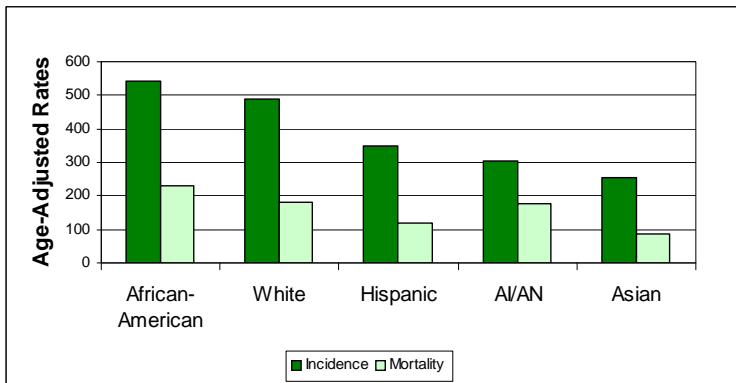


Cancer Disparities in Michigan

According to the National Cancer Institute, disparities in cancer outcomes involve differences in cancer incidence, prevalence, mortality, and related adverse health outcomes that exist among specific population groups in the United States.¹ One of the Healthy People 2020 goals is to achieve health equity, eliminate health disparities and improve the health of all groups.²

In Michigan, the number of people newly diagnosed with cancer and dying of the disease in 2009 was higher among black men and women than any other racial group (Figure 1).³ Age-adjusted cancer incidence rate was 544 per 100,000 for African-Americans, 487 per 100,000 for Whites, 350 per 100,000 for Hispanics, 302 per 100,000 for American Indians/Alaska Natives, and 253 per 100,000 in Asians. Age-Adjusted mortality rate was 230 per 100,000 for African-Americans, 181 per 100,000 for Whites, 176 for American Indians/Alaska Natives, 117 per 100,000 for Hispanics and 86 per 100,000 for Asians.

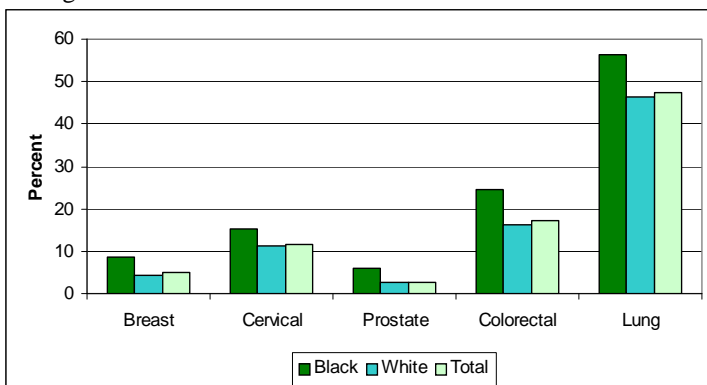
Figure 1: Cancer Incidence and Mortality Rate by Racial Group, Michigan 2009



*AI/AN: American Indian/Alaskan Native

A major contributor to high mortality and low survival rate is the stage at which cancer is detected. When detected early, most cancer treatments are highly effective and survival remains high over time. However, as of 2006, cancer among African-Americans was often detected at later stages compared with whites (Figure 3).⁴ Furthermore, 5-year survival rates for the five common types of cancer show that more whites diagnosed with cancer were still alive after 5 years compared with blacks (Figure 3).⁴

Figure 3: Proportion of Cases Diagnosed at Distant Stage by Race, Michigan 2006



Cancer outcomes are influenced by factors along a continuum; screening to ensure early detection, early diagnosis to ensure timely referral for treatment, appropriate treatment to ensure optimal survival. In Michigan, striking disparities were observed at each level of the continuum for Breast, Lung, Prostate and Colorectal Cancers in 2008. Age-adjusted mortality rates were significantly higher in African-Americans compared with Whites for breast, lung, prostate, colorectal and cervical cancers (Figure 2).⁴

Figure 2: Age-Adjusted Mortality Rates for Selected Cancers by Race, Michigan 2008

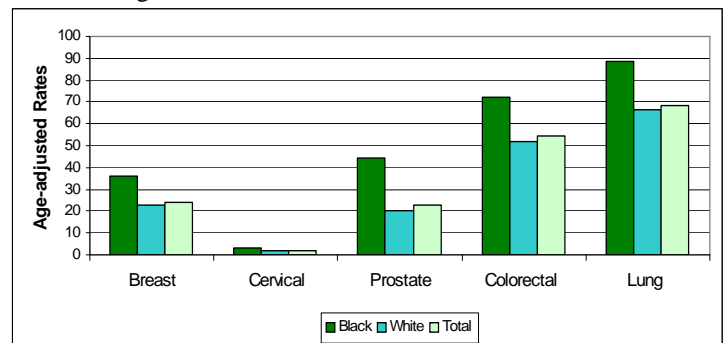


Figure 4: 5-year Survival Rates for Selected Cancers by Race, Michigan 1999-2006

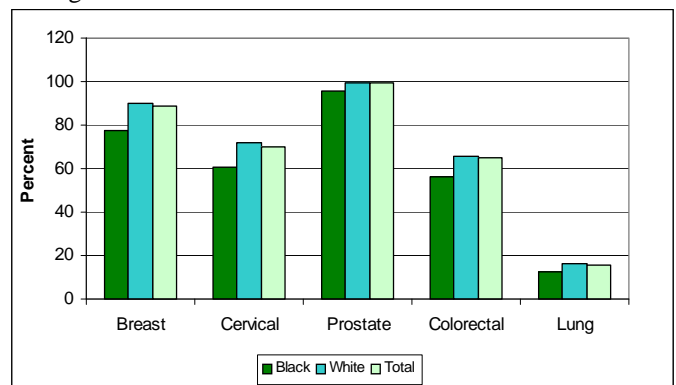
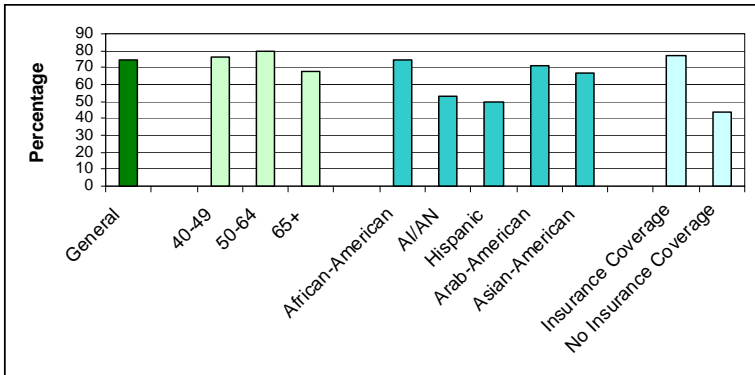
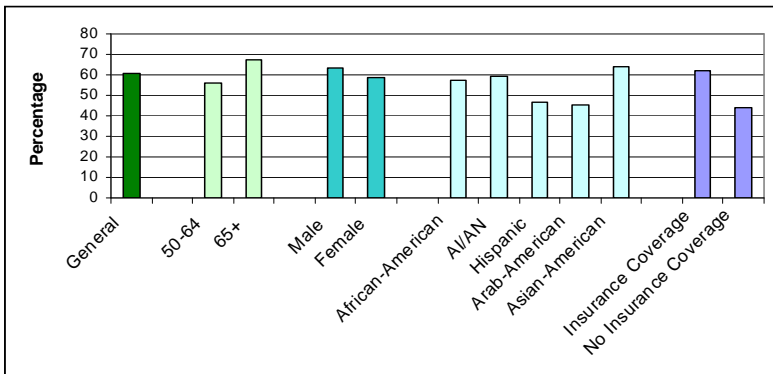


Figure 5: Mammography and CBE Rates among Women 40+ by Selected Characteristics, Michigan 2008



Low survival rates and later stage at diagnosis observed among certain population groups is likely the result of disparities observed in cancer screening rates for different population groups. For instance, breast cancer screening was lowest among American-Indian/Alaskan Natives and Hispanics in Michigan in 2008 (Figure 5).⁵ Furthermore, breast cancer screening was much lower among women without health insurance coverage (44%) compared with women who have health insurance (77%).

Figure 6: Appropriately Timed Colorectal Cancer Screening* among Men and Women 50+ by Selected Characteristics, Michigan 2008

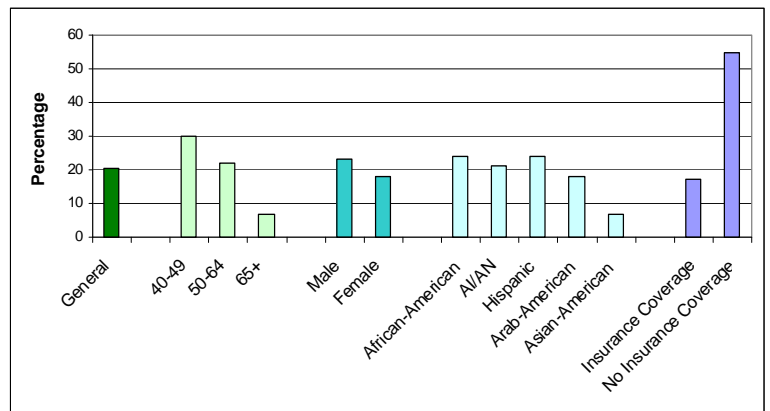


*MCC defines appropriate screening as: yearly fecal occult blood test (FOBT) or a sigmoidoscopy every five years or yearly FOBT with a sigmoidoscopy every five years or a colonoscopy every ten years or a double contrast barium enema (DCBE) every five years.

The lowest colorectal cancer screening rates in 2008 were observed among African-Americans, Hispanics and Arab-Americans at 57%, 46% and 45% respectively (Figure 6) in 2008.⁵ Generally, screening rates varies depending on health insurance status; only 44% of those without health insurance were screened, compared with 62% of those with health insurance.

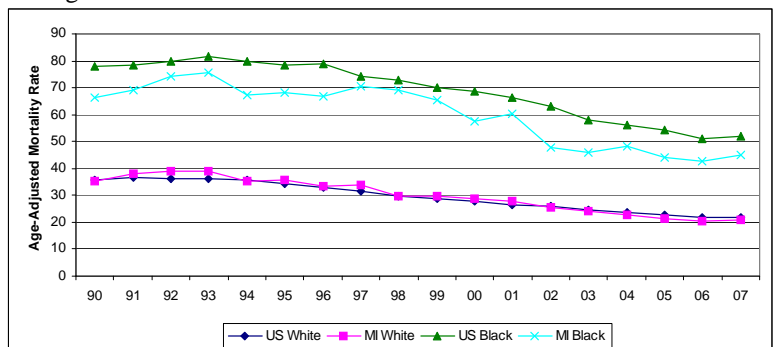
In addition to the disparities observed in screening rates, disparities also exist in the prevalence of cancer risk factors such as smoking, creating marked disparities in the incidence of lung cancer. In general, about 20% of Michigan adults over age 40 were current smokers in 2008. The proportion of current smokers was highest among African-Americans and Hispanics at 24%, and lowest among Asians at 7% (Figure 7).⁵ Smoking occurs in 17% of adults age 40 or older with health insurance, and in 55% of those without health insurance.

Figure 7: Smoking Status among Adults 40+ by Selected Characteristics, 2008



Marked disparities exists between African-American and white men in prostate cancer mortality; mortality rate trend between 1990 and 2007 shows mortality rates in African-American men more than twice the rate for whites both in Michigan and in the US (Figure 8).⁶ In 1990, prostate cancer mortality rate was 35 per 100,000 in whites and 66 per 100,000 in African-Americans in Michigan. Although prostate mortality rates have declined overall, the racial disparity still exists; in 2007, mortality rate was 20 per 100,000 in whites, and 45 per 100,000 in African-Americans.

Figure 8: Age-Adjusted Prostate Cancer Mortality Rate Trend by Race, Michigan 1990-2007



Breast and colorectal cancer incidence and mortality rates reflect similar trends in racial disparity as prostate cancer in men (Figures 8-11).⁶ Furthermore, breast cancer rates exhibits an interesting contradiction; incidence is higher among white women compared with African-Americans (Figure 8), but mortality is higher among African-American women compared with whites (Figure 9). The exact cause of this contradiction is unknown and is the subject of several research endeavors; however it is probably due to a combination of genetic, socio-economic and cultural factors as well as structural barriers to adequate medical care.

Since the 1990s, significant disparities in cancer incidence and mortality have existed nationally and in Michigan. Although rates have decreased overall, the racial disparity does not appear to be decreasing. More needs to be done to reduce structural barriers to healthcare access, reduce socio-economic disadvantage and address cultural beliefs that have negative impact on routine screening and cancer risk factors. The federally funded Breast and Cervical Cancer Control Program (BCCCP) which provides screening to low income women is an example of such efforts, however to eliminate these significant observed differences, more work is needed.

Figure 8: Age-Adjusted Breast Cancer Incidence Trend by Race, US vs. MI 1990-2007

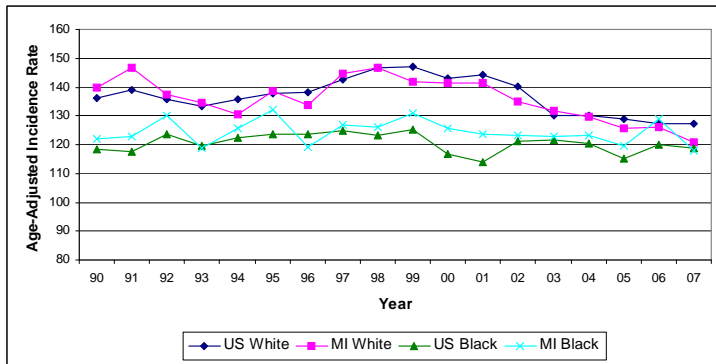


Figure 9: Age-Adjusted Breast Cancer Mortality Trend by Race, US vs. MI 1990-2007

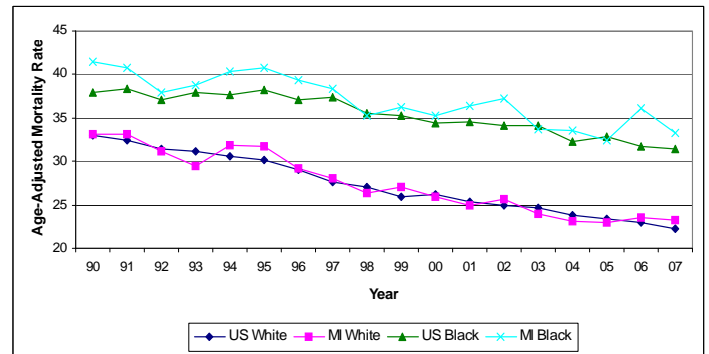


Figure 10: Age-Adjusted Colorectal Cancer Incidence Trend by Race, US vs. MI 1990-2007

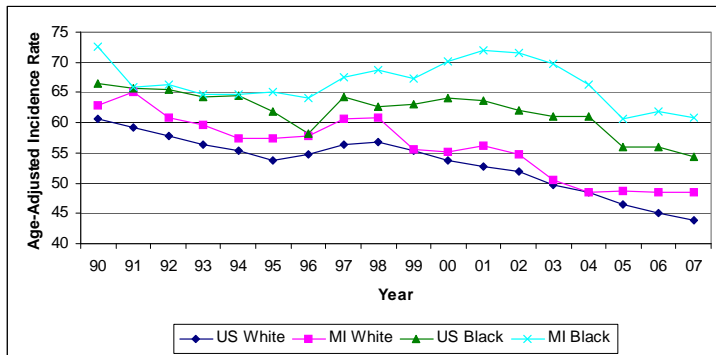
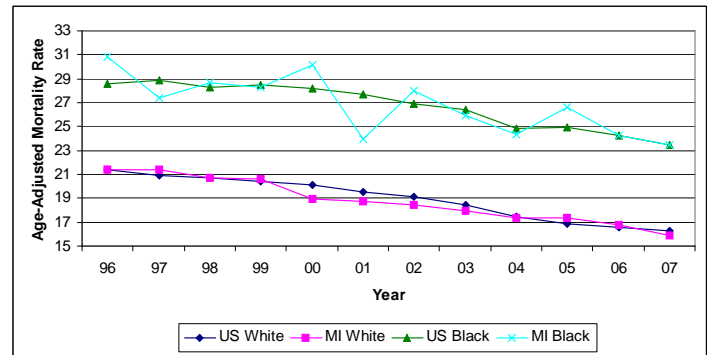


Figure 11: Age-Adjusted Colorectal Cancer Mortality Trend by Race, US vs. MI 1996-2007



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More information is available from:
 Michigan Cancer Consortium
www.michigan-cancer.org
 Michigan Department of Community Health
www.michigan.gov/cancer
 National Cancer Institute
<http://www.cancer.gov>