

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

State of Michigan

**Behavioral Risk Factor Survey
2006-2008**

Chronic Disease Epidemiology Section
Division of Genomics, Perinatal Health, and Chronic Disease Epidemiology
Bureau of Epidemiology
Michigan Department of Community Health

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 2006 through 2008 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 2006-2008 MiBRFS dataset was equal to 22,614 completed interviews. The 2006-2008 combined dataset included 17,863 White/Non-Hispanics; 3,232 Black/Non-Hispanics; 186 Asian or Other Pacific Islander/Non-Hispanics; 172 American Indian, Alaska Native/Non-Hispanics; 72 Other/Non-Hispanics, 461 Multi-racial/Non-Hispanics; and 429 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 excluded from this analysis.

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 also younger and more 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.¹ The use of age-adjusted estimates allows for the direct comparison of prevalence estimates between different racial/ethnic groups.

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.

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

Key Points

***All significant comparisons (i.e., non-overlapping 95% confidence intervals) mentioned below are based on age-adjusted estimates only.**

Chronic Health Conditions:

- Black, non-Hispanics reported higher prevalence rates of diabetes and stroke when compared to White, non-Hispanics.
- American Indian/Alaskan Native, non-Hispanics reported higher prevalence rates of diabetes and heart attack when compared to White, non-Hispanics.
- Hispanics reported higher prevalence rates of diabetes when compared to White, non-Hispanics.
- Multi-racial, non-Hispanics reported higher prevalence rates of diabetes, asthma (lifetime and current), heart attack, angina/coronary heart disease, and disability when compared to White, non-Hispanics.

Health Risk Behaviors:

- Black, non-Hispanics reported higher prevalence rates of obesity, no leisure-time physical activity, and inadequate physical activity and lower prevalence rates of alcohol consumption (heavy and binge drinking) when compared to White, non-Hispanics.
- Asian, non-Hispanics reported a higher prevalence rate for physical inactivity and lower prevalence rates of obesity, current smoking and alcohol consumption (heavy and binge drinking) when compared to White, non-Hispanics.
- American Indian/Alaskan Native, non-Hispanics reported higher prevalence rates of obesity and no leisure-time physical activity when compared to White, non-Hispanics.
- Hispanics reported higher prevalence rates of obesity when compared to White, non-Hispanics.

Health Indicators:

- Black, non-Hispanics reported higher prevalence rates of poor general and physical health, cost prevented care, no health care coverage, no personal health care provider, inadequate social/emotional support, and dissatisfaction with life when compared to White, non-Hispanics.
- Asian, non-Hispanics reported lower prevalence rates of poor physical health and higher prevalence rates for rarely getting the emotional/social support they need when compared to White, non-Hispanics.
- American Indian/Alaskan Native, non-Hispanics reported higher prevalence rates of poor general and physical health, activity limitations, cost prevented care, and rarely getting the emotional/social support they need when compared to White, non-Hispanics.
- Hispanics reported higher prevalence rates for rarely getting the emotional support they need when compared to White, non-Hispanics.

Preventive Health Practices:

- Black, non-Hispanics reported a lower prevalence of not having a routine checkup in the past year when compared to White, non-Hispanics.
- Black, non-Hispanics and Hispanics reported higher HIV testing prevalence rates when compare to White, non-Hispanics.
- American Indian/Alaskan Native, non-Hispanics reported a lower prevalence rate for no routine checkup in the past year when compared to White, non-Hispanics.

Table 1: Prevalence Estimates among the Overall Michigan Population (N = 22,614)		
Michigan BRFSS (2006-2008 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	9.0 (8.4-9.5)	8.6 (8.1-9.1)
Ever Told Have Asthma ²	14.4 (13.6-15.2)	14.5 (13.7-15.3)
Still Have Asthma ³	9.5 (8.9-10.2)	9.6 (8.9-10.3)
Ever Told Heart Attack ⁴	4.8 (4.5-5.2)	4.7 (4.4-5.1)
Ever Told Angina or Coronary Heart Disease ⁵	5.0 (4.6-5.4)	4.8 (4.4-5.1)
Ever Told Stroke ⁶	2.8 (2.5-3.2)	2.8 (2.5-3.1)
Disability ⁷	23.1 (22.2-24.0)	22.4 (21.6-23.3)
Health Risk Behaviors		
Obese ⁸	28.6 (27.6-29.6)	28.5 (27.4-29.6)
No Leisure-Time Physical Activity ⁹	21.6 (20.7-22.5)	21.4 (20.5-22.4)
Inadequate Physical Activity ¹⁰	49.4 (47.8-51.0)	49.3 (47.7-51.0)
Inadequate Fruit and Vegetable Consumption ¹¹	78.9 (77.6-80.1)	78.9 (77.6-80.2)
Current Smoker ¹²	21.6 (20.6-22.6)	21.9 (20.9-22.9)
Heavy Drinking ¹³	5.6 (5.1-6.2)	5.6 (5.1-6.2)
Binge Drinking ¹⁴	18.1 (17.1-19.1)	18.6 (17.7-19.6)
Health Indicators		
General Health, Fair or Poor ¹⁵	14.9 (14.2-15.7)	14.6 (13.9-15.4)
Poor Physical Health on at least 14 Days in the Past Month ¹⁶	11.1 (10.5-11.7)	10.9 (10.2-11.5)
Poor Mental Health on at least 14 Days in the Past Month ¹⁷	10.9 (10.3-11.7)	11.0 (10.3-11.7)
Activity Limitation on at least 14 Days in the Past Month ¹⁸	7.0 (6.5-7.5)	6.8 (6.3-7.4)
No Health Care Coverage (Among 18 – 64 year olds) ¹⁹	14.4 (13.5-15.5)	14.8 (13.8-15.9)
No Personal Health Care Provider ²⁰	14.6 (13.7-15.5)	15.0 (14.1-16.0)
No Health Care Access During Past 12 Months Due to Cost ²¹	11.8 (11.1-12.6)	12.0 (11.2-12.9)
Activity Limitation ²²	21.5 (20.6-22.3)	20.9 (20.1-21.8)
Used Special Equipment ²³	7.2 (6.7-7.6)	6.8 (6.4-7.3)
Rarely/Never Received the Social/Emotional Support Needed ²⁴	6.6 (6.1-7.2)	6.6 (6.1-7.2)
Dissatisfied or Very Dissatisfied with Life ²⁵	6.2 (5.7-6.8)	6.2 (5.7-6.8)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁶	31.0 (29.9-32.1)	31.6 (30.5-32.7)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ²⁷	37.1 (35.9-38.4)	38.5 (37.2-39.8)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

Table 2: Prevalence Estimates among White, Non-Hispanics in Michigan (N = 17,863)		
Michigan BRFSS (2006-2008 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	8.0 (7.5-8.6)	7.3 (6.9-7.8)
Ever Told Have Asthma ²	13.6 (12.8-14.5)	13.8 (13.0-14.8)
Still Have Asthma ³	8.9 (8.2-9.6)	9.0 (8.3-9.8)
Ever Told Heart Attack ⁴	4.7 (4.3-5.2)	4.3 (4.0-4.7)
Ever Told Angina or Coronary Heart Disease ⁵	5.2 (4.8-5.6)	4.7 (4.4-5.1)
Ever Told Stroke ⁶	2.6 (2.3-2.9)	2.4 (2.1-2.6)
Disability ⁷	23.0 (22.1-24.0)	21.9 (20.9-22.8)
Health Risk Behaviors		
Obese ⁸	26.8 (25.7-27.8)	26.6 (25.5-27.7)
No Leisure-Time Physical Activity ⁹	20.2 (19.3-21.1)	19.5 (18.6-20.4)
Inadequate Physical Activity ¹⁰	48.1 (46.4-49.9)	47.9 (46.1-49.8)
Inadequate Fruit and Vegetable Consumption ¹¹	79.1 (77.7-80.4)	79.4 (77.9-80.7)
Current Smoker ¹²	21.2 (20.1-22.3)	21.9 (20.8-23.1)
Heavy Drinking ¹³	6.0 (5.4-6.7)	6.1 (5.5-6.8)
Binge Drinking ¹⁴	18.9 (17.9-20.0)	20.0 (18.9-21.2)
Health Indicators		
General Health, Fair or Poor ¹⁵	13.6 (12.8-14.4)	13.0 (12.3-13.8)
Poor Physical Health on at least 14 Days in the Past Month ¹⁶	10.8 (10.1-11.5)	10.3 (9.6-11.0)
Poor Mental Health on at least 14 Days in the Past Month ¹⁷	10.6 (9.9-11.4)	10.7 (10.0-11.6)
Activity Limitation on at least 14 Days in the Past Month ¹⁸	6.7 (6.1-7.2)	6.4 (5.8-7.0)
No Health Care Coverage (Among 18 – 64 year olds) ¹⁹	13.4 (12.4-14.6)	14.0 (12.9-15.2)
No Personal Health Care Provider ²⁰	13.3 (12.4-14.3)	14.2 (13.2-15.3)
No Health Care Access During Past 12 Months Due to Cost ²¹	10.6 (9.9-11.5)	11.1 (10.2-12.0)
Activity Limitation ²²	21.5 (18.7-23.8)	20.5 (19.6-21.4)
Used Special Equipment ²³	6.9 (6.4-7.4)	6.3 (5.8-6.8)
Rarely/Never Received the Social/Emotional Support Needed ²⁴	5.8 (5.3-6.4)	5.7 (5.1-6.3)
Dissatisfied or Very Dissatisfied with Life ²⁵	5.6 (5.0-6.2)	5.6 (5.0-6.2)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁶	32.8 (31.6-34.0)	34.1 (32.9-35.4)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ²⁷	33.0 (31.6-34.3)	34.7 (33.3-36.1)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

Table 3: Prevalence Estimates among Black, Non-Hispanics in Michigan (N = 3,232)		
Michigan BRFSS (2006-2008 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	13.8 (11.8-16.0)	14.7 (12.8-16.9)
Ever Told Have Asthma ²	16.4 (13.9-19.3)	16.3 (13.9-19.1)
Still Have Asthma ³	11.2 (9.1-13.7)	11.1 (9.1-13.5)
Ever Told Heart Attack ⁴	5.0 (4.0-6.3)	5.7 (4.6-7.1)
Ever Told Angina or Coronary Heart Disease ⁵	4.2 (3.2-5.5)	4.5 (3.5-5.8)
Ever Told Stroke ⁶	4.4 (3.4-5.7)	4.9 (3.8-6.2)
Disability ⁷	23.3 (20.8-26.0)	24.4 (22.0-27.0)
Health Risk Behaviors		
Obese ⁸	38.0 (34.7-41.4)	37.7 (34.5-41.1)
No Leisure-Time Physical Activity ⁹	29.9 (26.8-33.1)	30.4 (27.4-33.6)
Inadequate Physical Activity ¹⁰	59.0 (54.3-63.4)	59.4 (55.0-63.7)
Inadequate Fruit and Vegetable Consumption ¹¹	77.9 (74.1-81.3)	78.0 (74.4-81.2)
Current Smoker ¹²	24.5 (21.6-27.7)	24.1 (21.2-27.2)
Heavy Drinking ¹³	3.6 (2.4-5.2)	3.5 (2.4-5.0)
Binge Drinking ¹⁴	13.0 (10.6-15.9)	12.7 (10.4-15.5)
Health Indicators		
General Health, Fair or Poor ¹⁵	21.7 (19.2-24.4)	22.8 (20.4-25.4)
Poor Physical Health on at least 14 Days in the Past Month ¹⁶	12.9 (11.0-15.1)	13.6 (11.6-15.8)
Poor Mental Health on at least 14 Days in the Past Month ¹⁷	12.6 (10.5-15.1)	12.4 (10.3-14.7)
Activity Limitation on at least 14 Days in the Past Month ¹⁸	9.3 (7.7-11.2)	9.6 (8.0-11.5)
No Health Care Coverage (Among 18 – 64 year olds) ¹⁹	19.6 (16.5-23.0)	19.6 (16.6-23.0)
No Personal Health Care Provider ²⁰	19.1 (16.5-22.1)	18.4 (15.9-21.2)
No Health Care Access During Past 12 Months Due to Cost ²¹	15.8 (13.3-18.7)	15.5 (13.1-18.3)
Activity Limitation ²²	21.1 (18.7-23.8)	22.1 (19.7-24.6)
Used Special Equipment ²³	9.1 (7.7-10.7)	9.9 (8.5-11.5)
Rarely/Never Received the Social/Emotional Support Needed ²⁴	9.7 (7.9-11.9)	9.7 (7.9-11.8)
Dissatisfied or Very Dissatisfied with Life ²⁵	10.0 (8.2-12.2)	10.0 (8.2-12.2)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁶	19.5 (16.8-22.5)	19.1 (16.6-22.0)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ²⁷	58.9 (55.0-62.8)	58.9 (55.2-62.5)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

Table 4: Prevalence Estimates among Asian or Other Pacific Islander, Non-Hispanics in Michigan (N = 186)		
Michigan BRFSS (2006-2008 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	5.5 (2.6-11.5)	10.8 (5.9-19.1)
Ever Told Have Asthma ²	8.9 (4.2-17.7)	7.5 (3.3-16.1)
Still Have Asthma ³	3.9 (1.1-12.9)	4.2 (1.2-14.0)
Ever Told Heart Attack ⁴	1.8 (0.4-7.1)	2.6 (0.8-8.0)
Ever Told Angina or Coronary Heart Disease ⁵	0.7 (0.2-3.0)	1.2 (0.2-6.1)
Ever Told Stroke ⁶	0.0 (---)	0.0 (---)
Disability ⁷	10.0 (5.6-17.0)	14.4 (8.1-24.1)
Health Risk Behaviors		
Obese ⁸	10.5 (5.3-19.9)	10.6 (5.6-19.0)
No Leisure-Time Physical Activity ⁹	23.9 (16.3-33.5)	24.7 (16.6-35.3)
Inadequate Physical Activity ¹⁰	70.2 (56.9-80.8)	73.4 (60.2-83.4)
Inadequate Fruit and Vegetable Consumption ¹¹	75.6 (62.2-85.3)	77.7 (66.1-86.1)
Current Smoker ¹²	6.7 (3.2-13.6)	5.4 (2.4-11.5)
Heavy Drinking ¹³	0.7 (0.1-4.9)	0.4 (0.1-3.0)
Binge Drinking ¹⁴	11.6 (6.1-20.9)	8.2 (4.3-15.1)
Health Indicators		
General Health, Fair or Poor ¹⁵	6.1 (2.7-13.0)	7.9 (3.8-15.5)
Poor Physical Health on at least 14 Days in the Past Month ¹⁶	3.5 (1.5-8.2)	2.8 (1.2-6.4)
Poor Mental Health on at least 14 Days in the Past Month ¹⁷	7.8 (3.3-17.5)	6.7 (2.7-15.5)
Activity Limitation on at least 14 Days in the Past Month ¹⁸	4.3 (1.3-13.1)	4.7 (1.5-14.0)
No Health Care Coverage (Among 18 – 64 year olds) ¹⁹	7.4 (3.5-14.9)	8.1 (3.8-16.4)
No Personal Health Care Provider ²⁰	21.9 (14.1-32.5)	20.6 (13.6-30.0)
No Health Care Access During Past 12 Months Due to Cost ²¹	12.5 (7.2-20.7)	12.0 (6.9-20.0)
Activity Limitation ²²	8.7 (4.7-15.7)	10.8 (5.7-19.7)
Used Special Equipment ²³	3.7 (1.6-8.4)	6.5 (3.0-13.8)
Rarely/Never Received the Social/Emotional Support Needed ²⁴	9.9 (5.5-17.2)	12.1 (6.7-20.7)
Dissatisfied or Very Dissatisfied with Life ²⁵	3.5 (1.2-9.4)	3.3 (1.1-9.8)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁶	37.7 (28.0-48.5)	29.4 (21.9-38.3)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ²⁷	28.1 (19.3-39.0)	24.5 (17.2-33.6)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

Table 5: Prevalence Estimates among American Indian / Alaskan Native, Non-Hispanics in Michigan (N = 172)		
Michigan BRFSS (2006-2008 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	15.6 (8.5-26.9)	16.5 (9.5-27.2)
Ever Told Have Asthma ²	18.2 (10.3-30.2)	18.8 (10.9-30.6)
Still Have Asthma ³	11.9 (5.8-22.7)	12.6 (6.5-22.8)
Ever Told Heart Attack ⁴	14.5 (8.1-24.8)	14.7 (8.5-24.3)
Ever Told Angina or Coronary Heart Disease ⁵	8.4 (3.0-13.1)	6.5 (3.3-12.4)
Ever Told Stroke ⁶	4.7 (1.8-11.8)	5.2 (2.5-10.7)
Disability ⁷	29.7 (19.8-42.0)	31.2 (21.8-42.4)
Health Risk Behaviors		
Obese ⁸	46.5 (34.0-59.4)	45.9 (34.5-57.8)
No Leisure-Time Physical Activity ⁹	34.6 (23.7-47.3)	34.9 (24.5-47.0)
Inadequate Physical Activity ¹⁰	59.5 (41.8-75.0)	51.7 (39.1-64.1)
Inadequate Fruit and Vegetable Consumption ¹¹	81.3 (62.0-92.0)	83.3 (69.1-91.8)
Current Smoker ¹²	35.0 (23.9-47.9)	33.2 (23.1-45.3)
Heavy Drinking ¹³	10.5 (4.2-23.7)	8.9 (3.8-19.6)
Binge Drinking ¹⁴	28.4 (17.6-42.5)	24.9 (16.3-36.1)
Health Indicators		
General Health, Fair or Poor ¹⁵	27.2 (18.3-38.6)	27.1 (19.2-36.7)
Poor Physical Health on at least 14 Days in the Past Month ¹⁶	21.7 (13.5-33.1)	22.9 (14.8-33.6)
Poor Mental Health on at least 14 Days in the Past Month ¹⁷	18.5 (9.9-31.8)	17.0 (9.5-28.5)
Activity Limitation on at least 14 Days in the Past Month ¹⁸	16.1 (9.0-26.9)	15.5 (9.1-25.2)
No Health Care Coverage (Among 18 – 64 year olds) ¹⁹	22.9 (12.8-37.5)	21.4 (12.5-34.1)
No Personal Health Care Provider ²⁰	17.9 (9.2-31.8)	17.2 (9.8-28.4)
No Health Care Access During Past 12 Months Due to Cost ²¹	24.8 (15.5-37.4)	23.6 (15.0-35.2)
Activity Limitation ²²	29.2 (19.3-41.4)	30.5 (21.1-41.9)
Used Special Equipment ²³	11.4 (6.1-20.4)	12.5 (7.7-19.7)
Rarely/Never Received the Social/Emotional Support Needed ²⁴	20.3 (11.2-33.9)	20.6 (11.9-33.3)
Dissatisfied or Very Dissatisfied with Life ²⁵	7.9 (3.8-15.5)	8.9 (4.3-17.4)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁶	21.3 (13.2-32.4)	21.9 (14.0-32.6)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ²⁷	45.8 (32.0-60.2)	44.9 (31.9-58.5)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

Table 6: Prevalence Estimates among Multi-Racial, Non-Hispanics in Michigan (N = 461)		
Michigan BRFSS (2006-2008 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	12.6 (8.7-18.0)	14.0 (9.8-19.6)
Ever Told Have Asthma ²	25.4 (19.1-33.0)	26.1 (20.1-33.1)
Still Have Asthma ³	20.2 (14.2-27.9)	20.7 (15.0-27.9)
Ever Told Heart Attack ⁴	9.5 (6.2-14.3)	10.1 (6.8-14.6)
Ever Told Angina or Coronary Heart Disease ⁵	7.3 (4.8-10.9)	8.1 (5.6-11.6)
Ever Told Stroke ⁶	4.7 (2.4-9.1)	4.9 (2.6-9.2)
Disability ⁷	35.0 (28.5-42.1)	34.5 (28.8-40.7)
Health Risk Behaviors		
Obese ⁸	35.2 (28.5-42.7)	35.1 (28.5-42.3)
No Leisure-Time Physical Activity ⁹	17.1 (12.3-23.4)	18.3 (13.4-24.6)
Inadequate Physical Activity ¹⁰	43.2 (33.7-53.2)	44.0 (34.8-53.7)
Inadequate Fruit and Vegetable Consumption ¹¹	78.0 (70.1-84.2)	78.4 (70.7-84.5)
Current Smoker ¹²	22.2 (16.3-29.5)	20.5 (15.2-27.1)
Heavy Drinking ¹³	2.5 (1.3-4.9)	2.5 (1.3-4.8)
Binge Drinking ¹⁴	10.3 (6.7-15.6)	10.0 (6.5-15.1)
Health Indicators		
General Health, Fair or Poor ¹⁵	21.7 (16.5-27.9)	21.2 (16.6-26.6)
Poor Physical Health on at least 14 Days in the Past Month ¹⁶	16.0 (11.6-21.6)	17.2 (12.6-23.0)
Poor Mental Health on at least 14 Days in the Past Month ¹⁷	14.2 (10.0-19.9)	13.9 (9.9-19.2)
Activity Limitation on at least 14 Days in the Past Month ¹⁸	10.1 (7.0-14.4)	10.9 (7.6-15.3)
No Health Care Coverage (Among 18 – 64 year olds) ¹⁹	18.4 (12.2-26.8)	19.0 (13.0-26.8)
No Personal Health Care Provider ²⁰	16.0 (10.2-24.4)	15.9 (10.7-22.9)
No Health Care Access During Past 12 Months Due to Cost ²¹	19.0 (13.4-26.3)	19.1 (13.6-26.0)
Activity Limitation ²²	33.2 (26.8-40.2)	32.9 (27.3-39.2)
Used Special Equipment ²³	11.6 (8.2-16.1)	11.7 (8.5-15.9)
Rarely/Never Received the Social/Emotional Support Needed ²⁴	5.4 (3.3-8.7)	5.5 (3.3-8.8)
Dissatisfied or Very Dissatisfied with Life ²⁵	12.4 (7.9-19.1)	11.5 (7.6-17.0)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁶	37.8 (30.3-46.0)	38.3 (31.3-45.9)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ²⁷	42.3 (34.0-51.2)	42.4 (34.0-54.6)
- Table excludes those with unknown race/ethnicity.		
* Age-adjusted by direct method using the 2000 U.S. Census.		

Table 7: Prevalence Estimates among Hispanics in Michigan (N = 429)		
Michigan BRFSS (2006-2008 Combined)		
% (95% Confidence Interval)		
Chronic Health Conditions	Crude	Age-Adjusted*
Ever Told Diabetes ¹	8.9 (5.6-13.8)	12.4 (8.5-17.7)
Ever Told Have Asthma ²	20.1 (14.3-27.4)	19.4 (14.4-25.5)
Still Have Asthma ³	13.7 (9.0-20.3)	12.6 (8.8-17.9)
Ever Told Heart Attack ⁴	1.7 (0.8-3.5)	2.8 (1.3-6.1)
Ever Told Angina or Coronary Heart Disease ⁵	2.0 (1.0-4.1)	3.1 (1.5-6.2)
Ever Told Stroke ⁶	2.5 (0.7-8.5)	3.4 (1.4-8.2)
Disability ⁷	20.5 (14.6-28.0)	22.1 (16.5-28.9)
Health Risk Behaviors		
Obese ⁸	35.1 (26.2-45.2)	37.3 (29.2-46.3)
No Leisure-Time Physical Activity ⁹	23.9 (16.2-33.8)	22.7 (16.3-30.7)
Inadequate Physical Activity ¹⁰	33.4 (23.1-45.6)	38.1 (28.9-48.2)
Inadequate Fruit and Vegetable Consumption ¹¹	78.7 (63.8-88.5)	78.3 (67.6-86.2)
Current Smoker ¹²	23.3 (16.1-32.5)	19.5 (14.1-26.3)
Heavy Drinking ¹³	6.8 (3.5-12.8)	6.2 (3.5-10.8)
Binge Drinking ¹⁴	24.7 (17.2-34.1)	19.5 (14.4-25.8)
Health Indicators		
General Health, Fair or Poor ¹⁵	15.7 (9.6-24.4)	14.4 (9.9-20.5)
Poor Physical Health on at least 14 Days in the Past Month ¹⁶	9.1 (5.3-15.4)	10.7 (6.9-16.1)
Poor Mental Health on at least 14 Days in the Past Month ¹⁷	10.3 (6.4-16.1)	10.7 (6.8-16.4)
Activity Limitation on at least 14 Days in the Past Month ¹⁸	2.5 (1.4-4.6)	3.5 (1.8-6.8)
No Health Care Coverage (Among 18 – 64 year olds) ¹⁹	15.4 (10.1-22.8)	13.5 (9.1-19.6)
No Personal Health Care Provider ²⁰	20.6 (13.7-29.9)	15.4 (10.9-21.4)
No Health Care Access During Past 12 Months Due to Cost ²¹	16.2 (10.5-24.1)	16.4 (10.9-23.9)
Activity Limitation ²²	18.8 (13.2-26.1)	20.2 (14.8-26.9)
Used Special Equipment ²³	4.3 (2.2-8.3)	6.7 (3.7-11.9)
Rarely/Never Received the Social/Emotional Support Needed ²⁴	11.0 (7.1-16.8)	11.9 (7.8-17.9)
Dissatisfied or Very Dissatisfied with Life ²⁵	3.5 (1.8-6.5)	3.9 (2.1-7.1)
Preventive Health Practices		
No Routine Checkup in Past Year ²⁶	27.7 (20.8-35.9)	25.6 (19.6-32.7)
Ever Had an HIV Test Among Those Aged 18 – 64 Years ²⁷	46.5 (37.2-56.2)	46.2 (38.0-54.6)
- 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 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.
- ⁸ 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.
- ⁹ 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.
- ¹⁰ 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.
- ¹¹ 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.
- ¹² 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.
- ¹³ 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.
- ¹⁴ The proportion who reported consuming five or more drinks per occasion at least once in the previous month.
- ¹⁵ The proportion who reported that their health, in general, was either fair or poor.
- ¹⁶ The proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days.
- ¹⁷ 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.
- ¹⁸ 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.
- ¹⁹ 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)
- ²⁰ The proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider.
- ²¹ 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.
- ²² The proportion who reported being limited in any activities because of physical, mental, or emotional problems.
- ²³ 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.
- ²⁴ The proportion who reported either "Rarely" or "Never" to the following question: "How often do you get the social and emotional support you need?"

2006-2008 Michigan BRFSS Results by Race/Ethnicity (Preliminary)
June 4, 2009

²⁵ The proportion who reported either "Dissatisfied" or "Very Dissatisfied" to the following question: "In general, how satisfied are you with your life?"

²⁶ The proportion who reported that they did not have a routine checkup in the past year.

²⁷ 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.