

# Overweight and Obesity in Michigan: Surveillance Update 2014



*Michigan Department  
of Community Health*



Rick Snyder, Governor  
Nick Lyon, Director



**MiNPAO**

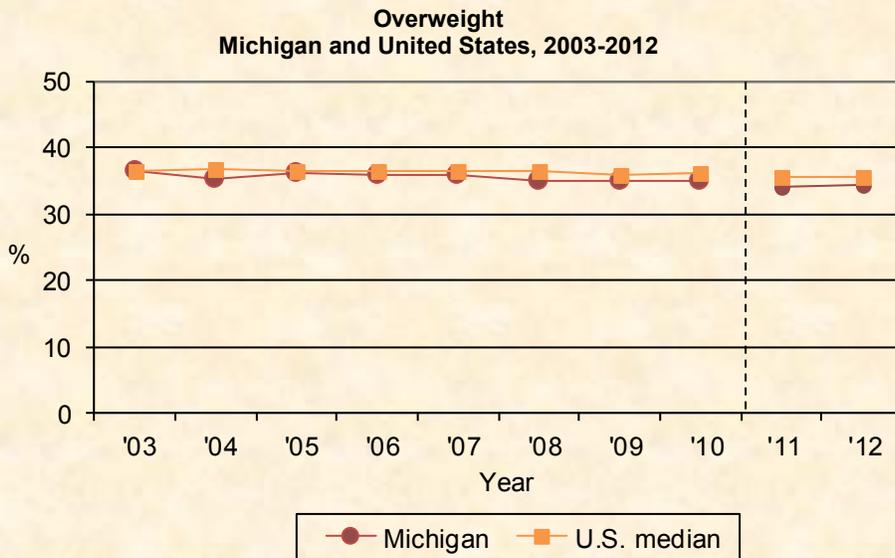
Michigan's Nutrition, Physical  
Activity and Obesity Program



## OVERWEIGHT AND OBESITY FACTS ABOUT MICHIGAN ADULTS (2003-2012)

### Background

- Obesity is defined as a Body Mass Index (BMI) of 30 or higher; while a BMI between 25 and 29.9 is considered overweight.<sup>1</sup>
- In 2011, the Centers for Disease Control and Prevention made changes to the Behavioral Risk Factor Surveillance System (BRFSS) methodology.<sup>2</sup> Data was collected from both landline and cell phone respondents in order to more accurately represent the current state adult population (18+ years), and a new raking weighting methodology (i.e. iterative proportional fitting) was introduced to improve the accuracy of BRFSS prevalence estimates.<sup>2,3</sup>
- Due to these BRFSS methodology changes, the BRFSS overweight and obesity prevalence estimates for 2011 and beyond cannot be compared to BRFSS prevalence estimates from 2010 and prior. This results in a break in the trends.



In 2012, 34.6% of Michigan's adult population was overweight, which was comparable to 2011 (34.2%). The U.S. median prevalence was 35.8% both in 2011 and 2012.

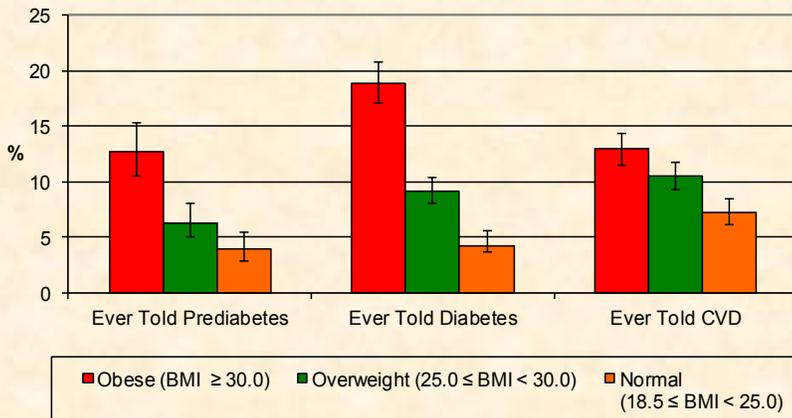
Source: CDC BRFSS [[www.cdc.gov/brfss/](http://www.cdc.gov/brfss/)] and MiBRFSS [[www.michigan.gov/brfs](http://www.michigan.gov/brfs)]



The percentage of Michigan adults classified as obese was 31.3% in 2011 and 31.1% in 2012. U.S. median prevalence for 2011 and 2012 were also similar (27.7% and 28.1%, respectively).

Source: CDC BRFSS [[www.cdc.gov/brfss/](http://www.cdc.gov/brfss/)] and MiBRFSS [[www.michigan.gov/brfs](http://www.michigan.gov/brfs)]

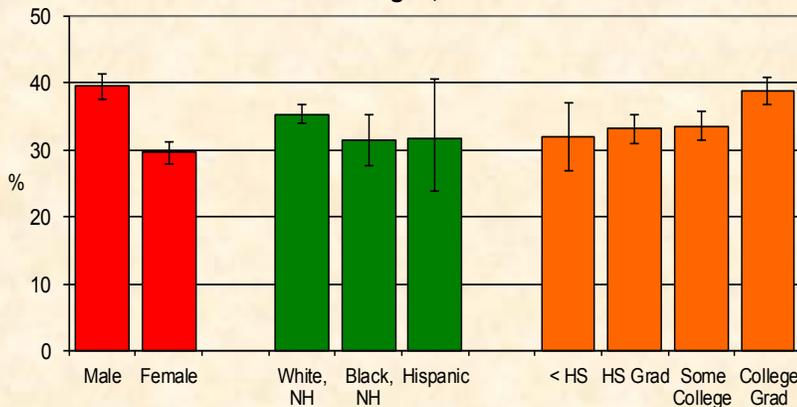
**Chronic Disease Prevalence Estimate by Weight Status  
Adults, Michigan, 2012**



Source: MiBRFSS [www.michigan.gov/brfs]

- In 2012, significant differences between obese and healthy weight Michigan adults were noted for all chronic health conditions shown (pre-diabetes, diabetes, and cardiovascular disease (CVD)).
- Nearly one in five Michigan adults classified as obese also reported having diabetes.
- Among those classified as obese, about one in eight reported having pre-diabetes and slightly more than one in eight cardiovascular disease.

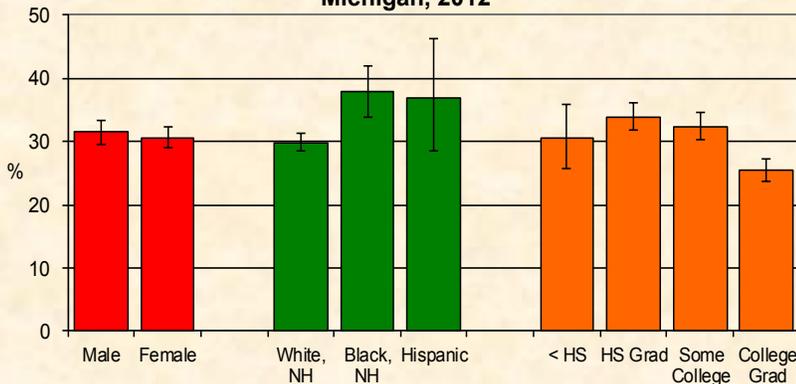
**Overweight  
by Gender, Race/Ethnicity, and Education Adults,  
Michigan, 2012**



Source: MiBRFSS [www.michigan.gov/brfs]

- An estimated 39.5% of Michigan adult males were classified as overweight compared to 29.6% of female adults in 2012.
- The overweight prevalence estimate was comparable regardless of race/ethnicity.
- The overweight prevalence was highest among Michigan adults with at least a college degree.

**Obesity  
by Gender, Race/Ethnicity, and Education Adults,  
Michigan, 2012**



Source: MiBRFSS [www.michigan.gov/brfs]

- The prevalence of obesity was similar among Michigan adult males (31.5%) and females (30.6%) in 2012.
- Non-Hispanic Black adults reported a significantly higher prevalence of obesity compared to non-Hispanic White adults (37.8% vs. 29.9%) in 2012.
- In 2012, the prevalence of obesity was significantly lower among college graduates (25.5%) compared to adults with less than a college education (30.6% - 32.4%).

**Note:** There was a large degree of uncertainty in the measurement of self-reported weight status among Michigan Hispanic adults due to small sample size. The confidence intervals were wide making a determination of differences compared to White, non-Hispanic or Black, non-Hispanic not reliable.

**References:**

1. Centers for Disease Control and Prevention. Available online at: <http://www.cdc.gov/obesity/defining.html>. Accessed on April 15, 2014.
2. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System—Improving Survey Methodology. 2011.
3. Fussman C, LyonCallo S. The Impact of BRFSS Methodology Changes on Michigan BRFSS Health Estimates. *Michigan BRFSS Surveillance Brief*. Vol. 6, No. 4. Lansing, MI: Michigan Department of Community Health, Lifecourse Epidemiology and Genomics Division, Surveillance and Program Evaluation Section, Chronic Disease Epidemiology Unit, September 2012.

**Suggested citation:** Byrd HCM , Fussman C, Wahl R, Lyon-Callo S, Imes G. Overweight and Obesity Facts about Michigan Adults (2003-2012). Nutrition, Physical Activity and Obesity Program Surveillance Brief. Michigan Department of Community Health, Lifecourse Epidemiology and Genomics Division. September 2014.

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- The 2008 Physical Activity Guidelines for Americans recommend that adults participate in 1) moderate physical activity for at least 150 minutes per week, vigorous physical activity for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activity and also participate in 2) muscle strengthening activities on two or more days per week.<sup>1</sup>
- Increasing the proportion of adults who meet these guidelines is one of Healthy People 2020's physical activity objectives.<sup>2</sup> This objective was chosen as one of Healthy People's Leading Health Indicators, which are selected, specifically, to communicate high-priority health issues that require actions taken to address them.
- In 2011, the Behavioral Risk Factor Surveillance System included new questions to assess how closely adults are meeting these new guidelines.

- In 2011, nearly one in five Michigan adults (19.7%) met both the aerobic and muscle strengthening components of the 2008 Physical Activity Guidelines.
- A higher percentage of Michigan adult males (21.6%) reported meeting the Guidelines than females (17.9%).
- In Michigan, adequate physical activity prevalence were comparable among non-Hispanic White and non-Hispanic Black adults (19.6% and 19.1%, respectively).
- The prevalence of Michigan adults who reported adequate physical activity increased with education level: 9.8% of adults with less than a high school education, 16.5% of adults with a high school diploma, 20.5% of adults with some college education, and 27.7% of adults who were at least college graduates.

- Physical activity is one of the most important lifestyle behaviors that may reduce risk of various chronic conditions.<sup>3</sup>
- Among Michigan adults who reported meeting the 2008 Guidelines, 7.0% reported having diabetes, 6.5% reported having cardiovascular disease, and 26.3% reported having high blood pressure in 2011. The general adult Michigan population had higher prevalence of diabetes, CVD, and high blood pressure than those who met the Guidelines (10.0%, 9.5%, and 34.2%, respectively).
- Adequate physical activity decreased with increasing weight status. In 2011, 25.2% of Michigan adults who were classified as having normal BMI, 20.9% classified as overweight, and only 14.5% classified as obese reported meeting both the aerobic and muscle strengthening components.

### References:

1. US Department of Health and Human Services. 2008 physical activity guidelines for Americans. Hyattsville, MD: US Department of Health and Human Services; 2008. Available on-line at <http://www.health.gov/paguidelines>.
2. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC Physical Activity Available on-line at: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=33> Accessed April 2014.
3. Kruk J. Physical Activity in the Prevention of the Most Frequent Chronic Diseases: an Analysis of Recent Evidence. *Asian Pacific J of Cancer Prev.* 2007; 8:325-338.

Suggested citation: Byrd HCM, Fussman C, Wahl R, Lyon-Callo S, Imes G. Physical Activity Among Michigan Adults (2011). Nutrition, Physical Activity and Obesity Program Surveillance Brief. Michigan Department of Community Health, Lifecourse Epidemiology and Genomics Division. September 2014.

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