

# Prediabetes in Michigan--2013

Prediabetes is the condition where blood glucose or A1C levels are higher than normal, but not yet diabetes. People with prediabetes have an increased risk of developing type 2 diabetes, and are at higher risk of heart disease and stroke.<sup>1</sup>

## Prediabetes Prevalence in Michigan

- According to the 2012 Michigan Behavioral Risk Factor Survey (MiBRFS), only 7.3% of Michigan adults over 18 are aware they have prediabetes.
- Based on fasting blood glucose or A1C levels, 35% of the U.S. adult population 20 and older have prediabetes.<sup>1</sup> Applying this percentage to the Michigan population over 18 (2008), approximately 2,602,500 have prediabetes, and 1,650,900 of those over 45 years of age have prediabetes.<sup>2</sup>
  - ⇒ The disconnect between those who report having prediabetes and the estimated number from national clinical surveys may be due to multiple factors including low testing rates, lack of communication between patient and health care provider, and the potential use of different terms to define status.

## Diabetes Testing in Michigan

Testing is recommended for all adults with a BMI  $\geq 25$  and who have one or more risk factors such as physical inactivity, family history, history of gestational diabetes, high risk racial/ethnic groups, and hypertension. In the absence of these risk factors, testing should begin at 45 years. Those with normal results should be repeated every three years.<sup>3</sup>

- The 2012 MiBRFS data indicate higher risk adults, specifically obese adults and adults 55 years and older, had a higher tendency to receive testing in the previous three years than adults of lower weight status or younger age.

## Prediabetes Prevalence and Prevalence of Diabetes Screening among Michigan Adults (MiBRFS, 2012)

Prediabetes Prevalence	
Prevalence (95% CI)	
<b>Overall</b>	7.3 (6.4-8.3)
<b>Gender</b>	
Male	7.6 (6.2-9.3)
Female	7.0 (5.9-8.2)
<b>Race</b>	
White	7.3 (6.3-8.4)
Black	6.7 (4.5-9.7)
Other and Multi-racial	9.9 (5.7-16.6)
<b>Age</b>	
18-44 yrs	3.1 (2.2-4.4)
45-54 yrs	8.3 (6.1-11.4)
55-64 yrs	14.0 (11.3-17.2)
65+ yrs	11.3 (9.4-13.5)
<b>Weight Status**</b>	
Healthy weight	3.9 (2.8-5.4)
Overweight	6.3 (5.0-8.0)
Obese	12.7 (10.5-15.3)
<b>Health Insurance</b>	
Has insurance	7.5 (6.6-8.6)
No insurance	5.8 (3.8-8.8)

Diabetes Testing Prevalence*	
Prevalence (95% CI)	
<b>Overall</b>	54.5 (52.4-56.6)
<b>Gender</b>	
Male	52.3 (49.1-55.6)
Female	56.6 (53.8-59.2)
<b>Race</b>	
White	54.3 (52.0-56.6)
Black	56.8 (50.3-63.0)
Other and Multi-racial	52.5 (43.0-61.8)
<b>Age</b>	
18-44 yrs	42.8 (39.4-46.4)
45-54 yrs	59.4 (54.9-63.7)
55-64 yrs	68.7 (64.9-72.3)
65+ yrs	68.5 (65.3-71.6)
<b>Weight Status**</b>	
Healthy weight	44.6 (41.0-48.2)
Overweight	56.6 (53.0-60.1)
Obese	64.0 (60.0-67.9)
<b>Health Insurance</b>	
Has insurance	57.8 (55.6-60.0)
No insurance	33.9 (28.4-40.0)

\*Indicator: Diabetes test in past three years

\*\*Underweight excluded due to small sample size

For more information, visit: [www.michigan.gov/diabetes](http://www.michigan.gov/diabetes)

## Prediabetes and Preventive Behaviors

In 2012, three in four Michigan adults with prediabetes (74.7%) reported trying to control or lose weight. Reduction of fat and/or calories in diet was the predominant strategy for weight management (72.2%) compared to increasing physical activity or exercise (59.9%).

### Weight Status and Prediabetes

In 2012, four in five Michigan adults with prediabetes (81.7%) were classified as overweight or obese. The proportion of adults with prediabetes who tried to control or lose weight increased with increasing weight status. Persons of higher weight status tended to manage weight through modification in diet versus increased physical activity or exercise.

### Age and Prediabetes

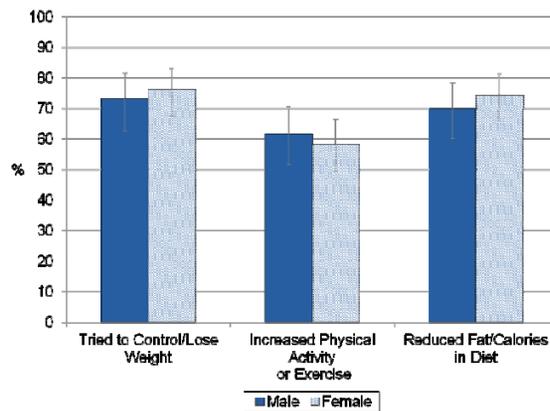
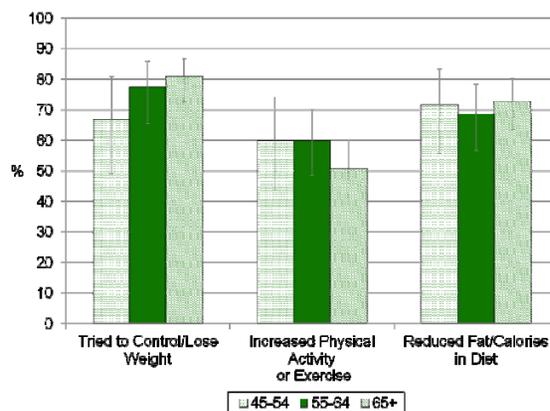
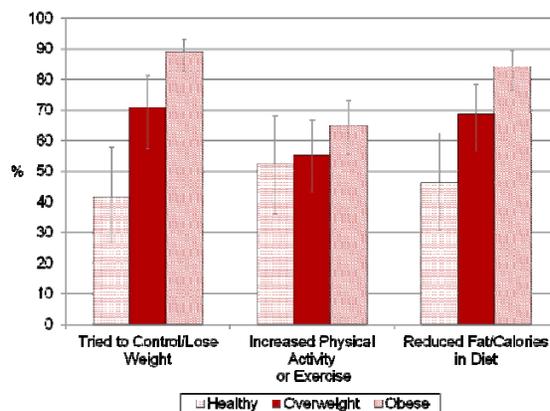
In 2012, adult persons with prediabetes residing in Michigan who were 65 years and older tended to manage their weight through diet (72.7%) more so than increased physical activity or exercise (50.7%). Younger adults with prediabetes used both diet and exercise to try to manage their weight.

### Gender and Prediabetes

Over 70% of both Michigan men and women with prediabetes tried to manage their weight in 2012. Women primarily attempted to manage their weight through diet (74.3%), while men attempted to manage their weight with diet and exercise (70.0% and 61.6%, respectively).

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## Prevalence of Preventive Health Behaviors among Michigan Adults with Prediabetes (MiBRFS, 2012)



Evidence from the Diabetes Prevention Program demonstrated prediabetes risk can be reduced by 58% when those at high risk make modest lifestyle changes, specifically losing 5-7% of their body weight and being physically active 5 days a week for at least 30 minutes.<sup>4</sup>

### References

- Centers for Disease Control and Prevention. National Diabetes Fact Sheet: National estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011.
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- The Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. N Engl J Med. 2002 Feb 7;346 (6):393-403.