

DIABETES: MICHIGAN AND THE NATION

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GOAL AND OBJECTIVES

Goal: Provide diabetes burden update of adult Michigan residents

Objectives:

- Provide most recent diabetes and diabetes-related indicator estimates
- Provide information that might be relevant to program planning
- Show Michigan relative to national estimates.
- Show Michigan's ranking relative to other states and territories in the country

BACKGROUND

Diabetes Report Card

- Published by the Centers for Disease Control and Prevention (CDC)
- Released every two years
- Provides current information on the status of diabetes in the United States
 - **Diabetes, Preventive care practices, Prediabetes**
 - Risk factors, Quality of care, Outcomes,
 - **Progress made towards meeting national diabetes goals, and, to the extent possible, national and state trends.**

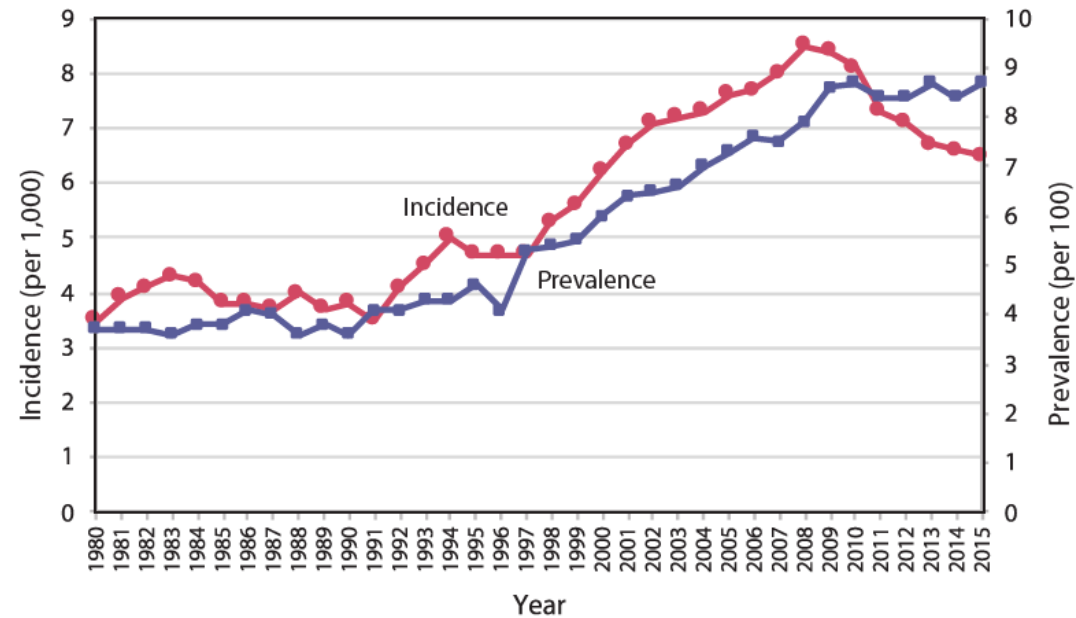
HEALTHY PEOPLE 2020

Reduce the disease burden of diabetes and improve the quality of life for all persons who have, or are at risk for, diabetes.

Strive for 10% improvement over 10 years

INCIDENCE

Trends in Incidence and Prevalence of Diagnosed Diabetes Among Adults, United States, 1980–2015



Source: CDC Division of Diabetes Translation
National Health Interview Survey

<https://gis.cdc.gov/grasp/diabetes/diabetesatlas.html>

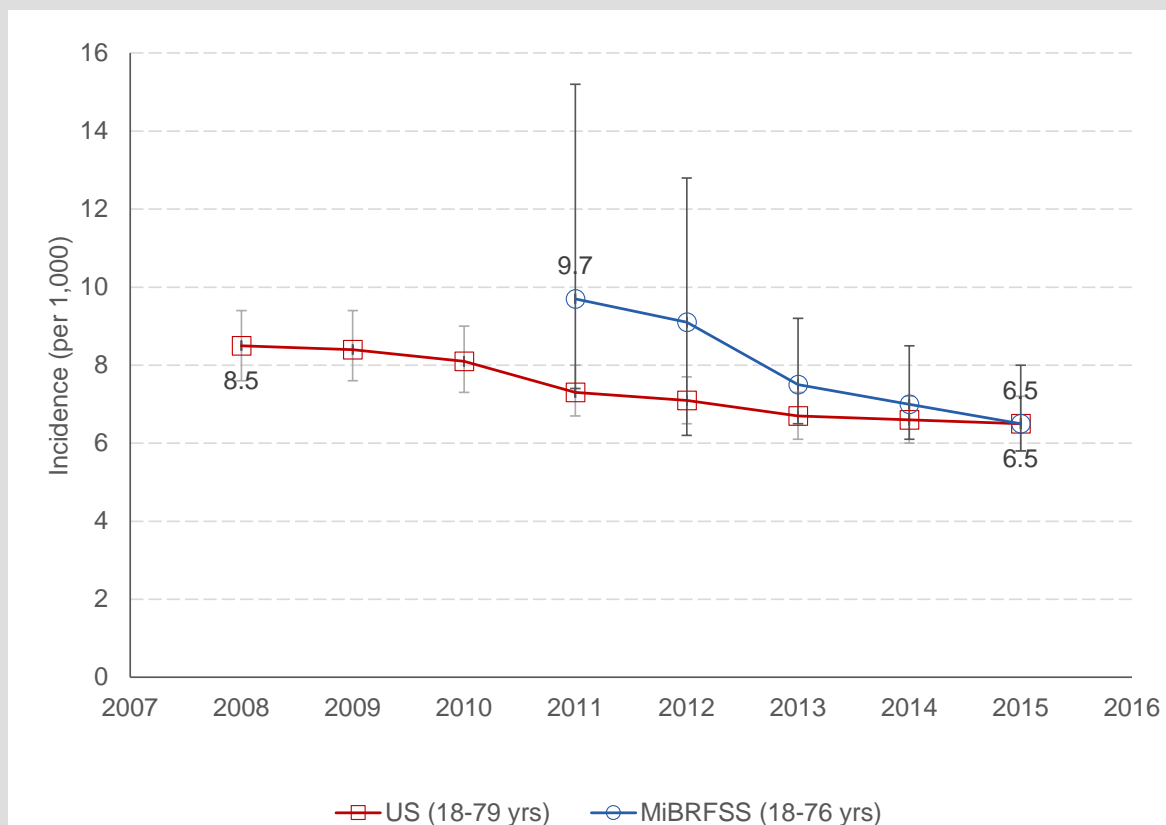
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INCIDENCE

- Nationally, incidence decreased from 2008 to 2015.
- Michigan showed evidence of a decrease.

Source: CDC Division of Diabetes Translation
National Health Interview Survey
Michigan Behavioral Risk Factor Survey
<https://gis.cdc.gov/grasp/diabetes/diabetesatlas.html>

Newly Diagnosed Adults per 1,000 United States and Michigan, 2008–2015



*Age-adjusted estimate

MICHIGAN DIABETES TREND

Previously Michigan was in the diabetes belt. The current estimate might be stabilizing over time.

2016: 9.8% (9.2%, 10.4%)

2017: 9.4% (8.8%, 10.0%)

Source: MiBRFSS 2008-2017



*Methodology Change in 2011

Age_adj – age-adjusted; unadj – not adjusted

DIABETES PREVALENCE

In 2016, Michigan ranked 33rd in diabetes among 54 states, DC, and territories.

Source: CDC BRFSS and State/Territory BRFSS 2016

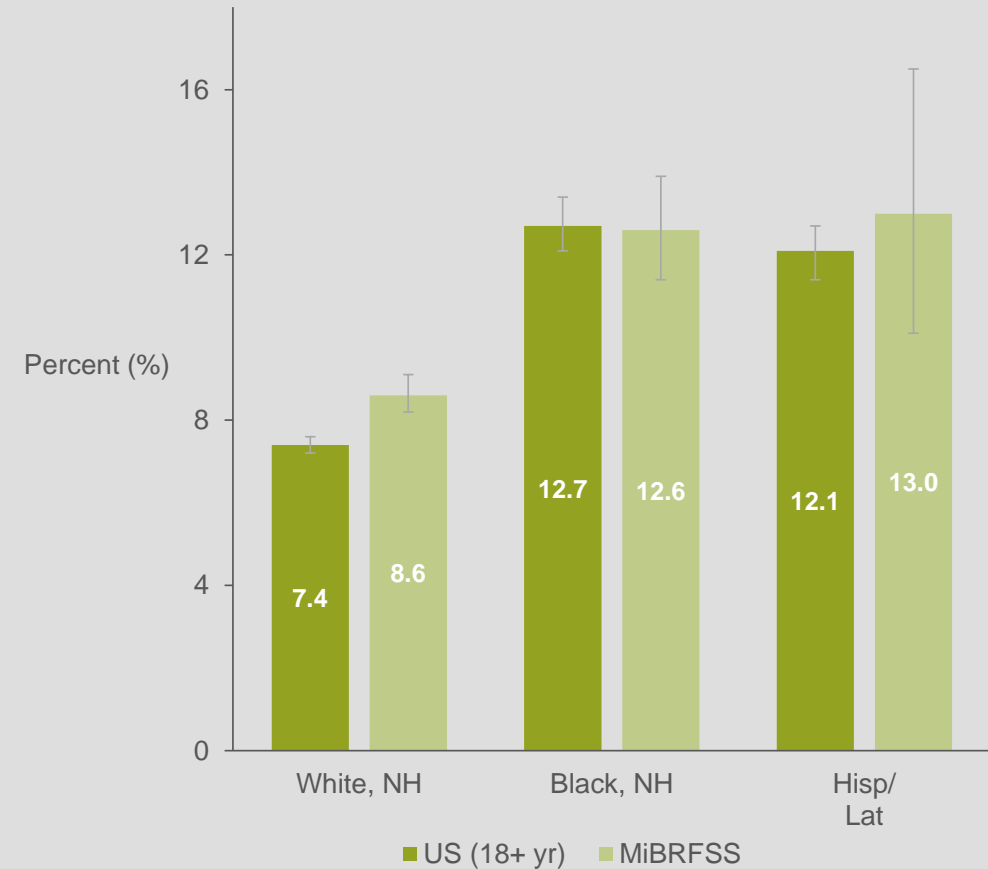
State	Rank	Diabetes
Colorado	1	6.2%
Montana, South Dakota	2	6.9%
Vermont	4	7.3%
Minnesota, New Hampshire, Wyoming	5	7.6%
Michigan	33	9.8%
Arkansas	50	12.1%
Mississippi	51	12.5%
West Virginia	52	12.8%
Alabama	53	13.2%
Puerto Rico	54	13.7%

*Age-adjusted estimate

US AND MI DISPARITIES SHOWED SIMILAR PATTERN

	US	MI
Black, NH vs White, NH	71% ↑	47% ↑
Hispanic/Latino vs White, NH	64% ↑	51% ↑

Source: CDC National Health Interview Survey (2013-2015 combined)
Michigan Behavioral Risk Factor Survey (2014-2016 combined)



*Age-adjusted estimate
NH- non-Hispanic; Hisp/Lat – Hispanic/Latino

83 MICHIGAN COUNTY DIABETES ESTIMATES (2013)

Lower

Emmet (7.3%, 1)

Ottawa (7.3%, 1)

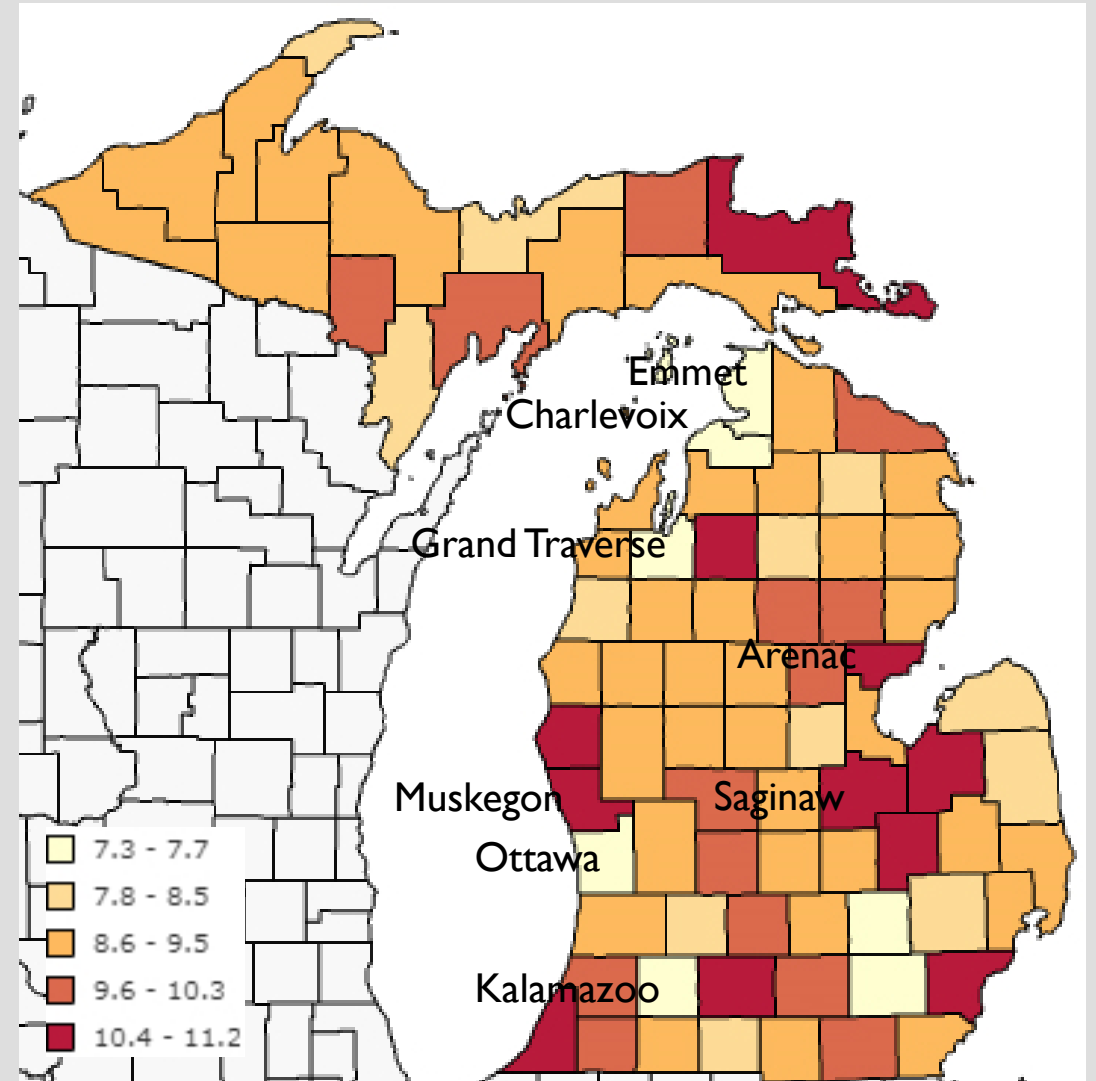
Charlevoix, Grand Traverse, Kalamazoo (7.6%, 3)

Higher

Muskegon, Saginaw (11.0%, 81)

Arenac (11.2%, 83)

Source: CDC Division of Diabetes Translation



*Age-adjusted estimate

DIABETES EDUCATION

Michigan ranked 16th in the country where adults with diabetes took a diabetes self-management course.

DSME is not the only program reflected.

Source: CDC BRFSS and State/Territory BRFSS 2015

*Age-adjusted estimate; 49 states and District of Columbia

State	Rank	Attended Diabetes Education Class
Nevada	1	74.0%
Minnesota	2	69.1%
Wisconsin	3	66.9%
North Dakota	4	66.8%
Missouri	5	65.9%
Michigan	16	60.0%
Vermont	46	45.7%
Florida	47	45.2%
Mississippi	48	45.0%
New Jersey	49	42.7%
New York	50	34.8%

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A I C TESTING

Among 49 states and DC, Michigan ranked 41st in adults with diabetes who had an A I c test at least twice per year.

Source: CDC BRFSS and State/Territory BRFSS 2015

*Age-adjusted estimate; 49 states and District of Columbia

State	Rank	At Least 2 A I c Tests
North Carolina	1	80.5%
Rhode Island	2	80.3%
New Hampshire	3	80.0%
Iowa	4	78.7%
West Virginia	5	77.9%
Michigan	41	65.7%
Georgia	46	63.5%
Colorado	47	63.2%
Alaska	48	62.2%
Texas	49	59.7%
Arkansas	50	53.3%

EYE EXAM

Among 49 states and DC, Michigan ranked 18th in adults who had an eye exam in the past year.

Source: CDC BRFSS and State/Territory BRFSS 2015

*Age-adjusted estimate; 49 states and District of Columbia

State	Rank	Eye Exam
Massachusetts	1	76.7%
Minnesota	2	74.4%
Wisconsin	3	71.6%
Pennsylvania	4	69.0%
Hawaii	5	68.6%
Michigan	18	62.9%
Oklahoma	46	55.1%
Oregon	47	54.9%
West Virginia	48	54.8%
Tennessee	49	52.6%
Indiana	50	49.8%

FOOT EXAM

Michigan ranked 24th in the country tying with Wisconsin where adults with diabetes had a foot examination at least once in the past year.

Source: CDC BRFSS and State/Territory BRFSS 2015

State	Rank	Foot Exam
New Hampshire	1	86.4%
Montana	2	82.7%
North Dakota	3	82.7%
Minnesota	4	81.4%
Pennsylvania	5	81.0%
Michigan	24	71.6%
New Jersey	46	61.1%
Wyoming	47	60.3%
Tennessee	48	60.0%
Missouri	49	57.1%
Florida	50	52.4%

*Age-adjusted estimate; 49 states and District of Columbia

SELF-GLUCOSE MONITOR

Michigan ranked 22nd in the country for adults with diabetes monitored their glucose.

Source: CDC BRFSS and State/Territory BRFSS 2015

State	Rank	Self-Glucose Monitor
Nevada	1	75.9%
North Carolina	2	73.4%
Oklahoma	3	72.9%
District of Columbia	4	72.0%
West Virginia	5	71.1%
Michigan	22	64.3%
South Dakota	46	53.0%
Virginia	47	52.9%
Hawaii	48	51.7%
California	49	42.7%
Montana	50	41.6%

*Age-adjusted estimate; 49 states and District of Columbia

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OVERALL SCORE

- Among 49 states and DC, Michigan ranked 20th for adults with diabetes who participated in preventive care and services.

Source: CDC BRFSS and State/Territory BRFSS

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PREDIABETES

Among 50 states and DC, Michigan ranked 22nd tying with Georgia and New York for adults who reported having prediabetes (at some point).

Source: CDC/State BRFSS and MiBRFSS 2014

State	Rank	Prediabetes
Vermont	1	4.8%
Arkansas, Nebraska	2	5.4%
Kansas, New Hampshire S. Dakota, Wyoming	4	5.5%
Michigan	27	6.8%
Oregon	46	8.0%
California	47	8.2%
Maryland	48	8.4%
District of Columbia	49	9.2%
Hawaii	50	14.0%

*Age-adjusted estimate

HEALTHY PEOPLE 2020

Evidence-Based Resources

https://www.healthypeople.gov/2020/topics-objectives/topic/diabetes/ebrs#Systematic_Review

GOAL – 10% IMPROVEMENT IN 10 YEARS

Age-adjusted Estimate	Initial	Most Recent	Change
Incidence (1)	9.7 per 1,000	6.5 per 1,000	↓
Diagnosed diabetes (2)	9.2% (8.5, 9.9)	9.4% (8.8, 10.0)	No change
Prediabetes (3)	6.8% (6.1, 7.5)	9.0% (8.3, 9.8)	↑

1 – MiBRFSS 2011 and MiBRFSS 2015

2 – MiBRFSS 2011 and MiBRFSS 2017

3 – MiBRFSS 2014 and MiBRFSS 2017

SUMMARY

- Rate of newly diagnosed diabetes continues to decrease.
- In 2015, Michigan ranked quite high in diabetes prevalence (33).
- Age-adjusted estimates indicated possibly stabilizing 2011-2017.
- Michigan adults who had diabetes reported going to diabetes education class, seeking preventive services, and conducting self care. This was supported by Michigan ranking in the top 20 in the country.
- Prediabetes awareness increased from 6.8% in 2014 to 9.0% in 2017.

Q&A

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