

August 13, 2020

Secretary Sonny Perdue  
U.S. Department of Agriculture  
1400 Jefferson Drive SW  
Washington, DC 20201

Secretary Alex M. Azar  
U.S. Department of Health and Human Services  
200 Independence Avenue SW  
Washington, DC 20024

RE: Scientific Report of the 2020 Dietary Guidelines Advisory Committee; Docket FNS-2020-0015

Dear Secretaries Perdue and Azar:

The Council for Responsible Nutrition (CRN) appreciates the opportunity to provide comments. We commend the 2020 Dietary Guidelines Advisory Committee (the Committee) for its work throughout the past 18 months to publish the Scientific Report. We have followed the process closely, provided multiple comments to the Committee, and now offer the following considerations for USDA and HHS as the Departments develop the 2020-2025 Dietary Guidelines for Americans (the Dietary Guidelines), the cornerstone of nutrition policy.

The Committee's Scientific Report confirms that over the last decade, American diets have been energy rich and nutrient poor while the prevalence of overweight and obesity have increased, contributing to a host of chronic diseases. However, we are hopeful that evidence in the Scientific Report will generate guidance to help reverse this concerning trend and promote health of Americans across the lifespan.

CRN supports the Committee's recommendation that the Dietary Guidelines incorporate a recognition of the special nutrient concerns that exist at each life stage.<sup>1</sup> While we agree that the Dietary Guidelines should focus on healthy dietary patterns consisting of nutrient-dense and lower-calorie food and beverage choices, we suggest incorporation of specific guidance on the of appropriate use of dietary supplements as a strategy to meet nutrient needs.

Dietary supplement use is prevalent among U.S. adults, including in pregnant and lactating women.<sup>2,3</sup> Top reasons reported for dietary supplement use include to support “overall health and wellness” and “to fill nutrient gaps.”<sup>4</sup> Moreover, dietary supplement users engage in health-promoting behaviors, such as eating a healthy diet, incorporating regular physical activity, and refraining from smoking.<sup>5</sup> Americans would benefit from dietary guidance that recognizes the role of dietary supplements as sources of nutrients without taking away from the message that they should make healthy food choices.

### General Population

The Committee determined that the U.S. population 1 year and older did not meet recommended intakes of vitamins A, C, D, E, and K, calcium, dietary fiber, potassium, magnesium, and choline. The Dietary Guidelines should recommend that Americans increase intakes of all of these — but especially vitamin D, calcium, dietary fiber, and potassium, as these are nutrients of public health concern.

The Committee indicated that USDA Food Patterns do not meet nutrient adequacy goals (90 percent of the RDA or AI) for iron (for females of various age groups and women who are pregnant), vitamin D, vitamin E, and choline. The USDA Food Patterns provide less than 90 percent of the RDA for iron for females ages 4-8 years, 19-30 years, 31-50 years, and less than 75 percent of the RDA for women who are pregnant. For much of the population, the USDA Food Patterns provide 55-70 percent of the RDA for vitamin D, less than 80 percent of the RDA for vitamin E, and less than 85 percent of the AI for choline.

Vitamin D is a nutrient of public health concern for the entire population from young infants to older adults, but USDA Food Patterns do not provide recommended amounts of vitamin D because few food sources are available. The Dietary Guidelines should emphasize that vitamin D supplementation is necessary for the U.S. population to meet recommended intakes. In addition, vitamin E and choline should be highlighted as nutrients for which supplementation by the general population may be considered because they are not provided in adequate amounts in the USDA Food Patterns.

### Birth to 24 Months

The Committee reviewed the relationship between vitamin D supplementation at 400 IU and higher doses and outcomes related to bone health and concluded “the existing body of evidence does not provide a basis for recommending vitamin D supplementation above 400 IU per day during infancy (the current American Academy of Pediatrics (AAP) recommendation).” CRN suggests that the Dietary Guidelines

incorporate the AAP's recommendation, which states:

“Because human milk contains inadequate amounts of vitamin D (unless the lactating mother is taking supplements of approximately 6,000 IU/d), breastfed and partially breastfed infants should be supplemented with 400 IU of vitamin D per day beginning in the first few days of life and continued until the infant has been weaned and is drinking at least 1 L/d of vitamin D fortified infant formula or cow milk.”

In addition, the Dietary Guidelines should underscore that because early childhood is a period of rapid growth and development, parents should reach out to their child's healthcare professional for any concerns about the child's growth and development, including the need for dietary supplements to help meet nutrition needs.

#### Adolescents and Older Adults

The Committee highlighted special considerations for adolescents and teenagers as they have low intakes of many nutrients including protein, iron, folate, vitamin B6 and B12, phosphorus, magnesium, and choline in addition to the nutrients of public health concern noted for much of the population, yet dietary supplement use is lowest among this age group. In addition, iron deficiency is a key concern for adolescent girls. Adolescents and teenagers could benefit from guidance to consider supplementation to increase their intakes of the aforementioned nutrients identified by the Committee.

Older adults have low intakes of protein and vitamin B12. Given the high prevalence of sarcopenia and the inefficient absorption of vitamin B12 in older adults, the Dietary Guidelines should indicate that dietary supplements may be considered for older adults to meet recommended intakes of underconsumed nutrients.

#### Pregnancy and Lactation

The Committee stated that optimal nutrition during pre-pregnancy, pregnancy, and postpartum establishes a path for lifelong health and wellness for mothers and infants. In recommending optimal nutrition, the Dietary Guidelines should address nutrient concerns during these critical periods. The Committee reported that many pregnant women did not meet the Estimated Average Requirement (EAR) for key nutrients, including vitamins A, C, D, E, K, and B6, folate, choline, iron, potassium, calcium, magnesium,

and zinc, but acknowledged that 69 percent of pregnant women took supplements, reducing the prevalence of those at risk of inadequacy. CRN recommends that the Dietary Guidelines reinforce the Committee’s advice that “women should follow a nutrient-dense dietary pattern, during pregnancy and lactation along with guidance from a healthcare provider on appropriate use of dietary supplements to meet nutrient needs not expected to be covered by dietary intake alone, especially iron, iodine, and folic acid.”

The demand for iron, folic acid, and iodine is higher during pregnancy. The Committee designated iron as a nutrient of public health concern for all females of reproductive age; noted that dietary intake within the recommended energy range does not provide enough iron; and stated that prenatal dietary supplements provide iron in amounts sufficient to meet needs of most women during pregnancy and should be discussed with a healthcare provider. The Committee’s current reviews suggests that folic acid supplementation is positively associated with maternal folate status during pregnancy and a reduction in the risk of hypertensive disorders among women at high-risk or with a previous history of these disorders. Moreover, as folic acid intakes are critical in the first trimester of pregnancy to reduce the risk of neural tube defects, the Committee supports folic acid supplementation as the standard of care before and during pregnancy. Based on biomarker data indicating insufficient urinary iodine concentrations in pregnant women and the role of iodine in neurological development, the Committee considered iodine as a potential area of public health concern, especially for women who are pregnant and not using iodine-containing prenatal supplements. Additionally, research indicates that the prevalence of iodine supplementation in U.S. women of reproductive age is low.<sup>6</sup>

Thus, the Dietary Guidelines should bring forward recommendations from the 2015-2020 Dietary Guidelines for Americans regarding supplementation with iron and folic acid and and/or incorporate recommendations from expert organizations regarding folic acid and iodine supplementation. These recommendations are as follows:

- “Women who are pregnant are advised to take an iron supplement when recommended by an obstetrician or other health care provider.”<sup>7</sup>
- “To prevent birth defects, all women capable of becoming pregnant are advised to consume 400 mcg of synthetic folic acid daily, from fortified foods and/or supplements. This recommendation is for an intake of synthetic folic acid in addition to the amounts of food folate contained in a healthy eating pattern.”<sup>7</sup>

- The American College of Obstetricians and Gynecologists recommends all women consume 400 mcg folic acid by taking a daily vitamin supplement before and during pregnancy to help prevent neural tube defects.<sup>8</sup>
- The U.S Preventive Services Task Force recommends that all women who are planning or capable of pregnancy take a daily supplement containing 400 to 800 mcg of folic acid.<sup>9</sup>
- The AAP recommends that breastfeeding women take a supplement that contains 150 mcg iodine daily.<sup>10</sup>
- The American Thyroid Association recommends that women receive 150 mcg iodine supplements daily during pregnancy and lactation.<sup>11</sup>

While the Committee did not designate choline as a nutrient of public health concern, it noted, however, the high risk of choline inadequacy in pregnant and lactating women. Further, choline has been identified as a key nutrient critical for neurodevelopment in the first two years of life by the AAP.<sup>12</sup> As the USDA Food Patterns do not provide recommended levels of choline, the Dietary Guidelines should recommend pregnant and lactating women to consult with a healthcare practitioner about adequate choline intake and whether choline supplementation is prudent.

Further, the Committee confirmed the importance of adequate intake of omega-3 fatty acids for brain development *in utero* and indicated that the second half of gestation is a critical period for an adequate supply of docosahexaenoic acid (DHA) as it accumulates in the brain during this time. Moreover, a recent review of 70 randomized trials suggests that increasing intake of omega-3 long-chain polyunsaturated fatty acids from food or supplements in pregnant women lowers the risk of early preterm and preterm birth.<sup>13</sup> Given the critical need for omega-3 fatty acids during pregnancy and the low consumption of seafood among pregnant women, the Dietary Guidelines should recommend that pregnant women consult with a healthcare practitioner about omega-3 fatty acid supplementation to obtain adequate amounts.

The Committee stated that nutrient requirements during lactation differ from those during pregnancy. For example, lactating women need substantially more protein and several vitamins and minerals, but less iron than pregnant women. Thus, the Committee advised that lactating women should adjust their dietary choices as well as supplement use to ensure they meet requirements. Nutrients of public health concern among lactating women include those for the population 1 year and older: vitamin D, calcium, dietary fiber, and potassium. In addition, lactating women underconsume folate, magnesium, copper, thiamin, vitamins A, C, and E, choline, and zinc. The Committee highlighted that iodine and vitamin D have few dietary sources and that consumption of fortified foods and supplements may be the primary way to

achieve adequate intakes of these nutrients. In addition, 89 percent of lactating women have vitamin D intakes below the EAR level of 400 IU (10 mcg) from food. The Dietary Guidelines should recommend supplementation of iodine and vitamin D to achieve recommended intakes in this population group.

The Committee reported that the iron requirement of women who are lactating is one third that of women who are pregnant and that women who are lactating continue to use dietary supplements that provide high amounts of iron. The Committee suggested that lactating women should be cautioned about continued use of prenatal supplements that are high in iron, but recognizing the increased nutrient requirements for other vitamins and minerals, they should not be advised to discontinue use of multivitamin/minerals that do not provide prenatal levels of iron. CRN suggests that the Dietary Guidelines make clear that lactating women are not advised to discontinue use of prenatal supplements, but to ensure the supplements they take have the appropriate amounts of iron. The Dietary Guidelines should advise lactating women to consult with a healthcare practitioner about using prenatal supplements that provide appropriate levels of iron as well as other nutrients with increased requirements during lactation.

### Summary

CRN recommends that the Dietary Guidelines highlight special nutrient needs at each life stage and include strategies to meet nutrient intake targets that incorporate dietary supplements, particularly when USDA Food Patterns are unable to provide recommended intakes of underconsumed nutrients, especially those of public health concern. Further, the Dietary Guidelines should reinforce current expert recommendations regarding nutrient supplementation during pregnancy, lactation, and birth to 24 months life stages. For these life stages, it is also important that the Dietary Guidelines recommend communication with a healthcare practitioner about specific nutritional needs.

### Future Directions

The Committee was tasked with reviewing a tremendous amount of evidence for a number of topics and questions. In addition to reviewing the current science on foods and beverages and their relationships to health, the Committee also examined the effect of some dietary supplements on maternal and child outcomes. Initially, six nutrients (folate, omega-3 fatty acids, iron, iodine, vitamin D, and vitamin B12) from supplements were to be included in the review; however, the Committee prioritized review of folate and omega-3 fatty acid supplementation during pregnancy and lactation and iron and vitamin D supplementation during infancy. As it remains important to explore the relationships between the

identified nutrients from supplements and health outcomes in the pregnancy and lactation as well as birth to 24 months life stages, the Departments should prioritize the unaddressed nutrients from supplements for future Dietary Guidelines Advisory Committees to examine. In addition, the 2020 Advisory Committee highlighted choline and magnesium as nutrients that should be further evaluated based on high estimates of inadequacy in pregnant and lactating women. CRN recommends the Departments include choline and magnesium in the topics and questions for the pregnancy and lactation life stage for the 2025 Dietary Guidelines Advisory Committee.

Thank you for considering our comments and we look forward to the release of the 2020-2025 Dietary Guidelines for Americans.

Sincerely,

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