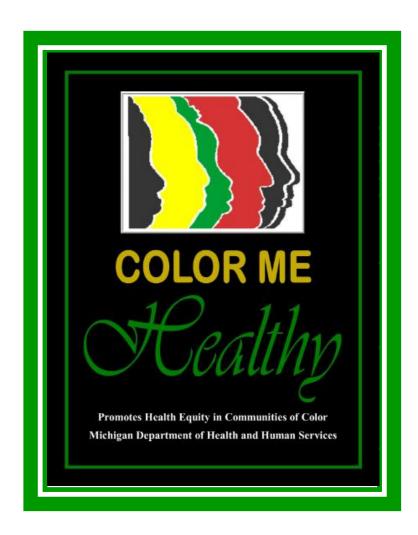
Michigan Department of Health and Human Services

2020 Health Equity Report Moving Health Equity Forward



Released July 2021





STATE OF MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES LANSING

ELIZABETH HERTEL

July 2021

GRETCHEN WHITMER

GOVERNOR

Dear Legislator:

On behalf of the Michigan Department of Health and Human Services (MDHHS), I am pleased to present the 2020 MDHHS Health Equity Report, "Moving Health Equity Forward." In accordance with Public Act 653, this report documents many of the department's efforts to address racial and ethnic health disparities in Michigan. These disparities have become even more apparent with the COVID-19 pandemic and its disproportionate impact on communities of color. Therefore, the 2020 Health Equity Report focuses on COVID-19, including actions MDHHS has taken to respond to the pandemic within communities of color and lessons learned for addressing racial and ethnic inequities moving forward.

Included with the report are:

- An online infographic with report highlights.
- A supplemental data brief that looks at changes in health disparities from 2010 to 2019 and data on COVID-19 cases and deaths by month and racial/ethnic group in 2020.

While COVID-19 revealed both strengths and weaknesses within the department, MDHHS remains committed to addressing gaps, building its infrastructure, eliminating health disparities, and assuring health equity for all racial and ethnic populations. However, this will require sustained investments in organizational and system capacity, as well as a focus on addressing the underlying and structural inequities that contribute to racial and ethnic disparities.

As we move ahead from the pandemic response to recovery, we have a unique opportunity to rebuild communities with an equity focus and strengthen efforts across the state to collectively address these inequities. Although we still face many challenges, this is possible by working collaboratively with communities, state and local governments and other sectors to address the full scope of factors affecting the health and wellbeing of Michigan's citizens. We are most appreciative of Michigan legislators and all our community partners that have worked tirelessly to mitigate the impact of COVID-19 over the past year. We hope this report will be informative and useful to our collective efforts moving forward.

Sincerely,

Brenda J. Jegede, MPH, MSW

Manager, Office of Equity and Minority Health

Michigan Department of Health and Human Services

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2020 Health Equity Report Moving Health Equity Forward

Executive Summary

The Michigan Department of Health and Human Services (MDHHS) 2020 Health Equity Report, "Moving Health Equity Forward," serves as the annual report on the department's efforts to address racial and ethnic health disparities as required by Public Act 653. This legislation was passed by Michigan's 93rd Legislature in 2006 and became effective in January 2007. It amends the Michigan Public Health Code (1978 PA 368; MCL Section 333.2227). (See Attachment A.)

Public Act (PA) 653 focuses on five racial, ethnic and tribal populations in Michigan: African American, Hispanic/Latinx, Native American, Asian American/Pacific Islander, and Arab/Chaldean American. In accordance with this law, MDHHS has the responsibility to establish a departmental structure to address racial and ethnic minority health disparities, monitor minority health, promote workforce diversity, and develop policy and actions to advance health equity as specified in the provisions of the act.

The year 2020 had many unique and unprecedented challenges due to the novel coronavirus disease 2019 (COVID-19) pandemic. This pandemic not only posed threats to Michigan's population as a whole, but particularly to marginalized communities, including people of color. Since the beginning of the pandemic, racial and ethnic minority populations have experienced a disproportionate impact, both in terms of morbidity and mortality as well as economic harm. While these disparities raised the alarm for many, for the public health and human services field the pandemic brought to the spotlight inequities that have long existed.

The 2020 Health Equity Report focuses on these inequities. An infographic with report highlights is available. Changes in health disparities across various health and social indicators from 2010-2019 are presented in a data brief (Attachment B), as are data on COVID-19 cases and deaths for racial and ethnic populations (Attachment C). Other morbidity, mortality and social determinants of health indicators are highlighted in the report. The report also discusses actions MDHHS has taken to respond to the pandemic and its disparate impact on communities of color, as well as lessons learned for addressing racial and ethnic disparities beyond the pandemic.

Information for the report was obtained through a department-wide survey along with key informant interviews with MDHHS top executive leadership. Overarching accomplishments, challenges and lessons learned include the following.

Accomplishments – Michigan was one of the first states to identify and report disparities in COVID-19 cases and deaths among communities of color, prompting MDHHS to take action early on. Successful efforts included:

- Expanding COVID-19 testing to include testing at neighborhood sites and via mobile health units in marginalized communities.
- Providing increased resources, support, wraparound services and public assistance to address needs.
- Effectively communicating with diverse audiences, partners and stakeholders, including implementing tailored communication campaigns for communities of color.
- Leveraging funds to address increased needs due to COVID-19.
- Using data, surveillance and case monitoring to inform and target the state's response.
- Building, strengthening and mobilizing partnerships to advance efforts.

Challenges – Despite the many accomplishments of MDHHS's COVID-19 response, it also encountered several challenges. These included:

- Lack of access to services, technology and information in marginalized communities.
- Spread of misinformation about COVID-19 and mistrust of the government and health care providers among communities of color.
- Limitations with MDHHS's outdated data and surveillance systems.
- Insufficient sustainable funding and gaps in the department's infrastructure.

Lessons Learned – These accomplishments and challenges have brought to light a number of lessons learned for advancing equity in the pandemic and beyond. These include:

- The importance of partnerships and communication.
- The need to implement innovative, locally based approaches and actively engage communities in planning and implementing efforts.
- The necessity of addressing social determinants of health.
- The need to improve and update data and surveillance systems.
- The importance of placing equity at the forefront of all efforts.
- The need for on-going, sustainable funding and investment in the public health/human services infrastructure and workforce.

The department's response to COVID-19 demonstrates how MDHHS worked to improve and expand its health and social equity efforts during the pandemic. MDHHS seeks to continue this work as it carries out the provisions of PA 653 and move equity forward in Michigan.

2020 Health Equity Report Moving Health Equity Forward

Introduction

The year 2020 had many unique and unprecedented challenges due to the novel coronavirus disease 2019 (COVID-19) pandemic. This pandemic not only posed threats to Michigan's population as a whole, but particularly to vulnerable and historically marginalized communities, including people of color. Early in the pandemic, it was clear that Michigan's racial and ethnic minority populations were experiencing disproportionate incidence and mortality, as well as economic harm due to COVID-19. While these disparities raised the alarm for many, for others the pandemic brought to the spotlight inequities that have long existed. Given the impact of COVID-19 and the deep-seeded inequities it illuminated, the 2020 Health Equity Report, "Moving Health Equity Forward," focuses on the pandemic among Michigan's communities of color and the Michigan Department of Health and Human Services' (MDHHS) response.

Required by Public Act (PA) 653, also known as Michigan's Minority Health Law, this report serves as MDHHS's annual account of efforts to address racial and ethnic health disparities within the state. PA 653 was passed in 2006 and enacted in January 2007. It amends the Public Health Code (1978 PA 368; MCL Section 333.2227) and includes provisions for reducing health disparities as well as advancing equity (see Attachment A).

The 2020 Health Equity Report highlights data on the disparate impact of COVID-19 on communities of color, as well as presents data on other morbidity, mortality and social determinants of health indicators by race and ethnicity. Changes in health disparities across various health and social indicators from 2010-2019 are presented in a data brief (Attachment B), as are detailed data on COVID-19 cases and deaths for racial and ethnic populations (Attachment C). Additionally, the report discuses actions MDHHS has taken to respond to the pandemic and its impact on communities of color. It also discusses lessons learned from COVID-19 and implications for addressing racial and ethnic disparities beyond the pandemic. An infographic with report highlights is available on the MDHHS Office of Equity and Minority Health website.

Information for the report was gathered through a survey completed by MDHHS organizational areas and key informant interviews with the department's top executive

leadership. Data on morbidity, mortality and social determinants of health indicators were obtained from the Michigan Behavioral Risk Factor Surveillance System (BRFSS), MDHHS Division for Vital Records and Health Statistics, the United States Census (2019 data) and the Michigan Disease Surveillance System.

COVID-19 and Racial/Ethnic Disparities in Michigan

On March 10, 2020, Michigan identified the first two cases of COVID-19 in the state. Just two weeks later, by March 23, 2020, cases had surged to 1,200.¹ As one of the first states in the nation to collect and report race and ethnicity data for COVID-19 cases and deaths, Michigan was able to closely monitor how the virus was spreading and impacting various populations. This data revealed that while people of all demographic groups were affected by COVID-19, the pandemic had a disproportionate impact on people of color, particular those who are African American or Black.²

By June 2020, data showed that 31% of COVID-19 cases³ and 40% of

COVID-19 deaths were among African Americans, even though this group represents about 14% of the state's population.⁴ By December 2020, the percentage of COVID-19 deaths among African Americans dropped to 26%. However, African Americans still had the highest mortality rate for COVID-19 at 221 deaths per 100,000, compared to white Michiganders, which had the second highest rate of 112 deaths per 100,000.5 Other racial and ethnic groups have suffered disproportionately as well. From March through October 2020, Michigan's Hispanic/Latinx population had a higher rate of COVID-19 cases per million (28.5K) than persons that are non-Hispanic or Latinx (16.4K).² Among Michigan's Native American population, COVID-19 cases per 100,000 were higher than other racial/ethnic groups from November through December 2020.6

People who are African American or Black have also reported experiencing more severe

COVID-19 Spotlight: Countering Stigma and Discrimination

Since the start of the COVID-19 pandemic, certain racial and ethnic populations, particularly Asian Americans and Pacific Islanders (AAPI) have experienced increased discrimination and harassment. According to the Stop AAPI Hate reporting center, 6,603 hate incidents against Asian Americans were reported nationally in just one year (March 19, 2020 to March 31, 2021), including reports from Michigan. Incidents consisted of verbal harassment, avoidance/shunning, physical assault, civil rights violations and online harassment.⁷ The number of incidents is likely an underestimate since many go unreported.

To counter the stigma and discrimination brought on by COVID-19, MDHHS released a COVID-19 Anti-Stigma poster: Viruses Don't Discriminate and Neither Should We. The poster dispels myths and misperceptions and encourages actions to interrupt unfair treatment and prejudices against racial/ethnic groups.⁸

cases of COVID-19 and worse economic outcomes. According to findings from the Michigan COVID-19 Recovery Surveillance Study, more Black than white study participants reported severe or very severe COVID-19 symptoms (73% versus 61% respectively). In addition, more Black participants required an overnight stay in the hospital than white participants (45% versus 28%, respectively). Black individuals also reported more economic challenges since the start of the pandemic. This included being unable to pay their mortgage, rent, or utility bills (26% vs. 10% of white participants), being unable to get enough food or healthy food (17% vs. 8%), and being unable to get needed medications (10% vs. 4%).

Understanding COVID-19 Racial/Ethnic Disparities

There are a number of factors that may have contributed to the disproportionate impact of COVID-19 on communities of color. Racial and ethnic minorities are more likely to hold essential or frontline, lower-wage jobs such as food production, grocery workers, delivery drivers, public transportation workers and allied health professionals. 1,2,10,11,12 These jobs require more interaction with the public, meaning workers have to leave their homes and risk being exposed to the virus. 1,10,12 In addition, low-wage and servicerelated workers are less likely to receive paid sick leave. According to the U.S. Bureau of Labor Statistics (March 2020 data), 41% of workers in private industry service occupations do not have paid sick leave. Among private industry workers earning the lowest 10% in wages (\$11/hour or less), 69% do not receive paid sick leave. 13 Without paid sick time, essential workers must make difficult decisions about staying home if sick and risk losing wages or even being laid off, or continuing to work while ill. 12 Lowincome individuals may also use public transportation more, which increases their risk of exposure. If exposed to or diagnosed with COVID-19, quarantining and isolation protocols may be unfeasible, particularly for individuals who do not have adequate housing or live in multigenerational or overcrowded homes. 1,2,10,12

Racial and ethnic minority populations also have higher rates of chronic medical conditions, such as diabetes, heart disease and high blood pressure, all of which increase a person's risk of having a severe case of COVID-19 and can cause complications leading to death.^{1,10} Medical mistrust and poorer access to health care among racial and ethnic minority populations also play a role.^{10,12} Mistrust may lead to people delaying care because they feel their health concerns will be overlooked or not treated adequately.¹² Lack of access to health care may result in an individual initiating care later in the course of their illness when treatments may be less effective or complications more likely to occur.¹⁰ All of these circumstances have contributed to an

increased risk of exposure to the virus and potential complications, likely leading to higher rates of COVID-19 incidence and mortality among communities of color.

The racial and ethnic disparities seen in COVIID-19, however, are not a new phenomenon. Rather it is the latest example of a myriad of disparities racial and ethnic populations have historically and currently experience. These disparities are rooted in long-standing social, economic and environmental inequities and structural racism, which have systematically impoverished communities of color, limiting their access over generations to adequate resources such as safe and affordable housing, quality education, healthy food, stable employment, reliable transportation, etc.^{1,14} These resources constitute social determinants of heath—or the conditions and systems in which people are born, grow, live, work and age that influence the health and well-being of individuals and communities.¹⁵ These inequities are perpetuated when policies, practices and structures of organizations or systems advantage some populations while disadvantaging others.¹⁶ Coupled with an insufficient healthcare infrastructure in underresourced communities, these conditions have contributed to persistent health inequities.³

To achieve health equity, there must be fair, just and equitable availability of public services, social resources and public policy conducive to all people attaining health and well-being. This requires removing economic and social obstacles—such as poverty and discrimination along with their consequences—and putting structures in place to build better outcomes for historically and currently disadvantaged populations.¹⁵

Michigan Racial and Ethnic Disparities Data

The tables on the following pages show data on health indicators for the Michigan population by race and ethnicity. These indicators include social determinants of health, morbidity, and 2019 mortality data (the most recent finalized data available). In particular, the tables display indicators with the highest Index of Disparity (ID). This measure summarizes the disparity between populations' prevalence when compared to a reference population prevalence (in this case, total population) and is expressed as a proportion of the reference population prevalence. For example, an ID of zero percent indicates no disparity in the population, whereas higher values of ID indicate increasing levels of disparity in the population. The ID itself does not reflect health status, but how much variation or disparity exists in the population for an indicator.

Table 1: Social Determinant of Health Rates with High Population Variance by Race and Ethnic Background in Michigan ¹								
Social Determinants Indicators	White, NH	Black, NH	AI/NA	A/PI ^b , NH	Hispanic / LatinX ^a	Arab	Total	Index of Disparity ^c (ID)
Less than High School Diploma ^d , %	6.40%	10.10%	12.00%	7.20%	21.70%	20.90%	7.20%	85.0%
Female-Headed Households, %	9.40%	34.70%	16.40%	3.50%	17.20%	8.60%	13.30%	58.6%
Poverty rate (population), %	10.20%	26.20%	20.60%	10.20%	19.80%	24.80%	13.10%	57.0%
Percent without health insurance, %	5.50%	7.30%	14.60%	5.20%	12.50%	8.80%	6.00%	56.9%
High school dropout rate, %	6.59%	13.75%	13.58%	4.37%	11.97%	8.36%	****	47.8%
Households with no vehicle available, %	5.5%	18.90%	13.90%	7.60%	7.60%	6.80%	7.5%	46.0%
Bachelor's degree persons ≥25 years %	31.00%	18.20%	12%	65.00%	20.00%	33.60%	30.20%	43.7%
Unemployment rate, %	2.50%	6.80%	4.70%	1.90%	3.80%	3.30%	3.10%	43.0%
Living in Renter- occupied housing. %	19.10%	51.80%	30.20%	32.30%	35.90%	32.60%	24.90%	42.9%

^{1:} Numbers in red are the highest for indicator and numbers in blue are the second highest.

AI/AN = American Indian/Alaskan Native

A/PI = Asian/Pacific Islander

As shown in Table 1, having less than a high school diploma and female-headed households have the first and second highest index of disparity (respectively). This indicates that there is a great deal of variation with regard to educational attainment and female-headed households across racial and ethnic groups within the Michigan population. Other noteworthy findings include the following:

- Poverty disproportionally affects many minority populations. Michigan's African American/Black population experienced poverty at two times the rate of the state average, and the Arab American population experienced poverty at 1.89 times that of the state average.
- Education is a key determinant of social advancement, personal livelihood and health. Hispanic and Latinx Americans older than 25 years of age were 3.01 times less likely to attain a high school diploma as the state average. Arab

^{*** =} Data Not Available

a: Population defined as "Hispanic" in data sources for "Health status and behaviors" and "Morbidity and mortality."

b: Population defined as "Asian" in data sources for "Health status and behaviors" and "Morbidity and mortality."

c: The Overall Population Index of Disparity (ID) is a measure of how much disparity exists in the population. It summarizes how far each group is from the population average. ID=0% indicates no disparity in the population; higher values of ID indicate increasing levels of disparity in the population for that indicator and can be greater than 100%. ID does not reflect health status but reflects how much variation or disparity exists. **Data sources**: Social Determinants – American Community Survey/U.S. Census Bureau 2019; Health status and behaviors – 2017-2019 Michigan Behavioral Risk Factor Survey (BRFSS) Prevalence Estimates; Morbidity and Mortality – Michigan Resident Death Files/Division of Vital Records & Health Statistics).

Americans older than 25 years of age were 2.9 times less likely to attain a high school diploma as the state average.

Personal transportation provides economic stability to individuals. Michigan's
African American/Black population has 2.5 times the rate of individuals in a
household without a vehicle as the state average. Native Americans have 1.9
times the rate of individuals living in a household without a vehicle as the state
average.

Table 2: Morbidity Rates with High Population Variance by Race and Ethnic Background in Michigan ¹								
Morbidity Indicators	White, NH	Black, NH	AI/NA	A/PI ^b , NH	Hispanic / LatinX ^a	Arab	Total	Index of Disparity ^c (ID)
Chronic Obstructive Pulmonary Disease Prevalence, % (Ever Told)	7.20%	8.90%	15.60%	****	8.10%	3.90%	7.50%	37.3%
Any Cardiovascular Disease Prevalence, % (Ever Told)	7.80%	11.00%	15.70%	***	10.40%	8.30%	8.40%	30.0%
Diabetes Prevalence, % (Ever Told)	8.80%	14.20%	13.20%	7.90%	14.90%	8.90%	9.70%	28.7%
Disability Prevalence, % (Ever Told)	24.70%	29.30%	36.20%	8.90%	29.30%	19.80%	25.10%	27.5%
Obese Prevalence, % (Ever Told)	32.30%	42.30%	31.50%	12.20%	43.90%	28.30%	33.60%	24.4%
Depression Prevalence, % (Ever Told)	24.10%	20.00%	29.90%	8.30%	25.60%	17.60%	23.10%	24.3%

^{1:} Numbers in red are the highest for indicator and numbers in blue are the second highest.

AI/AN = American Indian/Alaskan Native

A/PI = Asian/Pacific Islander

Table 2 above displays morbidity rates, or disease prevalence, that have the highest ID in Michigan. As the data reveal, chronic obstructive pulmonary disease and cardiovascular disease show the most variation or disparity in the population. In particular:

^{*** =} Data Not Available

a: Population defined as "Hispanic" in data sources for "Health status and behaviors" and "Morbidity and mortality."

b: Population defined as "Asian" in data sources for "Health status and behaviors" and "Morbidity and mortality."

c: The Overall Population Index of Disparity (ID) is a measure of how much disparity exists in the population. It summarizes how far each group is from the population average. ID=0% indicates no disparity in the population; higher values of ID indicate increasing levels of disparity in the population for that indicator and can be greater than 100%. ID does not reflect health status but reflects how much variation or disparity exists. **Data sources**: Social Determinants – American Community Survey/U.S. Census Bureau 2019; Health status and behaviors – 2017-2019 Michigan Behavioral Risk Factor Survey (BRFSS) Prevalence Estimates; Morbidity and Mortality – Michigan Resident Death Files/Division of Vital Records & Health Statistics).

- The prevalence of chronic obstructive pulmonary disease (COPD) in the state's Native American population was 2.1 times the rate of the state average. The prevalence of COPD in the state's African American/Black population was 1.2 times that of the state average.
- The prevalence of any form of cardiovascular disease in the Native American population was 1.9 times the rate of the state average. The prevalence of any form of cardiovascular disease in the African American/Black population was 1.3 times the rate of the state average.
- The prevalence of diabetes in the Latinx population was 1.5 times the rate of the state average. Likewise, the prevalence of diabetes in the African American/Black population was 1.5 times the rate of the state average.

Table 3: Mortality Rates with High Population Variance by Race and Ethnic Background in Michigan ¹								
Mortality Indicators	White, NH	Black, NH	AI/NA	A/PI ^b , NH	Hispanic / LatinX ^a	Arab	Total	Index of Disparity ^c (ID)
Asthma Mortality Per 100,000	0.59	3.28	****	0.61	0.38	1.08	0.95	78.4%
Alzheimer's Mortality Per 100,000	51.88	22.61	20.77	9.78	10.07	19.39	44.71	55.2%
Chronic lower respiratory disease Mortality Per 100,000	66.70	33.70	67.49	4.58	9.69	18.85	57.88	52.7%
Liver Mortality Per 100,000	19.41	14.73	41.53	3.97	15.77	7.00	18.40	51.0%
Hypertensive Heart disease mortality Per 100,000	26.74	41.14	22.50	4.28	9.31	6.46	27.36	49.5%
Heart Failure mortality Per 100,000	40.37	33.04	20.77	4.28	6.65	27.46	36.74	43.2%
All Malignant Neoplasms (All Cancer) Mortality Per 100,000	224.73	193.28	209.40	61.42	57.57	22.62	208.92	41.2%

^{1:} Numbers in red are the highest for indicator and numbers in blue are the second highest.

AI/AN = American Indian/Alaskan Native

A/PI = Asian/Pacific Islander

Factor Survey (BRFSS) Prevalence Estimates; Morbidity and Mortality - Michigan Resident Death Files/Division of Vital Records & Health Statistics).

^{*** =} Data Not Available

a: Population defined as "Hispanic" in data sources for "Health status and behaviors" and "Morbidity and mortality."

b: Population defined as "Asian" in data sources for "Health status and behaviors" and "Morbidity and mortality."

c: The Overall Population Index of Disparity (ID) is a measure of how much disparity exists in the population. It summarizes how far each group is from the population average. ID=0% indicates no disparity in the population; higher values of ID indicate increasing levels of disparity in the population for that indicator and can be greater than 100%. ID does not reflect health status but reflects how much variation or disparity exists. Data sources: Social Determinants - American Community Survey/U.S. Census Bureau 2019; Health status and behaviors - 2017-2019 Michigan Behavioral Risk

The data in Table 3 show that the causes of death with the three highest IDs in Michigan were asthma, Alzheimer's disease and chronic lower respiratory disease mortality (respectively). The populations most affected are African American/Black (non-Hispanic), white (non-Hispanic) and Native Americans:

- The mortality rate for asthma in the state's African American/Black population was 3.45 times the rate of the state average. The mortality rate for asthma in the Arab American population was 1.13 times the rate of the state average.
- The mortality rate for chronic lower respiratory disease (CLDR) in the state's
 Native American population was 1.16 times the rate of the state average. The
 mortality rate for CLDR in the white American population was 1.15 times the rate
 of the state average.
- The mortality rate for liver disease mortality in the state's Native American
 population was 2.3 times the rate of the state average. The mortality rate for liver
 disease mortality in the state's white American population was 1.05 times the
 rate of the state average.

As the data above illustrate, racial and ethnic disparities across social determinants of health, morbidity and mortality existed prior to COVID-19. Though official mortality data for 2020 is yet to be released, provisional data—released by the Centers for Disease Control and Prevention (CDC)—estimates that COVID-19 was the third leading cause of death in the United States from January to December 2020. Moreover, this provisional data shows the age-adjusted death rate increased nearly 16% in 2020. Nationally, overall death rates were highest among the Black, non-Hispanic population, and American Indian/Alaska Native population. Hispanics in the U.S. had the highest death rate for COVID-19.¹⁷ Trends in COVID-19 cases and deaths among racial and ethnic populations in Michigan during 2020 are shown in the attached data supplement.

MDHHS Response to COVID-19 in Communities of Color

As noted, it became evident early in the pandemic that people of color in Michigan were disproportionately affected by COVID-19. This not only included disparities in health, such as cases and deaths, but also economic and social consequences as well as other indicators of well-being.² Identifying and publicly reporting COVID-19 disparities enabled MDHHS to act early on. Efforts to address these disparities have had both successes and challenges. Interviews with MDHHS top executive leadership and a survey completed by upper-level management within organizational areas revealed a number

of accomplishments as well as gaps and lessons learned in responding to the COVID-19 pandemic, particularly within communities of color.

Accomplishments

Identified COVID-19 Racial and Ethnic Disparities Early in the Pandemic

One of the first and most significant accomplishments of the department was identifying that racial and ethnic disparities were occurring in COVID-19 cases and deaths. MDHHS leadership expressed that identifying these disparities was critical to understanding how COVID-19 was affecting marginalized populations in Michigan and in shaping the department's response. By identifying these disparities early on, MDHHS was able to strategically align its efforts to address them in a timely and effective manner. It also allowed the department to raise awareness of the issue—bringing it to the attention of community partners and state leadership—thus rallying support for action.

Once identified, state leadership responded quickly. Specifically, Governor Gretchen Whitmer created the Michigan Coronavirus Task Force on Racial Disparities in April 2020 through Executive Order 2020-55. This multi-disciplinary task force was charged with examining the causes of racial disparities related to COVID-19 and recommending actions. Since its inception, MDHHS has worked closely with the task force to identify and implement recommended steps to mitigate these disparities, thus further enabling the department to implement a rapid and comprehensive response.

Expanded COVID-19 Testing in Marginalized Communities

Another notable accomplishment cited by both MDHHS leadership and organizational areas was the department's ability to expand COVID-19 testing in marginalized communities, including communities of color. Working with the disparities task force, the department removed common barriers to COVID-19 testing in communities with high rates of the disease by implementing neighborhood testing sites as well as mobile testing units. Areas were selected for neighborhood and mobile testing based on the CDC's Social Vulnerability Index (SVI)¹ and by identifying census tracks with the largest number of disparately affected residents. In addition to testing, residents were provided with evidence-based education on COVID-19 risk, exposure and prevention and given

¹ SVI is a measure that aids emergency response planners and public health officials in identifying, mapping, and planning support for marginalized communities—or those at increased risk during public health emergencies due to factors like poverty, household composition, minority status, housing type, transportation, etc. The measure is based on 15 social factors, which are grouped into four related themes. Census tracts receive a separate ranking for each of the four themes as well as an overall ranking. Source: https://www.atsdr.cdc.gov/placeandhealth/svi/fact_sheet/fact_sheet.html

protective equipment such as masks. Individuals were also screened at the point of testing for health and social needs and connected to providers and services as needed.

By increasing access to and availability of testing, MDHHS was better able to detect COVID-19 cases and implement measures to control its spread. The success of the testing strategy also provided a model for the state's vaccination process. This includes prioritizing the equitable distribution of COVID-19 vaccines to marginalized communities using the SVI as well as providing vaccination clinics in easily accessible locations.

Provided Resources, Support, and Expanded Public Assistance Programs

MDHHS leadership as well as the majority of organizational areas identified as another significant accomplishment the

resources, support services, community programs and expanded public assistance benefits provided in response to COVID-19. These helped to address the physical, social, emotional and mental health consequences of the pandemic, which have impacted communities of color particularly hard.

For example, the Medical Services Administration expanded Medicaid coverage, including increased access to telemedicine. Mental and behavioral health resources were provided through the Michigan Stay Well Initiative, which included virtual support groups; phone and text help lines; and culturally

BOX 1: Examples of Support Programs & Resources

- Distributed millions of free masks to low-income communities and Native American tribes via MI Mask Aid.
- Implemented a farm worker program that provided Michigan food growers and processors with education, PPE, testing and wraparound services.
- Provided isolation assistance for migrant farm workers, which included wage replacement (up to \$1,000) for workers that tested positive for COVID-19 and isolated for the duration of their illness.
- Offered temporary expansion of opportunities for youth to receive tutoring services due to challenges associated with virtual school.
- Provided wrap-around services to individuals in quarantine and isolation, as well as quarantine and isolation options/support for low-income and homeless residents.
- Expanded nutrition programs for older adults who may not have received services previously; applied the social vulnerability index (SVI) to allocate additional resources to those most in need.
- Worked with Michigan's Tribal Health Centers and Urban Indian Health Centers to assist tribes with obtaining PPE, testing supplies, funding and vaccines.
- Activated the Community Health Emergency Coordination Center (CHECC) to support the response to COVID-19, assisted with developing informational materials for diverse populations and securing PPE, pharmaceuticals and ventilators.

and linguistically appropriate webinars, videos and behavioral health guides. Critical containment resources—such as personal protective equipment (PPE), food boxes and household goods—were distributed to low-income communities and people in quarantine.

In addition, the department opened up virtual access to many benefits, services and applications for assistance in order to mitigate disruptions due to restrictions to inperson services. Pandemic-related waivers, grants and policy leniencies also allowed the state to expand food benefits, provide utility assistance, offer educational support, help families avoid home eviction and supply wraparound services to families and individuals impacted by the pandemic. These programs have provided a lifeline to many struggling Michiganders who may not have otherwise had the resources to navigate the various hardships brought on by the pandemic. Other specific examples are described in Box 1 (page 10).

Effectively Communicated with Diverse Audiences, Partners and Stakeholders

Since the onset of the COVID-19 pandemic, frequent and open communication has been a cornerstone of the department's response. This includes various types of communication—media campaigns, webinars, town halls, guidelines and guidance documents, etc.—as well as communication with different audiences, including organizational areas within MDHHS, other state agencies, legislators, local government entities, partners, community stakeholders and the general public. These communications have been essential to coordinating an effective, collective COVID-19 response across the state as well as providing vital information to Michigan residents on how best to protect themselves and others from COVID-19.



One particularly noteworthy accomplishment has been the implementation of communication and media campaigns specifically designed for various racial and ethnic groups. These have been important to MDHHS's efforts to curb the spread of COVID-19 and reduce disparities. Educational and media campaigns have consisted of culturally tailored ads and messages, materials translated into various languages, and regionally targeted approaches to messaging and creative concepts that

address the specific needs, concerns and behaviors of communities. Throughout the pandemic, the department has continued to adapt strategies and messaging for diverse

populations that relates to shifting phases of the response, including mitigation efforts (e.g., masking, social distancing, testing, contact tracing), vaccine rollout and addressing vaccine hesitancy. Additional communication efforts are highlighted in Box 2.

BOX 2: Response Highlights -- Communication Efforts & Initiatives

- Established a COVID-19 hotline, dedicated email inbox (with translator services available), and chatbot on Michigan's coronavirus website; responded to questions from the public and provided information on COVID-19 resources and services.
- Conducted town halls and webinars for various audiences to share information on COVID-19, practices to promote safety, changes in programs/services and available resources. Town halls were hosted by the Office of Equity and Minority Health (OEMH) and Children's Services Agency. Legislative, Appropriations and Constituent Services assisted with town halls hosted by legislators and the Legislative Black Caucus.
- Ensured COVID-19 control strategies—such as case investigation, contact tracing and the MI COVID Alert exposure notification app—were available in Spanish and Arabic.
- Issued policy bulletins, guidance documents for services providers and healthcare facilities, and other communications related to the department's response.
- Prepared and issued guidelines related to the COVID-19 response, including reopening guidelines for communities of faith, community centers and community events.
- Developed and posted culturally appropriate resources for diverse audiences, including:
 - o Best Practices for Accessibility at Michigan Testing Sites
 - o Your Well-Being During COVID-19 Information for Racial and Ethnic Minorities
 - o Providing Care for The Emotional and Mental Health of Racial and Ethnic Minorities
 - o Culturally & Linguistically Competent Recommendations for Diverse Communities
 - o Culturally & Linguistically Competent Recommendations for Organizations
 - o COVID-19 Anti Stigma
 - OEMH COVID-19 Response Mitigation Strategies Targeting Racial Ethnic Populations Marginalized Communities
 - OEMH COVID-19 Racial and Ethnic Considerations

Leveraged Funds to Address Increased Needs Due to COVID-19

Another accomplishment of the department was its ability to leverage funds to address needs associated with the pandemic's disproportionate impact on communities of color. Capitalizing on resources provided by federal emergency relief funds, MDHHS quickly and efficiently mobilized funding to strengthen infrastructure, capacity and state and local efforts to respond to the pandemic. In particular, the MDHHS Financial Operations Administration worked to ensure that program areas had the necessary funding to respond to the pandemic and assist communities of color. This involved working with

the Michigan Legislature, State Budget Office and other state departments to ensure funding needs were met as best as possible.

Several areas in the department also obtained special grant funding to address the needs of specific populations. For example, the Aging and Adult Services Agency (AASA) acquired a \$1.7 million No Wrong Door (NWD) Grant to support order adults and people living with disabilities in collaboration with Area Agencies on Aging (AAAs) and Centers for Independent Living. AASA used the CDC's SVI to allocate funds to NWD Faith-Based Initiatives. These dollars went to faith-based organization for efforts promoting virtual social connectedness. Funded organizations provided devices and training to community members to connect virtually. Individuals served were primarily from communities of color.

The Behavioral Health and Developmental Disabilities Administration received an emergency grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) with one area of focus being communities of

BOX 3: Response Highlights -- Leveraging Funds

- The Office of Equity and Minority Health (OEMH)
 managed a \$20 million contract with the Michigan Public
 Health Institute to provide support to 31 organizations
 for community-driven approaches to address COVID-19
 needs. This effort, funded by CARES Act dollars, was part
 of the Michigan Rapid Response Initiative supported by
 the Michigan Coronavirus Task Force on Racial
 Disparities.
- Grant support was used to fund neighborhood and mobile testing for COVID-19 in areas with high community spread, including those with large racial and ethnic minority populations. This included \$6.8 million managed by the OEMH as well as discretionary grant funding from SAMHSA that was leveraged to support mobile care unit testing sites in communities with significant health disparities. SAMHSA dollars were focused on persons living with substance use disorders.
- The Bureau of Community Services, Division of Community Action and Economic Opportunity issued \$36 million of federal emergency relief funding to Community Action Agency grantees to assist with reducing the negative impact of COVID-19. Community Action Agencies work with low-income individuals and families, especially communities of color.
- The Division of Victim Services allocated a portion of COVID-19 relief funding designated for domestic violence and sexual assault programs to provide culturally specific services to racial and ethnic residents.
- The Medical Services Administration leveraged coronavirus relief funds to increase wages for direct care workers, enhance the capability of nursing facilities to combat COVID-19, purchase and distribute personal protective equipment to providers, issue grants to nursing facilities, and increase reimbursement for vaccination.

color. The purpose of the grant is to support crisis intervention, mental and substance use disorder treatment, and other related recovery services for those impacted by the COVID-19 pandemic.

In addition, MDHHS Legislative, Appropriations and Constituent Services helped to coordinate release of COVID-19 grant funding to Michigan tribes. Other examples of how funds were leveraged are summarized in Box 3 (page 13).

Used Data, Surveillance and Case Monitoring to Inform and Target Response

Another noteworthy accomplishment has been the department's use of data. From the beginning of the COVID-19 pandemic, MDHHS has been very intentional about using data, surveillance and tracking of cases and outbreaks to inform and target response efforts as well as make data-driven decisions. This involved developing multiple systems for ongoing surveillance and response, and reporting data by race and ethnicity. Without these efforts, COVID-19 disparities among communities of color would not have been identified as early as they were, and the department's response may not have been as effective.

In addition to working to improve data systems and tracking cases and deaths by race/ethnicity, MDHHS has assisted other state agencies, partners and special committees by providing data and support. This includes assisting the Michigan Coronavirus Task Force on Racial Disparities with data needs. The department has also helped to coordinate surge capacity for local health departments related to case investigation and contact tracing. Additionally, the Medical Services Administration launched weekly reporting requirements for long-term care facilities in response to COVID-19.

Response Spotlight

In October 2020, AASA launched CV19
CheckUp, a free, confidential, online survey
for older adults to understand their risk of
getting COVID-19, learn mitigation strategies
and make a plan for if they became sick. This
tool was promoted widely to all older adults
through AASA and Michigan's Aging Network.
Data provided through the survey allowed
AASA to understand where high-risk older
adults resided and what messaging was
needed to address gaps in knowledge around
risk perception.

Data from specific programs have also been used to identify needs and mount a response. For example, the Aging and Adult Services Agency (AASA) used data from its CV19 Check Up initiative (see Response Spotlight) to better understand where high-risk older adults resided and what messaging was needed to address gaps in knowledge around COVID-19 risk perception. This data was available by race and ethnicity. Likewise, Emergency Medical Services (EMS) used data to identify when and where requests for EMS

assistance were being placed. This data showed that in the initial wave of the pandemic, many people were not calling EMS and consequently dying at home. This led the MDHHS Division of EMS and Trauma to develop messaging to let people know

the importance of seeking care when suffering a medical emergency even during the pandemic.

Built, Strengthened, and Mobilized Partnerships

Both MDHHS leadership as well as organizational areas acknowledged that all of the accomplishments noted above would not have been possible without the involvement of partners. This includes partnerships within the department and across state government as well as with state and local agencies, academic institutions, businesses and community stakeholders. These partners have been essential in navigating various aspects of the COVID-19 pandemic and carrying out the department's response.

At the community level, partners have facilitated outreach to marginalized populations, helped to establish trust with residents, served as key messengers of important information concerning COVID-19, delivered direct services and connected individuals and families to much needed resources. Academic institutions have

BOX 4: Response Highlights -- Partnerships

- MDHHS Local Health Services (LHS) partners with local health departments and community-based agencies. These partnerships allowed for a rapid scale up of funding and programming to address COVID-19 in communities of color. They also uniquely positioned LHS to help other program areas within MDHHS quickly get funding into communities most affected by COVID-19 and other health-related issues.
- Collaboration with community leaders was pivotal in the Neighborhood Testing Program. These leaders helped establish trust with the public and increase community representation in service delivery. This addressed barriers such as costs, transportation and mistrust/bias of healthcare services.
- Community Action Agencies assisted with several community efforts including distributing quarantine and isolation boxes, water programs, food needs, connectivity issues and the migrant workers' wage replacement program.
- MDHHS Legislative, Appropriations and Constituent Services staff worked in partnership with the Medical Services and Public Health Administrations to help Michigan's Tribal Health Centers and Urban Indian Health Centers combat COVID-19 in tribal communities.
- The Office of Equity and Minority Health (OEMH) provided expertise on health disparities and health equity to various MDHHS areas. They also leveraged relationships with racial/ethnic communities, partners and stakeholders to provide information and resources about state COVID-19 activities and services. OEMH team members have also served on workgroups of the Michigan Coronavirus Task Force on Racial Disparities, the MDHHS Data Committee and local COVID-19 response committees in Flint, Michigan.
- The MDHHS Office of Community and Faith Engagement has an established network of faith leaders who partner with the office. Partners have served as connectors not only to their congregations but to the communities they serve. These linkages provided pathways of communication to reach the most marginalized populations with critical information about COVID-19.

contributed expertise to surveillance efforts and modeling the course of the pandemic, as well as collaborating on a data dashboard. They have also conducted studies to better understand the impact and ramifications of COVID-19 on communities of color.

State and local agencies have worked together to ensure there is a comprehensive and coordinated response to meet the needs of various populations, including Michigan's aging population, racial and ethnic groups, tribal communities, homeless individuals, low-income families and others. Additionally, collaborative efforts across state government and within MDHHS have been instrumental in bridging programs, forging linkages and sharing expertise to better reach and support those in need. Specific examples of partnerships and how they have benefited the department's responses are highlighted in Box 4 (page 15).

By the fall of 2020, disparities in COVID-19 cases and deaths between Michigan's African American/Black and white residents were significantly lower, suggesting that these collective efforts had a positive impact.^{1,19}

Gaps and Challenges

Despite the many accomplishments and successes of the state's COVID-19 response, it has also encountered several challenges. Many of these challenges relate to issues that existed in marginalized communities before COVID-19. Other challenges point to gaps and limitations in the department's capacity to respond to a public health crisis of this magnitude. Overarching gaps and challenges identified by MDHHS leadership and organizational areas are described below.

Lack of Community Access to Health Care, Services, and Internet Technology

Even before the pandemic, it was known that communities of color generally have less access to health care and other services where they live. This became even more apparent as MDHHS worked to respond to the pandemic and provide assistance in marginalized communities. In particular, the pandemic brought to the forefront the lack of fixed-site access, such as healthcare clinics or other brick-and-mortar services where residents could go for COVID-19 testing and other needs. This led the department to look for alternative locations and mechanisms for providing testing and connecting residents to resources, including setting up neighborhood-based locations and mobile health units.

Another challenge in responding to the COVID-19 pandemic was the disruption of faceto-face services and the transition to virtual modalities. This exposed and exacerbated "The root barriers that limited our ability to serve communities of color was the switch from face-to-face assistance to more virtual methods."

-- Bureau of Community Services, Division of Community Action and Economic Opportunity the digital divide—or the gap between those who have access to electronic devices and the internet and those who do not. As became apparent with the pause of in-person schooling and other services, many individuals and families lacked the resources to work or educate children

from home, particularly with several adults and children in the household. Internet access and the transition to digital platforms was also an issue for some service providers who lacked the capacity and technology infrastructure to offer assistance virtually.

This disruption had a ripple effect that impacted various areas. For example, many individuals did not keep or were not able to attend medical appointments due to fear of exposure to the virus or lack of access to telehealth. It also impacted the state's ability to identify and follow up on reports of child abuse and neglect. These allegations often come from mandated reporters such as teachers, physicians and other service providers. Because of temporary school closures, delays and cancellations in medical appointments and limits on the ability of service providers to see families in person, Michigan experienced a significant decrease in reports of alleged child abuse and neglect, which impacted its ability to investigate and provide needed services.

Many of these challenges were addressed by creating innovative solutions to providing services as well as expanding internet access. This included the administration of a digital divide program that provided low-income households with a device and 12 months of high-speed internet access. Another effort involved a partnership between the Aging and Adult Services Agency and GetSetUp, an online community where older adults teach other seniors how to use various technology platforms. Classes on this digital literacy platform were provided free to older Michiganders to help overcome the challenge of using technology and social isolation. The classes also helped users learn how to use telehealth, access online exercise classes and register for a COVID-19 vaccination. Despite these efforts, digital access to health care, assistance programs and other resources has been an ongoing challenge.

Gaps in Access to Accurate Information, Spread of Misinformation, and Mistrust

Another challenge in responding to the pandemic was addressing barriers to accessing information on COVID-19 and available services. As noted, those living in under-resourced communities, including people of color, were more likely to lack internet access, especially early in the pandemic. This may have limited their ability to obtain

accurate and up-to-date information on COVID-19, much of which was available on the state's and other service providers' websites. They may have also been less able to access the publicly facing COVID-19 email inbox and online chatbot (see Box 2, page 12). This could have restricted their ability to ask specific questions, get clarification on individual concerns and connect with needed resources. Though a phone hotline was also available, some people may have faced barriers in utilizing this service—such as inconsistent phone service or restrictive phone/cellular plans. Additionally, low-income families and individuals may have less television/cable access, limiting their exposure to communication campaigns and messaging about COVID-19 delivered through these media outlets.

MDHHS also had to contend with an abundance of misinformation circulating about COVID-19, including transmissibility and spread, effectiveness of mitigation strategies (e.g., masking and social distancing), and the safety of the COVID-19 vaccines. Some of this misinformation was due to the novelty of

"There is an abundance of misinformation/disinformation regarding the transmissibility and spread of COVID-19 and the safety and effectiveness of the COVID-19 vaccines. The historical legacy of racism and eugenics toward communities of color has resulted in a great deal of mistrust."

-- MDHHS State Hospitals Administration

the virus and dearth of scientific information available at the onset of the pandemic. However, mistrust in government and healthcare providers—stemming from a history of racism and mistreatment towards communities of color—also played a role.

The department sought to overcome these barriers by tailoring information and key messages to specific racial and ethnic populations—ensuring they addressed concerns in a way that was culturally and linguistically appropriate. They also regularly updated messages based on the latest scientific research and disseminated information through multiple media outlets. Finally, they worked with partners, faith-based leaders and local advocates who were trusted in the community to create networks and channels of communication. This involved sharing resources and messaging that could be disseminated through newsletters, group meetings, presentations and town halls.

Insufficient Sustainable Funds

Michigan has been fortunate to receive supplemental funding through federal COVID-19 emergency relief dollars and special grants. This funding has enabled MDHHS to bolster its pandemic response and address increased needs, such as expanding testing and public assistance programs, hiring additional staff, upgrading technology systems, improving data and surveillance, implementing comprehensive communication campaigns and supporting community-based initiatives. However, this funding is

temporary and lacks sustainability. In some cases, funds have already been completely expended with no additional source of revenue available despite ongoing need.

For example, the Children's Services Agency used federal funding to provide a wage increase to a limited number of child welfare staff that were conducting in-person investigations. The wage increase was allotted due to the exposure risk associated with these visits. This funding, however, is no longer being provided. Additionally, federal funds were used to provide stipends to older youth who met modified criteria for Young Adult Voluntary Foster Care based on challenges associated with the pandemic. In order to continue the expanded eligibility criteria, additional funding is needed. Likewise, the digital divide program (mentioned previously) that provided low-income households with an internet compatible device and 12 months of high-speed internet was supported through coronavirus relief funds. Though this need still exists, additional funding has not been identified.

Federal funding has also been used to maintain a 90-day stockpile of PPE and other resources to support the state's COVID-19 response. However, funding will be needed

"Previously purchased PPE and pharmaceuticals available after the H1N1 pandemic response had expired and were disposed of without replacing due to a lack of funds to do so. This limited the immediately available supplies for response to all medical and public health entities by MDHHS. Currently the state and healthcare coalitions are working to maintain at least a 90-day stockpile of PPE and other resources to support response. Funding will be needed to maintain in the future."

-- Bureau of EMS, Trauma & Preparedness

to maintain this supply and ensure Michigan is prepared for future medical and public health emergencies. Ongoing funding is also required to ensure the department has adequate capacity and staffing to continue its response, as well as address future threats. This includes resources to meet the training needs of staff, as well as support for continued diversity, equity and inclusion work, which is important for address disparities and promoting racial equity during and beyond the pandemic.

Data and Surveillance Limitations

Both MDHHS leadership and organizational areas identified limitations with the state's data and disease surveillance systems as a challenge to Michigan's COVID-19 response. These limitations include lack of speed, robustness and connectivity to other systems, which are necessary to track COVID-19 cases and outbreaks quickly and seamlessly. This has required the department to put in place manual processes, such as periodically contacting facilities to ensure information is reported correctly and following up with those who test positive to gather additional demographic data. This

has added steps to the surveillance process, which take additional time to complete, thus affecting the timeliness of reporting.¹

Issues with Michigan's surveillance and reporting systems have also affected the department's ability to gather complete data on race and ethnicity. Although there is an electronic reporting mechanism for labs connected to Michigan's data system, not all labs are connected to this system. Furthermore, demographic data is not necessarily included in electronic laboratory feeds. Healthcare systems need to feed data on race and ethnicity into laboratory

"We continue to need to have health care systems to feed data on race and ethnicity (particularly ethnicity) into the laboratory requisitions (so that labs can then report that data to MDHHS). We also need much stronger collection and distribution of data on race and ethnicity by health care for vaccination. In addition, this information is needed for disability states, veteran's status, language spoken, sexual identity and orientation."

-- Bureau of Infectious Disease

requisitions so that labs can then report this data to MDHHS. When not included, this information has to be gathered through follow-up with the reporting entity or with the individual case.¹

There are also challenges in receiving point-of-care testing results (e.g., rapid antigen or antibody tests). These are not connected to Michigan's electronic laboratory reporting system and add additional obstacles to timely and accurate COVID-19 reporting, including potential data gaps.¹

Overall, the lack of automation and connectivity of Michigan's Disease Surveillance System to other state and local systems has presented challenges, resulting in the addition of manual steps, delays in reporting and gaps in data. Moreover, it has slowed the department's ability to quickly identify communities and populations with the

"Data collection and sharing continues to be an issue between the state, local health departments and tribes."
-- MDHHS Legislative, Appropriations and Constituent Services

greatest need, and target interventions in the most timely and optimal way. Fortunately, with federal funding the department has started taking steps to improve these systems, but this process takes time.

Gaps in Michigan's Public Health Infrastructure and Capacity

For years, the public health system in the United States, as well as in Michigan, has been under-resourced.²⁰ This has led to weaknesses in the state's public health infrastructure, which were exposed by the COVID-19 pandemic. Particularly at the start of the pandemic, staffing and monetary resources were lacking as the department was

called on to respond to the escalating spread of COVID-19 and increasing needs, especially in marginalized communities. Health and social programs along with technology systems, which were already stretched, became increasingly strained. MDHHS staff was spread thin as they had to realign services, transition to remote work and attend to additional tasks in response to the pandemic. This created a number of challenges in the department's ability to

"Prior to COVID there were already times where it felt as if the department's resources/systems were stretched, particularly when it came to local office resources in communities of color where there is greater need. With limited inperson services being provided during the pandemic in these communities, it exacerbated the problem, and that was reflected in the legislative constituent inquires we received."

-- MDHHS Legislative, Appropriations and Constituent Services

quickly coordinate and implement a comprehensive and collective response.

Although federal dollars helped to alleviate some of the strain by funding new and

"Capacity was also a barrier as partners pivoted quickly to meet needs during the pandemic, while short-staffed or lacking the infrastructure needed."

-- Aging and Adult Services Agency

expanded programs, updating data systems and hiring additional staff, limitations in infrastructure and capacity are still apparent. Many of these relate to equity issues. For example:

- There remains a lack of training resources and capacity within MDHHS to effectively engage, train and support MDHHS leadership, policy units, program areas and the workforce in racially equitable practices. Although volunteers have been identified to assist with training and capacity building throughout the department, the need far exceeds the resources. Additional funding for more training staff is needed.
- Racial diversity in leadership at MDHHS, though improving, continues to be a gap. While the department has commitment to addressing this issue, disparities in leadership positions persist.
- In some organizational areas, established partnerships with organizations representing racial or ethnic minority groups are lacking. In other areas, there is a need to continue to strengthen community relationships and work together to assure needs are being met.
- State hospitals have lacked sufficient infrastructure, particularly at the start of the pandemic, to initiate a point-of-care focused response.
- Staff within the Office of Equity and Minority Health (OEMH) have been overextended as they receive numerous requests to participate in meetings, strategic planning sessions, research initiatives and other tasks related to providing information on data, health disparities, health equity and the social determinants of health. Expanding OEMH staff capacity is needed.

As illustrated, COVID-19 exposed existing barriers and limitations to addressing health and social needs, particularly in communities of color. Many of these are a consequence of years of disinvestment in public health. This includes a lack of adequate and sustainable funding, insufficient staffing, antiquated technology and surveillance system, and gaps in the capacity of organizations, partners and communities to respond to increased needs. These gaps continue to need attention and should be incorporated into a comprehensive equity strategy moving forward.

Lessons Learned for Moving Forward

Both the successes and challenges of responding to the COVID-19 pandemic's disparate impact on communities of color have brought to light a number of important lessons learned. These include actions and practices that have been effective and should be continued, as well as opportunities to improve. Overarching lessons learned for moving forward, identified by MDHHS leadership and organizational areas, are summarized below, along with recommendations for the legislature.

Partnerships are Vitally Important

MDHHS leadership and organizational areas expressed that partnerships have been critical to the department's response to COVID-19, particularly its ability to address the disproportionate impact of the pandemic on communities of color. This includes traditional, cross-sector and non-traditional partners such as businesses, academic institutions, faith-based groups, community organizations, healthcare systems and other state and local government agencies. Partners have been involved in all aspects of the pandemic response, from helping to establish neighborhood testing sites—and soon to be vaccination clinics—to serving as key messengers of important information on how to prevent COVID-19. They have also played an active role in carrying out state and local efforts such as providing quarantine and isolation boxes, helping with water programs, working to meet increased food needs, assisting families with connectivity issues, and more.

Partnerships have not only been instrumental to disseminating resources, but also to raising awareness that these resources exist. This has been important to those who have struggled with connecting to services since the pandemic began. Through their networks, partners have ensured that knowledge and awareness of available resources is spread widely across the community.

Partners have also been instrumental in communication efforts. To be most effective, the department needed advocates across government, industries, associations and organizations to best reach audiences, especially communities of color. They also needed to get messaging out to key influencers and communicators that community members trusted and wanted to hear from. This involved creating networks and channels of communication through partners. In addition to working with existing stakeholders, the department further expanded and established relationships to help with their communication and outreach efforts. These enhanced partnerships will continue to support communication campaign efforts and connections with communities of color even beyond the pandemic.

Moving Forward — As described, partnerships and networks have been incredibly important in responding to the COVID-19 pandemic. Many of these relationships are stronger now due to collaborative efforts and will be invaluable going forward. Continuing to build and nurture these partnerships is essential. This includes developing and strengthening relationships with a variety of cross-sector stakeholders and non-traditional partners, and leveraging the strengths each partner brings to the table. Doing so will help to further foster trust and build capacity to mobilize and respond quickly to a wide range of issues in the future since these relationships will already be in place. Moreover, embracing current partnerships and working to build, align and nurture new relationships will help to ensure strategies are implemented in a way that achieves desired results. These relationships have the potential to impact the health and wellbeing of communities of color beyond the pandemic and bring about long-term, positive change.

Moving Forward: Partnership

- Continue to build, nurture, and strengthen partnerships, including with crosssector stakeholders and non-traditional partners.
- Leverage the unique strengths each partner brings to the table.
- Work to foster trust and build capacity to mobilize and respond quickly to a wide range of issues, including crisis situations.
- Work collaboratively to ensure strategies are implemented in a way that achieves desired results.
- Recognize the potential of partners to impact the health and well-being of communities of color beyond the pandemic and their role in helping to bring about long-term, positive change.

Recommendations for the Legislature: Advance partnerships by establishing or maintaining inter-agency task forces, committees or councils to increase coordination between cross-sector agencies in addressing health and social issues. Inter-agency efforts are essential for coordinating state policies and resources.²¹

Communication is Key

Communication both internally—throughout the department—as well as externally with partners and stakeholders has also been vital. Particularly in a pandemic situation, all areas of the department must work together and communicate continuously to keep everyone informed. Open and frequent communication among the various areas of MDHHS has been essential to working collectively to identify and address pressing concerns and needs.

Likewise, communicating with partners and community stakeholders has been instrumental in determining how best to respond to existing and emerging issues as well as monitoring the effectiveness of efforts. This two-way communication has helped ensure that appropriate decisions are being made and has minimized the need to backtrack and change direction. This has been especially important as MDHHS and partners have needed to act quickly, without much time to spare. Ongoing communication has also helped to build trust and confidence in the state's response efforts and ensure disparately impacted racial and ethnic communities receive the necessary support to address their needs.

Additionally, the department's experience with COVID-19 reaffirmed that communication with the public is key to helping people stay safe. This communication must be direct, easy to understand, frequent, accessible and up to date. Moreover, communication messages need to be tailored to diverse audiences—ensuring that they are culturally appropriate, available in several languages and address specific concerns. It is also important to be flexible with messaging and outreach. As mentioned, information needs to be disseminated through various channels, shared by trusted influencers and accessible to all. This is especially important when reaching out to people during a pandemic.

Moving Forward — Open, honest and direct communication will continue to be essential as Michigan keeps navigating the pandemic and addresses its long-term impact. This includes communication within the department as well as ongoing communication with partners and the public. Communication efforts should be as inclusive as possible and foster a two-way exchange. Messaging used in

communication campaigns should continue to be informed by research that focuses on communities of color and includes the perspectives of diverse groups. This is important to ensure that messaging appropriately reaches and resonates with intended audiences.

Moving Forward: Communication

- Maintain open, honest and direct communication to continue navigating the pandemic and address its long-term impact.
- Be as inclusive as possible in communication efforts and foster a two-way exchange.
- Continue to use research to inform communication campaigns for communities of color and include the perspectives of diverse groups.
- Ensure messaging appropriately reaches and resonates with intended audiences.

Recommendations for the Legislature: Promote the continued dissemination of accurate, up-to-date information on COVID-19 and other health issues by supporting communication campaigns that are appropriately tailored and culturally relevant to Michigan's diverse population. In addition, legislative representatives can communicate openly and regularly with their constituents through town halls, newsletters, office hours and other in-person and virtual platforms.

Implement Innovative, Locally Based Approaches and Engage Communities

As described, one of the challenges in responding to the COVID-19 pandemic in communities of color was the lack of neighborhood access to health care and other services and resources. This brought to light the need to think more innovatively about how to reach people in their community. Both MDHHS leadership and organizational areas noted the need for more neighborhood-based, community-centered initiatives. This involves implementing smaller-scale programs and services at the local level. Community leaders, influencers and connectors—including non-traditional partners such as faith-based leaders—are more likely to be engaged and involved when working within neighborhoods. These individuals have connections to the community that are invaluable and vital to building trust and increasing the effectiveness of locally based efforts.

Departmental areas also acknowledged that when addressing community needs, one size does not fit all. Community needs differ and responses must be tailored and

multifaceted. Needs also may change within a specific community. Therefore, it is important to be flexible and adapt as things evolve, particularly over the course of a public health crisis. This includes being responsive to developing issues and in regular, frequent contact with community leaders to address changing needs.

Another essential element to implementing a community-based approach is engaging community members. MDHHS leadership expressed that the department needs to interface more with marginalized populations, including communities of color, and solicit their input and feedback. This means developing relationships with communities that experience disparities and having candid conversations with residents about what needs exist and the best way to meet those needs. Without this input, it is difficult to get at the root of community needs and know how best to support communities in addressing these needs. Particularly with the pandemic, clearer mechanisms for obtaining, assessing and using input from community members has been needed. Therefore, it is important to find ways to engage, inform and learn from populations the department serves to better understand needs and involve residents in identifying solutions.

Moving Forward — As the department looks ahead to a post-pandemic world, it will be important to implement more innovative, neighborhood-focused programs and continue efforts to cultivate a culture of community-based public health. Essential to this is identifying ways to better involve communities, particularly communities of color, to help the department enhance its understanding of people's experiences and needs. This includes being more community-centered and locally driven, fostering involvement of community leaders and stakeholders, being more inclusive of communities served in order to improve programs and services, and authentically engaging communities most affected by health and social inequities—valuing their input and including them in identifying issues, proposing solutions and making decisions.

Moving Forward: Innovative Approaches and Community Engagement

- Implement more innovative, neighborhood-focused programs and services.
- Continue to cultivate a culture of community-based public health; be more community-centered and locally driven.
- Foster involvement of community leaders and stakeholders.
- Identify ways to involve communities of color to better understand their experiences and needs and improve programs and services.
- Practice authentic community engagement—interface with communities most affected by health and social inequities; value their input; and include them in identifying issues, proposing solutions and making decisions.

Recommendations for the Legislature: Create and/or support locally-based programs that conduct outreach efforts in marginalized communities—including communities of color—and involve community leaders in planning and implementation. Also take action to ensure constituents in both urban and rural areas receive needed care and services.²²

Continue to Address Social Determinants of Health

The pandemic underscored how social determinants of health (SDOH) contribute to health outcomes in profound ways. As described, SDOH are the social, economic and environmental conditions in which people are born, grow, live, work and age that influence the health and well-being of individuals and communities.¹⁵ These are the primary drivers of population health outcomes in the United States as well as in Michigan.¹¹

When people live in poverty, have poor housing, hold low-income jobs and lack access to quality resources such as food, water, transportation, etc., they are more likely to have negative health outcomes. These social determinants have contributed to marginalized communities being at higher risk of getting COVID-19 and experiencing more severe outcomes. As long as people of color are negatively impacted disproportionately by these social determinants, Michigan is going to continue to see these outcomes. While MDHHS has been working to identify, understand and address these factors, more work needs to be done.

Moving Forward — It is imperative to continue addressing social, economic and environmental conditions to improve health and advance equity. This means continuing to put resources into building family resilience, improving access to services, uplifting educational opportunities and bringing people out of poverty. It is also important to continue to strategize on how best to ensure Michigan's racial and ethnic populations have the essential resources they need to improve, maintain and manage their health. This includes addressing SDOH in ways that are in alignment with the communities where people live, work and play. This should not only be a top priority for MDHHS, but for communities, healthcare organizations and government agencies at all levels. The most sustainable impact will be achieved through focused, collaborative efforts that include long-term interventions and investments in addressing SDOH.¹¹

Moving Forward: Social Determinants of Health (SDOH)

- Continue addressing social, economic and environmental conditions to ensure Michigan's racial and ethnic populations have the essential resources they need to improve health and advance equity.
- Invest in building family resilience, improving access to services, uplifting educational opportunities and bringing people out of poverty.
- Address SDOH in ways that are in alignment with the communities where people live, work and play.
- Promote SDOH as a top priority for community organizations, healthcare systems and government agencies at all levels.
- Implement focused, collaborative efforts that include long-term interventions and investments in addressing SDOH.

Recommendations for the Legislature: Create policies and mobilize resources to address social determinants of health through Medicaid and other social benefit programs, thus integrating solutions to both health and social needs. Enact comprehensive approaches to addressing health, social and economic issues that promote increased coordination between state agencies.²²

Improve data and surveillance systems

Another lesson learned by MDHHS leadership and organizational areas related to problems with MDHHS's data and surveillance systems. As outlined above, the state's antiquated systems caused the department to implement manual processes and follow-up with data submitters on occasion. They also lacked connectivity to some systems and experienced gaps in data, particularly around the collection of race and ethnicity. This slowed the department's pandemic response and hindered its ability to target interventions quickly and optimally.

While MDHHS has received some funding to begin upgrading these systems, this work takes time and needs continued support beyond the pandemic. In particular, there needs to be more robust data and better linkages to other systems that allow data to be shared and synthesized more quickly to inform timely action.²³ This involves improving interoperability across information technology platforms and making data systems more automated. This is not unique to Michigan. Even at the federal level there needs to be more consistency and standardization in data and how it gets collected and reported,

The U.S. Census does not currently include a distinct race/ethnicity category for Arab Americans. Instead, these individuals are classified as "white" or "some other race." Arab Americans have been working with the Census Bureau to find a more accurate way to be counted. Expanding race/ethnicity categories to include "Middle Eastern or North African" (MENA) is a way to capture more accurate data on this population, which includes millions of Arab Americans.

including data from hospitals, health systems and providers. Response options for race and ethnicity also need to be fully inclusive and representative of various racial and ethnic groups—including subclassifications and mixed race/ethnicities—in the population.

Moving Forward — The state should invest in improving and updating the department's technology infrastructure and data systems. This should not only include

strengthening the capacity of the department to collect and provide timely and relevant data on a routine basis, but also the ability to scale up surveillance efforts in times of crisis. Additionally, the state should invest in a technology infrastructure that supports efforts to identify health disparities and pinpoint the drivers of these disparities. ²³ This requires developing and collecting standardized data elements for race, ethnicity and other key demographic factors (e.g., income, zip code, etc.), which are important to determining and addressing inequities. ²³ At the same time, race and ethnic categories should be expanded and merged to more accurately reflect groupings in which people see themselves and are representative of the full population. Training should also be provided to strengthen human capital around data integration and analysis, as well as the collection of race, ethnicity and social metrics data.

Moving Forward: Data and Surveillance Systems

- Invest in improving and updating MDHHS's technology infrastructure and data systems.
- Strengthen capacity to collect and provide timely, relevant data routinely as well as scale up surveillance efforts in times of crisis.
- Ensure the technology infrastructure supports efforts to identify health disparities and pinpoint the drivers of these disparities. This includes developing/expanding and utilizing data systems to measure and understand where disproportionate health impacts and social inequities are occurring.
- Expand and standardize the process of race/ethnicity data collection merge race and ethnicity categories to be more representative of and relatable to the population.
- Promote the uniform collection of race/ethnicity data as well as other key demographic characteristics on health and social metrics so data are comparable across systems.

Data and Surveillance Systems (Continued):

- Provide training to build human capital around the collection of race, ethnicity and social metrics data.
- Strengthen human capital to support data integration and analysis, recognizing that during a crisis situation, data needs are critical to ensuring accurate assessment of equity and other key principles of a response.

Recommendations for the Legislature: Explore options for redefining and standardizing how racial and ethnic groups are categorized to more closely align with Michigan's population and be more inclusive of Michigan's diverse residents. Enact policies and regulations requiring that certain data be collected and reported by health and social service entities. Include race and ethnicity data as well as other demographic data that allow the state to better identify health and social disparities, as well as factors driving these disparities.

Place Equity at the Forefront of Efforts

The COVID-19 pandemic has demonstrated how when a crisis occurs, it impacts disadvantaged communities, including communities of color, more severely. This is well known within the public health and human services field. However, COVID-19 shined a light on these inequities more broadly, raising awareness among other sectors, elected officials, policy makers and the public at large. With greater awareness, disparities can be identified early on and strategically addressed. To do so effectively, equity should be placed at the forefront of any crisis response as well as ongoing efforts throughout the state.

MDHHS already has a high-level commitment to serving those who are most marginalized, which includes identifying and working to address racial and ethnic disparities along with underlying health and social inequities. However, given the effects of the COVID-19 pandemic, MDHHS leadership expressed how it is important to refocus departmental efforts to reduce disparities in all of its programs and services. This includes integrating equity considerations into strategic plans, operating procedures and policy directives. Many MDHHS organizational areas are already doing this work and reaffirmed their commitment to furthering these efforts (see Box 5, page 31).

The COVID-19 pandemic also brought to light the need for a disaster or crisis response plan that applies to any type of catastrophe. Such a plan should place marginalized communities, including communities of color, at the forefront of response efforts. This

necessitates having staff with health equity expertise and representation from the Office of Equity and Minority Health on decision-making teams, such as the Community Health Emergency Coordination Center (CHECC) and the State Emergency Operations Center (SEOC). It also includes involving members of the community in the response planning process and establishing a diverse group of advisors for implementation efforts. This would help ensure that decision-making processes consider the potential impact and possibility of unintentional harm for marginalized communities.²⁴ It would also help ensure that crisis response efforts intentionally identify and mitigate inequities at the outset, and that implemented actions can be evaluated and corrected as needed in real-time.

Finally, the pandemic has underscored the importance of having equitable policies, programs and practices. This involves acknowledging the impact of structural racism on health and social outcomes and developing a strategic approach to dismantling the policies and practices that perpetuate inequities. To aid in this effort, the Office of Equity and Minority Health is working to ensure all areas of the department conduct an equity impact assessment. This assessment helps organizational areas use an equity framework through which they can identify and analyze the unfair benefits and/or burdens

BOX 5: Response Highlights -- Placing Equity at the Forefront

- Local Health Services expressed that they will continue to
 prioritize projects and efforts that have the greatest impact on
 communities of color and other marginalized populations. This is
 important to increasing the capacity of communities to address
 pressing health needs before, during and after a crisis.
- The State Hospital Administration noted that they plan to roll out Diversity, Equity and Inclusion (DEI) work plans with key stakeholders at each facility so that addressing issues of racial and ethnic disparities becomes part of their quality improvement process.
- The Aging and Adult Services Agency (AASA) conveyed that it will be addressing health inequities at the forefront of its work and integrating equity into its programs. AASA has also launched a DEI capacity building project that includes internal agency activities as well as requirements and standards for their aging network partners. Through this initiative, AASA will prioritize programmatic and policy changes to meet the needs of Michigan's communities of color, including older adults and caregivers. These efforts will ensure that service delivery across the state will be better able to identify and combat racial and ethnic disparities in the aging population.
- The Office of Equity and Minority Health, in addition to its various programming efforts, will continue to work with internal and external partners to address implicit bias, systemic racism and inequitable policies and practices that have negative effects on racial and ethnic populations.
- The Medical Services Administration acknowledged that moving forward it will continue to incorporate equity in all programs and policies, with a particular focus on addressing disparities facing communities of color and social determinants of health.

experienced within a society or population group. This is done by understanding and actively considering the sociopolitical, economic and environmental contexts of policies, programs and practices as well as the roots of inequities, such as historical and contemporary racism, poverty, laws and regulations of social injustice, etc.^{25,26,27} The purpose is to enable organizations and programs to be more intentional about their decision-making process. This includes considering how the design and implementation of policies, programs and practices may impact marginalized groups, and proactively identifying and eliminating barriers and potential burden in affected populations. Using an equity framework prioritizes and centers marginalized groups as equal partners and helps lead to more equitable decisions. This enhances positive outcomes for all.^{25,26,27}

Moving Forward — The efforts described above illustrate ways the department is moving equity forward by acting on its commitment to serving marginalized populations and identifying and addressing racial and ethnic inequities. This includes integrating equity considerations into its work and being strategic about addressing disparities, particularly those stemming from structural racism and systemic inequities, which have made communities of color more vulnerable to crisis and likely to experience worse health outcomes.

With a continued focus on equity at the department's executive leadership level and by further placing equity at the forefront of its work, MDHHS can continue to make advancements. However, this will require ongoing efforts to routinely assess the potential impact of policies, practices and programs on communities of color, as well as identifying ways to dismantle structural racism and discrimination. It also necessitates having a crisis response plan in place that outlines strategies and actions to minimize disparities in impact and outcomes among racial and ethnic populations during a crisis situation. This goes beyond the public health and human services domains. Effective change will require a collective effort across state government as well as private and public sectors.

Moving Forward: Placing Equity at the Forefront

- Continue to make equity a priority at the top executive leadership level.
- Place equity at the forefront and continue integrating into departmental efforts.
- Be intentional and strategic about addressing disparities—particularly those stemming from structural racism and systemic inequities.
- Routinely assess the impact of policies, practices and programs on communities of color.

Placing Equity at the Forefront (Continued):

- Put in place a crisis response plan. Involve health/social equity subject-matter experts and diverse community members in planning and implementing response efforts.
- Work collectively across state government and sectors to identify and dismantle structural racism and discriminatory practices.

Recommendations for the Legislature: Routinely conduct an equity impact assessment on proposed legislation and require state agencies to do the same on their policies, programs and practices to ensure they do not negatively impact marginalized communities and racial/ethnic populations. Work with state agencies and community partners to identify and dismantle systemic inequities and discriminatory practices and promote more equitable policies.

Obtain Sustainable Funding

The COVID-19 pandemic and its devastating effects on communities of color brought to light the consequences of inadequate funding for public health and human services. This underinvestment has created huge challenges to addressing population needs, particularly for marginalized communities, as well as responding to emergency situations.

These funding challenges are not new. The public health system has historically lacked the necessary resources to adequately address the full scope of population health needs. This includes a particular shortage of resources to address health inequities and social determinants of health.²³ Additionally, the way in which funding is allocated is often categorical and restrictive, hindering the ability to quickly reallocate funds to address newly emerging needs and crises, such as a pandemic.²³

While MDHHS has received supplemental funding through the federal government, which provided much needed support for the department's response efforts, this funding is temporary and, in many cases, has already been fully expended. Without sustainable support, the capacity that has been built as part of the pandemic response will quickly erode. This will result in huge gaps in the department's ability to establish the public health and human services infrastructure necessary to mitigate the ongoing impact of COVID-19 and future pandemics.

Moving Forward — Continued funding is critical to moving equity forward. As soon as federal dollars are expended, MDHHS will lack the monetary resources needed to

continue many of its pandemic response and health equity efforts. Sufficient, longer-term financial commitments are needed to ensure that public health and human services functions are sustainable. Funding sources should also be more flexible in nature to order to enable the public health system to better respond to emergency situations and address the specific needs of marginalized communities.²³ This includes looking for innovative ways to bring funding streams together and leverage existing funds to address health disparities and health equity, particularly through place-based approaches. Finally, there needs to be an increased investment in health and social equity efforts. To effectively mitigate disparities, funding is needed to sustain health equity initiatives beyond the pandemic.

Moving Forward: Funding

- Seek funding to continue the department's pandemic response, particularly efforts to mitigate COVID-19 disparities.
- Ensure funding is sufficient and provides a longer-term financial commitment to ensure that public health and human services functions are sustainable.
- Promote more flexibility in funding in order to enable the public health system
 to better respond to emergency situations and address the specific needs of
 marginalized communities.
- Look for innovative ways to bring funding streams together and leverage existing funds to address health disparities and health equity, particularly through place-based approaches.
- Increase investment in health and social equity efforts—to effectively mitigate disparities, funding is needed to sustain health equity initiatives beyond the pandemic.

Recommendations for the Legislature: Allocate federal funds—such as Federal American Rescue Plan dollars—to support structural changes and capacity building within public health and human services that will persist even after funding is expended. Work across state government to identify state-level funding mechanisms and fiscal solutions that will allow Michigan to continue providing sustainable services to people in need. This may require enacting policies to add new funding streams, while making difficult budget decisions that balance citizens' needs with the state's financial challenges.²² Allow for flexible funding and invest in long-term strategies that yield the largest return on investment.

Invest in Infrastructure and a Diverse Workforce

Another lesson learned from the pandemic is the importance of having an adequate infrastructure, workforce and organizational capacity to address current and emerging health threats. As described above, disinvestment in public health has led to weaknesses in infrastructure and workforce shortages that created challenges to responding to COVID-19.

Regarding the workforce, COVID-19 exposed how public health and human services have generally been understaffed. Several MDHHS organizational areas noted that their staff, who were already carrying full workloads before the virus emerged, were further overextended by the increased demands of the pandemic. This occurred as the department's employees had to transition to working remotely.

Fortunately, MDHHS staff with their expertise, adaptability and dedication rose to the occasion and found innovative ways to keep programs and services up and running. Additionally, MDHHS received staffing support from the CDC Foundation and was able to bring on additional personnel with federal funding. Still, several departmental areas expressed the need for more staff, particularly to work in high-need communities, as well as additional personnel to assist with racial equity capacity building throughout the department. Several areas also mentioned the need for increased diversity within the workforce as well as among leadership. This is important to further fostering a workforce that is representative of populations served and continuing to develop capacity to address health and social inequities.

In terms of infrastructure, MDHHS leadership noted that there has been a lot of cross-administration work in response to the pandemic that they can build upon moving forward. This has involved aligning and integrating the efforts of various administrations within the department and working collaboratively to support communities of color in their COVID-19 response.

The department also elevated the role of its equity efforts by creating the Office of Racial Equity, Diversity and Inclusion (REDI), a new administrative area that is part of the senior leadership team. In addition, the Office of Equity and Minority Health and the department's Diversity, Equity and Inclusion Council, which have been working for years to build an infrastructure within MDHHS to address diversity and equity issues, have served as essential assets. Because of these entities, the department already had a structure in place to do this work, which strengthened the state's ability to implement strategies and mobilize partners to mitigate the impact of the pandemic on communities of color. This, coupled with the department's commitment to addressing equity issues

and its supportive leadership, allowed MDHHS to quickly advance its efforts despite challenges.

Moving Forward — Workforce: MDHHS should continue its departmental efforts to recruit and retain diverse public health professionals and leaders who are representative of populations served. The department should also continue to provide and expand trainings on implicit bias, systemic racism and cultural competency to internal and external partners. This will help ensure the workforce has the skills necessary to address health inequities.

Infrastructure: The department should sustain its cross-administration efforts and continue to invest in structures promoting diversity, equity and inclusion as well as health and social equity. This involves continually raising up these issues as a central priority and ensuring the necessary structures, resources, knowledge and tools exist to carry out this work. Additionally, racial and ethnic equity considerations should continue to be promoted at the highest level of state government to move the issue forward.

Moving Forward: Infrastructure and Workforce

- Sustain cross-administration efforts within MDHHS.
- Continue to invest in structures promoting diversity, equity and inclusion as well as health and social equity; ensure the necessary resources, knowledge and tools exist to carry out this work.
- Promote racial and ethnic equity considerations at the highest level of state government to move the issue forward more broadly across sectors.
- Maintain departmental efforts to recruit and retain diverse public health and human services professionals and leaders who are representative of populations served.
- Continue to provide and expand equity-related trainings for internal and external partners to ensure the workforce has the skills necessary to address health and social inequities.

Recommendations for the Legislature: Advance policies to strengthen public health, human services and healthcare workforce capacity. This includes practices to support the recruitment and retention of diverse and skilled professionals in these fields as well as policies to ensure appropriate compensation, recognition and advancement. In addition, state representatives can help to build and sustain a robust public health and human services infrastructure by allocating adequate and sustainable funding that allows public health and human services to address ongoing needs as well as scale up efforts in times of crisis.

Alignment with Public Act 653

Many of the efforts and initiatives implemented by MDHHS in response to the COVID-19 pandemic align with PA 653 provisions. These, along with other relevant efforts of the department, are outlined in the following chart.

PA 653 Provision	MDHHS Program/Initiative and Activities
(a) Develop and implement a structure to address racial and ethnic health disparities in this state.	The Office of Equity and Minority Health (OEMH) serves as the primary coordinating body within MDHHS to address racial and ethnic health disparities. In addition, the Office of Racial Equity, Diversity and Inclusion (REDI) was established in 2020. The office is part of the MDHHS senior leadership team and houses OEMH and the Leadership Development Division.
	The department also has a Diversity, Equity and Inclusion (DEI) Council, which serves as a structure to promote diversity, equity and inclusion within the department, and thereby advance health and social equity.
	Additional areas within MDHHS also have structures to advance equity through workgroups, committees, antiracism/equity teams and partnership networks.
(b) Monitor minority health progress.	 OEMH worked with the Bureau of Epidemiology and Population Health to ensure data on COVID-19 was collected by race and ethnicity. Other area also used data to identify areas of need. For example: Legislative, Appropriations and Constituent Services worked with Michigan tribes to collect data, monitor health and track COVID-19 disparities in tribal communities. The Office of Community and Faith Engagement (OCFE) routinely met with the Kent County COVID-19 Church Task Force, which included monitoring health statistics and racial/ethnic health disparities in the county. The Division of EMS and Trauma uses an EMS database to track injuries and illnesses within specific geographic areas that have high indices on the SVI.

PA 653 Provision	MDHHS Program/Initiative and Activities
(c) Establish minority health policy.	At a state level, several policies were enacted in response to racial/ethnic disparities in COVID-19. These included: • Requiring implicit bias training as part of licenser/ re-licenser of healthcare workers. • Expanding eligibility for cash and food assistance. • Removing a lifetime ban on public benefits for those formerly convicted of drug-related crimes. • Mandated testing and treatment for the migrant worker population. • Waiving certain requirements and simplifying the application process for public assistance.
	 Within MDHHS, additional policies included: Piloting a Racial Equity Impact Assessment Tool with the potential for use across state government. This tool helps to ensure policies, practices and programs are developed with an equity framework, consider systemic inequities and examine potential impacts on communities of color. Continuing the cross-enrollment strategy, which helps to reduce poverty and promote equity by simplifying cross enrollment in programs. Increasing access to MDHHS services by expanding the use of navigators to assist people with the MI Bridges process. Medicaid expansion of benefits, increased reimbursement for vaccinations and coverage of telehealth services.
	Additionally, a number of MDHHS areas have a mandatory training policy requiring department staff to complete equity-related training, incorporate equity language into contracts, revise the way RFPs are issued to address equity, and have policies to ensure the recruitment of diverse candidate pools and promote workforce diversity.
(d) Develop and implement an effective statewide strategic plan for the reduction of racial and ethnic health disparities.	MDHHS continues to implement its Diversity, Equity and Inclusion (DEI) plan that includes specific strategies for promoting DEI across the department. Other organizational areas report incorporating equity into strategic plans. Examples include:

PA 653 Provision	MDHHS Program/Initiative and Activities
	 AASA - The agency's DEI effort and Sate Plan on Services to the Aging (2021-2023) include measurable goals, objectives and activities that will track progress to address racial and ethnic disparities in aging network service delivery and the aging network service population. Bureau of EMS, Trauma and Preparedness - The MDHHS Crisis and Emergency Risk Communications Plan as well as the five-year Whole Community Inclusion strategy for local health departments include ways to reach out to the entire community, including communities of color. The Whole Community Inclusion strategy specifically requires LHD to meet with and recruit members of their community to help strengthen emergency preparedness plans. OEMH team members lead and serve on numerous workgroups of the MI Coronavirus Task Force on Racial Disparities, which are engaged in strategic planning efforts in response to COVID-19.
(e) Utilize federal, state and private resources, as available and within the limits of appropriations, to fund minority health programs, research and other initiatives.	As described above, federal relief dollars and other supplemental funding was used to support a variety of efforts to address COVID-19 in communities of color. This included expanding testing, increasing public assistance, implementing tailored communication campaigns and supporting community-based initiatives.
 (f) Provide the following through interdepartmental coordination: i. Data and technical assistance to minority health coalitions and any other local entities addressing the elimination of racial and ethnic health disparities. ii. Measurable objectives to minority health coalitions and 	Throughout the pandemic, MDHHS has provided technical assistance and shared data with communities and other local entities, as well as identified objectives for developing and implementing programs to mitigate the impact of COVID-19 in communities of color. Some areas that reported engaging in these efforts include: • Aging and Adult Services Administration • Bureau of EMS, Trauma and Preparedness • Bureau of Infectious Disease
any other local health entities for the development of	Local Health ServicesMedical Services Administration

PA 653 Provision	MDHHS Program/Initiative and Activities
interventions that address	Office of Community and Faith Engagement
the elimination of racial and	Office of Equity and Minority Health
ethnic health disparities.	State Hospitals Administration
(g) Establish a web page on the department's website, in coordination with the state health disparities reduction and minority health section.	The Office of Equity and Minority Health continued to maintain its webpage , which provides access to minority health data, reports, documents, training, grant/funding opportunities, tools, resources and current research. They also added a page exclusively on Minority Health and COVID-19 .
(h) Develop and implement recruitment and retention strategies to increase the number of minorities in the health and social services professions.	As noted, many organizational areas have policies to promote the recruitment of diverse job candidates and provide training on workforce diversity (e.g., Hidden Bias, Cultural Awareness for Hiring Managers, Systemic Racism, etc.). The department has also been working on expanding diversity in its hiring panels. The Bureau of Infectious Disease noted that it included
	health equity questions as part of the hiring process as more staff was brought on to address COVID-19.
	In addition, the Policy and Planning area runs programs that seek to remedy the shortage of healthcare professionals from racial and ethnic populations.
(i) Develop and implement awareness strategies targeted at health and social service providers in an effort	Many MDHHS areas provide external partners, grantees, contractors and service providers with training on various equity-related issues.
to eliminate the occurrence of racial and ethnic health disparities.	 In 2020, additional trainings, workshops and publications addressed COVID-19 and its disparate impact on communities of color. For example: The Maternal and Infant Health (MIH) Division's Mother and Infant Health Equity Collaborative hosted a meeting focused on MIH and COVID-19. The Office of Workforce Development and Training held lunch and learn sessions on COVID-19 and outcomes on people of color, as well as a conversation on racism and vaccinations. OEMH developed cultural competency presentations for HONU, the COVID-19 testing

PA 653 Provision	MDHHS Program/Initiative and Activities
	service provider hired by MDHHS to stand up
	neighborhood testing sites across Michigan.
(j) Identify and assist in the implementation of culturally and linguistically appropriate health promotion and disease prevention programs that would emphasize prevention and incorporate an accessible, affordable and acceptable early detection and intervention component.	 Efforts related to the delivery of culturally and linguistically appropriate programs and services consisted of: Culturally appropriate information and messaging about COVID-19 testing, prevention, quarantining and treatment protocols. Translation and interpretation services at testing sites. Translation of education materials on COVID-19. Cultural and linguistic competence training for staff, service providers and testing vendors. Working with community groups to ensure the cultural appropriateness of programs and services.
(k) Promote the development and networking of minority health coalitions.	Many organizational areas work with local entities and coalition groups as part of their equity-promoting efforts. This continued during the pandemic, with a particular focus on addressing COVID-19 in communities of color.
(I) Appoint a department liaison to: (i) Assist in the development of local prevention and intervention plans; (ii & iii) Relay the concerns of local minority health coalitions and assist in coordinating minority input; and (iv) Serve as the link between the department and local efforts to eliminate racial and ethnic health.	 Many organizational areas have staff that work on equity-related issues. Additionally, several areas work with community groups and solicit participation, input and feedback from racial and ethnic minority populations served. Examples from 2020 include the following: The OCFE's work with community and faith-based organizations provides a link between MDHHS and local efforts to address racial and ethnic health disparities. The COVID-19 Neighborhood Testing Program also served as a link between the department and local efforts. Response efforts within the State Hospitals Administration, BHDDA, OEMH and the Bureau of EMS, Trauma and Preparedness assisted in coordinating minority input on state health programs and policies. A staff member within Legislative, Appropriations
	and policies.

PA 653 Provision	MDHHS Program/Initiative and Activities
	and works closely with 12 federally recognized tribes to address COVID and other health concerns.
(m) Provide funding, within the limits of appropriations, to support evidence-based preventative health, education and treatment programs that include outcome measures and evaluation plans in minority communities.	The Mobile Health Units utilized \$6.8 million in grant support for mobile COVID-19 testing. Components of this program consisted of providing residents with evidence-based education on COVID-19 risk, exposure, testing and prevention. Individuals who tested positive were connected to a healthcare provider if they did not already have one. Residents were also provided with protective equipment such as masks.
(n) Provide TA to local communities to obtain funding for the development and implementation of a health care delivery system to meet the needs, gaps and barriers identified in the statewide strategic plan for eliminating racial and ethnic health disparities.	In response to needs, barriers and gaps created by the pandemic, \$20 million in funding was provided for a Rapid Response Initiative. This effort funded community organizations and locally based programs to address the disparate impact of the virus on communities of color. Strategies included community-driven responses that met vital service gaps and/or tangible needs. In addition, \$36 million was issued to Community Action Agencies to assist with reducing the negative impact of the COVID-19 pandemic on marginalized communities.

Conclusion

The COVID-19 pandemic has highlighted health and social inequities, exacerbated limits on access to care, and identified barriers to services for communities of color and other marginalized populations. Moreover, it has led to unprecedented health and economic hardships. However, as Michigan looks ahead from response to recovery from the COVDI-19 pandemic, it has the unique opportunity to invest in strategies that will make systems and communities better, stronger, more resilient and more equity focused. To do so, the department must leverage state and community partnerships, engage with community leaders and residents, apply an equity framework to its work and invest government resources—including Federal American Rescue Plan dollars—in structural changes that align with community needs and promote optimal health for all.²⁹

The path forward will not be easy, but is possible with a whole government and

community approach.¹¹ This approach must recognize the various factors and systemic causes underlying health disparities and inequities, employ multi-pronged strategies that advance both short- and long-term solutions, invest in capacity building that fosters resiliency and the ability to respond to emergency situations, and strive for sustained systemic change.^{11,12} Moreover, it must involve diverse, multisectoral stakeholders in order to effectively address factors affecting health and well-being that extend beyond the domains of public health and human services.³⁰

While the inequities exposed by COVID-19 are not new, the question remains whether the pandemic will serve as a catalyst for public officials to make meaningful, sustained investments in the state's public health and human services infrastructure and system capacity.²³ This includes dedicating attention to and resources for the upstream drivers of health, such as social determinants of health.²³ Even once the acute phase of the COVID-19 pandemic passes, there will be long-term effects that need to be addressed. Moreover, the pandemic has pointed to areas where there are opportunities to improve. The hope is that the lessons learned from the COVID-19 crisis will lead to positive, long-lasting change that creates more resilient communities with systems to support the whole scope of health and social needs.²³ This requires keeping equity at the forefront of all efforts and fostering a culture of health and social equity within MDHHS and the entire state.

Acknowledgements

The Office of Equity and Minority Health (OEMH) would like to thank all MDHHS administration and bureau directors and personnel that completed the 2020 Health Equity Survey. OEMH would also like to thank the department's executive leaders who took part in key informant interviews. The time and assistance of participants, especially during a global pandemic, is much appreciated.

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Attachment A: Public Act (PA) 653

Act No. 653
Public Acts of 2006
Approved by the Governor
January 8, 2007
Filed with the Secretary of State
January 9, 2007
EFFECTIVE DATE: January 9, 2007
STATE OF MICHIGAN
93RD LEGISLATURE
REGULAR SESSION OF 2006

Introduced by Reps. Murphy, Gonzales, Zelenko, Williams, Whitmer, McConico, Leland, Clemente, Condino, Tobocman, Farrah, Lipsey, Alma Smith, Clack, Cushingberry, Plakas, Hopgood, Waters, Anderson, Stewart, Kolb, Meyer, Adamini, Brown, Gaffney, Virgil Smith, Hunter, Kathleen Law, Bieda, Meisner, Wojno, Vagnozzi, Taub, Accavitti, Stakoe, Gleason, Wenke, Ward, Byrum, Sak, Nitz, Moolenaar, Casperson, Dillon, Angerer, Bennett, Byrnes, Caul, Cheeks, Espinoza, Green, Hansen, Rick Jones, Kahn, David Law, Lemmons, Jr., Marleau, Mayes, McDowell, Miller, Polidori, Proos, Sheltrown and Spade

ENROLLED HOUSE BILL No. 4455

AN ACT to amend 1978 PA 368, entitled "An act to protect and promote the public health; to codify, revise, consolidate, classify, and add to the laws relating to public health; to provide for the prevention and control of diseases and disabilities; to provide for the classification, administration, regulation, financing, and maintenance of personal, environmental, and other health services and activities; to create or continue, and prescribe the powers and duties of, departments, boards, commissions, councils, committees, task forces, and other agencies; to prescribe the powers and duties of governmental entities and officials; to regulate occupations, facilities, and agencies affecting the public health; to regulate health maintenance organizations and certain third party administrators and insurers; to provide for the imposition of a regulatory fee; to provide for the levy of taxes against certain health facilities or agencies; to promote the efficient and economical delivery of health care services, to provide for the appropriate utilization of health care facilities and services, and to provide for the closure of hospitals or consolidation of hospitals or services; to provide for the collection and use of data and information; to provide for the transfer of property; to provide certain immunity from liability; to regulate and prohibit the sale and offering for sale of drug paraphernalia under certain circumstances; to provide for the implementation of federal law; to provide for penalties and remedies; to provide for sanctions for violations of this act and local ordinances; to provide for an appropriation and supplements; to repeal certain acts and parts of acts; to repeal certain parts of this act; and to repeal certain parts of this act on specific dates," (MCL 333.1101 to 333.25211) by adding section 2227.

The People of the State of Michigan enact:

Sec. 2227. The department shall do all of the following:

- (a) Develop and implement a structure to address racial and ethnic health disparities in this state.
- (b) Monitor minority health progress.
- (c) Establish minority health policy.
- (d) Develop and implement an effective statewide strategic plan for the reduction of racial and ethnic health disparities.
- (e) Utilize federal, state, and private resources, as available and within the limits of appropriations, to fund minority health programs, research, and other initiatives.

- (f) Provide the following through interdepartmental coordination:
- (i) Data and technical assistance to minority health coalitions and any other local entities addressing the elimination of racial and ethnic health disparities.
- (ii) Measurable objectives to minority health coalitions and any other local health entities for the development of interventions that address the elimination of racial and ethnic health disparities.
- (g) Establish a web page on the department's website, in coordination with the state health disparities reduction and minority health section, that provides information or links to all of the following:
- (i) Research within minority populations.
- (ii) A resource directory that can be distributed to local organizations interested in minority health.
- (iii) Racial and ethnic specific data including, but not limited to, morbidity and mortality.
- (h) Develop and implement recruitment and retention strategies to increase the number of minorities in the health and social services professions.
- (i) Develop and implement awareness strategies targeted at health and social service providers in an effort to eliminate the occurrence of racial and ethnic health disparities.
- (j) Identify and assist in the implementation of culturally and linguistically appropriate health promotion and disease prevention programs that would emphasize prevention and incorporate an accessible, affordable, and acceptable early detection and intervention component.
- (k) Promote the development and networking of minority health coalitions.
- (1) Appoint a department liaison to provide the following services to local minority health coalitions:
- (i) Assist in the development of local prevention and intervention plans.
- (ii) Relay the concerns of local minority health coalitions to the department.
- (iii) Assist in coordinating minority input on state health policies and programs.
- (iv) Serve as the link between the department and local efforts to eliminate racial and ethnic health disparities.
- (m) Provide funding, within the limits of appropriations, to support evidence-based preventative health, education, and treatment programs that include outcome measures and evaluation plans in minority communities.
- (n) Provide technical assistance to local communities to obtain funding for the development and implementation of a health care delivery system to meet the needs, gaps, and barriers identified in the statewide strategic plan for eliminating racial and ethnic health disparities.
- (o) One year after the effective date of this section and each year thereafter, submit a written report on the status, impact, and effectiveness of the amendatory act that added this section to the standing committees in the senate and house of representatives with jurisdiction over issues pertaining to public health, the senate and house of representatives appropriations subcommittees on community health, and the senate and house fiscal agencies.

This act is ordered to take immediate effect. Clerk of the House of Representatives Secretary of the Senate Approved

Attachment B

Summary Data Brief of the Changes in Health Disparities Between 2010-2019

Introduction

The focus of this summary data brief is health disparities and how they change in Michigan's populations over time. This summary data brief presents group-level data for five racial and ethnic groups in Michigan across two time periods (2008-2010) and (2017-2019) compared to Michigan's white population for these same periods. The data brief describes how populations compare to one another in terms of population rates for several social determinants of health and health outcomes. These comparisons describe populations relative to each other and if they become closer to one another (less disparate) or further from one another (more disparate) over time. The purpose of these data tables is to allow for routine monitoring of health disparities in Michigan and to evaluate their progress over time.

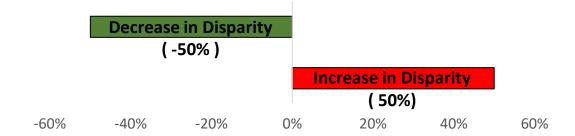
Health Indicators

Each of the tables contains two sets of indicators with data for each racial and ethnic population. The first set of indicators include social, economic, and environmental determinants for individual and community health. The second set of indicators include health outcomes represented by mortality and morbidity rates for several diseases. Monitoring social determinants along with health outcomes is optimal for evaluating success in achieving sustainable health equity for racial and ethnic minority populations in Michigan.

Health Equity Measures

Change in Pairwise Disparity Over Time: The change in pairwise disparity over time describes whether the index population (Racial/Ethnic Minority) rate has gotten closer to or farther from the white population rate from one time period to another.

The above listed health disparity measure is shown in both tabular form with the population rates for both the indexed and white population listed by each of the time periods, followed by the **Percent (%) Change in Pairwise Disparity Over Time**. The percent change in pairwise disparity over time for each health indicator is then shown graphically in order from greatest increase in disparity (positive percent) to greatest decrease in disparity (negative percent).



Change in health disparity: African American and white community

- Within the African American community, several decreases in disparity between the African American and white American communities have occurred such as a 39.9% reduction in the unemployment rate and 16.7% reduction in not having a personal health care provider.
- These reductions have mainly been due to improvements in the rates of these social determinants
 of health for African Americans and some worsening in rates in the white community.
- Some of the biggest increases in disparity have been due to a worsening of mortality and morbidity rates in the white community such as rise in the rate of Alzheimer mortality (32.5 per 100,000 in 2010 to 51.9 per 100,000 in 2019).

	2008-2010		2017-2019		
Indicators	African American	white American	African American	white American	% Change in rate ratio
Social determinants					
Unemployment rate, % ^a	13.8%	7.10%	6.80%	2.50%	-39.9%
No routine checkup in past year, %b	17.5%	12.2%	17.8%	15.4%	-19.4%
High school dropout rate, %b	20.2%	7.86%	13.8%	6.59%	-19.0%
Living in different house than last year, %a	21.9%	12.6%	16.5%	11.5%	-17.5%
No personal health care provider, %b	19.4%	11.8%	15.2%	11.1%	-16.7%
Less than HS diploma, persons ≥25 years, %ª	15.0%	8.60%	10.1%	6.40%	-9.52%
Cost burdened owners (mortgage cost >30% income), %a	48.6%	35.0%	32.1%	21.2%	-9.04%
Percent without health insurance, %b	15.9%	10.9%	7.30%	5.50%	-9.01%
Living in owner-occupied housing, %a	47.1%	79.8%	44.1%	79.0%	5.42%
Median housing value (dollars) ^a	84,100	142,600	83,800	174,800	18.7%
Poor physical health on at least 14 days in the past month, % ^b	24.3%	35.0%	17.5%	32.3%	22.0%
Mortality and morbidity indicators					
Aids mortality per 100,000°	2.77	0.18	0.58	0.12	-67.3%
Heart failure mortality per 100,000°	15.2	28.4	33.0	40.4	-53.1%
Hypertensive heart disease mortality per 100,000°	36.3	14.5	41.1	26.7	-38.4%
Hypertension mortality per 100,000°	48.7	22.6	55.9	37.5	-30.8%
Alzheimer's mortality per 100,000°	11.9	32.5	22.6	51.9	19.3%
Kidney mortality per 100,000°	21.4	17.7	29.0	17.5	37.6%
Asthma mortality per 100,000°	2.48	0.70	3.28	0.59	58.3%

<u>Key:</u> Positive percentages represent an increase in disparity (difference) between the population of interest and the white population, while negative percentages represent a decrease in disparity. Percentages less than (+/-) 5% show no change in disparity. For ratios less than 1.00 these values are inverse.

a. Data Source: American Community Survey, population profile 3 year estimate 2008-2010; 1 year estimate 2019. For these indicators Asian estimate does not include Pacific Islanders and all races are non-Hispanic. For Indicators of Hispanic estimates, Hispanics include combination with one or more races.

b. Data Source: Michigan Behavioral Risk Factor Survey, 3 year estimates 2008-2010; 2017-2019. For these indicators all race and ethnicities are non-Hispanic.

c. Data Source: Division for Vital Records and Health Statistics. Michigan Department of Health and Human Services 1 year estimate 2019.

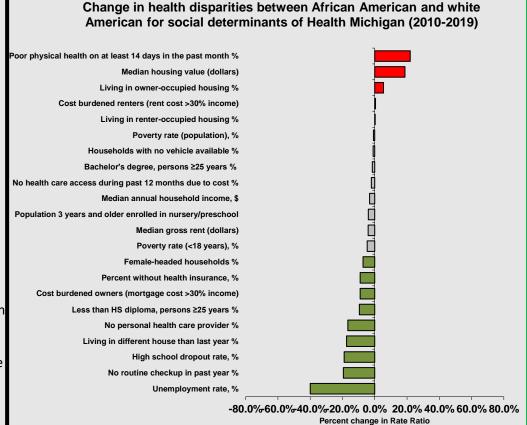
Calculations for change in pairwise disparity for disparity comparisons to white populations can be found in the Michigan Health Equity Data Project's Michigan Health Equity Data Tables and Related Technical Documents 2000-2009. https://www.michigan.gov/documents/mdch/MI Health Equity Data Tables - May 2011 361639 7.pdf

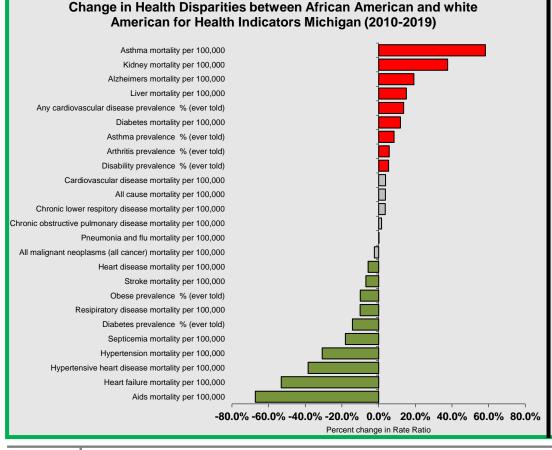
Change in health disparity: African American and white community

	2008-2010 2017-2019		2019		
Indicators	African	white	African	white	% Change
	American	American	American	American	rate ratio
Social determinants					
Unemployment rate, %a	13.8%	7.10%	6.80%	2.50%	-39.9%
No routine checkup in past year, %b	17.5%	12.2%	17.8%	15.4%	-19.4%
High school dropout rate, %a	20.2%	7.90%	13.8%	6.59%	-19.0%
Living in different house than last year, %a	21.9%	12.6%	16.5%	11.5%	-17.5%
No personal health care provider, %b	19.4%	11.8%	15.2%	11.1%	-16.7%
Less than HS diploma, persons ≥25 years, %ª	15.0%	8.60%	10.1%	6.40%	-9.50%
Cost burdened owners (mortgage cost >30% income) a	48.6%	35.0%	32.1%	21.2%	-9.00%
Percent without health insurance, %b	15.9%	10.9%	7.30%	5.50%	-9.00%
Female-headed households, %a	38.2%	9.60%	34.7%	9.40%	-7.20%
Poverty rate (<18 years), % ^a	45.0%	15.9%	35.6%	13.2%	-4.70%
Median gross rent (dollars) ^a	746	713	883	880	-4.10%
Population 3 years and older enrolled in nursery/preschoola	4.90%	5.40%	5.40%	6.20%	-4.00%
Median annual household income, \$a	30,044	50,009	36,833	63,326	-3.20%
No health care access during past 12 months, %a	12.1%	9.90%	15.8%	13.2%	-2.10%
Bachelor's degree, persons ≥25 years, %a	15.5%	26.0%	18.2%	31.0%	-1.50%
Households with no vehicle available, %a	19.1%	5.50%	18.9%	5.50%	-1.00%
Poverty rate (population), % ^a	31.6%	12.2%	26.2%	10.2%	-0.80%
Living in renter-occupied housing, %a	49.2%	18.2%	51.8%	19.1%	0.32%
Cost burdened renters (rent cost >30% income) a	64.3%	52.2%	55.7%	45.0%	0.50%
Living in owner-occupied housing, %a	47.1%	79.8%	44.1%	79.0%	5.40%
Median housing value (dollars) ^a	84,100	142,600	83,800	174,800	18.7%
Poor physical health in 14 days in the past month, % ^b	24.3%	35.0%	17.5%	32.3%	22.0%
Mortality and morbidity indicators	24.070	00.070	17.570	02.070	22.070
Aids mortality per 100,000°	2.77	0.18	0.58	0.12	-67.3%
Heart failure mortality per 100,000°	15.2	28.4	33.0	40.4	-53.1%
Hypertensive heart disease mortality per 100,000°	36.3	20. 4 14.5	33.0 41.1	26.7	-38.4%
Hypertension mortality per 100,000°	48.7	22.6	55.9	37.5	-30.4%
11 **	46.7 16.8			37.5 11.4	-18.1%
Septicemia mortality per 100,000° Diabetes prevalence, % (ever told) b		9.13	17.2		-16.1%
, ,	14.3%	7.60%	14.2%	8.80%	-14.2%
Respiratory disease mortality per 100,000°	55.4	92.4	68.7	104.2	
Obese prevalence, % (ever told) b	41.9%	28.8%	42.3%	32.3%	-10.0%
Stroke mortality per 100,000°	46.8	47.7	50.2	55.0	-6.90%
Heart disease mortality per 100,000°	240.0	251.0	273.0	270.1	-5.70%
All malignant neoplasms mortality per 100,000°	196.9	223.6	193.3	224.7	-2.40%
Pneumonia and flu mortality per 100,000°	16.4	16.3	17.6	17.4	0.20%
Chronic obstructive pulmonary disease mortality per 100,000°	23.2	52.7	28.2	62.8	1.70%
Chronic lower respiratory disease mortality per 100,000°	28.7	58.8	33.7	66.7	3.60%
All cause mortality per 100,000°	876.0	946.6	1007.9	1050.0	3.70%
Cardiovascular disease mortality per 100,000c	310.9	320.4	350.4	347.8	3.80%
Disability prevalence, % (ever told) b	25.2%	22.4%	29.3%	24.7%	5.40%
Arthritis prevalence, % (ever told) ^b	30.0%	29.9%	29.3%	27.6%	5.80%
Asthma prevalence, % (ever told) ^b	17.8%	15.1%	20.7%	16.2%	8.40%
Diabetes mortality per 100,000°	31.3	27.9	36.9	29.4	11.9%
Any cardiovascular disease prevalence, % (ever told) b	9.80%	7.90%	11.0%	7.80%	13.7%
Liver mortality per 100,000°	13.8	15.4	14.7	19.4	15.1%
Alzheimer's mortality per 100,000°	11.9	32.5	22.6	51.9	19.3%
Kidney mortality per 100,000°	21.4	17.7	29.0	17.5	37.6%
Asthma mortality per 100,000°	2.48	0.70	3.28	0.59	58.2%
	<u> </u>				

Change in health disparity: African American and white community

- The gap between African American and white American poor physical health rates increased by 22.0% between 2010 and 2019.
- In contrast, the gap in the individuals with no routine check up decreased between white and Black communities by 19.4%.
- This was due to white Americans having fewer routine check ups from 2010 to 2019 while the number of African American check ups stayed the same.
- The disparity in many of the SDOH indicators decreased between African and white Americans over this period.





- Overall long-term causes of mortality such as chronic diseases like cardiovascular disease, diabetes, and kidney disease have increased in the disparity between African American and white Americans.
- There is still a reduction in disparity between these populations, but this is mainly due to both populations having worsening health.
- Additionally, many of the increases in disparity are due to African American having an increase in mortality and morbidity rates while white rates remain relatively similar.

Change in health disparity: Hispanic American and white community

- Between the Hispanic American and white American communities, the disparity between mortality and morbidity has increased.
- Increases in disparity have been due to mortality and morbidity rates increasing in non-Hispanic
 white Americans at a faster pace than Hispanic Americans. For example, stroke mortality rates for
 Hispanic Americans increased 9.88 deaths per 100,000 in 2010 to 16.9 deaths per 100,00 in 2019
 and the white community going from 47.7 deaths per 100,000 to 55.0 deaths per 100,000.
- Likewise reductions in disparities have been due to Hispanic American mortality and morbidity rates rising in diseases in which Hispanic Americans previously had lower rates than non-Hispanic white Americans such as Cancer mortality. This has led to Hispanic Americans gaining more parity with the much higher mortality and morbidity rates of white Americans.

	2008-	2010	2017-2019		
Indicators	Hispanic American	white American	Hispanic American	white American	% Change in rate ratio
Social determinants					
High school dropout rate, %a	19.8%	7.90%	11.9%	6.59%	-27.9%
Living in different house than last year, %a	21.0%	12.6%	14.7%	11.5%	-23.3%
Population 3 years and older enrolled in nursery/preschool ^a	7.10%	5.40%	6.40%	6.20%	-21.5%
Poverty rate (population), % ^a	33.5%	15.9%	30.6%	13.2%	-14.2%
Bachelor's degree, persons ≥25 yearsª	15.5%	26.0%	20.0%	31.0%	8.20%
No health care access during past 12 months due to cost, % ^b	10.6%	9.90%	15.6%	13.2%	10.4%
Poor physical health on at least 14 days in the past month, % ^b	32.7%	35.0%	25.3%	32.3%	16.2%
No routine checkup in past year, % ^b	15.2%	12.2%	23.0%	15.4%	19.9%
Mortality and morbidity indicators					
Kidney mortality per 100,000°	4.18	17.7	7.22	17.5	-75.0%
Pneumonia and flu mortality per 100,000°	3.80	16.3	5.89	17.4	-45.0%
All malignant neoplasms (all cancer) mortality per 100,000°	40.9	223.6	57.5	224.7	-40.2%
Stroke mortality per 100,000°	9.88	47.7	16.9	54.9	48.4%
Hypertension mortality per 100,000°	3.80	22.6	12.1	37.5	92.9%
Hypertensive heart disease mortality per 100,000°	1.90	14.5	9.31	26.7	166.5%
Alzheimer's mortality per 100,000°	2.09	32.5	10.1	51.9	202.2%

<u>Key:</u> Positive percentages represent an increase in disparity (difference) between the population of interest and the white population, while negative percentages represent a decrease in disparity. Percentages less than (+/-) 5% show no change in disparity. For ratios less than 1.00 these values are inverse.

Calculations for change in pairwise disparity for disparity comparisons to white Populations can be found in the Michigan Health Equity Data Project's Michigan Health Equity Data Tables and Related Technical Documents 2000-2009. https://www.michigan.gov/documents/mdch/MI Health Equity Data Tables
May 2011 361639 7.pdf

a. Data Source: American Community Survey, population profile 3 year estimate 2008-2010; 1 year estimate 2019. For these indicators Asian estimate does not include Pacific Islanders and all races are non-Hispanic. For Indicators of Hispanic estimates, Hispanics include combination with one or more races.

b. Data Source: Michigan Behavioral Risk Factor Survey, 3 year estimates 2008-2010; 2017-2019. For these indicators all race and ethnicities are non-Hispanic.

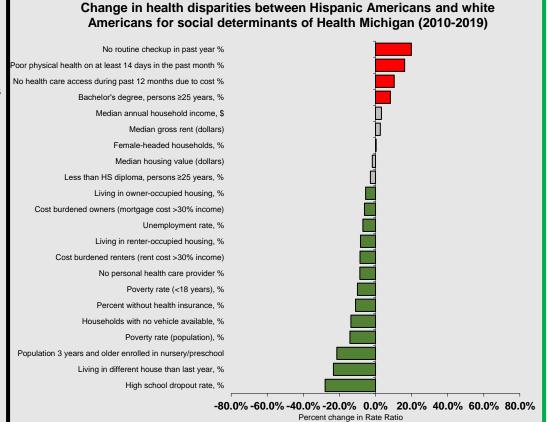
c. Data Source: Division for Vital Records and Health Statistics. Michigan Department of Health and Human Services 1 year estimate 2019.

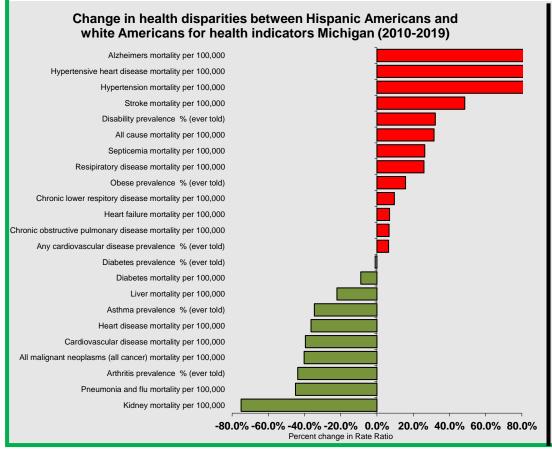
Change in health disparity: Hispanic American and white community

<u> </u>	2008-2010 2017-2019				
Indicators	Hispanic	white	Hispanic	white	% Change
	American	American	American	American	rate ratio
Social determinants					
High school dropout rate, %a	19.8%	7.90%	12.0%	6.59%	-27.9%
Living in different house than last year, %	21.0%	12.6%	14.7%	11.5%	-23.3%
Population 3 years and older enrolled in	7.10%	5.40%	6.40%	6.20%	-21.5%
nursery/preschool ^a					
Poverty rate (population), % ^a	27.6%	12.2%	19.8%	10.2%	-14.2%
Households with no vehicle available, %	8.80%	5.50%	7.60%	5.50%	-13.6%
Percent without health insurance, %b	22.3%	10.9%	12.5%	5.50%	-11.1%
Poverty rate (<18 years), % ^a	33.5%	15.9%	30.6%	13.2%	-10.0%
No personal health care provider, %b	17.7%	11.8%	15.2%	11.1%	-8.70%
Cost burdened renters (rent cost >30% income) a	53.5%	52.2%	50.1%	45.0%	-8.60%
Living in renter-occupied housing, %	37.3%	18.2%	35.9%	19.1%	-8.30%
Unemployment rate, % ^a	11.6%	7.10%	3.80%	2.50%	-7.00%
Cost burdened owners (mortgage cost >30% income) a	41.5%	35.0%	23.6%	21.2%	-6.10%
Living in owner-occupied housing, %	59.1%	79.8%	61.7%	79.0%	-5.50%
Less than HS diploma, persons ≥25 years, %ª	30.0%	8.60%	21.7%	6.40%	-2.80%
Median housing value (dollars) a	98,900	142,600	119,100	174,800	-1.80%
Female-headed households, %a	17.5%	9.60%	17.2%	9.40%	0.40%
Median gross rent (dollars) a	715	713	906	880	2.70%
Median annual household income, \$a	38,049	50,009	49,761	63,326	3.30%
Bachelor's degree, persons ≥25 years, %ª	15.5%	26.0%	20.0%	31.0%	8.20%
No health care access during past 12 months, %b	10.6%	9.90%	15.6%	13.2%	10.4%
Poor physical health in14 days in the past month, %b	32.7%	35.0%	25.3%	32.3%	16.2%
No routine checkup in past year, %b	15.2%	12.2%	23.0%	15.4%	19.9%
Mortality and morbidity indicators					
Kidney mortality per 100,000°	4.18	17.7	7.22	17.5	-75.0%
Pneumonia and flu mortality per 100,000°	3.80	16.3	5.89	17.4	-45.0%
Arthritis prevalence, % (ever told) ^b	21.1%	29.9%	28.0%	27.6%	-43.8%
All malignant neoplasms (all cancer) mortality per 100,000°	40.9	223.6	57.6	224.7	-40.2%
Cardiovascular disease mortality per 100,000°	58.3	320.4	88.4	347.8	-39.5%
Heart disease mortality per 100,000°	44.3	251.0	65.0	270.1	-36.4%
Asthma prevalence, % (ever told) b	10.6%	15.1%	15.3%	16.2%	-34.5%
Liver mortality per 100,000°	10.3	15.4	15.8	19.4	-22.1%
Diabetes mortality per 100,000°	10.3	27.9	11.8	29.4	-9.00%
Diabetes prevalence, % (ever told) b	13.0%	7.60%	14.9%	8.80%	-1.00%
Any cardiovascular disease prevalence, % (ever told) b	9.90%	7.90%	10.4%	7.80%	6.40%
Chronic obstructive pulmonary disease mortality per 100,000°	7.03	52.7	8.93	62.8	6.70%
Heart failure mortality per 100,000°	4.37	28.4	6.65	40.4	7.00%
Chronic lower respiratory disease mortality per 100,000°	7.79	58.8	9.69	66.7	9.60%
Obese prevalence, % (ever told) b	33.8%	28.8%	43.9%	32.3%	15.8%
Respiratory disease mortality per 100,000°	15.4	92.4	21.9	104.2	25.9%
Septicemia mortality per 100,000°	2.28	9.13	3.61	11.4	26.4%
All cause mortality per 100,000°	222.7	946.6	324.9	1050.1	31.5%
Disability prevalence, % (ever told) b	20.1%	22.4%	29.3%	24.7%	32.2%
Stroke mortality per 100,000°	9.88	47.7	16.9	55.0	48.4%
Hypertension mortality per 100,000°	3.80	22.6	12.2	37.5	92.9%
Hypertensive heart disease mortality per 100,000°	1.90	14.5	9.31	26.7	166.5%
Alzheimer's mortality per 100,000°	2.09	32.5	10.1	51.9	202.2%
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Change in health disparity: Hispanic American and white community

- The disparity between
 Hispanic and nonHispanic white
 Americans has
 decreased in many key
 SDOH indicators such as
 household income,
 poverty rate, and lack of
 personal health care
 providers. One example
 is the reduction in the
 number of Hispanic
 households without a
 vehicle from 2010 to
 2019.
- Similar reductions in disparity have occurred and are due to the Hispanic American community gaining more parity with non-Hispanic white Americans across many of these SDOH indicators.





- The disparity in mortality between the Hispanic and non-Hispanic white communities has increased for many chronic diseases such as hypertensive heart disease and all respiratory diseases.
- Many of the increases in disparity are due to a quicker rise in mortality and morbidity rates in the non-Hispanic white community. While mortality and morbidity has also increased in the Hispanic American community over this same period, it has been at a slightly slower rate when compared to the non-Hispanic white American leading to a larger gap in mortality and morbidity.

Change in health disparity: Asian American and white community

- Within the Asian American community many rates for the social determinants of health are better than that of the white Americans which can affect how changes in disparities occur.
- Some of the decreases in SDOH disparity are due to an improvement of rates among Asian Americans such as a lowering of the poverty rate and an increase in individuals with bachelors' degrees. (Poverty rate: Asian Americans 2010: 14.5% 2019: 10.2% | white Americans 2010: 12.2% 2019: 10.2%)
- However, decreases in disparities for health indicators have been due to a rise of mortality and morbidity rates among Asian Americans bringing their rates closer to the much higher white American rates such as Septicemia mortality rates per 100,000. (Asian Americans 2010: 1.53 – 2019: 5.20 | white Americans 2010: 9.13 - 2019: 11.4)

	2008-2010		2017-20		
Indicators	Asian American	white American	Asian American	white American	% Change in rate ratio
Social determinants					
No personal health care provider, %b	14.7%	11.8%	9.90%	11.1%	-28.4%
Poverty rate (population), % ^a	14.5%	12.2%	10.2%	10.2%	-15.9%
Percent without health insurance, %b	11.7%	10.9%	5.20%	5.50%	-11.9%
Bachelor's degree, persons ≥25 years, %ª	61.1%	26.0%	65.0%	31.0%	-10.8%
Unemployment rate, %a	5.80%	7.10%	1.90%	2.50%	-7.00%
Poverty rate (<18 years), % ^a	14.1%	15.9%	9.30%	13.2%	20.6%
Female-headed households, %a	5.80%	9.60%	3.50%	9.40%	38.4%
Poor physical health on at least 14 days in the past month, % ^b	36.3%	35.0%	20.2%	32.3%	39.7%
No health care access during past 12 months due to cost, % ^b	1.90%	9.90%	5.00%	13.2%	97.4%
Mortality and morbidity indicators					
Septicemia mortality per 100,000°	1.53	9.13	5.20	11.4	-171.5%
Asthma prevalence, % (ever told) b	6.10%	15.1%	12.0%	16.2%	-83.4%
Diabetes mortality per 100,000°	4.89	27.9	8.86	29.4	-72.0%
Pneumonia and flu mortality per 100,000°	1.83	16.3	3.36	17.4	-71.5%
Stroke mortality per 100,000°	11.3	47.7	17.1	55.0	31.3%
Cardiovascular disease mortality per 100,000°	46.8	320.4	70.3	347.8	38.5%
Heart disease mortality per 100,000°	32.4	251.0	50.1	270.1	43.8%
All cause mortality per 100,000°	147.9	946.6	244.2	1050.1	48.8%
Alzheimer's mortality per 100,000°	2.14	32.5	9.78	51.9	186.7%

<u>Key:</u> Positive percentages represent an increase in disparity (difference) between the population of interest and the white population, while negative percentages represent a decrease in disparity. Percentages less than (+/-) 5% show no change in disparity. For ratios less than 1.00 these values are inverse.

a. Data Source: American Community Survey, population profile 3 year estimate 2008-2010; 1 year estimate 2019. For these indicators Asian estimate does not include Pacific Islanders and all races are non-Hispanic. For Indicators of Hispanic estimates, Hispanics include combination with one or more races.

b. Data Source: Michigan Behavioral Risk Factor Survey, 3 year estimates 2008-2010; 2017-2019. For these indicators all race and ethnicities are non-Hispanic.

c. Data Source: Division for Vital Records and Health Statistics. Michigan Department of Health and Human Services 1 year estimate 2019.

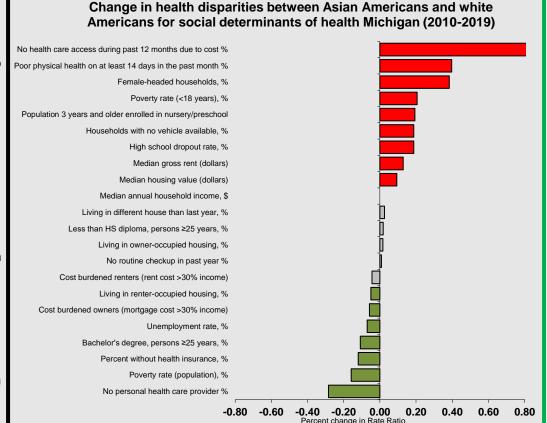
Calculations for change in pairwise disparity for disparity comparisons to white Populations can be found in the Michigan Health Equity Data Project's Michigan Health Equity Data Tables and Related Technical Documents 2000-2009. https://www.michigan.gov/documents/mdch/MI Health Equity Data Tables - May 2011 361639 7.pdf

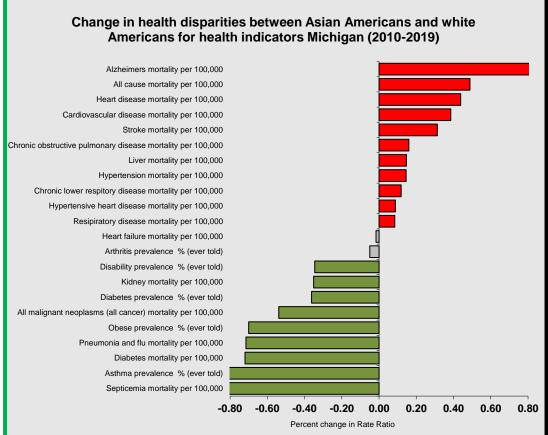
Change in health disparity: Asian American and white community

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Indicators	Asian American	white	Asian American	white	% Change rate ratio	
Social determinants						
No personal health care provider, % ^a	14.7%	11.8%	9.90%	11.1%	-28.4%	
Poverty rate (population), % ^a	14.5%	12.2%	10.2%	10.2%	-15.9%	
Percent without health insurance, %b	11.7%	10.9%	5.20%	5.50%	-11.9%	
Bachelor's degree, persons ≥25 years, %ª	61.1%	26.0%	65.0%	31.0%	-10.8%	
Unemployment rate, %a	5.80%	7.10%	1.90%	2.50%	-7.00%	
Cost burdened owners (mortgage cost >30% income) a	36.8%	35.0%	21.0%	21.2%	-5.80%	
Living in renter-occupied housing, %a	32.4%	18.2%	32.3%	19.1%	-5.00%	
Cost burdened renters (rent cost >30% income) a	36.5%	52.2%	30.1%	45.0%	-4.30%	
No routine checkup in past year, % ^b	11.7%	12.2%	14.9%	15.4%	0.89%	
Living in owner-occupied housing, %a	64.7%	79.8%	65.1%	79.0%	1.64%	
Less than HS diploma, persons ≥25 years, %a	9.50%	8.60%	7.20%	6.40%	1.84%	
Living in different house than last year, %a	15.6%	12.6%	14.6%	11.5%	2.50%	
Median annual household income, \$a	68,632	50,009	90,409	63,326	4.00%	
Median housing value (dollars) ^a	208,300	142,600	279,200	174,800	9.30%	
Median gross rent (dollars) ^a	799	713	1113	880	12.9%	
High school dropout rate, %a	6.40%	7.90%	4.37%	6.59%	18.7%	
Households with no vehicle available, %a	6.40%	5.50%	7.60%	5.50%	18.8%	
Population 3 years and older enrolled in						
nursery/preschool ^a	5.40%	5.40%	5.00%	6.20%	19.4%	
Poverty rate (<18 years), % ^a	14.1%	15.9%	9.30%	13.2%	20.6%	
Female-headed households, %a	5.80%	9.60%	3.50%	9.40%	38.4%	
Poor physical health on at least 14 days in the past	36.3%	35.0%	20.2%	32.3%	39.7%	
month, %b	30.370	00.070	20.270	02.070	00.770	
No health care access during past 12 months due to	1.90%	9.90%	5.00%	13.2%	97.4%	
cost, %b						
Mortality and morbidity indicators	1.50	0.10	= 00	44.4	474 50/	
Septicemia mortality per 100,000°	1.53	9.13	5.20	11.4	-171.5%	
Asthma prevalence, % (ever told) b	6.10%	15.1%	12.0%	16.2%	-83.4%	
Diabetes mortality per 100,000°	4.89	27.9	8.86	29.4	-72.0%	
Pneumonia and flu mortality per 100,000°	1.83	16.3	3.36	17.4	-71.5%	
Obese prevalence, % (ever told) b	6.40%	28.8%	12.2%	32.3%	-70.0%	
All malignant neoplasms (all cancer) mortality per 100,000°	39.7	223.6	61.4	224.7	-53.8%	
Diabetes prevalence, % (ever told) ^b	10.7%	7.60%	7.90%	8.80%	-36.2%	
Kidney mortality per 100,000°	3.67	17.7	4.89	17.5	-35.1%	
Disability prevalence, % (ever told) b	6.00%	22.4%	8.90%	24.7%	-34.5%	
Arthritis prevalence, % (ever told) b	15.5%	29.9%	13.6%	27.6%	-4.90%	
Heart failure mortality per 100,000°	3.06	28.4	4.28	40.4	-1.60%	
Respiratory disease mortality per 100,000°	11.0	92.4	13.5	104.2	8.40%	
Hypertensive heart disease mortality per 100,000∘	2.14	14.5	4.28	26.7	8.80%	
Chronic lower respiratory disease mortality per 100,000°	4.58	58.8	4.58	66.7	11.9%	
Hypertension mortality per 100,000°	3.67	22.6	5.20	37.5	14.6%	
Liver mortality per 100,000°	2.75	15.4	3.97	19.4	14.7%	
Chronic obstructive pulmonary disease mortality per	3.06	52.7	3.06	62.8	16.0%	
100,000° Stroke mortality per 100,000°	11.3	47.7		55.0	31.3%	
Stroke mortality per 100,000°			17.1 70.2		31.3%	
Cardiovascular disease mortality per 100,000°	46.8	320.4	70.3 50.1	347.8	38.5% 43.8%	
Heart disease mortality per 100,000° All cause mortality per 100,000°	32.4 147.9	251.0 946.6	50.1 244.2	270.1 1050.1	43.8%	
Alzheimer's mortality per 100,000°	2.14	946.6 32.5	244.2 9.78	51.9	186.7%	
Prizheimer a mortality per 100,000°	2.14	32.0	9.70	51.5	100.1 70	

Change in health disparity: Asian American and white community

- From 2010 to 2019,
 Asian Americans have seen an improvement in many SDOH indicators to be comparable or better than white American rates in the same indicators.
- Most increases in disparities have been due to Asian American SDOH rates improving while white American rates remain similar such as the case of poor physical health rates.
- Likewise, the reduction in disparities for SDOH indicators is due to improvements in rates in the Asian American community.





- Many of the reductions in disparity for health indicators between the white and Asian communities are due to the slower increase in the rates of Asian American mortality for a number of chronic diseases.
- For example, diabetes mortality rates for Asian Americans raised from 4.89 to 8.86 deaths per 100,000 from 2010 to 2019.
- Increases in disparities are due to worsening of health in white and Asian Americans with Asian American health declining at a slower rate.

Change in health disparity: Native American and white community

- The disparity between the Native American and white American communities increased across most social determinants of health due to a worsening of SDOH rates among Native Americans such as an increase in the percent of individuals without High School diplomas.
- However, in some cases increases in disparities were due to an improvement in SDOH indicators among both native American and white communities but with there being a larger improvement in the white community than the native American community. For example, the proportion of individuals without health insurance. (Native Americans 2010: 17.1% - 2019: 14.6% | white Americans 2010: 10.9% - 2019: 5.50%)

	2008-2010		2017-2019			
Indicators	Native American	white American	Native American	white American	% Change in rate ratio	
Social determinants						
Living in renter-occupied housing, %a	33.2%	18.2%	30.2%	19.1%	-13.3%	
Less than HS diploma, persons ≥25 years, %ª	14.7%	8.60%	12.0%	6.40%	-9.70%	
Median gross rent (dollars) ^a	623	713	841	880	-9.40%	
Poor physical health on at least 14 days in the past month, % ^b	29.9%	35.0%	24.7%	32.3%	10.5%	
No personal health care provider, %b	18.0%	11.8%	21.1%	11.1%	24.6%	
Population 3 years and older enrolled in nursery/preschool ^a	4.90%	5.40%	7.30%	6.20%	29.8%	
Cost burdened renters (rent cost >30% income) a	50.9%	52.2%	60.6%	45.0%	38.1%	
Cost burdened owners (mortgage cost >30% income) ^a	38.8%	35.0%	34.9%	21.2%	48.5%	
Unemployment rate, % ^a	8.80%	7.10%	4.70%	2.50%	51.7%	
Percent without health insurance, %b	17.1%	10.9%	14.6%	5.50%	69.2%	
Mortality and morbidity indicators						
Hypertension mortality per 100,000°	10.4	22.6	31.2	37.5	-80.9%	
Cardiovascular disease mortality per 100,000°	159.2	320.4	270.0	347.8	-56.2%	
Heart disease mortality per 100,000°	126.3	251.0	202.5	270.1	-49.0%	
Pneumonia and flu mortality per 100,000°	10.4	16.3	15.6	17.4	-40.3%	
Arthritis prevalence, % (ever told) b	32.1%	29.9%	37.4%	27.6%	26.2%	
Disability prevalence, % (ever told) ^b	25.2%	22.4%	36.2%	24.7%	30.3%	
Diabetes mortality per 100,000°	34.6	27.9	48.5	29.4	32.9%	
Alzheimer's mortality per 100,000°	20.8	32.5	20.8	51.9	37.3%	

Key: Positive percentages represent an increase in disparity (difference) between the population of interest and the white population, while negative percentages represent a decrease in disparity. Percentages less than (+/-) 5% show no change in disparity. For ratios less than 1.00 these values are inverse.

Calculations for change in pairwise disparity for disparity comparisons to white Populations can be found in the Michigan Health Equity Data Project's Michigan Health Equity Data Tables and Related Technical Documents 2000-2009. https://www.michigan.gov/documents/mdch/MI Health Equity Data Tables -May 2011 361639 7.pdf

Data Source: American Community Survey, population profile 3 year estimate 2008-2010; 1 year estimate 2019. For these indicators Asian estimate does not include Pacific Islanders and all races are non-Hispanic. For Indicators of Hispanic estimates, Hispanics include combination with one or more races.

Data Source: Michigan Behavioral Risk Factor Survey, 3 year estimates 2008-2010; 2017-2019. For these indicators all race and ethnicities are non-Hispanic.

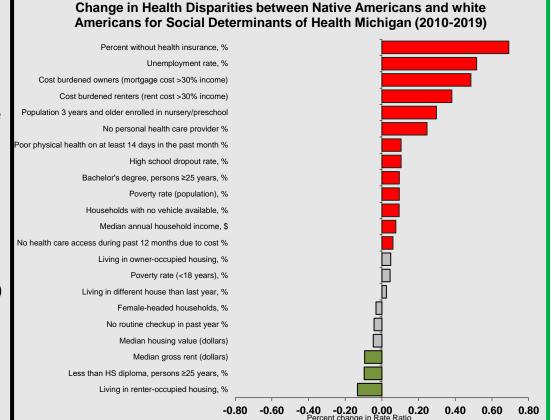
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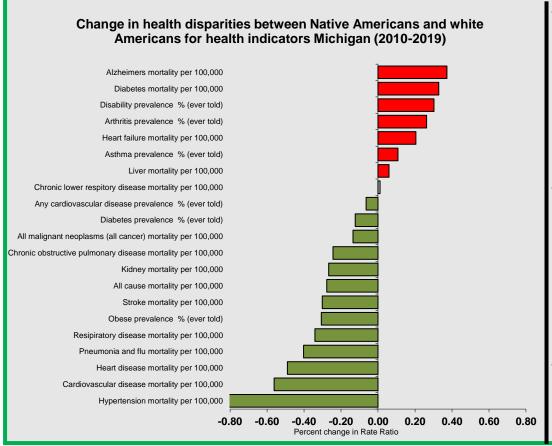
Change in health disparity: Native American and white community

<u>enange in neuriti dispantiyi i</u>	2008-2010 2017-2019				
Indicators	Native	white	Native	white	% Change
	American	American	American	American	rate ratio
Social determinants					
Living in renter-occupied housing, %a	33.2%	18.2%	30.2%	19.1%	-13.3%
Less than HS diploma, persons ≥25 years, %ª	14.7%	8.60%	12.0%	6.40%	-9.70%
Median gross rent (dollars) a	623	713	841	880	-9.40%
Median housing value (dollars) ^a	98,400	142,600	115,000	174,800	-4.70%
No routine checkup in past year, %a	16.3%	12.2%	19.7%	15.4%	-4.30%
Female-headed households, %a	17.3%	9.60%	16.4%	9.40%	-3.20%
Living in different house than last year, %a	20.0%	12.6%	18.7%	11.5%	2.40%
Poverty rate (<18 years), % ^a	34.7%	15.9%	30.1%	13.2%	4.50%
Living in owner-occupied housing, % ^a	63.6%	79.8%	66.0%	79.0%	4.80%
No health care access during past 12 months due to					
cost, % ^b	20.2%	9.90%	25.3%	13.2%	6.10%
Median annual household income, \$a	35,256	50,009	41,232	63,326	7.60%
Households with no vehicle available, %a	12.7%	5.50%	13.9%	5.50%	9.40%
Poverty rate (population), % ^a	22.5%	12.2%	20.6%	10.2%	9.50%
Bachelor's degree, persons ≥25 years, %ª	11.4%	26.0%	12.0%	31.0%	9.50%
High school dropout rate, %a	14.7%	7.90%	13.6%	6.59%	10.5%
Poor physical health on at least 14 days in the past					10.5%
month, % ^b	29.9%	35.0%	24.7%	32.3%	
No personal health care provider, %b	18.0%	11.8%	21.1%	11.1%	24.6%
Population 3 years and older enrolled in	4.000/	F 400/	7.000/	0.000/	29.8%
nursery/preschool ^a	4.90%	5.40%	7.30%	6.20%	38.1%
Cost burdened renters (rent cost >30% income) a	50.9%	52.2%	60.6%	45.0%	48.5%
Cost burdened owners (mortgage cost >30% income) a	38.8%	35.0%	34.9%	21.2%	51.7%
Unemployment rate, % ^a Percent without health insurance, % ^b	8.80% 17.1%	7.10% 10.9%	4.70% 14.6%	2.50% 5.50%	69.2%
Mortality and morbidity indicators	17.170	10.970	14.070	J.J0 /0	00.270
Hypertension mortality per 100,000°	10.4	22.6	31.2	37.5	-80.9%
Cardiovascular disease mortality per 100,000°	159.2	320.4	270.0	347.8	-56.2%
Heart disease mortality per 100,000°	126.3	251.0	202.5	270.1	-49.0%
Pneumonia and flu mortality per 100,000°	10.4	16.3	15.6	17.4	-40.3%
Respiratory disease mortality per 100,000°	74.4	92.4	112.5	104.2	-34.1%
Obese prevalence, % (ever told) b	40.5%	28.8%	31.5%	32.3%	-30.7%
Stroke mortality per 100,000°	27.7	47.7	41.5	55.0	-30.1%
All cause mortality per 100,000°	709.5	946.6	1005.5	1050.1	-27.7%
Kidney mortality per 100,000°	13.8	17.7	17.3	17.5	-26.6%
Chronic obstructive pulmonary disease mortality per 100,000°	43.3	52.7	64.0	62.8	-24.3%
All malignant neoplasms (all cancer) mortality per 100,000°	183.4	223.6	209.4	224.7	-13.6%
Diabetes prevalence, % (ever told) b	13.0%	7.60%	13.2%	8.80%	-12.3%
Any cardiovascular disease prevalence, % (ever told) b	17.0%	7.92%	15.7%	7.80%	-6.50%
Chronic lower respiratory disease mortality per 100,000°	58.8	58.8	67.5	66.7	1.10%
Liver mortality per 100,000°	31.2	15.4	41.5	19.4	5.90%
Asthma prevalence, % (ever told) b	18.6%	15.1%	17.8%	16.2%	10.8%
Heart failure mortality per 100,000°	12.1	28.4	20.8	40.4	20.5%
Arthritis prevalence, % (ever told) b	32.1%	29.9%	37.4%	27.6%	26.2%
Disability prevalence, % (ever told) b	25.2%	22.4%	36.2%	24.7%	30.3%
Diabetes mortality per 100,000°	34.6	27.9	48.5	29.4	32.9%
Alzheimer's mortality per 100,000°	20.8	32.5	20.8	51.9	37.3%
- '					

Change in health disparity: Native American and white community

- Many of the social determinants of health indicators saw an increase in disparity for the Native American community, leaving larger gaps between the Native American and white community.
- For example, the number of individuals without healthcare access increased in the Native American community (20.2% in 2010 to 25.30% in 2019) much more quickly than the white community (9.90% in 2010 to 13.20% in 2019)





- Reductions in the disparity between Native Americans and white Americans across chronic disease mortality and morbidity were due to a worsening in these rates in the Native American community.
- These included all-cause, hypertension mortality, cardiovascular disease mortality and many other disorders which saw increases in the rates of Native Americans with these disorders.
- While white American rates in these same disorders worsened as well, it was not as much as Native Americans.

Change in health disparity: Arab American and white community

- The Arab American community saw decreases in disparity for no access to health care (44.7% reduction), no personal health care provider(25.9% reduction) and percent of individuals without health insurance (12.4% reduction).
- Many of these reductions were due to improvements in the Arab American rates for these social determinants and some improvements in the rates within the white community.
- However, many indicators for mortality and morbidity saw increases in disparity between the Arab
 and white American communities such as septicemia mortality (283.2% increase), which were due
 to worsening rates for mortality and morbidity in Arab Americans and white Americans.

	2008-2010		2017-20		
Indicators	Arab American	white American	Arab American	white American	% Change in rate ratio
Social determinants					
No health care access during past 12 months due to cost, % ^b	14.1%	9.90%	10.4%	13.2%	-44.7%
No personal health care provider, %b	25.1%	11.8%	17.5%	11.1%	-25.9%
Cost burdened owners (mortgage cost >30% income) ^a	53.2%	35.0%	38.8%	21.2%	-20.4%
Percent without health insurance, %b	19.9%	10.9%	8.80%	5.50%	-12.4%
Bachelor's degree, persons ≥25 years, %ª	31.7%	26.0%	33.6%	31.0%	-11.1%
Cost burdened renters (rent cost >30% income) a	64.0%	52.2%	61.7%	45.0%	11.8%
Unemployment rate, % ^a	7.30%	7.10%	3.30%	2.50%	28.4%
Poor physical health on at least 14 days in the past month, % ^b	32.0%	35.0%	20.5%	32.3%	30.6%
Less than HS diploma, persons ≥25 years, %ª	20.7%	8.60%	20.9%	6.40%	35.7%
Population 3 years and older enrolled in nursery/preschool ^a	5.90%	5.40%	3.70%	6.20%	45.4%
Mortality and morbidity indicators					
Kidney mortality per 100,000°	11.9	17.7	19.9	17.5	-70.4%
Stroke mortality per 100,000°	18.9	47.7	35.5	55.0	-63.6%
Pneumonia and flu mortality per 100,000°	9.15	16.3	14.5	17.4	-48.5%
Respiratory disease mortality per 100,000°	30.7	92.4	47.9	104.2	-38.5%
Hypertensive heart disease mortality per 100,000°	6.46	14.5	6.46	26.7	45.6%
All malignant neoplasms (all cancer) mortality per 100,000°	131.4	223.6	22.6	224.7	82.9%
Alzheimer's mortality per 100,000°	4.85	32.5	19.4	51.9	150.9%
Septicemia mortality per 100,000c	2.69	9.13	12.9	11.4	283.2%

<u>Key:</u> Positive percentages represent an increase in disparity (difference) between the population of interest and the white population, while negative percentages represent a decrease in disparity. Percentages less than (+/-) 5% show no change in disparity. For ratios less than 1.00 these values are inverse.

a. Data Source: American Community Survey, population profile 3 year estimate 2008-2010; 1 year estimate 2019. For these indicators Asian estimate does not include Pacific Islanders and all races are non-Hispanic. For Indicators of Hispanic estimates, Hispanics include combination with one or more races.

b. Data Source: Michigan Behavioral Risk Factor Survey, 3 year estimates 2008-2010; 2017-2019. For these indicators all race and ethnicities are non-Hispanic.

c. Data Source: Division for Vital Records and Health Statistics. Michigan Department of Health and Human Services 1 year estimate 2019.

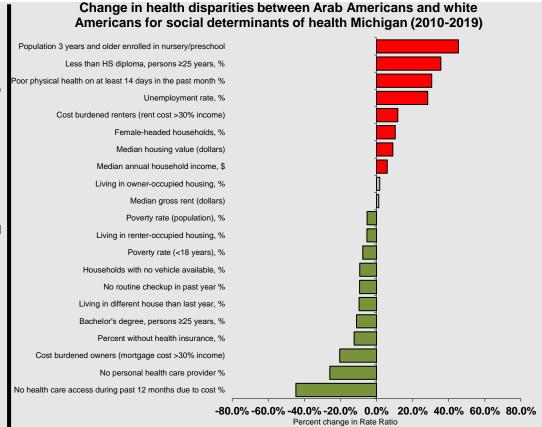
Calculations for change in pairwise disparity for disparity comparisons to white Populations can be found in the Michigan Health Equity Data Project's Michigan Health Equity Data Tables and Related Technical Documents 2000-2009. https://www.michigan.gov/documents/mdch/MI Health Equity Data Tables - May 2011 361639 7.pdf

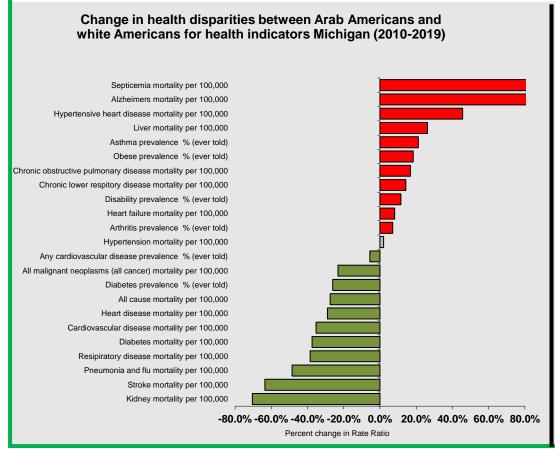
Change in health disparity: Arab American and white community

	2008-2010		2017-2019		
Indicators	Arab	white	Arab	white	% Change
	American	American	American	American	rate ratio
Social determinants					
No health care access during past 12 months due to					-44.7%
cost, % ^b	14.1%	9.90%	10.4%	13.2%	
No personal health care provider, %b	25.1%	11.8%	17.5%	11.1%	-25.9%
Cost burdened owners (mortgage cost >30% income) a	53.2%	35.0%	38.8%	21.2%	-20.4%
Percent without health insurance, %b	19.9%	10.9%	8.80%	5.50%	-12.4%
Bachelor's degree, persons ≥25 years, %ª	31.7%	26.0%	33.6%	31.0%	-11.1%
Living in different house than last year, %a	13.7%	12.6%	11.3%	11.5%	-9.60%
No routine checkup in past year, % ^b	13.9%	12.2%	15.9%	15.4%	-9.40%
Households with no vehicle available, % ^a	7.50%	5.50%	6.80%	5.50%	-9.30%
Poverty rate (<18 years), % ^a	36.5%	15.9%	32.6%	13.2%	-7.60%
Living in renter-occupied housing, %a	32.8%	18.2%	32.6%	19.1%	-5.30%
Poverty rate (population), % ^a	31.3%	12.2%	24.8%	10.2%	-5.20%
Median gross rent (dollars) ^a	812	713	1,015	880	1.30%
Living in owner-occupied housing, %a	66.1%	79.8%	66.6%	79.0%	1.80%
Median annual household income, \$a	42,288	50,009	50,387	63,326	5.90%
Median housing value (dollars) a	162,600	142,600	217,400	174,800	9.10%
Female-headed households, %a	9.80%	9.60%	8.60%	9.40%	10.4%
Cost burdened renters (rent cost >30% income) a	64.0%	52.2%	61.7%	45.0%	11.8%
Unemployment rate, %a	7.30%	7.10%	3.30%	2.50%	28.4%
Poor physical health in 14 days in the past month, %b	32.0%	35.0%	20.5%	32.3%	30.6%
Less than HS diploma, persons ≥25 years, %a	20.7%	8.60%	20.9%	6.40%	35.7%
Population 3 years and older enrolled in					45.4%
nursery/preschool ^a	5.90%	5.40%	3.70%	6.20%	45.4 /0
Mortality and morbidity indicators					
Kidney mortality per 100,000 ^c	11.9	17.7	19.9	17.5	-70.4%
Stroke mortality per 100,000°	18.9	47.7	35.5	55.0	-63.6%
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Respiratory disease mortality per 100,000c	30.7	92.4	47.9	104.2	-38.5%
Diabetes mortality per 100,000°	15.6	27.9	22.6	29.4	-37.4%
Cardiovascular disease mortality per 100,000°	154.0	320.4	226.2	347.8	-35.3%
Heart disease mortality per 100,000°	126.6	251.0	175.6	270.1	-29.0%
All cause mortality per 100,000°	479.3	946.6	678.0	1050.1	-27.5%
Diabetes prevalence % (ever told) b	10.4%	7.60%	8.90%	8.80%	-26.1%
All malignant neoplasms mortality per 100,000°	131.4	223.6	162.6	224.7	-23.1%
Any cardiovascular disease prevalence, % (ever told) b	8.90%	7.90%	8.30%	7.80%	-5.50%
Hypertension mortality per 100,000°	8.62	22.6	14.0	37.5	2.00%
Arthritis prevalence, % (ever told) ^b	24.7%	29.9%	21.2%	27.6%	7.00%
Heart failure mortality per 100,000°	21.0	28.4	27.5	40.4	8.10%
Disability prevalence, % (ever told) b	20.3%	22.4%	19.8%	24.7%	11.5%
Chronic lower respiratory disease mortality per 100,000°	14.5	58.8	18.9	66.7	14.3%
Chronic obstructive pulmonary disease mortality per					46.00/
100,000°	12.4	52.7	17.2	62.8	16.9%
Obese prevalence, % (ever told) b	30.9%	28.8%	28.3%	32.3%	18.3%
Asthma prevalence, % (ever told) ^b	14.9%	15.1%	12.6%	16.2%	21.2%
Liver mortality per 100,000°	7.54	15.4	7.00	19.4	26.3%
Hypertensive heart disease mortality per 100,000°	6.46	14.5	6.46	26.7	45.6%
Alzheimer's mortality per 100,000°	4.85	32.5	19.4	51.9	150.9%
Septicemia mortality per 100,000°	2.69	9.13	12.9	11.4	283.2%

Change in health disparity: Arab American and white community

- The disparity decreased for many social determinants of health indicators, such as mortgage cost burden to owners. (12.4% decrease).
- Much of this decrease in disparity is due to Arab and white Americans gaining more parity in the rates for these SDOH indicators, such as the number of households without vehicles (7.5% and 5.5% in 2010 and 6.80% and 5.5% in 2019 for Arab and white Americans respectively).

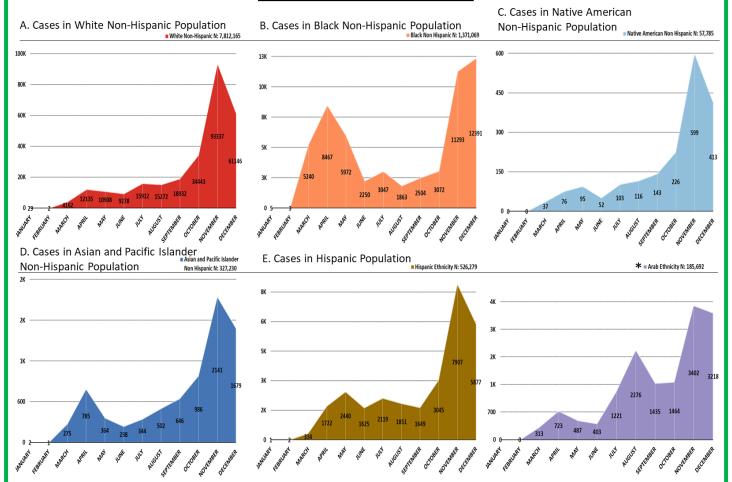




- There is an equal number of indicators that saw increases and decreases in disparity for chronic diseases between Arab and white Americans.
- Overall mortality and morbidity rates increased in both populations. Decreases in disparity such as hypertensive heart disease mortality are due to sharp rises in the mortality rates of Arab Americans.
- However, increases in disparity for mortality and morbidity indicators were mainly due to the rise in these rates within the white community.

Attachment C

Confirmed and probable COVID-19 cases in Michigan by month and race, 01/01/2020-12/31/2020



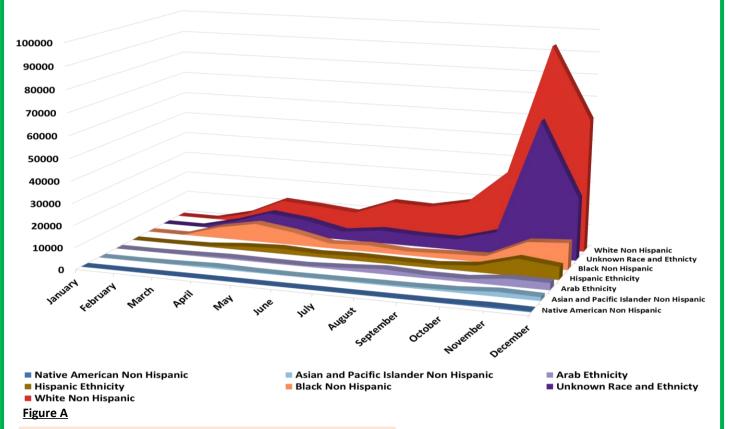
- The graphs above display the number of confirmed cases of COVID-19 reported to MDHHS for 6 racial
 and ethnic populations in Michigan. These charts are intended to present the trends in disease
 occurrence in these populations. Please note that different scales are used for each population to
 more clearly demonstrate these trends.
- Additionally, a large number of cases were missing information on race and ethnicity and therefore, excluded. Details of these cases missing racial and ethnic information are described on the following page.
- Within the African American, Asian American and Hispanic American populations, large rises in cases
 were seen from March-May 2020. In particular, the African American Community saw a rise in cases
 comparable to the white community despite the African American community being 1/5 the size of
 the white community.
- All populations saw a sharp rise in cases from October-November 2020.

Notes: Cases reflect date of onset of symptoms as denoted by reference date of when COVID-19 test was received. Most recent months of reports for 2020 and are subject to change as additional data becomes available.

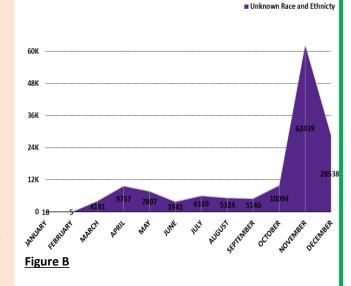
*COVID-19 Case information uses a different definition for Arab ethnicity than COVID-19 mortality information. Case information only identifies individuals of Arab ethnicity while Mortality information identifies individuals of Middle Eastern and North African (MENA) descent which include individuals of Arab ethnicity along with other ethnic groups.

Source: MDHHS – Michigan disease surveillance system, 02/27/2021

Confirmed and probable COVID-19 cases in Michigan by missing race and ethnicity information, 01/01/2020-12/31/2020

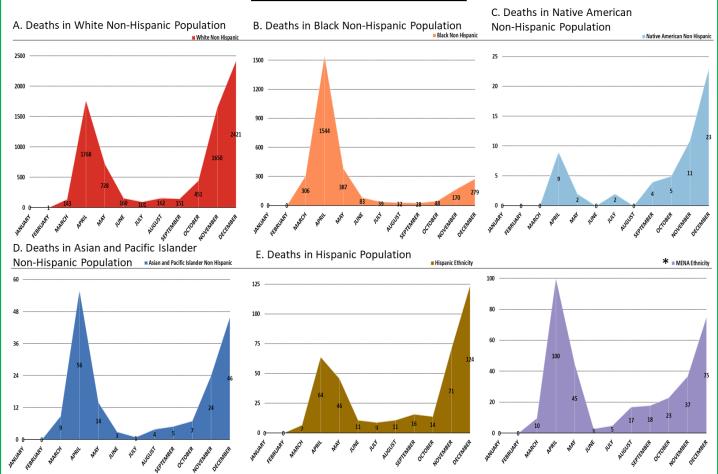


- The graphs display the number of confirmed cases of COVID-19 reported to MDHHS for 6 racial and ethnic populations in Michigan along with the number of cases who were missing either racial or ethnic information.
- Figure A displays all racial and ethnic populations including the population missing racial and ethnic information ordered by size. Figure B displays the trend in disease occurrence among cases missing racial and ethnic information by month.
- Of the 550,000+ cases that occurred in 2020, nearly 130,000+ of these cases were missing some combination of race and ethnicity information with the bulk of cases missing information as to whether the individual is of Hispanic or Arab ethnicity.
- COVID-19 cases missing racial and ethnic information make up the second largest group among the racial and ethnic populations.



Notes: Cases reflect date of onset of symptoms as denoted by reference date of when COVID-19 test was received. Most recent months of reports for 2020 and are subject to change as additional data becomes available.

Confirmed and probable COVID-19 mortality in Michigan by month and race, 01/01/2020-12/31/2020



- The graphs above display group level data for COVID-19 mortality within 6 racial and ethnic populations across Michigan with scales adjusted to the relative size of the population.
- Similar to cases, Michigan's racial and ethnic populations experienced a rise in COVID-19 deaths throughout the course of 2020, following their respective rise in cases from the periods of March-May and October-December 2020.
- Within the African American population from the months of March to June the African American population would see deaths at a similar number to the white community despite the African American community being 1/5 the size of the white community.

Notes: Above mortality is of COVID-19 as the underlying cause of mortality only and features no additional causes of mortality. Most recent months of reports for 2020 and are subject to change as additional data becomes available.

Source: MDHHS - Division for Vital Records and Health Statistics, 02/27/2021

^{*}COVID-19 Case information uses a different definition for Arab ethnicity than COVID-19 mortality information. Case information only identifies individuals of Arab ethnicity while mortality information identifies individuals of Middle Eastern and North African (MENA) descent which include individuals of Arab ethnicity along with other ethnic groups.

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