# Critical Health Indicators



# Topic: Health Disparities/Health Inequalities

The elimination of racial and ethnic health disparities has been a recognized public health goal for a number of years. One of the two stated Healthy People 2010 goals is to eliminate health disparities among different segments of the population. "Health disparities" is defined as population specific (i.e. racial, ethnic, low SES) differences in the presence of disease, health outcomes, or access to health care. More recently, public health research has indicated the need for a more "upstream" approach to eliminating health disparities – that of assuring health equity. "Health equity" refers to the fair, just distribution of social resources and opportunities needed to achieve wellbeing. Put another way, health equity assures all groups, irrespective of race, ethnicity, SES, etc equitable access to social and environmental conditions (social determinants) that promote health. Social determinants include access to quality housing and education, employment, healthy foods, safe and walkable neighborhoods, good air quality, medical care, etc. A greater emphasis on social determinants is important to eliminating health disparities.

In Michigan, as well as nationally, racial and ethnic health disparities exist in the leading causes of morbidity and mortality. The 10 leading health indicators identified in Healthy People 2010 and its' stated goal of health disparities elimination include:

- Physical Activity
- Overweight and Obesity
- Tobacco Use
- Substance Abuse
- Responsible Sexual Behavior
- Mental Health
- Injury and Violence
- Environmental Quality
- Immunization
- Access to Health Care

In the U.S. for the period 1991-2000 it is estimated that the number of African American deaths averted by medical advances was approximately 176,633. Contrast that number to 888,202, the number of African Americans whose deaths were attributable to excess mortality (African American deaths per 100,000 population in excess of White deaths per 100,000 population) – a five fold difference. This suggests that an emphasis on eliminating the root causes of health and social inequalities for African Americans may have a more profound impact on the overall health of this and, indeed, all racial and ethnic populations. 1

In Michigan, White adults (32.8%) were more likely to have graduated from college when compared to their Black (22.0%), Native American (8.0%), and Hispanic (17.9%) counterparts. Asian Americans (75.1%) reported a greater college completion rate than that of Whites (32.8%). Studies have shown a direct correlation between education level and understanding the importance of preventive medical care. According to the 2007 Michigan Behavioral Risk Factor Survey, Black and Native American residents in Michigan were more likely to lack health care coverage, and to report that they were not able to access health care in the last year due to cost.



| Michigan Adults,<br>2007   | No health coverage | No personal care provider | Unable to access health care due to cost |
|--|--------------------|---------------------------|--|
| Whites   | 11.3%              | 14.2%                     | 10.5%                                    |
| Blacks   | 16.6% *            | 16.7%                     | 17.2% *                                  |
| Asian/Pacific Islanders  | 1.8%               | 15.8%                     | 10.3%                                    |
| American Indian/Native<br>Americans  | 26.7% *            | 19.9%                     | 24.1% *                                  |
| Hispanic/Latinos   | 10.9%              | 20.6%                     | 14.7%                                    |
| * Significantly different when compared to White adults in Michigan (p < .05). |                    |                           |  |

#### What is the Department of Community Health doing to address disparities?

The Michigan Office of Minority Health (OMH) was established in 1988 by executive order. In 2004 the Michigan Department of Community Health changed the name of the OMH to the Health Disparities Reduction and Minority Health Section (HDRMH). The HDRMH mission is to provide a persistent and continuing focus on eliminating disparities in the health status of five identified populations of color: African-Americans, Hispanics/Latinos, Native Americans and Alaskan Natives, Asians and Pacific Islanders and Chaldeans/Arab Americans. HDRMH supports evidence based social, environmental and behavioral interventions to improve health status for identified racial and ethnic populations by providing grants to local health departments and community-based organizations.

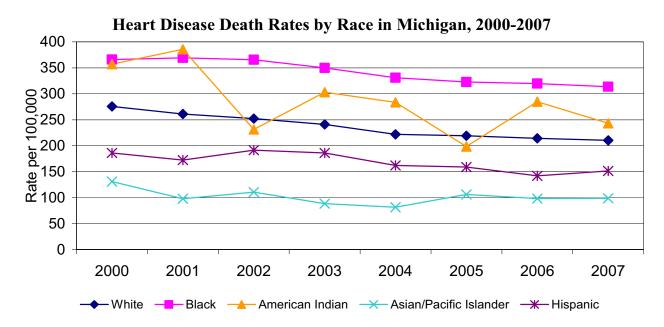
In addition, the HDRMH works to promote and advance the principles published in the 2004 Commonwealth Report which identified eight key areas that state and national policymakers must consider to eliminate racial and ethnic disparities. They include: consistent racial/ethnic data collection; effective evaluation of disparities reduction programs; minimum standards for culturally and linguistically competent health services; greater minority representation within the health care workforce; expanded health screening and access to services (e.g., through expanded insurance coverage); establishment or enhancement of state offices of minority health; involvement of all health system stakeholders in minority health improvement efforts; and creation of a national coordinating body to promote continuing state-based activities to eliminate racial and ethnic health disparities.

# **Cardiovascular Disease**

#### How are we doing?

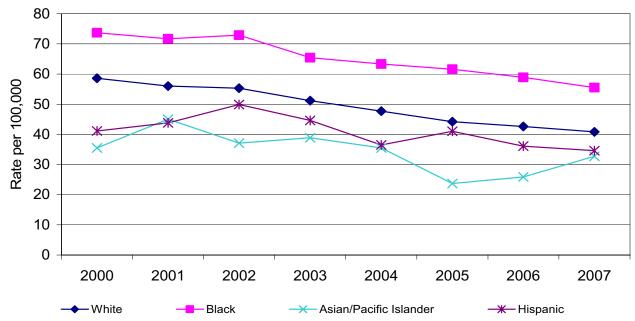
Poor cardiovascular health, in particular, heart disease, is the number one cause of death for all residents in Michigan; however, for African Americans in Michigan cardiovascular health disparities are clearly evident. In Michigan, Blacks are nearly 1.5 times more likely to die from heart disease than Whites, with mortality rates of 313.8 per 100,000 and 210.2 per 100,000 respectively. While Blacks have had rates consistently higher than Whites over the last five years, the rates for Hispanic/Latinos and Asian/ Pacific Islanders were consistently lower than White rates during the same time period. Heart disease death rates for the American Indian/Alaskan Native population are less stable. A rise in death rates in 2001 gave this population the highest heart disease death rate of all groups; since that time, the rates have reduced significantly.





Stroke rates also depict the disparity in health status that exists for racial and ethnic minorities. The largest disparity exists between Blacks and Asian/Pacific Islander, with Blacks being almost 1.7 times more likely to die from stroke than their Asian/Pacific Islander counterparts in 2007. The mortality rate for the Black population is 55.5 per 100,000 compared to Asian/Pacific Islanders who have a mortality rate of 32.7 per 100,000. For whites, the mortality rate is 40.8 per 100,000.





Heart disease death rates could not be calculated for Arab/Chaldean and stoke death rates could not be calculated for both Arab/Chaldean and American Indian residents due to un-stable population estimates; however mortality numbers for both of these populations suggest they are disproportionately impacted by both heart disease and stroke.



#### How Does Michigan compare with the U.S.?

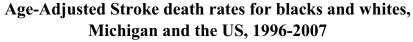
According to 2005 data, the most current U.S. data available, heart disease death rates for both White and Black Michigan residents are greater than the U.S. rates for both populations (U.S.: 207.7 per 100,000 for Whites, 271.3 per 100,000 for Blacks; MI: 219.0 per 100,000 for Whites, 322.7 for Blacks). For Blacks in Michigan not only is the cardiovascular death rate higher than the national Black rate, the White-Black disparity is also greater than for the U.S. as a whole. In the U.S., Blacks have a 30% higher heart disease death rate than Whites, while in Michigan Blacks have a 47% higher heart disease death rate than Whites.

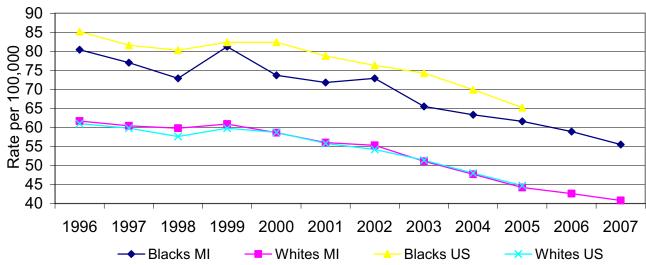
#### Rate per 100000 → Blacks MI Whites MI → Blacks US -Whites US

Heart Disease Death Rates, Blacks and Whites, MI vs U.S. 1996-2007

When looking at disparities in stroke death, Michigan fares better than the United States. This is most likely due to the large impact of the "stroke belt" - approximately 11 states with substantially higher rates of stroke, found disproportionately in Blacks: Alabama, Arkansas, Georgia, Indiana, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.. Blacks living in Michigan are 30% more likely to die from stroke as Whites, whereas in the U.S., Blacks are 45% more likely to die from stroke as Whites.







#### What is the Department of Community Health doing to improve this indicator?

The Department of Community Health's main initiative that correlates to decreasing morbidity and mortality in cardiovascular health is the Surgeon General's "Michigan Steps Up" campaign. This campaign urges Michigan's citizens to "move more", "eat better", and "don't smoke" by outlining what individuals, schools, communities, businesses, and healthcare professionals can do to improve the overall health of the state.

There are also other statewide initiatives aimed at promoting healthy eating, particularly in large urban areas such as Detroit, where fresh fruits and vegetables are not readily available. The Health Disparities and Minority Health Section funds a demonstration project to impact minority health. The project targets adults age 50 and older, primarily African-Americans, living in Detroit. The project activities seek to improve the overall health of participants through reduction/ control of their previously out-of-control hypertension. Participants in the program are demonstrating increased knowledge of hypertension management and increased health-seeking behavior.

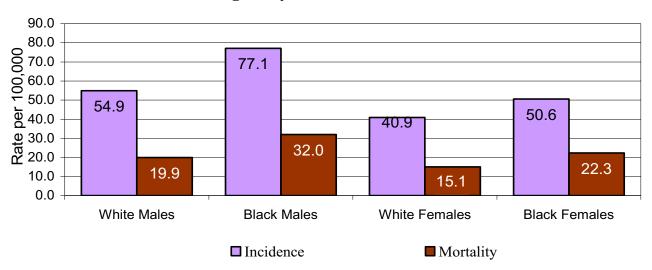
## Cancer

Cancer incidence rates are higher for Blacks in four cancers traditionally monitored by public health: cervical, colorectal, lung, and prostate. In addition to African-Americans being disproportionately impacted by cancer, they are also getting into care later. Analysis of data by site and stage at diagnosis shows that Blacks are more likely to be diagnosed with cancer at later stages of disease progression.



# How are we doing?

# Age-Adjusted Colorectal Cancer Incidence and Mortality Rates in Michigan, by Race and Gender in 2004



The total cancer mortality rate for Blacks in 2006 was 237.7 per 100,000, which is nearly 30% higher than the rate in Whites at 186.7 per 100,000. Mortality rates are higher for Blacks than for Whites for all cancer sites previously mentioned.

In the example shown above in the graph, colorectal cancer incidence and mortality rates are higher for blacks than for whites. The survival rate for many cancers improves dramatically with early detection. This is also of particular concern with regard to breast cancer where incidence rates are slightly higher among White women (118.2 per 100,000 white women and 116.3 per 100,000 black women), but death rates are higher among Black women (22.7 per 100,000 white women and 32.3 per 100,000 black women).

#### How Does Michigan compare with the U.S.?

The disparities seen between Blacks and Whites for Cancer deaths in Michigan are similar to those seen across the U.S. Blacks in Michigan are 27% more likely to die from cancer as Whites; the U.S. disparity is similar.

#### What is the Department of Community Health doing to improve this indicator?

The Department of Community Health has several initiatives to reduce the disparities that exist in cancer for racial/ethnic minorities, particularly African-Americans. The Department's Cancer Section conducted a study, released in 2005, characterizing cancer in African-Americans, and has interventions targeted specifically at increasing screening in this segment of the population. The Cancer Section has contracts with community agencies in the African-American, Native-American, Asian-American and Arab/Chaldean communities.

The Health Disparities Reduction Section (HDRMH) has added to the effort by funding the Healthy Asian American Project (HAAP), a program that provides colorectal cancer education, outreach and screening for underserved and uninsured Asian Americans in Southeast Michigan. The HAAP targets seven Asian ethnicities, which include; Asian Indian, Chinese, Filipino, Hmong, Korean, Japanese and Vietnamese.

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HDRMH also provides funding to the Berrien County Breast and Cervical Cancer program which works to decrease system level barriers in an effort to increase the number of Medicaid managed care eligible women who seek breast and cervical cancer screening in Berrien County.

# **HIV/AIDS**

#### How are we doing?

Black and Hispanic persons in Michigan are disproportionately affected by HIV/AIDS relative to other race/ethnicity groups. Blacks comprise 14% of Michigan's population yet make up over half (57%) of the cases currently living with HIV/AIDS. The MDCH estimates 10,280 Blacks are living with HIV/AIDS in Michigan. The rate of HIV infection among Blacks is 575 per 100,000, nine times higher than the rate among Whites. The Department estimates that as many as 1 of 120 Black males and 1 of 320 Black females may be HIV-infected.

Hispanics comprise four percent of cases and four percent of the population. The MDCH estimates 780 Hispanics are living with HIV/AIDS in Michigan.. This rate of HIV infection, 159 per 100,000, is higher than that among Whites. The Department estimates that as many as one out of 430 Hispanic males and one out of 1,280 Hispanic females may be HIV-infected.

White persons comprise 78% of Michigan's population and over one-third (37%) of reported HIV/AIDS cases. The MDCH estimates 6,630 Whites are living with HIV/AIDS in the state. This rate of HIV infection (67 per 100,000) is lower than the rate for Blacks and Hispanics. The MDCH estimates that as many as one out of 840 White males and one out of 5,710 White females may be HIV-infected.

The areas with the highest prevalence rates of HIV among Black, non-Hispanic persons (and have at least 10 Black persons living with HIV) include: Jackson Co. (683), Detroit (682), Allegan Co. (671), Wayne Co., excluding Detroit (648), Kent Co. (609), Berrien Co. (597), St. Clair Co. (568), Ingham Co. (495), Washtenaw Co. (488), and Kalamazoo Co. (482). In general, the areas with the highest rates surround the I-94 and I-75 interstate highway corridors. The areas with the highest prevalence rates of HIV among Hispanics (and have at least 10 Hispanic persons living with HIV) include: Detroit (284), Washtenaw Co. (237), Jackson Co. (235), Berrien Co. (223), Kent Co. (218), Genesee Co. (181), Ingham Co. (174), Oakland Co. (153), Van Buren Co. (152), Wayne Co., excluding Detroit (94), Macomb Co. (89), Saginaw Co. (89), and Ottawa Co. (85). The majority of these areas are in southeast Michigan. Kent, Berrien, Van Buren and Ottawa Counties, however, are in southwestern Michigan, a region with a large migrant population.

#### How Does Michigan compare with the U.S.?

In the 33 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting, the total population is 68% White, non-Hispanic, 14% Black, non-Hispanic, and 13% Hispanic, while the population with HIV is 33% White, non-Hispanic, 46% Black, non-Hispanic, 17% Hispanic, and 1% are other race/ethnicity. In Michigan the population is 78% White, non-Hispanic, 14% Black, non-Hispanic, and 4% Hispanic, while the population with HIV is 37% White, non-Hispanic, 57% Black, non-Hispanic, 4% Hispanic, and 2% are other race/ethnicity. The proportion of White HIV positive persons in Michigan is smaller than the proportion of White Michiganders, while the number of Blacks with HIV is disproportionately larger and the number of Hispanics with HIV is similar. In comparison, Blacks and Hispanics with HIV in the United States are both disproportionately larger than their proportions of the population as a whole.



# What is the Department of Community Health doing to improve this indicator?

The Department's Division of Health, Wellness and Disease Control (DHWDC) focuses prevention efforts on early identification of HIV infection through testing, and reduction and elimination of behaviors associated with HIV transmission. The Departments prevention efforts are guided by Michigan's Comprehensive Plan for HIV Prevention developed through an evidence-based planning process. The Plan identifies priority populations to be addressed by Michigan's HIV prevention programming and makes recommendations for the best strategies to address prevention needs. Racial and ethnic minorities are prioritized as targets for prevention efforts. The Plan includes a section that highlights the disproportionate impact HIV/AIDS has on the African-American community.

The MDCH supports HIV testing in local health departments, community health clinics, substance abuse treatment facilities, hospitals and community-based organizations, to encourage and facilitate knowledge of HIV serostatus among individuals at risk for HIV infection and to assist with timely access to care and treatment among those found to be HIV-infected. The Department supports targeted HIV counseling and testing services in 16 high prevalence local health agencies and more than 30 community-based and other non-governmental organizations. Targeted testing efforts are complemented by culturally competent health communication and public information activities designed to ensure awareness of the impact of HIV among targeted communities, to encourage knowledge of HIV serostatus and to provide information on resources for HIV testing.

The MDCH also supports routine HIV testing in selected clinical settings operating in areas of the highest HIV prevalence in the state and which serve primarily African-American populations. Routine testing facilitates knowledge of HIV serostatus among populations who might not otherwise seek HIV testing. The Department provides technical assistance and guidance to providers to assist them in implementing routine HIV testing in clinical settings. In 2008, 74,585 HIV tests were performed in publicly-supported venues. Of these 61% were for African-American clients and five percent were for Hispanic/Latino clients.

The Department supports a range of evidence-based and culturally competent behavioral interventions targeted to communities at greatest risk for transmission/acquisition of HIV. Behavioral interventions are designed to promote adoption and maintenance behaviors to reduce the risk for transmitting HIV (among those who are HIV-infected) or of acquiring HIV (among those who are HIV-negative). Racial/ethnic minorities receive emphasis in program efforts. DHWDC supports intervention models specifically endorsed by the Centers for Disease Control and Prevention for use with African-American communities including SISTA (Sisters Informing Sisters About Topics on AIDS), for African-American women, BSB (Brothers Saving Brothers) for African-American men, 3MV (Many Men, Many Voices) for African-American men who have sex with men, POL (Peer Opinion Leader) for African-American men who have sex with men. In 2008, over 24,000 individuals participated in such interventions, of which 70 percent were African-American.

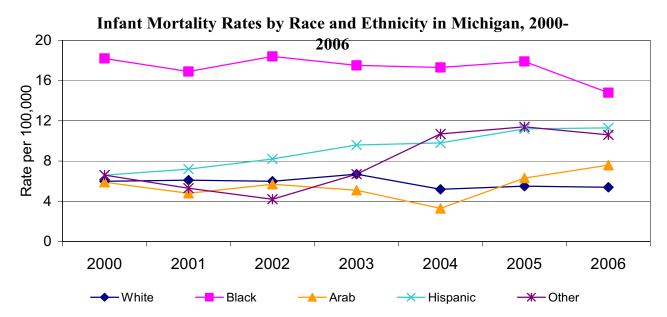


# **Infant Mortality**

# How are we doing?

As indicated in the Figure below, the overall infant mortality rate for the state decreased slightly from 7.9 deaths per 1,000 live births in 2005 to 7.4 deaths per 1,000 live births in 2006. The high rates of infant mortality experienced in Michigan are largely attributable to the higher rates of infant mortality in the African-American community that is almost three fold greater compared to Whites in Michigan. However, the disparity between Blacks and Whites declined between 2005 and 2006. While the infant mortality rate decreased for both populations, the reduction in African-Americans was significantly greater than among Whites. Specifically, the infant mortality rate fell from 5.5 to 5.4 among Whites and from 17.9 to 14.8 among African-Americans. Thus, virtually all of the reduction in infant mortality in 2006 relative to 2005 is attributable to improvements in the African-American infant mortality rate in Michigan.

Due to the high infant mortality rate in the African-American population, infant mortality in infants of other races/ethnicities often goes unmentioned. In 2006, the infant mortality rate in Hispanic/Latinos was approximately two times greater than in Whites; the gap between Hispanic/Latinos and Whites has been increasing significantly since 2000 when the risk of infant mortality in Hispanic/Latinos was only 10% greater than in Whites. Infant mortality also occurs at a greater rate among the Arab population relative to Whites in Michigan. While from 2000-2004 the Arab population experienced a lower infant mortality rate in Michigan, as of 2006 the infant mortality rate was 40% greater than in Whites.



**Note:** Infant deaths by race of infant; live births used in calculating infant death rates are by race of mother. Rates are per 1,000 live births. Adding and subtracting the number shown after the  $\pm$  symbol from the rate creates a confidence interval indicating that the true rate lies between the lower and upper bounds of this interval with 95 % statistical confidence.

Infant deaths of unknown race are not included in this table.

**Source:** 1970 - 2006 Michigan Resident Birth and Death Files, Vital Records & Health Data Development Section, Michigan Department of Community Health

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# How Does Michigan compare with the U.S.?

The infant mortality rate in Michigan is greater than the overall rate for the U.S. The increased rate in Michigan is driven primarily by the disparity between infant mortality among African-Americans in Michigan relative to the U.S. The Black/White infant mortality rate ratio for Michigan has been consistently higher than the rate for the U.S. for the past 20 years meaning the disparity seen between Blacks and Whites is greater in Michigan than for the country as a whole.

# What is the Department of Community Health doing to improve this indicator?

Concentrating efforts on reducing the infant mortality rate for African Americans would reduce the overall infant mortality rate in Michigan. Eleven cities were selected through a series of epidemiological studies. Starting in 2004, each of these cities became part of the state Infant Mortality Initiative, and received funding as well as program and epidemiological support to start community coalitions.

In May 2008, the Michigan Department of Community Health held the Infant Mortality Summit. The recommendations that came out of the breakout sessions were compiled and further actions were developed accordingly. One of those recommendations was to explore the perinatal system of care and advise the state on further steps. It was reinforced by the boiler plate reporting requirement. As a result, there is work in progress to not only explore the existing system but to also develop perinatal system of care guidelines that will be adopted across the state.

Another important activity targeted to decreasing infant mortality is demonstration project called the Tomorrow's Child/Michigan SIDS/Back to Sleep Campaign funded by the Department. This campaign supports Henry Ford Hospital in consistently teaching women about the safe sleep message. The goal is to reduce the incidence of deaths among African-American infants attributable to sleep position and sleep environment.

In addition, the state also conducted focus groups among African-American women to get gain a better understanding of the issues and concerns within this population.

An Infant Mortality Internal Workgroup has also been organized to evaluate further opportunities to address this issue in an integrated and efficient manner.

**Data Sources:** <sup>1</sup> American Journal of Public Health - 2004