

**Crude and Age-Adjusted Estimates for Chronic Health Conditions,
Risk Factors, Health Indicators, and Preventive Health Practices by
Expanded Race/Ethnicity**

State of Michigan

Selected Tables

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

2021-2023

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

*Prepared by Yan Tian
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Due to significant BRFSS methodology changes that took place in 2011, the estimates within these tables should not be compared to Michigan BRFSS estimates from prior to 2011.

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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 ICF Macro Inc., and the Michigan Department of Health and Human Services. Michigan BRFSS data contribute to the national [Behavioral Risk Factor Surveillance System](#) (BRFSS) that is managed by the PHSB at the CDC.

The total sample size for the combined 2021-2023 MiBRFS dataset was equal to 28,690 completed interviews (both landline and cell phone). The 2021-2023 combined dataset included 23,075 White, Non-Hispanics; 2,619 Black, Non-Hispanics; 587 Asian or Other Pacific Islander, Non-Hispanics; 205 American Indian/Alaska Native, Non-Hispanics; 745 Other/Multi-racial, Non-Hispanics, 615 Arab, Non-Hispanics; and 844 Hispanics. Those with unknown race/ethnicity were excluded from this analysis.

For the 2021 through 2023 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 2021-2023 Michigan BRFSS data representative of the current Michigan adult population. Estimates based on this methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of Michigan adults by telephone source (land line vs. cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status.

Both crude and age-adjusted[‡], 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 for seven racial/ethnic groups. 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 us at MIBRFSS@michigan.gov.

[‡] Klein RJ, Schoenborn CA. Age Adjustment Using the 2000 Projected U.S. Population. *Healthy People 2010 Stat Notes*. 2001:1-10.

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

Table 1: Prevalence Estimates among the Overall Michigan Population (N = 28,690)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	11.6	(11.2-12.1)	9.8	(9.4-10.3)
Ever Told Have Asthma ²	16.7	(16.1-17.3)	17.5	(16.8-18.1)
Still Have Asthma ³	11.5	(11.0-12.0)	11.9	(11.3-12.5)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	8.4	(8.0-8.8)	7.3	(6.9-7.7)
Ever Told Arthritis ⁵	29.8	(29.2-30.5)	25.9	(25.3-26.6)
Ever Told Any Cardiovascular Disease ⁶	9.7	(9.3-10.1)	8.0	(7.6-8.4)
Ever Told Cancer ⁷	12.4	(12.0-12.8)	9.9	(9.6-10.3)
Ever Told Kidney Disease ⁸	3.9	(3.7-4.2)	3.4	(3.1-3.7)
Ever Told Depression ⁹	23.2	(22.6-23.9)	24.5	(23.8-25.3)
Disability ¹⁰	29.9	(29.2-30.7)	28.3	(27.5-29.1)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	24.1	(23.4-24.7)	23.1	(22.4-23.8)
Fruit Consumption (< 1 Time / Day) ¹²	40.0	(39.1-41.0)	40.6	(39.5-41.7)
Vegetable Consumption (< 1 Time / Day) ¹³	20.1	(19.3-20.9)	20.1	(19.3-21.0)
Current Smoker ¹⁴	15.3	(14.7-15.9)	15.9	(15.3-16.6)
Any Alcohol Consumption ¹⁵	53.6	(52.8-54.4)	55.4	(54.5-56.3)
Heavy Drinking ¹⁶	6.5	(6.1-6.9)	6.8	(6.4-7.3)
Binge Drinking ¹⁷	16.1	(15.5-16.7)	17.9	(17.2-18.6)
Ever Told High Blood Pressure ¹⁸	36.2	(35.3-37.0)	32.0	(31.2-32.9)
Health Indicators				
General Health, Fair or Poor ¹⁹	17.4	(16.8-18.0)	16.4	(15.8-17.0)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	12.8	(12.3-13.3)	12.0	(11.5-12.5)
Poor Mental Health on at least 14 Days in the Past Month ²¹	16.4	(15.8-17.0)	17.5	(16.8-18.2)
Activity Limitation on at least 14 Days in the Past Month ²²	10.4	(9.9-10.9)	10.2	(9.7-10.7)
No Health Care Coverage (Among 18 – 64 years old) ²³	5.9	(5.4-6.4)	6.1	(5.6-6.6)
No Personal Health Care Provider ²⁴	11.6	(11.0-12.1)	13.0	(12.3-13.6)
No Health Care Access During Past 12 Months Due to Cost ²⁵	8.3	(7.9-8.8)	9.0	(8.5-9.5)
Obese ²⁶	34.8	(34.0-35.5)	35.2	(34.4-36.1)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	20.6	(20.0-21.3)	22.7	(21.9-23.4)
Cholesterol Ever Checked ²⁸	91.7	(91.1-92.3)	89.9	(89.2-90.6)
Ever Told High Cholesterol ²⁹	36.2	(35.3-37.1)	30.4	(29.4-31.3)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	43.6	(42.5-44.6)	45.2	(44.2-46.2)
* Age-adjusted by direct method using the 2000 U.S. Census.				

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

Table 2: Prevalence Estimates among White, Non-Hispanics in Michigan (N = 23,075)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	11.0	(10.6-11.6)	8.7	(8.2-9.1)
Ever Told Have Asthma ²	16.4	(15.8-17.1)	17.5	(16.8-18.3)
Still Have Asthma ³	11.3	(10.7-11.9)	11.8	(11.2-12.5)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	8.6	(8.1-9.1)	7.0	(6.5-7.4)
Ever Told Arthritis ⁵	32.2	(31.5-33.0)	26.5	(25.8-27.3)
Ever Told Any Cardiovascular Disease ⁶	10.1	(9.6-10.6)	7.6	(7.2-8.0)
Ever Told Cancer ⁷	14.8	(14.3-15.3)	11.0	(10.5-11.4)
Ever Told Kidney Disease ⁸	4.0	(3.7-4.3)	3.2	(2.9-3.5)
Ever Told Depression ⁹	24.4	(23.7-25.2)	26.4	(25.6-27.3)
Disability ¹⁰	29.4	(28.6-30.2)	27.3	(26.4-28.2)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	22.7	(22.0-23.5)	20.9	(20.1-21.7)
Fruit Consumption (< 1 Time / Day) ¹²	39.5	(38.5-40.6)	40.5	(39.3-41.7)
Vegetable Consumption (< 1 Time / Day) ¹³	18.9	(18.0-19.8)	19.0	(18.1-20.0)
Current Smoker ¹⁴	15.0	(14.3-15.6)	16.0	(15.2-16.7)
Any Alcohol Consumption ¹⁵	55.3	(54.4-56.2)	57.4	(56.4-58.4)
Heavy Drinking ¹⁶	6.8	(6.4-7.3)	7.4	(6.8-7.9)
Binge Drinking ¹⁷	16.6	(15.9-17.3)	19.3	(18.5-20.1)
Ever Told High Blood Pressure ¹⁸	36.6	(35.6-37.5)	30.8	(29.8-31.7)
Health Indicators				
General Health, Fair or Poor ¹⁹	16.4	(15.8-17.0)	15.1	(14.5-15.8)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	12.8	(12.3-13.4)	12.0	(11.3-12.6)
Poor Mental Health on at least 14 Days in the Past Month ²¹	15.9	(15.2-16.6)	17.7	(16.9-18.5)
Activity Limitation on at least 14 Days in the Past Month ²²	10.1	(9.6-10.7)	10.0	(9.5-10.7)
No Health Care Coverage (Among 18 – 64 years old) ²³	5.1	(4.6-5.7)	5.4	(4.9-6.1)
No Personal Health Care Provider ²⁴	10.3	(9.8-10.9)	12.3	(11.6-13.1)
No Health Care Access During Past 12 Months Due to Cost ²⁵	7.1	(6.6-7.6)	8.0	(7.5-8.6)
Obese ²⁶	34.4	(33.5-35.2)	34.4	(33.5-35.4)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	20.7	(19.9-21.4)	23.8	(22.9-24.7)
Cholesterol Ever Checked ²⁸	92.2	(91.5-92.9)	89.6	(88.6-90.4)
Ever Told High Cholesterol ²⁹	37.7	(36.6-38.7)	30.3	(29.2-31.4)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	40.3	(39.1-41.4)	41.9	(40.7-43.1)
* Age-adjusted by direct method using the 2000 U.S. Census.				

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

Table 3: Prevalence Estimates among Black, Non-Hispanics in Michigan (N = 2,619)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	17.2	(15.5-19.1)	15.3	(13.7-17.0)
Ever Told Have Asthma ²	18.9	(17.1-20.8)	19.3	(17.4-21.5)
Still Have Asthma ³	13.7	(12.2-15.4)	13.9	(12.3-15.8)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	10.2	(8.9-11.6)	9.7	(8.5-11.2)
Ever Told Arthritis ⁵	29.2	(27.2-31.4)	25.7	(24.0-27.6)
Ever Told Any Cardiovascular Disease ⁶	11.2	(9.9-12.7)	9.8	(8.7-11.1)
Ever Told Cancer ⁷	6.2	(5.3-7.3)	5.5	(4.7-6.5)
Ever Told Kidney Disease ⁸	4.5	(3.7-5.5)	4.0	(3.2-4.9)
Ever Told Depression ⁹	18.4	(16.6-20.3)	18.9	(16.9-21.0)
Disability ¹⁰	35.3	(32.9-37.8)	33.7	(31.2-36.3)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	30.8	(28.7-33.1)	30.7	(28.4-33.2)
Fruit Consumption (< 1 Time / Day) ¹²	40.8	(37.8-43.9)	41.1	(37.9-44.4)
Vegetable Consumption (< 1 Time / Day) ¹³	28.1	(25.3-31.1)	28.0	(25.0-31.2)
Current Smoker ¹⁴	18.3	(16.4-20.4)	18.1	(16.1-20.3)
Any Alcohol Consumption ¹⁵	50.6	(48.0-53.2)	52.5	(49.7-55.2)
Heavy Drinking ¹⁶	5.0	(4.0-6.3)	5.4	(4.2-6.9)
Binge Drinking ¹⁷	13.0	(11.3-14.8)	14.4	(12.5-16.6)
Ever Told High Blood Pressure ¹⁸	47.0	(44.1-50.0)	42.7	(39.9-45.5)
Health Indicators				
General Health, Fair or Poor ¹⁹	24.6	(22.5-26.7)	23.3	(21.3-25.5)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	14.0	(12.4-15.8)	13.3	(11.7-15.1)
Poor Mental Health on at least 14 Days in the Past Month ²¹	17.9	(16.1-19.9)	18.4	(16.4-20.6)
Activity Limitation on at least 14 Days in the Past Month ²²	12.3	(10.8-14.0)	12.2	(10.6-14.0)
No Health Care Coverage (Among 18 – 64 years old) ²³	5.7	(4.4-7.2)	5.8	(4.4-7.6)
No Personal Health Care Provider ²⁴	12.1	(10.5-13.9)	13.7	(11.9-15.8)
No Health Care Access During Past 12 Months Due to Cost ²⁵	9.8	(8.4-11.5)	9.9	(8.3-11.6)
Obese ²⁶	42.6	(40.1-45.2)	42.4	(39.7-45.1)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	14.9	(13.2-16.8)	15.8	(13.9-18.0)
Cholesterol Ever Checked ²⁸	92.4	(90.5-94.0)	91.1	(88.8-93.0)
Ever Told High Cholesterol ²⁹	36.6	(33.6-39.7)	32.3	(29.4-35.3)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	66.1	(63.0-69.0)	66.6	(63.5-69.6)

* Age-adjusted by direct method using the 2000 U.S. Census.

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

Table 4: Prevalence Estimates among Asian or Other Pacific Islander, Non-Hispanics in Michigan (N = 587)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	7.9	(5.5-11.1)	14.3	(10.8-18.7)
Ever Told Have Asthma ²	8.9	(6.5-12.3)	7.5	(5.5-10.4)
Still Have Asthma ³	4.9	(3.1-7.6)	4.6	(3.0-7.0)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	-- ^a	-- ^a	-- ^a	-- ^a
Ever Told Arthritis ⁵	6.1	(4.2-8.7)	11.0	(8.2-14.6)
Ever Told Any Cardiovascular Disease ⁶	-- ^a	-- ^a	-- ^a	-- ^a
Ever Told Cancer ⁷	-- ^a	-- ^a	-- ^a	-- ^a
Ever Told Kidney Disease ⁸	-- ^a	-- ^a	-- ^a	-- ^a
Ever Told Depression ⁹	9.4	(6.6-13.1)	9.4	(6.7-12.9)
Disability ¹⁰	10.2	(7.3-14.0)	14.4	(11.2-18.4)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	20.1	(16.0-25.0)	19.5	(15.6-24.1)
Fruit Consumption (< 1 Time / Day) ¹²	42.9	(35.6-50.5)	42.1	(35.3-49.2)
Vegetable Consumption (< 1 Time / Day) ¹³	16.1	(11.7-21.7)	14.1	(9.9-19.5)
Current Smoker ¹⁴	6.8	(4.2-11.1)	6.1	(3.7-10.0)
Any Alcohol Consumption ¹⁵	42.8	(37.2-48.5)	42.8	(37.3-48.5)
Heavy Drinking ¹⁶	-- ^a	-- ^a	-- ^a	-- ^a
Binge Drinking ¹⁷	11.1	(7.4-16.2)	9.8	(6.6-14.1)
Ever Told High Blood Pressure ¹⁸	12.6	(9.4-16.7)	22.2	(17.9-27.3)
Health Indicators				
General Health, Fair or Poor ¹⁹	7.0	(4.9-10.0)	8.1	(5.8-11.2)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	3.5	(2.1-5.6)	5.0	(3.2-7.7)
Poor Mental Health on at least 14 Days in the Past Month ²¹	6.4	(4.0-10.1)	5.0	(3.1-8.2)
Activity Limitation on at least 14 Days in the Past Month ²²	3.9	(2.2-6.6)	3.5	(2.1-5.8)
No Health Care Coverage (Among 18 – 64 years old) ²³	-- ^a	-- ^a	-- ^a	-- ^a
No Personal Health Care Provider ²⁴	19.0	(15.0-23.8)	13.4	(10.5-17.0)
No Health Care Access During Past 12 Months Due to Cost ²⁵	5.5	(2.9-10.0)	5.5	(3.2-9.5)
Obese ²⁶	9.9	(7.2-13.4)	11.0	(7.9-15.0)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	26.5	(22.1-31.3)	22.2	(18.5-26.4)
Cholesterol Ever Checked ²⁸	90.2	(85.5-93.5)	93.2	(90.0-95.4)
Ever Told High Cholesterol ²⁹	23.5	(18.3-29.7)	28.8	(23.3-35.0)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	21.8	(17.0-27.5)	24.8	(19.7-30.7)
* Age-adjusted by direct method using the 2000 U.S. Census.				
^a Suppressed due to a denominator < 50 and/or a relative standard error > 30%.				

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

Table 5: Prevalence Estimates among American Indian / Alaskan Native, Non-Hispanics in Michigan (N = 205)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	8.6	(4.8-15.0)	6.5	(3.8-11.0)
Ever Told Have Asthma ²	23.8	(16.3-33.2)	24.3	(16.4-34.5)
Still Have Asthma ³	14.6	(9.7-21.5)	15.1	(9.5-23.0)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	11.2	(6.9-17.6)	10.7	(6.5-17.1)
Ever Told Arthritis ⁵	35.8	(27.4-45.1)	33.8	(27.0-41.3)
Ever Told Any Cardiovascular Disease ⁶	9.7	(5.8-15.9)	10.6	(6.0-17.9)
Ever Told Cancer ⁷	9.6	(5.6-15.9)	7.5	(4.3-12.9)
Ever Told Kidney Disease ⁸	--a	--a	--a	--a
Ever Told Depression ⁹	23.7	(16.4-33.0)	26.9	(18.9-36.8)
Disability ¹⁰	37.1	(28.1-47.1)	37.2	(27.9-47.5)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	19.0	(13.3-26.5)	18.8	(12.9-26.6)
Fruit Consumption (< 1 Time / Day) ¹²	41.1	(30.3-52.8)	40.2	(29.9-51.5)
Vegetable Consumption (< 1 Time / Day) ¹³	22.1	(13.8-33.3)	24.0	(16.0-34.4)
Current Smoker ¹⁴	21.9	(15.1-30.8)	21.2	(14.8-29.6)
Any Alcohol Consumption ¹⁵	52.8	(42.3-63.0)	53.8	(43.5-63.9)
Heavy Drinking ¹⁶	--a	--a	--a	--a
Binge Drinking ¹⁷	25.5	(16.1-37.8)	28.0	(18.5-40.0)
Ever Told High Blood Pressure ¹⁸	36.9	(26.5-48.8)	32.9	(23.6-43.8)
Health Indicators				
General Health, Fair or Poor ¹⁹	22.7	(16.3-30.7)	22.9	(16.1-31.7)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	18.9	(11.8-28.7)	19.9	(12.0-31.3)
Poor Mental Health on at least 14 Days in the Past Month ²¹	17.9	(11.0-27.8)	20.5	(13.6-29.9)
Activity Limitation on at least 14 Days in the Past Month ²²	8.7	(5.1-14.2)	8.3	(4.8-14.0)
No Health Care Coverage (Among 18 – 64 years old) ²³	--a	--a	--a	--a
No Personal Health Care Provider ²⁴	16.9	(10.8-25.4)	18.0	(11.3-27.4)
No Health Care Access During Past 12 Months Due to Cost ²⁵	14.7	(9.6-21.8)	17.4	(11.1-26.2)
Obese ²⁶	31.7	(22.8-42.2)	29.5	(20.8-40.0)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	27.9	(19.6-38.1)	30.0	(22.2-39.1)
Cholesterol Ever Checked ²⁸	--a	--a	--a	--a
Ever Told High Cholesterol ²⁹	29.6	(19.6-42.1)	27.3	(18.2-38.7)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	55.0	(42.4-67.0)	55.5	(43.7-66.8)

* Age-adjusted by direct method using the 2000 U.S. Census.

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

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

Table 6: Prevalence Estimates among Other/Multi-Racial, Non-Hispanics in Michigan (N = 745)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	8.3	(5.8-11.7)	8.9	(6.6-12.0)
Ever Told Have Asthma ²	20.3	(16.5-24.8)	20.5	(16.8-24.8)
Still Have Asthma ³	15.1	(11.7-19.3)	15.7	(12.3-19.7)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	11.2	(8.5-14.6)	12.4	(9.5-15.9)
Ever Told Arthritis ⁵	25.7	(21.6-30.2)	29.2	(25.0-33.9)
Ever Told Any Cardiovascular Disease ⁶	7.8	(5.8-10.5)	9.3	(7.0-12.3)
Ever Told Cancer ⁷	7.6	(5.6-10.3)	9.4	(7.2-12.0)
Ever Told Kidney Disease ⁸	-- ^a	-- ^a	-- ^a	-- ^a
Ever Told Depression ⁹	30.9	(26.2-36.1)	30.4	(25.9-35.3)
Disability ¹⁰	39.2	(34.1-44.7)	40.2	(35.1-45.4)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	22.9	(18.9-27.4)	24.2	(20.3-28.6)
Fruit Consumption (< 1 Time / Day) ¹²	39.8	(34.6-45.2)	39.9	(34.9-45.1)
Vegetable Consumption (< 1 Time / Day) ¹³	18.9	(14.8-23.9)	19.2	(15.2-23.9)
Current Smoker ¹⁴	19.6	(15.8-24.1)	20.0	(16.3-24.3)
Any Alcohol Consumption ¹⁵	49.5	(44.1-54.8)	49.2	(44.0-54.4)
Heavy Drinking ¹⁶	6.3	(4.4-9.0)	6.5	(4.5-9.2)
Binge Drinking ¹⁷	16.2	(12.5-20.9)	15.0	(11.7-19.0)
Ever Told High Blood Pressure ¹⁸	31.8	(26.6-37.6)	33.8	(29.4-38.5)
Health Indicators				
General Health, Fair or Poor ¹⁹	20.0	(16.1-24.5)	21.1	(17.1-25.7)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	13.8	(10.7-17.6)	15.1	(11.9-19.0)
Poor Mental Health on at least 14 Days in the Past Month ²¹	25.7	(21.3-30.8)	24.6	(20.7-29.0)
Activity Limitation on at least 14 Days in the Past Month ²²	13.6	(10.6-17.3)	14.5	(11.3-18.3)
No Health Care Coverage (Among 18 – 64 years old) ²³	5.0	(3.0-8.2)	4.9	(3.0-7.9)
No Personal Health Care Provider ²⁴	15.9	(12.4-20.3)	13.7	(10.8-17.3)
No Health Care Access During Past 12 Months Due to Cost ²⁵	16.4	(12.7-21.1)	16.3	(12.6-20.9)
Obese ²⁶	33.8	(29.1-39.0)	34.5	(29.8-39.4)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	24.7	(20.5-29.5)	23.7	(19.9-27.9)
Cholesterol Ever Checked ²⁸	85.8	(79.7-90.2)	87.7	(83.4-91.0)
Ever Told High Cholesterol ²⁹	34.9	(28.6-41.8)	32.9	(27.0-39.4)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	52.1	(45.9-58.3)	55.4	(49.8-60.9)

* Age-adjusted by direct method using the 2000 U.S. Census.

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

Table 7: Prevalence Estimates among Arab, Non-Hispanics in Michigan (N = 615)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	14.2	(10.6-18.7)	15.7	(11.5-21.1)
Ever Told Have Asthma ²	19.8	(15.5-25.0)	18.6	(14.5-23.5)
Still Have Asthma ³	12.4	(9.1-16.9)	11.3	(8.2-15.5)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	5.1	(3.5-7.3)	5.5	(3.7-8.1)
Ever Told Arthritis ⁵	18.4	(15.2-22.1)	18.6	(15.4-22.2)
Ever Told Any Cardiovascular Disease ⁶	10.0	(7.5-13.3)	9.8	(7.2-13.4)
Ever Told Cancer ⁷	7.1	(5.4-9.3)	6.9	(5.3-8.8)
Ever Told Kidney Disease ⁸	3.0	(1.9-4.6)	3.0	(1.9-4.8)
Ever Told Depression ⁹	17.1	(13.7-21.2)	16.2	(12.8-20.3)
Disability ¹⁰	27.7	(23.3-32.6)	26.4	(22.2-31.1)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	29.6	(24.9-34.9)	31.2	(26.1-36.8)
Fruit Consumption (< 1 Time / Day) ¹²	33.7	(26.7-41.5)	30.6	(24.2-37.9)
Vegetable Consumption (< 1 Time / Day) ¹³	17.1	(11.9-23.9)	15.9	(11.4-21.9)
Current Smoker ¹⁴	11.2	(8.3-14.9)	12.2	(9.0-16.3)
Any Alcohol Consumption ¹⁵	40.9	(35.6-46.4)	41.1	(35.6-46.8)
Heavy Drinking ¹⁶	4.3	(2.6-7.1)	4.3	(2.6-7.2)
Binge Drinking ¹⁷	10.6	(7.7-14.5)	9.8	(7.0-13.6)
Ever Told High Blood Pressure ¹⁸	29.5	(23.6-36.3)	31.2	(25.5-37.6)
Health Indicators				
General Health, Fair or Poor ¹⁹	15.3	(12.2-19.1)	14.8	(11.8-18.4)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	12.2	(9.4-15.8)	13.0	(10.0-16.7)
Poor Mental Health on at least 14 Days in the Past Month ²¹	16.9	(13.3-21.2)	15.3	(12.0-19.2)
Activity Limitation on at least 14 Days in the Past Month ²²	11.0	(8.2-14.5)	10.7	(8.0-14.0)
No Health Care Coverage (Among 18 – 64 years old) ²³	7.5	(4.4-12.5)	7.6	(4.4-12.8)
No Personal Health Care Provider ²⁴	14.2	(10.6-18.9)	13.4	(9.8-18.0)
No Health Care Access During Past 12 Months Due to Cost ²⁵	13.4	(9.7-18.3)	13.1	(9.4-18.0)
Obese ²⁶	32.0	(27.0-37.4)	34.2	(28.9-40.0)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	19.6	(15.6-24.5)	21.2	(16.8-26.3)
Cholesterol Ever Checked ²⁸	93.5	(89.1-96.2)	93.6	(88.7-96.4)
Ever Told High Cholesterol ²⁹	30.2	(23.9-37.3)	30.0	(23.6-37.3)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	33.2	(27.5-39.4)	36.4	(30.2-43.1)
* Age-adjusted by direct method using the 2000 U.S. Census.				
^a Suppressed due to a denominator < 50 and/or a relative standard error > 30%.				

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

Table 8: Prevalence Estimates among Hispanics in Michigan (N = 844)				
Michigan BRFSS (2021-2023 Combined)				
% (95% Confidence Interval)				
Chronic Health Conditions	Crude		Age-Adjusted*	
Ever Told Diabetes ¹	8.5	(6.7-10.9)	12.2	(9.7-15.2)
Ever Told Have Asthma ²	17.4	(14.4-20.9)	16.4	(13.6-19.5)
Still Have Asthma ³	11.1	(8.7-13.9)	11.2	(8.9-14.0)
Ever Told Chronic Obstructive Pulmonary Disease ⁴	4.7	(3.3-6.5)	5.3	(3.8-7.2)
Ever Told Arthritis ⁵	17.7	(14.9-20.8)	25.3	(22.1-28.9)
Ever Told Any Cardiovascular Disease ⁶	5.1	(3.6-7.2)	7.0	(5.0-9.7)
Ever Told Cancer ⁷	5.1	(3.7-7.1)	6.5	(4.8-8.7)
Ever Told Kidney Disease ⁸	2.5	(1.5-4.3)	3.6	(2.1-6.1)
Ever Told Depression ⁹	26.8	(23.2-30.7)	24.8	(21.6-28.4)
Disability ¹⁰	29.4	(25.5-33.6)	29.8	(26.0-34.0)
Health Risk Behaviors				
No Leisure Time Physical Activity ¹¹	26.9	(23.3-30.9)	29.2	(25.4-33.4)
Fruit Consumption (< 1 Time / Day) ¹²	45.7	(40.0-51.4)	42.9	(37.5-48.5)
Vegetable Consumption (< 1 Time / Day) ¹³	23.4	(18.8-28.7)	22.1	(17.9-27.0)
Current Smoker ¹⁴	14.9	(12.1-18.1)	15.1	(12.4-18.3)
Any Alcohol Consumption ¹⁵	52.0	(47.5-56.5)	51.1	(46.7-55.5)
Heavy Drinking ¹⁶	7.2	(4.9-10.4)	6.3	(4.3-9.2)
Binge Drinking ¹⁷	20.9	(17.3-25.0)	18.5	(15.3-22.2)
Ever Told High Blood Pressure ¹⁸	21.4	(17.6-25.8)	27.8	(23.5-32.5)
Health Indicators				
General Health, Fair or Poor ¹⁹	17.6	(14.6-21.0)	18.9	(15.8-22.4)
Poor Physical Health on at least 14 Days in the Past Month ²⁰	10.8	(8.6-13.5)	12.4	(10.0-15.4)
Poor Mental Health on at least 14 Days in the Past Month ²¹	21.4	(18.1-25.2)	19.2	(16.2-22.6)
Activity Limitation on at least 14 Days in the Past Month ²²	9.9	(7.6-12.7)	9.9	(7.7-12.6)
No Health Care Coverage (Among 18 – 64 years old) ²³	15.2	(12.0-19.0)	13.7	(10.8-17.1)
No Personal Health Care Provider ²⁴	19.3	(16.2-22.8)	15.0	(12.5-17.8)
No Health Care Access During Past 12 Months Due to Cost ²⁵	16.2	(13.4-19.3)	14.2	(11.6-17.3)
Obese ²⁶	39.3	(34.9-43.9)	38.9	(34.7-43.2)
Preventive Health Practices				
No Routine Checkup in Past Year ²⁷	28.3	(24.6-32.2)	24.5	(21.3-27.9)
Cholesterol Ever Checked ²⁸	84.4	(79.5-88.3)	87.7	(83.6-90.8)
Ever Told High Cholesterol ²⁹	23.2	(18.6-28.5)	26.5	(21.8-31.7)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³⁰	44.1	(39.3-49.0)	47.1	(42.3-52.0)
* Age-adjusted by direct method using the 2000 U.S. Census.				
^a Suppressed due to a denominator < 50 and/or a relative standard error > 30%.				

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

Appendix: Definitions

- ¹ Among all adults, the proportion 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.
- ² Among all adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma.
- ³ Among all adults, the proportion who reported that they still had asthma.
- ⁴ 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.
- ⁵ 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.
- ⁶ 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.
- ⁷ Among all adults, the proportion who reported ever being told by a doctor that they had skin cancer or any other type of cancer.
- ⁸ Among all adults, the proportion who reported ever being told by a doctor that they had kidney disease.
- ⁹ 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.
- ¹⁰ Among all adults, the proportion who reported having serious difficulty hearing, visual impairment, difficulty concentrating, remembering, or making decisions, difficulty walking or climbing stairs, difficulty dressing or bathing, or difficulty doing errands alone.
- ¹¹ Among all adults, the proportion who reported not participating in any leisure time physical activities or exercises such as running, calisthenics, golf, gardening, or walking during the past month.
- ¹² Among all adults, the proportion whose total reported consumption of fruits (including juice) was less than one time per day (2019 and 2021 combined).
- ¹³ Among all adults, the proportion whose total reported consumption of vegetables was less than one time per day (2019 and 2021 combined).
- ¹⁴ Among all adults, the proportion 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.
- ¹⁵ Among all adults, the proportion who reported consuming at least one drink of any alcoholic beverage in the previous month.
- ¹⁶ Among all adults, the proportion who reported consuming on average more than two alcoholic beverages per day for men or more than one alcoholic beverage per day for women.
- ¹⁷ Among adults who binge drank in the past month, the mean number of times during which five or more alcoholic beverages (for men) or four or more (for women) were consumed during the past month.
- ¹⁸ 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 (2021 and 2023 combined).
- ¹⁹ Among all adults, the proportion who reported that their health, in general, was either fair or poor.
- ²⁰ Among all adults, the proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days.
- ²¹ Among all adults, the proportion who reported 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days.
- ²² Among all adults, the proportion who reported 14 or more days in the past 30 days in which either poor physical health or poor mental health kept them from doing their usual activities, such as self-care, work, and recreation.
- ²³ 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.
- ²⁴ Among all adults, the proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider.
- ²⁵ Among all adults, the proportion who reported that in the past 12 months that there was a time when they could not see a doctor when they needed to due to the cost.
- ²⁶ 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

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excluded. Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.

²⁷ Among all adults, the proportion who reported that they did not have a routine checkup in the past year.

²⁸ Among all adults, the proportion who reported ever having had their blood cholesterol checked (2021 and 2023 combined).

²⁹ 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 (2021 and 2023 combined).

³⁰ 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. Note: "Don't know" was considered a valid response.