

**Health Indicators and Risk Estimates by  
Community Health Assessment Regions  
&  
Local Health Departments**

**State of Michigan**

**Selected Tables**

**Michigan Behavioral Risk Factor Survey**

**2011 - 2013**

Chronic Disease Epidemiology Section  
Lifecourse Epidemiology and Genomics Division  
Bureau of Disease Control, Prevention, and Epidemiology  
Michigan Department of Community Health

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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 Community Health. Michigan BRFSS data contribute to the national [Behavioral Risk Factor Surveillance System](#) that is managed by the PHSB at the CDC.

State-specific, population-based prevalence estimates (and asymmetric 95% confidence intervals) of health risk behaviors, preventive health practices, and chronic conditions are calculated using annual data sets (see Annual Tables at <http://www.michigan.gov/brfs>). However, region-specific and local health department-specific prevalence rates are usually computed using BRFSS data combined across years.

For this report, data from the 2011-2013 Michigan BRFSS were combined. The total sample sizes by year were: 12,759 in 2013, 10,499 in 2012, and 11,049 in 2011. Not all questions were included annually in the survey. The table subtitles indicate which years were used for that particular analysis.

For the 2011 through 2013 Michigan Behavioral Risk Factor Surveys, 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 each survey year was randomly selected from dedicated cellular telephone banks sorted on the basis of area code and exchange within the State of Michigan.

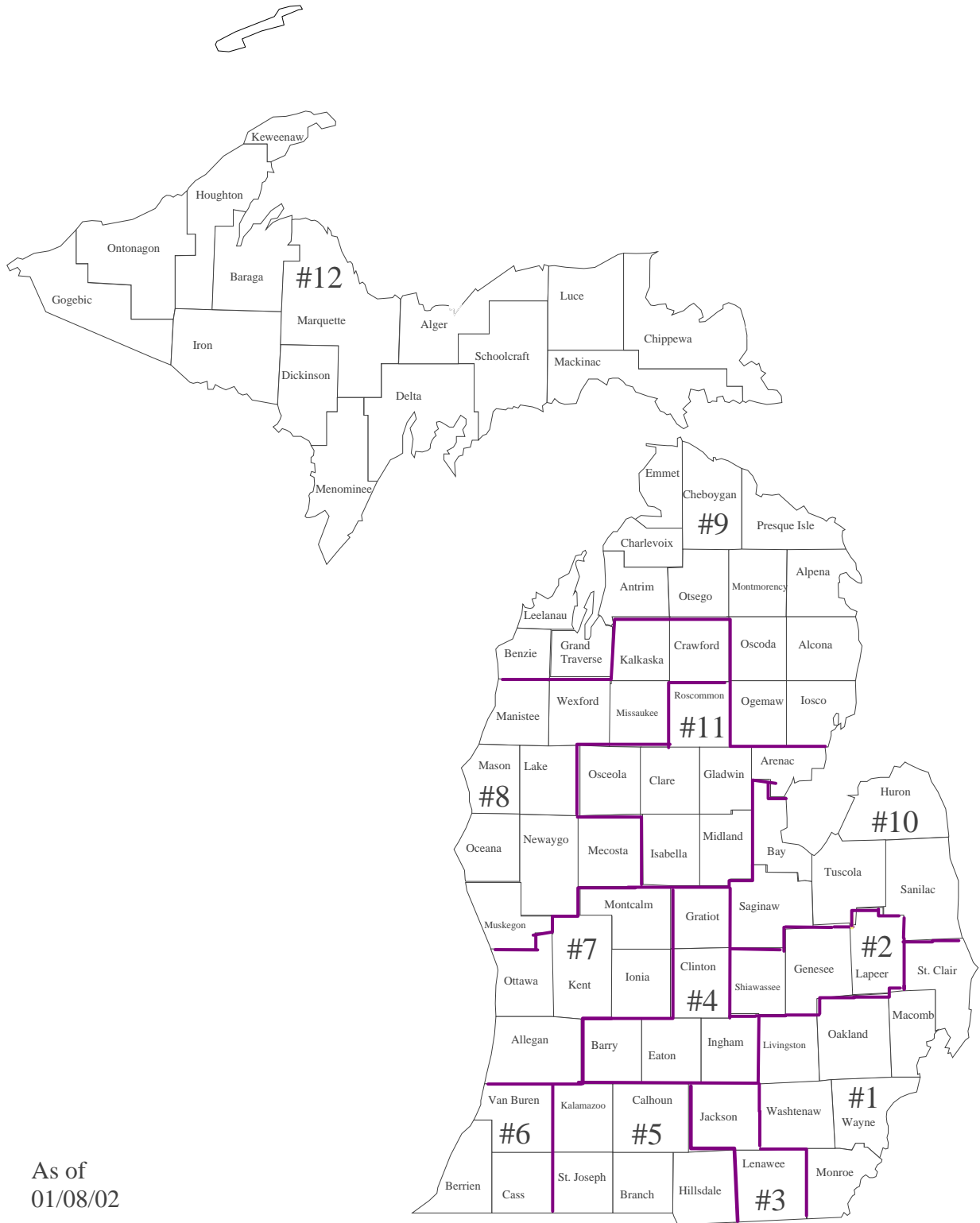
Iterative proportional fitting or raking was the weighting methodology used to make the 2011-2013 Michigan BRFSS data representative of the current Michigan adult population. Estimates based on this methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor 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 or local health department (LHD) level, thus the weights used might not always provide accurate regional and/or LHD estimates, particularly when regional and/or LHD demographic distributions vary greatly from that of the state.

Population-based prevalence estimates and asymmetric 95% confidence intervals were calculated for indicators of health status, health risk behaviors, clinical preventive practices, and chronic conditions among the overall adult population in Michigan, as well as at the regional and local health department level. All analyses were performed in SAS-Callable SUDAAN®, a statistical computing program that was 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%. Comparisons between estimates with non-overlapping 95% confidence intervals should be considered significantly different.

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

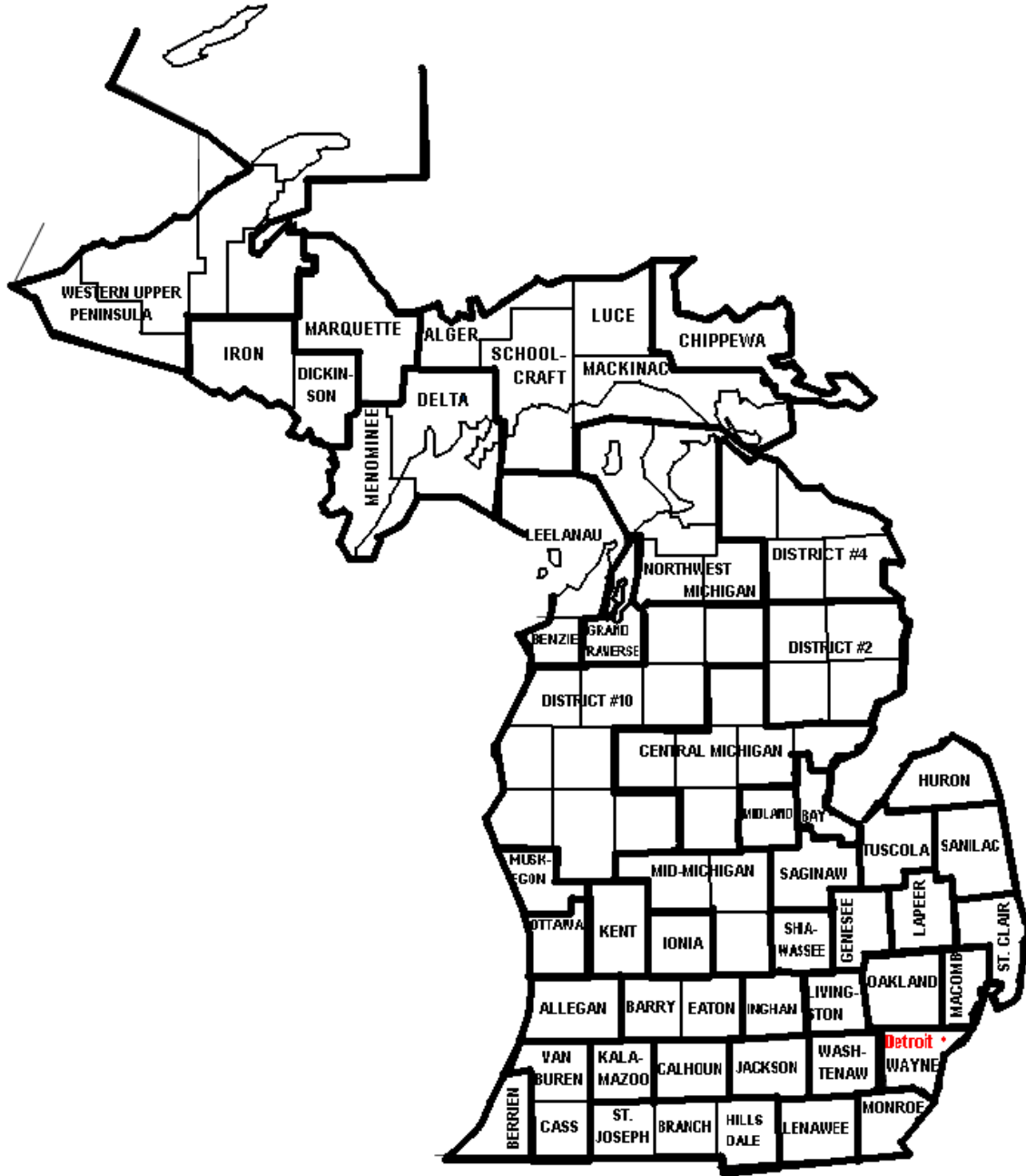
If you have any questions regarding any of the estimates within the following tables, please contact Chris Fussman at MDCH, by phone, (517) 335-8144, or by email, [MIBRFSS@michigan.gov](mailto:MIBRFSS@michigan.gov).

## Community Health Assessment and Improvement Regions State of Michigan



As of  
01/08/02

### Local Health Departments State of Michigan



2011-2013 Michigan BRFSS Regional & Local Health Department Estimates  
October 2, 2014

<b>Table 1: Health Status Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>General Health, Fair or Poor<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,267</b>	<b>17.3</b>	<b>(16.8-17.9)</b>
<b>Region 1</b>	13,137	17.4	(16.5-18.3)
Livingston	474	11.4	(8.5-15.0)
Macomb	1,871	16.0	(14.1-18.2)
Monroe	381	18.4	(13.6-24.5)
Oakland	3,033	12.0	(10.5-13.6)
St. Clair	460	22.9	(17.8-29.0)
Washtenaw	982	12.5	(9.9-15.6)
City of Detroit	2,547	31.5	(28.5-34.7)
Wayne exc. Detroit	3,136	17.0	(15.2-18.9)
<b>Region 2</b>	1,582	18.6	(16.1-21.2)
Genesee	1,163	19.0	(16.2-22.3)
Lapeer	221	18.8	(13.2-25.9)
Shiawassee	198	15.7	(10.4-22.9)
<b>Region 3</b>	855	15.6	(12.8-18.9)
Jackson	491	14.2	(10.8-18.4)
Lenawee	364	18.0	(13.4-23.8)
<b>Region 4</b>	1,882	14.8	(12.8-17.0)
Barry-Eaton	581	18.2	(14.4-22.8)
Mid-Michigan <sup>b</sup>	602	14.7	(11.0-19.4)
Ingham	917	13.8	(11.2-16.9)
<b>Region 5</b>	1,714	20.0	(17.4-22.8)
Branch-Hillsdale-St. Joseph	528	19.6	(15.5-24.5)
Calhoun	407	26.4	(20.2-33.6)
Kalamazoo	779	16.5	(13.3-20.2)
<b>Region 6</b>	1,097	20.9	(17.5-24.7)
Van Buren-Cass	456	20.7	(15.8-26.8)
Berrien	641	21.1	(16.7-26.2)
<b>Region 7</b>	3,802	13.5	(12.0-15.2)
Allegan	398	15.2	(11.2-20.4)
Ionia	195	20.6	(14.0-29.4)
Kent	2,069	12.4	(10.5-14.6)
Mid-Michigan <sup>b</sup>	602	14.7	(11.0-19.4)
Ottawa	922	11.6	(9.0-14.9)

2011-2013 Michigan BRFSS Regional & Local Health Department Estimates  
October 2, 2014

<b>Table 1 Cont'd</b>			
<b>Geographic Area</b>	<b>General Health, Fair or Poor<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,267</b>	<b>17.3</b>	<b>(16.8-17.9)</b>
<b>Region 8</b>	1,534	21.1	(18.3-24.2)
District #10	914	20.7	(17.1-24.7)
Muskegon	620	21.7	(17.3-26.8)
<b>Region 9</b>	2,456	17.8	(15.5-20.3)
District #2	352	19.8	(15.0-25.8)
District #4	593	29.2	(22.9-36.4)
Northwest Michigan	807	14.6	(11.2-18.9)
Benzie-Leelanau	299	8.9	(5.2-14.9)
Grand Traverse	405	11.6	(8.5-15.8)
<b>Region 10</b>	1,302	17.7	(15.1-20.5)
Bay	236	17.0	(11.2-25.1)
Huron	100	16.2	(9.2-27.0)
Saginaw	694	18.8	(15.2-23.1)
Sanilac	117	11.5	(6.5-19.5)
Tuscola	155	20.1	(13.8-28.3)
<b>Region 11</b>	1,200	20.3	(17.3-23.7)
Central Michigan	882	22.9	(19.1-27.2)
Midland	318	13.8	(9.7-19.2)
<b>Region 12</b>	3,317	16.1	(14.0-18.3)
Luce-Mackinac-Alger-Schoolcraft	720	22.5	(16.0-30.6)
Western Upper Peninsula	498	13.4	(10.0-17.8)
Delta-Menominee	559	17.1	(12.7-22.8)
Chippewa	689	17.6	(13.5-22.6)
Dickinson-Iron	215	17.0	(10.5-26.2)
Marquette	636	11.8	(8.7-15.7)

<sup>a</sup> The proportion of adults who reported that their health, in general, was either fair or poor.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

<b>Table 2: Poor Physical Health on at Least 14 Days in the Past Month Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Poor Physical Health<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,795</b>	<b>13.1</b>	<b>(12.6-13.6)</b>
<b>Region 1</b>	12,970	12.4	(11.7-13.2)
Livingston	468	10.2	(7.5-13.8)
Macomb	1,854	10.8	(9.3-12.6)
Monroe	378	13.4	(9.7-18.3)
Oakland	3,011	9.3	(8.1-10.8)
St. Clair	454	16.4	(11.9-22.0)
Washtenaw	971	8.8	(6.8-11.2)
City of Detroit	2,480	19.8	(17.3-22.6)
Wayne exc. Detroit	3,103	13.7	(12.0-15.6)
<b>Region 2</b>	1,558	15.5	(13.2-18.0)
Genesee	1,144	15.3	(12.6-18.3)
Lapeer	217	18.0	(12.5-25.1)
Shiawassee	197	13.5	(8.8-20.1)
<b>Region 3</b>	840	11.9	(9.5-14.7)
Jackson	486	11.3	(8.5-14.8)
Lenawee	354	12.9	(9.1-18.1)
<b>Region 4</b>	1,858	14.0	(12.0-16.2)
Barry-Eaton	574	12.1	(9.0-16.2)
Mid-Michigan <sup>b</sup>	592	12.4	(9.5-15.9)
Ingham	905	15.6	(12.6-19.1)
<b>Region 5</b>	1,686	12.6	(10.6-14.9)
Branch-Hillsdale-St. Joseph	517	14.1	(10.6-18.5)
Calhoun	396	13.5	(9.2-19.3)
Kalamazoo	773	10.9	(8.5-14.0)
<b>Region 6</b>	1,087	16.7	(13.5-20.4)
Van Buren-Cass	451	16.3	(12.1-21.7)
Berrien	636	16.9	(12.5-22.5)
<b>Region 7</b>	3,750	10.7	(9.4-12.1)
Allegan	392	9.4	(6.4-13.5)
Ionia	190	16.3	(11.3-23.1)
Kent	2,041	10.9	(9.1-12.9)
Mid-Michigan <sup>b</sup>	592	12.4	(9.5-15.9)
Ottawa	914	9.2	(6.9-12.3)



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<b>Table 2 Cont'd</b>			
<b>Geographic Area</b>	<b>Poor Physical Health<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,795</b>	<b>13.1</b>	<b>(12.6-13.6)</b>
<b>Region 8</b>	1,515	15.9	(13.5-18.8)
District #10	903	13.6	(11.0-16.6)
Muskegon	612	19.5	(15.0-24.9)
<b>Region 9</b>	2,423	14.2	(12.1-16.6)
District #2	344	14.1	(10.1-19.3)
District #4	585	23.1	(17.2-30.4)
Northwest Michigan	797	11.9	(8.8-15.9)
Benzie-Leelanau	296	10.0	(5.7-17.1)
Grand Traverse	401	9.5	(6.6-13.5)
<b>Region 10</b>	1,285	12.9	(10.7-15.5)
Bay	235	15.5	(9.8-23.6)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	683	14.2	(11.0-18.1)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	153	15.6	(10.3-23.0)
<b>Region 11</b>	1,187	16.8	(13.9-20.0)
Central Michigan	872	17.7	(14.3-21.8)
Midland	315	14.4	(10.0-20.3)
<b>Region 12</b>	3,260	12.5	(10.8-14.5)
Luce-Mackinac-Alger-Schoolcraft	710	12.3	(8.8-16.9)
Western Upper Peninsula	490	9.8	(6.9-13.6)
Delta-Menominee	546	13.5	(9.6-18.8)
Chippewa	677	18.9	(14.0-25.0)
Dickinson-Iron	213	12.2	(7.3-19.8)
Marquette	624	11.2	(7.9-15.5)

<sup>a</sup> The proportion of adults who reported 14 or more days, out of the previous 30, on which their physical health was not good, which includes physical illness and injury.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 3: Poor Mental Health on at Least 14 Days in the Past Month Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Poor Mental Health<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,894</b>	<b>12.7</b>	<b>(12.2-13.3)</b>
<b>Region 1</b>	13,015	13.2	(12.4-14.2)
Livingston	468	13.1	(9.5-17.9)
Macomb	1,856	11.8	(10.1-13.8)
Monroe	376	13.1	(9.0-18.6)
Oakland	3,013	10.6	(9.1-12.3)
St. Clair	454	17.8	(12.4-24.9)
Washtenaw	977	12.1	(9.6-15.1)
City of Detroit	2,508	18.6	(16.0-21.5)
Wayne exc. Detroit	3,112	13.4	(11.7-15.3)
<b>Region 2</b>	1,555	13.2	(11.1-15.7)
Genesee	1,143	13.3	(10.8-16.2)
Lapeer	215	16.9	(11.4-24.3)
Shiawassee	197	8.6	(5.0-14.4)
<b>Region 3</b>	850	10.1	(7.9-12.9)
Jackson	490	9.8	(7.2-13.3)
Lenawee	360	10.6	(7.0-15.7)
<b>Region 4</b>	1,863	11.8	(10.0-14.0)
Barry-Eaton	574	11.3	(8.0-15.7)
Mid-Michigan <sup>b</sup>	596	11.7	(8.5-16.0)
Ingham	909	12.1	(9.6-15.3)
<b>Region 5</b>	1,689	13.4	(11.2-15.9)
Branch-Hillsdale-St. Joseph	519	14.6	(10.8-19.5)
Calhoun	402	16.8	(12.0-23.1)
Kalamazoo	768	10.4	(8.0-13.5)
<b>Region 6</b>	1,081	12.8	(10.1-16.1)
Van Buren-Cass	451	14.5	(10.1-20.4)
Berrien	630	11.4	(8.4-15.4)
<b>Region 7</b>	3,775	11.6	(10.1-13.3)
Allegan	396	13.0	(8.8-18.9)
Ionia	193	11.3	(7.0-17.9)
Kent	2,058	11.4	(9.5-13.7)
Mid-Michigan <sup>b</sup>	596	11.7	(8.5-16.0)
Ottawa	912	11.6	(8.7-15.3)

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<b>Table 3 Cont'd</b>			
<b>Geographic Area</b>	<b>Poor Mental Health<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,894</b>	<b>12.7</b>	<b>(12.2-13.3)</b>
<b>Region 8</b>	1,521	14.4	(12.0-17.2)
District #10	908	14.6	(11.7-18.2)
Muskegon	613	14.1	(10.4-18.8)
<b>Region 9</b>	2,433	12.3	(10.3-14.5)
District #2	348	14.0	(9.9-19.4)
District #4	590	12.1	(7.9-17.9)
Northwest Michigan	797	11.4	(8.4-15.3)
Benzie-Leelanau	299	13.1	(7.6-21.7)
Grand Traverse	399	11.4	(7.8-16.5)
<b>Region 10</b>	1,286	12.9	(10.7-15.5)
Bay	233	13.5	(8.8-20.4)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	685	13.3	(10.1-17.3)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	153	15.4	(9.7-23.6)
<b>Region 11</b>	1,180	12.7	(10.1-15.9)
Central Michigan	872	15.5	(12.2-19.6)
Midland	308	5.5	(3.1-9.7)
<b>Region 12</b>	3,267	9.1	(7.6-10.8)
Luce-Mackinac-Alger-Schoolcraft	708	12.3	(8.3-17.9)
Western Upper Peninsula	490	7.6	(4.9-11.5)
Delta-Menominee	551	11.3	(7.5-16.8)
Chippewa	681	7.7	(5.1-11.5)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	625	8.5	(5.8-12.3)

<sup>a</sup> The proportion of adults who reported 14 or more days, out of the previous 30, on which their mental health was not good, which includes stress, depression, and problems with emotions.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 4: Activity Limitation on at Least 14 Days in the Past Month Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Activity Limitation<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,046</b>	<b>9.1</b>	<b>(8.6-9.5)</b>
<b>Region 1</b>	13,059	8.8	(8.1-9.5)
Livingston	471	8.4	(5.8-12.0)
Macomb	1,865	7.2	(5.8-8.8)
Monroe	380	11.4	(7.7-16.6)
Oakland	3,027	6.4	(5.3-7.6)
St. Clair	456	11.1	(7.2-16.8)
Washtenaw	975	5.7	(4.2-7.9)
City of Detroit	2,513	14.9	(12.7-17.6)
Wayne exc. Detroit	3,119	9.2	(7.9-10.8)
<b>Region 2</b>	1,568	10.4	(8.6-12.6)
Genesee	1,152	10.6	(8.4-13.2)
Lapeer	218	11.3	(7.0-17.8)
Shiawassee	198	8.2	(4.6-14.2)
<b>Region 3</b>	852	8.1	(6.2-10.6)
Jackson	493	7.6	(5.3-10.8)
Lenawee	359	8.9	(5.8-13.5)
<b>Region 4</b>	1,875	8.3	(6.8-10.2)
Barry-Eaton	582	6.3	(4.1-9.4)
Mid-Michigan <sup>b</sup>	597	9.5	(7.0-12.8)
Ingham	910	8.7	(6.4-11.8)
<b>Region 5</b>	1,703	9.3	(7.6-11.5)
Branch-Hillsdale-St. Joseph	522	10.6	(7.5-14.7)
Calhoun	405	11.2	(7.3-17.0)
Kalamazoo	776	7.3	(5.3-10.0)
<b>Region 6</b>	1,091	12.3	(9.6-15.7)
Van Buren-Cass	456	13.2	(9.4-18.2)
Berrien	635	11.6	(8.0-16.6)
<b>Region 7</b>	3,778	7.3	(6.2-8.6)
Allegan	395	6.3	(4.0-9.8)
Ionia	195	11.8	(7.4-18.4)
Kent	2,058	7.1	(5.6-8.9)
Mid-Michigan <sup>b</sup>	597	9.5	(7.0-12.8)
Ottawa	916	6.7	(4.6-9.7)

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<b>Table 4 Cont'd</b>			
<b>Geographic Area</b>	<b>Activity Limitation<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,046</b>	<b>9.1</b>	<b>(8.6-9.5)</b>
<b>Region 8</b>	1,524	11.1	(9.1-13.5)
District #10	914	10.8	(8.3-13.8)
Muskegon	610	11.7	(8.6-15.7)
<b>Region 9</b>	2,442	9.7	(7.9-11.9)
District #2	350	8.2	(5.4-12.2)
District #4	590	17.1	(11.7-24.4)
Northwest Michigan	801	9.3	(6.6-13.0)
Benzie-Leelanau	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Grand Traverse	402	5.5	(3.4-8.7)
<b>Region 10</b>	1,296	10.4	(8.3-12.9)
Bay	235	10.9	(5.9-19.4)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	690	12.3	(9.2-16.3)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	155	9.7	(5.7-16.1)
<b>Region 11</b>	1,192	10.3	(8.0-13.1)
Central Michigan	875	11.3	(8.6-14.9)
Midland	317	7.6	(4.3-13.1)
<b>Region 12</b>	3,285	8.3	(6.9-10.0)
Luce-Mackinac-Alger-Schoolcraft	711	9.3	(5.3-15.8)
Western Upper Peninsula	493	7.4	(4.7-11.6)
Delta-Menominee	553	10.2	(6.7-15.1)
Chippewa	683	8.9	(6.2-12.7)
Dickinson-Iron	215	7.0	(4.0-12.1)
Marquette	630	6.9	(4.6-10.2)

<sup>a</sup> The proportion of adults who reported 14 or more days, out of the previous 30, on which either poor physical health or poor mental health kept them from doing their usual activities, such as self-care, work, and recreation.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 5: Disability Michigan BRFS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Disability<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,629</b>	<b>26.1</b>	<b>(25.4-26.7)</b>
<b>Region 1</b>	12,887	25.4	(24.4-26.5)
Livingston	468	24.0	(19.5-29.2)
Macomb	1,837	25.0	(22.6-27.6)
Monroe	377	26.9	(21.5-33.2)
Oakland	2,968	22.6	(20.7-24.6)
St. Clair	456	32.4	(26.8-38.6)
Washtenaw	973	21.1	(17.9-24.7)
City of Detroit	2,483	33.4	(30.3-36.7)
Wayne exc. Detroit	3,075	25.4	(23.4-27.6)
<b>Region 2</b>	1,554	26.5	(23.8-29.3)
Genesee	1,139	27.5	(24.3-30.9)
Lapeer	218	28.9	(22.0-36.8)
Shiawassee	197	18.2	(12.6-25.6)
<b>Region 3</b>	849	27.4	(23.7-31.4)
Jackson	487	29.6	(24.8-34.8)
Lenawee	362	23.5	(18.2-29.8)
<b>Region 4</b>	1,849	27.2	(24.7-29.8)
Barry-Eaton	573	27.2	(22.8-32.1)
Mid-Michigan <sup>b</sup>	591	29.1	(24.5-34.2)
Ingham	898	26.5	(22.9-30.4)
<b>Region 5</b>	1,695	26.6	(23.9-29.4)
Branch-Hillsdale-St. Joseph	524	26.7	(22.1-31.9)
Calhoun	401	28.1	(22.7-34.4)
Kalamazoo	770	25.6	(21.8-29.7)
<b>Region 6</b>	1,081	29.7	(25.9-33.7)
Van Buren-Cass	447	28.1	(23.0-34.0)
Berrien	634	30.9	(25.8-36.6)
<b>Region 7</b>	3,736	23.8	(22.0-25.8)
Allegan	393	20.2	(15.7-25.6)
Ionia	188	27.1	(20.0-35.6)
Kent	2,032	23.3	(21.0-25.8)
Mid-Michigan <sup>b</sup>	591	29.1	(24.5-34.2)
Ottawa	910	24.0	(20.0-28.6)

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<b>Table 5 Cont'd</b>			
<b>Geographic Area</b>	<b>Disability<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,629</b>	<b>26.1</b>	<b>(25.4-26.7)</b>
<b>Region 8</b>	1,513	30.7	(27.6-33.9)
District #10	899	29.7	(26.1-33.7)
Muskegon	614	32.1	(27.0-37.7)
<b>Region 9</b>	2,416	26.2	(23.6-28.9)
District #2	346	29.1	(23.3-35.7)
District #4	582	34.9	(28.5-41.9)
Northwest Michigan	791	24.6	(20.2-29.7)
Benzie-Leelanau	295	24.1	(17.7-32.0)
Grand Traverse	402	16.5	(12.6-21.2)
<b>Region 10</b>	1,270	26.6	(23.6-29.9)
Bay	233	26.8	(19.8-35.3)
Huron	99	19.9	(12.3-30.5)
Saginaw	670	27.4	(23.1-32.2)
Sanilac	115	22.7	(15.0-32.8)
Tuscola	153	30.6	(22.7-40.0)
<b>Region 11</b>	1,187	28.6	(25.2-32.3)
Central Michigan	870	30.3	(26.2-34.7)
Midland	317	24.4	(18.7-31.2)
<b>Region 12</b>	3,261	25.8	(23.2-28.5)
Luce-Mackinac-Alger-Schoolcraft	711	24.0	(19.3-29.5)
Western Upper Peninsula	488	24.6	(18.8-31.6)
Delta-Menominee	551	28.4	(22.3-35.5)
Chippewa	671	29.2	(23.6-35.5)
Dickinson-Iron	215	24.3	(17.6-32.6)
Marquette	625	24.2	(19.2-30.0)

<sup>a</sup> The proportion of adults 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.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

**Table 6: Weight Status**  
**Michigan BRFSS, 2011-2013 Combined**

Geographic Area	Sample Size	Obese <sup>a</sup>		Overweight <sup>b</sup>		Healthy Weight <sup>c</sup>	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>32,808</b>	<b>31.3</b>	<b>(30.6-32.0)</b>	<b>34.5</b>	<b>(33.8-35.2)</b>	<b>32.7</b>	<b>(32.0-33.5)</b>
<b>Region 1</b>	12,628	29.9	(28.8-31.0)	34.0	(32.9-35.2)	34.7	(33.5-35.9)
Livingston	457	26.6	(21.9-31.9)	37.7	(32.1-43.8)	33.7	(28.5-39.4)
Macomb	1,804	31.5	(28.8-34.3)	34.7	(32.0-37.5)	31.9	(29.1-34.8)
Monroe	372	34.1	(28.1-40.6)	35.4	(29.3-41.9)	29.4	(23.7-35.8)
Oakland	2,922	25.7	(23.7-27.9)	35.0	(32.8-37.3)	38.3	(35.9-40.7)
St. Clair	439	31.5	(25.7-37.9)	35.8	(30.0-42.1)	32.0	(26.0-38.5)
Washtenaw	946	22.9	(19.6-26.5)	33.3	(29.5-37.4)	42.1	(37.9-46.3)
City of Detroit	2,437	39.7	(36.5-43.0)	30.5	(27.6-33.7)	29.2	(26.1-32.5)
Wayne exc. Detroit	3,014	29.6	(27.4-31.8)	34.2	(31.9-36.6)	34.5	(32.1-37.0)
<b>Region 2</b>	1,521	33.2	(30.2-36.3)	34.8	(31.7-38.0)	30.1	(27.1-33.3)
Genesee	1,114	34.9	(31.3-38.7)	34.9	(31.3-38.7)	29.3	(25.8-33.1)
Lapeer	216	25.9	(19.6-33.5)	33.6	(26.0-42.2)	33.3	(25.9-41.6)
Shiawassee	191	32.7	(25.2-41.3)	35.8	(27.7-44.8)	30.3	(23.2-38.6)
<b>Region 3</b>	821	33.5	(29.3-38.0)	35.0	(30.7-39.5)	29.6	(25.5-34.1)
Jackson	470	33.8	(28.6-39.5)	34.5	(29.3-40.1)	29.6	(24.6-35.1)
Lenawee	351	33.0	(26.3-40.5)	35.9	(28.7-43.7)	29.7	(22.8-37.6)
<b>Region 4</b>	1,810	32.4	(29.7-35.3)	30.1	(27.6-32.9)	34.9	(32.1-37.8)
Barry-Eaton	562	35.0	(30.0-40.4)	33.8	(28.9-39.1)	29.4	(24.7-34.5)
Mid-Michigan <sup>d</sup>	574	32.4	(27.5-37.6)	33.2	(28.6-38.1)	32.4	(27.3-37.9)
Ingham	877	31.0	(27.1-35.3)	26.9	(23.4-30.7)	39.1	(35.0-43.4)
<b>Region 5</b>	1,636	34.2	(31.1-37.3)	35.3	(32.2-38.5)	29.1	(26.3-32.1)
Branch-Hillsdale-St. Joseph	504	38.6	(33.1-44.4)	35.9	(30.6-41.5)	23.8	(19.5-28.6)
Calhoun	388	33.7	(27.6-40.4)	37.7	(31.2-44.6)	27.6	(21.7-34.4)
Kalamazoo	744	31.0	(26.7-35.6)	33.4	(29.0-38.1)	34.1	(29.7-38.7)
<b>Region 6</b>	1,047	36.5	(32.4-40.8)	34.8	(30.8-39.0)	27.4	(23.7-31.5)
Van Buren-Cass	428	34.3	(28.4-40.7)	38.2	(31.9-44.9)	26.7	(21.1-33.2)
Berrien	619	38.2	(32.7-44.1)	32.1	(27.1-37.5)	28.0	(23.2-33.3)
<b>Region 7</b>	3,632	28.1	(26.0-30.2)	35.1	(32.9-37.3)	35.2	(33.0-37.5)
Allegan	379	35.4	(29.2-42.2)	32.0	(26.0-38.6)	30.4	(24.4-37.1)
Ionia	186	35.4	(27.1-44.8)	31.7	(23.9-40.7)	29.1	(21.3-38.4)
Kent	1,982	27.4	(24.8-30.3)	36.0	(33.0-39.1)	35.1	(32.1-38.2)
Mid-Michigan <sup>d</sup>	574	32.4	(27.5-37.6)	33.2	(28.6-38.1)	32.4	(27.3-37.9)
Ottawa	882	22.7	(19.0-26.8)	35.3	(31.0-39.9)	40.5	(35.7-45.5)



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**Table 6 Cont'd**

Geographic Area	Sample Size	Obese <sup>a</sup>		Overweight <sup>b</sup>		Healthy Weight <sup>c</sup>	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>32,808</b>	<b>31.3</b>	<b>(30.6-32.0)</b>	<b>34.5</b>	<b>(33.8-35.2)</b>	<b>32.7</b>	<b>(32.0-33.5)</b>
<b>Region 8</b>	1,474	34.1	(31.0-37.4)	35.7	(32.5-39.1)	29.4	(26.3-32.7)
District #10	881	33.1	(29.1-37.4)	35.8	(31.7-40.1)	30.2	(26.3-34.3)
Muskegon	593	35.7	(30.7-41.0)	35.7	(30.6-41.1)	28.2	(23.3-33.7)
<b>Region 9</b>	2,360	32.0	(29.1-35.0)	35.5	(32.7-38.5)	31.1	(28.1-34.2)
District #2	342	38.6	(31.7-46.0)	36.2	(29.8-43.1)	23.9	(18.2-30.6)
District #4	574	35.9	(29.2-43.1)	30.9	(25.2-37.4)	30.8	(24.4-38.1)
Northwest Michigan	775	29.6	(24.5-35.2)	33.6	(28.2-39.3)	35.9	(29.8-42.4)
Benzie-Leelanau	280	28.4	(20.8-37.5)	42.9	(34.0-52.2)	28.0	(21.4-35.7)
Grand Traverse	389	25.9	(20.7-31.9)	38.9	(32.8-45.3)	34.2	(28.0-40.9)
<b>Region 10</b>	1,244	37.0	(33.5-40.6)	36.3	(32.8-40.0)	25.9	(22.9-29.1)
Bay	224	33.3	(26.0-41.4)	44.4	(36.1-53.1)	22.1	(16.3-29.3)
Huron	93	25.8	(16.4-38.1)	51.7	(39.3-64.0)	22.3	(14.6-32.6)
Saginaw	666	41.7	(36.6-46.9)	30.4	(25.7-35.6)	27.4	(23.0-32.2)
Sanilac	111	41.3	(30.3-53.2)	28.6	(19.7-39.6)	26.8	(17.6-38.4)
Tuscola	150	30.9	(22.6-40.7)	40.0	(31.2-49.6)	27.9	(20.0-37.4)
<b>Region 11</b>	1,155	32.6	(29.0-36.5)	36.9	(33.1-40.8)	29.0	(25.4-32.9)
Central Michigan	843	32.8	(28.4-37.5)	37.1	(32.7-41.8)	28.1	(23.8-32.8)
Midland	312	32.3	(25.9-39.3)	36.3	(29.4-43.8)	31.2	(25.0-38.2)
<b>Region 12</b>	3,187	31.2	(28.5-34.1)	35.6	(32.6-38.7)	31.2	(28.2-34.3)
Luce-Mackinac-Alger-Schoolcraft	692	32.4	(25.7-39.9)	38.7	(31.1-46.8)	28.3	(21.6-36.1)
Western Upper Peninsula	475	28.2	(22.2-35.0)	36.2	(29.7-43.1)	32.5	(26.0-39.7)
Delta-Menominee	541	32.0	(25.6-39.2)	34.4	(27.4-42.1)	29.9	(22.8-38.1)
Chippewa	660	40.4	(33.9-47.2)	31.8	(26.3-37.9)	26.4	(19.8-34.1)
Dickinson-Iron	203	31.0	(23.0-40.5)	39.2	(30.3-48.9)	29.4	(21.7-38.5)
Marquette	616	27.6	(22.1-33.8)	34.5	(28.3-41.2)	36.8	(30.4-43.8)

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> The proportion of adults whose BMI was greater than or equal to 30.0.

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

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

<sup>d</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

<b>Table 7: No Health Care Coverage Among Those Aged 18-64 Years Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>No Health Care Coverage<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>22,598</b>	<b>17.4</b>	<b>(16.7-18.2)</b>
<b>Region 1</b>	8,870	18.2	(17.1-19.4)
Livingston	348	12.9	(8.4-19.3)
Macomb	1,246	16.9	(14.3-19.8)
Monroe	243	14.0	(9.0-21.2)
Oakland	2,036	15.6	(13.4-18.0)
St. Clair	316	15.4	(10.7-21.5)
Washtenaw	698	13.2	(10.0-17.3)
City of Detroit	1,657	32.3	(28.8-35.9)
Wayne exc. Detroit	2,094	14.6	(12.5-16.9)
<b>Region 2</b>	1,065	14.7	(12.1-17.7)
Genesee	768	15.4	(12.3-19.0)
Lapeer	160	8.5	(4.7-14.8)
Shiawassee	137	19.0	(11.5-29.7)
<b>Region 3</b>	530	15.1	(11.6-19.5)
Jackson	331	15.1	(10.9-20.5)
Lenawee	199	15.3	(9.6-23.5)
<b>Region 4</b>	1,275	13.0	(10.7-15.6)
Barry-Eaton	395	12.0	(7.9-17.7)
Mid-Michigan <sup>b</sup>	387	16.5	(11.7-22.6)
Ingham	629	14.4	(11.3-18.2)
<b>Region 5</b>	1,138	18.9	(15.9-22.3)
Branch-Hillsdale-St. Joseph	355	22.1	(16.6-28.9)
Calhoun	264	13.0	(8.5-19.3)
Kalamazoo	519	19.8	(15.4-25.0)
<b>Region 6</b>	711	18.3	(14.4-22.9)
Van Buren-Cass	302	24.3	(17.7-32.5)
Berrien	409	13.3	(9.5-18.3)
<b>Region 7</b>	2,613	15.1	(13.2-17.1)
Allegan	269	15.7	(10.5-22.8)
Ionia	129	15.2	(8.4-25.9)
Kent	1,460	14.0	(11.7-16.7)
Mid-Michigan <sup>b</sup>	387	16.5	(11.7-22.6)
Ottawa	619	14.1	(10.7-18.2)

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<b>Table 7 Cont'd</b>			
<b>Geographic Area</b>	<b>No Health Care Coverage<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>22,598</b>	<b>17.4</b>	<b>(16.7-18.2)</b>
<b>Region 8</b>	991	17.2	(14.4-20.5)
District #10	575	19.9	(16.0-24.5)
Muskegon	416	13.4	(9.8-18.1)
<b>Region 9</b>	1,525	22.1	(19.0-25.6)
District #2	197	33.0	(24.3-43.0)
District #4	365	19.0	(13.3-26.5)
Northwest Michigan	502	20.5	(15.2-27.0)
Benzie-Leelanau	162	17.7	(11.4-26.4)
Grand Traverse	299	19.8	(14.4-26.5)
<b>Region 10</b>	867	19.4	(16.0-23.4)
Bay	171	16.9	(10.8-25.5)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	455	15.8	(11.4-21.5)
Sanilac	75	33.2	(21.6-47.4)
Tuscola	112	24.0	(15.5-35.3)
<b>Region 11</b>	748	17.4	(13.9-21.6)
Central Michigan	539	17.9	(13.7-23.0)
Midland	209	16.3	(10.5-24.6)
<b>Region 12</b>	2,032	17.4	(14.5-20.8)
Luce-Mackinac-Alger-Schoolcraft	418	19.9	(12.7-29.8)
Western Upper Peninsula	308	18.5	(12.3-26.9)
Delta-Menominee	347	25.0	(17.6-34.1)
Chippewa	420	13.3	(9.3-18.7)
Dickinson-Iron	124	9.6	(5.3-16.8)
Marquette	415	12.6	(7.6-20.3)

<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.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.  
<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

<b>Table 8: Health Care Access Michigan BRFSS, 2011-2013 Combined</b>						
<b>Geographic Area</b>	<b>No Personal Health Care Provider<sup>a</sup></b>			<b>No Health Care Access During Past 12 Months Due to Cost<sup>b</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,165</b>	<b>16.1</b>	<b>(15.5-16.7)</b>	<b>34,249</b>	<b>15.7</b>	<b>(15.1-16.3)</b>
<b>Region 1</b>	13,089	17.0	(16.1-18.0)	13,130	15.9	(15.0-16.9)
Livingston	469	13.3	(9.7-18.0)	474	12.8	(8.8-18.2)
Macomb	1,865	13.8	(11.6-16.2)	1,869	16.3	(14.1-18.8)
Monroe	380	12.4	(8.3-18.0)	381	12.5	(8.1-18.8)
Oakland	3,019	15.0	(13.2-17.0)	3,032	14.1	(12.3-16.0)
St. Clair	459	11.6	(7.9-16.8)	460	13.4	(9.3-18.9)
Washtenaw	980	15.7	(12.6-19.3)	983	12.5	(9.9-15.8)
City of Detroit	2,538	24.4	(21.6-27.4)	2,545	24.7	(22.0-27.8)
Wayne exc. Detroit	3,128	15.7	(13.8-17.9)	3,133	14.1	(12.3-16.0)
<b>Region 2</b>	1,578	15.3	(12.8-18.1)	1,583	18.1	(15.7-20.9)
Genesee	1,159	16.3	(13.3-19.8)	1,163	18.7	(15.7-22.1)
Lapeer	220	11.8	(7.3-18.5)	221	16.3	(11.0-23.3)
Shiawassee	199	14.1	(8.4-22.8)	199	17.4	(11.6-25.2)
<b>Region 3</b>	855	12.7	(10.0-16.1)	857	13.2	(10.4-16.6)
Jackson	491	11.1	(8.1-15.0)	493	14.6	(10.9-19.3)
Lenawee	364	15.5	(10.5-22.3)	364	10.7	(7.1-15.8)
<b>Region 4</b>	1,881	15.2	(13.0-17.7)	1,882	14.7	(12.6-17.1)
Barry-Eaton	581	13.4	(9.6-18.5)	582	15.2	(11.3-20.1)
Mid-Michigan <sup>c</sup>	601	10.9	(7.4-15.7)	602	14.7	(11.0-19.4)
Ingham	916	18.5	(15.2-22.2)	916	15.6	(12.5-19.2)
<b>Region 5</b>	1,712	19.3	(16.7-22.2)	1,716	15.2	(12.9-17.8)
Branch-Hillsdale-St. Joseph	528	22.0	(17.4-27.5)	528	18.8	(14.3-24.3)
Calhoun	408	19.3	(14.1-25.8)	408	14.6	(10.1-20.6)
Kalamazoo	776	17.2	(13.8-21.4)	780	12.8	(10.2-15.9)
<b>Region 6</b>	1,096	17.5	(14.1-21.4)	1,100	16.2	(13.4-19.5)
Van Buren-Cass	457	15.4	(11.3-20.7)	458	17.1	(12.9-22.3)
Berrien	639	19.1	(14.4-25.0)	642	15.5	(11.9-20.0)

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Table 8 Cont'd						
Geographic Area	No Personal Health Care Provider <sup>a</sup>			No Health Care Access During Past 12 Months Due to Cost <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>34,165</b>	<b>16.1</b>	<b>(15.5-16.7)</b>	<b>34,249</b>	<b>15.7</b>	<b>(15.1-16.3)</b>
<b>Region 7</b>	3,793	13.7	(12.0-15.6)	3,796	13.8	(12.3-15.5)
Allegan	397	13.8	(9.2-20.1)	398	14.7	(10.7-19.9)
Ionia	194	15.7	(9.6-24.8)	194	15.9	(10.1-24.1)
Kent	2,066	13.5	(11.2-16.1)	2,066	13.6	(11.6-15.9)
Mid-Michigan <sup>c</sup>	601	10.9	(7.4-15.7)	602	14.7	(11.0-19.4)
Ottawa	919	13.9	(10.6-18.0)	920	11.8	(9.2-15.0)
<b>Region 8</b>	1,530	13.2	(10.8-16.0)	1,534	18.9	(16.1-21.9)
District #10	911	15.7	(12.3-19.8)	916	21.5	(17.8-25.8)
Muskegon	619	9.6	(6.9-13.3)	618	14.8	(11.3-19.2)
<b>Region 9</b>	2,449	16.2	(13.7-19.0)	2,450	15.2	(13.0-17.7)
District #2	352	21.0	(15.1-28.5)	351	16.5	(11.4-23.2)
District #4	592	16.3	(11.1-23.2)	593	19.3	(14.3-25.6)
Northwest Michigan	803	15.5	(11.0-21.4)	803	13.1	(9.6-17.6)
Benzie-Leelanau	300	11.1	(6.5-18.4)	298	11.8	(6.6-20.4)
Grand Traverse	402	15.0	(10.8-20.6)	405	13.9	(9.7-19.4)
<b>Region 10</b>	1,295	13.6	(11.1-16.6)	1,300	15.0	(12.6-17.8)
Bay	234	15.6	(10.2-23.2)	236	13.8	(9.0-20.8)
Huron	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Saginaw	690	12.3	(9.1-16.5)	693	17.7	(13.9-22.2)
Sanilac	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Tuscola	154	14.8	(8.6-24.2)	154	15.8	(10.1-23.9)
<b>Region 11</b>	1,195	16.9	(14.0-20.3)	1,198	17.0	(14.1-20.4)
Central Michigan	879	17.0	(13.6-21.1)	880	17.4	(14.0-21.4)
Midland	316	16.6	(11.5-23.3)	318	16.1	(10.9-23.0)
<b>Region 12</b>	3,309	14.1	(11.7-17.0)	3,313	13.4	(11.2-15.9)
Luce-Mackinac-Alger-Schoolcraft	718	16.7	(11.0-24.6)	719	19.6	(12.6-29.3)
Western Upper Peninsula	499	13.8	(9.5-19.7)	499	13.7	(8.9-20.5)
Delta-Menominee	558	22.8	(15.3-32.6)	559	17.5	(12.6-23.9)
Chippewa	685	11.5	(8.1-16.1)	687	14.2	(9.9-19.9)
Dickinson-Iron	215	7.7	(4.3-13.4)	214	12.8	(7.8-20.3)
Marquette	634	8.5	(5.5-12.9)	635	4.3	(3.0-6.1)

<sup>a</sup> The proportion of adults who reported that they did not have anyone that they thought of as their personal doctor or health care provider.

<sup>b</sup> The proportion of adults who reported that in the past 12 months there was a time when they needed to see a doctor but could not due to the cost.

<sup>c</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 9: No Leisure Time Physical Activity Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>No Leisure Time Physical Activity<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,476</b>	<b>23.8</b>	<b>(23.1-24.4)</b>
<b>Region 1</b>	12,836	23.3	(22.2-24.3)
Livingston	468	16.5	(12.9-20.9)
Macomb	1,823	22.1	(19.9-24.6)
Monroe	375	23.0	(17.7-29.4)
Oakland	2,968	20.6	(18.7-22.7)
St. Clair	452	21.9	(17.4-27.3)
Washtenaw	961	17.3	(14.1-21.0)
City of Detroit	2,470	34.2	(31.1-37.6)
Wayne exc. Detroit	3,072	23.0	(21.0-25.2)
<b>Region 2</b>	1,549	25.1	(22.4-28.1)
Genesee	1,137	27.4	(24.0-31.1)
Lapeer	217	20.9	(14.9-28.5)
Shiawassee	195	18.1	(12.6-25.4)
<b>Region 3</b>	842	23.2	(19.6-27.2)
Jackson	480	19.3	(15.5-23.8)
Lenawee	362	29.9	(23.3-37.4)
<b>Region 4</b>	1,849	22.9	(20.5-25.6)
Barry-Eaton	566	23.4	(19.2-28.1)
Mid-Michigan <sup>b</sup>	597	27.2	(22.7-32.3)
Ingham	901	20.7	(17.3-24.5)
<b>Region 5</b>	1,672	26.3	(23.5-29.3)
Branch-Hillsdale-St. Joseph	516	29.8	(25.0-35.1)
Calhoun	397	29.5	(23.2-36.6)
Kalamazoo	759	21.6	(18.0-25.8)
<b>Region 6</b>	1,078	29.0	(25.3-33.1)
Van Buren-Cass	447	24.6	(19.7-30.3)
Berrien	631	32.6	(27.4-38.3)
<b>Region 7</b>	3,725	21.1	(19.3-23.0)
Allegan	392	27.2	(21.4-33.9)
Ionia	188	20.2	(14.1-27.9)
Kent	2,027	19.3	(17.0-21.7)
Mid-Michigan <sup>b</sup>	597	27.2	(22.7-32.3)
Ottawa	903	21.0	(17.4-25.0)

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<b>Table 9 Cont'd</b>			
<b>Geographic Area</b>	<b>No Leisure Time Physical Activity<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,476</b>	<b>23.8</b>	<b>(23.1-24.4)</b>
<b>Region 8</b>	1,507	25.4	(22.5-28.5)
District #10	894	25.0	(21.3-29.1)
Muskegon	613	25.9	(21.5-30.8)
<b>Region 9</b>	2,402	23.3	(20.8-26.0)
District #2	344	23.8	(18.7-29.9)
District #4	581	27.0	(21.2-33.6)
Northwest Michigan	789	21.3	(16.8-26.5)
Benzie-Leelanau	293	22.0	(15.3-30.5)
Grand Traverse	395	21.7	(16.9-27.4)
<b>Region 10</b>	1,269	25.8	(22.8-29.1)
Bay	230	25.0	(18.7-32.7)
Huron	98	40.2	(28.5-53.1)
Saginaw	677	23.0	(19.0-27.6)
Sanilac	113	20.8	(12.9-31.7)
Tuscola	151	31.1	(23.3-40.2)
<b>Region 11</b>	1,180	26.5	(23.2-30.1)
Central Michigan	866	27.5	(23.5-31.9)
Midland	314	24.0	(18.4-30.7)
<b>Region 12</b>	3,239	22.4	(20.0-25.1)
Luce-Mackinac-Alger-Schoolcraft	708	19.2	(15.0-24.3)
Western Upper Peninsula	482	22.5	(17.3-28.7)
Delta-Menominee	542	29.9	(23.1-37.7)
Chippewa	674	28.2	(22.9-34.3)
Dickinson-Iron	212	17.4	(11.8-25.0)
Marquette	621	16.1	(11.6-22.1)

<sup>a</sup> The proportion of adults who reported not participating in any leisure time physical activities or exercises such as running, calisthenics, golf, gardening, or walking during the past month.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

<b>Table 10: Adequate Physical Activity Michigan BRFSS, 2011 and 2013 Combined</b>			
<b>Geographic Area</b>	<b>Adequate Physical Activity<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>22,107</b>	<b>19.6</b>	<b>(18.9-20.4)</b>
<b>Region 1</b>	7,683	20.7	(19.5-21.9)
Livingston	307	27.8	(21.7-34.8)
Macomb	1,167	19.4	(16.6-22.5)
Monroe	235	15.3	(10.7-21.3)
Oakland	1,740	21.8	(19.4-24.4)
St. Clair	276	19.3	(13.5-26.8)
Washtenaw	592	24.8	(20.7-29.4)
City of Detroit	1,265	19.1	(15.8-23.0)
Wayne exc. Detroit	1,967	19.7	(17.4-22.2)
<b>Region 2</b>	886	17.6	(14.6-21.0)
Genesee	637	16.1	(12.8-19.9)
Lapeer	125	19.6	(12.6-29.2)
Shiawassee	124	22.8	(14.2-34.4)
<b>Region 3</b>	566	17.7	(13.8-22.6)
Jackson	297	19.0	(13.9-25.6)
Lenawee	269	15.6	(10.1-23.2)
<b>Region 4</b>	1,236	23.1	(20.0-26.4)
Barry-Eaton	384	24.5	(18.9-31.2)
Mid-Michigan <sup>b</sup>	384	17.1	(12.9-22.3)
Ingham	604	23.6	(19.4-28.4)
<b>Region 5</b>	1,059	20.3	(17.2-23.7)
Branch-Hillsdale-St. Joseph	323	15.3	(10.5-21.7)
Calhoun	253	23.0	(16.9-30.6)
Kalamazoo	483	22.7	(18.1-28.0)
<b>Region 6</b>	690	13.2	(10.2-16.9)
Van Buren-Cass	306	15.0	(10.2-21.5)
Berrien	384	11.7	(8.3-16.3)
<b>Region 7</b>	2,653	18.7	(16.6-21.1)
Allegan	288	17.2	(11.8-24.4)
Ionia	112	21.1	(11.3-36.0)
Kent	1,471	17.1	(14.4-20.2)
Mid-Michigan <sup>b</sup>	384	17.1	(12.9-22.3)
Ottawa	646	24.4	(19.6-29.8)



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<b>Table 10 Cont'd</b>			
<b>Geographic Area</b>	<b>Adequate Physical Activity<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>22,107</b>	<b>19.6</b>	<b>(18.9-20.4)</b>
<b>Region 8</b>	935	18.0	(14.9-21.7)
District #10	574	18.1	(14.3-22.6)
Muskegon	361	18.0	(12.9-24.4)
<b>Region 9</b>	1,826	21.9	(18.9-25.1)
District #2	224	24.5	(17.2-33.5)
District #4	458	18.1	(12.8-25.0)
Northwest Michigan	637	19.1	(15.0-24.1)
Benzie-Leelanau	218	28.2	(18.7-40.1)
Grand Traverse	289	24.0	(17.7-31.6)
<b>Region 10</b>	783	17.4	(14.3-21.1)
Bay	148	12.6	(7.7-20.0)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	411	22.7	(17.5-28.9)
Sanilac	68	16.1	(8.6-28.0)
Tuscola	94	12.8	(6.9-22.4)
<b>Region 11</b>	838	16.3	(13.2-20.1)
Central Michigan	629	15.2	(11.6-19.5)
Midland	209	19.2	(13.1-27.2)
<b>Region 12</b>	2,745	18.5	(16.1-21.3)
Luce-Mackinac-Alger-Schoolcraft	637	14.6	(11.0-19.0)
Western Upper Peninsula	387	20.1	(14.8-26.6)
Delta-Menominee	447	11.6	(7.9-16.7)
Chippewa	606	16.2	(12.5-20.8)
Dickinson-Iron	152	28.9	(18.5-42.3)
Marquette	516	23.1	(17.3-30.2)

<sup>a</sup> 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.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

**Table 11: Fruit and Vegetable Consumption  
Michigan BRFSS, 2011 and 2013 Combined**

Geographic Area	Sample Size	Fruits (< 1 time / day) <sup>a</sup>		Vegetables (< 1 time / day) <sup>b</sup>		Fruits and Vegetables (≥ 5 times / day) <sup>c</sup>	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>23,083</b>	<b>37.5</b>	<b>(36.6-38.4)</b>	<b>23.9</b>	<b>(23.1-24.8)</b>	<b>16.6</b>	<b>(15.9-17.3)</b>
<b>Region 1</b>	8,052	35.8	(34.4-37.3)	23.4	(22.1-24.8)	18.3	(17.2-19.5)
Livingston	316	35.0	(28.6-42.0)	20.1	(14.8-26.6)	19.6	(14.4-26.3)
Macomb	1,228	35.5	(32.0-39.1)	23.5	(20.6-26.8)	17.3	(14.8-20.2)
Monroe	245	47.1	(39.0-55.4)	22.0	(15.3-30.6)	16.7	(11.7-23.2)
Oakland	1,822	33.6	(30.7-36.6)	19.9	(17.5-22.6)	20.6	(18.3-23.0)
St. Clair	292	45.3	(37.1-53.8)	22.3	(15.8-30.4)	14.9	(10.3-21.1)
Washtenaw	613	31.3	(26.5-36.5)	15.5	(11.8-20.1)	22.4	(18.2-27.2)
City of Detroit	1,332	40.3	(36.1-44.6)	31.6	(27.8-35.7)	18.3	(15.2-21.7)
Wayne exc. Detroit	2,063	35.0	(32.0-38.1)	25.8	(22.9-28.9)	15.8	(13.8-18.2)
<b>Region 2</b>	928	37.0	(33.1-41.1)	24.0	(20.4-28.0)	15.7	(12.9-19.0)
Genesee	666	39.1	(34.4-44.0)	24.1	(20.1-28.6)	16.0	(12.6-20.1)
Lapeer	133	25.3	(17.1-35.8)	-- <sup>d</sup>	-- <sup>d</sup>	18.4	(11.7-27.7)
Shiawassee	129	38.8	(28.9-49.8)	29.8	(20.1-41.8)	11.5	(6.7-19.1)
<b>Region 3</b>	590	44.9	(39.4-50.5)	25.8	(21.2-31.1)	13.1	(9.5-17.9)
Jackson	314	43.6	(36.6-50.8)	28.4	(22.2-35.5)	13.5	(9.3-19.3)
Lenawee	276	47.1	(38.2-56.1)	21.4	(15.4-29.0)	12.4	(6.6-22.3)
<b>Region 4</b>	1,273	40.3	(36.7-44.0)	25.8	(22.6-29.3)	16.3	(13.7-19.3)
Barry-Eaton	395	38.4	(32.0-45.3)	26.4	(20.6-33.0)	14.0	(9.9-19.4)
Mid-Michigan <sup>d</sup>	399	35.3	(29.4-41.6)	25.9	(20.1-32.6)	16.5	(12.4-21.5)
Ingham	624	41.8	(36.7-47.2)	25.2	(20.8-30.2)	17.6	(13.8-22.2)
<b>Region 5</b>	1,091	42.2	(38.2-46.3)	24.8	(21.5-28.5)	15.3	(12.6-18.4)
Branch-Hillsdale-St. Joseph	332	47.1	(39.9-54.3)	25.4	(19.6-32.1)	11.6	(7.9-16.6)
Calhoun	263	46.6	(38.5-54.9)	25.1	(18.5-33.1)	14.6	(9.9-20.9)
Kalamazoo	496	36.0	(30.5-41.9)	24.3	(19.4-29.9)	18.6	(14.1-24.2)
<b>Region 6</b>	721	39.9	(35.0-45.0)	21.1	(17.2-25.6)	19.1	(15.1-23.9)
Van Buren-Cass	318	36.9	(30.0-44.5)	21.8	(16.1-28.9)	17.6	(11.8-25.4)
Berrien	403	42.2	(35.5-49.2)	20.5	(15.6-26.5)	20.3	(15.2-26.7)
<b>Region 7</b>	2,738	36.7	(34.1-39.5)	24.9	(22.4-27.6)	14.6	(12.7-16.7)
Allegan	291	43.7	(35.9-51.9)	32.5	(25.0-41.0)	10.3	(7.2-14.6)
Ionia	120	55.4	(43.4-66.8)	30.9	(21.3-42.6)	-- <sup>d</sup>	-- <sup>d</sup>
Kent	1,510	36.8	(33.1-40.6)	25.6	(22.2-29.3)	14.6	(12.2-17.4)
Mid-Michigan <sup>d</sup>	399	35.3	(29.4-41.6)	25.9	(20.1-32.6)	16.5	(12.4-21.5)
Ottawa	672	31.8	(26.8-37.1)	18.4	(14.3-23.4)	17.7	(13.2-23.3)

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Table 11 Cont'd							
Geographic Area	Sample Size	Fruits (< 1 time / day) <sup>a</sup>		Vegetables (< 1 time / day) <sup>b</sup>		Fruits and Vegetables (≥ 5 times / day) <sup>c</sup>	
	N	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>23,083</b>	<b>37.5</b>	<b>(36.6-38.4)</b>	<b>23.9</b>	<b>(23.1-24.8)</b>	<b>16.6</b>	<b>(15.9-17.3)</b>
<b>Region 8</b>	978	41.6	(37.4-45.9)	26.2	(22.4-30.3)	11.7	(9.5-14.4)
District #10	602	38.8	(33.5-44.4)	23.3	(18.7-28.7)	11.5	(8.9-14.8)
Muskegon	376	45.6	(39.0-52.5)	30.5	(24.5-37.3)	12.1	(8.4-17.0)
<b>Region 9</b>	1,909	32.2	(28.9-35.7)	16.9	(14.4-19.8)	19.6	(16.7-22.8)
District #2	240	37.5	(29.2-46.7)	21.4	(14.8-29.9)	16.2	(11.0-23.4)
District #4	478	31.4	(24.9-38.7)	20.6	(15.1-27.4)	22.0	(15.2-30.8)
Northwest Michigan	666	34.2	(28.1-40.8)	12.3	(8.9-16.7)	20.0	(15.5-25.3)
Benzie-Leelanau	227	28.0	(18.9-39.3)	14.6	(8.3-24.4)	18.4	(10.6-29.9)
Grand Traverse	298	27.6	(21.4-34.8)	15.6	(10.7-22.2)	20.0	(14.2-27.5)
<b>Region 10</b>	818	41.0	(36.6-45.5)	29.6	(25.4-34.1)	13.8	(11.0-17.1)
Bay	152	43.8	(33.6-54.6)	31.9	(22.1-43.6)	11.4	(6.6-19.0)
Huron	65	30.9	(19.4-45.4)	22.2	(12.8-35.7)	-- <sup>d</sup>	-- <sup>d</sup>
Saginaw	432	39.5	(33.4-45.9)	29.0	(23.3-35.6)	15.1	(11.2-20.1)
Sanilac	72	48.3	(34.2-62.7)	26.9	(16.5-40.7)	-- <sup>d</sup>	-- <sup>d</sup>
Tuscola	97	42.7	(31.3-55.0)	34.1	(23.2-47.0)	-- <sup>d</sup>	-- <sup>d</sup>
<b>Region 11</b>	877	39.4	(34.5-44.5)	23.6	(19.8-27.8)	14.5	(11.7-17.9)
Central Michigan	657	42.3	(36.5-48.4)	24.6	(20.0-29.7)	11.2	(8.4-14.7)
Midland	220	32.1	(24.2-41.3)	21.3	(15.1-29.1)	22.7	(16.2-30.8)
<b>Region 12</b>	2,862	35.6	(32.6-38.7)	22.2	(19.3-25.2)	13.2	(11.4-15.3)
Luce-Mackinac-Alger-Schoolcraft	668	36.2	(30.6-42.2)	19.9	(15.2-25.6)	13.0	(10.2-16.4)
Western Upper Peninsula	397	36.4	(29.2-44.3)	16.2	(11.8-21.8)	14.4	(10.4-19.8)
Delta-Menominee	467	41.8	(33.9-50.2)	31.3	(23.1-40.9)	9.5	(6.7-13.4)
Chippewa	632	42.2	(36.2-48.4)	22.2	(16.9-28.7)	12.5	(9.9-15.7)
Dickinson-Iron	155	31.3	(22.1-42.3)	22.7	(14.2-34.4)	15.0	(7.9-26.8)
Marquette	543	26.4	(21.1-32.5)	20.8	(15.3-27.7)	15.3	(11.1-20.7)

<sup>a</sup> The proportion whose total reported consumption of fruits (including juice) was less than one time per day

<sup>b</sup> The proportion whose total reported consumption of vegetables was less than one time per day.

<sup>c</sup> The proportion whose total reported consumption of fruits (including juice) and vegetables was five or more times per day.

<sup>d</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

**Table 12: Cigarette Smoking**  
**Michigan BRFSS, 2011-2013 Combined**

Geographic Area	Sample Size	Current Smoking <sup>a</sup>		Former Smoking <sup>b</sup>		Never Smoked	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>33,882</b>	<b>22.7</b>	<b>(22.0-23.4)</b>	<b>26.2</b>	<b>(25.5-26.8)</b>	<b>51.2</b>	<b>(50.4-51.9)</b>
<b>Region 1</b>	12,979	22.5	(21.5-23.7)	25.0	(24.0-26.0)	52.5	(51.3-53.7)
Livingston	469	17.7	(13.1-23.4)	28.1	(23.6-33.2)	54.2	(48.4-59.9)
Macomb	1,856	25.8	(23.2-28.7)	26.5	(24.2-29.0)	47.7	(44.8-50.6)
Monroe	380	27.1	(20.9-34.3)	26.9	(21.8-32.8)	46.0	(39.6-52.4)
Oakland	2,989	19.0	(16.9-21.3)	28.9	(26.9-31.0)	52.1	(49.7-54.4)
St. Clair	458	30.7	(24.7-37.4)	25.6	(21.0-30.9)	43.7	(37.5-50.0)
Washtenaw	972	13.0	(10.1-16.6)	22.2	(19.1-25.5)	64.9	(60.7-68.7)
City of Detroit	2,508	29.7	(26.6-33.0)	17.5	(15.4-19.9)	52.8	(49.5-56.1)
Wayne exc. Detroit	3,098	21.4	(19.3-23.6)	26.0	(24.1-28.1)	52.6	(50.1-55.1)
<b>Region 2</b>	1,564	26.9	(23.9-30.2)	22.7	(20.3-25.3)	50.4	(47.1-53.7)
Genesee	1,146	26.9	(23.4-30.8)	22.7	(19.9-25.8)	50.4	(46.5-54.3)
Lapeer	221	34.1	(26.0-43.2)	23.5	(17.3-31.0)	42.4	(34.4-50.9)
Shiawassee	197	18.2	(12.3-26.1)	21.8	(15.9-29.3)	59.9	(51.3-67.9)
<b>Region 3</b>	853	21.9	(18.2-26.1)	27.9	(24.2-32.0)	50.2	(45.7-54.7)
Jackson	490	22.7	(18.2-27.9)	25.7	(21.3-30.5)	51.7	(46.0-57.2)
Lenawee	363	20.5	(14.5-28.2)	31.9	(25.2-39.3)	47.6	(40.1-55.2)
<b>Region 4</b>	1,858	18.8	(16.5-21.4)	27.7	(25.2-30.3)	53.5	(50.5-56.4)
Barry-Eaton	574	17.2	(13.4-21.8)	33.6	(28.8-38.7)	49.2	(43.8-54.6)
Mid-Michigan <sup>c</sup>	594	24.5	(19.6-30.1)	24.5	(20.6-28.8)	51.1	(45.8-56.4)
Ingham	904	19.5	(16.1-23.4)	24.3	(21.1-27.9)	56.2	(51.9-60.4)
<b>Region 5</b>	1,703	25.3	(22.4-28.5)	24.7	(22.2-27.4)	50.0	(46.8-53.2)
Branch-Hillsdale-St. Joseph	523	27.4	(22.4-33.1)	24.9	(20.5-29.8)	47.7	(42.2-53.3)
Calhoun	408	31.4	(25.0-38.6)	23.9	(18.8-29.8)	44.8	(38.3-51.4)
Kalamazoo	772	20.2	(16.2-24.8)	25.0	(21.4-29.0)	54.8	(50.1-59.5)
<b>Region 6</b>	1,086	26.5	(22.5-31.0)	28.8	(25.4-32.5)	44.6	(40.5-48.9)
Van Buren-Cass	451	29.7	(23.5-36.6)	28.9	(23.9-34.4)	41.4	(35.2-47.9)
Berrien	635	24.0	(18.9-30.0)	28.8	(24.2-33.8)	47.2	(41.7-52.9)
<b>Region 7</b>	3,764	19.2	(17.3-21.2)	25.9	(24.0-27.8)	54.9	(52.7-57.2)
Allegan	395	16.0	(11.8-21.4)	27.8	(22.4-33.9)	56.2	(49.5-62.6)
Ionia	191	20.2	(13.2-29.7)	27.0	(20.0-35.5)	52.8	(43.5-61.9)
Kent	2,050	18.3	(15.9-21.0)	27.3	(24.6-30.0)	54.4	(51.3-57.5)
Mid-Michigan <sup>c</sup>	594	24.5	(19.6-30.1)	24.5	(20.6-28.8)	51.1	(45.8-56.4)
Ottawa	914	18.2	(14.5-22.7)	23.3	(19.7-27.4)	58.4	(53.7-63.1)

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Table 12 Cont'd							
Geographic Area	Sample Size	Current Smoking <sup>a</sup>		Former Smoking <sup>b</sup>		Never Smoked	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>33,882</b>	<b>22.7</b>	<b>(22.0-23.4)</b>	<b>26.2</b>	<b>(25.5-26.8)</b>	<b>51.2</b>	<b>(50.4-51.9)</b>
<b>Region 8</b>	1,520	26.5	(23.4-30.0)	28.7	(25.9-31.7)	44.7	(41.4-48.1)
District #10	906	26.9	(22.9-31.4)	28.9	(25.4-32.7)	44.2	(40.0-48.5)
Muskegon	614	26.0	(21.1-31.6)	28.5	(24.0-33.4)	45.6	(40.3-50.9)
<b>Region 9</b>	2,435	23.3	(20.5-26.4)	30.5	(27.9-33.3)	46.2	(43.1-49.3)
District #2	345	26.4	(20.4-33.4)	28.1	(22.4-34.6)	45.5	(38.6-52.5)
District #4	588	27.5	(21.3-34.8)	33.0	(27.3-39.2)	39.5	(32.9-46.5)
Northwest Michigan	800	24.3	(18.7-30.9)	32.9	(27.8-38.4)	42.8	(37.1-48.8)
Benzie-Leelanau	299	16.6	(10.7-24.8)	31.9	(24.7-40.1)	51.5	(42.7-60.2)
Grand Traverse	403	17.8	(13.3-23.5)	25.9	(20.8-31.8)	56.3	(49.8-62.5)
<b>Region 10</b>	1,286	22.4	(19.5-25.7)	26.5	(23.5-29.6)	51.1	(47.5-54.7)
Bay	234	24.0	(17.0-32.8)	24.4	(18.6-31.3)	51.6	(43.4-59.8)
Huron	97	28.5	(18.6-41.0)	26.4	(17.1-38.4)	45.1	(33.4-57.5)
Saginaw	689	19.4	(15.7-23.8)	28.2	(23.8-33.0)	52.4	(47.2-57.5)
Sanilac	114	21.9	(13.6-33.3)	25.4	(17.3-35.8)	52.7	(41.3-63.8)
Tuscola	152	26.7	(19.3-35.7)	24.7	(17.8-33.3)	48.6	(39.3-58.0)
<b>Region 11</b>	1,193	22.5	(19.2-26.1)	30.7	(27.1-34.5)	46.9	(42.9-50.8)
Central Michigan	876	24.1	(20.2-28.5)	31.3	(27.0-36.0)	44.6	(39.9-49.3)
Midland	317	18.4	(13.0-25.4)	29.0	(22.8-36.1)	52.6	(45.3-59.7)
<b>Region 12</b>	3,288	21.6	(18.9-24.7)	30.2	(27.6-32.9)	48.2	(45.0-51.3)
Luce-Mackinac-Alger-Schoolcraft	715	24.0	(16.7-33.1)	33.3	(26.5-40.8)	42.7	(35.6-50.2)
Western Upper Peninsula	492	22.1	(15.9-29.8)	30.5	(25.0-36.6)	47.4	(40.5-54.4)
Delta-Menominee	556	23.9	(17.8-31.4)	25.1	(20.0-30.9)	51.0	(43.2-58.8)
Chippewa	683	17.5	(12.9-23.3)	33.4	(27.7-39.6)	49.1	(42.3-55.9)
Dickinson-Iron	213	19.7	(12.7-29.2)	36.9	(28.2-46.6)	43.4	(34.5-52.7)
Marquette	629	20.6	(15.1-27.6)	27.4	(22.4-33.1)	51.9	(45.2-58.6)

<sup>a</sup> The proportion of adults who reported that they had ever smoked at least 100 cigarettes (five packs) in their life and that they smoke cigarettes now, either every day or on some days.

<sup>b</sup> The proportion of adults who reported that they had ever smoked at least 100 cigarettes (five packs) in their life, but they do not smoke cigarettes now.

<sup>c</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

**Table 13: Alcohol Consumption**  
**Michigan BRFSS, 2011-2013 Combined**

Geographic Area	Sample Size	Any Alcohol in Past Month <sup>a</sup>		Heavy Drinking <sup>b</sup>		Binge Drinking <sup>c</sup>	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>33,405</b>	<b>56.9</b>	<b>(56.1-57.6)</b>	<b>6.4</b>	<b>(6.1-6.9)</b>	<b>19.2</b>	<b>(18.6-19.9)</b>
<b>Region 1</b>	12,802	58.9	(57.7-60.1)	6.1	(5.6-6.7)	19.4	(18.5-20.5)
Livingston	468	70.3	(64.9-75.1)	8.2	(5.4-12.1)	22.3	(17.7-27.9)
Macomb	1,830	59.9	(56.9-62.8)	7.0	(5.5-8.8)	21.7	(19.2-24.4)
Monroe	375	57.3	(50.6-63.7)	9.6	(6.4-14.2)	18.7	(14.0-24.5)
Oakland	2,942	61.4	(59.0-63.8)	6.4	(5.3-7.8)	18.4	(16.6-20.5)
St. Clair	453	56.3	(49.8-62.6)	8.6	(5.7-12.7)	23.3	(18.4-28.9)
Washtenaw	965	65.9	(61.6-69.9)	6.5	(4.8-8.8)	18.4	(15.2-22.0)
City of Detroit	2,461	51.4	(48.0-54.7)	3.9	(2.8-5.4)	17.6	(15.0-20.6)
Wayne exc. Detroit	3,062	57.1	(54.6-59.5)	5.6	(4.6-6.9)	18.6	(16.7-20.8)
<b>Region 2</b>	1,543	49.9	(46.7-53.2)	5.5	(4.2-7.1)	16.3	(13.9-18.9)
Genesee	1,129	48.3	(44.4-52.3)	5.7	(4.2-7.7)	15.4	(12.8-18.5)
Lapeer	217	52.1	(43.8-60.2)	-- <sup>e</sup>	-- <sup>e</sup>	13.6	(8.8-20.3)
Shiawassee	197	55.8	(47.2-64.0)	-- <sup>e</sup>	-- <sup>e</sup>	24.0	(16.9-32.9)
<b>Region 3</b>	840	54.1	(49.5-58.6)	4.8	(3.3-6.9)	17.6	(14.3-21.5)
Jackson	481	56.1	(50.4-61.6)	5.6	(3.5-8.7)	18.4	(14.2-23.4)
Lenawee	359	50.5	(42.9-58.1)	-- <sup>e</sup>	-- <sup>e</sup>	16.3	(11.3-23.1)
<b>Region 4</b>	1,841	57.1	(54.2-60.1)	6.4	(5.0-8.0)	21.2	(18.8-23.8)
Barry-Eaton	569	52.9	(47.5-58.3)	5.8	(3.7-8.9)	16.8	(13.0-21.4)
Mid-Michigan <sup>d</sup>	587	56.4	(51.0-61.6)	5.8	(3.3-10.0)	20.5	(16.2-25.6)
Ingham	896	58.8	(54.6-63.0)	7.1	(5.1-9.8)	24.1	(20.5-28.2)
<b>Region 5</b>	1,677	52.8	(49.6-56.0)	5.9	(4.6-7.6)	18.9	(16.3-21.9)
Branch-Hillsdale-St. Joseph	518	49.0	(43.5-54.6)	6.0	(3.7-9.8)	18.9	(14.8-23.9)
Calhoun	402	48.1	(41.4-54.9)	7.1	(4.3-11.4)	18.5	(13.2-25.4)
Kalamazoo	757	58.5	(53.7-63.2)	5.1	(3.6-7.3)	19.1	(15.2-23.7)
<b>Region 6</b>	1,069	48.7	(44.4-53.0)	5.6	(4.1-7.8)	15.6	(12.7-18.9)
Van Buren-Cass	444	47.6	(41.1-54.1)	5.5	(3.4-8.9)	15.9	(11.7-21.1)
Berrien	625	49.7	(44.0-55.4)	5.8	(3.7-8.9)	15.4	(11.7-19.9)
<b>Region 7</b>	3,725	60.1	(57.8-62.3)	7.0	(5.7-8.6)	20.0	(18.1-22.1)
Allegan	391	54.4	(47.6-61.0)	5.7	(3.3-9.6)	18.5	(13.6-24.7)
Ionia	186	50.3	(41.0-59.6)	-- <sup>e</sup>	-- <sup>e</sup>	17.1	(10.3-27.0)
Kent	2,025	62.2	(59.0-65.2)	7.5	(5.6-10.0)	20.3	(17.6-23.2)
Mid-Michigan <sup>d</sup>	587	56.4	(51.0-61.6)	5.8	(3.3-10.0)	20.5	(16.2-25.6)
Ottawa	912	63.0	(58.2-67.6)	7.0	(5.0-9.7)	20.8	(17.1-25.0)

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Table 13 Cont'd							
Geographic Area	Sample Size	Any Alcohol in Past Month <sup>a</sup>		Heavy Drinking <sup>b</sup>		Binge Drinking <sup>c</sup>	
	N	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>33,405</b>	<b>56.9</b>	<b>(56.1-57.6)</b>	<b>6.4</b>	<b>(6.1-6.9)</b>	<b>19.2</b>	<b>(18.6-19.9)</b>
<b>Region 8</b>	1,502	51.0	(47.6-54.4)	7.0	(5.2-9.3)	18.1	(15.4-21.1)
District #10	893	48.4	(44.1-52.8)	6.9	(5.0-9.6)	17.7	(14.4-21.6)
Muskegon	609	54.9	(49.5-60.2)	7.1	(4.2-11.8)	18.6	(14.4-23.6)
<b>Region 9</b>	2,405	59.3	(56.2-62.4)	8.4	(6.8-10.5)	18.1	(15.8-20.7)
District #2	344	52.5	(45.5-59.5)	7.0	(4.2-11.3)	17.2	(12.2-23.7)
District #4	580	53.7	(46.6-60.6)	5.6	(3.5-9.0)	13.5	(10.1-17.7)
Northwest Michigan	786	63.2	(57.2-68.8)	10.5	(6.7-16.0)	19.2	(14.3-25.3)
Benzie-Leelanau	295	59.9	(50.5-68.7)	7.7	(4.6-12.6)	18.4	(12.6-26.2)
Grand Traverse	400	67.2	(60.9-72.9)	10.9	(7.1-16.3)	22.8	(17.6-28.9)
<b>Region 10</b>	1,266	55.6	(52.0-59.2)	7.9	(6.1-10.2)	21.5	(18.5-24.8)
Bay	231	54.8	(46.4-63.0)	-- <sup>e</sup>	-- <sup>e</sup>	18.5	(12.8-25.9)
Huron	98	59.6	(47.0-71.0)	-- <sup>e</sup>	-- <sup>e</sup>	24.9	(15.6-37.4)
Saginaw	671	57.7	(52.5-62.8)	9.5	(6.6-13.5)	23.1	(18.5-28.4)
Sanilac	114	46.9	(35.9-58.2)	-- <sup>e</sup>	-- <sup>e</sup>	21.1	(13.3-31.7)
Tuscola	152	54.1	(44.7-63.3)	-- <sup>e</sup>	-- <sup>e</sup>	18.7	(12.2-27.4)
<b>Region 11</b>	1,176	53.9	(49.9-57.8)	6.1	(4.6-8.1)	18.0	(15.0-21.3)
Central Michigan	862	54.4	(49.7-59.1)	5.6	(3.9-7.9)	19.5	(15.8-23.8)
Midland	314	52.7	(45.4-59.9)	7.3	(4.5-11.8)	14.2	(10.1-19.7)
<b>Region 12</b>	3,238	59.5	(56.4-62.6)	8.7	(7.1-10.7)	22.7	(20.0-25.7)
Luce-Mackinac-Alger-Schoolcraft	708	64.8	(58.0-71.1)	8.1	(5.6-11.4)	26.9	(19.3-36.0)
Western Upper Peninsula	482	56.9	(49.8-63.8)	12.3	(7.9-18.7)	23.2	(17.5-30.0)
Delta-Menominee	546	59.1	(51.0-66.9)	9.3	(5.8-14.4)	24.5	(18.5-31.7)
Chippewa	667	53.8	(46.9-60.6)	6.8	(4.8-9.7)	20.8	(14.8-28.5)
Dickinson-Iron	211	63.0	(53.4-71.7)	-- <sup>e</sup>	-- <sup>e</sup>	18.9	(11.9-28.7)
Marquette	624	60.1	(53.4-66.5)	8.0	(4.8-13.1)	20.6	(15.2-27.2)

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

<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.

<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.

<sup>d</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 14: Seatbelt Use Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Always Uses a Seatbelt<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,112</b>	<b>88.9</b>	<b>(88.3-89.4)</b>
<b>Region 1</b>	12,665	89.7	(88.9-90.5)
Livingston	463	93.1	(89.7-95.4)
Macomb	1,803	91.1	(89.1-92.7)
Monroe	373	89.6	(84.7-93.1)
Oakland	2,928	88.7	(86.7-90.4)
St. Clair	448	87.9	(81.6-92.2)
Washtenaw	953	90.3	(87.2-92.6)
City of Detroit	2,423	87.3	(84.8-89.5)
Wayne exc. Detroit	3,033	91.3	(89.5-92.7)
<b>Region 2</b>	1,530	88.6	(86.3-90.5)
Genesee	1,121	89.3	(86.6-91.5)
Lapeer	214	86.7	(80.0-91.4)
Shiawassee	195	86.8	(79.3-91.8)
<b>Region 3</b>	837	89.6	(86.3-92.2)
Jackson	476	90.3	(86.0-93.4)
Lenawee	361	88.5	(82.4-92.6)
<b>Region 4</b>	1,837	88.4	(86.1-90.4)
Barry-Eaton	564	87.7	(83.0-91.2)
Mid-Michigan <sup>b</sup>	587	89.8	(86.1-92.6)
Ingham	898	88.5	(85.1-91.3)
<b>Region 5</b>	1,660	87.9	(85.1-90.2)
Branch-Hillsdale-St. Joseph	511	86.4	(81.7-90.0)
Calhoun	397	86.7	(79.7-91.5)
Kalamazoo	752	89.7	(85.4-92.9)
<b>Region 6</b>	1,064	87.1	(83.3-90.1)
Van Buren-Cass	438	91.4	(87.2-94.2)
Berrien	626	83.7	(77.7-88.3)
<b>Region 7</b>	3,690	90.5	(89.1-91.9)
Allegan	391	90.4	(85.6-93.7)
Ionia	183	89.8	(83.6-93.8)
Kent	2,008	90.0	(87.7-91.9)
Mid-Michigan <sup>b</sup>	587	89.8	(86.1-92.6)
Ottawa	896	92.0	(89.3-94.1)



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<b>Table 14 Cont'd</b>			
<b>Geographic Area</b>	<b>Always Uses a Seatbelt<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,112</b>	<b>88.9</b>	<b>(88.3-89.4)</b>
<b>Region 8</b>	1,487	84.2	(81.3-86.8)
District #10	881	82.7	(78.7-86.1)
Muskegon	606	86.4	(81.8-90.0)
<b>Region 9</b>	2,381	89.0	(87.1-90.8)
District #2	338	84.8	(78.8-89.3)
District #4	576	90.9	(87.1-93.7)
Northwest Michigan	784	86.1	(81.7-89.6)
Benzie-Leelanau	292	92.3	(86.9-95.6)
Grand Traverse	391	93.3	(89.5-95.8)
<b>Region 10</b>	1,259	88.9	(86.3-91.1)
Bay	227	91.4	(84.9-95.3)
Huron	97	77.5	(63.6-87.2)
Saginaw	670	90.9	(87.1-93.7)
Sanilac	114	86.3	(77.7-92.0)
Tuscola	151	88.0	(80.4-92.8)
<b>Region 11</b>	1,164	87.8	(84.9-90.3)
Central Michigan	853	86.4	(82.7-89.4)
Midland	311	91.5	(86.4-94.8)
<b>Region 12</b>	3,223	85.5	(83.0-87.8)
Luce-Mackinac-Alger-Schoolcraft	707	80.5	(71.7-87.1)
Western Upper Peninsula	479	84.9	(79.0-89.4)
Delta-Menominee	541	89.9	(84.9-93.3)
Chippewa	666	83.6	(78.1-87.9)
Dickinson-Iron	212	83.9	(73.7-90.7)
Marquette	618	87.2	(81.0-91.7)

<sup>a</sup> The proportion of adults who reported always using a seatbelt when driving or riding in a car.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

<b>Table 15: High Blood Pressure Michigan BRFSS, 2011 and 2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told HBP<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>23,742</b>	<b>34.4</b>	<b>(33.6-35.2)</b>
<b>Region 1</b>	8,302	33.6	(32.3-35.0)
Livingston	321	27.5	(22.1-33.7)
Macomb	1,265	36.2	(33.0-39.5)
Monroe	250	34.5	(27.4-42.4)
Oakland	1,875	31.6	(29.1-34.3)
St. Clair	299	30.2	(24.2-36.9)
Washtenaw	631	27.4	(23.2-32.1)
City of Detroit	1,397	42.9	(39.1-46.9)
Wayne exc. Detroit	2,118	33.0	(30.4-35.7)
<b>Region 2</b>	955	38.5	(34.6-42.4)
Genesee	689	41.1	(36.4-45.9)
Lapeer	136	31.6	(22.8-41.9)
Shiawassee	130	32.6	(24.0-42.6)
<b>Region 3</b>	599	35.0	(30.2-40.1)
Jackson	323	30.1	(24.6-36.4)
Lenawee	276	43.5	(35.1-52.4)
<b>Region 4</b>	1,300	32.1	(29.0-35.4)
Barry-Eaton	408	32.2	(26.6-38.4)
Mid-Michigan <sup>b</sup>	403	39.5	(33.7-45.7)
Ingham	636	29.1	(24.8-33.7)
<b>Region 5</b>	1,127	33.9	(30.4-37.7)
Branch-Hillsdale-St. Joseph	343	39.0	(32.4-46.0)
Calhoun	272	33.0	(26.1-40.9)
Kalamazoo	512	30.5	(25.6-35.9)
<b>Region 6</b>	737	36.5	(32.0-41.2)
Van Buren-Cass	325	30.4	(24.7-36.9)
Berrien	412	41.3	(35.0-47.9)
<b>Region 7</b>	2,799	31.4	(29.1-33.9)
Allegan	297	29.6	(23.0-37.2)
Ionia	125	33.5	(23.9-44.6)
Kent	1,545	31.3	(28.2-34.6)
Mid-Michigan <sup>b</sup>	403	39.5	(33.7-45.7)
Ottawa	685	29.7	(25.2-34.6)

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<b>Table 15 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told HBP<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>23,742</b>	<b>34.4</b>	<b>(33.6-35.2)</b>
<b>Region 8</b>	1,000	40.0	(36.1-44.0)
District #10	618	38.5	(33.7-43.6)
Muskegon	382	42.2	(35.8-48.8)
<b>Region 9</b>	1,958	36.8	(33.5-40.1)
District #2	246	48.7	(40.1-57.4)
District #4	489	40.3	(33.2-47.9)
Northwest Michigan	682	32.4	(27.2-38.2)
Benzie-Leelanau	234	33.2	(24.8-42.7)
Grand Traverse	307	28.6	(22.8-35.2)
<b>Region 10</b>	845	38.1	(34.0-42.5)
Bay	158	39.6	(30.0-50.1)
Huron	65	34.1	(22.5-48.0)
Saginaw	446	36.0	(30.1-42.3)
Sanilac	75	42.2	(29.4-56.1)
Tuscola	101	42.4	(31.4-54.2)
<b>Region 11</b>	892	38.6	(34.1-43.2)
Central Michigan	671	41.0	(35.6-46.6)
Midland	221	32.5	(24.9-41.1)
<b>Region 12</b>	2,931	33.9	(31.2-36.7)
Luce-Mackinac-Alger-Schoolcraft	677	38.2	(32.8-43.9)
Western Upper Peninsula	413	28.5	(23.1-34.6)
Delta-Menominee	481	38.3	(31.2-45.9)
Chippewa	644	42.2	(36.6-48.1)
Dickinson-Iron	159	34.3	(24.8-45.3)
Marquette	557	26.9	(21.8-32.6)

<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.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

**Table 16: Cholesterol Screening and Awareness  
Michigan BRFSS, 2011 and 2013 Combined**

Geographic Area	Cholesterol Ever Checked <sup>a</sup>			Ever Told High Cholesterol <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>23,399</b>	<b>82.1</b>	<b>(81.3-83.0)</b>	<b>20,715</b>	<b>41.2</b>	<b>(40.2-42.1)</b>
<b>Region 1</b>	8,174	82.9	(81.6-84.2)	7,284	40.6	(39.1-42.1)
Livingston	312	87.6	(80.5-92.3)	291	40.6	(34.0-47.6)
Macomb	1,258	82.1	(78.6-85.2)	1,121	43.2	(39.6-46.8)
Monroe	244	87.4	(79.2-92.6)	224	46.8	(38.4-55.3)
Oakland	1,846	87.9	(85.3-90.0)	1,694	40.8	(37.9-43.8)
St. Clair	295	79.9	(70.5-86.8)	259	48.0	(39.9-56.2)
Washtenaw	622	80.4	(74.8-85.0)	546	33.7	(28.8-39.0)
City of Detroit	1,378	79.2	(75.3-82.6)	1,202	38.3	(34.2-42.5)
Wayne exc. Detroit	2,082	81.3	(78.3-84.0)	1,844	41.1	(38.1-44.2)
<b>Region 2</b>	944	83.5	(79.8-86.7)	830	39.7	(35.6-43.9)
Genesee	681	81.1	(76.4-85.0)	589	38.0	(33.2-43.0)
Lapeer	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	123	40.1	(30.1-51.1)
Shiawassee	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	118	47.3	(36.7-58.1)
<b>Region 3</b>	595	84.7	(79.4-88.8)	536	44.0	(38.4-49.7)
Jackson	321	86.3	(80.1-90.8)	290	39.4	(32.6-46.7)
Lenawee	274	81.7	(71.2-89.0)	246	52.7	(43.7-61.6)
<b>Region 4</b>	1,278	80.4	(76.8-83.6)	1,121	40.7	(37.1-44.4)
Barry-Eaton	399	82.0	(73.8-88.0)	365	43.6	(37.3-50.1)
Mid-Michigan <sup>c</sup>	400	83.4	(77.5-88.0)	359	43.7	(37.3-50.4)
Ingham	625	78.0	(73.0-82.3)	528	37.3	(32.2-42.7)
<b>Region 5</b>	1,119	80.3	(76.4-83.6)	973	38.0	(34.1-42.1)
Branch-Hillsdale-St. Joseph	340	77.0	(69.6-83.0)	286	36.1	(29.3-43.5)
Calhoun	268	80.2	(71.1-87.0)	240	47.4	(39.1-55.8)
Kalamazoo	511	82.9	(77.5-87.1)	447	34.1	(28.7-39.9)
<b>Region 6</b>	724	79.3	(74.0-83.8)	629	44.6	(39.5-49.9)
Van Buren-Cass	320	80.0	(71.5-86.5)	278	42.5	(35.1-50.3)
Berrien	404	78.7	(71.6-84.5)	351	46.3	(39.3-53.5)

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Table 16 Cont'd						
Geographic Area	Cholesterol Ever Checked <sup>a</sup>			Ever Told High Cholesterol <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>23,399</b>	<b>82.1</b>	<b>(81.3-83.0)</b>	<b>20,715</b>	<b>41.2</b>	<b>(40.2-42.1)</b>
<b>Region 7</b>	2,765	81.7	(78.9-84.2)	2,455	38.7	(36.0-41.4)
Allegan	295	86.4	(79.6-91.2)	264	40.1	(32.3-48.5)
Ionia	126	79.7	(66.5-88.6)	111	38.2	(27.8-49.7)
Kent	1,519	80.4	(76.4-83.9)	1,342	38.8	(35.1-42.7)
Mid-Michigan <sup>c</sup>	400	83.4	(77.5-88.0)	359	43.7	(37.3-50.4)
Ottawa	679	82.6	(76.5-87.4)	607	36.3	(31.1-41.9)
<b>Region 8</b>	982	81.6	(77.6-85.1)	856	45.5	(41.2-50.0)
District #10	611	81.9	(76.8-86.1)	528	46.8	(41.2-52.5)
Muskegon	371	81.3	(74.3-86.7)	328	43.7	(36.8-50.7)
<b>Region 9</b>	1,926	85.3	(82.1-88.0)	1,725	42.4	(38.8-46.1)
District #2	243	87.5	(79.6-92.7)	223	50.7	(41.4-59.9)
District #4	480	82.0	(73.0-88.5)	427	46.1	(38.3-54.2)
Northwest Michigan	675	89.6	(85.3-92.7)	613	38.6	(32.6-45.1)
Benzie-Leelanau	229	79.1	(66.2-88.0)	197	31.9	(23.3-41.9)
Grand Traverse	299	84.3	(77.1-89.6)	265	41.0	(33.5-48.9)
<b>Region 10</b>	828	80.3	(76.0-84.0)	714	42.5	(37.9-47.2)
Bay	154	81.4	(69.6-89.3)	133	44.1	(34.3-54.5)
Huron	66	74.7	(60.3-85.2)	50	31.9	(17.9-50.1)
Saginaw	437	81.5	(75.5-86.3)	384	42.7	(36.2-49.4)
Sanilac	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	66	38.6	(25.8-53.3)
Tuscola	96	76.9	(63.7-86.4)	81	48.1	(35.3-61.1)
<b>Region 11</b>	880	79.1	(73.9-83.4)	779	49.9	(44.9-54.9)
Central Michigan	662	81.4	(75.2-86.3)	594	52.6	(46.6-58.5)
Midland	218	73.4	(63.2-81.6)	185	42.5	(33.5-52.1)
<b>Region 12</b>	2,890	84.1	(81.1-86.7)	2,588	43.4	(40.2-46.7)
Luce-Mackinac-Alger-Schoolcraft	666	89.1	(85.2-92.1)	601	48.3	(41.6-55.0)
Western Upper Peninsula	407	79.7	(71.4-86.0)	355	40.1	(32.8-47.9)
Delta-Menominee	475	81.8	(73.0-88.1)	427	41.1	(33.6-49.0)
Chippewa	636	87.9	(83.1-91.5)	572	45.7	(39.5-51.9)
Dickinson-Iron	159	80.1	(68.2-88.3)	134	49.9	(37.4-62.3)
Marquette	547	87.0	(80.4-91.6)	499	40.5	(33.5-47.9)

<sup>a</sup> Among all adults, the proportion who reported ever having had their blood cholesterol checked.

<sup>b</sup> Among adults who ever had their blood cholesterol checked, the proportion who reported that a doctor, nurse, or other health professional had told them that their cholesterol was high.

<sup>c</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 17: No Routine Checkup in Past Year Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Had No Routine Checkup in Past Year<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,937</b>	<b>32.4</b>	<b>(31.6-33.1)</b>
<b>Region 1</b>	13,023	30.8	(29.7-32.0)
Livingston	467	33.1	(27.5-39.1)
Macomb	1,853	31.9	(29.1-34.8)
Monroe	375	32.6	(26.3-39.6)
Oakland	3,015	30.5	(28.3-32.8)
St. Clair	453	33.7	(27.9-40.0)
Washtenaw	977	34.2	(30.3-38.3)
City of Detroit	2,526	25.8	(22.9-28.8)
Wayne exc. Detroit	3,106	30.6	(28.3-33.0)
<b>Region 2</b>	1,562	32.8	(29.8-36.0)
Genesee	1,149	32.2	(28.6-36.1)
Lapeer	217	34.2	(26.8-42.5)
Shiawassee	196	34.3	(26.8-42.7)
<b>Region 3</b>	849	33.7	(29.4-38.3)
Jackson	489	29.7	(24.8-35.1)
Lenawee	360	40.7	(33.0-48.8)
<b>Region 4</b>	1,865	32.6	(29.8-35.6)
Barry-Eaton	577	29.1	(23.9-34.9)
Mid-Michigan <sup>b</sup>	595	33.7	(28.9-38.9)
Ingham	909	34.6	(30.6-38.8)
<b>Region 5</b>	1,699	38.1	(35.0-41.3)
Branch-Hillsdale-St. Joseph	519	45.6	(40.0-51.3)
Calhoun	405	33.2	(27.2-39.9)
Kalamazoo	775	35.2	(30.9-39.8)
<b>Region 6</b>	1,087	34.0	(29.9-38.4)
Van Buren-Cass	452	36.3	(30.0-43.0)
Berrien	635	32.2	(26.9-38.1)
<b>Region 7</b>	3,776	33.5	(31.3-35.8)
Allegan	395	36.3	(30.0-43.2)
Ionia	194	37.3	(28.9-46.6)
Kent	2,056	32.1	(29.1-35.3)
Mid-Michigan <sup>b</sup>	595	33.7	(28.9-38.9)
Ottawa	915	34.0	(29.5-38.8)

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<b>Table 17 Cont'd</b>			
<b>Geographic Area</b>	<b>Had No Routine Checkup in Past Year<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,937</b>	<b>32.4</b>	<b>(31.6-33.1)</b>
<b>Region 8</b>	1,527	30.3	(27.3-33.5)
District #10	908	32.9	(29.0-37.2)
Muskegon	619	26.5	(22.0-31.5)
<b>Region 9</b>	2,433	32.6	(29.6-35.8)
District #2	349	36.8	(29.9-44.3)
District #4	586	30.3	(24.2-37.2)
Northwest Michigan	800	31.6	(25.7-38.2)
Benzie-Leelanau	299	33.8	(25.6-43.1)
Grand Traverse	399	31.7	(25.7-38.2)
<b>Region 10</b>	1,276	34.9	(31.4-38.6)
Bay	231	35.6	(27.6-44.4)
Huron	95	42.4	(30.3-55.4)
Saginaw	683	32.5	(27.7-37.6)
Sanilac	116	40.1	(29.2-52.0)
Tuscola	151	33.3	(25.1-42.7)
<b>Region 11</b>	1,183	34.1	(30.3-38.1)
Central Michigan	869	34.0	(29.5-38.9)
Midland	314	34.1	(27.4-41.6)
<b>Region 12</b>	3,281	31.8	(28.8-34.9)
Luce-Mackinac-Alger-Schoolcraft	710	34.6	(27.0-43.2)
Western Upper Peninsula	491	33.4	(27.1-40.4)
Delta-Menominee	554	36.9	(29.3-45.1)
Chippewa	684	30.7	(24.1-38.1)
Dickinson-Iron	211	21.3	(15.2-28.9)
Marquette	631	28.9	(23.0-35.7)

<sup>a</sup> The proportion of adults who reported that they did not have a routine checkup in the past year.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

<b>Table 18: Colorectal Cancer Screening Among Adults 50 Years and Older Michigan BRFS, 2012 and 2013 Combined</b>			
<b>Geographic Area</b>	<b>Had Sigmoidoscopy in Past 5 Years or Colonoscopy in Past 10 Years<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>14,360</b>	<b>67.8</b>	<b>(66.8-68.9)</b>
<b>Region 1</b>	5,552	67.6	(65.8-69.3)
Livingston	210	66.9	(58.8-74.1)
Macomb	842	70.7	(66.4-74.6)
Monroe	189	63.4	(54.7-71.3)
Oakland	1,318	69.8	(66.5-72.9)
St. Clair	217	66.7	(58.2-74.2)
Washtenaw	409	74.8	(69.2-79.7)
City of Detroit	1,026	60.6	(54.8-66.2)
Wayne exc. Detroit	1,316	66.5	(63.0-69.8)
<b>Region 2</b>	713	68.9	(64.2-73.2)
Genesee	534	69.6	(64.2-74.6)
Lapeer	98	67.3	(55.7-77.2)
Shiawassee	81	67.0	(52.4-78.8)
<b>Region 3</b>	357	65.3	(59.1-71.1)
Jackson	221	69.7	(61.7-76.8)
Lenawee	136	58.4	(48.4-67.7)
<b>Region 4</b>	860	72.9	(69.0-76.4)
Barry-Eaton	278	75.4	(68.8-80.9)
Mid-Michigan <sup>b</sup>	279	68.0	(60.9-74.3)
Ingham	407	72.0	(65.9-77.5)
<b>Region 5</b>	817	65.3	(60.9-69.5)
Branch-Hillsdale-St. Joseph	257	57.9	(50.0-65.5)
Calhoun	202	65.4	(56.6-73.3)
Kalamazoo	358	71.6	(64.8-77.5)
<b>Region 6</b>	500	57.2	(51.0-63.2)
Van Buren-Cass	204	56.1	(46.4-65.4)
Berrien	296	58.2	(50.2-65.7)
<b>Region 7</b>	1,436	69.8	(66.5-72.8)
Allegan	145	65.3	(53.7-75.3)
Ionia	95	76.4	(64.0-85.4)
Kent	761	70.1	(65.6-74.2)
Mid-Michigan <sup>b</sup>	279	68.0	(60.9-74.3)
Ottawa	331	71.3	(64.6-77.2)



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<b>Table 18 Cont'd</b>			
<b>Geographic Area</b>	<b>Had Sigmoidoscopy in Past 5 Years or Colonoscopy in Past 10 Years<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>14,360</b>	<b>67.8</b>	<b>(66.8-68.9)</b>
<b>Region 8</b>	773	72.5	(68.5-76.1)
District #10	456	69.4	(64.2-74.2)
Muskegon	317	76.9	(70.6-82.1)
<b>Region 9</b>	999	69.0	(65.1-72.6)
District #2	205	66.1	(56.7-74.5)
District #4	207	67.7	(59.4-75.0)
Northwest Michigan	268	66.5	(58.8-73.5)
Benzie-Leelanau	132	74.9	(64.6-83.1)
Grand Traverse	187	73.5	(64.8-80.8)
<b>Region 10</b>	567	68.8	(63.8-73.5)
Bay	114	65.7	(54.2-75.5)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	280	75.3	(67.8-81.6)
Sanilac	58	53.4	(38.6-67.6)
Tuscola	72	68.9	(55.0-80.0)
<b>Region 11</b>	497	63.9	(58.3-69.2)
Central Michigan	339	61.6	(54.8-67.9)
Midland	158	70.1	(59.7-78.8)
<b>Region 12</b>	1,187	67.1	(63.0-71.0)
Luce-Mackinac-Alger-Schoolcraft	230	79.2	(68.4-87.0)
Western Upper Peninsula	219	69.9	(61.4-77.2)
Delta-Menominee	170	61.5	(51.4-70.7)
Chippewa	238	64.0	(52.6-74.0)
Dickinson-Iron	136	57.2	(46.1-67.6)
Marquette	194	70.8	(60.6-79.3)

<sup>a</sup> Among adults aged 50 years and older, the proportion who had a sigmoidoscopy within the past five years or a colonoscopy within the past ten years.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

**Table 19: Immunizations Among Adults Aged 65 Years and Older  
Michigan BRFSS, 2011-2013 Combined**

Geographic Area	Had Flu Vaccine in Past Year <sup>a</sup>			Ever Had Pneumonia Vaccine <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>10,952</b>	<b>56.7</b>	<b>(55.4-58.0)</b>	<b>10,609</b>	<b>67.5</b>	<b>(66.2-68.7)</b>
<b>Region 1</b>	3,978	54.8	(52.7-56.9)	3,848	65.2	(63.2-67.3)
Livingston	118	59.8	(48.5-70.2)	117	59.2	(47.8-69.7)
Macomb	593	57.4	(52.6-62.1)	578	70.2	(65.6-74.5)
Monroe	132	59.2	(49.3-68.4)	131	64.8	(54.6-73.7)
Oakland	923	57.8	(53.8-61.7)	885	68.5	(64.6-72.2)
St. Clair	134	54.7	(44.5-64.6)	134	64.2	(54.1-73.2)
Washtenaw	270	66.6	(59.4-73.1)	262	81.5	(75.7-86.1)
City of Detroit	803	41.7	(35.8-47.9)	769	50.9	(44.6-57.3)
Wayne exc. Detroit	987	52.6	(48.5-56.8)	955	62.0	(57.6-66.3)
<b>Region 2</b>	487	54.5	(49.0-60.0)	463	64.3	(58.6-69.6)
Genesee	368	55.4	(48.9-61.7)	350	64.3	(57.6-70.5)
Lapeer	58	46.9	(32.4-61.9)	55	65.1	(48.6-78.6)
Shiawassee	61	58.1	(43.5-71.4)	58	63.3	(48.1-76.3)
<b>Region 3</b>	314	58.6	(51.4-65.5)	308	62.8	(55.3-69.7)
Jackson	155	60.3	(50.2-69.6)	151	63.2	(52.6-72.6)
Lenawee	159	56.7	(46.1-66.7)	157	62.4	(51.4-72.2)
<b>Region 4</b>	572	58.3	(52.9-63.4)	560	72.1	(66.9-76.8)
Barry-Eaton	175	62.9	(54.4-70.7)	170	78.4	(70.4-84.7)
Mid-Michigan <sup>c</sup>	206	45.3	(37.3-53.4)	201	63.8	(55.2-71.5)
Ingham	270	61.4	(52.9-69.4)	264	69.9	(61.1-77.5)
<b>Region 5</b>	552	59.4	(54.1-64.4)	541	69.3	(64.0-74.1)
Branch-Hillsdale-St. Joseph	166	55.1	(45.7-64.1)	162	58.0	(48.2-67.1)
Calhoun	137	62.6	(52.2-72.0)	133	71.7	(61.0-80.4)
Kalamazoo	249	60.9	(52.9-68.3)	246	76.8	(69.2-83.0)
<b>Region 6</b>	363	52.4	(45.4-59.3)	355	69.2	(62.6-75.0)
Van Buren-Cass	144	56.6	(46.3-66.3)	142	68.9	(58.8-77.5)
Berrien	219	49.3	(40.1-58.5)	213	69.3	(60.4-77.0)

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Table 19 Cont'd						
Geographic Area	Had Flu Vaccine in Past Year <sup>a</sup>			Ever Had Pneumonia Vaccine <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>10,952</b>	<b>56.7</b>	<b>(55.4-58.0)</b>	<b>10,609</b>	<b>67.5</b>	<b>(66.2-68.7)</b>
<b>Region 7</b>	1,129	60.7	(56.9-64.4)	1,095	70.8	(67.0-74.4)
Allegan	125	72.2	(59.7-82.0)	119	65.0	(50.9-76.9)
Ionia	62	59.7	(45.5-72.5)	60	72.4	(58.1-83.2)
Kent	578	61.6	(56.2-66.8)	566	74.3	(69.0-78.9)
Mid-Michigan <sup>c</sup>	206	45.3	(37.3-53.4)	201	63.8	(55.2-71.5)
Ottawa	285	61.4	(54.0-68.4)	275	71.2	(63.7-77.7)
<b>Region 8</b>	518	60.7	(55.1-66.0)	501	74.0	(68.7-78.7)
District #10	327	59.6	(52.7-66.1)	316	72.7	(66.3-78.3)
Muskegon	191	63.0	(53.3-71.7)	185	76.6	(66.6-84.3)
<b>Region 9</b>	879	59.7	(55.0-64.2)	843	70.9	(66.1-75.3)
District #2	142	53.0	(42.6-63.1)	138	64.0	(52.9-73.8)
District #4	217	57.5	(47.1-67.2)	208	69.6	(58.3-79.0)
Northwest Michigan	292	64.5	(55.8-72.4)	275	74.6	(65.4-82.1)
Benzie-Leelanau	128	53.4	(41.5-65.0)	127	66.6	(54.1-77.1)
Grand Traverse	100	69.6	(57.7-79.4)	95	80.2	(67.3-88.8)
<b>Region 10</b>	413	56.2	(50.1-62.0)	404	64.7	(58.6-70.4)
Bay	60	44.0	(30.4-58.6)	59	62.4	(47.1-75.5)
Huron	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Saginaw	228	55.8	(47.3-64.1)	222	67.1	(58.1-75.0)
Sanilac	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Tuscola	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
<b>Region 11</b>	421	54.6	(48.2-60.8)	410	67.5	(61.4-73.0)
Central Michigan	318	56.1	(48.6-63.2)	313	67.0	(60.1-73.3)
Midland	103	49.9	(38.0-61.7)	97	69.1	(55.9-79.8)
<b>Region 12</b>	1,226	59.0	(54.6-63.3)	1,189	67.4	(62.9-71.5)
Luce-Mackinac-Alger-Schoolcraft	291	55.7	(46.8-64.2)	284	70.8	(62.4-77.9)
Western Upper Peninsula	186	56.2	(46.1-65.9)	184	63.3	(52.9-72.6)
Delta-Menominee	199	61.7	(50.7-71.7)	193	71.7	(60.0-81.0)
Chippewa	253	49.5	(40.0-59.1)	245	58.3	(48.2-67.8)
Dickinson-Iron	87	55.1	(40.8-68.7)	85	61.7	(46.5-74.9)
Marquette	210	71.0	(61.0-79.3)	198	75.4	(65.1-83.5)

<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.

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

<sup>c</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 20: HIV Testing Among Adults Aged 18-64 Years Michigan BRFSS, 2008- 2010 Combined</b>			
<b>Geographic Area</b>	<b>Ever Had an HIV Test<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>21,456</b>	<b>41.0</b>	<b>(40.1-41.9)</b>
<b>Region 1</b>	8,435	44.7	(43.3-46.1)
Livingston	335	40.2	(33.7-47.0)
Macomb	1,180	39.2	(35.9-42.7)
Monroe	236	32.8	(25.8-40.8)
Oakland	1,947	41.8	(39.0-44.7)
St. Clair	300	36.1	(29.4-43.5)
Washtenaw	661	42.3	(37.5-47.3)
City of Detroit	1,575	68.5	(64.8-72.0)
Wayne exc. Detroit	1,988	40.6	(37.7-43.5)
<b>Region 2</b>	1,006	41.9	(38.0-45.9)
Genesee	726	44.5	(39.9-49.3)
Lapeer	147	36.5	(27.3-46.7)
Shiawassee	133	34.8	(25.7-45.3)
<b>Region 3</b>	511	35.0	(30.0-40.3)
Jackson	313	36.9	(30.8-43.5)
Lenawee	198	31.2	(23.1-40.6)
<b>Region 4</b>	1,236	40.9	(37.5-44.4)
Barry-Eaton	377	37.6	(31.7-44.0)
Mid-Michigan <sup>b</sup>	366	37.5	(31.2-44.4)
Ingham	617	44.9	(40.1-49.9)
<b>Region 5</b>	1,064	41.3	(37.6-45.2)
Branch-Hillsdale-St. Joseph	339	37.7	(31.3-44.5)
Calhoun	245	42.6	(34.7-50.9)
Kalamazoo	480	43.4	(37.8-49.2)
<b>Region 6</b>	665	44.0	(38.8-49.4)
Van Buren-Cass	284	44.4	(36.6-52.5)
Berrien	381	43.7	(36.8-50.9)
<b>Region 7</b>	2,481	36.0	(33.5-38.7)
Allegan	264	41.6	(34.2-49.4)
Ionia	116	35.6	(25.7-47.0)
Kent	1,389	36.5	(33.1-40.1)
Mid-Michigan <sup>b</sup>	366	37.5	(31.2-44.4)
Ottawa	588	31.2	(26.3-36.5)

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<b>Table 20 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Had an HIV Test<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>21,456</b>	<b>41.0</b>	<b>(40.1-41.9)</b>
<b>Region 8</b>	940	40.4	(36.3-44.7)
District #10	534	38.5	(33.3-44.1)
Muskegon	406	43.0	(36.7-49.6)
<b>Region 9</b>	1,442	34.1	(30.5-37.9)
District #2	190	28.4	(20.8-37.5)
District #4	345	33.4	(25.8-42.0)
Northwest Michigan	469	33.2	(26.6-40.6)
Benzie-Leelanau	158	44.6	(32.7-57.0)
Grand Traverse	280	36.1	(29.1-43.7)
<b>Region 10</b>	823	35.2	(31.1-39.4)
Bay	162	30.5	(22.7-39.6)
Huron	53	34.0	(20.9-50.2)
Saginaw	432	39.6	(33.5-46.0)
Sanilac	72	20.9	(12.1-33.7)
Tuscola	104	39.1	(28.7-50.5)
<b>Region 11</b>	724	36.4	(31.8-41.3)
Central Michigan	520	33.6	(28.3-39.4)
Midland	204	42.6	(34.1-51.5)
<b>Region 12</b>	1,938	31.6	(28.0-35.3)
Luce-Mackinac-Alger-Schoolcraft	402	23.7	(17.0-32.1)
Western Upper Peninsula	287	33.4	(25.6-42.2)
Delta-Menominee	332	28.7	(21.1-37.8)
Chippewa	400	36.6	(28.6-45.5)
Dickinson-Iron	121	38.6	(27.0-51.7)
Marquette	396	32.0	(24.8-40.2)

Note: "Don't know" was considered a valid response.

<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.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

**Table 21: Asthma**  
**Michigan BRFSS, 2011-2013 Combined**

Geographic Area	Ever Told Have Asthma <sup>a</sup>			Still Have Asthma <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>34,174</b>	<b>15.6</b>	<b>(15.1-16.2)</b>	<b>34,018</b>	<b>10.6</b>	<b>(10.1-11.1)</b>
<b>Region 1</b>	13,106	16.8	(15.9-17.7)	13,048	11.5	(10.7-12.3)
Livingston	472	11.6	(8.6-15.5)	469	8.0	(5.6-11.3)
Macomb	1,866	16.9	(14.7-19.3)	1,855	10.8	(9.0-12.9)
Monroe	379	14.2	(9.7-20.3)	376	8.9	(5.3-14.7)
Oakland	3,028	15.4	(13.7-17.2)	3,013	10.0	(8.7-11.6)
St. Clair	459	16.6	(12.3-22.0)	459	12.2	(8.6-16.9)
Washtenaw	980	20.3	(16.9-24.3)	977	13.2	(10.4-16.6)
City of Detroit	2,540	19.9	(17.4-22.6)	2,530	15.4	(13.2-18.0)
Wayne exc. Detroit	3,132	16.0	(14.3-18.0)	3,121	11.2	(9.7-12.9)
<b>Region 2</b>	1,581	15.4	(13.2-17.8)	1,575	11.2	(9.3-13.3)
Genesee	1,162	15.1	(12.6-18.1)	1,158	10.2	(8.1-12.7)
Lapeer	220	15.8	(10.6-22.8)	220	13.2	(8.6-19.6)
Shiawassee	199	16.0	(10.6-23.4)	197	13.9	(8.8-21.1)
<b>Region 3</b>	855	18.3	(14.9-22.2)	847	12.2	(9.3-15.9)
Jackson	491	18.1	(14.2-22.9)	485	12.3	(9.0-16.7)
Lenawee	364	18.5	(12.7-26.0)	362	12.0	(7.1-19.5)
<b>Region 4</b>	1,875	15.8	(13.8-18.0)	1,865	10.4	(8.8-12.3)
Barry-Eaton	579	14.1	(10.9-18.0)	579	9.5	(6.9-13.0)
Mid-Michigan <sup>c</sup>	602	12.6	(9.6-16.4)	600	8.3	(5.9-11.5)
Ingham	912	16.9	(14.1-20.3)	904	11.4	(9.0-14.2)
<b>Region 5</b>	1,710	14.9	(12.6-17.4)	1,701	10.2	(8.3-12.4)
Branch-Hillsdale-St. Joseph	528	14.1	(10.4-18.9)	527	9.1	(6.1-13.3)
Calhoun	407	14.0	(9.7-19.7)	406	10.1	(6.4-15.5)
Kalamazoo	775	16.0	(12.8-19.8)	768	11.1	(8.4-14.5)
<b>Region 6</b>	1,095	14.7	(11.9-18.0)	1,090	8.9	(6.9-11.4)
Van Buren-Cass	456	14.5	(10.5-19.6)	454	9.2	(6.0-13.9)
Berrien	639	14.8	(11.2-19.4)	636	8.7	(6.4-11.6)
<b>Region 7</b>	3,788	13.9	(12.5-15.5)	3,773	9.3	(8.2-10.6)
Allegan	397	15.5	(11.2-21.1)	395	12.4	(8.4-17.9)
Ionia	194	14.9	(9.9-21.7)	192	11.8	(7.4-18.3)
Kent	2,060	14.3	(12.3-16.6)	2,054	9.0	(7.5-10.7)
Mid-Michigan <sup>c</sup>	602	12.6	(9.6-16.4)	600	8.3	(5.9-11.5)
Ottawa	919	14.0	(11.1-17.5)	914	9.1	(6.7-12.1)

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Table 21 Cont'd

Geographic Area	Ever Told Have Asthma <sup>a</sup>			Still Have Asthma <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>34,174</b>	<b>15.6</b>	<b>(15.1-16.2)</b>	<b>34,018</b>	<b>10.6</b>	<b>(10.1-11.1)</b>
<b>Region 8</b>	1,531	14.8	(12.3-17.6)	1,525	10.9	(8.7-13.6)
District #10	913	12.9	(10.1-16.4)	911	9.7	(7.2-12.9)
Muskegon	618	17.5	(13.3-22.8)	614	12.8	(9.0-17.8)
<b>Region 9</b>	2,451	12.7	(10.8-15.0)	2,441	9.1	(7.4-11.1)
District #2	351	15.2	(10.8-21.0)	351	11.0	(7.4-16.1)
District #4	590	10.5	(7.2-15.0)	588	6.8	(4.4-10.4)
Northwest Michigan	806	13.9	(10.2-18.7)	802	11.0	(7.6-15.7)
Benzie-Leelanau	299	14.4	(8.4-23.5)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Grand Traverse	405	10.2	(7.0-14.6)	401	7.1	(4.5-10.9)
<b>Region 10</b>	1,295	12.2	(10.1-14.6)	1,289	7.4	(5.8-9.4)
Bay	235	13.5	(9.0-19.9)	233	9.4	(5.7-15.2)
Huron	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Saginaw	691	14.7	(11.4-18.8)	689	8.2	(5.9-11.4)
Sanilac	116	8.6	(4.7-15.2)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Tuscola	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
<b>Region 11</b>	1,197	16.1	(13.3-19.4)	1,191	10.5	(8.3-13.1)
Central Michigan	881	16.4	(13.0-20.4)	878	10.8	(8.2-14.0)
Midland	316	15.4	(10.7-21.8)	313	9.6	(6.0-15.1)
<b>Region 12</b>	3,304	16.7	(14.3-19.4)	3,292	10.6	(8.8-12.6)
Luce-Mackinac-Alger-Schoolcraft	714	11.9	(8.7-15.9)	712	8.8	(6.2-12.3)
Western Upper Peninsula	498	15.1	(10.4-21.3)	496	10.6	(6.6-16.7)
Delta-Menominee	555	20.0	(13.3-29.0)	555	12.1	(8.0-17.8)
Chippewa	687	12.9	(9.1-17.9)	684	7.2	(4.7-11.0)
Dickinson-Iron	216	16.2	(10.8-23.6)	213	8.1	(4.5-14.2)
Marquette	634	21.0	(16.0-27.0)	632	13.3	(9.6-18.2)

<sup>a</sup> The proportion of adults who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma.

<sup>b</sup> Among all adults, the proportion who reported that they still had asthma.

<sup>c</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 22: Chronic Obstructive Pulmonary Disease (COPD) Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told COPD, Emphysema or Chronic Bronchitis<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,122</b>	<b>8.1</b>	<b>(7.7-8.5)</b>
<b>Region 1</b>	13,083	8.0	(7.4-8.7)
Livingston	473	3.8	(2.3-6.1)
Macomb	1,869	9.2	(7.6-11.0)
Monroe	378	12.8	(8.4-18.9)
Oakland	3,023	6.5	(5.4-7.7)
St. Clair	458	12.6	(8.7-17.8)
Washtenaw	978	3.9	(2.8-5.5)
City of Detroit	2,531	10.3	(8.5-12.3)
Wayne exc. Detroit	3,121	8.5	(7.3-9.8)
<b>Region 2</b>	1,571	9.9	(8.1-12.0)
Genesee	1,154	9.9	(7.8-12.3)
Lapeer	221	10.6	(6.4-17.0)
Shiawassee	196	9.2	(5.2-15.8)
<b>Region 3</b>	849	10.9	(8.6-13.7)
Jackson	488	10.4	(7.6-14.0)
Lenawee	361	11.8	(8.2-16.7)
<b>Region 4</b>	1,873	6.5	(5.3-7.8)
Barry-Eaton	577	7.8	(5.6-10.8)
Mid-Michigan <sup>b</sup>	602	6.5	(4.6-9.0)
Ingham	912	5.9	(4.4-7.8)
<b>Region 5</b>	1,709	8.0	(6.5-9.8)
Branch-Hillsdale-St. Joseph	527	10.0	(7.3-13.5)
Calhoun	405	9.2	(5.8-14.2)
Kalamazoo	777	5.8	(4.2-8.1)
<b>Region 6</b>	1,096	8.7	(6.8-11.1)
Van Buren-Cass	457	8.4	(5.7-12.1)
Berrien	639	9.0	(6.5-12.3)
<b>Region 7</b>	3,786	5.9	(5.0-6.9)
Allegan	396	7.4	(5.0-10.8)
Ionia	193	8.8	(5.3-14.1)
Kent	2,061	6.7	(5.4-8.2)
Mid-Michigan <sup>b</sup>	602	6.5	(4.6-9.0)
Ottawa	918	2.3	(1.5-3.6)



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<b>Table 22 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told COPD, Emphysema or Chronic Bronchitis<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,122</b>	<b>8.1</b>	<b>(7.7-8.5)</b>
<b>Region 8</b>	1,527	10.1	(8.1-12.5)
District #10	913	8.7	(6.7-11.1)
Muskegon	614	12.1	(8.4-17.2)
<b>Region 9</b>	2,446	8.7	(7.1-10.6)
District #2	351	11.8	(8.1-17.0)
District #4	586	13.3	(8.8-19.6)
Northwest Michigan	804	7.8	(5.5-10.8)
Benzie-Leelanau	300	4.3	(2.4-7.7)
Grand Traverse	405	3.7	(2.2-6.3)
<b>Region 10</b>	1,297	8.9	(7.1-11.0)
Bay	234	9.8	(6.1-15.1)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	694	9.5	(6.8-13.0)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	153	9.0	(5.4-14.7)
<b>Region 11</b>	1,194	8.6	(6.8-10.8)
Central Michigan	878	10.1	(7.8-13.1)
Midland	316	4.7	(2.9-7.6)
<b>Region 12</b>	3,310	8.0	(6.6-9.6)
Luce-Mackinac-Alger-Schoolcraft	719	9.0	(5.9-13.4)
Western Upper Peninsula	498	6.4	(3.4-11.6)
Delta-Menominee	557	8.0	(5.4-11.7)
Chippewa	688	11.5	(8.1-16.1)
Dickinson-Iron	215	9.4	(5.8-14.8)
Marquette	633	6.3	(3.9-9.9)

<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.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 23: Arthritis Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Arthritis<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,101</b>	<b>31.4</b>	<b>(30.7-32.0)</b>
<b>Region 1</b>	13,080	28.9	(28.0-30.0)
Livingston	473	30.1	(25.4-35.2)
Macomb	1,866	30.2	(27.8-32.8)
Monroe	380	38.6	(32.5-45.0)
Oakland	3,025	27.2	(25.3-29.1)
St. Clair	457	32.0	(27.0-37.5)
Washtenaw	976	22.4	(19.5-25.6)
City of Detroit	2,534	32.6	(29.7-35.6)
Wayne exc. Detroit	3,121	29.7	(27.6-31.8)
<b>Region 2</b>	1,573	36.9	(34.0-40.0)
Genesee	1,153	37.0	(33.5-40.7)
Lapeer	221	36.9	(29.5-45.1)
Shiawassee	199	36.3	(28.9-44.5)
<b>Region 3</b>	848	32.6	(28.7-36.7)
Jackson	486	31.9	(27.1-37.0)
Lenawee	362	33.8	(27.5-40.7)
<b>Region 4</b>	1,877	32.2	(29.7-34.9)
Barry-Eaton	580	33.6	(28.9-38.6)
Mid-Michigan <sup>b</sup>	600	36.2	(31.6-41.1)
Ingham	915	29.2	(25.7-33.0)
<b>Region 5</b>	1,708	32.7	(29.9-35.6)
Branch-Hillsdale-St. Joseph	528	37.1	(32.1-42.5)
Calhoun	406	32.6	(26.8-39.0)
Kalamazoo	774	29.4	(25.6-33.4)
<b>Region 6</b>	1,093	33.6	(30.0-37.4)
Van Buren-Cass	452	32.6	(27.3-38.4)
Berrien	641	34.3	(29.5-39.4)
<b>Region 7</b>	3,782	27.1	(25.3-29.0)
Allegan	391	29.4	(24.0-35.4)
Ionia	195	34.7	(27.2-43.1)
Kent	2,061	26.3	(23.9-28.9)
Mid-Michigan <sup>b</sup>	600	36.2	(31.6-41.1)
Ottawa	917	23.6	(20.2-27.3)

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<b>Table 23 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Arthritis<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,101</b>	<b>31.4</b>	<b>(30.7-32.0)</b>
<b>Region 8</b>	1,528	36.2	(33.2-39.4)
District #10	911	38.7	(34.7-42.9)
Muskegon	617	32.6	(28.0-37.4)
<b>Region 9</b>	2,449	36.1	(33.3-39.0)
District #2	350	42.2	(35.6-49.1)
District #4	593	38.9	(32.5-45.7)
Northwest Michigan	805	35.0	(29.8-40.5)
Benzie-Leelanau	298	34.1	(26.8-42.2)
Grand Traverse	403	29.1	(23.8-35.2)
<b>Region 10</b>	1,297	35.8	(32.6-39.2)
Bay	236	36.1	(28.7-44.3)
Huron	100	32.8	(22.8-44.5)
Saginaw	691	35.0	(30.5-39.9)
Sanilac	116	45.8	(34.8-57.2)
Tuscola	154	32.4	(24.8-41.2)
<b>Region 11</b>	1,190	38.9	(35.2-42.8)
Central Michigan	874	41.8	(37.3-46.5)
Midland	316	31.6	(25.6-38.3)
<b>Region 12</b>	3,296	35.9	(33.1-38.8)
Luce-Mackinac-Alger-Schoolcraft	715	39.2	(32.4-46.4)
Western Upper Peninsula	495	35.8	(29.6-42.6)
Delta-Menominee	552	34.2	(27.6-41.5)
Chippewa	687	39.4	(33.3-45.8)
Dickinson-Iron	214	45.2	(36.1-54.6)
Marquette	633	28.3	(23.3-33.8)

<sup>a</sup> Among all adults, the proportion who reported ever being told by a health care professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates

<b>Table 24: Heart Attack Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Heart Attack<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,140</b>	<b>5.2</b>	<b>(4.9-5.5)</b>
<b>Region 1</b>	13,100	4.7	(4.3-5.2)
Livingston	471	4.4	(2.7-7.0)
Macomb	1,873	5.3	(4.3-6.5)
Monroe	379	4.6	(3.0-7.0)
Oakland	3,030	4.2	(3.4-5.1)
St. Clair	459	5.0	(3.2-7.6)
Washtenaw	977	2.7	(1.8-4.0)
City of Detroit	2,538	5.5	(4.2-7.1)
Wayne exc. Detroit	3,122	5.4	(4.5-6.6)
<b>Region 2</b>	1,575	6.0	(4.7-7.7)
Genesee	1,158	5.4	(4.0-7.3)
Lapeer	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Shiawassee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 3</b>	851	7.1	(5.3-9.4)
Jackson	488	6.4	(4.5-9.1)
Lenawee	363	8.2	(5.2-12.8)
<b>Region 4</b>	1,877	4.1	(3.1-5.3)
Barry-Eaton	581	5.3	(3.6-7.8)
Mid-Michigan <sup>b</sup>	598	4.8	(3.1-7.4)
Ingham	913	3.6	(2.4-5.4)
<b>Region 5</b>	1,709	5.7	(4.5-7.4)
Branch-Hillsdale-St. Joseph	525	5.3	(3.7-7.6)
Calhoun	408	7.7	(4.7-12.5)
Kalamazoo	776	4.9	(3.3-7.4)
<b>Region 6</b>	1,096	5.8	(4.2-7.9)
Van Buren-Cass	457	4.5	(2.6-7.7)
Berrien	639	6.8	(4.6-9.9)
<b>Region 7</b>	3,793	4.1	(3.4-4.9)
Allegan	397	5.4	(3.2-8.9)
Ionia	195	4.6	(2.5-8.3)
Kent	2,064	3.7	(2.8-4.7)
Mid-Michigan <sup>b</sup>	598	4.8	(3.1-7.4)
Ottawa	922	3.3	(2.0-5.3)

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<b>Table 24 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Heart Attack<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,140</b>	<b>5.2</b>	<b>(4.9-5.5)</b>
<b>Region 8</b>	1,529	7.6	(6.1-9.5)
District #10	910	8.2	(6.2-10.8)
Muskegon	619	6.8	(4.6-9.8)
<b>Region 9</b>	2,441	6.1	(4.9-7.6)
District #2	350	7.6	(5.1-11.2)
District #4	586	8.9	(5.6-13.7)
Northwest Michigan	802	4.4	(2.9-6.4)
Benzie-Leelanau	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Grand Traverse	405	4.2	(2.5-7.2)
<b>Region 10</b>	1,298	6.3	(4.8-8.2)
Bay	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	692	8.1	(5.6-11.6)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 11</b>	1,198	7.4	(5.7-9.7)
Central Michigan	881	8.0	(5.8-10.9)
Midland	317	6.1	(3.7-9.9)
<b>Region 12</b>	3,295	6.2	(5.1-7.4)
Luce-Mackinac-Alger-Schoolcraft	713	4.9	(3.6-6.6)
Western Upper Peninsula	495	5.2	(3.3-8.1)
Delta-Menominee	555	5.5	(3.6-8.5)
Chippewa	684	6.6	(4.6-9.5)
Dickinson-Iron	214	10.0	(5.8-16.5)
Marquette	634	6.4	(4.1-10.0)

<sup>a</sup> Among all adults, the proportion who had ever been told by a doctor that they had a heart attack or myocardial infarction.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.  
<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

<b>Table 25: Angina or Coronary Heart Disease Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Angina or Coronary Heart Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,027</b>	<b>5.1</b>	<b>(4.8-5.4)</b>
<b>Region 1</b>	13,066	4.4	(4.0-4.8)
Livingston	471	3.2	(1.9-5.3)
Macomb	1,858	5.2	(4.3-6.4)
Monroe	380	4.6	(3.1-6.9)
Oakland	3,018	4.7	(3.8-5.7)
St. Clair	457	4.6	(3.0-7.1)
Washtenaw	978	3.5	(2.4-5.0)
City of Detroit	2,533	4.6	(3.6-5.9)
Wayne exc. Detroit	3,119	4.3	(3.6-5.1)
<b>Region 2</b>	1,573	6.4	(5.1-8.0)
Genesee	1,156	6.7	(5.2-8.7)
Lapeer	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Shiawassee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 3</b>	847	6.6	(4.9-8.8)
Jackson	489	6.2	(4.3-9.0)
Lenawee	358	7.2	(4.4-11.4)
<b>Region 4</b>	1,869	4.2	(3.2-5.4)
Barry-Eaton	577	5.0	(3.3-7.5)
Mid-Michigan <sup>b</sup>	599	5.6	(3.8-8.1)
Ingham	908	3.9	(2.6-5.7)
<b>Region 5</b>	1,697	5.5	(4.2-7.2)
Branch-Hillsdale-St. Joseph	524	4.7	(2.9-7.5)
Calhoun	400	8.5	(5.3-13.5)
Kalamazoo	773	4.4	(2.9-6.7)
<b>Region 6</b>	1,089	7.3	(5.5-9.6)
Van Buren-Cass	453	7.9	(5.1-12.1)
Berrien	636	6.8	(4.7-9.7)
<b>Region 7</b>	3,776	4.2	(3.5-5.1)
Allegan	396	4.4	(2.7-7.2)
Ionia	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kent	2,054	4.1	(3.2-5.2)
Mid-Michigan <sup>b</sup>	599	5.6	(3.8-8.1)
Ottawa	918	2.9	(1.7-4.9)

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<b>Table 25 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Angina or Coronary Heart Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,027</b>	<b>5.1</b>	<b>(4.8-5.4)</b>
<b>Region 8</b>	1,524	5.2	(4.0-6.7)
District #10	909	5.2	(3.8-7.1)
Muskegon	615	5.2	(3.3-8.1)
<b>Region 9</b>	2,437	5.9	(4.7-7.3)
District #2	349	6.8	(4.4-10.3)
District #4	588	7.5	(4.6-12.0)
Northwest Michigan	797	5.6	(3.9-8.1)
Benzie-Leelanau	299	3.5	(1.6-7.4)
Grand Traverse	404	4.6	(2.8-7.4)
<b>Region 10</b>	1,291	6.9	(5.4-8.9)
Bay	236	7.5	(4.3-12.8)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	687	6.9	(4.7-10.1)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	153	7.1	(3.7-12.9)
<b>Region 11</b>	1,187	8.1	(6.3-10.5)
Central Michigan	873	9.0	(6.6-12.0)
Midland	314	6.1	(3.8-9.6)
<b>Region 12</b>	3,288	6.1	(5.0-7.3)
Luce-Mackinac-Alger-Schoolcraft	710	5.7	(4.0-8.0)
Western Upper Peninsula	498	3.8	(2.4-6.1)
Delta-Menominee	554	5.8	(3.7-9.1)
Chippewa	683	9.5	(5.9-14.8)
Dickinson-Iron	214	7.0	(3.9-12.1)
Marquette	629	6.5	(4.3-9.8)

<sup>a</sup> Among all adults, the proportion who had ever been told by a doctor that they had angina or coronary heart disease.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.  
<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

<b>Table 26: Stroke Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Stroke<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,201</b>	<b>3.4</b>	<b>(3.2-3.7)</b>
<b>Region 1</b>	13,107	3.6	(3.2-4.1)
Livingston	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Macomb	1,867	4.4	(3.4-5.6)
Monroe	379	5.1	(3.1-8.2)
Oakland	3,028	3.0	(2.3-3.9)
St. Clair	458	3.8	(2.1-6.8)
Washtenaw	978	2.8	(1.8-4.3)
City of Detroit	2,540	5.5	(4.4-7.0)
Wayne exc. Detroit	3,131	2.9	(2.3-3.7)
<b>Region 2</b>	1,581	3.3	(2.5-4.4)
Genesee	1,162	3.2	(2.2-4.6)
Lapeer	220	5.0	(2.7-8.9)
Shiawassee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 3</b>	853	4.8	(3.4-6.7)
Jackson	490	5.5	(3.7-8.1)
Lenawee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 4</b>	1,877	3.9	(2.9-5.2)
Barry-Eaton	581	5.1	(3.2-8.2)
Mid-Michigan <sup>b</sup>	601	2.8	(1.6-4.7)
Ingham	913	3.8	(2.4-5.8)
<b>Region 5</b>	1,707	2.9	(2.2-3.8)
Branch-Hillsdale-St. Joseph	524	3.3	(2.1-4.9)
Calhoun	406	2.9	(1.7-5.1)
Kalamazoo	777	2.7	(1.7-4.2)
<b>Region 6</b>	1,100	4.7	(3.1-7.0)
Van Buren-Cass	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Berrien	642	4.8	(3.0-7.7)
<b>Region 7</b>	3,797	2.3	(1.8-2.9)
Allegan	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Ionia	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kent	2,067	2.3	(1.6-3.1)
Mid-Michigan <sup>b</sup>	601	2.8	(1.6-4.7)
Ottawa	920	1.6	(1.0-2.8)



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<b>Table 26 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Stroke<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,201</b>	<b>3.4</b>	<b>(3.2-3.7)</b>
<b>Region 8</b>	1,533	3.8	(2.8-5.1)
District #10	914	4.4	(3.0-6.5)
Muskegon	619	2.9	(1.9-4.5)
<b>Region 9</b>	2,454	3.2	(2.4-4.3)
District #2	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
District #4	593	4.0	(2.5-6.4)
Northwest Michigan	806	2.1	(1.2-3.7)
Benzie-Leelanau	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Grand Traverse	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 10</b>	1,299	3.3	(2.3-4.8)
Bay	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	693	5.3	(3.4-8.2)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 11</b>	1,195	3.8	(2.7-5.4)
Central Michigan	877	4.8	(3.3-6.9)
Midland	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 12</b>	3,311	2.9	(2.2-3.7)
Luce-Mackinac-Alger-Schoolcraft	718	2.2	(1.4-3.4)
Western Upper Peninsula	497	3.7	(2.1-6.4)
Delta-Menominee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Chippewa	689	3.4	(2.1-5.4)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	633	1.7	(1.0-2.9)

<sup>a</sup> Among all adults, the proportion who had ever been told by a doctor that they had a stroke.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.  
<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

<b>Table 27: Cardiovascular Disease Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Any Cardiovascular Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,982</b>	<b>9.8</b>	<b>(9.4-10.2)</b>
<b>Region 1</b>	13,040	9.3	(8.7-10.0)
Livingston	472	7.3	(5.1-10.3)
Macomb	1,863	10.4	(9.0-12.1)
Monroe	378	10.3	(7.5-14.0)
Oakland	3,008	8.7	(7.5-10.0)
St. Clair	458	9.8	(7.1-13.4)
Washtenaw	973	6.5	(4.9-8.5)
City of Detroit	2,530	11.9	(10.1-14.0)
Wayne exc. Detroit	3,107	9.5	(8.3-10.9)
<b>Region 2</b>	1,569	10.9	(9.2-12.9)
Genesee	1,154	10.4	(8.4-12.7)
Lapeer	217	14.2	(9.6-20.5)
Shiawassee	198	9.8	(5.8-16.1)
<b>Region 3</b>	841	12.3	(9.9-15.0)
Jackson	483	11.6	(8.9-15.0)
Lenawee	358	13.4	(9.5-18.6)
<b>Region 4</b>	1,865	8.4	(7.0-10.0)
Barry-Eaton	575	10.4	(7.7-13.8)
Mid-Michigan <sup>b</sup>	598	9.9	(7.4-13.2)
Ingham	908	7.4	(5.6-9.6)
<b>Region 5</b>	1,695	10.1	(8.4-12.0)
Branch-Hillsdale-St. Joseph	522	9.8	(7.3-13.0)
Calhoun	401	13.6	(9.7-18.8)
Kalamazoo	772	8.2	(6.2-10.9)
<b>Region 6</b>	1,090	13.2	(10.6-16.3)
Van Buren-Cass	452	13.2	(9.2-18.5)
Berrien	638	13.1	(10.0-17.2)
<b>Region 7</b>	3,780	7.7	(6.7-8.8)
Allegan	397	7.7	(5.2-11.3)
Ionia	193	9.3	(5.8-14.5)
Kent	2,055	7.6	(6.4-9.1)
Mid-Michigan <sup>b</sup>	598	9.9	(7.4-13.2)
Ottawa	919	5.7	(4.0-7.9)

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<b>Table 27 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Any Cardiovascular Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>33,982</b>	<b>9.8</b>	<b>(9.4-10.2)</b>
<b>Region 8</b>	1,524	11.5	(9.6-13.7)
District #10	907	12.7	(10.3-15.7)
Muskegon	617	9.7	(7.0-13.2)
<b>Region 9</b>	2,434	10.9	(9.4-12.8)
District #2	348	12.8	(9.3-17.4)
District #4	588	14.0	(10.1-19.1)
Northwest Michigan	798	9.1	(6.8-12.1)
Benzie-Leelanau	296	9.3	(5.5-15.3)
Grand Traverse	404	8.8	(6.1-12.6)
<b>Region 10</b>	1,292	11.4	(9.4-13.8)
Bay	235	8.8	(5.3-14.1)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	688	14.1	(10.8-18.2)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	154	11.1	(6.8-17.5)
<b>Region 11</b>	1,188	12.9	(10.6-15.5)
Central Michigan	873	14.3	(11.5-17.7)
Midland	315	9.2	(6.3-13.3)
<b>Region 12</b>	3,288	10.7	(9.3-12.3)
Luce-Mackinac-Alger-Schoolcraft	711	8.7	(6.6-11.4)
Western Upper Peninsula	495	8.9	(6.4-12.4)
Delta-Menominee	553	9.6	(6.8-13.4)
Chippewa	684	15.2	(11.1-20.6)
Dickinson-Iron	213	12.7	(8.1-19.3)
Marquette	632	11.5	(8.4-15.5)

<sup>a</sup> Among all adults, the proportion who had ever been told by a doctor that they had a heart attack, coronary heart disease or a stroke.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 28: Cancer Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Cancer<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,174</b>	<b>12.0</b>	<b>(11.6-12.4)</b>
<b>Region 1</b>	13,111	11.0	(10.4-11.7)
Livingston	473	13.4	(10.3-17.3)
Macomb	1,868	13.0	(11.4-14.7)
Monroe	380	13.5	(9.7-18.5)
Oakland	3,026	11.2	(10.0-12.4)
St. Clair	460	11.4	(8.6-15.1)
Washtenaw	982	9.5	(7.7-11.5)
City of Detroit	2,542	7.5	(6.1-9.1)
Wayne exc. Detroit	3,130	12.4	(11.1-13.8)
<b>Region 2</b>	1,573	13.1	(11.2-15.3)
Genesee	1,155	12.4	(10.2-14.9)
Lapeer	219	15.4	(10.6-21.7)
Shiawassee	199	14.5	(9.8-20.9)
<b>Region 3</b>	850	13.2	(10.8-15.9)
Jackson	487	13.1	(10.3-16.6)
Lenawee	363	13.2	(9.4-18.1)
<b>Region 4</b>	1,875	10.9	(9.4-12.5)
Barry-Eaton	578	12.4	(9.9-15.4)
Mid-Michigan <sup>b</sup>	600	11.4	(8.4-15.3)
Ingham	915	10.2	(8.2-12.7)
<b>Region 5</b>	1,707	13.2	(11.5-15.2)
Branch-Hillsdale-St. Joseph	528	12.2	(9.4-15.7)
Calhoun	407	18.5	(14.2-23.7)
Kalamazoo	772	10.9	(8.8-13.4)
<b>Region 6</b>	1,094	14.8	(12.3-17.6)
Van Buren-Cass	645	14.9	(11.4-19.2)
Berrien	364	14.7	(11.5-18.7)
<b>Region 7</b>	3,796	12.5	(11.3-13.9)
Allegan	397	13.9	(10.3-18.7)
Ionia	195	14.3	(9.6-20.8)
Kent	2,067	12.0	(10.4-13.8)
Mid-Michigan <sup>b</sup>	600	11.4	(8.4-15.3)
Ottawa	919	12.3	(9.9-15.2)

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<b>Table 28 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Cancer<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,174</b>	<b>12.0</b>	<b>(11.6-12.4)</b>
<b>Region 8</b>	1,528	12.6	(10.8-14.7)
District #10	912	14.3	(11.7-17.4)
Muskegon	616	10.1	(7.8-12.9)
<b>Region 9</b>	2,450	14.5	(12.9-16.4)
District #2	352	11.2	(8.2-15.0)
District #4	591	17.8	(13.8-22.5)
Northwest Michigan	805	14.6	(11.5-18.4)
Benzie-Leelanau	299	17.5	(12.6-23.8)
Grand Traverse	403	12.4	(9.2-16.4)
<b>Region 10</b>	1,299	12.7	(10.7-15.0)
Bay	236	12.3	(8.6-17.4)
Huron	99	11.3	(6.3-19.4)
Saginaw	693	13.6	(10.6-17.3)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	155	13.7	(9.2-20.1)
<b>Region 11</b>	1,195	14.7	(12.4-17.4)
Central Michigan	878	14.9	(12.1-18.2)
Midland	317	14.2	(10.6-18.9)
<b>Region 12</b>	3,312	11.5	(10.1-13.0)
Luce-Mackinac-Alger-Schoolcraft	719	11.3	(8.2-15.3)
Western Upper Peninsula	498	9.3	(6.9-12.5)
Delta-Menominee	556	10.6	(7.7-14.5)
Chippewa	689	15.2	(11.4-19.9)
Dickinson-Iron	216	16.0	(10.7-23.2)
Marquette	634	10.2	(7.7-13.4)

<sup>a</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.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

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<b>Table 29: Diabetes</b> <b>Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Diabetes<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,252</b>	<b>10.3</b>	<b>(9.9-10.7)</b>
<b>Region 1</b>	13,132	9.7	(9.1-10.3)
Livingston	474	6.0	(4.1-8.5)
Macomb	1,872	8.5	(7.2-9.9)
Monroe	381	10.6	(7.6-14.6)
Oakland	3,035	8.9	(7.7-10.1)
St. Clair	460	10.4	(7.5-14.4)
Washtenaw	982	7.3	(5.5-9.6)
City of Detroit	2,543	14.4	(12.4-16.7)
Wayne exc. Detroit	3,133	10.0	(8.7-11.4)
<b>Region 2</b>	1,580	11.6	(9.8-13.6)
Genesee	1,160	12.8	(10.6-15.4)
Lapeer	221	7.4	(4.4-12.2)
Shiawassee	199	10.0	(5.8-16.6)
<b>Region 3</b>	857	11.2	(9.0-13.8)
Jackson	493	10.0	(7.4-13.3)
Lenawee	364	13.3	(9.7-18.1)
<b>Region 4</b>	1,880	9.6	(8.2-11.3)
Barry-Eaton	581	9.5	(7.2-12.6)
Mid-Michigan <sup>b</sup>	602	9.4	(7.2-12.2)
Ingham	915	9.4	(7.5-11.9)
<b>Region 5</b>	1,716	9.6	(8.1-11.3)
Branch-Hillsdale-St. Joseph	529	9.3	(6.8-12.5)
Calhoun	407	9.8	(7.2-13.3)
Kalamazoo	780	9.6	(7.3-12.6)
<b>Region 6</b>	1,097	12.3	(9.9-15.1)
Van Buren-Cass	458	12.4	(8.9-17.0)
Berrien	639	12.1	(9.1-16.0)
<b>Region 7</b>	3,801	8.6	(7.6-9.8)
Allegan	397	10.9	(7.3-16.1)
Ionia	195	10.2	(6.3-16.2)
Kent	2,069	9.2	(7.7-10.8)
Mid-Michigan <sup>b</sup>	602	9.4	(7.2-12.2)
Ottawa	922	6.3	(4.8-8.2)

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<b>Table 29 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Diabetes<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,252</b>	<b>10.3</b>	<b>(9.9-10.7)</b>
<b>Region 8</b>	1,533	14.0	(11.8-16.5)
District #10	914	14.3	(11.3-17.8)
Muskegon	619	13.5	(10.6-17.2)
<b>Region 9</b>	2,454	11.2	(9.5-13.1)
District #2	352	12.6	(9.2-16.9)
District #4	594	16.4	(12.1-21.9)
Northwest Michigan	805	9.7	(6.8-13.6)
Benzie-Leelanau	298	8.1	(5.0-12.7)
Grand Traverse	405	7.3	(4.9-10.6)
<b>Region 10</b>	1,300	11.1	(9.2-13.3)
Bay	236	7.6	(4.8-11.8)
Huron	100	11.4	(6.2-20.1)
Saginaw	692	12.9	(10.0-16.6)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	155	14.1	(9.1-21.3)
<b>Region 11</b>	1,199	13.2	(10.9-15.9)
Central Michigan	881	14.3	(11.5-17.7)
Midland	318	10.3	(7.0-14.9)
<b>Region 12</b>	3,319	10.8	(9.3-12.5)
Luce-Mackinac-Alger-Schoolcraft	721	11.3	(8.2-15.4)
Western Upper Peninsula	499	7.3	(5.2-10.1)
Delta-Menominee	558	11.4	(8.1-15.7)
Chippewa	689	14.8	(10.9-19.9)
Dickinson-Iron	216	13.9	(9.0-20.8)
Marquette	636	9.6	(6.2-14.6)

<sup>a</sup> The proportion of adults who reported that they were ever told by a doctor that they have diabetes. Women who had diabetes only during pregnancy and adults who were diagnosed with pre-diabetes were considered to not have been diagnosed with diabetes.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

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

<b>Table 30: Kidney Disease Michigan BRFS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Kidney Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,171</b>	<b>3.1</b>	<b>(2.9-3.4)</b>
<b>Region 1</b>	13,107	2.9	(2.5-3.3)
Livingston	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Macomb	1,869	2.8	(2.1-3.7)
Monroe	379	2.1	(1.2-3.5)
Oakland	3,030	3.0	(2.2-3.9)
St. Clair	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Washtenaw	980	2.6	(1.5-4.2)
City of Detroit	2,539	3.6	(2.5-5.3)
Wayne exc. Detroit	3,127	3.3	(2.6-4.2)
<b>Region 2</b>	1,577	4.6	(3.5-6.1)
Genesee	1,158	5.2	(3.8-7.2)
Lapeer	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Shiawassee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 3</b>	853	2.8	(1.8-4.3)
Jackson	491	3.5	(2.1-5.6)
Lenawee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 4</b>	1,878	3.3	(2.5-4.3)
Barry-Eaton	581	3.7	(2.4-5.7)
Mid-Michigan <sup>b</sup>	601	3.0	(1.7-5.1)
Ingham	914	2.6	(1.6-4.2)
<b>Region 5</b>	1,708	2.7	(1.9-3.7)
Branch-Hillsdale-St. Joseph	524	2.2	(1.3-3.7)
Calhoun	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kalamazoo	777	2.3	(1.4-3.8)
<b>Region 6</b>	1,097	3.5	(2.3-5.3)
Van Buren-Cass	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Berrien	640	4.1	(2.4-6.7)
<b>Region 7</b>	3,798	2.8	(2.3-3.5)
Allegan	397	3.3	(1.9-5.6)
Ionia	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kent	2,070	2.9	(2.2-3.8)
Mid-Michigan <sup>b</sup>	601	3.0	(1.7-5.1)
Ottawa	918	2.4	(1.5-3.9)



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<b>Table 30 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Kidney Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,171</b>	<b>3.1</b>	<b>(2.9-3.4)</b>
<b>Region 8</b>	1,533	3.3	(2.4-4.5)
District #10	916	3.2	(2.1-4.8)
Muskegon	617	3.5	(2.2-5.6)
<b>Region 9</b>	2,443	4.3	(3.1-5.9)
District #2	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
District #4	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Northwest Michigan	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Benzie-Leelanau	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Grand Traverse	404	4.4	(2.5-7.7)
<b>Region 10</b>	1,298	2.5	(1.8-3.6)
Bay	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	694	2.8	(1.7-4.6)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 11</b>	1,191	3.2	(2.2-4.5)
Central Michigan	875	3.2	(2.0-4.9)
Midland	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 12</b>	3,305	3.3	(2.3-4.6)
Luce-Mackinac-Alger-Schoolcraft	718	1.7	(1.0-2.7)
Western Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Delta-Menominee	555	3.7	(2.0-6.7)
Chippewa	686	2.4	(1.4-4.1)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	632	2.2	(1.3-3.7)

<sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had kidney disease.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.  
<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

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<b>Table 31: Depression Michigan BRFSS, 2011-2013 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Depression<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,157</b>	<b>20.9</b>	<b>(20.2-21.5)</b>
<b>Region 1</b>	13,103	19.5	(18.6-20.5)
Livingston	473	21.0	(16.6-26.2)
Macomb	1,872	19.7	(17.4-22.2)
Monroe	380	22.0	(16.9-28.2)
Oakland	3,025	17.4	(15.6-19.3)
St. Clair	457	21.0	(15.7-27.5)
Washtenaw	978	21.8	(18.5-25.4)
City of Detroit	2,537	20.5	(17.9-23.4)
Wayne exc. Detroit	3,130	20.1	(18.1-22.2)
<b>Region 2</b>	1,577	22.0	(19.4-24.8)
Genesee	1,159	23.1	(20.0-26.6)
Lapeer	221	19.8	(14.1-27.0)
Shiawassee	197	18.1	(12.4-25.7)
<b>Region 3</b>	852	21.6	(18.3-25.4)
Jackson	491	22.0	(17.8-26.7)
Lenawee	361	21.1	(15.9-27.4)
<b>Region 4</b>	1,875	22.8	(20.4-25.5)
Barry-Eaton	579	23.9	(19.5-28.8)
Mid-Michigan <sup>b</sup>	602	17.5	(14.0-21.6)
Ingham	912	23.7	(20.2-27.6)
<b>Region 5</b>	1,705	22.3	(19.8-25.1)
Branch-Hillsdale-St. Joseph	525	23.6	(19.1-28.8)
Calhoun	404	26.0	(20.3-32.7)
Kalamazoo	776	19.3	(16.1-22.8)
<b>Region 6</b>	1,098	21.9	(18.7-25.6)
Van Buren-Cass	456	26.7	(21.3-32.8)
Berrien	642	18.1	(14.4-22.6)
<b>Region 7</b>	3,790	20.9	(19.1-22.7)
Allegan	397	19.9	(15.1-25.7)
Ionia	195	24.0	(17.1-32.6)
Kent	2,063	21.7	(19.4-24.3)
Mid-Michigan <sup>b</sup>	602	17.5	(14.0-21.6)
Ottawa	917	20.4	(17.0-24.4)

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<b>Table 31 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Depression<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>34,157</b>	<b>20.9</b>	<b>(20.2-21.5)</b>
<b>Region 8</b>	1,529	26.5	(23.5-29.7)
District #10	912	24.6	(21.0-28.6)
Muskegon	617	29.2	(24.2-34.8)
<b>Region 9</b>	2,445	22.6	(20.1-25.3)
District #2	351	21.3	(16.3-27.4)
District #4	589	25.8	(19.9-32.7)
Northwest Michigan	804	22.2	(18.0-27.1)
Benzie-Leelanau	298	25.4	(17.7-34.9)
Grand Traverse	403	19.1	(14.6-24.6)
<b>Region 10</b>	1,297	21.0	(18.3-24.1)
Bay	236	23.3	(17.1-30.9)
Huron	100	12.8	(6.9-22.6)
Saginaw	691	22.4	(18.3-27.0)
Sanilac	116	16.3	(9.6-26.2)
Tuscola	154	22.0	(15.4-30.4)
<b>Region 11</b>	1,200	21.3	(18.1-24.8)
Central Michigan	882	21.9	(18.2-26.2)
Midland	318	19.5	(14.3-26.1)
<b>Region 12</b>	3,307	19.7	(17.3-22.4)
Luce-Mackinac-Alger-Schoolcraft	720	21.6	(15.5-29.2)
Western Upper Peninsula	498	17.6	(12.6-24.2)
Delta-Menominee	557	20.9	(15.1-28.0)
Chippewa	685	15.1	(11.6-19.4)
Dickinson-Iron	216	19.4	(12.7-28.4)
Marquette	631	22.2	(17.1-28.4)

<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.

<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.