

Oral Health Alliance

1150 18th Street, NW Suite 910
Washington, DC 20036
www.oralhealthalliance.org
202-669-6765

The Oral Health Alliance, a 2030 Healthy People Champion, that represents nutrition, oral health education, and public health professional organizations, oral health providers, groups representing community, children, pregnant women, and older adults, industry, and consumer groups, asks the White House Conference on Hunger, Nutrition, and Health to include both individual and population-based strategies for oral health that focus on “increasing the prevalence of individuals who routinely perform oral health preventive practices – brush with fluoridated toothpaste, floss, drink fluoridated water, chew sugarfree gum, avoid added sugar and fermentable carbohydrates, and do not smoke.”

The Alliance has been engaged for the past five years providing research and resources to the US Department of Agriculture and the US Department of Health and Human Services regarding the importance of oral health and nutrition in the *Healthy People 2030 Objectives*¹, the *2020-25 Dietary Guidelines for Americans*² and the recent report on *Oral Health in America: Advances and Challenges*³.

Relevance to Hunger, Nutrition, and Health across the Lifespan

The 2020-25 Dietary Guidelines recognized “dental caries as one of the diet-related chronic diseases that pose a major public health problem for Americans.” Oral health and nutrition have a multifaceted relationship – oral infectious diseases, including dental caries, impact the ability to eat healthy foods that meet the DGAs and nutrition status across the lifespan and nutrition and diet can affect the development and integrity of the oral cavity and progression of oral diseases.^{4,5} The World Health Organization Bulletin⁶ states that “Oral health affects people physically and psychologically and influences how they grow, enjoy life, look, speak, chew, taste food and socialize, as well as their feelings of social well-being.” Oral health is fundamental to the quality of life and overall well-being.⁷ Dental caries, if untreated, may lead to death.⁸

Dental caries and attendant pain and infection affect weight and nutrition. Avoiding the oral infections resulting from poor oral health might also decrease the risk of heart disease⁹, diabetes, dementia, rheumatoid arthritis, hospital-acquired pneumonia, and even premature birth.^{10,11} For example, children of three years of age with nursing caries weighed about 1 kg less than the control children.¹² The increase in snacking throughout the day in place of three-meals a day raises the risk of obesity¹³ and developing dental caries throughout the life cycle.^{14,15,16,17,18,19,20} For older Americans specifically, the DGAs noted “Good dental health is essential to overall health as well as the ability to chew food properly.” For those over 65 years, however, the prevalence of dental caries exceeds that of hypertension, arthritis, and diabetes. Older adults have a higher risk for poor oral health than any other age group because many of them lack dental insurance, have underlying health conditions, lack convenient access to care (especially those living in underserved urban and rural areas), and have limited financial resources.²¹

Given the current dietary patterns of many Americans, implementing policies that foster routine oral health preventive practices, such as brushing, cleaning/flossing between teeth, drinking fluoridated water where available,²² and chewing sugar-free gum (a food) to avoid dry mouth and increase saliva flow,^{23,24,25} is essential to prevent and/or reduce widely experienced dental caries and other oral

infectious diseases that threaten good nutrition and health. Preventing dental caries early and throughout life can also improve social interactions, school performance,²⁶ military readiness and effectiveness,²⁷ and job opportunities towards healthier communities.

Prevalence of Oral Health Problems

Dental caries (tooth decay) is a silent epidemic; it is not only the most prevalent and largely preventable oral disease worldwide, but also, it is the most prevalent disease that affects both children and adults in the United States and demonstrates health inequity. NCHS data in the table below shows NCHS data in the table below show that the dental caries rates are high for all age groups, and they begin with the primary teeth and continue through the permanent dentition. Throughout the lifespan, the prevalence of dental caries is close to the prevalence of obesity among 2–5-year-olds and significantly higher than the prevalence of overweight and obesity for all other age groups. For American Indian (AI)/Alaska Native (AN) children – approximately 39% of AI/AN children have experienced dental caries by the age of 2, rising to 76% by the age of 5. A full 86% of AI/AN children have had a cavity in their primary (baby) teeth compared with 56% of the general U.S. population.²⁸

Prevalence of Dental Caries in the U.S. Population United States, National Health and Nutrition Examination Survey, 1999–2004 to 2011–2014 ²⁹									Prevalence of Obesity 2017–2018 ³⁰	Prevalence of Obesity and Severe Obesity Among Adults 2017–2018 ³¹
Age	Percent with dental caries experience (primary teeth)		Percent with untreated dental caries (primary teeth)		Percent with dental caries experience* (permanent teeth)		Percent with untreated dental caries (permanent teeth)		Percent	Percent
	1999-2004	2011-2016	1999-2004	2011-2016	1999-2004	2011-2016	1999-2004	2011-2016		
2-5	27.9	23.3	20.5	10.4					13.4	
6-11	51.5	52.1	27.8	16.4	21.2	17.4	7.7	5.2	20.3	
12-19					59.4	56.8	19.6	16.6	21.2	
20-64					91.6	89.9	25.3	26.1		40.0 (20-39 y.o). 44.8 (40-59 y.o.)
65+					93.0	96.2	18.1	15.9		42.8 (60 plus y.o)
<i>*Includes missing or filled permanent teeth.</i>										

Strategies to Combine Oral Health Messages with Nutrition Education and Food Service

Federal nutrition programs offer excellent opportunities for providers to incorporate education about the benefits of oral health during pregnancy and extending through childhood and old age and reinforce the parental and professional messaging. Along with audience-centered dietary advice, messages should reinforce routine brushing teeth effectively with a soft brush and fluoridated toothpaste, cleaning between teeth, chewing sugarfree gum, drinking fluoridated water, and limiting the frequent and constant use of fermentable carbohydrates and added sugar. For example, the USDA FNS WIC Works has educated staff on the relationship of poor oral health and infection related to heart disease and promoted the importance of starting oral health promotion with pregnant women.

Guidance used in federal nutrition programs should be tailored for limitations of chewing and swallowing, presence of dental prosthesis (dentures), and for the loss of smell and taste, particularly in older adults. Home delivered and center-oriented meal programs for older adults often offer educational programs through the state Offices on Aging and could include education on oral health preventive practices. Guidelines for federally supported nursing homes, Veteran hospitals³² and clinics should instruct the nurses and other caregivers on the importance of healthy snacks and meals, as well as instruction on routine oral hygiene, especially among those with physical and cognitive limitations

¹ Office of Disease Prevention and Health Promotion. Oral Health. Healthy People 2030. U.S. Department of Health and Human Services. Available at <https://health.gov/healthypeople/search?query=oral+health>.

² U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf

³ NIDCR, Oral Health in America: Advances and Challenges. December 2021.

<https://www.nidcr.nih.gov/sites/default/files/2021-12/Oral-Health-in-America-Advances-and-Challenges.pdf#page=59>

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