June 4, 2020

Barbara Schneeman, PhD
Chair, 2020 Dietary Guidelines Advisory Committee
c/o Eve Stoody, PhD
Designated Federal Officer and Lead Nutritionist
Center for Nutrition Policy and Promotion, Food and Nutrition Service
U.S. Department of Agriculture

Dear Dr. Schneeman and the Members of the 2020 Dietary Guidelines Advisory Committee:

We, the undersigned, submit these comments in response to the Dietary Guidelines Advisory Committee’s (DGAC) public deliberations on March 13, 2020 regarding the relationship between sugar-sweetened beverages (SSBs) and growth, size, and body composition. So far, this letter has garnered 51 signatories, including Lawrence Appel, George Bray, Kelly Brownell, Carlos Camargo, William Dietz, Christopher Gardner, Frank Hu, Rachel Johnson, JoAnn Manson, Barbara Millen, Marion Nestle, Eric Rimm, Meir Stampfer, Mary Story, Miriam Vos, and Walter Willett.

More than 70 percent of U.S. adults and 35 percent of children now have overweight or obesity.\(^1\)\(^2\) Excess weight increases the risk of type 2 diabetes, heart disease, stroke, roughly a dozen cancers, and a number of other health problems. The impact and intractability of the obesity epidemic give heightened importance to the DGAC’s conclusions on sugary beverages.

The draft conclusions on slide 18 of the Beverages and Added Sugars subcommittee’s presentation were:

“Limited evidence suggests that higher sugar-sweetened beverage intake is associated with greater adiposity in adults”; and

“Moderate evidence suggests that higher sugar-sweetened beverage intake is associated with greater adiposity in children.”

According to slide 34, these conclusions apply to evidence published between 2012 and 2019 and systematically reviewed by the 2020 DGAC.

In contrast, the 2015 DGAC concluded—based largely on three systematic reviews and meta-analyses published in 2013\(^3\)—that “strong and consistent evidence shows that intake of added sugars from foods and/or sugar-sweetened beverages are associated with excess body weight in children and adults. The reduction of added sugars and sugar-sweetened beverages in the diet reduces body mass index (BMI) in both children and adults” (emphasis added).

Beverages and Added Sugars Subcommittee Chair Dr. Mayer-Davis indicated that the 2020 DGAC’s final recommendations would consider the evidence from both its new systematic review on SSBs and the 2015 DGAC conclusion. However, committee members did not discuss how they would reconcile the 2020 DGAC’s draft conclusions with the 2015 DGAC’s final conclusion. That decision-making process is crucial and should be transparent. We urge the DGAC to grade the overall body of evidence as strong, rather than moderate or limited, for the following reasons:

The totality of evidence demonstrates that SSBs increase the risk of excess adiposity in both children and adults.

Virtually every major health authority, including the World Health Organization, has urged the public to limit or avoid the consumption of SSBs or all sources of added sugars based on a broad body of evidence published both before and since 2012. These authorities include the Centers for Disease Control and Prevention, the National Academy of Sciences, the National Heart, Lung, and Blood Institute, the American Academy of Pediatrics, the American Academy of Pediatric Dentistry, the American College of Cardiology, the American Diabetes Association, the American Heart Association, the American Institute for Cancer Research, the American Medical Association, and the Academy of Nutrition and Dietetics. These authorities include:

Dietetics,\textsuperscript{15} the American Public Health Association,\textsuperscript{16} and the European Association for Cardiovascular Prevention & Rehabilitation.\textsuperscript{17} If anything, the evidence has grown stronger since the 2015 DGAC reached its conclusion, as the more recent recommendations indicate. The 2020 DGAC—or the 2020-2025 Dietary Guidelines—would need compelling evidence to stray from that widespread consensus.

SSBs lead to increased adiposity in randomized controlled trials in both children and adults.\textsuperscript{18} Those trials have randomly assigned children or adults to consume either SSBs or calorie-free beverages for 3 weeks to 1.5 years. One 2012 trial stands out as providing definitive evidence that SSBs lead to increased adiposity. The DRINK (Double-blind, Randomized Intervention Study in Kids) trial randomly assigned 641 primarily normal-weight Dutch children aged 4 to 11 years to consume a daily 8 oz. beverage (provided by the researchers) that was sweetened with either sucrose or sucralose and acesulfame potassium.\textsuperscript{18} After 18 months, BMI, weight, fat mass, and skinfold-thickness measurements increased significantly more in the sucrose group than in the sucralose group.\textsuperscript{19}

\textit{Although the DRINK study was done on children, we know of no biological reason why the results would not apply to adults.} Similar RCTs with sufficient power, conducted either in adults or children, support the results of the DRINK study.\textsuperscript{20,21} We understand that the DGAC was instructed to evaluate the evidence for adults and children separately and that large, lengthy RCTs have been conducted only in children. However, the DGAC should rely on the totality of compelling evidence that SSBs lead to increased adiposity, regardless of age. As an editorial accompanying two major trials in children\textsuperscript{22} and an important cohort study on adults\textsuperscript{23} concluded, “the time has come to take action and strongly support and implement the recommendations from the Institute of Medicine, the American Heart Association, the Obesity Society, and many other organizations to reduce consumption of sugar-sweetened beverages in...

\textsuperscript{15} Lott, 2019.
\textsuperscript{17} Piepoli MF, et al. 2016 European Guidelines on Cardiovascular Disease Prevention in Clinical Practice: The Sixth Joint Task Force of the European Society of Cardiology and Other Societies on Cardiovascular Disease Prevention in Clinical Practice (Constituted by Representatives of 10 Societies and by Invited Experts). Developed with the Special Contribution of the European Association for Cardiovascular Prevention & Rehabilitation (EACPR). \textit{Eur Heart J}. 2016;37(29):2315-2381.
\textsuperscript{19} Note: An “evidence synthesis” slide shown at DGAC meeting #5 stated that “randomized controlled trials showed a relationship between a decrease in sugar-sweetened beverages and a decrease in BMI.” The primary outcome of the two major RCTs demonstrated that SSBs led to an increase, not a decrease, in BMI.
\textsuperscript{21} We urge the DGAC to include Raben, et al. 2002 in its review, given that 70% of the sucrose supplied in the trial came from sugar-sweetened beverages.
\textsuperscript{22} de Ruyter, 2012; Ebbeling, 2012.
both children and adults.”  

**Numerous cohort studies have reported an association between increased adiposity and the consumption of SSBs in both children and adults.** The 2015 DGAC relied primarily on two meta-analyses of cohort studies (and RCTs) to reach its conclusions. In a meta-analysis of five cohort studies, Te Morenga et al. reported a 55 percent increased risk of incident overweight or obesity in children who consumed at least one daily serving of SSBs at baseline compared to those who consumed little or none. Te Morenga et al. reported that each serving per day increase in SSBs was associated with an additional weight gain of 0.25 to 0.5 pounds in adults and an additional 0.05 to 0.06 unit increase in BMI in children over 1 year.

Although more studies have been conducted on children than on adults, the consistency of the evidence across age groups should lead the DGAC to reach equally strong conclusions in adults and children. Rating the evidence on SSBs as stronger for children than for adults implies that the effect of SSBs on adiposity could differ by age. In fact, the evidence for age-dependent effects is lacking.

We, the undersigned—researchers, scientists, nutritionists, clinicians, public health professionals, and public health advocates—urge the DGAC to conclude that there is strong and consistent evidence that SSBs are associated with excess body weight in children and adults. This conclusion would align the 2020 recommendations with both the 2015 DGAC and the vast majority of health authorities. By advising both adults and children to limit their intake of SSBs—most of which provide only empty calories—the DGAC could take a much-needed step to help curb the nation’s obesity epidemic. Thank you for your consideration of our comments.

Sincerely,

Abbey Alkon, RN, PNP, MPH, PhD  
Professor, UCSF School of Nursing, Department of Family Health Care Nursing  
Barbara Durand Presidential Chair in Nursing  
Director, California Childcare Health Program  
Investigator, UC, Berkeley Center for Environmental Research and Children’s Health

Lawrence J. Appel, MD, MPH  
C. David Molina, M.D., M.P.H. Professor of Medicine  
Director, Welch Center for Prevention, Epidemiology, and Clinical Research  
Johns Hopkins Medical Institutions  
Member, 2005 and 2010 Dietary Guidelines Advisory Committees

George Bray, MD  
Boyd Professor Emeritus  
Pennington Biomedical Research Center

Nigel Brockton, PhD  
Vice President, Research  
American Institute for Cancer Research

---


26 Malik, 2013.
Kelly D. Brownell, PhD  
Director, World Food Policy Center  
Robert L. Flowers Professor of Public Policy  
Professor of Psychology and Neuroscience  
Duke University  
Member, 2005 Dietary Guidelines Advisory Committee

Carlos A. Camargo, MD, DrPH  
Professor of Emergency Medicine, Medicine, and Epidemiology  
Harvard University  
Member, 2005 Dietary Guidelines Advisory Committee

Fatinah Darwish, MPH, RD

William H. Dietz, MD, PhD  
Chair, Sumner M. Redstone Center  
Milken Institute School of Public Health  
George Washington University  
Member, 1995 Dietary Guidelines Advisory Committee

Jennifer Falbe, ScD, MPH  
Assistant Professor of Nutrition and Human Development  
Department of Human Ecology  
University of California Davis

Anne Froment  
Clinical Research Manager  
University of North Carolina at Chapel Hill

Christopher Gardner, PhD  
Rehnborg Farquhar Professor of Medicine  
Stanford University

Edward Giovannucci, MD, ScD  
Professor of Nutrition and Epidemiology  
Harvard T.H. Chan School of Public Health

Praveen S. Goday, MBBS, CNSC  
Professor  
Pediatric Gastroenterology and Nutrition  
Medical College of Wisconsin

Michael I. Goran, PhD  
Director, Program for Diabetes and Obesity & Professor of Pediatrics  
The Saban Research Institute  
Children’s Hospital of Los Angeles  
Keck School of Medicine, University of Southern California

Christina Hecht, PhD  
Senior Policy Advisor  
University of California Nutrition Policy Institute
Elyse Homel Vitale, MPH
Executive Director
CCFP Roundtable

Frank B. Hu, MD, PhD
Professor and Chair
Department of Nutrition
Harvard T.H. Chan School of Public Health
Member, 2015 Dietary Guidelines Advisory Committee

Rachel K. Johnson, PhD, MPH, RD, FAHA
Professor of Nutrition, Emeritus
The University of Vermont
Member, 2000 Dietary Guidelines Advisory Committee

Victoria Keeton MS, RN, CPNP-PC, CNS
Clinical Professor
Specialty Coordinator, PNP-PC Program
PNP, ZSFG Children’s Health Center
PNP, La Clinica de la Raza Roosevelt School-Based Health
UCSF Dept of Family Health Care Nursing

Hannah Lawman, PhD
Affiliate Faculty
Drexel University

Stephanie Leonard, PhD, MS
Instructor of Epidemiology/Biostatistics
Department of Obstetrics and Gynecology
Stanford University School of Medicine

Judy Lester, MS, RDN, CSG, LDN, CCTD
Clinical Dietitian
UNC Health Care

Bonnie Liebman, MS
Director of Nutrition
Center for Science in the Public Interest

Robert Lustig, MD, MSL
Emeritus Professor of Pediatrics
Division of Endocrinology
University of California, San Francisco

Vasanti Malik, ScD
Assistant Professor, Nutritional Sciences
University of Toronto
Adjunct Assistant Professor, Nutrition
Harvard T.H. Chan School of Public Health
JoAnn E. Manson, MD, DrPH  
Professor of Medicine and the Michael and Lee Bell Professor of Women’s Health  
Harvard Medical School  
Professor, Department of Epidemiology  
Harvard T.H. Chan School of Public Health  
Chief, Division of Preventive Medicine  
Brigham and Women’s Hospital

Barbara Millen, DrPH, RD  
Chair, 2015 Dietary Guidelines Advisory Committee

Michael Miller, MD, FACC, FAHA  
Professor of Cardiovascular Medicine, Epidemiology & Public Health  
University of Maryland School of Medicine

Amy Mottl, MD, MPH  
Associate Professor of Medicine  
Division of Nephrology and Hypertension  
University of North Carolina School of Medicine

Marion Nestle, PhD, MPH  
Professor  
New York University  
Member, 1995 Dietary Guidelines Advisory Committee

Natalie Price, MPH  
Nutrition, Family and Consumer Sciences Advisor  
University of California Division of Agriculture and Natural Resources

Francisco Ramos-Gomez, DDS, MS, MPH  
Professor  
Section of Pediatric Dentistry  
UCLA School of Dentistry

Sarah Reinhardt, MPH, RD  
Lead Analyst, Food Systems and Health  
Food and Environment Program  
Union of Concerned Scientists

Tom Rifai, MD FACP  
Assistant Professor of Medicine  
Wayne State University

Eric Rimm, ScD  
Professor of Epidemiology and Nutrition  
Harvard T.H. Chan School of Public Health  
Member, 2010 Dietary Guidelines Advisory Committee

Lorrene Ritchie, PhD, RD  
Director and Cooperative Extension Specialist  
University of California Nutrition Policy Institute
Jordi Salas Salvadó, MD, PhD  
Professor of Nutrition  
Rovira i Virgili University, Spain

Laura A. Schmidt, PhD, MSW, MPH  
Professor, Philip R. Lee Institute for Health Policy Studies and  
Department of Anthropology, History and Social Medicine  
School of Medicine  
University of California at San Francisco

Marlene Schwartz, PhD  
Director, Rudd Center for Food Policy and Obesity  
University of Connecticut

Tia Shimada, MPH  
Director of Programs  
California Food Policy Advocates

Karen Sokal-Gutierrez, MD, MPH  
Clinical Professor  
UC Berkeley-UCSF Joint Medical Program  
UC Berkeley Interdisciplinary MPH Program  
University of California, Berkeley, School of Public Health

Mary Story PhD, RD  
Professor, Global Health, and Family Medicine and Community Health  
Duke University  
Member, 2015 Dietary Guidelines Advisory Committee

Meir Stampfer, MD, DrPH  
Professor of Medicine  
Harvard Medical School  
Professor of Epidemiology and Nutrition  
Harvard T.H. Chan School of Public Health  
Member, 2000 Dietary Guidelines Advisory Committee

Lucy Martinez Sullivan, MBA  
Executive Director  
Feed the Truth

May Lynn Tan, DrPH, MHS  
Assistant Deputy Director  
Evidence for Action  
A National Program of the Robert Wood Johnson Foundation  
at The University of California, San Francisco

Alison Tovar, PhD, MPH  
Associate Professor  
Department of Nutrition and Food Sciences  
University of Rhode Island
Nikki Highsmith Vernick, MPA  
President & CEO  
Horizon Foundation of Howard County

Miriam B. Vos, MD, MSPH  
Professor of Pediatrics, Division of GI, Hepatology and Nutrition  
Co-Director, Center for Clinical & Translational Research  
Emory University School of Medicine  
Director, Pediatric Fatty Liver Program and Attending Hepatologist  
Children’s Healthcare of Atlanta

Dianne S. Ward, EdD  
Professor, Department of Nutrition  
Gillings School of Global Public Health  
University of North Carolina at Chapel Hill

Walter Willett MD, DrPH  
Professor of Epidemiology and Nutrition  
Harvard T.H. Chan School of Public Health

Jean A. Welsh, PhD, MPH, RN  
Associate Professor  
Department of Pediatrics  
Emory University School of Medicine