

# HEALTH RISK BEHAVIORS AMONG HISPANIC ADULTS WITHIN THE STATE OF MICHIGAN



## 2014 HISPANIC BEHAVIORAL RISK FACTOR SURVEY





Michigan Department of Health & Human Services

RICK SNYDER, GOVERNOR | NICK LYON, DIRECTOR

# 2014 Hispanic Behavioral Risk Factor Survey

Health Risk Behaviors  
Among Hispanic Adults  
Within the State of Michigan

[www.michigan.gov/brfs](http://www.michigan.gov/brfs)  
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# Hispanics/Latinos in Michigan

2014 HBRFS

Hispanics are the largest racial/ethnic minority group in the United States (US), comprising 17.3% of the total population in 2014<sup>1</sup> and expected to increase to 22.8% by 2035.<sup>2</sup> While the terms “Hispanic” and “Latino” are often used interchangeably, “Hispanic” refers to a country of origin with Spanish as the first language, while “Latino” refers to Latin American origin.<sup>3</sup> “Hispanic or Latino” is defined by the US Census as a “person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race”.<sup>4</sup> The Hispanic population in the US increased by 15.2 million between 2000 to 2010 and actually made up more than half of the total population growth nationwide during this time.<sup>4</sup> Although the US Census includes individuals that are foreign born, regardless of their legal status, the true population estimate for Hispanics may be expected to be even higher when including all undocumented individuals.<sup>5</sup> The largest proportion of Hispanics in the US are Mexican (63.0%), with smaller proportions from many different origins (Puerto Rican (9.2%), Central American (7.9%), South American (5.5%), Cuban (3.5%), Dominican (2.8%), Spaniard (1.3%), and Other Hispanic (6.8%)).<sup>4</sup> Over three-quarters of the Hispanic population live in either the Western (40.8%) or the Southern (36.1%) portion of the country.<sup>4</sup>

In 2010, there were 4.7 million Hispanics living in the Midwest<sup>†</sup>.<sup>4</sup> Michigan is home to the second largest Hispanic population in the Midwest<sup>4</sup>, with an estimated 4.8% of the statewide population Hispanic or Latino in 2014.<sup>6</sup> The majority of Hispanics in the state identify as Mexican followed by Puerto Rican.<sup>1</sup> While the overall Michigan population decreased from 2000-2010, the Hispanic population in the state increased by more than one third (34.7%) during the same time period.<sup>3</sup> The Hispanic population growth has been fueled primarily by international immigration and migration from other US regions as well as local labor market opportunities (ex. agricultural and meatpacking industries).<sup>7</sup>

The Hispanic population in the US is on average younger, poorer, and less educated than the entire population.<sup>1</sup> Despite these socioeconomic barriers, the all-cause mortality rate for Hispanics was found to be 24% lower compared to White, non-Hispanics.<sup>2</sup> The death rate for two of the leading causes of death, heart disease and cancer, were also found to be lower among Hispanics than White, non-Hispanics. However, Hispanics did have a significantly higher death rate for diabetes as well as chronic liver disease and cirrhosis.<sup>2</sup> When these death rates were examined by Hispanic subpopulation, Mexicans and Puerto Ricans were found to have a 80% greater death rate for diabetes compared to White, non-Hispanics.<sup>2</sup> Differences in health status and outcomes among Hispanics have also been found to vary based on one’s country of birth. US-born Hispanics have often been found to have worse health outcomes compared to foreign-born Hispanics, often referred to as the “Hispanic paradox”.<sup>6</sup> Potential explanations for this trend could be due to strong family support in recently immigrated families and healthier people being more likely to migrate.<sup>2,8</sup>

Although the Hispanic population is growing, accurate and timely data at the population level are limited. Data are necessary to help describe current health conditions and identify areas to focus prevention and intervention programs to improve the health of Hispanics in Michigan. Currently, 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. Due to the small number of Hispanic participants generally included in the survey annually, meaningful analysis within this group is limited. The Michigan Department of Health and Human Services (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, in collaboration with the MDHHS Lifecourse Epidemiology and Genomics Division, conducted a statewide survey of Hispanic adults, the Hispanic Behavioral Risk Factor Survey (HBRFS), first in 2012 and again in 2014.

<sup>†</sup> Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.



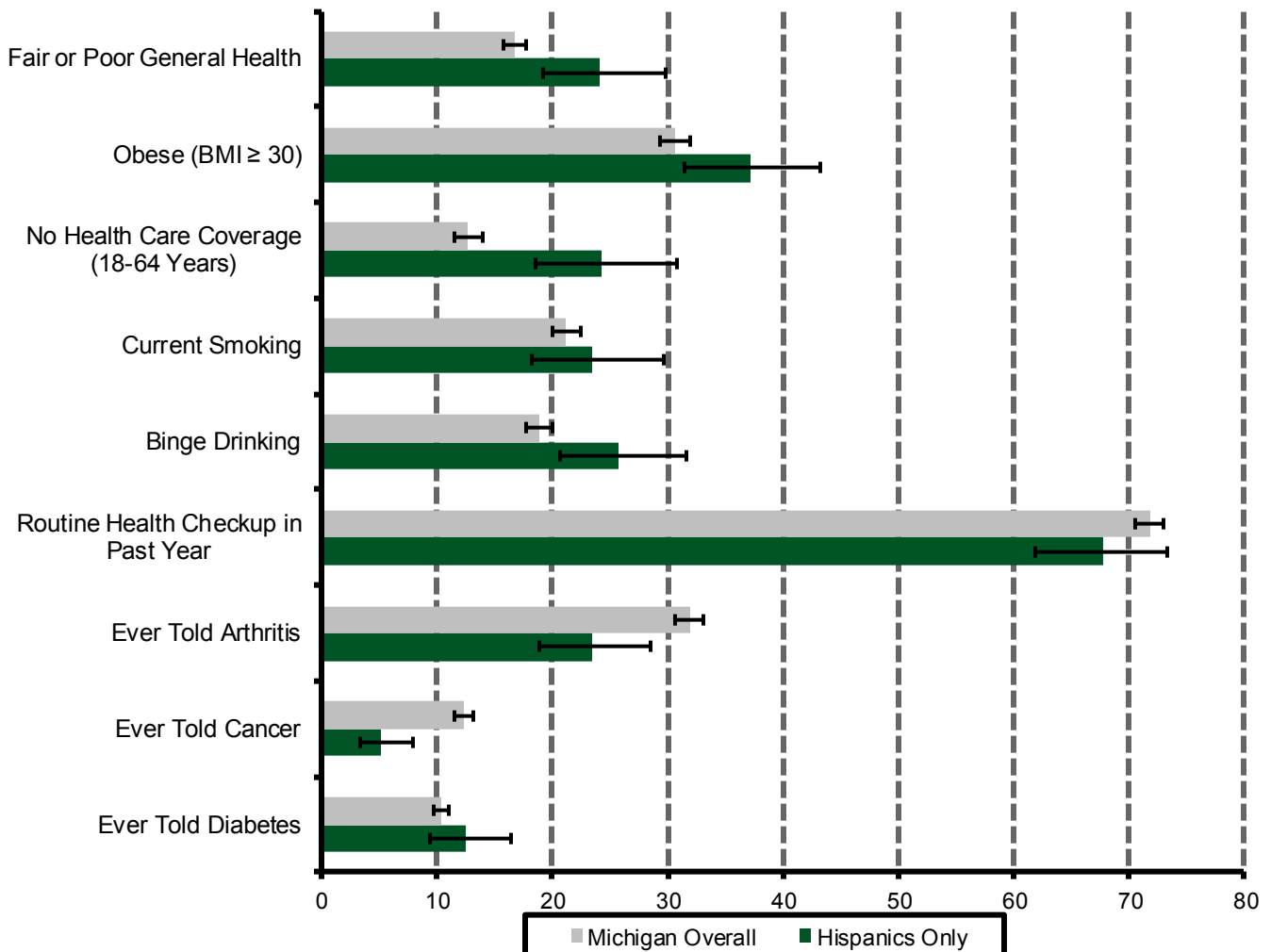


# Summary

This report presents estimates from the 2014 HBRFS with results representing Hispanic adults aged 18 years and older in Michigan. Also included within this report are results from the 2012 HBRFS for comparison purposes. This report provides state-specific, population-based estimates of the prevalence of various health behaviors, medical conditions, and preventive health care practices that focus specifically on 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 'Hispanic' and 'Latino' are used interchangeably. The survey findings are used by public health agencies, academic institutions, non-profit organizations, and others to develop programs that promote the health of Hispanic 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.<sup>9</sup> Nationwide, the Hispanic population is younger, and of lower education and income compared to the White, non-Hispanic population and a similar pattern was found statewide in the 2014 HBRFS.<sup>1</sup> For this reason, results adjusted for age are included on pages 1-4.

Selected Risk Factors - 2014 HBRFS and 2014 MiBRFS  
Michigan vs. Hispanic Adults Only (Unadjusted Estimates)





# Summary, continued

## Public Health Implications of Findings

A number of themes emerge from the findings of the 2014 HBRFS that have implications for public health.

### ✦ Almost 4 in 10 Hispanic adults in Michigan have obesity.

In 2014, an estimated 37.2% of Hispanic adults in Michigan were classified as having obesity compared to 30.7% of all Michigan adults. Half (50.9%) of Hispanic adults between the ages of 45 and 64 years were classified as having obesity. The Hispanic population in Michigan is primarily comprised of young adults (63.6% of Hispanic adults are between the ages of 18-44 years compared to 44.0% of all Michigan adults). After taking into account population age differences, the obesity estimate among Hispanics was significantly higher (38.3%) than all adults in Michigan (30.4%). Improvements in the prevalence of obesity are needed in order to have a positive impact as the population ages as well as other diseases that are associated with obesity such as diabetes, cardiovascular disease, and arthritis. MDHHS has a number of programs designed to decrease obesity, increase physical activity and promote healthy eating among Michigan adults and children. One program that MDHHS has helped fund is called the MOTION Coalition, a promotion and messaging effort focused on increasing awareness of healthy food items and limiting unhealthy messages in a predominately Latino community in Southwest Detroit.

### ✦ Lower access to health care coverage among Hispanic adults in Michigan.

In 2014, Hispanic adults aged 18-64 years (24.2%) were nearly two times more likely to report not having health care coverage compared to 12.7% of all Michigan adults aged 18-64 years. Additionally, 23.1% of Hispanic adults reported not seeing the doctor within the past 12 months due to cost, significantly higher than all Michigan adults (14.6%). Nationwide, Hispanics have the highest rates of being uninsured compared to all other racial and ethnic groups.<sup>10</sup> The high rate of uninsured among Hispanics combined with cultural differences, language, and immigration status can act as barriers to receiving appropriate and timely health care services.<sup>11</sup>

### ✦ Hispanic adults report poorer self-assessed health compared to all adults in Michigan.

Almost a quarter (24.1%) of Hispanic adults reported that their general health was either fair or poor in 2014, significantly higher than among all Michigan adults (16.8%). Disparities in self-reported health were found to exist at the national level with Hispanic adults more likely to report their health as fair or poor compared to White, non-Hispanic adults.<sup>12</sup> While differences in risk behaviors (e.g. no physical activity, smoking) and chronic conditions should be considered, factors such as racism and the role that limited access to social resources should not be overlooked. A significantly higher proportion of Hispanic adults (40.2%) reported a household income level of less than \$25,000 compared to all adults (27.8%) in Michigan. Increased stress by way of financial difficulties can ultimately result in differences in underlying health status.<sup>13</sup> Furthermore, it is important to look at the impact of social factors on the prevalence of disease.

### ✦ Health risk behaviors vary by Hispanic subgroup.

In 2014, Puerto Ricans (50.1%) were over two times more likely to report not participating in any exercise in the past month compared to Mexicans (20.4%) in Michigan. Puerto Ricans (44.3%) were also two times more likely to report current smoking compared to Mexicans (22.0%), although the difference was not found to be significant. Differences in health behaviors based on Hispanic subgroup as well as place of birth (US born vs. foreign born) have also been documented at the national level.<sup>2</sup> Although place of birth was not asked in the 2014 HBRFS, any future surveys would include this demographic question.

### ✦ Nearly 1 in 4 Hispanic adults in Michigan report ever being told they had arthritis.

In 2014, an estimated 23.4% of Hispanic adults reported ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia, significantly less compared to all Michigan adults (31.9%). The risk for arthritis increases with age<sup>14</sup> and since the Michigan Hispanic population is primarily comprised of young adults, this can help explain the lower arthritis prevalence among Hispanics. After taking into account the population age differences, the arthritis prevalence among Hispanics was similar to all Michigan adults. MDHHS helps support PATH (Personal Action Toward Health), a self-management program for Michigan adults with chronic diseases such as arthritis, heart disease, diabetes, and depression. The program helps people learn daily and long-term management techniques for living with the conditions. A Spanish version of the program, Tomando Control de su Salud, is available in the Detroit area.



# Summary, continued

## ✧ A lower proportion of Hispanic adults report having cancer.

In 2014, an estimated 5.1% of Hispanic adults in Michigan reported ever being told by a doctor that they had some form of cancer, significantly less compared to all Michigan adults (12.3%). Even after the estimates were adjusted for age, Hispanics still had a significantly lower cancer estimate compared to all adults. Despite these differences, cancer is still the leading cause of death among Hispanics in the US and the second leading cause of death among Hispanics in Michigan.<sup>2,15</sup> Since the HBRFS and 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 cancer and therefore not aware of medical conditions. A significantly lower proportion of Hispanic males aged 50 years and older (32.5%) reported having a Prostate Specific Antigen (PSA) test in the past year compared to all men of similar age in Michigan (45.8%). Hispanic adults and Hispanic women also reported lower proportions of colorectal cancer and breast cancer screenings compared to all adults and all women, respectively, although differences were not significant. Preventive cancer screenings are important for detecting cancer at an earlier stage and helping to prevent further spread of the disease.

## ✧ Diabetes remains a health concern among Hispanics in Michigan.

In 2014, an estimated 12.5% of Hispanic adults in Michigan reported that they had ever been told by a doctor that they had diabetes, compared to 10.4% of all Michigan adults. After adjusting for age, Hispanics were almost two times more likely to report having diabetes (16.0%) compared to all adults (8.8%) in Michigan. At the national level, Hispanics were found to have a significantly higher death rate due to diabetes compared to White, non-Hispanics.<sup>2</sup> MDHHS works with hospitals across the state to certify out-patient self-management education programs for individuals with diabetes or those at risk of developing the disease. The programs help people assess their individual needs and self-management goals. These initiatives are especially important among Hispanics because this population is currently younger compared to the statewide population and if the prevalence of diabetes continues to increase as the Hispanic population ages, diabetes can be expected to become a more significant problem.

## Future of the Hispanic Behavioral Risk Factor Survey

The HDRMHS has conducted the HBRFS in 2012 and 2014, and funding dependent, will repeat the survey in the future. Ongoing implementation of the HBRFS will allow for a larger sample size, leading to more precise health estimates for Hispanic adults. Additionally, the continued collection of Hispanic-specific data will allow for changes over time to be measured.

Additional projects among other populations currently underrepresented within the statewide MiBRFS recently conducted by the MDHHS HDRMHS include:

- In 2012, a stand-alone BRFSS-like survey was conducted among the Asian American/Pacific Islander population within Michigan and results are available online ([www.michigan.gov/minorityhealth](http://www.michigan.gov/minorityhealth) and [www.michigan.gov/brfs](http://www.michigan.gov/brfs)). In 2015, an analysis was conducted using birth certificate data to compare maternal and infant health data 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](http://www.michigan.gov/minorityhealth).
- In 2013, a stand-alone BRFSS-like survey was conducted among the Arab/Chaldean American population within Michigan and results are available online ([www.michigan.gov/minorityhealth](http://www.michigan.gov/minorityhealth) and [www.michigan.gov/brfs](http://www.michigan.gov/brfs)). The survey is being conducted again in 2016.

Conducting BRFSS 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 Indicators

## Health Status Prevalence Estimates among Hispanics in Michigan compared to all Adults in Michigan, 2014

	Hispanics Only <sup>a</sup> Unadjusted <sup>c</sup>	Hispanics Only <sup>a</sup> Adjusted <sup>d</sup>	Michigan <sup>b</sup> Adjusted <sup>d</sup>
	% (95% CI)	% (95% CI)	% (95% CI)
<b>Health Status Indicators</b>			
General Health, Fair or Poor <sup>1</sup>	24.1 (19.2-29.8)	<b>26.1 (21.6-31.3)</b>	15.9 (14.9-17.1)
Poor Physical Health on at least 14 Days in the Past Month <sup>2</sup>	17.8 (13.5-23.1)	<b>19.5 (15.4-24.4)</b>	11.9 (11.0-12.9)
Poor Mental Health on at least 14 Days in the Past Month <sup>3</sup>	17.0 (12.7-22.3)	16.5 (12.6-21.3)	13.2 (12.1-14.4)
Disability <sup>4</sup>	23.8 (19.0-29.3)	25.9 (21.4-31.1)	23.4 (22.2-24.7)
Obese <sup>5</sup>	37.2 (31.4-43.3)	<b>38.3 (33.0-43.8)</b>	30.4 (29.0-31.8)
Overweight <sup>6</sup>	33.7 (28.1-39.7)	35.5 (30.3-41.0)	34.8 (33.4-36.3)
No Health Care Coverage (among 18-64 year olds) <sup>7</sup>	24.2 (18.6-30.8)	<b>22.6 (17.4-28.9)</b>	13.2 (12.0-14.6)
No Personal Health Care Provider <sup>8</sup>	25.9 (20.6-32.1)	22.3 (18.0-27.4)	17.6 (16.4-18.9)
No Health Care Access During Past 12 Months Due to Cost <sup>9</sup>	23.1 (18.0-29.2)	<b>21.7 (17.2-27.0)</b>	15.3 (14.2-16.6)

<sup>a</sup> Prevalence estimates used data from the 2014 HBRFS. (N = 581)

<sup>b</sup> Prevalence estimates used data from the 2014 MiBRFS. (N = 8,466)

<sup>c</sup> Prevalence estimates are not age-adjusted.

<sup>d</sup> 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.

<sup>1</sup> Among all adults, the proportion who reported that their health, in general, was either fair or poor. (N = 580 (HBRFS); N = 8,454 (MiBRFS))

<sup>2</sup> 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 = 570; N = 8,340)

<sup>3</sup> 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 = 572; N = 8,336)

<sup>4</sup> 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 = 565; N = 8,284)

<sup>5</sup> Among all adults, the proportion of respondents whose body mass index (BMI) was greater than or equal to 30.0. (N = 559; N = 8,024)

<sup>6</sup> 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 = 559; N = 8,024)

<sup>7</sup> 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 = 417; N = 5,447)

<sup>8</sup> 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 = 557; N = 8,422)

<sup>9</sup> 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= 579; N = 8,444)



# Risk Behavior Indicators

## Risk Behavior Prevalence Estimates among Hispanics in Michigan compared to all Adults in Michigan, 2014

	Hispanics Only Unadjusted <sup>c</sup>	Hispanics Only Adjusted <sup>d</sup>	Michigan <sup>b</sup> Adjusted <sup>d</sup>
	% (95% CI)	% (95% CI)	% (95% CI)
<b>Health Risk Behaviors</b>			
No Leisure Time Physical Activity <sup>1</sup>	24.8 (19.8-30.5)	25.8 (21.2-31.0)	25.1 (23.8-26.5)
Adequate Physical Activity <sup>2</sup>	19.0 (13.9-25.3)	20.0 (14.7-26.6)	20.0 (18.9-21.1)
Fruit & Vegetable Consumption ( $\geq 5$ times/day) <sup>3</sup>	21.0 (15.6-27.5)	21.7 (16.0-28.6)	15.5 (14.6-16.5)
Current Smoker <sup>4</sup>	23.5 (18.3-29.6)	22.3 (17.8-27.5)	22.3 (21.0-23.7)
Any Alcohol Consumption <sup>5</sup>	55.0 (48.9-60.9)	53.7 (48.3-59.0)	58.4 (56.9-59.9)
Binge Drinking <sup>6</sup>	25.7 (20.6-31.7)	23.5 (19.0-28.8)	20.4 (19.1-21.7)
Ever Told High Blood Pressure <sup>7</sup>	35.7 (29.6-42.4)	35.4 (29.7-41.6)	31.8 (30.7-32.9)

<sup>a</sup> Prevalence estimates used data from the 2014 HBRFS. (N = 581)

<sup>b</sup> Prevalence estimates used data from the 2014 MiBRFS (N = 8,466) for all indicators except adequate physical activity, fruit and vegetable consumption, and ever told to have high blood pressure (2013 MiBRFS data used instead, N = 12,759).

<sup>c</sup> Prevalence estimates are not age-adjusted.

<sup>d</sup> Prevalence estimates are age-adjusted by direct method using 2000 U.S. Census.

Note: CI = Confidence Interval.

<sup>1</sup> 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 = 580 (HBRFS); N = 8,455 (MiBRFS))

<sup>2</sup> Among all adults, the proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities and also participate in muscle strengthening activities on two or more days per week. (N = 411; N = 11,732)

<sup>3</sup> Among all adults, the proportion whose total reported consumption of fruits (including 100% fruit juice) and vegetables was five or more times per day. (N = 403; N = 11,869)

<sup>4</sup> 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 = 562; N = 8,231)

<sup>5</sup> Among all adults, the proportion who reported some form of alcohol consumption within the past month. (N = 562; N = 8,225)

<sup>6</sup> 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 = 552; N = 8,162)

<sup>7</sup> 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 = 421; N = 12,728)



# Clinical Preventive Practices

## Clinical Preventive Practices Prevalence Estimates among Hispanics in Michigan compared to all Adults in Michigan, 2014

	Hispanics Only <sup>a</sup> Unadjusted <sup>c</sup>	Hispanics Only <sup>a</sup> Adjusted <sup>d</sup>	Michigan <sup>b</sup> Adjusted <sup>d</sup>
	% (95% CI)	% (95% CI)	% (95% CI)
<b>Clinical Preventive Practices Indicators</b>			
Routine Health Checkup in the Past Year <sup>1</sup>	67.8 (61.8-73.3)	70.8 (65.6-75.5)	70.0 (68.5-71.4)
Mammography in the Past Year <sup>2</sup>	50.7 (40.0-61.3)	50.9 (41.2-60.5)	55.7 (53.6-57.9)
Clinical Breast Exam & Mammography in the Past Year <sup>3</sup>	41.7 (31.6-52.5)	41.3 (32.4-50.9)	46.5 (44.4-48.7)
Ever had a PAP Test <sup>4</sup>	83.9 (74.8-90.2)	86.3 (79.3-91.2)	90.2 (88.8-91.4)
Had Appropriately Timed Pap Test <sup>5</sup>	75.4 (66.1-82.8)	76.9 (69.2-83.1)	75.5 (73.7-77.3)
Ever Discussed Advantages of PSA Test With Doctor <sup>6</sup>	72.1 (62.5-80.1)	72.5 (63.6-80.0)	73.7 (71.3-75.9)
Had PSA Test in the Past Year <sup>7</sup>	32.5 (24.7-41.5)	36.4 (28.3-45.4)	46.5 (44.0-49.0)
Had Sigmoidoscopy/Colonoscopy in the Past 5 Years <sup>8</sup>	49.2 (41.3-57.2)	49.0 (41.6-56.5)	57.5 (55.9-59.1)
Had Appropriate Colorectal Cancer Screening <sup>9</sup>	62.6 (54.1-70.4)	64.7 (57.1-71.6)	71.7 (70.2-73.1)
No Dental Visit in the Past Year <sup>10</sup>	33.2 (27.5-39.5)	32.6 (27.4-38.2)	32.3 (30.8-33.8)
Missing 6 or More Teeth <sup>11</sup>	7.5 (5.3-10.5)	10.9 (8.3-14.2)	13.8 (13.0-14.7)
Ever Had HIV Testing (Not Part of Blood Donation) <sup>12</sup>	41.4 (35.0-48.1)	41.7 (35.8-47.9)	42.8 (41.1-44.6)

<sup>a</sup> Prevalence estimates used data from the 2014 HBRFS. (N = 581)

<sup>b</sup> Prevalence estimates used data from the 2014 MiBRFS. (N = 8,466)

<sup>c</sup> Prevalence estimates are not age-adjusted.

<sup>d</sup> Prevalence estimates are age-adjusted by direct method using 2000 U.S. Census.

Note: CI = Confidence Interval.

<sup>1</sup> Among all adults, the proportion who reported that they had a routine medical checkup within the past year. (N = 577 (HBRFS); N = 8,370 (MiBRFS))

<sup>2</sup> Among women aged 40 years and older, the proportion who reported having a mammogram within the past year. (N = 168; N = 3,784)

<sup>3</sup> Among women aged 40 years and older, the proportion who reported having a clinical breast exam and a mammogram within the past year. (N = 167; N = 3,764)

<sup>4</sup> Among women aged 18 years and older, the proportion who reported ever having a Pap test. (N = 190; N = 3,268)

<sup>5</sup> Among women aged 18 years and older, the proportion who reported having a Pap test within the previous three years. (N = 185; N = 3,162)

<sup>6</sup> 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 = 194; N = 2,226)

<sup>7</sup> Among men aged 50 years and older, the proportion who reported having a PSA test within the past year. (N = 185; N = 2,226)

<sup>8</sup> Among adults aged 50 years and older, the proportion who reported having a sigmoidoscopy or colonoscopy within the past five years. (N = 321; N = 5,420)

<sup>9</sup> 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 = 315; N = 5,362)

<sup>10</sup> 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 = 569; N = 8,414)

<sup>11</sup> 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 = 565; N = 8,273)

<sup>12</sup> 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 = 397; N = 5,136)





# Chronic Conditions

## Chronic Conditions Prevalence Estimates among Hispanics in Michigan compared to all Adults in Michigan, 2014

Chronic Conditions Indicators	Hispanics Only <sup>a</sup> Unadjusted <sup>c</sup>	Hispanics Only <sup>a</sup> Adjusted <sup>d</sup>	Michigan <sup>b</sup> Adjusted <sup>d</sup>
	% (95% CI)	% (95% CI)	% (95% CI)
Ever Told to Have Asthma <sup>1</sup>	16.7 (12.6-21.8)	16.6 (12.8-21.3)	15.3 (14.3-16.4)
Current Asthma <sup>2</sup>	11.1 (7.8-15.5)	11.4 (8.2-15.5)	10.8 (9.9-11.8)
Ever Told Chronic Obstructive Pulmonary Disease <sup>3</sup>	7.1 (4.6-10.8)	6.7 (4.5-10.0)	8.1 (7.4-8.9)
Ever Told to Have Arthritis <sup>4</sup>	23.4 (18.9-28.5)	28.1 (23.9-32.8)	28.7 (27.5-29.9)
Ever Told Any CVD <sup>5</sup>	7.7 (5.2-11.3)	9.6 (7.0-13.2)	8.6 (8.0-9.3)
Ever Told to Have Cancer <sup>6</sup>	5.1 (3.3-7.9)	<b>6.0 (4.1-8.7)</b>	10.9 (10.2-11.6)
Ever Told to Have Diabetes <sup>7</sup>	12.5 (9.4-16.4)	<b>16.0 (12.8-19.9)</b>	8.8 (8.2-9.4)
Ever Told Kidney Disease <sup>8</sup>	2.4 (1.1-5.2) <sup>†</sup>	3.1 (1.6-5.9) <sup>†</sup>	3.0 (2.6-3.6)
Ever Told to Have Depression <sup>9</sup>	22.2 (17.4-27.8)	21.4 (17.1-26.3)	20.6 (19.4-21.9)

<sup>a</sup> Prevalence estimates used data from the 2014 HBRFS. (N = 581)

<sup>b</sup> Prevalence estimates used data from the 2014 MiBRFS. (N = 8,466)

<sup>c</sup> Prevalence estimates are not age-adjusted.

<sup>d</sup> Prevalence estimates are age-adjusted by direct method using 2000 U.S. Census.

<sup>†</sup> **This estimate should be used with caution due to its low reliability and precision.**

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

<sup>1</sup> 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 = 577 (HBRFS); N = 8,440 (MiBRFS))

<sup>2</sup> Among all adults, the proportion who reported that they still have asthma. (N = 573; N = 8,405)

<sup>3</sup> 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 = 578; N = 8,412)

<sup>4</sup> 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 = 575; N = 8,413)

<sup>5</sup> Among all adults, the proportion who had ever been told by a doctor that they had a heart attack, coronary heart disease or stroke. (N = 577; N = 8,376)

<sup>6</sup> Among all adults, the proportion who had ever been told by a doctor that they had some type of cancer. (N = 579; N = 8,443)

<sup>7</sup> 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 = 578; N = 8,451)

<sup>8</sup> Among all adults, the proportion who reported ever being told by a doctor that they had kidney disease. (N = 575; N = 8,422)

<sup>9</sup> 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 = 579; N = 8,439)



# Demographics

2014 HBRFS

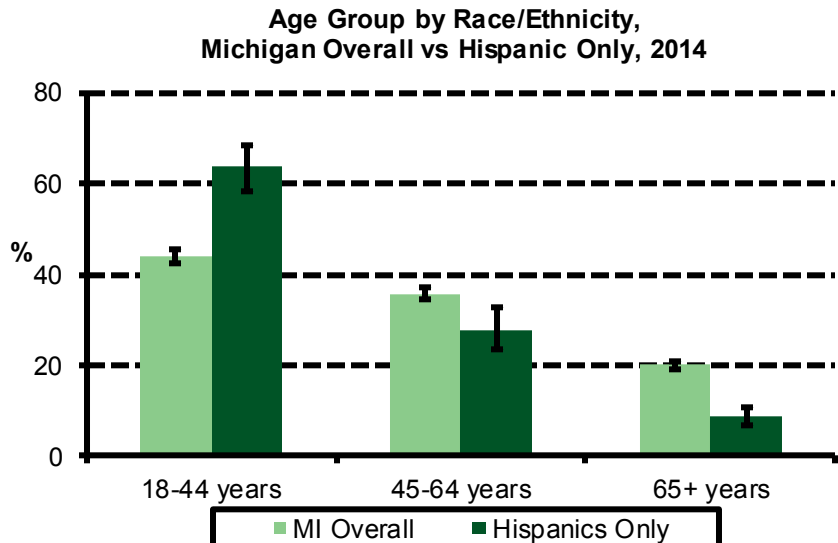
Nationwide, the Hispanic population is younger and of lower socioeconomic status compared to White, non-Hispanics.<sup>1</sup> Differences in these demographic characteristics can directly and indirectly influence the prevalence of certain health conditions and related risk factors.<sup>9</sup> Therefore, the demographic profile of Hispanic participants involved in the 2014 HBRFS was compared to all participants involved in the 2014 MiBRFS.

- ◆ In 2014, the largest proportion of Hispanic adults were between the ages of 18 and 44 years (63.6%), significantly higher than the prevalence among all Michigan adults (44.0%). The proportion of Hispanic adults 65 years or older (8.6%) was significantly lower than the prevalence of all adults statewide (20.1%).
- ◆ Among both populations, there was an even distribution by gender.
- ◆ The highest proportion of Hispanics (71.9%) reported being Mexican, Mexican American, or Chicano(a). An estimated 15.9% reported being “Other alone”, which was defined as Cuban or another Hispanic, Latino/a, or Spanish origin besides Mexican or Puerto Rican.
- ◆ Hispanic adults (54.9% and 21.9%) were significantly more likely to report having a high school education or less and no health insurance compared to all Michigan adults (41.9% and 10.3%, respectively).
- ◆ Hispanic adults (40.2%) were significantly more likely to report a household income of less than \$25,000 than all Michigan adults (27.8%).

Demographic Characteristics	Michigan Overall <sup>a</sup>		Hispanics Only <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Age</b>				
18 - 44	44.0	(42.6-45.4)	63.6	(58.5-68.4)
45 - 64	35.8	(34.6-37.1)	27.8	(23.4-32.7)
65+	20.1	(19.3-21.0)	8.6	(6.9-10.6)
<b>Gender</b>				
Male	48.5	(47.1-49.9)	51.9	(45.8-58.1)
Female	51.5	(50.1-52.9)	48.1	(41.9-54.2)
<b>Hispanic Subpopulation</b>				
Mexican alone	--	---	71.9	(66.2-76.9)
Puerto Rican alone	--	---	12.2	(8.5-17.4)
Other alone	--	---	15.9	(12.1-20.5)
<b>Education</b>				
HS graduate or less	41.9	(40.5-43.3)	53.9	(47.9-59.8)
Some college or more	58.1	(56.7-59.5)	46.1	(40.2-52.1)
<b>Household Income</b>				
< \$25,000	27.8	(26.4-29.2)	40.2	(33.8-47.0)
\$25,000 - \$49,999	27.5	(26.2-28.8)	31.2	(25.3-37.8)
\$50,000 - \$74,999	16.1	(15.0-17.2)	8.8	(6.2-12.3)
\$75,000+	28.6	(27.3-29.9)	19.8	(15.5-25.0)
<b>Health Insurance</b>				
Insured	89.7	(88.8-90.7)	78.1	(72.0-83.1)
Uninsured	10.3	(9.3-11.2)	21.9	(16.9-28.0)
<b>Disabled</b>				
Not disabled	75.1	(73.9-76.2)	76.2	(70.7-81.0)
Disabled	24.9	(23.8-26.1)	23.8	(19.0-29.3)

<sup>a</sup> Demographics of all participants in the 2014 MiBRFS. (N = 8,466)

<sup>b</sup> Demographics of Hispanic adults in the 2014 HBRFS. (N = 581)







# General Health Status

2014 HBRFS

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.<sup>16</sup> Disparities as indicated by self-assessed health were found to exist at the national level with Hispanic adults more likely to report their health as fair or poor compared to White, non-Hispanic adults.<sup>12</sup>

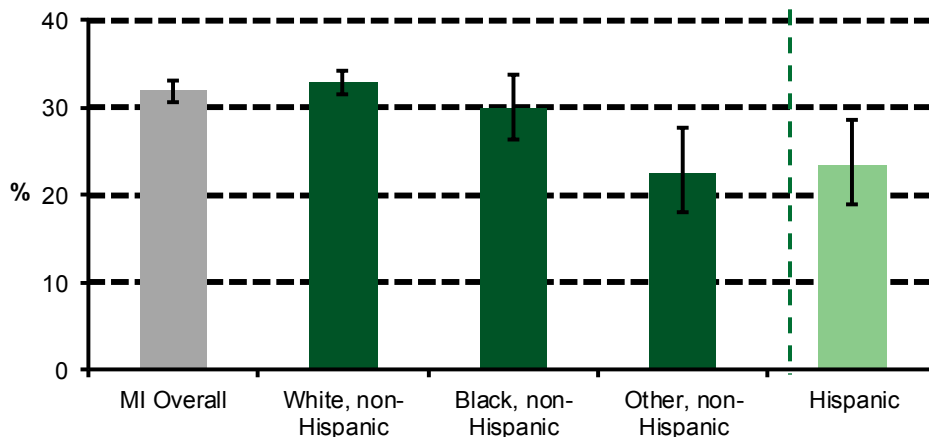
- ◆ In 2014, an estimated 24.1% of Hispanic adults in Michigan reported that their general health was either fair or poor, significantly higher compared to 16.8% (95% CI: 15.8-17.8) of all Michigan adults. When the indicator was restricted to solely poor health, an estimated 7.5% of Hispanic adults reported that their general health was poor (95% CI: 4.7-11.8) compared to 5.0% (95% CI: 4.4-5.7) among all adults in Michigan.
- ◆ The prevalence of fair or poor general health among Hispanic adults remained similar to the proportion in 2012 (23.5% [95% CI: 17.3-31.0]).
- ◆ Although the prevalence of fair or poor general health was higher among Hispanic females than Hispanic males, the difference was not significant.
- ◆ Fair or poor general health generally increased with age and decreased with increasing education and household income level, although not all differences were significant.
- ◆ Disabled Hispanic adults (52.8%) were four times more likely to report fair or poor general health than non-disabled Hispanic adults (13.1%).
- ◆ In 2014, Hispanic adults (24.1%) reported a significantly higher prevalence of fair or poor general health than White, non-Hispanic (15.3%) and Other, non-Hispanic adults (14.4%). The prevalence among Hispanic adults did not significantly differ from that of Black, non-Hispanics.

Hispanic Demographic Characteristics	General Health, Fair or Poor <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>24.1</b>	<b>(19.2-29.8)</b>
<b>Age</b>		
18 - 44	17.3	(11.5-25.2)
45 - 64	35.2	(26.4-45.2)
65+	38.1	(28.3-49.0)
<b>Gender</b>		
Male	21.2	(14.8-29.3)
Female	27.2	(20.2-35.7)
<b>Hispanic Subpopulation</b>		
Mexican	22.9	(17.4-29.6)
Puerto Rican	24.2 <sup>†</sup>	(11.3-44.4)
Other	25.6	(14.3-41.5)
<b>Education</b>		
HS graduate or less	26.8	(19.7-35.3)
Some college or more	20.9	(14.9-28.5)
<b>Household Income</b>		
< \$25,000	34.5	(25.0-45.3)
\$25,000 - \$49,999	20.1	(12.3-31.1)
\$50,000+	14.0	(7.7-24.1)
<b>Health Insurance</b>		
Insured	24.6	(19.3-30.9)
Uninsured	22.0	(11.8-37.5)
<b>Disabled</b>		
Not disabled	13.1	(9.1-18.5)
Disabled	52.8	(40.4-64.8)

<sup>a</sup> Among all Hispanic adults, the proportion who reported that their health, in general, was either fair or poor. (N = 580)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**Ever Told Arthritis by Race/Ethnicity, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Quality of Life

2014 HBRFS

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 2014, an estimated 17.8% of Hispanic adults in Michigan reported poor physical health, and 17.0% reported poor mental health. Although both of these estimates were higher compared to all adults in Michigan (12.6% [95% CI: 11.8-13.6] and 12.9% [95% CI: 11.9-14.0], respectively), the differences were not significant.
- ◆ Although the prevalence of reported poor physical activity among Hispanic adults increased from 2012 (11.8% [95% CI: 7.9-17.1]), the difference was not significant. The prevalence of reported poor mental health remained similar (16.8% [95% CI: 11.8-23.4]).
- ◆ Both indicators were higher among Hispanic females than Hispanic males although the differences were not significant.
- ◆ The prevalences of both indicators tended to decrease with increasing education and household income level<sup>†</sup>, although not all differences were significant.
- ◆ Disabled Hispanic adults (47.2% and 48.0%) were six times more likely to report poor physical and mental health compared to non-disabled Hispanic adults (7.7% and 7.9%, respectively).
- ◆ In 2014, Hispanic adults (17.8%) reported a significantly higher prevalence of poor physical health than White, non-Hispanics (11.6%). The prevalence among Hispanics did not differ from Black or Other, non-Hispanics.
- ◆ In 2014, the prevalence of poor mental health (17.0%) among Hispanic adults did not significantly differ from that of any of the other racial/ethnic groups in Michigan (data not shown).

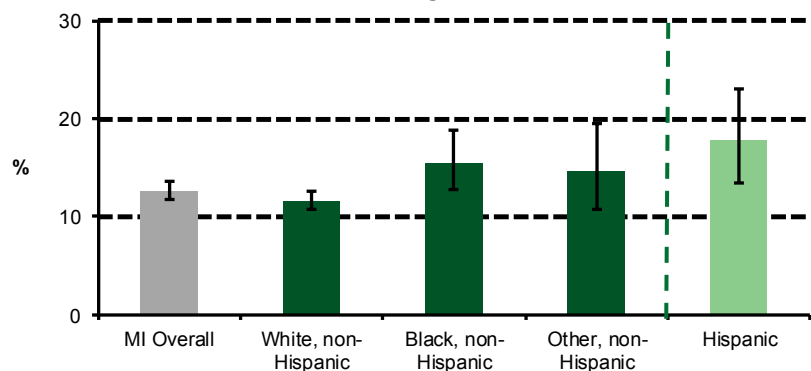
Hispanic Demographic Characteristics	Poor Physical Health <sup>a</sup>		Poor Mental Health <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>17.8</b>	<b>(13.5-23.1)</b>	<b>17.0</b>	<b>(12.7-22.3)</b>
<b>Age</b>				
18 - 44	13.6	(8.5-20.9)	17.5	(11.7-25.3)
45 - 64	24.7	(16.8-34.8)	17.4	(11.2-26.0)
65+	27.6	(18.5-39.1)	11.3 <sup>†</sup>	(5.9-20.7)
<b>Gender</b>				
Male	16.8	(11.0-24.6)	13.9	(8.7-21.6)
Female	18.9	(13.1-26.5)	20.3	(13.9-28.7)
<b>Hispanic Subpopulation</b>				
Mexican	17.4	(12.5-23.6)	16.7	(11.8-23.1)
Puerto Rican	16.4 <sup>†</sup>	(6.6-35.2)	17.4 <sup>†</sup>	(6.3-39.6)
Other	16.1 <sup>†</sup>	(7.3-31.8)	13.6 <sup>†</sup>	(5.9-28.3)
<b>Education</b>				
HS graduate or less	20.1	(14.0-28.1)	17.1	(11.2-25.3)
Some college or more	15.1	(10.0-22.3)	16.8	(11.3-24.2)
<b>Household Income</b>				
< \$25,000	31.4	(22.2-42.2)	32.4	(23.0-43.5)
\$25,000 - \$49,999	12.8 <sup>†</sup>	(6.8-22.8)	8.4 <sup>†</sup>	(3.6-18.0)
\$50,000+	6.6 <sup>†</sup>	(3.0-13.8)	7.8 <sup>†</sup>	(3.7-15.8)
<b>Health Insurance</b>				
Insured	20.6	(15.6-26.7)	17.9	(13.1-24.0)
Uninsured	-- <sup>c</sup>	---	13.3 <sup>†</sup>	(5.7-27.9)
<b>Disabled</b>				
Not disabled	7.7	(4.9-11.9)	7.9	(4.7-12.9)
Disabled	47.2	(35.0-59.8)	48.0	(35.6-60.7)

Among all Hispanic adults, the proportion who reported: <sup>a</sup>14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days (N = 570), <sup>b</sup>14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days. (N = 572)

<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**Poor Physical Health by Race/Ethnicity, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Disability

2014 HBRFS

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.<sup>17</sup>

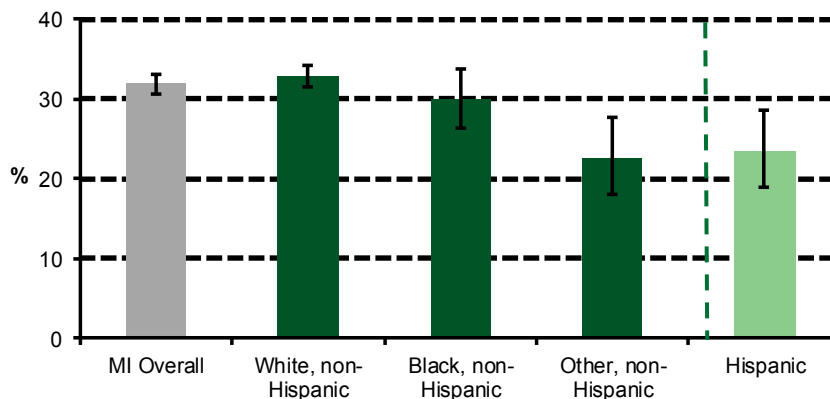
- ◆ In 2014, an estimated 23.8% of Hispanic adults in Michigan reported having a disability, which was defined as being limited in any activities because of physical, mental, or emotional problems or requiring the use of special equipment, such as a cane, a wheelchair, a special bed, or a special telephone due to a health problem. This was similar to 24.9% (95% CI: 23.8-26.1) of all Michigan adults.
- ◆ The prevalence of Hispanic adults that reported having a disability in 2014 was very similar to the estimate in 2012 (22.6% [95% CI: 15.7-31.3]).
- ◆ Although the Other Hispanic subgroup had the highest prevalence, differences by Hispanic subpopulation were not significant<sup>†</sup>.
- ◆ The prevalence of having a disability among Hispanic adults tended to increase with age but was similar by gender.
- ◆ The prevalence of having a disability generally decreased with increasing education and household income level, although not all differences were significant.
- ◆ In 2014, the prevalence of having a disability (23.8%) among Hispanic adults did not significantly differ from that of any of the other racial/ethnic groups in Michigan.

Hispanic Demographic Characteristics	Total Disability <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>23.8</b>	<b>(19.0-29.3)</b>
<b>Age</b>		
18 - 44	17.7	(11.9-25.5)
45 - 64	35.8	(27.4-45.1)
65+	34.0	(25.1-44.3)
<b>Gender</b>		
Male	24.3	(17.5-32.6)
Female	23.3	(17.1-30.9)
<b>Hispanic Subpopulation</b>		
Mexican	21.1	(15.8-27.5)
Puerto Rican	22.6 <sup>†</sup>	(10.7-41.5)
Other	32.8	(20.7-47.7)
<b>Education</b>		
HS graduate or less	25.4	(18.6-33.8)
Some college or more	21.9	(16.2-29.0)
<b>Household Income</b>		
< \$25,000	35.1	(25.5-46.1)
\$25,000 - \$49,999	23.4	(14.6-35.1)
\$50,000+	12.5	(7.1-21.0)
<b>Health Insurance</b>		
Insured	26.4	(21.0-32.7)
Uninsured	14.5 <sup>†</sup>	(6.6-28.7)

<sup>a</sup> Among all Hispanic 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 = 565)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

Ever Told Arthritis by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Weight Status

2014 HBRFS

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.<sup>18</sup> 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. BMI is defined as weight in kilograms divided by height in meters squared ( $w/h^2$ ) and is calculated based on self-reported height and weight. At the national level, Hispanics have a significantly higher age-adjusted obesity rate compared to White, non-Hispanics.<sup>19</sup>

- ◆ In 2014, an estimated 37.2% of Hispanic adults in Michigan were classified as having obesity. Although this estimate was higher compared to 30.7% (95% CI: 29.4-32.0) of all adults in Michigan, the difference was not significant. The prevalence of overweight among Hispanic adults (33.7% [95% CI: 28.1-39.7]) was similar to all adults statewide (34.9% [95% CI: 33.6-36.2]).
- ◆ The prevalence of obesity among Hispanic adults remained relatively similar since 2012 (40.5% [95% CI: 32.3-49.2]).
- ◆ About half (50.9%) of Hispanic adults between the ages of 45 and 64 years were classified as having obesity.
- ◆ Although the prevalence of obesity was higher among Hispanic females than Hispanic males, the difference was not significant.
- ◆ Mexicans had a higher prevalence of obesity compared to Puerto Ricans<sup>†</sup> and other Hispanics, although the differences were not significant.
- ◆ The prevalence of obesity generally decreased with increasing education and household income level, although differences were not significant.
- ◆ In 2014, although the prevalence of obesity was highest among Hispanic adults (37.2%) compared to all of the other racial/ethnic groups, differences were not significant (White, non-Hispanic (30.2%), Black, non-Hispanic (33.6%), Other, non-Hispanic (27.2%)).

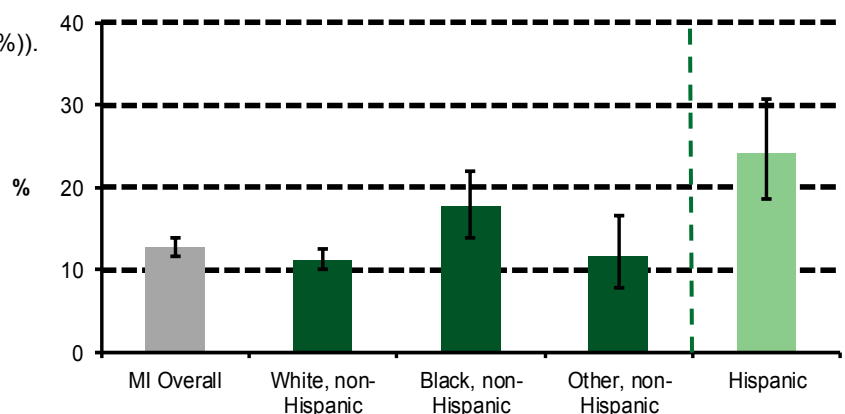
Hispanic Demographic Characteristics	Obese <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>37.2</b>	<b>(31.4-43.3)</b>
<b>Age</b>		
18 - 44	31.7	(24.1-40.4)
45 - 64	50.9	(41.7-60.0)
65+	33.9	(24.9-44.2)
<b>Gender</b>		
Male	34.2	(26.6-42.6)
Female	40.6	(32.4-49.3)
<b>Hispanic Subpopulation</b>		
Mexican	40.4	(33.4-47.8)
Puerto Rican	27.1 <sup>†</sup>	(12.7-48.8)
Other	34.0	(21.5-49.2)
<b>Education</b>		
HS graduate or less	42.5	(33.7-51.8)
Some college or more	31.3	(24.5-38.9)
<b>Household Income</b>		
< \$25,000	47.0	(36.3-58.0)
\$25,000 - \$49,999	36.0	(25.4-48.2)
\$50,000+	33.7	(24.8-43.8)
<b>Health Insurance</b>		
Insured	40.0	(33.6-46.7)
Uninsured	27.2	(15.4-43.5)
<b>Disabled</b>		
Not disabled	34.5	(28.0-41.5)
Disabled	47.4	(35.2-60.0)

Note: BMI, body mass index, is defined as weight (in kilograms) divided by height (in meters) squared [weight in kg/(height in meters)<sup>2</sup>]. Weight and height were self-reported. Pregnant women were excluded.

<sup>a</sup> Among all Hispanic adults, the proportion of respondents whose BMI was greater than or equal to 30.0. (N = 559)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**No Health Care Coverage Among Adults Aged 18 to 64 Years by Race/Ethnicity, Michigan, 2014**





# No Health Care Coverage

2014 HBRFS

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.<sup>20</sup> In the US, Hispanics are more likely to be uninsured compared to White, non-Hispanics.<sup>1</sup> Hispanics often face additional barriers when accessing health care that can be related to language, cultural differences, and immigration.<sup>11</sup>

- ◆ In 2014, the proportion of Hispanic adults aged 18-64 years in Michigan that reported having no health care coverage (24.2%) was almost two times higher than all Michigan adults of similar age (12.7% [95% CI: 11.6-14.0]).
- ◆ The prevalence of no health care coverage among Hispanic adults remained relatively similar since 2012 (22.6% [95% CI: 15.8-31.2]).
- ◆ The prevalence of no health care coverage generally decreased with age, education and household income level<sup>†</sup>, although not all differences were significant.
- ◆ Although Hispanic males reported a higher prevalence of no health care coverage than Hispanic females, the difference was not significant.
- ◆ The Other Hispanic subgroup<sup>†</sup> had a lower prevalence of no health care coverage compared to Mexicans, although the difference was not significant.
- ◆ In 2014, Hispanic adults aged 18-64 years (24.2%) reported a significantly higher prevalence of no health care coverage compared to White, non-Hispanics (11.3%) and Other, non-Hispanics (11.6%) in Michigan. The prevalence among Hispanic adults did not significantly differ from that of Black, non-Hispanic adults.

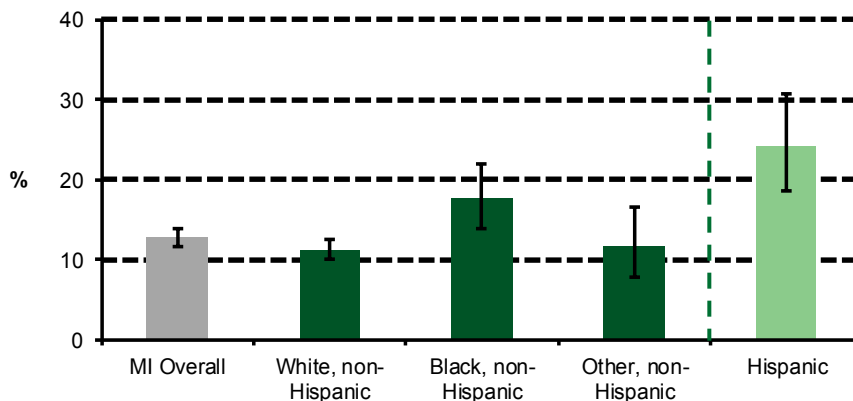
Hispanic Demographic Characteristics	No Health Care Coverage Among Adults 18-64 Years <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>24.2</b>	<b>(18.6-30.8)</b>
<b>Age</b>		
18 - 44	28.8	(21.4-37.4)
45 - 64	13.1	(7.3-22.6)
<b>Gender</b>		
Male	28.1	(20.2-37.6)
Female	19.8	(12.7-29.7)
<b>Hispanic Subpopulation</b>		
Mexican	22.1	(15.9-30.0)
Puerto Rican	-- <sup>b</sup>	---
Other	12.3 <sup>†</sup>	(5.4-25.7)
<b>Education</b>		
HS graduate or less	35.3	(26.1-45.8)
Some college or more	12.0	(7.0-19.8)
<b>Household Income</b>		
< \$25,000	32.1	(22.2-44.1)
\$25,000 - \$49,999	28.7	(17.8-42.8)
\$50,000+	5.7 <sup>†</sup>	(2.2-13.9)
<b>Disabled</b>		
Not disabled	27.3	(20.7-35.2)
Disabled	14.9 <sup>†</sup>	(6.6-30.2)

<sup>a</sup> Among 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 = 417)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**No Health Care Coverage Among Adults Aged 18 to 64 Years by Race/Ethnicity, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.





# Limited Health Care Coverage

2014 HBRFS

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.<sup>21</sup>

- ◆ In 2014, an estimated 25.9% of Hispanic adults in Michigan reported not having a personal health care provider, significantly higher than 16.1% (95% CI: 15.0-17.3) of all Michigan adults. An estimated 23.1% of Hispanic adults reported not seeing the doctor within the past 12 months due to cost, also significantly higher than among all Michigan adults (14.6% [13.6-15.7]).
- ◆ Although the prevalence of no personal health care provider among Hispanic adults increased from 2012 (18.9% [95% CI: 12.5-27.5]), the difference was not significant. The prevalence of reported no health care access due to cost remained relatively similar (26.0% [95% CI: 19.1-34.5]).
- ◆ The prevalences of both indicators generally decreased with increasing age, education, and household income level<sup>†</sup>, although not all differences were significant.
- ◆ Although Hispanic males reported higher prevalences for both indicators than Hispanic females, the differences were not significant.
- ◆ Although Puerto Ricans reported the highest prevalence of both indicators, not all differences by Hispanic subpopulation were significant<sup>†</sup>.
- ◆ In 2014, Hispanic adults (25.9%) reported a significantly higher prevalence of not having a personal health care provider compared to White, non-Hispanic adults (14.2%). The prevalence among Hispanic adults did not significantly differ from Black or Other, non-Hispanic adults.

Hispanic Demographic Characteristics	No Personal Health Care Provider <sup>a</sup>		No Health Care Access Due to Cost <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>25.9</b>	<b>(20.6-32.1)</b>	<b>23.1</b>	<b>(18.0-29.2)</b>
<b>Age</b>				
18 - 44	33.9	(26.1-42.7)	26.1	(18.9-34.8)
45 - 64	13.5	(7.9-22.0)	20.3	(13.4-29.6)
65+	6.9 <sup>†</sup>	(2.9-15.4)	9.8 <sup>†</sup>	(5.0-18.3)
<b>Gender</b>				
Male	32.5	(24.5-41.6)	26.1	(18.7-35.2)
Female	18.9	(12.6-27.3)	19.8	(13.6-28.0)
<b>Hispanic Subpopulation</b>				
Mexican	25.2	(19.0-32.7)	18.5	(13.2-25.4)
Puerto Rican	42.1	(24.0-62.5)	55.9	(36.9-73.4)
Other	16.1 <sup>†</sup>	(8.4-28.7)	15.8 <sup>†</sup>	(7.9-29.2)
<b>Education</b>				
HS graduate or less	29.5	(21.8-38.7)	22.6	(15.5-31.7)
Some college or more	21.8	(15.1-30.4)	23.7	(16.8-32.3)
<b>Household Income</b>				
< \$25,000	35.2	(25.4-46.5)	43.7	(33.3-54.7)
\$25,000 - \$49,999	21.1	(12.3-33.9)	11.9 <sup>†</sup>	(5.7-23.4)
\$50,000+	9.7 <sup>†</sup>	(4.4-19.9)	6.9 <sup>†</sup>	(3.2-14.1)
<b>Health Insurance</b>				
Insured	14.4	(10.1-20.3)	17.3	(12.6-23.4)
Uninsured	67.1	(52.2-79.3)	44.6	(30.4-59.7)
<b>Disabled</b>				
Not disabled	30.1	(23.6-37.6)	18.3	(12.9-25.3)
Disabled	15.6 <sup>†</sup>	(8.2-27.8)	39.5	(27.8-52.4)

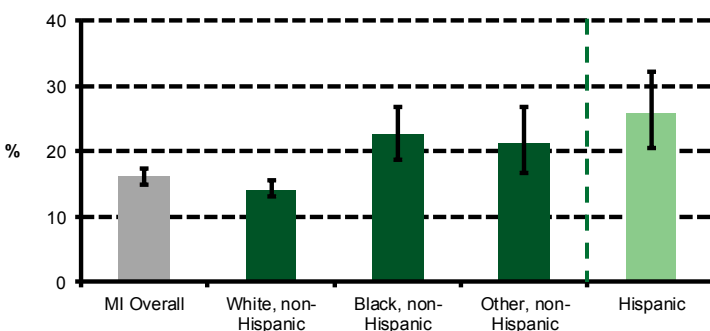
<sup>a</sup> Among all Hispanic adults, the proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider. (N = 577)

<sup>b</sup> Among all 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= 579)

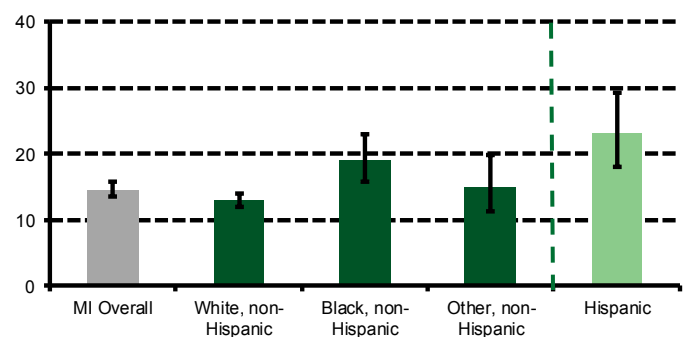
<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

- ◆ In 2014, Hispanic adults (23.1%) reported a significantly higher prevalence of not seeing the doctor within the past 12 months due to cost than White, non-Hispanics (13.0%). The prevalence among Hispanic adults did not significantly differ from that of Black or Other, non-Hispanics.

No Personal Health Care Provider by Race/Ethnicity, Michigan, 2014



No Health Care Due to Cost by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Social Context

2014 HBRFS

Differences in health-related exposures and stresses throughout life often result in differences in underlying health status.<sup>13</sup> As a result, it is important to look at the impact of social factors on the prevalence of disease.

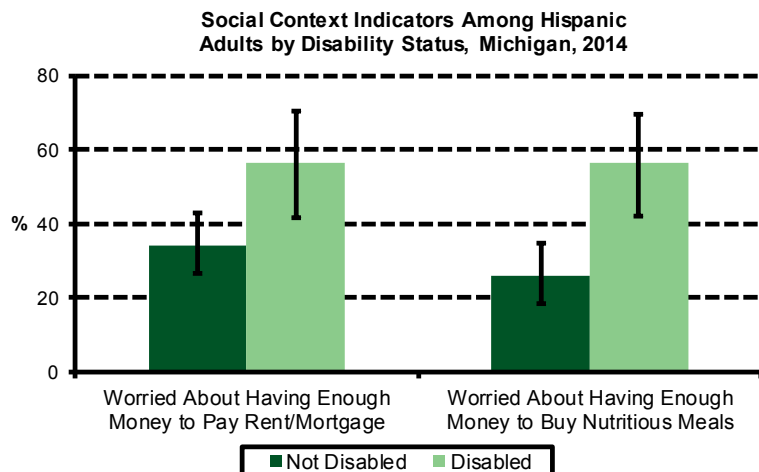
- ◆ In 2014, an estimated 38.8% of Hispanic adults in Michigan reported worrying about having enough money to pay their rent/mortgage within the past year and an estimated 32.6% of Hispanic adults reported worrying about having enough money to purchase nutritious meals within the past year.
- ◆ Prevalence estimates at the state level were not conducted and therefore not available for comparison.
- ◆ Although the prevalence of Hispanic adults that reported worrying about having enough money to pay rent/mortgage declined slightly since 2012 (44.5% [95% CI: 36.1-53.2]), the difference was not significant. The prevalence of worrying about having enough money to buy nutritious meals remained similar (33.6% [95% CI: 26.0-42.3]).
- ◆ The prevalences of both of indicators generally decreased with increasing age, education, and household income level<sup>†</sup>, although not all differences were significant.
- ◆ Although Mexicans reported a higher prevalence of both indicators compared to the Other Hispanics<sup>†</sup>, the differences were not significant.
- ◆ Disabled Hispanic adults (56.3%) were over two times more likely to report not having enough food to eat in their household compared to non-disabled Hispanic adults (25.7%). Even though disabled Hispanic adults were also nearly two times more likely to report not having enough money to pay their rent or mortgage than non-disabled Hispanic adults, the difference was not significant.

Hispanic Demographic Characteristics	Worried About Having Enough Money to Pay Rent/Mortgage <sup>a</sup>		Worried About Having Enough Money to Buy Nutritious Meals <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>38.8</b>	<b>(31.7-46.4)</b>	<b>32.6</b>	<b>(25.9-40.1)</b>
<b>Age</b>				
18 - 44	42.9	(30.9-55.7)	37.1	(26.2-49.5)
45 - 64	35.5	(26.5-45.8)	31.0	(22.3-41.1)
65+	33.1	(22.8-45.4)	20.1	(12.1-31.5)
<b>Gender</b>				
Male	36.5	(26.8-47.4)	32.0	(23.0-42.7)
Female	41.9	(32.0-52.6)	33.3	(24.0-44.1)
<b>Hispanic Subpopulation</b>				
Mexican	40.4	(31.8-49.6)	34.5	(26.6-43.4)
Puerto Rican	-- <sup>c</sup>	---	-- <sup>c</sup>	---
Other	27.5	(16.4-42.2)	18.5 <sup>†</sup>	(9.3-33.4)
<b>Education</b>				
HS graduate or less	46.1	(35.1-57.5)	39.7	(29.5-50.8)
Some college or more	30.8	(22.8-40.3)	23.9	(16.9-32.7)
<b>Household Income</b>				
< \$25,000	61.9	(47.9-74.2)	54.3	(41.5-66.4)
\$25,000 - \$49,999	44.0	(30.2-58.8)	32.9	(20.1-48.9)
\$50,000+	20.6	(12.0-33.0)	9.5 <sup>†</sup>	(3.9-21.6)
<b>Health Insurance</b>				
Insured	35.4	(28.2-43.3)	32.5	(25.4-40.6)
Uninsured	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Disabled</b>				
Not disabled	34.2	(26.4-42.8)	25.7	(18.4-34.6)
Disabled	56.6	(41.7-70.4)	56.3	(41.9-69.7)

<sup>a</sup> Among all Hispanic adults, the proportion who reported <sup>a</sup>always, usually, or sometimes being worried about having enough money to pay rent/mortgage in the past year. (N = 368), <sup>b</sup> always, usually, or sometimes being worried about having enough money to buy nutritious meals in the past year. (N = 403)

<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.



All Hispanic prevalence estimates used data from the 2014 HBRFS.



# No Leisure Time Physical Activity

2014 HBRFS

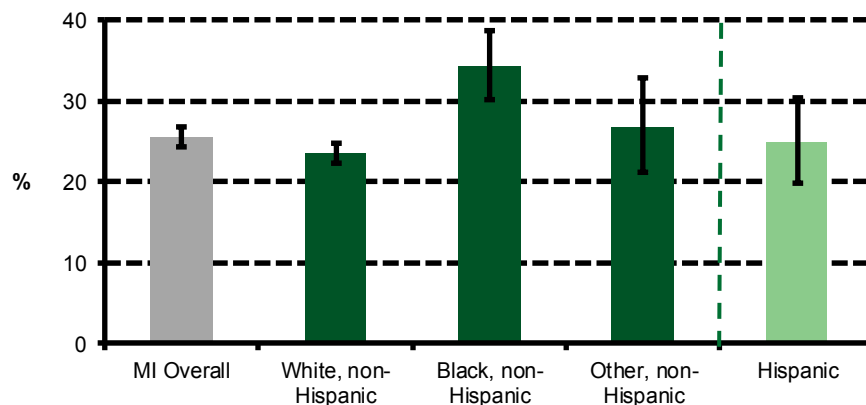
Regular physical activity among adults has been shown to reduce the risk of many diseases including cardiovascular disease, diabetes, colon and breast cancers, and osteoporosis. Keeping physically active also helps to control weight, maintain healthy bones, muscles, and joints, and relieve symptoms of depression.<sup>22</sup>

- ◆ In 2014, an estimated 24.8% of Hispanic adults in Michigan reported no leisure time physical activity within the past month, similar to 25.5% of all Michigan adults (95% CI: 24.3-26.7).
- ◆ The prevalence of no leisure time physical activity among Hispanic adults remained relatively similar since 2012 (26.7% [95% CI: 20.4-34.0]).
- ◆ Although Hispanic females reported a higher prevalence of no leisure time physical activity compared to Hispanic males, the difference was not significant.
- ◆ Puerto Ricans were over two times more likely to report no leisure time physical activity compared to Mexicans and Other Hispanics, although the differences were not significant.
- ◆ The prevalence of no leisure time physical activity generally decreased with increasing education and household income level, although not all differences were significant.
- ◆ Hispanic adults that were without health insurance and disabled were more likely to report no leisure time physical activity than Hispanic adults with health insurance and not disabled, although differences were not significant.
- ◆ In 2014, the prevalence of no leisure time physical activity among Hispanic adults (24.8%) did not significantly differ from that of any of the other racial/ethnic groups in Michigan.

Hispanic Demographic Characteristics	No Leisure Time Physical Activity <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>24.8</b>	<b>(19.8-30.5)</b>
<b>Age</b>		
18 - 44	24.3	(17.5-32.8)
45 - 64	21.4	(14.6-30.2)
65+	39.0	(29.1-49.8)
<b>Gender</b>		
Male	18.8	(13.0-26.4)
Female	31.2	(23.7-39.9)
<b>Hispanic Subpopulation</b>		
Mexican	20.4	(15.2-26.8)
Puerto Rican	50.1	(31.2-69.0)
Other	22.0	(11.6-37.6)
<b>Education</b>		
HS graduate or less	31.8	(23.9-40.9)
Some college or more	16.6	(11.6-23.1)
<b>Household Income</b>		
< \$25,000	25.0	(17.2-34.8)
\$25,000 - \$49,999	31.1	(20.8-43.8)
\$50,000+	7.3	(4.2-12.2)
<b>Health Insurance</b>		
Insured	21.5	(16.7-27.3)
Uninsured	35.8	(22.5-51.7)
<b>Disabled</b>		
Not disabled	21.3	(15.8-28.1)
Disabled	32.8	(22.6-44.8)

<sup>a</sup> Among all 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 = 580)

No Leisure Time Physical Activity by Race/Ethnicity, Michigan, 2014







# Adequate Physical Activity

2014 HBRFS

In 2008, the U.S. Department of Health and Human Services released the new physical activity guidelines for Americans. These guidelines recommend that adults participate in moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities **and** also participate in muscle strengthening activities on two or more days per week.<sup>23</sup> Hispanic adults were found to be less likely to meet federal physical activity guidelines compared to White, non-Hispanic adults in the US.<sup>24</sup>

- ◆ In 2014, an estimated 19.0% of Hispanic adults in Michigan met both the aerobic and muscle strengthening components of the new physical activity guidelines (i.e., adequate physical activity), similar to 19.5% of all Michigan adults in 2013 (95% CI: 18.6-20.5).
- ◆ When assessing each component individually, an estimated 53.8% (95% CI: 46.8-60.6) of Hispanic adults in Michigan met the aerobic physical activity component, while 28.6% (95% CI: 22.7-35.4) met the muscle strengthening component. This was similar to 53.1% (95% CI: 51.8-54.3) and 28.8% (95% CI: 27.7-30.0) of all Michigan adults in 2013, respectively.
- ◆ The prevalence of adequate physical activity among Hispanic adults remained relatively similar since 2012 (18.7% [95% CI: 13.3-25.8]).
- ◆ Although Hispanic males reported a higher prevalence of adequate physical activity than Hispanic females, the difference was not significant.
- ◆ Adequate physical activity generally increased with increasing education and household income level<sup>†</sup>, although not all differences were significant.
- ◆ In 2014, the prevalence of adequate physical activity among Hispanic adults (19.0%) was similar to all of the other racial/ethnic groups in Michigan in 2013.

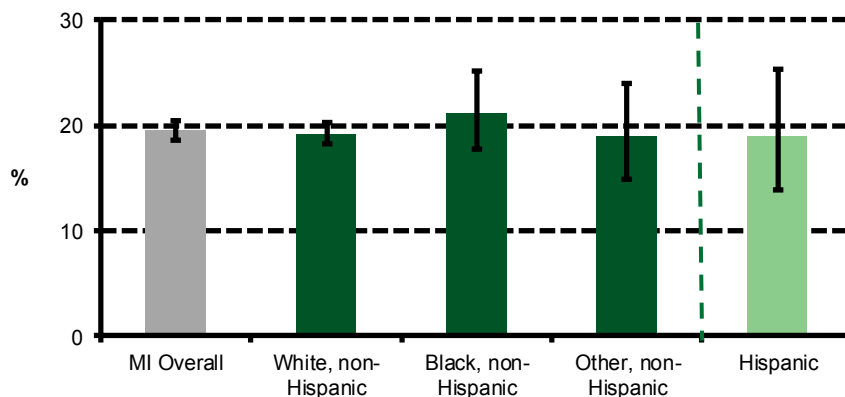
Hispanic Demographic Characteristics	Adequate Physical Activity <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>19.0</b>	<b>(13.9-25.3)</b>
<b>Age</b>		
18 - 44	26.4	(17.3-38.1)
45 - 64	10.5	(6.8-15.9)
65+	15.0	(9.2-23.5)
<b>Gender</b>		
Male	21.2	(14.3-30.2)
Female	16.1	(9.6-25.7)
<b>Hispanic Subpopulation</b>		
Mexican	19.5	(13.6-27.2)
Puerto Rican	-- <sup>b</sup>	---
Other	21.3	(11.6-35.8)
<b>Education</b>		
HS graduate or less	14.4	(8.0-24.5)
Some college or more	24.9	(18.0-33.3)
<b>Household Income</b>		
< \$25,000	17.1 <sup>†</sup>	(8.7-30.8)
\$25,000 - \$49,999	16.0 <sup>†</sup>	(7.6-30.8)
\$50,000+	27.0	(17.9-38.4)
<b>Health Insurance</b>		
Insured	18.7	(13.6-25.3)
Uninsured	-- <sup>b</sup>	---
<b>Disabled</b>		
Not disabled	22.0	(15.8-29.8)
Disabled	11.8 <sup>†</sup>	(5.4-24.0)

<sup>a</sup> Among all Hispanic adults, the proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities and also participate in muscle strengthening activities on two or more days per week. (N = 411)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**Adequate Physical Activity by Race/Ethnicity, Michigan, 2013-2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2013 Michigan BRFS.



# Adequate Fruit and Vegetable Consumption

2014 HBRFS

A healthy diet rich in fruits and vegetables may reduce the risk of cancer and other chronic conditions.<sup>25</sup> Adequate fruit and vegetable consumption 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 2014, an estimated 21.0% of Hispanic adults in Michigan reported consuming fruits and vegetables five or more times per day. Although this prevalence was higher compared to all Michigan adults in 2013 (15.3% [95% CI: 14.5-16.2]), the difference was not significant.
- ◆ The prevalence of Hispanic adults that reported consuming fruits and vegetables five or more times per day increased slightly since 2012 (16.3% [95% CI: 11.7-22.2]), although the difference was not significant.
- ◆ Hispanic adults aged 18 to 44 years (26.8%) reported a higher prevalence of fruit and vegetable consumption compared to the other age groups, although differences by age were not significant.
- ◆ The prevalence of adequate fruit and vegetable consumption was similar by gender, Hispanic subpopulation, and education level.
- ◆ In 2014, the prevalence of adequate fruit and vegetable consumption was higher among Hispanic adults (21.0%) than White, non-Hispanic adults in 2013, although the difference was not significant. The prevalence among Hispanics did not significantly differ from that of Black or Other, non-Hispanics in Michigan in 2013.

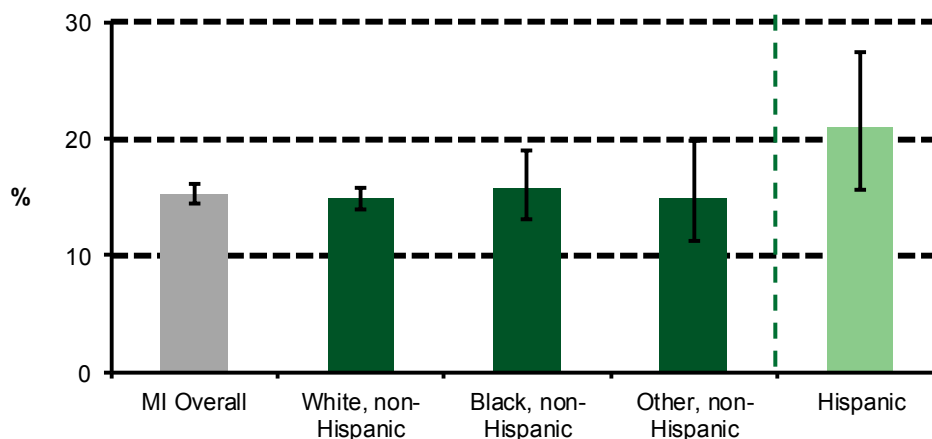
Hispanic Demographic Characteristics	Adequate Fruit & Vegetable Consumption <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>21.0</b>	<b>(15.6-27.5)</b>
<b>Age</b>		
18 - 44	26.8	(17.5-38.7)
45 - 64	14.8	(9.9-21.4)
65+	16.5	(9.6-26.7)
<b>Gender</b>		
Male	19.4	(12.4-29.2)
Female	22.8	(15.5-32.3)
<b>Hispanic Subpopulation</b>		
Mexican	20.5	(14.3-28.5)
Puerto Rican	-- <sup>b</sup>	---
Other	22.2	(12.5-36.2)
<b>Education</b>		
HS graduate or less	20.6	(13.0-31.1)
Some college or more	21.4	(15.3-29.2)
<b>Household Income</b>		
< \$25,000	22.6	(12.6-37.1)
\$25,000 - \$49,999	25.3	(14.9-39.7)
\$50,000+	16.3	(9.7-26.2)
<b>Health Insurance</b>		
Insured	20.2	(14.7-27.0)
Uninsured	-- <sup>b</sup>	---
<b>Disabled</b>		
Not disabled	24.7	(18.1-32.8)
Disabled	11.9 <sup>†</sup>	(5.4-24.3)

<sup>a</sup> Among all Hispanic adults, the proportion whose total reported consumption of fruits (including 100% fruit juice) and vegetables was five or more times per day. (N = 403)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**Adequate Fruit & Vegetable Consumption by Race/Ethnicity, Michigan, 2013-2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2013 Michigan BRFS.



# Cigarette Smoking

2014 HBRFS

Cigarette smoking is the leading cause of preventable death in the US, accounting for more than 440,000 deaths each year.<sup>26-27</sup> Nationwide, Hispanics report smoking less compared to White, non-Hispanics. There is variation within the Hispanic population in the US, however, with Puerto Ricans 66% more likely to report smoking than Mexicans.<sup>2</sup>

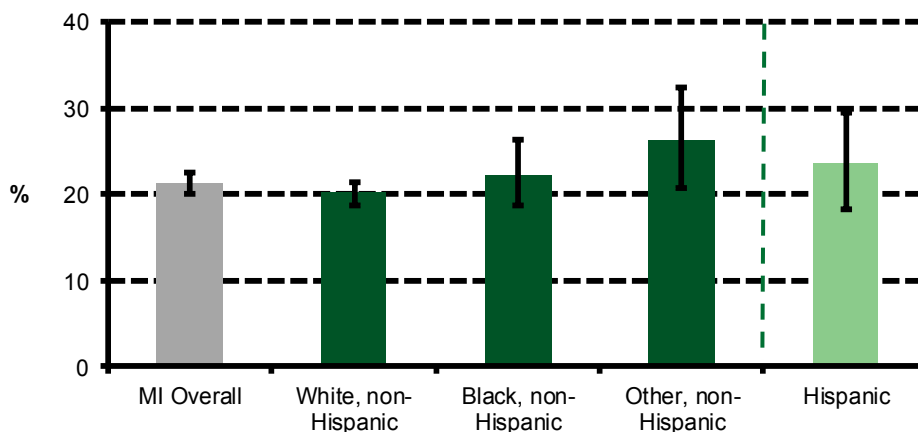
- ◆ In 2014, an estimated 23.5% of Hispanic adults in Michigan reported that they currently smoke cigarettes on a regular basis, similar to 21.2% of all Michigan adults (95% CI: 20.0-22.5).
- ◆ The prevalence of current smoking among Hispanic adults remained similar since 2012 (22.8% [95% CI: 16.7-30.4]).
- ◆ Puerto Ricans were two times more likely to report current smoking compared to Mexicans and almost four times more likely than Other Hispanics<sup>†</sup>, although differences were not significant.
- ◆ The prevalence of current smoking among Hispanic adults was similar by gender, health insurance, and disability status.
- ◆ Current smoking generally decreased with increasing age<sup>†</sup>, education and household income level, although not all differences were significant.
- ◆ In 2014, the prevalence of Hispanic adults (23.5%) that reported that they currently smoke cigarettes did not significantly differ from any of the other racial/ethnic groups in Michigan.

Hispanic Demographic Characteristics	Current Smoking <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>23.5</b>	<b>(18.3-29.6)</b>
<b>Age</b>		
18 - 44	26.9	(19.7-35.6)
45 - 64	20.4	(13.4-29.7)
65+	7.0 <sup>†</sup>	(3.1-15.2)
<b>Gender</b>		
Male	24.6	(17.6-33.2)
Female	24.6	(17.6-33.2)
<b>Hispanic Subpopulation</b>		
Mexican	22.0	(16.2-29.1)
Puerto Rican	44.3	(25.3-65.2)
Other	12.0 <sup>†</sup>	(5.2-25.2)
<b>Education</b>		
HS graduate or less	26.6	(19.0-36.0)
Some college or more	19.9	(13.7-27.9)
<b>Household Income</b>		
< \$25,000	37.1	(26.9-48.7)
\$25,000 - \$49,999	18.9	(10.8-31.0)
\$50,000+	19.0	(11.4-29.9)
<b>Health Insurance</b>		
Insured	23.7	(18.1-30.4)
Uninsured	22.7	(12.1-38.6)
<b>Disabled</b>		
Not disabled	22.4	(16.7-29.5)
Disabled	26.8	(16.6-40.1)

<sup>a</sup> Among all 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 = 562)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**Current Cigarette Smoking by Race/Ethnicity, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Alcohol Consumption

2014 HBRFS

Alcohol abuse has been associated with serious health problems, such as cirrhosis of the liver, high blood pressure, stroke, and some types of cancer.<sup>28</sup> It can also increase the risk for motor vehicle accidents, injuries, violence, and suicide.<sup>28</sup> 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, while heavy drinking is defined as consuming an average of more than two alcoholic drinks per day for men or more than one alcoholic drink per day for women in the past month. In the US, although Hispanics are less likely to report drinking than non-Hispanic Whites, among Hispanics that do report drinking, they report consuming higher quantities of alcohol.<sup>29-30</sup>

- ◆ In 2014, an estimated 55.0% (95% CI: 48.9-60.9) of Hispanic adults in Michigan reported some form of alcohol consumption within the past month, similar to 57.0% (95% CI: 55.6-58.3) of all Michigan adults. Furthermore, an estimated 25.7% of Hispanic adults in Michigan reported binge drinking on at least one occasion within the past month, significantly higher than 18.9% (95% CI: 17.8-20.1) of all adults in Michigan. An estimated 6.0% (95% CI: 3.6-9.7) of Hispanic adults reported heavy drinking over the past month, similar to 6.8% (95% CI: 6.1-7.6) of all Michigan adults.
- ◆ The prevalence of binge drinking among Hispanic adults remained relatively similar since 2012 (24.1% [95% CI: 18.1-31.4]).
- ◆ Hispanic males (35.2%) reported a significantly higher prevalence of binge drinking than Hispanic females (15.4%).
- ◆ Mexicans reported the highest prevalence of binge drinking, although differences by Hispanic subpopulation were not significant<sup>†</sup>.
- ◆ Reported binge drinking was relatively similar by education and household income level.

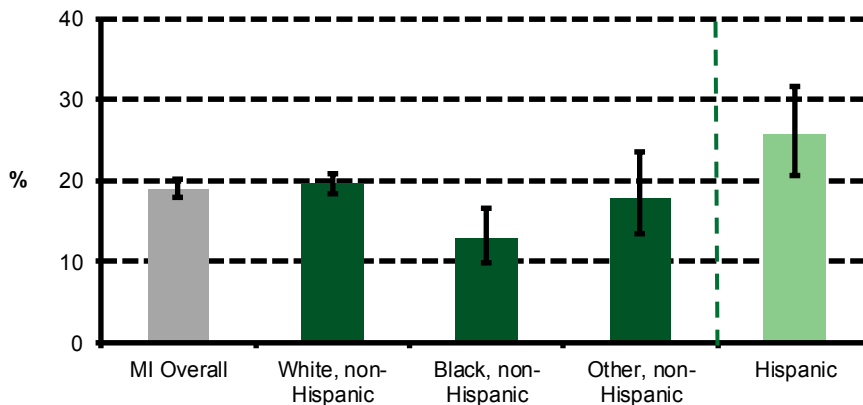
Hispanic Demographic Characteristics	Binge Drinking <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>25.7</b>	<b>(20.6-31.7)</b>
<b>Age</b>		
18 - 44	29.3	(22.2-37.6)
45 - 64	23.3	(16.2-32.2)
65+	6.1 <sup>†</sup>	(3.1-11.5)
<b>Gender</b>		
Male	35.2	(27.2-44.1)
Female	15.4	(9.9-23.2)
<b>Hispanic Subpopulation</b>		
Mexican	29.4	(22.8-36.9)
Puerto Rican	21.3 <sup>†</sup>	(9.2-42.1)
Other	11.9 <sup>†</sup>	(5.2-25.0)
<b>Education</b>		
HS graduate or less	23.7	(16.6-32.7)
Some college or more	28.0	(21.0-36.3)
<b>Household Income</b>		
< \$25,000	24.4	(15.8-35.8)
\$25,000 - \$49,999	30.4	(20.2-42.9)
\$50,000+	25.9	(17.4-36.8)
<b>Health Insurance</b>		
Insured	28.7	(22.7-35.6)
Uninsured	15.4 <sup>†</sup>	(7.7-28.3)
<b>Disabled</b>		
Not disabled	23.9	(18.3-30.6)
Disabled	31.8	(20.5-45.7)

<sup>a</sup> Among all 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 = 552)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

- ◆ In 2014, Hispanic adults (25.7%) reported a significantly higher prevalence of binge drinking compared to Black, non-Hispanic adults (12.8%). The prevalence of binge drinking among Hispanic adults did not significantly differ from White or Other, non-Hispanic adults.

**Binge Drinking by Race/Ethnicity, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Hypertension Awareness and Medication Use

2014 HBRFS

Adults with high blood pressure (HBP) are at a higher risk for heart disease, stroke, congestive heart failure, and end-stage renal disease.<sup>31</sup> At the national level, Hispanics reported a lower prevalence of high blood pressure compared to White, non-Hispanics, although the difference was not found to be significant.<sup>2</sup>

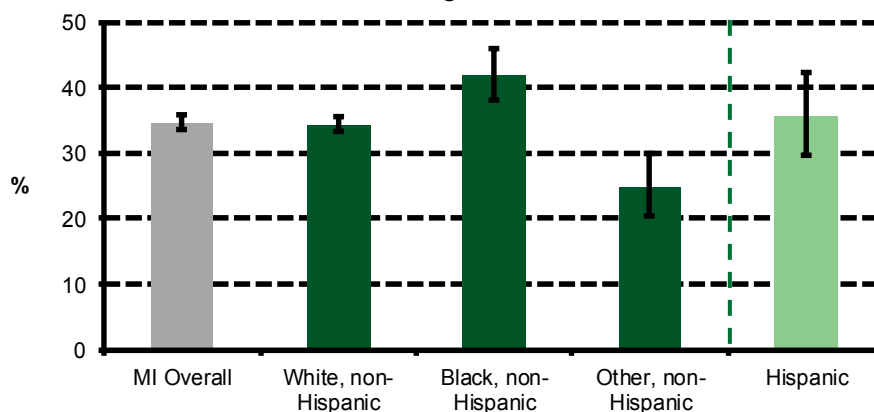
- ◆ In 2014, an estimated 35.7% of Hispanic adults in Michigan reported ever being told by a doctor that they had HBP, similar to 34.6% (95% CI: 33.5-35.7) of all adults in Michigan in 2013. Furthermore, 73.2% (95% CI: 62.0-82.1) of Hispanic adults with HBP were currently taking medications for their HBP compared to 75.7% (95% CI: 73.8-77.5) of all Michigan adults in 2013.
- ◆ Although the prevalence of Hispanic adults that reported being told they ever had HBP slightly increased since 2012 (31.9% [95% CI: 25.3-39.2]), the difference was not significant.
- ◆ The prevalence of HBP increased with age.
- ◆ Although the prevalence of HBP was higher among Hispanic males than Hispanic females, the difference was not significant.
- ◆ Other Hispanics reported a higher prevalence compared to Mexicans, although the difference was not significant.
- ◆ Disabled Hispanic adults (56.5%) were over two times more likely to report HBP than non-disabled Hispanic adults (27.0%).
- ◆ In 2014, the prevalence of HBP among Hispanic adults (35.7%) was similar to all of the other racial/ethnic groups in Michigan in 2013. Although the prevalence for Hispanic adults was higher compared to Other, non-Hispanics, the difference was not significant.

Hispanic Demographic Characteristics	Ever Told HBP <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>35.7</b>	<b>(29.6-42.4)</b>
<b>Age</b>		
18 - 44	19.3	(11.8-30.0)
45 - 64	47.9	(38.2-57.7)
65+	61.5	(50.1-71.7)
<b>Gender</b>		
Male	38.7	(30.1-47.9)
Female	32.2	(23.9-41.8)
<b>Hispanic Subpopulation</b>		
Mexican	34.4	(27.5-42.2)
Puerto Rican	-- <sup>b</sup>	---
Other	46.4	(31.3-62.1)
<b>Education</b>		
HS graduate or less	40.9	(31.5-51.0)
Some college or more	29.0	(22.2-36.9)
<b>Household Income</b>		
< \$25,000	33.7	(22.9-46.7)
\$25,000 - \$49,999	42.0	(29.5-55.5)
\$50,000+	28.5	(19.7-39.3)
<b>Health Insurance</b>		
Insured	39.3	(32.5-46.5)
Uninsured	-- <sup>b</sup>	---
<b>Disabled</b>		
Not disabled	27.0	(21.2-33.8)
Disabled	56.5	(42.4-69.6)

<sup>a</sup> 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 = 421)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

Ever Told High Blood Pressure by Race/Ethnicity, Michigan, 2013-2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2013 Michigan BRFS.





# Preventive Health Behaviors

2014 HBRFS

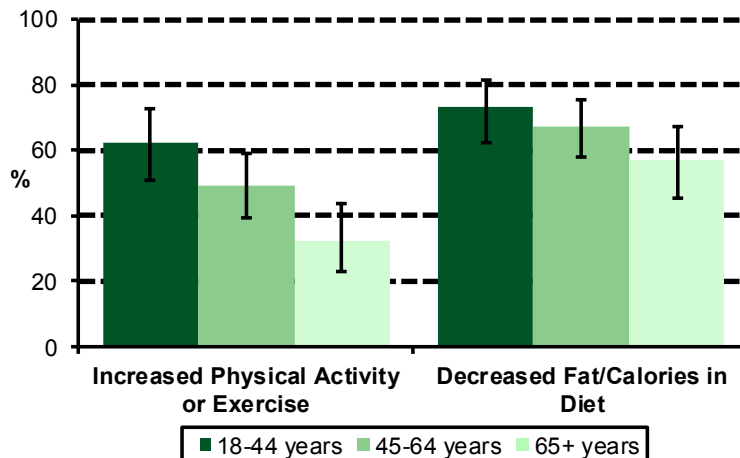
Weight management, diet, and adequate physical activity have been shown to help prevent and control many chronic diseases such as diabetes, heart disease, stroke, and some forms of cancer.<sup>32-33</sup>

- ◆ In 2014, an estimated 69.5% (95% CI: 63.1-75.2) of Hispanic adults in Michigan reported trying to control or lose weight within the past 12 months. Furthermore, an estimated 53.6% of Hispanic adults in Michigan reported increasing their physical activity or exercise within the past 12 months, and 68.7% reported decreasing the amount of fat or calories in their diet within the past 12 months.
- ◆ Prevalence estimates at the state level were not conducted and therefore not available for comparison.
- ◆ The prevalences of both indicators among Hispanic adults remained relatively similar since 2012 (Increased physical activity/exercise: 53.7% [95% CI: 46.0-61.3], decreased fat/calories in diet: 67.4% [95% CI: 59.8-74.1]).
- ◆ Although Hispanic males reported a higher prevalence of increasing physical activity/exercise and a lower prevalence of decreasing fat or calories in their diet compared to Hispanic females, the differences were not significant.
- ◆ Mexicans reported a higher prevalence of both indicators compared to Other Hispanics, although differences were not significant.
- ◆ The prevalences of both indicators tended to decrease with age although not all differences were significant.

Hispanic Demographic Characteristics	Increased Physical Activity or Exercise <sup>a</sup>		Decreased Fat/Calories in Diet <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>53.6</b>	<b>(46.7-60.4)</b>	<b>68.7</b>	<b>(62.3-74.4)</b>
<b>Age</b>				
18 - 44	62.5	(51.0-72.7)	73.0	(62.4-81.5)
45 - 64	49.2	(39.6-58.8)	67.2	(57.8-75.3)
65+	32.4	(22.8-43.6)	56.6	(45.2-67.3)
<b>Gender</b>				
Male	56.1	(46.9-64.9)	62.2	(52.9-70.6)
Female	50.6	(40.4-60.7)	76.8	(68.5-83.4)
<b>Hispanic Subpopulation</b>				
Mexican	56.4	(48.3-64.1)	70.4	(62.9-76.9)
Puerto Rican	-- <sup>c</sup>	---	-- <sup>c</sup>	---
Other	40.4	(27.5-54.8)	65.1	(50.7-77.2)
<b>Education</b>				
HS graduate or less	52.7	(42.3-62.8)	68.9	(59.3-77.1)
Some college or more	54.8	(46.2-63.1)	68.3	(59.9-75.7)
<b>Household Income</b>				
< \$25,000	54.4	(41.6-66.5)	69.4	(57.3-79.3)
\$25,000 - \$49,999	46.3	(32.8-60.4)	72.6	(59.9-82.4)
\$50,000+	58.7	(47.6-69.0)	65.6	(54.0-75.7)
<b>Health Insurance</b>				
Insured	54.5	(47.3-61.6)	69.4	(62.7-75.3)
Uninsured	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Disabled</b>				
Not disabled	55.3	(47.5-62.9)	66.6	(59.0-73.5)
Disabled	48.3	(34.4-62.5)	75.2	(64.2-83.8)

<sup>a</sup> Among all Hispanic adults, the proportion who reported in the past 12 months <sup>a</sup> increasing their physical activity or exercise (N = 402), <sup>b</sup> reducing the amount of fat or calories in their diet. (N = 401)  
<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

**Preventive Health Behaviors Among Hispanic Adults by Age Group, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS.



# Routine Checkup in Past Year

2014 HBRFS

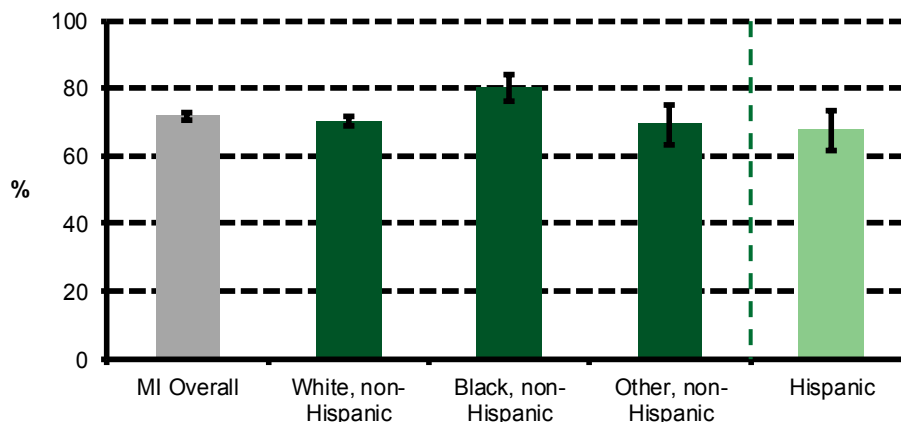
A yearly routine checkup is a great way to remain proactive about one's health. The benefits of having an annual checkup include early diagnosis and treatment of existing conditions and prevention of future medical problems.<sup>34</sup>

- ◆ In 2014, an estimated 67.8% of Hispanic adults in Michigan reported having a routine medical checkup within the past year, compared to 71.8% of all Michigan adults (95% CI: 70.5-73.0).
- ◆ The prevalence of having a routine checkup in the past year among Hispanic adults remained similar since 2012 (68.3% [95% CI: 60.3-75.4]).
- ◆ The prevalence of having a routine checkup within the past year generally increased with age<sup>†</sup>.
- ◆ Hispanic females (77.2%) reported a significantly higher prevalence of having a routine checkup within the past year than Hispanic males (59.4%).
- ◆ Although Other Hispanics reported the highest prevalence of a routine checkup within the past year, differences by Hispanic subpopulation were not significant<sup>†</sup>.
- ◆ Hispanic adults with a high school degree or less (75.4%) were significantly more likely to report having a routine checkup within the past year compared to Hispanic adults with some college or more (58.9%).
- ◆ In 2014, Hispanic adults (67.8%) reported a significantly lower prevalence of a routine medical checkup in the past year compared to Black, non-Hispanic adults (80.4%). The prevalence among Hispanic adults did not significantly differ from that of White or Other, non-Hispanic adults in Michigan.

Hispanic Demographic Characteristics	Had a Routine Checkup Within The Past Year <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>67.8</b>	<b>(61.8-73.3)</b>
<b>Age</b>		
18 - 44	61.0	(52.4-68.9)
45 - 64	76.1	(67.7-82.8)
65+	91.5 <sup>†</sup>	(84.4-95.5)
<b>Gender</b>		
Male	59.4	(50.6-67.6)
Female	77.2	(69.0-83.7)
<b>Hispanic Subpopulation</b>		
Mexican	65.2	(57.8-72.0)
Puerto Rican	72.3 <sup>†</sup>	(51.7-86.5)
Other	82.8 <sup>†</sup>	(69.1-91.2)
<b>Education</b>		
HS graduate or less	75.4	(66.9-82.3)
Some college or more	58.9	(50.6-66.8)
<b>Household Income</b>		
< \$25,000	64.5	(53.6-74.0)
\$25,000 - \$49,999	64.5	(51.7-75.6)
\$50,000+	73.1	(61.6-82.1)
<b>Health Insurance</b>		
Insured	72.3	(66.0-77.8)
Uninsured	51.8	(36.7-66.5)
<b>Disabled</b>		
Not disabled	67.9	(60.8-74.2)
Disabled	66.4	(53.8-77.1)

<sup>a</sup> Among all Hispanic adults, the proportion who reported that they had a routine medical checkup within the past year. (N = 577)  
<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

Had Routine Checkup in Past Year by Race/Ethnicity, Michigan, 2014





# Breast Cancer Screening

2014 HBRFS

Breast cancer is the second leading cause of cancer deaths among Hispanic women and all women in the US.<sup>35-36</sup> In 2014, there were 1,460 deaths among Michigan women due to breast cancer, second only to that of lung cancer.<sup>37</sup>

Early detection of breast cancer can occur through the use of screening tools such as mammography and clinical breast exams. Nationwide, Hispanic women aged 50-74 years were found to have a lower prevalence of mammogram use in the past two year compared to White, non-Hispanic women of similar age.<sup>2</sup>

◆ In 2014, an estimated 50.7% of Hispanic women 40 years and older in Michigan reported having a mammogram within the past year, while 41.7% reported having both a clinical breast exam and a mammogram within the past year, compared to 57.4% (95% CI: 55.4-59.4) and 47.8% (95% CI: 45.8-49.8) among all women aged 40 years and older in Michigan, respectively.

◆ Although the prevalences of both breast cancer screenings decreased since 2012 (having a mammogram within the past year: 69.4% [95% CI: 57.9-78.8], having a clinical breast exam and mammogram in the past year decreased: 60.0% [95% CI: 47.9-71.0]), the differences were not significant.

◆ Breast cancer screening among Hispanic women was relatively similar by education level.

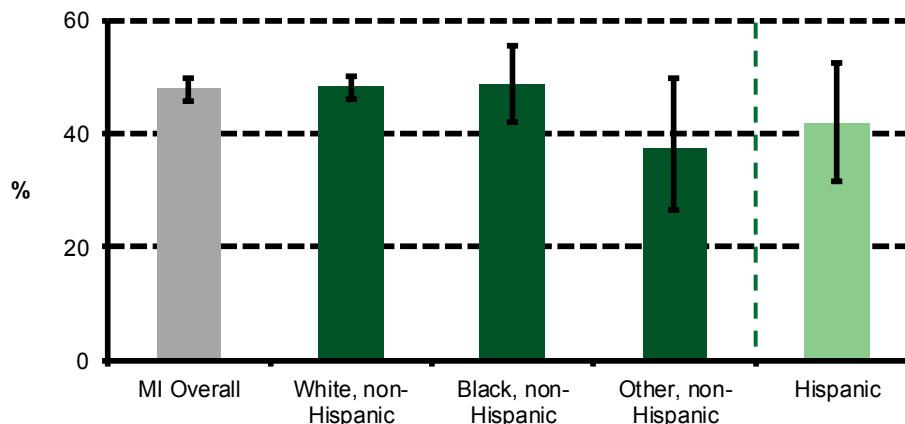
◆ In 2014, the prevalences of both breast cancer screening indicators among Hispanic adults did not significantly differ from any of the other racial/ethnic groups in Michigan.

Hispanic Demographic Characteristics	Had Mammogram in the Past Year Among Women Aged 40 Years and Older <sup>a</sup>		Had Clinical Breast Exam and Mammogram in Past Year Among Women Aged 40 Years and Older <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>50.7</b>	<b>(40.0-61.3)</b>	<b>41.7</b>	<b>(31.6-52.5)</b>
<b>Age</b>				
40 - 59	52.5	(38.4-66.1)	43.8	(30.4-58.1)
60+	47.5	(34.5-60.8)	37.7	(26.3-50.8)
<b>Hispanic Subpopulation</b>				
Mexican	50.8	(37.9-63.6)	40.7	(28.6-54.0)
Puerto Rican	-- <sup>c</sup>	---	-- <sup>c</sup>	---
Other	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Education</b>				
HS graduate or less	49.6	(34.2-65.1)	37.8	(23.7-54.4)
Some college or more	52.2	(38.9-65.2)	46.6	(33.9-59.9)
<b>Household Income</b>				
< \$25,000	46.9	(31.6-62.8)	34.0	(20.9-50.1)
\$25,000 - \$49,999	-- <sup>c</sup>	---	-- <sup>c</sup>	---
\$50,000+	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Health Insurance</b>				
Insured	48.8	(38.0-59.8)	42.1	(31.7-53.2)
Uninsured	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Disabled</b>				
Not disabled	52.0	(39.0-64.8)	43.2	(31.1-56.1)
Disabled	46.6	(28.8-65.4)	38.3	(21.2-58.9)

Among Hispanic women aged 40 years and older, the proportion who reported <sup>a</sup> having a mammogram within the past year (N = 168), <sup>b</sup> having a clinical breast exam and a mammogram within the past year. (N = 167)

<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

Had Clinical Breast Exam and Mammogram in the Past Year by Race/Ethnicity, Michigan, 2014







# Cervical Cancer Screening

2014 HBRFS

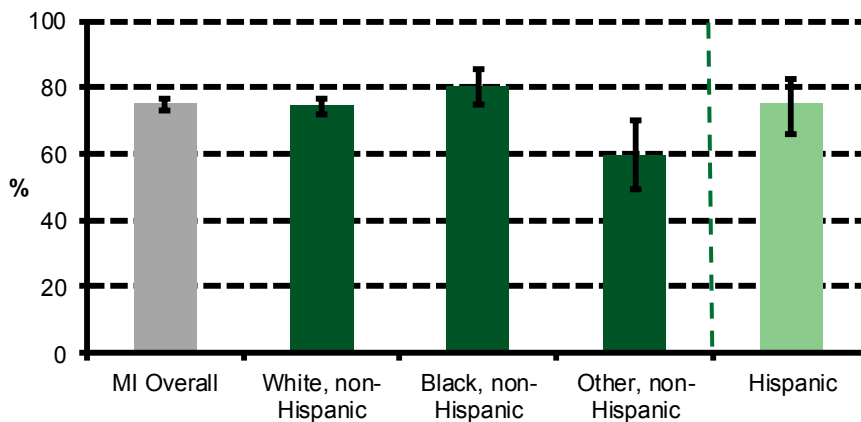
Current guidelines for cervical cancer screening recommend that women 21 to 65 years of age receive a Pap testing at least every three years. Women 30 to 65 years of age can also choose to lengthen their testing interval by having a Pap test and HPV testing combined every five years.<sup>38</sup>

- ◆ In 2014, an estimated 83.9% of Hispanic women aged 18 years and older reported ever having a Pap test, compared to 88.9% (95% CI: 87.0-90.5) of all Michigan women of similar age. An estimated 75.4% of Hispanic women aged 18 years and older reported having a Pap test within the past three years, similar to 74.9% (95% CI: 72.8-76.9) of all Michigan women 18 years and older.
- ◆ Although the prevalences of both cervical cancer screening indicators were higher among Hispanic adults with some college or more compared to those with a high school education or less<sup>†</sup>, the differences were not significant.
- ◆ In 2014, the prevalences of both cervical cancer screening indicators among Hispanic adults did not significantly differ from any of the other racial/ethnic groups in Michigan.

Hispanic Demographic Characteristics	Ever Had a Pap Test <sup>a</sup>		Had Appropriately Timed Pap Test <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>83.9</b>	<b>(74.8-90.2)</b>	<b>75.4</b>	<b>(66.1-82.8)</b>
<b>Age</b>				
18 - 49	82.7	(71.6-90.1)	76.5	(65.1-85.0)
50+	-- <sup>c</sup>	---	74.7 <sup>†</sup>	(55.8-87.3)
<b>Hispanic Subpopulation</b>				
Mexican	80.8	(68.4-89.1)	69.7	(57.6-79.6)
Puerto Rican	-- <sup>c</sup>	---	-- <sup>c</sup>	---
Other	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Education</b>				
HS graduate or less	80.3 <sup>†</sup>	(65.0-90.0)	71.5	(56.2-83.1)
Some college or more	87.8 <sup>†</sup>	(77.1-93.9)	79.5	(68.6-87.3)
<b>Household Income</b>				
< \$25,000	-- <sup>c</sup>	---	80.9 <sup>†</sup>	(66.5-90.0)
\$25,000 - \$49,999	-- <sup>c</sup>	---	85.0 <sup>†</sup>	(66.3-94.2)
\$50,000+	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Health Insurance</b>				
Insured	87.9 <sup>†</sup>	(78.4-93.5)	77.5	(67.6-84.9)
Uninsured	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Disabled</b>				
Not disabled	83.2	(72.6-90.3)	78.7	(68.2-86.4)
Disabled	-- <sup>c</sup>	---	-- <sup>c</sup>	---

Note: Data includes diagnostic test and excludes women who have had a hysterectomy. Among all Hispanic women aged 18 years and older, the proportion who reported <sup>a</sup> ever having a Pap test (N = 190), <sup>b</sup> having a Pap test within the previous three years. (N = 185)  
<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.  
<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**Had a Pap Test in the Past Three Years Among Women Aged 18 Years and Older by Race/Ethnicity, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Prostate Cancer Screening

2014 HBRFS

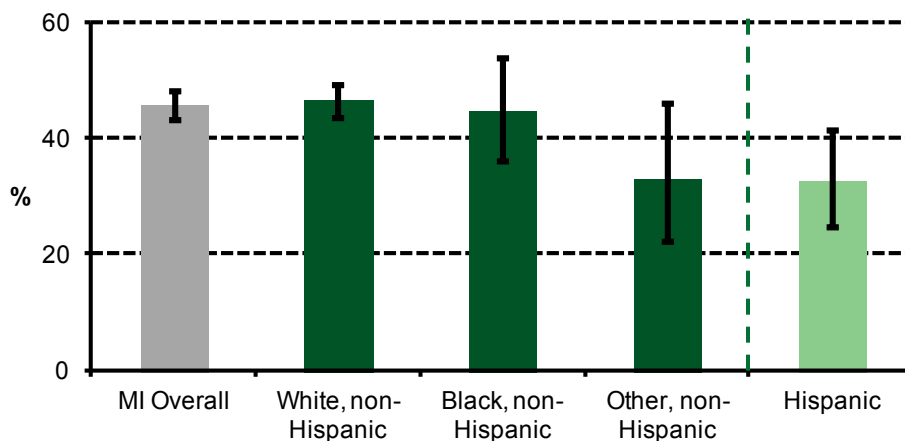
Prostate cancer is currently the second leading cause of cancer deaths among all men in the US and the fourth leading cause of cancer deaths among all Hispanic men nationwide.<sup>35-36</sup> There were 940 deaths due to prostate cancer among males in Michigan in 2014.<sup>37</sup>

- ◆ In 2014, an estimated 72.1% of Hispanic men aged 50 years and older in Michigan reported ever 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. An estimated 32.5% of Hispanic men aged 50 years and older reported having a PSA test within the past year, significantly lower than among all Michigan men of similar age (45.8% [95% CI: 43.2-48.3]).
- ◆ The prevalences of both prostate cancer screening indicators generally increased with increasing education and household income level<sup>†</sup>, although differences were not significant.
- ◆ In 2014, the prevalence of ever discussing the advantages of a PSA test with doctor did not differ between Hispanic males and males of all of the other racial/ethnic groups in Michigan (data not shown).
- ◆ In 2014, Hispanic men aged 50 years and older (32.5%) reported a significantly lower prevalence of having had a PSA test in the past year compared to White, non-Hispanic men of similar age (46.5%). The prevalence among Hispanic men did not differ from Black and Other, Non-Hispanic men.

Hispanic Demographic Characteristics	Ever Discussed Advantages of PSA Test with Doctor <sup>a</sup>		Had PSA Test in Past Year <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>72.1</b>	<b>(62.5-80.1)</b>	<b>32.5</b>	<b>(24.7-41.5)</b>
<b>Age</b>				
50 - 59	81.1	(67.5-89.8)	24.6	(14.7-38.1)
60 - 69	66.5	(50.9-79.2)	33.6	(22.2-47.2)
70+	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Hispanic Subpopulation</b>				
Mexican	71.7	(59.9-81.1)	32.3	(22.8-43.5)
Puerto Rican	-- <sup>c</sup>	---	-- <sup>c</sup>	---
Other	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Education</b>				
HS graduate or less	63.7	(49.1-76.2)	27.1	(17.2-39.9)
Some college or more	84.5	(76.1-90.4)	40.4	(30.1-51.5)
<b>Household Income</b>				
< \$25,000	-- <sup>c</sup>	---	-- <sup>c</sup>	---
\$25,000 - \$49,999	75.4 <sup>†</sup>	(57.6-87.4)	27.0	(15.8-42.2)
\$50,000+	83.2 <sup>†</sup>	(68.8-91.7)	43.9	(31.1-57.5)
<b>Health Insurance</b>				
Insured	69.9	(59.9-78.3)	36.1	(27.8-45.3)
Uninsured	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Disabled</b>				
Not disabled	71.1	(59.4-80.5)	34.3	(25.1-44.9)
Disabled	73.7 <sup>†</sup>	(55.2-86.5)	29.0	(15.9-47.0)

Among Hispanic men aged 50 years and older, the proportion who reported <sup>a</sup> ever discussing the advantages of a PSA test with a doctor, nurse, or other health professional (N = 194), <sup>b</sup> having a PSA test within the past year. (N = 185)  
<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.  
<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

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



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Colorectal Cancer Screening

2014 HBRFS

In 2015, colorectal cancer was the third leading cause of cancer-related deaths among Hispanics in the US.<sup>35</sup> In Michigan in 2014, colorectal cancer was the second leading cause of cancer-related deaths with 1,753 deaths.<sup>37</sup> 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.

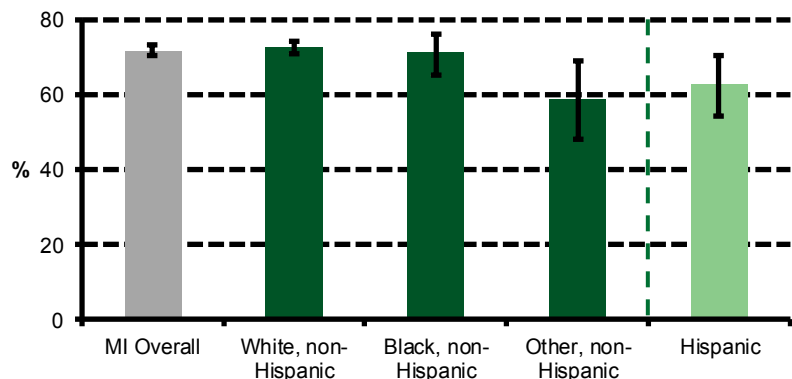
- ◆ In 2014, an estimated 49.2% of Hispanic adults in Michigan aged 50 years and older reported having a sigmoidoscopy or colonoscopy within the past five years, while 62.6% reported appropriate colorectal cancer screening. This compared to 57.5% (95% CI: 55.8-59.1) and 71.7% (95% CI: 70.2-73.2) of all Michigan adults aged 50 years and older, respectively.
- ◆ Although the prevalences of both colorectal cancer screening indicators increased slightly since 2012 (sigmoidoscopy or colonoscopy within the past five years: 44.5% [95% CI: 34.1-55.4], appropriate colorectal cancer screening: 58.3% [46.4-69.4]) the differences were not significant.
- ◆ Even though the prevalences of both colorectal cancer screening indicators were higher among Hispanic males than Hispanic females, the differences were not significant.
- ◆ The prevalences of both colorectal cancer screenings generally increased with increasing education and household income level, although not all differences were significant.
- ◆ Although the prevalences of both colorectal cancer screening indicators among Hispanic adults were lower compared to White and Black, non-Hispanics in Michigan in 2014, the differences were not significant.

Hispanic Demographic Characteristics	Had Sigmoidoscopy or Colonoscopy in Past 5 Years <sup>a</sup>		Had Appropriate Colorectal Cancer Screening <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>49.2</b>	<b>(41.3-57.2)</b>	<b>62.6</b>	<b>(54.1-70.4)</b>
<b>Age</b>				
50 - 59	45.4	(32.9-58.5)	55.1	(41.4-68.1)
60 - 69	54.5	(43.3-65.2)	70.3	(58.9-79.7)
70+	50.5	(36.7-64.3)	70.3	(54.6-82.3)
<b>Gender</b>				
Male	53.7	(43.8-63.4)	65.5	(54.6-75.1)
Female	44.9	(33.2-57.2)	59.8	(46.7-71.7)
<b>Hispanic Subpopulation</b>				
Mexican	48.2	(38.5-58.0)	61.8	(51.3-71.3)
Puerto Rican	-- <sup>c</sup>	---	-- <sup>c</sup>	---
Other	49.9	(35.5-64.4)	62.8	(46.8-76.5)
<b>Education</b>				
HS graduate or less	40.0	(29.7-51.2)	53.8	(42.1-65.0)
Some college or more	65.1	(55.7-73.4)	78.2	(68.6-85.5)
<b>Household Income</b>				
< \$25,000	39.6	(26.4-54.5)	49.5	(34.9-64.3)
\$25,000 - \$49,999	52.0	(37.6-66.1)	61.5	(45.6-75.3)
\$50,000+	68.4	(55.8-78.8)	79.0	(65.5-88.2)
<b>Health Insurance</b>				
Insured	52.0	(44.1-59.8)	64.0	(55.4-71.7)
Uninsured	-- <sup>c</sup>	---	-- <sup>c</sup>	---
<b>Disabled</b>				
Not disabled	50.1	(40.1-60.1)	64.7	(54.1-74.0)
Disabled	48.2	(35.6-61.1)	58.2	(43.7-71.4)

Among Hispanic adults aged 50 years and older, the proportion who reported <sup>a</sup> having a sigmoidoscopy or colonoscopy within the past five years (N = 321) <sup>b</sup> 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 = 315)

<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

Appropriate Colorectal Cancer Screening Among Adults Aged 50 Years and Older by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Oral Health

2014 HBRFS

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, and permits early diagnosis and treatment of tooth decay and periodontal diseases.<sup>39</sup> It has been estimated that Mexican Americans in the US aged 35 to 44 years are almost two times more likely to have untreated tooth decay compared to White, non-Hispanics.<sup>40</sup>

- ◆ In 2014, an estimated 33.2% of Hispanic adults in Michigan reported not having had a dental visit within the past year, similar to 31.4% (95% CI: 30.1-32.7) of all Michigan adults. An estimated 7.5% (95% CI: 5.3-10.5) of Hispanic adults reported having six or more teeth missing, significantly less compared to 15.5% of all Michigan adults (95% CI: 14.6-16.4).
- ◆ The prevalence of not having a dental visit in the past year among Hispanic adults remained similar since 2012 (36.8% [95% CI: 28.9-45.5]).
- ◆ Although Hispanic males were more likely to report not having a dental visit within the past year compared to Hispanic females, the difference was not significant.
- ◆ About half of Puerto Ricans reported not having a dental visit within the past year, even though differences by Hispanic subpopulation were not significant.
- ◆ The prevalence of not having had a dental visit within the past year generally decreased with increasing household income level<sup>†</sup>, although not all differences were significant.
- ◆ In 2014, the prevalence of no dental visit within the past year among Hispanic adults (33.2%) was significantly lower compared to Black, non-Hispanics (45.1%) in Michigan. The prevalence among Hispanic adults did not significantly differ from that of White or Other, non-Hispanics.

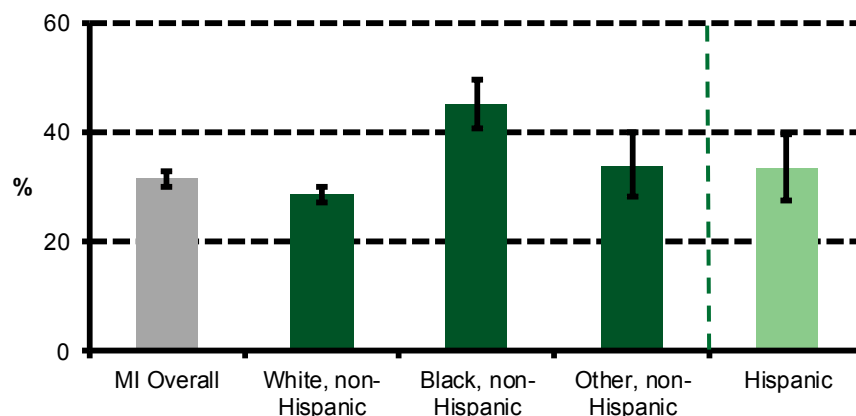
Hispanic Demographic Characteristics	No Dental Visit in Past Year <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>33.2</b>	<b>(27.5-39.5)</b>
<b>Age</b>		
18 - 44	35.4	(27.4-44.3)
45 - 64	28.2	(20.1-37.9)
65+	33.4	(23.8-44.4)
<b>Gender</b>		
Male	39.4	(31.0-48.5)
Female	26.5	(19.7-34.7)
<b>Hispanic Subpopulation</b>		
Mexican	31.9	(25.2-39.3)
Puerto Rican	50.7	(31.7-69.5)
Other	26.0	(14.9-41.4)
<b>Education</b>		
HS graduate or less	33.8	(25.5-43.3)
Some college or more	32.5	(25.1-41.0)
<b>Household Income</b>		
< \$25,000	51.9	(41.1-62.5)
\$25,000 - \$49,999	26.1	(16.6-38.4)
\$50,000+	14.9 <sup>†</sup>	(7.9-26.4)
<b>Health Insurance</b>		
Insured	29.3	(23.4-36.0)
Uninsured	46.6	(32.0-61.8)
<b>Disabled</b>		
Not disabled	31.0	(24.4-38.4)
Disabled	40.2	(29.0-52.6)

<sup>a</sup> Among all Hispanic adults, the proportion who reported that they had not visited a dentist or dental clinic for any reason in the previous year. (N = 569)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

- ◆ Hispanic adults (7.5%) reported a significantly lower prevalence of having six or more teeth missing compared to White (14.5%) and Black (23.4%), non-Hispanic adults (data not shown).

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



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# HIV Testing

2014 HBRFS

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.<sup>41</sup> Although Hispanics only account for about 17% of the US population, almost 25% of new HIV diagnoses are among Hispanics.<sup>42</sup>

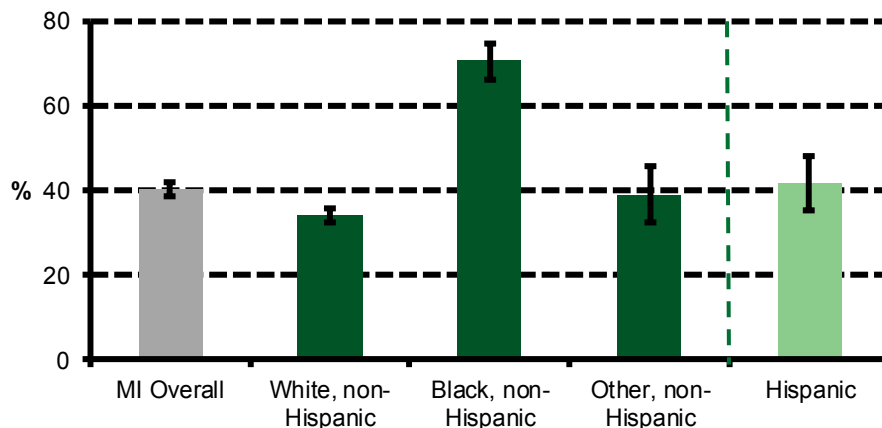
- ◆ In 2014, an estimated 41.4% of Hispanic adults in Michigan aged 18-64 years reported ever being tested for HIV, similar to 40.2% of all Michigan adults of similar age (95% CI: 38.5-41.8).
- ◆ Although the prevalence of Hispanic adults aged 18 to 65 years that reported ever having an HIV test declined slightly since 2012 (52.0% [95% CI: 42.9-61.0]), the difference was not significant.
- ◆ Hispanic females reported a higher prevalence of HIV testing than Hispanic males, although the difference was not significant.
- ◆ Other Hispanics (57.5%) reported a significantly higher prevalence of HIV testing compared to Mexicans (32.6%).
- ◆ The prevalence of HIV testing remained relatively even across household income levels as well as health insurance and disability status.
- ◆ In 2014, Hispanic adults (41.4%) reported a significantly lower prevalence of HIV testing than Black, non-Hispanics (70.5%). The prevalence among Hispanic adults did not significantly differ from that of White or Other, non-Hispanics in Michigan.

Hispanic Demographic Characteristics	Ever Had an HIV Test <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>41.4</b>	<b>(35.0-48.1)</b>
<b>Age</b>		
18 - 44	43.4	(35.2-52.0)
45 - 64	36.3	(27.9-45.7)
<b>Gender</b>		
Male	33.6	(25.4-42.8)
Female	50.5	(40.9-60.0)
<b>Hispanic Subpopulation</b>		
Mexican	32.6	(25.5-40.6)
Puerto Rican	-- <sup>b</sup>	---
Other	57.5	(41.4-72.2)
<b>Education</b>		
HS graduate or less	36.6	(27.4-46.8)
Some college or more	46.7	(38.2-55.3)
<b>Household Income</b>		
< \$25,000	45.9	(34.3-58.0)
\$25,000 - \$49,999	41.1	(28.8-54.6)
\$50,000+	42.4	(32.0-53.5)
<b>Health Insurance</b>		
Insured	42.2	(35.0-49.6)
Uninsured	39.7	(25.6-55.7)
<b>Disabled</b>		
Not disabled	40.0	(32.9-47.5)
Disabled	46.4	(32.8-60.6)

<sup>a</sup> Among 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 = 397)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

Ever Tested for HIV Among Adults Aged 18-64 Years by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Asthma

2014 HBRFS

Asthma is a chronic inflammatory disorder of the lungs, characterized by wheezing, coughing, difficulty breathing, and chest tightness. Allergies, a family history of asthma or allergy, low birth weight, and exposure to tobacco smoke are just a few of the potential risk factors that are associated with the development of asthma.<sup>43</sup> At the national level, Puerto Ricans were found to have twice the prevalence of current asthma compared to the overall Hispanic population.<sup>44</sup>

- ◆ In 2014, an estimated 16.7% of Hispanic adults in Michigan reported that they were ever diagnosed with asthma and 11.1% reported that they currently have asthma. Both of these estimates were similar compared to 15.3% (95% CI: 14.4-16.4) and 10.9% (95% CI: 10.1-11.8) of all Michigan adults, respectively.
- ◆ The prevalence of both lifetime and current asthma among Hispanic adults remained similar since 2012 (16.2% [95% CI: 11.2-22.8] and 12.0% [95% CI: 7.6-18.4], respectively).
- ◆ Hispanic females reported higher prevalences of both indicators compared to Hispanic males<sup>†</sup>, although differences were not significant.
- ◆ Puerto Ricans reported higher prevalences for both asthma indicators compared to Mexicans and Other Hispanics<sup>†</sup>, although differences were not significant.
- ◆ In 2014, the prevalence of Hispanic adults (16.7%) that reported ever being diagnosed with asthma did not significantly differ from other racial/ethnic groups in Michigan.
- ◆ In 2014, the prevalence of Hispanic adults (11.1%) that reported currently having asthma did not significantly differ from other racial/ethnic groups in Michigan (data not shown).

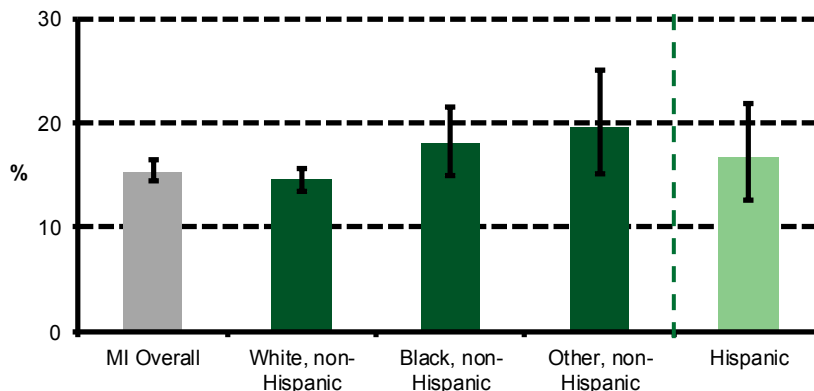
Hispanic Demographic Characteristics	Lifetime Asthma <sup>a</sup>		Current Asthma <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Total</b>	<b>16.7</b>	<b>(12.6-21.8)</b>	<b>11.1</b>	<b>(7.8-15.5)</b>
<b>Age</b>				
18 - 44	16.2	(11.0-23.2)	10.0	(6.0-16.3)
45 - 64	18.3	(11.4-27.9)	12.8	(7.3-21.5)
65+	15.6	(9.5-24.7)	13.0	(7.4-21.9)
<b>Gender</b>				
Male	11.3	(6.9-18.2)	6.7 <sup>†</sup>	(3.4-12.9)
Female	22.5	(16.1-30.7)	15.9	(10.6-23.1)
<b>Hispanic Subpopulation</b>				
Mexican	14.6	(10.3-20.4)	9.4	(6.2-14.1)
Puerto Rican	30.3 <sup>†</sup>	(14.9-52.0)	27.4 <sup>†</sup>	(12.5-50.0)
Other	18.0 <sup>†</sup>	(9.2-32.1)	6.9 <sup>†</sup>	(3.3-14.0)
<b>Education</b>				
HS graduate or less	13.2	(8.1-20.7)	10.0	(5.7-17.0)
Some college or more	20.7	(14.8-28.2)	12.3	(7.9-18.5)
<b>Household Income</b>				
< \$25,000	25.2	(16.9-35.8)	15.0	(8.6-24.8)
\$25,000 - \$49,999	11.7 <sup>†</sup>	(6.0-21.6)	10.3 <sup>†</sup>	(4.8-20.4)
\$50,000+	14.1	(8.8-21.9)	11.5	(6.7-19.2)
<b>Health Insurance</b>				
Insured	17.3	(12.9-22.7)	11.4	(8.0-16.1)
Uninsured	14.4 <sup>†</sup>	(6.0-30.6)	-- <sup>c</sup>	---
<b>Disabled</b>				
Not disabled	14.1	(9.8-19.9)	9.8	(6.3-14.8)
Disabled	26.8	(17.1-39.3)	16.4	(9.0-27.9)

<sup>a</sup> Among all Hispanic adults, the proportion who reported that they <sup>a</sup> were ever told by a doctor, nurse, or other health care professional that they had asthma (N = 577); <sup>b</sup> still have asthma. (N = 573).

<sup>c</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

Lifetime Asthma by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.





# Chronic Obstructive Pulmonary Disease (COPD)

2014 HBRFS

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.<sup>45</sup> At the national level, Hispanic adults were less likely to report COPD compared to White, non-Hispanic and Black, non-Hispanic adults.<sup>46</sup>

- ◆ In 2014, an estimated 7.1% of Hispanic adults in Michigan reported that they were ever told by a doctor that they had COPD, similar to 8.8% of all adults in Michigan (95% CI: 8.1-9.6).
- ◆ The prevalence of COPD was similar by gender and education level<sup>†</sup>.
- ◆ Disabled Hispanic adults (17.1%) were almost four times more likely to report ever being diagnosed with COPD than non-disabled Hispanic adults (4.3%<sup>†</sup>).
- ◆ In 2014, the prevalence of Hispanic adults (7.1%) that reported ever being diagnosed with COPD did not significantly differ from that of any of the other racial/ethnic groups in Michigan.

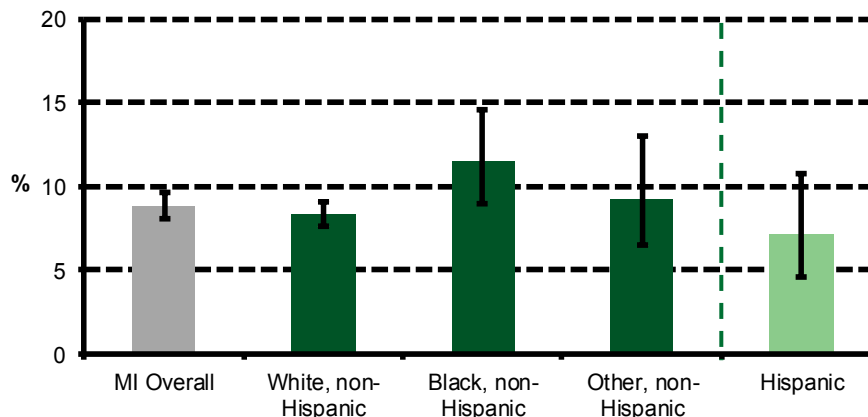
Hispanic Demographic Characteristics	Ever Told COPD, Emphysema, or Chronic Bronchitis <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>7.1</b>	<b>(4.6-10.8)</b>
<b>Age</b>		
18 - 44	6.7 <sup>†</sup>	(3.6-12.2)
45 - 64	9.4	(5.2-16.2)
65+	2.8 <sup>†</sup>	(1.2-6.7)
<b>Gender</b>		
Male	6.4	(3.6-11.3)
Female	7.8 <sup>†</sup>	(4.2-14.3)
<b>Hispanic Subpopulation</b>		
Mexican	7.0	(4.1-11.8)
Puerto Rican	-- <sup>b</sup>	---
Other	8.5 <sup>†</sup>	(3.4-19.6)
<b>Education</b>		
HS graduate or less	6.9 <sup>†</sup>	(3.7-12.6)
Some college or more	7.3	(4.0-12.8)
<b>Household Income</b>		
< \$25,000	13.5	(7.8-22.3)
\$25,000 - \$49,999	-- <sup>b</sup>	---
\$50,000+	-- <sup>b</sup>	---
<b>Health Insurance</b>		
Insured	7.7	(4.8-11.9)
Uninsured	-- <sup>b</sup>	---
<b>Disabled</b>		
Not disabled	4.3 <sup>†</sup>	(2.2-7.9)
Disabled	17.1	(9.6-28.6)

<sup>a</sup> Among all Hispanic adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had chronic obstructive pulmonary disease (COPD), emphysema or chronic bronchitis. (N = 578)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

COPD by Race/Ethnicity, Michigan, 2014





# Arthritis

2014 HBRFS

Arthritis and rheumatism are the leading causes of disability within the United States.<sup>14</sup>

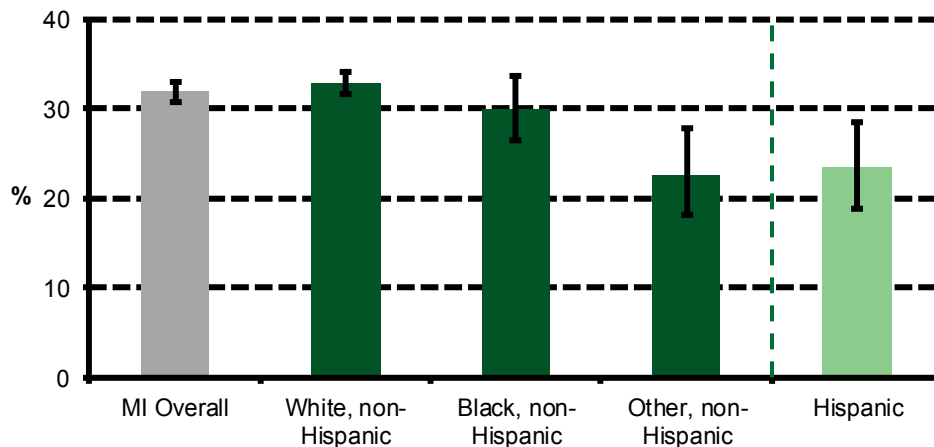
- ◆ In 2014, an estimated 23.4% of Hispanic adults in Michigan reported ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia, significantly less than all Michigan adults (31.9% [95% CI: 30.7-33.1]).
- ◆ The prevalence of arthritis among Hispanic adults remained similar since 2012 (20.5% [95 CI: 15.3-27.1]).
- ◆ The prevalence of arthritis among Hispanic adults increased with age.
- ◆ Hispanic females reported a higher prevalence of arthritis than Hispanic males, although the difference was not significant.
- ◆ Although Other Hispanics reported the highest prevalence of arthritis, differences by Hispanic subpopulation were not significant<sup>†</sup>.
- ◆ The prevalence of arthritis generally decreased with increasing education and household income level, although not all differences were significant.
- ◆ In 2014, Hispanics (23.4%) reported a significantly lower prevalence of arthritis than White, non-Hispanics (32.9%). Thus, the prevalence of arthritis among White, non-Hispanics was 1.4 times that of Hispanics in Michigan. The prevalence among Hispanic adults did not significantly differ from that of Black or Other, non-Hispanics.

Hispanic Demographic Characteristics	Ever Told Arthritis <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>23.4</b>	<b>(18.9-28.5)</b>
<b>Age</b>		
18 - 44	12.8	(8.0-19.7)
45 - 64	37.2	(28.7-46.6)
65+	57.2	(46.9-66.8)
<b>Gender</b>		
Male	18.4	(13.1-25.1)
Female	28.7	(21.8-36.8)
<b>Hispanic Subpopulation</b>		
Mexican	21.8	(16.8-27.8)
Puerto Rican	21.6 <sup>†</sup>	(9.4-42.2)
Other	32.6	(21.4-46.2)
<b>Education</b>		
HS graduate or less	25.6	(19.1-33.4)
Some college or more	20.7	(15.3-27.4)
<b>Household Income</b>		
< \$25,000	33.1	(23.9-43.9)
\$25,000 - \$49,999	19.4	(12.6-28.6)
\$50,000+	16.5	(11.0-23.8)
<b>Health Insurance</b>		
Insured	25.1	(20.2-30.8)
Uninsured	17.0 <sup>†</sup>	(8.5-31.1)
<b>Disabled</b>		
Not disabled	13.9	(10.1-18.8)
Disabled	53.3	(40.8-65.5)

<sup>a</sup> Among all 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 = 575)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

Ever Told Arthritis by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.





# Cardiovascular Disease

2014 HBRFS

At the national level, heart disease is the second-leading cause of death among Hispanics and the leading cause of death among White, non-Hispanics.<sup>2</sup> In Michigan, heart disease is the leading cause of death for all residents as well as for Hispanics.<sup>15,37</sup>

- ◆ In 2014, an estimated 7.7% of Hispanic adults in Michigan reported ever being told by a doctor that they had some form of cardiovascular disease (defined as a heart attack, angina or coronary heart disease, or a stroke). This compared to 10.0% of all Michigan adults (95% CI: 9.3-10.7).
- ◆ An estimated 3.8% (95% CI: 2.5-5.6) of Hispanic adults had ever been told by a doctor that they had a heart attack, 3.1% (95% CI: 2.1-4.6) had ever been told they had angina or coronary heart disease, and 3.8%<sup>†</sup> (95% CI: 1.9-7.6) had ever been told they had a stroke.
- ◆ Although the prevalence of cardiovascular disease among Hispanic adults generally increased with age, the difference was not significant.
- ◆ The prevalence of cardiovascular disease generally decreased with increasing education and household income level<sup>†</sup>, although not all differences were significant.
- ◆ Disabled Hispanic adults (18.4%) were over four times more likely to report cardiovascular disease than non-disabled Hispanic adults (4.1%).
- ◆ In 2014, the prevalence of Hispanic adults (7.7%) that reported ever being diagnosed with cardiovascular disease did not significantly differ from that of any of the other racial/ethnic groups in Michigan.

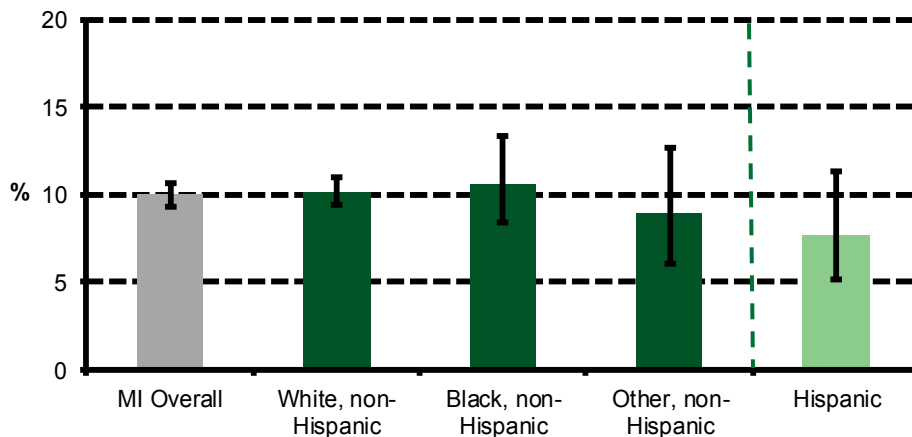
Hispanic Demographic Characteristics	Ever Told Any Cardiovascular Disease <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>7.7</b>	<b>(5.2-11.3)</b>
<b>Age</b>		
18 - 44	-- <sup>b</sup>	---
45 - 64	11.8	(6.9-19.7)
65+	25.8	(17.2-36.8)
<b>Gender</b>		
Male	8.4	(4.9-13.9)
Female	7.1	(3.9-12.5)
<b>Hispanic Subpopulation</b>		
Mexican	6.7	(4.2-10.4)
Puerto Rican	-- <sup>b</sup>	---
Other	5.2 <sup>†</sup>	(2.5-10.6)
<b>Education</b>		
HS graduate or less	11.5	(7.2-17.9)
Some college or more	3.3	(1.9-5.7)
<b>Household Income</b>		
< \$25,000	12.2 <sup>†</sup>	(6.4-22.0)
\$25,000 - \$49,999	6.4	(3.7-11.0)
\$50,000+	2.7 <sup>†</sup>	(1.4-5.1)
<b>Health Insurance</b>		
Insured	8.7	(5.9-12.7)
Uninsured	-- <sup>b</sup>	---
<b>Disabled</b>		
Not disabled	4.1	(2.3-7.4)
Disabled	18.4	(10.8-29.6)

<sup>a</sup> Among all Hispanic adults, the proportion who reported ever being told by a doctor that they had had a heart attack, coronary heart disease or a stroke. (N = 577)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

Cardiovascular Disease by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Cancer

2014 HBRFS

Cancer is the leading cause of death for Hispanics nationwide.<sup>2</sup> In Michigan, cancer is the second leading cause of death for all races as well as for Hispanics.<sup>15,37</sup> 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 within the following year.<sup>47</sup>

- ◆ In 2014, an estimated 5.1% of Hispanic adults in Michigan reported that they were ever diagnosed with some form of cancer, significantly less than 12.3% of all Michigan adults (95% CI: 11.6-13.1).
- ◆ The prevalence of cancer generally increased with age<sup>†</sup>, although not all differences were significant.
- ◆ Hispanic females (8.2%) reported a significantly higher prevalence of cancer than Hispanic males (2.2%<sup>†</sup>).
- ◆ Although disabled Hispanic adults<sup>†</sup> were nearly three times more likely to report every being diagnosed with cancer than non-disabled Hispanic adults, the difference was not significant.
- ◆ In 2014, Hispanic adults (5.1%) reported a significantly lower prevalence of cancer compared to White, non-Hispanic adults (13.9%). The prevalence among Hispanic adults did not significantly differ from that of Black or Other, non-Hispanics.

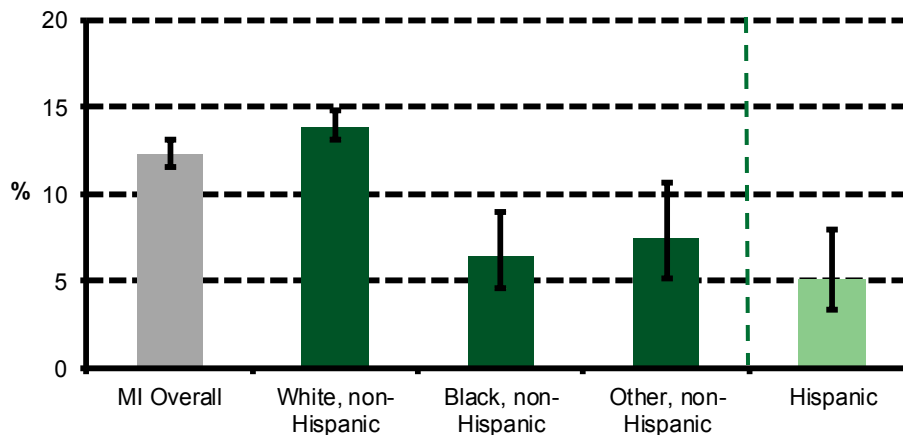
Hispanic Demographic Characteristics	Ever Told Cancer <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>5.1</b>	<b>(3.3-7.9)</b>
<b>Age</b>		
18 - 44	3.5 <sup>†</sup>	(1.5-7.9)
45 - 64	6.9	(3.8-12.2)
65+	11.5	(7.1-18.1)
<b>Gender</b>		
Male	2.2 <sup>†</sup>	(1.2-4.0)
Female	8.2	(4.8-13.7)
<b>Hispanic Subpopulation</b>		
Mexican	5.5	(3.1-9.4)
Puerto Rican	2.6 <sup>†</sup>	(1.0-6.7)
Other	6.5 <sup>†</sup>	(3.2-12.8)
<b>Education</b>		
HS graduate or less	4.5 <sup>†</sup>	(2.1-9.3)
Some college or more	5.9	(3.6-9.3)
<b>Household Income</b>		
< \$25,000	6.4 <sup>†</sup>	(2.8-14.2)
\$25,000 - \$49,999	3.1 <sup>†</sup>	(1.4-6.9)
\$50,000+	5.9 <sup>†</sup>	(3.0-11.2)
<b>Health Insurance</b>		
Insured	6.5	(4.2-10.0)
Uninsured	-- <sup>b</sup>	---
<b>Disabled</b>		
Not disabled	3.5	(2.1-6.0)
Disabled	10.6 <sup>†</sup>	(5.2-20.4)

<sup>a</sup> Among all Hispanic adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had skin cancer or any other type of cancer. (N = 579)

<sup>b</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

Ever Told Cancer by Race/Ethnicity, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Diabetes

2014 HBRFS

In 2013, Hispanics were found to have a significantly higher death rate due to diabetes compared to White, non-Hispanics nationwide.<sup>2</sup> Hispanics also reported having diabetes over two times more frequently than White, non-Hispanics in the US.<sup>2</sup> Obesity, poor diet, physical inactivity, and high blood pressure are just a few of the known risk factors that are associated with the development of diabetes.<sup>48</sup>

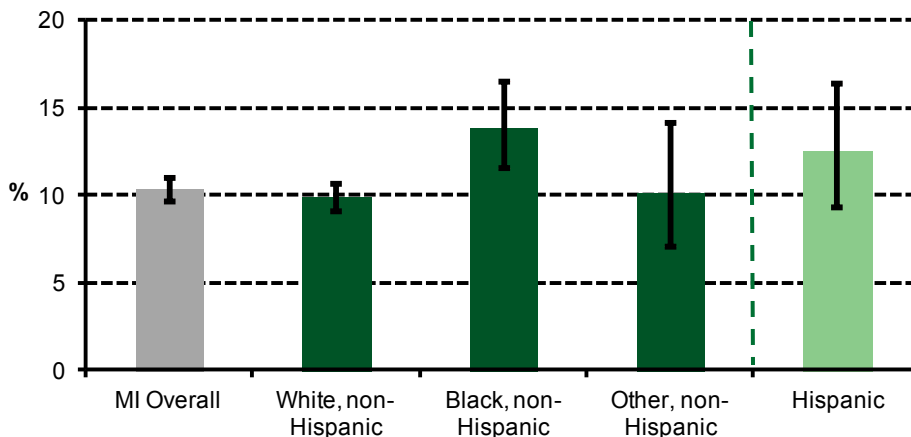
- ◆ In 2014, an estimated 12.5% of Hispanic adults in Michigan reported ever being told by a doctor that they had diabetes, compared to 10.4% (95% CI: 9.7-11.1) of all Michigan adults.
- ◆ Although the prevalence of diabetes decreased slightly since 2012 (15.0% [95% CI: 10.0-21.7]), the differences was not significant.
- ◆ The prevalence of diabetes generally increased with age<sup>†</sup>, with 39.9% of Hispanic adults 65 years and older reporting diabetes.
- ◆ The prevalence of diabetes generally decreased with increasing education and household income level, although differences were not significant.
- ◆ Insured (14.9%) and disabled (21.5%) Hispanic adults were significantly more likely to report ever being told they had diabetes compared to uninsured (4.0%<sup>†</sup>) and non-disabled (8.6%) Hispanic adults.
- ◆ In 2014, the prevalence of Hispanic adults (12.5%) that reported ever being diagnosed with diabetes did not significantly differ from that of any of the other racial/ethnic groups in Michigan.

Hispanic Demographic Characteristics	Ever Told Diabetes <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>12.5</b>	<b>(9.4-16.4)</b>
<b>Age</b>		
18 - 44	3.4 <sup>†</sup>	(1.5-7.7)
45 - 64	24.7	(17.0-34.5)
65+	39.9	(30.2-50.6)
<b>Gender</b>		
Male	13.7	(9.1-20.3)
Female	11.2	(7.7-16.0)
<b>Hispanic Subpopulation</b>		
Mexican	12.8	(9.3-17.4)
Puerto Rican	13.6 <sup>†</sup>	(5.2-31.2)
Other	12.6 <sup>†</sup>	(5.6-26.0)
<b>Education</b>		
HS graduate or less	15.3	(10.4-22.0)
Some college or more	9.1	(6.4-12.9)
<b>Household Income</b>		
< \$25,000	14.1	(8.3-22.8)
\$25,000 - \$49,999	12.8	(7.8-20.1)
\$50,000+	9.9	(5.9-16.0)
<b>Health Insurance</b>		
Insured	14.9	(11.1-19.7)
Uninsured	4.0 <sup>†</sup>	(1.5-10.4)
<b>Disabled</b>		
Not disabled	8.6	(6.0-12.0)
Disabled	21.5	(13.5-32.5)

<sup>a</sup> Among all 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 = 578)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**Ever Told Diabetes by Race/Ethnicity, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS while estimates for Michigan overall as well as White, Black, and Other non-Hispanic estimates used data from the 2014 Michigan BRFS.



# Depression

2014 HBRFS

Depression is a common and treatable medical disorder that is more common among individuals with chronic conditions such as obesity, diabetes, and arthritis.<sup>49</sup> Hispanics aged 12 years and older with mild depressive symptoms were significantly less likely to report seeing a mental health care professional compared to White, non-Hispanics of similar age and same level of symptoms.<sup>50</sup>

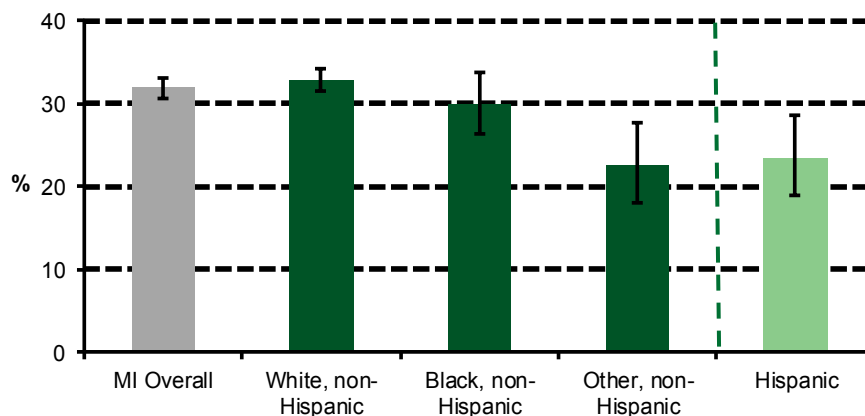
- ◆ In 2014, an estimated 22.2% of Hispanic adults in Michigan reported ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression. This was similar to 20.5% of all adults (95% CI: 19.3-21.6) in Michigan.
- ◆ Although the prevalence of depression among Hispanics decreased since 2012 (29.4% [95% CI: 22.1-37.9]), the differences was not significant. There was no longer a significant difference between Hispanics and all adults as in 2012.
- ◆ The prevalence of depression among Hispanic adults generally decreased with age, although the differences were not significant.
- ◆ Although Hispanic females reported a higher prevalence of depression than Hispanic males, the difference was not significant.
- ◆ About half (50.8%) of disabled Hispanic adults reported depression compared to only 13.9% of non-disabled Hispanic adults. Therefore, disabled Hispanic adults were almost four times more likely to report depression than non-disabled Hispanic adults.
- ◆ In 2014, the prevalence of Hispanic adults (22.2%) that reported ever being diagnosed with depression did not significantly differ from that of any of the other racial/ethnic groups in Michigan.

Hispanic Demographic Characteristics	Ever Told Depression <sup>a</sup>	
	%	95% Confidence Interval
<b>Total</b>	<b>22.2</b>	<b>(17.4-27.8)</b>
<b>Age</b>		
18 - 44	21.3	(15.0-29.3)
45 - 64	27.2	(19.4-36.7)
65+	12.6	(7.4-20.6)
<b>Gender</b>		
Male	18.9	(12.7-27.1)
Female	25.7	(19.0-33.9)
<b>Hispanic Subpopulation</b>		
Mexican	21.0	(15.5-27.9)
Puerto Rican	27.0 <sup>†</sup>	(12.6-48.7)
Other	21.9	(12.0-36.6)
<b>Education</b>		
HS graduate or less	23.1	(16.3-31.6)
Some college or more	21.1	(15.2-28.6)
<b>Household Income</b>		
< \$25,000	40.1	(30.0-51.2)
\$25,000 - \$49,999	9.4 <sup>†</sup>	(5.0-17.1)
\$50,000+	14.0	(8.0-23.4)
<b>Health Insurance</b>		
Insured	22.5	(17.3-28.7)
Uninsured	20.5 <sup>†</sup>	(10.7-35.7)
<b>Disabled</b>		
Not disabled	13.9	(9.5-19.9)
Disabled	50.8	(38.6-62.9)

<sup>a</sup> Among all 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 = 579)

<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

Ever Told Arthritis by Race/Ethnicity, Michigan, 2014





# Reactions to Race

2014 HBRFS

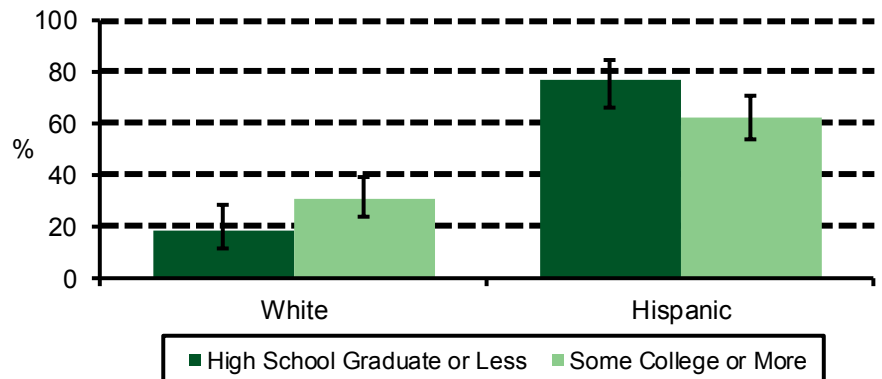
“Race” can be a strong predictor of health outcomes, even though “race” is widely recognized as a social construct.<sup>51</sup> A person’s self-assigned race/ethnicity can often be distinct from their race assigned by society. The skin color of Hispanics can vary across different cultural groups and “colorism” is the preferred treatment of light-skinned Hispanics to dark skinned Hispanics.<sup>52</sup> Research using BRFSS data from various states found advantages in health status among Hispanics socially assigned as White compared to those socially assigned as Hispanic.<sup>51</sup>

- ◆ In 2014, among adults in Michigan that self-identified as being Hispanic, an estimated 70.3% reported being classified by others in this country as Hispanic/Latino and 24.0% reported being classified as White. There were 5.7%<sup>†</sup> that reported being classified as another race.
- ◆ A lower proportion of Mexicans reported being socially assigned as White (19.9% [95% CI:14.2-27.2]) compared to Other Hispanics (39.8% [95% CI: 26.7-54.5]), although the difference was not significant (data for Puerto Ricans not available).
- ◆ The proportion of Hispanic adults that reported being socially assigned by others as White increased with increasing education level, although the differences were not significant.
- ◆ Hispanics that reported being socially assigned as White reported a lower prevalence of fair or poor general health (12.8% [95% CI: 7.4-21.4]) compared to those socially assigned as Hispanic (23.7% [95% CI: 17.4-31.4]), although the difference was not found to be significant.
- ◆ Although the majority of Hispanic adults reported being treated the same as other races at work (72.0%), almost a quarter (24.0%) reported worse treatment than other races.

	%	95% Confidence Interval
<b>“Socially Assigned Race”<sup>a</sup></b>		
White	24.0	(18.7-30.3)
Hispanic or Latino	70.3	(63.5-76.3)
Other	5.7 <sup>†</sup>	(3.0-10.6)
<b>Treatment at Work Compared to Other Races<sup>b</sup></b>		
Worse than other races	24.0	(15.9-34.6)
The same as other races	72.0	(61.7-80.4)
Better than other races	4.0 <sup>†</sup>	(1.9-8.3)
<b>Health Care Experiences Compared to Other Races<sup>c</sup></b>		
Worse than other races	7.3	(4.0-12.9)
The same as other races	78.8	(71.4-84.6)
Better than other races	13.5	(8.7-20.2)
No health care in past 12 months	-- <sup>d</sup>	---

<sup>a</sup> Among all self-identified Hispanic/Latino adults, their “socially assigned race” was measured by the response to the question, “How do other people usually classify you in this country?” (N = 389)  
<sup>b</sup> Among all Hispanic adults, how they reported they were treated at work compared to other races, in the past 12 months. (N = 184)  
<sup>c</sup> Among all Hispanic adults, how they reported their experiences, when seeking health care compared to other races, in past 12 months. (N = 364)  
<sup>d</sup> This estimate was suppressed due to it having a denominator of less than 50 and/or a relative standard error of greater than 50%.  
<sup>†</sup> This estimate should be used with caution due to its low reliability and precision.

**“Socially Assigned Race” Among Self-Identified Hispanic Adults by Education, Michigan, 2014**



All Hispanic prevalence estimates used data from the 2014 HBRFS.



# Reactions to Race, continued

How often a person thinks about their race can help explain the importance race plays in their daily interactions.<sup>53-54</sup> For example, a person that thinks frequently about their race would be expected to make choices more often based on their race which could influence healthy behaviors.<sup>54</sup> A study using BRFSS data from various states found that persons who frequently thought about their race were less likely to be screened for colorectal cancer, especially among Hispanics.<sup>54</sup>

- ◆ Over half (56.4%) of Hispanic adults reported thinking regularly about their race (at least monthly or more frequently) while 35.4% reported never thinking about their race.
- ◆ Hispanic males reported thinking about their race consistently more often compared to Hispanic females, although differences were not significant.
- ◆ A higher proportion of Other Hispanics reported never thinking about their race (50.9% [95% CI: 36.8-64.8]) than Mexicans (32.6% [95% CI: 25.3-40.9]), although the difference was not significant (data for Puerto Ricans not available).
- ◆ An estimated 7.6% of Hispanic adults reported having physical symptoms as a result of how they were treated based on their race in the past 30 days, while 12.0% reported having emotional symptoms as a result of how they were treated based on race in the past 30 days.

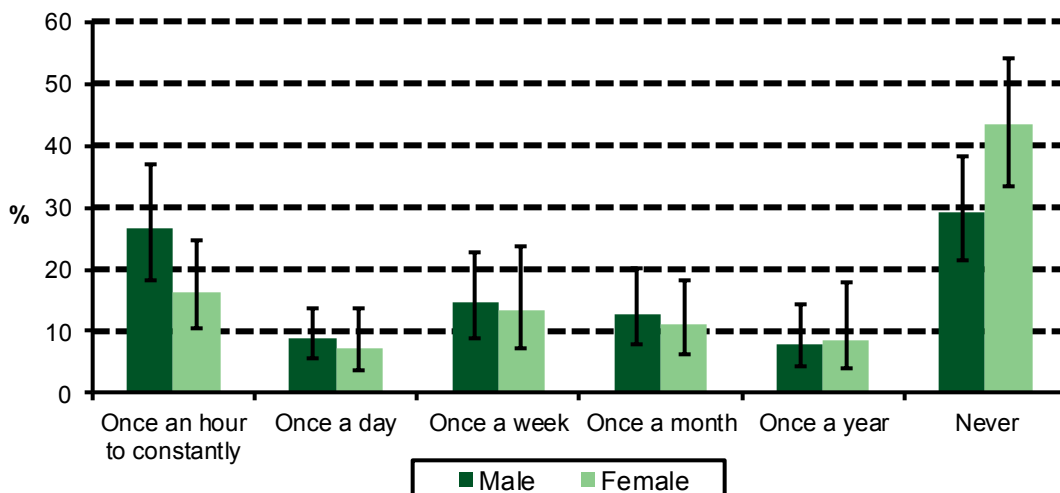
	%	95% Confidence Interval
<b>Race Consciousness<sup>a</sup></b>		
Once an hour to constantly	22.1	(16.4-29.0)
Once a day	8.1	(5.5-11.8)
Once a week	14.1	(9.6-20.2)
Once a month	12.1	(8.5-16.9)
Once a year	8.3	(5.0-13.3)
Never	35.4	(29.0-42.4)
<b>Physical Symptoms Due to How Treated Based on Race<sup>b</sup></b>		
	7.6	(4.5-12.5)
<b>Emotional Symptoms Due to How Treated Based on Race<sup>c</sup></b>		
	12.0	(7.8-18.0)

<sup>a</sup> Among all Hispanic adults, race consciousness was measured by asking, "How often do you think about your race?" (N = 390)

<sup>b</sup> Among all Hispanic adults, the proportion who reported experiencing any physical symptoms, for example, a headache, an upset stomach, tensing of muscles, or a pounding heart, as a result of how they were treated based on their race within the past 30 days. (N = 401)

<sup>c</sup> Among all Hispanic adults, the proportion who reported experiencing emotionally upset, for example angry, sad, or frustrated, as a result of how they were treated based on their race within the past 30 days. (N = 399)

Among Hispanic Adults, How Often Think About Race by Gender, Michigan, 2014



All Hispanic prevalence estimates used data from the 2014 HBRFS.





# Acknowledgements

2014 HBRFS

Data were collected for the 2014 Hispanic Behavioral Risk Factor Survey (HBRFS) by the Institute for Public Policy and Social Research, Office for Survey Research, at Michigan State University. The authors are grateful to Linda Stork, Debra Rusz, and the many BRFSS interviewers for conducting the survey. In addition, the authors would like to thank Elizabeth Hertel, the MDHHS Director of the Office of Health Policy, Planning and Legislative Services. The authors would like to thank— eMily Alemán-McAlpine (Blue Cross Blue Shield of Michigan), Esperanza Cantú (Authority Health), Ricardo Guzman (Community Health and Social Services Center), and Dr. Rubén Martínez (Julian Samora Research Institute, Michigan State University). The authors would also like to thank the Lansing Latino Health Alliance for their assistance in the development of the survey.

The MiBRFS-related assistance provided by the Population Health Surveillance Branch at the Centers for Disease Control and Prevention in Atlanta, Georgia is greatly appreciated.

We are especially grateful to the residents of Michigan who agreed to participate in these surveys.



# HBRFS Methods

2014 HBRFS

The Michigan Behavioral Risk Factor Survey (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 Institute for Public Policy and Social Research (IPPSR) Office of 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.

Although nearly 9,000 adults are interviewed each year in the MiBRFS, the sample contains relatively few respondents who are Hispanic/Latino. Without special over-sampling, the typical MiBRFS sample includes too few Hispanic respondents to reliably estimate health outcomes and behaviors within the group. For example, only 636 Hispanics were included in the MiBRFS samples for years 2012, 2013, and 2014 combined. 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 arranged for a stand-alone survey among Hispanics in Michigan in 2012 and again in 2014. The HBRFS was conducted in partnership with the Lifecourse Epidemiology Division. The HBRFS included interviews from two different data sources: (1) interviews from Michigan Hispanic adults (completed in either Spanish or English) conducted by a stand-alone survey overseen by the IPPSR and (2) Hispanic interviews included in the 2014 MiBRFS sample (completed only in English).

The 2014 HBRFS utilized data from both landline and cell phone respondents. The sample of landline telephone numbers for the 2014 MiBRFS was selected using a list-assisted, random-digit-dialed methodology with a disproportionate stratification based on phone bank density and listedness. The sample of cell phone numbers for the 2014 MiBRFS was randomly selected from dedicated cellular telephone banks sorted on the basis of area code and exchange. For the 2014 HBRFS stand-alone survey, the sample of landline telephone numbers was selected randomly from directory listed numbers belonging only to subscribers with surnames identified by the U.S. Census Bureau as being Hispanic or Latino. Cell phone numbers were not sampled because supplementing the surname-targeted landline frame with the cell phone frame was judged cost inefficient, particularly considering how rare the eligible individuals would be.

A weighting methodology known as iterative proportional fitting or raking was used to allow for the incorporation of cell phone data and to improve the accuracy of prevalence estimates based on MiBRFS and HBRFS 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.

Prevalence estimates and asymmetric 95% confidence intervals (95% CIs) were calculated using SAS-Callable SUDAAN (version 11.0.1) (Research Triangle Institute, Research Triangle Park, NC), a statistical computing program that was designed for analyzing data from multistage sample surveys.<sup>55</sup> 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 Hispanic population and the entire Michigan population even though these populations are not independent. Due to many prevalence estimates having wide confidence intervals, non-significant differences and trends were still noted to allow for general comparisons. These differences were stated as non-significant in the text. When the prevalence estimates had low reliability and precision (defined as a relative standard error > 30 and < 50), a footnote was included in the text to indicate caution with interpreting the results. Unless otherwise specified, respondents who answered that they did not know or refused to answer were not included in the calculation of estimates. For comparison purposes, the statewide prevalence estimates as well as White, non-Hispanic, Black, non-Hispanic, and Other, non-Hispanic prevalence estimates were used from the 2014 MiBRFS. For three indicators (adequate physical activity, adequate fruit and vegetable consumption, hypertension awareness and medication use), the 2013 MiBRFS estimates were used as a comparison since the questions were not included in the 2014 MiBRFS.



# HBRFS Methods, continued

2014 HBRFS

The questionnaire for the 2014 HBRFS stand-alone survey included additional questions not asked in the 2014 MiBRFS. Therefore, the following indicators had results from the stand-alone survey interviews only: social context, preventive health behaviors, and reactions to race. Although the 2014 HBRFS dataset contained a larger sample of Michigan Hispanic adults than the 2014 MiBRFS alone, estimates for kidney disease in the 2014 HBRFS were not reported due to low reliability and precision.

## Sample Results for the 2014 HBRFS

The total sample size for the 2014 HBRFS was 581 (stand-alone survey of Hispanic adults=423, Hispanic interviews from 2014 MiBRFS=158). Of the 155 Hispanic interviews from the 2014 MiBRFS, 64 were conducted by landline phone and 94 were conducted by cell phone. The AAPOR<sup>56</sup> response rate for the stand-alone survey portion of the 2014 HBRFS was 34.1% (landline only) while the response rate for the landline portion of the 2014 MiBRFS was 50.3% and 41.6% for the cell phone portion of the survey, respectively. The total sample size for the 2014 MiBRFS was 8,466 (landline = 4,973; cell phone = 3,493). 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%.<sup>57</sup> The percentage of interviews in the 2014 HBRFS stand-alone survey portion conducted in Spanish was 13.0%.

Data by Hispanic subpopulations were included for those indicating Mexican-alone (Mexican, Mexican American, Chicano/a), Puerto Rican alone, and Other Hispanic alone (Cuban or another Hispanic, Latino/a, or Spanish origin). Participants were allowed to select more than one Hispanic category and there were 16 participants that selected two Hispanic categories. These 16 participants were excluded from the Hispanic subpopulation part of the analyses only.



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