



Council for Responsible Nutrition

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June 10, 2020

2020-2025 Dietary Guidelines Advisory Committee
Kristin Koegel, MBA, RD
USDA Food and Nutrition Service
Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Re: Meetings: 2020 Dietary Guidelines Advisory Committee (Docket FNS-2019-0001)

Dear Dietary Guidelines Advisory Committee:

The Council for Responsible Nutrition, the leading trade association representing dietary supplement and functional food manufacturers and ingredient suppliers, appreciates the opportunity to provide comments. CRN commends the 2020 Dietary Guidelines Advisory Committee (DGAC) for the tremendous effort it has put forth in reviewing the scientific evidence to inform the 2020-2025 Dietary Guidelines for Americans. CRN has observed every step of the Dietary Guidelines process, submitted both oral and written comments, and now offers closing comments as the DGAC enters the final stage of completing its report.

The evidence presented throughout the five DGAC public meetings confirm what previous advisory committees have found: diets of Americans do not align with dietary guidance. Moreover, nutrient intakes have not changed since 2015 and nutrition-related chronic conditions continue to be prevalent at high rates. Americans continue to underconsume nutrients/food components for which increased intakes are recommended by the 2015-2020 Dietary Guidelines, including several essential vitamins and minerals as well as dietary fiber. At the same time, the U.S. population is overconsuming nutrients/food components that should be limited, such as sodium, saturated fat, and added sugars.

As the DGAC integrates the evidence and formulates conclusions, it is important to consider all appropriate strategies that could help Americans achieve adequate intakes of nutrients/food components. While we agree with the focus the DGAC has put on advising Americans to adopt healthy dietary patterns composed of healthful foods and beverages, the committee should also recognize the utility of dietary supplements in complementing healthy dietary patterns and highlight when they may be used. Dietary supplement use is prevalent among U.S. adults, including in pregnant and lactating women.^{1,2} Top reasons reported for dietary supplement use include to support “overall health and wellness” and “to fill nutrient gaps.”³ Moreover, dietary supplement users engage in health-promoting behaviors, such as eating a healthy diet, incorporating regular physical activity, and refraining from smoking.⁴ Americans would benefit from dietary guidance incorporating the excellent sources of nutrients, including foods, fortified foods, as well as dietary supplements. The DGAC may find that recommended intakes of underconsumed nutrients are not provided by the USDA Food Patterns. In these situations, it would be appropriate to recommend dietary supplements as a strategy to increase intakes to Recommended Dietary Allowance (RDA) levels. Indeed, the 2015 DGAC found that USDA Food Patterns did not provide recommended amounts of some underconsumed nutrients and stated in its scientific report:

“In some situations, specific foods or dietary supplements may be used to increase underconsumed nutrient intakes not met through the USDA Food Patterns”⁵

The Data Analysis and Food Pattern Modeling Cross-Cutting Working Group reviewed the current population nutrients intake data and identified vitamins A, C, D, E, K, calcium, magnesium, dietary fiber, choline, and potassium as nutrients and food components being underconsumed relative to the Estimated Average Requirement (EAR) or Adequate Intake (AI). In addition, sodium, added sugars, saturated fat were identified as food components being overconsumed relative to maximum limits. Of the underconsumed and overconsumed nutrients/food components, vitamin D, calcium, dietary fiber, potassium, sodium, saturated fat, as well as added sugars were proposed as nutrients and food components of public health concern. Iron was also proposed as a nutrient of public health concern for adolescent and premenopausal females and pregnant women. Findings of low iodine status in pregnant women led to the identification of iodine as a nutrient of public health concern for this group.

The Working Group also 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 50 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.

The Working Group's draft conclusions state that there is evidence to support supplementation and/or consumption of fortified foods to meet vitamin D and iron adequacy goals. The Working Group also stated that in addition to dietary sources (natural sources and fortified foods), vitamin D supplementation may be advised by a health care provider. Similarly, the Working Group concluded that iron intakes should be increased in adolescent females and women who are pregnant or planning to become pregnant through natural sources and fortified foods, and some women may need to take iron supplements in consultation with a health care provider.

CRN agrees that when USDA Food Patterns are unable to provide underconsumed nutrients near RDA or AI levels, the DGAC should recommend strategies to meet intake targets that includes excellent sources of nutrients including dietary supplements. For example, the 2015 DGAC found that USDA Food Patterns did not provide vitamin D (a nutrient of public health concern in 2015) in recommended levels and stated the following in its scientific report:

“Diet is an important aspect of achieving vitamin D intake targets. The U.S. population should be encouraged to choose foods and beverages fortified with vitamin D. When needed, supplementation can be considered to achieve RDA intakes of vitamin D.”

“Vitamin D intake could include consumption of fortified foods, broadening the range of dairy products that are fortified, and consideration, in some cases, of the use of a vitamin D supplement or a multivitamin including vitamin D. Such a use is especially appropriate where sunshine exposure is more limited due to climate or sunblock use.”⁵

In addition to vitamin D and iron, the DGAC should include in its recommendations that supplementation may be considered for vitamin E and choline, as USDA Food Patterns do not provide enough of these nutrients.

Pregnancy & Lactation

The Pregnancy and Lactation Subcommittee intended to address the relationship between specific nutrients from supplements and/or fortified foods consumed before and during pregnancy and lactation and several health outcomes: micronutrient status; risk of gestational diabetes; hypertensive disorders during pregnancy; human milk composition and quantity; and developmental milestones, including neurocognitive development. The list of specific nutrients comprised iron, folate, vitamin D, omega-3 fatty acids, vitamin B12, iodine, and nutrients of public health concern. With limited time, the Subcommittee prioritized review of the evidence for the relationship between folate and the abovementioned health outcomes and the relationship between omega-3 fatty acids and developmental milestones.

In addition, the Data Analysis and Food Pattern Modeling Cross-Cutting Working Group found that the nutrients and food components of public health concern for pregnant and lactating women are not unlike those described for the general U.S. population. In addition to vitamin D, calcium, dietary fiber and potassium, iron and iodine are underconsumed nutrients of public health concern for pregnant women. The Working Group also highlighted folate, choline and magnesium as nutrients that pose special challenges, but did not meet the criteria for nutrients of public health concern. Choline, which poses a special challenge because of high risk of inadequacy in pregnant and lactating women, has been identified as a key nutrient critical for neurodevelopment in the first 2 years of life by the American Academy of Pediatrics (AAP).⁶ Other key nutrients are protein; zinc; iron; folate; iodine; vitamins A, D, B6, and B12; and long-chain polyunsaturated fatty acids. Since most pregnant women in the U.S. are not achieving the recommended choline intake of 450 mg/day, it is important to consider supplemental approaches, particularly when USDA Food Patterns do not provide RDA levels of choline. Similarly, supplemental vitamin D should be recommended for pregnant and lactating women as vitamin D is an underconsumed nutrient of public health concern and USDA Food Patterns do not provide recommended levels of vitamin D.

Adequate nutrition is critical for pregnant and lactating women as well as the developing fetus and infant. In addition to recommendations based on the scientific reviews undertaken, the DGAC should reinforce recommendations of previous Dietary Guidelines, if the current

evidence does not contradict them, and recommendations of scientific organizations that pertain to nutrition during pregnancy and lactation.

For example, the 2015 Dietary Guidelines state:

- “Women who are pregnant are advised to take an iron supplement when recommended by an obstetrician or other health care provider.”⁷
- “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.”⁷

Recommendations from scientific organizations include:

Folic Acid

- 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.⁸
- 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.⁹

Iodine

- The American Thyroid Association (ATA) recommends that women receive 150 mcg iodine supplements daily during pregnancy and lactation.¹⁰
- The AAP recommends that breastfeeding women take a supplement that contains at 150 mcg iodine daily.¹¹
- The Endocrine Society recommends that once-daily prenatal vitamins contain 150–200 mcg iodine and that this be in the form of potassium iodide or iodate, the content of which is verified to ensure that all pregnant women taking prenatal vitamins are protected from iodine deficiency. Ideally, supplementation should be started before conception.¹²
- The Public Affairs Committee of the Neurobehavioral Teratology Society concurs with the ATA recommendation that all pregnant and lactating women should ingest (through diet and supplements) 250 mcg of iodine daily. To achieve this goal, the Committee

recommend that all pregnant and lactating women take daily iodine supplementation of 150 mcg.¹³

Reinforcing expert recommendations for pregnant and lactating women to supplement with 150 mcg of iodine daily is particularly important as research shows the prevalence of iodine supplementation in U.S. women of reproductive age is low.¹⁴

B Vitamins

- The AAP recommends that breastfeeding women on strict vegetarian diets take a B-complex supplement, since certain B vitamins are available primarily from meat, poultry, or fish products.¹⁵

Further, as pregnancy and lactation is a life stage with specific dietary needs, the DGAC should include a general recommendation for pregnant and lactating women to speak with their healthcare provider to address personal health risks that can be lowered through healthful diet, physical activity, and other lifestyle choices, including supplementation.

Birth-24 Months

The Birth-24 Months Subcommittee intended to address the relationship between specific nutrients from dietary supplements and/or fortified foods consumed during infancy and toddlerhood and health outcomes: nutrient status; growth, size, and body composition, and bone health. The list of nutrients comprised iron, vitamin D, vitamin B12, omega-3 fatty acids. Due to limited time, the Subcommittee prioritized iron and vitamin D. The Subcommittee's draft conclusions indicate the evidence is not strong to recommend iron and vitamin D for infants and toddlers based on the health outcomes examined. However, currently the AAP strongly recommends that:

- Exclusively or partially breastfed infants receive 400 IU of supplemental vitamin D daily, beginning in the first few days of life until weaned to at least 1L whole milk per day.
- Breastfed and partially breastfed infants should be given 1 mg/kg/day of a liquid iron supplement until iron-containing solid foods are introduced at about six months of age.¹⁵

As the DGAC drafts its report, the Committee should consider expert recommendations, like those of the AAP. As the DGAC did not have time to address additional nutrients, it is important

for the DGAC to suggest that individuals consult healthcare professionals about nutritional needs and specific nutrient supplementation for infants under 2 years.

Conclusion

The DGAC should recommend strategies to meet nutrient intake targets that include excellent sources of nutrients including dietary supplements, particularly when USDA Food Patterns are unable to provide recommended intakes of underconsumed nutrients and food components, especially those of public health concern. Further, The DGAC should reinforce current expert recommendations regarding nutrient supplementation during pregnancy and lactation and birth to 24 months life stages. For these life stages, it is also important that the DGAC recommend communication with healthcare providers about specific nutritional needs.

Thank you for the opportunity to provide comments.

Sincerely,

A handwritten signature in cursive script, appearing to read 'H. Nguyen'.

Haiuyen Nguyen

Senior Director, Scientific and Regulatory Affairs

References

1. Kantor, E.D., Rehm, C.D., Du, M., White, E, Giovannucci, E.L., 2016. Trends in dietary supplement use among US adults from 1999-2012. *JAMA*, 316(14), 1464-1474.
2. Jun S, Gahche JJ, Perrine C, Potischman N, Dwyer JT, Guenther PM, Sauder KA, Bailey RL. Dietary supplement use and its micronutrient contribution during pregnancy and lactation in the United States. *Obstet Gynecol* 2020 Mar;135(3):623-633.
3. Dickinson A, Blatman J, El-Dash N, Franco JC. Consumer usage and reasons for using dietary supplements: report of a series of surveys. *J Am Coll Nutr*. 2014;33:176-182.
4. Dickinson A, MacKay D. Health Habits and other characteristics of dietary supplement users: a review. *Nutr J*. 2014;13:14.
5. Scientific Report of the 2015 Dietary Guidelines Advisory Committee [Internet]; 2015 [Cited 2020 April 15]. Available from: <http://www.health.gov/dietaryguidelines/2015-scientific-report/PDFs/Scientific-Report-of-the-2015-Dietary-Guidelines-Advisory-Committee.pdf>
6. Schwarzenberg SJ, Georgieff MK, Committee on Nutrition Advocacy for Improving Nutrition in the First 1000 Days to Support Childhood Development and Adult Health. *Pediatrics*. 2018;141:e20173716. doi: 10.1542/peds.2017-3716. <https://pediatrics.aappublications.org/content/141/2/e20173716>
7. 2015-2020 Dietary Guidelines for Americans. 8th Edition [Internet]; 2015 [Cited 2020 April 15]. Available from: <https://health.gov/our-work/food-nutrition/2015-2020-dietary-guidelines/guidelines/>
8. Practice Bulletin No. 187: Neural Tube Defects. Committee on Practice Bulletins-Obstetrics. *Obstet Gynecol*. 2017 Dec;130(6):e279-e290. doi: 10.1097/AOG.0000000000002412.
9. U.S. Preventive Services Task Force [Internet]. Final Recommendation Statement: Folic Acid for the Prevention of Neural Tube Defects: Preventive Medication; 2017 [Cited 2020 April 15]. Available from: <https://www.uspreventiveservicestaskforce.org/uspstf/document/RecommendationStatementFinal/folic-acid-for-the-prevention-of-neural-tube-defects-preventive-medication>
10. Public Health Committee of the American Thyroid Association, Becker DV, Braverman LE, Delange F, Dunn JT, Franklyn JA, Hollowell JG, Lamm SH, Mitchell ML, Pearce E, Robbins J, Rovet JF 2006 Iodine supplementation for pregnancy and lactation—United States and Canada: recommendations of the American Thyroid Association. *Thyroid* 16:949–951. Available from: <https://www.liebertpub.com/doi/abs/10.1089/thy.2006.16.949>
11. Council on Environmental Health, Rogan WJ, Paulson JA, Baum C, Brock-Utne AC, Brumberg HL, Campbell CC, Lanphear BP, Lowry JA, Osterhoudt KC, Sandel MT, Spanier A, Trasande L. Iodine deficiency, pollutant chemicals, and the thyroid: new information on an old

problem. *Pediatrics*. 2014 Jun;133(6):1163-6. doi: 10.1542/peds.2014-0900. Available from: <https://pediatrics.aappublications.org/content/133/6/1163.long>

12. De Groot L, Abalovich M, Alexander EK, Amino N, Barbour L, Cobin RH, Eastman CJ, Lazarus JH, Luton D, Mandel SJ, Mestman J, Rovet J, Sullivan S 2012 Management of thyroid dysfunction during pregnancy and postpartum: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab* 97:2543–2565. Available from: <https://academic.oup.com/jcem/article/97/8/2543/2823170>

13. Obican SG, Jahnke GD, Soldin OP, Scialli AR. Teratology public affairs committee position paper: iodine deficiency in pregnancy. *Birth Defects Res A Clin Mol Teratol*. 2012 Sep;94(9):677-82. doi: 10.1002/bdra.23051. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/bdra.23051>

14. Gupta PM, Gahche JJ, Herrick KA, Ershow AG, Potischman N, Perrine CG. Use of iodine-containing dietary supplements remains low among women of reproductive age in the United States: NHANES 2011-2014. *Nutrients* 2018;10.

15. [Healthychildren.org](https://www.healthychildren.org) [Internet]. Vitamin D & Iron Supplements for Babies: AAP Recommendations; 2016. [Cited 2020 April 15]. Available from: <https://www.healthychildren.org/English/ages-stages/baby/feeding-nutrition/Pages/Vitamin-Iron-Supplements.aspx>