



July 31, 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 U.S. Department of Agriculture and the U.S. 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 regarding recent updates to the 2025 Food Pattern Modeling protocols 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 that include milk and dairy foods. 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 advance the health benefits of milk and dairy foods in achieving nutrition security and sustainable food systems. 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 handwritten signature in blue ink that reads "Amy DeLisio".

Amy DeLisio, MPH, RDN  
Chief Executive Officer

A handwritten signature in blue ink that reads "Ashley Rosales".

Ashley Rosales, RDN  
Nutrition Science and Industry Affairs Officer



**In this submission, Dairy Council of California provides scientific information for consideration in relation to the following three protocols:**

- 1) Topic: What are the implications for nutrient intakes when modifying the Protein Foods group and subgroup quantities within the Healthy U.S.-Style Dietary Pattern or Healthy Vegetarian Dietary Pattern? What are the implications for nutrient intakes when proportions of animal-based Protein Foods subgroups are reduced and proportions of plant-based Protein Foods subgroups are increased?**

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.<sup>1</sup> Plant-sourced foods may contain the same nutrients but at different concentrations and lower availability; therefore, higher quantities would need to be consumed.<sup>2</sup> Dietary guidance that generally restricts or eliminates nutrient-dense foods, including animal-sourced foods, could 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.

**Supporting Evidence:**

- Dairy foods currently provide half of the calcium, nearly 60% of vitamin D and about 15% to 25% of the daily intake of potassium, vitamin A, vitamin B12, phosphorus, zinc, riboflavin and protein in American diets. Replacing the nutrients in dairy foods using nondairy foods increases cost and energy intake and requires large amounts of food. Reducing or removing animal-sourced foods, including dairy, from the diet could lead to nutritional inadequacy and higher food costs.<sup>3</sup>
- A systematic review investigating the impact of vegetarian complementary feeding on infant growth, neurodevelopment and the risk of growth issues such as wasted and stunted growth, overweight and obesity found insufficient evidence supporting the safety and adequacy of non-supplemented vegetarian or vegan diets during infancy. Studies indicate a higher risk of critical micronutrient deficiencies and growth retardation compared to omnivorous diets. There is also no documented evidence of that vegetarian and vegan diets protect young children ages 6 months to 2-3 years against communicable diseases.<sup>4</sup>



**2) Topic: What are the implications for nutrient intakes when modifying the Dairy and Fortified Soy group quantities within the Healthy U.S.-Style Dietary Pattern? What are the implications for nutrient intakes when dairy food and beverage sources are replaced with non-dairy alternatives?**

Americans of all ages are not eating the recommended amounts of dairy foods, whole grains, fruits or vegetables, resulting in inadequate intake of 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. Inadequate intake of key nutrients is especially a concern in the millions of households that experience food insecurity throughout the United States. Dairy foods provide the nutrients required for optimal growth and development while offering variety, affordability and cultural relevance. Options for individuals with lactose intolerance include lactose-free products, fermented dairy products and/or probiotic or enzymatic supplements.<sup>5</sup> It is challenging to find a nutritionally suitable replacement for milk and dairy foods, as plant-based alternative beverages generally have lower protein quality and bioavailability, even when fortified with calcium.

**Supporting Evidence:**

- A recent study compared the bioavailability of calcium in 25 foods from five different food groups to one serving of skimmed milk. Only three out of 25 products could provide bioaccessible calcium equivalent to milk. These foods are kale, millet and fortified white bread products. Calcium is a nutrient of concern in the American diet, and this study helps identify food-based solutions to consuming adequate calcium, which is particularly important for children, adolescents and young adults who are at an important stage in their bone development. It also shows that fortifying foods with calcium without considering the bioavailability may not successfully close the dietary calcium gap in vulnerable populations.<sup>6</sup>
- A study of 27 plant-based alternative beverages and two dairy milk samples analyzed protein, carbohydrate, fat, vitamin and mineral contents and residue load. The protein quality of milk was outstanding compared with all plant-based alternative beverages, with higher calculated Digestible Indispensable Amino Acid Scores. Plant-based alternatives are not real alternatives to milk in terms of nutrient composition, even if the actual fortification is considered, and replacing milk with plant-based alternative beverages without adjusting the overall diet can lead to nutrient deficiencies in the long term.<sup>7</sup>
- 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. It would be challenging to find a suitable nutritional replacement for milk if removed from the global food system. It is known that plant-based alternative beverages generally have lower protein content and bioavailability and, even when calcium-fortified to comparable levels with milk, have low calcium absorption due to solubility and digestibility issues.<sup>8</sup>



### 3) Topic: Can nutrient goals be met when animal sources of foods and beverages are removed from the Healthy Vegetarian Dietary Pattern for ages 2 years and older?

Dairy foods have a unique nutrient structure, with both macronutrients and micronutrients that support optimal health during childhood and adolescence. These nutrients include three of the four nutrients of public concern: calcium, vitamin D and potassium. In addition, dairy foods include protein, magnesium, phosphorus, zinc, selenium, vitamin A, riboflavin, vitamin B12 and choline. Children and adolescents who do not meet the daily recommended servings of milk, yogurt or cheese may have inadequate intakes of important nutrients and protein necessary for bone health, lean muscle, cognitive development and more. In addition to dairy's role in closing nutrient gaps, dairy foods are culturally relevant and affordable. An analysis of the impact of removing animal sources of food and beverages from the Healthy Vegetarian Dietary Pattern for ages 2 years and older must also consider the role these foods play in mitigating health disparities.

#### Supporting Evidence:

- An analysis of data from the National Health and Nutrition Examination Survey that included 5,876 children ages 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.<sup>9</sup>
- Childhood and adolescence are crucial life stages for adequate nutrition to support growth and development, laying the foundation for future health. Yet, many health disparities exist in the United States, particularly affecting underserved racial and ethnic groups. A growing body of evidence on the dietary patterns of children and adolescents demonstrates that increasing the intake of dairy foods to meet national dietary recommendations may be an effective strategy for mitigating health disparities and helping to improve health equity among American youth. Removing foods that are nutrient dense, affordable and accessible from dietary patterns could further exacerbate existing disparities and negatively impact children's health.<sup>10</sup>

---

1. Beal T. Environmentally protective diets may come with trade-offs for micronutrient adequacy. *Am J Clin Nutr.* 2024;119(4):872-873. doi:[10.1016/j.ajcnut.2024.01.028](https://doi.org/10.1016/j.ajcnut.2024.01.028)

2. Global Alliance for Improved Nutrition. *Animal-Source Foods for Human and Planetary Health*. Briefing Paper Series No. 2. GAIN; 2020. doi:[10.36072/bp.2](https://doi.org/10.36072/bp.2)

3. 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.* 2020;25(2):332-343. doi:[10.1017/S1368980020001937](https://doi.org/10.1017/S1368980020001937)

4. Simeone G, Bergamini M, Verga MC, et al. Do vegetarian diets provide adequate nutrient intake during complementary feeding? a systematic review. *Nutrients.* 2022;14(17):3591. doi:[10.3390/nu14173591](https://doi.org/10.3390/nu14173591)

5. Comerford K, Lawson Y, Young M, et al. Executive summary: the role of dairy food intake for improving health among Black Americans across the life continuum. *J Natl Med Assoc.* 2024;116(2P2):211-218. doi:[10.1016/j.jnma.2024.01.026](https://doi.org/10.1016/j.jnma.2024.01.026)

6. Muleya M, Bailey EF, Bailey EH. A comparison of the bioaccessible calcium supplies of various plant-based products relative to bovine milk. *Food Res Int.* 2024;175:113795. doi:[10.1016/j.foodres.2023.113795](https://doi.org/10.1016/j.foodres.2023.113795)

7. 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:[10.3389/fnut.2022.988707](https://doi.org/10.3389/fnut.2022.988707)
8. 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)
9. 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://doi.org/10.3390/nu10081050)
10. Lawson Y, Mpasí P, Young M, Comerford K, Mitchell E. A review of dairy food intake for improving health among black children and adolescents in the US. *J Natl Med Assoc.* 2024;116(2P2):241-252. doi:[10.1016/j.jnma.2024.01.019](https://doi.org/10.1016/j.jnma.2024.01.019)