

- **Oral cancer** is any cancerous growth located in the mouth, tongue, lips, oropharynx, parts of the nose, or larynx.¹
- In 2019, it is estimated that there will be **1,720** new cases of and **390 deaths** from all types of oral cancer in Michigan.²
- As of 2015, **oropharyngeal** cancer became the **most common HPV-associated cancer** in the United States.³

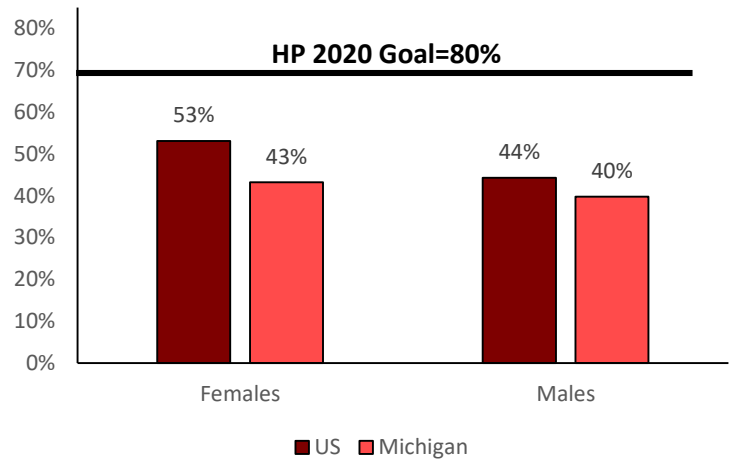
Oral Cancer Risk Factors

- Human papillomavirus (HPV) infection.¹
 - In Michigan, 43% of females and 40% of males aged 13-17 completed the HPV vaccination series as of December 2018.
- Tobacco use.¹
 - In Michigan, 20% of adults report being a current smoker and 4% report using smokeless tobacco (data not shown).⁴
 - Frequent cigarette smoking has decreased among youth from 20% in 1997 to 3% in 2017 (data not shown).⁴
- Excessive alcohol consumption.¹
 - In Michigan, 7% of adults report heavy alcohol consumption (data not shown).²
- Male gender.¹
- Older age.¹
- Poor oral hygiene.¹
 - In Michigan, 31% of adults report not seeing a dentist in the past year, with Black (41%) and American Indian (41%) adults reporting the highest rates.

Oral Cancer Signs and Symptoms¹

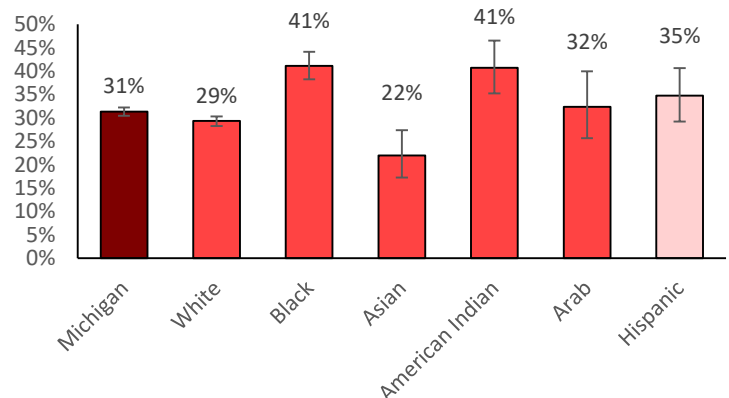
- Unusual lumps or bumps in the mouth, wart like masses, or sores that do not heal.
- Pain or difficulty swallowing or chewing.
- Unusual nose bleeds or other bleeding from oral cavity.
- Numbness in oral or facial regions.
- Sore throat, hoarseness, or ear pain.
- Progressive swelling; enlarged lymph nodes, shifting of teeth.
- Appearance of white or red patches in the mouth.

HPV Series Completion Rate among Youth Aged 13-17, December 2018



Source: Michigan Care Improvement Registry (MCIR). Prepared by the Michigan Department of Health and Human Services.

Michigan Adults Who Reported not Visiting a Dentist in the Past Year, 2014-2016

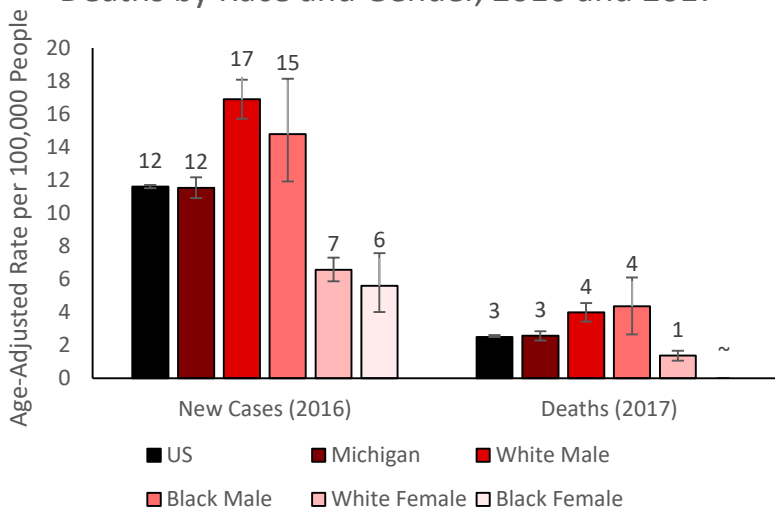


Source: Michigan Behavioral Risk Factor Survey (MIBRFS) Race and Ethnicity tables 2014-2016. www.Michigan.gov/brfs

Oral Cancer Trends and Disparities

- New cases of oral cancer have remained stable between 1995 and 2016.⁶
 - White males have the highest new case rate (17 per 100,000 males).
- The rate of new cases of HPV-negative oral cancers have declined; however, there has been a rise in cases of oral cancer linked to HPV.³
 - About 70% of oropharyngeal cancers are caused by HPV.⁵
 - Oropharyngeal cancer makes up about 46% of all oral cancers diagnosed in Michigan.⁶
- Deaths from oral cancer have remained stable between 1995 and 2017.⁶

Michigan Oral Cancer New Diagnoses and Deaths by Race and Gender, 2016 and 2017



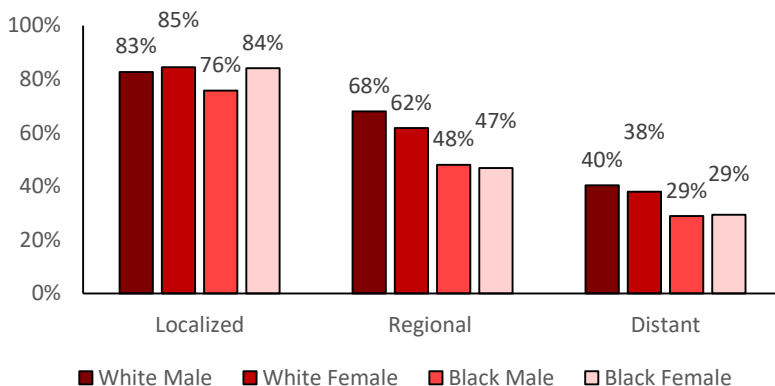
~ Data suppressed due to <20 cases

Source: Based on data released Jan 2019 by Michigan Cancer Surveillance Program (MCSP).

Early Detection for Oral Cancer is Important!

- There is no standard routine screening test for oral cancer.¹
- A regular dental checkup that includes examining the entire mouth is important to finding oral cancers early.¹
- When oral cancer is caught at the localized stage, the five-year survival rate is 84%; however, only 22% of cases in Michigan are diagnosed at the localized stage (data not shown).⁷

U.S. Five-Year Survival Rate by Stage, 2008-2014



Source: SEER 2008-2014, white and black race, males and females by SEER summary stage 2000. www.seer.cancer.gov

Human Papillomavirus (HPV) Vaccination⁸

It is estimated that over 50% of all oral cancers are associated with HPV lesions. Dental and other health providers should recommend HPV vaccination to their patients. The Centers for Disease Control and Prevention recommends that girls and boys between 11 and 12 years old get the HPV vaccine. However, vaccination can start as early as 9 years old and continue to age 26, depending upon the patient's risk factors and situation.

References: 1) American Cancer Society. Oral Cavity and Oropharyngeal Cancer. <https://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer.html> 2) American Cancer Society. Cancer Statistics Center: Michigan at a Glance 2017. Retrieved at: <http://cancerstatisticscenter.cancer.org/#/state/Michigan>. 3) Van Dyne EA, et al. *Morb Mortal Wkly Rep*. 2018;doi:10.15585/mmwr.mm6733a2. 4) Michigan Behavioral Risk Factor Survey. 2016. www.Michigan.gov/brfs 5) HPV and Oropharyngeal Cancer. Centers for Disease Control. Retrieved at: https://www.cdc.gov/cancer/hpv/basic_info/hpv_oropharyngeal.htm 6) Michigan Cancer Surveillance Program. Cancer Incidence and Mortality Trends Michigan Residents, 1985-2016. Michigan Department of Health & Human Services., Division for Vital Records & Health Statistics. Retrieved at: <http://www.cancer-rates.info/mi/index.php>. 7) Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2017 Sub (2000-2015) , National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2018, based on the November 2017 submission 8) Centers for Disease Control and Prevention. Human Papillomavirus Vaccination: Recommendations of the Advisory Committee on Immunization Practices. *Morbidity and Mortality Weekly Report*. 29 August 2014. Retrieved at: <https://www.cdc.gov/mmwr/volumes/65/wr/mm6549a5.htm> Accessed 30 May 2018