



## Oral Cancer: Prevention, Detection and Prospects for Greater Health Equity

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Each April, we turn our attention to the critical topic of Oral Cancer Awareness Month by emphasizing the importance of screening, education, and prevention of oral cancer. April is also National Minority Health Month, an equally important time to spotlight racial and ethnic minority health and the role we, as oral health care providers, play in eliminating oral health disparities.

Cancer remains a leading cause of death globally and is the second leading cause of death in the United States (US).<sup>1,2</sup> Approximately 4% of all diagnosed cancers in 2022 were reported as oral cavity and oropharyngeal cancers, with an estimated 54,000 new cases and over 11,000 deaths.<sup>2,3</sup> Persistent health inequities stemming from racial, socioeconomic, and geographic disparities are known contributors to higher rates of undetected and late-stage cancers in vulnerable populations. Emerging data exposes stark disparities amongst Black and Hispanic men experiencing higher rates of human papillomavirus (HPV)-related oropharyngeal cancer mortality, and the survival rate for Black males is markedly lower (41%) than of White males (62%).<sup>4,5</sup>

While regular dental care plays a key role in early detection of potentially malignant lesions, 35% of US adults did not have a routine dental visit in 2019.<sup>6</sup> Sadly, individuals struggling with chronic poverty and those of certain racial and ethnic minority groups in the US continue to be plagued with poor oral health across their lifespan.<sup>7</sup> These sobering statistics prompt the urgency for dental hygienists to support proactive measures for equitable oral health care, cancer prevention and screening.

Health disparities as they relate to cancer have been linked to an interplay of social, economic, environmental, behavioral, biological, and genetic factors that disproportionately burden certain groups of people.<sup>8</sup> Current population health efforts that contribute to reducing the oral cancer burden include federal and state antitobacco policies, HPV vaccinations, and health promotion efforts. Equally crucial are the state and local health care systems that support an array of multidisciplinary team players that are essential to preventing, mitigating, and treating oral cancer in our communities. Although these upstream measures create the biggest gain in the fight against oral and oropharyngeal cancers, grassroot, community-level strategies are indispensable. Oral health care providers are central to these efforts, and dental hygienists are frequently the first providers to identify and refer potentially malignant lesions and symptoms for further evaluation.

Cancers that manifest in the oral cavity are largely attributed to long-term alcohol or tobacco use. Combined use of alcohol and tobacco has been proven to have a multiplicative effect, resulting in an even greater risk for oral and other head and neck cancers.<sup>9</sup> Protecting minors and young adults from deceptive tobacco advertising is foundational to primary prevention of oral cancer. One recent victory in primary prevention that we can celebrate is the Tobacco 21 Law passed in 2019. This federal statute raised the minimum age for the sale of tobacco products to 21 years of age with no exemption.<sup>10</sup> Numerous federal and state laws have successfully

regulated tobacco sales, marketing, and usage involving minors, yet tobacco companies continue with relentless social marketing aims targeting youth and racial minority groups. Dental hygienists and dentists must continue to advocate for anti-tobacco legislation while remaining ever vigilant in their responsibility to screen and educate their patients on the dangers of all types of tobacco use.

Human-papillomavirus (HPV) infection is a recognized risk factor for oropharyngeal cancer and most HPV-related cancers can be prevented through HPV vaccination.<sup>11</sup> Although currently there is no validated biological screening/testing mechanism for HPV-positive oropharyngeal cancer, dental hygienists may be the first providers to assess for symptoms.<sup>12</sup> Dental hygienists must be diligent regarding routine extra and intraoral examinations and patient intake inquiries (i.e., “have you had any difficulty swallowing, unilateral ear pain, or noticed any fixed lumps or swelling in the head and neck area?”) as these measures are critical for timely referral, diagnosis, and treatment. Effective educational strategies for HPV cancer prevention involve age and culturally appropriate conversations regarding the importance of HPV vaccination along with access to information and referral for vaccination. Centers for Disease Control and Prevention (CDC) provides current, accurate, evidence-based resources for both professional and patient education; and with this information, we can make a substantial impact in preventing these cancers.<sup>13</sup>

As oral health care providers we also play an essential role in the tertiary prevention level of cancer survivorship. Supporting patients with an oral or oropharyngeal cancer diagnosis requires an interdisciplinary team approach involving regular communication with oncology and oral medicine providers before, during, and after cancer treatment.

Dental hygienists have the potential to address oral cancer disparities while advancing health equity. Dental, and medical team members share a mutual responsibility in preventing, detecting, and treating oral and oropharyngeal cancers in a manner that supports health equity. The path forward should include a

careful review of practice standards and policies through the lens of diversity, equity, and inclusion. The Healthy People 2030 National Framework describes health equity as reaching the highest level of health for all by valuing all people equally.<sup>14</sup> As oral health care providers, we have the collective power to achieve that goal in the meaningful work we do every day. During April and the months to come, please join me by committing to improve health equity and reduce the impact of oral cancer in our practices, and our communities across the country.

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## REFERENCES

1. ACS. The global cancer burden: Why global cancer rates are rising [Internet]. Atlanta (GA): American Cancer Society; 2023 [cited 2023 March 1]. Available from: <https://www.cancer.org/about-us/our-global-health-work/global-cancer-burden.html>.
2. Siegel RL, Miller KD, Fuchs HE, Jemal A. Cancer statistics, 2022. *CA Cancer J Clin.* 2022;72(1):7-33.
3. ACS. Cancer facts & figures 2022 [Internet]. Atlanta (GA): American Cancer Society; 2022 [cited 2023 March 1]. Available from: <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2022/2022-cancer-facts-and-figures.pdf>.
4. Villalona S, Ferrante J, Stroup A. More than cervical cancer: Understanding racial/ethnic disparities in oropharyngeal cancer outcomes among males by HPV status. *Ann Fam Med.* 2022(20 Suppl 1). Epub 20220401.
5. ACS. Disparities in oral health [Internet]. Atlanta (GA): American Cancer Society; 2023 [cited 2023 March]. Available from: [https://www.cdc.gov/oralhealth/oral\\_health\\_disparities/index.htm](https://www.cdc.gov/oralhealth/oral_health_disparities/index.htm).
6. Cha AE, Cohen RA. Urban-rural Differences in Dental Care Use Among Adults Aged 18-64. *NCHS Data Brief.* 2021(412):1-8.
7. HHS. Oral health in America: Advances and challenges 2021 [Internet]. Washington DC: US Department of Health and Human Services; 2021 [cited 2023 March 1]. Available from:

<https://www.nidcr.nih.gov/sites/default/files/2021-12/Oral-Health-in-America-Advances-and-Challenges.pdf>.

8. NCI. Understanding cancer: Cancer disparities [Internet]. Bethesda (MD): National Institutes of Health; 2022 [cited 2023 March 1]. Available from: <https://www.cancer.gov/about-cancer/understanding/disparities>.
9. NCI. Head and neck cancer—health professional version 2021 [Internet]. Bethesda (MD): National Institutes of Health; 2021 Jun 15 [cited 2021 September 6]. Available from: <https://www.cancer.gov/types/head-and-neck/hp/oral-screening-pdq>.
10. FDA. Tobacco 21 [Internet]. Silver Spring (MD): Food and Drug Administration; 2021 [cited 2023 March 1]. Available from: <https://www.fda.gov/tobacco-products/retail-sales-tobacco-products/tobacco-21#4>.
11. CDC. Human papillomavirus (HPV): Cancers caused by HPV are preventable [Internet]. Atlanta (GA): Centers for Disease Control; 2021 [cited 2023 March 1]. Available from: <https://www.cdc.gov/hpv/hcp/protecting-patients.html>.
12. Ferris RL, Westra W. Oropharyngeal Carcinoma with a Special Focus on HPV-Related Squamous Cell Carcinoma. *Annu Rev Pathol.* 2023;18:515-35.
13. CDC. Human papillomavirus (HPV): Educational materials [Internet]. Atlanta (GA): Centers for Disease Control; 2021 [cited 2023 March 1]. Available from: <https://www.cdc.gov/hpv/hcp/educational-materials.html>.
14. HHS. Health equity in healthy people 2030 [Internet]. Washington DC: US Department of Health and Human Services; 2023 [cited 2023 March 1]. Available from: <https://health.gov/healthypeople/priority-areas/health-equity-healthy-people-2030>.