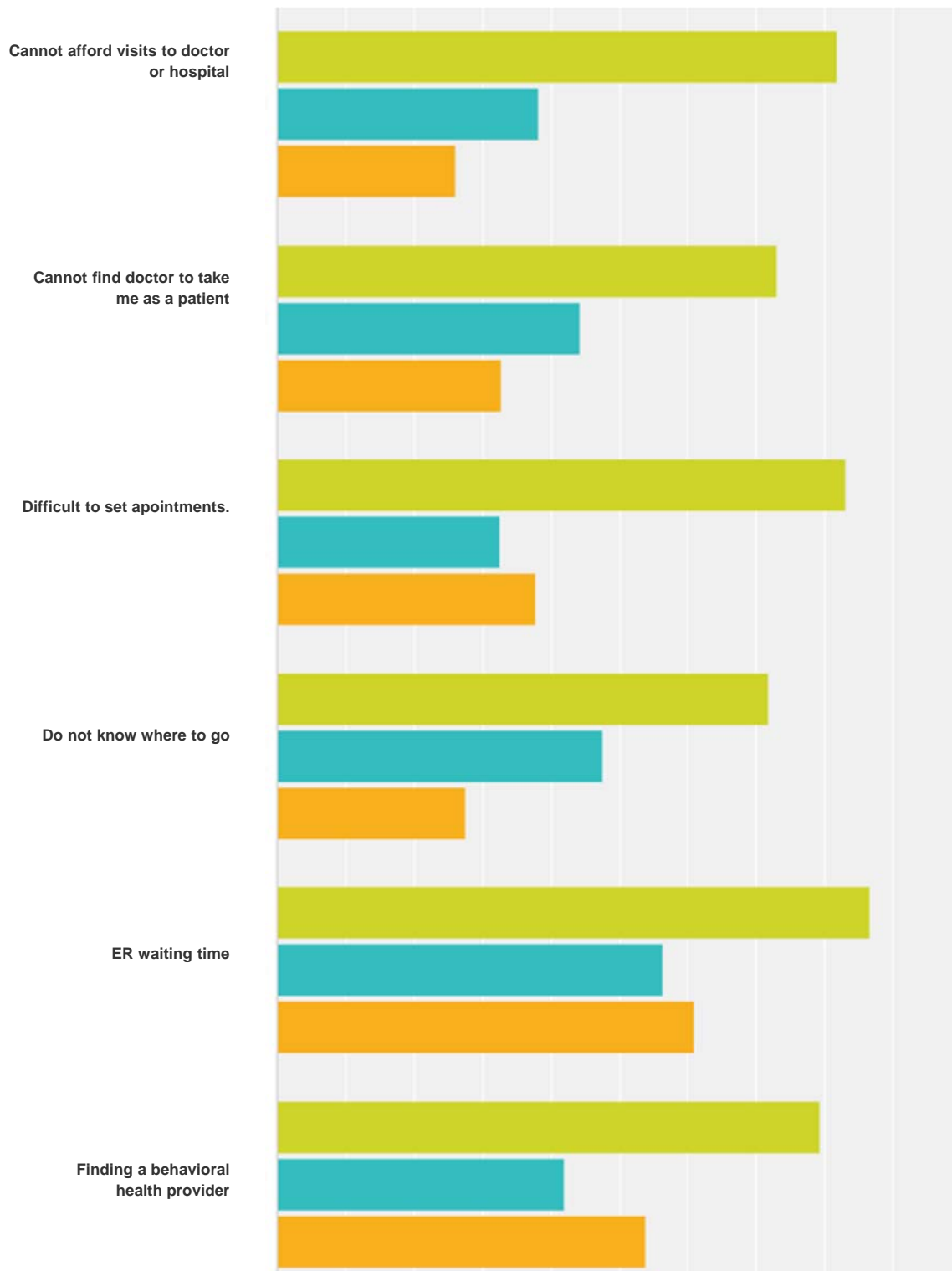
Answered: 1,215 Skipped: 5

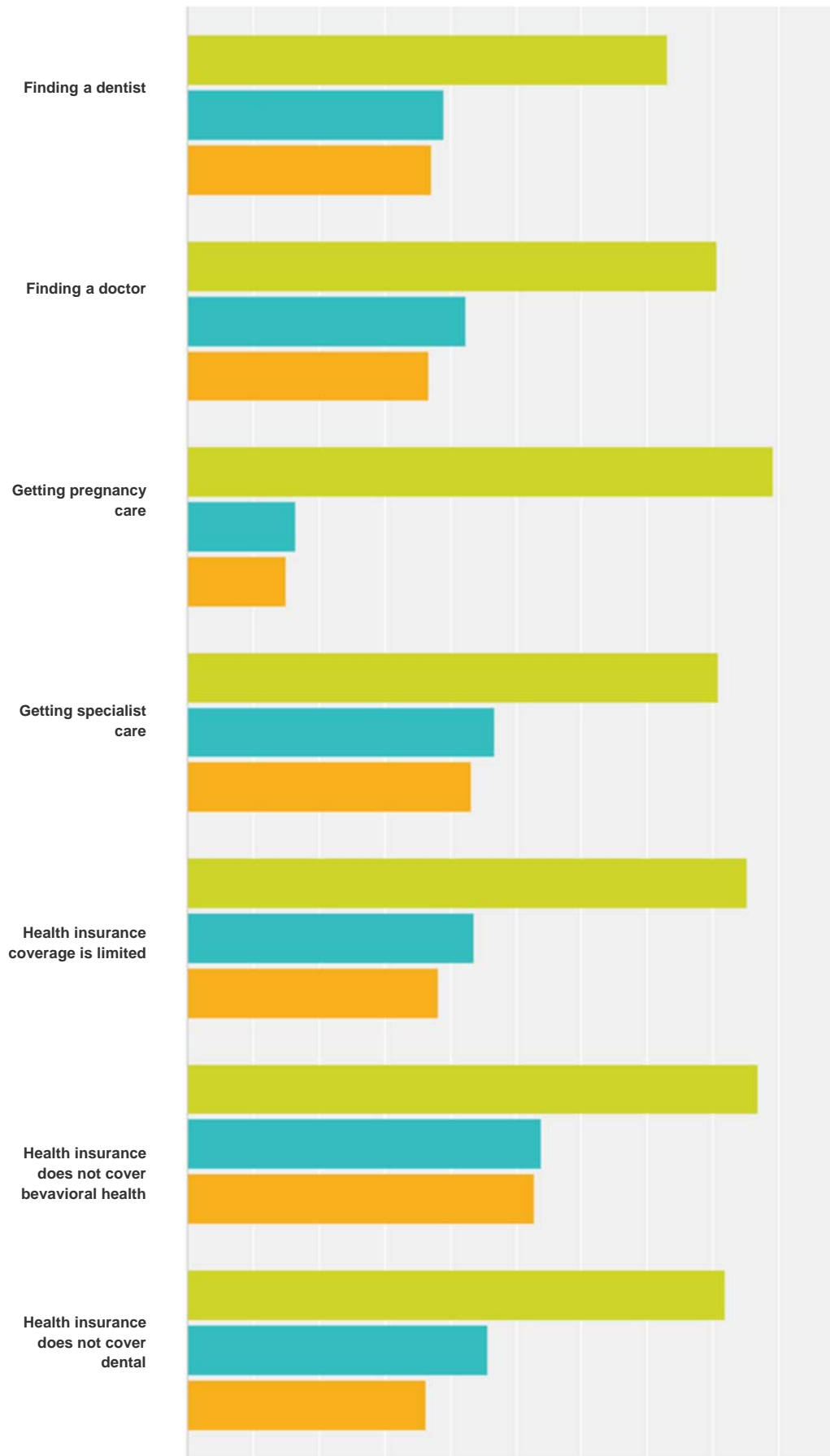


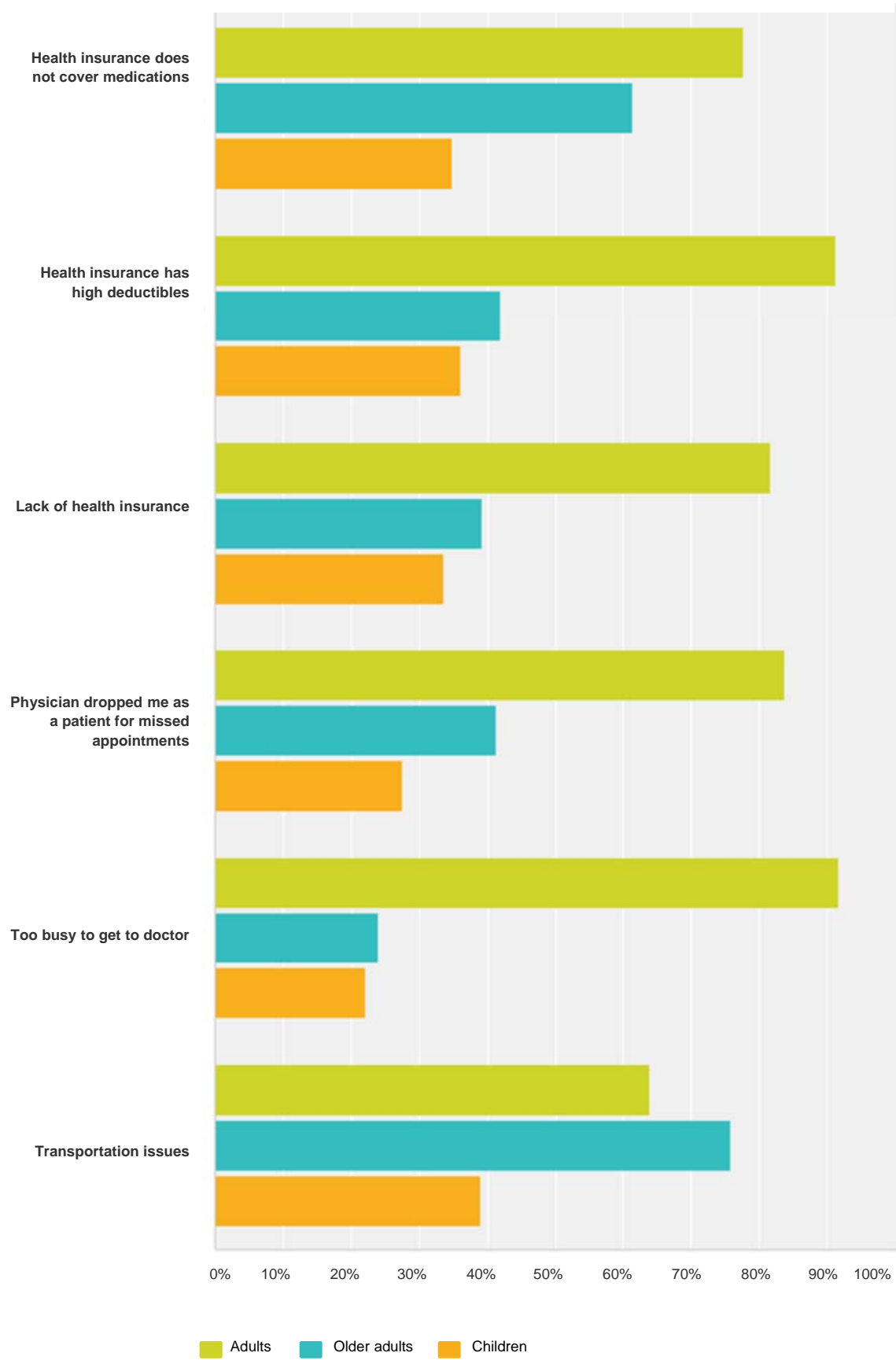
Answer Choices	Responses	
Aging problems (arthritis, hearing loss/vision loss)	14.57%	177
Chronic diseases (heart disease, cancer, diabetes, COPD, stroke)	33.09%	402
Chronic pain	4.77%	58
Homelessness	9.05%	110
Infectious disease	1.07%	13
Injury/trauma	1.56%	19
Lack of access to affordable, healthy food	15.97%	194
Lack of access to primary care, specialty care, behavioral health services or dental care	23.37%	284
Lack of affordable housing	24.44%	297
Lack of physical activity	15.06%	183
Mental health issues	26.42%	321
Overweight and obesity	41.07%	499
Rape/sexual assault	1.32%	16
Sexually transmitted diseases	1.15%	14
Substance abuse (alcohol, illegal drugs, prescription drugs)	48.15%	585
Suicide	2.72%	33
Teenage pregnancy	7.08%	86
Tobacco and e-cigarette use	13.17%	160
Unsafe home environment (child abuse and neglect and domestic violence)	11.85%	144
Total Respondents: 1,215		

Q3 Please check all the problems adults, older adults, and children in your family are having in getting health care services.

Answered: 1,002 Skipped: 218



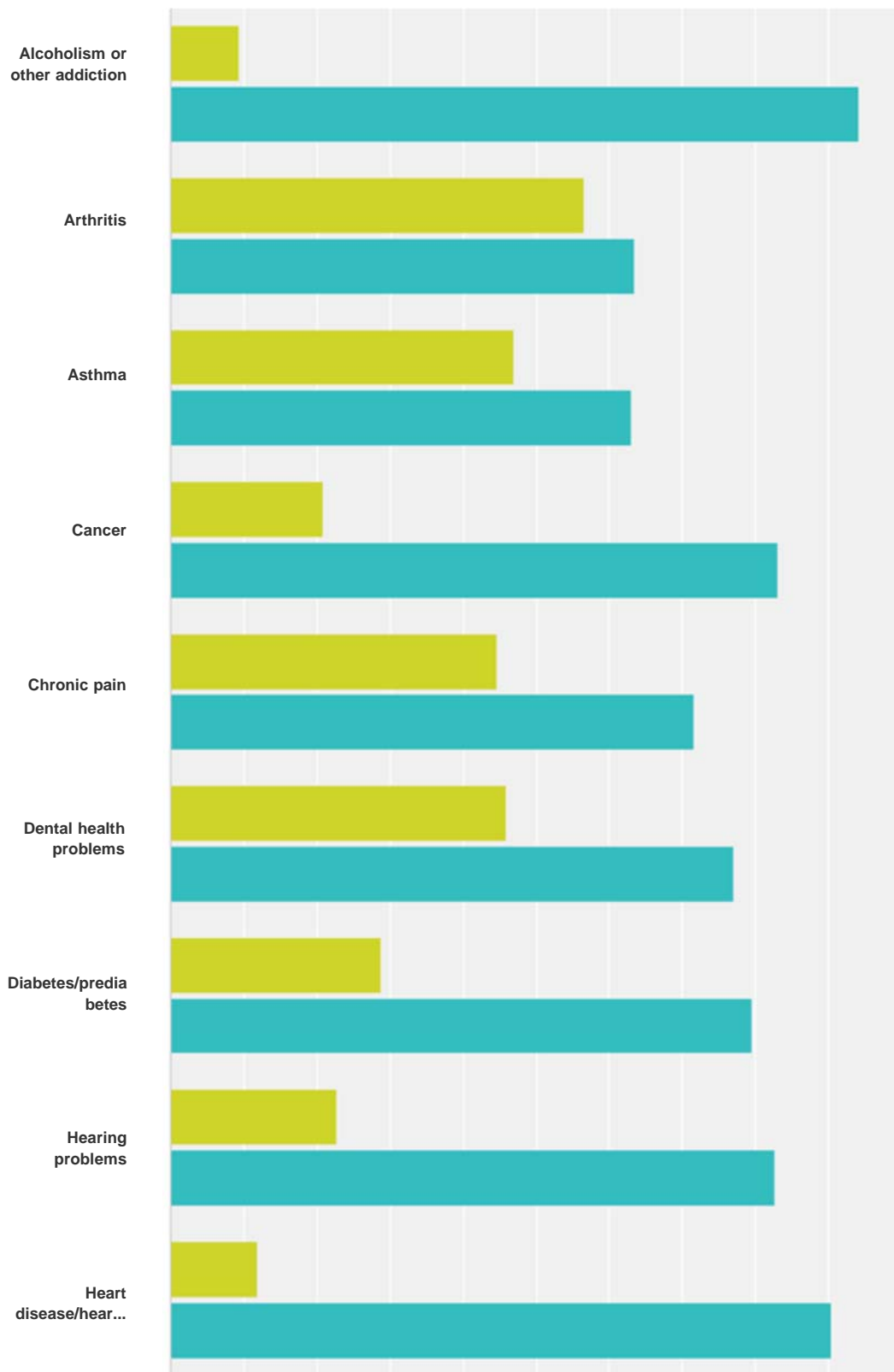


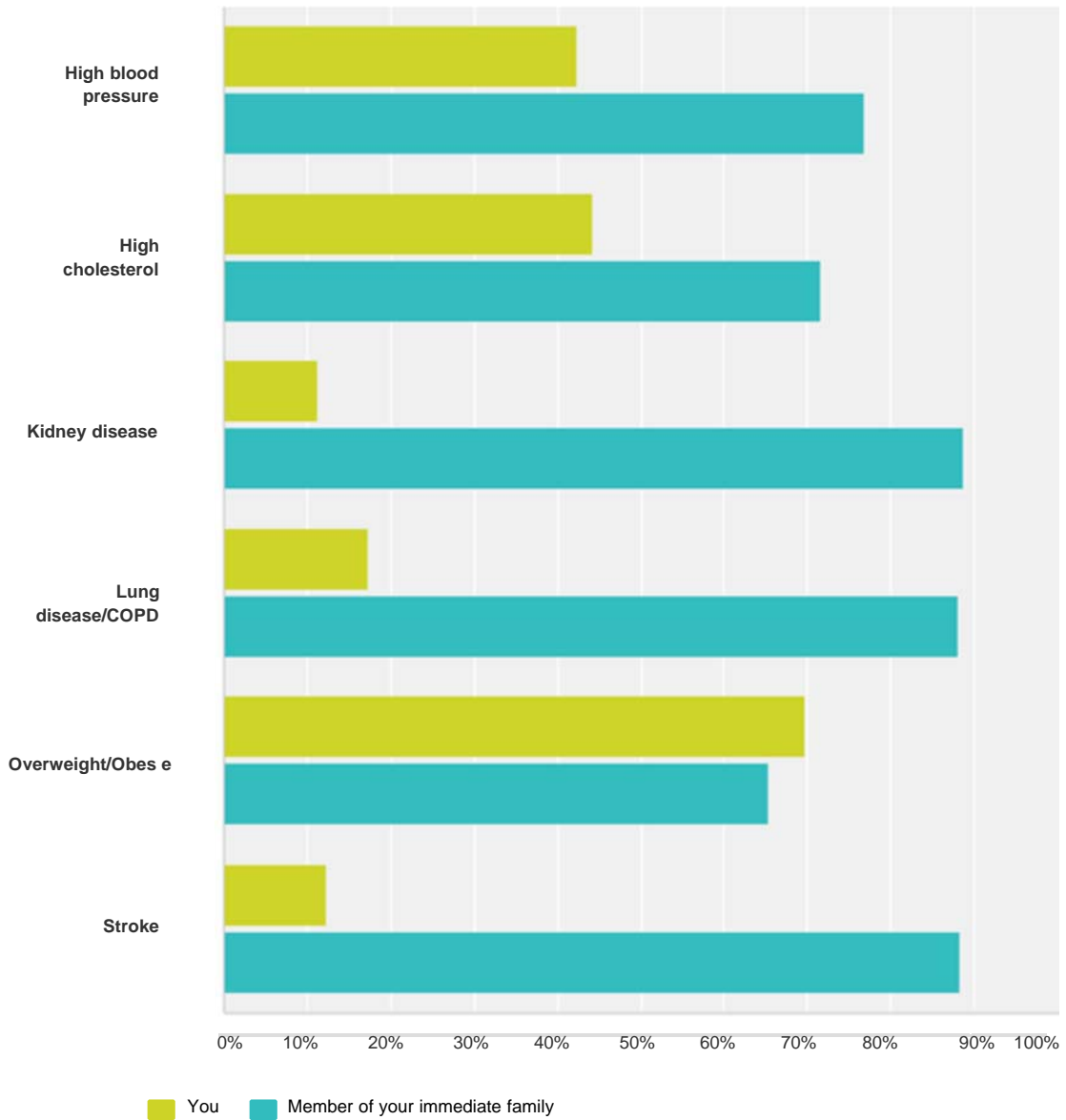


	Adults	Older adults	Children	Total Respondents
Cannot afford visits to doctor,clinic, and/or hospital	81.84% 374	38.29% 175	26.04% 119	457
Cannot find doctor to take me as a patient	73.15% 188	44.36% 114	32.68% 84	257
Difficult to set appointments	83.14% 291	32.57% 114	37.71% 132	350
Do not know where to go for health care	71.76% 122	47.65% 81	27.65% 47	170
ER waiting time	86.74% 242	56.27% 157	60.93% 170	279
Finding a behavioral health provider	79.34% 215	42.07% 114	53.87% 146	271
Finding a dentist	73.08% 114	39.10% 61	37.18% 58	156
Finding a doctor	80.60% 162	42.29% 85	36.82% 74	201
Getting pregnancy care	89.04% 65	16.44% 12	15.07% 11	73
Getting specialist care	80.81% 219	46.86% 127	43.17% 117	271
Health insurance coverage is limited	85.12% 366	43.72% 188	38.14% 164	430
Health insurance does not cover behavioral health services	86.89% 179	53.88% 111	52.91% 109	206
Health insurance does not cover dental services	81.82% 252	45.78% 141	36.36% 112	308
Health insurance does not cover medications	77.73% 199	61.33% 157	34.77% 89	256
Health insurance has high deductibles and/or copays	91.31% 515	42.02% 237	36.17% 204	564
Lack of health insurance	81.60% 204	39.20% 98	33.60% 84	250
Physician dropped me as a patient for missing appointments	83.75% 67	41.25% 33	27.50% 22	80
Too busy to get to doctor	91.74% 211	23.91% 55	22.17% 51	230
Transportation issues	63.79% 111	75.86% 132	39.08% 68	174

Q4 Have you or any member of your immediate family ever been told by a doctor or other health professional that you have any of the following? Check all that apply.

Answered: 1,064 Skipped: 156

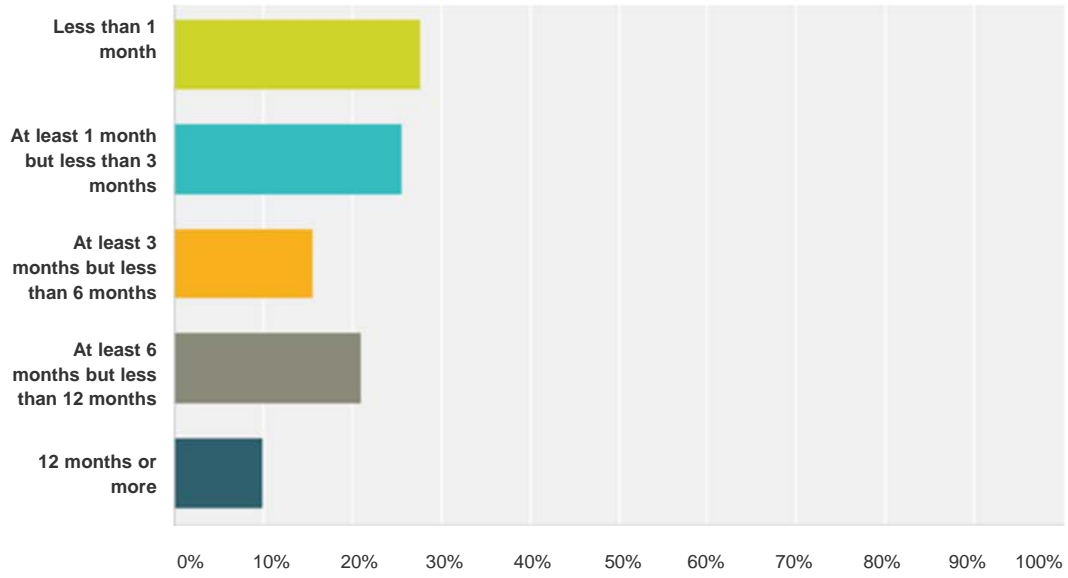




	You	Member of your immediate family	Total Respondents
Alcoholism or other addiction	9.47%	94.21%	190
Arthritis	56.52%	63.56%	483
Asthma	47.02%	63.10%	336
Cancer	20.83%	83.04%	336
Chronic pain	44.65%	71.56%	327
Dental health problems	45.96%	77.02%	322
Diabetes/prediabetes	28.80%	79.58%	382
Hearing problems	22.67%	82.67%	300
Heart disease/heart attack	11.88%	90.43%	303
High blood pressure	42.37%	76.73%	649
High cholesterol	44.26%	71.56%	531
Kidney disease	11.27%	88.73%	71
Lung disease/COPD	17.36%	88.19%	144
Overweight/Obese	69.75%	65.30%	562
Stroke	12.32%	88.41%	138

Q5 How long has it been since your most recent visit /care experience?

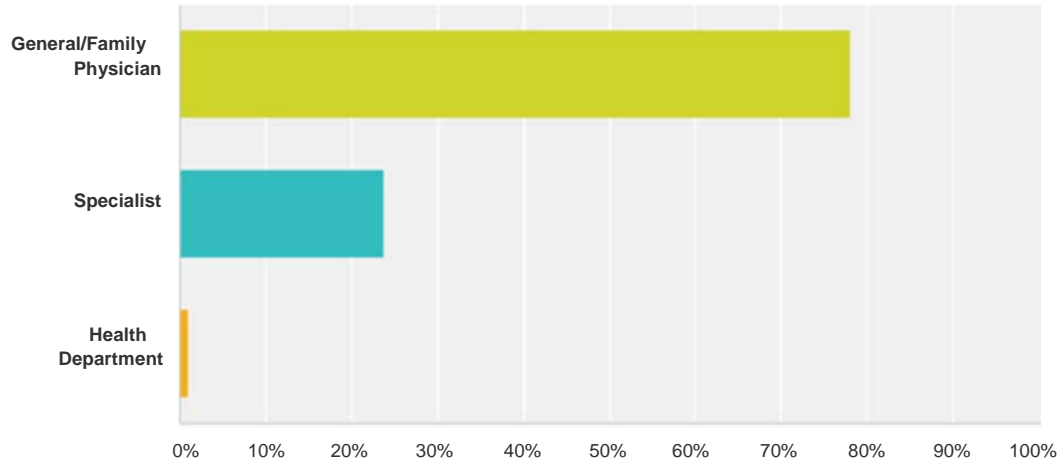
Answered: 945 Skipped: 275



Answer Choices	Responses
Less than 1 month	27.72% 262
At least 1 month but less than 3 months	25.71% 243
At least 3 months but less than 6 months	15.56% 147
At least 6 months but less than 12 months	21.06% 199
12 months or more	9.95% 94
Total	945

Q6 Where was your most recent visit/care experience?

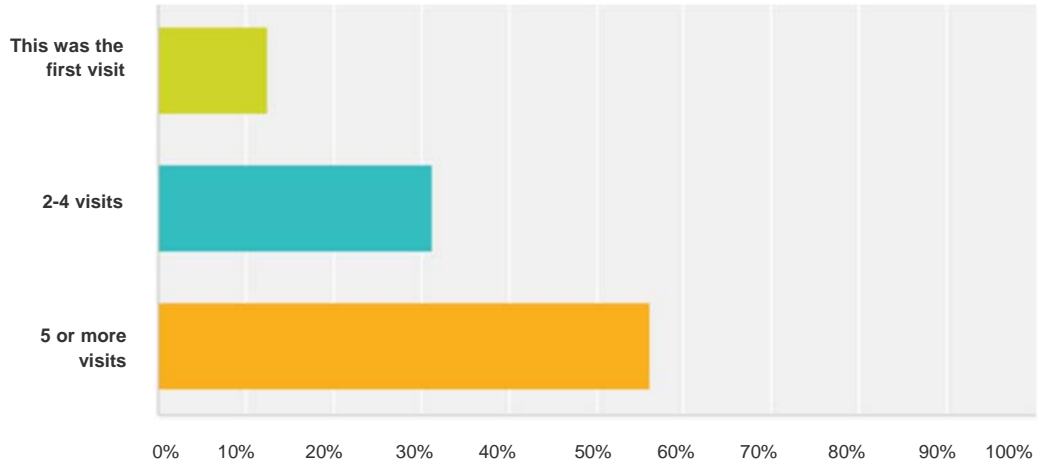
Answered: 903 Skipped: 317



Answer Choices	Responses
General/Family Physician	78.07% 705
Specialist	23.81% 215
Health Department	1.11% 10
Total Respondents: 903	

Q7 How many visits have you had with this provider?

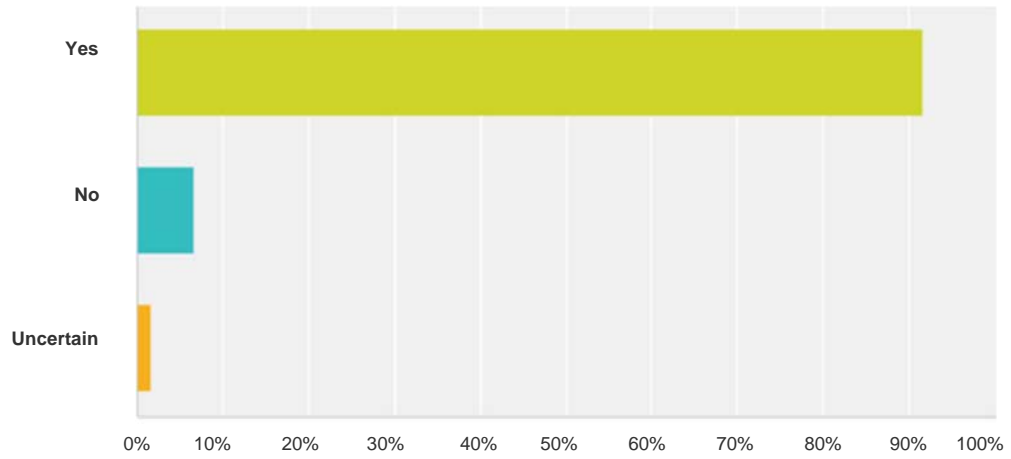
Answered: 941 Skipped: 279



Answer Choices	Responses	
This was the first visit	12.54%	118
2-4 visits	31.35%	295
5 or more visits	56.11%	528
Total		941

Q8 Do you have a primary care/family physician?

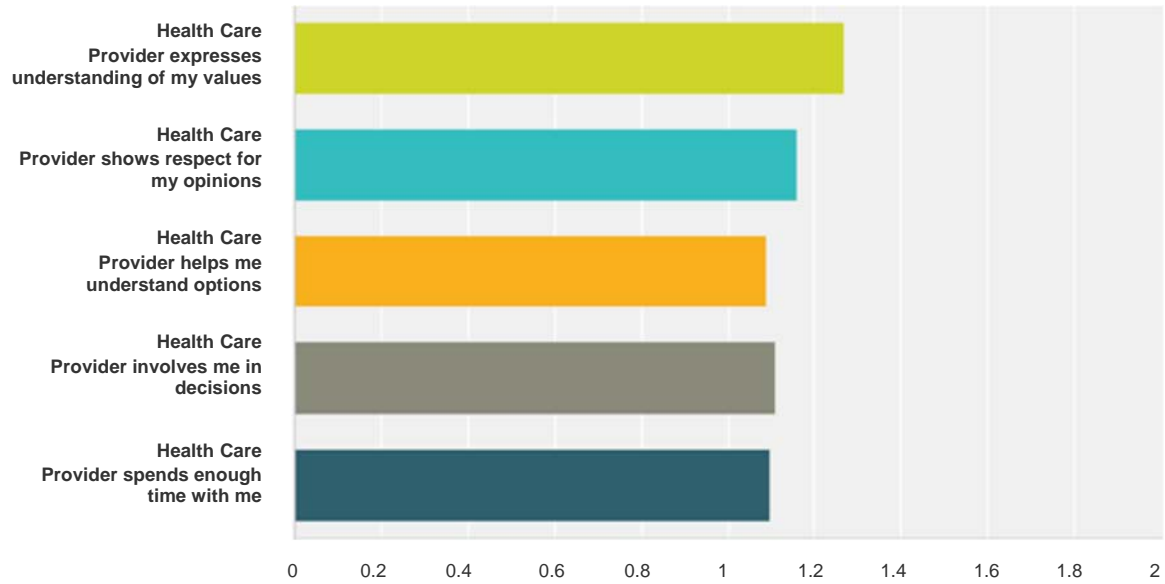
Answered: 945 Skipped: 275



Answer Choices	Responses	
Yes	91.75%	867
No	6.67%	63
Uncertain	1.59%	15
Total		945

Q9 Following is a series of characteristics which may describe your health care visit. Please indicate how important the characteristic is to you.

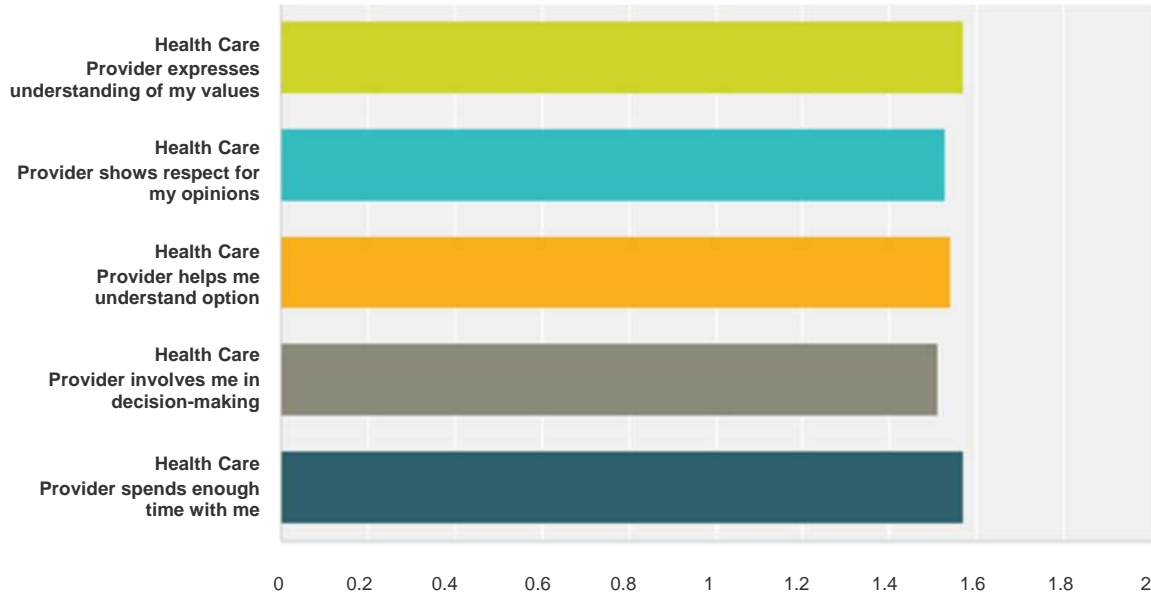
Answered: 944 Skipped: 276



	Very important	Somewhat important	Neither Important nor Unimportant	Somewhat Unimportant	Very Unimportant	Total	Weighted Average
Health Care Provider/Physician expresses understanding of my personal values when considering my care decisions	77.81% 733	18.68% 176	2.65% 25	0.21% 2	0.64% 6	942	1.27
Health Care Provider/Physician shows respect for my opinions	86.53% 816	11.66% 110	1.17% 11	0.32% 3	0.32% 3	943	1.16
Health Care Provider/Physician helps me to understand options available for treatment	92.77% 873	6.27% 59	0.43% 4	0.21% 2	0.32% 3	941	1.09
Health Care Provider/Physician involves me in decision-making about my care	91.19% 859	7.64% 72	0.64% 6	0.21% 2	0.32% 3	942	1.11
Health Care Provider/Physician spends enough time with me to discuss options and questions	91.63% 865	7.52% 71	0.21% 2	0.21% 2	0.42% 4	944	1.10

Q10 How would you rate your most recent visit/care experience with regard to each characteristic?

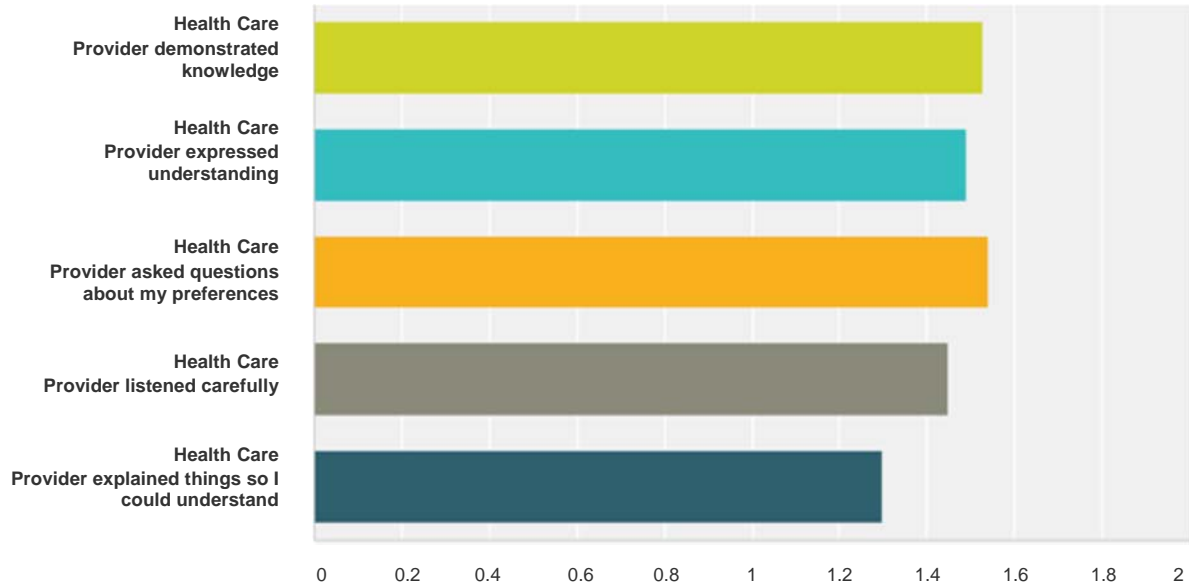
Answered: 939 Skipped: 281



	Excellent	Above Average	Average	Below Average	Poor	Total	Weighted Average
Health Care Provider/Physician expresses understanding of my personal values when considering my care decisions	60.66% 569	24.41% 229	12.69% 119	1.60% 15	0.64% 6	938	1.57
Health Care Provider/Physician shows respect for my opinions	63.79% 599	23.22% 218	9.69% 91	2.56% 24	0.75% 7	939	1.53
Health Care Provider/Physician helps me to understand options available for treatment	62.47% 586	24.73% 232	10.13% 95	1.92% 18	0.75% 7	938	1.54
Health Care Provider/Physician involves me in decision-making about my care	64.74% 606	22.76% 213	9.83% 92	1.92% 18	0.75% 7	936	1.51
Health Care Provider/Physician spends enough time with me to discuss options and questions	63.82% 598	20.38% 191	11.95% 112	2.24% 21	1.60% 15	937	1.57

Q11 Please consider your most recent health care visit/experience. Then, for each of the following statements, rate your level of agreement with how each statement reflects that most recent experience with the Health Care Provider/Physician.

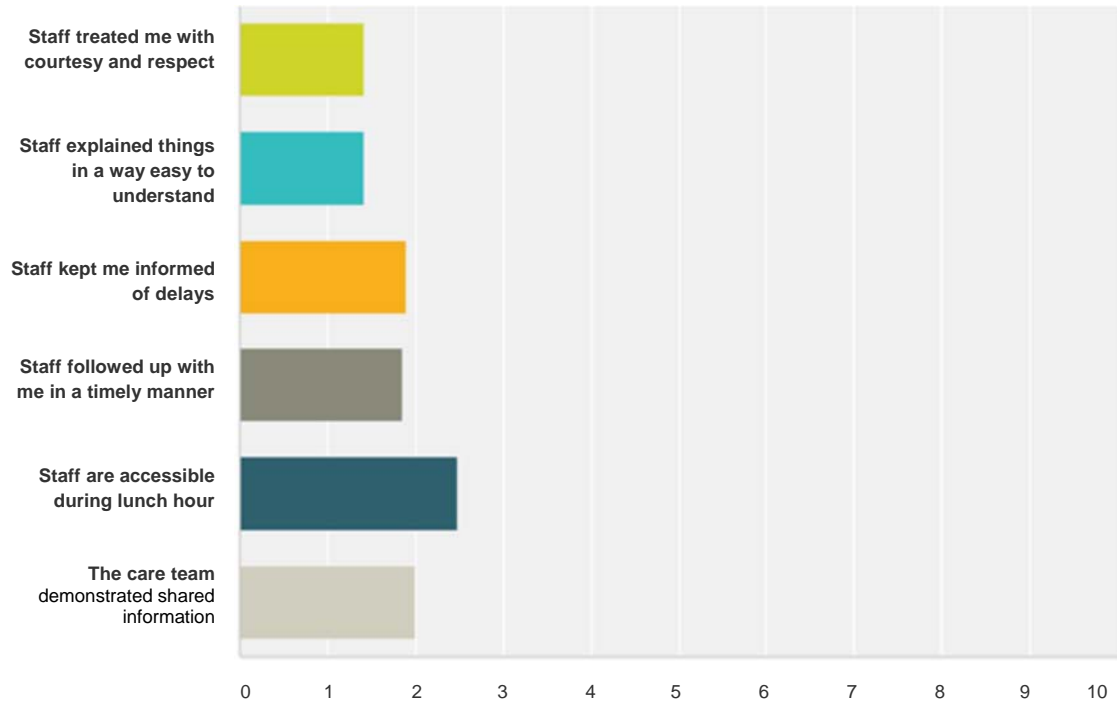
Answered: 936 Skipped: 284



	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree	N/A	Total	Weighted Average
Health Care Provider/Physician demonstrated knowledge of my medical history	63.14% 591	25.53% 239	6.84% 64	2.56% 24	1.50% 14	0.43% 4	936	1.53
Health Care Provider/Physician expressed understanding of my personal situation when considering my care decisions	65.92% 617	22.22% 208	7.91% 74	2.14% 20	1.18% 11	0.64% 6	936	1.49
Health Care Provider/Physician asked questions of me regarding my preferences	65.67% 614	21.28% 199	7.70% 72	3.64% 34	1.50% 14	0.21% 2	935	1.54
Health Care Provider/Physician listened to me carefully	69.55% 651	20.62% 193	6.30% 59	1.60% 15	1.71% 16	0.21% 2	936	1.45
Health Care Provider/Physician explained things in a way that was easy to understand	76.55% 715	18.31% 171	3.64% 34	1.18% 11	0.32% 3	0.00% 0	934	1.30

Q12 Again, please consider your most recent health care visit/experience. Then, for each of the following statements, rate your level of agreement with how each statement reflects that most recent experience with the Staff/Care Team.

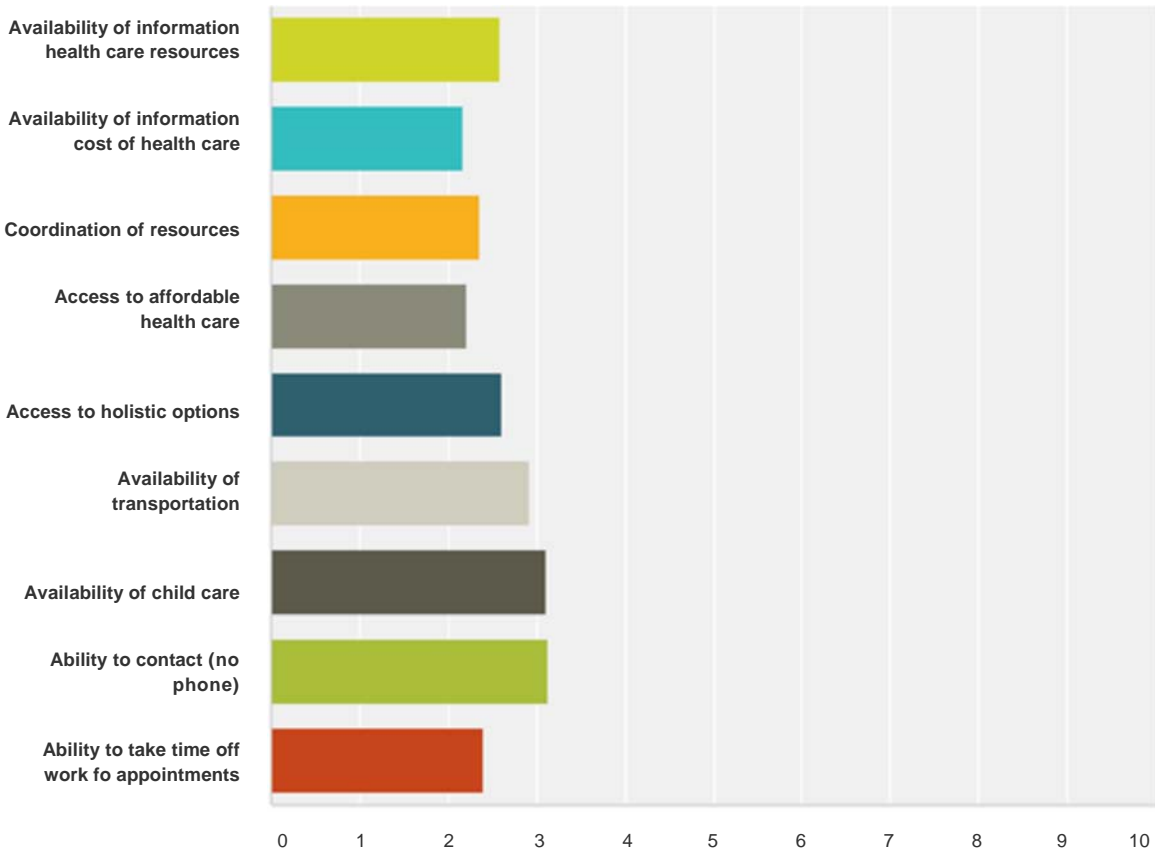
Answered: 936 Skipped: 284



	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree	N/A	Total	Weighted Average
Staff at the provider's office treated me with courtesy and respect	71.90% 673	19.87% 186	4.38% 41	2.46% 23	1.18% 11	0.21% 2	936	1.41
Staff explained things in a way that was easy to understand	69.12% 647	20.09% 188	6.41% 60	1.28% 12	0.96% 9	2.14% 20	936	1.41
Staff kept me informed of any delays to my scheduled appointment.	45.55% 425	16.61% 155	14.04% 131	6.22% 58	3.75% 35	13.83% 129	933	1.91
Staff followed up with me in a timely manner when I contacted the provider's office with questions and/or concerns	46.36% 433	18.95% 177	9.21% 86	6.75% 63	3.53% 33	15.20% 142	934	1.85
Staff are accessible during the standard lunch hour (12pm-1pm)	27.07% 252	15.04% 140	20.62% 192	6.55% 61	10.63% 99	20.09% 187	931	2.48
The care team (Physician, Nurse, Physician's Assistant) demonstrated that my health information was shared among members of the team	38.84% 362	20.49% 191	23.61% 220	3.97% 37	2.79% 26	10.30% 96	932	2.01

Q13 Please indicate how much you feel each of the following is a barrier to getting the health care that you need, or makes it more difficult.

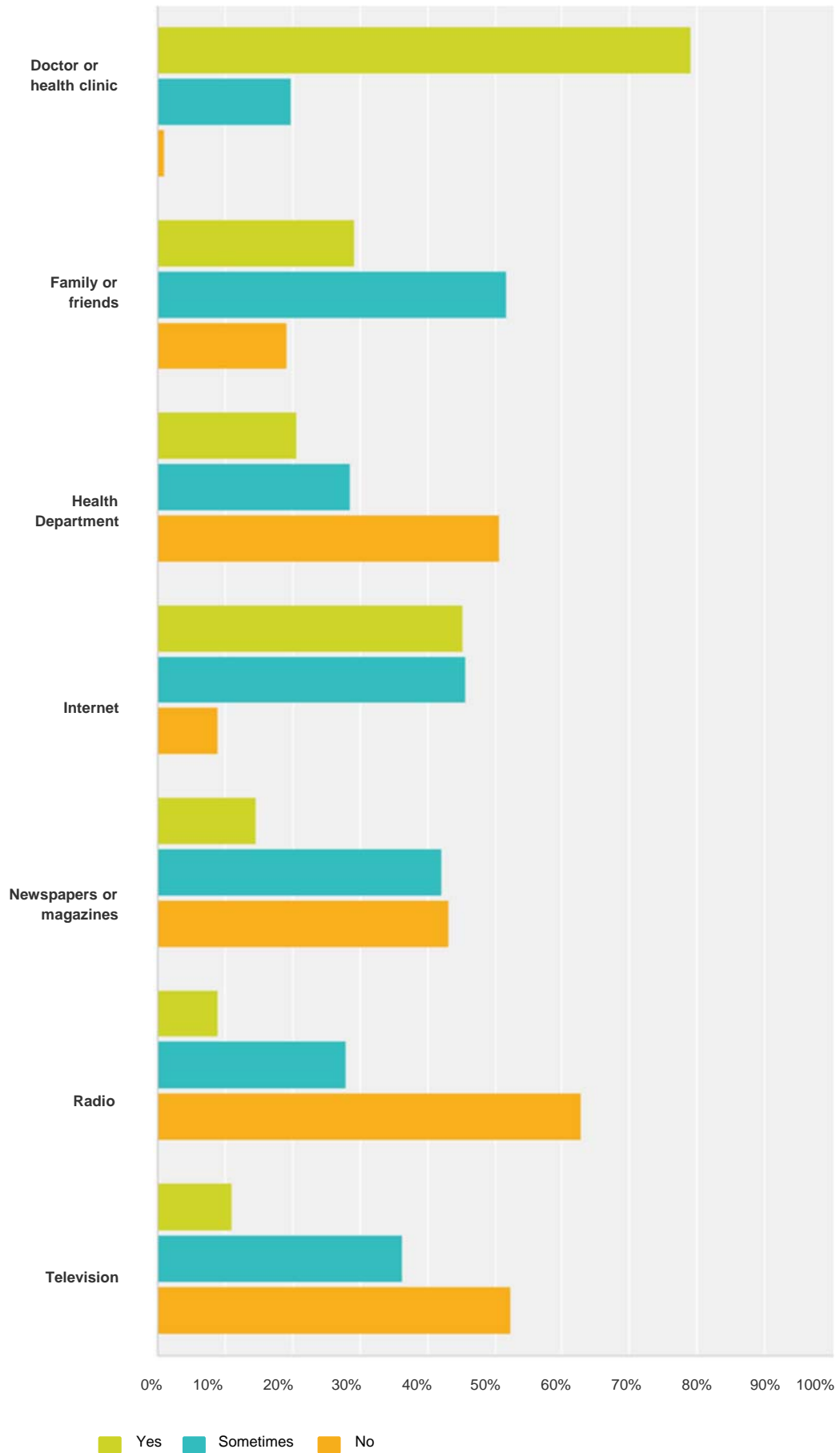
Answered: 1,165 Skipped: 55



	Major Barrier	Minor Barrier	Not a Barrier	NA	Total	Weighted Average
Availability of information on area health care resources	8.65% 97	30.51% 342	53.97% 605	6.87% 77	1,121	2.59
Availability of information on cost of health care services	25.49% 287	38.10% 429	30.73% 346	5.68% 64	1,126	2.17
Coordination of resources among services and providers	17.08% 191	37.21% 416	38.55% 431	7.16% 80	1,118	2.36
Access to affordable health care	26.95% 304	30.23% 341	37.23% 420	5.59% 63	1,128	2.21
Access to holistic treatment options	19.64% 219	23.14% 258	34.35% 383	22.87% 255	1,115	2.60
Availability of transportation	8.36% 93	9.98% 111	62.86% 699	18.79% 209	1,112	2.92
Availability of child care	9.07% 101	10.23% 114	40.31% 449	40.39% 450	1,114	3.12
Ability to contact (no telephone)	2.71% 30	7.85% 87	61.73% 684	27.71% 307	1,108	3.14
Ability to take time off work for appointment/care	18.80% 213	31.60% 358	39.36% 446	10.24% 116	1,133	2.41

Q14 Where do you get health information?

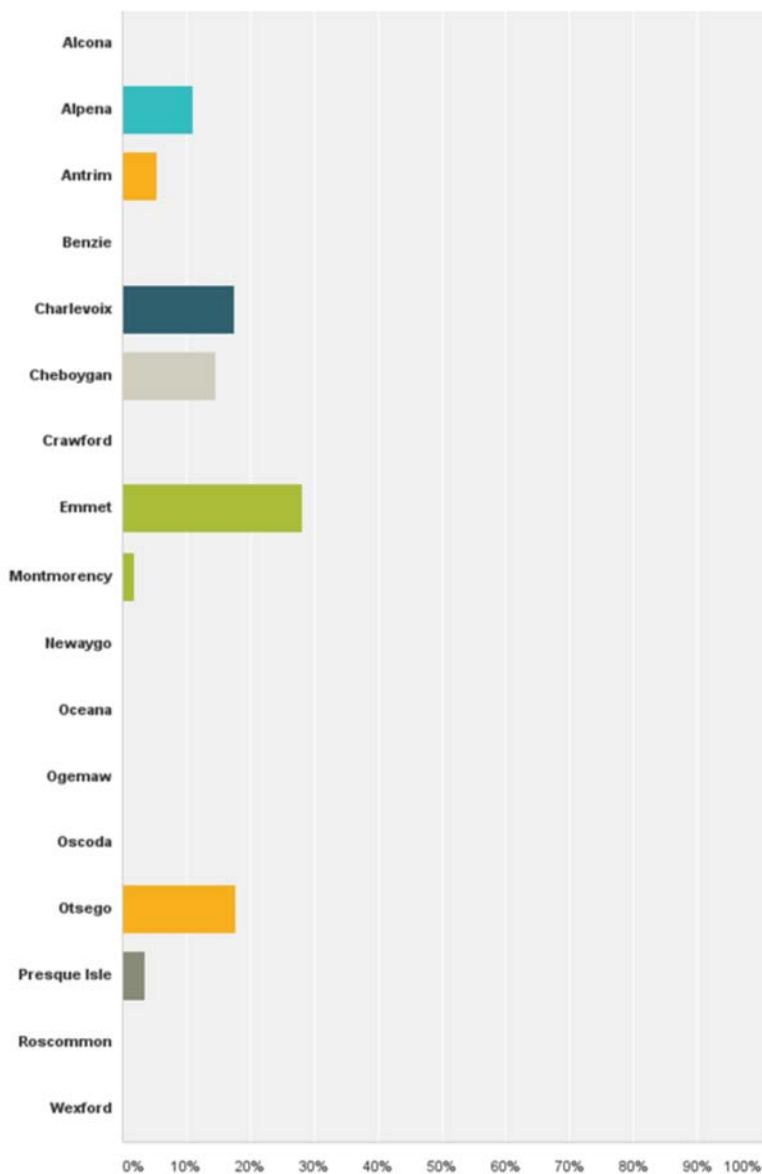
Answered: 1,208 Skipped: 12



	Yes	Sometimes	No	Total
Doctor or health clinic	79.15% 945	19.77% 236	1.09% 13	1,194
Family or friends	29.14% 329	51.73% 584	19.13% 216	1,129
Health Department	20.64% 231	28.60% 320	50.76% 568	1,119
Internet	45.37% 524	45.71% 528	8.92% 103	1,155
Newspapers or magazines	14.68% 161	42.11% 462	43.21% 474	1,097
Radio	8.99% 98	28.07% 306	62.94% 686	1,090
Television	11.11% 122	36.43% 400	52.46% 576	1,098

Q15 Please tell us about yourself. This anonymous personal health information helps us to plan programs and services where they are needed. In which of the following counties do you live?

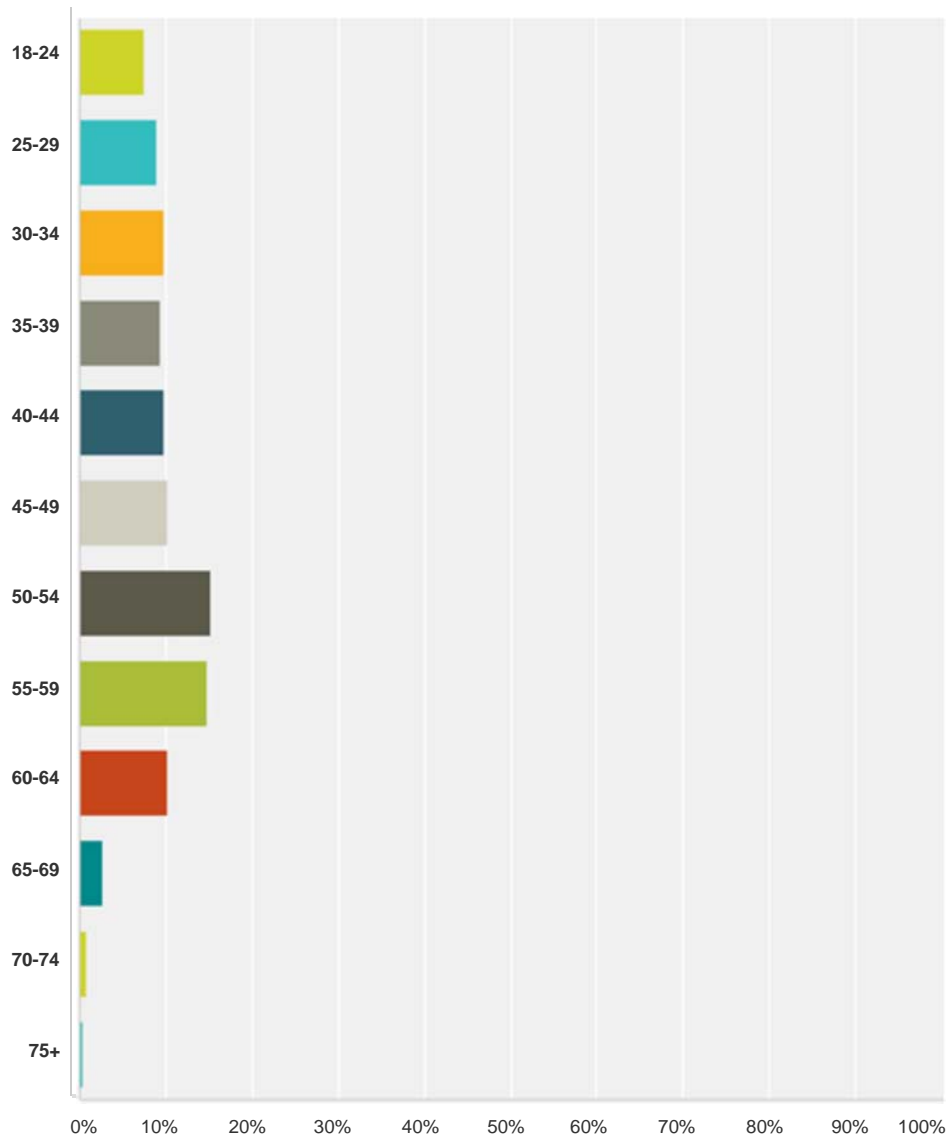
Answered: 1,220 Skipped: 0



Answer Choices	Responses
Alcona	0.00% 0
Alpena	10.98% 134
Antrim	5.41% 66
Benzie	0.00% 0
Charlevoix	17.62% 215
Cheboygan	14.67% 179
Crawford	0.00% 0
Emmet	28.20% 344
Montmorency	1.80% 22
Newaygo	0.00% 0
Oceana	0.00% 0
Ogemaw	0.00% 0
Oscoda	0.00% 0
Otsego	17.79% 217
Presque Isle	3.52% 43

Q16 What is your age?

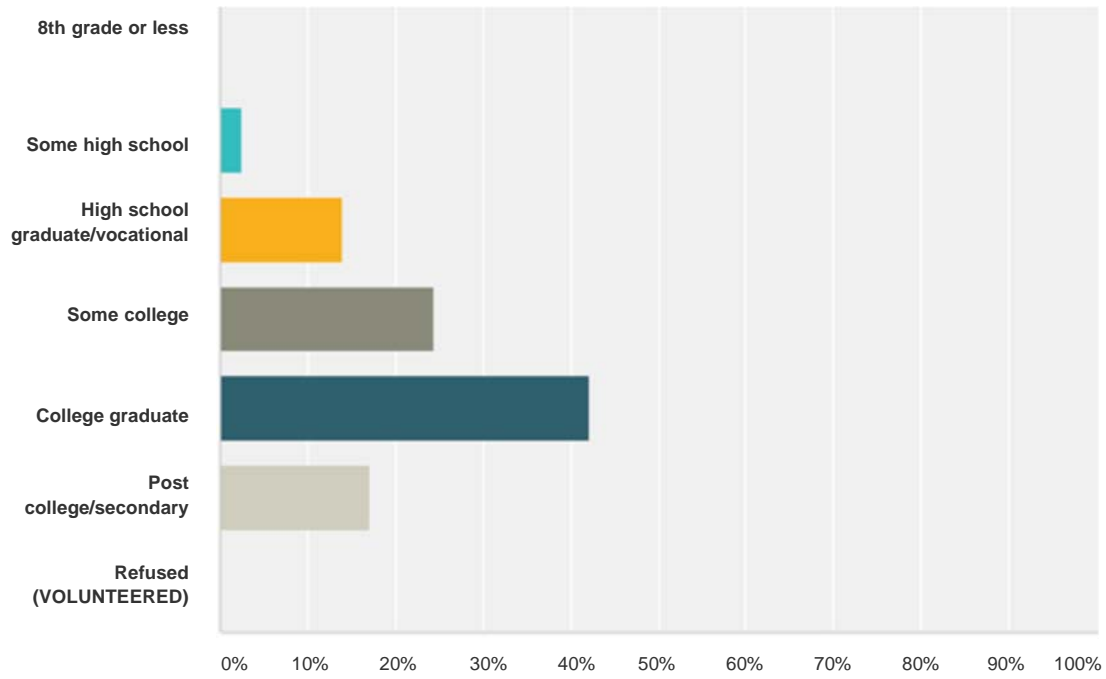
Answered: 1,199 Skipped: 21



Answer Choices	Responses	Count
18-24	7.59%	91
25-29	9.01%	108
30-34	9.84%	118
35-39	9.42%	113
40-44	9.76%	117
45-49	10.26%	123
50-54	15.18%	182
55-59	14.76%	177
60-64	10.26%	123
65-69	2.67%	32
70-74	0.83%	10
75+	0.42%	5
Total	1,199	

Q17 What is your highest level of education?

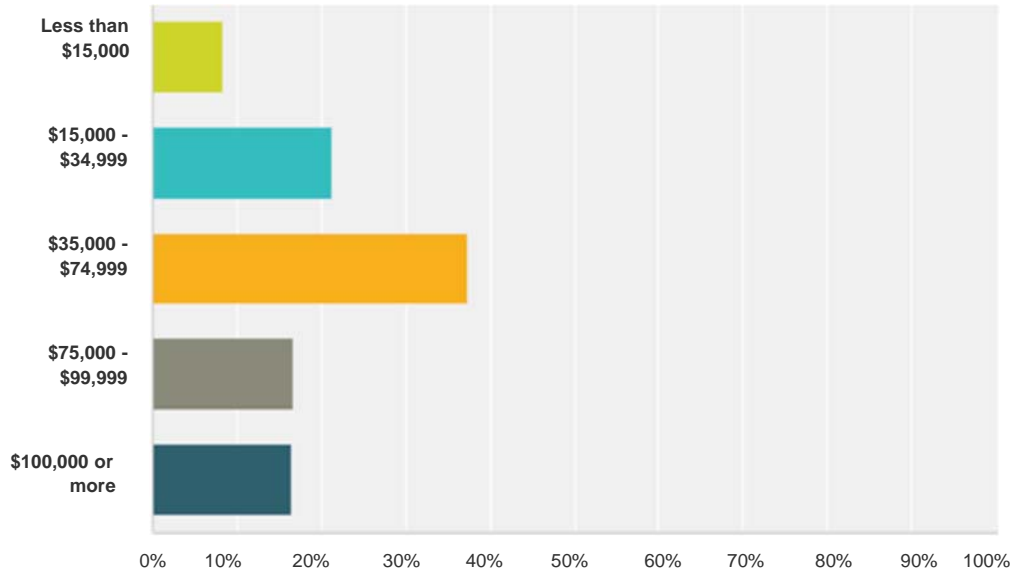
Answered: 1,216 Skipped: 4



Answer Choices	Responses
8th grade or less	0.16% 2
Some high school	2.47% 30
High school graduate/vocational-technical/GED	13.90% 169
Some college	24.34% 296
College graduate	42.11% 512
Post college/secondary school	17.02% 207
Refused (VOLUNTEERED)	0.00% 0
Total	1,216

Q18 What is your annual household income?

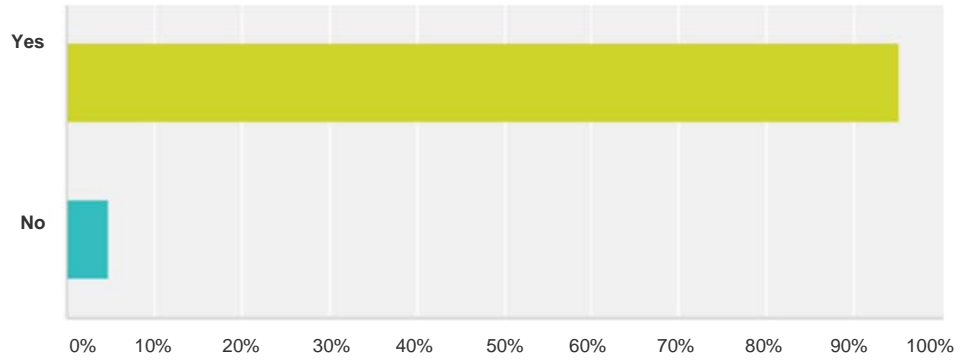
Answered: 1,166 Skipped: 54



Answer Choices	Responses
Less than \$15,000	8.32% 97
\$15,000 - \$34,999	21.27% 248
\$35,000 - \$74,999	37.31% 435
\$75,000 - \$99,999	16.64% 194
\$100,000 or more	16.47% 192
Total	1,166

Q19 Do you have health insurance?

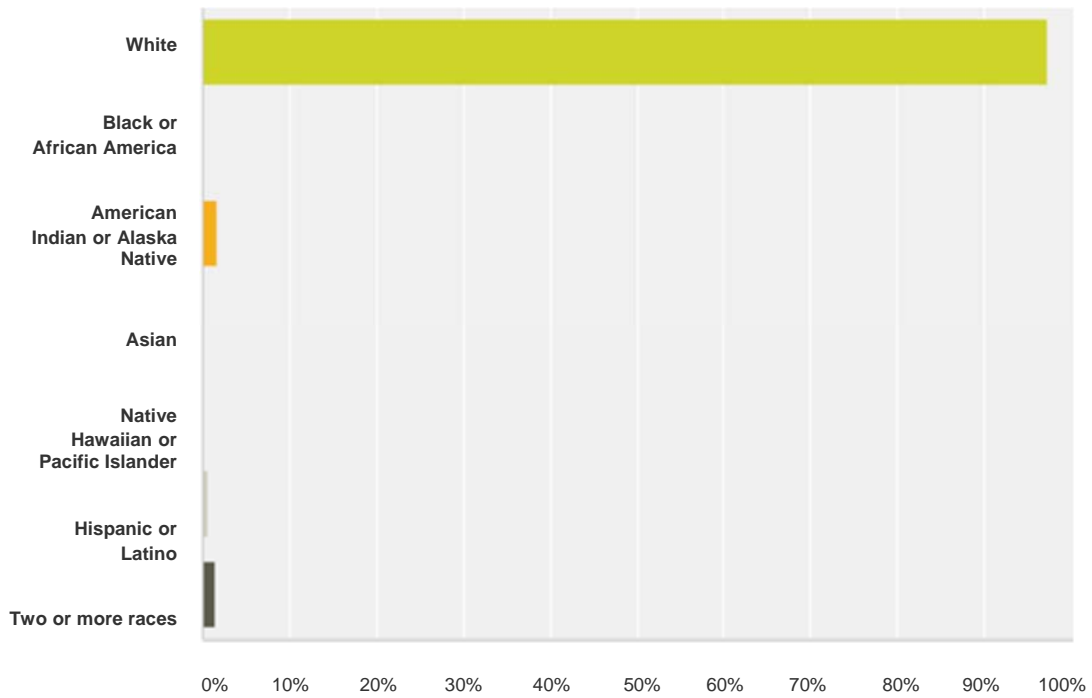
Answered: 1,208 Skipped: 12



Answer Choices	Responses
Yes	95.20% 1,150
No	4.80% 58
Total	1,208

Q20 What is your race/ethnicity?

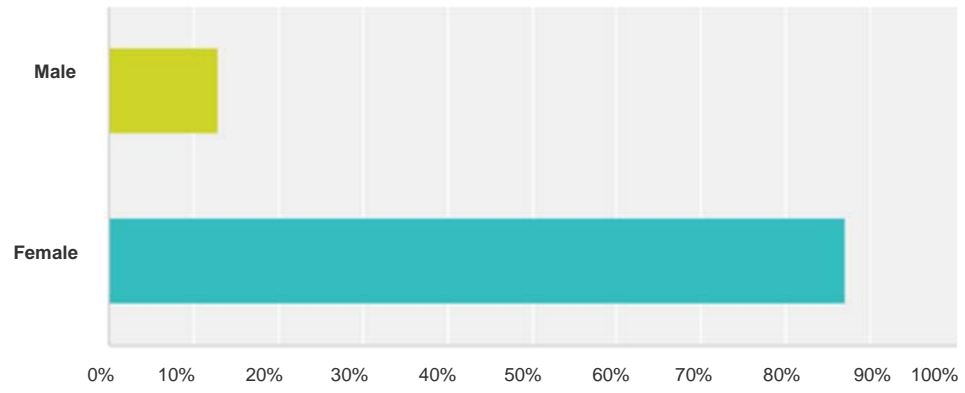
Answered: 1,208 Skipped: 12



Answer Choices	Responses
White	97.35% 1,176
Black or African American	0.17% 2
American Indian or Alaska Native	1.74% 21
Asian	0.17% 2
Native Hawaiian or Pacific Islander	0.08% 1
Hispanic or Latino	0.66% 8
Two or more races	1.49% 18
Total Respondents: 1,208	

Q21 Gender

Answered: 1,213 Skipped: 7

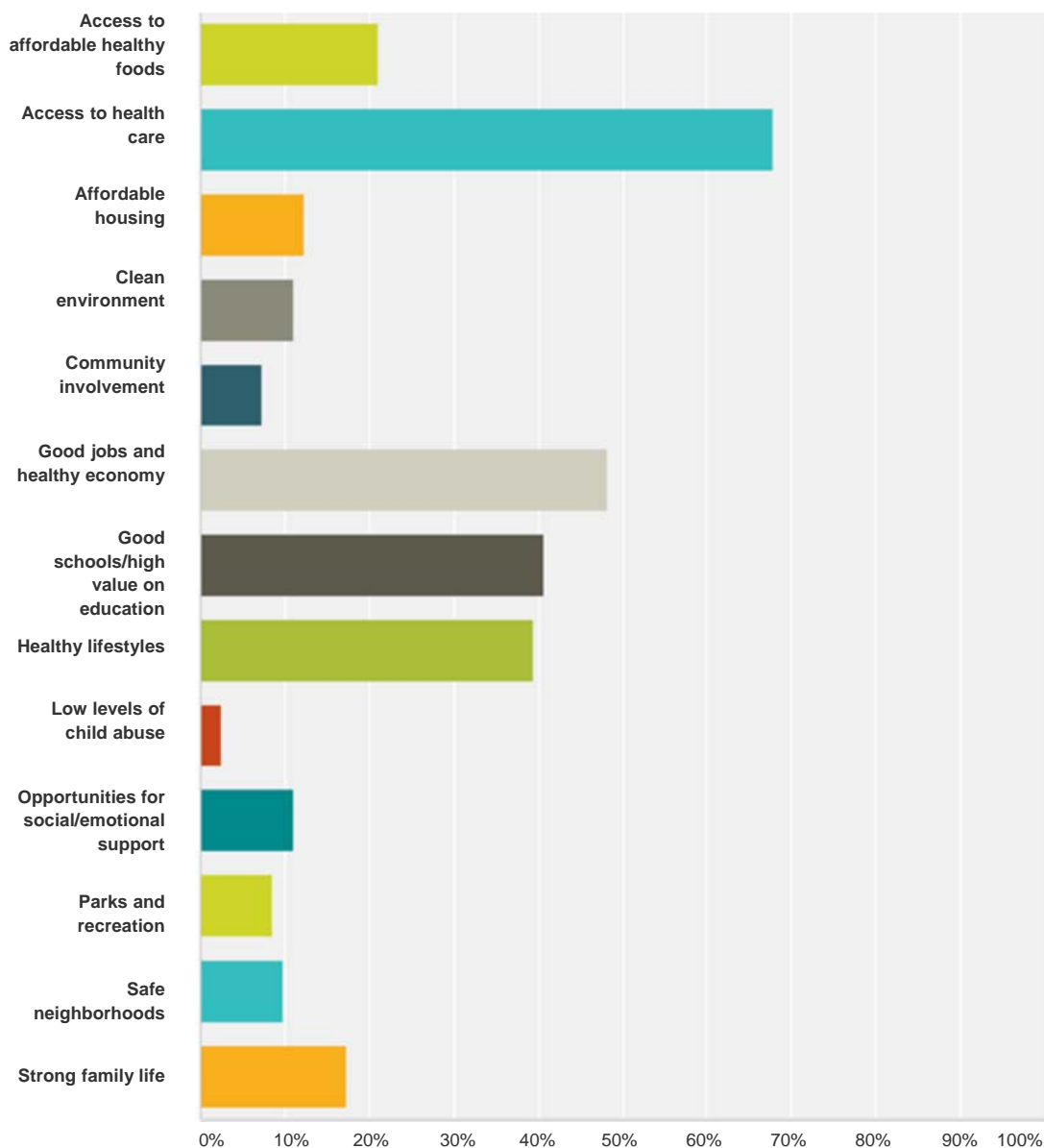


Answer Choices	Responses	
Male	12.94%	157
Female	87.06%	1,056
Total		1,213

HEALTH CARE PROVIDER SURVEY REPORT

Q1 Check the three most important factors needed for a "healthy community."

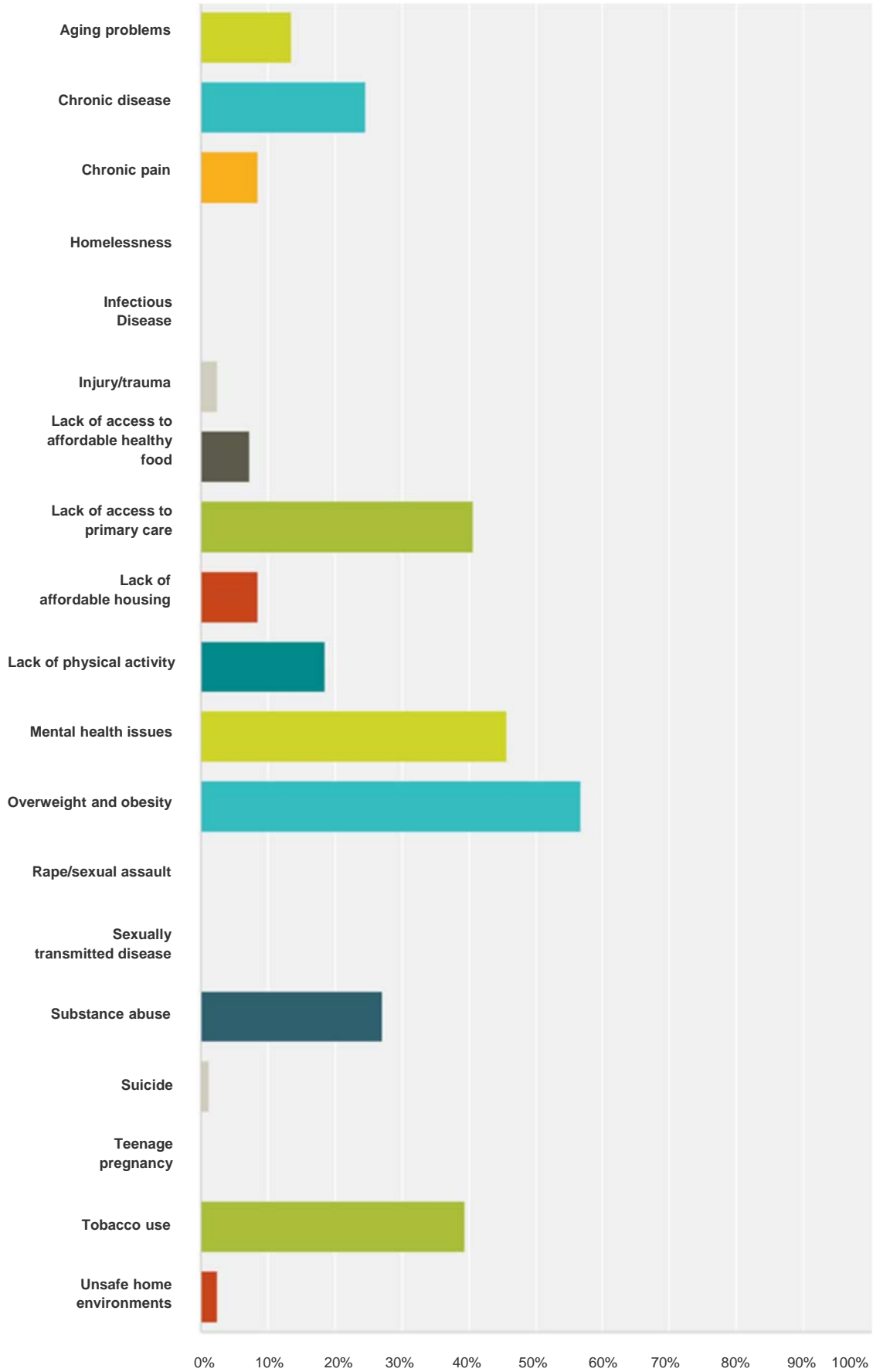
Answered: 81 Skipped: 0



Answer Choices	Responses
Access to affordable healthy foods	20.99% 17
Access to health care, including primary care, specialty care, behavioral health services and dental care	67.90% 55
Affordable housing	12.35% 10
Clean environment	11.11% 9
Community involvement	7.41% 6
Good jobs and healthy economy	48.15% 39
Good schools/high value on education	40.74% 33
Healthy lifestyles	39.51% 32
Low levels of child abuse	2.47% 2
Opportunities for social and/or emotional support	11.11% 9
Parks and recreation/access to physical activity	8.64% 7
Safe neighborhoods	9.88% 8
Strong family life	17.28% 14
Total Respondents: 81	

Q2 Check the three most important community health problems in the county you live in.

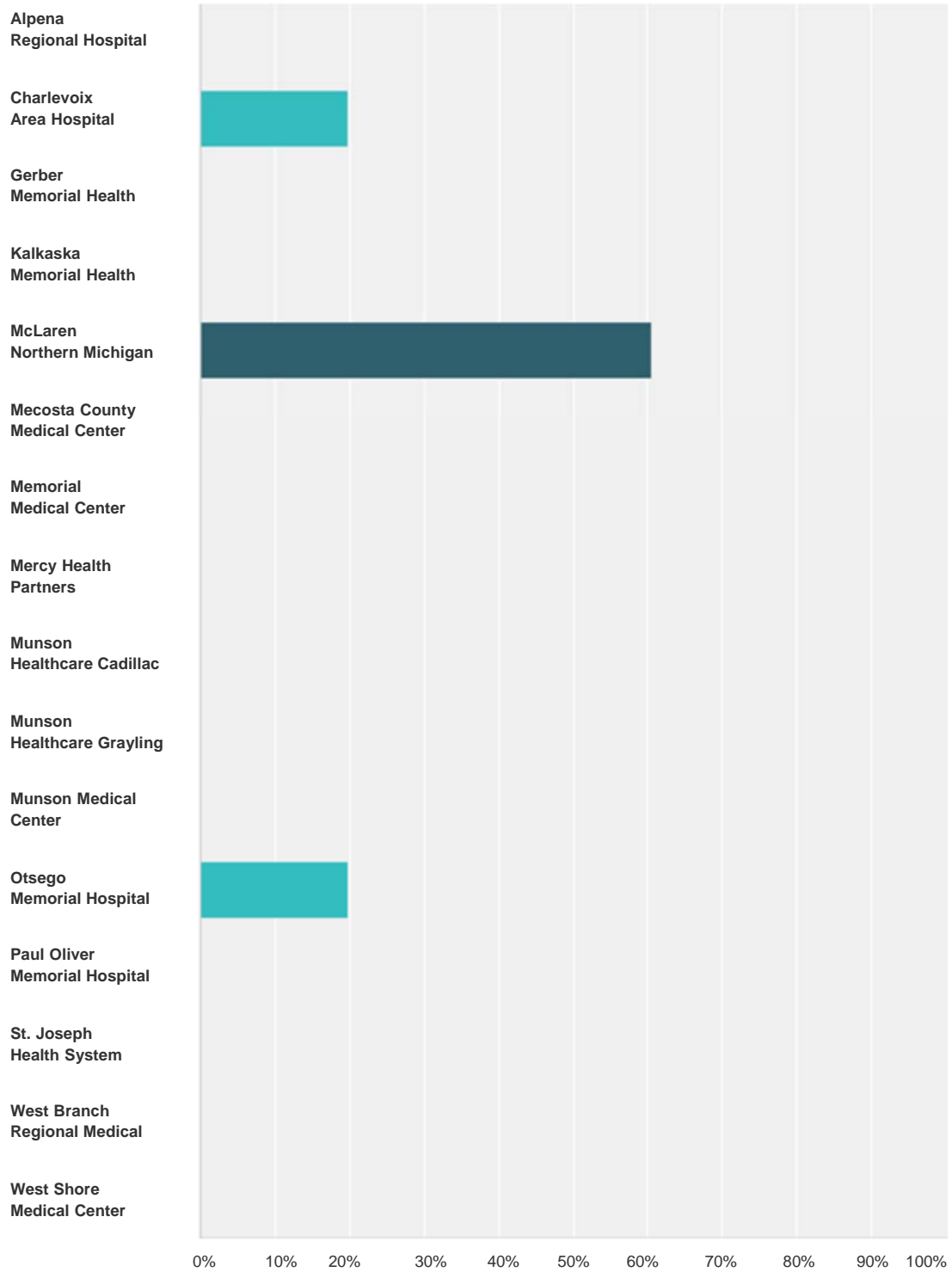
Answered: 81 Skipped: 0



Answer Choices	Responses	
Aging problems	13.58%	11
Chronic disease	24.69%	20
Chronic pain	8.64%	7
Homelessness	0.00%	0
Infectious Disease	0.00%	0
Injury/trauma	2.47%	2
Lack of access to affordable healthy food	7.41%	6
Lack of access to primary care, specialty care, behavioral health services or dental care	40.74%	33
Lack of affordable housing	8.64%	7
Lack of physical activity	18.52%	15
Mental health issues	45.68%	37
Overweight and obesity	56.79%	46
Rape/sexual assault	0.00%	0
Sexually transmitted diseases	0.00%	0
Substance abuse	27.16%	22
Suicide	1.23%	1
Teenage pregnancy	0.00%	0
Tobacco use	39.51%	32
Unsafe home environments (child abuse and neglect/domestic violence)	2.47%	2
Total Respondents: 81		

Q3 Which hospital are you primarily affiliated with?

Answered: 81 Skipped: 0

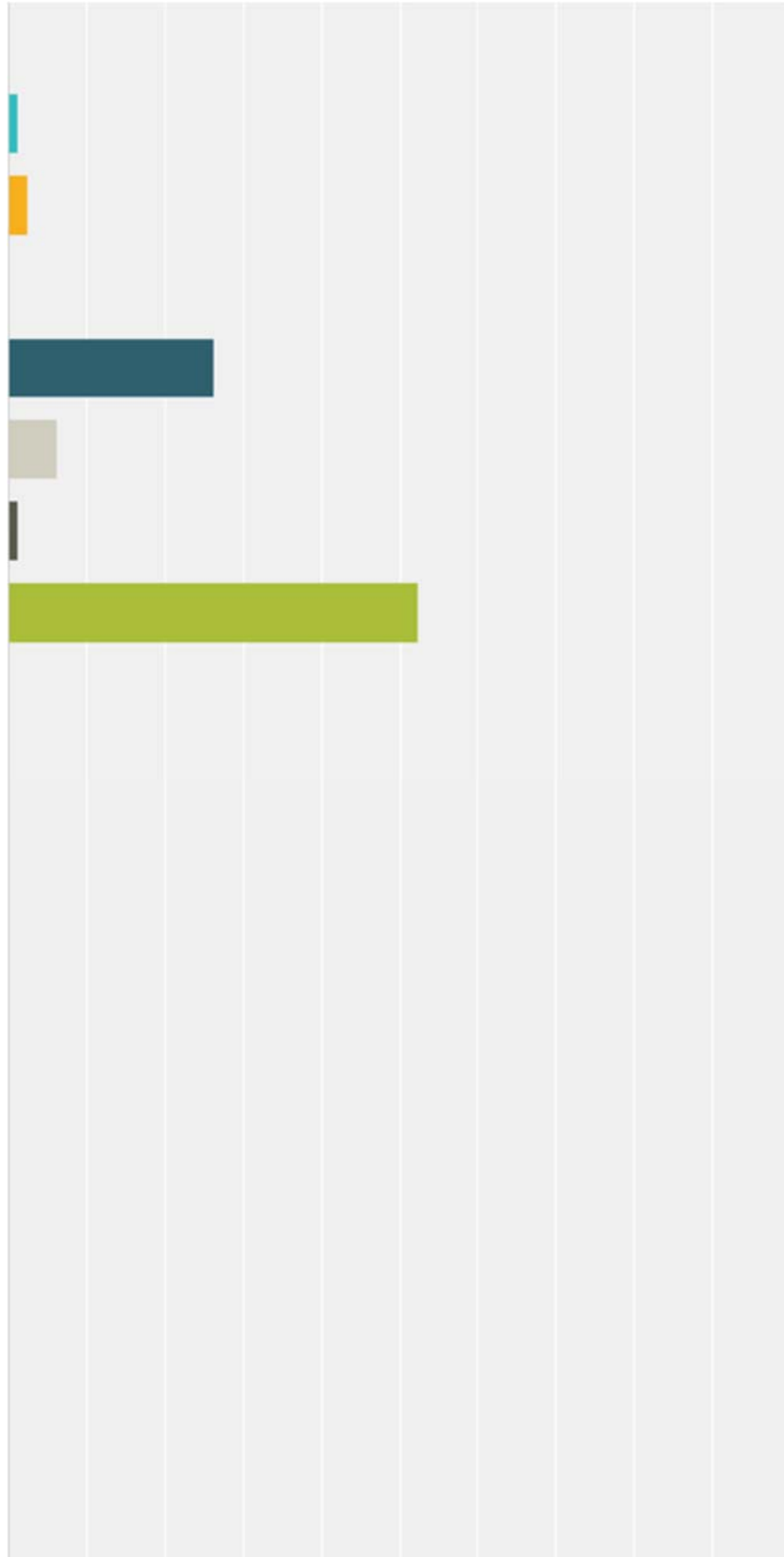


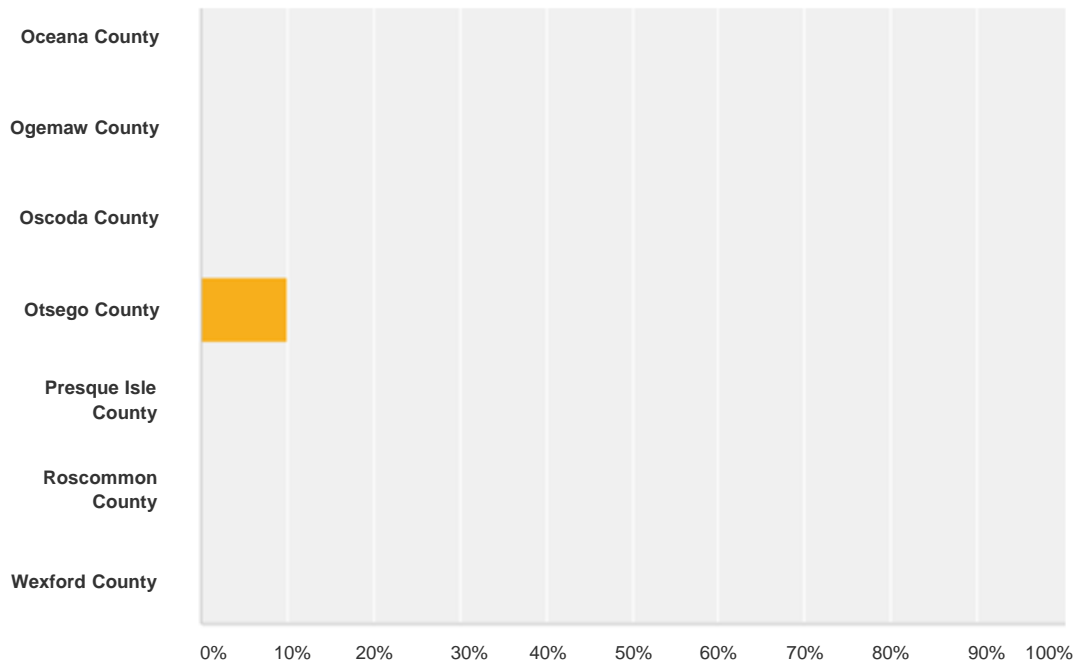
Alpena Regional Medical Center	0.00%	0
Charlevoix Area Hospital	19.75%	16
Gerber Memorial Health Services	0.00%	0
Kalkaska Memorial Health Center	0.00%	0
McLaren Northern Michigan	60.49%	49
Mecosta County Medical Center	0.00%	0
Memorial Medical Center of West Michigan	0.00%	0
Mercy Health Partners, Lakeshore Campus	0.00%	0
Munson Healthcare Cadillac Hospital	0.00%	0
Munson Healthcare Grayling Hospital	0.00%	0
Munson Medical Center	0.00%	0
Otsego Memorial Hospital	19.75%	16
Paul Oliver Memorial Hospital	0.00%	0
St. Joseph Health System	0.00%	0
West Branch Regional Medical Center	0.00%	0
West Shore Medical Center	0.00%	0
Total		81

Q4 Where do you live?

Answered: 80 Skipped: 0

- Alcona County
- Alpena County
- Antrim County
- Benzie County
- Charlevoix County
- Cheboygan County
- Crawford County
- Emmet County
- Grand Traverse County
- Iosco County
- Kalkaska County
- Lake County
- Leelanau County
- Manistee County
- Mason County
- Mecosta County
- Missaukee County
- Montmorency County
- Newaygo County

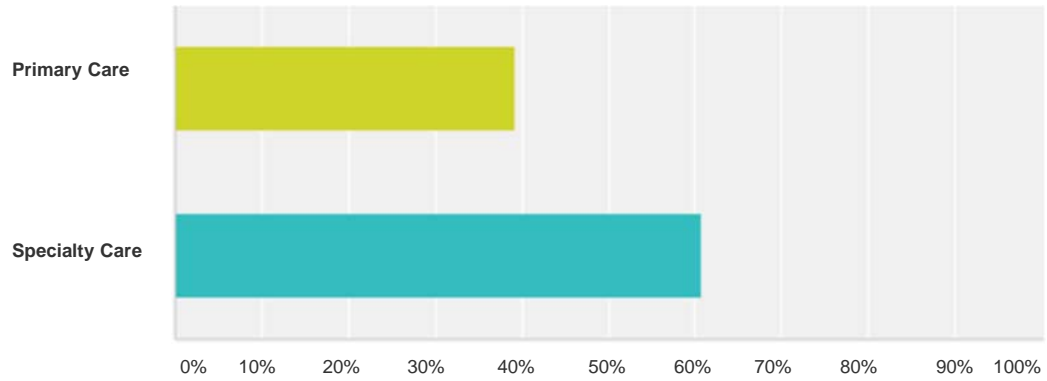




Answer Choices	Responses	
Alcona County	0.00%	0
Alpena County	1.25%	1
Antrim County	2.50%	2
Benzie County	0.00%	0
Charlevoix County	26.25%	21
Chebovgn County	6.25%	5
Crawford County	1.25%	1
Emmet County	52.50%	42
Grand Traverse County	0.00%	0
Iosco County	0.00%	0
Kalkaska County	0.00%	0
Lake County	0.00%	0
Leelanau County	0.00%	0
Manistee County	0.00%	0
Mason County	0.00%	0
Mecosta County	0.00%	0
Missaukee County	0.00%	0
Montmorency County	0.00%	0
Newaygo County	0.00%	0
Oceana County	0.00%	0
Ogemaw County	0.00%	0
Oscoda County	0.00%	0
Otsego County	10.00%	8
Presque Isle County	0.00%	0
Roscommon County	0.00%	0
Wexford County	0.00%	0
Total	80	

Q5 Do you practice primary or specialty care?

Answered: 79 Skipped: 2



Answer Choices	Responses	
Primary Care	39.24%	31
Specialty Care	60.76%	48
Total		79

HEALTH DISPARITIES AND DETERMINANTS OF HEALTH

America benefits when everyone has the opportunity to live a long, healthy and productive life, yet health disparities persist. A health disparity is a difference in health outcomes across subgroups of the population. Health disparities are often to determinants of health—social, economic, or environmental disadvantages, such as less access to good jobs, unsafe neighborhoods, or lack of affordable transportation options. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health on the basis of their racial or ethnic group; religion; socioeconomic status; gender; age, mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location, or other characteristics historically linked to discrimination or exclusion. Many health concerns, such as heart disease, asthma, obesity, diabetes, HIV/AIDS, viral hepatitis B and C, infant mortality, and violence, disproportionately affect certain population. Reducing disparities in health will give everyone a chance to live a healthy life and improve the quality of life for all Americans.

Key Facts:

- A variety of health-related hazards are disproportionately found in low-income housing, including mold, allergens, poor indoor air quality, structural deficiencies and lead contamination
- Work-related factors, including occupational exposures to chemicals, physical overexertion, excessive heat or cold, noise and stress or job strain can create or worsen a variety of health problems, including cancer, COPD, asthma, and heart disease.
- A person's decisions are influenced by how choices are presented. For example, presenting fruit in a more attractive way to school children can more than double the amount of fruit they purchase.
- On average, adults with serious mental illness die 25 earlier than their peers, largely due to preventable health conditions
- More than 80 million in the US do not have access to fluoridated water. Fluoridated water reduces tooth decay by 25% in children and adults. For every \$1 spent on fluoridation saves more than \$40 in dental treatment costs
- Lesbian, gay, bisexual and transgender individuals may be at increased risk for health risk behaviors. However, only a limited number of reports include information on sexual orientation

Rurality

Rural Americans are a population group that experiences significant health disparities, such as higher incidence of disease and disability, increased mortality rates and lower life expectancy, and higher rates of pain and suffering. Social determinants of health in rural areas include geographic isolation, lower socio-economic status, higher rates of health risk behaviors, and limited job opportunities. 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.

Education and Income

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

Home, School and the Workplace

The burden of chronic disease is disproportionately distributed across the population. There are significant disparities based on gender, age, race/ethnicity, geographic area and socioeconomic status. Disease does not occur in isolation, and chronic disease in no exception. Chronic disease is significantly influenced by the physical, social and political environment, including maternal and child health, access to educational opportunities, availability of healthy foods, physical education and extracurricular activities in schools, access to healthy foods, quality of working conditions and worksite health, available of community support and resources and access to affordable, quality health care.

HIGHLIGHTS FROM THE 2015 COMMUNITY HEALTH ASSESSMENT

Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle counties

Tip of the Mitt Data

Rurality: The US Census Bureau designates all 8 tip of the mitt counties as “rural”. Overall, there are 23.6 persons per square mile living in the region; statewide, there are 174.8 persons per square mile.

Ethnicity/Race: Population (183,997) is predominantly white; largest minority groups are Native Americans and Hispanic/Latino

Age: 36,314 residents of the 8-county region are age 0-17 (20%) and 147,683 are 18+. With 20% of the population age 65+ in Northwest counties and 24% in Northeast counties, age skews older, when compared to the State (15%) and the segment is growing faster

Education: Graduation rates in the 8 counties exceed State (79%) except in Alpena (73%) and range up to 92% in Presque Isle County. The proportion of the population who has earned at least a Bachelor degree ranges from 10% in Montmorency County to 32% in Emmet County. Montmorency (10%), Alpena (16%), Cheboygan (16%), Presque Isle (16%), Otsego (20%) and Antrim (24%) are below State (26%).

Housing: The proportion of renters who spend 30% or more of household income on rent ranges from 40% in Presque Isle County to 69% in Montmorency County. Rates for Antrim (58%) and Montmorency (69%) are above State rate (55%).

Income: Median household income ranges from \$42,632 in Montmorency County to \$61,664 in Emmet County, hovering at or exceeding State (\$48,411) in all but Montmorency (\$42,632) and Cheboygan (\$46,010) and Presque Isle (\$46,601)

Poverty: The proportion of families who live below the Federal Poverty Level ranges from 7% in Emmet County to 13% in Alpena and Cheboygan counties, which slightly exceed State rate (12%).

Community Conversations

117 community members and representatives from local health departments, hospitals and other health care providers, social service agencies, schools, business, and government participated in a Community Conversation. Their answers to the question “What can we do here in this county to move closer to our vision of a healthy community?” , included many issues related to determinants of health, such as attracting economic growth and increasing options for affordable housing, transportation, and childcare, increasing law enforcement in high crime areas.

Alpena	Antrim	Charlevoix	Cheboygan	Emmet	Montmorency	Otsego	Presque Isle
X	X	X	X	X	X	X	X

What Matters to You? Survey N=1,220

The most important factors needed for a healthy community according to community survey respondents are, in rank order: 1) access to health care; 2) good jobs and healthy economy; 3) access to affordable healthy foods; 4) good schools/high value on education; and 5) affordable housing. The most important community health problems in their county were: 1) substance use; 2) overweight and obesity; 3) chronic disease; 4) mental health issues; 5) lack of affordable housing. Many survey respondents noted they cannot afford health care services (81%) and transportation is a barrier to getting to appointments (63%).

Health Care Provider Survey N=126

Physicians, nurse practitioners and physician assistants ranked access to health care, good jobs/healthy economy, healthy lifestyles, good schools/high value on education, and access to affordable healthy foods as the top factors needed for a healthy community. The top community health problems in their counties were: obesity and overweight, mental health issues, lack of access to care, and tobacco use.



ISSUE BRIEF: ACCESS TO HEALTH CARE

Access to health services is important at every age. Having both a primary care provider and medical insurance can prevent illness by improving access to a range of recommended preventive services across the lifespan, from childhood vaccinations to screening tests for cancer and chronic diseases, such as diabetes and heart disease. Having a primary care provider and medical insurance also plays a vital role in finding health problems in their earliest, most treatable stages, and managing a person through the course of the disease. Lacking access to health services—even for just a short period—can lead to poor health outcomes over time.

Key Facts:

- Almost 1 in 4 Americans do not have a regular primary care provider or health center where they can receive routine medical services
- Less than half of older adults are up-to-date on a core set of clinical preventive services, including cancer screenings and immunizations
- Less than half of Americans with hypertension have adequately controlled blood pressure and only one-third with high cholesterol have it adequately controlled. Improving control is one of the most effective ways to prevent heart disease and stroke
- Colorectal cancer is the second leading cause of death in the U.S. Some estimates suggest that if screening implemented at recommended levels, more than 18,000 lives could be saved each year
- Each year, asthma costs the U.S about \$3.30 per person in medical expenses, missed school /work days and early deaths
- Community programs that teach people how to manage their diabetes can help prevent short- and long-term health conditions, enhance quality of life, and contain health care costs
- More than 80 million people in the US do not have fluoridated water, which reduces tooth decay by 25% in children and adults. Every dollar spent on fluoridation saves more than \$40 in dental treatment costs
- Nationally, only 44.5% (age-adjusted) of people age 2 and older had a dental visit in the past 12 months, a rate that has remained unchanged for the past decade

Health Insurance

People without medical insurance are more likely to lack a usual source of medical care, and are more likely to skip routine medical care due to cost, increasing their risk for serious and disabling health conditions. When they do access health services, they are often burdened with large medical bills and out-of-pocket expenses.

Regular Source of Medical Care

Access to health services affects a person's health and well-being. Regular and reliable access to health services can prevent disease and disability, detect and treat illnesses or other health conditions, increase quality of life, reduce the likelihood of premature death and increase life expectancy. Primary care providers play an important role in protecting the health and safety of the communities they serve. They can develop meaningful and sustained relationships with patients and provide integrated services while practicing in the context of family and community. Having a usual primary care provider is associated with greater patient trust in the provider, good patient-provider communication and increased likelihood that patients will receive appropriate care.

Clinical/Community Preventive Services

Clinical preventive services, such as routine disease screening and scheduled immunizations, are key to reducing death and disability and improving the Nation's health. These services both prevent and detect illnesses and diseases—from flu to cancer—in their earlier, more treatable stages, significantly reducing the risk of illness, disability, early death, and medical care costs. They can be supported and reinforced by community-based prevention, policies, and programs. Community programs can also play a role in promoting the use of clinical preventive services and assessing clients in overcoming barriers to transportation, child care and navigating resources .

Social Determinants of Health

One of the barriers to accessing to health care is the high cost of medical insurance, deductibles and co-pays. A lack of medical

services in some communities, coupled with a shortage of primary care providers, also negatively affects people's ability to access health services. Living in a rural area itself is a determinant health. Geographic isolation, fewer transportation options and limited resources compound access barriers.

HIGHLIGHTS FROM THE 2015 COMMUNITY HEALTH ASSESSMENT

Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle counties

Tip of the Mitt Data

Health Professions Shortage Areas: There are Health Professions Shortage Areas designated in Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego and Presque Isle counties for primary care, behavioral health, and/or dental care

Primary Care Provider Rate: Five counties have provider to population ratios considerably below State rate (80 per 100,000): Presque Isle (15); Antrim (34); Cheboygan (62) Montmorency (63); and Otsego (67). Unsurprisingly, counties where hospitals are located, and medical practices are concentrated, have higher rates: 86 per 100,000 in Alpena County, 96 per 100,000 in Charlevoix County, and 134 per 100,000 in Emmet County.

Health Insurance: Most recent data (2013) for rates of insured for the overall adult population range from 80% in Montmorency County to 84% in Otsego County. However, with the implementation of the Affordable Care Act, the federal Health Insurance Marketplace opened late in 2012 and was soon followed by the State’s Healthy Michigan Plan. As of April 2015, virtually 100% of eligible adults from the 8-county region were enrolled in one of these programs. The proportion of children covered by any insurance ranges from 94-95% in all eight counties, slightly below State rate of 96%.

Community Conversations

117 community members and representatives from local health departments, hospitals and other health care providers, social service agencies, schools, business, and government participated in a Community Conversation to answer the question, “What can we do here in this county to move closer to our vision of a healthy community?” Improving access to health care—including primary care, behavioral health, and/or oral health care, was identified as an action in the following counties:

ALP	ANT	CHX-EM	CHB	MON	OTS	PI
X	X	X	X	X	X	X

What Matters to You? Survey N=1,220

Access to health care was the #1 factor needed for a healthy community in the Community Survey, with 69% identifying access to primary care, specialty care, behavioral health and dental care as a top factor. They ranked access to care 6th as a need in their county, after substance use, overweight and obesity, chronic disease mental health issues, and affordable housing.

Health Care Provider Survey N=126

Similarly, 69% of physicians, nurse practitioners and physician assistants identified access to health care as a top factor, ranking it #1 in the Health Care Provider Survey. Regarding local community health problems, they ranked access to health care third, following overweight/obesity and mental health issues.

Major Forces of Change

Affordable Care Act (ACA)

Implemented in 2013, the ACA represents the largest overhaul of the U.S. healthcare system since the enactment of Medicare and Medicaid in 1965. It introduced mechanisms like mandates, subsidies and insurance exchanges. The law requires insurance companies to cover all applicants within new minimum standards and offer the same rates regardless of pre-existing conditions or sex.

Enroll Northern Michigan

Enroll Northern Michigan is a very successful collaborative initiative of health departments, hospitals, federally-qualified health centers, community mental health agencies and other community partners from across the tip of the mitt region. Led by the Health Department of Northwest Michigan with funding from the Northern Health Plan to enroll eligible adults in the ACA: Healthy Michigan Plan or the Health Insurance Marketplace.

Mi-Connect

Mi-Connect is led by Alcona Health Centers, a system of federally-qualified health centers. The initiative is designed to increase integration of primary care and behavioral health and increase access to oral health care across an 11-county region.



ISSUE BRIEF: CHRONIC DISEASE

Chronic disease results in serious illness and disability, decreased quality of life, and hundreds of billions of dollars in economic loss every year. Heart disease, stroke, cancer, diabetes, obesity and arthritis, are among the most common and preventable of all health problems. Seven of the top 10 causes of death in the US are chronic disease and two—heart disease and cancer—together account for nearly 48% of all deaths. The risk of Americans developing and dying from chronic disease would be substantially reduced if major improvements were made in the US population in diet and physical activity, control of high blood pressure and cholesterol, and smoking cessation.

Key Facts:

- About ½ of adults in the US—117 million people—have 1+ chronic conditions. 1 in 4 adults have 2+ chronic conditions
- Leading causes of death in the US are heart disease, cancer and stroke
- High blood pressure affects 1 in 3 adults and more than ½ of Americans with high blood pressure do not have it under control.
- Arthritis is the most common cause of disability. Of the 53 million adults with a diagnosis of arthritis, 22 million say they have trouble with their usual activities because of the disease
- Diabetes is the leading cause of kidney failure, lower-limb amputations other than those caused by injury, and new cases of blindness in adults.
- Obesity is a serious concern. More than 1/3 of adults are obese (BMI ≥ 30 kg/m²). Nearly 1 in 5 youth age 2-19 are obese (BMI $\geq 95^{\text{th}}$ percentile)
- Fewer than 15% of adults and 10% of adolescents eat recommended amounts of fruits and vegetables each day
- Most Americans consume more than 2x the recommended average daily sodium level. Nearly 80% of sodium is consumed from packaged, processed, and restaurant food.
- At least 40% of adults and 80% of adolescents do not meet the Physical Activity Guidelines for Americans
- Only 13% of children walk or bike to school, compared to 44% a generation ago
- The average 8- to 18-year-old is exposed to nearly 7.5 hours of passive screen time (TVs, smart phones, computers, video games, etc) every day

Healthy Eating

Healthy eating can help reduce people's risk for heart disease, high blood pressure, diabetes, osteoporosis and several types of cancer, as well as help maintain a healthy body weight. As described in the *Dietary Guidelines for Americans*, eating healthy means consuming a variety of nutritious foods and beverages, especially vegetables, fruits, fat-free dairy products and whole grains; limiting intake of saturated fats, added sugars, and sodium; keeping trans fat intake as low as possible and balancing caloric intake with calories burned to manage body weight. Safe eating means ensuring that food is free from harmful contaminants, such as bacteria and viruses

Physical Activity

Engaging in regular physical activity is one of the most important things people of all ages can do to improve their health. Physical activity strengthens bones and muscles, reduces stress and depression, and makes it easier to maintain a healthy body weight or reduce weight if overweight or obese. Even people who do not lose weight gain substantial benefits from regular physical activity, including lower rates of high blood pressure, diabetes, and cancer. Healthy physical activity includes aerobic activity, muscle-strengthening activities and activities to increase balance and flexibility. As described by the *Physical Activity Guidelines for Americans*, adults should engage in at least 150 minutes of moderate-intensity activity each week, and children and teenagers should engage in at least one hour of activity per day.

Social Determinants of Health

The burden of chronic disease is disproportionately distributed across the population. There are significant disparities based on gender, age, race/ethnicity, geographic area and socioeconomic status. Disease does not occur in isolation, and chronic disease in no exception. Chronic disease is significantly influenced by the physical, social and political environment, including maternal and child health, access to educational opportunities, availability of healthy foods, physical education and extracurricular activities in schools, access to healthy foods, quality of working conditions and worksite health, available of community support and resources and access to affordable, quality health care.

*Narrative adapted from **Healthy People 2020** and the **National Prevention Strategy***

HIGHLIGHTS FROM THE 2015 COMMUNITY HEALTH ASSESSMENT

Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle counties

Tip of the Mitt Data

Obesity--adults: Adult obesity rates range from 27% in Charlevoix County to 35% in Alpena County in the 8-county region. Only Charlevoix (27%) and Emmet (28%) are below State rate of 32%.

Obesity—teens: Teen obesity rates range from 10% in Presque Isle County to 19% in Cheboygan County; 2 counties are below State rate (13%): Presque Isle (10%), Antrim (11%).

Lack of physical activity—adults: Statewide, 23% of adults do not engage in any physical activity other than their regular job. In the 8-county region, the proportion ranges from 18% in Emmet County to 26% in Presque Isle. Montmorency (24%), Otsego (25%) and Presque Isle (26%) counties exceed State rate.

Lack of physical activity—teens: The proportion of high school students who did not engage in 60 minutes of physical activity in 5 of the last 7 days ranges from 31% in Presque Isle County to 53% in Otsego County. For comparison, State rate is 50%.

Community Conversations

117 community members and representatives from local health departments, hospitals and other health care providers, social service agencies, schools, business, and government participated in a Community Conversation to answer the question, “What can we do here in this county to move closer to our vision of a healthy community?” , issues related to reducing chronic disease and/or obesity was identified as an action in the following counties:

ALP	ANT	CHX-EM	CHB	MON	OTS	PI
X	X	X	X	X	X	X

Major Forces of Change

Chronic Disease Coordinating Network: The Northern Health Plan is funding Health Department of Northwest (Northwest) Michigan to implement a comprehensive approach to chronic disease prevention and treatment guided by a cross-sector coalition with representatives from across the 8-county tip of the mitt region

Healthy Food Service Guidelines: 6 local health departments, including District Health Department #4 and Northwest, have received funding from MDHHS to increase the number of worksites complying with Healthy Food Service Guidelines

What Matters to You? Survey N=1,220

32% of community residents identified access to affordable healthy food as an important factor needed for a healthy community, ranking it 3rd after access to health care and good jobs/healthy economy. They identified the following as top community health problems in their county: substance use, obesity/overweight, and chronic disease Respondents most often noted they had been diagnosed with overweight/obesity (70%), arthritis (57%), asthma (48%), high cholesterol (46%), dental health problems (45%), high blood pressure (44%) and chronic pain (43%)

Health Care Provider Survey N=126

Physicians, nurse practitioners and physician assistants ranked “healthy lifestyles” as the 3rd most important factor for a healthy community, following access to health care and good jobs/healthy economy. They identified obesity and overweight as the top community health problem, followed by mental health issues, lack of access to health care, substance use and tobacco use.



ISSUE BRIEF: MATERNAL, INFANT AND CHILD HEALTH

The well-being of mothers, infants, and children determines the health of the next generation and helps predict future public health challenges for families, communities, and the medical care system. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. Despite major advances in medical care, critical threats to maternal, infant, and child health still exist. Among the Nation's most pressing challenges are reducing the rate of preterm births and the infant death rate.

Key Facts:

- Nearly half of all pregnancies are unintended. Associated risks include low birth weight, postpartum depression, and family stress
- 31% of women who deliver an infant suffer pregnancy complications, ranging from depression to the need for a cesarean delivery
- Although rare, the risk of death during pregnancy has declined little over the last 20 years
- Infant mortality rates are higher among women of color, adolescents, unmarried mothers, people who smoke, those with lower education levels, and those who did not obtain adequate prenatal care
- The preterm birth rate has risen more than 20% in the past 20 years. Preterm infants are more likely to suffer complications at birth, die within the first year of life, and have lifelong health challenges such as cerebral palsy or learning disabilities
- On average, 42,000 deaths per year are prevented among children who receive recommended vaccines
- There are approximately 19 million new cases of sexually transmitted infections each year—almost half of these are in young people age 15 to 24.
- Binge drinking and illicit drug use are associated with intimate partner violence and risky sexual behaviors, including unprotected sex and multiple sex partners. These activities increase the risk of unintended pregnancies and increase the risk of acquiring HIV and other sexually transmitted infections

Reproductive and Sexual Health

Healthy reproductive and sexual practices can play a critical role in enabling people to remain healthy and actively contribute to their community. Planning and having a healthy pregnancy is vital to the health of women, infants, and families and is especially important in preventing teen pregnancy and childbearing, which will help raise educational attainment, increase employment opportunities, and enhance financial stability. Access to quality health services and support for safe practices can improve physical and emotional well-being and reduce teen and unintended pregnancies, HIV/AIDS, viral hepatitis, and other sexually transmitted infections.

Childhood Immunizations

Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. Childhood immunization programs provide a very high return on investment. For example, for each birth cohort vaccinated with the routine immunization schedule (this includes DTaP, Td, Hib, Polio, MMR, Hep B, and varicella vaccines), society saves 33,000 lives; prevents 14 million cases of disease; reduces direct health care costs by \$9.9 billion and saves \$33.4 billion in indirect costs. Despite progress, about 300 children in the U.S. die each year from vaccine-preventable diseases. Communities with pockets of unvaccinated and undervaccinated populations are at increased risk for outbreaks of vaccine-preventable diseases.

Child Abuse and Neglect

Adverse experiences in childhood, including violence and maltreatment, are associated with health risk behaviors such as smoking, alcohol and drug use, and risky sexual behavior, as well as health problems such as obesity, diabetes, ischemic heart disease, sexually transmitted infection, and attempted suicide.

Social Determinants of Health

A range of biological, social, environmental, and physical factors have been linked to maternal, infant, and child health outcomes. These include race and ethnicity, age, and socioeconomic factors, such as income level, educational attainment, medical insurance coverage, access to medical care, prepregnancy health, and general health status. For example, children reared in safe and nurturing families and neighborhoods, free from maltreatment and other social problems, are more likely to have better outcomes as adults.

HIGHLIGHTS FROM THE 2015 COMMUNITY HEALTH ASSESSMENT

Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle counties

Regional Statistics

Infant mortality rate: Five-year infant mortality rates (2009-13) range from 4.8 per 1,000 live births in Charlevoix County to 15.2 per 1,000 live births in Presque Isle County; for comparison, Michigan infant mortality rate for the same period was 6.0.

Early prenatal care: The percentage of births to women who received prenatal care within the first three months of their pregnancy ranges from 59.9% in Charlevoix County to 86.3% in Alpena County. Only Alpena County exceeds the State rate of 77.9%.

Low birthweight: The proportion of infants who were born weighing less than 2,500 grams ranges from 4.2% in Charlevoix County to 9.6% in Antrim County. Low birthweight rates were higher than State (7.8%) in just 2 counties: Antrim and Otsego.

Maternal smoking: Maternal smoking rates are high across the tip of the mitt, exceeding State rate (19.7%) in every county. Rates range from 26.3% in Emmet County to 49.8% in Alpena County.

Childhood immunization: The proportion of children age 19-35 months who have received recommended immunizations (4 Dtap, 3 Polio, 1 MMR, 3 Hib, 1 Varicella, 4 PCV, and 2 HepA) ranges from 65.4% in Presque Isle County to 79.4 in Emmet County. Only Charlevoix and Emmet counties exceed State rate.

Child abuse and neglect: Rates for confirmed child abuse and neglect are higher in all of the tip of the mitt counties than the State as a whole (14.9 per 1,000 children < 19). They range from 16.3 per 1,000 in Emmet to 29.9 per 1,000 in Antrim County.

Community Conversations

117 community members and representatives from local health departments, hospitals and other health care providers, social service agencies, schools, business, and government participated in a Community Conversation to answer the question, "What can we do here in this county to move closer to our vision of a healthy community?" Actions related to maternal, infant and/or child health were identified in the following counties:

ALPENA	ANTRIM	CHARLEVOIX-EMMET	CHEBOYGAN	MONTMORENCY	OTSEGO	PRESQUE IS
X	X	X	X	X	X	X

Major Forces of Change

Perinatal Initiative of Northern Lower Michigan: The Perinatal Initiative was organized in 2012 by the North Central Council of the Michigan Health and Hospital Association. Its members include the 12 hospitals and 7 local health departments that serve a 21-county region as well as many state and local partners.

Michigan Home Visiting Initiative: Health Department of Northwest Michigan is implementing Healthy Families America in the counties with highest need in a 21-county region. With \$1.6M in annual funding, it provides voluntary, family support services in the homes of at-risk pregnant women and families with children aged 0-5.

Sustaining Community-Based Immunization Project: District Health Department #10 was awarded \$492,000 on behalf of the 6 local health department partners in the Northern Michigan Public Health Alliance (NMPHA). It is designed to increase immunization rates among children and older adults in MCI Region 5 in a 2 ½ time period (2015-2018)

Health Systems Change for Tobacco Dependence Treatment: Health Department of Northwest Michigan was awarded this \$125,000, 1-year grant on behalf of the NMPHA. The purpose of the project is to implement the CDC's Tobacco Dependence Treatment Guidelines consistently in health departments' Family Planning Clinics in a 25-county region.



ISSUE BRIEF: MENTAL HEALTH

Mental health is essential to a person's well-being, healthy family and interpersonal relationships, and the ability to live a full and productive life. People with untreated mental health disorders are at high risk for many unhealthy and unsafe behaviors, including substance use, violent or self-destructive behavior, and suicide. Mental health disorders can have harmful and long-lasting effects—including high psychosocial and economic costs—not only for people living with the disorder, but also for their families, schools, workplaces, and communities. Fortunately, a number of mental health disorders can be treated effectively, and prevention of mental health disorders is a growing area of research and practice. Early diagnosis and treatment can decrease the disease burden of mental health disorders as well as associated chronic diseases. Assessing and addressing mental health remains important to ensure that all Americans lead longer, healthier lives.

Key Facts:

- Many mental health disorders are preventable and treatable. Early identification and treatment can prevent the onset of disease, decrease rates of chronic disease, and help people live longer, healthier lives
- Approximately 1 in 4 adults in the US have had a mental health disorder in the past year—most commonly anxiety or depression—and 1 in 17 had a serious mental illness
- 1 in 5 children in the United States have had a mental health disorder, most commonly AD/HD
- A child experiencing mental health issues is more likely to have problems at school and is at greater risk of entering the criminal justice system
- In a given year, less than half of the people diagnosed with a mental illness receive treatment. The unmet need is greatest among underserved groups, such as older adults, minorities, those without health insurance, and residents of rural areas
- More than 34,000 Americans die as a result of suicide every year—approximately 1 suicide every 15 minutes. Suicide rates are highest among American Indian/Alaska Native youth.
- Risk factors for suicide include substance use, isolation, extreme emotional stress, a history of child maltreatment and mental health conditions such as depression
- Racial discrimination is associated with chronic stress and can lead to negative health outcomes such as hypertension

Impact on Physical Health

Mental health and physical health are inextricably linked. Evidence has shown that mental health disorders—most often depression—are strongly associated with the risk, occurrence, management, progression, and outcome of serious chronic diseases and health conditions, including diabetes, hypertension, stroke, heart disease, and cancer. This association appears to be caused by mental health disorders that precede chronic disease; chronic disease can intensify the symptoms of mental health disorders, in effect creating a cycle of poor health. This cycle decreases a person's ability to participate in the treatment of and recovery from mental health disorders and chronic disease. Therefore, while efforts are underway to reduce the burden of death and disability caused by chronic disease in the US, simultaneously improving mental health nationwide is critical to improving the health of all Americans.

Emerging Issues in Mental Health

New mental health issues have emerged among some special populations, such as veterans who have experienced physical and mental trauma; people in communities with large-scale psychological trauma caused by natural disasters; older adults, as the understanding and treatment of dementia and mood disorders continues to improve. As the Federal Government implements health reform legislation, it will give attention to providing services for individuals with mental illness and substance use disorders, including new opportunities for access to and coverage for treatment and prevention services.

Social Determinants of Health

Several factors have been linked to mental health, including race and ethnicity, gender, age, income level, education level, sexual orientation, and geographic location. Other social conditions—such as interpersonal, family, and community dynamics, housing quality, social support, employment opportunities, and work and school conditions—can also influence mental health risk and outcomes, both positively and negatively. For example, safe shared places for people to interact, such as parks and churches, can support mental health.

HIGHLIGHTS FROM THE 2015 COMMUNITY HEALTH ASSESSMENT

Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle counties

Tip of the Mitt Data

Suicide: Age-adjusted suicide rates are higher than State (10.2 per 100,000) for the 6 counties reported (unable to calculate for Montmorency and Presque). Rates range from 12.5 per 100,000 in Emmet County to 20.5 in Antrim County

Depression among older adults: The proportion of adults enrolled in Medicare ranges from 13% in Charlevoix County to 18% in Otsego County. Rates are higher than State (17%) in Alpena and Otsego (18%) only.

Inadequate social support: Of the 7 counties reporting (unable to calculate Presque Isle), the proportion of adults who report they have inadequate social support ranges from 12% in Charlevoix County to 20% in Alpena, Cheboygan, and Otsego counties. For comparison, State rate is 20%.

Poor mental health days: Of the 7 counties reporting (unable to calculate Montmorency), the average number of days per month adults experience a poor mental health day ranges from 2.5 in Cheboygan County to 5.4 in Antrim County. Emmet (3.9 days), Otsego (4.1 days), and Antrim (5.4 days) exceed State rate of 3.7 days per month

Community Conversations

117 community members and representatives from local health departments, hospitals and other health care providers, social service agencies, schools, business, and government participated in a Community Conversation to answer the question, "What can we do here in this county to move closer to our vision of a healthy community?" Addressing prevention, treatment and/or access to mental health services was identified as an action in the following counties:

ALP	ANT	CHX-EM	CHB	MON	OTS	PI
X	X	X		X	X	

It is noteworthy that the #1 action identified in the Charlevoix-Emmet Conversation was to *intentionally integrate accessible behavioral and physical health services*

What Matters to You? Survey N= 1,220

When asked what are the 3 most important factors for a healthy community, top responses were: access to health care (69%); good jobs/healthy economy (50%); access to affordable healthy food (33%); affordable housing (27%); and good schools/high value on education (28%). Community members identified these problems most often: substance abuse (48%); overweight/obesity (42%); chronic disease (33%), mental health issues (27%) and lack of affordable housing (26%). When asked what barriers to care they experience, 87% said their health insurance policy does not cover behavioral health; 80% indicated they have problems finding a behavioral health provider and 78% said their health insurance policy does not cover medications. 63% of respondents indicated transportation issues present a problem in getting health care services.

Major Forces of Change

Mi-Connect: Mi-Connect is led by Alcona Health Centers, a system of federally-qualified health centers with federal funding. A key goal is to increase integration of primary care and behavioral health across an 11-county region.

Child and Adolescent Health Centers (CAHC): There are 6 school linked or school based health centers in the 8-county region. Each one offers mental health services to students and families at no charge. Primary care and mental health services are fully integrated at CAHCs in Antrim and Emmet counties

Northeast Michigan Children's Behavioral Health Initiative: The WK Kellogg Foundation funded the Initiative to provide families and children age 0-12 with education and services in collaboration with several community partners

Primary care-behavioral health integration at FQHCs: Several federally qualified health centers across the region now co-locate primary care and mental health services, often in partnership with the regional community mental health agency.

Health Care Provider Survey N=126

When asked what are the 3 most important factors for a healthy community, top responses were: access to health care (69%); good jobs/healthy economy (51%); healthy lifestyles (39%); good schools/high value on education (32%); and access to healthy foods (23%). Physicians, nurse practitioners and physicians assistant identified these community health problems most often: overweight obesity (58%) mental health issues (43%), lack of access to health care (38%), substance/tobacco use (35%)



ISSUE BRIEF: SUBSTANCE USE

Preventing drug abuse and excessive alcohol use increases people's chances of living long, healthy and productive lives. Excessive alcohol use includes binge drinking, underage drinking, drinking while pregnant, and alcohol-impaired driving. Drug abuse includes any inappropriate use of pharmaceuticals (both prescription and over-the-counter drugs) and any use of illicit drugs. Alcohol and other drug use can impede judgment and lead to harmful risk-taking behavior. Preventing drug use and alcohol abuse improves quality of life, academic performance, workplace productivity and military preparedness; reduces crime and criminal justice expenses; reduces vehicle crashes and fatalities; and lowers health care costs for acute/chronic conditions.

KEY FACTS

- Excessive alcohol use is a leading cause of preventable death in the U.S. among all age groups.
- Over half of the alcohol consumed by adults and 90% of the alcohol consumed by youth occurs while binge drinking.
- Prescription drug use is the nation's fastest growing drug problem. ER visits involving the misuse or abuse of pharmaceutical drugs have doubled over the past 5 years.
- Chronic drug use, crime, and incarceration are inextricably connected. At least half of state and Federal inmates in the U.S. were active drug users at the time of arrest.
- 9% of children live with at least 1 parent who abuses alcohol or other drugs. They are more likely to experience physical, sexual or emotional abuse or neglect and more likely to be placed in foster care.
- Rates of marijuana use by youth and young adults are on the rise and fewer youth perceive great risk from smoking it
- After 40 years of steadily declining smoking rates, the decline in adults smoking rates in the U.S. has stalled
- Smoking during pregnancy poses risks to the mother and fetus. A baby born to a mother who smoked during pregnancy is more likely to have less developed lungs and low birthweight, and is more likely to be born prematurely.
- More than ¼ of the U.S. population (88 million people) and more than half of all children in the U.S are exposed to secondhand smoke on a regular basis.

Alcohol and Drug Use

Substance abuse—involving drugs, alcohol, or both—is associated with a range of destructive social conditions, including family disruptions, financial problems, lost productivity, failure in school, domestic violence, child abuse, and crime. In addition, substance abuse contributes to a number of negative health outcomes and public health problems, including cardiovascular conditions, pregnancy complications, HIV/AIDS, sexually transmitted infections, domestic violence, child abuse and neglect, motor vehicle crashes, homicide and suicide. Improved evaluation of community-level prevention has enhanced researchers' understanding of environmental and social factors that contribute to the initiation and abuse of alcohol and illicit drugs, leading to a more sophisticated understanding of how to implement evidence-based strategies in specific social and cultural settings. Estimates of the total overall costs of substance abuse in the United States, including lost productivity and health- and crime-related costs, exceed \$600 billion annually.

Tobacco Use

Tobacco use is the single most preventable cause of disease, disability, and death in the US, yet more deaths are caused each year by tobacco use than by all deaths from HIV, illegal drug use, alcohol use, motor vehicle injuries, suicides, and murders combined. As a result of widespread tobacco use, approximately 443,000 Americans die from tobacco-related illnesses, such as cancer and heart disease, each year. An estimated 49,000 of these deaths are the result of secondhand smoke exposure. Tobacco use poses a heavy burden on the U.S. economy and medical care system. Each year, cigarette smoking costs more than \$193 billion in medical care costs, while secondhand smoke costs an additional \$10 million.

Social Determinants of Health

Several biological, social, environmental, psychological, and genetic factors are associated with alcohol, tobacco and other drug use. These factors can include gender, race and ethnicity, age, income level, educational attainment, and sexual orientation. Substance abuse is also strongly influenced by interpersonal, household, and community dynamics. Family, social networks, and peer pressure are key influencers of substance abuse among adolescents.

HIGHLIGHTS FROM THE 2015 COMMUNITY HEALTH ASSESSMENT

Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle counties

Tip of the Mitt Data

Heavy and binge drinking—adults: More adults in the region drink heavily and/or binge drink in the past 30 days than in the State as a whole (18%). Rates range from 19% in Emmet County to 27% in Antrim County (unable to calculate rates in Montmorency and Presque Isle counties). Similarly,

Binge drinking—teens: More youth binge drank compared to the State (6%). The proportion of 9th and 11th grade students reporting they had 5+ drinks within a short period of time in the past 30 days ranges from 10% in Charlevoix County to 22% in Presque Isle County

Marijuana use--teens: The proportion of high school students who report using marijuana 1 or more times in the past 30 days ranges from 9% in Presque Isle County to 22% in Otsego County. Otsego (22%), Antrim (21%), Emmet (15%) and Cheboygan (13%) counties exceed State rate (9%).

Deaths due to drug poisoning: Deaths due to drug poisoning exceed State rate (13 per 100,000 population) in Presque Isle (19), Otsego (17), Antrim (16), Antrim (15) and Cheboygan (15) counties.

Tobacco use—adults: A much higher proportion of adults smoke cigarettes in Northern Michigan than the State as a whole (12%). Smoking rates in the region range from 16% in Presque Isle County to 31% in Montmorency County.

Tobacco use—teens: The proportion of 9th and 11th grade students reporting they smoked at least once in the past 30 days hovers at or exceeds State (10%), ranging from 11% in Emmet County to 23% in Otsego County.

Community Conversations

117 community members and representatives from local health departments, hospitals and other health care providers, social service agencies, schools, business, and government participated in a Community Conversation to answer the question, “What can we do here in this county to move closer to our vision of a healthy community?” During the Community Conversations, addressing prevention and treatment for alcohol, tobacco and other drug use was identified as an action in the following

AL	AN	CHX-EM	CHB	MON	OTS	PI
X	X	X	X	X	X	

Major Forces of Change

Affordable Care Act (ACA): The ACA includes substance use treatment as an essential service to be offered with all health insurance policies, substantially increasing access

Michigan Medical Marijuana Program (MMMP): The MMMP gives many youth—and some parents the impression that marijuana is not a dangerous drug.

Prescription Drug Use Task Force: NMRE leads this coalition with representatives from physicians and health care organizations, substance use prevention and treatment agencies, law enforcement, and other community partners

Health Care Provider Survey N=122

When asked what the 3 top community health problems are in their county, physicians, nurse practitioners, and physicians assistants indicated overweight/obesity (58%), mental health issues (43%), lack of access to health care (38%), substance use (35%), tobacco use (35%), chronic disease (28%), lack of physical activity (19%), aging problems (11%).

What Matters to You Community Survey N=1,140

The top ranked factors needed for a healthy community were: access to healthcare (69%), good jobs/healthy economy (50%), access to affordable healthy foods (33%), good schools (28%), and affordable housing (27%). Substance use was ranked the #1 need in their counties (48%), followed by overweight/obesity (42%), chronic disease (33%), mental health issues (28%), and affordable housing (26%). 11% of respondents noted they had been diagnosed with alcoholism or other addiction and 93% had a family member who had been diagnosed with alcoholism or other addiction.

