

# Oral Health and Diabetes in Michigan



## What health professionals and patients need to know

Michigan Department of Community Health

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### Introduction

Diabetes and oral health are two of the leading health indicators in the United States. Diabetes can cause changes in the teeth and gums, especially when poorly controlled. Conversely, having poor oral health can lead to further complications of diabetes. Persons with diabetes are three times as likely to develop periodontal disease, are at greater risk of losing teeth, and have a harder time controlling their blood sugar. Dental and health professionals, as well as diabetes educators, are in a prime position to screen people for diabetes and oral related symptoms, offer guidance to the management of diabetes and oral health, and increase the patient's knowledge of the connections of diabetes and oral health.

### Diabetes Mellitus or “Diabetes”

Diabetes refers to a group of metabolic diseases where high blood glucose (“sugar”) levels result from either decreased insulin production or declining insulin action. There are three main types of diabetes: type 1, type 2 and gestational.

- 🦷 In 2011, approximately 1,000,000 Michigan adults were living with diabetes.<sup>1</sup>
- 🦷 Diabetes was the seventh leading cause of death in the United States and in Michigan in 2010.<sup>2</sup>
- 🦷 At least 8,584 deaths were related to diabetes in Michigan in 2010.<sup>2</sup>

### Oral Health in Michigan Adults

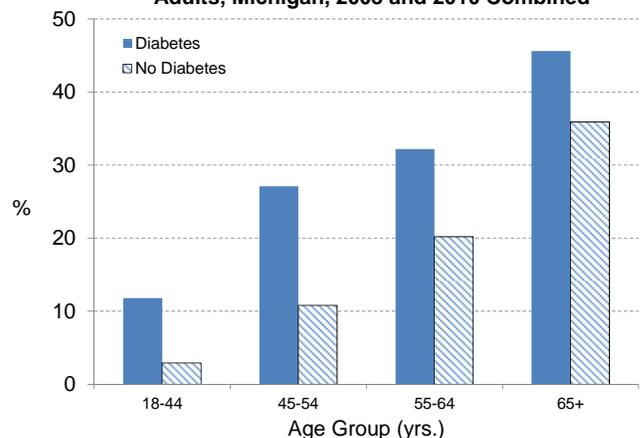
Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects, gum disease, tooth decay and loss, and other diseases and disorders that affect the oral cavity.<sup>3</sup>

- 🦷 An estimated 27.5% of adults did not visit the dentist in the past year, and 13.8% had 6 or more teeth missing due to tooth decay or gum disease.<sup>4</sup>
- 🦷 31.7% of adults age 35-44 have lost at least one tooth due to caries, infection, or periodontal disease and 13.1% of adults age 65-74 have lost all their teeth.<sup>4</sup>

### Oral Health and Diabetes in Michigan Adults

- 🦷 More adults without diabetes (74.6%) visited a dentist in the past year compared to adults with diabetes (66.4%).<sup>4</sup>
- 🦷 Adults with diabetes had a higher percentage of significant tooth loss (six or more teeth) compared to persons without diabetes, regardless of age, (see figure).<sup>4</sup>
- 🦷 Among adults with diabetes, disparities in tooth loss existed by race (blacks, 40.6%, compared to whites, 29.5%) and smoking status (current smoker, 40.2%, compared to never smoked, 23.0%).<sup>4</sup>

Prevalence of Six or More Teeth Missing by Diabetes Status  
Adults, Michigan, 2008 and 2010 Combined



### Home care tips to give your patients:

-  Brushing teeth twice a day and flossing once a day helps remove decay-causing plaque that builds up naturally on teeth.
-  Controlling blood sugar levels prevents high levels of bacteria from forming in the mouth.
-  Dental visits should be at least twice a year for checkups and cleanings. Some professionals recommend more frequent cleaning visits, every 3-4 months, for people with diabetes.
-  If dentures are worn, dental checkups are still important. Remove dentures for cleaning daily.
-  Avoid smoking and excessive alcohol intake, which can raise blood sugar levels.
-  Visit the dentist if there is evidence of any of the following symptoms of gum disease: gums that bleed; gums that have pulled away from the teeth; pus that appears between your teeth and gums; and bad breath.

### Management:

-  Provide education on oral home care techniques and explain connections between oral health and blood glucose results. Have diabetes information materials in waiting room and treatment areas.
-  Collaborate with primary care provider on management of care.
-  Ask client about concerns and barriers to care; work on personal goals with the client; and collaborate with the client on treatment goals and their plan.
-  Encourage routine visits to the dentist at least two times a year.
-  Know the client's A1c level and screen intraorally for signs of inflammation, dry mouth, candidal infection, bad breath, periodontal disease, or dental decay.
-  Encourage self-management education and on-going support as part of diabetes care.

### Resources:



 [www.michigan.gov/oralhealth](http://www.michigan.gov/oralhealth)

 [www.cdc.gov/diabetes](http://www.cdc.gov/diabetes)

 [www.michigan.gov/diabetes](http://www.michigan.gov/diabetes)

 [www.ada.org/2650.aspx](http://www.ada.org/2650.aspx)

 [www.cdc.gov/oralhealth](http://www.cdc.gov/oralhealth)

 [www.ndep.nih.gov](http://www.ndep.nih.gov)

#### References:

1. MDCH, Diabetes in Michigan Update – 2013. [http://www.michigan.gov/documents/mdch/Diabetes\\_in\\_Michigan\\_Update\\_2013\\_416620\\_7.pdf](http://www.michigan.gov/documents/mdch/Diabetes_in_Michigan_Update_2013_416620_7.pdf)
2. MDCH, Division of Vital Records and Health Statistics
3. World Health Organization (WHO) [http://www.who.int/topics/oral\\_health/en/](http://www.who.int/topics/oral_health/en/)
4. MDCH, Michigan Behavioral Risk Factor Surveys (MiBRFS), 2008 and 2010