



December 23, 2016

To: Ad Hoc Committee to Review the Process to Update the Dietary Guidelines for Americans,
The National Academies of Sciences, Engineering, and Medicine, Health and Medicine Division
From: Members of the National Drinking Water Alliance

The National Drinking Water Alliance thanks you for this opportunity to comment on the “Review of the Process to Update the Dietary Guidelines for Americans.” In this comment we focus on an element of healthy nutrition of which the DGAs have not, to date, taken maximum advantage: healthy beverage habits.

The National Drinking Water Alliance is a national network of organizations and individuals that works to increase consumption of plain drinking water. We focus on drinking water quality, access to drinking water, and drinking water education and promotion. For more information please see DrinkingWaterAlliance.org

Question #1: What are the two major challenges you face in implementing the DGAs?

- The DGAs lack clear, positive, “do this” messages that resonate with the public.
- The DGAs miss the opportunity to include more direct guidance on healthy beverages. The key message – “water is best” -- is buried in the Guidelines themselves and is not represented on the MyPlate graphic, the dietary guidance that most Americans see.

Question #2: What are the two biggest opportunities you see for the DGAs to promote chronic disease prevention and ensure nutritional sufficiency?

- State unequivocally that plain water should be the beverage that Americans drink most often, and that sugar-sweetened beverages (SSBs) should be drunk only rarely, if at all. This strategy has the potential to have a population-wide impact. We now have a solid and significant body of scientific evidence linking the consumption of SSBs to the biggest and most costly chronic diseases in the U.S., including tooth decay, overweight and obesity, type 2 diabetes, and cardiovascular diseaseⁱⁱ.
- Add a symbol for plain water to the MyPlate graphic, alongside the dairy image, to send a clear message about the healthy way to quench thirst.

Discussion and supporting evidence.

The importance of water in the diet. More than one-half (54.5%) of children aged 6-19 are inadequately hydrated on any given day and nearly a quarter of all children aged 6-19 do not consume any plain water on a given dayⁱⁱⁱ. Evidence shows that substituting plain water for SSB can help curb body fat development^{iv} or reduce BMI^v.

Avoiding added sugars. Tooth decay, overweight and obesity, type 2 diabetes, and cardiovascular disease, major and expensive chronic diseases in the United States, are all associated with over-consumption of added sugars. Beverages, not including milk or 100% fruit juice, accounted for nearly half of all added sugars in the diet of the US population aged 2 and

older (DGA 2015)^{vi}. In addition to its association with tooth decay and obesity, over-consumption of sugar is also an independent risk factor for cardiovascular disease, type 2 diabetes, and fatty liver disease. For example, one 12-ounce soda a day increases the risk of cardiovascular mortality by almost one-third, independent of total calories^{vii}. Replacing SSB consumption with plain water eliminates this major source of added sugars. Drinking plain water confers additional oral health benefits, including re-establishing a healthy oral pH by rinsing the mouth after meals, and providing fluoride to those who drink fluoridated tap water.

Eliminating excess calories. Overweight and obesity, type 2 diabetes, and cardiovascular disease are top chronic diseases in the United States that are associated with over-consumption of calories^{viii}. SSBs are among the single largest sources of calories in the U.S. diet. In fact, for U.S. teens aged 14-18, SSBs are *the* single largest source of calories in the diet^{ix}. This means that SSBs either add excess calories to the diet or they replace (supplant) nutritious calories.

Enhancing nutrition education through a widespread teaching tool. Most Americans do not read the DGAs. Therefore, the MyPlate graphic, the primary translation of the DGAs for the public, is the critical message-carrier. The National Drinking Water Alliance, and other organizations and individuals who contributed public comment in 2015, urge the USDA and HHS to take the necessary steps to place a symbol for drinking water on the MyPlate graphic, reminding the public of the importance of water in the diet.

Signed by the following Members of the National Drinking Water Alliance: Berkeley Media Studies Group; Roberta Friedman, ScM; International Bottled Water Association; Mission: Readiness; Nutrition Policy Institute, University of California, Division of Agriculture and Natural Resources; University of Connecticut Rudd Center for Food Policy and Obesity

ⁱ Centers for Disease Control and Prevention. Dental caries.

https://www.cdc.gov/healthywater/hygiene/disease/dental_caries.html Accessed Dec. 22, 2016.

ⁱⁱ Centers for Disease Control and Prevention. Chronic Diseases: The Leading Causes of Death and Disability in the United States. <https://www.cdc.gov/chronicdisease/overview/> Accessed December 16, 2016.

ⁱⁱⁱ Kenney EL, Long MW, Cradock AL, Gortmaker SL. 2015. Prevalence of Inadequate Hydration Among US Children and Disparities by Gender and Race/Ethnicity: National Health and Nutrition Examination Survey, 2009–2012. *Am J Pub Health* 105 (8):113-e118.

^{iv} Zheng M, Rangan A, Olsen NJ, Andersen LB, Wedderkopp N, Kristensen P, Grøntved A, Ried-Larsen M, Lempert SM, Allman-Farinelli M, Heitmann BL. 2015. Substituting sugar-sweetened beverages with water or milk is inversely associated with body fatness development from childhood to adolescence. *Nutrition* 31(1):38-44.

^v Ebbeling CB, Feldman HA, Osganian SK, Chomitz VR, Ellenbogen SJ, Ludwig DS. Effects of decreasing sugar-sweetened beverage consumption on body weight in adolescents: a randomized, controlled pilot study. *Pediatrics*. 2006;117(3): 673-680.

^{vi} U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015–2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at <http://health.gov/dietaryguidelines/2015/guidelines/>. Accessed December 19, 2016.

^{vii} Yang Q, Zhang, Z, Gregg E, Flanders WD, Merritt R, Hu FB. Added sugar intake and cardiovascular diseases mortality among US adults. *JAMA Intern Med*. Published online February 3, 2014.

^{viii} Della Torre SB, Keller A, Depeyre JL, Kruseman M. 2015. Sugar-Sweetened Beverages and Obesity Risk in Children and Adolescents: A Systematic Analysis on How Methodological Quality May Influence Conclusions. *J Acad Nutr Diet* S2212-2672(15)00651-6.

^{ix} Ervin RB, Kit BK, Carroll MD, Ogden CL. Consumption of added sugar among U.S. children and adolescents, 2005–2008. NCHS data brief no 87. Hyattsville, MD: National Center for Health Statistics 2012; Reedy J, Krebs-Smith S. Dietary sources of energy, solid fats, and added sugars among children and adolescents in the United States. *J Am Diet Assoc*. 2010; 110: 1477–1484.