

August 7, 2020

The Honorable Sonny Perdue, Secretary of Agriculture
1400 Independence Avenue, SW
Washington DC 20250

The Honorable Alex Azar, Secretary of Health and Human Services
200 Independence Avenue, SW
Washington DC 20201
Via Electronic Submission

RE: FNS-2020-0015-0002 Comments on the Dietary Guidelines Advisory Committee's Final Report

Dear Secretary Perdue and Secretary Azar:

The Oral Health Alliance, with representatives from oral health providers, nutrition, and public health professional organizations, groups representing children and older adults, industry, and consumer groups was pleased that the Dietary Guidelines Advisory Committee (DGAC) identified, in several places, dental caries among the chronic diet-related health conditions for both children and adults. As the DGAC Scientific Report noted, SARS-Co V-2 and the development of COVID19 have "significant nutritional implications" and "the consequences of physical isolation and financial disruption by the threat of COVID-19 infection has led to significant increases in food insecurity and hunger, further increasing susceptibility to both infectious and diet-related chronic diseases."¹ An increase in dental caries and other oral diseases could follow as low income and vulnerable populations now have a lack of access to healthy, nutritionally adequate diets² and to dental services that are closed or limited by the virus³. The time is now for USDA and DHHS to recommend Americans across the lifespan adopt routine oral health preventive practices and include in the 2020-25 Dietary Guidelines for Americans (DGA) the statement:

"Individuals of all ages should follow a daily oral hygiene routine, which includes brushing their teeth with fluoridated toothpaste, cleaning between their teeth where possible, chewing sugarfree gum for 20 minutes after meals or snacks if possible, drinking fluoridated water where available, and limiting frequent or constant use of dietary fermentable carbohydrates."

The significance of the dental crisis is captured in a separate section entitled *Dental Health* in Part D, Chapter 1, *Current Intakes of Food, Beverages and Nutrients*, that provides specific data on the prevalence of dental caries and tooth loss for children, young adults, and older adults. The text on pages 24 and 25 of that section states "The prevalence of total dental caries (treated and untreated) for children ages 2 to 19 years was 45.8 percent, while the prevalence of untreated dental caries was 13.0 percent. Hispanic youth are the most likely to have treated and untreated dental caries (57.1 percent), but non-Hispanic Black youth are most likely to have untreated dental caries (17.1 percent). The overall prevalence of dental caries among adults

ages 20 to 64 years was 89.9 percent and 96.2 percent among adults ages 65 years and older, respectively. Prevalence of untreated caries alone in older adults is about 19%. The prevalence of both total caries and untreated caries is highest among low income groups. The overall prevalence of complete tooth loss from both dental caries and periodontal disease is 2.2 percent among adults ages 20 to 64 years and 17.3 percent among adults ages 65 years and older. Tooth loss may compromise dietary intakes.”

Of particular importance, the DGAC recommends that “the translation of the Committee’s scientific review into the Dietary Guidelines for Americans should extend beyond topics incorporated within the specific questions addressed by the Committee and should include related dietary practices that remain of public health concern including those that have been reviewed by previous Committees,” on page 11 in Part B, Chapter 2 *Integrating the Evidence*. Specifically, the DGAC included “preventing dental caries” among other topics to include in the Dietary Guidelines for Americans. In Part E, *Future Directions*, on page 7, the DGAC also puts forth “oral health” as an important topic that is relevant to diet and nutrition for future Dietary Guidelines. It suggests future committees “investigate a process to identify topics that can be carried forward into a future cycle of the Dietary Guidelines without additional review by the Advisory Committee.”

The Alliance has presented extensive research and evidence demonstrating that prevention of dental caries and other oral infectious diseases is critical to maintaining the individual’s capacity to chew food, consume nutrient-rich diets, and sustain optimal nutrition status, throughout the DGAC process for developing the 2020-25 Dietary Guidelines for Americans. Pain and infection from dental caries makes it difficult to consume the appropriate amounts of fruits, vegetables, dairy, and lean protein recommended in the Dietary Guidelines.^{4,5} The reduced intake of these foods puts individuals with dental caries at risk for under-consuming fiber, calcium, iron, and other essential vitamins and minerals. With many food groups unavailable, individuals with dental caries may choose softer, more calorie-dense foods. Preventing dental caries early and throughout life can also improve social interactions, school performance,⁶ military readiness and effectiveness,⁷ and job opportunities. Avoiding the oral infections resulting from poor oral health may decrease risk of heart disease, diabetes, dementia, rheumatoid arthritis, and even premature birth.^{8,9}

Likewise, nutrition and dietary patterns can affect the development and integrity of the oral cavity and progression of oral diseases.¹⁰ The increase in snacking throughout the day in place of three-meals a day raises risk of obesity¹¹ and developing dental caries throughout the life cycle.^{12,13,14,15,16,17,18} Through numerous written and oral comments, the Alliance has supported the DGAC’s approach that has focused on healthy dietary patterns of food and beverage consumption over time and avoidance of frequent and constant intake of fermentable carbohydrates more common with snacking and drinking habits. Given these current dietary patterns of many Americans, making oral health preventive practices, such as brushing, cleaning between teeth, drinking fluoridated water where available¹⁹ and chewing sugarfree gum to avoid dry mouth and increase saliva flow,^{20,21} routine for individuals of all ages is

essential to prevent and/or reduce widely experienced dental caries and other oral infectious diseases.

General Justification for including oral health preventive practices in the 2020-2025 Dietary Guidelines

History - Both 2010 and 2005 DGA included language on Oral Health Practices, but the 2015 version did not. The 2010 DGA stated “A combined approach of reducing the amount of time sugars and starches are in the mouth, drinking fluoridated water, and brushing and flossing teeth, is the most effective way to reduce dental caries.” The 2005 DGA recommended “reduce the incidence of dental caries by practicing good oral hygiene and consuming sugar- and starch containing foods and beverages less frequently.” There is a well-established and solid body of research^{22,23,24,25,26,27,28,29,30,31,32,33,34,35,36}, including a new systematic review³⁷, that supports adding the practice of chewing sugarfree gum for 20 minutes after meals or snacks, along with brushing, cleaning between teeth, and drinking fluoridated water to improve our oral health.

Public Health Significance - The Department of Health and Human Services (DHHS) has identified oral health as one of the twelve health indicators. As stated in the report and noted above, the NHANES 2015-2016 found that the prevalence of total dental caries (treated and untreated) for children ages 2 to 19 years was close to half, while the prevalence of untreated dental caries was almost a fifth. The racial disparity for dental caries among children³⁸ was also reported above. Almost nine in ten adults ages 20 to 64 years and over 95 percent of adults ages 65 years and older were found to have treated or untreated dental caries.³⁹ New NCHS data⁴⁰ confirm that the prevalence of complete tooth loss among adults aged 65 and over was almost 17 percent, and for those over 75 increased to almost 18 percent. Black non-Hispanics, individuals of lower socioeconomic status, and individuals with less education bare a disproportionate share of this burden, similarly to overweight and obesity. Fluoridation of water supplies and improvements in lifestyles have helped reduce the prevalence of caries, but dental diseases increasingly have a detrimental effect on quality of life in both childhood and older age.^{41,42}

Potential Federal Impact

Because the DGAs provide the framework for health promotion in SNAP education, WIC nutrition education, school nutrition education, and Older Americans programs, enhancing messages about oral hygiene strengthens the existing messages about healthy diets and physical activity. Given the public health significance of dental caries and poor oral health, the final 2020-25 DGAs issued by USDA and DHHS should include recommendations to educate and motivate individuals, through multiple education and care settings, to routinely brush teeth effectively with a soft brush and fluoridated toothpaste, clean between teeth, chew sugarfree gum, drink fluoridated water, and limit the frequent and constant use of fermentable carbohydrates. The oral health preventive practices work synergistically; and a practice such as chewing sugarfree gum for 20 minutes after eating or drinking does not replace brushing or flossing but may be a more readily available practice. Federal nutrition programs offer excellent opportunities to start education about the benefits of oral health preventive practices

during pregnancy and extending through childhood and old age. Last year, WIC Works through the USDA Food and Nutrition Service provided a webinar 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. The home delivered and center-oriented meal programs for older adults offer education programs through the state Offices on Aging and could include education on oral health preventive practices.

Conclusion

Members of the Oral Health Alliance listed below urge the USDA and DHHS to include in the 2020-25 Dietary Guidelines for Americans a recommendation to ***“Individuals of all ages should follow a daily oral hygiene routine, which includes brushing their teeth with fluoridated toothpaste, cleaning between their teeth where possible, chewing sugarfree gum for 20 minutes after meals or snacks if possible, drinking fluoridated water where available, and limiting intake frequency of dietary fermentable carbohydrates,”*** based on the evidence provided in these comments and our comments to the DGAC. As noted in the DGAC report one out of four children under five years of age, one out of two children ages six to nineteen years of age, and over 90 percent of adults thirty-five years of age and older suffering from decayed, missing, or filled permanent teeth. With this public health problem, the 2020-25 Dietary Guidelines for Americans should include the recommendation that individuals at any age should practice routine oral health preventive practices, even if they cannot get to a dentist regularly, if at all. With the proper education, individuals can adopt the preventive practices that are universally available and affordable for most individuals.

Supporting Organizations

- American Dental Hygienists’ Association
- American Public Health Association
- American Society for Nutrition
- Gerontological Society of America
- National Council on Aging
- National Dental Association
- National Maternal Child Oral Health Resource Center – Georgetown University
- New Hampshire Oral Health Coalition
- School Based Health Alliance
- Tufts University School of Dental Medicine

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