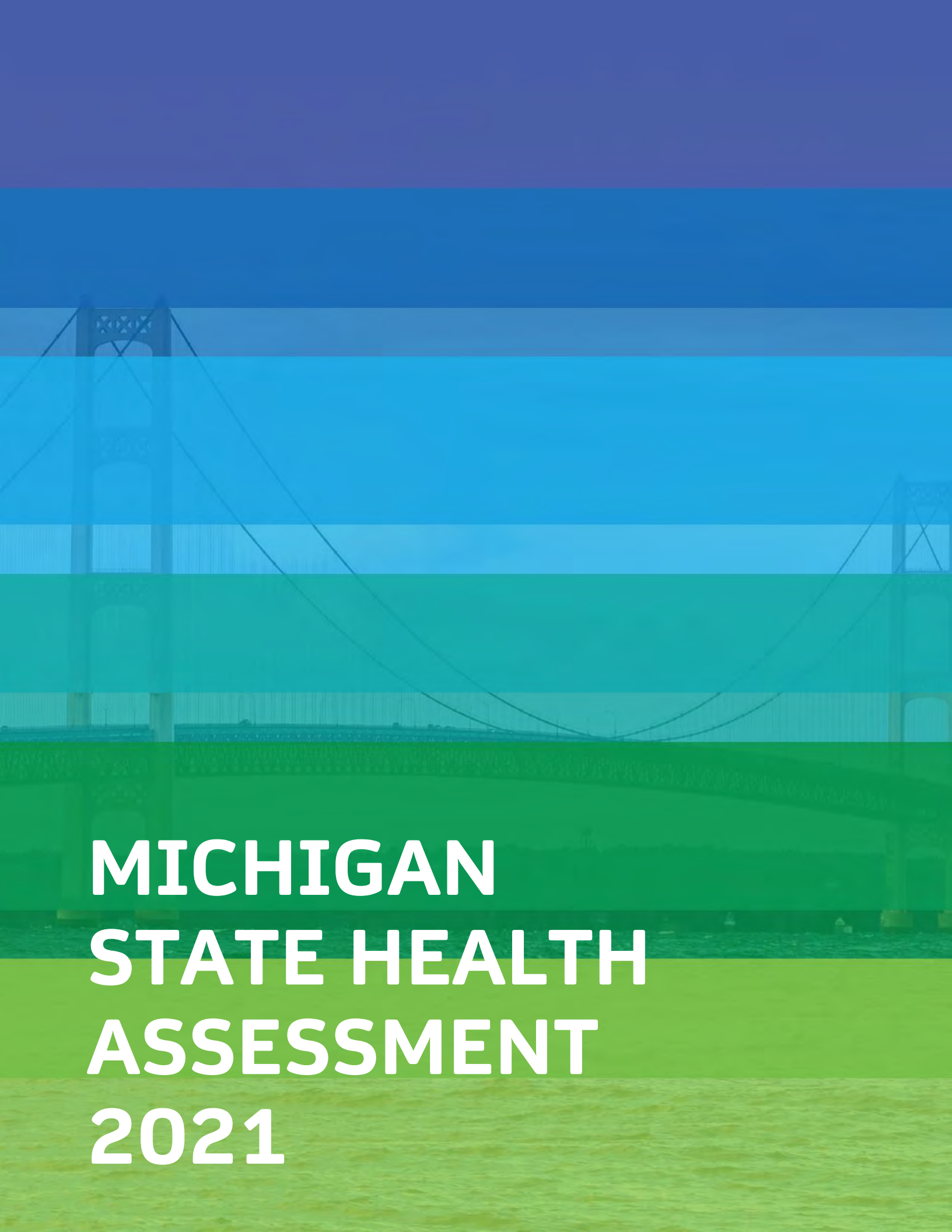


MICHIGAN STATE HEALTH ASSESSMENT 2021

Michigan's SHA Vision

Michigan will be a state with safe, connected, healthy, and vibrant communities, where every person is valued. Those who live, learn, work, play, and age in Michigan will have trust in and equitable access to services and safe environments that support a healthy life.

Contents

Executive Summary

Executive Summary

To improve the health of Michigan's population and identify the most pressing health needs across the state of Michigan, the Michigan Department of Health and Human Services (MDHHS) engaged with a diverse array of public health system partners to complete this State Health Assessment (SHA). Facilitated by the Michigan Public Health Institute (MPHI), the SHA included the four assessments of the Mobilizing for Action through Planning and Partnership (MAPP) Framework. The SHA serves as the basis for setting priorities, planning, program development, funding applications, policy changes, coordination of resources, and new ways to collaboratively use assets from all public health system partners.

The four assessment activities partners completed examined the functioning of the public health system in Michigan against the 10 Essential Public Health Services; identified forces, opportunities, and threats facing the public health system; listened to members of community members across the state on how where they live impacts their health; and considered data about health status and social determinants of health.

After data were collected and analyzed, MPHI convened public health partners to examine areas where findings converged across assessments. Partners identified 15 possible strategic issues, which were narrowed to four priorities based on community feedback, partner prioritization, and alignment with existing efforts and resources. Based on this feedback, the following four strategic issues were prioritized and will be addressed through the upcoming State Health Improvement Plan (SHIP):

1. Engage in policy, systems, and environmental change efforts to address racism and other biases that lead to health inequities in Michigan.
2. Strengthen the ability of Michigan's communities to equitably support families and prevent childhood trauma.
3. Improve equitable access to healthy food and community resources that promote physical activity.
4. Increase accountability and enforcement of environmental regulations and policies.

MDHHS and MPHI will again convene partners to develop and implement plans to address these priorities over the next five years through a SHIP development process in 2022.

Introducing the State Health Assessment

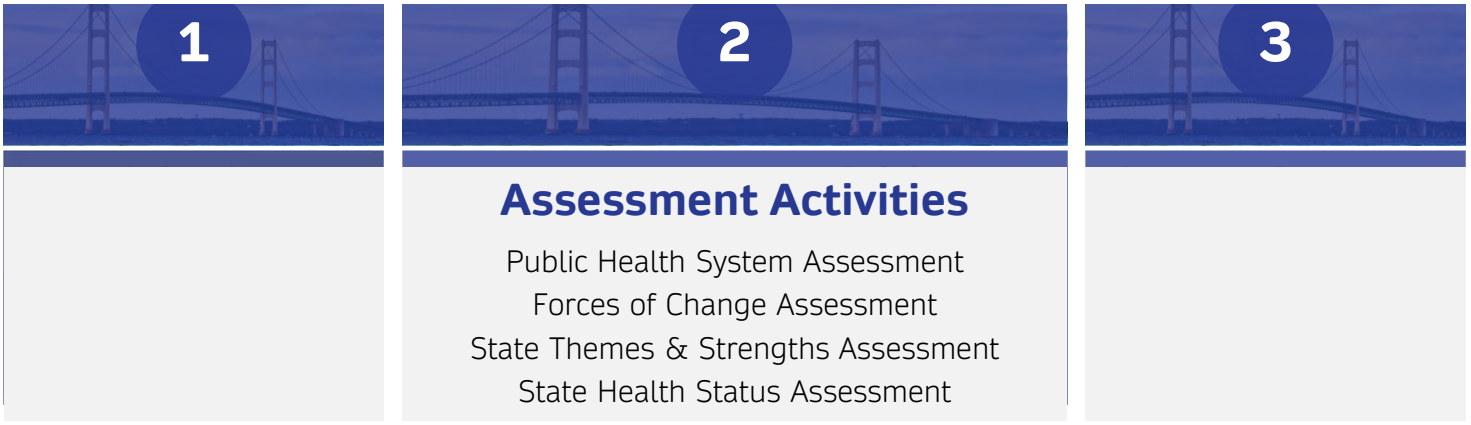
Introduction

A State Health Assessment (SHA) is a process that identifies and describes:

- The health of the state's population and areas of health improvement;
- Factors contributing to health challenges; and
- Existing state resources that can be mobilized to address health needs.

Partners from across Michigan's public health system, with input from the public, have collaborated to complete this latest version of Michigan's SHA. This important process lays the foundation for efforts to improve the health of Michigan's population. SHA findings can serve as the basis for setting priorities, planning, program development, funding applications, policy changes, coordination of resources, and new ways to collaboratively use assets from all public health system partners (See Appendix B for a list of partners by assessment activity) to address the most pressing health needs across the state. Additionally, SHA findings provide the general public, policy makers, and leaders with information on the health of Michigan's population and the broad range of factors that impact health, as well as existing assets and resources to address health issues. Finally, the SHA will provide the basis for the development of a state health improvement plan, a multi-sector collaborative plan to address the priority strategic issues that emerged from the SHA.

Guided by the Public Health Administration (PHA) at the Michigan Department of Health and Human Services (MDHHS) and facilitated by staff at the Michigan Public Health Institute (MPHI), public health system partners engaged in assessment activities aligned with the Mobilizing for Action through Planning and Partnership (MAPP) Framework. Figure 1 provides an overview of the SHA activities. See Appendix A for a detailed description of the SHA process and Appendix B for a full list of participants.



A note about timing: Three of the four assessments occurred prior to the COVID-19 pandemic. These include the Public Health System Assessment, the Forces of Change Assessment, and the Health Status Assessment. The State Themes & Strengths Assessment included data from focus groups and a survey conducted in June and July 2020, and the focus groups included one question specific to COVID-19 and its effects on how participants think about health. Additionally, data regarding COVID-19 were included when public health system partners participated in sessions to identify strategic issues.

In Focus

Health Equity and the Social Determinants of Health

Michigan's SHA work incorporated a health equity focus throughout all phases of the process. Beginning with organizing the SHA process and visioning, participants considered what an equitable community would look like. This focus continued through the collection and analysis of data for the assessments, and in strategic issue development.

Work was guided by the following definition of health equity:

Definition of Equity

"Health equity means that everyone has a ***fair and just*** opportunity to be as healthy as possible. This requires ***removing obstacles*** to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care."[1]

People of color, the LGBTQIA community, people living with disability, and low-income individuals historically have faced greater barriers to health. Veterans, individuals in rural communities, and older adults often have unmet health needs. Public health system partners worked to engage those who do not have fair and just access to the conditions that promote health in the SHA process.

Throughout 2020 and 2021, the COVID-19 and high-profile incidents of racial violence leading to declarations of racism as a public health crisis, further highlighted the need for public health systems to address health inequities. When identifying strategic issues and developing strategic issue statements, public health system partners focused on areas where disparities exist to work toward addressing root causes and improving health for all. COVID-19 has also changed the way programs and services operate and are delivered, providing an opportunity for a close examination of and ability to change processes to better reach populations experiencing disparate health outcomes.

When developing the vision statement, partners considered what an equitable community would look like. Throughout the assessment phase, partners examined obstacles to health and their consequences, and sought to uncover differences in exposure and outcomes that are unjust and unfair. Finally, when developing strategic issues, partners framed statements around addressing unjust and unfair obstacles to health.

Organizing and Visioning

Consider what an equitable community would look like as part of the visioning process.

Assessments

Examine the obstacles to good health and their consequences.

Uncover differences in exposure and outcomes that are unjust and unfair.

Strategic Issues

Frame strategic issues around addressing unjust and unfair obstacles to good health.

Health is impacted by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. The conditions in which we live explain in part why some people are healthier than others. These Social Determinants of Health are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and system shaping the conditions of daily life. These forces and systems include economic policies and systems, social norms and policies, and political systems. Assessment data and strategic issue categories for the SHA are organized around the Social Determinants of Health.

Social Determinants of Health

Economic Stability

Education

Social & Community Context

Health & Healthcare

Neighborhood & Built Environment

To elevate the voice of the community in assessment activities, there were multiple opportunities for people who live, work, play, learn, and age in Michigan to provide input, including through involvement of community organizations in the planning process, focus groups and survey opportunities, and an opportunity to help prioritize among strategic issues that emerged. Community input will continue to be an important and valued asset as this process moves toward a State Health Improvement Plan.

Organization of Report

This report details the collaborative process of collecting and analyzing data and information to drive decision-making and action. The following sections include:

An overview of Michigan's population	Findings about health issues and state assets emerging from each of the four assessments that comprised this process	Strategic issues that emerged	Plans to utilize the findings of the SHA and regularly monitor and update data

Michigan's Population

Current Demographics & Future Trends

Michigan's current population sits at just under 10 million people. Since 2010, Michigan's population has grown very slightly, gotten older, a little more diverse, and is shifting from rural to urban/suburban areas.[2]

Michigan is the **10th most populous** state in the nation.

20 of 83 counties have **>100,000 people.**

15 counties of the Upper Peninsula comprise **~3% of the population.**

Wayne, Oakland, and Macomb counties alone account for almost **40% of the state's population.**

Michigan's population is growing **more diverse.**

Michigan has the **2nd largest population of individuals with Arab ancestry in the U.S.** and is the only state where Arab Americans account for more than 2% of the population.[3] [4]

1 in **4**

Michigan residents identify as **non-white.**

Immigration increased 18% between 2010 and 2018, making up **~7% of the population.**

Top 5 countries of origin:
(in order of most to least)

Mexico, India, Iraq, China, Canada

of persons aged 5+ **speak a language other than English at home.**

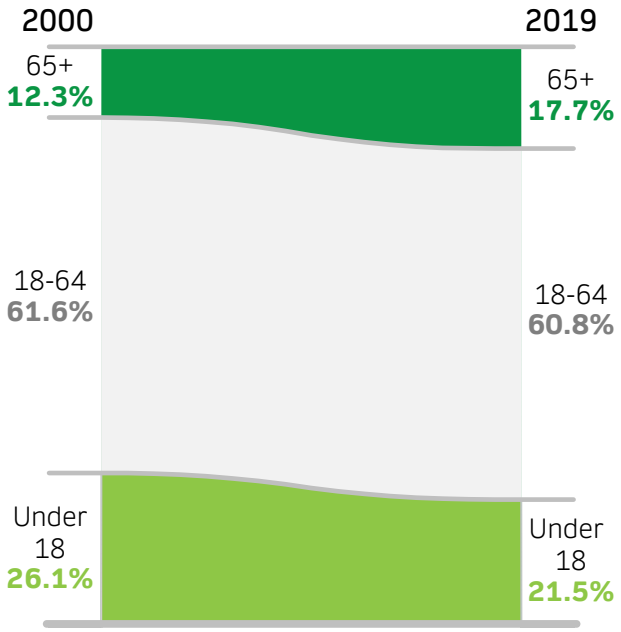
Population 2010	Race/Ethnicity	Population 2019
77.0%	White, not Hispanic/Latino	74.7%
14.0%	Black alone	14.1%
4.4%	Hispanic or Latino	5.3%
2.4%	Asian alone	3.4%
---	American Indian and Alaska Native alone	0.7%
2.4%	Two or more races	2.5%

The **population size** is stable, but aging.

The **percentage of Michiganders over the age of 65 has increased** from just over 12% to nearly 18% since the year 2000.

In the same timeframe, the **population of children under the age of 18 has decreased** by nearly the same amount, going from 26% of the population to approximately 22%.[5]

Michigan population, by age groups



Quick Facts about Michigan's Population.

90.5%
are high school graduates.

Median household income in Michigan ranks **34th** in the U.S.

$54,938
median household income.[7]

10.3%
under the age of 65 **live with a disability.**

Approximately **13%** of Michigan's population **live in poverty.**

71% live in owner-occupied housing.

More than **half a million** Michigan residents are **veterans.**[6]

Nearly **7%** of Michiganders are **without health insurance.**

88%
of households have a computer.

79% have a broadband internet subscription.

State Health Assessment Findings

State Health Assessment Findings

The SHA collected data from many sources, in both numbers (quantitative data) and words (qualitative data). There are four main sub-assessments that provided SHA data, including the following:

1

Public Health System Assessment

identifies the degree to which the state's public health system is equipped to deliver the 10 Essential Public Health Services.*

2

Forces of Change Assessment

identifies the forces that will shape the public health system within the state in the future.**

3

4

Figure 1: The 10 Essential Public Health Services

*At the time the System Assessment was conducted in November 2019, the original 10 Essential Services model was used. A refreshed version of the 10 Essential Services was released on September 8, 2020 (See Figure 1).

**The Forces of Change Assessment was conducted in December 2019, before the COVID-19 pandemic.

1 Public Health System Assessment

The Public Health System Assessment answers the questions:

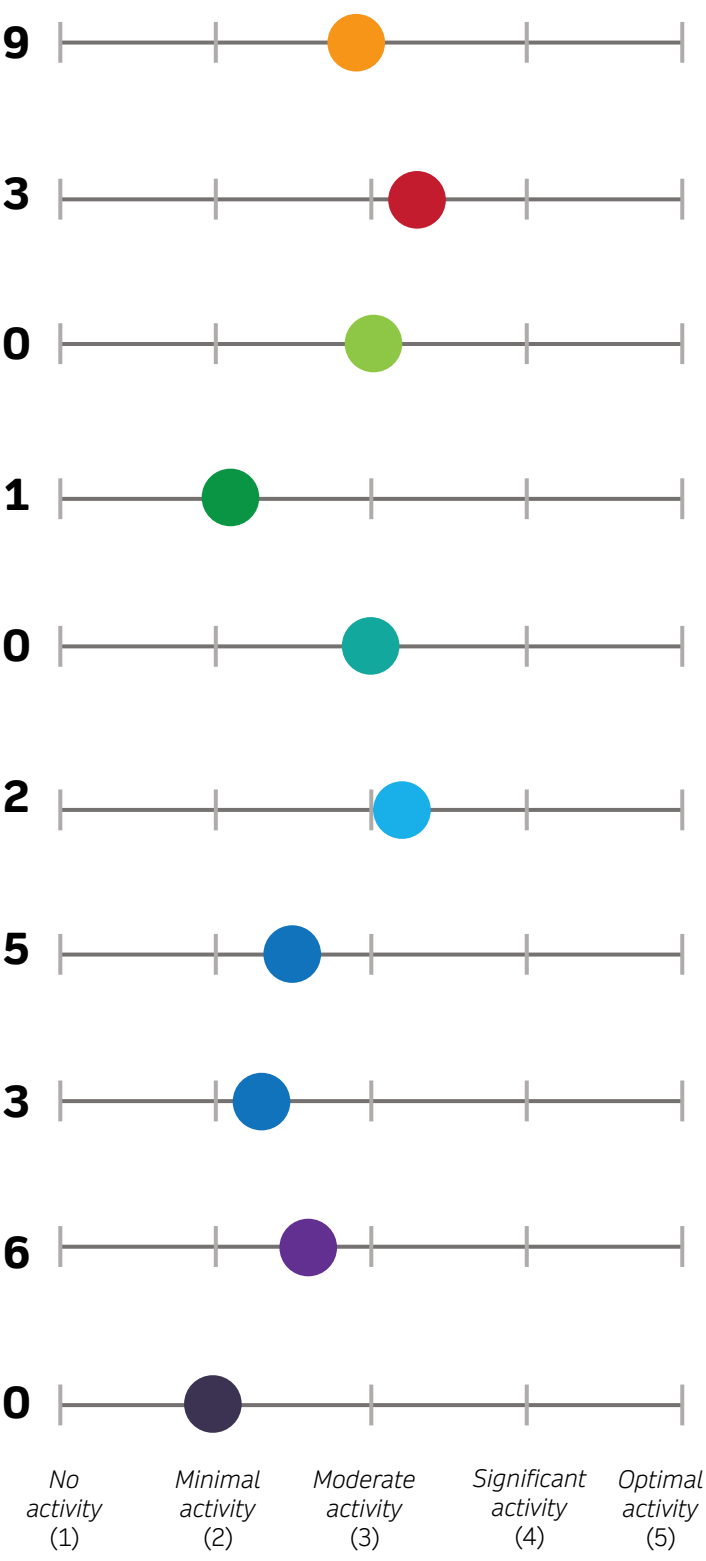
1) **What are the activities, competencies, and capacities of the public health system?**
2) **How are the 10 Essential Public Health Services being provided?**

At the beginning of November 2019, MPHI facilitated the Public Health System Assessment during an in-person meeting with 59 public health system partner participants. Participants assisted in identifying strengths and opportunities for improvement in the Michigan public health system's capacity to deliver the 10 Essential Public Health Services.

During each session, participants engaged in discussions about key elements of each essential service and scored existing capacity for that service using a scale from no activity to optimal activity. Overall, stakeholders who participated in the Public Health System Assessment reported between minimal and significant activity is occurring for each of the 10 Essential Public Health Services. Highest capacity within the system exists with diagnosing and investigating health problems and health hazards, and enforcing public health laws. Participants rated lowest capacity for research for new insights and innovative solutions to health problems and mobilizing partnerships to identify and solve health problems. The score chart on the next page presents participant scoring for each Essential Public Health Service.

Public Health System Assessment Scores

10 Essential Public Health Services	Scores
1 Monitor health status to identify community health problems.	2.9
2 Diagnose and investigate health problems and health hazards.	3.3
3 Inform, educate, and empower people about public health issues.	3.0
4 Mobilize partnerships to identify and solve health problems.	2.1
5 Develop policies and plans that support individual and statewide health efforts.	3.0
6 Enforce laws and regulations that protect health and ensure safety.	3.2
7 Link people to needed personal health services and assure the provision of health care when otherwise unavailable.	2.5
8 Assure a competent public and personal health care workforce.	2.3
9 Evaluate effectiveness, accessibility, and quality of personal and population-based health services.	2.6
10 Research for new insights and innovative solutions to health problems.	2.0



Key findings also emerged from the conversations that occurred prior to assigning an activity score for each Essential Service. Findings include:

1. Across all 10 Essential Public Health Services, partners focused on the capacity of governmental public health. The public health system in Michigan would benefit from better identification of roles for all partners in delivering essential services.
2. Partners identified gaps in the data that support monitoring health status and identifying health problems, including data system interoperability challenges, timeliness of data, and different contacts for each program at the state level to support data use.
3. Michigan has recent examples of effective responses to health threats, but partners shared the perception that efforts are most often reactive due to a lack of resources (i.e. funding, training, evaluation, etc.) to support prevention.
4. System partners emphasized improving public health messaging to ensure culturally and linguistically appropriate information delivered through multiple modalities designed to reach Michiganders of varying cultures, ages, abilities, literacy levels, and incomes.
5. There are strong partnerships across the public health system that have worked together to identify and solve health problems. However, public health partnerships largely exist in silos. Partners identified a need for partnerships that cross these silos to work toward comprehensive change within the public health system.
6. Michigan's public health system partners identified opportunity for greater shared decision making in policy development. Partners also emphasized the value and potential impact of moving toward a Health in All Policies approach.

7	Michigan's Public Health Code gives governmental public health the authority it needs to enforce laws and regulations that protect health and ensure safety. Partners identified a need for additional support for local health departments in exercising their legal authority (i.e. funding, professional development, legal counsel, etc.).
8	Michigan's public health system must continue to focus on health equity across all essential services. For example, the system must ensure Michiganders are connected to personal health services that are culturally sensitive and appropriate, meet the needs of all populations, and are designed to achieve equitable health outcomes.
9	Michigan's public and personal health care workforce are crucial to the protection and promotion of Michiganders health and well-being, and need to be adequately supported through educational opportunities, professional opportunities for advancement and growth, and competitive pay scales.
10	There is varying capacity across Michigan's public health system related to quality improvement, evaluation, and performance improvement. There is a need for more support and continued development opportunities for public health professionals in using data to drive improvement at all levels of the public health system.
11	Michigan's public health system encounters barriers to research and innovation, such as funding restrictions, siloed programming, staff capacity, and lack of access to academic institutions in some areas of the state.

2 Forces of Change Assessment

The Forces of Change Assessment answers the questions:

1) **What is occurring or might occur that affects the health of people in Michigan or the public health system?**

2) **What specific threats or opportunities are generated by these occurrences?**

At the beginning of December 2019, MPHI facilitated the Forces of Change Assessment during an in-person meeting with 67 public health system partner participants. Participants assisted in identifying trends, factors and events that may influence health, both in the recent past and the foreseeable future. Participants talked about forces in groups aligned with several different categories of forces, including:

- Social & Cultural
- Economic
- Political & Legal
- Technical & Scientific
- Environmental
- Ethical

MPHI compiled discussion notes and worksheets completed during the meeting and identified common themes that emerged across the different groups. The overarching themes from this assessment include:

Increased focus on social determinants of health.

Inequities in individuals' and families' economic stability, education, neighborhood and built environment, social and community context, and health and health care have a great impact on health outcomes. Addressing social determinants to improve health was a major focus across all types of forces.

Politics and trust in government.

Elections and changes in leadership lead to shifts in priorities and funding. Additionally, major events in the recent past and the current political environment have led to a mistrust in government, especially related to health, environmental health, and public health.

Access to health care.

Where a person lives affects their access to health care. Those living in rural areas of Michigan have to travel further to visit health care providers and have less access to specialists and mental health care providers. Health literacy and trust in medical providers are additional factors that can limit access to health care.

Health insurance.

Health insurance is a major determinant of the health care an individual can receive. Recent changes have both increased access to health insurance (ACA and Medicaid expansion) or limited access (Medicaid work requirements).

Environmental health.

Due to recent environmental health events in Michigan, such as the Flint water crisis, PFAS, oil spills, extreme weather, and flooding, there is an increased focus on and understanding of the effect of the environment on our health.

Data and technology.

Technological advancements create opportunities for expanding access and improving health, while also creating disparities based on access and ability. Additionally, multiple data systems in the state are unable to communicate with one another, limiting opportunity to effectively use "big data" to impact health in Michigan.

Infrastructure.

Aging infrastructure or gaps in infrastructure—including systems such as roads, bridges, water, and sewers—create barriers to health and safety, and disproportionately impact vulnerable populations across the state.

Health equity.

The majority of forces identified by participants affect health equity, presenting obstacles to health and unjust disparities in individuals' ability to be as healthy as possible.

3 Themes & Strengths Assessment

The Themes & Strengths Assessment answers the questions:

1) **What is important to the state?**
2) **How is quality of life perceived in the state?**
3) **What assets does the state have that can be used to improve the public's health?**

An advisory group of public health system partners helped to guide the assessment process and develop data collection tools. For this assessment, MPHI gathered input from public health system partners and community members across the state about features of their communities that support health or put health at risk. The findings provide us with a deep understanding of the issues people in Michigan feel are important.

Data for this assessment were collected through three methods:

Special Population Focus Groups

Seven focus groups were held with populations that are typically under-represented in data collection. These focus groups occurred virtually in June 2020 with 61 total participants. Partners included:

The Asian Center
Centro Multicultural La Familia
Corktown Health Center
The M.A.D.E. Institute
The Michigan League for Public Policy
Upper Peninsula Health Care Solutions
Veterans Administration

State Health Assessment Survey

People who live in Michigan shared opinions about the things that support or harm their health through an online survey. Public health system partners helped us distribute the survey through email and social media in June 2020. The survey included several demographic questions in addition to three open-ended questions:

1) What about your community supports or contributes to good health and well-being (feeling well emotionally, mentally, and physically)?
2) What is damaging to good health and well-being where you live?
3) What would make your community a healthier place to live?

More than 2,500 respondents provided their experiences and opinions through the survey. These data were analyzed for themes across all respondents and for specific demographic groups.

Meta-Analysis

Staff collected a total of 46 local assessments by locating them online or contacting local health departments to obtain assessment documents. The 46 assessments obtained represent 73 of Michigan's 83 counties. MPHI staff abstracted information from the assessment documents, including indicators, methods utilized, and resulting strategic issues. These data are included both to honor the hard work of our local public health systems across the state, as well as to align efforts as possible with the greatest health needs identified in Michigan's communities. Many of the most prioritized strategic issues from the community health assessments were also represented in the focus group and survey data. The top Michigan Community Health Assessment strategic issue areas include:

- Access to Care
- Substance Abuse and Tobacco
- Mental/Behavioral Health
- Chronic Disease
- Obesity
- Social Determinants of Health

Data from each of these methods are shared in the following pages. Findings are organized by Social Determinants of Health.

Economic Stability

In the Social Determinants of Health (SDoH) model, the underlying factors for economic stability include employment, food insecurity, housing instability and poverty. Approximately 14% of people who live in Michigan live in poverty.[8] The number of children living in poverty is higher, with nearly two in 10 Michigan children living in poverty. However, many more families are lacking economic stability, with nearly three in 10 families struggling to manage their most basic needs – housing, food, transportation, child care, health care, and necessary technology.[9] When discussing economic stability and health, focus group and survey participants noted the following as affecting their ability to be healthy:

- The importance of a living wage that can allow families to meet basic needs;
- High levels of unemployment across the state;
- The importance of resources to provide healthy food, such as SNAP, community gardens, and farmers markets;
- Lack of availability of safe, affordable housing; and
- High cost of living in some areas of the state.

> *"Going into work at the office, leaving my child home alone. Stress and worry about paying bills [make it more difficult to be healthy]."*

Neighborhood and Built Environment

Health is impacted by the neighborhoods where people live. "High rates of violence, unsafe air or water, and other health and safety risks," present in some neighborhoods are harmful to health.[10] Others live in neighborhoods where they have safe and accessible parks, walkable streets, ready access to healthy foods, and low concerns about safety. The SDoH model includes access to foods that support healthy eating patterns, crime and violence, environmental conditions, and quality housing as factors that affect health. When asked what about their neighborhood helped keep them healthy or made it difficult to be healthy, focus group and survey respondents had a lot to say, sharing the following:

- Some areas of the state have limited availability of and accessibility to fresh fruits and vegetables, including some food deserts;
- Michiganders place a high level of value Michigan's natural resources, but access to clean, safe parks and waterfronts is inequitable;
- Parks and green spaces are an important factor to help keep people healthy;
- Michigan's cold winters make it difficult to stay active year-round, and there is a need for more options for affordable indoor activities during the colder months of the year;
- Safe communities, where people keep their property maintained, and infrastructure such as streetlights are prevalent, make people feel healthier;
- Connections to others in the community and looking out for one another leads to feelings of safety;
- Concerns about housing quality and inequity, housing for older adults, landlords and poor upkeep of rental housing, property maintenance, and zoning that puts housing close to industry;
- Air and water pollution in neighborhoods are a health concern for many, including lead in housing and water, agricultural chemicals, automobile emissions, factories, fossil fuel-dependent utilities, and landfills, with calls for increased environmental protections and actions;

Neighborhood and Built Environment
(continued)

- Noise pollution from traffic, fireworks, and airports have negative effects on levels of stress and anxiety;
- High levels of traffic contribute to pollution, stress, and noise, while decreasing safety, including seasonal increase in tourist traffic in rural areas;
- A lack of adequate supports for individuals experiencing homelessness;
- Infrastructure quality and inequity, noting infrastructure near lower income neighborhoods is often in disrepair;
- Spaces and activities that build community, including resources such as community gardens, libraries, churches, arts, community centers, and other organizations that support the community are important supports for health; and
- Transportation systems influence health, and many noted the need for improved infrastructure, more options for active transportation, and increased access to public transportation.

> *"It feels safe and there is beautiful Lake Huron nearby so we get to see that beauty. Neighbors on our street help each other out. We have a good YMCA that is diverse and welcoming and friendly. We can (usually) travel to Canada easily for day trips."*

Health Care Access and Quality

Access to quality health care can help keep people healthy. However, many people lack access to health care for a variety of reasons, including being uninsured, not having a primary care provider, distance to care, and a lack of available providers.[11] As of May 2020, data show that the COVID-19 pandemic led to an increase of uninsured individuals in Michigan, resulting in approximately 12% of Michigan adults being uninsured.[12] Michigan faces a shortage of physicians at a greater rate than the national average, with the largest shortage in primary care.[13] Shortages exist in both rural and urban parts of the state, and availability of transportation to get to needed care is a statewide issue. Focus group participants and survey respondents shared the following information about health care quality and access:

- Those living in areas with high quality health care systems located within a short distance were likely to say these were supportive of good health and wellness;
- Affordability of health care services and health insurance is a barrier to care;
- Distance to care and a lack of specialist and mental health care providers are major barriers in rural areas of the state;
- Many have experienced discrimination when receiving health care services which makes them less willing to access needed care;
- There is a call for an increase in diverse providers across the state;
- Both a shortage of mental health care providers and stigmas surrounding mental health prevent people from obtaining needed care; and
- Public health agencies outreach and health education activities are important supports for good health.

> *"Only have one health center in my small community but I feel they are doing a good job with phone calls, sanitation, and distancing."*

Social and Community Context

Civic participation, social cohesion, and discrimination are all parts of social and community context that affect an individual's health. This includes relationships and interactions with others around them, including family, friends, co-workers, and other community members.[14] Social support where people live, learn, work, and play can increase feelings of good health. When discussing factors within their communities that help them be healthy or make it harder to be healthy, focus group and survey participants shared the following:

- Feeling a sense of community and having strong support systems nearby is supportive of good health and wellness;
- Parental support and childcare are important, and there is a need for expanded availability and affordability;
- Social cohesion may be lower in urban areas, with individuals from rural areas more often expressing their health is supported through feeling a strong sense of community;
- Diversity and inclusion are key pieces to creating a healthy, connected community;
- In many diverse communities, city, county, and school leadership are not reflective of the population served;
- Community organizations that offer bilingual and culturally appropriate services and programs are valued;
- Pervasive structural and system racism negatively impact health and feelings of social cohesion and support in communities;
- Many individuals have experienced discrimination based on race, class, and sexual orientation or gender identity;
- Feelings of racism and discrimination have increased due to the current political climate; and
- Individuals in urban areas reported racism and discrimination in policing, reporting experiences of police brutality and over-policing in their neighborhoods.

> *"There are a lot of parks around. People know each other in the neighborhood... I actually prefer knowing the people around me."*

Education Access and Quality

Individuals with higher levels of education are more likely to be healthy and live longer.[15] Early childhood education, high school graduation, and enrollment in higher education are supportive of good health throughout the lifespan. Differences in school quality lead to differences in educational attainment, and school quality is often related to the socio-economic makeup of the neighborhood or community. Additionally, disability, bullying, and stress related to living in poverty have effects on educational outcomes and long-term health outcomes. Survey and focus group participants noted the following about education access and quality:

- Schools are often an important source of social support for families;
- Those who have access to high-quality schools noted them as supportive of good health and well-being;
- School quality is inconsistent across the state, with struggling school districts in very urban or rural areas;
- Struggling school districts often had poorer school infrastructure and insufficient resources to support students;
- There is a lack of investment in important school supports such as school nurses, counselors, social workers, and after school programs, which provide important support to children and families; and
- Institutional racism present in school systems have long-term negative impacts on health and well-being.

"My community is safe, has good schools, great access to goods and services, quiet, open minded and concerned for their fellow neighbors."

Other Factors Influencing Health and Wellness

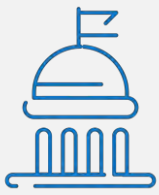
There were several other factors that impact an individual's ability to be healthy mentioned in focus group and survey responses. These included:

Substance Misuse

Many focus group and survey participants discussed the effect of substance use, including legalization of marijuana in Michigan and effects on health.

- Rural, Tribal, and low-income communities are facing troubling levels of substance misuse, with a lack of access to treatment services;
- There is concern about cultural norms that equate being social with drinking alcohol or using other substances;
- Legalization of marijuana, lack of a living wage, harsh winters, and social isolation are contributors to substance misuse.

Social and Political Climate



Both focus group and survey respondents frequently mentioned negativity from others as damaging to health and well-being.

- Many have experienced increasing negativity, tension, and stress in communities;
- Social unrest has caused stress, but has also brought attention to the need to address historical injustices; and
- Political divisiveness has led to added stress and lowered feelings of safety.

> *"People who are not taking COVID serious; not willing to wear a mask, stand 6 feet away, becoming hostile, police officers not having to follow rules or be held accountable (fear of the police)."*

COVID-19

Given the timing of State Health Assessment activities occurring throughout 2020, COVID-19 was frequently mentioned in focus groups and survey responses.

- COVID-19 has led to lower feelings of safety, including an increase in race-based discrimination;
- Use of protective measures such as masks and other personal protective equipment was highly politicized and inconsistent across communities, which also led to lower feelings of safety;
- Social media and media coverage of COVID-19 contributed to fear and anxiety;
- During the Stay Home, Stay Safe order, many experiences led to increased feelings of well-being, such as more time spent together with households, and increased walking and outdoor physical activities.
- Additional stressors emerged due to the COVID-19 pandemic, including economic stress, vulnerability to substance misuse, and social isolation; and
- Increased availability and use of telehealth were positive outcomes of COVID-19.

> *"Most people seem to act responsibly where I shop and at health care appointments. I see masks and hand sanitizers. The local health department gives good advice on Facebook."*

4 Health Status Assessment

The Health Status Assessment answers the questions:

1) **How healthy is the state?**
2) **What does the health status of the state look like?**

Public health system partners participated in an advisory group to guide the Health Status Assessment. This group helped identify and select priority indicators. Epidemiologists compiled data from available sources, and the MPHI team organized the data in alignment with top themes from the Community Themes & Strengths Assessment.

The purpose of the Health Status Assessment is to identify health issues where our state faces disparities by race, ethnicity, gender, income, geography, disability, or other factors. Additionally, the Health Status Assessment examines health issues where our state is facing more troubling outcomes over time or when compared with national standards. MPHI worked with epidemiologists at MDHHS to pull data related to leading causes of death in Michigan, chronic disease, health behaviors, mental and behavioral health, and child and adolescent health. Using these quantitative, population level data, MPHI organized findings so public health system partners could identify these signals of unmet needs.

Data included in the Health Status Assessment are primarily from the Michigan Behavioral Risk Factor Surveillance System and Michigan Vital Records. Additionally, MPHI included data from the MDHHS Coronavirus website, the CDC website, and healthypeople.gov. Comparison across groups for each item is dependent on how data were collected and available breakdowns of data.

Leading Causes of Death

The leading causes of death in Michigan include heart disease, cancer, chronic lower respiratory disease, accidents, stroke, Alzheimer's disease, diabetes, kidney disease, flu/pneumonia, and suicide.[16] Leading causes of death are an important indicator of unmet health needs, as many can be prevented or delayed with better control of risk factors and health-promoting behaviors.

Michigan Leading Causes of Death	Number of Deaths	State Rank	Age-Adjusted Mortality Rates*	
2018	MI 2018	MI 2017[17]	MI 2018	US 2017
#1 Cardiovascular Disease	25,345	8th	194.9	165.0
#2 Cancer	21,025	15th	161.1	152.5
#3 Chronic Lower Respiratory Diseases	5,783	25th	44.2	40.9
#4 Unintentional Injuries (Accidents)	5,564	28th	52.1	49.4
#5 Stroke	5,180	19th	39.9	37.6
#6 Alzheimer's Disease	4,474	24th	34.3	31.0
#7 Diabetes Mellitus	2,824	20th (tie)	21.9	21.5
#8 Kidney Disease	1,943	20th	15.0	13.0
#9 Pneumonia/Influenza	1,871	25th	14.5	14.3
#10 Intentional Self-Harm (Suicide)	1,547	36th	15.0	14.0

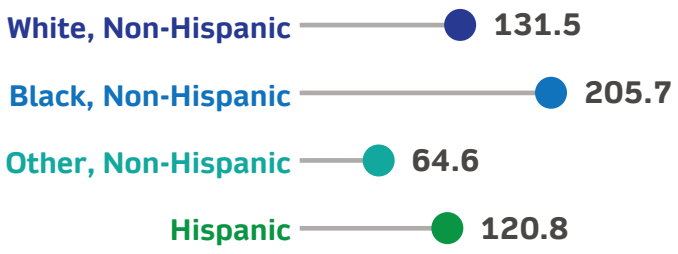
For all the leading causes of death, Michigan has higher rates of death per 100,000 population than the U.S. as a whole. Michigan ranks in the top 10 in the U.S. for deaths from heart disease. There are also disparities by race and/or gender for each of the top causes of death in the state.

*Rates are per 100,000 population.

Death Rate Disparities by Race

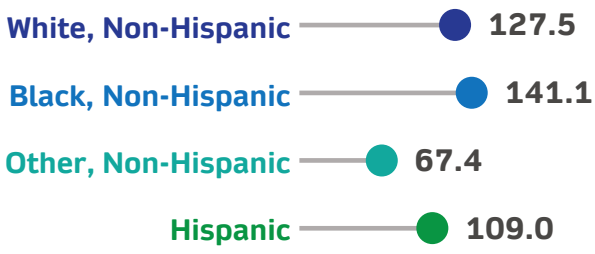
Note: all graphs below represent **death rate per 100,000 population**[18]. Each heading represents a **cause of death.**

#1 Cardiovascular Disease



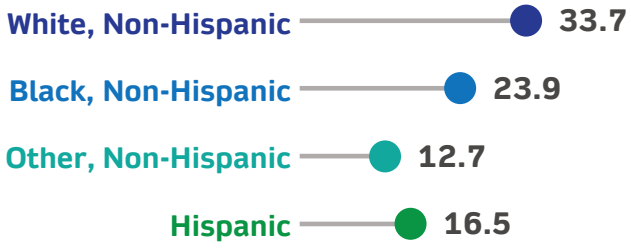
Black, non-Hispanic individuals in Michigan are much more likely to die from cardiovascular disease than any other race.

#2 Cancer



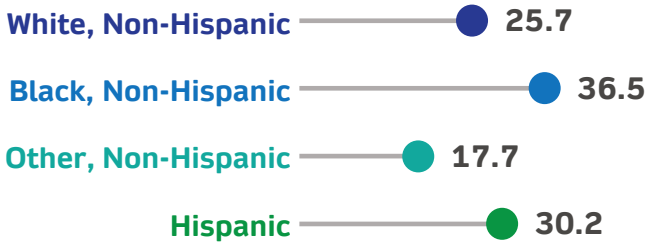
Black, non-Hispanic individuals have higher rates of death from cancer than individuals of other races.

#3 Chronic Lower Respiratory Disease



White, non-Hispanic individuals have higher rates of death from Chronic Lower Respiratory Disease than individuals of other races.

#5 Stroke

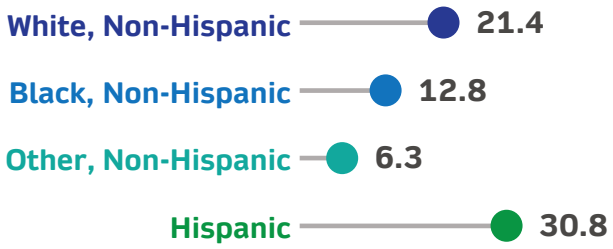


Black, non-Hispanic individuals have higher rates of death from stroke than individuals of other races.

Death Rate Disparities by Race (continued)

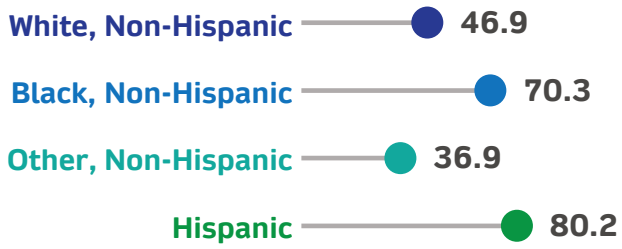
Note: all graphs below represent **death rate per 100,000 population**. Each heading represents a **cause of death.**

#6 Alzheimer's Disease



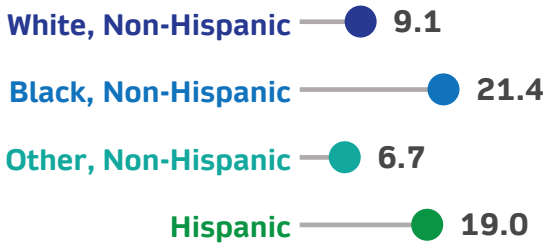
Hispanic individuals in Michigan are much more likely to die from Alzheimer's disease than any other race.

#7 Diabetes Mellitus



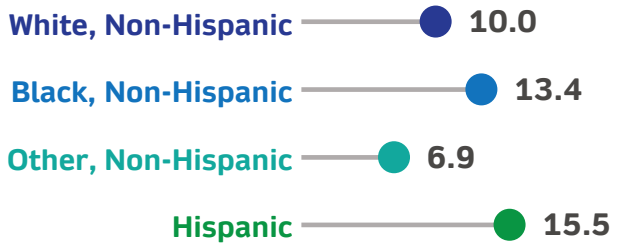
Hispanic individuals have higher rates of death from diabetes than individuals of other races.

#8 Kidney Disease



Black, non-Hispanic individuals have higher rates of death from kidney disease than individuals of other races.

#9 Pneumonia/Influenza

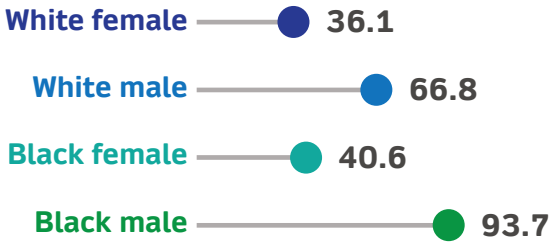


Hispanic individuals have higher rates of death from pneumonia/influenza than individuals of other races.

Death Rate Disparities by Race *and* Gender

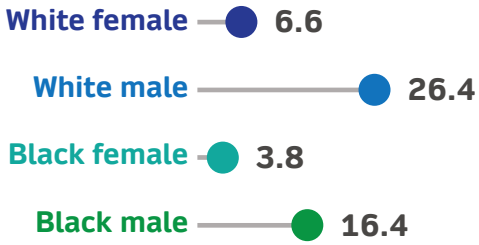
*Note: all graphs below represent **death rate per 100,000 population**[19]. Each heading represents a **cause of death**.*

#4 Accident



When looking at injury as a cause of death, males of any race are much more likely to die from an injury than females of any race.

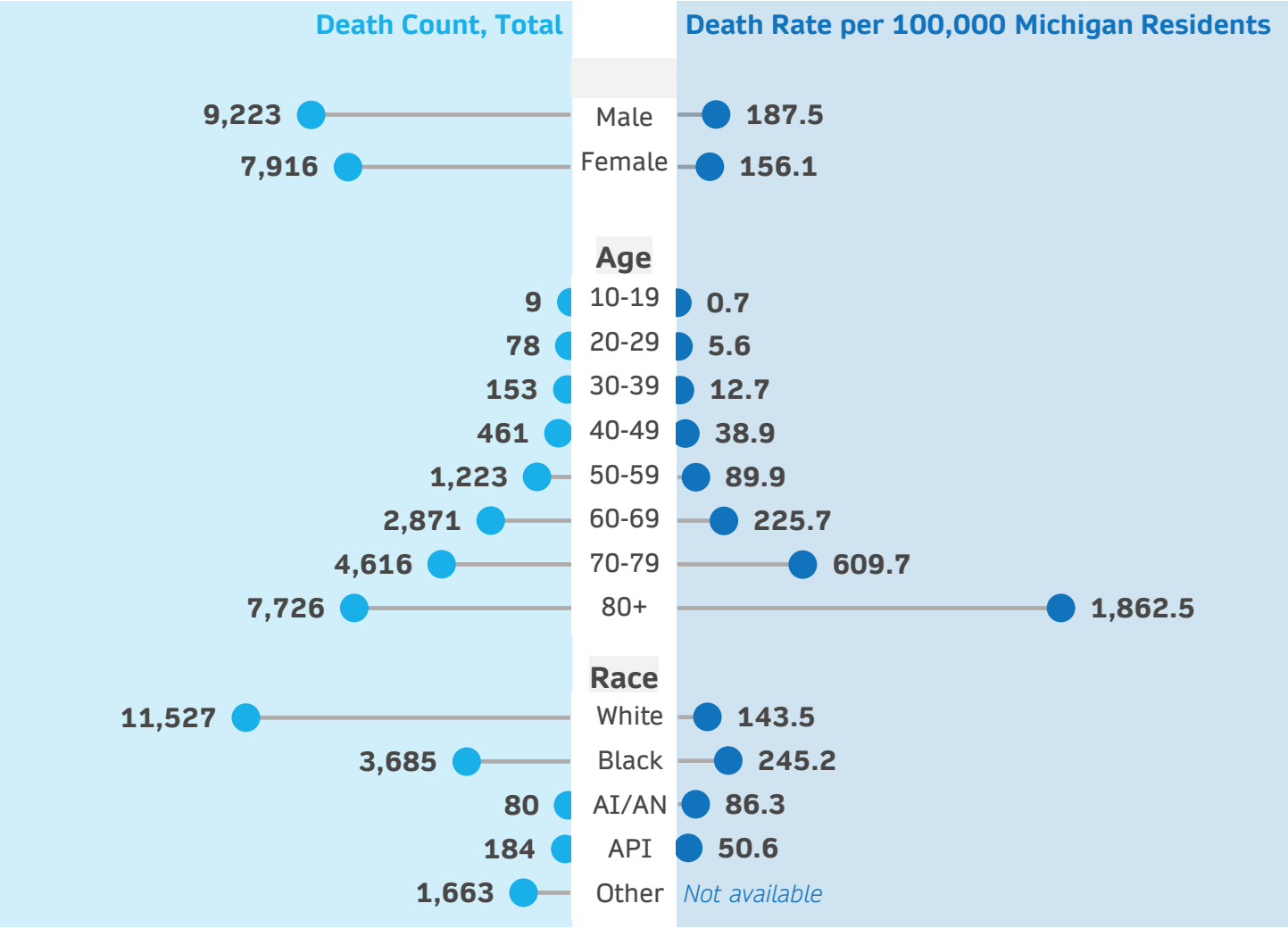
#10 Suicide



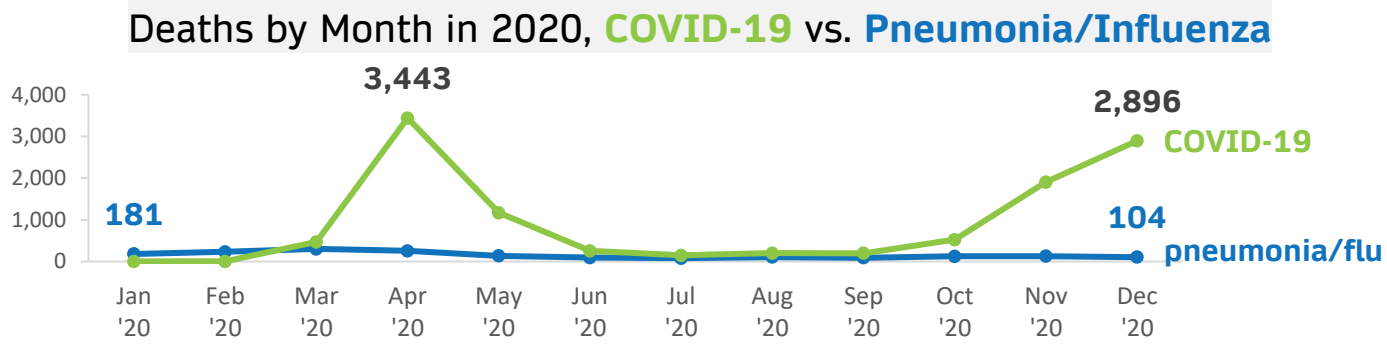
Black males are much more likely to die from an accidental injury, while white males are more likely to die from suicide.

COVID-19 Death Disparities

In 2020, COVID-19 emerged and is a leading cause of death in Michigan. Statewide, as of April 22, 2021, 18,251 individuals have died from COVID-19. 12,610 individuals died in 2020 alone.[20]



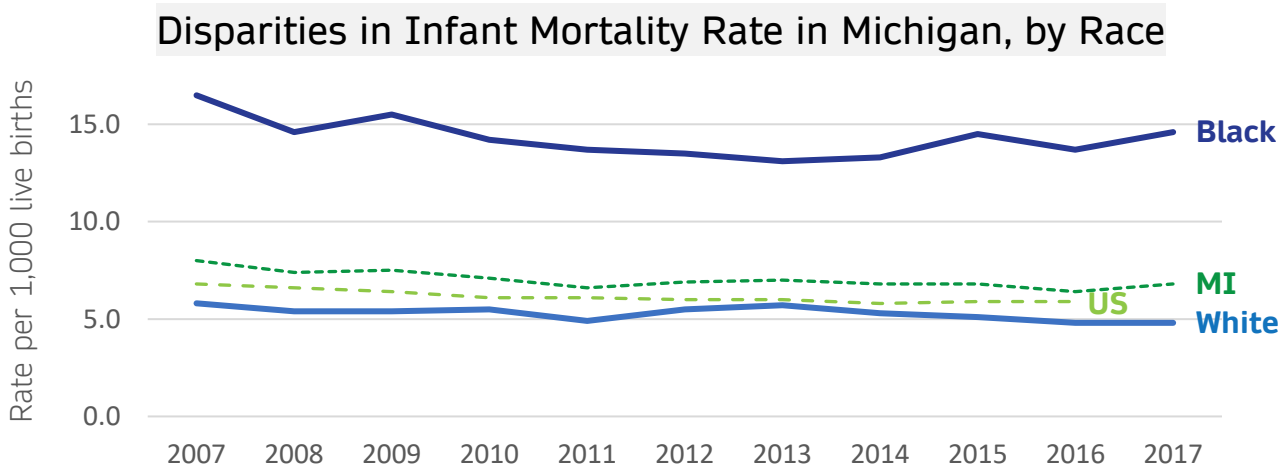
When looking at deaths over time from COVID-19 and comparing the rates to the only other communicable diseases that are among the leading causes of death in Michigan, it is evident that COVID-19 was a much deadlier disease in 2020.



Infant Mortality Disparities

Infant mortality is another important indicator of the health of a state. Infant mortality rates are signals of unmet health needs, including medical care, nutrition, and education.

Overall, Michigan's infant mortality rate is higher than the national average. The rates of infant mortality for **Black infants** in Michigan is much higher than for **white infants**, signaling a disparity and area of need.



Disparities in Years of Potential Life Lost

A final indicator related to disparities is premature mortality. Premature mortality is measured by the Years of Potential Life Lost (YPLL) statistic, which is the sum of the years of life lost annually by persons who suffered early deaths (before age 75). Disparities in YPLL exist by gender and race in Michigan.

Disparities in **Years of Potential Life Lost (YPLL)** exist by gender and race/ethnicity in Michigan.

*All charts represent the **YPLL** per 100,000 Michigan residents.*

Gender

Men	9,842
Women	6,157

Geography

Michigan	7,994
United States	7,432

Race/Ethnicity

White	7,241
Black	12,643
Other	3,176
Middle Eastern	5,526
Hispanic	4,888

Michigan lost more than 500 more years than the average U.S. rate in 2018.[20]

Chronic Disease

Chronic diseases have significant health and economic costs in the United States, and many can be prevented or managed through health education, public health interventions and preventative health care. Chronic diseases, such as diabetes, chronic obstructive pulmonary disease (COPD), cardiovascular disease (heart attack, coronary artery disease, stroke), asthma, and obesity are leading causes of disability and death in the state.[19] Additionally, rates of most chronic diseases increase with age; with Michigan's aging population, chronic diseases are more prevalent. Healthy lifestyles, healthy environments, and access to affordable health care can help prevent or lessen the impact of chronic disease.

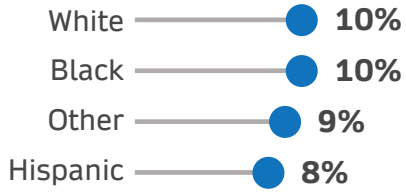
Cardiovascular Disease

Cardiovascular disease, including coronary artery disease and heart attack, is the leading cause of death in the United States. Primary risk factors for heart disease include smoking, eating an unhealthy diet, and not getting enough exercise. Having high cholesterol, high blood pressure, or diabetes can also increase risk of cardiovascular disease.[21] Cardiovascular disease is preventable, and lifestyle changes can also lower risk of complications.

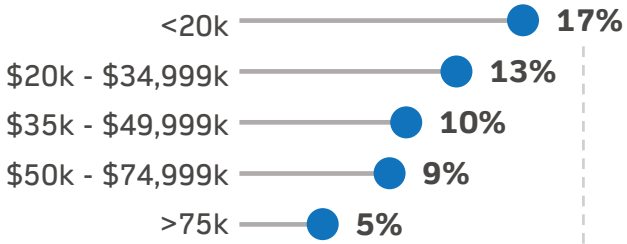
In Michigan, disparities in rates of **cardiovascular disease** exist by income, education, and ability status.

All charts represent percent of Michigan residents ***ever told they have cardiovascular disease.***

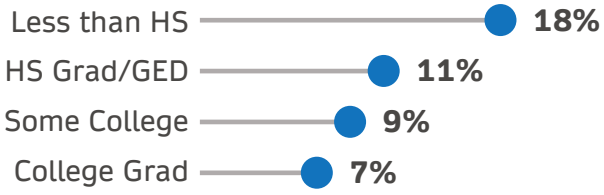
Race/Ethnicity



Income

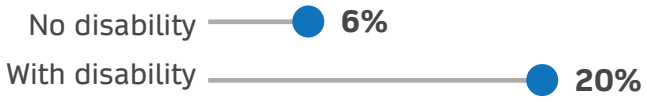


Education



Individuals making less than $20,000 per year and those with less than a high school education are more likely to be told they have cardiovascular disease.

Ability Status



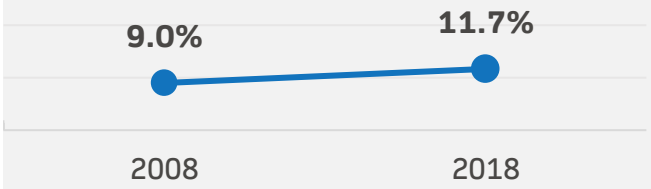
Michiganders living with a disability are much more likely to report cardiovascular disease than those without a disability.

Diabetes

Type 2 diabetes is a chronic condition that affects the way your body metabolizes sugar (glucose).[22] Risk factors for type 2 diabetes include being overweight, inactivity, family history, and age. Additionally, Black, Hispanic, American Indian, and Asian American individuals in the U.S. are at higher risk of developing type 2 diabetes.[23] Michigan ranks 19th in the U.S. for rates of diabetes, with 11.7% of adults in 2018 reporting they had been told by a health professional that they have diabetes. The rate of diabetes has increased over time, increasing from 9.0% in 2008.[24]

1 in 10 Michiganders has been diagnosed with **diabetes.**

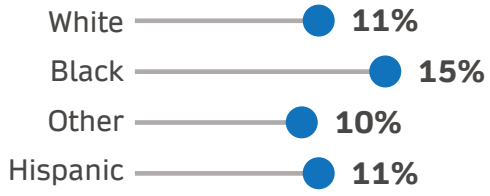
The **rate of diabetes** has increased over time.



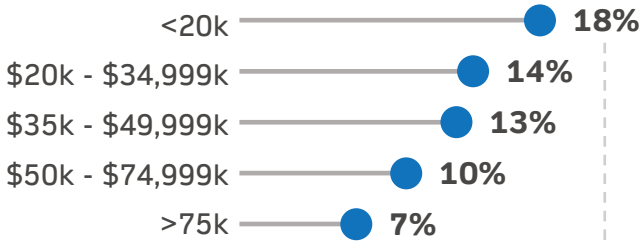
Disparities in **diabetes** exist in Michigan, by race/ethnicity, income, education, and ability status.

*All charts represent percent of Michigan residents **ever told they have diabetes.***[25]

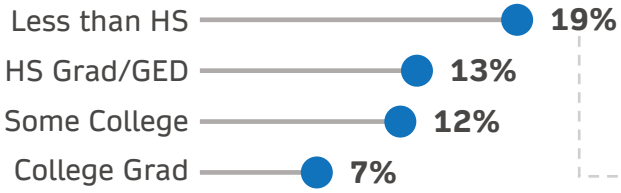
Race/Ethnicity



Income

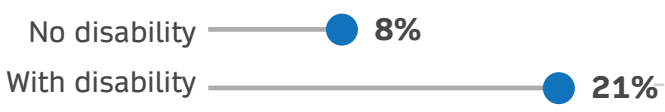


Education



Black Michiganders are more likely to have been told they have diabetes, as well as individuals with lower education and lower income.

Ability Status



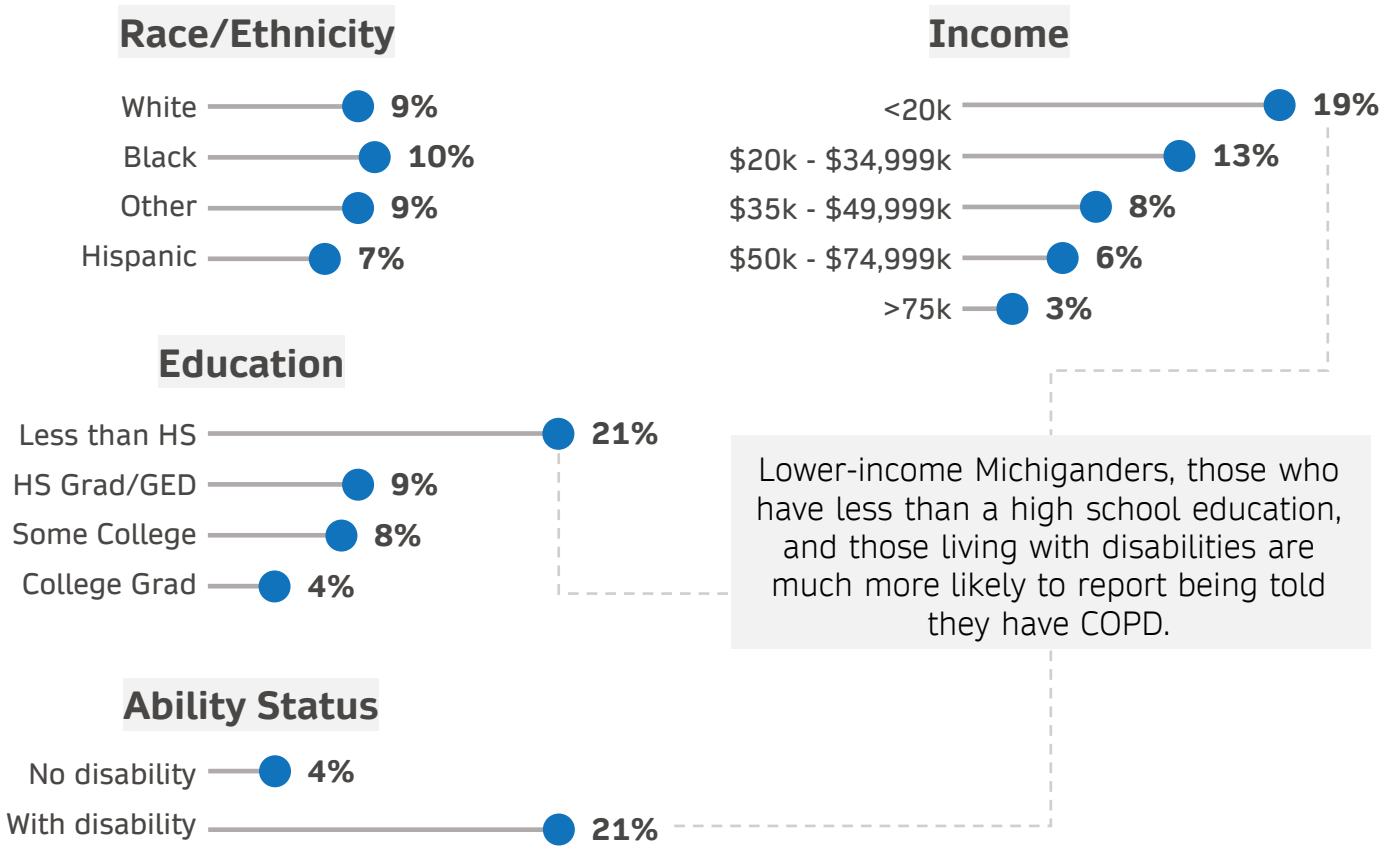
Individuals living with a disability are much more likely to have diabetes than those who do not report a disability.

Chronic Obstructive Pulmonary Disease (COPD)

COPD is the name for a group of diseases that restrict air flow and cause trouble breathing.[26] COPD is the third leading cause of death in Michigan and fourth leading cause of death in the U.S. as a whole.[27] Causes of COPD include tobacco use and air pollution.

In Michigan, disparities in **COPD** exist by income, education, and ability status.

*All charts represent percent of Michigan residents **ever told they have COPD**.*

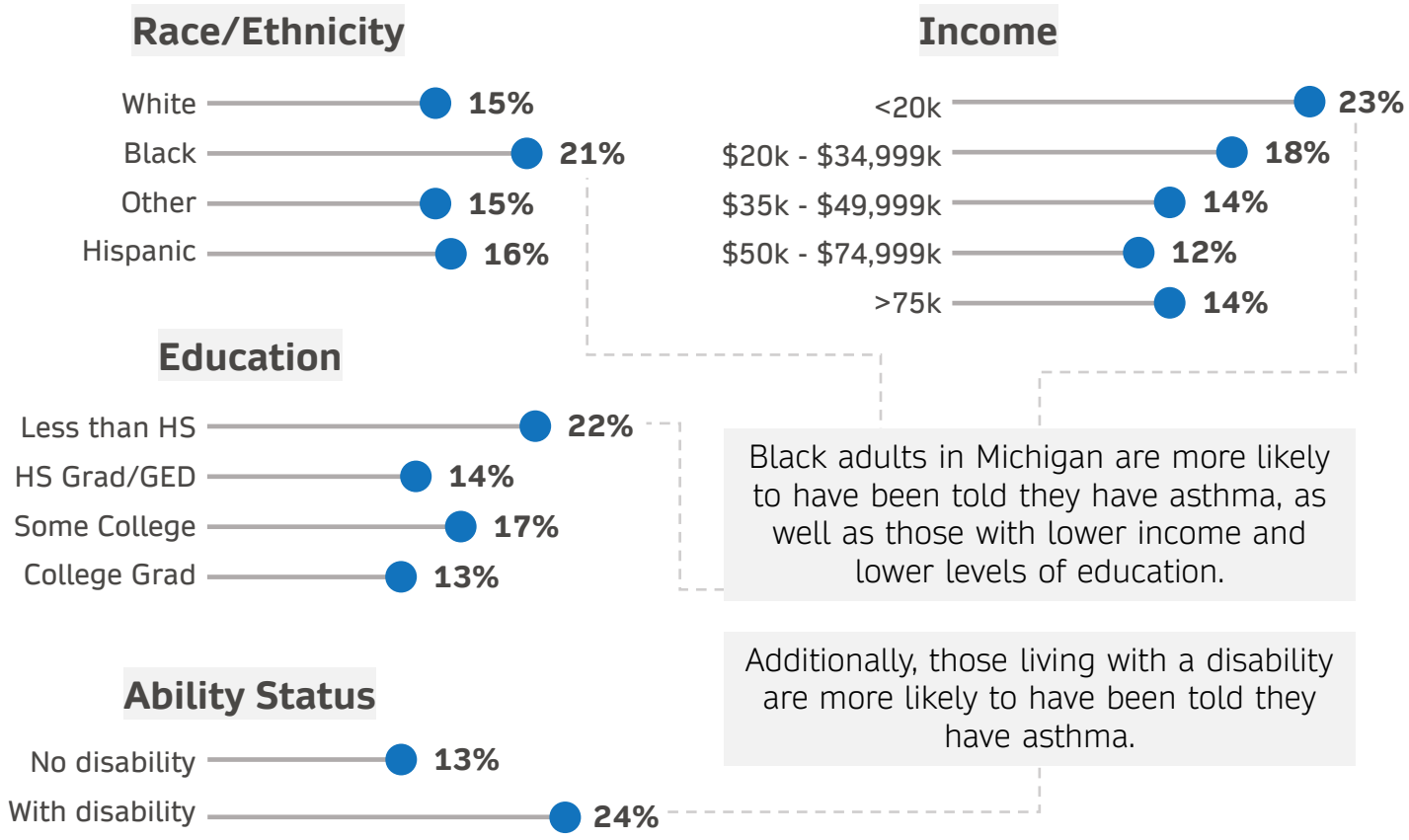


Asthma

Asthma is a disease that affects the lungs, causing repeated episodes of wheezing, breathlessness, chest tightness, and coughing.[28] Risk factors for asthma include allergies, family history, and cigarette smoking.[29] Environmental factors such as air pollution are linked to asthma and can make asthma worse or trigger asthma attacks.[30] In 2018, MDHHS reported Michigan ranked sixth in the nation for highest asthma prevalence.

Disparities in **asthma** exist in Michigan, by race/ethnicity, income, education, and disability status.

*All charts represent percent of Michigan residents **ever told they have asthma**.*

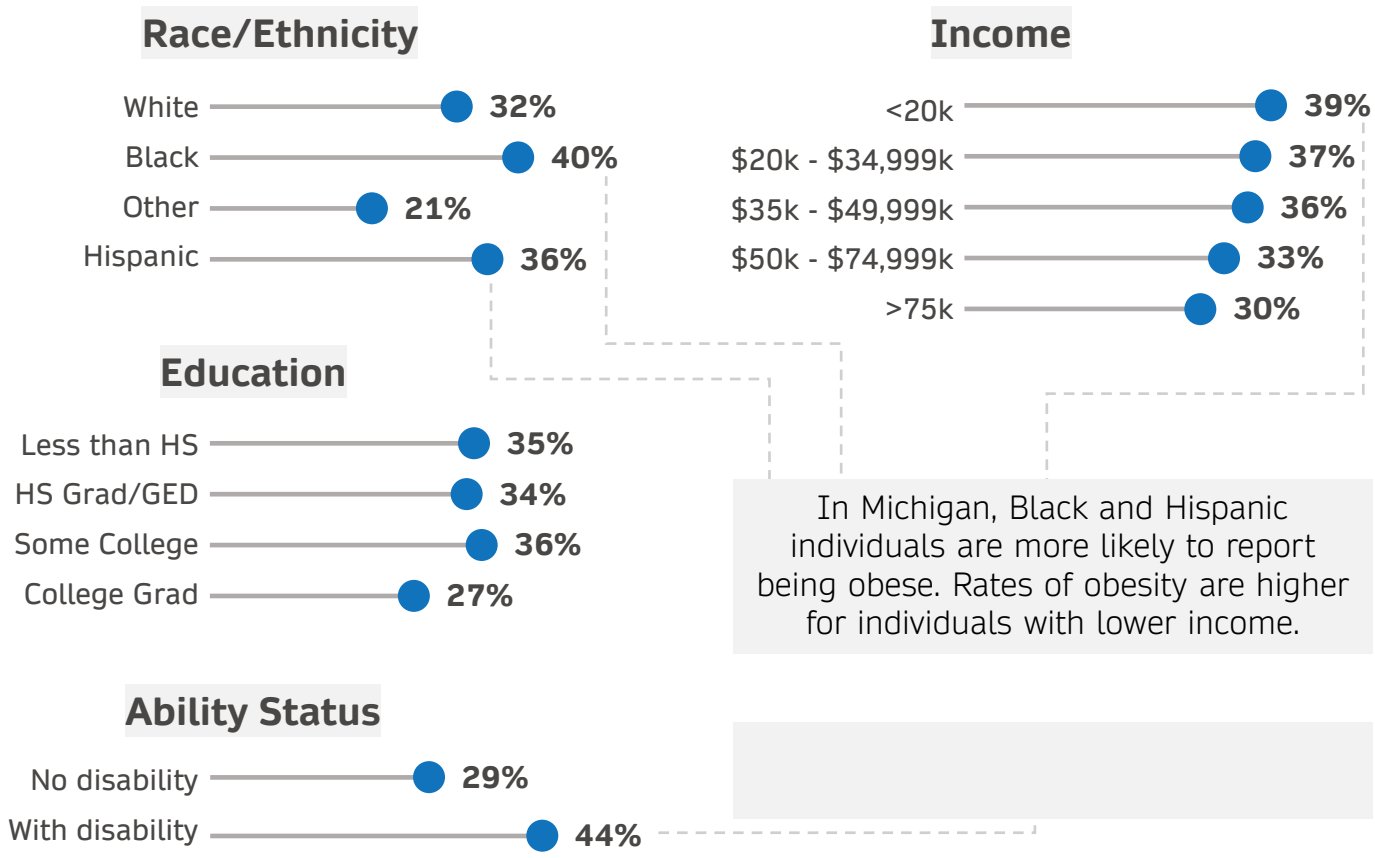


Obesity

More than 35% of Michiganders report being obese[31], meaning they have a Body Mass Index (BMI) of 30.0 or higher. Obesity is related to many other chronic conditions and leading causes of death, including cardiovascular disease, stroke, type 2 diabetes, and certain types of cancer. Obesity can be prevented or treated by lifestyle changes, including healthy eating and physical activity. Obesity can also be influenced by a person's community and their ability to make healthy choices.

In Michigan, disparities in **obesity** exist by race/ethnicity, income, and ability status.

*All charts represent percent of Michigan residents who are **obese**.*



In Michigan, Black and Hispanic individuals are more likely to report being obese. Rates of obesity are higher for individuals with lower income.

Childhood Obesity

1 in 6

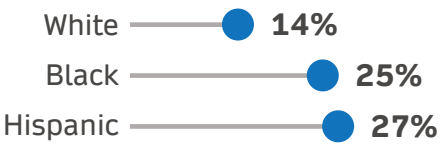
Michigan youth aged 10-17 are **obese.**

Childhood obesity is similar in causes to adult obesity, including behavior, genetics, and social determinants of health. Children who have obesity are more likely to become adults with obesity, and their obesity and risk factors for serious health conditions are likely to be more severe.[32] Approximately 16.7% of Michigan youth age 10-17 years report being obese[33], and U.S. youth obesity rates are approximately 15.5%. Youth in Michigan who are obese are more likely to be male, Black or Hispanic, and bisexual, gay, or lesbian.

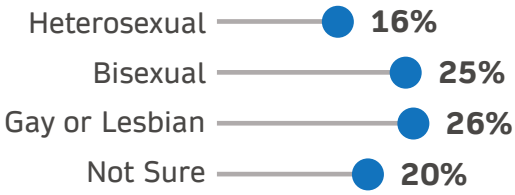
Disparities in **childhood obesity** exist by gender, race/ethnicity, and sexual orientation.

*All charts represent percent of Michigan youth ages 10-17 who are **obese**.*

Race/Ethnicity



Sexual Orientation



Gender

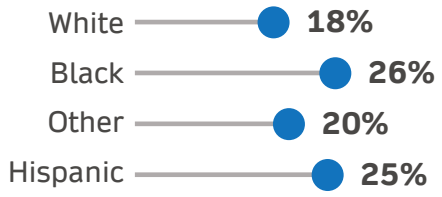
Perception of Health

Self-reported health status is a useful global indicator of the health of a population. It reflects both objective and subjective experiences of health, and it has been associated with health care utilization and morbidity and mortality.[34] Approximately 19.2% of the adult population in Michigan reports fair or poor health status.

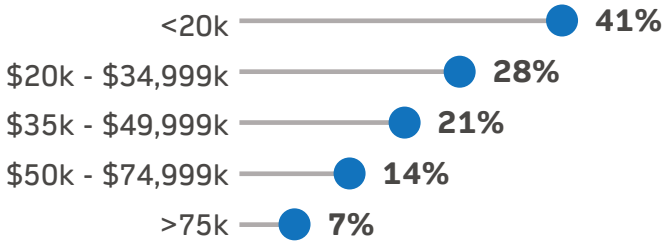
In Michigan, disparities in **perception of health** exist by race/ethnicity, income, education, and ability status.

*All charts represent percent of Michigan residents who report **fair or poor health.***

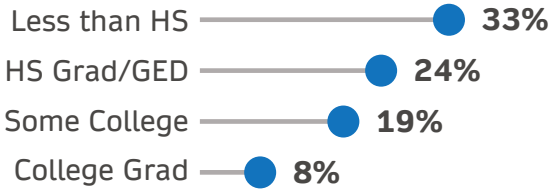
Race/Ethnicity



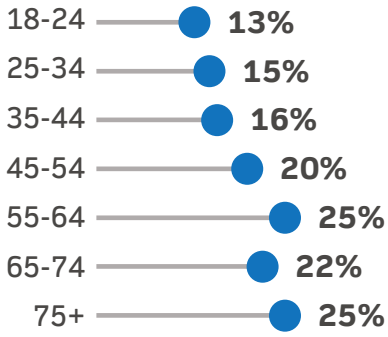
Income



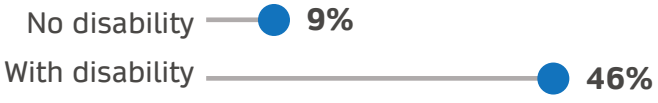
Education



Age



Ability Status



Fair or poor health status decreases with income and education, and Michiganders with a disability report poorer health status than Michiganders without a disability.

Michiganders who are Black or Hispanic more frequently report fair or poor health status as compared with Michiganders who are white.

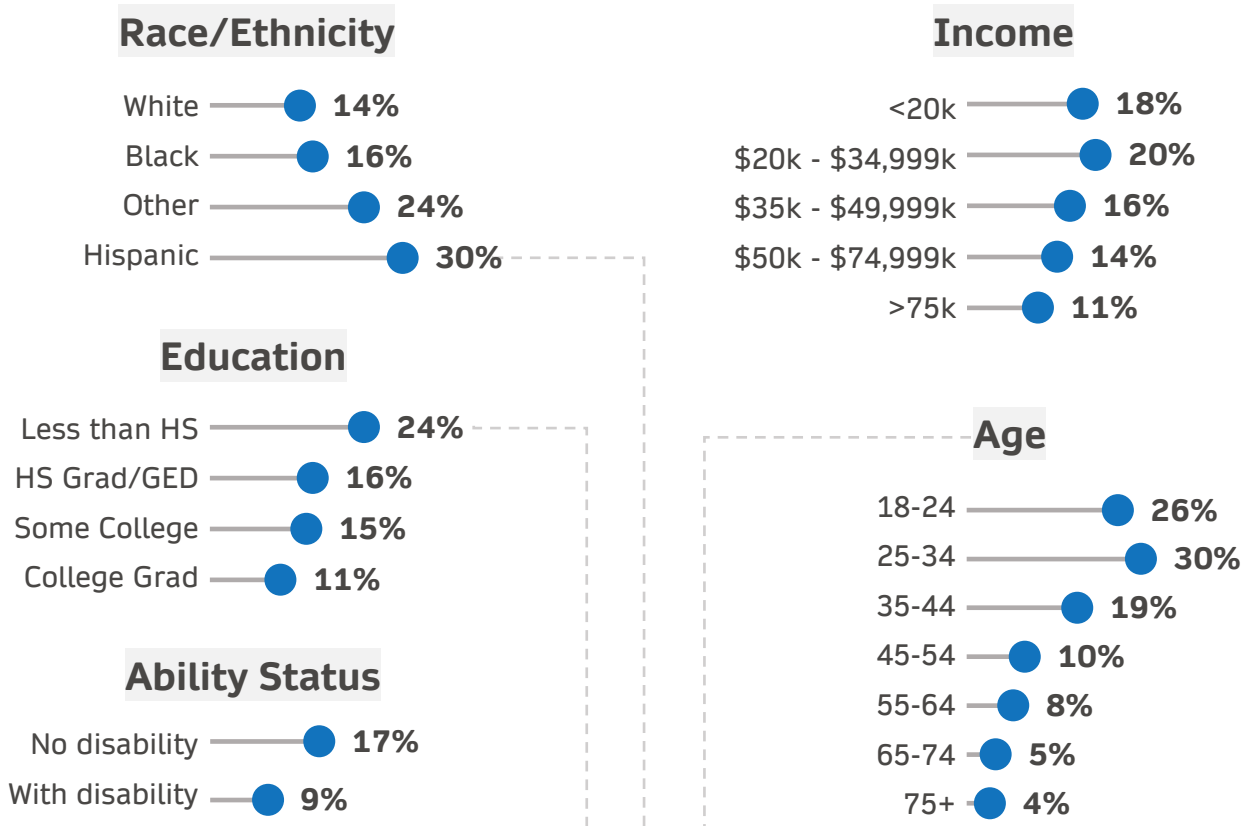
Health Care Access

Personal Health Care Providers Facilitate Access to Care

Adults who have a regular personal health care provider are more likely to see their doctor at least annually, receive appropriate care, early diagnosis, management of their chronic conditions, and to reach their health goals.[35] In Michigan, approximately 15% of adults overall report they do not have a personal health care provider.

In Michigan, **access to care** differs by race/ethnicity, income, education, and age.

*All charts represent percent of adults with **no personal health care provider**.*



Hispanic Michiganders, those with lower income, less than a high school education, and those who are younger are less likely to report having a personal health care provider.

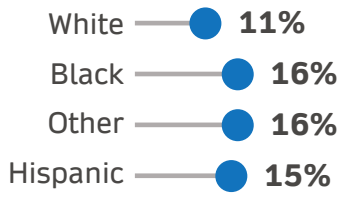
Cost as a Health Care Barrier

In addition to not having a personal health care provider, cost of health care is a frequent barrier to receiving appropriate health care. In Michigan overall, approximately 11.8% of adults report they did not have health care access in the past year due to the cost of care.

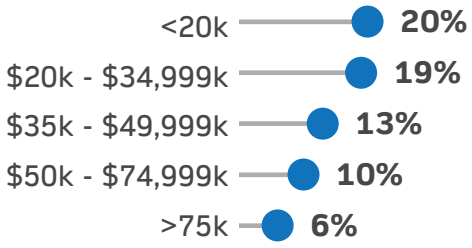
In Michigan, there are disparities by race/ethnicity, income, education, and age in those that do not have **health care access due to cost**.

*All charts represent percent of adults **without access to health care due to cost.***

Race/Ethnicity

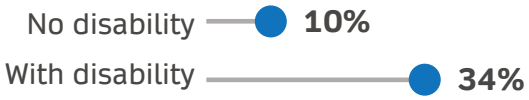


Income



Ability Status

Insurance Status



Non-white, lower income, disabled, and uninsured Michiganders are more likely to report cost as a barrier to care over the past year.

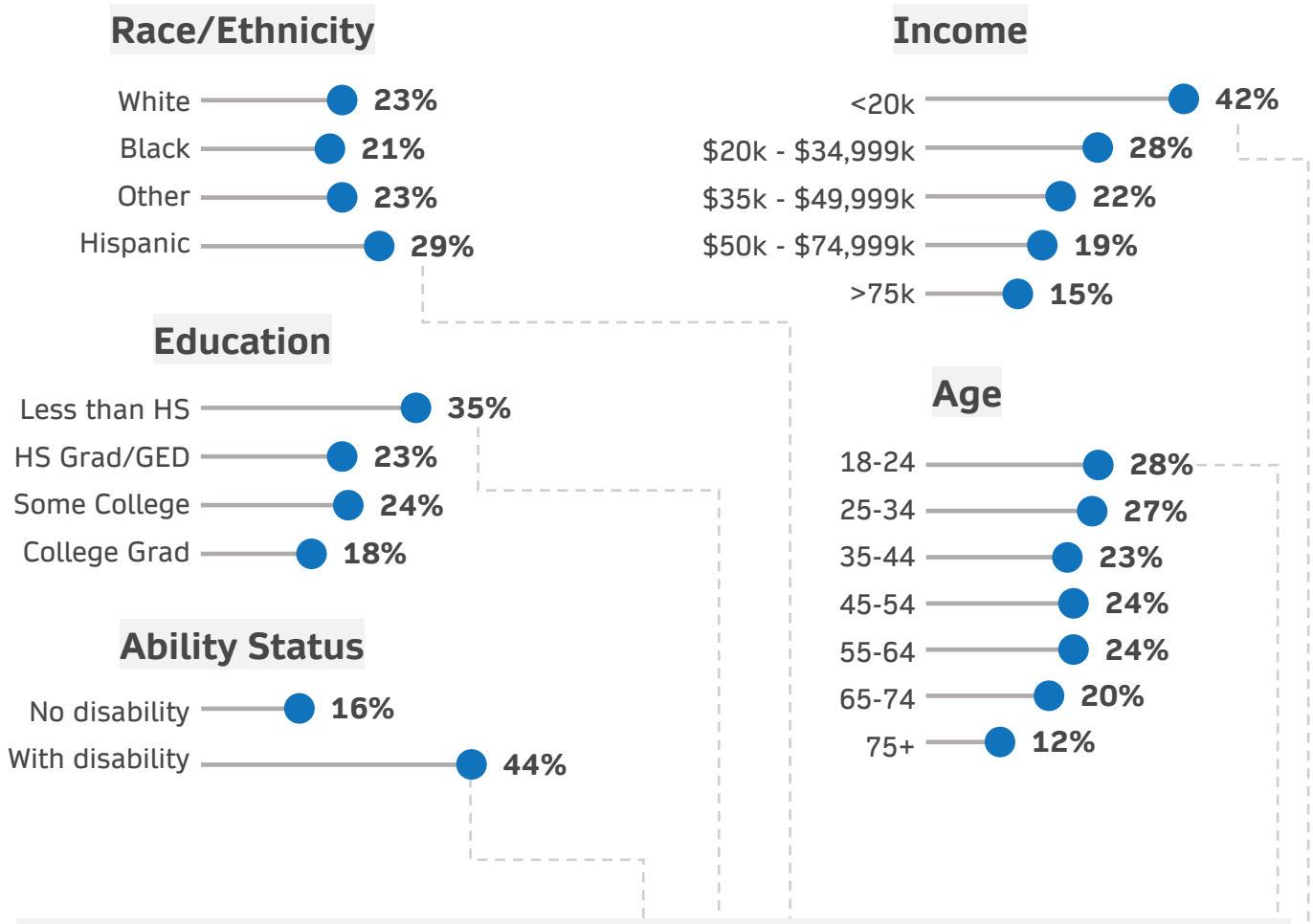
Mental Health & Behavioral Health

Depression

Depression is a common and treatable medical condition that negatively impact feelings, thoughts and behaviors. Risk factors for depression involve differences in biochemistry, family history of depression, psychological factors, and environmental factors.[36] Among the Michigan population, 23.2% of adults report that they have been told they have depression.

In Michigan, there are disparities in rates of **depression** by race/ethnicity, income, education, ability status, and age.

*All charts represent percent of adults who have **depression**.*



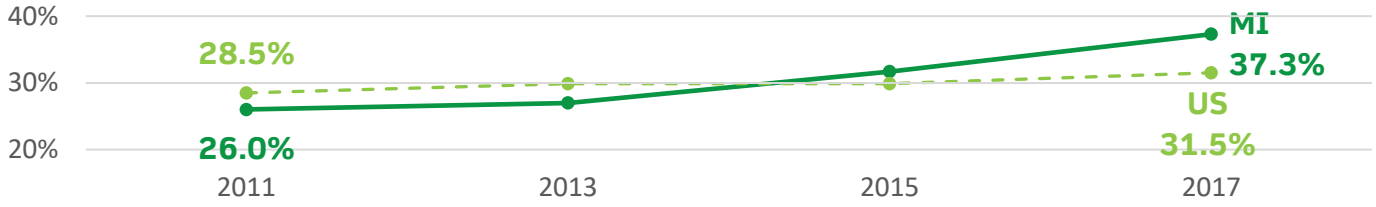
Hispanic Michiganders are more likely to report they have depression, as are adults with lower income and less education. Depression is also more frequently reported among younger adults and adults with a disability.

Perception of Mental Health

The percent of the population reporting 14 or more poor mental health days in the past month measures frequent mental distress. This measure is intended to identify adults who have persistent mental health issues based on the relationship between the 14-day cutoff and clinically diagnosed psychological disorders.[37] Frequent mental distress is related to several other health risks, including tobacco use, physical inactivity, and housing and food insecurity.

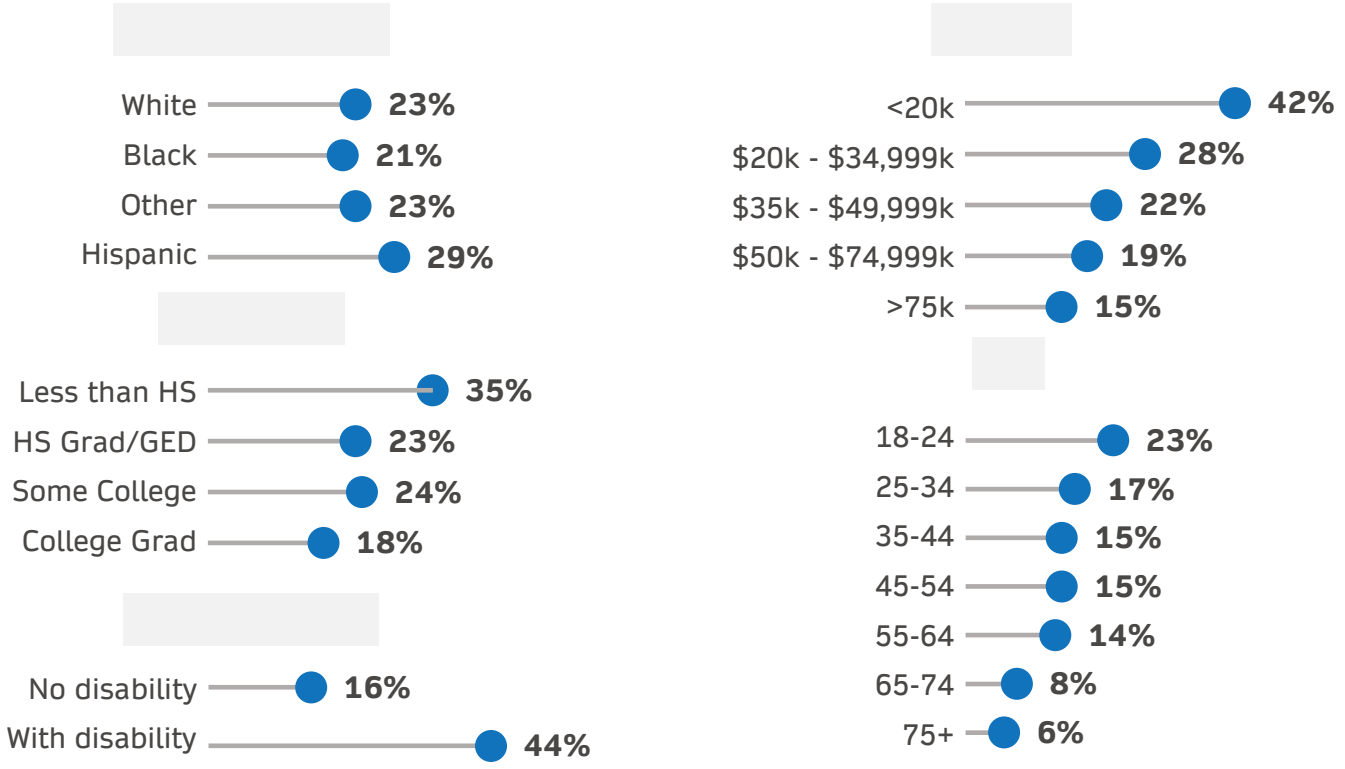
Frequent mental distress has risen dramatically in Michigan's adolescent population from 2011 to 2017.

Percent of adolescents with ***>14 days with sad or hopeless feelings in the past month.***



In Michigan, there are disparities by race/ethnicity, income, education, and age in **perception of mental health**.

All charts represent percent of adults with ***>14 unhealthy mental health days in the past month.***



In Michigan, adults who identify as Hispanic are more likely to report more than 14 unhealthy mental health days in the past month, as do adults with lower income and education. Younger adults and adults with a disability are also more likely to report frequent mental distress.

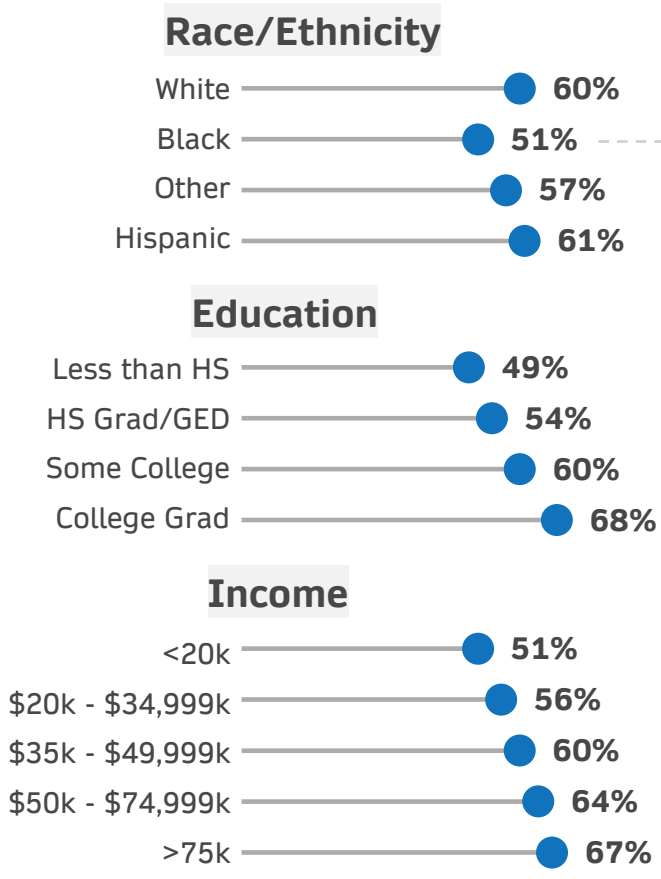
Health Behaviors

An individual's health behaviors have a large influence on their overall health and well-being[38]. However, the ability to engage in healthy behaviors, such as eating fruits and vegetables and getting adequate physical activity, is influenced by many factors, including education, income, and neighborhood assets. Unhealthy behaviors, such as tobacco use and alcohol abuse are similarly influenced by social determinants of health.

Healthy Eating

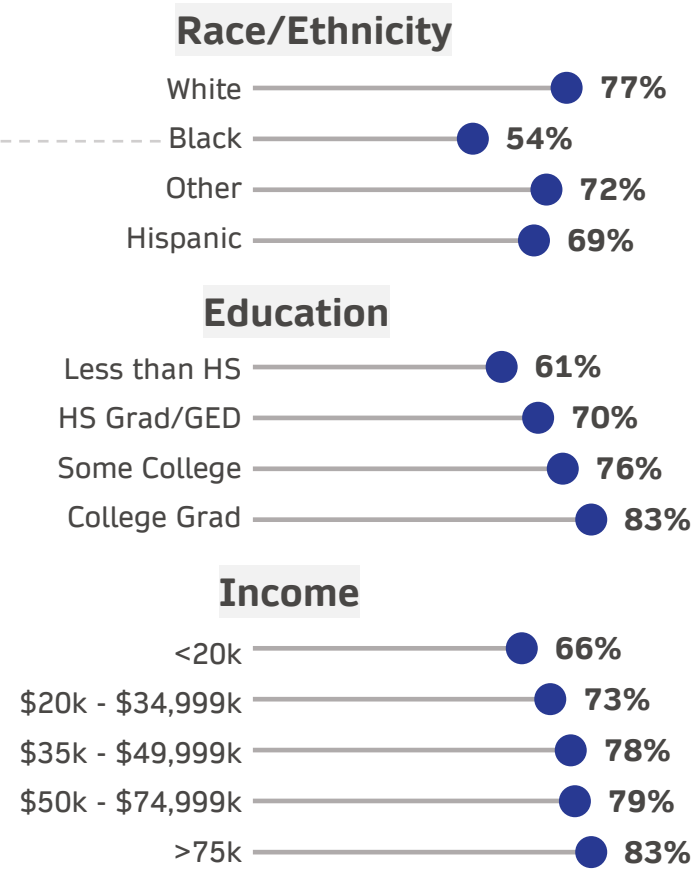
Good nutrition can help prevent or lessen the effects of many chronic conditions, including those that are leading causes of death. However, many people in the U.S. do not eat a healthy diet, either because they do not have the information they need to choose healthy foods, or access to buy the healthy foods they need.[39] Just 1 in 10 adults meets federal recommendations for fruit or vegetable intake.[40] In Michigan, approximately 74% of adults eat at least one serving of vegetables per day, and 59% eat at least one serving of fruit.

Charts represent percent of adults ***eating at least 1 serving of fruit daily.***



Fruit and vegetable intake increase with higher levels of education and income.

Charts represent percent of adults ***eating at least 1 serving of vegetables daily.***



Black Michiganders were less likely than Michiganders of other races to eat at least one serving of vegetables or fruit per day.

Physical Activity

Similar to healthy eating, physical activity can help prevent disease, disability, injury, and premature death. Across the U.S., approximately one in four adults meet recommendations for physical activity.[41] This rate is lower in Michigan, with one in five (19.2%) adults overall meeting aerobic physical activity and muscle-strengthening recommendations.

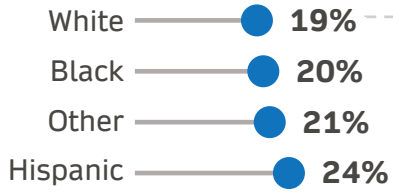
1 in 5

adults meet recommendations for **physical activity.**

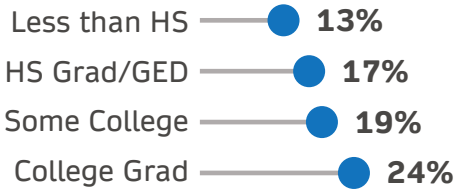
In Michigan, there are disparities by race/ethnicity, income, education, and age in **meeting recommendations for physical activity**.

*All charts represent percent of adults **meeting recommendations for physical activity.***

Race/Ethnicity

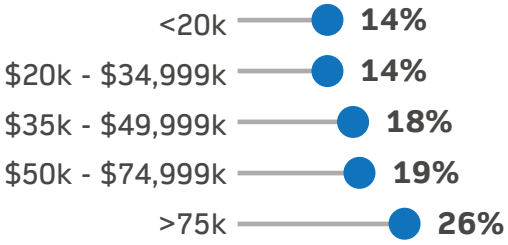


Education

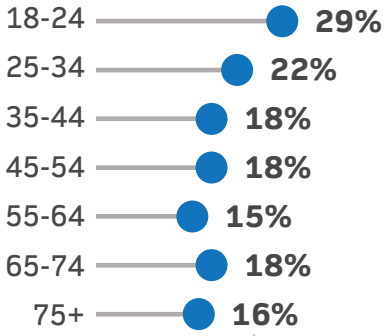


White Michiganders were less likely than other races to meet recommendations.

Income



Age



Individuals who are older, lower-income, and less educated are also less likely to meet recommendations for physical activity.

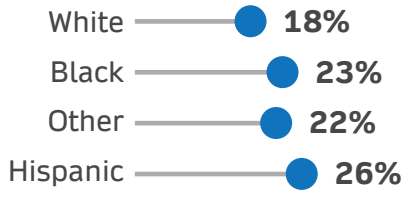
Tobacco Use

Tobacco use has been linked to many health issues, including increased risk of heart disease, stroke, lung diseases, and many types of cancer.[42] There are many evidence-based strategies to prevent tobacco use or enable individuals to quit using tobacco. In Michigan, approximately 18.9% of adults use tobacco.

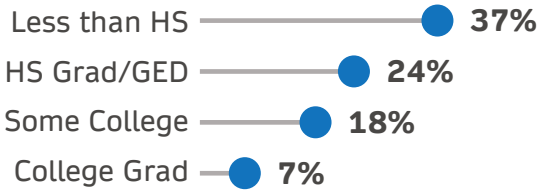
In Michigan, there are disparities by race/ethnicity, income, education, age, and ability status in **tobacco use**.

*All charts represent percent of adults who **use tobacco**.*

Race/Ethnicity



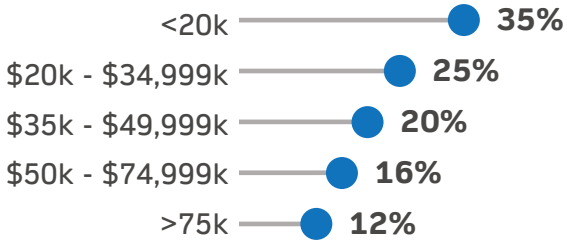
Education



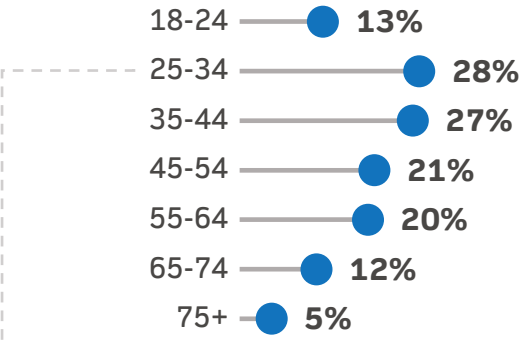
Non-white Michiganders are more likely to use tobacco.

Use of tobacco is more prevalent in individuals who have a lower income or a lower level of education.

Income



Age



Ability Status

Tobacco use is more prevalent in younger adults and individuals who are living with a disability.

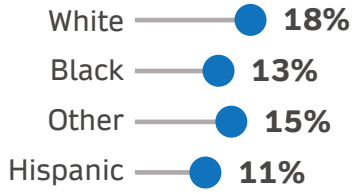
Alcohol Misuse

Binge drinking alcohol is a serious, but preventable, public health problem that can lead to serious health problems. Chronic diseases such as high blood pressure, stroke, heart disease, and liver disease, as well as some cancers and accidental injuries are associated with binge drinking. One in six adults in the U.S. binge drinks about four times per month.[43] Rates in Michigan are similar, with just over 17% of adults reporting binge drinking in the past 30 days.

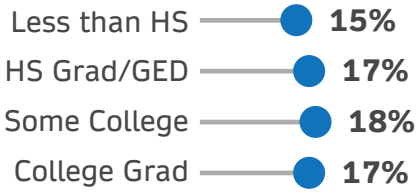
Disparities in **binge drinking** exist by race/ethnicity, income, age, and ability status.

*All charts represent percent of adults who reported **binge drinking in the last 30 days***

Race/Ethnicity

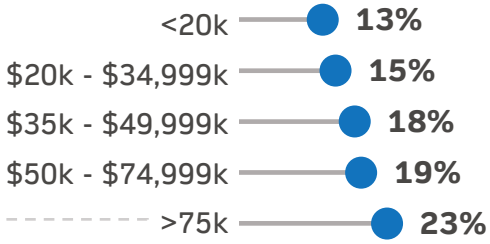


Education

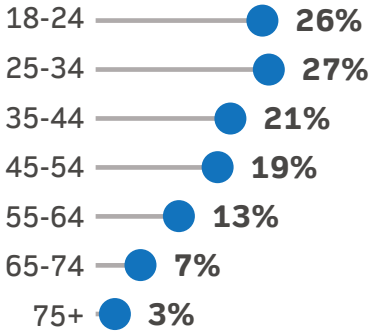


Binge drinking is more common in younger adults, white Michiganders, and those making more than $75,000 per year.

Income



Age



Ability Status

Those living with a disability are less likely to binge drink alcohol.

Child and Adolescent Health

Teen Tobacco and Alcohol Use

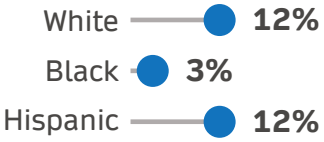
Tobacco and alcohol use in adolescents are linked with other risky behaviors, such as drug use. Nearly all tobacco use begins in childhood and adolescence.[44] Michigan has a higher rate of adolescent tobacco use than the U.S., with 10.5% reporting smoking cigarettes at least one day during the last 30 days in Michigan, compared to 8.8% average in the U.S.

Drinking alcohol is also linked to accidental injury, suicide, and homicide—the three leading causes of death in adolescents.[45] In Michigan, nearly one-third of adolescents report using alcohol in the past 30 days, which is comparable to the average rate in the U.S.

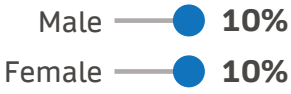
Disparities in **smoking** and **drinking alcohol** among adolescents exist by race/ethnicity, gender, and sexual orientation.

*Charts represent percent of adolescents who **smoked in past 30 days.***

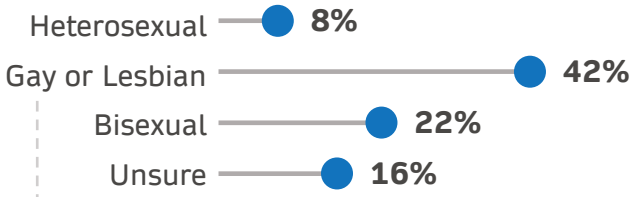
Race/Ethnicity



Gender



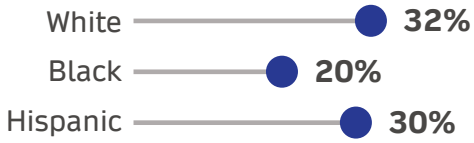
Sexual Orientation



Tobacco use is more common for white and Hispanic adolescents. Teens who identify as gay or lesbian, bisexual, or unsure have much higher rates of smoking than teens who identify as heterosexual.

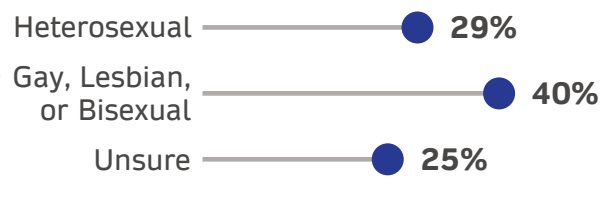
*Charts represent percent of adolescents who **drank alcohol in past 30 days.***

Race/Ethnicity



Gender

Sexual Orientation



White and Hispanic adolescents are more likely to report drinking alcohol in the past 30 days, and teens who identify as gay, lesbian, or bisexual are more likely to report drinking as well.

Female adolescents are more likely to report drinking alcohol than male adolescents.

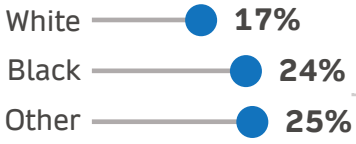
Adverse Childhood Experiences

Adverse childhood experiences, or ACEs, are "potentially traumatic events that occur in childhood."[46] ACEs have lifelong health impact including chronic health problems, mental illness, and substance misuse in adulthood. ACEs also affect socioeconomic factors by having possible negative impacts on education and job opportunities. ACEs are preventable through public health and education programming, and other supports provided to families. Across the U.S. approximately one in six adults reported experiencing four or more ACEs. In Michigan, nearly one in five adults (18.2%) reports having experienced four or more ACEs.

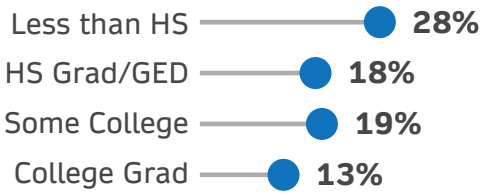
In Michigan, disparities in **adverse childhood experiences** exist by race/ethnicity, education, income, age, and ability status.

*All charts represent percent of adults who reported **experiencing four or more ACES**.*[47]

Race/Ethnicity



Education

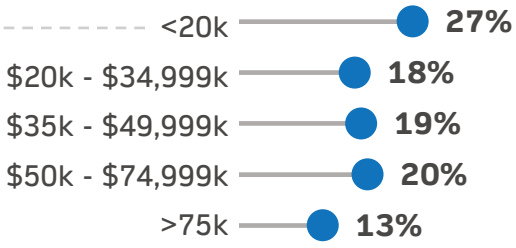


Non-white Michiganders were more likely to report experiencing four or more ACEs.

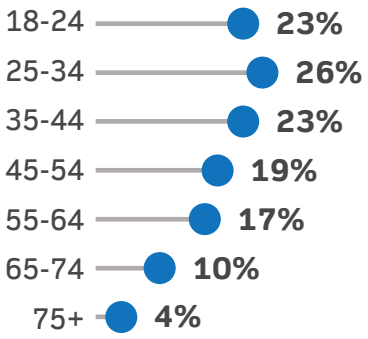
Lower-income and less-educated individuals, as well as those living with a disability, were more likely to report four or more ACEs.

Younger adults were much more likely than older adults to report experiencing four or more ACEs.

Income



Age



Ability Status

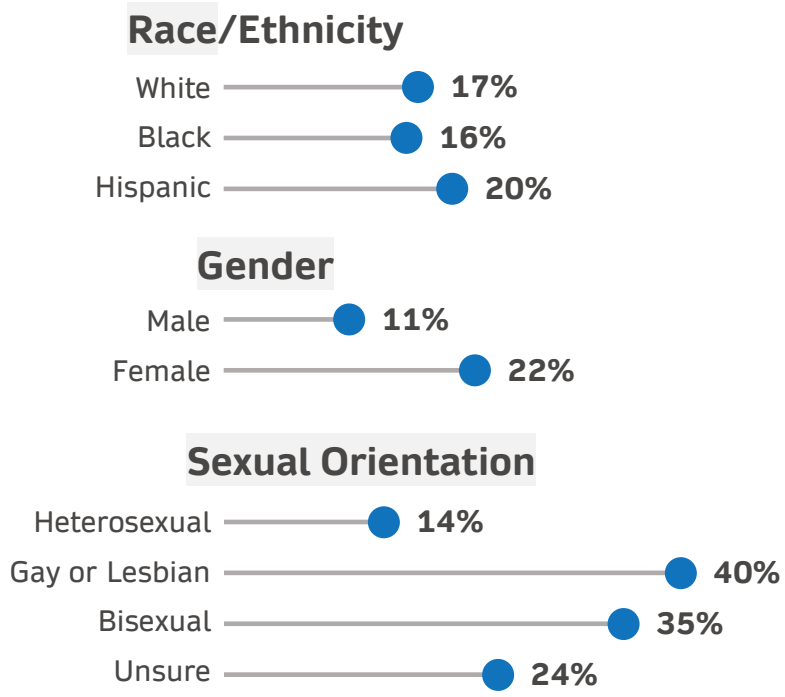
Those living with a disability, were more likely to report four or more ACEs.

Adverse Childhood Experiences (Among Children)

Data are also available regarding children who report experiencing four or more ACEs. Hispanic children, females, and children who identify as gay, lesbian, or bisexual more frequently report four or more ACEs.

In Michigan, disparities in **adverse childhood experiences** among children exist by race/ethnicity, gender, and sexual orientation.

*All charts represent percent of children who reported **experiencing four or more ACEs**.*



Aligning with Other State Plans

The State Health Assessment occurred at or near the same time as many other related assessments and planning activities across the state. Findings, priorities, and goals identified in the following planning activities align with many of the SHA findings and provide a basis for stronger support on overlapping priority areas. Details related to these related assessments and planning activities are included below.

Title V Maternal & Child Health Needs Assessment

The Title V Maternal and Child Health (MCH) Services Block Grant is administered by the Health Resources and Services Administration and provides funding to address the health needs of women, mothers, infants, children, adolescents, and children with special health care needs. Title V requires states to complete a comprehensive needs assessment every five years, and the most recent assessment was completed in 2020, just prior to the start of the SHA. The goal of the MCH needs assessment is to improve MCH outcomes and strengthen partnerships for improving the health of the MCH population. In Michigan, Title V is administered by MDHHS. In order to support alignment between this MCH-focused needs assessment and the SHA, MDHHS utilized a common methodology, MAPP. MDHHS also ensured overlap in partners across the needs assessments and utilized many common measures. Additionally, needs that emerged from the MCH assessment were used to inform the SHA.

Seven priority needs emerged from the Title V Needs Assessment, including:

- Develop a proactive and responsive health care system that equitably meets the needs of all populations, eliminating barriers related to race, culture, language, sexual orientation, and gender identity.
- Improve access to high-quality community health and prevention services in the places where women, children, and families live, learn, work, and play.
- Ensure children with special health care needs have access to continuous health coverage, all benefits they are eligible to receive, and relevant care where they learn and live.
- Expand access to developmental, behavioral, and mental health services through routine screening, strong referral networks, well-informed providers, and integrated service delivery systems.
- Improve oral health awareness and create an oral health delivery system that provides access through multiple systems.
- Create and enhance support systems that empower families, protect and strengthen family relationships, promote care for self and children, and connect families to their communities.
- Create safe and healthy schools and communities that promote human thriving, including physical and mental health supports that address the needs of the whole person.

Additionally, the Title V Maternal & Child Health Needs Assessment identified 10 needs to elevate beyond the work of their group as they were related to a wider population.

These priorities were used to inform the SHA and included:

- Create systems of care that focus on the whole person and integrate physical, mental, behavioral, and oral health care.
- Design a care delivery model to meet the unique needs of rural populations.
- Eliminate funding or payment as a barrier to receiving physical, oral, mental, or behavioral health services or medications.
- Increase the accessibility and availability of behavioral and mental health services.
- Break down administrative and funding silos that limit collaboration and create system fragmentation.
- Abolish racism and other forms of oppression in order to eliminate persistent health disparities and assure equitable opportunities and outcomes.
- Apply equitable distribution of income to improve child and adolescent health inequities.
- Engage and empower from the inside-out in a non-partisan fashion through grassroots advocacy.
- Design employment and income supports that reduce the impact of income inequality on the health of infants, children, adolescents, and children and youth with special health care needs.

Plan for Improving Population Health

Michigan produced a Plan for Improving Population Health as one of the deliverables of its State Innovation Model grant funded by the Center for Medicare and Medicaid Services. It set the stage for the SHA by elevating a focus on the social determinants of health. The Plan for Improving Population Health was grounded in the idea that population health will improve through cross-sector partnership and leveraging resources to address the root causes of health inequity and improving the conditions that promote health. The framework for understanding inequities applied to this plan was echoed in the SHA.

Four strategies emerged from the Plan for Improving Population Health planning process. These included:

- Michigan will encourage community-driven screening and referral tools and processes to address basic needs that are culturally and linguistically appropriate.
- Michigan will encourage local organizations to expand the network of basic needs screening and referral options and include agencies that already serve marginalized communities.
- Michigan will promote coordination between clinical and community providers.
- Michigan will empower local and community organizations to identify and address policies and policy gaps that drive inequities.

State of Michigan – Strategic Plan for the State, Fiscal Years 2020 – 2025

The State of Michigan developed a strategic plan for the state that includes several key goals related to the work of the Public Health Administration within MDHHS. These include:

- Improve maternal-infant health and reduce outcome disparities;
- Reduce lead exposure for children;
- Address food and nutrition, housing, and other social determinants of health;
- Integrate services, including physical and behavioral health, and medical care with long-term support services;
- Reduce opioid and drug related deaths; and
- Ensure all administrations are managing outcomes and investing in evidence-based solutions.

Strategic Issues

Strategic Issues

MPHI, along with partners from MDHHS and other public health partner organizations, looked at data from all four assessments and identified 15 strategic issues that emerged across assessments. Public health system partners worked together to develop the following strategic issue statements.

Michigan SHA Strategic Issues

1) Engage in policy, systems, and environmental change efforts to address racism and other biases that lead to health inequities in Michigan.
2) Strengthen the ability of Michigan's community to equitably support families and prevent childhood trauma.
3) Build greater trust in state and local public health officials and institutions.
4) Increase accountability and enforcement of environmental regulations and policies.
5) Improve equitable access to healthy food and community resources that promote physical activity.
6) Promote employment opportunities that provide a living wage.
7) Expand access to and use of mental health services to promote mental health for all.
8) Strengthen and expand partnerships to improve public health.
9) Attract needed providers to rural areas of the state, including specialists and mental health care providers, to reduce distance to care.
10) Improve access to culturally appropriate, affordable substance use prevention and treatment services.
11) Create or adapt policies that promote healthy housing and transportation systems.
12) Expand equitable access to parks and green spaces and all-season recreation activities.
13) Expand equitable access to health care by addressing barriers that make it difficult to get care, such as increasing internet access to enable telehealth use and expanding transportation options.
14) Support social connectedness by creating and sustaining safe, clean, inclusive, livable communities.
15) Create partnerships to provide every household a device and internet access.

MPHI gathered data from different groups and sources to aid in developing final priorities from this list to address through the State Health improvement Plan (SHIP). First, MPHI developed and distributed a public survey through partners' social media to gather input from the public on their top three priorities. Additionally, MPHI gathered and reviewed priorities from other state plans to examine where efforts aligned or where there were gaps in addressing the identified strategic issues. Finally, MDHHS staff and leadership from the Public Health Administration examined where agency staff could most directly affect change in collaboration with other public health system partners. Combined, these factors led to the selection of four priorities to include in the SHIP:

1. Engage in policy, systems, and environmental change efforts to address racism and other biases that lead to health inequities in Michigan.
2. Strengthen the ability of Michigan's communities to equitably support families and prevent childhood trauma.
3. Improve equitable access to healthy food and community resources that promote physical activity.
4. Increase accountability and enforcement of environmental regulations and policies.

MDHHS and MPHI will again convene partners to develop and implement plans to address these priorities over the next five years through a SHIP development process in 2022.

Future Work

Future Work

The priority strategic issues identified through the SHA will be addressed through the upcoming State Health Improvement Plan (SHIP). As with the SHA process, a wide array of public health system partners will be engaged in developing plans to address priorities, building on the assets and expertise available throughout the public health system in Michigan. Additionally, the Public Health Administration is committed to joining ongoing efforts aligned with the identified priorities to affect further change.

Partners engaged in the development of the SHIP will be asked to utilize cross-cutting themes of health equity and social justice. Additionally, participants will further examine and address root causes of inequities. Finally, considerations will include where changes have had to or can be made to policies, programs, and systems as a result of experiences and lessons learned during the COVID-19 pandemic.

To continue to better understand the health of the population in Michigan, MDHHS and MPHI will also engage in the ongoing monitoring, refreshing, and adding of data and data analysis of the SHA. This will largely occur through monitoring available sources of data from MDHHS programs and partners as available, participating in other meetings and planning processes, and reviewing ongoing assessment work at state and local levels.

Appendices

Appendix A

State Health Assessment Process Overview

The Population Health Administration (PHA) at MDHHS led the State Health Assessment (SHA) process for Michigan's Public Health System between June 1, 2019, and September 30, 2020. This collaborative effort actively engaged public health system partners and people who live, work, learn, play, and age in Michigan throughout the assessment process. Staff from the Michigan Public Health Institute (MPHI) designed the SHA process in collaboration with PHA staff, facilitated all assessment activities, and developed this SHA report. A Steering Committee comprising state and local public health leadership guided and supported the SHA work.

The SHA is an important process to lay a foundation for efforts to improve the health of Michigan's population. The SHA provides the basis for setting priorities, planning, program development, funding applications, policy changes, coordination of resources, and new ways to collaboratively use state assets to improve the health of the population. The assessment also provides the general public and policy leaders with information on the health of the population and the broad range of factors that impact health on the population level, as well as existing assets and resources to address health issues. The SHA will also provide the basis for the development of the state health improvement plan.

MPHI designed the SHA process to align with national public health standards set forth by the Public Health Accreditation Board (PHAB). These standards require public health agencies to lead or participate in a collaborative health assessment process every five years that includes participation of representatives from a variety of state sectors. PHAB's standards also dictate that a SHA includes:

- Data and information from various sources, both quantitative and qualitative;
- Description of health issues and descriptions of population groups with particular health issues and health disparities or inequities;
- Description of factors contributing to health challenges; and
- Description of existing assets and resources that can be used to address identified strategic issues.

Finally, PHAB standards for SHA efforts require an opportunity for the state population at large to review drafts and contribute to the assessment, as well as ongoing monitoring, refreshing, and adding of data and data analysis.

Michigan's Process

Michigan's SHA followed the Mobilizing for Action through Planning and Partnerships (MAPP) framework. MAPP is a participatory strategic planning process for improving public health. This framework helps to prioritize public health issues, identify resources for addressing them, and drive action. The process is data-driven and includes four assessments:

- A **Public Health System Assessment**, which identifies the degree to which the state public health system is equipped to deliver the 10 Essential Public Health Services;
- A **Health Status Assessment**, which identifies the most important health issues facing the state;
- A **Themes and Strengths Assessment**, which involves listening deeply to community members' and partners' perceptions of both unmet needs and assets; and
- A **Forces of Change Assessment**, which identifies the forces that will shape the public health system within the state in the future.

Phase 1

Michigan's SHA process began with the Core Team (see Appendix B) going through the Organizing for Success phase. The Core Team identified developed an initial timeline for the SHA, developed a plan for the SHA process for Michigan, identified key stakeholders to involved, designed the process for engaging stakeholders in the assessment activities, and developed communication materials. This team met biweekly throughout the SHA process to evaluate progress and keep the process moving forward.

Phase 2

Next, the Core Team engaged the SHA Steering Committee. The role of the Steering Committee included:

- **Providing leadership, advice, guidance, and decision support** through the assessment process;
- **Communicating about the assessment**, its purpose, and value to stakeholders and other partners;
- **Providing linkages to key resources** to support the assessments; and
- **Participating in all phases of the process**.

The Steering Committee met monthly as needed throughout the SHA process to provide guidance and input.

Phase 3

The third phase of Michigan's SHA process was to engage stakeholders in developing a Vision Statement for the SHA. The Core Team developed a SHA Overview document and sent this to identified stakeholders, with an invitation to participate in the SHA Visioning Session. The Visioning Session took place on August 23, 2019. MPHI presented an overview of the SHA process to participants to orient them to the purpose of the SHA and the visioning meeting. MPHI led participants through a facilitated visioning process, asking participants to reflect on and contribute their thoughts for the following questions:

What will it look like when we use the SHA to improve health and health equity in Michigan?

- What do you see?
- What do you hear?
- What do you feel?
- What changes are most notable?
- What has changed under the surface or behind the scenes to make this transformation possible?

Following this meeting, MPHI reviewed responses, identified themes, and developed three draft vision statements based on participants' input. The Core Team vetted these three draft statements with the Steering Committee and then sent them to the wider stakeholder group through an online survey so stakeholders could vote for their favorite. The results of this survey determined the SHA Vision Statement:

Michigan will be a state with safe, connected, healthy, and vibrant communities, where every person is valued. Those who live, learn, work, play, and age in Michigan will have trust in and equitable access to services and safe environments that support a healthy life.

Phase 4

The next step in the SHA process was convening groups to complete the four MAPP assessments. At the visioning meeting and again in an email following the meeting, stakeholders were provided an opportunity to sign up to participate in sub-committees related to each of the assessments. Anyone who signed up for a sub-committee was invited to the meetings for that group. Details related to implementation of the four assessments follow. Participants in each assessment are listed in Appendix B.

MAPP Assessments

Health Status Assessment

The Health Status Assessment sub-committee started with two meetings, on October 21, 2019, and November 7, 2019, that allowed participants to help inform the list of indicators the assessment would examine to answer the two guiding questions:

- How healthy is the state?
- What does the health status of the state look like?

The Health Status Assessment answers these questions utilizing quantitative, population data that speaks to the health status for the general population and across populations. These data are compared with relevant reference groups and objective targets and are also used to identify signals of unmet need.

Prior to these meetings, MPHI staff identified a large set of possible indicators for the subcommittee to review in several categories, including:

- Social Determinants of Health
- Socioeconomic Factors
- Health Status and Health Outcomes
- Behavioral Risk Factors
- Environmental Conditions
- Social and Mental Health
- Morbidity and Mortality
- Injury and Violence
- Communicable and Chronic Disease
- Maternal and Child Health

During two meetings, subcommittee members helped to identify any gaps in suggested indicators and prioritize which indicators should be included in the next step of the assessment. MPHI staff then compiled spreadsheets to send to MDHHS epidemiologists to provide information for each indicator broken out by demographic groups when possible. MPHI staff examined data to identify where there were clear disparities between demographic groups and where Michigan was performing much better or worse than U.S. rates or national performance goals.

MPHI compiled data in a presentation and shared findings during four Strategic Issue Sessions that occurred in September 2020. The indicators included information related to Michigan's leading causes of death, communicable disease, chronic disease, health care access, perception of health, mental health, substance use, health behaviors, ACEs, broadband internet access, and poverty. Health Status Assessment data are presented in this report, beginning on page 29.

State Themes and Strengths Assessment

Subcommittee members for the State Themes and Strengths Assessment provided guidance for collecting information to answer the questions:

- What is important to our state?
- How is quality of life perceived in our state?
- What assets do we have that can be used to improve community health?

Data from this assessment provide information to allow for a deeper understanding of the issues residents of Michigan feel are important by gathering information from community partners and community members about features of the community that support health or put health at risk.

This subcommittee met on October 29, 2019, to provide guidance on the types of data collection activities that comprised the Themes and Strengths Assessment and helped identify resources to support activities. Following the guidance of the group, MPHI conducted three main data collection activities for this assessment, including a statewide online survey, special population focus groups, and a meta-analysis of existing community health assessments/health needs assessments.

Special Population Focus Groups

Seven focus groups were held with populations that are typically under-represented in data collection. These focus groups occurred virtually in June 2020. Partners included:

- The Asian Center
- Centro Multicultural La Familia
- Corktown Health Center
- The M.A.D.E. Institute
- The Michigan League for Public Policy
- Upper Peninsula Health Care Solutions
- Veterans Administration

MPHI provided mini-grants to five organizations to conduct focus groups, and MPHI staff conducted two others. All focus group participants received a gift card incentive for their participation.

State Health Assessment Survey

People who live in Michigan shared opinions about the things that support or harm their health through an online survey. Public health system partners helped distribute the survey through email and social media in June 2020. The survey included several demographic questions in addition to three open-ended questions:

1) What about your community supports or contributes to good health and well-being (feeling well emotionally, mentally, and physically)?
2) What is damaging to good health and well-being where you live?
3) What would make your community a healthier place to live?

More than 2,500 respondents provided their experiences and opinions through the survey. These data were analyzed for themes across all respondents and for specific demographic groups.

Meta-Analysis

MPHI staff conducted a meta-analysis of community health assessments and community health needs assessments in the summer of 2019. Staff reviewed 46 local assessments, representing 73 of Michigan's 83 counties, and abstracted information about indicators, methods, and resulting strategic issues. These data are included both to honor the hard work of our local public health systems across the state, as well as to align efforts as possible with the greatest health needs identified in Michigan's communities. Many of the most prioritized strategic issues from the community health assessments were also represented in the focus group and survey data.

MPHI staff summarized all Community Themes and Strengths data and organized themes according to Social Determinants of Health. Results of this assessment were included in the stakeholder Strategic Issue sessions in September 2020. Results are also included in this report, beginning on page 20.

Public Health System Assessment

Public health system partners participated in the Public Health System Assessment during a full-day session on November 4, 2019. Participants provided their input to describe the degree to which Michigan's public health system is able to deliver essential public health services with existing capacity and available resources. This included identifying strengths of Michigan's public health system as well as opportunities to build capacity within the system.

Participants could participate in two of 10 sessions during the day-long meeting. Each of these sessions discussed one of the 10 Essential Public Health Services, with five sessions occurring in the morning and five in the afternoon. MPHI staff facilitated the sessions and captured the discussion via recordings and written notes.

Participants received a workbook for each session they attended that provided background information, a list of guiding questions for the discussions, and the items for rating. MPHI developed these workbooks utilizing a modified version of the National Public Health Performance Standards assessment. During the sessions, participants discussed capacity related to the components of essential service assigned to the group. Following the discussion, participants were asked to submit a rating of capacity using the Mentimeter polling application. If the group had consensus on a score, the group then moved on to discuss the next component. If there was a wide range of scores, participants engaged in further discussion of why they scored capacity as they did, and scoring was repeated to see if consensus was reached. This process happened up to three times for each component.

Utilizing the scores and meeting recordings, MPHI developed a summary report for the Public Health System Assessment. High level themes from this assessment, including areas of strength and gaps in capacity, were included in the Strategic Issue sessions in September 2020. Themes are also included in this report beginning on page 14.

Forces of Change Assessment

Public health system partners again convened on December 2, 2020, to participate in the Forces of Change Assessment. During this session, participants provided their answers to the question, "What is occurring now – or might occur in the future – that affects the health of people who live, work, and play, learn, and age in Michigan?" They did so by discussing forces of change, including trends, factors, and events, that may influence health, both in the recent past in the foreseeable future.

Participants broke up into small groups for these discussions according to categories of forces, including:

- Social & Cultural
- Economic
- Political & Legal
- Technical & Scientific
- Environmental
- Ethical

Group discussions were recorded on worksheets that helped to guide the conversations. Following small group discussions, each group presented key points with the larger group of participants. MPHI staff captured what each group shared, and collected worksheets to allow for summarizing assessment findings. MPHI developed a summary report of the Forces of Change Assessment, including themes that arose across the small groups, and shared these themes during the Strategic Issue sessions in September 2020. Themes are also included in this report beginning on page 18.

Strategic Issue Selection

In September 2020, MPHI convened public health system partners through three Strategic Issue Sessions. These sessions were held virtually due to the COVID-19 pandemic. Multiple sessions were convened to allow for increased participation by partners. MPHI held sessions on September 8, 9, and 14, 2020. During each session, MPHI provided an in-depth presentation of data collected through each of the four assessments to inform strategic issue development. Prior to the sessions, MPHI identified 16 overarching themes where there was a convergence of assessment findings. These themes, with an additional theme identified during the sessions, are presented on page 58. Following the data presentation, participants participated in small group discussions, each related to one of the strategic issue areas. MPHI provided summary documents that contained the assessment data related to each strategic issue area, and participants were charged with developing a strategic issue statement that conveyed the theme as a fundamental policy choice or critical challenge that must be addressed for the state to achieve its SHA vision.

Following the three sessions, MPHI developed a survey, distributed through partner social media, to allow people who live, work, play, learn, and age in Michigan to prioritize strategic issues. Results from the survey, along with an environmental scan of other state plans and priorities, were used to develop the final Strategic Issues that will be included in the State Health Improvement Plan.

Appendix B

Process Participants

We would like to offer our sincere thank you to the many public health system partners who were important contributors to the SHA process. This Appendix to the Michigan SHA Summary Report includes a list of participating partners by assessment activity.

Michigan SHA Core Team

Michigan SHA Activities were guided by staff from the Public Health Administration at MDHHS and facilitated by a team from MPHI. Individuals involved throughout the SHA process include:

MDHHS

Jean Ingersoll, J.D., Administrative Deputy Director, Public Health Administration

Jennifer Schuette, MPH, Office of Performance Improvement and Management

Dawn McCune, Office of Performance Improvement and Management

Kathryn Macomber, MPH, Former Acting Administrative Deputy Director, Public Health Administration

MPHI

Jessie Jones, MPA, Program Coordinator

Julia Heany, PhD., Program Director

Lauren LaPine, MPH, Special Projects Coordinator

Kristy Medes, MBA, Public Health Improvement Associate

Monique Lewis, MA, Research Assistant

Anna Salomonsson, Research Associate

Aubrey Stechschulte, Research Assistant

Meena Adaikappan, Research Associate

Danuelle Calloway, Research Associate

Jennifer Torres, PhD., Program Coordinator

Steph Fluegeman, MPH, Health Information Specialist/SHA Report Designer

Michigan SHA Steering Committee

Jennifer Beggs, MPH
Emergency Preparedness Epidemiologist
MDHHS

Carla Bezold, ScD, MPH
Chief Epidemiologist
Detroit Health Department

Mary-Grace Brandt, PhD, MPH
Section Manager
Division of HIV/STD Programs
MDHHS

Sarah Davis, MPA
Departmental Specialist
Bureau of Family Health Services
MDHHS

Dana DeBruyn
Environmental Health Section Manager
Drinking Water and Environmental Health Division
EGLE

Lily Guzman, MSW, MPH
Performance Improvement Manager
Washtenaw County Health Department

Sophia Hines
Manager
Health Promotion & Active Aging Section
MDHHS

Jean Ingersoll, J.D.
Administrative Deputy Director
Public Health Administration
MDHHS

Brenda Jegede
Manager
Office of Equity and Minority Health
MDHHS

Dr. Joneigh Khaldun, MD
Former Chief Medical Executive and Former Chief Deputy Director
MDHHS

Kristine Kuhl, MCOM
Coordinator for Community Paramedic
Bureau of EMS, Trauma, and Preparedness
MDHHS

Allison Murad, MPH
Behavioral Risk Factor Surveillance System Coordinator/Epidemiologist
MDHHS

Linda Scarpetta, MPH Director
Division of Chronic Disease and Injury Control
MDHHS

Orlando Todd, MBA
Director
Bureau of Health and Wellness
MDHHS

Alexis Travis, PhD
Senior Deputy Director
Aging & Adult Services Agency
MDHHS

Jonathan Warsh, Ph.D.
Former Chief of Staff
MDHHS

Elizabeth Wasilevich, PhD, MPH
Senior Epidemiologist
Bureau of Epidemiology and Population Health
MDHHS

Jeff Wieferich, MA, LLP
Director
Bureau of Community-Based Services
MDHHS

SHA Visioning

Allie Murad, MDHHS

Amber Bellazaire, Michigan League for Public Policy

Amy Zaagman, Michigan Council for Maternal and Child Health

Angelique Joynes, Allegan County Public Health

Beth Nagel, MDHHS

Brenda Jegede, MDHHS

Brian Barrie, MDHHS

Brittany Batell, MOASH

Carmen McIntyre León, MDOC/WSU

Carrie Hribar, Oakland County Health Division

Chris Fussman, MDHHS

Chris Harrington, Saginaw County Health Department

Christine Shearer, Michigan Association of Health Plans

Crystal D'Agostino, National Kidney Foundation of Michigan

Dale Freeman, MDHHS

Dana DeBruyn, MDHHS

Danielle Hamilton, State of Michigan

Darin McMillan, MDHHS

Dawn McCune, MDHHS

Dawn Shanafelt, MDHHS

Dayna Benoit, Washtenaw County Health Department

Debbie Brinson, School Community Health Alliance of Michigan

Deidre Hurse, MiCHWA

Diane Dykstra, AARP Michigan

Donald Simila, Upper Great Lakes Family Health Center

Fran Talsma, State Alliance of Michigan YMCAs

Hassan Hammoud, Michigan 2-1-1

Jan Delatorre, MI Health Endowment Fund

Janilla Lee, Asian Center – Southeast Michigan

Jared Welehodsky, MDHHS

Jennifer Beggs, MDHHS

Jennifer Schuette, MDHHS

Jessie Jones, MPHI

Jill Moore, MDHHS

Joseph Coyle, MDHHS

Josh DeBruyn, Michigan DOT

Julia Heany, MPHI

Kait Skwir, Food Bank Council of Michigan

Kate Massey, MDHHS

Katherine Commey, MDHHS

Kathy Wahl, MDHHS

Katie Macomber, MDHHS

Kevin Fischer, NAMI Michigan

Kim Gaedeke, Licensing and Regulatory Affiars

Kimberly Keilen, MDHHS

Kristy Medes, MPHI

Kyra Sanders, MDHHS

Laura de la Rambelje, MDHHS

Lauren LaPine, MPHI

Levi Berkshire, Michigan HIV AIDS Council

Linda Smith-Wheelock, National Kidney Foundation of Michigan

Lindsey West, Beaumont Health

Lonnie Barnett, MDHHS

Lori Yelton, MDARD

Lorna Elliot-Egan, MDHHS

Lynn Nee, MDHHS

Madiha Tariq, ACCESS

Marci Scott, Michigan Fitness Foundation

Marcus Cheatham, Mid-Michigan District Health Department

Mathew Rick, MDHHS

Megan Vanderstelt, MDHHS

Megan Murphy, Michigan Health Endowment Fund

Meghan Swain, MALPH

Mona Makki, ACCESS

Nancy Peeler, MDHHS

Othelia Pryor, University of Michigan

Paige Fults, Michigan Health & Hospital Association

Pam Yager, BCBSM

Rashmi Travis, Jackson County Health Department

Robert Sheehan, Community Mental Health Association of Michigan

Sarah Davis, MDHHS

Sarah Oleniczak, District Health Department #10

Shanna Hensler, MiHIA

Sheryl Thompson, MDHHS

Steve Crider, MDHHS

Susan Cervantes, Kent County Community Action

Susan Manente, MDHHS

Tina Reynolds, Michigan Environmental Council

Tom Curtis, MDHHS

Public Health System Assessment

Co-Chairs – Dana DeBruyn, EGLE and Jennifer Schuette, MDHHS

Allison Murad, MDHHS

Anne Barna, Barry-Eaton District Health Department

Alethia Carr, Carr Consulting, LLC

Amanda Woods, Oakland County Health Division

Amber Bellazaire, Michigan League for Public Policy

Betsy WasilevichBryan Modelski, Michigan Department of Licensing and Regulatory Affairs

Carla Bezold, Detroit Health Department

Carol Robinet, Superior Air-Ground Ambulance

Carrie Hribar, Oakland County Health Division

Chris Chesla-Hughes, Barry-Eaton District Health Department

Chris Farrell, MDHHS

Christina Harrington, Saginaw County Department of Public Health

Christine Shearer, Michigan Association of Health Plans

Courtnay Londo, MDHHS

Courtney Rynkiewicz, Livingston County Health Department

Crystal Mitchell, Michigan Health & Hospital Association

Dawn Shanafelt, MDHHS

Dayna Benoit, Washtenaw County Health Department

Deanna Charest, MDHHS

Harolyn Baker, Detroit Health Department

Holly Wilson, MDHHS

Jan Delatorre, Michigan Health Endowment Fund

Janine O'Donnell, Kent County Health Department

Jason Forney, Michigan Fitness Foundation

Jean Ingersoll, MDHHS

Jennifer Beggs, MDHHS

Jennifer Bernstein, Network for Public Health Law

Jennifer Hunt, MDHHS

Jill Moore, MDHHS

Joe Coyle, MDHHS

Katherine Commey, MDHHS

Kristine Kuhl, MDHHS

Laura de la Rambelje, MDHHS

Leslie Adams, MDHHS

Lindsay Gestro, Livingston County Health Department

Lindsay TerHaar, Oakland County Health Division

Lisa Bugg, Horace Mann

Lorna Elliott-Egan, MDHHS

Lynn Nee, MDHHS

Marcus Cheatham, Mid-Michigan District Health Department

Maris Brummel, Kent County Health Department

Mary-Grace Brandt, MDHHS

Megan Murphy, Michigan Health Endowment Fund

Meghan Swain, Michigan Association for Local Public Health

Michele Borgialli, MDHHS

Molly Cotant, MDHHS

Nancy Baum, University of Michigan

Natasha Radke, Livingston County Health Department

Othelia Pryor, University of Michigan

Polly Hager, MDHHS

Rashmi Travis, Jackson County Health Department

Sally Mellema, District Health Department #10

Shannon Payne, Henry Ford Health System

Steve Crider, MDHHS

Tamiko Harrel-Sims, MDHHS

Taryn Gal, Michigan Organization on Adolescent Sexual Health

Theresa Christner, MDHHS

Yesinia Murillo, MDHHS

Forces of Change Assessment

Co-Chairs – Mary Grace Brandt, MDHHS and Sarah Davis, MDHHS

Alexis Travis, MDHHS

Allison Murad, MDHHS

Anne Barna, Barry-Eaton District Health Department

Angelique Joynes, Allegan County Health Department

April Stopczynski, Michigan Dental Association

Audra Fuentes, MDHHS

Blanca Mares, Centro Multicultural La Familia

Dayna Benoit, Washtenaw County Health Department

Carin Speidel, MDHHS

Carrie Hribar, Oakland County Health Division

Christine Shearer, Michigan Association of Health Plans

Cindy Bjorkquist, BCBSM

Courtney Davis, Berrien County Health Department

Crystal D'Agostino, National Kidney Foundation of Michigan

Dana DeBruyn, EGLE

Danny Tadgerson, Bay Mills Health Center

Darin McMillan, MDHHS

Dianne Malburg, Michigan Pharmacists Association

E. Yvonne Lewis, National Center For African American Health Consciousness

Emily Goerge, MDHHS

Emily Norrix, MDHHS

Erin Barrett, District Health Department #10

Guy Miller, Berrien County Health Department

Harolyn Baker, Detroit Health Department

Jamie Erdheim, Michigan Organization on Adolescent Sexual Health

Janell Troutman, MDHHS

Jennifer Beggs, MDHHS

Jill Moore, MDHHS

Jodi Kelly, Grand Traverse County Health Department

Josh DeBruyn, MDOT

Julie Kwon Evans, Detroit Training Lab

Kate Beer, WUPHP

Kristin Duncan, MDHHS

Kristine Kuhl, MDHHS

Laura de la Rambelje, MDHHS

Laura Laisure, Grand Traverse County Health Department

Lauren Neely, MDHHS

Lida Momeni, MDHHS

Linda Stull, Michigan Department of Education

Lisa DiLernia, MDHHS

Lorena Disha, MDHHS

Lori Yelton, Michigan Department of Agriculture and Rural Development

Lorna Elliott-Egan, MDHHS

Laura Kilfoyle, MDHHS

Levi Berkshire, CARES

Lindsay Maunz, Allegan County Health Department

Lindsay Townes, MDHHS

Lynn Nee, MDHHS

Marci Scott, Michigan Fitness Foundation

Madiha Tariq, ACCESS

Margo Sharp, MDHHS

Maris Brummel, Kent County Health Department

Marcus Cheatham, Mid-Michigan District Health Department

Mariah Martin, MDHHS

Meghan Vanderstelt, MDHHS

Melanie Brummeler, Michigan Department of Education

Michele Borgialli, MDHHS

Rashmi Travis, Jackson County Health Department

Renee Canady, MPHI

Robert Sheehan, Community Mental Health Association of Michigan

Shannon Payne, Henry Ford Health System

Tina Reynolds, Michigan Environmental Council

Tom Rich, American Cancer Society

Tsu-Yin Wu, Eastern Michigan University, HAAP/Center for Health Disparities and Studies

State Themes & Strengths Assessment

Co-Chairs – Orlando Todd, MDHHS, and Brenda Jegede, MDHHS

Andy Draheim, EGLE

Anne Barna, Barry-Eaton District Health Department

Betsy Wasilevich, MDHHS

Bill Hardiman, MDHHS

Crystal D'Agostino, National Kidney Foundation of Michigan

Dale Freeman, MDHHS

Fran Talsma, State Alliance of Michigan YMCA's

Janine Whitmire, MDHHS

Jean Ingersoll, MDHHS

Jill Moore, MDHHS

Kevin Hughes, District Health Department #10

Laura de la Rambelje, MDHHS

Lindsay Terhaar, Oakland County Health Division

Lindsay Townes, MDHHS

Lisa Bugg, Horace Mann

Lonnie Barnett, MDHHS

Lynn Nee, MDHHS

Meghan Murphy, Michigan Health Endowment Fund

Meghan Vanderstelt, MDHHS

Nicole Shaub, Saginaw County Health Department

Pam Yager, BCBSM

Shanna Hensler, MiHIA

Shronda Grigsby, MDHHS

Tina Reynolds, Michigan Environmental Health Council

Health Status Assessment

Co-Chairs – Allison Murad, MDHHS and Jennifer Schuette, MDHHS

Amber Bellazaire, Michigan League for Public Policy

Amy Gumbrecht, Department of Licensing and Regulatory Affairs

Angelique Joynes, Allegan County Health Department

Betsy Wasilevich, MDHHS

Bob Swanson, MDHHS

Carrie Hribar, Oakland County Health Division

Chris Fussman, MDHHS

Christina Harrington, Saginaw County Health Department

Dayna Benoit, Washtenaw County Health Department

Diane Golzynski, Michigan Department of Education

Jacquetta Hinton, MDHHS

Jan Delatorre, Michigan Health Endowment Fund

Janilla Lee, The Asian Center

Jean Ingersoll, MDHHS

Jennifer Beggs, MDHHS

Jill Hardy, Michigan State University

Jill Moore, MDHHS

Jon Villasurda, MDHHS

Katherine Commey, MDHHS

Laura de la Rambelje, MDHHS

Levi Berkshire, Michigan HIV/AIDS Association

Lonnie Barnett, MDHHS

Lorna Elliott-Egan, MDHHS

Marti Kay Sherry, Michigan Department of Corrections

Molly Cotant, MDHHS

Pam Yager, BCBSM

Rashmi Travis, Jackson County Health Department

Shanna Hensler, MiHIA

Shannon Payne, Henry Ford Health System

Shronda Grigsby, MDHHS

Sue Manente, MDHHS

Tina Reynolds, Michigan Environmental Health Council

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