

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

**Selected Tables**

**Michigan Behavioral Risk Factor Survey  
2008 - 2010 Combined**

Chronic Disease Epidemiology Unit  
Surveillance and Program Evaluation Section  
Division of Genomics, Perinatal Health, and Chronic Disease Epidemiology  
Bureau of Epidemiology  
Michigan Department of Community Health

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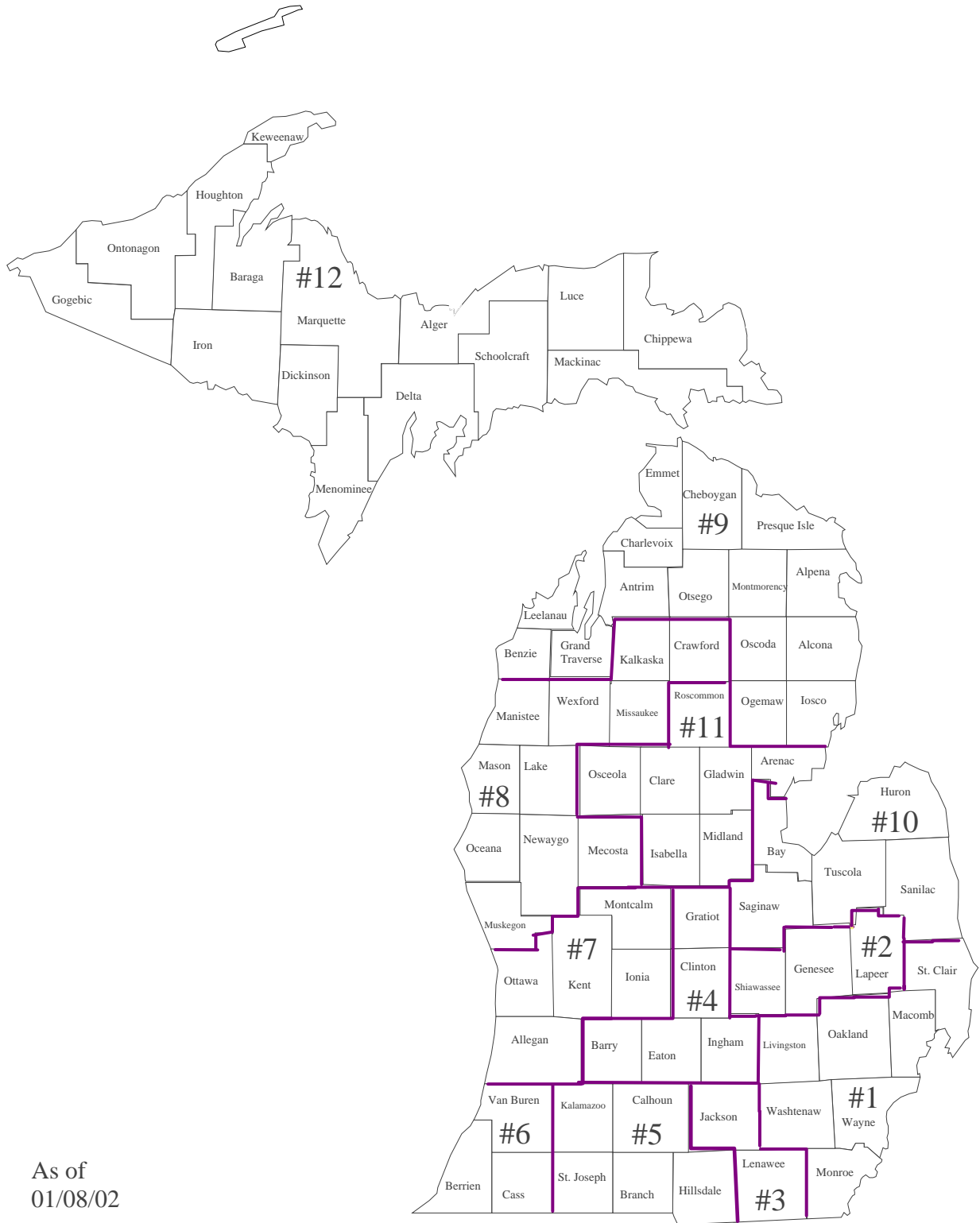
## **Introduction**

The Michigan Behavioral Risk Factor Survey (BRFS) is a statewide, random-digit dialed telephone survey of adult residents aged 18 years and older. State-specific, population-based prevalence estimates (and 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 2008-2010 Michigan BRFSS were combined. The total sample sizes by year were: 8,863 in 2010, 9,259 in 2009, and 9,447 in 2008. Not all questions were included annually in the survey. The table subtitles indicate which years were used for that particular analysis.

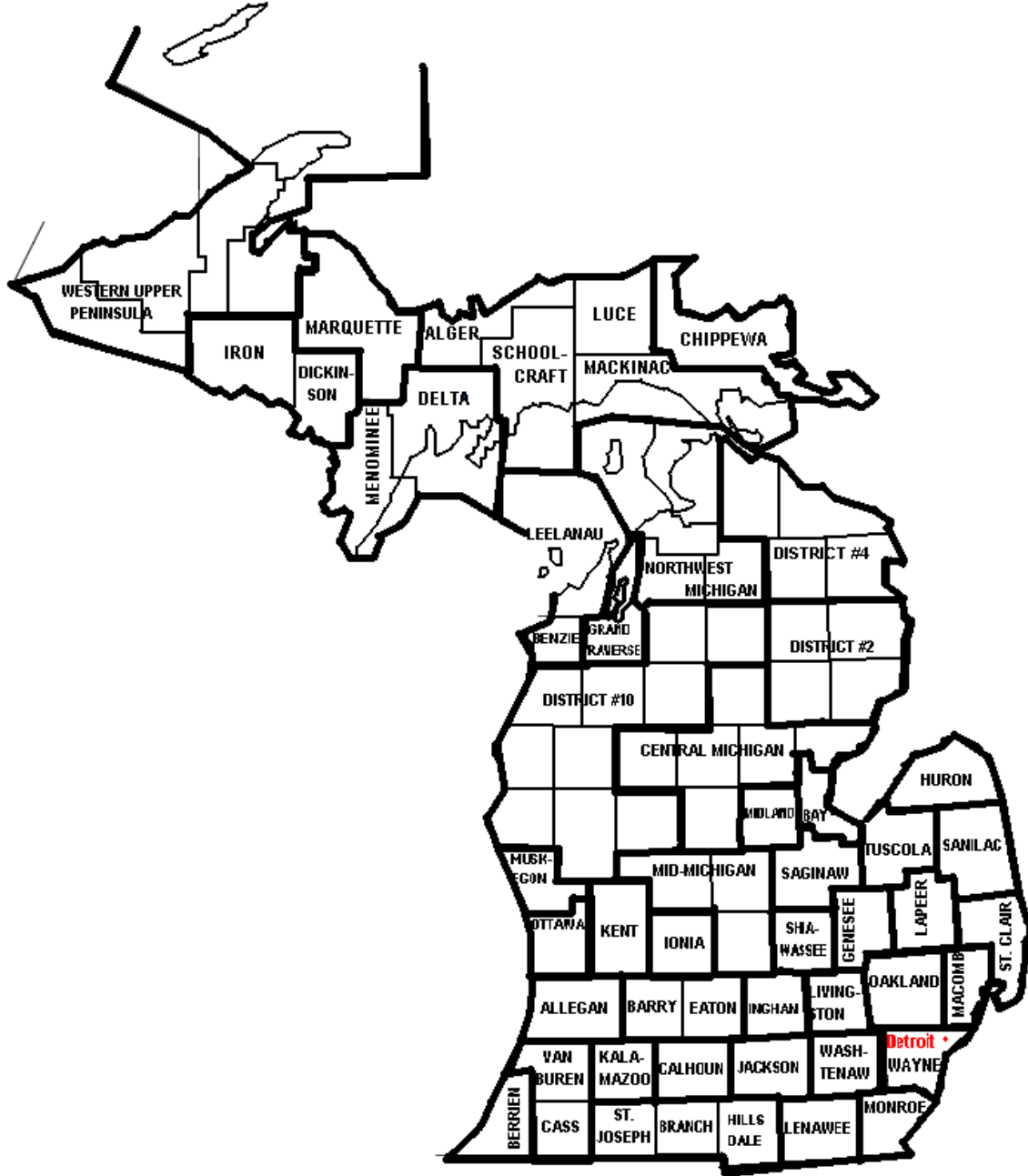
Estimates have been weighted to adjust for the probabilities of selection and the distribution of Michigan adults by age, sex, and race-ethnicity at the state level. Final annual analysis weights were used; no additional weighting factors have been computed for the regional or local health department level. These analyses were performed in SUDAAN, a statistical computing program that was designed for complex sample surveys. Estimates are reported for geographic subgroups with a sample size of at least 50 respondents.

## Community Health Assessment and Improvement Regions State of Michigan



As of  
01/08/02

### Local Health Departments State of Michigan



<b>Table 1: Health Status Michigan BRFSS, 2008-2010 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>27,500</b>	<b>14.6</b>	<b>(14.1-15.2)</b>
<b>Region 1</b>	12,338	14.3	(13.5-15.1)
Livingston	417	9.3	(6.1-13.9)
Macomb	1,576	13.6	(11.7-15.7)
Monroe	344	13.1	(9.7-17.4)
Oakland	2,842	11.0	(9.7-12.6)
St. Clair	389	16.9	(12.6-22.3)
Washtenaw	769	8.9	(7.0-11.3)
City of Detroit	3,134	24.7	(22.5-27.0)
Wayne exc. Detroit	2,234	13.7	(12.0-15.6)
<b>Region 2</b>	1,768	17.2	(14.9-19.6)
Genesee	1,349	18.3	(15.5-21.4)
Lapeer	221	14.5	(10.1-20.3)
Shiawassee	198	14.0	(9.5-20.1)
<b>Region 3</b>	722	13.1	(10.2-16.7)
Jackson	455	14.5	(10.5-19.7)
Lenawee	267	10.6	(7.3-15.2)
<b>Region 4</b>	1,511	14.3	(12.0-17.0)
Barry-Eaton	516	14.3	(10.9-18.6)
Mid-Michigan <sup>b</sup>	555	14.8	(11.6-18.7)
Ingham	671	14.5	(10.8-19.2)
<b>Region 5</b>	1,345	16.5	(14.0-19.4)
Branch-Hillsdale-St. Joseph	384	17.1	(12.6-22.9)
Calhoun	316	16.3	(12.6-20.5)
Kalamazoo	645	16.2	(12.6-20.5)
<b>Region 6</b>	988	16.9	(14.2-20.1)
Van Buren-Cass	327	16.6	(12.4-21.9)
Berrien	661	17.2	(13.8-21.2)
<b>Region 7</b>	2,706	10.9	(9.5-12.4)
Allegan	286	10.7	(7.2-15.5)
Ionia	144	11.5	(6.9-18.6)
Kent	1,381	12.2	(10.2-14.6)
Mid-Michigan <sup>b</sup>	555	14.8	(11.6-18.7)
Ottawa	664	6.5	(4.8-8.8)

<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>27,500</b>	<b>14.6</b>	<b>(14.1-15.2)</b>
<b>Region 8</b>	1,464	17.7	(15.4-20.1)
District #10	864	17.1	(14.4-20.1)
Muskegon	600	18.6	(14.9-23.0)
<b>Region 9</b>	1,317	12.8	(10.9-15.0)
District #2	253	18.2	(13.4-24.3)
District #4	297	12.2	(8.6-17.0)
Northwest Michigan	393	14.9	(11.3-19.5)
Benzie-Leelanau	148	5.3	(2.6-10.4)
Grand Traverse	226	9.1	(5.5-14.5)
<b>Region 10</b>	1,478	16.3	(14.1-18.8)
Bay	310	15.5	(11.2-21.0)
Huron	101	19.8	(12.3-30.5)
Saginaw	770	16.6	(13.4-20.5)
Sanilac	135	14.4	(9.1-22.0)
Tuscola	162	16.1	(10.6-23.6)
<b>Region 11</b>	802	17.4	(14.5-20.7)
Central Michigan	567	19.0	(15.4-23.2)
Midland	235	13.8	(9.5-19.7)
<b>Region 12</b>	1,041	15.5	(12.9-18.4)
Luce-Mackinac-Alger-Schoolcraft	136	7.3	(3.9-13.3)
Western Upper Peninsula	226	16.2	(11.0-23.4)
Delta-Menominee	223	16.5	(11.6-22.9)
Chippewa	120	16.0	(9.4-26.0)
Dickinson-Iron	136	21.4	(14.3-30.8)
Marquette	200	15.3	(9.9-22.9)

<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, 2008-2010 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>26,990</b>	<b>10.8</b>	<b>(10.3-11.3)</b>
<b>Region 1</b>	12,103	10.2	(9.5-10.9)
Livingston	414	8.4	(5.9-11.8)
Macomb	1,545	10.7	(8.8-12.9)
Monroe	337	8.0	(5.5-11.5)
Oakland	2,799	9.0	(7.7-10.4)
St. Clair	384	11.5	(8.2-16.0)
Washtenaw	761	7.5	(5.2-10.8)
City of Detroit	3,048	14.4	(12.7-16.3)
Wayne exc. Detroit	2,202	9.7	(8.2-11.3)
<b>Region 2</b>	1,729	13.2	(11.2-15.4)
Genesee	1,320	13.7	(11.3-16.5)
Lapeer	214	10.1	(6.5-15.2)
Shiawassee	195	13.5	(9.0-19.7)
<b>Region 3</b>	714	11.7	(8.8-15.8)
Jackson	451	13.3	(9.0-19.2)
Lenawee	263	9.0	(5.8-13.8)
<b>Region 4</b>	1,477	9.4	(7.8-11.5)
Barry-Eaton	501	9.3	(6.5-13.3)
Mid-Michigan <sup>b</sup>	546	7.5	(5.4-10.3)
Ingham	659	10.2	(7.7-13.4)
<b>Region 5</b>	1,319	11.6	(9.6-13.9)
Branch-Hillsdale-St. Joseph	377	10.6	(7.1-15.5)
Calhoun	306	12.8	(8.8-18.3)
Kalamazoo	636	11.6	(8.9-15.0)
<b>Region 6</b>	966	11.5	(9.4-13.9)
Van Buren-Cass	320	10.3	(7.4-14.2)
Berrien	646	12.4	(9.7-15.7)
<b>Region 7</b>	2,673	8.7	(7.5-10.1)
Allegan	282	8.3	(5.6-12.2)
Ionia	143	14.9	(8.2-25.4)
Kent	1,357	9.3	(7.6-11.4)
Mid-Michigan <sup>b</sup>	546	7.5	(5.4-10.3)
Ottawa	662	6.7	(4.7-9.6)



<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>26,990</b>	<b>10.8</b>	<b>(10.3-11.3)</b>
<b>Region 8</b>	1,434	13.5	(11.5-15.8)
District #10	845	14.3	(11.7-17.3)
Muskegon	589	12.3	(9.4-15.9)
<b>Region 9</b>	1,296	11.4	(9.5-13.6)
District #2	249	14.2	(9.8-20.3)
District #4	293	15.5	(11.2-21.0)
Northwest Michigan	388	9.5	(6.7-13.3)
Benzie-Leelanau	147	6.7	(3.0-14.2)
Grand Traverse	219	10.0	(6.1-16.0)
<b>Region 10</b>	1,446	11.6	(9.8-13.7)
Bay	305	9.6	(6.6-13.9)
Huron	96	10.5	(5.1-20.4)
Saginaw	755	12.1	(9.6-15.2)
Sanilac	131	12.5	(7.3-20.7)
Tuscola	159	13.3	(8.3-20.7)
<b>Region 11</b>	787	12.8	(10.2-16.0)
Central Michigan	554	14.5	(11.2-18.4)
Midland	233	9.2	(5.5-14.9)
<b>Region 12</b>	1,027	12.0	(9.6-14.9)
Luce-Mackinac-Alger-Schoolcraft	133	12.4	(5.5-25.3)
Western Upper Peninsula	221	12.2	(7.4-19.7)
Delta-Menominee	221	10.4	(7.0-15.3)
Chippewa	119	12.4	(6.3-23.1)
Dickinson-Iron	135	18.6	(11.6-28.6)
Marquette	198	8.9	(5.5-14.2)

<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.

<b>Table 3: Poor Mental Health on at Least 14 Days in the Past Month Michigan BRFSS, 2008-2010 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>27,174</b>	<b>10.8</b>	<b>(10.3-11.4)</b>
<b>Region 1</b>	12,192	11.3	(10.4-12.2)
Livingston	412	10.4	(6.5-16.1)
Macomb	1,562	11.2	(9.1-13.6)
Monroe	338	10.6	(7.1-15.5)
Oakland	2,818	9.4	(8.0-11.2)
St. Clair	385	14.5	(10.0-20.6)
Washtenaw	763	10.8	(7.7-15.0)
City of Detroit	3,085	13.3	(11.7-15.2)
Wayne exc. Detroit	2,205	11.9	(10.1-13.9)
<b>Region 2</b>	1,742	12.9	(10.9-15.2)
Genesee	1,326	14.1	(11.7-16.9)
Lapeer	218	5.6	(3.1-10.0)
Shiawassee	198	13.4	(8.2-21.3)
<b>Region 3</b>	711	8.0	(5.3-11.8)
Jackson	448	10.3	(6.4-16.1)
Lenawee	263	4.0	(2.3-6.7)
<b>Region 4</b>	1,489	10.5	(8.6-12.7)
Barry-Eaton	506	11.6	(8.4-15.7)
Mid-Michigan <sup>b</sup>	551	8.9	(6.3-12.4)
Ingham	661	10.2	(7.6-13.6)
<b>Region 5</b>	1,337	11.9	(9.6-14.6)
Branch-Hillsdale-St. Joseph	382	12.1	(8.1-17.7)
Calhoun	313	13.1	(9.0-18.6)
Kalamazoo	642	11.2	(8.0-15.4)
<b>Region 6</b>	976	10.1	(8.0-12.7)
Van Buren-Cass	323	9.5	(6.4-13.7)
Berrien	653	10.6	(8.0-14.0)
<b>Region 7</b>	2,680	8.7	(7.4-10.3)
Allegan	283	11.2	(6.9-17.7)
Ionia	144	14.0	(6.6-27.3)
Kent	1,367	8.7	(7.0-10.9)
Mid-Michigan <sup>b</sup>	551	8.9	(6.3-12.4)
Ottawa	657	6.7	(4.7-9.4)

<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>27,174</b>	<b>10.8</b>	<b>(10.3-11.4)</b>
<b>Region 8</b>	1,448	12.4	(10.3-14.9)
District #10	855	12.3	(9.7-15.4)
Muskegon	593	12.6	(9.2-17.1)
<b>Region 9</b>	1,292	9.1	(7.4-11.2)
District #2	244	13.9	(9.2-20.5)
District #4	296	7.5	(4.7-11.7)
Northwest Michigan	388	9.2	(6.3-13.2)
Benzie-Leelanau	145	5.9	(2.8-12.0)
Grand Traverse	219	8.2	(4.7-14.0)
<b>Region 10</b>	1,463	10.9	(8.8-13.4)
Bay	305	12.1	(7.7-18.6)
Huron	98	10.1	(5.0-19.5)
Saginaw	765	9.6	(7.1-12.8)
Sanilac	134	12.3	(6.9-21.0)
Tuscola	161	12.2	(6.1-23.1)
<b>Region 11</b>	791	13.7	(10.8-17.1)
Central Michigan	561	13.8	(10.4-18.0)
Midland	230	13.4	(8.7-20.2)
<b>Region 12</b>	1,033	9.0	(6.8-11.7)
Luce-Mackinac-Alger-Schoolcraft	133	8.8	(4.2-17.7)
Western Upper Peninsula	223	5.3	(2.8-9.6)
Delta-Menominee	223	9.6	(5.9-15.3)
Chippewa	119	13.4	(6.1-27.1)
Dickinson-Iron	136	10.8	(5.7-19.8)
Marquette	199	8.1	(3.9-15.9)

<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.

<b>Table 4: Activity Limitation on at Least 14 Days in the Past Month Michigan BRFSS, 2008-2010 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>27,135</b>	<b>7.0</b>	<b>(6.6-7.4)</b>
<b>Region 1</b>	12,176	6.8	(6.2-7.5)
Livingston	414	4.7	(2.8-7.7)
Macomb	1,552	6.4	(4.9-8.3)
Monroe	342	5.0	(3.2-7.9)
Oakland	2,811	5.5	(4.4-6.7)
St. Clair	388	8.2	(4.9-13.4)
Washtenaw	763	5.4	(3.3-8.7)
City of Detroit	3,078	10.8	(9.2-12.7)
Wayne exc. Detroit	2,204	6.7	(5.4-8.2)
<b>Region 2</b>	1,739	8.4	(7.0-10.1)
Genesee	1,325	9.5	(7.7-11.6)
Lapeer	217	3.3	(1.6-6.8)
Shiawassee	196	7.5	(4.4-12.7)
<b>Region 3</b>	715	6.7	(4.4-10.0)
Jackson	451	8.4	(5.1-13.6)
Lenawee	264	3.6	(2.1-6.2)
<b>Region 4</b>	1,495	6.2	(4.9-7.9)
Barry-Eaton	511	5.3	(3.6-7.9)
Mid-Michigan <sup>b</sup>	550	4.4	(2.9-6.5)
Ingham	664	7.8	(5.6-10.7)
<b>Region 5</b>	1,327	7.7	(6.1-9.8)
Branch-Hillsdale-St. Joseph	379	8.6	(5.4-13.3)
Calhoun	312	9.1	(5.8-14.1)
Kalamazoo	636	6.6	(4.6-9.3)
<b>Region 6</b>	927	6.8	(5.4-8.6)
Van Buren-Cass	321	6.7	(4.5-9.8)
Berrien	651	6.9	(5.2-9.2)
<b>Region 7</b>	2,684	5.1	(4.2-6.2)
Allegan	283	5.5	(3.0-9.8)
Ionia	144	5.3	(1.7-15.7)
Kent	1,367	5.0	(3.8-6.6)
Mid-Michigan <sup>b</sup>	550	4.4	(2.9-6.5)
Ottawa	660	5.3	(3.6-7.8)

2008 - 2010 Michigan BRFSS Regional & Local Health Department Estimates  
 May 4, 2011

<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>27,135</b>	<b>7.0</b>	<b>(6.6-7.4)</b>
<b>Region 8</b>	1,435	9.6	(7.9-11.7)
District #10	847	9.5	(7.4-12.1)
Muskegon	588	9.8	(7.1-13.4)
<b>Region 9</b>	1,298	7.2	(5.7-9.0)
District #2	248	11.9	(7.7-18.0)
District #4	295	7.0	(4.4-11.2)
Northwest Michigan	385	7.2	(4.7-10.8)
Benzie-Leelanau	148	3.3	(1.5-7.4)
Grand Traverse	222	4.9	(2.5-9.7)
<b>Region 10</b>	1,452	8.4	(6.7-10.3)
Bay	304	5.5	(3.2-9.2)
Huron	98	6.4	(2.8-14.2)
Saginaw	761	10.4	(7.8-13.7)
Sanilac	131	11.2	(6.4-19.1)
Tuscola	158	5.9	(2.5-13.3)
<b>Region 11</b>	791	9.4	(7.2-12.2)
Central Michigan	557	10.2	(7.5-13.6)
Midland	234	7.8	(4.5-13.2)
<b>Region 12</b>	1,033	6.6	(5.1-8.6)
Luce-Mackinac-Alger-Schoolcraft	134	6.4	(3.1-12.5)
Western Upper Peninsula	224	5.1	(2.7-9.4)
Delta-Menominee	221	8.8	(5.1-15.0)
Chippewa	119	4.4	(2.0-9.4)
Dickinson-Iron	135	9.5	(4.7-18.5)
Marquette	200	5.8	(3.2-10.4)

<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.

<b>Table 5: Life Satisfaction Michigan BRFSS, 2008-2010 Combined</b>			
<b>Geographic Area</b>	<b>Dissatisfied or Very Dissatisfied<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>26,585</b>	<b>6.3</b>	<b>(5.9-6.8)</b>
<b>Region 1</b>	11,879	6.6	(5.9-7.3)
Livingston	402	2.6	(1.1-6.1)
Macomb	1,520	5.7	(4.4-7.4)
Monroe	323	4.5	(2.6-7.7)
Oakland	2,755	5.6	(4.5-7.0)
St. Clair	383	7.6	(4.6-12.1)
Washtenaw	755	6.4	(4.0-10.0)
City of Detroit	2,976	10.6	(8.9-12.5)
Wayne exc. Detroit	2,175	6.6	(5.2-8.3)
<b>Region 2</b>	1,704	7.0	(5.6-8.8)
Genesee	1,294	7.6	(5.9-9.8)
Lapeer	215	3.3	(1.5-7.0)
Shiawassee	195	7.4	(3.9-13.6)
<b>Region 3</b>	699	7.0	(4.4-11.1)
Jackson	443	9.0	(5.1-15.1)
Lenawee	256	3.6	(1.8-7.1)
<b>Region 4</b>	1,472	6.7	(5.1-8.8)
Barry-Eaton	500	6.1	(3.8-9.5)
Mid-Michigan <sup>b</sup>	539	4.9	(2.9-8.3)
Ingham	656	7.9	(5.4-11.5)
<b>Region 5</b>	1,301	6.8	(5.1-9.1)
Branch-Hillsdale-St. Joseph	377	8.2	(5.1-13.1)
Calhoun	305	8.2	(4.5-14.3)
Kalamazoo	619	5.3	(3.3-8.6)
<b>Region 6</b>	958	6.0	(4.3-8.4)
Van Buren-Cass	316	6.9	(3.9-11.9)
Berrien	642	5.4	(3.7-7.7)
<b>Region 7</b>	2,638	4.5	(3.5-5.8)
Allegan	280	5.0	(2.3-10.4)
Ionia	142	1.6	(0.4-5.7)
Kent	1,350	4.9	(3.5-6.9)
Mid-Michigan <sup>b</sup>	539	4.9	(2.9-8.3)
Ottawa	643	3.9	(2.3-6.8)

<b>Table 5 Cont'd</b>			
<b>Geographic Area</b>	<b>Dissatisfied or Very Dissatisfied<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>26,585</b>	<b>6.3</b>	<b>(5.9-6.8)</b>
<b>Region 8</b>	1,411	7.1	(5.1-9.9)
District #10	840	7.3	(4.7-11.1)
Muskegon	571	6.9	(4.1-11.4)
<b>Region 9</b>	1,290	5.7	(4.3-7.6)
District #2	244	7.6	(4.6-12.4)
District #4	292	4.3	(2.3-8.2)
Northwest Michigan	386	8.1	(5.0-12.8)
Benzie-Leelanau	148	5.0	(2.2-10.8)
Grand Traverse	220	1.2	(0.5-3.1)
<b>Region 10</b>	1,430	5.7	(4.3-7.5)
Bay	301	5.6	(3.2-9.7)
Huron	97	7.3	(2.8-17.7)
Saginaw	740	5.6	(3.7-8.5)
Sanilac	130	5.9	(2.6-12.6)
Tuscola	162	5.0	(1.9-12.6)
<b>Region 11</b>	779	7.5	(5.5-10.2)
Central Michigan	549	7.7	(5.3-10.9)
Midland	230	7.1	(3.7-13.2)
<b>Region 12</b>	1,004	5.7	(3.9-8.2)
Luce-Mackinac-Alger-Schoolcraft	130	5.4	(1.9-14.4)
Western Upper Peninsula	218	3.8	(1.7-8.5)
Delta-Menominee	214	5.2	(2.4-11.0)
Chippewa	118	7.8	(2.8-19.5)
Dickinson-Iron	130	9.2	(4.1-19.1)
Marquette	194	4.6	(1.5-12.8)

<sup>a</sup> The proportion of adults who reported either "Dissatisfied" or "Very Dissatisfied" to the following question: "In general, how satisfied are you with your life?"

<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 6: Social and Emotional Support Michigan BRFSS, 2008-2010 Combined</b>			
<b>Geographic Area</b>	<b>Rarely or Never Receive Needed Social and Emotional Support<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>26,340</b>	<b>7.1</b>	<b>(6.7-7.6)</b>
<b>Region 1</b>	11,771	7.5	(6.8-8.3)
Livingston	400	5.7	(3.6-8.8)
Macomb	1,503	6.4	(5.0-8.0)
Monroe	320	10.1	(6.8-14.7)
Oakland	2,747	5.7	(4.7-6.7)
St. Clair	376	9.0	(5.7-13.8)
Washtenaw	749	5.0	(3.6-7.0)
City of Detroit	2,938	13.7	(11.2-16.6)
Wayne exc. Detroit	2,150	6.8	(5.4-8.6)
<b>Region 2</b>	1,680	6.7	(5.4-8.2)
Genesee	1,276	7.4	(5.9-9.3)
Lapeer	212	4.4	(2.6-7.4)
Shiawassee	192	5.3	(2.4-11.6)
<b>Region 3</b>	695	7.3	(5.2-10.0)
Jackson	439	8.4	(5.6-12.4)
Lenawee	238	5.3	(3.1-8.9)
<b>Region 4</b>	1,456	6.1	(4.6-8.0)
Barry-Eaton	496	7.9	(5.1-12.1)
Mid-Michigan <sup>b</sup>	531	4.4	(2.9-6.6)
Ingham	650	5.3	(3.4-8.0)
<b>Region 5</b>	1,288	7.0	(5.3-9.3)
Branch-Hillsdale-St. Joseph	373	8.0	(4.8-13.0)
Calhoun	301	5.2	(2.8-9.4)
Kalamazoo	614	7.2	(4.8-10.7)
<b>Region 6</b>	946	6.1	(4.4-8.6)
Van Buren-Cass	315	2.9	(2.9-11.7)
Berrien	631	6.3	(4.7-8.5)
<b>Region 7</b>	2,622	4.5	(3.5-5.7)
Allegan	280	5.9	(3.2-10.6)
Ionia	138	5.8	(1.4-21.3)
Kent	1,346	4.6	(3.4-6.2)
Mid-Michigan <sup>b</sup>	531	4.4	(2.9-6.6)
Ottawa	639	3.7	(2.1-6.5)



<b>Table 6 Cont'd</b>			
<b>Geographic Area</b>	<b>Rarely or Never Receive the Social and Emotional Support that is Needed<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>26,340</b>	<b>7.1</b>	<b>(6.7-7.6)</b>
<b>Region 8</b>	1,400	6.9	(5.5-8.7)
District #10	836	6.3	(4.8-8.3)
Muskegon	564	7.9	(5.4-11.6)
<b>Region 9</b>	1,271	6.6	(5.2-8.4)
District #2	241	8.4	(5.4-12.7)
District #4	282	6.7	(4.3-10.2)
Northwest Michigan	382	6.7	(4.2-10.5)
Benzie-Leelanau	149	3.7	(1.5-8.6)
Grand Traverse	217	6.7	(3.3-13.1)
<b>Region 10</b>	1,412	10.1	(7.8-13.1)
Bay	299	12.1	(6.1-22.7)
Huron	95	7.5	(3.4-15.8)
Saginaw	730	9.1	(6.6-12.4)
Sanilac	128	13.8	(8.3-22.1)
Tuscola	160	8.6	(4.5-15.7)
<b>Region 11</b>	780	10.2	(7.6-13.5)
Central Michigan	548	10.5	(7.6-14.4)
Midland	214	9.4	(5.0-16.9)
<b>Region 12</b>	997	7.8	(5.9-10.1)
Luce-Mackinac-Alger-Schoolcraft	131	7.8	(3.5-16.2)
Western Upper Peninsula	216	8.6	(5.6-13.0)
Delta-Menominee	213	12.5	(7.2-20.6)
Chippewa	105	7.9	(3.9-15.5)
Dickinson-Iron	126	1.9	(0.8-4.3)
Marquette	195	5.6	(3.0-10.2)

<sup>a</sup> The proportion of adults who reported either "Rarely" or "Never" to the following question: "How often do you get the social and emotional support you need?"

<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 7: Disability Michigan BRFSS, 2008-2010 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>27,357</b>	<b>23.7</b>	<b>(23.0-24.3)</b>
<b>Region 1</b>	12,259	23.0	(22.1-24.0)
Livingston	415	21.4	(17.1-26.4)
Macomb	1,572	22.0	(19.5-24.8)
Monroe	342	26.4	(21.3-32.3)
Oakland	2,826	21.5	(19.6-23.4)
St. Clair	389	24.7	(19.7-30.5)
Washtenaw	766	23.7	(20.0-27.9)
City of Detroit	3,101	27.8	(25.6-30.2)
Wayne exc. Detroit	2,220	21.6	(19.6-23.7)
<b>Region 2</b>	1,758	27.9	(25.1-30.9)
Genesee	1,340	28.6	(25.3-32.1)
Lapeer	218	24.3	(18.6-31.0)
Shiawassee	200	28.0	(20.1-37.7)
<b>Region 3</b>	716	24.6	(20.7-29.0)
Jackson	451	23.4	(18.5-29.0)
Lenawee	265	26.7	(20.5-34.0)
<b>Region 4</b>	1,504	22.1	(19.7-24.7)
Barry-Eaton	513	18.8	(15.4-22.8)
Mid-Michigan <sup>b</sup>	552	24.1	(20.1-28.5)
Ingham	669	24.1	(20.3-28.3)
<b>Region 5</b>	1,343	25.0	(22.2-28.0)
Branch-Hillsdale-St. Joseph	386	26.1	(21.0-31.9)
Calhoun	314	25.4	(19.7-32.2)
Kalamazoo	643	24.1	(20.3-28.4)
<b>Region 6</b>	985	22.0	(19.2-25.1)
Van Buren-Cass	327	19.8	(15.6-24.9)
Berrien	658	23.7	(20.0-27.7)
<b>Region 7</b>	2,698	20.2	(18.4-22.1)
Allegan	287	15.7	(11.5-21.1)
Ionia	144	20.5	(14.1-28.8)
Kent	1,375	20.9	(18.4-23.8)
Mid-Michigan <sup>b</sup>	552	24.1	(20.1-28.5)
Ottawa	662	18.9	(15.6-22.7)

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<b>Table 7 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>27,357</b>	<b>23.7</b>	<b>(23.0-24.3)</b>
<b>Region 8</b>	1,454	27.6	(24.8-30.6)
District #10	861	27.6	(24.1-31.5)
Muskegon	593	27.5	(23.2-32.4)
<b>Region 9</b>	1,314	25.7	(23.0-28.5)
District #2	253	34.3	(27.4-41.8)
District #4	296	25.8	(20.6-31.9)
Northwest Michigan	393	23.6	(19.2-28.6)
Benzie-Leelanau	148	19.3	(13.2-27.3)
Grand Traverse	224	24.8	(18.8-31.9)
<b>Region 10</b>	1,474	23.3	(20.6-26.1)
Bay	309	17.6	(13.1-23.3)
Huron	101	28.2	(18.4-40.7)
Saginaw	766	25.2	(21.4-29.3)
Sanilac	135	24.5	(17.3-33.6)
Tuscola	163	24.0	(16.5-33.6)
<b>Region 11</b>	792	26.9	(23.3-30.9)
Central Michigan	560	29.2	(24.7-34.2)
Midland	232	21.8	(16.3-28.5)
<b>Region 12</b>	1,040	25.3	(22.0-28.8)
Luce-Mackinac-Alger-Schoolcraft	136	27.9	(18.3-40.1)
Western Upper Peninsula	227	27.6	(20.2-36.5)
Delta-Menominee	221	23.8	(18.0-30.8)
Chippewa	121	25.6	(17.4-36.1)
Dickinson-Iron	136	23.9	(16.5-33.3)
Marquette	199	23.2	(16.7-31.2)

<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.

<b>Table 8: Weight Status</b>							
<b>Michigan BRFSS, 2008-2010 Combined</b>							
<b>Geographic Area</b>	<b>Sample Size</b>	<b>Obese<sup>a</sup></b>		<b>Overweight<sup>b</sup></b>		<b>Not Overweight or Obese<sup>c</sup></b>	
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>	<b>%</b>	<b>95% Confidence Interval</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>26,281</b>	<b>30.9</b>	<b>(30.1-31.6)</b>	<b>35.3</b>	<b>(34.5-36.1)</b>	<b>33.8</b>	<b>(33.0-34.6)</b>
<b>Region 1</b>	11,790	29.3	(28.1-30.5)	35.1	(33.9-36.4)	35.6	(34.3-37.0)
Livingston	402	22.5	(17.8-27.9)	36.9	(31.1-43.0)	40.7	(34.4-47.3)
Macomb	1,509	29.6	(26.6-32.8)	37.0	(33.8-40.3)	33.4	(30.1-36.9)
Monroe	327	37.3	(30.6-44.4)	31.9	(25.8-38.8)	30.8	(24.7-37.7)
Oakland	2,734	25.9	(23.6-28.3)	35.7	(33.1-38.2)	38.5	(35.8-41.2)
St. Clair	362	30.6	(24.7-37.2)	34.2	(28.4-40.5)	35.2	(29.1-41.9)
Washtenaw	743	22.1	(18.5-26.1)	35.7	(31.1-40.5)	42.3	(37.5-47.2)
City of Detroit	2,986	39.2	(36.4-42.1)	32.1	(29.6-34.8)	28.7	(25.7-31.8)
Wayne exc. Detroit	2,133	28.5	(26.1-31.0)	35.2	(32.6-37.9)	36.3	(33.5-39.1)
<b>Region 2</b>	1,697	35.8	(32.5-39.2)	36.4	(33.1-39.9)	27.8	(24.9-31.0)
Genesee	1,297	36.5	(32.6-40.6)	34.5	(30.6-38.6)	29.0	(25.5-32.8)
Lapeer	211	38.9	(31.0-47.4)	34.9	(27.6-42.9)	26.2	(19.7-34.0)
Shiawassee	189	29.3	(21.7-38.3)	47.6	(37.9-57.6)	23.0	(15.4-33.0)
<b>Region 3</b>	697	37.6	(32.9-42.6)	40.3	(35.5-45.4)	22.0	(18.4-26.1)
Jackson	437	37.6	(31.8-43.9)	40.0	(33.9-46.3)	22.4	(17.8-27.8)
Lenawee	260	37.6	(30.0-45.9)	41.0	(33.2-49.3)	21.4	(16.1-27.8)
<b>Region 4</b>	1,433	33.1	(29.9-36.5)	34.9	(31.8-38.2)	31.9	(28.8-35.2)
Barry-Eaton	497	30.8	(26.1-36.0)	37.5	(32.2-43.1)	31.7	(26.5-37.4)
Mid-Michigan <sup>d</sup>	523	35.0	(29.9-40.4)	31.8	(27.1-37.0)	33.2	(28.1-38.8)
Ingham	636	33.0	(27.9-38.6)	34.2	(29.4-39.3)	32.8	(28.1-37.8)
<b>Region 5</b>	1,281	29.4	(26.2-32.9)	33.7	(30.3-37.2)	36.9	(33.3-40.6)
Branch-Hillsdale-St. Joseph	366	26.3	(21.1-32.2)	37.9	(31.2-45.1)	35.8	(29.4-42.7)
Calhoun	303	37.9	(30.6-45.8)	32.2	(25.9-39.2)	29.8	(22.9-37.8)
Kalamazoo	612	27.3	(22.9-32.2)	31.7	(27.3-36.5)	41.0	(35.8-46.4)
<b>Region 6</b>	945	30.4	(26.6-34.5)	35.4	(31.3-39.7)	34.2	(30.1-38.5)
Van Buren-Cass	311	27.8	(21.9-34.6)	34.7	(28.1-42.1)	37.5	(30.5-44.9)
Berrien	634	32.3	(27.6-37.5)	35.9	(30.9-41.2)	31.8	(27.0-37.0)
<b>Region 7</b>	2,582	27.4	(25.2-29.7)	35.4	(33.0-37.8)	37.2	(34.7-39.8)
Allegan	274	30.7	(24.4-37.8)	38.5	(31.7-45.9)	30.7	(24.5-37.7)
Ionia	136	30.7	(21.9-41.2)	35.8	(25.9-47.0)	33.5	(23.3-45.8)
Kent	1,312	27.7	(24.8-30.9)	35.4	(32.2-38.9)	36.8	(33.3-40.5)
Mid-Michigan <sup>d</sup>	523	35.0	(29.9-40.4)	31.8	(27.1-37.0)	33.2	(28.1-38.8)
Ottawa	637	23.1	(18.7-28.2)	35.2	(30.5-40.2)	41.6	(36.5-47.0)

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**Table 8 Cont'd**

Geographic Area	Sample Size	Obese <sup>a</sup>		Overweight <sup>b</sup>		Not Overweight or Obese <sup>c</sup>	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>26,281</b>	<b>30.9</b>	<b>(30.1-31.6)</b>	<b>35.3</b>	<b>(34.5-36.1)</b>	<b>33.8</b>	<b>(33.0-34.6)</b>
<b>Region 8</b>	1,389	33.9	(30.7-37.4)	37.2	(33.7-40.8)	28.9	(25.7-32.2)
District #10	825	32.9	(28.8-37.2)	39.6	(35.2-44.2)	27.5	(23.6-31.8)
Muskegon	564	35.7	(30.4-41.4)	33.2	(27.8-39.0)	31.1	(26.0-36.9)
<b>Region 9</b>	1,269	30.9	(27.7-34.2)	35.5	(32.3-38.9)	33.6	(30.2-37.2)
District #2	239	34.3	(27.2-42.1)	36.4	(29.3-44.0)	29.4	(22.2-37.7)
District #4	288	37.9	(30.7-45.7)	37.5	(30.8-44.8)	24.6	(18.8-31.4)
Northwest Michigan	377	27.3	(22.2-33.0)	33.9	(28.2-40.1)	38.8	(32.7-45.3)
Benzie-Leelanau	145	25.5	(17.7-35.3)	33.5	(23.8-44.8)	41.0	(29.7-53.2)
Grand Traverse	220	28.7	(21.9-36.7)	36.7	(29.2-44.9)	34.5	(27.0-42.9)
<b>Region 10</b>	1,414	38.0	(34.2-41.9)	31.2	(28.1-34.6)	30.8	(27.4-34.4)
Bay	295	41.4	(32.5-51.0)	30.0	(23.6-37.4)	28.5	(21.9-36.3)
Huron	95	24.9	(15.9-36.7)	34.2	(23.2-47.1)	40.9	(28.8-54.3)
Saginaw	734	40.2	(35.1-45.5)	29.8	(25.4-34.6)	30.0	(25.2-35.4)
Sanilac	131	41.5	(31.4-52.4)	26.8	(19.1-36.3)	31.6	(22.1-43.1)
Tuscola	159	28.4	(20.2-38.3)	39.9	(30.3-50.3)	31.7	(22.5-42.5)
<b>Region 11</b>	765	33.8	(29.6-38.2)	32.4	(28.3-36.8)	33.8	(29.3-38.5)
Central Michigan	548	35.1	(30.1-40.5)	33.4	(28.5-38.7)	31.5	(26.2-37.2)
Midland	217	30.7	(23.5-39.0)	30.1	(23.0-38.4)	39.2	(31.1-47.9)
<b>Region 12</b>	1,001	28.5	(24.7-32.6)	39.4	(35.5-43.4)	32.1	(28.3-36.2)
Luce-Mackinac-Alger-Schoolcraft	131	29.0	(17.0-44.8)	39.1	(27.8-51.7)	31.9	(20.0-46.7)
Western Upper Peninsula	219	24.1	(17.6-32.1)	38.4	(30.7-46.7)	37.4	(29.4-46.3)
Delta-Menominee	216	29.6	(22.7-37.7)	41.0	(32.9-49.6)	29.4	(22.3-37.7)
Chippewa	114	34.4	(23.5-47.1)	32.9	(23.4-44.0)	32.7	(22.1-45.5)
Dickinson-Iron	130	25.8	(17.2-36.8)	38.1	(28.4-48.8)	36.1	(26.3-47.2)
Marquette	191	29.1	(21.3-38.2)	43.7	(34.9-52.9)	27.3	(20.1-36.0)

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

<sup>a</sup> 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 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 9: No Health Care Coverage Among Those Aged 18-64 Years Michigan BRFSS, 2008-2010 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>27,634</b>	<b>15.1</b>	<b>(14.5-15.7)</b>
<b>Region 1</b>	12,268	14.4	(13.5-15.4)
Livingston	449	13.2	(9.2-18.7)
Macomb	1,588	14.6	(12.2-17.3)
Monroe	371	11.6	(8.3-16.0)
Oakland	2,832	9.9	(8.4-11.6)
St. Clair	430	17.7	(13.3-23.0)
Washtenaw	866	7.7	(5.4-10.9)
City of Detroit	2,923	26.1	(23.6-28.7)
Wayne exc. Detroit	2,418	13.5	(11.6-15.7)
<b>Region 2</b>	1,771	15.3	(12.8-18.1)
Genesee	1,334	14.1	(11.4-17.3)
Lapeer	248	17.0	(11.4-24.5)
Shiawassee	189	19.4	(12.3-29.4)
<b>Region 3</b>	737	15.5	(12.0-19.8)
Jackson	463	18.3	(13.5-24.2)
Lenawee	274	10.7	(6.5-17.0)
<b>Region 4</b>	1,625	13.0	(10.8-15.5)
Barry-Eaton	532	13.7	(10.2-18.0)
Mid-Michigan <sup>b</sup>	585	10.3	(7.4-14.1)
Ingham	743	14.1	(10.8-18.2)
<b>Region 5</b>	1,392	16.3	(13.8-19.1)
Branch-Hillsdale-St. Joseph	382	20.0	(15.2-25.8)
Calhoun	338	18.0	(13.1-24.1)
Kalamazoo	672	13.2	(10.0-17.2)
<b>Region 6</b>	991	14.1	(11.3-17.4)
Van Buren-Cass	370	14.2	(9.7-20.3)
Berrien	621	14.0	(10.8-17.9)
<b>Region 7</b>	2,921	13.1	(11.4-15.0)
Allegan	310	15.4	(10.7-21.6)
Ionia	168	17.3	(10.9-26.5)
Kent	1,495	11.9	(9.7-14.5)
Mid-Michigan <sup>b</sup>	585	10.3	(7.4-14.1)
Ottawa	713	14.1	(10.4-18.8)

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<b>Table 9 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>27,634</b>	<b>15.1</b>	<b>(14.5-15.7)</b>
<b>Region 8</b>	1,410	19.2	(16.4-22.3)
District #10	853	20.0	(16.6-23.9)
Muskegon	557	17.9	(13.6-23.2)
<b>Region 9</b>	1,288	17.9	(15.2-20.9)
District #2	237	18.4	(12.7-25.9)
District #4	275	20.3	(14.2-28.3)
Northwest Michigan	400	20.0	(15.6-25.4)
Benzie-Leelanau	130	12.4	(6.3-23.0)
Grand Traverse	246	14.0	(8.9-21.4)
<b>Region 10</b>	1,374	14.7	(12.3-17.5)
Bay	302	15.4	(10.7-21.6)
Huron	84	11.9	(5.9-22.4)
Saginaw	718	12.9	(9.8-16.9)
Sanilac	122	17.8	(11.6-26.3)
Tuscola	148	18.9	(11.4-29.7)
<b>Region 11</b>	823	20.6	(17.0-24.6)
Central Michigan	562	23.4	(19.0-28.5)
Midland	261	14.4	(9.2-21.9)
<b>Region 12</b>	1,026	18.1	(15.1-21.6)
Luce-Mackinac-Alger-Schoolcraft	146	22.2	(14.3-32.9)
Western Upper Peninsula	213	17.4	(12.0-24.6)
Delta-Menominee	213	23.8	(16.6-32.9)
Chippewa	113	22.4	(12.7-36.3)
Dickinson-Iron	141	10.8	(5.5-20.0)
Marquette	200	12.5	(8.4-18.2)

<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.

**Table 10: Health Care Access  
 Michigan BRFSS, 2008-2010 Combined**

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>27,467</b>	<b>12.5</b>	<b>(11.9-13.2)</b>	<b>27,519</b>	<b>13.4</b>	<b>(12.8-14.0)</b>
<b>Region 1</b>	12,324	13.0	(12.0-14.1)	12,347	13.5	(12.6-14.5)
Livingston	417	9.4	(6.0-14.3)	416	6.8	(4.2-11.0)
Macomb	1,577	10.2	(8.1-12.8)	1,582	12.8	(10.7-15.4)
Monroe	342	8.9	(5.6-13.8)	344	10.2	(7.0-14.7)
Oakland	2,840	9.6	(8.0-11.6)	2,841	10.9	(9.3-12.7)
St. Clair	390	11.2	(7.2-16.9)	390	16.3	(11.4-22.6)
Washtenaw	769	12.9	(9.5-17.2)	768	10.6	(7.4-15.0)
City of Detroit	3,124	23.6	(20.6-26.9)	3,137	22.2	(19.8-24.9)
Wayne exc. Detroit	2,234	13.2	(11.0-15.7)	2,234	13.2	(11.3-15.5)
<b>Region 2</b>	1,772	11.5	(9.1-14.4)	1,767	15.1	(12.8-17.7)
Genesee	1,350	11.8	(8.9-15.4)	1,346	14.5	(11.9-17.5)
Lapeer	222	7.3	(4.2-12.6)	222	14.2	(9.2-21.2)
Shiawassee	200	14.0	(8.1-23.2)	199	18.9	(12.5-27.5)
<b>Region 3</b>	719	11.1	(8.0-15.2)	722	11.0	(8.0-15.0)
Jackson	453	11.4	(7.7-16.5)	455	13.6	(9.3-19.4)
Lenawee	266	10.6	(5.7-18.8)	267	6.5	(3.8-10.8)
<b>Region 4</b>	1,505	13.8	(11.3-16.9)	1,508	10.9	(8.9-13.3)
Barry-Eaton	513	12.8	(9.2-17.5)	514	10.2	(7.4-14.0)
Mid-Michigan <sup>c</sup>	554	9.6	(6.4-14.1)	556	10.2	(7.3-14.0)
Ingham	669	16.3	(12.1-21.6)	669	11.9	(8.7-16.1)
<b>Region 5</b>	1,342	14.2	(11.6-17.2)	1,347	12.5	(10.1-15.4)
Branch-Hillsdale-St. Joseph	386	14.9	(10.7-20.2)	386	16.0	(11.3-22.2)
Calhoun	315	10.4	(6.5-16.2)	316	13.2	(8.5-20.1)
Kalamazoo	641	15.6	(11.7-20.6)	645	10.1	(7.2-14.0)
<b>Region 6</b>	984	16.5	(13.2-20.4)	988	13.5	(10.8-16.7)
Van Buren-Cass	326	17.5	(12.0-24.8)	327	16.5	(11.6-22.9)
Berrien	658	15.7	(12.1-20.1)	661	11.1	(8.6-14.3)



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Table 10 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>27,467</b>	<b>12.5</b>	<b>(11.9-13.2)</b>	<b>27,519</b>	<b>13.4</b>	<b>(12.8-14.0)</b>
<b>Region 7</b>	2,706	8.6	(7.1-10.5)	2,710	12.6	(10.9-14.6)
Allegan	285	9.0	(5.3-15.0)	287	14.7	(9.8-21.6)
Ionia	144	13.4	(6.6-25.6)	144	17.5	(10.8-27.1)
Kent	1,380	8.4	(6.4-11.0)	1,382	13.6	(11.1-16.6)
Mid-Michigan <sup>c</sup>	554	9.6	(6.4-14.1)	556	10.2	(7.3-14.0)
Ottawa	666	7.6	(4.9-11.6)	666	9.3	(6.5-13.1)
<b>Region 8</b>	1,463	9.3	(7.2-11.9)	1,468	15.2	(12.8-18.1)
District #10	862	9.1	(6.7-12.1)	866	15.3	(12.3-18.8)
Muskegon	601	9.8	(6.2-15.0)	602	15.2	(11.1-20.5)
<b>Region 9</b>	1,315	11.6	(9.2-14.5)	1,319	14.9	(12.5-17.7)
District #2	254	12.0	(7.1-19.5)	254	17.0	(11.8-23.9)
District #4	295	12.8	(8.4-18.9)	296	13.1	(8.9-19.0)
Northwest Michigan	391	12.2	(8.4-17.5)	394	18.5	(13.8-24.3)
Benzie-Leelanau	149	15.4	(7.6-28.7)	149	11.9	(6.3-21.2)
Grand Traverse	226	5.7	(2.1-14.6)	226	10.4	(5.8-17.7)
<b>Region 10</b>	1,477	12.2	(9.8-15.0)	1,480	12.5	(10.4-15.0)
Bay	310	14.9	(9.8-22.1)	310	15.3	(10.7-21.4)
Huron	101	17.6	(9.6-30.2)	101	6.6	(2.8-14.8)
Saginaw	769	9.8	(6.9-13.7)	771	12.8	(9.8-16.6)
Sanilac	134	10.9	(5.5-20.6)	135	12.6	(7.2-21.3)
Tuscola	163	13.2	(7.3-22.8)	163	9.1	(4.9-16.4)
<b>Region 11</b>	800	17.1	(13.6-21.3)	802	14.8	(11.8-18.5)
Central Michigan	566	17.4	(13.4-22.3)	567	16.4	(12.6-21.1)
Midland	234	16.5	(10.4-25.2)	235	11.4	(7.0-18.1)
<b>Region 12</b>	1,040	16.0	(12.8-19.9)	1,041	13.5	(10.5-17.1)
Luce-Mackinac-Alger-Schoolcraft	136	12.4	(6.8-21.6)	136	17.3	(9.4-29.9)
Western Upper Peninsula	226	16.0	(9.3-26.2)	226	16.0	(8.2-29.1)
Delta-Menominee	222	19.0	(12.4-28.0)	224	14.9	(9.6-22.4)
Chippewa	121	22.9	(12.3-38.6)	121	13.6	(7.0-24.8)
Dickinson-Iron	135	5.7	(1.8-16.7)	136	14.6	(8.4-24.0)
Marquette	200	17.0	(11.1-25.2)	198	6.1	(3.5-10.4)

<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.

<b>Table 11: No Leisure-Time Physical Activity Michigan BRFSS, 2008-2010 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>27,543</b>	<b>24.3</b>	<b>(23.6-25.0)</b>
<b>Region 1</b>	12,359	23.5	(22.5-24.6)
Livingston	417	16.3	(12.5-20.9)
Macomb	1,582	22.6	(20.1-25.2)
Monroe	343	27.0	(21.5-33.3)
Oakland	2,845	19.6	(17.7-21.6)
St. Clair	391	23.3	(18.5-28.8)
Washtenaw	769	17.8	(14.7-21.5)
City of Detroit	3,141	34.5	(31.7-37.5)
Wayne exc. Detroit	2,235	23.7	(21.5-26.1)
<b>Region 2</b>	1,773	28.5	(25.5-31.8)
Genesee	1,352	29.5	(25.9-33.3)
Lapeer	222	23.2	(17.6-29.9)
Shiawassee	199	28.9	(20.5-39.0)
<b>Region 3</b>	722	26.3	(22.3-30.7)
Jackson	455	27.9	(22.8-33.8)
Lenawee	267	23.4	(17.8-30.2)
<b>Region 4</b>	1,511	23.6	(21.0-26.5)
Barry-Eaton	516	24.3	(19.9-29.3)
Mid-Michigan <sup>b</sup>	553	25.7	(21.4-30.5)
Ingham	671	21.0	(17.2-25.3)
<b>Region 5</b>	1,348	26.5	(23.3-29.9)
Branch-Hillsdale-St. Joseph	386	33.1	(26.6-40.2)
Calhoun	317	28.9	(22.5-36.2)
Kalamazoo	645	21.4	(17.5-25.8)
<b>Region 6</b>	989	27.8	(24.3-31.6)
Van Buren-Cass	327	27.8	(22.2-34.3)
Berrien	662	27.8	(23.6-32.5)
<b>Region 7</b>	2,711	21.0	(19.2-23.0)
Allegan	287	25.8	(20.0-32.7)
Ionia	144	27.4	(18.1-39.2)
Kent	1,385	19.7	(16.6-24.3)
Mid-Michigan <sup>b</sup>	553	25.7	(21.4-30.5)
Ottawa	666	20.2	(16.6-24.3)

<b>Table 11 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>27,543</b>	<b>24.3</b>	<b>(23.6-25.0)</b>
<b>Region 8</b>	1,468	26.3	(23.6-29.3)
District #10	865	26.2	(22.7-30.0)
Muskegon	603	26.6	(22.2-31.5)
<b>Region 9</b>	1,320	23.2	(20.5-26.1)
District #2	254	33.4	(26.3-41.2)
District #4	298	21.8	(17.0-27.5)
Northwest Michigan	393	18.5	(14.6-23.1)
Benzie-Leelanau	149	28.6	(19.9-39.4)
Grand Traverse	226	19.1	(13.6-26.0)
<b>Region 10</b>	1,477	27.2	(24.3-30.4)
Bay	309	24.4	(18.5-31.5)
Huron	101	26.1	(16.4-39.0)
Saginaw	770	27.4	(23.3-31.9)
Sanilac	134	30.1	(21.6-40.1)
Tuscola	163	30.3	(21.9-40.3)
<b>Region 11</b>	801	26.9	(23.1-30.9)
Central Michigan	566	29.9	(25.3-34.9)
Midland	235	20.2	(14.4-27.5)
<b>Region 12</b>	1,044	22.5	(19.3-26.0)
Luce-Mackinac-Alger-Schoolcraft	136	29.3	(18.7-42.7)
Western Upper Peninsula	227	24.3	(17.4-32.7)
Delta-Menominee	224	25.3	(19.1-32.7)
Chippewa	121	19.1	(11.8-29.4)
Dickinson-Iron	136	19.7	(12.9-28.9)
Marquette	200	17.1	(11.6-24.5)

<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.

**Table 12: Cigarette Smoking**  
**Michigan BRFSS, 2008-2010 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>27,455</b>	<b>19.7</b>	<b>(19.0-20.4)</b>	<b>25.6</b>	<b>(24.9-26.2)</b>	<b>54.8</b>	<b>(53.9-55.6)</b>
<b>Region 1</b>	12,310	18.2	(17.2-19.2)	25.1	(24.1-26.1)	56.7	(55.4-58.0)
Livingston	418	16.5	(12.0-22.1)	28.0	(23.1-33.4)	55.6	(49.2-61.7)
Macomb	1,577	17.6	(15.2-20.2)	26.8	(24.2-29.5)	55.7	(52.4-58.9)
Monroe	344	16.4	(12.1-21.9)	32.6	(26.4-39.5)	51.0	(44.1-57.9)
Oakland	2,835	13.7	(11.9-15.7)	25.7	(23.7-27.8)	60.7	(58.1-63.1)
St. Clair	389	28.8	(23.0-35.3)	26.8	(21.9-32.3)	44.4	(38.2-50.9)
Washtenaw	765	13.8	(10.9-17.4)	19.4	(16.4-22.7)	66.8	(62.4-70.8)
City of Detroit	3,114	24.5	(22.2-27.1)	19.2	(17.5-21.1)	56.2	(53.4-59.0)
Wayne exc. Detroit	2,231	19.5	(17.3-21.9)	27.4	(25.2-29.7)	53.1	(50.4-55.9)
<b>Region 2</b>	1,767	20.8	(18.2-23.8)	25.9	(23.4-28.6)	20.8	(18.2-23.8)
Genesee	1,346	21.0	(17.8-24.5)	25.0	(22.1-28.2)	54.0	(50.0-57.9)
Lapeer	222	22.5	(16.1-30.5)	30.6	(24.0-38.0)	46.9	(39.0-55.1)
Shiawassee	199	18.7	(12.5-27.1)	26.0	(19.3-34.0)	55.3	(45.8-64.4)
<b>Region 3</b>	716	21.5	(17.5-26.1)	26.7	(22.9-30.8)	51.8	(47.0-56.7)
Jackson	452	24.9	(19.5-31.2)	26.0	(21.3-31.2)	49.1	(43.0-55.3)
Lenawee	266	15.5	(11.0-21.4)	27.9	(21.9-34.8)	56.6	(48.8-64.0)
<b>Region 4</b>	1,506	21.3	(18.5-24.5)	23.7	(21.3-26.3)	55.0	(51.6-58.3)
Barry-Eaton	512	24.0	(19.4-29.4)	23.5	(19.5-28.1)	52.5	(46.9-58.0)
Mid-Michigan <sup>c</sup>	554	22.9	(18.5-28.0)	25.2	(21.1-29.7)	51.9	(46.6-57.3)
Ingham	669	18.6	(14.5-23.6)	23.7	(20.1-27.8)	57.7	(52.5-62.7)
<b>Region 5</b>	1,343	21.2	(18.2-24.5)	23.2	(20.6-25.9)	58.5	(54.4-62.6)
Branch-Hillsdale-St. Joseph	386	20.6	(15.8-26.5)	24.3	(19.5-29.8)	55.1	(48.4-61.6)
Calhoun	317	25.9	(19.6-33.3)	19.6	(15.2-24.9)	54.5	(47.0-61.8)
Kalamazoo	640	19.3	(15.0-24.5)	24.2	(20.5-28.3)	56.5	(51.3-61.5)
<b>Region 6</b>	988	18.5	(15.5-21.9)	23.0	(20.0-26.4)	58.5	(54.4-62.6)
Van Buren-Cass	327	21.5	(16.3-27.7)	24.2	(19.1-30.1)	54.4	(47.3-61.3)
Berrien	661	16.2	(12.9-20.1)	22.2	(18.6-26.2)	61.7	(56.7-66.4)
<b>Region 7</b>	2,704	17.6	(15.7-19.7)	24.7	(22.7-26.7)	57.7	(55.3-60.2)
Allegan	286	27.1	(20.9-34.3)	23.9	(18.7-30.1)	49.0	(41.9-56.1)
Ionia	144	15.4	(8.7-25.7)	18.7	(12.8-26.4)	66.0	(55.5-62.4)
Kent	1,380	16.6	(14.0-19.5)	24.4	(21.7-27.3)	59.0	(55.6-62.4)
Mid-Michigan <sup>c</sup>	554	22.9	(18.5-28.0)	25.2	(21.1-29.7)	51.9	(46.6-57.3)
Ottawa	665	14.7	(11.1-19.2)	26.1	(22.0-30.6)	59.2	(54.1-64.2)

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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>27,455</b>	<b>19.7</b>	<b>(19.0-20.4)</b>	<b>25.6</b>	<b>(24.9-26.2)</b>	<b>54.8</b>	<b>(53.9-55.6)</b>
<b>Region 8</b>	1,465	24.2	(21.2-27.6)	26.7	(24.0-29.6)	49.1	(45.6-52.6)
District #10	864	25.5	(21.5-29.9)	26.9	(23.6-30.5)	47.6	(43.2-52.1)
Muskegon	601	22.2	(17.8-27.4)	26.3	(21.9-31.2)	51.4	(45.8-57.1)
<b>Region 9</b>	1,319	20.7	(17.9-23.7)	29.5	(26.7-32.5)	49.8	(26.4-53.3)
District #2	254	21.7	(15.9-28.9)	35.7	(29.0-43.0)	42.6	(35.0-50.5)
District #4	297	22.2	(16.6-28.9)	25.7	(20.6-31.5)	52.2	(44.9-59.4)
Northwest Michigan	393	25.6	(20.3-31.7)	28.8	(24.0-34.1)	45.7	(39.5-51.9)
Benzie-Leelanau	149	8.0	(3.9-15.6)	28.7	(20.4-38.8)	63.2	(52.5-72.8)
Grand Traverse	226	17.1	(11.4-24.8)	29.9	(23.3-37.4)	53.0	(44.9-61.0)
<b>Region 10</b>	1,479	21.7	(18.5-25.3)	27.0	(24.2-30.1)	51.3	(47.6-55.0)
Bay	310	25.9	(18.3-35.2)	23.8	(18.5-30.0)	50.4	(41.9-58.8)
Huron	101	19.5	(10.2-34.1)	26.5	(17.9-37.4)	53.9	(41.4-66.0)
Saginaw	771	19.9	(16.0-24.5)	26.8	(22.7-31.5)	53.3	(48.1-58.4)
Sanilac	135	23.4	(15.0-34.6)	34.0	(25.0-44.3)	42.6	(32.7-53.2)
Tuscola	162	19.9	(12.5-30.1)	29.2	(21.2-38.6)	51.0	(40.7-61.1)
<b>Region 11</b>	797	23.6	(19.8-27.7)	27.3	(23.8-31.1)	49.1	(44.6-53.7)
Central Michigan	564	23.6	(19.3-28.4)	31.3	(26.8-36.2)	45.1	(39.6-50.8)
Midland	233	23.5	(16.7-32.1)	18.5	(13.6-24.6)	58.0	(49.7-65.8)
<b>Region 12</b>	1,040	21.3	(18.1-24.9)	30.4	(26.8-34.2)	48.3	(44.1-52.5)
Luce-Mackinac-Alger-Schoolcraft	136	22.6	(13.7-35.0)	31.7	(19.9-46.5)	45.6	(33.0-58.9)
Western Upper Peninsula	226	16.5	(11.4-23.3)	32.7	(25.4-40.9)	50.8	(41.3-60.2)
Delta-Menominee	224	27.8	(20.6-36.3)	23.3	(17.9-29.6)	49.0	(40.8-57.3)
Chippewa	120	14.6	(8.6-23.5)	27.7	(18.7-39.0)	57.7	(45.9-68.7)
Dickinson-Iron	136	23.9	(15.4-35.0)	26.7	(19.1-35.9)	49.5	(39.1-59.9)
Marquette	198	21.2	(14.2-30.4)	38.4	(30.1-47.4)	40.4	(32.1-49.2)

<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, 2008-2010 Combined**

Geographic Area	Heavy Drinking <sup>a</sup>			Binge Drinking <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>26,738</b>	<b>5.4</b>	<b>(5.0-5.8)</b>	<b>26,992</b>	<b>16.6</b>	<b>(15.9-17.3)</b>
<b>Region 1</b>	11,976	5.2	(4.7-5.9)	12,102	16.6	(15.6-17.7)
Livingston	399	7.9	(5.0-12.2)	407	18.6	(13.8-24.5)
Macomb	1,530	5.5	(4.1-7.4)	1,553	20.0	(17.3-23.0)
Monroe	334	3.5	(1.9-6.3)	336	22.2	(16.3-29.6)
Oakland	2,762	5.2	(4.0-6.7)	2,790	15.4	(13.5-17.5)
St. Clair	378	7.2	(4.5-11.5)	386	17.3	(12.5-23.4)
Washtenaw	751	5.8	(4.0-8.4)	757	12.6	(9.6-16.5)
City of Detroit	3,044	4.1	(3.0-5.6)	3,074	12.1	(10.3-14.1)
Wayne exc. Detroit	2,181	5.0	(4.1-6.3)	2,197	18.4	(16.2-20.7)
<b>Region 2</b>	1,714	4.5	(3.2-6.3)	1,735	16.5	(13.9-19.5)
Genesee	1,307	4.8	(3.2-7.1)	1,321	16.0	(13.0-19.5)
Lapeer	213	2.9	(1.2-6.8)	216	16.4	(10.7-24.3)
Shiawassee	194	4.4	(1.7-10.8)	198	19.5	(12.4-29.2)
<b>Region 3</b>	710	7.2	(4.8-10.8)	716	21.0	(16.7-26.2)
Jackson	447	5.8	(3.4-9.8)	451	20.3	(14.9-27.1)
Lenawee	263	9.6	(5.1-17.4)	265	22.3	(15.7-30.6)
<b>Region 4</b>	1,477	5.4	(3.9-7.3)	1,490	14.3	(11.9-17.4)
Barry-Eaton	501	5.8	(3.6-9.2)	507	15.5	(11.5-20.6)
Mid-Michigan <sup>c</sup>	547	4.1	(2.6-6.5)	547	12.7	(9.5-16.8)
Ingham	658	5.3	(3.1-8.8)	663	13.2	(9.6-17.7)
<b>Region 5</b>	1,304	3.8	(2.5-5.6)	1,320	15.6	(12.5-19.4)
Branch-Hillsdale-St. Joseph	376	2.9	(1.3-6.4)	380	11.2	(7.5-16.3)
Calhoun	306	2.6	(1.1-5.7)	308	15.4	(10.5-22.0)
Kalamazoo	622	4.8	(2.8-8.2)	632	16.0	(12.1-20.8)
<b>Region 6</b>	965	5.8	(4.1-8.2)	970	15.6	(12.5-19.4)
Van Buren-Cass	321	3.8	(2.0-7.1)	322	18.2	(12.9-25.0)
Berrien	644	7.4	(4.9-11.0)	648	13.7	(10.2-18.1)
<b>Region 7</b>	2,643	5.0	(4.0-6.2)	2,666	15.9	(14.0-18.0)
Allegan	279	7.8	(4.5-13.1)	282	16.8	(12.0-23.1)
Ionia	143	2.5	(0.8-7.1)	144	15.8	(9.1-26.1)
Kent	1,348	4.3	(3.1-5.9)	1,361	15.6	(13.1-18.5)
Mid-Michigan <sup>c</sup>	547	4.1	(2.6-6.5)	547	12.7	(9.5-16.8)
Ottawa	644	6.2	(4.1-9.3)	652	18.2	(14.2-22.9)

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<b>Table 13 Cont'd</b>						
<b>Geographic Area</b>	<b>Heavy Drinking<sup>a</sup></b>			<b>Binge Drinking<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>26,738</b>	<b>5.4</b>	<b>(5.0-5.8)</b>	<b>26,992</b>	<b>16.6</b>	<b>(15.9-17.3)</b>
<b>Region 8</b>	1,417	6.8	(5.2-8.9)	1,433	19.2	(16.4-22.3)
District #10	637	6.2	(4.3-8.9)	847	18.2	(14.8-22.2)
Muskegon	580	7.8	(5.2-11.7)	586	20.7	(16.2-26.1)
<b>Region 9</b>	1,281	6.7	(5.2-8.7)	1,287	18.0	(15.2-21.3)
District #2	244	7.5	(4.0-13.7)	246	14.2	(9.2-21.3)
District #4	291	4.6	(2.6-7.8)	293	14.9	(10.7-20.4)
Northwest Michigan	385	8.6	(5.6-13.1)	383	23.2	(17.6-29.9)
Benzie-Leelanau	146	3.9	(1.5-9.9)	146	18.0	(9.5-31.5)
Grand Traverse	215	7.2	(3.9-13.0)	219	16.2	(10.3-24.7)
<b>Region 10</b>	1,444	3.8	(2.6-5.6)	1,450	17.1	(14.3-20.3)
Bay	305	4.3	(2.3-7.8)	302	16.3	(11.3-22.8)
Huron	99	3.2	(0.8-12.1)	99	18.3	(10.1-31.0)
Saginaw	748	4.9	(2.9-8.3)	753	18.5	(14.2-23.7)
Sanilac	130	2.1	(0.4-9.1)	133	15.5	(9.5-24.4)
Tuscola	162	1.1	(0.3-3.5)	163	14.6	(8.0-25.3)
<b>Region 11</b>	778	5.7	(3.5-9.1)	789	14.3	(11.2-18.2)
Central Michigan	548	5.9	(3.3-10.2)	557	14.2	(10.6-18.8)
Midland	230	5.3	(2.1-12.9)	232	14.5	(9.1-22.5)
<b>Region 12</b>	1,011	7.9	(5.7-10.8)	1,015	19.1	(15.9-22.8)
Luce-Mackinac-Alger-Schoolcraft	128	5.5	(2.6-11.5)	129	17.3	(10.3-27.7)
Western Upper Peninsula	221	8.0	(4.7-13.3)	219	16.6	(11.3-23.7)
Delta-Menominee	218	7.1	(3.7-13.1)	220	22.7	(15.8-31.5)
Chippewa	118	17.0	(7.6-33.7)	119	28.5	(17.3-43.2)
Dickinson-Iron	130	4.9	(1.5-15.1)	133	19.1	(11.7-29.7)
Marquette	196	5.9	(3.1-10.9)	195	13.1	(8.2-20.2)

<sup>a</sup> The proportion of adults who reported consuming on average more than two alcoholic beverages per day for men or more than one alcoholic beverage per day for women.

<sup>b</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>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.

<b>Table 14: Drove Motor Vehicle After Drinking Michigan BRFSS, 2008 and 2010 Combined</b>			
<b>Geographic Area</b>	<b>Drove Motor Vehicle After Drinking<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>14,906</b>	<b>2.7</b>	<b>(2.3-3.0)</b>
<b>Region 1</b>	6,373	2.8	(2.3-3.5)
Livingston	235	3.6	(1.1-10.8)
Macomb	907	3.3	(1.8-6.1)
Monroe	208	3.3	(1.0-11.0)
Oakland	1,532	2.8	(1.8-4.3)
St. Clair	224	1.5	(0.5-4.0)
Washtenaw	447	2.0	(0.9-4.2)
City of Detroit	1,392	1.5	(0.8-2.7)
Wayne exc. Detroit	1,410	3.7	(2.6-5.3)
<b>Region 2</b>	917	2.6	(1.5-4.2)
Genesee	683	2.9	(1.7-4.9)
Lapeer	121	0.9	(0.1-6.0)
Shiawassee	113	2.7	(0.5-14.0)
<b>Region 3</b>	415	3.1	(1.6-6.0)
Jackson	258	3.6	(1.6-7.9)
Lenawee	157	2.2	(0.6-7.5)
<b>Region 4</b>	881	1.7	(0.9-3.2)
Barry-Eaton	266	2.4	(0.8-6.6)
Mid-Michigan <sup>b</sup>	327	2.2	(1.0-4.8)
Ingham	423	1.3	(0.5-3.5)
<b>Region 5</b>	781	2.4	(1.2-4.9)
Branch-Hillsdale-St. Joseph	210	1.3	(0.3-5.3)
Calhoun	195	0.3	(0.0-1.9)
Kalamazoo	376	4.2	(1.8-9.4)
<b>Region 6</b>	530	1.4	(0.5-3.5)
Van Buren-Cass	206	0.9	(0.1-6.3)
Berrien	324	1.7	(0.6-4.9)
<b>Region 7</b>	1,584	2.3	(1.5-3.5)
Allegan	161	1.5	(0.2-10.1)
Ionia	93	6.1	(1.9-18.0)
Kent	805	2.8	(1.7-4.7)
Mid-Michigan <sup>b</sup>	327	2.2	(1.0-4.8)
Ottawa	390	0.7	(0.2-2.2)



<b>Table 14 Cont'd</b>			
<b>Geographic Area</b>	<b>Drove Motor Vehicle After Drinking<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>14,906</b>	<b>2.7</b>	<b>(2.3-3.0)</b>
<b>Region 8</b>	801	4.2	(2.7-6.5)
District #10	513	2.6	(1.4-4.7)
Muskegon	288	7.2	(4.0-12.8)
<b>Region 9</b>	750	2.2	(1.2-4.0)
District #2	149	0.6	(0.1-4.2)
District #4	169	5.2	(2.2-11.4)
Northwest Michigan	205	2.3	(0.7-7.4)
Benzie-Leelanau	83	0.9	(0.1-6.2)
Grand Traverse	144	0.9	(0.1-6.2)
<b>Region 10</b>	777	3.0	(1.7-5.4)
Bay	184	4.2	(1.4-11.5)
Huron	66	5.1	(1.3-18.3)
Saginaw	372	2.1	(0.7-6.0)
Sanilac	74	5.5	(1.7-17.0)
Tuscola	81	0.0	(---)
<b>Region 11</b>	472	1.5	(0.7-3.0)
Central Michigan	328	1.2	(0.6-7.0)
Midland	144	2.1	(0.6-7.0)
<b>Region 12</b>	605	3.5	(2.0-6.1)
Luce-Mackinac-Alger-Schoolcraft	84	3.0	(0.6-14.1)
Western Upper Peninsula	121	6.6	(2.5-16.2)
Delta-Menominee	136	2.4	(0.8-7.3)
Chippewa	65	1.2	(0.2-8.2)
Dickinson-Iron	89	2.0	(0.5-8.4)
Marquette	110	4.7	(1.4-14.9)

<sup>a</sup> Proportion of adults who reported that they had driven when they'd had too much to drink at least once in the previous 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 15: Seatbelt Use Michigan BRFSS, 2008 and 2010 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>14,863</b>	<b>88.3</b>	<b>(87.5-89.0)</b>
<b>Region 1</b>	6,355	90.0	(88.8-91.0)
Livingston	235	82.0	(72.2-88.9)
Macomb	905	91.1	(88.2-93.4)
Monroe	207	91.3	(85.1-95.1)
Oakland	1,526	90.5	(88.2-92.5)
St. Clair	225	91.0	(85.2-94.7)
Washtenaw	448	93.5	(89.3-96.2)
City of Detroit	1,385	88.8	(85.9-91.1)
Wayne exc. Detroit	1,407	89.3	(86..6-91.5)
<b>Region 2</b>	916	86.9	(83.0-90.0)
Genesee	682	85.6	(80.7-89.4)
Lapeer	121	89.4	(79.2-94.9)
Shiawassee	113	91.7	(80.7-96.7)
<b>Region 3</b>	414	92.8	(89.2-95.3)
Jackson	258	97.1	(94.2-98.5)
Lenawee	156	85.8	(77.3-91.4)
<b>Region 4</b>	879	88.1	(84.7-90.8)
Barry-Eaton	266	86.2	(79.5-90.9)
Mid-Michigan <sup>b</sup>	327	87.0	(79.8-91.9)
Ingham	421	89.0	(83.8-92.6)
<b>Region 5</b>	774	89.2	(85.8-91.9)
Branch-Hillsdale-St. Joseph	207	87.7	(80.6-92.4)
Calhoun	195	91.7	(85.3-95.5)
Kalamazoo	372	88.7	(82.8-92.8)
<b>Region 6</b>	527	84.2	(79.2-88.2)
Van Buren-Cass	207	80.9	(71.4-87.8)
Berrien	320	86.7	(81.2-90.8)
<b>Region 7</b>	1,582	89.4	(87.0-91.4)
Allegan	161	84.5	(74.5-91.0)
Ionia	93	92.4	(80.1-97.3)
Kent	802	88.9	(85.4-91.6)
Mid-Michigan <sup>b</sup>	327	87.0	(79.8-91.9)
Ottawa	391	93.4	(89.8-95.7)

<b>Table 15 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>14,863</b>	<b>88.3</b>	<b>(87.5-89.0)</b>
<b>Region 8</b>	796	86.2	(82.7-89.2)
District #10	511	86.2	(81.7-89.8)
Muskegon	285	86.3	(79.8-90.9)
<b>Region 9</b>	750	85.0	(81.2-88.2)
District #2	148	85.0	(74.9-91.5)
District #4	168	89.0	(82.1-93.5)
Northwest Michigan	206	84.7	(77.6-89.8)
Benzie-Leelanau	84	68.4	(52.7-80.8)
Grand Traverse	144	91.4	(81.9-96.2)
<b>Region 10</b>	773	86.1	(82.5-89.1)
Bay	183	87.5	(80.6-92.3)
Huron	66	72.3	(54.4-85.1)
Saginaw	369	88.3	(83.0-92.1)
Sanilac	74	77.8	(65.7-86.4)
Tuscola	81	91.4	(73.5-97.6)
<b>Region 11</b>	473	83.0	(77.5-87.4)
Central Michigan	328	82.4	(75.7-87.5)
Midland	145	84.5	(73.6-91.4)
<b>Region 12</b>	605	82.7	(78.5-86.1)
Luce-Mackinac-Alger-Schoolcraft	84	86.0	(74.4-92.8)
Western Upper Peninsula	121	78.8	(67.8-86.8)
Delta-Menominee	137	80.5	(70.8-87.5)
Chippewa	65	89.4	(79.6-94.8)
Dickinson-Iron	89	83.8	(71.9-91.3)
Marquette	109	81.8	(70.5-89.4)

<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 16: No Routine Checkup in Past Year Michigan BRFSS, 2008-2010 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>27,257</b>	<b>32.3</b>	<b>(31.5-33.1)</b>
<b>Region 1</b>	12,244	30.7	(29.5-32.0)
Livingston	413	33.5	(27.5-40.0)
Macomb	1,567	29.8	(26.7-33.0)
Monroe	339	30.8	(24.7-37.7)
Oakland	2,824	29.4	(27.0-32.0)
St. Clair	384	36.3	(30.1-43.0)
Washtenaw	761	35.4	(30.8-40.4)
City of Detroit	3,113	27.3	(24.4-30.4)
Wayne exc. Detroit	2,214	32.2	(29.5-35.0)
<b>Region 2</b>	1,750	32.3	(28.9-35.8)
Genesee	1,339	31.0	(27.0-35.3)
Lapeer	218	35.3	(27.4-44.0)
Shiawassee	193	36.2	(27.5-45.9)
<b>Region 3</b>	709	38.2	(33.4-43.3)
Jackson	446	38.7	(32.7-45.1)
Lenawee	263	37.3	(29.6-45.8)
<b>Region 4</b>	1,496	35.5	(32.2-38.9)
Barry-Eaton	510	40.3	(34.8-46.1)
Mid-Michigan <sup>b</sup>	552	32.2	(27.2-37.6)
Ingham	664	33.1	(28.2-38.5)
<b>Region 5</b>	1,330	33.9	(30.4-37.6)
Branch-Hillsdale-St. Joseph	382	37.1	(30.4-44.3)
Calhoun	312	28.0	(21.3-35.9)
Kalamazoo	636	34.8	(29.9-40.0)
<b>Region 6</b>	976	33.7	(29.6-38.2)
Van Buren-Cass	324	39.0	(32.0-46.6)
Berrien	652	29.6	(25.0-34.8)
<b>Region 7</b>	2,690	31.6	(29.3-34.1)
Allegan	281	32.3	(25.7-39.7)
Ionia	142	31.4	(22.2-42.2)
Kent	1,373	30.7	(27.5-34.1)
Mid-Michigan <sup>b</sup>	552	32.2	(27.2-37.6)
Ottawa	664	33.5	(28.7-38.6)

<b>Table 16 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>27,257</b>	<b>32.3</b>	<b>(31.5-33.1)</b>
<b>Region 8</b>	1,449	30.8	(27.5-34.4)
District #10	852	30.6	(26.4-35.2)
Muskegon	597	31.1	(25.9-37.0)
<b>Region 9</b>	1,311	30.1	(26.9-33.5)
District #2	249	34.6	(27.2-42.8)
District #4	297	31.1	(24.5-38.6)
Northwest Michigan	392	31.2	(25.4-37.6)
Benzie-Leelanau	149	24.7	(16.2-35.7)
Grand Traverse	224	25.7	(18.9-33.9)
<b>Region 10</b>	1,467	31.2	(27.8-34.7)
Bay	307	33.7	(26.6-41.6)
Huron	100	35.3	(24.3-48.1)
Saginaw	768	31.3	(26.5-36.5)
Sanilac	130	30.2	(21.5-40.7)
Tuscola	162	24.4	(16.8-34.1)
<b>Region 11</b>	794	37.3	(32.8-42.0)
Central Michigan	563	36.6	(31.4-42.2)
Midland	231	38.7	(30.6-47.6)
<b>Region 12</b>	1,022	39.5	(35.4-43.8)
Luce-Mackinac-Alger-Schoolcraft	136	45.8	(33.1-59.1)
Western Upper Peninsula	223	35.7	(27.5-44.8)
Delta-Menominee	218	41.2	(32.8-50.1)
Chippewa	117	46.0	(33.8-58.6)
Dickinson-Iron	131	34.1	(24.5-45.2)
Marquette	197	35.9	(27.4-45.5)

<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 17: Breast Cancer Screening Among Women Age 40 and Older Michigan BRFSS, 2008 and 2010 Combined</b>			
<b>Geographic Area</b>	<b>Had Clinical Breast Exam and Mammogram in Past Year<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>9,351</b>	<b>54.6</b>	<b>(53.4-55.9)</b>
<b>Region 1</b>	4,299	54.5	(52.6-56.4)
Livingston	150	51.8	(42.9-60.5)
Macomb	516	58.7	(53.7-63.5)
Monroe	110	52.7	(40.8-64.3)
Oakland	976	54.9	(50.9-58.7)
St. Clair	136	49.2	(39.5-59.0)
Washtenaw	247	62.2	(55.1-68.9)
City of Detroit	1,116	48.4	(44.5-52.4)
Wayne exc. Detroit	711	54.9	(50.8-58.9)
<b>Region 2</b>	583	55.2	(50.3-60.1)
Genesee	434	57.0	(51.2-62.6)
Lapeer	79	48.6	(36.3-61.1)
Shiawassee	70	54.4	(41.0-67.2)
<b>Region 3</b>	248	58.4	(51.4-65.1)
Jackson	158	60.5	(51.7-68.6)
Lenawee	90	54.4	(42.7-65.6)
<b>Region 4</b>	503	54.3	(49.2-59.4)
Barry-Eaton	155	50.6	(41.5-59.6)
Mid-Michigan <sup>b</sup>	197	58.7	(50.7-66.4)
Ingham	234	53.8	(46.1-61.3)
<b>Region 5</b>	461	55.9	(50.5-61.1)
Branch-Hillsdale-St. Joseph	138	57.0	(47.8-65.7)
Calhoun	107	60.4	(48.4-71.3)
Kalamazoo	216	53.0	(45.3-60.5)
<b>Region 6</b>	322	51.1	(44.5-57.6)
Van Buren-Cass	108	51.1	(40.4-61.8)
Berrien	214	51.0	(42.9-59.1)
<b>Region 7</b>	891	54.3	(50.4-58.1)
Allegan	91	56.2	(43.2-68.4)
Ionia	55	61.1	(43.1-76.5)
Kent	439	50.7	(45.3-56.1)
Mid-Michigan <sup>b</sup>	197	58.7	(50.7-66.4)
Ottawa	223	57.9	(50.4-65.1)

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<b>Table 17 Cont'd</b>			
<b>Geographic Area</b>	<b>Had Clinical Breast Exam and Mammogram in Past Year<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>9,351</b>	<b>54.6</b>	<b>(53.4-55.9)</b>
<b>Region 8</b>	491	58.1	(53.0-63.1)
District #10	289	56.8	(50.3-63.0)
Muskegon	202	60.4	(52.0-68.3)
<b>Region 9</b>	438	55.2	(49.8-60.4)
District #2	90	48.1	(36.9-59.5)
District #4	97	56.1	(44.6-66.9)
Northwest Michigan	117	58.0	(47.5-67.8)
Benzie-Leelanau	54	53.3	(38.2-67.8)
Grand Traverse	80	58.9	(46.5-70.2)
<b>Region 10</b>	508	51.2	(45.6-56.8)
Bay	105	43.0	(32.5-54.1)
Huron	37	--- <sup>c</sup>	--- <sup>c</sup>
Saginaw	270	57.1	(48.6-65.3)
Sanilac	49	--- <sup>c</sup>	--- <sup>c</sup>
Tuscola	47	--- <sup>c</sup>	--- <sup>c</sup>
<b>Region 11</b>	264	52.4	(45.6-59.1)
Central Michigan	185	47.8	(39.8-56.0)
Midland	79	63.2	(50.9-73.9)
<b>Region 12</b>	333	55.7	(49.7-61.5)
Luce-Mackinac-Alger-Schoolcraft	52	46.7	(32.1-62.0)
Western Upper Peninsula	76	51.1	(38.5-63.4)
Delta-Menominee	74	58.1	(45.5-69.8)
Chippewa	38	--- <sup>c</sup>	--- <sup>c</sup>
Dickinson-Iron	38	--- <sup>c</sup>	--- <sup>c</sup>
Marquette	55	63.7	(49.4-76.0)

Note: Data included diagnostic tests.

<sup>a</sup> Among women aged 40 years and older, the proportion who had both a clinical breast exam and mammogram in the previous 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.

<sup>c</sup> Sample size was too small (< 50) to compute a prevalence in this subgroup, but respondents from this local health department were included in the regional prevalence estimate.

<b>Table 18: Cervical Cancer Screening Among Women Aged 18 Years and Older Michigan BRFSS, 2008 and 2010 Combined</b>			
<b>Geographic Area</b>	<b>Had Appropriately Timed Pap Test<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>11,048</b>	<b>79.3</b>	<b>(78.2-80.3)</b>
<b>Region 1</b>	5,019	79.6	(77.8-81.3)
Livingston	174	74.0	(62.6-82.9)
Macomb	617	77.9	(72.0-82.8)
Monroe	134	80.0	(69.5-87.6)
Oakland	1,127	82.6	(79.3-85.5)
St. Clair	164	81.2	(73.2-87.2)
Washtenaw	291	86.8	(81.8-90.7)
City of Detroit	1,438	74.9	(70.6-78.8)
Wayne exc. Detroit	1,064	79.2	(75.5-82.6)
<b>Region 2</b>	721	82.3	(77.9-85.0)
Genesee	547	82.3	(77.0-86.6)
Lapeer	94	78.5	(65.2-87.7)
Shiawassee	80	87.0	(78.1-92.6)
<b>Region 3</b>	299	81.3	(75.6-85.8)
Jackson	200	81.6	(74.5-87.1)
Lenawee	99	80.5	(70.3-87.8)
<b>Region 4</b>	604	80.0	(75.4-83.9)
Barry-Eaton	181	70.9	(60.5-79.5)
Mid-Michigan <sup>b</sup>	230	86.8	(81.0-91.1)
Ingham	290	81.2	(75.0-86.1)
<b>Region 5</b>	546	78.1	(73.3-82.1)
Branch-Hillsdale-St. Joseph	166	72.7	(62.6-80.9)
Calhoun	126	85.9	(78.4-91.1)
Kalamazoo	254	77.9	(71.0-83.5)
<b>Region 6</b>	384	73.7	(66.8-79.7)
Van Buren-Cass	127	74.5	(62.1-84.0)
Berrien	257	73.2	(64.8-80.2)
<b>Region 7</b>	1,080	80.9	(77.5-83.9)
Allegan	110	82.4	(72.2-89.4)
Ionia	65	82.8	(71.9-90.0)
Kent	551	80.5	(75.3-84.9)
Mid-Michigan <sup>b</sup>	230	86.8	(81.0-91.1)
Ottawa	257	79.8	(72.7-85.5)



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<b>Table 18 Cont'd</b>			
<b>Geographic Area</b>	<b>Had Appropriately Timed Pap Test<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>11,048</b>	<b>79.3</b>	<b>(78.2-80.3)</b>
<b>Region 8</b>	576	80.2	(75.8-84.0)
District #10	333	79.6	(74.5-83.9)
Muskegon	243	81.1	(72.4-87.6)
<b>Region 9</b>	510	76.2	(70.7-80.9)
District #2	100	69.8	(59.2-78.6)
District #4	113	77.2	(67.0-84.9)
Northwest Michigan	152	73.6	(63.7-81.6)
Benzie-Leelanau	62	78.9	(51.5-93.0)
Grand Traverse	83	85.2	(76.7-91.0)
<b>Region 10</b>	596	77.9	(73.4-81.8)
Bay	124	80.0	(71.9-86.3)
Huron	44	--- <sup>c</sup>	--- <sup>c</sup>
Saginaw	320	81.3	(74.4-86.7)
Sanilac	56	66.7	(50.9-79.4)
Tuscola	52	73.4	(58.3-84.5)
<b>Region 11</b>	312	76.7	(69.8-82.4)
Central Michigan	212	74.1	(65.9-81.0)
Midland	100	81.8	(67.4-90.7)
<b>Region 12</b>	390	75.8	(70.7-80.2)
Luce-Mackinac-Alger-Schoolcraft	56	67.9	(52.8-80.0)
Western Upper Peninsula	83	72.3	(60.9-81.3)
Delta-Menominee	85	76.5	(65.7-84.7)
Chippewa	49	--- <sup>c</sup>	--- <sup>c</sup>
Dickinson-Iron	43	--- <sup>c</sup>	--- <sup>c</sup>
Marquette	74	79.2	(66.5-87.9)

Note: Data included diagnostic tests.

<sup>a</sup> Among women aged 18 years and older, the proportion who had a Pap test within the previous three 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> Sample size was too small (< 50) to compute a prevalence in this subgroup, but respondents from this local health department were included in the regional prevalence estimate.

<b>Table 19: Prostate Cancer Screening Among Men Aged 50 and Older Michigan BRFSS, 2008 and 2010 Combined</b>			
<b>Geographic Area</b>	<b>Had PSA in Past Year<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>4,196</b>	<b>59.0</b>	<b>(57.2-60.7)</b>
<b>Region 1</b>	1,805	62.0	(59.1-64.7)
Livingston	65	61.9	(48.1-74.0)
Macomb	243	67.9	(61.1-74.0)
Monroe	50	43.9	(29.3-59.5)
Oakland	486	61.2	(55.9-66.3)
St. Clair	56	54.3	(40.0-68.0)
Washtenaw	131	62.0	(52.0-71.1)
City of Detroit	366	56.0	(49.8-62.0)
Wayne exc. Detroit	282	65.6	(59.0-71.6)
<b>Region 2</b>	249	57.1	(49.8-64.1)
Genesee	187	62.0	(53.6-69.8)
Lapeer	35	--- <sup>c</sup>	--- <sup>c</sup>
Shiawassee	27	--- <sup>c</sup>	--- <sup>c</sup>
<b>Region 3</b>	113	54.2	(43.5-64.6)
Jackson	62	53.4	(39.3-66.9)
Lenawee	51	55.2	(39.1-70.3)
<b>Region 4</b>	241	56.3	(49.0-63.3)
Barry-Eaton	92	54.0	(42.7-65.0)
Mid-Michigan <sup>b</sup>	83	61.7	(48.9-73.1)
Ingham	97	56.2	(44.3-67.3)
<b>Region 5</b>	200	52.9	(45.0-60.7)
Branch-Hillsdale-St. Joseph	56	45.5	(31.5-60.3)
Calhoun	48	--- <sup>c</sup>	--- <sup>c</sup>
Kalamazoo	96	54.2	(43.2-64.8)
<b>Region 6</b>	151	52.1	(42.6-61.4)
Van Buren-Cass	47	--- <sup>c</sup>	--- <sup>c</sup>
Berrien	104	57.5	(45.2-68.9)
<b>Region 7</b>	388	61.4	(55.4-67.0)
Allegan	43	--- <sup>c</sup>	--- <sup>c</sup>
Ionia	18	--- <sup>c</sup>	--- <sup>c</sup>
Kent	204	60.8	(52.3-68.6)
Mid-Michigan <sup>b</sup>	83	61.7	(48.9-73.1)
Ottawa	92	66.0	(54.4-76.0)

<b>Table 19 Cont'd</b>			
<b>Geographic Area</b>	<b>Had PSA in Past Year<sup>a</sup></b>		
	<b>N</b>	<b>56%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>4,196</b>	<b>59.0</b>	<b>(57.2-60.7)</b>
<b>Region 8</b>	228	55.5	(47.9-62.8)
District #10	143	58.9	(49.7-67.6)
Muskegon	85	49.1	(36.4-62.0)
<b>Region 9</b>	262	63.6	(57.0-69.8)
District #2	58	49.9	(36.2-63.6)
District #4	63	72.5	(58.8-82.9)
Northwest Michigan	76	66.8	(54.5-77.2)
Benzie-Leelanau	30	--- <sup>c</sup>	--- <sup>c</sup>
Grand Traverse	35	--- <sup>c</sup>	--- <sup>c</sup>
<b>Region 10</b>	232	58.8	(51.2-66.1)
Bay	47	--- <sup>c</sup>	--- <sup>c</sup>
Huron	23	--- <sup>c</sup>	--- <sup>c</sup>
Saginaw	110	52.4	(40.7-63.9)
Sanilac	17	--- <sup>c</sup>	--- <sup>c</sup>
Tuscola	35	--- <sup>c</sup>	--- <sup>c</sup>
<b>Region 11</b>	143	49.7	(40.6-58.8)
Central Michigan	108	46.1	(36.0-56.6)
Midland	35	--- <sup>c</sup>	--- <sup>c</sup>
<b>Region 12</b>	178	51.8	(42.8-59.2)
Luce-Mackinac-Alger-Schoolcraft	27	--- <sup>c</sup>	--- <sup>c</sup>
Western Upper Peninsula	42	--- <sup>c</sup>	--- <sup>c</sup>
Delta-Menominee	42	--- <sup>c</sup>	--- <sup>c</sup>
Chippewa	16	--- <sup>c</sup>	--- <sup>c</sup>
Dickinson-Iron	24	--- <sup>c</sup>	--- <sup>c</sup>
Marquette	27	--- <sup>c</sup>	--- <sup>c</sup>

Note: Men who had been diagnosed with prostate cancer were excluded.

<sup>a</sup> Among men aged 50 years and older, the proportion who reported having a PSA 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.

<sup>c</sup> Sample size was too small (< 50) to compute a prevalence in this subgroup, but respondents from this local health department were included in the regional prevalence estimate.

<b>Table 20: Colorectal Cancer Screening Among Adults 50 Years and Older Michigan BRFSS, 2008 and 2010 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>11,594</b>	<b>64.5</b>	<b>(63.4-65.6)</b>
<b>Region 1</b>	5,182	64.0	(62.3-65.7)
Livingston	177	59.5	(50.8-67.7)
Macomb	655	67.0	(62.7-71.1)
Monroe	138	56.7	(46.9-66.0)
Oakland	1,257	66.1	(62.7-69.3)
St. Clair	161	62.4	(53.6-70.4)
Washtenaw	314	68.9	(62.5-74.7)
City of Detroit	1,237	60.0	(56.4-63.5)
Wayne exc. Detroit	841	62.8	(58.9-66.4)
<b>Region 2</b>	692	67.7	(63.3-71.8)
Genesee	516	69.2	(64.0-73.9)
Lapeer	95	63.0	(51.5-73.2)
Shiawassee	81	65.3	(53.1-75.8)
<b>Region 3</b>	325	66.9	(60.8-72.6)
Jackson	195	66.1	(57.9-73.4)
Lenawee	130	68.2	(58.5-76.5)
<b>Region 4</b>	623	70.9	(66.5-74.9)
Barry-Eaton	220	77.8	(71.2-83.2)
Mid-Michigan <sup>b</sup>	230	65.0	(57.4-71.9)
Ingham	269	67.5	(60.4-73.9)
<b>Region 5</b>	575	62.3	(57.6-66.8)
Branch-Hillsdale-St. Joseph	178	52.7	(44.2-61.0)
Calhoun	137	66.0	(56.3-74.5)
Kalamazoo	260	67.1	(60.3-73.3)
<b>Region 6</b>	411	55.8	(49.9-61.4)
Van Buren-Cass	137	49.6	(40.4-58.8)
Berrien	274	60.0	(52.6-66.9)
<b>Region 7</b>	1,076	71.2	(67.8-74.3)
Allegan	112	71.8	(61.7-80.1)
Ionia	62	69.1	(53.4-81.3)
Kent	540	71.7	(66.7-76.2)
Mid-Michigan <sup>b</sup>	230	65.0	(57.4-71.9)
Ottawa	266	73.7	(67.2-79.2)

<b>Table 20 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>11,594</b>	<b>64.5</b>	<b>(63.4-65.6)</b>
<b>Region 8</b>	637	61.6	(57.1-66.0)
District #10	384	61.0	(55.3-66.4)
Muskegon	253	62.8	(55.0-69.9)
<b>Region 9</b>	625	65.8	(61.5-69.9)
District #2	133	57.6	(48.0-66.6)
District #4	142	67.2	(58.0-75.1)
Northwest Michigan	177	66.2	(57.9-73.6)
Benzie-Leelanau	72	72.2	(58.8-82.5)
Grand Traverse	101	70.2	(59.3-79.3)
<b>Region 10</b>	636	60.6	(55.9-65.1)
Bay	135	61.4	(51.8-70.2)
Huron	54	61.9	(46.3-75.4)
Saginaw	317	64.0	(56.8-70.6)
Sanilac	53	58.8	(43.9-72.3)
Tuscola	77	50.4	(37.8-62.8)
<b>Region 11</b>	354	55.4	(49.4-61.2)
Central Michigan	267	50.3	(43.5-57.0)
Midland	87	70.7	(59.4-79.9)
<b>Region 12</b>	447	61.5	(56.2-66.5)
Luce-Mackinac-Alger-Schoolcraft	71	58.1	(45.5-69.7)
Western Upper Peninsula	100	57.6	(46.4-68.1)
Delta-Menominee	103	62.1	(50.9-72.2)
Chippewa	46	--- <sup>c</sup>	--- <sup>c</sup>
Dickinson-Iron	55	74.0	(57.3-85.8)
Marquette	72	67.5	(54.9-78.0)

<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> Sample size was too small (< 50) to compute a prevalence in this subgroup, but respondents from this local health department were included in the regional prevalence estimate.

**Table 21: Oral Health  
Michigan BRFSS, 2008 and 2010 Combined**

Geographic Area	Dental Visit in Past Year <sup>a</sup>			Lost 6+ Teeth <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>18,192</b>	<b>73.8</b>	<b>(72.8-74.7)</b>	<b>17,935</b>	<b>13.8</b>	<b>(13.3-14.4)</b>
<b>Region 1</b>	8,123	75.9	(74.5-77.2)	8,000	13.1	(12.3-14.0)
Livingston	289	82.2	(74.8-87.8)	287	9.1	(6.3-12.8)
Macomb	1,048	81.8	(78.5-84.7)	1,020	12.3	(10.4-14.5)
Monroe	230	73.4	(64.2-80.9)	227	9.9	(6.9-14.0)
Oakland	1,888	80.7	(78.0-83.1)	1,862	9.9	(8.5-11.4)
St. Clair	251	69.9	(61.5-77.2)	249	16.9	(12.63-22.4)
Washtenaw	512	81.6	(76.4-85.8)	509	7.6	(4.6-12.4)
City of Detroit	1,950	57.1	(53.6-60.4)	1,921	21.9	(19.9-24.2)
Wayne exc. Detroit	1,343	77.1	(74.0-79.9)	1,325	14.0	(12.3-15.9)
<b>Region 2</b>	1,153	71.5	(67.5-75.2)	1,146	16.1	(13.6-18.9)
Genesee	878	71.3	(66.5-75.7)	869	16.9	(13.9-20.4)
Lapeer	148	73.9	(63.6-82.1)	149	16.4	(10.7-24.3)
Shiawassee	127	69.9	(58.0-79.6)	128	11.1	(6.9-17.2)
<b>Region 3</b>	498	69.6	(63.7-74.9)	493	12.9	(10.1-16.3)
Jackson	313	67.0	(59.6-73.6)	310	12.0	(8.9-15.9)
Lenawee	185	74.0	(63.6-82.3)	183	14.4	(9.4-21.4)
<b>Region 4</b>	1,006	75.6	(71.7-79.1)	1,001	9.8	(8.2-11.6)
Barry-Eaton	342	73.7	(66.9-79.5)	340	11.1	(8.4-14.6)
Mid-Michigan <sup>c</sup>	367	71.5	(64.5-77.6)	361	11.3	(8.4-14.9)
Ingham	455	76.3	(70.3-81.4)	456	7.8	(5.9-10.3)
<b>Region 5</b>	909	70.7	(66.4-74.6)	897	14.0	(11.8-16.6)
Branch-Hillsdale-St. Joseph	263	62.6	(54.3-70.3)	257	15.0	(10.9-20.3)
Calhoun	216	71.1	(61.8-78.9)	213	13.8	(9.7-19.4)
Kalamazoo	430	75.3	(69.2-80.6)	427	13.4	(10.4-17.2)
<b>Region 6</b>	636	74.6	(69.8-78.8)	621	18.7	(15.6-22.3)
Van Buren-Cass	214	73.2	(64.4-80.5)	208	19.0	(14.1-25.1)
Berrien	422	75.5	(70.2-80.2)	413	18.6	(14.8-23.1)

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<b>Table 21 Cont'd</b>						
<b>Geographic Area</b>	<b>Dental Visit in Past Year<sup>a</sup></b>			<b>Lost 6+ Teeth<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>18,192</b>	<b>73.8</b>	<b>(72.8-74.7)</b>	<b>17,935</b>	<b>13.8</b>	<b>(13.3-14.4)</b>
<b>Region 7</b>	1,809	75.2	(72.4-77.9)	1,792	8.9	(7.7-10.3)
Allegan	192	72.6	(64.0-79.8)	192	10.7	(7.2-15.7)
Ionia	97	85.3	(74.2-92.1)	95	8.2	(4.7-13.9)
Kent	916	74.2	(70.1-78.0)	908	9.7	(8.0-11.8)
Mid-Michigan <sup>c</sup>	367	71.5	(64.5-77.6)	361	11.3	(8.4-14.9)
Ottawa	446	80.0	(74.4-84.6)	441	6.4	(4.5-9.1)
<b>Region 8</b>	962	67.4	(63.3-71.3)	944	18.0	(15.4-21.0)
District #10	564	66.3	(60.8-71.3)	550	20.6	(17.1-24.7)
Muskegon	398	69.3	(62.6-75.3)	394	14.0	(10.4-18.5)
<b>Region 9</b>	894	72.1	(67.9-75.9)	885	16.5	(14.1-19.3)
District #2	173	74.2	(65.9-81.0)	172	27.3	(20.3-35.7)
District #4	208	58.9	(49.2-68.1)	206	18.9	(14.1-24.8)
Northwest Michigan	265	72.5	(64.9-79.0)	261	12.6	(9.1-17.1)
Benzie-Leelanau	103	79.8	(66.6-88.7)	101	9.1	(5.3-15.3)
Grand Traverse	145	82.7	(74.8-88.5)	145	14.9	(9.2-23.3)
<b>Region 10</b>	971	77.8	(74.0-81.2)	948	17.7	(15.0-20.7)
Bay	204	75.0	(65.6-82.4)	198	13.1	(9.1-18.5)
Huron	78	82.0	(71.1-89.4)	76	20.4	(11.3-34.1)
Saginaw	499	81.4	(76.5-85.5)	490	18.3	(14.4-23.0)
Sanilac	84	63.5	(50.7-74.6)	81	23.2	(14.0-36.0)
Tuscola	106	77.3	(64.0-86.7)	103	18.5	(11.6-28.2)
<b>Region 11</b>	543	67.0	(61.6-71.9)	536	18.5	(15.0-22.6)
Central Michigan	384	62.2	(55.6-68.3)	378	22.7	(18.1-28.0)
Midland	159	78.0	(67.9-85.6)	158	9.0	(5.3-14.8)
<b>Region 12</b>	669	66.8	(61.7-71.5)	653	17.1	(14.1-20.5)
Luce-Mackinac-Alger-Schoolcraft	93	68.1	(52.7-80.4)	87	16.4	(9.7-26.5)
Western Upper Peninsula	143	64.2	(53.8-73.4)	140	24.5	(16.6-34.7)
Delta-Menominee	144	62.8	(51.7-72.8)	141	19.9	(13.6-28.1)
Chippewa	76	63.0	(45.1-77.9)	75	15.0	(8.8-24.5)
Dickinson-Iron	86	78.0	(66.9-86.2)	85	18.8	(11.4-29.6)
Marquette	127	67.5	(56.6-76.8)	125	8.2	(4.9-13.3)

<sup>a</sup> The proportion of adults who reported that they had visited a dentist or dental clinic for any reason in the previous year.

<sup>b</sup> The proportion of adults who reported that they were missing 6+ teeth due to tooth decay or gum disease. This excludes teeth lost for other reasons, such as injury or orthodontics.

<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 22: Immunizations Among Adults Aged 65 Years and Older  
Michigan BRFSS, 2008-2010 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>8,947</b>	<b>68.9</b>	<b>(67.8-70.0)</b>	<b>8,710</b>	<b>67.1</b>	<b>(66.0-68.3)</b>
<b>Region 1</b>	3,961	68.6	(66.8-70.3)	3,835	65.6	(63.7-67.4)
Livingston	126	67.6	(57.7-76.2)	124	65.6	(55.6-74.4)
Macomb	526	69.5	(65.0-73.6)	511	68.2	(63.6-72.4)
Monroe	106	74.8	(65.0-82.6)	107	63.7	(53.4-72.9)
Oakland	927	71.1	(67.5-74.5)	893	66.6	(62.8-70.2)
St. Clair	125	58.2	(48.3-67.5)	121	62.3	(52.5-71.2)
Washtenaw	202	78.6	(71.8-84.2)	189	73.8	(66.1-80.2)
City of Detroit	1,013	51.9	(48.1-55.7)	984	50.9	(47.0-54.7)
Wayne exc. Detroit	706	73.3	(69.5-76.7)	687	70.1	(66.1-73.8)
<b>Region 2</b>	531	62.6	(57.7-67.3)	512	65.3	(60.4-70.0)
Genesee	404	62.7	(57.0-68.0)	389	65.2	(59.5-70.5)
Lapeer	55	44.6	(31.0-59.0)	53	57.5	(42.6-71.1)
Shiawassee	72	75.8	(61.4-86.1)	70	71.7	(56.9-83.0)
<b>Region 3</b>	237	71.0	(64.3-76.9)	228	67.4	(60.5-73.6)
Jackson	149	71.9	(63.2-79.2)	142	70.0	(61.3-77.4)
Lenawee	88	69.6	(58.6-78.8)	86	63.3	(51.8-73.6)
<b>Region 4</b>	455	71.6	(67.0-75.8)	444	69.2	(64.3-73.7)
Barry-Eaton	152	65.0	(56.5-72.7)	145	63.1	(54.3-71.1)
Mid-Michigan <sup>c</sup>	180	70.1	(62.6-76.7)	175	68.8	(61.1-75.6)
Ingham	202	77.1	(70.3-82.8)	198	70.8	(63.1-77.5)
<b>Region 5</b>	434	70.2	(65.3-74.6)	423	70.8	(65.9-75.2)
Branch-Hillsdale-St. Joseph	124	65.9	(56.6-74.1)	119	72.2	(63.0-79.9)
Calhoun	104	63.5	(53.0-72.8)	100	71.1	(60.8-79.6)
Kalamazoo	206	75.9	(69.1-81.7)	204	69.7	(62.4-76.2)
<b>Region 6</b>	328	63.1	(56.7-69.1)	325	65.7	(59.4-71.4)
Van Buren-Cass	88	58.6	(46.9-69.3)	88	69.5	(58.2-78.8)
Berrien	240	65.4	(57.6-72.4)	237	63.7	(56.1-70.7)



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Table 22 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>8,947</b>	<b>68.9</b>	<b>(67.8-70.0)</b>	<b>8,710</b>	<b>67.1</b>	<b>(66.0-68.3)</b>
<b>Region 7</b>	821	71.1	(67.6-74.4)	802	68.2	(64.5-71.6)
Allegan	68	64.2	(51.0-75.5)	70	62.5	(49.2-74.2)
Ionia	42	--- <sup>d</sup>	--- <sup>d</sup>	43	--- <sup>d</sup>	--- <sup>d</sup>
Kent	424	70.5	(65.4-75.2)	411	68.9	(63.6-73.7)
Mid-Michigan <sup>c</sup>	180	70.1	(62.6-76.7)	175	68.8	(61.1-75.6)
Ottawa	208	74.4	(67.6-80.2)	204	71.5	(64.3-77.7)
<b>Region 8</b>	500	76.6	(72.1-80.6)	494	73.0	(68.4-77.2)
District #10	291	74.7	(68.6-79.9)	289	71.5	(65.5-76.9)
Muskegon	209	80.2	(73.6-85.5)	205	75.8	(68.6-81.8)
<b>Region 9</b>	479	75.3	(71.0-79.1)	472	69.6	(65.0-73.9)
District #2	99	74.6	(64.6-82.6)	98	64.0	(53.4-73.4)
District #4	114	73.3	(63.9-80.9)	114	72.8	(63.7-80.3)
Northwest Michigan	130	73.7	(64.9-81.0)	126	65.1	(55.7-73.4)
Benzie-Leelanau	56	74.2	(60.9-84.2)	53	75.0	(60.0-85.8)
Grand Traverse	80	82.2	(72.0-89.3)	81	76.3	(65.1-84.8)
<b>Region 10</b>	537	62.1	(57.1-66.9)	522	64.9	(59.9-69.6)
Bay	113	61.4	(50.7-71.0)	109	63.2	(52.5-72.7)
Huron	43	--- <sup>d</sup>	--- <sup>d</sup>	43	--- <sup>d</sup>	--- <sup>d</sup>
Saginaw	269	59.5	(51.8-66.7)	261	65.8	(57.9-72.9)
Sanilac	51	64.2	(48.9-77.1)	50	58.9	(43.7-72.6)
Tuscola	61	68.8	(55.2-79.8)	59	69.4	(56.1-80.1)
<b>Region 11</b>	271	70.3	(64.2-75.7)	271	70.2	(64.0-75.7)
Central Michigan	205	69.9	(62.9-76.2)	204	69.9	(62.8-76.2)
Midland	66	71.3	(58.4-81.5)	67	70.9	(58.1-81.1)
<b>Region 12</b>	382	64.3	(59.0-69.4)	370	65.2	(59.7-70.2)
Luce-Mackinac-Alger-Schoolcraft	52	62.9	(48.1-75.6)	50	50.5	(35.7-65.1)
Western Upper Peninsula	92	62.6	(51.5-72.6)	88	62.5	(51.2-72.5)
Delta-Menominee	86	62.7	(51.2-73.0)	86	66.3	(54.9-76.1)
Chippewa	40	--- <sup>d</sup>	--- <sup>d</sup>	38	--- <sup>d</sup>	--- <sup>d</sup>
Dickinson-Iron	50	63.3	(48.4-76.0)	48	--- <sup>d</sup>	--- <sup>d</sup>
Marquette	62	72.8	(58.8-83.4)	60	73.0	(59.6-83.3)

<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> Sample size was too small (< 50) to compute a prevalence in this subgroup, but respondents from this local health department were included in the regional prevalence estimate.

<b>Table 23: 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>17,456</b>	<b>37.8</b>	<b>(36.9-38.8)</b>
<b>Region 1</b>	7,826	41.4	(39.9-42.9)
Livingston	275	31.5	(25.1-38.7)
Macomb	982	38.1	(34.3-42.1)
Monroe	225	32.7	(25.6-40.7)
Oakland	1,788	38.0	(34.9-41.1)
St. Clair	258	33.7	(26.9-41.3)
Washtenaw	545	41.8	(36.5-47.4)
City of Detroit	1,950	62.9	(59.3-66.4)
Wayne exc. Detroit	1,452	37.7	(34.6-41.0)
<b>Region 2</b>	1,164	38.6	(34.7-42.6)
Genesee	888	42.4	(37.7-47.2)
Lapeer	157	29.1	(21.3-38.3)
Shiawassee	119	28.2	(19.6-38.8)
<b>Region 3</b>	461	37.2	(31.5-43.2)
Jackson	293	39.1	(32.2-46.5)
Lenawee	168	33.7	(24.6-44.3)
<b>Region 4</b>	1,006	37.3	(33.6-41.2)
Barry-Eaton	349	30.4	(24.9-36.6)
Mid-Michigan <sup>b</sup>	359	38.1	(32.0-44.6)
Ingham	443	42.3	(36.4-48.4)
<b>Region 5</b>	854	38.0	(33.9-42.3)
Branch-Hillsdale-St. Joseph	255	33.7	(26.6-41.7)
Calhoun	195	45.2	(38.1-54.6)
Kalamazoo	404	37.4	(31.7-43.4)
<b>Region 6</b>	624	35.3	(30.5-40.4)
Van Buren-Cass	228	35.5	(27.9-44.0)
Berrien	396	35.1	(29.2-41.5)
<b>Region 7</b>	1,793	34.3	(31.6-37.1)
Allegan	207	37.9	(30.5-45.9)
Ionia	100	28.7	(18.8-41.1)
Kent	912	36.4	(32.5-40.5)
Mid-Michigan <sup>b</sup>	359	38.1	(32.0-44.6)
Ottawa	429	28.4	(23.4-33.9)

<b>Table 23 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>17,456</b>	<b>37.8</b>	<b>(36.9-38.8)</b>
<b>Region 8</b>	906	33.1	(29.2-37.2)
District #10	550	31.0	(26.4-35.9)
Muskegon	356	36.5	(29.9-43.6)
<b>Region 9</b>	797	34.4	(30.4-38.5)
District #2	145	30.9	(22.3-41.1)
District #4	171	33.5	(25.6-42.4)
Northwest Michigan	255	37.3	(30.5-44.7)
Benzie-Leelanau	88	32.4	(21.2-46.0)
Grand Traverse	138	34.3	(25.3-44.6)
<b>Region 10</b>	894	36.4	(32.0-41.0)
Bay	190	36.3	(26.8-47.1)
Huron	51	31.1	(17.3-49.4)
Saginaw	474	38.9	(32.8-45.3)
Sanilac	81	34.3	(23.0-47.8)
Tuscola	98	31.9	(21.1-45.1)
<b>Region 11</b>	507	31.1	(26.4-36.3)
Central Michigan	345	30.9	(25.2-37.3)
Midland	162	31.6	(23.5-40.9)
<b>Region 12</b>	616	30.0	(25.7-34.7)
Luce-Mackinac-Alger-Schoolcraft	79	26.4	(15.9-40.4)
Western Upper Peninsula	125	26.9	(18.7-37.0)
Delta-Menominee	127	21.2	(13.9-31.0)
Chippewa	76	41.3	(28.3-55.6)
Dickinson-Iron	78	26.5	(16.6-39.6)
Marquette	131	37.5	(27.6-48.5)

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 24: Asthma**  
**Michigan BRFSS, 2008-2010 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>27,504</b>	<b>15.6</b>	<b>(15.0-16.2)</b>	<b>27,388</b>	<b>10.1</b>	<b>(9.6-10.6)</b>
<b>Region 1</b>	12,344	16.1	(15.1-17.1)	12,285	10.2	(9.5-11.0)
Livingston	417	14.1	(9.5-20.3)	417	10.7	(6.9-16.2)
Macomb	1,580	15.8	(13.4-18.5)	1,571	10.1	(8.3-12.2)
Monroe	344	13.8	(9.6-19.4)	344	8.8	(5.4-13.9)
Oakland	2,844	13.1	(11.5-14.9)	2,835	8.6	(7.3-10.2)
St. Clair	388	18.0	(113.6-23.4)	385	9.9	(6.9-14.1)
Washtenaw	768	18.0	(14.3-22.3)	4766	11.3	(8.5-14.8)
City of Detroit	3,135	19.1	(17.0-21.4)	3,118	12.6	(10.9-14.5)
Wayne exc. Detroit	2,235	17.2	(15.2-19.5)	2,223	10.3	(8.7-12.0)
<b>Region 2</b>	1,772	17.2	(14.3-20.5)	1,761	10.7	(8.4-13.6)
Genesee	1,352	17.8	(14.4-21.8)	1,342	10.6	(8.0-14.0)
Lapeer	222	16.7	(11.1-24.4)	221	9.9	(6.2-15.4)
Shiawassee	198	14.6	(7.9-25.3)	198	12.1	(5.9-23.3)
<b>Region 3</b>	722	13.5	(10.5-17.1)	720	9.1	(6.6-12.2)
Jackson	455	13.2	(9.6-17.9)	454	8.9	(6.0-13.1)
Lenawee	267	13.9	(9.2-20.4)	266	9.3	(5.7-14.8)
<b>Region 4</b>	1,508	14.0	(11.8-16.7)	1,503	8.7	(7.0-10.8)
Barry-Eaton	514	11.5	(8.6-15.2)	511	7.3	(5.0-10.5)
Mid-Michigan <sup>c</sup>	556	13.1	(9.7-17.4)	554	7.6	(5.1-11.1)
Ingham	669	16.6	(12.8-21.2)	667	9.9	(7.2-13.6)
<b>Region 5</b>	1,348	15.7	(13.3-18.4)	1,339	9.8	(7.9-12.1)
Branch-Hillsdale-St. Joseph	387	14.5	(10.6-19.4)	385	9.5	(6.4-13.8)
Calhoun	317	17.8	(13.2-23.6)	314	11.9	(8.2-16.9)
Kalamazoo	644	15.4	(11.9-19.7)	640	9.0	(6.3-12.7)
<b>Region 6</b>	984	13.2	(10.6-16.3)	982	8.7	(6.7-11.4)
Van Buren-Cass	325	13.7	(9.6-19.3)	324	11.0	(7.2-16.4)
Berrien	659	12.7	(9.7-16.6)	658	7.0	(5.2-9.5)
<b>Region 7</b>	2,710	13.6	(12.0-15.5)	2,704	8.4	(7.1-9.9)
Allegan	287	13.0	(8.8-18.8)	286	7.6	(4.5-12.7)
Ionia	143	15.3	(8.7-25.5)	143	10.4	(5.0-20.5)
Kent	1,383	14.1	(11.8-16.8)	1,381	9.4	(7.6-11.6)
Mid-Michigan <sup>c</sup>	556	13.1	(9.7-17.4)	554	7.6	(5.1-11.1)
Ottawa	666	12.5	(9.6-16.2)	665	7.0	(4.8-10.0)

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Table 24 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>27,504</b>	<b>15.6</b>	<b>(15.0-16.2)</b>	<b>27,388</b>	<b>10.1</b>	<b>(9.6-10.6)</b>
<b>Region 8</b>	1,466	14.2	(11.9-16.9)	1,463	10.4	(8.4-12.9)
District #10	863	14.5	(11.7-17.9)	860	10.9	(8.4-14.0)
Muskegon	603	13.7	(10.1-18.4)	603	9.7	(6.6-14.1)
<b>Region 9</b>	1,315	15.0	(12.6-17.8)	1,311	10.6	(8.7-12.8)
District #2	252	14.1	(9.5-20.3)	249	9.5	(6.0-14.6)
District #4	298	12.9	(8.8-18.6)	297	9.5	(5.9-15.0)
Northwest Michigan	393	16.3	(12.1-21.5)	393	12.1	(8.7-16.4)
Benzie-Leelanau	147	14.0	(6.7-26.9)	147	5.6	(2.8-10.7)
Grand Traverse	225	17.0	(11.6-24.1)	225	14.1	(9.3-20.8)
<b>Region 10</b>	1,477	17.6	(14.8-20.8)	1,471	11.5	(9.3-14.2)
Bay	310	17.3	(11.9-24.5)	307	10.7	(6.5-17.0)
Huron	101	23.9	(13.6-38.5)	100	16.8	(8.0-31.9)
Saginaw	769	15.8	(12.2-20.2)	767	10.5	(7.8-14.2)
Sanilac	135	17.5	(9.9-28.9)	135	15.1	(7.9-26.8)
Tuscola	162	21.1	(13.3-31.8)	162	11.2	(6.3-19.1)
<b>Region 11</b>	801	15.6	(12.4-19.5)	798	9.9	(7.6-12.9)
Central Michigan	566	16.8	(12.7-21.9)	564	9.9	(7.1-13.7)
Midland	235	13.1	(9.0-18.5)	234	9.9	(6.4-15.0)
<b>Region 12</b>	1,037	19.3	(15.9-23.3)	1,031	13.9	(10.9-17.5)
Luce-Mackinac-Alger-Schoolcraft	135	20.7	(13.0-31.4)	134	12.7	(7.2-21.4)
Western Upper Peninsula	226	17.3	(9.2-30.2)	224	13.8	(6.4-27.5)
Delta-Menominee	222	17.2	(11.3-25.2)	222	13.2	(8.3-20.2)
Chippewa	121	14.9	(9.2-23.4)	119	11.7	(6.7-19.7)
Dickinson-Iron	135	18.9	(11.3-30.0)	135	12.5	(6.5-22.6)
Marquette	198	25.6	(17.9-35.2)	197	17.8	(11.4-26.9)

<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.

<b>Table 25: Arthritis Michigan BRFSS, 2009 and 2010 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>14,820</b>	<b>31.5</b>	<b>(30.5-32.5)</b>
<b>Region 1</b>	6,691	30.4	(29.0-31.9)
Livingston	213	26.1	(20.4-32.6)
Macomb	865	32.4	(28.6-36.4)
Monroe	172	46.4	(37.7-55.4)
Oakland	1,558	27.7	(25.0-30.6)
St. Clair	222	36.9	(29.5-45.0)
Washtenaw	416	24.4	(19.6-30.0)
City of Detroit	1,665	30.6	(27.6-33.9)
Wayne exc. Detroit	1,179	31.5	(28.4-34.7)
<b>Region 2</b>	956	33.1	(29.4-37.0)
Genesee	726	32.7	(28.4-37.4)
Lapeer	129	43.1	(33.3-53.4)
Shiawassee	101	25.5	(17.5-35.5)
<b>Region 3</b>	371	31.7	(26.3-37.7)
Jackson	231	30.7	(24.1-38.1)
Lenawee	140	33.8	(25.1-43.7)
<b>Region 4</b>	790	30.8	(27.1-34.7)
Barry-Eaton	284	31.0	(25.3-37.4)
Mid-Michigan <sup>b</sup>	271	34.1	(27.6-41.3)
Ingham	343	29.9	(24.5-36.0)
<b>Region 5</b>	698	32.2	(28.1-36.6)
Branch-Hillsdale-St. Joseph	196	35.4	(27.3-44.3)
Calhoun	164	35.1	(26.7-44.6)
Kalamazoo	338	28.9	(23.6-35.0)
<b>Region 6</b>	564	31.8	(27.3-36.8)
Van Buren-Cass	183	33.6	(26.1-42.0)
Berrien	381	30.4	(25.0-36.5)
<b>Region 7</b>	1,444	27.2	(24.6-29.8)
Allegan	157	27.2	(20.2-35.6)
Ionia	76	28.9	(18.7-41.8)
Kent	751	27.6	(24.1-31.4)
Mid-Michigan <sup>b</sup>	271	34.1	(27.6-41.3)
Ottawa	352	23.3	(18.7-28.6)

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<b>Table 25 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>14,820</b>	<b>31.5</b>	<b>(30.5-32.5)</b>
<b>Region 8</b>	799	38.3	(33.8-43.0)
District #10	462	38.0	(32.3-44.1)
Muskegon	337	38.7	(31.7-46.2)
<b>Region 9</b>	694	33.5	(29.5-37.8)
District #2	134	44.3	(34.3-54.7)
District #4	154	32.7	(24.5-42.2)
Northwest Michigan	208	35.5	(28.3-43.6)
Benzie-Leelanau	79	24.4	(15.3-36.6)
Grand Traverse	119	25.7	(18.0-35.2)
<b>Region 10</b>	797	36.1	(31.6-40.8)
Bay	161	30.0	(21.5-40.2)
Huron	45	--- <sup>c</sup>	--- <sup>c</sup>
Saginaw	421	34.8	(28.9-41.3)
Sanilac	76	35.7	(24.2-49.1)
Tuscola	94	50.1	(37.2-63.0)
<b>Region 11</b>	431	34.6	(29.4-40.2)
Central Michigan	311	38.7	(32.1-45.6)
Midland	120	25.7	(18.1-35.1)
<b>Region 12</b>	585	32.6	(28.2-37.4)
Luce-Mackinac-Alger-Schoolcraft	75	30.4	(18.9-45.1)
Western Upper Peninsula	125	30.8	(22.2-40.9)
Delta-Menominee	124	30.3	(22.2-39.7)
Chippewa	71	36.0	(24.1-49.9)
Dickinson-Iron	77	42.5	(29.5-56.6)
Marquette	113	30.2	(20.8-41.6)

<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.

<sup>c</sup> Sample size was too small (< 50) to compute a prevalence in this subgroup, but respondents from this local health department were included in the regional prevalence estimate.

<b>Table 26: Heart Attack Michigan BRFSS, 2008-2010 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>27,383</b>	<b>4.6</b>	<b>(4.3-4.9)</b>
<b>Region 1</b>	12,291	4.4	(4.0-4.8)
Livingston	417	5.4	(3.7-7.9)
Macomb	1,573	4.0	(3.2-5.0)
Monroe	342	4.5	(2.9-6.9)
Oakland	2,835	4.2	(3.5-5.0)
St. Clair	389	4.9	(3.3-7.3)
Washtenaw	764	3.2	(2.1-4.8)
City of Detroit	3,113	5.3	(4.5-6.3)
Wayne exc. Detroit	2,227	4.4	(3.7-5.3)
<b>Region 2</b>	1,760	5.2	(4.2-6.3)
Genesee	1,342	5.0	(3.9-6.4)
Lapeer	221	6.8	(4.2-11.0)
Shiawassee	197	4.3	(2.1-8.4)
<b>Region 3</b>	716	4.4	(3.2-5.9)
Jackson	451	3.6	(2.4-5.3)
Lenawee	265	5.8	(3.7-9.1)
<b>Region 4</b>	1,505	4.3	(3.4-5.5)
Barry-Eaton	513	4.5	(3.0-6.5)
Mid-Michigan <sup>b</sup>	555	4.0	(2.8-5.9)
Ingham	668	4.3	(3.0-6.3)
<b>Region 5</b>	1,342	5.0	(3.9-6.3)
Branch-Hillsdale-St. Joseph	384	5.6	(3.7-8.4)
Calhoun	317	6.5	(4.0-10.4)
Kalamazoo	641	3.9	(2.6-5.7)
<b>Region 6</b>	980	6.0	(4.5-8.0)
Van Buren-Cass	324	5.7	(3.4-9.1)
Berrien	656	6.3	(4.5-8.9)
<b>Region 7</b>	2,698	3.0	(2.5-3.7)
Allegan	286	3.0	(1.6-5.4)
Ionia	143	5.1	(2.5-10.0)
Kent	1,372	2.6	(1.9-3.4)
Mid-Michigan <sup>b</sup>	555	4.0	(2.8-5.9)
Ottawa	666	3.2	(2.0-5.1)



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<b>Table 26 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>27,383</b>	<b>4.6</b>	<b>(4.3-4.9)</b>
<b>Region 8</b>	1,457	5.4	(4.3-6.7)
District #10	860	5.9	(4.5-7.6)
Muskegon	597	4.6	(3.0-7.0)
<b>Region 9</b>	1,310	6.6	(5.3-8.2)
District #2	252	11.2	(7.2-16.9)
District #4	293	6.6	(4.4-9.8)
Northwest Michigan	392	6.7	(4.5-9.7)
Benzie-Leelanau	148	2.6	(1.2-5.7)
Grand Traverse	225	4.4	(2.6-7.4)
<b>Region 10</b>	1,474	5.3	(4.3-6.6)
Bay	309	4.4	(2.8-6.7)
Huron	100	4.8	(2.0-11.3)
Saginaw	770	5.5	(4.0-7.6)
Sanilac	134	5.7	(3.1-10.4)
Tuscola	161	6.4	(3.7-10.8)
<b>Region 11</b>	799	5.5	(4.2-7.1)
Central Michigan	564	5.2	(3.8-7.3)
Midland	235	5.9	(3.7-9.4)
<b>Region 12</b>	1,031	4.1	(3.1-5.4)
Luce-Mackinac-Alger-Schoolcraft	135	3.7	(1.6-8.1)
Western Upper Peninsula	224	4.7	(2.6-8.3)
Delta-Menominee	223	5.2	(3.1-8.7)
Chippewa	120	3.7	(1.5-8.5)
Dickinson-Iron	133	6.1	(3.4-10.7)
Marquette	196	1.9	(0.7-5.0)

<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.

<b>Table 27: Angina or Coronary Heart Disease Michigan BRFSS, 2008-2010 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>27,214</b>	<b>4.8</b>	<b>(4.5-5.1)</b>
<b>Region 1</b>	12,206	4.5	(4.2-5.0)
Livingston	411	4.2	(2.7-6.4)
Macomb	1,560	4.4	(3.5-5.5)
Monroe	341	4.0	(2.5-6.4)
Oakland	2,813	4.4	(3.7-5.2)
St. Clair	382	5.6	(3.9-8.1)
Washtenaw	764	3.8	(2.7-5.2)
City of Detroit	3,089	4.4	(3.7-5.2)
Wayne exc. Detroit	2,216	5.0	(4.1-6.1)
<b>Region 2</b>	1,757	5.3	(4.3-6.6)
Genesee	1,336	4.9	(3.8-6.3)
Lapeer	221	7.2	(4.2-12.0)
Shiawassee	200	5.6	(2.9-10.8)
<b>Region 3</b>	714	3.7	(2.7-5.1)
Jackson	449	3.2	(2.0-5.0)
Lenawee	265	4.6	(2.9-7.3)
<b>Region 4</b>	1,497	4.4	(3.6-5.5)
Barry-Eaton	507	4.3	(3.0-6.2)
Mid-Michigan <sup>b</sup>	552	5.4	(3.9-7.4)
Ingham	667	4.3	(3.1-6.0)
<b>Region 5</b>	1,326	4.0	(3.1-5.1)
Branch-Hillsdale-St. Joseph	380	5.1	(3.4-7.6)
Calhoun	309	3.3	(2.0-5.4)
Kalamazoo	637	3.6	(2.5-5.3)
<b>Region 6</b>	969	5.9	(4.6-7.5)
Van Buren-Cass	320	5.2	(3.4-7.7)
Berrien	649	6.5	(4.7-8.8)
<b>Region 7</b>	2,691	3.2	(2.7-3.9)
Allegan	285	2.6	(1.4-4.9)
Ionia	141	2.5	(1.1-5.9)
Kent	1,372	2.9	(2.2-3.8)
Mid-Michigan <sup>b</sup>	552	5.4	(3.9-7.4)
Ottawa	664	3.3	(2.1-5.2)

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<b>Table 27 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>27,214</b>	<b>4.8</b>	<b>(4.5-5.1)</b>
<b>Region 8</b>	1,450	4.7	(3.8-5.8)
District #10	860	5.6	(4.3-7.2)
Muskegon	590	3.2	(2.1-4.8)
<b>Region 9</b>	1,296	6.8	(5.6-8.4)
District #2	253	10.8	(7.3-15.6)
District #4	288	7.4	(5.0-10.9)
Northwest Michigan	385	6.6	(4.3-9.8)
Benzie-Leelanau	147	5.2	(2.8-9.5)
Grand Traverse	223	3.5	(2.0-6.1)
<b>Region 10</b>	1,467	6.6	(5.4-8.2)
Bay	308	5.7	(3.4-9.4)
Huron	100	7.3	(3.5-14.3)
Saginaw	764	6.8	(5.0-9.3)
Sanilac	134	4.1	(2.0-8.3)
Tuscola	161	9.2	(5.7-14.5)
<b>Region 11</b>	792	7.2	(5.7-9.1)
Central Michigan	558	8.2	(6.2-10.7)
Midland	234	5.1	(3.2-8.1)
<b>Region 12</b>	1,029	6.0	(4.7-7.6)
Luce-Mackinac-Alger-Schoolcraft	135	4.0	(2.0-7.9)
Western Upper Peninsula	226	9.6	(6.1-14.8)
Delta-Menominee	220	5.5	(3.2-9.1)
Chippewa	119	8.9	(4.7-16.3)
Dickinson-Iron	133	5.5	(3.1-9.7)
Marquette	196	2.6	(1.2-5.7)

<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.

<b>Table 28: Stroke</b>			
<b>Michigan BRFSS, 2008-2010 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>27,479</b>	<b>2.8</b>	<b>(2.6-3.0)</b>
<b>Region 1</b>	12,334	2.8	(2.5-3.1)
Livingston	416	2.5	(1.4-4.7)
Macomb	1,576	2.7	(2.0-3.7)
Monroe	344	3.1	(1.8-5.2)
Oakland	2,842	1.9	(1.5-2.5)
St. Clair	388	2.0	(1.1-3.6)
Washtenaw	766	2.0	(1.3-3.0)
City of Detroit	3,134	4.7	(3.9-5.7)
Wayne exc. Detroit	2,236	2.8	(2.2-3.6)
<b>Region 2</b>	1,769	3.0	(2.4-3.8)
Genesee	1,349	2.8	(2.1-3.8)
Lapeer	221	3.5	(1.8-6.5)
Shiawassee	199	3.4	(1.8-6.2)
<b>Region 3</b>	721	1.3	(0.8-2.1)
Jackson	454	1.3	(0.7-2.5)
Lenawee	267	1.2	(0.5-2.9)
<b>Region 4</b>	1,506	2.2	(1.6-3.1)
Barry-Eaton	513	2.3	(1.4-4.0)
Mid-Michigan <sup>b</sup>	556	2.4	(1.2-4.8)
Ingham	668	2.3	(1.4-4.0)
<b>Region 5</b>	1,345	2.8	(2.0-3.8)
Branch-Hillsdale-St. Joseph	385	2.7	(1.6-4.4)
Calhoun	316	3.6	(1.8-6.9)
Kalamazoo	644	2.4	(1.6-3.8)
<b>Region 6</b>	986	3.5	(2.4-5.1)
Van Buren-Cass	324	2.5	(1.2-5.2)
Berrien	662	4.3	(2.9-6.5)
<b>Region 7</b>	2,707	2.0	(1.6-2.7)
Allegan	287	2.9	(1.6-5.4)
Ionia	142	2.0	(0.6-6.9)
Kent	1,381	1.9	(1.3-2.8)
Mid-Michigan <sup>b</sup>	556	2.4	(1.2-4.8)
Ottawa	666	1.5	(0.9-2.4)

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<b>Table 28 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>27,479</b>	<b>2.8</b>	<b>(2.6-3.0)</b>
<b>Region 8</b>	1,458	3.3	(2.5-4.3)
District #10	860	3.7	(2.6-5.1)
Muskegon	598	2.7	(1.7-4.3)
<b>Region 9</b>	1,316	4.3	(3.2-5.6)
District #2	253	5.1	(2.8-9.1)
District #4	298	3.3	(1.7-6.3)
Northwest Michigan	393	3.8	(2.2-6.3)
Benzie-Leelanau	148	4.0	(1.7-8.9)
Grand Traverse	224	5.7	(3.1-10.2)
<b>Region 10</b>	1,478	3.2	(2.4-4.3)
Bay	310	2.3	(1.2-4.5)
Huron	100	0.7	(0.2-2.9)
Saginaw	770	3.9	(2.6-5.9)
Sanilac	135	4.2	(1.9-8.9)
Tuscola	163	3.1	(1.4-7.0)
<b>Region 11</b>	798	3.9	(2.8-5.3)
Central Michigan	564	4.2	(2.9-6.0)
Midland	234	3.1	(1.6-5.9)
<b>Region 12</b>	1,041	3.2	(2.2-4.5)
Luce-Mackinac-Alger-Schoolcraft	136	4.4	(2.2-8.8)
Western Upper Peninsula	227	2.0	(1.0-4.0)
Delta-Menominee	224	3.2	(1.1-9.4)
Chippewa	121	2.2	(0.9-5.5)
Dickinson-Iron	135	5.7	(2.7-11.9)
Marquette	198	2.6	(1.3-5.3)

<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.

<b>Table 29: Cardiovascular Disease Michigan BRFS, 2008-2010 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>27,209</b>	<b>8.9</b>	<b>(8.6-9.3)</b>
<b>Region 1</b>	12,205	8.7	(8.2-9.3)
Livingston	413	8.2	(5.9-11.2)
Macomb	1,557	8.5	(7.1-10.0)
Monroe	339	9.8	(7.2-13.2)
Oakland	2,821	7.7	(6.7-8.8)
St. Clair	383	9.5	(7.1-12.6)
Washtenaw	760	6.8	(5.2-8.8)
City of Detroit	3,091	10.9	(9.7-12.2)
Wayne exc. Detroit	2,213	8.9	(7.7-10.2)
<b>Region 2</b>	1,750	9.8	(8.4-11.4)
Genesee	1,333	9.7	(8.1-11.5)
Lapeer	220	11.8	(7.9-17.2)
Shiawassee	197	8.5	(5.2-13.8)
<b>Region 3</b>	715	6.6	(5.2-8.4)
Jackson	450	6.2	(4.5-8.4)
Lenawee	265	7.3	(4.9-10.7)
<b>Region 4</b>	1,495	8.0	(6.7-9.5)
Barry-Eaton	505	8.3	(6.2-10.9)
Mid-Michigan <sup>b</sup>	554	8.7	(6.5-11.6)
Ingham	667	7.9	(6.0-10.3)
<b>Region 5</b>	1,329	9.0	(7.5-10.8)
Branch-Hillsdale-St. Joseph	379	9.9	(7.4-13.3)
Calhoun	314	11.2	(7.8-15.9)
Kalamazoo	636	7.5	(5.6-9.8)
<b>Region 6</b>	976	11.6	(9.5-14.0)
Van Buren-Cass	323	10.3	(7.2-14.4)
Berrien	653	12.6	(9.9-15.8)
<b>Region 7</b>	2,689	6.1	(5.3-7.1)
Allegan	285	5.6	(3.7-8.6)
Ionia	140	6.2	(3.4-11.2)
Kent	1,368	5.7	(4.6-6.9)
Mid-Michigan <sup>b</sup>	554	8.7	(6.5-11.6)
Ottawa	665	6.1	(4.4-8.4)

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<b>Table 29 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>27,209</b>	<b>8.9</b>	<b>(8.6-9.3)</b>
<b>Region 8</b>	1,438	9.6	(8.1-11.3)
District #10	853	10.3	(8.5-12.6)
Muskegon	585	8.3	(6.1-11.1)
<b>Region 9</b>	1,305	12.7	(10.8-14.7)
District #2	252	19.1	(14.0-25.5)
District #4	293	11.6	(8.4-15.8)
Northwest Michigan	389	12.6	(9.5-16.7)
Benzie-Leelanau	147	8.2	(4.8-13.6)
Grand Traverse	224	10.2	(6.8-15.0)
<b>Region 10</b>	1,466	10.9	(9.3-12.8)
Bay	309	9.4	(6.5-13.5)
Huron	98	8.9	(4.7-16.2)
Saginaw	766	11.8	(9.4-14.8)
Sanilac	133	9.5	(5.8-15.2)
Tuscola	160	12.7	(8.4-18.7)
<b>Region 11</b>	794	11.5	(9.5-13.9)
Central Michigan	559	12.4	(10.0-15.4)
Midland	235	9.6	(6.6-13.8)
<b>Region 12</b>	1,027	9.3	(7.6-11.3)
Luce-Mackinac-Alger-Schoolcraft	134	8.4	(5.0-13.7)
Western Upper Peninsula	225	12.0	(8.1-17.5)
Delta-Menominee	221	10.1	(6.3-15.7)
Chippewa	119	9.8	(5.4-17.1)
Dickinson-Iron	133	10.2	(6.0-16.6)
Marquette	195	5.5	(3.1-9.4)

<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.

<b>Table 30: Diabetes</b>			
<b>Michigan BRFSS, 2008-2010 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>27,546</b>	<b>9.5</b>	<b>(9.1-9.9)</b>
<b>Region 1</b>	12,359	9.7	(9.1-10.3)
Livingston	417	6.3	(4.4-9.0)
Macomb	1,580	9.3	(7.7-11.2)
Monroe	344	8.8	(6.4-11.9)
Oakland	2,845	8.7	(7.7-10.0)
St. Clair	391	9.4	(6.7-13.1)
Washtenaw	768	8.3	(6.3-10.9)
City of Detroit	3,143	14.4	(12.9-16.1)
Wayne exc. Detroit	2,235	9.1	(7.9-10.4)
<b>Region 2</b>	1,774	9.5	(8.1-11.1)
Genesee	1,532	9.6	(8.0-11.4)
Lapeer	222	7.5	(4.8-11.7)
Shiawassee	200	11.1	(7.1-16.9)
<b>Region 3</b>	722	9.9	(7.8-12.6)
Jackson	455	9.9	(7.2-13.5)
Lenawee	267	9.9	(6.8-14.2)
<b>Region 4</b>	1,511	7.9	(6.6-9.5)
Barry-Eaton	515	7.5	(5.5-10.3)
Mid-Michigan <sup>b</sup>	556	12.1	(8.8-16.4)
Ingham	671	7.4	(5.5-9.9)
<b>Region 5</b>	1,349	9.9	(8.3-11.8)
Branch-Hillsdale-St. Joseph	387	9.8	(7.0-13.6)
Calhoun	317	11.5	(8.3-15.8)
Kalamazoo	645	9.2	(7.0-11.9)
<b>Region 6</b>	990	9.8	(7.8-12.3)
Van Buren-Cass	326	9.9	(6.6-14.6)
Berrien	664	9.7	(7.5-12.6)
<b>Region 7</b>	2,709	8.8	(7.7-10.2)
Allegan	287	10.9	(7.0-16.8)
Ionia	144	9.2	(5.4-15.3)
Kent	1,382	8.7	(7.2-10.4)
Mid-Michigan <sup>b</sup>	556	12.1	(8.8-16.4)
Ottawa	665	6.3	(4.8-8.2)



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<b>Table 30 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>27,546</b>	<b>9.5</b>	<b>(9.1-9.9)</b>
<b>Region 8</b>	1,468	11.8	(10.0-13.8)
District #10	866	12.7	(10.4-15.5)
Muskegon	602	10.2	(7.6-13.4)
<b>Region 9</b>	1,319	8.8	(7.3-10.5)
District #2	253	13.5	(9.2-19.4)
District #4	297	10.2	(7.2-14.3)
Northwest Michigan	394	6.9	(4.9-9.7)
Benzie-Leelanau	149	6.3	(3.7-10.6)
Grand Traverse	226	7.1	(4.2-11.8)
<b>Region 10</b>	1,481	10.6	(8.9-12.5)
Bay	310	9.0	(6.4-12.7)
Huron	101	4.9	(2.1-11.1)
Saginaw	772	12.0	(9.4-15.3)
Sanilac	135	12.2	(7.3-19.5)
Tuscola	163	10.2	(6.5-15.6)
<b>Region 11</b>	801	8.1	(6.4-10.1)
Central Michigan	566	8.6	(6.6-11.0)
Midland	235	7.0	(4.4-10.9)
<b>Region 12</b>	1,043	8.7	(7.0-10.8)
Luce-Mackinac-Alger-Schoolcraft	135	4.0	(2.0-7.7)
Western Upper Peninsula	227	9.6	(6.4-14.2)
Delta-Menominee	224	9.8	(5.9-15.6)
Chippewa	121	9.1	(5.0-15.9)
Dickinson-Iron	136	14.8	(8.8-24.0)
Marquette	200	6.1	(3.5-10.2)

<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.