

# Oral Cancer in Michigan

## Michigan Oral Health Surveillance Brief September 2015

### Introduction:

Oral cancer is any cancerous tissue growth located in the mouth, tongue, lips, throat, parts of the nose, or larynx. Over 40,000 people are diagnosed with oral cancer in the United States each year. It is more than twice as common in men as women and is the 8th most common cancer diagnosis in men. Almost 8,000 deaths occur because of oral cancer each year. The 5-year and 10-year survival rate for oral cancer is 62% and 51% respectively. Detection of oral lesions at earlier stages of development is associated with much more favorable oral cancer survival rates. Most oral cancers are caused by either tobacco and alcohol use or exposure to the human papilloma virus.<sup>1</sup> Understanding the burden of oral cancer in Michigan is an important piece to help slow and prevent new cases of oral cancer.

### Methods and Data Sources:

*Michigan Behavioral Risk Factor Survey (MiBRFS):* an annual phone-based self-reported statewide survey. Questions related to oral cancer screening and demographics were included within the 2014 MiBRFS. The MiBRFS indicator for oral cancer screening was calculated based on responses to the following question: "When was the last time you had an exam for oral cancer in which a doctor or dentist pulls on your tongue sometimes with gauze wrapped around it and feels under the tongue and inside the cheeks?"<sup>2</sup>

*Michigan Cancer Surveillance Program:* Michigan is mandated by Act 82 of 1984 to establish a cancer registry for residents diagnosed with cancer. This statute states the department shall establish a registry to record cases of cancer and other specified tumorous and precancerous diseases that occur in the state. All cases of oral cancer were included in the analysis.

*Michigan Resident Death Files:* Death certificate data including demographics and cause of death are collected for all Michigan residents. All deaths that had an underlying cause of death listed as oral cancer were included in the analysis.

### Results:

*MiBRFS:* In 2014, 46.4% of Michigan adults reported having received an oral cancer screening in the past 12 months. The prevalence of a screening increased with age and education. White, non-Hispanics were significantly more likely than Black, non-Hispanics and Other, non-Hispanics to have had a screen in the past year, Table 1.

Dental behaviors also are significant indicators of receiving an oral cancer screening. Two-thirds of those having been to a dentist in the past year had a screen compared to 4.8% of those without a visit to the dentist in the past year. Over half (55.2%) of adults with dental insurance had an oral cancer screen compared to 31.1% of adults without dental insurance, Table 2.

*Cancer Registry:* In 2014, 1,281 cases of oral cancer were diagnosed in Michigan or 10.6 cases per 100,000 persons. Males were significantly more likely to be diagnosed with oral cancer than females (15.8 per 100,000 vs 6.0 per 100,000 respectively) but there was no difference by race between whites and blacks (10.7 per 100,000 vs 9.9 per 100,000 respectively).

**Table 1. Oral Cancer Screening in the Past Year among Michigan Adults by Demographics, 2014 Michigan BRFS**

	%	95% Confidence Interval
<b>Total</b>	46.4%	(43.7-49.2)
<b>Age</b>		
18-34	31.1%	(25.5-37.4)
35-64	50.4%	(46.7-54.1)
65+	57.0%	(52.5-61.3)
<b>Gender</b>		
Male	41.5%	(37.6-45.6)
Female	50.9%	(47.2-54.6)
<b>Race/Ethnicity</b>		
White, non-Hispanic	51.1%	(48.1-54.1)
Black, non-Hispanic	27.9%	(20.2-37.3)
Other, non-Hispanic	27.1%	(17.3-39.8)
Hispanic	33.1%	(20.0-49.4)
<b>Education</b>		
Less than high school	19.0%	(12.0-28.9)
High school graduate	39.6%	(34.9-44.5)
Some college	50.1%	(45.3-54.9)
College graduate	62.3%	(57.8-66.6)

**Table 2. Oral Cancer Screening in the Past Year among Michigan Adults by Dental Indicators, 2014 Michigan BRFSS**

	%	95% Confidence Interval
<b>Dental visit in past year</b>		
Yes	66.6%	(63.3-69.6)
No	4.8%	(3.2-7.1)
<b>Dental insurance coverage in past year</b>		
Yes	55.2%	(51.8-58.5)
No	31.1%	(27.0-35.6)

**Results continued:**

Oral cancer incidence rates have not changed significantly since 2000. The rate decreased slightly from 12.0 per 100,000 persons in 2000 to 10.6 per 100,000 in 2013.

Incidence rates by county ranged from 7.1 per 100,000 in Newaygo County to 25.2 per 100,000 in Montmorency County between 2008-2012. Wayne County had the highest number of diagnosed oral cancer cases with 1,284, Figure 1.

**Mortality:** In 2013, 303 Michigan residents died of oral cancer (2.5 per 100,000 residents). Similar to cancer incidence males had significantly higher rates of oral cancer rates than females (3.9 per 100,000 vs 1.3 per 100,000 residents respectively) and there was no difference in race (2.5 per 100,000 among whites and 2.9 per 100,000 among blacks).

**Conclusions:**

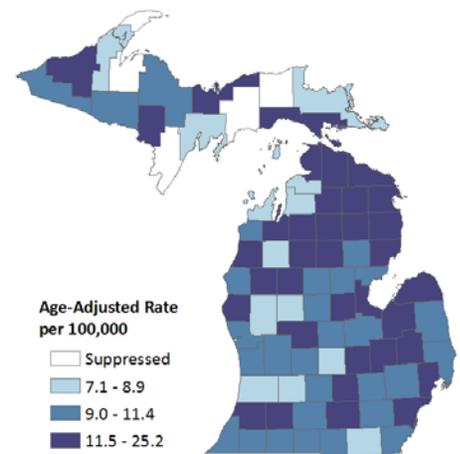
Oral cancer screening is an important step to identifying the disease at an early stage and to increase the survival rate. The American Dental Association recommends all patients reporting for routine dental care receive screening for oral cancer by a dentist.<sup>3</sup> However, less than half of Michigan adults reported having an oral cancer screen in the past 12 months. Dentists and dental hygienists should be aware of standards of care and perform oral cancer screenings on their patients at routine visits. In addition, it is important for dentists to make note of the screenings performed and the result in the patient medical records.

Most oral cancer screenings involve pulling the tongue out to examine the tongue, floor of the mouth, sides of the mouth, and throat area. Dentists and dental hygienists may be performing oral cancer screenings and not telling the patient what they are doing. Education may need to be done to inform the patient what an oral cancer screen is and to ask that their dentist or dental hygienist performs the check. Adults need to make sure their dentist or dental hygienist is performing these screens during their dental visit.

Oral cancer incidence trends in Michigan have not changed significantly in the past 14 years. A person can reduce their risk for oral cancer by reducing tobacco and alcohol use.

Healthy People 2020 identified two goals related to oral cancer including to increase the proportion of oral and pharyngeal cancers detected in an early stage and to increase the proportion of adults who received an oral and pharyngeal cancer screening from a dentist or dental hygienist in a year. Michigan is working to meet these two goals and targets by 2020.

**Figure 1. Age-Adjusted Oral Cancer Incidence Rates for Michigan by County 2008-2012**



**References:**

1. American Cancer Society. Cancer Facts & Figures 2013. Atlanta: American Cancer Society; 2013.
2. Michigan Department of Community Health. Michigan Behavioral Risk Factor Survey: [www.michigan.gov/BRFS](http://www.michigan.gov/BRFS)
3. Rethman M, Carpenter W, Cohen WW et al. Evidence-Based Clinical Recommendations Regarding Screening for Oral Squamous Cell Carcinomas. *J Am Dent Assoc.* 2010; 141;5:509-520.

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