

**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)**

2015 - 2017

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

For this report, data from the 2015-2017 Michigan BRFS were combined. The total sample sizes by year were: 10,889 in 2017, 12,024 in 2016, and 8,935 in 2015. Not all questions were included annually in the survey. The table subtitles indicate which years were used for that particular analysis.

For the 2015 through 2017 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.

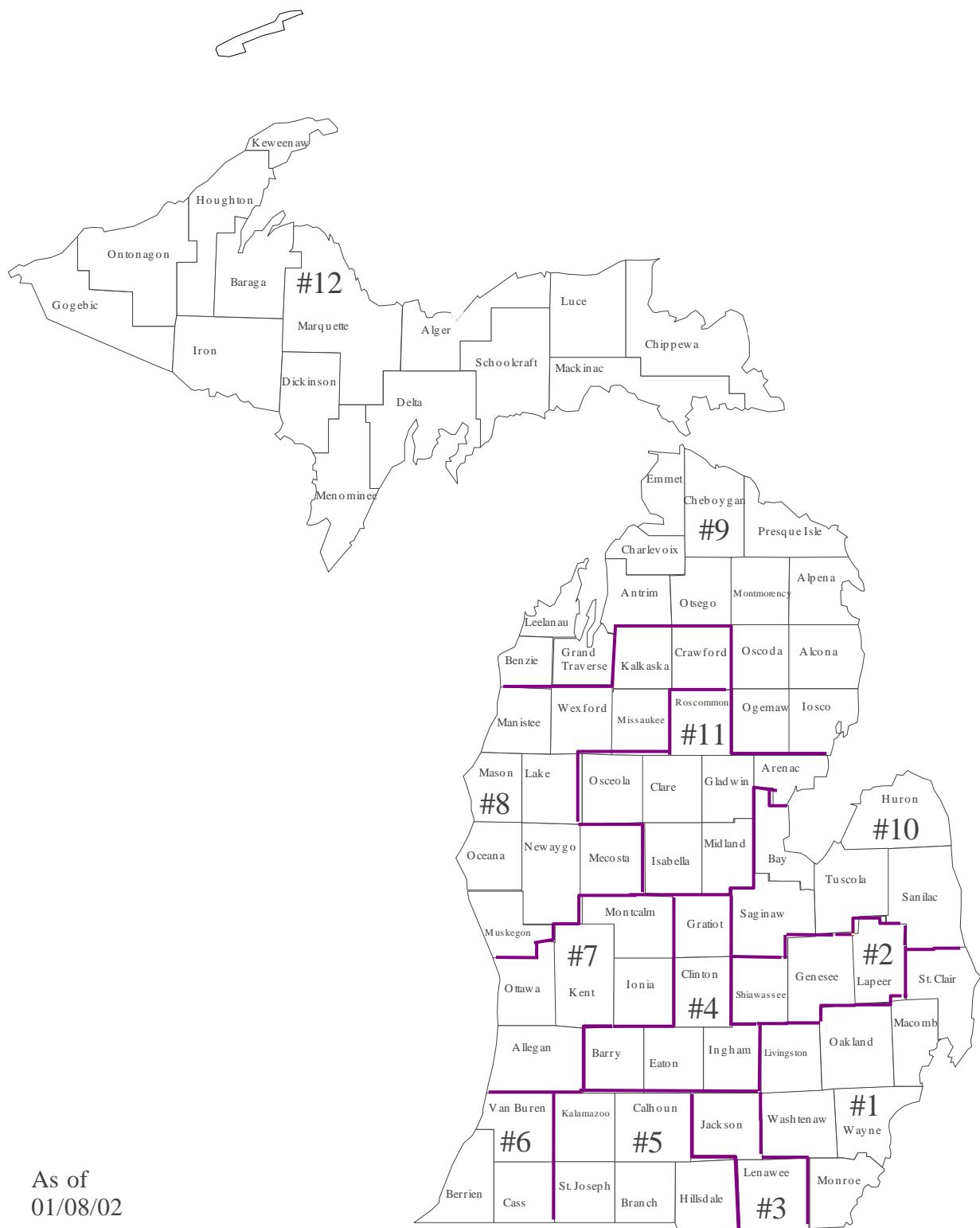
Iterative proportional fitting or raking was the weighting methodology used to make the 2015-2017 Michigan BRFS data representative of the current Michigan adult population. Estimates based on this methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of Michigan adults by telephone source (land line vs. cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status. No additional weighting factors were computed at the regional 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 Allison Murad at murada@michigan.gov.

Community Health Assessment and Improvement Regions State of Michigan



Local Health Departments
State of Michigan

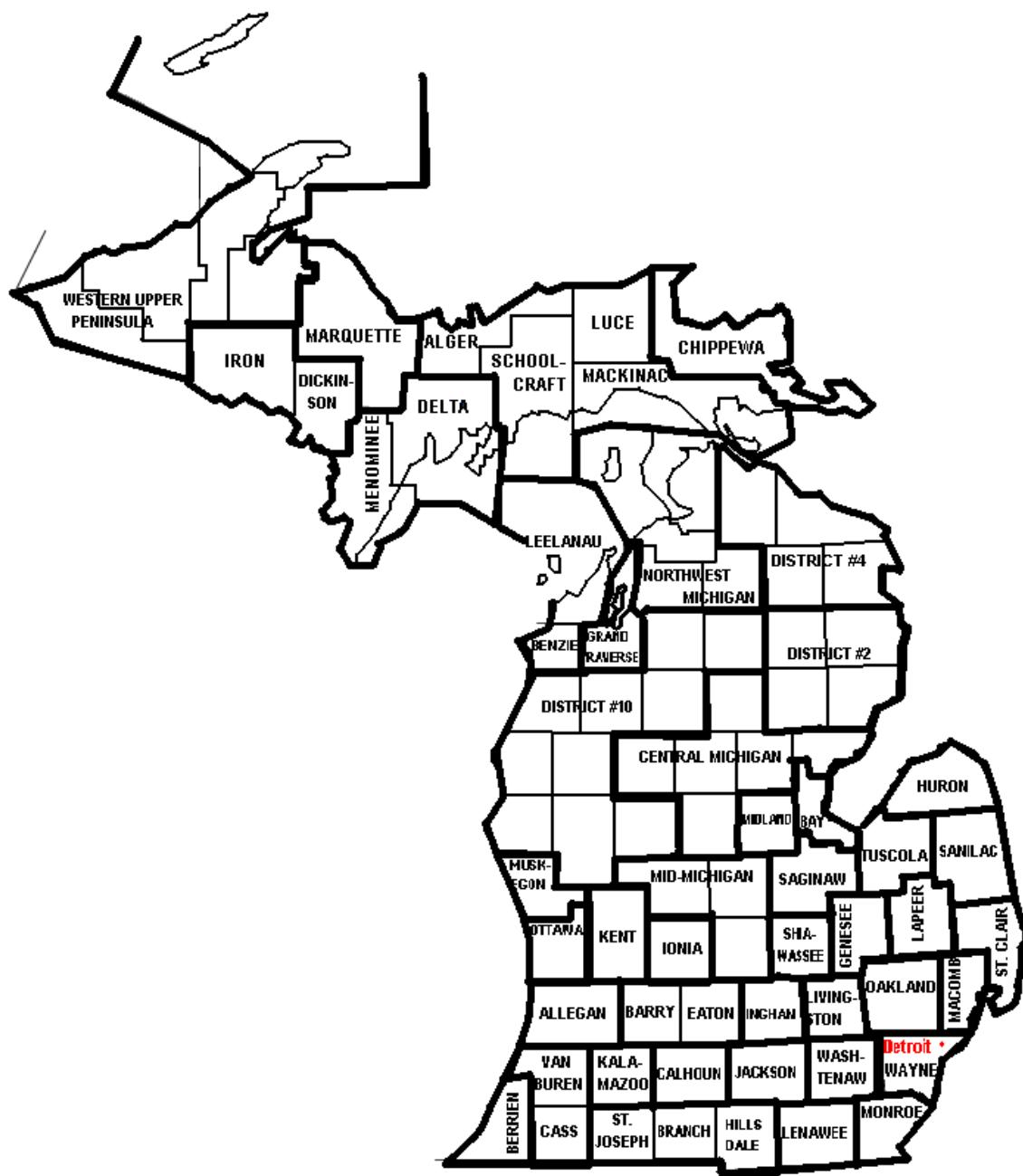


Table 1: Health Status Michigan BRFSS, 2015-2017 Combined			
Geographic Area	General Health, Fair or Poor ^a		
	N	%	95% Confidence Interval
Michigan Total	31,792	18.1	(17.5-18.6)
Region 1	12,742	18.2	(17.3-19.1)
Livingston	817	10.6	(8.1-13.9)
Macomb	2,061	20.1	(18.0-22.3)
Monroe	385	17.0	(13.1-21.8)
Oakland	3,369	13.6	(12.2-15.1)
St. Clair	414	19.7	(15.6-24.6)
Washtenaw	1,175	12.6	(10.2-15.4)
City of Detroit	1,541	30.1	(27.3-33.1)
Wayne exc. Detroit	2,906	18.3	(16.6-20.1)
Region 2	1,977	21.6	(19.4-24.0)
Genesee	1,435	23.3	(20.6-26.2)
Lapeer	247	17.3	(12.6-23.3)
Shiawassee	275	18.1	(13.0-24.7)
Region 3	1,491	20.3	(17.3-23.7)
Jackson	1,141	17.7	(14.8-21.0)
Lenawee	318	24.4	(18.5-31.5)
Region 4	1,871	17.0	(14.9-19.3)
Barry-Eaton	547	20.5	(16.4-25.3)
Mid-Michigan ^b	572	17.3	(13.8-21.5)
Ingham	936	16.1	(13.3-19.3)
Region 5	1,583	18.1	(16.0-20.5)
Branch-Hillsdale-St. Joseph	444	20.0	(15.8-24.8)
Calhoun	377	17.6	(13.7-22.4)
Kalamazoo	735	17.8	(14.7-21.4)
Region 6	764	18.0	(14.9-21.6)
Van Buren-Cass	312	24.5	(19.1-30.9)
Berrien	422	13.6	(10.4-17.5)
Region 7	3,256	14.2	(12.8-15.8)
Allegan	347	14.8	(11.2-19.3)
Ionia	202	18.1	(11.9-26.5)
Kent	1,701	13.5	(11.5-15.7)
Mid-Michigan ^b	572	17.3	(13.8-21.5)
Ottawa	758	12.4	(9.8-15.6)

Table 1 Cont'd			
Geographic Area	General Health, Fair or Poor^a		
	N	%	95% Confidence Interval
Michigan Total	31,792	18.1	(17.5-18.6)
Region 8	2,298	20.1	(17.8-22.6)
District #10	1,117	19.7	(16.8-22.9)
Muskegon	1,114	20.7	(17.2-24.6)
Region 9	1,597	20.1	(17.6-22.8)
District #2	232	24.9	(18.1-33.2)
District #4	257	23.7	(18.0-30.7)
Northwest Michigan	470	21.3	(16.7-26.7)
Benzie-Leelanau	215	17.3	(11.6-24.9)
Grand Traverse	398	12.5	(8.9-17.2)
Region 10	1,536	18.0	(15.7-20.4)
Bay	321	13.4	(9.9-18.0)
Huron	122	13.2	(8.2-20.5)
Saginaw	737	21.2	(17.4-25.5)
Sanilac	147	16.6	(10.9-24.5)
Tuscola	175	20.7	(14.8-28.3)
Region 11	1,010	19.9	(16.9-23.2)
Central Michigan	597	23.1	(19.2-27.5)
Midland	302	14.9	(10.6-20.6)
Region 12	1,114	18.8	(16.1-21.8)
Luce-Mackinac-Alger-Schoolcraft	149	21.6	(15.2-29.9)
Western Upper Peninsula	232	16.8	(11.5-23.8)
Delta-Menominee	215	23.5	(17.1-31.4)
Chippewa	142	22.4	(15.2-31.9)
Dickinson-Iron	133	19.7	(12.4-29.8)
Marquette	221	13.8	(9.1-20.5)

^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, 2015-2017 Combined

Geographic Area	Poor Physical Health^a		
	N	%	95% Confidence Interval
Michigan Total	31,394	9.3	(8.9-9.7)
Region 1			
Livingston	807	9.7	(6.9-13.3)
Macomb	2,039	11.1	(9.5-12.9)
Monroe	383	14.3	(9.8-20.3)
Oakland	3,328	6.6	(5.6-7.8)
St. Clair	407	10.5	(7.6-14.3)
Washtenaw	1,163	6.5	(4.9-8.7)
City of Detroit	1,513	11.7	(9.9-13.9)
Wayne exc. Detroit	2,872	9.2	(8.0-10.6)
Region 2			
Genesee	1,404	10.8	(8.8-13.1)
Lapeer	242	10.0	(6.3-15.6)
Shiawassee	277	13.8	(9.2-20.1)
Region 3			
Jackson	1,123	7.7	(5.7-10.3)
Lenawee	311	11.9	(8.1-17.1)
Region 4			
Barry-Eaton	541	7.0	(4.8-10.0)
Mid-Michigan ^b	567	10.2	(7.4-13.9)
Ingham	922	9.5	(7.3-12.2)
Region 5			
Branch-Hillsdale-St. Joseph	441	12.2	(8.5-17.1)
Calhoun	371	10.1	(6.9-14.5)
Kalamazoo	725	7.2	(5.3-9.6)
Region 6			
Van Buren-Cass	305	11.6	(7.9-16.7)
Berrien	416	8.8	(6.1-12.5)
Region 7			
Allegan	339	10.4	(7.0-15.2)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,687	9.1	(7.5-11.0)
Mid-Michigan ^b	567	10.2	(7.4-13.9)
Ottawa	753	7.3	(5.4-9.8)

Table 2 Cont'd			
Geographic Area	Poor Physical Health ^a		
	N	%	95% Confidence Interval
Michigan Total	31,394	9.3	(8.9-9.7)
Region 8	2,267	11.2	(9.5-13.2)
District #10	1,102	11.9	(9.6-14.8)
Muskegon	1,100	10.6	(8.2-13.6)
Region 9	1,583	8.0	(6.5-9.8)
District #2	230	7.0	(4.0-12.1)
District #4	255	10.3	(6.6-15.6)
Northwest Michigan	465	10.4	(7.4-14.4)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	395	5.7	(3.5-9.0)
Region 10	1,513	9.8	(8.0-11.9)
Bay	319	5.4	(3.4-8.7)
Huron	121	8.3	(4.6-14.6)
Saginaw	723	10.2	(7.4-13.8)
Sanilac	143	14.1	(7.7-24.4)
Tuscola	173	13.5	(8.7-20.5)
Region 11	996	8.6	(6.6-11.0)
Central Michigan	585	8.9	(6.4-12.1)
Midland	301	9.6	(6.1-14.7)
Region 12	1,107	9.8	(7.7-12.4)
Luce-Mackinac-Alger-Schoolcraft	-- ^c	-- ^c	-- ^c
Western Upper Peninsula	-- ^c	-- ^c	-- ^c
Delta-Menominee	215	11.0	(6.6-17.7)
Chippewa	142	14.2	(8.2-23.6)
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	220	9.1	(5.2-15.6)

^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%.

Table 3: Poor Mental Health on at Least 14 Days in the Past Month Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Poor Mental Health^a		
	N	%	95% Confidence Interval
Michigan Total	31,461	8.5	(8.1-8.9)
Region 1	12,620	8.8	(8.2-9.5)
Livingston	810	7.4	(5.3-10.2)
Macomb	2,047	8.2	(6.9-9.9)
Monroe	381	11.1	(6.8-17.7)
Oakland	3,339	6.9	(5.8-8.1)
St. Clair	410	6.8	(4.6-10.0)
Washtenaw	1,167	9.8	(7.7-12.6)
City of Detroit	1,519	11.6	(9.8-13.8)
Wayne exc. Detroit	2,873	10.0	(8.6-11.7)
Region 2	1,957	10.0	(8.4-11.9)
Genesee	1,415	9.9	(8.0-12.2)
Lapeer	247	9.5	(6.1-14.6)
Shiawassee	275	10.4	(6.3-16.9)
Region 3	1,474	8.6	(6.7-11.0)
Jackson	1,128	10.3	(7.7-13.7)
Lenawee	314	5.7	(3.3-9.5)
Region 4	1,852	8.8	(7.3-10.7)
Barry-Eaton	538	7.5	(5.2-10.8)
Mid-Michigan ^b	567	6.5	(4.2-9.9)
Ingham	929	9.9	(7.6-12.7)
Region 5	1,557	9.4	(7.6-11.5)
Branch-Hillsdale-St. Joseph	437	9.9	(6.5-14.7)
Calhoun	371	11.3	(7.8-16.2)
Kalamazoo	722	8.4	(6.1-11.4)
Region 6	755	9.6	(7.1-12.8)
Van Buren-Cass	307	8.5	(5.3-13.4)
Berrien	418	9.4	(6.3-13.6)
Region 7	3,221	7.2	(6.1-8.3)
Allegan	342	8.5	(5.7-12.5)
Ionia	200	8.8	(4.8-15.4)
Kent	1,682	6.8	(5.5-8.4)
Mid-Michigan ^b	567	6.5	(4.2-9.9)
Ottawa	751	8.5	(6.2-11.6)

Table 3 Cont'd			
Geographic Area	Poor Mental Health ^a		
	N	%	95% Confidence Interval
Michigan Total	31,461	8.5	(8.1-8.9)
Region 8	2,278	9.6	(7.8-11.8)
District #10	1,110	9.2	(7.0-12.0)
Muskegon	1,101	10.5	(7.2-15.0)
Region 9	1,581	6.3	(4.9-7.9)
District #2	-- ^c	-- ^c	-- ^c
District #4	-- ^c	-- ^c	-- ^c
Northwest Michigan	465	8.8	(6.1-12.7)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	393	6.1	(3.7-9.9)
Region 10	1,520	8.2	(6.4-10.4)
Bay	314	6.7	(3.8-11.6)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	-- ^c	-- ^c	-- ^c
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	172	7.2	(4.0-12.7)
Region 11	999	7.3	(5.4-9.8)
Central Michigan	588	7.7	(5.3-11.2)
Midland	301	6.5	(3.7-11.2)
Region 12	1,103	7.6	(5.6-10.2)
Luce-Mackinac-Alger-Schoolcraft	148	9.9	(5.4-17.6)
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 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, 2015-2017 Combined			
Geographic Area	Activity Limitation^a		
	N	%	95% Confidence Interval
Michigan Total	31,565	9.8	(9.4-10.3)
Region 1	12,667	10.0	(9.4-10.7)
Livingston	813	7.2	(5.1-9.9)
Macomb	2,041	11.3	(9.7-13.2)
Monroe	379	10.6	(6.4-16.9)
Oakland	3,358	8.0	(6.8-9.3)
St. Clair	416	9.7	(7.1-13.1)
Washtenaw	1,170	7.1	(5.3-9.4)
City of Detroit	1,528	15.3	(13.2-17.7)
Wayne exc. Detroit	2,888	9.9	(8.6-11.3)
Region 2	1,965	12.7	(10.9-14.7)
Genesee	1,421	13.1	(11.0-15.6)
Lapeer	246	7.1	(4.1-11.9)
Shiawassee	278	15.3	(10.5-21.7)
Region 3	1,476	9.1	(7.4-11.2)
Jackson	1,132	8.5	(6.6-10.8)
Lenawee	312	10.0	(6.8-14.5)
Region 4	1,849	8.7	(7.2-10.5)
Barry-Eaton	542	8.3	(5.8-11.8)
Mid-Michigan ^b	563	7.9	(5.4-11.4)
Ingham	925	9.1	(7.1-11.7)
Region 5	1,572	9.7	(8.0-11.7)
Branch-Hillsdale-St. Joseph	442	14.2	(10.5-19.0)
Calhoun	374	11.6	(8.1-16.3)
Kalamazoo	729	6.2	(4.5-8.5)
Region 6	758	10.3	(8.0-13.2)
Van Buren-Cass	308	12.9	(9.0-18.2)
Berrien	420	9.1	(6.3-13.0)
Region 7	3,228	7.8	(6.7-9.1)
Allegan	343	8.3	(5.7-12.1)
Ionia	201	6.8	(3.7-12.1)
Kent	1,693	8.3	(6.7-10.2)
Mid-Michigan ^b	563	7.9	(5.4-11.4)
Ottawa	746	7.0	(5.0-9.6)

Table 4 Cont'd			
Geographic Area	Activity Limitation^a		
	N	%	95% Confidence Interval
Michigan Total	31,565	9.8	(9.4-10.3)
Region 8	2,284	10.9	(9.2-12.8)
District #10	1,109	11.6	(9.3-14.3)
Muskegon	1,109	10.6	(8.4-13.3)
Region 9	1,594	9.5	(7.8-11.5)
District #2	233	9.9	(5.9-16.1)
District #4	255	12.4	(8.1-18.7)
Northwest Michigan	468	9.9	(7.0-13.8)
Benzie-Leelanau	215	12.6	(7.8-19.6)
Grand Traverse	398	5.3	(3.3-8.4)
Region 10	1,526	10.6	(8.6-12.9)
Bay	318	11.3	(7.0-17.7)
Huron	122	9.8	(5.7-16.4)
Saginaw	732	8.8	(6.5-11.9)
Sanilac	147	15.6	(9.0-25.7)
Tuscola	173	10.2	(6.0-16.8)
Region 11	1,004	9.7	(7.7-12.1)
Central Michigan	592	9.8	(7.3-13.0)
Midland	302	10.6	(6.9-16.0)
Region 12	1,103	10.6	(8.5-13.0)
Luce-Mackinac-Alger-Schoolcraft	147	12.1	(7.5-19.0)
Western Upper Peninsula	229	8.7	(5.2-14.0)
Delta-Menominee	213	12.0	(7.4-18.7)
Chippewa	142	13.5	(7.6-22.7)
Dickinson-Iron	129	12.8	(7.1-21.9)
Marquette	221	8.3	(4.7-14.2)

^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.

Table 5: Disability Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Disability^a		
	N	%	95% Confidence Interval
Michigan Total	30,531	26.3	(25.6-26.9)
Region 1	12,388	26.1	(25.2-27.1)
Livingston	798	20.8	(17.2-25.0)
Macomb	2,007	28.2	(25.9-30.7)
Monroe	373	30.4	(24.8-36.6)
Oakland	3,297	21.1	(19.5-22.9)
St. Clair	409	28.1	(23.5-33.3)
Washtenaw	1,146	24.7	(21.7-28.1)
City of Detroit	1,486	33.4	(30.5-36.4)
Wayne exc. Detroit	2,849	26.7	(24.8-28.8)
Region 2	1,917	28.8	(26.4-31.4)
Genesee	1,397	29.7	(26.8-32.7)
Lapeer	244	26.3	(20.6-33.0)
Shiawassee	270	28.0	(21.9-35.1)
Region 3	1,434	26.6	(23.6-30.0)
Jackson	1,116	26.2	(22.7-30.1)
Lenawee	315	27.5	(22.1-33.7)
Region 4	1,807	24.1	(21.7-26.7)
Barry-Eaton	531	25.5	(21.1-30.4)
Mid-Michigan ^b	560	22.5	(18.5-27.1)
Ingham	912	24.8	(21.5-28.5)
Region 5	1,523	26.6	(24.0-29.3)
Branch-Hillsdale-St. Joseph	428	26.2	(21.4-31.6)
Calhoun	371	31.2	(25.9-37.1)
Kalamazoo	717	24.3	(20.8-28.2)
Region 6	705	28.6	(24.7-32.7)
Van Buren-Cass	290	32.9	(26.9-39.5)
Berrien	404	26.2	(21.3-31.9)
Region 7	3,150	22.2	(20.5-23.9)
Allegan	335	23.5	(18.8-28.8)
Ionia	199	22.6	(16.6-30.0)
Kent	1,654	21.2	(19.0-23.7)
Mid-Michigan ^b	560	22.5	(18.5-27.1)
Ottawa	740	22.4	(19.1-26.2)

Table 5 Cont'd			
Geographic Area	Disability ^a		
	N	%	95% Confidence Interval
Michigan Total	30,531	26.3	(25.6-26.9)
Region 8	2,226	28.5	(26.0-31.1)
District #10	1,097	28.9	(25.7-32.4)
Muskegon	1,091	28.7	(25.2-32.6)
Region 9	1,545	28.5	(25.7-31.5)
District #2	227	33.2	(26.1-41.2)
District #4	252	32.5	(26.0-39.8)
Northwest Michigan	458	24.9	(20.4-30.0)
Benzie-Leelanau	214	27.7	(20.0-37.0)
Grand Traverse	389	24.9	(19.7-31.0)
Region 10	1,489	28.7	(25.7-31.9)
Bay	318	29.0	(22.2-36.8)
Huron	121	20.0	(13.7-28.1)
Saginaw	720	28.5	(24.1-33.3)
Sanilac	144	30.3	(22.0-40.1)
Tuscola	170	33.4	(25.7-42.1)
Region 11	896	30.4	(26.9-34.2)
Central Michigan	576	34.1	(29.5-39.0)
Midland	293	25.2	(19.9-31.4)
Region 12	1,069	27.6	(24.5-31.1)
Luce-Mackinac-Alger-Schoolcraft	148	34.6	(26.2-44.2)
Western Upper Peninsula	227	22.6	(16.6-30.0)
Delta-Menominee	209	27.9	(21.1-35.9)
Chippewa	140	29.8	(21.1-40.2)
Dickinson-Iron	129	26.8	(18.2-37.6)
Marquette	216	26.9	(20.2-34.8)

^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, 2015-2017 Combined

Geographic Area	Sample Size	Obese ^a		Overweight ^b		Healthy Weight ^c	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	29,588	32.0	(31.3-32.7)	35.0	(34.3-35.7)	31.3	(30.6-31.9)
Region 1							
Livingston	11,890	30.6	(29.5-31.6)	35.8	(34.7-36.9)	31.8	(30.7-32.8)
Macomb	769	24.7	(20.7-29.1)	38.7	(33.9-43.7)	36.0	(31.1-41.3)
Monroe	1,923	31.8	(29.3-34.4)	35.9	(33.3-38.7)	30.1	(27.6-32.7)
Oakland	351	39.5	(33.3-46.1)	37.3	(31.4-43.7)	22.8	(18.0-28.4)
St. Clair	3,139	25.4	(23.5-27.4)	38.3	(36.2-40.5)	34.6	(32.5-36.6)
Washtenaw	394	34.8	(29.4-40.6)	37.4	(31.8-43.4)	26.6	(21.7-32.2)
City of Detroit	1,124	24.6	(21.6-28.0)	33.8	(30.4-37.5)	39.8	(36.1-43.5)
Wayne exc. Detroit	1,421	40.1	(36.9-43.3)	32.3	(29.3-35.4)	26.3	(23.5-29.3)
	2,711	31.6	(29.6-33.8)	34.4	(32.3-36.7)	31.3	(29.2-33.6)
Region 2							
Genesee	1,839	34.3	(31.7-37.0)	35.3	(32.7-38.1)	28.6	(26.2-31.2)
Lapeer	1,325	33.4	(30.4-36.6)	36.2	(33.0-39.5)	28.4	(25.5-31.5)
Shiawassee	236	35.0	(28.3-42.3)	28.9	(23.0-35.7)	34.5	(27.9-41.8)
	259	38.8	(31.7-46.4)	35.8	(28.9-43.3)	24.8	(18.9-31.9)
Region 3							
Jackson	1,389	39.0	(35.3-42.9)	31.8	(28.3-35.4)	27.5	(24.2-31.1)
Lenawee	1,325	33.4	(30.4-36.6)	36.2	(33.0-39.5)	28.4	(25.5-31.5)
	236	35.0	(28.3-42.3)	28.9	(23.0-35.7)	34.5	(27.9-41.8)
Region 4							
Barry-Eaton	1,745	33.6	(30.9-36.5)	33.6	(30.8-36.4)	31.3	(28.6-34.2)
Mid-Michigan ^d	512	35.8	(30.8-41.2)	37.3	(32.2-42.7)	26.6	(22.1-31.6)
Ingham	532	35.7	(30.7-41.0)	30.3	(25.6-35.5)	32.5	(27.0-38.6)
	875	30.9	(27.2-34.9)	32.1	(28.3-36.1)	34.8	(31.0-38.9)
Region 5							
Branch-Hillsdale-St. Joseph	1,490	33.2	(30.3-36.1)	33.5	(30.6-36.5)	31.7	(28.7-34.8)
Calhoun	418	38.3	(32.5-44.4)	31.7	(26.3-37.5)	29.3	(24.0-35.2)
Kalamazoo	353	33.0	(27.4-39.2)	34.2	(28.7-40.2)	31.9	(26.0-38.5)
	692	30.3	(26.4-34.5)	34.5	(30.3-38.9)	32.6	(28.3-37.2)
Region 6							
Berrien	713	34.6	(30.4-39.0)	31.4	(27.3-35.8)	31.9	(27.9-36.2)
Van Buren-Cass	286	37.1	(30.7-44.1)	30.6	(24.8-37.1)	30.0	(23.9-36.8)
	398	33.3	(27.9-39.2)	31.6	(25.9-38.0)	32.9	(27.5-38.7)
Region 7							
Allegan	3,041	29.8	(27.8-31.9)	34.1	(32.0-36.2)	34.5	(32.3-36.7)
Ionia	320	32.6	(26.9-38.9)	37.1	(30.9-43.7)	28.2	(22.9-34.1)
Kent	190	36.2	(28.6-44.7)	32.0	(24.7-40.4)	31.7	(24.1-40.5)
Mid-Michigan ^d	1,592	29.5	(26.7-32.4)	34.6	(31.7-37.6)	34.1	(31.1-37.1)
Ottawa	532	35.7	(30.7-41.0)	30.3	(25.6-35.5)	32.5	(27.0-38.6)
	704	27.3	(23.4-31.6)	33.9	(29.8-38.3)	37.9	(33.4-42.5)

Table 6 Cont'd

Geographic Area	Sample Size	Obese^a		Overweight^b		Healthy Weight^c	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	29,588	32.0	(31.3-32.7)	35.0	(34.3-35.7)	31.3	(30.6-31.9)
Region 8	2,147	31.9	(29.2-34.6)	35.7	(32.9-38.6)	31.1	(28.3-34.1)
District #10	1,049	32.0	(28.6-35.7)	37.8	(34.0-41.8)	29.2	(25.7-33.0)
Muskegon	1,034	33.9	(29.7-38.4)	32.6	(28.6-36.9)	31.4	(26.8-36.4)
Region 9	1,514	34.1	(31.1-37.2)	36.7	(33.6-39.8)	28.0	(25.2-30.9)
District #2	225	40.5	(32.9-48.6)	31.3	(24.6-38.9)	26.8	(20.3-34.6)
District #4	241	39.4	(32.2-47.1)	35.5	(28.6-43.1)	23.5	(18.0-30.0)
Northwest Michigan	447	29.4	(24.5-34.8)	41.1	(35.5-46.9)	27.9	(23.3-33.0)
Benzie-Leelanau	203	34.0	(26.3-42.8)	35.2	(27.7-43.5)	29.3	(21.5-38.6)
Grand Traverse	375	29.0	(23.7-35.0)	38.2	(32.2-44.7)	32.6	(26.6-39.2)
Region 10	1,431	35.6	(32.5-38.9)	36.3	(33.1-39.6)	26.8	(23.8-30.0)
Bay	307	34.7	(27.9-42.3)	38.1	(30.8-46.0)	26.5	(20.4-33.6)
Huron	114	34.4	(25.6-44.5)	33.6	(24.6-44.0)	30.4	(20.8-42.1)
Saginaw	680	36.5	(31.8-41.5)	35.5	(30.8-40.4)	26.9	(22.3-32.0)
Sanilac	134	39.2	(29.8-49.5)	32.2	(24.1-41.5)	26.4	(18.8-35.7)
Tuscola	166	31.1	(23.4-40.0)	42.5	(34.2-51.3)	23.4	(16.3-32.4)
Region 11	943	38.8	(35.0-42.8)	32.7	(29.1-36.5)	26.8	(23.3-30.5)
Central Michigan	564	39.8	(35.0-44.8)	34.6	(30.0-39.5)	24.5	(20.4-29.1)
Midland	283	40.0	(33.2-47.3)	28.4	(22.6-35.0)	31.3	(24.9-38.5)
Region 12	1,024	32.7	(29.0-36.6)	33.9	(30.4-37.7)	31.2	(27.6-34.9)
Luce-Mackinac-Alger-Schoolcraft	136	28.0	(20.0-37.7)	35.5	(25.6-46.7)	31.6	(22.9-42.0)
Western Upper Peninsula	214	30.4	(23.4-38.5)	39.9	(32.3-48.0)	28.3	(21.3-36.5)
Delta-Menominee	197	36.9	(28.6-46.1)	31.0	(23.5-39.6)	30.5	(23.5-38.6)
Chippewa	130	40.4	(29.4-52.4)	27.8	(19.1-38.5)	31.0	(19.8-45.0)
Dickinson-Iron	118	23.5	(15.3-34.2)	37.3	(27.4-48.3)	34.2	(24.8-45.0)
Marquette	207	36.9	(27.6-47.2)	34.9	(26.9-43.7)	27.1	(20.1-35.5)

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.

Table 7: No Health Care Coverage Among Those Aged 18-64 Years Michigan BRFSS, 2015-2017 Combined			
Geographic Area	No Health Care Coverage^a		
	N	%	95% Confidence Interval
Michigan Total	20,832	10.5	(10.0-11.1)
Region 1			
Livingston	529	6.3	(4.1-9.5)
Macomb	1,322	9.4	(7.5-11.7)
Monroe	-- ^c	-- ^c	-- ^c
Oakland	2,200	7.7	(6.3-9.3)
St. Clair	277	8.7	(5.3-13.9)
Washtenaw	789	8.6	(6.1-11.9)
City of Detroit	1,088	15.2	(12.7-18.0)
Wayne exc. Detroit	1,893	10.9	(9.2-13.0)
Region 2			
Genesee	931	11.6	(9.1-14.6)
Lapeer	162	11.1	(6.2-18.9)
Shiawassee	186	11.4	(6.3-19.8)
Region 3			
Jackson	707	12.8	(9.4-17.0)
Lenawee	203	7.3	(4.0-13.1)
Region 4			
Barry-Eaton	330	13.2	(8.8-19.4)
Mid-Michigan ^b	362	11.7	(7.0-19.1)
Ingham	653	9.7	(7.1-13.1)
Region 5			
Branch-Hillsdale-St. Joseph	285	15.0	(10.0-21.8)
Calhoun	254	8.8	(5.4-14.0)
Kalamazoo	498	8.7	(5.9-12.5)
Region 6			
Van Buren-Cass	-- ^c	-- ^c	-- ^c
Berrien	268	14.9	(9.7-22.2)
Region 7			
Allegan	251	11.4	(7.2-17.5)
Ionia	136	10.3	(5.8-17.7)
Kent	1,169	10.5	(8.3-13.1)
Mid-Michigan ^b	362	11.7	(7.0-19.1)
Ottawa	529	7.9	(5.3-11.5)

Table 7 Cont'd

Geographic Area	No Health Care Coverage^a		
	N	%	95% Confidence Interval
Michigan Total	20,832	10.5	(10.0-11.1)
Region 8			
District #10	1,463	13.1	(10.7-15.9)
Muskegon	693	15.4	(12.1-19.4)
	713	10.6	(7.5-14.9)
Region 9			
District #2	981	10.4	(8.1-13.1)
District #4	146	13.7	(7.8-22.9)
Northwest Michigan	164	14.0	(8.6-21.9)
Benzie-Leelanau	276	9.7	(6.4-14.5)
Grand Traverse	-- ^c	-- ^c	-- ^c
	254	7.3	(4.0-13.0)
Region 10			
Bay	980	12.6	(10.0-15.6)
Huron	207	13.9	(8.9-21.2)
Saginaw	-- ^c	-- ^c	-- ^c
Sanilac	460	12.5	(8.6-17.7)
Tuscola	-- ^c	-- ^c	-- ^c
	-- ^c	-- ^c	-- ^c
Region 11			
Central Michigan	645	10.3	(7.4-14.1)
Midland	357	9.6	(6.3-14.3)
	-- ^c	-- ^c	-- ^c
Region 12			
Luce-Mackinac-Alger-Schoolcraft	725	8.3	(6.0-11.2)
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 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%.

Table 8: Health Care Access
Michigan BRFSS, 2015-2017 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	31,668	14.9	(14.3-15.4)	31,777	12.3	(11.8-12.8)
Region 1						
Livingston	12,707	13.9	(13.1-14.8)	12,737	13.1	(12.3-13.9)
Macomb	811	13.9	(10.5-18.2)	817	9.5	(6.8-13.1)
Monroe	2,053	12.0	(10.2-14.1)	2,059	11.8	(10.2-13.7)
Oakland	384	13.2	(8.8-19.2)	385	13.8	(9.4-19.9)
St. Clair	3,363	12.8	(11.4-14.5)	3,370	11.2	(9.8-12.7)
Washtenaw	416	11.3	(7.6-16.5)	417	11.7	(8.6-15.8)
City of Detroit	1,174	14.8	(12.0-18.0)	1,174	11.6	(9.2-14.6)
Wayne exc. Detroit	1,532	20.1	(17.5-23.0)	1,535	21.0	(18.4-23.8)
	2,901	13.1	(11.5-14.9)	2,906	12.9	(11.4-14.7)
Region 2						
Genesee	1,973	15.8	(13.7-18.2)	1,981	12.3	(10.5-14.4)
Lapeer	1,432	15.5	(13.0-18.3)	1,437	11.7	(9.6-14.1)
Shiawassee	246	17.8	(12.7-24.5)	247	15.4	(10.7-21.5)
	275	14.7	(9.4-22.2)	277	13.4	(8.8-19.8)
Region 3						
Jackson	1,478	15.2	(12.5-18.4)	1,490	13.5	(10.8-16.7)
Lenawee	1,130	13.9	(10.8-17.8)	1,142	13.2	(10.2-17.0)
	316	15.2	(10.7-21.2)	316	13.3	(8.7-19.7)
Region 4						
Barry-Eaton	1,862	16.6	(14.4-19.1)	1,870	11.0	(9.3-12.9)
Mid-Michigan ^c	544	17.3	(13.2-22.3)	546	10.9	(8.1-14.6)
Ingham	571	8.8	(6.2-12.4)	571	10.2	(7.3-14.0)
	931	19.6	(16.3-23.3)	937	11.6	(9.3-14.4)
Region 5						
Branch-Hillsdale-St. Joseph	1,573	18.7	(16.2-21.5)	1,579	11.7	(9.9-13.9)
Calhoun	444	16.5	(12.3-21.9)	443	11.0	(7.9-15.2)
Kalamazoo	375	20.9	(15.9-26.9)	375	11.2	(7.9-15.7)
	728	17.9	(14.3-22.1)	734	12.4	(9.6-15.8)
Region 6						
Van Buren-Cass	759	19.4	(15.9-23.6)	763	11.1	(8.6-14.2)
Berrien	308	17.5	(12.6-23.8)	310	11.9	(8.0-17.3)
	421	19.8	(14.9-25.8)	423	10.7	(7.6-14.9)

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	31,668	14.9	(14.3-15.4)	31,777	12.3	(11.8-12.8)
Region 7						
Allegan	3,249	11.5	(10.0-13.1)	3,254	11.6	(10.2-13.1)
Ionia	346	12.1	(8.1-17.6)	346	12.4	(8.8-17.3)
Kent	201	12.9	(7.6-21.1)	203	10.2	(5.6-17.8)
Mid-Michigan ^c	1,697	12.5	(10.5-15.0)	1,700	12.7	(10.7-15.0)
Ottawa	571	8.8	(6.2-12.4)	571	10.2	(7.3-14.0)
Ottawa	757	7.5	(5.2-10.5)	757	8.4	(6.3-11.2)
Region 8						
District #10	2,295	15.8	(13.5-18.3)	2,297	13.6	(11.5-16.0)
Muskegon	1,116	16.5	(13.6-19.9)	1,115	15.6	(12.5-19.2)
Muskegon	1,112	11.6	(8.9-15.1)	1,115	11.1	(8.9-13.7)
Region 9						
District #2	1,595	15.9	(13.6-18.4)	1,597	10.1	(8.3-12.3)
District #4	232	17.9	(12.4-25.0)	232	8.9	(5.0-15.1)
Northwest Michigan	256	20.1	(14.6-27.2)	257	13.2	(9.0-19.0)
Benzie-Leelanau	471	12.8	(9.4-17.3)	471	12.2	(8.6-17.0)
Grand Traverse	213	11.1	(6.6-17.9)	215	9.6	(5.7-15.7)
Grand Traverse	398	14.1	(10.2-19.1)	397	6.5	(4.1-10.1)
Region 10						
Bay	1,523	13.7	(11.3-16.4)	1,536	10.8	(8.8-13.0)
Huron	316	12.5	(7.3-20.6)	322	7.8	(4.8-12.4)
Saginaw	122	16.4	(10.0-25.5)	122	11.5	(6.8-18.8)
Sanilac	730	12.4	(9.3-16.4)	737	11.3	(8.4-15.2)
Tuscola	146	16.8	(10.8-25.3)	147	15.1	(8.9-24.5)
Tuscola	175	10.3	(5.9-17.4)	174	7.6	(4.3-13.2)
Region 11						
Central Michigan	1,004	15.3	(12.5-18.6)	1,008	13.3	(10.8-16.4)
Midland	592	13.3	(10.1-17.4)	596	13.2	(10.2-17.0)
Midland	301	14.2	(9.6-20.5)	301	10.3	(6.7-15.5)
Region 12						
Luce-Mackinac-Alger-Schoolcraft	1,108	13.0	(10.7-15.7)	1,114	9.0	(7.1-11.3)
Western Upper Peninsula	-- ^d	-- ^d	-- ^d	149	8.9	(5.2-14.9)
Delta-Menominee	230	19.0	(13.6-25.7)	232	10.8	(6.7-17.1)
Chippewa	213	14.7	(9.4-22.2)	214	10.2	(6.1-16.6)
Dickinson-Iron	141	13.9	(8.3-22.4)	-- ^d	-- ^d	-- ^d
Marquette	-- ^d	-- ^d	-- ^d	133	9.2	(5.1-16.0)
Marquette	221	6.7	(3.8-11.6)	-- ^d	-- ^d	-- ^d

^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 adult s 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, 2015-2017 Combined			
Geographic Area	No Leisure Time Physical Activity^a		
	N	%	95% Confidence Interval
Michigan Total	30,697	25.5	(24.9-26.2)
Region 1			
Livingston	12,245	25.4	(24.5-26.4)
Macomb	793	20.8	(17.2-24.9)
Monroe	1,982	26.0	(23.7-28.4)
Oakland	368	28.6	(22.9-34.9)
St. Clair	3,257	21.9	(20.1-23.8)
Washtenaw	402	25.7	(21.2-30.8)
City of Detroit	1,141	18.1	(15.1-21.5)
Wayne exc. Detroit	1,443	35.0	(32.0-38.2)
	2,799	26.6	(24.6-28.7)
Region 2			
Genesee	1,906	29.2	(26.7-31.9)
Lapeer	1,380	29.7	(26.7-32.9)
Shiawassee	239	23.5	(17.8-30.4)
	268	33.2	(26.3-40.9)
Region 3			
Jackson	1,453	28.2	(24.9-31.9)
Lenawee	1,112	27.2	(23.5-31.2)
	310	31.3	(25.0-38.5)
Region 4			
Barry-Eaton	1,820	24.8	(22.2-27.5)
Mid-Michigan ^b	532	26.1	(21.6-31.2)
Ingham	559	24.7	(20.3-29.8)
	909	24.2	(20.7-28.1)
Region 5			
Branch-Hillsdale-St. Joseph	1,521	26.3	(23.6-29.1)
Calhoun	433	30.1	(25.0-35.7)
Kalamazoo	363	30.8	(25.1-37.1)
	700	21.7	(18.1-25.8)
Region 6			
Van Buren-Cass	730	26.2	(22.4-30.4)
Berrien	297	31.9	(25.8-38.7)
	404	24.0	(19.0-29.8)
Region 7			
Allegan	3,154	22.6	(20.8-24.6)
Ionia	333	18.7	(14.4-23.9)
Kent	196	32.1	(24.8-40.4)
Mid-Michigan ^b	1,649	22.6	(20.0-25.4)
Ottawa	559	24.7	(20.3-29.8)
	736	22.2	(18.6-26.2)

Table 9 Cont'd			
Geographic Area	No Leisure Time Physical Activity^a		
	N	%	95% Confidence Interval
Michigan Total	30,697	25.5	(24.9-26.2)
Region 8			
District #10	2,236	25.7	(23.3-28.3)
Muskegon	1,088	27.2	(24.0-30.8)
	1,084	24.0	(20.7-27.6)
Region 9			
District #2	1,561	24.5	(21.8-27.4)
District #4	228	29.2	(22.5-37.1)
Northwest Michigan	244	24.7	(18.3-32.4)
Benzie-Leelanau	460	26.3	(21.4-31.9)
Grand Traverse	211	25.2	(18.2-33.9)
	393	17.0	(13.1-21.9)
Region 10			
Bay	1,489	27.6	(24.7-30.6)
Huron	311	26.1	(20.4-32.6)
Saginaw	122	21.0	(14.5-29.5)
Sanilac	716	27.5	(23.2-32.2)
Tuscola	141	30.4	(21.9-40.4)
	170	32.6	(24.8-41.6)
Region 11			
Central Michigan	964	24.5	(21.2-28.0)
Midland	570	25.7	(21.6-30.2)
	291	25.8	(19.8-32.8)
Region 12			
Luce-Mackinac-Alger-Schoolcraft	1,100	25.0	(21.5-28.7)
Western Upper Peninsula	147	23.0	(16.2-31.7)
Delta-Menominee	232	24.9	(18.6-32.6)
Chippewa	211	29.6	(21.8-38.8)
Dickinson-Iron	139	32.2	(21.7-44.8)
Marquette	131	21.7	(13.9-32.2)
	218	21.8	(14.2-32.0)

^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 BRFSS, 2015 and 2017 Combined			
Geographic Area	Adequate Physical Activity^a		
	N	%	95% Confidence Interval
Michigan Total	3,517	19.3	(18.6-20.1)
Region 1			
Livingston	135	20.8	(16.5-25.8)
Macomb	211	17.4	(14.9-20.3)
Monroe	36	19.3	(13.5-26.9)
Oakland	465	23.6	(21.3-26.0)
St. Clair	45	20.7	(15.0-27.8)
Washtenaw	193	22.9	(19.4-26.8)
City of Detroit	135	16.4	(13.3-20.0)
Wayne exc. Detroit	320	19.5	(17.2-22.1)
Region 2	188	15.4	(13.1-18.1)
Genesee	133	14.8	(12.1-18.0)
Lapeer	25	16.7	(10.9-24.7)
Shiawassee	29	17.8	(11.6-26.4)
Region 3	133	17.9	(14.4-22.1)
Jackson	93	15.8	(12.2-20.3)
Lenawee	36	19.8	(13.6-27.8)
Region 4	223	20.9	(18.0-24.2)
Barry-Eaton	59	24.0	(18.3-30.8)
Mid-Michigan ^b	48	12.6	(8.9-17.5)
Ingham	126	21.5	(17.5-26.2)
Region 5	174	17.5	(14.8-20.5)
Branch-Hillsdale-St. Joseph	38	14.4	(10.1-20.3)
Calhoun	39	17.0	(11.9-23.8)
Kalamazoo	94	19.9	(15.9-24.6)
Region 6	79	19.0	(14.5-24.6)
Van Buren-Cass	32	17.3	(11.8-24.7)
Berrien	40	19.4	(12.9-28.3)
Region 7	368	18.1	(16.1-20.4)
Allegan	36	20.4	(13.9-28.8)
Ionia	20	13.2	(8.1-20.9)
Kent	209	18.6	(15.9-21.7)
Mid-Michigan ^b	48	12.6	(8.9-17.5)
Ottawa	89	20.8	(16.5-25.9)

Table 10 Cont'd			
Geographic Area	Adequate Physical Activity ^a		
	N	%	95% Confidence Interval
Michigan Total	3,517	19.3	(18.6-20.1)
Region 8			
District #10	214	19.9	(16.6-23.7)
Muskegon	105	17.8	(13.7-22.9)
	93	22.0	(16.6-28.5)
Region 9			
District #2	197	19.6	(16.5-23.0)
District #4	24	16.9	(10.4-26.3)
Northwest Michigan	22	15.7	(9.6-24.6)
Benzie-Leelanau	69	20.4	(15.6-26.2)
Grand Traverse	25	16.8	(10.6-25.7)
	53	25.3	(18.2-34.0)
Region 10			
Bay	126	18.3	(15.1-22.0)
Huron	26	14.3	(9.0-21.8)
Saginaw	-- ^c	-- ^c	-- ^c
Sanilac	57	20.8	(15.4-27.4)
Tuscola	16	20.7	(12.3-32.7)
	14	16.6	(9.6-27.2)
Region 11			
Central Michigan	118	19.1	(15.4-23.4)
Midland	67	18.0	(13.7-23.3)
	40	19.7	(13.8-27.5)
Region 12			
Luce-Mackinac-Alger-Schoolcraft	112	20.8	(16.7-25.6)
Western Upper Peninsula	15	28.9	(16.5-45.6)
Delta-Menominee	27	16.8	(10.5-25.9)
Chippewa	14	13.8	(7.8-23.4)
Dickinson-Iron	19	21.5	(12.8-33.8)
Marquette	11	21.2	(11.2-36.4)
	26	24.7	(15.0-37.8)

^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: Cigarette Smoking
Michigan BRFSS, 2015-2017 Combined

Geographic Area	Sample Size	Current Smoking^a		Former Smoking^b		Never Smoked	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	30,819	20.2		(19.6-20.8)	26.3	(25.7-26.9)	53.5
Region 1							
Livingston	12,348	20.6		(19.6-21.6)	25.6	(24.7-26.6)	53.8
Macomb	795	16.2		(12.6-20.6)	34.4	(29.9-39.3)	49.4
Monroe	1,995	22.7		(20.3-25.2)	27.2	(24.9-29.6)	50.2
Oakland	369	20.6		(15.4-27.0)	29.3	(24.1-35.2)	50.1
St. Clair	3,279	15.5		(13.9-17.3)	26.6	(24.8-28.5)	57.9
Washtenaw	405	26.4		(21.2-32.3)	29.8	(24.9-35.2)	43.8
City of Detroit	1,149	12.1		(9.6-15.1)	19.9	(17.4-22.7)	68.1
Wayne exc. Detroit	1,472	30.9		(27.8-34.1)	17.4	(15.3-19.9)	51.7
	2,825	21.5		(19.6-23.6)	27.7	(25.8-29.7)	50.8
Region 2							
Genesee	1,913	24.6		(22.1-27.2)	29.0	(26.7-31.5)	46.4
Lapeer	1,386	24.8		(21.9-28.0)	28.4	(25.6-31.3)	46.8
Shiawassee	241	18.0		(12.9-24.6)	35.3	(28.8-42.5)	46.7
	268	28.8		(22.0-36.7)	26.8	(21.0-33.5)	44.4
Region 3							
Jackson	1,447	21.6		(18.4-25.1)	29.0	(25.8-32.4)	49.5
Lenawee	1,105	23.6		(19.8-27.8)	28.8	(25.2-32.7)	47.6
	311	19.2		(13.8-26.1)	29.3	(23.5-35.9)	51.5
Region 4							
Barry-Eaton	1,816	18.6		(16.3-21.1)	23.6	(21.3-26.0)	57.8
Mid-Michigan ^c	532	19.6		(15.5-24.5)	25.8	(21.5-30.7)	54.5
Ingham	556	20.8		(16.5-25.8)	27.5	(23.2-32.2)	51.8
	907	18.1		(15.0-21.6)	21.0	(18.2-24.2)	60.9
Region 5							
Branch-Hillsdale-St. Joseph	1,543	20.2		(17.8-23.0)	28.1	(25.5-30.9)	51.6
Calhoun	431	23.8		(18.9-29.4)	32.6	(27.5-38.3)	43.6
Kalamazoo	372	21.9		(17.1-27.6)	31.0	(25.8-36.7)	47.1
	713	17.0		(13.7-20.9)	24.3	(20.7-28.2)	58.7
Region 6							
Van Buren-Cass	734	21.6		(17.9-25.8)	25.0	(21.6-28.7)	53.5
Berrien	301	22.9		(17.4-29.6)	28.7	(23.2-34.9)	48.4
	403	19.9		(15.2-25.7)	23.1	(18.8-28.0)	57.0
Region 7							
Allegan	3,158	16.3		(14.7-18.1)	25.7	(23.9-27.5)	58.0
Ionia	330	17.8		(13.2-23.6)	28.9	(23.5-34.9)	53.3
Kent	200	21.0		(14.5-29.4)	30.3	(23.4-38.2)	48.7
Mid-Michigan ^c	1,651	15.8		(13.5-18.4)	23.8	(21.4-26.4)	60.4
Ottawa	556	20.8		(16.5-25.8)	27.5	(23.2-32.2)	51.8
	737	13.0		(10.2-16.5)	27.4	(23.7-31.4)	59.6

Table 11 Cont'd

Geographic Area	Sample Size	Current Smoking ^a		Former Smoking ^b		Never Smoked	
		N	%	95% Confidence Interval	%	95% Confidence Interval	%
Michigan Total	30,819	20.2	(19.6-20.8)	26.3	(25.7-26.9)	53.5	(52.8-54.3)
Region 8	2,246	22.7	(20.3-25.4)	27.8	(25.4-30.3)	49.5	(46.6-52.4)
District #10	1,095	24.1	(20.8-27.7)	28.5	(25.3-31.9)	47.4	(43.5-51.2)
Muskegon	1,084	21.8	(18.1-26.0)	28.2	(24.5-32.2)	50.0	(45.4-54.5)
Region 9	1,563	19.0	(16.6-21.7)	30.9	(28.1-33.9)	50.1	(47.0-53.2)
District #2	229	25.4	(18.6-33.6)	29.4	(22.8-37.0)	45.2	(37.4-53.2)
District #4	244	19.8	(14.5-26.4)	33.5	(26.3-41.5)	46.8	(39.2-54.5)
Northwest Michigan	461	17.7	(13.8-22.4)	34.2	(29.0-39.9)	48.1	(42.6-53.7)
Benzie-Leelanau	210	14.7	(9.5-22.0)	29.6	(22.8-37.4)	55.8	(47.4-63.8)
Grand Traverse	394	17.7	(13.4-23.1)	29.1	(23.9-34.8)	53.2	(46.9-59.4)
Region 10	1,496	21.2	(18.5-24.2)	26.9	(24.2-29.7)	51.9	(48.6-55.2)
Bay	316	21.2	(15.4-28.4)	27.1	(21.7-33.4)	51.7	(44.2-59.1)
Huron	119	19.0	(12.3-28.2)	29.7	(21.4-39.7)	51.2	(41.1-61.3)
Saginaw	714	20.7	(16.7-25.5)	27.9	(23.8-32.4)	51.4	(46.3-56.4)
Sanilac	143	24.2	(16.3-34.3)	23.1	(16.5-31.3)	52.8	(43.2-62.2)
Tuscola	171	22.1	(15.6-30.5)	25.3	(18.9-33.0)	52.6	(43.8-61.2)
Region 11	969	20.2	(17.1-23.6)	27.3	(24.1-30.7)	52.6	(48.6-56.5)
Central Michigan	574	24.0	(20.0-28.6)	29.1	(24.9-33.6)	46.9	(42.0-51.9)
Midland	290	11.5	(7.6-16.9)	28.6	(23.0-35.0)	60.0	(53.0-66.5)
Region 12	1,087	20.3	(17.5-23.5)	29.6	(26.3-33.0)	50.1	(46.2-53.9)
Luce-Mackinac-Alger-Schoolcraft	146	18.7	(12.2-27.6)	34.6	(25.7-44.8)	46.7	(36.6-57.0)
Western Upper Peninsula	227	17.5	(12.1-24.8)	31.3	(24.4-39.0)	51.2	(43.2-59.1)
Delta-Menominee	209	21.6	(15.7-28.9)	38.3	(30.3-47.0)	40.1	(32.0-48.8)
Chippewa	138	23.5	(15.7-33.7)	22.4	(15.5-31.3)	54.1	(42.7-65.0)
Dickinson-Iron	129	32.3	(22.7-43.8)	26.6	(18.4-36.8)	41.1	(31.5-51.4)
Marquette	217	15.5	(10.3-22.7)	26.2	(19.7-34.0)	58.3	(49.4-66.7)

^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 12: Alcohol Consumption
Michigan BRFSS, 2015-2017 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	30,588	57.3	(56.6-58.1)	6.7	(6.4-7.1)	18.6	(18.0-19.2)
Region 1							
Livingston	12,230	59.9	(58.8-61.0)	10.2	(7.4-14.0)	18.9	(17.9-19.8)
Macomb	790	68.3	(63.5-72.7)	7.8	(6.4-9.6)	23.1	(18.8-28.0)
Monroe	1,975	59.1	(56.4-61.7)	8.2	(5.4-12.5)	20.7	(18.5-23.2)
Oakland	367	59.3	(53.1-65.3)	6.2	(5.2-7.3)	20.6	(15.4-27.1)
St. Clair	3,257	64.0	(61.9-66.0)	6.1	(3.9-9.4)	17.8	(16.1-19.6)
Washtenaw	401	57.4	(51.6-63.1)	6.3	(4.8-8.2)	18.2	(14.1-23.2)
City of Detroit	1,132	64.5	(60.8-68.1)	4.7	(3.5-6.4)	19.8	(16.8-23.1)
Wayne exc. Detroit	1,453	49.8	(46.5-53.0)	6.0	(5.0-7.2)	17.2	(14.9-19.9)
	2,797	58.9	(56.6-61.1)	10.2	(7.4-14.0)	18.1	(16.3-20.1)
Region 2	1,896	51.7	(48.9-54.4)	4.3	(3.3-5.6)	16.6	(14.5-19.0)
Genesee	1,374	49.1	(45.8-52.4)	4.7	(3.5-6.3)	15.6	(13.3-18.4)
Lapeer	239	58.6	(51.3-65.6)	-- ^e	-- ^e	18.7	(13.4-25.5)
Shiawassee	265	55.6	(48.2-62.8)	-- ^e	-- ^e	19.3	(13.8-26.3)
Region 3	1,436	55.4	(51.6-59.1)	6.6	(4.8-9.1)	18.5	(15.5-22.0)
Jackson	1,094	54.8	(50.4-59.1)	5.8	(4.0-8.4)	19.5	(15.9-23.8)
Lenawee	311	55.6	(48.5-62.5)	7.5	(4.4-12.6)	16.3	(11.5-22.6)
Region 4	1,804	56.3	(53.4-59.2)	6.6	(5.3-8.2)	19.1	(16.8-21.5)
Barry-Eaton	524	56.7	(51.2-61.9)	3.3	(2.1-5.3)	13.2	(9.9-17.4)
Mid-Michigan ^d	556	53.1	(47.5-58.6)	8.3	(5.7-11.9)	19.9	(15.9-24.7)
Ingham	902	58.2	(54.0-62.3)	7.9	(6.0-10.4)	21.4	(18.1-25.0)
Region 5	1,537	54.2	(51.1-57.2)	6.5	(5.1-8.2)	17.9	(15.6-20.5)
Branch-Hillsdale-St. Joseph	431	48.5	(42.6-54.4)	7.5	(4.9-11.2)	15.1	(11.2-19.9)
Calhoun	367	47.1	(41.0-53.3)	5.8	(3.5-9.3)	13.3	(9.6-18.3)
Kalamazoo	712	60.6	(56.1-65.0)	5.8	(4.1-8.2)	20.7	(17.1-24.9)
Region 6	734	51.8	(47.4-56.3)	7.1	(5.1-9.7)	16.6	(13.4-20.2)
Van Buren-Cass	301	46.4	(39.8-53.1)	7.1	(4.3-11.6)	15.1	(10.7-20.7)
Berrien	403	54.4	(48.1-60.5)	6.6	(4.2-10.3)	16.8	(12.6-22.1)
Region 7	3,139	60.8	(58.6-63.0)	7.7	(6.5-9.0)	19.2	(17.4-21.1)
Allegan	325	59.3	(52.9-65.4)	7.6	(4.3-13.2)	17.4	(12.5-23.6)
Ionia	199	59.4	(51.0-67.2)	-- ^e	-- ^e	21.1	(14.6-29.5)
Kent	1,641	60.7	(57.6-63.7)	7.7	(6.3-9.5)	19.9	(17.5-22.6)
Mid-Michigan ^d	556	53.1	(47.5-58.6)	8.3	(5.7-11.9)	19.9	(15.9-24.7)
Ottawa	736	63.5	(59.1-67.6)	7.4	(5.3-10.2)	17.4	(14.1-21.4)

Table 12 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	%
Michigan Total	30,588	57.3	(56.6-58.1)	6.7	(6.4-7.1)	18.6	(18.0-19.2)
Region 8	2,228	53.3	(50.3-56.2)	7.4	(6.1-9.0)	18.3	(16.1-20.7)
District #10	1,083	50.9	(47.0-54.7)	7.8	(6.1-10.0)	16.6	(14.0-19.7)
Muskegon	1,078	56.0	(51.5-60.4)	7.5	(5.5-10.2)	20.8	(17.0-25.1)
Region 9	1,565	55.9	(52.8-59.0)	9.2	(7.6-11.2)	18.0	(15.7-20.6)
District #2	228	49.5	(41.6-57.5)	10.1	(5.9-16.6)	17.4	(12.1-24.4)
District #4	248	51.8	(44.2-59.3)	5.1	(2.9-8.7)	19.6	(14.4-26.3)
Northwest Michigan	461	57.3	(51.6-62.8)	10.1	(7.2-14.0)	17.4	(13.5-22.2)
Benzie-Leelanau	211	58.9	(49.9-67.4)	12.0	(7.5-18.6)	17.0	(11.5-24.4)
Grand Traverse	392	59.9	(53.5-66.0)	10.5	(7.2-15.2)	17.1	(12.6-22.8)
Region 10	1,485	53.8	(50.4-57.1)	6.2	(4.9-7.9)	19.6	(16.9-22.5)
Bay	318	56.5	(48.7-63.9)	6.6	(4.1-10.5)	22.3	(16.4-29.5)
Huron	120	58.5	(48.0-68.4)	--e	--e	19.0	(12.4-28.0)
Saginaw	706	52.9	(47.8-57.9)	5.1	(3.4-7.6)	18.0	(14.2-22.5)
Sanilac	140	54.3	(44.5-63.7)	--e	--e	21.5	(14.4-31.0)
Tuscola	167	48.0	(39.2-56.9)	--e	--e	19.6	(13.6-27.4)
Region 11	962	54.5	(50.5-58.4)	7.8	(5.9-10.4)	18.8	(15.8-22.2)
Central Michigan	571	51.6	(46.6-56.6)	8.9	(6.3-12.4)	18.3	(14.7-22.6)
Midland	289	55.1	(47.9-62.1)	5.8	(3.2-10.3)	15.0	(10.6-20.9)
Region 12	1,083	52.8	(48.9-56.6)	6.5	(4.9-8.7)	17.1	(14.5-20.0)
Luce-Mackinac-Alger-Schoolcraft	145	51.1	(40.7-61.4)	--e	--e	16.3	(10.0-25.5)
Western Upper Peninsula	226	49.3	(41.5-57.2)	--e	--e	13.6	(9.3-19.6)
Delta-Menominee	209	62.3	(53.7-70.2)	--e	--e	16.6	(11.3-23.7)
Chippewa	138	43.0	(32.5-54.2)	--e	--e	17.6	(10.8-27.3)
Dickinson-Iron	127	51.6	(41.0-62.0)	--e	--e	17.8	(10.7-28.1)
Marquette	217	56.9	(47.2-66.1)	8.9	(5.2-14.7)	20.9	(14.9-28.6)

^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 13: Seatbelt Use Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Always Uses a Seatbelt ^a		
	N	%	95% Confidence Interval
Michigan Total	30,029	89.6	(89.1-90.1)
Region 1			
Livingston	784	90.4	(86.5-93.3)
Macomb	1,932	89.3	(87.2-91.2)
Monroe	357	90.1	(85.0-93.6)
Oakland	3,197	92.9	(91.6-94.0)
St. Clair	391	91.2	(86.8-94.2)
Washtenaw	1,122	89.3	(86.2-91.8)
City of Detroit	1,386	87.7	(85.4-89.7)
Wayne exc. Detroit	2,745	91.8	(90.3-93.1)
	784	90.4	(86.5-93.3)
Region 2			
Genesee	1,865	88.7	(86.6-90.5)
Lapeer	1,347	89.1	(86.7-91.1)
Shiawassee	237	91.6	(86.3-95.0)
	263	84.8	(78.0-89.8)
Region 3			
Jackson	1,415	89.7	(86.8-92.1)
Lenawee	1,079	89.5	(85.9-92.3)
	306	90.2	(84.5-94.0)
Region 4			
Barry-Eaton	1,778	91.2	(89.3-92.9)
Mid-Michigan ^b	522	90.2	(85.8-93.3)
Ingham	549	88.7	(84.6-91.8)
	883	92.6	(90.1-94.5)
Region 5			
Branch-Hillsdale-St. Joseph	1,495	88.6	(86.3-90.6)
Calhoun	422	88.4	(83.3-92.1)
Kalamazoo	359	87.5	(82.5-91.3)
	688	89.0	(85.5-91.8)
Region 6			
Van Buren-Cass	716	87.5	(83.5-90.6)
Berrien	290	87.6	(81.6-91.8)
	398	88.3	(82.7-92.2)
Region 7			
Allegan	3,096	88.9	(87.3-90.3)
Ionia	324	91.7	(87.1-94.7)
Kent	194	84.6	(76.2-90.4)
Mid-Michigan ^b	1,622	88.4	(86.1-90.3)
Ottawa	549	88.7	(84.6-91.8)
	721	90.7	(87.6-93.0)

Table 13 Cont'd			
Geographic Area	Always Uses a Seatbelt ^a		
	N	%	95% Confidence Interval
Michigan Total	30,029	89.6	(89.1-90.1)
Region 8			
District #10	2,193	87.3	(85.0-89.3)
Muskegon	1,068	86.8	(83.7-89.4)
	1,061	88.1	(84.3-91.1)
Region 9			
District #2	1,537	88.9	(86.5-90.8)
District #4	222	84.3	(77.1-89.6)
Northwest Michigan	242	84.9	(78.1-89.9)
Benzie-Leelanau	452	93.0	(89.4-95.4)
Grand Traverse	209	92.5	(87.1-95.8)
	388	89.9	(84.9-93.4)
Region 10			
Bay	1,456	88.3	(85.6-90.5)
Huron	303	89.3	(83.1-93.5)
Saginaw	120	86.1	(78.0-91.6)
Sanilac	704	88.1	(83.3-91.6)
Tuscola	135	84.1	(74.9-90.3)
	165	92.8	(87.3-96.0)
Region 11			
Central Michigan	951	88.6	(85.6-91.1)
Midland	563	87.3	(83.2-90.5)
	286	93.3	(88.8-96.0)
Region 12			
Luce-Mackinac-Alger-Schoolcraft	1,071	87.3	(84.4-89.8)
Western Upper Peninsula	-- ^c	-- ^c	-- ^c
Delta-Menominee	223	84.7	(77.7-89.9)
Chippewa	205	86.1	(77.3-91.8)
Dickinson-Iron	137	79.4	(68.8-87.1)
Marquette	127	88.5	(81.1-93.2)
	-- ^c	-- ^c	-- ^c

^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.

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

Table 14: High Blood Pressure Michigan BRFSS, 2015 and 2017 Combined			
Geographic Area	Ever Told HBP ^a		
	N	%	95% Confidence Interval
Michigan Total	7,913	33.9	(33.1-34.7)
Region 1	8,291	34.3	(33.1-35.5)
Livingston	641	32.8	(27.8-38.2)
Macomb	1,313	34.6	(31.6-37.7)
Monroe	247	33.6	(27.2-40.7)
Oakland	2,171	30.6	(28.4-33.0)
St. Clair	250	36.0	(29.4-43.3)
Washtenaw	783	23.4	(20.1-27.2)
City of Detroit	972	46.5	(42.6-50.5)
Wayne exc. Detroit	1,860	35.3	(32.8-38.0)
Region 2	1,248	38.5	(35.3-41.8)
Genesee	903	38.9	(35.1-42.9)
Lapeer	161	37.8	(29.7-46.6)
Shiawassee	171	38.5	(29.8-47.9)
Region 3	806	36.8	(32.4-41.4)
Jackson	591	37.9	(32.5-43.6)
Lenawee	201	36.1	(28.7-44.2)
Region 4	1,150	35.1	(31.8-38.7)
Barry-Eaton	330	43.4	(37.0-50.1)
Mid-Michigan ^b	360	35.1	(29.2-41.6)
Ingham	581	30.2	(25.7-35.2)
Region 5	1,025	32.3	(29.1-35.7)
Branch-Hillsdale-St. Joseph	287	33.5	(27.4-40.2)
Calhoun	238	34.8	(28.2-42.1)
Kalamazoo	487	30.6	(26.1-35.4)
Region 6	508	33.9	(29.3-38.9)
Van Buren-Cass	205	39.5	(32.1-47.5)
Berrien	275	32.3	(26.1-39.2)
Region 7	2,100	30.3	(28.0-32.6)
Allegan	218	32.8	(26.2-40.3)
Ionia	124	32.1	(23.6-41.9)
Kent	1,136	29.3	(26.3-32.5)
Mid-Michigan ^b	360	35.1	(29.2-41.6)
Ottawa	467	32.3	(27.5-37.4)

Table 14 Cont'd			
Geographic Area	Ever Told HBP ^a		
	N	%	95% Confidence Interval
Michigan Total	7,913	33.9	(33.1-34.7)
Region 8			
District #10	1,297	32.2	(29.0-35.6)
Muskegon	648	33.9	(29.6-38.4)
	589	32.3	(27.0-38.0)
Region 9			
District #2	1,011	35.6	(32.0-39.3)
District #4	142	34.5	(26.2-43.8)
Northwest Michigan	173	41.2	(32.4-50.5)
Benzie-Leelanau	297	38.5	(31.8-45.7)
Grand Traverse	136	36.9	(26.9-48.2)
	240	31.4	(24.9-38.9)
Region 10			
Bay	814	34.8	(31.1-38.8)
Huron	183	28.3	(21.2-36.7)
Saginaw	72	37.0	(25.8-49.7)
Sanilac	327	38.3	(32.3-44.7)
Tuscola	100	33.2	(23.9-44.1)
	106	39.2	(29.2-50.1)
Region 11			
Central Michigan	663	34.3	(30.1-38.8)
Midland	390	34.8	(29.5-40.5)
	191	34.4	(26.9-42.7)
Region 12			
Luce-Mackinac-Alger-Schoolcraft	565	34.8	(30.3-39.5)
Western Upper Peninsula	82	36.3	(25.3-49.0)
Delta-Menominee	126	43.4	(33.7-53.7)
Chippewa	99	36.4	(26.2-47.9)
Dickinson-Iron	86	25.0	(16.2-36.5)
Marquette	59	37.9	(25.3-52.5)
	113	29.1	(20.4-39.7)

^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 15: Cholesterol Screening and Awareness
Michigan BRFSS, 2015 and 2017 Combined

Geographic Area	Cholesterol Ever Checked ^a			Ever Told High Cholesterol ^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	19,057	88.2	(87.6-88.9)	17,490	36.5	(35.7-37.4)
Region 1						
Livingston	8,044	89.8	(88.8-90.7)	7,449	36.6	(35.3-38.0)
Macomb	621	89.6	(84.2-93.3)	580	37.6	(32.3-43.2)
Monroe	1,279	89.6	(86.7-91.9)	1,182	37.1	(33.9-40.4)
Oakland	-- ^d	-- ^d	-- ^d	225	40.7	(33.2-48.7)
St. Clair	2,121	92.7	(91.0-94.1)	2,001	37.0	(34.5-39.6)
Washtenaw	237	91.9	(86.4-95.3)	221	36.4	(29.2-44.2)
City of Detroit	763	83.0	(78.6-86.6)	687	32.3	(28.2-36.6)
Wayne exc. Detroit	928	89.4	(86.2-91.9)	850	34.7	(30.9-38.7)
	1,801	88.6	(86.3-90.6)	1,659	37.5	(34.8-40.4)
Region 2						
Genesee	1,197	89.7	(87.0-91.9)	1,110	38.5	(35.1-42.1)
Lapeer	864	89.7	(86.4-92.3)	802	39.6	(35.5-43.8)
Shiawassee	157	86.6	(78.2-92.1)	141	31.7	(23.7-40.9)
	-- ^d	-- ^d	-- ^d	155	39.7	(30.5-49.7)
Region 3						
Jackson	769	86.3	(81.4-90.0)	706	38.5	(33.9-43.4)
Lenawee	566	88.7	(82.8-92.8)	526	40.8	(35.1-46.7)
	190	82.0	(72.6-88.7)	168	37.6	(29.6-46.3)
Region 4						
Barry-Eaton	1,094	86.7	(83.4-89.3)	995	36.7	(33.1-40.5)
Mid-Michigan ^c	318	93.4	(88.5-96.3)	300	41.4	(34.8-48.4)
Ingham	353	86.7	(77.9-92.3)	327	36.7	(30.6-43.3)
	543	81.9	(76.8-86.1)	478	34.6	(29.6-40.1)
Region 5						
Branch-Hillsdale-St. Joseph	987	85.0	(81.5-88.0)	883	33.6	(30.1-37.3)
Calhoun	277	90.5	(85.1-94.0)	253	35.4	(28.7-42.9)
Kalamazoo	229	84.4	(76.6-90.0)	203	31.4	(24.7-38.9)
	468	81.9	(75.8-86.7)	416	34.4	(29.4-39.7)
Region 6						
Van Buren-Cass	488	89.0	(84.6-92.3)	449	40.7	(35.4-46.2)
Berrien	-- ^d	-- ^d	-- ^d	184	46.9	(38.6-55.5)
	265	88.9	(82.0-93.4)	245	35.8	(29.2-43.0)

Table 15 Cont'd

Geographic Area	Cholesterol Ever Checked^a			Ever Told High Cholesterol^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	19,057	88.2	(87.6-88.9)	17,490	36.5	(35.7-37.4)
Region 7						
Allegan	2,007	88.0	(85.7-90.1)	1,852	32.6	(30.2-35.2)
Ionia	210	88.7	(82.1-93.0)	192	33.8	(26.6-41.7)
Kent	118	81.2	(68.8-89.4)	102	34.8	(25.2-45.8)
Mid-Michigan ^c	1,081	89.5	(86.5-91.9)	1,008	31.4	(28.1-35.0)
Ottawa	353	86.7	(77.9-92.3)	327	36.7	(30.6-43.3)
	444	89.2	(84.3-92.7)	415	33.6	(28.4-39.2)
Region 8						
District #10	1,244	85.4	(81.7-88.5)	1,137	35.3	(31.8-38.9)
Muskegon	622	84.0	(78.7-88.2)	561	35.1	(30.6-40.0)
	565	89.2	(83.8-92.9)	526	37.5	(31.8-43.6)
Region 9						
District #2	975	88.0	(84.9-90.5)	897	40.4	(36.5-44.4)
District #4	136	87.1	(78.6-92.6)	120	35.0	(25.8-45.5)
Northwest Michigan	167	84.6	(76.0-90.6)	149	40.5	(31.6-50.1)
Benzie-Leelanau	286	88.0	(81.8-92.2)	263	46.9	(39.6-54.5)
Grand Traverse	-- ^d	-- ^d	-- ^d	128	41.1	(30.5-52.6)
	232	87.8	(79.7-93.0)	217	39.9	(32.5-47.9)
Region 10						
Bay	790	90.0	(86.9-92.5)	728	39.2	(34.8-43.7)
Huron	180	88.4	(81.1-93.2)	162	42.8	(32.6-53.5)
Saginaw	-- ^c	-- ^c	-- ^c	67	39.4	(27.4-52.8)
Sanilac	321	90.6	(85.3-94.2)	298	34.6	(28.4-41.5)
Tuscola	-- ^d	-- ^d	-- ^d	81	41.9	(29.8-55.1)
	-- ^d	-- ^d	-- ^d	96	43.8	(33.2-55.0)
Region 11						
Central Michigan	646	85.3	(81.0-88.8)	583	39.9	(35.1-44.9)
Midland	379	87.6	(82.5-91.4)	347	43.4	(37.2-49.9)
	187	84.2	(73.8-91.0)	171	35.0	(27.3-43.5)
Region 12						
Luce-Mackinac-Alger-Schoolcraft	547	85.5	(80.4-89.4)	485	39.4	(34.4-44.6)
Western Upper Peninsula	-- ^c	-- ^c	-- ^c	72	45.8	(33.0-59.2)
Delta-Menominee	121	86.3	(76.3-92.5)	107	42.8	(32.2-54.1)
Chippewa	96	84.4	(73.9-91.2)	82	42.8	(31.2-55.2)
Dickinson-Iron	-- ^d	-- ^d	-- ^d	71	33.1	(22.1-46.3)
Marquette	-- ^d	-- ^d	-- ^d	52	49.3	(34.3-64.4)
	-- ^d	-- ^d	-- ^d	101	27.0	(17.9-38.6)

^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 16: No Routine Checkup in Past Year Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Had No Routine Checkup in Past Year^a		
	N	%	95% Confidence Interval
Michigan Total	31,503	27.1	(26.5-27.8)
Region 1			
Livingston	808	22.7	(18.7-27.3)
Macomb	2,044	27.7	(25.2-30.3)
Monroe	384	27.6	(22.1-34.0)
Oakland	3,344	27.2	(25.3-29.2)
St. Clair	413	29.9	(24.6-35.9)
Washtenaw	1,168	29.4	(26.1-33.0)
City of Detroit	1,525	22.6	(20.0-25.6)
Wayne exc. Detroit	2,886	24.4	(22.4-26.4)
Region 2	1,967	26.6	(24.2-29.3)
Genesee	1,429	25.1	(22.3-28.2)
Lapeer	244	31.4	(24.9-38.8)
Shiawassee	274	28.2	(21.6-35.9)
Region 3	1,474	30.7	(27.1-34.4)
Jackson	1,132	27.8	(24.2-31.8)
Lenawee	310	35.2	(28.3-42.8)
Region 4	1,850	27.0	(24.5-29.7)
Barry-Eaton	539	27.2	(22.7-32.3)
Mid-Michigan ^b	569	24.4	(19.6-30.0)
Ingham	925	28.6	(25.0-32.5)
Region 5	1,564	31.0	(28.2-34.0)
Branch-Hillsdale-St. Joseph	438	31.4	(26.1-37.3)
Calhoun	372	32.9	(27.1-39.3)
Kalamazoo	727	29.7	(25.6-34.1)
Region 6	758	26.4	(22.5-30.7)
Van Buren-Cass	309	24.3	(18.9-30.5)
Berrien	420	26.7	(21.4-32.7)
Region 7	3,230	26.9	(24.9-29.0)
Allegan	345	26.4	(21.2-32.3)
Ionia	200	31.1	(23.5-39.9)
Kent	1,687	27.3	(24.6-30.3)
Mid-Michigan ^b	569	24.4	(19.6-30.0)
Ottawa	751	23.5	(19.9-27.4)

Table 16 Cont'd			
Geographic Area	Had No Routine Checkup in Past Year ^a		
	N	%	95% Confidence Interval
Michigan Total	31,503	27.1	(26.5-27.8)
Region 8			
District #10	2,277	27.7	(25.1-30.4)
Muskegon	1,105	30.7	(27.2-34.4)
	1,106	22.8	(19.3-26.8)
Region 9	1,587	27.5	(24.8-30.5)
District #2	232	27.3	(20.6-35.4)
District #4	254	33.6	(26.8-41.2)
Northwest Michigan	465	22.4	(18.0-27.4)
Benzie-Leelanau	213	23.5	(16.9-31.7)
Grand Traverse	398	29.0	(23.6-35.0)
Region 10	1,518	26.4	(23.5-29.5)
Bay	317	26.9	(20.4-34.7)
Huron	122	36.0	(26.6-46.6)
Saginaw	727	22.7	(18.7-27.1)
Sanilac	147	28.2	(20.4-37.6)
Tuscola	171	26.6	(19.5-35.2)
Region 11	999	29.7	(26.1-33.6)
Central Michigan	588	28.1	(23.7-33.0)
Midland	301	28.3	(22.1-35.4)
Region 12	1,103	28.7	(25.4-32.2)
Luce-Mackinac-Alger-Schoolcraft	146	24.6	(16.7-34.7)
Western Upper Peninsula	232	31.5	(24.6-39.3)
Delta-Menominee	209	29.1	(21.6-38.1)
Chippewa	142	27.1	(18.1-38.5)
Dickinson-Iron	132	30.1	(21.3-40.6)
Marquette	221	24.0	(17.4-32.0)

^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 17: Colorectal Cancer Screening Among Adults 50 Years and Older
Michigan BRFSS, 2015-2017 Combined**

Geographic Area	Appropriate Colorectal Cancer Screening ^a		
	N	%	95% Confidence Interval
Michigan Total	13,685	71.4	(70.6-72.2)
Region 1			
Livingston	414	73.7	(68.1-78.7)
Macomb	876	71.3	(68.1-74.3)
Monroe	157	69.6	(61.7-76.5)
Oakland	1,496	70.0	(67.2-72.6)
St. Clair	182	73.9	(67.0-79.7)
Washtenaw	544	78.0	(73.8-81.7)
City of Detroit	542	65.1	(60.8-69.2)
Wayne exc. Detroit	1,236	71.1	(68.3-73.7)
Region 2			
Genesee	634	71.2	(67.3-74.8)
Lapeer	98	66.7	(57.8-74.5)
Shiawassee	119	77.0	(68.4-83.8)
Region 3			
Jackson	523	73.0	(68.0-77.4)
Lenawee	146	73.2	(65.2-79.8)
Region 4			
Barry-Eaton	262	74.3	(68.3-79.5)
Mid-Michigan ^b	265	74.8	(69.0-79.8)
Ingham	356	75.0	(69.1-80.1)
Region 5			
Branch-Hillsdale-St. Joseph	194	70.2	(63.1-76.4)
Calhoun	173	74.4	(67.4-80.3)
Kalamazoo	311	73.2	(67.5-78.3)
Region 6			
Van Buren-Cass	147	71.6	(63.2-78.7)
Berrien	175	62.5	(55.2-69.3)
Region 7			
Allegan	134	71.4	(63.5-78.3)
Ionia	91	79.3	(69.8-86.4)
Kent	718	72.6	(69.1-75.9)
Mid-Michigan ^b	265	74.8	(69.0-79.8)
Ottawa	339	81.8	(77.2-85.7)

Table 17 Cont'd			
Geographic Area	Appropriate Colorectal Cancer Screening ^a		
	N	%	95% Confidence Interval
Michigan Total	13,685	71.4	(70.6-72.2)
Region 8	1,043	72.5	(69.2-75.6)
District #10	517	72.1	(67.8-76.0)
Muskegon	525	73.5	(68.2-78.2)
Region 9	758	68.2	(64.5-71.7)
District #2	104	64.9	(55.7-73.2)
District #4	101	66.2	(56.3-74.9)
Northwest Michigan	241	67.3	(60.3-73.6)
Benzie-Leelanau	118	76.8	(67.3-84.1)
Grand Traverse	193	70.0	(62.5-76.5)
Region 10	708	73.1	(69.4-76.5)
Bay	141	67.6	(59.5-74.7)
Huron	58	68.9	(56.7-79.0)
Saginaw	375	80.5	(74.8-85.1)
Sanilac	51	65.5	(53.2-76.0)
Tuscola	82	68.6	(57.9-77.6)
Region 11	405	68.3	(63.4-72.8)
Central Michigan	258	67.3	(61.2-72.8)
Midland	143	71.2	(62.6-78.4)
Region 12	501	71.1	(66.7-75.2)
Luce-Mackinac-Alger-Schoolcraft	75	68.3	(57.0-77.8)
Western Upper Peninsula	106	71.0	(60.9-79.4)
Delta-Menominee	91	71.0	(60.4-79.7)
Chippewa	60	68.0	(53.8-79.5)
Dickinson-Iron	55	64.1	(49.6-76.4)
Marquette	113	81.0	(71.5-87.8)

^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 18: Immunizations Among Adults Aged 65 Years and Older Michigan BRFSS, 2015-2017 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	6,021	58.0	(56.8-59.2)	9,842	73.5	(72.3-74.6)
Region 1						
Livingston	3,955	58.2	(56.3-60.1)	3,846	71.7	(69.8-73.5)
Macomb	271	58.9	(50.6-66.7)	269	76.6	(68.9-82.8)
Monroe	677	57.2	(52.7-61.6)	665	75.1	(70.8-79.0)
Oakland	109	55.1	(43.8-65.9)	108	70.5	(59.6-79.5)
St. Clair	1,079	59.5	(56.0-63.0)	1,044	72.3	(68.8-75.6)
Washtenaw	132	48.8	(39.2-58.4)	128	78.7	(70.5-85.1)
City of Detroit	369	64.1	(57.6-70.0)	359	77.5	(71.6-82.4)
Wayne exc. Detroit	394	46.9	(40.6-53.4)	375	56.1	(49.6-62.4)
	910	63.2	(59.3-67.0)	884	72.5	(68.6-76.1)
Region 2						
Genesee	628	54.7	(50.1-59.3)	620	71.0	(66.6-75.0)
Lapeer	456	54.2	(48.8-59.6)	447	69.7	(64.4-74.5)
Shiawassee	81	48.6	(36.8-60.6)	82	58.9	(46.7-70.1)
	88	62.4	(49.7-73.6)	-- ^d	-- ^d	-- ^d
Region 3						
Jackson	524	53.1	(46.7-59.3)	514	79.8	(74.6-84.2)
Lenawee	406	52.8	(44.9-60.5)	398	76.0	(69.2-81.7)
	111	50.9	(40.2-61.6)	109	84.8	(75.5-91.0)
Region 4						
Barry-Eaton	599	59.0	(54.0-63.8)	581	73.9	(69.2-78.2)
Mid-Michigan ^c	201	56.7	(48.3-64.9)	195	73.5	(65.3-80.4)
Ingham	199	58.6	(50.2-66.6)	195	75.8	(68.1-82.2)
	258	59.8	(51.9-67.1)	249	72.7	(64.8-79.5)
Region 5						
Branch-Hillsdale-St. Joseph	488	60.8	(55.5-65.7)	483	76.9	(72.1-81.1)
Calhoun	150	55.4	(45.7-64.7)	147	67.2	(57.1-75.9)
Kalamazoo	114	67.1	(56.5-76.1)	114	85.4	(77.1-91.1)
	220	60.6	(52.9-67.9)	218	79.1	(72.1-84.8)
Region 6						
Van Buren-Cass	243	56.3	(49.0-63.4)	242	76.2	(69.6-81.7)
Berrien	101	64.5	(53.4-74.2)	99	75.0	(64.2-83.4)
	139	50.7	(41.0-60.3)	140	77.7	(69.0-84.5)

Table 18 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	6,021	58.0	(56.8-59.2)	9,842	73.5	(72.3-74.6)
Region 7						
Allegan	925	59.0	(55.2-62.7)	898	80.1	(76.8-83.1)
Ionia	87	67.2	(55.2-77.3)	86	83.0	(72.6-90.0)
Kent	62	59.1	(44.1-72.5)	-- ^d	-- ^d	-- ^d
Mid-Michigan ^c	497	59.1	(53.9-64.2)	482	78.3	(73.3-82.5)
Ottawa	199	58.6	(50.2-66.6)	195	75.8	(68.1-82.2)
	208	57.4	(49.3-65.1)	202	84.3	(77.7-89.3)
Region 8						
District #10	796	58.8	(54.1-63.2)	784	75.4	(71.2-79.2)
Muskegon	403	59.8	(53.9-65.5)	398	74.7	(69.1-79.5)
	384	55.2	(48.1-62.1)	377	76.2	(69.9-81.6)
Region 9						
District #2	581	59.0	(53.6-64.2)	573	73.9	(68.6-78.6)
District #4	81	44.7	(32.7-57.2)	80	71.4	(58.8-81.4)
Northwest Michigan	85	59.1	(44.6-72.2)	82	68.3	(53.3-80.2)
Benzie-Leelanau	183	65.9	(57.0-73.8)	180	77.5	(69.3-84.0)
Grand Traverse	95	59.8	(44.2-73.7)	-- ^d	-- ^d	-- ^d
	137	62.6	(51.7-72.3)	138	76.2	(65.7-84.3)
Region 10						
Bay	518	56.7	(51.2-62.1)	505	73.0	(68.0-77.5)
Huron	111	56.9	(45.8-67.4)	107	77.0	(65.9-85.3)
Saginaw	50	40.1	(26.0-56.0)	50	63.0	(46.7-76.8)
Sanilac	255	58.0	(49.2-66.2)	250	75.1	(67.8-81.3)
Tuscola	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
	55	61.7	(46.5-74.9)	51	63.0	(46.9-76.7)
Region 11						
Central Michigan	341	53.9	(47.4-60.2)	335	71.9	(66.0-77.2)
Midland	225	50.3	(42.5-58.2)	221	68.7	(61.2-75.4)
	105	64.9	(52.8-75.4)	104	83.6	(74.5-89.9)
Region 12						
Luce-Mackinac-Alger-Schoolcraft	362	60.4	(54.1-66.4)	354	67.9	(61.5-73.7)
Western Upper Peninsula	57	61.2	(45.5-74.9)	55	47.1	(31.7-62.9)
Delta-Menominee	95	51.7	(39.7-63.4)	94	69.3	(57.3-79.2)
Chippewa	61	68.2	(52.3-80.8)	59	65.7	(47.9-80.1)
Dickinson-Iron	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d	-- ^d
Marquette	-- ^d	-- ^d	-- ^d	42	66.7	(47.2-81.7)
	68	69.5	(54.2-81.4)	-- ^d	-- ^d	-- ^d

^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 19: HIV Testing Among Adults Aged 18-64 Years Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Had an HIV Test ^a		
	N	%	95% Confidence Interval
Michigan Total	18,853	42.8	(41.9-43.7)
Region 1	7,557	46.7	(45.3-48.1)
Livingston	481	37.2	(31.6-43.3)
Macomb	1,191	42.5	(39.2-45.9)
Monroe	238	33.5	(26.3-41.5)
Oakland	1,983	44.7	(42.1-47.4)
St. Clair	243	44.2	(37.1-51.5)
Washtenaw	721	45.8	(41.4-50.3)
City of Detroit	937	68.7	(65.0-72.2)
Wayne exc. Detroit	1,722	43.7	(40.9-46.5)
Region 2	1,171	43.3	(39.9-46.8)
Genesee	837	44.7	(40.7-48.8)
Lapeer	152	32.6	(24.8-41.5)
Shiawassee	167	45.6	(36.5-55.1)
Region 3	843	42.0	(37.4-46.8)
Jackson	633	41.7	(36.5-47.0)
Lenawee	187	43.7	(35.0-52.8)
Region 4	1,120	41.2	(37.8-44.8)
Barry-Eaton	304	45.4	(38.7-52.2)
Mid-Michigan ^b	337	32.0	(26.2-38.4)
Ingham	594	41.8	(37.1-46.7)
Region 5	957	45.1	(41.3-48.9)
Branch-Hillsdale-St. Joseph	258	41.3	(34.2-48.8)
Calhoun	231	47.0	(39.4-54.8)
Kalamazoo	446	46.5	(40.9-52.1)
Region 6	450	36.6	(31.4-42.2)
Van Buren-Cass	177	28.9	(21.9-37.1)
Berrien	248	40.1	(32.8-47.9)
Region 7	2,076	38.8	(36.3-41.4)
Allegan	224	40.9	(33.6-48.7)
Ionia	123	41.5	(31.8-51.8)
Kent	1,079	39.8	(36.3-43.4)
Mid-Michigan ^b	337	32.0	(26.2-38.4)
Ottawa	490	36.0	(31.0-41.4)

Table 19 Cont'd			
Geographic Area	Ever Had an HIV Test ^a		
	N	%	95% Confidence Interval
Michigan Total	18,853	42.8	(41.9-43.7)
Region 8			
District #10	1,334	40.0	(36.5-43.6)
Muskegon	634	37.1	(32.4-42.1)
	647	44.6	(39.1-50.2)
Region 9	900	36.7	(33.0-40.6)
District #2	136	27.5	(19.9-36.6)
District #4	146	37.8	(29.1-47.4)
Northwest Michigan	249	38.5	(31.8-45.6)
Benzie-Leelanau	107	36.5	(26.4-47.9)
Grand Traverse	238	40.0	(32.6-47.9)
Region 10	898	34.3	(30.6-38.3)
Bay	186	29.7	(22.4-38.1)
Huron	70	24.7	(15.6-36.7)
Saginaw	429	40.7	(34.7-47.0)
Sanilac	86	34.3	(23.4-47.1)
Tuscola	102	26.8	(18.5-37.0)
Region 11	574	36.3	(31.7-41.3)
Central Michigan	316	35.0	(29.1-41.4)
Midland	172	29.1	(21.9-37.5)
Region 12	674	35.7	(31.3-40.4)
Luce-Mackinac-Alger-Schoolcraft	78	41.7	(28.9-55.8)
Western Upper Peninsula	124	31.9	(23.0-42.3)
Delta-Menominee	137	34.3	(25.3-44.7)
Chippewa	95	41.6	(28.9-55.4)
Dickinson-Iron	81	36.0	(24.9-48.8)
Marquette	139	33.8	(24.4-44.7)

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 20: Asthma
Michigan BRFSS, 2015-2017 Combined

Geographic Area	Ever Told Have Asthma^a			Still Have Asthma^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	31,721	16.0	(15.5-16.6)	31,559	10.7	(10.2-11.1)
Region 1						
Livingston	12,714	16.2	(15.4-17.1)	12,652	10.6	(9.9-11.3)
Macomb	813	15.1	(11.7-19.3)	811	9.9	(7.1-13.6)
Monroe	2,054	15.3	(13.5-17.3)	2,043	9.8	(8.4-11.5)
Oakland	385	16.5	(11.7-22.7)	383	8.3	(5.6-12.2)
St. Clair	3,369	14.5	(13.1-16.1)	3,353	9.5	(8.3-10.8)
Washtenaw	415	16.2	(12.6-20.6)	412	10.3	(7.5-14.0)
City of Detroit	1,173	16.9	(14.2-20.0)	1,164	10.4	(8.3-12.9)
Wayne exc. Detroit	1,534	20.7	(18.2-23.4)	1,527	14.5	(12.3-17.0)
	2,897	16.3	(14.7-18.1)	2,885	10.7	(9.4-12.2)
Region 2						
Genesee	1,977	17.0	(15.0-19.1)	1,964	12.5	(10.7-14.4)
Lapeer	1,433	16.5	(14.2-19.1)	1,425	12.8	(10.8-15.1)
Shiawassee	246	16.4	(11.8-22.4)	243	11.5	(7.5-17.2)
	278	20.4	(14.9-27.3)	276	12.3	(7.9-18.8)
Region 3						
Jackson	1,491	19.5	(16.5-22.8)	1,479	12.4	(10.0-15.2)
Lenawee	1,143	18.3	(15.1-21.9)	1,133	13.5	(10.7-16.8)
	316	20.6	(15.1-27.6)	314	10.7	(6.7-16.5)
Region 4						
Barry-Eaton	1,866	16.1	(14.1-18.4)	1,858	10.6	(9.0-12.5)
Mid-Michigan ^c	547	14.9	(11.5-19.2)	545	10.5	(7.5-14.4)
Ingham	569	12.1	(9.1-15.7)	569	8.1	(5.8-11.1)
	933	18.4	(15.4-21.9)	927	12.1	(9.7-15.0)
Region 5						
Branch-Hillsdale-St. Joseph	1,573	17.0	(14.8-19.5)	1,566	11.3	(9.5-13.4)
Calhoun	442	14.5	(10.8-19.2)	442	9.8	(6.8-13.8)
Kalamazoo	373	18.8	(14.4-24.2)	370	13.2	(9.5-18.1)
	731	17.4	(14.1-21.2)	727	11.3	(8.7-14.5)
Region 6						
Van Buren-Cass	764	16.2	(13.1-19.8)	762	10.9	(8.3-14.1)
Berrien	312	15.9	(11.3-21.9)	311	11.0	(7.2-16.3)
	422	15.2	(11.6-19.8)	422	9.8	(6.9-13.7)
Region 7						
Allegan	3,247	14.0	(12.6-15.6)	3,237	8.9	(7.7-10.1)
Ionia	347	17.5	(12.8-23.4)	345	8.5	(5.5-13.0)
Kent	203	10.3	(6.0-17.0)	203	5.5	(3.1-9.4)
Mid-Michigan ^c	1,699	14.2	(12.3-16.4)	1,692	9.5	(7.9-11.4)
Ottawa	569	12.1	(9.1-15.7)	569	8.1	(5.8-11.1)
	751	12.5	(9.8-15.7)	750	7.5	(5.6-10.0)

Table 20 Cont'd

Geographic Area	Ever Told Have Asthma^a			Still Have Asthma^b		
	N	%	95% Confidence Interval	N	%	95% Confidence Interval
Michigan Total	31,721	16.0	(15.5-16.6)	31,559	10.7	(10.2-11.1)
Region 8						
District #10	2,296	16.6	(14.5-19.0)	2,285	11.9	(10.0-14.0)
Muskegon	1,113	16.3	(13.5-19.6)	1,107	13.2	(10.6-16.4)
	1,116	17.3	(14.3-20.8)	1,112	9.9	(7.9-12.5)
Region 9						
District #2	1,591	13.9	(12.0-16.2)	1,582	9.9	(8.3-11.9)
District #4	233	18.8	(13.3-26.0)	231	14.4	(9.7-20.8)
Northwest Michigan	256	14.4	(10.2-19.9)	255	10.3	(7.0-14.7)
Benzie-Leelanau	467	13.3	(10.0-17.5)	463	9.3	(6.7-12.7)
Grand Traverse	213	9.7	(5.5-16.5)	212	7.8	(4.0-14.6)
	397	13.4	(9.9-17.7)	396	8.5	(5.8-12.4)
Region 10						
Bay	1,531	15.1	(12.8-17.8)	1,523	10.7	(8.7-13.1)
Huron	319	17.2	(11.7-24.7)	316	13.5	(8.4-21.2)
Saginaw	122	15.1	(9.4-23.3)	122	8.8	(4.9-15.3)
Sanilac	735	12.8	(10.0-16.4)	733	9.0	(6.6-12.0)
Tuscola	147	19.2	(12.8-27.8)	144	11.3	(6.8-18.1)
	175	14.1	(8.9-21.7)	175	11.9	(7.3-19.0)
Region 11						
Central Michigan	1,010	17.5	(14.5-21.0)	1,005	12.4	(9.8-15.5)
Midland	596	17.9	(14.1-22.5)	593	12.4	(9.1-16.5)
	303	14.3	(10.1-19.9)	302	11.1	(7.5-16.2)
Region 12						
Luce-Mackinac-Alger-Schoolcraft	1,114	16.1	(13.4-19.3)	1,106	11.3	(9.1-14.1)
Western Upper Peninsula	148	12.3	(7.7-19.1)	147	8.8	(5.0-15.0)
Delta-Menominee	233	15.8	(10.4-23.4)	231	10.2	(6.0-16.7)
Chippewa	214	16.2	(10.3-24.6)	213	11.9	(6.7-20.2)
Dickinson-Iron	141	15.6	(8.8-26.1)	-- ^d	-- ^d	-- ^d
Marquette	133	17.3	(11.2-25.8)	131	14.5	(8.9-22.9)
	223	20.0	(13.2-29.1)	221	12.8	(8.1-19.7)

^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 21: Chronic Obstructive Pulmonary Disease (COPD) Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told COPD, Emphysema or Chronic Bronchitis^a		
	N	%	95% Confidence Interval
Michigan Total	31,688	8.5	(8.1-8.8)
Region 1	12,700	8.4	(7.8-9.0)
Livingston	815	6.6	(4.8-9.0)
Macomb	2,051	9.1	(7.8-10.6)
Monroe	381	9.3	(6.6-13.0)
Oakland	3,360	6.3	(5.4-7.4)
St. Clair	416	7.8	(5.5-10.9)
Washtenaw	1,171	5.2	(3.7-7.1)
City of Detroit	1,535	12.5	(10.6-14.7)
Wayne exc. Detroit	2,897	9.1	(7.9-10.4)
Region 2	1,978	11.8	(10.1-13.7)
Genesee	1,434	12.3	(10.3-14.7)
Lapeer	246	9.2	(5.9-14.0)
Shiawassee	278	11.3	(7.5-16.9)
Region 3	1,485	9.6	(7.6-12.1)
Jackson	1,137	9.2	(7.3-11.7)
Lenawee	316	9.5	(5.8-15.2)
Region 4	1,861	7.3	(6.0-8.9)
Barry-Eaton	545	7.8	(5.6-10.8)
Mid-Michigan ^b	570	10.3	(7.3-14.3)
Ingham	930	6.6	(4.9-8.7)
Region 5	1,576	8.4	(6.9-10.1)
Branch-Hillsdale-St. Joseph	444	9.7	(6.9-13.5)
Calhoun	372	12.0	(8.7-16.4)
Kalamazoo	733	5.8	(4.1-8.2)
Region 6	764	7.9	(6.0-10.4)
Van Buren-Cass	311	8.9	(5.9-13.3)
Berrien	423	7.9	(5.3-11.5)
Region 7	3,247	6.4	(5.5-7.4)
Allegan	345	7.2	(4.9-10.5)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,698	5.9	(4.7-7.3)
Mid-Michigan ^b	570	10.3	(7.3-14.3)
Ottawa	756	5.0	(3.5-7.1)

Table 21 Cont'd			
Geographic Area	Ever Told COPD, Emphysema or Chronic Bronchitis ^a		
	N	%	95% Confidence Interval
Michigan Total	31,688	8.5	(8.1-8.8)
Region 8			
District #10	2,295	9.5	(8.1-11.1)
Muskegon	1,112	10.9	(8.9-13.3)
	1,116	7.8	(6.1-10.0)
Region 9	1,589	9.5	(7.8-11.6)
District #2	231	17.0	(11.4-24.6)
District #4	254	9.0	(5.9-13.6)
Northwest Michigan	470	7.8	(5.2-11.3)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	394	7.4	(5.0-10.9)
Region 10	1,526	9.9	(8.2-12.0)
Bay	320	6.4	(4.2-9.7)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	733	12.0	(8.9-15.9)
Sanilac	147	13.2	(8.1-20.9)
Tuscola	172	10.1	(6.3-15.9)
Region 11	1,009	8.4	(6.6-10.6)
Central Michigan	596	11.2	(8.6-14.5)
Midland	302	4.9	(3.0-7.9)
Region 12	1,112	8.2	(6.5-10.1)
Luce-Mackinac-Alger-Schoolcraft	147	10.1	(6.1-16.4)
Western Upper Peninsula	-- ^c	-- ^c	-- ^c
Delta-Menominee	215	10.8	(6.7-16.7)
Chippewa	142	9.1	(5.4-14.9)
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	222	8.9	(5.3-14.5)

^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 22: Arthritis Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Arthritis^a		
	N	%	95% Confidence Interval
Michigan Total	31,676	30.8	(30.2-31.4)
Region 1			
Livingston	816	31.1	(26.8-35.8)
Macomb	2,052	32.5	(30.2-35.0)
Monroe	385	37.0	(31.5-42.9)
Oakland	3,345	27.4	(25.7-29.2)
St. Clair	416	35.0	(30.0-40.4)
Washtenaw	1,170	22.9	(20.3-25.7)
City of Detroit	1,538	31.8	(29.0-34.7)
Wayne exc. Detroit	2,895	31.4	(29.4-33.4)
Region 2			
Genesee	1,432	35.7	(32.8-38.7)
Lapeer	244	37.2	(30.8-44.2)
Shiawassee	276	34.5	(28.1-41.6)
Region 3			
Jackson	1,137	32.3	(28.5-36.3)
Lenawee	315	36.3	(30.2-43.0)
Region 4			
Barry-Eaton	545	33.1	(28.6-38.0)
Mid-Michigan ^b	572	33.0	(28.5-37.8)
Ingham	933	26.3	(23.0-29.9)
Region 5			
Branch-Hillsdale-St. Joseph	445	34.3	(29.1-39.8)
Calhoun	377	35.2	(29.8-41.1)
Kalamazoo	732	27.9	(24.4-31.8)
Region 6			
Van Buren-Cass	309	35.3	(29.4-41.6)
Berrien	421	32.9	(27.8-38.5)
Region 7			
Allegan	347	28.8	(23.8-34.3)
Ionia	202	29.8	(23.3-37.4)
Kent	1,694	27.0	(24.6-29.6)
Mid-Michigan ^b	572	33.0	(28.5-37.8)
Ottawa	755	25.4	(22.1-29.1)

Table 22 Cont'd			
Geographic Area	Ever Told Arthritis ^a		
	N	%	95% Confidence Interval
Michigan Total	31,676	30.8	(30.2-31.4)
Region 8			
District #10	2,294	34.5	(32.0-37.1)
Muskegon	1,117	35.8	(32.4-39.3)
	1,111	35.7	(31.9-39.7)
Region 9	1,590	36.2	(33.4-39.2)
District #2	231	42.2	(34.6-50.1)
District #4	256	37.2	(30.5-44.5)
Northwest Michigan	467	36.2	(31.1-41.6)
Benzie-Leelanau	213	38.1	(30.1-46.9)
Grand Traverse	398	31.2	(26.0-37.0)
Region 10	1,531	32.7	(29.8-35.6)
Bay	320	31.7	(25.6-38.6)
Huron	122	26.1	(18.8-34.9)
Saginaw	735	33.0	(28.8-37.5)
Sanilac	145	37.5	(29.0-46.8)
Tuscola	175	33.5	(26.4-41.5)
Region 11	1,007	33.4	(30.0-37.0)
Central Michigan	595	37.2	(32.7-41.9)
Midland	301	31.9	(26.1-38.2)
Region 12	1,104	33.5	(30.2-37.0)
Luce-Mackinac-Alger-Schoolcraft	145	33.4	(25.0-43.0)
Western Upper Peninsula	232	37.0	(29.7-44.9)
Delta-Menominee	211	34.8	(27.5-42.8)
Chippewa	141	36.3	(26.8-47.0)
Dickinson-Iron	132	31.6	(23.0-41.8)
Marquette	221	32.7	(25.5-40.9)

^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 23: Heart Attack Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Heart Attack ^a		
	N	%	95% Confidence Interval
Michigan Total	31,702	5.0	(4.7-5.3)
Region 1	12,704	4.6	(4.2-5.1)
Livingston	815	4.1	(2.8-6.0)
Macomb	2,056	5.7	(4.7-7.0)
Monroe	383	6.9	(4.3-11.0)
Oakland	3,364	3.3	(2.7-4.0)
St. Clair	416	6.1	(4.0-9.2)
Washtenaw	1,171	2.2	(1.5-3.4)
City of Detroit	1,524	5.2	(4.1-6.6)
Wayne exc. Detroit	2,901	5.5	(4.6-6.5)
Region 2	1,971	6.7	(5.5-8.0)
Genesee	1,429	6.6	(5.3-8.2)
Lapeer	245	6.9	(4.3-11.1)
Shiawassee	277	7.2	(4.3-11.8)
Region 3	1,491	7.0	(5.6-8.8)
Jackson	1,141	6.9	(5.3-9.0)
Lenawee	318	7.2	(4.7-10.8)
Region 4	1,861	4.0	(3.1-5.1)
Barry-Eaton	546	3.9	(2.5-5.8)
Mid-Michigan ^b	570	6.2	(4.2-9.1)
Ingham	928	3.3	(2.3-4.6)
Region 5	1,575	5.1	(4.0-6.5)
Branch-Hillsdale-St. Joseph	444	6.7	(4.2-10.5)
Calhoun	374	6.4	(4.3-9.3)
Kalamazoo	730	3.4	(2.3-5.0)
Region 6	764	6.9	(5.0-9.5)
Van Buren-Cass	311	9.7	(6.4-14.4)
Berrien	423	5.5	(3.3-9.1)
Region 7	3,251	3.8	(3.1-4.6)
Allegan	347	5.2	(3.1-8.7)
Ionia	201	5.3	(2.9-9.4)
Kent	1,699	3.4	(2.5-4.6)
Mid-Michigan ^b	570	6.2	(4.2-9.1)
Ottawa	757	3.2	(2.1-4.8)

Table 23 Cont'd			
Geographic Area	Ever Told Heart Attack ^a		
	N	%	95% Confidence Interval
Michigan Total	31,702	5.0	(4.7-5.3)
Region 8			
District #10	2,293	5.1	(4.1-6.3)
Muskegon	1,112	6.5	(5.0-8.3)
	1,114	3.1	(2.1-4.6)
Region 9	1,593	6.5	(5.0-8.3)
District #2	-- ^c	-- ^c	-- ^c
District #4	257	7.2	(4.5-11.4)
Northwest Michigan	468	5.4	(3.3-8.7)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	397	5.3	(3.3-8.4)
Region 10	1,535	5.9	(4.6-7.4)
Bay	322	4.1	(2.3-7.3)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	736	7.3	(5.2-10.2)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	-- ^c	-- ^c	-- ^c
Region 11	1,007	7.2	(5.5-9.3)
Central Michigan	594	8.7	(6.4-11.7)
Midland	303	5.5	(3.3-9.1)
Region 12	1,113	5.6	(4.2-7.4)
Luce-Mackinac-Alger-Schoolcraft	-- ^c	-- ^c	-- ^c
Western Upper Peninsula	-- ^c	-- ^c	-- ^c
Delta-Menominee	215	7.4	(4.1-13.2)
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 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 24: Angina or Coronary Heart Disease Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Angina or Coronary Heart Disease^a		
	N	%	95% Confidence Interval
Michigan Total	31,588	5.0	(4.7-5.3)
Region 1	12,661	4.8	(4.4-5.3)
Livingston	810	4.1	(2.7-6.2)
Macomb	2,045	5.0	(4.0-6.1)
Monroe	378	5.1	(3.0-8.7)
Oakland	3,354	4.3	(3.6-5.2)
St. Clair	417	8.7	(5.9-12.7)
Washtenaw	1,167	2.7	(1.9-3.7)
City of Detroit	1,530	5.8	(4.5-7.3)
Wayne exc. Detroit	2,886	5.3	(4.5-6.2)
Region 2	1,971	5.7	(4.7-6.8)
Genesee	1,428	5.4	(4.3-6.7)
Lapeer	246	6.2	(3.7-10.2)
Shiawassee	277	6.8	(4.1-11.1)
Region 3	1,478	5.5	(4.2-7.2)
Jackson	1,135	6.0	(4.2-8.5)
Lenawee	311	4.8	(3.0-7.5)
Region 4	1,856	4.1	(3.3-5.2)
Barry-Eaton	544	3.8	(2.6-5.7)
Mid-Michigan ^b	568	5.4	(3.6-8.0)
Ingham	927	3.8	(2.7-5.4)
Region 5	1,569	4.7	(3.7-5.8)
Branch-Hillsdale-St. Joseph	439	5.4	(3.7-7.8)
Calhoun	374	6.2	(4.1-9.3)
Kalamazoo	729	3.4	(2.3-4.8)
Region 6	759	6.5	(4.8-8.7)
Van Buren-Cass	309	10.1	(6.7-14.8)
Berrien	420	4.4	(2.9-6.5)
Region 7	3,236	3.6	(3.0-4.4)
Allegan	345	4.3	(2.6-7.1)
Ionia	201	3.7	(2.0-6.7)
Kent	1,689	3.2	(2.4-4.3)
Mid-Michigan ^b	568	5.4	(3.6-8.0)
Ottawa	754	3.7	(2.5-5.4)

Table 24 Cont'd			
Geographic Area	Ever Told Angina or Coronary Heart Disease ^a		
	N	%	95% Confidence Interval
Michigan Total	31,588	5.0	(4.7-5.3)
Region 8	2,290	4.6	(3.7-5.6)
District #10	1,113	5.2	(4.1-6.7)
Muskegon	1,111	3.8	(2.7-5.4)
Region 9	1,590	7.2	(5.7-9.1)
District #2	230	10.8	(6.8-16.7)
District #4	255	9.7	(6.2-14.9)
Northwest Michigan	467	4.6	(2.9-7.2)
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	398	4.3	(2.5-7.1)
Region 10	1,525	5.7	(4.5-7.2)
Bay	319	4.9	(3.0-7.9)
Huron	-- ^c	-- ^c	-- ^c
Saginaw	732	5.6	(3.7-8.3)
Sanilac	147	8.2	(4.5-14.6)
Tuscola	174	6.7	(3.8-11.5)
Region 11	1,002	7.7	(6.0-10.0)
Central Michigan	590	9.0	(6.6-12.1)
Midland	301	5.9	(3.6-9.6)
Region 12	1,106	6.3	(4.8-8.2)
Luce-Mackinac-Alger-Schoolcraft	-- ^c	-- ^c	-- ^c
Western Upper Peninsula	229	4.6	(2.5-8.3)
Delta-Menominee	215	8.5	(5.0-14.0)
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 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 25: Stroke Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Stroke^a		
	N	%	95% Confidence Interval
Michigan Total	31,763	3.5	(3.3-3.8)
Region 1			
Livingston	816	2.7	(1.7-4.5)
Macomb	2,058	3.6	(2.8-4.7)
Monroe	-- ^c	-- ^c	-- ^c
Oakland	3,364	2.5	(2.0-3.2)
St. Clair	417	7.0	(4.7-10.3)
Washtenaw	1,174	2.6	(1.6-4.3)
City of Detroit	1,538	6.6	(5.4-8.1)
Wayne exc. Detroit	2,902	4.1	(3.3-5.0)
Region 2			
Genesee	1,437	3.7	(2.7-5.0)
Lapeer	-- ^c	-- ^c	-- ^c
Shiawassee	-- ^c	-- ^c	-- ^c
Region 3			
Jackson	1,139	4.7	(3.0-7.1)
Lenawee	-- ^c	-- ^c	-- ^c
Region 4			
Barry-Eaton	546	3.4	(2.2-5.3)
Mid-Michigan ^b	571	4.5	(2.8-7.2)
Ingham	935	2.6	(1.7-4.0)
Region 5			
Branch-Hillsdale-St. Joseph	-- ^c	-- ^c	-- ^c
Calhoun	-- ^c	-- ^c	-- ^c
Kalamazoo	735	3.0	(1.9-4.7)
Region 6			
Van Buren-Cass	312	5.8	(3.4-9.9)
Berrien	422	3.5	(2.0-6.0)
Region 7			
Allegan	-- ^c	-- ^c	-- ^c
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,701	2.7	(2.0-3.8)
Mid-Michigan ^b	571	4.5	(2.8-7.2)
Ottawa	756	2.3	(1.5-3.6)

Table 25 Cont'd			
Geographic Area	Ever Told Stroke ^a		
	N	%	95% Confidence Interval
Michigan Total	31,763	3.5	(3.3-3.8)
Region 8	2,299	3.1	(2.4-4.1)
District #10	1,118	3.6	(2.5-5.1)
Muskegon	1,114	2.6	(1.8-3.9)
Region 9	1,599	4.1	(2.9-5.6)
District #2	-- ^c	-- ^c	-- ^c
District #4	257	3.0	(1.7-5.2)
Northwest Michigan	-- ^c	-- ^c	-- ^c
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	398	2.4	(1.4-4.2)
Region 10	1,534	3.0	(2.2-4.1)
Bay	-- ^c	-- ^c	-- ^c
Huron	-- ^c	-- ^c	-- ^c
Saginaw	735	4.1	(2.7-6.4)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	-- ^c	-- ^c	-- ^c
Region 11	1,008	4.3	(3.0-6.3)
Central Michigan	595	5.2	(3.3-8.1)
Midland	-- ^c	-- ^c	-- ^c
Region 12	1,115	4.0	(2.8-5.6)
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 26: Cardiovascular Disease Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Any Cardiovascular Disease^a		
	N	%	95% Confidence Interval
Michigan Total	31,564	9.8	(9.5-10.2)
Region 1			
Livingston	812	8.2	(6.2-10.7)
Macomb	2,042	10.1	(8.7-11.6)
Monroe	379	12.1	(8.6-16.7)
Oakland	3,345	7.9	(6.9-9.0)
St. Clair	416	13.8	(10.3-18.3)
Washtenaw	1,166	6.4	(4.9-8.3)
City of Detroit	1,523	12.6	(10.8-14.6)
Wayne exc. Detroit	2,886	10.6	(9.4-11.9)
Region 2			
Genesee	1,424	11.5	(9.8-13.4)
Lapeer	245	11.8	(8.1-16.9)
Shiawassee	277	12.7	(8.8-18.0)
Region 3			
Jackson	1,133	12.6	(10.2-15.6)
Lenawee	316	10.7	(7.7-14.8)
Region 4			
Barry-Eaton	542	8.3	(6.3-10.9)
Mid-Michigan ^b	569	12.2	(9.3-16.0)
Ingham	925	7.8	(6.1-9.9)
Region 5			
Branch-Hillsdale-St. Joseph	443	11.8	(8.7-15.8)
Calhoun	370	10.9	(8.0-14.7)
Kalamazoo	729	6.7	(5.1-8.8)
Region 6			
Van Buren-Cass	311	16.6	(12.4-22.0)
Berrien	420	11.0	(7.9-15.0)
Region 7			
Allegan	346	8.3	(5.6-12.0)
Ionia	202	7.7	(4.8-12.0)
Kent	1,690	7.1	(5.8-8.6)
Mid-Michigan ^b	569	12.2	(9.3-16.0)
Ottawa	753	6.7	(5.2-8.8)

Table 26 Cont'd			
Geographic Area	Ever Told Any Cardiovascular Disease ^a		
	N	%	95% Confidence Interval
Michigan Total	31,564	9.8	(9.5-10.2)
Region 8			
District #10	2,289	9.6	(8.3-11.2)
Muskegon	1,110	11.8	(9.8-14.1)
	1,112	6.6	(5.1-8.5)
Region 9			
District #2	1,590	12.0	(10.1-14.1)
District #4	231	14.7	(9.8-21.4)
Northwest Michigan	257	12.9	(9.0-18.2)
Benzie-Leelanau	466	10.9	(7.8-14.9)
Grand Traverse	214	16.0	(9.9-24.8)
	397	7.9	(5.5-11.3)
Region 10			
Bay	1,526	10.2	(8.6-12.1)
Huron	319	7.6	(5.1-11.2)
Saginaw	121	11.9	(7.4-18.5)
Sanilac	731	11.5	(8.9-14.9)
Tuscola	147	13.1	(8.3-20.0)
	174	9.2	(5.7-14.6)
Region 11			
Central Michigan	1,002	13.0	(10.7-15.7)
Midland	590	15.7	(12.5-19.5)
	301	9.8	(6.7-14.2)
Region 12			
Luce-Mackinac-Alger-Schoolcraft	1,108	11.1	(9.1-13.5)
Western Upper Peninsula	147	13.3	(8.3-20.8)
Delta-Menominee	230	10.0	(6.3-15.5)
Chippewa	215	14.7	(9.8-21.3)
Dickinson-Iron	142	11.3	(6.3-19.6)
Marquette	131	10.5	(5.9-18.0)
	221	9.2	(5.4-15.0)

^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 27: Cancer Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Cancer ^a		
	N	%	95% Confidence Interval
Michigan Total	31,735	12.4	(12.0-12.8)
Region 1			
Livingston	814	13.1	(10.6-16.0)
Macomb	2,054	12.4	(11.0-14.0)
Monroe	385	13.4	(10.0-17.8)
Oakland	3,365	12.4	(11.2-13.6)
St. Clair	416	13.7	(10.6-17.6)
Washtenaw	1,175	11.0	(9.1-13.1)
City of Detroit	1,539	8.6	(7.1-10.2)
Wayne exc. Detroit	2,904	12.5	(11.3-13.9)
Region 2			
Genesee	1,436	13.2	(11.3-15.2)
Lapeer	245	14.3	(10.1-19.8)
Shiawassee	278	11.2	(7.7-16.0)
Region 3			
Jackson	1,141	12.9	(10.9-15.3)
Lenawee	317	14.0	(10.2-18.9)
Region 4			
Barry-Eaton	543	13.0	(10.4-16.2)
Mid-Michigan ^b	570	13.6	(10.7-17.2)
Ingham	935	9.9	(8.1-12.1)
Region 5			
Branch-Hillsdale-St. Joseph	444	12.1	(9.3-15.6)
Calhoun	377	14.9	(11.6-19.0)
Kalamazoo	736	12.0	(9.9-14.6)
Region 6			
Van Buren-Cass	311	14.4	(10.6-19.3)
Berrien	421	14.2	(11.2-17.9)
Region 7			
Allegan	347	14.8	(11.2-19.2)
Ionia	202	13.1	(8.8-19.1)
Kent	1,693	11.6	(10.2-13.3)
Mid-Michigan ^b	570	13.6	(10.7-17.2)
Ottawa	754	13.8	(11.3-16.8)

Table 27 Cont'd			
Geographic Area	Ever Told Cancer ^a		
	N	%	95% Confidence Interval
Michigan Total	31,735	12.4	(12.0-12.8)
Region 8			
District #10	2,301	14.5	(12.9-16.4)
Muskegon	1,117	15.8	(13.5-18.3)
	1,117	13.0	(10.7-15.6)
Region 9			
District #2	1,592	14.7	(12.8-16.8)
District #4	231	17.0	(12.2-23.3)
Northwest Michigan	256	13.9	(9.3-20.4)
Benzie-Leelanau	470	14.7	(11.6-18.3)
Grand Traverse	214	15.3	(10.7-21.4)
	396	14.4	(11.1-18.5)
Region 10			
Bay	1,529	12.4	(10.7-14.3)
Huron	320	10.4	(7.6-14.2)
Saginaw	121	14.1	(8.1-23.3)
Sanilac	736	12.9	(10.3-16.1)
Tuscola	144	9.6	(5.6-16.2)
	174	16.5	(11.6-23.0)
Region 11			
Central Michigan	1,004	12.7	(10.7-15.0)
Midland	592	13.6	(11.1-16.7)
	301	13.5	(9.9-18.1)
Region 12			
Luce-Mackinac-Alger-Schoolcraft	1,113	13.7	(11.6-16.2)
Western Upper Peninsula	147	17.5	(11.5-25.8)
Delta-Menominee	233	15.6	(11.0-21.8)
Chippewa	215	12.6	(8.3-18.8)
Dickinson-Iron	141	8.5	(4.9-14.4)
Marquette	132	12.6	(7.4-20.6)
	223	17.1	(11.9-23.9)

^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.

Table 28: Diabetes Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Diabetes ^a		
	N	%	95% Confidence Interval
Michigan Total	31,800	11.0	(10.6-11.4)
Region 1	12,750	10.7	(10.1-11.4)
Livingston	817	9.1	(6.7-12.2)
Macomb	2,061	10.8	(9.4-12.3)
Monroe	385	11.9	(8.6-16.3)
Oakland	3,373	9.3	(8.2-10.5)
St. Clair	416	12.4	(8.8-17.2)
Washtenaw	1,176	7.3	(5.8-9.1)
City of Detroit	1,540	13.4	(11.5-15.5)
Wayne exc. Detroit	2,908	12.0	(10.7-13.4)
Region 2	1,982	13.0	(11.4-14.8)
Genesee	1,438	13.9	(11.9-16.1)
Lapeer	247	9.8	(6.4-14.8)
Shiawassee	277	12.0	(8.2-17.2)
Region 3	1,492	13.2	(10.8-15.9)
Jackson	1,143	13.0	(10.4-16.1)
Lenawee	318	14.0	(9.8-19.5)
Region 4	1,868	10.3	(8.8-12.0)
Barry-Eaton	546	13.4	(10.3-17.3)
Mid-Michigan ^b	570	12.2	(9.4-15.7)
Ingham	936	7.9	(6.2-9.9)
Region 5	1,584	11.4	(9.8-13.2)
Branch-Hillsdale-St. Joseph	445	12.6	(9.4-16.7)
Calhoun	377	12.4	(9.2-16.6)
Kalamazoo	735	10.3	(8.2-12.9)
Region 6	763	12.3	(10.0-15.0)
Van Buren-Cass	311	15.4	(11.5-20.2)
Berrien	422	10.7	(7.9-14.3)
Region 7	3,256	9.6	(8.5-10.9)
Allegan	347	9.1	(6.2-13.3)
Ionia	202	12.0	(8.1-17.4)
Kent	1,704	9.7	(8.2-11.6)
Mid-Michigan ^b	570	12.2	(9.4-15.7)
Ottawa	755	8.6	(6.6-11.2)

Table 28 Cont'd			
Geographic Area	Ever Told Diabetes ^a		
	N	%	95% Confidence Interval
Michigan Total	31,800	11.0	(10.6-11.4)
Region 8			
District #10	2,301	10.8	(9.3-12.5)
Muskegon	1,119	10.7	(8.8-13.0)
	1,115	12.0	(9.8-14.7)
Region 9	1,596	12.5	(10.6-14.8)
District #2	231	17.4	(12.1-24.5)
District #4	257	15.8	(11.2-21.9)
Northwest Michigan	471	10.9	(7.5-15.4)
Benzie-Leelanau	215	13.2	(8.7-19.6)
Grand Traverse	397	6.8	(4.7-9.9)
Region 10	1,533	10.5	(8.9-12.5)
Bay	322	8.0	(5.2-12.1)
Huron	122	12.8	(7.9-20.2)
Saginaw	735	11.9	(9.1-15.3)
Sanilac	145	11.7	(7.4-18.2)
Tuscola	175	9.4	(5.7-15.3)
Region 11	1,011	13.2	(10.9-15.9)
Central Michigan	597	14.2	(11.2-17.8)
Midland	303	14.7	(10.6-20.0)
Region 12	1,113	12.5	(10.3-15.0)
Luce-Mackinac-Alger-Schoolcraft	148	14.3	(8.8-22.3)
Western Upper Peninsula	232	14.8	(9.9-21.4)
Delta-Menominee	214	14.9	(9.8-22.0)
Chippewa	142	11.5	(6.7-18.8)
Dickinson-Iron	-- ^c	-- ^c	-- ^c
Marquette	222	10.4	(6.5-16.2)

^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 29: Kidney Disease Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Kidney Disease ^a		
	N	%	95% Confidence Interval
Michigan Total	31,742	3.6	(3.4-3.9)
Region 1	12,719	3.6	(3.3-4.0)
Livingston	816	2.1	(1.2-3.6)
Macomb	2,057	3.4	(2.6-4.4)
Monroe	383	4.2	(2.6-6.9)
Oakland	3,368	3.2	(2.6-4.0)
St. Clair	417	3.8	(2.2-6.4)
Washtenaw	1,171	3.8	(2.5-5.6)
City of Detroit	1,536	4.6	(3.6-6.0)
Wayne exc. Detroit	2,897	3.9	(3.2-4.9)
Region 2	1,979	3.8	(3.0-4.9)
Genesee	1,435	4.0	(3.0-5.2)
Lapeer	246	6.9	(4.0-11.7)
Shiawassee	-- ^c	-- ^c	-- ^c
Region 3	1,489	3.2	(2.3-4.4)
Jackson	1,139	3.5	(2.4-5.0)
Lenawee	-- ^c	-- ^c	-- ^c
Region 4	1,867	3.2	(2.4-4.3)
Barry-Eaton	545	3.8	(2.5-5.8)
Mid-Michigan ^b	571	3.6	(2.0-6.3)
Ingham	936	2.9	(1.9-4.4)
Region 5	1,580	4.6	(3.6-5.9)
Branch-Hillsdale-St. Joseph	443	5.6	(3.6-8.7)
Calhoun	377	5.4	(3.5-8.3)
Kalamazoo	733	3.7	(2.5-5.5)
Region 6	762	2.6	(1.7-3.9)
Van Buren-Cass	-- ^c	-- ^c	-- ^c
Berrien	420	2.5	(1.5-4.3)
Region 7	3,253	3.0	(2.4-3.7)
Allegan	346	2.7	(1.5-4.9)
Ionia	-- ^c	-- ^c	-- ^c
Kent	1,701	3.2	(2.4-4.3)
Mid-Michigan ^b	571	3.6	(2.0-6.3)
Ottawa	757	2.6	(1.7-3.9)

Table 29 Cont'd			
Geographic Area	Ever Told Kidney Disease ^a		
	N	%	95% Confidence Interval
Michigan Total	31,742	3.6	(3.4-3.9)
Region 8			
District #10	2,292	3.8	(2.9-5.1)
Muskegon	1,111	3.7	(2.5-5.5)
Muskegon	1,115	4.1	(2.8-5.9)
Region 9	1,596	4.9	(3.7-6.6)
District #2	-- ^c	-- ^c	-- ^c
District #4	-- ^c	-- ^c	-- ^c
Northwest Michigan	-- ^c	-- ^c	-- ^c
Benzie-Leelanau	-- ^c	-- ^c	-- ^c
Grand Traverse	397	5.7	(3.5-9.2)
Region 10	1,532	3.1	(2.2-4.4)
Bay	-- ^c	-- ^c	-- ^c
Huron	-- ^c	-- ^c	-- ^c
Saginaw	736	3.8	(2.2-6.4)
Sanilac	-- ^c	-- ^c	-- ^c
Tuscola	-- ^c	-- ^c	-- ^c
Region 11	1,008	4.5	(3.2-6.1)
Central Michigan	595	4.4	(3.0-6.5)
Midland	-- ^c	-- ^c	-- ^c
Region 12	1,114	4.5	(3.3-6.0)
Luce-Mackinac-Alger-Schoolcraft	-- ^c	-- ^c	-- ^c
Western Upper Peninsula	233	4.4	(2.4-8.0)
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 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%.

Table 30: Depression Michigan BRFSS, 2015-2017 Combined			
Geographic Area	Ever Told Depression ^a		
	N	%	95% Confidence Interval
Michigan Total	31,698	21.7	(21.2-22.3)
Region 1	12,698	20.8	(19.9-21.7)
Livingston	816	22.4	(18.4-26.9)
Macomb	2,054	21.6	(19.4-23.9)
Monroe	382	23.8	(18.5-30.1)
Oakland	3,360	17.1	(15.5-18.8)
St. Clair	416	21.2	(17.0-26.1)
Washtenaw	1,168	25.3	(22.1-28.8)
City of Detroit	1,534	21.7	(19.3-24.3)
Wayne exc. Detroit	2,894	22.2	(20.4-24.2)
Region 2	1,976	21.3	(19.2-23.7)
Genesee	1,432	22.4	(19.8-25.2)
Lapeer	247	16.0	(11.5-21.8)
Shiawassee	277	22.0	(16.3-29.0)
Region 3	1,483	23.3	(20.3-26.5)
Jackson	1,137	24.3	(20.8-28.2)
Lenawee	315	22.0	(16.8-28.2)
Region 4	1,860	22.1	(19.8-24.6)
Barry-Eaton	544	21.1	(17.0-25.9)
Mid-Michigan ^b	572	18.7	(14.9-23.3)
Ingham	928	23.2	(20.0-26.8)
Region 5	1,579	24.2	(21.7-26.9)
Branch-Hillsdale-St. Joseph	444	21.7	(17.2-26.9)
Calhoun	377	29.0	(23.7-34.9)
Kalamazoo	732	23.6	(20.1-27.6)
Region 6	763	23.9	(20.3-28.0)
Van Buren-Cass	310	28.3	(22.5-34.9)
Berrien	423	20.2	(15.9-25.4)
Region 7	3,248	23.2	(21.4-25.0)
Allegan	344	23.8	(19.0-29.4)
Ionia	203	23.2	(17.0-30.7)
Kent	1,696	23.7	(21.2-26.3)
Mid-Michigan ^b	572	18.7	(14.9-23.3)
Ottawa	757	24.1	(20.4-28.1)

Table 30 Cont'd			
Geographic Area	Ever Told Depression ^a		
	N	%	95% Confidence Interval
Michigan Total	31,698	21.7	(21.2-22.3)
Region 8			
District #10	2,295	24.9	(22.5-27.4)
Muskegon	1,118	24.0	(20.9-27.4)
	1,110	27.9	(24.2-32.1)
Region 9	1,587	20.9	(18.5-23.5)
District #2	231	21.7	(16.0-28.8)
District #4	253	19.7	(14.5-26.3)
Northwest Michigan	469	24.0	(19.6-28.9)
Benzie-Leelanau	214	17.9	(12.5-24.9)
Grand Traverse	395	20.2	(15.6-25.9)
Region 10	1,535	23.0	(20.2-26.2)
Bay	321	29.0	(21.9-37.3)
Huron	122	10.3	(6.0-17.1)
Saginaw	737	22.0	(18.2-26.4)
Sanilac	146	20.2	(13.2-29.8)
Tuscola	175	25.7	(18.9-34.0)
Region 11	1,011	21.8	(18.7-25.2)
Central Michigan	597	24.7	(20.6-29.3)
Midland	303	17.9	(13.0-24.2)
Region 12	1,113	22.9	(19.8-26.2)
Luce-Mackinac-Alger-Schoolcraft	148	23.6	(16.3-32.9)
Western Upper Peninsula	232	24.4	(18.2-32.0)
Delta-Menominee	214	21.3	(15.4-28.7)
Chippewa	142	17.2	(10.4-27.0)
Dickinson-Iron	132	27.5	(19.0-38.1)
Marquette	223	25.6	(18.2-34.9)

^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.