2023

MICHIGAN THUMB
Public Health Alliance

2023 Community Health Needs Assessment

Huron | Lapeer | Sanilac | Tuscola

2023

About Michigan Thumb Public Health Alliance (MTPHA)

The Health Departments from Huron County, Lapeer County, Sanilac County, and Tuscola County formed an Alliance to promote health, prevent disease, and promote the environment within each of the respective jurisdictions and the region as a whole. This Alliance affords more opportunities to write grants, achieve cost savings, share specialty services, and achieve cost efficiencies. The Alliance allows us to work together to collaborate on common regional needs while meeting the unique needs of each county. In 2019, the Alliance recognized that to truly impact the goals included in the Community Health Improvement Plan, additional partners were needed. A group of local health and human service leaders were invited to participate in a collaborative effort to align needs assessments and conduct regional health planning. This meeting led to a planning grant from the Federal Office of Rural Health Policy and the formation of the Thumb Community Health Partnership (TCHP). Using the Mobilizing Action through Planning and Partnerships (MAPP) framework, members of the partnership analyzed existing needs assessments and identified two priorities- Behavioral Health and Chronic Disease. Through two follow-up grants for Network Development, the Alliance and Partnership are working together to align needs assessment practice, conduct regional planning, address workforce challenges, and pilot projects to address priority needs. In 2023, TCHP added Social Determinants of Health to the prioritized needs list. At the time of this report, TCHP included twenty-nine partner organizations in various sectors: public health, community mental health, hospitals and primary care, community action, human services, mental health agencies, early childhood providers, a federally qualified health center, and the 211 regional call center. Information about the Thumb Community Health Partnership is available at www.thumbhealth.org or by contacting Kay Balcer at thumbhealth@gmail.com.

Mission: To develop, implement, and sustain models of shared public health services that increase capacity, contain costs, maximize assets, and more effectively impact health outcomes.
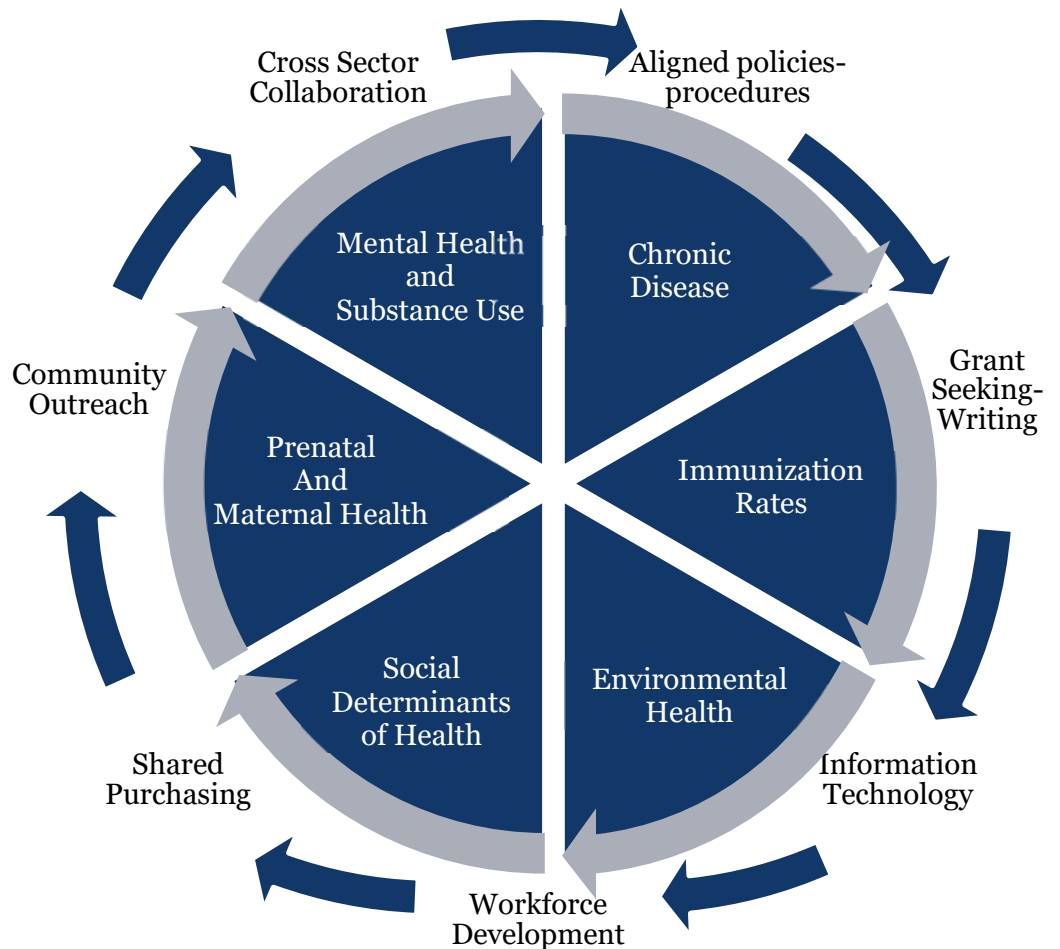
Vision: Improved health and wellness of residents of the Thumb of Michigan through health promotion, disease prevention, and promotion of an environment that supports wellness.

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Executive Summary: Community Health Needs Assessment

This comprehensive Community Health Needs Assessment (CHNA) adopts a holistic "Whole Person Approach" to evaluate and address the health needs within our community, emphasizing the pivotal roles of behavioral health, chronic illness, and social determinants of health in influencing the quality of life across all stages of life.

Background

Our assessment focused on grassroots organizations and untapped voices within our community, encompassing a range of socio-economic statuses, ethnicities, and age groups. By integrating qualitative and quantitative methodologies, we aimed to gain an in-depth understanding of prevalent health challenges and unmet needs.

Key Findings

Behavioral Health Impact: Mental health disorders, substance misuse, and emotional well-being significantly impact our community members. Stigma and limited access to mental health services remain notable barriers. Behavioral health strongly interrelates with physical health outcomes, affecting chronic disease management and overall quality of life.

Chronic Illness Influence: Chronic diseases, such as diabetes, cardiovascular conditions, and cancer, are pervasive and exert substantial influence on individual health and societal well-being. Disproportionate impacts on underserved populations highlight the need for targeted interventions and improved access to care. Chronic conditions affect people of all ages, necessitating tailored strategies for prevention, management, and rehabilitation throughout the lifespan.

Impact on Quality of Life: The profound impact of behavioral health and chronic illnesses on the community's quality of life cannot be understated. These issues pose significant challenges to individual well-being, societal productivity, and healthcare resource allocation. A Whole Person Approach acknowledges the interconnectedness of physical, mental, and social well-being, emphasizing the need for comprehensive interventions to enhance overall quality of life.

Data Sources

All data has its limitations. The data provided in this report includes primary data collected from local residents and a secondary data compiled from reliable sources such as the U.S. Census, Center for Disease Control, and Michigan Department of Health and Human Services. It is also important to recognize that much of this data reflects the impact of the COVID 19 pandemic which should be considered when using the data. Data driven solutions are a focus of the Michigan Thumb Public Health Alliance and Thumb Community Health Partnership. This report will be used for planning and strategy development aimed at improving community health.

Section I: Introduction

There are many challenges faced by our rural communities. The Michigan Thumb Public Health Alliance and Thumb Community Health Partnership support collaboration and shared resources between communities. Alongside grassroots organizations and community members, the service providers completed the Thumb Region Community Health Needs Assessment (CHNA) using the Mobilizing for Action through Planning and Partnership (MAPP) framework. MAPP provides a systematic and community-driven approach to conducting the CHNA and subsequently addressing the identified health needs and disparities in the community. It promotes collaboration, data-driven decision-making, and the development of evidence-based strategies to improve community health.
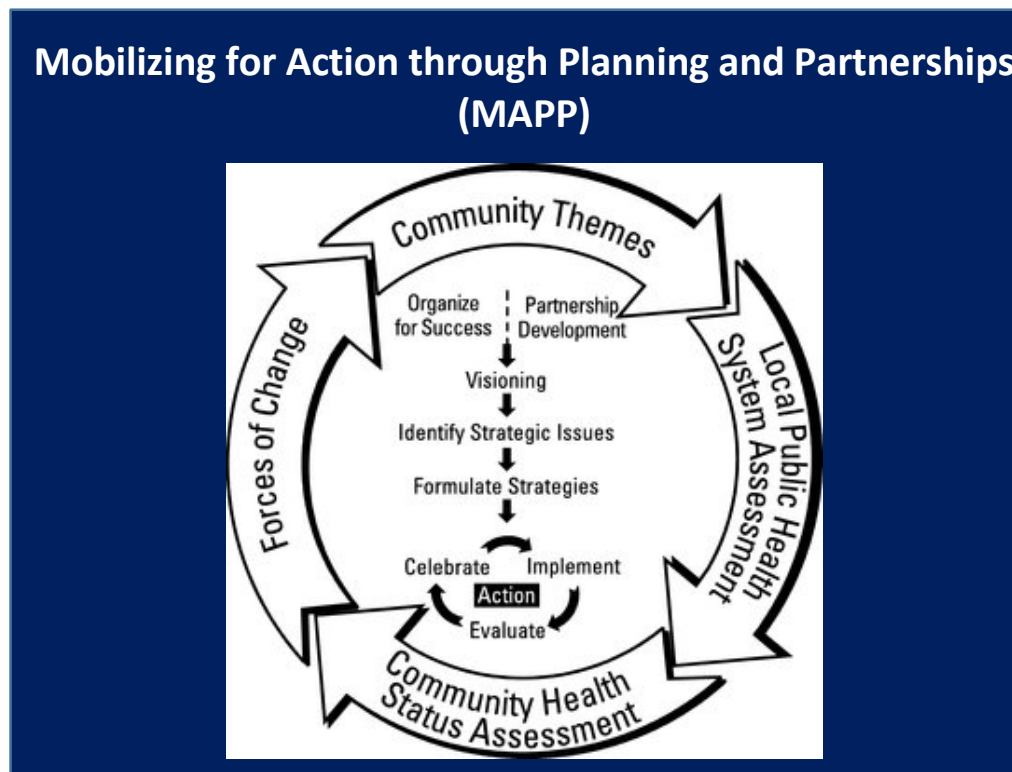
The MAPP process has six steps. In 2024, steps 5 and 6 will be completed and presented to the community in a Community Health Improvement Plan.
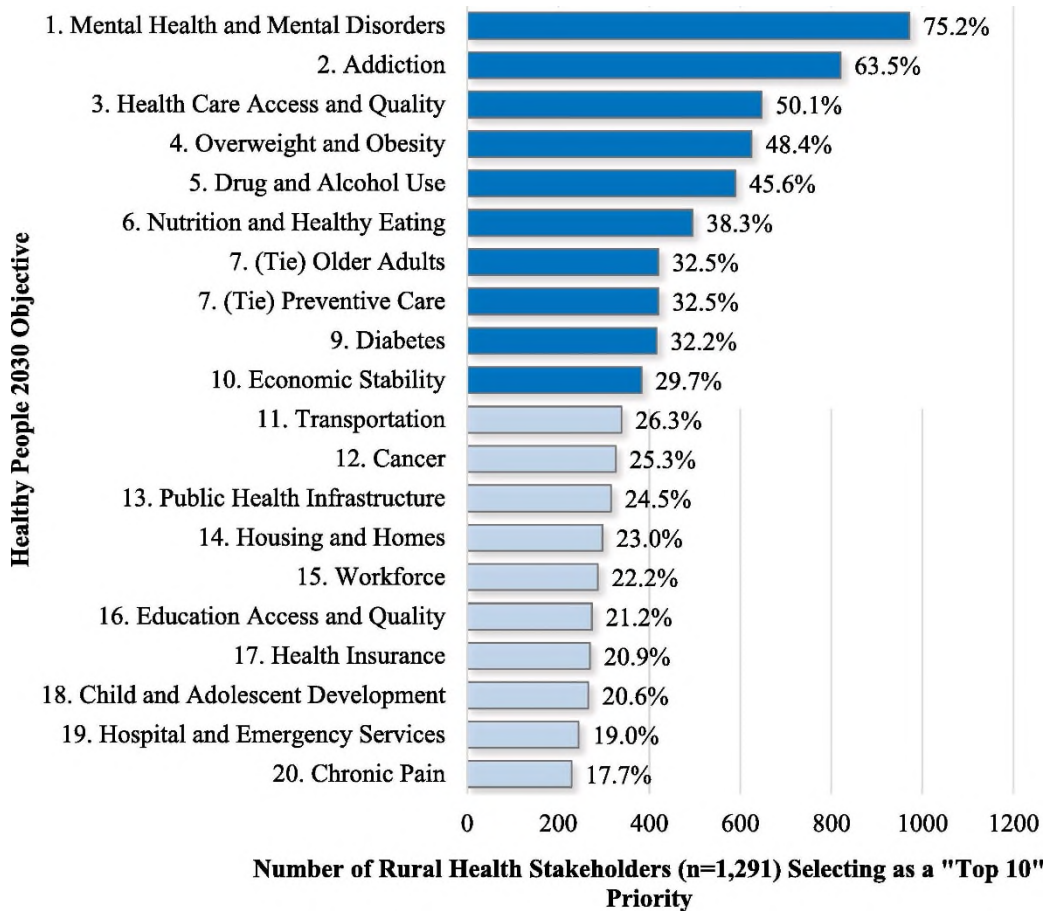
1. Organize for Success and Partnership Development.
2. Visioning
3. Four Assessments
   a. Community Themes
   b. Local Public Health System
   c. Community Health Status
   d. Forces of Change
4. Identify Strategic Issues
5. Formulate Goals and Strategies
6. Action Cycle

Section II: Analysis of Health Indicators

Rural Healthy People 2023 Priorities

The following Healthy People 2023 objectives are recognized by leaders in rural health across the nation as the top twenty rural health priorities (n=1291 leaders surveyed).

Figure 1: Top 20 Rural Health Priorities

Rank	Objective	Percent
1.	Mental Health and Mental Disorders	75.2%
2.	Addiction	63.5%
3.	Health Care Access and Quality	50.1%
4.	Overweight and Obesity	48.4%
5.	Drug and Alcohol Use	45.6%
6.	Nutrition and Healthy Eating	38.3%
7.	(Tie) Older Adults	32.5%
7.	(Tie) Preventive Care	32.5%
9.	Diabetes	32.2%
10.	Economic Stability	29.7%
11.	Transportation	26.3%
12.	Cancer	25.3%
13.	Public Health Infrastructure	24.5%
14.	Housing and Homes	23.0%
15.	Workforce	22.2%
16.	Education Access and Quality	21.2%
17.	Health Insurance	20.9%
18.	Child and Adolescent Development	20.6%
19.	Hospital and Emergency Services	19.0%
20.	Chronic Pain	17.7%

Number of Rural Health Stakeholders (n=1,291) Selecting as a "Top 10" Priority

https://doi.org/10.1016/j.pmedr.2023.102176

Thumb Health Indicators and Analysis

In this section, you will find data related to the Rural Healthy People 2023 priorities. Each section provides a brief description of the scope of the problem along with data charts related to the four counties located in the thumb.

Figure 2: Data Analysis Legend

Some charts in this report illustrates whether there is a favorable or unfavorable trend. You will also find benchmark lines showing the Michigan rate and the Rural Health People target.


Favorable or Unfavorable Upward Trend	↑↑
Favorable or Unfavorable Downward Trend	↓↓
No change, varying, or unclear trend	↔
Michigan Rate	▎
US Rate or Rural Healthy People 2023 Target	▎

Quality of Life and Well-Being

SCOPE OF THE PROBLEM

The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being, not merely the absence of disease. Individual perspectives significantly influence well-being, which, when collected, impacts the overall health of a population and the community's quality of life. Social determinants of health, the built environment, geographic barriers, utilization of programs, and demographic characteristics, play a significant role in determining the quality of life and well-being in communities. Factors such as access to transportation, travel distance, and the supply of primary care providers can also limit people's ability to get primary care (Douthit, 129). For example, rural residents may need to travel long distances to get primary care and thus may be less likely to seek preventive care such as vaccinations. In addition, rural communities tend to have fewer providers than urban communities; this relative shortage of providers may make it harder for rural residents to access primary care. (Rural Healthy People 2030)

Figure 3: No Routine Health Check Up in Past Year
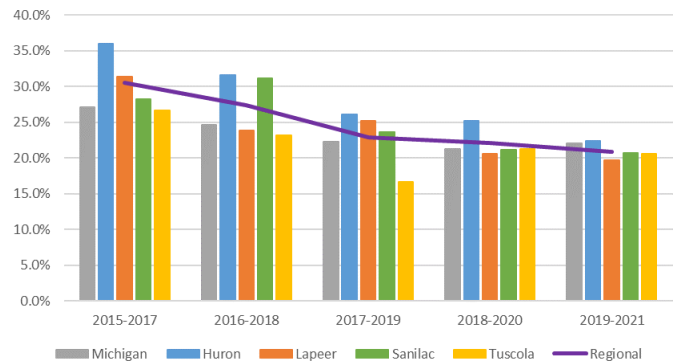
Michigan Department of Health and Human Services - BRFS
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Figure 4: Health Status Rated Fair/Poor, 2019-2021
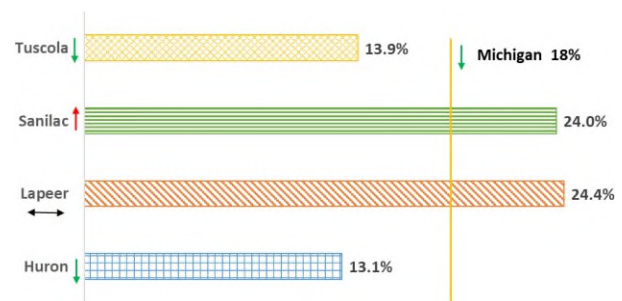
Michigan Department of Health and Human Services
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Figure 5: General Health Status
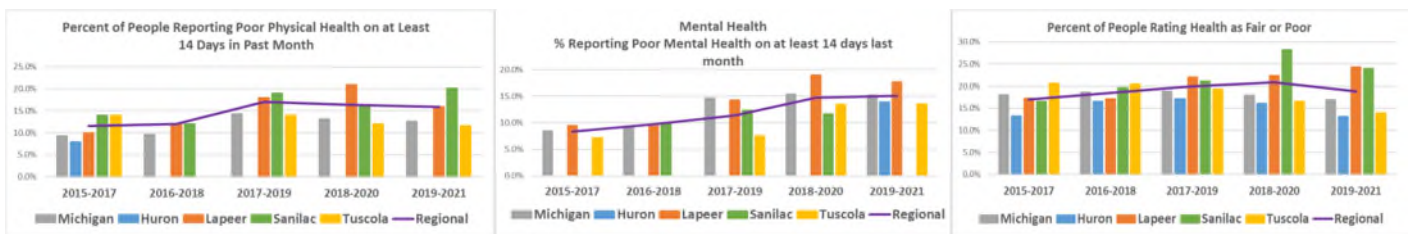
Michigan Department of Health and Human Services - BRFS - Tables 3, 2 1
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Related Healthy People 2030- Objectives

NWS-01 Reduce household food insecurity and hunger; **NWS-02** Eliminate very low food security in children; **SDOH-01** Reduce the proportion of people living in poverty; **SDOH-02** Increase employment in working-age people; **SDOH-03** Increase the proportion of children living with at least 1 parent who works full time; **SDOH-04** Reduce the proportion of families that spend more than 30% of income on housing; **SDOH-06** Increase the proportion of high school graduates in college the October after graduating

MICHIGAN THUMB PUBLIC HEALTH ALLIANCE
2023 HEALTH ASSESSMENT

Social Determinants of Health

These charts illustrate some of the social determinants of health that impact many of the data indicators outlined in this report. Certain factors, such as employment status, neighborhood quality, food security, educational attainment, and exposure to violence, have been shown to have bearings on individual and community health.

Figure 6: Median Household Income
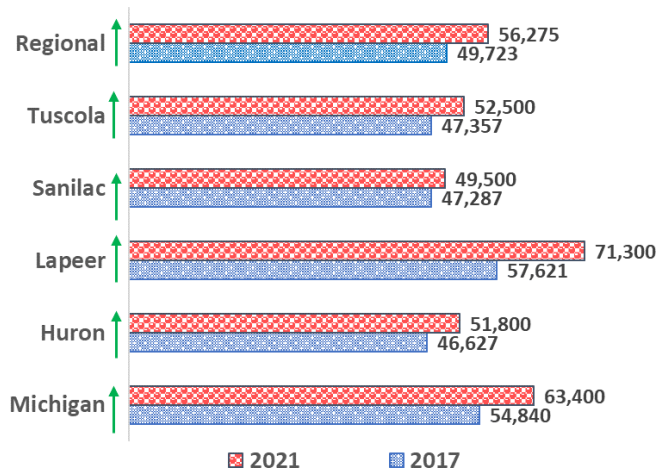
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 7: % of People Bachelor's Degree or Higher
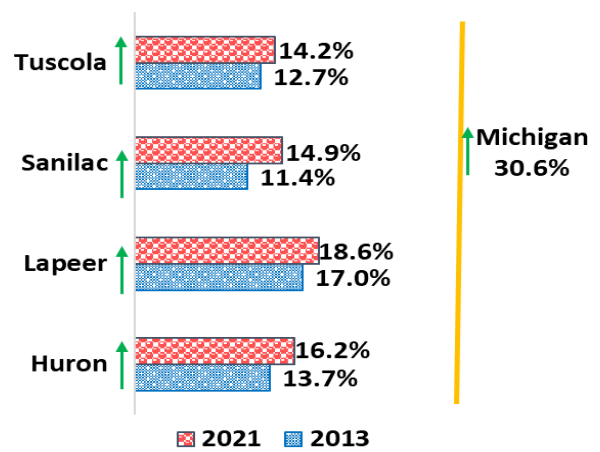
US Census -S1501 - ACS 5 - Yr Estimate:2021 (Educational Attainment) – American Community Survey
https://data.census.gov/table?q=S1501&g=040XX00US26_050XX00US26063,26087,26151,26157&tid=ACS
ST5Y2021.S1501&moe=false

Figure 8:% of People Living Below Poverty
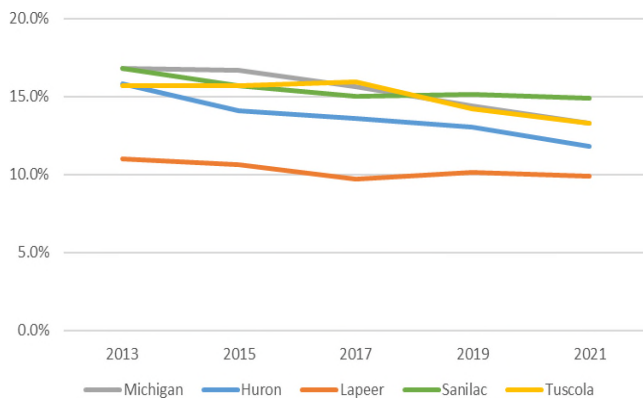
US Census -DP03 - ACS 5 - Yr Estimate:2021 (Income and Poverty & Employment and Labor Force Status)
– American Community Survey
https://data.census.gov/table?q=selected&t=Income+and+Poverty&g=050XX00US26063,26087,26151,26
157&tid=ACSDP5Y2021.DP03&moe=false

### Figure 9: % of Households below ALICE Threshold (cost of living)
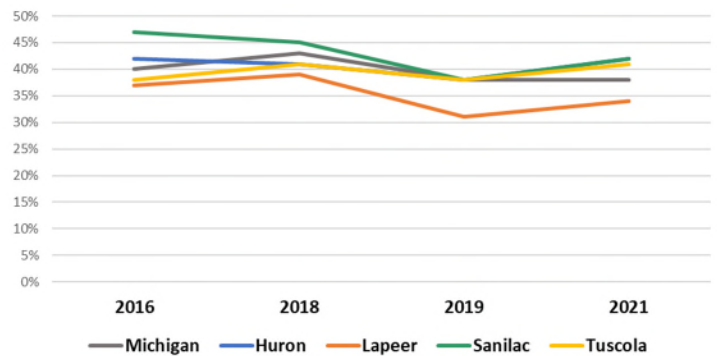
United Way- ALICE Report 2014, 2017 and 2021 Editions - ALICE Threshold represents the basic cost of
living.
https://unitedforalice.org/state-reports

Figure 10: % of Children, Age 0-5 below Poverty
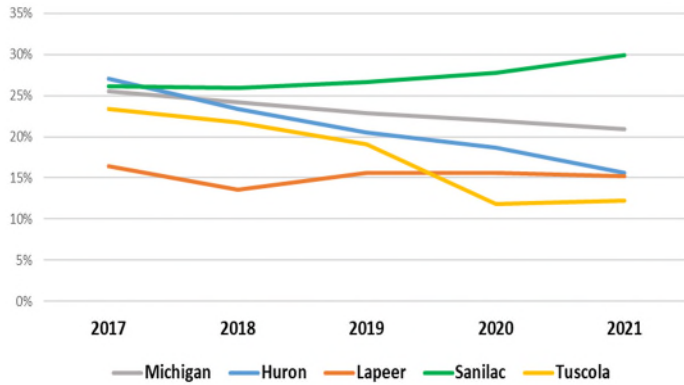
US Census - S1701 - Poverty Status in past 12 months - ACS 5 Year Estimate
https://data.census.gov/table?q=b17020&g=040XX00US26_050XX00US26063,26087,26151,26157&tid=ACSDT5Y2017.B17020&moe=false

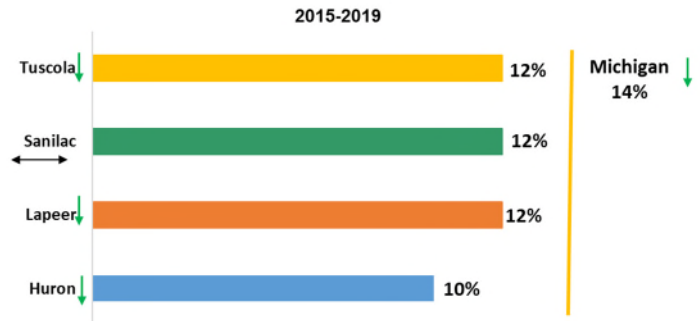## Figure 11: % of Children Under 18 in Single Parent Families
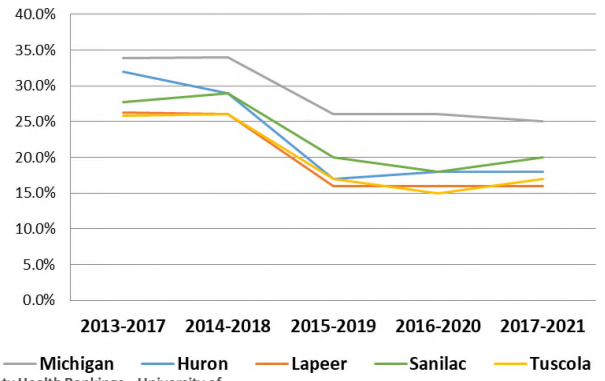
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 12: % of Population 65+, Below Poverty
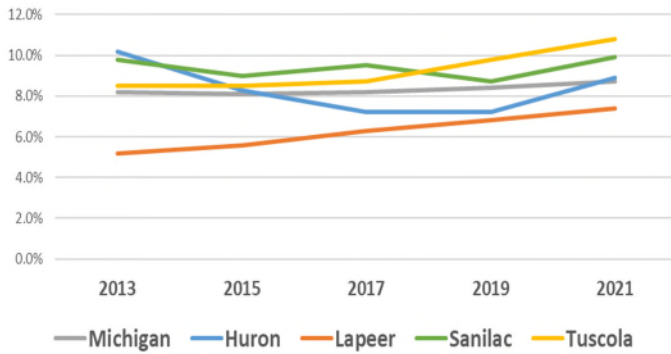
US Census -DP03 - ACS 5 - Yr Estimate:2021 (Income and Poverty & Employment and Labor Force Status) American Community Survey
https://data.census.gov/table?q=selected&t=Income+and+Poverty&g=050XX00US26063,26087,26151,26157&tid=ACSDP5Y2021.DP03&moe=false

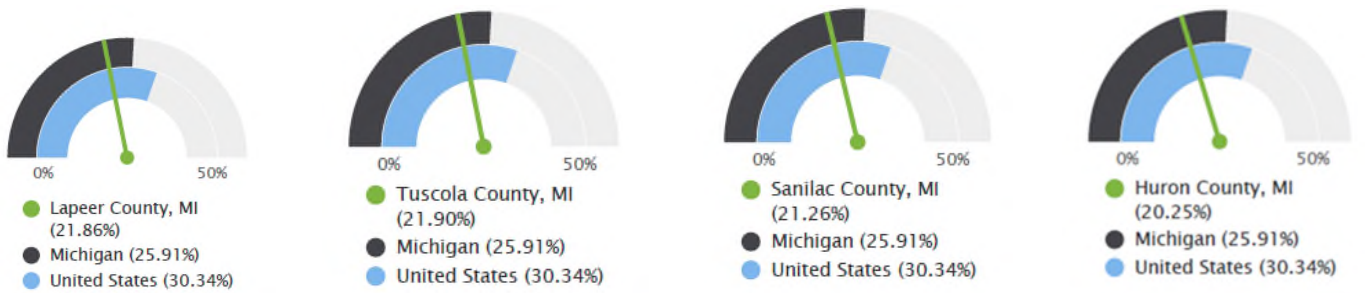## Figure 13: % with Severe Housing Problems

*Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities
Comprehensive Housing Affordability Strategy-HUD
www.countyhealthrankings.org

Figure 14: % of people with a Bachelor's Degree or Higher
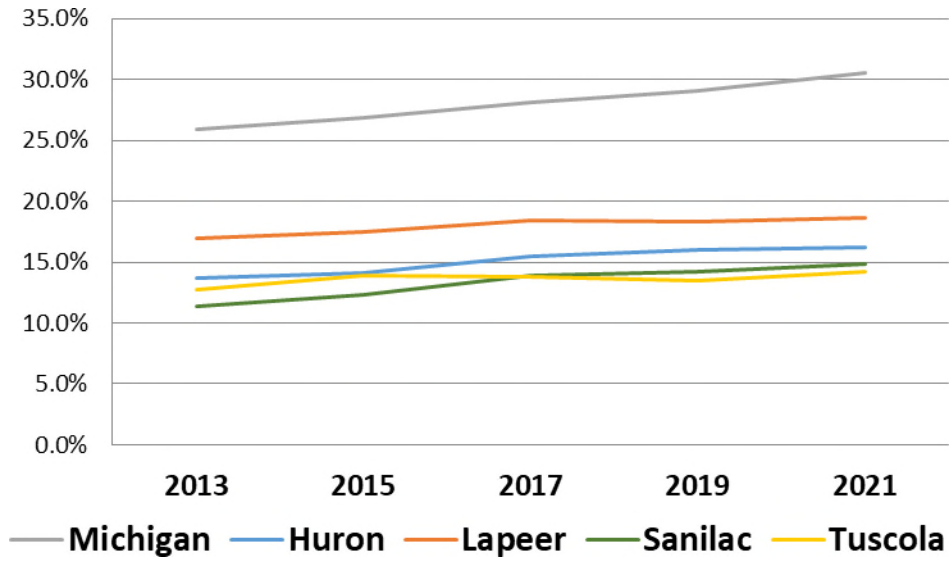
US Census -S1501 - ACS 5 - Yr Estimate:2021 (Educational Attainment) – American Community Survey
https://data.census.gov/table?q=S1501&g=040XX00US26_050XX00US26063,26087,26151,26157&tid=ACSST5Y2021.S1501&moe=false

Figure 15: Housing Insecurity: Percentage of Households where Housing Costs Exceed 30% of Income

● Lapeer County, MI (21.86%)
● Michigan (25.91%)
● United States (30.34%)

● Tuscola County, MI (21.90%)
● Michigan (25.91%)
● United States (30.34%)

● Sanilac County, MI (21.26%)
● Michigan (25.91%)
● United States (30.34%)

● Huron County, MI (20.25%)
● Michigan (25.91%)
● United States (30.34%)

Access to Quality Health Services
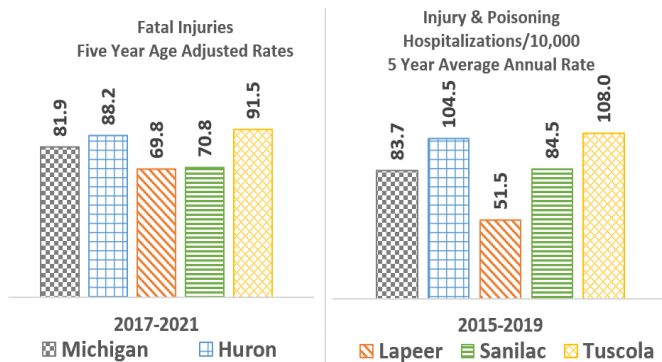
SCOPE OF THE PROBLEM

Having a strong healthcare system depends on access to services by all. A lack of available services in rural communities contributes to rural health disparities. Other barriers such as transportation or cultural differences between patients and providers can limit access to care. Lack of access to health insurance creates a financial barrier accessing services. This increases preventable hospitalizations and use of emergency rooms for non-emergency conditions. Access to primary medical care is also disproportionately impacting rural areas. Sixty-five percent of Health Provider Shortage areas are in rural regions of the United States (Agency for Healthcare Research and Quality-2014).
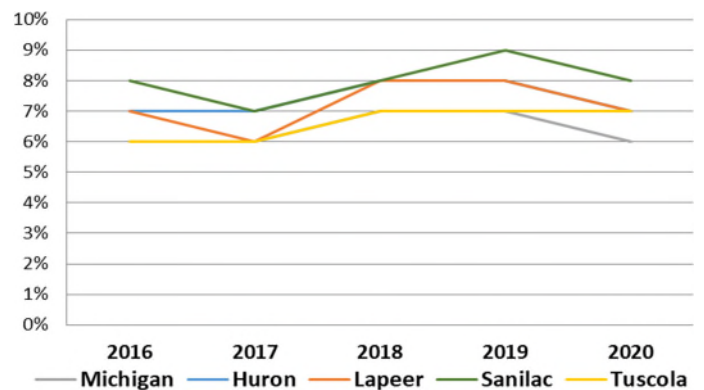
Figure 16: Access to Health Care, Michigan BRFSS
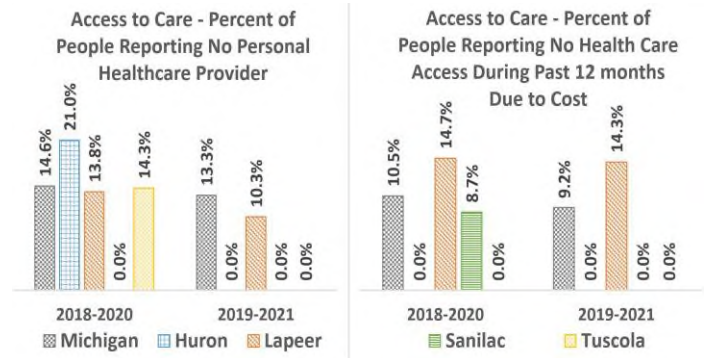
Michigan Department of Health and Human Services – BRFS – Table 8
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Figure 18: Injury Hospitalizations and Deaths

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/hospdx/frame.html
https://vitalstats.michigan.gov/osr/chi/FATAL2/frame.asp

Figure 17: Uninsured Rates:- % of people <65

US Census Bureau's Small Area Health Insurance Estimates (SAHIE) program
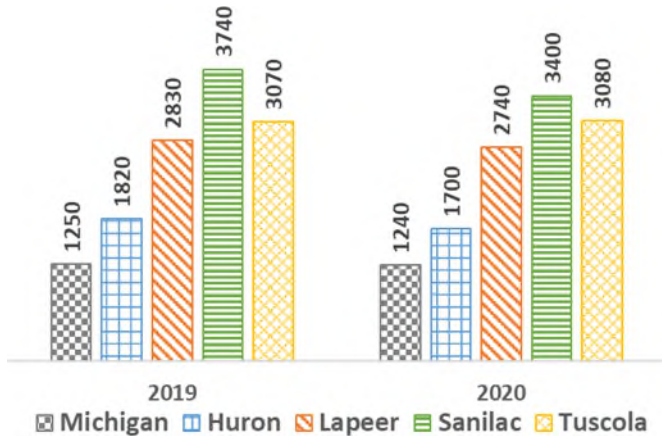www.countyhealthrankings.org

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Related Healthy People 2030- Objectives

AHS-1.1, 1.2 Increase persons with health insurance; medical insurance; and dental insurance; **AHS-1.3** Increase persons with prescription drug insurance; **AHS-3** Increase persons with a usual primary care provider; **AHS-04 and AHS-07** Increase the persons with specific source of ongoing care; **MICH-19** Increase children and youth aged 17 years and under who have a specific source of ongoing care; **AHS-8** Increase persons who have access to rapidly responding pre-hospital emergency medical services; **AHS-R01** Increase persons who are covered by basic life support; **AHS-8.2** Increase persons who are covered by advanced life support; **AHS-09** Reduce Level 1, 2, 3, 4, and 5 hospital emergency department visits in which the wait time to see an emergency department clinician exceeds the recommended timeframe

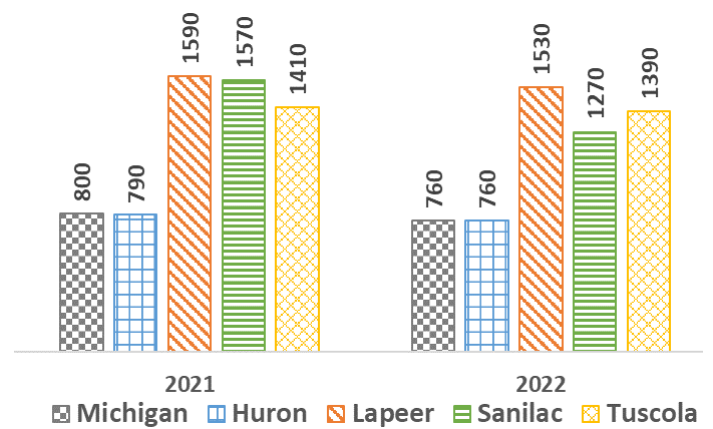# Access and Availability to Healthcare Providers

These charts illustrate the ratio of people for every provider. A higher number indicates that there are more people per provider OR fewer providers for the population.

Figure 19: Primary Care Provider Ratios
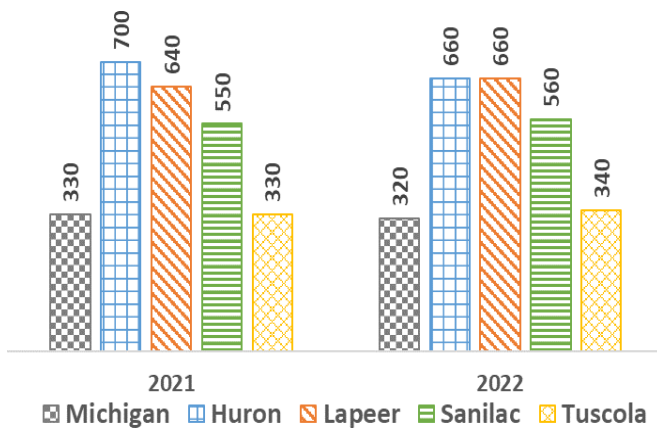### (Lower indicates greater access)

2019: Michigan 1250, Huron 1820, Lapeer 2830, Sanilac 3740, Tuscola 3070
2020: Michigan 1240, Huron 1700, Lapeer 2740, Sanilac 3400, Tuscola 3080

☒ Michigan ☐ Huron ☒ Lapeer ☒ Sanilac ☒ Tuscola

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 20: Other PCP Provider Ratios
(Lower indicates greater access)

2021: Michigan 800, Huron 790, Lapeer 1590, Sanilac 1570, Tuscola 1410
2022: Michigan 760, Huron 760, Lapeer 1530, Sanilac 1270, Tuscola 1390

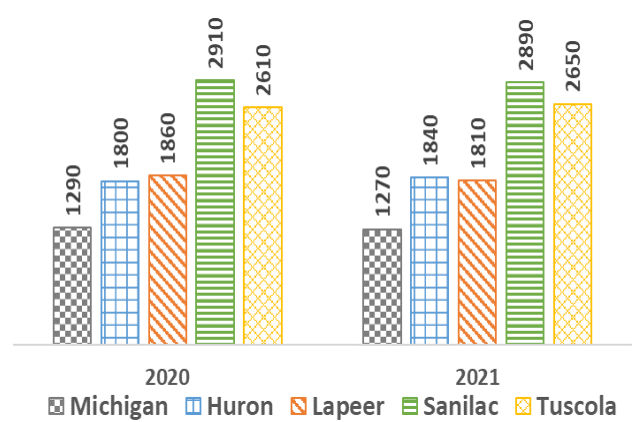☒ Michigan ☐ Huron ☒ Lapeer ☒ Sanilac ☒ Tuscola

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 21: Mental Health Provider Ratios
(Lower indicates greater access)

2021: Michigan 330, Huron 700, Lapeer 640, Sanilac 550, Tuscola 330
2022: Michigan 320, Huron 660, Lapeer 660, Sanilac 560, Tuscola 340

☒ Michigan ☐ Huron ☒ Lapeer ☒ Sanilac ☒ Tuscola

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 22: Dentist Provider Ratios
(Lower indicates greater access)

2020: Michigan 1290, Huron 1800, Lapeer 1860, Sanilac 2910, Tuscola 2610
2021: Michigan 1270, Huron 1840, Lapeer 1810, Sanilac 2890, Tuscola 2650

☒ Michigan ☐ Huron ☒ Lapeer ☒ Sanilac ☒ Tuscola

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 23: Health Professional Shortage Areas (HPSA)

HPSAs are designated by HRSA as having shortages of primary care, dental care, or mental health providers and may be geographic (e.g., county or township), population (e.g., Medicaid eligible) or facilities (e.g., rural health center).

Huron HPSAs	**Lapeer HPSAs**	**Sanilac HPSAs**	**Tuscola HPSAs**
Primary Care-Entire County	Primary Care-Corrections	Primary Care-Entire County	Primary Care- 26 Townships
Mental Health-Entire County	Primary Care- 8 Townships	Mental Health- Entire County	Mental Health-Entire County
Dental-Entire County		Dental-Entire County	Dentist-Entire County

Figure 24:% of People <65 that are NOT Insured 2020
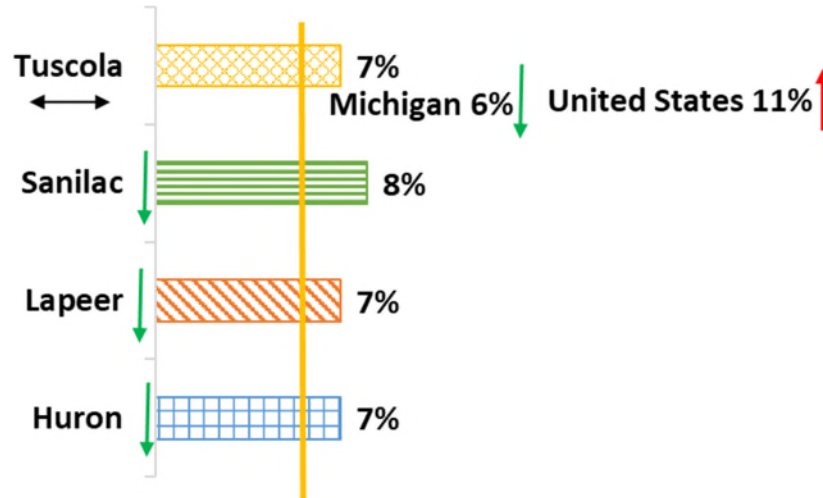
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org
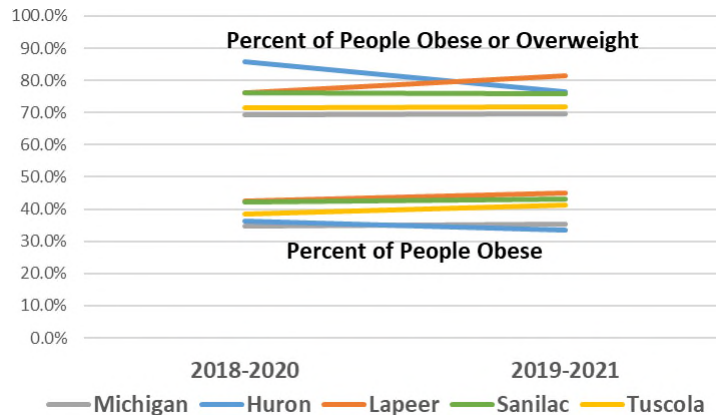
Figure 25: Access to Care- MI BRFS, 2018-2020
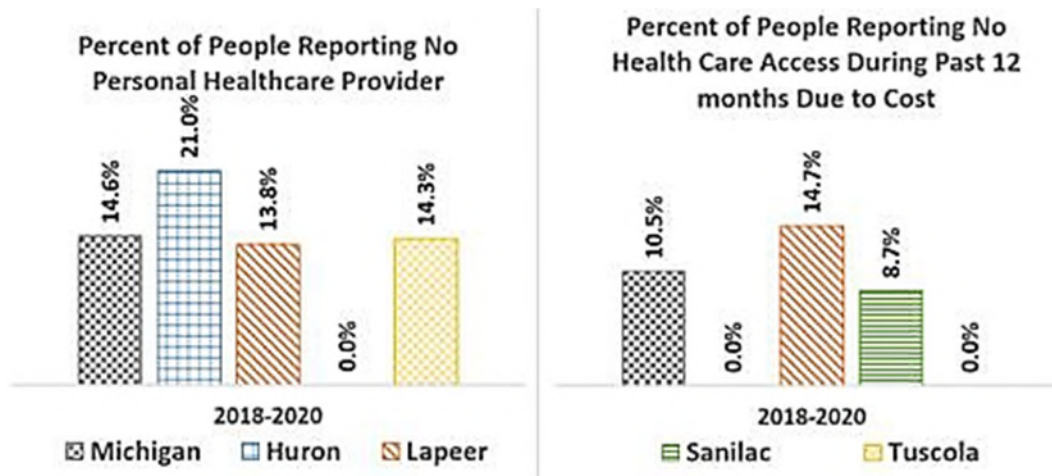
BRFS - Table 8

Michigan Department of Health and Human Services
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

# Weight Status-
Nutrition & Physical Activity

SCOPE OF THE PROBLEM

Evidence linking weight, nutrition, and physical activity to health status is strong. Studies document the correlation between food insecurity and obesity with chronic conditions such as type 2 diabetes, stroke, cardiovascular disease, and depression. Unhealthy eating combined with a sedentary lifestyle increases an individual's risk for hypertension, some cancers, sleep apnea, gall bladder disease, and osteoporosis. The onset of obesity in childhood increases the extent of this risk and the damage to the body. Most rural areas experience barriers to healthy eating and physical activity including fewer fitness and nutrition classes, cultural attitudes toward food and weight, less social support for healthy lifestyle choices, busy schedules, fewer preventive care messages, transportation, and distance to stores that sell healthy foods, higher prices for healthy foods, and skewed perceptions of weight status. (Adapted from Healthy People 2020- US Department of Health & Human Services)
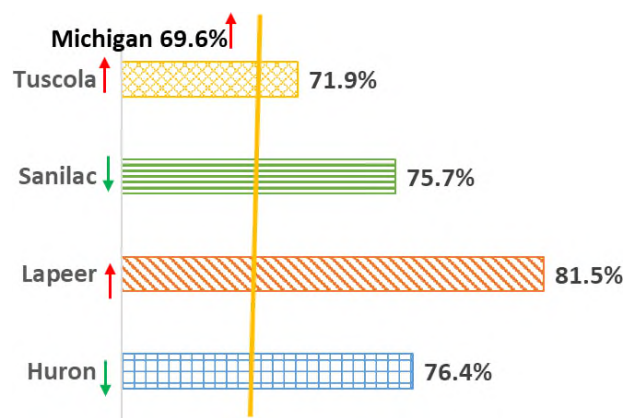
Figure 26: Adult Weight Status

Michigan Department of Health and Human Services – BRFS – Table 6
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Figure 28: 2019-2021 Weight Status BRFS
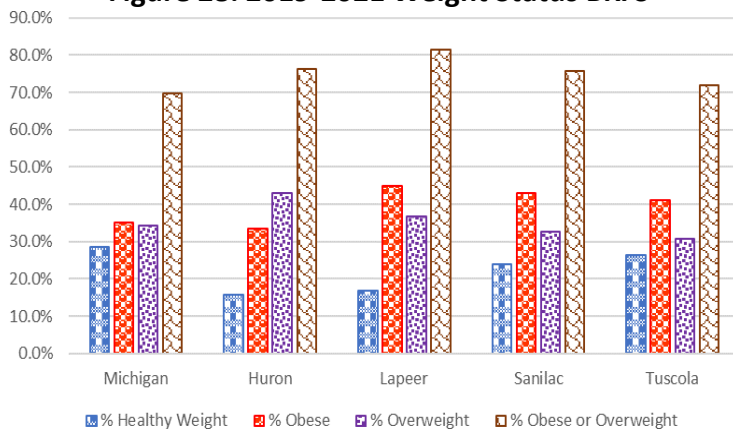
Michigan Department of Health and Human Services – BRFS Table 6
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

**Figure 27: % Overweight or Obese, 2019-2021**

*Trends arrows compare 2018-2020 to 2019-2021 averages for Obesity.
Michigan Department of Health and Human Services
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

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Related Healthy People 2030- Objectives

NWS-03 Increase the proportion of adults who are at a healthy weight**;**

NWS-03 Reduce the proportion of adults who are obese;

NWS-04 Reduce the proportion of children and adolescents who are considered obese
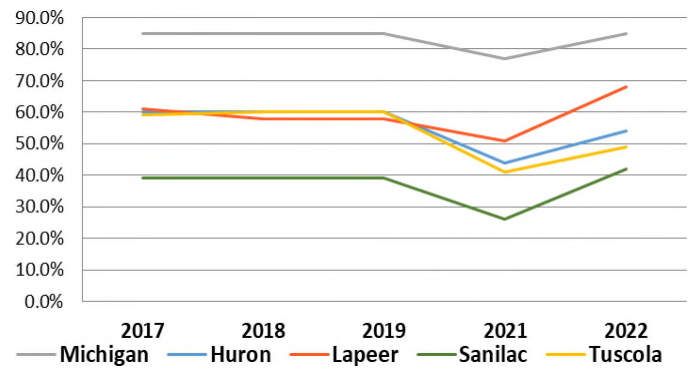
Contributing Factors: Many nutrition and physical activity indicators contribute to weight status and obesity rates.

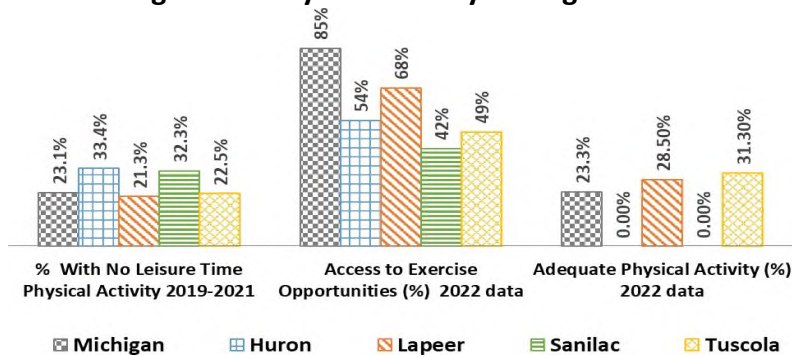## Figure 29: % with No Leisure Time Physical Activity
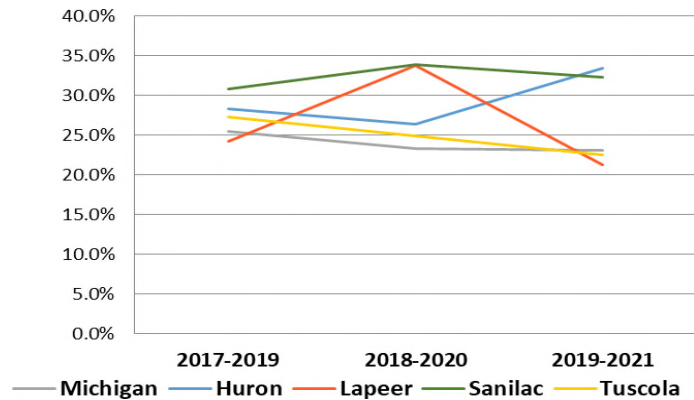
Michigan Department of Health and Human Services -BRFS Table 9
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html
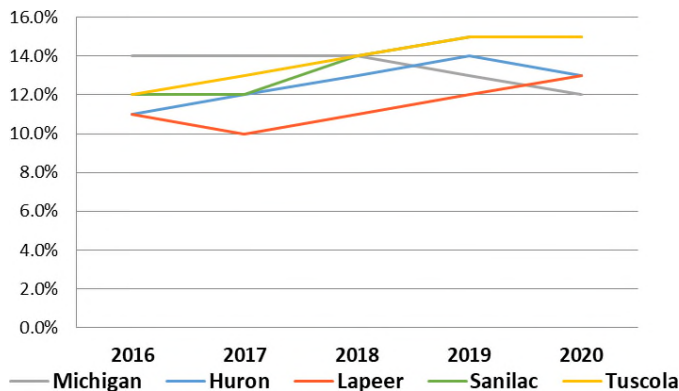
Figure 30: % with Access to Exercise Opportunities

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

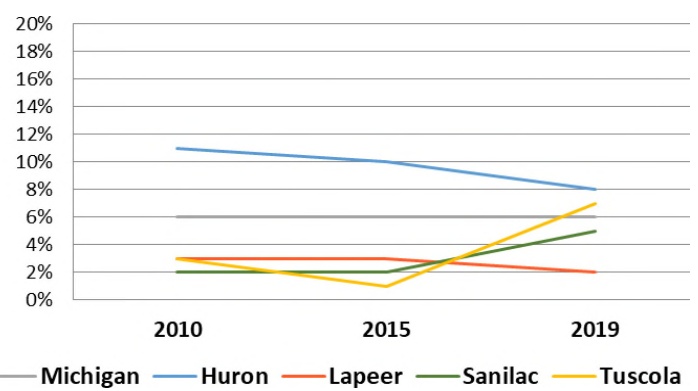## Figure 31: Physical Activity Michigan BRFS

County Health Rankings – University of Wisconsin Population Health Institute, www.countyhealthrankings.org
Michigan Department of Health and Human Services- BRFS Tables 9 & 10- http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html
2022 data for Huron and Sanilac were suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Figure 32: % with Food Insecurity

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 33: % with Limited Access to Healthy Foods

County Health Rankings – University of Wisconsin Population Health Institute
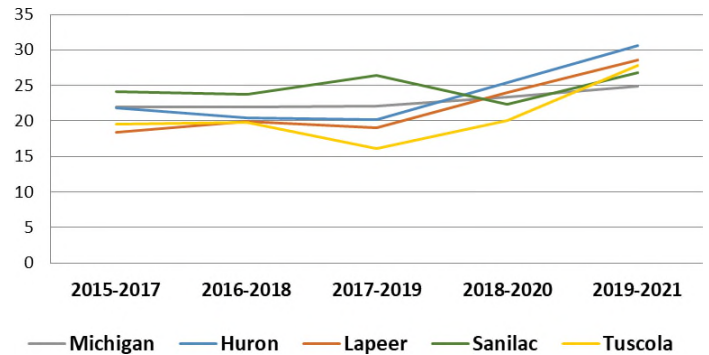www.countyhealthrankings.org

Diabetes

SCOPE OF THE PROBLEM

Diabetes mellitus is a metabolic disease that is caused by the body's inability to produce or respond appropriately to insulin. Insulin is a crucial hormone required for absorbing and using glucose (sugar) for fuel. If insulin is not produced or used, serious health complications can arise. There are three types of diabetes:

- Type 1: The body does not produce insulin; highly linked to genetic predisposition.
- Type 2: Caused by resistance to insulin. Prevalence is higher with patients over age 60 and is associated with diets high in sugar, obesity and overweight status, and lack of physical activity. Depression and diabetes also have a high rate of comorbidity.
- Gestational: Occurs during pregnancy and can lead to complications for the mother and baby. This type is also known to be associated with type 2 diabetes later in life.

Rural areas have an overall diabetes prevalence rate of 15 to 17 percent higher than urban areas. However, different ethnicities and geographic regions of the United States vary. In Rural communities, there are unique challenges and barriers to self-management of Type 2 diabetes. Lack of diabetes education programs, lack of knowledge regarding the importance of different types of screenings (i.e. eye exams, foot exams), financial burdens of medication and diabetes supplies, readily available fast food, lack of access to healthy food and physical activity opportunities, and cultural eating patterns all impact the prevalence of diabetes in rural areas. Additionally, those with depression face additional hurdles to accessing mental health including a lack of mental health providers and stigma. (Healthy People 2020- US Department of Health & Human Services)

Figure 34: Diabetes Mortality Trends, Age Adjusted Rate/100,000 - 3 Year Moving Average

Michigan Department of Health and Human Services https://vitalstats.michigan.gov/osr/chi/cri/frame.html

Figure 35: % of Adults aged 20 and Above with Diagnosed Diabetes
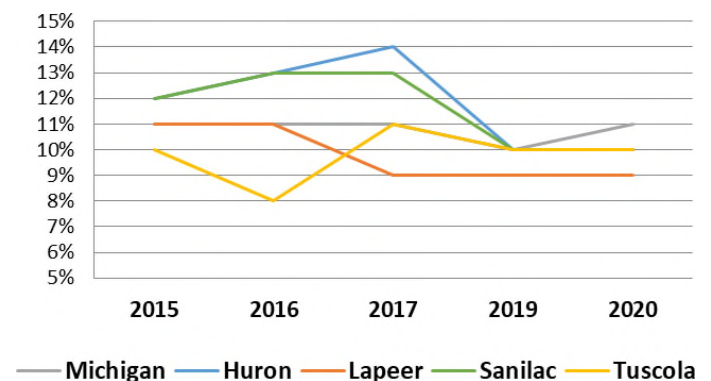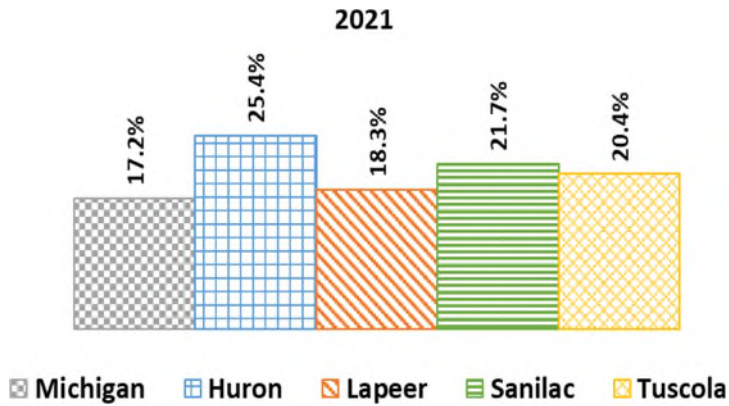

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

**Related Healthy People 2030- Objectives**

D-01 Reduce the annual number of new cases of diagnosed diabetes; **D-9** Reduce diabetes death rate;
Among person with diabetes; **D-3** Improve glycemic control; **D-8** Increase annual dental examination; **D-8** Increase annual foot examination; **D-04 and V-04** Increase annual dilated eye examination; **D-3** Increase glycosylated hemoglobin measurement at least twice a year; **D-05** Increase annual urinary microalbumin measurement; **D-07** Increase self-blood glucose-monitoring daily; **D-06 and D-D01** Increase formal diabetes education; **D-01** Increase diagnosis; **D-02** Increase prevention behaviors
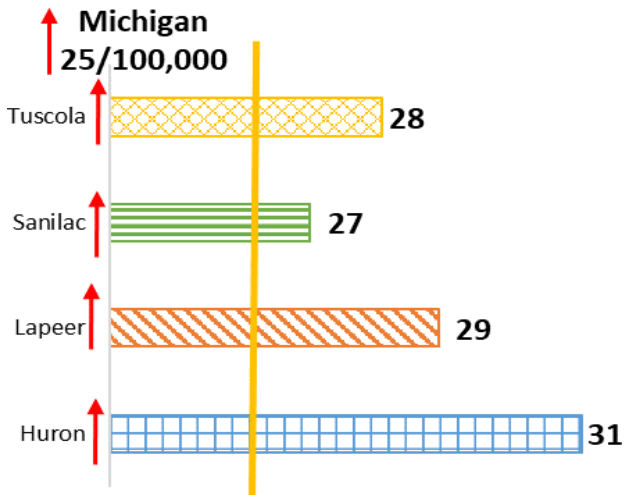

Figure 36: % of Population over age 65

2021

17.2% Michigan
25.4% Huron
18.3% Lapeer
21.7% Sanilac
20.4% Tuscola

⊠ Michigan ⊞ Huron ⊠ Lapeer ⊟ Sanilac ⊠ Tuscola

US Census -S0101- ACS 1 - Yr Estimate:2021 - ACS Demographic and Housing Estimates
https://data.census.gov/table?q=dp05&g=040XX00US26_050XX00US26063,26087,26151,26157&tid=ACSDP5Y2021.DP05&moe=false

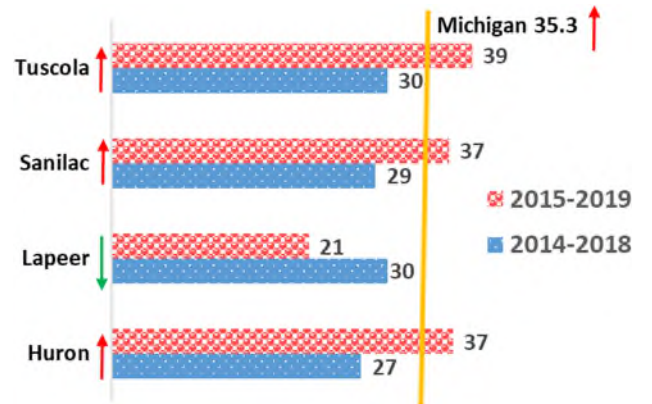## Figure 37: Hospitalizations- Diabetes age 65+
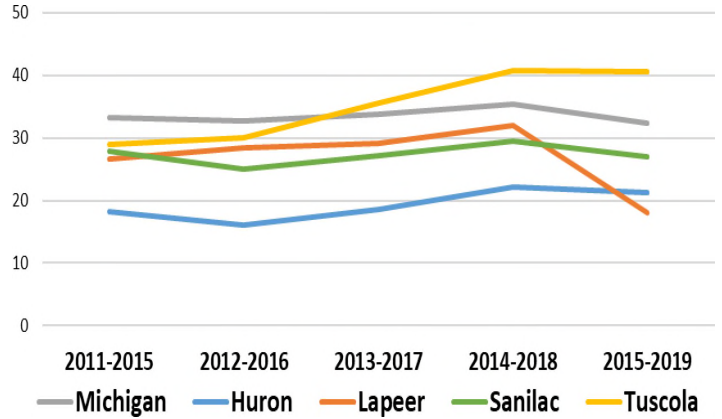
Michigan Department of Health and Human Services
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Figure 38: Diabetes Mortality Trends, 2019-2021

Michigan 25/100,000

Tuscola 28
Sanilac 27
Lapeer 29
Huron 31

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/cri/frame.html

Figure 39: Ambulatory Care Hospitalizations Diabetes

Michigan 35.3

Tuscola: 39 / 30
Sanilac: 37 / 29
Lapeer: 21 / 30
Huron: 37 / 27

▨ 2015-2019
▨ 2014-2018

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/HOSP/frame.html

Heart Disease

SCOPE OF THE PROBLEM

Heart Disease is the leading cause of death in Michigan and the United States. Factors such as hypertension, cholesterol levels, and obesity all play a role in the prevalence of cardiovascular disease. The after-effects of a stroke can be particularly debilitating, and the degree of after-effects are closely linked to the passage of time between the onset of a stroke and treatment.   While genetics plays a role in the incidence of cardiovascular disease, many risks are modifiable such as hypertension, obesity, diabetes, high cholesterol, smoking, illegal drug use, and excessive alcohol use. The single most effective prevention therapy for stroke has been blood pressure control. The repositioning of stroke as the fourth, rather than third leading cause of mortality has been attributed to improvements in the control of hypertension (AS, Mozaffarian D, Roger VL, et al.).   Diseases of the heart represent about three-fourths of all mortality from cardiovascular diseases. The most common form of heart disease is coronary heart disease, often referred to as hardening of the arteries.
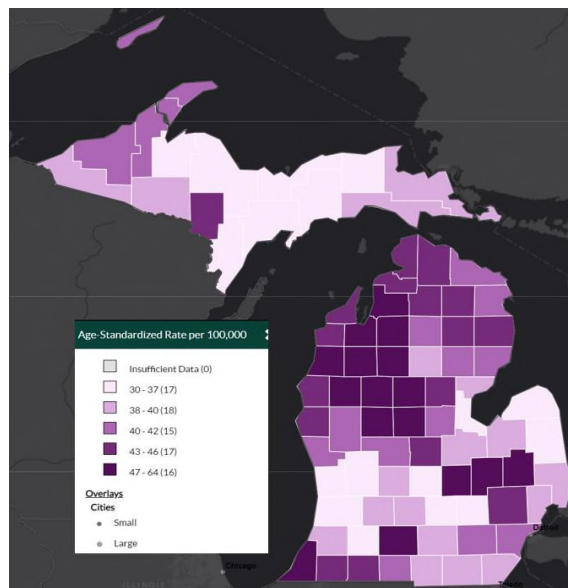
Rural disparities in healthcare related to access to emergency treatment, effective acute management of stroke, and rehabilitation therapy can contribute to decreased patient outcomes. Additionally, rural residents may not have as many opportunities to receive essential education on prevention of cardio-vascular disease (lifestyle modification or self-management of risk factors) and recognizing the signs and symptoms of heart disease and stroke. Access barriers such as cost, transportation, lack of primary care providers, and social isolation also play a role in modifying risks. (Healthy People 2020- US Department of Health & Human Services)

Figure 40: Map of Heart Disease Death Rates 2018-2020

Center for Disease Control; Interactive Atlas
https://nccd.cdc.gov/DHDSPAtlas/Default.aspx
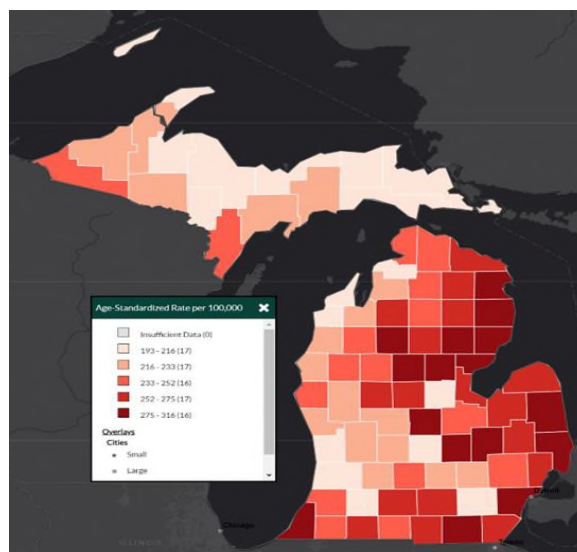
Figure 41: Map of Stroke Death Rates 2018-2020

Center for Disease Control; Interactive Atlas
https://nccd.cdc.gov/DHDSPAtlas/Default.aspx


Related Healthy People 2030- Objectives

HDS-6-6 Improve lipid control; **HDS-4** Increase blood pressure control **HDS-1** Increase overall cardiovascular health in the U.S. population**; HDS-2** Reduce coronary heart disease deaths; **HDS-3** Reduce stroke deaths; **HDS-4** Increase the proportion of adults who have had their blood pressure measured within the preceding two years and can state whether their blood pressure was normal or high; **HDS-5** Reduce the proportion of persons in the population with hypertension; **HDS-6** Increase the proportion of adults who have had their blood cholesterol checked within the preceding five years; **HDS-7** Reduce the proportion of adults with high total blood cholesterol levels; **HDS-8** Reduce the mean total blood cholesterol levels among adults; **HDS-10** Increase the proportion of adults with hypertension who meet the recommended guidelines

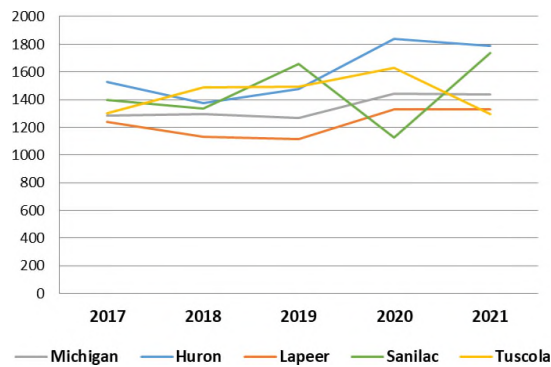## Figure 42: Heart Disease Crude Death Rates/100,000
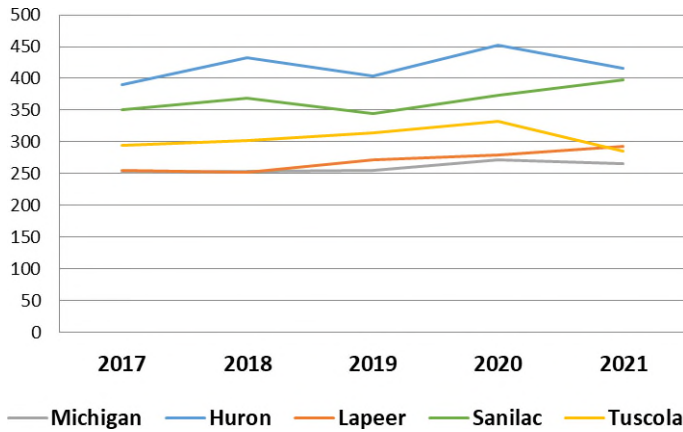
Figure 43: Heart Disease Mortality Trends Age Adjusted Rate/100,000
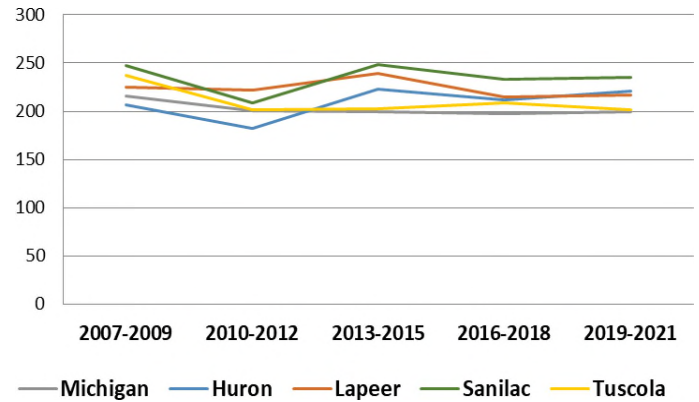
Figure 44: Heart Disease, Rate/100,000 Years of Potential Life Lost

Figure 45: Stroke Crude Death Rates/100,000
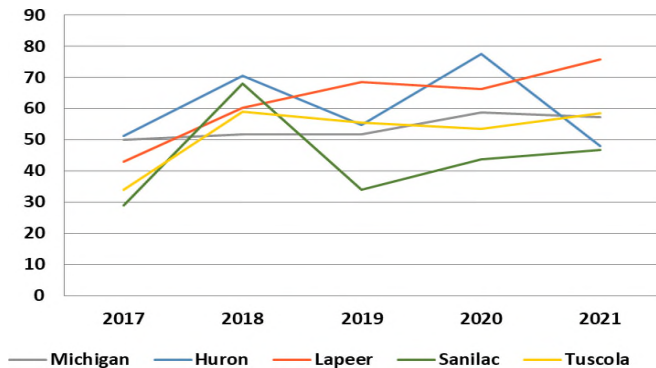
Figure 46: Stroke Age Adjusted Mortality Trend
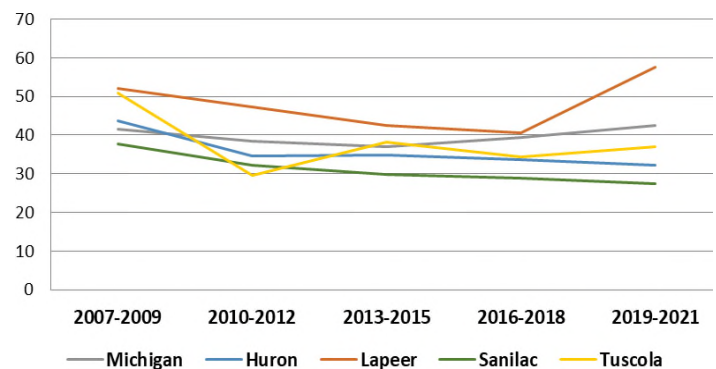
Figure 47: Heart Disease Crude Death Rates/100,000- Males

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/Deaths/frame.html
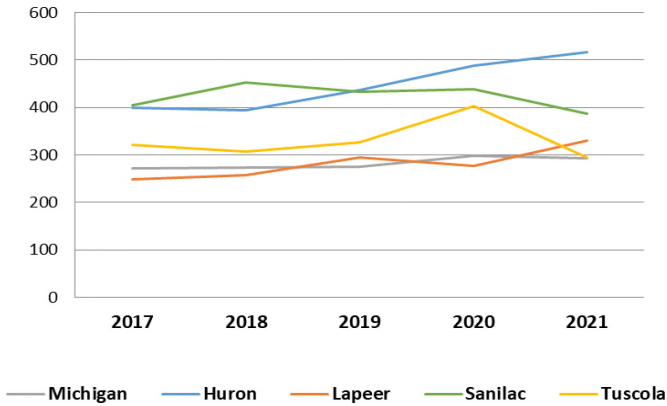
Figure 48: Heart Disease Crude Death Rates/100,000- Females

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/Deaths/frame.html
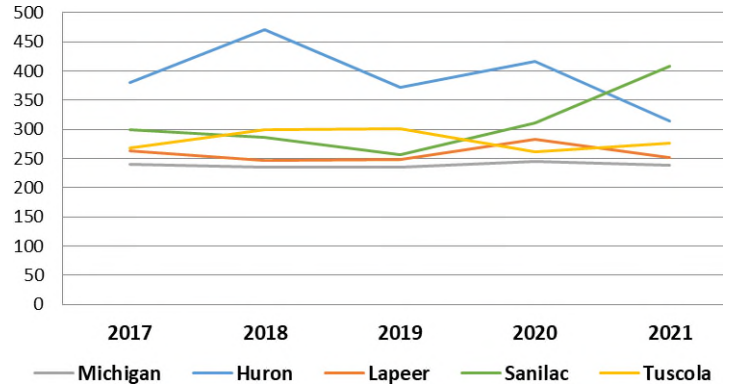
Figure 49: 2021 Heart Disease Years of Potential Life Lost Rate/100,000

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/Deaths/frame.html
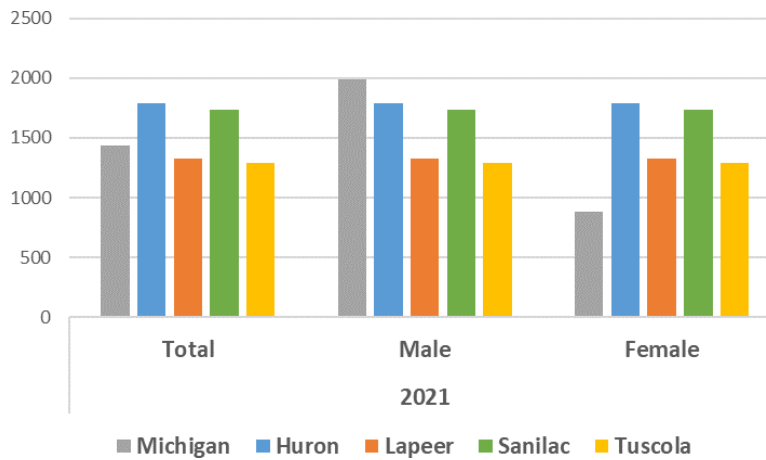
Figure 50: Stroke Crude Death Rates/100,000

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/Deaths/frame.html
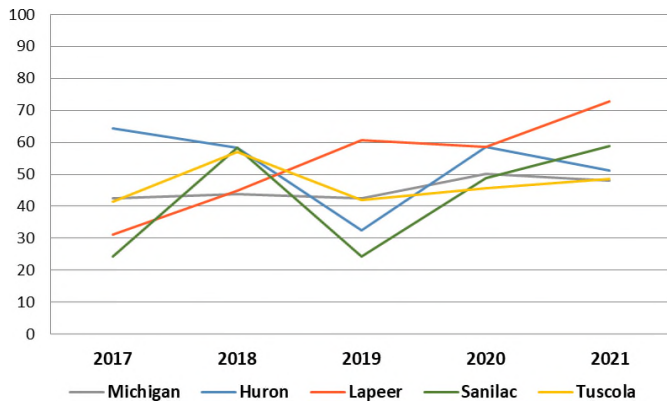
Figure 51: Stroke Crude Death Rates/100,000

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/Deaths/frame.html
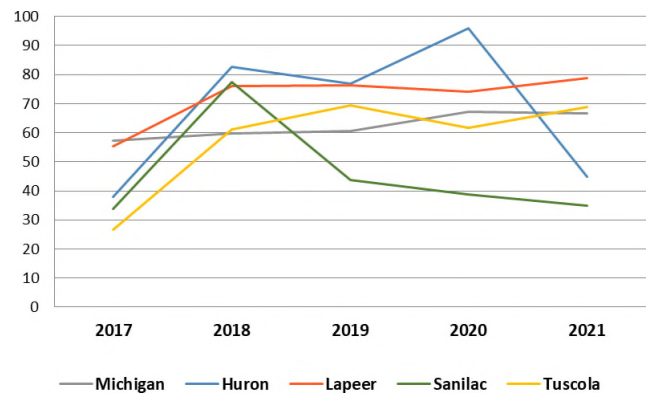
Figure 52: Medicare Hospitalization Maps for Heart Disease and Stroke

2018-2020 Heart Disease Hospitalizations Rate/1000
For Medicare, Age 65+

2018-2020 Stroke Hospitalizations; Percentage
Discharged Home for Medicare, Age 65+

Center for Disease Control; Interactive Atlas
https://nccd.cdc.gov/DHDSPAtlas/Default.aspx
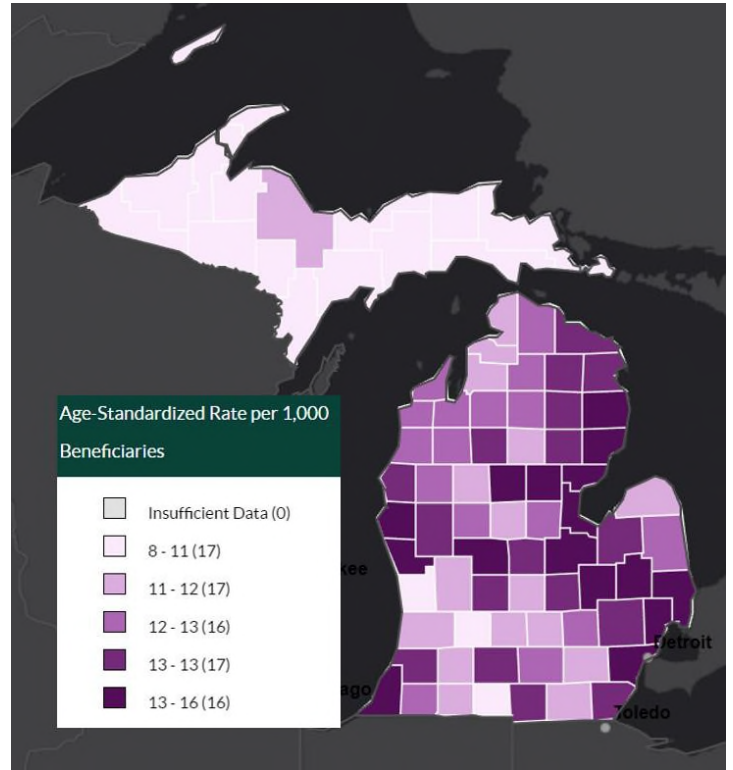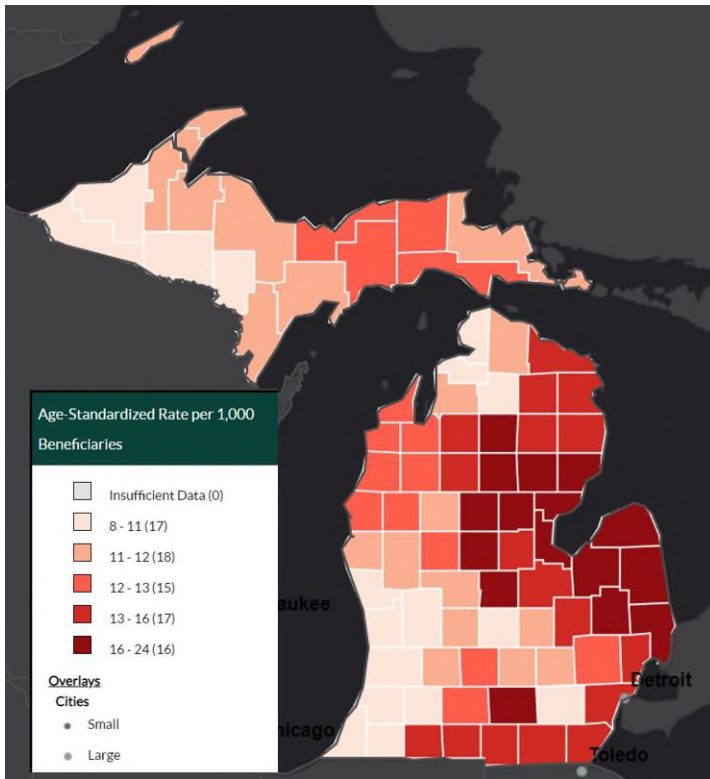
Figure 53: Ambulatory Care Sensitive Hospitalizations/10,000 Cerebrovascular Disease

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/hospdx/frame.html
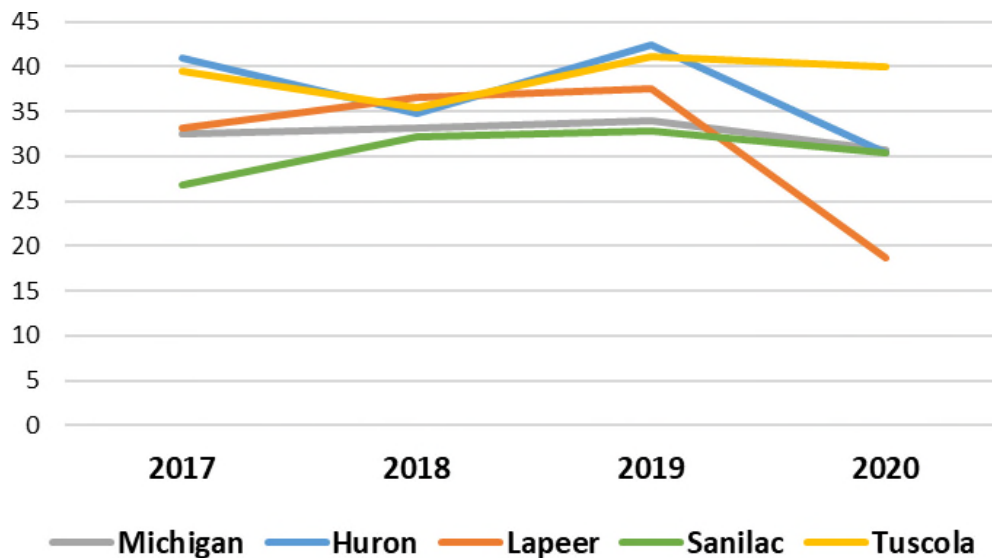
Figure 54: Heart Disease Age Adjusted Mortality Trends, 3 Year Moving Average

Michigan 195

County	2019-2021	2016-2018
Tuscola ↓	201	209
Sanilac ↑	235	233
Lapeer ↑	217	215
Huron ↑	221	212

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/CRI/frame.asp
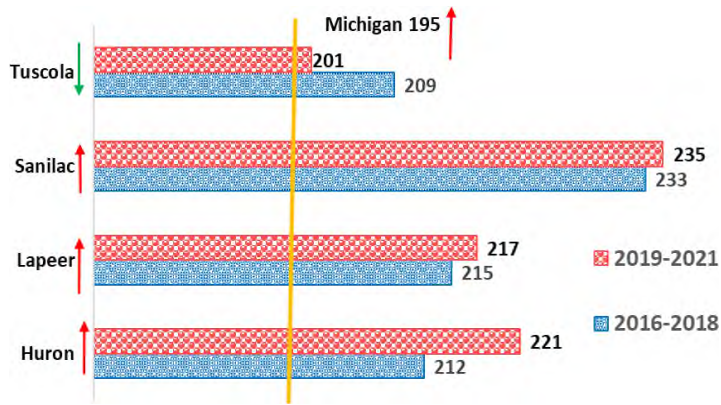
Figure 55: Hospitalizations for Heart Disease- Rate/10,000

County	2020	2019
Tuscola ↓	149	166
Sanilac ↓	121	122
Lapeer ↓	85	152
Huron ↓	155	180
Michigan ↑	113	105

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/hospdx/frame.html
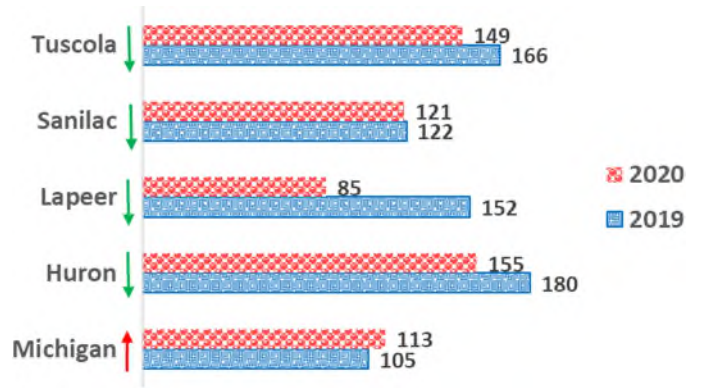
Figure 56: Stroke Mortality Trends, Rate/100,000 2016-2018 to 2019-2021

Michigan 43

County	2019-2021	2016-2018
Tuscola ↑	37	34
Sanilac ↓	28	29
Lapeer ↑	58	41
Huron ↓	32	34

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/CRI/frame.asp
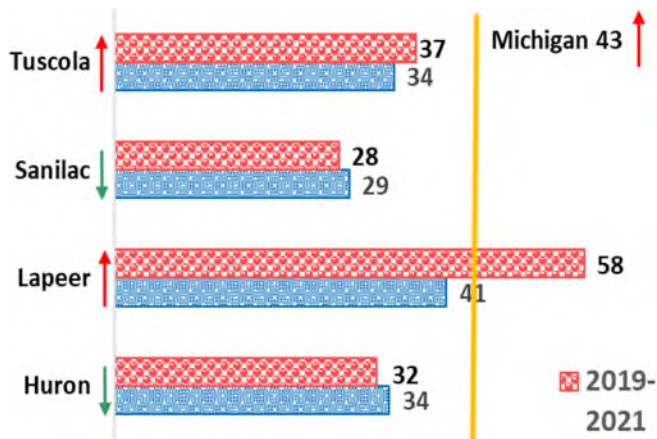
Figure 57: Hospitalizations/10,000 Cerebrovascular Disease 2019 to 2020

County	2020	2019
Tuscola ↓	40	41
Sanilac ↓	30	33
Lapeer ↓	19	38
Huron ↓	30	42
Michigan ↓	31	34

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/hospdx/frame.html
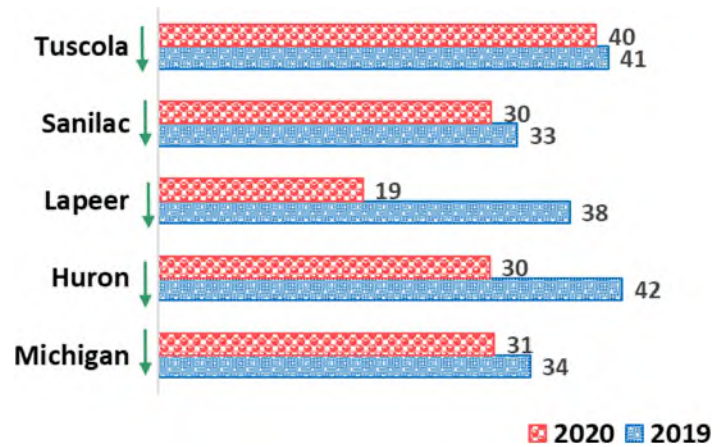
Tobacco Use

SCOPE OF THE PROBLEM

Tobacco use is significantly associated with the four main preventable causes of death in the United States: cancer, heart disease, cardiovascular disease, and pulmonary disease. Rural populations are already significantly disadvantaged by lack of access to health care generally, but when combined with tobacco addiction, rural populations significantly increase their risk for chronic conditions. In addition to being at a greater risk for tobacco-related morbidity and mortality due to their own tobacco use, rural populations are also disproportionately affected by secondhand smoke. (Vander Weg MW CC, Howren MB, Cai X., Vander Weg MW CC, Howren MB, Cai X.) While adult smoking rates have leveled off in the area and are lower than the state, two populations are of particular concern.

1) Rural youth have higher rates of cigarette and smokeless tobacco use than urban counterparts. Research indicates that rural youth initiate tobacco use at an earlier age and, therefore, are more nicotine dependent, making cessation more difficult. Rural youth tobacco users may be at an increased risk for anxiety and depression because smoking and mental health issues tend to co-occur among this population. (Rural Healthy People 2020, Vol I). Vaping is also a new trend that may replace tobacco use and increase the risk of substance use disorder.

2) Pregnant women are almost three times more likely to smoke compared to their urban counterparts even when other factors are accounted for (American Lung Association). Recent rates have seen a slight decrease.

Figure 58: % of Adults who Smoke
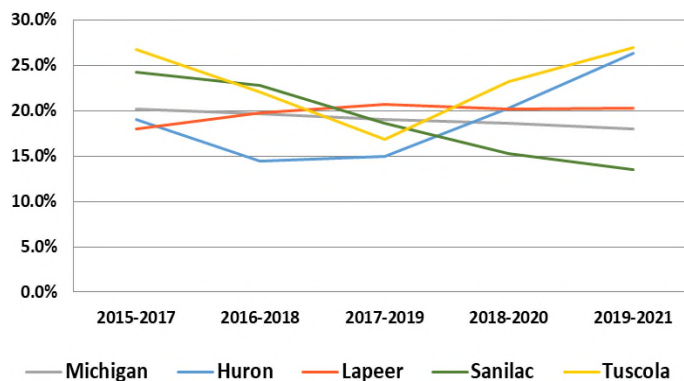
Behavioral Risk Factor Surveillance System Michigan Department of Health and Human Services
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Figure 59: % of Live Births to Women Who Smoked During Pregnancy – 3 Year Average
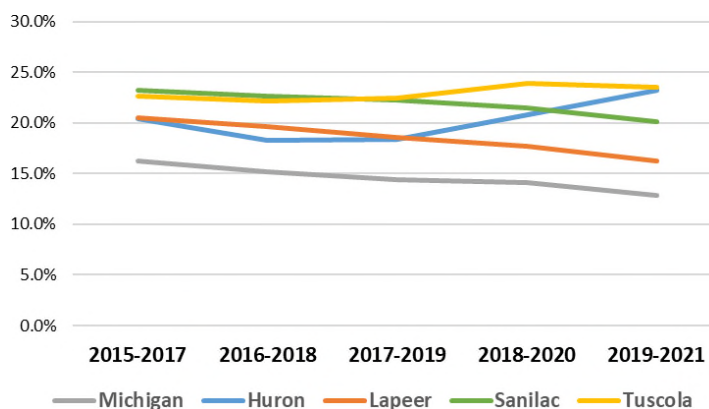
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/Index.asp

Related Healthy People 2030- Objectives

TU-1&2 Reduce tobacco use by adults; adolescents; **TU-4-5-6** Increase smoking cessation attempts by adult smokers; during Pregnancy; **TU-9&10** Increase tobacco screening and cessation counseling in health care settings; **TU-11** Reduce the proportion of nonsmokers exposed to secondhand smoke; **U-12** Increase the proportion of persons covered by indoor worksite polices that prohibit smoking; **TU-13** Establish laws on smoke-free indoor air that prohibit smoking in public places and worksites
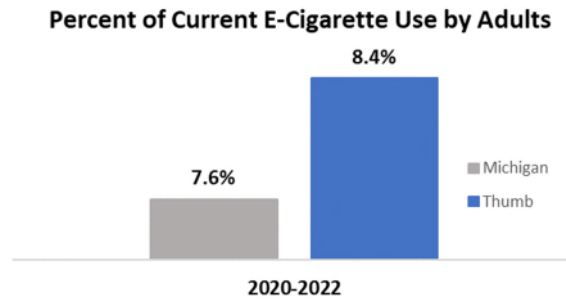
Percent of Current E-Cigarette Use by Adults

Michigan: 7.6%
Thumb: 8.4%
2020-2022

Michigan Profile for Healthy Youth
Data not available for Michigan and Lapeer
https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx

Figure 60: % of 9th and 11th grade students who report it is easy to get cigarettes.
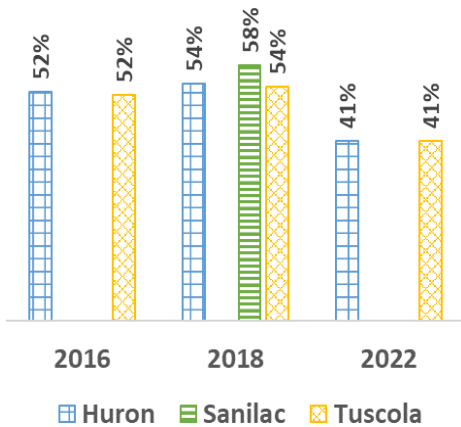

Figure 61: % of 9th and 11th grade students who report smoking cigarettes is a moderate or great risk
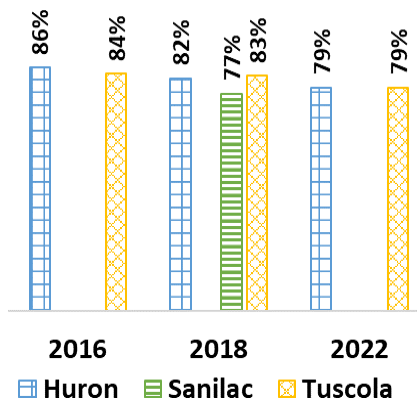

Figure 62: Among current 9th and 11th grade smokers, % who tried to quit in past 12 months
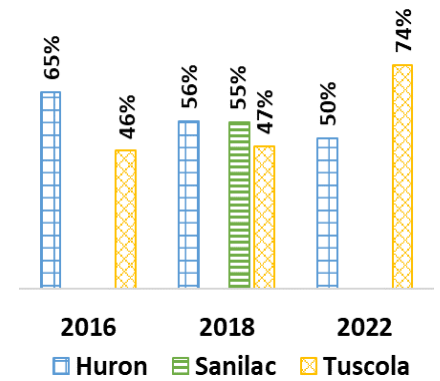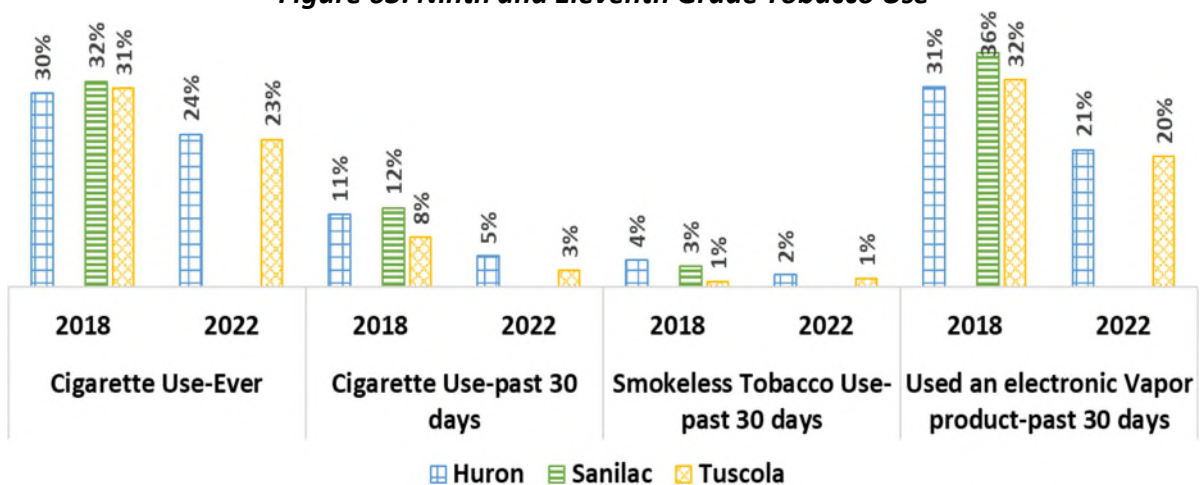

Figure 63: Ninth and Eleventh Grade Tobacco Use
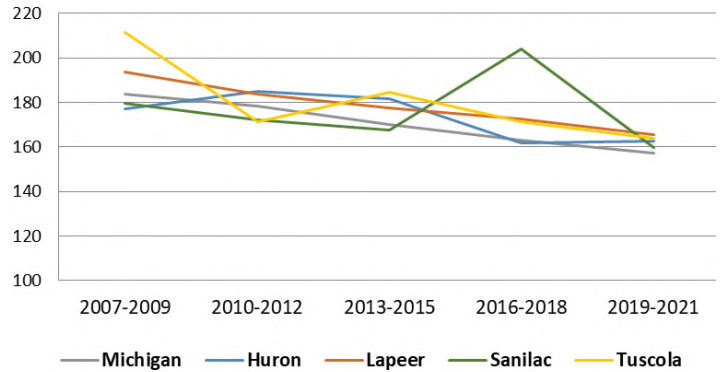
Cancer

SCOPE OF THE PROBLEM

Cancer is the second leading cause of death in the United States and the local region. Cancer incidence and death rates are higher in rural communities. Many cancers are highly treatable if detected early. In rural areas, detection is not as timely and there are also differences in treatment. Breast, colorectal, and cervical cancer screenings have been shown to be less frequent in rural areas.

There are a number of barriers to prevention, screening, and treatment for cancer.

- Personal level barriers include knowledge, attitudes, and beliefs about cancer. Lack of insurance and cost barriers also play a factor alongside lack of transportation.
- System level barriers also exist including distance to a facility, inadequate physician recommendation, overall shortage of healthcare providers in rural areas, and lower participation in clinical trials.

Rural residents also tend to have higher risk factors. Tobacco use is associated with higher incidence of cancer and rural areas tend to have higher rates than their urban counterparts. Studies have also shown that healthy eating and physical activity are protective factors. As discussed in other sections, rural residents have higher rates of obesity and barriers to accessing healthy foods and opportunities for physical activity. (Rural Healthy People 2020)

Figure 64: Cancer Mortality Trends Age Adjusted Rate/100,000

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/Cancer/cdxrecent.asp

Figure 65: Cancer Years of Potential Life Lost Rate/100,000
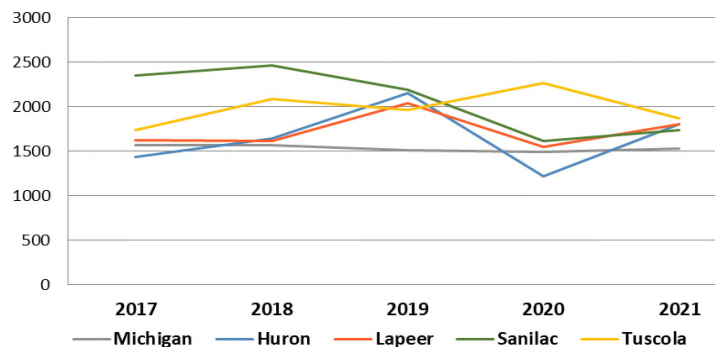
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/cri/frame.html

Related Healthy People 2030- Objectives

C-1 Reduce the overall cancer death rate; **C-9** Reduce invasive colorectal cancer; **C-10** Reduce invasive uterine cervical cancer; **C-11** Reduce late-stage breast cancer; **C-**13 Increase the proportion of cancer survivors who are living five years or longer after diagnosis; **C-15** Increase the proportion of women who receive a cervical cancer screening based on the most recent guidelines; **C-16** Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines; **C-17** Increase the proportion of women who receive a breast cancer screening based on the most recent guidelines

Figure 66: Prostrate Cancer Incidence Rates/100,000

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/cri/frame.html
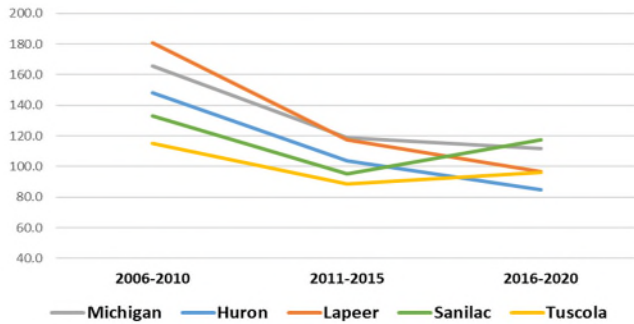
Figure 67: Lung and Bronchus Cancer Incidence Rates/100,000 – Age Adjusted

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/cri/frame.html
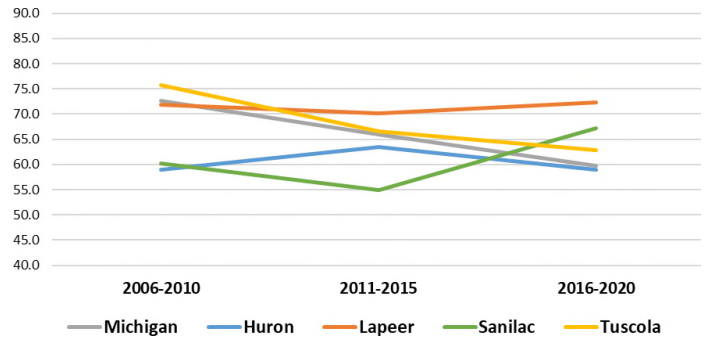
Figure 68: Breast Cancer Incidence Rates/100,000 –Age Adjusted

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/cri/frame.html
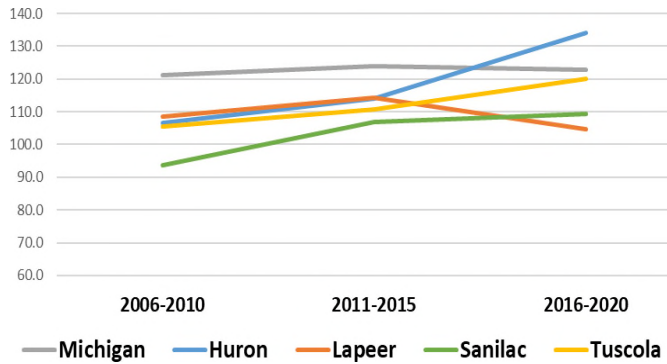
Figure 69: Colorectal Cancer Incidence Rates/100,000- Age Adjusted

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/cri/frame.html
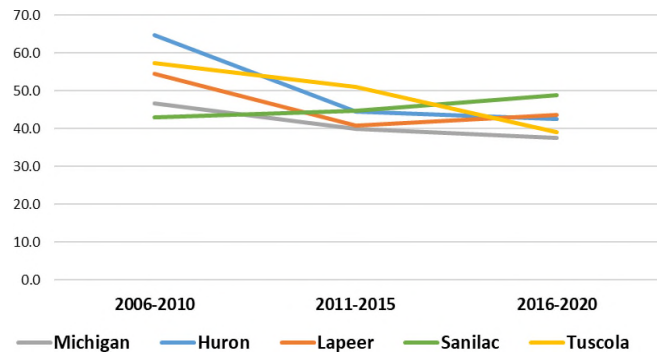
Figure 70: Colorectal Cancer Screening Age 50+ 2020

Thumb Region 71.7%
Michigan 75.6%

Michigan Department of Health and Human Services from Yan Tian

Figure 71: 2021 Cancer Years of Potential Life Lost Rate/100,000
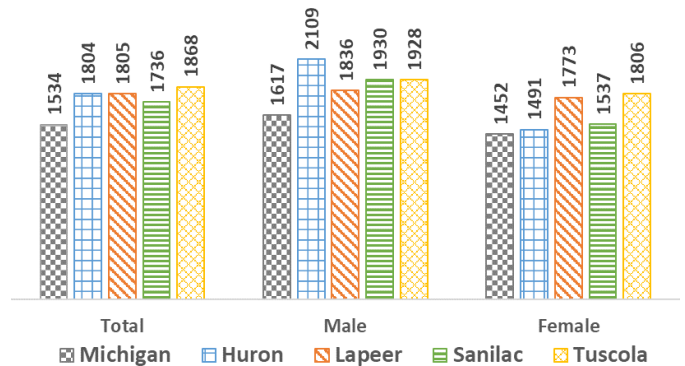
Michigan Department of Health and Human Services
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Mental Health

SCOPE OF THE PROBLEM

Mental health disorders are often associated with significant impairment and disability and result in substantial financial costs. It is estimated that mental illness costs the U.S. at least $300 billion annually, with disability benefit payments of about $24 billion, health care expenditures of $100 billion, and lost earnings and wages of approximately $193 billion (Kessler RC, Heeringa S, Lakoma MD, et al...) The impact of mental health conditions is exacerbated by lack of available services, limited specialty service, stigma association with mental health disorders, transportation to services, and cost of medications. The disability caused by mental health conditions can also interfere with self-management of health leading to co-morbidities.

The shortage of mental health providers may contribute to a workforce that has a lower level of certification and is susceptible to burnout. Determining the prevalence of mental health disorders is challenging. It is estimated that over 46 percent of adults in the U.S. will develop a mental illness at some point during their lifetime (Kessler RC, Wang PS). It is estimated that 1 in 4 individuals have a mental health disorder. When substance use is included in that estimation, 1 in 3 people have a behavioral health disorder. It is estimated that among the 25% of the population with a mental health disorder, 40% experienced mild disorders, 37% experienced moderate disorders, and 22% experienced serious mental disorders (Bagalman E, Napili A.).

Under- utilization of mental health services for rural residents translates into the increased likelihood that they will enter treatment with more severe disorders (Brossart DF, Wendel ML, Elliott TR, Cook HE, Castillo LG, Burdine JN) Research also shows that children and senior citizens are at risk for having an untreated mental health disorder. (Healthy People 2020- US Department of Health & Human Services)
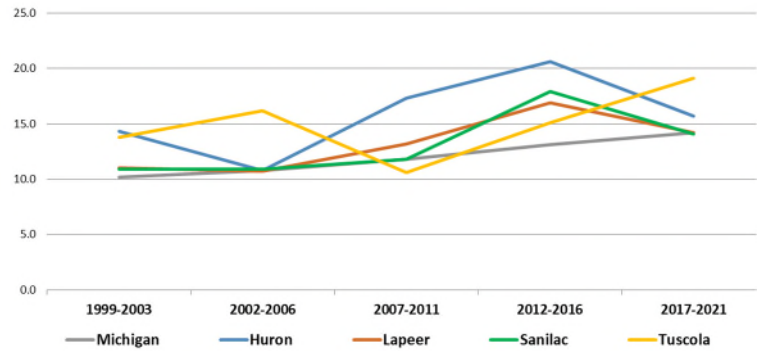
Figure 72: Suicide Mortality Trends, Age Adjusted Rate/100,000

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/CRI/frame.asp

Figure 73: 9th and 11th grade Depression and Suicidal Ideations
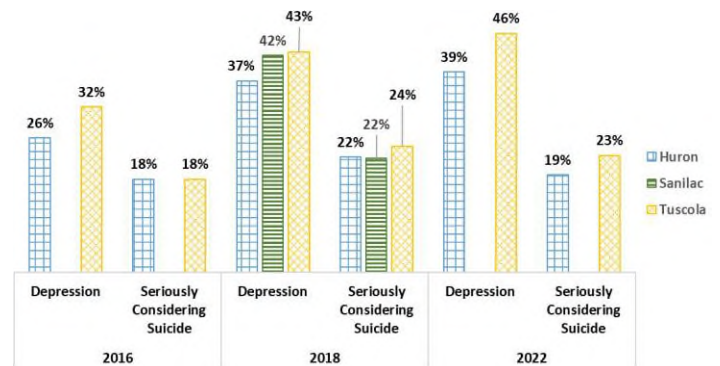
Data not available for Michigan and Lapeer. Sanilac only 2018 data available. "% of 9th & 11th grade students who felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months."
Percentage of students who seriously considered attempting suicide during the past 12 months.
Michigan Profile for Healthy Youth
https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx

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Related Healthy People 2030- Objectives
MHMD-1 Reduce the suicide rate; **MHMD-4.1** Reduce the proportion of adolescents aged 12 to 17 years who experience major depressive episodes (MDEs); **MHMD-6** Increase treatment for children with mental health problems; **MHMD-9** Increase treatment for adults with mental health disorders

Figure 74: Mental Health Provider Rates (Lower indicates greater access)
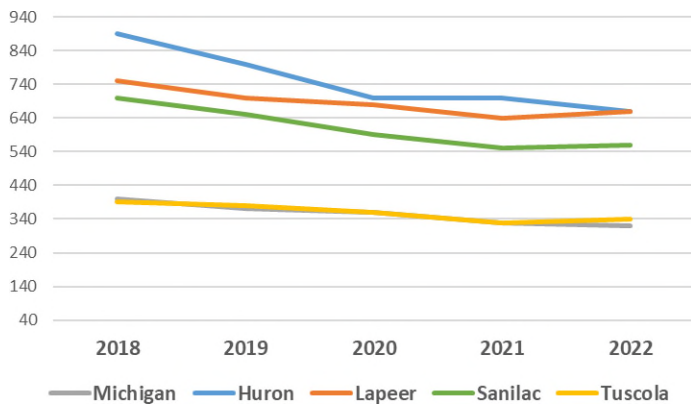
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 76: Mental Health Indicators
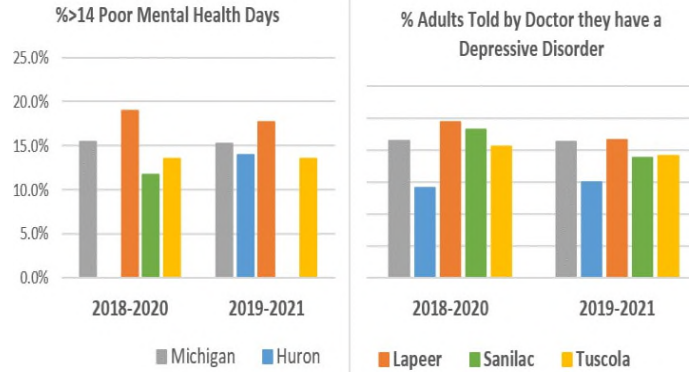
Michigan Department of Health and Human Services
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

Figure 75: Suicide Mortality Trends, Age Adjusted 2017-2021

Michigan	14/100,000 ↑
Tuscola ↑	
Sanilac ↓	14.1
Lapeer ↓	14.2
Huron* ↓	15.7
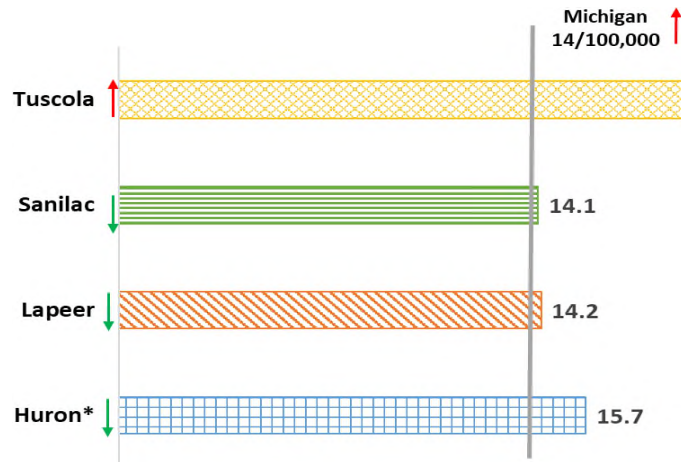
Asterisk (*) indicates that data do not meet standards of reliability or precision.
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/CRI/frame.asp

Substance Use Disorders

SCOPE OF THE PROBLEM

Substance Use Disorders (SUD) contribute to a variety of health problems and, for certain individuals, leads to increased incidence of violence and accidents (American Psychiatric Association). Substances can be separated into two categories:

1) Legal Drugs: alcohol, tobacco, caffeine, drugs as appropriately prescribed and used.
2) Illegal Drugs: substances used illegally such as meth-amphetamines, cocaine, and prescription drugs such as opioids when used improperly.

Prevalence of SUD has characteristics that reflect both rurality and geographic regions across the United States. Across the United States and especially in rural communities there is a recent trend of increased nonmedical prescription drug use. One of the most recognized and expected barriers to lowering the number of people with SUD in rural America is the lack of access to appropriate treatment and interventions, combined with the lack of resources for SUD and mental health services in rural areas. (Curran GM, Ounpraseuth ST, Allee E, Small J, Booth BM.)

However, rural residents who have SUD have lower treatment utilization even when services are available. A study of over 700 rural drug users found that, despite high levels of recent and lifetime self-reported SUD among rural residents, available treatment services were underutilized. (Curran GM, Ounpraseuth ST, Allee E, Small J, ooth BM.) (Healthy People 2020- US Department of Health & Human Services)

Figure 77: Drug Poisoning Deaths
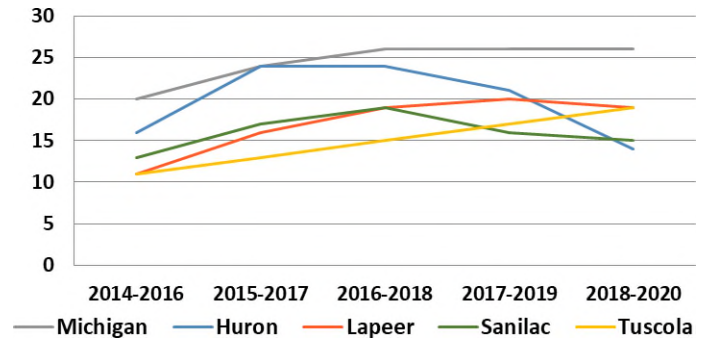
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 78: % of Adults who have Engaged in Excessive Drinking
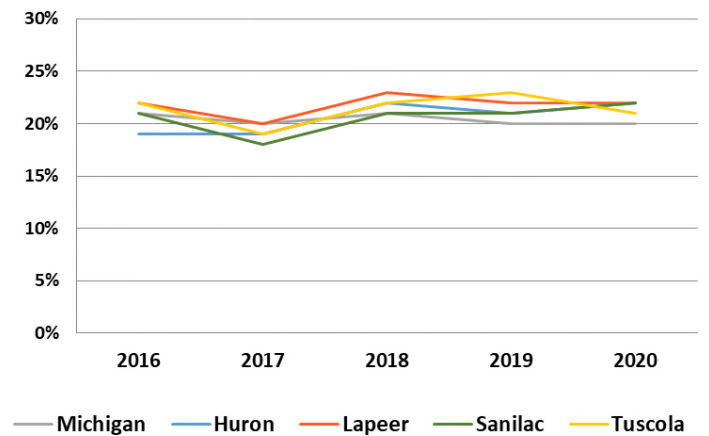
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Related Healthy People 2030- Objectives

SA-2 Increase adolescents never using substances; **SA-3** Increase adolescents who disapprove of substance abuse; **SA-4** Increase the proportion of adolescents who perceive great risk associated with substance abuse; **SA-7** Increase the number of admissions to substance abuse treatment for injection drug use; **SA-10** Increase Level 1 and Level 2 trauma centers and primary care settings that implement evidence-based alcohol Screening and Brief Intervention (SBI); **SA-12** Reduce drug-induced deaths; **SA-13** Reduce past-month use of illicit substances; **SA-14** Reduce the proportion of persons engaging in binge drinking of alcoholic beverages; **SA-16** Reduce average annual alcohol Consumption; **SA-17** Reduce the rate of alcohol- impaired driving (0.08+ blood alcohol content [BAC]) fatalities; **SA-19** Reduce nonmedical use of prescription drugs; **SA-20** Reduce the number of deaths attributed to alcohol

Figure 79: 9th & 11th Grade Alcohol and Marijuana Use
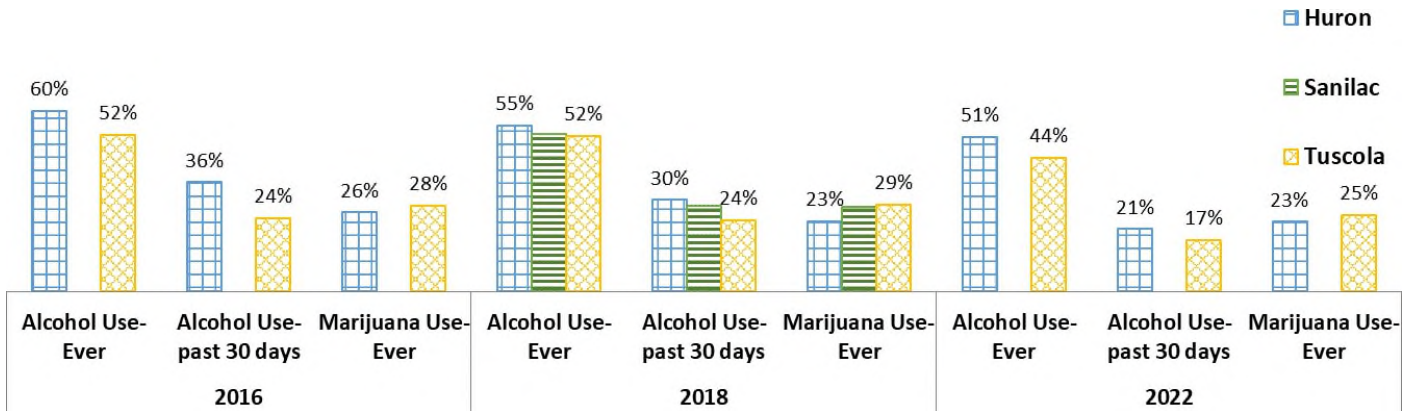
Data not available for Michigan and Lapeer. Sanilac is only available for 2018.
Michigan Profile for Healthy Youth
https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx

Figure 80: % of Adults Engaged in Excessive Drinking 2020
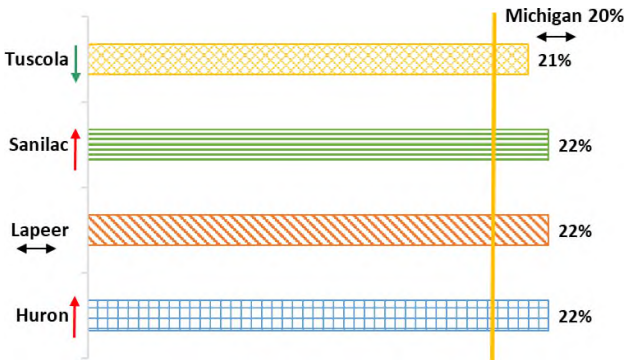
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 81: Drug Overdose Deaths/100,000, 2018-2020
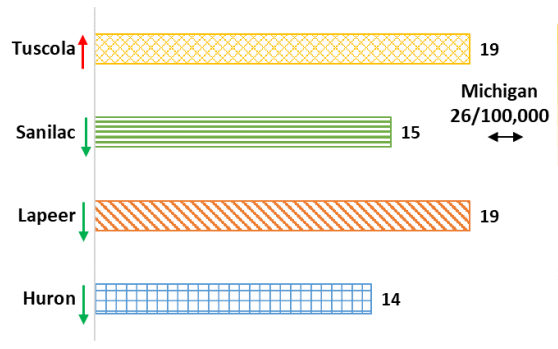
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Figure 82: Incidence of Neonatal Abstinence Syndrome by Perinatal Region 2020

Region	# Cases	# Births	Rate per 100,000 Live Births
Michigan	650	104,149	624.1
1	67	2,489	2,691.8
2	23	2,680	858.2
3	17	1,613	1,053.9
4	53	18,104	292.8
5	59	5,333	1,106.3
6	102	8,433	1,209.5
7	32	4,653	687.7
8	33	8,298	397.7
9	42	9,660	434.8
10	222	42,878	517.7

Michigan Resident Live Birth Files Linked with Michigan Hospital Discharge Data, Division for Vital Records and Statistics, Michigan Department of Health and Human Services
https://www.michigan.gov/mdhhs/-/media/Project/Websites/mdhhs/MCH-Epidemiology/NAS-by-Prosperity-Region---May-2022.pdf?rev=57fc91b8634c4b1ea506d685032d2794&hash=CD5ABA386DC56816707C3457F5497B1D

Figure 83: Number of Opioid-related Drug Poisoning Deaths, Females, Michigan (1999-2014)

Source: Michigan Death Certificate Files, Division for Vital Records and Health Statistics, MDHHS

*Opioid-related includes opioid w/o heroin or cocaine; opioid w/ heroin, w/o cocaine; opioid w/ cocaine, w/o heroin; opioid with heroin and cocaine

Perinatal Region 3

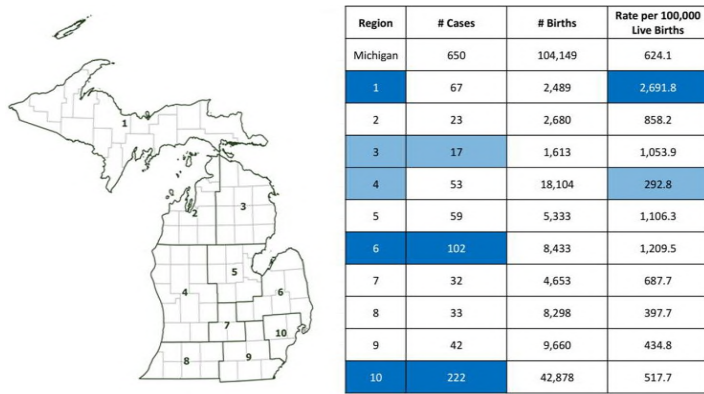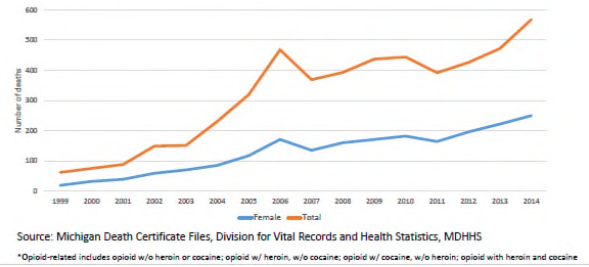|	Births	N with Treated NAS (779.5)	Rate per 100,000
2010	12,107	54	446.0
2011	11,749	96	817.1
2012	11,633	96	825.2
2013	11,632	118	1014.4
2014	11,715	165	1408.5

Michigan Resident Inpatient Files Michigan Health and Hospital Association Service Corporation
https://www.michigan.gov/documents/mdhhs/Burden_of_Neonatal_Abstinence.Syndrome_in_Michigan_548268_7.pdf

Figure 84: Neonatal Abstinence Syndrome Rate per 100,000 Births Michigan -Perinatal Region 3

Michigan Resident Live Birth Files Linked with Michigan Hospital Discharge Data, Division for Vital Records and Statistics, Michigan Department of Health and Human Services https://www.michigan.gov/mdhhs/-/media/Project/Websites/mdhhs/MCH-Epidemiology/NAS-by-Prosperity-Region---May-2022.pdf?rev=57fc91b8634c4b1ea506d685032d2794&hash=C D5ABA386DC56816707C3457F5497B1D
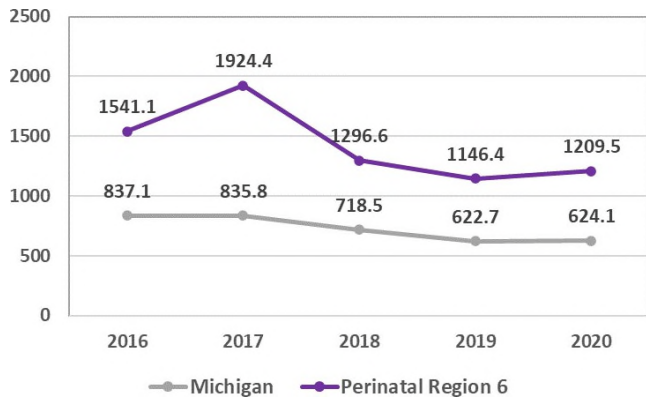
Figure 85: Opioid Prescribing Rate/100 People
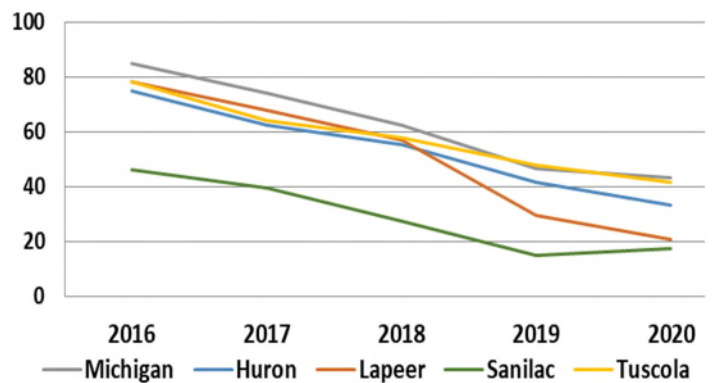
Center for Disease Control
https://www.cdc.gov/drugoverdose/rxrate-maps/county2020.html

Older Adults

SCOPE OF THE PROBLEM

Older adults account for more than 20% of the population in Michigan's Thumb. In Huron County, one out of four people were over the age of 65 in 2021. (US Census)

The American generation known as the "Baby Boomers" began reaching age 65 around 2010. There is an increase in health conditions that often develop as people age. Considering the health needs of this demographic population is important to both the quality of life of individuals and the overall cost of healthcare in rural areas. Among the older adult population, upwards of 91% have at least one chronic condition, while 73% have two or more chronic conditions (Anderson G. Chronic care: making the case for ongoing care).

Increasing quality of life and decreasing the extent of disability for the elderly population is possible through evidence based prevention programs and supports for chronic care self-management. Ensuring that there are adequate resources to support these efforts in rural communities is a challenge. This challenge is exacerbated by an overall shortage in healthcare providers, a lack of providers with geriatric credentials, and access barriers such as cost and transportation. Programs that address specific health conditions in the elderly population will also help to improve health outcomes for those over age 65. Data shows that a number of rural disparities exist for colorectal cancer screening, Alzheimer's care, physical activity and healthy eating, diabetes self-management, depression and mental health, and fall risks often due to environmental factors. (Healthy People 2020- US Department of Health & Human Services)

Figure 86: % of Populations over age 65
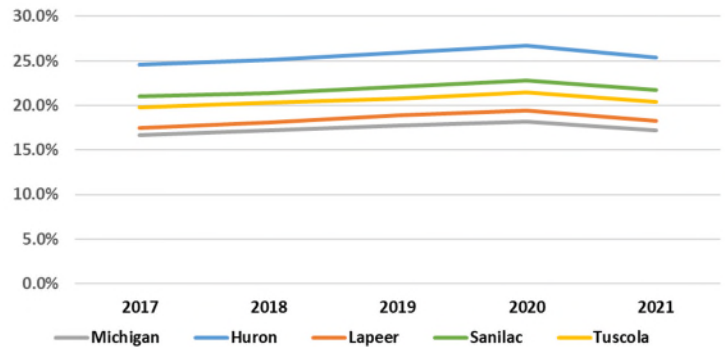
US Census -S0101- ACS 1 - Yr Estimate:2021 - ACS Demographic and Housing Estimates
https://data.census.gov/table?q=dp05&g=040XX00US26_050XX00US26063,26087,26151,26157&tid=ACSDP5Y2021.DP05&moe=false

Figure 87: % of Population over age 65, 2021
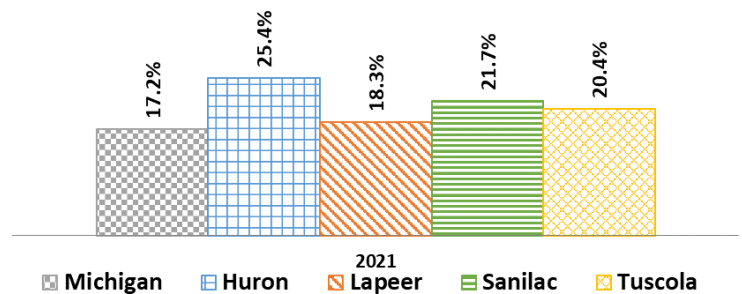
US Census -S0101- ACS 1 - Yr Estimate:2021 - ACS Demographic and Housing Estimates
https://data.census.gov/table?q=dp05&g=040XX00US26_050XX00US26063,26087,26151,26157&tid=ACSDP5Y2021.DP05&moe=false

Related Healthy People 2030- Objectives

OA-3 Increase the proportion of older adults with one or more chronic health conditions who report confidence in managing their conditions; **OA-4** Increase the proportion of older adults who receive Diabetes Self-Management Benefits; **OA-5** Reduce the proportion of older adults who have moderate to severe functional limitations; **OA-6** Increase the proportion of older adults with reduced physical or cognitive function who engage in light, moderate, or vigorous leisure time physical activities; **OA-7** Increase the proportion of the health care workforce with geriatric certification; **OA-9** Reduce the proportion of unpaid caregivers of older adults who report an unmet need for caregiver support services; **OA-10** Reduce the rate of pressure ulcer-related hospitalizations among older adults; **OA-11** Reduce the rate of emergency department (ED) visits due to falls among older adults

Figure 88: Cancer Death Rates/100,000 Residents Aged 50-75
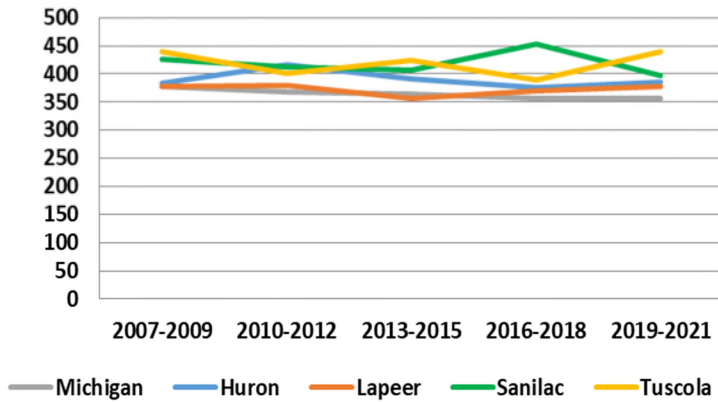
Figure 89: Diabetes Death Rates/100,000 Residents Aged 50-74
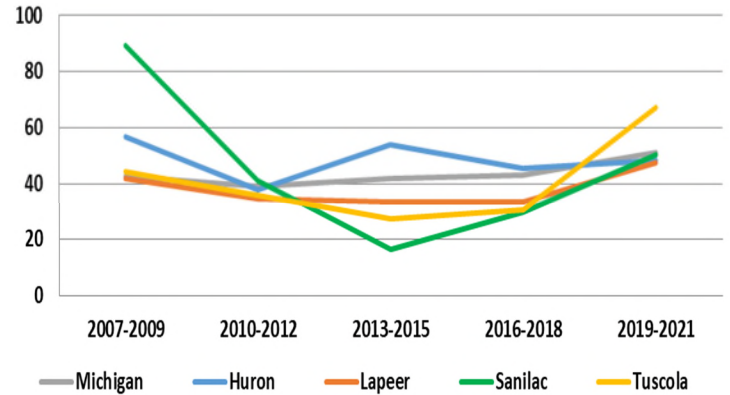
Figure 90: Heart Disease Death Rates/100,000 Residents Aged 50-74
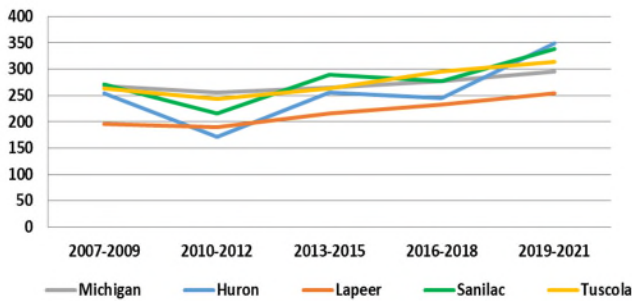
Figure 91: Unintentional Injuries Death Rate/100,000 Age 75+
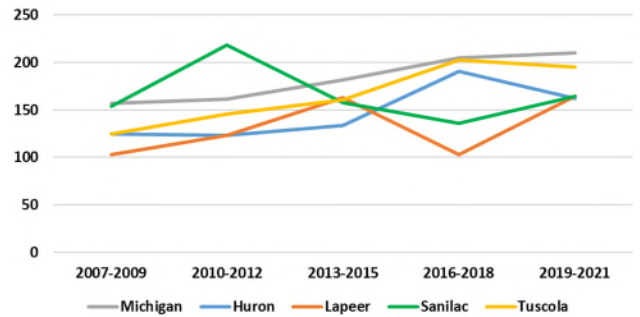
Figure 92: Top Three Causes of Fatal Injuries Michigan Rate/100,000 age 65+
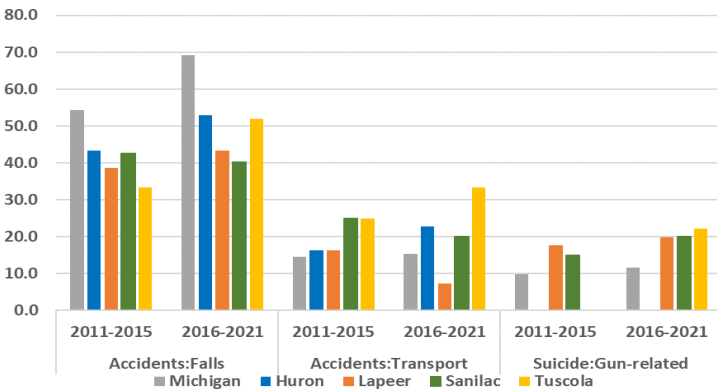
Figure 93: Unintentional Injury Death Rates/100,000, Age 75+
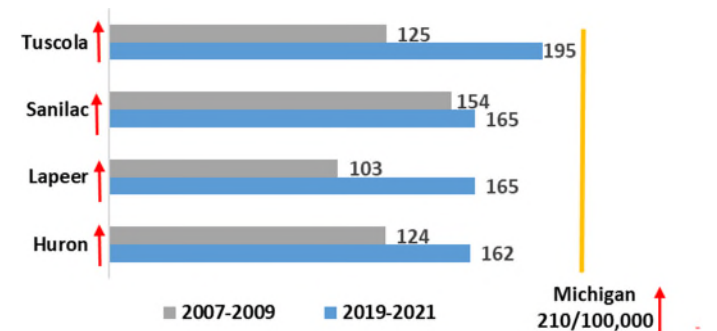
Figure 94: Map of Persons 65+ Living Alone, 2015-2019

AARP Foundation Connect 2 Affect,
https://connect2affect.org/isolation-map/
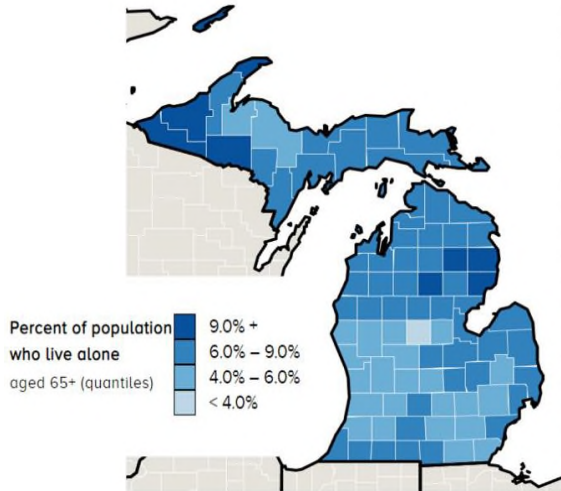
Figure 95: 2009-2013 Top Three Hospitalizations Rate/10,000 for those age 65+

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/hospdx/frame.html
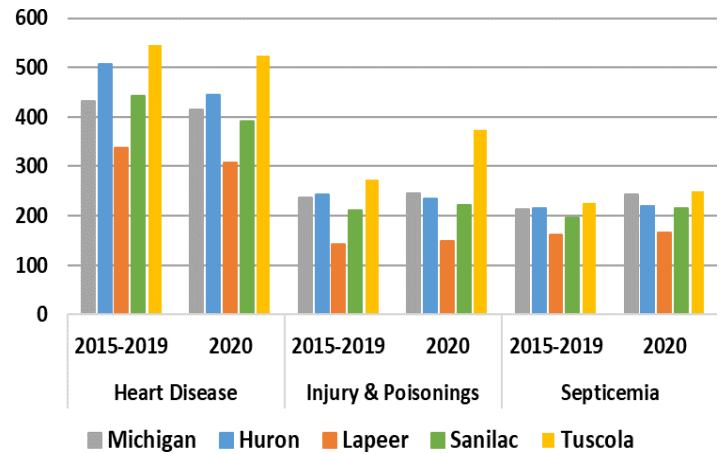
Figure 96: Unintentional Injury Death Rate/75+

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/CRI/frame.asp
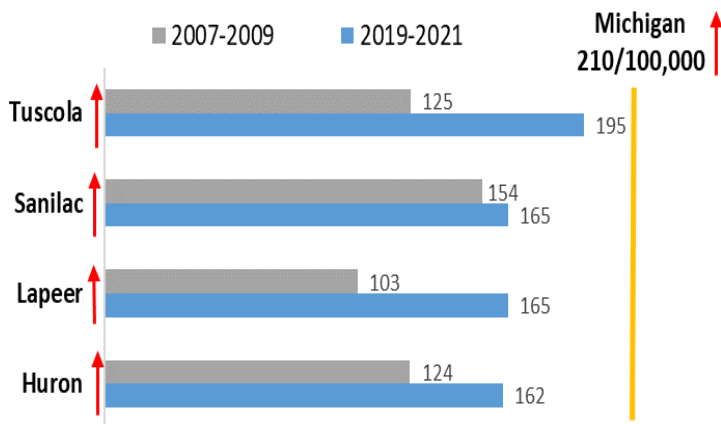
Figure 97: Percent of Disabled Residents by Age 2021
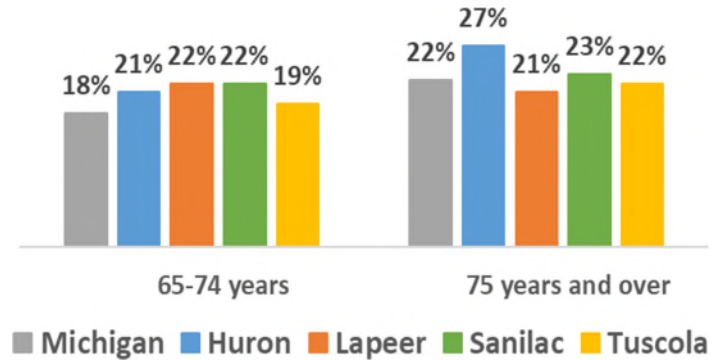
US Census -B18101- ACS 5 - Yr Estimate:2021 Sex by age by disability status
https://data.census.gov/table?q=Disabled&t=Disability&g=040XX00US26_050XX00US26063,26087,26151,26157&tid=ACSDT5Y2021.B18101&moe=false

Figure 98: % Disabled Residents Age 65+ 2015-2019

AARP Foundation Connect 2 Affect, https://connect2affect.org/isolation-map/
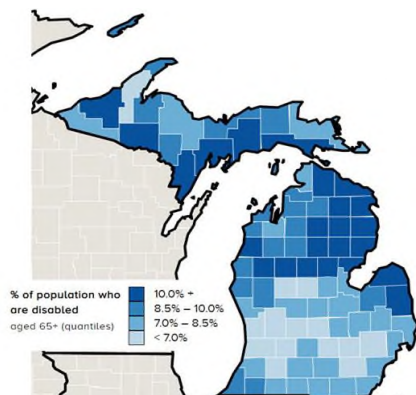
Figure 99: % of Population Age 65+ who have Independent Living Difficulties 2015-2019

AARP Foundation Connect 2 Affect, https://connect2affect.org/isolation-map/
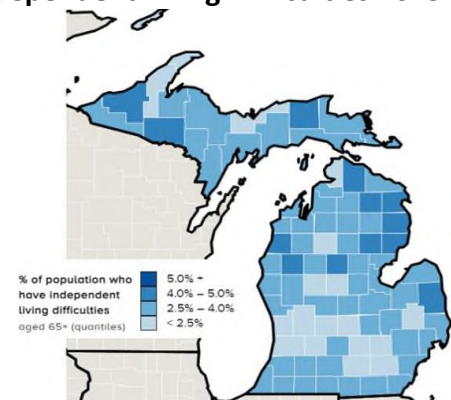
Injury and Violence Prevention

SCOPE OF THE PROBLEM

Injuries and violence have a significant impact on residents in rural communities. Aside from the resulting deaths, injuries account for a high cost in lost work, productivity, and quality of life. Pain from injuries can be long lasting and increase risk for opioid prescription use and addiction. Injuries among seniors can result in confinement and loss of independence. While rural communities typically see a lower rate of injuries resulting from crime and homicides, accidents and suicides are disproportionately higher in rural communities as compared to their urban counterparts.

Injuries most frequently seen in rural communities are related to four main categories:
• Domestic violence and child abuse
• Traffic Accidents
• Personal injuries such as senior falls or farm accidents
• Injuries related to mental health or substance use such as accidental overdoses, impaired driving, and suicide.
One of the major contributing factors to injuries and violence in rural communities is widespread isolation and geographic distance from social support or rescue services. Availably of services such as mental health or shelters are also lower in rural communities. Lower economic status compounds many of these issues. Many rural areas also depend on high-risk occupations such as farming or operating heavy equipment. One of the main rural industries, agriculture, has one of the highest occupational fatality rates, and injury from farm machinery is a source of injury among rural residents. This impacts both children and adults. (National Safety Council) (Healthy People 2020- US Department of Health & Human Services)

Figure 100: Violent Crime Rates
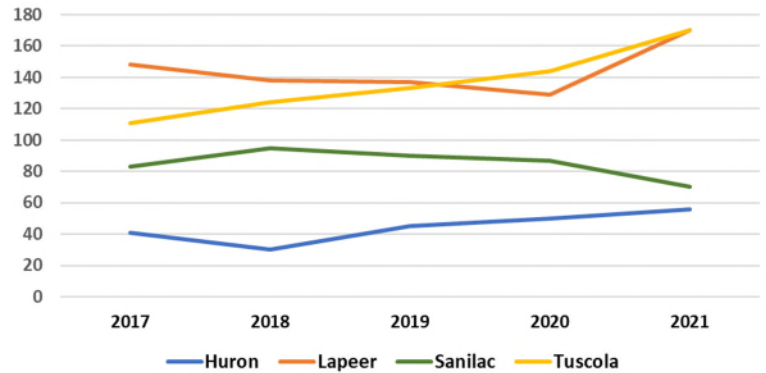
Michigan Incident Crime Reporting Annual Report
https://www.michigan.gov/msp/divisions/cjic/micr/annual-reports

Figure 101: Injury Hospitalizations and Deaths

Michigan Department of Health and Human Service

https://vitalstats.michigan.gov/osr/CHI/hospdx/frame.html

https://vitalstats.michigan.gov/osr/chi/FATAL2/frame.asp
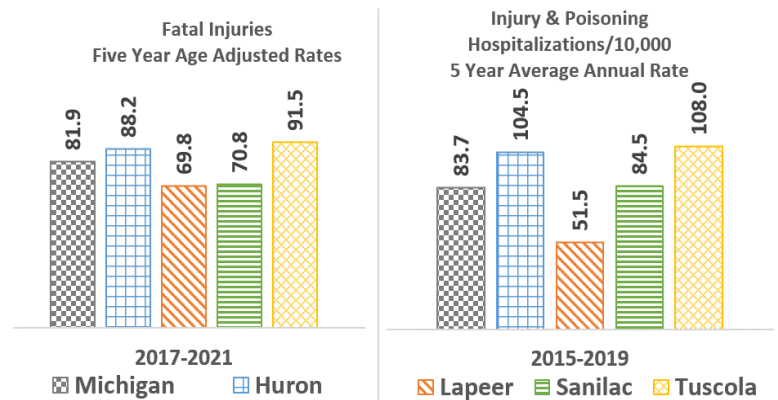
Related Healthy People 2030- Objectives
IVP-1 Reduce fatal and nonfatal injuries; **IVP-11** Reduce unintentional injury deaths; **IVP-12** Reduce nonfatal unintentional Injuries; **IVP-13** Reduce motor vehicle crash-related deaths; **IVP-30** Reduce firearm-related deaths; **IVP-33** Reduce physical assaults; **OSH-1** Reduce deaths from work-related injuries; **OSH-2** Reduce nonfatal work-related injuries

Figure 102: Rate/1000 Children Ages 0-8 who lived in families substantiated for child abuse/neglect
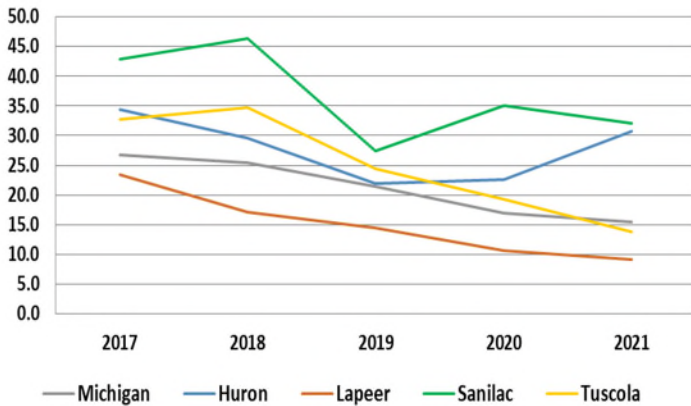
Figure 103: Rate/1000 Children Ages 0-8 who lived in families investigated for child abuse/neglect
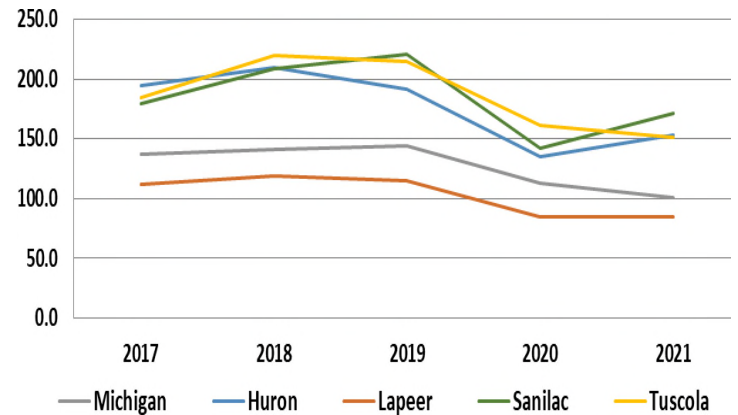
Figure 104: 2021 Rate/1000 Substantiated Child Abuse/Neglect

Tuscola ↓ 10.7
Michigan 17% ↓
Sanilac ↓ 25.3
Lapeer ↓ 8.7
Huron ↓ 22.6
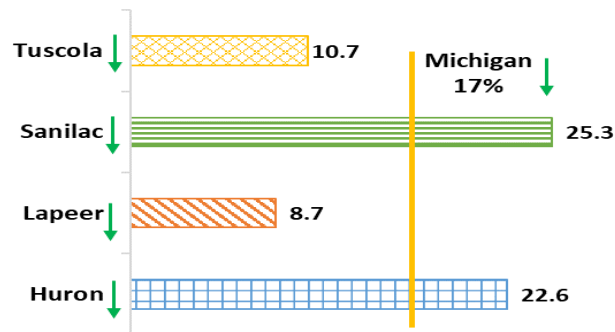
Figure 105: 9th & 11th Grade Safety Issues

Percent of Students physically forced to have sexual intercourse

Percent of Students physically hurt on purpose by someone they were dating

Percent of Students who Texted or Emailed while driving- Note 11th grade only

Percent of students who have seen students get pushed, hit, or punched one or more times during the past 12 months.

Figure 106: 2021 Rates of Crashes Involving Drugs   **Figure 107: 2021 Rates of Crashes Involving Alcohol**

https://www.michigantrafficcrashfacts.org/

Figure 108: 2017-2021 Fatal Injuries Rate/100,000
Five Year Age Adjusted Rates

Michigan Department of Health and Human Services

https://vitalstats.michigan.gov/osr/chi/FATAL2/frame.asp

Oral Health and Dental Care

SCOPE OF THE PROBLEM

Oral Health and overall physical health are directly linked. Acute and chronic diseases, such as acute myocardial infarction, strokes, and coronary heart disease, are increased with untreated periodontal disease. There is an established relationship between tooth-loss and other health problems, such as low functional status, cardiovascular diseases, cognitive decline, ischemic stroke, coronary heart disease, diabetes, pneumonia, nutritional deficiencies, social isolation, and mortality. Oral health issues can also interfere with the effectiveness of medications. Disparities in oral health status are associated with poverty, ethnicity, and geographic isolation. Barriers to dental health are varied. They include:

- Availability of care-especially the shortage of providers accepting Medicaid.
- Affordability of care including lack of insurance and low income.
- Access issues such as transportation, lack of time, and knowledge of services.
- Limited knowledge about importance and need for dental hygiene, dietary impact on dental health, preventive dental care, and the need to address dental issues before complications emerge.

Fear of dental care adds to these barriers. In a survey of rural residents in West Virginia, twenty-seven reported fears of seeking dental care (Frisbee SJ, Chambers CB, Frisbee JC, Goodwill AG, Crout RJ). With the scientific evidence connecting oral health to other physical health conditions, it is critical to shift mindsets around oral healthcare from an optional service to a necessary service which impacts overall health. (Summary of findings in Rural Healthy People 2020, Vol II)

Figure 109: Dentist Provider Ratio (Lower indicates greater access)

County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Health Provider Shortage Areas- Dental
Huron: Medicaid Eligible and Single County
Lapeer: None
Sanilac: Medicaid Eligible and Single County

Figure 110: Oral Health Indicators 2018-2020 combined
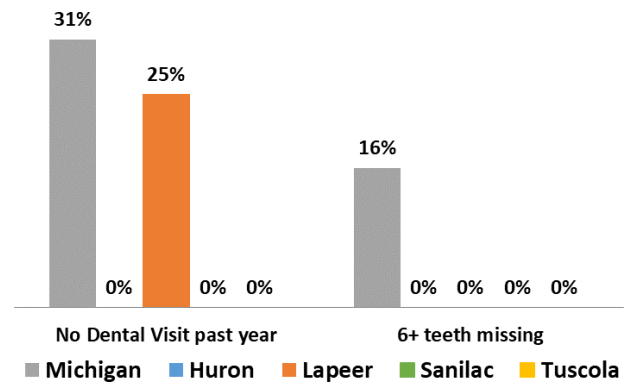
Michigan Department of Health and Human Services – BRFS Data not collected 2019-2021
http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424-134707--,00.html

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Related Healthy People 2030- Objectives

OH-1.1 and 1.2 Reduce children aged 3 to 5 years and 6-9 years with dental caries in their primary teeth; **OH-3.3** Reduce adults aged 75+ years with untreated root surface caries; **OH-4.1** Reduce adults aged 45 to 64 years who have ever had a permanent tooth extracted due to dental caries or periodontal disease; **OH-4.2** Reduce adults aged 65 to 74 years who have lost all of their natural teeth; **OH-6** Increase oral and pharyngeal can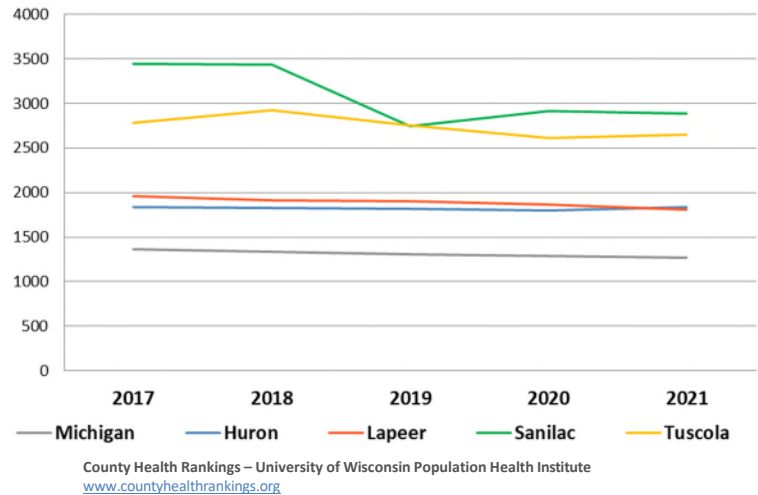cers detected at the earliest stage; **OH-7; OH-8 Reduce rate of lower extremity amputations** Increase children, adolescents, and adults who used the oral health care system and received any preventive dental service during the past year; **OH-9.1 thru OH-9.3** Increase school-based health centers with an oral health component that includes dental sealants (OH-9.1), dental care (OH-9.2), and topical fluoride (OH-9.3); **OH-10.1** Increase Federally Qualified Health Centers (FQHCs) that have an oral health care program; **OH-10.2** Increase local health departments that have oral health programs; **OH-11** Increase patients who receive oral health services at FQHCs; **OH-13** Increase the U.S. population served by community water systems with optimally fluoridated water; **OH-14.2 and 14.3** Increase adults who received an oral and pharyngeal cancer screening; referred for glycemic control from a dentist or hygienist

Figure 111: 9th & 11th Grade Students who have Seen a Dentist for a Checkup in the Past 12 Months
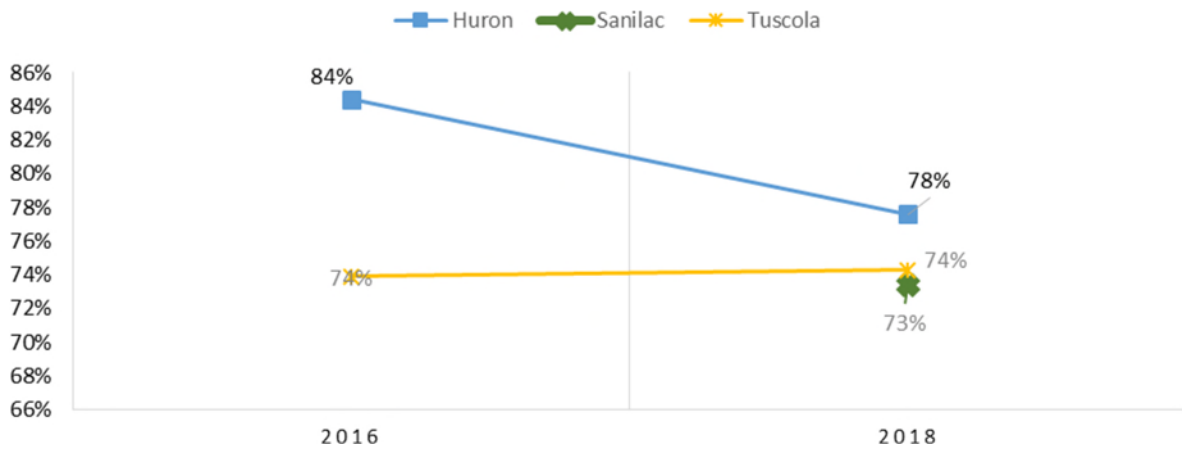
Data not available for Michigan, Lapeer. No new data collected on Oral Health since 2018 Michigan Profile for Healthy Youth
https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx

Figure 112: Adults Have Visited Dentist/Dental Clinic in Past Year, Michigan 2020, by Income

Behavioral Risk Factor Survey

https://www.cdc.gov/brfss/brfssprevalence
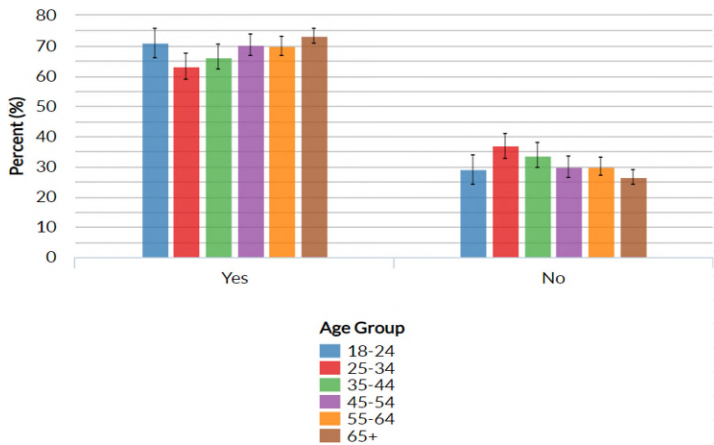
Figure 113: Adults age 65+ who have had all their natural teeth extracted Michigan 2020, by Income
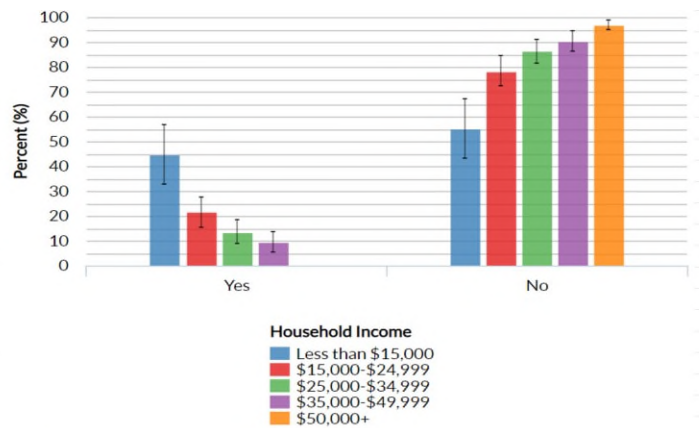
Footnote

*   Prevalence estimate not available if the unweighted sample size for the denominator was < 50 or the Relative Standard Error (RSE) is > 0.3 or if the state did not collect data for that calendar year.

Maternal and Child Health

SCOPE OF THE PROBLEM

The health of the next generation predicts the future challenges for public health systems, as well as challenges to our society and local communities. Preventing unhealthy pregnancy outcomes allows for decreasing rates of disability and death, and provides for a population of healthier adults. (Rural Healthy People 2020, Vol I).

Many factors impact maternal and child health including health prior to conception, availability of prenatal and pediatric healthcare, access barriers to healthcare, poverty, and chronic stress. Smoking while pregnant, less-than-optimal pregnancy weight (on either end of the scale), and poverty may contribute to poorer rural maternal, infant, and child health outcomes. Low birth weight is defined as birth weight of less than 2,500 grams, or five pounds and eight ounces. Low birth weight has two causes – the infant is born too small due to intrauterine growth restriction, or the infant is born at a low gestational age. The latter is described as preterm birth (PTB), which is any birth before 37 weeks gestation. Both are important predictors of infant mortality. Very rural geographic areas and urban centers with concomitant poverty and unemployment have the highest rates of infant mortality. (Kotch JB)

Figure 114: Number of Live Births (3-year average)
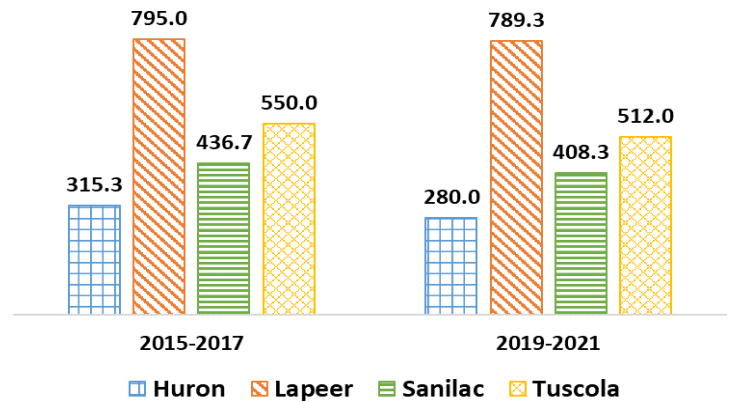
Michigan Department of Health and Human Services, https://vitalstats.michigan.gov/osr/chi/IndexVer2.asp#Counties

Figure 115: % of Children 0-18 Who are Insured

Kids Count
https://datacenter.kidscount.org/data/customreports/3775%2C3787%2C3819%2C3822/any
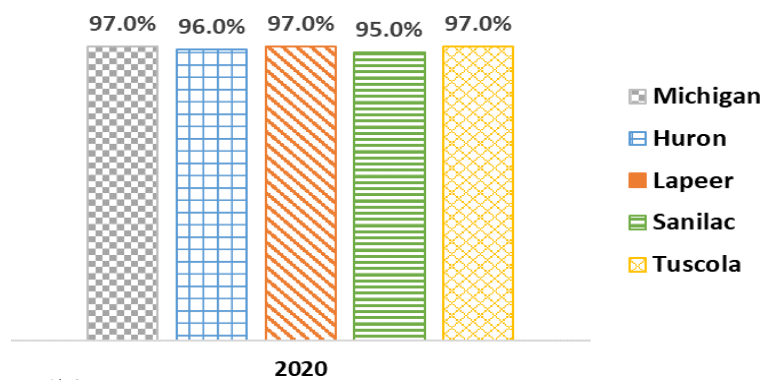
Figure 116: % of Live Births to Women with Late or No Prenatal Care

Kids Count, https://datacenter.aecf.org/data/customreports/3775,3787,3819,3822/any
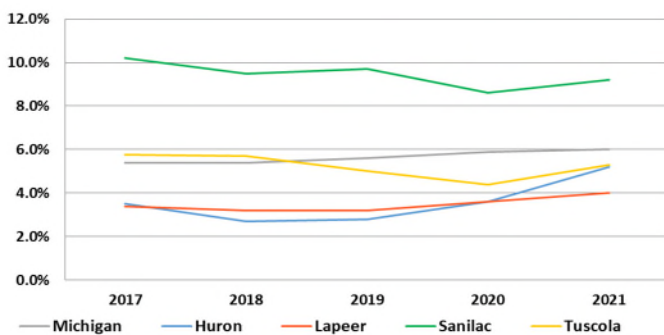
Figure 117: % of Live Births to Women with Less than Adequate Prenatal Care

Kids Count, https://datacenter.aecf.org/data/customreports/3775,3787,3819,3822/any
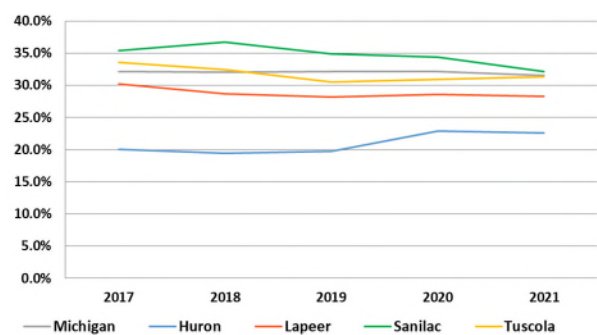
Related Healthy People 2030- Objectives
MICH-8 Reduce low birth weight (LBW) and very low birth weight (VLBW); **MICH-9.1** Reduce total preterm births

Figure 118: % of Live Births that are Preterm (<37 weeks) – 3 Year Average
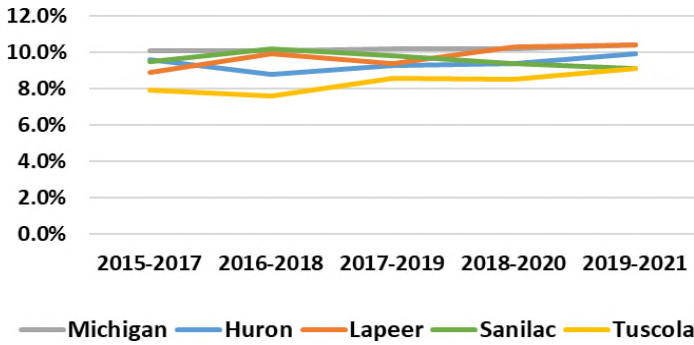
Figure 119: Infant Mortality 3-year Average Number of Deaths
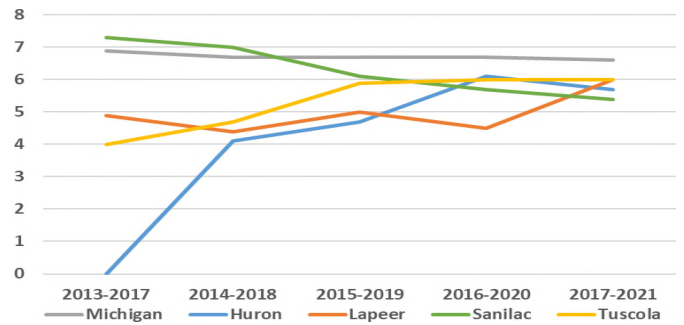
Figure 120: % of Mothers Planning to Breastfeed
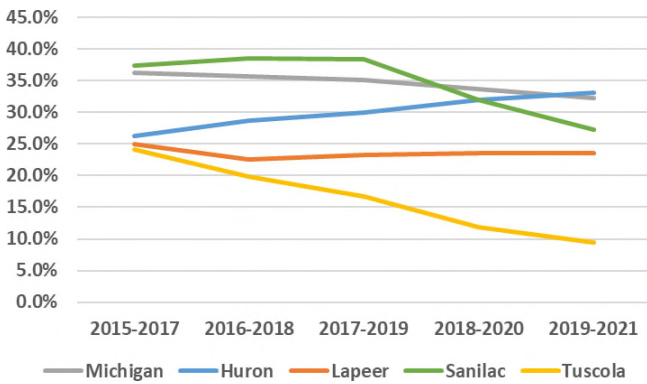
Figure 121: % of Mothers Initiated Breastfeeding
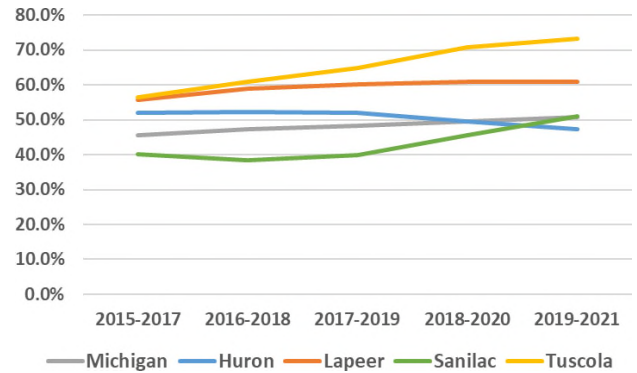
Figure 122: Low Birth Weight, 2019-2021 - 3 Year Average
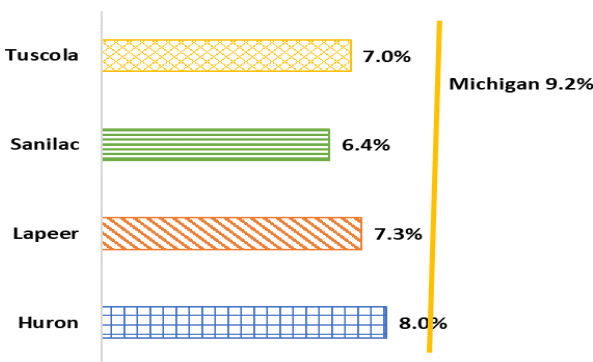
Figure 123: % of Births that are Preterm
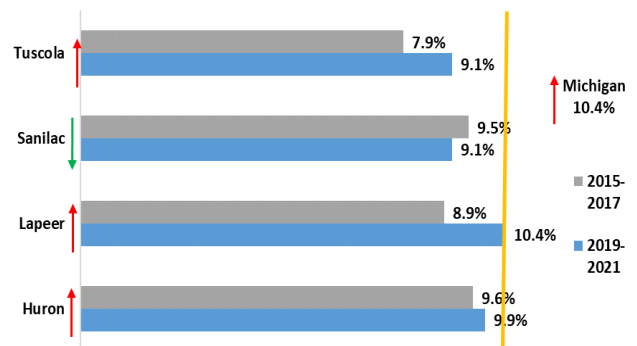
Figure 124: Child Mortality Rate/100,000 Children < age 18
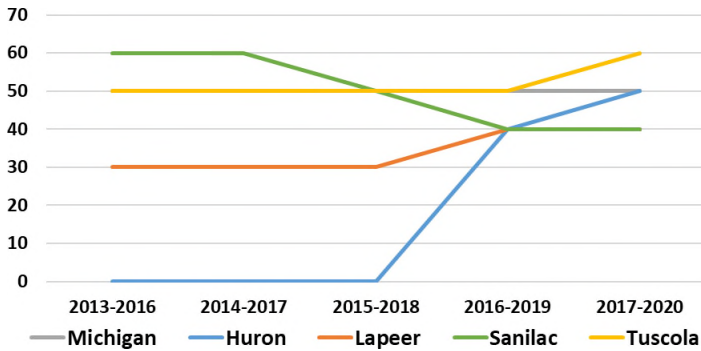
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.com

Figure 125: Top Three Hospitalizations Rate/10,000 for those <age 18 (Excludes Newborns & Neonates less than 7 days)
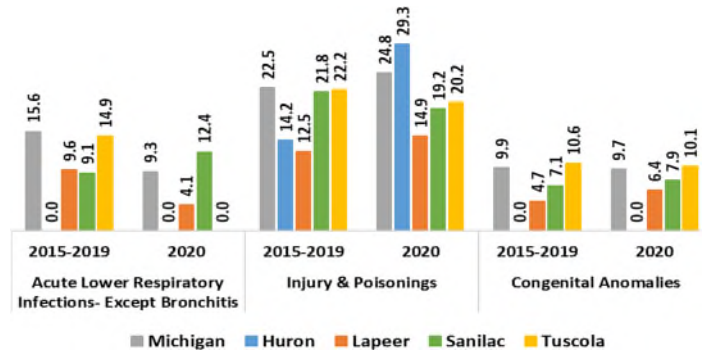
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/CHI/HOSPDX/FRAME.HTML
* Rate not calculated as there were less than 6 cases for the specified period

Figure 126: % of Medicaid-eligible 1-2 Year Olds Tested for Lead

Kids Count

https://datacenter.aecf.org/data/customreports/3775,3787,3819,3822/any

Figure 127: % of Children Ages 0-4 Participating in WIC
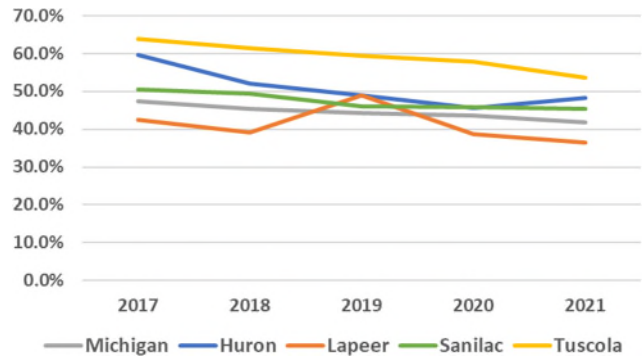
Kids Count Data Center Custom Report

https://datacenter.aecf.org/

Figure 128: % of Live Births to Women who Smoked During Pregnancy

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/births14/frameBxChar.html

Figure 129: Neonatal Abstinence Syndrome Rate/100,000 Births; Michigan Perinatal Region 3
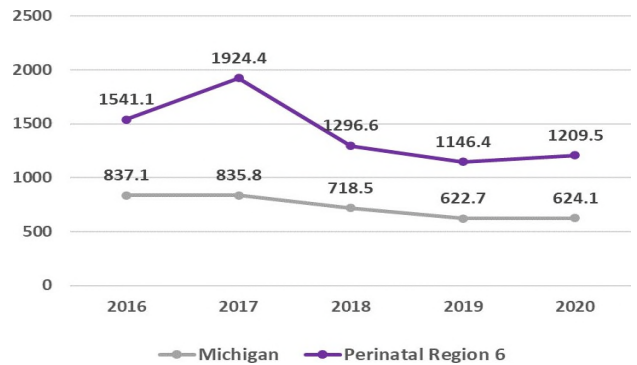
Michigan Resident Live Birth Files Linked with Michigan Hospital Discharge Data, Division for Vital Records and Statistics, Michigan Department of Health and Human Services
https://www.michigan.gov/mdhhs/-/media/Project/Websites/mdhhs/MCH-Epidemiology/NAS-by-Prosperity-Region---
May-2022.pdf?rev=57fc91b8634c4b1ea506d685032d2794&hash=CD5ABA386DC56816707C3457F5497B1D

Family Planning and Reproductive Health

SCOPE OF THE PROBLEM

Sexual and reproductive health is more than simply the absence of sexual and reproductive disease and dysfunction. A healthy sexual and reproductive state encompasses physical, emotional, mental, and social well-being as it relates to sexuality (Rural Healthy People 2020, Vol II). In rural areas, leaders nationwide have identified access to reproductive health services and lack of reproductive health education and awareness of sexual risks as priorities.

Reproductive health outcomes that are often monitored include unintended pregnancies, adolescent pregnancy, sexually transmitted infections and diseases, and risk behaviors for pregnancy and disease transmission. Behavioral risks include multiple partners, not using contraception, use of drugs or alcohol, and risk associated with internet relationships. Untreated STDs can have greater consequences including low birth weight, preterm births, infection of infants during birth, infertility, and even death. Disparities in rural areas vary geographically across the nation but include access to services, later detection of disease, higher rates of pregnancy, younger and teen pregnancies, and lower utilization of contraception and testing services. Issues related to sexual orientation may be more pronounced in rural areas and can result in greater sexual risks among members of the lesbian, gay, bisexual, and transgender (LGBT) community. Fear and stigma in some rural communities may deter the LGBT community from seeking reproductive health services and result in increased emotional stress.

Figure 130: Chlamydia Rates - 5 Year Average
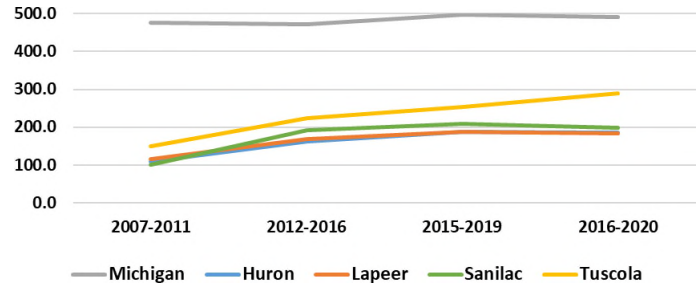
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/IndexVer2.asp#Counties

Figure 131: Gonorrhea Rates – 5 Year Average
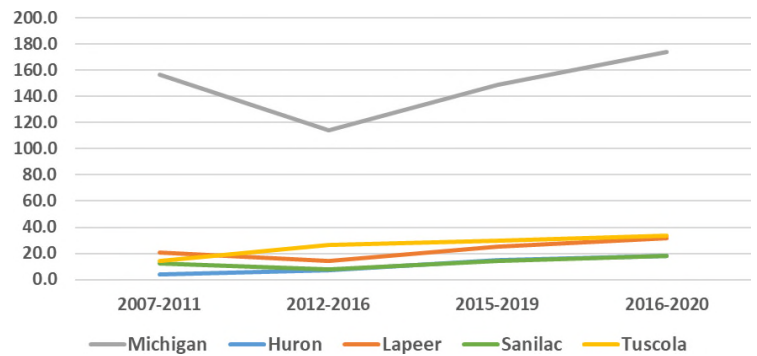
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/IndexVer2.asp#Counties

Figure 132: HIV Prevalence
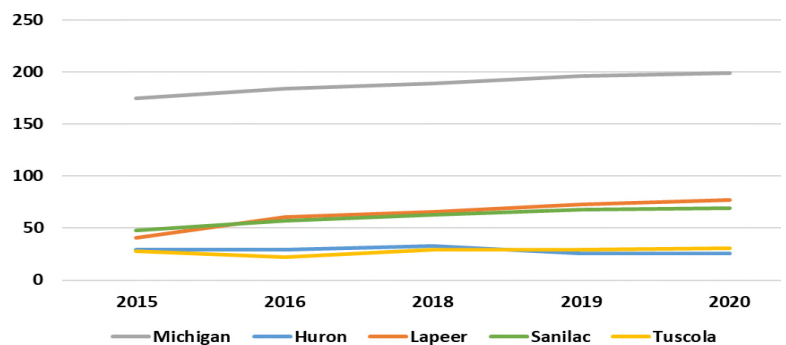
County Health Rankings – University of Wisconsin Population Health Institute
www.countyhealthrankings.org

Related Healthy People 2030- Objectives

FP-3 Increase the proportion of publicly funded family planning clinics that offer the full range of Federal Drug Administration-approved methods of contraception; **FP-7** Increase the proportion of sexually experienced persons who received reproductive health services; **FP-8** Reduce pregnancies among adolescent women; **HIV-2** Reduce the number of new HIV infections among adolescents and adults; **HIV-3** Reduce the rate of HIV transmission among adolescents and adults; **HIV-14** Increase the proportion of adolescents and adults who have been tested for HIV in the past 12 months

MICHIGAN THUMB PUBLIC HEALTH ALLIANCE
2023 HEALTH ASSESSMENT

Figure 133: % of Births to Mothers <age 20

Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/births14/frameBxChar.html
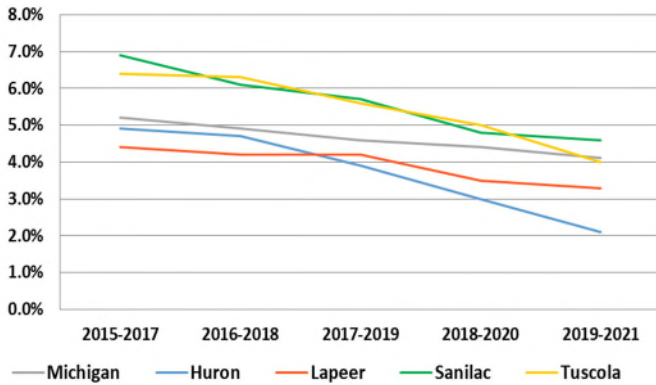
Figure 134: Births to Teens Rate/1000 Females aged 15-19
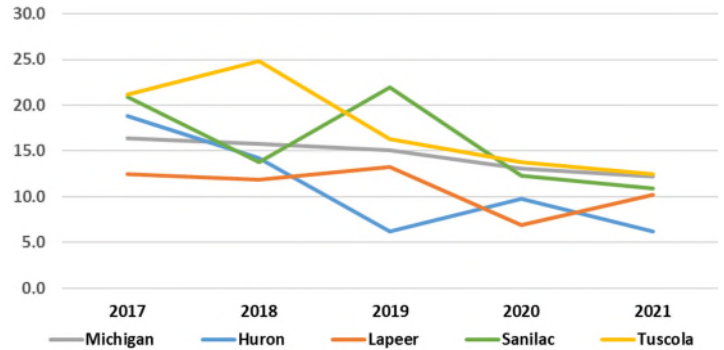
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/IndexVer2.asp#Counties

Figure 135: 9th and 11th Grade Self-Reported Sexual Activity
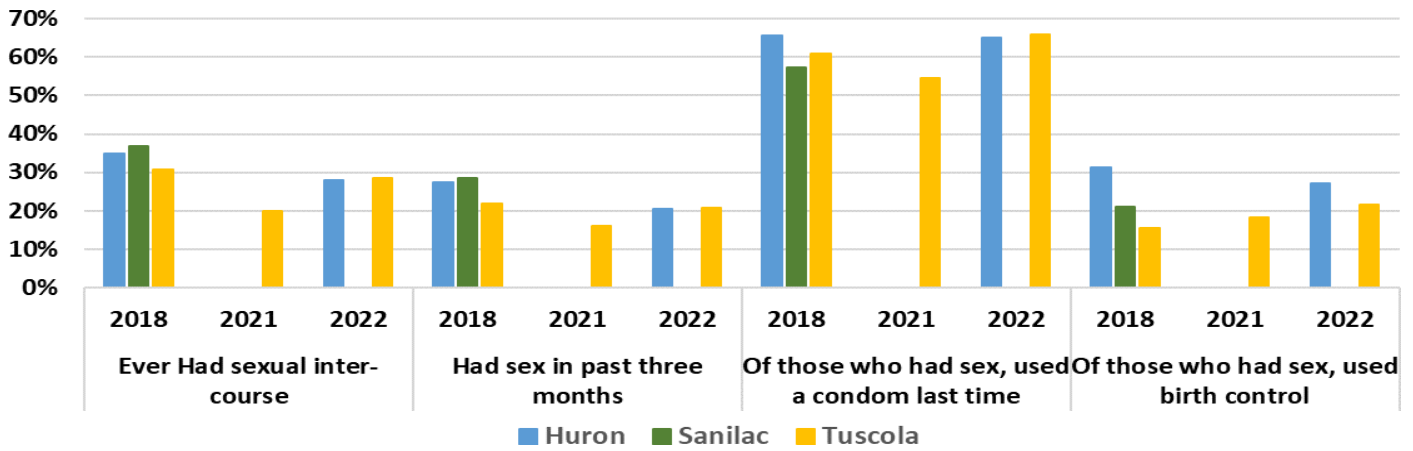
Michigan Profile for Healthy Youth. Data not available for Michigan, Lapeer.
https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx

Figure 136: 9th and 11th Grade Sexual Behaviors
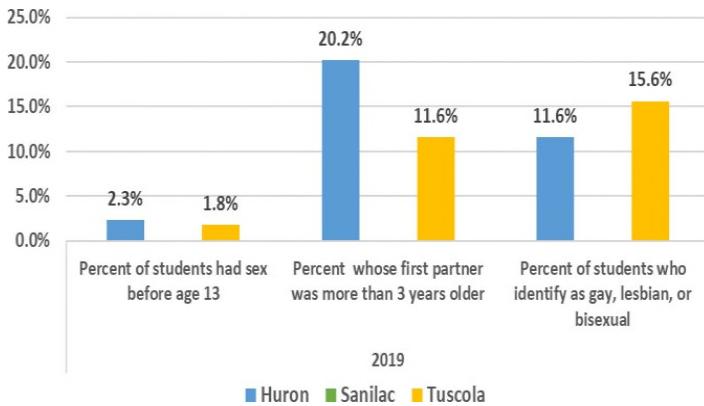
Michigan Profile for Healthy Youth. Data not available for Michigan, Lapeer, or Sanilac for 2019.
https://mdoe.state.mi.us/schoolhealthsurveys/ExternalReports/CountyReportGeneration.aspx

Figure 137: 2021 Teen Birth Rate/1000
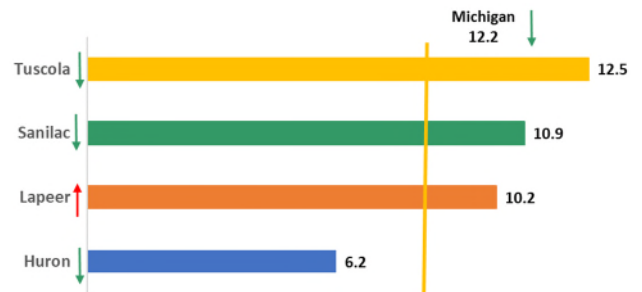
Michigan Department of Health and Human Services
https://vitalstats.michigan.gov/osr/chi/IndexVer2.asp#Counties

Education and Community Programs

SCOPE OF THE PROBLEM

Adequate health education programs are essential to increasing healthy behaviors in rural communities. Many theories of change include requiring individuals and organizations to have access to information and skills to make necessary changes. Education in three settings is especially important to shifting the health of rural Americans: Schools, Worksites, and Communities. While objectives have been established for each of these settings, the data to measure progress is not easily accessible. The primary barrier to education and community-based programs is the general lack of resources in rural communities (Rural Healthy People 2020, Vol II). Small populations and therefore a low volume market in rural communities, means that many organizations cannot afford staff to carry out education and community-based programs. These responsibilities are often incorporated into the role of existing staff that already wear multiple hats and have limited time for assigned responsibilities.

When staff is hired or designated to provide these programs, they are often shared between multiple sites, programs, or organizations and staff often encounter significant travel time to provide programs. Socio- economic barriers also exist in rural communities that limit access to and understanding of information. Lower general education levels create a barrier for understanding health information and building necessary skills. In addition, a high middle/low-income population that does not have access to worksite education often does not have flexibility to leave work for education programs. They may be working shifts that make it difficult for employees to attend existing education programs. Reliable transportation is also a major barrier to attending programs in rural areas.

There is limited publicly accessible data related to the Healthy People 2020 Objectives on Education and Community Based Programs. Questions that could be researched to assess progress at the local level include:

- How is health education incorporated into the PreK- 12 curriculums in each school district?
- What schools have a school Registered Nurse and what is the school Nurse to student ratio?
- What is the extent to which worksites provide health promotion programs and events?
- To what extent are community organizations providing population based primary prevention programs?
- How are local public health departments providing culturally appropriate programs?
- Are there medical continuing education programs including prevention in the local area?

Figure 138: Graduations Rates: % of 9th Grade Students that Graduate in 4 years
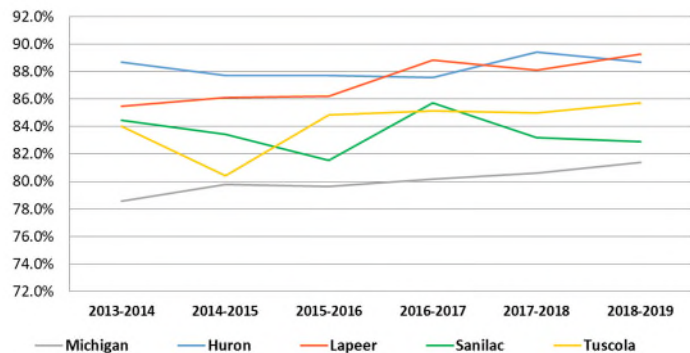
Michigan Department of Education
www.mischooldata.org

Related Healthy People 2030- Objectives

School-based objectives: Increase Early Head Start and Head Start health education programs to prevent health problems; Increase elementary, middle, and senior high schools health education programs to prevent health problems, that have health education goals or objectives, and that have registered school nurse to student ratio of 1:750; Increase high school graduation completion; increase college and university students who receive health risk behavior information

Worksite-based objectives: Increase worksites with employee health promotion programs; Increase the number of employees who participate in employer sponsored health promotion activities

Community-based organization objectives: Increase community-based organizations providing population-based primary prevention services; Increase health departments with culturally and linguistically appropriate programs

Immunizations and Infectious Disease

SCOPE OF THE PROBLEM

Infectious diseases are caused by organisms — such as bacteria, viruses, fungi or parasites. Vulnerable populations with underdeveloped or weakened immune systems such as the elderly, children, or those with other illnesses, have the greatest risk of complications from infectious disease. In the United States, approximately 300 children and 42,000 adults die from infectious diseases annually (Office of Disease Prevention and Health Promotion, Immunization, and Infectious Diseases). A distinguishing characteristic of infectious diseases, unlike diabetes or heart disease, is that they are passed from one person to another through direct or indirect contact. Some infectious diseases are easier to transmit than others. Foodborne illness for example can be passed through unsafe food handling and the common cold can be transmitted through casual contact. Other infectious diseases such as Hepatitis C are blood borne and can only be transmitted through contact with blood or body fluids. The control of infectious diseases has increased due to a variety of factors:

- Food handling regulations and education,
- Control of germs through handwashing and sanitation,
- Prevention of infection through immunizations,
- Universal precautions and safer sex practices to reduce exposure to blood borne infectious disease.

Through immunization, some diseases such as polio have been almost eradicated with 80% of the world population living in polio free regions. Even with these improvements, there are still challenges in many rural areas including mobility among certain subpopulations, poor access to care, cultural norms, impoverished communities, and a high elderly population in rural areas.

Figure 139: % of Toddlers ages 19-35 Months who are Immunized (4:4:1:3:3:1:4)

Kids Count-https://datacenter.aecf.org/data/customreports/3775,3787,3819,3822/any
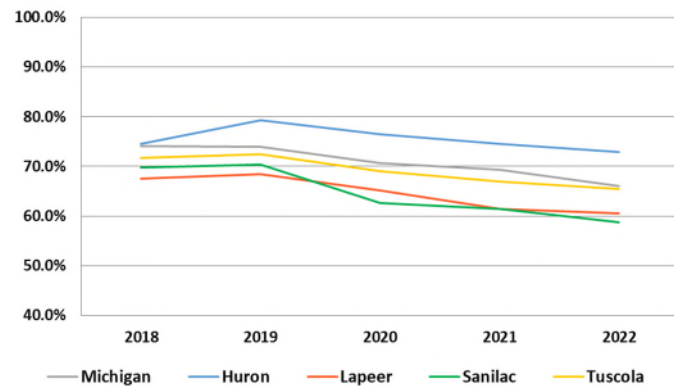
Figure 140: % of Toddlers ages 19-35 Months who are Immunized 4:4:1:3:3:1:4 (2022)

Kids Count- https://datacenter.aecf.org/data/customreports/3775,3787,3819,3822/any

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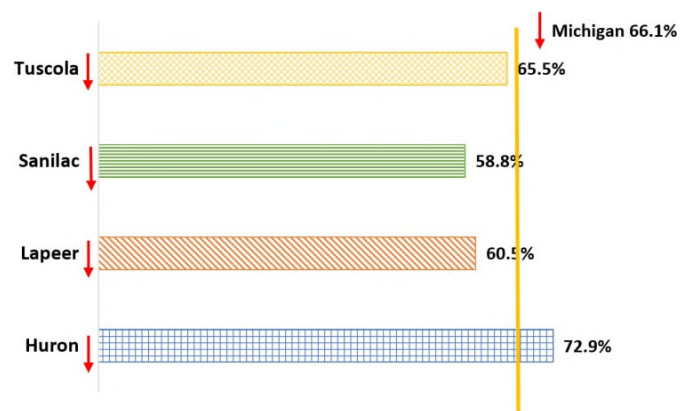
Related Healthy People 2020- Objectives

IID-1 Reduce, eliminate, or maintain elimination of vaccine-preventable diseases; **IID-7** Achieve and maintain effective vaccination coverage for universally recommended vaccines amount young children; **IID-8** Increase children aged 19 to 35 months who receive the recommended doses of diphtheria-tetanus-pertussis, polio, measles-mumps-rubella, Haemophilus-influenza type B, hepatitis B, varicella, and pneumococcal conjugate vaccine; **IID-9** Decrease children in the United States who receive 0 doses of recommended vaccines by age 19 to 35 months; **IID-10** Maintain vaccination coverage levels for children kindergarten; **IID-11** Increase routine vaccination coverage for adolescents; **IID-12** Increase the percentage of children and adults who are vaccinated against seasonable influenza; **IID-16** Increase the scientific knowledge on vaccine safety and adverse events; **IID-29** Reduce tuberculosis

Figure 141: Adult Vaccinations, 2019-2021 from BRFS
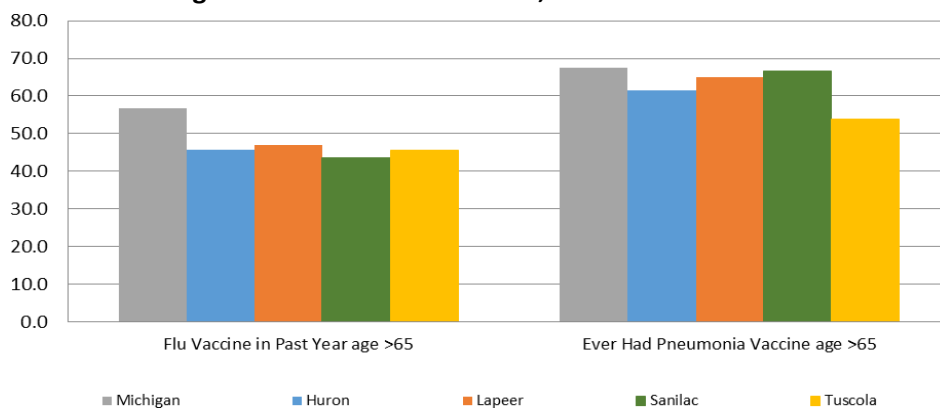
Legend: Michigan, Huron, Lapeer, Sanilac, Tuscola

Figure 142: County Quarterly Immunization Report Card - Data as of June 30, 2023

	Huron	Lapeer	Sanilac	Tuscola	Michigan	HP 2020 Goal
19 through 35 months	%	%	%	%	%	%
Birth Dose Hep B coverage	x	x	x	x	x	85%
4313314 coverage†	74.5	60.4	59.4	65.6	65.9	80%
43133142 coverage†	60.2	47.9	43.5	54.2	52.4	
2+ Hep A	63	49.6	45.8	56.5	54.3	85%
4+ DTaP	77.5	70.2	63.1	69.7	68.9	90%
PCV Complete	82.5	73.2	70.4	73.6	74.4	0.9
Rota. Complete†† (8-24 months)	70.6	59.7	57.9	59.6	64.4	
WIC coverage (4313314)	82.7	65.6	69.4	73.6	71.7	
Medicaid coverage (4313314)	72.4	62.1	65.4	68.1	66.4	
13 through 17 years	Huron	Lapeer	Sanilac	Tuscola	Michigan	
132321 coverage‡	79.3	75.0	76.7	79.7	72.9	
1323213 coverage‡	42.4	31.9	35.6	39.5	42.6	
1+ Tdap	82.0	79.2	79.7	82.6	75.7	80%
1+ MenACWY	81.8	78.6	79.6	82.2	76.6	80%
HPV Comp-Females	45.1	32.3	38.9	40.4	45.2	80%
HPV Comp (Males)	41.7	33.0	34.6	40.4	42.9	0.80
MenACWY Complete†† (17 yrs)	32.1	37.0	39.5	34.8	41.9	–
MenB (16 through 18yrs)	27.9	21.4	26.4	22.9	25.7	
Adults (Census Denominators)	Huron	Lapeer	Sanilac	Tuscola	Michigan	
1+ Tdap (19-64yrs)	52.4	40.3	45.6	48.4	51.3	–
1+ PPSV23 (65+ yrs)	52.3	37.7	45.6	44.8	49.6	
Zoster (50yrs+)	35.2	28.3	28.0	32.1	32.3	
Composite Measure	9.7	5.1	5.7	6.4	8.5	0.30
2019-20 Flu Season	Huron	Lapeer	Sanilac	Tuscola	Michigan	
Flu Complete†† (6mos-8yrs)	20.9	10.6	9.3	13.2	23.8	70%
1+ Flu (6mos through 17yrs)	18.2	11.5	10.6	13.0	23	70%
1+ Flu (18yrs+)	34.1	24.7	27.0	28.3	32.1	0.70
School/Reports	Huron	Lapeer	Sanilac	Tuscola	Michigan	
School Completion	89.7	86.2	92.0	90.9	91.4	
Percent Waived (K+7+O)	7.2	11.8	5.9	6.3	4.9	
Child Care Complete	82.4	79.4	87.0	87.7	85.1	
Percent Waived	4.0	7.5	5.8	3.0	3.3	

Conditional Formatting: highlight cells; based on values; 3 color
Green = Goal
Yellow=Within 5% of Goal
Red=Not within % of Goal
Michigan Department of Health and Human Services
https://www.michigan.gov/mdhhs/0,5885,7-339-73971_4911_4914_68361-321114--,00.html
*% difference in the county since last report card; Flu data shows difference since 2021-22 mid influenza season; School and CC difference between annual reports X - Coverage was omitted because of a possible delay in electronic birth file reporting. † 4313314(2): 4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 HepB, 1 Varicella, 4 PCV, (2 HepA) ‡ 132321(3): 1 Tdap, 3 Polio, 2 MMR, 3 HepB, 2 Var, 1 MenACWY, (2 or 3 HPV doses-Males & Females) § Updated to reflect updated ACIP recommendations for adults: https://www.cdc.gov/mmwr/volumes/71/wr/mm7104a1.htm?s_cid=mm7104a1_w **Age based assessment of adults for flu (19yrs+), tetanus (19yrs+), HPV completion (19-26yrs), HepB (19-59yrs), zoster (50yrs+), and pneumo (65yrs+) a Data from: https://www.cdc.gov/vaccines/imz-managers/coverage/childvaxview/data-reports/7-series/trend/index.html b Data from: https://www.cdc.gov/mmwr/volumes/70/wr/mm7035a1.htm c Data from: https://www.cdc.gov/mmwr/volumes/66/wr/mm6627a4.htm d Data from Healthy People (HP) 2030: https://health.gov/healthypeople

Public Health Infrastructure

SCOPE OF THE PROBLEM

The public health infrastructure is responsible for protecting people's health and safety, providing credible information for better health decisions, and promoting good health through a network of partnerships (Center for Disease Control). Rural health disparities in public health infrastructure are prominent in comparison to urban settings. Several limitations exist within rural public health organizations, these include small workforces, restricted finances, inadequate data and information systems, lack of standardization in law and policy, and an absence of formalized structure in public health (NORC Walsh Center for Rural Health Analysis). Challenges to public health infrastructure include an expansion of public health responsibilities in the direction of population health outcomes while at the same time many governmental resources are shrinking. In the future, three key factors that will distinguish successful public health agencies from struggling public health agencies:

- ability to diversify funding sources,
- ability to identify community needs and advocate for resources to meet those needs, and
- ability to create collaborative linkages with other healthcare providers.

Successful public health agencies must address the challenges of maintaining an educated and skilled workforce, adequate data and information systems, and the ability to carry out the essential services of public health agencies (Rural Healthy People 2020).

Healthy People 2020 identified five primary areas of concern that related to local public health departments:

1) Local Health Department Community Health Improvement Plans
2) Disease Prevention and Surveillance
3) Integrated Data Management for Environmental Health
4) Laboratory Capacity
5) Emergency Preparedness

Workforce	Data and Information Systems	Public Health Organizations
Core Competencies Public Health Accredited Schools	Tracking of HP 2020 Objectives	State- comprehensive laboratory services
	Recording of Vital Events	State- comprehensive epidemiology
		LHD Use of National Performance Standards (as applicable)
	Application of Telehealth	
		LHD Accreditation

Figure 143: Aspects of Public Health Infrastructure

Source[9]: Public Health Functions Steering Committee, Adopted Fall 1994. Available at: http://www.cdc.gov/nphpsp/essentialservices.html

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Related Healthy People 2020- Objectives (related to local public health)

PHI-1 Increase local public health agencies that incorporate Core Competencies for Public Health Professionals into job descriptions and performance evaluations; **PHI-13** Increase the proportion of local public health agencies that provide or assure comprehensive epidemiology services to support essential public health services; **PHI-14** Increase the proportion of local public health jurisdictions that conduct a public health system assessment using national performance standards; **PHI-17** Increase the proportion of local public health agencies that are accredited

Section III. Regional and Local Priorities

<u>Setting the Stage for Health Improvement</u>

What impacts the health and well-being of our community[2]? Data is very powerful to identify factors which contribute to health in our community. A population health approach strives to improve the health outcomes of a group of individuals. In national studies of data by County Health Rankings, there are common elements that have been identified and are outlined on the illustration below. In the county health ranking model, both the length of life and quality of life are equally important. Data shows that certain health factors have a predictive value on both the length and quality of life. Social and economic factors have the highest degree or correlation closely followed by health behaviors. Clinical care accounts for approximately 20% of health outcomes and the environment 10%.
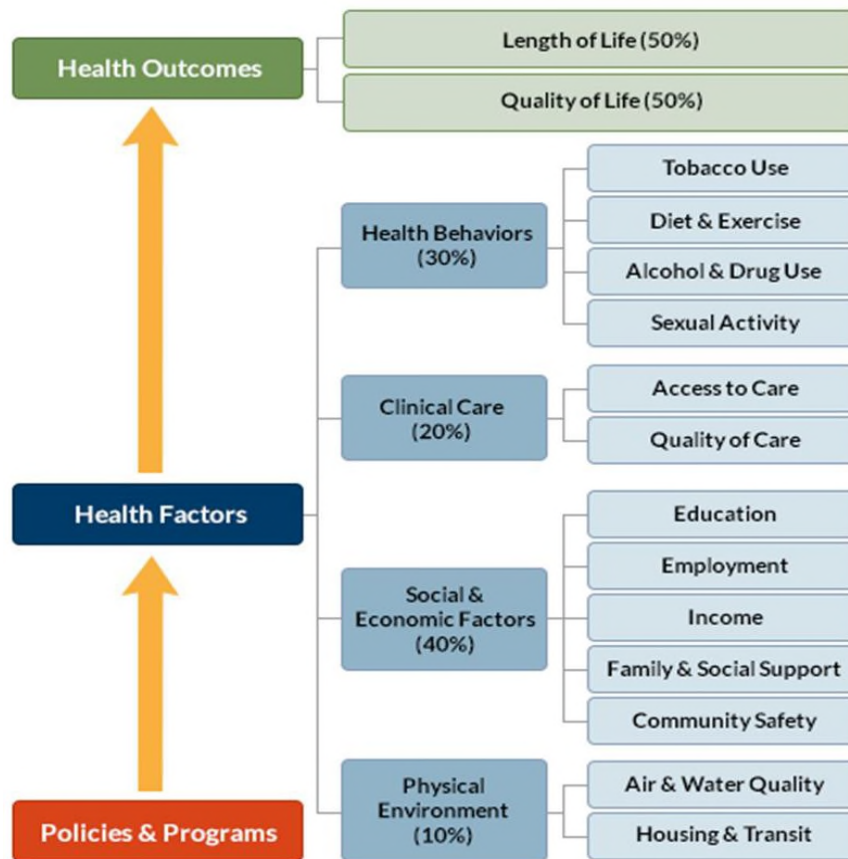
This data is important to the way resources are allocated and direction of programs. It is critically important to ensure that all residents have a healthy environment in which to live and access to high quality healthcare. However, without addressing health behaviors and the social and economic factors of a population, progress on health outcomes will be limited.

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[2] www.countyhealthrankings.org *The County Health Rankings & Roadmaps program is a collaboration between the Robert Wood Johnson Foundation and University of Wisconsin Population Health Institute.*

Douthit, N., Kiv, S., Dwolatzky, T., & Biswas, S. (2015). Exposing some important barriers to health care access in the rural USA. Public Health, 129(6), 611–620.

Community Input

CARE Connect Focus Groups and Survey

Securing community input stands as a crucial stage in the process of effective Community Health Improvement Planning

The Michigan Thumb Public Health Alliance formed a Task Force of people with lived experience and from grassroots organizations. A survey was co-designed and opted to concentrate collecting community input from specific populations who had limited voice. Through provider listening sessions, referral mapping, action planning, vulnerable populations focus groups and surveys, prevalent health concerns and community perspectives were extensively examined. The survey highlighted quantitative data on access barriers to healthcare, mental health challenges, and lifestyle-related ailments, while focus groups delved into qualitative insights such as cultural influences and attitudes impacting health behaviors. Across all four counties, 203 individuals participated in the focus group and/or survey.

Figure 144: Survey Participants by Age

Participants by Age

| Age 18-34 | Age 35-54 | Age 55-70 | Over age 70 |
| 12% | 45% | 33% | 11% |
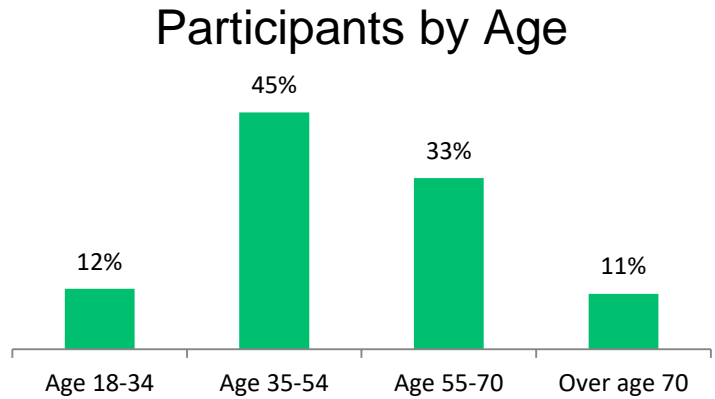
2022 CARE Connect Focus Group and Survey

Figure 145: Participants by Vulnerable Population

Participants by Population

- A family with at least one child aged 13-... — 22%
- A family with at least one child aged 9-12 — 20%
- A family with at least one child aged 0-8 — 33%
- A family member over age 75 that... — 12%
- A family member aged 65-75 that needs... — 13%
- Someone with a physical disability — 19%
- Someone with a learning disability — 15%
- Someone with a mental health condition — 34%
- Someone with a substance use disorder — 16%
- A Veteran — 24%
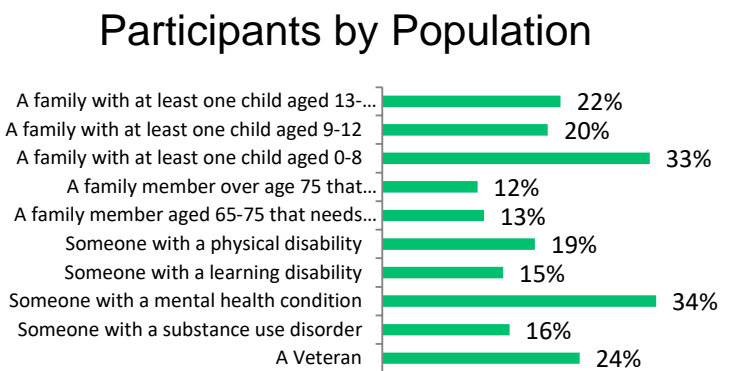
2022 CARE Connect Focus Group and Survey

Figure 146: Survey Participants by County

Where do you live or work?

Legend: ■ Live ■ Work ■ I don't live or work in this county.

	Huron	Lapeer	Sanilac	Tuscola
Live	56%	57%	81%	81%
Work	52%	13%	25%	40%
I don't live or work	24%	32%	15%	11%
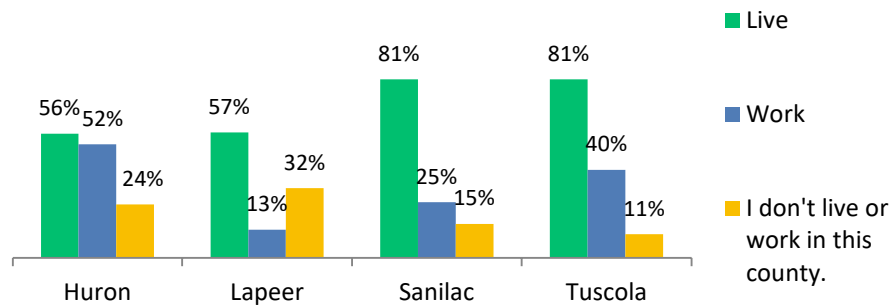
2022 CARE Connect Focus Group and Survey

Figure 147: Technology Device Access

Do you have your own device (phone, tablet, laptop) to access the internet?

95.94% Yes
4.06% No
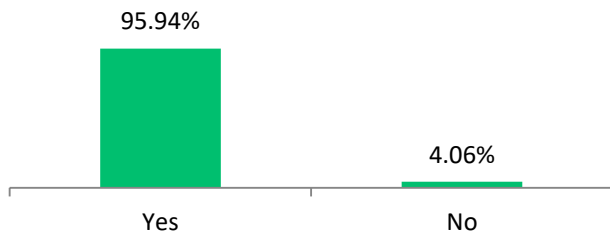
Figure 148: Internet Access

How much does your access to the internet affect your ability to get the help and information you need?

Not at all	A little	Some	A lot
21%	18%	21%	40%
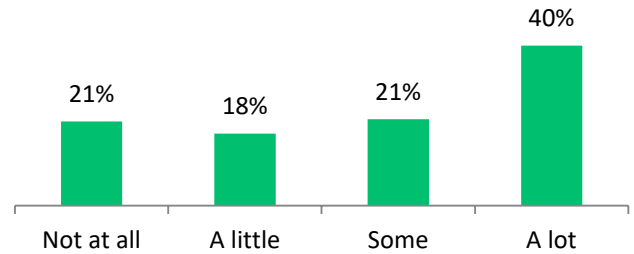
Figure 150: Internet Reliability

How reliable is the connection to the internet that you use the most?

Very good - hardly ever drops — 42%
Okay - drops or spotty once in a while — 39%
Not good - very spotty or drops a lot — 14%
Very bad - hardly any ability to connect — 5%
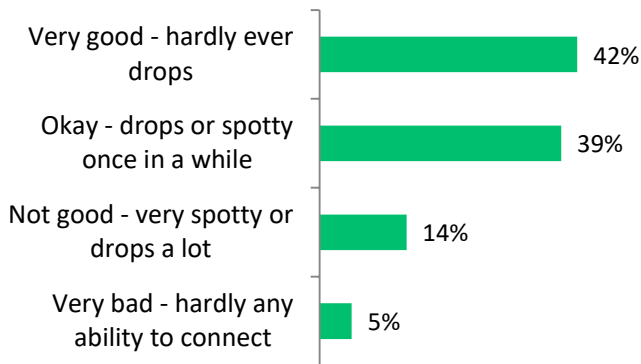
Figure 152: 2-1-1 Knowledge

How much do you know about 2-1-1?

I have used 2-1-1 — 9%
I have heard of it but never used 2-1-1 — 34%
Never heard of it — 58%

Some communities have a person who can help people work on their needs one at a time. They can help make appointments and figure out barriers like transportation. Sometimes they are called Community Health Workers.
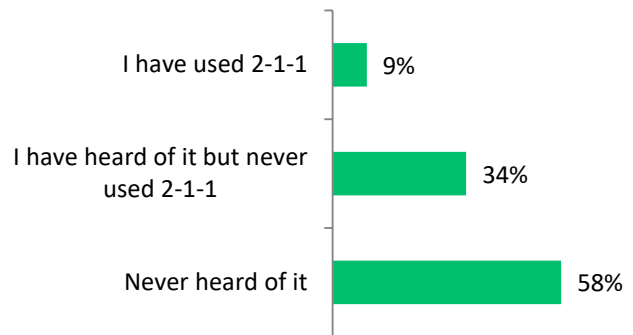
Figure 153: Community Health Workers

If more community health workers were available in the Thumb, how helpful do you think this would be?

Very helpful	Somewhat helpful	Not so helpful	Not at all helpful
77.60%	19.27%	2.08%	1.04%

Figure 149: Needs in Past 12 Months

In the past 12 months, how often have you experience these needs?
Averge on a Rating scale- 1 Never to 5-Very Often

Need	Value
Experienced bias or discrimination based on your race,…	1.28
Needed help for education or job opportunities	1.31
Needed help for childcare or preschool	1.2
Needed mental health or substance use services	1.47
Needed medical care including dental, hearing, and…	1.91
Not had or almost run out of items for you baby, like…	1.16
Not had personal care items like soap, shampoo, or…	1.16
Not had clothing needed for your family	1.12
Lack of transportation got in the way of getting food, to…	1.36
Needed help with utilities such as heatlh, water, or…	1.39
Not had a safe place to stay or almost lost your current…	1.13
Gone without or almost run out of food	1.66

2022 CARE Connect Focus Group and Survey

Figure 151: Access to Resources

How hard was it for you to get the help you needed?
Average rating on a scale- higher number the harder to get help.

Need	Value
Experienced bias or discrimination based on your race,…	0.43
Needed help for education or job opportunities	0.5
Needed help for childcare or preschool	0.45
Needed mental health or substance use services	0.67
Needed medical care including dental, hearing, and vision…	1.2
Not had or almost run out of items for you baby, like formula…	0.33
Not had personal care items like soap, shampoo, or…	0.41
Not had clothing needed for your family	0.32
Lack of transportation got in the way of getting food, to…	0.59
Needed help with utilities such as heatlh, water, or electricity	0.72
Not had a safe place to stay or almost lost your current place…	0.25
Gone without or almost run out of food	0.93

2022 CARE Connect Focus Group and Survey

2021 Thumb Community Health Survey

In 2021, the Thumb Community Health Partnership conducted a survey involving 1173 participants within the Thumb region. The survey gathered insights on strengths and areas for improvement. Using a scale of 1 to 5, where 1 signified the weakest and 5 indicated the strongest, the results highlighted several aspects. Our community members were recognized for being friendly, helpful, and supportive—a notable strength. Concerns regarding mental health and chronic diseases emerged as primary health issues. Strengths were identified in the domains of Primary Care and the caring nature of healthcare providers. However, the availability of substance use providers was noted as an area needing improvement, alongside concerns about financial resources.

Figure 154: Supportive Community

Friendly, helpful, and supportive people

Huron	Lapeer	Sanilac	Tuscola	Region
3.17	2.88	3.23	2.95	3.08

2021 Thumb Community Health Survey

Figure 155: Health Concerns

Community Concerns-Thumb Region
(1 Major Concern and 4 Not a Concern)

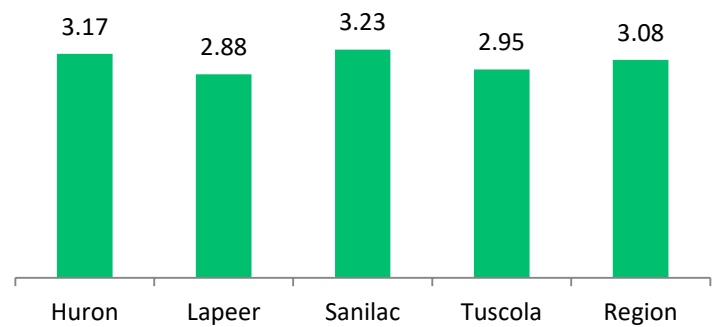| Concern	Value
Safety/Crime	2.78
Violence	2.76
Injuries	2.76
Environmental issues (Air/Land/Water…	2.66
Other Infectious Disease	2.61
Dental Health	2.59
Poverty, Homelessness, Hunger, etc.	2.48
Prenatal and infant health	2.43
Affordable quality housing	2.31
COVID 19	2.27
Substance Use	2.23
Tobacco Use & Vaping	2.21
Chronic Disease (diabetes, heart disease)	2.18
Cancer	2.13
Mental Health	2.11
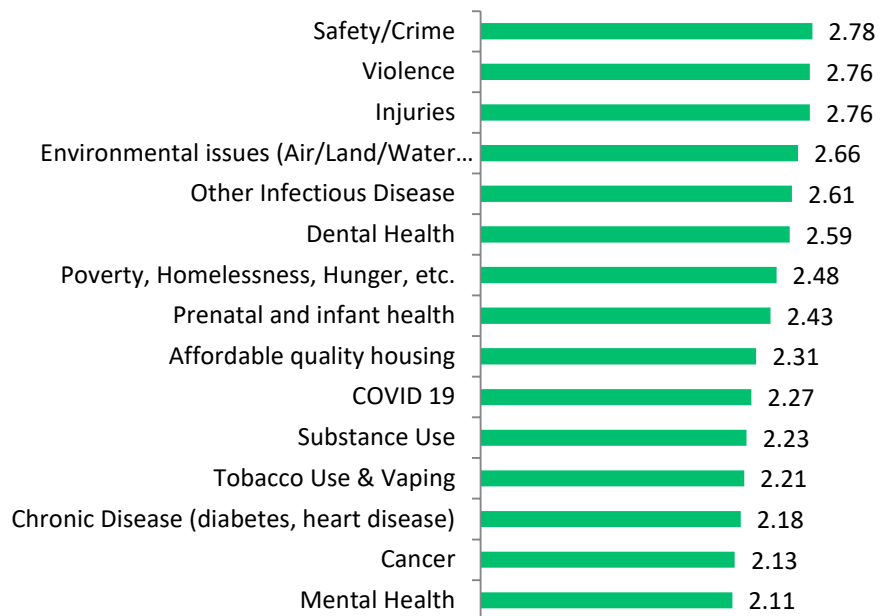
2021 Thumb Community Health Survey

Figure 156: Strength of Service System

Service System Strengths and Weaknesses
(1 Major Weakness & 4 Major Strength)

Service	Score
Primary Care Services/Family Doctor	2.76
Hospital services (testing, inpatient, emergency care)	2.74
Emergency Medical Services (EMS-Ambulance)	2.73
Other child and adult immunizations	2.7
COVID 19 vaccinations and testing	2.68
Vision Services	2.64
Dental Care	2.6
Assisted living facilities	2.42
Long term in patient nursing homes	2.37
Access to childcare and preschool	2.28
In-home medical care or assistance	2.08
Mental Health Services	2.06
Prenatal Care	1.97
Specialist Services	1.93
Veterans Services	1.87
Substance use Treatment	1.8

2021 Thumb Community Health Survey

Figure 157: Strength of Service System Providers

Service System Strengths & Weaknesses
(1 Major Weakness and 4 Major Strength)

Provider	Score
Personal and caring staff	2.92
Privacy and Confidentiality	2.78
Convenient times and location of services	2.57
Electronic medical records and portals	2.48
Having enough healthcare staff to meet needs	2.29
Use of tele-health visits	2.2
Awareness of Services	2.17
Coordination of services between providers	2.12
Access to health insurance	2.12
Adequate internet connectivity for tele-health	2.06
Financial assistance programs offered by providers	1.85

2021 Thumb Community Health Survey

2023 Chronic Disease Listening Session

Three chronic disease listening sessions were held in region 6, engaging forty-two participants. The majority, 93%, identified as white, with 64% being over 65 years old, and more than half having personal experience with chronic illness. Among the concerns raised, transportation, air quality, and access to information emerged as the most pressing issues. Strengths included walking trails, community gardens and farmers markets.

" My mother-in-law has a Social Security Disability. She only gets $20 a month for food stamps - $20 doesn't cover anything in this day and age."

Food Security Concerns
Food-related concerns encompassed restricted access to full-size grocery stores, a lack of healthy choices, and elevated prices. Throughout the pandemic, the availability of delivery services from stores proved immensely beneficial. Emergency food pantries were noted to have limited variety. Challenges were identified in comprehending income eligibility for state support programs and navigating complex application processes.

" I can't hold a job because I never know how I'll feel from one day or next. "

Health Security Concerns
Participants expressed frustration over the scarcity of specialty healthcare providers in the area, particularly in mental health services where the demand outweighs availability. Barriers to care were highlighted, including electronic communication issues and difficulties in using applications for accessing healthcare services.

" We don't really have anything around here for winter at all."

Built Environment

Participants expressed interest in increased opportunities for affordable physical activity, especially during winter. Transportation challenges were identified as barriers, particularly for older adults seeking housing. Inadequate sidewalks posed challenges to accessibility. Concerns were raised regarding the limited availability of recreational activities and job opportunities, potentially impacting talent retention, local economy, and community well-being.

Acknowledgements

The Michigan Thumb Public Health Alliance would like to acknowledge many people for their contributions to this report.

Thank you for taking the time to read and comment on the 2023 Thumb Community Health Assessment Report.

www.mithumbpha.org

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