2022 Kalamazoo County Community Health Needs Assessment

Table of Contents

The Kalamazoo CHNA Collaborative, composed of Bronson Methodist Hospital, Ascension Borgess Hospital, and Family Health Center, conducted a Community Health Needs Assessment (CHNA) to better understand the health concerns and needs in Kalamazoo County. This CHNA relied heavily on community partners and those in the community. Data were collected and analyzed to identify health needs of the community. Prioritization of those needs resulted in four areas of need with specific needs listed below:

System Navigation
(healthcare, mental health services, social services)

- Coordination of care across health and social service sectors

- The importance of community connection (to resources/services and one another)

- Addressing the social determinants of health in addition to clinical health care

Mental Health

- The need for mental health supports was exacerbated by COVID-19

Systems Change Efforts to Address Deep-Rooted Inequities (race and class inequities)

- Culturally competent and trauma-informed care and communication
- Lack of trust in the healthcare system
- Healthcare and services workforce not representative of the community
- Equitable distribution of services and resources

Living Conditions
(physical, economic/work, service)

- Necessity of providing career pathways and a livable wage for all
- Healthcare and services workforce not representative of the community
- Cost of care (healthcare, mental health services)
- The need for affordable and reliable transportation and housing
- Addressing the social determinants of health in addition to clinical health care

Introduction

Collaboration to Achieve Equitable Health Outcomes

The federal Patient Protection and Affordable Care Act (ACA) requires all not-for-profit hospitals in the country to assess the health of their communities once every three years by conducting a Community Health Needs Assessment (CHNA). The intent of this assessment is to provide an overall view of the health of the community being served. The CHNA provides required data and information to gain in-depth knowledge of the community, residents, and patients being served. This assessment takes into consideration local, state, and federal data as well as assesses the social determinants of health which directly impact the ability of individuals, families, and communities to live full and healthy lives.

This CHNA is unique in that it is a collaborative effort between Bronson Methodist Hospital, Ascension Borgess Hospital, and Family Health Center—three major medical care providers serving Kalamazoo County. This unified CHNA is an acknowledgement of the importance of increasing collaboration across systems to achieve equitable health outcomes for all members of the community. While much work remains to achieve this goal, a unified CHNA is an important step in the journey of identifying and addressing the inequities impacting health across the county.

Collaboration to Achieve Equitable Health Outcomes

The goal of this unified CHNA is to evaluate and prioritize the current health needs of the community to address barriers to **health equity** for all people in Kalamazoo. Unfortunately, many populations experience **health inequities** and negative health outcomes due to factors beyond individual behaviors and choices. These inequities are produced by systemic racism and other forms of historical and ongoing oppression within social and economic systems, such as the political system, housing, the workplace, education, and the criminal justice system. Health inequities are observable and measurable through differences in factors such as length and quality of life, rates of disease, disability, and death, as well as differences in access to services and treatments.

Health equity is a state in which everyone has the opportunity to achieve full health and well-being, and no one is prevented from achieving this because of social position or other socially determined circumstances.[1]

Health inequities are "differences in health that are avoidable, systemic, measurable, and unjust."[2]

[1]Centers for Disease Control and Prevention. (2022, March 3). *Health equity*. Centers for Disease Control and Prevention. Retrieved May 25, 2022, from https://www.cdc.gov/chronicdisease/healthequity/index.htm
[2]CDC Foundation, ASTHO, and MPHI. (2022, January). *STRETCH Framework, V1.* https://www.cdcfoundation.org/STRETCH-initiative-framework?inline

Statements

Bronson Healthcare will submit this report to Bronson Healthcare's Board of Directors by December 2022 and will be published on its website following execution and approval. The report will be accessible at bronsonhealth.com. Questions or comments about the 2022 Community Health Needs Assessment can be submitted to CHNA@bronsonhg.org.

The 2022 Community Health Needs Assessment report was approved by the Ascension Borgess Board of Trustees on June 23, 2022, Tax Year 2021, and applies to the following three-year cycle: July 2022 to June 2025 (FY 2023 - FY 2025.) This report, as well as the previous report, can be found at the Ascension Borgess Hospital website: healthcare.ascension.org/chna

CEO Letter & Agency Information

Bronson Methodist Hospital

At Bronson, we believe that in order to fully live out our mission, vision and values, we must first seek to understand the needs and experiences of our communities. The Community Health Needs Assessment (CHNA) is a foundational tool that allows us to hear directly from community members about what their lived experiences are and what improvements and opportunities are needed to live healthy lives.

Bill Manns
President & Chief Executive Officer at Bronson Healthcare

Bronson Methodist Hospital

Bronson Methodist Hospital (BMH) is a community-owned and governed not-for-profit hospital with 434 licensed beds and an open medical staff. It is governed by the Bronson Healthcare Group Board comprised of 21 members of the community. Founded in 1900, BMH has demonstrated its commitment to our community by continuing to deliver the full continuum of needed medical services and working within the community collaboratives to address community needs. BMH is part of an affiliated system that serves nine counties and includes three other hospitals, Bronson Battle Creek Hospital, Bronson South Haven Hospital, and Bronson Lakeview Hospital. Each of the hospitals in the Bronson Healthcare System admits patients regardless of ability to pay and provides outreach services their respective communities.

In addition to the four hospitals, the BHG system includes several smaller entities whose activities support the hospitals and their mission of "Together, we advance the health of our communities." These entities include Bronson Healthcare group, Bronson Commons, Bronson Lifestyle Improvement and Research Center, Bronson Healthcare Foundation, Bronson at Home, Van Buren Emergency Medical Services, and Bronson Properties Corporation.

Ascension Borgess Hospital

Ascension Borgess Hospital is proud to partner with Bronson Healthcare and Family Health Center to support this critical community needs assessment. The information gathered during this process will offer a meaningful understanding of the most significant health needs across our community and inform planning efforts to address those needs. As our mission states, we are committed to serving all persons with special attention to those who are poor and have been economically and socially marginalized. This assessment will allow us to identify any unmet health needs or gaps in services for this population and help us develop hospital and community initiatives to better serve the health and wellness needs of Kalamazoo.

Peter Bergmann, FACHE
Regional President & CEO, Southwest Region, Ascension Michigan

Ascension Borgess

Ascension Borgess Hospital

Ascension is a faith-based healthcare organization dedicated to transformation through innovation across the continuum of care. The national health system operates more than 2,600 sites of care – including 145 hospitals and more than 40 senior living facilities – in 19 states and the District of Columbia, while providing a variety of services including clinical and network services, venture capital investing, investment management, biomedical engineering, facilities management, risk management and contracting through Ascension's own group purchasing organization.

Mission: Rooted in the loving ministry of Jesus as healer, we commit ourselves to serving all persons with special attention to those who are poor and vulnerable. Our Catholic health ministry is dedicated to spiritually-centered, holistic care which sustains and improves the health of individuals and communities. We are advocates for a compassionate and just society through our actions and our words.

For more information about Ascension, visit https://www.ascension.org/.

Ascension Borgess Hospital & Ascension Borgess-Pipp Hospital

As Ministries of the Catholic Church, Ascension Borgess Hospital & Ascension Borgess-Pipp Hospital are non-profit hospitals governed by a local board of trustees represented by residents, medical staff, and sister sponsorships, and have been providing medical care to Kalamazoo and surrounding counties.

Ascension Borgess Hospital is a full-service hospital with 24/7 emergency care, a Level II Trauma Center, and a Comprehensive Stroke Center. The hospital delivers advanced surgical care for serious and life-threatening injuries and illnesses. Ascension Borgess is a destination for specialty care - including advanced heart care, a comprehensive stroke center, physical, speech and occupational therapy, cancer care, advanced orthopedics and neurosciences, women's health and pediatric care. Our OB-GYN maternity care teams deliver a personalized birthing experience and a specialty care nursery for more intensive newborn care. We provide a wide range of minimally invasive surgical procedures using robotic-assisted technology, imaging and lab tests, and a dedicated inpatient rehabilitation center, all on one campus.

Ascension Borgess-Pipp Hospital is a long-term acute care hospital with 24/7 emergency care, family and internal medicine, OB/GYN and behavioral health care, respiratory care, laboratory, radiology and rehabilitation services. An affiliated rural-health clinic, the hospital offers primary and specialty care for serious and life-threatening injuries and illnesses. Our doctors and care teams deliver primary and specialty care for serious and life-threatening injuries and illnesses.

Family Health Center

Addressing the community's most pressing healthcare needs requires collaboration, cooperation & synergy. We are pleased to work within an innovative infrastructure of organizations willing to focus on positive, collective impact. Together, we can work systemically to find solutions for many complex healthcare disparities that affect our most vulnerable community members. Family Health Center is honored to represent the growing population of historically under-resourced people — we remain dedicated to ensuring that their voices are heard and, consequently, that their well-being is a priority for us to address.

Denise Crawford MSW, MBA President & CEO
Family Health Center

Family Health Center

Vision: To become the preferred medical home for at least 70,000 underserved patients in Kalamazoo County.

Mission: To ensure that all members of the community have access to quality, comprehensive, patient-centered care.

A Federally Qualified Healthcare Center (FQHC,) and designated Patient-Centered Medical Home, by the National Committee for Quality Assurance, Family Health Center of Kalamazoo provides Integrated Care - a team-based approach that incorporates medical, dental and behavioral treatments. Our services are designed to treat all of an individual's health needs at one location, often in one visit. Family Health Center of Kalamazoo provides family medicine, pediatric care, physical and occupational therapy, internal medicine, and obstetrics/gynecology services. In addition, on-site pharmacies, immediate care, lab tests and screenings, behavioral and mental health, and dental services are available.

Defining the Community

Kalamazoo County

Although the Kalamazoo CHNA Collaborative serves Kalamazoo County and surrounding areas, for the purposes of this report the three healthcare organizations have defined the community served as Kalamazoo County for the 2022 CHNA. Kalamazoo County was selected as the community served because it is our primary service area as well as our partners' primary service area. Additionally, community health data are readily available at the county level, and for numerous indicators, at the census tract level.

Located in southwest Michigan and home to over 266,000 residents

Two large corporations: Stryker Medical and Pfizer Pharmaceuticals

Academic institutions: Western Michigan University, Kalamazoo College, and Kalamazoo Valley Community College

The following maps and charts highlight key community information. To view more data on Kalamazoo County visit Appendix A: Community Demographics.

County Demographics

Kalamazoo County Residents: 266,365

Sex

49%

51%

AGE

22%	40%	22%	16%
0-17	18-44	45-64	65+

Median Age: 38

Education (Age 25+)

7%	23%	32%	38%
No Diploma	HS/GED	Some College / Assoc.	Bachelor or Higher

Household Income

17%

24%

17%

41%

- <$25K
- $25-49K
- $50-74K
- >$75K

Race

78%

12%

4%

6%

- White
- AA/Black
- Multi
- Other
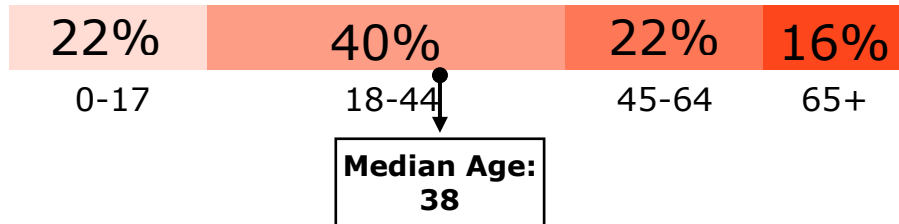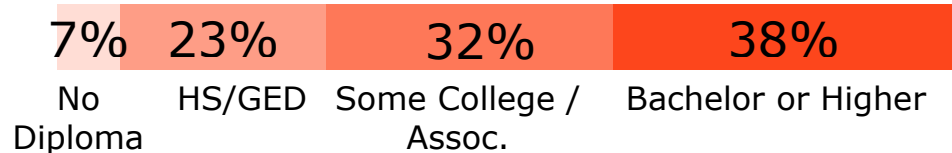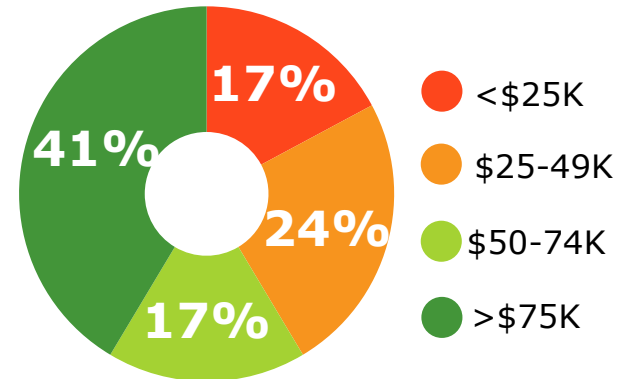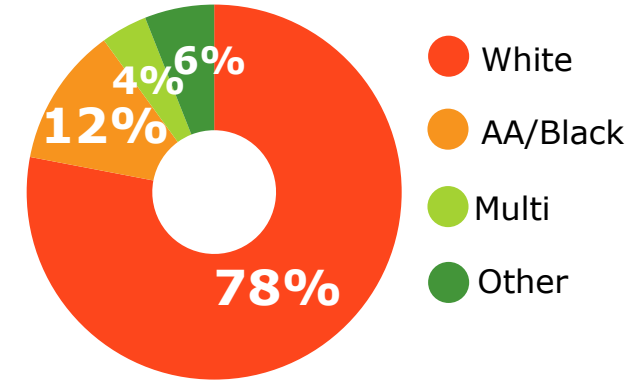
4% Hispanic or Latinx

Household Ownership

64% Own

36% Rent

Data Source: Sg2, 2022 Demographics (Claritas)

City Demographics

Kalamazoo City* Residents: 77,441
*Zips: 49001, 49006, 49007, 49008

Sex
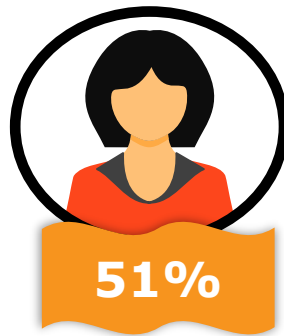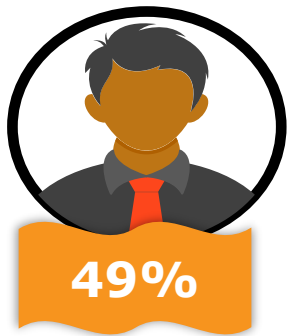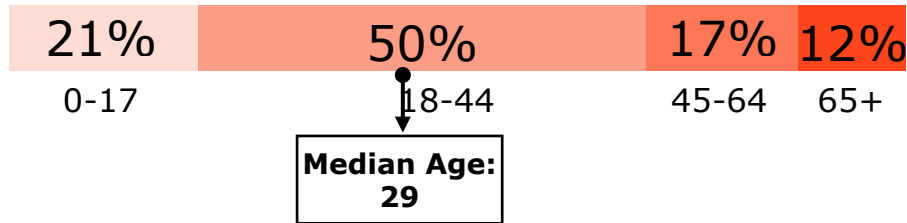
49% 51%

AGE

21%	50%	17%	12%
0-17	18-44	45-64	65+

Median Age: 29

Education (Age 25+)

11%	20%	32%	37%
No Diploma	HS/GED	Some College / Assoc.	Bachelor or Higher

Household Income

30% 26% 17% 27%

- <$25K
- $25-49K
- $50-74K
- >$75K

Race

68% 21% 5% 6%

- White
- AA/Black
- Multi
- Other

6% Hispanic or Latinx

Household Ownership

45% Own 55% Rent
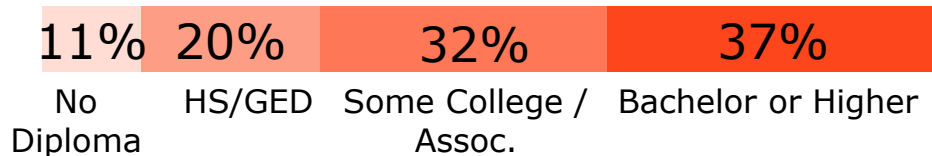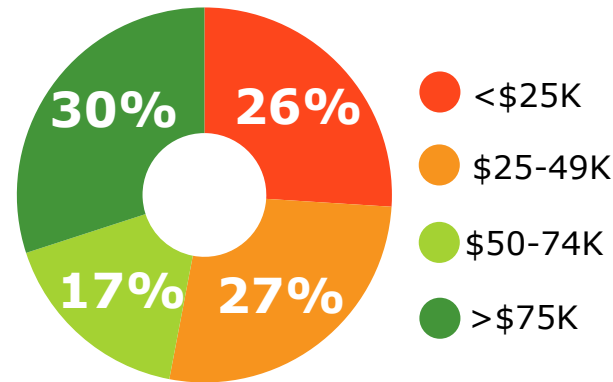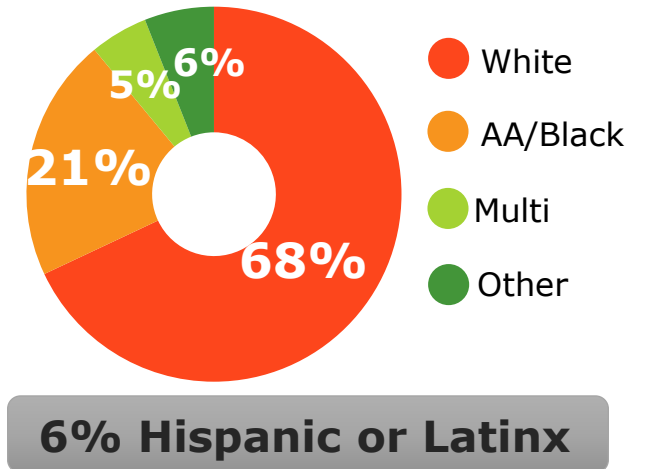
Data Source: Sg2, 2022 Demographics (Claritas)

CHNA Process

Steps in the Process

Engage partners

The CHNA was a collaborative effort between three (3) major medical providers in Kalamazoo County. A core team and advisory group leveraged existing community connections to obtain feedback from the populations being served.

Review previous CHNA

The previous CHNA data and any feedback were considered throughout the process.

Collect and analyze data

Existing data for Kalamazoo County, in the form of recent community reports and assessments and community health indicator data, were collected and analyzed to identify needs.

New qualitative data were collected to capture community voices. This included key informant interviews with partners representing diverse populations within the county.

Prioritize community health issues

The advisory group reviewed summary data findings highlighting community needs and recommended which to prioritize.

Document and communicate results

The final CHNA report is available on hospital websites and paper copies are available upon request.

Plan implementation strategies

The Kalamazoo CHNA Collaborative will engage in action planning sessions to develop Community Health Implementation Strategies to address the prioritized needs outlined in the CHNA report.

Evaluation of Prior CHNA

The Kalamazoo CHNA Collaborative was formed in September of 2021. The first step was to identify the roles and requirements of each of the three organizations and establish a foundation for the work. The next step was to review each of the organizations' previous CHNAs at length and compare for themes and gaps. It was decided that an Advisory Group would be established to guide the process for the 2022 CHNA, review proposed data indicators to collect, as well as suggestions for additional community input of significance. Michigan Public Health Institute (MPHI) and W.E. Upjohn Institute for Employment Research were contracted consultants to facilitate the CHNA.

The Kalamazoo CHNA Collaborative proposed that the preceding CHNA implementation strategies were lagging in some areas, primarily due to the COVID-19 pandemic, the 2019 priority needs identified would require more than three years to see impact, and there was an assumption that the pandemic had certainly aggravated many of the priority needs previously identified. Therefore, it was decided that the 2022 CHNA report would use the majority of the previous priority needs as a starting point for data collection, with agreement that the Advisory Group would assure that any new or emerging needs would be identified and considered as well.

A full evaluation of the impact of any actions taken to address the prioritized health needs identified in the immediately preceding CHNA, for each hospital is included in Appendix B: Evaluation of Prior CHNA Bronson Methodist Hospital, and Appendix C: Evaluation of Prior (2019) CHNA Ascension Borgess Hospital.

Partners/Committees

Recognizing its vital importance in understanding the health needs and assets of the community, the CHNA Collaborative consulted with a range of public health and social service providers that represent the broad interests of Kalamazoo County.

Core Group

Met weekly to facilitate the CHNA process. This group included representation from:

- Bronson Healthcare
- Ascension Borgess Hospital
- Family Health Center
- Michigan Public Health Institute
- W.E. Upjohn Institute for Employment Research

Advisory Group

This CHNA Advisory Group was engaged with a concerted effort to ensure that the individuals and organizations represented the needs and perspectives of:

1) Public health practice and research; and/or

2) Serve BIPOC and groups that have been marginalized; and/or

3) The broader community at large and represent the broad interests and needs of the community served.

The CHNA Advisory Group met with the Kalamazoo CHNA Collaborative multiple times including a prioritization session, and many members participated in Key Informant Interviews (KII) for this report.

The list of organizations that make up the CHNA Advisory Group is located in Appendix D: Advisory Group Members.

Timeline

CHNA Planning	Data Collection	Prioritize Health Needs	Write and Publish CHNA Report	Plan/Develop Implementations Strategies
August – November 2021	**October 2021 – March 2022**	**March 2022**	**April – May 2022**	**July 2022 – April 2023**
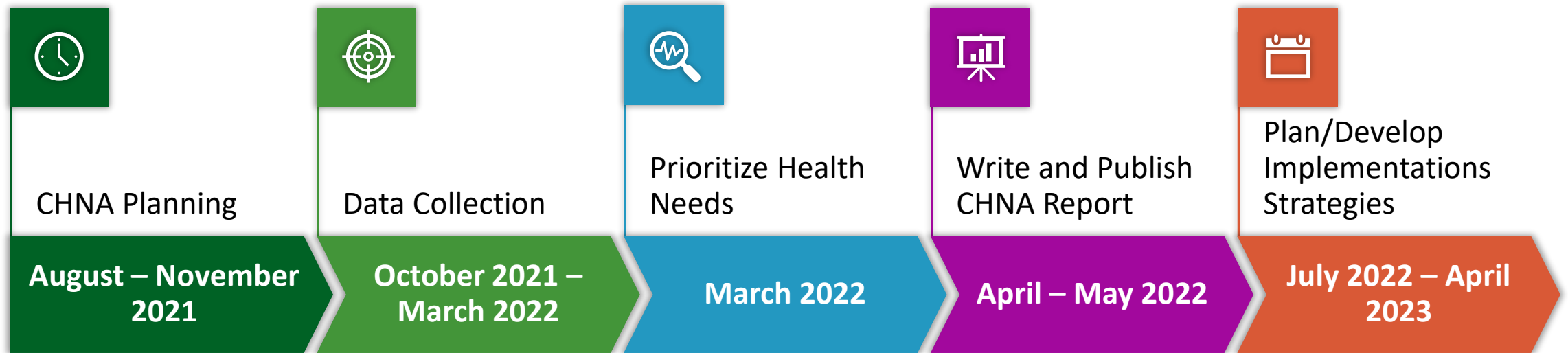
Methodology

Data Collection Methods

Both primary and secondary data were collected and analyzed to inform this unified CHNA. Michigan Public Health Institute highlighted community voice through analysis of key informant interviews and recent community reports and assessments. W.E. Upjohn Institute for Employment Research compiled and analyzed social determinants of health indicators to highlight the health status and social determinants of health for individuals living in Kalamazoo county.

Key Informant Interviews

Recent Community Reports and Assessments

Social Determinants of Health Indicators

Key Informant Interviews

Individuals representing partner agencies in the community were invited to share their thoughts and experiences in a key informant interview.

A total of **23** key informant interviews were conducted between the months of **January and February 2022**, with participants representing a diverse range of age, race, ethnicity, gender orientation, and lived experience. A list of organizations that participated in the key informant interviews can be found in Appendix E: KII Participating Organizations. To view a summary of the KII demographics visit Appendix F: KII Demographics.

The core team analyzed interview transcripts to identify common themes that emerged across interviews, which are described on pages 33-35 in the CHNA Findings section.

Recent Community Reports and Assessments

The core team collected recent community reports and assessments from community organizations that highlighted the needs of Kalamazoo County and analyzed these documents for common themes.

Documentation included **summaries of focus groups**, **interviews**, **surveys**, and other available **community assessments**.

To review a list of external documents used for this analysis visit Appendix G: Recent Community Reports and Assessments Citations.

The common themes are described on page 36 in the CHNA Findings section.

Social Determinants of Health

The Kalamazoo CHNA Collaborative, with input from both contracted consultants, as well as the CHNA Advisory Group, agreed on a list of indicators for which to collect data. Indicators were considered based upon **social determinants of health**, **health disparities and inequities**, as well as **previous CHNA priority needs**.

To view the selected social determinants of health indicators, visit pages 37-40 in the CHNA Findings section.

Identifying and Prioritizing Health Needs

On March 17th, 2022, the advisory group gathered to review data collected through the CHNA process. The group was sent a data summary document that included the most commonly identified community health needs and findings from recent community reports and assessments, key informant interviews, and health indicator data.

During the prioritization meeting, the advisory group reflected on the data and identified health needs. Facilitators then asked the group to rate each need on three Likert scales: level of disparities in health outcomes, feasibility of possible interventions, and urgency to address.

On March 24th, 2022, the core team met to discuss the results of the prioritization meeting and considered all suggestions from the advisory group. They reviewed identified needs and combined items to establish four (4) priority areas, which will be described in the CHNA and addressed through future implementation plans.

To view a summary of the prioritization process, visit [Appendix H: Prioritization Summary](#).

CHNA Findings

CHNA Findings

Responses from key informants representing community organizations serving groups that have been economically/socially marginalized were analyzed to uplift needs that are most important to those living in Kalamazoo County. More details about the methodology used for data collection and analysis can be found starting on page 25.

Responses from key informants representing community organizations serving groups that have been socially and economically marginalized were analyzed to uplift needs that are the most important to those living in Kalamazoo.

Recent community reports and assessments highlighting community voice were also collected and analyzed. This documentation included summaries of focus groups, interviews, surveys, and other available assessments.

Selected social determinants of health indicators are intended to measure Kalamazoo's current health standing and outcomes. These indicators show Kalamazoo's demographics, social, and economic factors, health behaviors, factors and risks associated with health outcomes, as well as health conditions.

Key Informant Interviews (KII)

Thirteen (13) community needs emerged from the analysis of key informant interviews. To view a more detail list of the community needs that emerged visit Appendix I: Key Informant Interviews (KII) Results.

1. Discrimination and racism - Inequities rooted in racism and classism came up frequently during interviews. Some other inequities described were due to ethnicity, gender, immigrant status, language, age, or sexual orientation .

2. Healthcare – Participants identified many community needs related to health care. These included culturally appropriate care and quality communication between providers and patients/families, cost of care, proximity to care, availability of providers, and the impacts of COVID-19.

3. Income and poverty – Participants highlighted income and poverty as major root causes of inequity which are linked to overall health and wellbeing. Key informants discussed the linkage between income and health through the ability to obtain safe and quality housing, reliable transportation, nutritious food, educational opportunities, and affordable healthcare.

4. Lack of community connectedness – Community connectedness was mentioned as a factor influencing the health of the community. Participants shared how connection to one another, especially through the pandemic, and connection to resources in the community were barriers to health.

5. Mental health - Mental health is an important issue for the community and this need was amplified by COVID-19, particularly among people with low income and BIPOC community members. There is a need for more mental health providers that are trained in trauma-informed cultural competency. Additionally, community members are often unaware of the mental health services and resources that may be available to them.

Key Informant Interviews

6. Economy and employment - There are racial and class inequities present in available employment opportunities and career pathways that lead to jobs paying a living wage. COVID-19 also negatively impacted employment for these individuals by creating financial instability, stress, and disproportionate exposure to the virus.

7. Safe and affordable housing - Housing was a basic need commonly shared as an important factor that contributes to one's health. Many interviewees highlighted the importance of having safe, secure, and affordable housing. Housing can be one of many competing priorities for members of the community, leading to stress and health issues.

8. Bureaucracy - Laws, policies, power dynamics, and mental models drive existing inequities. There is a need for transformational institutional change that leadership commits to, explicitly identifying and addressing equity and systemic racism, to improve health outcomes.

9. Social services - Interview participants shared there are resources in the community, but there is lack of communication, awareness, and education about what is available. These services include mental health care, shelter services, home help, and maternal-infant services, among many others. The pandemic limited access to social services and created staff shortage issues for many social service organizations. Additionally, the difficulty of navigating the complex social service systems and transportation to receive needed services presented a barrier.

10. Education and Schooling - Inequities in school quality, resources, and the education system overall were shared as concerns throughout interviews. Impacts of COVID-19 on youth and families were also uplifted.

Key Informant Interviews

11. Transportation - Interview participants recognized the ongoing barrier lack of adequate transportation causes not only for access to care, but also to steady employment and accessing other needed supports. While transportation has been a recognized issue, the need has not been addressed in a way that meets the community's need. Public transportation is available, but is difficult to use, and was unavailable at the height of the pandemic. Additionally, many health care facilities are located far from communities that more often have limited access to adequate transportation.

12. Violence and trauma – Participants noted the pandemic increased violence in the community, especially domestic violence, due to social isolation and unaddressed mental health needs. Participants noted decreased feelings of safety due to increased violence, including gun violence and drug-related crime. Systemic racism and policing were also shared as a concern.

13. Other topics included needs such as homelessness, substance use, proximity to healthy food options, childcare, access to internet, and coordinating services.

Recent Community Reports and Assessments

Six (6) identified community needs resulted from the recent community reports and assessments analysis. To view a more detail list of the community needs that emerged visit Appendix J: Recent Community Reports and Assessments Results.

1. **Racism and discrimination** - Systemic racism and discrimination based on race, class, and age is a high-level need impacting health.

2. **Health care** – Transportation, cost of care, lack of trust, quality of services for older adults, and impacts of COVID-19 pandemic were uplifted as important needs.

3. **Safe and affordable housing** – Low-income BIPOC and individuals with low-income often noted having low access to housing that met their needs for affordability and safety.

4. **Lack of community connectedness** – Lack of awareness of available resources, difficulty navigating systems, and COVID-19 impacts, such as social isolation were shared as important needs.

5. **Social services** – Needs related to social services included a lack of awareness of available social services, difficulty navigating complex systems, and the impacts of COVID-19.

6. **Violence and trauma** – Crime was uplifted as a community concern along with decreased feelings of safety.

Social Determinants of Health

The selected social determinants of health indicators included in the 2022 CHNA:

Life Expectancy and Mortality

Infant Mortality

Poor Mental Health Days

Mental Health Services Utilization

Median Household Income

Kids in Poverty

Economic Disadvantage by School District

Homeowners

Median Rent

Overburdened Renters

Unemployment Rate

Labor Force Participation Rate

Fewer Cars Than Workers

Food Insecurity

Educational Attainment

Air Pollution

Health Care Access

Overburdened Renters

Charts and graphs for individual indicators can be viewed in Appendix K: Social Determinants of Health Results. The maps and charts include data by Census Tract. To visit a table and map of the Census Tracts in Kalamazoo County, visit Appendix L: Census Tract Table & Map.
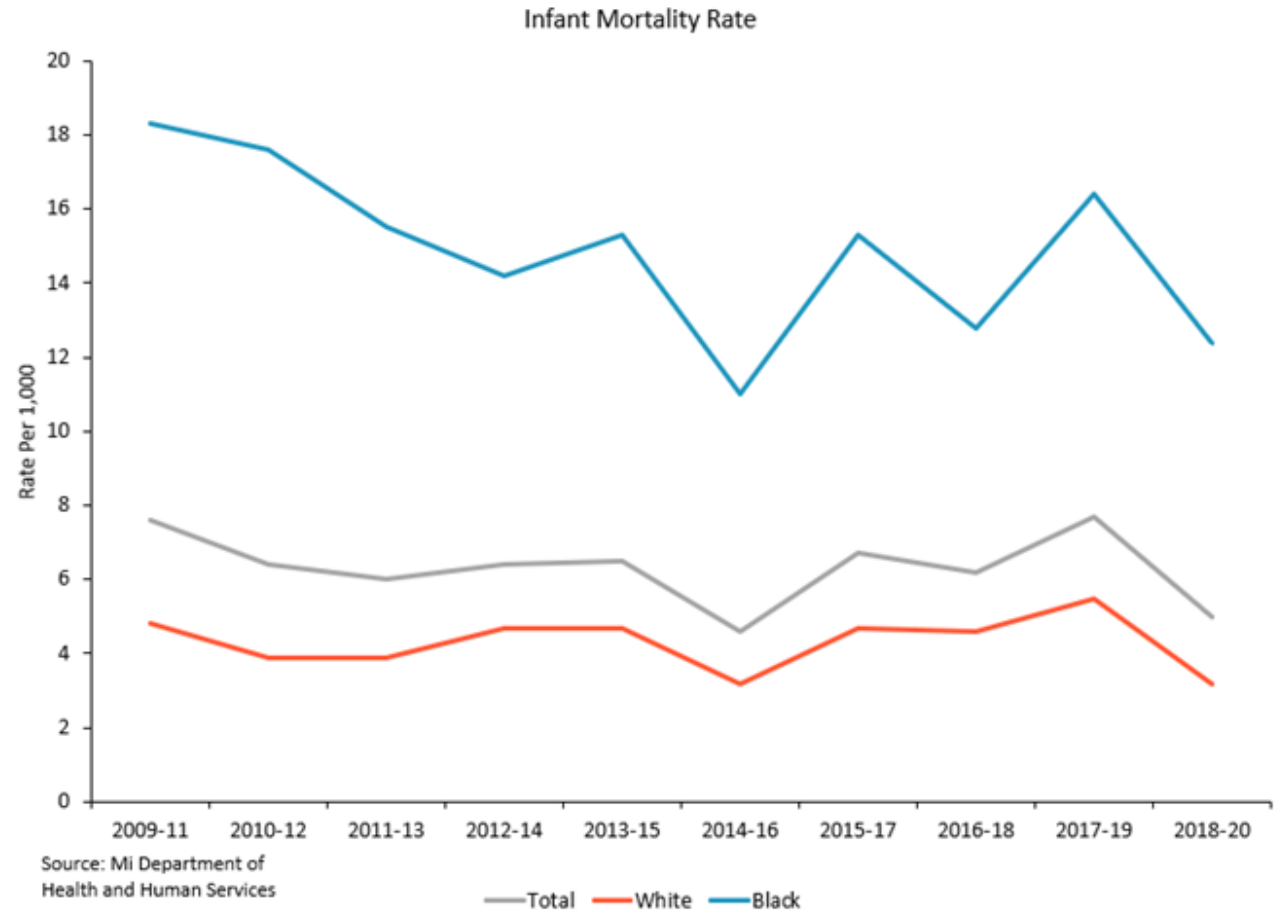
Social Determinants of Health

Infant Mortality

Infant Mortality is a measure of maternal and child health. The rate as shown is deaths per 1,000 live births, both as a trend and by race/ethnicity. Infant mortality can also be an indicator for the overall health of an area or group.

• The disparity in infant mortality by race has been a concern for some time and has led to efforts to address the disparity by the community.

• The rate of Black or African American babies is three times higher than white babies.

Data Source: MI Department of Health and Human Services

Infant Mortality Rate

Source: Mi Department of Health and Human Services

—Total —White —Black
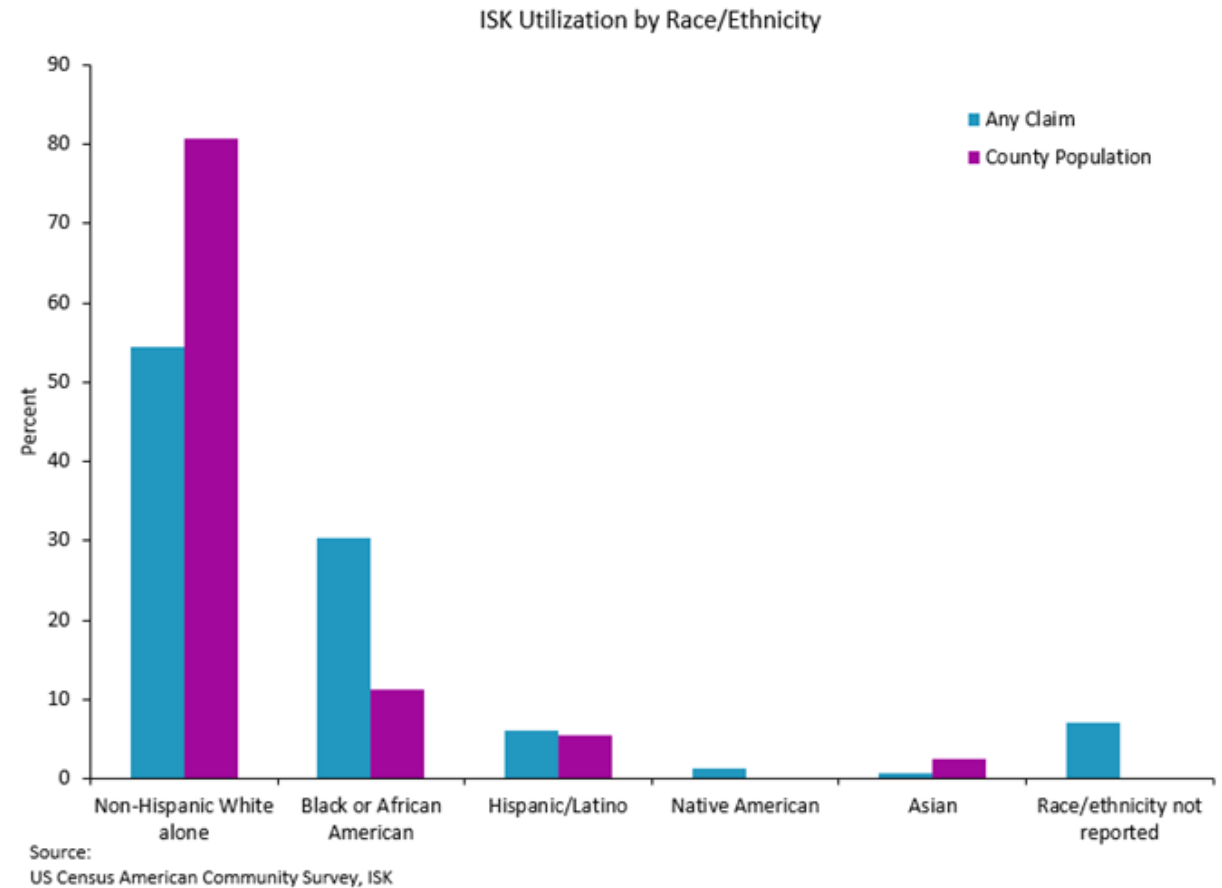
Social Determinants of Health

Mental Health Services Utilization

Mental Health Services Utilization is measured by the amount of people utilizing services at Integrated Services Kalamazoo (ISK). Services provided by ISK include treatment for substance use disorder and mental health for children, adults, families, and people with intellectual and physical disabilities. About two thirds of the Medicaid-eligible population of Kalamazoo County use any service at ISK in any month. Data shown are the percent of mental health services as a share of those who received any service at ISK and the demographics of service recipients compared to the county as a whole.

- The majority of the ISK clients are non-Hispanic whites, but the percent is considerably lower than the county as a whole.

Data Source: Integrated Services of Kalamazoo

ISK Utilization by Race/Ethnicity

Source: US Census American Community Survey, ISK

Social Determinants of Health

Median Household Income in Kalamazoo County

Median Household Income is the household income in the past 12 months for which 50 percent of households have higher income and 50 percent lower. This includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not.

- The lowest income neighborhoods in Kalamazoo County are either in the city center such as the Northside, Stuart, and Edison and student areas. Student rental areas including Knollwood and east of Drake Road in Oshtemo Township also have relatively low median incomes.

- The highest income areas in the county are the townships and south Portage.

- Large disparities by race/ethnicity exist for household income. Black or African American households have a median income of 52 percent that of white households.

Data Source: American Community Survey

Median Household Income in Kalamazoo County

Source:
US Census American Community Survey
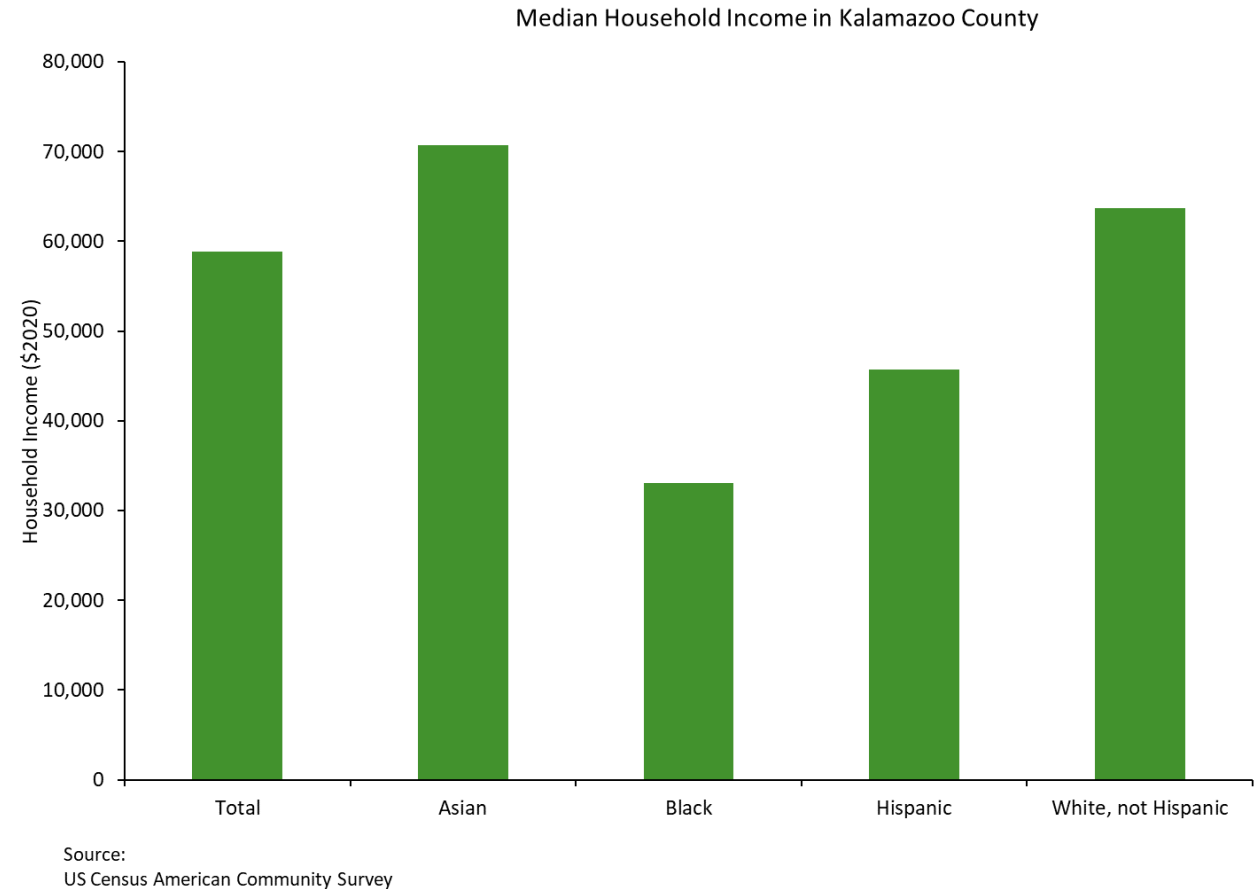
Prioritization of Health Needs

The Kalamazoo CHNA advisory group reviewed combined key findings from primary and secondary analyses and ranked identified needs based on the feasibility of possible interventions, level of disparities in health outcomes, and urgency. Additional information on the methodology of the prioritization session can be found on page 30. The CHNA core team reviewed results of the advisory group's prioritization session to develop a final list of four (4) priorities encompassing all thirteen (13) identified community health needs.

System Navigation
(healthcare, mental health services, social services)

- Coordination of care across health and social service sectors

- The importance of community connection (to resources/services and one another)
- Addressing the social determinants of health in addition to clinical health care

Mental Health

- The need for mental health supports was exacerbated by COVID-19

Systems Change Efforts to Address Deep-Rooted Inequities (race and class inequities)

- Culturally competent and trauma-informed care and communication
- Lack of trust in the healthcare system
- Healthcare and services workforce not representative of the community
- Equitable distribution of services and resources

Living Conditions
(physical, economic/work, service)

- Necessity of providing career pathways and a livable wage for all
- Healthcare and services workforce not representative of the community
- Cost of care (healthcare, mental health services)
- The need for affordable and reliable transportation and housing
- Addressing the social determinants of health in addition to clinical health care

Available Resources

Numerous resources exist in Kalamazoo County to address the significant health needs identified through the CHNA. The Kalamazoo CHNA Collaborative utilized this list to assist with prioritizing needs for this report. The subsequent Community Health Improvement Plan (CHIP) developed later in 2022 will require continued engagement and partnership with the organizations listed to leverage resources and expertise to adequately address the prioritized needs.

Below is a limited sample of healthcare, social services, and educational agencies in Kalamazoo County:

Ascension Borgess Hospital

Ascension Borgess-Pipp Hospital

Bronson Methodist Hospital

Family Health Center of Kalamazoo

Integrated Services of Kalamazoo

Kalamazoo County Health and Community Services

United Way of the Battle Creek and Kalamazoo Region

Kalamazoo College, Kalamazoo Valley Community College and Western Michigan University

Western Michigan University Homer Stryker MD School of Medicine

YWCA

A more comprehensive (yet not exhaustive) list is found in Appendix M: Resources.

Appendices

Appendix A: Community Demographics

Kalamazoo County: Determinants Of Health

Bottom 3
Top 3

Area		Households (HH)	% Below ALICE Threshold ↑ Highest Need	% Civilian Unemployed ↑ Highest Need	% Uninsured ↑ Highest Need	Median HH Income ↓ Highest Need	High School Dipl. or Higher (25 yrs+) ↓ Highest Need
Michigan		**4,016,743**	**38%**	**5%**	**7%**	**$57,144**	**91%**
Kalamazoo County		**108,659**	**39%**	**5%**	**6%**	**$61,216**	**93%**
Kalamazoo	49007	4,658	62%	10%	6%	$31,389	83%
Kalamazoo	49006	10,711	55%	5%	8%	$51,888	95%
Kalamazoo	49001	8,982	47%	8%	7%	$45,835	85%
Kalamazoo	49048	10,728	46%	7%	6%	$52,269	89%
Fulton	49052	343	44%	5%	8%	$57,116	90%
Kalamazoo	49008	7,538	41%	4%	6%	$54,959	93%
Portage	49002	8,952	38%	5%	6%	$61,272	95%
Kalamazoo	49004	7,024	36%	5%	7%	$58,072	93%
Galesburg	49053	2,921	36%	3%	3%	$60,551	92%
Kalamazoo	49009	20,090	35%	4%	4%	$71,336	95%
Portage	49024	12,660	31%	5%	3%	$66,845	96%
Climax	49034	1,036	31%	5%	5%	$67,655	96%
Vicksburg	49097	4,562	26%	3%	7%	$68,665	94%
Augusta	49012	1,460	25%	3%	6%	$65,743	95%
Scotts	49088	1,397	25%	2%	5%	$78,934	94%
Schoolcraft	49087	2,413	22%	1%	4%	$72,991	98%
Richland	49083	3,184	21%	1%	3%	$75,145	96%

County Race by Census Tract

Kalamazoo County

Downtown Kalamazoo

Population By Race
- White
- Black/African Am.
- Am. Indian/Alaska Native
- Asian Indian
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Hawaiian
- Some Other Race
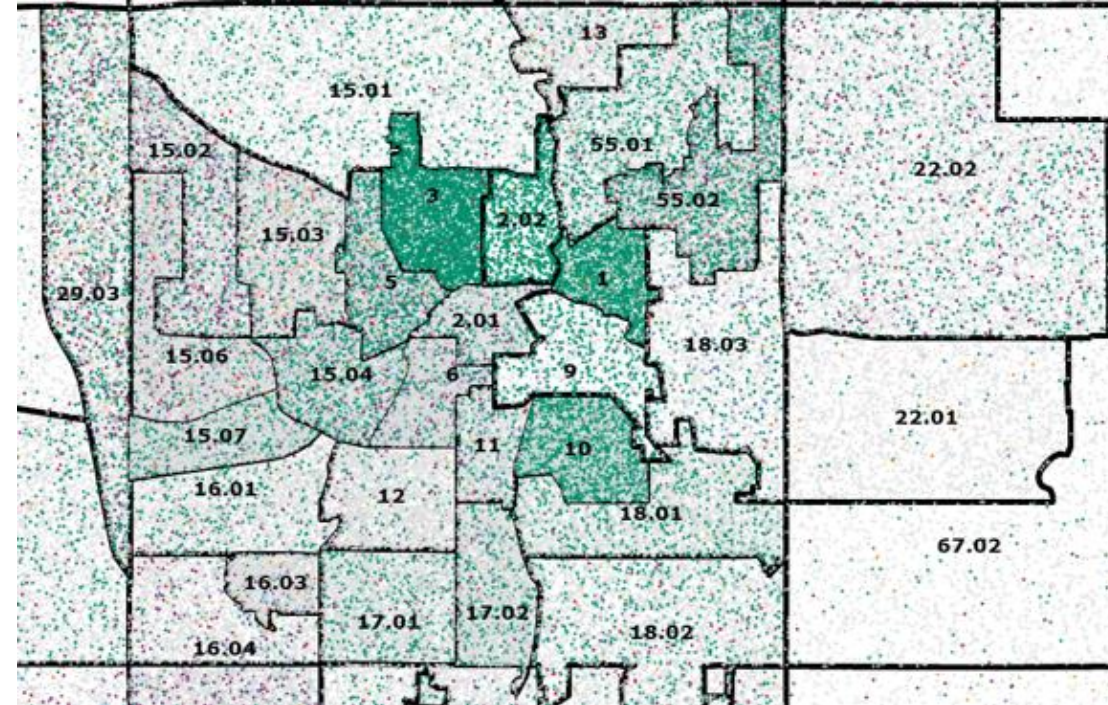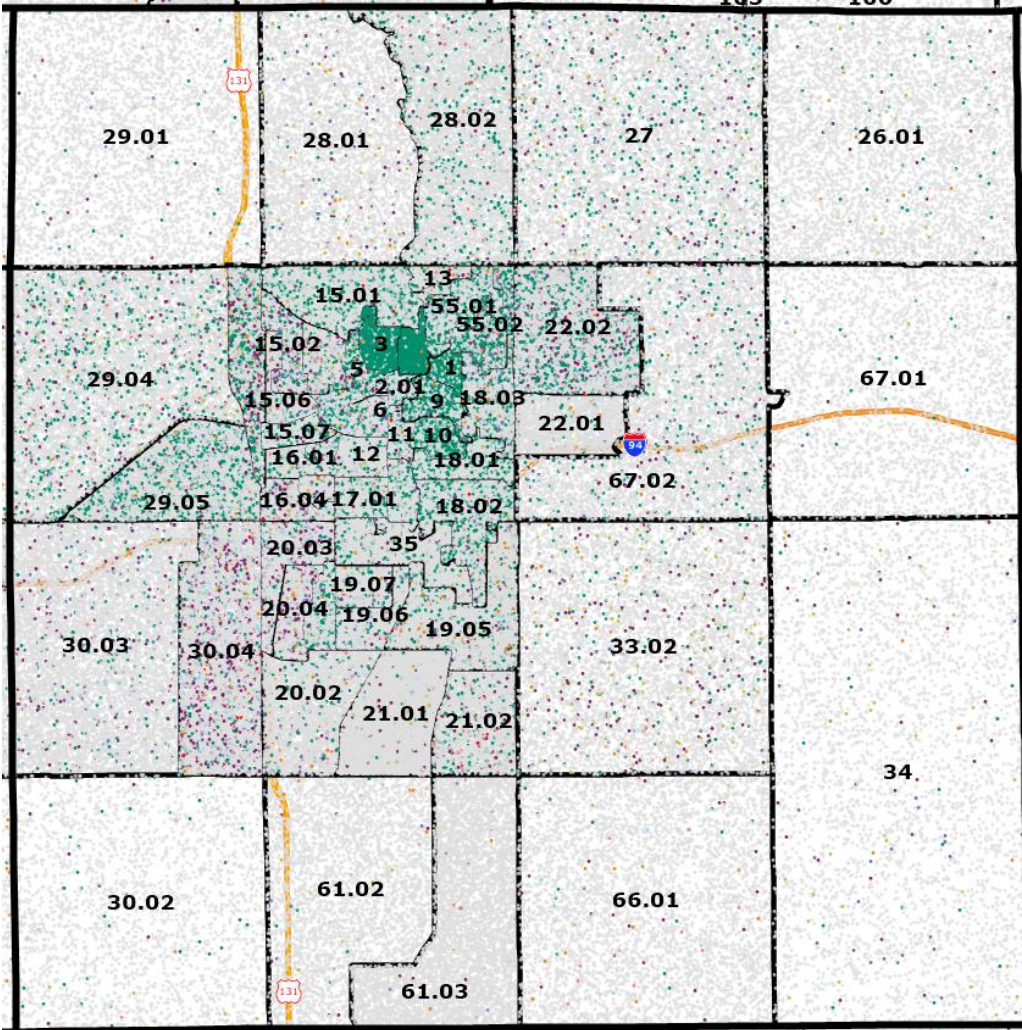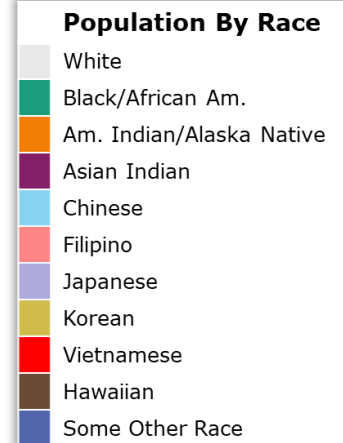
Source: Maptitudes Program, Using US Census, 2015-2019 American Community Survey

County Ethnicity by Census Tract

Kalamazoo County
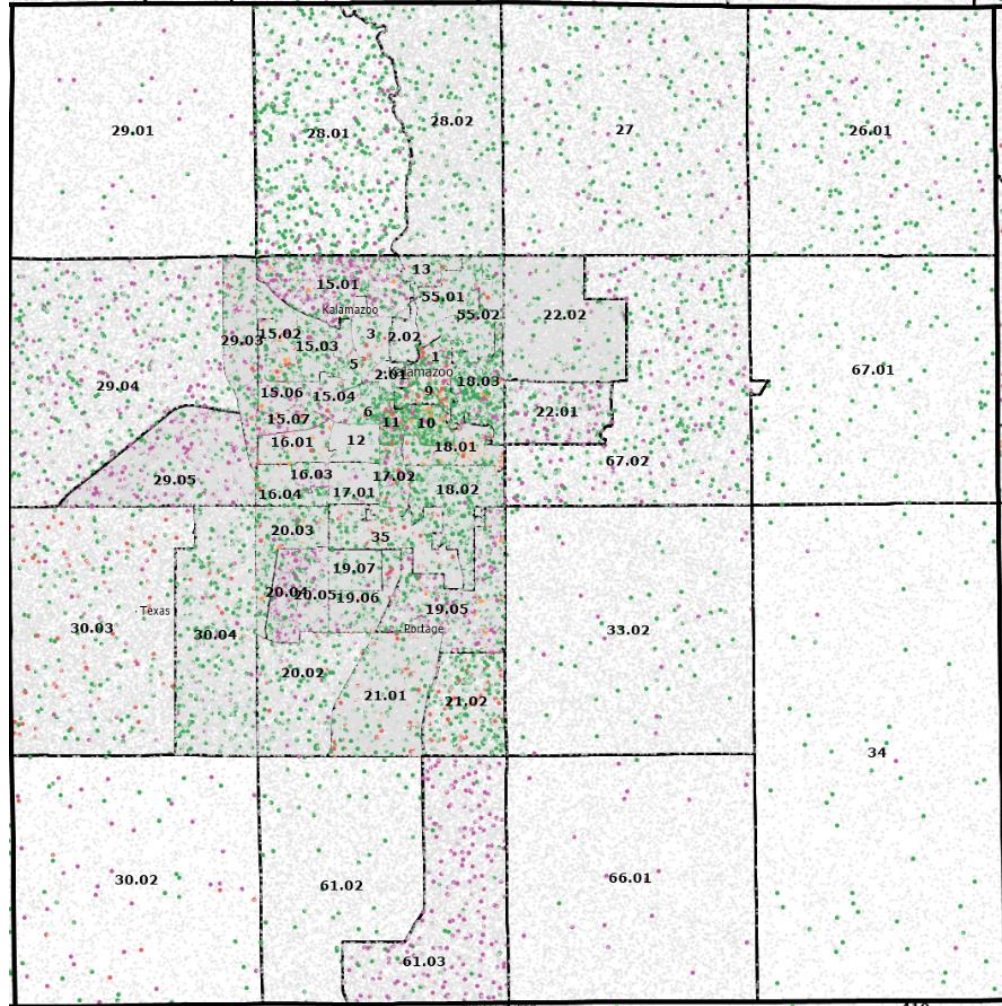
Downtown Kalamazoo
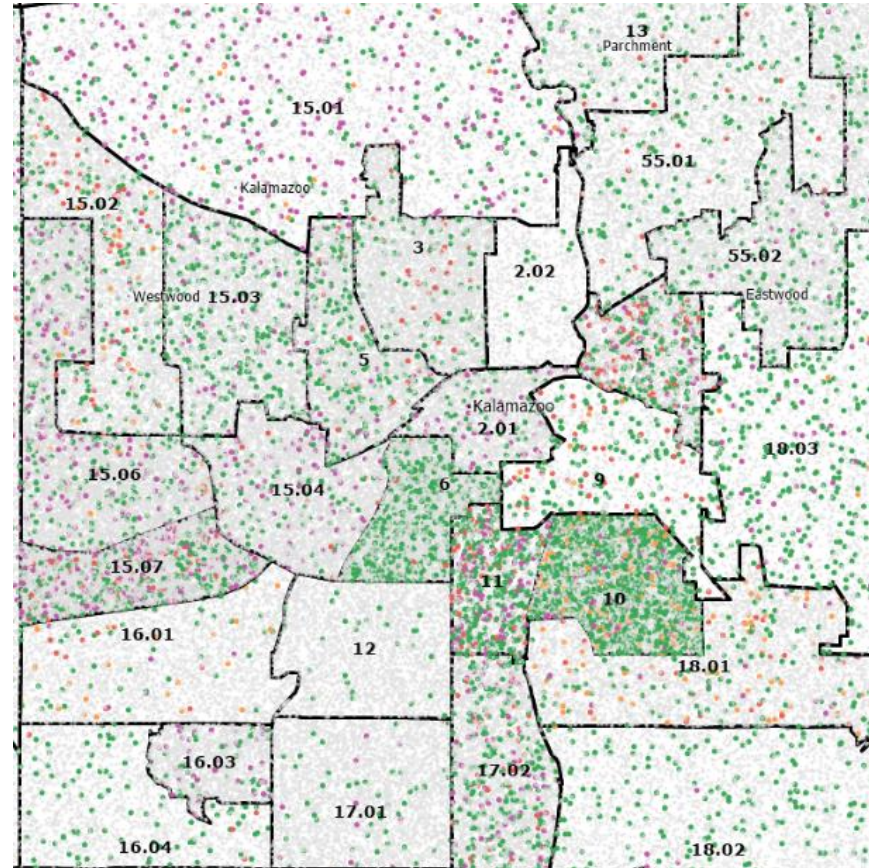
Population By Ethnicity

- Hispanic – Mexican, Mexican Am. or Chicano
- Hispanic - Puerto Rican
- Hispanic – Cuban
- Hispanic – Other
- Not Hispanic Origin

Source: Maptitudes Program, Using US Census, 2015-2019 American Community Survey

Appendix B: Evaluation of Prior CHNA
Bronson Methodist Hospital

Evaluation of Prior CHNA Bronson Methodist Hospital

Community Input on Previous CHNA and Implementation

Bronson Methodist Hospital's previous CHNA and implementation strategy were made available to the public and open for public comment via the website:

Bronson Methodist Hospital Community Health Needs Assessment (bronsonhealth.com)

The public was able to submit questions or comments about the Community Health Needs Assessments via email at CHEI@bronsonhg.org or contact Beth Washington, Vice President of Community Health, Equity and Inclusion at (269) 341-8672 or washingm@bronsonhg.org.

At the time of publication of this report, there were no public comments related to the 2019 CHNA report for Bronson Methodist Hospital.

Summary of Impact from the Previous CHNA Implementation Strategy
Bronson is committed to monitoring progress made on priority needs set forth in the preceding CHNA.
The results of the 2019 CHNA, compounded by the stark realities of COVID-19, have urged Bronson to focus efforts upstream to acknowledge the root causes of behaviors, death, and disease. As a result, there was shared desire and urgency to build community trust to address the identified needs in the 2019 CHNA. As Southwest and Southcentral Michigan's only children's hospital, we recognize the responsibility and opportunity to build this trust from the start. Bronson has worked

to develop a systematic approach to use community voice, data, and engagement to understand and address the needs of our mothers, babies, and families.
By making significant progress in the two priority areas below-
Bronson's Priority: Eliminate racial/ethnic disparities in a family's perinatal experience and clinical outcomes across income levels
Bronson's Priority: Eliminate racial/ethnic disparities in our workforce at every level to support strong families
Bronson has impacted the 11 identified needs in the 2019 CHNA:

Top 11 Topics (in no ranking order
- Laws & Policies
- Personal Experiences of Racism
- Transportation
- Land Use, Parks & Recreation/Greenspace
- Proximity to Affordable, Healthy Food
- Mental Health & Substance Abuse
  - Access to Services
  - Experiences of Stress and Trauma
- Community Connectedness
- Quality Education
- Healthcare
- Social Services
- Career Pathways, Income, Poverty

Appendix C: Evaluation of Prior (2019) CHNA Ascension Borgess Hospital

Evaluation of Prior (2019) CHNA Ascension Borgess Hospital

Racism and Discrimination: In November 2020, Ascension Borgess convened an "Appreciation-Belongingness-Inclusivity-Diversity-Equity (ABIDE) Council" - consistent with the national Ascension ABIDE framework. The first council meeting was held November 18, 2020 and meets monthly. Purpose of the council: Inclusivity and Diversity is a demonstration of Ascension's Mission, Values, and commitment to social justice. The fundamental purpose of this council is to actively transform our culture. This council will engage in listening, learning, open dialogue and acting together to ensure that all associates have the opportunity to attain their full potential. Council Functions/Objectives: This council was established to serve as the local/regional council to impact change at the local ministry level to address aspects of education and formation related to equity in the work environment.

52 Ascension Medical Group (AMG) primary care physicians completed the Stanford Unconscious Bias in Medicine education module (approximately 1 hour) in June 2021 as part of Blue Cross Blue Shield of Michigan (BCBSM) requirements for participating primary care providers.The pandemic has increased awareness of the impact of health disparities and BCBSM encourages all providers to learn more about the influence of unconscious bias on decisions in health care.

The Resilience documentary, focused on Adverse Child Experiences (ACES) and implicit bias training was held December 14, 2020. 6 members of the Ascension Borgess Senior Leadership team participated in the first workshop. This team recommends Ascension providers and additional leadership are provided an opportunity to view the documentary as well.

All women's health providers and many of the pediatric providers were trained in Trauma Informed Care through a webinar offered by the YWCA. Women's Health is building intentional relationships with local Doula organizations to work with patients who lack trust in the healthcare system.

Evaluation of Prior (2019) CHNA Ascension Borgess Hospital

Mental Health Assistance and Access: AMG will implement the Collaborative Care Model within selected primary care practices in 2022. The Collaborative Care model consists of the Primary Care Provider, Behavioral Health Care Manager and Psychiatrist all working together as a truly integrated team. It leads to better patient outcomes, better patient and provider satisfaction, improved functioning, increased access to care, and reductions in health care costs, achieving the Triple Aim of health care reform. Collaborative Care necessitates a practice change on multiple levels and is nothing short of a new way to practice medicine, but it works.

Ascension Borgess Women's Health is also creating a Collaborative Care model, between the MSWs in the department and DeLano Clinic. MSWs working in Pediatrics, Women's Health and Ascension Borgess Birthing Center meet monthly to coordinate their work and to proactively support the patients that are at high risk or struggling.

AMG DeLano Clinic (behavioral health) has been conducting a high volume of virtual visits over the last several months, which has also been well received and significantly assisted with access during this time of Covid. A new child psychiatrist started with Behavioral Health Services on August 10, 2020 and is very busy, receiving many referrals. Dementia, bariatric and guardianship testing services at AMG DeLano Clinic have been added.

MSWs working in pediatrics, Ascension Borgess Women's Health (AMG) and Ascension Borgess Birthing Center meet 2 times a month to coordinate their work and to proactively support the patients that are at high risk or struggling.

Evaluation of Prior (2019) CHNA Ascension Borgess Hospital

Access to Primary Care Providers: Virtual care marketing commenced over the last few months and is seeing a high volume of patients, providing increased access to care. AMG practices are accepting Medicaid and patients are not prioritized for appointment scheduling based on insurance type. Portage PC replacements and succession hires resulted in 136 providers through new acquisitions for a 20% increase in primary care providers. Recruitment efforts are ongoing.

Considerations for Ascension Borgess Hospital: Overall, progress has been made in each of the priority needs; the COVID-19 pandemic caused a shift in priorities for all departments; an Acute Community Concern Assessment and subsequent SBAR (Situation, Background, Assessment, Recommendation) document for each hospital, specific to COVID-19, was developed and submitted to the Ascension national office in October 2020 and was submitted with the FY 2021 IRS 990 Schedule H tax returns. A copy of the SBAR documents was submitted to the Ascension Borgess Board of Trustees in December 2020 for review.

Appendix D: Advisory Group Members

Advisory Group Members

A list of organizations that make up the CHNA Advisory Group:

- Ascension Borgess
- Bronson Healthcare
- City of Kalamazoo
- Family Health Center of Kalamazoo
- Integrated Services of Kalamazoo (ISK)
- Kalamazoo County Continuum of Care
- Kalamazoo County Health and Community Services
- Kalamazoo County Sheriff's Department

- Kalamazoo Regional Educational Service Agency (KRESA)
- Michigan Works! Southwest
- Michigan Public Health Institute (MPHI)
- The Kalamazoo Promise
- United Way of the Battle Creek and Kalamazoo Region
- W.E. Upjohn Institute for Employment Research
- Western Michigan University Homer Stryker MD School of Medicine (WMED)

Appendix E: KII Participating Organizations

KII Participating Organizations

- Area Agency on Aging - Kalamazoo
- Ascension Medical Group Borgess
- Bronson Healthcare
- Communities in Schools
- El Concilio
- Integrated Services of Kalamazoo
- Kalamazoo Community Foundation
- Kalamazoo County Continuum of Care
- Kalamazoo County Health & Community Services
- Kalamazoo County Sheriff Department

- Kalamazoo Defender
- Kalamazoo Gospel Mission
- Kalamazoo Loaves and Fishes
- Kalamazoo Ministerial Alliance
- Kalamazoo Regional Educational Service Agency
- Kalamazoo Valley Community College
- Michigan Works Southwest
- Ministry with Community
- OutFront Kalamazoo
- The City of Kalamazoo
- The Kalamazoo Promise

- United Way of the Battle Creek & Kalamazoo Region
- Western Michigan University Department for Diversity and Inclusion
- Western Michigan University School of Medicine
- Western Michigan University Walker Institute

Appendix F: KII Demographics

KII Demographics

Key Informant Interview (KII) Overview

23 Interviews

Individuals representing partner agencies in the community were invited to share their thoughts and experiences in a key informative interview. Interviews included a variety of perspectives and included a range of ages, and a mix of race, ethnicity, and gender orientation. The core team reviewed interview transcripts to identify themes that emerged across interviews.

KII Participant Demographics

A survey was sent to all 23 participants to capture demographics of whom completed the interviews. A total of 15 surveys were completed. Questions were all open ended and self-reported. Below is a sample of the group of who participated in the interviews.

Age

- 20-30 years: 13%
- 31-40 years: 7%
- 41-50 years: 27%
- 51-60 years: 27%
- 61-70 years: 27%

Race

- Multiple Races: 13%
- White: 53%
- Black: 33%

Ethnicity

Ethnicities included:
- African American
- Anglo-Saxon
- Latinx
- Lebanese
- Western European
- White/Caucasian
- Non-Hispanic or Latino

Preferred Language Spoken

- English: 93%
- Spanish: 7%

Gender Identity

- Female: 60%
- Male: 33%
- Transgender: 7%

Sexual Orientation

Sexual Orientations included:
- Bi-sexual
- Gay
- Straight

Appendix G: Recent Community Reports and Assessments Citations.

Recent Community Reports and Assessments Citations

1. City of Kalamazoo. (2019). (rep.). *Analysis to Impediments to Fair Housing: To Affirmatively Further Fair Housing 2019-2022*. Retrieved October 2021, from https://www.kalamazoocity.org/docman/community-development-documents/7140-analysis-of-impediments-to-housing-draft-february-2021/file.

2. Kalamazoo County Government Area Agency on Aging. (2020). (rep.). *Kalamazoo County Older Adults Community Needs Assessment*. Retrieved October 2021, from https://www.kalcounty.com/hcs/aaa/pdf_files/AAA%20Community%20Needs%20Assessment%202020.pdf.

3. Kothari, C., Corbit, K., Bautista, T., Presberry, J., Bolliet, M., Gumbleton, L., Lucas, S., Razvi, K., & Baxter, J. (2020). (rep.). *Community Voice Panel - COVID Conversation Interviews*. Kalamazoo County Healthy Babies - Healthy Start. Retrieved October 2021.

4. Kothari, K., Lenz, D., O'Roark, B., Fields, W., Fales, S., Highhouse, J., Smith, G., Lucas, S., & Williams, L. (2021). (rep.). *Kalamazoo County Fetal Infant Mortality (FIMR) Case Review Team Recommendations*. Kalamazoo County Health & Community Services. Retrieved October 2021.

5. Michigan Association of United Ways. (2021). (rep.). *ALICE in Michigan: A Financial Hardship Study*. Retrieved October 2021, from https://static1.squarespace.com/static/52fbd39ce4b060243dd722d8/t/6058ddc11252e23b5e62146b/1616436677469/2021ALICEReport_MI_FINAL-3-15-21.pdf.

6. National Research Center, & Polco. (2021). (rep.). *The National Community Survey: Kalamazoo, MI* . The City of Kalamazoo. Retrieved 2021, from https://www.kalamazoocity.org/ncs2021/file.

Appendix H: Prioritization Summary

Prioritization Summary

On March 17th, 2022, the advisory group gathered to review data collected through a variety of methods. The group was sent a data summary document that included identified health needs and the findings for existing reports, key informant interviews findings, and health indicator data.

During the prioritization meeting, the advisory group reflected on the data and identified health needs. Facilitators then asked the group to rate each need on three Likert scales: level of disparities in health outcomes, feasibility of possible interventions, and urgency to address.

On March 24th, 2022, the core team met to discuss the results of the prioritization meeting and considered all suggestions. The needs were reviewed and combined to establish four (4) priority areas. The identified health needs were distributed under these four priority areas for the CHNA.

Prioritization Summary

Prioritization Results

After reflecting on the data thirteen (13) advisory group members completed the scaling activity.

The definitions and scale for each factor included:

Level of Disparities in Health Outcomes: Does this need impact different groups of people disproportionately?
(1) Low disparities: there is a minimal difference in the way this need impacts different groups of people.
(5) High disparities: there is a large difference in the way this need impacts different groups of people.

Feasibility of Possible Interventions: Is this need difficult to address? Does Kalamazoo County have the capacity to make progress?
(1) Low feasibility: difficult to address, Kalamazoo County does not have the capacity to address.
(5) High feasibility: easy to address, Kalamazoo County has the capacity to address.

Urgency to Address: Does the need require swift actions to intervene?
(1) Low urgency: not as critical to address.
(5) High urgency: requires swift action.

Prioritization Summary

Prioritization Results

The results included:

Feasibility / Urgency scatter plot:
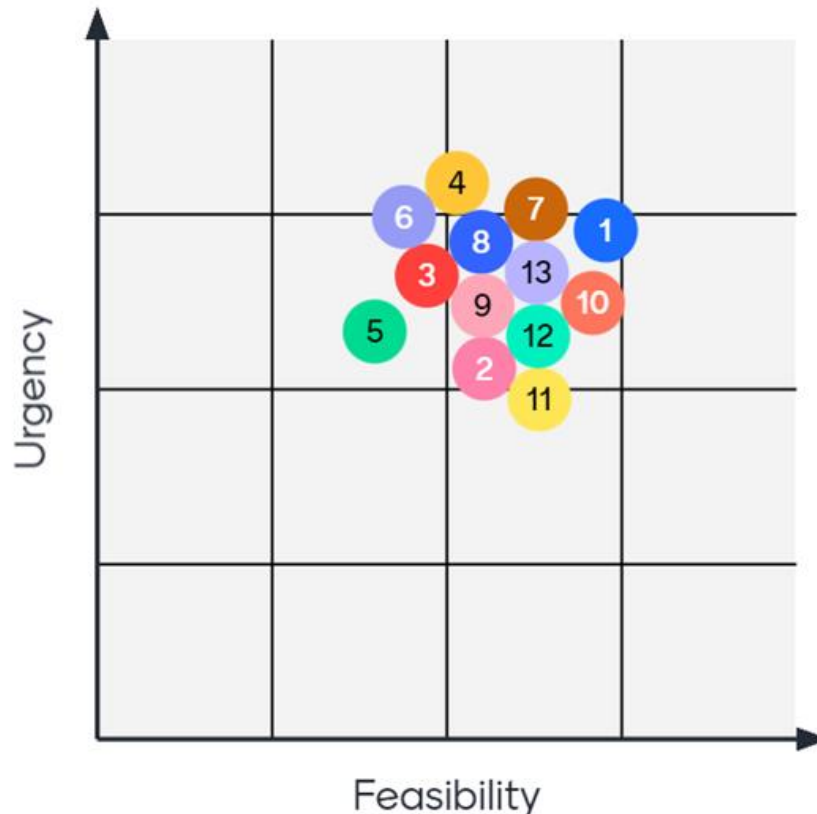
1. A. System navigation (healthcare, mental health services, social services)
2. B. Coordination of care across health and social service sectors
3. C. Culturally competent and trauma-informed care and communication
4. D. Systems change efforts to address deep-rooted inequities (race and class inequities)
5. E. Cost of care (healthcare, mental health services)
6. F. Lack of trust in the healthcare system
7. G. Healthcare and services workforce not representative of the community
8. H. Equitable distribution of services and resources
9. I. Addressing the social determinants of health in addition to clinical health care
10. J. Mental health supports needed due to COVID-19
11. K. The importance of community connection (to resources/services and one another)
12. L. The need for affordable and reliable transportation and housing
13. M. Necessity of providing career pathways and a livable wage for all

Low disparities — High disparities chart:

A. System navigation (healthcare, mental health services, social services) — 3.8
B. Coordination of care across health and social service sectors — 4.1
C. Culturally competent and trauma-informed care and communication — 4.5
D. Systems change efforts to address deep-rooted inequities (race and class inequities) — 4.5
E. Cost of care (healthcare, mental health services) — 3.8
F. Lack of trust in the healthcare system — 4.4
G. Healthcare and services workforce not representative of the community — 4.2

H. Equitable distribution of services and resources — 3.8
I. Addressing the social determinants of health in addition to clinical health care — 3.9
J. Mental health supports needed due to COVID-19 — 3.2
K. The importance of community connection (to resources/services and one another) — 3.5
L. The need for affordable and reliable transportation and housing — 4.2
M. Necessity of providing career pathways and a livable wage for all — 4

Prioritization Summary

Finalizing Prioritization Discussion

The core team met and reviewed the results of the advisory group's feedback and rating of identified health needs to finalize a list of priorities. The final prioritized needs will be included in the CHNA to be address through the implementation plan and strategies. Based on feedback from the advisory group, the core team developed four (4) priorities that encompass all thirteen (13) identified needs. The final CHNA priorities include:

System Navigation
(healthcare, mental health services, social services)

- Coordination of care across health and social service sectors

- The importance of community connection (to resources/services and one another)
- Addressing the social determinants of health in addition to clinical health care

Mental Health

- The need for mental health supports was exacerbated by COVID-19

Systems Change Efforts to Address Deep-Rooted Inequities (race and class inequities)

- Culturally competent and trauma-informed care and communication
- Lack of trust in the healthcare system
- Healthcare and services workforce not representative of the community
- Equitable distribution of services and resources

Living Conditions
(physical, economic/work, service)

- Necessity of providing career pathways and a livable wage for all
- Healthcare and services workforce not representative of the community
- Cost of care (healthcare, mental health services)
- The need for affordable and reliable transportation and housing
- Addressing the social determinants of health in addition to clinical health care

Appendix I: Key Informant Interviews (KII) Results

Key Informant Interviews (KII) Results

Discrimination and Racism

Inequities rooted in racism and classism came up frequently during interviews. Some other inequities described were due to ethnicity, gender, immigrant status, language, age, or sexual orientation.

Systemic Racism: Interview participants shared that systemic racism can be difficult to discuss, so many avoid it, but these conversations are also crucial. Themes present across interviews related to systemic racism included the following:

- Past and present policies have disproportionately negatively impacted health of BIPOC individuals;
- Systems were not built to benefit minoritized communities, and instead have harmed individuals from BIPOC communities; and
- Community segregation and inequitable geographic distribution of resources and services.

Class Inequities: Class was also discussed as a factor that influences health. Many interview participants noted how health is negatively impacted by not being able to afford basic needs. Some disparities related to social class included:

- Quality of education;
- Housing and neighborhood safety;
- Access to healthcare;
- Mental health concerns and issues; and
- Proximity to healthy food options.

Key Informant Interviews (KII) Results

Healthcare

Interview participants identified many community needs related to health care. These included the following:

Culturally Appropriate Care: Interview participants acknowledged that health care systems and practice were built to address the needs of the majority, and not with black or brown bodies in mind. This has led to generational distrust, dehumanization, and "best practices" that do not meet the needs of all. Historical trauma has led to the distrust in the healthcare system for communities that have historically faced disparate health outcomes. There are differences in trust and inclusivity in health care based on race, politics, sexual identity, and income. To enhance care for all, recommendations from interview participants included the following:

- o Access to free clinics;
- o Caregivers who are affirming of sexual orientation and gender identity;
- o More diversity in the medical profession and in all levels of medical facilities;
- o Building relationships with communities and community organizations, particularly faith-based organizations, to create trust;
- o Updates to medical curriculums to correct inaccurate information, for example that black people having a higher tolerance for pain;
- o Translation services; and
- o Designing treatment for the person and their circumstances rather than treating the illness alone.

Cost of Care: Individuals in the community may forego seeking care because they do not want to have to pay large medical bills, even if they are experiencing a health emergency. The emergency room is a frequent access point for people without health insurance. The cost of medical care is high, even for those who have insurance. Insurance co-pays may limit the ability of individuals to afford care. Insurance providers also may not pay enough for needed services or limit the number of visits available regardless of need, and also limit access to certain providers based on their network. Finally, there are disparities in the ability of individuals to afford needed supports for health. Individuals with lower income may not be able to afford the supports they need to care for themselves when they are ill, which leads to additional stress, in turn leading to additional health needs.

Key Informant Interviews (KII) Results

Healthcare continued

COVID-19 Impacts: COVID-19 led to, and continues to lead to, many impacts on health and accessing health care. Both historical mistrust of the health care system by different population groups and the politicization of the pandemic has led to disparate vaccination rates. Many people also went without needed services during the height of the pandemic, either because they did not want to put themselves at risk of contracting COVID-19 or the services were temporarily unavailable. Additionally, COVID-19 has led to heightened levels of stress and burnout for many health care providers. Although COVID-19 has led to many difficulties, one positive impact of COVID-19 has been new and/or enhanced partnerships between organizations to reach individuals and communities experience greatest need.

Availability of Providers: Interview participants noted several areas of care where there is a need for additional providers, including:
- More diversity in providers in general;
- Geriatricians;
- Nutrition and dietetics;
- School nurses; and
- More locations for healthcare facilities throughout the community.

Communication: Participants in key informant interviews noted several needs related to communication between providers, patients, and families to enable better quality and coordination of care. Participants noted the benefit and role of social workers in supporting effective communication and follow-up care. Needs identified included culturally appropriate communication that is considerate of health literacy levels and translated where needed. Additionally, coordination of services is an important need, including making navigating the system more transparent.

Proximity to healthcare services: Interview participants shared that location of healthcare facilities was impacting the health of the community. Some interviews mentioned the over-use of emergency rooms and equated it to not having healthcare services in neighborhoods of high needs. A lack of equitable distribution of sources and resources was also shared as a concern.

Key Informant Interviews (KII) Results

Income and Poverty

Participants highlighted income and poverty as major root causes of inequity which are linked to overall health and wellbeing. Key informants discussed the linkage between income and health through the ability to obtain safe and quality housing, reliable transportation, nutritious food, educational opportunities, and affordable healthcare.

Impact of Historical and Systemic Racism: Key informants stated that historical and systemic racism informs policies that lead to inequities, such as historical redlining and current revitalization efforts.

- Participants reported there is a disproportionate impact of low income for individuals in the BIPOC community, whose wages often do not align with the rising cost of living.
- Key informants discussed a lack of investment in the African American community and shared that workers often leave their community to find higher-paying trade and industry jobs.

Impact of Heterosexism: Participants also reported disproportionate impact of low income on the LGBTQ population.

COVID-19 Impacts: Participants highlighted that COVID-19 negatively impacted income for many in the community and resulted in personal financial insecurity. Participants also discussed how many individuals with low income were classified as "essential workers" during the pandemic and were disproportionately exposed to COVID-19, which led to high levels of stress.

Competitive Wages as Barrier: Income was also reported as a challenge for certain employers, who stated that it was difficult to compete with larger organizations' wages in their efforts to attract professionals who were representative of the community.

Key Informant Interviews (KII) Results

Community Connectedness

Community connectedness was mentioned as a factor influencing the health of the community. Participants shared how connection to one another, especially through the pandemic, and connection to resources in the community were barriers to health.

Connection to Resources and Services: Interview participants frequently discussed a lack of connection to resources in the community. Kalamazoo has many available resources to address needs, but the following barriers impact access to those resources:

- o Lack of education and awareness of the services;
- o The community not feeling comfortable due to the lack of representation of their community in staff providing these resources and services;
- o Inequitable distribution of available resources;
- o Social service and health care systems are complex and difficult to navigate; and
- o Personal basic needs are not met, making it difficult to connect to available resources.

Connection to the Community: Being connected to the community was shared as a need. Many discussed how the pandemic resulted in feelings of isolation and depression, resulting in a lack of connection with one another.

Coordination and Collaboration: Many interviews discussed the lack of coordination and collaboration among organizations providing services and resources in Kalamazoo. While participants shared there were many services available, there was a need for integration of these services.

Service Navigation: Participants highlighted the need for assistance navigating complex services and systems.

Key Informant Interviews (KII) Results

Mental Health

Mental health is an important issue for the community and this need was amplified by COVID-19, particularly among people with low income and BIPOC community members. There is a need for more mental health providers that are trained in trauma-informed cultural competency. Additionally, community members are often unaware of the mental health services and resources that may be available to them.

COVID-19 Impacts: COVID-19 deeply impacted mental health in the community due to increased social isolation and limited access to needed mental health services.

- The pandemic increased depression and anxiety across the entire community but was found to disproportionately affect individuals with low income and BIPOC community members.
- COVID-19 policies of social distancing and quarantining negatively impacted mental health. Older adults did not have access to technology that could connect them to others for social purposes or to access medical care. Individuals with substance use and misuse issues struggled with not having in-person connections and support groups. Youth and adolescents struggled with mental health due to social isolation, including virtual learning instead of in-person education, and other emotional trauma caused by the pandemic.
- Participants described decreased access to mental health services due to provider shortages and lack of in-person services. They highlighted how the increase of tele-medicine was beneficial to some but was a barrier for those with limited access to technology.
- Participants reported that the increased violence in the community, both in general and domestic violence specifically, impacted mental health for affected families, who often lacked appropriate coping mechanisms.
- Commonly reported causes of stress included financial instability, social isolation from COVID-19, and housing instability.
- Participants reported feelings of high stress and burnout for essential workers.

Key Informant Interviews (KII) Results

Mental Health Continued

Culturally Appropriate Mental Health Care: Participants shared differing experiences for patients receiving mental health treatment based on race, language, and ethnicity. They uplifted that mental health providers should be trained in cultural competency with a trauma-informed focus on race.

- o Implicit and explicit biases exist across providers, including for BIPOC individuals, immigrants, LGBTQ individuals, and individuals from other marginalized communities. Interview participants expressed a need for providers to be trained to understand differing needs for other races, cultures, languages, and sexual orientation so that all people experience high-quality mental health care.
- o Key informants reported stigmas surrounding mental health for BIPOC communities and a lack of services marketed towards these populations.

Availability of Providers: A lack of mental health providers and difficulty accessing in-person services were reported barriers to care.

- o Participants reported a lack of providers in social services and mental health services, describing that mental health services are often full and that it is hard to get care promptly.
- o Participants reported reduced access to providers due to the pandemic – the shift to telemedicine and reduction of in-person services was a barrier to accessing care for some populations.

Insurance Barriers: The cost of insurance and lack of insurance were reported as two major barriers to accessing mental health care. Participants noted a barrier to accessing mental health care for black and brown youth due to lack of insurance coverage. The cost of insurance, including the high cost of copays, was a reported to be a major issue affecting access to mental health care across the community.

Key Informant Interviews (KII) Results

Economy and Employment

There are racial and class inequities present in available employment opportunities and career pathways that lead to jobs paying a living wage. COVID-19 also negatively impacted employment for these individuals by creating financial instability, stress, and disproportionate exposure to the virus.

Career pathways: Policies influenced by systemic racism have created barriers towards equitable employment for BIPOC populations. Heterosexism has led to similar barriers for the LGBTQ population. There is a need for higher-paying job opportunities within these communities.

- Key informants reported that existing career pathways are impacted by systemic racism. Additionally, when attempting to address these inequities, there is often an issue with individuals and organizations becoming defensive rather than learning from and addressing racist policies and practices.
- Participants discussed a lack of resources for LGBTQ and BIPOC communities, including a lack of access to information and available opportunities.
- Key informants described a need for on-the-job opportunities for career advancement and non-traditional educational pathways for job promotion.
- It was frequently reported that there was a shortage of workers in fields like healthcare, nurses, CNAs, and mental health. There are community programs aimed at addressing this by creating opportunities for BIPOC individuals to pursue these careers.
- Key informants stated that there is a lack of good jobs in BIPOC communities, causing individuals to leave the Kalamazoo area to obtain employment. Participants reported that income and talent do not stay in the community due to a lack of opportunity.

COVID-19 Impacts: COVID-19 disproportionately impacted low income and BIPOC individuals through increased exposure to the virus in front-line jobs, financial instability, and lack of access to needed services.

- Participants reported that COVID-19 had a negative impact on the economy by creating both a shortage of workers and employment insecurity due to job loss at the onset of the pandemic.
- Key informants reported COVID-19 restrictions of shutting down and reducing access to public transportation disproportionately impacted BIPOC and lower income individuals who depend on reliable public transportation to get to work and access needed services.
- Participants highlighted how COVID-19 increased housing insecurity and homelessness in the community, as job instability caused many individuals and families to not be able to afford housing payments and rent.

Key Informant Interviews (KII) Results

Safe and Affordable Housing

Housing was a basic need commonly shared as an important factor that contributes to one's health. Many interviewees highlighted the importance of having safe, secure, and affordable housing. Housing can be one of many competing priorities for members of the community, leading to stress and health issues.

- *Cost of Housing:* Interview participants frequently noted that housing costs in the community are high. Difficulties with purchasing a home and affording rent were contributing factors many connected to having poorer health outcomes.
- *Secure/Safe Housing:* Lack of access to affordable, secure, and safe housing options was also a recurring theme. Many discussed the conditions of rental properties and the quality of neighborhoods as a contributing factor for those who experience poor health status.
- *Geographical Location:* Many shared that the geographic location of housing also had an impact on one's health. They mentioned that neighborhoods are highly segregated and BIPOC neighborhoods in Kalamazoo often have less access to healthy food options, safe neighborhoods, and high-quality housing.
- *Policies and Laws:* Past and current laws and policies were recognized as contributing issues to difficulties owning or renting. Participants also shared that laws and policies, such as historical redlining, contributed to inequities with race and home ownership.
- *Inequities for Specific Populations:* Participants noted concerns for specific populations such as those experiencing homelessness, domestic violence survivors, LGBTQ individuals, older adults, and those living in poverty who also faced issues finding safe and affordable housing in the community.

Key Informant Interviews (KII) Results

Bureaucracy

Laws, policies, power dynamics, and mental models drive existing inequities. There is a need for transformational institutional change that leadership commits to, explicitly identifying and addressing equity and systemic racism, to improve health outcomes.

- ○ *Policies and Laws:* Key informants emphasized that policy is power and expressed the need to critically examine how policies have contributed to current inequities and limited opportunities. Key informants expressed a need to track how inequitable health outcomes are directly tied to multi-generational policy effects. Participants reported that policies have created unnecessary barriers to accessing needed services in many areas, including housing, social services, health care, and others. Key informants frequently mentioned a lack of equitable intent when crafting policy to address inequities. They commented that policy efforts without equitable intent provides the same results over time.

- ○ *Systemic Racism:* Another frequently mentioned issue was systemic racism within the medical profession when treating patients who are not of the dominant culture. Key informants discussed the need to intentionally transform and uproot major systems through a racial equity lens starting with strong leadership commitment. They mentioned that racial inequities are present in hiring practices, leadership decisions, and funding decisions. Past and current institutional policies and laws are harmful to specific groups of people – BIPOC and transgender communities were specifically mentioned.

- ○ *Equitable Distribution of Services:* Key informants discussed resources and funding need to be invested towards specific populations in equitable ways, not focused on the general population or on profits. Key informants discussed a lack of acceptance towards individuals not behaving in ways that align with the dominant culture within healthcare and service organizations, including towards fellow professionals and the individuals they serve.

- ○ *Communication and Collaboration:* Participants reported a need for increased time for communication between patients, social workers, and health care providers so they can better understand expectations and necessary follow-up care. Key informants reported poor communication of available community opportunities, services, and resources for BIPOC populations, and included examples such as jobs, career opportunities, school scholarships, and the Kalamazoo Promise.

Key Informant Interviews (KII) Results

Social Services

Interview participants shared there are resources in the community, but there is lack of communication, awareness, and education about what is available. These services include mental health care, shelter services, home help, and maternal-infant services, among many others. The pandemic limited access to social services and also created staff shortage issues for many social service organizations. Additionally, the difficulty of navigating the complex social service systems and transportation to receive needed services presents a barrier.

Education and Schooling

Inequities in schools and the education system were shared as concerns throughout interviews.

- *Disparities:* Disparate educational outcomes are seen by race and economic status.
- *Inequities:* The lack of equitable distribution of resources and services for students in different parts of the county. Specifically race and social economic status were mentioned as experiencing inequities in the different schools.
- *Policy:* Educational policies and practices contribute to systemic racism and lead to unconscious or conscious biases in the school system.
- *COVID-19 Impacts:* Interview participants shared many concerns about COVID-19's impact on the community's youth, including:
  - Missing school due to quarantine guidelines;
  - Fear of COVID-19 exposure for students and staff;
  - Increase in mental health issues; and
  - Competing priorities at home, including basic needs for survival.

Transportation

Interview participants recognized the ongoing barrier lack of adequate transportation causes not only for access to care, but also to steady employment and accessing other needed supports. While transportation has been a recognized issue, the need has not been addressed in a way that meets the community's need. Public transportation is available, but is difficult to use, and was unavailable at the height of the pandemic. Additionally, many health care facilities are located far from communities that more often have limited access to adequate transportation.

Key Informant Interviews (KII) Results

Violence and Trauma

Increased Violence and Crime: The pandemic increased violence in the community, especially domestic violence, due to social isolation and unaddressed mental health needs.

- Increased incidence of violence and associated deaths were reported to have increased since 2020. Participants specifically mentioned domestic violence, gun violence, and homicide as areas of concern.
- Key informants reported that elder abuse and financial exploitation of elders have increased due to the pandemic's restrictions on in-person inspections of nursing homes and assisted living facilities.

Community Safety: Interviews highlighted a decrease in feelings of safety due to increased violence and use of drugs and other substances on the streets. Participants reported an increase of neighborhood shootings and crime, which discouraged community connectedness and negatively impacted feelings of safety.

Systemic Racism: Systemic racism present in policing policies and practices was a shared concern. A foundation of systemic racism in policing has led to BIPOC community members being treated poorly by police.

Other Topics

Homelessness: Homelessness in the community was a recurring concern shared throughout the interviews, with several participants noting rates of homelessness had increased because of COVID-19. Some themes present across interviews included:

- Lack of secure housing options for those experiencing homelessness;
- Multiple layers to housing systems, making it difficult to buy a home or rent; and
- Lack of emergency housing for those experiencing homelessness.

Substance Misuse: Substance misuse is a significant issue in the community, and interview participants shared the perception of the issue growing larger during the pandemic with many individuals using alcohol or other substances to cope with social isolation. There are links between substance misuse and trauma and mental health needs. For those who have accessed in-patient care for addiction, there is a need to address low levels of follow up to receive ongoing care and support.

Key Informant Interviews (KII) Results

Other Topics Continued

Proximity to healthy food options: Access to healthy food options was shared as a concern in the community. Proximity to healthy food options and affordability of nutritious food were shared by many interview participants as barriers to health.

Childcare: Interview participants highlighted the importance of childcare to support employment, especially for women, and access to health care. Lack of affordable or accessible childcare creates barriers to employment, as well as ability to attend needed medical appointments.

Coordinating services: Interview participants shared the importance of looking at all sectors impacting health and how they are woven together. Some common themes included current health care not including a holistic approach, and coordination between services and resources are lacking in Kalamazoo given their variety of options to support people.

Internet access: While response to the COVID-19 pandemic brought expanded internet access, for example through distributing hot spots to children so they could access virtual school, there are still many community members who do not have internet access. Although telemedicine was used as a way to provide care during the pandemic, this left out those without internet access. Additionally, many health care providers communicate primarily through email or other online methods, which creates barriers to communication with those community members who do not have internet access.

Appendix J: Recent Community Reports and Assessments Results

Recent Community Reports and Assessments Results

Racism and Discrimination

Systemic racism and discrimination based on race, class, and age is a high-level need impacting health.

Racism: Racism impacts BIPOC populations in ways that influence health such as access to transportation, access to community services, inequitable birth outcomes, income level, and access to safe and affordable housing. Additionally, COVID-19 disproportionately impacted the BIPOC population within the community.

Class Inequities: Inequities based on class prevent individuals, often BIPOC community members, from accessing needed community services and safe, affordable housing. COVID-19 has also disproportionately impacted individuals with lower incomes.

Health Care

The reviewed reports discussed the following health care needs in relation in Kalamazoo County:

COIVD-19 Impacts: The reports highlighted how COVID-19 worsened existing barriers to health care by reducing access to care, particularly for BIPOC community members, older adults, and people with low income. These reports also indicated a need for improved dissemination of information to patients and families regarding COVID-19 information, medical advice, and resources. COVID-19 reduced the number of providers for the general population, as well as for older adults in the fields of in-home care behavioral health and general health services. These shortages are impacting overall quality of care through inability to access needed services and decreased time providers are able to spend with individual patients.

Affordable Transportation: Affordable and reliable transportation to access healthcare services was uplifted as a need, particularly for BIPOC community members and people with low income.

Recent Community Reports and Assessments Results

Health Care Continued

Affordable Transportation: Affordable and reliable transportation to access healthcare services was uplifted as a need, particularly for BIPOC community members and people with low income.

Cost of Care: The high cost of health care was mentioned as a barrier to accessing needed care, with dental care specifically mentioned as an area where access is limited by cost.

Lack of Trust: Inconsistent medical advice, messaging, and discontinuity of care has reduced trust in providers.

Quality Services for Older Adults: There is need for improved communication with older adults regarding available services and how to access them. Other needs for this population included a shortage of quality in-home caregivers, unreported cases of elder abuse that has worsened due to COVID-19 restrictions, and general impacts of COVID-19 on health.

Safe and Affordable Housing

Safe housing is a community concern, particularly among BIPOC and low-income individuals. Many existing affordable homes are in higher crime neighborhoods and are in disrepair.

Accessing affordable housing was a commonly mentioned challenge for the community, with BIPOC community members impacted disproportionately. Many jobs do not pay enough to cover the cost of quality housing and utilities.

Recent Community Reports and Assessments Results

Lack of Community Connectedness

Lack of Awareness of Community Resources: awareness of existing resources, services, and supports was reported lacking in the community. Not knowing where to go and who to contact were some barriers discussed.

System Navigation: support for navigating available resources, services, and supports was another need.

Community Engagement: reports discussed that loneliness and social isolation are prevalent in the community and heightened after COVID-19. Reports indicated a need for community engagement and highlighted the importance of connecting with others.

COVID-19 Impact: access to supportive and socialization services have been more challenging since the pandemic began. Resource referrals and knowledge of existing services available are confusing after COVID-19 reports shared.

Social Services

Lack of Awareness of Social Services: communication about existing social services is lacking in the community.

System Navigation: navigating social services in the community and can be challenging. Some specific challenges shared include application requirements and financial constraints.

COVID-19 Impacts: reports shared during the pandemic, social services were needed in the community. Previous barriers of lack awareness and system navigation were heightened with COVID-19.

Violence and Trauma

Community Safety: Reports shared feeling safe in their neighborhoods was important to Kalamazoo. There is a need for growth in this area. It was reported that crime is a concern for in the community.

Appendix K: Social Determinants of Health Results
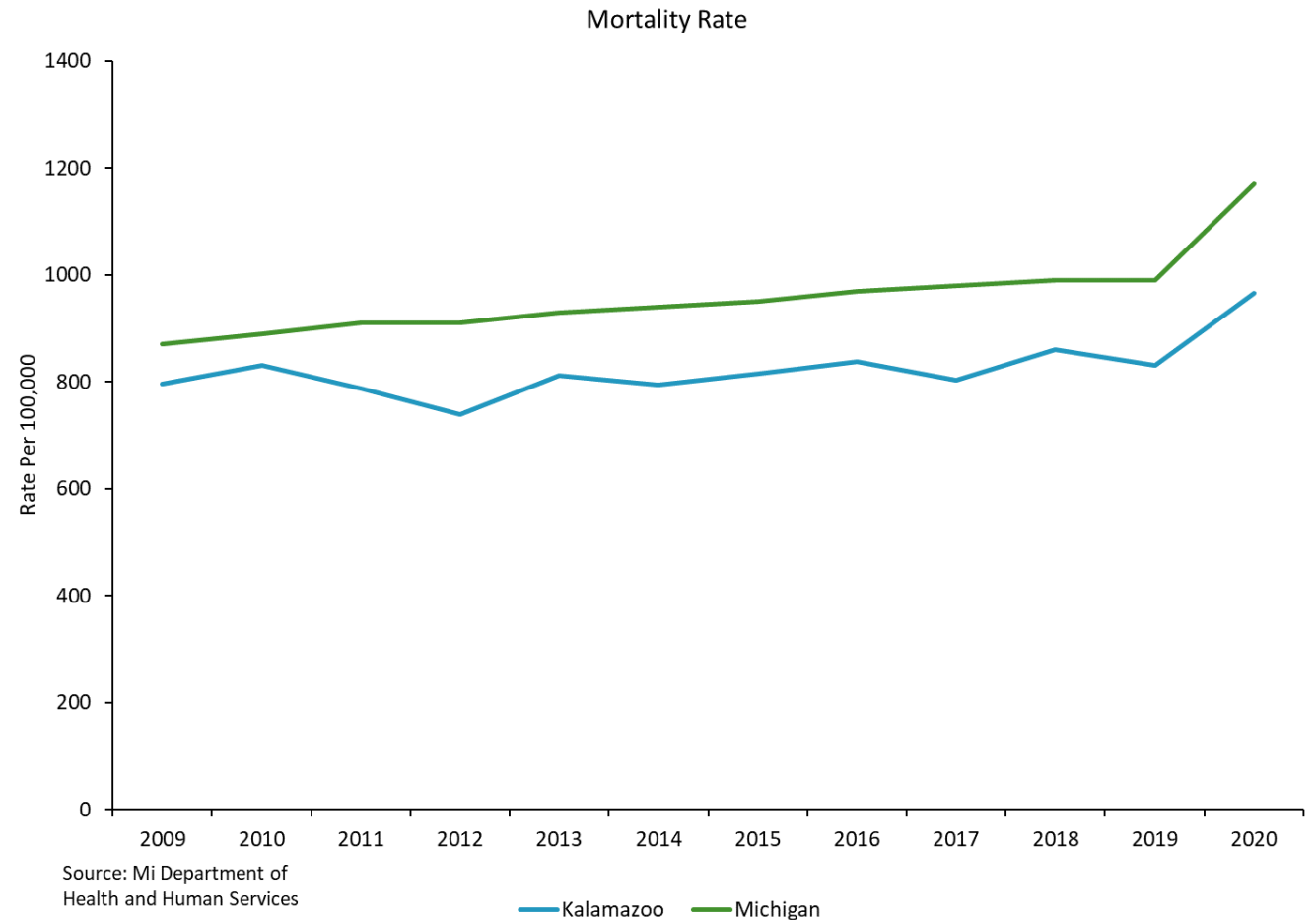
Social Determinants of Health Results

Life Expectancy and Mortality

Life Expectancy and Mortality Rate are measures of health for where you live. Life expectancy measures the average number of years a person can expect to live and is available for most of the census tracts in the United States for the period 2010-2015. The morality rate is the number of deaths divided by the population, shown as a ratio per 100,000 persons.

•The mortality rate, already trending upward, spiked in 2020

Data Source: USALEEP, Center for Disease Control and MI Department of Health and Human Services

Mortality Rate

Source: Mi Department of Health and Human Services

Kalamazoo — Michigan

Social Determinants of Health Results

Poor Mental Health Days

Poor Mental Health Days is measured by the number of adults who responded to the survey and reported 14 or more days, out of the previous 30, for which their mental health was not good, which includes stress, depression, and problems with emotions. Mental health is often overlooked when evaluating the health of a community, yet it is an important indicator of economic hardship and overall well-being. People who report many poor mental health days may have difficulties in their daily life and are more likely to engage in risky health behaviors that are linked to chronic diseases.

- The percent of people reporting poor mental health are highest in the core of the city of Kalamazoo and adjacent parts of Oshtemo and Comstock townships.

- Rural areas are not immune as rates are nearly as high in Charleston, Climax, Pavilion and Wakeshma townships as in the urban census tracts.

Data Source: Behavioral Risk Factor Surveillance Survey

Kalamazoo County Mental Health* By Census Tract

- 11.8% - 14%
- 14.1% - 16%
- 16.1% - 18%
- 18.1% - 20%
- 20.1% - 29.2%
- Counties

*Percent of Adults (18+) reporting mental health not good for the past 14 days.
Source: CDC Places; 2019 Release
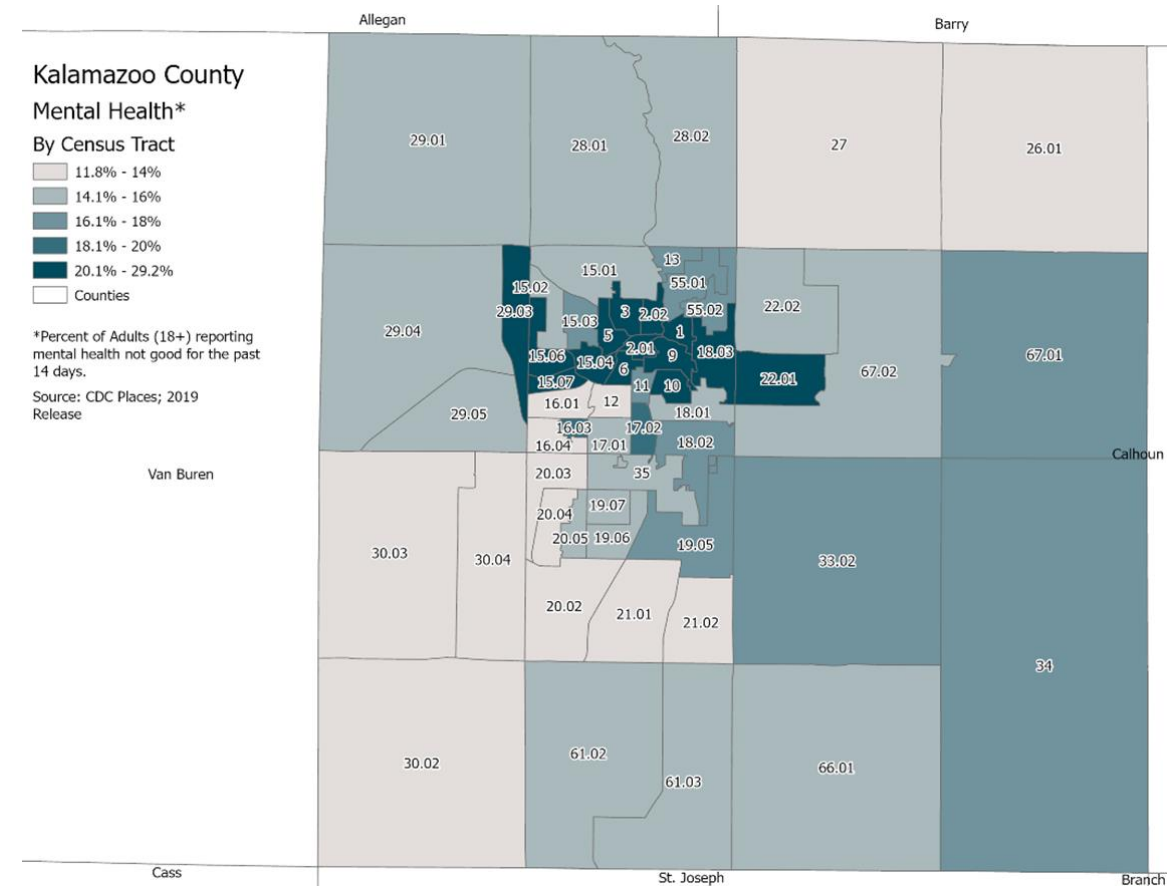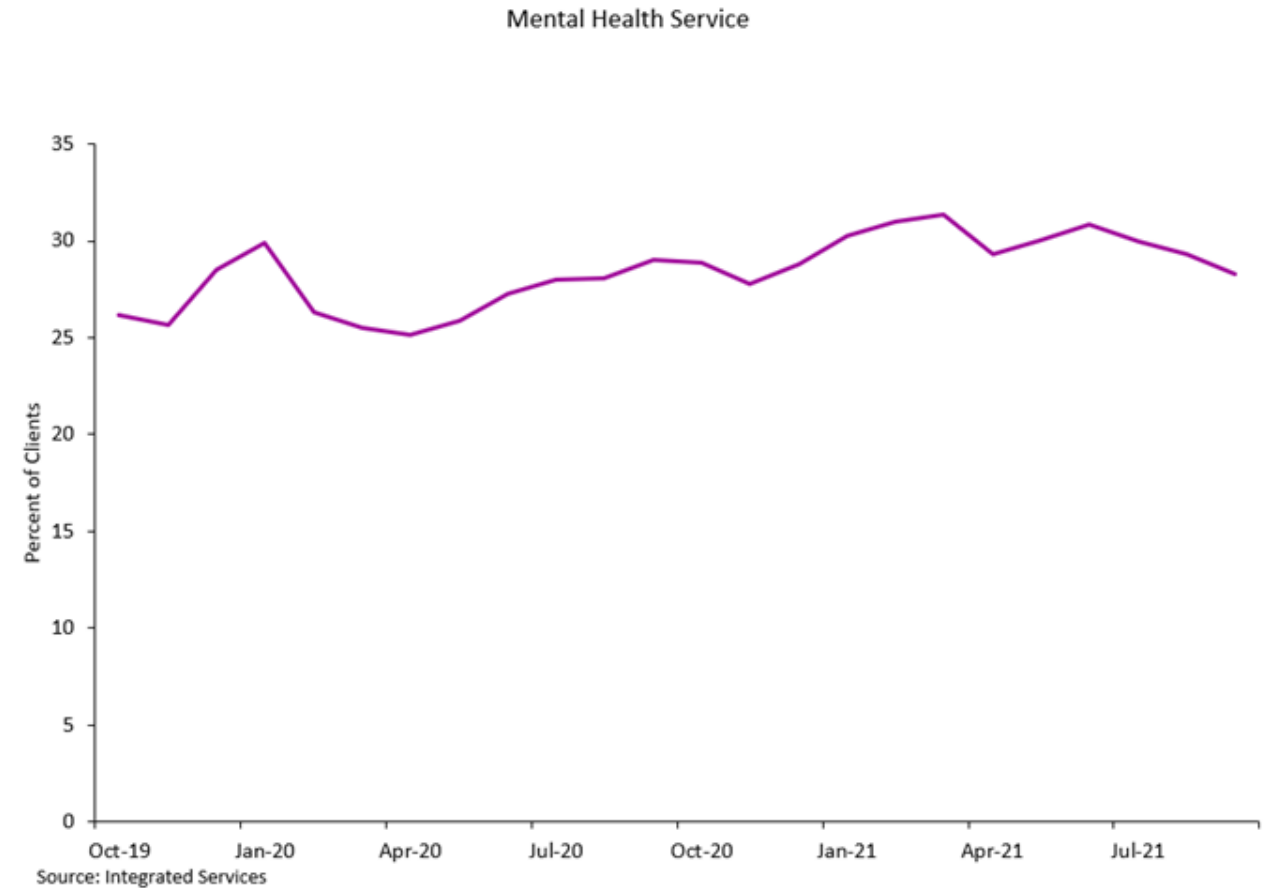
Social Determinants of Health Results

Mental Health Services Utilization

Mental Health Services Utilization is measured by the amount of people utilizing services at Integrated Services Kalamazoo (ISK). Services provided by ISK include treatment for substance use disorder and mental health for children, adults, families, and people with intellectual and physical disabilities. About two thirds of the Medicaid-eligible population of Kalamazoo County use any service at ISK in any month. Data shown are the percent of mental health services as a share of those who received any service at ISK and the demographics of service recipients compared to the county as a whole.

- The utilization of mental health services has increased since the start of the Pandemic, though the trend has been slightly downward since spring 2021.

- The majority of the ISK clients are non-Hispanic whites, but the percent is considerably lower than the county as a whole.

Data Source: Integrated Services of Kalamazoo

Mental Health Service

Source: Integrated Services

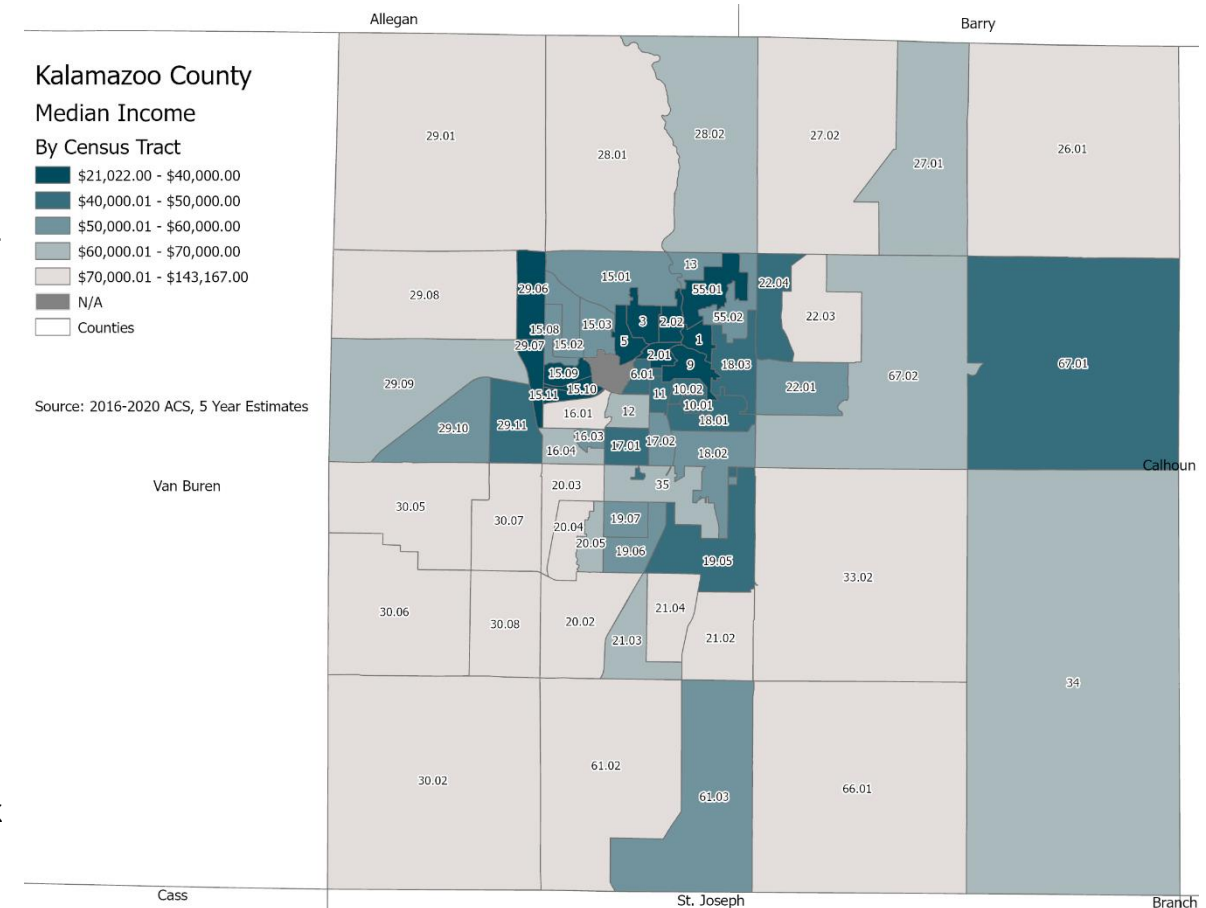# Social Determinants of Health Results

Median Household Income

Median Household Income is the household income in the past 12 months for which 50 percent of households have higher income and 50 percent lower. This includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not.

- The lowest income neighborhoods in the county are either in the city center such as the Northside, Stuart, and Edison and student areas. Student rental areas including Knollwood and east of Drake Road in Oshtemo Township also have relatively low median incomes.

- The highest income areas are in the county are the townships and south Portage.

- Large disparities by race/ethnicity exist for household income. Black or African American households have a median income of 52 percent that of white households.

Data Source: American Community Survey
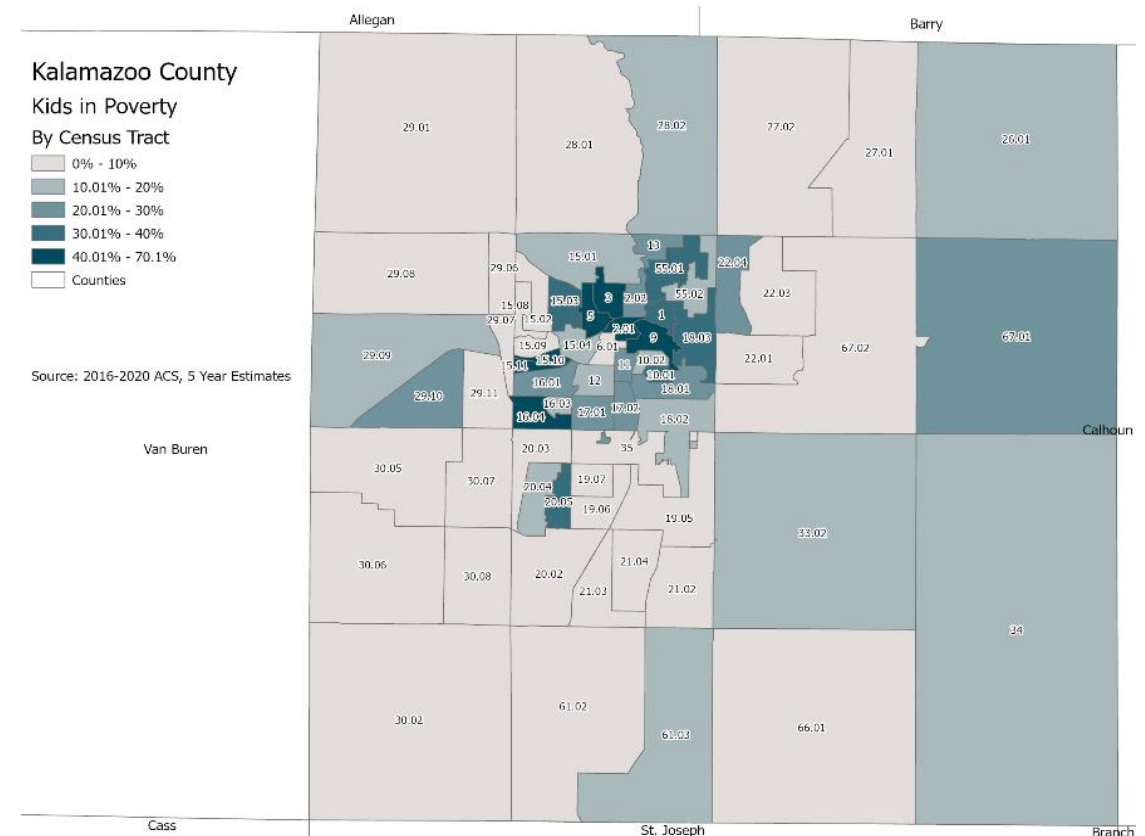
Social Determinants of Health Results

Kids in Poverty

Kids in Poverty captures an upstream measure of poverty that assesses both current and future health risk. While the impacts of poverty are present at all ages, children in poverty may experience lasting effects on academic achievement, health, and income into adulthood. The data reported for this variable look at both the overall rate and also the rate by school district.

- Children in poverty are generally concentrated in the city of Kalamazoo and to a lesser extent, Portage.

- The core of the city of Kalamazoo, Downtown, Edison, Northside, and Stuart, have high poverty rates for children. Knollwood and the southwest part of the city that includes Hill N' Brook and Parkview Hills also have rates above 40 percent.

- Charleston Townships and parts of Oshtemo Township are the only parts of the outer county with rates above 20 percent.

Data Source: American Community Survey

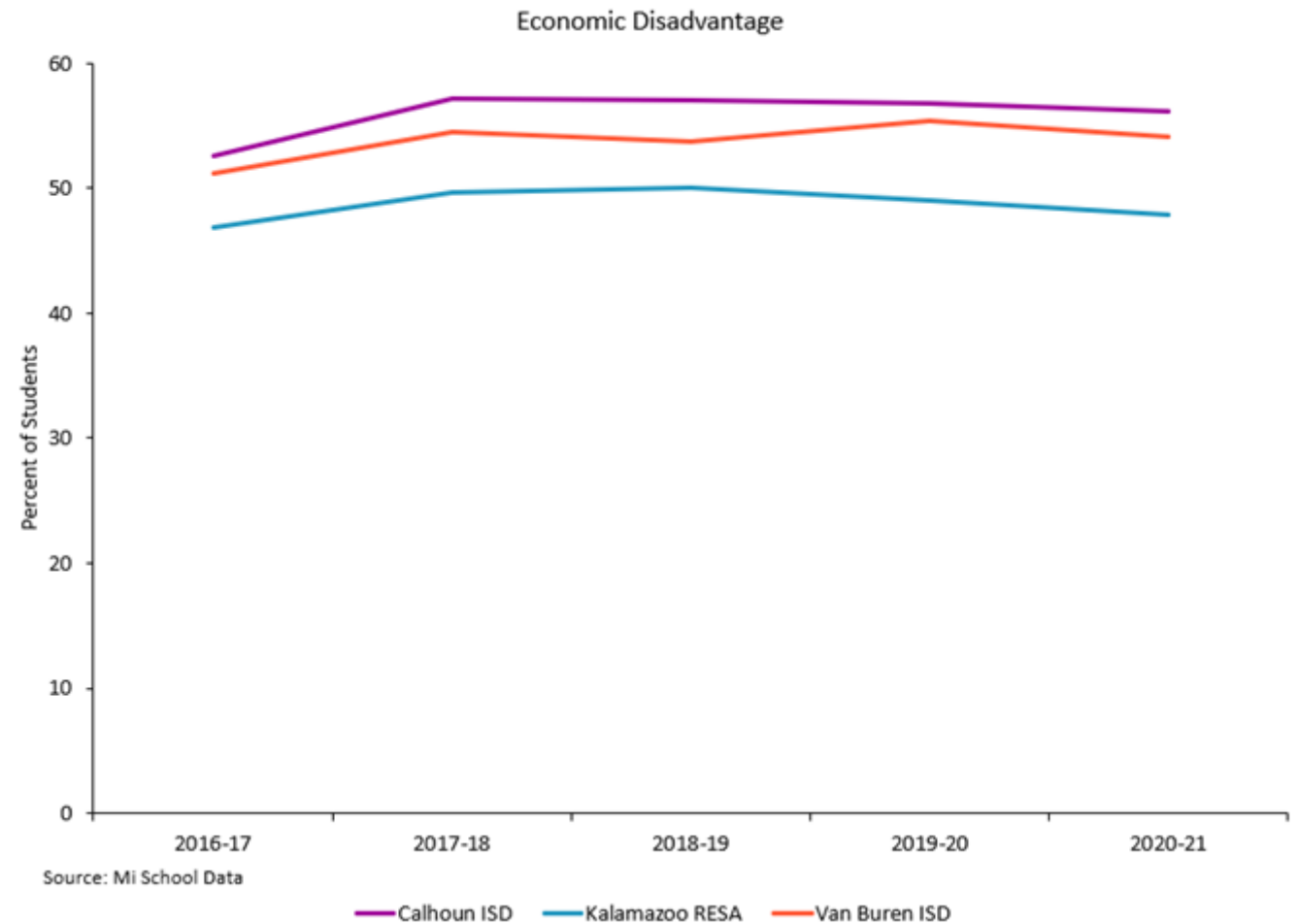# Social Determinants of Health Results

Economic Disadvantage by School District

Economic Disadvantage by School District is similar to child poverty but uses broader criteria. These students can be recipients of free or reduced-price lunch, SNAP, or other benefits which have a more generous criterion for eligibility, up to 200 percent of the poverty level. These data are available for race/ethnicity, unlike the current estimates from the American Community Survey.

- The rate of students with economic disadvantage did not increase dramatically due to the pandemic. This economic effect of the pandemic may have been muted by increased social supports.

Data Source: MI School Data

Economic Disadvantage

Source: Mi School Data

Calhoun ISD — Kalamazoo RESA — Van Buren ISD

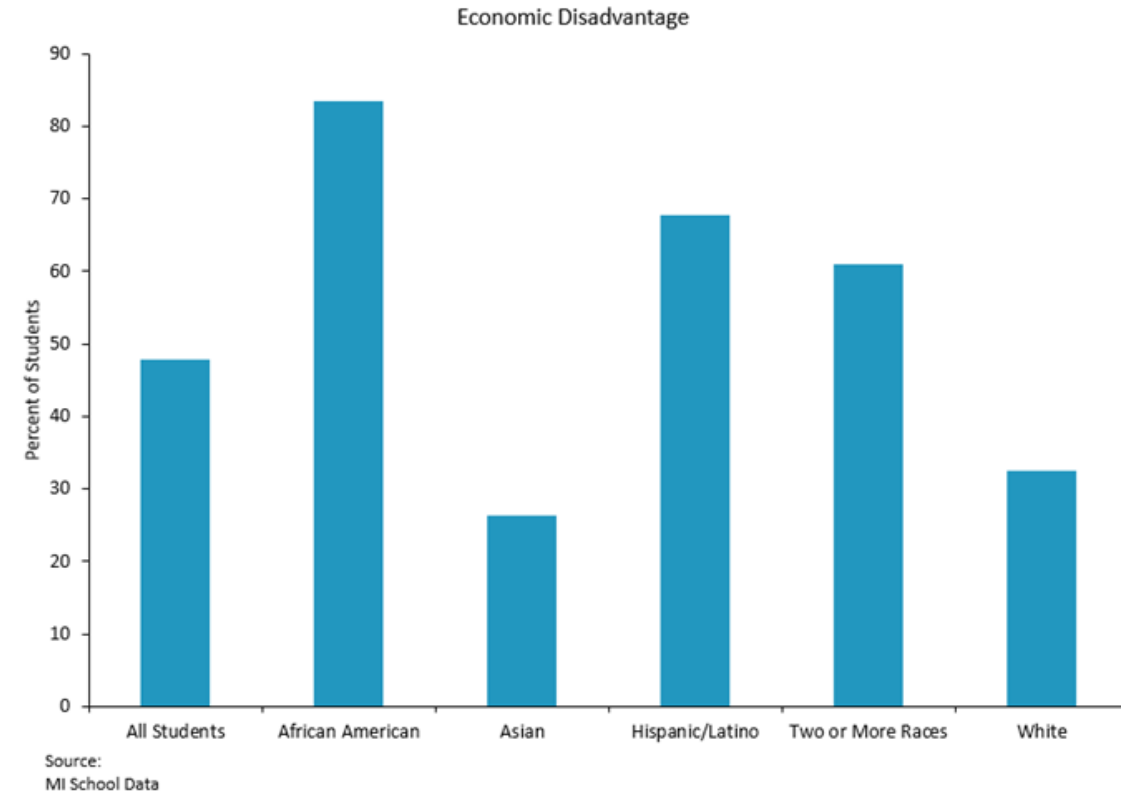# Social Determinants of Health Results

Economic Disadvantage by School District

Economically disadvantaged students include those who have been determined to be eligible for free or reduced-price meals via locally gathered and approved family applications under the National School Lunch program, are in households receiving food (Supplemental Nutrition Assistance Program) or cash (Temporary Assistance to Needy Families) assistance, are homeless, are migrant, are in foster care, or, beginning in 2017-18, certain Medicaid eligible children. When any of these conditions are present, a student is considered economically disadvantaged.

- African American and Hispanic/Latino students experience the highest levels of economic disadvantage, White and Asian students the lowest.

Economic Disadvantage

Source: MI School Data

Data Source: MI School Data
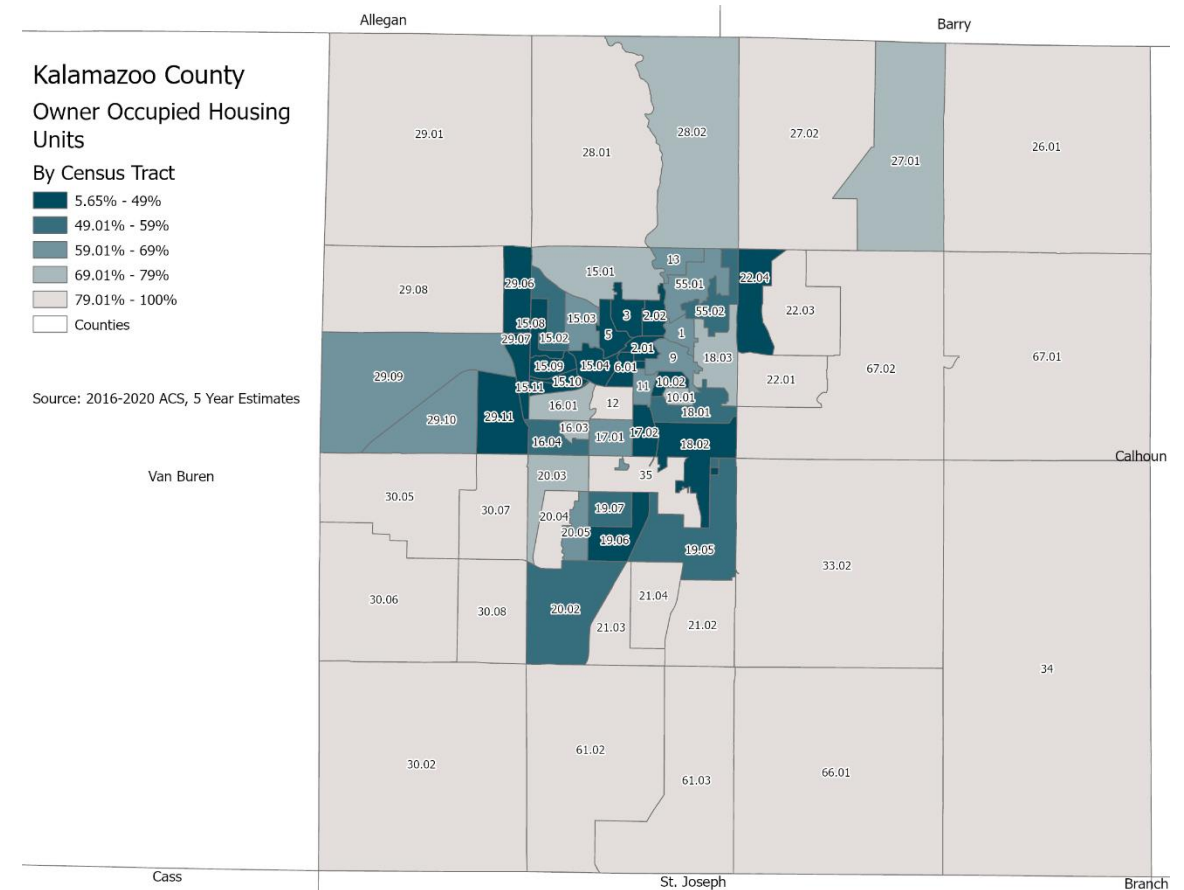
Social Determinants of Health Results

Owner Occupied Housing Units

Owner occupied housing units shows the percentage of households that are owned, with or without a mortgage. The overall rate in the county is 64.5 percent homeowner and 35.5 percent renter. Homeownership is a path to financial stability and wealth building.

- Rural townships are overwhelmingly homeowners.

- The census tracts with a majority of renters are in the city of Kalamazoo, Portage and the tracts in Oshtemo and Comstock Townships adjacent to the city of Kalamazoo or Kalamazoo Township.

Data Source: American Community Survey

Social Determinants of Health Results

Median Rent shows the midpoint of rent by census tract. This variable, along with the overburdened renter map, helps illuminate the housing situation for the 35 percent of Kalamazoo County that are renters. While rent may look relatively low in some areas, less than $700 per month, households may still be overburdened due to low incomes.

- Median rent looks low downtown due to student rentals.

- Rent data is not available for some areas in the county due low sample size.

- There are only a few tracts in Kalamazoo and Portage where median rent is over $1,000. However, even relatively low rent is burdensome when family income is low.

Data Source: American Community Survey

Kalamazoo County
Median Rent ($)
By Census Tract

- 354 - 700
- 701 - 800
- 801 - 900
- 901 - 1000
- 1001 - 1207
- Counties
- N/A

Source: 2016-2020 ACS, 5 Year Estimates

Social Determinants of Health Results

Overburdened Renters

Overburdened Renters shows the percent of area renters that pay more than 30 percent of their gross annual income to rent. Renters make up the majority of the population of Kalamazoo city but represent a far lower percentage in the rest of the county. Households paying more than 30 percent of their income toward housing may have trouble paying medical bills or may forgo care altogether. There are several maps for housing, which show not only the overburdened renters, but also the median rent and the contrasting homeowner rate in the county.

- Overburdened renters can be found all over the county.

- The highest income townships are also home to some of the most overburdened renters, likely due to a smaller percentage of renters and higher property values.

Data Source: American Community Survey
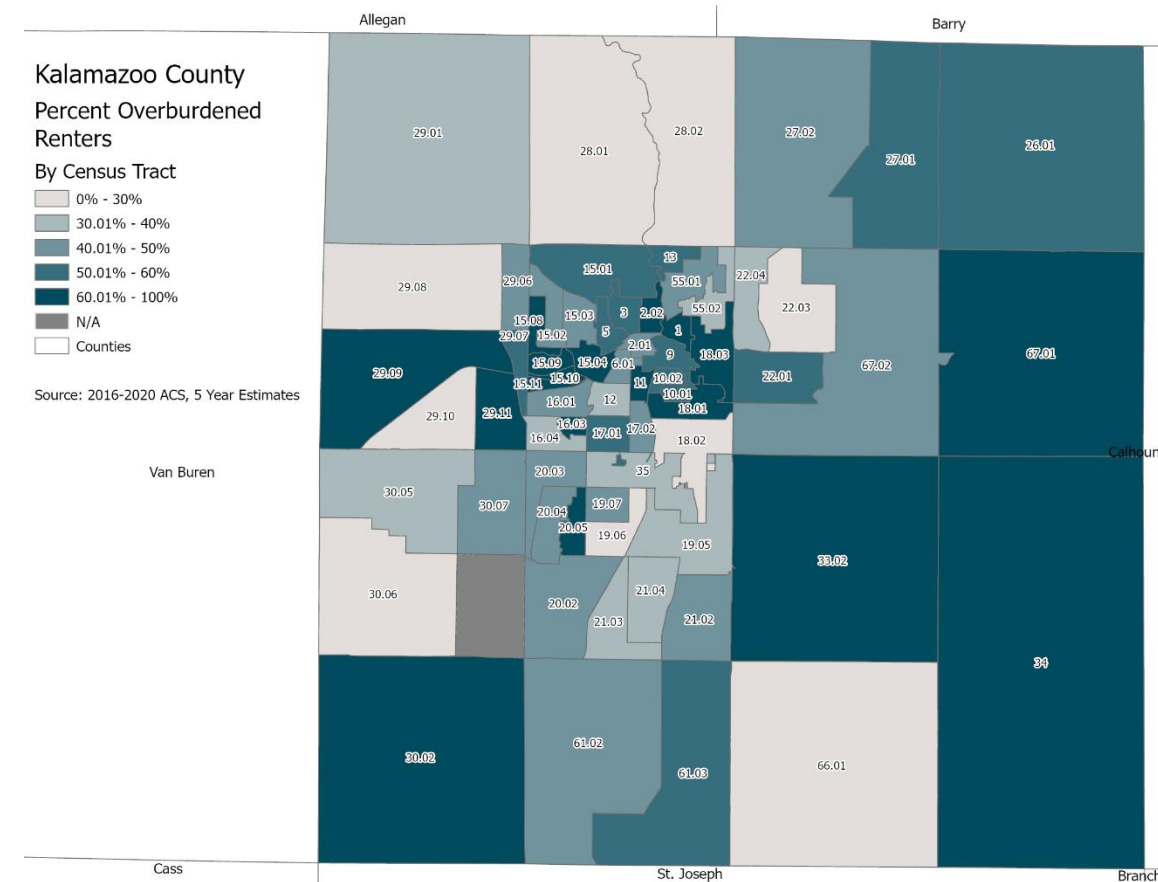
Social Determinants of Health Results

Unemployment Rate

The Unemployment Rate represents the number of unemployed people as a percentage of those in the labor force. Unemployment has well-documented negative effects on physical and mental health. Unemployment is also linked to unhealthy coping behaviors, such as increased smoking and alcohol consumption, physical inactivity and unhealthy dietary habits, which can contribute to future chronic diseases.

• High unemployment is not confined to low-income neighborhoods.

• The townships of Climax, Comstock, Kalamazoo, Ostemo, and Wakeshma have either portions or their entire area with unemployment rates as high as parts of the urban areas.

Data Source: American Community Survey

Kalamazoo County
Unemployment Rate
By Census Tract

0% - 2.5%
2.51% - 5%
5.01% - 7.5%
7.51% - 10%
10.01% - 25.7%
Counties

Source: 2016-2020 ACS, 5 Year Estimates
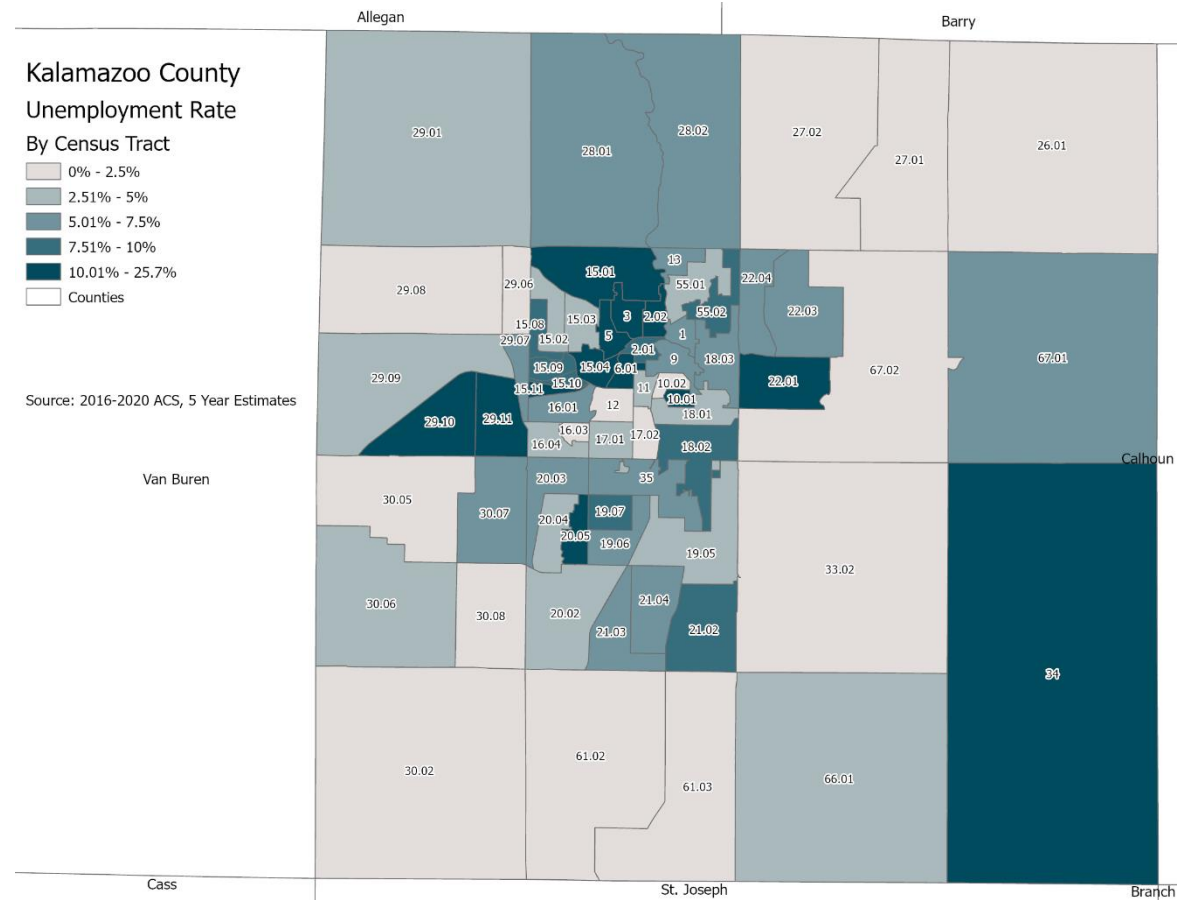
Social Determinants of Health Results

Labor Force Participation Rate

Labor Force Participation Rate measures an economy's active labor force by summing all noninstitutionalized individuals 16 and older who are either working or looking for work, divided by the entire noninstitutionalized population 16 and older.

- Labor force participation is low in the city of Kalamazoo and some of the rural townships.

- Some areas have low labor force participation due to demographics. For example, the tract with Western Michigan University has a low rate as some students choose not to work.

Data Source: American Community Survey

Kalamazoo County
Labor Force Participation Rate
By Census Tract

- 42.2% - 50%
- 50.01% - 55%
- 55.01% - 60%
- 60.01% - 65%
- 65.01% - 81.4%
- Counties

Source: 2016-2020 ACS, 5 Year Estimates
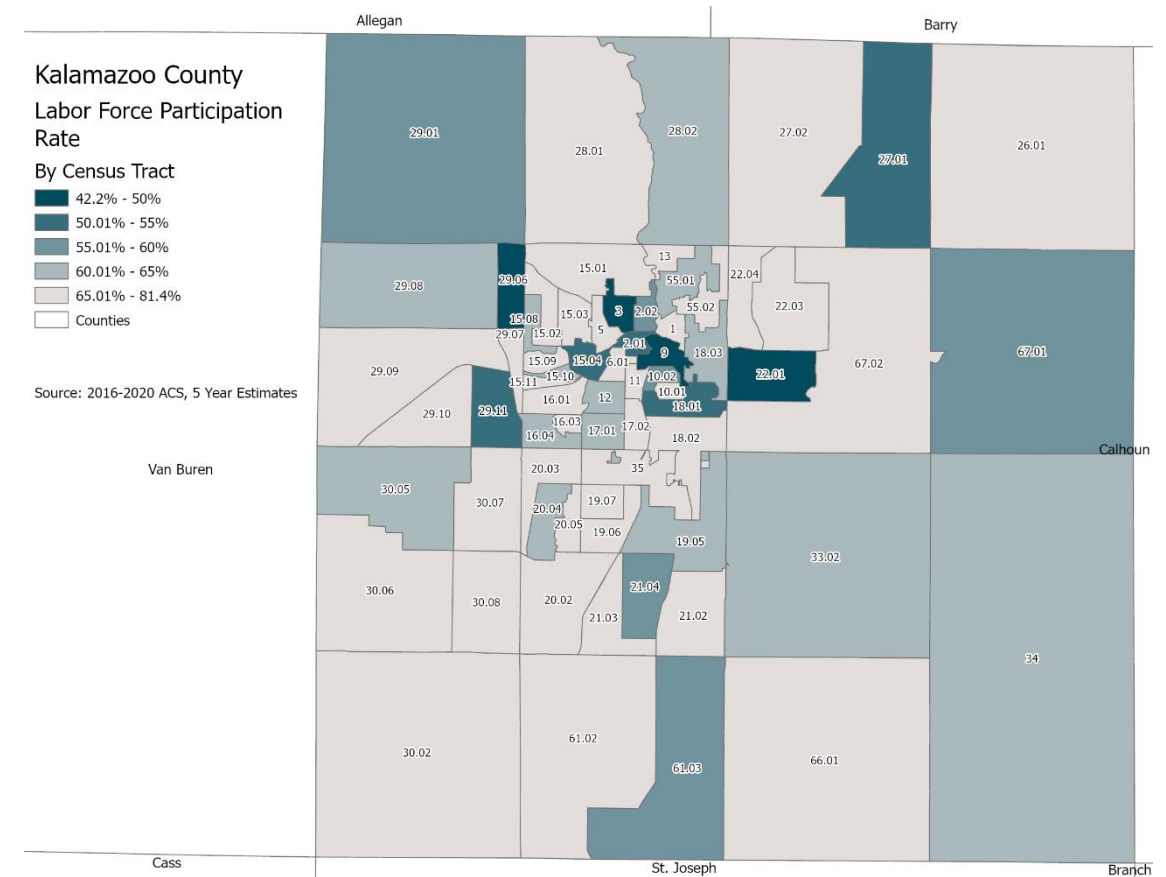
Social Determinants of Health Results

Fewer Cars Than Workers

Fewer Cars Than Workers shows transportation struggles for the workforce in Kalamazoo County. This variable shows the percent of households with fewer available cars than employed persons living in the house. The public transportation system in Kalamazoo County is not available 24 hours and does not run in all municipalities within the county.

• Car availability is tightest in the city of Kalamazoo.

• The Northside, Eastside, Stuart, and parts of Edison neighborhoods have the highest concentration of workers without steady transportation, though these neighborhoods do have bus access.

• Additionally, the Oshtemo Township and the Knollwood neighborhood have large concentrations of employed people without consistent access to a vehicle.

Data Source: American Community Survey
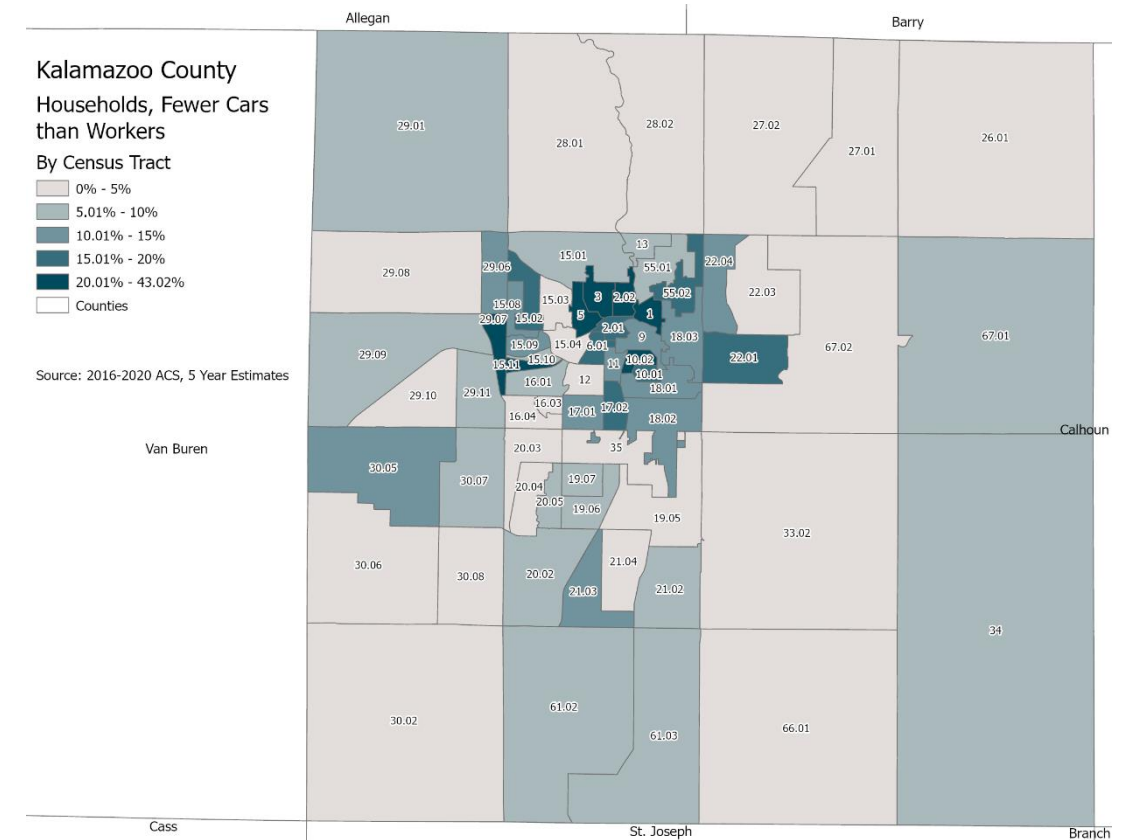
Social Determinants of Health Results

Food Insecurity

Food Insecurity estimates the number of both people in general and children specifically who do not have access to adequate food. Lack of food can contribute to diabetes, hypertension, and other chronic conditions. These data are estimated based on US Current Population Survey statewide data.

• Food insecurity in Kalamazoo County is higher than in the US but lower than the state.

• However, for children the rates are lower than both the state and nation.

Data Source: Feeding America

Food Insecurity

Source: Feeding America

Legend: ■ Kalamazoo ■ Michigan ▪ United States
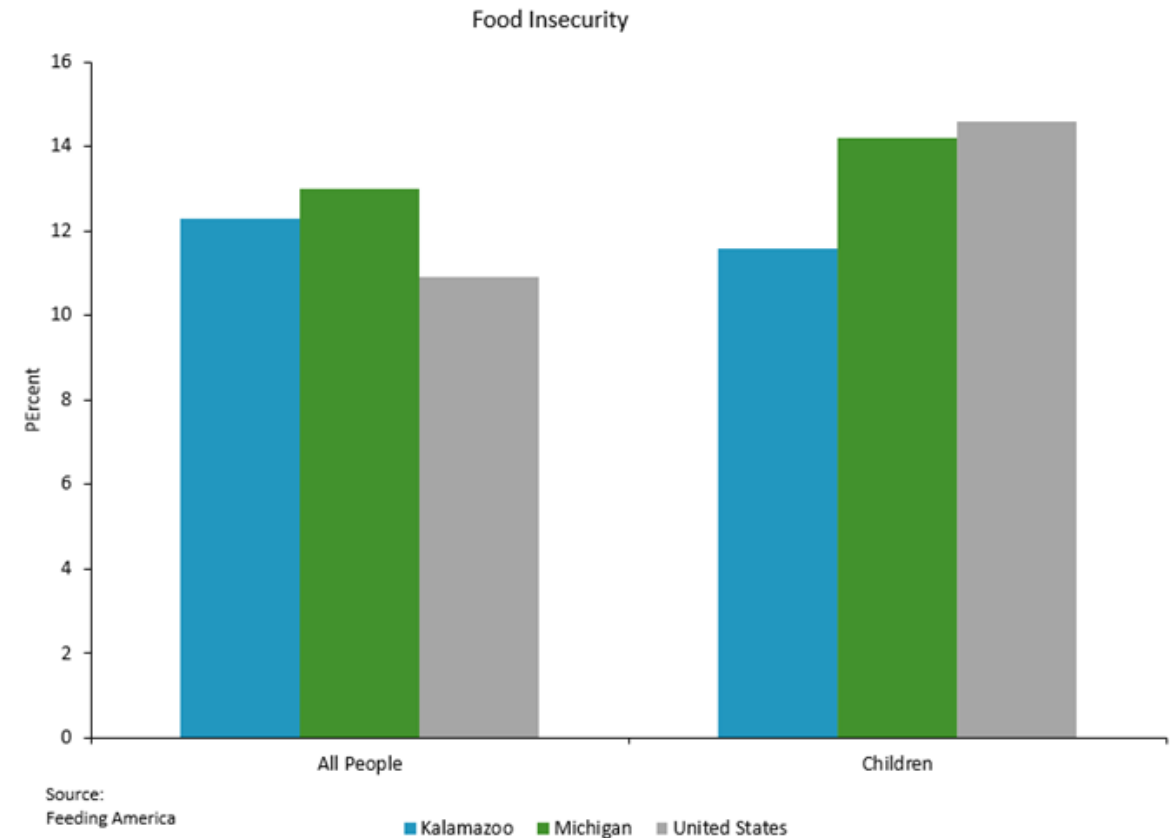
Social Determinants of Health Results

Educational Attainment

Educational Attainment refers to the highest level of education that an individual has completed. This is different from the level of schooling that an individual is attending. The relationship between higher education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress and healthier lifestyles.

- Education rates are lowest in the low-income areas of Kalamazoo and the rural areas in the county.

Data Source: American Community Survey

Educational Attainment

Source:
US Census American Community Survey
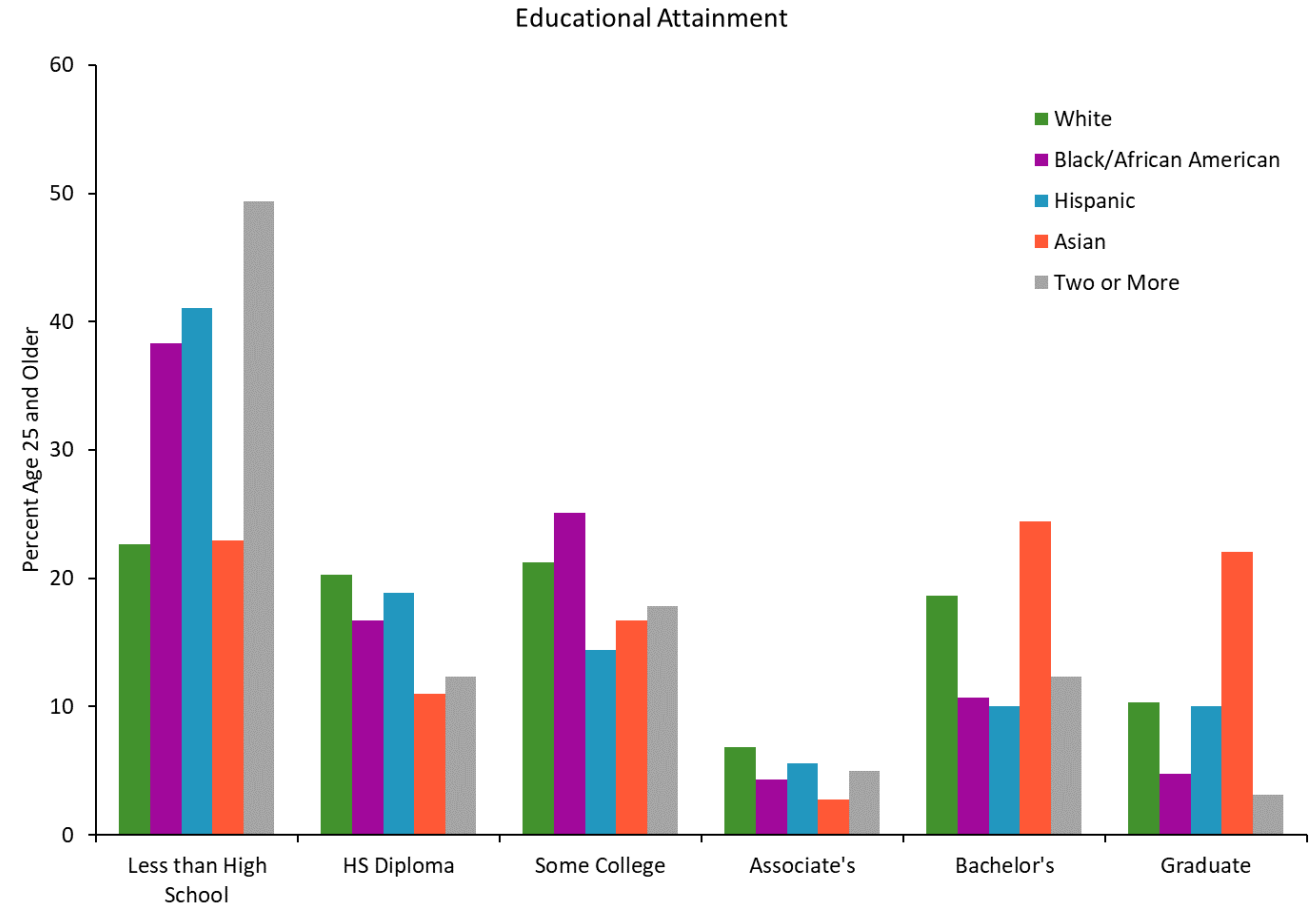
Social Determinants of Health Results

Air Pollution

Air Pollution shows both the amount of ozone and the particulate matter in the air. Ozone is measured in parts per million (PPM) at the 4th percentile of the daily max 8-hour average. Particulate matter shown is 2.5 micrometers or smaller, shown as an annual mean in micrograms per cubic meter of oxygen. Air pollution can affect the heart, lungs, and lead to premature deaths. Children, the elderly, and people with underlying health conditions especially vulnerable to the health impacts of air pollution.

• Ozone levels have been decreasing slowly since 2000, but in a very uneven way.

• Airborne particulates have been decreasing more rapidly.

Data Source: Environmental Protection Agency (EPA)

Air Pollution, Kalamazoo County

Source: United States Environmental Protection Agency
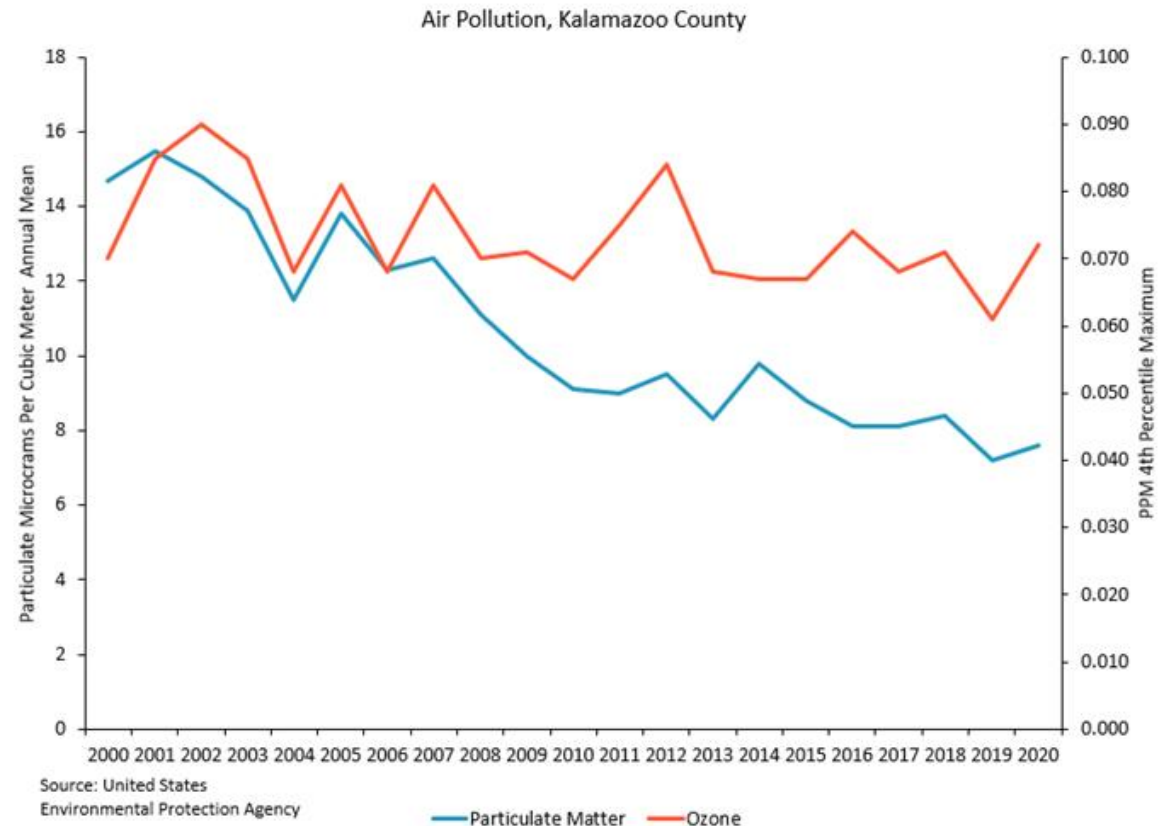
Social Determinants of Health Results

Health Care Access

Health care access shows the location of hospitals, emergency medical, and medical centers along with public transportation access and median income. Health care access is important and not all county residents have access to a vehicle.

- The main campus of Ascension Borgess, Bronson Methodist and the Kalamazoo Psychiatric hospitals are on transportation routes.

- Many medical facilities are along a full-services bus line.

- Similarly, many facilities are in lower income counties, save a few in the rural townships.

Source: American Community Survey, Kalamazoo County, Claritas

Kalamazoo County
Median Household Income ($)
By Census Tract

- 21,022 - 35,000
- 35,001 - 45,000
- 45,001 - 55,000
- 55,001 - 65,000
- 65,001 - 143,167
- Counties
- N/A

General Medical and Surgical Hospitals

- EMERGENCY MEDICAL & SURGICAL SERVICE
- HOSPITALS
- MEDICAL CENTERS

Bus Route
— Full Service
— Limited Service

Source: 2016-2020 ACS, 5 Year Estimates, Claritas
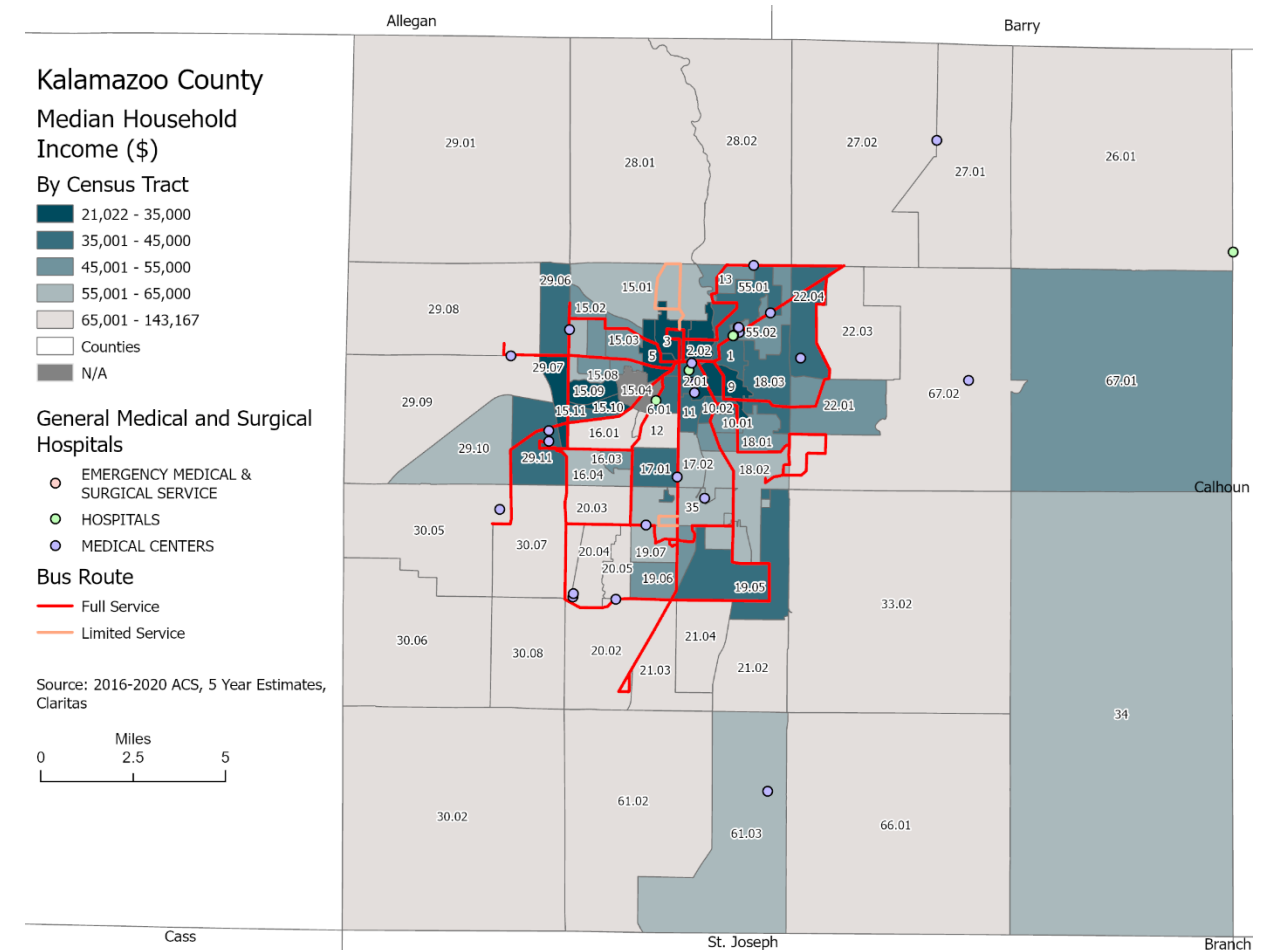
Appendix L: Census Tract Table & Map

Census Tract Table & Map

| Census Tract	Area (Approximate Neighborhood or Township)	City, Township
Census Tract 1	Eastside	Kalamazoo city
Census Tract 2.01	Downtown	Kalamazoo city
Census Tract 2.02	Northside E	Kalamazoo city
Census Tract 3	Northside W	Kalamazoo city
Census Tract 5	Stuart	Kalamazoo city
Census Tract 6	Vine	Kalamazoo city
Census Tract 9	Edison N	Kalamazoo city
Census Tract 10	Edison C	Kalamazoo city
Census Tract 11	Southside	Kalamazoo city
Census Tract 12	Westnedge Hill	Kalamazoo city
Census Tract 13	Parchment	Parchment
Census Tract 15.01	Kalamazoo Twp W	Kalamazoo Township
Census Tract 15.02	Westwood C	Kalamazoo Township
Census Tract 15.03	Westwood E	Kalamazoo Township
Census Tract 15.04	WMU	Kalamazoo city
Census Tract 15.06	Westwood W and Arcadia	Kalamazoo city
Census Tract 15.07	Knollwood	Kalamazoo city
Census Tract 16.01	Winchell	Kalamazoo city
Census Tract 16.03	Oakwood	Kalamazoo city
Census Tract 16.04	Colony Farm, Parkview Hills, Hill N' Brook	Kalamazoo city
Census Tract 17.01	South Westnedge W	Kalamazoo city
Census Tract 17.02	South Westnedge E	Kalamazoo city
Census Tract 18.01	Millwood N and Edison	Kalamazoo city
Census Tract 18.02	Millwood S	Kalamazoo city
Census Tract 18.03	Kalamazoo Twp E	Kalamazoo Township
Census Tract 19.05	Sprinkle Rd & Pfizer	Portage city

Census Tract Table & Map

Census Tract	Area (Approximate Neighborhood or Township)	City, Township
Census Tract 19.06	Woodland	Portage city
Census Tract 19.07	Haverhill	Portage city
Census Tract 20.02	Southwest Portage	Portage city
Census Tract 20.03	Angling	Portage city
Census Tract 20.04	Moorsbridge W and Amberly W	Portage city
Census Tract 20.05	Moorsbridge E and Amberly E	Portage city
Census Tract 21.01	Center Lake	Portage city
Census Tract 21.02	Austin Lake	Portage city
Census Tract 22.01	Comstock NW	Comstock Township
Census Tract 22.02	Comstock W	Comstock Township
Census Tract 26.01	Ross.	Ross Township
Census Tract 27	Richland & Richland.	Richland Township
Census Tract 28.01	Cooper W	Cooper Township
Census Tract 28.02	Cooper E	Cooper Township
Census Tract 29.01	Alamo	Alamo Township
Census Tract 29.03	Oshtemp E	Oshtemp Township
Census Tract 29.04	Oshtemo. W	Oshtemo Township
Census Tract 29.05	Oshtemo. S	Oshtemo Township
Census Tract 30.02	Prairie Ronde	Prairie Ronde Twp
Census Tract 30.03	Texas W	Texas Township
Census Tract 30.04	Texas E	Texas Township
Census Tract 33.02	Pavilion	Pavilion Township
Census Tract 34	Climax and Wakeshma	Climax and Wakeshma Townships
Census Tract 35	North Central Portage	Portage city
Census Tract 55.01	Burke Acres	Kalamazoo city
Census Tract 55.02	Kalamazoo Twp NE	Kalamazoo Township

Census Tract Table & Map

Census Tract	Area (Approximate Neighborhood or Township)	City, Township
Census Tract 61.02	Schoolcraft	Schoolcraft Township
Census Tract 61.03	Vicksburg	Vicksburg Township
Census Tract 66.01	Brady	Brady Township
Census Tract 67.01	Charleston	Charleston Township
Census Tract 67.02	Comstock E	Comstock Township

Census Tract Table & Map
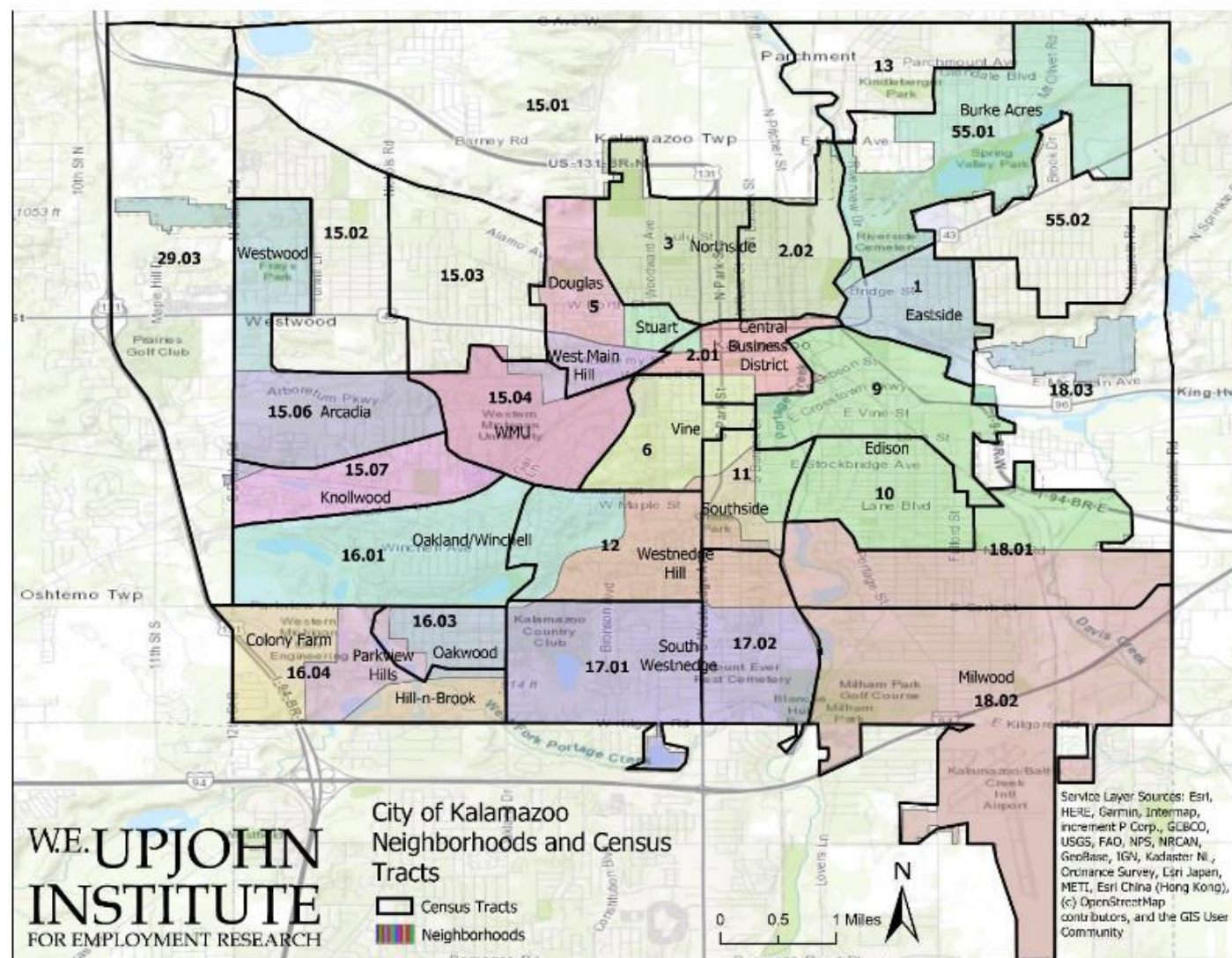
Appendix M: Resources

Resources

- Ascension Borgess Hospital
- Air Zoo
- American Red Cross of Southwest Michigan
- Amtrak
- Area Agency on Aging Kalamazoo County
- Arts Programs
- Black Arts & Cultural Center/Park Trade Center
- Kalamazoo Institute of Arts (KIA)/Art Hop
- Bronson Healthcare
- Community AIDS Resource and Education Services
- Catholic Charities
- Children's Advocacy Center of Kalamazoo
- City of Kalamazoo
- Communities in Schools
- Community Healing Center
- Consecha - Kalamazoo (Immigration network)
- Cradle Kalamazoo
- Disability Network
- Douglas Community Center
- Eastside Gateway Project/Kalamazoo County Land Bank
- El Concilio
- ERACCE - Eliminating Racism and Claiming/Celebrating Equity
- Fair Housing Center of SW Michigan
- Family Health Center of Kalamazoo
- F.U.S.E. - Frequent Users
- Systems Engagement
- Girl Scouts
- Goodwill Industries of SW Michigan
- Gryphon Place/2-1-1 Crisis Center and hotline
- Headstart
- H.E.R.S.- Homeless Emergency Response System
- Hospital Hospitality House
- Housing Resources, Inc. Integrated Services of Kalamazoo
- ISAAC - Interfaith Strategy for Advocacy & Action in the Community
- Jeter's Leaders

Resources

- Kalamazoo/Battle Creek International Airport
- Kalamazoo Civic Theater
- Kalamazoo Collective Housing
- Kalamazoo College
- Kalamazoo College Arcus Center for Social Justice
- Kalamazoo Community Foundation
- Kalamazoo County Health and Community Services
- Kalamazoo County Opioid Coalition
- Kalamazoo County Parks and Recreation
- Kalamazoo County Sheriff's

Department
- Kalamazoo Deacons Conference
- Kalamazoo Defender
- Kalamazoo Department of Public Safety
- Kalamazoo Downtown Partnership
- Kalamazoo Gospel Mission
- Kalamazoo Growlers Baseball
- Kalamazoo Loaves and Fishes
- Kalamazoo Metro
- Kalamazoo Nature Center
- Kalamazoo Neighborhood Housing Services
- Kalamazoo Probation

Enhancement Program (KPEP)
- Kalamazoo Public Library
- Kalamazoo Public Schools
- Kalamazoo Regional Educational Services Agency (KRESA)
- Kalamazoo State Theater
- Kalamazoo Youth Development (KYD) Net
- Kalamazoo Valley Community College & KVCC Healthy Living Project
- Kalamazoo Wings - ice hockey

Resources

- League of Women Voters
- Louis Walker Institute - Western Michigan University
- Michigan Works! Southwest
- Miller Auditorium
- Ministry with Community
- MIRC - Michigan Immigrant Rights Center/Welcoming Michigan
- Mobile Health (Family Health Center)
- MRC - disability employment center
- NAACP
- Northside Association for Community Development
- Northside Ministerial Alliance
- Nueva Opinion newspaper

- Open Doors
- Outfront Kalamazoo
- PACE - Program of All-Inclusive Care for the Elderly
- People's Food Co-op
- Pfizer
- Portage Public Schools
- Portage Senior Center
- Prevention Works
- Pride Festival
- Public Media Network
- Recovery Institute of Southwest Michigan
- Rootead
- St. Luke's Diaper Bank
- Scouts
- Second Wave Southwest MI

- neighborhood reporting
- Senior Services
- SHARE - Society for History and Racial Equity
- Speak it Forward,Inc
- Stryker Foundation
- Synergy Health Center
- The Kalamazoo Promise
- The Salvation Army
- TRHT - Truth, Racial Healing and Transformation
- Urban Alliance, Inc
- W.E. Upjohn Institute for Employment Research
- Western Michigan University
- YMCA
- YWCA