HEALTH RISK BEHAVIORS AMONG BLACK, NON-HISPANIC ADULTS WITHIN THE STATE OF MICHIGAN

DATA FROM THE 2013-2014 MICHIGAN BEHAVIORAL RISK FACTOR SURVEY

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RICK SNYDER, GOVERNOR | NICK LYON, DIRECTOR

Data from The 2013-2014 Michigan Behavioral Risk Factor Survey

Health Risk Behaviors Among Black, Non-Hispanic Adults Within the State of Michigan

RICK SNYDER
Governor, State of Michigan

NICK LYON
Director, Michigan Department of Health and Human Services

ELIZABETH HERTEL
Director, Office of Policy, Planning and Legislative Services
Michigan Department of Health and Human Services

SUSAN MORAN, MPH
Deputy Director, Population Health and Community Services Administration
Michigan Department of Health and Human Services

SARAH LYON-CALLO, MA, MS
Director, Bureau of Epidemiology and Population Health
Michigan Department of Health and Human Services

PATRICIA MCKANE, DVM, MPH
Acting Director, Lifecourse Epidemiology and Genomics Division
Michigan Department of Health and Human Services

CHRIS FUSSMAN, MS
Behavioral Risk Factor Surveillance System Coordinator, Acting Maternal and Child Health Epidemiology
Section Manager, Lifecourse Epidemiology and Genomics Division
Michigan Department of Health and Human Services

SHERYL WEIR, MPH
Manager, Health Disparities Reduction and Minority Health Section
Michigan Department of Health and Human Services

KIM HEKMAN, MPH
Health Disparities Epidemiologist, Lifecourse Epidemiology and Genomics Division
Michigan Department of Health and Human Services

MDHHS
Michigan Department of Health & Human Services
RICK SNYDER, GOVERNOR | NICK LYON, DIRECTOR

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The left and right photos on the cover were acquired from the Public Health Image Library (http://phil.cdc.gov/Phil/home.asp), courtesy of the Centers for Disease Control and Prevention (Yvonne Green (2012) and Amanda Mills (2011)).

Table of Contents

Blacks in Michigan

Blacks or African Americans make up the second largest minority group, following Hispanics, in the United States (US) with a population of 42 million* in 2010.[1] The Black racial category in the US Census includes persons who indicate "Black, African American, or Negro" as well as respondents that indicate groups such as "Sub-Saharan African (e.g. Kenyan, Nigerian) and Afro-Caribbean (e.g. Haitian, Jamaican)". Only a minority of the Black population (4.5%*) reported having Hispanic or Latino origin.[1] From 2000 to 2010, the Black population* (15.4%) increased at a faster rate than the overall US population (9.7%).[1]

Almost eight million Black persons live in the Midwest[†]. Blacks make up the largest racial/ethnic minority group in Michigan, comprising an estimated 15.0% of the state population in 2014 (about 1.5 million).[2] Although the statewide Michigan population decreased from 2000 to 2010, the Black population slightly increased during this time.[1] The majority of the Black population in Michigan were born in the US and reside in urban communities, with the city of Detroit home to the highest proportion (84.3%) of Blacks of any city nationwide.[1,3] In 2010, Lansing had the highest proportion of people who selected Black and one or more other races compared to all other cities in the US.[1] Other areas in Michigan with a high proportion of Blacks include Benton Harbor, Flint, Grand Rapids, Kalamazoo, Pontiac, and Saginaw.

In the US and Michigan, Blacks experience poorer health outcomes compared to both the general population and Whites. Nationwide in 2013, Black males died on average almost four and a half years sooner than White males and Black females died on average three years sooner than White females, with individuals of Hispanic ethnicity included in both racial categories.[4] In Michigan, Blacks of any Hispanic ethnicity had a higher mortality rate for all causes of death as well as heart disease, cancer, stroke, and diabetes than Whites of any Hispanic ethnicity in 2014.[5] Public health researchers are attempting to identify factors that underlie these disparities. This includes understanding the extent to which historic discrimination as well as limited access to social and economic resources contributes to disparate health outcomes within this population. In Michigan, 16.4% of the Black, non-Hispanic population had less than a high school education (in comparison to 9.0% of White, non-Hispanics), while the median household income for Black, non-Hispanics was $28,339, compared to $51,705 for White, non-Hispanics.[3] Families with lower income are less likely to have reliable transportation, stable housing, a safe neighborhood, and nutritious meals available. While inequitable distribution of resources can help explain some of the health differences found between Blacks and Whites, it cannot fully explain all of the disparities. For example, the infant mortality rate for women of similar education is still almost three times higher for Black women compared to White women of any Hispanic ethnicity.[6] Additionally, Black women with a college degree even have worse birth outcomes than White women who haven't finished their high school degree.[6] When individuals are faced with chronic race-based discrimination, this can result in elevated stress levels that over time can affect one's health.[7]
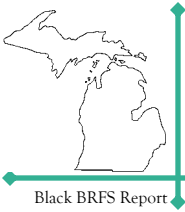
Michigan Behavioral Risk Factor Survey (MiBRFS)

The Michigan Behavioral Risk Factor Survey (MiBRFS) provides the state with data annually on various health behaviors, medical conditions, and preventive health care practices at the population level and by race/ethnicity. The MiBRFS is a statewide landline and cell phone survey of non-institutionalized residents in Michigan aged 18 years and older and is a collaborative effort between the Centers for Disease Control and Prevention (CDC), the Michigan State University (MSU) Institute for Public Policy and Social Research (IPPSR), and the Michigan Department of Health and Human Services (MDHHS). Data from the MiBRFS are necessary to help describe current health conditions and identify areas to focus prevention and intervention programs to improve the health of all adults in Michigan. Although results for Black, non-Hispanics are included in annual MiBRFS reports, data specific to Blacks by demographic subgroups (e.g. gender, age, education) are not routinely reported. The MDHHS Health Disparities Reduction and Minority Health Section (HDRMHS) has a priority to improve the availability of health related data for racial and ethnic minorities in Michigan. In keeping with this priority, the HDRMHS desired to further analyze the MiBRFS data specific to Black, non-Hispanics in partnership with the Lifecourse Epidemiology and Genomics Division.

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* Black or African American alone or in combination
† Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

This report presents estimates from the 2013 and 2014 MiBRFS with results representing Michigan adults aged 18 years and older. Some questions in the MiBRFS were only asked in one year (2013 or 2014), therefore two years of MiBRFS data were selected to include more questions for analyses. Yearly data from the MiBRFS from 2005 to 2014 were also used to allow data over time by race/ethnicity to be examined. This report provides state-specific, population-based estimates of the prevalence of various health behaviors, medical conditions, and preventive health care practices that focuses specifically on Black, non-Hispanic adults in Michigan. A detailed description of the methodology of the survey is included at the end of the report and the results are described in the subsequent pages. If the 95% confidence intervals for the estimates that were being compared did not overlap, they were considered to be significantly different. In this report, the term 'Black' and 'African American' are used interchangeably. All Black participants were of non-Hispanic origin. To our knowledge, a similar report has not been released since 1996.[8] The survey findings are used by public health agencies, academic institutions, non-profit organizations, and others to develop programs that promote the health of Black adults in Michigan.

Differences in demographic characteristics can directly and indirectly influence the prevalence of certain health conditions and related risk factors and are important to consider.[9] Nationwide, the Black, non-Hispanic population is of lower education and income compared to the White, non-Hispanic population and a similar pattern was found statewide in the 2013-2014 MiBRFS.[10] Results adjusted for age are included on pages 1-4.

Selected Risk Factors - 2013-2014 MiBRFS
Michigan vs. Black, non-Hispanic Adults Only (Unadjusted Estimates)
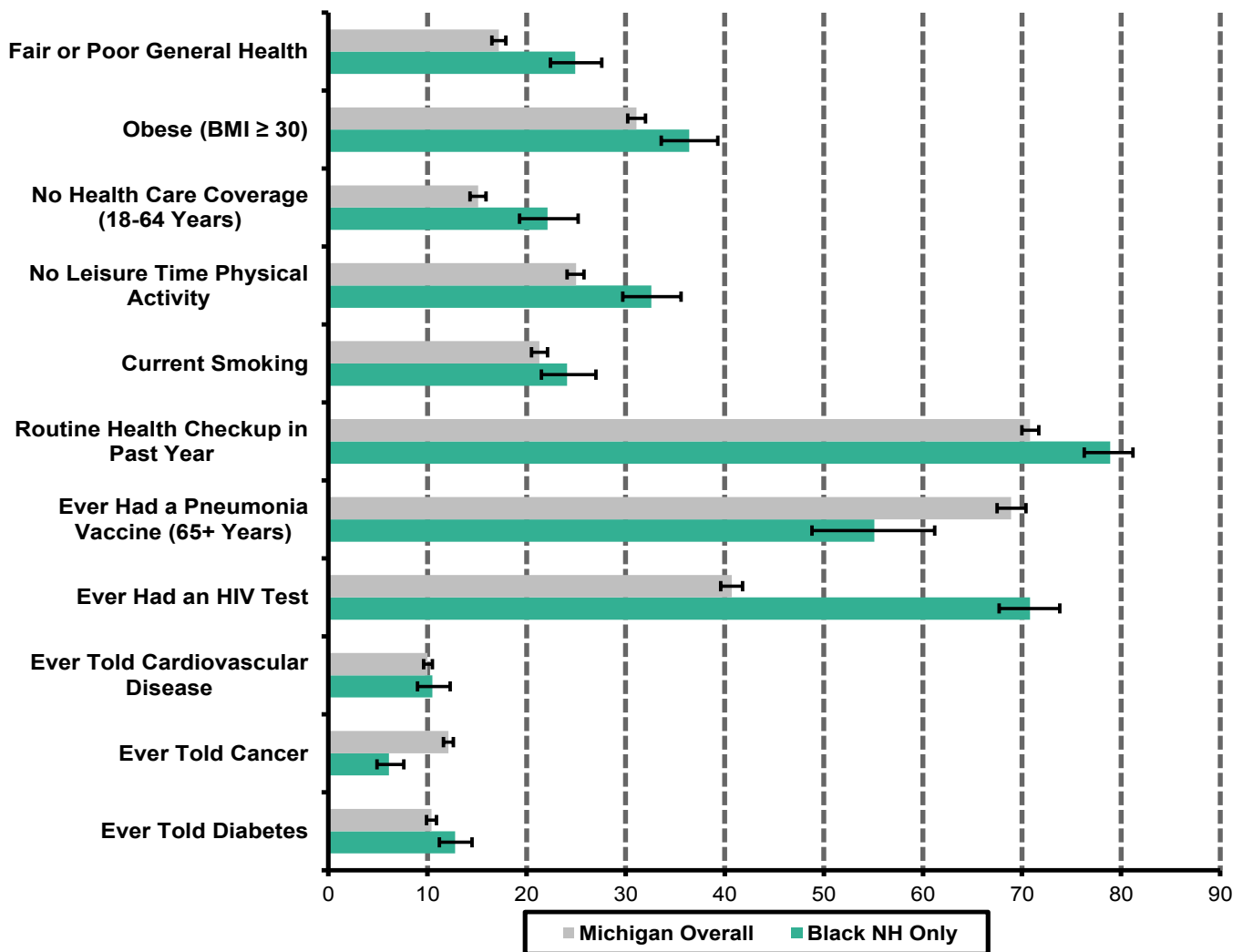
Summary, continued

Public Health Implications of Findings

A number of themes emerge from the findings of the 2013-2014 MiBRFS data that focus specifically on Black, non-Hispanic adults that have implications for public health.

✄ Lower access to health care coverage among Black adults in Michigan.

In 2013-2014, an estimated 22.1% of Black, non-Hispanic adults aged 18 to 64 years in Michigan reported having no health care coverage, significantly higher than 15.1% of all adults statewide. Black adults also reported a significantly higher prevalence of not having a personal health care provider (22.9%) and not seeing a doctor in the past 12 months due to cost (20.8%) than all adults in Michigan (16.5% and 15.0%, respectively). The prevalence of no health care coverage among Blacks did decrease between 2011 and 2014, with a significant decline between 2013 and 2014. The beginning of the Healthy Michigan Plan on April 1, 2014 did allow health care benefits to become available to individuals at a low cost. Other factors, such as transportation and adequate communication with health care providers, may act as barriers to receiving appropriate health care and should also be considered. In 2013, Black, non-Hispanics (23.5%) were more than three times more likely than White, non-Hispanics (7.5%) to report transportation was a problem when getting health care. Blacks (17.3%) were also more likely than Whites (10.2%) to report that communicating (e.g. understanding or being understood) with their health care provider was a problem when getting health care. The MDHHS HDRMHS is focusing on initiatives that will provide training and resources to help health care professionals and organizations to address health literacy and improve provider-patient communication.

### ✄ Approximately 1 in 3 Black adults in Michigan are obese.

In 2013-2014, over a third (36.4%) of Black adults in Michigan were classified as obese in 2013-2014, significantly higher than all Michigan adults (31.1%). An additional 35.0% of Black adults were classified as overweight, similar to the prevalence among all adults statewide (34.8%). Between 2005 and 2013 for yearly estimates, Black, non-Hispanic adults consistently had a higher prevalence of obesity compared to all adults and White, non-Hispanics in Michigan. However, in 2014 the obesity prevalence for Blacks lowered to be similar to that of Whites and all adults. The decreasing trend is encouraging since obesity is a risk factor for many conditions including cardiovascular disease, diabetes, and stroke, where Blacks currently have a significantly higher mortality rate for these conditions compared to all races in Michigan.[5] The Michigan Nutrition, Physical Activity and Obesity Program continues to develop programs that focus on improving nutrition and increasing physical activity among the entire population in Michigan while also targeting communities with limited access or low income, for which Blacks are overrepresented compared to the state overall.

✄ Black adults experiencing increased barriers accessing fresh fruits and vegetables.

In 2013, Blacks (36.5%) reported a significantly higher proportion of consuming vegetables less than one time per day compared to all adults (24.8%). Low fruit consumption was similar between Blacks and all adults in Michigan. It's important to consider the role social and environmental factors may play in fruit and vegetable consumption and the development of conditions such as obesity, diabetes, and high blood pressure. In 2013, Black, non-Hispanics (18.8%) were nearly four times more likely to report disagreeing that finding fresh fruits and vegetables in their community was easy compared to White, non-Hispanics (5.1%). Black adults (18.3%) also reported that transportation was a barrier with getting fresh fruits and vegetables three times more often compared to Whites (6.0%). Other barriers that may hinder healthy food consumption are limited resources. Over half of all Black adults (52.4%) reported a household income level of less than $25,000 in 2013-2014, almost two times higher than the prevalence among all adults (28.6%) in Michigan.

✄ Black adults report poorer self-assessed health compared to all adults in Michigan.

Almost a quarter (24.9%) of Black adults reported that their general health was either fair or poor in 2013-2014, significantly higher than among all Michigan adults (17.2%). Disparities in self-reported health were found to exist at the national level with Black, non-Hispanic adults more likely to report their health as fair or poor compared to White, non-Hispanic adults.[11] Black adults also reported higher poor physical health compared to all adults in Michigan. While differences in risk behaviors (e.g. smoking, alcohol consumption) and chronic conditions should be considered, factors such as racism and the role that limited access to social resources should not be overlooked. In 2013, Black adults (18.5%) were over two times more likely to report not having enough food to eat in their household than all Michigan adults (7.7%). Increased stress by way of financial difficulties can ultimately result in differences in underlying health status.[12]
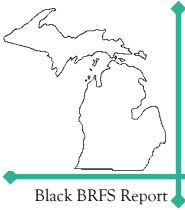
✄ Black adults report similar cancer screening levels as all adults in Michigan.

A similar proportion of Black adults reported receiving screenings for breast, cervical, prostate, and colorectal cancer compared to all adults in Michigan. Cancer is the second leading cause of death among both Blacks and all races in Michigan, with Blacks having a significantly higher death rate.[5] Thus, preventive cancer screenings are important for detecting cancer at an earlier stage and helping to prevent further spread of the disease. Over three-quarters (78.9%) of Black adults in Michigan in 2013-2014 reported having a routine medical checkup within the past year, significantly higher than 70.8% of all Michigan adults. Annual checkups also allow for the opportunity for early diagnosis and treatment of existing conditions and prevention of future medical problems.[13] It is interesting that Blacks reported a higher routine medical checkup prevalence, despite lower health care coverage, compared to Michigan adults. It is unclear if participants also included other visits to a health care provider (e.g. emergency department) in addition to a routine checkup when responding to this question and if there was a racial/ethnic difference.

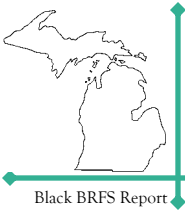## ✄ Blacks report a similar proportion of adults with cardiovascular disease.

Cardiovascular disease is the leading cause of death in Michigan for both Blacks and all races, with Blacks having a significantly higher mortality rate.[5] The proportion of Black adults in the 2013-2014 MiBRFS that reported ever being told that they had some form of cardiovascular disease by a health care provider, however, was similar to all adults in Michigan. Since the MiBRFS asks about chronic conditions that have been diagnosed by a health care provider, individuals with inadequate access to care may not be properly screened for such conditions and therefore not aware of current medical conditions. In 2013-2014, a significantly higher proportion of Black adults (22.9%) reported not having a personal health care provider than all adults in Michigan (16.5%). Thus, it is possible that results from the survey do not accurately reflect the prevalence of chronic conditions such as cardiovascular disease. Even taking into account these limitations, Black adults did report a significantly higher prevalence of diabetes and current adult asthma compared to all Michigan adults.

Minority Health Behavioral Risk Factor Surveys

The HDRMHS has a priority to improve the availability of health related data for racial and ethnic minorities in Michigan. The five racial and ethnic minorities served by HDRMHS include Blacks/African Americans, Hispanics/Latinos, Arab/ Chaldean Americans, Asian Americans/Pacific Islanders, and American Indians/Alaska Natives. Since routine MiBRFS collection does not yield a high enough sample size for Hispanics/Latinos, Arab/Chaldean Americans, and Asian Americans/Pacific Islanders, the HDRMHS arranged for stand-alone BRFS among racial and ethnic minorities in Michigan including:

- In 2012 and 2014, a stand-alone BRFS-like survey was conducted among the Hispanic/Latino population within Michigan. Results from the 2012 Hispanic BRFS are available online (www.michigan.gov/minorityhealth and www.michigan.gov/brfs) and results from 2014 Hispanic BRFS will be available in late 2016.
- In 2012, a stand-alone BRFS-like survey was conducted among the Asian American/Pacific Islander population within Michigan and results are available online (www.michigan.gov/minorityhealth and www.michigan.gov/brfs). In 2015, an analysis was conducted using birth certificate data to compare maternal and infant health among Asian and Pacific Islander (API) ethnic groups that were not well represented in the 2012 APIBRFS. Results are available online at www.michigan.gov/minorityhealth.
- In 2013, a stand-alone BRFS-like survey was conducted among the Arab/Chaldean American population within Michigan and results are available online (www.michigan.gov/minorityhealth and www.michigan.gov/brfs). The survey is being conducted again in 2016.

Conducting BRFS projects among minority populations in Michigan provide critical data related to health outcomes and behaviors among adults not previously available by the MiBRFS alone. These data provide important information for public health officials, health care providers, researchers and local and state level policy makers by expanding our understanding of the risk factors and preventive behaviors for the major causes of disease among minority populations in Michigan. Moreover, they provide important information needed to develop effective, culturally appropriate programs and services.

Health Status Prevalence Estimates among Black, Non-Hispanics in Michigan compared to all Adults in Michigan, 2013-2014

Health Status Indicators	Black NH Only[a] Unadjusted[b] % (95% CI)	Black NH Only[a] Adjusted[c] % (95% CI)	Michigan[a] Adjusted[c] % (95% CI)
General Health, Fair or Poor[1]	24.9 (22.4-27.6)	**24.3 (21.8-27.0)**	16.4 (15.7-17.1)
Poor Physical Health on at least 14 Days in the Past Month[2]	16.1 (14.0-18.4)	**15.9 (13.9-18.2)**	12.0 (11.4-12.7)
Poor Mental Health on at least 14 Days in the Past Month[3]	15.4 (13.3-17.8)	15.4 (13.2-17.8)	12.7 (12.0-13.4)
Disability[4]	27.6 (25.0-30.4)	27.1 (24.6-29.8)	23.8 (23.0-24.6)
Obese[5]	36.4 (33.6-39.3)	**36.1 (33.2-39.1)**	30.8 (29.9-31.7)
Overweight[6]	35.0 (32.1-38.0)	34.9 (32.0-38.0)	34.6 (33.6-35.5)
No Health Care Coverage (among 18-64 year olds)[7]	22.1 (19.3-25.2)	**22.4 (19.6-25.5)**	15.7 (14.9-16.7)
No Personal Health Care Provider[8]	22.9 (20.3-25.7)	**23.0 (20.4-25.8)**	18.1 (17.2-18.9)
No Health Care Access During Past 12 Months Due to Cost[9]	20.8 (18.4-23.5)	**20.5 (18.1-23.3)**	15.8 (15.0-16.6)
Transportation a Problem When Getting Health Care[10]	23.5 (19.1-28.6)	**23.5 (19.0-28.6)**	10.3 (9.2-11.5)
Understanding/Being Understood a Problem When Getting Health Care[11]	17.3 (13.1-22.5)	16.8 (12.3-22.6)	12.2 (11.0-13.4)

[a] Prevalence estimates used data from the 2013-2014 MiBRFS (N = 21,225) for all indicators except transportation and communication barriers related to health care (data from individual 2013 MiBRFS were used instead, N = 12,759).
[b] Prevalence estimates are not age-adjusted.
[c] Prevalence estimates are age-adjusted by direct method using 2000 U.S. Census.

Note: All significant differences for adjusted estimates are bolded. CI = Confidence Interval.

[1] Among all adults, the proportion who reported that their health, in general, was either fair or poor. (N = 1,879 (Black NH only); N = 21,199 (MiBRFS))
[2] Among all adults, the proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days. (N = 1,850; N = 20,925)
[3] Among all adults, 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. (N = 1,863; N = 20,937)
[4] Among all adults, the proportion who reported being limited in any activities because of physical, mental, or emotional problems, or reported that they required the use of special equipment (such as a cane, a wheelchair, a special bed, or a special telephone) due to a health problem. (N = 1,836; N = 20,840)
[5] Among all adults, the proportion of respondents whose body mass index (BMI) was greater than or equal to 30.0. (N = 1,785; N = 20,201)
[6] Among all adults, the proportion of respondents whose body mass index (BMI) was greater than or equal to 25.0 and less than 30.0. (N = 1,785; N = 20,201)
[7] Among adults aged 18-64 years, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare or Indian Health Services. (N = 1,372 ; N = 13,858)
[8] Among all adults, the proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider. (N = 1,877; N = 21,127)
[9] Among all adults, the proportion who reported that in the past 12 months, they could not see a doctor when they needed to due to the cost. (N = 1,881 ; N = 21,182)
[10] Among all adults, the proportion who reported transportation is always, usually, or sometimes a problem when getting health care. (N = 642; N = 7,867)
[11] Among all adults, the proportion reporting that that understanding or being understood by their provider was a problem when getting health care. (N = 639; N = 7,820)

Risk Behavior Prevalence Estimates among Black, Non-Hispanics in Michigan compared to all Adults in Michigan, 2013-2014

	Black NH Only[a] Unadjusted[b]	Black NH Only[a] Adjusted[c]	Michigan[a] Adjusted[c]
	% (95% CI)	% (95% CI)	% (95% CI)
Health Risk Behaviors			
No Leisure Time Physical Activity[1]	32.6 (29.7-35.6)	**32.9 (29.9-36.0)**	24.6 (23.7-25.5)
Inadequate Fruit Consumption (< 1 Time / Day)[2]	37.7 (33.7-41.9)	37.4 (33.4-41.7)	38.1 (36.8-39.4)
Inadequate Vegetable Consumption (< 1 Time / Day)[3]	36.5 (32.4-40.8)	**36.2 (32.1-40.5)**	25.2 (24.0-26.4)
Transportation a Barrier with Getting Fresh F&V[4]	18.3 (14.3-23.0)	**18.0 (14.0-22.9)**	8.1 (7.2-9.2)
Disagreed that Finding Fresh F&V Was Easy[5]	18.8 (14.4-24.2)	**18.5 (13.8-24.3)**	7.4 (6.4-8.5)
Food Insufficiency[6]	18.5 (12.8-26.1)	**19.0 (13.3-26.3)**	8.3 (6.9-9.9)
Current Smoker[7]	24.1 (21.5-27.0)	23.9 (21.3-26.8)	22.4 (21.5-23.3)
Secondhand Smoke Exposure[8]	37.2 (33.2-41.4)	**36.8 (32.7-41.1)**	26.6 (25.4-27.9)
Binge Drinking[9]	13.8 (11.7-16.3)	**14.0 (11.8-16.5)**	20.2 (19.3-21.0)
Inadequate Sleep[10]	53.5 (50.4-56.5)	**53.4 (50.3-56.4)**	41.2 (40.2-42.2)
Ever Told High Blood Pressure[11]	42.0 (38.1-46.0)	**43.0 (39.5-46.7)**	31.8 (30.7-32.9)

[a] Prevalence estimates used data from the 2013-2014 MiBRFS (N = 21,225) for all indicators except inadequate fruit and vegetable consumption, food access and insufficiency, and ever told to have high blood pressure (data from 2013 MiBRFS were used instead, N = 12,759).
[b] Prevalence estimates are not age-adjusted.
[c] Prevalence estimates are age-adjusted by direct method using 2000 U.S. Census.

Note: All significant differences for adjusted estimates are bolded. CI = Confidence Interval. F&V = Fruit and Vegetable.

[1] Among all adults, the proportion who reported not participating in any leisure time physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise during the past month. (N = 1,796 (Black NH only); N = 20,669 (MiBRFS))
[2] Among all adults, the proportion whose total reported consumption of fruits (including juice) was less than one time per day. (N = 951; N = 12,047)
[3] Among all adults, the proportion whose total reported consumption of vegetables was less than one time per day. (N = 933; N = 11,869)
[4] Among all adults, the proportion reporting transportation is always, usually, or sometimes a problem in getting fresh fruits and vegetables. (N = 638; N = 7,842)
[5] Among all adults, the proportion reporting that they disagreed or strongly disagreed that it was easy to find fresh fruits and vegetables in their community or neighborhood. (N = 639; N = 7,820)
[6] Among all adults, the proportion who reported sometimes or often not having enough food to eat in their household in the last 12 months.   (N = 267; N = 3,846)
[7] Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days. (N = 1,818; N = 20,750)
[8] Among all adults, the proportion who reporting being exposed to secondhand smoke in their home or a car within the past seven days. (N = 1,135; N = 13,152)
[9] Among all adults, the proportion who reported consuming five or more drinks per occasion (for males) or four or more drinks per occasion (for women) at least once in the previous month. (N = 1,794; N = 20,530)
[10] Among all adults, the proportion who reporting an average sleep time of less than eight hours per night, and among Black, non-Hispanic adults aged 22 years and older, the proportion reporting an average sleep time of less than seven hours per night. (N = 1,819; N = 20,797)
[11] Among all adults, the proportion who reported that they were ever told by a doctor that they had high blood pressure (HBP). Women who had HBP only during pregnancy and adults who were borderline hypertensive were considered to not have been diagnosed. (N = 1,049; N = 12,728)

Clinical Preventive Practices

Clinical Preventive Practices Prevalence Estimates among Black, Non-Hispanics in Michigan compared to all Adults in Michigan, 2013-2014

	Black NH Only[a] Unadjusted[b]	Black NH Only[a] Adjusted[c]	Michigan[a] Adjusted[c]
	% (95% CI)	% (95% CI)	% (95% CI)
Clinical Preventive Practices Indicators			
Routine Health Checkup in the Past Year[1]	78.9 (76.3-81.2)	**78.6 (75.9-81.1)**	69.0 (68.1-70.0)
Cholesterol Checked in Past Five Years[2]	79.0 (75.1-82.5)	79.4 (75.8-82.7)	77.2 (76.1-78.4)
Ever Told High Cholesterol[3]	36.1 (32.0-40.3)	33.0 (29.3-36.8)	34.0 (32.8-35.2)
Mammography in the Past Two Year[4]	80.0 (74.0-84.9)	79.6 (73.6-84.6)	74.2 (72.2-76.2)
Clinical Breast Exam & Mammography in the Past Year[5]	48.7 (41.9-55.6)	48.8 (42.4-55.3)	46.5 (44.4-48.7)
Had Appropriately Timed Pap Test[6]	80.7 (74.8-85.5)	79.9 (74.4-84.4)	75.5 (73.7-77.3)
Ever Discussed Advantages of PSA Test With Doctor[7]	73.7 (65.2-80.6)	73.7 (65.1-80.9)	73.7 (71.3-75.9)
Had PSA Test in the Past Year[8]	44.9 (36.3-53.9)	47.5 (39.4-55.9)	46.5 (44.0-49.0)
Had Sigmoidoscopy/Colonoscopy in the Past 5 Years[9]	58.8 (54.7-62.7)	58.9 (54.9-62.8)	56.9 (55.8-58.0)
Had Appropriate Colorectal Cancer Screening[10]	70.0 (66.0-73.7)	69.8 (65.9-73.4)	71.2 (70.2-72.2)
No Dental Visit in the Past Year[11]	45.1 (40.7-49.5)	**45.7 (41.1-50.4)**	32.3 (30.8-33.8)
Missing 6 or More Teeth[12]	23.4 (20.2-26.9)	**22.5 (19.8-25.4)**	13.8 (13.0-14.7)
Had Flu Vaccine in the Past Year[13]	44.1 (38.3-50.0)	**45.3 (39.5-51.3)**	57.7 (56.2-59.2)
Ever Had Pneumonia Vaccine[14]	55.1 (48.8-61.2)	**55.8 (49.5-61.9)**	69.9 (68.5-71.3)
Ever Had HIV Testing (Not Part of Blood Donation)[15]	70.8 (67.7-73.8)	**72.4 (69.3-75.3)**	43.5 (42.3-44.6)

[a] Prevalence estimates used data from the 2013-2014 MiBRFS (N = 21,225) for all indicators except cholesterol screening, breast cancer, cervical cancer, and prostate cancer screening, oral health (data from individual 2013 or 2014 MiBRFS were used instead, N = 12,759 (2013); N = 8,466 (2014)).
[b] Prevalence estimates are not age-adjusted.
[c] Prevalence estimates are age-adjusted by direct method using 2000 U.S. Census.

Note: All significant differences for adjusted estimates are bolded. CI = Confidence Interval.

[1] Among all adults, the proportion who reported that they had a routine medical checkup within the past year. (N = 1,867; N = 20,972)
[2] Among all adults, the proportion reporting that they had their blood cholesterol checked within the past five years. (N = 1,014; N = 12,394)
[3] Among adults, who had their blood cholesterol checked, the proportion reporting that a doctor, nurse, or other health professional had told them that their cholesterol was high. (N = 869; N = 11,093)
[4] Among women aged 40 years and older, the proportion who reported having a mammogram within the past two years. (N = 366; N = 3,784)
[5] Among women aged 40 years and older, the proportion who reported having a clinical breast exam and a mammogram within the past year. (N = 364; N = 3,764)
[6] Among women aged 18 years and older, the proportion who reported having a Pap test within the previous three years. (N = 310; N = 3,162)
[7] Among men aged 50 years and older, the proportion ever discussing the advantages of a PSA test with a doctor, nurse, or other health professional. (N = 188; N = 2,226)
[8] Among men aged 50 years and older, the proportion who reported having a PSA test within the past year. (N = 180; N = 2,579)
[9] Among adults aged 50 years and older, the proportion who reported having a sigmoidoscopy or colonoscopy within the past five years. (N = 988; N = 13,146)
[10] Among adults aged 50 years and older, the proportion who reported having a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past ten years. (N= 980; N = 12,991)
[11] Among all adults, the proportion who reported that they had not visited a dentist or dental clinic for any reason in the previous year. (N = 830; N = 8,414)
[12] Among all adults, the proportion who reported that they were missing 6+ teeth due to tooth decay or gum disease. This excludes teeth lost for other reasons, such as injury or orthodontics. (N = 810; N = 8,273)
[13] Among adults aged 65 years and older, the proportion who reported that they had a flu vaccine, either by injection in the arm or sprayed in the nose during the past 12 months. (N = 459; N = 6,841)
[14] Among adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine. (N = 431; N = 6,588)
[15] Among adults aged 18-64 years, the proportion who reported that they ever had been tested for HIV, apart from tests that were part of a blood donation. (N = 1,239; N = 12,907)
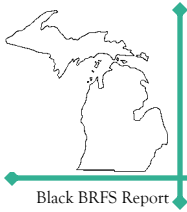
Chronic Conditions Prevalence Estimates among Black, Non-Hispanics in Michigan compared to all Adults in Michigan, 2013-2014

	Black NH Only[a] Unadjusted[b]	Black NH Only[a] Adjusted[c]	Michigan[a] Adjusted[c]
	% (95% CI)	% (95% CI)	% (95% CI)
Chronic Conditions Indicators			
Ever Told to Have Asthma – Adults[1]	18.7 (16.6-21.1)	18.4 (16.2-20.7)	16.0 (15.3-16.8)
Current Asthma – Adults[2]	14.3 (12.3-16.5)	**14.0 (12.1-16.2)**	11.2 (10.6-11.8)
Ever Told Chronic Obstructive Pulmonary Disease[3]	11.1 (9.3-13.2)	**10.9 (9.1-12.9)**	8.0 (7.5-8.5)
Ever Told to Have Arthritis[4]	29.5 (27.1-32.1)	28.6 (26.5-30.7)	28.5 (27.7-29.2)
Ever Told Any Cardiovascular Disease[5]	10.5 (9.0-12.3)	10.5 (9.0-12.2)	8.8 (8.4-9.3)
Ever Told to Have Cancer[6]	6.1 (4.9-7.6)	**6.4 (5.1-8.0)**	10.7 (10.2-11.1)
Ever told to Have Diabetes[7]	12.8 (11.2-14.5)	**12.1 (10.6-13.8)**	9.0 (8.5-9.4)
Ever Told Kidney Disease[8]	4.1 (2.9-5.6)	4.1 (2.9-5.8)	2.9 (2.6-3.2)
Ever Told to Have Depression[9]	18.6 (16.3-21.1)	18.5 (16.2-21.1)	21.0 (20.2-21.9)

[a] Prevalence estimates used data from the 2013-2014 MiBRFS. (N = 21,225)
[b] Prevalence estimates are not age-adjusted.
[c] Prevalence estimates are age-adjusted by direct method using 2000 U.S. Census.

Note: All significant differences for adjusted estimates are bolded. CI = Confidence Interval.

[1] Among all adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma. (N = 1,879 (Black NH only); N = 21,137(MiBRFS))
[2] Among all adults, the proportion who reported that they still have asthma. (N = 1,867; N = 21,024)
[3] Among all adults, the proportion who reported ever being told by a doctor that they had chronic obstructive pulmonary disease (COPD), emphysema or chronic bronchitis. (N = 1,872; N = 21,102)
[4] Among all adults, the proportion who reported ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. (N = 1,874; N = 21,087)
[5] Among all adults, the proportion who had ever been told by a doctor that they that they had some form of cardiovascular disease. (N = 1,867; N = 21,010)
[6] Among all adults, the proportion who had ever been told by a doctor that they had a form of cancer other that they had some type of cancer. (N = 1,880; N = 21,145)
[7] Among all adults, the proportion who reported that they were ever told by a doctor that they had diabetes. Adults told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed. (N = 1,882; N = 21,186)
[8] Among all adults, the proportion who reported ever being told by a doctor that they had kidney disease. (N = 1,869; N = 21,119)
[9] Among all adults, the proportion who reported ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression. (N = 1,876; N = 21,143)

Demographics

Nationwide, the Black, non-Hispanic population has less education and a lower household income compared to White, non-Hispanics.[10] Differences in these sociodemographic characteristics can directly and indirectly influence the prevalence of certain health conditions and related risk factors.[9] Therefore, the demographic profile of Black, non-Hispanic participants involved in the 2013-2014 MiBRFS was compared to all participants involved in the 2013-2014 MiBRFS.

♦ In 2013-2014, a significantly larger proportion of Black, non-Hispanic adults (49.7%) were between the ages of 18 and 44 years compared to all Michigan adults (44.1%). Similarly, a significantly lower proportion of Black, non-Hispanic adults (15.3%) were 65 years and older compared to all Michigan adults (19.8%).

♦ The gender distribution of Black adults and all adults in Michigan was similar.

♦ Black adults were significantly more likely to report a lower education and household income status. Over half of all Black adults (52.4%) reported a household income level of less than $25,000. This was almost two times higher than the prevalence among all adults in Michigan (28.6%).

♦ A significantly lower proportion of Black adults (28.3%) were married compared to all adults (51.9%) in Michigan.

♦ Black adults (18.8%) were significantly more likely to report not having health insurance compared to all adults in Michigan (12.2%).

Demographic Characteristics	Michigan Overall[a]		Black, non-Hispanics Only[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Age				
18 - 44	44.1	(43.2-45.1)	49.7	(46.8-52.7)
45 - 64	36.0	(35.2-36.8)	35.0	(32.4-37.8)
65+	19.8	(19.3-20.4)	15.3	(13.6-17.1)
Gender				
Male	48.5	(47.6-49.4)	45.8	(42.8-48.8)
Female	51.5	(50.6-52.4)	54.2	(51.2-57.2)
Education				
HS graduate or less	42.2	(41.3-43.1)	50.9	(47.9-53.8)
Some college or more	57.8	(56.9-58.7)	49.1	(46.2-52.1)
Household Income				
< $25,000	28.6	(27.7-29.6)	52.4	(49.3-55.6)
$25,000 - $49,999	27.1	(26.3-28.0)	25.5	(22.9-28.3)
$50,000+	44.2	(43.3-45.2)	22.1	(19.7-24.6)
Health Insurance				
Insured	87.8	(87.1-88.5)	81.2	(78.6-83.6)
Uninsured	12.2	(11.5-12.9)	18.8	(16.4-21.4)
Disability				
Not disabled	74.8	(74.0-75.6)	72.4	(69.6-75.0)
Disabled	25.2	(24.4-26.0)	27.6	(25.0-30.4)
Marital Status				
Married	51.9	(50.7-53.1)	28.3	(25.7-31.0)
Formerly married	20.2	(19.3-21.1)	26.2	(23.9-28.7)
Never married	23.9	(22.8-25.1)	41.4	(38.4-44.4)
Member of unmarried couple	4.0	(3.5-4.7)	4.1	(2.9-5.8)

[a] Demographics of all participants in the 2013-2014 MiBRFS. (N = 21,225)
[b] Demographics of Black, non-Hispanic adults in the 2013-2014 MiBRFS. (N = 1,885)

Household Income, Michigan Overall vs. Black, non-Hispanic Adults Only, 2013-2014
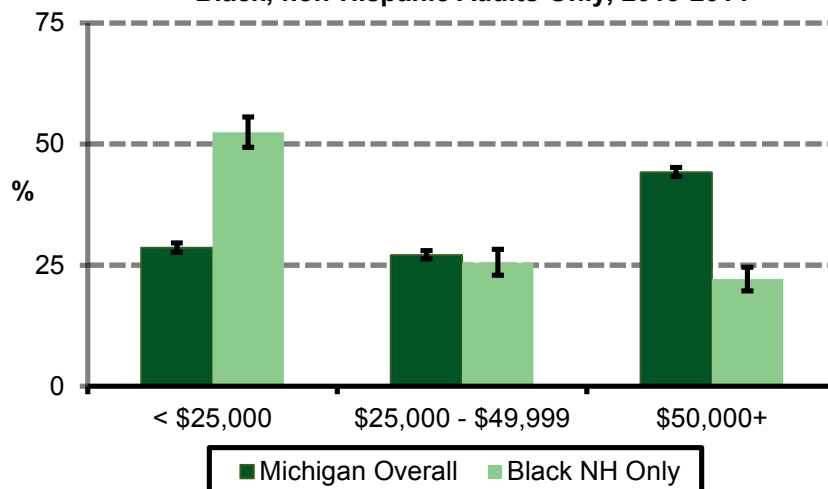
General Health Status

Self-assessed health is a measure of how a person perceives their own health. Self-assessed health status has been validated as a useful indicator of health among different populations and allows for broad comparisons across a variety of health conditions.[14] Disparities in self-assessed health were found to exist at the national level with Black, non-Hispanic adults more likely to report their health as fair or poor compared to White, non-Hispanic adults.[11]

♦ In 2013-2014, an estimated 24.9% of Black, non-Hispanic adults reported that their general health was either fair or poor, significantly higher than among all Michigan adults (17.2% [95% CI: 16.5-17.9]).

♦ The prevalence of fair or poor health among Black adults was lowest among the youngest age group and generally increased with age.

♦ The prevalence of fair or poor health decreased with increasing education and household income level.

♦ Disabled Black adults (55.5%) were over four times more likely to report fair or poor health than non-disabled Black adults (12.4%).

♦ In 2013-2014, Black, Non-Hispanic adults (24.9%) reported a significantly higher prevalence of fair or poor health than White, non-Hispanic adults (15.6%) as well as Other, non-Hispanic adults (15.5%). The prevalence among Black adults did not significantly differ from that of Hispanic adults.

♦ Since 2005, the prevalence of fair or poor health has consistently been higher among Black, non-Hispanic adults than White, non-Hispanic and all adults in Michigan.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	General Health, Fair or Poor[a]	
	%	95% Confidence Interval
Total	**24.9**	**(22.4-27.6)**
Age		
18 - 44	14.5	(11.3-18.4)
45 - 64	35.6	(31.3-40.2)
65+	34.2	(28.7-40.1)
Gender		
Male	27.0	(23.0-31.5)
Female	23.0	(20.0-26.4)
Education		
HS graduate or less	33.3	(29.1-37.8)
Some college or more	16.3	(13.9-19.0)
Household Income		
< $25,000	34.7	(30.4-39.2)
$25,000 - $49,999	21.7	(17.1-27.0)
$50,000+	7.5	(5.1-10.9)
Health Insurance		
Insured	24.8	(22.1-27.8)
Uninsured	25.2	(19.1-32.4)
Disability		
Not disabled	12.4	(10.4-14.9)
Disabled	55.5	(49.8-61.0)

[a] Among all Black, non-Hispanic adults, the proportion who reported that their health, in general, was either fair or poor. (N = 1,879)
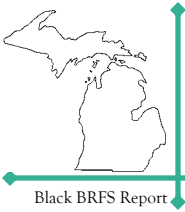

General Health, Fair or Poor by Race/Ethnicity, Michigan, 2013-2014
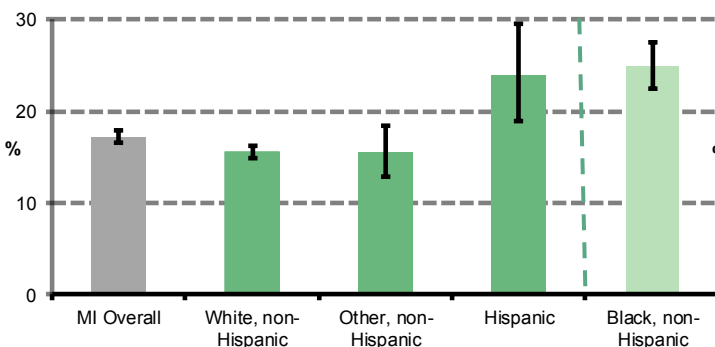
General Health, Fair or Poor
All Adults vs. White and Black Adults, Michigan, 2005-2014
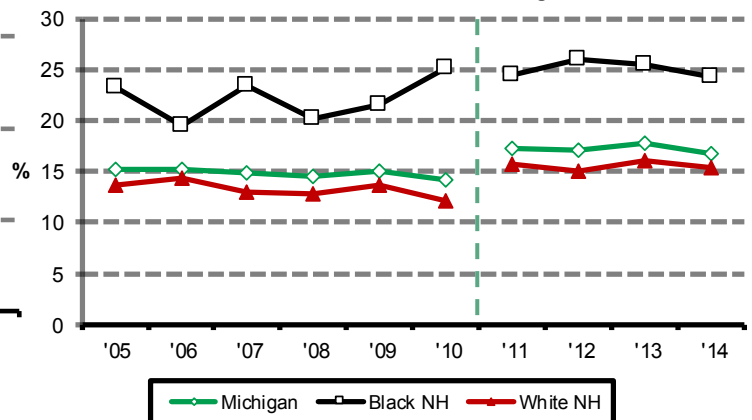
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Quality of Life

Physically and mentally unhealthy days measure the number of days within the past 30 days that individuals rate their physical and mental health as not good. Poor physical and mental health was defined as 14 or more days within the past 30 days in which the adult respondents rated their physical and mental health as not good.

♦ In 2013-2014, an estimated 16.1% of Black, non-Hispanic adults in Michigan reported poor physical health, significantly higher than among all adults in Michigan (12.7% [95% CI: 12.1-13.3]). An estimated 15.4% of Black adults reported poor mental health, also significantly higher than among all adults in Michigan (12.4% [95% CI: 11.8-13.1]).

♦ Poor physical and mental health were highest among the 45 to 64 year old age group but relatively similar by gender.

♦ Both poor physical and mental health decreased with increasing education and household income level.

♦ Disabled Black adults (42.4% and 35.6%, respectively) were more likely to have reported both poor physical health and poor mental health than non-disabled Black adults (5.9% and 7.9%, respectively).

♦ In 2013-2014, Black, non-Hispanic adults (16.1% and 15.4%, respectively) reported a significantly higher prevalence of poor physical and mental health than White, non-Hispanic adults (11.7% and 11.8%). The prevalence among Black adults did not significantly differ from that of Other, non-Hispanic or Hispanic adults for both indicators (data for poor mental health not shown).

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Poor Physical Health[a]		Poor Mental Health[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	16.1	(14.0-18.4)	15.4	(13.3-17.8)
Age				
18 - 44	8.2	(5.9-11.2)	13.1	(10.1-16.8)
45 - 64	25.6	(21.7-29.9)	21.2	(17.5-25.3)
65+	20.2	(15.1-26.4)	9.4	(6.0-14.4)
Gender				
Male	18.7	(15.3-22.8)	15.7	(12.4-19.7)
Female	13.9	(11.6-16.7)	15.1	(12.5-18.1)
Education				
HS graduate or less	21.9	(18.3-25.9)	19.0	(15.5-23.1)
Some college or more	10.2	(8.3-12.6)	11.6	(9.5-14.1)
Household Income				
< $25,000	24.5	(20.8-28.6)	22.0	(18.3-26.3)
$25,000 - $49,999	11.9	(8.7-16.1)	12.6	(9.0-17.3)
$50,000+	--[c]	---	5.6	(3.3-9.3)
Health Insurance				
Insured	16.6	(14.3-19.2)	15.7	(13.3-18.5)
Uninsured	14.1	(9.5-20.3)	14.0	(9.9-19.5)
Disability				
Not disabled	5.9	(4.4-7.9)	7.9	(6.2-10.1)
Disabled	42.4	(36.8-48.1)	35.6	(30.1-41.5)

[a] Among all Black, non-Hispanic adults, the proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days. (N = 1,850)
[b] Among all Black, non-Hispanic adults, 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. (N = 1,863)
[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

♦ Since 2005, the prevalence of poor physical health has consistently been higher among Black, non-Hispanic adults than White, non-Hispanic adults and all adults in Michigan, although not all differences have been significant.

Poor Physical Health by Race/Ethnicity, Michigan, 2013-2014
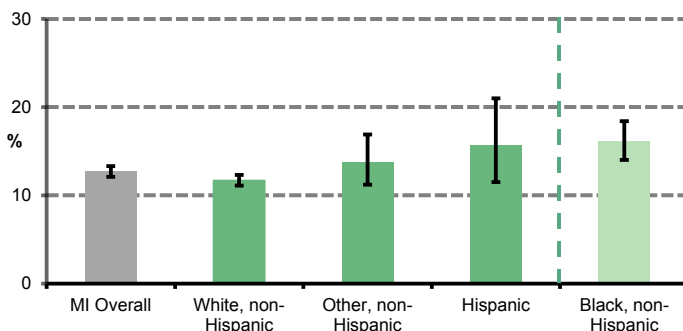
Poor Physical Health, All Adults vs. White and Black Adults, Michigan, 2005-2014
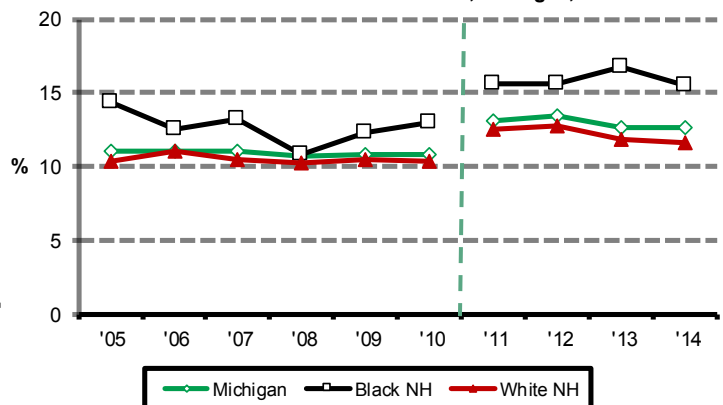
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

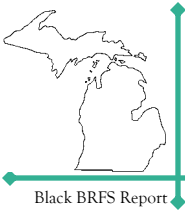Through the Americans with Disabilities Act, an individual with a disability is defined as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history of such an impairment, or a person who is perceived by others as having such an impairment.[15]

♦ In 2013-2014, an estimated 27.6% of Black, non-Hispanic adults reported being disabled, which was defined as being limited in any activities because of physical, mental, or emotional problems or requiring the use of special equipment, such as a cane, a wheelchair, a special bed, or a special telephone due to a health problem. This estimate was very similar to the estimate of all adults in Michigan (25.2% [95% CI: 24.4-26.0]).

♦ The prevalence of disability among Black adults increased with age and decreased with increasing education and household income level.

♦ The prevalence of disability was higher among Black adults with health insurance compared to those uninsured although the difference was not significant.

♦ In 2013-2014, the prevalence of disability among Black, non-Hispanic adults (27.6%) did not significantly differ from that of any of the other race/ethnicities in Michigan.

♦ Since 2005, the prevalence of disability has remained relatively even over time between Black, non-Hispanics, White, non-Hispanics and all adults in Michigan.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Total Disability[a]	
	%	95% Confidence Interval
Total	**27.6**	**(25.0-30.4)**
Age		
18 - 44	14.7	(11.4-18.7)
45 - 64	39.9	(35.5-44.5)
65+	41.4	(35.6-47.4)
Gender		
Male	29.1	(25.0-33.6)
Female	26.3	(23.2-29.7)
Education		
HS graduate or less	35.1	(30.8-39.7)
Some college or more	19.9	(17.3-22.8)
Household Income		
< $25,000	37.3	(33.0-41.9)
$25,000 - $49,999	20.8	(16.5-26.0)
$50,000+	13.2	(9.8-17.5)
Health Insurance		
Insured	29.5	(26.6-32.5)
Uninsured	19.7	(14.1-26.7)

[a] Among all Black, non-Hispanic adults, the proportion reporting being limited in any activities because of physical, mental, or emotional problems, or reporting that they required the use of special equipment (such as a cane, a wheelchair, a special bed, or a special telephone) due to a health problem. (N = 1,836)
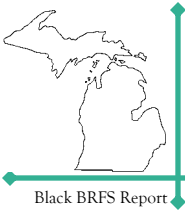

Disability by Race/Ethnicity, Michigan, 2013-2014
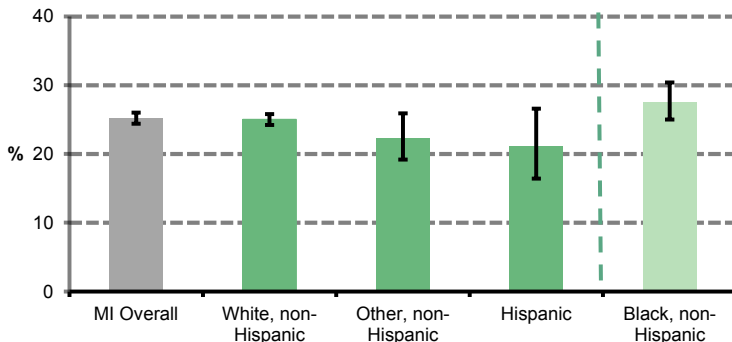
Total Disability, All Adults vs. White and Black Adults, Michigan, 2005-2014
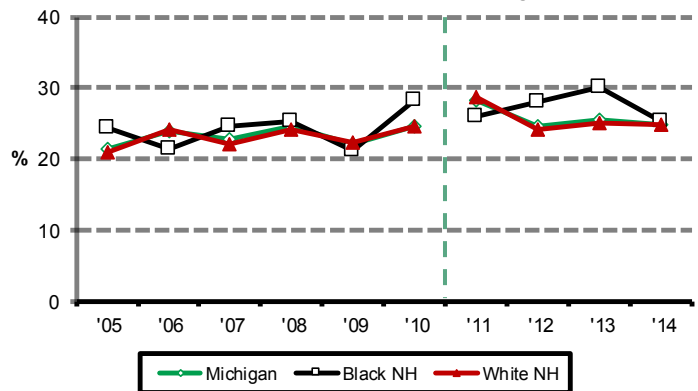
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Weight Status

Overweight and obesity have been proven to increase the risk of many diseases and health conditions such as high blood pressure, diabetes, coronary heart disease, stroke, gallbladder disease, high cholesterol, and some forms of cancer.[16] The medical care costs associated with adult obesity in the US is projected to be in the $150 billion range.[17] Overweight is defined as having a body mass index (BMI) between 25.0 and 29.9, and obesity is defined as a BMI greater than or equal to 30.0. At the national level, Black, non-Hispanics have the highest age-adjusted rate of obesity compared to other racial/ethnic groups.[18]

♦ In 2013-2014, an estimated 36.4% of Black, non-Hispanic adults in Michigan were classified as obese, significantly higher than 31.1% of all adults in Michigan (95% CI: 30.2-32.0). An additional 35.0% of Black adults (95% CI: 32.1-38.0) were classified as overweight, similar to the prevalence among all adults statewide (34.8% [95% CI: 33.9-35.7]).

♦ The prevalence of obesity among Black, non-Hispanic adults was highest within the 45 to 64 year age group.

♦ The prevalence of obesity generally increased with increasing education and household income level, although differences were not significant.

♦ Although the prevalence of obesity was higher among Black adults with health insurance and not disabled, differences were not significant.

♦ In 2013-2014, Black, non-Hispanic adults (36.4%) reported a significantly higher prevalence of obesity than White, non-Hispanic (30.4%) and Other, non-Hispanic (23.8%) adults. The prevalence among Black adults did not significantly differ from that of Hispanic adults.

♦ Between 2005 and 2013, Black, non-Hispanic adults consistently had a higher prevalence of obesity compared to all adults and White, non-Hispanics in Michigan. In 2014, the prevalence of obesity among Blacks lowered to be similar to Whites and all adults.

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Obese[a]	
	%	95% Confidence Interval
Total	**36.4**	**(33.6-39.3)**
Age		
18 - 44	32.6	(28.2-37.3)
45 - 64	43.5	(39.0-48.0)
65+	32.2	(27.1-37.8)
Gender		
Male	31.8	(27.6-36.4)
Female	40.6	(36.8-44.4)
Education		
HS graduate or less	33.5	(29.3-38.0)
Some college or more	39.4	(35.7-43.2)
Household Income		
< $25,000	36.6	(32.2-41.1)
$25,000 - $49,999	40.7	(34.8-46.9)
$50,000+	40.3	(34.3-46.5)
Health Insurance		
Insured	37.6	(34.4-40.8)
Uninsured	31.8	(25.1-39.4)
Disability		
Not disabled	34.4	(31.1-37.9)
Disabled	42.4	(36.8-48.2)

Note: BMI, body mass index, is defined as weight (in kilograms) divided by height (in meters) squared [weight in kg/(height in meters)^2]. Weight and height were self-reported. Pregnant women were excluded.
[a] Among all Black, non-Hispanic adults, the proportion of respondents whose BMI was greater than or equal to 30.0. (N = 1,785)

Obesity by Race/Ethnicity, Michigan, 2013-2014
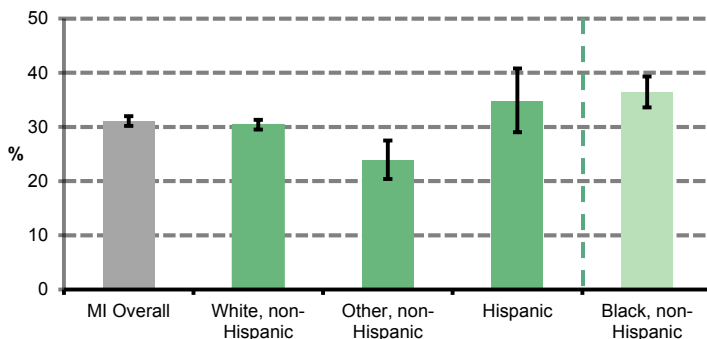
Obesity, All Adults vs. White and Black Adults, Michigan, 2005-2014
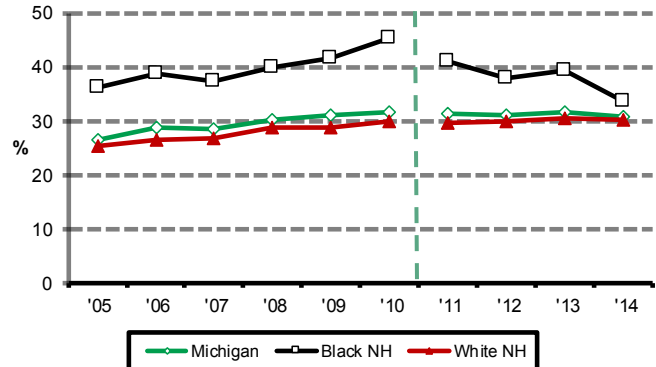
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

No Health Care Coverage

Adults who do not have health care coverage are less likely to access health care services and are more likely to delay getting needed medical attention.[19] In the US, Black, non-Hispanics are more likely to be uninsured compared to White, non-Hispanics.[3]

♦ In 2013-2014, an estimated 22.1% of Black, non-Hispanic Michigan adults aged 18-64 years reported having no health care coverage, significantly higher compared to 15.1% (95% CI: 14.3-15.9) of all adults of similar age in Michigan.

♦ The prevalence of no health insurance decreased with age and increasing education and household income level.

♦ Black males (28.0%) had a significantly higher prevalence of no health care coverage than Black females (17.0%).

♦ The prevalence of no health care coverage did not vary significantly by disability status.

♦ In 2013-2014, Black, non-Hispanic adults (22.1%) reported a significantly higher prevalence of no health care coverage than White, non-Hispanic adults (13.3%) and Other, non-Hispanic adults (14.1%). The prevalence among Black adults did not significantly differ from that of Hispanic adults.

♦ Since 2005, the prevalence of no health care coverage has consistently been higher among Black, non-Hispanic adults than White, non-Hispanic adults and all adults in Michigan, although not all differences have been significant. Since 2011 the prevalence has generally declined among Blacks, with the largest decline occurring between 2013 and 2014.

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	No Health Care Coverage among Adults 18-64 Years[a]	
	%	95% Confidence Interval
Total	**22.1**	**(19.3-25.2)**
Age		
18 - 44	26.2	(22.2-30.7)
45 - 64	16.1	(12.8-20.1)
Gender		
Male	28.0	(23.3-33.1)
Female	17.0	(13.9-20.6)
Education		
HS graduate or less	27.5	(23.0-32.6)
Some college or more	16.8	(13.7-20.3)
Household Income		
< $25,000	31.7	(27.0-36.8)
$25,000 - $49,999	16.5	(11.6-22.9)
$50,000+	--[b]	---
Disability		
Not disabled	23.8	(20.4-27.4)
Disabled	17.3	(12.3-23.6)

[a] Among Black, non-Hispanic adults aged 18-64 years, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare or Indian Health Services. (N = 1,372)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

No Health Care Coverage Among Adults 18-64 Years by Race/Ethnicity, Michigan, 2013-2014
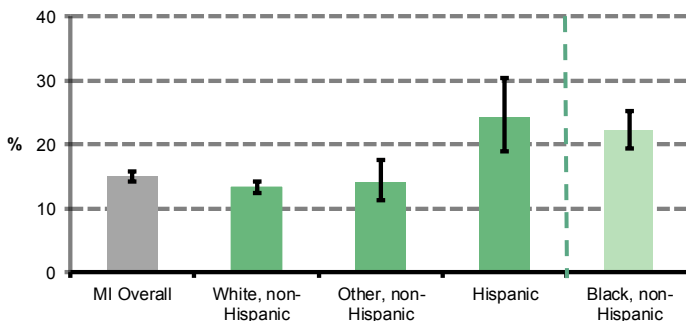
No Health Care Coverage Among Adults Aged 18-64 Years, All Adults vs. White and Black Adults, Michigan, 2005-2014
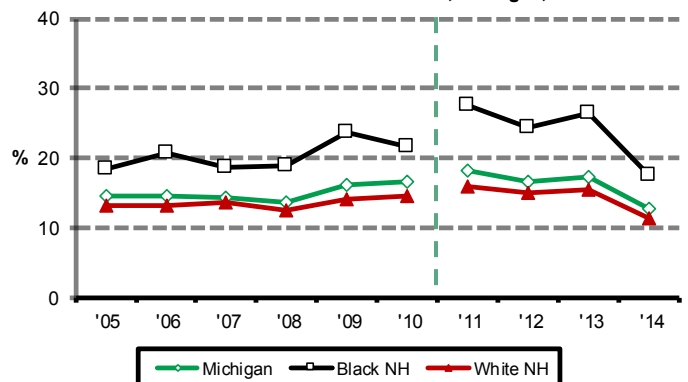
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Limited Health Care Coverage

Two additional indicators related to health care access are: 1) not having a personal doctor or health care provider and 2) having had a time during the past 12 months when you needed to see a doctor but could not because of the cost. Increases in access to primary care have been shown to substantially improve health-related outcomes.[20]
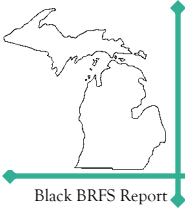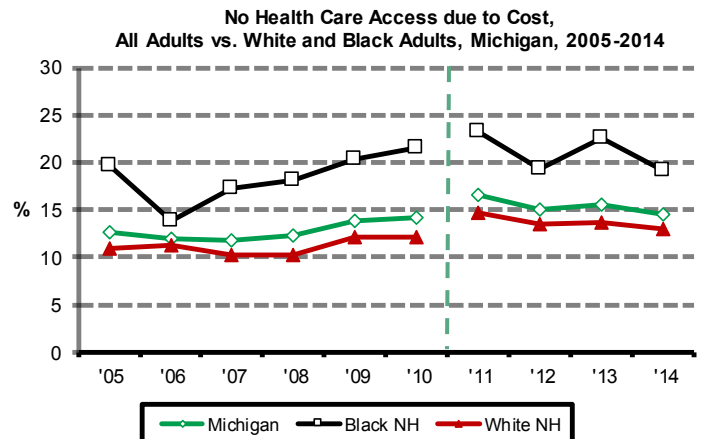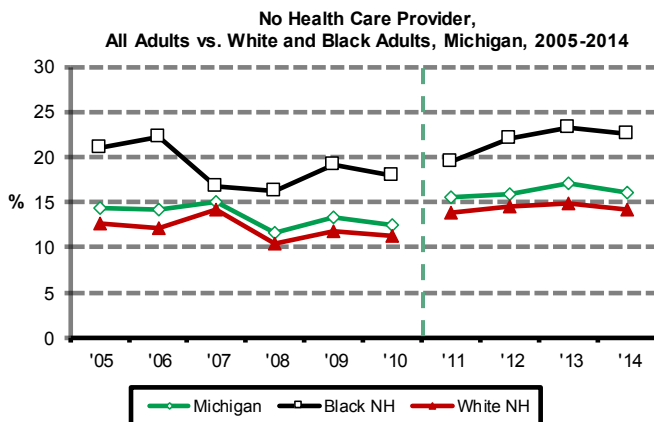
♦ In 2013-2014, an estimated 22.9% of Black, non-Hispanic adults reported not having a personal health care provider, significantly higher compared to 16.5% (95% CI: 15.8-17.3) of all Michigan adults. An estimated 20.8% of Black adults reported not seeing the doctor within the past 12 months due to cost, significantly higher than all Michigan adults (15.0% [95% CI: 14.3-15.8]).

♦ The prevalences of both of these indicators generally decreased with age as well as increasing education and household income level.

♦ Black males (31.9%) were over two times more likely to report not having a personal health care provider than Black females (15.3%).

♦ Uninsured Black adults (65.5% and 50.5%, respectively) were significantly more likely to not have a personal health care provider and to not have seen a doctor within the past 12 months due to cost compared to Black insured adults (13.0% and 14.0%, respectively).

♦ Black, non-Hispanic adults (22.9% and 20.8%, respectively) were significantly more likely than White, non-Hispanic adults (14.5% and 13.3%, respectively) to not have a personal health care provider and to not have seen a doctor within the past 12 months due to cost (data not shown).

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	No Personal Health Care Provider[a]		No Health Care Access Due to Cost[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**22.9**	**(20.3-25.7)**	**20.8**	**(18.4-23.5)**
Age				
18 - 44	33.8	(29.4-38.5)	21.1	(17.4-25.4)
45 - 64	15.0	(11.8-18.9)	26.4	(22.4-30.7)
65+	5.3	(3.1-9.0)	7.0	(4.5-10.9)
Gender				
Male	31.9	(27.4-36.7)	22.3	(18.6-26.6)
Female	15.3	(12.7-18.4)	19.5	(16.5-22.9)
Education				
HS graduate or less	27.0	(22.9-31.6)	24.0	(20.1-28.4)
Some college or more	18.6	(15.7-22.0)	17.5	(14.8-20.4)
Household Income				
< $25,000	28.0	(23.8-32.6)	29.4	(25.2-33.9)
$25,000 - $49,999	19.5	(14.6-25.7)	16.6	(12.7-21.3)
$50,000+	9.9	(6.6-14.4)	7.3	(4.6-11.3)
Health Insurance				
Insured	13.0	(10.8-15.6)	14.0	(11.8-16.6)
Uninsured	65.5	(58.3-72.1)	50.5	(43.0-58.0)
Disability				
Not disabled	25.8	(22.6-29.2)	17.7	(15.0-20.7)
Disabled	15.6	(11.2-21.3)	29.0	(23.9-34.8)

[a] Among all Black, non-Hispanic adults, the proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider. (N = 1,877)
[b] Among all Black, non-Hispanic adults, the proportion who reported that in the past 12 months, they could not see a doctor when they needed to due to the cost. (N = 1,881)

♦ Since 2005, Black, non-Hispanic adults have consistently had a higher prevalence for both indicators compared to all adults and White, non-Hispanic adults in Michigan, although not all differences have been significant.

No Health Care Provider, All Adults vs. White and Black Adults, Michigan, 2005-2014

No Health Care Access due to Cost, All Adults vs. White and Black Adults, Michigan, 2005-2014

Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Barriers to Health Care

Factors other than cost can contribute to delays in health care. For example, when patients have difficulty understanding a health care provider or being understood or don't have reliable transportation, these can act as barriers to receiving appropriate and timely health care services.[21-22]

- ♦ In 2013, an estimated 23.5% of Black, non-Hispanic adults in Michigan reported that transportation was a problem when getting health care, significantly higher compared to 10.1% of all adults in Michigan (95% CI: 9.1-11.2).

- ♦ In 2013, an estimated 17.3% of Black adults in Michigan reported that understanding or being understood by their health care provider was a problem when getting health care, significantly higher than 11.9% of all adults in Michigan (95% CI: 10.8-13.0).

- ♦ The prevalences of both health care barriers was relatively similar by gender but decreased with increasing education level.

- ♦ In 2013, Black, non-Hispanic adults (23.5%) were more than three times more likely than White, non-Hispanic adults (7.5%) and more than two times more likely than Hispanics (10.5%) to report transportation was a problem when getting health care.

- ♦ In 2013, Black, non-Hispanic adults (17.3%) were significantly more likely than White, non-Hispanic adults (10.2%) to report understanding or being understood by their health care provider was a problem when getting health care. The prevalence among Black adults did not differ from that of Other, non-Hispanics or Hispanics.
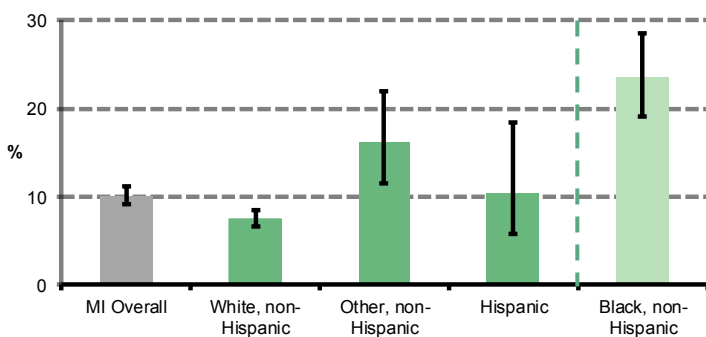
2013 MiBRFS Black, non-Hispanic Demographic Characteristics	Transportation a Problem When Getting Health Care[a]		Understanding/Being Understood a Problem when Getting Health Care[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**23.5**	**(19.1-28.6)**	**17.3**	**(13.1-22.5)**
Age				
18 - 44	23.7	(16.8-32.4)	18.2	(11.4-27.8)
45 - 64	23.9	(17.5-31.6)	19.5	(13.8-26.9)
65+	22.1	(14.8-31.8)	8.3	(4.5-14.8)
Gender				
Male	23.0	(16.6-30.9)	19.9	(13.2-28.9)
Female	24.0	(18.2-31.0)	15.0	(10.2-21.6)
Education				
HS graduate or less	36.5	(28.6-45.1)	25.3	(17.8-34.6)
Some college or more	11.3	(8.1-15.5)	9.5	(6.6-13.6)
Household Income				
< $25,000	37.6	(30.1-45.8)	24.7	(17.8-33.0)
$25,000 - $49,999	19.5	(11.5-31.1)	--[c]	---
$50,000+	--[c]	---	--[c]	---
Health Insurance				
Insured	22.4	(17.7-28.0)	15.0	(10.6-20.8)
Uninsured	28.4	(17.9-41.8)	27.1	(16.8-40.4)
Disability				
Not Disabled	18.2	(13.4-24.2)	13.9	(9.1-20.7)
Disabled	37.9	(28.9-47.9)	26.2	(18.6-35.5)

[a] Among all Black, non-Hispanic adults, the proportion reporting that transportation is always, usually, or sometimes a problem when getting health care. (N = 642)
[b] Among all Black, non-Hispanic adults, the proportion reporting that understanding or being understood by their provider was a problem when getting health care. (N = 639)
[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

Transportation a Problem When Getting Health Care by Race/Ethnicity, Michigan, 2013

Understanding/Being Understood a Problem When Getting Health Care by Race/Ethnicity, Michigan, 2013
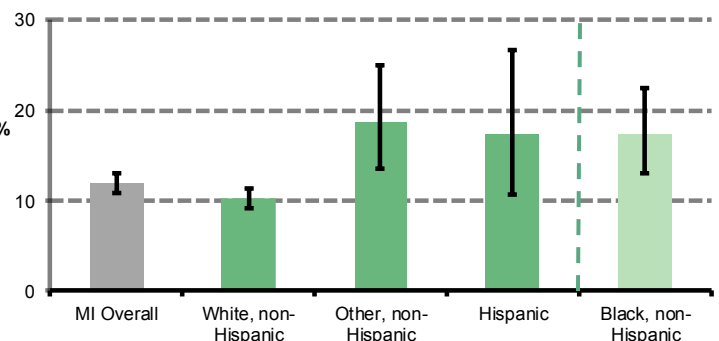
No Leisure Time Physical Activity

Regular physical activity among adults has been shown to reduce the risk of many diseases including cardiovascular disease, diabetes, colon and breast cancers, and osteoporosis. Keeping physically active also helps to control weight, maintain healthy bones, muscles, and joints, and relieve symptoms of depression.[23] In 2010, Black, non-Hispanic adults were found to be 70% less likely to meet federal physical activity guidelines compared to White, non-Hispanic adults in the US.[24]

- In 2013-2014, an estimated 32.6% of Black, non-Hispanic adults reported no leisure time physical activity within the past month, significantly higher compared to all adults in Michigan (25.0% [95% CI: 24.1-25.8]).

- The prevalence of no leisure time physical activity remained relatively even across age groups.

- Black females (37.2%) reported a significantly higher prevalence of no leisure time physical activity compared to Black males (27.1%), while disabled Black adults (41.8%) reported a higher prevalence than non-disabled Black adults (28.9%).

- The prevalence of no leisure time physical activity decreased with increasing education and household income level.

- In 2013-2014, Black, non-Hispanic adults (32.6%) reported a significantly higher prevalence of no leisure time physical activity than White, non-Hispanic adults (23.4%). The prevalence among Black adults did not significantly differ from Other, non-Hispanics and Hispanics in Michigan.

- Since 2005, Black, non-Hispanic adults have consistently reported a higher prevalence of no leisure time physical activity compared to all adults and White, non-Hispanic adults in Michigan.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	No Leisure Time Physical Activity[a]	
	%	95% Confidence Interval
Total	**32.6**	**(29.7-35.6)**
Age		
18 - 44	31.4	(26.9-36.3)
45 - 64	33.8	(29.5-38.3)
65+	33.4	(27.9-39.3)
Gender		
Male	27.1	(22.9-31.7)
Female	37.2	(33.4-41.2)
Education		
HS graduate or less	39.2	(34.5-44.0)
Some college or more	26.2	(23.0-29.6)
Household Income		
< $25,000	38.0	(33.4-42.9)
$25,000 - $49,999	33.9	(28.2-40.0)
$50,000+	22.8	(18.2-28.3)
Health Insurance		
Insured	31.3	(28.3-34.6)
Uninsured	38.4	(30.9-46.5)
Disability		
Not disabled	28.9	(25.6-32.5)
Disabled	41.8	(36.2-47.7)

[a] Among all Black, non-Hispanic adults, the proportion who reported not participating in any leisure time physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise during the past month. (N = 1,796)

No Leisure Time Physical Activity by Race/Ethnicity, Michigan, 2013-2014
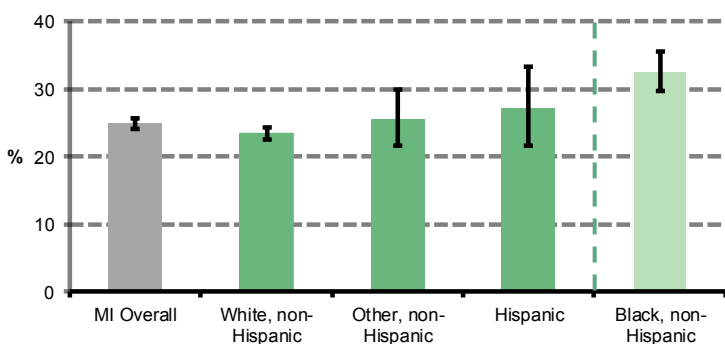
No Leisure Time Physical Activity, All Adults vs. White and Black Adults, Michigan, 2005-2014
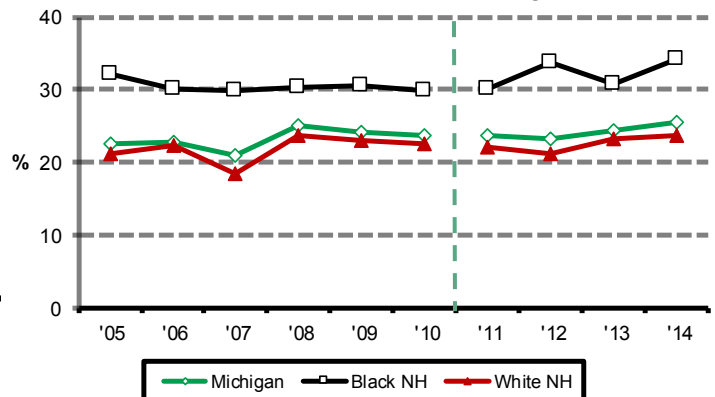
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Fruit and Vegetable Consumption

A healthy diet rich in fruits and vegetables may reduce the risk of cancer and other chronic conditions.[25] The fruit and vegetable consumption indicator is defined as consuming fruits (including 100% fruit juice, and fresh, frozen, and canned fruit) and vegetables (including cooked or canned beans, dark green vegetables, orange-colored vegetables, and other vegetables) on an average of five or more times per day.

♦ In 2013, an estimated 37.7% of Black, non-Hispanic adults reported consuming fruit less than one time per day, similar to all adults in Michigan (37.7% [95% CI: 36.5-38.9]). The prevalence of low vegetables consumption was significantly higher among Black adults (36.5%) than all adults statewide (24.8% [95% CI: 23.6-25.9]).

♦ An estimated 15.8% of Black, non-Hispanic adults (95% CI: 13.1-19.0) reported consuming fruits and vegetables five or more times per day, similar to 15.3% of all adults in Michigan adults (95% CI: 14.5-16.2).

♦ Both fruit and vegetable consumption improved with increasing age and education level, even though not all differences were significant.

♦ Although Black males were more likely than Black females to have low vegetable consumption, there was no difference by gender for fruit consumption.

♦ In 2013, the prevalence of low fruit consumption among Black, non-Hispanic adults (37.7%) did not significantly differ from that of all of the other race/ethnicities in Michigan.

2013 MiBRFS Black, non-Hispanic Demographic Characteristics	Fruits (< 1 Time / Day)[a]		Vegetables (< 1 Time / Day)[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**37.7**	**(33.7-41.9)**	**36.5**	**(32.4-40.8)**
Age				
18 - 44	40.8	(34.5-47.4)	41.5	(35.0-48.3)
45 - 64	36.9	(30.8-43.4)	31.4	(25.7-37.7)
65+	28.9	(21.9-37.1)	31.5	(24.0-40.1)
Gender				
Male	38.5	(32.2-45.2)	42.9	(36.3-49.9)
Female	37.1	(32.1-42.4)	31.0	(26.2-36.2)
Education				
HS graduate or less	40.2	(33.7-47.0)	40.9	(34.3-47.8)
Some college or more	35.3	(30.5-40.4)	32.2	(27.3-37.5)
Household Income				
< $25,000	36.2	(30.4-42.5)	41.1	(34.7-47.8)
$25,000 - $49,999	38.6	(30.8-47.1)	33.5	(25.9-42.1)
$50,000+	34.7	(27.0-43.4)	23.7	(17.2-31.7)
Health Insurance				
Insured	36.8	(32.4-41.4)	34.4	(30.1-39.0)
Uninsured	41.8	(32.2-52.1)	43.8	(33.7-54.5)
Disability				
Not Disabled	35.5	(30.9-40.4)	35.9	(31.1-40.9)
Disabled	42.9	(35.0-51.2)	38.1	(30.4-46.5)

[a] Among all Black, non-Hispanic adults, the proportion whose total reported consumption of fruits (including juice) was less than one time per day. (N = 951)
[b] Among all Black, non-Hispanic adults, the proportion whose total reported consumption of vegetables was less than one time per day. (N = 933)

♦ In 2013, Black, non-Hispanic adults (36.5%) reported a significantly higher prevalence of low vegetable consumption compared to White, non-Hispanic adults (22.6%). The prevalence among Black adults did not significantly differ from Other, non-Hispanics and Hispanics in Michigan.

Low Fruit Consumption (< 1 Time / Day) by Race/Ethnicity, Michigan, 2013
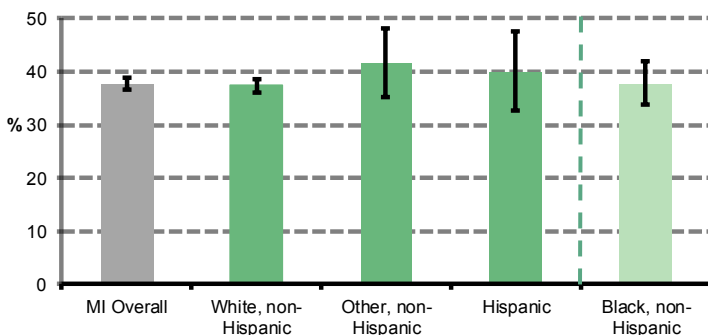
Low Vegetable Consumption (< 1 Time / Day) by Race/Ethnicity, Michigan, 2013
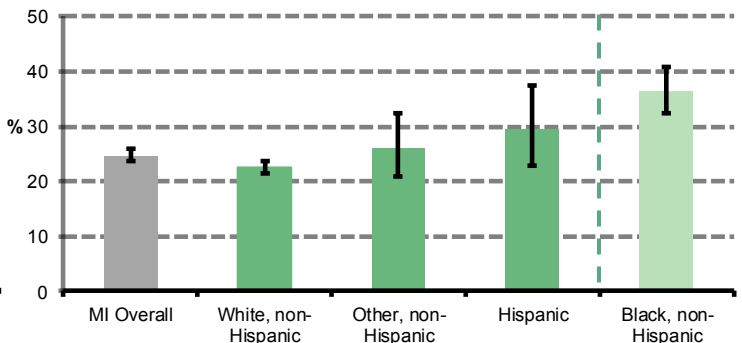
Access to Fresh Fruits and Vegetables

It's important to consider the role social and environmental factors may play in fruit and vegetable consumption and the development of conditions such as obesity, no leisure physical activity, diabetes, and high blood pressure. When it's difficult to access or find a good selection of fresh fruits and vegetables in one's community, eating healthy becomes more challenging.

♦ In 2013, an estimated 18.3% of Black, non-Hispanic adults in Michigan reported that transportation was always, usually, or sometimes a problem in getting fresh fruits and vegetables. This was significantly higher compared to 8.1% of all adults in Michigan (95% CI: 7.2-9.1).

♦ In 2013, an estimated 18.8% of Black adults in Michigan reported that they disagreed or strongly disagreed that it was easy to find fresh fruits and vegetables in their community or neighborhood, also significantly higher compared to 7.2% of all adults in Michigan (95% CI: 6.4-8.2).

♦ Black adults with a high school degree or less (26.2%) were significantly more likely to report transportation was a barrier with getting fresh fruits and vegetables compared to Black adults with some college education or more (10.8%).

♦ Disabled Black adults (35.5%) were significantly more likely to have reported that transportation was a barrier with getting fresh fruits and vegetables than non-disabled Black adults (11.9%).

♦ In 2013, Black, non-Hispanic adults (18.3%) were over three times more likely to report that transportation was a barrier with getting fresh fruits and vegetables compared to White, non-Hispanic adults in Michigan (6.0%) (Hispanic data not available).

| 2013 MiBRFS Black, non-Hispanic Demographic Characteristics	Transportation a Barrier with Getting Fresh Fruits and Vegetables[a]		Disagreed that Finding Fresh Fruits and Vegetables in Community Was Easy[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**18.3**	**(14.3-23.0)**	**18.8**	**(14.4-24.2)**
Age				
18 - 44	16.4	(10.5-24.7)	22.8	(15.4-32.5)
45 - 64	21.3	(15.4-28.6)	15.9	(11.1-22.3)
65+	16.9	(10.7-25.8)	12.5	(7.8-19.5)
Gender				
Male	14.3	(9.4-21.0)	19.8	(12.9-29.1)
Female	21.7	(16.1-28.6)	18.0	(13.0-24.5)
Education				
HS graduate or less	26.2	(19.2-34.7)	22.7	(15.3-32.4)
Some college or more	10.8	(7.6-15.2)	15.2	(11.1-20.3)
Household Income				
< $25,000	30.3	(23.1-38.6)	15.2	(9.6-23.3)
$25,000 - $49,999	--[c]	---	11.1	(6.4-18.5)
$50,000+	--[c]	---	19.2	(11.5-30.4)
Health Insurance				
Insured	18.9	(14.4-24.3)	21.1	(16.1-27.1)
Uninsured	15.9	(8.7-27.1)	--[c]	---
Disability				
Not Disabled	11.9	(8.0-17.4)	18.4	(13.2-25.2)
Disabled	35.5	(26.7-45.4)	19.6	(12.8-28.8)

[a] Among all Black, non-Hispanic adults, the proportion reporting transportation is always, usually, or sometimes a problem in getting fresh fruits and vegetables. (N = 638)
[b] Among all Black, non-Hispanic adults, the proportion reporting that they disagreed or strongly disagreed that it was easy to find fresh fruits and vegetables in their community or neighborhood. (N = 639)
[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

♦ In 2013, Black, non-Hispanic adults (18.8%) were nearly four times more likely to report disagreeing that finding fresh fruits and vegetables in their community was easy compared to White, non-Hispanic adults (5.1%) in Michigan.

Transportation a Barrier with Getting Fresh Fruits & Vegetables by Race/Ethnicity, Michigan, 2013
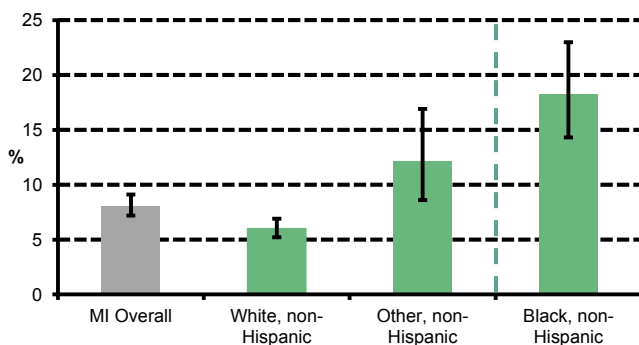
Disagreed that it is Easy to Find Fresh Fruits & Vegetables in Community by Race/Ethnicity, Michigan, 2013
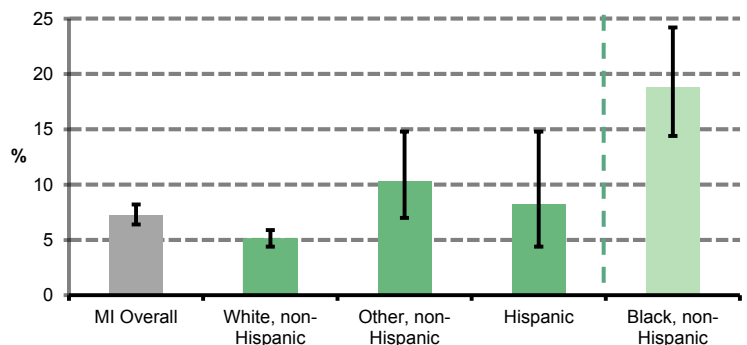
In the US, most households have access to adequate food that allows for active, healthy living. However, there are some households that don't have enough food, often due to a lack of money or other resources. At the national level, households headed by Black, non-Hispanics reported lacking access (e.g. money or other resources) to adequate food more than two times more often than White, non-Hispanic households.[26] Cheaper foods are often higher in calories and unhealthy, often contributing to weight gain. Increased stress by way of financial difficulties can also ultimately result in differences in underlying health status.[12]

♦ In 2013, an estimated 18.5% of Black, non-Hispanic adults in Michigan reported that they often or sometimes do not have enough food to eat in their household in the past 12 months, significantly higher compared to 7.7% of all adults in Michigan (95% CI: 6.4-9.1). Black adults were over two times more likely to report not having enough food to eat in their household compared to all adults in Michigan.

♦ Although Black adults with a high school degree or less were more likely to report not having enough food to eat than Black adults with some college or more, the difference was not significant.

♦ Disabled Black adults (31.1%) were almost three times more likely to report not having enough food to eat in their household compared to non-disabled Black adults (12.0%), although the difference was not significant.

♦ In 2013, Black, non-Hispanic adults (18.5%) reported a significantly higher prevalence of not having enough food to eat in their household compared to White, non-Hispanics (5.4%). The prevalence among Blacks did not significantly differ from that of Other, non-Hispanics in Michigan (Hispanic data not available).

2013 MiBRFS Black, non-Hispanic Demographic Characteristics	Don't Have Enough Food to Eat in Household[a]	
	%	95% Confidence Interval
Total	**18.5**	**(12.8-26.1)**
Age		
18 - 44	22.4	(13.7-34.6)
45 - 64	18.2	(9.8-31.2)
65+	--[b]	---
Gender		
Male	--[b]	---
Female	22.0	(14.2-32.5)
Education		
HS graduate or less	25.8	(15.8-39.2)
Some college or more	11.0	(6.5-18.2)
Household Income		
< $25,000	26.3	(17.2-37.9)
$25,000 - $49,999	--[b]	---
$50,000+	--[b]	---
Health Insurance		
Insured	19.2	(12.8-27.7)
Uninsured	--[b]	---
Disability		
Not disabled	12.0	(7.2-19.4)
Disabled	31.1	(18.7-47.1)

[a] Among all Black, non-Hispanic adults, the proportion who reported sometimes or often not having enough food to eat in their household in the last 12 months. (N = 267)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.
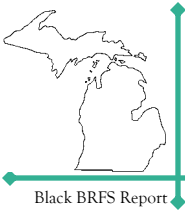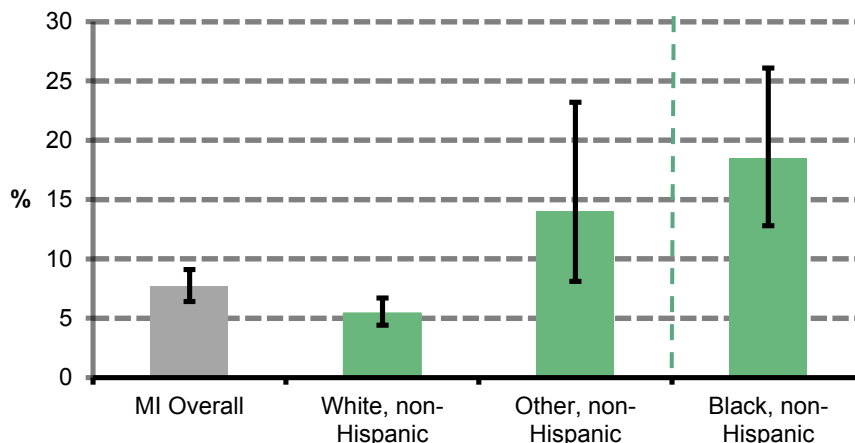

Don't Have Enough Food to Eat in Household by Race/Ethnicity, Michigan, 2013

Cigarette Smoking

Cigarette smoking is the leading cause of preventable death in the US, accounting for more than 480,000 deaths each year.[27] Nationwide, the prevalence of current smoking reported by Black, non-Hispanics and White, non-Hispanics is similar.

- In 2013-2014, an estimated 24.1% of Black, non-Hispanic adults reported that they currently smoke cigarettes on a regular basis, compared to 21.3% (95% CI: 20.5-22.1) of all Michigan adults.

- Although Black males reported a higher prevalence of cigarette smoking than Black females, the difference was not significant.

- The prevalence of current smoking decreased with increasing education and household income level.

- Black adults without health insurance (38.3%) and disabled (32.4%) were significantly more likely to report currently smoking than Black adults with health insurance (20.9%) and not disabled (20.9%).

- In 2013-2014, Black, non-Hispanic adults (24.1%) were more likely to report currently smoking than White, non-Hispanics (20.3%). The prevalence of smoking among Blacks did not significantly differ from Other, non-Hispanics and Hispanics in Michigan.

- Since 2011, there has been a general decline in the prevalence of current smoking among Black, non-Hispanics as well as White, non-Hispanics and all adults in Michigan.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Current Smoking[a]	
	%	95% Confidence Interval
Total	**24.1**	**(21.5-27.0)**
Age		
18 - 44	23.0	(18.9-27.7)
45 - 64	30.6	(26.4-35.1)
65+	12.9	(8.9-18.3)
Gender		
Male	27.1	(23.0-31.6)
Female	21.6	(18.3-25.4)
Education		
HS graduate or less	33.2	(28.7-38.0)
Some college or more	15.3	(12.7-18.2)
Household Income		
< $25,000	33.4	(28.9-38.1)
$25,000 - $49,999	19.7	(15.1-25.2)
$50,000+	10.6	(7.4-15.0)
Health Insurance		
Insured	20.9	(18.2-23.9)
Uninsured	38.3	(31.0-46.2)
Disability		
Not disabled	20.9	(18.0-24.2)
Disabled	32.4	(27.0-38.4)

[a] Among all Black, non-Hispanic adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days. (N = 1,818)

Current Cigarette Smoking by Race/Ethnicity, Michigan, 2013-2014
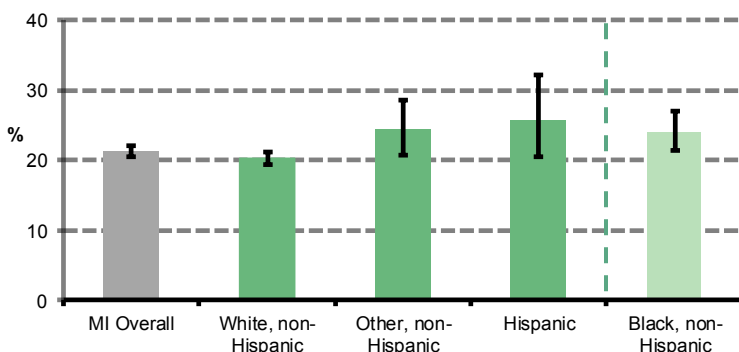
Current Cigarette Smoking, All Adults vs. White and Black Adults, Michigan 2005-2014
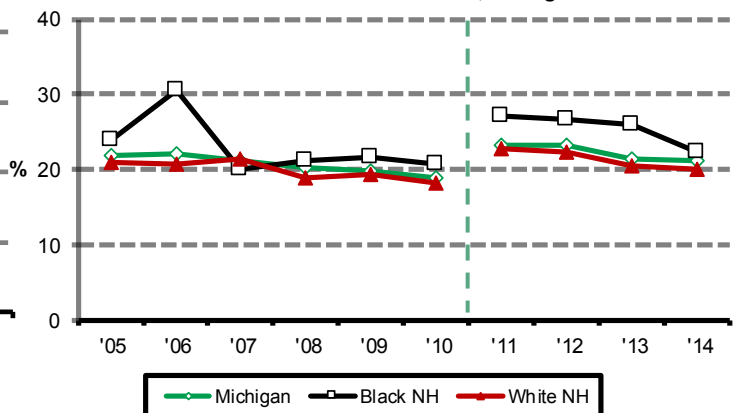
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Secondhand Smoke Exposure

Among adults who have never smoked, secondhand smoke exposure causes an estimated 34,000 heart disease deaths and 7,300 lung cancer deaths within the US each year.[27]

♦ In 2013-2014, an estimated 37.2% of Black, non-Hispanic adults reported that they were exposed to secondhand smoke in their home or car within the past seven days. This was significantly higher compared to 25.8% (95% CI: 24.7-26.9) of all Michigan adults.

♦ Although Black males reported a higher prevalence of secondhand smoke exposure than Black females, the difference was not significant.

♦ The prevalence of current smoking decreased with increasing age as well as education and household income level.

♦ Over half (51.6%) of Black adults without health insurance reported secondhand smoke exposure, significantly higher than Black adults with health insurance (34.5%).

♦ In 2013-2014, Black, non-Hispanic adults (37.2%) were significantly more likely to report secondhand smoke exposure compared to White, non-Hispanics (23.3%). The prevalence of secondhand smoke exposure among Black, non-Hispanics did not significantly differ from Other, non-Hispanics and Hispanics in Michigan.

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Secondhand Smoke Exposure[a]	
	%	95% Confidence Interval
Total	**37.2**	**(33.2-41.4)**
Age		
18 - 44	42.4	(35.8-49.2)
45 - 64	37.6	(31.9-43.6)
65+	19.7	(14.1-26.9)
Gender		
Male	41.1	(34.9-47.7)
Female	33.9	(28.9-39.3)
Education		
HS graduate or less	49.3	(43.0-55.6)
Some college or more	25.9	(21.3-31.0)
Household Income		
< $25,000	48.8	(42.5-55.2)
$25,000 - $49,999	27.8	(20.9-35.8)
$50,000+	16.2	(11.2-22.8)
Health Insurance		
Insured	34.5	(30.3-39.0)
Uninsured	51.6	(40.8-62.2)
Disability		
Not disabled	34.5	(29.8-39.5)
Disabled	45.6	(38.3-53.1)

[a] Among all Black, non-Hispanic adults, the proportion who reporting being exposed to secondhand smoke in their home or a car within the past seven days. (N = 1,135)

Secondhand Smoke Exposure by Race/Ethnicity, Michigan, 2013-2014
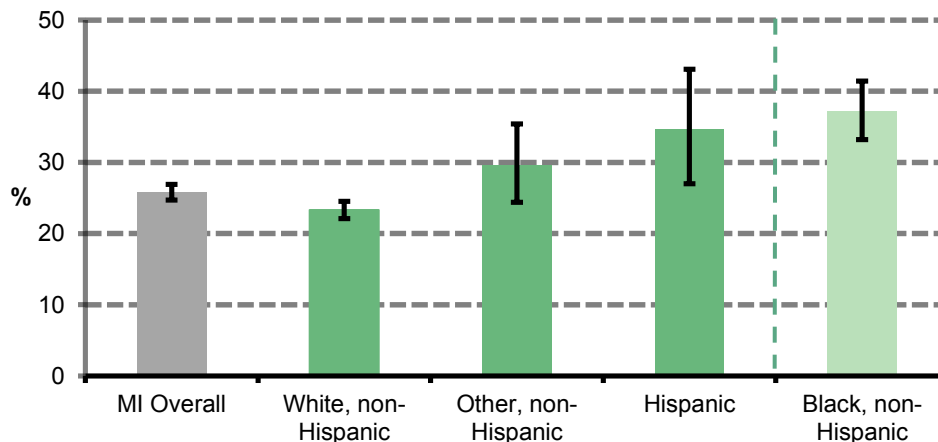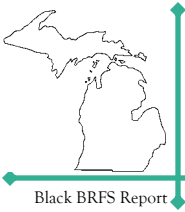
Alcohol Consumption

Alcohol abuse has been associated with serious health problems, such as cirrhosis of the liver, high blood pressure, stroke, and some types of cancer.[28] It can also increase the risk for motor vehicle accidents, injuries, violence, and suicide.[28] Binge drinking is defined as consuming five or more alcoholic drinks per occasion (for men) or four or more alcoholic drinks per occasion (for women) at least once in the past month.

- In 2013-2014, an estimated 49.3% (95% CI: 46.3-52.3) of Black, non-Hispanic adults in Michigan reported some form of alcohol consumption within the past month, significantly less than 56.8% (95% CI: 55.8-57.7) of all Michigan adults.

- In 2013-2014, an estimated 13.8% of Black adults in Michigan reported binge drinking on at least one occasion within the past month, significantly lower than all adults in Michigan (18.9% [95% CI: 18.2-19.7]).

- Reported binge drinking among Black adults was similar by gender and disability status.

- Although the prevalence of reported binge drinking among Black adults generally decreased with increasing education and household income level, differences were not significant.

- Black adults without health insurance (20.8%) were significantly more likely to report binge drinking compared to Black adults with health insurance (12.2%).

- In 2013-2014, the prevalence of binge drinking among Black, non-Hispanic adults (13.8%) was significantly lower compared to White, non-Hispanics (19.5%) and Hispanics (26.1%) in Michigan.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Binge Drinking[a]	
	%	95% Confidence Interval
Total	**13.8**	**(11.7-16.3)**
Age		
18 - 44	17.5	(14.0-21.7)
45 - 64	13.2	(10.2-16.9)
65+	--[b]	---
Gender		
Male	14.2	(11.0-18.1)
Female	13.5	(10.9-16.7)
Education		
HS graduate or less	15.8	(12.4-19.9)
Some college or more	12.0	(9.7-14.8)
Household Income		
< $25,000	18.4	(14.8-22.7)
$25,000 - $49,999	8.4	(5.6-12.5)
$50,000+	11.2	(7.8-16.0)
Health Insurance		
Insured	12.2	(10.1-14.7)
Uninsured	20.8	(14.9-28.4)
Disability		
Not disabled	13.9	(11.5-16.7)
Disabled	13.6	(9.6-19.0)

[a] Among all Black, non-Hispanic adults, the proportion who reported consuming five or more drinks per occasion (for males) or four or more drinks per occasion (for women) at least once in the previous month. (N = 1,794)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

- Since 2005, the prevalence of binge drinking among Black, non-Hispanic adults has consistently been lower compared to White, non-Hispanics and all adults in Michigan, although not all differences have been significant.

Binge Drinking by Race/Ethnicity, Michigan, 2013-2014
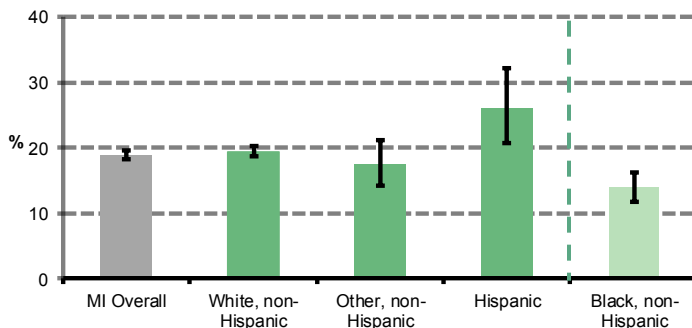
Binge Drinking, All Adults vs. White and Black Adults, Michigan, 2005-2014
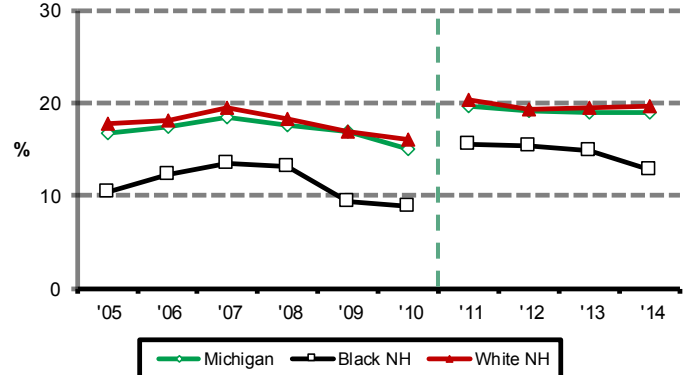
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Inadequate Sleep

Inadequate sleep is a serious public health problem that has been linked to motor vehicle crashes, industrial disasters, and chronic conditions such as diabetes, cardiovascular disease, obesity, and depression.[29] Inadequate sleep was defined as less than eight hours per night for adults 18-21 years, and less than seven hours for adults aged 22 years and older.
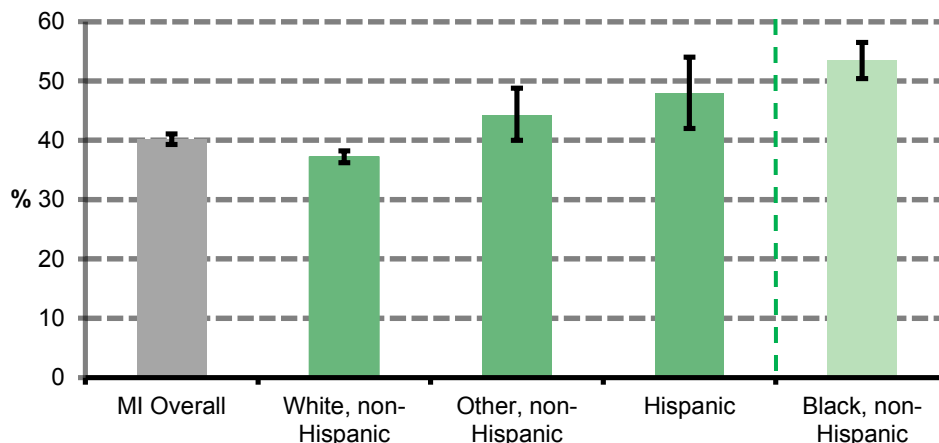
♦ In 2013-2014, an estimated 53.5% of Black, non-Hispanic adults in Michigan reported getting less than an adequate amount of sleep on an average night, significantly higher than 40.2% (95% CI: 39.3-41.1) of all Michigan adults.

♦ The prevalence of inadequate sleep among Black adults was lowest among the 65 years and older age group but relatively similar by gender.

♦ Although the prevalence of inadequate sleep generally decreased with increasing household income level, differences were not significant.

♦ Black disabled adults (65.1%) were significantly more likely to report inadequate sleep than non-disabled Black adults (48.7%).

♦ In 2013-2014, Black, non-Hispanic adults reported a significantly higher prevalence of inadequate sleep (53.5%) compared to White, non-Hispanic (37.2%) and Other, non-Hispanic adults (44.3%) in Michigan. The prevalence among Black adults did not differ from that of Hispanics.

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Inadequate Sleep[a]	
	%	95% Confidence Interval
Total	**53.5**	**(50.4-56.5)**
Age		
18 - 44	54.4	(49.6-59.2)
45 - 64	56.8	(52.4-61.2)
65+	42.4	(36.5-48.4)
Gender		
Male	56.0	(51.3-60.6)
Female	51.3	(47.4-55.2)
Education		
HS graduate or less	53.5	(48.7-58.1)
Some college or more	53.4	(49.6-57.2)
Household Income		
< $25,000	56.8	(52.1-61.4)
$25,000 - $49,999	55.4	(49.3-61.4)
$50,000+	47.2	(41.2-53.3)
Health Insurance		
Insured	52.5	(49.2-55.8)
Uninsured	57.3	(49.8-64.6)
Disability		
Not disabled	48.7	(45.1-52.3)
Disabled	65.1	(59.7-70.2)

[a] Among Black, non-Hispanic adults aged 18-21 years, the proportion who reporting an average sleep time of less than eight hours per night, and among Black, non-Hispanic adults aged 22 years and older, the proportion reporting an average sleep time of less than seven hours per night. (N = 1,819)

Inadequate Sleep by Race/Ethnicity, Michigan, 2013-2014

Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

20

Hypertension Awareness and Medication Use

Adults with high blood pressure are at a higher risk for heart disease, stroke, chronic heart failure, and kidney disease.[30] In the US, the prevalence of high blood pressure is higher among Black, non-Hispanic adults compared to White, non-Hispanic and Hispanic adults.[31]

♦ In 2013, an estimated 42.0% of Black, non-Hispanic adults reported ever being told by a doctor that they had high blood pressure (HBP). This was significantly higher compared to 34.6% (95% CI: 33.5-35.7) of all Michigan adults in 2013.

♦ In 2013, an estimated 76.3% (95% CI: 70.4-81.3) of Black adults with HBP were currently taking medications for their HBP similar to 75.7% (95% CI: 73.8-77.5) of all Michigan adults in 2013.

♦ The prevalence of HBP among Black adults increased significantly with age but was similar by gender.

♦ Although the prevalence of HBP generally decreased with increasing education level and household income level, the differences were not significant.

♦ Black adults that were insured (46.4%) and disabled (62.7%) were significantly more likely to report HBP than Black adults that were uninsured (27.6%) and not disabled (33.5%).

♦ In 2013, Black adults (42.0%) reported a significantly higher prevalence of HBP than all of the other race/ethnicity groups in Michigan [White, non-Hispanic (34.3%), Other, non-Hispanic (24.8%), Hispanic (23.5%)].

♦ Since 2005, Black, non-Hispanics have consistently had a higher prevalence of reported HBP than all adults and White, non-Hispanic adults in Michigan.

| 2013 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Told HBP[a]	
	%	95% Confidence Interval
Total	**42.0**	**(38.1-46.0)**
Age		
18 - 44	22.9	(18.0-28.6)
45 - 64	53.3	(47.1-59.5)
65+	85.2	(79.2-89.6)
Gender		
Male	42.2	(36.0-48.6)
Female	41.9	(37.0-47.0)
Education		
HS graduate or less	45.9	(39.8-52.2)
Some college or more	37.8	(33.1-42.6)
Household Income		
< $25,000	42.9	(37.0-49.0)
$25,000 - $49,999	46.8	(38.7-55.0)
$50,000+	37.3	(30.0-45.2)
Health Insurance		
Insured	46.4	(42.0-50.9)
Uninsured	27.6	(20.3-36.4)
Disability		
Not disabled	33.5	(29.3-38.0)
Disabled	62.7	(54.7-70.0)

[a] Among all Black, non-Hispanic adults, the proportion who reported that they were ever told by a doctor that they had high blood pressure (HBP). Women who had HBP only during pregnancy and adults who were borderline hypertensive were considered to not have been diagnosed. (N = 1,049)

Ever Told High Blood Pressure by Race/Ethnicity, Michigan, 2013
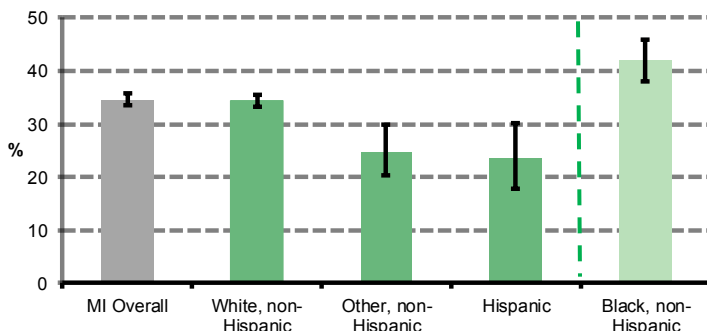
Ever Told High Blood Pressure, All Adults vs. White and Black Adults, Michigan, 2005-2013
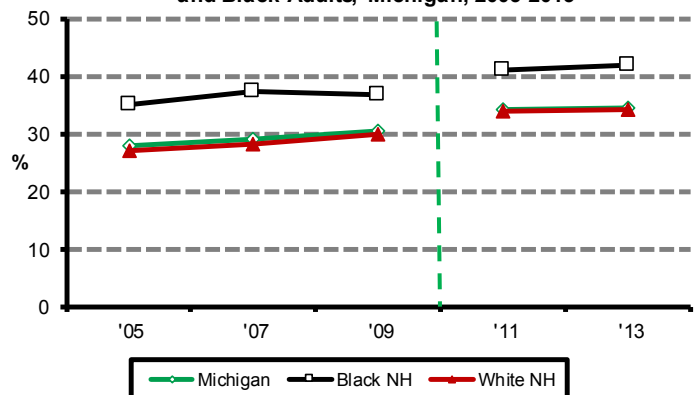
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Routine Checkup in Past Year

A yearly routine checkup is a great way to remain proactive about one's health. The benefits of having an annual checkup include early diagnosis and treatment of existing conditions and prevention of future medical problems.[13]

♦ In 2013-2014, an estimated 78.9% of Black, non-Hispanic adults Michigan reported having a routine medical checkup within the past year, significantly higher than 70.8% of all Michigan adults (95% CI: 70.0-71.7).

♦ The prevalence of having a routine checkup within the past year increased with age and was higher among Black females than Black males.

♦ Although the prevalence of having a routine checkup generally increased with increasing household income level, differences were not significant.

♦ Insured Black adults (83.8%) were significantly more likely to report having had a routine checkup within the past year than uninsured Black adults (56.8%).

♦ In 2013-2014, Black, non-Hispanic adults (78.9%) were significantly more likely to report having a routine medical checkup in the past year compared to all of the other racial/ethnic groups in Michigan [White, non-Hispanic (70.0%), Other, non-Hispanic (64.8%), Hispanic (67.4%)].

♦ Since 2005, Black, non-Hispanic adults have consistently reported a higher prevalence of having had a routine medical checkup compared to White, non-Hispanics and all adults in Michigan.

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Had a Routine Checkup Within The Past Year[a]	
	%	95% Confidence Interval
Total	**78.9**	**(76.3-81.2)**
Age		
18 - 44	72.8	(68.4-76.8)
45 - 64	81.7	(78.0-85.0)
65+	91.8	(87.9-94.5)
Gender		
Male	74.1	(69.7-78.1)
Female	82.8	(79.8-85.5)
Education		
HS graduate or less	78.7	(74.6-82.3)
Some college or more	78.9	(75.7-81.8)
Household Income		
< $25,000	75.7	(71.4-79.5)
$25,000 - $49,999	80.2	(74.6-84.9)
$50,000+	83.8	(79.0-87.7)
Health Insurance		
Insured	83.8	(81.2-86.1)
Uninsured	56.8	(49.3-64.0)
Disability		
Not disabled	76.7	(73.6-79.6)
Disabled	83.4	(78.3-87.5)

[a] Among all Black, non-Hispanic adults, the proportion who reported that they had a routine medical checkup within the past year. (N = 1,867)

Routine Checkup by Race/Ethnicity, Michigan, 2013-2014
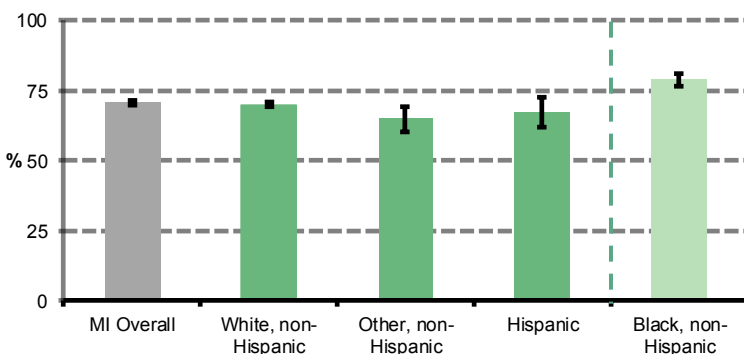
Routine Checkup, All Adults vs. White and Black Adults, Michigan, 2005-2014
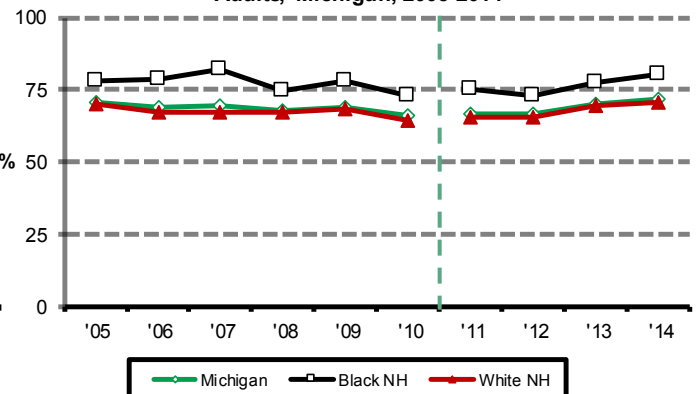
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.
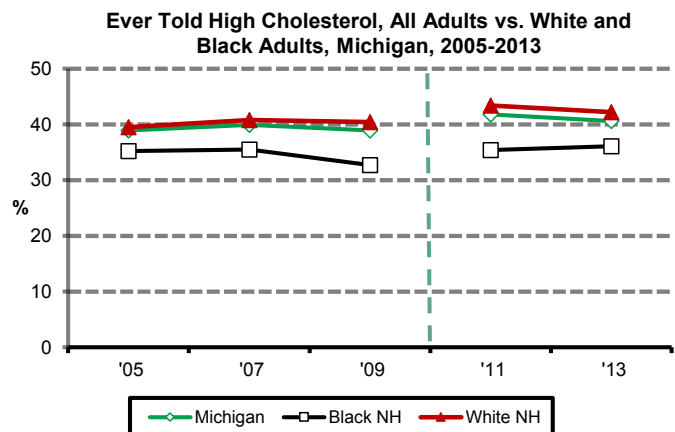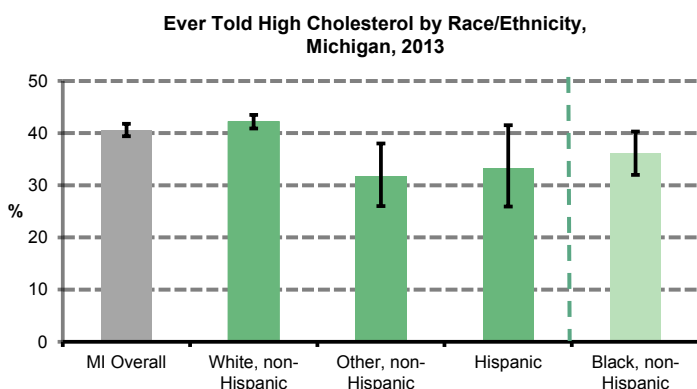
Cholesterol Screening and Awareness

High blood cholesterol is a major risk factor for coronary heart disease, the leading cause of death in the US for all adults and Blacks.[32-33]

♦ In 2013, an estimated 79.0% of Black, non-Hispanic adults reported having their cholesterol checked within the past five years. This was similar to 79.4% (95% CI: 78.3-80.5) of all Michigan adults in 2013.

♦ In 2013, among Black adults in Michigan who have ever had their cholesterol checked, an estimated 36.1% have been told by a doctor that they had high blood cholesterol. This was also similar to 40.6% (95% CI: 39.4-41.8) of all adults in Michigan in 2013.

♦ Both cholesterol indicators increased with increasing age but was similar by gender.

♦ Insured Black adults (84.5% and 40.2%, respectively) were significantly more likely to report having a cholesterol screening in the past five years and high cholesterol than Black adults that were uninsured (60.3% and 16.7%, respectively).

♦ Disabled Black adults (87.6% and 46.7%, respectively) were significantly more likely to report having their cholesterol checked within the past five years as well as high cholesterol than non-disabled Black adults (75.6% and 29.7%, respectively).

♦ In 2013, Black, non-Hispanic adults (36.1%) reported a significantly lower prevalence of high cholesterol than White, non-Hispanics in Michigan (42.2%). The prevalence among Blacks did not differ from Other, non-Hispanics or Hispanics.

2013 MiBRFS Black, non-Hispanic Demographic Characteristics	Cholesterol Checked in the Past 5 Years[a]		Ever Told High Cholesterol[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**79.0**	**(75.1-82.5)**	**36.1**	**(32.0-40.3)**
Age				
18 - 44	68.4	(61.8-74.2)	18.0	(13.0-24.5)
45 - 64	87.0	(81.7-91.0)	44.9	(38.7-51.4)
65+	--[c]	---	60.8	(52.0-69.0)
Gender				
Male	78.5	(72.4-83.6)	34.1	(27.8-41.0)
Female	79.4	(74.2-83.9)	37.8	(32.8-43.1)
Education				
HS graduate or less	76.5	(70.2-81.8)	37.5	(31.1-44.4)
Some college or more	81.6	(76.8-85.6)	34.8	(30.0-39.9)
Household Income				
< $25,000	76.1	(69.9-81.3)	37.7	(31.4-44.5)
$25,000 - $49,999	85.4	(78.4-90.4)	35.8	(28.1-44.4)
$50,000+	89.3	(81.9-93.9)	33.9	(26.9-41.7)
Health Insurance				
Insured	84.5	(80.4-87.9)	40.2	(35.7-44.9)
Uninsured	60.3	(50.5-69.3)	16.7	(10.4-25.7)
Disability				
Not Disabled	75.6	(70.7-79.9)	29.7	(25.3-34.4)
Disabled	87.6	(80.3-92.4)	46.7	(38.7-54.8)

[a] Among all Black, non-Hispanic adults, the proportion reporting that they had their blood cholesterol checked within the past five years. (N = 1,014)
[b] Among all Black, non-Hispanic adults who had their blood cholesterol checked, the proportion reporting that a doctor, nurse, or other health professional had told them that their cholesterol was high. (N = 869)
[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

♦ Since 2005, Black, non-Hispanics have consistently had a lower prevalence of reported high cholesterol than White, non-Hispanic adults and all adults in Michigan, although not all of the differences have been significant.

Ever Told High Cholesterol by Race/Ethnicity, Michigan, 2013

Ever Told High Cholesterol, All Adults vs. White and Black Adults, Michigan, 2005-2013

Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Breast Cancer Screening

Breast cancer is currently the second leading cause of cancer deaths among all women and Black women in the US.[34-35] In 2014, there were 1,460 deaths among Michigan women due to breast cancer, second only to that of lung cancer.[36] Early detection of breast cancer can occur through the use of screening tools such as mammography and clinical breast exams.

♦ In 2014, an estimated 80.0% of Black, non-Hispanic women 40 years and older reported having a mammogram within the past two years, while 48.7% reported having both a clinical breast exam and a mammogram within the past year. This was similar to the prevalences among all women aged 40 years and older in Michigan (75.9% [95% CI: 74.1-77.6], 47.8% [95% CI: 45.8-49.8] respectively).

♦ Although breast cancer screening measures among Black women increased with education level, differences were not significant.

♦ In 2014, the prevalence of Black women aged 40 years and older (80.0%) who reported having a mammogram within the past two years did not significantly differ from White, non-Hispanic or Other, non-Hispanic women in Michigan (data for Hispanics not available).

♦ In 2014, the prevalence of Black, non-Hispanic women that had a clinical breast exam and mammogram in the past year did not significantly differ from women in any of the other racial/ethnic groups in Michigan (data not shown).

| 2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Had Mammogram in Past Two Years Among Women Aged 40 Years and Older[a]		Had Clinical Breast Exam and Mammogram in Past Year Among Women Aged 40 Years and Older[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**80.0**	**(74.0-84.9)**	**48.7**	**(41.9-55.6)**
Age				
40 - 49	73.9	(59.8-84.3)	41.6	(28.6-56.0)
50 - 59	79.8	(68.9-87.6)	46.7	(35.3-58.4)
60 - 69	--[c]	---	64.3	(51.7-75.2)
70 +	78.4	(66.0-87.2)	47.8	(35.5-60.3)
Education				
HS graduate or less	77.0	(66.8-84.7)	40.4	(30.6-51.1)
Some college or more	83.1	(76.1-88.4)	57.5	(49.4-65.3)
Household Income				
< $25,000	73.2	(63.0-81.4)	37.2	(27.7-47.7)
$25,000 - $49,999	--[c]	---	65.6	(53.2-76.1)
$50,000+	--[c]	---	58.8	(45.0-71.3)
Health Insurance				
Insured	82.4	(76.3-87.2)	51.7	(44.4-59.0)
Uninsured	--[c]	---	--[c]	---
Disability				
Not Disabled	79.0	(70.8-85.3)	50.2	(41.2-59.3)
Disabled	82.0	(73.3-88.3)	45.7	(35.9-55.8)

[a] Among Black, non-Hispanic women aged 40 years and older, the proportion who reported having a mammogram within the past two years. (N = 366)
[b] Among Black, non-Hispanic women aged 40 years and older, the proportion who reported having a clinical breast exam and a mammogram within the past year. (N = 364)
[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

♦ Since 2004, the prevalence of having a clinical breast exam and mammogram in the past year has generally been lower among Black, non-Hispanic women than White, non-Hispanic or all women in Michigan, although not all differences have been significant.

Had a Mammogram in the Past Two Years Among Women Aged 40 Years and Older by Race/Ethnicity, Michigan, 2014
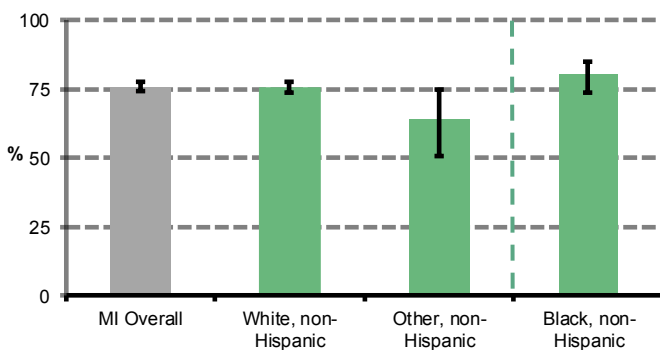
Had Clinical Breast Exam and Mammogram in Past Year, All Women vs. White and Black Women, Michigan, 2004-2014
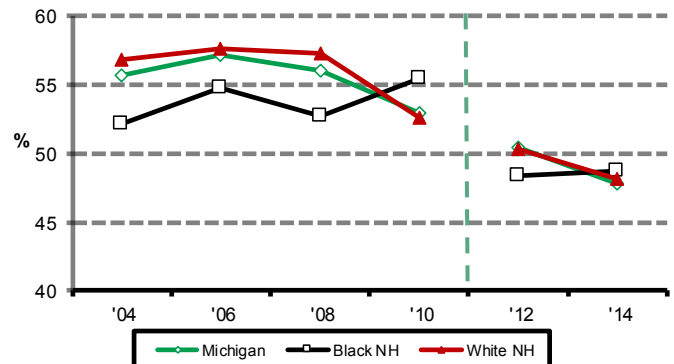
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Cervical Cancer Screening

Current guidelines for cervical cancer screening recommend that women aged 21 to 65 years of age receive a Pap test at least every three years. Women aged 30 to 65 years of age can also choose to lengthen their testing interval by having a Pap test and HPV testing combined every five years.[37]

♦ In 2014, an estimated 80.7% of Black, non-Hispanic women aged 18 years and older reported having had a Pap test within the past three years, compared to 74.9% (95% CI: 72.8-76.9) of all Michigan women aged 18 years and older.

♦ In 2014, an estimated 91.0% (95% CI: 85.7-94.4) of Black women 18 years and older reported ever having a Pap test similar to 88.9% (95% CI: 87.0-90.5) of all women 18 years and older in Michigan.

♦ Black women aged 45 to 64 years reported the highest prevalence of having had a Pap test in the past three years compared to the other age groups, although differences by age were not significant.

♦ The prevalence of appropriate cervical cancer screening was similar by education level and disability status.

♦ In 2014, the prevalence of Black women (80.7%) aged 18 years and older that reported having had a Pap test within the past three years was significantly higher than Other, non-Hispanic women (59.9%) but did not differ from White, non-Hispanic women (74.4%) in Michigan (Hispanic data not available).

| 2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Had Appropriately Timed Pap Test[a]	
	%	95% Confidence Interval
Total	**80.7**	**(74.8-85.5)**
Age		
18 - 44	80.1	(71.5-86.6)
45 - 64	87.0	(78.5-92.5)
65+	65.8	(49.8-78.8)
Education		
HS graduate or less	80.4	(70.1-87.8)
Some college or more	80.9	(73.5-86.6)
Household Income		
< $25,000	78.1	(69.5-84.8)
$25,000 - $49,999	--[b]	---
$50,000+	--[b]	---
Health Insurance		
Insured	83.1	(77.1-87.8)
Uninsured	--[b]	---
Disability		
Not disabled	81.6	(74.7-86.9)
Disabled	77.1	(64.4-86.3)

Note: Data includes diagnostic tests and excludes women who have had a hysterectomy.
[a] Among Black, non-Hispanic women aged 18 years and older, the proportion who reported having a Pat test within the previous three years. (N = 310)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

♦ Since 2004, Black, non-Hispanic women have consistently reported a higher prevalence of having had a Pap test in the past three years compared to White, non-Hispanic women and all women in Michigan, although not all differences have been significant.
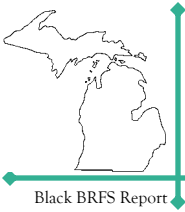

Had a Pap Test in the Past Three Years Among Women Aged 18 Years and Older by Race/Ethnicity, Michigan, 2014
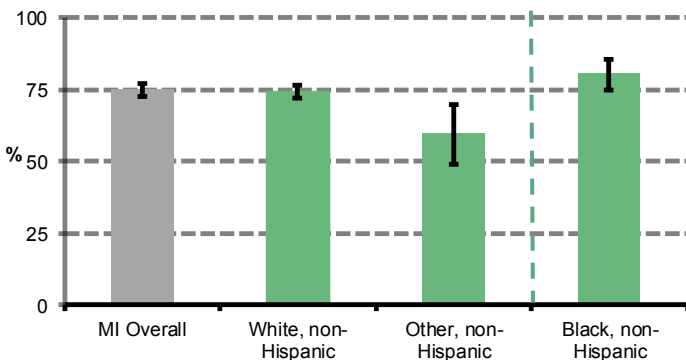
Had a Pap Test in the Past Three Years Among Women 18 Years and Older, All Adults vs. White and Black Adults, Michigan, 2004-2014
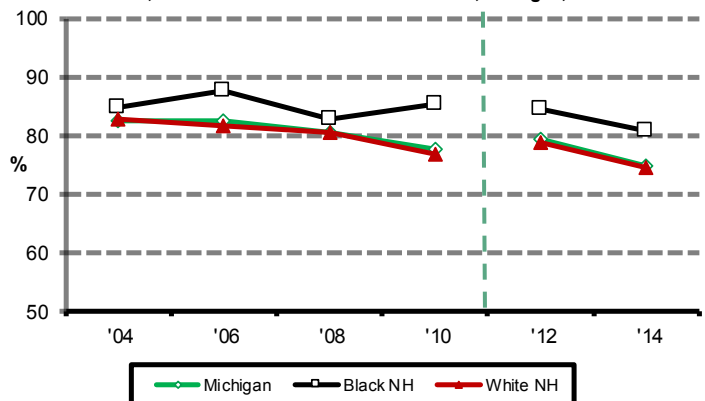
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Prostate Cancer Screening

Prostate cancer is currently the second leading cause of cancer deaths among all men and Black men in the US.[35,38] In 2014, there were 940 deaths among Michigan men due to prostate cancer.[36]

♦ In 2014, an estimated 73.7% of Black, non-Hispanic men aged 50 years and older reported discussing the advantages of a Prostate-Specific Antigen (PSA) test with their doctor, similar to 73.4% (95% CI: 71.1-75.7) of all Michigan men aged 50 years and older.

♦ In 2014, the prevalence of Black men aged 50 years and older reporting having had a PSA test in the past year was 44.9%, similar to 45.8% (95% CI: 43.2-48.3) of all male adults 50 years and older in Michigan.

♦ The prevalences of both prostate indicators generally increased with increasing education, although differences were not significant.

♦ Disabled Black adults (53.9% and 22.1%, respectively) were significantly less likely to report ever discussing a PSA test with their doctor or having a PSA test in the past year than non-disabled Black adults (83.9% and 57.3%, respectively).

♦ In 2014, the prevalence of Black, non-Hispanic men that reported ever discussing the advantages of a PSA test with a doctor did not significantly differ from men in any of the other racial/ethnic groups in Michigan (data not shown). Similarly, the prevalence of Black men that reported having had a PSA test in the past year ever did not significantly differ from men in any of the other racial/ethnic groups in Michigan (Hispanic data not available).

| 2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Discussed Advantages of PSA Test With Doctor[a]		Had PSA Test in Past Year[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**73.7**	**(65.2-80.6)**	**44.9**	**(36.3-53.9)**
Age				
50 - 59	77.3	(64.5-86.4)	38.3	(25.8-52.4)
60 - 69	71.2	(56.5-82.5)	49.0	(35.1-63.1)
70 +	--[c]	---	--[c]	---
Education				
HS graduate or less	66.5	(53.3-77.6)	35.5	(23.8-49.3)
Some college or more	82.1	(72.4-88.9)	56.0	(44.9-66.5)
Household Income				
< $25,000	72.4	(58.0-83.3)	32.9	(20.5-48.3)
$25,000 - $49,999	67.6	(50.3-81.2)	52.4	(36.1-68.2)
$50,000+	--[c]	---	66.9	(51.2-79.5)
Health Insurance				
Insured	73.6	(64.8-80.8)	47.2	(38.3-56.2)
Uninsured	--[c]	---	--[c]	---
Disability				
Not Disabled	83.9	(75.0-90.0)	57.3	(46.1-67.7)
Disabled	53.9	(38.8-68.3)	22.1	(13.0-35.1)

[a] Among Black, non-Hispanic men aged 50 years and older, the proportion who reported ever discussing the advantages of a PSA test with a doctor, nurse, or other health profession. (N = 188)
[b] Among Black, non-Hispanic men aged 50 years and older, the proportion who reported having a PSA test within the past year. (N = 180)
[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

♦ Since 2004, the prevalence of receiving a PSA test was very similar between Black, non-Hispanic men and all men as well as White, non-Hispanic men. The BRFSS methodology changes in 2011 caused the PSA testing prevalence to take a significant decline in 2012.

Had a PSA Test in the Past Year Among Men Aged 50 Years and Older by Race/Ethnicity, Michigan, 2014
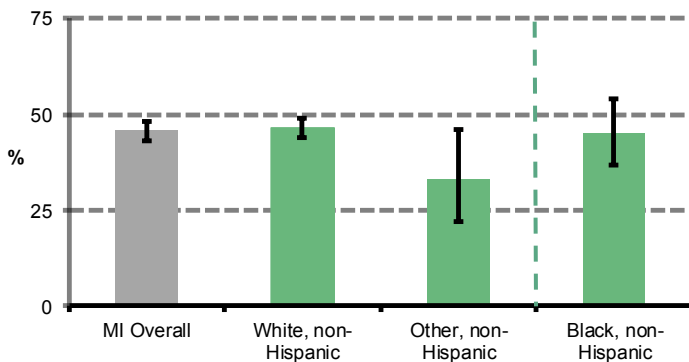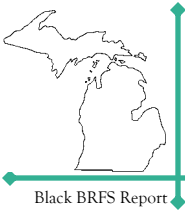

Had PSA Test in the Past Year Among Men 50 Years and Older, All Men vs. White and Black Men, Michigan, 2004-2014
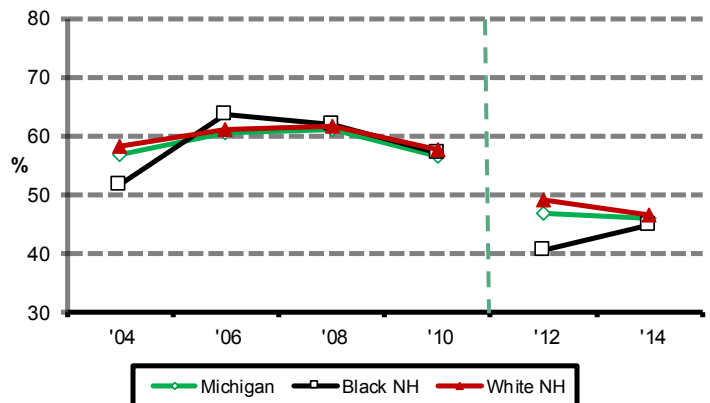
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Colorectal Cancer Screening

In 2014, colorectal cancer was the second leading cause of cancer-related deaths in Michigan with 1,753 deaths.[36] Fecal occult blood tests, sigmoidoscopy, and colonoscopy are screening procedures that are performed to detect colorectal cancer in the early stages. Appropriate colorectal cancer screening consists of a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past ten years.

♦ In 2013-2014, an estimated 58.8% of Black, non-Hispanic adults aged 50 years and older reported having a sigmoidoscopy or colonoscopy within the past five years, while 70.0% reported appropriate colorectal cancer screening. Both of these estimates were similar to prevalences among all adults aged 50 years in Michigan (56.9% [95% CI: 55.8-58.0] and 71.4% [95% CI: 70.3-72.4], respectively).

♦ Although the prevalences of both colorectal screenings were slightly higher among Black females than Black females, the differences were not significant.

♦ The prevalences of both colorectal screenings generally increased with increasing education and household income level.

♦ Insured Black adults were significantly more likely to report having both colorectal cancer screening indicators compared to uninsured Black adults.

♦ In 2013-2014, the prevalence of Black adults (58.8%) that reported receiving a sigmoidoscopy or colonoscopy in the past five years was higher than Other, non-Hispanic adults (44.1%) in Michigan. The prevalence did not differ from White, non-Hispanics or Hispanics.
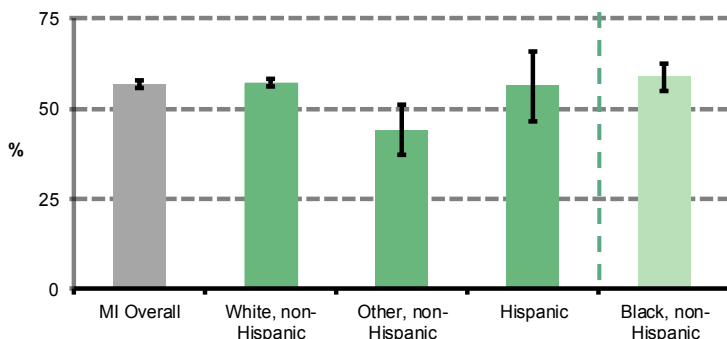
2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Had Sigmoidoscopy or Colonoscopy in Past 5 Years[a]		Had Appropriate Colorectal Cancer Screening[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**58.8**	**(54.7-62.7)**	**70.0**	**(66.0-73.7)**
Age				
50 - 59	49.7	(43.3-56.2)	61.9	(55.4-68.0)
60 - 69	68.3	(61.4-74.4)	79.2	(72.8-84.5)
70 +	62.9	(55.2-70.1)	72.5	(64.8-79.1)
Gender				
Male	58.0	(51.4-64.3)	67.3	(60.7-73.2)
Female	59.5	(54.4-64.3)	72.4	(67.6-76.7)
Education				
HS graduate or less	53.9	(47.5-60.1)	64.7	(58.4-70.5)
Some college or more	64.1	(59.1-68.9)	75.9	(71.0-80.1)
Household Income				
< $25,000	51.4	(45.0-57.8)	61.5	(55.0-67.7)
$25,000 - $49,999	58.5	(50.4-66.1)	71.0	(63.3-77.7)
$50,000+	70.7	(63.1-77.3)	83.6	(76.7-88.8)
Health Insurance				
Insured	62.4	(58.2-66.4)	73.1	(69.1-76.7)
Uninsured	25.0	(14.9-38.9)	41.1	(27.0-56.7)
Disability				
Not Disabled	56.1	(50.9-61.0)	68.6	(63.5-73.3)
Disabled	62.9	(56.2-69.2)	72.2	(65.7-78.0)

[a] Among Black, non-Hispanic adults aged 50 years and older, the proportion who reported having a sigmoidoscopy or colonoscopy within the past five years. (N = 988)
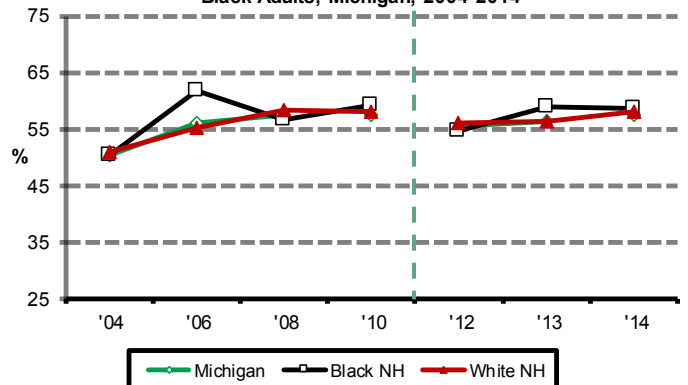
[b] Among Black, non-Hispanic adults aged 50 years and older, the proportion who reported having a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past ten years. (N = 980)

♦ In 2013-2014, the prevalence of Black adults (70.0%) that reported receiving appropriate colorectal cancer screening did not significantly differ from that of any of the other racial/ethnic groups in Michigan (data not shown).

♦ Since 2004, the prevalence of receiving a sigmoidoscopy or colonoscopy in the past five years has been similar between Black, non-Hispanics as well as White, non-Hispanics and all adults.

Had Sigmoidoscopy or Colonoscopy in Past 5 Years Among Adults Aged 50 Years and Older by Race/Ethnicity, Michigan, 2013-2014

Had Sigmoidoscopy/Colonoscopy in Past 5 Years Among Adults Aged 50 Years and Older, All Adults vs. White and Black Adults, Michigan, 2004-2014

Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Oral health is an important part of one's general health and quality of life. Regular dental care includes preventive dental services such as teeth cleaning, allowing early diagnosis and treatment of tooth decay and periodontal diseases.[38] It has been estimated that low income adults are 2.5 times more likely to have at least one untreated decayed tooth compared with higher income adults (40% vs. 16%).[39]

- In 2014, an estimated 45.1% of Black, non-Hispanic adults in Michigan reported not having had a dental visit within the past year, significantly higher than 31.4% (95% CI: 30.1-32.7) of all Michigan adults. The prevalence of having six or more teeth missing was 23.4% (95% CI: 20.2-26.9) among Black adults, also significantly higher compared to 15.5% (95% CI: 14.6-16.4) of all Michigan adults.

- In 2014, an estimated 33.9% (95% CI: 26.2-42.6) of Black adults reported not having dental insurance, similar to 34.3% of all adults in Michigan (95% CI: 31.7-37.0).

- The prevalence of not having had a dental visit within the past year among Black adults generally decreased with increasing age, education, and household income level, although not all differences were significant.

- Although Black males were more likely to report not having a dental visit within the past year compared to Black females, the difference was not significant.

- Uninsured Black adults (66.6%) were more likely to have not had a dental visit within the past year compared to insured Black adults (41.5%).

- In 2014, the prevalence of no dental visit within the past year among Black, non-Hispanic adults (45.1%) was significantly higher than among White non-Hispanics (28.6%) and Other, non-Hispanics (33.8%). The prevalence did not differ from Hispanics.
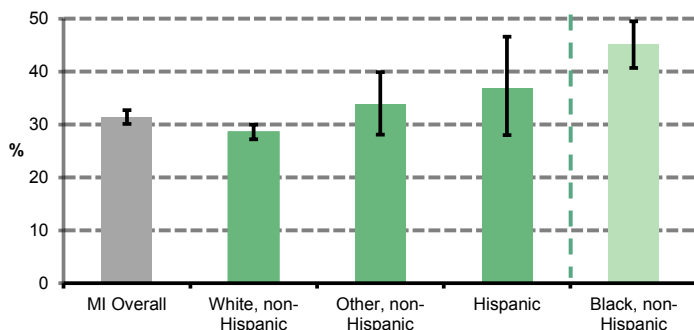
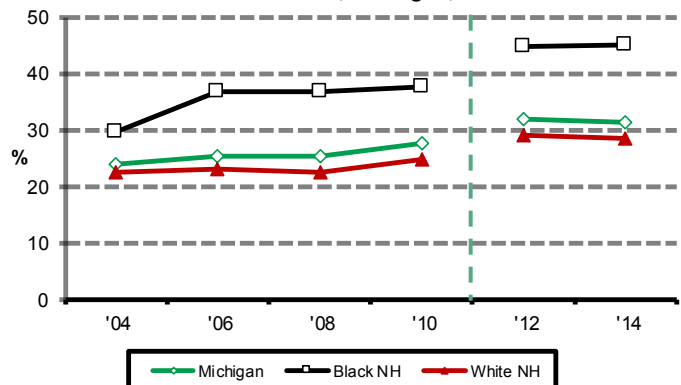| 2014 MiBRFS Black, non-Hispanic Demographic Characteristics	No Dental Visit in Past Year[a]	
	%	95% Confidence Interval
Total	**45.1**	**(40.7-49.5)**
Age		
18 - 44	47.6	(40.4-54.9)
45 - 64	44.8	(38.5-51.3)
65+	38.4	(30.9-46.5)
Gender		
Male	48.7	(42.0-55.5)
Female	42.1	(36.5-47.9)
Education		
HS graduate or less	51.7	(44.9-58.4)
Some college or more	38.7	(33.5-44.2)
Household Income		
< $25,000	54.5	(47.6-61.2)
$25,000 - $49,999	40.1	(31.9-48.8)
$50,000+	27.3	(20.1-36.1)
Health Insurance		
Insured	41.5	(36.9-46.3)
Uninsured	66.6	(53.9-77.3)
Disability		
Not disabled	43.1	(38.0-48.3)
Disabled	51.6	(43.4-59.8)

[a] Among all Black, non-Hispanic adults, the proportion who reported that they had not visited a dentist or dental clinic for any reason in the previous year. (N = 830)

- Since 2004, the prevalence of no dental visit in the past year has generally been higher among Black, non-Hispanic adults than all adults and White, non-Hispanic adults in Michigan.

No Dental Visit in Past Year by Race/Ethnicity, Michigan, 2014

No Dental Visit in the Past Year, All Adults vs. White and Black Adults, Michigan, 2004-2014

Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Immunizations Among Adults 65 Years of Age and Older

Adult immunizations against influenza and pneumococcal disease are important health indicators that need to be routinely monitored since morbidity and mortality are associated with both of these diseases.[41] At the national level, adult vaccination coverage for both influenza and pneumococcal were found to be lower among Black, non-Hispanic adults than White, non-Hispanic adults.[42]

♦ In 2013-2014, an estimated 44.1% of Black, non-Hispanic adults aged 65 years and older in Michigan reported receiving a flu vaccine within the past year, significantly lower than among all adults of similar age in Michigan (57.2% [95% CI: 55.7-58.7]). Similarly, an estimated 55.1% of Black adults aged 65 years and older reported ever receiving a pneumonia vaccine, significantly lower than among all adults of similar age in Michigan (68.9% [95% CI: 67.5-70.4]).

♦ The prevalence of receiving the flu vaccine among Black adults was similar by gender. However, Black female adults (63.0%) were significantly more likely than Black male adults (44.9%) to report ever receiving the pneumonia vaccine.

♦ Although disabled Black adults were more likely to report receiving both vaccines than non-disabled Black adults, the differences were not significant.

♦ In 2013-2014, Black adults (44.1% and 55.1%, respectively) reported a significantly lower prevalence of receiving both a flu and pneumonia vaccine than White, non-Hispanic adults (59.2% and 71.0%, respectively). The prevalence among Black adults did not significantly differ from that of Other, non-Hispanic or Hispanic adults (flu vaccine data not shown).

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Had Flu Vaccine in Past Year[a]		Ever Had Pneumonia Vaccine[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**44.1**	**(38.3-50.0)**	**55.1**	**(48.8-61.2)**
Age				
65 - 74	41.4	(34.1-49.0)	55.4	(47.1-63.3)
75+	48.3	(39.2-57.6)	54.6	(44.8-64.0)
Gender				
Male	43.3	(33.8-53.3)	44.9	(35.1-55.2)
Female	44.7	(37.8-51.8)	63.0	(55.6-69.8)
Education				
HS graduate or less	41.1	(33.0-49.8)	47.1	(38.4-55.9)
Some college or more	48.2	(40.8-55.7)	66.5	(58.7-73.6)
Household Income				
< $25,000	45.0	(36.0-54.3)	54.2	(44.2-63.9)
$25,000 - $49,999	44.9	(34.5-55.8)	53.7	(42.6-64.5)
$50,000+	40.3	(28.2-53.6)	53.2	(38.9-67.0)
Health Insurance				
Insured	44.1	(38.3-50.1)	55.0	(48.6-61.1)
Uninsured	--[c]	---	--[c]	---
Disability				
Not Disabled	38.7	(31.7-46.2)	51.2	(43.5-58.8)
Disabled	51.6	(42.0-61.2)	60.6	(50.0-70.4)

[a] Among Black, non-Hispanic adults aged 65 years and older, the proportion who reported that they had a flu vaccine, either by injection in the arm or sprayed in the nose during the past 12 months. (N = 459)
[b] Among Black, non-Hispanic adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine. (N = 431)
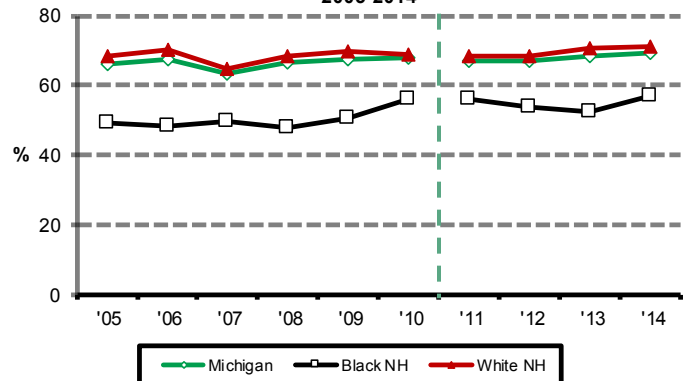[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

♦ Since 2005, the prevalence of ever having a pneumonia vaccine has been consistently lower among Black, non-Hispanic adults than all adults and White, non-Hispanic adults in Michigan.
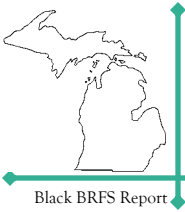

Ever Had a Pneumonia Vaccination Among Adults Aged 65 Years and Older by Race/Ethnicity, Michigan, 2013-2014
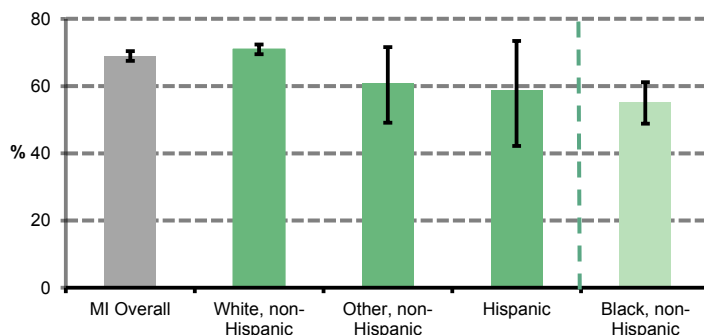
Ever Had Pneumonia Vaccine Among Adults Aged 65 Years and Older, All Adults vs. White and Black Adults, Michigan, 2005-2014

Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

HIV Testing

Early awareness of an HIV infection through HIV testing can prevent further spread of the disease, and an early start on antiretroviral therapy can increase the quality of life among those who are living with HIV/AIDS.[43] In 2011, although Blacks only accounted for 12.0% of the population nationwide, they accounted for 41.0% of all HIV cases.[44]

♦ In 2013-2014, an estimated 70.8% of Black, non-Hispanic adults in Michigan aged 18-64 years reported ever being tested for HIV, significantly higher than all Michigan adults aged 18-64 years (40.7% [95% CI: 39.6-41.8]).

♦ The prevalence of HIV testing among Black adults decreased with age.

♦ Although Black females reported a slightly higher prevalence of HIV testing than Black males, the difference was not significant.

♦ The prevalence of HIV testing was similar by education level, health insurance and disability status.

♦ In 2013-2014, Black adults (70.8%) reported a significantly higher prevalence of HIV testing than all of the other race/ethnicity groups in Michigan [White, non-Hispanic (35.1%), Other, non-Hispanic (38.5%), Hispanic (47.3%)]. In other words, the prevalence of HIV testing among Black, non-Hispanics was 2.0 times higher than among Whites, 1.8 times higher than among Other, non-Hispanics, and 1.5 times higher than among Hispanics in Michigan.

♦ Since 2005, the prevalence of HIV testing has consistently been higher among Black, non-Hispanics than among all adults and White, non-Hispanics in Michigan.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Had an HIV Test[a]	
	%	95% Confidence Interval
Total	**70.8**	**(67.7-73.8)**
Age		
18 - 44	76.7	(72.4-80.5)
45 - 64	62.6	(58.1-67.0)
Gender		
Male	68.2	(63.2-72.9)
Female	73.0	(68.9-76.7)
Education		
HS graduate or less	71.4	(66.4-76.0)
Some college or more	70.3	(66.3-74.0)
Household Income		
< $25,000	76.1	(71.4-80.2)
$25,000 - $49,999	72.7	(66.2-78.4)
$50,000+	64.5	(57.9-70.6)
Health Insurance		
Insured	70.6	(67.1-73.8)
Uninsured	72.2	(64.4-78.9)
Disability		
Not disabled	71.2	(67.6-74.6)
Disabled	69.4	(62.8-75.2)

[a] Among Black, non-Hispanic adults aged 18-64 years, the proportion who reported that they ever had been tested for HIV, apart from tests that were part of a blood donation. (N = 1,239)

Ever Tested for HIV Among Adults 18-64 Years by Race/Ethnicity, Michigan, 2013-2014
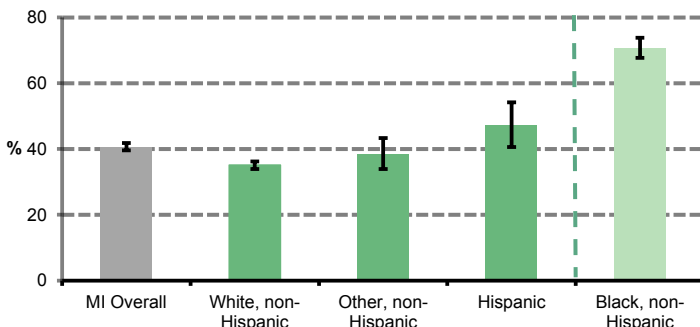
Ever Tested for HIV Among Adults 18-64 Years , All Adults vs. White and Black Adults, Michigan, 2005-2014
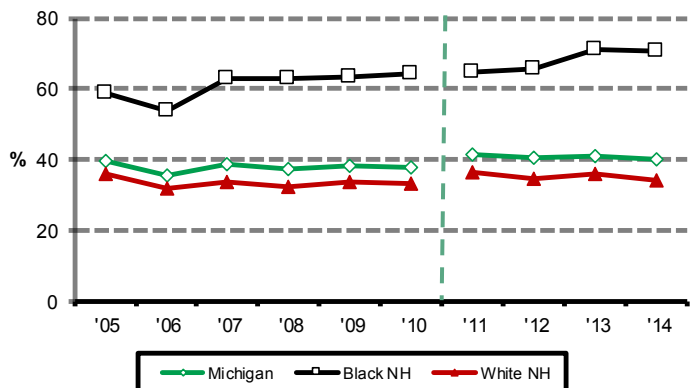
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Asthma in Adults

Asthma is a chronic inflammatory disorder of the lungs, characterized by wheezing, coughing, difficulty breathing, and chest tightness. Living in environments that have allergens such as mold, dust, air pollution, and tobacco smoke can often trigger asthma attacks. Black Americans are two to three times more likely than any other racial/ethnic group to die from asthma.[45]

♦ In 2013-2014, an estimated 18.7% of Black, non-Hispanic adults in Michigan reported that they were ever diagnosed with asthma, similar to 16.0% (95% CI: 15.3-16.7) among all adults in Michigan. An estimated 14.3% of Black, non-Hispanic adults reported that they currently have asthma, significantly higher than all adults in Michigan (11.2% [95% CI: 10.6-11.8]).

♦ Black females (17.2%) were significantly more likely to report current asthma compared to Black males (10.8%), although there was no gender difference for lifetime asthma.

♦ The prevalences of both lifetime and current asthma generally decreased with increasing education and household income level, although not all differences were significant.

♦ Disabled Black adults (28.3% and 22.1%, respectively) were significantly more likely to report lifetime and current asthma compared to non-disabled Black adult (14.7% and 11.1%, respectively).

♦ In 2013-2014, Black, non-Hispanic adults (18.7% and 14.3%, respectively) were significantly more likely to report both lifetime and current asthma than White, non-Hispanic adults (15.2% and 10.5%, respectively). There were no differences found when comparing Black adults to Other, non-Hispanic and Hispanic adults.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Lifetime Asthma[a]		Current Asthma[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**18.7**	**(16.6-21.1)**	**14.3**	**(12.3-16.5)**
Age				
18 - 44	18.3	(15.1-21.9)	14.3	(11.5-17.8)
45 - 64	21.4	(17.7-25.6)	16.2	(13.0-20.1)
65+	14.0	(10.6-18.3)	9.6	(6.8-13.4)
Gender				
Male	17.2	(14.0-21.0)	10.8	(8.2-14.2)
Female	20.0	(17.2-23.1)	17.2	(14.6-20.2)
Education				
HS graduate or less	19.4	(16.1-23.2)	15.6	(12.6-19.1)
Some college or more	18.0	(15.3-21.0)	13.0	(10.7-15.7)
Household Income				
< $25,000	22.0	(18.5-25.9)	17.2	(14.1-20.9)
$25,000 - $49,999	16.7	(12.5-21.9)	13.9	(9.9-19.0)
$50,000+	15.5	(11.7-20.2)	9.7	(6.8-13.8)
Health Insurance				
Insured	18.9	(16.5-21.5)	14.4	(12.3-16.8)
Uninsured	18.2	(13.2-24.4)	14.1	(9.6-20.1)
Disability				
Not Disabled	14.7	(12.5-17.3)	11.1	(9.1-13.4)
Disabled	28.3	(23.4-33.8)	22.1	(17.7-27.3)

[a] Among all Black, non-Hispanic adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma. (N = 1,879)
[b] Among all Black, non-Hispanic adults, the proportion who reported that they still have asthma. (N = 1,867).

♦ Although the prevalence of ever being diagnosed with asthma among Black, non-Hispanic adults has remained relatively higher compared to all adults and White, non-Hispanic adults in Michigan since 2005, not all differences have been significant.

Lifetime Adult Asthma by Race/Ethnicity, Michigan, 2013-2014
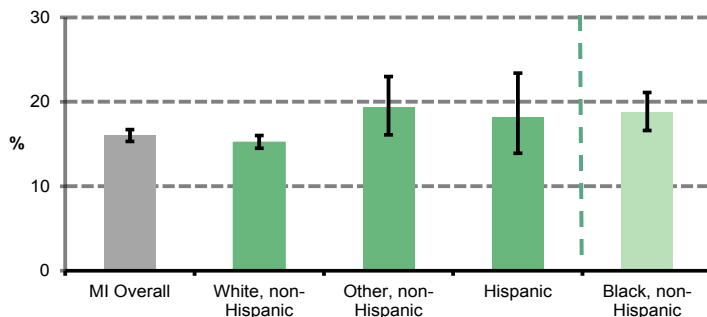
Lifetime Adult Asthma, All Adults vs. White and Black Adults, Michigan, 2005-2014
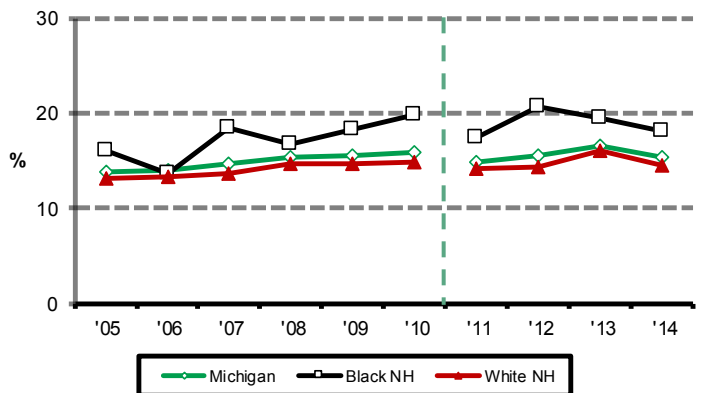
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Asthma in Children

Although asthma can affect people of all ages, in most cases it begins during childhood. Children with a family history of asthma and allergies are at a higher risk of developing asthma during childhood.[46] At the national level, Black children are more likely to have asthma and visit the emergency department for asthma care compared to White children.[45]

- Based on proxy information provided by the adult respondent, the estimated proportion of Black, non-Hispanic Michigan children aged 0-17 years who were ever told by a doctor that they had asthma for 2013-2014 was 20.4%. This was significantly higher compared to 14.7% (95% CI: 13.4-16.1) of all children in Michigan. The estimated proportion of Black children in Michigan with current asthma in 2013-2014 was 17.2%, also significantly higher than 10.6% (95% CI: 9.5-11.8) of all Michigan children.

- The prevalence of lifetime and current asthma was significantly higher among Black boys (27.3% and 25.2%, respectively) than Black girls (13.2% and 8.8%, respectively). Black boys were 2.9 times more likely to report current asthma and 2.1 times more likely to report lifetime asthma than Black girls.

- Black children with a reported household income of more than $50,000 (10.0%) were significantly less likely to report lifetime asthma than Black children with household incomes of less than $25,000 (23.4%).

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Lifetime Asthma[a]		Current Asthma[b]	
	%	95% Confidence Interval	%	95% Confidence Interval
Total	**20.4**	**(16.4-24.9)**	**17.2**	**(13.5-21.6)**
Age				
0 - 4	--[c]	---	--[c]	---
5 - 9	24.9	(16.3-36.2)	21.5	(13.5-32.6)
10 - 14	28.9	(20.5-39.0)	25.4	(17.3-35.6)
15 - 17	19.9	(13.3-28.7)	15.1	(9.3-23.6)
Gender				
Boy	27.3	(21.0-34.5)	25.2	(19.0-32.5)
Girl	13.2	(9.2-18.7)	8.8	(5.6-13.5)
Household Income				
< $25,000	23.4	(17.4-30.8)	20.8	(14.9-28.1)
$25,000 - $49,999	22.9	(15.4-32.7)	20.4	(13.1-30.3)
$50,000+	10.0	(5.7-17.2)	--[c]	---

[a] Estimated proportion of Black, non-Hispanic Michigan children aged 0-17 years who were ever told by a doctor, nurse, or other health care professional that they had asthma, using proxy information from the adult respondent. (N = 528)
[b] Estimated proportion of Black, non-Hispanic Michigan children aged 0-17 years who still have asthma, using proxy information from the adult respondent. (N= 527)
[c] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

- In 2013-2014, Black, non-Hispanic children (20.4% and 17.2%, respectively) were significantly more likely to report both lifetime and current asthma than White, non-Hispanic children (12.6% and 8.9%, respectively). There were no differences found when comparing Black children to Other, non-Hispanic and Hispanic children.

- Since 2007, the prevalence of ever being diagnosed with asthma among Black, non-Hispanic children has been relatively higher compared to all children and White, non-Hispanic children in Michigan, although not all differences have been significant.

Lifetime Child Asthma by Race/Ethnicity, Michigan, 2013-2014
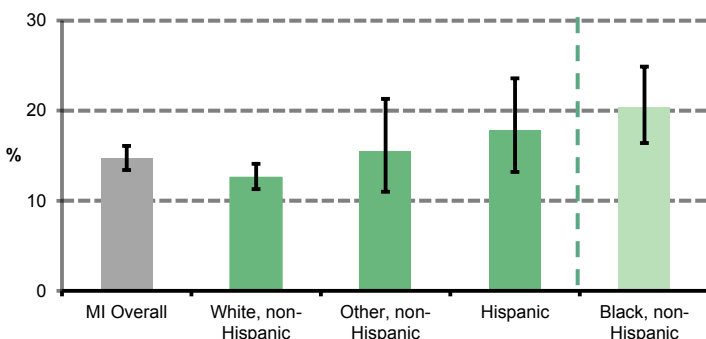
Current Child Asthma, All Children vs. White and Black Children, Michigan, 2007-2014
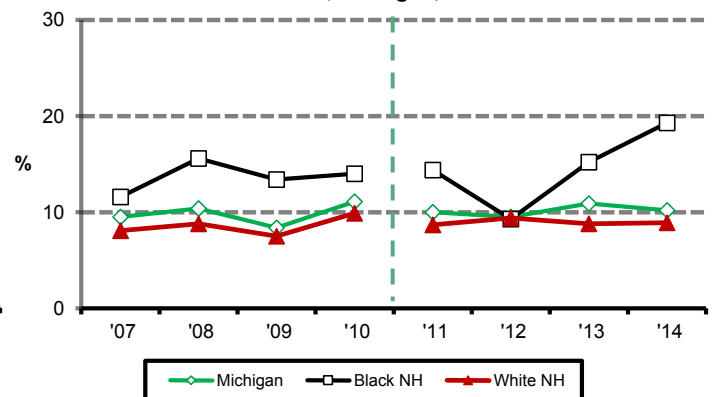
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Chronic Obstructive Pulmonary Disease (COPD)

Chronic obstructive pulmonary disease (COPD) is a progressive disease that usually results in coughing, wheezing, shortness of breath, chest tightness, and other symptoms. Cigarette smoking is the leading cause of COPD.[47]
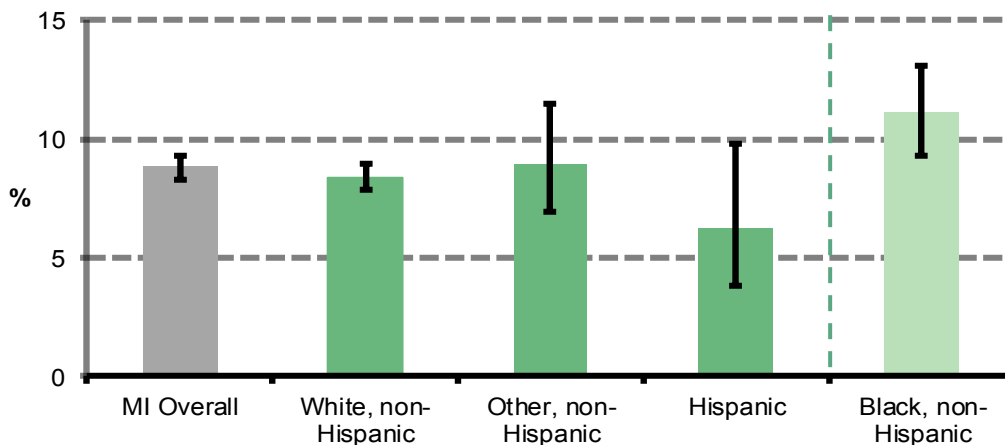
♦ In 2013-2014, an estimated 11.1% of Black, non-Hispanic adults reported ever being told by a doctor that they had COPD. Although this estimate was higher than among all adults in Michigan (8.8% [95% CI: 8.3-9.3]), the difference was not significant.

♦ The prevalence of COPD among Black adults was highest among the 45 to 64 year old age group, although not all differences by age were significant.

♦ Although the prevalence of COPD was higher among Black females than Black males, the difference was not significant.

♦ Disabled Black adults (20.3%) were more likely to have been diagnosed with COPD than non-disabled Black adults (7.1%).

♦ In 2013-2014, Black, non-Hispanic adults (11.1%) reported a significantly higher prevalence of COPD than White, non-Hispanic adults (8.4%) in Michigan. The prevalence among Blacks did not significantly differ from that of Other, non-Hispanics or Hispanics in Michigan.
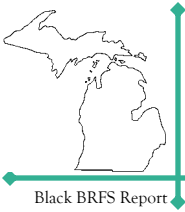
2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Told COPD, Emphysema, or Chronic Bronchitis[a]	
	%	95% Confidence Interval
Total	**11.1**	**(9.3-13.2)**
Age		
18 - 44	7.2	(5.1-10.0)
45 - 64	15.9	(12.6-20.0)
65+	12.9	(9.4-17.5)
Gender		
Male	8.6	(6.3-11.7)
Female	13.2	(10.8-16.1)
Education		
HS graduate or less	14.7	(11.7-18.3)
Some college or more	7.4	(5.8-9.6)
Household Income		
< $25,000	15.1	(12.1-18.6)
$25,000 - $49,999	9.4	(6.3-13.7)
$50,000+	--[b]	---
Health Insurance		
Insured	11.1	(9.2-13.3)
Uninsured	11.4	(7.3-17.5)
Disability		
Not disabled	7.1	(5.5-9.2)
Disabled	20.3	(16.1-25.4)

[a] Among all Black, non-Hispanic adults, the proportion who reported ever being told by a doctor that they had chronic obstructive pulmonary disease (COPD), emphysema or chronic bronchitis. (N = 1,872)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

Ever Told COPD by Race/Ethnicity, Michigan, 2013-2014

Arthritis

Arthritis and rheumatism are the leading causes of disability within the US. These conditions have been diagnoses in an estimated 52.5 million US adults and affect all racial and ethnic groups.[48]

♦ In 2013-2014, an estimated 29.5% of Black, non-Hispanic adults in Michigan reported ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia, similar to all Michigan adults (31.6% [95% CI: 30.8-32.4]).

♦ The prevalence of arthritis among Black adults increased with age but generally decreased with increasing education and household income level.

♦ Although Black females had a higher prevalence of arthritis than Black males, the difference was not significant.

♦ Disabled Black adults (61.3%) were more than eight times more likely to have been diagnosed with arthritis than non–disabled Black adults (17.2%).

♦ In 2013-2014, Black, non-Hispanic adults (29.5%) reported a significantly higher prevalence of arthritis than Other, non-Hispanic adults (21.2%) in Michigan. The prevalence among Blacks did not significantly differ from that of White, non-Hispanics or Hispanics in Michigan.

♦ Since 2005, the prevalence of lifetime arthritis among Black, non-Hispanics has remained relatively even, similar to all adults and White, non-Hispanics in Michigan. Although Blacks have reported a slightly lower arthritis prevalence over time, none of the differences were significant.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Told Arthritis[a]	
	%	95% Confidence Interval
Total	**29.5**	**(27.1-32.1)**
Age		
18 - 44	7.9	(5.8-10.5)
45 - 64	44.6	(40.2-49.0)
65+	65.0	(59.3-70.3)
Gender		
Male	26.0	(22.3-30.0)
Female	32.5	(29.3-35.9)
Education		
HS graduate or less	32.9	(29.0-37.1)
Some college or more	26.1	(23.2-29.1)
Household Income		
< $25,000	33.4	(29.4-37.6)
$25,000 - $49,999	28.2	(23.6-33.3)
$50,000+	23.9	(19.6-28.9)
Health Insurance		
Insured	33.1	(30.3-36.0)
Uninsured	14.0	(9.9-19.5)
Disability		
Not disabled	17.2	(15.1-19.5)
Disabled	61.3	(55.4-66.9)

[a] Among all Black, non-Hispanic adults, the proportion who reported ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. (N = 1,874)

Ever Told Arthritis by Race/Ethnicity, Michigan, 2013-2014
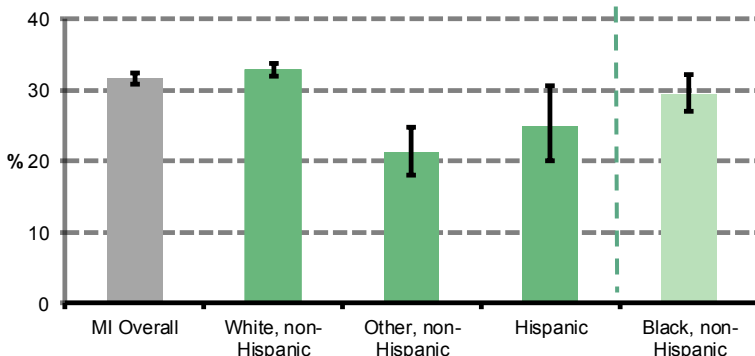
Ever Told Arthritis, All Adults vs. White and Black Adults, Michigan, 2005-2014
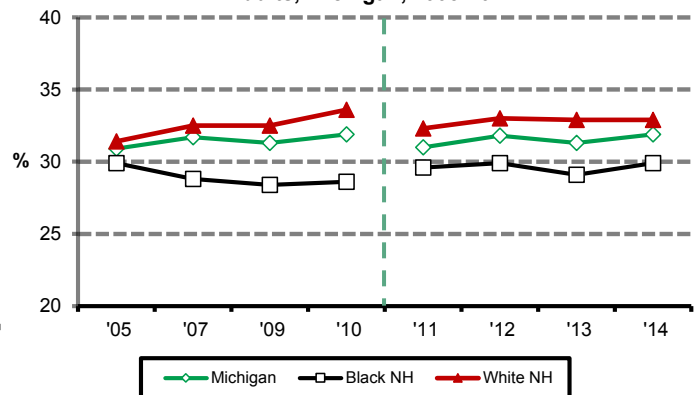
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Cardiovascular Disease

Heart disease and stroke are the first and fourth leading causes of death, respectively, in both Michigan and the US.[49] Blacks in Michigan have a significantly higher mortality rate for cardiovascular disease compared to all individuals and Whites in Michigan.[5]

♦ In 2013-2014, an estimated 4.3% of Black, non-Hispanic adults had ever been told by a doctor that they had a heart attack, 4.5% had ever been told they had angina or coronary heart disease, and 4.6% had ever been told they had a stroke. This compared to 5.2% (95% CI: 4.8-5.5), 5.3% (95% CI: 5.0-5.7), and 3.4% (95% CI: 3.1-3.8) respectively, among all adults in Michigan.

♦ When combining all three measures into one indicator, an estimated 10.5% (95% CI: 9.0-12.3) of Black adults in Michigan had ever been told by a doctor that they had some form of cardiovascular disease, similar to 10.0% (95% CI: 9.6-10.5) of all adults in Michigan.

♦ The prevalences of all three diseases among Black adults generally increased with age.

♦ Black males (6.3%) reported a significantly higher prevalence for coronary heart disease than Black females (3.0%), although differences were not significant for the other two indicators.

♦ Disabled Black adults reported a significantly higher prevalences of all three diseases compared to non-disabled Black adults.

♦ In 2013-2014, Black, non-Hispanic adults (10.5%) reported a significantly higher prevalence of some form of cardiovascular disease than Hispanic adults (5.5%) in Michigan. The prevalence among Blacks did not significantly differ from that of White, non-Hispanics or Other, non-Hispanics in Michigan.

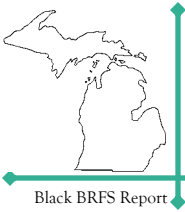| 2013-2014 MiBRFS Black, Non-Hispanic Demographic Characteristics	Ever Told Heart Attack[a]		Ever Told Angina or Coronary Heart Disease[b]		Ever Told Stroke[c]	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Total	**4.3**	**(3.4-5.5)**	**4.5**	**(3.5-5.8)**	**4.6**	**(3.6-5.8)**
Age						
18 - 44	--[d]	---	--[d]	---	1.7	(0.9-3.2)
45 - 64	6.4	(4.5-9.0)	6.0	(4.1-8.8)	6.1	(4.3-8.4)
65+	10.9	(7.7-15.2)	13.2	(9.6-17.9)	10.8	(7.4-15.4)
Gender						
Male	5.7	(4.1-7.9)	6.3	(4.5-8.8)	5.0	(3.5-7.1)
Female	3.2	(2.3-4.5)	3.0	(2.1-4.2)	4.3	(3.2-5.8)
Education						
HS graduate or less	5.8	(4.2-8.0)	5.7	(4.0-8.0)	5.8	(4.2-8.0)
Some college or more	2.8	(2.0-3.9)	3.4	(2.4-4.7)	3.4	(2.4-4.6)
Household Income						
< $25,000	6.0	(4.3-8.3)	6.5	(4.7-9.0)	5.1	(3.7-7.1)
$25,000 - $49,999	4.3	(2.7-6.8)	3.7	(2.2-6.1)	5.0	(2.9-8.3)
$50,000+	--[d]	---	--[d]	---	3.0	(1.7-5.3)
Health Insurance						
Insured	5.0	(3.9-6.4)	5.2	(4.0-6.7)	5.3	(4.2-6.8)
Uninsured	--[d]	---	--[d]	---	--[d]	---
Disability						
Not Disabled	2.4	(1.7-3.5)	2.1	(1.4-3.2)	2.0	(1.3-3.0)
Disabled	9.4	(6.8-13.0)	11.2	(8.2-15.2)	11.0	(8.2-14.6)

Among all Black, non-Hispanic adults, the proportion who had ever been told by a doctor that: [a] they had a heart attack or myocardial infarction (N = 1,868), [b] they had angina or coronary heart disease (N = 1,875), or [c] they had a stroke (N = 1,880)
[d] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

Ever Told CVD by Race/Ethnicity, Michigan, 2013-2014
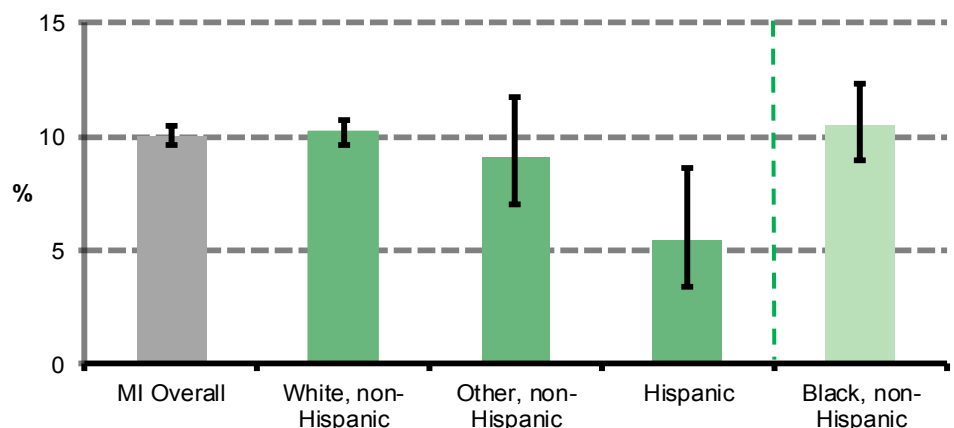
Cancer

Cancer is the second leading cause of death in both Michigan and the US for the overall population and among Blacks.[5,35,49] There are more than 100 different types of cancer and it is estimated that there will be nearly 1.7 million new cases of cancer in 2016.[50]

♦ In 2013-2014, an estimated 6.1% of Black, non-Hispanic adults in Michigan had ever being told by a doctor that they had skin cancer or any other type of cancer, significantly lower than all Michigan adults (12.1% [95% CI: 11.6-12.6]).

♦ The prevalence of cancer among Black adults increased with age.

♦ Although Black males reported a higher prevalence of cancer than Black females, the difference was not significant.

♦ Disabled Black adults (10.7%) reported a higher cancer prevalence than non-disabled Black adults (4.4%).

♦ In 2013-2014, Black adults (6.1%) reported a significantly lower prevalence of cancer than White, non-Hispanics (13.8%) in Michigan. The prevalence among Blacks did not significantly differ from that of Other, non-Hispanics and Hispanics.

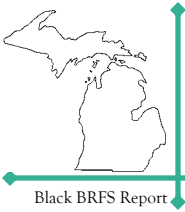| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Told Cancer[a]	
	%	95% Confidence Interval
Total	**6.1**	**(4.9-7.6)**
Age		
18 - 44	--[b]	---
45 - 64	6.1	(4.2-8.6)
65+	21.3	(16.8-26.5)
Gender		
Male	7.5	(5.3-10.4)
Female	4.9	(3.8-6.4)
Education		
HS graduate or less	7.0	(5.0-9.9)
Some college or more	5.1	(4.1-6.4)
Household Income		
< $25,000	6.4	(4.4-9.2)
$25,000 - $49,999	6.3	(4.3-9.1)
$50,000+	4.9	(3.2-7.5)
Health Insurance		
Insured	7.3	(5.9-9.2)
Uninsured	--[b]	---
Disability		
Not disabled	4.4	(3.4-5.8)
Disabled	10.7	(7.4-15.2)

[a] Among all Black, non-Hispanic adults, the proportion who had ever been told by a doctor that: a they had skin cancer or any other type of cancer. (N = 1,880)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

Ever Told Cancer by Race/Ethnicity, Michigan, 2013-2014
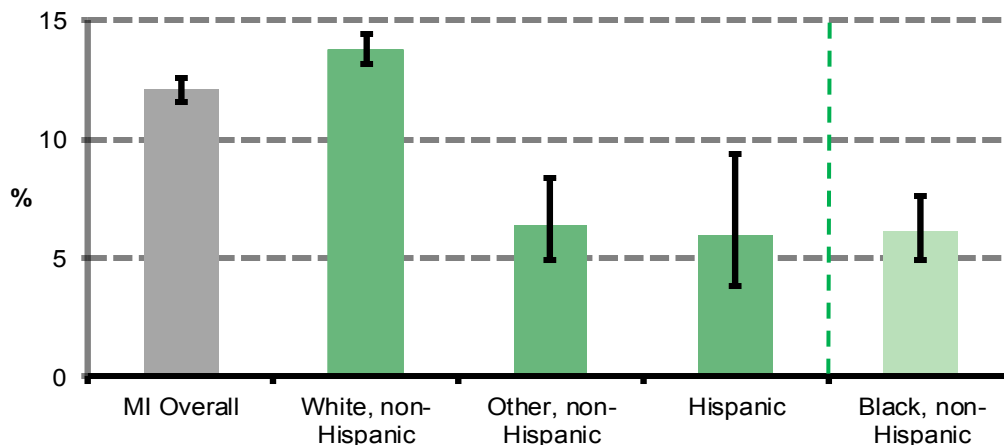
Diabetes

In 2014, diabetes was the seventh leading cause of death in Michigan statewide and fifth leading cause of death among Blacks.[5] Obesity, poor diet, physical inactivity, high blood pressure, and race/ethnicity are just a few of the known risk factors that are associated with the development of diabetes.[51] Blacks as well as other racial/ethnic minorities (e.g. Hispanics, American Indians) are at high risk for developing diabetes.[51] Prediabetes is an underreported condition that increases a person's risk of type 2 diabetes, heart disease and stroke.[52]

♦ In 2013-2014, an estimated 12.8% of Black, non-Hispanic adults in Michigan reported ever being told by a doctor that they had diabetes, significantly higher than all Michigan adults (10.4% [95% CI: 9.9-10.9]). In 2014, an estimated 12.3% (95% CI: 9.6-15.5) of Black adults reported ever being told by a doctor that they had prediabetes, significantly higher than all Michigan adults (8.2% [95% CI: 7.4-9.0]).

♦ The prevalence of diabetes among Black adults increased with age but was similar by gender, education and household income level.

♦ Uninsured Black adults (4.6%) were less likely to have been diagnosed with diabetes than insured Black adults (14.7%), while disabled Black adults (21.7%) were more likely to have been diagnosed with diabetes than non-disabled Black adults (9.2%).

♦ In 2013-2014, Black adults (12.8%) reported a significantly higher prevalence of diabetes than White, non-Hispanics (10.0%) in Michigan. The prevalence among Blacks did not significantly differ from that of Other, non-Hispanics and Hispanics.

♦ Since 2005, the prevalence of ever being diagnosed with diabetes has consistently been higher among Black, non-Hispanics than all adults and White, non-Hispanics in Michigan, although not all of the differences have been significant.

| 2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Told Diabetes[a]	
	%	95% Confidence Interval
Total	**12.8**	**(11.2-14.5)**
Age		
18 - 44	3.9	(2.5-5.9)
45 - 64	18.3	(15.3-21.8)
65+	28.9	(24.1-34.3)
Gender		
Male	13.3	(10.8-16.3)
Female	12.3	(10.4-14.5)
Education		
HS graduate or less	13.2	(10.8-16.1)
Some college or more	12.2	(10.3-14.5)
Household Income		
< $25,000	13.7	(11.2-16.6)
$25,000 - $49,999	13.7	(10.6-17.7)
$50,000+	10.7	(7.8-14.5)
Health Insurance		
Insured	14.7	(12.8-16.8)
Uninsured	4.6	(2.6-7.9)
Disability		
Not disabled	9.2	(7.7-11.1)
Disabled	21.7	(17.8-26.1)

[a] Among all Black, non-Hispanic adults, the proportion who reported that they were ever told by a doctor that they had diabetes. Adults told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed. (N = 1,882)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

Ever Told Diabetes by Race/Ethnicity, Michigan, 2013-2014
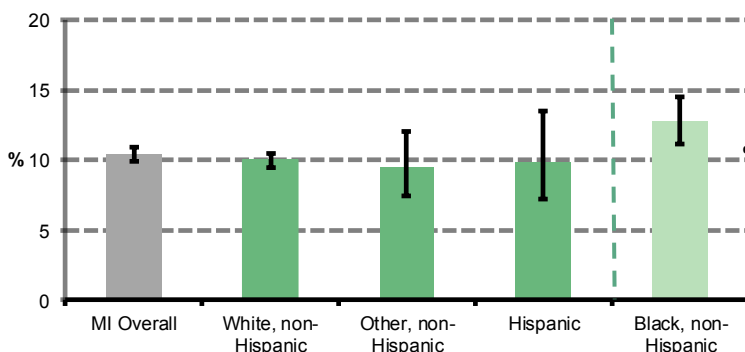
Diabetes, All Adults vs. White and Black Adults, Michigan, 2005-2014
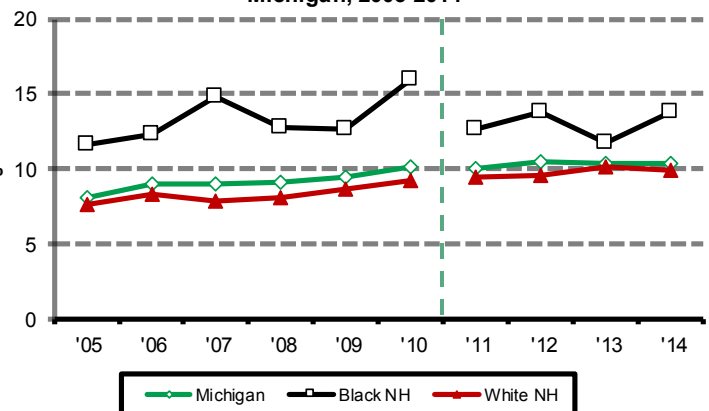
Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to the BRFSS estimates from 2010 and earlier.

Kidney Disease

Kidney disease is a condition in which the kidneys are damaged and cannot filter blood properly. Adults with diabetes or hypertension are at increased risk of kidney disease. Kidney disease is also a risk factor for the development of cardiovascular disease. Kidney failure occurs when the kidneys can no longer function properly and you need dialysis or a kidney transplant to survive. Nationally, kidney disease and kidney failure is more prevalent among Black, non-Hispanics adults than White, non-Hispanic adults.[53] In Michigan, Blacks have a higher morality rate for kidney disease compared to Whites.[5]
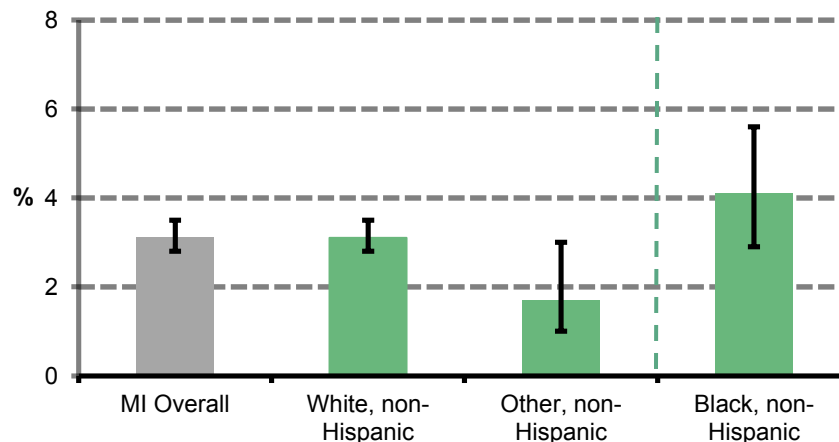
♦ In 2013-2014, an estimated 4.1% of Black, non-Hispanic adults in Michigan reported ever being told by a doctor that they had kidney disease, similar to all Michigan adults (3.1% [95% CI: 2.8-3.5]).

♦ The prevalence of kidney disease among Black adults generally increased with age but was similar by education level.

♦ Disabled Black adults (10.3%) were over six times more likely to have been diagnosed with kidney disease than non-disabled Black adults (1.6%).

♦ In 2013-2014, the prevalence of kidney disease among Black, non-Hispanic adults (4.1%) was similar to all of the other racial/ethnic groups in Michigan (Hispanic data not available).

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Told Kidney Disease[a]	
	%	95% Confidence Interval
Total	**4.1**	**(2.9-5.6)**
Age		
18 - 44	--[b]	---
45 - 64	5.0	(3.3-7.6)
65+	7.5	(5.0-11.0)
Gender		
Male	--[b]	---
Female	5.0	(3.5-7.2)
Education		
HS graduate or less	5.7	(3.7-8.6)
Some college or more	5.7	(3.7-8.6)
Household Income		
< $25,000	4.7	(3.0-7.2)
$25,000 - $49,999	--[b]	---
$50,000+	--[b]	---
Health Insurance		
Insured	5.0	(3.6-6.8)
Uninsured	--[b]	---
Disability		
Not disabled	1.6	(1.1-2.5)
Disabled	10.3	(6.8-15.5)

[a] Among all Black, non-Hispanic adults, the proportion who reported ever being told by a doctor that they had kidney disease. (N = 1,869)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

Ever Told Kidney Disease by Race/Ethnicity, Michigan, 2013-2014
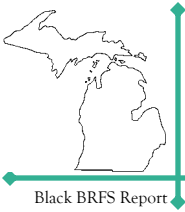
Depression

Depression is a common and treatable medical disorder that is more common among individuals with chronic conditions such as obesity, diabetes, and arthritis.[54]

♦ In 2013-2014, an estimated 18.6% of Black, non-Hispanic adults in Michigan reported ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression. This was similar to 20.9% of all adults in Michigan (95% CI: 20.1-21.7).

♦ The prevalence of depression among Black adults was highest in the middle age group (45-64 years) and decreased with increasing education and household income level.

♦ Although Black females reported a higher prevalence of depression than Black males, the difference was not significant.

♦ Insured Black adults (20.4%) were more likely to have been diagnosed with depression than uninsured Black adults (10.7%).

♦ Disabled Black adults (42.0%) were over four times more likely to have been diagnosed with depression than non-disabled Black adults (9.4%).

♦ In 2013-2014, the prevalence of depression among Black, non-Hispanic adults (18.6%) was similar to all of the other racial/ethnic groups in Michigan.

2013-2014 MiBRFS Black, non-Hispanic Demographic Characteristics	Ever Told Depression[a]	
	%	95% Confidence Interval
Total	**18.6**	**(16.3-21.1)**
Age		
18 - 44	15.9	(12.5-20.0)
45 - 64	24.6	(20.9-28.7)
65+	13.3	(10.1-17.3)
Gender		
Male	16.5	(13.2-20.4)
Female	20.3	(17.3-23.6)
Education		
HS graduate or less	23.1	(19.4-27.4)
Some college or more	13.7	(11.4-16.3)
Household Income		
< $25,000	25.7	(21.8-30.1)
$25,000 - $49,999	12.8	(9.6-16.9)
$50,000+	9.4	(6.4-13.5)
Health Insurance		
Insured	20.4	(17.8-23.3)
Uninsured	10.7	(7.3-15.5)
Disability		
Not disabled	9.4	(7.5-11.6)
Disabled	42.0	(36.4-47.8)

[a] Among all Black, non-Hispanic adults, the proportion who reported ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression. (N = 1,876)
[b] This estimate was suppressed due to a denominator of less than 50 and/or a relative standard error of greater than 30%.

Ever Told Depression by Race/Ethnicity, Michigan, 2013-2014
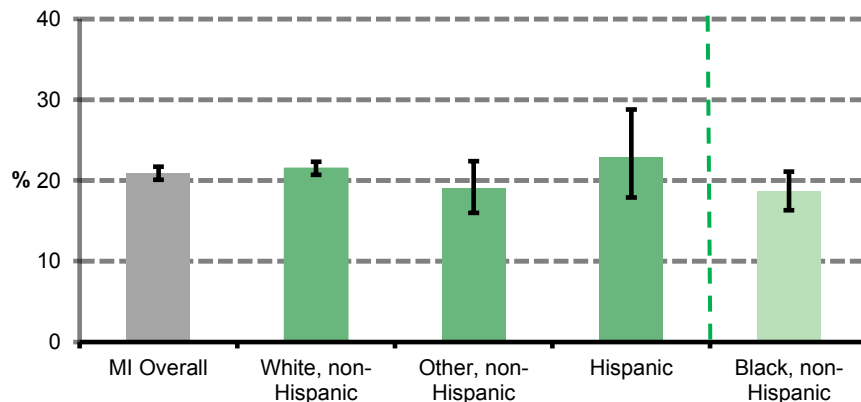
Adverse Childhood Experiences

Adverse childhood experiences (ACEs) can include physical, verbal, or sexual abuse, as well as family dysfunction (e.g., physical abuse in the household between adults, parent separation/divorce, someone in the family had substance abuse problems, mental illness, incarceration).[55] These have been linked to adverse health outcomes later in adulthood, including depression, substance abuse, chronic conditions such as diabetes, cardiovascular disease and cancer, as well as premature mortality.[56-58]

♦ In 2013, the highest proportion of Black, non-Hispanic adults reported having two or three ACEs (30.3%), followed by none (26.7%) and one (25.6%).

♦ In 2013, the average number of ACEs among Black adults was 1.8 (95% CI: 1.6-2.1), compared to 1.5 (95% CI: 1.5-1.6) among all adults in Michigan. The average number of ACEs among Blacks was significantly higher than among White, non-Hispanic adults (1.5 [95% CI: 1.4-1.5]) but similar to Other, non-Hispanics (1.7 [95% CI: 1.3-2.0]) and Hispanics (2.2 [95% CI: 1.3-3.2]).

♦ Black adults most commonly reported being verbally abused as a child compared to being physically or sexually abused.

♦ Black adults (15.4%) were nearly two times more likely than all adults in Michigan (7.8% [95% CI: 6.6-9.2]) to report living with someone who served time in jail as a child.

♦ Almost half of Black adults reported having their parents separated or divorced as a child (45.9%), significantly higher than all adults (26.6% [95% CI: 24.6-28.6]) and White, non-Hispanic adults (22.7% [95% CI: 20.8-24.8]) in Michigan. The prevalence among Blacks did not significantly differ from that of Other, non-Hispanics and Hispanics.

| 2013 MiBRFS Black, non-Hispanic Demographic Characteristics	%	95% Confidence Interval
Number of ACEs[a]		
None	26.7	(20.5-33.8)
One	25.6	(19.1-33.4)
Two or Three	30.3	(23.7-37.9)
Four or More	17.5	(12.5-23.8)
Verbally Abused as a Child[b]	34.1	(27.4-41.4)
Physically Abused as a Child[c]	15.1	(10.5-21.2)
Sexually Abused as a Child[d]	13.7	(9.5-19.4)
Parents Were Separated/Divorced[e]	45.9	(38.5-53.6)
Adults in Household Physically Violent to One Another One or More Time[f]	18.0	(12.9-24.6)
Lived with Someone with Mental Illness[g]	12.5	(8.4-18.1)
Lived with an Alcoholic[h]	16.0	(11.5-21.8)
Lived with Someone Who Used Drugs[i]	18.5	(13.3-25.0)
Lived with Someone Who Served Time in Jail[j]	15.4	(10.6-21.7)

Adverse childhood experiences referred to the time period before the respondents were 18 years of age. Among all Black, non-Hispanic adults, the average number of ACE (N = 253)[a], the proportion who reported: [b] being verbally abused as a child one or more times (N = 264), [c] being physically abused as a child one or more times (N = 266), [d] they were sexually abused one or more times by someone at least five years older or an adult (N=267),[e] that their parents separated or divorced as a child (N = 267), [f] having adults in the household that were physically violent to one another as a child (N = 260), [g] living with someone with a mental illness as a child (N = 268), [h] living with an alcoholic as a child (N = 269), [i] living with someone who used drugs as a child (N = 268), [j] living with someone who served time in jail as a child (N = 268).

Parents Were Seperated/Divorced as a Child by Race Ethnicity, Michigan, 2013
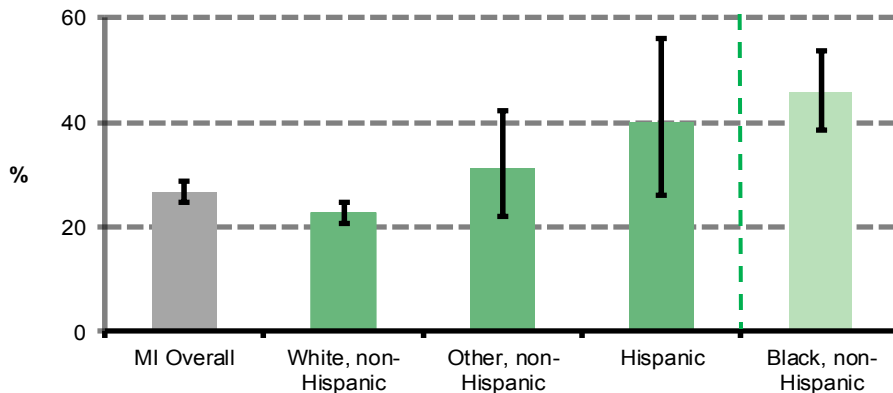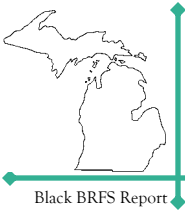
The MiBRFS is an annual, statewide telephone survey of Michigan adults, aged 18 years and older, conducted to collect prevalence data of the adult population related to risk factors and conditions associated with many of the leading causes of morbidity and mortality. The MiBRFS is a collaborative effort among the Population Health Surveillance Branch (PHSB) of the Centers for Disease Control and Prevention (CDC), the Michigan State University (MSU) Institute for Public Policy and Social Research (IPPSR) Office for Survey Research, and the MDHHS. Michigan Behavioral Risk Factor Surveillance System (MiBRFSS) data contribute to the CDC Behavioral Risk Factor Surveillance System (BRFSS) that is conducted within every state, the District of Columbia, and within several U.S. territories.

In 2013 and 2014, the MiBRFS collected data from both landline and cell phone respondents. The sample of landline telephone numbers was selected using a list-assisted, random-digit-dialed methodology with a disproportionate stratification based on phone bank density, listedness, and population density of African Americans. The sample of cell phone numbers was randomly selected from dedicated cellular telephone banks sorted on the basis of area code and exchange. Prior to 2013, Blacks were oversampled at the state-level to reliably estimate health outcomes and behaviors within the group.

A weighting methodology known as iterative proportional fitting or raking was used beginning in 2011 to allow for the incorporation of cell phone data and to improve the accuracy of prevalence estimates based on MiBRFS data. Estimates based on this weighting methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of the Michigan adult population by telephone source (landline or cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status.

Due to the BRFSS methodology changes that took place in 2011, the 2013-2014 MiBRFS estimates provided within this report should only be compared to MiBRFS estimates from 2011 and beyond and not to MiBRFS estimates from years prior to 2011. Prevalence estimates and asymmetric 95% confidence intervals (95% CIs) were calculated using SAS-Callable SUDAAN (version 11.0.0), a statistical computing program that was designed for analyzing data from multistage sample surveys.[59] If the 95% CIs for two estimates did not overlap, they were considered to be statistically different. A limitation is that comparisons were made between the Black, non-Hispanic population and the entire Michigan population even though these populations are not independent. Unless otherwise specified, respondents who answered that they did not know or refused to answer were not included in the calculation of estimates.

Two years of data (2013 and 2014) were used in this report since some survey questions are only asked in even or odd years. Multiple years of data also allowed for a larger sample size. For comparison purposes, the statewide prevalence estimates, as well as White, non-Hispanic, Black, non-Hispanic, and Other, non-Hispanic estimates, were used from the 2013-2014 MiBRFS. Additionally, data from the MiBRFS from 2005 to 2014 were also used to allow for data over time by race/ethnicity to be examined. For preventive screening practices indicators that only had even year data available, 2004 was also used.

Sample Results for the 2013 and 2014 MiBRFS

The total sample size for the 2013 MiBRFS was 12,759 (landline = 8,762; cell phone = 3,997). The response rate for the landline portion of the 2013 MiBRFS was 48.2%, while the response rate for the cell phone portion of the survey was 33.6%. The overall weighted response rate (landline and cell phones combined) for the 2013 MiBRFS was 44.0%. The overall weighted U.S. median response rate for 2013 was 46.4%.[60]

The total sample size for the 2014 MiBRFS was 8,466 (landline = 4,973; cell phone = 3,493). The response rate for the landline portion of the 2014 MiBRFS was 50.3%, while the response rate for the cell phone portion of the survey was 41.6%. The overall weighted response rate (landline and cell phones combined) for the 2014 MiBRFS was 47.8%. The overall weighted U.S. median response rate for 2014 was 47.0%.[61]

Over the past several years, MDHHS has been able to maintain an annual MiBRFS sample size of at least 8,000 completed interviews for the MiBRFS. A larger annual sample size increases the utility of the survey by providing more precise estimates, allowing for increased number of topics to be covered each year, and enabling the calculation of estimates for more demographic and geographic subpopulations.

Acknowledgements

1. Rastogi S, Johnson TD, Hoeffel EM, Drewery MP. 2011. The Black Population: 2010. 2010 Census Briefs. United States Census Bureau, U.S. Department of Commerce. http://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf. (April 2016).

2. Michigan Department of Health and Human Services. 2015. Michigan Population Trends by Race, 1990-2014, Michigan Total. NCHS, CDC, MDHHS. Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services. http://www.mdch.state.mi.us/pha/osr/CHI/POP/DP00_R1.asp (March 2016).

3. U.S. Census Bureau, 2011-2013 American Community Survey. Table S0201. Available from: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. (April 2016).

4. Kochanek KD, Arias E, Anderson RN. Leading causes of death contributing to decrease in life expectancy gap between black and white populations: United States, 1999–2013. NCHS data brief, no 218. Hyattsville, MD: National Center for Health Statistics. 2015.

5. Michigan Department of Health and Human Services, Division of Vital Records & Health Statistics. Age-Adjusted Mortality Rates for Ten Leading Causes by Sex and Race, Michigan 2014. http://www.mdch.state.mi.us/pha/osr/deaths/causRSrtcnty.asp. (April 2016).

6. Adelman L, et al. 2008. Public Broadcasting Service. Unnatural causes: Is inequality making us sick? Chapter 3: SES, Genes, & Health. San Francisco, Calif.: California Newsreel. Available from: http://www.unnaturalcauses.org/assets/uploads/file/UC_Transcript_2.pdf. (April 2016).

7. Mays VM, Cochran SD, Barnes NW. Race, Race-Based Discrimination, and Health Outcomes Among African Americans. Annu Rev Psychol. 2007; 58:201-225.

8. Skarupski KA, McGee HB, Rafferty AP, Reeves M. 1996. Health Risk Behaviors Among African-Americans in Michigan. Lansing, MI: Michigan Department of Community Health, Center for Health Promotion and Chronic Disease Prevention and Michigan Public Health Institute.

9. National Research Council (US) Panel on Race, Ethnicity, and Health in Later Life; Anderson NB, Bulatao RA, Cohen B, editors. Critical Perspectives on Racial and Ethnic Differences in Health in Late Life. Washington (DC): National Academies Press (US); 2004. 9, Race/Ethnicity, Socioeconomic Status, and Health. Available from: http://www.ncbi.nlm.nih.gov/books/NBK25526/. (April 2016).

10. Office of Minority Health. African American Profile. U.S. Department of Health and Human Services. http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=61 (April 2016).

11. Mead H, Cartwright-Smith L, Jones K, Ramos C, Woods K, Siegel B. Racial and ethnic disparities in U.S. health care: a chartbook. New York, NY: The Commonwealth Fund; 2008. Available at http://www.commonwealthfund.org/usr_doc/mead_racialethnicdisparities_chartbook_1111.pdf.

12. Centers for Disease Control and Prevention. 2010. Social Determinants of Equity and Social Determinants of Health. http://minorityhealth.hhs.gov/Assets/pdf/Checked/1/CamaraJones.pdf. (April 2016).

13. Centers for Disease Control and Prevention. 2015. Family Health - Regular Checkups are Important. http://www.cdc.gov/family/checkup/. (April 2016).

14. Idler E, Benyamini Y. Self-rated Health and Mortality: A Review of 27 Community Studies. J Health Soc Behav. 1997; 38(1): 21-37.

15. U.S. Department of Justice, Civil Rights Division. 2009. A Guide to Disability Rights Laws. http:www.ada.gov/cguide.htm. (April 2016).

16. National Institutes of Health, NHLBI Obesity Education Initiative. 1998. Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf. (April 2016).

17. Finkelstein EA, Trogdon JG, Cohen JW, Dietz W. Annual Medical Spending Attributable to Obesity: Payer- and Service-specific Estimates. Health Affairs. 2009; 28(5): w822-w831.

18. Centers for Disease Control and Prevention. 2015. Adult Obesity Facts. http://www.cdc.gov/obesity/data/adult.html. (April 2016).

19. Hoffman C, Paradise J. Health Insurance and Access to Health Care in the United States. Ann N Y Acad Sci. 2008;1136:149-160.

20. Starfield B, Leiyu S, Macinko J. Contribution of Primary Care to Health Systems and Health. The Milbank Quarterly. 2005; 83(3):457-502.

21. Scheyve PM. Language Differences as a Barrier to Quality and Safety in Health Care: The Joint Commission Perspective. 2007; J Gen Intern Med. 22(Suppl 2): 360-361.

22. Syed ST, Gerber BS, Sharp LK. Traveling towards disease: transportation barriers to health care access. J Community Health. 2013; 38(5):976-93.

23. Centers for Disease Control and Prevention. 2015. Physical Activity and Health - The Benefits of Physical Activity. http://www.cdc.gov/physicalactivity/everyone/health/. (April 2016).

24. National Center for Health Statistics. 2012. Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2011. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. http://www.cdc.gov/nchs/data/series/sr_10/sr10_256.pdf. (April 2016).

25. United States Department of Agriculture. 2016. My Plate: Build a Healthy Eating Style. http://www.choosemyplate.gov/MyPlate. (June 2016).

26. Coleman-Jensen A., Rabbitt M, Gregory C, Singh A. 2015. Household Food Security in the United States in 2014. United States Department of Agriculture Economic Research Service. http://www.ers.usda.gov/media/1896841/err194.pdf. (April 2016).

27. U.S. Department of Health and Human Services. 2014.The Health Consequences of Smoking - 50 Years of Progress: A Report of the Surgeon General. http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf. (April 2016).

28. Centers for Disease Control and Prevention. 2016. Alcohol and Public Health - Alcohol Use and Health. http://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm. (April 2016).

29. Centers for Disease Control and Prevention. 2015. Sleep and Sleep Disorders. http://www.cdc.gov/sleep/index.html. (April 2016).

30. Centers for Disease Control and Prevention. 2015. High Blood Pressure - High Blood Pressure Facts. http://www.cdc.gov/bloodpressure/facts.htm. (April 2016).

31. Nwankwo T, Yoon SS, Burt V, Gu Q. Hypertension among adults in the United States: National Health and Nutrition Examination Survey, 2011–2012. NCHS Data Brief. 2013;(133):1–8.

32. Centers for Disease Control and Prevention. 2015. Cholesterol—High Cholesterol Facts. http://www.cdc.gov/cholesterol/facts.htm. (April 2016).

33. Centers for Disease Control and Prevention. 2015. Heart Disease Fact Sheet. http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_heart_disease.htm. (June 2016).

34. American Cancer Society. 2015. Cancer Facts and Figures 2015. http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-044552.pdf. (April 2016).

35. American Cancer Society. 2013. Cancer Facts and Figures for African Americans 2013-2014.http://www.cancer.org/acs/groups/content/@epidemiologysurveilance/documents/document/acspc-036921.pdf. (April 2016).

36. Michigan Department of Health and Human Services. 2016. Michigan Mortality Statistics, Total Deaths by Cause and Sex, Michigan Residents, 2014. Division of Vital Records & Health Statistics. http://www.mdch.state.mi.us/pha/osr/deaths/DXCause113.asp. (April 2016).

37. U.S. Preventing Services Task Force. 2015. Cervical Cancer Screening: Summary of Recommendations and Evidence. http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/cervical-cancer-screening?ds=1&s=cervical cancer. (June 2016).

38. Centers for Disease Control and Prevention. 2015. Cancer Among Men. http://www.cdc.gov/cancer/dcpc/data/men.htm. (April 2016).

39. U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.

40. Centers for Disease Control and Prevention. 2013. Adult Oral Health: Oral Health for Adults. http://www.cdc.gov/OralHealth/publications/factsheets/adult_oral_health/adults.htm. (April 2016).

41. Centers for Disease Control and Prevention. 2015. Recommended Adult Immunization Schedule, by Vaccine and Age Group - United States, 2015. http://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html. (April 2016).

42. Greby SM, Lu PJ, Euler G, Wiliams WW, Singleton JA. 2010. NHIS 2009 Adult Vaccination Coverage. Then National Health Interview Survey. http://www.cdc.gov/vaccines/imz-managers/coverage/nhis/2009-nhis.html. (April 2016).

43. Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents. Department of Health and Human Services. http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf. (April 2016).

44. Centers for Disease Control and Prevention. Vital Signs: HIV Diagnosis, Care, and Treatment Among Persons Living with HIV—United States, 2011. Morbidity and Mortality Weekly Report. November 28, 2014; 63(47):1113-1117.

45. Centers for Disease Control and Prevention. 2013. Asthma's Impact on the Nation - Data from the CDC National Asthma Control Program. http:www.cdc.gov/asthma/impacts_nation/asthmafactsheet.pdf. (June 2016).

46. U.S. Department of Health and Human Services, National Heart Lung and Blood Institute. 2014. Who is at Risk for Asthma? http://www.nhlbi.nih.gov/health/health-topics/topics/asthma/atrisk. (April 2016).

47. U.S. Department of Health and Human Services, National Heart Lung and Blood Institute. 2013. What is COPD? http://www.nhlbi.nih.gov/health/health-topics/topics/copd. (June 2016).

48. Centers for Disease Control and Prevention. 2015. Arthritis: At-a-Glance 2015. http://www.cdc.gov/chronicdisease/resources/publications/AAG/arthritis.htm. (April 2016).

49. Michigan Department of Health and Human Services, Division of Vital Records & Health Statistics. Number of Deaths and Age-adjusted Mortality Rates for Ten Leading Causes of Death, Michigan and United States Residents, 2014. http://www.mdch.state.mi.us/pha/osr/deaths/causrankcnty.asp. (April 2016).

50. National Cancer Institute. 2015. What is Cancer? http://www.cancer.gov/about-cancer/what-is-cancer#types-ofcancer. (April 2016).

51. Centers for Disease Control and Prevention. 2015. Diabetes Home - Basics About Diabetes. http://www.cdc.gov/diabetes/basics/diabetes.html. (April 2016).

52. Centers for Disease Control and Prevention. 2015. National Diabetes Prevention Program - Prediabetes: Am I at risk? http://www.cdc.gov/diabetes/prevention/prediabetes.htm. (April 2016).

53. Centers for Disease Control and Prevention. 2014. National Chronic Kidney Disease Fact Sheet, 2014. http://www.cdc.gov/diabetes/pubs/pdf/kidney_factsheet.pdf. (April 2016).

54. Centers for Disease Control and Prevention. Current Depression Among Adults - United States, 2006 and 2008. MMWR 2010; 59(38): 1229-1235.

55. Centers for Disease Control and Prevention. Adverse Childhood Experiences Reported by Adults --- Five States,2009. MMWR 2010; 59(49): 1609-1613.

56. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The adverse childhood experiences (ACE) study. Am J Prev Med 1998;14:245--58.

57. Brown DW, Anda RF, Henning T, et al. Adverse childhood experiences and the risk of premature mortality. Am J Prev Med. 2009;37:389--96.49.

58. Anda RF, Felitti VJ, Bremner JD, et al. The enduring effects of abuse and related experiences in childhood: a convergence of evidence from neurobiology and epidemiology. Eur Arch Psychiatry Clin Neurosci 2006;256:174-86.

59. Research Triangle Institute. (2012). SUDAAN Language Manual, Volumes 1 and 2, Release 11.0. Research Triangle Park, NC: Research Triangle Institute.

60. Centers for Disease Control and Prevention. 2014. 2013 Summary Data Quality Report. http://www.cdc.gov/brfss/annual_data/2013/pdf/2013_DQR.pdf. (April 2016).

61. Centers for Disease Control and Prevention. 2015. 2014 Summary Data Quality Report. http://www.cdc.gov/brfss/annual_data/2014/pdf/2014_DQR.pdf. (April 2016).

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