

Estimates for Chronic Health Conditions, Risk Factors, Health Indicators, and Preventive Health Practices by Race/Ethnicity

State of Michigan

**Behavioral Risk Factor Survey
2005-2007**

Chronic Disease Epidemiology Section
Bureau of Epidemiology
Michigan Department of Community Health

*Prepared by: Chris Fussman
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TABLE OF CONTENTS

Table of Contents	2
Introduction	3
Key Points	4
Table 1: Prevalence Estimates among the Overall Michigan Population	5
Table 2: Prevalence Estimates among White, Non-Hispanics in Michigan	6
Table 3: Prevalence Estimates among Black, Non-Hispanics in Michigan	7
Table 4: Prevalence Estimates among Asian / Pacific Islander, Non-Hispanics in Michigan	8
Table 5: Prevalence Estimates among American Indian / Alaska Native, Non-Hispanics in Michigan	9
Table 6: Prevalence Estimates among Multi-Racial, Non-Hispanics in Michigan	10
Table 7: Prevalence Estimates among Hispanics in Michigan	11
Appendix: Definitions	12

Introduction

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

For the 2005 through 2007 Michigan Behavioral Risk Factor Surveys, data were collected quarterly by IPPSR. For each year, the sample of 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 total sample size for the combined 2005-2007 MiBRFS dataset was equal to 25,067 completed interviews. The 2005-2007 combined dataset included 20,865 White/Non-Hispanics; 2,746 Black/Non-Hispanics; 257 Asian or Other Pacific Islander/Non-Hispanics; 173 American Indian, Alaska Native/Non-Hispanics; 84 Other/Non-Hispanics, 459 Multi-racial/Non-Hispanics; and 483 Hispanics. Those who reported multiple races were asked a follow-up question concerning which race best represents their true race; this was not included in the analysis. Those with unknown race/ethnicity were also excluded.

When making direct comparisons between different racial/ethnic groups it is important to first look at the age distribution of each group to see if the groups are comparable. When looking at the six Michigan racial/ethnic groups referred to in this report several age differences exist. The follow list summarizes these age distribution differences:

- Whites and Blacks have similar age distributions
- Asians were much younger with the majority being 44 years of age or younger
- American Indians were also younger with the majority being 54 years of age or younger
- The multi-racial group had a similar age distribution to that of Whites and Blacks
- Hispanics were much younger and comparable to that of Asians

Due to the age distributions of these six racial/ethnic groups being very different it was essential to calculate age-adjusted prevalence estimates based on the direct method using the 2000 U.S. Census.

Both crude and age-adjusted population-based prevalence estimates and confidence intervals were calculated for health indicators, health risk behaviors, preventive health practices, and chronic conditions among the overall adult population in Michigan, as well as for six Michigan racial/ethnic categories. Both types of estimates were weighted to adjust for the probabilities of selection and a post-stratification weighting factor that adjusted for the distribution of Michigan adults by age, sex, and race/ethnicity at the state level. All analyses were performed using SAS-Callable SUDAAN, a statistical computing program that was designed for complex sample surveys. Both crude and age-adjusted prevalence estimates and asymmetric 95% confidence intervals are presented.

Key Points

***All significant comparisons mentioned below are based on age-adjusted estimates only.**

Chronic Health Conditions:

- Black, Non-Hispanics reported higher prevalence rates of diabetes, asthma, stroke, high blood pressure, and disability when compared to Whites.
- Asian, Non-Hispanics reported lower prevalence rates of asthma (lifetime and current), doctor-diagnosed arthritis, and disability when compared to Whites.
- American Indians reported higher prevalence rates of heart attack, stroke, high cholesterol, doctor-diagnosed arthritis, and disability when compared to Whites.
- Hispanics reported higher prevalence rates of diabetes and asthma when compared to Whites.

Health Risk Behaviors:

- Black, Non-Hispanics reported higher prevalence rates of obesity and no leisure-time physical activity and lower prevalence rates of alcohol consumption when compared to Whites.
- Asian, Non-Hispanics reported a higher prevalence rate for physical inactivity and lower prevalence rates of obesity, current smoking and alcohol consumption when compared to Whites.
- American Indians reported higher prevalence rates of obesity, no leisure-time physical activity, and current smoking when compared to Whites.
- Multi-racial, Non-Hispanics reported higher prevalence rates of obesity and current smoking when compared to Whites.

Health Indicators:

- Black, Non-Hispanics reported higher prevalence rates of poor general and physical health, cost prevented care, no health care coverage, and dissatisfaction with life when compared to Whites.
- Asian, Non-Hispanics reported lower prevalence rates of poor general and physical health and higher prevalence rates for no health care provider and rarely getting the emotional support they need when compared to Whites.
- American Indians reported higher prevalence rates of poor general, physical, and mental health, activity limitations, cost prevented care, no health care coverage, and rarely getting the emotional support they need when compared to Whites.
- Hispanics reported higher prevalence rates of cost prevented care and rarely getting the emotional support they need when compared to Whites.

Preventive Health Practices:

- Black, Non-Hispanics reported a lower prevalence of not having a routine checkup in the past year and a higher prevalence rates for having their cholesterol checked within the past five years when compared to Whites.
- Blacks, American Indians, Hispanics, and Multi-racial individuals reported higher HIV testing prevalence rates than that of Whites.
- Asian, Non-Hispanics reported a lower HIV testing prevalence rate than that of Whites.

2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009

Table 1: Prevalence Estimates among the Overall Michigan Population (N = 25,067)		
Michigan BRFSS (2005-2007 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	8.5 (8.2-8.9)	8.2 (7.9-8.6)
Ever Told Have Asthma ²	14.1 (13.5-14.6)	14.2 (13.6-14.8)
Still Have Asthma ³	9.2 (8.8-9.7)	9.3 (8.8-9.8)
Ever Told Heart Attack ⁴	4.8 (4.5-5.0)	4.6 (4.4-4.9)
Ever Told Angina or Coronary Heart Disease ⁵	4.8 (4.5-5.0)	4.6 (4.4-4.9)
Ever Told Stroke ⁶	2.9 (2.7-3.1)	2.8 (2.6-3.1)
Ever Told High Blood Pressure ⁷	28.2 (27.5-29.0)	27.4 (26.7-28.1)
Told High Cholesterol Among Those Ever Checked ⁸	39.2 (38.4-40.1)	35.0 (34.0-35.9)
Doctor Diagnosed Arthritis ⁹	31.1 (30.4-31.9)	30.2 (29.5-30.9)
Disability ¹⁰	22.3 (21.7-22.9)	21.8 (21.2-22.4)
Health Risk Behaviors		
Obese ¹¹	27.6 (26.8-28.3)	27.4 (26.7-28.1)
No Leisure-Time Physical Activity ¹²	22.1 (21.4-22.7)	21.8 (21.2-22.5)
Inadequate Physical Activity ¹³	50.1 (49.1-51.0)	49.9 (49.0-50.9)
Inadequate Fruit and Vegetable Consumption ¹⁴	77.8 (77.1-78.6)	78.0 (77.2-78.7)
Current Smoker ¹⁵	21.7 (21.1-22.4)	22.0 (21.3-22.7)
Heavy Drinking ¹⁶	5.6 (5.3-6.1)	5.7 (5.3-6.1)
Binge Drinking ¹⁷	17.4 (16.8-18.1)	17.9 (17.2-18.5)
Health Indicators		
General Health, Fair or Poor ¹⁸	15.0 (14.5-15.5)	14.7 (14.2-15.2)
Poor Physical Health on at least 14 Days in the Past Month ¹⁹	11.0 (10.6-11.5)	10.9 (10.4-11.3)
Poor Mental Health on at least 14 Days in the Past Month ²⁰	10.9 (10.4-11.4)	10.9 (10.4-11.4)
Activity Limitation on at least 14 Days in the Past Month ²¹	7.1 (6.8-7.5)	7.0 (6.6-7.4)
No Health Care Coverage (Among 18 – 64 year olds) ²²	14.5 (13.8-15.2)	14.8 (14.1-15.5)
No Personal Health Care Provider ²³	14.5 (13.9-15.1)	14.9 (14.2-15.5)
No Health Care Access During Past 12 Months Due to Cost ²⁴	12.2 (11.7-12.8)	12.4 (11.8-12.9)
Activity Limitation ²⁵	20.7 (20.1-21.3)	20.2 (19.6-20.8)
Used Special Equipment ²⁶	7.0 (6.7-7.3)	6.8 (6.4-7.1)
Rarely/Never Received the Social/Emotional Support Needed ²⁷	6.9 (6.5-7.3)	6.9 (6.5-7.3)
Dissatisfied or Very Dissatisfied with Life ²⁸	6.2 (5.9-6.6)	6.2 (5.8-6.6)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁹	30.3 (29.6-31.1)	30.8 (30.1-31.6)
Cholesterol Ever Checked ³⁰	81.0 (80.1-81.8)	80.0 (79.2-80.7)
Cholesterol Checked Within Past Five Years ³¹	77.2 (76.3-78.0)	76.1 (75.3-76.9)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³²	38.6 (37.7-39.5)	39.8 (39.0-40.7)
- Table excludes those with unknown race/ethnicity. * Age-adjusted by direct method using the 2000 U.S. Census.		

2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009

Table 2: Prevalence Estimates among White, Non-Hispanics in Michigan (N = 20,865)		
Michigan BRFSS (2005-2007 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	7.8 (7.5-8.2)	7.3 (6.9-7.6)
Ever Told Have Asthma ²	13.4 (12.8-14.0)	13.6 (13.0-14.3)
Still Have Asthma ³	8.6 (8.2-9.1)	8.7 (8.2-9.2)
Ever Told Heart Attack ⁴	4.7 (4.5-5.0)	4.4 (4.1-4.6)
Ever Told Angina or Coronary Heart Disease ⁵	5.0 (4.7-5.3)	4.6 (4.3-4.8)
Ever Told Stroke ⁶	2.7 (2.5-2.9)	2.5 (2.3-2.7)
Ever Told High Blood Pressure ⁷	27.4 (26.6-28.2)	25.6 (24.9-26.3)
Told High Cholesterol Among Those Ever Checked ⁸	40.0 (39.0-40.9)	34.7 (33.7-35.7)
Doctor Diagnosed Arthritis ⁹	31.8 (31.0-32.7)	29.9 (29.2-30.7)
Disability ¹⁰	22.0 (21.3-22.7)	21.0 (20.4-21.7)
Health Risk Behaviors		
Obese ¹¹	26.1 (25.4-26.8)	25.9 (25.1-26.6)
No Leisure-Time Physical Activity ¹²	20.6 (20.0-21.3)	20.1 (19.4-20.7)
Inadequate Physical Activity ¹³	48.5 (47.5-49.5)	48.1 (47.1-49.1)
Inadequate Fruit and Vegetable Consumption ¹⁴	77.9 (77.1-78.7)	78.3 (77.4-79.0)
Current Smoker ¹⁵	21.0 (20.3-21.8)	21.7 (21.0-22.5)
Heavy Drinking ¹⁶	6.1 (5.6-6.5)	6.2 (5.7-6.7)
Binge Drinking ¹⁷	18.4 (17.7-19.1)	19.3 (18.6-20.1)
Health Indicators		
General Health, Fair or Poor ¹⁸	13.6 (13.1-14.1)	13.0 (12.5-13.6)
Poor Physical Health on at least 14 Days in the Past Month ¹⁹	10.6 (10.1-11.1)	10.2 (9.7-10.7)
Poor Mental Health on at least 14 Days in the Past Month ²⁰	10.4 (9.9-10.9)	10.5 (10.0-11.1)
Activity Limitation on at least 14 Days in the Past Month ²¹	6.7 (6.3-7.1)	6.5 (6.1-6.9)
No Health Care Coverage (Among 18 – 64 year olds) ²²	13.3 (12.5-14.0)	13.7 (13.0-14.5)
No Personal Health Care Provider ²³	13.0 (12.3-13.6)	13.7 (13.0-14.4)
No Health Care Access During Past 12 Months Due to Cost ²⁴	10.7 (10.2-11.3)	11.1 (10.5-11.7)
Activity Limitation ²⁵	20.4 (19.8-23.7)	19.6 (18.9-20.2)
Used Special Equipment ²⁶	6.5 (6.2-6.9)	6.0 (5.7-6.4)
Rarely/Never Received the Social/Emotional Support Needed ²⁷	5.9 (5.5-6.3)	5.8 (5.4-6.2)
Dissatisfied or Very Dissatisfied with Life ²⁸	5.5 (5.1-5.9)	5.5 (5.1-5.9)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁹	31.6 (30.7-32.4)	32.7 (31.9-33.6)
Cholesterol Ever Checked ³⁰	81.4 (80.4-82.3)	79.4 (78.6-80.3)
Cholesterol Checked Within Past Five Years ³¹	77.2 (76.2-78.1)	75.1 (75.3-76.9)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³²	34.7 (33.7-35.6)	36.3 (35.4-37.3)
- Table excludes those with unknown race/ethnicity. * Age-adjusted by direct method using the 2000 U.S. Census.		

2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009

Table 3: Prevalence Estimates among Black, Non-Hispanics in Michigan (N = 2,746)		
Michigan BRFSS (2005-2007 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	12.7 (11.3-14.3)	13.9 (12.5-15.4)
Ever Told Have Asthma ²	16.3 (14.4-18.3)	16.3 (14.5-18.2)
Still Have Asthma ³	11.0 (9.5-12.7)	11.1 (9.6-12.8)
Ever Told Heart Attack ⁴	4.7 (3.9-5.7)	5.5 (4.6-6.6)
Ever Told Angina or Coronary Heart Disease ⁵	4.0 (3.3-5.0)	4.5 (3.7-5.4)
Ever Told Stroke ⁶	4.2 (3.4-5.1)	4.6 (3.8-5.7)
Ever Told High Blood Pressure ⁷	35.8 (33.3-38.5)	38.5 (36.3-40.7)
Told High Cholesterol Among Those Ever Checked ⁸	35.3 (32.4-38.2)	34.3 (31.6-37.1)
Doctor Diagnosed Arthritis ⁹	29.5 (27.2-31.9)	31.7 (29.7-33.9)
Disability ¹⁰	23.8 (21.9-25.9)	25.2 (23.3-27.2)
Health Risk Behaviors		
Obese ¹¹	37.1 (34.6-39.6)	37.1 (34.7-39.5)
No Leisure-Time Physical Activity ¹²	30.9 (28.6-33.3)	31.5 (29.3-33.8)
Inadequate Physical Activity ¹³	58.6 (55.7-61.5)	49.9 (57.1-62.7)
Inadequate Fruit and Vegetable Consumption ¹⁴	77.6 (75.1-79.9)	77.6 (75.2-79.8)
Current Smoker ¹⁵	24.2 (22.1-26.5)	23.7 (21.6-25.9)
Heavy Drinking ¹⁶	3.5 (2.6-4.6)	3.4 (2.5-4.5)
Binge Drinking ¹⁷	11.7 (10.0-13.7)	11.3 (9.7-13.2)
Health Indicators		
General Health, Fair or Poor ¹⁸	22.4 (20.5-24.4)	23.8 (22.0-25.7)
Poor Physical Health on at least 14 Days in the Past Month ¹⁹	13.6 (12.1-15.3)	14.2 (12.7-15.9)
Poor Mental Health on at least 14 Days in the Past Month ²⁰	12.3 (10.8-14.1)	12.1 (10.6-13.8)
Activity Limitation on at least 14 Days in the Past Month ²¹	9.6 (8.4-11.1)	9.8 (8.6-11.3)
No Health Care Coverage (Among 18 – 64 year olds) ²²	19.1 (16.9-21.5)	19.0 (16.9-21.4)
No Personal Health Care Provider ²³	20.0 (17.9-22.3)	19.3 (17.4-21.4)
No Health Care Access During Past 12 Months Due to Cost ²⁴	17.6 (15.7-19.6)	17.0 (15.2-19.0)
Activity Limitation ²⁵	21.7 (19.8-23.7)	22.8 (20.9-24.7)
Used Special Equipment ²⁶	9.8 (8.6-11.1)	10.7 (9.5-12.1)
Rarely/Never Received the Social/Emotional Support Needed ²⁷	10.7 (9.3-12.4)	10.7 (9.3-12.4)
Dissatisfied or Very Dissatisfied with Life ²⁸	9.9 (8.5-11.5)	9.8 (8.5-11.4)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁹	20.7 (18.6-23.0)	20.2 (18.2-22.3)
Cholesterol Ever Checked ³⁰	83.0 (80.5-85.2)	83.7 (81.4-85.7)
Cholesterol Checked Within Past Five Years ³¹	81.0 (78.4-83.3)	81.7 (79.4-83.9)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³²	59.0 (56.1-61.8)	58.8 (56.1-61.5)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009

Table 4: Prevalence Estimates among Asian or Other Pacific Islander, Non-Hispanics in Michigan (N = 257)		
Michigan BRFSS (2005-2007 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	4.2 (2.3-7.7)	11.3 (6.5-19.1)
Ever Told Have Asthma ²	7.7 (4.6-12.8)	6.6 (3.8-11.0)
Still Have Asthma ³	3.9 (1.8-8.3)	3.5 (1.6-7.8)
Ever Told Heart Attack ⁴	1.6 (0.6-4.1)	2.4 (1.0-5.5)
Ever Told Angina or Coronary Heart Disease ⁵	1.8 (0.6-4.9)	2.3 (0.9-5.9)
Ever Told Stroke ⁶	0.0 (---)	0.0 (---)
Ever Told High Blood Pressure ⁷	11.4 (7.7-16.5)	20.4 (14.5-28.0)
Told High Cholesterol Among Those Ever Checked ⁸	31.2 (23.5-40.2)	29.0 (21.9-37.2)
Doctor Diagnosed Arthritis ⁹	11.2 (7.5-16.3)	16.1 (10.9-23.0)
Disability ¹⁰	8.9 (5.9-13.3)	10.9 (6.8-17.0)
Health Risk Behaviors		
Obese ¹¹	8.9 (5.4-14.3)	8.0 (5.1-12.4)
No Leisure-Time Physical Activity ¹²	21.0 (16.0-27.1)	20.4 (15.1-27.0)
Inadequate Physical Activity ¹³	69.2 (61.7-75.8)	65.5 (58.8-71.5)
Inadequate Fruit and Vegetable Consumption ¹⁴	73.3 (65.9-79.6)	74.6 (66.2-81.5)
Current Smoker ¹⁵	10.9 (7.1-16.2)	10.5 (6.4-16.7)
Heavy Drinking ¹⁶	1.2 (0.4-3.7)	1.2 (0.3-4.0)
Binge Drinking ¹⁷	9.0 (5.5-14.5)	7.1 (4.3-11.4)
Health Indicators		
General Health, Fair or Poor ¹⁸	6.4 (3.8-10.6)	7.2 (4.5-11.4)
Poor Physical Health on at least 14 Days in the Past Month ¹⁹	3.8 (2.1-6.6)	3.3 (1.8-5.7)
Poor Mental Health on at least 14 Days in the Past Month ²⁰	7.3 (4.2-12.6)	6.2 (3.6-10.6)
Activity Limitation on at least 14 Days in the Past Month ²¹	2.5 (0.8-7.3)	2.6 (0.9-7.1)
No Health Care Coverage (Among 18 – 64 year olds) ²²	8.7 (5.6-13.3)	9.4 (6.0-14.3)
No Personal Health Care Provider ²³	25.9 (20.0-32.8)	21.6 (16.9-27.2)
No Health Care Access During Past 12 Months Due to Cost ²⁴	14.6 (10.3-20.3)	12.5 (8.8-17.3)
Activity Limitation ²⁵	8.3 (5.3-12.6)	9.3 (5.6-15.1)
Used Special Equipment ²⁶	2.2 (1.0-4.7)	3.2 (1.5-6.6)
Rarely/Never Received the Social/Emotional Support Needed ²⁷	11.9 (8.0-17.3)	11.7 (8.0-16.7)
Dissatisfied or Very Dissatisfied with Life ²⁸	4.5 (2.4-8.2)	4.6 (2.5-8.4)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁹	38.2 (31.4-45.4)	30.0 (24.8-35.8)
Cholesterol Ever Checked ³⁰	67.2 (58.6-74.7)	75.4 (70.6-79.6)
Cholesterol Checked Within Past Five Years ³¹	65.7 (57.1-73.3)	74.1 (69.2-78.5)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³²	30.5 (24.1-37.8)	26.9 (21.5-33.1)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009

Table 5: Prevalence Estimates among American Indian / Alaskan Native, Non-Hispanics in Michigan (N = 173) Michigan BRFSS (2005-2007 Combined) % (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	10.7 (6.4-17.4)	12.2 (7.6-18.9)
Ever Told Have Asthma ²	17.6 (11.7-25.6)	17.2 (11.5-24.8)
Still Have Asthma ³	12.8 (7.9-20.1)	12.0 (7.5-18.6)
Ever Told Heart Attack ⁴	9.8 (5.8-15.9)	11.4 (7.1-18.0)
Ever Told Angina or Coronary Heart Disease ⁵	4.4 (2.3-8.3)	6.0 (3.3-10.8)
Ever Told Stroke ⁶	4.5 (2.2-9.0)	6.1 (3.2-11.3)
Ever Told High Blood Pressure ⁷	29.3 (21.3-38.8)	33.1 (26.2-40.7)
Told High Cholesterol Among Those Ever Checked ⁸	53.8 (42.4-64.9)	56.0 (45.5-65.9)
Doctor Diagnosed Arthritis ⁹	36.2 (27.4-45.9)	40.7 (32.7-49.2)
Disability ¹⁰	31.2 (23.8-39.8)	33.8 (26.6-41.9)
Health Risk Behaviors		
Obese ¹¹	36.4 (28.1-45.6)	35.9 (28.3-44.3)
No Leisure-Time Physical Activity ¹²	29.6 (22.2-38.3)	31.5 (24.4-39.6)
Inadequate Physical Activity ¹³	47.5 (37.0-58.2)	47.0 (37.5-56.7)
Inadequate Fruit and Vegetable Consumption ¹⁴	79.4 (69.3-86.8)	80.7 (72.1-87.2)
Current Smoker ¹⁵	37.2 (29.0-46.3)	33.8 (26.6-42.0)
Heavy Drinking ¹⁶	8.5 (4.2-16.2)	7.6 (3.9-14.3)
Binge Drinking ¹⁷	26.4 (18.7-35.9)	22.7 (16.4-30.5)
Health Indicators		
General Health, Fair or Poor ¹⁸	25.1 (18.7-32.7)	27.7 (21.5-34.9)
Poor Physical Health on at least 14 Days in the Past Month ¹⁹	20.2 (14.3-27.8)	22.9 (16.8-30.3)
Poor Mental Health on at least 14 Days in the Past Month ²⁰	20.0 (13.6-28.5)	18.9 (13.2-26.4)
Activity Limitation on at least 14 Days in the Past Month ²¹	15.6 (10.4-22.7)	15.3 (10.6-21.7)
No Health Care Coverage (Among 18 – 64 year olds) ²²	26.7 (18.8-36.3)	24.9 (18.0-33.4)
No Personal Health Care Provider ²³	20.1 (13.4-29.1)	19.4 (13.4-27.2)
No Health Care Access During Past 12 Months Due to Cost ²⁴	22.7 (15.9-31.3)	20.9 (14.9-28.5)
Activity Limitation ²⁵	29.7 (22.4-38.1)	32.3 (25.2-40.3)
Used Special Equipment ²⁶	11.9 (7.5-18.3)	14.4 (9.9-20.4)
Rarely/Never Received the Social/Emotional Support Needed ²⁷	17.7 (11.3-26.7)	17.5 (11.4-25.9)
Dissatisfied or Very Dissatisfied with Life ²⁸	8.8 (5.1-14.5)	8.8 (5.2-14.4)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁹	28.0 (20.9-36.5)	26.6 (20.0-34.5)
Cholesterol Ever Checked ³⁰	79.4 (69.8-86.5)	83.0 (75.5-88.5)
Cholesterol Checked Within Past Five Years ³¹	73.1 (63.0-81.2)	76.7 (68.5-83.3)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³²	50.7 (40.8-60.6)	48.4 (39.3-57.6)
- Table excludes those with unknown race/ethnicity. * Age-adjusted by direct method using the 2000 U.S. Census.		

2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009

Table 6: Prevalence Estimates among Multi-Racial, Non-Hispanics in Michigan (N = 459)		
Michigan BRFSS (2005-2007 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	11.1 (8.3-14.7)	11.6 (8.7-15.3)
Ever Told Have Asthma ²	23.8 (19.2-29.0)	23.7 (19.1-29.0)
Still Have Asthma ³	19.3 (15.0-24.6)	19.0 (14.7-24.2)
Ever Told Heart Attack ⁴	8.5 (6.1-11.6)	9.0 (6.7-12.1)
Ever Told Angina or Coronary Heart Disease ⁵	7.5 (5.5-10.3)	8.0 (5.9-10.8)
Ever Told Stroke ⁶	4.4 (2.7-7.2)	5.0 (3.0-8.0)
Ever Told High Blood Pressure ⁷	32.8 (27.2-39.0)	32.1 (26.8-37.9)
Told High Cholesterol Among Those Ever Checked ⁸	40.6 (34.2-47.4)	37.1 (31.5-43.2)
Doctor Diagnosed Arthritis ⁹	39.9 (34.0-46.1)	38.6 (33.1-44.4)
Disability ¹⁰	35.8 (30.9-41.2)	34.2 (29.7-39.0)
Health Risk Behaviors		
Obese ¹¹	33.4 (28.3-38.9)	32.9 (27.8-38.5)
No Leisure-Time Physical Activity ¹²	20.7 (16.7-25.5)	21.7 (17.5-26.5)
Inadequate Physical Activity ¹³	48.2 (41.7-54.8)	48.1 (41.6-54.6)
Inadequate Fruit and Vegetable Consumption ¹⁴	78.5 (73.4-82.9)	78.2 (72.8-82.8)
Current Smoker ¹⁵	30.0 (24.9-35.6)	28.4 (23.4-34.0)
Heavy Drinking ¹⁶	4.0 (2.5-6.3)	3.9 (2.4-6.4)
Binge Drinking ¹⁷	14.3 (10.6-19.0)	14.5 (10.7-19.3)
Health Indicators		
General Health, Fair or Poor ¹⁸	22.9 (18.7-27.7)	21.9 (17.9-26.4)
Poor Physical Health on at least 14 Days in the Past Month ¹⁹	16.4 (12.9-20.7)	16.2 (12.7-20.3)
Poor Mental Health on at least 14 Days in the Past Month ²⁰	15.7 (12.1-20.1)	15.0 (11.5-19.3)
Activity Limitation on at least 14 Days in the Past Month ²¹	11.0 (8.2-14.6)	10.7 (8.1-14.0)
No Health Care Coverage (Among 18 – 64 year olds) ²²	20.2 (15.4-26.2)	21.2 (16.0-27.4)
No Personal Health Care Provider ²³	16.6 (12.2-22.1)	16.8 (12.8-21.8)
No Health Care Access During Past 12 Months Due to Cost ²⁴	22.6 (18.1-27.8)	22.2 (17.6-27.5)
Activity Limitation ²⁵	33.7 (28.8-38.9)	32.4 (27.9-37.2)
Used Special Equipment ²⁶	13.6 (10.5-17.4)	12.5 (9.9-15.7)
Rarely/Never Received the Social/Emotional Support Needed ²⁷	8.5 (6.1-11.6)	8.5 (6.0-11.8)
Dissatisfied or Very Dissatisfied with Life ²⁸	14.9 (11.0-19.8)	13.8 (10.2-18.5)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁹	35.6 (30.1-41.4)	35.6 (30.3-41.3)
Cholesterol Ever Checked ³⁰	83.2 (77.6-87.6)	82.6 (76.5-87.3)
Cholesterol Checked Within Past Five Years ³¹	80.3 (74.5-85.0)	80.3 (74.1-85.2)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³²	46.0 (39.7-52.5)	46.1 (39.4-52.9)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009

Table 7: Prevalence Estimates among Hispanics in Michigan (N = 483)		
Michigan BRFSS (2005-2007 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	8.7 (6.3-12.0)	12.1 (9.1-15.9)
Ever Told Have Asthma ²	19.3 (15.2-24.0)	18.5 (14.9-22.8)
Still Have Asthma ³	13.4 (10.0-17.7)	13.0 (9.9-16.7)
Ever Told Heart Attack ⁴	2.2 (1.3-3.7)	3.7 (2.2-6.1)
Ever Told Angina or Coronary Heart Disease ⁵	2.1 (1.2-3.6)	3.7 (2.2-6.3)
Ever Told Stroke ⁶	2.9 (1.5-5.7)	4.0 (2.4-6.8)
Ever Told High Blood Pressure ⁷	23.1 (18.0-29.2)	29.0 (23.8-34.8)
Told High Cholesterol Among Those Ever Checked ⁸	37.3 (30.5-44.6)	40.0 (33.5-46.8)
Doctor Diagnosed Arthritis ⁹	20.9 (16.5-26.0)	30.2 (25.9-34.9)
Disability ¹⁰	19.0 (15.0-23.8)	20.9 (17.0-25.5)
Health Risk Behaviors		
Obese ¹¹	30.1 (24.4-36.5)	31.9 (26.5-37.9)
No Leisure-Time Physical Activity ¹²	21.2 (16.4-27.1)	21.7 (17.2-26.9)
Inadequate Physical Activity ¹³	48.4 (41.7-55.1)	51.9 (45.9-57.8)
Inadequate Fruit and Vegetable Consumption ¹⁴	78.3 (71.5-83.7)	76.7 (70.8-81.7)
Current Smoker ¹⁵	25.7 (20.7-31.4)	21.3 (17.4-25.8)
Heavy Drinking ¹⁶	6.2 (3.9-9.7)	5.8 (3.8-8.8)
Binge Drinking ¹⁷	20.7 (15.9-26.5)	16.8 (13.3-21.1)
Health Indicators		
General Health, Fair or Poor ¹⁸	15.6 (11.5-20.7)	15.9 (12.5-20.1)
Poor Physical Health on at least 14 Days in the Past Month ¹⁹	10.4 (7.4-14.4)	12.1 (9.1-16.0)
Poor Mental Health on at least 14 Days in the Past Month ²⁰	13.3 (10.0-17.4)	13.7 (10.4-17.7)
Activity Limitation on at least 14 Days in the Past Month ²¹	6.3 (4.3-9.2)	6.9 (4.8-9.8)
No Health Care Coverage (Among 18 – 64 year olds) ²²	20.7 (16.2-26.0)	17.9 (14.1-22.5)
No Personal Health Care Provider ²³	21.5 (16.8-27.2)	17.0 (13.5-21.0)
No Health Care Access During Past 12 Months Due to Cost ²⁴	17.4 (13.3-22.5)	16.4 (12.5-21.1)
Activity Limitation ²⁵	17.8 (14.0-22.5)	19.3 (15.5-23.8)
Used Special Equipment ²⁶	4.1 (2.5-6.5)	6.5 (4.2-9.8)
Rarely/Never Received the Social/Emotional Support Needed ²⁷	10.7 (7.8-14.5)	11.0 (8.0-14.9)
Dissatisfied or Very Dissatisfied with Life ²⁸	5.8 (3.8-8.7)	5.6 (3.7-8.2)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁹	31.3 (26.3-36.8)	29.1 (24.6-34.1)
Cholesterol Ever Checked ³⁰	69.8 (62.2-76.4)	78.6 (74.4-82.3)
Cholesterol Checked Within Past Five Years ³¹	66.8 (59.3-73.6)	75.7 (71.2-79.8)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ³²	48.0 (41.7-54.3)	46.0 (40.4-51.7)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

Appendix: Definitions

- ¹ 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 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 respondents, the proportion who reported that they still had asthma.
- ⁴ Among all adults, the proportion who had ever been told by a doctor that they had a heart attack or myocardial infarction.
- ⁵ Among all adults, the proportion who had ever been told by a doctor that they had angina or coronary heart disease.
- ⁶ Among all adults, the proportion who had ever been told by a doctor that they had a stroke.
- ⁷ The proportion who reported that they were ever told by a doctor that they have high blood pressure (HBP). Women who had HBP only during pregnancy and adults who were borderline hypertensive were considered to not have been diagnosed. Data for this variable were only collected in 2005 and 2007.
- ⁸ Among those 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. Data for this variable were only collected in 2005 and 2007.
- ⁹ 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. Data for this variable were only collected in 2005 and 2007.
- ¹⁰ The proportion 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.
- ¹¹ 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. The proportion of respondents whose BMI was greater than or equal to 30.0.
- ¹² 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.
- ¹³ The proportion who reported that they do not usually do moderate physical activities for a total of at least 30 minutes on five or more days per week or vigorous physical activities for a total of at least 20 minutes on three or more days per week while not at work. Data for this variable were only collected in 2005 and 2007.
- ¹⁴ The proportion whose total reported consumption of fruits (including juice) and vegetables was less than five times per day. Data for this variable were only collected in 2005 and 2007.
- ¹⁵ 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.
- ¹⁶ 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 The proportion who reported consuming five or more drinks per occasion at least once in the previous month.
- ¹⁸ The proportion who reported that their health, in general, was either fair or poor.
- ¹⁹ The proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days.
- ²⁰ 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.
- ²¹ 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.
- ²² Among those aged 18-64, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare. (n=8,957)

*2005-2007 Michigan BRFSS Results by Race/Ethnicity
January 23, 2009*

- ²³ The proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider.
- ²⁴ 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.
- ²⁵ The proportion who reported being limited in any activities because of physical, mental, or emotional problems.
- ²⁶ The proportion who 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.
- ²⁷ The proportion who reported either "Rarely" or "Never" to the following question: "How often do you get the social and emotional support you need?"
- ²⁸ The proportion who reported either "Dissatisfied" or "Very Dissatisfied" to the following question: "In general, how satisfied are you with your life?"
- ²⁹ The proportion who reported that they did not have a routine checkup in the past year.
- ³⁰ The proportion who reported ever having had their blood cholesterol checked. Data for this variable were only collected in 2005 and 2007.
- ³¹ The proportion who reported that they have had their blood cholesterol checked within the past five years. Data for this variable were only collected in 2005 and 2007.
- ³² Note: "Don't know" was considered a valid response. Among those 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.