

**Estimates for Selected Risk Factors and Health Indicators  
by Michigan Economic Development Collaborative Region**

**State of Michigan**

**Michigan Behavioral Risk Factor Surveillance System  
(Michigan BRFSS)**

**2014**

Chronic Disease Epidemiology Section  
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Bureau of Disease Control, Prevention, and Epidemiology  
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## Introduction

The Michigan Behavioral Risk Factor Survey (MiBRFS) is an annual, statewide telephone survey of Michigan adults aged 18 years and older that is conducted through 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), and the Michigan Department of Health and Human Services. Michigan BRFS data contribute to the national [Behavioral Risk Factor Surveillance System](#) that is managed by the PHSB at the CDC.

In 2014, the total sample size of completed interviews for the core survey was 8,466 (land line = 4,973; cell phone = 3,493). Due to variability in response rates to individual questions and differences in specific sub-populations of interest for particular questions, not all estimates are based on a total sample size of 8,466. As a result, item-by-item sample sizes and population descriptions are included within each table. Furthermore, only comparisons between estimates with non-overlapping 95% confidence intervals should be considered significantly different.

For the 2014 Michigan BRFS, the sample of land line telephone numbers that were utilized for data collection was selected using a list-assisted, random-digit-dialed methodology with a disproportionate stratification based on phone bank density, and whether or not the phone numbers were directory listed. The sample of cell phone numbers used within the 2014 Michigan BRFS data collection process was randomly selected from dedicated cellular telephone banks sorted on the basis of area code and exchange within the State of Michigan.

Iterative proportional fitting or raking was the weighting methodology used to make the 2014 Michigan BRFS data representative of the current Michigan adult population. Estimates based on this methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of Michigan adults by telephone source (land line vs. cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status. No additional weighting factors were computed at the regional level, thus the weights used might not always provide accurate regional estimates, particularly when regional demographic distributions vary greatly from that of the state.

In 2015, Michigan BRFS data from the 2014 survey year were analyzed by Michigan Economic Development Collaborative (MEDC) region. A map identifying each of Michigan's ten economic development collaborative regions is included on the following page. Population-based prevalence estimates and asymmetric confidence intervals were calculated for indicators of health status, health risk behaviors, clinical preventive practices, and chronic conditions among the adult population in Michigan. All analyses were performed in SAS-Callable SUDAAN®, a statistical computing that is designed for complex sample surveys.

In an effort to provide the most reliable information possible, prevalence estimates are suppressed if they are based on a denominator of less than 50 respondents or have a relative standard error of greater than 30%.

Due to the BRFS methodology changes that took place in 2011, the estimates provided within the following tables should only be compared to Michigan BRFS estimates from 2011-2013 and not to Michigan BRFS estimates from years prior to 2011.

If you have any questions regarding any of the estimates within the following tables, please contact Chris Fussman at MDHHS, by phone, 517-335-8144, or by email, [MIBRFSS@michigan.gov](mailto:MIBRFSS@michigan.gov).



<b>Table 1: Health Status by MEDC Region 2014 Michigan BRFSS</b>		
	<b>General Health, Fair or Poor<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>16.8</b>	<b>(15.8-17.8)</b>
<b>MEDC Region</b>		
Upper Peninsula	17.3	(12.4-23.6)
Northwest	12.3	(8.4-17.6)
Northeast	23.5	(17.7-30.6)
West Central	13.5	(11.1-16.3)
Bay	17.7	(13.9-22.2)
Southwest	21.0	(17.2-25.5)
Central	11.6	(8.4-15.6)
East Central	17.8	(14.3-21.8)
South Central	13.2	(10.4-16.6)
Southeast	18.0	(16.3-19.8)

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

**Table 2: Health Status on at Least 14 Days in the Past Month by MEDC Region  
2014 Michigan BRFS**

	Poor Physical Health <sup>a</sup>		Poor Mental Health <sup>b</sup>		Activity Limitation <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>12.6</b>	<b>(11.8-13.6)</b>	<b>12.9</b>	<b>(11.9-14.0)</b>	<b>8.7</b>	<b>(8.0-9.6)</b>
<b>MEDC Region</b>						
Upper Peninsula	16.7	(11.6-23.5)	14.6	(9.6-21.7)	7.8	(4.7-12.5)
Northwest	9.0	(6.0-13.3)	10.8	(6.7-17.2)	5.7	(3.4-9.3)
Northeast	14.9	(10.3-21.1)	12.2	(8.1-18.0)	13.0	(8.8-19.0)
West Central	12.1	(10.0-14.4)	13.3	(10.7-16.4)	8.2	(6.3-10.7)
Bay	14.7	(11.0-19.5)	11.6	(8.0-16.4)	8.6	(6.0-12.1)
Southwest	14.7	(11.5-18.4)	13.7	(10.4-17.9)	9.8	(7.3-13.1)
Central	9.7	(6.8-13.6)	10.8	(7.1-16.2)	6.6	(4.0-10.7)
East Central	13.9	(10.9-17.6)	13.0	(9.8-17.1)	10.7	(8.0-14.1)
South Central	11.6	(8.9-15.1)	13.3	(10.1-17.5)	9.0	(6.5-12.2)
Southeast	12.2	(10.9-13.8)	13.0	(11.4-14.7)	8.6	(7.4-9.9)

<sup>a</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 = 8,340)

<sup>b</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 = 8,336)

<sup>c</sup> Among all adults, the proportion who reported 14 or more days in the past 30 days in which either poor physical health or poor mental health kept respondents from doing their usual activities, such as self-care, work, and recreation. (N = 8,388)

**Table 3: Mean Number of Days of Poor Physical Health, Poor Mental Health, and Activity Limitations by MEDC Region  
2014 Michigan BRFS**

	Poor Physical Health <sup>a</sup>		Poor Mental Health <sup>b</sup>		Activity Limitation <sup>c</sup>	
	Mean # of days	95% Confidence Interval	Mean # of days	95% Confidence Interval	Mean # of days	95% Confidence Interval
<b>Michigan Total</b>	<b>4.0</b>	<b>(3.8-4.3)</b>	<b>4.1</b>	<b>(3.9-4.4)</b>	<b>2.6</b>	<b>(2.5-2.8)</b>
<b>MEDC Region</b>						
Upper Peninsula	5.2	(3.8-6.6)	4.2	(2.9-5.5)	2.9	(1.9-3.8)
Northwest	3.2	(2.2-4.2)	3.2	(2.2-4.3)	2.2	(1.4-2.9)
Northeast	4.9	(3.4-6.3)	3.8	(2.6-4.9)	4.1	(2.7-5.4)
West Central	3.8	(3.3-4.3)	4.0	(3.4-4.7)	2.3	(1.9-2.7)
Bay	4.5	(3.4-5.7)	3.7	(2.7-4.7)	2.7	(1.9-3.5)
Southwest	4.6	(3.7-5.5)	4.4	(3.5-5.3)	3.0	(2.2-3.8)
Central	3.2	(2.3-4.2)	3.5	(2.6-4.4)	2.2	(1.3-3.0)
East Central	4.4	(3.5-5.3)	4.1	(3.2-4.9)	3.4	(2.5-4.2)
South Central	3.4	(2.7-4.2)	4.3	(3.5-5.2)	2.4	(1.8-3.1)
Southeast	4.0	(3.7-4.4)	4.3	(3.9-4.7)	2.6	(2.3-2.9)

<sup>a</sup> Among all adults, the mean number of days during the past 30 days in which physical health, including illness and injury, was not good. (N = 8,340)

<sup>b</sup> Among all adults, the mean number of days during the past 30 days in which mental health, including stress, depression, and problems with emotions, was not good. (N = 8,336)

<sup>c</sup> Among all adults, the mean number of days during the past 30 days in which poor physical health or poor mental health kept the respondent from doing usual activities, such as self-care, work, or recreation. (N = 8,388)

<b>Table 4: Disability by MEDC Region 2014 Michigan BRFS</b>						
	<b>Total Disability<sup>a</sup></b>		<b>Any Activity Limitation<sup>b</sup></b>		<b>Used Special Equipment<sup>c</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>	<b>%</b>	<b>95% Confidence Interval</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>24.9</b>	<b>(23.8-26.1)</b>	<b>22.5</b>	<b>(21.4-23.6)</b>	<b>10.0</b>	<b>(9.2-10.7)</b>
<b>MEDC Region</b>						
Upper Peninsula	32.6	(26.2-39.9)	30.9	(24.5-38.1)	11.0	(7.7-15.5)
Northwest	22.0	(16.8-28.2)	21.6	(16.4-27.8)	5.8	(3.6-9.2)
Northeast	35.7	(28.5-43.6)	32.5	(25.5-40.3)	12.4	(8.4-17.8)
West Central	24.4	(21.5-27.5)	23.0	(20.1-26.0)	7.5	(6.1-9.2)
Bay	26.3	(22.0-31.2)	23.3	(19.2-28.1)	10.4	(7.8-13.8)
Southwest	23.5	(19.8-27.6)	20.8	(17.5-24.7)	10.4	(7.9-13.6)
Central	20.3	(16.1-25.3)	19.6	(15.4-24.6)	8.4	(5.5-12.5)
East Central	27.5	(23.3-32.1)	23.5	(19.6-28.0)	13.0	(10.0-16.7)
South Central	22.2	(18.5-26.3)	20.0	(16.5-24.1)	7.0	(5.2-9.3)
Southeast	25.0	(23.1-26.9)	22.3	(20.5-24.2)	11.3	(10.0-12.7)

<sup>a</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 use of special equipment (such as a cane, a wheelchair, a special bed, or a special telephone) due to a health problem. (N = 8,284)

<sup>b</sup> Among all adults, the proportion who reported being limited in any activities because of physical, mental, or emotional problems. (N = 8,287)

<sup>c</sup> Among all adults, the proportion who reported that they required use of special equipment (such as a can, a wheelchair, a special bed, or a special telephone) due to a health problem. (N = 8,308)

**Table 5: Weight Status by MEDC Region  
2014 Michigan BRFSS**

	Obese <sup>a</sup>		Overweight <sup>b</sup>		Healthy Weight <sup>c</sup>		Underweight <sup>d</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>30.7</b>	<b>(29.4-32.0)</b>	<b>34.9</b>	<b>(33.6-36.2)</b>	<b>32.5</b>	<b>(31.2-33.8)</b>	<b>1.9</b>	<b>(1.5-2.4)</b>
<b>MEDC Region</b>								
Upper Peninsula	28.8	(22.5-36.1)	33.6	(27.2-40.7)	36.1	(29.0-43.9)	-- <sup>e</sup>	-- <sup>e</sup>
Northwest	23.6	(18.2-30.1)	38.4	(31.1-46.2)	37.4	(29.9-45.6)	-- <sup>e</sup>	-- <sup>e</sup>
Northeast	30.7	(23.9-38.5)	37.0	(28.9-45.9)	31.1	(23.7-39.7)	-- <sup>e</sup>	-- <sup>e</sup>
West Central	29.8	(26.8-33.0)	36.9	(33.5-40.4)	31.8	(28.5-35.3)	-- <sup>e</sup>	-- <sup>e</sup>
Bay	36.0	(31.1-41.3)	35.1	(30.2-40.3)	25.7	(21.4-30.7)	-- <sup>e</sup>	-- <sup>e</sup>
Southwest	36.1	(31.4-41.1)	33.5	(28.9-38.4)	28.1	(23.7-33.1)	-- <sup>e</sup>	-- <sup>e</sup>
Central	33.8	(27.9-40.3)	29.8	(24.4-35.7)	35.1	(29.0-41.8)	-- <sup>e</sup>	-- <sup>e</sup>
East Central	31.4	(26.8-36.3)	39.0	(33.9-44.3)	28.0	(23.5-33.0)	-- <sup>e</sup>	-- <sup>e</sup>
South Central	29.4	(25.4-33.7)	39.1	(34.6-43.8)	30.5	(26.2-35.1)	-- <sup>e</sup>	-- <sup>e</sup>
Southeast	30.2	(28.1-32.3)	33.5	(31.4-35.7)	34.2	(32.0-36.5)	2.1	(1.5-3.0)

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. (N = 8,024)

<sup>a</sup> Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.

<sup>b</sup> Among all adults, the proportion of respondents whose BMI was greater than or equal to 25.0, but less than 30.0.

<sup>c</sup> Among all adults, the proportion of respondents whose BMI was greater than or equal to 18.5, but less than 25.0.

<sup>d</sup> Among all adults, the proportion of respondents whose BMI was less than 18.5.

<sup>e</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Table 6: Health Care Access by MEDC Region  
2014 Michigan BRFS**

	No Health Care Coverage <sup>a</sup> (Among 18 - 64 year olds)		No Personal Health Care Provider <sup>b</sup>		No Health Care Access During Past 12 Months Due to Cost <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>12.7</b>	<b>(11.6-14.0)</b>	<b>16.1</b>	<b>(15.0-17.3)</b>	<b>14.6</b>	<b>(13.6-15.7)</b>
<b>MEDC Region</b>						
Upper Peninsula	14.6	(8.8-23.1)	13.9	(9.2-20.3)	13.1	(8.7-19.2)
Northwest	16.0	(10.1-24.4)	19.2	(13.1-27.1)	10.9	(7.2-16.4)
Northeast	16.9	(10.5-26.1)	15.9	(10.8-22.7)	19.0	(13.2-26.5)
West Central	14.3	(11.3-17.9)	13.4	(10.8-16.6)	16.4	(13.8-19.4)
Bay	15.1	(10.8-20.7)	18.5	(14.5-23.3)	14.8	(11.2-19.3)
Southwest	9.9	(6.9-14.1)	17.4	(13.5-22.1)	15.2	(11.8-19.4)
Central	8.5	(4.9-14.3)	17.2	(12.5-23.3)	12.0	(8.3-17.1)
East Central	12.9	(9.0-18.2)	15.4	(11.5-20.2)	15.1	(11.4-19.8)
South Central	8.5	(5.7-12.4)	14.4	(11.2-18.2)	11.6	(8.5-15.5)
Southeast	13.1	(11.3-15.3)	15.5	(13.8-17.4)	14.7	(13.0-16.6)

<sup>a</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 = 5,447)

<sup>b</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 = 8,422)

<sup>c</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 = 8,444)

<b>Table 7: No Leisure Time Physical Activity by MEDC Region 2014 Michigan BRFS</b>		
	<b>No Leisure Time Physical Activity<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>25.5</b>	<b>(24.3-26.7)</b>
<b>MEDC Region</b>		
Upper Peninsula	21.0	(15.8-27.2)
Northwest	21.6	(15.9-28.8)
Northeast	23.3	(17.6-30.2)
West Central	24.3	(21.4-27.5)
Bay	28.7	(24.1-33.8)
Southwest	27.7	(23.3-32.6)
Central	24.6	(19.6-30.3)
East Central	30.9	(26.2-36.0)
South Central	22.5	(18.8-26.7)
Southeast	25.8	(23.8-27.9)

<sup>a</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 = 8,455)

**Table 8: Cigarette Smoking by MEDC Region  
2014 Michigan BRFSS**

	Current Smoking <sup>a</sup>		Former Smoking <sup>b</sup>		Never Smoked	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>21.2</b>	<b>(20.0-22.5)</b>	<b>26.7</b>	<b>(25.5-27.8)</b>	<b>52.1</b>	<b>(50.8-53.5)</b>
<b>MEDC Region</b>						
Upper Peninsula	22.2	(16.2-29.6)	30.6	(24.3-37.7)	47.3	(40.0-54.6)
Northwest	18.4	(12.5-26.3)	32.2	(26.0-39.1)	49.4	(41.7-57.0)
Northeast	29.3	(22.2-37.6)	30.7	(23.2-39.3)	40.0	(32.3-48.2)
West Central	19.0	(16.1-22.2)	24.7	(22.0-27.5)	56.4	(52.9-59.8)
Bay	24.5	(19.6-30.0)	28.3	(24.1-33.0)	47.2	(41.9-52.5)
Southwest	17.2	(13.5-21.5)	27.3	(23.2-31.9)	55.6	(50.5-60.5)
Central	16.4	(12.1-21.9)	28.1	(22.7-34.1)	55.5	(49.0-61.8)
East Central	20.9	(16.6-26.0)	28.4	(24.0-33.2)	50.7	(45.5-55.9)
South Central	20.1	(16.4-24.5)	26.0	(22.3-29.9)	53.9	(49.3-58.5)
Southeast	22.5	(20.4-24.6)	26.5	(24.6-28.4)	51.1	(48.8-53.4)

<sup>a</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 = 8,231)

<sup>b</sup> Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life, but they do not smoke cigarettes now. (N = 8,231)

<b>Table 9: Current Smokers Who Attempted to Quit by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Tried to Quit Smoking One Day or Longer in Past Year<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>61.5</b>	<b>(58.1-64.8)</b>
<b>MEDC Region</b>		
Upper Peninsula	--b	--b
Northwest	--b	--b
Northeast	61.6	(46.4-74.9)
West Central	58.9	(49.8-67.4)
Bay	63.0	(49.3-74.9)
Southwest	61.7	(48.7-73.2)
Central	53.7	(37.8-69.0)
East Central	69.8	(57.0-80.1)
South Central	58.5	(46.2-69.8)
Southeast	63.4	(57.8-68.6)

<sup>a</sup> Among current smokers, the proportion who reported that during the past 12 months, they had tried to quit smoking for one day or longer. (N = 1,291)  
<sup>b</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

<b>Table 10: Smokeless Tobacco Use by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Current Smokeless Tobacco Use<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>4.2</b>	<b>(3.6-4.9)</b>
<b>MEDC Region</b>		
Upper Peninsula	--b	--b
Northwest	--b	--b
Northeast	9.3	(5.6-15.0)
West Central	3.8	(2.3-6.1)
Bay	4.3	(2.5-7.6)
Southwest	5.6	(3.4-9.1)
Central	--b	--b
East Central	--b	--b
South Central	6.9	(4.6-10.1)
Southeast	2.8	(2.1-3.7)
<sup>a</sup> Among all adults, the proportion who reported that they currently use chewing tobacco, snuff or snus, either every day or on some days. (N = 8,276) <sup>b</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.		

**Table 11: Alcohol Consumption by MEDC Region  
2014 Michigan BRFSS**

	Any Alcohol in Past Month <sup>a</sup>		Heavy Drinking <sup>b</sup>		Binge Drinking <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>57.0</b>	<b>(55.6-58.3)</b>	<b>6.8</b>	<b>(6.1-7.6)</b>	<b>18.9</b>	<b>(17.8-20.1)</b>
<b>MEDC Region</b>						
Upper Peninsula	56.3	(48.7-63.5)	7.4	(4.5-11.9)	19.4	(13.8-26.6)
Northwest	57.5	(49.7-64.9)	10.2	(6.1-16.5)	17.8	(12.3-24.9)
Northeast	60.5	(52.4-68.1)	-- <sup>d</sup>	-- <sup>d</sup>	27.4	(20.3-35.8)
West Central	55.3	(51.9-58.8)	5.7	(4.3-7.6)	17.8	(15.1-20.9)
Bay	50.6	(45.3-55.9)	9.9	(7.2-13.6)	21.7	(17.1-27.2)
Southwest	53.9	(48.9-58.9)	8.8	(6.1-12.4)	18.3	(14.6-22.7)
Central	60.5	(53.9-66.7)	7.5	(4.5-12.4)	20.4	(15.3-26.7)
East Central	52.9	(47.7-58.0)	5.4	(3.1-9.3)	15.0	(11.2-19.8)
South Central	61.7	(57.1-66.1)	6.2	(4.2-9.1)	21.6	(17.9-25.9)
Southeast	58.1	(55.8-60.3)	-- <sup>d</sup>	-- <sup>d</sup>	17.7	(15.9-19.6)

<sup>a</sup> Among all adults, the proportion who reported consuming at least one drink of any alcoholic beverage in the previous month. (N = 8,225)

<sup>b</sup> Among all adults, the proportion who reported consuming an average of more than two alcoholic drinks per day for men or more than one per day for women in the previous month. (N = 8,153)

<sup>c</sup> Among all adults, the proportion who reported consuming five or more drinks per occasion (for men) or 4 or more drinks per occasion (for women) at least once in the previous month. (N = 8,162)

<sup>d</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

<b>Table 12: Mean Number of Binge Drinking Occasions during the Past Month among Binge Drinkers by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Number of Binge Drinking Occasions<sup>a</sup></b>	
	<b>Mean</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>4.5</b>	<b>(4.1-4.9)</b>
<b>MEDC Region</b>		
Upper Peninsula	--b	--b
Northwest	--b	--b
Northeast	--b	--b
West Central	4.4	(3.4-5.3)
Bay	4.7	(3.3-6.2)
Southwest	4.1	(3.0-5.1)
Central	5.0	(3.0-7.0)
East Central	4.9	(3.3-6.5)
South Central	4.9	(3.1-6.6)
Southeast	4.1	(3.4-4.9)
<sup>a</sup> Among adults who binge drank in the past month, the mean number of times during which five or more alcoholic beverages (for men) or four or more (for women) were consumed during the past month. (N = 1,185) <sup>b</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.		

<b>Table 13: Drove Motor Vehicle After Drinking by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Drove Motor Vehicle After Drinking<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>2.2</b>	<b>(1.8-2.7)</b>
<b>MEDC Region</b>		
Upper Peninsula	--b	--b
Northwest	--b	--b
Northeast	--b	--b
West Central	1.8	(1.1-2.8)
Bay	3.6	(2.1-6.1)
Southwest	--b	--b
Central	--b	--b
East Central	--b	--b
South Central	--b	--b
Southeast	2.1	(1.5-3.0)
<sup>a</sup> Among all adults, the proportion who reported that they had driven when they'd had too much to drink at least once in the previous month. (N = 8,221) <sup>b</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.		

<b>Table 14: Seatbelt Use by MEDC Region 2014 Michigan BRFS</b>		
	<b>Always Uses a Seatbelt<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>87.7</b>	<b>(86.7-88.7)</b>
<b>MEDC Region</b>		
Upper Peninsula	86.9	(81.4-90.9)
Northwest	88.6	(81.2-93.4)
Northeast	86.7	(77.5-92.5)
West Central	88.2	(85.5-90.4)
Bay	85.0	(79.9-89.0)
Southwest	88.1	(84.3-91.0)
Central	86.5	(80.9-90.7)
East Central	88.3	(84.2-91.5)
South Central	88.2	(84.5-91.0)
Southeast	88.4	(86.6-90.0)

<sup>a</sup> Among all adults, the proportion who reported always using a seatbelt when driving or riding in a car. (N = 8,219)

<b>Table 15: No Routine Checkup in Past Year by MEDC Region 2014 Michigan BRFS</b>		
	<b>Had No Routine Checkup in Past Year<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>28.2</b>	<b>(27.0-29.5)</b>
<b>MEDC Region</b>		
Upper Peninsula	27.7	(21.2-35.2)
Northwest	32.2	(24.9-40.6)
Northeast	25.8	(19.8-32.9)
West Central	30.0	(26.7-33.5)
Bay	28.1	(23.5-33.2)
Southwest	29.0	(24.5-33.9)
Central	28.5	(23.0-34.8)
East Central	28.8	(24.3-33.7)
South Central	26.6	(22.7-30.9)
Southeast	27.1	(25.1-29.3)

<sup>a</sup> Among all adults, the proportion who reported that they did not have a routine checkup in the past year. (N = 8,370)

**Table 16: Clinical Breast Exam Indicators Among Women Aged 20 Years and Older by MEDC Region**  
2014 Michigan BRFSS

	Ever Had Clinical Breast Exam <sup>a</sup>		Had Appropriately Timed Clinical Breast Exam <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>91.1</b>	<b>(89.9-92.2)</b>	<b>65.4</b>	<b>(63.6-67.2)</b>
<b>MEDC Region</b>				
Upper Peninsula	89.2	(80.9-94.2)	67.3	(57.3-75.9)
Northwest	-- <sup>c</sup>	-- <sup>c</sup>	62.8	(51.7-72.8)
Northeast	-- <sup>c</sup>	-- <sup>c</sup>	59.9	(46.4-72.0)
West Central	90.9	(87.1-93.7)	69.7	(65.2-73.9)
Bay	92.4	(87.2-95.5)	63.3	(56.4-69.6)
Southwest	92.5	(88.1-95.4)	64.4	(58.1-70.2)
Central	87.0	(78.7-92.4)	69.6	(61.3-76.8)
East Central	91.5	(86.5-94.8)	66.4	(59.0-73.1)
South Central	94.6	(91.3-96.7)	67.6	(62.2-72.6)
Southeast	91.1	(89.0-92.9)	64.6	(61.4-67.6)

<sup>a</sup> Among women aged 20 years and older, the proportion who reported ever having a clinical breast exam. (N =4,530)

<sup>b</sup> Among women aged 20 years and older, the proportion whose last clinical breast exam was within the previous three years for women age 20-39 years and within the previous year for women aged 40 years and older. (N = 4,442)

<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Table 17: Mammography Indicators Among Women Aged 40 Years and Older by MEDC Region  
2014 Michigan BRFSS**

	Ever Had Mammogram <sup>a</sup>		Had Mammogram in Past Year <sup>b</sup>		Had Mammogram in Past Two Years <sup>c</sup>		Had Clinical Breast Exam and Mammogram in Past Year <sup>d</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>94.3</b>	<b>(93.2-95.2)</b>	<b>57.4</b>	<b>(55.4-59.4)</b>	<b>75.9</b>	<b>(74.1-77.6)</b>	<b>47.8</b>	<b>(45.8-49.8)</b>
<b>MEDC Region</b>								
Upper Peninsula	-- <sup>e</sup>	-- <sup>e</sup>	65.9	(55.8-74.7)	76.0	(66.0-83.9)	57.3	(47.1-66.8)
Northwest	-- <sup>e</sup>	-- <sup>e</sup>	55.9	(44.5-66.7)	75.1	(64.0-83.7)	47.5	(36.7-58.6)
Northeast	-- <sup>e</sup>	-- <sup>e</sup>	55.7	(43.7-67.1)	78.6	(68.5-86.1)	43.7	(32.4-55.7)
West Central	96.3	(93.8-97.8)	60.6	(55.8-65.3)	78.7	(74.4-82.5)	51.2	(46.4-56.0)
Bay	-- <sup>e</sup>	-- <sup>e</sup>	60.7	(53.7-67.3)	75.9	(69.5-81.3)	52.2	(45.2-59.2)
Southwest	92.2	(86.8-95.5)	58.7	(52.1-65.1)	75.6	(69.3-81.0)	49.9	(43.3-56.5)
Central	-- <sup>e</sup>	-- <sup>e</sup>	63.3	(54.4-71.3)	84.8	(78.0-89.7)	53.5	(44.7-62.1)
East Central	-- <sup>e</sup>	-- <sup>e</sup>	60.9	(53.0-68.3)	79.2	(72.6-84.5)	52.8	(45.2-60.3)
South Central	95.4	(92.1-97.3)	55.4	(49.0-61.6)	79.6	(74.0-84.2)	45.6	(39.5-51.9)
Southeast	93.0	(90.9-94.7)	54.9	(51.4-58.3)	72.4	(69.2-75.5)	44.8	(41.5-48.1)

Note: Data included diagnostic tests.

<sup>a</sup> Among women aged 40 years and older, the proportion who reported ever having a mammogram. (N = 3,817)

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

<sup>c</sup> Among women aged 40 years and older, the proportion who reported having a mammogram in the past two years. (N = 3,784)

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

<sup>e</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Table 18: Cervical Cancer Screening Among Women Aged 18 Years and Older  
by MEDC Region  
2014 Michigan BRFSS**

	Ever Had Pap Test <sup>a</sup>		Had Appropriately Timed Pap Test <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>88.9</b>	<b>(87.0-90.5)</b>	<b>74.9</b>	<b>(72.8-76.9)</b>
<b>MEDC Region</b>				
Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	66.5	(53.0-77.7)
Northwest	-- <sup>c</sup>	-- <sup>c</sup>	77.3	(64.0-86.7)
Northeast	-- <sup>c</sup>	-- <sup>c</sup>	66.6	(51.4-79.0)
West Central	89.0	(83.0-93.0)	77.7	(71.8-82.6)
Bay	-- <sup>c</sup>	-- <sup>c</sup>	77.1	(68.0-84.3)
Southwest	-- <sup>c</sup>	-- <sup>c</sup>	74.9	(67.6-81.0)
Central	83.9	(73.2-90.8)	77.6	(67.5-85.2)
East Central	-- <sup>c</sup>	-- <sup>c</sup>	76.4	(68.3-83.0)
South Central	86.9	(77.6-92.7)	74.2	(66.1-81.0)
Southeast	89.9	(87.1-92.2)	75.0	(71.6-78.1)

Note: Data includes diagnostic tests and excludes women who have had a hysterectomy.

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

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

<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Table 19: Prostate Cancer Screening Among Men Aged 50 Years and Older by MEDC Region  
2014 Michigan BRFSS**

	Ever Discussed Advantages of PSA Test With Doctor <sup>a</sup>		Doctor Ever Recommended PSA Test <sup>b</sup>		Ever Had PSA Test <sup>c</sup>		Had PSA Test in Past Year <sup>d</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>73.4</b>	<b>(71.1-75.7)</b>	<b>67.8</b>	<b>(65.3-70.1)</b>	<b>71.7</b>	<b>(69.2-74.1)</b>	<b>45.8</b>	<b>(43.2-48.3)</b>
<b>MEDC Region</b>								
Upper Peninsula	78.9	(66.5-87.5)	70.7	(58.1-80.8)	74.8	(62.4-84.1)	48.6	(35.8-61.7)
Northwest	71.4	(58.4-81.6)	70.0	(56.6-80.7)	70.3	(57.1-80.8)	46.9	(35.5-58.6)
Northeast	72.6	(58.4-83.3)	77.5	(64.0-86.9)	71.5	(57.4-82.3)	38.6	(26.1-52.9)
West Central	71.1	(65.3-76.3)	66.6	(60.8-72.0)	71.9	(66.0-77.2)	42.9	(37.1-49.0)
Bay	71.7	(62.3-79.5)	65.3	(56.1-73.5)	76.2	(66.9-83.5)	47.0	(38.2-56.0)
Southwest	69.2	(59.5-77.5)	64.9	(55.1-73.6)	73.2	(63.8-80.9)	43.9	(34.6-53.7)
Central	76.3	(65.3-84.7)	55.2	(43.3-66.5)	63.6	(51.0-74.5)	43.2	(32.2-54.9)
East Central	73.3	(64.4-80.6)	70.2	(61.3-77.8)	70.6	(61.6-78.3)	46.4	(37.8-55.3)
South Central	77.1	(68.9-83.6)	68.8	(60.2-76.3)	68.1	(58.9-76.1)	41.7	(33.8-50.1)
Southeast	74.3	(70.3-78.0)	68.6	(64.3-72.6)	71.8	(67.4-75.7)	48.6	(44.3-53.0)

Among men aged 50 years and older (N = 2,226), the proportion who reported...

<sup>a</sup> ever discussing the advantages of a Prostate-Specific Antigen (PSA) test with a doctor, nurse, or other health professional.

<sup>b</sup> ever receiving a recommendation from a doctor, nurse, or other health professional to get a PSA test.

<sup>c</sup> ever having a PSA test.

<sup>d</sup> having a PSA test within the past year.

**Table 20: Colorectal Cancer Screening (Blood Stool Test) Among Adults Aged 50 Years and Older by MEDC Region  
2014 Michigan BRFSS**

	Ever Had Blood Stool Test <sup>a</sup>		Had Blood Stool Test in Past Two Years <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>36.2</b>	<b>(34.7-37.7)</b>	<b>14.6</b>	<b>(13.5-15.8)</b>
<b>MEDC Region</b>				
Upper Peninsula	42.0	(34.1-50.4)	11.8	(7.0-19.2)
Northwest	42.8	(34.9-51.0)	13.5	(8.4-20.9)
Northeast	37.5	(29.4-46.4)	12.3	(7.7-19.1)
West Central	38.7	(35.0-42.5)	10.8	(8.7-13.3)
Bay	37.2	(31.9-42.8)	17.8	(13.8-22.7)
Southwest	40.9	(35.5-46.5)	17.2	(13.3-22.0)
Central	46.0	(38.9-53.2)	14.5	(10.3-20.0)
East Central	35.3	(30.1-40.9)	20.7	(16.5-25.8)
South Central	34.2	(29.6-39.1)	14.4	(11.2-18.3)
Southeast	32.7	(30.3-35.2)	14.5	(12.6-16.5)

<sup>a</sup> Among adults aged 50 years and older, the proportion who reported ever having a blood stool test using a home kit. (N = 5,464)

<sup>b</sup> Among adults aged 50 years and older, the proportion whose reported having a blood stool test within the past two years using a home kit (N = 5,366)

**Table 21: Colorectal Cancer Screening (Sigmoidoscopy/Colonoscopy) Among Adults Aged 50 Years and Older by MEDC Region  
2014 Michigan BRFSS**

	Ever Had a Sigmoidoscopy or Colonoscopy <sup>a</sup>		Had a Sigmoidoscopy or Colonoscopy in Past 5 Years <sup>b</sup>		Had a Sigmoidoscopy in Past 5 Years or Colonoscopy in Past 10 Years <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>74.5</b>	<b>(73.0-76.0)</b>	<b>57.5</b>	<b>(55.8-59.1)</b>	<b>69.6</b>	<b>(68.0-71.1)</b>
<b>MEDC Region</b>						
Upper Peninsula	79.6	(71.9-85.6)	51.2	(42.8-59.6)	69.5	(60.9-76.9)
Northwest	78.7	(70.5-85.1)	59.5	(51.1-67.5)	74.8	(66.5-81.6)
Northeast	69.5	(59.8-77.7)	49.9	(40.6-59.1)	65.6	(56.0-74.0)
West Central	77.3	(73.6-80.6)	59.4	(55.5-63.2)	71.6	(67.7-75.2)
Bay	74.4	(68.3-79.6)	60.2	(54.2-65.9)	69.5	(63.3-75.1)
Southwest	73.5	(67.8-78.6)	55.3	(49.5-60.9)	68.5	(62.7-73.9)
Central	78.7	(71.6-84.5)	61.3	(53.8-68.3)	75.7	(68.3-81.8)
East Central	78.1	(73.0-82.6)	62.6	(56.8-68.1)	73.1	(67.7-77.9)
South Central	70.7	(65.4-75.5)	53.8	(48.4-59.1)	67.9	(62.6-72.9)
Southeast	73.2	(70.6-75.6)	57.3	(54.6-60.0)	68.3	(65.6-70.8)

<sup>a</sup> Among adults aged 50 years and older, the proportion who reported ever having a sigmoidoscopy or colonoscopy. (N = 5,480)

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

<sup>c</sup> Among adults aged 50 years and older, the proportion who reported having a sigmoidoscopy in the past five years or a colonoscopy in the past ten years. (N = 5,347)

**Table 22: Oral Health by MEDC Region  
2014 Michigan BRFSS**

	No Dental Visit in Past Year <sup>a</sup>		6+ Teeth Missing <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>31.4</b>	<b>(30.1-32.7)</b>	<b>15.5</b>	<b>(14.6-16.4)</b>
<b>MEDC Region</b>				
Upper Peninsula	32.1	(25.5-39.4)	19.1	(14.4-24.9)
Northwest	29.2	(22.5-37.0)	16.9	(12.4-22.6)
Northeast	35.7	(28.2-43.9)	24.6	(18.6-31.8)
West Central	31.6	(28.3-35.0)	13.5	(11.5-15.8)
Bay	35.7	(30.6-41.1)	17.6	(14.1-21.6)
Southwest	31.2	(26.7-36.1)	18.1	(14.6-22.1)
Central	23.9	(18.7-30.1)	14.1	(10.6-18.5)
East Central	29.2	(24.6-34.2)	17.7	(14.2-21.7)
South Central	27.4	(23.4-31.9)	11.3	(8.9-14.3)
Southeast	31.9	(29.7-34.1)	15.8	(14.2-17.4)

<sup>a</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 = 8,414)

<sup>b</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 = 8,273)

**Table 23: Immunizations among Adults Aged 65 Years and Older by MEDC Region  
2014 Michigan BRFS**

	Had Flu Vaccine in Past Year <sup>a</sup>		Ever Had Pneumonia Vaccine <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>57.6</b>	<b>(55.4-59.8)</b>	<b>69.3</b>	<b>(67.1-71.4)</b>
<b>MEDC Region</b>				
Upper Peninsula	69.3	(59.4-77.7)	72.8	(62.9-80.9)
Northwest	63.8	(52.6-73.8)	74.9	(63.1-83.9)
Northeast	54.9	(42.4-66.9)	79.1	(67.8-87.2)
West Central	60.5	(55.1-65.6)	73.3	(68.1-77.9)
Bay	53.4	(45.6-60.9)	61.7	(53.7-69.0)
Southwest	58.2	(49.7-66.2)	69.9	(60.7-77.7)
Central	61.6	(51.7-70.6)	62.4	(52.3-71.6)
East Central	52.6	(44.7-60.4)	64.2	(55.8-71.8)
South Central	62.5	(54.8-69.7)	76.4	(68.9-82.6)
Southeast	55.2	(51.4-58.9)	72.8	(62.9-80.9)

<sup>a</sup> Among adults aged 65 years and older, the proportion who reported that they had a flu vaccine, either by an injection in the arm or sprayed in the nose during the past 12 months. (N = 2,819)

<sup>b</sup> Among adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine. (N = 2,719)

<b>Table 24: HIV Testing among Adults Aged 18 - 64 Years by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Ever Had an HIV Test<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>40.2</b>	<b>(38.5-41.8)</b>
<b>MEDC Region</b>		
Upper Peninsula	34.6	(26.2-44.0)
Northwest	37.4	(28.5-47.3)
Northeast	30.9	(21.7-41.8)
West Central	38.2	(34.2-42.3)
Bay	34.5	(28.2-41.4)
Southwest	35.9	(30.2-42.0)
Central	34.9	(27.8-42.8)
East Central	42.0	(35.8-48.4)
South Central	35.4	(30.3-40.9)
Southeast	46.0	(43.2-48.8)

<sup>a</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. Don't know was considered a valid response to this question. (N = 5,136)

<b>Table 25: Asthma among Adults by MEDC Region 2014 Michigan BRFSS</b>				
	<b>Lifetime Asthma Prevalence<sup>a</sup></b>		<b>Current Asthma Prevalence<sup>b</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>15.3</b>	<b>(14.4-16.4)</b>	<b>10.9</b>	<b>(10.1-11.8)</b>
<b>MEDC Region</b>				
Upper Peninsula	19.5	(13.8-26.9)	15.1	(10.3-21.7)
Northwest	12.3	(8.1-18.2)	9.4	(5.7-15.2)
Northeast	15.3	(9.5-23.8)	13.3	(7.7-22.0)
West Central	14.4	(12.2-17.0)	10.3	(8.4-12.7)
Bay	12.3	(9.4-16.0)	6.5	(4.6-9.1)
Southwest	15.4	(12.2-19.1)	13.2	(10.3-16.8)
Central	14.5	(10.5-19.7)	10.2	(6.9-14.9)
East Central	13.5	(10.5-17.2)	10.5	(7.9-13.9)
South Central	15.4	(12.4-19.0)	9.9	(7.6-12.7)
Southeast	16.6	(14.9-18.5)	11.8	(10.3-13.4)
<sup>a</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 = 8,440) <sup>b</sup> Among all adults, the proportion who reported that they still had asthma. (N = 8,405)				

<b>Table 26: Asthma among Children by MEDC Region 2014 Michigan BRFSS</b>				
	<b>Lifetime Asthma Prevalence<sup>a</sup></b>		<b>Current Asthma Prevalence<sup>b</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>14.2</b>	<b>(12.3-16.3)</b>	<b>10.2</b>	<b>(8.6-12.2)</b>
<b>MEDC Region</b>				
Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Northwest	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Northeast	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
West Central	16.7	(12.2-22.3)	12.5	(8.6-18.0)
Bay	14.4	(8.3-23.7)	-- <sup>c</sup>	-- <sup>c</sup>
Southwest	12.9	(7.4-21.5)	-- <sup>c</sup>	-- <sup>c</sup>
Central	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
East Central	19.9	(11.9-31.4)	17.5	(9.8-29.2)
South Central	19.2	(12.8-27.7)	13.8	(8.4-21.8)
Southeast	11.8	(9.3-15.0)	7.9	(5.8-10.6)
<sup>a</sup> Estimated proportion of Michigan children aged 0-17 years who were ever told by a doctor, nurse or other health professional that they had asthma, using proxy information from the adult respondent. (N = 1,860). <sup>b</sup> Estimated proportion of Michigan children aged 0-17 years who still have asthma, using proxy information from the adult respondent. (N = 1,854) <sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.				

<b>Table 27: Chronic Obstructive Pulmonary Disease (COPD) by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Ever Told COPD, Emphysema or Chronic Bronchitis<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>8.8</b>	<b>(8.1-9.6)</b>
<b>MEDC Region</b>		
Upper Peninsula	8.9	(5.4-14.2)
Northwest	8.9	(5.5-14.0)
Northeast	15.7	(9.9-23.9)
West Central	7.0	(5.6-8.9)
Bay	9.3	(6.8-12.5)
Southwest	8.2	(6.0-11.2)
Central	5.5	(3.5-8.4)
East Central	10.3	(7.7-13.7)
South Central	9.0	(6.8-11.8)
Southeast	9.5	(8.3-11.0)

<sup>a</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 = 8,412)

<b>Table 28: Arthritis by MEDC Region 2014 Michigan BRFS</b>		
	<b>Ever Told Arthritis<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31.9</b>	<b>(30.7-33.1)</b>
<b>MEDC Region</b>		
Upper Peninsula	40.7	(33.8-48.0)
Northwest	40.9	(33.8-48.4)
Northeast	36.4	(29.3-44.2)
West Central	30.9	(28.0-33.9)
Bay	34.5	(29.9-39.3)
Southwest	32.1	(28.0-36.6)
Central	28.1	(23.3-33.5)
East Central	36.0	(31.5-40.8)
South Central	29.6	(25.8-33.7)
Southeast	31.4	(29.4-33.4)

<sup>a</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 = 8,413)

**Table 29: Cardiovascular Disease by MEDC Region  
2014 Michigan BRFS**

	Ever Told Heart Attack <sup>a</sup>		Had Told Angina or Coronary Heart Disease <sup>b</sup>		Ever Told Stroke <sup>c</sup>		Ever Told Any Cardiovascular Disease <sup>d</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>5.2</b>	<b>(4.7-5.7)</b>	<b>5.4</b>	<b>(4.9-5.9)</b>	<b>3.3</b>	<b>(2.9-3.8)</b>	<b>10.0</b>	<b>(9.3-10.7)</b>
<b>MEDC Region</b>								
Upper Peninsula	7.0	(4.2-11.2)	7.4	(4.9-11.1)	-- <sup>e</sup>	-- <sup>e</sup>	12.2	(8.6-17.1)
Northwest	4.3	(2.6-7.1)	4.3	(2.6-7.2)	-- <sup>e</sup>	-- <sup>e</sup>	8.3	(5.6-12.3)
Northeast	9.8	(6.3-14.8)	6.5	(4.0-10.6)	-- <sup>e</sup>	-- <sup>e</sup>	13.4	(9.3-18.8)
West Central	3.6	(2.8-4.7)	4.3	(3.3-5.7)	2.7	(1.8-4.1)	8.1	(6.6-9.8)
Bay	8.1	(5.8-11.1)	8.8	(6.4-12.0)	3.2	(2.0-5.1)	14.0	(11.1-17.7)
Southwest	5.0	(3.4-7.2)	6.4	(4.5-8.9)	4.0	(2.5-6.4)	11.2	(8.6-14.5)
Central	4.0	(2.5-6.4)	5.6	(3.6-8.6)	-- <sup>e</sup>	-- <sup>e</sup>	8.4	(5.9-11.9)
East Central	5.2	(3.6-7.5)	3.2	(2.2-4.7)	3.8	(2.3-6.0)	9.3	(7.0-12.2)
South Central	4.1	(2.9-5.8)	5.6	(4.1-7.6)	1.3	(0.8-2.3)	7.4	(5.7-9.5)
Southeast	5.4	(4.5-6.4)	5.3	(4.5-6.3)	3.8	(3.1-4.7)	10.5	(9.3-11.9)

Among all adults, the proportion who had ever been told by a doctor that...

<sup>a</sup> they had a heart attack or myocardial infarction (N = 8,414);

<sup>b</sup> they had angina or coronary heart disease (N = 8,409);

<sup>c</sup> they had a stroke. (N = 8,432)

<sup>d</sup> they had a heart attack, coronary heart disease or a stroke. (N = 8,376)

<sup>e</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

**Table 30: Cancer by MEDC Region  
2014 Michigan BRFSS**

	Ever Told Skin Cancer <sup>a</sup>		Ever Told Any Other Types of Cancer <sup>b</sup>		Ever Told Cancer <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>5.8</b>	<b>(5.4-6.4)</b>	<b>7.7</b>	<b>(7.1-8.4)</b>	<b>12.3</b>	<b>(11.6-13.1)</b>
<b>MEDC Region</b>						
Upper Peninsula	5.0	(2.9-8.6)	8.4	(5.7-12.1)	12.8	(9.3-17.4)
Northwest	7.8	(5.3-11.4)	9.9	(6.4-15.1)	15.7	(11.4-21.3)
Northeast	7.8	(4.9-12.2)	7.1	(4.4-11.5)	12.6	(8.7-17.9)
West Central	6.0	(4.9-7.4)	7.9	(6.2-10.0)	12.9	(10.9-15.2)
Bay	8.0	(6.1-10.5)	7.7	(5.7-10.3)	14.4	(11.7-17.7)
Southwest	6.4	(4.8-8.7)	10.3	(7.6-13.8)	15.8	(12.7-19.6)
Central	6.1	(4.2-8.8)	6.5	(4.3-9.7)	10.6	(7.8-14.3)
East Central	5.5	(4.0-7.6)	6.6	(4.9-8.9)	11.0	(8.7-13.8)
South Central	7.1	(5.5-9.2)	8.2	(6.2-10.8)	13.3	(10.8-16.2)
Southeast	5.1	(4.4-5.9)	7.6	(6.6-8.6)	11.5	(10.4-12.7)

<sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had skin cancer. (N = 8,443)  
<sup>b</sup> Among all adults, the proportion who reported ever being told by a doctor that they had a form of cancer other than skin cancer. (N = 8,448)  
<sup>c</sup> Among all adults, the proportion who reported ever being told by a doctor that they had skin cancer or any other type of cancer. (N = 8,443)

<b>Table 31: Diabetes by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Ever Told Diabetes<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>10.4</b>	<b>(9.7-11.1)</b>
<b>MEDC Region</b>		
Upper Peninsula	11.8	(8.1-16.7)
Northwest	11.1	(7.6-15.9)
Northeast	9.7	(6.4-14.5)
West Central	9.1	(7.7-10.8)
Bay	10.0	(7.8-12.7)
Southwest	10.2	(7.8-13.2)
Central	10.6	(7.8-14.2)
East Central	11.8	(9.3-15.0)
South Central	10.2	(8.0-12.9)
Southeast	10.7	(9.5-12.1)
<sup>a</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 = 8,451)		

<b>Table 32: Kidney Disease by MEDC Region 2014 Michigan BRFSS</b>		
	<b>Ever Told Kidney Disease<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>3.3</b>	<b>(2.9-3.8)</b>
<b>MEDC Region</b>		
Upper Peninsula	--b	--b
Northwest	--b	--b
Northeast	4.0	(2.2-6.9)
West Central	3.9	(2.6-5.9)
Bay	2.4	(1.5-3.7)
Southwest	4.7	(3.0-7.4)
Central	2.2	(1.2-3.9)
East Central	2.9	(1.6-4.9)
South Central	2.9	(1.8-4.8)
Southeast	3.5	(2.8-4.4)
<sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had kidney disease. (N = 8,422)		
<sup>b</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.		

<b>Table 33: Depression by MEDC Region 2014 Michigan BRFS</b>		
	<b>Ever Told Depression<sup>a</sup></b>	
	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>20.5</b>	<b>(19.3-21.6)</b>
<b>MEDC Region</b>		
Upper Peninsula	27.0	(20.7-34.4)
Northwest	17.0	(12.2-23.3)
Northeast	23.5	(17.6-30.6)
West Central	21.9	(19.0-25.0)
Bay	23.5	(19.1-28.6)
Southwest	20.7	(17.0-25.0)
Central	22.6	(17.5-28.6)
East Central	16.1	(12.8-20.2)
South Central	23.2	(19.2-27.7)
Southeast	19.2	(17.4-21.1)

<sup>a</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 = 8,439)

	Fell During the Past 12 Months <sup>a</sup>		Injured From a Fall During the Past 12 Months <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>32.2</b>	<b>(30.8-33.7)</b>	<b>13.1</b>	<b>(12.1-14.3)</b>
<b>MEDC Region</b>				
Upper Peninsula	38.1	(30.8-45.9)	15.9	(10.7-23.1)
Northwest	32.7	(25.7-40.6)	9.8	(6.1-15.5)
Northeast	45.6	(37.1-54.4)	16.6	(11.0-24.3)
West Central	34.4	(30.9-38.0)	12.5	(10.2-15.3)
Bay	37.2	(32.0-42.7)	11.9	(8.7-16.0)
Southwest	34.7	(29.5-40.3)	14.2	(10.2-19.4)
Central	28.7	(23.0-35.2)	8.2	(5.3-12.7)
East Central	30.7	(25.8-36.0)	14.3	(10.7-18.7)
South Central	30.0	(25.7-34.8)	11.2	(8.4-14.6)
Southeast	29.6	(27.3-32.1)	13.9	(12.2-15.9)
<sup>a</sup> Among adults aged 45 years and older, the proportion who reported to have unintentionally come to rest on the ground or another lower level during the past 12 months. (N = 6,155) <sup>b</sup> Among adults aged 45 years and older, the proportion who reported to have been injured due to a fall during the past 12 months. (N = 6,138)				