

**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)**

2013 - 2015

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/brfs) [http://www.michigan.gov/brfs]). However, region-specific and local health department-specific prevalence rates are usually computed using BRFSS data combined across years.

For this report, data from the 2013-2015 Michigan BRFSS were combined. The total sample sizes by year were: 8,935 in 2015, 8,466 in 2014, and 12,759 in 2013. Not all questions were included annually in the survey. The table subtitles indicate which years were used for that particular analysis.

For the 2013 through 2015 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.

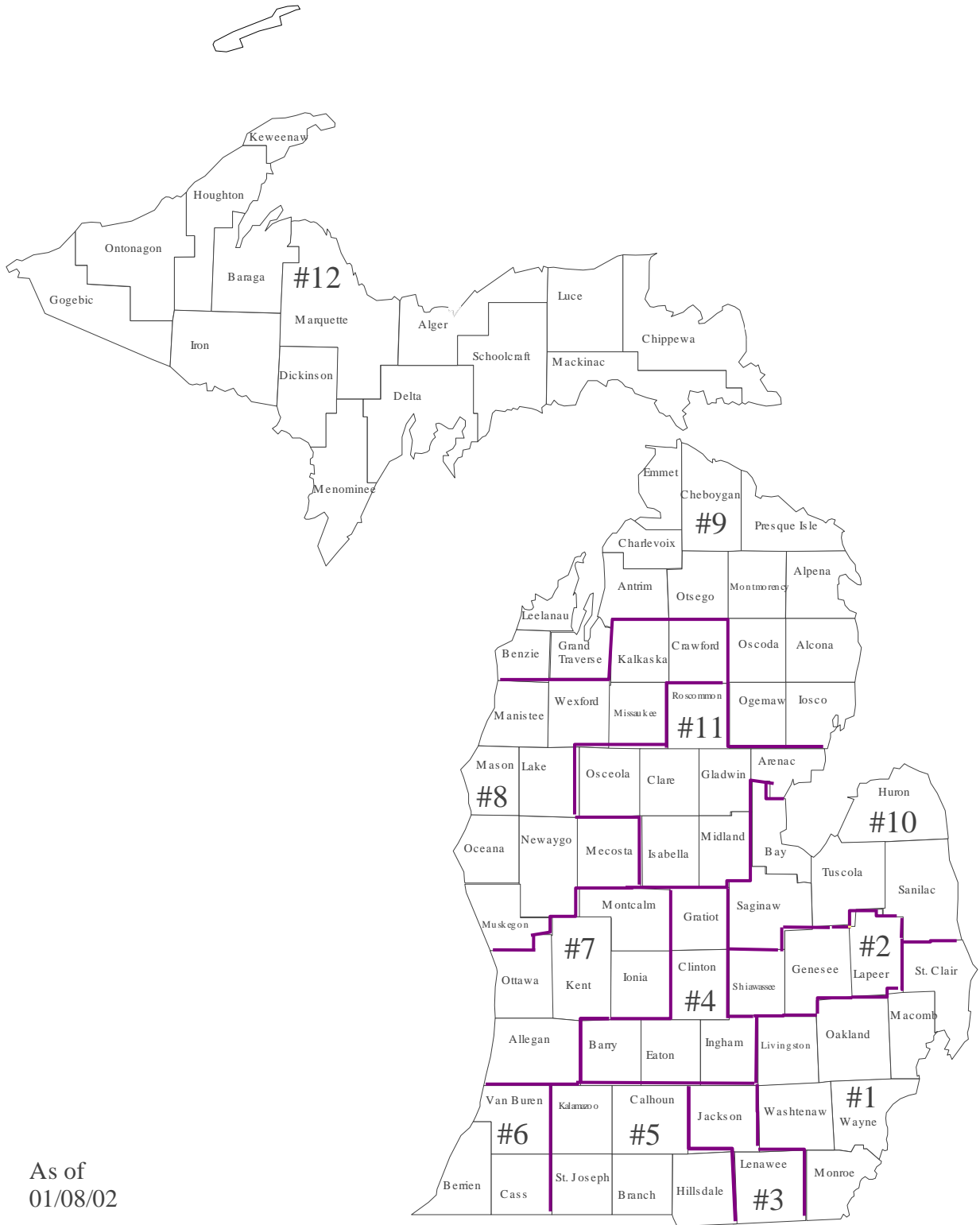
Iterative proportional fitting or raking was the weighting methodology used to make the 2013-2015 Michigan BRFSS data representative of the current Michigan adult population. Estimates based on this methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of Michigan adults by telephone source (land line vs. cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status. No additional weighting factors were computed at the regional or local health department (LHD) level, thus the weights used might not always provide accurate regional and/or LHD estimates, particularly when regional and/or LHD demographic distributions vary greatly from that of the state.

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

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

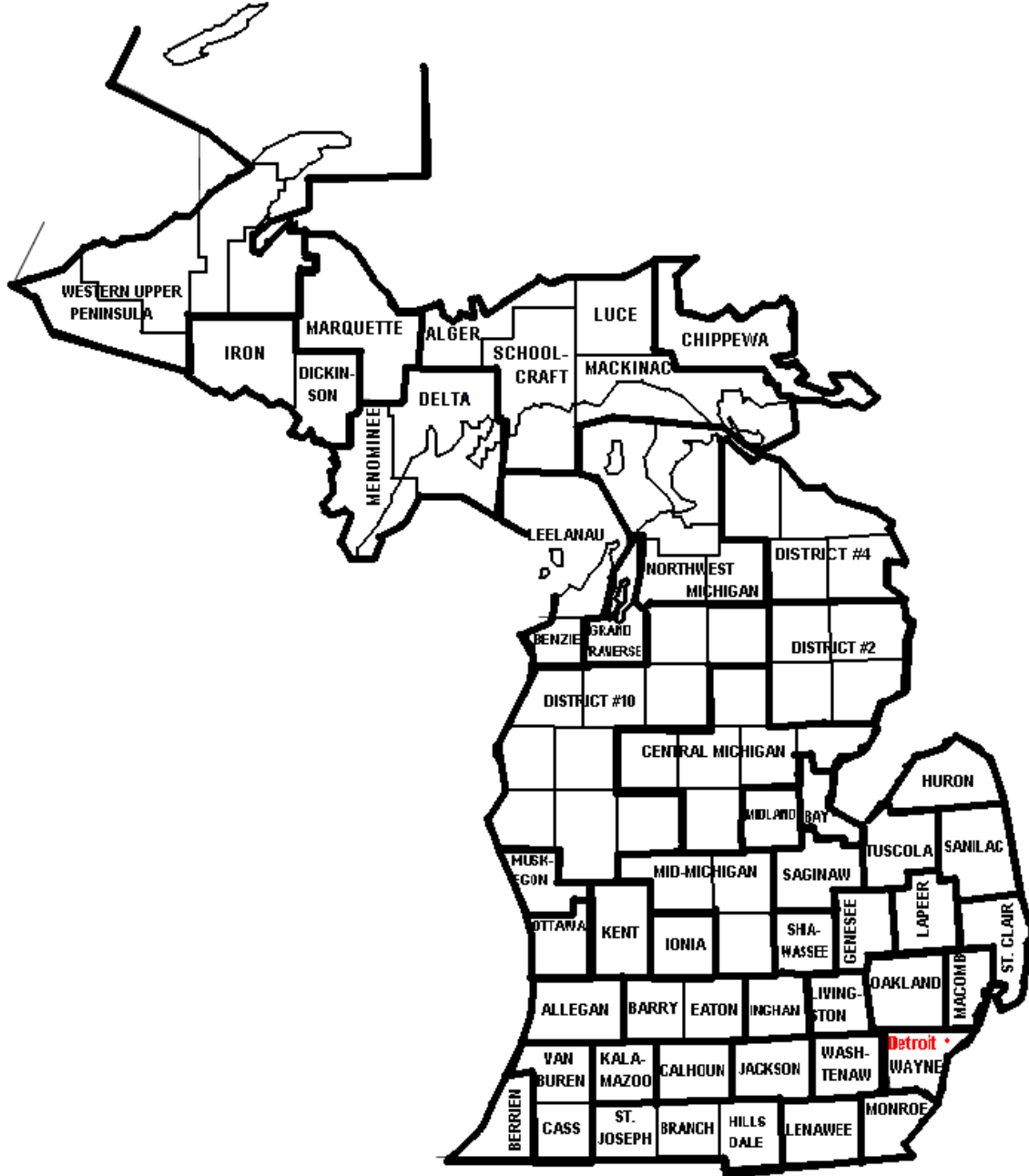
If you have any questions regarding any of the estimates within the following tables, please contact Chris Fussman at FussmanC@michigan.gov.

Community Health Assessment and Improvement Regions State of Michigan



As of
01/08/02

Local Health Departments State of Michigan



2013-2015 Michigan BRFSS Regional & Local Health Department Estimates
September 16, 2016

Table 1: Health Status Michigan BRFSS, 2013-2015 Combined			
Geographic Area	General Health, Fair or Poor^a		
	N	%	95% Confidence Interval
Michigan Total	30,119	17.4	(16.8-18.0)
Region 1	12,146	17.9	(17.0-18.8)
Livingston	515	9.7	(7.1-13.1)
Macomb	2,083	19.3	(17.2-21.6)
Monroe	381	19.8	(14.7-26.0)
Oakland	3,102	13.3	(11.8-15.0)
St. Clair	413	16.2	(12.4-20.9)
Washtenaw	986	13.6	(11.0-16.7)
City of Detroit	1,406	29.7	(26.7-33.0)
Wayne exc. Detroit	2,929	18.0	(16.3-19.9)
Region 2	1,594	17.6	(15.4-20.0)
Genesee	1,149	18.0	(15.4-20.9)
Lapeer	227	16.2	(11.4-22.6)
Shiawassee	212	17.5	(12.0-24.6)
Region 3	752	18.0	(14.7-21.8)
Jackson	468	16.7	(12.7-21.6)
Lenawee	281	20.2	(14.8-26.8)
Region 4	1,836	14.0	(12.2-16.1)
Barry-Eaton	570	16.4	(13.0-20.5)
Mid-Michigan ^b	566	16.5	(12.4-21.6)
Ingham	904	12.9	(10.5-15.7)
Region 5	1,665	18.8	(16.5-21.3)
Branch-Hillsdale-St. Joseph	475	22.4	(17.8-27.7)
Calhoun	405	19.6	(15.1-25.0)
Kalamazoo	778	16.1	(13.2-19.5)
Region 6	890	19.6	(16.4-23.3)
Van Buren-Cass	369	24.1	(18.7-30.6)
Berrien	510	16.9	(13.2-21.5)
Region 7	3,434	14.1	(12.5-15.9)
Allegan	348	15.9	(11.3-22.0)
Ionia	189	16.3	(10.2-25.0)
Kent	1,881	14.2	(12.1-16.6)
Mid-Michigan ^b	566	16.5	(12.4-21.6)
Ottawa	784	9.9	(7.7-12.7)

2013-2015 Michigan BRFSS Regional & Local Health Department Estimates
September 16, 2016

Table 1 Cont'd			
Geographic Area	General Health, Fair or Poor^a		
	N	%	95% Confidence Interval
Michigan Total	30,119	17.4	(16.8-18.0)
Region 8	1,513	18.6	(16.1-21.4)
District #10	957	18.2	(15.1-21.8)
Muskegon	518	19.7	(15.5-24.6)
Region 9	1,774	18.9	(16.5-21.5)
District #2	312	22.1	(16.3-29.4)
District #4	374	27.9	(22.3-34.3)
Northwest Michigan	488	17.0	(12.8-22.2)
Benzie-Leelanau	202	12.9	(7.8-20.7)
Grand Traverse	393	11.3	(8.3-15.2)
Region 10	1,195	16.6	(14.0-19.6)
Bay	273	17.2	(11.9-24.2)
Huron	101	18.0	(11.4-27.1)
Saginaw	501	17.2	(13.0-22.5)
Sanilac	131	11.0	(6.4-18.2)
Tuscola	173	16.2	(10.9-23.3)
Region 11	987	19.1	(16.2-22.4)
Central Michigan	645	20.1	(16.5-24.1)
Midland	313	18.7	(13.4-25.5)
Region 12	1,917	17.3	(14.8-20.2)
Luce-Mackinac-Alger-Schoolcraft	361	18.3	(11.9-27.0)
Western Upper Peninsula	376	12.3	(8.9-16.7)
Delta-Menominee	274	19.5	(13.3-27.7)
Chippewa	366	18.3	(11.9-27.0)
Dickinson-Iron	196	20.0	(12.6-30.2)
Marquette	344	18.4	(13.2-25.0)

^a The proportion of adults who reported that their health, in general, was either fair or poor.

^b 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 2: Poor Physical Health on at Least 14 Days in the Past Month Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Poor Physical Health^a		
	N	%	95% Confidence Interval
Michigan Total	29,730	12.8	(12.3-13.3)
Region 1	11,996	12.5	(11.8-13.3)
Livingston	510	11.8	(8.7-15.8)
Macomb	2,059	12.7	(11.1-14.5)
Monroe	374	15.5	(10.6-22.1)
Oakland	3,070	9.3	(8.1-10.7)
St. Clair	410	13.1	(9.8-17.3)
Washtenaw	979	11.1	(8.7-14.0)
City of Detroit	1,378	18.2	(15.7-21.0)
Wayne exc. Detroit	2,889	13.4	(11.8-15.1)
Region 2	1,576	14.4	(12.4-16.7)
Genesee	1,135	14.5	(12.1-17.3)
Lapeer	224	13.2	(8.9-19.3)
Shiawassee	211	15.5	(10.6-22.2)
Region 3	738	13.8	(10.9-17.4)
Jackson	460	14.7	(10.9-19.7)
Lenawee	275	12.6	(8.6-18.0)
Region 4	1,814	10.7	(9.1-12.5)
Barry-Eaton	563	11.3	(8.5-14.8)
Mid-Michigan ^b	562	9.8	(7.0-13.5)
Ingham	892	11.3	(9.0-14.1)
Region 5	1,634	13.1	(11.1-15.3)
Branch-Hillsdale-St. Joseph	467	15.3	(11.5-20.0)
Calhoun	394	13.8	(10.0-18.7)
Kalamazoo	766	11.3	(8.9-14.3)
Region 6	884	14.8	(12.0-18.1)
Van Buren-Cass	366	15.5	(11.3-20.9)
Berrien	507	14.5	(10.9-19.0)
Region 7	3,389	10.7	(9.5-12.1)
Allegan	344	10.9	(7.7-15.3)
Ionia	186	9.6	(5.9-15.2)
Kent	1,853	11.8	(10.0-13.8)
Mid-Michigan ^b	562	9.8	(7.0-13.5)
Ottawa	775	7.5	(5.7-9.8)

2013-2015 Michigan BRFSS Regional & Local Health Department Estimates
September 16, 2016

Table 2 Cont'd			
Geographic Area	Poor Physical Health^a		
	N	%	95% Confidence Interval
Michigan Total	29,730	12.8	(12.3-13.3)
Region 8	1,495	15.2	(13.0-17.8)
District #10	947	14.9	(12.2-18.1)
Muskegon	510	16.8	(13.0-21.4)
Region 9	1,758	11.7	(9.9-13.7)
District #2	311	14.2	(10.0-19.8)
District #4	371	16.8	(12.3-22.5)
Northwest Michigan	480	10.4	(7.4-14.4)
Benzie-Leelanau	201	7.5	(4.3-12.7)
Grand Traverse	390	7.9	(5.4-11.3)
Region 10	1,174	14.0	(11.5-17.0)
Bay	271	14.2	(9.3-21.0)
Huron	97	9.6	(5.3-16.8)
Saginaw	492	12.9	(9.1-18.1)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	171	19.5	(13.6-27.2)
Region 11	979	15.7	(12.9-19.1)
Central Michigan	636	16.8	(13.3-21.1)
Midland	314	15.4	(10.7-21.8)
Region 12	1,888	13.6	(11.2-16.3)
Luce-Mackinac-Alger-Schoolcraft	359	9.4	(6.1-14.4)
Western Upper Peninsula	366	9.5	(5.9-14.9)
Delta-Menominee	269	19.0	(12.2-28.6)
Chippewa	364	14.6	(9.1-22.6)
Dickinson-Iron	193	14.7	(9.4-22.3)
Marquette	337	14.9	(9.9-21.8)

^a 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.

^b 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.

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

2013-2015 Michigan BRFSS Regional & Local Health Department Estimates
September 16, 2016

Table 3: Poor Mental Health on at Least 14 Days in the Past Month Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Poor Mental Health^a		
	N	%	95% Confidence Interval
Michigan Total	29,771	12.2	(11.7-12.8)
Region 1		12.7	(11.9-13.5)
Livingston	12,006	12.1	(8.3-17.4)
Macomb	513	11.3	(9.7-13.2)
Monroe	2,061	14.6	(9.4-21.9)
Oakland	373	10.6	(9.2-12.2)
St. Clair	3,067	11.3	(7.9-16.1)
Washtenaw	408	13.6	(10.9-16.8)
City of Detroit	976	17.8	(15.3-20.6)
Wayne exc. Detroit	1,387	12.9	(11.3-14.7)
Region 2	1,583	13.1	(11.1-15.4)
Genesee	1,141	13.9	(11.5-16.7)
Lapeer	223	13.1	(8.4-20.1)
Shiawassee	213	9.1	(5.5-14.6)
Region 3	745	11.5	(8.6-15.2)
Jackson	462	13.1	(9.0-18.6)
Lenawee	280	8.7	(5.4-13.7)
Region 4	1,820	11.3	(9.4-13.5)
Barry-Eaton	562	11.1	(8.0-15.2)
Mid-Michigan ^b	562	9.2	(6.1-13.6)
Ingham	899	12.2	(9.5-15.4)
Region 5	1,639	12.6	(10.6-14.9)
Branch-Hillsdale-St. Joseph	469	14.8	(11.0-19.6)
Calhoun	400	14.4	(10.1-20.1)
Kalamazoo	763	10.3	(7.8-13.3)
Region 6	874	12.6	(9.8-16.0)
Van Buren-Cass	363	14.1	(9.6-20.2)
Berrien	500	11.9	(8.7-16.2)
Region 7	3,404	11.3	(9.9-13.0)
Allegan	346	13.3	(9.2-18.8)
Ionia	186	7.9	(4.4-13.6)
Kent	1,865	11.2	(9.2-13.5)
Mid-Michigan ^b	562	9.2	(6.1-13.6)
Ottawa	776	12.8	(9.8-16.7)

2013-2015 Michigan BRFSS Regional & Local Health Department Estimates
September 16, 2016

Table 3 Cont'd			
Geographic Area	Poor Mental Health^a		
	N	%	95% Confidence Interval
Michigan Total	29,771	12.2	(11.7-12.8)
Region 8	1,497	14.3	(11.9-17.2)
District #10	950	14.5	(11.4-18.2)
Muskegon	509	14.5	(10.4-19.8)
Region 9	1,755	10.1	(8.5-12.0)
District #2	308	10.8	(7.1-16.1)
District #4	368	11.4	(7.9-16.3)
Northwest Michigan	485	11.4	(8.3-15.5)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	386	9.2	(6.2-13.4)
Region 10	1,178	12.4	(9.9-15.5)
Bay	270	12.8	(8.3-19.2)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	493	15.4	(11.0-21.2)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	170	10.8	(6.5-17.5)
Region 11	976	9.8	(7.7-12.4)
Central Michigan	637	10.4	(7.7-13.7)
Midland	310	8.8	(5.4-14.1)
Region 12	1,885	11.8	(9.4-14.7)
Luce-Mackinac-Alger-Schoolcraft	356	14.4	(7.8-25.0)
Western Upper Peninsula	370	9.1	(5.4-15.0)
Delta-Menominee	271	12.0	(7.2-19.5)
Chippewa	360	8.1	(4.5-14.0)
Dickinson-Iron	191	9.6	(5.6-16.1)
Marquette	337	16.4	(10.3-25.0)

^a 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.

^b 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.

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

Table 4: Activity Limitation on at Least 14 Days in the Past Month Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Activity Limitation^a		
	N	%	95% Confidence Interval
Michigan Total	29,905	8.8	(8.4-9.3)
Region 1	12,052	8.8	(8.1-9.4)
Livingston	512	6.9	(4.8-10.0)
Macomb	2,063	8.1	(6.8-9.7)
Monroe	377	12.9	(8.0-20.1)
Oakland	3,083	7.1	(6.0-8.5)
St. Clair	413	9.2	(6.4-13.0)
Washtenaw	981	6.6	(4.9-8.9)
City of Detroit	1,393	13.5	(11.4-15.9)
Wayne exc. Detroit	2,903	9.0	(7.8-10.4)
Region 2	1,592	11.1	(9.3-13.2)
Genesee	1,147	11.7	(9.5-14.4)
Lapeer	226	6.9	(3.9-12.1)
Shiawassee	213	13.1	(8.5-19.6)
Region 3	743	8.3	(6.1-11.3)
Jackson	462	9.5	(6.4-13.8)
Lenawee	278	6.6	(3.9-11.0)
Region 4	1,822	7.0	(5.6-8.7)
Barry-Eaton	566	6.1	(4.2-8.8)
Mid-Michigan ^b	558	7.6	(4.8-11.8)
Ingham	899	7.7	(5.7-10.3)
Region 5	1,650	9.7	(8.0-11.7)
Branch-Hillsdale-St. Joseph	470	13.3	(9.7-18.0)
Calhoun	402	10.2	(6.9-14.6)
Kalamazoo	771	7.2	(5.2-9.7)
Region 6	882	11.4	(8.9-14.4)
Van Buren-Cass	365	13.2	(9.3-18.4)
Berrien	506	10.4	(7.3-14.6)
Region 7	3,414	7.6	(6.4-9.0)
Allegan	346	6.8	(4.3-10.5)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,872	8.2	(6.5-10.3)
Mid-Michigan ^b	558	7.6	(4.8-11.8)
Ottawa	778	6.3	(4.3-9.2)

2013-2015 Michigan BRFSS Regional & Local Health Department Estimates
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Table 4 Cont'd			
Geographic Area	Activity Limitation^a		
	N	%	95% Confidence Interval
Michigan Total	29,905	8.8	(8.4-9.3)
Region 8	1,506	10.3	(8.4-12.5)
District #10	955	10.6	(8.2-13.7)
Muskegon	513	10.3	(7.5-14.0)
Region 9	1,765	7.8	(6.4-9.5)
District #2	311	9.1	(6.0-13.4)
District #4	371	9.8	(6.4-14.9)
Northwest Michigan	484	7.6	(5.1-11.1)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	391	5.6	(3.4-9.0)
Region 10	1,189	9.9	(7.8-12.4)
Bay	272	12.6	(7.6-20.3)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	498	8.0	(5.6-11.5)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	172	11.9	(7.4-18.6)
Region 11	984	8.8	(6.8-11.5)
Central Michigan	641	9.4	(6.9-12.7)
Midland	314	8.6	(5.0-14.4)
Region 12	1,900	8.0	(6.4-10.0)
Luce-Mackinac-Alger-Schoolcraft	357	6.3	(3.5-11.0)
Western Upper Peninsula	373	3.3	(1.9-5.7)
Delta-Menominee	272	10.7	(6.2-17.8)
Chippewa	364	9.8	(5.5-16.9)
Dickinson-Iron	195	9.2	(5.0-16.2)
Marquette	339	10.5	(6.8-16.0)

^a 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.

^b 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.

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

Table 5: Disability Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Disability^a		
	N	%	95% Confidence Interval
Michigan Total	29,567	25.2	(24.5-25.8)
Region 1	11,929	25.3	(24.4-26.3)
Livingston	511	19.3	(15.2-24.3)
Macomb	2,055	24.0	(21.8-26.3)
Monroe	374	30.3	(24.2-37.2)
Oakland	3,048	22.3	(20.5-24.2)
St. Clair	405	28.3	(23.3-34.0)
Washtenaw	978	23.4	(20.3-26.9)
City of Detroit	1,378	33.2	(30.0-36.5)
Wayne exc. Detroit	2,883	26.6	(24.6-28.7)
Region 2	1,569	26.4	(23.9-29.2)
Genesee	1,130	28.3	(25.2-31.6)
Lapeer	223	20.2	(14.9-26.7)
Shiawassee	210	24.7	(18.3-32.5)
Region 3	746	26.2	(22.4-30.4)
Jackson	463	28.9	(23.8-34.5)
Lenawee	280	22.4	(17.2-28.6)
Region 4	1,808	22.0	(19.8-24.5)
Barry-Eaton	560	22.9	(19.0-27.4)
Mid-Michigan ^b	561	26.5	(21.5-32.2)
Ingham	889	21.0	(18.0-24.5)
Region 5	1,645	24.8	(22.3-27.4)
Branch-Hillsdale-St. Joseph	468	26.5	(21.8-31.8)
Calhoun	401	30.0	(24.6-35.9)
Kalamazoo	769	20.7	(17.7-24.0)
Region 6	874	24.7	(21.4-28.4)
Van Buren-Cass	362	26.3	(20.9-32.4)
Berrien	501	24.2	(19.9-29.1)
Region 7	3,387	22.7	(21.0-24.6)
Allegan	343	18.8	(14.7-23.7)
Ionia	188	20.3	(14.6-27.4)
Kent	1,857	23.2	(20.8-25.8)
Mid-Michigan ^b	561	26.5	(21.5-32.2)
Ottawa	771	21.0	(17.6-24.9)

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Table 5 Cont'd			
Geographic Area	Disability^a		
	N	%	95% Confidence Interval
Michigan Total	29,567	25.2	(24.5-25.8)
Region 8	1,499	27.8	(25.0-30.7)
District #10	946	27.6	(24.2-31.4)
Muskegon	515	29.2	(24.5-34.4)
Region 9	1,754	26.5	(23.9-29.3)
District #2	306	29.4	(23.1-36.6)
District #4	371	34.4	(28.5-40.8)
Northwest Michigan	483	23.0	(18.7-28.0)
Benzie-Leelanau	199	23.2	(16.1-32.3)
Grand Traverse	390	20.7	(16.0-26.3)
Region 10	1,183	27.6	(24.4-30.9)
Bay	272	32.4	(25.6-40.1)
Huron	101	16.4	(10.7-24.3)
Saginaw	495	28.0	(23.1-33.5)
Sanilac	129	23.4	(15.0-34.6)
Tuscola	170	26.9	(20.0-35.1)
Region 11	965	26.3	(22.9-30.0)
Central Michigan	631	28.4	(24.1-33.2)
Midland	307	23.8	(18.2-30.6)
Region 12	1,892	27.0	(23.9-30.2)
Luce-Mackinac-Alger-Schoolcraft	359	26.9	(19.4-36.1)
Western Upper Peninsula	370	23.4	(17.5-30.7)
Delta-Menominee	273	28.5	(21.6-36.5)
Chippewa	361	27.7	(20.0-37.1)
Dickinson-Iron	192	25.0	(17.5-34.3)
Marquette	337	30.3	(23.5-38.0)

^a 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.

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

Table 6: Weight Status
Michigan BRFSS, 2013-2015 Combined

Geographic Area	Sample Size	Obese ^a		Overweight ^b		Healthy Weight ^c	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	28,530	31.1	(30.4-31.8)	34.9	(34.2-35.6)	32.4	(31.6-33.1)
Region 1	11,545	30.0	(29.0-31.1)	35.0	(33.9-36.1)	33.5	(32.3-34.6)
Livingston	492	26.3	(21.8-31.4)	36.7	(31.1-42.6)	36.0	(30.4-41.9)
Macomb	2,002	32.4	(29.8-35.1)	34.9	(32.3-37.6)	30.7	(28.2-33.4)
Monroe	368	33.9	(27.8-40.6)	40.1	(33.7-46.8)	25.2	(19.8-31.5)
Oakland	2,963	27.3	(25.3-29.5)	35.8	(33.7-38.0)	35.8	(33.6-38.0)
St. Clair	389	33.8	(28.0-40.1)	35.2	(29.2-41.8)	29.9	(24.3-36.2)
Washtenaw	946	24.3	(20.8-28.1)	35.6	(31.8-39.6)	38.9	(35.0-42.9)
City of Detroit	1,337	36.8	(33.4-40.2)	33.5	(30.2-36.9)	28.2	(25.0-31.7)
Wayne exc. Detroit	2,765	29.7	(27.6-31.9)	34.1	(31.9-36.4)	34.3	(32.0-36.7)
Region 2	1,529	31.9	(29.1-34.8)	36.8	(33.8-39.9)	29.9	(27.1-32.8)
Genesee	1,099	31.5	(28.1-35.0)	37.1	(33.6-40.8)	30.0	(26.7-33.4)
Lapeer	218	32.5	(25.7-40.1)	33.6	(26.6-41.4)	31.3	(24.1-39.6)
Shiawassee	206	33.9	(26.5-42.2)	37.4	(29.6-46.0)	28.5	(21.5-36.8)
Region 3	712	35.4	(31.0-40.0)	33.6	(29.4-38.2)	29.0	(24.7-33.6)
Jackson	444	35.8	(30.3-41.7)	29.0	(24.1-34.4)	32.5	(26.8-38.7)
Lenawee	265	34.8	(27.9-42.4)	40.7	(33.3-48.6)	23.6	(17.7-30.6)
Region 4	1,750	32.0	(29.3-34.9)	32.0	(29.3-34.8)	34.5	(31.6-37.6)
Barry-Eaton	548	37.5	(32.5-42.8)	31.8	(27.2-36.8)	30.2	(25.2-35.8)
Mid-Michigan ^d	531	35.7	(30.2-41.5)	34.5	(29.2-40.2)	28.6	(23.2-34.8)
Ingham	860	28.0	(24.3-32.0)	31.1	(27.2-35.1)	38.8	(34.6-43.2)
Region 5	1,588	33.4	(30.5-36.5)	32.9	(30.0-36.0)	31.8	(28.8-34.9)
Branch-Hillsdale-St. Joseph	451	34.9	(29.4-40.9)	37.7	(32.0-43.7)	26.1	(21.5-31.4)
Calhoun	386	33.9	(28.0-40.3)	29.4	(24.1-35.4)	34.1	(27.9-40.9)
Kalamazoo	744	32.1	(28.0-36.5)	31.9	(27.9-36.3)	34.0	(29.6-38.8)
Region 6	854	33.4	(29.4-37.6)	33.9	(29.9-38.2)	31.2	(27.2-35.4)
Van Buren-Cass	350	32.3	(26.2-39.1)	35.3	(29.1-42.1)	31.0	(24.7-38.0)
Berrien	494	34.4	(29.2-40.0)	32.8	(27.5-38.5)	31.1	(26.2-36.5)
Region 7	3,257	29.3	(27.3-31.4)	35.6	(33.5-37.8)	33.1	(31.0-35.3)
Allegan	328	31.4	(25.2-38.3)	36.8	(30.4-43.7)	28.0	(22.4-34.4)
Ionia	179	40.8	(32.2-50.1)	32.3	(24.7-40.9)	26.5	(18.8-36.0)
Kent	1,791	27.8	(25.3-30.6)	35.8	(32.9-38.7)	34.7	(31.8-37.6)
Mid-Michigan ^d	531	35.7	(30.2-41.5)	34.5	(29.2-40.2)	28.6	(23.2-34.8)
Ottawa	744	26.8	(23.1-30.9)	36.3	(32.0-40.9)	34.5	(30.2-39.1)

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Table 6 Cont'd

Geographic Area	Sample Size	Obese ^a		Overweight ^b		Healthy Weight ^c	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	28,530	31.1	(30.4-31.8)	34.9	(34.2-35.6)	32.4	(31.6-33.1)
Region 8	1,449	33.0	(30.0-36.1)	35.0	(31.8-38.3)	31.4	(28.2-34.8)
District #10	920	33.1	(29.3-37.1)	36.4	(32.4-40.7)	30.0	(26.0-34.3)
Muskegon	494	34.0	(28.9-39.6)	33.2	(28.1-38.6)	31.6	(26.2-37.6)
Region 9	1,693	31.4	(28.5-34.4)	37.6	(34.5-40.8)	30.1	(27.2-33.2)
District #2	305	35.4	(28.5-43.0)	36.9	(29.1-45.5)	27.2	(20.7-34.9)
District #4	356	35.7	(29.5-42.5)	35.9	(29.8-42.6)	26.2	(20.8-32.5)
Northwest Michigan	463	29.9	(24.8-35.7)	35.4	(29.8-41.4)	33.9	(28.3-40.1)
Benzie-Leelanau	191	28.9	(21.4-37.9)	35.4	(27.5-44.2)	34.8	(26.4-44.3)
Grand Traverse	374	24.6	(19.6-30.5)	43.6	(37.1-50.4)	31.2	(25.3-37.8)
Region 10	1,128	36.6	(33.1-40.2)	37.0	(33.4-40.7)	24.8	(21.8-28.1)
Bay	261	35.1	(28.3-42.6)	42.2	(34.4-50.4)	19.8	(14.6-26.3)
Huron	98	24.0	(15.7-34.7)	40.7	(29.7-52.7)	35.4	(24.9-47.4)
Saginaw	469	41.7	(36.0-47.6)	31.4	(26.3-37.0)	25.6	(20.9-31.0)
Sanilac	121	31.6	(21.4-43.9)	38.4	(28.5-49.4)	29.3	(20.5-40.0)
Tuscola	164	32.8	(24.9-41.9)	42.9	(33.6-52.7)	22.3	(15.3-31.4)
Region 11	941	32.5	(28.9-36.4)	34.7	(30.9-38.8)	29.8	(26.0-34.0)
Central Michigan	617	34.4	(29.9-39.3)	34.7	(30.1-39.6)	28.7	(24.0-33.9)
Midland	300	30.0	(24.0-36.9)	35.0	(27.9-42.8)	33.5	(26.5-41.3)
Region 12	1,827	31.2	(27.8-34.8)	33.3	(30.0-36.7)	33.9	(30.3-37.6)
Luce-Mackinac-Alger-Schoolcraft	347	25.9	(18.0-35.8)	37.1	(28.1-47.1)	33.6	(25.2-43.2)
Western Upper Peninsula	357	31.9	(25.5-39.2)	30.5	(24.3-37.4)	37.2	(29.8-45.3)
Delta-Menominee	259	30.5	(23.6-38.3)	34.5	(26.7-43.2)	32.5	(24.9-41.2)
Chippewa	344	36.9	(27.5-47.4)	32.2	(23.3-42.5)	29.9	(18.7-44.3)
Dickinson-Iron	186	21.9	(15.0-30.8)	39.2	(29.9-49.2)	38.5	(28.8-49.3)
Marquette	334	36.5	(28.0-45.9)	30.1	(23.6-37.4)	31.3	(24.4-39.1)

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

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

^b The proportion of adults whose BMI was greater than or equal to 25.0, but less than 30.0.

^c The proportion of adults whose BMI was greater than or equal to 18.5, but less than 25.0.

^d 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 7: No Health Care Coverage Among Those Aged 18-64 Years Michigan BRFSS, 2013-2015 Combined			
Geographic Area	No Health Care Coverage^a		
	N	%	95% Confidence Interval
Michigan Total	19,823	14.0	(13.4-14.7)
Region 1	8,135	14.1	(13.1-15.2)
Livingston	362	8.1	(5.2-12.4)
Macomb	1,356	14.8	(12.4-17.5)
Monroe	233	13.0	(7.6-21.5)
Oakland	2,020	11.2	(9.4-13.3)
St. Clair	270	13.8	(9.3-20.0)
Washtenaw	709	11.1	(8.2-14.9)
City of Detroit	985	21.8	(18.7-25.4)
Wayne exc. Detroit	1,917	14.1	(12.1-16.3)
Region 2	1,068	13.0	(10.6-15.9)
Genesee	755	13.8	(10.8-17.4)
Lapeer	159	11.3	(6.5-19.1)
Shiawassee	-- ^c	-- ^c	-- ^c
Region 3	490	10.4	(7.3-14.5)
Jackson	313	9.9	(6.6-14.7)
Lenawee	-- ^c	-- ^c	-- ^c
Region 4	1,197	12.5	(10.2-15.2)
Barry-Eaton	348	10.7	(6.9-16.3)
Mid-Michigan ^b	358	19.0	(12.7-27.5)
Ingham	619	13.1	(10.1-16.9)
Region 5	1,065	11.8	(9.6-14.5)
Branch-Hillsdale-St. Joseph	299	15.8	(11.1-21.9)
Calhoun	246	10.8	(7.1-16.1)
Kalamazoo	516	9.8	(7.1-13.6)
Region 6	563	14.0	(10.6-18.4)
Van Buren-Cass	229	12.8	(8.2-19.3)
Berrien	324	15.8	(10.9-22.2)
Region 7	2,375	14.3	(12.3-16.5)
Allegan	245	17.1	(11.2-25.1)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,325	13.9	(11.5-16.7)
Mid-Michigan ^b	358	19.0	(12.7-27.5)
Ottawa	528	11.5	(8.3-15.7)

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Table 7 Cont'd			
Geographic Area	No Health Care Coverage^a		
	N	%	95% Confidence Interval
Michigan Total	19,823	14.0	(13.4-14.7)
Region 8	979	14.5	(11.7-17.8)
District #10	594	16.1	(12.4-20.6)
Muskegon	351	12.9	(8.9-18.4)
Region 9	1,132	18.1	(15.2-21.3)
District #2	175	20.3	(12.9-30.4)
District #4	238	19.3	(13.7-26.5)
Northwest Michigan	309	14.8	(10.5-20.3)
Benzie-Leelanau	117	21.3	(13.9-31.1)
Grand Traverse	288	18.6	(12.9-25.9)
Region 10	780	15.9	(12.8-19.6)
Bay	180	18.4	(12.2-26.7)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	329	14.3	(9.7-20.6)
Sanilac	80	19.2	(10.4-32.8)
Tuscola	119	14.5	(8.4-23.8)
Region 11	602	15.0	(11.5-19.3)
Central Michigan	381	14.3	(10.4-19.3)
Midland	195	16.3	(9.8-25.8)
Region 12	1,191	14.4	(11.5-17.8)
Luce-Mackinac-Alger-Schoolcraft	208	12.3	(7.0-20.7)
Western Upper Peninsula	237	23.3	(15.9-32.9)
Delta-Menominee	187	15.6	(9.8-24.1)
Chippewa	-- ^c	-- ^c	-- ^c
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	221	7.2	(4.4-11.5)

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

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Table 8: Health Care Access Michigan BRFSS, 2013-2015 Combined						
Geographic Area	No Personal Health Care Provider^a			No Health Care Access During Past 12 Months Due to Cost^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	30,020	15.9	(15.4-16.6)	30,099	14.2	(13.7-14.8)
Region 1	12,104	15.9	(15.0-16.8)	12,136	14.5	(13.6-15.4)
Livingston	510	13.2	(9.5-18.1)	515	10.6	(7.0-15.8)
Macomb	2,077	13.0	(11.0-15.2)	2,081	14.0	(12.1-16.2)
Monroe	378	14.4	(9.7-21.0)	380	17.7	(12.1-25.2)
Oakland	3,090	13.3	(11.7-15.0)	3,101	11.6	(10.1-13.3)
St. Clair	413	11.8	(7.9-17.2)	414	14.6	(10.6-19.6)
Washtenaw	984	16.9	(13.7-20.6)	984	11.3	(8.8-14.3)
City of Detroit	1,406	23.7	(20.7-27.0)	1,405	24.5	(21.4-27.8)
Wayne exc. Detroit	2,916	14.9	(13.1-16.8)	2,925	13.3	(11.7-15.1)
Region 2	1,596	16.7	(14.3-19.6)	1,598	15.3	(13.1-17.9)
Genesee	1,150	17.8	(14.8-21.4)	1,151	15.2	(12.6-18.2)
Lapeer	226	14.6	(9.8-21.1)	227	16.9	(11.2-24.8)
Shiawassee	214	13.3	(8.1-21.0)	214	14.8	(9.1-23.1)
Region 3	748	14.2	(11.0-18.1)	751	12.6	(9.7-16.2)
Jackson	465	13.6	(9.6-19.0)	469	12.5	(8.9-17.2)
Lenawee	280	14.8	(10.1-21.1)	279	12.8	(8.3-19.3)
Region 4	1,835	16.5	(14.2-19.1)	1,835	12.7	(10.7-15.0)
Barry-Eaton	569	12.2	(8.8-16.7)	570	14.9	(11.0-19.7)
Mid-Michigan ^c	566	11.9	(7.9-17.5)	565	16.3	(11.8-22.0)
Ingham	904	21.1	(17.6-25.1)	904	11.2	(8.8-14.2)
Region 5	1,652	20.1	(17.4-23.1)	1,663	13.9	(11.8-16.2)
Branch-Hillsdale-St. Joseph	473	20.8	(15.9-26.6)	475	13.3	(9.5-18.3)
Calhoun	403	20.6	(15.3-27.3)	405	13.2	(9.7-17.8)
Kalamazoo	770	19.1	(15.4-23.5)	776	14.4	(11.5-18.0)
Region 6	886	18.6	(15.3-22.5)	892	15.9	(12.8-19.6)
Van Buren-Cass	368	17.2	(12.6-23.1)	369	17.5	(12.5-23.9)
Berrien	507	18.9	(14.5-24.3)	512	15.0	(11.3-19.8)

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Table 8 Cont'd						
Geographic Area	No Personal Health Care Provider ^a			No Health Care Access During Past 12 Months Due to Cost ^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	30,020	15.9	(15.4-16.6)	30,099	14.2	(13.7-14.8)
Region 7	3,428	13.3	(11.6-15.2)	3,432	14.7	(13.1-16.5)
Allegan	347	17.4	(11.9-24.6)	347	12.1	(8.7-16.6)
Ionia	190	13.2	(7.8-21.3)	-- ^d	-- ^d	-- ^d
Kent	1,876	13.7	(11.5-16.3)	1,880	16.2	(13.9-18.7)
Mid-Michigan ^c	566	11.9	(7.9-17.5)	565	16.3	(11.8-22.0)
Ottawa	783	9.6	(7.1-12.9)	783	12.0	(9.2-15.6)
Region 8	1,510	15.4	(12.9-18.3)	1,513	15.7	(13.2-18.6)
District #10	955	17.3	(14.0-21.3)	958	18.2	(14.7-22.2)
Muskegon	517	9.9	(6.8-14.3)	517	12.7	(9.3-17.3)
Region 9	1,771	15.1	(12.8-17.7)	1,772	13.1	(11.2-15.3)
District #2	312	17.9	(12.5-24.9)	313	12.4	(8.4-17.9)
District #4	373	20.8	(15.4-27.5)	374	18.8	(14.0-24.7)
Northwest Michigan	488	11.8	(8.5-16.1)	487	13.3	(9.6-18.1)
Benzie-Leelanau	202	7.4	(3.5-15.1)	201	10.3	(6.4-16.3)
Grand Traverse	391	14.2	(9.8-20.1)	392	9.6	(6.7-13.6)
Region 10	1,190	14.1	(11.7-17.0)	1,191	11.5	(9.3-14.1)
Bay	271	14.5	(9.8-21.0)	272	9.0	(5.8-13.7)
Huron	-- ^d	-- ^d	-- ^d	101	6.9	(3.2-14.5)
Saginaw	499	16.0	(12.0-21.2)	499	13.0	(9.5-17.5)
Sanilac	130	13.3	(7.3-22.9)	-- ^d	-- ^d	-- ^d
Tuscola	173	8.8	(5.0-15.0)	172	9.3	(5.5-15.3)
Region 11	983	20.5	(17.1-24.4)	987	18.1	(15.0-21.8)
Central Michigan	642	20.9	(16.8-25.7)	644	20.2	(16.1-25.0)
Midland	312	20.2	(14.2-27.8)	314	13.2	(8.8-19.3)
Region 12	1,910	13.0	(10.8-15.6)	1,912	10.6	(8.6-13.0)
Luce-Mackinac-Alger-Schoolcraft	359	17.0	(10.1-27.2)	361	12.4	(8.0-18.5)
Western Upper Peninsula	376	14.1	(9.9-19.6)	376	12.2	(7.3-19.8)
Delta-Menominee	273	15.4	(10.1-22.8)	273	10.4	(6.2-16.8)
Chippewa	364	13.8	(8.7-21.1)	365	11.1	(7.0-17.0)
Dickinson-Iron	-- ^d	-- ^d	-- ^d	194	8.7	(5.3-14.0)
Marquette	343	10.5	(6.9-15.6)	343	12.4	(8.0-18.5)

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

^b 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.

^c 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.

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

Table 9: No Leisure Time Physical Activity Michigan BRFSS, 2013-2015 Combined			
Geographic Area	No Leisure Time Physical Activity^a		
	N	%	95% Confidence Interval
Michigan Total	29,060	25.1	(24.5-25.8)
Region 1	11,693	24.8	(23.8-25.9)
Livingston	508	20.7	(16.5-25.6)
Macomb	2,005	25.7	(23.4-28.2)
Monroe	370	32.4	(26.0-39.4)
Oakland	3,002	21.3	(19.4-23.3)
St. Clair	397	25.3	(20.5-30.8)
Washtenaw	951	16.4	(13.6-19.8)
City of Detroit	1,323	35.5	(32.1-39.0)
Wayne exc. Detroit	2,826	24.3	(22.3-26.4)
Region 2	1,532	28.8	(26.0-31.8)
Genesee	1,102	30.8	(27.3-34.5)
Lapeer	219	23.0	(17.3-30.0)
Shiawassee	205	26.1	(19.4-34.1)
Region 3	734	26.7	(22.7-31.1)
Jackson	453	27.9	(22.7-33.9)
Lenawee	279	25.0	(19.2-31.9)
Region 4	1,788	23.0	(20.6-25.6)
Barry-Eaton	551	24.7	(20.4-29.5)
Mid-Michigan ^b	556	20.3	(16.3-25.0)
Ingham	882	23.5	(20.0-27.3)
Region 5	1,596	28.5	(25.6-31.6)
Branch-Hillsdale-St. Joseph	456	39.5	(33.7-45.5)
Calhoun	392	27.3	(21.8-33.5)
Kalamazoo	741	21.9	(18.1-26.2)
Region 6	856	29.5	(25.5-33.9)
Van Buren-Cass	355	29.5	(23.4-36.5)
Berrien	490	30.6	(25.3-36.5)
Region 7	3,338	22.6	(20.7-24.6)
Allegan	339	25.4	(19.7-32.0)
Ionia	182	24.2	(17.3-32.9)
Kent	1,834	22.4	(19.8-25.2)
Mid-Michigan ^b	556	20.3	(16.3-25.0)
Ottawa	758	21.8	(18.3-25.8)

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Table 9 Cont'd			
Geographic Area	No Leisure Time Physical Activity^a		
	N	%	95% Confidence Interval
Michigan Total	29,060	25.1	(24.5-25.8)
Region 8	1,472	25.5	(22.7-28.5)
District #10	927	24.0	(20.5-27.9)
Muskegon	509	29.4	(24.5-34.8)
Region 9	1,725	22.4	(19.9-25.1)
District #2	303	23.7	(18.0-30.6)
District #4	363	24.5	(19.2-30.6)
Northwest Michigan	476	23.1	(18.2-28.8)
Benzie-Leelanau	196	23.2	(16.9-30.9)
Grand Traverse	382	17.4	(13.3-22.6)
Region 10	1,156	28.0	(24.8-31.4)
Bay	261	35.1	(27.9-43.0)
Huron	99	26.6	(18.0-37.5)
Saginaw	489	22.8	(18.4-28.0)
Sanilac	126	26.7	(17.7-38.2)
Tuscola	167	34.7	(26.3-44.2)
Region 11	950	26.1	(22.6-29.9)
Central Michigan	620	28.1	(23.7-32.9)
Midland	303	23.7	(17.9-30.6)
Region 12	1,862	23.4	(20.3-26.9)
Luce-Mackinac-Alger-Schoolcraft	353	27.0	(19.1-36.7)
Western Upper Peninsula	364	19.3	(14.3-25.5)
Delta-Menominee	263	19.9	(14.5-26.6)
Chippewa	359	30.3	(19.6-43.7)
Dickinson-Iron	191	23.7	(16.0-33.6)
Marquette	332	24.4	(17.0-33.6)

^a 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.

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

Table 10: Adequate Physical Activity Michigan BRFS, 2013 and 2015 Combined			
Geographic Area	Adequate Physical Activity^a		
	N	%	95% Confidence Interval
Michigan Total	19,769	19.5	(18.8-20.3)
Region 1	7,519	20.5	(19.3-21.7)
Livingston	344	23.0	(18.1-28.8)
Macomb	1,311	18.6	(15.9-21.5)
Monroe	248	19.0	(13.4-26.2)
Oakland	1,849	22.8	(20.5-25.3)
St. Clair	266	19.4	(13.7-26.7)
Washtenaw	647	25.7	(21.9-30.0)
City of Detroit	849	17.9	(14.3-22.0)
Wayne exc. Detroit	1,870	19.1	(16.9-21.5)
Region 2	994	16.2	(13.7-19.2)
Genesee	712	15.2	(12.3-18.6)
Lapeer	134	19.3	(12.8-28.2)
Shiawassee	142	18.7	(12.0-28.0)
Region 3	511	16.1	(12.6-20.4)
Jackson	300	16.4	(12.1-21.8)
Lenawee	209	15.9	(10.4-23.4)
Region 4	1,262	21.0	(18.2-24.0)
Barry-Eaton	394	23.3	(18.2-29.2)
Mid-Michigan ^b	380	12.5	(9.1-17.0)
Ingham	628	21.6	(17.8-26.1)
Region 5	1,130	18.2	(15.6-21.1)
Branch-Hillsdale-St. Joseph	326	13.0	(9.2-18.0)
Calhoun	271	20.5	(15.0-27.3)
Kalamazoo	526	20.3	(16.5-24.8)
Region 6	605	15.5	(12.1-19.5)
Van Buren-Cass	241	13.3	(8.8-19.5)
Berrien	353	15.4	(11.1-20.8)
Region 7	2,323	18.4	(16.4-20.5)
Allegan	242	19.6	(13.8-27.2)
Ionia	128	13.4	(7.5-22.7)
Kent	1,276	18.3	(15.7-21.2)
Mid-Michigan ^b	380	12.5	(9.1-17.0)
Ottawa	513	22.8	(18.5-27.8)

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Table 10 Cont'd			
Geographic Area	Adequate Physical Activity^a		
	N	%	95% Confidence Interval
Michigan Total	19,769	19.5	(18.8-20.3)
Region 8	1,006	18.8	(15.6-22.5)
District #10	620	17.4	(13.3-22.5)
Muskegon	350	19.3	(14.5-25.2)
Region 9	1,296	20.3	(17.4-23.4)
District #2	217	19.4	(12.9-28.0)
District #4	263	16.6	(11.1-23.9)
Northwest Michigan	363	19.2	(14.6-24.7)
Benzie-Leelanau	153	19.9	(13.3-28.7)
Grand Traverse	295	26.3	(19.9-33.8)
Region 10	755	19.3	(16.1-23.0)
Bay	173	10.7	(6.7-16.7)
Huron	65	18.1	(9.9-30.8)
Saginaw	328	25.0	(19.5-31.4)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	96	16.6	(9.7-26.9)
Region 11	661	19.3	(15.6-23.5)
Central Michigan	418	17.2	(13.1-22.2)
Midland	220	21.5	(15.3-29.4)
Region 12	1,536	21.7	(18.2-25.6)
Luce-Mackinac-Alger-Schoolcraft	308	23.8	(13.9-37.8)
Western Upper Peninsula	293	19.9	(14.9-26.0)
Delta-Menominee	210	15.6	(10.2-23.3)
Chippewa	313	16.9	(10.8-25.4)
Dickinson-Iron	155	27.0	(17.5-39.2)
Marquette	257	27.1	(18.3-38.3)

^a 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.

^b 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.

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

**Table 11: Fruit and Vegetable Consumption
Michigan BRFSS, 2013 and 2015 Combined**

Geographic Area	Sample Size	Fruits (< 1 time / day) ^a		Vegetables (< 1 time / day) ^b		Fruits and Vegetables (≥ 5 times / day) ^c	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	20,702	38.7	(37.8-39.6)	24.7	(23.9-25.6)	14.9	(14.2-15.5)
Region 1	7,891	37.2	(35.8-38.7)	23.6	(22.3-24.9)	16.8	(15.7-17.8)
Livingston	353	37.1	(30.9-43.8)	19.0	(14.3-24.7)	13.9	(10.4-18.4)
Macomb	1,370	37.1	(33.8-40.5)	24.0	(21.2-27.1)	16.6	(14.3-19.3)
Monroe	263	45.6	(37.7-53.6)	21.0	(15.0-28.6)	10.8	(7.2-16.1)
Oakland	1,938	33.7	(31.1-36.5)	19.7	(17.4-22.1)	19.6	(17.5-21.8)
St. Clair	287	43.4	(36.1-50.9)	27.8	(21.4-35.4)	13.1	(9.1-18.5)
Washtenaw	667	37.5	(32.7-42.6)	21.3	(17.3-25.9)	16.6	(13.6-20.1)
City of Detroit	906	40.8	(36.5-45.2)	33.3	(29.2-37.7)	15.8	(13.0-19.1)
Wayne exc. Detroit	1,964	38.3	(35.5-41.2)	23.5	(21.1-26.2)	16.0	(13.9-18.2)
Region 2	1,049	40.7	(37.0-44.5)	26.9	(23.6-30.6)	13.0	(10.7-15.7)
Genesee	747	40.9	(36.5-45.4)	28.2	(24.2-32.5)	13.1	(10.3-16.4)
Lapeer	145	24.2	(17.1-33.0)	14.7	(9.1-22.9)	14.5	(9.1-22.3)
Shiawassee	151	54.8	(44.9-64.3)	33.5	(24.2-44.4)	11.7	(7.0-19.0)
Region 3	534	45.6	(40.3-51.0)	25.0	(20.4-30.2)	11.9	(9.0-15.6)
Jackson	320	45.0	(38.2-51.9)	24.9	(19.3-31.5)	12.5	(8.8-17.3)
Lenawee	212	46.3	(37.9-55.0)	25.3	(18.2-34.2)	11.3	(7.0-17.6)
Region 4	1,308	37.6	(34.2-41.1)	24.2	(21.2-27.4)	15.6	(13.2-18.3)
Barry-Eaton	409	36.2	(30.5-42.4)	26.3	(21.2-32.1)	14.7	(10.6-20.1)
Mid-Michigan ^d	397	38.8	(32.2-45.8)	23.1	(17.2-30.2)	14.1	(10.5-18.6)
Ingham	648	37.5	(32.8-42.5)	23.0	(18.9-27.7)	16.2	(12.9-20.2)
Region 5	1,160	42.0	(38.3-45.9)	26.6	(23.2-30.3)	13.9	(11.6-16.5)
Branch-Hillsdale-St. Joseph	336	41.6	(35.0-48.6)	24.5	(19.2-30.6)	13.5	(9.8-18.3)
Calhoun	278	51.5	(43.8-59.1)	31.4	(24.3-39.6)	10.7	(7.2-15.6)
Kalamazoo	539	36.9	(31.6-42.5)	25.0	(19.9-30.9)	16.2	(12.4-20.8)
Region 6	632	38.1	(33.1-43.4)	23.5	(19.1-28.4)	14.6	(11.6-18.3)
Van Buren-Cass	252	37.4	(29.8-45.7)	25.8	(19.1-33.7)	13.1	(8.5-19.7)
Berrien	369	39.7	(33.1-46.8)	21.5	(16.1-28.2)	15.0	(11.3-19.6)
Region 7	2,407	40.3	(37.7-42.9)	25.8	(23.4-28.3)	12.8	(11.4-14.5)
Allegan	249	43.4	(35.8-51.4)	29.7	(22.7-37.7)	10.2	(6.8-15.0)
Ionia	136	46.0	(35.5-56.9)	28.6	(19.7-39.7)	7.9	(4.4-13.9)
Kent	1,318	40.1	(36.6-43.7)	26.4	(23.3-29.9)	13.7	(11.6-16.0)
Mid-Michigan ^d	397	38.8	(32.2-45.8)	23.1	(17.2-30.2)	14.1	(10.5-18.6)
Ottawa	534	38.0	(33.0-43.3)	22.0	(17.7-26.9)	13.7	(10.8-17.3)

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Table 11 Cont'd							
Geographic Area	Sample Size	Fruits (< 1 time / day) ^a		Vegetables (< 1 time / day) ^b		Fruits and Vegetables (≥ 5 times / day) ^c	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	20,702	38.7	(37.8-39.6)	24.7	(23.9-25.6)	14.9	(14.2-15.5)
Region 8	1,057	42.6	(38.6-46.7)	27.3	(23.6-31.3)	11.3	(9.3-13.9)
District #10	654	40.0	(34.9-45.4)	23.5	(19.2-28.5)	11.5	(8.9-14.7)
Muskegon	367	45.8	(39.1-52.6)	33.3	(26.8-40.4)	11.9	(8.4-16.5)
Region 9	1,363	35.5	(32.1-39.1)	19.5	(16.4-23.0)	15.2	(12.9-17.9)
District #2	235	38.3	(29.7-47.6)	20.0	(13.4-28.8)	12.0	(7.8-18.0)
District #4	275	39.4	(31.8-47.5)	25.8	(19.0-34.0)	13.9	(9.1-20.6)
Northwest Michigan	381	35.2	(28.9-42.0)	17.2	(12.1-23.9)	17.0	(12.5-22.6)
Benzie-Leelanau	158	27.6	(19.7-37.1)	-- ^e	-- ^e	15.8	(10.6-22.8)
Grand Traverse	309	30.9	(24.8-37.8)	15.0	(10.7-20.8)	18.4	(13.0-25.3)
Region 10	798	40.5	(36.3-44.8)	32.5	(28.3-37.0)	10.9	(8.7-13.6)
Bay	180	43.7	(34.4-53.5)	32.7	(23.7-43.1)	12.2	(7.4-19.5)
Huron	70	30.7	(19.0-45.6)	33.6	(21.4-48.4)	-- ^e	-- ^e
Saginaw	347	39.8	(33.7-46.2)	31.3	(25.1-38.2)	11.7	(8.5-16.0)
Sanilac	83	42.6	(30.0-56.2)	38.1	(25.7-52.4)	-- ^e	-- ^e
Tuscola	103	41.7	(31.2-53.0)	30.3	(21.1-41.4)	-- ^e	-- ^e
Region 11	698	40.3	(35.5-45.3)	27.0	(22.6-31.8)	13.5	(10.7-17.0)
Central Michigan	441	40.6	(34.7-46.7)	28.3	(22.9-34.4)	13.2	(9.9-17.4)
Midland	230	42.0	(33.2-51.2)	26.7	(19.0-36.1)	15.2	(9.9-22.6)
Region 12	1,597	36.2	(32.0-40.7)	23.1	(19.5-27.1)	12.0	(10.0-14.5)
Luce-Mackinac-Alger-Schoolcraft	324	31.2	(23.3-40.4)	20.3	(13.6-29.2)	15.8	(9.9-24.2)
Western Upper Peninsula	301	36.4	(28.8-44.7)	20.8	(14.9-28.1)	14.2	(10.1-19.6)
Delta-Menominee	220	41.2	(32.8-50.2)	21.2	(15.1-28.8)	11.2	(7.3-16.8)
Chippewa	328	43.3	(29.8-57.9)	25.0	(15.3-38.0)	8.0	(4.6-13.5)
Dickinson-Iron	159	35.7	(26.0-46.7)	23.2	(15.1-33.9)	5.5	(3.1-9.6)
Marquette	265	31.4	(20.8-44.4)	28.1	(18.2-40.7)	14.1	(9.0-21.4)

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

^b The proportion whose total reported consumption of vegetables was less than one time per day.

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

^d 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.

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

Table 12: Cigarette Smoking
Michigan BRFSS, 2013-2015 Combined

Geographic Area	Sample Size	Current Smoking ^a		Former Smoking ^b		Never Smoked	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	29,402	21.1	(20.4-21.8)	26.7	(26.0-27.3)	52.2	(51.5-53.0)
Region 1	11,848	21.6	(20.5-22.6)	26.1	(25.2-27.1)	52.3	(51.1-53.5)
Livingston	510	19.2	(14.5-25.0)	28.4	(23.8-33.4)	52.4	(46.6-58.1)
Macomb	2,041	23.3	(20.8-25.9)	27.8	(25.5-30.3)	48.9	(46.1-51.7)
Monroe	374	24.8	(18.7-32.0)	30.8	(25.4-36.7)	44.4	(38.0-51.0)
Oakland	3,030	16.3	(14.4-18.3)	28.7	(26.8-30.7)	55.0	(52.7-57.2)
St. Clair	403	26.6	(20.8-33.4)	29.0	(23.9-34.7)	44.4	(38.2-50.7)
Washtenaw	970	12.3	(9.7-15.4)	22.7	(19.8-26.0)	65.0	(61.1-68.7)
City of Detroit	1,368	32.3	(29.0-35.9)	19.6	(17.1-22.3)	48.1	(44.6-51.6)
Wayne exc. Detroit	2,859	22.2	(20.1-24.4)	26.4	(24.4-28.4)	51.4	(49.1-53.8)
Region 2	1,558	23.7	(21.0-26.6)	26.3	(23.7-29.0)	50.0	(46.9-53.1)
Genesee	1,122	23.4	(20.3-26.9)	25.9	(22.9-29.1)	50.7	(47.0-54.3)
Lapeer	221	25.5	(19.0-33.3)	27.9	(21.1-35.9)	46.6	(38.8-54.5)
Shiawassee	209	22.5	(15.5-31.5)	26.8	(20.4-34.4)	50.6	(42.3-59.0)
Region 3	742	21.2	(17.5-25.6)	29.5	(25.6-33.7)	49.3	(44.7-53.9)
Jackson	461	26.4	(21.2-32.3)	26.7	(22.2-31.7)	47.0	(41.1-52.9)
Lenawee	278	13.6	(9.2-19.8)	33.3	(26.6-40.8)	53.1	(45.5-60.5)
Region 4	1,804	18.4	(16.1-20.9)	25.8	(23.4-28.4)	55.8	(52.8-58.7)
Barry-Eaton	559	18.3	(14.4-23.1)	31.5	(27.0-36.4)	50.2	(44.8-55.5)
Mid-Michigan ^c	557	19.9	(15.2-25.5)	25.4	(21.1-30.2)	54.7	(48.9-60.4)
Ingham	886	18.7	(15.6-22.4)	22.3	(19.1-25.9)	58.9	(54.7-63.0)
Region 5	1,636	19.7	(17.3-22.3)	27.7	(25.0-30.5)	52.6	(49.5-55.8)
Branch-Hillsdale-St. Joseph	463	22.9	(18.2-28.5)	29.9	(24.8-35.6)	47.1	(41.3-53.0)
Calhoun	404	24.0	(19.1-29.8)	27.9	(22.6-34.0)	48.1	(41.6-54.6)
Kalamazoo	762	14.8	(11.9-18.2)	26.2	(22.5-30.2)	59.1	(54.5-63.4)
Region 6	870	22.2	(18.4-26.4)	27.8	(24.3-31.6)	50.0	(45.7-54.3)
Van Buren-Cass	361	26.2	(20.2-33.4)	24.1	(19.3-29.6)	49.7	(42.9-56.5)
Berrien	498	19.4	(14.9-24.9)	31.4	(26.5-36.8)	49.1	(43.5-54.8)
Region 7	3,371	18.1	(16.3-20.1)	24.4	(22.7-26.2)	57.5	(55.3-59.7)
Allegan	340	19.6	(14.3-26.3)	28.0	(22.6-34.1)	52.4	(45.5-59.1)
Ionia	188	17.1	(10.8-26.0)	26.7	(20.1-34.6)	56.2	(47.2-64.7)
Kent	1,848	18.5	(16.1-21.2)	24.5	(22.2-27.0)	56.9	(54.0-59.8)
Mid-Michigan ^c	557	19.9	(15.2-25.5)	25.4	(21.1-30.2)	54.7	(48.9-60.4)
Ottawa	771	14.7	(11.4-18.7)	22.5	(19.2-26.2)	62.8	(58.3-67.1)

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Table 12 Cont'd							
Geographic Area	Sample Size	Current Smoking ^a		Former Smoking ^b		Never Smoked	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	29,402	21.1	(20.4-21.8)	26.7	(26.0-27.3)	52.2	(51.5-53.0)
Region 8	1,495	22.7	(19.8-25.8)	28.5	(25.8-31.4)	48.8	(45.5-52.2)
District #10	944	23.5	(19.8-27.6)	29.4	(25.9-33.1)	47.1	(42.8-51.4)
Muskegon	513	22.0	(17.5-27.3)	28.2	(23.7-33.1)	49.8	(44.2-55.4)
Region 9	1,747	20.6	(18.1-23.3)	31.1	(28.3-34.1)	48.3	(45.1-51.5)
District #2	306	22.9	(16.8-30.4)	30.8	(23.4-39.2)	46.3	(38.4-54.5)
District #4	365	25.9	(20.5-32.2)	32.0	(26.2-38.4)	42.0	(35.6-48.8)
Northwest Michigan	485	17.7	(13.6-22.8)	32.9	(27.6-38.7)	49.3	(43.4-55.3)
Benzie-Leelanau	198	13.7	(8.8-20.8)	34.5	(27.0-42.9)	51.7	(43.1-60.2)
Grand Traverse	388	20.8	(15.8-27.0)	28.2	(22.8-34.3)	51.0	(44.4-57.5)
Region 10	1,171	22.3	(19.1-25.8)	27.8	(24.8-31.0)	49.9	(46.2-53.6)
Bay	270	24.4	(17.7-32.5)	28.0	(22.1-34.7)	47.6	(40.0-55.3)
Huron	98	19.4	(11.8-30.2)	35.9	(25.5-47.8)	44.7	(33.6-56.4)
Saginaw	494	19.2	(14.7-24.8)	28.5	(23.9-33.6)	52.2	(46.5-57.9)
Sanilac	125	24.1	(15.2-35.9)	26.1	(17.8-36.5)	49.8	(39.0-60.7)
Tuscola	168	29.7	(21.3-39.7)	21.6	(15.3-29.7)	48.7	(39.5-57.9)
Region 11	961	24.7	(21.0-28.8)	26.7	(23.4-30.2)	48.7	(44.5-52.8)
Central Michigan	627	29.6	(24.9-34.8)	27.8	(23.7-32.4)	42.5	(37.6-47.6)
Midland	307	15.2	(10.2-22.2)	26.4	(20.7-33.0)	58.4	(50.9-65.5)
Region 12	1,887	20.4	(17.6-23.5)	30.9	(27.7-34.2)	48.8	(45.1-52.5)
Luce-Mackinac-Alger-Schoolcraft	358	26.5	(18.3-36.6)	27.9	(20.6-36.5)	45.7	(36.2-55.4)
Western Upper Peninsula	370	15.2	(10.7-21.2)	37.4	(30.5-44.9)	47.4	(40.1-54.8)
Delta-Menominee	280	22.9	(16.2-31.3)	31.3	(24.2-39.3)	45.8	(37.3-54.6)
Chippewa	360	18.4	(12.3-26.6)	28.2	(20.4-37.5)	53.4	(42.6-63.9)
Dickinson-Iron	192	26.6	(17.8-37.7)	28.4	(20.7-37.6)	45.0	(35.4-55.0)
Marquette	337	17.3	(12.1-24.2)	28.2	(21.5-35.9)	54.5	(46.2-62.7)

^a 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.

^b 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.

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

Table 13: Alcohol Consumption
Michigan BRFSS, 2013-2015 Combined

Geographic Area	Sample Size	Any Alcohol in Past Month ^a		Heavy Drinking ^b		Binge Drinking ^c	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	29,287	56.8	(56.1-57.6)	6.5	(6.2-6.9)	18.8	(18.2-19.4)
Region 1	11,800	59.2	(58.0-60.3)	6.2	(5.7-6.8)	19.0	(18.0-19.9)
Livingston	510	70.4	(64.8-75.4)	7.2	(4.8-10.7)	22.1	(17.6-27.5)
Macomb	2,033	57.9	(55.1-60.6)	6.7	(5.4-8.3)	20.1	(17.9-22.6)
Monroe	370	57.7	(51.1-64.1)	9.3	(6.2-13.7)	25.3	(19.2-32.5)
Oakland	3,013	61.8	(59.6-64.0)	6.0	(5.0-7.1)	17.8	(16.1-19.7)
St. Clair	402	57.1	(50.8-63.2)	8.2	(4.7-13.9)	15.0	(10.4-21.2)
Washtenaw	963	66.2	(62.3-70.0)	4.9	(3.4-6.9)	19.5	(16.3-23.1)
City of Detroit	1,360	52.3	(48.7-55.8)	5.4	(3.9-7.5)	17.1	(14.5-20.1)
Wayne exc. Detroit	2,859	57.2	(54.9-59.6)	6.1	(5.1-7.4)	18.6	(16.7-20.7)
Region 2	1,553	50.8	(47.7-53.9)	4.1	(3.0-5.5)	16.0	(13.7-18.5)
Genesee	1,118	49.1	(45.4-52.8)	4.5	(3.2-6.2)	15.0	(12.5-17.9)
Lapeer	221	57.1	(49.1-64.6)	-- ^e	-- ^e	19.3	(12.9-27.8)
Shiawassee	208	51.1	(42.7-59.4)	-- ^e	-- ^e	17.1	(11.5-24.8)
Region 3	739	55.6	(51.0-60.2)	6.8	(4.7-9.7)	18.7	(15.1-22.9)
Jackson	458	57.6	(51.7-63.4)	5.8	(3.4-9.7)	18.5	(14.0-24.1)
Lenawee	278	52.7	(45.2-60.1)	8.4	(5.0-13.7)	19.0	(13.5-26.0)
Region 4	1,799	58.9	(55.9-61.8)	6.5	(5.1-8.3)	21.2	(18.7-23.9)
Barry-Eaton	554	57.4	(52.0-62.7)	6.5	(4.0-10.2)	17.1	(13.2-21.9)
Mid-Michigan ^d	559	53.2	(47.3-59.0)	4.8	(3.0-7.8)	14.8	(11.3-19.1)
Ingham	886	59.9	(55.7-64.1)	7.2	(5.2-9.9)	25.3	(21.6-29.4)
Region 5	1,623	51.8	(48.6-54.9)	6.7	(5.3-8.5)	16.7	(14.4-19.3)
Branch-Hillsdale-St. Joseph	463	44.7	(39.0-50.6)	4.7	(3.0-7.4)	14.3	(10.7-18.9)
Calhoun	401	49.7	(43.2-56.2)	8.5	(5.5-12.8)	15.8	(11.6-21.2)
Kalamazoo	752	57.6	(52.8-62.2)	7.1	(5.1-9.9)	18.6	(15.1-22.8)
Region 6	869	50.9	(46.6-55.3)	9.2	(6.8-12.4)	18.2	(14.9-22.0)
Van Buren-Cass	362	49.7	(42.9-56.5)	10.5	(6.5-16.6)	16.8	(12.0-23.1)
Berrien	496	50.4	(44.7-56.1)	8.0	(5.4-11.8)	18.9	(14.7-24.0)
Region 7	3,366	58.7	(56.5-60.9)	6.4	(5.4-7.7)	19.0	(17.2-20.9)
Allegan	340	52.5	(45.6-59.3)	-- ^e	-- ^e	17.5	(12.8-23.5)
Ionia	186	55.4	(46.6-63.9)	-- ^e	-- ^e	12.0	(7.4-18.7)
Kent	1,843	61.3	(58.3-64.1)	7.2	(5.7-8.9)	21.7	(19.1-24.4)
Mid-Michigan ^d	559	53.2	(47.3-59.0)	4.8	(3.0-7.8)	14.8	(11.3-19.1)
Ottawa	772	59.3	(54.7-63.7)	5.6	(3.7-8.5)	15.8	(12.7-19.6)

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Table 13 Cont'd							
Geographic Area	Sample Size	Any Alcohol in Past Month ^a		Heavy Drinking ^b		Binge Drinking ^c	
	N	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	29,287	56.8	(56.1-57.6)	6.5	(6.2-6.9)	18.8	(18.2-19.4)
Region 8	1,489	51.9	(48.5-55.2)	7.4	(5.8-9.5)	16.6	(14.2-19.3)
District #10	940	49.2	(45.0-53.5)	7.8	(5.6-10.9)	14.9	(12.0-18.3)
Muskegon	511	54.7	(49.1-60.3)	7.2	(5.0-10.4)	18.5	(14.4-23.5)
Region 9	1,743	59.0	(55.8-62.1)	8.3	(6.8-10.1)	20.8	(18.2-23.6)
District #2	304	47.8	(39.7-56.0)	-- ^e	-- ^e	15.4	(10.4-22.2)
District #4	336	60.9	(54.4-67.1)	7.4	(4.7-11.5)	27.0	(21.1-33.8)
Northwest Michigan	484	57.9	(51.8-63.7)	8.8	(6.2-12.3)	15.4	(11.5-20.4)
Benzie-Leelanau	196	64.0	(54.6-72.5)	11.2	(6.7-18.0)	20.5	(14.3-28.6)
Grand Traverse	388	65.9	(59.5-71.7)	10.1	(6.8-14.7)	26.0	(20.3-32.7)
Region 10	1,170	52.7	(49.0-56.4)	6.8	(5.2-8.8)	20.0	(16.9-23.5)
Bay	269	49.8	(42.1-57.5)	7.5	(4.5-12.3)	14.3	(10.2-19.8)
Huron	99	57.8	(45.9-68.8)	-- ^e	-- ^e	18.1	(11.2-28.1)
Saginaw	492	54.5	(48.7-60.1)	6.5	(4.3-9.9)	21.9	(16.7-28.2)
Sanilac	126	46.5	(36.0-57.4)	-- ^e	-- ^e	23.7	(15.3-34.8)
Tuscola	168	54.6	(45.3-63.6)	-- ^e	-- ^e	23.1	(15.1-33.6)
Region 11	959	53.0	(48.8-57.1)	8.3	(6.1-11.1)	18.1	(15.0-21.6)
Central Michigan	627	52.6	(47.5-57.6)	9.4	(6.6-13.2)	19.9	(15.9-24.6)
Midland	306	51.6	(44.1-59.1)	7.0	(4.0-12.0)	13.9	(9.6-19.6)
Region 12	1,877	53.8	(50.1-57.5)	7.5	(5.9-9.5)	19.5	(16.8-22.5)
Luce-Mackinac-Alger-Schoolcraft	358	54.2	(44.3-63.7)	10.3	(5.8-17.6)	23.1	(15.0-33.9)
Western Upper Peninsula	367	48.0	(40.8-55.3)	6.7	(4.0-11.0)	15.8	(11.6-21.1)
Delta-Menominee	269	61.1	(51.9-69.6)	9.0	(5.2-15.0)	24.0	(17.4-32.2)
Chippewa	358	48.2	(37.5-59.1)	9.3	(5.4-15.6)	22.4	(15.5-31.2)
Dickinson-Iron	189	54.4	(44.1-64.3)	-- ^e	-- ^e	13.4	(8.3-21.0)
Marquette	336	56.7	(47.8-65.2)	6.7	(3.9-11.3)	18.6	(12.9-26.1)

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

^b 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.

^c 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.

^d 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.

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

Table 14: Seatbelt Use Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Always Uses a Seatbelt^a		
	N	%	95% Confidence Interval
Michigan Total	28,622	89.2	(88.6-89.7)
Region 1	11,508	89.8	(89.0-90.6)
Livingston	504	91.3	(87.0-94.3)
Macomb	1,975	89.4	(87.2-91.2)
Monroe	367	87.7	(82.1-91.7)
Oakland	2,963	91.0	(89.4-92.4)
St. Clair	386	90.4	(85.5-93.8)
Washtenaw	945	87.4	(83.9-90.2)
City of Detroit	1,293	87.5	(84.8-89.8)
Wayne exc. Detroit	2,791	90.7	(88.9-92.1)
Region 2	1,513	89.2	(86.9-91.1)
Genesee	1,087	90.7	(88.1-92.8)
Lapeer	215	91.8	(86.0-95.3)
Shiawassee	205	79.5	(70.4-86.3)
Region 3	727	91.5	(88.0-94.0)
Jackson	448	90.1	(84.9-93.7)
Lenawee	277	93.5	(88.9-96.2)
Region 4	1,773	89.5	(87.3-91.4)
Barry-Eaton	551	90.6	(86.6-93.6)
Mid-Michigan ^b	548	87.3	(83.0-90.6)
Ingham	872	90.1	(86.8-92.7)
Region 5	1,570	88.7	(86.5-90.6)
Branch-Hillsdale-St. Joseph	448	88.0	(83.5-91.4)
Calhoun	389	87.5	(82.3-91.3)
Kalamazoo	726	89.8	(86.7-92.3)
Region 6	850	89.1	(85.8-91.6)
Van Buren-Cass	353	86.1	(79.9-90.6)
Berrien	486	91.0	(87.3-93.7)
Region 7	3,293	89.7	(88.2-91.0)
Allegan	337	90.5	(85.8-93.8)
Ionia			
Kent	1,806	89.8	(87.6-91.7)
Mid-Michigan ^b	548	87.3	(83.0-90.6)
Ottawa	748	88.4	(84.8-91.2)

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Table 14 Cont'd			
Geographic Area	Always Uses a Seatbelt^a		
	N	%	95% Confidence Interval
Michigan Total	28,622	89.2	(88.6-89.7)
Region 8	1,456	86.0	(83.4-88.3)
District #10	917	86.7	(83.3-89.6)
Muskegon	53	84.9	(80.1-88.7)
Region 9	1,708	88.6	(86.0-90.9)
District #2	296	87.5	(78.6-93.0)
District #4	361	85.0	(78.9-89.6)
Northwest Michigan	474	88.5	(83.2-92.3)
Benzie-Leelanau	194	92.5	(87.2-95.7)
Grand Traverse	378	92.5	(87.3-95.6)
Region 10	1,144	87.9	(84.7-90.5)
Bay	260	91.3	(84.8-95.2)
Huron	98	82.6	(71.7-89.9)
Saginaw	486	90.2	(84.5-94.0)
Sanilac	123	81.7	(70.8-89.2)
Tuscola	163	81.9	(71.5-89.1)
Region 11	940	87.9	(84.6-90.5)
Central Michigan	614	85.8	(81.4-89.3)
Midland	299	92.2	(86.8-95.6)
Region 12	1,846	86.4	(83.8-88.7)
Luce-Mackinac-Alger-Schoolcraft	350	90.6	(84.7-94.4)
Western Upper Peninsula	361	87.3	(81.6-91.4)
Delta-Menominee	261	86.3	(78.9-91.4)
Chippewa	354	80.9	(70.8-88.2)
Dickinson-Iron	191	81.4	(72.1-88.1)
Marquette	329	88.6	(83.3-92.4)

^a The proportion of adults who reported always using a seatbelt when driving or riding in a car.
^b 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 15: High Blood Pressure Michigan BRFSS, 2013 and 2015 Combined			
Geographic Area	Ever Told HBP^a		
	N	%	95% Confidence Interval
Michigan Total	21,635	33.9	(33.1-34.7)
Region 1	8,289	34.2	(33.0-35.5)
Livingston	359	28.3	(23.1-34.1)
Macomb	1,436	34.8	(31.9-37.8)
Monroe	274	36.5	(29.6-44.1)
Oakland	2,026	32.1	(29.7-34.6)
St. Clair	300	33.6	(27.5-40.3)
Washtenaw	696	25.3	(21.4-29.5)
City of Detroit	981	44.9	(40.8-49.1)
Wayne exc. Detroit	2,056	35.4	(32.8-38.1)
Region 2	1,109	36.5	(33.1-39.9)
Genesee	792	37.1	(33.2-41.3)
Lapeer	152	32.9	(24.9-42.1)
Shiawassee	159	38.1	(29.3-47.7)
Region 3	549	35.7	(31.0-40.7)
Jackson	333	33.3	(27.5-39.7)
Lenawee	213	38.6	(31.1-46.8)
Region 4	1,348	31.7	(28.7-34.8)
Barry-Eaton	424	37.4	(31.9-43.2)
Mid-Michigan ^b	406	31.6	(26.1-37.8)
Ingham	667	28.2	(24.2-32.5)
Region 5	1,219	32.8	(29.7-36.0)
Branch-Hillsdale-St. Joseph	352	38.8	(32.8-45.2)
Calhoun	290	32.3	(26.3-39.0)
Kalamazoo	570	28.9	(24.7-33.4)
Region 6	663	34.0	(29.7-38.5)
Van Buren-Cass	264	35.0	(28.2-42.5)
Berrien	388	34.5	(29.0-40.5)
Region 7	2,491	29.9	(27.8-32.1)
Allegan	256	25.1	(19.5-31.5)
Ionia	143	33.9	(25.4-43.5)
Kent	1,359	29.9	(27.1-32.9)
Mid-Michigan ^b	406	31.6	(26.1-37.8)
Ottawa	556	32.5	(28.1-37.2)

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Table 15 Cont'd			
Geographic Area	Ever Told HBP^a		
	N	%	95% Confidence Interval
Michigan Total	21,635	33.9	(33.1-34.7)
Region 8	1,089	35.8	(32.3-39.4)
District #10	678	36.3	(31.8-41.0)
Muskegon	373	38.3	(32.3-44.6)
Region 9	1,410	36.8	(33.6-40.2)
District #2	243	41.1	(33.0-49.8)
District #4	286	42.1	(34.8-49.7)
Northwest Michigan	392	36.0	(29.9-42.7)
Benzie-Leelanau	164	40.2	(30.7-50.6)
Grand Traverse	320	28.9	(23.5-35.1)
Region 10	830	36.1	(32.2-40.2)
Bay	190	34.3	(25.9-43.8)
Huron	71	31.8	(21.0-44.9)
Saginaw	356	37.6	(31.7-43.9)
Sanilac	88	30.7	(21.3-42.2)
Tuscola	109	43.0	(32.4-54.3)
Region 11	730	35.3	(31.1-39.8)
Central Michigan	464	37.4	(32.1-43.0)
Midland	238	30.6	(24.0-38.2)
Region 12	1,648	33.7	(30.3-37.3)
Luce-Mackinac-Alger-Schoolcraft	331	34.1	(25.7-43.6)
Western Upper Peninsula	313	39.6	(32.5-47.1)
Delta-Menominee	229	35.9	(28.4-44.1)
Chippewa	335	31.5	(22.3-42.4)
Dickinson-Iron	164	34.0	(24.9-44.4)
Marquette	276	26.3	(20.0-33.8)

^a 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.

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

**Table 16: Cholesterol Screening and Awareness
Michigan BRFSS, 2013 and 2015 Combined**

Geographic Area	Cholesterol Ever Checked ^a			Ever Told High Cholesterol ^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	21,006	83.3	(82.5-84.0)	18,808	39.4	(38.5-40.3)
Region 1	8,154	84.7	(83.4-85.8)	7,294	38.8	(37.4-40.2)
Livingston	353	89.6	(83.7-93.5)	332	37.9	(32.0-44.1)
Macomb	1,427	83.8	(80.5-86.6)	1,279	39.6	(36.4-43.0)
Monroe	270	89.9	(84.2-93.7)	247	47.8	(39.6-56.1)
Oakland	2,000	88.1	(85.8-90.0)	1,831	38.4	(35.8-41.2)
St. Clair	296	87.6	(81.2-92.0)	267	39.2	(32.2-46.6)
Washtenaw	692	76.9	(71.9-81.3)	593	34.9	(30.4-39.8)
City of Detroit	957	83.1	(79.3-86.3)	832	35.8	(31.7-40.1)
Wayne exc. Detroit	2,006	83.9	(81.2-86.2)	1,800	41.3	(38.4-44.2)
Region 2	1,095	86.6	(83.8-88.9)	971	39.6	(35.9-43.4)
Genesee	784	85.6	(82.1-88.4)	690	38.6	(34.3-43.1)
Lapeer	147	89.2	(81.5-93.9)	131	36.8	(27.8-46.9)
Shiawassee	158	88.7	(80.1-93.8)	145	46.6	(36.6-56.8)
Region 3	542	82.8	(77.8-86.9)	479	38.5	(33.4-43.9)
Jackson	330	85.9	(79.6-90.5)	296	38.1	(31.7-45.0)
Lenawee	209	78.1	(69.1-85.1)	181	39.7	(31.5-48.4)
Region 4	1,316	81.6	(78.3-84.6)	1,164	40.3	(36.8-43.8)
Barry-Eaton	413	91.0	(85.5-94.5)	389	43.2	(37.2-49.3)
Mid-Michigan ^c	402	79.2	(70.9-85.7)	356	41.6	(35.0-48.4)
Ingham	648	76.4	(71.3-80.8)	549	38.7	(33.8-43.8)
Region 5	1,200	78.3	(74.6-81.6)	1,032	37.0	(33.5-40.7)
Branch-Hillsdale-St. Joseph	349	79.4	(72.8-84.8)	293	37.8	(31.3-44.7)
Calhoun	283	77.6	(69.4-84.0)	246	39.9	(32.7-47.6)
Kalamazoo	561	78.1	(72.3-83.0)	487	35.1	(30.2-40.4)
Region 6	648	80.7	(75.8-84.8)	567	43.0	(37.9-48.3)
Van Buren-Cass	259	85.7	(78.7-90.7)	233	45.2	(37.1-53.5)
Berrien	379	79.3	(72.4-84.8)	329	42.4	(35.9-49.2)

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Table 16 Cont'd						
Geographic Area	Cholesterol Ever Checked ^a			Ever Told High Cholesterol ^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	21,006	83.3	(82.5-84.0)	18,808	39.4	(38.5-40.3)
Region 7	2,438	82.4	(79.9-84.7)	2,169	37.0	(34.5-39.5)
Allegan	252	86.5	(80.0-91.1)	229	37.8	(30.7-45.5)
Ionia	141	78.3	(66.4-86.8)	120	38.9	(29.3-49.5)
Kent	1,324	82.4	(79.1-85.3)	1,178	36.3	(32.9-39.8)
Mid-Michigan ^c	402	79.2	(70.9-85.7)	356	41.6	(35.0-48.4)
Ottawa	546	85.1	(80.0-89.0)	493	36.4	(31.4-41.8)
Region 8	1,071	80.6	(76.6-84.0)	936	41.5	(37.6-45.5)
District #10	671	79.9	(74.3-84.5)	586	43.1	(38.1-48.2)
Muskegon	362	82.4	(75.8-87.4)	320	40.4	(33.8-47.3)
Region 9	1,383	85.1	(82.1-87.7)	1,238	43.5	(39.8-47.2)
District #2	238	84.1	(75.9-89.9)	213	43.2	(34.1-52.7)
District #4	281	82.6	(74.5-88.5)	249	50.8	(43.1-58.6)
Northwest Michigan	387	86.7	(81.1-90.8)	349	41.0	(34.3-48.1)
Benzie-Leelanau	-- ^d	-- ^d	-- ^d	148	42.9	(32.5-53.8)
Grand Traverse	311	82.7	(75.6-88.1)	274	42.5	(35.3-50.0)
Region 10	810	85.3	(81.4-88.5)	721	41.3	(37.0-45.7)
Bay	186	82.2	(71.5-89.4)	163	43.0	(33.8-52.7)
Huron	-- ^d	-- ^d	-- ^d	59	29.3	(17.3-45.1)
Saginaw	349	84.7	(78.4-89.4)	313	39.6	(33.4-46.2)
Sanilac	-- ^d	-- ^d	-- ^d	76	46.5	(33.4-60.2)
Tuscola	-- ^d	-- ^d	-- ^d	95	44.9	(33.3-57.1)
Region 11	724	79.4	(74.6-83.5)	627	45.3	(40.4-50.3)
Central Michigan	458	82.7	(77.2-87.2)	402	49.4	(43.3-55.5)
Midland	237	74.5	(64.1-82.7)	205	40.8	(33.1-49.0)
Region 12	1,621	82.8	(78.6-86.3)	1,417	39.3	(35.4-43.4)
Luce-Mackinac-Alger-Schoolcraft	-- ^d	-- ^d	-- ^d	289	42.9	(33.5-52.9)
Western Upper Peninsula	307	82.7	(75.5-88.1)	267	40.9	(32.8-49.4)
Delta-Menominee	223	80.6	(71.8-87.1)	189	40.2	(31.5-49.6)
Chippewa	-- ^d	-- ^d	-- ^d	297	39.6	(30.0-50.0)
Dickinson-Iron	163	81.5	(70.7-88.9)	137	46.9	(35.5-58.6)
Marquette	270	88.3	(82.4-92.4)	238	29.7	(21.9-38.8)

^a Among all adults, the proportion who reported ever having had their blood cholesterol checked.

^b 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.

^c 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.

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

Table 17: No Routine Checkup in Past Year Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Had No Routine Checkup in Past Year^a		
	N	%	95% Confidence Interval
Michigan Total	29,816	28.8	(28.1-29.5)
Region 1	12,040	27.6	(26.5-28.7)
Livingston	507	25.7	(21.0-30.9)
Macomb	2,070	28.2	(25.6-30.9)
Monroe	377	30.9	(24.8-37.8)
Oakland	3,081	27.6	(25.6-29.7)
St. Clair	410	31.0	(25.3-37.3)
Washtenaw	979	28.6	(25.1-32.3)
City of Detroit	1,397	24.3	(21.3-27.6)
Wayne exc. Detroit	2,895	27.1	(25.0-29.3)
Region 2	1,588	29.3	(26.6-32.2)
Genesee	1,146	27.7	(24.6-31.2)
Lapeer	225	33.9	(26.7-41.8)
Shiawassee	211	31.2	(23.8-39.7)
Region 3	742	31.4	(27.2-36.0)
Jackson	463	26.5	(21.7-32.0)
Lenawee	276	39.1	(31.8-46.9)
Region 4	1,817	28.4	(25.7-31.2)
Barry-Eaton	564	24.5	(19.9-29.8)
Mid-Michigan ^b	560	31.3	(25.9-37.3)
Ingham	895	31.1	(27.3-35.2)
Region 5	1,640	31.8	(28.8-34.8)
Branch-Hillsdale-St. Joseph	465	34.7	(29.2-40.6)
Calhoun	400	30.3	(24.4-36.8)
Kalamazoo	768	30.7	(26.6-35.2)
Region 6	882	31.3	(27.2-35.7)
Van Buren-Cass	368	33.7	(27.5-40.7)
Berrien	504	28.9	(23.7-34.7)
Region 7	3,399	30.3	(28.2-32.5)
Allegan	344	33.4	(27.0-40.3)
Ionia	187	28.5	(20.9-37.5)
Kent	1,861	29.7	(26.9-32.7)
Mid-Michigan ^b	560	31.3	(25.9-37.3)
Ottawa	777	27.1	(23.1-31.4)

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Table 17 Cont'd			
Geographic Area	Had No Routine Checkup in Past Year^a		
	N	%	95% Confidence Interval
Michigan Total	29,816	28.8	(28.1-29.5)
Region 8	1,502	30.5	(27.4-33.8)
District #10	948	32.8	(28.8-37.1)
Muskegon	516	26.4	(21.6-31.8)
Region 9	1,762	28.6	(25.8-31.7)
District #2	309	24.6	(18.5-32.0)
District #4	371	32.2	(26.2-38.9)
Northwest Michigan	485	29.1	(23.7-35.1)
Benzie-Leelanau	203	26.2	(18.8-35.3)
Grand Traverse	389	29.9	(24.1-36.5)
Region 10	1,176	27.6	(24.4-31.1)
Bay	267	29.0	(22.2-37.0)
Huron	98	32.9	(22.6-45.2)
Saginaw	495	23.5	(19.0-28.6)
Sanilac	130	33.3	(23.7-44.5)
Tuscola	170	29.5	(21.8-38.6)
Region 11	976	31.7	(27.8-35.8)
Central Michigan	635	32.6	(27.8-37.7)
Midland	312	30.9	(24.1-38.7)
Region 12	1,891	27.3	(24.2-30.6)
Luce-Mackinac-Alger-Schoolcraft	357	27.5	(19.3-37.5)
Western Upper Peninsula	373	32.9	(26.2-40.3)
Delta-Menominee	269	26.9	(20.3-34.7)
Chippewa	361	21.9	(14.9-30.9)
Dickinson-Iron	192	31.3	(22.5-41.8)
Marquette	339	22.2	(16.3-29.5)

^a The proportion of adults who reported that they did not have a routine checkup in the past year.
^b 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 18: Colorectal Cancer Screening Among Adults 50 Years and Older Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Appropriate Colorectal Cancer Screening^a		
	N	%	95% Confidence Interval
Michigan Total	18,108	71.5	(70.6-72.4)
Region 1	7,139	71.2	(69.8-72.6)
Livingston	329	75.2	(68.7-80.7)
Macomb	1,270	74.6	(71.4-77.5)
Monroe	248	71.6	(64.1-78.1)
Oakland	1,900	70.6	(67.9-73.2)
St. Clair	255	72.9	(65.8-78.9)
Washtenaw	555	77.6	(73.0-81.6)
City of Detroit	786	67.3	(62.6-71.6)
Wayne exc. Detroit	1,749	68.8	(66.0-71.5)
Region 2	943	74.3	(70.7-77.6)
Genesee	683	73.1	(68.8-77.1)
Lapeer	136	78.2	(69.9-84.8)
Shiawassee	124	75.6	(64.4-84.2)
Region 3	474	67.5	(62.1-72.5)
Jackson	288	70.4	(63.3-76.6)
Lenawee	186	63.4	(54.8-71.3)
Region 4	1,120	75.0	(71.5-78.2)
Barry-Eaton	390	77.3	(71.4-82.3)
Mid-Michigan ^b	338	74.1	(68.0-79.4)
Ingham	515	73.2	(67.5-78.1)
Region 5	1,041	71.3	(67.7-74.7)
Branch-Hillsdale-St. Joseph	302	65.1	(58.1-71.6)
Calhoun	268	73.3	(66.3-79.3)
Kalamazoo	471	74.7	(69.4-79.4)
Region 6	568	62.7	(57.2-67.8)
Van Buren-Cass	243	64.7	(55.8-72.6)
Berrien	325	61.1	(54.1-67.7)
Region 7	1,938	74.6	(72.1-76.9)
Allegan	195	69.9	(61.4-77.2)
Ionia	105	74.5	(63.2-83.1)
Kent	1,065	73.5	(70.1-76.7)
Mid-Michigan ^b	338	74.1	(68.0-79.4)
Ottawa	450	80.3	(75.2-84.5)

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Table 18 Cont'd			
Geographic Area	Appropriate Colorectal Cancer Screening^a		
	N	%	95% Confidence Interval
Michigan Total	18,108	71.5	(70.6-72.4)
Region 8	972	71.0	(67.3-74.4)
District #10	645	70.2	(65.6-74.4)
Muskegon	327	72.5	(66.1-78.1)
Region 9	1,166	70.3	(66.6-73.8)
District #2	213	66.7	(56.8-75.2)
District #4	242	67.3	(59.5-74.4)
Northwest Michigan	331	68.4	(60.9-75.0)
Benzie-Leelanau	149	80.0	(70.6-87.0)
Grand Traverse	231	73.9	(66.3-80.3)
Region 10	738	73.6	(69.5-77.3)
Bay	169	70.0	(60.8-77.8)
Huron	64	67.7	(53.1-79.5)
Saginaw	303	78.6	(72.0-84.0)
Sanilac	86	69.9	(58.3-79.5)
Tuscola	116	71.3	(60.8-79.9)
Region 11	627	67.4	(62.3-72.1)
Central Michigan	428	65.7	(59.6-71.4)
Midland	199	71.7	(62.5-79.5)
Region 12	1,268	72.3	(68.3-76.0)
Luce-Mackinac-Alger-Schoolcraft	263	75.3	(63.9-84.0)
Western Upper Peninsula	244	68.3	(59.3-76.2)
Delta-Menominee	167	70.9	(61.1-79.1)
Chippewa	250	67.4	(54.9-77.8)
Dickinson-Iron	130	70.2	(58.3-79.8)
Marquette	214	80.6	(73.1-86.5)

^a Among adults aged 50 years and older, the proportion who had either a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past ten years.
^b 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 19: Immunizations Among Adults Aged 65 Years and Older
Michigan BRFSS, 2013-2015 Combined**

Geographic Area	Had Flu Vaccine in Past Year ^a			Ever Had Pneumonia Vaccine ^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	9,502	57.4	(56.1-58.6)	9,180	70.2	(69.0-71.4)
Region 1	3,694	55.9	(53.9-57.9)	3,556	67.9	(65.9-69.9)
Livingston	144	64.0	(54.4-72.6)	142	71.9	(62.7-79.6)
Macomb	679	55.5	(50.9-60.0)	662	72.0	(67.5-76.1)
Monroe	137	57.9	(47.9-67.4)	134	61.4	(51.1-70.7)
Oakland	1,001	58.8	(55.0-62.5)	957	70.4	(66.7-73.8)
St. Clair	134	46.0	(36.5-55.7)	130	69.0	(59.2-77.3)
Washtenaw	266	61.9	(53.4-69.7)	255	78.7	(70.5-85.1)
City of Detroit	376	45.3	(38.5-52.3)	347	51.6	(44.4-58.7)
Wayne exc. Detroit	922	57.7	(53.6-61.6)	894	68.0	(64.0-71.9)
Region 2	492	55.3	(50.0-60.4)	470	70.1	(65.0-74.8)
Genesee	369	54.2	(48.2-60.1)	351	69.3	(63.4-74.6)
Lapeer	61	52.5	(38.2-66.5)	60	68.6	(53.9-80.4)
Shiawassee	61	63.7	(48.5-76.5)	-- ^d	-- ^d	-- ^d
Region 3	255	59.0	(51.5-66.2)	249	77.5	(70.9-83.0)
Jackson	151	59.4	(49.0-68.9)	148	77.8	(68.8-84.7)
Lenawee	103	57.8	(46.5-68.3)	100	76.7	(65.8-84.9)
Region 4	605	63.4	(58.6-68.0)	590	70.5	(65.7-75.0)
Barry-Eaton	207	70.8	(62.9-77.7)	203	75.3	(67.3-81.9)
Mid-Michigan ^c	200	60.3	(51.8-68.2)	192	68.8	(60.4-76.1)
Ingham	271	59.1	(51.7-66.2)	264	68.5	(60.8-75.3)
Region 5	558	60.5	(55.3-65.5)	548	75.6	(70.8-79.8)
Branch-Hillsdale-St. Joseph	161	57.0	(47.2-66.2)	159	71.3	(61.9-79.2)
Calhoun	150	68.2	(57.8-77.0)	147	78.4	(68.7-85.8)
Kalamazoo	245	57.8	(49.9-65.3)	240	76.9	(69.6-82.8)
Region 6	305	52.6	(45.4-59.8)	295	65.7	(58.0-72.7)
Van Buren-Cass	129	48.9	(37.6-60.3)	125	67.2	(55.4-77.2)
Berrien	175	55.1	(45.8-64.2)	169	64.5	(54.0-73.7)

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Table 19 Cont'd						
Geographic Area	Had Flu Vaccine in Past Year ^a			Ever Had Pneumonia Vaccine ^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	9,502	57.4	(56.1-58.6)	9,180	70.2	(69.0-71.4)
Region 7	979	61.1	(57.3-64.7)	944	76.5	(73.0-79.6)
Allegan	98	67.1	(55.5-76.9)	97	79.7	(68.3-87.8)
Ionia	57	57.2	(41.5-71.6)	53	72.2	(57.1-83.5)
Kent	513	61.2	(56.0-66.2)	497	77.8	(72.8-82.0)
Mid-Michigan ^c	200	60.3	(51.8-68.2)	192	68.8	(60.4-76.1)
Ottawa	234	60.3	(52.7-67.5)	224	75.6	(68.4-81.5)
Region 8	504	58.0	(52.7-63.2)	491	71.4	(66.3-76.1)
District #10	343	58.0	(51.4-64.3)	333	67.1	(60.6-73.1)
Muskegon	158	56.8	(47.6-65.6)	155	80.4	(72.2-86.6)
Region 9	594	58.4	(52.9-63.6)	567	75.2	(70.0-79.8)
District #2	121	47.5	(36.3-59.0)	115	77.0	(65.3-85.6)
District #4	126	61.4	(50.3-71.5)	120	78.1	(67.9-85.7)
Northwest Michigan	173	62.3	(52.7-71.0)	166	78.2	(69.1-85.2)
Benzie-Leelanau	80	57.9	(42.0-72.3)	78	67.7	(49.4-81.8)
Grand Traverse	94	63.8	(50.5-75.3)	88	70.9	(57.2-81.6)
Region 10	389	55.7	(49.7-61.6)	379	66.7	(60.7-72.3)
Bay	88	49.4	(37.3-61.5)	87	66.9	(54.3-77.5)
Huron	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
Saginaw	165	57.2	(47.8-66.1)	157	65.1	(55.0-73.9)
Sanilac	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
Tuscola	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
Region 11	354	54.2	(47.7-60.5)	347	71.3	(65.3-76.6)
Central Michigan	245	54.0	(46.3-61.5)	241	68.6	(61.4-75.0)
Midland	107	55.1	(43.5-66.3)	105	81.3	(70.3-88.8)
Region 12	693	62.7	(57.2-67.8)	670	71.1	(65.7-76.0)
Luce-Mackinac-Alger-Schoolcraft	146	47.9	(34.5-61.7)	142	60.3	(45.4-73.5)
Western Upper Peninsula	135	68.6	(57.9-77.6)	132	68.7	(57.6-78.0)
Delta-Menominee	79	66.1	(51.5-78.2)	74	69.2	(53.2-81.7)
Chippewa	139	53.2	(37.3-68.5)	135	69.1	(52.1-82.2)
Dickinson-Iron	77	59.1	(43.8-72.7)	75	70.5	(54.6-82.6)
Marquette	117	73.9	(63.4-82.2)	112	86.0	(76.9-92.0)

^a 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.

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

^c 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.

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

Table 20: HIV Testing Among Adults Aged 18-64 Years Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Had an HIV Test^a		
	N	%	95% Confidence Interval
Michigan Total	18,252	40.9	(40.0-41.9)
Region 1	7,442	44.8	(43.4-46.3)
Livingston	346	33.7	(27.7-40.2)
Macomb	1,239	39.6	(36.3-43.0)
Monroe	221	34.2	(26.3-43.1)
Oakland	1,862	43.8	(41.0-46.5)
St. Clair	241	29.7	(23.2-37.2)
Washtenaw	694	41.9	(37.3-46.7)
City of Detroit	879	68.3	(64.4-71.9)
Wayne exc. Detroit	1,769	42.8	(39.9-45.7)
Region 2	980	45.0	(41.2-48.9)
Genesee	691	47.7	(43.2-52.3)
Lapeer	147	33.6	(24.8-43.6)
Shiawassee	137	43.7	(34.0-53.9)
Region 3	457	37.1	(31.9-42.8)
Jackson	286	37.2	(30.6-44.4)
Lenawee	170	37.2	(28.8-46.4)
Region 4	1,128	38.7	(35.3-42.3)
Barry-Eaton	328	38.6	(32.3-45.4)
Mid-Michigan ^b	335	31.8	(25.5-39.0)
Ingham	583	41.0	(36.1-46.0)
Region 5	975	39.9	(36.1-43.8)
Branch-Hillsdale-St. Joseph	279	29.9	(23.6-37.0)
Calhoun	226	53.1	(44.9-61.2)
Kalamazoo	465	39.0	(33.7-44.6)
Region 6	525	35.9	(31.0-41.1)
Van Buren-Cass	216	32.5	(25.3-40.7)
Berrien	299	38.1	(31.5-45.1)
Region 7	2,213	37.2	(34.7-39.8)
Allegan	233	34.8	(27.7-42.6)
Ionia	111	37.0	(26.9-48.4)
Kent	1,242	40.1	(36.8-43.6)
Mid-Michigan ^b	335	31.8	(25.5-39.0)
Ottawa	489	30.9	(26.1-36.2)

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Table 20 Cont'd			
Geographic Area	Ever Had an HIV Test^a		
	N	%	95% Confidence Interval
Michigan Total	18,252	40.9	(40.0-41.9)
Region 8	918	38.3	(34.3-42.5)
District #10	551	35.0	(29.9-40.4)
Muskegon	335	42.7	(36.1-49.5)
Region 9	1,064	32.9	(29.2-36.9)
District #2	167	30.6	(21.1-42.1)
District #4	223	29.3	(22.6-37.1)
Northwest Michigan	288	36.2	(29.3-43.7)
Benzie-Leelanau	109	31.6	(21.5-43.8)
Grand Traverse	272	33.9	(27.1-41.4)
Region 10	724	33.9	(29.6-38.5)
Bay	164	29.9	(21.7-39.6)
Huron	58	23.1	(13.3-36.9)
Saginaw	309	40.5	(33.6-47.7)
Sanilac	75	26.8	(15.5-42.1)
Tuscola	106	29.7	(20.1-41.5)
Region 11	550	36.7	(31.8-42.0)
Central Michigan	341	35.8	(29.7-42.5)
Midland	186	33.6	(25.5-42.8)
Region 12	1,115	32.0	(28.0-36.3)
Luce-Mackinac-Alger-Schoolcraft	194	31.4	(20.9-44.1)
Western Upper Peninsula	220	27.7	(20.4-36.5)
Delta-Menominee	175	31.7	(22.9-42.1)
Chippewa	207	38.2	(26.5-51.4)
Dickinson-Iron	113	28.4	(18.3-41.1)
Marquette	206	35.8	(26.5-46.2)

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

^a 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.

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

Table 21: Asthma Michigan BRFSS, 2013-2015 Combined						
Geographic Area	Ever Told Have Asthma^a			Still Have Asthma^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	30,029	15.9	(15.3-16.5)	29,876	10.9	(10.4-11.3)
Region 1	12,106	16.6	(15.7-17.5)	12,047	11.5	(10.8-12.3)
Livingston	512	11.5	(8.6-15.1)	509	7.0	(4.9-10.0)
Macomb	2,077	16.2	(14.1-18.4)	2,095	11.0	(9.4-12.9)
Monroe	380	13.3	(8.7-19.9)	379	8.4	(5.2-13.3)
Oakland	3,091	16.1	(14.5-17.8)	3,072	11.4	(10.0-12.9)
St. Clair	412	12.3	(8.8-16.9)	411	10.3	(7.2-14.5)
Washtenaw	986	20.9	(17.7-24.5)	980	13.6	(10.9-16.8)
City of Detroit	1,403	20.3	(17.6-23.2)	1,395	14.6	(12.3-17.3)
Wayne exc. Detroit	2,917	15.5	(13.9-17.3)	2,909	11.0	(9.6-12.5)
Region 2	1,595	16.7	(14.6-19.1)	1,592	13.1	(11.2-15.3)
Genesee	1,150	15.8	(13.3-18.5)	1,148	12.5	(10.3-15.0)
Lapeer	225	17.6	(12.6-24.0)	225	13.7	(9.3-19.8)
Shiawassee	214	21.1	(15.0-28.8)	213	15.8	(10.4-23.3)
Region 3	751	18.3	(14.7-22.4)	742	9.4	(7.0-12.4)
Jackson	469	21.5	(16.7-27.2)	461	12.1	(8.7-16.5)
Lenawee	279	13.2	(8.6-19.5)	-- ^d	-- ^d	-- ^d
Region 4	1,831	15.9	(13.8-18.2)	1,824	10.1	(8.5-12.1)
Barry-Eaton	569	13.9	(10.6-17.9)	568	9.7	(7.0-13.4)
Mid-Michigan ^c	565	13.4	(10.2-17.4)	564	7.9	(5.9-10.5)
Ingham	901	18.1	(15.0-21.7)	896	11.7	(9.2-14.8)
Region 5	1,659	15.4	(13.3-17.8)	1,651	10.5	(8.8-12.5)
Branch-Hillsdale-St. Joseph	474	13.8	(10.3-18.3)	472	9.3	(6.5-13.3)
Calhoun	405	15.6	(11.5-20.8)	404	9.7	(6.7-13.9)
Kalamazoo	773	16.5	(13.4-20.1)	768	11.8	(9.2-15.0)
Region 6	890	15.2	(12.4-18.5)	888	11.3	(8.8-14.3)
Van Buren-Cass	368	14.1	(9.9-19.7)	367	11.2	(7.4-16.5)
Berrien	511	16.4	(12.8-20.8)	510	11.5	(8.5-15.4)
Region 7	3,427	14.9	(13.4-16.5)	3,413	9.8	(8.7-11.1)
Allegan	348	15.3	(10.8-21.2)	346	10.5	(6.9-15.6)
Ionia	188	14.8	(9.5-22.5)	187	7.8	(4.6-12.8)
Kent	1,876	14.5	(12.6-16.8)	1,870	10.1	(8.5-11.9)
Mid-Michigan ^c	565	13.4	(10.2-17.4)	564	7.9	(5.9-10.5)
Ottawa	783	15.2	(12.2-18.7)	778	8.9	(6.8-11.6)

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Table 21 Cont'd

Geographic Area	Ever Told Have Asthma ^a			Still Have Asthma ^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	30,029	15.9	(15.3-16.5)	29,876	10.9	(10.4-11.3)
Region 8	1,506	16.7	(14.1-19.6)	1,497	12.9	(10.5-15.7)
District #10	952	15.3	(12.0-19.2)	948	12.8	(9.7-16.7)
Muskegon	516	18.7	(14.6-23.7)	512	13.2	(9.6-17.8)
Region 9	1,771	13.1	(10.9-15.6)	1,759	8.7	(6.9-11.0)
District #2	312	17.3	(11.1-25.9)	308	12.5	(7.0-21.1)
District #4	373	13.7	(9.7-19.0)	372	9.7	(6.5-14.1)
Northwest Michigan	485	12.3	(9.1-16.3)	483	7.5	(5.3-10.7)
Benzie-Leelanau	203	6.4	(3.5-11.3)	-- ^d	-- ^d	-- ^d
Grand Traverse	373	13.2	(9.0-19.0)	389	8.8	(5.2-14.6)
Region 10	1,188	12.2	(10.1-14.6)	1,181	7.1	(5.6-9.0)
Bay	271	12.1	(8.2-17.4)	270	7.7	(4.6-12.5)
Huron	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
Saginaw	498	13.3	(10.0-17.4)	493	7.1	(4.9-10.2)
Sanilac	131	11.0	(6.2-18.6)	-- ^d	-- ^d	-- ^d
Tuscola	173	11.1	(6.6-18.0)	173	8.2	(4.5-14.5)
Region 11	986	15.4	(12.6-18.6)	979	9.5	(7.4-12.0)
Central Michigan	645	15.4	(12.1-19.5)	642	9.8	(7.3-13.0)
Midland	312	14.2	(9.6-20.5)	309	9.0	(5.7-14.1)
Region 12	1,908	17.6	(14.8-20.8)	1,896	11.7	(9.5-14.2)
Luce-Mackinac-Alger-Schoolcraft	359	10.5	(5.7-18.7)	-- ^d	-- ^d	-- ^d
Western Upper Peninsula	376	17.5	(12.3-24.3)	374	13.1	(8.7-19.1)
Delta-Menominee	270	18.0	(11.1-27.9)	269	13.6	(8.3-21.6)
Chippewa	365	15.5	(10.1-23.0)	362	7.7	(4.3-13.5)
Dickinson-Iron	196	12.8	(8.1-19.8)	-- ^d	-- ^d	-- ^d
Marquette	342	26.3	(19.3-34.7)	339	14.6	(10.0-20.8)

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

^b Among all adults, the proportion who reported that they still had asthma.

^c 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.

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

Table 22: Chronic Obstructive Pulmonary Disease (COPD) Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Told COPD, Emphysema or Chronic Bronchitis^a		
	N	%	95% Confidence Interval
Michigan Total	29,994	8.4	(8.0-8.8)
Region 1	12,082	8.7	(8.0-9.3)
Livingston	511	4.2	(2.8-6.4)
Macomb	2,079	10.0	(8.5-11.7)
Monroe	377	17.0	(12.3-23.0)
Oakland	3,077	6.6	(5.6-7.8)
St. Clair	413	8.7	(6.0-12.4)
Washtenaw	981	5.4	(4.0-7.2)
City of Detroit	1,401	12.0	(9.9-14.4)
Wayne exc. Detroit	2,914	9.0	(7.9-10.4)
Region 2	1,596	11.1	(9.3-13.2)
Genesee	1,150	11.3	(9.2-13.8)
Lapeer	227	8.9	(5.5-14.2)
Shiawassee	213	11.5	(7.1-18.2)
Region 3	749	8.6	(6.6-11.1)
Jackson	467	10.6	(7.7-14.3)
Lenawee	279	5.6	(3.5-8.9)
Region 4	1,827	6.7	(5.4-8.2)
Barry-Eaton	568	7.9	(5.6-10.9)
Mid-Michigan ^b	565	9.6	(6.7-13.6)
Ingham	898	5.9	(4.4-7.8)
Region 5	1,654	7.8	(6.5-9.4)
Branch-Hillsdale-St. Joseph	474	8.7	(6.2-12.0)
Calhoun	401	8.8	(6.2-12.5)
Kalamazoo	772	6.8	(5.0-9.1)
Region 6	891	8.9	(6.8-11.6)
Van Buren-Cass	369	10.6	(6.9-15.8)
Berrien	511	8.0	(5.7-11.1)
Region 7	3,425	6.6	(5.7-7.7)
Allegan	348	7.9	(5.4-11.5)
Ionia	188	4.9	(2.7-8.8)
Kent	1,876	5.9	(4.7-7.3)
Mid-Michigan ^b	565	9.6	(6.7-13.6)
Ottawa	781	5.6	(3.7-8.4)

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Table 22 Cont'd			
Geographic Area	Ever Told COPD, Emphysema or Chronic Bronchitis^a		
	N	%	95% Confidence Interval
Michigan Total	29,994	8.4	(8.0-8.8)
Region 8	1,508	8.6	(7.1-10.5)
District #10	955	9.8	(7.7-12.4)
Muskegon	515	7.3	(5.1-10.3)
Region 9	1,767	9.6	(7.7-11.9)
District #2	310	17.0	(10.8-25.7)
District #4	368	12.1	(8.6-16.6)
Northwest Michigan	488	7.8	(5.3-11.4)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	393	5.0	(3.2-7.7)
Region 10	1,191	9.3	(7.5-11.5)
Bay	271	5.6	(3.4-9.0)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	500	10.8	(7.8-14.7)
Sanilac	131	8.6	(4.7-15.2)
Tuscola	172	13.7	(8.2-22.1)
Region 11	985	9.4	(7.4-11.8)
Central Michigan	643	10.3	(7.9-13.2)
Midland	313	8.9	(5.3-14.6)
Region 12	1,911	6.9	(5.4-8.8)
Luce-Mackinac-Alger-Schoolcraft	360	7.1	(4.2-11.8)
Western Upper Peninsula	-- ^c	-- ^c	-- ^c
Delta-Menominee	272	8.7	(4.8-15.4)
Chippewa	366	10.4	(6.3-16.8)
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	343	7.3	(4.5-11.8)

^a 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.

^b 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.

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

Table 23: Arthritis Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Told Arthritis^a		
	N	%	95% Confidence Interval
Michigan Total	29,972	31.1	(30.4-31.7)
Region 1	12,081	29.3	(28.3-30.3)
Livingston	513	28.7	(24.1-33.6)
Macomb	2,070	31.1	(28.7-33.6)
Monroe	381	39.1	(33.0-45.6)
Oakland	3,077	27.6	(25.8-29.6)
St. Clair	413	30.0	(25.1-35.4)
Washtenaw	984	22.7	(19.8-25.9)
City of Detroit	1,403	31.3	(28.4-34.4)
Wayne exc. Detroit	2,912	31.5	(29.5-33.6)
Region 2	1,589	37.4	(34.6-40.3)
Genesee	1,144	38.2	(34.9-41.7)
Lapeer	226	34.5	(27.8-41.8)
Shiawassee	213	37.2	(29.7-45.4)
Region 3	747	35.2	(31.1-39.6)
Jackson	463	32.7	(27.6-38.1)
Lenawee	281	39.0	(32.1-46.3)
Region 4	1,829	29.2	(26.8-31.7)
Barry-Eaton	567	34.7	(30.1-39.6)
Mid-Michigan ^b	565	31.0	(26.3-36.0)
Ingham	901	26.5	(23.2-30.1)
Region 5	1,658	31.8	(29.1-34.5)
Branch-Hillsdale-St. Joseph	473	35.4	(30.3-40.9)
Calhoun	406	31.4	(26.2-37.2)
Kalamazoo	772	29.6	(26.0-33.5)
Region 6	889	32.1	(28.4-36.0)
Van Buren-Cass	367	30.4	(24.9-36.5)
Berrien	511	34.7	(29.8-40.0)
Region 7	3,420	27.7	(25.9-29.6)
Allegan	346	24.3	(19.6-29.6)
Ionia	189	27.8	(21.3-35.5)
Kent	1,873	27.0	(24.6-29.5)
Mid-Michigan ^b	565	31.0	(26.3-36.0)
Ottawa	780	29.1	(25.3-33.2)

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Table 23 Cont'd			
Geographic Area	Ever Told Arthritis^a		
	N	%	95% Confidence Interval
Michigan Total	29,972	31.1	(30.4-31.7)
Region 8	1,503	35.3	(32.3-38.4)
District #10	951	35.9	(32.1-39.8)
Muskegon	514	36.8	(31.8-42.1)
Region 9	1,770	34.8	(31.9-37.7)
District #2	312	37.5	(30.6-45.1)
District #4	373	36.1	(30.2-42.4)
Northwest Michigan	484	34.2	(28.9-40.0)
Benzie-Leelanau	203	41.7	(33.2-50.7)
Grand Traverse	393	28.4	(23.3-34.1)
Region 10	1,189	34.7	(31.5-38.1)
Bay	271	35.4	(28.5-43.1)
Huron	101	36.3	(26.5-47.3)
Saginaw	499	33.8	(28.8-39.2)
Sanilac	129	31.5	(23.3-41.0)
Tuscola	173	36.6	(28.7-45.2)
Region 11	984	35.9	(32.3-39.7)
Central Michigan	641	39.8	(35.2-44.7)
Midland	314	31.2	(25.2-37.9)
Region 12	1,903	37.0	(33.7-40.5)
Luce-Mackinac-Alger-Schoolcraft	358	32.3	(24.4-41.5)
Western Upper Peninsula	373	36.5	(29.9-43.8)
Delta-Menominee	270	39.3	(31.3-48.0)
Chippewa	365	39.1	(29.7-49.4)
Dickinson-Iron	195	42.0	(32.7-52.0)
Marquette	342	34.8	(27.8-42.6)

^a 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.

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

Table 24: Heart Attack Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Told Heart Attack^a		
	N	%	95% Confidence Interval
Michigan Total	29,982	5.0	(4.7-5.3)
Region 1	12,084	4.6	(4.2-5.1)
Livingston	512	2.7	(1.6-4.3)
Macomb	2,081	5.3	(4.4-6.4)
Monroe	376	8.9	(5.9-13.1)
Oakland	3,086	3.6	(3.0-4.4)
St. Clair	412	4.9	(3.1-7.6)
Washtenaw	978	3.1	(2.1-4.5)
City of Detroit	1,397	5.3	(4.1-6.7)
Wayne exc. Detroit	2,913	5.2	(4.3-6.2)
Region 2	1,588	6.1	(4.8-7.6)
Genesee	1,146	5.9	(4.5-7.6)
Lapeer	-- ^c	-- ^c	-- ^c
Shiawassee	211	9.6	(5.6-16.0)
Region 3	749	6.2	(4.6-8.3)
Jackson	465	6.3	(4.4-9.0)
Lenawee	281	6.1	(3.7-9.9)
Region 4	1,824	3.5	(2.7-4.6)
Barry-Eaton	566	5.3	(3.4-8.0)
Mid-Michigan ^b	562	3.6	(2.3-5.7)
Ingham	898	2.5	(1.7-3.6)
Region 5	1,658	5.3	(4.2-6.6)
Branch-Hillsdale-St. Joseph	473	5.2	(3.5-7.7)
Calhoun	406	7.3	(4.9-10.7)
Kalamazoo	772	4.1	(2.9-5.9)
Region 6	890	6.0	(4.5-8.1)
Van Buren-Cass	368	6.3	(3.8-10.0)
Berrien	511	6.1	(4.2-8.8)
Region 7	3,425	3.8	(3.1-4.5)
Allegan	348	3.5	(2.1-5.8)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,874	3.7	(2.8-4.9)
Mid-Michigan ^b	562	3.6	(2.3-5.7)
Ottawa	784	4.5	(3.2-6.3)

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Table 24 Cont'd			
Geographic Area	Ever Told Heart Attack^a		
	N	%	95% Confidence Interval
Michigan Total	29,982	5.0	(4.7-5.3)
Region 8	1,509	5.9	(4.7-7.4)
District #10	954	6.9	(5.3-9.0)
Muskegon	517	4.6	(2.9-7.2)
Region 9	1,767	6.4	(5.1-8.1)
District #2	311	8.0	(5.0-12.7)
District #4	372	7.5	(4.9-11.4)
Northwest Michigan	484	4.3	(2.8-6.7)
Benzie-Leelanau	202	12.5	(6.7-22.1)
Grand Traverse	393	3.4	(1.9-5.9)
Region 10	1,190	5.4	(4.0-7.1)
Bay	-- ^c	-- ^c	-- ^c
Huron	-- ^c	-- ^c	-- ^c
Saginaw	498	5.8	(3.6-9.2)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	-- ^c	-- ^c	-- ^c
Region 11	985	8.1	(6.2-10.6)
Central Michigan	644	8.3	(6.0-11.4)
Midland	313	8.9	(5.4-14.3)
Region 12	1,906	6.5	(5.1-8.3)
Luce-Mackinac-Alger-Schoolcraft	360	2.8	(1.7-4.7)
Western Upper Peninsula	374	7.3	(4.5-11.5)
Delta-Menominee	272	8.3	(4.5-14.7)
Chippewa	-- ^c	-- ^c	-- ^c
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	343	6.3	(3.8-10.2)

^a Among all adults, the proportion who had ever been told by a doctor that they had a heart attack or myocardial infarction.
^b 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.
^c Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Table 25: Angina or Coronary Heart Disease Michigan BRFS, 2013-2015 Combined			
Geographic Area	Ever Told Angina or Coronary Heart Disease^a		
	N	%	95% Confidence Interval
Michigan Total	29,928	5.1	(4.8-5.4)
Region 1	12,070	4.8	(4.4-5.3)
Livingston	512	2.3	(1.4-3.8)
Macomb	2,069	5.8	(4.8-7.0)
Monroe	380	8.5	(5.7-12.4)
Oakland	3,079	4.5	(3.7-5.4)
St. Clair	413	6.4	(4.1-9.9)
Washtenaw	981	3.9	(2.8-5.4)
City of Detroit	1,398	4.6	(3.5-5.9)
Wayne exc. Detroit	2,909	4.9	(4.1-5.8)
Region 2	1,596	4.7	(3.7-5.9)
Genesee	1,150	4.9	(3.7-6.4)
Lapeer	-- ^c	-- ^c	-- ^c
Shiawassee	214	6.4	(3.7-10.9)
Region 3	747	5.4	(3.8-7.5)
Jackson	467	5.7	(3.7-8.7)
Lenawee	277	4.9	(2.9-8.3)
Region 4	1,824	4.2	(3.3-5.4)
Barry-Eaton	567	5.6	(3.6-8.7)
Mid-Michigan ^b	561	4.4	(2.9-6.8)
Ingham	896	3.1	(2.2-4.4)
Region 5	1,648	5.3	(4.2-6.6)
Branch-Hillsdale-St. Joseph	471	5.7	(3.7-8.5)
Calhoun	401	5.8	(3.7-8.9)
Kalamazoo	769	4.7	(3.4-6.4)
Region 6	884	6.3	(4.6-8.5)
Van Buren-Cass	365	5.8	(3.6-9.3)
Berrien	508	6.9	(4.5-10.2)
Region 7	3,409	4.2	(3.5-5.1)
Allegan	345	5.2	(3.4-7.8)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,870	4.0	(3.2-5.1)
Mid-Michigan ^b	561	4.4	(2.9-6.8)
Ottawa	778	4.6	(3.0-6.9)

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Table 25 Cont'd			
Geographic Area	Ever Told Angina or Coronary Heart Disease^a		
	N	%	95% Confidence Interval
Michigan Total	29,928	5.1	(4.8-5.4)
Region 8	1,506	5.7	(4.5-7.2)
District #10	954	6.7	(5.1-8.6)
Muskegon	514	4.3	(2.7-7.0)
Region 9	1,766	6.2	(4.9-7.8)
District #2	310	6.4	(4.0-10.0)
District #4	371	8.2	(5.3-12.7)
Northwest Michigan	485	5.4	(3.5-8.2)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	392	3.5	(2.0-6.1)
Region 10	1,189	5.2	(4.0-6.7)
Bay	272	6.0	(3.7-9.5)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	499	4.8	(3.0-7.7)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	172	5.9	(3.3-10.1)
Region 11	982	8.7	(6.6-11.4)
Central Michigan	642	9.2	(6.6-12.8)
Midland	311	8.3	(4.9-13.6)
Region 12	1,898	6.4	(5.1-8.0)
Luce-Mackinac-Alger-Schoolcraft	358	3.1	(1.8-5.3)
Western Upper Peninsula	375	6.9	(4.4-10.5)
Delta-Menominee	270	6.1	(3.4-10.8)
Chippewa	-- ^c	-- ^c	-- ^c
Dickinson-Iron	194	9.8	(5.6-16.7)
Marquette	339	5.1	(2.9-8.9)

^a Among all adults, the proportion who had ever been told by a doctor that they had angina or coronary heart disease.
^b 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.
^c Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Table 26: Stroke			
Michigan BRFS, 2013-2015 Combined			
Geographic Area	Ever Told Stroke^a		
	N	%	95% Confidence Interval
Michigan Total	30,071	3.4	(3.2-3.7)
Region 1	12,127	3.6	(3.2-4.0)
Livingston	--c	--c	--c
Macomb	2,078	4.2	(3.3-5.4)
Monroe	380	4.3	(2.4-7.4)
Oakland	3,096	2.9	(2.2-3.6)
St. Clair	413	4.0	(2.4-6.8)
Washtenaw	987	2.1	(1.3-3.2)
City of Detroit	1,407	5.6	(4.4-7.1)
Wayne exc. Detroit	2,923	3.4	(2.7-4.2)
Region 2	1,599	4.0	(3.0-5.2)
Genesee	1,154	3.9	(2.8-5.5)
Lapeer	--c	--c	--c
Shiawassee	--c	--c	--c
Region 3	750	3.1	(1.9-5.0)
Jackson	--c	--c	--c
Lenawee	--c	--c	--c
Region 4	1,830	2.7	(1.9-3.7)
Barry-Eaton	568	5.5	(3.5-8.5)
Mid-Michigan ^b	565	1.9	(1.2-3.1)
Ingham	901	1.7	(1.0-2.8)
Region 5	1,655	3.2	(2.4-4.3)
Branch-Hillsdale-St. Joseph	469	2.7	(1.6-4.5)
Calhoun	405	5.0	(2.9-8.6)
Kalamazoo	774	2.5	(1.6-3.9)
Region 6	892	4.5	(3.1-6.6)
Van Buren-Cass	--c	--c	--c
Berrien	512	4.2	(2.7-6.5)
Region 7	3,431	2.3	(1.7-2.9)
Allegan	--c	--c	--c
Ionia	--c	--c	--c
Kent	1,881	2.4	(1.7-3.3)
Mid-Michigan ^b	565	1.9	(1.2-3.1)
Ottawa	--c	--c	--c

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Table 26 Cont'd			
Geographic Area	Ever Told Stroke^a		
	N	%	95% Confidence Interval
Michigan Total	30,071	3.4	(3.2-3.7)
Region 8	1,513	3.6	(2.6-4.9)
District #10	957	4.0	(2.7-5.9)
Muskegon	518	3.0	(1.7-5.1)
Region 9	1,778	3.3	(2.4-4.5)
District #2	-- ^c	-- ^c	-- ^c
District #4	375	2.8	(1.8-4.6)
Northwest Michigan	488	4.5	(2.5-7.9)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	-- ^c	-- ^c	-- ^c
Region 10	1,194	3.1	(2.2-4.4)
Bay	-- ^c	-- ^c	-- ^c
Huron	-- ^c	-- ^c	-- ^c
Saginaw	502	4.3	(2.5-7.0)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	-- ^c	-- ^c	-- ^c
Region 11	985	4.2	(2.9-6.1)
Central Michigan	644	4.9	(3.1-7.5)
Midland	-- ^c	-- ^c	-- ^c
Region 12	1,907	3.7	(2.6-5.2)
Luce-Mackinac-Alger-Schoolcraft	-- ^c	-- ^c	-- ^c
Western Upper Peninsula	-- ^c	-- ^c	-- ^c
Delta-Menominee	-- ^c	-- ^c	-- ^c
Chippewa	-- ^c	-- ^c	-- ^c
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	-- ^c	-- ^c	-- ^c

^a Among all adults, the proportion who had ever been told by a doctor that they had a stroke.
^b 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.
^c Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Table 27: Cardiovascular Disease Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Told Any Cardiovascular Disease^a		
	N	%	95% Confidence Interval
Michigan Total	29,872	9.7	(9.4-10.1)
Region 1	12,045	9.6	(9.0-10.2)
Livingston	511	5.7	(4.0-8.1)
Macomb	2,071	10.4	(9.0-12.0)
Monroe	378	15.7	(11.8-20.6)
Oakland	3,070	8.6	(7.5-9.8)
St. Clair	411	10.0	(7.0-13.9)
Washtenaw	975	6.9	(5.3-8.8)
City of Detroit	1,397	11.3	(9.6-13.4)
Wayne exc. Detroit	2,904	9.9	(8.8-11.2)
Region 2	1,587	10.8	(9.2-12.7)
Genesee	1,144	11.0	(9.0-13.2)
Lapeer	224	8.3	(5.3-12.7)
Shiawassee	213	13.5	(8.8-20.0)
Region 3	743	10.5	(8.4-13.2)
Jackson	462	10.4	(7.7-13.9)
Lenawee	278	10.8	(7.5-15.3)
Region 4	1,818	7.3	(6.1-8.8)
Barry-Eaton	564	11.2	(8.3-14.9)
Mid-Michigan ^b	561	7.4	(5.3-10.2)
Ingham	894	5.3	(4.0-6.9)
Region 5	1,646	9.8	(8.4-11.5)
Branch-Hillsdale-St. Joseph	469	9.0	(6.6-12.1)
Calhoun	401	14.0	(10.4-18.6)
Kalamazoo	769	8.0	(6.2-10.2)
Region 6	885	12.0	(9.6-14.9)
Van Buren-Cass	365	12.4	(8.6-17.5)
Berrien	509	12.1	(9.1-15.9)
Region 7	3,412	7.7	(6.7-8.7)
Allegan	347	7.2	(5.0-10.2)
Ionia	188	6.9	(4.0-11.6)
Kent	1,868	7.7	(6.4-9.2)
Mid-Michigan ^b	561	7.4	(5.3-10.2)
Ottawa	780	8.1	(6.1-10.7)

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Table 27 Cont'd			
Geographic Area	Ever Told Any Cardiovascular Disease^a		
	N	%	95% Confidence Interval
Michigan Total	29,872	9.7	(9.4-10.1)
Region 8	1,506	10.8	(9.1-12.7)
District #10	953	13.0	(10.7-15.7)
Muskegon	515	7.6	(5.3-10.7)
Region 9	1,764	11.1	(9.4-13.1)
District #2	309	13.2	(9.3-18.4)
District #4	372	12.1	(8.6-16.7)
Northwest Michigan	483	10.5	(7.5-14.4)
Benzie-Leelanau	202	16.5	(10.1-25.9)
Grand Traverse	393	5.5	(3.7-8.3)
Region 10	1,188	10.0	(8.3-12.1)
Bay	272	9.6	(6.6-13.7)
Huron	99	11.3	(6.3-19.5)
Saginaw	499	10.7	(7.8-14.6)
Sanilac	130	9.5	(5.4-16.2)
Tuscola	172	9.3	(5.9-14.2)
Region 11	980	14.5	(11.8-17.6)
Central Michigan	641	15.7	(12.3-19.7)
Midland	310	13.6	(9.3-19.3)
Region 12	1,894	11.4	(9.6-13.6)
Luce-Mackinac-Alger-Schoolcraft	357	6.6	(4.0-10.6)
Western Upper Peninsula	373	13.4	(9.4-18.7)
Delta-Menominee	268	12.5	(7.8-19.4)
Chippewa	363	12.8	(7.9-20.1)
Dickinson-Iron	192	13.3	(8.4-20.6)
Marquette	341	9.8	(6.6-14.3)

^a 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.

^b 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 28: Cancer Michigan BRFS, 2013-2015 Combined			
Geographic Area	Ever Told Cancer^a		
	N	%	95% Confidence Interval
Michigan Total	30,048	12.0	(11.6-12.4)
Region 1	12,119	11.3	(10.7-11.9)
Livingston	513	12.3	(9.7-15.6)
Macomb	2,081	11.4	(10.0-12.9)
Monroe	380	16.0	(11.7-21.5)
Oakland	3,090	12.3	(11.2-13.6)
St. Clair	414	12.0	(9.1-15.6)
Washtenaw	986	9.4	(7.8-11.3)
City of Detroit	1,403	7.0	(5.7-8.6)
Wayne exc. Detroit	2,923	13.3	(12.0-14.7)
Region 2	1,596	11.7	(10.1-13.5)
Genesee	1,150	11.5	(9.7-13.6)
Lapeer	226	13.1	(9.0-18.7)
Shiawassee	214	11.4	(7.5-17.0)
Region 3	750	14.8	(12.2-17.7)
Jackson	446	13.6	(10.6-17.3)
Lenawee	280	16.7	(12.5-21.9)
Region 4	1,826	11.0	(9.5-12.6)
Barry-Eaton	564	12.4	(9.8-15.5)
Mid-Michigan ^b	565	13.7	(10.7-17.5)
Ingham	901	8.5	(6.8-10.6)
Region 5	1,661	14.1	(12.4-16.1)
Branch-Hillsdale-St. Joseph	474	14.0	(11.0-17.6)
Calhoun	405	16.3	(12.5-21.1)
Kalamazoo	775	13.1	(10.7-16.0)
Region 6	888	14.4	(11.8-17.5)
Van Buren-Cass	368	15.3	(11.3-20.4)
Berrien	509	14.3	(11.0-18.5)
Region 7	3,424	12.5	(11.2-13.9)
Allegan	347	12.2	(9.0-16.5)
Ionia	189	15.3	(9.8-23.1)
Kent	1,876	12.9	(11.1-14.9)
Mid-Michigan ^b	565	13.7	(10.7-17.5)
Ottawa	781	11.5	(9.3-14.1)

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Table 28 Cont'd			
Geographic Area	Ever Told Cancer^a		
	N	%	95% Confidence Interval
Michigan Total	30,048	12.0	(11.6-12.4)
Region 8	1,509	12.8	(11.0-14.8)
District #10	956	13.5	(11.1-16.3)
Muskegon	515	11.9	(9.2-15.1)
Region 9	1,774	13.6	(11.9-15.5)
District #2	312	12.7	(9.2-17.4)
District #4	374	14.2	(10.8-18.6)
Northwest Michigan	488	14.6	(11.3-18.6)
Benzie-Leelanau	202	17.3	(12.1-24.0)
Grand Traverse	393	11.2	(8.0-15.5)
Region 10	1,194	12.3	(10.4-14.4)
Bay	272	12.1	(8.6-16.7)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	501	13.6	(10.7-17.2)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	173	14.4	(9.8-20.5)
Region 11	982	12.4	(10.4-14.8)
Central Michigan	642	12.0	(9.7-14.9)
Midland	311	14.7	(10.6-19.9)
Region 12	1,913	12.1	(10.4-14.2)
Luce-Mackinac-Alger-Schoolcraft	361	11.6	(7.6-17.4)
Western Upper Peninsula	375	14.1	(10.2-19.2)
Delta-Menominee	272	9.2	(5.9-14.2)
Chippewa	366	9.7	(5.8-15.8)
Dickinson-Iron	196	11.0	(6.8-17.4)
Marquette	343	14.9	(11.0-20.0)

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

^b 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.

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

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Table 29: Diabetes			
Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Told Diabetes^a		
	N	%	95% Confidence Interval
Michigan Total	30,104	10.5	(10.1-10.9)
Region 1	12,142	10.3	(9.7-11.0)
Livingston	513	6.7	(4.8-9.2)
Macomb	2,083	9.2	(7.9-10.7)
Monroe	381	12.1	(8.7-16.5)
Oakland	3,099	9.6	(8.4-10.9)
St. Clair	414	13.6	(9.9-18.3)
Washtenaw	986	9.4	(7.4-11.9)
City of Detroit	1,410	13.5	(11.6-15.7)
Wayne exc. Detroit	2,926	10.8	(9.6-12.2)
Region 2	1,596	12.7	(10.9-14.8)
Genesee	1,150	12.1	(10.1-14.4)
Lapeer	226	12.4	(8.2-18.3)
Shiawassee	214	16.6	(11.2-24.1)
Region 3	753	12.5	(9.9-15.7)
Jackson	469	11.6	(8.7-15.4)
Lenawee	281	13.9	(9.5-19.9)
Region 4	1,836	10.0	(8.6-11.7)
Barry-Eaton	570	11.9	(9.1-15.5)
Mid-Michigan ^b	566	11.0	(8.3-14.5)
Ingham	904	8.9	(7.1-11.1)
Region 5	1,664	10.0	(8.4-11.7)
Branch-Hillsdale-St. Joseph	475	12.2	(9.1-16.3)
Calhoun	405	10.4	(7.6-14.0)
Kalamazoo	777	8.3	(6.5-10.6)
Region 6	889	9.9	(7.9-12.5)
Van Buren-Cass	368	10.3	(7.2-14.4)
Berrien	510	10.1	(7.4-13.7)
Region 7	3,432	9.3	(8.2-10.5)
Allegan	347	8.3	(5.8-11.8)
Ionia	190	9.5	(6.1-14.6)
Kent	1,881	9.8	(8.3-11.6)
Mid-Michigan ^b	566	11.0	(8.3-14.5)
Ottawa	782	7.7	(5.8-10.1)

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Table 29 Cont'd			
Geographic Area	Ever Told Diabetes^a		
	N	%	95% Confidence Interval
Michigan Total	30,104	10.5	(10.1-10.9)
Region 8	1,512	9.6	(8.0-11.4)
District #10	956	9.7	(7.6-12.3)
Muskegon	518	10.1	(7.6-13.2)
Region 9	1,775	12.2	(10.2-14.4)
District #2	311	14.9	(10.1-21.5)
District #4	375	15.2	(11.1-20.5)
Northwest Michigan	488	10.2	(6.7-15.1)
Benzie-Leelanau	202	14.5	(9.3-21.9)
Grand Traverse	394	7.0	(4.7-10.4)
Region 10	1,191	10.7	(8.9-12.8)
Bay	273	10.4	(7.0-15.2)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	498	11.5	(8.7-14.9)
Sanilac	130	8.5	(4.9-14.4)
Tuscola	173	14.3	(9.5-20.9)
Region 11	988	12.5	(10.3-15.2)
Central Michigan	645	14.6	(11.6-18.2)
Midland	314	9.4	(6.4-13.6)
Region 12	1,915	11.7	(9.7-14.0)
Luce-Mackinac-Alger-Schoolcraft	361	11.5	(7.0-18.4)
Western Upper Peninsula	376	11.1	(7.4-16.3)
Delta-Menominee	272	13.1	(8.2-20.2)
Chippewa	366	14.3	(9.1-21.9)
Dickinson-Iron	196	13.1	(8.1-20.4)
Marquette	344	9.0	(6.0-13.3)

^a 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.

^b 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.

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

Table 30: Kidney Disease Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Told Kidney Disease^a		
	N	%	95% Confidence Interval
Michigan Total	30,026	3.2	(3.0-3.5)
Region 1	12,108	3.2	(2.8-3.6)
Livingston	511	2.2	(1.3-3.6)
Macomb	2,075	3.1	(2.3-4.2)
Monroe	379	4.2	(2.6-6.7)
Oakland	3,092	3.1	(2.4-3.9)
St. Clair	414	3.5	(2.0-6.0)
Washtenaw	981	2.6	(1.7-4.0)
City of Detroit	1,404	3.7	(2.6-5.2)
Wayne exc. Detroit	2,922	3.4	(2.7-4.2)
Region 2	1,593	3.6	(2.7-4.8)
Genesee	1,149	4.2	(3.0-5.7)
Lapeer	-- ^c	-- ^c	-- ^c
Shiawassee	-- ^c	-- ^c	-- ^c
Region 3	750	3.4	(2.1-5.5)
Jackson	-- ^c	-- ^c	-- ^c
Lenawee	-- ^c	-- ^c	-- ^c
Region 4	1,829	3.0	(2.2-4.0)
Barry-Eaton	568	4.0	(2.7-5.8)
Mid-Michigan ^b	-- ^c	-- ^c	-- ^c
Ingham	900	2.2	(1.4-3.6)
Region 5	1,660	3.5	(2.7-4.6)
Branch-Hillsdale-St. Joseph	471	4.5	(2.9-6.9)
Calhoun	406	3.9	(2.4-6.3)
Kalamazoo	776	2.7	(1.8-4.1)
Region 6	890	4.5	(2.9-6.7)
Van Buren-Cass	-- ^c	-- ^c	-- ^c
Berrien	511	6.0	(3.8-9.2)
Region 7	3,429	3.0	(2.3-3.9)
Allegan	347	3.3	(1.9-5.7)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,880	3.4	(2.3-4.9)
Mid-Michigan ^b	-- ^c	-- ^c	-- ^c
Ottawa	782	2.2	(1.4-3.4)

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Table 30 Cont'd			
Geographic Area	Ever Told Kidney Disease^a		
	N	%	95% Confidence Interval
Michigan Total	30,026	3.2	(3.0-3.5)
Region 8	1,508	3.8	(2.8-5.2)
District #10	954	3.5	(2.2-5.3)
Muskegon	516	4.3	(2.7-6.8)
Region 9	1,768	4.6	(3.4-6.3)
District #2	311	5.8	(3.4-9.9)
District #4	-- ^c	-- ^c	-- ^c
Northwest Michigan	-- ^c	-- ^c	-- ^c
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	-- ^c	-- ^c	-- ^c
Region 10	1,192	1.9	(1.3-2.8)
Bay	-- ^c	-- ^c	-- ^c
Huron	-- ^c	-- ^c	-- ^c
Saginaw	502	1.7	(1.0-3.1)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	-- ^c	-- ^c	-- ^c
Region 11	983	3.0	(2.1-4.4)
Central Michigan	641	3.1	(2.0-4.9)
Midland	-- ^c	-- ^c	-- ^c
Region 12	1,907	3.7	(2.6-5.2)
Luce-Mackinac-Alger-Schoolcraft	-- ^c	-- ^c	-- ^c
Western Upper Peninsula	-- ^c	-- ^c	-- ^c
Delta-Menominee	-- ^c	-- ^c	-- ^c
Chippewa	-- ^c	-- ^c	-- ^c
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	340	4.6	(2.5-8.4)

^a Among all adults, the proportion who reported ever being told by a doctor that they had kidney disease.
^b 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.
^c Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

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Table 31: Depression			
Michigan BRFSS, 2013-2015 Combined			
Geographic Area	Ever Told Depression^a		
	N	%	95% Confidence Interval
Michigan Total	30,034	20.5	(19.9-21.1)
Region 1	12,107	19.7	(18.8-20.7)
Livingston	514	22.6	(17.4-28.7)
Macomb	2,078	19.1	(17.0-21.5)
Monroe	379	24.6	(18.7-31.6)
Oakland	3,089	17.9	(16.2-19.8)
St. Clair	414	19.0	(14.8-24.2)
Washtenaw	982	24.0	(20.7-27.7)
City of Detroit	1,404	21.0	(18.3-23.9)
Wayne exc. Detroit	2,918	19.6	(17.8-21.5)
Region 2	1,600	19.5	(17.2-22.1)
Genesee	1,153	21.1	(18.2-24.2)
Lapeer	227	12.4	(8.3-18.1)
Shiawassee	214	20.3	(14.2-28.1)
Region 3	750	20.3	(16.8-24.2)
Jackson	467	21.6	(17.1-26.9)
Lenawee	281	18.4	(13.4-24.6)
Region 4	1,828	20.9	(18.5-23.5)
Barry-Eaton	567	20.7	(16.7-25.4)
Mid-Michigan ^b	565	17.8	(13.7-22.8)
Ingham	899	21.3	(17.9-25.0)
Region 5	1,658	22.4	(19.9-25.0)
Branch-Hillsdale-St. Joseph	474	25.3	(20.6-30.8)
Calhoun	404	25.7	(20.5-31.7)
Kalamazoo	774	18.5	(15.5-21.9)
Region 6	891	20.7	(17.4-24.4)
Van Buren-Cass	368	24.9	(19.4-31.5)
Berrien	512	17.6	(13.9-22.0)
Region 7	3,424	22.2	(20.4-24.2)
Allegan	347	22.6	(17.6-28.4)
Ionia	190	22.1	(15.5-30.4)
Kent	1,873	23.2	(20.7-25.9)
Mid-Michigan ^b	565	17.8	(13.7-22.8)
Ottawa	783	22.3	(18.6-26.5)

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Table 31 Cont'd			
Geographic Area	Ever Told Depression^a		
	N	%	95% Confidence Interval
Michigan Total	30,034	20.5	(19.9-21.1)
Region 8	1,508	23.7	(21.0-26.6)
District #10	953	23.3	(19.9-27.1)
Muskegon	517	24.8	(20.4-29.9)
Region 9	1,768	18.6	(16.5-21.0)
District #2	312	18.9	(14.1-24.9)
District #4	371	21.0	(16.2-26.8)
Northwest Michigan	486	18.3	(14.4-23.1)
Benzie-Leelanau	203	14.5	(9.9-20.8)
Grand Traverse	391	19.4	(15.0-24.7)
Region 10	1,193	22.6	(19.6-26.0)
Bay	273	29.2	(22.5-37.0)
Huron	101	12.2	(6.8-20.8)
Saginaw	500	24.4	(19.6-30.0)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	173	18.8	(12.6-27.1)
Region 11	988	21.1	(17.9-24.6)
Central Michigan	645	21.4	(17.6-25.7)
Midland	314	22.0	(16.2-29.2)
Region 12	1,908	23.0	(19.9-26.3)
Luce-Mackinac-Alger-Schoolcraft	360	20.6	(13.7-29.6)
Western Upper Peninsula	375	20.9	(14.7-28.7)
Delta-Menominee	272	28.0	(20.6-36.7)
Chippewa	364	12.4	(8.1-18.5)
Dickinson-Iron	195	32.9	(24.0-43.2)
Marquette	342	23.6	(17.1-31.7)

^a 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.

^b 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.

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