

2016 Community Health Needs Assessment

# Building Healthy Communities

Gladwin County



**MidMichigan Health**

UNIVERSITY OF MICHIGAN HEALTH SYSTEM

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# Introductory Remarks

The Community Education Team of MidMichigan Health supports the Community Health Needs Assessment, or CHNA, as a key component for identifying and articulating top health priorities. The team last conducted a CHNA in 2013, aligning with the Institute for Healthcare Improvement (IHI) belief that new designs can and must be developed to simultaneously accomplish three critical objectives, or what is called the “Triple Aim”: improve the health of the population; enhance the patient experience of care (including quality, access and reliability); and reduce, or at least control, the per capita cost of care.

Although providing a CHNA every three years is a requirement for tax exempt hospitals under the Patient Protection and Affordable Care Acts, our assessment is more importantly a reflection of the Mission, Vision, and Core Values of MidMichigan Health. We truly believe that health happens where we live, learn, work and play, and that all people should have the opportunity to make choices that allow them to live a long, healthy life, regardless of their income, education or ethnic background.

Within these pages, health-related needs for the populations we serve unfold. Our next step will be to address these needs through a health improvement plan. We will work with our health system leaders and community partners within each county; we will share goals, resources and actions to drive these plans towards improved health in our service region.

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## Our Mission

Our Mission is to provide excellent health services to improve the quality of life for people in our communities.

## Our Vision

Our Vision is to celebrate the power of health throughout life - *with you.*

## Our Values

At MidMichigan Health, we hold these values to be fundamental:

**Excellence** - We offer nothing less than the best.

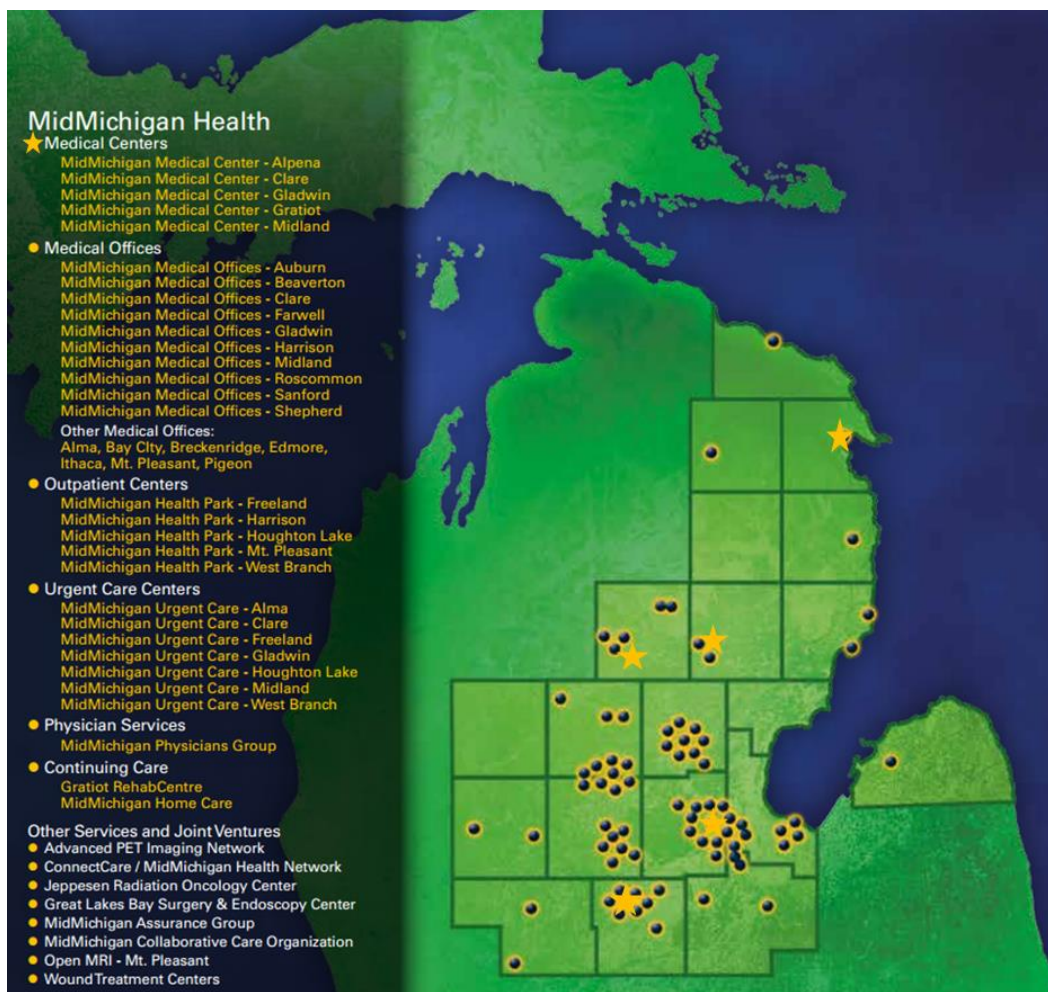
**Integrity** - We do the right thing, each time, every time.

**Teamwork** - We provide individual commitment to a group effort.

**Accountability** - We accept responsibility for all we do.

# Our Communities

MidMichigan Health is a non-profit health system, headquartered in Midland, Michigan, affiliated with the University of Michigan Health System since 2013 and was recently named one of the nation's 15 Top Health Systems® by Truven Health Analytics™. MidMichigan Health covers a 20 county region with medical centers located in Alpena, Clare, Gladwin, Gratiot, and Midland. A description of each of the medical centers, whose quality of care is independently verified through accreditation by the Joint Commission, follows. There are MidMichigan Health Park locations in Freeland, Harrison, Houghton Lake, Mt. Pleasant, and West Branch. MidMichigan Health facilities, including urgent care and MidMichigan Physicians Group facilities are shown on the map below. MidMichigan Physicians Group offers services in the urgent cares and medical offices with more than 31 specialties and subspecialties. These include, but are not limited to: cardiology, family medicine, hematology/oncology, orthopedics, and vascular surgery. MidMichigan Health has more than 7,200 employees, volunteers and physicians and provided \$76 million in community benefits in fiscal year 2015.



## **A. MidMichigan Medical Center - Alpena**

Alpena Regional Medical Center recently joined MidMichigan Health. MidMichigan Medical Center - Alpena is a 139 licensed-bed hospital located in northeast Michigan on the shores of Lake Huron amongst vast forest and endless clear water in a friendly, picturesque city.

Alpena's first community hospital, the Donald McRae Hospital, opened in 1915. It served the community until 1939, when a petition was passed to build a new public hospital. On April 16, 1940 a new 88-licensed bed hospital opened called Alpena General Hospital. More than 251 physicians and mid-level practitioners served on the active medical staff in 44 different medical specialties. MidMichigan Medical Center - Alpena also provides a 24-hour emergency department. There are more than 1,000 employees and 200 volunteers.

## **B. MidMichigan Medical Center - Clare**

A 49-bed hospital, MidMichigan Medical Center - Clare, provides 24-hour emergency department coverage, inpatient care, outpatient care, and urgent care services. Specialized inpatient units include: intensive care, cardiac-monitored care, medical/surgical care, and a sleep diagnostics center. MidMichigan Urgent Care - Clare provides walk-in and occupational medicine care to area residents. The Medical Center's active medical staff consists of 18 physicians representing six medical specialties; 94 percent of the physicians are board certified in their medical specialty.

## **C. MidMichigan Medical Center - Gladwin**

MidMichigan Medical Center - Gladwin is a 25-bed critical access hospital offering both inpatient and outpatient services and a 24-hour emergency department. Outpatient services include but are not limited to ambulatory surgeries, chemotherapy, outpatient infusion, pulmonary, cardiac testing, physical therapy, sleep disorders and cardiac rehabilitation. The medical center offers comprehensive imaging services including, ultrasound, and mammography, CT scanning, bone densitometry, MRI and all general radiology procedures. The medical center also offers full laboratory services and in collaboration with the University of Michigan Health System, MidMichigan Medical Center - Gladwin has the ability to receive a neurology consultation as well as a stroke evaluation via telemedicine. MidMichigan Medical Center - Gladwin provides family practice and internal medicine primary care in the Rural Health Clinic along with 13 specialty clinics. The Rural Health Clinic also provides walk-in non-emergent care to area residents.

## **D. MidMichigan Medical Center - Gratiot**

MidMichigan Medical Center - Gratiot, a 79 licensed-bed hospital located in Alma, has provided care for Gratiot County and surrounding area residents since 1955. More than 130 physicians and mid-level practitioners serve on the active medical staff in 21 different medical specialties. MidMichigan Medical Center - Gratiot also provides an urgent-care clinic and 24-hour emergency department. There are more than 621 employees and 250 volunteers. MidMichigan Medical Center – Gratiot along with MidMichigan Medical Center - Midland provides both radiation and medical oncology care to cancer patients. The center is conveniently located across the street from MidMichigan Medical Center - Gratiot, allowing easy access to diagnostic testing and follow-up care.

## **E. MidMichigan Medical Center - Midland**

A 328 licensed-bed hospital located on 180 acres of wooded campus, MidMichigan Medical Center - Midland is the flagship of the MidMichigan Health system. From its beginning in 1944, the Medical Center in Midland, Michigan has established itself as a leader in quality state-of-the-art health care. In fact, MidMichigan Medical Center - Midland was named one of the nation's 2016 100 Top Hospitals® by Truven Health Analytics™ and was also one of a select few to earn the 2016 100 Top Hospital's Everest® Award. What's more, the Medical Center earned an A in patient safety from The Leapfrog Group for the Fall 2015 Hospital Safety Score. The Hospital Safety Score is the gold standard rating for patient safety, compiled under the guidance of the nation's leading patient safety experts.

In 2011, the Medical Center's expansion and renovation introduced a new environment of care that enhances our region with bigger and better facilities for surgery, patient care and medical services. The active medical staff consists of 166 physicians, 99 percent of whom are board certified. They represent 32 medical specialties providing a full range of primary care as well as outstanding specialty care. MidMichigan Medical Center - Midland is a regional leader in investing in advanced technology, offering state-of-the-art equipment and procedures typically found only in large academic medical centers. The Medical Center is the only hospital in Michigan to offer Gamma Knife Perfexion, considered the gold standard in brain surgery, and has an array of advanced imaging techniques that is unmatched in the region.

## **F. Community Served**

The community served will focus on MidMichigan Medical Center - Gladwin located in Gladwin, MI. The service area in Gladwin County is comprised of zip codes: 48612

(Beaverton), and 48624 (Gladwin).

# Retrospective Summary

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## 2013 Community Health Needs Assessment

The 2013 CHNA prioritized four main focus areas: health care access, health behaviors, clinical preventative and supportive services, and maternal and infant health. Many actions were established by adhering to Healthy People 2020, which provides a comprehensive set of 10-year, national goals and objectives for improving the health of all Americans.

According to County Health Rankings, health factors represents what influences health of a county, health outcomes represent how healthy a county is based upon two types of outcomes: how long people live (length of life) and how healthy people feel while alive (quality of life). According to County Health Rankings, Gladwin County is ranked 63rd out of 83 in the state for health outcomes and ranked 78th out of 83 in health factors.

A listing of outcome measures from July 1, 2013 – December 31, 2015 can be found in Appendix A, and a summary of actions within each of the four main focus areas follows.

### A. Health Care Access

Actions to improve access to seamless, comprehensive, quality health care services included: health care screenings, with resultant referrals for additional testing or services that might be needed; assistance with insurance access; advertisement for health referral services; and utilization of social service workers and care managers.

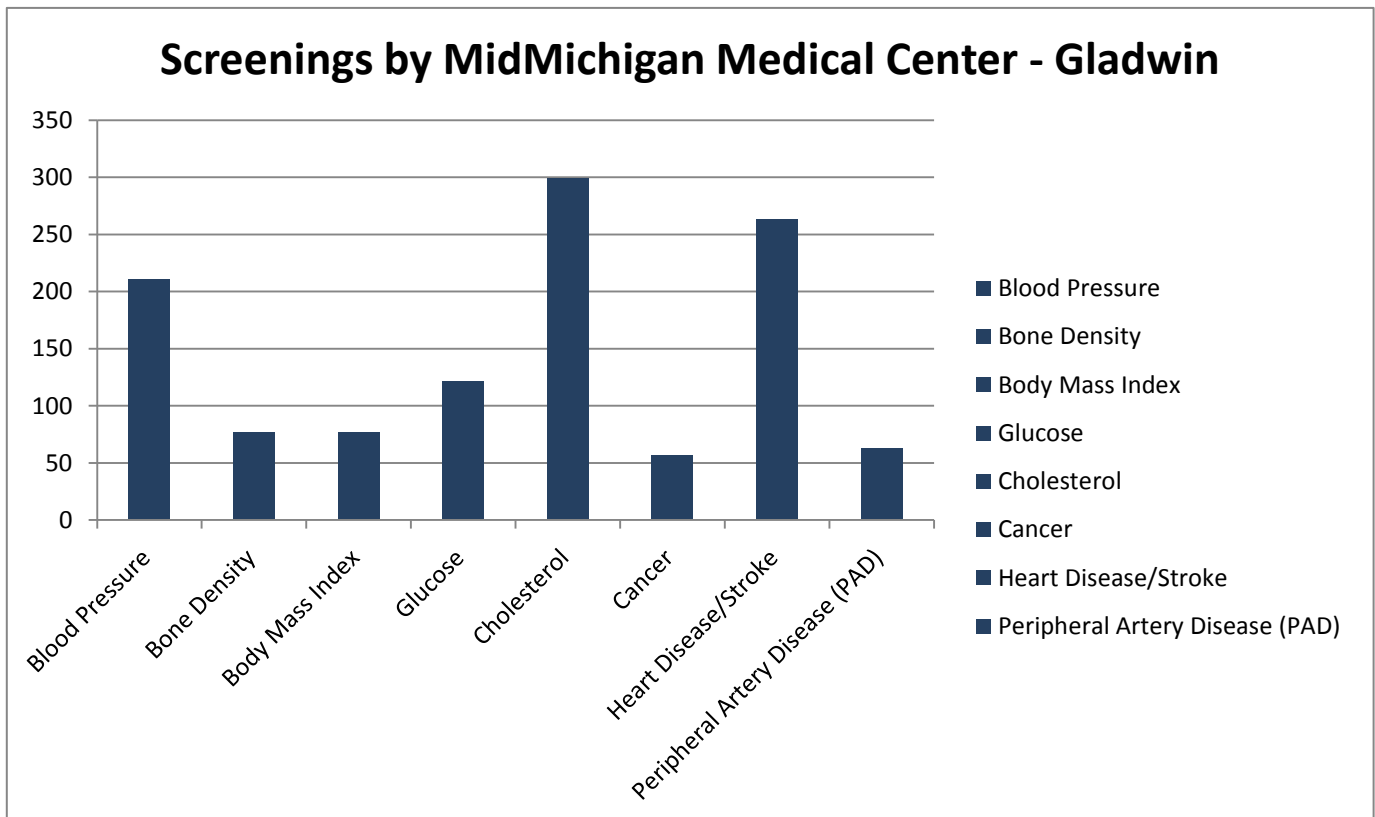
MidMichigan Health implemented six easy access online health risk assessments. By the end of 2015 there were 3,960 assessments completed; 1,446 heart health; 607 hip and knee pain; 405 lung cancer; 555 peripheral artery disease; 702 breast cancer; and 245 weight loss. In March 2016, the seventh health risk assessment was added regarding colorectal cancer risk.

Additionally, MidMichigan Health Line is a service available for community members to call with questions regarding services, programs, and physician referrals throughout the health system. There were over 1,120 physician referrals provided for current and potential new patients and 143 literature fulfilments in Gladwin County. At point of contact (physician appointments, community event, etc.), MidMichigan Health staff outlined insurance options for specific needed services and made referrals to Certified Application Counselors.

MidMichigan Medical Center - Gladwin assisted 1,120 individuals enroll in public medical programs. MidMichigan Health also provided urgent care wait times for all urgent care locations by displaying them on the website homepage at [www.midmichigan.org](http://www.midmichigan.org).

## B. Clinical Preventative and Supportive Service

Clinical preventative and supportive services are actions to reduce disease and economic burden of chronic diseases to improve the quality of life for people who have or are at risk for chronic diseases. Heart Disease/Stroke, Cancer and Diabetes screenings were offered to the community along with counseling, education on medications to prevent disease, and providing people with the information they need to make good decisions about their health. MidMichigan Medical Center - Gladwin provided many free community screenings, educational events, and support groups; offering over 1,168 screenings including lung cancer, bone density, breast cancer, cholesterol, glucose, blood pressure and peripheral vascular disease (for a full list see Appendix A). MidMichigan Medical Center - Gladwin also offered support groups covering a wide range of topics: Alzheimer's/Dementia, Bariatric, Diabetes and Parkinson's. The current screenings rates by employed physicians at MidMichigan Medical Center - Gladwin are as follows: Cervical Cancer 53 percent; Breast Cancer 75 percent; and Colorectal Cancer 68 percent. To stay on track to meet the National initiatives set by Healthy People 2020 and the National Colorectal Cancer Roundtable, these need to be monitored and supported.





## C. Maternal and Infant Health

In order to improve maternal and infant health, several childbirth classes were offered at MidMichigan Medical Center - Gladwin including: Preparation for Childbirth and Child/Infant CPR. Since July 1, 2013, there have been a total of 65 participants in the childbirth classes. MidMichigan Medical Center - Gladwin works closely with the Clare/Gladwin Great Start Collaborative and the Central Michigan District Health Department for referrals from high-risk pregnancies and underserved women of the county. Gladwin County has decreased low birth weights to 7 percent, with Michigan at 8 percent.

## D. Health Behaviors

Health behaviors are actions individuals can take to reduce the chances of developing chronic conditions. MidMichigan Medical Center - Gladwin had a total of 381 individuals partake in fitness or nutrition related programs. These included: youth health fairs in the schools with physical fitness activities, 5k participation, and nutrition and diabetes management events. There were also a total of 1,060 participants in community health fairs.

According to MidMichigan Physicians Group, over 29 percent of adult patients aged 20 years and older have a body mass index (BMI) between 25 and 29.9 which is considered overweight. Along with that, 44 percent of the same age group has a BMI greater than 30. Lastly, 21 percent of pediatric patients aged 2-19 have a BMI that is in the 95<sup>th</sup> percentile.

# Part I: Community Health Needs Assessment

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The underlying premise for each MidMichigan Health subsidiary completing the 2016 Community Health Needs Assessment was shared ownership for community health. While our previous CHNA helped us identify focus areas for health improvement, the IRS legislation mandating collaborative efforts provided an opportunity to revisit our needs assessment and strategic planning processes. These efforts will broaden our scope to include further input from each other, community members and our collaborative partners.

## A. Pre-Planning

The majority of the work in the beginning included identification of hospital and community stakeholders in order to ensure alignment of health improvement. Each member of the

Community Education Team of MidMichigan Health participates in a formal community collaborative group where the focus is health improvement. The membership is identified by respective communities and includes non-profit, human service, and government agency representatives (a listing of these groups appears in Appendix E). Regardless of the fact that completion timelines for our hospital plans differ from our collaborative groups, we continue to participate with them in order to establish mutual goals that will enact comprehensive strategies in our shared priority areas.

Each subsidiary Chief Executive Officer reviewed and approved a timeline for completion of the 2016 CHNA. The team constructed a retrospective summary grid listing actions and participation measures from the FY 2013 plan. This provided a springboard for the 2016 CHNA. Information on the grid provided the opportunity for review and reflection on what has been accomplished and where we would like to improve. The team also reviewed the Strategic Plan of MidMichigan Health to ensure alignment with our health system mission, vision, and values. Additionally, geographic areas were chosen according to zip codes and primary service areas of each hospital subsidiary were reviewed.

## **B. Data Collection & Interpretation**

Providing an accurate picture of each of our service communities dominated this phase. In order to do this, we investigated a variety of primary and secondary data sources. A grid of over 100 indicators from 20 different primary and secondary sources were utilized to build the data platform for each subsidiary (reference Appendix B). Data out of normal range against a benchmark is indicated in red on the graph. We compared current data to the previous CHNA, as well as to current standards, our own perceptions and those of our collaborative partners and community members. In order to determine causes of health problems, data was categorized into focus areas upon which to build the improvement strategy. The four focus areas follow:

1. Determinants of Health (demographics, environment, social environment, education, economy)
2. Care Access (access to health services, transportation)
3. Health Behaviors (preventative care, substance use, nutrition and exercise).
4. Health Conditions (chronic conditions, mental health, cancer incident, mortality rate)

Areas where health issues existed were revealed in two ways. First, when comparison of local quantitative data indicators against state of Michigan benchmarks resulted in poor

performance; and when themes of unacceptable health emerged from analysis of qualitative data.

## C. Identifying Community Health Needs

### a. Determinants of Health

Determinants of health can be defined as the range of personal, social, economic, and environmental factors that influence health status. Descriptions of these factors follow:

#### Demographics

A total of 25,599 people live in the 501.78 square mile report area defined for this assessment according to the U.S. Census Bureau American Community Survey 2010-14 5-year estimates. The population density for this area, estimated at 51.02 persons per square mile, is less than the national average population density of 89.88 persons per square mile. Of those, 14.97 percent are under 18 years of age and 23.33 percent are 65 and older. Females make up 49.81 percent of the population while males make up 50.19 percent of the population. The median age in Gladwin County is 48.2 years of age. Of the population, 97.48 percent of the population is white 0.71 percent are multiple races and less than one percent is black, Asian, or Native American.

#### Community Input: Community Strengths

The community was asked to list what they believed the strengths of Gladwin County were. Some of the results included:

Farmer's market, community garden, river walk path, physicians are involved/good follow-up/helpful and knowledgeable, dialysis, specialists rotate, longevity of certain providers in area, EMS, nursing home, shuttle bus for radiation, Health Department, local hospital/affiliated with U-M, physical therapy, digital mammography, Healthy Kids/MiChild, expired prescription pill bottle drop off at police station, dentist, Meals on Wheels/Backpack Buddy program, community involvement from key leaders, Shelterhouse/2-1-1, MidMichigan provides literature on classes held, screening clinics (prostate/stroke risk), quality of care/coordination of care.

#### Environment

Gladwin County had a water system violation of one percent with approximately 250 community members being exposed to harmful water during the past year. In Gladwin

County there are 6 WIC authorized food stores, 58 active licensee(s) of liquor stores, (Michigan Liquor Control Commission), and .08 recreation and fitness facilities per 1,000.

## **Social Environment**

Throughout Gladwin County there are 206 violent crime rates per 100,000 and 9.4 social associations per 10,000 these include: civic, religious, and political organizations, as well as fitness centers and business organizations. Of the population, 29 percent are single parent households and the child abuse rate is about 31.7 per 100,000.

## **Education**

According to the American Community Survey, 85.80 percent have graduated from high school, 84.50 percent of individuals 25 and older hold a high school degree or higher and 12.50 percent have a bachelor's degree or higher.

## **Economy**

The median household income in Gladwin County is \$37,725 and the per capita income is \$20,753. Graph 1 shows the economy of children, families, and seniors living below the poverty level. In addition, it shows that 19.60 percent of Gladwin County are low income persons who are Supplemental Nutrition Assistance Program (SNAP) participants, 45.20 percent of renters spend 35 percent or more of their household income on rent, and lastly shows that 54 percent of students are eligible for free lunch.

### **Community Input: Income**

The community was asked “*What is your approximate average household income?*” Out of 66 responses, 39 said less than \$10,000, 13 said \$10,000 to \$19,000, 5 said \$20,000 to \$29,000/\$30,000 to \$39,000, 39 said \$40,000 to \$49,000/\$80,000 to \$89,000 and 0 said \$50,000 to \$59,000, 1 said \$60,000 to \$69,000, and 0 said \$70,000 to \$79,000.

## **b. Care Access**

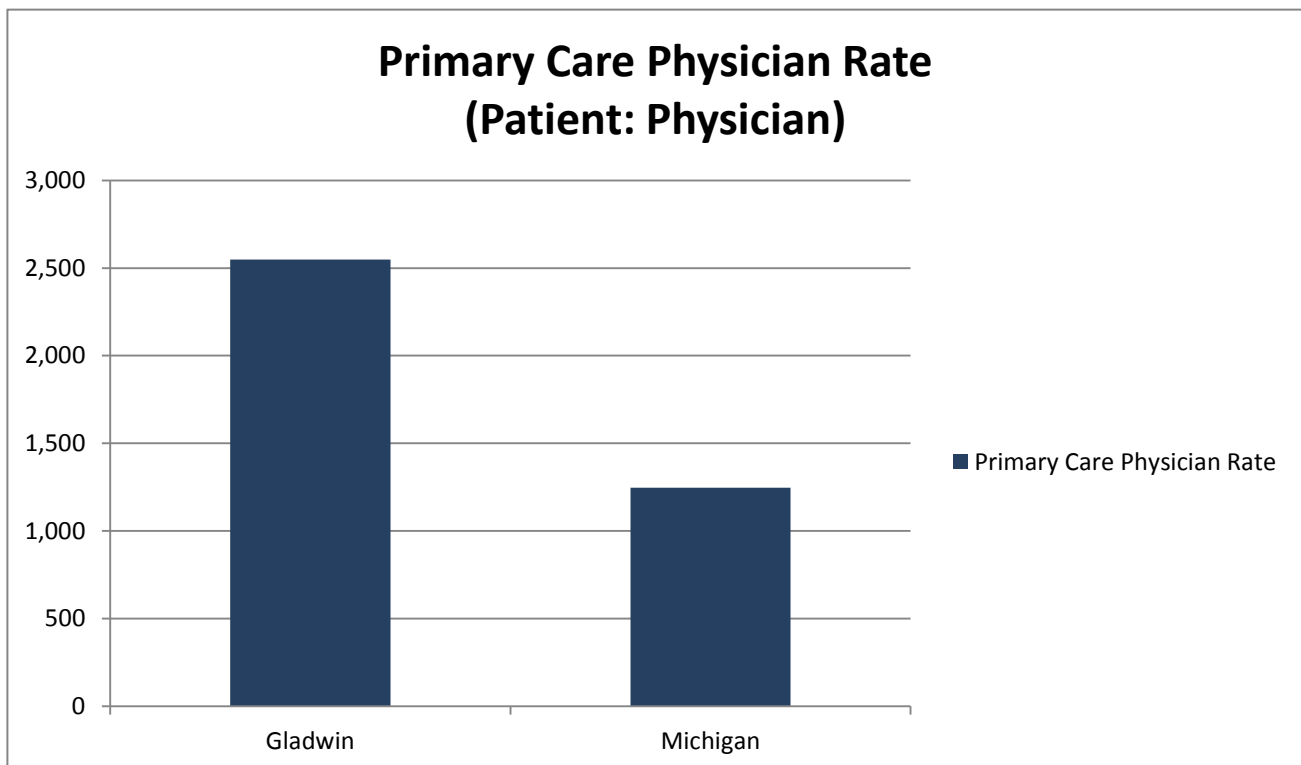
If a community lacks access to care or health services barriers to good health are created. A description of the current state of health care access follows, along with factors that affect care access:

## Access to Health Services

The primary care physician rate in Gladwin County is 2,548:1, while the Michigan average is 1,246:1. The non-physician primary care provider rate is 2,541:1 compared to the Michigan rate of 1,342:1. Additionally, the mental health provider rate is 1,160:1 and the Michigan rate is 487:1. Having a large patient to physician ratio can cause barriers to health due to physicians not accepting new patients and creating long waiting periods of time to be seen by a provider.

MidMichigan Community Health Services, an affiliate of MidMichigan Health, operates five Federally Qualified Health Centers, (FQHC), in the MidMichigan Health Service region. These centers provide access to an increased number of patients, meeting primary care needs in Roscommon, Gladwin, and Midland counties, as well as the surrounding areas. In January 2015, Midland added an FQHC location at Community Mental Health for Central Michigan. From February 1, 2015 through September 30, 2015, there were 157 unique patients seen at that location, and 292 visits for Primary Care at that site alone

Health insurance is a key component to health. Without; many will not receive the services they needed to maintain a healthy lifestyle and prevent disease. The uninsured rate for adults is 19 percent to the Michigan average of 16 percent; however, the rate of uninsured children is 7 percent and this is higher than the Michigan average at 4 percent.



### Community Input: Health Care Coverage

The community was asked, “Do you have any kind of health care coverage, if so what kind?” Out of 61 responses, 2 said “employer,” 31 said “Medicaid,” 18 said “Medicare,” 4 said “None,” and 1 “Indian Health Service/Alaska Native Health Service/ACA/Priority Health/Retirement/BCN.”

### Transportation

Gladwin has a county wide transit system servicing the community Monday through Friday. The limitations are on the weekends when there is no transit available for community members; this includes access to urgent care for their non-emergent medical needs. The population using the emergency room as usual source of care in Gladwin County is .21 percent. In Gladwin County, approximately 6.4 percent or 1,626 households do not have a vehicle and must rely on other means of transit. The average travel time to work is about 30.2 minutes, which means most are traveling outside of the city limits to get to work. In the past, data regarding transportation has not been efficiently recorded. The resource below was provided by the Alma Transit Center and summarizes the population and service areas served.

Transit System	Service Area Population	Square Miles Served	2015 Ridership	Fleet Vehicles	Miles Driven 2015	Vehicle Hours 2015
Clare County Transit	30,569	575	114,668	31	605,941	30,228
Gladwin City/County Transit	25,493	576	109,921	20	571,453	34,131
Roscommon County Transit	24,014	580	155,236	26	683,815	33,828
Cadillac/Wexford Transit	32,645	576	116,072	25	618,501	35,155

### Community Input: Use of Transportation for Medical Services

The community was asked, “In the past 12 months, which mode of transportation do you primarily use to get to the doctor or other medical services?” Out of 65 responses, 45 said “personal vehicle,” 10 said “public transportation,” 6 said “walk,” and 4 said “carpool.”

### c. Health Behaviors

According to Healthy People 2020, individual behavior plays a role in health outcomes. For example, if an individual quits smoking, his or her risk of developing heart disease is greatly reduced. The data to follow is a reflection on health behaviors of Gladwin County residents in the areas of health care screenings, substance use, nutrition, and exercise.

#### Preventative Care

Health behaviors like diet, exercise, tobacco use, and substance use contribute to your overall health. If poor health behaviors are chosen, it can have a significant negative impact on one's health. In Gladwin County 87 percent of Medicare beneficiaries aged 65-75 had their blood sugar monitored in the past year using an HbA1c test. Of the same Medicare population 66.4 percent had a mammogram screening in the past 2 years.

In Gladwin County, 78.2 percent of women have had a Pap smear test. Additionally, 52.9 percent of males and females aged 13-15 need to receive at least 3 doses of human papillomavirus (HPV) vaccine. Currently, the female vaccination rate is 30.5 percent compared to Michigan at 31 percent and males are at 22.4 percent compared to Michigan at 20.4 percent. There were 59.8 percent of individuals in Gladwin County who received a Sigmoidoscopy or a Colonoscopy screening. Likewise, in order to align with the National initiatives, the screenings rate for colorectal cancer needs to reach 80 percent by 2018 set by the National Colorectal Cancer Roundtable. The pneumonia vaccination rate in Gladwin County is 70.9 percent, which is higher than the Michigan average of 67.0 percent. Engaging in preventive behaviors allows for early detection and treatment of health problems.

#### Community Input: Screenings

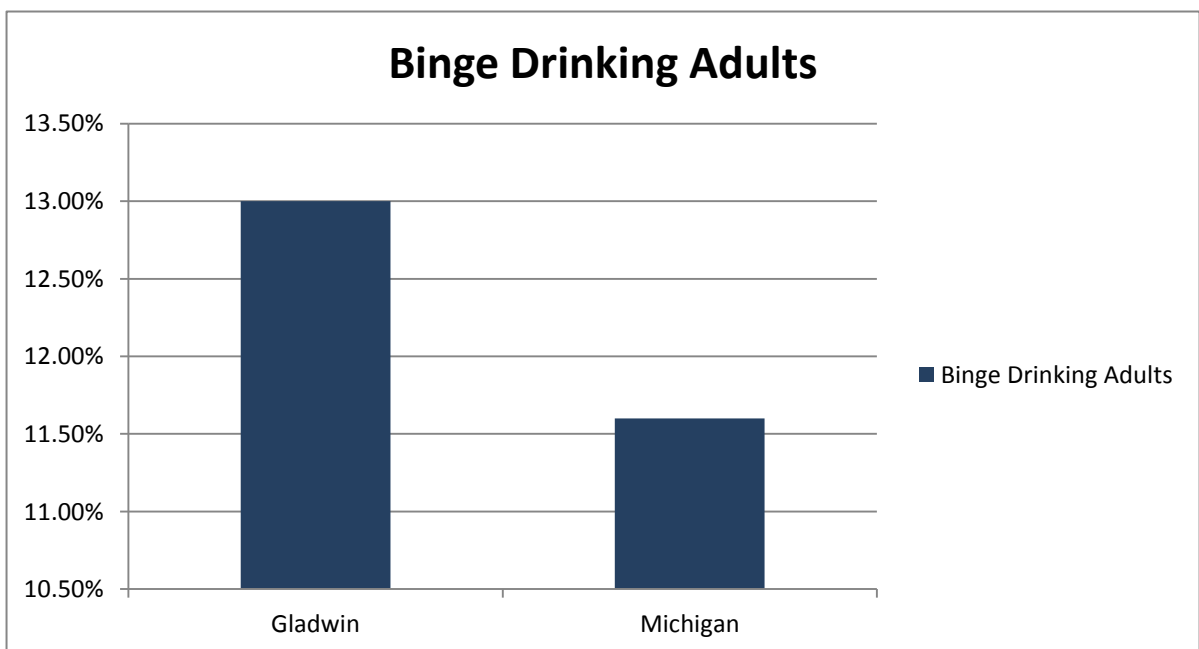
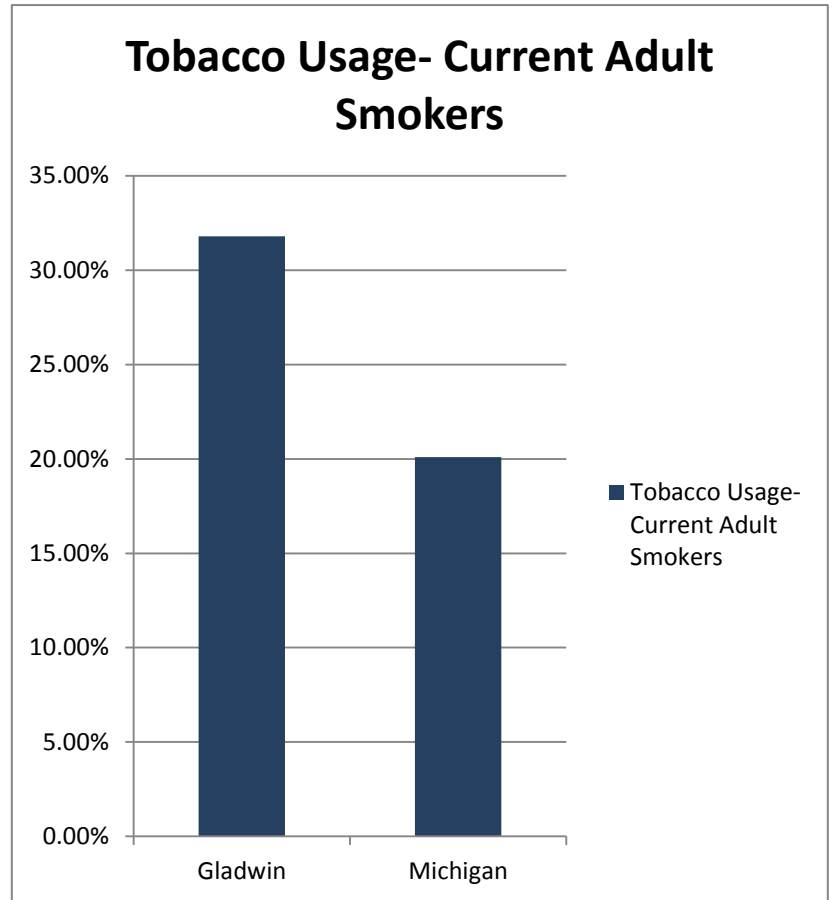
The community was asked, *“Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?”* Out of 56 responses, 26 said yes.

#### Community Input: Screening

The community was asked, *“A Pap test is a test for cancer of the cervix. Have you had a Pap test in the past 3 years?”* Out of 47 responses 35 said yes.

## Substance Use

In Gladwin County, 9.10 percent of Middle School aged adolescents reported binge drinking and 5.7 percent using marijuana and approximately 6.80 percent reported smoking cigarettes. There is an increase in all three indicators in High School adolescents. There were 23.20 percent of High School aged adolescents reported binge drinking, 12.1 percent reported using marijuana and 18.8 percent reported smoking cigarettes. Adults that reported smoking cigarettes dramatically increased to 31.80 percent and adults that binge drink were 13 percent.





According to the Gladwin County Prosecuting Attorney's office, in 2015 there were 22 cases of possession or delivery of cocaine, heroin or schedule 2 narcotics. This has more than doubled from 2014 which had 10 cases. The Mobile Medical Response had a total of 68 calls for reported drug overdose. According to the Michigan automated Prescription system (MAPS), in 2013 there were 43,686 schedule 2 and 3 prescriptions dispensed in Gladwin County.

## **Nutrition and Exercise**

In Gladwin County there are a high percentage of adults, 36 percent, who are sedentary. Less than 3.26 percent of people 65 years and older, low income individuals, and children have a low access to a grocery store. Along with that, only 62 percent have access to exercise opportunities which is significantly lower than the Michigan average of 84 percent. There are only .04 farmers markets, .31 fast food restaurants, and .12 grocery stores per 1,000 population in Gladwin County. The food insecurity rate for children is at 16.7 percent. All of these factors can be indicators of why Gladwin County has a high obesity rate.

### **Community Input: Fruit and Vegetable Expenditures**

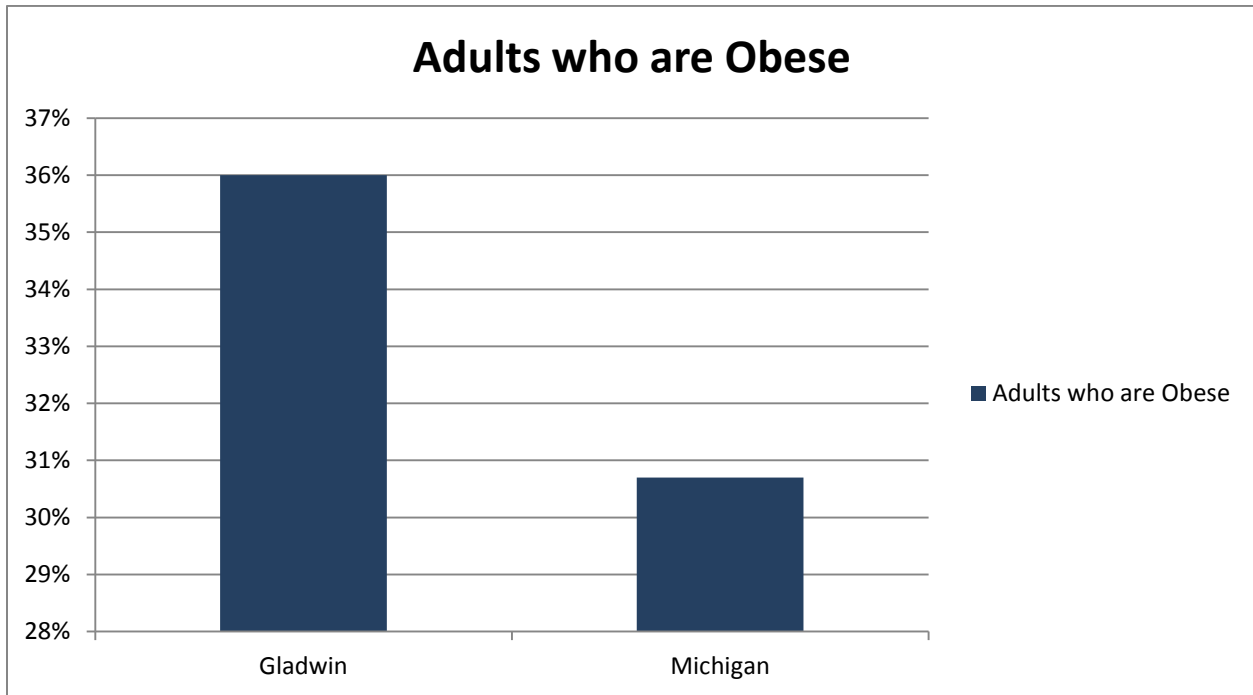
The community was asked, "*How many servings of vegetables do you eat on a typical day?*" Out of 60 responses, 15 said 2 servings, 23 said 3 or 4 servings, 6 said 1 serving, and 0 said 6 servings; 14 said 1-2/3-4 servings, 0 said 7-8+ servings. The community was asked, "*How many servings of fruit do you eat on a typical day?*" Out of 55 responses, 17 said 1 serving, 14 said 3 servings, 10 said 2 servings, 5 said 4 servings, 7 said 1-2 servings, 1 said 3-4 servings, 1 said 5 servings and 0 said 2-3/6 servings.

## **d. Health Conditions**

Many public health and health care interventions focus on changing individual behaviors such as substance abuse, diet, and physical activity. Positive changes in individual behavior can reduce the rates of chronic disease in this country.

### **Chronic Conditions**

Gladwin County's obesity rate is 36 percent which is significantly higher than the state average of 30.7 percent. This may also be a contributing factor as to why Gladwin County is also significantly higher in other conditions like adult diabetes at 13.40 percent compared to Michigan at 8.9 percent, 64.43 percent having high cholesterol while Michigan is at 41.88 percent and 32.90 have hypertension while Michigan is lower at 29 percent.



### Community Input: Physical Inactivity

The community was asked, “*On an average day, did you do moderate activities for at least 10 minutes at a time?*” Out of 50 responses, 38 said yes. The community was asked, “*On an average day, did you do vigorous activities for at least 10 minutes at a time?*” Out of 54 responses, 28 said yes.

While examining the Medicare population; 26.1 have diabetes, 47.8 have high cholesterol, 56.3 have hypertension, heart failure is at 18.7 percent, 34.5 percent having ischemic heart disease and 16.9 percent have chronic obstructive pulmonary disease.

About 17.20 percent of Gladwin County has heart disease, and 7.4 percent have atrial fibrillation. There are a few conditions that are lower than the state average including the prevalence of HIV per 100,000, which is 24.7 compared to Michigan at 177.6, kidney disease is at 18.0 percent for Michigan and Gladwin County is about the same at 17.9 percent. Schizophrenia and other psychotic disorders is lower than the Michigan average, along with the poor mental health days, however, the depression rate is 18.8 percent in Gladwin County.

In Gladwin County, 3 percent have suffered a stroke and less than 1 percent has Hepatitis (chronic viral B & C); 4.4 percent has osteoporosis and a larger percent; 32.8 have arthritis. Alzheimer’s and dementia prevalence is approximately 7.4 percent and asthma is 4.6 percent. Babies born with low birth weight is tied with the Michigan average at 7 percent. According to County Health Rankings, Gladwin County is ranked 63 in the state for health outcomes and ranked 78 in health factors.

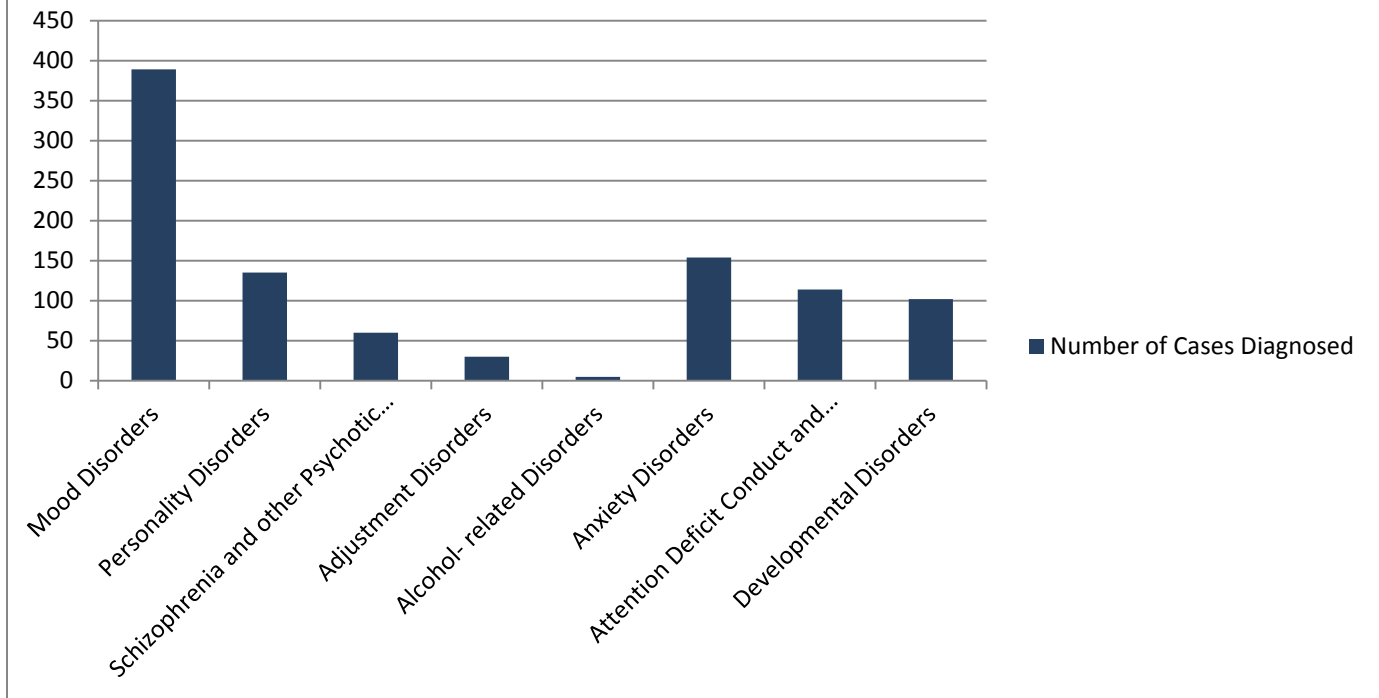
## Mental Health

According to Community Mental Health, there is a high prevalence of mental health conditions in Gladwin County. In calendar year 2015, there were 209 children and 680 adults served by Community Mental Health in Gladwin County. There were several different disorders diagnosed, including; 30 adjustment, 12 substance abuse related, 154 anxiety, 114 attention deficit conduct and disruptive behavior, 102 developmental, 5 impulse control, 2 miscellaneous mental disorders, 389 mood disorders, 135 personality disorders, and 60 schizophrenia and other psychotic disorders and 34 disorders usually diagnosed in infancy childhood or adolescence and the suicide rate is low compared to the State of Michigan which is 13.2 percent.

### Community Health Needs Assessment 2014-2016: Top 10 Diagnosis Related Groupings

Top 10 Diagnosis Related Grouping (DRG)	TOTAL
Chronic Obstructive Pulmonary Disease	46
Pulmonary Edema & Respiratory Failure	31
Heart Failure & Shock W MCC	31
Septicemia Or Severe Sepsis W/O MV 96+ HOL	27
Simple Pneumonia & Pleurisy W MCC	26
Cellulitis W/O MCC	22
Kidney & Urinary Tract Infections W/O MCC	22
Esophagitis, Gastroent & Misc Digest Disorder	20
Chronic Obstructive Pulmonary Disease W	18
Heart Failure & Shock W CC	1
Other	310

## Mental Health Cases Diagnosed



## Cancer Incident

About 7.5 percent of the population has been diagnosed with some form of cancer and 8.5 percent of the Medicare population has been diagnosed with cancer. The lung cancer incident rate is higher in Gladwin County at 80, the oral cancer incident rate is 11, breast cancer is at 106.3, and the colorectal cancer is 40 compared to Michigan at 40.7. Lastly the prostate incident rate is 129 which are lower than the Michigan rate at 147.3.

## Mortality Rate

The mortality rate for all cancers is 168.7. The following mortality rate numbers are all poorer than the Michigan rate. Colorectal cancer is 16.7, and lung cancer is at 62.7. It is estimated that there are approximately about 7,500 years of potential life lost before the age of 75 in Gladwin County. Gladwin County has a significantly higher mortality rate in diabetes, and chronic obstructive pulmonary disease when compared to Michigan. Diabetes mortality rate for Michigan is 23.6 while Gladwin County is 82.6 and COPD is at 102.3 whereas Michigan is at 53.8. Influenza and Pneumonia mortality is also higher in Gladwin County at 16.5 while Michigan is lower at 14.6. The suicide rate is low in Gladwin County compared to Michigan at 13.2 and stroke mortality rate is 22.2 compared to Michigan at 37.7. The infant mortality rate is less than 6. The drug poisoning death rate is greater than 20 compared to Michigan at 18 and about 41 percent of all driving deaths are related to alcohol. Transportation fatalities are at about 3.

## D. Prioritization Process for MidMichigan Medical Center - Gladwin

Community health care needs were determined and prioritized by reviewing quantitative and qualitative data, and ranking health issues according to focus areas (Reference Diagram A1).

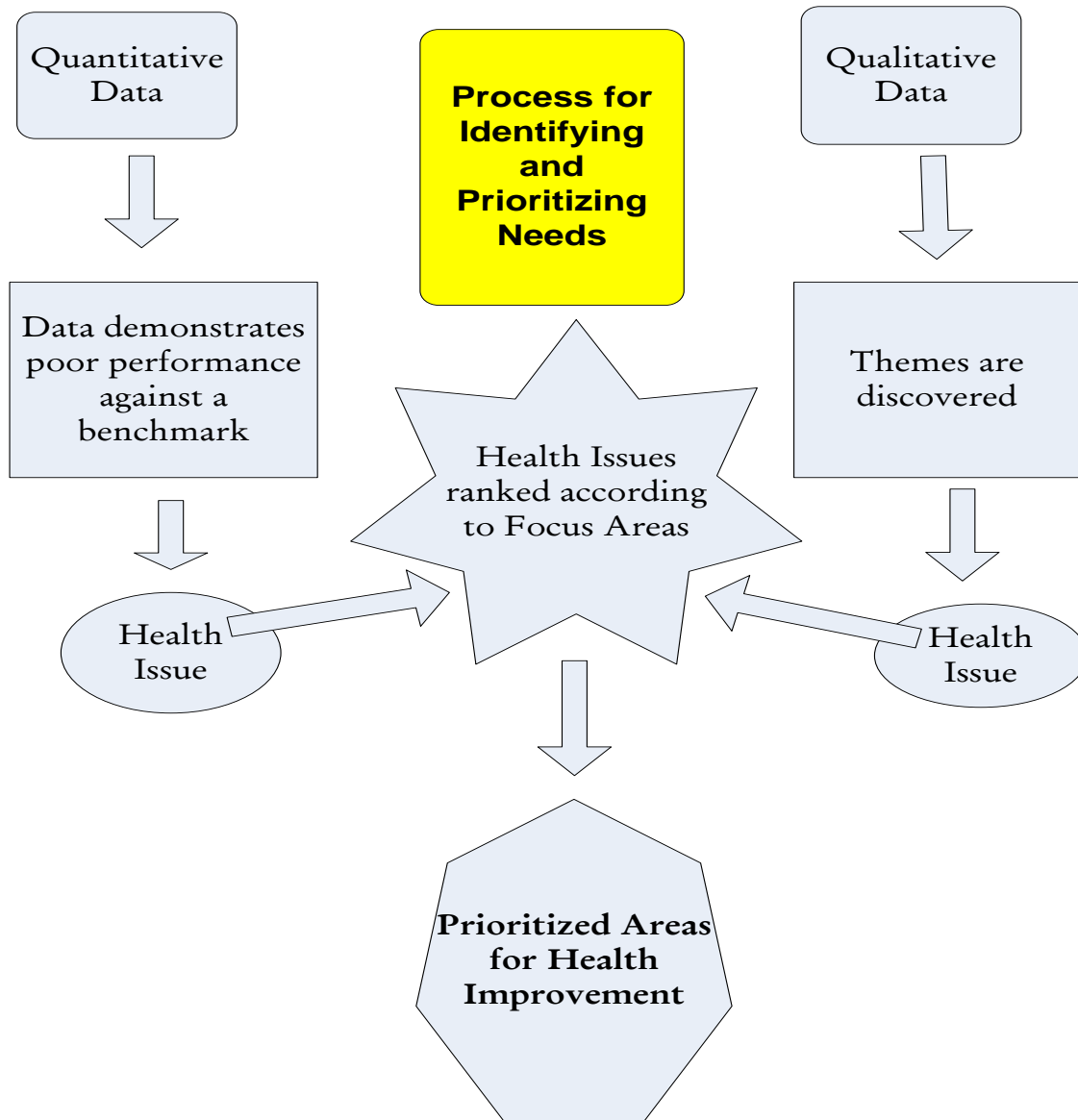


Diagram A1

Prioritization occurred in stages; input was solicited from the Community Education Team, MidMichigan Health Hospital Operations Committee, Population Health Staff, and respective community groups.

In order to respond and impact the health care needs that were identified; a strategic plan will be developed containing goals and outcome measures upon which we will evaluate programs toward goal completion. This part of the plan will be outlined in the fall of 2016 in Part 2 of this report.

All of the indicators that were explored were categorized into the following four corresponding focus areas.

1. Determinants of Health (Demographics, environment, social environment, education, economy)
2. Care Access (Access to health services, transportation)
3. Health Behaviors (Preventative care, substance use, nutrition and exercise)
4. Health Conditions (Chronic conditions, mental health, cancer incident, mortality rate)

Once the focus areas were identified, further prioritization began. Indicators were selected based on their placement in the “acceptable” range when compared to hospital, local, state, or national data. Out of the 100 indicators analyzed; Gladwin County had approximately 33 out of “acceptable” range. From these, the priority areas were chosen by dividing the similar indicators into groups. For example, indicators: adults who are obese, adults who are sedentary, diabetes in adults, high cholesterol, hypertension, and pediatric obesity can be grouped together as; *obesity*. The top four priority areas chosen by the Community Education Team were as follows (in alphabetical order):

1. Access to Health Services
2. Mental Health
3. Obesity
4. Substance Use

The 2016 Community Health Needs Assessment was presented to an external group that has a broad interest in the community MidMichigan Medical Center - Gladwin serves; The Clare/Gladwin Health Improvement Plan Council. The Clare/Gladwin Health Improvement plan is made up of several human service organizations a full list can be found in appendix D. During the review of the Community Health Needs Assessment to the Clare/Gladwin Health Improvement Council, the members participated in a similar

prioritization process as the community education team. The council was shown the list of 33 indicators that were out of “acceptable” range when compared to hospital, local, state or national data. Input was given by the council and on their own prioritized areas that they believe should be the priority areas of the 2016 Community Health Needs Assessment. The council was instructed to rank the priority areas 1-5 with 1 being the most important. The top four priority areas were recorded. The findings were in agreement with the following:

1. Access to Health Services
2. Mental Health
3. Obesity
4. Substance Use

## **E. Identifying Priority Areas: the Final Step**

Based on the prioritization process conducted by the community education team, Clare/Gladwin Health Improvement Council, and support from the Leadership Board at MidMichigan Health, the final 2016 Community Health Needs Assessment priority areas presented to the MidMichigan Medical Center - Gladwin Board follow for approval:

1. Access to Health Services
2. Mental Health
3. Obesity
4. Substance Use

When choosing the priority areas, it was vital to take into consideration the resources the hospital has available and what could feasibly be accomplished as a health system. MidMichigan Medical Center - Gladwin is aware of the health deficiencies and realizes the importance of all of them; nevertheless, there are particular situations where the hospital cannot solve the issues alone.

## **a. Reporting**

The written report will be provided in two parts: Part 1: Data Collection, Evaluation, and Focus Area Prioritization; and Part 2: The Improvement Plan. The Community Education Team worked together throughout the process to develop the final product that provides an overview of the health system, corresponding data, data interpretation, focus area prioritization and implementation strategies that are subsidiary specific. The 2016 Community Health Needs Assessment established the foundation for developing the 2017-2019 Improvement Plan. Each subsidiary hospital board will review the data and prioritization recommendations in June of 2016. Once this approval has occurred, we will outline evidenced based strategies for health improvement in the prioritized areas.

## **b. Improvement Plan**

We will begin the Improvement Plan upon approval of focus areas from each respective subsidiary board. We will also develop a process to track ongoing progress. The Improvement Plan will be contained in Part 2 of the CHNA report.

## **c. Evaluation**

Measurement against benchmarks will continue and a yearly report of outcome measures will be provided. Our plans will be modified as needed based upon public input and outcome measures. Reassessment will be ongoing as we work with our community to develop a regional data dashboard.

## **F. Reflection**

There were various barriers that emerged which hindered either the data collection or the prioritization processes for this report. For instance, data is not always collected on a yearly basis, resulting in data that is several years old. Also, some data is only available at a state level, making it difficult to discern need at a more local level. Data around age, ethnicity, gender, and race are not available for all data indicators, which limited the ability to examine health disparities. Lastly, there were two areas where available data did not match our intuition: mental health and transportation needs. Utilizing these discoveries as a learning experience, we plan to work harder to obtain more local data for future assessments. Strategies will build upon the assets and resources of our health system and each community.



## G. Conclusion

The 2016 Community Health Needs Assessment has established the foundation developing the 2017-2019 Improvement Plan. Our next step will be to outline evidenced based strategies for health improvement in the prioritized areas. These strategies will build upon the assets and resources of our health system and each community.

Approval of the Health Priority Areas for 2017-2019 took place on June 28, 2016.

Addendum: The Community Health Needs Assessment part I and The Improvement Plan part II, will be made publically available on [www.midmichigan.org](http://www.midmichigan.org).

# Part II: Community Health Improvement Plan

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The MidMichigan Medical Center-Gladwin Community Health Improvement Plan built upon the plan of 2013 to further reflect MidMichigan Health’s Mission, Vision, and Core Values, as well as collaborative efforts with the community. The underlying premise for each MidMichigan Health subsidiary in completing the plan was shared ownership for community health. While our previous CHNA helped us identify focus areas for health improvement, the IRS legislation mandating collaborative efforts provided an opportunity to revisit our needs assessment and strategic planning processes. Part One of the Community Health Needs Assessment included a retrospective summary of each focus area from 2013 as well as a detailed investigation of quantitative and qualitative data from which areas for health improvement were chosen.

The following plan includes goals and evidenced based strategies for top priority areas as determined by MidMichigan Health’s Community Education Committee, and approved by MidMichigan Health’s Operation Team and the MidMichigan Medical Center-Gladwin Board of Directors. The focus areas approved by the MidMichigan Medical Center-Gladwin Board of Directors are included within the listed top priority areas.

This document reflects input from designated individuals in each community inclusive of but not limited to, public health experts, representatives of low-income and medically underserved populations, and those suffering from chronic disease. The broadened scope from which we plan to function is inherent in the strategies which include internal health improvement initiatives of MidMichigan Medical Center-Gladwin and MidMichigan Health, as well as collaborative efforts of the hospital with public health, the University of Michigan, and our community partners. The following pages outline the Community Health Improvement Plan for MidMichigan Medical Center-Gladwin.

2016 MidMichigan Medical Center-Gladwin Community Health Needs Assessment Focus Areas approved by the MidMichigan Medical Center-Gladwin Board of Directors on June 28, 2016 follow:

1. Access to Health Services
2. Mental Health
3. Obesity
4. Substance Abuse

<b>Focus Area: Access to Health Services</b>	<b>Medical Center Role</b>	
	<b>Lead</b>	<b>Collaborate</b>
<b>Goal: Ensure MidMichigan Health provides health care services that are timely and accessible.</b>		
<b>Strategy 1: Support initiatives that enhance public transportation.</b>		
1.1 Support and promote Gladwin County Transit expanding hours to Saturday's for non-emergent needs.		X
1.2 Team with DHHS and 211 services with the Michigan Alternatives Program, (TAP)		X
1.3 Team with Mid-Michigan Transportation Connection, (MMTC), to provide non-emergent transportation.	X	X
1.4 Continue to support transportation efforts for patient's receiving Radiation or Dialysis treatments.	X	
<b>Strategy 2: Provide information</b>		
2.1 Promote use of "Find a Doctor" online and MidMichigan Health Line physician referral services.	X	
2.2 Promote educational classes and support services available using multiple means.	X	
2.3 Assist individuals and families to enroll in health insurance.	X	
2.4 Improve health literacy for better patient-provider communication.	X	
<b>Strategy 3: Continue projects targeted at preventable readmissions for selected diagnoses.</b>		
3.1 Implement length of stay, acuity, comorbidity, and ED visit assessment on all patients and provide call-backs for those discharged at high risk.	X	
3.2 Monitor most frequent readmission diagnosis.	X	
<b>Strategy 4: Increase the availability of services, programs, health care providers and support workers</b>		
4.1 Support health care provider recruitment efforts.	X	
4.2 Explore expanding telemedicine opportunities	X	
4.3 Completion of new MPG Gladwin Health Park	X	
4.3 Expand educational classes and support services	X	
4.4 Utilize online Health Assessments and connect people to services	X	

<b>Focus Area: Mental Health</b>	<b>Medical Center Role</b>	
<b>Goal: Engage in active outreach to promote prevention, early intervention, and integrate mental health services.</b>	<b>Lead</b>	<b>Collaborate</b>
<b>Strategy 1: Increase awareness.</b>		
1.1 Participate in public awareness campaign to reduce stigma associated with mental illness.	X	X
1.2 Provide education for staff and the community regarding available services.	X	X
<b>Strategy 2: Implement screenings and course of treatment.</b>		
2.1 Provide assessment for depression/suicide annually for those 12 years and older in primary care offices and at other health encounters as appropriate.		X
2.2 Ensure process for on-going intervention for those identified at risk for suicide or other mental health conditions.		X
2.3 Detect suicide ideation through enhancing assessment and screening risk in non-acute or acute care settings.	X	
<b>Strategy 3: Increase availability services.</b>		
3.1 Increase availability of providers and support workers, including exploring telemedicine for behavioral health.	X	
3.2 Increase availability of behavioral health coverage in Emergency Department.	X	
3.3 Expand mental health services using existing programs.	X	
3.4 Continue to support 2-1-1 services.	X	X
3.6 Explore integrated care management for mental health and chronic disease management with Community Mental Health.	X	X
3.7 Explore expansion of mental health services with University of Michigan.	X	

<b>Focus Area: Obesity</b>	<b>Medical Center Role</b>	
	<b>Lead</b>	<b>Collaborate</b>
<b>Goal: Encourage healthy weight and prevent disease associated with obesity.</b>		
<b>Strategy 1: Support healthy weight behaviors</b>		
1.1 Promote existing nutrition and physical activity services, programs, and events.		X
1.2 Develop community calendar of fitness activity opportunities.		X
1.3 Support development of a Farmer's Market in Beaverton.		X
1.4 Support and promote physical activities and healthy nutrition in students.		X
1.5 Promote breastfeeding classes and breastfeeding support.	X	
<b>Strategy 2: Implement actions that prevent development of chronic disease.</b>		
2.1 Explore feasibility of a Physician Exercise Prescription Program.	X	
2.2 Increase reach of Certified Diabetes Prevention Program (DPP) and program referrals to those most at risk for Type 2 Diabetes.	X	
2.3 Perform annual pediatric weight assessment and interventions for patients 3-17 years of age.	X	
2.4 Measure annual BMI screenings and follow-up actions for patients 18 years of age and older.	X	
2.5 Provide blood pressure screening and follow-up for all patients 18 years of age and older.	X	
<b>Strategy 3: Increase awareness on the impact of obesity.</b>		
3.1 Increase collaboration with community partners on programs and policies that focus on healthy weight in order to improve the health of our community.		X
3.2 Provide information on chronic disease and how to reduce risk via social media.		X
3.3 Track legislation for obesity and healthy food availability, and collaborate for advocacy action.	X	X

<b>Focus Area: Substance Use</b>	<b>Medical Center Role</b>	
	<b>Lead</b>	<b>Collaborate</b>
<b>Goal: Provide substance use assessment, treatment, education, and support.</b>		
<b>Strategy 1: Implement actions to identify and treat substance use.</b>		
1.1 Screen tobacco use for adults 18 years of age and older	X	
1.2 Provide combination therapy with medications and counseling to those who use tobacco products	X	
1.3 Research current protocols from law enforcement/Emergency Room related to referring overdose patients to treatment	X	X
<b>Strategy 2: Educate community in assessment, prevention, and treatment activities.</b>		
2.1 Engage school leaders in substance abuse prevention activities.		X
2.2 Develop and promote mentoring program for at-risk youth/adolescents.		X
2.3 Educate community on prevalence, prescribing practices, signs and symptoms of addiction, and where to get help	X	X
2.4 Promote Use of the Michigan Quit Line to patients and the public	X	X
2.5 Educate communities on prescription drop off locations.		X
2.6 Provide education to pregnant moms on risk of prenatal smoking.	X	X
2.7 Work with law enforcement and EMT's to ensure access /training for all first responders on the use of Narcan.	X	
2.8 Develop Substance Use Treatment Resource list and post on social media, newspaper and court listings pages.	X	

The 2017-2019 Improvement Plan reflect the broadened scope from which MidMichigan Medical Center - Gladwin will function in order to improve the health of the communities we serve. These strategies will build upon the assets and resources of our health system and each community.

Approval of the 2017-2019 Community Health Improvement Plan took place on October 25, 2016

Addendum: This Report will be made publically available on [www.midmichigan.org](http://www.midmichigan.org). This plan will also be filed with the Internal Revenue Service using Form 990 Schedule H.

## Appendix A: Retrospective Summary

Data Outcomes for FY 2013-2015 (July1,2013-December 31,2015)		Gladwin	Source	
Health Care Access	Number of Patients Seen by a Federally Qualified Health Center	1351	Lorelei King, FQHC Report	
	Number of Patient visits at a Federally Qualified Health Center	3661	Lorelei King, FQHC Report	
	Number of People Assisted Enrolling in Public Medical Programs	1120	CB Tracker 2013-2015	
	Number of Intake Calls to Health Line for Provider Referrals	1,120	MidMichigan Health Line	
	Number of Intake calls to Health Line for health literature fulfillment	143	MidMichigan Health Line	
	Total number of people who answered “No” to “Do you have health insurance?”	11%	Survey Data	
	Total number of people who answered “No” to “If you have health insurance, is it sufficient to meet your health care needs?”	8%	Survey Data	
	Total number of people who answered “No” to “Do you have a primary care physician?”	10%	Survey Data	
	Always See Doctor within 15 Minutes of Appointment Time	96.40%	PRC Consumer Perception Survey	
Clinical Preventative and Supportive Services	Community Screenings	Blood Pressure Screenings	211	CB Tracker 2013-2015
		Bone Density Screening	77	CB Tracker 2013-2015
		Body Mass Index Screening	77	CB Tracker 2013-2015
		Glucose Screening	121	CB Tracker 2013-2015
		Cholesterol Screening	299	CB Tracker 2013-2015
		Cancer Screenings	57	CB Tracker 2013-2015
		Heart Disease/Stroke Screenings	263	CB Tracker 2013-2015
		Peripheral Artery Disease (PAD) Screenings	63	CB Tracker 2013-2015
	Support and Education	Hands Only CPR	79	CB Tracker 2013-2015
		Smoking Cessation	26	CB Tracker 2013-2015
		Student Fitness/Nutrition Education	516	CB Tracker 2013-2015
		Diabetes Education	29	CB Tracker 2013-2015
		Health Fairs	1060	CB Tracker 2013-2015
	MidMichigan Health Data	Breast Cancer Screening	75%	MPG Data
		Cervical Cancer Screening	53%	MPG Data
		Colorectal Cancer Screening	68%	MPG Data
		Comprehensive Diabetes Care- A1C Test	95%	MPG Data
		Comprehensive Diabetes Care- Last hemoglobin A1C was greater than 9%	13%	MPG Data
		Controlling High Blood Pressure	64%	MPG Data



Maternal & Infant Health	Child Infant CPR	5%	CB Tracker 2013-2015
	Breastfeeding Support	3%	CB Tracker 2013-2015
	Childbirth Education	65	CB Tracker 2013-2015
Health Care Behaviors	Nutrition Education / Weight Management	381	CB Tracker 2013-2015
	Fitness Related Classes, Presentations or Events	38	CB Tracker 2013-2015
	Heart Disease Presentations	9	CB Tracker 2013-2015
	Adult Patients (>20 years) with a BMI between 25 and 29.9	29%	MPG Data
	Adult Patients (>20 years) with a BMI greater than 30	44%	MPG Data
	Pediatric Patients (2-19 years) with a BMI in the 95th percentile	21%	MPG Data
DRG's	Top 10 DRG's- Heart Failure Shock W MCC	29	SG2
	Top 10 DRG's- Chronic Obstructive Pulmonary Disease W MCC	41	SG2

## Appendix B: Indicator Table

Focus Area		Indicator	Gladwin	Michigan	Source
Determinants	Demographics	Population	25,411	<b>9,909,877</b>	County Health Rankings
		Poor General Health	15%	<b>16%</b>	County Health Rankings
	Environment	Drinking Water Violations	1%	<b>1%</b>	County Health Rankings
		Liquor Store Density	0/100,000	<b>14/100,000</b>	County Business Patterns
		Recreation and Fitness Facility Access	.08/1,000	*	US Census Bureau, County Business Patterns.
		WIC- Authorized Food Store Access	6	*	US Department of Agriculture, USDA - Food Environment Atlas. 2011
	Social Environment	Violent Crime Rate (Per 100,000)	206	<b>464</b>	County Health Rankings
		Social Associations (Per 10,000)	9.4	<b>10.2</b>	County Health Rankings
		Single Parent Household	29%	<b>33%</b>	American Community Survey
		Child Abuse Rate (Per 100,000)	31.7	<b>14.7</b>	The Annie E. Casey Foundation
	Education	High School Graduation	85.80%	<b>78.60%</b>	The Annie E. Casey Foundation
		People 25+ with High School Degree or Higher	84.50%	<b>89.90%</b>	American Community Survey
		People 25+ with Bachelor's Degree or Higher	12.50%	<b>27.40%</b>	American Community Survey
	Economy	Median Household Income	37,725	<b>49,087</b>	American Community Survey
		Per Capita Income	20,753	<b>26,143</b>	American Community Survey
		Families Living Below Poverty Level	14%	<b>12.10%</b>	American Community Survey
		People 65+ Living Below Poverty Level	9.20%	<b>8.10%</b>	American Community Survey
		Households with Cash Public Assistance	4.10%	<b>3.70%</b>	American Community Survey
		Low-Income Persons who are SNAP Participants	19.60%	<b>17.10%</b>	American Community Survey
Renters Spending 35% or More of Household Income on Rent		45.20%	<b>45.30%</b>	American Community Survey	
Students Eligible for Free Lunch Program		54%	<b>42%</b>	County Health Rankings	

Care Access	Access to Health Services	Primary Care Physician Rate	2,548:1	1,246:1	County Health Rankings
		Non-Physician Primary Care Provider Rate	2,541:1	1,342:1	County Health Rankings
		Mental Health Provider Rates	1,160:1	487:1	County Health Rankings
		Uninsured Adults	19%	16%	County Health Rankings
		Uninsured Children	7%	4%	County Health Rankings
		Preventable Hospital Stays	79	65	County Health Rankings
	Transportation	Mean Travel Time to Work	30.2	24.1	American Community Survey
		Households without a Vehicle	6.4%	8%	American Community Survey
Health Behaviors	Preventative Care	Diabetic Screening: Medicare Population	87%	86%	County Health Rankings
		Mammogram Screening (Medicare Population)	66.4%	65.6%	County Health Rankings
		Pap Test	78.20%	79.6%	Health Indicator Warehouse
		Sigmoidoscopy or Colonoscopy Screening	59.8%	67.0%	Behavioral Risk Factor Surveillance System
		Pneumonia Vaccination	70.90%	67.00%	Behavioral Risk Factor Surveillance System
		HPV Vaccination-Females	30.50%	31.0%	Michigan Department of Health and Human Services: Immunization Report Card
		HPV Vaccination- Males	22.40%	20.40%	Michigan Department of Health and Human Services: Immunization Report Card
	Substance Abuse	Teens who Binge Drink (Middle School)	9.10%	*	Michigan Profile for Healthy Youth
		Teens who Binge Drink (High School)	23.20%	*	Michigan Profile for Healthy Youth
		Teens who Smoke Cigarettes (Middle School)	6.80%	*	Michigan Profile for Healthy Youth
		Teens who Smoke Cigarettes (High School)	18.8%	*	Michigan Profile for Healthy Youth
		Teens who Use Marijuana (Middle School)	5.7%	*	Michigan Profile for Healthy Youth
		Teens who Use Marijuana (High School)	12.1%	*	Michigan Profile for Healthy Youth
		Tobacco Usage- Current Adult Smokers	31.80%	20.10%	Behavioral Risk Factor Surveillance System
Binge Drinking Adults	13.00%	11.60%	Behavioral Risk Factor Surveillance System		

Health Behaviors	Nutrition and Exercise	Adults who are Sedentary	30%	<b>30.70%</b>	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012
		Low Income and Low Access to a Grocery Store	3.26%	<b>26.18%</b>	US Department of Agriculture: Food Atlas
		People 65+ with Low Access to a Grocery Store	2.89%	<b>26.18%</b>	US Department of Agriculture: Food Atlas
		Access to Exercise Opportunities	62%	<b>84%</b>	County Health Rankings
		Children with Low Access to a Grocery Store	1.34%	<b>26.18%</b>	US Department of Agriculture; Food Atlas
		Farmers Market Density	.04/1,000		US Department of Agriculture; Food Atlas
		Fast Food Restaurant Density	.31/1,000	<b>10.7/1,000</b>	US Department of Agriculture; Food Atlas
		Grocery Store Density	.12/1,000		US Department of Agriculture; Food Atlas
		Food Environment Index	7.1	<b>7.1</b>	County Health Rankings
		Child Food Insecurity Rate	16.70%	<b>16.40%</b>	Feeding America
Health Conditions	Chronic Conditions	Adults who are Obese	36%	<b>30.70%</b>	Centers for Disease Control and Prevention
		Adult Diabetes	13.40%	<b>8.90%</b>	Behavioral Risk Factor Surveillance System
		Diabetes: Medicare Population	26.1%	<b>29.3%</b>	Centers for Medicare and Medicaid Services
		High Cholesterol	64.43%	<b>41.88%</b>	Behavioral Risk Factor Surveillance System
		High Cholesterol: Medicare Population	47.8%	<b>44.4%</b>	Centers for Medicare and Medicaid Services
		Heart Disease	17.20%	<b>5%</b>	Behavioral Risk Factor Surveillance System
		Hypertension	32.90%	<b>29%</b>	Behavioral Risk Factor Surveillance System
		Hypertension (Medicare Population)	56.3%	<b>56.6%</b>	Centers for Medicare and Medicaid Services
		Heart Failure (Medicare Population)	18.7%	<b>17.9%</b>	Centers for Medicare and Medicaid Services
		COPD: Medicare Population	16.9%	<b>14.0%</b>	Centers for Medicare and Medicaid Services
		Atrial Fibrillation	7.4%	<b>8.1%</b>	Centers for Medicare and Medicaid Services
		HIV Prevalence (Per/100,000)	24.70	<b>177.60</b>	National HIV Surveillance System
		Kidney Disease	17.9%	<b>18.0%</b>	Centers for Medicare and Medicaid Services
		Depression	18.8%	<b>18.4%</b>	Centers for Medicare and Medicaid Services
		Schizophrenia/Other Psychotic Disorders	2.7%	<b>4.4%</b>	Centers for Medicare and Medicaid Services
Ischemic Heart Disease (Medicare Population)	34.5%	<b>31.7%</b>	Centers for Medicare and Medicaid Services		
Stroke	3.0%	<b>4.1%</b>	Centers for Medicare and Medicaid Services		

Health Conditions	Chronic Conditions	Hepatitis (Chronic Viral B&C)	0.2%	<b>0.7%</b>	Centers for Medicare and Medicaid Services
		Osteoporosis	4.4%	<b>5.2%</b>	Centers for Medicare and Medicaid Services
		Arthritis	<b>32.8%</b>	<b>32.1%</b>	Centers for Medicare and Medicaid Services
		Alzheimer's/Dementia	7.4%	<b>10.7%</b>	Centers for Medicare and Medicaid Services
		Poor Mental Health Days	3.9/30 Days	<b>4.2/30 Days</b>	County Health Rankings
		Asthma	4.6	<b>6.1</b>	Centers for Medicare and Medicaid Services
		Babies with Low Birth Weight	7%	<b>7%</b>	Michigan Department of Community Health
		County Health Rankings- Health Outcomes	63	*	County Health rankings
		County Health Rankings- Health Factors	78	*	County Health rankings
	Mental Health	Children Served by Community Mental Health	209	*	Community Mental Health
		Adults Served by Community Mental Health	680	*	Community Mental Health
		Adjustment Disorders	30	*	Community Mental Health
		Alcohol- related Disorders	5	*	Community Mental Health
		Anxiety Disorders	154	*	Community Mental Health
		Attention Deficit Conduct and Disruptive Behavior Disorder	114	*	Community Mental Health
		Delirium Dementia and Amnesic and Other Cognitive Disorders	1	*	Community Mental Health
		Developmental Disorders	102	*	Community Mental Health
		Disorders usually Diagnosed in Infancy Childhood or Adolescence	34	*	Community Mental Health
		Impulse Control Disorders Not Elsewhere Classified	5	*	Community Mental Health
		Miscellaneous Mental Disorders	2	*	Community Mental Health
Mood Disorders	389	*	Community Mental Health		
Personality Disorders	135	*	Community Mental Health		
Schizophrenia and other Psychotic Disorders	60	*	Community Mental Health		
Screening and History of Mental Health and Substance Abuse Codes	12	*	Community Mental Health		
Substance-Related Disorders	7	*	Community Mental Health		

Health Conditions	Cancer Incident	All Cancer	7.5%	<b>7.7%</b>	National Cancer Institute
		All Cancer Medicare Population	<b>8.50%</b>	<b>8%</b>	Centers for Medicare and Medicaid Services
		Lung Cancer	<b>80</b>	<b>69.1</b>	National Cancer Institute
		Oral Cancer	11	<b>11.4</b>	National Cancer Institute
		Breast Cancer	106.3	<b>121.4</b>	National Cancer Institute
		Colorectal Cancer	40	<b>40.7</b>	National Cancer Institute
		Prostate Cancer	129	<b>147.3</b>	National Cancer Institute
	Mortality	All Cancer	<b>168.7</b>	<b>155</b>	National Cancer Institute
		Colon and Rectum Cancer	<b>16.7</b>	<b>15.6</b>	National Cancer Institute
		Lung Cancer	<b>62.7</b>	<b>52.2</b>	National Cancer Institute
		Premature Death	<b>7,500</b>	<b>7,200</b>	County Health Rankings
		Heart Disease	197.5	<b>199.9</b>	Michigan Department of Community Health
		Diabetes (Per 100,000)	<b>82.6</b>	<b>23.6</b>	Michigan Department of Community Health
		Chronic Lower Respiratory Disease	<b>102.3</b>	<b>53.8</b>	Michigan Department of Community Health
		Stroke	22.2	<b>37.7</b>	Michigan Department of Community Health
		Suicide	*	<b>13.2</b>	Michigan Department of Community Health
		Influenza and Pneumonia	<b>16.5</b>	<b>14.6</b>	Michigan Department of Community Health
		Infant	<6	<b>6.8%</b>	Michigan Department of Community Health
		Drug Poisoning	<b>&gt;20</b>	<b>18</b>	County Health Rankings
		Alcohol-Impaired Driving Deaths	<b>41%</b>	<b>30%</b>	County Health Rankings
Deaths Due to Transport Fatal Injuries (Per 100,000)	3	<b>1,078</b>	Michigan Department of Community Health		

## Appendix C: Data Sources

Organization Name	Description	Year	Website
American Community Survey (ACS)	Nationwide survey designed to provide communities a fresh look at how they are changing. The ACS collects and produces population and housing information every year. Data used to obtain measures of social and economic factors.	2016	<a href="http://www.census.gov/acs/www/">http://www.census.gov/acs/www/</a>
The Annie E. Casey Foundation	The Annie E. Casey Foundation is devoted to developing a brighter future for millions of children at risk of poor educational, economic, social and health outcomes.	2014	<a href="http://www.aecf.org/who-we-help/communities/">http://www.aecf.org/who-we-help/communities/</a>
Behavioral Risk Factor Surveillance System (BRFSS)	The Behavioral Risk Factor Surveillance System (BRFSS) is a collaborative project of the Centers for Disease Control and Prevention (CDC), and U.S. states and territories. The BRFSS, administered and supported by the Behavioral Surveillance Branch (BSB) of the CDC, is an on-going data collection program designed to measure behavioral risk factors in the adult population 18 years of age or over living in households.	2012	<a href="http://www.cdc.gov/brfss/">http://www.cdc.gov/brfss/</a>
Centers for Disease Control and Prevention	CDC works 24/7 to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same.	2012	<a href="http://www.cdc.gov/about/organization/mission.htm">http://www.cdc.gov/about/organization/mission.htm</a>
Centers for Medicare and Medicaid Services	CMS covers 100 million people through Medicare, Medicaid, the Children's Health Insurance Program, and the Health Insurance Marketplace. But coverage isn't our only goal. To achieve a high quality health care system, we also aim for better care at lower costs and improved health.	2014	<a href="https://www.cms.gov/">https://www.cms.gov/</a>
Community Mental Health	Our mission is to promote community inclusion and optimal recovery through provision of comprehensive and quality integrated services to individuals with a mental illness, developmental disability, and/or substance use disorder.	2015	<a href="http://www.cmhcm.org/">http://www.cmhcm.org/</a>
County Health Rankings & Roadmaps	Counties in each of the 50 states are ranked according to summaries of a variety of health measures. Counties are ranked relative to the health of other counties in the same state relative to Health Outcomes and Health Factors utilizing the latest publically available data.	2010-2016	<a href="http://www.countyhealthrankings.org/">http://www.countyhealthrankings.org/</a>
Feeding America	Feeding America is a nationwide network of food banks and the nation's leading domestic hunger-relief charity. Together, we provide food to more than 46 million people through 60,000 food pantries and meal programs.	2013	<a href="https://secure.feedingamerica.org/site/Donation2?df_id=19008&amp;19008.donation=form1&amp;s_src=Y16XP1B1X&amp;s_subsrc=c&amp;s_keyword=feeding%20america&amp;gclid=CNPXpsrH-5wCFQyNaQodt18IJw">https://secure.feedingamerica.org/site/Donation2?df_id=19008&amp;19008.donation=form1&amp;s_src=Y16XP1B1X&amp;s_subsrc=c&amp;s_keyword=feeding%20america&amp;gclid=CNPXpsrH-5wCFQyNaQodt18IJw</a>

Health Indicator Warehouse	Access to high quality data improves understanding of a community's health status and determinants, and facilitates the prioritization of interventions	2014	<a href="http://www.healthindicators.gov/About/AboutTheHIW">http://www.healthindicators.gov/About/AboutTheHIW</a>
MDHHS: Immunization Report Card		2015	<a href="http://www.michigan.gov/mdhhs/0,5885,7-339-73971_4911_4914_68361-321114--,00.html">http://www.michigan.gov/mdhhs/0,5885,7-339-73971_4911_4914_68361-321114--,00.html</a>
Michigan Profile for Healthy Youth	The Michigan Profile for Healthy Youth (MiPHY) is an online student health survey offered by the Michigan Departments of Education and Health and Human Services to support local and regional needs assessment. The MiPHY provides student results on health risk behaviors including substance use, violence, physical activity, nutrition, sexual behavior, and emotional health in grades 7, 9, and 11.	2013	<a href="http://www.michigan.gov/mde/0,4615,7-140-74638_74639_29233_44681---,00.html">http://www.michigan.gov/mde/0,4615,7-140-74638_74639_29233_44681---,00.html</a>
Michigan Department of Health and Human Services	The Michigan Department of Community Health's mission is to protect, preserve, and promote the health and safety of the people of Michigan.	2015	<a href="http://www.michigan.gov/mdhhs/">http://www.michigan.gov/mdhhs/</a>
MidMichigan Health	MidMichigan Health is a non-profit health system, headquartered in Midland, Michigan, affiliated with the University of Michigan Health System. Recently named one of the nation's 15 Top Health Systems® by Truven Health Analytics™, MidMichigan Health covers a 20 county region with medical centers in Midland, Alma, Clare, Gladwin, and now Alpena.	2015	<a href="https://www.midmichigan.org/">https://www.midmichigan.org/</a>
National Cancer Institute	The NCI coordinates the National Cancer Program, which conducts and supports research, training, health information dissemination, and other programs with respect to the cause, diagnosis, prevention, and treatment of cancer, rehabilitation from cancer, and the continuing care of cancer patients and the families of cancer patient	2012	<a href="http://www.cancer.gov/">http://www.cancer.gov/</a>
National HIV Surveillance System		2015	<a href="http://www.cdc.gov/hiv/statistics/">http://www.cdc.gov/hiv/statistics/</a>
US Department of Agriculture; Food Atlas	We provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management.	2010	<a href="http://www.ers.usda.gov/data-products/food-environment-atlas.aspx">http://www.ers.usda.gov/data-products/food-environment-atlas.aspx</a>
US Census Bureau, County Business Patterns.	County Business Patterns (CBP) is an annual series that provides subnational economic data by industry. This series includes the number of establishments, employment during the week of March 12, first quarter payroll, and annual payroll. This data is useful for studying the economic activity of small areas; analyzing economic changes over time; and as a benchmark for other statistical series, surveys, and databases between economic censuses.	2014	<a href="http://www.census.gov/programs-surveys/cbp/about.html">http://www.census.gov/programs-surveys/cbp/about.html</a>



## **Appendix D: Clare/Gladwin Collaborative Council Members**

Central Michigan District Health Department  
Central Michigan Regional Rural Health Network  
Clare/Gladwin Communities That Care  
Clare/Gladwin Great Start Collaborative  
Clare/Gladwin RESD  
Community Mental Health of Central Michigan  
Department of Health and Human Services  
Early On  
Mid Michigan Community Action Agency  
Mid Michigan Community College  
Michigan Community Dental Clinic  
MidMichigan Medical Center - Clare  
MidMichigan Medical Center - Gladwin  
Michigan Oral Coalition  
MSU College of Human Medicine Midland Regional Campus Rural Community Health Program Coordinator  
MSU Extension  
NEMSCA  
Salvation Army  
Shelterhouse  
United Way  
1016 Recovery Network

### **Community Surveys**

2014 Gladwin Health Community Focus Group (Carey Bregni, Health Science Department, SVSU)  
2015 Gladwin County Health Needs Assessment, Project Connect

## Appendix E: MidMichigan Health Community Collaborations

Agency/Committee	Purpose of work	Subsidiary
<b>Community Health and Improvement Committee (CHAI) of the Health and Human Service Council of Midland County</b>	Develops and evaluates assessments of community need and provides plans to meet those needs. The Behavioral Risk Factors Survey for Midland County was completed by end of calendar year 2015. The group enlisted additional community partners to develop a health Improvement Plan for Midland County for 2016. Focus Areas for health improvement include: Healthy Weight: Quality of Later Life and Substance Use.	Midland
<b>MiHIA Population Health Team</b>	Focus is improvement in all counties within the MiHIA region in the national County Health Rankings. Long term goal is to have all counties within the MiHIA region in the 1st quartile of the Rankings. Create regional resources and opportunities for all community sectors to promote and sustain health behavior modification.	Clare Gladwin Gratiot Midland
<b>Central Michigan Regional Rural Health Network</b>	Uniting the communities and working together to improve health and promote wellness in central Michigan. Facilitated by the Central Michigan District Health Department Arenac, Clare, Gladwin, Isabella, Osceola and Roscommon counties. Currently working on a Community Health Improvement Plan for 2017.	Clare Gladwin Gratiot
<b>Gratiot Collaborative Council</b>  <b>Live Well Gratiot</b>	A community collaboration group between non-profits, government and businesses. The group is facilitated by the Mid-Michigan District Health Department and works to address the needs and implementation of health improvement strategies within Gratiot County as well as complete a Community Health Needs Assessment. Next Plan expected calendar year 2017. Live Well Gratiot is a steering committee developed by the Gratiot Collaborative Council to address health disparities.	Gratiot