March 5, 2024

Janet M. de Jesus, MS, RD

HHS/OASH Office of Disease Prevention and Health Promotion

1101 Wootton Parkway, Suite 420

Rockville, MD 20852

RE: Docket ID HHS-OASH-2022-0021

Dear Ms. de Jesus:

Dairy Council of California appreciates the opportunity to submit comments for consideration by the US Department of Agriculture and the US Department of Health and Human Services. We acknowledge the importance of the research protocols and commend the committee for the important work it is doing to ensure the Dietary Guidelines for Americans is based on the most up-to-date evidence. Our comments include current evidence to be considered in response to the Docket HHS-OASH-2022-0021 regarding the protocols under development to inform the scientific evidence review by the 2025 Dietary Guidelines Advisory Committee.

As a science-based nutrition organization, Dairy Council of California collaborates with partners to elevate the health of children and communities through the pursuit of lifelong healthy eating patterns. Funded by California’s dairy farm families and milk processors and under the guidance of California Department of Food and Agriculture, Dairy Council of California’s registered dietitian nutritionists and experts in nutrition science, education, agricultural literacy and community health engage with a variety of partners in school, health care and community settings, working together to achieve nutrition security. Each year these collective efforts improve access to nutritious foods and provide nutrition education and resources for millions of people in California, across the nation and beyond, demonstrating the dairy community’s contribution to sustainable nutrition and community health.

We appreciate the opportunity to submit these comments.

Sincerely,

A close up of a signature

Description automatically generatedA close-up of a signature

Description automatically generated

Amy DeLisio, MPH, RDN Ashley Rosales, RDN

Chief Executive Officer Nutrition Science and Industry Affairs Officer

**In this submission, Dairy Council of California provides factual scientific information for consideration in relation to the protocol authored by the 2025 Dietary Guidelines Advisory Committee’s Subcommittee 3, Food Pattern Modeling and Data Analysis,and released to the public on February 6, 2024.**

* [**Protocol question**](https://www.dietaryguidelines.gov/sites/default/files/2024-02/2025_DGAC_FPM_Q2_Protocol_Vegan_508c.pdf)**:** What are the implications for nutrient intakes when animal sources of foods and beverages contributing to the Dairy and Fortified Soy Alternatives and Protein Foods groups and subgroups are removed or replaced with plant sources within the Healthy Vegetarian Dietary Pattern?

**Summary Statement**

Studies examining the American diet show that Americans of all ages are underconsuming milk and dairy foods, whole grains, fruits and vegetables. As a result, they are not getting enough calcium, vitamin D, potassium and fiber—the four nutrients of concern in the American diet that are important for supporting the optimal growth and development of young children and adolescents, as well as meeting the nutritional needs of adults of all ages.[[1]](#endnote-1) This is especially true in the millions of households that experience food insecurity throughout the United States. Dairy foods play a critical role in achieving nutrition security, providing the nutrients required for optimal growth and development while offering variety, affordability and cultural relevance to American families. Research shows that when dairy foods such as milk, yogurt and cheese are consumed as part of a healthy eating pattern and combined with fruits, vegetables and whole grains, all four of the nutrients of concern are likely to be consumed in the right amounts, supporting optimal population health.

Animal-sourced foods such as dairy, meat, poultry and fish can be an important part of dietary patterns as they are nutrient-dense with highly bioavailable nutrients, including zinc, calcium, iodine and vitamins B12, A and D.[[2]](#endnote-2) Plant-sourced foods may contain the same nutrients but at different concentrations and lower availability; therefore, higher quantities would need to be consumed.[[3]](#endnote-3) These differences are in part due to the food matrix, which can explain how a food’s nutrients and non-nutrients, including vitamins, minerals and bioactive components, as well as its physical structure, texture and form, interact to impact digestion, absorption and physiological functions important for health. The dairy food matrix provides a unique example of the advancement of research in this area, as dairy is a diverse group of foods that contain nutrients and bioactive components that vary in amount and macro- and micronutrient structure. This complex profile helps explain why milk and dairy foods are associated with lower BMI[[4]](#endnote-4) and reduced risk of developing chronic diseases such as type 2 diabetes and heart disease.[[5]](#endnote-5)

Dietary guidance that generally restricts or eliminates nutrient-dense foods, including animal-sourced foods, could have the potential to prevent the supply of critical nutrients to people in nutritionally vulnerable life stages, including pregnant and lactating women, young children and older adults, resulting in potentially significant public health consequences. The Dietary Guidelines for Americans serves as a foundation for federal nutrition assistance programs such as the National School Lunch Program, the School Breakfast Program, the Child and Adult Care Food Program, the Supplemental Nutrition Assistance Program and the Special Supplemental Nutrition Program for Women, Infants, and Children. These vital nutrition security safety net programs serve populations who benefit from the nutrition provided by nutrient-dense foods like milk and dairy foods, whole grains, fruits and vegetables. It is imperative to utilize the totality of evidence-based nutrition research, which continues to demonstrate the health-promoting benefits of a balanced eating approach that includes nutrient-dense plant and animal choices and embraces the specific nutrient needs of individuals, diverse cultures and economies.

**Supporting Evidence**

* An analysis of National Health and Nutrition Examination Survey (NHANES) data that included 5,876 children aged 2 to 18 showed that based on what children eat, milk is the top food source of calcium, vitamin D and potassium, illustrating the important contribution milk and dairy foods make to the eating patterns of children.[[6]](#endnote-6)
* A systematic review evaluated nutrient intake and status of children and adolescents (2 to 18 years old) consuming plant-based diets (i.e., vegetarian and vegan) compared to meat-eating children. Though all diets carry risk for nutrient deficiencies, the study found that the diets of vegan and vegetarian children often require supplementation, and dietary counseling is either recommended or necessary to ensure nutrition adequacy.[[7]](#endnote-7)
* Research using NHANES data shows that replacing dairy foods with nutrient-equivalent nondairy options can lead to increases in both the cost and energy content of dietary patterns, primarily having to do with the difﬁculty in achieving nutrient adequacy for calcium and vitamin D from low- or nondairy diets.[[8]](#endnote-8)
* Milk contains several underconsumed nutrients and nutrients of public health concern, yet intake has been decreasing. A study used data from the NHANES cycles 2015–2016 and 2017–2018 to provide an update on milk and dairy food intake across the life span, stratified by race and ethnicity. Total dairy intake in cup equivalents per day decreased across the life span. Milk intake also decreased across the life span, with only a slight increase in 19- to 50-year-olds. Non-Hispanic Black and non-Hispanic Asian children and adults consumed the fewest dairy servings compared with other race/ethnic groups.[[9]](#endnote-9)
* A study of 27 plant-based drinks of eight different species and two cow’s milk samples were analyzed for their composition regarding protein, carbohydrate, fat, vitamin and mineral contents and residue load. The protein quality of milk was outstanding compared with all plant-based drinks, with higher calculated Digestible Indispensable Amino Acid Scores. The study results suggests plant-based drinks are not real alternatives to milk in terms of nutrient composition, even if the actual fortification is considered, and replacing milk with plant-based drinks without adjusting the overall diet can lead to nutrient deficiencies in the long term.[[10]](#endnote-10)
* Globally, milk is the main contributing food for calcium (49% of global nutrient availability), vitamin B2 (24%), lysine (18%) and dietary fat (15%). It also contributes more than 10% of global nutrient availability for a further five indispensable amino acids; protein; vitamins A, B5 and B12; phosphorus; and potassium. Were milk removed from the global food system, a suitable nutritional replacement would be challenging to find. It is known that plant-based milk alternatives generally have lower protein content and bioavailability and, even when calcium-fortified to comparable levels with dairy milk, have low calcium absorption due to solubility and digestibility issues.[[11]](#endnote-11)

**References**

1. . US Department of Agriculture and US Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025*. 9th Ed. 2020. Available at [DietaryGuidelines.gov](http://www.dietaryguidelines.gov). Accessed February 28, 2024. [↑](#endnote-ref-1)
2. . Beal T. Environmentally protective diets may come with trade-offs for micronutrient adequacy. *Am J Clin Nutr.* 2024. DOI:[10.1016/j.ajcnut.2024.01.028](https://ajcn.nutrition.org/article/S0002-9165(24)00066-2/abstract#:~:text=One%20nutrient%20of%20public%20health,intakes%20and%20status%20is%20concerning.) [↑](#endnote-ref-2)
3. . Global Alliance for Improved Nutrition. *Animal-Source Foods for Human and Planetary Health*. Briefing Paper Series No. 2. GAIN; 2020. DOI:<https://doi.org/10.36072/bp.2> [↑](#endnote-ref-3)
4. . Guo J, Dougkas A, Elwood PC, Givens DI. Dairy foods and body mass index over 10-year: evidence from the Caerphilly Prospective Cohort Study. *Nutrients*. 2018;10(10):1515. DOI:[10.3390/nu10101515](https://doi.org/10.3390/nu10101515) [↑](#endnote-ref-4)
5. . Dehghan M, Mente A, Rangarajan S, et al. Association of dairy intake with cardiovascular disease and mortality in 21 countries from five continents (PURE): a prospective cohort study. *Lancet.* 2018;392(10161):2288-2297. DOI:[10.1016/S0140-6736(18)31812-9](https://doi.org/10.1016/S0140-6736(18)31812-9) [↑](#endnote-ref-5)
6. . O'Neil CE, Nicklas TA, Fulgoni VL III. Food sources of energy and nutrients of public health concern and nutrients to limit with a focus on milk and other dairy foods in children 2 to 18 years of age: National Health and Nutrition Examination Survey, 2011-2014. *Nutrients*. 2018;10(8):1050. DOI:[10.3390/nu10081050](https://www.mdpi.com/2072-6643/10/8/1050) [↑](#endnote-ref-6)
7. . Neufingerl N, Eilander A. Nutrient intake and status in children and adolescents consuming plant-based diets compared to meat-eaters: a systematic review. *Nutrients*. 2023;15(20):4341. DOI:[10.3390/nu15204341](https://doi.org/10.3390/nu15204341) [↑](#endnote-ref-7)
8. . Cifelli CJ, Auestad N, Fulgoni VL III. Replacing the nutrients in dairy foods with non-dairy foods will increase cost, energy intake and require large amounts of food: National Health and Nutrition Examination Survey 2011-2014. *Public Health Nutr.* 2022;25(2):332-343. DOI:[10.1017/S1368980020001937](https://www.cambridge.org/core/journals/public-health-nutrition/article/replacing-the-nutrients-in-dairy-foods-with-nondairy-foods-will-increase-cost-energy-intake-and-require-large-amounts-of-food-national-health-and-nutrition-examination-survey-20112014/23F4D3F1FEAF16FE98609683AEBB9769) [↑](#endnote-ref-8)
9. . Cifelli CJ, Fulgoni K, Fulgoni VL III, Hess JM. Disparity in dairy servings intake by ethnicity and age in NHANES 2015-2018. Curr Dev Nutr. 2023;7(2):100010. DOI:[10.1016/j.cdnut.2022.100010](https://cdn.nutrition.org/article/S2475-2991(22)14510-5/fulltext) [↑](#endnote-ref-9)
10. . Walther B, Guggisberg D, Badertscher R, et al. Comparison of nutritional composition between plant-based drinks and cow’s milk. *Front Nutr*. 2022;9:988707. DOI:[10.3889/fnut.2022.988707](https://www.frontiersin.org/articles/10.3389/fnut.2022.988707/full) [↑](#endnote-ref-10)
11. . Smith NW, Fletcher AJ, Hill JP, McNabb WC. Modeling the contribution of milk to global nutrition. *Front Nutr.* 2022;8:716100. DOI:[10.3389/fnut.2021.716100](https://doi.org/10.3389/fnut.2021.716100) [↑](#endnote-ref-11)