

April 15, 2015

To: Department of Health and Human Services and U.S. Department of Agriculture

Re: Scientific Report of the 2015 Dietary Guidelines Advisory Committee

We are submitting comments on behalf of the Environmental Working Group (EWG), a non-profit research and advocacy organization based in Washington, DC that works to protect human health and the environment.

Public policies that promote healthy diets are particularly relevant to the advisory committee's aim at establishing a "culture of health," and are extremely important to us at EWG. With this in mind, EWG has four major points that we would like to make regarding the DGAC's report.

1. Mercury and seafood

The toxicity of mercury is well established and its contamination in some seafood species can erode or outweigh the health benefits, such as omega-3 fatty acids, of fish consumption. For that reason, EWG strongly objects to the DGAC's conclusion that the health benefits of seafood consumption outweigh the risks of mercury. EWG also strongly disagrees with the DGAC's recommendation that EPA and FDA re-evaluate their recommendations for pregnant or breastfeeding mothers to limit white albacore tuna intake.

Two long-chain omega-3 fatty acids found primarily in seafood, docosahexaenoic acid and eicosapentaenoic acid, have been shown to aid fetal and neonatal brain development. However, mercury in some seafood species can erode or outweigh the omega-3 benefits. The risk of ingesting excessive mercury is even more dire if pregnant women and children seek out seafood as a result of the new draft guidelines. Dietary guidelines should make clear the important differences among species of commercial seafood.

Over the past decade new research has confirmed and extended concerns about the impacts of low-dose mercury exposure during pregnancy on the developing fetal brain. More than a dozen epidemiological studies – four conducted in the United States – have documented that the fetus can be harmed by prenatal methylmercury exposure in amounts similar to or only slightly above the typical levels in American consumers (reviewed in Zero Mercury Project 2012, Julvez 2012). New analysis of data from long-term epidemiological studies in the Faroe and Seychelle Islands has illuminated the positive effects of omega-3 fatty acids and the hazards of methylmercury exposure in pregnant women and children with diets high in seafood (Butz-Jorgensen 2007, Strain 2008).

Women who eat more fish and shellfish have smarter babies, but only if they also keep their mercury intake low. Emily Oken's Project VIVA examined 341 Boston-area women to determine the benefits and risks of seafood during pregnancy (Oken 2005, 2008). The study found benefits for children born to women who ate three or more seafood meals weekly, but negative effects for the 10 percent of study participants with the highest mercury levels in their bloodstream. Eating fish frequently boosted children's IQ measurements by about two to six points, but high mercury exposure during pregnancy dropped IQ scores by the same measure. In fact, the cognitive benefit from fish intake was strengthened when controlling for mercury levels, suggesting the benefits of fish intake would be even greater if mercury levels were lower. A second, and equally important, observation from the study revealed no suggestion of a lower-bound, safe level, threshold for the adverse effects of prenatal mercury exposure. Even in children whose overall health benefited from fish ingestion, mercury exposure reduced the potential cognitive gains. As a result, numerous experts conclude that the benefits of fish consumption are maximized by selecting species low in mercury (Budtz-Jorgensen 2007, Choi 2008, Domingo 2007, Ginsberg 2009, Mahaffey 2004, Oken 2010, Oken 2012, Sakamoto 2004, Stern 2005, Tsuchiya 2008).

More than a third of Americans' exposure to methylmercury comes from tuna. Americans eat more than 400 million pounds of canned imported tuna. An average American eats an average of 2.5 pounds of tuna every year (NOAA 2012), making canned tuna the second most popular seafood in the U.S. after shrimp.

In the new guidelines, FDA and EPA stick to their 2004 advice that a pregnant woman can safely eat six ounces of canned albacore tuna a week and that light tuna is a "low-mercury" fish. The 2004 fish advisory, unchanged in the 2014 draft, says pregnant women should limit their consumption of albacore tuna to six ounces a week. However, albacore tuna is a major source of mercury for Americans. EWG calculates that if a pregnant woman of light or average weight ate that much, she would exceed the EPA safe level. Children who ate a child-sized serving once a week would also exceed the EPA guideline.

Since the content of omega-3 fatty acids and methylmercury in commercial seafood varies widely among species, the DGAC should provide more nuance and detail about healthy seafood choices. Prenatal and infant periods are critical points of neurological development. Advising the public, especially pregnant and breastfeeding mothers, to consume fish high in fatty acids and low in mercury would greatly benefit the public health, particularly cognitive development.

2. Added sugars

EWG strongly supports the DGAC's emphasis on reducing and labeling added sugars. An extensive body of scientific data points to the risks of excessive intake of sugar. Most scientists and health agencies agree that children and adults should limit their sugar intake because excessive sugar consumption causes dental decay and has been linked to cardiovascular disease (ADA 2013; de Koning 2012; Malik 2010; Welsh 2011; Yang 2014).

Today, many Americans consume much more than recommended (NCI 2010). Annually, Americans gulp down an average of 152 pounds of sugar, contributing to the ongoing obesity epidemic (Wang 2013). The average 6-to-11-year-old American boy consumes 22 teaspoons of added sugar every day, and the average girl of that age consumes 18 teaspoons (Ervin 2012).

The first step in helping consumers reduce added sugars in their diets is promoting the added sugar recommendations the committee put forth in Table D1.10 for a healthy US style pattern. In the absence of a Daily Value or Tolerable Upper Limit, the DGAC's recommendation for a separate listing for added sugars is an important step forward in helping consumers quantify how much is too much.

Almost 60 percent of the more than 80,000 foods in EWG's Food Scores database were found to contain added sugars. Although the food industry says it's working on this issue through its own voluntary initiatives, progress has been limited. In 2011, EWG found the average children's cereal was 29 percent sugar by weight, our re-review three years later found that the average had not moved at all. EWG also found that 92 percent of cold cereals in the US come pre-loaded with added sugars and that every single cereal marketed to children contains added sugar (EWG 2011; EWG 2014a).

The market research conducted by EWG and the growing body of scientific data on the adverse health effects of high sugar intake point to the need for better consumer information on sugar intake and ways to avoid excessive sugar.

We would also urge that the recommendation for added sugars should be set at less than 10 percent of total calories as suggested by the DGAC. This is in line with the most recent World Health Organization proposal to lower the recommended limit to 5 percent of daily calories (WHO 2014). Research using nationally representative National Health and Nutrition Examination Survey (NHANES) data has shown that as sugar consumption increases above 5-10 percent of calories, an individual's intake of other valuable nutrients drops (Marriott 2010). Americans who eat the most added sugar consume 40 percent less calcium, fiber, potassium, vitamin C, E and other important nutrients than those who consume the least (Marriott 2010).

The American Heart Association's consensus of a healthy sugar intake for children is for just four teaspoons of added sugar a day, corresponding to a limit of 5 percent of total calories. For adults, the American Heart Association recommends no more than 100-150 calories a day from added sugars, corresponding to 5-to-7.5 percent of total calories for a 2,000 calorie daily diet (Johnson 2009).

3. Nutrient intakes

The DGAC reviewed evidence on overconsumption of folate, calcium, iron and vitamin D, however, it overlooked the issue of vitamin A, zinc, and niacin consumption among

children. The current dietary Daily Values on Nutrition Facts labels are based on adult dietary needs and are woefully outdated. They were set in 1968 – more than 40 years ago – when the primary concern was nutritional deficiencies. The Daily Value for vitamin A and niacin are set at about the Tolerable Upper Intake Level for schoolchildren. Dietary guidelines for vitamins and minerals based on the Institute of Medicine’s Recommended Dietary Allowances for 1-to-3-year-olds and 4-to-8-year-olds makes scientific sense and should be adopted in the finalized regulations.

Providing the same dietary guidelines for 4-to-8-year-old children as adults is not appropriate. Children eat a different diet from what adults eat; their bodies are smaller; their vitamin and mineral needs are distinct from adults; and their tolerance for excessive intake of vitamins and minerals is much lower. As described in “How Much is Too Much? Excess Vitamins and Minerals in Food Can Harm Kids’ Health” (EWG 2014b), excessive fortification and marketing tactics based on fortified vitamin and minerals content leads to over-exposure of children to certain nutrients, particularly vitamin A, zinc, and niacin.

EWG identified 114 cereals fortified with 30 percent or more of the adult Daily Value for vitamin A, zinc, and/or niacin and 27 snack bars fortified with 50 percent or more of the adult Daily Value for at least one of these nutrients.

EWG findings agree with data previously reported by the Institute of Medicine that young children are at risk of getting too much zinc and vitamin A in their diets (IOM 2003; IOM 2005). A number of factors make children’s excessive intake of vitamin A, zinc, and niacin a health concern:

- These micronutrients are present naturally in food and are also added to many foods children and toddlers eat, including milk, meat, enriched bread, and snacks.
- Intentional or accidental fortification “overages” by manufacturers can make actual exposures greater than the amounts indicated on the nutrition label.
- 42 percent of 2-to-8-year-old children take dietary supplements (Baily 2012) and additional consumption of fortified foods can result in intakes over the tolerable upper level.

It is difficult or impossible to link these overexposures to specific cases of harm to children’s health, but cumulative exposures from all food and supplement sources could put children at risk for potential adverse effects from consuming too much (IOM 2003; IOM 2005). Multiple expert reviews conducted in the United States and in Europe have highlighted the health risks of high vitamin and mineral fortification of foods (BfR 2005; BfR 2006; EFSA 2006; IOM 2003; UK EVM 2003).

For all Americans, it is essential to get enough vitamins and minerals in their diets. Fresh produce and whole foods are the best sources of vitamins and minerals. In contrast, fortified foods or supplements could give people too much of certain nutrients. EWG urges the DGAC to communicate clearly to the public the fact that for some vitamins and minerals, the safety margin between “Getting Enough” and “Avoiding Too Much” can be small, depending on the specific nutrient and the age or special vulnerability of a particular

age group.

4. Sustainability

Sustainability is a key component in maintaining healthy diets and a healthy environment that can support the needs of a rapidly growing population. Therefore, EWG is pleased to see the inclusion of food sustainability in this report and strongly supports the DGAC's recommendations on this topic. Moving towards a diet higher in plant-based foods and lower in animal-based foods is a great way to cut greenhouse gas emissions. EWG found that if everyone in the U.S. ate no meat or cheese just one day a week, over a year, the effect on emissions would be the equivalent of taking 7.6 million cars off the road.

However, another important issue in sustainability not addressed by the DGAC is the huge issue of food waste. Roughly 20 percent of all meat sold in the US winds up in the trash. Reducing food waste is one of the easiest ways consumers can reduce the environmental impacts of the food they buy.

Despite the complexities surrounding healthy dietary habits, it is possible to provide Americans with clear and specific guidelines about how best to optimize the health benefits of seafood, nutrients, and sustainable practices in their diet. We hope you consider these important factors, to ensure our shared goal of improving and protecting public health.

Sincerely,



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