

## **Afternoon Day 2**

<https://youtu.be/RfLrBWxgOiM>

**Janet de Jesus:** Good afternoon. Hope everyone had a good lunch. I'm Janet de Jesus, a Nutrition Advisor at the Office of Disease Prevention and Health Promotion with HHS, and I'm going to introduce our public comment session for this afternoon.

First, I just want to thank everyone that came to give public comments. We really appreciate your interest and input on the *Dietary Guidelines* scientific process. We take it very seriously. We review all of the online comments and we're really happy to have you here in person to give your comments.

So, individuals that have registered to provide public comments will be able to speak for three minutes. We have 45 people on the list, and if time permits, those on the waitlist will be able to participate also.

**[0:00:58]** We have it divided among either side of the room, so we'll start with number one, and then alternate to the other side of the room with number two.

We have staff available that will help usher the next speaker to the microphone and maybe have a couple waiting to speak. So, we have staff here that will be timing you, and you'll be able to see the timer, and when it gets to three minutes, please promptly conclude your comments. We'd appreciate that.

And the moderator here will call the next speaker, so, please be prepared when your number is called.

There's no opportunity for question and answer with the committee today, as usually, so once you're finished, feel free to either return to your seat, sit in another place, or if you'd like to exit the auditorium, please do in the rear of the auditorium.

And on a final note, this meeting is being recorded, so it will be available after on [DietaryGuidelines.gov](http://DietaryGuidelines.gov).

**[0:01:59]** So, with that, I'll now conclude and turn it over to our moderator for the comment session. Thank you.

**Moderator:** Thanks, Janet. We'll begin with commenter number 1, please.

**[0:02:22]** **Raymond DeVirgiliis:** My name is Ray DeVirgiliis on behalf of the Infant Nutrition Council of America. The Infant Nutrition Council of America represents companies that research, develop, and market formulated nutrition products for infants, children, and adults. We produce over 95 percent of the infant formula consumed in the US.

We take our responsibility of providing optimal nutrition to infants very seriously. We support the American Academy of Pediatrics' position that breast milk is the preferred infant feeding option. We also agree with the AAP and other leading nutrition, health, and

regulatory bodies that infant formula that has been submitted to, reviewed by, cleared by, and registered with the FDA is the only safe, nutritious, and recommended alternative for infants who are not exclusively breast-fed.

In 2019, INCA conducted an infant feeding survey of over 1,200 mothers, fathers, and other caregivers of infants under 12 months of age to gain insights into their beliefs, current practices, and sources of information about infant feeding.

The survey findings underscore how important the recommendations for the B24 population will be in the upcoming DGAs. It is a critical opportunity to provide accurate information and to remove any stigma associated with infant feeding decisions.

Based on the survey findings, it is evident that parents and caregivers understand the benefits of breastfeeding and most often introduce formula feeding due to health reasons.

Additionally, the following messages are imperative to communicate in the final guidelines.

Number one: in order to avoid the use of homemade infant formula, as well as formulas from non-reputable sources, the DGAs must ensure that parents and caregivers understand that the only alternative to breast milk is infant formula that has been submitted to, reviewed by, cleared by, and registered with the FDA.

Number two: the 2020 DGAs must communicate the importance of parents and caregivers discussing their feeding options with their healthcare provider.

Number three: the DGAs should support access to evidence-based information about breast milk and infant formula feeding in order to allow families to make the best choice for their baby.

Number four: for infants who are exclusively breast fed, the DGAs should recommend vitamin D supplements to avoid risks related to growth and development.

And number five: the DGAs should address current nutrient gaps in the diets of older infants and toddlers and recognize the role of complementary feeding products, such as follow-on formulas and oral nutrition supplements that can help to close those gaps.

Finally, these DGAs must not stifle infant formula innovation, as infant formula companies are leaders in infant nutrition research, and their collective research has led to significant improvements in the health of formula-fed babies.

We hope the DGAC, USDA, and HHS will consider the findings of the 2019 Infant Feeding Survey. While the 2020 guidelines must be based on the highest quality of science, they must also lead to practical recommendations that support safe and nutritious infant feeding options.

Thank you for the opportunity to provide these comments, as well as our evidence-based written comments.

**Moderator:** Thank you. Commenter number 2.

**[0:05:23] Becky Garrison:** Good afternoon. My name is Becky Garrison, here on behalf of the American Pulse Association. Thank you to the committee for your work to inform the next *Dietary Guidelines*.

First, I remind the committee about the opportunity to end decades-long confusion and inaccuracy of the legumes (beans and peas) terminology used in the previous guidelines.

Legumes are a broad group of plants, including soybeans, peanuts, fresh beans, and peas, whereas pulses are the narrow subset of legumes that refer to the dry, nutritionally-dense, edible seeds of beans, peas, lentils, and chickpeas.

Pulses is the most specific and accurate term that should be used in the *Dietary Guidelines* to capture the food group that currently includes kidney, pinto, white, lima, and black beans, split peas, chickpeas, and lentils.

We ask the committee to utilize the correct pulse terminology in its report.

Secondly, pulses offer up to 9 grams of protein per serving and are a good source of zinc and B vitamins, plus multiple under-consumed nutrients, like magnesium, choline, iron, and folate. They are also excellent sources of potassium and dietary fiber, which are two nutrients of public health concern.

We ask the committee to highlight pulses' many nutritional benefits in its report.

Moreover, multiple meta-analyses have found a relationship between pulse consumption and positive health benefits. These studies have linked pulses to a decreased risk for heart and cardiovascular disease, and reductions in cardiometabolic risk factors like blood pressure and cholesterol. Pulses are also associated with decreased incidence of obesity and risk for certain cancers.

Importantly, these studies suggest a dose response relationship between pulse intake and related health benefits, meaning positive health outcomes are seen with an intake around 3 cups per week, or about ½ cup of cooked pulses per day.

In line with this, the 2005 guidelines recommended 3 cups per week for the general US dietary pattern. Unfortunately, since then, the past two guidelines have only recommended 1 ½ cups per week for the general US dietary pattern. No scientific justification was given for this decrease in recommended servings.

Based on available evidence, we ask the committee to recommend at least 3 cups of pulses per week for all dietary patterns.

In closing, we ask the committee to replace the confusing legumes (beans and peas) terminology to pulses or pulses and soybeans. We also ask the committee to recognize the

category's unique nutrition benefits and to increase the recommendation for pulses to 3 cups for week for all dietary patterns.

Thank you again for your work and the opportunity to comment.

**Moderator:** Thank you. Commenter number 3.

**[0:07:57] Bill Young:** Good afternoon. I am Bill Young representing the Beer Institute, a national trade association representing large and small domestic brewers, beer importers, packaging manufacturers, agricultural producers, and other suppliers of goods and services to the beer industry. Our members produce and import more than 85 percent of the beer consumed in the United States.

We believe the *Dietary Guidelines* are an important and useful source of information for legal drinking-age consumers to weight the well-known risks and benefits of alcoholic beverage consumption in the broader context of a healthy diet. Accurate and applicable moderate drinking guidance is critical in this regard.

We would like to raise four points.

First, we urge continuation of the clear advice and examples provided in the *2015 US Dietary Guidelines*. It stated that if alcohol is consumed, it should be in moderation, up to 1 alcohol drink equivalent per day for women and up to 2 per day for men. 1 alcohol drink equivalent contains 14 grams, 0.6 fluid ounces of pure alcohol.

2015 was the first time the *Dietary Guidelines* emphasized variability in drinks and introduced them to the term drink equivalent, which we believe helps better track how much alcohol they consume and sends an important message that not all drinks are the same.

Second, we encourage the *2020 US Dietary Guidelines* to again promote the vast variability of alcohol beverages, including the differences between types, sizes, and alcohol content of beverages in the market. The consuming public needs practical and pragmatic information to make informed decisions about the alcohol beverages they consume.

Third, we encourage the guidelines to advise people to avoid consuming alcohol on an empty stomach. Food slows the absorption rate of alcohol beverages. And to stay hydrated with water or other non-alcohol beverages when consuming alcohol beverages.

Fourth, the beer industry believes the guidelines should advise that there are some people who should not consume alcohol beverages at all. Those who are under 21, women who are pregnant, or have a medical or family history of concern, should be cautioned against drinking. Any person who has concerns about consuming alcohol should consult with their healthcare provider for guidance.

The Beer Institute members remain steadfast in their commitment to promote responsible consumption and reduce harmful use.

Members work diligently to prevent sales to minors and reduce drunk driving and are in the process of implementing the Voluntary Disclosure Initiative to provide consumers with information about calories, carbs, protein, fat, alcohol content, and freshness dating on

packaging labels, and a full list of ingredients on labels or websites. This work adds to our responsible marketing codes and decades of member company programming encouraging consumers to drink responsibly.

We hope these comments will inform the work of this committee and the staffs at HHS and USDA. We look forward to your expert report.

**Moderator:** Thank you. We'll now have commenter number 4.

**[0:10:54] Karima Kendall:** Karima Kendall, Calorie Control Council. The Calorie Control Council is an international association representing manufacturers in low- and no-calorie sweeteners food and beverages, as well as manufacturers and suppliers of low-calorie ingredients, including dietary fiber and sweeteners.

CCC has provided feedback previously on DGAs including noting the importance of communicating information on diet, physical activity, and weight control in achieving and maintaining a healthy lifestyle.

When making recommendations, it is important that the committee consider the evidence regarding the utility of low-calorie ingredients, including low-calorie sweeteners and dietary fibers, in managing weight and achieving a healthy, balanced diet by way of reducing added sugar and calories from the diet.

CCC agrees with the recommendation previously made that the DGA should better reflect language used in scientific literature related to LNCS. As noted by committee member, Dr. Richard Mattes, the term high-intensity sweetener and artificial sweeteners are not technically correct. Therefore, CCC supports the proposal to standardize the term low- and no-calorie sweeteners and LNCS when referring to these ingredients.

As noted in previous DGAs and committee meetings, dietary fiber continues to be a nutrient of concern. This fiber gap presents an opportunity for the committee to make stronger recommendations about the importance of high-fiber diet in improving the health of Americans.

CCC is pleased with the progress of the FDA in updating its definition of dietary fiber and determining those ingredients that meet this definition. However, significant advancements in food technology allow for fiber enrichment of a variety of foods, including those that are inherently low in fiber. Future guidelines should note the expansion of fiber-rich options and their important role in helping increase total fiber intake with minimal impact on calories.

As with other nutrients of concern, simply meeting daily food group recommendations does not guarantee adequate intake. We support recommendations to consume more fiber from a variety of sources, including fiber-enriched products, using the Nutrition Facts label and ingredient list as a guide.

We also encourage the evaluation of extrinsic and intrinsic dietary fibers by the same standard, as both play a role in dietary patterns. Any evaluation should consider the role of both fibers in the diet and how they help to close the fiber gap.

Lastly, emerging research indicates that prebiotic fibers alter the gut microbiome and offers additional means to enhance calcium absorption. Future recommendations should review dietary patterns that are broader than consuming cereals, grains, fruits, vegetables, and fit into dietary patterns.

We thank you for your consideration of these comments, and please recognize that low- and no-calorie sweeteners and fibers help in the management of certain conditions and are critical to the dietary patterns. Thank you.

**Moderator:** Thank you. Now commenter number 5.

**[0:13:57] Berit Dockter:** My name is Berit Dockter, and I represent the Healthcare Nutrition Council. Thank you for the opportunity to provide comment today.

HNC is an association representing manufacturers of enteral nutrition formulas and oral nutrition supplements, parenteral nutrition formulas, supplies, and equipment. We are committed to improving health by advancing policies that address and raise awareness to nutrition and its impact on patient outcomes and healthcare costs.

Today, I will highlight a few points HNC would like the Dietary Guidelines Advisory Committee to consider when determining recommendations for the *Dietary Guidelines for Americans*.

In step with the timing of the World Health Organization Decade of Healthy Aging, starting in 2020, we know we cannot have healthy aging without good nutrition. HNC supports the USDA and HHS approach to differentiate between life stages in the *Dietary Guidelines* and that older adults, age 65 and older, remain a separate life stage as identified.

We are concerned about the prevalence of malnutrition, especially among older adults, and would like you to consider setting specific dietary guidelines for this population in order to address their needs.

As an example to support our position, studies have shown the protein requirements based on existing recommended dietary allowance, defined the same for ages 19 to over 70 years, may not be sufficient to meet the needs of older adults, especially those recovering from hospitalization, illness, surgery, falls, and fractures, who may require a higher protein intake.

In order to address these nutritional needs, oral nutrition supplements are often recommended or prescribed by a physician or registered dietician. In some cases, people rely on oral nutrition supplements as their sole source of nutrition.

The World Health Organization has published a strong recommendation that oral nutrition supplements with dietary advice should be recommended to older people affected by under-nutrition. Oral nutrition supplements are used in a range of ages and issues, which may include failure to thrive in children, or addressing sarcopenic obesity in adults.

For children ages 1 year of age and older with differentiated health and nutritional needs, these products play an important role in complementing the diet of a specific population and can support growth and development.

Considering all these elements, the Healthcare Nutrition Council would like to recommend the adoption of specific nutritional recommendations for older adults, including optimization of protein intake, and that the committee considers the role of oral nutrition supplements as a practical way to complement the diet of individuals of any age who are unable to meet their nutritional needs through regular foods alone.

Thank you for reviewing our comments submitted to the docket.

**Moderator:** Thank you. Now commenter 6.

**[0:17:01] Donald Layman:** I'm Don Layman, professor at University of Illinois.

I'd like to speak about the importance of flexibility in dietary guidelines and food choices, especially related to protein. The Dietary Reference Intakes provide science-based ranges for safe and adequate nutrient intakes.

The 2015 Advisory Committee recognized the need for flexibility in diet choices. They provided three examples of healthy diets, including a vegetarian diet, Mediterranean diet, and an US omnivore diet. These diets provide individuals with both food and protein choices.

Currently, there's a narrative for more plant-based diets, but all these diet models reduce food choices and reduce the quantity, quality, and bioavailability of protein. The net impact of these combined changes on adult health is unknown.

We can create theoretical diets that appear adequate, but the extrapolation that aging and sedentary Americans, or lower-income adults can implement healthy plant-based diets remains speculative at best.

There are three key facts about protein that impact diet choices.

The first, the daily protein requirement is an absolute amount based on lean body mass. Current *Dietary Guidelines* misrepresent protein as a percentage of energy intake. Protein is the only essential macronutrient and needs to be defined as grams per kilogram body weight. Therefore, protein needs are inversely related to calories.

For example, older and sedentary adults with reduced energy needs still require at least the same amount of protein, meaning the protein must be a much higher percentage of the total calories, perhaps at the upper bound of the AMDR.

The other two related factors are age and physical activity. Beginning in our 30s, the efficiency of protein utilization to maintain muscle health begins to decline, producing well-characterized age-related loss of muscle mass, strength, and metabolic health. This age-related loss of functional mobility and metabolic health can be mitigated by correct choices about dietary protein and resistance exercise.

The worst-case scenario is an over-sedentary adult consuming a low-protein diet based on *Dietary Guidelines* expressing protein as a percentage of calories.

I urge the committee with the initiative of the 2015 committee to recognize there are multiple ways to create healthy diets and to more fully integrate current knowledge about protein and the full range of the AMDRs into the *2020 Guidelines*.

Thank you.

**Moderator:** Thank you. Now commenter number 7.

**[0:19:39] Susan Backus:** Good afternoon. I'm Susan Backus, representing the Foundation for Meat and Poultry Research and Education, a nonprofit organization which studies ways the meat and poultry industry can produce better, safer products, and operate more efficiently. The foundation is managed by the North American Meat Institute and is a contractor to the Beef Checkoff.

Meat and poultry products play an important role in healthy balanced dietary patterns. One of the primary benefits of including meat and poultry in the diet is that consumers can more easily fulfill their nutrient requirements.

However, the perceived lack of health benefits and potential adverse health outcomes are at the center of many scientific studies. Among the issues further clouding the debate are confusion, misinformation, and a misunderstanding of how meat is processed.

To help demystify processed meats, the foundation prepared a whitepaper detailing common processed meat products and ingredients, as well as nutrition benefits and public health implications.

All foods require preparation and processing to varying levels, and meat may simply be the primary ingredient in a product, just as flour is the base ingredient in a host of cereal, bakery, and pasta products. Meat preparation for consumption generally includes cutting meat into smaller sizes and adding non-meat ingredients in cooking.

Generally, the main ingredients used in preparing many processed meats are water, salt, nitrite, phosphates, sugars, and fat, all of which are recognized as safe by the Food and Drug Administration. Many ingredients serve multiple purposes. They can be used for flavor, functionality, enhanced nutrition profile, and microbial safety.

Several processing techniques can be used when preparing these products. Processed meat and poultry products can be smoked, dried, cured, cooked, and marinated, among other processes, which can add flavor, texture, or can act as a preservation to extend a product's shelf life.

Common processed meat and poultry products are deli meats, like roast beef, turkey, and ham, or products like bacon, sausages, and salami. Each product can be prepared with different ingredients and product formulations.

Nutrient needs vary widely, due to each individual's disease status, age, preference, and there are processed meat and poultry products available to meet everyone's individual nutrient and lifestyle needs.



In fact, there's a product center on MeatPoultryNutrition.org, which is a guide to help consumers and health professionals find prepared meat products fitting particular nutrition profiles, like low-fat and reduced sodium, among other regulated claims.

Meat and poultry products, including processed meats, provide consumers with a convenient, direct, and balanced dietary source of all essential amino acids. Processing extends the shelf life to an otherwise perishable food, reduces waste through the use of all cuts of meat, and provides consumers with convenience, flavor, and cultural identity.

A greater understanding of the science of how processed meats are prepared and the safety of the component ingredients will help demonstrate the role in a healthy, balanced dietary pattern.

The foundation will submit the whitepaper for your consideration in February. Thank you.

**Moderator:** Thank you. We'll now have commenter number 8.

**[0:22:29] Maia Jack:** Good afternoon. I am Dr. Maia Jack, Vice President of Science and Regulatory Affairs at the American Beverage Association, ABA, the trade association representing the non-alcoholic beverage industry. The ABA strongly supports the work of this committee and is grateful for the opportunity to provide input to committee members as they begin their important task of developing recommendations for diets that promote health and reduce the risk of chronic disease.

The ABA shares a goal of the USDA and HHS to achieve energy balance in the American diet for all Americans, including individuals who are overweight and obese. To that end, ABA and its member companies have introduced several voluntary and ambitious initiatives.

For example, we have placed prominent calorie counts on the front of all of our packages, and in 2014, ABA partnered with the Alliance for A Healthier Generation on a nationwide initiative to reduce beverage calories consumed per person nationally by 20 percent.

We wish to share four points.

First, all foods, including sugar-sweetened beverages, can be part of a balanced diet. To help consumers moderate the sugar they get from beverages, we are offering more beverages in smaller portion sizes and greatly-expanded beverage options with less sugar or no sugar.

In 2013, the Academy of Nutrition and Dietetics stated that proactive, empowering, and practical messages that emphasize the total diet approach promote positive lifestyle changes.

Also, in 2014, McKenzie Global Institute reported that interventions like smaller portion sizes have the most overall and cost-effective impact on obesity. We encourage the committee to support a framework that prioritizes food choice over food restriction.

Beverages are generally important for hydration, and beverages such as juices and dairy contribute important nutrients. The ADA supports FDA's and the 2015 DGA's added sugar target of 10 percent of total calories.

CDC data and other publications on 15-year trends continue to show significant declines in sugar sweetened beverage consumption, while obesity prevalence continues to rise.

Sugar-sweetened beverages are contributing less to overall dietary sugar and added sugar, due in part to industry's innovation in providing a wide range of beverage options and smaller portion packages.

Second, as noted in ABA's submissions of May 9, July 22, and August 13, growing evidence supports low- and no-calorie sweetened beverages as one possible tool to assist consumers in weight management. Public Health England acknowledges the positive role of low- and no-calorie sweeteners in sugar reduction and weight maintenance, and the European Food Safety Authority recognizes their value for blood sugar control.

Research also shows that consumers of low- and no-calorie-sweetened beverages have improved diet quality due to lower sugar intakes.

These beverages are also equivalent to water in overall weight management, as supported by published research.

Third, as caffeine has been included for consideration as a food component, it is worth noting, as ABA submitted previously, that numerous caffeinated beverage intake assessments show caffeine levels at or well below the accepted safe moderate range of 400 milligrams per day from all sources. We urge the committee to consider caffeine holistically from all sources.

Finally, beverage categorization should be based on similar characteristics to minimize confounders from other calorie sources when interpreting findings. For the committee's reference, ABA proposed a framework in its August 13 submission.

In summary, the ABA and its member companies are committed to practices that provide transparent and accurate information about its beverages. Thank you.

**Moderator:** Thank you. Commenter number 9.

**[0:25:32] Ellen Graham:** Good afternoon. Thank you for the opportunity to comment. My name is Ellen Graham, and I'm here today on behalf of the National Potato Council, or NPC, which provides a unified voice for the US potato growers and represents the interests of the potato industry on national issues.

Potatoes are a nutritional powerhouse that are a good source of 8 different vitamins and minerals for human health, including fiber and potassium, 2 of the nutrients of concern as identified by the 2015 DGAs. Research shows that potatoes can serve as a springboard vegetable, meaning once served, a wider variety of vegetables are consumed.

Despite these benefits, potatoes are classified as a starchy vegetable, which has become a disparaging term with repercussions across federal feeding programs. We believe that this is based on the premise that carbohydrate quality of white potatoes is somehow inferior to other vegetables.

In studies examining specific foods within dietary patterns, potatoes are sometimes placed in the same category as refined grains, candies, and desserts, leading researchers to conclude that white potatoes are not a healthy food choice.

Many healthy dietary patterns, including Mediterranean diet, feature potatoes as a staple vegetable. Because of their nutrient-density and evolving research on carbohydrate quality, NPC recommends that the committee reevaluate the categorization as a starchy vegetable and consider consumption of quality carbohydrates when evaluating research within systematic reviews.

Potatoes also play an important role across the life stages. For example, one medium white potato offers key nutrients during pregnancy, including vitamin B6, C, folate, potassium, and dietary fiber.

Recent research in children indicates that potato consumption can influence cognitive performance and satiety at increased levels, compared to other carbohydrates, such as rice or beans.

NPC recommends the committee recommend potato consumption across the life stages.

Finally, most potato products are minimally-processed, with some containing as few ingredients as three ingredients - potatoes, oil, and salt. Food processing is an essential tool for both quality and safety of products, and there's little research to show long-term benefits of eliminating—limiting processed foods on nutritional status.

Categories within processing classification systems, like Nova, discourage healthier product innovation, because it's often not possible to reformulate out of categories such as ultra-processed. NPC urges the committee to exclude studies from its systematic review that focus on categorization of foods solely based on processing.

In closing, potatoes are a nutrient-rich vegetable that fit within multiple healthy dietary patterns, including plant-based. Given their versatility and affordability, potatoes can provide much-needed health benefits across socioeconomic groups. As such, we ask the committee to recognize the nutritional benefits of potatoes in the 2020-2025 DGAs.

Thank you for your consideration. More detailed information is included in our written comments. Thank you.

**Moderator:** Thank you. Next, we'll have commenter number 10.

**[0:28:22] Sarah Reinhardt:** Thank you. Good afternoon. Good afternoon. My name is Sarah Reinhardt. I'm a public health dietician and the Lead Analyst of Food Systems and Health at the Union of Concerned Scientists in Washington, DC. I want to thank the members of the committee for lending your time and your expertise to this process. Thank you to the

staff at the USDA and HHS for the hard work that you do to make this process transparent and accessible to the public, and I know it's a lot of time.

The stated goal of the *Dietary Guidelines for Americans* is to make recommendations about the components of a healthy and nutritionally-adequate diet to help promote health and prevent chronic disease for current and future generations. I'm here today to ask the committee to fulfill its obligation to protect the health of future generations by evaluating the scientific basis for sustainable diets and incorporating its findings into the scientific report.

The 2015 Dietary Guidelines Advisory Committee and its rigorous review of the evidence on the relationship between dietary patterns, sustainability, and food security found that a diet higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in calories and animal-based foods, is more health-promoting and is associated with less environmental impact than is the current US diet.

Though dismissed among political controversy, these findings remain relevant and provide a foundation from which the current committee may draw conclusions. However, the last 5 years have also seen rapid growth and research on healthy and sustainable diets.

Because the present committee was precluded from updating the systematic review on this topic, my colleagues at the Union of Concerned Scientists and the Friedman School of Nutrition Science and Policy undertook this task ourselves. Closely replicating the methodology described in the scientific report of the 2015 Dietary Guidelines Advisory Committee, we evaluated the body of scientific literature on dietary patterns, food sustainability, and food security, to identify relevant studies published between July 2015 and September 2019.

Our results, now under scientific peer review, include 22 relevant studies on US dietary patterns alone. Our results broadly support the key findings of the 2000 committee, but they challenge them on one key conclusion.

Of 9 studies explicitly comparing the current average US diet to the healthy US-style diet recommended by the *Dietary Guidelines*, a majority found that the healthy US-style diet is not inherently more sustainable, and what that means is this.

If the federal government publishes and promotes dietary guidelines that disregard sustainability research, the diet it recommends today will put a healthy diet further out of reach tomorrow.

In its forthcoming report, I urge the committee to review and report findings based on the current body of scientific research on sustainable diets, including the systematic review by the 2015 committee and the recent update we have completed, which will be submitted to the public record for the committee's consideration.

Thank you.

**Moderator:** Thank you. We'll now have commenter number 11.

**[0:31:20] Joy Dubost:** Good afternoon. I'm Dr. Joy Dubost, Head of Nutrition at Unilever North America. We appreciate the committee examining beverages in the context of dietary patterns and would like to highlight 2 recently-published studies related to beverages, and specifically, unsweetened tea.

First, we believe there is a gap in the current *Dietary Guidelines* in providing clear overarching guidance and more specific recommendations on beverage consumption. The current guidelines are limited by not fully detailing specific types and amounts that should be consumed as part of a healthy dietary pattern. This would include beverages that not only achieve nutrient and food group recommendations, but also provide phytonutrients, such as flavonoids, which have demonstrated clinical significance.

We would like to bring to your attention the recently-published manuscript in *Advances in Nutrition*, entitled "The Role of Beverages as A Source of Nutrients and Phytonutrients." Based on observational studies, randomized clinical control trials, and meta-analyses, the authors highlighted the role beverages can play as part of the *Dietary Guidelines* and considered beverages not traditionally included, such as those that are phytonutrient-dense, including unsweetened tea, which is one of the best sources of flavonoids in the diet.

The authors noted the multiple benefits of consuming tea, including reduced risk of cardiovascular disease mortality, a key point brought forth, as although these compounds lack a DRI, their amounts from current intakes of fruits, vegetables, and whole grains, fall short of such beneficial effects.

8 ounces of unsweetened tea, being major contributors of these phytonutrients, provide amounts exceeding that found in 1 cup of commonly-consumed fruits and vegetables.

The authors recommended replacing sugar-sweetened beverages with unsweetened tea. Considering the current mean intake of added sugars in the United States is significantly higher than recommendations, substitution of 1 ounce or 1 8-ounce sugar-sweetened beverage with unsweetened tea would bring these averages significantly below the recommended added sugar limits while providing important flavonoids.

We recommend that USDA and HHS provide healthy beverage guidelines, including those that deliver bioactive components associated with optimal health. We would also recommend a My Cup to accompany My Plate, to empower consumers to make smart beverage choices.

Second, sponsored research by Unilever was published in the *Journal of Nutrients*. This explored tea consumption and 7 other beverage categories that relates to an individual's dietary quality as well as health outcomes. The findings are very notable, and we'll be providing this via written comment.

Overall, we saw beverage patterns are associated with dietary choices that include a significant lower consumption of higher-calorie beverages, alcohol, and added sugars. In addition, daily unsweetened tea consumption is associated with a statistically-significant higher HDL and BMI in adults.

We appreciate your time and we'll be submitting these comments by writing. Thank you.

**Moderator:** Thank you. Next, commenter number 12.

**[0:34:21] Jessi Silverman:** Good afternoon. My name is Jessi Silverman. I am a Policy Associate and Registered Dietician at the Center for Science in The Public Interest, a nonprofit consumer advocacy organization that provides science-based food and nutrition advice. We led efforts to eliminate artificial trans-fat from the food supply, secure the Nutrition Facts labels, and added sugar disclosures on them, provide calorie labeling on chain restaurant menus, improve school lunches, and remove sugary drinks from schools.

On behalf of CSPI, thank you for the opportunity to talk with you today about nutrition for pregnant and lactating women, infants and children under 2 years of age. CSPI's written comments include our complete set of recommendations regarding these life stages, and today, I will highlight 4 of them.

First, the best available evidence supports advising women to consume a similar dietary pattern during pregnancy and lactation as recommended by the *2015 Dietary Guidelines* for the general adult population, higher in vegetables, fruits, whole grains, nuts, legumes, low-mercury fish, low-fat dairy or nutritionally-equivalent alternatives, and vegetable oils, and lower in red and processed meats, refined grains, added sugar, sodium, and saturated fat.

Consistent with advice of other public health experts, we urge the committee to recommend that pregnant women, infants and young children avoid sugary drinks and other sources of added sugars—excess added sugars. Excuse me.

Second, CSPI urges the committee to consider minimizing the harms of mercury exposure and maximizing the nutritional benefits of seafood consumption during pregnancy and lactation to protect the neurocognitive development of the infant.

To balance these considerations, consumers need clear, focused advice to “Choose these fish and don't choose these fish,” such as the list compiled by CSPI, referenced in our comments.

In addition, the EPA's current reference dose for limiting mercury exposure is almost 20 years old. Taking into account recent scientific evidence, ½ the current reference dose is the highest level of mercury exposure that should be tolerated until the EPA's new risk assessment is completed, particularly given the developmentally-sensitive nature of pregnancy and lactation.

Third, Hispanic-Americans should be priority populations for tailoring prenatal folic acid advice in a culturally-appropriate manner. Hispanic-Americans experience a relatively high prevalence of folic acid-preventable spina bifida and anencephaly. While many American mothers-to-be consume folic acid from enriched cereal grains, because of mandatory fortification requirements for these products, fortification of corn masa flour, a common staple of Hispanic-Americans' diets, is voluntary and rare.

Finally, we ask the committee to recommend safe limits on infant consumption of rice cereal to protect children from exposure to inorganic arsenic, which is associated with impaired intellectual development. More than half of infant rice cereals tested by the Food and Drug Administration contain inorganic arsenic at levels equal to or greater than the agency's proposed limit.

Caregivers needed guidance to limit rice and offer other iron-fortified cereal grains as recommended by the American Academy of Pediatrics, CFDA, and others.

Thank you.

**Moderator:** Thank you. Commenter number 13.

**[0:37:22] Sarah Ohlhorst:** Sarah Ohlhorst on behalf of the American Society for Nutrition. ASN, a professional society with more than 7,000 members who advance excellence in nutrition research and practice, appreciates the opportunity to provide input to the 2020 DGAC.

ASN emphasizes the importance of the strength of the evidence to drive dietary guidance, particularly as all new recommendations are developed for ages birth to 24 months, B24, and for women who are pregnant and/or lactating. Making B24 recommendations that are practical to meet the needs of today's families and caregivers is vitally important, as is basing B24 recommendations on the overall balance of scientific evidence.

As the committee looks at beverage consumption, recommendations regarding the importance of water consumption as part of healthy dietary patterns is of particular importance for these subgroups. We also urge the committee to address the nutritional status of women prior to conception, as well as the different nutritional needs during pregnancy for age groups, such as adolescents and advanced maternal age.

Of equal importance, the committee should prioritize the practical evidence-based nutrition guidance be established for the rapidly-growing aging population. A recent US government accountability office report recommended that the 2020-2030 DGAs focus on the nutritional needs of older adults, but we shouldn't wait until then.

Although modern medicine has increased the lifespan, the incidence of disease does not decrease as we age. Up to half of all older adults are at risk of malnutrition, and nearly 25 percent of those in their 60s and older have sarcopenia.

A continued focus on shortfall nutrients, such as dietary fiber, particularly for the aging population, is important, as well as information on the various sources and practical ways Americans can fill these gaps.

Nutrition research provides the strength of the scientific evidence upon which answers to the DGAC's questions can be built. Therefore, ongoing and future nutrition research is of utmost importance to the development of the DGAs. Nutrition research will also help us investigate the important research needs and gaps identified by the DGAC.

As a nation, we need continued support for the key national sources of dietary intake data, including NHANES, USDA's Economic Research Service reports, and the Dietary Reference

Intakes, without which, we could not sufficiently develop DGAs. A lack of dedicated support for nutrition research stifles both the development of the DGAs, as well as the next generation of nutrition scientists, who will make up future DGACs.

We encourage the DGAC to reference, in its final report, the importance and need for ongoing support for nutrition research and dietary intake data to continue to produce relevant DGAs. Thank you.

**Moderator:** Thank you. We'll have number 14.

**[0:40:26] Chris Jones:** Good afternoon. I'm Chris Jones, Director of Marketing Strategy, here speaking on behalf of the National Pork Board and the more than 65,000 US pig farmers that we represent.

As the committee continues to work toward assembling a technical report to inform the *2020 Dietary Guidelines for Americans*, we'd like to again offer the following considerations regarding the role of lean meat, including pork, in a healthy diet.

Beginning with infants and toddlers, pureed meat is a nutrient-rich option for a first primary food in complementary feeding. Research demonstrates positive effects on a proportional growth, micronutrient intake, and developmental milestones.

For children and adolescents, lean meat offers high-quality protein to support proper growth and development. A protein-rich breakfast has shown to help with weight management, glycemic control in adolescents, and protein foods that also provide iron, zinc, and B vitamins, like lean meat, are crucial for active brains.

In adults, there's a growing body of evidence that shows lean, high-quality protein like pork can benefit weight, heart health, and type 2 diabetes.

During pregnancy and lactation, adequate amounts of protein are crucial for a baby's growth. Lean pork also provides vitamin B12 and highly bioavailable iron, 2 more key nutrients to support the health of both the mother and baby during this life stage.

Lean protein like pork is important for older adults, as higher-protein diets could help prevent sarcopenia and declines in muscle mass and bone density, thereby helping to prevent functional decline and reducing the magnitude of associated consequences, like frailty and falls.

Regarding overall dietary patterns, the *2015 Dietary Guidelines* emphasized that these are adaptable and can be tailored to individual preferences to make them more attainable, enjoyable, and culturally-appropriate. Research has shown that the DASH and Mediterranean diets, for example, can be expanded to include lean pork for the same positive health outcomes.

We would also like to highlight recent research that suggests saturated fats are not associated with outcomes such as cardiovascular disease in ways previously believed. Given this context, a nutritionally-balanced diet can include foods that contain saturated fats but are nutritious overall.



Furthermore, lean, nutrient-rich animal protein such as pork can help fulfill nutrient needs while limiting the amount of calories eaten. A 3-ounce serving of pork is an excellent source of thiamine, selenium, protein, niacin, vitamin B6, and phosphorus, and a good source of riboflavin, zinc, and potassium. Pork also provides several important nutrients identified by the 2015 guidelines, including iron, potassium, and vitamin B12.

Thank you for your time, your work, and we will provide written comments as well.

**Moderator:** Thank you. We'll now have commenter 15.

**[0:43:34] Jonathan Clinthorne:** Good afternoon. My name is Dr. Jonathan Clinthorne, and I'm here on behalf of Atkins Nutritionals.

Today, I want to discuss two major points.

The first is that, while it has been stated that the *2020 Dietary Guidelines* are intended for the general population, the general population is not healthy. 72 percent of American adults are overweight or obese. 52 percent have pre-diabetes or diabetes.

Therefore, by excluding studies from your systematic reviews that enroll participants in a treatment diet, you are effectively not producing guidelines for the general population, something suggested by the National Academies report. Ultimately, that's well over 100 million people who are not receiving relevant eating guidance.

It's also important to recognize that, despite the fact that the guidelines are intended for the general healthy population, they're most definitely influencing nutrition recommendations for people who are not considered healthy. Let me give some examples.

The guidelines inform school lunch programs. Current data indicates 1 in 5 school-age children has obesity, while about 20 percent of adolescents are estimated to have pre-diabetes.

They also inform nutrition recommendations for the Department of Veterans Affairs and feeding programs for the elderly, and yet, the prevalence of type 2 diabetes is higher in veterans than it is in the general population, and nearly 1 in 3 are considered obese. Meanwhile, 1 in 4 elderly people are estimated to have type 2 diabetes and 48 percent of people 65 and older have pre-diabetes.

The guidelines also clearly inform the nutrition policy for many medical associations and hospitals, and if these healthcare providers are not guiding people who have diet-related chronic diseases, then who is? The guidelines are clearly being used to provide nutritional recommendations for many people with diet-related chronic diseases, so why not make sure that these guidelines are based on pertinent science?

My second point is that, during your assessment of dietary patterns, you must accurately define low-carbohydrate diets in order to properly account for this body of research. The USDA has stated that you are considering including studies where less than 45 percent of energy coming from carbohydrates is qualifying as a low-carbohydrate diet because this is outside of the AMDR. I am here to tell you that this an inaccurate characterization of low-carbohydrate diets.

We encourage the USDA to define low-carbohydrate diets as containing less than 25 percent of energy from carbohydrate of 130 grams of carbohydrates per day. This recommendation would be consistent with the adequate intake of 130 grams of carbohydrates per day set by the National Academy.

In conclusion, I strongly encourage the Advisory Committee to focus on the good of all Americans and accurately define low-carbohydrate diets. Thank you.

**Moderator:** Thank you. We'll now have commenter number 16.

**[0:46:14] Christopher Palmer:** My name is Chris Palmer. I'm a physician and researcher at Harvard Medical School.

As we all know, we now have epidemics of obesity and diabetes in this country. Most people assume these problems are fairly straightforward. They are, after all, lifestyle diseases. They revolve around choices, what people eat and whether they exercise, simple explanations with simple solutions - eat less, exercise more.

I'm here to tell you that it is not so simple. You see? Back 25 years ago when I was a young physician, I was following the *Dietary Guidelines* to a T, eating the recommended diet and exercising regularly. I was meticulous about it because I wanted to avoid the fate that I saw in the hospital every day, and yet, the guidelines didn't work for me. I had high blood pressure and high cholesterol even though I was only in my 20s.

After years of the guidelines not working, I was told that I had to go on medications. In a last-ditch act of defiance, I changed my diet to a low-carbohydrate diet. Lo and behold, after 3 months, all of my cardiac risk profiles improved dramatically. I have never looked back and I've remained healthy, off medications for 23 years now on this diet.

As a physician, I want to understand what happened. Why did the guidelines fail me? And what can we do about it going forward?

One clear problem with past guidelines is that they weren't based on the best science. They were based on correlational studies, not randomized controlled trials. Everyone knows that correlation doesn't equal causation. I wish the past guidelines committee knew that.

We also know that when diets leave people feeling hungry, they are destined to fail. If people often feel hungry, maintaining a normal weight is next to impossible. We now have science showing that hunger is driven by many hormones and their effects on the brain.

One of these is insulin. When a brain is insulin-resistant, it is hungry. So, what can we do about this? One solution already proven to work is eating a low-carbohydrate diet. You see? The science now explains why this diet has worked so well for me, but it is not just me. As a physician, I've seen this work in countless patients. I have a patient right now who's lost over 150 pounds and has kept it off for over 4 years. He's still going strong.

And by the way, he also has schizophrenia. Most people see him as profoundly ill and unmotivated, yet he did this and is still doing it because it works. With accurate and effective

advice, even he can maintain a healthy weight now. And his cardiac risk profile improved dramatically, too.

I ask you to prioritize the science and include a low-carbohydrate diet as at least one option in the new guidelines. The American Diabetes Association has done this, and so should you. Hundreds of millions of people are counting on all of you to get this right.

**Moderator:** Thank you.

**[0:49:10] Pepin Tuma:** I'm Pepin Tuma with the Academy of Nutrition and Dietetics, representing more than 107,000 registered dietitian and nutritionists and other nutrition professionals.

There are two related themes we'd like to underscore this afternoon.

First, the scientific report needs to provide clear, relevant dietary guidance appropriate for distinct subpopulations.

And second, it's critical to draft the scientific report bearing in mind the immense real impact of the work you're doing, specifically the fact that the guidelines will dictate vast amounts of food policy, nutrition education, and consumption patterns in the United States.

First, we applaud the shift to a life stages approach as an important step in ensuring the *Dietary Guidelines* are both relevant and accurate. These guidelines will be the first to include nutrition guidance tailored for infants and young children and we hope they will provide relevant guidance for the elderly, the 133 million Americans with 1 or more chronic health conditions, and for individuals with various cultural backgrounds.

As DGAC members said yesterday, "We must meet people where they are," recognizing the role that socioeconomic status, health, food insecurity, and life stage plays in determining how to help Americans meet their diverse dietary needs.

Second, it's important to assess how the recommendations in your scientific report and the final guidelines currently are and will be translated into practice. In the past 2 months alone, the GAO published a report looking at nutrition assistance programs intended to meet the needs of older adults, and USDA proposed yet another change to child nutrition program standards likely to limit access to an adequate amount and variety of fruits and vegetables.

Whether it's the Child and Adult Care Food Program, congregate or home-delivered meal programs, the national school lunch program, or the school breakfast program, the *Dietary Guidelines* form the basis for these underlying nutrition requirements, and it is appropriate and indeed necessary to ascertain whether these programs are successfully meeting the requirements.

Many children consume 2/3 of their meals at school. Are these meals ensuring children meet 2/3 of their dietary needs in every way? In a healthy way? Are they helping to establish healthy eating behaviors? Or, are we moving backwards again?

The GAO report states that HHS plans to focus on older adults in a future update to the guidelines, but has not documented a plan for doing so, and it recommends documenting such a plan to help ensure guidelines better address the needs of the population.

We respectfully encourage your committee to identify opportunities to address these issues now, enabling a more robust plan to be developed and solidified in advance of the 2025-2030 guidelines.

So, whether you're tasked with implementing government and food nutrition programs or you're simply just a single American trying to eat right, it can be challenging to meet these recommendations, but the solution is not to change them or throw up our hands and tacitly not agree to them.

The scientific report can provide clarity, acting as a compass for the direction, development, implementation of the federal program's nutrition standards.

When there are challenges identified in meeting food patterns, acknowledge them in advance and couple guidelines with known strategies to help facilitate behavior change, like nutrition education, that will help facilitate full adoption of DGAs in different food environments.

Thank you very much.

**Moderator:** Thank you. We'll now have commented number 18.

**[0:52:11] Linda Carney:** I'm Linda Carney, MD, from DrCarney.com. I'm a physician practicing lifestyle medicine on children and adults near Austin, Texas, and I'm double board-certified by ABEM and the American Board of Lifestyle Medicine. In my private practice, I enjoy helping my patients recover from many diseases when they completely stop eating animal products.

Overwhelming amounts of scientific evidence show that the best diet is an oil-free, low-fat, plant-based diet of whole unprocessed foods, which powerfully reverses disease. When my patients avoid eggs, dairy, seafood, and other meats, they reverse multiple sclerosis, diabetes 2, high blood pressure, heart disease, and asthma, which I myself reversed when I began an oil-free vegan diet.

Complex carbohydrates like quinoa and beans are foods to promote, not to mislabel as bad carbs like sugar and white flour. In our new *Dietary Guidelines*, animal products should be completely replaced by vegetables, beans, fruit, and whole unprocessed grains.

The excellent scientific research in Adventist Health Study 2 clearly shows how destructive animal foods are. With the less animal products eaten, the less diabetes, cancer, stroke, and heart attacks.

As you teach America what a healthy diet is for each age after weaning off breast milk, not that the Academy of Nutrition and Dietetics writes that low-fat vegan diets are healthy for every age.

I served as Medical Director for the employees of Whole Foods Market, who came through Rip Esselstyn's Engine 2 Immersion, proving to corporate America that they could save

money on healthcare costs. After just 1 week of eating an oil-free plant-based diet without meat, dairy, or eggs, my staff measured the Whole Foods Market employees at the beginning of the week and at the end of the week, and we saw cholesterol come down 100 points in just 5 days.

I was able to get many of them off blood pressure medicine and safely off insulin, for some of them, by the end of the week, with normal blood sugars, and weight loss, despite eating all that they wanted and loving the food.

Please formulate guidelines that admit how truly disease-producing it is to eat beef, even when it's lean and grass-fed, or eggs, even if they're oil-free—cage-free and organic, and how dangerous dairy is, even if it's low-fat, and how fish promotes cancer and diabetes.

The USDA suffers a clear conflict of interest by promoting dairy and meats as healthy to eat despite all the scientific evidence to the contrary. Please, let us stop forcing the children in daycare to drink cow milk to get federal subsidies, because we know that 70 percent of the world's children suffer when they're damaged by dairy.

Unless USDA takes a clear stance against animal products, Americans will get sicker and sicker, despite our spending more per capita of our gross domestic product on healthcare. Save America. Save our health, USDA. Please, ditch dairy. Moooo-ve meat off the menu.

**Moderator:** Thank you. Next, we'll have commenter number 19.

**[0:55:14] Lana Frantzen:** Good afternoon. I'm Lana Frantzen, and I proudly represent our Dairy Farmers of America. And I have done so for the last 20 years. I feel very passionately about working for dairy farmers, and with Dairy Max, a regional dairy council.

I want to start with the most important point that I want to share with you all today, and that is, dairy is essential in life. We know that when we look at the nutrient package that dairy delivers, it's—there is no other. When I think about the current *Dietary Guidelines*, we look at the fact that real cow's milk is in over 94 percent of all American homes, and we also know that the goal moving forward is to connect the benefits with all cultures and help people understand the unique nutrition that dairy delivers.

I have my PhD in nutrition, I have 25 years of experience in nutrition education. I was raised in San Antonio, Texas, not far from here, where unfortunately, type 2 diabetes is prevalent within our Hispanic community. We need to all work together to ensure that the guidelines are reaching those who need them most.

Cardiovascular disease and type 2 diabetes is prevalent in our US population. African-Americans and Hispanic-Americans may be at an even higher risk.

Dairy is essential for 3 reasons.

First, the intake of dairy foods is associated with a reduced risk of cardiovascular disease, type 2 diabetes, and lower blood pressure in adults. With the focus on health disparities, the National Medical Association and the National Hispanic Medical Association support 3 servings of dairy a day as a way to decrease the nutrient intake shortfall.

When we look at milk, cheese, and yogurt, they deliver a variety of nutrients, specifically, 3 of the nutrients of public health concern. 3 servings of dairy will deliver up to 70 percent of the vitamin D and calcium, and 30 percent of the potassium in our diet.

And lastly, we know there's decades of science to support the health benefits of dairy. There was a study published this week in *Nutrients* that illustrates a simple, realistic dietary change at the population level, consisting of the recommended 3 servings of dairy a day, could result in over 12 billion dollars in healthcare cost savings.

Despite those benefits, I know there is a lot of misinformation on lactose intolerance. My father and my brother are both lactose intolerant. Let's be clear that if lactose intolerance is confirmed that healthcare providers can support—

**Moderator:** Thank you. Thank you. We'll now have commenter number 20.

They're gone. Okay, can we move to commenter number 21?

**[0:58:31] Michael Dodds:** Good afternoon. My name is Dr. Michael Dodds, and I'm Oral Health Lead Scientist at Mars-Wrigley, and an adjunct associate professor at the UIC College of Dentistry in Chicago. On behalf of Mars-Wrigley, I provided oral comments to the Dietary Guidelines Advisory Committee at the July meeting.

I think the USDA and HHS for the opportunity today to provide highlights of new research on the effectiveness of chewing sugar-free gum as a preventative oral health practice to protect teeth important to intake of fruits, vegetables, whole grains, and other healthy foods.

This research is germane to the protocol for the evidence review that the subcommittee on Data Analysis and Food Pattern Modeling Working Group will conduct to describe and evaluate current prevalence of nutrition-related chronic health outcomes, including dentition.

The 2005 and 2010 *Dietary Guidelines* recognized the importance of oral health prevention by recommending brushing, flossing, and drinking fluoridated water, but the 2015 version did not.

The evidence I will present today supports adding sugar-free gum for 20 minutes after snacks or meals to this list.

Dental carries is one of the most common of all chronic conditions in the United States. NCHS estimates that nearly 9 percent of children 2-4 years of age and over 25 percent of adults suffer from untreated decay.

Fluoridation of water supplies and improvements in lifestyles have helped reduce carries prevalence, but national rates of tooth decay continues to present a major public health concern. Tooth loss has been associated with loss of ability to consumer fibrous, nutrient-dense foods and impaired social functioning. Therefore, dental diseases have a detrimental effect on quality of life, health, and wellbeing, in both childhood and older age.

A new systematic review has found evidence reinforcing the effectiveness of sugar-free gum in helping to improve oral health. This research was independently carried out by the faculty of dentistry at Kings College, London, with financial support from the Wrigley Oral Healthcare

program, and it examined differences in levels of carries in adults and children who chew sugar-free gum compared with non-chewing controls.

Results found that chewing sugar-free gum significantly reduced carries increment, giving a preventative fraction of 28 percent compared to 24 percent preventative fraction for fluoride toothpastes and fluoride supplements.

This research is the most robust systematic review conducted to date into the effectiveness of sugar-free gum in reducing carries incidence. Results reinforce a growing body of evidence highlighting an important role for chewing sugar-free gum and improving oral health, especially for the growing number of people who snack frequently.

As the subcommittee begins its review of the health outcomes, we request inclusion of the research articles analyzed in this meta-analysis. Oral health preventative practices have significant dietary benefits for all Americans. By updating the *Dietary Guidelines* to reflect our changing eating behaviors and having a renewed emphasis on preventative measures, such as brushing, flossing, and the use of sugar-free gum after snacks and meals, USDA can create the basic guidance for nutrition and dental professionals along with community practitioners for the population with alarmingly-high dental problems.

I thank you for the opportunity to provide these comments.

**Moderator:** Thank you. We'll now have commenter number 22.

**[1:01:35] Nancy Eriksen:** Good afternoon. I'm Dr. Nancy Eriksen, representing myself.

First, thank you for allowing me to make comments this afternoon, and thank you for your hard work.

As a maternal fetal medicine doctor, I continue to see the rate of obesity and other chronic diseases escalate among pregnant women every year, leading to ever-increasing adverse maternal outcomes, pregnancy outcomes, including maternal death. The maternal mortality rate in the United States is currently the highest of all the developed nations, with many of the causes of death directly or indirectly the result of obesity, hypertension, and cardiovascular disease. In other words, they're all potentially preventable causes of death.

As you know, the United States is currently in a healthcare crisis, with 7 out of the 10 leading causes of death attributed to lifestyle, leading to skyrocketing and unsustainable healthcare costs. The number one killer of Americans, heart disease, has already been shown to be reversible by a high-fiber, whole-food, plant-based diet, consisting of more than 60 grams of fiber per day.

This same high-fiber diet has also been shown to substantially reduce the risk of obesity, diabetes, hypertension, stroke, and cardiovascular disease, and recently, there's been 2 meta-analyses that show there's a dose response curve to fiber, one of which was published 2 years ago, shows that consumption of 50 grams or more of daily dietary fiber can reduce your risk of colon cancer by 50 percent.

The other shows that, for women consuming 15 grams or more per day can increase their risk—lower their risk for estrogen receptor-positive breast cancer by 15 percent. In other words, if they consume more than 60 grams per day, they can reduce that risk by 60 percent.

And this same diet has also been shown to reverse diseases, like obesity, diabetes, cardiovascular disease, and others. Yet, currently, the *Dietary Guidelines* only recommend 25 grams per day of fiber for women and 30-34 grams per day for men, only half about what is really required to make a substantial impact on reducing disease and reversing disease.

And as we know, it's not just the calories, or the micronutrients, or the macronutrients, it's how those calories are packaged. High-fiber diets have been shown repeatedly to both prevent and reverse disease, and quite frankly, I became board-certified in lifestyle medicine recently because I want to send the message to patients that a high-fiber diet is really optimal for their health, but they're confused.

So, I'm appealing to you, as the *Dietary Guidelines* in the next season, increase the requirement for daily dietary fiber to a level at which we can actually prevent and reverse disease. This esteemed committee is at a historic crossroad today. Each of you has the ability to advance the healthcare of all Americans by simply stating in the guidelines that you recommend a high-fiber diet for all Americans.

**Moderator:** Thank you. Commenter number 23.

**[1:04:40] Brooke Goldner:** Hello. My name is Dr. Brooke Goldner, and I'm a board-certified physician, and I am specialized in disease reversal using nutrition. Now, before I ever became a doctor, actually was a patient. I was diagnosed at 16 years old with lupus. I had stage 4 kidney failure. I had blood clots that caused mini-strokes. I endured years of chemotherapy and steroids just to survive.

Now, all I've ever learned never helped me with my health. It was always about survival. I did 3 years of genetic research at Carnegie Mellon. I went to medical school. I was chief resident. And yet, I still needed medicine to survive. 12 years I was sick.

And then, 15 years ago, I changed my diet to a plant-based diet. I got rid of dairy. No animal products. And within 3 months, the lupus was gone. I have been healthy for 15 years with no sign of disease. I've had children, and I've dedicated my life to this.

And over the past decade, I have helped thousands of people reverse lupus, rheumatoid arthritis, multiple sclerosis, diabetes, heart disease, number one killer, all by getting them to stop eating meat and dairy and eggs and focus on vegetables and high-nutrient plant foods, and the results are consistent, and they are profound.

As a doctor, my colleagues can attest to the fact that we are chasing down an epidemic of disease that we cannot hope to catch up to or overtake, because people are getting sicker with every meal they eat. But you can make that difference, because people don't know who to trust. But if the *Dietary Guidelines* say that people should be focusing on a plant-based diet full of vegetables and fruits, and they should be limiting or eliminating meat and dairy and eggs, they will have at least the right information to start making better decisions.



Listen, both as a doctor that is desperately trying to save lives, and as a former patient who has almost died many times because I didn't have this information, I beseech you to take this seriously. This decision about what's recommended to the public about what they eat should not be based off of what's good for industry. It should be based on what's good for human health, and there are people who are suffering and dying right now from the lack of this information.

So, I ask you to take that seriously. The literature is clear, and the results we see are true. When you eliminate meat, dairy, and eggs, people's health gets better. So please, recommend a plant-based diet, encourage people to limit or eliminate animal foods so that you can save lives. Please help me with this mission.

I appreciate your time. Thank you for your attention.

**Moderator:** Thank you. We'll now have commenter number 24.

**[1:07:18] Martica Heaner:** Hi. My name is Dr. Martica Heaner, and I am a nutrition professor at Hunter College, part of the City University of New York, and I've also been a research scientist studying obesity at Columbia University.

Last year, Canada released their dietary guidelines and took bold steps de-emphasizing the role of dairy. Currently, the USDA not only recommends low-fat dairy, dairy is granted special status as one of our 5 major food groups.

Dairy should not be granted special status. At best, it should be a sometime food, like sugar-sweetened beverages. Dairy foods from animals are problematic for a variety of reasons for a majority of the population.

Milk is the perfect biological compound for baby cows, but milk is not designed for humans. If the committee advises that humans, adult humans especially, should consume milk, logically, they should recommend breast milk from humans, not from cows or animals.

Milk does contain nutrients - fats, carbohydrates, protein, and micronutrients. The guidelines have addressed the problems with saturated fat by recommending low-fat dairy. However, problems that people experience with the other 2 macros have not been addressed sufficiently.

An estimated 50 million Americans are lactose intolerant, including up to 90 percent of Hispanics, African-Americans, and Asians. In addition, an estimated 10 percent or so of people have allergies to milk proteins or other compounds in the milk products. This prevalence may be higher, because many people do not realize that many of their health symptoms or conditions, like acne, migraines, pain from arthritis, allergies, asthma, can be caused by or exacerbated by the dairy they consume daily.

I used to eat dairy every day and loved it. I didn't realize it was causing my asthma. I was on 2 inhalers a day. My doctor told me it was my 1 cat. It was only when I had an anaphylactic reaction and truly nearly died, I couldn't breathe, to 1 sip of milk, that I realized how toxic dairy is. I gave up dairy and my asthma disappeared. I have not used inhalers in 7 years. I now have 5 cats, no asthma.

There is no denying that dairy contains nutrients. It is a healthy food for cows, after all. It's high in protein and calcium. If you look at the research, though, you'll find that hay is also high in protein and calcium. However, just as with dairy, humans have a hard time digesting hay.

I urge the committee to remove dairy as its own food group and to deemphasize it as a dietary recommendation. There are great profits to be made from dairy, and I understand we have concern for the farmers, but with new technology, all industries evolve, and many dairy farmers now are starting to produce plant milks, plant cheeses, and growing vegetables.

**Moderator:** Thank you. Thank you. We'll next have commenter number 25.

**[1:10:24] Tony Martinez:** Good afternoon. My name is Tony Martinez, and I'm from **[indiscernible 1:10:30]** New York. I'm an attorney. I am a type 2 diabetes and heart disease patient in remission through a ketogenic carnivorous diet, and I'm also a candidate for the New York State Senate in my district, because I'm very concerned on these issues.

I had a heart attack on March 29, 2014, and I have recovered through a diet alone, basically on a ketogenic carnivorous diet for 5 ½ years. And I've now have saved over \$24,000.00 in prescription drugs that I otherwise would have required had I not put my condition into remission.

I understand the people here have very strong feelings about what people should be eating and so forth, but the point is, I have to say, is we have to have options, particularly a low-carb option, and the fact that this needs to be recognized.

Low-carb means 25 percent of calories, not 45, with all due respect, because that's basically—I keep my calories to about 20 percent carbohydrate.

And these guidelines that you're going to be putting together have to take into account options that the majority of this country is not healthy. We need—metabolically healthy. So, we need to have options.

And to give you one—to give you some input on how impactful this is in my state, right now, diabetes costs the State of New York, on Medicaid dollars alone, over 1.5 billion dollars. That's for the neediest group of community in our state, the people who really need healthcare.

And the budget, the Medicaid budget right now, is in a deficit of 6 million dollars, and our governor, Governor Cuomo, as announced in his budget statement, he's going to cut 2 ½ billion dollars across the board if the Legislature doesn't do one or both of two things - raise taxes or cut services on their own, and nobody likes that, and nobody needs to be in that position.

We need some flexibility. So, the fact that I've been able to save over \$24,000.00 in prescription drug costs simply by following a ketogenic carnivorous diet, which works for me, and just for the record, if I could clarify, the most nutrient-dense foods are animal-based, they're not plant-based.

So, we need options, and we need to temper our passions about imposing our views on everybody. We just need options. So, I ask for the committee for that consideration. Thank you.

**Moderator:** Thank you. We'll next have commenter number 26.

**[1:13:27] Taylor Wallace:** Good afternoon. My name's Dr. Taylor Wallace, and I'm providing comment on behalf of myself as principal at Think Healthy Group and an affiliate professor in the Department of Nutrition and Food Studies at George Mason University, as well as a decade-long researcher in the area of flavonoids. My travel here today was provided by Unilever. However, I did not accept honoraria or financial incentive for these comments, which are mine alone.

Research on flavonoids and other bioactives has exploded over the past decade. Our lab alone has published numerous peer-review manuscripts highlighting the role of various flavonoid subclasses in the prevention of cardiovascular disease, the number one killer of Americans.

We further highlight the role that flavonoids play in improving blood lipids, lipid oxidation, flow-mediated dilation, and blood pressure.

Evidence also shows that dietary intake of flavonoids may help modulate multiple cytokines, chemokines, and inflammatory factors, such as NF-kB, in addition to promoting flow-mediated dilation by enhancing the synthesis of endothelial nitric oxide.

Certainly, higher intakes of fruits and vegetables help to promote health and protect us from disease incidence, but these effects are not solely due to their essential nutrient contents, but also, their bioactive contents. In particular, tea drinkers have been shown to have up to 20 times the flavonoid intake of non-tea consumers.

Using the National Academies' standards, our group recently published a systematic review of nearly 40 prospective cohort studies on tea flavonoid consumption and cardiovascular disease events and mortality. We found linear dose response relationships of tea intake on all-cause mortality, cardiovascular mortality, cardiovascular events, and stroke events.

2 other fairly recent systematic reviews, including 1 which assessed the effects of tea flavonoids on flow-mediated dilation, as well as a Cochrane review assessing the effects of tea flavonoids on blood pressure and blood lipids, provide mechanistic insight into our findings on cardiovascular events and outcomes.

No adverse effects of flavonoid intake were noted among the hundreds of studies included in these systematic reviews.

For once, the epidemiology and clinical trial data are consistent, and it's time that nutrition policy reflect these findings. We must begin to give guidance to Americans around the consumption of dietary bioactive compounds such as flavonoids.

And finally, to the committee, on behalf of myself and everyone else here from Washington, DC today, thank you for giving us the opportunity to come and comment somewhere nice and sunny. Houston has been lovely.

**Moderator:** Thank you. We do want to announce that we'll do three more comments, and then we'll take a brief break. And so, we'll do 3 more, beginning with number 27.

**[1:16:22] Bandana Chawla:** Good afternoon. My name is Dr. Bandana Chawla. I'm also a physician. I'm so happy to see so many other physicians here, because they're passionate about the health of their patients and their community. I am triple board-certified in internal medicine, hospice, and palliative medicine, and now, the new evidence-based field of lifestyle medicine. I've been practicing here in Houston area for over 20 years.

For the sake of my patients' health, and the health of everyone in our American community, I urge this committee to inform the public and explicitly state the hazards of processed meats in the new guidelines.

Processed meats, such as hot dogs, bacon, pepperoni, sausage, and lunch meats, all increase the risk of colorectal cancer, cardiovascular disease, and even early death.

The World Health Organization has determined that processed meat is a major contributor to colorectal cancer, classifying it as type 1 carcinogen to humans.

Just 1 hot dog or a few strips of bacon consumed daily increase cancer risk by 18 percent. The World Cancer Research Fund and the American Institute for Cancer Research have also found that the evidence on processed meat and cancer is clear-cut.

Colorectal cancer isn't the only cancer risk that comes from consuming processed meat. Eating 50 grams of processed meat daily also increases the risk for prostate cancer, pancreatic cancer, and overall cancer mortality.

In a study of more than 200,000 women found that eating about 20 grams of processed meat each day, less than half the size of a regular hot dog, increased breast cancer risk by 21 percent.

Those who consume the most processed meat also have an increased risk of death from cardiovascular disease, according to a National Institutes of Health study of more than half a million people.

Experts from Harvard University recommend that dietary guidelines exclude red and processed meat in favor of plant-based foods for the benefit of human health and the environment, according to a publication from the American Diabetes Association. Researchers reassessed the health impacts of these foods and found close associations between red and processed meat consumption and diabetes and increased mortality.

The evidence is clear, and the general public needs this committee to educate and empower them. It is USDA's obligation to encourage the American people to eliminate processed meat from their diet so they can reduce the risk of several illnesses and hence the suffering that results from them. Thank you.

**Moderator:** Thank you. Next, we'll have commenter number 28.

**[1:19:30] Munish Chawla:** Hi. I'm Dr. Munish Chawla. I'm representing myself. I'm a board-certified physician in radiology and lifestyle medicine. Thank you very much for the opportunity to speak here today.

The USDA guidelines are not just important for lay citizens, but are important for the national school lunch program, which helps guide the nutritional adequacy of the meals that are served at our schools. With the current epidemic of chronic diseases in our society, such as diabetes, heart disease, and obesity, and in particular, childhood obesity, these dietary guidelines are more important than ever.

The 2015-2020 guidelines do a great job of informing the public that it is important to focus on a healthy eating pattern. As per the current guidelines, this healthy eating pattern includes a variety of vegetables, fruits, whole grains, low-fat dairy, and proteins. And furthermore, it is specified that a healthy eating pattern limits saturated fat and sodium.

This statement should be applauded since we have clear evidence which shows saturated fat increases our cholesterol, which is an important risk factor for heart disease. The largest contributor of saturated fat in the American diet today is dairy, so dairy should not be part of My Plate. This should be replaced with water.

This will not only reduce saturated fat in the diet, but it will decrease the overall calories in the meal, which is crucial, given the current obesity epidemic.

Supporting figures in the current guidelines which use My Plate as a teaching tool also indicate that we should decrease consumption of saturated fats, sodium, and added sugars. It would be extremely helpful for Americans if specific foods were mentioned so it is clear what foods should be avoided. A clear statement, which states, "Greatly reducing the consumption of mixed dishes, such as burgers, pizzas, pasta with meat sauce, would greatly reduce the amount of saturated fat and sodium in the meal."

Other similar statements, such as "Reducing consumption of cakes, pies, cookies, and pastries would greatly reduce the consumption of saturated fat, refined grains, and sugar."

I would also urge that more clear example of healthy choices be given. A well-balanced meal, such as tofu with vegetables, served with rice and a garden salad would be far superior to the currently highlighted meal of spaghetti with meatballs.

We have the research and all major organizations, such as the American Heart Association, World Health Organization, and others, agree that, as a society, we need to decrease our consumption of meat, dairy, and eggs, and increase our consumption of vegetables, fruits, and whole grains.

Thank you for your time.

**Moderator:** Thank you. We'll next have commenter number 29, which will be the last before a 10-minute break.

**[1:22:33] Amy Eiges:** Good afternoon. My name is Amy Eiges, and I'm here today representing myself and millions of people that have faithfully followed the guidelines only to find themselves in poor health.

Year after year, diet after diet, I ate according to the government's recommendations in an effort to lose weight but found it impossible to sustain. It left me chronically hungry, morbidly obese, and pre-diabetic. Over and over, I was told that eating everything in moderation, calories in, calories out, following the guidelines was the answer, and it wasn't working because I must be doing it wrong. I needed more self-control and more willpower. It was all my fault.

When my mother died suddenly from congestive heart failure, a direct result of type 2 diabetes, I woke up and clearly saw my future. Devastated by her death, I realized if I didn't try something different, I would suffer the same fate.

So, a few years ago, imprisoned in a body with a seemingly insurmountable 200 pounds to lose, I did some research and discovered a very low-carbohydrate ketogenic diet. I started eating real whole foods, protein, vegetables, dairy, and fat to satiety. I don't eat when I'm not hungry, I don't count calories. It's that simple, no gimmicks, no fads, no special products.

To date, I have lost 173 pounds. I reversed pre-diabetes and my cardiovascular health is vastly improved, triglycerides cut in half, cholesterol great. I have successfully reclaimed my health by not following the guidelines and I'm far from alone in this.

Thousands of us are following a low-carbohydrate plan after finding out we could not depend on the harmful advice we were given. Our trusted medical community following the guidelines has failed us. It is not that we were fat, sick, and lazy. We were fat, sick, and misinformed.

If just one of many "experts" I saw over the years had looked at the rigorous science, I and countless others like me might not have been tortured for decades. I might have had the life I was meant to live.

What so few are aware of is that the guidelines are not for people who are metabolically unwell, those with pre-diabetes, high blood pressure, diabetes, obesity, heart disease, which all together is a staggering 88 percent of this country.

The guidelines are only for the remaining 12 percent whose bodies are metabolically flexible enough to handle more than half of their calories from carbohydrates and 6 servings of grains a day, but what about the rest of us? What are you offering those of us who became sick and damaged under your watch?

A true and proper definition of low-carb is under 25 percent of calories. Anything more and the benefits are greatly reduced. If this option had been available, the countless doctors I saw over 4 decades of trying to get healthy would have been able to offer me a solution that actually works.

What most doctors won't know is that this option is safe and effective, unless you allow for it to be one of the approved dietary patterns. Until then, their hands are tied, and we all get sicker with a one-size-fits-all option.

You have the power to finally, finally end so much suffering by reversing course on the health epidemics that are ravaging this nation. Please land on the right side of history and be the heroes our country so desperately needs. It's long overdue.

**Moderator:** Thank you. Okay, we will take a 10-minute break, so convene at 3:40–2:40 Central time, and we'll start with commenter number 30.

**[Break 1:25:47-1:38:08]**

**Moderator:** We'll ask everyone to begin taking their seats.

Please take your seats.

Okay, thank you. Commenter number 30.

**[1:38:38] Darren Schmidt:** Hi, my name is Dr. Darren Schmidt. I spoke to you in July in DC. I focus on nutrition in my practice, my private practice for 23 years at the Nutritional Healing Center of Ann Arbor. My clinicians and I have seen 60,000 nutrition visits in the last 5 years.

I want to tell you about my patient, Yael Razner, a former Miss Israel who had been struggling with her health. She says to me, "I must admit that I was sure I was eating healthy, since I was following the US food pyramid. I became pre-diabetic, got neuropathy in my feet, hypertension, overweight, and bloating. When you had me switch to a low-carb diet, I started to sleep better and longer, my feet stopped hurting, my blood pressure dropped 20 points, and my blood glucose dropped 40. I'm losing pounds and people are complementing me and I'm happier."

So, I'm not surprised at this. I've had thousands of patients over the years have great results with a low-carb diet.

Jeremy Martin had spondylitis for 10 years. Painkillers ruined his gut. He took Cipro, which destroyed his tendons and nervous system. Years of eating high-carb foods was his cause, and now with a low-carb diet, he's off all medications, pain free, down 60 pounds, and he's smiling again.

These patients switched their diet to the opposite of the current *Dietary Guidelines*. Why is there such a discrepancy between the guidelines and these great results?

Well, let me explain it like this. Do you remember the 6 steps of the scientific method that we all learned in grade school? Here they are.

Step 1: Make an observation. Step 2: Form a hypothesis. Step 3: Test that hypothesis with an experiment to see if it's actually true or not. 4: Analyze the data. Then report the data. Then other scientists have to replicate it.

Epidemiology is only the first 2 steps out of 6. It is certainly missing the experiment. Therefore, it is an incomplete scientific process. It is mostly just survey. This includes the Blue Zones, Loma Linda, Seventh Day Adventist, Epic Data, Okinawans, Eskimo, and NHANES.

It is your charge by the law that you have to use the preponderance of science. It takes all 6 steps of the scientific method to qualify as science, not just the first 2 steps, like in an epidemiological survey. The majority of your studies you're using are incomplete regarding scientific method. Therefore, they are not science and need to be discarded per the jurisdiction of the law that you're operating.

We need diversity in the guidelines. There's no one diet for all. The low-carb diet has to be an option in your report, just like the American Diabetes Association did. There are 100 clinical trials, experiments, actual science, that prove that the low-carb diet is safe and effective.

Please add at least 1 line in your report that says a low-carb diet of 25 percent or less of calories from carbohydrates is a safe and viable option, because it is.

This is your opportunity to reverse 40 years of non-scientific guidelines and to be true scientists to finally solve our nation's health problem. And please, don't make me have to come back in 5 years to repeat myself. Add the low-carb option now. Thank you.

**Moderator:** Thank you. Commenter number 31.

**[1:41:34] Tyler Hazard:** My name is Tyler Hazard and I'm providing testimony on behalf of Compassion in World Farming, USA, and international animal protection and environmental organization.

According to the US Department of Agriculture and Department of Health and Human Services, the goal of the *Dietary Guidelines* is to "promote health and reduce risk of chronic disease for current and future generations." I'm here today to emphasize it is impossible to meet that objective without dedicated evidence-based consideration of the environmental impacts of our current food system.

There is global recognition that food choice has devastating consequences for our environment, from greenhouse gas emissions to soil degradation to water pollution. There's also global recognition that the worst types of food for our delicate and deteriorating ecosystems are in fact animal products, chiefly dairy and meat, products that we as Americans massively overconsume, in some cases, on levels 3 to 4 times the global average.

If we continue our overreliance on animal protein, agriculture alone will catapult us past 2 degrees warming by 2050, at which point, scientists warn of catastrophic consequences, including, to this committee's primary concern, within our food supply.

We know that an intensifying climate with more frequent severe weather and distribution channels inundated by sea level rise will see reduced food yields, quality, safety, accessibility, and stability, creating a landscape of food insecurity across the globe, the effects of which will disproportionately impact women, children, and the elderly, and be worse for lower-income families and communities of color.

Further, we know that alongside increased rates of food insecurity, the climate crisis will increase mental health and stress disorders, infectious disease, and chronic illness,



risking the rapid deterioration of our nation's health, which stands in direct opposition to your objective.

Due to this alarming reality, the United Nations Intergovernmental Panel on Climate Change has repeatedly called for global reduction in animal product consumptions, and in 3 separate special reports in the last year alone, have called for a transition towards plant-based diets, specifically noting the National Dietary Guidelines as a key opportunity to shift public consumption.

From a health perspective, we ought to already advise more plants and less meat, as countless studies demonstrate the short and long-term benefits of plant-based diets on individual health, specifically in areas of cardiovascular disease, type 2 diabetes, colorectal cancer, and all-cause mortality, the very health issues you've been selected to study.

We are living in an unprecedented time of climate emergency, where millions of schoolchildren across the country flee their classrooms and take to the streets to combat government inaction in fear of the planet we'll leave them if we fail to address this issue, if we fail to stave off our pending crisis, if we fail to leave our kids with a regenerative food system that enriches nature rather than depleting it.

Make no mistake. We are failing these children.

So, I ask you to follow the precedent of our forward-thinking allies at the United Nations and countries like Canada and France, who have recently adopted dietary guidelines that recognize the critical link between food consumption and human health and long-term food security, and I ask you to follow the precedent of your Advisory Committee predecessors, who in 2015—

**Moderator:** Thank you.

**Tyler Hazard:** —had the courage and foresight to acknowledge that—

**Moderator:** Thank you.

**Tyler Hazard:** —that a rabid consumption of animal products will inevitably put—

**Moderator:** Your time is up.

**Tyler Hazard:** —planetary boundaries and extreme—

**Moderator:** We'll move to our next commenter, commenter number 32.

**[1:44:45] Tom Brenna:** Hello. I'm Tom Brenna. I'm now at the Dell Medical School at the University of Texas at Austin, where I'm a professor of pediatrics, of chemistry, and of nutrition. I'll add my welcome to Texas to all of you. I'm presenting on behalf of myself and a number of coauthors, who I'll point out, who I'll mention in a moment.

5 years ago, I was in my last years as—in my last years of 28 years on the active faculty at Cornell in the nutrition department, and I was a member of the Dietary Guidelines Committee. I found the oral comments meeting to be most interesting, as I'm sure you are.

My main reason for being here is to bring to your attention a peer-reviewed journal—a peer-reviewed paper in a journal, “Prostaglandins, Leukotrienes, and Essential Fatty Acids,” that is intended to answer the 2 seafood questions on the relationship of seafood consumption in pregnancy or in childhood on neurocognitive development.

Taking advantage of the new procedure this year, early posting of questions, a group of 13 scientists, including myself, senior scientists, all academic researchers also, I’ll note, with expertise in psychiatry, child development, toxicology, and all with an interest in nutrition, came together in a grassroots effort, a grassroots volunteer effort, and we can report no financial conflicts of interest.

The NESR protocols are transparent and enable anyone to replicate them. We faithfully replicated, or at least that was our intent, to faithfully replicate the NESR systematic review process with kind advice from the NESR staff before we started.

Our results are on the DGAC comments website, along with our comments, and the papers were posted, and they are open access.

We did all the work ourselves. We had no staff, no grad students, no post-docs. We did all ourselves. You know how much work that would be. You’ll see familiar information when you look at the papers. You’ll see analytical frameworks, searches, evidence tables.

Listening yesterday, I was not surprised, and gratified to say that we’ve come to very similar conclusions with the seafood committee. I think we can help each other. If you look at our paper, you’ll see not only support for the conclusions that were mentioned yesterday, but you’ll also see including documenting moderate evidence for a benefit, and moderate evidence for no harm, and we support that designation.

Our paper also may be of value in evaluating dose response. We did convert units and worked on that.

So, I thank you very much for your attention and wish you luck in the work in front of you.

**Moderator:** Thank you. We’ll now move to commenter number 33.

**[1:47:52] Erin Janus:** Hi, I’m Erin Janus, representing myself.

Last year, in Canada, dairy was officially removed from the food guide. After the science was reviewed by leading health professionals, it was concluded that dairy is neither required nor recommended for a healthy and balanced diet for any person at any age, but there’s already an overwhelming number of physicians, dieticians, nutritionists, and scientists who we’ve heard from today that adamantly recommend dairy be removed from the *Dietary Guidelines*.

So, I’m not going to stand here and talk about the many negative health consequences of dairy. I’m here to bring up something else that pertains to dairy that’s often grossly ignored and overlooked, and that is ethics.

The ethics of dairy has been undermined by the dairy industry for decades, resulting in very little knowledge about the animals who are used and exploited to produce our beloved dairy products. It's because of this that the average person is entirely oblivious to the standard practices that make up dairy production.

For example, the average person does not know that all dairy cows are repeatedly inseminated year after year against their will just to make them produce milk. The average person does not know that every mother cow is separated from her baby calf after just a few hours of birth in order to prevent her baby from drinking her milk. And the average person does not know that all mother dairy cows are eventually sent to a slaughterhouse where they are hung upside-down and their throats are slashed open, all while still alive.

By the way, for any of you who cast any doubt, everything I just mentioned is standard practice, legal, certified humane, and commonplace with all US dairy operations, not just some.

So, at what point will decision-makers recognize that dairy cows are not commodities or units of property, but rather, they are highly-sensitive, intelligent, emotional beings who deserve a life that is free from exploitation and human violence? When will it be recognized and accepted that these unethical practices are completely unnecessary to make healthy food choices in our daily lives?

I hope that with all the current and previous expert recommendations to remove dairy consumption—advising against dairy consumption and to remove it from the guidelines, with Canada being a prime example of how a civilized nation can remove dairy from their dietary guidelines, while still providing healthy recommendations, that the Advisory Committee will not only recognize that we can be healthy without consuming dairy products, but that—

**Moderator:** Thank you.

**Erin Janus:** —it ought to be removed on the basis—

**Moderator:** Thank you for your comments.

**Erin Janus:** —of ethics. Thanks.

**Moderator:** We'll now move to number 34.

**[1:51:01] Margaret Jardine:** Hello, my name's Margaret Jardine. I am a dietician and a diabetes educator. I work at a large county hospital in Dallas, Texas. I'm here on behalf of myself. Thank you for the opportunity to provide my comments and expertise.

When I first became a dietician 25 years ago, I rarely saw a person—over 25 years ago, I rarely saw a person with class 3 obesity. Now, I see it daily. I see younger and younger people with type 2 diabetes on numerous medications, people who should be in the prime of their lives and the peak of their productivity.

The epidemics of obesity and diabetes should be considered a national tragedy. I believe this committee should put the health of the American people at the forefront of the guidelines by presenting evidence-based information about disease prevention.

The healthiest people on the planet consume plant-based diets that are high in unrefined carbohydrates from whole grains, legumes or pulses, fruits, vegetables, nuts, and seeds. They eat very little animal products or processed foods.

I have several recommendations I believe the committee should consider. First, be specific about the foods to limit in order to reduce disease. Instead of recommending Americans limit saturated fats, trans fats, and sodium, the guidelines should recommend limiting or eliminating red meat, processed meat, poultry, and cheese.

Second, the vegan option of the healthy vegetarian eating pattern should be more prominent. If you look at the Adventist Health Study 2, the vegan group is the only group that had an ideal body weight. They also had a significantly lower incidence of type 2 diabetes when you compare it to the vegetarian group.

Third, being more up front about the lack of long-term evidence on low-carbohydrate diets. Yes, I know these diets contribute to weight loss. That does not mean they're healthy. There are numerous large peer-reviewed studies indicating that people who limit grains, pulses, fruits, and starchy vegetables have early mortality, and numerous studies link animal products to obesity and diabetes, as well as cardiovascular disease.

I think you would be hard-pressed to find a non-industry-funded study that demonstrates animal products reduce disease.

I have submitted some articles of evidence supporting my statement for your convenience. Thank you so much for your time.

**Moderator:** Thank you. Next, we'll move to commenter number 35.

**[1:53:43] Diane Welland:** My name is Diane Welland, and I am the Nutrition Communications Manager for the Juice Products Association. JPA is a trade association representing processors, growers, packers, suppliers, and distributors to the juice industry. We support the current *Dietary Guidelines for Americans* stating that 100 percent juice contributes beneficial nutrients to the diet, and in appropriate amounts, can be included in a healthy dietary pattern.

Several new studies confirm juice's positive role in the diet. They are, in adults, an NHANES analysis study published in *Nutrients* in October 2019 showed that 100 percent fruit juice consumption is associated with a 10 percent higher healthy eating index score than non-juice consumption. The higher HEI score was due to higher intakes of whole fruit and total fruit and lower intakes of added sugar, saturated fat, and sodium.

Juice drinkers also had significantly higher intakes of calcium, vitamin D, potassium, thiamine, folate, vitamin B6, and vitamin C, with the first 3 nutrients considered nutrients of concern by the *2015 Dietary Guidelines*.

Adults who consume 100 percent fruit juice had lower body mass index, lower body weight, a 22 percent lower risk for being overweight or obese, and a 27 percent lower risk of metabolic syndrome compared to non-consumers.

Similar results related to diet quality and nutrient intake have been found in children. An August 2019 study in *Frontiers in Nutrition* found that, in children, high-quality diets had more milk, more water, and more juice than lower-quality diets. There is also no significant relationship between 100 percent juice and body weight status in children.

In addition, a 2019 scientific review in *Nutrition Review* showed 100 percent juice adds a significant number of bioactives to the American diet without negatively impacting weight status or chronic disease risk. Fruit bioactives include carotenoids, polyphenols, such as flavonoids, and more. The review looked at polyphenols derived from fruit and 100 percent fruit juice. It showed that, similar to coffee and tea, fruit and fruit juices have been identified as major polyphenol contributors in the diet. The data suggests bioactives found in fruit and fruit juice may have potential to positively impact human health.

Some of the health benefits associated with fruit polyphenols reported in the study include reduced risk of cardiovascular disease, which is also supported in the *American Journal of Clinical Nutrition* and benefits neurocognitive function and exercise performance.

Given these new data, JPA recommends the following:

100 percent juice should continue to be part of the fruit and vegetable group and considered a major beverage for consumption.

The DGAC should acknowledge that, like fruits and vegetables, 100 percent juice contains beneficial plant compounds known as bioactives that should be encouraged for good health.

And the final policy document should recommend that Americans consume a diet containing a variety of foods rich in bioactives and include mention that fruits and vegetables and 100 percent juices are primary sources of bioactives.

Thank you.

**Moderator:** Thank you. We'll now have commenter number 36.

**[1:56:34] Marcia de Oliveira Otto:** Thank you for the opportunity to present the views of the American Heart Association. My name is Marcia Otto. I'm an assistant professor at the University of Texas, the School of Public Health, and a member of the Nutrition Committee.

The AHA is committed to helping people achieve a healthy diet. Eating a healthy diet is one of the best ways to fight heart disease, which remains the number one cause of death in the United States.

To lower risk of heart disease, AHA recommends a diet that emphasizes fruits, vegetables, nuts, whole grains, lean protein, and fish, while minimizing the intakes of trans fats, processed meats, refined carbohydrates, and sugary beverages.

AHA recommendations, just like the current *Dietary Guidelines*, focus on a healthy dietary pattern rather than a single nutrient, ingredient, or food. While meeting nutrient needs is important, focusing on the overall dietary pattern may help consumers translate

recommendations into action when choosing what to eat. We encourage the committee to keep the focus on healthy eating patterns when it develops its report.

There are 3 elements of a heart-healthy dietary pattern that I'd like to address today.

First, dietary fats. The guidelines should recommend replacing intake of saturated fat with unsaturated fats, particularly polyunsaturated fats, as such replacement is associated with lower risk of heart disease. Replacing saturated fats with carbohydrates, however, especially refined carbohydrates and sugars, does not lower heart disease risk.

Second, the committee should consider lowering the current recommendations for added sugars. Many adults and children have very little room in their diet for empty calories, and we need to go lower than 10 percent in order to have a healthy diet while meeting the essential nutrient needs. Added sugars intake is associated with poor cardiovascular health in children at levels far below current consumption in the United States.

Third, we understand that the committee's not examining sodium at this time, but the guidelines must incorporate the new Dietary Reference Intake, the first specific to chronic disease risk reduction, and include recommendations to lower consumptions of key sources of sodium, particularly processed foods.

Finally, we encourage the committee to consider how these recommendations can be implemented. Policy and population-based solutions are also needed. Thank you.

**Moderator:** Thank you. We understand commenter number 37 canceled, but we'll pause to confirm.

And we'll move to commenter number 38.

**[1:59:30] Cary Frye:** Good afternoon. I'm Cary Frye, Senior Vice President of Regulatory Affairs at International Dairy Foods Association in Washington, DC. IDFA is a membership organization that represents dairy cooperatives and processors who make the nation's milk and dairy products.

Good nutrition is a foundation to health and wellness for adults and children alike, and dairy is a crucial part of a healthy diet. There is no equal replacement for cow's milk, which provides nutrients, including high-quality protein, calcium, vitamin D, and potassium, and offers health benefits, such as better bone health, and lower risk of type 2 diabetes and cardiovascular disease.

USDA and HHS continue to hold that American children and adolescents over 4 years old are not consuming the recommended amounts of dairy. Lactose-free and reduced-lactose products offer these nutritional benefits for consumers who have sensitivities to lactose and are accessible today in any supermarket, making moot the arguments that people who have sensitivities to lactose must adopt a non-dairy diet. Lactose-reduced milks account for 5 percent of milk sales and virtually all cheeses are lactose-free.

Disappointingly, this committee, as well as American consumers, have been subject to misleading claims about dairy products. These false claims have confused and scared the

public, using weak studies based on questionable scientific methods and prayed on the media's preference for controversy.

Since the last DGAs, 3 things have occurred that should cement dairy's place in future recommendations.

First, health organizations, including the Academy of Nutrition and Dietetics, the American Academy of Pediatrics, and the American Heart Association, recommended children ages 1-5 consume just 2 beverages: cow's milk and water.

Second, dietary advice in other countries have recommended full-fat dairy products as part of healthy dietary patterns.

Third, several meta-analyses indicate there is no negative effect on heart health from consuming dairy, no matter whether these dairy products are full-fat or low-fat.

IDFA's members have 3 requests for the committee.

First, dairy should continue as a separate group in the *2020 Dietary Guidelines for Americans*.

Second, the DGAs must preserve the recommended 3 servings of dairy per day in dietary patterns to ensure Americans meet their recommended essential nutrient intakes.

And third, the committee should embrace the evidence showing dairy foods at all fat levels are part of a nutritious diet.

We appreciate the opportunity to provide these oral comments and ask the committee to consider the science presented in our written comments. Thank you.

**Moderator:** Thank you. Commenter 39. We have—okay. We will move then to commenter number 40.

**[2:02:35] Minh Nguyen:** Hello. I'm Minh Nguyen. I'm a registered dietician with the Physician's Committee for Responsible Medicine, a nonprofit nutrition advocacy organization. I'm a native Houstonian. In fact, I did my dietetic internship right here in the Texas Medical Center across the street at Texas Women's University, so I welcome y'all to my hometown and also thank you for listening to our comments today.

Today, I'd like to discuss the risk of low-carbohydrate diets, specifically diets that decrease carbohydrates while increasing intake of protein and fat. Despite incomplete and conflicting data regarding their long-term effects on health outcomes, people continue to adopt them with the misguided hopes.

Low-carbohydrate diets are generally used for quick weight loss, which is calorie restriction at best, disease-promoting in reality. Low-carbohydrate, all these types of diets, it is also taught that cholesterol and saturated fat consumption is harmless, despite strong evidence to the contrary.

Low-carbohydrate diets tend to result in reduced intake of fiber, an under-consumed nutrient, and increase intake of animal protein, cholesterol, saturated fat, all of which are overconsumed by Americans and risk factor for mortality and cardiovascular disease.

A prospective cohort study and meta-analysis published in the Lancet Journal in 2018 investigated the association between dietary carbohydrate intake and mortality. The researchers found that mortality increased when carbohydrates were exchanged for animal-derived fat or protein, and mortality decreased when the substitution with plant-based.

Research shows that a low-carbohydrate, high-protein diet is not helpful and leads to poor endothelial function, higher c-reactive protein, which is a marker of inflammation, stiffer arteries, higher cardiovascular risk, higher cardiovascular mortality, higher cancer mortality, and just higher overall mortality.

Unlike a low-carbohydrate diet, a plant-centered diet high in complex unrefined carbohydrates from whole plant foods has proven to reverse heart disease and signs of early-stage prostate cancer in randomized control trials.

I encourage the committee to set guidelines that follow the science. Make it clear to Americans what foods they should be consuming more of, namely more minimally-processed plant foods, such as fruits, vegetables, whole grains, and legumes.

I also encourage the committee to make it clear which foods Americans should be eating less of, namely animal-based foods, such as meat, dairy, and eggs.

Thank you for the opportunity for me to speak today.

**Moderator:** Thank you. Commenter number 41.

**[2:05:33] Guy Johnson:** Hi, everybody. I'm Guy Johnson, Executive Director of the McCormick Science Institute, and perhaps, not unsurprisingly today, I have one word for you. Flavor. Or, if you prefer, we could use the word that Dr. Mattes has been using, palatability. Whatever you call it, 86 percent of consumers, according to IFIC's latest data, think it's the most important factor that they have in determining what foods to buy and eat, which makes it one of the biggest barriers to the consumption of healthier foods.

But I'm here to tell you that it does not need to be that way. You can add flavor to healthy foods without sugar, fat, salt, or calories in a variety of ways.

Take spices and herbs, for example. There are controlled intervention studies that show that spices and herbs can increase the consumption of fruits and vegetables in a high school cafeteria setting by 15-20 percent. Spices and herbs have helped free-living adults lower their sodium intake by almost 1,000 milligrams a day over a 5-month period. And spices and herbs can compensate for the loss of flavor or palatability in foods that have been reduced in saturated fat by 60 to 65 percent and added sugar by a third.

And I'm here with some good news. There's a brand-new study conducted in France that shows that a pulse, hummus-type appetizer with cumin, ginger, shallots, and a little bit of garlic, reduced the loss in palatability of a 50 percent reduction in sodium, and there's more research on the way.



So, the current *Dietary Guidelines* do a pretty good job of starting out on this by recommending that spices and herbs be used to flavor foods rather than salt, but we've got a long way to go. The data you presented yesterday shows that a lot of people are not meeting the *Dietary Guidelines*. And so, I think flavor is your best shot at making it happen.

So, what I'm going to ask you to do, when you're writing your report, think of yourselves not only as scientists, which obviously you are, but consumers, which you also are, and look for ways to use the guidelines to remove some of those barriers to healthier eating, maybe even make it fun, like Dr. Boushey said yesterday. And I think we can do it, even with those burgers and sandwiches.

So, thank you very much.

**Moderator:** Thank you. We'll now have commenter number 42.

**[2:08:27] Jennifer McGuire:** Good afternoon. My name is Jennifer McGuire, and I am a registered dietician with expertise in nutrition communication. I work for the National Fisheries Institute and spend much of my time following the latest seafood science and translating it for media, fellow healthcare professionals, and families.

The studies about the beneficial role of seafood in brain development and health, as well as heart health, have been captured in your literature review and speak for themselves, so I'm not going to get into that.

Instead today, I'm going to focus on what the science says about the quantifiable impact of American's low seafood consumption on public health.

Starting at the beginning, pregnant women in this country eat less than 2 ounces of seafood per week. This is less than  $\frac{1}{4}$  of the *2015 Dietary Guidelines* recommendation to eat 8-12 ounces, or 2-3 servings of seafood each week during pregnancy.

So, how does that translate into health impacts? Based on data from the FDA's Net Effects of Eating Commercial Fish Assessment, the very low amount of seafood a pregnant woman in the US currently eats contributes 0.7 points to her baby's IQ. While that's certainly better than nothing, she can boost her baby's IQ by 3.2 IQ points by eating the recommended amount of seafood.

Unfortunately, the low seafood intake that most expecting moms eat in this country leaves 2.5 IQ points on the table per baby for a population-wide loss of about 9.5 million IQ points annually.

Moving on to the impacts of seafood deficiency on heart health, a December 2019 study published by Plus Medicine, estimated the annual heart disease and type 2 diabetes cost in the US associated with suboptimal intake of 10 food groups. These included things like fruits, vegetables, seafood, nuts and seeds, grains, sugar-sweetened beverages, sodium, all of the food groups that y'all are looking at.

Researchers found the second largest contributor to cost is low consumption of seafood omega-3s, accounting for 1.27 billion dollars in heart disease costs per year.

Researchers conclude the mean consumption of seafood in the US is extremely low, and thus, there is much to gain from an increase to ideal levels of consumption.

As you create your report, I implore you to keep in mind, not only what the science shows about the health benefits of eating certain foods, but the relative magnitude of those benefits. Thank you.

**Moderator:** Thank you. We'll have commenter number 43.

**[2:11:15] Larry Diamond:** Good afternoon. My name is Larry Diamond. I am a health coach and researcher from Austin, Texas. And I want to paint a picture of January 2013, 7 years ago, what my health state was like at that time.

I'd been morbidly obese for well over 20 years, my entire adult life. I had all 5 markers of metabolic syndrome. I was constantly hungry, and I was also constantly tired.

And I had an epiphany. What if, instead of the cause of my obesity being eating more and moving less, what if that was a result of the diet that I was following? And I was very much following a high-carb recommended dietary guidelines of real foods.

But for me, that was keeping me constantly in a state of high insulin. I had blood sugar swings, so I was hungry every few hours. I remember not being able to go as much as I wanted to, more than a few hours without eating. And I had a family. I had advanced degrees. Like many, many Americans, why couldn't I stop eating?

So, I decided to delve into that aspect of my life, and I found that low-carb real food diets, between 50 grams and 130 grams, created a condition of—called fat adaptation, and that was the breakthrough that saved my life. And at the time, 7 years ago, I had a newly-adopted daughter with my wife, and I did not think that I would be alive today.

So, what is fat adaptation and why should a low-carbohydrate option be included in the *Dietary Guidelines*?

Fat adaptation means that, during the day, you run on free fatty acids and ketones, those are clean-burning fuels for organs, use spare glucose for the few cells that need it in the brain, the red blood cells, you have steady blood glucose, you reverse metabolic syndrome. My triglycerides over HDL went from 7 to well under 1. You're never hungry because you have access with your own body fat at all times.

So, my family's healthy. My wife lost 70 pounds, I lost 120. We're terrifically energetic. Please include this option for all Americans. Thank you.

**Moderator:** Thank you. We'll move to commenter number 44.

**[2:14:18] Ted Eytan:** Good afternoon. My name is Ted Eytan. I'm a family medicine specialist residing in Washington, DC, here on behalf of the Nutrition Coalition. I have no ties to pharmaceutical, food, or device manufacturers, because freedom from conflict of interest is important.

It's amazing to be here in 2020 because I grew up with the first *Dietary Guidelines* in Phoenix, Arizona. I remember how my family responded to the mass media messages and how dramatically the food environment changed.

For me, I was calorie-restricting as early as age 12, unable to control my weight or appetite, and this is not normal.

Kids, and all of us, should feel satiated from eating a nutrient-dense, minimally-processed food diet and we should exist at a normal weight without much thought, and then lead long, productive, healthy lives.

It is now 2020, and when someone says they're eating healthy, we don't know what that means anymore. It might seem that a group like ours wants one specific dietary pattern endorsed in the 2020 DGA. This is not the case. Our goal is that nutrition policy be based on rigorous scientific evidence. We care that the recommendations that go out to all Americans be trustworthy, reliable, and up-to-date.

The process for reviewing the science needs to be based on an accepted, state-of-the-art methodology, like GRADE or Cochrane. With GRADE limited evidence, as you showed yesterday, it would be preferable to not issue a recommendation or issue a weak recommendation, which would allow health professionals to tailor their care to the needs of the people they serve.

We only have to remember the reversals on dietary cholesterol and the low-fat diet to be reminded that caution is far better than overstepping what the science reliably tells us.

We applaud you for considering a greater range of dietary patterns, as well as types of dietary fats in the topics and questions under review. These include, importantly, the continued caps on saturated fats. These fats have been tested in rigorous clinical trials on tens of thousands of people in studies funded by the NAH, yet no Dietary Guidelines Committee has ever directly reviewed them.

They are excluded from your review because they took place prior to 1990. 19 systematic reviews, including these trials, have been published since 2010. Please include this data in your review. This is gold-standard data and it should not be ignored.

Yesterday, we saw the horrific data regarding the metabolic health of Americans. Have you given up on the idea that the DGAs should reduce chronic illness instead of accept its increased prevalence?

According to 2015 guideline, these guidelines embody the idea that a healthy eating pattern is not a rigid prescription, but rather, an adaptable framework in which individuals can enjoy foods that meet their personal, cultural, and traditional preferences. This is what we need, a true range of dietary patterns based on rigorous clinical trial evidence. This would be a DGA we'd all be proud of.

We're here to eliminate metabolic illness with you. Thank you.

**Moderator:** Thank you. Next, commenter number 45.

**[2:17:02] Deborah Miller:** Good afternoon. My name is Dr. Deborah Miller, and I'm the Senior Vice President for Scientific and Regulatory Affairs at the National Confectioners Association, or NCA. We thank the DGAC for this opportunity to appear before you today. NCA is the leading association representing the US chocolate and candy makers. I likely do not need to tell you all, but consumers love the products that our members produce.

In these brief comments, we would like to provide some insight on our special and unique category and outline our industry's voluntary efforts to help consumers manage their calorie and sugar intake. We also strongly encourage the DGAC to recognize the key role that portion control and portion balance must play in the *2020-2025 Dietary Guidelines*.

So, despite an array of consumer education efforts, including mandatory nutrition labeling, and more recently, restaurant menu labeling, obesity remains the nation's most critical nutrition issue. Over the past 4 decades, researchers have documented that the sizes of meals, snacks, and beverages have increased rather dramatically.

One promising, and we think underutilized strategy for tackling this issue is to help consumers to understand and consume appropriate-sized portions. The importance of portion control is recognized by leading authorities, including the American Heart Association, the American Cancer Society, and the CDC.

Emphasis on portion control allows individuals to enjoy the foods that they love within the context of a balanced diet.

Chocolate and candy products are unique. They have long been associated with gifting, holiday traditions, family celebrations, and the like. Consumers appreciate that the unique role that chocolate and candy can play as an occasional treat in a happy and balanced lifestyle. They further understand that these treats generally contain some sugar.

Because our members understand the connection that consumers have to the products we make, our industry is committed to helping consumers manage their calorie and sugar intake, while still enjoying their favorite treats.

To that end, in 2017, the confectionary industry launched the Always A Treat Initiative. As part of this initiative, over the next few years, consumers will see more options and smaller-sized packages and innovative new products. We are proud to make this commitment with the Partnership for A Healthier America, who will help us track our progress and verify this meaningful initiative.

It is important to note that sugar is an essential ingredient in chocolate and candy, and not only does sugar provide sweetness, but it also provides structure and texture in confections.

According to NHANES data, most Americans have candy about 2 or 3 times a week for about 40 calories and about 5 grams of added sugar per day from those confectionary items. That's the average amount of candy that can fit into the US diet, the daily value for added sugar.

While our industry understand the dietary guidance on added sugar is important, we also believe that incorporating a treat—

**Moderator:** Thank you.

**Deborah Miller:** —on occasion is important as well.

**Moderator:** Thank you. With additional time, we'll move to commenters on the standby list originally, beginning with number 46.

**Female:** They're not here.

**Moderator:** No? 47?

**[2:20:17] Anthony Gustin:** I'm Dr. Anthony Gustin. I'm a sports medicine and functional medicine clinician from Austin, Texas, and have seen first-hand the power of nutrition in practice. Using my clinical experience, I have scaled a whole food, low-carb education platform that over 45 million people have engaged with. Results have been incredible. Thousands of people have used real food, low-carb diets to fix insulin resistance, diabetes, obesity, and more.

I'm not against real food carbohydrates, rather, for the recognition and inclusion of low carb, defined as 25 percent or less of total calories from carb, as a dietary option for people who may benefit from it. Over 60 percent of Americans have a chronic disease and can benefit from this approach, and the current 45 percent guideline won't be enough to turn their health around.

I have full confidence that when the *Dietary Guidelines* are refreshed, we'll collectively be intelligent enough to incorporate the results from hundreds of low-carb studies we've seen over the last 5 years, much like the ADA has done recently.

More concerning to me is when we recommend a healthy low-carb nutrition pattern, where the energy will come from. If you reduce carbs, you have to increase fat. However, the current guidelines demonize saturated fat and promote polyunsaturated fat. I understand the concern that saturated fat links to heart disease, but when you look at the science, it just doesn't hold up. This is not too dissimilar to the old recommendations for cholesterol that didn't pan out.

Listening to everybody today, I know that it's going to be an unpopular opinion, but so was banning trans fat 30 years ago. Real food is not the problem. Saturated fat has been consumed for literally all of human history, yet, heart disease only started becoming the killer it is over the last 100 years, not coincidentally, exactly when seed oils were the recommended polyunsaturated fats in the current guidelines were first introduced.

Saturated fats are stable in the body and not easily oxidized. They're used for things like energy metabolism, hormone production, cell membranes, nervous system maintenance, and more. Saturated fats are naturally found in both animal and plant foods. In the majority of fat in breast milk, the best food for a developing human is saturated fat. Humans do not lose the ability to use saturated fat after childhood.

Polyunsaturated fat, by comparison, are highly-reactive molecules. Their many carbon double-bonds react violently with oxygen, like firecrackers in the body. This peroxidation cascade results in highly-toxic compounds, mitochondrial and DNA damage, and oxidation of LDL particles. Polyunsaturated fats come from heavily-processed seeds going into oil. This

processing takes massive machinery and many chemicals. No human in history was ever able to eat the nutrient-void processed fat from thousands of seeds until the last 100 years.

I agree with the stance of this committee that people should be eating nutrient-dense whole foods, but the reality is, real food's highest nutritional per gram doesn't include saturated fat. Reducing polyunsaturated fat by allowing saturated fat shouldn't be controversial. You are literally replacing nutrient-void chemical-rich processed fake foods in industrial seed oils with natural nutrient-rich whole foods that have saturated fat.

There doesn't need to be a target for saturated fat, rather, a removal of the current limitation, much like how the cholesterol limitation was dropped in the current guidelines. This will allow people to get the most amount of nutrition per gram of food while minimizing toxic seed oils.

Please make the right call and drop the limitations on saturated fat much like you did with cholesterol in 2015. Thank you.

**Moderator:** Thank you. Commenter 48.

**[2:23:21] Michelle Muller:** Hello. My name is Michelle Muller, and I'm a cofounder of Little Spoon, an early childhood nutrition company for birth to 8 years. Thank you to the committee for lending your accessibility to the public today.

For quick context, I've been building Little Spoon for more than 3 years, launching our delivery service for cold-pressed organic baby food nationally in 2017. We offer a comprehensive nutrition solution, taking into account where children are developmentally and in their starting solids journey, then provide recommendations for a full baby food meal plan. In 2019, we launched a line of vitamins, probiotics, and homeopathic remedies for an additional layer of health support.

At Little Spoon, we know quality in nutrition is critical during the first 2 years of life to set up a lifelong healthy relationship with food. As such, I have three areas I recommend this committee focus on as they write the guidelines for the next generation: spoon-feeding, variety, and limiting processed foods.

In the last public meeting, Dr. Kay Dewey, the chair of the Birth to 24 Months subcommittee, stated that the committee will be looking more at what to feed and won't be addressing how to feed infants and toddlers, which I hope you will all reconsider.

At Little Spoon, we strongly believe that parents should choose spoon-feeding over pouch-feeding. Pouches can be a convenient on-the-go option for those in-between snack moments and special medical cases, but there is mounting research suggesting pouches can hinder healthy development of eating skills.

Spoon-feeding allows your baby to learn to chew and experience sensory properties, like aroma, texture, color, and taste. Self-feeding also directly contributes to the development of motor skills, hand/mouth and hand/eye coordination, plus, critical habits like taking breaks between bites and stopping when full.

Drinking a full meal through a pouch spout facilitates a lack of portion control and negative eating habits that we know can lead directly to obesity, type 2 diabetes, and other disorders plaguing our health system.

We know there is not one magical superfood, but rather, a variety of foods that provide a nutritional punch when consumed together. Serving babies complementary foods from all colors of the rainbow is a great way to ensure they are receiving a myriad of nutrients. Avoiding processed foods is also a must, so we strongly believe that a baby's first bite of food should be a fruit or a vegetable instead of overly-processed cereals like rice or oatmeal.

Scientists are learning more about the microbiome, its critical role in overall digestive health, and the positive impacts of probiotics on immunity. I encourage the committee to include a stance in guidance on the use of probiotics in infancy and childhood.

In the adult nutrition guidelines, the USDA recommends whole vegetables, fruits, and grains, and recommends to limit added sugars, salt, saturated and trans fats, ingredients solely found in processed foods. Please consider that how baby and toddler food is processed matters. The heat processing that most shelf-stable brands use are rendering the food commercially sterile, lacking vitamins and nutrients, all critical for healthy development.

This is not to say we should ban shelf-stable baby food, but the fact that it is 2020 and there's no transparent recommendation on the benefits of feeding babies fresh food over commercially-sterile—

**Moderator:** Thank you.

**Michelle Muller:** —food is crazy. Thank you.

**Moderator:** Thank you for your comments. Next, we'll move to 49. Is 49? No? 50? Do we want to go next on that side then?

51?

**Male:** 52.

**Moderator:** 52? Okay. We got one. Commenter 52.

**[2:26:49] Nadir Ali:** I've been a practicing cardiologist for about 30 years, and I have served in several leadership positions at Baylor College of Medicine and at CA Houston Healthcare. For the first 24 years of my practice, I advised my patients to follow a low-fat, healthy whole grain diet with emphasis on fruits, vegetables, and a reduction in animal food, sugar, and saturated fat.

My patients did not improve on this diet despite being disciplined and following my recommendations. I saw them gradually becoming pre-diabetic or diabetic, increase their weight, and worsen their cholesterol. Many progressed to overt heart disease. It was a dreadful experience to go to my office because I felt I was ineffective and increasingly reliant on medications that made their lives worse.

About 6 years ago, because of my own personal experience, I began a low-carb diet, and I stand before you 30 pounds lighter, and also, applying the science of low-carb for my patients.

I come across over 100 patients on a weekly basis. I have seen patients in their 70s, 80s, and 90s improve on a low-carb diet and intermittent fasting. One practice reinforces the other. Not only have I seen 30-50 pounds of weight loss, I have consistently seen them improve their blood sugar, their blood pressure, and their cholesterol quality. They have been able to stop many medications, diabetic, blood pressure, and lipid-lowering medications.

This has been a transformative experience for me. My patient attraction is reinforced on a daily basis by our collective victory in their health. I constantly hear them talking about being satiated and having control over their hunger on a true low-carb diet, which should mean less than 20 percent of calories coming from carbs.

Let us not forget that, as humans, our brain is 1,000 grams bigger than our closest ape ancestor. This is because we ate nutrient-, calorie-dense animal food and learned the art of cooking. I humbly submit that a low-carb diet is a paradigm whose time has come, and for DGA to include it as an option.

While I cannot go into the science behind the low-carb diet in such a short time, there are plenty of robust clinical trials that give us the information that it reduces blood sugar, blood pressure, and improves cholesterol quality. Thank you.

**Moderator:** Thank you. We have commenter 53?

**[2:29:47] Doug Reynolds:** My name is—excuse me. My name is Doug Reynolds, representing Low-Carb USA. After discovering the concept of carbohydrate restriction and reversing my own health issues, I established Low-Carb USA to provide a platform for others to learn what I did not know until I was 51.

It's important to recognize that this field has a growing mountain of rigorous clinical trial evidence behind it. While I applaud the initiative of the committee for proposing to add a low-carb dietary pattern to the 2020 guidelines, I do have grave concerns about the current proposed definition for that pattern.

A threshold of 45 percent of calories from carbs doesn't even come close to defining a low-carb diet. A separate analysis of the scientific literature, looking at only studies below 25 percent, is encouraged, as this is the upper limit of the threshold. More important would be to additionally define a ketogenic subcategory, advising 10 percent or less.

The differences you will see in each of these groups is vast. At levels below 25 percent, we eliminate sugar and processed carbohydrates, and basically just eat real food. This results in enormous improvements in general health.

Low-Carb USA established a panel of advisors of highly-respected scientists and physicians from around the world, and in May 2019, we published a set of clinical guidelines for therapeutic carbohydrate reduction as an intervention for use by physicians. This identifies a number of low-carb categories with thresholds defined in grams of carbs as opposed to percentages.



The two lowest of these are very low-carb ketogenic, which is less than 30 grams, and low-carb ketogenic, 30-50 grams. It's at these levels that the magic happens. In other words, significant metabolic changes occur, including drastically-reduced levels of inflammation resulting in reduced chronic disease.

There are now hundreds of thousands of documented clinical cases for the reversal of many chronic diseases, like type 2 diabetes, non-alcoholic fatty liver disease, all previously thought to be incurable, and every day, we hear about more.

The truth is that adding the currently proposed low-carb pattern will do far more harm than good. The *Dietary Guidelines* are supposed to only be for healthy people, but this is only about 12 percent of the population. The reality is, that the guidelines are highly-influential in establishing the food policies of most institutions, like hospitals, schools, and our military, and they set the gold standard for clinical trials.

Running a clinical trial comparing any other dietary pattern against a so-called low-carb pattern consisting of 40-45 percent carbs would just result in more inconclusive evidence, because it's not low-carb.

I hope you will recommend guidelines with a true range of dietary patterns for all Americans, including the vast majority of us struggling with diet-related diseases, not just a tiny elite 14 percent. Thank you.

**Moderator:** Thank you. Looks like next on this side, commenter 56.

**[2:32:53] Tiffany Nguyen:** Hello. My name is Dr. Tiffany Nguyen, and I'm a general pediatrician in the Houston area, working with Texas Children's Pediatrics for the last 16 years. I would like to speak from my experience with the pediatric population and urge the committee to put a greater focus on fiber. Here's why.

Constipation and obesity are two of the most common problems I see in my practice. In fact, a high percentage of my patients with abdominal pain are merely suffering from constipation, and more than 30 percent of my checkup visits reveal patients in the overweight or obesity range.

Increasing fiber intake is a proven simple and practical approach to help remedy these problems. In a study by Schmeier and others in 2014, increasing fiber intake by 3 grams in just half of the US population may relieve enough constipation to save an estimated 12 billion dollars in healthcare costs. Basically, just reaching for an extra apple or a banana a day is all it takes.

Recent expert studies revealed that more than 40 percent of kids have obesity by their late teens, and it's predicted by the year 2030, about half the adult population will have obesity. Obese patients are at increased risk of developing many medical problems, including diabetes, hypertension, high cholesterol, stroke, osteoarthritis requiring hip and knee replacements, and even certain cancers.

Preventing obesity then is the ideal solution. Fiber promotes weight loss and prevents weight gain. It stabilizes blood sugar and decreases cholesterol, and it protects against constipation and colon cancer.

Parents often come into my practice expressing their concern that their children are not getting enough protein in their diet, yet studies show that more than 97 percent of Americans do get enough protein, but in contrast, more than 97 percent of Americans do not get enough fiber. Fiber deficiency then is the more practical concern.

A recommendation from the committee can boost public awareness and promote increased fiber intake. Increased need for fiber will compel business and agriculture to supply its demand. Together, we can respectfully align science, medicine, food industry, and public education to promote healthier and happier lifestyles and drive down healthcare costs.

Although an apple a day may not keep the doctor away, it's a simple step towards better health for our community. Thank you.

*Moderator:* Thank you. Commenter 57?

**[2:35:32] Farida Mohamedshah:** Hello, I'm Farida Mohamedshah with the Institute of Food Technologists, IFT. IFT is a global organization of nearly 16,000 individual members from more than 100 countries. IFT brings together the brightest minds in food science, technology, and related professions from academia, government, and industry to solve the world's greatest food challenges. We believe that science is essential to ensuring a global food supply that is sustainable, safe, nutritious, and accessible to all. We appreciate the opportunity to provide input on the *2020 Dietary Guidelines for Americans DGAs*.

IFT underscores the importance of ensuring that the recommendations regarding food and nutrient intake are evidence-based. We urge the committee to continue to focus on evidence-based healthy eating patterns, such as those identified in the 2015-2020 DGAs, that epitomize a healthy diet, support food-based diet recommendations to meet nutrient needs, and recognize that all food groups and foods, including processed foods, can be part of healthy eating patterns.

It is also critical that the recommended healthy eating patterns allow consumers to have enjoyable eating experiences and meet their personal, cultural, lifestyle, and budgetary needs.

Food science and technology are invaluable in the development, production, and availability of foods that can be part of healthy eating patterns, while also meeting our personal, cultural, and other lifestyle needs.

It is important to recognize that fresh and locally-grown foods alone are insufficient both in the amount and distribution to meet the nutrition requirements of the growing and diverse population, or the particular needs at each life stage at all socioeconomic levels, hence, food processing is crucial.

Through the application of food science and technology, food processing helps transform raw food materials and ingredients into a variety of safe, nutritious, palatable, accessible, convenient, and affordable foods that are available year-around.

Although in some instances, food processing may reduce some nutrients, in others, it increases long-term retention and bioavailability of some nutrients and food components. For example, processing makes the important antioxidant lycopene more available from canned rather than fresh tomatoes.

Food fortification and reformulation are proven to address nutrients of concern, such as additional vitamin D, or reducing the use of food components, such as added sugars, yet without food safety and sustainability, efforts to improve nutrient and diet quality may be ineffective.

IFT urges that the committee and the Departments of Agriculture and Health and Human Services engage food scientists and technologists in the deliberation process. Their insights and diverse range of expertise are critical to the discussion of healthy dietary patterns and implementation at scale of solutions that address consumer acceptance, taste, convenience, affordability, and accessibility.

In addition to nutrition and food science, it is critical to address consumer dynamics and behavior, as germane drivers—

**Moderator:** Thank you.

**Farida Mohamedshah:** —for consumer adoption of nutritious food products.

**Moderator:** Thank you for your comment.

**Farida Mohamedshah:** Thank you.

**Moderator:** We'll next move to this side, commenter 58? Thank you.

**[2:38:44] Jacob Smigel:** Yes, thank you. Let's see if I can pry this free. Oh, it's really in there. My name's Dr. Jacob Smigel. I'm an emergency physician, board-certified in emergency medicine, and I've been working in the hill country outside Austin, Texas, for the past 5 years or so.

I had a little bit of a Doc Hollywood experience going out there, I think, and it's been beautiful, but I find that I'm doing different work than maybe I imagined I'd do, or maybe you imagined I would do. Most of my time is spent not treating emergencies as you might imagine them, people falling off of scaffolds or run over by cars, but rather, dealing with the acute presentation of chronic disease, non-life-threatening heart attacks, strokes, diabetic complications, hypertension, for instance. And that really comes as no surprise to me, because that is actually truly the bread and butter of emergency medicine.

And I've had an interest in nutrition since medical school. I got a modicum of nutrition training in medical school, and that got me excited, and it made me curious, and I've been asking patients what they think about nutrition or what they think about healthy diets.

And what I can ascertain from 5 years of spending time in Burnette, Texas, and I'm representing those people here today, is that most people's perception of diet has to do with 3 facts that they're sure of - protein's good, got to get your protein, all carbs are bad, and

bananas have a whole lot of potassium in them. That basically sums up the nutritional knowledge of most people.

And furthermore, there's a disconnect because when I ask them "Do you think the foods that you're eating could make you sick?" they say, "Oh, yeah." "Do you think maybe changing the foods that you eat could make you well?" "Um, I don't know." They don't seem to think so. There's a clear disconnect there for me.

And that's why I think we need clear public health messaging. The clearer the messaging, the better. This works in regards to public smoking, or smoking campaigns, into wearing seatbelts or safe sex practices. This is how we change the health of the public.

And I'm here today to urge you for clear messaging regarding the optimal diet for human health. I note from the 2015 guidelines, for instance, that a notation that there's strong evidence, from mostly prospective cohort studies, but also randomized control trials, having shown that eating patterns that include lower intake of meats, as well as processed meats and processed poultry, are associated with reduced risk of cardiovascular disease in adults. Moderate evidence indicates that these eating patterns are associated with reduced risk of obesity, type 2 diabetes, and some types of cancer, the scourge of the ER, if not all healthcare professionals.

And I imagine a continuum of clear recommendations from grade school through adulthood, that this is demonstrated in our public institutions and our public schools, and I would recommend to the panel to recommend one dietary pattern, recommended to eat a whole food, plant-based diet has been mentioned before, but around whole grains, beans and pulses, fruits, vegetables, nuts and seeds as the optimal way to make big changes to get big results.

Thank you, guys.

**Moderator:** Thank you. Do we have commenter 59? 60?

**[2:41:51] Albert Lear:** Good afternoon. I am Al Lear, Director of Science and Research for the International Bottled Water Association, IBWA.

Water, including tap, filtered, and bottled, plays a vital role in supporting nutritional health. IBWA applauds the *2015 Dietary Guidelines* for recognizing the importance of water in a healthy diet, and we were glad to see inclusion of water as a topic under beverages by the 2020 Dietary Guidelines Advisory Committee.

Scientific research shows that drinking water positively influences overall wellbeing and supports a number of healthy bodily functions and organs.

The Centers for Disease Prevention and Control's Drinking Water Fact Sheet recommends that drinking enough water every day is good for overall health.

As plain drinking water has zero calories, it can also help with managing body weight and reducing caloric intake when substituted for drinks with calories.

We were glad to see that the *2020 Dietary Guidelines* will include a focus on children from birth to 24 months, because the development of chronic diseases starts at an early age, and so do good drinking habits. Consistent with CDC recommendations, consumption of breast milk or infant formula, along with the introduction of water for children between 6 and 12 months old, is encouraged.

As the committee reviews the hydration needs for all age groups, it well urges special consideration for hydration requirements of adults 65 and older. Proper hydration is an important consideration for the wellbeing of everyone, but is of increased importance for older adults, as noted in the National Center for Health Statistics data brief, which notes that previous studies have shown that adults age 60 and over are among the most vulnerable to dehydration.

In terms of consumer education, the importance of water in a healthy diet is recognized by 48 countries throughout the world, who promote water consumption in a nutritional guidance graphics. However, water is noticeably absent on the most prominent educational tool that the United States government uses to promote a healthy diet, the My Plate nutritional guidance graphic. Water, in addition to the presence of dairy, should be included on the My Plate nutritional graphic, since it is critical to good health.

The National Drinking Water Alliance recently submitted a comment to the Dietary Guidelines Advisory Committee signed by 62 individuals and 13 organizations comprising researchers, scientists, nutritionists, clinicians, public health professionals, and public health advocates, urging that both the *Dietary Guidelines For Americans* and My Plate clearly and consistently encourage the benefits of water consumption in place of sugar-sweetened beverages.

Thank you for the opportunity to provide comments this afternoon. IBWA supports the work of the Advisory Committee and will continue working with the Advisory Committee, USDA, and HHS staff as you prepare the *2020 Dietary Guidelines for Americans*. Thank you.

**Moderator:** Thank you. We'll move to our last commenter before closing remarks. Number 61.

**[2:45:07] Molly McAdams:** Good afternoon. I'm Dr. Molly McAdams. I'm a rancher. I'm a steward of the land. I'm also a PhD-level scientist, a businesswoman, and a mother of a teenaged athlete. My family's Texas ranch, which is about 90 miles north of here, has operated and provided beef to Americans since the 1830s.

Across the human life span, beef is a great-tasting, nutrient-rich food that plays an important role in any healthy diet, including healthy pregnancies, growth and development of children, adults who want to maintain strength and energy, older Americans who want to age vibrantly.

Beef delivers great nutrition as a single-ingredient real food that people enjoy eating.

As a supporter of the National Cattlemen's Beef Association and through the Beef Check-Off, I've proudly contributed to scientific research about this nutrient-rich food, and thanks to cattle-raising practices, beef is leaner than ever before.

Over 20 gold-standard studies have shown that beef contributes favorably to heart health and other positive health outcomes, and today, the amount of beef we eat is consistent with what science shows to support healthy diets and is within current DGA recommendations.

We don't need to cut back on beef intake to eat a healthier diet. Rather, we should eat more nutrient-rich foods and less empty calories. History and science have shown that limiting meat doesn't help people eat better and can actually lead to overconsumption of refined carbs, as well as foods high in added sugars and sodium.

Research now shows that plant-based diets aren't a silver bullet either. In addition, many Americans benefit from a low-carb higher-protein diet with meat, and DGA should encourage this choice.

I'm a former grocery executive who led product development and health and wellness. I can tell you that America's favorite protein food is beef. What a great opportunity, because beef pairs perfectly with foods that people aren't eating enough of, like vegetables and whole grains. In fact, many Americans would benefit from getting more nutrients like protein, iron, B vitamins, and choline, all of which are easily found in beef, but are not as easily found in plant foods.

On behalf of all who grow cattle, which are uniquely suited to convert inedible plants into high-quality nourishing protein for humans to enjoy, and all of this is done on land that's not suitable for farming crops, and as the mom of a growing athlete who needs protein-rich diets to thrive, I thank the committee for your work, your steadfast commitment to developing 2020 recommendations based on sound nutrition science.

**Moderator:** Thank you. That concludes our oral public comments, and we'll now move to closing remarks.

**[2:48:13] Dr. Barbara Schneeman:** Great. Well, on behalf of the committee, thank you to everyone for, first of all, preparing the comments, doing them in a very timely manner, and thinking about the needs of the committee. We appreciate your being here and we appreciate the effort that you've made with those comments.

I once again want to thank the staff at the Children's Nutrition Research Center, where we've been hosted for the last 2 days, that we really have enjoyed being here, and we've really enjoyed the support from that staff. Likewise, to the USDA and HHS staff who really support the work of this committee, but also made sure that this meeting went forward in a very efficient and productive way.

**[2:49:05]** So, thank you to all of you to helping the committee meet its goals, meet its targets.

I would remind people that in terms of comments, the comment period is open until the committee finishes its work, but we would encourage you to submit comments by February 7<sup>th</sup> to have the greatest impact in terms of the work ahead of the committee right now.

And I would also remind folks, I commented earlier, and I'd just remind you again, that the website often will have additional information about the protocols, how we're defining things within those protocols, any modifications that we've had to do, and as the Departments identify areas where further information is needed, under the Frequently Asked Questions, to help the public understand the process we're using, that that information is there, and either sign up to be on the Listserv for the Dietary Guidelines, but check back on that website if you're looking for information, just to get what's latest and what's current.

**[2:50:18]** And with that, I thank my committee members for your diligence, your hard work, for paying attention through 2 long days, and actually, a day of subcommittee meetings before then, and I'll turn it back to Dr. Stoodly.

**Dr. Eve Stoodly:** Thank you. And yes, thank you to members of the committee for what has been a very productive meeting. It really worked out that this timing, I think, was the right time to bring everybody together. So, thanks for that, those productive conversations and those subcommittee meetings, and the public discussion as well. I think as Tim said, there was very nice discussion over these 2 days, so thank you for that.

**[2:50:59]** Thanks to the members of the public and the public commenters who joined us as well.

And if we can go to the slides? Kevin?

So, just a little bit more in relation to what Dr. Schneeman said, and that is a wrap for meeting 4, and definitely, thank you to the Children's Nutrition Research Center for all of their support throughout this meeting.

In case—if you would like to refer back to information from this meeting, we will post, as we always do, the recordings from this meeting, as well as the presentations, minutes and transcripts, and we'll get that information up as quickly as possible, and we will send a notification out through our Listserv. If you sign up through our Listserv, we'll be sure to notify you when that information is available.

In case you missed it yesterday, we did announce that the committee will hold a meeting on its report, and this is the first time we've done this, where it will be a meeting really devoted to the committee fine-tuning and discussing their report before they submit it to the Departments by the end of May.

**[2:52:08]** So, that meeting will occur on Monday, May 11<sup>th</sup>. It will be webinar-only. And we'll provide more information about that as we get closer.

So, as Barbara mentioned, we do try to keep our website up-to-date, and if you're interested in signing up for our Listserv, go to [DietaryGuidelines.gov](http://DietaryGuidelines.gov). At the bottom of the page, there is a link that says, "Stay Updated." If you click on that, you can sign up for the Listserv.

As Barbara did too, of course, in addition to thanks to the committee members, we do like to take a minute to thank the many staff who are involved in this process, and these are individuals who support the Nutrition Evidence Systematic Reviews, they support the data

analysis with staff from across USDA and HHS, and additionally, the food pattern modeling analyses.

**[2:52:57]** These individuals help process the 17—about 17,775 public comments that we’ve received to date, they help support the keeping transparency front of mind with updating DietaryGuidelines.gov, there are just so many elements.

And one of the things that we don’t—we rarely do is public meetings, and everybody kind of develops new skills to make it happen. So, thank you for that.

I do want to note, as we’ve said, this was—we have not had a meeting like this outside of the DC area in 25 years, and we contacted our ARS affiliates in a couple of different locations. Houston was just awesome. They were—just the staff was—sent us pictures. I mean it’s like we’ve never been here, but it’s like we had. So, they thought of every single detail.

And there were 2 staff members in particular that we would like to recognize.

**[2:53:59]** They are Perry Rainoseck and Adam Gillum. And if you’ll come down here very quickly?

**[Applause]**

We have certificates of appreciation to both of them, signed by Undersecretary Lipps, on behalf of FNCS for your support of this, making this meeting a success, and your really huge attention to detail. So, thank you.

**[Applause]**

Yeah, thank you. So, with that, that’s a wrap. And with that, we’ll adjourn for today, and we look forward to seeing you in our next meeting in March, in Washington, DC. Thank you.