

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

**State of Michigan**

**Selected Tables**

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

**2017 - 2019**

Lifecourse Epidemiology and Genomics Division  
Bureau of Epidemiology and Population Health  
Michigan Department of Health and Human Services

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## **Introduction**

The Michigan Behavioral Risk Factor Survey (MiBRFS) is an annual, statewide telephone survey of Michigan adults aged 18 years and older that is conducted through a collaborative effort among the Population Health Surveillance Branch (PHSB) of the Centers for Disease Control and Prevention (CDC), the Michigan State University Institute for Public Policy and Social Research (IPPSR), and the Michigan Department of Health and Human Services. Michigan BRFSS data contribute to the national [Behavioral Risk Factor Surveillance System](#) that is managed by the PHSB at the CDC.

State-specific, population-based prevalence estimates (and asymmetric 95% confidence intervals) of health risk behaviors, preventive health practices, and chronic conditions are calculated using annual data sets (see Annual Tables at the [MiBRFSS website \[http://www.michigan.gov/brfss\]](http://www.michigan.gov/brfss)). 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 2017-2019 Michigan BRFSS were combined. The total sample sizes by year were: 10,889 in 2017, 10,322 in 2018, and 10,518 in 2019. Not all questions were included annually in the survey. The table subtitles indicate which years were used for that particular analysis.

For the 2017 through 2019 Michigan Behavioral Risk Factor Surveys, the sample of land line telephone numbers that were utilized for data collection was selected using a list-assisted, random-digit-dialed methodology with a disproportionate stratification based on phone bank density, and whether or not the phone numbers were directory listed. The sample of cell phone numbers used within each survey year was randomly selected from dedicated cellular telephone banks sorted on the basis of area code and exchange within the State of Michigan.

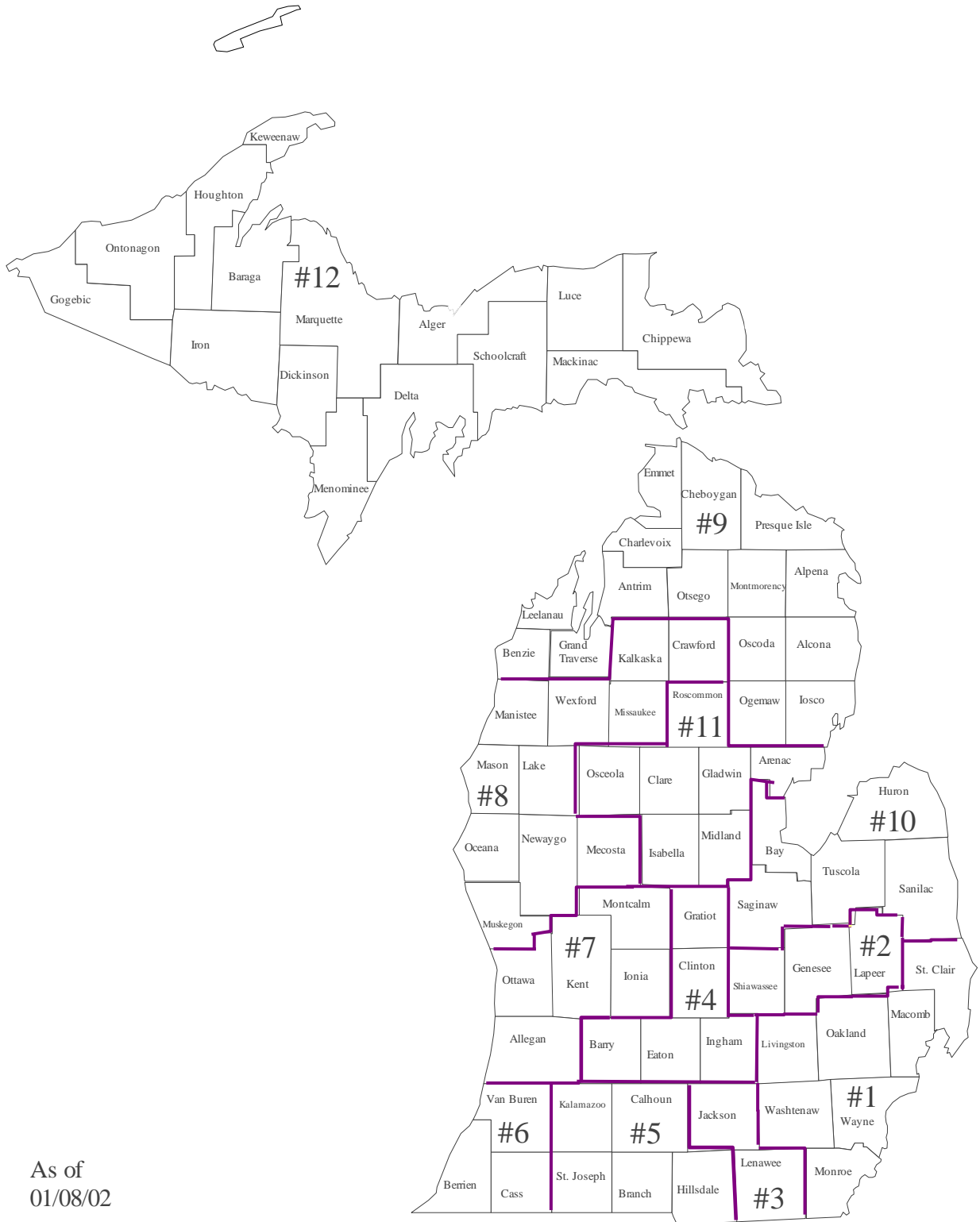
Iterative proportional fitting or raking was the weighting methodology used to make the 2017-2019 Michigan BRFSS data representative of the current Michigan adult population. Estimates based on this methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of Michigan adults by telephone source (land line vs. cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status. No additional weighting factors were computed at the regional or local health department (LHD) level, thus the weights used might not always provide accurate regional and/or LHD estimates, particularly when regional and/or LHD demographic distributions vary greatly from that of the state.

Population-based prevalence estimates and asymmetric 95% confidence intervals were calculated for indicators of health status, health risk behaviors, clinical preventive practices, and chronic conditions among the overall adult population in Michigan, as well as at the regional and local health department level. All analyses were performed in SAS-Callable SUDAAN®, a statistical computing program that was designed for complex sample surveys. In an effort to provide the most reliable information possible, prevalence estimates are suppressed if they are based on a denominator of less than 50 respondents or have a relative standard error of greater than 30%. Comparisons between estimates with non-overlapping 95% confidence intervals should be considered significantly different.

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

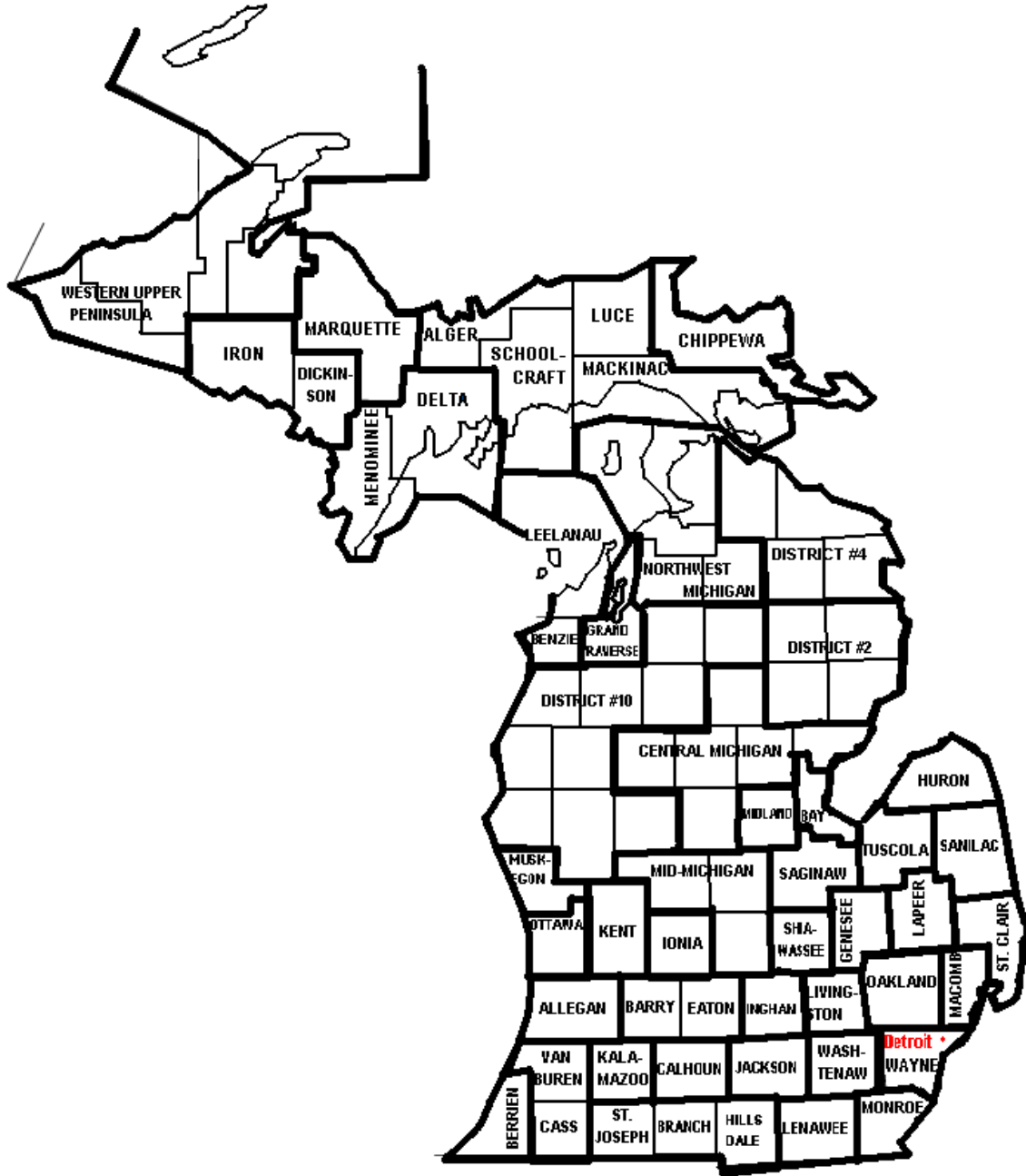
If you have any questions regarding any of the estimates within the following tables, please contact Yan Tian at [tiany@michigan.gov](mailto:tiany@michigan.gov).

## Community Health Assessment and Improvement Regions State of Michigan



As of  
01/08/02

### Local Health Departments State of Michigan



2017-2019 Michigan BRFSS Regional & Local Health Department Estimates  
December 2020

<b>Table 1: Health Status Michigan BRFSS, 2017-2019 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>31,669</b>	<b>18.9</b>	<b>(18.3-19.5)</b>
<b>Region 1</b>	12,890	18.9	(18.0-19.8)
Livingston	1,540	12.6	(10.4-15.3)
Macomb	1,886	19.1	(17.0-21.4)
Monroe	363	18.4	(14.4-23.3)
Oakland	3,189	14.9	(13.4-16.6)
St. Clair	381	23.9	(19.0-29.6)
Washtenaw	1,474	13.0	(10.8-15.6)
City of Detroit	1,402	31.9	(29.0-35.0)
Wayne exc. Detroit	2,582	18.2	(16.5-20.1)
<b>Region 2</b>	2,157	21.4	(19.2-23.8)
Genesee	1,624	22.3	(19.7-25.2)
Lapeer	249	22.1	(16.8-28.6)
Shiawassee	264	15.8	(10.5-23.1)
<b>Region 3</b>	1,764	18.2	(15.9-20.9)
Jackson	1,404	18.2	(15.9-20.8)
Lenawee	296	18.6	(13.9-24.6)
<b>Region 4</b>	1,755	16.9	(14.8-19.3)
Barry-Eaton	454	19.5	(15.3-24.5)
Mid-Michigan <sup>b</sup>	523	19.0	(15.2-23.5)
Ingham	953	15.5	(12.7-18.8)
<b>Region 5</b>	1,488	18.8	(16.3-21.6)
Branch-Hillsdale-St. Joseph	434	22.3	(17.4-28.1)
Calhoun	369	18.8	(13.9-24.9)
Kalamazoo	662	16.6	(13.2-20.6)
<b>Region 6</b>	670	19.2	(15.8-23.1)
Van Buren-Cass	282	22.3	(16.9-28.7)
Berrien	333	16.5	(12.3-21.7)
<b>Region 7</b>	3,090	15.1	(13.6-16.7)
Allegan	350	17.9	(13.7-23.0)
Ionia	188	18.3	(12.4-26.1)
Kent	1,625	15.0	(13.0-17.2)
Mid-Michigan <sup>b</sup>	523	19.0	(15.2-23.5)
Ottawa	724	11.2	(8.5-14.5)

2017-2019 Michigan BRFSS Regional & Local Health Department Estimates  
December 2020

<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>31,669</b>	<b>18.9</b>	<b>(18.3-19.5)</b>
<b>Region 8</b>	2,605	23.8	(21.3-26.5)
District #10	1,085	25.1	(21.5-29.0)
Muskegon	1,416	23.2	(20.0-26.7)
<b>Region 9</b>	1,781	17.4	(15.1-19.9)
District #2	210	18.0	(12.4-25.3)
District #4	264	20.6	(14.5-28.5)
Northwest Michigan	545	19.9	(15.6-24.9)
Benzie-Leelanau	254	14.6	(9.9-21.1)
Grand Traverse	451	14.2	(10.5-19.0)
<b>Region 10</b>	1,162	21.0	(18.0-24.3)
Bay	258	22.5	(15.9-30.8)
Huron	117	17.1	(10.8-26.0)
Saginaw	471	21.6	(17.0-26.9)
Sanilac	150	21.2	(14.8-29.5)
Tuscola	153	19.3	(13.3-27.1)
<b>Region 11</b>	959	21.4	(18.1-25.1)
Central Michigan	548	24.5	(20.1-29.5)
Midland	231	19.4	(13.3-27.3)
<b>Region 12</b>	813	20.1	(17.1-23.6)
Luce-Mackinac-Alger-Schoolcraft	104	24.0	(15.4-35.3)
Western Upper Peninsula	192	15.7	(10.6-22.7)
Delta-Menominee	145	22.5	(15.9-31.0)
Chippewa	114	20.5	(13.2-30.3)
Dickinson-Iron	69	24.9	(14.3-39.9)
Marquette	155	24.0	(15.4-35.3)

<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 BRFS, 2017-2019 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>31,201</b>	<b>14.3</b>	<b>(13.8-14.9)</b>
<b>Region 1</b>	12,717	13.8	(13.1-14.6)
Livingston	1,522	9.5	(7.6-11.7)
Macomb	1,864	14.3	(12.5-16.4)
Monroe	355	15.3	(11.6-20.0)
Oakland	3,149	12.1	(10.8-13.6)
St. Clair	378	17.9	(13.9-22.7)
Washtenaw	1,458	9.2	(7.4-11.4)
City of Detroit	1,371	19.4	(17.0-22.2)
Wayne exc. Detroit	2,548	13.6	(12.1-15.2)
<b>Region 2</b>	2,127	17.5	(15.5-19.8)
Genesee	1,602	17.6	(15.4-20.2)
Lapeer	244	17.6	(12.7-24.0)
Shiawassee	261	16.5	(10.8-24.4)
<b>Region 3</b>	1,739	14.0	(11.8-16.5)
Jackson	1,387	13.3	(11.4-15.6)
Lenawee	290	13.2	(9.3-18.2)
<b>Region 4</b>	1,721	14.4	(12.4-16.5)
Barry-Eaton	444	14.0	(10.6-18.3)
Mid-Michigan <sup>b</sup>	513	15.6	(12.1-19.8)
Ingham	938	13.8	(11.3-16.8)
<b>Region 5</b>	1,464	15.0	(12.7-17.6)
Branch-Hillsdale-St. Joseph	428	16.7	(12.3-22.2)
Calhoun	365	16.3	(11.7-22.3)
Kalamazoo	649	13.2	(10.3-16.6)
<b>Region 6</b>	659	14.7	(11.5-18.5)
Van Buren-Cass	277	16.2	(11.7-22.1)
Berrien	327	13.5	(9.3-19.2)
<b>Region 7</b>	3,050	12.7	(11.3-14.2)
Allegan	341	16.8	(12.4-22.3)
Ionia	185	13.2	(8.7-19.5)
Kent	1,604	13.0	(11.1-15.2)
Mid-Michigan <sup>b</sup>	513	15.6	(12.1-19.8)
Ottawa	718	9.8	(7.5-12.7)



2017-2019 Michigan BRFSS Regional & Local Health Department Estimates  
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<b>Table 2 Cont'd</b>			
<b>Geographic Area</b>	<b>Poor Physical Health<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,201</b>	<b>14.3</b>	<b>(13.8-14.9)</b>
<b>Region 8</b>	2,564	17.0	(15.0-19.2)
District #10	1,069	17.9	(15.0-21.2)
Muskegon	1,392	18.1	(15.5-21.0)
<b>Region 9</b>	1,765	14.5	(12.4-16.9)
District #2	206	12.2	(7.8-18.5)
District #4	263	17.0	(11.4-24.5)
Northwest Michigan	538	18.2	(14.1-23.3)
Benzie-Leelanau	255	13.9	(9.4-20.0)
Grand Traverse	446	10.6	(7.7-14.3)
<b>Region 10</b>	1,136	14.4	(12.2-17.0)
Bay	253	10.7	(7.3-15.5)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	460	16.2	(12.6-20.6)
Sanilac	148	19.0	(12.8-27.2)
Tuscola	146	13.8	(8.7-21.1)
<b>Region 11</b>	944	13.8	(11.2-16.8)
Central Michigan	538	17.3	(13.6-21.7)
Midland	226	9.1	(5.7-14.2)
<b>Region 12</b>	802	17.3	(14.3-20.7)
Luce-Mackinac-Alger-Schoolcraft	101	17.3	(10.0-28.2)
Western Upper Peninsula	190	12.4	(7.8-19.0)
Delta-Menominee	146	20.0	(13.5-28.6)
Chippewa	113	22.8	(14.1-34.8)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	151	20.4	(13.8-29.1)

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

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

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

2017-2019 Michigan BRFSS Regional & Local Health Department Estimates  
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<b>Table 3: Poor Mental Health on at Least 14 Days in the Past Month Michigan BRFSS, 2017-2019 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>31,268</b>	<b>14.7</b>	<b>(14.2-15.3)</b>
<b>Region 1</b>	12,749	14.6	(13.8-15.4)
Livingston	1,523	12.9	(10.5-15.7)
Macomb	1,868	14.0	(12.1-16.0)
Monroe	360	14.1	(10.3-19.0)
Oakland	3,148	12.8	(11.3-14.4)
St. Clair	380	14.9	(11.1-19.7)
Washtenaw	1,458	16.5	(13.9-19.5)
City of Detroit	1,380	17.5	(15.1-20.2)
Wayne exc. Detroit	2,561	15.3	(13.6-17.2)
<b>Region 2</b>	2,125	16.4	(14.4-18.6)
Genesee	1,598	17.1	(14.8-19.7)
Lapeer	246	14.3	(9.6-20.7)
Shiawassee	261	14.2	(9.0-21.5)
<b>Region 3</b>	1,736	15.5	(13.1-18.2)
Jackson	1,379	15.4	(13.1-18.1)
Lenawee	293	15.0	(10.3-21.3)
<b>Region 4</b>	1,729	14.2	(12.3-16.4)
Barry-Eaton	447	10.9	(7.9-14.9)
Mid-Michigan <sup>b</sup>	519	11.9	(8.9-15.7)
Ingham	938	17.1	(14.2-20.4)
<b>Region 5</b>	1,467	16.8	(14.4-19.6)
Branch-Hillsdale-St. Joseph	424	16.6	(12.0-22.6)
Calhoun	369	14.6	(10.6-19.9)
Kalamazoo	652	18.1	(14.6-22.4)
<b>Region 6</b>	659	17.6	(14.1-21.7)
Van Buren-Cass	275	14.5	(10.0-20.6)
Berrien	330	18.8	(13.9-24.9)
<b>Region 7</b>	3,053	13.2	(11.7-14.8)
Allegan	344	18.1	(13.0-24.4)
Ionia	185	19.5	(13.3-27.8)
Kent	1,609	11.5	(9.8-13.6)
Mid-Michigan <sup>b</sup>	519	11.9	(8.9-15.7)
Ottawa	713	13.8	(10.6-17.6)

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<b>Table 3 Cont'd</b>			
<b>Geographic Area</b>	<b>Poor Mental Health<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,268</b>	<b>14.7</b>	<b>(14.2-15.3)</b>
<b>Region 8</b>	2,571	15.9	(13.9-18.0)
District #10	1,071	14.3	(11.8-17.3)
Muskegon	1,397	17.6	(14.7-20.8)
<b>Region 9</b>	1,765	12.9	(10.9-15.2)
District #2	210	14.4	(9.4-21.5)
District #4	261	10.8	(6.8-16.7)
Northwest Michigan	541	14.3	(10.4-19.3)
Benzie-Leelanau	251	10.4	(6.5-16.3)
Grand Traverse	445	13.3	(9.8-17.8)
<b>Region 10</b>	1,145	16.4	(13.6-19.6)
Bay	256	24.0	(17.0-32.9)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	460	16.6	(12.7-21.4)
Sanilac	150	12.4	(7.6-19.8)
Tuscola	150	7.5	(4.1-13.1)
<b>Region 11</b>	950	15.3	(12.4-18.9)
Central Michigan	542	17.4	(13.4-22.3)
Midland	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 12</b>	802	12.5	(10.0-15.5)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	190	8.3	(5.1-13.3)
Delta-Menominee	145	16.9	(11.0-25.0)
Chippewa	111	16.8	(9.7-27.4)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	151	12.0	(7.0-19.7)

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

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

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

<b>Table 4: Activity Limitation on at Least 14 Days in the Past Month Michigan BRFSS, 2017-2019 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>31,434</b>	<b>10.3</b>	<b>(9.9-10.8)</b>
<b>Region 1</b>	12,799	10.3	(9.6-11.0)
Livingston	1,531	6.4	(5.0-8.3)
Macomb	1,872	10.4	(8.8-12.3)
Monroe	356	12.2	(8.6-17.0)
Oakland	3,174	8.7	(7.5-10.0)
St. Clair	382	15.4	(11.4-20.5)
Washtenaw	1,463	7.4	(5.7-9.6)
City of Detroit	1,384	15.2	(13.0-17.7)
Wayne exc. Detroit	2,564	10.1	(8.7-11.6)
<b>Region 2</b>	2,139	12.2	(10.5-14.2)
Genesee	1,609	12.4	(10.5-14.7)
Lapeer	246	10.0	(6.5-15.2)
Shiawassee	264	12.6	(7.5-20.5)
<b>Region 3</b>	1,754	10.3	(8.4-12.6)
Jackson	1,397	9.6	(7.8-11.6)
Lenawee	293	12.7	(8.6-18.3)
<b>Region 4</b>	1,741	10.3	(8.6-12.3)
Barry-Eaton	449	11.9	(8.5-16.4)
Mid-Michigan <sup>b</sup>	521	10.8	(8.0-14.5)
Ingham	946	9.3	(7.3-11.8)
<b>Region 5</b>	1,476	10.1	(8.2-12.4)
Branch-Hillsdale-St. Joseph	429	13.7	(9.6-19.2)
Calhoun	365	11.6	(7.9-16.7)
Kalamazoo	659	7.1	(5.0-9.9)
<b>Region 6</b>	666	10.4	(7.8-13.7)
Van Buren-Cass	280	9.5	(6.1-14.6)
Berrien	331	12.5	(8.6-17.8)
<b>Region 7</b>	3,070	8.3	(7.1-9.6)
Allegan	345	11.2	(7.5-16.4)
Ionia	188	8.5	(4.9-14.6)
Kent	1,619	8.0	(6.5-9.7)
Mid-Michigan <sup>b</sup>	521	10.8	(8.0-14.5)
Ottawa	715	7.0	(4.8-10.2)

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<b>Table 4 Cont'd</b>			
<b>Geographic Area</b>	<b>Activity Limitation<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,434</b>	<b>10.3</b>	<b>(9.9-10.8)</b>
<b>Region 8</b>	2,583	11.9	(10.2-13.7)
District #10	1,074	11.2	(9.0-13.9)
Muskegon	1,405	13.5	(11.2-16.2)
<b>Region 9</b>	1,773	10.0	(8.1-12.2)
District #2	207	8.9	(5.2-14.7)
District #4	265	12.5	(7.5-20.3)
Northwest Michigan	541	12.1	(8.7-16.8)
Benzie-Leelanau	254	10.2	(6.4-15.8)
Grand Traverse	449	6.6	(4.5-9.8)
<b>Region 10</b>	1,150	10.6	(8.7-12.9)
Bay	255	12.8	(8.4-19.0)
Huron	117	7.6	(3.9-14.3)
Saginaw	464	9.4	(6.8-12.8)
Sanilac	149	12.7	(7.6-20.5)
Tuscola	152	9.8	(5.7-16.4)
<b>Region 11</b>	957	10.1	(8.1-12.6)
Central Michigan	546	11.6	(8.8-15.2)
Midland	230	8.0	(4.7-13.3)
<b>Region 12</b>	804	12.5	(9.9-15.8)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Delta-Menominee	145	14.6	(9.2-22.2)
Chippewa	114	17.1	(10.3-26.9)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	152	10.9	(6.3-18.2)

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

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

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

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<b>Table 5: Disability Michigan BRFS, 2017 and 2018 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>20,100</b>	<b>27.3</b>	<b>(26.6-28.1)</b>
<b>Region 1</b>	8,319	27.1	(25.9-28.3)
Livingston	986	20.8	(17.3-24.7)
Macomb	1,187	30.4	(27.3-33.6)
Monroe	244	28.4	(22.5-35.2)
Oakland	2,070	21.2	(19.2-23.4)
St. Clair	259	32.4	(26.2-39.3)
Washtenaw	936	22.8	(19.5-26.4)
City of Detroit	942	35.1	(31.6-38.8)
Wayne exc. Detroit	1,690	28.3	(25.9-31.0)
<b>Region 2</b>	1,366	29.5	(26.6-32.5)
Genesee	1,003	30.0	(26.6-33.6)
Lapeer	175	31.5	(24.3-39.7)
Shiawassee	188	25.5	(18.4-34.2)
<b>Region 3</b>	1,067	27.6	(24.2-31.2)
Jackson	875	28.8	(25.3-32.6)
Lenawee	192	25.5	(18.9-33.4)
<b>Region 4</b>	1,136	23.5	(20.6-26.7)
Barry-Eaton	311	25.0	(19.7-31.3)
Mid-Michigan <sup>b</sup>	338	23.1	(18.4-28.6)
Ingham	606	23.8	(19.8-28.3)
<b>Region 5</b>	975	29.6	(26.1-33.3)
Branch-Hillsdale-St. Joseph	286	28.8	(22.7-35.7)
Calhoun	254	31.0	(24.4-38.6)
Kalamazoo	435	29.2	(24.2-34.8)
<b>Region 6</b>	412	32.3	(27.2-37.9)
Van Buren-Cass	185	31.8	(24.8-39.6)
Berrien	227	32.7	(25.6-40.7)
<b>Region 7</b>	2,016	21.6	(19.6-23.7)
Allegan	227	29.2	(22.8-36.5)
Ionia	119	20.9	(13.7-30.5)
Kent	1,087	20.4	(17.9-23.3)
Mid-Michigan <sup>b</sup>	338	23.1	(18.4-28.6)
Ottawa	464	19.4	(15.4-24.0)

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<b>Table 5 Cont'd</b>			
<b>Geographic Area</b>	<b>Disability<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>20,100</b>	<b>27.3</b>	<b>(26.6-28.1)</b>
<b>Region 8</b>	1,610	32.3	(29.1-35.5)
District #10	710	32.7	(28.4-37.4)
Muskegon	900	31.4	(27.5-35.6)
<b>Region 9</b>	1,124	26.9	(23.7-30.4)
District #2	142	31.5	(23.2-41.2)
District #4	178	27.3	(20.1-35.9)
Northwest Michigan	351	25.7	(20.6-31.6)
Benzie-Leelanau	158	26.2	(17.8-36.8)
Grand Traverse	295	25.2	(18.8-32.9)
<b>Region 10</b>	751	29.2	(25.0-33.7)
Bay	173	33.8	(24.2-45.0)
Huron	79	25.7	(16.2-38.3)
Saginaw	292	28.1	(22.0-35.1)
Sanilac	110	28.1	(19.5-38.7)
Tuscola	97	27.1	(18.5-37.7)
<b>Region 11</b>	525	31.5	(26.8-36.6)
Central Michigan	367	33.3	(27.4-39.7)
Midland	158	26.6	(19.6-34.9)
<b>Region 12</b>	504	33.4	(28.7-38.5)
Luce-Mackinac-Alger-Schoolcraft	67	43.1	(29.6-57.6)
Western Upper Peninsula	129	26.8	(17.5-38.7)
Delta-Menominee	90	35.7	(25.7-47.2)
Chippewa	73	37.7	(25.7-51.4)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	100	36.5	(26.2-48.1)

<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.

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

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<b>Table 6: Weight Status</b>							
<b>Michigan BRFSS, 2017-2019 Combined</b>							
<b>Geographic Area</b>	<b>Sample Size</b>	<b>Obese<sup>a</sup></b>		<b>Overweight<sup>b</sup></b>		<b>Healthy Weight<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>29,575</b>	<b>33.8</b>	<b>(33.1-34.5)</b>	<b>34.6</b>	<b>(33.9-35.3)</b>	<b>29.8</b>	<b>(29.1-30.5)</b>
<b>Region 1</b>	12,084	32.4	(31.3-33.5)	35.2	(34.2-36.3)	30.6	(29.5-31.6)
Livingston	1,458	30.4	(27.1-34.0)	40.4	(36.7-44.2)	28.1	(24.9-31.6)
Macomb	1,760	31.7	(29.2-34.3)	37.0	(34.3-39.7)	30.1	(27.6-32.8)
Monroe	337	38.4	(32.4-44.9)	39.1	(33.2-45.4)	21.9	(17.2-27.5)
Oakland	2,957	27.5	(25.6-29.6)	37.3	(35.2-39.5)	33.0	(31.0-35.1)
St. Clair	366	35.2	(29.7-41.2)	35.5	(29.9-41.6)	28.4	(22.7-34.8)
Washtenaw	1,414	27.9	(24.8-31.3)	32.5	(29.4-35.8)	37.7	(34.3-41.2)
City of Detroit	1,292	41.0	(37.8-44.3)	28.2	(25.3-31.3)	28.5	(25.6-31.6)
Wayne exc. Detroit	2,436	34.3	(32.0-36.6)	35.2	(32.9-37.6)	28.7	(26.6-31.0)
<b>Region 2</b>	1,993	37.7	(35.1-40.4)	35.3	(32.7-38.0)	25.1	(22.8-27.5)
Genesee	1,490	36.7	(33.7-39.8)	35.7	(32.7-38.9)	25.5	(22.8-28.4)
Lapeer	239	39.4	(32.6-46.8)	30.1	(23.9-37.1)	28.1	(22.2-35.0)
Shiawassee	244	42.0	(34.3-50.1)	36.9	(29.7-44.8)	20.0	(14.7-26.8)
<b>Region 3</b>	1,628	35.4	(32.3-38.8)	36.3	(33.0-39.6)	26.8	(23.9-29.9)
Jackson	1,301	34.4	(31.4-37.6)	35.7	(32.4-39.1)	28.8	(25.7-32.0)
Lenawee	271	38.5	(31.7-45.8)	39.2	(32.3-46.6)	20.5	(15.2-26.9)
<b>Region 4</b>	1,660	34.0	(31.2-36.9)	33.4	(30.6-36.4)	30.7	(28.0-33.6)
Barry-Eaton	424	33.1	(27.7-38.9)	40.9	(35.1-46.9)	25.4	(20.6-30.8)
Mid-Michigan <sup>d</sup>	492	44.7	(39.3-50.1)	24.7	(20.5-29.4)	27.7	(23.0-33.1)
Ingham	906	31.6	(27.9-35.6)	32.2	(28.3-36.3)	34.2	(30.3-38.3)
<b>Region 5</b>	1,413	34.5	(31.4-37.7)	34.1	(31.1-37.2)	29.4	(26.4-32.5)
Branch-Hillsdale-St. Joseph	410	39.1	(33.2-45.4)	34.5	(29.1-40.4)	25.2	(20.1-31.1)
Calhoun	351	36.0	(29.7-42.9)	38.8	(32.5-45.4)	23.2	(18.1-29.4)
Kalamazoo	629	29.8	(25.7-34.3)	32.0	(27.7-36.6)	35.5	(30.9-40.3)
<b>Region 6</b>	633	33.6	(29.2-38.3)	32.0	(27.7-36.7)	32.1	(27.9-36.6)
Van Buren-Cass	258	35.5	(28.9-42.6)	29.4	(23.4-36.2)	33.6	(27.2-40.6)
Berrien	322	32.8	(26.7-39.5)	33.7	(27.4-40.7)	30.5	(24.7-36.9)
<b>Region 7</b>	2,885	32.9	(30.8-35.1)	33.5	(31.5-35.7)	32.1	(30.0-34.3)
Allegan	332	35.0	(28.6-42.0)	36.6	(30.5-43.2)	26.2	(21.0-32.2)
Ionia	171	39.2	(31.0-48.0)	32.6	(24.8-41.4)	26.9	(19.8-35.4)
Kent	1,520	32.5	(29.6-35.5)	33.1	(30.3-36.0)	33.5	(30.6-36.5)
Mid-Michigan <sup>d</sup>	492	44.7	(39.3-50.1)	24.7	(20.5-29.4)	27.7	(23.0-33.1)
Ottawa	674	26.6	(22.7-31.0)	35.9	(31.5-40.7)	35.4	(30.6-40.5)



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**Table 6 Cont'd**

Geographic Area	Sample Size	Obese <sup>a</sup>		Overweight <sup>b</sup>		Healthy Weight <sup>c</sup>	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>29,575</b>	<b>33.8</b>	<b>(33.1-34.5)</b>	<b>34.6</b>	<b>(33.9-35.3)</b>	<b>29.8</b>	<b>(29.1-30.5)</b>
<b>Region 8</b>	2,458	37.8	(35.0-40.7)	33.3	(30.7-36.0)	27.3	(24.8-30.0)
District #10	1,037	38.8	(34.8-43.0)	33.9	(30.2-37.8)	25.7	(22.3-29.5)
Muskegon	1,320	36.9	(33.3-40.6)	33.8	(30.4-37.3)	28.1	(24.8-31.7)
<b>Region 9</b>	1,681	32.2	(29.3-35.2)	35.1	(32.2-38.1)	30.4	(27.5-33.4)
District #2	196	38.6	(30.4-47.6)	34.8	(26.7-43.8)	25.4	(18.5-33.8)
District #4	247	37.6	(30.2-45.7)	27.7	(21.5-34.8)	31.1	(23.3-40.1)
Northwest Michigan	516	30.5	(25.3-36.2)	39.4	(34.1-45.0)	26.9	(22.4-32.0)
Benzie-Leelanau	242	34.5	(27.4-42.4)	31.3	(24.8-38.6)	30.5	(23.7-38.4)
Grand Traverse	425	26.5	(21.6-32.0)	37.4	(31.9-43.3)	35.7	(29.9-42.0)
<b>Region 10</b>	1,086	39.2	(35.7-42.9)	32.8	(29.5-36.4)	26.1	(22.8-29.7)
Bay	242	32.2	(25.6-39.6)	34.2	(26.8-42.6)	30.7	(23.6-38.9)
Huron	108	40.3	(30.1-51.4)	38.2	(27.9-49.6)	20.7	(13.3-30.9)
Saginaw	435	43.1	(37.3-49.0)	30.5	(25.6-35.9)	25.4	(20.3-31.3)
Sanilac	139	39.4	(30.4-49.2)	34.4	(25.3-44.9)	24.0	(17.1-32.5)
Tuscola	151	38.2	(29.7-47.4)	35.1	(27.1-44.1)	23.0	(15.6-32.7)
<b>Region 11</b>	895	38.5	(34.4-42.7)	31.9	(28.2-35.8)	28.4	(24.6-32.5)
Central Michigan	518	40.0	(34.7-45.6)	32.5	(27.6-37.8)	26.1	(21.2-31.6)
Midland	218	40.9	(33.1-49.1)	28.6	(22.1-36.0)	28.7	(21.5-37.1)
<b>Region 12</b>	765	34.9	(30.9-39.0)	35.8	(31.7-40.0)	26.7	(23.1-30.7)
Luce-Mackinac-Alger-Schoolcraft	98	35.4	(24.9-47.7)	30.7	(20.7-42.8)	28.4	(18.1-41.6)
Western Upper Peninsula	183	31.9	(24.3-40.7)	37.7	(29.3-46.9)	27.5	(20.2-36.2)
Delta-Menominee	141	39.5	(30.5-49.4)	38.1	(29.3-47.9)	22.0	(15.2-30.7)
Chippewa	105	43.9	(32.6-55.8)	32.9	(22.4-45.4)	22.9	(14.7-33.8)
Dickinson-Iron	63	28.4	(17.7-42.3)	44.0	(30.0-59.1)	22.5	(12.0-38.1)
Marquette	144	33.5	(24.7-43.6)	33.9	(25.6-43.3)	29.4	(21.3-39.1)

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

<sup>a</sup> The proportion of adults whose BMI was greater than or equal to 30.0.

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

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

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

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<b>Table 7: No Health Care Coverage Among Those Aged 18-64 Years Michigan BRFSS, 2017-2019 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>20,331</b>	<b>10.0</b>	<b>(9.4-10.5)</b>
<b>Region 1</b>	8,428	8.3	(7.6-9.1)
Livingston	964	7.8	(5.6-10.7)
Macomb	1,200	9.0	(7.2-11.3)
Monroe	245	5.3	(3.0-9.3)
Oakland	2,071	5.9	(4.7-7.3)
St. Clair	260	7.9	(4.5-13.4)
Washtenaw	934	7.1	(5.3-9.5)
City of Detroit	988	14.6	(12.1-17.5)
Wayne exc. Detroit	1,709	7.5	(6.0-9.2)
<b>Region 2</b>	1,407	10.3	(8.4-12.7)
Genesee	1,063	10.6	(8.3-13.5)
Lapeer	166	12.6	(7.4-20.5)
Shiawassee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 3</b>	1,114	14.2	(11.1-18.1)
Jackson	874	10.2	(7.7-13.4)
Lenawee	189	15.7	(9.9-24.0)
<b>Region 4</b>	1,158	11.2	(9.0-13.9)
Barry-Eaton	272	11.8	(7.3-18.4)
Mid-Michigan <sup>b</sup>	326	11.6	(7.9-16.8)
Ingham	671	9.7	(7.2-13.1)
<b>Region 5</b>	938	11.7	(9.4-14.4)
Branch-Hillsdale-St. Joseph	261	14.9	(10.3-21.0)
Calhoun	227	11.3	(7.0-17.7)
Kalamazoo	435	10.2	(7.3-14.1)
<b>Region 6</b>	424	10.9	(7.7-15.2)
Van Buren-Cass	170	8.0	(4.7-13.5)
Berrien	205	13.4	(8.4-20.7)
<b>Region 7</b>	2,048	9.8	(8.2-11.7)
Allegan	218	10.3	(6.3-16.4)
Ionia	129	19.2	(10.9-31.8)
Kent	1,093	9.2	(7.1-11.7)
Mid-Michigan <sup>b</sup>	326	11.6	(7.9-16.8)
Ottawa	476	8.9	(6.0-13.0)

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<b>Table 7 Cont'd</b>			
<b>Geographic Area</b>	<b>No Health Care Coverage<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>20,331</b>	<b>10.0</b>	<b>(9.4-10.5)</b>
<b>Region 8</b>	1,628	12.7	(10.4-15.4)
District #10	636	15.8	(12.2-20.1)
Muskegon	913	10.1	(7.5-13.4)
<b>Region 9</b>	1,047	10.9	(8.8-13.5)
District #2	124	15.0	(8.7-24.6)
District #4	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Northwest Michigan	310	10.9	(7.2-16.2)
Benzie-Leelanau	127	11.3	(6.6-18.7)
Grand Traverse	277	8.7	(5.7-13.2)
<b>Region 10</b>	714	11.1	(8.5-14.4)
Bay	166	10.1	(5.7-17.4)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	301	11.2	(7.3-16.8)
Sanilac	99	17.1	(9.2-29.7)
Tuscola	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 11</b>	619	12.1	(8.7-16.7)
Central Michigan	328	13.8	(9.1-20.5)
Midland	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 12</b>	509	12.8	(9.5-16.9)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	115	16.9	(9.7-27.7)
Delta-Menominee	91	14.8	(8.2-25.2)
Chippewa	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>

<sup>a</sup> Among adults aged 18-64 years, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare.  
<sup>b</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.  
<sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

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<b>Table 8: Health Care Access Michigan BRFSS, 2017-2019 Combined</b>						
<b>Geographic Area</b>	<b>No Personal Health Care Provider<sup>a</sup></b>			<b>No Health Care Access During Past 12 Months Due to Cost<sup>b</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,539</b>	<b>14.8</b>	<b>(14.3-15.4)</b>	<b>31,653</b>	<b>11.6</b>	<b>(11.2-12.1)</b>
<b>Region 1</b>	12,853	13.9	(13.1-14.8)	12,891	12.2	(11.5-13.0)
Livingston	1,532	13.3	(10.7-16.5)	1,540	7.7	(6.1-9.8)
Macomb	1,878	12.9	(11.0-15.1)	1,883	13.3	(11.4-15.4)
Monroe	360	13.0	(8.9-18.7)	363	7.2	(4.8-10.5)
Oakland	3,184	12.7	(11.2-14.3)	3,188	10.5	(9.1-12.0)
St. Clair	382	5.4	(2.9-9.6)	383	9.6	(6.6-13.9)
Washtenaw	1,468	14.3	(11.9-17.1)	1,474	9.8	(7.8-12.1)
City of Detroit	1,394	19.6	(17.1-22.5)	1,401	18.5	(16.1-21.3)
Wayne exc. Detroit	2,583	13.5	(11.8-15.4)	2,586	12.2	(10.7-13.9)
<b>Region 2</b>	2,148	13.2	(11.3-15.4)	2,159	12.0	(10.2-13.9)
Genesee	1,617	13.4	(11.2-15.9)	1,625	11.9	(9.8-14.2)
Lapeer	248	15.0	(10.0-21.9)	250	14.3	(9.6-20.8)
Shiawassee	263	10.5	(6.0-17.7)	264	10.5	(6.9-15.6)
<b>Region 3</b>	1,750	19.0	(16.1-22.3)	1,764	12.5	(10.3-15.2)
Jackson	1,394	16.4	(13.7-19.4)	1,406	10.9	(8.9-13.2)
Lenawee	293	19.0	(13.5-25.9)	294	13.3	(8.9-19.2)
<b>Region 4</b>	1,745	17.8	(15.4-20.4)	1,753	9.9	(8.2-11.8)
Barry-Eaton	452	14.8	(10.6-20.3)	453	7.0	(4.6-10.5)
Mid-Michigan <sup>c</sup>	520	13.6	(10.0-18.2)	523	10.2	(7.5-13.7)
Ingham	947	20.3	(17.0-24.1)	952	11.4	(8.9-14.5)
<b>Region 5</b>	1,482	17.6	(15.2-20.3)	1,485	11.2	(9.2-13.5)
Branch-Hillsdale-St. Joseph	434	19.1	(14.6-24.6)	433	11.6	(7.9-16.7)
Calhoun	367	14.6	(10.6-19.9)	367	9.3	(6.2-13.8)
Kalamazoo	658	17.5	(14.1-21.7)	662	12.4	(9.4-16.1)
<b>Region 6</b>	664	19.0	(15.2-23.4)	667	11.7	(9.1-15.0)
Van Buren-Cass	279	13.5	(9.2-19.2)	280	13.0	(9.0-18.6)
Berrien	330	21.3	(15.5-28.5)	332	10.2	(6.8-15.1)

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Table 8 Cont'd						
Geographic Area	No Personal Health Care Provider <sup>a</sup>			No Health Care Access During Past 12 Months Due to Cost <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>31,539</b>	<b>14.8</b>	<b>(14.3-15.4)</b>	<b>31,653</b>	<b>11.6</b>	<b>(11.2-12.1)</b>
<b>Region 7</b>	3,074	11.3	(9.7-13.0)	3,082	11.5	(10.1-13.1)
Allegan	347	10.5	(6.9-15.6)	348	12.0	(8.3-17.1)
Ionia	185	14.2	(7.5-25.4)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Kent	1,618	12.4	(10.3-14.7)	1,620	12.2	(10.3-14.4)
Mid-Michigan <sup>c</sup>	520	13.6	(10.0-18.2)	523	10.2	(7.5-13.7)
Ottawa	722	7.8	(5.0-12.2)	723	11.1	(7.9-15.3)
<b>Region 8</b>	2,594	14.6	(12.5-17.0)	2,602	13.8	(11.9-15.9)
District #10	1,083	15.2	(12.3-18.6)	1,084	14.5	(11.8-17.7)
Muskegon	1,409	10.8	(8.4-13.8)	1,416	14.1	(11.6-17.1)
<b>Region 9</b>	1,776	15.9	(13.8-18.3)	1,784	10.2	(8.4-12.3)
District #2	208	21.6	(15.1-30.0)	210	10.4	(6.2-17.0)
District #4	265	14.3	(9.8-20.3)	266	8.4	(4.7-14.5)
Northwest Michigan	545	14.8	(11.2-19.4)	545	12.2	(8.7-17.0)
Benzie-Leelanau	252	13.0	(8.4-19.6)	255	10.1	(6.5-15.5)
Grand Traverse	449	11.7	(8.6-15.9)	451	9.7	(6.7-13.8)
<b>Region 10</b>	1,154	16.6	(13.6-20.0)	1,160	9.9	(7.8-12.5)
Bay	257	16.4	(10.3-25.1)	259	11.7	(6.9-19.0)
Huron	116	20.9	(13.4-31.1)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Saginaw	466	17.9	(13.2-23.7)	469	10.2	(7.0-14.6)
Sanilac	149	11.9	(7.3-18.9)	149	11.4	(7.0-18.0)
Tuscola	153	11.2	(6.6-18.6)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
<b>Region 11</b>	958	17.8	(14.4-21.7)	962	8.6	(6.7-10.9)
Central Michigan	548	15.7	(11.6-21.0)	550	8.6	(6.3-11.6)
Midland	230	11.1	(7.0-17.3)	231	8.3	(4.9-13.7)
<b>Region 12</b>	811	13.3	(10.7-16.4)	811	10.8	(8.4-13.7)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Western Upper Peninsula	190	17.3	(11.6-25.2)	191	8.4	(4.8-14.5)
Delta-Menominee	146	12.6	(7.6-20.3)	144	10.8	(6.4-17.7)
Chippewa	114	11.7	(6.5-20.2)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Dickinson-Iron	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Marquette	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	155	11.0	(6.1-18.8)

<sup>a</sup> The proportion of adults who reported that they did not have anyone that they thought of as their personal doctor or health care provider.  
<sup>b</sup> The proportion of adults who reported that in the past 12 months there was a time when they needed to see a doctor but could not due to the cost.  
<sup>c</sup> The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.  
<sup>d</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

<b>Table 9: No Leisure Time Physical Activity Michigan BRFSS, 2017-2019 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>30,795</b>	<b>25.5</b>	<b>(24.8-26.1)</b>
<b>Region 1</b>	12,513	24.6	(23.6-25.6)
Livingston	1,505	20.7	(17.9-23.8)
Macomb	1,825	27.1	(24.7-29.7)
Monroe	352	25.6	(20.5-31.5)
Oakland	3,100	20.2	(18.5-22.0)
St. Clair	378	26.8	(21.5-32.9)
Washtenaw	1,447	17.2	(14.7-20.1)
City of Detroit	1,321	35.4	(32.4-38.7)
Wayne exc. Detroit	2,518	24.8	(22.7-26.9)
<b>Region 2</b>	2,098	29.1	(26.7-31.6)
Genesee	1,574	30.4	(27.6-33.5)
Lapeer	246	24.2	(18.5-30.9)
Shiawassee	259	27.8	(21.6-35.1)
<b>Region 3</b>	1,720	27.9	(24.9-31.1)
Jackson	1,370	29.0	(25.9-32.3)
Lenawee	287	27.0	(21.3-33.7)
<b>Region 4</b>	1,714	24.1	(21.6-26.9)
Barry-Eaton	440	26.2	(21.3-31.9)
Mid-Michigan <sup>b</sup>	516	25.5	(21.2-30.3)
Ingham	931	22.9	(19.5-26.6)
<b>Region 5</b>	1,458	28.7	(25.8-31.8)
Branch-Hillsdale-St. Joseph	428	31.7	(26.3-37.6)
Calhoun	364	33.3	(27.1-40.0)
Kalamazoo	644	24.1	(20.2-28.5)
<b>Region 6</b>	650	24.4	(20.6-28.5)
Van Buren-Cass	272	28.6	(22.6-35.4)
Berrien	324	21.6	(16.9-27.3)
<b>Region 7</b>	3,018	21.9	(20.1-23.8)
Allegan	341	27.2	(21.9-33.2)
Ionia	185	26.3	(19.5-34.6)
Kent	1,581	20.8	(18.3-23.4)
Mid-Michigan <sup>b</sup>	516	25.5	(21.2-30.3)
Ottawa	710	19.2	(15.8-23.2)

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<b>Table 9 Cont'd</b>			
<b>Geographic Area</b>	<b>No Leisure Time Physical Activity<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>30,795</b>	<b>25.5</b>	<b>(24.8-26.1)</b>
<b>Region 8</b>	2,541	29.1	(26.5-31.8)
District #10	1,068	31.4	(27.6-35.5)
Muskegon	1,371	26.4	(23.5-29.5)
<b>Region 9</b>	1,749	27.5	(24.7-30.5)
District #2	204	35.1	(27.4-43.5)
District #4	256	33.5	(25.9-42.0)
Northwest Michigan	535	26.8	(21.7-32.5)
Benzie-Leelanau	251	25.6	(19.0-33.6)
Grand Traverse	446	20.5	(16.3-25.4)
<b>Region 10</b>	1,123	28.7	(25.4-32.2)
Bay	252	25.0	(18.8-32.4)
Huron	116	28.3	(19.9-38.6)
Saginaw	449	30.4	(25.0-36.3)
Sanilac	145	30.8	(23.0-40.0)
Tuscola	151	27.3	(19.9-36.1)
<b>Region 11</b>	929	26.5	(22.8-30.4)
Central Michigan	535	29.0	(24.2-34.4)
Midland	223	22.7	(16.6-30.3)
<b>Region 12</b>	791	25.8	(22.3-29.7)
Luce-Mackinac-Alger-Schoolcraft	100	28.3	(18.8-40.3)
Western Upper Peninsula	190	22.1	(16.0-29.6)
Delta-Menominee	140	37.0	(27.8-47.3)
Chippewa	113	32.9	(22.8-44.8)
Dickinson-Iron	68	27.1	(16.7-40.8)
Marquette	151	15.4	(10.1-22.7)

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

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

<b>Table 10: Adequate Physical Activity Michigan BRFSS, 2017 and 2019 Combined</b>			
<b>Geographic Area</b>	<b>Adequate Physical Activity<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>19,301</b>	<b>21.3</b>	<b>(20.5-22.0)</b>
<b>Region 1</b>	7,962	22.0	(20.9-23.2)
Livingston	944	22.9	(19.3-26.9)
Macomb	1,191	18.6	(16.1-21.4)
Monroe	218	16.8	(11.6-23.7)
Oakland	1,979	25.0	(22.7-27.4)
St. Clair	221	20.6	(15.0-27.7)
Washtenaw	929	21.8	(18.5-25.4)
City of Detroit	797	18.1	(15.1-21.7)
Wayne exc. Detroit	1,645	24.1	(21.6-26.9)
<b>Region 2</b>	1,292	19.1	(16.6-21.9)
Genesee	989	18.3	(15.5-21.5)
Lapeer	144	22.4	(15.6-31.0)
Shiawassee	147	19.8	(12.8-29.4)
<b>Region 3</b>	1,090	20.3	(17.1-23.8)
Jackson	879	19.4	(16.3-22.9)
Lenawee	175	22.4	(16.1-30.3)
<b>Region 4</b>	1,081	23.2	(20.1-26.6)
Barry-Eaton	265	23.8	(17.8-31.2)
Mid-Michigan <sup>b</sup>	340	21.0	(15.9-27.1)
Ingham	586	23.3	(19.2-28.0)
<b>Region 5</b>	898	21.2	(18.1-24.7)
Branch-Hillsdale-St. Joseph	267	17.2	(12.5-23.3)
Calhoun	211	23.4	(16.4-32.1)
Kalamazoo	411	23.3	(18.8-28.5)
<b>Region 6</b>	415	22.6	(17.5-28.5)
Van Buren-Cass	177	19.4	(13.5-27.0)
Berrien	205	26.0	(18.2-35.8)
<b>Region 7</b>	1,892	21.8	(19.5-24.2)
Allegan	215	18.3	(12.6-25.8)
Ionia	117	17.8	(11.2-27.1)
Kent	984	23.6	(20.3-27.1)
Mid-Michigan <sup>b</sup>	340	21.0	(15.9-27.1)
Ottawa	448	21.4	(17.0-26.6)



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<b>Table 10 Cont'd</b>			
<b>Geographic Area</b>	<b>Adequate Physical Activity<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>19,301</b>	<b>21.3</b>	<b>(20.5-22.0)</b>
<b>Region 8</b>	1,565	18.7	(16.1-21.7)
District #10	662	16.6	(13.3-20.6)
Muskegon	842	21.9	(17.5-27.1)
<b>Region 9</b>	1,088	20.6	(17.6-23.8)
District #2	129	13.0	(7.8-21.0)
District #4	155	16.1	(10.4-24.3)
Northwest Michigan	323	22.6	(17.2-29.1)
Benzie-Leelanau	163	20.5	(14.3-28.5)
Grand Traverse	285	27.2	(20.4-35.1)
<b>Region 10</b>	707	19.4	(16.0-23.3)
Bay	161	16.9	(10.9-25.4)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	289	20.2	(15.0-26.7)
Sanilac	81	24.3	(15.0-37.0)
Tuscola	99	22.8	(14.6-33.9)
<b>Region 11</b>	558	18.8	(14.9-23.5)
Central Michigan	331	18.5	(13.7-24.5)
Midland	150	21.3	(14.5-30.2)
<b>Region 12</b>	494	20.8	(16.9-25.3)
Luce-Mackinac-Alger-Schoolcraft	55	25.5	(13.6-42.7)
Western Upper Peninsula	113	18.3	(11.3-28.4)
Delta-Menominee	85	17.9	(10.4-29.0)
Chippewa	75	20.5	(12.1-32.7)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	97	24.5	(15.2-37.0)

<sup>a</sup> The proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities **and** also participate in muscle strengthening activities on two or more days per week.

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

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

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**Table 11: Cigarette Smoking  
Michigan BRFSS, 2017-2019 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>30,159</b>	<b>19.0</b>	<b>(18.4-19.6)</b>	<b>26.6</b>	<b>(26.0-27.2)</b>	<b>54.4</b>	<b>(53.7-55.2)</b>
<b>Region 1</b>	12,460	18.0	(17.1-18.9)	25.8	(24.9-26.8)	56.2	(55.0-57.3)
Livingston	1,496	12.9	(10.6-15.4)	35.7	(32.0-39.5)	51.5	(47.7-55.2)
Macomb	1,820	20.8	(18.5-23.2)	27.3	(25.0-29.7)	51.9	(49.2-54.7)
Monroe	348	22.4	(17.4-28.4)	26.8	(21.8-32.3)	50.8	(44.6-57.0)
Oakland	3,089	12.4	(10.9-14.0)	28.1	(26.2-30.1)	59.5	(57.4-61.6)
St. Clair	371	25.9	(20.6-32.0)	30.1	(24.9-35.8)	44.0	(38.1-50.1)
Washtenaw	1,437	10.7	(8.5-13.3)	20.1	(17.7-22.7)	69.2	(66.0-72.3)
City of Detroit	1,324	27.1	(24.3-30.2)	17.8	(15.4-20.3)	55.1	(51.9-58.4)
Wayne exc. Detroit	2,508	19.0	(17.1-21.0)	26.5	(24.5-28.6)	54.5	(52.2-56.9)
<b>Region 2</b>	2,081	23.1	(20.7-25.7)	29.4	(27.0-31.8)	47.5	(44.8-50.2)
Genesee	1,559	24.7	(21.9-27.7)	27.8	(25.2-30.6)	47.5	(44.4-50.6)
Lapeer	247	20.7	(15.1-27.7)	34.9	(28.5-42.0)	44.4	(37.5-51.5)
Shiawassee	256	18.0	(12.1-25.9)	30.8	(24.2-38.2)	51.3	(43.4-59.1)
<b>Region 3</b>	1,710	21.9	(19.0-25.0)	25.2	(22.6-28.0)	52.9	(49.6-56.3)
Jackson	1,358	22.7	(20.0-25.7)	28.3	(25.4-31.4)	49.0	(45.6-52.3)
Lenawee	289	24.0	(17.9-31.4)	23.3	(18.2-29.2)	52.7	(45.7-59.7)
<b>Region 4</b>	1,710	16.6	(14.4-19.1)	25.0	(22.6-27.5)	58.4	(55.4-61.3)
Barry-Eaton	442	16.5	(12.7-21.1)	27.4	(22.6-32.8)	56.1	(50.3-61.7)
Mid-Michigan <sup>c</sup>	512	21.4	(17.0-26.5)	25.6	(21.4-30.3)	53.0	(47.7-58.3)
Ingham	927	15.6	(12.7-19.1)	24.5	(21.3-28.0)	59.8	(55.8-63.8)
<b>Region 5</b>	1,447	21.7	(19.0-24.8)	27.2	(24.4-30.1)	51.1	(47.9-54.4)
Branch-Hillsdale-St. Joseph	423	29.8	(24.2-36.2)	26.2	(21.6-31.4)	44.0	(38.1-50.0)
Calhoun	365	19.6	(14.6-25.7)	33.5	(27.4-40.2)	46.9	(40.4-53.5)
Kalamazoo	638	17.7	(14.2-21.9)	23.7	(19.9-27.9)	58.6	(53.8-63.2)
<b>Region 6</b>	646	19.8	(16.1-24.0)	26.4	(22.7-30.5)	53.8	(49.1-58.4)
Van Buren-Cass	274	19.4	(14.3-25.7)	33.6	(27.5-40.5)	46.9	(40.2-53.8)
Berrien	317	19.5	(14.5-25.8)	22.5	(17.7-28.0)	58.0	(51.2-64.6)
<b>Region 7</b>	3,000	16.9	(15.1-18.8)	25.6	(23.8-27.5)	57.5	(55.3-59.7)
Allegan	341	16.5	(12.2-21.9)	26.3	(21.0-32.4)	57.2	(50.6-63.6)
Ionia	182	23.0	(16.2-31.5)	21.0	(15.2-28.4)	56.0	(46.9-64.7)
Kent	1,572	16.2	(13.9-18.7)	26.1	(23.6-28.7)	57.8	(54.8-60.7)
Mid-Michigan <sup>c</sup>	512	21.4	(17.0-26.5)	25.6	(21.4-30.3)	53.0	(47.7-58.3)
Ottawa	707	15.0	(11.1-19.9)	24.2	(20.5-28.3)	60.8	(55.8-65.5)

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Table 11 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	%	95% Confidence Interval
<b>Michigan Total</b>	<b>30,159</b>	<b>19.0</b>	<b>(18.4-19.6)</b>	<b>26.6</b>	<b>(26.0-27.2)</b>	<b>54.4</b>	<b>(53.7-55.2)</b>
<b>Region 8</b>	2,527	21.8	(19.5-24.3)	30.2	(27.7-32.7)	48.0	(45.2-50.9)
District #10	1,062	21.5	(18.4-25.0)	32.4	(28.9-36.2)	46.1	(42.0-50.2)
Muskegon	1,364	25.1	(21.7-29.0)	28.4	(25.4-31.5)	46.5	(42.9-50.2)
<b>Region 9</b>	1,736	21.4	(18.8-24.2)	31.1	(28.4-34.0)	47.5	(44.4-50.6)
District #2	204	27.9	(20.9-36.2)	27.6	(20.8-35.6)	44.5	(36.1-53.3)
District #4	254	26.7	(19.4-35.4)	37.1	(29.6-45.2)	36.3	(29.2-44.0)
Northwest Michigan	530	18.6	(14.6-23.4)	31.6	(26.6-37.1)	49.8	(44.3-55.3)
Benzie-Leelanau	249	12.3	(8.2-18.0)	33.4	(26.6-40.9)	54.3	(46.6-61.9)
Grand Traverse	442	21.3	(16.8-26.8)	31.4	(26.4-36.8)	47.3	(41.4-53.2)
<b>Region 10</b>	1,119	20.8	(17.7-24.3)	28.0	(24.9-31.3)	51.2	(47.5-55.0)
Bay	254	21.6	(15.1-29.8)	26.6	(20.7-33.5)	51.8	(43.7-59.9)
Huron	115	15.0	(8.5-25.2)	38.7	(28.9-49.5)	46.3	(35.9-57.0)
Saginaw	446	23.0	(18.0-28.9)	28.6	(23.6-34.1)	48.5	(42.6-54.4)
Sanilac	143	18.6	(12.5-26.9)	21.4	(14.9-29.6)	60.0	(50.4-68.9)
Tuscola	149	16.8	(11.2-24.6)	28.2	(20.7-37.2)	54.9	(45.6-63.9)
<b>Region 11</b>	926	21.2	(17.7-25.1)	26.3	(22.9-29.9)	52.5	(48.3-56.7)
Central Michigan	534	23.6	(19.1-28.9)	29.6	(25.0-34.7)	46.7	(41.3-52.3)
Midland	222	17.0	(10.8-25.7)	26.1	(19.9-33.4)	56.9	(48.6-64.8)
<b>Region 12</b>	797	20.4	(17.1-24.1)	29.6	(26.0-33.5)	50.0	(45.8-54.2)
Luce-Mackinac-Alger-Schoolcraft	100	19.5	(11.4-31.3)	31.9	(21.7-44.1)	48.7	(36.8-60.7)
Western Upper Peninsula	190	23.7	(17.1-32.0)	25.0	(18.6-32.7)	51.3	(42.5-60.0)
Delta-Menominee	143	17.4	(11.5-25.3)	28.9	(21.1-38.2)	53.7	(44.2-63.0)
Chippewa	113	24.5	(15.3-36.8)	31.8	(22.6-42.6)	43.7	(32.9-55.2)
Dickinson-Iron	68	24.9	(14.2-39.9)	36.7	(24.1-51.4)	38.4	(26.1-52.4)
Marquette	152	17.4	(11.4-25.8)	31.4	(23.4-40.7)	51.2	(41.7-60.5)

<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.

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**Table 12: Alcohol Consumption**  
**Michigan BRFSS, 2017-2019 Combined**

Geographic Area	Sample Size	Any Alcohol in Past Month <sup>a</sup>		Heavy Drinking <sup>b</sup>		Binge Drinking <sup>c</sup>	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
<b>Michigan Total</b>	<b>30,498</b>	<b>56.8</b>	<b>(56.0-57.5)</b>	<b>6.5</b>	<b>(6.1-6.8)</b>	<b>18.1</b>	<b>(17.5-18.7)</b>
<b>Region 1</b>	12,388	58.6	(57.5-59.7)	6.3	(5.7-6.8)	18.5	(17.6-19.4)
Livingston	1,488	63.7	(60.0-67.2)	7.7	(6.0-10.0)	19.5	(16.6-22.9)
Macomb	1,815	58.7	(56.0-61.4)	6.4	(5.1-8.0)	19.4	(17.2-21.8)
Monroe	348	55.2	(49.0-61.3)	9.7	(6.4-14.3)	18.9	(14.5-24.3)
Oakland	3,070	62.8	(60.7-64.9)	6.0	(5.0-7.1)	19.1	(17.4-21.0)
St. Clair	369	54.9	(48.7-60.9)	6.9	(4.3-10.7)	18.9	(14.5-24.3)
Washtenaw	1,432	62.5	(58.9-65.9)	6.5	(5.1-8.3)	18.4	(15.8-21.4)
City of Detroit	1,311	49.0	(45.7-52.3)	5.5	(4.2-7.3)	16.3	(14.0-18.9)
Wayne exc. Detroit	2,490	57.6	(55.2-59.9)	5.9	(4.8-7.3)	17.8	(15.9-19.9)
<b>Region 2</b>	2,067	51.8	(49.1-54.5)	4.5	(3.5-5.7)	14.8	(12.9-16.9)
Genesee	1,549	49.4	(46.3-52.5)	4.8	(3.6-6.3)	14.8	(12.6-17.4)
Lapeer	246	59.9	(52.7-66.7)	-- <sup>e</sup>	-- <sup>e</sup>	17.4	(12.3-23.9)
Shiawassee	253	55.0	(46.9-62.9)	-- <sup>e</sup>	-- <sup>e</sup>	12.5	(8.1-18.8)
<b>Region 3</b>	1,704	56.6	(53.3-59.9)	6.6	(4.9-8.7)	17.0	(14.5-19.9)
Jackson	1,352	52.3	(48.9-55.6)	5.0	(3.9-6.5)	14.7	(12.5-17.1)
Lenawee	288	63.1	(56.3-69.4)	7.9	(4.7-13.2)	19.9	(14.6-26.6)
<b>Region 4</b>	1,710	55.6	(52.6-58.6)	6.3	(5.0-7.9)	19.2	(16.9-21.8)
Barry-Eaton	439	49.2	(43.4-55.1)	7.3	(4.9-10.7)	16.6	(12.6-21.4)
Mid-Michigan <sup>d</sup>	513	57.1	(51.7-62.2)	8.7	(6.1-12.3)	20.3	(16.0-25.4)
Ingham	929	58.1	(54.0-62.2)	5.6	(4.0-7.7)	20.6	(17.4-24.3)
<b>Region 5</b>	1,444	53.9	(50.6-57.1)	6.3	(4.9-8.0)	17.8	(15.4-20.4)
Branch-Hillsdale-St. Joseph	422	46.9	(41.0-52.9)	6.3	(3.9-10.0)	15.5	(11.6-20.6)
Calhoun	363	44.3	(37.9-51.0)	5.0	(2.8-9.0)	12.0	(8.3-17.1)
Kalamazoo	636	64.3	(59.5-68.8)	6.9	(4.9-9.5)	22.2	(18.4-26.5)
<b>Region 6</b>	647	52.4	(47.6-57.1)	5.2	(3.6-7.6)	15.2	(12.0-19.0)
Van Buren-Cass	272	53.4	(46.5-60.2)	6.3	(3.6-10.9)	14.3	(10.1-20.0)
Berrien	321	50.4	(43.5-57.3)	4.0	(2.1-7.3)	15.5	(10.9-21.5)
<b>Region 7</b>	2,992	60.3	(58.1-62.5)	7.4	(6.4-8.6)	18.7	(17.0-20.5)
Allegan	340	56.6	(50.1-62.9)	7.9	(5.0-12.2)	12.9	(9.1-18.0)
Ionia	182	48.1	(39.1-57.2)	-- <sup>e</sup>	-- <sup>e</sup>	16.8	(10.9-25.2)
Kent	1,567	62.1	(59.1-65.0)	6.6	(5.3-8.1)	19.4	(17.1-21.9)
Mid-Michigan <sup>d</sup>	513	57.1	(51.7-62.2)	8.7	(6.1-12.3)	20.3	(16.0-25.4)
Ottawa	705	63.0	(58.1-67.6)	9.1	(6.8-12.0)	19.7	(16.0-24.0)

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Table 12 Cont'd							
Geographic Area	Sample Size	Any Alcohol in Past Month <sup>a</sup>		Heavy Drinking <sup>b</sup>		Binge Drinking <sup>c</sup>	
	N	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
<b>Michigan Total</b>	<b>30,498</b>	<b>56.8</b>	<b>(56.0-57.5)</b>	<b>6.5</b>	<b>(6.1-6.8)</b>	<b>18.1</b>	<b>(17.5-18.7)</b>
<b>Region 8</b>	2,518	50.5	(47.6-53.4)	5.4	(4.4-6.7)	16.1	(14.0-18.3)
District #10	1,057	46.9	(42.9-51.0)	4.7	(3.4-6.3)	14.4	(11.9-17.4)
Muskegon	1,359	54.7	(51.1-58.4)	7.1	(5.2-9.7)	20.1	(16.7-24.0)
<b>Region 9</b>	1,731	59.2	(56.2-62.2)	8.7	(7.2-10.6)	18.7	(16.4-21.2)
District #2	201	62.2	(53.7-69.9)	10.6	(6.3-17.3)	23.5	(16.9-31.8)
District #4	256	53.4	(45.2-61.5)	7.8	(4.4-13.4)	16.8	(11.8-23.4)
Northwest Michigan	527	56.1	(50.4-61.5)	7.6	(5.2-11.0)	16.8	(13.0-21.6)
Benzie-Leelanau	250	60.4	(52.4-67.8)	7.9	(4.8-12.8)	15.8	(11.0-22.1)
Grand Traverse	440	64.7	(58.7-70.2)	10.3	(7.3-14.5)	19.4	(15.0-24.8)
<b>Region 10</b>	1,117	52.8	(49.0-56.5)	5.5	(4.1-7.3)	18.0	(15.3-21.0)
Bay	254	53.1	(44.7-61.2)	-- <sup>e</sup>	-- <sup>e</sup>	16.5	(11.6-23.0)
Huron	113	62.5	(51.8-72.0)	-- <sup>e</sup>	-- <sup>e</sup>	14.2	(8.5-22.9)
Saginaw	446	52.4	(46.5-58.3)	6.5	(4.3-9.9)	18.7	(14.5-23.7)
Sanilac	141	49.8	(40.1-59.6)	-- <sup>e</sup>	-- <sup>e</sup>	17.9	(11.5-26.8)
Tuscola	150	48.8	(39.6-58.0)	-- <sup>e</sup>	-- <sup>e</sup>	21.0	(14.1-30.1)
<b>Region 11</b>	922	53.9	(49.7-58.1)	7.8	(5.8-10.4)	18.6	(15.5-22.2)
Central Michigan	531	48.8	(43.3-54.3)	7.9	(5.4-11.3)	17.7	(14.0-22.2)
Midland	223	57.1	(49.0-64.8)	5.8	(3.3-10.1)	16.5	(10.3-25.4)
<b>Region 12</b>	793	56.8	(52.6-60.9)	9.7	(7.4-12.8)	21.0	(17.5-24.9)
Luce-Mackinac-Alger-Schoolcraft	101	40.4	(29.6-52.1)	-- <sup>e</sup>	-- <sup>e</sup>	14.3	(8.0-24.4)
Western Upper Peninsula	188	58.5	(49.6-66.8)	9.6	(5.2-16.9)	22.3	(14.8-32.2)
Delta-Menominee	142	64.0	(54.5-72.4)	-- <sup>e</sup>	-- <sup>e</sup>	16.3	(10.1-25.1)
Chippewa	112	54.9	(43.5-65.7)	-- <sup>e</sup>	-- <sup>e</sup>	20.7	(12.2-33.1)
Dickinson-Iron	68	57.5	(42.8-71.0)	-- <sup>e</sup>	-- <sup>e</sup>	26.4	(16.0-40.2)
Marquette	152	56.3	(46.6-65.5)	11.9	(7.2-19.1)	24.4	(17.1-33.5)

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

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

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

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

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

<b>Table 13: High Blood Pressure Michigan BRFSS, 2017 and 2019 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told HBP<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>21,341</b>	<b>34.9</b>	<b>(34.1-35.8)</b>
<b>Region 1</b>	8,786	34.4	(33.2-35.7)
Livingston	1,017	33.3	(29.4-37.5)
Macomb	1,330	35.3	(32.4-38.4)
Monroe	246	36.6	(30.2-43.6)
Oakland	2,172	32.1	(29.8-34.5)
St. Clair	240	34.3	(27.7-41.5)
Washtenaw	986	23.7	(20.6-27.1)
City of Detroit	937	44.9	(41.0-48.8)
Wayne exc. Detroit	1,810	34.1	(31.6-36.8)
<b>Region 2</b>	1,427	41.4	(38.2-44.6)
Genesee	1,097	40.5	(36.9-44.1)
Lapeer	154	46.4	(37.6-55.4)
Shiawassee	162	41.0	(31.4-51.4)
<b>Region 3</b>	1,199	35.9	(32.1-39.8)
Jackson	964	36.7	(33.0-40.6)
Lenawee	197	39.2	(31.4-47.6)
<b>Region 4</b>	1,188	34.9	(31.6-38.4)
Barry-Eaton	294	44.4	(37.5-51.6)
Mid-Michigan <sup>b</sup>	370	34.7	(29.1-40.7)
Ingham	643	31.0	(26.7-35.8)
<b>Region 5</b>	985	33.7	(30.1-37.4)
Branch-Hillsdale-St. Joseph	287	30.9	(24.6-38.1)
Calhoun	229	40.7	(32.8-49.1)
Kalamazoo	457	32.8	(27.9-38.1)
<b>Region 6</b>	453	34.9	(29.9-40.2)
Van Buren-Cass	194	39.6	(32.0-47.7)
Berrien	223	34.4	(27.3-42.3)
<b>Region 7</b>	2,070	32.2	(29.8-34.7)
Allegan	234	37.4	(30.4-45.0)
Ionia	127	42.7	(31.9-54.2)
Kent	1,082	31.4	(28.2-34.8)
Mid-Michigan <sup>b</sup>	370	34.7	(29.1-40.7)
Ottawa	490	27.4	(22.8-32.4)

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<b>Table 13 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told HBP<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>21,341</b>	<b>34.9</b>	<b>(34.1-35.8)</b>
<b>Region 8</b>	1,727	36.2	(33.0-39.5)
District #10	720	34.7	(30.4-39.3)
Muskegon	937	38.0	(33.6-42.6)
<b>Region 9</b>	1,190	35.5	(31.9-39.2)
District #2	140	42.3	(32.5-52.8)
District #4	172	38.2	(29.0-48.2)
Northwest Michigan	364	34.8	(28.7-41.4)
Benzie-Leelanau	179	38.1	(29.8-47.1)
Grand Traverse	301	30.9	(24.8-37.6)
<b>Region 10</b>	783	37.7	(33.6-42.0)
Bay	175	30.0	(22.6-38.6)
Huron	71	36.8	(25.5-49.7)
Saginaw	331	40.7	(34.1-47.7)
Sanilac	88	42.6	(31.6-54.4)
Tuscola	107	39.5	(29.6-50.5)
<b>Region 11</b>	626	37.7	(33.1-42.5)
Central Michigan	374	38.6	(32.9-44.7)
Midland	162	39.9	(31.3-49.2)
<b>Region 12</b>	555	37.3	(32.8-42.0)
Luce-Mackinac-Alger-Schoolcraft	63	35.0	(22.9-49.3)
Western Upper Peninsula	121	41.8	(32.1-52.1)
Delta-Menominee	98	39.0	(28.5-50.6)
Chippewa	81	25.6	(17.0-36.7)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	110	38.8	(28.8-49.8)

<sup>a</sup> Among all adults, the proportion who reported that they were ever told by a doctor that they had high blood pressure (HBP). Women who had HBP only during pregnancy and adults who were borderline hypertensive were considered to not have been diagnosed.

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

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

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**Table 14: Cholesterol Screening and Awareness  
Michigan BRFSS, 2017 and 2019 Combined**

Geographic Area	Cholesterol Ever Checked <sup>a</sup>			Ever Told High Cholesterol <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>20,119</b>	<b>93.6</b>	<b>(93.1-94.1)</b>	<b>19,742</b>	<b>33.6</b>	<b>(32.8-34.5)</b>
<b>Region 1</b>	8,340	94.7	(93.9-95.3)	8,215	33.9	(32.6-35.1)
Livingston	969	93.4	(90.7-95.4)	945	35.5	(31.3-40.0)
Macomb	1,267	94.0	(91.7-95.6)	1,242	35.9	(32.9-39.1)
Monroe	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	226	30.9	(24.8-37.9)
Oakland	2,076	96.8	(95.6-97.7)	2,069	35.0	(32.5-37.5)
St. Clair	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	217	39.6	(32.2-47.5)
Washtenaw	931	91.1	(87.8-93.5)	913	26.6	(23.3-30.2)
City of Detroit	882	94.6	(92.3-96.3)	859	32.6	(28.9-36.5)
Wayne exc. Detroit	1,719	94.8	(93.2-96.1)	1,701	33.7	(31.1-36.4)
<b>Region 2</b>	1,341	93.5	(91.2-95.2)	1,314	36.3	(33.2-39.6)
Genesee	1,030	93.9	(91.4-95.8)	1,012	35.9	(32.4-39.6)
Lapeer	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	141	40.6	(31.9-50.0)
Shiawassee	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	148	33.1	(24.2-43.4)
<b>Region 3</b>	1,125	93.3	(90.3-95.4)	1,102	34.5	(30.8-38.5)
Jackson	905	92.6	(89.5-94.9)	888	36.3	(32.6-40.3)
Lenawee	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	178	36.2	(28.4-44.8)
<b>Region 4</b>	1,098	91.4	(88.6-93.6)	1,073	33.1	(29.8-36.5)
Barry-Eaton	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	276	40.1	(33.5-47.2)
Mid-Michigan <sup>c</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	349	28.7	(23.5-34.6)
Ingham	585	89.3	(85.4-92.2)	562	31.6	(27.1-36.5)
<b>Region 5</b>	929	90.2	(86.8-92.8)	897	34.8	(31.2-38.7)
Branch-Hillsdale-St. Joseph	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	265	37.7	(30.7-45.1)
Calhoun	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	211	35.2	(27.7-43.4)
Kalamazoo	426	88.4	(83.1-92.2)	409	33.5	(28.3-39.1)
<b>Region 6</b>	426	94.3	(90.4-96.7)	422	35.5	(30.3-40.9)
Van Buren-Cass	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	184	39.9	(32.1-48.3)
Berrien	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	206	32.4	(25.6-40.1)



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Table 14 Cont'd

Geographic Area	Cholesterol Ever Checked <sup>a</sup>			Ever Told High Cholesterol <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>20,119</b>	<b>93.6</b>	<b>(93.1-94.1)</b>	<b>19,742</b>	<b>33.6</b>	<b>(32.8-34.5)</b>
<b>Region 7</b>	1,944	95.3	(93.8-96.4)	1,933	28.0	(25.7-30.4)
Allegan	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	216	31.0	(24.3-38.5)
Ionia	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	118	29.8	(21.1-40.3)
Kent	1,008	96.1	(94.1-97.4)	1,011	27.9	(24.8-31.2)
Mid-Michigan <sup>c</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	349	28.7	(23.5-34.6)
Ottawa	459	93.9	(89.9-96.3)	456	25.4	(21.1-30.2)
<b>Region 8</b>	1,629	92.0	(89.7-93.8)	1,582	34.8	(31.6-38.2)
District #10	683	92.0	(88.5-94.5)	651	33.2	(28.8-37.9)
Muskegon	885	91.6	(88.1-94.2)	866	38.4	(34.3-42.7)
<b>Region 9</b>	1,119	91.5	(88.8-93.5)	1,090	34.9	(31.3-38.7)
District #2	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	124	29.3	(20.0-40.7)
District #4	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	157	37.9	(28.7-48.1)
Northwest Michigan	337	90.4	(84.0-94.4)	332	41.1	(34.4-48.2)
Benzie-Leelanau	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	168	34.9	(26.7-44.0)
Grand Traverse	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	279	30.4	(24.5-37.1)
<b>Region 10</b>	749	93.5	(90.4-95.7)	729	35.7	(31.5-40.1)
Bay	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	161	35.9	(26.5-46.6)
Huron	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	68	39.2	(27.1-52.9)
Saginaw	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	312	33.1	(27.0-39.9)
Sanilac	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	77	40.4	(28.9-52.9)
Tuscola	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	101	40.2	(29.9-51.5)
<b>Region 11</b>	588	94.4	(91.2-96.5)	581	36.2	(31.4-41.3)
Central Michigan	351	94.5	(90.5-96.9)	349	37.6	(31.6-44.1)
Midland	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	153	37.7	(29.0-47.3)
<b>Region 12</b>	516	90.2	(85.8-93.4)	503	37.2	(32.5-42.2)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	61	33.8	(21.5-48.8)
Western Upper Peninsula	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	110	38.8	(28.9-49.6)
Delta-Menominee	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	89	43.9	(32.5-55.9)
Chippewa	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	68	30.7	(20.2-43.7)
Dickinson-Iron	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Marquette	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	100	42.5	(31.3-54.5)

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

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

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

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

<b>Table 15: No Routine Checkup in Past Year Michigan BRFSS, 2017-2019 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>31,384</b>	<b>22.3</b>	<b>(21.6-22.9)</b>
<b>Region 1</b>	12,788	21.3	(20.4-22.3)
Livingston	1,523	20.8	(17.9-24.1)
Macomb	1,868	23.5	(21.2-26.1)
Monroe	357	21.0	(16.3-26.6)
Oakland	3,162	21.9	(20.1-23.8)
St. Clair	382	22.3	(17.2-28.3)
Washtenaw	1,470	24.8	(22.0-28.0)
City of Detroit	1,394	18.1	(15.6-20.9)
Wayne exc. Detroit	2,562	19.3	(17.4-21.3)
<b>Region 2</b>	2,147	20.0	(17.9-22.4)
Genesee	1,620	18.9	(16.5-21.5)
Lapeer	246	25.2	(19.2-32.2)
Shiawassee	261	21.1	(15.0-29.0)
<b>Region 3</b>	1,749	26.5	(23.5-29.8)
Jackson	1,393	23.8	(21.0-26.9)
Lenawee	292	28.7	(22.4-35.8)
<b>Region 4</b>	1,735	23.9	(21.4-26.7)
Barry-Eaton	448	21.8	(17.0-27.5)
Mid-Michigan <sup>b</sup>	521	21.5	(17.2-26.5)
Ingham	941	25.8	(22.3-29.6)
<b>Region 5</b>	1,475	24.2	(21.4-27.1)
Branch-Hillsdale-St. Joseph	432	26.2	(21.2-31.9)
Calhoun	367	21.1	(16.2-27.1)
Kalamazoo	654	24.6	(20.6-29.2)
<b>Region 6</b>	666	24.4	(20.6-28.8)
Van Buren-Cass	281	22.5	(17.3-28.7)
Berrien	330	25.0	(19.5-31.5)
<b>Region 7</b>	3,063	22.1	(20.2-24.1)
Allegan	344	21.3	(16.5-27.0)
Ionia	186	25.2	(17.0-35.6)
Kent	1,613	22.3	(19.8-24.9)
Mid-Michigan <sup>b</sup>	521	21.5	(17.2-26.5)
Ottawa	717	21.7	(17.7-26.3)

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<b>Table 15 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>31,384</b>	<b>22.3</b>	<b>(21.6-22.9)</b>
<b>Region 8</b>	2,577	21.7	(19.4-24.1)
District #10	1,070	24.0	(20.8-27.6)
Muskegon	1,405	18.8	(16.0-21.9)
<b>Region 9</b>	1,762	22.1	(19.5-24.8)
District #2	206	22.7	(15.8-31.4)
District #4	261	20.2	(14.3-27.8)
Northwest Michigan	539	21.9	(17.6-26.8)
Benzie-Leelanau	252	23.7	(17.4-31.4)
Grand Traverse	450	18.5	(14.4-23.4)
<b>Region 10</b>	1,153	24.9	(21.6-28.6)
Bay	258	27.7	(20.3-36.6)
Huron	116	26.1	(17.6-36.7)
Saginaw	465	25.4	(20.3-31.3)
Sanilac	150	23.6	(15.9-33.5)
Tuscola	151	16.6	(10.7-24.9)
<b>Region 11</b>	948	25.3	(21.6-29.4)
Central Michigan	541	24.9	(20.0-30.5)
Midland	228	20.5	(14.0-29.0)
<b>Region 12</b>	805	23.5	(20.0-27.4)
Luce-Mackinac-Alger-Schoolcraft	104	20.8	(12.3-33.0)
Western Upper Peninsula	190	22.1	(15.4-30.7)
Delta-Menominee	143	24.7	(16.7-34.9)
Chippewa	113	27.8	(18.6-39.5)
Dickinson-Iron	68	18.2	(8.4-34.8)
Marquette	154	25.2	(18.1-34.1)

<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.

**Table 16: Immunizations Among Adults Aged 65 Years and Older  
Michigan BRFSS, 2017-2019 Combined**

Geographic Area	Had Flu Vaccine in Past Year <sup>a</sup>			Ever Had Pneumonia Vaccine <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>10,443</b>	<b>57.6</b>	<b>(56.3-58.8)</b>	<b>10,182</b>	<b>74.1</b>	<b>(73.0-75.3)</b>
<b>Region 1</b>	4,087	58.6	(56.6-60.5)	3,966	74.2	(72.3-76.0)
Livingston	542	61.0	(54.9-66.8)	530	79.6	(74.2-84.2)
Macomb	615	61.7	(57.0-66.3)	598	78.5	(74.2-82.2)
Monroe	111	50.0	(39.3-60.8)	110	75.9	(64.7-84.4)
Oakland	1,013	60.5	(56.8-64.1)	977	75.2	(71.8-78.3)
St. Clair	113	54.4	(43.6-64.8)	111	75.0	(64.9-83.0)
Washtenaw	515	62.7	(57.3-67.8)	498	79.3	(74.6-83.4)
City of Detroit	362	47.7	(41.3-54.2)	350	60.7	(54.0-67.0)
Wayne exc. Detroit	804	58.9	(54.5-63.1)	780	73.6	(69.2-77.6)
<b>Region 2</b>	694	57.2	(52.7-61.5)	681	68.6	(64.2-72.7)
Genesee	511	57.8	(52.6-62.9)	499	68.3	(63.1-73.1)
Lapeer	80	49.2	(37.2-61.2)	79	58.6	(45.8-70.3)
Shiawassee	96	61.9	(50.1-72.4)	96	79.7	(69.6-87.0)
<b>Region 3</b>	607	52.6	(47.1-58.0)	601	76.3	(71.3-80.7)
Jackson	492	53.3	(47.9-58.7)	488	75.5	(70.4-80.0)
Lenawee	102	46.9	(36.0-58.1)	101	75.8	(64.9-84.1)
<b>Region 4</b>	561	64.1	(59.3-68.7)	549	78.5	(74.1-82.4)
Barry-Eaton	170	54.5	(45.8-63.0)	164	75.7	(67.5-82.4)
Mid-Michigan <sup>c</sup>	185	66.5	(58.3-73.8)	182	80.5	(73.5-86.0)
Ingham	266	66.2	(58.8-72.8)	262	77.9	(70.6-83.7)
<b>Region 5</b>	518	55.6	(50.3-60.7)	506	71.8	(66.4-76.6)
Branch-Hillsdale-St. Joseph	164	52.3	(43.4-61.1)	161	65.6	(56.3-73.9)
Calhoun	135	54.7	(44.3-64.7)	133	66.9	(56.2-76.1)
Kalamazoo	211	59.3	(50.6-67.5)	205	79.5	(70.0-86.5)
<b>Region 6</b>	230	58.2	(50.4-65.6)	226	76.7	(69.7-82.5)
Van Buren-Cass	105	66.3	(54.2-76.6)	103	79.4	(68.9-87.1)
Berrien	120	52.2	(41.7-62.6)	118	75.6	(65.7-83.4)

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Table 16 Cont'd						
Geographic Area	Had Flu Vaccine in Past Year <sup>a</sup>			Ever Had Pneumonia Vaccine <sup>b</sup>		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
<b>Michigan Total</b>	<b>10,443</b>	<b>57.6</b>	<b>(56.3-58.8)</b>	<b>10,182</b>	<b>74.1</b>	<b>(73.0-75.3)</b>
<b>Region 7</b>	977	56.8	(53.1-60.5)	952	78.0	(74.7-81.0)
Allegan	122	50.3	(39.9-60.7)	121	75.0	(65.9-82.4)
Ionia	55	53.8	(38.1-68.8)	54	67.0	(51.0-79.8)
Kent	498	59.0	(53.7-64.0)	482	78.3	(73.3-82.6)
Mid-Michigan <sup>c</sup>	185	66.5	(58.3-73.8)	182	80.5	(73.5-86.0)
Ottawa	236	57.4	(50.1-64.4)	229	83.4	(77.1-88.1)
<b>Region 8</b>	936	59.7	(55.5-63.7)	916	76.1	(72.0-79.8)
District #10	436	57.9	(52.1-63.4)	427	75.7	(70.0-80.7)
Muskegon	476	62.2	(56.6-67.6)	465	76.0	(70.4-80.8)
<b>Region 9</b>	697	58.5	(53.4-63.5)	677	73.8	(68.9-78.2)
District #2	79	62.4	(48.7-74.4)	78	76.9	(63.4-86.4)
District #4	107	48.5	(35.7-61.5)	101	62.7	(48.6-74.9)
Northwest Michigan	219	58.9	(49.0-68.2)	213	77.1	(69.3-83.3)
Benzie-Leelanau	125	59.0	(48.6-68.8)	122	74.1	(63.7-82.3)
Grand Traverse	167	66.2	(56.7-74.6)	163	79.2	(70.7-85.7)
<b>Region 10</b>	412	57.2	(50.9-63.2)	403	72.7	(67.2-77.6)
Bay	87	69.6	(58.2-79.1)	84	77.8	(66.2-86.3)
Huron	56	63.3	(48.2-76.1)	56	71.1	(56.9-82.1)
Saginaw	154	48.3	(37.9-58.8)	151	70.6	(60.8-78.8)
Sanilac	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Tuscola	69	54.9	(41.4-67.7)	67	66.7	(52.2-78.6)
<b>Region 11</b>	317	52.1	(45.1-59.0)	306	78.7	(73.1-83.4)
Central Michigan	204	48.1	(39.5-56.8)	197	77.9	(70.8-83.6)
Midland	88	60.8	(48.3-72.0)	85	77.1	(65.3-85.7)
<b>Region 12</b>	285	51.2	(44.2-58.1)	281	65.3	(58.1-71.9)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Western Upper Peninsula	74	42.0	(29.8-55.2)	73	66.7	(52.8-78.2)
Delta-Menominee	51	44.3	(28.4-61.4)	51	56.4	(39.4-72.0)
Chippewa	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Dickinson-Iron	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Marquette	60	65.8	(50.0-78.7)	57	72.3	(55.6-84.5)

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

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

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

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

<b>Table 17: HIV Testing Among Adults Aged 18-64 Years Michigan BRFSS, 2017-2019 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>18,393</b>	<b>46.3</b>	<b>(45.4-47.2)</b>
<b>Region 1</b>	7,612	50.2	(48.8-51.5)
Livingston	877	43.4	(38.8-48.1)
Macomb	1,089	44.6	(41.3-48.1)
Monroe	221	42.4	(35.2-50.0)
Oakland	1,861	48.2	(45.5-50.9)
St. Clair	231	44.0	(36.7-51.7)
Washtenaw	868	49.7	(45.5-53.9)
City of Detroit	861	74.0	(70.3-77.3)
Wayne exc. Detroit	1,558	46.1	(43.2-49.1)
<b>Region 2</b>	1,275	49.2	(45.9-52.6)
Genesee	949	52.5	(48.6-56.4)
Lapeer	162	39.8	(31.6-48.6)
Shiawassee	152	43.0	(33.3-53.3)
<b>Region 3</b>	1,009	45.9	(41.7-50.1)
Jackson	790	50.3	(46.1-54.6)
Lenawee	171	39.1	(30.8-48.1)
<b>Region 4</b>	1,067	44.4	(40.8-48.1)
Barry-Eaton	253	50.5	(43.1-57.8)
Mid-Michigan <sup>b</sup>	300	41.2	(34.8-47.9)
Ingham	614	42.5	(37.7-47.4)
<b>Region 5</b>	848	46.6	(42.5-50.7)
Branch-Hillsdale-St. Joseph	238	43.6	(36.1-51.5)
Calhoun	209	49.1	(40.7-57.5)
Kalamazoo	387	46.7	(40.9-52.7)
<b>Region 6</b>	388	45.8	(39.9-51.7)
Van Buren-Cass	154	42.4	(33.9-51.4)
Berrien	189	47.4	(38.9-56.1)
<b>Region 7</b>	1,883	42.3	(39.6-45.0)
Allegan	205	42.3	(34.4-50.6)
Ionia	118	38.0	(28.4-48.7)
Kent	1,007	45.0	(41.5-48.7)
Mid-Michigan <sup>b</sup>	300	41.2	(34.8-47.9)
Ottawa	434	36.8	(31.3-42.6)

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<b>Table 17 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>18,393</b>	<b>46.3</b>	<b>(45.4-47.2)</b>
<b>Region 8</b>	1,446	40.8	(37.2-44.4)
District #10	571	37.5	(32.5-42.8)
Muskegon	810	47.2	(42.6-51.9)
<b>Region 9</b>	948	39.0	(35.3-42.8)
District #2	112	34.9	(25.2-46.0)
District #4	130	35.0	(25.9-45.4)
Northwest Michigan	279	39.9	(33.2-47.0)
Benzie-Leelanau	115	40.2	(30.3-50.9)
Grand Traverse	259	42.5	(35.4-49.8)
<b>Region 10</b>	649	42.4	(37.8-47.3)
Bay	150	44.3	(34.1-55.0)
Huron	55	21.6	(11.5-37.0)
Saginaw	272	44.1	(37.0-51.4)
Sanilac	90	44.5	(33.2-56.4)
Tuscola	74	43.0	(31.1-55.8)
<b>Region 11</b>	552	37.2	(32.3-42.4)
Central Michigan	295	39.0	(32.3-46.1)
Midland	127	30.5	(22.0-40.5)
<b>Region 12</b>	461	40.1	(35.0-45.5)
Luce-Mackinac-Alger-Schoolcraft	53	42.0	(27.5-58.0)
Western Upper Peninsula	110	34.2	(24.7-45.0)
Delta-Menominee	83	38.7	(27.8-51.0)
Chippewa	69	49.9	(35.6-64.2)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	80	36.7	(25.5-49.5)

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

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<b>Table 18: Asthma Michigan BRFSS, 2017-2019 Combined</b>						
<b>Geographic Area</b>	<b>Ever Told Have Asthma<sup>a</sup></b>			<b>Still Have Asthma<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>31,602</b>	<b>16.1</b>	<b>(15.6-16.7)</b>	<b>31,441</b>	<b>11.1</b>	<b>(10.6-11.6)</b>
<b>Region 1</b>	12,863	16.3	(15.5-17.1)	12,806	11.3	(10.6-12.0)
Livingston	1,536	13.5	(11.2-16.1)	1,531	8.3	(6.8-10.1)
Macomb	1,881	17.1	(15.1-19.3)	1,869	11.2	(9.5-13.2)
Monroe	363	15.7	(11.9-20.6)	363	10.0	(7.0-14.1)
Oakland	3,181	14.3	(12.9-15.9)	3,169	9.3	(8.2-10.7)
St. Clair	383	23.1	(18.1-29.0)	377	17.9	(13.2-23.7)
Washtenaw	1,472	15.4	(13.2-18.0)	1,464	9.8	(8.0-12.1)
City of Detroit	1,398	20.6	(18.2-23.3)	1,394	16.2	(14.0-18.7)
Wayne exc. Detroit	2,577	15.5	(13.9-17.3)	2,567	11.2	(9.8-12.7)
<b>Region 2</b>	2,158	17.3	(15.2-19.5)	2,143	12.8	(11.0-14.8)
Genesee	1,626	18.0	(15.7-20.5)	1,617	12.8	(10.9-15.0)
Lapeer	250	13.0	(9.0-18.6)	247	11.5	(7.6-17.1)
Shiawassee	262	18.1	(12.0-26.5)	259	13.8	(8.2-22.3)
<b>Region 3</b>	1,762	17.1	(14.7-19.7)	1,750	11.6	(9.7-13.9)
Jackson	1,402	16.5	(14.2-19.0)	1,395	11.9	(9.9-14.2)
Lenawee	296	19.1	(14.1-25.3)	293	13.1	(8.9-18.9)
<b>Region 4</b>	1,750	17.0	(14.9-19.4)	1,742	10.9	(9.2-12.8)
Barry-Eaton	453	16.5	(12.5-21.5)	452	10.0	(7.0-14.0)
Mid-Michigan <sup>c</sup>	523	14.6	(11.1-18.9)	523	10.3	(7.4-14.0)
Ingham	949	18.5	(15.5-21.9)	942	12.3	(9.9-15.2)
<b>Region 5</b>	1,486	18.2	(15.8-20.9)	1,480	11.6	(9.7-13.8)
Branch-Hillsdale-St. Joseph	432	17.0	(12.8-22.3)	432	10.4	(7.3-14.6)
Calhoun	368	18.5	(14.0-23.9)	364	12.5	(8.8-17.5)
Kalamazoo	663	18.5	(14.9-22.7)	661	11.4	(8.7-14.8)
<b>Region 6</b>	668	13.6	(10.7-17.0)	662	7.9	(5.7-10.9)
Van Buren-Cass	280	10.9	(7.3-15.8)	275	5.4	(3.0-9.7)
Berrien	333	13.4	(9.8-18.1)	333	8.0	(5.4-11.9)
<b>Region 7</b>	3,079	14.6	(13.1-16.3)	3,067	9.8	(8.6-11.2)
Allegan	348	15.9	(11.5-21.5)	345	10.5	(7.1-15.3)
Ionia	187	11.3	(7.0-17.8)	187	7.4	(4.4-12.3)
Kent	1,622	15.1	(13.1-17.3)	1,616	10.4	(8.7-12.4)
Mid-Michigan <sup>c</sup>	523	14.6	(11.1-18.9)	523	10.3	(7.4-14.0)
Ottawa	719	13.6	(10.3-17.9)	716	7.8	(5.8-10.5)



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<b>Table 18 Cont'd</b>						
<b>Geographic Area</b>	<b>Ever Told Have Asthma<sup>a</sup></b>			<b>Still Have Asthma<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>31,602</b>	<b>16.1</b>	<b>(15.6-16.7)</b>	<b>31,441</b>	<b>11.1</b>	<b>(10.6-11.6)</b>
<b>Region 8</b>	2,598	15.4	(13.3-17.8)	2,582	10.5	(8.6-12.7)
District #10	1,082	15.2	(12.2-18.8)	1,074	10.5	(7.8-14.0)
Muskegon	1,413	15.9	(13.4-18.8)	1,406	10.1	(8.2-12.5)
<b>Region 9</b>	1,780	14.8	(12.7-17.2)	1,774	10.1	(8.3-12.2)
District #2	210	16.3	(10.7-24.0)	209	13.1	(8.0-20.8)
District #4	265	13.7	(9.2-19.9)	265	8.2	(4.9-13.2)
Northwest Michigan	546	15.7	(12.0-20.3)	543	12.2	(8.9-16.5)
Benzie-Leelanau	253	11.3	(7.1-17.4)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Grand Traverse	449	15.1	(11.3-19.9)	447	9.2	(6.1-13.6)
<b>Region 10</b>	1,160	17.8	(14.8-21.2)	1,152	12.5	(9.8-15.8)
Bay	257	22.3	(15.1-31.7)	255	16.7	(9.9-26.6)
Huron	116	16.1	(9.6-25.8)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Saginaw	471	18.3	(13.9-23.6)	469	12.6	(8.8-17.7)
Sanilac	150	17.6	(11.5-26.1)	146	12.3	(7.2-20.1)
Tuscola	153	7.7	(4.2-13.5)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
<b>Region 11</b>	961	15.6	(12.8-18.9)	957	11.5	(9.0-14.5)
Central Michigan	550	13.9	(10.5-18.3)	547	11.6	(8.3-15.9)
Midland	230	18.9	(13.4-26.0)	229	13.1	(8.8-19.2)
<b>Region 12</b>	809	16.1	(13.0-19.8)	804	13.1	(10.2-16.7)
Luce-Mackinac-Alger-Schoolcraft	104	13.4	(7.6-22.6)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Western Upper Peninsula	191	16.4	(9.8-26.2)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Delta-Menominee	144	16.7	(10.0-26.5)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Chippewa	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Dickinson-Iron	68	23.9	(12.7-40.3)	-- <sup>d</sup>	-- <sup>d</sup>	-- <sup>d</sup>
Marquette	154	18.2	(12.1-26.4)	152	16.3	(10.5-24.6)

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

<b>Table 19: Chronic Obstructive Pulmonary Disease (COPD) Michigan BRFSS, 2017-2019 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told COPD, Emphysema or Chronic Bronchitis<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,546</b>	<b>8.6</b>	<b>(8.2-9.0)</b>
<b>Region 1</b>	12,842	8.3	(7.7-8.9)
Livingston	1,534	6.5	(5.0-8.4)
Macomb	1,875	8.5	(7.2-10.1)
Monroe	360	10.6	(7.6-14.5)
Oakland	3,175	6.5	(5.5-7.6)
St. Clair	384	14.1	(10.2-19.2)
Washtenaw	1,474	4.0	(3.0-5.4)
City of Detroit	1,393	11.9	(10.0-14.1)
Wayne exc. Detroit	2,575	9.1	(7.9-10.4)
<b>Region 2</b>	2,152	12.8	(11.1-14.7)
Genesee	1,620	13.8	(11.8-16.2)
Lapeer	248	12.4	(8.2-18.2)
Shiawassee	264	8.1	(4.7-13.5)
<b>Region 3</b>	1,759	10.3	(8.5-12.4)
Jackson	1,400	10.4	(8.6-12.5)
Lenawee	295	11.4	(7.6-16.7)
<b>Region 4</b>	1,750	6.9	(5.7-8.4)
Barry-Eaton	452	8.8	(6.2-12.4)
Mid-Michigan <sup>b</sup>	522	8.1	(6.0-11.1)
Ingham	951	5.9	(4.4-7.8)
<b>Region 5</b>	1,480	9.7	(7.8-11.9)
Branch-Hillsdale-St. Joseph	433	10.3	(7.3-14.4)
Calhoun	365	13.2	(9.0-19.1)
Kalamazoo	659	7.4	(5.1-10.7)
<b>Region 6</b>	668	9.1	(6.8-12.0)
Van Buren-Cass	281	12.2	(8.2-17.8)
Berrien	333	7.8	(5.1-11.8)
<b>Region 7</b>	3,085	6.2	(5.3-7.2)
Allegan	349	9.9	(7.0-13.8)
Ionia	188	9.0	(5.2-15.0)
Kent	1,621	5.5	(4.4-6.8)
Mid-Michigan <sup>b</sup>	522	8.1	(6.0-11.1)
Ottawa	724	4.4	(3.1-6.2)

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<b>Table 19 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told COPD, Emphysema or Chronic Bronchitis<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,546</b>	<b>8.6</b>	<b>(8.2-9.0)</b>
<b>Region 8</b>	2,592	10.2	(8.7-11.9)
District #10	1,079	12.1	(9.9-14.6)
Muskegon	1,409	7.6	(6.1-9.3)
<b>Region 9</b>	1,776	10.6	(8.7-12.9)
District #2	208	19.4	(12.9-28.2)
District #4	264	13.1	(8.4-19.9)
Northwest Michigan	546	9.1	(6.6-12.4)
Benzie-Leelanau	255	6.1	(3.5-10.5)
Grand Traverse	446	7.4	(5.0-10.9)
<b>Region 10</b>	1,149	8.7	(6.9-10.9)
Bay	254	7.3	(4.7-11.2)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	468	9.0	(6.1-13.1)
Sanilac	150	13.2	(7.9-21.2)
Tuscola	150	9.4	(5.5-15.5)
<b>Region 11</b>	959	8.5	(6.5-11.1)
Central Michigan	549	11.1	(8.1-15.0)
Midland	231	5.7	(3.1-10.0)
<b>Region 12</b>	804	8.4	(6.5-10.7)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	187	7.5	(4.2-12.9)
Delta-Menominee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Chippewa	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Dickinson-Iron	66	18.1	(9.8-31.0)
Marquette	153	10.3	(6.2-16.6)

<sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had chronic obstructive pulmonary disease (COPD), emphysema or chronic bronchitis.

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

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

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<b>Table 20: Arthritis Michigan BRFSS, 2017-2019 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>31,544</b>	<b>31.1</b>	<b>(30.5-31.8)</b>
<b>Region 1</b>	12,841	30.1	(29.1-31.0)
Livingston	1,538	27.6	(24.6-30.9)
Macomb	1,871	32.0	(29.6-34.5)
Monroe	362	35.6	(30.1-41.4)
Oakland	3,176	28.3	(26.5-30.2)
St. Clair	383	36.9	(31.4-42.7)
Washtenaw	1,468	22.2	(19.8-24.8)
City of Detroit	1,399	32.5	(29.7-35.5)
Wayne exc. Detroit	2,572	31.0	(28.9-33.1)
<b>Region 2</b>	2,148	38.0	(35.6-40.6)
Genesee	1,617	37.4	(34.6-40.3)
Lapeer	249	40.3	(33.8-47.2)
Shiawassee	262	39.3	(31.9-47.1)
<b>Region 3</b>	1,758	33.6	(30.6-36.8)
Jackson	1,401	33.6	(30.6-36.7)
Lenawee	293	37.1	(30.7-44.0)
<b>Region 4</b>	1,746	30.7	(28.2-33.4)
Barry-Eaton	454	32.7	(27.8-38.0)
Mid-Michigan <sup>b</sup>	522	35.9	(31.2-41.0)
Ingham	946	28.0	(24.5-31.7)
<b>Region 5</b>	1,485	31.6	(28.8-34.5)
Branch-Hillsdale-St. Joseph	434	37.9	(32.4-43.7)
Calhoun	369	34.8	(28.9-41.2)
Kalamazoo	659	25.8	(22.2-29.9)
<b>Region 6</b>	665	33.4	(29.2-37.8)
Van Buren-Cass	278	36.4	(30.1-43.2)
Berrien	333	31.8	(26.1-38.1)
<b>Region 7</b>	3,074	26.9	(25.1-28.7)
Allegan	346	31.7	(26.3-37.7)
Ionia	188	35.0	(27.3-43.6)
Kent	1,614	25.7	(23.3-28.3)
Mid-Michigan <sup>b</sup>	522	35.9	(31.2-41.0)
Ottawa	722	22.3	(19.2-25.9)

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<b>Table 20 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>31,544</b>	<b>31.1</b>	<b>(30.5-31.8)</b>
<b>Region 8</b>	2,595	36.1	(33.6-38.7)
District #10	1,081	37.4	(33.7-41.1)
Muskegon	1,410	37.4	(34.2-40.8)
<b>Region 9</b>	1,778	34.6	(31.8-37.5)
District #2	209	41.8	(33.8-50.2)
District #4	264	37.6	(30.5-45.3)
Northwest Michigan	546	36.8	(31.6-42.3)
Benzie-Leelanau	252	30.1	(24.0-37.0)
Grand Traverse	450	31.1	(26.1-36.6)
<b>Region 10</b>	1,155	33.0	(29.7-36.4)
Bay	258	36.3	(29.0-44.4)
Huron	115	19.4	(13.1-27.6)
Saginaw	468	31.4	(26.5-36.7)
Sanilac	148	39.9	(31.0-49.5)
Tuscola	153	37.4	(29.2-46.4)
<b>Region 11</b>	959	30.5	(27.1-34.1)
Central Michigan	548	34.9	(30.2-39.9)
Midland	230	33.8	(27.1-41.2)
<b>Region 12</b>	810	36.2	(32.4-40.2)
Luce-Mackinac-Alger-Schoolcraft	103	40.0	(29.0-52.1)
Western Upper Peninsula	192	34.9	(27.3-43.3)
Delta-Menominee	146	36.4	(28.1-45.5)
Chippewa	113	34.9	(25.5-45.7)
Dickinson-Iron	68	44.8	(31.5-58.8)
Marquette	154	40.6	(31.8-50.1)

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

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

<b>Table 21: Heart Attack Michigan BRFS, 2017-2019 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>31,548</b>	<b>5.0</b>	<b>(4.8-5.3)</b>
<b>Region 1</b>	12,853	5.0	(4.5-5.4)
Livingston	1,535	3.8	(2.9-5.1)
Macomb	1,879	5.6	(4.5-6.9)
Monroe	362	7.4	(4.9-11.1)
Oakland	3,186	4.1	(3.4-5.0)
St. Clair	384	6.1	(4.0-9.2)
Washtenaw	1,470	3.1	(2.3-4.2)
City of Detroit	1,391	5.1	(3.9-6.6)
Wayne exc. Detroit	2,573	5.8	(4.9-7.0)
<b>Region 2</b>	2,142	5.7	(4.6-7.0)
Genesee	1,611	5.5	(4.3-6.9)
Lapeer	249	9.1	(5.5-14.6)
Shiawassee	262	3.9	(2.2-6.7)
<b>Region 3</b>	1,761	5.9	(4.7-7.4)
Jackson	1,402	5.8	(4.7-7.3)
Lenawee	295	7.1	(4.5-11.0)
<b>Region 4</b>	1,753	3.9	(3.1-5.0)
Barry-Eaton	453	3.8	(2.4-5.8)
Mid-Michigan <sup>b</sup>	524	5.5	(3.7-8.2)
Ingham	952	3.2	(2.2-4.7)
<b>Region 5</b>	1,482	5.9	(4.6-7.5)
Branch-Hillsdale-St. Joseph	434	7.5	(4.9-11.3)
Calhoun	366	5.6	(3.4-9.1)
Kalamazoo	659	5.0	(3.4-7.3)
<b>Region 6</b>	665	5.2	(3.6-7.4)
Van Buren-Cass	281	8.5	(5.5-12.8)
Berrien	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 7</b>	3,077	3.1	(2.5-3.8)
Allegan	349	3.3	(2.0-5.5)
Ionia	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kent	1,619	3.0	(2.2-4.2)
Mid-Michigan <sup>b</sup>	524	5.5	(3.7-8.2)
Ottawa	719	2.3	(1.5-3.8)

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<b>Table 21 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>31,548</b>	<b>5.0</b>	<b>(4.8-5.3)</b>
<b>Region 8</b>	2,591	5.9	(4.8-7.2)
District #10	1,076	7.5	(5.8-9.6)
Muskegon	1,411	4.4	(3.4-5.7)
<b>Region 9</b>	1,777	5.4	(4.3-6.8)
District #2	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
District #4	266	6.7	(4.4-9.9)
Northwest Michigan	544	6.2	(4.1-9.1)
Benzie-Leelanau	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Grand Traverse	449	5.1	(3.2-7.9)
<b>Region 10</b>	1,151	6.4	(4.9-8.3)
Bay	257	4.5	(2.6-7.7)
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	467	7.4	(4.9-11.2)
Sanilac	147	8.7	(4.8-15.4)
Tuscola	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 11</b>	959	6.2	(4.5-8.6)
Central Michigan	550	7.2	(4.8-10.7)
Midland	230	6.6	(3.7-11.4)
<b>Region 12</b>	809	7.0	(5.2-9.2)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Delta-Menominee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Chippewa	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Dickinson-Iron	69	18.9	(10.5-31.5)
Marquette	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>

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

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

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

<b>Table 22: Angina or Coronary Heart Disease Michigan BRFSS, 2017-2019 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>31,441</b>	<b>4.9</b>	<b>(4.6-5.2)</b>
<b>Region 1</b>	12,806	4.9	(4.5-5.3)
Livingston	1,532	4.4	(3.2-5.9)
Macomb	1,872	5.4	(4.5-6.6)
Monroe	356	4.3	(2.5-7.3)
Oakland	3,167	4.7	(3.9-5.6)
St. Clair	384	5.9	(4.0-8.7)
Washtenaw	1,464	3.6	(2.7-4.7)
City of Detroit	1,388	5.2	(4.0-6.7)
Wayne exc. Detroit	2,571	4.9	(4.1-5.8)
<b>Region 2</b>	2,142	5.6	(4.6-6.7)
Genesee	1,614	5.7	(4.6-7.0)
Lapeer	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Shiawassee	262	4.4	(2.6-7.6)
<b>Region 3</b>	1,745	4.7	(3.7-5.9)
Jackson	1,390	5.5	(4.4-6.9)
Lenawee	291	4.6	(2.7-7.7)
<b>Region 4</b>	1,743	4.3	(3.4-5.4)
Barry-Eaton	451	4.5	(3.0-6.6)
Mid-Michigan <sup>b</sup>	519	4.9	(3.3-7.3)
Ingham	947	3.4	(2.3-4.9)
<b>Region 5</b>	1,471	4.9	(3.9-6.3)
Branch-Hillsdale-St. Joseph	428	6.2	(4.3-8.9)
Calhoun	365	4.8	(3.0-7.7)
Kalamazoo	656	4.2	(2.8-6.4)
<b>Region 6</b>	662	5.7	(4.1-7.9)
Van Buren-Cass	277	9.7	(6.4-14.4)
Berrien	330	3.5	(2.0-5.9)
<b>Region 7</b>	3,071	3.0	(2.4-3.8)
Allegan	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Ionia	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kent	1,620	3.3	(2.4-4.4)
Mid-Michigan <sup>b</sup>	519	4.9	(3.3-7.3)
Ottawa	716	2.2	(1.4-3.4)



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<b>Table 22 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>31,441</b>	<b>4.9</b>	<b>(4.6-5.2)</b>
<b>Region 8</b>	2,590	5.0	(4.1-6.1)
District #10	1,081	5.2	(4.0-6.7)
Muskegon	1,408	4.9	(3.9-6.2)
<b>Region 9</b>	1,769	5.7	(4.6-7.0)
District #2	207	7.3	(4.4-11.9)
District #4	265	6.4	(4.3-9.4)
Northwest Michigan	541	4.6	(3.1-6.7)
Benzie-Leelanau	251	6.9	(3.8-12.1)
Grand Traverse	448	5.6	(3.5-8.9)
<b>Region 10</b>	1,149	6.6	(5.1-8.5)
Bay	255	5.8	(3.5-9.3)
Huron	115	8.7	(4.9-15.0)
Saginaw	468	6.5	(4.1-10.1)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	151	7.0	(3.9-12.2)
<b>Region 11</b>	956	6.1	(4.4-8.5)
Central Michigan	547	6.1	(4.0-9.1)
Midland	228	7.4	(4.4-12.1)
<b>Region 12</b>	809	6.9	(5.1-9.2)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Delta-Menominee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Chippewa	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	155	9.3	(5.1-16.3)

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

<b>Table 23: Stroke</b>			
<b>Michigan BRFS, 2017-2019 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>31,636</b>	<b>3.6</b>	<b>(3.3-3.8)</b>
<b>Region 1</b>	12,878	3.7	(3.3-4.2)
Livingston	1,537	2.0	(1.3-2.9)
Macomb	1,883	4.1	(3.2-5.3)
Monroe	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Oakland	3,187	2.9	(2.3-3.7)
St. Clair	383	4.9	(3.0-7.7)
Washtenaw	1,473	3.1	(2.1-4.6)
City of Detroit	1,397	5.9	(4.7-7.4)
Wayne exc. Detroit	2,585	3.6	(2.8-4.6)
<b>Region 2</b>	2,154	3.7	(2.8-4.9)
Genesee	1,622	4.2	(3.1-5.7)
Lapeer	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Shiawassee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 3</b>	1,763	3.8	(2.8-5.1)
Jackson	1,405	4.0	(3.1-5.2)
Lenawee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 4</b>	1,755	3.2	(2.4-4.3)
Barry-Eaton	454	3.0	(1.8-4.8)
Mid-Michigan <sup>b</sup>	525	4.3	(2.5-7.2)
Ingham	952	2.5	(1.6-3.8)
<b>Region 5</b>	1,487	3.8	(2.8-5.2)
Branch-Hillsdale-St. Joseph	434	4.9	(2.8-8.4)
Calhoun	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kalamazoo	662	3.3	(2.1-5.2)
<b>Region 6</b>	669	3.3	(2.2-5.1)
Van Buren-Cass	282	4.6	(2.6-8.0)
Berrien	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 7</b>	3,081	2.7	(2.1-3.4)
Allegan	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Ionia	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kent	1,623	2.9	(2.1-4.0)
Mid-Michigan <sup>b</sup>	525	4.3	(2.5-7.2)
Ottawa	719	2.8	(1.8-4.4)

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<b>Table 23 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>31,636</b>	<b>3.6</b>	<b>(3.3-3.8)</b>
<b>Region 8</b>	2,602	3.5	(2.8-4.4)
District #10	1,082	3.8	(2.7-5.3)
Muskegon	1,416	3.3	(2.5-4.4)
<b>Region 9</b>	1,785	3.8	(2.8-5.3)
District #2	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
District #4	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Northwest Michigan	547	3.3	(1.8-6.0)
Benzie-Leelanau	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Grand Traverse	450	2.2	(1.2-3.8)
<b>Region 10</b>	1,158	3.7	(2.5-5.4)
Bay	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	469	5.0	(2.8-8.7)
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 11</b>	960	4.0	(2.8-5.6)
Central Michigan	549	3.6	(2.4-5.3)
Midland	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 12</b>	813	3.4	(2.4-4.9)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Delta-Menominee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Chippewa	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>

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

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<b>Table 24: Cardiovascular Disease Michigan BRFSS, 2017-2019 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>31,382</b>	<b>9.9</b>	<b>(9.5-10.3)</b>
<b>Region 1</b>	12,780	10.0	(9.3-10.6)
Livingston	1,534	7.9	(6.4-9.7)
Macomb	1,866	11.2	(9.7-12.9)
Monroe	355	9.7	(6.7-13.7)
Oakland	3,162	8.6	(7.6-9.8)
St. Clair	383	10.9	(8.1-14.7)
Washtenaw	1,462	7.1	(5.7-8.9)
City of Detroit	1,383	12.1	(10.2-14.2)
Wayne exc. Detroit	2,563	10.7	(9.4-12.1)
<b>Region 2</b>	2,133	10.7	(9.3-12.3)
Genesee	1,603	11.0	(9.3-12.9)
Lapeer	249	11.9	(7.9-17.5)
Shiawassee	262	8.5	(5.5-12.8)
<b>Region 3</b>	1,748	9.7	(8.2-11.4)
Jackson	1,392	10.8	(9.2-12.6)
Lenawee	293	10.0	(6.9-14.3)
<b>Region 4</b>	1,746	8.5	(7.2-10.1)
Barry-Eaton	452	8.1	(6.0-10.8)
Mid-Michigan <sup>b</sup>	521	10.8	(8.1-14.4)
Ingham	948	7.1	(5.5-9.2)
<b>Region 5</b>	1,470	10.8	(9.1-12.8)
Branch-Hillsdale-St. Joseph	430	13.8	(10.4-18.1)
Calhoun	363	10.4	(7.2-14.7)
Kalamazoo	654	8.9	(6.7-11.7)
<b>Region 6</b>	662	10.5	(8.3-13.3)
Van Buren-Cass	280	16.1	(11.9-21.4)
Berrien	327	7.3	(4.8-11.1)
<b>Region 7</b>	3,063	6.7	(5.8-7.8)
Allegan	349	7.4	(5.1-10.6)
Ionia	186	8.4	(4.9-14.0)
Kent	1,614	6.6	(5.3-8.2)
Mid-Michigan <sup>b</sup>	521	10.8	(8.1-14.4)
Ottawa	711	6.1	(4.5-8.1)

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<b>Table 24 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>31,382</b>	<b>9.9</b>	<b>(9.5-10.3)</b>
<b>Region 8</b>	2,585	11.2	(9.7-12.9)
District #10	1,076	13.3	(11.1-15.8)
Muskegon	1,407	8.8	(7.4-10.5)
<b>Region 9</b>	1,767	11.2	(9.5-13.1)
District #2	206	13.1	(8.5-19.8)
District #4	266	13.5	(9.6-18.8)
Northwest Michigan	539	10.9	(8.1-14.6)
Benzie-Leelanau	253	10.8	(6.9-16.5)
Grand Traverse	446	10.0	(7.2-13.8)
<b>Region 10</b>	1,144	11.3	(9.3-13.7)
Bay	254	8.3	(5.5-12.4)
Huron	116	15.1	(9.6-23.0)
Saginaw	464	12.2	(8.9-16.6)
Sanilac	146	13.0	(8.1-20.1)
Tuscola	151	9.9	(6.1-15.7)
<b>Region 11</b>	955	11.3	(9.0-14.1)
Central Michigan	547	12.1	(9.2-15.8)
Midland	228	11.5	(7.6-17.0)
<b>Region 12</b>	805	12.3	(10.0-15.1)
Luce-Mackinac-Alger-Schoolcraft	103	16.3	(9.9-25.4)
Western Upper Peninsula	190	8.3	(5.1-13.2)
Delta-Menominee	143	12.7	(7.7-20.2)
Chippewa	114	12.2	(6.5-21.5)
Dickinson-Iron	67	24.8	(14.6-38.7)
Marquette	154	12.4	(7.7-19.4)

<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 25: Cancer Michigan BRFS, 2017-2019 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Cancer<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,609</b>	<b>13.0</b>	<b>(12.6-13.4)</b>
<b>Region 1</b>	12,877	12.9	(12.2-13.5)
Livingston	1,536	14.6	(12.4-17.2)
Macomb	1,881	13.0	(11.4-14.7)
Monroe	363	17.8	(13.9-22.4)
Oakland	3,185	13.3	(12.1-14.6)
St. Clair	383	17.8	(14.1-22.4)
Washtenaw	1,474	12.3	(10.6-14.4)
City of Detroit	1,402	9.4	(7.8-11.3)
Wayne exc. Detroit	2,580	13.1	(11.7-14.6)
<b>Region 2</b>	2,153	12.7	(11.3-14.3)
Genesee	1,623	11.6	(10.0-13.3)
Lapeer	247	18.2	(13.5-24.0)
Shiawassee	263	12.8	(9.0-17.9)
<b>Region 3</b>	1,759	12.8	(11.1-14.8)
Jackson	1,402	14.1	(12.2-16.1)
Lenawee	294	13.1	(9.5-17.9)
<b>Region 4</b>	1,753	11.4	(10.0-13.1)
Barry-Eaton	453	11.5	(9.0-14.7)
Mid-Michigan <sup>b</sup>	525	12.2	(9.6-15.5)
Ingham	951	11.4	(9.4-13.8)
<b>Region 5</b>	1,484	11.5	(9.9-13.3)
Branch-Hillsdale-St. Joseph	434	13.4	(10.3-17.4)
Calhoun	369	11.9	(8.7-16.0)
Kalamazoo	658	9.4	(7.4-11.8)
<b>Region 6</b>	665	12.4	(10.1-15.2)
Van Buren-Cass	279	13.6	(9.8-18.5)
Berrien	331	12.4	(9.3-16.2)
<b>Region 7</b>	3,082	12.7	(11.6-14.0)
Allegan	350	15.0	(11.6-19.2)
Ionia	187	14.0	(9.5-20.2)
Kent	1,621	11.6	(10.2-13.3)
Mid-Michigan <sup>b</sup>	525	12.2	(9.6-15.5)
Ottawa	720	13.7	(11.3-16.5)

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<b>Table 25 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Cancer<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,609</b>	<b>13.0</b>	<b>(12.6-13.4)</b>
<b>Region 8</b>	2,603	15.7	(14.0-17.7)
District #10	1,084	19.2	(16.4-22.4)
Muskegon	1,415	12.0	(10.4-14.0)
<b>Region 9</b>	1,780	15.8	(13.8-18.1)
District #2	210	22.3	(16.4-29.6)
District #4	265	12.1	(7.5-18.9)
Northwest Michigan	543	14.6	(11.4-18.4)
Benzie-Leelanau	255	17.2	(12.3-23.4)
Grand Traverse	450	17.4	(13.7-21.9)
<b>Region 10</b>	1,154	14.2	(12.0-16.6)
Bay	259	13.1	(8.9-19.0)
Huron	115	13.8	(8.2-22.4)
Saginaw	467	13.0	(10.1-16.7)
Sanilac	148	17.7	(10.9-27.3)
Tuscola	152	17.7	(12.0-25.2)
<b>Region 11</b>	959	14.1	(11.6-16.9)
Central Michigan	548	15.4	(12.1-19.4)
Midland	230	13.3	(9.5-18.4)
<b>Region 12</b>	810	14.8	(12.2-17.7)
Luce-Mackinac-Alger-Schoolcraft	103	21.6	(13.3-33.0)
Western Upper Peninsula	191	11.3	(7.2-17.2)
Delta-Menominee	146	15.6	(10.6-22.3)
Chippewa	114	11.5	(6.4-19.9)
Dickinson-Iron	68	17.7	(10.0-29.5)
Marquette	154	15.8	(9.8-24.4)

<sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had skin cancer or any other type of cancer.

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

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<b>Table 26: Diabetes</b> <b>Michigan BRFSS, 2017-2019 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>31,684</b>	<b>11.3</b>	<b>(10.9-11.7)</b>
<b>Region 1</b>	12,897	11.1	(10.5-11.8)
Livingston	1,541	9.5	(7.6-11.9)
Macomb	1,881	11.6	(10.1-13.3)
Monroe	363	10.2	(7.3-14.1)
Oakland	3,193	10.1	(8.9-11.3)
St. Clair	384	8.6	(6.1-12.1)
Washtenaw	1,476	7.9	(6.4-9.6)
City of Detroit	1,403	14.2	(12.2-16.4)
Wayne exc. Detroit	2,583	12.1	(10.7-13.6)
<b>Region 2</b>	2,157	12.1	(10.6-13.8)
Genesee	1,625	13.9	(12.0-16.1)
Lapeer	250	7.7	(4.8-11.9)
Shiawassee	262	6.9	(4.2-11.2)
<b>Region 3</b>	1,765	10.6	(9.0-12.4)
Jackson	1,405	12.0	(10.2-14.0)
Lenawee	296	9.8	(6.8-13.9)
<b>Region 4</b>	1,754	10.7	(9.1-12.5)
Barry-Eaton	453	11.9	(8.7-16.0)
Mid-Michigan <sup>b</sup>	524	10.9	(8.3-14.1)
Ingham	953	9.7	(7.7-12.2)
<b>Region 5</b>	1,487	13.1	(11.2-15.3)
Branch-Hillsdale-St. Joseph	434	12.6	(9.5-16.7)
Calhoun	370	17.3	(12.7-23.1)
Kalamazoo	660	11.3	(8.9-14.3)
<b>Region 6</b>	670	10.9	(8.6-13.8)
Van Buren-Cass	282	14.4	(10.3-19.7)
Berrien	333	9.3	(6.4-13.2)
<b>Region 7</b>	3,091	10.3	(9.1-11.6)
Allegan	349	12.4	(8.8-17.1)
Ionia	188	11.8	(7.7-17.6)
Kent	1,626	10.5	(8.9-12.4)
Mid-Michigan <sup>b</sup>	524	10.9	(8.3-14.1)
Ottawa	724	8.6	(6.5-11.3)



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<b>Table 26 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>31,684</b>	<b>11.3</b>	<b>(10.9-11.7)</b>
<b>Region 8</b>	2,606	13.2	(11.6-15.0)
District #10	1,086	14.3	(12.0-17.0)
Muskegon	1,416	12.4	(10.5-14.6)
<b>Region 9</b>	1,785	10.4	(8.7-12.4)
District #2	210	13.7	(9.2-20.0)
District #4	266	14.1	(9.7-20.1)
Northwest Michigan	546	8.2	(5.2-12.6)
Benzie-Leelanau	255	11.0	(7.3-16.2)
Grand Traverse	451	8.8	(6.0-12.7)
<b>Region 10</b>	1,161	12.9	(10.8-15.4)
Bay	259	10.2	(6.8-15.0)
Huron	116	11.4	(6.7-18.9)
Saginaw	470	14.5	(11.0-18.9)
Sanilac	150	14.6	(9.2-22.5)
Tuscola	153	12.2	(7.9-18.3)
<b>Region 11</b>	962	11.5	(9.2-14.4)
Central Michigan	550	13.4	(10.2-17.4)
Midland	231	11.0	(7.1-16.6)
<b>Region 12</b>	814	12.0	(9.9-14.6)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	192	13.8	(9.2-20.0)
Delta-Menominee	146	14.2	(9.2-21.3)
Chippewa	114	13.5	(7.9-22.0)
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	155	10.0	(6.0-16.2)

<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.

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

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<b>Table 27: Kidney Disease Michigan BRFSS, 2017-2019 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Kidney Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,629</b>	<b>3.5</b>	<b>(3.3-3.8)</b>
<b>Region 1</b>	12,871	3.6	(3.2-4.0)
Livingston	1,536	2.1	(1.4-3.1)
Macomb	1,880	3.2	(2.4-4.1)
Monroe	361	4.3	(2.4-7.5)
Oakland	3,189	3.3	(2.7-4.1)
St. Clair	382	4.8	(2.7-8.5)
Washtenaw	1,472	3.1	(2.1-4.6)
City of Detroit	1,400	4.5	(3.4-6.0)
Wayne exc. Detroit	2,578	3.9	(3.1-4.8)
<b>Region 2</b>	2,157	3.6	(2.8-4.7)
Genesee	1,623	3.6	(2.7-4.8)
Lapeer	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Shiawassee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 3</b>	1,767	3.5	(2.6-4.6)
Jackson	1,407	3.6	(2.7-4.9)
Lenawee	296	3.3	(1.8-6.0)
<b>Region 4</b>	1,750	2.6	(1.9-3.5)
Barry-Eaton	452	3.2	(2.0-5.1)
Mid-Michigan <sup>b</sup>	524	3.1	(1.8-5.4)
Ingham	950	2.6	(1.7-3.9)
<b>Region 5</b>	1,480	5.0	(3.7-6.6)
Branch-Hillsdale-St. Joseph	433	5.7	(3.5-9.1)
Calhoun	365	6.8	(3.8-12.0)
Kalamazoo	659	3.5	(2.4-5.2)
<b>Region 6</b>	665	3.4	(2.2-5.2)
Van Buren-Cass	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Berrien	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 7</b>	3,088	3.0	(2.4-3.7)
Allegan	350	2.9	(1.7-5.0)
Ionia	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Kent	1,624	3.0	(2.2-4.1)
Mid-Michigan <sup>b</sup>	524	3.1	(1.8-5.4)
Ottawa	723	2.4	(1.4-4.1)

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<b>Table 27 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Kidney Disease<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,629</b>	<b>3.5</b>	<b>(3.3-3.8)</b>
<b>Region 8</b>	2,600	3.7	(2.9-4.7)
District #10	1,081	4.0	(2.8-5.5)
Muskegon	1,415	3.8	(2.8-5.1)
<b>Region 9</b>	1,782	3.4	(2.4-4.7)
District #2	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
District #4	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Northwest Michigan	545	1.9	(1.1-3.3)
Benzie-Leelanau	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Grand Traverse	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 10</b>	1,160	3.4	(2.3-5.0)
Bay	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Huron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Saginaw	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Sanilac	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Tuscola	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 11</b>	959	4.1	(2.8-5.8)
Central Michigan	548	3.9	(2.5-6.2)
Midland	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
<b>Region 12</b>	813	4.6	(3.3-6.4)
Luce-Mackinac-Alger-Schoolcraft	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Western Upper Peninsula	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Delta-Menominee	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Chippewa	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Dickinson-Iron	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
Marquette	-- <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>

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

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<b>Table 28: Depression Michigan BRFSS, 2017-2019 Combined</b>			
<b>Geographic Area</b>	<b>Ever Told Depression<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,555</b>	<b>22.7</b>	<b>(22.1-23.3)</b>
<b>Region 1</b>	12,840	21.0	(20.1-21.9)
Livingston	1,536	20.5	(17.7-23.7)
Macomb	1,879	20.2	(18.1-22.5)
Monroe	361	25.1	(20.2-30.8)
Oakland	3,174	18.6	(17.0-20.4)
St. Clair	380	24.5	(19.6-30.2)
Washtenaw	1,465	24.5	(21.6-27.6)
City of Detroit	1,396	21.1	(18.6-23.7)
Wayne exc. Detroit	2,576	22.2	(20.3-24.2)
<b>Region 2</b>	2,152	23.1	(20.9-25.4)
Genesee	1,619	23.7	(21.2-26.5)
Lapeer	249	22.3	(16.8-28.9)
Shiawassee	264	20.7	(14.8-28.3)
<b>Region 3</b>	1,761	24.1	(21.5-27.0)
Jackson	1,402	26.3	(23.5-29.3)
Lenawee	295	22.3	(17.0-28.6)
<b>Region 4</b>	1,746	23.5	(21.2-26.1)
Barry-Eaton	453	21.4	(17.1-26.4)
Mid-Michigan <sup>b</sup>	524	21.0	(17.0-25.5)
Ingham	945	26.1	(22.7-29.7)
<b>Region 5</b>	1,485	27.3	(24.4-30.4)
Branch-Hillsdale-St. Joseph	433	26.5	(21.2-32.5)
Calhoun	370	26.0	(20.3-32.5)
Kalamazoo	660	28.4	(24.3-33.0)
<b>Region 6</b>	668	23.6	(19.8-27.9)
Van Buren-Cass	281	24.3	(18.9-30.7)
Berrien	332	21.9	(16.8-28.0)
<b>Region 7</b>	3,075	24.2	(22.3-26.2)
Allegan	349	26.7	(21.1-33.1)
Ionia	188	30.9	(22.6-40.7)
Kent	1,615	23.7	(21.2-26.3)
Mid-Michigan <sup>b</sup>	524	21.0	(17.0-25.5)
Ottawa	719	22.7	(18.5-27.5)

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<b>Table 28 Cont'd</b>			
<b>Geographic Area</b>	<b>Ever Told Depression<sup>a</sup></b>		
	<b>N</b>	<b>%</b>	<b>95% Confidence Interval</b>
<b>Michigan Total</b>	<b>31,555</b>	<b>22.7</b>	<b>(22.1-23.3)</b>
<b>Region 8</b>	2,595	28.3	(25.7-30.9)
District #10	1,081	26.9	(23.3-30.8)
Muskegon	1,410	31.7	(28.3-35.3)
<b>Region 9</b>	1,779	23.8	(21.3-26.5)
District #2	210	21.5	(15.5-28.9)
District #4	263	19.5	(14.0-26.4)
Northwest Michigan	544	25.8	(21.2-31.0)
Benzie-Leelanau	255	20.8	(15.5-27.4)
Grand Traverse	450	28.6	(23.4-34.4)
<b>Region 10</b>	1,157	24.4	(21.2-27.8)
Bay	258	32.9	(25.0-41.9)
Huron	115	11.6	(6.7-19.3)
Saginaw	468	23.6	(19.1-28.7)
Sanilac	150	22.4	(15.4-31.2)
Tuscola	153	20.5	(14.3-28.4)
<b>Region 11</b>	958	21.8	(18.6-25.3)
Central Michigan	550	23.9	(19.7-28.7)
Midland	228	16.8	(11.8-23.5)
<b>Region 12</b>	807	22.4	(19.2-26.1)
Luce-Mackinac-Alger-Schoolcraft	103	27.3	(17.4-40.1)
Western Upper Peninsula	192	16.8	(11.7-23.6)
Delta-Menominee	143	20.9	(14.4-29.2)
Chippewa	114	25.5	(16.8-36.7)
Dickinson-Iron	67	27.0	(15.9-42.0)
Marquette	154	27.5	(20.0-36.5)

<sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression.

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