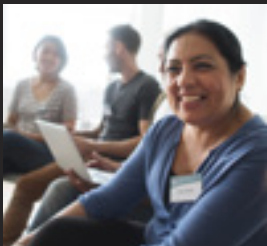


# FOR GOOD MEASURE

2019 Community Health Needs Assessment  
for Muskegon, Oceana and Newaygo Counties



*A Joint Report for  
Mercy Campus,  
Hackley Campus  
and Lakeshore  
Campus of Mercy  
Health Muskegon*

*Prepared on Behalf of*



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## INTRODUCTION

**MERCY HEALTH**

Mercy Health Muskegon has served the West Michigan/Lakeshore region as a medical provider for over 115 years. Currently, a 408 licensed-bed primary, acute and specialty care system, Mercy Health Muskegon is part of Mercy Health West Michigan, one of the largest hospital systems in the region. Mercy Health Muskegon serves a multi county area consisting of both Muskegon and Oceana Counties as well as portions of Newaygo, Mason, and Ottawa Counties. With an employee base of 3,500 individuals, including 375 physicians, Mercy Health Muskegon has an annual rate of 17,000 inpatient discharges and nearly 145,000 emergency/urgent care visits. Specialty care services include cardiothoracic surgery, neurosurgery, orthopedics, bariatric surgery and spinal services. The Mercy Health Hackley Campus is a Trauma II level Emergency Department.



Mercy Health Muskegon has four campuses: General, Hackley, Mercy and the Lakeshore. The Hackley, Mercy and General Campuses are all located in Muskegon County and within a five-mile radius of one another.

The Lakeshore Campus is a short-term, critical access hospital facility located approximately 30 miles from Muskegon in neighboring Oceana County. Lakeshore Hospital has 24 beds and has served Oceana County and surrounding areas for 80 years.

Lakeshore provides inpatient services

and is continually expanding its outpatient services, as well as outreach and wellness services in the community.

The close proximity of Mercy Health's facilities reflects the evolution of health delivery in Muskegon County. Historically, Muskegon County was served by three separate hospital entities: Hackley, Mercy and General. In 1998, Muskegon's Osteopathic Hospital (General) merged with Mercy Hospital and, in 2007, Hackley Hospital and Mercy announced plans to merge. That process was completed in 2008.

In 2019, the Hackley and Mercy campuses will fully consolidate their Muskegon acute operations into a single, new facility on the site of the legacy Mercy campus. Designed to address a model of health care that continues to reduce hospital stays and target community-wide population health improvement, this new \$271 million facility will reduce

overall bed capacity from 408 to 267 beds. The consolidation will also repurpose the Hackley campus, targeting increased outpatient and urgent care needs. This consolidation will not affect the Mercy Health Muskegon service area reflected in this Community Health Needs Assessment.

Mercy Health is supported by its regional primary care network, Affinia Health. Affinia Health Network is a Clinically Integrated Network (CIN) with over 930 primary care and specialty physicians. Affinia Health's service area includes Grand Rapids as well as Mercy Health Muskegon. Fifty-three of Affinia's 62 primary care practices are designated as Patient Centered Medical Homes (PCMH).

Mercy Health Muskegon is a member of Trinity Health, one of the largest Catholic multi-institutional health care delivery systems in the United States. Locally, Mercy Health Muskegon embraces its role in the West Michigan community as a trusted medical provider and partner.

**COMMITMENT**

Mercy Health Muskegon was founded by the Sisters of Mercy on the principle of compassionate care for all of the residents of the Muskegon community, with particular emphasis on those most at risk. It is in this same spirit that Mercy Health approaches the Community Health Needs Assessment (CHNA) process. Mercy Health Muskegon recognizes that beyond the traditional delivery of medical services, there is a responsibility to understand and respond to the factors that impact the health and well-being of all residents at all stages of life. Through this principle, Mercy Health Muskegon advances and sustains the legacy of community service and servant leadership exemplified by our founders. As a nonprofit hospital, Mercy Health Muskegon also incorporates community benefit requirements articulated under the Patient Protection and Affordable Care Act. Through the three-year CHNA process, Mercy Health blends its Catholic traditions of mission and service with the stewardship responsibilities of a nonprofit health system. Mercy Health Muskegon wishes to acknowledge the leadership of the Catholic Health Association of the United States for its work in defining national standards for community benefit reporting and for its ongoing educational programs to train and support our nation's community benefit leaders.

**A CONSOLIDATED FACILITY NEEDS ASSESSMENT**

This 2019 Community Health Needs Assessment (CHNA) continues a joint collaboration across the three Mercy Health facilities required to conduct assessments. The use of a single CHNA document is permitted

*“The Mission of Mercy Health Muskegon: We serve together in the spirit of the Gospel as a compassionate and transforming healing presence within our communities.”*

under the IRS Section 501 (r) Final Rule, as all of these sites serve a common geography.

The Lakeshore Hospital Board of Trustees has formally agreed to participate in the Hackley and Mercy Campus CHNA, as there is considerable overlap of the populations being served. This document will incorporate the needs of Oceana County, as well as additional regional data from secondary markets in adjacent Newaygo, Ottawa and Mason Counties.

The Mercy Health Muskegon Board of Trustees approved this report on June 27, 2019.

### DATA SOURCES IN THE CHNA

Data for this 2019 Community Health Needs Assessment has been drawn from many sources including, but not limited to, the following:

SOURCE MATERIAL	
Michigan County Health Rankings and Roadmaps	United Way of the Lakeshore (ALICE)
U.S. Census Bureau – Small Area Income and Poverty Estimates	Bureau of Labor Statistics
Kids Count Michigan	MI Department of Health and Human Services
Head Start of Muskegon/Oceana 2017 Assessment & Update	THRIVE 2018 Baseline Report
Attendance Works	The Hamilton Project of the Brookings Institute
Michigan Department of Education	National Vital Statistics System
Public Health – Muskegon County	MI Department of Health and Human Services
The American Cancer Society	The Centers for Disease Control and Prevention
Mercy Health Muskegon	The National Center for Health Statistics
Muskegon Family Care	Affinia Health
MI Department of Licensing and Regulatory Affairs (LARA)	Hackley Community Care
HealthWest	Michigan Automated Prescription System
The Michigan Profile for Healthy Youth (MIPHY)	2016 ACES Muskegon Report
RAND Corporation	The Centers for Medicare and Medicaid
Muskegon County Consolidated Plan for Housing and CD	The HighScope Foundation
Pathways to Community Health	Healthy Muskegon 2020
The residents of West Michigan through focus groups, town halls and resident surveys	

## COMMUNITY ENGAGEMENT, PROCESS AND FEEDBACK

The 2019 Mercy Health Muskegon CHNA uses an inclusive process led by a 24-member Advisory Council. The engagement strategy included a community survey with participation by 2,067 residents, 7 multi-site focus groups, 2 town halls, and a neighborhood level opinion survey of 91 residents from Muskegon County census tract 14.2 in the city of Muskegon Heights—a majority African American city. This latter survey effort, conducted directly by resident volunteers, not only informs this CHNA process, but ensures that input from individuals living in our urban center has been directly incorporated into this process.

### CHNA ADVISORY COUNCIL

The 2019 CHNA Advisory Council was convened in March of 2018 to oversee the Community Health Needs Assessment process. The membership of the Advisory Council and represented organizations/interest groups are:

2019 COMMUNITY HEALTH NEEDS ASSESSMENT ADVISORY COUNCIL			
Domain/Community	Name	Representing	Geography/Counties
Healthcare	Gary Allore	Mercy Health	All service region
	Jay Bryan	Lakeshore Hospital	Oceana, Mason
	Kisha McPherson	Spectrum Health	All service region
	Luke Reynolds	PACE/Life Circles	All service region
Seniors LGBTQI Community	Eli Fox	Community	Muskegon
	Ron Jenkins	Faith	Muskegon/Oceana
	Marcia Hovey-Wright	Women	Muskegon
	Julia Rupp	Healthwest	Muskegon
Behavioral Health African American Hispanic/Latino Substance Use Health Disparities	Earvean Diggs	Young Black Professionals	Muskegon
	Sonya Hernandez	MI Hispanic Latino Commission	Oceana/Muskegon
	Kate Kesteloot-Scarborough	Drug Free Communities	Muskegon
	Alexis Dye	Health Disparities Reduction Coalition	Muskegon
	Emma Kirwin	Health Bound	Oceana
	Bob Szymoniak	Muskegon Superintendents Group	Muskegon
Education Public Safety Labor Native American Housing/Homeless Transportation Employers	D. J. Hilson	Muskegon Prosecutor	Muskegon
	Tony Barnes	Unions	Muskegon/Oceana
	Chuck Fisher	Little River Band of Ottawa Nation	Oceana/Mason
	Sarah Rinsema-Sybenga	HARA/Homeless Continuum of Care	Muskegon
	Corey Davis	Muskegon Area Transit System	Muskegon
	Cindy Larsen	Chamber of Commerce	Muskegon
Non-Profit Early Childhood End of Life	Dave Ramos	Small Business owners	Muskegon
	Christine Robere	United Way of the Lakeshore	All Service Area
	Allison Keessen	Great Start Collaborative	Muskegon
	Lisa McMichael	Harbor Hospice	Muskegon

Council representatives were selected on the basis of their leadership in critical community sectors, as well as overall knowledge of the Mercy Health Muskegon West Michigan service area.

The 2019 CHNA Advisory Council met on a monthly basis to review data and focus on the community survey process. Their work included the mobilization of volunteers, survey implementation and subsequent ranking sessions following receipt of community feedback. We are grateful for their service as well as the input and expertise provided by our partners, the Muskegon County Public Health Department.

**COMMUNITY SURVEY – PRIORITIES EXPRESSED**

Beginning on April 1, 2018, a community survey was administered both electronically and on paper to engage broader community input into the CHNA process. The survey targeted the primary Mercy Health service area— Muskegon and Oceana Counties. Multiple approaches were used to ensure that the survey would reach the broadest possible cross section of the service area population. In total, this survey successfully engaged 2,067 individuals from throughout the service area.

The use of the CHNA survey was twofold: first, to help the CHNA Advisory Council assess trending issues; and second, to engage the broader community in the CHNA process by asking them to rank a final subset of issues to help determine priorities for future action.

*Based upon the ranking process, the following issues emerged and are listed in order of priority:*

OCEANA RANKING		MUSKEGON RANKING	
1	Housing – Where to get help	1	Childcare - Affordability
2	Childcare – Affordability	2	Substance Use - Opioid Education
3	Nutrition – Cost of Healthy Food	2	Employment - Need for Skill Building
3	Employment – Skill Building	3	Education - Trades and/or Technical Training
4	Childcare – Availability	4	Childcare - Availability
4	Substance Use – Opioid Education	5	Education - Special Education
5	Education – Trades and/or Technical Training	5	Housing - Where to Get Help
6	Nutrition- Availability of Healthy Food	6	Nutrition Cost of Healthy Food
7	Employment – Who you know, not what you know	7	Nutrition - Availability of Healthy Food
8	Education – Special Education	8	STI/STD - What protects from infection
9	STD/STI Myths about what protects from infection	8	Employment – Who you know not what you know
10	Advance Directives	9	Advance Directives

*A full copy of the survey has been included in Appendix A. Community input from the survey is also cited throughout this report, along with key themes.*

**FOCUS GROUPS AND TOWN HALL MEETINGS**

A total of six focus groups and two town halls were conducted to receive additional input from community members into the CHNA decision-making process. Each focus group was professionally recruited to ensure that participants reflected the area demographics. Eight to ten participants were recruited for each group and all group sessions were facilitated.

Focus group locations included:

MUSKEGON COUNTY	OCEANA COUNTY	OTTAWA COUNTY
Egelston Branch Library	Hart Community Center	Spring Lake Library
Hackley Public Library		
White Lake Library		
Norton Shores Branch Library		

Two town halls were held in the Shelby Community Center (Oceana County) and at the MATS Conference Center in Muskegon Heights (Muskegon County). Issues raised during the focus groups and town halls included:

**EMPLOYMENT**

- Some people reported feeling “trapped” in their jobs. More specifically, they did not want to stay with a current employer, but because of pay rates, time off and other benefits, they felt they would probably be unable to find a job with similar compensation
- A number of participants indicated it was hard to find work in Muskegon County, particularly if you were new to the area or didn’t “know the right people”
- Participants in Hart overwhelmingly reported they had to leave the county to find work. They also said that most of the jobs in Hart require applicants to be bilingual, which can be a major hurdle to finding work
- Some participants reported that within their companies, they had a hard time getting people to consistently show up for work

**EDUCATION**

- Participants expressed they felt that high schools were only teaching for the “college track”
- Some participants indicated they were unsure where to go for help when their children/grandchildren expressed interest in skilled trades. They said that schools were not particularly helpful with this
- Overwhelmingly, people indicated they were happy/satisfied with their school districts
- Participants representing all school districts in the service area felt that the special education programs in their schools were understaffed and not providing sufficient support to students needing those programs

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## PROFILE AND POPULATION DEMOGRAPHICS: SERVICE AREA

### ADDITIONAL ISSUES

- Physical Activity: most participants indicated they did not “work out,” but believed they got their physical activity through yard and house work
- Healthy Diet/Nutrition: participants said they knew the components of a healthy diet, but that time, cost and current eating habits and tastes of their families made it difficult to make changes
- Neighborhood Environment: respondents indicated they felt safe in their neighborhoods and knew their neighbors well
- Advance Directives: most participants had experience with an advance directive, most commonly during an illness (or eventual death) of a loved one. Those with experience said that having an advance directive made a difficult time easier because they then understood the wishes of their loved one. All participants over 70 in the focus groups reported having advance directives. Almost all individuals under 70 admitted they did not have one

### MUSKEGON COUNTY, MICHIGAN

Muskegon County is located in the West-Central Lower Peninsula of Michigan on the eastern shores of Lake Michigan. The county is comprised of 7 cities, 3 villages and 16 townships. The county seat is the city of Muskegon—the largest city in the county and service area. Muskegon County has had over one billion dollars in new investment over the past three years, signaling significant economic revitalization of the area. In spite of this, the Chamber of Commerce indicates the area has a workforce shortage and, at this writing, there are approximately 1,000 job openings in the area.

The cities of Muskegon and Muskegon Heights are each designated as Federal Enterprise Communities and, most recently, Federal Opportunity Zones. Within Muskegon County, there are three Entitlement Communities that receive Community Development Block Grant funds. The Entitlement Communities are the cities of Muskegon, Muskegon Heights and Norton Shores. There are also two Federally Qualified Health Centers serving residents of Muskegon County. Both centers are located in the city of Muskegon Heights.

### OCEANA COUNTY, MICHIGAN

Oceana County is located immediately north of Muskegon County and along the Lake Michigan coastline. Oceana is a rural county with the second largest fruit tree acreage in the state. Because of its proximity to Lake Michigan, tourism also plays a vital part in the local economy.

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Oceana County is comprised of 2 cities, 2 villages and 16 townships. Oceana County is ranked as a Health Professional Shortage Area and Medically Underserved Population by the federal government.

### NEWAYGO COUNTY, MICHIGAN

Newaygo County is located northeast of Muskegon County and north of the much larger Grand Rapids Metropolitan area. Newaygo also relies on tourism as its main economic base, along with agriculture and manufacturing. Because of its proximity to Muskegon and Grand Rapids, many residents of Newaygo County commute to jobs in the larger communities. Newaygo has 2 cities, 3 villages and 24 townships. Population density is approximately 56 people per square mile. Newaygo is designated as a Health Professional Shortage Area and Medically Underserved Population area. Newaygo is also served by Gerber Memorial Hospital—a community hospital affiliated with Spectrum Health based in Grand Rapids.

### MASON COUNTY, MICHIGAN

Mason County is located along the shoreline of Lake Michigan and, like Muskegon, features a deep-water port and cross-lake ferry service to Wisconsin. Mason County’s economy has been driven by both agricultural and tourism sectors. The county features 2 cities, 4 villages, 6 unincorporated communities and 15 townships. The population density is 58 persons per square mile. Ludington is the largest city and county seat. A portion of Mason County includes the Manistee National Forest. Mason County has a community hospital located in Ludington, which is affiliated with the Spectrum Health System based in Grand Rapids.

### OTTAWA COUNTY, MICHIGAN

Ottawa County’s economic base includes manufacturing, tourism and agriculture. It is home to several small private colleges and to Grand Valley State University, located in Allendale. The county includes 6 cities, 1 village, 3 census designated places, 37 unincorporated communities, and 17 townships. The largest city is Holland and the county seat is located in Grand Haven. Population density in the county is 509 individuals per square mile. Ottawa is home to three community hospitals, of which two, located in the southern part of the county, are affiliated with the Grand Rapids-based Spectrum Health System.

### SERVICE AREA POPULATION DEMOGRAPHICS

The race, age and gender demographic breakdown of the primary and secondary service area served by Mercy Health Muskegon is displayed in the following chart.

SERVICE AREA POPULATION DEMOGRAPHICS						
	MUSKEGON	OCEANA	MASON	OTTAWA	NEWAYGO	STATE/MI
Population	173,408	26,027	28,876	282,250	47,938	9,928,300
% Below 18 years of age	23.5%	23.5%	20.7%	24.4%	22.6%	22.1%
% 65 and older	15.9%	19.7%	22.1%	14.0%	18.7%	16.2%
% Non-Hispanic African American	14.1%	0.6%	0.8%	1.5%	1.1%	13.8%
% American Indian and Alaskan Native	1.0%	1.6%	1.1%	0.6%	0.9%	0.7%
% Asian	0.7%	0.3%	0.7%	2.9%	0.5%	3.1%
% Native Hawaiian/Pacific Islander	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
% Hispanic	5.6%	14.8%	4.6%	9.5%	5.6%	5.0%
% Non-Hispanic White	76.4%	82.1%	91.4%	84.2%	90.7%	75.4%
% Not proficient in English	0%	3%	0%	2%	1%	1%
% Females	50.2%	49.6%	50.1%	50.7%	49.7%	50.8%
% Rural	23.3%	89.9%	62.7%	20.3%	83.8%	25.4%

<http://www.countyhealthrankings.org/app/michigan/2018/county/snapshots>

With the exception of Ottawa County, Muskegon County is least rural and has the largest percentage of community diversity with 14.1% African American and 5.6% Hispanic. Hispanic communities continue to grow in West Michigan, with the largest percentage of 14.8% living in Oceana County, followed by 5.6% in Newaygo County. Both Oceana and Newaygo have large rural populations at 89.9% and 83.8%, respectively. The highest percentage of people over the age of 65 (22.1%) reside in Mason County. Ottawa County has the highest percentage under the age of 18 at 24.4%.

### IMMIGRANT COMMUNITY DEMOGRAPHICS

Based on 2017 data compiled by the Michigan League for Public Policy and released in January 2019, the majority of immigrants living in Muskegon and Oceana Counties originate from Latin America. 37%, or 1,058, immigrants in Muskegon County and 89%, or 1,318, immigrants in Oceana County, are from Latin American nations. Poverty rates among immigrant populations in Michigan exceed those of U.S. born families. At present, 21.6% of all Michigan immigrants who are uninsured are not citizens.

The Department of Homeland Security has recently proposed a new rule that may penalize immigrants who have enrolled in Medicaid, accepted food stamps, or participated in public housing. The “public charge” rule would limit the ability of immigrants to attain citizenship if an applicant has been found to be heavily dependent on government assistance. Individuals who have income below 125% of the federal poverty level may also be penalized when seeking citizenship. There is concern that many local immigrants may now avoid seeking medical care or food assistance for themselves and their families because of this pending policy.

### LGBTQI COMMUNITY DEMOGRAPHICS

In 2016, the National Institute on Minority Health and Health Disparities (NIMHD) announced the formal designation of sexual and gender minorities (SGM) as a health disparity population for National Institutes of Health research purposes. The SGM term is inclusive of lesbian, gay, bisexual and transgender populations, as well as individuals whose sexual orientation, gender identity and expressions on reproductive development varies from traditional, societal, cultural, or physiological norms.<sup>1</sup>

GMS populations have less access to health care and higher rates of certain diseases, including depression, cancer and HIV/AIDS. Research additionally shows that sexual and gender minorities who live in communities with high levels of anti-SGM prejudice die sooner (12 years on average) than those living in more accepting communities.<sup>2</sup>

At present, there is no centralized federal requirement that prioritizes the collection of LGBTQI data. The LGBT Data Inclusion Act, introduced in the 115<sup>th</sup> Congress, would have required the collection of voluntary, self-disclosed information on sexual orientation and gender identity in certain surveys and for other purposes.<sup>3</sup> This legislation was not enacted into law before the end of the 115<sup>th</sup> Congress (January 3, 2017 – January 3, 2019), although reintroduction of this bill or a similar bill is anticipated.

Today, some of the only national demographic information on the LGBTQI community comes from the annual Gallup Survey sampling. In their most recent update report,<sup>4</sup> published on May 22, 2018, Gallup reports that the percentage of adults in the U.S. who identify as LGBT has been increasing and is now at its highest point in the six years that Gallup has tracked this measure. Self-reports of being LGBT have risen from 5.2% in 2012 to 8.1% today (2018). Gallup notes that this increase has been

<sup>1</sup> Sexual and Gender Minorities Formally Designated as a Health Disparity Population for Research Purposes, Director’s Message, October 6, 2016, <https://www.nih.gov>

<sup>2</sup> <http://www.ncbi.nlm.nih.gov>

<sup>3</sup> H.R. 3273-115<sup>th</sup> Congress: LGBT Data Inclusion Act.” [www.GovTrack.us.2017.February.10.2019](http://www.GovTrack.us.2017.February.10.2019)  
<https://govtrack.us/congress/bills/115/hr3273>

<sup>4</sup> Gallup <https://news.gallup.com/poll/234863/estimate-lgbt-population-rises.aspx>

driven almost totally by millennials who are more likely than previous generations to self-identify. Using the Gallup percentage, the LGBTQI population of Muskegon County may be estimated at 14,000 people and 2,100 in Oceana County. Demographic variations always exist, but with absent U.S. census tracking, at best, we can only estimate based upon the national trends that have been identified by groups like Gallup.

Individuals participating in the 2019 CHNA Community Survey were asked to voluntarily identify their gender identity and sexual orientation. While not a scientific sample, the community survey represents a first attempt by Mercy Health Muskegon to identify LGBTQI issues of concern and incorporate the voice of this community into the local CHNA process. The current limitations of overall data suggests an opportunity for enhanced efforts by Mercy Health and its community partners to routinely incorporate LGBTQI data collection into their own patient and client surveys so the needs of this population can be more readily identified and addressed.

## ECONOMIC INDICATORS

*“Poverty is the single largest determinant of health, and ill health is an obstacle to social and economic development. Poorer people live shorter lives and have poorer health than affluent people. This disparity has drawn attention to the remarkable sensitivity of health to the social environment.”*

### INCOME INSECURITY – MEDIAN HOUSEHOLD INCOME AND POVERTY RATES

Small Area Income and Poverty Estimates (SAIPE) provide the only up-to-date, single-year income and poverty statistics for all 3,141 counties and 13,213 school districts nationally. Across the U.S., county-level median household income estimates range from \$22,645 to \$136,191.

The median household income for all U.S. counties in 2017 was 60,336. In 2017, 11.3% of counties had a statistically significant increase in household income compared to 2007, which was the year before the most recent recession.

It is noteworthy that, with the exception of Ottawa County, all of the counties in the Mercy Health Muskegon service area have median income levels below the national and state identified levels.

Within the Mercy Health Muskegon service area, poverty is most prevalent in Muskegon County at 15.2% followed by Oceana at 14.6% and Newaygo at 14.2%. Poverty rates have dropped since the 2016 CHNA. In 2015, the poverty rate for the State of Michigan was 17%. New 2017 data now shows the state at 14.1%.

World Health Organization.

### SMALL AREA INCOME AND POVERTY ESTIMATE MEDIAN INCOME LEVELS – UNITED STATES, MICHIGAN AND SELECTED COUNTIES

YEAR	ID	NAME	MEDIAN HOUSEHOLD INCOME	90% CONFIDENCE INTERVAL
2017	00000	United States	\$60,336	\$60,250 - \$60,422
2017	26000	Michigan	\$54,840	\$54,405 - \$55,275
2017	26105	Mason County	\$46,579	\$42,363 - \$50,795
2017	26121	Muskegon County	\$48,885	\$46,363 - \$51,397
2017	26123	Newaygo County	\$47,521	\$44,269 - \$50,773
2017	26127	Oceana County	\$46,423	\$42,477 - \$50,369
2017	26139	Ottawa County	\$68,816	\$66,419 - \$71,213

Muskegon County, previously at 19.93% has dropped to 15.2% and Oceana, previously at 19.90% is now at 14.6%. Nationally, between 2016 and 2017, 6.7% of counties had a statistically significant decrease in poverty.

In Muskegon County, the highest rates of poverty are in the cities of Muskegon at 34.7% and Muskegon Heights at 39.3%. Holton Township has a poverty rate of 34.5%. Three additional communities in Muskegon County also have significant poverty rates: Blue Lake Township (18.2%), Casnovia Village (18.6%) and Wolf Lake CDP at 20.8%. These latter communities are located in areas where economic growth remains relatively unchanged and/or where a lack of transportation can be a factor in connecting to work or other resources.

Oceana County has the lowest median income in the service area at \$46,423. Communities in Oceana with significant levels of poverty exceeding the state rate of 14.1% include: Crystal Township at 34.3%, Elbridge Township at 25.9%, Hart City at 28.2%, Hart Township at 26.2%, Leavitt Township at 31.2%, Rothbury at 21.2% and Shelby Village at 22.6%.



SMALL AREA INCOME AND POVERTY ESTIMATE <sup>5</sup>							
ALL AGES IN POVERTY – 2017 FEDERAL, STATE AND SELECTED COUNTY/AGGREGATED							
YEAR	ID	NAME	POVERTY UNIVERSE	NUMBER IN POVERTY	90% CONFIDENCE INTERVAL	% IN POVERTY	90% CONFIDENCE INTERVAL
2017	00000	United States	317,741,588	42,583,651	42,342,619 - 42,824,683	13.4	13.3-13.5
2017	26000	Michigan	9,730,194	1,373,358	1,351,618 – 1,395,098	14.1	13.9-14.3
2017	26121	Muskegon	167,263	25,478	22,370 – 28,586	15.2	13.3 – 17.1
2017	26127	Oceana	26,079	3,816	3,124 – 4,508	14.6	11.9 – 17.3
2017	26123	Newaygo	47,495	6,848	5,719 – 7,977	14.4	12.0 – 16.8
2017	26105	Mason	28,593	3,798	3,093 – 4,503	13.3	10.8 – 15.8
2017	26139	Ottawa	277,035	22,831	19,968 – 25,694	8.2	7.2 – 9.2

*Additional community level poverty rates for Muskegon and Oceana Counties may be found in Appendix B. A separate table of selected community data from secondary markets – Mason, Newaygo and Ottawa – is also located in the Appendix.*

#### EMPLOYMENT/UNEMPLOYMENT

According to metropolitan data posted by the Bureau of Labor Statistics in November 2018, Muskegon’s total workforce was estimated at 77,008. Of this number, 2,928 individuals were unemployed, or a total of 3.8%. While this reflects continuing improvement in the local economy, it is unclear whether the data includes those individuals who have stopped seeking work and who remain unemployed. The soon-to-be released 2019 United Way of Michigan ALICE report (see following section) indicates that as the Michigan economy approaches what is considered statistical full employment (a rate of less than 5%), many workers have difficulty finding full-time continuous work. The report notes that over the last decade, there has been a shift away from full-time, full-benefit jobs.<sup>6</sup>

#### LOW INCOME/POVERTY THRESHOLD HOUSEHOLDS

While the Mercy Health Muskegon service area has experienced an improving economic climate, wage growth and pockets of poverty remain a challenge. According to the United Way ALICE (Asset Limited, Income Constrained, and Employed)<sup>7</sup> Point in Time survey data, many area households who earn more than the Federal Poverty Level continue to struggle to cover the cost of basic needs.

<sup>5</sup> U.S. Census Bureau Small Area Income and Poverty Estimates (SAIPE) Program, December 2018

<sup>6</sup> *Alice in Michigan: A Financial Hardship Study*, Michigan ALICE Report, 2019, p.21.

<sup>7</sup> United Way ALICE Report – 2017 Update for Michigan. Sources: 2015 Point-in-Time Data, American Community Survey. ALICE Demographics: American Community Survey; The ALICE Threshold Budget: U.S. Department of Housing and Urban Development (HUD); U.S. Department of Agriculture (USDA); Bureau of Labor Statistics (BLS); Internal Revenue Service (IRS); Michigan Department of Treasury; Early Childhood Investment Corporation.

ALICE households earn just above the federal poverty level of \$11,770 for a single adult and \$24,250 for a family of four.<sup>8</sup> The United Way of the Lakeshore estimates that 25% of households in Muskegon fall within the ALICE demographic; 31% of those in Oceana County and 24% of Newaygo County also are ALICE demographic.

The ALICE household Survival Budget for individuals and families living in Muskegon and Oceana Counties is detailed below. The chart reflects the minimum hourly wage necessary to meet the basic monthly costs of single individuals and families. Data sourcing, based on United Way’s reporting, has been footnoted below.

HOUSEHOLD SURVIVAL BUDGET					
ALICE: ASSET LIMITED, INCOME CONSTRAINED, AND EMPLOYED					
MUSKEGON COUNTY	SINGLE ADULT	2 ADULTS, 1 INFANT & 1 PRESCHOOLER	OCEANA COUNTY	SINGLE ADULT	2 ADULTS, 1 INFANT & 1 PRESCHOOLER
MONTHLY COSTS			MONTHLY COSTS		
Housing	\$419	\$705	Housing	\$486	\$643
Child Care	\$ -	\$1,051	Child Care	\$ -	\$1,229
Food	\$184	\$609	Food	\$184	\$609
Transportation	\$349	\$697	Transportation	\$349	\$697
Health Care	\$184	\$707	Health Care	\$184	\$707
Miscellaneous	\$129	\$406	Miscellaneous	\$138	\$421
Taxes	\$158	\$292	Taxes	\$174	\$328
Monthly Total	\$1,423	\$4,467	Monthly Total	\$1,515	\$4,634
<b>Annual Total</b>	<b>\$17,076</b>	<b>\$53,604</b>	<b>Annual Total</b>	<b>\$18,180</b>	<b>\$55,608</b>
Hourly Wage Required	\$8.54	\$26.80	Hourly Wage Required	\$9.09	\$27.80

Demographic data throughout the CHNA report will continue to reflect on factors that challenge economic stability. Economic insecurity is strongly associated with health disparities, risk behaviors and exposure to adverse environmental factors. A healthy and vibrant community must work to identify local elements that restrain the ability of individuals and families to thrive. This requires that community leaders look beyond poverty rates to all the many factors or root causes that continue to challenge the health and well-being of the population.

<sup>8</sup> Note: An update to the ALICE Report used in this CHNA has recently been completed. The report is not fully accessible at this time to fully update individual county data. The new report, *Alice in Michigan: A Financial Hardship Study*, will be available to the public soon.

## CRADLE TO CAREER FACTORS

### A HEALTHY BEGINNING:

Data reported in this section is intended to share the many factors affecting the ability of children to reach their full potential as adults.

### CHILD WELL-BEING<sup>9</sup>

Since publication of the 2016 CHNA, Muskegon County's 2017 overall child well-being performance, as reported by **Michigan Kids Count**,<sup>10</sup> has improved from 80<sup>th</sup> to 70<sup>th</sup> of Michigan's 83 counties. During this same period, Oceana County's rating fell to 80<sup>th</sup> from 77<sup>th</sup>. This rating is based on cumulative data using a variety of child welfare indicators spanning the period 2008-2015 that can be accessed through the **Michigan Kids Count** data book. While recognizing improvement in one area, both of these scores remain near the bottom of Michigan counties, where a ranking of 1 represents highest performance and 83 the lowest.

### CHILDREN LIVING IN POVERTY

Poverty rates for children ages 5-17 in Muskegon, Newaygo, Mason and Oceana Counties, while declining, continue to exceed state and national rates.

SMALL AREA INCOME AND POVERTY ESTIMATE (SAIPE) AGES 5 TO 17 FAMILIES IN POVERTY – 2017 – PRIMARY AND SECONDARY SERVICE AREA COUNTIES							
YEAR	ID	NAME	CHILD POVERTY UNIVERSE	NUMBER IN POVERTY	90% CONFIDENCE INTERVAL	% IN POVERTY	90% CONFIDENCE INTERVAL
2017	00000	United States	52,669,201	9,120,503	9,033,090-9,207,916	17.3	17.1 – 17.5
2017	26000	Michigan	1,559,485	275,411	265,855-284,967	17.7	17.1 – 18.3
2017	26105	Mason County	4,215	817	601-1,033	19.4	14.3 – 24.5
2017	26121	Muskegon County	28,796	5,865	4,604 – 7,126	20.4	16.0 – 24.8
2017	26123	Newaygo County	7,765	1,576	1,221 – 1,931	20.3	15.7 – 24.9
2017	26127	Oceana County	4,421	919	676 – 1,162	20.8	15.3 - 26.3
2017	26139	Ottawa County	50,010	3,636	2,909 – 4,363	7.3	5.8 – 8.8

### BIRTH RATES DROP/ECONOMIC IMPACT

Analysis of declining population trends indicate that births are now falling below replacement levels. Over time, there will be fewer young adults available to replace retiring workers and maintain the tax base necessary for critical community infrastructure and services, such as schools.

<sup>9</sup> <https://mlpp.org/county-rankings-and-profiles/>

<sup>10</sup> [www.mlpp.org](http://www.mlpp.org)

Michigan recorded 111,507 births in 2017. This rate represents a 1.6% drop from 2016 and is the lowest number of births recorded in the state since 1941. Factors behind the diminishing rates include the overall aging of Michigan's population, a reduction in the number of births by women 25 or younger, and an increasing number of women who are remaining childless. Every county in the Mercy Health Muskegon service area recorded a drop in birth rates, as reflected in the following table.

SERVICE AREA BIRTH RATES - 2017 <sup>11</sup>					
RANK	COUNTY	2000 BIRTHS	2017 BIRTHS	% CHANGE SINCE 2000	2017 BIRTH RATE PER 1,000 PEOPLE
5	Ottawa	3,653	3,252	-11%	11.4
11	Muskegon	2,403	2,124	-12%	12.2
35	Newaygo	636	539	-15%	11.2
48	Mason	365	301	-18%	10.4
52	Oceana	369	263	-29%	9.9

### MATERNAL AGE AND ECONOMIC SECURITY

Recent findings from a study<sup>12</sup> based on data from the National Center for Health Statistics support a correlation between maternal age and economic well-being. More specifically, women who have children at a younger age are less likely to have significant savings or to have advanced their education or careers. These pregnancies are more likely to be unintended. National data finds that three quarters of first-time mothers under 25 are unmarried.

Data from the Mercy Health Muskegon Service Area reflecting maternal education, marriage status, and the average age of a first-time mother reflect similarities to the national trends.

- **Ottawa County:** In 2017, 41% of mothers had a bachelor's degree; 23% of first-time mothers were unmarried. The average age of a first-time mother in Ottawa was 26.1 in 2016
- **Muskegon County:** In 2017, 17% of mothers had a bachelor's degree; 55% of first-time mothers were unmarried. The average age of a first-time mother in Muskegon was 24.1 in 2016
- **Newaygo County:** In 2017, 14% of mothers had a bachelor's degree; 45% of first-time mothers were unmarried. The average age of a first-time mother in Newaygo was 25 in 2016
- **Oceana County:** In 2017, 11% of mothers had a bachelor's degree; 46% of first-time mothers were unmarried. The average age of a first-time mother in Oceana was 23.1 in 2016

<sup>11</sup> Michigan Department of Health and Human Services

<sup>12</sup> The Age that Women Have Babies: How a Gap Divides America, The New York Times; Bui, Quoc Trung and Miller, Clain Cain; August 4, 2018. Data sourced from the National Center for Health Statistics.

## TEEN BIRTHS

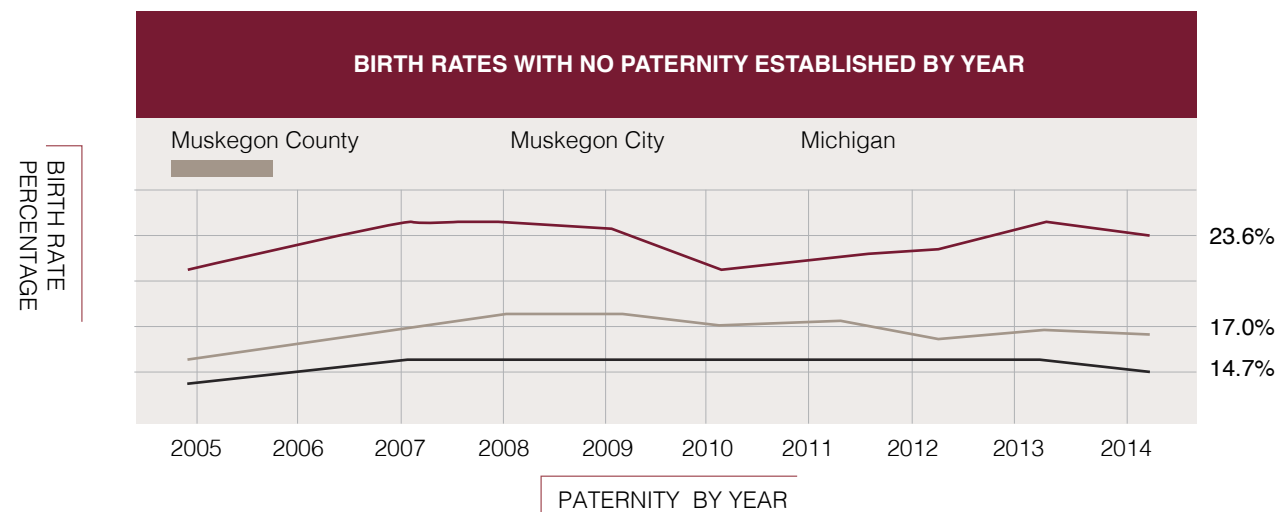
The number of teen births in Muskegon County has declined 14% during the period spanning 2014-2016 (158 total births). Oceana County's has declined 10% (29 births). Over all, teen birth rates have fallen by 50% since 2000. Despite this trend, local teen birth rates in the Mercy Health Muskegon service area still exceed the state average by nearly 40%. In Muskegon County, teen birth rates were highest among African American and Hispanic teens. In Oceana County, Hispanic teen rates were highest.

Pregnant teens face serious health risks, as do their babies. Teen moms are more likely than older women to receive late or no prenatal care, have eclampsia, puerperal endometritis, systemic infections, low birth weight, preterm delivery, and severe neonatal conditions. Preterm delivery and low birth weight babies have increased risk of child developmental delay, illness, and mortality.

There are additional strong links between teen birth and poor socioeconomic, behavioral, and mental health outcomes. Teenage women who bear a child are much less likely to achieve an education level at or beyond high school, are much more likely to be overweight/obese in adulthood, and more likely to experience depression and psychological distress.<sup>14</sup>

## PATERNAL ENGAGEMENT

According to **Michigan Kids Count 2018**, 23.6% of births in the city of Muskegon do not establish paternity on the birth certificate. Muskegon County's overall rate of 17.0% of births without paternity identification exceeds the State of Michigan's rate of 14.7%.<sup>15</sup>



<sup>13</sup> County Health Rankings and Roadmaps, Health Factors – Teen births.

<sup>14</sup> County Health Rankings and Roadmaps, Health Factors – Teen births.

<sup>15</sup> Graphic is used with the permission of the Health Department of Muskegon County.

51.2%<sup>16</sup> of children in Muskegon County in single-parent homes live in poverty. This exceeds the state rate of 45.5%; only 13.8% of two-parent families in Muskegon are in poverty.

52% of children in Muskegon County are on Medicaid. The overall Michigan rate of children on Medicaid is 41.5%.

## PRENATAL CARE, LOW BIRTH WEIGHT BABIES AND INFANT MORTALITY

Rates of inadequate prenatal care, low birth weight and infant mortality in the Mercy Health Muskegon service area all exceed state rates. Based upon the most recent data contained in the **2018 Trends in Child Well-Being**<sup>17</sup> published by **Kids Count**, Muskegon County rates on these critical maternal and infant health factors are as follows:

- 38.9% of women receive **less than adequate** prenatal care. This rate is an increase over the base-year period of 2008-2010 when the rate was 27.7%. This represents an increase of 40.7% over the base year. Muskegon currently ranks 61 of 83 counties on this measure. The overall state rate is 32.4%
- 10.2% of babies are born at **low birth weight**. This rate is also an increase from the base-year period of 2008-2010 when the rate stood at 8.7%. This represents an increase of 27.6% from the base period. Muskegon ranks 77 of 81 reporting counties on this measure. The overall state rate is 8.4%
- **Infant mortality rates** in Muskegon are also significant. Based upon a rate per 1,000 births, Muskegon's rate now stands at 8.1%, which is an increase of 2.6% over the base-year period. Muskegon ranks 38 of 45 reporting counties. The overall state rate of infant mortality is 6.9%

Oceana County data on maternal and infant risk during this period is equally poor.

- 45.3% of women receive **less than adequate** prenatal care. This rate is an increase over the base-year period of 2008-2010 when 41.4% of women were not receiving adequate care. This represents a 9.4% increase from the base period. At present, Oceana County ranks 77 of Michigan's 83 counties on this measure. The overall state rate for inadequate prenatal care is 32.4%
- 8.8% of babies born in Oceana County are at **low birth weight**. This percentage represents a 7.1% increase over the base period. At present, Oceana ranks 74 of 81 reporting counties on the low birth weight measure
- **Infant mortality rates** in Oceana are extremely high. Ranked as the 42nd worst of 45 reporting counties, Oceana has a 9.0% rate, which is a rate change of 8.6% over the base-year. The Michigan rate of infant mortality is 6.9%

<sup>16</sup> Kids Count, 2018 - Muskegon

<sup>17</sup> <https://mlpp.org/county-rankings-and-profiles/>

## CHILDCARE

Safe, affordable **and** reliable access to childcare is an essential component of supporting all working parents. Childcare availability and dependability are significant factors in providing support for individuals as they move from poverty to economic stability. Access to licensed childcare not only ensures support for parents, but also supports child well-being, socialization and age-appropriate development.

According to the **Head Start of Muskegon/Oceana 2017 Community Assessment**,<sup>18</sup> access to childcare remains “problematic” in the Mercy Health Muskegon service area. The Assessment indicates that more than 8,800 children less than age six in Muskegon County (approximately 71.8%) live in families in which both parents work.

Based on 2018 data, twenty-two (22) of Muskegon’s 43 census tracts are defined as childcare deserts by the Center for American Progress. A childcare desert is any census tract with more than 50 children under the age of 5 who have no childcare providers, or so few options, that there are more than 3 times as many children as there are licensed childcare slots.

The definition of a childcare desert is derived from U.S. Census Bureau findings that show that approximately one-third of young children are regularly in the care of someone who is not a relative. When licensed childcare slots are insufficient to reach at least one-third of young children under age 5, the likelihood that parents encounter difficulty finding dependable childcare increases. This can affect employment decisions, absenteeism from employment and can force families to turn to unlicensed care where opportunities for age-appropriate learning may not be in place.

The following chart displays the 22 census tracts in Muskegon County that are currently designated as childcare deserts. Some of the tracts identified have median wages that are well below the financial ability of residents to secure care. Examples include Muskegon Heights census tract 13 (Median income \$11,278) and Muskegon Census tract 42 (Median income \$14,176). Three census tracts do not have any license providers.

<sup>18</sup> Community Assessment 2017, Head Start of Muskegon/Oceana, 2017, St p. 25

CHILD CARE DESERTS BY CENSUS TRACT: MUSKEGON COUNTY								
CENSUS TRACT	LOCATION AND INCOME	LICENSED PROVIDERS	FAMILY CARE HOMES	TOTAL CAPACITY	# CHILDREN UNDER 5	# KIDS WITH ALL PARENTS IN WORKFORCE	MATERNAL WORKFORCE PARTICIPATION	# CHILDREN PER EACH SLOT
3	City of Muskegon/MCEC Area (Formerly known as Angell School)	1	1	12	352	74%	79%	29.33
5	Muskegon/Mclaughlin Neighborhood	5	3	102	495	66%	74%	4.85
6.01	Muskegon/Nelson - Near Hackley Hospital	0	0	0	163	85%	89%	No Providers
8	Muskegon/Nims	0	0	0	385	52%	63%	No Providers
9	Muskegon/Lakeside	3	3	24	226	70%	70%	9.42
12	Muskegon/Roosevelt Park	1	1	12	88	70%	84%	7.33
13	Muskegon Heights/Muskegon E. Hackley	2	2	12	363	72%	74%	30.25
14.02	Muskegon Heights/South Heights Zone	1	0	60	411	70%	73%	6.85
18	Muskegon Township	9	9	66	264	91%	84%	4
20	Muskegon/East Laketon/Evanston Ave.	1	1	12	382	89%	84%	31.83
23	Norton Shores	4	2	73	154	82%	85%	2.11
24	Norton Shores/Roosevelt Park	1	1	6	122	92%	88%	20.33
26.01	Fruitport	4	4	36	292	91%	91%	8.11
26.02	Fruitport/Mall Area	6	5	66	354	53%	76%	5.36
27	Fruitport	10	8	120	421	80%	66%	3.51
30	Moorland/Casanovia	1	1	12	311	65%	64%	25.92
32	Wolf Lake	7	6	62	349	58%	59%	5.63
33	Holton	4	2	111	431	50%	63%	3.88
36	Twin Lake/Lakewood Club	11	11	93	340	59%	52%	3.66
39	Areas North and West of Montague	0	0	0	84	73%	71%	No Providers
40	East of Whitehall - Blue Lake Area	3	3	30	118	60%	61%	3.93
42	Muskegon - Downtown to Jackson Hill	2	2	24	233	79%	72%	9.71

Center for American Progress: <https://childcaredeserts.org>

As noted earlier, lack of childcare is a barrier to employment. According to the Muskegon Survey of Businesses, conducted in 2018 by the Muskegon Chamber of Commerce, when asking about the primary difficulties in hiring and retaining qualified employees, 18.4% of business respondents indicated that childcare access was a problem. Oceana County has seven census tracts, with three identified as childcare deserts.<sup>19</sup>

<sup>19</sup> Muskegon Survey of Businesses, 2018, Muskegon Chamber of Commerce

Oceana County has seven census tracts, with three identified as childcare deserts.

CHILD CARE DESERTS BY CENSUS TRACT: OCEANA COUNTY								
CENSUS TRACT	LOCATION	LICENSED PROVIDERS	FAMILY CARE HOMES	TOTAL CAPACITY	# CHILDREN UNDER 5	# KIDS WITH ALL PARENTS IN WORKFORCE	MATERNAL WORKFORCE PARTICIPATION	# CHILDREN PER EACH SLOT
106	Village of Ferry, Large Tract	0	0	0	338	46%	49%	No Providers
109	Stony Lake	1	1	6	84	28%	34%	14
110	Mears/Silver Lake	1	0	12	62	42%	42%	5.17

Center for American Progress: <https://childcaredeserts.org>

Starting and sustaining a childcare business can be difficult. The average income of a childcare worker in Michigan is \$23,020, which is somewhat higher than the national average income of \$22,290.<sup>20</sup> A recent childcare provider analysis for Muskegon County found that between 2010 and 2017, there was a significant reduction in the number of available childcare slots. During this period, the county registered a loss of 1,207 slots, or a 15.7% reduction. This loss is across all categories of childcare, including both family care and group care. As might be expected, there was a corresponding loss in licensed childcare providers (89 individuals or 27.4% of licensed providers). At present, 188 licensed providers will serve infants and toddlers in Muskegon County.

*Additional information on childcare can be found in Appendix C.*

When asked in the 2019 CHNA Community Survey if they had ever lost or given up a job because of a lack of dependable or available childcare, 11% of Muskegon County respondents and nearly 10% of those from Oceana County reported in the affirmative.

HAVE YOU EVER LOST OR GIVEN UP A JOB BECAUSE OF LACK OF DEPENDABLE OR AVAILABLE CHILDCARE?					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Yes	11.1%	9.9%	8.7%	5.6%	10.6%
# All Survey Respondents	1,817	101	23	126	2,067

<sup>20</sup> Child Care Provider Analysis, Great Start Collaborative of Muskegon County, Muskegon County ISD

## HEAD START<sup>21</sup>/PRE-SCHOOL

The number of Head Start children served in Muskegon and Oceana Counties remains at 624, with 400 of those children receiving school day services. In 2017, the Head Start waiting list reached 163 children—approximately the same number as the preceding two years. Based on **Kids Count** data,<sup>22</sup> 52.7% of children between the ages of 3 and 4 are not in preschool in Muskegon County. In Oceana County, 60.7% of children are not in preschool. State rates of preschool attendance for the same period 2012-2016 (average) is 52.7%.

Preschool and Head Start participation are evidence-based resources in preparing children for success in school. The landmark 1962 High Scope Perry Preschool Project<sup>23</sup> demonstrated the important impact of early childhood education. This study followed a cohort of individuals from childhood through age 40 and documented that the individuals who experienced preschool education had fewer teenage pregnancies, were more likely to graduate from high school, more likely to hold a job, have higher earnings, commit fewer crimes and, as adults, owned their own home and car.

## SUCCESS IN SCHOOL – M-STEP

The Read by Third Grade Law (M-STEP) initiative, signed into law by Michigan Governor Rick Snyder in October 2016, goes into effect during the 2019-2020 school year. It is anticipated that this new requirement will have a significant impact across Michigan where, in recent years, few third-graders tested proficient or above on state exams. The M-STEP is likely to have a disproportionate impact on low-income and urban areas. Under the new state law, children who are not proficient will not advance to 4<sup>th</sup> grade.

According to the **THRIVE 2018 Baseline Report**<sup>24</sup>, the results of the 2018 statewide assessment of grade 3 students reflect a statewide proficiency average of 44.4% and a Muskegon County proficiency average of 37.7%. Schools where proficiency levels are weakest include Montague (38.0%), Muskegon Heights (4.9%), Muskegon (14.2%), Orchard View (19.3%), Reeths-Puffer (38.8%), Three Oaks (27.6%) and Timberland (5.40%). These schools also have the highest rates of absenteeism in the county, and the highest number/percentage of students eligible for free and reduced meals.

<sup>21</sup> Community Assessment, Head Start of Muskegon/Oceana, (Updated) 2018

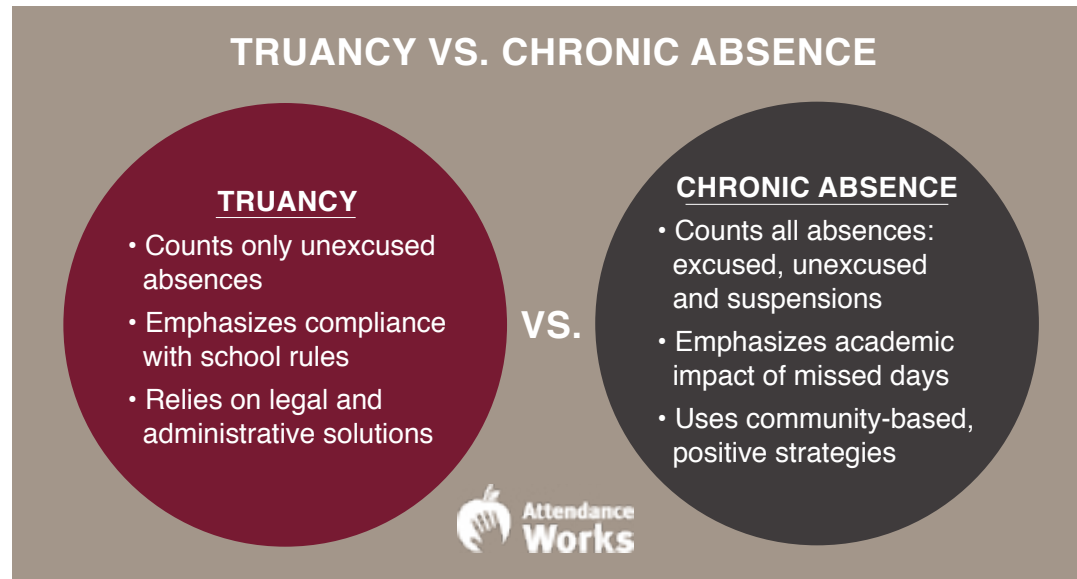
<sup>22</sup> <https://mlpp.org/county-rankings-and-profiles/>

<sup>23</sup> <https://highscope.org/perry-preschool-project/>

<sup>24</sup> [www.3toThrive.org/](http://www.3toThrive.org/)

## CHRONIC ABSENTEEISM

Children living in poverty are two to three times more likely to be chronically absent from school. Often, they face the most harm from absenteeism because their community lacks the resources to make up for the lost learning in school. Students from communities of color, as well as those with disabilities, are disproportionately affected. According to **Attendance Works**<sup>25</sup>, chronic absenteeism is not the same as truancy.



Many absences, especially among the youngest students, are excused. Often, absences can be caused by health problems, such as asthma, diabetes, and oral and mental health issues. Other barriers may include a lack of a nearby school bus, a safe route to school or food insecurity. Chronic absence often goes unnoticed because schools are counting how many students show up every day, rather than examining how many and which students miss so much school that they fall behind.

Research funded by the Annie E. Casey Foundation and published as **Present, Engaged and Accounted for: The Critical Importance of Addressing Chronic Absence in the Early Grades**, found that chronically absent students—those who miss 10% or nearly a month of school—do far worse academically. The study also revealed that one in ten kindergarten and first-grade students nationwide miss nearly a month of school each year. In some cities, this rate is as high as one in four elementary students. In some schools, chronic absence affects 50% of all students. Absenteeism data on service area schools follows. This data from across the Mercy Health Muskegon service area is sourced from the Hamilton Project, an initiative of the Brookings Institute.

<sup>25</sup> <https://www.attendanceworks.org/our-history/>

CHRONIC ABSENCE RATE BY SCHOOL DISTRICT 2015-16 SCHOOL YEAR <sup>26</sup> HIGHEST TO LOWEST RATES OF CHRONIC ABSENCE	%	COUNTY
Muskegon Heights Public Academy	51.9	Muskegon
Orchard View Schools	36.0	Muskegon
Oakridge Public Schools	29.6	Muskegon
Muskegon Public Schools	25.1	Muskegon
Fremont Public Schools	23.2	Newaygo
Holton Public Schools	22.0	Muskegon
Shelby Public Schools	21.9	Oceana
Hesperia Community Schools	21.9	Newaygo and Oceana
Hart Public Schools	18.2	Oceana
Fruitport Community Schools	18.2	Muskegon
Walkerville Public Schools	17.9	Oceana
Mason County Central	16.8	Mason
Reeths-Puffer Schools	16.7	Muskegon
Ravenna Public Schools	13.6	Muskegon
Whitehall District Schools	13.5	Muskegon
Montague Area Public Schools	12.9	Muskegon
Mona Shores Public Schools	12.8	Muskegon
Ludington Area School District	10.4	Oceana
North Muskegon Public Schools	7.5	Muskegon
Grand Haven Area Public Schools	5.8	Ottawa
Spring Lake Public Schools	5.8	Ottawa
Pentwater Public School District	3.3	Oceana
State of Michigan Rate	20.2	

## GRADUATION RATES

According to state data, four out of five Michigan public school students who entered high school in the fall of 2013, graduated on time, four years later, in the spring of 2017. Michigan's graduation rate of 80.2% is the highest since the state began tracking graduation numbers in 2006-2007. The Muskegon County graduation rate during the same period was 77% and Oceana County was 84%. The State of Michigan still lags below the national average of 83% for four-year graduation rates.<sup>27</sup>

<sup>26</sup> The Hamilton Project [http://www.hamiltonproject.org/charts/chronic\\_absence\\_across\\_the\\_united\\_states](http://www.hamiltonproject.org/charts/chronic_absence_across_the_united_states)

<sup>27</sup> <https://www.michigan.gov/cepi/0,4546,7-113-58069---,00.html>

## ACHIEVING EMPLOYMENT – BARRIERS: EDUCATION AND TRAINING

The 2019 Mercy Health Muskegon CHNA Community Survey contained several questions relating to employment and barriers to advancement, including the need for education and training, and childcare.

The top barriers identified by the 2019 CHNA Community Survey respondents to employment or employment mobility were a lack of education or of skill sets required for a job. This feedback aligns with participant responses received during the CHNA sponsored focus groups and Town Hall meetings. Other barrier issues included medical conditions, childcare, child or adult dependent care, transportation, loss of state benefits and legal convictions.

The feedback also aligns with findings by the Muskegon Area Chamber of Commerce. In its 2018 Survey of Businesses, member businesses were asked to identify primary difficulties in hiring or retaining qualified employees. 21% of respondents indicated educational barriers and 71% referenced specialized skill requirements.<sup>28</sup>

## STATE BENEFIT LOSS AS A BARRIER ISSUE

A 2018 survey<sup>29</sup> by the University of Michigan Institute for Healthcare Policy and Innovation, and published in the Journal of Internal Medicine, found that nearly half of people who received coverage under Medicaid expansion in Michigan reported improved overall health. Another third of survey participants referenced mental (38%) and dental health (39%) improvement. Employed respondents (49%) indicated that their improved health led to better job performance, and more confidence in seeking new or better positions. Healthy Michigan added 680,000 people to the 2.7 million-person Medicaid rolls following the program's expansion.

Of the individuals who participated in the U of M study and self-identified as working, 62% reported at least one chronic condition. Having Medicaid coverage removed medically-driven financial stress and allowed recipients to feel more confident about initially seeking employment or changing jobs.

Since publication of this study, the Centers for Medicare and Medicaid Services has approved a Medicaid Waiver that mandates a work requirement<sup>30</sup> for able-bodied Healthy Michigan enrollees. The Waiver requires that recipients work an average of 20 hours per week, or 80 hours per month, beginning in 2020. Eligibility for Healthy Michigan currently requires an individual to have income below 133% of the federal poverty level. This represents about \$15,800 for an individual and \$32,300 for a family of four. Income by recipients must remain below these income levels in order to retain Medicaid benefits.

The opportunity for a recipient to take the next step and move from part-time employment to a full-time position presents a greater challenge, as full-time employment may mean the loss of health coverage as well as other income subsidies. This is similar to the economic stress noted earlier in the ALICE population. As national and state public policy continues to evolve, and as local employers seek more workers, opportunities must be found to help individuals bridge this transition period from one of government support to that of independence.

### WHAT ARE THE BARRIERS TO FINDING OR ACCESSING A HIGHER-PAYING JOB?

RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Current Education/ Skills	18.1%	13.9%	21.7%	16.7%	16.2%
Lack of Dependable Care	3.1%	2.0%	0.0%	0.0%	3.1%
Might Lose State Benefits	1.7%	1.0%	4.3%	0.0%	1.5%
Lack of Transportation	4.8%	0.0%	4.3%	1.6%	4.4%
Medical Conditions	8.6%	2.0%	8.7%	3.2%	8.0%
Responsible for Another Adult's Care	2.1%	1.0%	0.0%	0.0%	1.9%
Child Requires Care	3.9%	0.0%	0.0%	2.4%	3.5%
Difficult to Read/Write	0.8%	0.0%	0.0%	0.0%	0.7%
Past Legal Conviction	2.7%	0.0%	0.0%	0.0%	2.4%
None of These	26.6%	27.7%	21.7%	22.2%	24.8%
Not Looking	44.1%	52.5%	43.5%	58.7%	45.4%
No Response	1.5%	4.0%	4.3%	3.2%	1.7%
# All Survey Respondents	1,817	101	23	126	2,067

<sup>28</sup> Muskegon Survey of Businesses, 2018; Muskegon Area Chamber of Commerce

<sup>29</sup> "Survey: People covered by Michigan Medicaid Expansion Say it Helped Them Stay Healthy, Find Jobs", Crain's Detroit Business, December 8, 2018

<sup>30</sup> Exceptions include pregnant mothers, people with disabilities, caretakers of disabled dependents, caretakers of children under six years of age and individuals with a medical condition.

## EMPLOYMENT STATUS: COMMUNITY SURVEY INPUT

The majority of people who participated in the 2019 CHNA survey report they were employed either full-time or part-time, as reflected in the following chart.

RESPONDENTS WERE ASKED TO IDENTIFY THEIR CURRENT EMPLOYMENT STATUS					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Employed ≥ 32 Hours a Week	65.4%	73.3%	65.2%	77.8%	58.2%
Employed ≤ 32 Hours a Week	9.5%	6.9%	8.7%	5.6%	9.1%
Employed ≥ 32 Hours/Week & PT Student	0.8%	0.0%	0.0%	0.0%	0.7%
Full-time Student	1.3%	0.0%	0.0%	1.6%	1.3%
Part-time Student	0.4%	0.0%	0.0%	0.8%	0.4%
Homemaker	3.1%	3.0%	0.0%	1.6%	3.0%
Medical Leave	5.8%	3.0%	8.7%	0.0%	5.2%
Retired	0.4%	0.0%	0.0%	0.0%	0.3%
Unemployed, Seeking Work	7.8%	11.9%	17.4%	11.9%	7.6%
# All Survey Respondents	1,817	101	23	126	2,067

With the exception of Ottawa County respondents, over 40% of survey respondents from Muskegon, Oceana and Newaygo Counties indicated they would benefit from additional education or training either to secure or to improve their current employment situation.

RESPONDENTS WERE ASKED IF THEY WOULD BENEFIT FROM ADDITIONAL EDUCATION OR TRAINING FOR EMPLOYMENT					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Yes	44.3%	45.5%	43.5%	38.9%	44.0%
No	54.5%	50.5%	52.2%	55.6%	54.3%
No Response	1.2%	4.0%	4.3%	5.6%	1.6%
# All Survey Respondents	1,817	101	23	126	2,067

In total, 45% of survey respondents indicated that, if assistance were available, they would try to take advantage of either additional education or training to advance their employment goals. While the data is not clear, those indicating uncertainty about additional training or education may reflect those who have previously identified barriers to employment, such as health, childcare, transportation or dependent care/support.

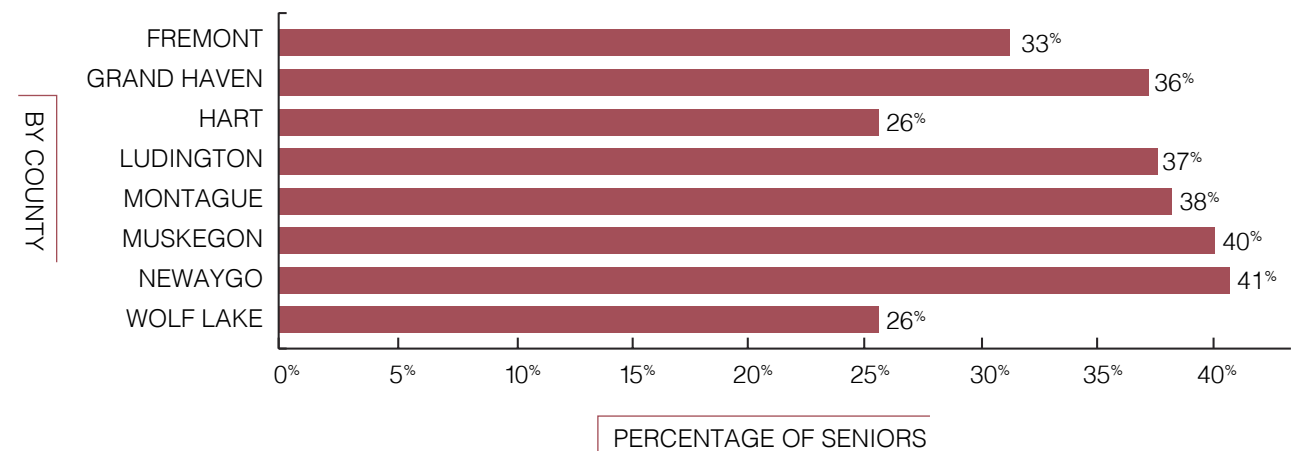
A survey of 65 businesses conducted by the Muskegon Area Chamber of Commerce in 2018 found that 64.62% of respondents indicated they strongly agreed (20%) or agreed (44.62%) with the statement

“My company finds it difficult to hire and retain qualified employees”. Reasons cited included lack of candidates and retention difficulties. Inability to pay higher wages was also noted.<sup>31</sup>

## AGING - SERVICE AREA DEMOGRAPHICS

Nationally, older adults will comprise one-fifth of the overall population by 2030. Today, nearly one-quarter of Michigan’s population is aged 60 or older. Michigan ranks 18<sup>th</sup> in the percentage of residents aged 65 and older. As the population ages and life expectancy increases for this demographic, there can be a profound impact on communities, including employment rates, housing, healthcare utilization and costs. Based on earlier demographic data in this report, the percentage of individuals who are 65 years of age or older in the Mercy Health Muskegon service area is Muskegon (15.9%), Oceana (19.7%), Mason (22.1%), Ottawa (14%), and Newaygo (18.7%).<sup>32</sup>

### % SENIORS IN THE COMMUNITY LIVING ALONE



The percentage<sup>33</sup> of seniors living in our local communities can vary greatly. Some of the highest percentages of seniors in the Mercy Health service area live in rural communities: Ludington (21%), Hart (20%), and Fremont (19%). Many of these seniors live alone. For instance, in the city of Muskegon, 40% of elders reside alone. Examples of rates in the other communities are as follows: Fremont (33%), Grand Haven (36%), Hart (26%), Ludington (37%), Montague (38%), city of Newaygo (41%), and Wolf Lake (26%). For many of the seniors who live alone, health acuity, mobility and other age-related factors can result in social isolation and loneliness. Isolation and loneliness<sup>34</sup> have been associated with a higher risk of mortality in adults aged 52 and older.

<sup>31</sup> Muskegon Area Chamber of Commerce, Muskegon Survey of Businesses, 2018.

<sup>32</sup> <http://www.countyhealthrankings.org/app/michigan/2018/county/snapshot/>

<sup>33</sup> <https://www.seniorcare.com/>

<sup>34</sup> <https://mylumin.org/the-effects-of-loneliness-and-isolation-to-the-elderly/>

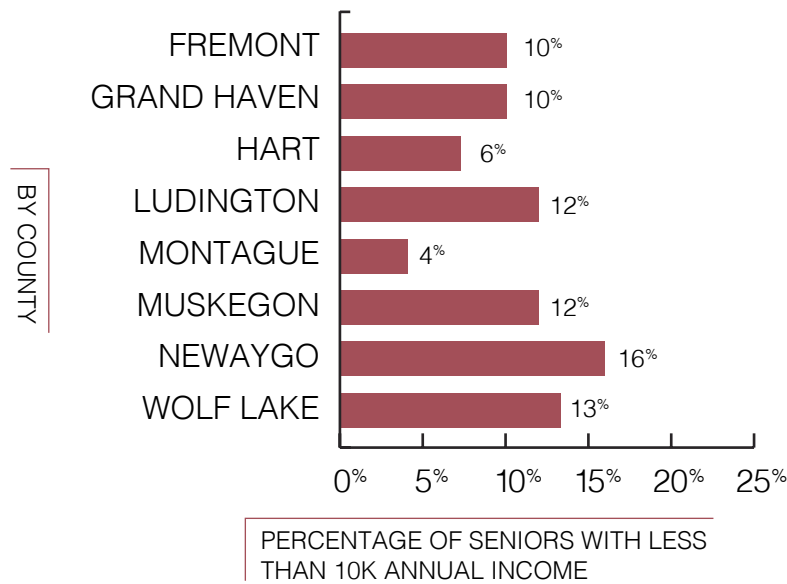


Multiple studies by the University of Chicago, the English Longitudinal Study of Aging (ELSA) and other sites indicate that elders who experience “extreme loneliness” are up to 14% more likely to die prematurely.

Among all elderly populations, data finds that elderly LGBT people are more likely to live alone than are non-LGBT elderly people—34% versus 28% nationally.<sup>35</sup> Elderly LGBT people also have smaller support networks than non-LGBT elderly people and have a higher risk of poverty than the general population.

With retirement comes a loss of income.

### % SENIORS WITH ANNUAL INCOME LESS THAN 10K



Many elders who as adult earners **had low-paying jobs**, live in or on the brink of poverty. Fear of unanticipated costs, such as medical care and costly prescriptions, can create barriers that prevent individuals from either seeking care or asking for help.

Rates of seniors with annual incomes of less than \$10,000 in the Mercy Health service area include: Fremont (10%), Grand Haven (10%), Hart (6%), Ludington (12%), Montague (4%), city of Muskegon (12%), city of Newaygo (16%) and Wolf Lake (13%).

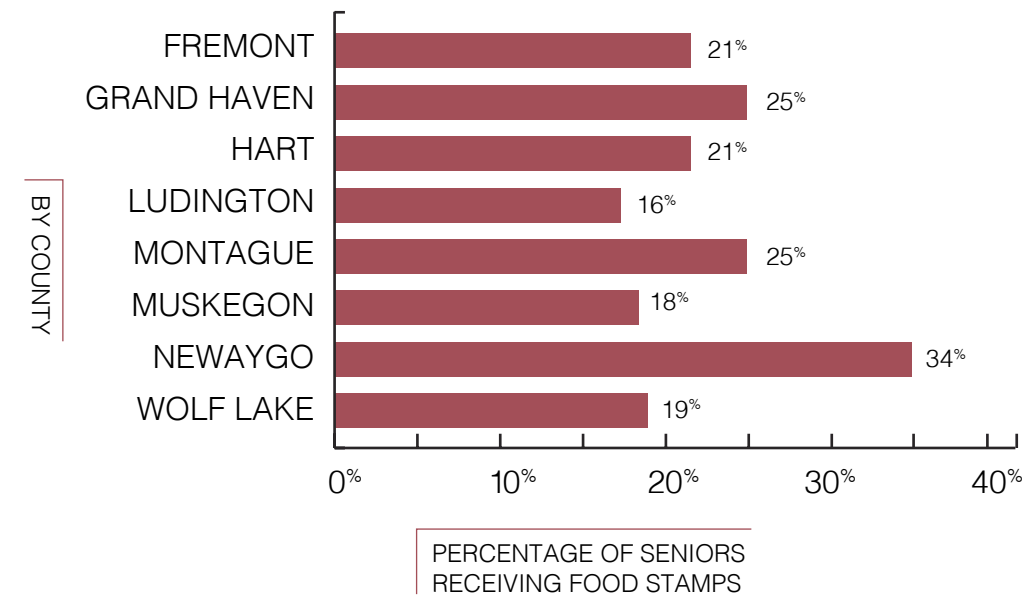
<sup>35</sup> Center for Data Innovation, [www.datainnovation.org](http://www.datainnovation.org)

The median income of seniors in the example communities varies from a high of \$48,125 in Fremont to a low of \$21,094 in the city of Newaygo. Other median incomes include Grand Haven (\$29,026), Hart (\$25,887), Ludington (\$23,373), Montague (\$37,083) city of Muskegon (\$23,601) and Wolf Lake (\$26,826).

A significant number of low-income elders supplement household expenses with the Bridge Card (Food Stamps). Public policies that restrict food support programs through funding cuts or other policy changes directly affect the well-being of low-income elderly residents. Many elders have chronic disease conditions that require adhering to strict diet regimens to maintain their optimum health. Many seniors in our service area rely in total or in part on the use of the Bridge Card.

Senior Bridge Card use in the service area example communities is: Fremont (21%), Grand Haven (25%), Hart (21%), Ludington (16%), Montague (25%), Muskegon (18%), Newaygo (34%) and Wolf Lake (19%).

### % SENIORS RECEIVING FOOD STAMPS OVER THE PAST YEAR



When asked where they would like to live out their retirement years, the majority of seniors opt for aging in place and prefer to remain in their own homes. Studies by the **Altarum Institute** indicate that with well-coordinated services, aging in place not only responds to the wishes and well-being of the individual, it also has been shown to reduce overall costs when in contrast with aging in senior housing or other institutional settings.

Moving from home to an institutional setting, or even in-home support, represents a challenge for all elderly people. For LGBT elders, it presents additional challenges because of personal isolation and a lack of social services and availability of culturally competent providers.<sup>36</sup>

### HEALTH CARE COSTS REMAIN A CONCERN FOR OLDER ADULTS

The National Poll on Healthy Aging is conducted by the University of Michigan.<sup>37</sup> Its most recent report, **Health Insurance Decision-Making Near Retirement** was released in January 2019. The poll asks a national sample of adults ages 50-64 about their current and future plans for health insurance coverage, medical care and employment. The new report indicates that one out of four respondents (27%) had little or no confidence about being able to afford the cost of health insurance over the next year. 45% had little or no confidence about being able to afford health insurance once retired. Additional data sourced from the Center for Data Innovation found that (42%) elderly LGBT people are very or extremely concerned that they do not have sufficient retirement savings.

The cost of healthcare continues to be a major factor for those nearing retirement age as to when to leave employment. The U of M survey found that 14% of respondents reported that they intentionally kept a job in order to retain health insurance through an employer. Another 11% delayed or considered delaying retirement again in order to retain coverage. The survey also found that in 2018, 11% of adults age 50-64 reported they had considered going without health insurance, while an additional 5% decided to go uncovered. Hispanic respondents were more likely (22%) than non-Hispanic Whites (11%) and Blacks (4%) to consider going without insurance.<sup>38</sup>

### END OF LIFE CARE

The Altarum Institute Center for Elder Care and Advanced Illness has said that “Caring for frail elders remains one of the neglected public policy issues of our time.”<sup>39</sup> A long life generally means that over time, individuals suffer multiple chronic conditions, increased disability and very complicated social needs. The 2019 CHNA Community Survey asked participants if they have an Advance Directive. The majority of respondents in all counties reported they did not.

<sup>36</sup> <https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health>  
<sup>37</sup> National Poll on Healthy Aging. University of Michigan. January/February 2019. [www.Healthyagingpoll.org](http://www.Healthyagingpoll.org)  
<sup>38</sup> Center for Data Innovation [www.datainnovation.org](http://www.datainnovation.org)  
<sup>39</sup> [www.altarum.org](http://www.altarum.org)

Careful preparation for the end of life is more than having an Advance Directive on file. Altarum recommends improved community care coordination for elders, and better salaries and training for direct care workers.

DO YOU HAVE AN ADVANCE DIRECTIVE?					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Yes	24.8%	23.8%	34.8%	31.7%	25.3%
No	74%	60.9%	70.3%	68.3%	73.3%
No Response	1.2%	5.9%	4.3%	0.0%	1.4%
# All Survey Respondents	1,817	101	23	126	2,067

The Catholic Health Association has noted that very often hospital CHNA reports remain silent on the needs of elders. With huge demographic shifts taking place in our West Michigan communities and a significant segment of older adults living in poverty, it is important that this report and subsequent reports better assess the needs and economic stability of our senior population.

### MEASURES OF PHYSICAL HEALTH

#### NATIONAL, STATE AND SERVICE AREA MORTALITY<sup>40</sup> RATES

In November, 2017, the Centers for Disease Control and Prevention released key findings from the National Vital Statistics System<sup>41</sup> on mortality rates and causes. Based upon this data, the ten leading causes of death in the United States in 2017 remained the same as in 2016. The leading causes of death are ranked according to the number of deaths, with the ten most prominent representing approximately 74.0% of all deaths. The number of deaths and age-adjusted mortality rates for Muskegon, Oceana and Newaygo Counties are displayed in the following charts, with both Michigan and national data indicated for comparison purposes.

The leading causes of death in the Mercy Health Muskegon region are heart disease and cancer, followed by unintentional injuries. Nationally, in 2017, rates of cancer deaths decreased by 2.1%, while heart disease and kidney disease did not change significantly. Cancer rates in Muskegon County, and specifically in the cities of Muskegon and Muskegon Heights, as well as Newaygo County, exceed both national and state rates. A recent study estimates that approximately one-third (34%) of cancer deaths in Americans aged 25 to 74 years could be averted with the **elimination of socioeconomic disparities**.<sup>42</sup> This suggests the important potential impact of place-based population health interventions.

<sup>40</sup> Data displayed are by the underlying causes of death which is the condition giving rise to chain of events leading to death. Causes of death are classified in accordance with the Tenth Revision of the International Classifications of Diseases (ICD10) a coding structured developed by the World Health Organization.  
<sup>41</sup> *Mortality in the United States*, 2017, Centers for Disease Control and Prevention, NCH Data Brief No. 328, November 2018.  
<sup>42</sup> Siegel RL, Jemal A, Wender RC, Gansler T, Ma J, Brawley OW. An assessment of progress in cancer control. *CA Cancer J Clin.* 2018; 68:329-339.

*“The cost of healthcare continues to be a major factor for those nearing retirement age as to when to leave employment. The U of M survey found that 14% of respondents reported that they intentionally kept a job in order to retain health insurance through an employer.”*

*Center for Data Innovation.*

**NUMBER OF DEATHS AND AGE-ADJUSTED MORTALITY RATES FOR THE TEN LEADING CAUSES OF DEATH  
MUSKEGON COUNTY, CITIES OF MUSKEGON AND MUSKEGON HEIGHTS, 2017 AND UNITED STATES RESIDENTS, 2016**

MICHIGAN RANK AND CAUSE OF DEATH	NUMBER OF DEATHS					AGE-ADJUSTED MORTALITY RATES				
	Muskegon County	Muskegon City	Muskegon Heights	Michigan	USA	Muskegon County	Muskegon City	Muskegon Heights	Michigan	USA
All Causes of Death	1,736	436	116	97,532	2,744,248	819.5	1,096.8	1,150.2	782.9	728.81
1 Heart Disease	310	81	16	25,162	635,260	143.7	200.6	-	195.9	165.5
2 Cancer	368	75	20	20,645	598,038	166.6	184.2	200.8	161.1	155.8
3 Unintentional Injuries	104	27	8	5,717	161,374	57.5	68.0	-	53.9	47.4
4 Chronic Lower Respiratory Disease	109	27	8	5,685	154,596	49.4	67.5	-	44.3	40.6
5 Stroke	88	20	5	4,993	142,142	40.6	51.6	-	39.2	37.3
6 Alzheimer s Disease	99	20	3	4,424	116,103	46.3	53.3	-	34.5	30.3
7 Diabetes Mellitus	79	22	6	2,795	80,058	36.9	54.8	-	22.1	21.0
8 Kidney Disease	31	10	5	1,871	50,046	14.1	-	-	14.7	13.1
9 Pneumonia/Influenza	26	7	3	1,793	51,537	12.0	-	-	14.1	13.5
10 Intentional Self Harm - Suicide	32	5	-	1,405	44,965	17.9	-	-	13.6	13.5

**Note: Rates are per 100,000 population. The causes of death are listed in order of the 10 leading causes of death for Michigan. A dash (-) indicates that the data do not meet standards of reliability or precision.**  
Source: 2017 Geocoded Michigan Death Certificate Registry. Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services; Population Estimate (latest update 6/20/2018, National Center for Health Statistics, U.S. Census Populations With Bridged Race Categories. All data last updated 12/07/2018

**NUMBER OF DEATHS AND AGE-ADJUSTED MORTALITY RATES FOR THE TEN LEADING CAUSES OF DEATH  
OCEANA, MASON AND NEWAYGO COUNTIES, 2017 AND UNITED STATES RESIDENTS, 2016**

MICHIGAN RANK AND CAUSE OF DEATH	NUMBER OF DEATHS					AGE-ADJUSTED MORTALITY RATES				
	Oceana County	Mason County	Newaygo County	Michigan	USA	Oceana County	Mason County	Newaygo County	Michigan	USA
All Causes of Death	266	333	534	97,532	2,744,248	718.0	734.8	850.8	782.9	728.81
1 Heart Disease	61	81	109	25,162	635,260	159.4	173.5	163.8	195.9	165.5
2 Cancer	66	69	123	20,645	598,038	160.4	136.968.6	186.9	161.1	155.8
3 Unintentional Injuries	15	20	40	5,717	161,374	-	63.3	83.5	53.9	47.4
4 Chronic Lower Respiratory Disease	15	27	39	5,685	154,596	-	50.0	58.9	44.3	40.6
5 Stroke	15	25	37	4,993	142,142	-	-	59.3	39.2	37.3
6 Alzheimer s Disease	6	10	28	4,424	116,103	-	-	44.9	34.5	30.3
7 Diabetes Mellitus	5	9	21	2,795	80,058	-	-	29.0	22.1	21.0
8 Kidney Disease	4	9	7	1,871	50,046	-	-	-	14.7	13.1
9 Pneumonia/Influenza	8	9	12	1,793	51,537	-	-	-	14.1	13.5
10 Intentional Self Harm - Suicide	6	10	12	1,405	44,965	-	-	-	13.6	13.5

**Note: Rates are per 100,000 population. The causes of death are listed in order of the 10 leading causes of death for Michigan. A dash (-) indicates that the data do not meet standards of reliability or precision.**  
Source: 2017 Geocoded Michigan Death Certificate Registry. Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services; Population Estimate (latest update 6/20/2018, National Center for Health Statistics, U.S. Census Populations With Bridged Race Categories. All data last updated 12/07/2018

Oceana County rates are similar to the state rates. However, both county and state rates exceed the national rates of cancer deaths. Other rate increases include 4.2% for unintentional injuries, 0.7% for chronic lower respiratory diseases, 0.8% for stroke, 2.3% for Alzheimer’s disease, 2.4% for diabetes, 5.9% for influenza and pneumonia, and 3.7% for suicide.

**MERCY HEALTH MUSKEGON HOSPITAL SERVICE AREA UTILIZATION**

An important measure of physical health in the community is the rate of hospital utilization and cause. Aggregated data reflecting all patients receiving care within the Mercy Health Muskegon market at the Mercy, Hackley or Lakeshore hospitals during fiscal year 2018 follows:

MEASURES <sup>43</sup>	FY 2018		
	NUMERATOR	DENOMINATOR	PER 1000
Hospitalizations	7,015	1,721,715	4.07
30-Day Readmissions	5,893	1,721,715	3.42
Preventable Hospitalizations	10,452	1,721,715	6.07
ED Utilization	1,659	1,721,715	0.96
HPV Vaccination	74	1,721,715	0.04
Flu Shots	1,520	1,721,715	0.88
ED – Gunshots	81	1,721,715	0.05
ED – Overdoses	2,047	1,721,715	1.19
Heart Disease	45,415	1,721,715	26.38
Cancer	3,534	1,721,715	2.05
Asthma	38,868	1,721,715	22.58
COPD	63,015	1,721,715	36.60
Cardiovascular Disease	45,415	1,721,715	26.38
Hypertension	17,234	1,721,715	10.01
High Blood Pressure	110,680	1,721,715	64.28
Diabetes	211,883	1,721,715	123.07

It is noteworthy that County Indicators rank medical services in Muskegon County as 5<sup>th</sup> best in the State of Michigan for overall access to care.

<sup>43</sup> Data sourced from Affinia Health, February 2019

## MEASURES OF PERSONAL HEALTH BEHAVIORS

Muskegon County ranks 81 of 83 counties in Michigan for high rates of behaviors that adversely affect health and well-being.

*To review the full County Health Rankings and Roadmap data report for 2018 for Muskegon and Oceana Counties, see Appendix D.*

Adult and adolescent risk factors differ. The Michigan Profile for Healthy Youth (MiPHY) is an online student health survey offered by the Michigan Department 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. The survey also measures risk and protective factors most predictive of alcohol, tobacco, and other drug use and violence. MiPHY results, along with other school-reported data, will help schools make data-driven decisions to improve prevention and health promotion programming.<sup>44</sup>

In addition to risk behavior data from the County Health Rankings for 2018, this section of the CHNA will also cite some data from the 2017/2018 MiPHY for Muskegon County.

COUNTY DEMOGRAPHICS: SELECTED HEALTH BEHAVIORS COUNTY HEALTH RANKINGS 2018						
	MUSKEGON (81)*	OCEANA (57)*	MASON (23)*	OTTAWA (4)*	NEWAYGO (36)*	STATE/MI
Adult Smoking	21%	21%	18%	15%	20%	20%
Adult Obesity	34%	32%	31%	29%	37%	31%
Food Environment Index	6.6	8.4	8.2	8.3	7.0	7.0
% Limited Access to Healthy Food	17%	2%	3%	9%	-	-
% Food Insecurity	15%	12%	13%	9%	-	-
Physical Inactivity	26%	21%	25%	20%	20%	23%
Access to Exercise Opportunities	81%	80%	81%	89%	91%	86%
Excessive Drinking	20%	19%	19%	21%	13%	21%
Alcohol Impaired Driving Deaths	19%	27%	14%	25%	13%	29%
Sexually Transmitted Infections	748.5	362.3	263.7	299.0	145.1	469.1
Teen Birth Rate	36	41	31	14	34	-

Asterisks denote individual county ranking against all (83) counties in Michigan.

Range Best= 1 ---Worst= 83

<http://www.countyhealthrankings.org/app/michigan/2018/county/snapshots>

Teen Birth rates are the number of births per 1,000 female population, ages 15-19

<sup>44</sup> [https://www.michigan.gov/mde/0,4615,7-140-74638\\_74639\\_29233\\_44681---,00.html](https://www.michigan.gov/mde/0,4615,7-140-74638_74639_29233_44681---,00.html)

## SMOKING

All counties in the Mercy Health Muskegon survey area (with the exception of Ottawa) report smoking levels at or near 20% of the adult population. This represents a reduction in smoking from 2015 when Muskegon County rates were at 22% and state rates at 21.1%. The average age of first use of cigarettes in Muskegon County is 12.7 years of age. In recent years, rates of smoking by adolescents has been declining dramatically only to be replaced by electronic vapor products. Of the 2,969 youth participating in the 2017/2018 MiPHY survey, 24.9% report having used a vaping product in the previous month.<sup>45</sup> Nationally, it has been found that LGBT populations have the highest rates of tobacco use.<sup>46</sup>

## HEROIN AND OPIOIDS

On November 18, the National Center for Health Statistics (NCHS)<sup>47</sup> released Data Brief No. 329 containing recent mortality data from the National Vital Statistics system (NVSS). This data has updated national trends in drug overdose deaths, and includes demographic and geographic patterns. It also describes shifts in the types of drugs involved. According to the Brief, in 2017 there were 70,237 drug overdose deaths<sup>48</sup> in the United States. Based upon the age-adjusted rate of overdose deaths, rates in 2017 (21.7 per 100,000) were 9.6% higher than rates in 2016 (19.8%).

Nationally, the age-adjusted rate of drug overdose deaths involving synthetic opioids, other than methadone (fentanyl, fentanyl analogues, and tramadol), increased by 45% between 2016 and 2017 from 6.2 to 9.0 per 100,000. Michigan's age-adjusted rate of drug overdose deaths (27.8) is statistically higher than the national rate of 21.7. In Michigan, the number of drug overdose deaths has tripled since 1999. In Muskegon, Emergency Department (ED) reports downloaded from the Michigan Syndromic Surveillance System in 2017 by the County Health Department's Epidemiologist reveal the following:

- Between 2015-2016, Muskegon County ED drug overdose<sup>49</sup> visits increased by 19.5%
- In the period spanning 2007-2016, Muskegon County ED visits involving drug overdoses increased by 41.5%. These overdose incidents reflect use of heroin, opioids, and prescription drug abuse, as well as other overdose events
- Analysis of the 2015 data found that 42% of ED/Urgent Care cases in Muskegon County involved patients aged 30 or younger

<sup>45</sup> 2017/18 Muskegon County MiPHY

<sup>46</sup> <https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health>

<sup>47</sup> Drug Overdose Deaths in the United States, 1999-2017, NCHS Data Brief No. 329, November 2018

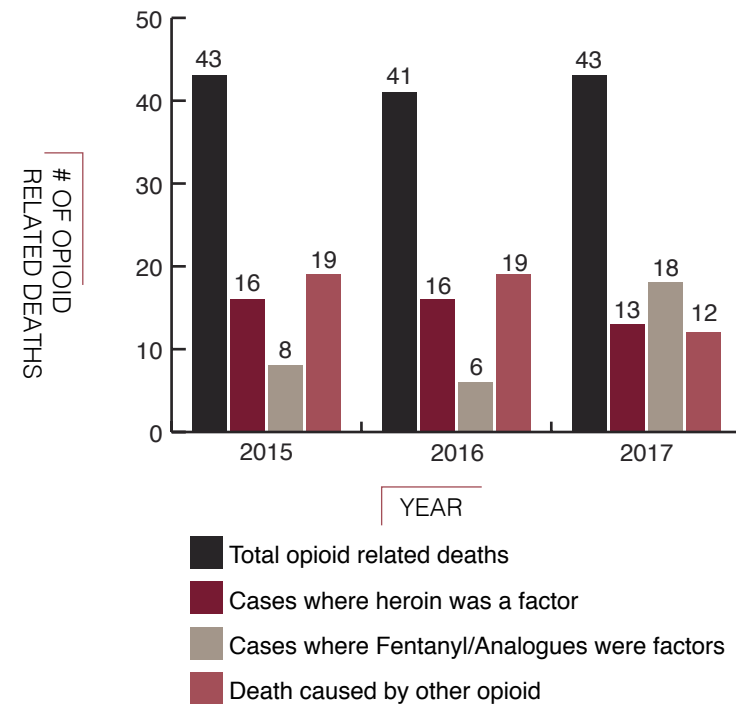
<sup>48</sup> Of the drug overdose deaths in 2017, 87% were unintentional, 7% were suicides, 5% were of by ICD-10 multiple-cause-of-death codes: heroin (T40.1); natural and semisynthetic opioids (T40.2); methadone (T40.3); and synthetic opioids other than methadone (T40.4), undetermined intent, and less than 1% were homicides. The type of drug(s) involved are indicated by ICD-10 multiple-cause-of-death codes: heroin (T40.1); natural and semisynthetic opioids (T40.2); methadone (T40.3); and synthetic opioids other than methadone (T40.4).

<sup>49</sup> Data includes all possible overdose events – some are not related to controlled substances.

## OPIOID RELATED DEATHS

Opioid death either heroin or fentanyl  
OR both contributing factors

Rate/100,000 = 24.98



Data: Medical Examiner Office, Muskegon County

The West Michigan Enforcement Team (WEMET) believes that known heroin overdoses in Muskegon County have reached an average of one per day.<sup>50</sup> WEMET emphasizes that this spike in heroin use is “absolutely” related to an increase in prescription drug abuse and that heroin is being used as a cheaper substitute. Assessing the primary drug at admission in FY16, using data from the Lakeshore Regional Entity<sup>51</sup> (LRE), a total of 485 people were admitted into substance abuse agencies for heroin alone.

Data from Muskegon County Medical Examiner reports spanning 2010 to 2015 found that 179 people died from substance abuse-related overdoses. Although entirely preventable, 95% involved opioids and, of these, 89% involved multiple drugs. Opioid-related fatalities surpassed both gun and traffic accident fatalities in 2014 and have remained the number one reason for fatalities.

<sup>50</sup> Exact number of heroin overdose events are not known because of Narcan use.

<sup>51</sup> [www.lsure.org](http://www.lsure.org)

The graphic on the previous page is from the Muskegon County Health Department and contains more recent data, again sourced from the Medical Examiner’s office. It displays the actual number of opioid-related deaths in Muskegon County through 2017. The graphic includes those deaths where heroin and fentanyl may have been factors through post-mortem toxicology testing.

## OPIOID USE: ELDER AND YOUTH DATA

Opioid use spans multiple generations in our community. According to a recent Dexur<sup>52</sup> report of medical claims, senior residents within the State of Michigan accounted for the 7th highest opioid abuse hospitalization rate out of all 50 states from October 2015 - September 2016, with a rate of 0.61%. Among the 22,000 Muskegon County seniors enrolled in Medicare, Muskegon had the highest rate of hospitalization in Michigan for opioid abuse with a rate of 2.6%, or 585 seniors.

The 2016 Muskegon County - Michigan Profile for Healthy Youth student survey of 3,047 9th and 11th graders, found that approximately 223 high school students, or 7.4 %, have taken a prescription drug that was not prescribed to them in the past 30 days, with 5.7% of youth trying a painkiller such as Vicodin or Oxycodone. Of those students, girls were more likely to use painkillers than boys. Over 417 students, or 14.4%, have been offered a prescription drug on or around school grounds. As with many other substances, perception of use was higher than actual use within Muskegon County and 25.8% of youth thought there was very little risk with taking prescription drugs.

Recent student focus groups also revealed that high school students with orthodontic surgeries and dental extractions were offered opioid prescriptions for pain by their treating provider. In many cases, the legal prescriptions were for 7-14 days, despite subsiding pain within 3 days.

Student athletes also are more likely to be treated with opioids. According to the National Council on Alcoholism and Drug Dependence, 12% of male student athletes and 8% of female student athletes have been prescribed highly addictive opioid class narcotics in the past 12 months. Separate studies show that 83% of all adolescents have unsupervised access to their own narcotic prescriptions.

Recent studies indicate that youth who take opiates for more than eight days are twice as likely to have long-term use. After high school, anecdotal and limited self-reported data suggests Muskegon’s young adults age 18-24 had increased use of opioids and, more alarmingly, heroin use.

<sup>52</sup> <https://dexur.com>

Substance abuse treatment records indicate that while only 4.4% of those publicly funded admissions are under 18 years of age, it jumps to 17.2% for those 18-25, and 39% for those 26-45 years old.

### REDUCING OPIOID USE

One of many important steps that state and local providers are taking to confront the opioid crisis is to address the use of prescription drugs as a source. In June (2018), new data released by the State of Michigan on dispensing of opioids reflects that prescriptions of opioids peaked in 2015. Michigan dispensed 9.7 million prescriptions of various opioid drugs in 2017 compared to 10.8 million in 2015. This represents a drop of about 11% overall. The 2017 rate still accounted for 1.2 billion units of opioids in Michigan. This volume is enough to give every Michigan resident approximately 127 opioid pills, patches or other types of opioid drug doses during that year.

This data is the result of a new upgrade to the state’s computer system, the Michigan Automated Prescription System (MAPS). Another factor in the reduction of prescription opioid use is the adaptation of new federal recommendations that rely less on the use of opioids for pain control. Data from all Mercy Health’s primary and secondary service areas reflect reductions in prescriptions since 2015.

MICHIGAN 2017 OPIOID PRESCRIPTIONS BY COUNTY <sup>53</sup>					
COUNTY	2017 TOTAL PRESCRIPTIONS	2017 NUMBER OF TOTAL DOSES	# PRESCRIPTIONS PER 10 RESIDENTS 2017	% CHANGE SINCE 2009	% CHANGE SINCE 2015
Muskegon	226,105	17,724,498	10.6	23%	-14%
Oceana	35,386	2,878,683	9.6	39%	-7%
Newaygo	56,258	4,157,904	9.6	21%	-20%
Mason	38,202	2,954,114	10.7	23%	-9%
Ottawa	196,330	13,918,266	5.0	38%	-10%
State of MI	9.7 million	1.2 billion units			-10.7%

<sup>53</sup> Michigan Department of Licensing and Regulatory Affairs (LARA)

### UNDERSTANDING THE RISKS OF USING OPIOID PRESCRIPTIONS<sup>54</sup>

Respondents to the 2019 CHNA Community Survey were asked whether they are aware of the risks associated with the use of prescription opioids. Oceana County respondents were least aware, with nearly 20% indicating a need for additional information about opioids. Nearly 12% of Muskegon respondents indicate that they remain unaware.

DO YOU KNOW THE RISKS OF USING OPIOID PRESCRIPTIONS?					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Yes	87.1%	78.2%	82.6%	94.4%	87.1%
No	11.9%	19.8%	13.0%	5.6%	11.9%
No Response	0.9%	2.0%	4.3%	0.0%	1.0%
# All Survey Respondents	1,817	101	23	126	2,067

### PHYSICIAN OR PHARMACIST GUIDANCE

When asked whether a physician or pharmacist had ever discussed the risks of prescription opioids, nearly 20% of Muskegon County survey respondents indicated that they had not received this information. This suggests there may be additional opportunities to improve service area-wide educational processes.

HAS A PHYSICIAN OR PHARMACIST DISCUSSED THE RISKS OF OPIOID USE?					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Yes	19.6%	13.9%	8.7%	15.1%	18.9%
No	19.8%	16.8%	13.0%	16.7%	19.4%
Opioid Not Prescribed in Last Year	59.6%	63.4%	65.2%	68.3%	60.4%
No Response	1.0%	5.9%	13.0%	0.0%	1.3%
# All Survey Respondents	1,817	101	23	126	2,067

### MARIJUANA USE

Since publication of the previous Mercy Health Muskegon 2016 CHNA, the State of Michigan has legalized the use of recreational marijuana. The Michigan Regulation and Taxation of Marijuana Act took effect December 6, 2018. Some Michigan communities have imposed year-long bans on businesses as they wait to see what rules and regulations will be developed for the new industry. Officials with the Bureau of Marijuana Regulation have until December 2019 to write the rules and start accepting license applications.

<sup>54</sup> Muskegon Service Area, 2019 Community Survey

The Michigan Profile for Healthy Youth (MiPHY) for 2017-2018 found that the average age of first use for marijuana is 13.9 years. 16% of adolescents responding to the MiPHY reported having used marijuana in the previous 30-day period. When respondents to the 2019 Community Survey were asked about their personal use of marijuana, data reflects higher previous use than current use. It is important to remember that this subset of individuals from the service area are all over the age of 18, so current youth use would not be reflected. Future CHNA community surveys may want to track use over time to better understand any uptick in utilization.

DO YOU CURRENTLY OR HAVE YOU EVER USED MARIJUANA?					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Current Marijuana Use	6.3%	3.0%	4.3%	2.4%	5.9%
Past Marijuana Use	11.2%	5.0%	4.3%	9.5%	10.7%
Never	81.3%	92.1%	91.3%	86.5%	82.2%
No Response	1.2%	0.0%	0.0%	1.6%	1.2%
# All Survey Respondents	1,817	101	23	126	2,067

A business survey<sup>55</sup> conducted by the Greater Muskegon Chamber of Commerce found that 28.9% of businesses in Muskegon County with job openings had been unable to fill them because applicants could not pass a drug test. Marijuana use was often cited and, therefore, a potential barrier to employment with recreational use now legalized in the state.

### ALCOHOL USE

County Health Rankings describes excessive drinking<sup>56</sup> as a risk factor that contributes to a number of adverse health outcomes. These outcomes include alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence and motor vehicle crashes.

The average age for first use of alcohol by adolescents in Muskegon County is 13.4 years of age. Of the 2,969 Muskegon participants in the MiPHY survey, 15.8% had at least one drink of alcohol in the previous month and 8% had 5 or more drinks within a couple of hours (binge drinking).

<sup>55</sup> Greater Muskegon Chamber of Commerce

<sup>56</sup> This ranking is based upon the percentage of individuals who report binge drinking (more than 4 (women) or 5 (men) alcoholic beverages in the past 30 days; or, heavy drinking – defined as more than 1 (women) or 2 (men) drinks per day on average. This ranking is based only on measurements of adult behavior and not on that of youth.

Nationally, approximately 80,000 deaths are attributed annually to excessive drinking. Excessive drinking is the third leading lifestyle-related cause of death in the United States. The overall rate of excessive drinking in Michigan is 21% of the population. Top performance on this indicator nationally is 10%-13% of the population. In the Mercy Health Muskegon service area, rates of excessive alcohol use are close to the state's norm: Muskegon County (19%), Oceana (19%), Newaygo (19%), Mason (19%) and Ottawa (21%). Alcohol Impaired driving deaths in the service area are lower than the State of Michigan's rate of 29%. Top U.S. performers register at a 13% rate.

Muskegon area MiPHY data reports that in the previous 30-day period, 12.4% of students rode in a car or other vehicle driven by someone who had been drinking alcohol. 1.7% of students drove a car or other vehicle after drinking alcohol.

ALCOHOL IMPAIRED DRIVING DEATHS - 2016				
COUNTY	# ALCOHOL IMPAIRED DRIVING DEATHS	# ALL DRIVING DEATHS	% ALCOHOL IMPAIRED	MARGIN OF ERROR
Muskegon	16	84	19%	14 - 25%
Oceana	4	15	27%	13 - 41%
Newaygo	9	37	24%	16 - 33%
Mason	3	22	14%	4 - 26%
Ottawa	26	105	25%	20 - 30%

### SEXUALLY TRANSMITTED INFECTIONS

According to the Michigan Annual STD Summary Report for 2017, chlamydia cases in Michigan had remained level, with the number of cases each year approximately 45,000 – 50,000. In 2017, cases rose significantly by 8% to 51,000. Most of this increase was outside the city of Detroit. In 2017, Muskegon County reported 1,429 cases of chlamydia and has the tenth highest number of cases.<sup>57</sup> Muskegon's rate (748.5) is well above the overall state rate of 469.1.

When CHNA Survey respondents were asked if they knew where to get tested for an STD, fewer than 10% in Muskegon County indicated that they did not know. In Oceana, 12.9% indicated they were unaware.

DO YOU KNOW WHERE TO GET TESTED FOR AN STD?					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Yes	88.4%	83.2%	87.0%	82.5%	87.8%
No	9.9%	12.9%	13.0%	16.7%	10.4%
No Response	1.8%	0.0%	4.0%	0.8%	1.8%
# All Survey Respondents	1,817	101	23	126	2,067

<sup>57</sup> Michigan Annual STD Summary Report, Calendar Year 2017; [www.michigan.gov/hivstd](http://www.michigan.gov/hivstd)

## ADVERSE CHILDHOOD EVENTS (ACES) – MEASURING THE IMPACT OF TRAUMA

ACEs are adverse childhood experiences or traumatic events, such as abuse, neglect or family dysfunction. ACEs are common across all populations. Emerging research indicates that a dose-response relationship exists between a person’s ACE score and negative health and social outcomes.

The first ACEs study was conducted by the Centers for Disease Control and Prevention and Kaiser Permanente, with 17,000 adults between 1995 and 1997. Traumatic experiences can cause toxic stress chemicals to be produced that may impact brain development, immune system function and overall physical health. Research suggests that many habits, such as smoking, substance use, and unhealthy eating are often “coping mechanisms” for addressing pain and stress. Behaviors can also be adaptive. People, especially children, who experience repeated trauma often exhibit “fight or flight” response behavior that can cause hyper arousal, aggression and dysregulation. In this way, the brain can be wired for “survival mode” and impair both executive and cognitive functions.

The 2016 ACEs Muskegon Report was conducted both online and face-to-face, reaching 1.3% of the county population (compared to a state average of 0.36% for Michigan.) The survey was conducted from November 2015 through September 2016. The survey collected retrospective information from 2,252 adults living and working in Muskegon.

Findings from the initial ACEs Muskegon survey<sup>58</sup> reflect the following rates of adverse childhood experiences:

Q#	ACES CATEGORY	WOMEN IN MUSKEGON	WOMEN NATIONAL	MEN IN MUSKEGON	MEN NATIONAL
<b>ABUSE</b>					
Q1:	Emotional Abuse	31.1%	34.1%	29.7%	35.9%
Q2:	Physical Abuse	21.0%	15.8%	22.1%	15.9%
Q3:	Sexual Abuse	27.3%	15.2%	12%	6.4%
<b>HOUSEHOLD CHALLENGES</b>					
Q7:	Intimate Partner Violence	17.4%	15.6%	16.8%	14.2%
Q8:	Household Substance Abuse	35.1%	27.2%	34.7%	22.9%
Q9:	Household Mental Illness	34.7%	19.3%	25.9%	13.3%
Q6:	Parental Separation or Divorce	46.2%	23.1%	44.2%	22.5%
Q10:	Incarcerated Household Member	13.4%	5.2%	19.7%	6.2%

<sup>58</sup> [healthwest.net/community-resources/aces-muskegon/aces-report-short](http://healthwest.net/community-resources/aces-muskegon/aces-report-short)

The ACEs Muskegon Report is being used by both of Muskegon’s Federally Qualified Health Centers to help serve their clients. Local schools and the juvenile justice system are also being educated on the findings of the ACEs report to assist them in addressing the needs of their students and clients.

## DEPRESSION AND SUICIDE

On average, there are 129 suicides per day in the United States. In 2017, there were an estimated 1,400,000 suicide attempts according to the American Foundation for Suicide Prevention.<sup>59</sup> 47,173 Americans died by suicide in 2017. In 2017, Muskegon County had 32 suicides with five of those occurring in the city of Muskegon. The county rate of suicide is 17.9 which exceeds the state rate of 13.6 and national rate of 13.5 per 100,000 people. In other parts of the service area, Oceana had 6 suicides, Mason County 10 and Newaygo, 12.

## MENTAL HEALTH DISORDERS

According to Mental Health America,<sup>60</sup> one in five adults has a mental health condition. This represents over 40 million Americans representing more than the combined populations of New York and Florida. Other national trends include:

- **Youth mental health is worsening.** Rates of youth with severe depression increased from 5.9% in 2012 to 8.2% in 2015. Even with severe depression, 76% of youth are left with no or insufficient treatment
- **More Americans have access to services.** Access to insurance and treatment increased, as healthcare reform has reduced the rates of uninsured adults. The greatest decrease in uninsured adults with mental illnesses was seen in states that expanded Medicaid
- **Most Americans still lack access to care.** 56% of American adults with a mental illness do not receive treatment. Even in Maine, the state with the best access, 41.4% of adults with a mental illness do not receive treatment
- **There is a serious mental health workforce shortage.** In states with the lowest workforce, there are six times the number of individuals to one mental health professional. This includes psychiatrists, psychologists, social workers, counselors, and psychiatric nurses combined

<sup>59</sup> American Foundation for Suicide Prevention

<sup>60</sup> <http://www.mentalhealthamerica.net/issues/state-mental-health-america-2018>

“Research suggests that many habits, such as smoking, substance use, and unhealthy eating are often “coping mechanisms” for addressing pain and stress.”

*Aces of Muskegon.*



Mercy Health Muskegon's behavioral health center, Mercy Life Counseling, receives referrals from the entire West Michigan region, including several counties served by Mercy Health Grand Rapids. The following graphic details frequency of diagnoses, including substance use disorders.

MERCY LIFE COUNSELING UTILIZATION SEPTEMBER 1, 2017 - AUGUST 31, 2018			
MENTAL HEALTH DISORDERS		SUBSTANCE USE DISORDERS	
Acute Stress Reduction	4	Alcohol Abuse	43
Adjustment Disorders	212	Alcohol Dependence	101
Attention Deficit	17	Cannabis Abuse	19
Bipolar Disorder	58	Cannabis Dependence	33
Borderline Personality Disorder	8	Cocaine Abuse	5
Bulimia Nervosa	5	Cocaine Dependence	36
Depression	480	Nicotine Dependence	1
Dissociative Identity Disorder	2	Opioid Abuse	2
Dysthymic Disorder	20	Opioid Dependence	42
Eating Disorder Unspecified	2	Other Psychoactive Abuse	1
Generalized Anxiety	261	Other Psychoactive Dependence	3
Hoarding	1	Other Stimulant Abuse	6
Loss of a Family Member	9	Other Stimulant Dependence	12
OCD	6	Sedative Hypnotic Anxiolytic Abuse	2
Other Specified Anxiety	13	Sedative Hypnotic Anxiolytic Dependence	4
Panic Disorder	25	Substance Use	2
Problems in Relationship (Spouse/Partner)	16	Substance Abuse Overall	80
PTSD	65	Substance Dependence Overall	232
Social Phobia	13		

### HEALTH COVERAGE AND ACCESS

Since passage of the Affordable Care Act, health coverage has remained relatively stable in the region. Muskegon County's rate of uninsured residents is 6.1% while Oceana's is 10.4%. Additional data on uninsured residents as well as those on Medicare and Medicaid are in the following table.

MEDICARE, MEDICAID AND UNINSURED PERCENTAGES BY COUNTY					
	MUSKEGON	OCEANA	MASON	OTTAWA	YEAR
Medicare <sup>61</sup>	22.1%	24.9%	28.1%	17.4%	Nov, 2018
Medicaid <sup>62</sup>	22.5%	20.7%	17.8%	8.2%	Nov, 2018
Uninsured <sup>63</sup>	6.1%	10.4%	7.2%	5.1%	2017

<sup>61</sup> Medicare: Medicare Enrollment Dashboard: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Dashboard/Medicare-Enrollment/Enrollment%20Dashboard.html>

<sup>62</sup> Medicaid: MDHHS Medicaid and Healthy Michigan Plan Enrollment Report [https://www.michigan.gov/mdhhs/0,5885,7-339-71547\\_4860\\_78446\\_78576-15064--,00.html](https://www.michigan.gov/mdhhs/0,5885,7-339-71547_4860_78446_78576-15064--,00.html)

<sup>63</sup> Uninsured: US Census Bureau Quick Facts <https://www.census.gov/quickfacts/fact/table/ottawacountymichigan,masoncountymichigan,oceanacountymichigan,muskegoncountymichigan/HEA775217>

The number of individuals with commercial insurance within the Mercy Health Service area is as follows based upon 3rd Quarter reporting (2018) from Mercy Health.

COMMERCIAL COVERAGE MERCY HEALTH MUSKEGON SERVICE AREA					
MUSKEGON	OCEANA	MASON	OTTAWA	NEWAYGO	TOTAL COMMERCIAL
89,402	12,133	14,795	199,237	25,349	340,916

### AFFORDABILITY OF CARE

When asked about their source of health care coverage, participants in the CHNA survey gave a wide range of responses.

WHAT IS YOUR SOURCE OF HEALTH COVERAGE?					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Access Health/Three Share	0.4%	0.0%	4.3%	0.0%	0.4%
Employer	64.7%	61.4%	56.5%	77.9%	65.2%
Purchased on Marketplace	3.1%	4.0%	0.0%	4.0%	3.2%
Medicaid	19.0%	12.9%	4.3%	1.6%	17.5%
Medicare	11.7%	15.8%	26.1%	9.5%	11.9%
Medical Savings Account	1.0%	1.0%	0.0%	1.6%	1.1%
Other	5.0%	11.9%	13.0%	7.1%	5.6%
VA	1.4%	0.0%	0.0%	0.8%	1.3%
No Insurance Coverage	3.1%	6.9%	8.7%	3.2%	3.4%
No Response to the Question	0.4%	2.0%	0.0%	0.0%	0.4%
# All Survey Respondents	1,817	101	23	126	2067

Affordability remains an issue for many people in the Mercy Health Muskegon service area as evidenced by the following responses.

RESPONDENTS WERE ASKED TO IDENTIFY HEALTH RELATED SERVICES WHERE AFFORDABILITY WAS AN ISSUE					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Physical Health	14.3%	11.9%	30.4%	7.1%	13.9%
Behavioral Health	13.8%	5.9%	30.4%	12.7%	13.5%
Substance Use Treatment	1.7%	0.0%	4.3%	1.6%	1.6%
Prescriptions	11.2%	13.9%	8.7%	7.9%	11.1%
Vision	17.0%	15.8%	26.1%	10.3%	16.6%
Hearing	6.9%	2.0%	13.0%	2.4%	6.5%
Dental	18.0%	17.8%	21.7%	16.7%	17.9%
Flu Shot	1.7%	4.0%	0.0%	1.6%	1.7%
No Response	62.7%	67.3%	30.4%	69.0%	62.9%

## UTILIZATION OF MEDICAL SERVICES – EMERGENCY ROOM

Hospital emergency departments (EDs) are indispensable to the acute health care system. Unfortunately, many ED visits are not emergencies or could be prevented with effective and timely outpatient care. (Robert Wood Johnson Foundation<sup>64</sup>)

A study released in 2013 by Rand researchers,<sup>65</sup> found that most people who seek care in an emergency department do so because they perceive no viable alternative, not because it was convenient. These researchers say that efforts to reduce non-urgent visits to emergency departments should focus on assuring timely access to primary care and less-expensive forms of care, rather than blocking access to emergency departments.

## EMERGENCY DEPARTMENT UTILIZATION BY MEDICAID BENEFICIARIES – SIM ANALYSIS

Mercy Health and its community partners currently participate in a State Innovation Model (SIM) grant funded through the Centers for Medicare and Medicaid Services. The SIM initiative focuses on Medicaid populations and identifies factors that affect health and well-being, including the social determinants of health. A centerpiece of the Michigan SIM has been state and local analysis of Emergency Department (ED) utilization.

In 2018, the State of Michigan provided ED utilization data by Medicaid beneficiaries<sup>66</sup> to Mercy Health and its SIM partners covering the period of July 1, 2015 through June 30, 2016. This data reflects a total census of 41,265 Muskegon County Medicaid beneficiaries. A majority of these beneficiaries (54.1%) are female and nearly 30% are children under the age of 10 (29.7%). Another large subset (24.1%) represents young adults who are between the ages of 20 and 34.

During this period, the state reported there was a total of 55,308 ED visits by Medicaid recipients at Mercy facilities in Muskegon. The majority of these visits came from three zip codes: 49442, 49444 and 49441. The zip code locations align with areas in the community where median income is lowest.

<sup>64</sup> [www.rwjf.org/en/library/research/2013/09/reducing-inappropriate-emergency-department.html](http://www.rwjf.org/en/library/research/2013/09/reducing-inappropriate-emergency-department.html)

<sup>65</sup> [www.rand.org/news/press/2013/05/20.html](http://www.rand.org/news/press/2013/05/20.html)

<sup>66</sup> State of Michigan, MDHHS

- 37.9%, or 20,977, ED visits were from individuals living in zip code 49442. This zip code includes Muskegon Township, Egelston Township and a portion of the city of Muskegon
- 25%, or 13,808, ED visits were from individuals living in zip code 49444. This zip code includes the city of Muskegon Heights
- 16.3%, or 9,503, ED visits were from individuals living in zip code 49441. This zip code includes the city of Muskegon

A total of 2,769, or 6.7%, of all Medicaid beneficiaries during the 12-month time period had 5 or more Emergency Department visits. A majority of these visits (5-7 visits) were by women (64.1%). 55.6% of frequent utilizers were Caucasian and 32.9% African American. 35.9% were young adults between the ages of 20 and 34 and another 23.7% of visits were for children 10 and under.

Muskegon County has two excellent Federally Qualified Health Centers – Hackley Community Care and Muskegon Family Care – who, together, serve a majority of the county’s Medicaid population. Both of the centers conducted independent analysis of ED utilization by their attributed patients as part of the SIM review. Their analysis further verifies utilization patterns by zip code and other factors:

MEDICAID PATIENTS WITH FREQUENT MERCY HEALTH MUSKEGON ED VISITS: FQHC REPORTED DATA	
HACKLEY COMMUNITY CARE*	MUSKEGON FAMILY CARE*
7,000 patients with 15,275 ED Visits	6,201 patients with 13,824 ED Visits
Patients with 5 or more ED visits: 637 with 4,510 visits	Patients with 5 or more ED visits: 590 with 4,449 visits
Patients with 9 or more ED visits: 108 with 1,405 visits	Patients with 9 or more ED visits 130 with 1,712 visits
Of 15,257 total ED visits: - 64% are female - 48.3% identify as white; 46.5% identify as black - 39% from zip code 49442 - 30.3% from zip code 49444 - 16.6% from zip code 49441	Of 13,824 total ED visits: - 60.9% are female - 49.3% identify as white; 46.9% identify as black - 40.8% from zip code 49442 - 27.7% from zip code 49444 - 17.8% from zip code 49441
Of 4,510 ED visits of 5 or more: - 67.8% are female - 51.3% identify as white - 45.1% identify as black - 38.2% from zip code 49442 - 30% from zip code 49444 - 17.1% from zip code 49441	Of the 4,449 ED visits of 5 or more: - 62.6 are female - 48.3% identify as white - 48.7% identify as black - 41.6% from zip code 49442 - 25.6% from 49444 - 20.3% from 49441
*Data reflects period spanning January 2016 – April 2017	*Data reflects period spanning January 1, 2016 – December 31, 2016

*“Hospital emergency departments (EDs) are indispensable to the acute health care system. Yet, many ED visits are not emergencies or could be prevented with effective and timely outpatient care.”*

*Robert Wood Johnson Foundation*

### ED CLAIMS ANALYSIS – PAIN AND BEHAVIORAL HEALTH EMERGE AS FACTORS

Using WellCentive, a comprehensive patient registry, Affinia Health data analysts ran a diagnostic frequency report on a subset of 275 Medicaid<sup>67</sup> beneficiaries with 5 or more ED visits during calendar year 2016. PCMH attribution lists were compared with ED claims data to identify a patient’s primary medical home (PCMH, FQHC, etc.)

Once sorting was completed, care management teams were engaged to help ascertain the root cause of the ED use. Each organization sorted the claims data in their own manner. Notable findings include the percentage of individuals presenting with pain-related issues and high levels (28.4%) of cigarette use/nicotine dependence.

- 26.2% of this group had at least one major depressive disorder
- 25.5% of the population presented with low back pain
- 22.2% of the population presented with chest pain
- 21.5% presented with other forms of chronic pain

HealthWest<sup>68</sup> also conducted a chart review of 297 patients with a history of frequent ED use. Many of these patients were identified as having co-occurring conditions, as well as intellectual or other developmental disabilities, mental health issues, and other chronic health conditions. Of those with a mental illness, the most prevalent diagnoses were personality disorders and panic disorders, including anxiety and PTSD. Based on data from the 297 HealthWest charts, the following trends emerged:

- Nearly 40% had an ED utilization rate higher than the SIM identified target population of 5 or more visits annually. This subset had an average of 8 or more ED visits
- 50% were identified as having a substance use issue
- 30% were seen only once by HealthWest and then referred on to a provider for mild to moderate mental health issues or to a substance use provider;
- Social determinants of health most frequently noted from this subset include domestic violence, homelessness and legal issues

### IMPACT OF OBESITY AND EXERCISE

County Health Rankings published in 2018 indicate 34% of Muskegon County residents and 32% of those in Oceana County are obese. Both counties exceed the state average of 31%. Over a quarter of residents in Muskegon County are physically inactive (26%) and 21% in Oceana.

<sup>67</sup> Affinia Health

<sup>68</sup> HealthWest provides integrated health care for youth and adults with serious behavioral health challenges, developmental disabilities and co-occurring substance use disorders in Muskegon County.

One of many factors contributing to rates of obesity is access to healthy food. When asked about their eating habits, respondents to the CHNA Community Survey reported the following:

WHAT ARE YOUR BARRIERS TO EATING HEALTHY FOOD					
RESPONDENT SNAPSHOT	MUSKEGON	OCEANA	NEWAYGO	OTTAWA	TOTAL ALL
Cost of Healthy Food	42.0%	36.6%	52.2%	26.2%	40.9%
Unable to Cook Safely	1.7%	4.0%	4.3%	0.0%	1.7%
Don't Know How to Cook	8.0%	10.9%	4.3%	6.3%	8.0%
Not Enough Time to Cook	29.4%	88.1%	*	*	-
Difficult to Find Healthy Food	3.3%	5.9%	4.3%	0.8%	3.3%
Not a Priority	4.9%	2.0%	0.0%	4.8%	4.7%
None -Not Hard to Eat Healthy	41.7%	52.5%	39.1%	47.6%	42.6%
No Response	1.2%	2.0%	0.0%	0.0%	1.1%
# All Survey Respondents	1,817	101	23	126	2,067

Food assistance was found to be the second most used social service in the Pathways Program (see page 41). One quarter, or 23%, of Muskegon residents receive food stamps (Bridge Card), with many of these residents being both overweight and malnourished.

The diabetes incidence rate<sup>69</sup> in Muskegon County exceeds that of the State of Michigan according to the MDHHS data for 2014. One of the most disturbing trends identified in the MDHHS data for the Top 20 Hospitalization Conditions, 2008-2014, is the increase in the incidence rate for people age 18-44 years. Males continue to have a higher incidence rate compared to females by 24.6%. There is an encouraging trend emerging that illustrates that people over 75 years of age are less likely to die from diabetes. The trend is also slowing for the age group of 50-74 years. Diabetes was the 7th leading cause of death for people in poverty in Muskegon County in 2014.

### HOUSING INSECURITY<sup>70</sup>

Muskegon County has 63,052 occupied housing units, of which 40,970 were built prior to 1970. Twenty-six percent of homes in the county were built between 1940 and 1959, and 18% were built in 1939 or earlier. The median value of a house in Muskegon County is \$98,600 and median mortgage is \$1,076 per month. Six percent of homes in Muskegon County are classified as mobile homes – higher than the state of Michigan as a whole (5%). The number of vacant homes in Muskegon County grew by 41.7% between 2000 and 2010, according to the U.S. Census Bureau.

<sup>69</sup> MDHHS Data

<sup>70</sup> 2017 to 2022 Consolidated Plan for Housing and Community Development; Muskegon County Administration, August 2017

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According to the 2017 Muskegon County Consolidated Plan for Housing and Community Development, lower-income residents face challenges in finding affordable housing. This is primarily because Muskegon County rent costs and home pricing are increasing faster than local wage rates. Low income households are heavily dependent on affordable rental housing. Because this affordable housing is scarce in Muskegon County, low income residents often pay more than 30% of their household income for housing. The Plan indicates that about 60% of all renter households in Muskegon County have incomes at or below 80% of the area median income.

The “housing burden” was the most common housing problem identified among both low-income renters and homeowners in Muskegon County. This trend is expected to continue, given market trends and increased economic revitalization in the area. The current estimated number of overburdened households in Muskegon County is 55%.

### **HOUSING NEEDS OF ELDERS**

Muskegon County has 53,561 homeowner households, with a disproportionate number of low-income elderly owners. Many of these households are cost burdened and have housing problems based upon the age of the housing stock. The Muskegon County Consolidated Plan for Housing and Community Development reports that their findings indicate a compelling need for housing assistance, including housing rehabilitation, with special consideration for the elderly, disabled and small families.

### **INDIVIDUALS EXITING INCARCERATION**

Housing is also a problem for individuals exiting incarceration; especially a significant population of criminal sex offenders. Sex offenders are barred from certain types of housing due to restrictions of parole and/or probation. At present, this population relies upon temporary housing at the Muskegon Rescue Mission, but a permanent solution needs to be addressed. Stabilizing the housing of individuals exiting incarceration is important to help this population assimilate successfully back into the community.

### **LEAD RISK - CHILDREN**

There are 2,100 units of housing<sup>71</sup> in Muskegon County that are designated as being at high risk for lead because of the age of the structure and because there are children under the age of six years living in the unit. The 2016 childhood lead poisoning data shows 3.6% of children tested statewide had elevated levels of lead. Muskegon County’s rate exceeds the state rate at 6.0%. Oceana County’s rate was 2.7%.

### **RESIDENTIAL SEGREGATION<sup>72</sup>**

According to the County Health Rankings, residential segregation is an index of the dissimilarity, where higher values reflect a greater level of segregation between black and white residents. The residential segregation index is ranked between 0 (complete integration) and 100 (complete segregation). The ranking is only used in those counties with a black population of 100 individuals or more. This measure applies to approximately 65% of all U.S. Counties. The segregation index data is drawn from 5-year estimates (2012-2016) published by the American Community Survey of the U.S. Census.

Residential segregation is considered a fundamental cause of health disparities in the U.S. and has been linked to poor health outcomes; including mortality, poor quality housing and increased exposure to environmental toxins, neighborhood violence, and reduced educational and employment opportunities.

In the State of Michigan, the minimum – maximum range of the segregation index is 44 – 80. Of the counties in the Mercy Health Muskegon service area, 3 of the 5 have a designated segregation index. Mason and Oceana do not meet the population threshold. Newaygo (48), Ottawa (65) and Muskegon (75) are ranked. In all, 43 of Michigan’s 83 counties have a designated segregation index. 8 of these counties fall within the 70 – 80 segregation range. Of urban population centers, Muskegon’s ranking of 75 is only exceeded by Wayne County (80).

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<sup>71</sup> 2017 to 2022 Consolidated Plan for Housing and Community Development; Muskegon County Administration, August 2017

<sup>72</sup> <http://www.countyhealthrankings.org/app/michigan/2018/measure/factors/141/data>

## HOMELESS

Based upon the 2017 Consolidated Plan for Housing and Community Development, there are many factors that contribute to homelessness. Noteworthy are those that relate directly to the social determinants of health and behavioral health. Those listed in the Plan<sup>73</sup> include:

### FACTORS CONTRIBUTING TO HOMELESSNESS IN MUSKEGON COUNTY

- |  |                                     |
|--|-------------------------------------|
| • Decline or loss of public assistance | • Divorce                           |
| • Domestic violence                    | • Drug and alcohol related problems |
| • Illness                              | • Job loss                          |
| • Lack of affordable housing           | • Lack of child support             |
| • Low wages                            | • Mental illness                    |
| • Natural disaster/fire                | • Physical disability               |
| • Post-traumatic stress disorder       | • Poverty                           |
| • Severe depression                    | • Family or personal tragedy        |

The most recent point-in-time census of homeless individuals conducted in 2017 resulted in a total homeless count of 2,535 individuals, representing all homeless categories. 50.93% of the homeless total, or 1,292 individuals, are female and 49.03%, or 1,244, are men. One transgender male was also counted. The average age of homeless individuals was 29, with adult females averaging 26.9 and males 31.6. 42% of Muskegon's homeless population come from the 49442 zip code; another 24% come from 49444, and 15% come from 49441. The remaining 19% of homeless individuals come from other zip codes in Muskegon County.

## HOMELESS CHILDREN

Based upon McKinney Vento Funding, 798 homeless children were attending Muskegon County Schools in school year 2016-2017. The breakdown by school district is as follows.

### HOMELESS CHILDREN MCKINNEY VENTO FUNDING 2016 – 2017 MUSKEGON COUNTY SCHOOL DISTRICTS

SCHOOL DISTRICT	# CHILDREN
City of Muskegon Public Schools	159
Mona Shores Public School District	58
Fruitport Community Schools	34
Oakridge Public Schools	78
Muskegon Heights Public School Academy System	15
Orchard View Schools	27
North Muskegon Public Schools	27
Ravenna Public Schools	36
Reeths-Puffer Schools	74
Holton Public Schools	89
Whitehall District Schools	119
Montague Area Public Schools	82
<b>Total Number of Children</b>	<b>798</b>

## HOMELESS YOUTH

Locally, housing for homeless youth has been an issue since the closure of Webster House. Webster House had been a designated shelter for homeless/runaway youth since the mid-1970's. We have since come to recognize that many homeless youth experience homelessness as a result of family dynamics, including abuse and neglect factors. Area youth homelessness is also affected by individuals who are aging out of the state's foster care system and by LGBT youth who are disproportionately affected by homelessness.

According to a study by Chapin Hall at the University of Chicago and citing data from the nonprofit True Colors Fund<sup>74</sup>, one in ten young adults ages 18-to-25 endure some form of homelessness in a year. Half of the prevalence involves couch surfing only. One in 30 adolescent minors ages 13 to 17 also endure some form of homelessness in a year. A quarter of the prevalence involves couch surfing only. LGBT youth are 120% more likely to experience homelessness than non-LGBT. The study<sup>75</sup> also found that African American or black youth are at an 83% higher risk. In 2015, True Colors Fund found that while nationally 7% of youth identify as LGBT, nearly 40% of young people experiencing homelessness are LGBT.

<sup>73</sup> 2017 to 2022 Consolidated Plan for Housing and Community Development; Muskegon County Administration, August 2017

<sup>74</sup> <http://truecolorsunited.org/2017/11/15/new-study-reveals-scope-youth-homelessness/>

<sup>75</sup> <http://truecolorsunited.org/2017/11/15/new-study-reveals-scope-youth-homelessness/>

## PUBLIC SAFETY

Data for 2017 released by the FBI on September 26, 2018 reflects that crime rates in Michigan are on a downward trend, with the state posting some of its lowest rates for armed robberies and burglaries in six decades. The 2017 homicide rate is lower than it was in 1967. Overall, violent crime in Michigan was down 2% in 2017 and property crime down 6%, according to the FBI.

Despite these trends, Michigan, like many states, continues to have areas where crime levels exceed the state’s violent crime rate of 4.5 per 1,000 residents. Based upon a stratified list of the top 50 communities reporting significant crime, three communities from the Mercy Health Muskegon service area exceed the state rate. The communities in order of state ranking are:

FBI VIOLENT CRIME DATA – 2017 – SERVICE AREA SITES IN MICHIGAN TOP 50					
STATE RANK OF 50	COMMUNITY/COUNTY	POPULATION	NUMBER	2.4%	5.9%
4	City of Muskegon Heights	10,786	195	18.1	4.5
31	Hart/Oceana	2,080	15	7.2	4.5
42	City of Muskegon	38,375	229	6.0	4.5

The classification of violent crime includes homicides, rapes, robberies and aggravated assault. In each of the communities listed, the most frequently referenced crime was aggravated assault. There were 134 cases of aggravated assault in Muskegon Heights or a little under 69% of all numbers reported. Similarly in Hart, there were 13 cases of aggravated assault or 87% of numbers reported and in the city of Muskegon, there were 142 cases of aggravated assault reported or 62% of all crime.

The three communities listed represent areas of significant poverty rates with low median income as noted earlier in this CHNA report. Rates of poverty are a key indicator for distressed communities where there is often a high correlation with crime. The poverty rate in Muskegon Heights is 39.3%, with a median of \$25,411; Hart has a poverty rate of 28.2%, with a median income of \$31,326; and the city of Muskegon has a poverty rate of 34.7%, with a median income for residents of \$29,388.

## TRANSPORTATION

According to the County Health Rankings for 2018, most people in Muskegon rely upon personal transportation to get to and from work. While 83% of people in Michigan drive alone to work, in Muskegon, this percentage is 84%. Oceana is somewhat lower at 77%. Rankings indicate that top performing communities across the nation come in at 72% for this ranking.

Transportation emerged as an issue for hiring and retaining qualified employees in the Chamber of Commerce 2018 Survey of Businesses. In that survey, 24% of respondents indicated that transportation was a barrier issue to employment.<sup>76</sup> The Pathways Community HUB program reports that within the social services pathway, transportation is the second most frequently requested need. (Page 40).

## ADDRESSING THE SOCIAL DETERMINANTS OF HEALTH

Healthy People 2020 defines a health disparity as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on 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.”<sup>77</sup>

## PATIENT SURVEY DATA

National attention is increasingly focused on where health begins. Data now tells us that the places where people live, work, and play greatly influences their lifelong ability to thrive. Today, we know that 80% of what defines health – behavior, environment, policy and other factors – happens external to the health system. Beginning in November of 2017, Mercy Health Muskegon implemented a social determinant of health (SDoH) survey tool for use with patients at intake. The survey is being used across the Affinia Health network and with non-employed physicians.

The SDoH survey incorporates twelve key questions that can help local providers and human service entities identify individuals who experience social determinants of health (SDoH) barriers to managing their personal health and well-being. Muskegon’s two Federally Qualified Health Centers, Hackley Community Care and Muskegon Family Care, also participate in the use of this tool. Their participation ensures that the SDoH process is fully capturing the needs of high-risk medical populations, including Medicaid recipients, the dually eligible, uninsured and others.

<sup>76</sup> Muskegon Survey of Businesses, 2018, Muskegon Area Chamber of Commerce

<sup>77</sup> U.S. Department of Health and Human Services. The Secretary’s Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. Phase I report: Recommendations for the framework and format of Healthy People 2020 [Internet]. Section IV: Advisory Committee findings and recommendations [cited 2010 January 6]. Available from: [http://www.healthypeople.gov/sites/default/files/PhaseI\\_0.pdf](http://www.healthypeople.gov/sites/default/files/PhaseI_0.pdf)

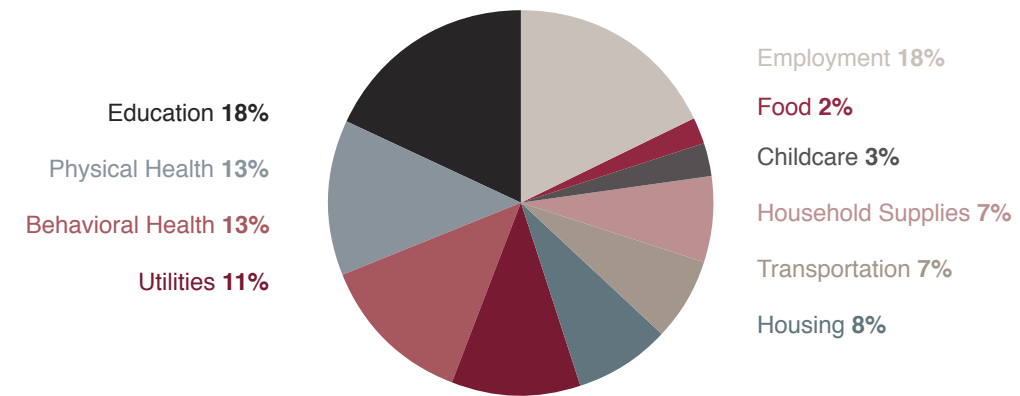
Over the initial 12-month period, a total of 17,616 individuals were screened across all sites. Where necessary and appropriate, referrals were made to local community agencies and resource sites to ensure a patient’s access to timely assistance. The process is designed as bidirectional, which ensures that individuals needing assistance from community agencies and resources not only receive help, but that the referral source (provider, community) also receives feedback on problem resolution.

SOCIAL DETERMINANTS OF HEALTH: PATIENT QUESTION DOMAINS			
DOMAIN	QUESTION	RESPONSE	
Healthcare	In the past month, did poor physical or mental health keep you from doing your usual activities, like work, school or a hobby?	Yes	No
	In the past year, was there a time when you needed to see a doctor but could not because it cost too much?	Yes	No
Food	Do you ever eat less than you feel you should because there is not enough food?	Yes	No
Employment & Income	Do you have a job or other steady source of income?	Yes	No
Housing & Shelter	Are you worried that in the next few months, you may not have safe housing that you own, rent, or share?	Yes	No
Utilities	In the past year, have you had a hard time paying your utility company bills?	Yes	No
Childcare	Does getting child care make it hard for you to work, go to school or study?	Yes	No
Education	Do you think completing more education or training, like finishing a GED, going to college, or learning a trade, would be helpful for you?	Yes	No
Transportation	Do you have a dependable way to get to work or school and your appointments?	Yes	No
Clothing & Household	Do you have enough household supplies? For example, clothing, shoes, blankets, mattresses, diapers, toothpaste, and shampoo.	Yes	No
General	Would you like to receive assistance for any of these needs?	Yes	No
	Are any of your needs urgent?	Yes	No

Based upon the initial one-year census from the 12 months spanning November 1, 2017 – October 31, 2018, this graphic reflects the percentage of positive answers from patients using the SDoH survey.

Priority items emerging from this large sample of individuals receiving medical care either at a Mercy Health Muskegon provider or at one of the two Muskegon County Federally Qualified Health Centers (FQHC) indicates that the top four social determinant issues trending within the service region are: Employment (18%), Education (18%), Physical Health (13%) and Behavioral Health (13%). The pie chart on the following page illustrates the data.

## SOCIAL DETERMINANT ISSUES



The least referenced issues were childcare (3%) and food (2%). The circle diagram reflects issue frequency in this first full-year cohort. In total, 17,616 surveys were completed from within the Mercy Health Muskegon Service area.

## PATHWAYS COMMUNITY HUB DATA

As part of its effort to address the social determinants that influence health within the service area, Mercy Health Muskegon also supports a robust Pathways Community HUB model. Muskegon’s HUB adheres to the national Pathways standards and has achieved certification status.

The Pathways Community HUB model<sup>78</sup> focuses on the comprehensive identification and reduction of risk in a culturally connected approach. HUBs employ community health workers (CHWs) to reach out to those at greatest risk of poor health outcomes. The HUB receives referrals from providers and the community at large based upon the SDoH Patient Survey and/or identification by individuals or community organizations.

The CHWs complete a comprehensive assessment of health, social, and behavioral health risk factors for the individuals they serve that extends beyond the initial 10-question screen used in the physician offices. Working with a team of social workers and medical personnel, a risk reduction plan of care is developed.

<sup>78</sup> <https://pchi-hub.com/hubmodeloverview>

Since January 31, 2013, the Pathways program has received 8,574 referrals. 40% of the referrals are for individuals 60 years of age or older. 32% of referrals are about housing issues. The five top medical diagnoses are reflected in the following chart.

FIVE TOP MEDICAL DIAGNOSES – PATHWAYS PARTICIPANTS		
+26013 – June, 2017	July 1, 2017 – June 30, 2018	July 1, 2018 – present
Hypertension	Hypertension	Hypertension
Depression	Depression	Depression
Diabetes	Anxiety	Anxiety
High Cholesterol	Arthritis	High Cholesterol
COPD	Chronic Pain	Diabetes

### PLACE MATTERS – THE SOUTH HEIGHTS RESILIENCE ZONE

Gaps in economic opportunities disproportionately affect people of color – especially children and youth. Structural racism in the form of unfair systems, policies, and practices: such as residential segregation and inadequate access to quality clinical care, have created barriers to opportunity and good health in many communities of color across our nation. These communities have been left behind and are less likely to be economically stable now, and for generations to come. As a result, there is a clear connection between place, race, and health.<sup>79</sup>

In Muskegon County, individuals who experience the greatest level of health inequity are most often African American or Hispanic between the ages of 1-34 and who live in one of three locations: Muskegon Heights, the city of Muskegon, and in smaller rural communities that are dependent on an agriculture driven economy. Within these areas, as data in this CHNA has attested, household income remains low—often below national poverty guidelines.

<sup>79</sup> Quote attributed to County Health Rankings 2018

### PATHWAYS 2018 CALENDAR YEAR – SDOH TOTALS

Muskegon County			SUBSTANCE USE DISORDERS		
Pathway	Initiated	Completed	Pathway	Initiated	Completed
Social Service Referral	2942	1929	Social Service Referral	190	103
Education	2741	2707	Education	155	148
Medical Referral	1536	1088	Medical Referral	78	43
Medication Assistance	344	152	Medication Assistance	44	21
Tobacco Cessation	146	3	Health Insurance	15	5
Health Insurance	106	37	Tobacco Cessation	12	0
Housing	90	18	Medical Home	8	2
Medical Home	82	29	Housing	6	1
Medication Management	53	49	Immunization Screening	6	0
Employment	29	8	Pregnancy	3	1
Behavioral Health	27	11	Postpartum	2	1
Pregnancy	25	13	Medication Management	2	2
Immunization Screening	12	0	Behavioral Health	2	2
Adult Learning	6	2	Immunization Referral	1	0
Postpartum	5	4			
Lead	1	1			
	8145	6051		524	329
Top 10 Service Referrals			Top 10 Service Referrals		
Food Assistance	518	429	Food Assistance	30	21
Transportation Assistance	460	352	DME without prescription	25	22
DME without prescription	326	295	Other	23	8
Other	239	141	Utilities Assistance	18	9
Household Items	162	122	Social Support	16	12
Utilities Assistance	148	73	Transportation Assistance	14	9
Household Assistance	141	54	Financial Assistance	13	9
Financial Assistance	132	68	Legal Assistance	7	1
Social Support	121	71	Household Items	6	4
Housing	107	26	Housing	6	0
	2354	1631		158	95

In an effort to better understand and confront the challenges faced by these residents – particularly the impact on health – a “Resilience Zone” was established during the spring of 2018. The Zone is located in census tract 14.2 within the city of Muskegon Heights. The purpose of the Zone is to actively support the engagement of residents in place-based problem solving. Within the Zone, residents are working together to identify and address neighborhood issues that directly impact their health and well-being.



The Zone model supports the engagement of residents in place-based problem solving. Within the Zone, residents are working together to identify and address neighborhood issues that directly impact their health and well-being. To date, this work has included establishing new neighborhood associations, block level captains. Together, residents are working with the Muskegon County Land Bank to address blight and increase community policing to improve safety.

The Zone has a population of 4,442 residents<sup>80</sup> and is located in Zip Code 49444. As has been noted in previous data in the CHNA, the residents of 49444 have poor health and often rely upon the hospital's Emergency Department for medical care. Of the 4,442 residents of the Zone, 2,057, or 46.2%, are male and 2,385, or 53.7%, are female. 31% of the population are children under the age of 18. The majority of people living in the Zone are African American.



#### OTHER CENSUS-BASED DEMOGRAPHICS ABOUT THE ZONE INCLUDE:

- **Employment:** Of individuals aged 16 and older, 46.8% are in the labor force while 14.8% are unemployed, and 38.4% are identified as not in the labor force.
- **Income:** 22% of those in all households (N=1,628) have income of less than \$10,000 a year. In total, 57% of all households have an annual income of \$24,999 or below. The median earnings for workers (full- and part-time combined) who live in the Zone is \$16,517. Many of the employed Zone residents profile as part of the ALICE demographic.
- **Health Insurance Coverage:** 3,025, or 68.1%, of individuals living in the Zone have public health insurance coverage (Medicaid or Medicare) and 482 individuals (10.9%) are uninsured.
- **Education:** Of individuals aged 18-24 (N=489), 81 (or 32%) have less than a 9th grade education; 317 (or 64.8%) have graduated from high school or have an equivalency degree. Of individuals 25 years and over (N=2564), 3.2% have less than a 9th grade education, and 15.4% have some high school but no diploma.

<sup>80</sup> Source: 2016 Census Tract Data

- **Poverty and Education:** 45.5% of those without a high school diploma live in poverty, as do 31% of those with only a high school diploma
- **Housing:** There are 1,990 housing units in census tract 14.02, with most (81.8%) being occupied. Most of these housing units (80.4%) are single unit detached. The housing stock is old – 84% built before 1960, with 64% built before 1940
- **Transportation:** 26.2% of households have no vehicle available to use; 44.3% only have one

#### SURVEY OF RESIDENTS:

As part of the Zone initiative, a survey was conducted of residents living in a subsection of the census tract. Ninety-one (91) individuals were surveyed using a resident-to-resident approach. This was designed as a qualitative survey where residents were asked to respond to four important questions:

1. What are your dreams and goals for you and your family?
2. Are there things in this neighborhood that help with your dreams?
3. Are there things that get in the way of your dreams?
4. What ideas do you have to make this neighborhood a better place to support residents like you?

Ten residents were engaged and trained to implement the survey. This group worked during weekends and on week nights to complete the survey. By having residents identify the questions and conduct the survey, we were able to better engage residents and encourage open and direct dialogue about personal challenges.

Many of the issues that emerged from the survey reflect the impact of factors discussed throughout this CHNA. The ability to secure employment, improve educational outcomes, address health, ensure the safety of children, improve housing, reverse the impact of the drug epidemic—all of these issues are viewed within the context of individual neighborhoods and residents.

The convergence of these issues, both in the Zone and in other locations in Muskegon and Oceana Counties, can help Mercy Health prioritize its community benefit investment. Mercy Health Muskegon believes that the final, and perhaps most important data in this report, is best viewed through the lens of the residents most affected by the needs identified and previously shared.

Based upon the findings of this survey and the priorities expressed by residents themselves, Mercy Health will identify opportunities to address health inequity, including many of the drivers of economic well-being, as noted in previous parts of this CHNA document.

The results of the survey in order of priority are displayed on the following chart:

RESIDENT SURVEY: SOUTH HEIGHTS RESILIENCE ZONE	
PRIORITIES IDENTIFIED FOR ACTION BY FREQUENCY	ISSUES OF CONCERN REFERENCED DURING SURVEY
Crime and Violence	<ul style="list-style-type: none"> <li>• Gun violence</li> <li>• Drug use</li> <li>• Anxiety about personal Safety as well as that of children or other dependents</li> </ul>
Neighborhood Engagement and Social Support	<ul style="list-style-type: none"> <li>• Need more social cohesion</li> <li>• More Neighborhood Associations</li> <li>• Neighborhood Watch Captains</li> <li>• Connection with neighbors – elders and those at risk</li> <li>• More to do socially to support one another</li> </ul>
Housing and Neighborhood Blight	<ul style="list-style-type: none"> <li>• Hold Landlords responsible for upkeep on housing</li> <li>• More community resources to help residents – especially renters—to keep up their homes</li> <li>• Address blight removal – housing and other sources</li> </ul>
Children and Young People	<ul style="list-style-type: none"> <li>• More direct parent/neighborhood engagement with children and youth</li> <li>• Address cost and quality of education</li> <li>• Confront the impact of peer pressure on kids</li> <li>• More activities for youth to keep them safe</li> <li>• Address the loss of young men to street crime</li> </ul>
Government Support	<ul style="list-style-type: none"> <li>• Secure more resources from government</li> <li>• Create connection with those in local government who can help</li> </ul>
Economic Support	<ul style="list-style-type: none"> <li>• Identify startup money or resources to create new business</li> <li>• Identify resources for those with a felony so they can go to school or secure employment</li> <li>• Lack of investment keeps kids and families from reaching their dreams</li> <li>• Secure support from those able to help—perhaps mentoring</li> <li>• Better jobs and training to increase household income and opportunity</li> </ul>

We see this work as a reset moment—one where new community-based challenges will help us ensure that all people living in our service area reach their optimum health and well-being.

## CHNA SUMMATION MATERIAL

### HOW INFORMATION WILL BE SHARED AND FEEDBACK

Mercy Health Muskegon will share this CHNA on the hospital website and on that of the community benefit website, [www.mchp.org](http://www.mchp.org). Mercy Health also intends to develop a series of informational white papers based on many of the major themes from this CHNA. This material will be distributed across the service area to partners and the community. Local libraries will also be advised of the CHNA publication. As in the past, an Executive Summary piece will be developed, with targeted distribution. Local media will be used to inform the community of priorities and solicit feedback on the document itself. As part of this targeting, local media will be used to target directly into the minority community, with social media also being engaged.

While we did not receive feedback on the 2016 CHNA, our experience with the CMS State Innovation Model effort has highlighted areas where we feel we could do much better—particularly if we hope to achieve health equity within our service area. An update on the status of priority items from the 2016 CHNA is included in Appendix E. As this work continues, we believe that many of the goals previously outlined are now being addressed through the work of our primary care network, Affinia Health, and their Patient-Centered Medical Home model. We feel confident their work will address specific health conditions and many of the risk factors.

APPROVAL PROCESS DATES AND TIMES			
OCEANA COUNTY		MUSKEGON COUNTY	
RANK	ISSUE	RANK	ISSUE
1	Housing – Where to get help	1	Childcare - Affordability
2	Childcare – Affordability	2	Substance Use - Opioid Education
3	Nutrition – Cost of Healthy Food	2	Employment - Need for Skill Building
3	Employment – Skill Building	3	Education - Trades and/or Technical Training
4	Childcare – Availability	4	Childcare - Availability
4	Substance Use – Opioid Education	5	Education - Special Education
5	Education – Trades and/or Technical Training	5	Housing - Where to Get Help
6	Nutrition- Availability of Healthy Food	6	Nutrition Cost of Healthy Food
7	Employment – Who you know, not what you know	7	Nutrition - Availability of Healthy Food
8	Education – Special Education	8	STI/STD - What protects from infection
9	STD/STI Myths about what protects from infection	8	Employment – Who you know not what you know
10	Advance Directives	9	Advance Directives

On February 28, the CHNA Advisory Committee reviewed the results of the community survey and other data. Priorities were shared that had emerged from the survey, community meetings, focus groups and other data sources.

The review used a framework that intentionally incorporated prevention and root-cause analysis to identify and address the social influencers of health along the lakeshore. This approach significantly shifts Mercy Health Muskegon’s previous CHNA priorities to that of what is now focused on causes of disease in our community. As will be noted throughout this CHNA, there are many variables that affect health and well-being in our service area. We believe we have identified issues that can have the greatest impact on our community and its residents. Based upon this, the following list of recommendations from the Health Project Advisory Board was recommended to the Mercy Health Muskegon Board of Trustees on December 20, 2018.

ADVISORY BOARD RECOMMENDATIONS	
RANK	ISSUE
1	Substance Use - Opioid Education
2	Education - Trades and/or Technical Training
3	Employment - Need for Skill Building
4	Childcare - Affordability
4	Childcare - Availability
6	Nutrition - Availability of Healthy Food
7	Housing - Where to Get Help
8	Nutrition Cost of Healthy Food
9	Advance Directives
9	STI/STD - What protects from infection Myths
11	Education - Special Education
12	Employment – Who you know not what you know

In accordance with our process and CHNA requirements, the Board of Trustees affirmed these areas as priorities for action on December 20, 2018. Our vision and initial steps will be addressed in the Community Health Implementation Strategy to be completed and available to the community by December 31, 2019. Availability of this plan, once completed, will be posted using the information process earlier detailed.

Mercy Health Muskegon again wishes to thank all who helped and participated with their gift of time and resources to produce the 2019 CHNA. Questions regarding this plan may be addressed to Stevi Riel, Executive Director of the Muskegon Community Health Project, at 231-672-3201.

## ENDNOTES

- <sup>1</sup> Sexual and Gender Minorities Formally Designated as a Health Disparity Population for Research Purposes, Director’s Message, October 6, 2016, <https://www.nih.gov>
- <sup>2</sup> <http://www.ncbi.nlm.nih.gov>
- <sup>3</sup> H.R. 3273-115<sup>th</sup> Congress: LGBT Data Inclusion Act.” [www.GovTrack.us](http://www.GovTrack.us).2017.February 10, 2019 <https://govtrack.us/congress/bills/115/hr3273>
- <sup>4</sup> Gallup <https://news.gallup.com/poll/234863/estimate-lgbt-population-rises.aspx>
- <sup>5</sup> U.S. Census Bureau Small Area Income and Poverty Estimates (SAIPE) Program, December 2018
- <sup>6</sup> [Alice in Michigan: A Financial Hardship Study](#), Michigan ALICE Report, 2019, p.21.
- <sup>7</sup> United Way ALICE Report – [2017 Update for Michigan](#). Sources: 2015 Point-in-Time Data, American Community Survey ALICE Demographics: American Community Survey; The ALICE Threshold Budget: U.S. Department of Housing and Urban Development (HUD); U.S. Department of Agriculture (USDA); Bureau of Labor Statistics (BLS); Internal Revenue Service (IRS); Michigan Department of Treasury; Early Childhood Investment Corporation.
- <sup>8</sup> Note: An update to the ALICE Report used in this CHNA has recently been completed. The report is not fully accessible at this time to fully update individual county data. The new report, Alice in Michigan: A Financial Hardship Study, will be available to the public soon.
- <sup>9</sup> <https://mlpp.org/county-rankings-and-profiles/>
- <sup>10</sup> [www.mlpp.org](http://www.mlpp.org)
- <sup>11</sup> Michigan Department of Health and Human Services
- <sup>12</sup> The Age that Women Have Babies: How a Gap Divides America, The New York Times; Bui, Quoc Trung and Miller, Clain Cain; August 4, 2018. Data sourced from the National Center for Health Statistics.
- <sup>13</sup> [County Health Rankings and Roadmaps](#), Health Factors – Teen births.
- <sup>14</sup> [County Health Rankings and Roadmaps](#), Health Factors – Teen births.
- <sup>15</sup> Graphic is used with the permission of the Health Department of Muskegon County.
- <sup>16</sup> Kids Count, 2018 - Muskegon
- <sup>17</sup> <https://mlpp.org/county-rankings-and-profiles/>

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<sup>18</sup> Community Assessment 2017, Head Start of Muskegon/Oceana, 2017, St p. 25

<sup>19</sup> Muskegon Survey of Businesses, 2018, Muskegon Chamber of Commerce

<sup>20</sup> Child Care Provider Analysis, Great Start Collaborative of Muskegon County, Muskegon County ISD

<sup>21</sup> Community Assessment, Head Start of Muskegon/Oceana, (Updated) 2018

<sup>22</sup> <https://mlpp.org/county-rankings-and-profiles/>

<sup>23</sup> <https://highscope.org/perry-preschool-project/>

<sup>24</sup> [www.3toThrive.org/](http://www.3toThrive.org/)

<sup>25</sup> <https://www.attendanceworks.org/our-history/>

<sup>26</sup> The Hamilton Project [http://www.hamiltonproject.org/charts/chronic\\_absence\\_across\\_the\\_united\\_states\\_](http://www.hamiltonproject.org/charts/chronic_absence_across_the_united_states_)

<sup>27</sup> <https://www.michigan.gov/cepi/0,4546,7-113-58069---,00.html>

<sup>28</sup> Muskegon Survey of Businesses, 2018; Muskegon Area Chamber of Commerce

<sup>29</sup> “Survey: People covered by Michigan Medicaid Expansion Say it Helped Them Stay Healthy, Find Jobs”, Crain’s Detroit Business, December 8, 2018

<sup>30</sup> Exceptions include pregnant mothers, people with disabilities, caretakers of disabled dependents, caretakers of children under six years of age and individuals with a medical condition.

<sup>31</sup> Muskegon Area Chamber of Commerce, Muskegon Survey of Businesses, 2018.

<sup>32</sup> <http://www.countyhealthrankings.org/app/michigan/2018/county/snapshot/>

<sup>33</sup> <https://www.seniorcare.com/>

<sup>34</sup> <https://mylumin.org/the-effects-of-loneliness-and-isolation-to-the-elderly/>

<sup>35</sup> Center for Data Innovation, [www.datainnovation.org](http://www.datainnovation.org)

<sup>36</sup> <https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health>

<sup>37</sup> National Poll on Healthy Aging, University of Michigan, January/February 2019. [www.Healthyagingpoll.org](http://www.Healthyagingpoll.org)

<sup>38</sup> Center for Data Innovation [www.datainnovation.org](http://www.datainnovation.org)

<sup>39</sup> [www.altarum.org](http://www.altarum.org)

<sup>40</sup> Data displayed are by the underlying causes of death which is the condition giving rise to chain of events leading to death. Causes of death are classified in accordance with the Tenth Revision of the International Classifications of Diseases (ICD10) a coding structured developed by the World Health Organization.

<sup>41</sup> Mortality in the United States, 2017, Centers for Disease Control and Prevention, NCH Data Brief No. 328, November 2018.

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<sup>42</sup> Siegel RL, Jemal A, Wender RC, Gansler T, Ma J, Brawley OW. An assessment of progress in cancer control. *CA Cancer J Clin*. 2018; 68:329-339.

<sup>43</sup> Data sourced from Affinia Health, February 2019

<sup>44</sup> [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)

<sup>45</sup> 2017/18 Muskegon County MiPHY

<sup>46</sup> [www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health](http://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health)

<sup>47</sup> Drug Overdose Deaths in the United States, 1999-2017, NCHS Data Brief No. 329, November 2018

<sup>48</sup> Of the drug overdose deaths in 2017, 87% were unintentional, 7% were suicides, 5% were of by ICD–10 multiple-cause-of-death codes:heroin (T40.1); natural and semisynthetic opioids (T40.2); methadone (T40.3); and synthetic opioids other than methadone (T40.4) undetermined intent, and less than 1% were homicides. The type of drug(s) involved are indicated by ICD–10 multiple-cause-of-death codes: heroin (T40.1); natural and semisynthetic opioids (T40.2); methadone (T40.3); and synthetic opioids other than methadone (T40.4).

<sup>49</sup> Data includes all possible overdose events – some are not related to controlled substances.

<sup>50</sup> Exact number of heroin overdose events are not known because of Narcan use.

<sup>51</sup> [www.lsre.org](http://www.lsre.org)

<sup>52</sup> [www.dexur.com](http://www.dexur.com)

<sup>53</sup> Michigan Department of Licensing and Regulatory Affairs (LARA)

<sup>54</sup> Muskegon Service Area, 2019 Community Survey

<sup>55</sup> Greater Muskegon Chamber of Commerce

<sup>56</sup> This ranking is based upon the percentage of individuals who report binge drinking (more than 4 (women) or 5 (men) alcoholic beverages in the past 30 days; or, heavy drinking – defined as more than 1 (women) or 2 (men) drinks per day on average. This ranking is based only on measurements of adult behavior and not on that of youth.

<sup>57</sup> Michigan Annual STD Summary Report, Calendar Year 2017; [www.michigan.gov/hivstd](http://www.michigan.gov/hivstd)

<sup>58</sup> [healthwest.net/community-resources/aces-muskegon/aces-report-short](http://healthwest.net/community-resources/aces-muskegon/aces-report-short)

<sup>59</sup> American Foundation for Suicide Prevention

<sup>60</sup> <http://www.mentalhealthamerica.net/issues/state-mental-health-america-2018>

<sup>61</sup> Medicare: Medicare Enrollment Dashboard: [www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Dashboard/Medicare-Enrollment/Enrollment%20Dashboard.html](http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Dashboard/Medicare-Enrollment/Enrollment%20Dashboard.html)

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- <sup>62</sup> Medicaid: MDHHS Medicaid and Healthy Michigan Plan Enrollment Report  
[www.michigan.gov/mdhhs/0,5885,7-339-71547\\_4860\\_78446\\_78576-15064--,00.html](http://www.michigan.gov/mdhhs/0,5885,7-339-71547_4860_78446_78576-15064--,00.html)
- <sup>63</sup> Uninsured: US Census Bureau Quick Facts [www.census.gov/quickfacts/fact/table/ottawacountymichigan,masoncountymichigan,oceanacountymichigan,muskegoncountymichigan/HEA775217](http://www.census.gov/quickfacts/fact/table/ottawacountymichigan,masoncountymichigan,oceanacountymichigan,muskegoncountymichigan/HEA775217)
- <sup>64</sup> [www.rwjf.org/en/library/research/2013/09/reducing-inappropriate-emergency-department.html](http://www.rwjf.org/en/library/research/2013/09/reducing-inappropriate-emergency-department.html)
- <sup>65</sup> [www.rand.org/news/press/2013/05/20.html](http://www.rand.org/news/press/2013/05/20.html)
- <sup>66</sup> State of Michigan, MDHHS
- <sup>67</sup> Affinia Health
- <sup>68</sup> HealthWest provides integrated health care for youth and adults with serious behavioral health challenges, developmental disabilities and co-occurring substance use disorders in Muskegon County.
- <sup>69</sup> MDHHS Data
- <sup>70</sup> 2017 to 2022 Consolidated Plan for Housing and Community Development; Muskegon County Administration, August 2017
- <sup>71</sup> 2017 to 2022 Consolidated Plan for Housing and Community Development; Muskegon County Administration, August 2017
- <sup>72</sup> [www.countyhealthrankings.org/app/michigan/2018/measure/factors/141/data](http://www.countyhealthrankings.org/app/michigan/2018/measure/factors/141/data)
- <sup>73</sup> 2017 to 2022 Consolidated Plan for Housing and Community Development; Muskegon County Administration, August 2017
- <sup>74</sup> [www.truecolorsunited.org/2017/11/15/new-study-reveals-scope-youth-homelessness/](http://www.truecolorsunited.org/2017/11/15/new-study-reveals-scope-youth-homelessness/)
- <sup>75</sup> [www.truecolorsunited.org/2017/11/15/new-study-reveals-scope-youth-homelessness/](http://www.truecolorsunited.org/2017/11/15/new-study-reveals-scope-youth-homelessness/)
- <sup>76</sup> Muskegon Survey of Businesses, 2018, Muskegon Area Chamber of Commerce
- <sup>77</sup> U.S. Department of Health and Human Services. The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. Phase I report: Recommendations for the framework and format of Healthy People 2020 [Internet] Section IV: Advisory Committee findings and recommendations [cited 2010 January 6]. Available from: [www.healthypeople.gov/sites/default/files/PhaseI\\_0.pdf](http://www.healthypeople.gov/sites/default/files/PhaseI_0.pdf)
- <sup>78</sup> [www.pchi-hub.com/hubmodeloverview](http://www.pchi-hub.com/hubmodeloverview)
- <sup>79</sup> Quote attributed to County Health Rankings 2018
- <sup>80</sup> Source: 2016 Census Tract Data

## APPENDIX A: Community Survey

## APPENDIX B: Small Community Census Data

## APPENDIX C: Changes in Michigan's Child Care

## APPENDIX D: County Health Rankings

## APPENDIX E: Update on FY16 CHNA

**APPENDIX A: COMMUNITY SURVEY**

CHNA-2019

**Survey Directions:**

- You must be 18 or older to complete this survey.
- When choosing a response, keep your marking within the square.
- Where it indicates (select all that apply), you may mark all that apply.
- Do not doodle, tamper with boxes, tamper with corners, mark anywhere other than within designated boxes. All other marks will void the survey. **THANK YOU for completing this survey.**

**Your Household** --- This section asks about the people you live with and your household.

1. Do you have enough household supplies? (Example: clothing, shoes, blankets, mattresses, diapers, toothpaste and shampoo.) .....  Y  N

2. What school district do you live in?

- |                                      |   |                                      |
|--------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> Fremont     | <input type="checkbox"/> Fruitport        | <input type="checkbox"/> Grand Haven |
| <input type="checkbox"/> Grant       | <input type="checkbox"/> Hart             | <input type="checkbox"/> Hesperia    |
| <input type="checkbox"/> Holton      | <input type="checkbox"/> Mona Shores      | <input type="checkbox"/> Montague    |
| <input type="checkbox"/> Muskegon    | <input type="checkbox"/> Muskegon Heights | <input type="checkbox"/> Newaygo     |
| <input type="checkbox"/> Oakridge    | <input type="checkbox"/> Orchard View     | <input type="checkbox"/> Pentwater   |
| <input type="checkbox"/> Ravenna     | <input type="checkbox"/> Reeths-Puffer    | <input type="checkbox"/> Shelby      |
| <input type="checkbox"/> Walkerville | <input type="checkbox"/> White Cloud      | <input type="checkbox"/> Whitehall   |

3. What ZIP CODE do you live in? .....

4. How many people (adults and children) live in your home?  
 Just me     2     3-4     5-6     7 or more

5. What is your annual household income?  
 Less than \$25,000 per year     \$25,000 - \$49,999 per year  
 \$50,000 - \$74,999 per year     \$75,000 - \$99,000 per year  
 \$100,000 - \$124,999 per year     \$125,000 - \$149,999 per year  
 \$150,000 or more per year

6. During the past month, did you provide any of the following unpaid care or assistance to an adult family member or friend who needed assistance? (select all that apply)  
 Housework     Taking them to appointments  
 Helping them bathe / dress / groom     Cooking / meal prep  
 Taking them shopping or doing their shopping     Helping them pay bills  
 I did not provide adult care

**Children & Parenting** --- These questions ask about your children and the care you provide for them. If you do not have children, skip to Question 11.

7. Do you have children?  
 No (Skip to Question 11)     Yes, they are under 18     Yes, they are over 18

**APPENDIX A: COMMUNITY SURVEY**

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8. My child care is (select all that apply)

- safe
- dependable
- affordable
- available when I need it (whether I'm working first, second or third shift)
- I don't need child care

9. Do you feel safe letting your children play by themselves, without an adult, in your yard (if they are old enough to do so)?

- Never     Almost never     Almost always     Always

10. Have you ever lost or had to give up a job due to undependable or unavailable child care?.....  Y  N

**Health Care / Insurance** --- This section asks about your health coverage or insurance status.

11. From where do you get your health insurance? (select all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Access Health                   | <input type="checkbox"/> Employer                |
| <input type="checkbox"/> Marketplace Plan                | <input type="checkbox"/> Medicaid                |
| <input type="checkbox"/> Medicare                        | <input type="checkbox"/> Medical Savings Account |
| <input type="checkbox"/> Veterans' Administration (V.A.) | <input type="checkbox"/> Other                   |
| <input type="checkbox"/> I don't have insurance coverage |  |

12. Does cost prevent you from getting any of the following care? (select all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Physical health         | <input type="checkbox"/> Behavioral health (for example, counseling) |
| <input type="checkbox"/> Substance use treatment | <input type="checkbox"/> Prescriptions                               |
| <input type="checkbox"/> Vision                  | <input type="checkbox"/> Hearing                                     |
| <input type="checkbox"/> Flu shot                |  |

13. How hard is it for you to pay for each of the following:

**Medical care**  
 Very difficult     Somewhat difficult     Not very difficult     Not at all difficult

**Behavioral health care**  
 Very difficult     Somewhat difficult     Not very difficult     Not at all difficult

**Prescriptions**  
 Very difficult     Somewhat difficult     Not very difficult     Not at all difficult

**Dental care**  
 Very difficult     Somewhat difficult     Not very difficult     Not at all difficult

**Vision care**  
 Very difficult     Somewhat difficult     Not very difficult     Not at all difficult

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**Hearing care**

- Very difficult     Somewhat difficult     Not very difficult     Not at all difficult

**Physical Health** --- This section asks you about your health and what you think about your health behaviors.

14. In general, my health is .....

- Poor     Good     Very good     Excellent

15. During the past month, did poor physical health keep you from doing your usual activities; like work, school or a hobby? .....

Y N

**Behavioral Health and Substance Use** --- This section asks about your experiences with behavioral health (such as depression or anxiety) and substance use (such as using drugs; like marijuana, heroin or misusing prescription opioids).

16. Do you currently or have you ever used any of the following:

**Tobacco** (smoking or chewing)

- Yes, I currently use.     Yes, but I've quit.     No, I've never used.

**Vaping pens**

- Yes, I currently use.     Yes, but I've quit.     No, I've never used.

**Marijuana** (smoked, edibles or dab)

- Yes, I currently use.     Yes, but I've quit.     No, I've never used.

17. Do you currently have or have you ever had a Medical Marijuana Card? .....

Y N

18. Do you know of the risks of using prescription opioid medications? (Prescription opioids include Oxycodone, Oxycontin, Percodan, Percocet, Hydrocodone, Vicodin, Lortab, Lorcet, Morphine, MS-Contin, Codeine, Fentanyl, Hydromorphone) .....

19. If you have been prescribed an opioid in the last year, has a doctor or pharmacist discussed the risks with you?

- Yes     No     I haven't been prescribed an opioid in the last year.

Y N

20. In the past month, did poor behavioral health keep you from doing your usual activities like work, school or a hobby?.....

21. What is your ACE score? (ACE is Adverse Childhood Events)

- I don't know my ACE score (go to Question 22)     0 (go to Question 33)  
 1 (go to Question 33)     2 (go to Question 33)  
 3 (go to Question 33)     4 (go to Question 33)  
 5 (go to Question 33)     6 or greater (go to Question 33)

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**Adverse Childhood Events (ACE)** --- When we ask about ACE score, we mean adverse (bad, negative) experiences (things) that happened during your childhood. Good and bad experiences as a child can have an effect on you later in life (what opportunities you have, how successful you are, how happy you are).

Prior to your 18th birthday.....

Y N

22. ...did a parent or other adult in the household often or very often swear at you, insult you, put you down, humiliate you, or act in a way that made you afraid you might be physically hurt? .....
23. ...did a parent or other adult in the household often or very often push, grab or slap you, throw something at you, or ever hit you so hard that you had marks or were injured? .....
24. ...did an adult or person at least 5 years older than you ever touch or fondle you, have you touch their body in a sexual way, or attempt or actually have oral, anal, or vaginal intercourse with you? .....
25. ...did you often or very often feel that no one in your family loved you or thought you were important or special, or your family didn't look out for each other, feel close to each other, or support each other? .....
26. ...did you often feel that you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you, or your parents were too drunk or high to take care of you or take you to the doctor if you needed it?.....
27. ...were your parents ever separated or divorced? .....
28. ...was your mother or stepmother often pushed, grabbed, slapped, or had something thrown at them, or sometimes kicked, bitten, hit with a fist, or hit with something hard, or ever repeatedly hit over at least a few minutes or threatened with a gun or knife? .....
29. ...did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?.....
30. ...was a household member depressed or mentally ill, or did a household member attempt suicide?.....
31. ...did a household member go to prison? .....

**Physical Activity & Nutrition** --- This section asks about some of your lifestyle habits related to food and exercise.

32. What things make it hard for you to eat healthy foods? (select all that apply)

- Cost of healthy food.  
 I am unable to cook safely.  
 I don't know how to prepare / cook healthy food.  
 I don't have enough time to cook.  
 It's hard to find healthy food where I live.  
 It's not a priority / it's not important to me  
 None of these -- It is not hard for me to eat healthy food.

Y N

33. Do you ever eat less than you feel you should because there is not enough food? .....

34. What things make it hard for you to be physically active? (select all that apply)

- It's hard to find places to be active.  
 I don't have enough time to be active.  
 It's not a priority / it's not important to me.  
 None of these - It is not hard for me to be physically active.

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35. If someone helped / supported you, would you work on eating healthy and being physically active?..  Y  N

**Environment & Transportation** --- These questions ask you about the neighborhood where you live and your transportation to get around the community.

36. Do you have a reliable way to get to work or school and your appointments?

- Never
- Almost never
- Almost always
- Always

37. Do you feel safe in the neighborhood where you live?

- Never
- Almost never
- Almost always
- Always

**STD / STI** --- This section is about what you know about how these infections are spread and if you know how to get help if you need to. STI/STDs are sexually transmitted diseases; such as HIV, Chlamydia, Gonorrhea, Syphilis, Herpes, and Hepatitis A, B and C.

38. Which things help reduce / lower the risk of getting STI / STD? (select all that apply)

- Using a condom
- Getting tested regularly
- Knowing your partner(s) sexual history
- Getting immunized
- Avoid risky sexual practices

39. Do you know where to get tested / treated for STI/STD? .....  Y  N

**Housing** --- This section asks about your housing situation.

40. Are you worried that, in the next few months, you may not have safe housing you own, rent or share?.....  Y  N

41. Are you currently homeless?.....  Y  N

42. What is your housing situation? (select all that apply)

- I own my home.
- I rent my home.
- I live with family / friends.
- I live in an adult foster care home.
- I live in a nursing home or assisted living facility.
- I stay in a shelter.

43. If you needed it, would you know where to ask for help with housing support or get information?.....  Y  N

**Education & Employment** --- This section asks about your experiences with getting a job, keeping it and whether or not you have any education or training beyond high school.

44. What is the highest level of school you have completed?

- Less than 9th grade
- High school
- Some college
- Technical Certification
- Associate's Degree
- Bachelor's Degree
- Postgraduate Degree

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45. What is your employment status?

- Employed 32 or more hours per week
- Employed less than 32 hours per week
- Employed less than 32 hours per week and part-time student
- Part-time student
- Full-time student
- Homemaker
- On medical leave
- Disabled
- Unemployed seeking work
- Retired

46. Do you think completing more education or training, like finishing a GED, going to college, or learning a trade, would be helpful to you? .....  Y  N

47. If someone were to help / support you, would you work on getting more education or job training?...  Y  N

48. Have you tried in the past? .....  Y  N

49. What is preventing you from getting a job, or a higher paying job? (select all that apply)

- I need education or new / better skills.
- I need dependable child care.
- I don't want to lose my state benefits (i.e., WIC, Food Stamps, etc.).
- I don't have reliable transportation.
- I have a medical condition that limits what I can do.
- I am responsible for another adult's care.
- I have a child whose need for care limits my ability to work.
- I have a hard time reading and / or writing.
- I have past legal convictions.
- None of these.
- I am not looking for a job.



**APPENDIX A: COMMUNITY SURVEY**

CHNA-2019

**End of Life Planning** --- This section asks if you have made sure that your wishes will be honored if something happens to you and you are unable to speak for yourself.  
 An Advance Directive is sometimes called a living will. It is a written statement that lists what kind of medical treatment you want to have if you cannot speak for yourself. It also lists the names of people who can speak to doctors about your wishes. An example of an Advance Directive is: I do not want to be resuscitated if my heart stops or I stop breathing.

50. Do you have an Advance Directive? .....  Y  N
51. Have you talked to your family or a person you have chosen to speak for you about your health care wishes? .....  Y  N

**About You** --- This section is all about YOU. The basic information is asked below to help us understand who is taking this survey and help us understand the information you have given to us.

52. Your age:
- 18-24     25-34     35-44     45-54     55-64     65-74     75-84
- 85-94     95 or older

53. Your race: (select all that apply)
- American Indian or Native Alaskan     Asian
- Black or African American     Native Hawaiian or Other Pacific Islander
- White

54. Your ethnicity:
- Hispanic / Latino     Non Hispanic / Latino

55. How do you identify?
- Female     Gender non-binary     Gender non-conforming
- Gender fluid     Intersexed     Male
- Questioning     Transman     Transwoman

56. What is your sexual orientation?
- Bisexual     Gay     Homosexual     Lesbian     Queer
- Questioning     Straight

57. Do you currently or have you ever served in the military?
- Yes, I currently serve.     Yes, I was honorably discharged.
- Yes, I am retired.     Yes, other
- No

58. Did someone help you with this survey? .....  Y  N

59. If your answer was "yes", how did that person help you? (select all that apply)
- They read the questions to me.
- They entered / wrote down the answers I gave.
- They answered the questions for me.
- They translated the questions into my preferred language.

**APPENDIX B: SMALL COMMUNITY CENSUS DATA**

**SMALL COMMUNITY CENSUS DATA: MUSKEGON COUNTY, MI  
 INCOME AND POVERTY RATES**

Community	Median Income			Poverty Rates		
	2012	2017	Change	2012	2017	Change
Blue Lake Township	\$58,583	\$49,338	-15.8%	22.9%	18.2%	-4.7
Casnovia Township	\$57,353	\$57,364	-10.9	13.5%	12.8%	-0.7
Casnovia Village	\$56,184	\$45,625	-18.8	10.8%	18.6%	7.8
Cedar Creek Township	\$52,195	\$50,746	-2.8	17%	17.9%	0.9
Dalton Township	\$53,168	\$62,667	17.9	13.9	10.2%	-3.7
Egelston Township	\$39,542	\$46,637	17.9	18.1	18.3%	0.2
Fruitland Township	\$60,837	\$62,703	3.1	12.8	6.2%	-6.6
Fruitport Village	\$47,626	\$50,129	5.3	10.3	9.9%	-0.4
Holton Township	\$48,300	\$42,969	-11.0	26.8	34.5%	7.7
Laketon Township	\$61,887	\$61,570	-0.5	6.9	8.4%	1.5
Lakewood Club Village	\$57,314	\$43,929	-23.4	15.9	12.1%	-3.8
Montague City	\$46,251	\$51,750	11.9	12.4	14.5%	2.1
Montague Township	\$51,601	\$56,696	9.9	13.0	13.4%	0.4
Moorland Township	\$55,510	\$57,292	3.2	12.0	7.3%	-4.7
Muskegon Charter Township	\$40,009	\$45,446	13.6	20.9	16.1%	-4.8
Muskegon City	\$27,203	\$29,388	8.0	34.3	34.7%	0.4
Muskegon Heights City	\$21,196	\$25,411	19.9	47.9	39.3%	-8.6
North Muskegon City	\$61,933	\$60,488	-2.3	4.4	5.9%	1.5
Norton Shores City	\$53,696	53,797	0.2	8.2	11.1%	2.9
Ravenna Township	\$55,535	\$52,135	-6.1	9.4	16%	6.6
Ravenna Village	\$50,490	\$45,125	10.6%	9.3%	13.8%	4.5
Roosevelt Park City	\$47,843	\$44,239	-7.5%	13.6%	13.2%	-0.4
Sullivan Township	\$50,540	\$59,853	18.4%	8.5%	6.5%	-2
Twin Lake CDP	\$60,499	\$74,138	22.5%	7.3%	5.3%	-2
White River Township	\$64,858	\$65,500	1.0%	6.5%	6.3%	-0.2
Whitehall City	\$45,780	\$45,395	-0.8	15.9%	14.1%	-1.8
Whitehall Township	\$57,126	\$61,046	6.9%	9.2%	6.5%	-2.7
Wolf Lake CDP	\$36,024	\$43,005	19.4%	20.8%	20.8%	0

The Small City Census Data is reported as part of the American Community Survey. Released by the U.S. Census on December 6, 2018, this data reflects 5 year averages for communities with populations of 65,000 or less.

**APPENDIX B: SMALL COMMUNITY CENSUS DATA**

SMALL COMMUNITY CENSUS DATA: OTTAWA, NEWAYGO, MASON COUNTIES MI INCOME AND POVERTY RATES – SELECTED COMMUNITIES						
Community	Median Income			Poverty Rates		
	2012	2017	Change	2012	2017	Change
<b>OTTAWA COUNTY</b>						
Coopersville Village	\$59,171	\$52,583	-11.1	10	18.2	8.2
Ferrysburg Village	\$53,179	\$63,896	20.2	4.2	7	2.8
Grand Haven Charter Township	\$74,574	\$73,870	-0.9	7.9	6.7	-1.2
Grand Haven City	\$44,992	\$51,639	14.8	13	9	-4
Spring Lake Township	\$56,095	\$60,784	8.4	10.9	5.7	5.2
Spring Lake Village	\$52,653	\$54,474	3.5	8.7	5.2	-3.5
<b>NEWAYGO COUNTY</b>						
Fremont City	\$40,171	\$43,031	7.1	18.6	26.3	7.7
Grant City	\$35,498	\$31,544	-11.1	25.4	23.5	-1.9
Newaygo City	\$31,153	\$33,929	8.9	24.6	26.3	1.7
White Cloud Village	\$26,335	\$28,967	10	36	45.2	9.2
<b>MASON COUNTY</b>						
Custer Township	\$43,817	\$43,636	-0.4	17	19.3	2.3
Custer Village	\$38,034	\$37,500	-1.4	17.9	19.2	1.3
Scottville Village	\$34,443	\$39,375	5.2	27.1	22.1	-5
Ludington City	\$32,034	\$38,325	16.6	24.1	16.5	-7.6

The Small City Census Data is reported as part of the American Community Survey. Released by the U.S. Census on December 6, 2018, this data reflects 5 year averages for selected communities with populations of 65,000 or less within the expanded market of Mercy Health. The data provided are indirect estimates produced by statistical model-based methods using sample survey, decennial census, and administrative data sources. These estimates contain errors stemming from model error, sampling error, and nonsampling error. The numbers/percentages displayed represent a 90% confidence interval.

**COUNTY – STATE AND UNITED STATES COMPARISON DATA**

In the selected counties served by Mercy Health, the County-wide Median Household Income and number and percentage in poverty are as follows:

**OTTAWA COUNTY:** Median Household Income: \$68,816; In Poverty: 22,831 or 8.2% of the Ottawa County population.  
**NEWAYGO COUNTY:** Median Household Income: \$47,521; In Poverty: 6,848 or 14.4% of the Newaygo County population.  
**MASON COUNTY:** Median Household Income: \$46,579; In Poverty: 3,798 or 13.3% of the Mason County Population

State and National Median Household Income, number living in poverty and percentage in poverty are as follows:

**UNITED STATES:** Median Household Income: \$60,336; In Poverty: 42,583,651 or 13.4% of the nation’s population.  
**MICHIGAN:** Median Household Income: \$54,840; In Poverty: 1,373,358 or 14.1% of the state’s population.

**APPENDIX C: CHANGES IN MICHIGAN’S CHILD CARE**

**APPENDIX C  
Child Care Provider Analysis**



**Muskegon**

**Key Findings**

The total number of licensed providers has decreased since 2010, while the total number of slots has decreased.

The number of child care center slots has decreased since 2010, while the number of family child care home slots has decreased and the number of group child care home slots has decreased.

There are 188 licensed providers who will serve infants and toddlers in Muskegon County.

**Children**

Category	2010	2017	Number Change	Percent Change
0 to 9	22,879	21,846	-1,033	-4.5%

**Licensed Providers**

Category	2010	2017	Number Change	Percent Change
All Providers	325	236	-89	-27.4%
Child Care Centers	80	70	-10	-12.5%
Family Child Care Homes	153	96	-57	-37.3%
Group Child Care Homes	92	70	-22	-23.9%

**Slots**

Category	2010	2017	Number Change	Percent Change
Total Slots	7,712	6,505	-1,207	-15.7%
Child Care Centers	5,698	5,094	-604	-10.6%
Family Child Care Homes	910	571	-339	-37.3%
Group Child Care Homes	1,104	840	-264	-23.9%

**Slots at Providers Serving Infants and Toddlers (Age < 30 Months)\***

Category	2010	2017	Number Change	Percent Change
All Providers	3,858	2,887	-971	-25.2%
Child Care Centers	1,856	1,476	-380	-20.5%
Family Child Care Homes	898	571	-327	-36.4%

APPENDIX C: CHANGES IN MICHIGAN'S CHILD CARE

APPENDIX C

Child Care Provider Analysis



Statewide

Key Findings

The total number of licensed providers has decreased since 2010, while the total number of slots has decreased.

The number of child care center slots has increased since 2010, while the number of family child care home slots has decreased and the number of group child care home slots has decreased.

There are 6,956 licensed providers who will serve infants and toddlers in Statewide County.

Children

Category	2010	2017	Number Change	Percent Change
0 to 9	1,228,338	1,161,251	-67,087	-5.5%

Licensed Providers

Category	2010	2017	Number Change	Percent Change
All Providers	12,862	9,797	-3,065	-23.8%
Child Care Centers	4,163	4,363	200	4.8%
Family Child Care Homes	5,888	3,585	-2,303	-39.1%
Group Child Care Homes	2,811	1,849	-962	-34.2%

Slots

Category	2010	2017	Number Change	Percent Change
Total Slots	366,362	357,210	-9,152	-2.5%
Child Care Centers	297,834	313,692	15,858	5.3%
Family Child Care Homes	34,949	21,397	-13,552	-38.8%
Group Child Care Homes	33,579	22,121	-11,458	-34.1%

Slots at Providers Serving Infants and Toddlers (Age < 30 Months)\*

Category	2010	2017	Number Change	Percent Change
All Providers	187,904	177,713	-10,191	-5.4%
Child Care Centers	119,805	134,513	14,708	12.3%
Family Child Care Homes	34,683	21,206	-13,477	-38.9%
Group Child Care Homes	33,416	21,994	-11,422	-34.2%

\*Note: This table indicates the total number of slots at licensed providers who provide service to infants and toddlers. The state does not collect data on the number of slots by age group, so we are unable to differentiate between infant and toddler slots and other child care slots.

APPENDIX D: COUNTY HEALTH RANKINGS

COUNTY HEALTH RANKINGS AND ROADMAPS – 2018  
MUSKEGON AND OCEANA COUNTIES  
STATE OF MICHIGAN

	Michigan	Muskegon	Oceana	Top Performer
Health Outcomes (ranking)		75	70	--
Length of Life (ranking)		65	53	--
Premature death	7,300	8,000	7,400	5,300
Quality of Life		80	79	--
Fair or Poor Health	17%	18%	19%	12%
Poor Physical Health Days	4.3	4.4	4.6	3.0
Poor Mental Health Days	4.4	4.6	4.6	3.1
Low birthweight	8%	9%	9%	6%
Health Factors (ranking)		63	64	
Health Behaviors (ranking)		81	57	
Adult Smoking	20%	21%	21%	14%
Adult Obesity	31%	34%	32%	26%
Food environment index	7.0	6.5	8.4	8.6
Physical inactivity	23%	26%	21%	20%
Access to Exercise Activities	86%	81%	80%	91%
Excessive Drinking	21%	20%	19%	13%
Alcohol Impaired Driving Deaths	29%	19%	27%	13%
Sexually Transmitted Infections	469.1	748.5	362.3	145.1
Teen Births	24	36	41	15
Clinical Care (ranking)		7	60	
Uninsured	7%	7%	11%	6%
Primary Care Physicians	1,250:1	1,600:1	1,860:1	1,030:1
Dentists	1,380:1	1,640:1	3,250:1	1,280:1
Mental Health Providers	430:1	560:1	3,720:1	330:1
Preventable Hospital Stays	55	27	42	35
Diabetes Monitoring	86%	89%	88%	91%
Mammography Screening	64%	72%	68%	71%
Social and Economic Factors (ranking)		61	59	
High School Graduation	81%	77%	84%	95%
Some College	67%	59%	50%	72%
Unemployment	4.9%	5.2%	7.1%	3.2%
Children in Poverty	21%	28%	26%	12%
Income Inequality	4.8	4.4	4.0	3.7
Children in Single-parent households	34%	40%	30	20
Social Associations	9.9	11.6	11.9	22.1
Violent Crime	444	480	190	62
Injury Deaths	68	73	78	55
Physical Environment (ranking)		51	32	--
Air pollution – particulate matter	8.7	9.7	8.9	6.7
Drinking water violations		No	No	
Severe Housing Problems	16%	16%	16%	9%
Driving Alone to Work	83%	84%	77%	72%
Long commute – Driving Alone	33%	23%	29%	15%

## APPENDIX E: UPDATE ON FY16 CHNA

### Mercy Health Muskegon – FY2016 Community Health Needs Assessment Status

In its 2016 Community Health Needs Assessment, Mercy Health Muskegon identified and prioritized a list and description of the community's significant health needs. Local community health needs were prioritized using an inclusive, community-engaged selection process. In order of priority, in FY2016, the following five health care issues or concerns were identified for Muskegon County:

1. Care coordination and patient advocacy
2. Access to primary care
3. Lack of mental health provider capacity
4. Diabetes
5. Lack of substance use disorder providers

The same CHNA report was extended to Lakeshore Hospital, which is located in Oceana County and is also part of Mercy Health Muskegon. The five top health care issues or concerns in Oceana County in order of priority were:

1. Access to specialty care
2. Access to primary care
3. Cardiovascular disease
4. Hypertension
5. Diabetes

#### Mercy Health Muskegon – Hackley and Mercy Campuses

What follows are the steps that Mercy Health Muskegon has taken to address the issues and concerns raised in the FY2016 Community Health Needs Assessment.

##### Care Coordination and Patient Advocacy

There has been an increase in the use and integration of Community Health Workers through the Pathways Community HUB model. CHWs are either certified or registered as CHWs on the Michigan Community Health Worker Alliance Registry and their work is directly integrated into PCMH practices throughout the service area. The Pathways Community HUB has recently expanded to include a new model that targets wrap-around services to senior citizens in their homes. From 2016 to 2018, an additional 7 Community Health Workers were hired in the service area, including one CHW who is also a recovery coach and one that is assigned to the northern ACO funded by Trinity Health. One of the Community Health Workers hired prior to 2016 was also a recovery coach. A CHW was also hired at a partner agency and serves as Senior Navigator funded through the Senior Millage. The Senior Navigator is stationed at 21 locations throughout Muskegon County on a weekly basis to link seniors to community agencies. The Pathways HUB currently deploys 23 CHWs (including the Senior Navigator) among 8 local care coordinating agencies. This addition of CHWs increased the program caseload from 1,327 patients in 2016 to 4,064 patients in 2018. The Pathways HUB received Level 1 certification from the national certification agency in 2017. Level 1 certification is the highest level of certification that can be obtained.

##### Access to Primary Care

From 2016 to 2018, 15 new primary care providers were recruited and hired. When regular attrition rates are taken into consideration, this results in a net increase of 7 new providers to serve the area. In addition to the increase in providers, Mercy Health Muskegon is expanding access through the use of the Patient Centered Medical Home (PCMH) model that incorporates a team-based approach to care. All of the Mercy Health practices are either currently or in the process of becoming certified as PCMH practices. Practice hours have increased access, as all practices have added a late closing (typically 7pm) one evening a week. Two new primary care centers incorporating lab, pharmacy and other services have also been added in the service area, and telehealth visits have been added as an option to receive care for select issues since 2016.

##### Lack of Substance Use Providers

Mercy Life Counseling has expanded its services and added two new providers between 2016 and 2018, including a Master of Social Work and a Nurse Practitioner. Within that period of time, MLC also added three Recovery Coaches. The three Recovery Coaches were cross-trained as community health workers through the Pathways Program. HealthWest, Muskegon's Community Mental Health provider, added two additional CHWs. These individuals have specialized training and work closely with HealthWest and Pine Rest treatment facilities.

##### Lack of Mental Health Care Providers

Mercy Health Life Counseling hired three new outpatient therapists between 2016 and 2018, with specialization in mental health and substance use disorder services, providing both individual and group treatment. Two of these therapists have specialized skills for working with children and adolescents with mental health and substance use dependency.

Mercy Life Counseling has one MSW therapist in the role of integrated behavioral health consulting, who is now imbedded at two primary care offices. In the spring of 2017, the therapist collaborated with an Affinia practice social worker to develop a group class curriculum to assist individuals with chronic pain management.

Mercy Health's community benefit office (Health Project) estimates that since the inception of the Pathways to Better Health program, 35% of its enrolled participants have mental health disorders, particularly chronic depression and anxiety. The Pathways HUB has been working with Mercy Life Counseling and with HealthWest during FY 16 – FY 17 by cross-referring patients: mental health patients with other chronic diseases from MLC and HealthWest to Pathways, and chronic disease patients with mental health disorders to MLC and HealthWest.

## APPENDIX E: UPDATE ON FY16 CHNA

##### Diabetes

Mercy Health Muskegon's outreach team attended neighborhood-based community events to provide free screenings and referrals to individuals in the community. Between 2016 and 2018, the number of people served was 31,108. Additionally, community partners funded through the Community Benefit Board Initiative grant program screened another 9,000 individuals between February of 2016 and February 2017. As part of the Pathways program, diabetes patients are paired with a Community Health Worker to help address social determinants, ensure community care coordination, educate on self-management practices and healthy behaviors, and improve patient adherence to treatment regimens. The Lions Club Vision Services program, administered by Mercy Health's Health Project, provides retinopathy patients with specialist eye examinations and glasses. In FY 18, 4,728 individuals were screened. Diabetes rates in Muskegon County did not drop between 2016 and 2018, but yearly diabetic monitoring (A1c testing) increased to 91% -- 5% above the state average for Michigan, according to the Dartmouth Atlas of Care. Finally, the Muskegon Community Health Project was awarded a five-year CDC grant, in partnership with Trinity Health, in late September 2017. The YMCA of Muskegon is the vendor for the implementation of the DPP Program. The initial DPP classes commenced in 2018. The target number of people to be served per year through this grant is 250. The target population is men, individuals over 65 years of age, African-Americans and Hispanics.

##### Mercy Health Muskegon – Lakeshore Hospital

What follows are the steps that Mercy Health Muskegon - Lakeshore has taken to address the issues and concerns raised in the FY2016 Community Health Needs Assessment.

##### Access to Primary Care

From 2016 to 2018, 15 new primary care providers were recruited and hired. When regular attrition rates are taken into consideration, this results in a net increase of 7 new providers to serve the area. Many of these providers are based in Oceana, Lake and Mason Counties. In addition to the increase in providers, Mercy Health Muskegon is expanding access with the use of the Patient Centered Medical Home (PCMH) model that incorporates a team-based approach to care. All of the Mercy Health practices are either currently or in the process of becoming certified as PCMH practices. Practice hours have increased access, as all practices have added a late closing (typically 7pm) one evening a week. Two new primary care centers incorporating lab, pharmacy and other services have also been added into the service area, and telehealth visits have been added as an option to receive care for select issues since 2016.

##### Access to Specialty Care

Beginning in FY18, the Oceana community added access to specialty clinics at the Lakeshore Campus. This includes Mobile MRI, telehealth, and a new health center in Ludington that serves both Oceana and Newaygo Counties. The center provides some specialty care, lab, radiology, and support groups. Additionally, Mercy Health Muskegon partners with the American Cancer Society to arrange patient rides for cancer-related care (regardless of specialty provider affiliation). For two years, they also funded the pilot Ride to Health Program through the Oceana HOMES Partnership in Oceana County. This program provides rides for Oceana County patients seeking specialty providers in Muskegon and Kent Counties. The Ride to Health Program provided rides for 25 people in its inaugural year (2016) and over 100 people the following year, with multiple rides per patient. Both programs are provided to patients free of charge.

##### Health Care Coverage

The Mercy Health Muskegon community benefit office (Health Project) expanded enrollment activities in 2018 and added one new bilingual staff person at their Oceana County office in Shelby. Outreach and enrollment activity is done in partnership with Enroll West Michigan. From 2016 to 2017, the rate of uninsured adults in Oceana County dropped from 22% to 12%; similarly, in Newaygo County, the rate decreased from 18% to 9%.

##### Access to Medication

In FY18, the Health Project enhanced its Pharmaceutical Assistance Program in Oceana County by training additional staff in the Shelby office. Both Mercy Health Muskegon and private pharmacies participate in the Pharmaceutical Assistance Program. Between 2016 and 2018, program enrollment volume in the Oceana office went from 133 patients to 215 patients.

##### Access to Urgent Care

Mercy Health Muskegon is providing Emergency Department services at the Lakeshore Campus, including hours at Oceana Primary Care Physicians. The Sable Point Medical Center in Ludington provides urgent care services, serving patients in northern parts of Oceana County and Mason County.

# HEALTH PROJECT

A COMMUNITY BENEFIT MINISTRY OF  MERCY HEALTH