



May 8, 2015

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Dear Dr. Olson, Dr. Casavale, Ms. Rihane, and Dr. Bowman:

On behalf of the Seafood Nutrition Partnership (SNP), we appreciate the opportunity to provide comments in response to the Report of the 2015 Dietary Guidelines Advisory Committee (DGAC). SNP strongly supports the DGAC's Scientific Report. The Seafood Nutrition Partnership is a national 501(c)3 nonprofit organization that is addressing America's public health crisis through a seafood-rich diet. We are helping our fellow Americans build the skills necessary to combat the health risks associated with low seafood consumption by providing education and training on the essential nutritional benefits of eating seafood.

We work collaboratively with partners in the following sectors: food, healthcare, academia, government, non-profit, and local communities. Our partners include organizations such as the National Institutes of Health - National Heart Lung Blood Institute, USDA Center for Nutrition Policy and Promotion, President's Council on Fitness, Sports, and Nutrition – President's Challenge, NOAA - FishWatch.gov, Brigham and Women's Hospital, and YMCA. We are members of the Non-Communicable Disease Roundtable.

Low seafood consumption is a serious public health concern. The public health community is focused not just on calorie reduction but increasingly with an emphasis to consume critical nutrients. Seafood is an essential, lean, sustainable, and affordable protein that all Americans need to consume. We applaud the DGAC's focus on healthy dietary patterns rich in seafood and that is associated



with a reduced risk of cardiovascular disease, obesity, and the need for public-private collaboration to help Americans make the healthy choice the easy choice. We thank the DGAC for its work and we look forward to the DGAC's recommendations incorporated into the 2015 Dietary Guidelines for Americans this year.

SNP would like to offer the following comments and recommendations in support of the Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA) translation of the DGAC's report into specific consumer guidance.

Food and Nutrient Intakes, and Health: Current Status and Trends

We are concerned that despite the 2010 Dietary Guidelines for Americans to eat a variety of seafood twice each week that Americans continue to eat very little fish and shellfish.

According to the 2015 DGAC Scientific Report Page 34 Lines 1254 to 1259, the DGAC reviewed the WWEIA/NHANES data and found that the U.S. population has low seafood intake. Across all age groups and for both males and females, only 10 percent of the population eats seafood at least twice a week (Page 141, Figure D1.22). This is scientifically significant as heart disease is the #1 cause of death in the U.S. and the World, and researchers at Harvard observed that eating seafood twice a week reduced the risk of dying from heart disease by 36%.¹

Seafood is a great source of Vitamin D, a nutrient of concern for underconsumption.

According to the 2015 DGAC Scientific Report Page 14 Line 505-506 the DGAC determined that Vitamin D should be classified as an underconsumed nutrient of public health concern. It should be noted that on the 2015 DGAC Scientific Report Page 93 Table D1.5 Vitamin D Sources, the top sources of Vitamin D are from seafood and that seafood makes up 55% percent of the sources of Vitamin D in Table D1.5.

American moms and moms-to-be are missing out on key nutrients for baby brain

development. Whereas the 2010 Dietary Guidelines for Americans recommend pregnant and nursing women to consume 8 to 12 ounces of seafood per week and the American Medical Association recommend pregnant and nursing women take in 200mg of omega-3 DHA a day, U.S. pregnant women, on average, eat just 1.8 ounces of seafood per week² and women in the U.S. have among the lowest levels of omega-3 DHA in their breast milk worldwide.³ In addition, a 2010 Joint Expert Consultation of the World Health Organization and the Food and Agriculture Organization of the United Nations observed that moms who ate seafood at least twice a week had babies with higher IQ by about 5.8 points than babies whose moms did not consume a similar level of seafood.⁴

¹ Dariush Mozaffarian, Eric Rimm, et al., Harvard Medical School "Fish Intake, Contaminants, and Human Health" Journal of the American Medical Association, October 2006, <http://jama.jamanetwork.com/article.aspx?articleid=203640>

² Choiniere, C., et al. "Fish Consumption by Women of Childbearing Age, Pregnant Women and Mothers of Infants." Poster presented as part of the International Association for Food Protection 2008 95th Annual Meeting, Columbus, Ohio, 3-6 August 2008.

³ Brenna, J.T., et al "Docosahexaenoic and arachidonic acid concentrations in human breast milk worldwide," American Journal of Clinical Nutrition 2007;85:1457-64

⁴ Joint FAO/WHO Expert Consultation on the Risks and Benefits of Fish Consumption, 2010, <http://www.fao.org/docrep/014/ba0136e/ba0136e00.pdf>



Seafood is one of the only natural dietary sources rich in the omega-3 fatty acids, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), which are essential for brain and eye development and heart health support. While prominent health organizations recommend 250-500mg of omega-3s EPA and DHA per day, the Centers for Disease Control and Prevention's NHANES survey reports that, the average omega-3 EPA+DHA intake for American adults is 90mg per day and children is 40mg per day.⁵

Dietary Patterns, Foods and Nutrients, and Health Outcomes

SNP strongly supports the DGAC's findings on Page 4 Lines 115-117 that a healthy dietary pattern is higher in vegetables, fruits, whole grains, low- or non-fat dairy, seafood, legumes, and nuts. SNP agrees with the focus on food-based dietary guidance and the total diet concept. The healthy Mediterranean-style diet has been shown in scientific studies to reduce the risk of dying from heart disease. Mostly recently researchers published in the Journal of American College of Cardiology their findings of a 47% risk reduction in heart disease in adults who closely followed the Mediterranean diet compared to similar adults who did not closely follow the diet over a 10-year period.⁶

Individual Diet and Physical Activity Behavior Change

SNP strongly agrees with the need to develop behavior change strategies that can be used to favorably affect positive health-related outcomes. There is a large body of science on the health benefits of eating a seafood-rich diet for optimum health. Yet seafood consumption has remained flat at around 14 to 15 pounds consumed per American per year.⁷ In comparison, Americans consume about 140 pounds of sugar per year. At SNP, we conduct heart healthy seafood nutrition workshops in low income communities in cities with the highest prevalence for heart disease. The behavior interventions we have developed are working to motivate adoption of a healthy Mediterranean-style diet that is rich in seafood. Our findings are that the barriers to change are real but can be overcome with engaging in dialogue around the need to eat a nutrient rich diet and cooking education that provides simple tips and recipes.

Food Environment and Settings

SNP strongly agrees with DGAC that a comprehensive, coordinated system-wide approach is needed to change dietary patterns on a broad scale. Many of the DGAC's recommendations (i.e., eat more fruit and vegetables, eat more fish, eat less sodium) have been made in previous editions of the Dietary Guidelines yet adherence to these guidelines has not taken hold and our public health crisis continues to grow. To reverse this cycle, DGAC recommends a number of environmental and policy approaches designed to improve access to high quality, affordable, healthy foods. We encourage HHS and USDA to prominently feature these recommendations in the Dietary

⁵ http://www.cdc.gov/nchs/nhanes/about_nhanes.htm

⁶ Ekavi N. Georgousopoulou, et al. "Adherence to Mediterranean is the Most Important Protector Against The Development of Fatal and Non-Fatal Cardiovascular Event: 10-Year Follow-Up (2002-2012) of the Attica Study." Journal of American College of Cardiology. 2015;65(10_S):. doi:10.1016/S0735-1097(15)61449-8 <http://content.onlinejacc.org/article.aspx?articleid=2198775>

⁷ NOAA Fisheries of the United States 2013 Report http://www.st.nmfs.noaa.gov/Assets/commercial/fus/fus13/09_percapita2013.pdf



Guidelines policy document. The Dietary Guidelines should emphasize the important role that the food environment and public policies play in the ability of Americans to follow the Dietary Guidelines' recommendations.

Seafood, such as in canned form, is a low-cost protein packed food that can address nutrient deficiencies in food deserts. Federal food assistance programs, such as SNAP and WIC, should maintain seafood in the category of food that is eligible for purchase through these programs. There is a perception that seafood is expensive, but that is incorrect to apply across the board. Underserved communities have few options to purchase healthy and affordable food. We encourage HHS and USDA to highlight the importance of this food group for all Americans, especially those most likely to suffer from nutrient deficiency.

We urge HHS and USDA to work with its federal partners to move DGAC's recommendations forward. In particular, we recommend that the Agencies:

- Launch a consumer education campaign that helps Americans understand the need to consume healthy dietary patterns that include more seafood.
- Encourage and incentivize food retailers to sell more seafood.
- Help schools follow the Dietary Guidelines recommendation to serve seafood by offering training to food service staff to offer healthier seafood options and provide students the brain food they need to succeed.

Food Sustainability and Safety

We commend the DGAC for considering food sustainability as it develops dietary guidance. In order for Americans to follow the Dietary Guidelines there must be a sufficient supply of recommended foods to feed Americans today and consideration of these decisions on our future. Seafood sustainability has improved significantly and continues to improve with strong collaboration between government agencies, industry, retail, and conservation groups.

- According to the UN FAO The State of World Fisheries and Aquaculture 2014 report, 71% of commercially important marine fish stocks monitored by FAO are fished within biologically sustainable levels.⁸
- The National Oceanic and Atmospheric Administration Fisheries Department announced in April 2015 that US Fish Stocks hit the lowest overfishing status where 92% of stocks are not on the overfishing list (i.e. annual rate of catch is too high) and 84% of stocks are not on the overfished list (i.e. population size is too small).⁹

The health benefits of eating seafood outweigh the risks. There is an unbalanced concern about the risk of mercury versus eating seafood --- as the real crisis is not eating enough seafood to support optimum health. This is outlined in the 2010 Joint Expert Consultation of the World Health

⁸ UN FAO The State of World Fisheries and Aquaculture 2014 <http://www.fao.org/resources/infographics/infographics-details/en/c/231544/>

⁹ National Oceanic and Atmospheric Administration Fisheries Status of US Stocks 2014 http://www.nmfs.noaa.gov/sfa/news/2015/status_of_stocks_2014.html



Organization and the Food and Agriculture Organization of the United Nations on the risks and benefits of fish consumption study.¹⁰

In addition, the Food and Drug Administration (FDA) published a Quantitative Assessment of the Net Effects on Fetal Neurodevelopment from Eating Commercial Fish in June 2014¹¹ that also found that it is important to eat enough fish to take in the nutritional benefits from seafood. The minimum amount of fish recommended to consume to ensure that moms and moms-to-be do not miss essential nutrients is 8 to 12 ounces per week of a variety of fish. The four fish species to avoid eating to reduce mercury exposure while expecting or nursing is Shark, Tilefish, Swordfish, and King Mackerel.

This assessment also calculated the amount of fish consumed per week during pregnancy that would cause a net adverse effect in order to provide an upper safety limit. For example, a person can eat up to 1,080 ounces of salmon per week before reaching a net adverse effect. It is not realistic for a person to consume this many calories, but rather this serves as an illustration of the upper safety limit. This following list outlines the upper safe consumption range of fish for the top consumed seafood in the U.S. in order of omega-3 levels from Table V-8 of the FDA assessment.

- Salmon 1,080 ounces per week
- Tuna, Albacore Canned 67 ounces per week
- Tuna, Light Canned 196 ounces per week
- Pollock 636 ounces per week
- Crab 374 ounces per week
- Shrimp 2,141 ounces per week
- Catfish/Pangasius 1,385 ounces per week
- Clams 1,024 ounces per week
- Cod 229 ounces per week
- Tilapia 1,811 ounces per week

For the full list of 47 fish species reviewed, please refer to the FDA Quantitative Assessment of the Net Effects on Fetal Neurodevelopment from Eating Commercial Fish, Table V-8.

Cross-Cutting Topics of Public Health Importance

We support the DGAC's recommendation that additional measures are needed to encourage consumption of seafood as part of an overall healthy diet. SNP is committed to building awareness that seafood can be affordable and easy to prepare. This is especially important in food deserts, where grocery stores and other food retail establishments that sell healthy items are few and far between. Seafood, such as in canned form, should be available as a healthy choice for all Americans. We encourage HHS and USDA to provide clear recommendations to help people

¹⁰ Joint FAO/WHO Expert Consultation on the Risks and Benefits of Fish Consumption, 2010, <http://www.fao.org/docrep/014/ba0136e/ba0136e00.pdf>

¹¹ FDA Quantitative Assessment of the Net Effects on Fetal Neurodevelopment from Eating Commercial Fish <http://www.fda.gov/Food/FoodborneIllnessContaminants/Metals/ucm393211.htm>



translate dietary advice into healthier consumption patterns. We need to provide seafood advice that is easily understood by the average consumer and emphasize to a greater degree the critical health benefits of eating seafood as part of a complete nutrient package.

Closing

In closing, SNP would like to reiterate our strong support for the 2015 Dietary Guidelines Advisory Committee Scientific Report. We applaud the DGAC's emphasis on the total diet and the need to replace less healthy foods with healthier options such as seafood; and we appreciate all of the DGAC's recommendations for policy and environmental changes that will help make the healthy choice the easy choice for more Americans.

Low seafood consumption is a serious public health concern. Based on the breadth of scientific research showing the importance of including seafood in the American diet, we urge you to emphasize the seafood recommendation even further in the next Dietary Guidelines for Americans for its importance in the American diet and for our health. Thank you for your dedication and commitment to improving the health of Americans and turning around our public health crisis.

If you have any questions or need any additional information, please do not hesitate to contact me at (703) 579-6715 or lcornish@seafoodnutrition.org.

Thank you for your consideration of our comments.

Sincerely,

A handwritten signature in black ink that reads "Linda Cornish".

Linda Cornish, MBA
Executive Director
Seafood Nutrition Partnership