# Michigan Health Equity Roadmap

*A vision and framework for improving the social and health status of racial and ethnic populations in Michigan*

Michigan Department of Community Health
Division of Health, Wellness and Disease Control
Health Disparities Reduction and Minority Health Section

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Lansing, Michigan

For additional information, contact:

Health Disparities Reduction and Minority Health Section

3056 W. Grand Blvd., Ste. 3-150
Detroit, MI 49202

109 W. Michigan Ave.
9th Floor
Lansing, MI 48913

www.michigan.gov/minorityhealth

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Roadmap Report Team

Denise Carty
University of Michigan School of Public Health

Andrea King Collier
Senior Public Relations Consultant

Jacquetta Hinton, Program Specialist
Health Disparities Reduction and Minority Health Section

Corey Ridings, Epidemiologist
Chronic Disease Epidemiology

Sheryl Weir, Manager
Health Disparities Reduction and Minority Health Section

Special thanks to

Janet Olszewski, Director
Michigan Department of Community Health

Jean Chabut, Deputy Director
Michigan Department of Community Health

Amna Osman, Director
Division of Health, Wellness and Disease Control
Michigan Department of Community Health

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# INTRODUCTION AND SUMMARY

Racial and ethnic minority populations experience poorer outcomes than the general population for almost every health and social condition. The combined costs of racial and ethnic health disparities and premature death in the United States between 2003 and 2006 were estimated at $1.24 trillion, and it is projected that eliminating these health disparities would have reduced direct medical care expenditures in the US by $229.4 billion for the same time period.[1] Given current population trends, racial and ethnic minority groups will comprise 50% of the US population and an increased proportion of the Michigan population by 2050. Without a focused effort to eliminate health disparities, the burden of poor health on Michigan's vulnerable populations is likely to multiply, and the associated costs to the state of Michigan will be staggering.

Starting with the release of the federal report on Black and Minority Heath in 1985,[2] many national, state, and local programs have been developed to reduce racial disparities in heart disease, cancer, diabetes, infant mortality, unintentional injuries, and other health conditions. While some programs have showed success, our collective efforts have not brought about sustainable change in minority health status, and significant health gaps remain for racial and ethnic minorities in comparison to whites. Renewed approaches are called for that address some of the preventable underlying causes for persistent health inequities among racial and ethnic minority populations.[3]

This report unveils a new health equity initiative developed by the Michigan Department of Community Health, under the leadership of the Health Disparities Reduction and Minority Health Section. We hope that this report stimulates coordinated efforts among various government, healthcare, and community partners to address and improve social and economic determinants of health along with specific health outcomes that burden our population. In so doing, we hope to foster sustained progress toward health equity so that all Michiganders can enjoy a comparable level of optimal health.

*Without a focused effort to eliminate health disparities, the burden of poor health on Michigan's vulnerable populations is likely to multiply, and the associated costs to the state of Michigan will be staggering.*

## Health Disparities Reduction & Minority Health Section

In 1988, the Office of Minority Health (OMH) in Michigan was established by executive order to serve as the coordinating body for minority health in the state. The five racial/ethnic groups served by the OMH include African Americans, American Indians and Alaska Natives, Arab and Chaldean Americans, Asian Americans and Pacific Islanders, and Hispanics/Latinos. In 2004, the Michigan Department of Community Health (MDCH) took a more focused approach to minority health improvement, thus creating the Health Disparities Reduction and Minority Health Section (HDRMH). This new Section is comprised of specialized staff and has a supporting workgroup. In 2006 the Minority Health Bill - Public Act 653 (PA 653) was signed into law by the Michigan Legislature. PA 653 mandates that the State of Michigan "develop and implement a structure to address racial and ethnic health disparities in this state."[4] HDRMH serves as the monitoring entity for this legislation.

HDRMH was established to provide a persistent and continuing focus on eliminating health disparities in Michigan's populations of color. The goal is to ensure that policies, programs, and implementation strategies are culturally and linguistically tailored to significantly reduce the mortality and morbidity rates of Michigan's populations of color. HDRMH also collaborates with state, local, and private sectors to advance and implement health promotion and disease prevention strategies. The major functions of HDRMH are:

- To support and initiate programs, strategies and health policies that address disease prevention, health service delivery, and applied research for populations of color;
- To collaborate in the development of all department programs and strategies that address prevention, health service delivery, and applied research for populations of color; and,
- To facilitate an ongoing integration of culturally appropriate and linguistically appropriate health services into the public health system.

## About This Report

As part of the ongoing mission of HDRMH, this report – the *Michigan Health Equity Roadmap* – outlines a vision and plan to significantly reverse the negative health trends that have plagued racial and ethnic populations for decades. This report has four aims:

1. To encourage Michigan public health and healthcare partners to direct more policy and programmatic attention to the fundamental social and economic determinants that drive racial and ethnic health disparities;
2. To highlight best practices to reduce health inequities with an emphasis on social determinants of health and system improvements within institutions and communities;
3. To invite state and local governments, health providers and insurers, social service agencies, the business community, universities, and civic and community-based organizations to develop collaborative plans to improve both social and health conditions of disparately-affected communities; and
4. To promote stronger institutional/community partnerships and community engagement with the segments of our population that experience racial and ethnic inequities.

In fulfillment of these aims, The *Michigan Health Equity Roadmap* includes a set of actionable recommendations (see Section 4) that will begin the process to eliminate racial and ethnic health disparities by fostering health equity so that all Michiganders have a fair opportunity to attain their full health potential. The recommendations were developed after an extensive review of health equity policies and programs implemented by national and Michigan-based organizations coupled with feedback from government agency staff, community organizations and members, and stakeholders from various sectors who provided their suggestions at several forums created for the Michigan Health Equity Roadmap Initiative.

This report also provides background information on the *Roadmap* process, including a summary of the MCDH-sponsored *2009 Health Disparities Summit* and feedback received from community members regarding their issues and concerns relevant to racial and ethnic health equity in Michigan (see Section 3). To further raise awareness of health equity, this report includes an educational overview of social determinants of health (see Section 2) and a review of best practices to attain health equity (see Section 5). Lastly, because relevant data are essential for effective monitoring and evaluation of health equity, the report includes health equity data for Michigan's racial and ethnic populations—highlighting both social determinants of health and selected health outcomes (see Section 6).

This report would not have been possible without strong collaborations between HDRMH and its many partners within and outside MDCH. For example, we interviewed key informants who had already begun to think about social determinants of health or were working on solutions to achieve health equity. We also reached out to a host of voices in Michigan, including persons who work in health programs at MDCH, former legislative staff members, academic staff, persons working in non-profit and community based organizations, advocacy group members, members of the faith community, and community leaders. In addition, HDRMH gathered vital input at the grassroots level through a series of 21 community conversations around the state hosted by local organizations. We used this input to develop the selected recommendations and to identify traditional and non-traditional partnerships needed to sustain the *Michigan Health Equity Roadmap*.

On September 9, 2009, HDRMH convened a summit in Lansing as a major step in raising the public's awareness of health equity and related programs and creating a paradigm shift in how we tackle health disparities and health equity in Michigan. It also served as a significant step in building bridges and partnerships across agencies that are necessary to do real and sustainable work to level the health playing field for all Michiganders.

The centerpiece of the *Michigan Health Equity Roadmap* is the list of recommendations based on the collective information and input from various sources. Accomplishing these recommendations will require a sustained commitment and innovative, multi-sector collaborations that focus on improving social determinants of health and strengthening community assets in order to attain health equity for all residents of Michigan. The complete list of recommendations and strategies is outlined in Section 4. From this complete list, we selected some recommendations for priority attention. The priority recommendations are highlighted next.

### Priority Recommendations and Strategies

Listed on the next page are the priority recommendations and strategies in the *Michigan Health Equity Roadmap* for the coming year. The Health Disparities Reduction and Minority Health Section will assume a coordinating and leadership role for addressing these priorities in the intermediate period.

## Michigan Health Equity Roadmap
## Priority Recommendations and Strategies

**Recommendation 1: Improve Race/Ethnicity Data Collection/Data Systems/Data Accessibility**

- Assure that race, ethnicity, and preferred language data are collected for all participants in health and social services programs.
- Identify and establish a health equity data set to be maintained within the Health Disparities Reduction and Minority Health Section (HDRMH). The data set shall include indicators for social and economic conditions; environmental conditions; health status, behaviors, and healthcare; and priority health outcomes in order to monitor health equity for racial and ethnic minority populations in Michigan.
- Establish an HDRMH webpage that will report health-indicator data, health equity data, and other health information related to the five racial/ethnic populations served by the section.

**Recommendation 2: Strengthen the capacity of government and communities to develop and sustain effective partnerships and programs to improve racial/ethnic health inequities.**

**a.** HDRMH will review and revise its funding priorities in an effort to strengthen the capacity of state and local agencies to implement evidence-based programs to improve health equity for racial and ethnic minority communities.

**b.** Cultivate and mobilize partnerships with government agencies, non-profits, CBOs, businesses, and healthcare to address root causes of health inequities in racial and ethnic minority communities.

**Recommendation 3: Improve social determinants of racial/ethnic health inequities through public education and evidence-based community interventions.**

**a.** Develop materials to educate public health professionals, policymakers, community health workers, and healthcare providers about the social determinants of health and about racial and ethnic health equity.

**b.** Develop and implement a social justice, anti-racism, and cultural competence curriculum for implementation with MDCH staff.

**Recommendation 4: Ensure equitable access to quality healthcare.**

**a.** Adopt and enforce Department-wide standards for culturally and linguistically competent (CLAS) services.

**Recommendation 5: Strengthen community engagement, capacity, and empowerment.**

**a.** Establish a state-level health equity advisory group that includes consumers, public and private stakeholders, and policymakers in the development of health equity initiatives.

**Section Highlights:**

The following outline summarizes the key points in each section of this *Roadmap* report.

### Section 1-Introduction

- This report unveils a new racial and ethnic health equity initiative for the State of Michigan, entitled the *Michigan Health Equity Roadmap*, developed under the leadership of the Health Disparities Reduction and Minority Health Section in the Michigan Department of Community Health – with input from institutional and community partners across multiple sectors.

- The *Roadmap* is important because:

  Racial and ethnic health disparities create a costly health burden for the State of Michigan.

  Racial and ethnic health disparities have not declined significantly despite decades of funding and programs for minority health.

  A renewed focus for minority health improvement is needed that addresses the social and economic determinants that drive persistent racial and ethnic health disparities.

- The *Roadmap* prioritizes recommendations and strategies for health equity under five areas:

  Race/ethnicity data

  Government and community capacity

  Social determinants of health

  Access to quality healthcare

  Community engagement and empowerment

### Section 2-Social Determinants of Health (and Health Equity)

- Social determinants of health refer to social, economic, and environmental factors that contribute to the overall health of individuals and communities.

- Improvement in social and environmental determinants of health, through multiple approaches, can contribute to more sustained health improvement than addressing healthcare or individual risk behaviors alone.

- There should be more attention paid to community-level social and environmental health factors than to focus attention on individual-level factors such as personal health behaviors.

- The root causes for disparate health conditions such as infant mortality and some chronic diseases can be traced back to social, economic, and environmental conditions.

- To attain heath equity means to close the gap in health between populations that have different levels of wealth, power, and/or social prestige.

- Health equity provides all people with fair opportunities to attain their full health potential.

- Improvements in social, economic, and environmental conditions can impact the health of *all* Michiganders at every socioeconomic level—not only communities of color. Therefore, health equity benefits everyone.

## Section 3-Public Issues and Comments

### *Key Informant Interviews*

- The social and economic climate in Michigan, including unemployment and budget cuts to health and social services, are challenges to attaining racial and ethnic health equity.

- We should not avoid the "elephants in the room." Honesty and courage are needed to broach difficult topics of race, class, and equity in order to make progress to improve social and health conditions that adversely impact minority communities.

- Agencies approach communities with funding for established agendas and projects that may not address what the community really needs and wants. There is no continuous support and commitment to communities when the funding runs out.

- There is concern about trust and shared power when partnerships are formed with communities.

- We should not assume that people entrusted with reducing health disparities actually "know" communities. Misguided assumptions help to produce initiatives that are ineffective.

- Bureaucracy can get in the way of real action and innovative ways of doing things.

### *Community Conversations*

- The following themes concerning health equity were commonly mentioned across 21 groups of individuals and organizations invited from racial/ethnic minority communities:

    Access, quality, and cost of healthcare

    Community health advocates

    Improved data collection practices

    Resources for programs, services, and navigation of health and social service systems

    Education on Cultural and Linguistically Appropriate Services

    Feedback after polling (or surveys) of communities

    Inclusion in the process regarding planning of programs, services, and data collection

***2009 Health Disparities Summit***

- Selected suggestions for community and government responses to improve health equity:

    Educate data users and stakeholders about why racial and ethnic data are important, the types of data that need to be gathered, and how data can be used in program development and evaluation.

    Make data community-friendly and free so that it can be used effectively to build local capacity and promote health.

    Ensure dedicated time, money, and resources to address health equity issues.

    Strengthen partnerships between community groups and state government, businesses, and health plan providers to address racial and ethnic health inequalities.

    Develop asset maps to identify the resources available across the state that can be used by government, organizations, and individuals.

    Provide cultural immersion education for hospitals and healthcare providers.

    Ensure equity for community groups in terms of resources and services.

### Section 4-Recommendations and Strategies (Roadmap Priorities)

- Recommendation 1: Improve Race/Ethnicity Data Collection/Data Systems/Data Accessibility

    Assure that race, ethnicity, and preferred language data are collected for all participants in health and social services programs.

    Identify and establish a health equity data set to be maintained within the Health Disparities Reduction and Minority Health Section (HDRMH). The data set shall include indicators for social and economic conditions; environmental conditions; health status, behaviors, and healthcare; and priority health outcomes in order to monitor health equity for racial and ethnic minority populations in Michigan.

    Establish an HDRMH webpage that will report health-indicator data, health equity data, and other health information related to the five racial/ethnic populations served by the section.

- Recommendation 2: Strengthen the capacity of government and communities to develop and sustain effective partnerships and programs to improve racial and ethnic health inequities.

    HDRMH will review and revise its funding priorities in an effort to strengthen the capacity of state and local agencies to implement evidence-based programs to improve health equity for racial and ethnic minority communities.

Cultivate and mobilize partnerships with government agencies, non-profits, CBOs, businesses, and healthcare to address root causes of health inequities in racial and ethnic minority communities.

- Recommendation 3: Improve social determinants of racial/ethnic health inequities through public education and evidence-based community interventions.

  Develop materials to educate public health professionals, policymakers, community health workers, and healthcare providers about the social determinants of health and about racial and ethnic health equity.

  Develop and implement a social justice, anti-racism, and cultural competence curriculum for implementation with MDCH staff.

- Recommendation 4: Ensure equitable access to quality healthcare.

  Adopt and enforce Department-wide standards for culturally and linguistically competent (CLAS) services.

- Recommendation 5: Strengthen community engagement, capacity, and empowerment.

  Establish a state-level health equity advisory group that includes consumers, public and private stakeholders, and policymakers in the development of health equity initiatives.

## Section 5-Best Practices

Examples of evidence and model practices in health equity policy and programs are highlighted below. (The underlined resources are linked to documents on-line.)

### *Health Equity Data*

- Healthcare equity data should minimally include information on race and ethnicity, primary language, and a measure of socioeconomic position.

- Small-area data at the county, city, or zip-code levels can provide information on smaller populations not identified in national and state databases.

  Resources:

  *Data Set Directory of Social Determinants of Health at the Local Level*

  *Data Collection Regulation (Boston Public Health Commission)*

  *Improving the Collection and Use of Racial and Ethnic Data in HHS*

  *Directory of Health and Human Services Data Resources*

***Government and Community Capacity***

- Health equity programs are more likely to be effective with systems approaches and high-level accountability to health equity goals.

- Reaching health equity goals demands extensive partnerships and collaborations across various sectors including public health and other governmental agencies, other public and private stakeholders, and consumers.

  Resources:

  *Michigan House Bill 4455 (Michigan PA 653)*

  *Association of State and Territorial Health Officials Health Equity Policy Statement*

  *Tackling Health Inequity Through Public Health Practice: A Handbook for Action*

  *Promoting Health Equity: A Resource Guide to Help Communities Address Social Determinants of Health*

***Social Determinants of Health***

- A health equity focus warrants attention to the neighborhoods and environments where residents live, learn, work, and play.

- Socioeconomic position is a very strong predictor of health status.

- Overall social conditions are more influential in producing health inequities than medical care or individual risk factors alone.

- Examples of intervention areas to improve social and environmental determinants of health include employment, education, racial and ethnic discrimination, transportation, housing, neighborhood safety, access to healthy foods, and social connectedness or social cohesion.

  Resources:

  *WHO Commission on Social Determinants of Health*

  *Unnatural Causes…Is Inequality Making Us Sick?*

  *The Community Guide*

  *Prevention Institute*

***Healthcare***

- Healthcare disparities and unequal treatment occur in the context of socioeconomic inequality and racial and ethnic discrimination in the broader society that impact the healthcare system, including healthcare providers.

- Recommended interventions to improve healthcare equity can address provider awareness of disparities; underrepresented minorities in the healthcare professions; patient navigation programs; cross-cultural education; and improved data for monitoring and evaluating healthcare disparities.

  Resources:

  *National Standards on Culturally and Linguistically Appropriate Services (CLAS)*

***Community Capacity and Empowerment***

- Community participatory and empowerment approaches help communities to think about existing community strengths that can be mobilized to help reduce social and health inequities.

  Resources:

  *Community Toolbox*

  *Prevention Institute THRIVE*

## Section 6-Health Equity Data

- Monitoring social determinants data together with health outcomes is optimal for evaluating our success in attaining health equity for racial and ethnic minority populations in Michigan.

- The *Michigan Health Equity Roadmap* has adopted a consistent standard to collect comprehensive social and health data for Michigan's racial and ethnic populations and monitor and evaluate progress toward health equity.

- Data will be monitored for roughly 20 priority indicators and 50 comprehensive indicators organized under three major categories: Social Determinants of Health; Health Status, Behaviors, and Healthcare; and Diseases and Deaths. Information on selected indicators will be communicated regularly to policymakers and the general public.

***Data Highlights***

Social Determinants of Health

- In 1999 and 2006-08, the median annual household income in Michigan was lowest in the African American population and highest among Asians for both periods among all groups.

- The percent of children in poverty increased for all racial and ethnic populations from 2000 to 2006-08.

- From 2003 to 2008, unemployment increased for all racial/ethnic groups for which data were available.

- Voter registration improved for all racial and ethnic populations in Michigan from 2006 to 2008.

- According to the Michigan 2006-2008 Behavioral Risk Factor Surveillance Survey (BRFSS), American Indians/Alaska Natives and African Americans were most likely to report overall dissatisfaction with their lives (8.9% and 10% respectively).

Health Status, Behaviors, and Healthcare

- According to the 2006-2008 BRFSS, American Indians/Alaska Natives and African Americans were most likely to report fair or poor health in comparison to other racial/ethnic populations.

- During 2006-2008, American Indians/Alaska Natives had the highest estimated percent (46%) of obese persons in the population, followed by African Americans (38%) and Hispanics/Latinos (37%).

- During 2006-2008, American Indians/Alaska Natives and African Americans had the highest estimated percents of current smokers in the population (33% and 24% respectively). Hispanics/Latinos had about 20% of reported smokers, and Asians had the lowest rate (5.4%) of current smokers.

- During 1997-1999, the percent of people not covered by Medicaid, Medicare, or private insurance was largest for Hispanics/Latinos (23%) and African Americans (17%) in comparison to whites (12%).

Diseases and Deaths

- In 2002 and 2008, African Americans experienced the highest mortality from heart disease and cancer. Asians and Hispanics/Latinos experienced the lowest mortality from these conditions.

- During 2006-2008, the prevalence of diabetes exceeded 10% for all racial/ethnic minority populations. The estimated prevalence was 16.5% among American Indians/Alaska Natives, 10.8% among Asians, 14.7% among African Americans, and 12.4% among Hispanics/Latinos in contrast to 7.3% diabetes prevalence among whites.

- In 2007, the African American infant mortality rate (16.5) was almost three times higher than whites. The next highest rates were among American Indians/Alaska Natives (11.1) and Hispanics/Latinos (10.3). Asians and Arab Americans experienced infant mortality rates that were similar to or lower than the average rate of 6.0 observed among whites.

### *Monitoring and Evaluation of Racial/Ethnic Health Equity*

- Of the 17 selected health measures in this report, 30% to 65% of the indicators improved for specific racial/ethnic populations over time from periods 2000-2004 to 2005-2009. The largest proportionate improvement occurred among African Americans. The least proportionate improvement occurred among American Indians/Alaska Natives.

- Of the 17 selected health measures in this report, we highlight relative disparities for the most recent time periods for each racial/ethnic minority population in comparison to the referent white population.

- For the African American population, the three largest disparities were HIV infection (black/white ratio = 9.5); child poverty (black/white ratio = 3.2); and infant mortality (black/white ratio = 2.8).

- For the American Indian/Alaska Native (AIAN) population, the three largest disparities were the percent of unhealthy physical days in excess of 13 days in the past month (AIAN/white ratio = 2.2); child poverty (AIAN/white ratio = 2.2); and infant mortality (AIAN/white ratio = 1.9).

- The Asian population had more favorable rates than whites for selected indicators. The median income for Asians was 30% higher than whites (Asian/white ratio = 1.3); Asians reported the lowest proportion of unhealthy physical days in excess of 13 days in the past month (Asian/white ratio = 0.3); and Asians were least likely to smoke in comparison to whites (Asian/white ratio = 0.2).

- For the Hispanic/Latino population, the three largest disparities were the high school drop-out rate (Hispanic/white ratio = 2.6); child poverty (Hispanic/white ratio = 2.3); and HIV infection (Hispanic/white ratio = 2.3).

- The *Inequity Status Rating* or “inequity gap” is a measure of the progress toward equity for Michigan’s racial/ethnic minority populations. The inequity status rating is calculated as the percent change in the absolute difference in rates between two time periods for each minority population compared to the referent white population. If the percent change got larger over the two periods, the inequity status would be depicted as increased (↑), indicating a larger gap or greater *in*equity between a minority population and whites over time. If the percent change got smaller, then the inequity status would be shown as decreased (↓), indicating a reduction in the disparity over time. In this report, the inequity status rating evaluates progress from the 2000-2004 to 2005-2009 periods.

- For African Americans compared to whites: the *in*equity gap **increased** for median household income, children in poverty, high school drop-out rate, self-reported fair/poor health, unhealthy physical days in the past month, percent without health insurance, diabetes, and HIV infection. The *in*equity gap **decreased** for percent of persons not registered to vote, unhealthy mental days in the past month, obesity, tobacco use, infant mortality, and deaths from heart disease, cancer, and unintentional injury.

- For American Indians/Alaska Natives compared to whites: the *in*equity gap **increased** for median household income, high school drop-out rate, infant mortality, and mortality from heart disease. The *in*equity gap **decreased** for children in poverty, HIV infection, and deaths from cancer and unintentional injury.

- For Asians compared to whites: the *in*equity gap **increased** for median household income, high school drop-out rate, HIV infection, and deaths from unintentional injury. The *in*equity gap **decreased** for children in poverty, percent of persons not registered to vote, infant mortality, and deaths from heart disease.

- For Hispanics/Latinos compared to whites: the *in*equity gap **increased** for median household income, children in poverty, obesity, diabetes, HIV infection, and infant mortality. The *in*equity gap **decreased** for the high school drop-out rate, percent of persons not registered to vote, self-reported fair/poor health, percent without health insurance, and deaths from heart disease and cancer.

## Ongoing Challenges

Making a dent in the health equity gap in Michigan will continue to be a challenge. While efforts to increase outreach, awareness, and access to healthcare services are believed to be critical in reducing overall rates of cancer, cardiovascular disease, HIV and STD infection, and infant mortality, we have experienced minimal success in reducing the rates of these health conditions among African American, Hispanic/Latino, Arab/Chaldean American, and American Indian/Native American populations.

Closing the gap in racial and ethnic health inequities will be complicated by the tough economic times in Michigan. Michigan now has the highest unemployment rate in the nation. Whereas the automobile industry once helped create a safety net of income and health insurance, recent plant closings have resulted in significant job losses that will impact the numbers of uninsured individuals and families.

The *Michigan Health Equity Roadmap* acknowledges that the overall health is less likely to improve in the face of such need, and we call attention to improving fundamental social and economic determinants that impact health and healthcare in our desire to maximize health for Michigan's racial and ethnic communities.

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# SOCIAL DETERMINANTS OF HEALTH

Health results from a combination of biology, healthcare, health behaviors, and social and environmental determinants. Biological, healthcare, and behavioral factors account for a significant portion of health status. However, health is also strongly influenced by socioeconomic and environmental conditions—referred to broadly as the social determinants of health.[1] Improvement in social and environmental determinants of health through multiple approaches (e.g., reduction of poverty and economic inequality, early childhood education programs, affordable housing, safe parks and recreation, availability of nutritious foods, improved working conditions, social cohesion, community engagement) can contribute to more sustained health improvement than addressing healthcare or individual risk behaviors alone.[2] When we consider the harmful conditions that disproportionately impact racial and ethnic communities, the importance of social determinants is particularly relevant.[3]

*Improvement in social and environmental determinants of health through multiple approaches can contribute to more sustained health improvement than addressing healthcare or individual risk behaviors alone.*

Public health systems are charged to assure healthy conditions for all and to close the health gaps observed between the broader community and vulnerable populations.[4] Accordingly, many state and local public health departments in Michigan have echoed their commitment to eliminating health disparities, especially among racial and ethnic minority populations. Because the traditional focus on reducing disparities has centered on health outcomes and individual health behaviors, less attention has been given to the social, economic, and environmental causes of ill health. To reverse this trend, public health organizations have begun to shift their emphasis from health disparities to health equity.[5,6,7]

A focus on health equity, rather than health disparities, helps to broaden disease prevention efforts beyond individual risk factors to the root causes that largely influence health behaviors and health outcomes. A health equity focus also makes good public health sense. Addressing social, economic, and environmental conditions will contribute more broadly to improving equitable health for *all* segments of the population, including socially and economically disadvantaged populations, than to focus on individual risk factors alone. Health equity benefits everyone.

## Key Concepts

Understanding the *Michigan Health Equity Roadmap* will be enhanced by a shared understanding of the following key concepts:

***Health disparities*** are significant differences in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rates in a racial or ethnic minority population as compared to the health status of the general population.[8] Health disparities refer to measured health differences between two populations, regardless of the underlying reasons for the differences.

***Health inequities*** are differences in health across population groups that are systemic, unnecessary and avoidable, and are therefore considered unfair and unjust.[9] Health inequities have their roots in unequal access or exposure to social determinants of health such as education, healthcare, and healthy living and working conditions. Racial and ethnic minority populations are disproportionately impacted by poor conditions in these areas which, in turn, result in poor health status and health outcomes.

***Health inequalities*** has been used interchangeably with both health disparities and health inequities. In the *Michigan Health Equity Roadmap*, the term health inequalities is used distinctly to connote health differences related to unfair and unjust social contexts (i.e., inequities) rather than simple observations of difference in health determinants or health outcomes noted between populations (i.e., disparities).

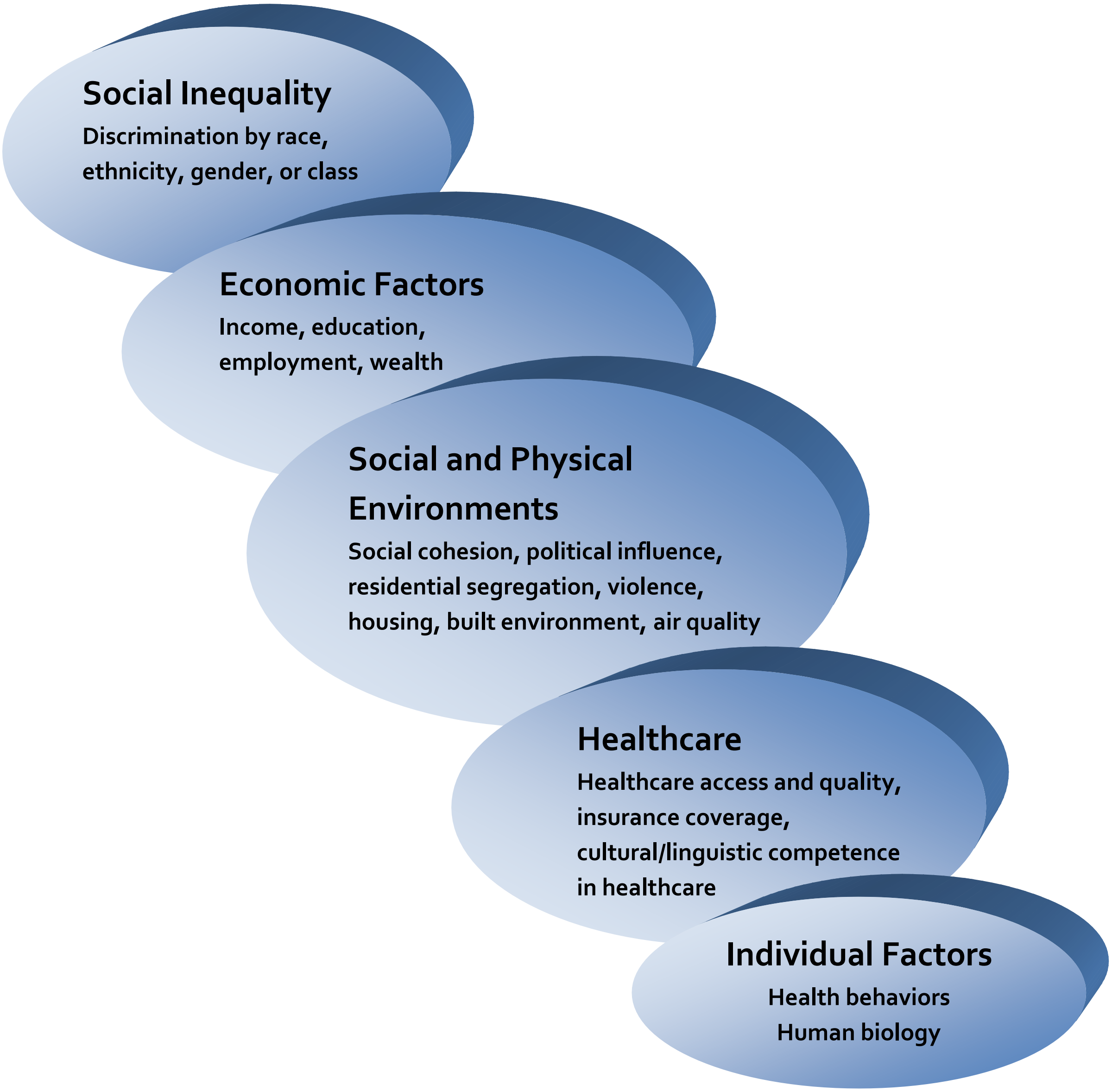
***Health equity*** is the absence of systematic disparities in health and its determinants between groups of people at different levels of social advantage.[10] To attain heath equity means to close the gap in health between populations that have different levels of wealth, power, and/or social prestige. For example, low-income persons and racial/ethnic minorities generally have poorer health relative to people who have more economic resources or who are members of more powerful and privileged racial groups. Health equity falls under the umbrella of social justice, which refers to equitable allocation of resources in society. Eliminating health disparities and health inequities between racial and ethnic populations moves us toward our goal of health equity and social justice, and a significant focus of this effort is to address social determinants of health that influence our priority public health outcomes.

***Social determinants of health*** refer to social, economic, and environmental factors that contribute to the overall health of individuals and communities.[11] *Social factors* include, for example, racial and ethnic discrimination; political influence; and social connectedness. *Economic factors* include income, education, employment, and wealth. *Environmental factors* include living and working conditions, transportation, and air and water quality. A focus on health equity in Michigan calls for more targeted efforts to address these and other social determinants of health in order to optimize health promotion and disease prevention efforts.

### Social Determinants Pathways to Health

The following figures help to illustrate how social, economic, and environmental factors influence health. Figure 2.1 shows a range of factors that determine health status for individuals and communities. The health determinants range from factors in the social environment at the upper levels of health influence to the more individualized factors of genetics and personal health behaviors at the lower levels. Although much of the emphasis on health disparities highlights personal risk factors and healthcare, social and physical environments also play a crucial role in shaping health. For example, asthma disparities can be exacerbated by polluted outdoor or home environments, and economic disadvantages create fewer options to secure apartments or homes in environmentally-safe neighborhoods. A renewed focus on health equity calls for integrated approaches that address both upper-level determinants of health such as social and economic discrimination and neighborhood environments, and lower-level determinants of health such as personal behaviors or healthcare.

**Figure 2.1. Determinants of Health**



Figures 2.2 and 2.3 provide examples to illustrate how social determinants, health behaviors, and healthcare work in combination to influence the selected health outcomes of infant mortality and chronic diseases.

**Figure 2.2. Social determinants pathway to infant mortality**

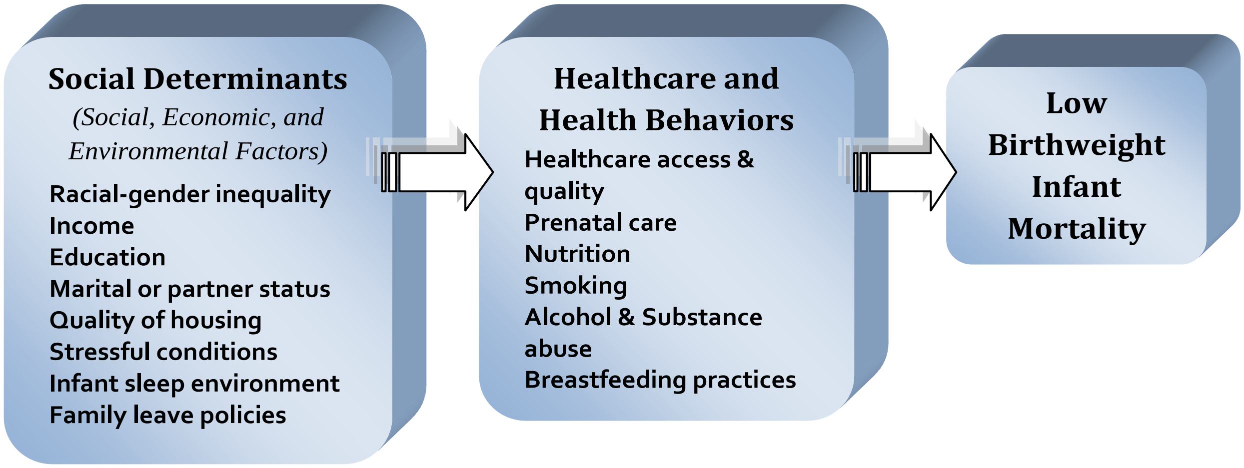
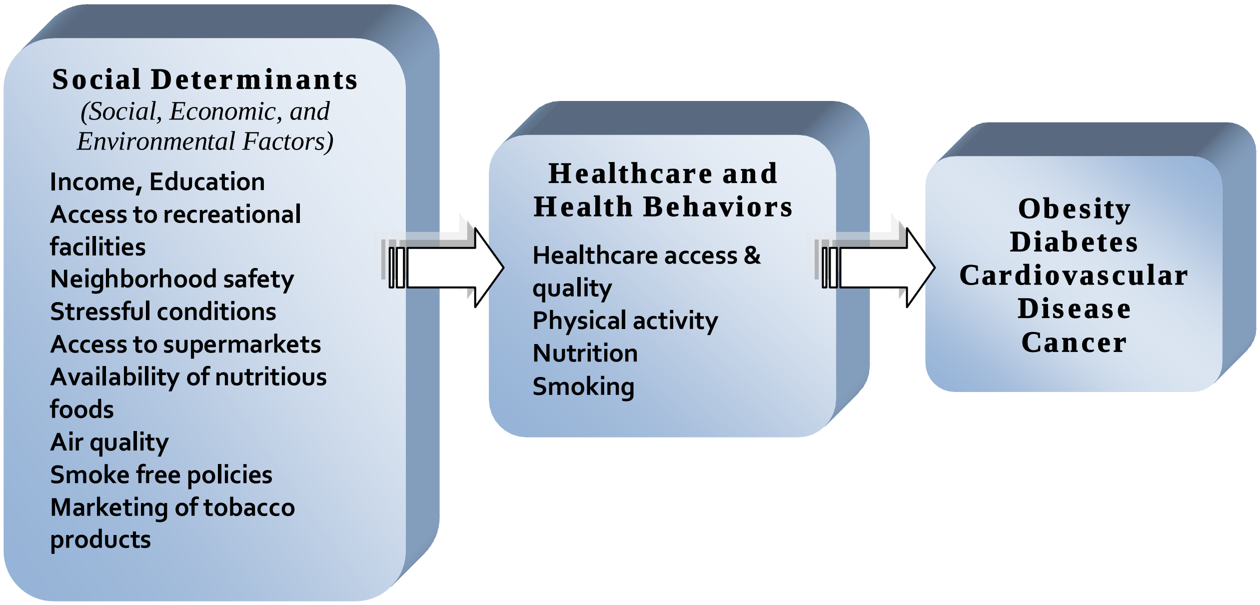


**Figure 2.3. Social determinants pathway to chronic diseases**



## How Do Social Determinants Influence Health Inequities?

People who are socially and economically disadvantaged are more likely to suffer ill health. Although racial/ethnic minorities and low-income persons are most likely to experience social disadvantage, health equity is a concern for *all* residents because social or neighborhood environments can shape health status regardless of personal resources. For example, people who live in poor neighborhoods have higher risks for poor health outcomes across all income levels. Also, the overall health of a population suffers when there are wide gaps between the rich and the poor. In sum, health inequities result from unjust social, economic, and environmental conditions that place individuals and communities at risk.

The following statements provide examples of relationships between social conditions and health outcomes.

- Socioeconomic differences impact health at all levels of income, not just between the rich and the poor.[12]
- Lower- and middle-income persons tend to have higher risks of death despite individual health behaviors.[13]
- Unemployment has been associated with poor mental and physical health outcomes.[14]
- Racial discrimination is associated with poor mental and physical health,[15] including low birthweight[16] and cancer risks[17] in ethnic minorities.
- Racial residential segregation has been linked to cardiovascular disease[18] and infant mortality.[19]
- Environmental injustice (which occurs disproportionately in communities of color) produces health inequities.[20]
- Childhood poverty can have negative social and health consequences through adulthood.[21]

This information reveals that health inequities are a product of more than health education or healthcare. It also helps to explain why despite billions of dollars in expenditures for prevention programs and healthcare services we have not significantly reduced health disparities for racial, ethnic, and other socially disadvantaged populations.

In order to get to the root causes of health inequities we must address the social, economic, and environmental factors that contribute to the troubling gaps in health outcomes and healthcare. Sustainable improvement in the health of Michigan's racial and ethnic minority populations cannot occur unless we address structural inequities in education, employment, housing, and neighborhoods.

Although the prospect of improving social determinants of health can be daunting for health and public health practitioners, it does not take a revolution to make significant progress to reduce inequities. Improving living and working conditions is a common focus of health equity policies and initiatives, and many feasible approaches have been suggested to attain health equity. We outline several promising approaches in Section 5 of this *Roadmap* and in our selected list of recommendations and strategies in Section 4.

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# PUBLIC ISSUES AND COMMENTS ABOUT HEALTH EQUITY

## Key Informant Interviews

During the summer and fall of 2009, The Health Disparities Reduction and Minority Health Section (HDRMH) met with over 25 key informants to solicit their views about social determinants of health and solutions to achieve health equity. The informants included Michigan Department of Community Health (MDCH) staff, former legislative staff members, academics, persons working in non-profits and community based organizations, members of the faith community, advocacy group members, and various community leaders. In this section, we summarize key themes from these interviews.

### *The Significance and Challenge of Social Determinants*

In some of the interviews, key informants suggested that health disparities are more a product of poverty and class than of race and ethnicity. "Look at the numbers," one key informant said. "What you are looking at are areas of poverty." In mapping out rates of teen pregnancy, infant mortality, cardiovascular disease, stroke and cancer in Michigan, it is no surprise that those communities which experience the highest rates of these conditions also have high concentrations of poverty and unemployment, and they also tend to have a high concentration of people of color.

*It is no surprise that communities which experience the highest rates of adverse health conditions also have high concentrations of poverty and unemployment, and they tend to have a high concentration of people of color.*

With the rising unemployment rates in Michigan, service providers said that they are preparing for an influx of new people to the service roles—middle income people who no longer have jobs or benefits to provide for their families. Some providers lamented that Michigan's economy has made providing basic outreach and services more complicated, not to mention the challenge of addressing other social determinants.

### *Doing More With Less*

Reduced revenues have resulted in significant budget cuts for the State of Michigan in 2010. MDCH has had to bear millions of dollars in budget cuts, which has resulted in health-related programs and services being reduced or eliminated all together. Cuts are anticipated to a number of programs important to maintaining comprehensive health and social services for vulnerable populations, especially those living in poverty. Affected programs include teen parenting, family planning, food stamps, Medicaid reimbursement and adult dental services, and funding for local public health departments, migrant health, prenatal health, substance abuse, asthma prevention, and school-based health centers.

Not only do these cuts impact the work at the state level, but they are being felt at the local level with losses to local public health departments that administer many of the direct service programs and outreach efforts. "We will have to try to do more for people, with fewer resources," said one staffer who works on statewide chronic disease prevention program. Her opinion was mirrored in interviews with service providers and heads of community-based organizations across the state, as well as in the community conversations and in the discussion groups moderated at the *2009 Health Disparities Summit*.

While the cuts are a reflection of a very tough economic climate, there was universal agreement among key informants and community contacts that the cuts will result in an even greater increase in health disparities and create a strain on the emergency rooms that are the care providers of last resort. Many of our informants agreed that without partnerships and creative collaboration to address these issues, the disparity gaps will only increase.

One informant discussed the need to get the general public to understand the impact of cutting programs and services. "Let's just talk about the [H1N1] flu," she said. "People who are well insured may look at the cuts to primary care as something they shouldn't be concerned about. But in the case of this flu, where people cannot afford to get a vaccine or treatment, they will spread it to everyone else." Many informants agreed that there is a real need to educate the general public and the legislature about the ways that cutting services and programs will impact not only the state's most vulnerable populations but will result in an additional tax burden for all taxpayers through increased medical care costs.

### *Elephants in the Room*

As with every social issue there are always the "elephants in the room" that members of workgroups, taskforces, and co-workers avoid discussing. Highly charged issues such as race, class, and equity are often difficult to discuss head on. In our discussions with key informants (and in the community conversations), we specifically asked about the things they feel are the "elephants" that slow down or stop progress toward bringing about health equity. Some of the issues mentioned were as follows:

- Distrust of partners and partnerships and concerns about shared power
- Lack of diversity of program staffs, task forces, and medical providers
- Silo and ivory tower thinking at the state agency level and the university level that prevent staffs from going into communities and forming true partnerships
- Blaming racial ethnic minorities for poor health outcomes
- The role of social and racial biases when making decisions on how, and who, we serve
- Agendas and funding
    - State agencies or universities that approach a community with a project that the institution wants to conduct without consideration of what the community feels it needs and wants;
    - Funding for pet projects versus what is really needed by communities; and

    - Groups that only come together when there is funding (when the funding goes away, so do the groups, so there is no continuity and commitment to communities of color)
- Unwillingness to go beyond the usual partners, collaborators, and voices that get heard
- Assumption that the people entrusted with reducing health disparities actually "know" the communities; these assumptions help to produce initiatives that are ineffective
- Bureaucracy that gets in the way of real action, or lack of interest in pushing the envelope and doing things in new ways
- Working with governments that are slow to act (and this makes them poor partners)

These comments suggest that honesty and courage are needed to broach difficult topics of race, class, and equity if we are to improve the social and health conditions that adversely impact minority communities.

## Community Conversations

During August and September of 2009, HDRMH participated in 21 *Community Conversations* hosted in nine Michigan counties and the city of Detroit. The purpose of these conversations was to provide an opportunity for the general community to inform the development of recommendations to improve health status and eliminate health inequities among Michigan's racial and ethnic populations. Community residents and representatives were asked to share their views and recommendations regarding: (a) the most significant health concerns of their community; (b) positive and negative conditions that impact the health of their community; (c) existing groups that are working to improve the health of their community; (d) ways to engage additional groups; (e) community assets and needed resources; and (f) policy and practice changes that would most effectively improve the health of their community. The conversations were also meant to explore traditional and non-traditional partnerships that will work to achieve health equity for all Michigan residents.

The following summary provides a brief insight into concerns that were voiced by racial and ethnic minority population groups. A complete list of the documented responses that include additional concerns, community specific resources, and recommendations for change for each conversation are available in a separate report.

### *African American*

The African American community was the largest group represented during the community conversations. Concerns identified included violence, access and availability of fresh nutritious foods, cost of healthcare, racism/discrimination, neighborhood decay, environmental health, personal behaviors, the inability to negotiate health services or advocate for personal healthcare and community resistance to change. One major concern was the lack of trust of some healthcare professionals. The participants associated distrust of the medical profession as a contributing factor in the disproportionate prevalence of diseases such as cardiovascular disease and diabetes among African Americans. Despite the distrust voiced regarding medical care and medical providers, there seemed to be significant support for universal healthcare among African Americans who participated in the community conversations.

### *Hispanic/Latino*

The second largest population represented was the Hispanic/Latino community. The Hispanic/Latino participants emphasized that they were a diverse group inclusive of Mexicans, Puerto Ricans, Salvadorans, etc. There was a significant concern around cultural and language barriers for Hispanics/Latinos. A few of the many reasons cited for cultural and language barriers were lack of culturally sensitive healthcare centers and providers, lack of translation services, failure to understand information provided, and fear to request clarification of information. The Hispanic/Latino participants voiced a strong concern related to documented legal status and the difficulty it posed to accessing healthcare. The groups also expressed concerns over segregated communities and quality of housing, mental health, nutrition and obesity, anxiety caused from fear of deportation, and generational poverty.

### *Asian American/Pacific Islander*

The Asian American community conversations included participants from the Chinese American, Hmong, Korean, and Vietnamese communities. Asian American community participants commented that they are often documented as “white,” which results in little or no recorded data and health information for this population. Asian American participants described themselves as a vulnerable population due to experiences with language and cultural barriers. Participants emphasized the importance of personal and trusted relationships, and their responses suggested that asking for help might be considered taboo or shameful for some Asian Americans. The responses from the Asian American participants regarding lack of participation in the healthcare system—even when access and affordability was not an issue—may suggest that health and healthcare were not viewed as interdependent.

### *American Indian/Native American*

The American Indian community conversation participants focused on the lack of acceptance of their spiritual beliefs, practices, and culture by other groups. They also expressed concerns regarding economics, education, and racism, citing that documentation of facts related to their population was influenced by racism. Broken treaties and contracts, lack of trust of immunizations, and poor quality of housing were contributing factors to the lack of trust voiced in the American Indian community.

### *Arab American/Chaldean*

Culture, stigma, smoking, and language barriers are all important issues in the Arab American/Chaldean population. Yet the major concern expressed during the Arab American community conversation was the poor treatment of undocumented immigrants and their dependents. Additional issues cited were lack of culturally-appropriate (Arab or Muslim) mental health, substance abuse treatment, and nursing home services. There was mention of a noticeable increase in recent years of youth substance abuse issues. Participants felt that the community conversation served as a forum to have their concerns communicated to the State of Michigan.

### *Common Themes*

There were some trends that emerged in all of the *Community Conversations*. All groups acknowledged a strong need for the following:

- Access, quality, and cost of healthcare
- Community health advocates
- Improved data collection practices
- Resources including programs, services, and navigation
- Education on Cultural and Linguistically Appropriate Services
- Feedback after polling of communities
- Inclusion in the process when it comes to planning of programs, services, and data collection

### 2009 Health Disparities Summit

In September of 2009, the Michigan Department of Community Health, Health Disparities Reduction and Minority Health Section hosted a *Health Disparities Summit* in Lansing. One of the goals was to have an open dialogue with stakeholders around the state about what should be happening to address health disparities and social determinants that impact health in Michigan. As a part of that effort, summit attendees participated in breakout conversations to discuss major issues related to eliminating health disparities concerning data, government response, and business and local community response. The following are some of the key points that emerged from the breakout conversations and that helped to inform the final recommendations for the *Michigan Health Equity Roadmap*.

### *Data*

The collection and reporting of data was mentioned as a high priority, and the collection of social determinants data and overall health data are crucial to monitoring the progress in eliminating racial and ethnic health disparities and in achieving health equity. Participants added that it is important to educate data users and stakeholders about why racial and ethnic data are important, the types of data that need to be gathered, and how data can be used in program development and evaluation. Summit participants stated a need for finding better ways to communicate and share data across all levels, including government, organizations, and the community.

Also discussed was the importance of making data community-friendly and free, so that data can be used effectively to build local capacity and promote health**.** Use of data in this manner would help build community trust and support data collection in communities. The group also called for consistent standards in data collection. There was discussion about how racial and ethnic information is being validated and reported and the need for a centralized data repository. In addition, there was agreement on the need for more data on infant mortality.

### *Local Government Response*

This discussion broached several important issues that local governments should address related to eliminating racial and ethnic health disparities and achieving health equity. Many discussants felt that it was important to acknowledge that race and ethnicity do matter in their work. There was a call to be up front about the role that race plays and to demonstrate what is being done to eliminate racial barriers. There was also a call to understand that there are real ties between the current political climate and the social implications of working on racial and ethnic health disparities.

It was suggested that there is a need for dedicated resources and a credible framework to begin to address these issues. There was a call for time, money, and resources to address issues where it counts. The group also echoed the data group's comments by suggesting that data should drive decisions. There is some movement around health disparities and health equity in parts of the state, but much more is needed. Hiring freezes and additional funding are obstacles to more activity in some locations.

The group also suggested that a level of real public awareness, understanding, and commitment are lacking. The group called for many organizations to be at the table including business, faith-based organizations, environmental quality groups, schools, and all levels of government. They also called for non-traditional partnerships willing to come together for change.

### *Community Response*

There were two breakout groups that addressed community level response. There is a desire to see Public Act 653 (Minority Health Bill) implemented—to move beyond promoting the fact that it exists. The community groups wanted to see more partnerships between state government and businesses to help address racial and ethnic health inequalities. The groups also called for more collaboration and for more accountability and oversight.

Data was raised as an issue. One group wanted to see more data on Arab Americans and Hispanics/Latinos. There was also a discussion of how Hispanics/Latinos are counted in the data, in terms of being listed as white or African American. The other group discussed the importance of reaching school-age children with services including dental, pediatric, and mental health services.

Significant community-level issues identified were access to quality healthcare, environmental factors and their cumulative effects, and the fact that mothers are placing themselves last when it comes to healthcare. They also saw asthma, cancer, and cardiovascular health as significant health concerns. Furthermore, they pointed to immigration policies as major obstacles to accessing healthcare.

The community response groups called for an asset map, or a way to identify the resources available across the state that can be used by government, organizations, and individuals. The groups also discussed moving beyond the "us or them" mentality and moving toward becoming advocates for the health of all Michiganders. The groups called for more partnerships, more open dialogue, and more work with health plan providers.

Finally, the groups discussed how stereotypes impact the way that we act and interact. They raised the issue of a need for more personal level education and information because they believe that people would make different personal choices if they had better awareness. There was a call for hospitals and healthcare providers to be more proactive in cultural immersion education and in making customer care a priority. They also called on cultural organizations to work with providers to make them aware of cultural differences, and to begin to dialogue with medical facilities.

Both groups called for more equity in terms of resources and services. They would also like to see a better mechanism for sharing information around funding such as block grants.

# KEY RECOMMENDATIONS AND STRATEGIES

The following pages outline the complete list of actionable recommendations and strategies for the *Michigan Health Equity Roadmap*. These recommendations were informed by the outreach to key informants, the MDCH Health Disparities Workgroup, participants in 21 *Community Conversations* throughout the state, and attendees of the September 2009 *Health Disparities Summit*. While most of the strategies focus at the state and local government level, some are intended as action steps to assist local communities, healthcare organizations, healthcare providers, and community- and faith-based organizations.

The Health Disparities Reduction and Minority Health Section (HDRMH) also conducted an extensive review of public health research and state, national, and local policies and practices to attain health equity, and we adopted promising and evidence-based practices for this *Roadmap*. The reference list at the end of this section cites sources for the recommendations.

Furthermore, this *Roadmap* includes a section on "Best Practices" (Section 5) that describes the health equity evidence base in more detail. Finally, Section 6 provides health equity data and details strategies for improving monitoring and evaluation of health equity in Michigan.

*Major recommendations:*

*Improve race and ethnicity data*

*Strengthen government and community capacity to improve racial/ethnic health inequalities*

*Improve social determinants of health*

*Ensure equitable access to quality healthcare*

*Strengthen community capacity, engagement, and empowerment*

## Recommendation 1: Improve Race/Ethnicity Data Collection/Data Systems/Data Accessibility

Strategies

*Data Collection*

**1-1.** Work to assure that race, ethnicity, and preferred language data are collected for all participants in health and social service programs.[1]

**1-2.** Create and implement reliable survey tools to collect local data from smaller racial/ethnic populations and communities not represented in standard national and state data collection systems.[2]

*Data Systems*

**1-3.** Identify and establish a health equity data set to be maintained within the Health Disparities Reduction and Minority Health Section (HDRMH). The data set shall include indicators for social and economic conditions; environmental conditions; health status, behaviors, and healthcare; and priority health outcomes in order to monitor health equity for racial and ethnic minority populations in Michigan.[3]

*Data Accessibility*

**1-4.** Establish an HDRMH webpage that will report health-indicator data, health equity data, and other health information related to the five racial/ethnic populations served by the section.[4]

**Recommendation 2: Strengthen the capacity of government and communities to develop and sustain effective partnerships and programs to improve racial and ethnic health inequities.**

Strategies

*Infrastructure*

**2-1.** Establish a statewide Office of Health Equity, or similar entity, that sits within an executive office.[5]

*Capacity*

**2-2.** HDRMH will review and revise its funding priorities in an effort to strengthen the capacity of state and local agencies to implement evidence-based programs to improve health equity for racial and ethnic minority communities.[6]

*Collaboration*

**2-3.** Cultivate and mobilize partnerships with government agencies, non-profits, CBOs, businesses, and healthcare to address root causes of health inequities in racial and ethnic minority communities.[7]

**Recommendation 3: Improve social determinants of racial/ethnic health inequities through public education and evidence-based community interventions.**

Strategies

*Education*

**3-1.** Develop materials to educate public health professionals, policymakers, community health workers, and healthcare providers about the social determinants of health, and racial and ethnic health equity.

**3-2.** Develop and implement a social justice, anti-racism and cultural competence focused curriculum for implementation with MDCH staff.

*Community Intervention*

**3-3.** Create public-private partnerships to open and sustain full service grocery stores and community gardens in communities without access to healthy foods.[8]

**3-4.** Support neighborhood improvements to promote recreational access and physical activity (e.g., safe parks, walking and biking paths, public transportation).[9]

**3-5.** Support early childhood development programs for aged 3-5.[10]

**3-6.** Support tenant-based rental assistance programs (rental vouchers).[11]

**3-7.** Support interventions to reduce pollution and violent crime in neighborhoods.[12]

**3-8.** Partner with higher education and workforce development organizations to identify and replicate successful job training and placement programs.[13]

## **Recommendation 4: Ensure equitable access to quality healthcare.**

Strategies

*Healthcare access*

**4-1.** Assure universal insurance coverage and access to primary healthcare.[14]

**4-2.** Develop programs that build the skills of community members and patients to be better informed and equipped to effectively navigate through the healthcare system.[15]

*Cultural Competence*

**4-3.** Adopt and enforce Department-wide standards for culturally and linguistically competent (CLAS) services.[16]

**4-4.** Provide cultural competence education and training, including education on racism and other social determinants of health, as part of the training of all health professionals.[17]

*Workforce Development*

**4-5.** Increase resources and implement recruitment, training, and retention strategies to increase the number of underrepresented racial and ethnic minorities in health and social services professions, including agency staff and leadership positions.[18]

**Recommendation 5: Strengthen community engagement, capacity, and empowerment.**

Strategies

*Engagement*

**5-1.** Establish a state-level health equity advisory group that includes consumers, public and private stakeholders, and policymakers, in the development of health equity initiatives.[19]

*Capacity*

**5-2.** Increase funding, training, and collaboration to enhance the granting and service capacity of existing coalitions and organizations with positive track records of mobilizing community members.[20]

**5-3.** Support and expand local programs and partnerships that are community-driven and innovative.[21]

*Empowerment*

**5-4.** Encourage a greater emphasis on prevention and community self-reliance, and utilize and promote community assets and resiliency to effect health improvement.[22]

**5-5.** Advocate for social, economic, and political power in racial and ethnic minority communities to facilitate equal distribution of resources.

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# BEST PRACTICES IN HEALTH EQUITY

*In this section:*

*A compendium of evidence and model practices regarding health equity*

## Recommendation 1: Improve Data Collection, Systems, and Accessibility

### *Evidence-base*

According to expert panels, data to monitor and evaluate racial and ethnic health and healthcare equity should minimally include information on race and ethnicity, primary language, and a measure of socioeconomic position such as income or education.[1,2] These indicators provide more detailed and useful information to monitor, understand, and improve health inequities than race and ethnicity alone. Periodic, targeted surveys should be conducted on racial and ethnic groups and subgroups that are not well-represented in standard federal or state surveys.[3] Furthermore, laws and regulations that mandate standardized data collection from healthcare systems and other institutions have been shown to improve the availability and completeness of racial and ethnic data that can be used to monitor health disparities and equity.[4,5]

Health equity data encompass a broad set of health outcomes and determinants of health. Important measures include health outcomes (e.g., heart disease, cancer, infant mortality); health behaviors (e.g., nutrition and physical activity); and healthcare (e.g., preventive health, insurance coverage).[6,7] In addition, health equity data include indicators of social, economic, and environmental determinants that promote or harm health. For example, social determinants data typically include measures of socioeconomic position (e.g., poverty, education) as well as environmental or neighborhood indicators such as air quality, housing conditions, nutritional and recreational resources, and quality of life measures such as exposure to violent crime.[8]

Sources of data for social determinants and health equity indicators include census data, vital statistics systems, and household surveys. Small-area data at the county, city, or zip-code levels can provide information on smaller racial, ethnic, or other targeted populations not identified in national and state databases.[9] Geographic information systems are particularly useful for presenting area- or community-level data. Moreover, patient encounter and treatment data from healthcare systems, disaggregated by race, ethnicity and other demographic identifiers, are valuable data to monitor inequities in healthcare access and quality.[10] Administrative data from social service systems are useful to monitor service delivery and access and utilization of community resources. More detailed guidance on improving racial/ethnic and health equity data collection systems for states and the private sector is available.[11]

### *Model Practices*

The *Data Set Directory of Social Determinants of Health at the Local Level* provides a comprehensive list of social determinants of health indicators in 12 dimensions, including economy, environmental, political, public health, and psychosocial. The database sources for each indicator are also provided.[12]

The *State of the USA* makes 20 health and economic indicators available online to the public. Data are collected at the county-level for life expectancy, chronic disease prevalence, unhealthy physical and mental health days, health systems related information such as insurance coverage and preventive services, and other core health and healthcare indicators.[13]

*America's Health Ranking*s compiles data on health determinants (i.e., personal behaviors, community/environmental conditions, public health policies, clinical care) and health outcomes from multiple federal and state sources, organized and ranked by state. Weighted summary measures allow state-by-state comparisons for health indicators and geographic disparities. The interactive website allows users to retrieve current and longitudinal data by state.[14]

The *Data Collection Regulation* of the Boston Public Health Commission requires all hospitals and community health centers in Boston to collect and report data on race, ethnicity, preferred language and highest level of education to the designated public health authority. These data are used to evaluate healthcare quality.[15]

*Data Driven Detroit (D3)* is a Michigan nonprofit organization that provides leadership and expertise in community data collection, evaluation, and research to inform positive change in Detroit and its metropolitan area. D3's work supports organizations engaged in human services, education, health, employment, and community development policy and programs.

### <u>Recommendation 2</u>: Strengthen government and community capacity and partnerships to improve racial and ethnic health inequities.

### *Evidence-base*

Health equity programs are more likely to be effective with implementation of systems approaches and high-level accountability to health equity goals. Systems-level strategies can involve strategic planning that integrates health equity goals and accountabilities among institutional staff and programs.[16] To develop capacity, resources can be leveraged from several funding streams to strengthen infrastructure and programs and cultivate mutually beneficial partnerships to address health inequities.[17]

Reaching health equity goals demands extensive partnerships and collaborations across various sectors including *government* (both public health and non-public health agencies), *other public and private stakeholders*, and *consumers*. Moreover, high-level accountability and political will help to facilitate the attainment of health equity goals.

Governments' role in assuring health equity is to facilitate policy frameworks that provide the basis for equitable health improvement; to provide or guarantee essential services and human rights protections; and to systematically collect and monitor data on population health outcomes and social determinants of health.[18]

Public health agencies have a special role to play in the pursuit of health equity for communities. Public health authorities can gather relevant data, raise awareness, advocate for policies that promote health equity, and coordinate funding and programs to equalize resources for health equity.[19] Public health agencies can also re-align the essential public health services to include a focus on root causes of health inequities.[20]

Community organizations and residents can work together to mobilize and empower communities around health equity and social justice, provide advocacy or expert consultation, training, and technical support for health equity initiatives, and design and implement community-based programs based on shared expertise and best practices.[21]

Businesses also have a vested interest in health equity for their employees. Research shows that health and healthcare inequities exist even when workers receive equal benefits.[22] Employers who address health inequities and support high-quality healthcare demonstrate their commitment to improvement of health, productivity, and quality of life for their workers and families.[23]

## ***Model Practices***

### National Programs

*Association of State and Territorial Health Officials (ASTHO) Health Equity Policy Statement.* This statement acknowledges the importance of addressing the social determinants that underlie health inequities. Recommended activities include advocating for policies and programs to promote health equity and monitoring and evaluating programs to develop an evidence-base. State agencies are encouraged to serve as a key resource on health equity, raise public awareness, gather relevant data, engage communities to develop health equity strategies, and fund and evaluate innovative programs that promote health equity.[24]

*National Association of County and City Health Officials (NACCHO) Guidelines for Achieving Health Equity in Public Practice.* This document outlines health equity approaches that correspond to the essential public health services. For example, guidelines for monitoring health status and protecting people from health hazards focus on the social and living conditions that lead to health inequities, especially among population groups with excess burden and inadequate social and economic resources. The guidelines also emphasize engaging with communities to identify and eliminate health inequities and assessment, education, and training to assure a competent public health workforce to effectively address health inequities. Other featured components to promote health equity include health impact statements and policies to improve socioeconomic, neighborhood, and environmental conditions.[25]

*Tackling Health Inequities Through Public Health Practice: A Handbook for Action.* This resource authored by NACCHO and the Ingham County Health Department provides several case studies of local public health approaches to transform public health practice toward addressing social justice and health inequities such as economic disadvantage and race and gender discrimination. Examples of systems approaches to build institutional and community capacity to address health equities are also featured.[26]

*Alameda County Public Health Department*. The Alameda County Public Health Department (San Francisco, California) is credited for their strength in strategic planning which aims to transform their organizational culture and align daily work to achieve health equity. Their health equity strategic plan also includes goals to advocate for policies that address social conditions impacting health; and cultivate and expand partnerships that are community-driven and innovative.[27] Their program is supported by legislation that mandates the health department to offer services that address social determinants of health. Statutory language for health department services includes the following: "The health department shall offer…services directed to the social factors affecting health, and which may include community planning, counseling, consultation, education, and special studies."[28]

*Boston Public Health Commission, Center for Health Equity and Social Justice*. The Boston Public Health Commission (BPHC) has been recognized nationally for its efforts to address institutional racism and other forms of oppression which perpetuate heath inequities. The Commission supports an anti-racism framework throughout its organization and refocuses its external activities to center on racial/ethnic health disparities and racism. Other social determinants of health addressed by the BPHC are economic opportunity, education, housing, residential segregation, safe neighborhoods, and food access in addition to healthcare access and quality. BPHC has also established a New England Partnership for Health Equity that works to create institutional and community changes in policies, programs, and practices that help to sustain health equity work. The Partnership for Health Equity also provides technical assistance, training and resources for health equity initiatives, and it fosters a learning collaborative of local and regional partners engaged in health equity work. Another notable achievement of BPHC is its work to require standardized racial/ethnic data collection among healthcare organizations. The Commission established a data collection regulation which required all hospitals and community health centers in Boston to collect demographic information on race, ethnicity, preferred language, and education for all patients. This information will help to identify and reduce disparities in clinical practice and outcomes.[29]

*Massachusetts Office of Health Equity*. This office sits within the Massachusetts Executive Office of Health and Human Services. The executive positioning of the Office of Health Equity helps to confirm the institutional commitment to health equity at high levels of leadership.[30]

*Ohio Department of Health*. The Ohio Department of Health includes Equity and Social Justice as one of its 10 core principles. The Department has outlined its commitment to identify and address the root causes of health inequities; actively seek out and promote decisions and policies aimed at equity; empower communities; and make equity and social justice visible and aim for sustained, permanent change.[31]

Michigan Programs

*Michigan House Bill 4455: Strategic Plan to Reduce Disparities (also Michigan PA 653)* gives statutory authority to address health inequities through the Health Disparities Reduction Program in the Michigan Department of Community Health. The bill directs the program to conduct and coordinate activities such as monitor minority health progress; provide minority health awareness, resources, and technical assistance; establish policy and strategies; fund minority health programs and initiatives; and collaborate with department and community programs, among other mandates to improve minority health. [32]

*African American Male Health Initiative (AAMHI): Check UP! or Check OUT! (CUCO)* The program addresses the disproportionate morbidity and premature death of African American men in Michigan. The objectives of the program are to decrease system level barriers to preventive healthcare in at least one managed care provider system, and increase knowledge among the African American male target population of their health risks via a culturally competent social marketing and media campaign. A CUCO community advisory board has been formed and members were chosen based on their experience to provide critical insights and valuable feedback while strategically guiding the movement of the project. Additionally, a speakers' bureau was formed to disseminate accurate and timely project and health disparities information via speaking engagements and presentations.

*Color Me Healthy*. This statewide campaign launched in 1994 promotes healthy lifestyle behaviors and illuminates some of the positive changes that have occurred in the health status of Michigan's populations of color. The "Color Me Healthy Campaign" has been revitalized through a media campaign designed to highlight public health programs and services in Michigan that address health disparities elimination.

*Genesee County Racial & Ethnic Approaches to Community Health Across the US (REACH US)*. Genesee County REACH US has committed to reducing the racial gap in infant mortality in Genesee County through multifaceted community-based and health system interventions including: (a)"Undoing Racism" education; (b) mobilization of grassroots organizations to address social determinants of health disparities; (c) standardization of prenatal care assessment tools to better address social determinants and psychosocial factors in maternal infant health; (d) health promotion programs and support groups for pregnant women, adolescents, and adults; (e) community-engaged surveillance and review of infant mortality cases; (f) cultural competence training for medical residents and public health and social work students working in the community; and (e) policy-work to develop an integrated local and regional system for perinatal care. Their work is driven by strong inter-sectoral partnerships and community-based participatory approaches.[33]

*Ingham County Social Justice Dialogues*. The Ingham County Health Department facilitated a series of dialogues for their organization around crucial social justice issues including institutional racism, socioeconomic status and class exploitation, and gender inequity.[34(p.33-57)] The dialogues were a focus of a larger project goal to transform internal practices and clarify the health department's role in addressing social justice issues. Dialogues were designed to elicit, gather, and synthesize the collective wisdom of a group of people in answering a specific question, through the broadest participation and achieving the broadest possible ownership of the resulting decisions. Staff and partners engaged in interactive exercises and addressed questions such as: *As an organization, what do we need to do to eliminate institutional racism as a root cause of health inequity? As an organization, what do we need to do to eliminate SES and class exploitation as a root cause of health inequity?* The key suggestions that emerged from this process were in the areas of policy reform; responsible media coverage; community partnerships around economic justice; and changes in the awareness, accountability, and composition of the public health workforce.

*Saginaw County Department of Public Health (SCDPH)*. SCDPH has an established focus on health disparities while taking into account environmental conditions impacting health in the community. The agency revised its strategic plan to incorporate the promotion of health equity as a priority. Due to the persistent and disproportionate African-American infant mortality rates, SCDPH is considering non-traditional factors such spatial-temporal patterns and clusters of adverse birth outcomes and infant mortality to better understand the distal determinants of maternal and infant health such as the exposure to physical environmental hazards and the lack of access to quality health services. SCDPH is also engaged in a project to develop a rating scale for residential and neighborhood characteristics which can be used as a cost effective tool to identify households and/or neighborhoods in U.S. communities that pose the greatest health risk to children. It is hoped that the instrument will help move the field beyond the limited categorical approaches to improved understanding of multiple public health problems associated with substandard housing and neighborhood risk factors.

## **Recommendation 3: Improve social determinants of health inequities.**

### ***Evidence-base***

Overall, social conditions are more influential in producing and reproducing health inequities than medical care or individual risk factors.[35,36] Therefore, it is important to address fundamental social determinants of health in order to reduce health inequities.[37] A strategy to facilitate success of health equity initiatives is to heighten awareness of social determinants of health among policy/decision-makers and the general public.[38] Greater attention to social determinants issues helps to generate support and leverage resources and partnerships for sustained health equity activities.

The Institute of Medicine report *The Future of the Public's Health in the 21st Century* observed that social and environmental factors create significant health risks for individuals and communities.[39] The report reinforced that a heavy investment in personal healthcare was a limited strategy for promoting community health, and it highlighted important social determinants to address such as social class, stress, transportation, employment, and access to healthy foods.

Sources confirm that *socioeconomic position* is a very strong predictor of health status.[40,41] Increased income is associated with improved individual and community health, and reduction of income inequality between the rich and poor has positive health benefits for people at lower levels of the socioeconomic ladder.[42,43]

A health equity focus also warrants attention to the neighborhoods and environments where residents live, learn, work, and play.[44] Improvement of the *built environment* is an important strategy to promote physical activity,[45] reduce injuries and violence, and promote safe and high quality air, water, food, and waste disposal in communities with excess risk.[46] Other social conditions that determine health are *education,*[47] *healthy food access, housing,*[48] *neighborhood conditions,*[49] *violence, segregation,*[50] and *racial and ethnic discrimination.*[51] *Environmental justice* is an important component of health equity. Pollution and garbage are observed more likely in low-income and minority neighborhoods, and they can create health hazards for entire communities.

Promoting *access to healthy food* is a challenging yet feasible intervention strategy to reduce health inequities.[52,53] Access to healthy food is considered a social determinant because it is related to structural conditions such as neighborhood divestment that disproportionately limit healthful resources (e.g., full-service grocery stores and fresh fruits and vegetables) in low-income and minority neighborhoods. Structural inequalities and poor neighborhood food access are therefore conceptualized as the root causes of inadequate nutrition, although cultural and behavioral factors can be part of the problem as well.

Evidence of the effectiveness of specific interventions to promote healthy social environments comes from systematic reviews outlined in the *Guide to Community Preventive Services*.[54] Based on rigorous criteria, the *Community Guide* found evidence of improved health and social status with early childhood development programs and tenant rental assistance programs.[55] *Early childhood development* for children aged 3-5 improved cognitive development and academic achievement.[56] These improvements can stimulate a positive trajectory for favorable health and social outcomes over the life course. *Tenant-based rental assistance programs* (which provided vouchers for low-income people to live in preferred housing) were shown to reduce victimization and improve neighborhood safety.[57]

Other social and environmental health interventions that need to be investigated include: access to quality healthcare and coverage; affordable and safe housing; safe neighborhoods; neighborhood assets; quality of educational systems; job training and employment opportunities; social cohesion, civic engagement, and collective efficacy; and work conditions. Future studies in these areas will help to strengthen the evidence–base for reducing health inequities through action on specific social determinants of health.

### ***Model Practices***

*WHO Commission on Social Determinants of Health*. This international body prioritized three key actions to improve social determinants of health and reduce health inequity: improve daily living conditions; tackle inequitable distribution of power, money and resources; and understand the problem and evaluate action. The Commission has an extensive list of social determinants reports and resources available on its website.[58,59]

*Promoting Health Equity: A Resource Guide to Help Communities Address Social Determinants of Health*. This booklet provides examples from the field of programs working to improve social determinants of health in local communities. The resource also includes a step-by-step guide for public health practitioners and partners seeking to develop, implement, evaluate, and sustain local partnerships and initiatives to tackle social determinants of health inequities.[60]

*Unnatural Causes...Is Inequality Making Us Sick?* This seven-part video documentary series explores racial and socioeconomic inequalities in health. The website has an extensive list of resources that communities can use to facilitate dialogues and action around social and health inequities.[61]

*Beyond Health Care: New Directions to a Healthier America*. This report by the Robert Wood Johnson Foundation Commission to Build a Healthier America highlights interventions for institutional and environmental changes to support healthy behaviors, including access to nutritious foods, early childhood development, and neighborhood and workplace wellness programs.[62]

*Detroit Healthy Environments Partnership*. The Healthy Environment Partnership (HEP) is a community-based participatory research partnership with a focus on understanding and promoting heart health in Detroit neighborhoods. The partnership examines and develops interventions to address aspects of the social and physical environment that contribute to racial and socioeconomic disparities in cardiovascular disease.[63]

*Prevention Institute*. This organization highlights prevention research, policies, and programs that feature comprehensive, integrated approaches to solving complex health and social issues. They profile communities nationwide that are working to improve health equity around injuries and violence, built environments, healthy food access, physical activity, and racial and social justice. They also feature on-line training modules on health equity and violence prevention.[64]

## Recommendation 4: Ensure equitable access to quality healthcare

### *Evidence-base*

Health disparities by race, ethnicity, and income are pervasive in our healthcare system. The Institute of Medicine report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare* highlighted differences in the quality of care provided to racial and ethnic minorities even after accounting for income, health insurance coverage, severity of illness, and type of healthcare facility.[65] The report acknowledged that these healthcare disparities occur in the context of broader social and economic inequality and racial and ethnic discrimination in many sectors of society. Selected recommendations to reduce healthcare disparities include the following from the report that have been adapted for the *Michigan Health Equity Roadmap*:

- Increase healthcare providers' awareness of disparities.
- Increase the proportion of U.S. underrepresented minorities among health professionals.
- Implement education programs to increase patients' knowledge of how to best access care and participate in treatment decisions.
- Integrate cross-cultural education into the training of all health professionals.
- Collect and report data on patient's race, ethnicity, socioeconomic status, primary language to monitor healthcare disparities and include in performance measurements.

Universal access to health insurance coverage is a critical requirement for health equity.[66] However, insurance coverage does not ensure optimal healthcare. Other supportive structures include development of a competent workforce to deal with a racial and ethnically diverse patient population, including persons with a primary language other than English.

More work is undergoing on the impact of culturally competent health systems. At present, there is insufficient scientific evidence for the ability of this intervention to reduce racial and ethnic health inequities.[67] However, culturally competent health systems show significant promise for improving healthcare, and strategies have been adopted by public and private agencies and many health systems.

### *Model Practices*

The *National Standards on Culturally and Linguistically Appropriate Services (CLAS)* are directed to healthcare organizations to integrate appropriate health services throughout an organization in partnership with communities served as a way to promote compliance with civil rights laws. The 14 standards address culturally competent care, language access services, and organizational supports for cultural competence.[68]

## Recommendation 5: Strengthen Community Engagement, Capacity, and Empowerment

### *Evidence-base*

Community capacity refers to the resources, infrastructures and relationships and operations that enable a community to create change. Community participatory and empowerment approaches help communities to think about existing community strengths that can be mobilized to help reduce inequities.[69, 70]

Community-based participatory research is one strategy that can maximize community-driven decisions and strategies to address social determinants of health.[71] For example, some strategies may engage communities in a health impact assessment of housing and infrastructure projects that evaluate the projected effects on community health.[72, 73]

### *Model Practices*

*Community Toolbox*. This on-line resource provides hundreds of tools and practical step-by-step guidance in specific community-building skills.[74]

*How People Get Power*. A primer on community organizing from an empowerment framework.[75]

*Toolkit for Health and Resilience in Vulnerable Communities (THRIVE)*. This interactive tool by the Prevention Institute provides guidance for community assessment and intervention that takes a community resilience approach to improving health outcomes.[76]

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# HEALTH EQUITY DATA

*Monitoring social determinants together with health outcomes is optimal for evaluating our success in attaining health equity for racial and ethnic minority populations in Michigan.*

An important requirement for evaluation of health equity is standardized, complete and consistent collection and monitoring of data over time.[1] In order to enhance communication and shared action around health equity improvement, the *Michigan Health Equity Roadmap* has adopted a consistent standard to monitor progress in disparity elimination. Health equity data will be monitored as comprehensively as possible for all five major racial/ethnic minority groups: African American, American Indian/Native American, Arab American/Chaldean, Asian American, and Hispanic/Latino. Most selected indicator measures are not publicly available for the Arab American/Chaldean population in Michigan. Currently, we intend to monitor and evaluate health equity for racial and ethnic groups at the statewide level. A developmental recommendation is to measure health equity within each Michigan county, focusing on indicators for the whole county population along with racial and ethnic comparisons where available.

The *Roadmap* will monitor racial and ethnic data on health outcomes (e.g., diseases and deaths) in addition to social, economic, and environmental determinants (e.g., income, education, neighborhood conditions) that shape the conditions that foster or harm individual and community health. Collecting data on social determinants in addition to traditional public health priorities (e.g., heart disease, cancer, infant mortality) allows health analysts to monitor whether societal supports are in place to enhance local programs and other efforts to improve individual and community health outcomes. Monitoring social determinants together with health outcomes is optimal for evaluating our success in attaining health equity for racial and ethnic minority populations in Michigan.

## Indicators and Measures

The health indicators for the *Michigan Health Equity Roadmap* were selected based on careful review of indicators for key health outcomes and social determinants of health that have been outlined in resources such as the *Data Set Directory of Social Determinants of Health at the Local Level*,[2] *America's Health Rankings*,[3] and the Institute of Medicine's *State of the USA*.[4] A key justification for the selection of indicators was the availability of routinely reported measures for the priority racial and ethnic populations.

In addition to routine, standardized measures, qualitative data collected from community members regarding perspectives on health risks, assets, and personal evaluations of community health trends are a vital component to any comprehensive monitoring and evaluation of health equity. Data at the local level can be obtained using methods such as community surveys, health impact assessments, focus groups, in-depth interviews, concept mapping, windshield tours, and Photovoice techniques where communities contribute their knowledge and expertise and highlight the assets, concerns, and solutions that are important to them for optimizing health.[5,6]

Public health leaders and partners in Michigan will ultimately decide the combination of social determinants indicators and health outcomes that would fulfill the need for effective yet practical monitoring of health equity while also responding to the special interests of policymakers, program administrators, service providers, and affected populations.

Table 6.1 displays health equity indicators categorized under three major areas: *Social Determinants of Health; Health Status, Behaviors, and Healthcare;* and *Diseases and Deaths.* Information on these selected indicators will be communicated to policymakers and the general public to report progress toward health equity.

**Table 6.1. Priority Health Equity Indicators**

| Social Determinants | Health Status, Health Behaviors, Healthcare | Diseases and Deaths |
|---|---|---|
| 1. Median household income | 1. Self-reported fair/poor health | 1. Premature death |
| 2. Children in poverty | 2. Unhealthy physical health days | 2. Heart disease mortality |
| 3. Unemployment | 3. Unhealthy mental health days | 3. All-cancer mortality |
| 4. High school drop-out rate | 4. Obesity prevalence | 4. Diabetes prevalence |
| 5. Racial residential segregation | 5. Tobacco use | 5. HIV infection rate |
| 6. Voter registration | 6. Health insurance coverage | 6. Infant mortality |
| 7. Perceived quality of life | | 7. Unintentional injuries |

In addition to these priority indicators, the Health Disparities Reduction and Minority Health Section (HDRMH) maintains a comprehensive list of over 50 health equity indicators for detailed data and monitoring of health equity.

Table 6.2 lists the measures and sources for the selected priority health equity indicators.

## Table 6.2. Health Equity Indicators, Measures and Sources

| Indicator | Measure of Indicator | Data Source |
|---|---|---|
| **Social Determinants** | | |
| Median annual household income | Median household income in 1999 and 2008 inflation adjusted dollars | U.S. Census Bureau, Census 2000, and American Community Survey, 2006-2008 |
| Children at or below poverty | Percent of all people under 18 years of age at or below the Federal Poverty level | U.S. Census Bureau, Census 2000, and American Community Survey, 2006-2008 |
| Unemployment rate | Annual average unemployment rate of the civilian non-institutionalized population | Local Area Unemployment Statistics (LAUS)<br>2003, 2008 |
| High school drop-out rate | Percent of public high schoolers who do not graduate | State of Michigan 2007 and 2008 Cohort Drop Out Rate Report, Center for Educational Performance and Information |
| Persons not registered to vote | Percent of citizens not registered to vote, by race | U.S. Census Bureau, Current Population Survey, November 2006 and 2008 |
| **Health Status, Health Behaviors, Healthcare** | | |
| Self-reported fair/poor health | The proportion who reported either “Fair” or “poor” to the question: Would you say that in general your health is: Excellent, Very good, Good, Fair, or Poor? | Michigan Behavioral Risk Factor Surveillance Survey<br>2001-2003, 2006-2008 |
| Unhealthy physical days (past 30 days) | The proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the last 30 days. | Michigan Behavioral Risk Factor Surveillance Survey<br>2001-2003, 2006-2008 |
| Unhealthy mental days (past 30 days) | The proportion who reported 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days | Michigan Behavioral Risk Factor Surveillance Survey<br>2001-2003, 2006-2008 |
| Overall life dissatisfaction | The proportion who reported either "Dissatisfied" or "Very Dissatisfied" to the question: "In general, how satisfied with your life are you?" | Michigan Behavioral Risk Factor Surveillance Survey<br>2006-2008 |
| Prevalence, obese | Proportion whose weight status is BMI ≥ 30. BMI, body mass index is defined as weight (in kilograms) divided by height (in meters) squared. Weight and height are self reported. | Michigan Behavioral Risk Factor Surveillance Survey<br>2001-2003, 2006-2008 |

**Table 6.2.** (continued)

| Indicator | Measure of Indicator | Data Source |
|---|---|---|
| Tobacco use - current smoker | The proportion who reported that they had ever smoked at least 100 cigarettes (five packs) in their life and that they smoke cigarettes now either every day or on some days. | Michigan Behavioral Risk Factor Surveillance Survey<br>2001-2003, 2006-2008 |
| Rate of uninsured | The percentage of non-elderly Michigan residents who do not have private health insurance and are not covered by Medicaid. | Current Population Survey, 1994-1999 and 2006-2008, and Employee Benefit Research Institute |
| **Diseases and Deaths** | | |
| Heart disease mortality rate | Age-adjusted no. of deaths from heart disease per 100,000 people the specified population. | Michigan Resident Death Files<br>2002, 2008 |
| All-cancer mortality rate | Age-adjusted no. of deaths from cancer per 100,000 people in the specified population. | Michigan Resident Death Files<br>2002, 2007 |
| Diabetes prevalence rate | The proportion who reported that they were ever told by a doctor that they have diabetes (excluding pregnancy-related diabetes) | Michigan Behavioral Risk Factor Surveillance Survey<br>2001-2003, 2006-2008 |
| HIV infection rate | Number of cases HIV infection per 100,000 people in the specified population. | HIV/AIDS Epidemiology Profiles and Quarterly Reports<br>January 2001 and January 2009 |
| Infant mortality rate | Number of infant deaths per 1,000 live births in the specified population. | Michigan Resident Birth and Death Files<br>2002, 2007 |
| Unintentional injury mortality rate | Age-adjusted death rates from unintentional injury (accidents) per 100,000 people in the specified population. | Michigan Resident Death Files<br>2002, 2007 |

## Health Equity Graphs

What follows are some graphs that compare rates across two time periods for 17 priority health equity indicators. The graphs depict the rates for five racial/ethnic populations. Racial and ethnic data for the graphs and tables in this *Roadmap* report were compiled and reported in accordance with standard racial and ethnic classifications designated by the federal government.[7] We report racial data for African Americans or Blacks, American Indians/Alaska Natives, Asians, and whites. Ethnicity data specifically refers to "Hispanic" or "non-Hispanic" ethnicity. Unless otherwise indicated, the reported racial data do not include Hispanics/Latinos, whereas Hispanic data include persons of any race with Hispanic ethnicity.

The graphs compare indicator rates across groups for the comparative time periods and allow the reader to visualize the improvement or decline in individual group rates. We use "*rate*" as a generic descriptor for all indicator measures, even though some measures are more accurately referred to as *averages* (i.e., median income, unhealthy physical and mental days) or the *percent* of people in the population affected by the condition (e.g., obesity, uninsured). All indicators (except median income) are framed in terms of adverse events to facilitate a shared understanding of the goal to *reduce* the observed indicator rates as a movement toward equity.

The measures and sources for each reported indicator were obtained from the data files or reports as described in Table 6-2. No statistical testing was done to assess the reliability or precision of the rates and the percent change in rates. Therefore, the rate estimates and comparisons should be interpreted cautiously for the limited time periods reported. Significance testing will be employed in future *Roadmap* reports to assess the reliability of population health estimates and the reported percent change in rates over the selected time periods.

### *Social Determinants of Health*

For the 1999 and 2006-2008 periods, the median annual household income was lowest in the African American population and highest among Asians. Asians also experienced the highest increase (43.8%) in median income of all racial/ethnic groups between the comparison periods. (Figure 6.1 and Table 6.3)

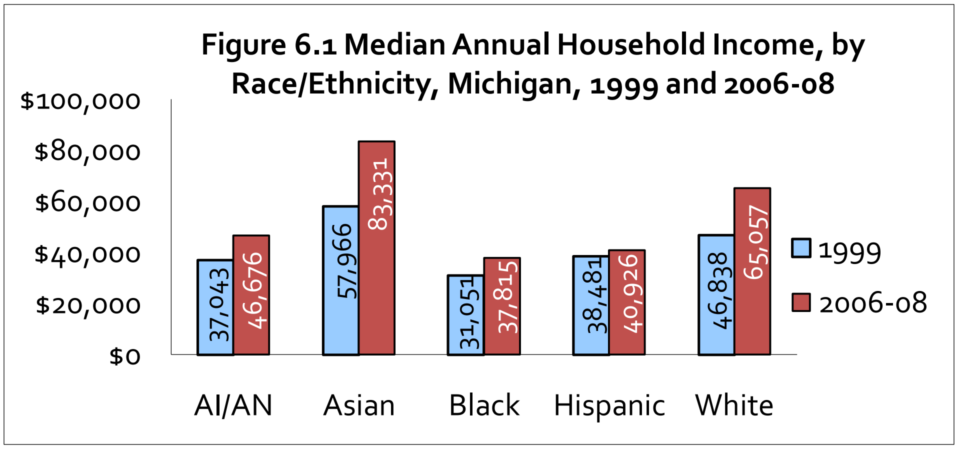
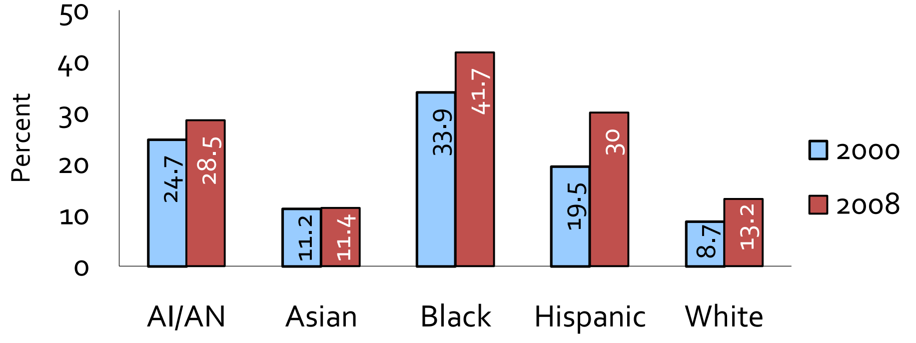


**Figure 6.1 Median Annual Household Income, by Race/Ethnicity, Michigan, 1999 and 2006-08**

Source: U.S. Census Bureau, Census 2000, and American Community Survey, 2006-2008

The percent of children in poverty increased for all racial and ethnic populations from 2000 to 2006-08. The largest percentage *increase* (59%) in the child poverty rate was among Hispanics/Latinos. (Figure 6.2 and Table 6.3)

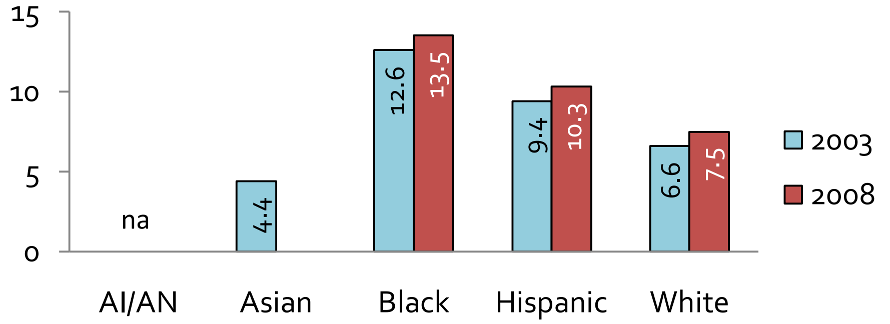
**Figure 6.2 Children at or Below Poverty Level, by Race/Ethnicity, Michigan, 2000 and 2008**



Source: U.S. Census Bureau, Census 2000, and American Community Survey, 2006-2008

From 2003 to 2008, unemployment increased for all racial/ethnic groups for which data were available. African Americans had the overall highest percents of unemployment, at 12.6% in 2003 and 13.5% in 2008. However, over time the gap between African Americans and whites remained unchanged at six percentage points. The second highest unemployment rates were among Hispanics/Latinos, at 9.4% in 2003 and 10.3% in 2008. (Figure 6.3 and table A.1)

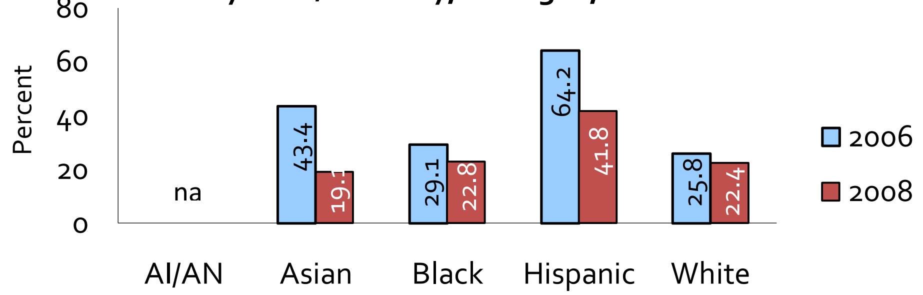
**Figure 6.3 Annual Average Unemployment Rate, by Race/Ethnicity, Michigan, 2003 and 2008**



Source: Local Area Unemployment Statistics (LAUS), 2003, 2008

In 2006 and 2008, Hispanics/Latinos were least likely to be registered to vote. Sixty-four percent of Hispanics/Latinos were not registered to vote during these years. The percent of persons *not* registered to vote declined for all racial and ethnic populations in Michigan from 2006 to 2008 (in other words, voter registration improved). The largest proportionate improvements in voter registration (i.e., the largest reduction in people *not* registered to vote) were among Asians and among Hispanics/Latinos. (Figure 6.4)

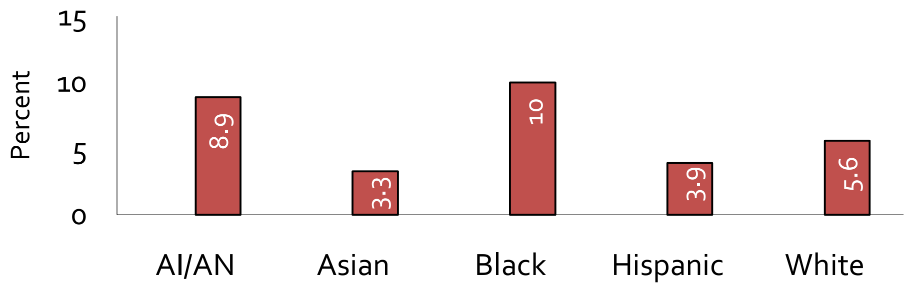
**Figure 6.4 Percent of Persons Not Registered to Vote, by Race/Ethnicity, Michigan, 2006 and 2008**



Source: U.S. Census Bureau, Current Population Survey, November 2006 and 2008

American Indians/Alaska Natives and African Americans were most likely to report overall dissatisfaction with their lives (8.9% and 10% respectively). These poor life satisfaction self-ratings correspond to poorer health status and health outcomes observed in the African American and American Indian populations in Michigan. Formal tests of these associations have not been completed. (Figure 6.5)

**Figure 6.5 Overall Life Dissatisfaction, by Race/Ethnicity, Michigan, 2006-2008**

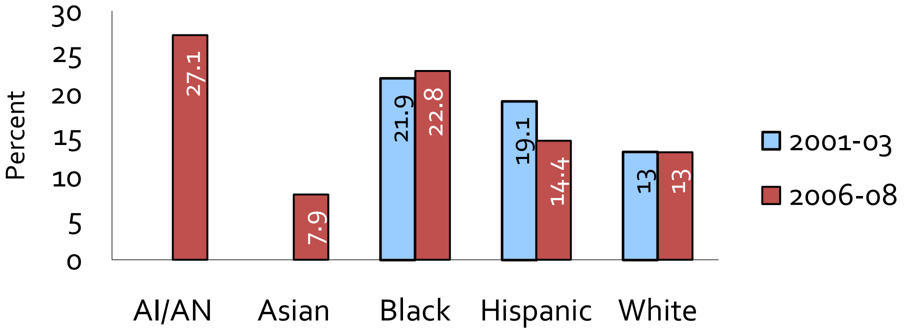


Source: Michigan Behavioral Risk Factor Surveillance Survey, 2006-2008

### *Health Status, Behaviors, and Healthcare*

Self-reported health is a powerful predictor of overall health status and mortality. American Indians/Alaska Natives and African Americans were most likely to report fair or poor health in comparison to other racial/ethnic populations. (Figure 6.6)

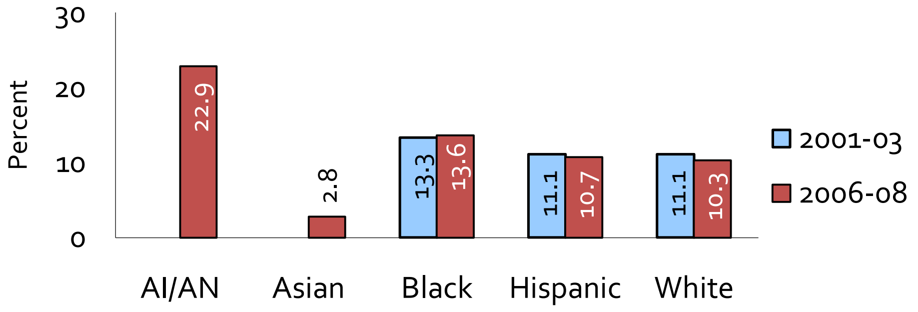
**Figure 6.6 Percent with Overall Fair or Poor Health, by Race/Ethnicity, Michigan, 2001-03 and 2006-08**



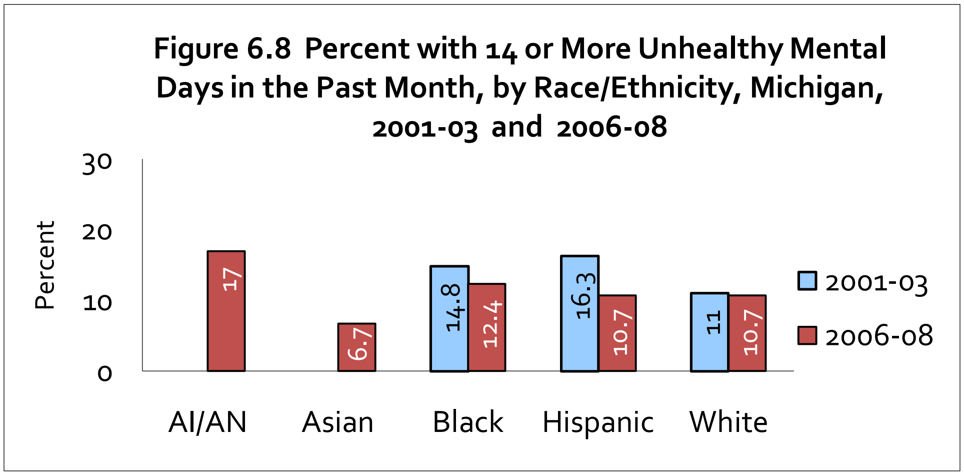
Source: Michigan Behavioral Risk Factor Surveillance Survey, 2001-2003, 2006-2008

Both physical and mental health are important to overall well-being. In the Behavioral Risk Factor Surveillance Survey, Michigan residents were asked about the number of days they experienced poor physical health conditions (e.g., illness and injury) and poor mental health conditions (e.g., stress and depression) in the past month. On average, racial and ethnic populations reported a higher percentage of unhealthy mental health days in excess of 13 days compared with physical health days, with the exception of American Indians who experienced more excessive days of unhealthy physical health than mental health. (Figures 6.7 and 6.8)

**Figure 6.7 Percent with 14 or More Unhealthy Physical Days in the Past Month, by Race/Ethnicity, Michigan, 2001-03 and 2006-08**

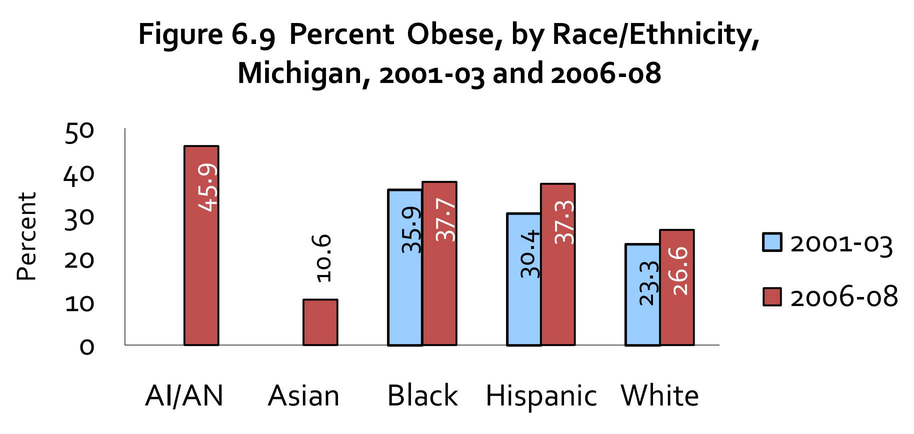


Source: Michigan Behavioral Risk Factor Surveillance Survey, 2001-2003, 2006-2008



Source: Michigan Behavioral Risk Factor Surveillance Survey, 2001-2003, 2006-2008

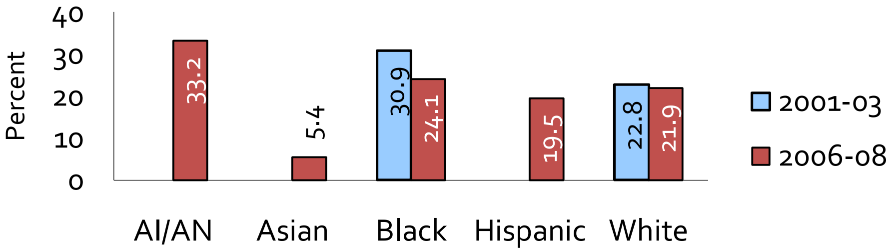
Obesity is associated with leading chronic diseases, including cardiovascular disease and diabetes. During 2006-2008, American Indians/Alaska Natives had the highest estimated percent (46%) of obese persons in the population, followed by African Americans (38%) and Hispanics/Latinos (37%). From 2001-03 to 2006-08, obesity increased over these two periods for African Americans, Hispanics/Latinos, and whites. (Figure 6.9)



Source: Michigan Behavioral Risk Factor Surveillance Survey, 2001-2003, 2006-2008

During 2006-2008, American Indians/Alaska Natives and African Americans had the highest estimated percents of current smokers in the population, at 33% and 24% respectively. Hispanics/Latinos had about 20% of reported smokers, and Asians had the lowest rate (5.4%) of current smokers among populations for which data are available. From 2001-2003 to 2006-2008, smoking declined 22% for African Americans, thus reducing the gap in smoking rates between African Americans and whites over time. (Figure 6.10 and Table 6.3)

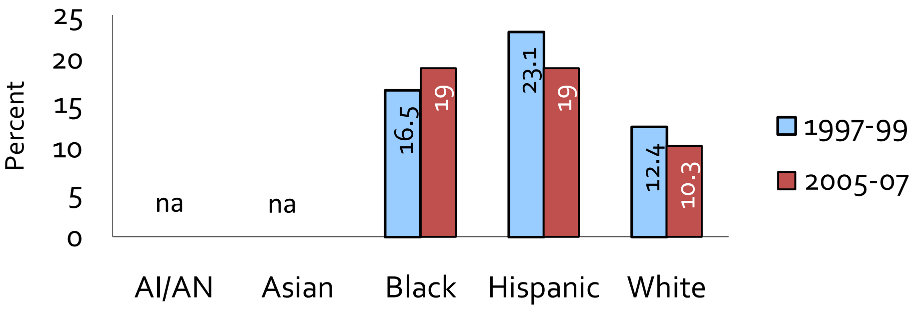
**Figure 6.10 Percent of Current Smokers, by Race/Ethnicity, Michigan, 2001-03 and 2006-08**



Source: Michigan Behavioral Risk Factor Surveillance Survey, 2001-2003, 2006-2008

During 1997-1999, the percent of people not covered by Medicaid, Medicare, or private insurance was largest for Hispanics/Latinos (23%) and African Americans (17%) in comparison to whites (12%). By 2005-2007, the percent of persons without health insurance coverage declined for Hispanics/Latinos by about 18% (an improvement in coverage) and increased for African Americans by 15% (a worsening of coverage).

**Figure 6.11 Percent Without Health Insurance, by Race/Ethnicity, Michigan, 1997-99 and 2005-07**

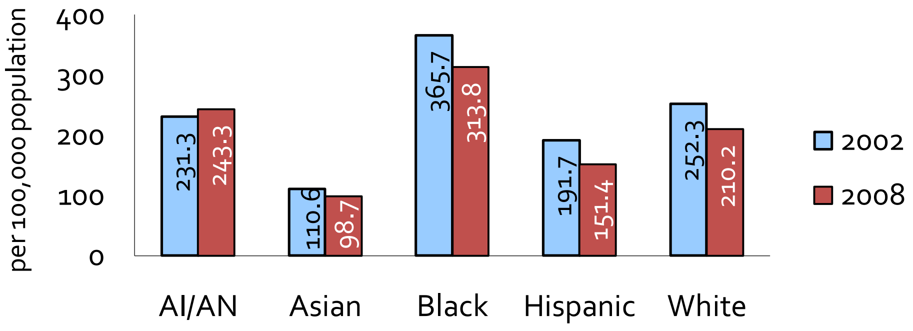


Source: Current Population Survey, 1997-1999 and 2005-2007

## Diseases and Deaths

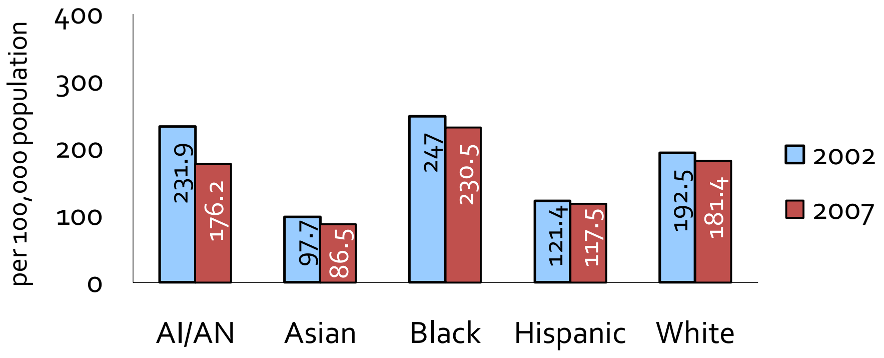
In 2002 and 2008, African Americans experienced the highest mortality from heart disease and cancer. In contrast, Asians and Hispanics/Latinos experienced the lowest mortality from these conditions. Heart disease and cancer mortality declined over the noted time periods for all racial/ethnic populations, with the exception of American Indians/Alaska Natives who experienced a 5% increase in deaths due to heart disease. The largest overall decline in cancer or heart disease mortality occurred among American Indians/Alaska Natives who experienced a 24% decline in all-cancer mortality. Hispanics/Latinos and African Americans respectively experienced a 21% and 14% reduction in heart disease deaths. By comparison, cancer and heart disease mortality in the white population reduced by 6% and 17%, respectively. (Figures 6.12 and 6.13; Table 6.3)

Figure 6.12 Heart Disease Mortality, by Race/Ethnicity, Michigan, 2002 and 2008



Source: Michigan Resident Death Files, 2002, 2008
Note: Age-adjusted rates. Population estimates obtained from the U.S. Census Populations with Bridged Race Categories (update 9/2007), National Center for Health Statistics

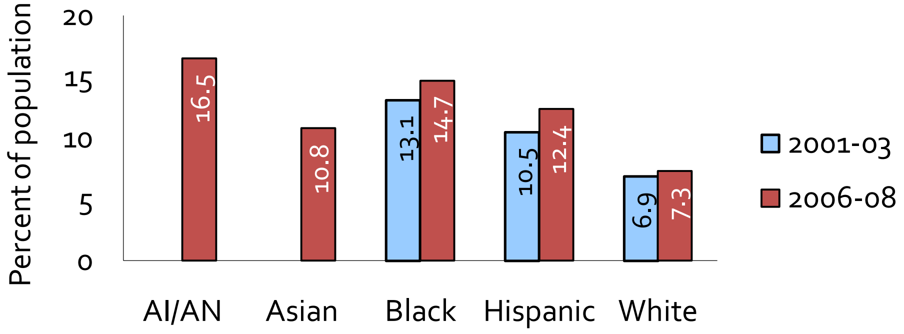
Figure 6.13 All-Cancer Mortality, by Race/Ethnicity, Michigan, 2002 and 2007



Source: Michigan Resident Death Files, 2002, 2007
Note: Age-adjusted rates. Population estimates obtained from the U.S. Census Populations with Bridged Race Categories (update 9/2007), National Center for Health Statistics

During 2006-2008, the prevalence of diabetes exceeded 10% for all racial/ethnic minority populations. The estimated prevalence was 16.5% among American Indians/Alaska Natives, 10.8% among Asians, 14.7% among African Americans, and 12.4% among Hispanics/Latinos. In contrast there was 7.3% diabetes prevalence among whites. From 2001-2003 to 2006-2008, diabetes increased in the African American and Hispanic/Latino populations. (Figure 6.14)

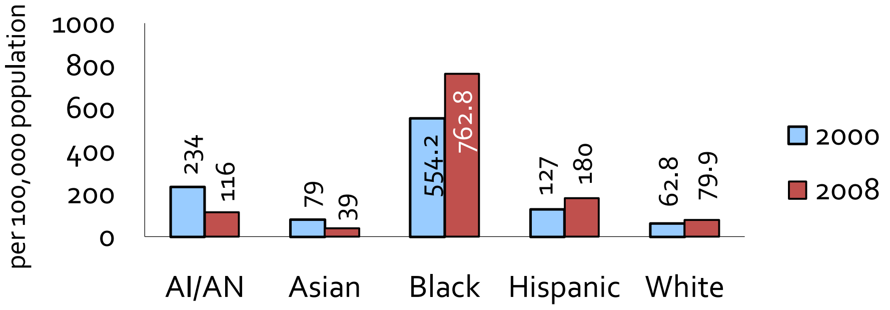
**Figure 6.14 Diabetes Prevalence, by Race/Ethnicity, Michigan, 2001-03 and 2006-08**



Source: Michigan Behavioral Risk Factor Surveillance Survey, 2001-2003, 2006-2008

Among the selected health indicators, the largest racial inequity in comparison to whites was observed for HIV infection rates. In 2008, the rate of HIV infection per 100,000 people was 9.5 times higher for African Americans than whites. HIV infection rates increased 38% for African Americans from 2000 to 2008. In comparison, the rate of HIV infection in 2008 was 2.3 times higher among Hispanics/Latinos compared to whites, 1.5 times higher among American Indians/Alaska Natives compared to whites, and 50% *lower* among Asians compared to whites. (Figure 6.15 and Table 6.3)

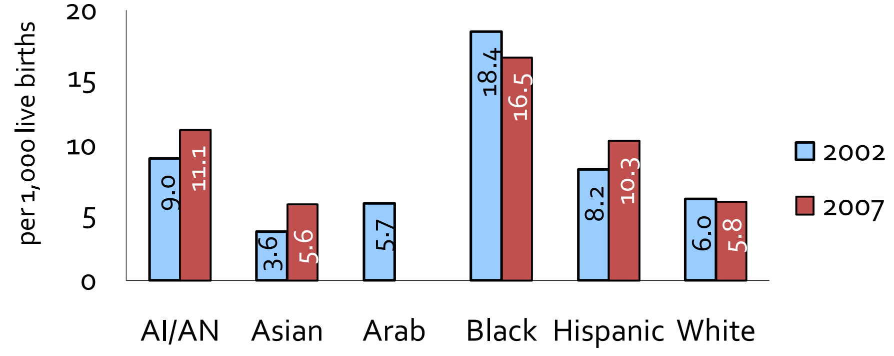
**Figure 6.15 HIV Infection Rate, by Race/Ethnicity, Michigan, 2000 and 2008**



Source: HIV/AIDS Epidemiology Profiles and Quarterly Reports, January 2001 and January 2009

In 2000 and 2007, infant mortality rates (infant deaths per 1,000 live births) were highest for African Americans. In 2007, the African American infant mortality rate (16.5) was 2.8 times higher than whites. The next highest rates were among American Indians/Alaska Natives (11.1) and Hispanics/Latinos (10.3). Asians and Arab Americans experienced infant mortality rates that were similar to or lower than the average rate of 6.0 observed among whites. (Figure 6.16)

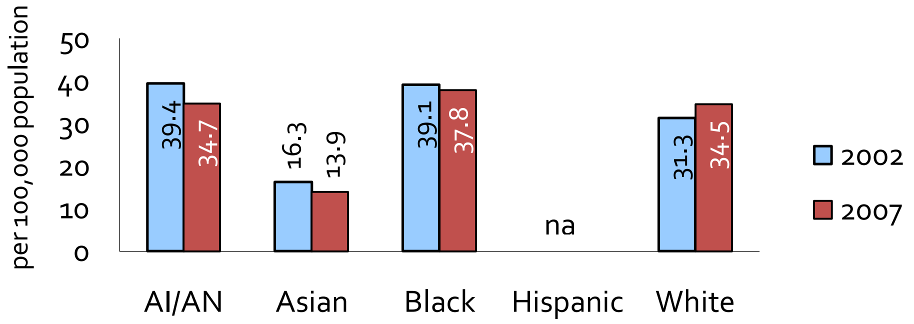
**Figure 6.16 Infant Mortality, by Race/Ethnicity, Michigan, 2002 and 2007**



Source: Michigan Resident Birth and Death Files, 2002, 2007

Relatively small inequities were observed for unintentional injury deaths compared to other selected health indicators. In 2007, deaths due to unintentional injuries were about 10% higher for African Americans compared to whites, and there was no observed difference between American Indians/Alaska Natives and whites. Asians had the lowest unintentional injury deaths overall and the largest percent decline (15%) from 2002 to 2007. (Figure 6.17 and Table 6.3)

**Figure 6.17 Unintentional Injury Mortality Rate, by Race/Ethnicity, Michigan, 2002 and 2007**



Source: Michigan Resident Death Files, 2002, 2007
Note: Age-adjusted rates. Population estimates obtained from the U.S. Census Populations with Bridged Race Categories (update 9/2007), National Center for Health Statistics

In order to expedite progress toward attaining health equity, a desired goal is to see a greater percent decrease in the rates for racial and ethnic minority populations in comparison to the percentage change decrease in rates for the referent white population.[8] Table 6.3 summarizes the percent change in individual group rates from the first to the second periods for which data were collected for this *Roadmap* report. To get a better sense of the magnitude of the rates observed for each population, the *percent change* in rates should be examined together with the *actual* group rates as depicted in the graphs of this section and in the data reference tables A.1 to A.4 in the Appendix.

**Table 6.3. Percent Change in Health Indicators Over Time, by Race/Ethnicity, Michigan**

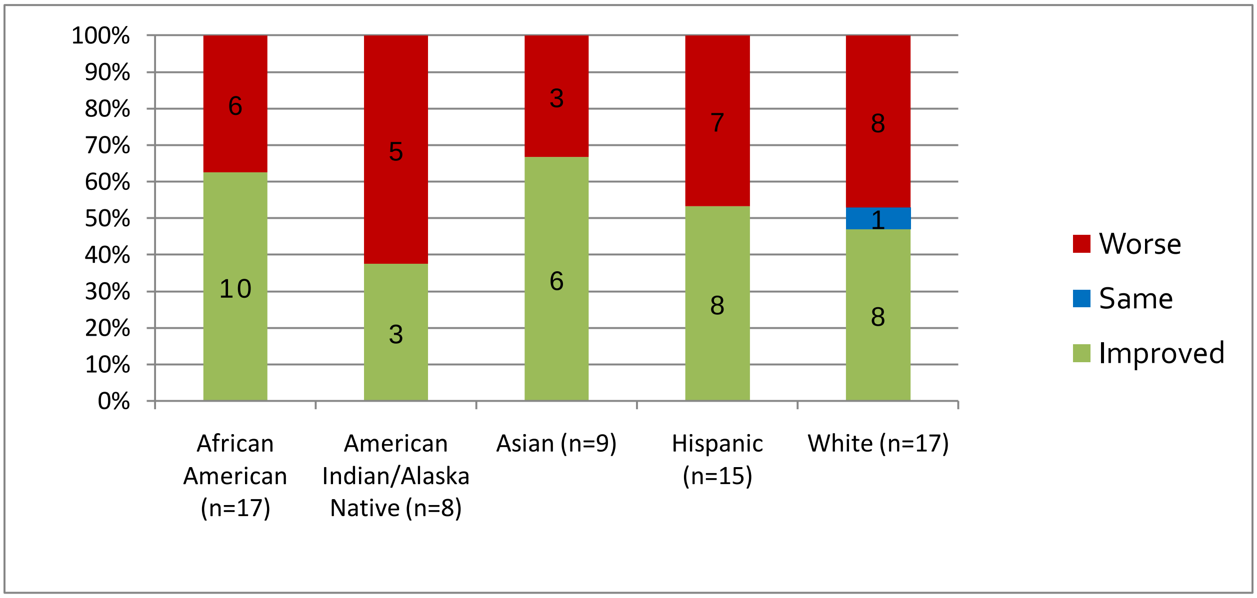
| | | | African American | American Indian/ Alaska Native | Asian | Hispanic | White |
|---|---|---|---|---|---|---|---|
| Indicator | Time 1 | Time 2 | % Change in Rate | % Change in Rate | % Change in Rate | % Change in Rate | % Change in Rate |
| **Social Determinants** | | | | | | | |
| Median annual household income[a] | 1999 | 06-08 | 21.8 | 26.0 | 43.8 | 6.4 | 38.9 |
| Children at or below poverty, % | 2000 | 06-08 | 23.0 | 15.4 | 1.8 | 59.0 | 51.7 |
| Unemployment rate, % | 2003 | 2008 | 7.1 | -- | -- | 9.6 | 13.6 |
| High school drop-out rate, % | 2007 | 2008 | 2.1 | 3.8 | -4.8 | -7.2 | 2.4 |
| Persons not registered to vote, % | 2006 | 2008 | -21.6 | -- | -56.0 | -34.9 | -13.2 |
| **Health Status, Behaviors, Healthcare** | | | | | | | |
| Self-reported fair/poor health | 01-03 | 06-08 | 4.1 | -- | -- | -24.6 | 0.0 |
| Unhealthy physical days (% ≥ 14 days in the past month) | 01-03 | 06-08 | 2.3 | -- | -- | -3.6 | -7.2 |
| Unhealthy mental days (% ≥ 14 days in the past month) | 01-03 | 06-08 | -16.2 | -- | -- | -34.4 | -2.7 |
| Prevalence, obese | 01-03 | 06-08 | 5.0 | -- | -- | 22.7 | 14.2 |
| Tobacco use - current smoker (%) | 01-03 | 06-08 | -22.0 | -- | -- | -- | -3.9 |
| Percent without health insurance | 97-99 | 05-07 | 15.2 | -- | -- | -17.7 | -16.9 |
| **Diseases and Deaths** | | | | | | | |
| Heart disease mortality rate | 2002 | 2008 | -14.2 | 5.2 | -10.8 | -21.0 | -16.7 |
| Diabetes prevalence rate | 01-03 | 06-08 | 12.2 | -- | -- | 18.1 | 5.8 |
| All-cancer mortality rate | 2002 | 2007 | -6.7 | -24.0 | -11.5 | -3.2 | -5.8 |
| HIV infection rate | 2000 | 2008 | 37.6 | -50.4 | -50.6 | 41.7 | 27.3 |
| Infant mortality rate | 2002 | 2007 | -10.3 | 23.3 | 55.6 | 25.6 | -3.3 |
| Unintentional injury mortality rate | 2002 | 2007 | -3.3 | -11.9 | -14.7 | -- | 10.2 |

[a] Absolute measure, in dollars

Notes: -- means no data available

Of the 17 selected indicator measures, 30% to 65% improved for specific racial/ethnic populations over time. The largest proportionate improvement occurred among African Americans. The least proportionate improvement occurred among American Indians/Alaska Natives, among indicators for which data were available. (Figure 6.18)

**Figure 6.18. Summary of Percent Change in Group Rates Over Time for 17 Selected Indicators, by Race/Ethnicity, Michigan**



## Monitoring and Evaluating Racial/Ethnic Health Equity

Providing comprehensive data in a standard format utilizing consistent populations and summary measures has the advantage of providing a snapshot of racial and ethnic health equity in our state. Accordingly, the data reference tables at the end of this report provide a standard template to foster monitoring and evaluation of health equity goals. The selected data in the tables were extracted from a more comprehensive database of racial and ethnic health equity indicators that is being maintained by the Health Disparities Reduction and Minority Health Section (HDRMH). These tables are intended as a reference tool for monitoring social and health inequities for racial and ethnic populations in Michigan.

Our goal is to facilitate monitoring and evaluation of racial and ethnic health equity over time. Therefore, we include baseline data during 2000-2004 to compare with follow-up data during 2005-2009. We also provide a summary evaluation of progress toward equity over these 5-year intervals. In this first *Roadmap* report, we were not able to compile aggregate data for the complete time periods. For example, behavioral risk information was compiled for only two years within each interval, and mortality information was collected for only one year within each interval. As a consequence, the rates for each population may be based on a relatively small number of cases, and therefore the reported population estimates and percent changes may not be statistically reliable. Readers should exercise caution in interpreting the rates in the absence of statistical estimates of reliability for the reported data. Statistical tests will be employed in future *Roadmap* reports.

In our conceptualization of health equity, racial/ethnic groups are compared according to their level of social advantage rather than health status.[9] The white population is selected as the referent group because this population has the highest social advantage among racial and ethnic groups, which accordingly confers a general health advantage for the white population despite exceptions for some health conditions. In addition, the white population, being the largest, has the most reliable group rates and provides a stable reference point over time.

## *Health Equity Measures*

The data reference tables in the *Michigan Health Equity Roadmap* incorporate three complementary measures for monitoring racial and health equity in Michigan: (a) individual group rates; (b) absolute measures of health equity; and (c) relative measures of health equity. We use "*rate*" as a generic descriptor for all indicator measures, even though some measures are more accurately referred to as *averages* (e.g., median income, mean unhealthy physical and mental days) or the *percent* of people in the population affected by the condition (e.g., obesity, uninsured).

***Group Rates.*** First, we provide the group rate for each racial/ethnic minority population and the reference white population for selected indicators over two specified time periods. The sample Table 6.4 shows that the child poverty rate in 2000 was 33.9% for African Americans and 8% for whites. In 2006-2008, the child poverty rate was 41.7% for African Americans and 13.2% for whites. These numbers reveal simply that child poverty was higher for African Americans then whites for both time periods.

**Table 6.4. Sample Health Equity Reference Table**

| Indicator | Year | African American Rate a | White Rate b | Rate Difference (a-b) | Rate Ratio (a/b) | Years | African American Rate a′ | White Rate b′ | Rate Difference (a′-b′) | Rate Ratio (a′/b′) |
|---|---|---|---|---|---|---|---|---|---|---|
| Percent of children at or below poverty | 2000 | 33.9 | 8.0 | 25.9 | 4.2 | 06-08 | 41.7 | 13.2 | 28.5 | 3.2 |

***Absolute Measures of Inequity***. Second, we provide an absolute measure of inequity, indicated as the "rate difference." To compute the rate difference, we subtracted the white rate from the minority population rate. As the sample table 6.4 indicates, the *difference* between the rates of child poverty for African Americans and whites was 25.9 in 2000 and 28.5 in the 2006-2008 period. The rate difference provides the actual difference, or the absolute gap, in the rates of child poverty between African Americans and whites. The rate difference should not be compared across different indicators because the magnitude of cases represented by the indicators can be vastly different. Rate differences should be interpreted separately for each indicator considering the magnitude of the condition represented by the actual group rates.

***Relative Measures of Inequity***. Third, we provide "rate ratios' as a relative measure of inequity. A rate ratio is computed by dividing the minority population rate by the white population rate. In the sample reference table above, the black/white rate ratio for child poverty was 4.2 in 2000 and 3.2 for the 2006-2008 period. Rate ratios greater than "1" indicate that the minority population is doing "worse" than the reference white population for the selected indicator. Rate ratios less than "1" indicate that the minority population is doing "better" than the white population. Rate ratios equal to "1" indicate that there is no difference in the rates between the minority population and the white population. The interpretation of "better" or "worse" applies to ratios representing adverse social and health indicators such as *un*employment or *lack* of insurance, or *poor* health, including deaths and disease. Ratios for "favorable" indicators, such as income in dollars or graduation from high school would have an opposite interpretation such that higher ratios are "better." With the exception of median income, the priority indicators in the *Roadmap* are framed as "negative" conditions to indicate that "lower" rates or "reduced" differences mean "better" outcomes.

In our sample table 6.4, the rate ratio of 4.2 means that child poverty was 4.2 times higher for African Americans than whites in 2000. Another way of interpreting this rate ratio is that poverty among African American children was 320% higher than poverty among white children. That is, we describe the percentage difference higher than "1." During 2006-2008, the rate ratio for child poverty decreased to 3.2. This indicates that child poverty was 3.2 times higher for African Americans than for whites, or to put it another way, child poverty was 220% higher for African Americans than for whites in the second time period.

The advantage of the rate ratio for monitoring health equity is that the ratio provides a constant interpretation across different indicators and populations when the same reference group is being used. However, it is still important to view the actual group rates and absolute rate differences to understand the magnitude of the difference in rates between populations for specified indicators. A rate ratio comparing 3 deaths to 1 death per 100,000 population is the same as the rate ratio comparing 300 and 100 deaths per 100,000 population. However, the latter rates represent a health condition that affects more people.

It is important to note that in the *Michigan Health Equity Roadmap*, the rate ratio measures the relative difference between racial/ethnic minority populations and the white reference population. In some cases, the reference population may have worse health than the comparison minority population; therefore, the reference population is not always the "best" group. Moreover, although an increase or decrease in the rate ratio over time consistently evaluates the equity *gap*, the relative widening or narrowing of the gap does not necessarily correspond to the worsening or betterment of health for the minority population and/or the reference population. Interpreting relative rate changes should always be done with attention to the actual health and disease rates for the populations being compared.[10] For this reason, we have also provided the percent change over time for individual populations (see Table 6.3 and reference Tables A.1 to A.4) so that readers can compare how each individual group is progressing over time.

Despite the limitations of using rate ratios to evaluate group health over time when the reference group does not always have the "best" rate, rate ratios provide a useful snapshot to compare inequity gaps across multiple populations and indicators for specified periods. Table 6.5 notes the rate ratios comparing each minority population rate with the white population rate only for the most recent periods of data collected for our selected indicators. We highlight the three largest health equity gaps for each group, based on rates calculated to the nearest hundredth. No statistical tests were done to assess the precision of the rate ratios.

### Table 6.5. Rate Ratios for Selected Health Equity Indicators, by Race/Ethnicity, Michigan, 2005-2008

| Indicator | Year/s | African American | American Indian/ Alaska Native | Asian | Hispanic |
|---|---|---|---|---|---|
| | | Rate Ratios: Minority population rate/White population rate | | | |
| **Social Determinants** | | | | | |
| Median annual household income, $ | 06-08 | 0.6 | 0.7 | **1.3** | 0.6 |
| Children at or below poverty, % | 06-08 | **3.2** | **2.2** | 0.9 | **2.3** |
| Unemployment rate, % | 2008 | 1.8 | NA | NA | 1.4 |
| High school drop-out rate, % | 2008 | 2.6 | 1.9 | 0.7 | **2.6** |
| Persons not registered to vote, % | 2008 | 1.0 | NA | 0.9 | 1.9 |
| **Health Status, Behaviors, Healthcare** | | | | | |
| Self-reported fair/poor health, % | 06-08 | 1.8 | 2.1 | 0.6 | 1.1 |
| Unhealthy physical days (% ≥ 14 days in the past month) | 06-08 | 1.3 | **2.2** | **0.3** | 1.0 |
| Unhealthy mental days (% ≥ 14 days in the past month) | 06-08 | 1.2 | 1.8 | 0.6 | 1.0 |
| Prevalence, obese, % | 06-08 | 1.4 | 1.7 | 0.4 | 1.4 |
| Tobacco use - current smoker, % | 06-08 | 1.1 | 1.5 | **0.2** | 0.9 |
| Percent without health insurance | 05-07 | 1.8 | NA | NA | 1.8 |
| **Burden of Death and Disease** | | | | | |
| Heart disease mortality rate | 2008 | 1.5 | 1.2 | 0.5 | 0.7 |
| Diabetes prevalence rate | 06-08 | 2.0 | NA | NA | 1.7 |
| All-cancer mortality rate | 2007 | 1.3 | 1.0 | 0.5 | 0.6 |
| HIV infection rate | 2008 | **9.5** | 1.5 | 0.5 | **2.3** |
| Infant mortality rate | 2007 | **2.8** | **1.9** | 1.0 | 1.8 |
| Unintentional injury mortality rate | 2007 | 1.1 | 1.0 | 0.4 | NA |

Note: The rate ratio is obtained by dividing the minority group rate by the white population rate for each selected indicator. Rate ratios greater than 1 indicate that the minority population is doing “worse” than the reference white population for the selected indicator (except for median income). Rate ratios less than 1 indicate that the minority population is doing “better” than the white population (except for median income). Rate ratios equal to 1 indicate that there is no difference in the rates between the minority population and the white population.

Table 6.5 indicates that the HIV infection rate for African Americans in Michigan in 2008 was 9.5 times higher than the rate for whites. There were also large racial inequities in child poverty and infant mortality. From 2006-2008, African American children were over three times more likely to be poor than white children. Also Black infant mortality in Michigan in 2008 was about three times higher than white infant mortality.

With a rate ratio of 2.2, American Indian and Alaska Native children in Michigan experienced rates of child poverty that were more than twice as high compared to white children. In addition, the mean number of days when physical health suffered was over two times higher for American Indians/Alaska Natives than for whites. Moreover, the high school drop-out rate for American Indians/Alaska Natives was two times higher than the drop-out rate for white high school students.

The gap in median household income from 2006-2008 was 1.3 for Asians compared to whites, and this reflects higher median incomes for the Asian population. The average number of days in the month when physical health suffered was 70% *lower* for Asians in comparison to whites. Also, Asians were 80% less likely to smoke. The relative health assessments for Asians are all favorable in comparison to whites. However, these assessments are based on small numbers that may be unreliable for population health ratings, and they do not reflect the group diversity and differing health profiles within the Asian population.

Noting racial inequities for Hispanics/Latinos, Table 6.5 indicates that Hispanic/Latino students dropped out of high school at almost three times the rate of white high school students. Also, Hispanic/Latino children were 2.3 times more likely to be poor and 2.3 times more likely to have HIV infection than non-Hispanic/Latino whites.

***Inequity Status Rating***. To help address the challenges of evaluating equity over time across multiple indicators when the reference population does not always have the lowest rate (hence making it difficult to qualify health improvement and to compare equity progress across racial/ethnic minority groups), we have developed an *"Inequity Status Rating"* as an evaluative measure of progress toward equity for Michigan's racial/ethnic minority populations.

The inequity status is calculated as the percent change in the absolute difference in rates between the two time periods for each minority population compared to the reference white population. This rating indicates the trend toward equity. If the percent change in the rate difference between the minority population and the white population got larger over the two periods (a positive percent), the inequity status would be depicted as an "increase" which indicates a larger gap between the respective minority population compared to whites. If the percent change in the rate difference between the two populations over time got smaller (a negative percent), then the inequity status would be shown as a "decrease."

Referring again to the sample Table 6.4, the black-white difference in child poverty rates in 2000 was 25.9. In 2006-2008, the black-white difference in child poverty was 28.5. We use these numbers to calculate the percent change in the rate difference over time. The formula is: {[(Rate difference at Time 2) – (Rate difference at Time 1)] ÷ (Rate difference at Time 1)} x 100. Using this formula, we get [(28.5 - 25.9) ÷ (25.9)] x 100. The result is equal to 10, as noted in the table excerpt below. The number 10 represents a 10% increase in the absolute rate difference between blacks and whites for the periods being considered. This value corresponds to an increased *Inequity Status Rating*, symbolized with an upward arrow. In other words, the *in*equity in child poverty rates between blacks and whites *increased* over time.

| *(African American compared to White)* Indicator | % Change in Absolute Rate Difference (*from Time 1 to Time 2*) | Inequity Status |
|---|---|---|
| Percent of children at or below poverty | 10.0 | ↑ |

The *Inequity Status Rating* is a departure from the more traditional use of percent changes in relative rates to compare disparities or inequities across indicators and populations.[11,12] We developed the *Inequity Status Rating*, based on percent changes in absolute rate differences, because the white population does not always have the best rate. In fact, Asians in Michigan show more favorable rates in comparison to whites for several health conditions.

Interpreting percent changes in relative rates across indicators and over time can be challenging when populations with better rates than the reference population are compared with populations that traditionally have more unfavorable rates in comparison to whites. The percent change in the absolute rate difference over time allows for every indicator in every racial/ethnic minority group to have a consistent interpretation for all groups, regardless of where the groups ranked in their group-specific rates for the comparison time periods.

A statistically significant average annual change of at least 1% in the absolute difference in an outcome between a comparison group and reference group—or between the baseline and current year for at least one group—will denote a significant trend for evaluating progress toward health equity. Absolute differences that decrease at a rate of more than 1% per year would be identified as improving; absolute differences that increase at a rate of more than 1% per year are identified as worsening; and absolute differences that change less than 1% per year would be identified as staying the same. No statistical tests were conducted to assess the reliability of the indicator rates and percent changes in rates noted in this *Roadmap* report. Statistical evaluations of selected population health measures will be included in future reports.

Table 6.6 depicts the progress toward health equity as indicated by our *Inequity Status Ratings*. We evaluate progress for African Americans, American Indians/Alaska Natives, Asians, and Hispanics/Latinos in Michigan for 17 selected indicators measured for these populations at the statewide level during the 2000-2004 and 2005-2009 periods. The white population is the reference population. An upward arrow (🡑) indicates a relative increase in the inequity gap; a downward arrow (🡓) indicates a relative decrease in the inequity gap. Horizontal arrows (⟷) represent no change in the inequity gap. Table 6.2 outlines the exact indicator measures, sources, and years of data compiled for each indicator. Tables A.1 to A.4 (Appendix) provide the rates, rate differences, and the calculated percent change in the rate differences on which the *Inequity Status Ratings* were based.

### Table 6.6. Inequity Status Ratings for Racial/Ethnic Minority Populations Compared to the White Population, Michigan

| Indicators | African American | American Indian/ Alaska Native | Asian | Hispanic |
|---|---|---|---|---|
| **Social Determinants** | | | | |
| Median annual household income[a] | ↑ | ↑ | ↑ | ↑ |
| Children at or below poverty, % | ↑ | ↓ | ↓ | ↑ |
| Unemployment rate, % | ↔ | NA | NA | ↔ |
| High school drop-out rate, % | ↑ | ↑ | ↑ | ↓ |
| Persons not registered to vote, % | ↓ | NA | ↓ | ↓ |
| **Health Status, Behaviors, Healthcare** | | | | |
| Self-reported fair/poor health, % | ↑ | NA | NA | ↓ |
| Unhealthy physical days (% ≥ 14 days in the past month) | ↑ | NA | NA | NA |
| Unhealthy mental days (% ≥ 14 days in the past month) | ↓ | NA | NA | ↓ |
| Prevalence, obese, % | ↓ | NA | NA | ↑ |
| Tobacco use - current smoker, % | ↓ | NA | NA | NA |
| Percent without health insurance | ↑ | NA | NA | ↓ |
| **Diseases and Deaths** | | | | |
| Heart disease mortality rate | ↓ | ↑ | ↓ | ↓ |
| Diabetes prevalence rate | ↑ | NA | NA | ↑ |
| All-cancer mortality rate | ↓ | ↓ | ↔ | ↓ |
| HIV infection rate | ↑ | ↓ | ↑ | ↑ |
| Infant mortality rate | ↓ | ↑ | ↓ | ↑ |
| Unintentional injury mortality rate | ↓ | ↓ | ↑ | NA |

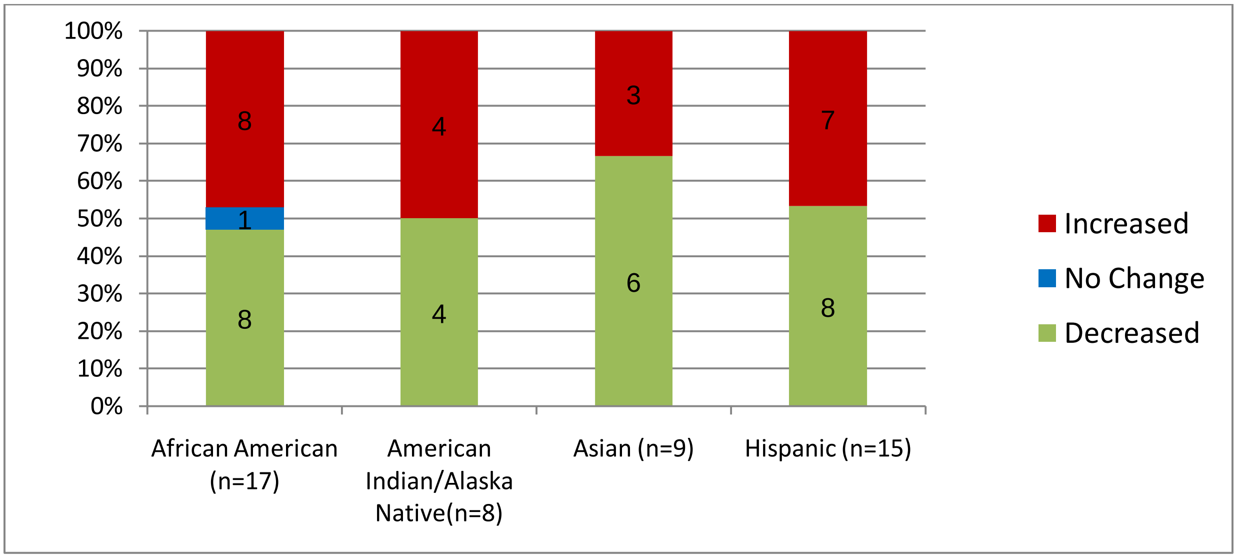
Note: The inequity status measure is the percent change in the absolute rate difference between the index minority population and the white population across two time periods. An upward arrow indicates a relative increase in the inequity gap; a downward arrow indicates a relative decrease in the inequity gap. Horizontal arrows represent no change in the equity gap.

[a] Absolute measure, in dollars

Across indicators and populations, the percent change over time in rate differences increased most frequently for median household income and high-school drop-out rates. Due to absence of behavioral health data for American Indians/Alaska Natives and Asians, no pattern of increased or decreased racial inequity can be established for behavioral risks. Similarly, there were no clear patterns of equity progress for mortality and disease burden across populations (Table 6.6).

Figure 6.19 provides a graphical summary of the *Inequity Status Ratings*. Overall, among 17 social and health indicators compared over time between racial/ethnic minority populations and whites, the health equity gap (the difference in rates between the minority group and whites) increased for about half of the indicators and decreased for the other half; this pattern applied to African Americans, American Indians/Alaska Natives, and Hispanics/Latinos. Among nine indicators measured for Asians, the racial inequity gap between Asians and whites decreased for six indicators and increased for three. Therefore, there was about a 50/50 split in increases and decreases in inequity across selected indicators for Blacks, American Indians/Alaska Natives, and Hispanics/Latinos, whereas inequity decreased over time for the majority of indicators measured for Asians in comparison to whites.

**Figure 6.19. Summary of Inequity Status Ratings Across 17 Selected Indicators, by Race/Ethnicity, Michigan**



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# Conclusion

The *Michigan Health Equity Roadmap* marks the renewal of a significant partnership effort, guided by the Health Disparities Reduction and Minority Health Section in the Michigan Department of Community Health, to work progressively over the intermediate and long terms to attain social and health equity for Michigan's communities of color. The provisions in this *Roadmap* have evolved from our statutory authority (Public Act 653) to address racial and ethnic health disparities in Michigan. In addition, this *Roadmap* incorporates new strategic approaches to better address fundamental social determinants that significantly impact health; to significantly improve our data systems to enhance the collection and monitoring of standardized, comprehensive racial and ethnic health data; to strengthen the capacity and engagement of public health and other public, private, and community partners to sustain partnerships and programs that foster health equity; and to improve access to quality, culturally-competent healthcare for underserved racial and ethnic minorities.

In fulfillment of the *Roadmap*, we have already demonstrated progress to educate the general public and public health workers about health equity and social justice issues. We have also implemented new funding and training programs to strengthen the resource capacity of community-based partners working with priority racial/ethnic minority populations. Furthermore, the extensive resources highlighted in this *Roadmap* emphasize our commitment to supporting interventions that improve the social, economic, and environmental determinants of individual and community health. We have also initiated a centralized resource of standardized, comprehensive minority health data and developed standardized measures for monitoring and evaluating social and health equity for Michigan populations. In addition, we have partnered with local and regional authorities to expand our access to racial/ethnic community data from various sources.

As we publicize and carry out the recommendations in this *Roadmap*, we will join forces with many partners who share our commitment to health equity. We welcome your collective resources, experience, and innovative ideas to optimize social and health conditions for all Michiganders.

*As we publicize and carry out the recommendations in the Michigan Health Equity Roadmap, we will join forces with many partners who share our commitment to health equity. We welcome your collective resources, experience, and innovative ideas to optimize social and health conditions for all Michiganders.*

# DATA REFERENCE TABLES

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## Table A.1. Health Equity Data Reference Table, African Americans compared to Whites as the Reference Group

| Indicators | Year/s | African American Rate | White Rate | Rate Difference | Rate Ratio | Year/s | African American Rate | White Rate | Rate Difference | Rate ratio | % Change in Absolute Rate Difference | Inequity Status[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Social Determinants** | | | | | | | | | | | | |
| Median annual household income, $ | 1999 | 31,051 | 46,838 | -15787 | 0.7 | 06-08 | 37,815 | 65,057 | -27,242 | 0.6 | 72.6 | ↑ |
| Children at or below poverty, % | 2000 | 33.9 | 8.0 | 25.9 | 4.2 | 06-08 | 41.7 | 13.2 | 28.5 | 3.2 | 10.0 | ↑ |
| Unemployment rate, % | 2003 | 12.6 | 6.6 | 6.0 | 1.9 | 2008 | 13.5 | 7.5 | 6.0 | 1.8 | 0.0 | ↔ |
| High school drop-out rate, % | 2007 | 25.6 | 9.9 | 15.8 | 2.6 | 2008 | 26.2 | 10.1 | 16.0 | 2.6 | 1.8 | ↑ |
| Persons not registered to vote, % | 2006 | 29.1 | 25.8 | 3.3 | 1.1 | 2008 | 22.8 | 22.4 | 0.4 | 1.0 | -87.9 | ↓ |
| **Health Status, Behaviors, Healthcare** | | | | | | | | | | | | |
| Self-reported fair/poor health, % | 01-03 | 21.9 | 13.0 | 8.9 | 1.7 | 06-08 | 22.8 | 13.0 | 9.8 | 1.8 | 10.1 | ↑ |
| Unhealthy physical days, % ≥14 past mo. | 01-03 | 13.3 | 11.1 | 2.2 | 1.2 | 06-08 | 13.6 | 10.3 | 3.3 | 1.3 | 50.0 | ↑ |
| Unhealthy mental days, % ≥14 past mo. | 01-03 | 14.8 | 11.0 | 3.8 | 1.3 | 06-08 | 12.4 | 10.7 | 1.7 | 1.2 | -55.3 | ↓ |
| Prevalence, obese, % | 01-03 | 35.9 | 23.3 | 12.6 | 1.5 | 06-08 | 37.7 | 26.6 | 11.1 | 1.4 | -11.9 | ↓ |
| Tobacco use - current smoker, % | 01-03 | 30.9 | 22.8 | 8.1 | 1.4 | 06-08 | 24.1 | 21.9 | 2.2 | 1.1 | -72.8 | ↓ |
| Percent without health insurance | 97-99 | 16.5 | 12.4 | 4.1 | 1.3 | 05-07 | 19.0 | 10.3 | 8.7 | 1.8 | 112.2 | ↑ |
| **Diseases and Deaths** | | | | | | | | | | | | |
| Heart disease mortality rate, per 100K | 2002 | 365.7 | 252.3 | 113.4 | 1.4 | 2008 | 313.8 | 210.2 | 103.6 | 1.5 | -8.6 | ↓ |
| All-cancer mortality rate, per 100K | 2002 | 247.0 | 192.5 | 54.5 | 1.3 | 2007 | 230.5 | 181.4 | 49.1 | 1.3 | -9.9 | ↓ |
| Diabetes prevalence rate, % | 01-03 | 13.1 | 6.9 | 6.2 | 1.9 | 06-08 | 14.7 | 7.3 | 7.4 | 2.0 | 19.4 | ↑ |
| HIV infection rate, per 100K | 2000 | 554.2 | 62.8 | 491.4 | 8.8 | 2008 | 762.8 | 79.9 | 682.9 | 9.5 | 39.0 | ↑ |
| Infant mortality rate, per 1000 live births | 2002 | 18.4 | 6.0 | 12.4 | 3.1 | 2007 | 16.5 | 5.8 | 10.7 | 2.8 | -13.7 | ↓ |
| Unintentional injury mortality, per 100K | 2002 | 39.1 | 31.3 | 7.8 | 1.2 | 2007 | 37.8 | 34.5 | 3.3 | 1.1 | -57.7 | ↓ |

[a] The inequity status measure is the percent change in the absolute rate difference between the index minority population and the white population for the noted time periods. Positive numbers (and upward arrows) indicate a relative increase in the inequity; negative numbers (and downward arrows) indicate a relative decrease in the inequity; horizontal arrows indicate no change in the equity gap.

Note: The data in this table are collected for 1-2 year intervals, and number of individual respondents or cases for each condition may be too few to produce reliable estimates for Michigan minority populations. These data should be interpreted cautiously in the absence of statistical estimates of reliability for the reported indicators and measures.

## Table A.2. Health Equity Data Reference Table, American Indians/Alaska Natives compared to Whites as the Reference Group

| Indicators | Year/s | AI/AN Rate | White Rate | Rate Difference | Rate Ratio | Year/s | AI/AN Rate | White Rate | Rate Difference | Rate ratio | % Change in Absolute Rate Difference | Inequity Status[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Social Determinants** | | | | | | | | | | | | |
| Median annual household income, $ | 1999 | 37,043 | 46,838 | -9,795 | 0.8 | 06-08 | 46,676 | 65,057 | -18,381 | 0.7 | 87.7 | ↑ |
| Children at or below poverty, % | 2000 | 24.7 | 8.7 | 16.0 | 2.8 | 06-08 | 28.5 | 13.2 | 15.3 | 2.2 | -4.4 | ↓ |
| Unemployment rate, % | 2003 | -- | 6.6 | NA | NA | 2008 | -- | 7.5 | NA | NA | NA | NA |
| High school drop-out rate, % | 2007 | 18.7 | 9.9 | 8.8 | 1.9 | 2008 | 19.4 | 10.1 | 9.3 | 1.9 | 5.3 | ↑ |
| Persons not registered to vote, % | 2006 | -- | 25.8 | NA | NA | 2008 | -- | 22.4 | NA | NA | NA | NA |
| **Health Status, Behaviors, Healthcare** | | | | | | | | | | | | |
| Self-reported fair/poor health, % | 01-03 | -- | 13.0 | NA | NA | 06-08 | 27.1 | 13.0 | 14.1 | 2.1 | NA | NA |
| Unhealthy physical days, % ≥14 past mo. | 01-03 | -- | 11.1 | NA | NA | 06-08 | 22.9 | 10.3 | 12.6 | 2.2 | NA | NA |
| Unhealthy mental days, % ≥14 past mo. | 01-03 | -- | 11.0 | NA | NA | 06-08 | 19.0 | 10.7 | 8.3 | 1.8 | NA | NA |
| Prevalence, obese | 01-03 | -- | 23.3 | NA | NA | 06-08 | 45.9 | 26.6 | 19.3 | 1.7 | NA | NA |
| Tobacco use - current smoker (%) | 01-03 | -- | 22.8 | NA | NA | 06-08 | 33.2 | 21.9 | 11.3 | 1.5 | NA | NA |
| Percent without health insurance | 97-99 | -- | 12.4 | NA | NA | 05-07 | -- | 10.3 | NA | NA | NA | NA |
| **Diseases and Deaths** | | | | | | | | | | | | |
| Heart disease mortality rate, per 100K | 2002 | 231.3 | 252.3 | -21.0 | 0.9 | 2008 | 243.3 | 210.2 | 33.1 | 1.2 | 57.6 | ↑ |
| All-cancer mortality rate, per 100K | 2002 | 231.9 | 192.5 | 39.4 | 1.2 | 2007 | 176.2 | 181.4 | -5.2 | 1.0 | -86.8 | ↓ |
| Diabetes prevalence rate, % | 01-03 | -- | 6.9 | NA | NA | 06-08 | -- | 7.3 | NA | NA | NA | NA |
| HIV infection rate, per 100K | 2000 | 234.0 | 62.8 | 171.2 | 3.7 | 2008 | 116.0 | 79.9 | 36.1 | 1.5 | -78.9 | ↓ |
| Infant mortality rate, per 1000 live births | 2002 | 9.0 | 6.0 | 3.0 | 1.5 | 2007 | 11.1 | 5.8 | 5.3 | 1.9 | 76.7 | ↑ |
| Unintentional injury mortality, per 100K | 2002 | 39.4 | 31.3 | 8.1 | 1.3 | 2007 | 34.7 | 34.5 | 0.2 | 1.0 | -97.5 | ↓ |

[a] The inequity status measure is the percent change in the absolute rate difference between the index minority population and the white population for the noted time periods. Positive numbers (and upward arrows) indicate a relative increase in the inequity; negative numbers (and downward arrows) indicate a relative decrease in the inequity; Horizontal arrows represent no change in the equity gap.

Notes: -- means no data available; NA=not applicable; AI/AN=American Indian/Alaska Native.

The data in this table are collected for 1-2 year intervals, and the number of individual respondents or cases for each condition may be too few to produce reliable estimates for Michigan minority populations. These data should be interpreted cautiously in the absence of statistical estimates of reliability for the reported indicators and measures.

## Table A.3. Health Equity Data Reference Table, Asians compared to Whites as the Reference Group

| Indicators | Year/s | Asian Rate | White Rate | Rate Difference | Rate Ratio | Year/s | Asian Rate | White Rate | Rate Difference | Rate ratio | % Change in Absolute Rate Difference | Inequity Status[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Social Determinants** | | | | | | | | | | | | |
| Median annual household income, $ | 1999 | 57,966 | 46,838 | 11,128 | 1.2 | 06-08 | 83,331 | 65,057 | 18,274 | 1.3 | 64.2 | ↑ |
| Children at or below poverty, % | 2000 | 11.2 | 8.7 | 2.5 | 1.3 | 06-08 | 11.4 | 13.2 | -1.8 | 0.9 | -28.0 | ↓ |
| Unemployment rate, % | 2003 | 4.4 | 6.6 | -2.2 | 0.7 | 2008 | -- | 7.5 | NA | NA | NA | NA |
| High school drop-out rate, % | 2007 | 7.3 | 9.9 | -2.6 | 0.7 | 2008 | 6.9 | 10.1 | -3.2 | 0.7 | 22.3 | ↑ |
| Persons not registered to vote, % | 2006 | 43.4 | 25.8 | 17.6 | 1.7 | 2008 | 19.1 | 22.4 | -3.3 | 0.9 | -81.3 | ↓ |
| **Health Status, Behaviors, Healthcare** | | | | | | | | | | | | |
| Self-reported fair/poor health, % | 01-03 | -- | 13.0 | NA | NA | 06-08 | 7.9 | 13.0 | -5.1 | 0.6 | NA | NA |
| Unhealthy physical days, % ≥14 past mo. | 01-03 | -- | 11.1 | NA | NA | 06-08 | 2.8 | 10.3 | -7.5 | 0.3 | NA | NA |
| Unhealthy mental days, % ≥14 past mo. | 01-03 | -- | 11.0 | NA | NA | 06-08 | 6.7 | 10.7 | -4.0 | 0.6 | NA | NA |
| Prevalence, obese | 01-03 | -- | 23.3 | NA | NA | 06-08 | 10.6 | 26.6 | -16.0 | 0.4 | NA | NA |
| Tobacco use - current smoker (%) | 01-03 | -- | 22.8 | NA | NA | 06-08 | 5.4 | 21.9 | -16.5 | 0.2 | NA | NA |
| Percent without health insurance | 97-99 | -- | 12.4 | NA | NA | 05-07 | -- | 10.3 | NA | NA | NA | NA |
| **Diseases and Deaths** | | | | | | | | | | | | |
| Heart disease mortality rate, per 100K | 2002 | 110.6 | 252.3 | -141.7 | 0.4 | 2008 | 98.7 | 210.2 | -111.5 | 0.5 | -21.3 | ↓ |
| All-cancer mortality rate, per 100K | 2002 | 97.7 | 192.5 | -94.8 | 0.5 | 2007 | 86.5 | 181.4 | -94.9 | 0.5 | 0.1 | ↔ |
| Diabetes prevalence rate, % | 01-03 | NA | 6.9 | NA | NA | 06-08 | 10.8 | 7.3 | 3.5 | 1.5 | NA | NA |
| HIV infection rate, per 100K | 2000 | 79.0 | 62.8 | 16.2 | 1.3 | 2008 | 39.0 | 79.9 | -40.9 | 0.5 | 152.0 | ↑ |
| Infant mortality rate, per 1000 live births | 2002 | 3.6 | 6.0 | -2.4 | 0.6 | 2007 | 5.6 | 5.8 | -0.2 | 1.0 | -91.7 | ↓ |
| Unintentional injury mortality, per 100K | 2002 | 16.3 | 31.3 | -15.0 | 0.5 | 2007 | 13.9 | 34.5 | -20.6 | 0.4 | 37.3 | ↑ |

[a] The inequity status measure is the percent change in the absolute rate difference between the index minority population and the white population for the noted time periods. Positive numbers (and upward arrows) indicate a relative increase in the inequity; negative numbers (and downward arrows) indicate a relative decrease in the inequity; Horizontal arrows represent no change in the equity gap.

Notes: -- means no data available; NA=not applicable.

The data in this table are collected for 1-2 year intervals, and the number of individual respondents or cases for each condition may be too few to produce reliable estimates for Michigan minority populations. These data should be interpreted cautiously in the absence of statistical estimates of reliability for the reported indicators and measures.

## Table A.4. Health Equity Data Reference Table, Hispanics/Latinos compared to Whites as the Reference Group

| Indicators | Year/s | Hispanic Rate | White Rate | Rate Difference | Rate Ratio | Year/s | Hispanic Rate | White Rate | Rate Difference | Rate ratio | % Change in Absolute Rate Difference | Inequity Status[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Social Determinants** | | | | | | | | | | | | |
| Median annual household income, $ | 1999 | 38,481 | 46,838 | -8,357 | 0.8 | 06-08 | 40,926 | 65,057 | -24,131 | 0.6 | 188.8 | ↑ |
| Children at or below poverty, % | 2000 | 19.5 | 8.7 | 10.8 | 2.2 | 06-08 | 31.0 | 13.2 | 17.8 | 2.3 | 64.8 | ↑ |
| Unemployment rate, % | 2003 | 9.4 | 6.6 | 2.8 | 1.4 | 2008 | 10.3 | 7.5 | 2.8 | 1.4 | 0.0 | ↔ |
| High school drop-out rate, % | 2007 | 28.0 | 9.9 | 18.1 | 2.8 | 2008 | 26.0 | 10.1 | 15.8 | 2.6 | -12.4 | ↓ |
| Persons not registered to vote, % | 2006 | 64.2 | 25.8 | 38.4 | 2.5 | 2008 | 41.8 | 22.4 | 19.4 | 1.9 | -49.5 | ↓ |
| **Health Status, Behaviors, Healthcare** | | | | | | | | | | | | |
| Self-reported fair/poor health, % | 01-03 | 19.1 | 13.0 | 6.1 | 1.5 | 06-08 | 14.4 | 13.0 | 1.4 | 1.1 | -77.0 | ↓ |
| Unhealthy physical days, % ≥14 past mo. | 01-03 | 11.1 | 11.1 | 0.0 | 1.0 | 06-08 | 10.7 | 10.3 | 0.4 | 1.04 | NA | NA |
| Unhealthy mental days, % ≥14 past mo. | 01-03 | 16.3 | 11.0 | 5.3 | 1.5 | 06-08 | 10.7 | 10.7 | 0.0 | 1.0 | -100.0 | ↓ |
| Prevalence, obese | 01-03 | 30.4 | 23.3 | 7.1 | 1.3 | 06-08 | 37.3 | 26.6 | 10.7 | 1.4 | 50.7 | ↑ |
| Tobacco use - current smoker (%) | 01-03 | -- | 22.8 | NA | NA | 06-08 | 19.5 | 21.9 | -2.4 | 0.9 | NA | NA |
| Percent without health insurance | 97-99 | 23.1 | 12.4 | 10.7 | 1.9 | 05-07 | 19.0 | 10.3 | 8.7 | 1.8 | -18.7 | ↓ |
| **Diseases and Deaths** | | | | | | | | | | | | |
| Heart disease mortality rate, per 100K | 2002 | 191.7 | 252.3 | -60.6 | 0.8 | 2008 | 151.4 | 210.2 | -58.8 | 0.7 | -3.0 | ↓ |
| All-cancer mortality rate, per 100K | 2002 | 121.4 | 192.5 | -71.1 | 0.6 | 2007 | 117.5 | 181.4 | -63.9 | 0.6 | -10.1 | ↓ |
| Diabetes prevalence rate, % | 01-03 | 10.5 | 6.9 | 3.6 | 1.5 | 06-08 | 12.4 | 7.3 | 5.1 | 1.7 | 41.7 | ↑ |
| HIV infection rate, per 100K | 2000 | 127.0 | 62.8 | 64.2 | 2.0 | 2008 | 180.0 | 79.9 | 100.1 | 2.3 | 55.8 | ↑ |
| Infant mortality rate, per 1000 live births | 2002 | 8.2 | 6.0 | 2.2 | 1.4 | 2007 | 10.3 | 5.8 | 4.5 | 1.8 | 104.5 | ↑ |
| Unintentional injury mortality, per 100K | 2002 | -- | 31.3 | NA | NA | 2007 | -- | 34.5 | NA | NA | NA | NA |

[a] The inequity status measure is the percent change in the absolute rate difference between the index minority population and the white population for the noted time periods. Positive numbers (and upward arrows) indicate a relative increase in the inequity; negative numbers (and downward arrows) indicate a relative decrease in the inequity.

Notes: -- means no data available; NA=not applicable.

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Michigan Health Equity Roadmap (June 2010)

Michigan Department of Community Health
Division of Health, Wellness and Disease Control
Health Disparities Reduction and Minority Health Section